REPORT ON THE 2017 EXCAVATIONS AT THE WILLIAM NICKERSON HOMESITE CHATHAM, MASSACHUSETTS

Prepared for
The Nickerson Family of America

Prepared by
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Abstract
The 2016 and 2017 excavations at the site succeeded in identifying the location of a 17th century homesite that appears to be have been inhabited by William and Anne Nickerson from ca. 1664-ca. 1690. We located and defined the hearth and determined its orientation, found evidence of the probable location of a 17th century forge, and recovered evidence of the foods eaten and the dishes used for storing, preparing, and serving food by the Nickersons, including possible evidence for the use of a Native pot by the Nickerson household. The possible postholes we found are believed to have been associated with the main house as well as outbuildings or fencing south of the house. The preliminary interpretation, which is subject to change as we do more work, is that the house was a hall and parlor style with a chimney and hearth located at the east gable end and a front door facing south. It appears that after the death of William and Anne, and possibly their daughter, Sarah, who next owned the house, the building was removed as one unit after first removing the hearth and chimney. If this did actually occur, it was probably done by one of Sarah's children or grandchildren and was likely reused nearby.

We also located evidence of Native occupation at the site and were able to determine that the site was not a long-term base camp, but was probably used for a relatively short period of time by people collecting resources and performing the initial reduction of stone tools. This makes it less likely that any graves would be encountered on a site such as this.

Introduction

After my first visit to the Nickerson Family of America (NFA) property in 2016, I came home and did a bit of research to try to determine the best places that we could do some archaeology at the property. The USDA soil map of the property showed that the majority of the southern half of the parcel, as well as the parcel to the west, were identified as being composed of what is classified as Berryland Mucky Loamy Coarse Sand **(Figure 1)** (All figures are located in Appendix A at the end of this report). This soil appears to be just what it sounds like- mucky, wet soil found in depressions associated with ponds and streams. The remaining land is Carver Coarse Sand- much nicer, much drier, and more commonly what people lived on. (Subsequent research showed that the soils were not as mucky and that the site is actually a bit of a peninsula located at the intersection of two wetlands- one to the east and one to the west.)

Then I started looking at what is known and suspected about where William Nickerson lived. The best source I found for this was William Smith's 1909 *History of Chatham*. In it, Smith says the following:

"There is no written record showing the location of his house, but a well defined tradition places it near the old burying place which crowns the hill near the head of Ryder's Cove. Mr. Josiah Paine of Harwich writes 'I have been told that his house stood near where Kimball Howes lived, but was never shown the precise spot, and that he was buried on the hill above his house.' The late Rufus Smith, Esq., a lifelong resident in the vicinity, informed me that the exact site was about half way between his residence and the head of Ryder's Cove, that spot having been pointed out to him many years ago by Christopher Rider and Kimball R. Howes, both of whom lived near the place all their lives and their fathers and grandfathers before them. Mr. Smith afterward purchased the lot of land, whereon the old house is said to have stood and, in cultivating it, ploughed up the foundation of a chimney and found relics of the past. " (Smith 1909: 78-79). Smith goes on to say that "The farm, on which Mr. Nickerson lived, is described by him in 1687 as bounded outward from the uttermost corner of a pond called the Pasture Pond, and from thence straight outward to the head of a cove called the Muddy Cove and from thence inward to Joseph Nickerson's bounds." (Smith 1909: 79). Smith was given further information from the Mr. Smith that owned the farm in the 19th century, who told him that "from the front door of the house late of Christopher Ryder S. 51 degrees W. 19 1/5 rods; from the front door of the house late of Kimball R. Howes S. 12 degrees E. 291/3 rods" (Smith 1909: 79). These must have been the figures used by the Nickerson family to place the granite marker at the site .

Looking at the 1880 map of Chatham, I was able to confirm that the parcel that Smith was talking about appears to be the same one owned by the NFA **(Figure 2)**. I assumed that no one was trying to plow the Berryland Muck soils, so, based on the soil maps, I thought it would be safe to say that the location that they were talking about is the higher land near the road where the NFA currently has the Caleb Nickerson House, the archives, and the parking lot. Turns out I was wrong, and it appears to have been located right where the NFA had placed their marker.

What is Know about William Nickerson and the Nickerson Homesite Property

Below I present a brief history of William Nickerson and Anne Busby based on what I could find from seemingly reliable internet sources and the primary documents (Records of the Colony of New Plymouth and Suffolk County Deeds).

William Nickerson, was baptized on October 16, 1604 in Permontergate (now called St Peter Parmentergate) parish church, Norwich, Norfolk County, England (**Figure 3**). He eventually was trained and identified himself as a weaver, but initially, on 28 April 1621, his father took him and his brother Richard as apprentices in the family tailoring business. He married Anne Busby ca. 1630. She had been baptized in St. Mary's Coslany (a.k.a. St. Mary's of the Marsh) in Norwich, and was the daughter of prominent Norwich weaver Nicholas Busby and Bridget Cooke.

William and Anne, along with their children Nicholas, Robert, Elizabeth, and Anne, and Anne's parents, left England in 1637. The families were examined in Yarmouth, England by customs officials on April 8, 1637. William gave his profession as weaver, his age as thirty-three, and his wife's as twenty-eight. They all left Yarmouth aboard the *John & Dorothy* on April 15, 1637, arriving 66 days later in Salem, Massachusetts Bay Colony, on June 20, 1637.

He took the Freeman's Oath in Boston on May 2, 1638, while living in Watertown at the same time as, and possibly with, the Busbys. He appears to have left Watertown between 1638 and December 1640, as he was presented as wanting to become a freeman in Plymouth on December 1, 1640 at the Plymouth Colony Court (Records of the Colony of New Plymouth [RCNP] 1640: Vol 2: 3). He took the Plymouth Oath of Fidelity on June 1, 1641, and appears to have immediately settled in Yarmouth (RCNP 1640: Vol 2: 16). His Yarmouth home is believed to have been located on the west side of Follins Pond, then called Little Bass Pond.

William quickly became involved in the colonial courts and local government, serving on the Grand Enquest in 1641, on a jury in 1651, and as deputy in 1655. He appears frequently in the colonial court records as both a plaintiff and defendant. Cases of trespass and defamation were the most common causes of his court appearances, but his frequency in court as a plaintiff shows that he must have had money, as it did cost money to sue someone and the loser of the case often had to pay the winner's court costs.He knew the power that appearing in court and being on public display on a court day, had on a person's standing in the community. William often used the courts as a way to publicly shame or humiliate people who irked him, and may highlight a bit of a vindictive streak in him. Initiating a court case did a number of things. First, it brought what may have been a private dispute or slight into the public arena for all to see and judge. Secondly, it had the potential to shame those who wronged you. Finally, it could result in financial gain for you from your “enemy”. In many cases the suits were withdrawn before trial, and it seems that the purpose of such cases were more to shame your enemy and show them that you are not afraid of them versus really expecting to receive any monetary gain.
His most infamous court case also occurred in 1641 when, as some researchers have paraphrased, he was complained of as being "a scoffer and jeerer of religion." The actual case is more complicated and less dramatic. The Plymouth Colony Court Record for this case is as follows:

“March 1 1641/1642 Mr Thomas Star, of Yarmouth, Heugh Tilley, of the same, Joshuah Barnes, of the same, Wlm Nicholson, of the same, are complayned of to be scoffers & jeerers at religion, and making disorders in the towne meetings, & are to be sent for to answere the next Court.” (RCNP 1641/42: Vol 2: 36).

This issue arose not as a result of what has been perceived as Nickerson's cantankerous nature, but as a result of a general displeasure with the then Yarmouth minister Marmaduke Matthews. Matthews had

fled Wales in 1638 or 39 to avoid censure by state and church authorities. Matthews first served in Malden where he was involved in a debate about interpretation of church doctrine and deferred his freemanship in the town. Members of the town were also fined for appointing a minister without the colony's approval. He arrived in Yarmouth in 1640, became embroiled in more controversy, and eventually left by 1649, moving back to Massachusetts Bay where he continued to be involved in church troubles before returning to Wales in 1654, where he was eventually ejected from his church there. So, as can be seen, the issue was not with Nickerson and the others who were ordered to appear before the court, but with Minister Matthews (or perhaps, a little of both).

Nickerson's involvement in the colonial government appears to have dramatically changed in 1656 when he was brought before the court for purchasing land from the Natives without the colony's permission and for selling a boat to the Natives (presumably the same Natives that he had bought the land from). It appears that at some time before June 3, 1656 (the date when he appeared in court to answer the charges) Nickerson had purchased about 4000 acres at Mannamoiett from the local Native Chief Mattaquason and John Quason, his son. A 1643 Plymouth Colony law specifically forbid individuals from making purchases from the Natives without colonial approval (see Appendix B for a transcript of the law).

It does not seem that the Colony had any real problem with the land purchase, just that it needed to be done legally through the court. The Colony may have also wanted to avoid any one individual from establishing their own town or fiefdom within Plymouth Colony's borders. This leads to the question of why Nickerson made the purchase in the first place, and that probably comes down to the importance of land among the English. Many colonists came here from England because they saw the opportunity to become what they would never had been in England, yeoman- freeholders of their own land, land that was theirs and land that could provide inheritances for their children. Nickerson may have desired to create his own town on the land he purchased. He may have wished to have been a land baron or lord to whom the people who lived within his domain would pay taxes to, but it is more likely that he just wished to secure his piece of the New World pie, land that could be sold or distributed as he wished to whomever he wished .

Nickerson's land must have not been located where the core of the Native settlement of Mannamoiett was located, as it seems unlikely that the Natives would have sold their village center away and it does not appear that they continued to live on the land once it was sold. It is much more probable, based on the archaeological evidence that had been found in Chatham, that the center of the Native village of Mannamoiett, the place where the sachem's house was located, was probably to the south, on the west side of Oyster Pond. The land Nickerson bought was just one portion of the community of Mannamoiett, probably hunting and planting lands used on a seasonal basis.

As a result of his breech of the law and his contempt of the warrant to appear before the court to answer the charges, he was disfranchised (he lost his right to vote in the colonial government) in 1656 (RCNP 1656: Vol. 3: 101). The following year Nickerson requested that he be allowed to keep the land, and it was also in this year that removed his family to Boston to help look after his in-laws.

The Nickerson's time in Boston began in September of 1657 when he purchased, for 58 pounds, a dwelling house, yard, garden, and orchard that belonged to physician William Snelling (Suffolk deeds

1885: 303). The house was located on what was called "the road to Roxbury" which is Tremont Street today, the only road that led along the isthmus from Boston proper to the mainland. Nickerson erected a new house and other new buildings on the lot, eventually selling it on November 27, 1661 to Robert Gibbs of Boston for 150 pounds (Suffolk deeds 1885: 598).

Anne's father Nicholas Busby made out his last will and testament on September 10, 1657, and presumably died soon after that date. William was named one of the executors and his wife Anne was left 50 pounds and a thick bible while William was left a loom and weaver tools, if Anne's brother John did not come to America to claim them (Suffolk Registry of Probate as reported on http://homepages.rootsweb.ancestry.com/~busby/wills.htm). The Nickersons remained in Boston until after Anne's mother Bridgett's death in 1660. Upon her death, Anne received a trunk, ½ of all of the small linen cloths, 1 pair of sheets, 4 diaper napkins, 2 covered stools, 1 wrought cushion, 2 platters (1 big and one less), 2 silver spoons, 1 pillow beer, 1 great iron pot, 1 long table board which was in her husband's custody by way of loan, as well as 24 pounds for her children, while William received 1 piece of gold of 20 shillings (Suffolk deeds 1885: 383).

As stated earlier, William Nickerson sold the family's Boston house in 1661 and the family moved back to Cape Cod. What their time in Boston tells us is that the family was well-off. They could afford to purchase a house and land in Boston as soon as they arrived there, they then built a new house and other buildings on the land, all of which they sold a few years later for almost three times what they bought it for. The Busbys were also well-off, as the wills of both of Anne's parents showed through their bequeths of money and goods to both of the Nickersons.

The Nickersons returned to Yarmouth in the early 1660s and William immediately sued the town of Yarmouth for his share in the the whale fishery while he was away, and he sued two individuals who took goods and livestock left in the care of Richard Berry of Yarmouth while the Nickersons were in Boston.

Meanwhile, the colony had not forgotten about the issue with the lands at Mannamoick, and Nickerson was called to court in 1659 for it. He had previously asked to be allowed to keep the land and the court had decided to have it viewed by a committee and to have a portion allotted to Nickerson. Nickerson, not willing to accept the court's portioning of his lands, again, in 1659, requested the entire portion of land he purchased (RCNP 1659: Vol. 3: 165). Nickerson's land troubles disappeared from the records until 1663 when the court orders that "in due and convenient time, William Nickerson bee required to make satisfaction for his breach of the law" (RCNP 1663: Vol. 4: 44). Nickerson apparently was trying to play a waiting game with the court, hoping that if he stonewalled them long enough they would either give up or forget. Unfortunately for him, the court's patience had run out by this time, and when Nickerson ignored the court's request , they then filed a warrant in March 1663/ 64 for him to appear in court to settle the matter (RCNP 1663/64: Vol. 4: 58-59). The court decided that since Nickerson still persisted in his possession and even improving of the lands in question (probably meaning he had built a house by this date), the court decided that the land would be seized and put up for sale for the colony's benefit, with Nickerson being allotted a suitable portion. The committee that was to decide the portion to be alloted to Nickerson consisted of Thomas Hinckley, Mr. Bacon, Lieutenant Freeman, and William Bassett (RCNP 1664: Vol. 4: 64). The very real possibility now of loosing all the land appears to have been enough to bring William to court, as he appeared in 1665 and apologized hoping that the

court "...would bee pleased to pase by my weaknes and remite my offence" (RCNP 1665: Vol. 4: 87). I believe that he hoped they would forgive him and let him keep all the land.

At the next court session, the court declared that Nickerson did not have the estate to pay the fine of five pounds per acre for the illegal purchase, and because he did seek clemency from the court, they would allow him 100 acres of land to be laid out by Barnard Lumber (Bernard Lombard), Marshall Nash, and Josepth Howes. The remainder of the land was granted to Mr. Thomas Hinckley, Mr. John Freeman, Mr. Willam Sarjeant, Mr. Anthony Thacher, Nathaniel Bacon, Edmond Hawes, Thomas Howes Senior, Thomas Falland Senior, and Leiftenant Josepth Rogers in equal portions of 100 acres each and that all would have equal portions of meadow lands as well (RCNP 1665: Vol. 4: 96-97). The June 1665 court ruling specifically stated that Nickerson's land was to be located convenient to his house, indicating he already had a house on the property by this time (RCNP 1665: Vol. 4: 101). It was also determined that the nine new owners of Nickerson's lands pay Nickerson the cost that he had purchased the lands for from Mattaquason and his son. I have seen a couple of different authors state that the purchase was made using cows, cloth, wampum, and other trade goods, as well as a shallop, ten coats, six kettles, twelve axes, twelve hoes, twelve knives, forty shillings in wampum, a hat and twelve shillings in coins. Nowhere in the Plymouth Colony records does it state what Nickerson paid for the land. In fact, on July 2, 1667, the court determined that Nickerson had failed to produce a title to the land and that all they could ever determine was "that there hath bine divers goods given by the said Nicarson, and received by the Indians by way of bargaine for some land, but never agreed how much or upon what termes" (RCNP 1667: Vol. 4: 162-163).

The Nickerson family apparently refused to leave the lands that they had settled on and Major Josias Winslow, Lieutenant John Freeman, and Nathaniel Bacon, on behalf of themselves and others to whom lands were granted at Manamoiett, sued William Nickerson's son-in-laws (Robert Eldred, Trustrum Hedges, and Nathaniel Covell) in 1666 for 60 pounds for trespass for unjust possession and improvement of the lands granted to the plaintiffs (RCNP 1666: Vol. 7: 132). The jury awarded the plaitiffs 10 shillings and the cost of the suite, presumably sending a message to Nickerson's son-in-laws families to vacate the lands. The Nickersons continued to have troubles with the Mannamoiett lands, and its new owners, going so far as to write to the Governor of New York to defame some of the purchasers and plead their case. Nickerson's son-in-law Trustum Hedges even sued him at one point claiming Nickerson sold lands that he had an interest in.

Nickerson later sought, and was granted, permision from the Plymouth Court to purchase additional lands adjacent to the ones he owned, from the Natives. The Nickersons also desired, as early as 1667, to have their neighborhood set off as a town, possibly seeking to fulfill William's desire to have his own Plymouth Colony town. The area was granted its own constable, who was one of William's son-in-laws, and was eventually set off as a constabulary.

Just as the court cases and his mother and father-in-laws wills showed that the Busby family, and the Nickersons, were well-off members of society, they also tell us something about how William was making a living on his land in what was to become Chatham. In 1671/72 Francis Baker of Yarmouth sued Nickerson for non-payment regarding some meat and tar barrels he had sold Nickerson. Nickerson also apparently was collecting and possibly selling pine knotts for making tar, since he sued two Yarmouth citizens, claiming they took four parcels of baralled pine knotts from his property in 1674.

One of his final appearances in the Plymouth Colony court records was in 1679 when he sued Josiah Cooke, constable of Eastham, for taking andirons and a silver cup insurance for rate payment. Only someone who was well off would have a luxury item like a silver cup in thir house.

Anne Nickerson died in 1686 and, according to Smith's History of Chatham, William conveyed his homestead to his daughter, widow Sarah Covell (Smith 1909: 93). Sarah had her own house to the east of her father's and most probably remained there after her husband Nathaniel died sometime before 1686. William Nickerson died sometime between 1689 and 1690. Sarah died in 1715.

No structures are shown on the 18th to 20th century maps reviewed for this project, meaning that the site never saw any subsequent occupation. Houses are shown to the west and south of this property **(Figure 2).**

2016 Investigations: The Start of it All

I was asked by the Nickerson Family Association (NFA) to take part in the Chatham History Weekend open house on June 18, 2016. My part of the celebration would be to conduct a limited archaeological survey of the NFA's property off of Orleans Road in Chatham. After my initial visit in May of the same year, I had a few ideas that I wanted to test at the site. My professional opinion, at the time, was that the location where the NFA had erected their granite marker identifying the location of William Nickerson's original homesite (1663-1689/1690), was probably not correct (as it appeared to lay very close to wetlands and was situated on what the USDA identified as poorly drained soil), and the the area closer to the road where the Caleb Nickerson house now stands, was a much more likely area. Armed with this theory, myself, my son Alden, archaeologist Blaine Borden, and archaeological volunteer Bruce Brockway set out to test both the area around the Caleb Nickerson house and the area to the west of the granite marker. Still believing that the original homesite lay either beneath or around the Caleb Nickerson House, I sent Bruce and Blaine off into the swamp to test around the marker, while Alden and I would test in the more likely area. I instructed Blaine and Bruce to place the unit that they would excavating anywhere they wanted to, so long as it was to the west of the marker.

The testing around the Caleb Nickerson house was accomplished by first conducting a metal detector survey along two transect lines located to the west of he parking lot and to the northeast of the standing house. The survey was conducted along a measuring tape line with identified targets being initially flagged and subsequently excavated, noting depth, location along the tape line, and soil conditions encountered as the target was recovered. A series of “hits” were recorded along the first transect line, and none were found on the second line. We were not hoping for big, exciting finds like coins or buttons, but were looking for more mundane things like nails and window leads, things are common on 17th century sites and are often found in yard areas around ancient homesites. The “big find” of this metal detector survey, a very large modern iron spike, highlights the importance of what we found. We found that local tradition was that much of the area west of, and under, the parking lot, land that may have been wetlands, had been subjected to intensive filling by the owners of the restaurant located across the street, when they had wanted to make a parking lot. We did find that the area closest to Orleans Road, near where the chokecherry trees are located west of the parking lot, appears to have been less filled, with the original ground surface being encountered at only 5 centimeters below surface (cmbs) (2”) as opposed to 46 cmbs (18”) as it was to the south. East of the Caleb Nickerson house the land also appears to have been filled, with still, no finds being encountered.

Blaine and Bruce were having much better luck near the granite marker. Their first test pit was located judgmentally, meaning they located it in a place that was easy to dig due to recent clearing by the NFA, 5.6 meters (m) (18') northeast of the marker. Test pits in this area measured 50 centimeters (cm) (19") square and were excavated in 10 cm (4") levels. Test Pit 1 encountered the remains of a wooden post in a posthole at 30 cm (1') below the surface. The post and posthole were excavated to a depth of 40 cm (16") and then the floor of the unit was drawn and photographed**.** The post is small but the posthole appears fairly large, extending outside of the test pit. The irregular shape and lack of modern material indicate that the post may be old. It did not appear to be large enough to be a house post, but may have been a fence or outbuilding post. More importantly, with virtually the first shovelfuls of earth, the diggers began encountering 17th century artifacts. It definitely seemed like they were in the right area.

Two additional test pits were excavated in this area. Test Pit 2 was located 5 m. (16') further along the path (34' from the marker) while Test Pit 3 was located just 8' from the granite marker. Another posthole was found in Test Pit 2 with the excavation just clipping the edge of it in the north wall. This posthole measured 30 cm (1') wide by 35 cm (14") deep. Again, not large enough for a house post but suitable for a fence or outbuilding. Unfortunately, it can't be said that it was in line with the posthole found in previous test pit, as any two points can be considered to be in line. The area between the two pits would have to be excavated to determine if they are in a straight line and represent a wall or fenceline. Test Pit 3 did not encounter any postholes, but did find a number of artifacts.

Three additional units (number 4-6) were excavated on September 11, 2016. Unit 4 was located at the bottom of the slope up to where the main homesite is believed to be located, 53 cm (21") east of the granite marker. Excavation revealed a dark grayish brown (10YR4/2) sandy loam topsoil/ A horizon, to a depth of 20 cmbs (8"). A sterile brownish yellow (10YR6/6) silty sand was then excavated to a depth of 30 cmbs. Very few artifacts were recovered below the first 10 cm (4") level, indicating that this area may represent material that had washed downslope from the main deposit to the west.

Unit 5 was located 5-5.5 m west along the property boundary with the Chatham Conservation Foundation Incorporated, on the south side of the boundary line. The original topsoil was found to be buried beneath at least 10 cm of loose, wind or water transported loamy sand. Few artifacts were found in the next 10 cm, but what appeared to be a buried shell deposit began to appear to 30 cmbs. This deposit was densest at the 50-60 cm (20-24") level and continued to 70 cmbs (28"). All the artifacts were gone and only sterile subsoil was encountered to 80 cmbs. Historic artifacts, as represented by domestic animal bones, were found throughout the shell deposit, indicating that it was constructed during the historic period and either represents a Native midden created after Nickerson had settled the area or was, more likely, an early midden created by the Nickersons.

Unit 6 was located 2.5 m north of Unit 4, on the south slope from the main site area. Excavators encountered a layer of granite fragments, brick, slag, and a Native hammerstone at 10 cmbs. The remainder of the stratigraphy consisted of sandy loams ranging in color from grayish brown (10YR5/2-5/3) to brownish yellow (10YR6/6) with sterile subsoil layers being encountered below 50 cmbs. Abundant evidence of the suspected blacksmithing activity was found in this unit. This evidence took the form of charcoal, brick, fire-cracked rock, and slag recovered from 0-50 cmbs with the heaviest concentration being at 0-20 cmbs.

2016 Conclusion

The three units all showed differences in the types and amounts of material present. Unit 4 had very little material, being on the extreme edge of the refuse deposit. Unit 5 had the highest occurrence of Native material, shell and bone. Unit 6 had the overall highest occurrence of artifacts, which consisted mainly of material possibly associated with the suspected blacksmith forge: brick fragments, charcoal, slag, and fire-cracked rock. European domestic artifacts- ceramics and pipes- were concentrated in this unit as well. The distribution appears to indicate that the northern portion of the area tested, the Unit 6 area, was the main area of activity while the southern area, Unit 5, represented a peripheral possible refuse midden that consisted mainly of shell and animal bone.

Much of the material recovered duplicated previous finds. Noticeable exceptions were the piece of Native pottery, the hammerstone (used to remove flakes from a core when making a chipped stone tool), a tobacco pipe bowl fragments with the initials LA on the back (dating to the late 17th century), and a pig tooth- the first evidence of this species at the site.

The very limited initial archaeological testing at the NFA property in Chatham revealed that the original homesite appears to have been located right where the NFA had predicted, near the granite marker they had erected. The area around the standing house was found to consist of filled wetlands and soils impacted by 20th and 21st century earthmoving activities, just as the NFA had stated prior to any of us putting a shovel in the ground. The area around the marker found to be rich with artifacts dating to the Nickerson occupation. The preliminary finding indicate that Nickerson may have operated a blacksmith shop near his house and that numerous Nickerson period artifacts and features are present on the NFA property. If a blacksmith shop is confirmed at this site, it will be the oldest such site ever found in Massachusetts and one of the few ever found in New England. The site also appears to have been an important Native American site, possibly a homesite location, prior to Nickerson's arrival, a factor that may have contributed to its attractiveness to the Nickersons. There must also be a spring located somewhere near the site that would have attracted both the Natives and the Nickersons. The co-occurrence of the Native and Colonial culture at the site, as exemplified by the reuse of a Native site by the Colonial settler, a Redware clay tobacco pipe, and possibly the use of a forge to repair items owned by everyone in the local community, regardless of race, seems to typify what was going on in the larger area between Nickerson and his Native neighbors in the area that was to become Chatham.

2017 Excavations

Testing in 2017 was carried out at two separate times- a one day dig in June and a week long excavation in September. The archaeological testing carried out on June 17th, consisted of the excavation of four 50-cm-square test units placed to the south and west of 2016's units. The locations of the 2017 units were based on a desire to determine the extent of the shell and historic refuse pile (a potential household trash midden). The furthest west unit was placed 23 m (75') west of the Nickerson marker, while the furthest south unit was placed 6 m (20') north of the 2016 testing.

Testing determined that the artifact concentration was virtually absent at 75' (22.9 m) west of the marker, meaning that we now have a possible maximum western extent of the site. Testing to the north continued to encounter shells, bones, and a limited amount of historic (17th century) domestic trash. The concentration of trash was definitely less and contained less diversity the further north we went . We also found that the topsoil was deeper on the south and west sides of the project area. When combined

with the fact that we encountered a plowzone (a topsoil horizon that is deeper than would be expected if the area had never been agriculturally plowed) across the entire project area, except in the area where the hearth was, it indicates that this land was plowed after the Nickerson house was gone and that plowing and earth moving displaced some of the soil to the south and west. This means that the knoll on which the homesite was situated originally stood a bit prouder and more pronounced against the surrounding landscape.

Testing

The September testing consisted of a grid of 50-cm-square (19") test pits spaced 5 meters (16') apart **(Figure 4)**. The purpose of the grid testing was to establish the extent of the artifacts at the site-whether artifacts occurred across the entire property or whether they were concentrated in one portion or another- and to identify any possible structural elements-postholes, foundations, cellars- associated with the Nickerson house. A total of 40 test pits on the five meter grid were excavated in September. A few of the pits that we had dug previously in 2016 and in June of 2017 fell onto this grid as well. Two test pits (N5 W10 and N15 W15) were expanded from 50-cm-squares to 50 cm wide by 100 cm (1 m) (19 x 39") long units to investigate features that were encountered when the pits were first excavated. Test Pit 2017-4 had encountered a dense deposit of brick that appeared characteristic of the type of deposit that would be expected to be found in association with a chimney. This unit was further investigated by means of 12 additional 50-cm-squares to more fully explore it.

A total of 67 50-cm square test pits have been excavated at the site so far, accounting for a total area of investigation of 16.75 square meters (180 square feet).

Features

While the recovery of artifacts always is nice and allows for a real and tangible connection to the past, features (soil stains and human constructions like hearths and foundations) really allow us to examine what people lived in and how they ordered their homesites. As a result, one of the main reasons for testing at the site was to find features that would help us better understand housing and yard use. Two probable postholes were identified in 2016, one at Test Pit 2016-1 and one at 2016-2 **(Figure 5)**. Test Pit 1 encountered the remains of a wooden post in a posthole at 30 cm (12") below the surface. The post and posthole were excavated to a depth of 40 cm (16") and then the floor of the unit was drawn and photographed. Another posthole was found in Test Pit 2 with the excavation just clipping the edge of it in the north wall. This posthole measured 30 cm (12") wide by 35 cm (14") deep. Neither appear to have been large enough for a house post but were more consistent with a fence or outbuilding.

Eight additional features were identified in 2017 **(Figure 6)** . Four of these are interpreted as representing possible postholes, one is a possible Native pit, and one is the colonial hearth **(Table 1)**. Most of the features contained a mixture of historic and Native artifacts **(Table 2)**, indicating that most were excavated through a Native occupation layer.

Table 1. Features identified 2016-2017

Feature	Location	Size	Depth	Type
1	N12.5 W1.5	At least 2.2 m long and 1.1 m wide	20 cmbs	Hearth
2	N5 W10	45 cm wide and +25 cm long	40-? cmbs	Possible Posthole
3	N15 W10	+35 cm wide and +25 cm long	30-60 cmbs	Possible Posthole
4	N15 W15	+50 cm wide and +60 cm long	40-? cmbs	Possible Posthole
5	N20 W5	+50 cm wide and +20 cm long	20-50 cmbs	Foundation Trench?
6	N20 W10	+40 cm wide and +30 cm long	30-+60 cmbs	Possible Posthole
7	N25 W20	+30 cm wide and +30 cm long	40-60 cmbs	Possible Native Pit
8	N10 W00	+30 cm wide and +50 cm long	30 cmbs	Foundation Trench?
9	2016-1	+50 cm wide and +30 cm long	30-? cmbs	Posthole
10	2016-2	30 cm dia	20-55 cmbs	Posthole

Table 2. Artifacts recovered from 2017 features

Artifact	**F.1**	**F.2**	**F.3**	**F.4**	**F.5**	**F.6**	**F.7**	**F.8**
Chipping Debris	77	1			21	10	2	
Bifaces	2							
Levanna Points	4	1						
Pottery					2	1		
Fire-Cracked Rock	10							
Shell	1068	34	223	118	2863	7	89	3
Unburned Bone	8			2	4			
Burned/ Calcined Bone	6							
Beaver	1							
Sheep	1			1				
Cattle	1							
Fish	1	1		6				
17th Century Ceramics	13							
Tobacco Pipe	2							
Vessel Glass	2							
Charcoal	22	8	1		10	1	1	7
Flint	1							
Melted Lead	1							
Brick	921	2	2		167			

Mortar	184			1				
Hand-Wrought Nails	11		2		1			
Window Glass	3					1		
Flat Iron Fragments	3							

Feature 1

This is the hearth feature first identified in June of 2017 **(Figures 7-9)**. It is shallowly buried, being encountered at a depth of only 20 cmbs (8 inches below surface). A total of 12 units were excavated on and around it in order to attempt to gain an understanding of its length, width, and orientation. We found that it appeared to have opened towards the west. The western edge was defined by a 45 cm (18") wide edging of rounded cobbles, behind which a brick edging or oven base was found at the northern end and an area of flat, extremely burned, hearth stones at the southern end. The overall length is at least 2.2 meters (7.2') and the depth was at least one meter (3.3'). Concentrations of brick were found to the south and west of the hearth. These may represent the actual chimney or they may be simply discarded bricks. A concentration of mortar associated with the bricks was found to the immediate east of the hearth, representing evidence of the salvage and cleaning of the bricks when the chimney was removed. An area of dense charcoal was found at N10 W00. This was determined to potentially be part of the hearth, possibly representing the filling of the chimney foundation after it had been salvaged in the 17th century. Further excavation will be necessary to determine exactly how all of the elements we encountered relate to each other. At this point we can say that it is a hearth, that it was located at what was probably the gable end of the house, as the land drops away to the east just beyond this feature, and that, based on the recovered artifacts, it dates to the 17th century. The relative paucity of bricks indicates that it was most probably salvaged in the 17th century and the bricks were used elsewhere. It is most likely that this was done by one of the children or grandchildren of Sarah Covell, the owner of the house after William Nickerson's death ca. 1690.

Artifacts recovered from this area were consistent with its interpretation as a hearth. A variety of ceramic types were recovered (Bellarmine, English Mottledware, North Devon gravel tempered and gravel free wares, Redware, and Staffordshire slipware), as well as faunal remains (bone and shell), vessel glass, flint, and melted lead. Also found here were pieces of Native lithic debris from making stone tools, biface fragments, four Late Woodland to Plantation Period arrowheads, and Native pottery, possibly indicating either collection or use of items of Native material culture by the house's inhabitants, or limited lithic reduction by a Native person within the colonial house. The concentration of Native tools was the highest here, on top of and associated with the colonial hearth, as opposed to anywhere else on site, making it very unlikely that they arrived at this spot by accident.

Feature 2

This feature first appeared at 40 cmbs as a dark stain present in the lighter B1 subsoil **(Figure 10)**. As the possible feature was located in northwest corner of the unit it was determined that an additional 50-cm-square unit would have to be excavated to the west of the original one. The feature was found to measure 45 cm (18") east to west and at least 25 cm (10") north to south, continuing further to the north out of the excavation units. It may represent a posthole associated either with the house or with an outbuilding adjacent to it. The feature is in line with the east end of the colonial hearth and could be

a corner post for the house. If this is a corner post, it would make the house at least 15 meters (48.8') wide.

Artifacts recovered from this feature consisted of brick, a rock bass scale, shell, one Native stone flake, and one rejected Native projectile point that was similar to the ones found at the colonial hearth.

Feature 3

This feature first appeared at 30 cmbs in the southwest corner of unit N15 W10 **(Figure 11)**. The feature extended from 30 to 60 cmbs and an area measuring 35 x 25 cm (14 x 10") was exposed. The profile looks similar to a posthole with straight sides and a flat base. Artifacts recovered from this features included shell, charcoal, brick, and nails.

Feature 4

Feature 4 was identified in unit N15 W15 at 40 cmbs (16") **(Figure 12)**. Excavation of a portion of the feature down to 60 cmbs confirmed that it was not a simple root stain. A second 50 cm unit was added to the south side of the first to determine if the south edge of the feature could be found. The feature was found to continue to the south of the first. This indicates that this feature may be an oval-shaped pit, possibly a posthole. The feature measured at least 50 cm wide by over 60 cm long (19 x 24"). Artifacts recovered from this feature included shell, unburned bone, a piece of sheep or goat mandible, and a piece of mortar.

Feature 5

This feature was less distinct than the others **(Figure 13)**. It appears to represent a deeper area of topsoil with an abundance of shell, resting on top of the subsoil. The feature covered the north half of unit N20 W5 from 20 to 50 cmbs (8-19"). Based on the location of the feature, roughly in the position where the north side of the Nickerson house may have been, it may represent a foundation trench associated with the house that was filled with surrounding trash when the house was removed. Artifacts recovered in association with the feature consisted of Native lithic debris, Native pottery, charcoal, and many pieces of brick, all supporting the idea that it was filled when the house may have been moved.

Feature 6

Feature 6 was located in unit N20 W10 and was first visible at 30 cmbs (12") **(Figure 14)**. It continued past the bottom of the pit at 60 cmbs (24"). The feature measured at least 40 cm wide by 30 cm long (16 x 12"). It is interpreted as a possible posthole either associated with the house or with fencing or outbuildings from the 17th century. Artifacts predominantly originated either from the Native occupation, or took the form of shell that may date to either the historic or Native occupations. The only definitely historic artifact was a piece of window glass.

Feature 7

This feature was identified in unit N25 W20 under a cluster of cedar tree roots **(Figure 15)**. It first appeared at 40 cmbs (16") as a semi-circular stain coming out of the southeast corner of the pit. The feature was found to extend to 60 cmbs (24") where it presented itself as a round-bottomed possible Native pit. Only Native artifacts were recovered from the feature, with shell being especially abundant.

Feature 8

One other feature encountered was found in N10 W00 where a dense deposit of charcoal, large pieces of charcoal in fact, was present in the southern half at 30 cmbs (12") **(Figure 16)**. This feature is believed to possibly have been part of the filled in eastern sill trench associated with the Nickerson house.

Artifact Analysis

A total of 22,023 artifacts have been recovered to date from the 2016 and 2017 excavations at the Nickerson homesite **(Table 3)**. (The artifact catalog from 2017 I presented in Appendix C)

Table 3. Comprehensive Artifact Collection 2016-2017

Artifact	**2016**	**2017**	**Total**
Architectural	**632**	**2408**	**3040**
Brick	603	2092	2695
Mortar- Shell Tempered	6	202	208
Mortar- Clay		1	1
Hand-Wrought Nails	18	83	101
Window Glass	1	27	28
Lead Kame		3	3
Horseshoe Nail	2		2
Flat Iron Fragment	2		2
Foodways	**1132**	**15252**	**16384**
Ceramics	18	94	112
Bellarmine	1	2	3
English Mottledware		3	3
Merida?		1	1
North Devon Gravel Free		5	5
North Devon Gravel Tempered	2	5	7
Redware	11	66	77
Staffordshire Slipware	2	6	8
Stoneware- Fulham		1	1
Stoneware- Westerwald	1	3	4
Tin-Glazed	1	1	2
Redware Tile		1	1
Kitchen Ware	0	14	14

Brass Kettle		6	6
Hand Blown Wine Bottle		5	5
Wine Glass		3	3
Bone	62	509	571
Beaver		1	1
Burned Medium Mammal Flatbone		8	8
Burned Medium Mammal Longbone		16	19
Calcined Chicken		1	1
Calcined Large Mammal Longbone		1	1
Calcined Medium Mammal Flatbone	13	57	70
Calcined Medium Mammal Longbone		16	16
Calcined Swine		3	3
Cattle	9	15	24
Caprine	5	16	21
Swine	2		2
Chicken	1	8	9
Fish		19	19
Goose		1	1
Large Bird		1	1
Medium Bird		21	21
Medium Mammal Cranial		5	5
Medium Mammal Flatbone	31	144	175
Medium Mammal Longbone		120	120
Medium Mammal Rib		1	1
Large Mammal Longbone		5	5
Painted Turtle		5	5
Raccoon		1	1
Rock Bass		20	20
Small Mammal		1	1
Sturgeon	1	2	3
Swine		21	21
Shell	**1052**	**14, 635**	**15, 687**

Blue Mussel	3	2	5
Boat Shell	9	51	60
Forest Snail		1	1
Mud Nassa		6	6
Oyster	95	723	818
Quahog	629	5187	5816
Scallop		20	20
Soft Shell Clam	311	8627	8938
Surf Clam	2	1	3
Whelk	3	17	20
Tobacco Pipes	**4**	**56**	**60**
6/64” Stem bore		9	9
7/64” Stem Bore		2	2
8/64” Stem Bore	1	9	10
9/64” Stem Bore		1	1
Bowl Fragments		28	28
Stem Fragment	2	5	7
Red Clay Pipes	1	2	3
Flint	**1**	**12**	**13**
Chipping Debris	1	3	4
Shatter		7	7
Gunflint		1	1
Strike-a-light		1	1
Industrial Residue	**512**	**801**	**1313**
Charcoal	372	754	1126
Slag	135	45	180
Melted Brass	5	2	7
Prehistoric Material	**76**	**927**	**1003**
Fire Cracked Rock	26	15	41
Granite	6		6
Hammerstone	1		1
Pottery- Grit-Tempered		1	1

Pottery Shell-Tempered	1	37	38
Chert Chipping Debris		2	2
Quartz		60	60
Chipping Debris	10	21	31
Shatter		36	36
Projectile Point Fragments		3	3
Quartzite		107	107
Chipping Debris	19	105	124
Projectile Point Fragments		1	1
Bifaces		1	1
Rhyolite		269	269
Chipping Debris	13	251	264
Shatter		8	8
Projectile Point Fragments		7	7
Bifaces		3	3
Modern/ 19th Century Material	**18**	**192**	**210**
Creamware	1		1
Cement		8	8
Pearlware		3	3
Porcelain		2	2
Whiteware	2	9	11
Yelloware		1	1
Machine Made Bottle		4	4
Mold Blown Bottle		2	2
Modern Window Glass		21	21
Coal	1	75	76
Brass Spoon		1	1
Iron Chicken Wire		26	26
Flat Iron Fragments		18	18
Fork		1	1
Machine-Cut Nail	2	16	18
Rod		1	1

Wire Nails		3	3
D-shaped Buckle		1	1
Wood	12		12
Total	**2375**	**19, 648**	**22, 023**

Native American Artifacts

There are a total of 70 Native sites on file in the archaeological site files maintained by the Massachusetts State Archaeologist in Boston. Thirty-one (31) of these are either sites that someone predicted should occurr in a location based on Champlain's 1605 map of Stage Harbor, or they are sites recorded by collectors with no information identifying what was actually found, making them just possible site locations as well. Ten (10) other sites are shell middens (shell heaps, shell piles) reported again by collectors with no additional information about when they date to or what was found. Most if not all of these probably date to the Woodland to Plantation periods (3000-300 years ago) but there is no way of knowing from the site files. Midden sites tend to be clustered along the shores, on Nickerson Neck, Morris Island, and Strong Island. Two were identified near Ryders Cove.

Another nine (9) are positively identified Native burials or suspected burial locations. Some have been identified in recent times while others were recoded only generally by collectors. Burial sites are clustered around Oyster Pond, indicating a possible location of a Woodland to Contact period village location.

Twelve (12) are sites that have been identified as a result of professional archaeological surveys since 1991, but which contained no diagnostic artifacts that could be used to date the sites. These are all small sites with just a few flakes. That leaves eight (8) sites with definitely dated materials (spear points, arrowheads, or pottery), one of which is a suspicious findspot of an 11,000 year old Paleo spearpoint and another is from a former collector's collection with only possible identification to the site. The remaining sites contained materials dating from the Middle Archaic-8000 to 6000 BP (N=2), the Late Archaic-6000-3000 BP (N=3), the Early Woodland-3000-2000 BP (N=2), the Middle Woodland-2000-1000 BP (N=1), the Late Woodland- 1000-500 BP (N=4), and the Contact- 500-300 BP (N=1), periods.

In the immediate area around the William Nickerson homesite, four sites have been identified, two of which were identified by local collectors with no further information being available. The other two consist of one which was identified in a 1946 *Cape Codder* newspaper article. In the article, a local resident, Bartlett Bassett, stated that his childhood home had originally been built by Kimball Ryder, but was moved by Bassett's father to the top of the hill near the Nickerson cemetery. When Bassett was a child, his father was installing a chimney and encountered a shell midden and “arrowheads” as well as many skeletons (with “small skulls”) and that the remains were all taken “to Chatham” whatever that may have meant to him. The Bassett homesite is visible on the 1880 map of Chatham **(Figure 2)**, confirmining it as being the same spot as the Nickerson cemetery. The other site is a midden investigated by Fred Dunford, formerly of the Cape Cod Museum of Natural History, who sent sample of shell out for radiocarbon dating and received a date of 735 +/- 80 for the material, placing it in the Late Woodland Period.

It is not surprising that Native material has been found in the area, as the entirety of what is now Chatham appears to have had a larger Native presence in the 17th century. What is surprising is that so few professional archaeological surveys have found any traces of Native occupation and those site that have been found appear to be small, short term occupation sites. The only documented and reported Native site is the Mattaquason Purchase Site south of Ryders Cove. Excavations by members of the Cape Cod Chapter of the Massachusetts Archaeological Society in 1974 identified a shell midden that overlaid 27 probable Native features and contained many broken and complete projectile points, bone tools, and Native pottery pieces (Eteson et al 1978). The features included what were identified as "refuse pits" (probably storage pits reused to dispose of refuse) and hearths. The site is believed to date to the early part of the Late Woodland Period (ca. 1000 years BP). Raw materials used at the site consisted mainly of rhyolite, with almost equal amounts of quartzite and quartz. Smaller occurrences of less common materials (argillite, chert, and jasper) were also recovered. Projectile points were dominated by Levanna triangles (N=18) and Greene points (N=14) with isolated occurrences of a Middle Archaic Stark point, a Late Archaic Atlantic drill, Middle Woodland Jack's Reef pentagonal, and Late Archaic Lamoka point. Other tools included scrapers, drills/ perforators, axes, pounding stones, and a blocked end tobacco pipe.

During our initial testing at the Nickerson site, no datable Native artifacts were found, but the few flakes (the chips left over from making stone tools) indicated that the people who were living there used a variety of materials (quartz, quartzite, and rhyolite) that they had collected as beach cobbles. The size of the flakes and the presence of cortex (the outer rind on a beach cobble) shows that this was probably a larger site where people spent an appreciable amount of time, and not just a stop over spot. There are many Native sites in the files of the State Archaeologist in Boston located around the Nickerson homesite. Little information has been reported on these sites, making the findings from our work very significant for gaining a better understanding of how Native people lived in this part of Chatham.

Three categories of Native artifacts were present: debitage, tools, and pottery. Debitage are the leftover pieces of stone that result from the production of tools. It can take the form of shatter- random pieces created by the initial reduction (which can take the form of smashing) of the raw material, and flakes/ flake fragments- the thin pieces more carefully removed from the main body of the item being reduced. By looking at the sizes of the flakes and the angle at which the flakes were struck, one can gain an understanding of whether people were doing all the stages of reduction at a site (which would be characteristic of a site that people spent a longer amount of time at), whether they were just doing the initial stages of reduction (characteristic of a quarry or primary reduction location which was not occupied too long), or whether they were just carrying out the final stages of reduction, the finishing of the tools or the resharpening of dull ones (characteristic of a short term hunting or processing site). The variety of colors of the materials can also provide clues regarding how long a site was occupied (short term occupations have a low variety, longer term occupations with a wider variety as more tools are being worked on).

Debitage

Five categories of lithic raw materials were represented at the site- quartz, rhyolite, quartzite, fine-grained quartzite, and chert. Only two pieces of chert (an exotic material that comes principally from

New York State) were found while all the other classes were more abundant (Table 4). A total of 417 flakes and flake fragments, and 48 pieces of shatter were recovered. Cortex, the outer rind of glacial or waterworn cobbles, was present on 15.7% of the quartz pieces, 11.5% of the quartzite, and 8.2% of the rhyolite. This indicates that the quartz and quartzite cobbles that were being reduced to make the tools were probably collected close to the site, while the rhyolite cobbles/ rhyolite source may have been further away (resulting in some initial reduction at that site and thus less evidence of cortex at our site). Quartz and quartzite are abundant in the glacial drift (the material deposited by the glaciers) making up 10 and 12% of the lithics in the Harwich Outwash Plain on which the Nickerson homesite is situated, but, rhyolite is even more abundant than these, composing 15% of the lithics in the outwash. This indicates that while available, there may have been certain locations in and around Chatham were it was more abundant or where better quality pieces were commonly found. Maybe you could find quartz and quartzite anywhere, but if you wanted rhyolite, good quality rhyolite that could be made into tools, you had to go somewhere specific. The paucity of cortex on the rhyolite may also mean that it was an item that was required from a quarry- known quarries exist in the Blue Hills outside of Boston- or that it was traded from communities closer to those quarries.

Quartz occurred in white/clear and clear/ white varieties. As both can occurr on one piece of stone, they were not considered distinctive enough to be classified as different colors. Chert was only found in a green gray color indicative of New York source. Fine grained quartzite only occurred in a light gray to tan color that was considered to be from one source. Four main colors of quartzite were recovered- gray (light, dark, gray, and purple gray) (n=70), brown gray (n=12), green gray (n=19), and tan (n=3). Six main colors of rhyolite were similar to the quartzite: gray (light, dark, gray, and purple gray) (n=210), brown gray (n=5), green gray (n=32), maroon to maroon purple (n=29), mottled maroon and purple (n=2), and tan (n=4). The range of colors for quartzite and rhyolite indicate that multiple materials (raw material or tools) were worked at the site, indicating a site that either was repeatedly visited or a site that was occupied for a longer period of time.

Analysis of the characteristics of the recovered flakes and flake fragments, as seen in Tables 4 and 5 and Figure 17, (presented in a more detailed table form in Appendix D) indicates that more quartzite was being initially reduced.

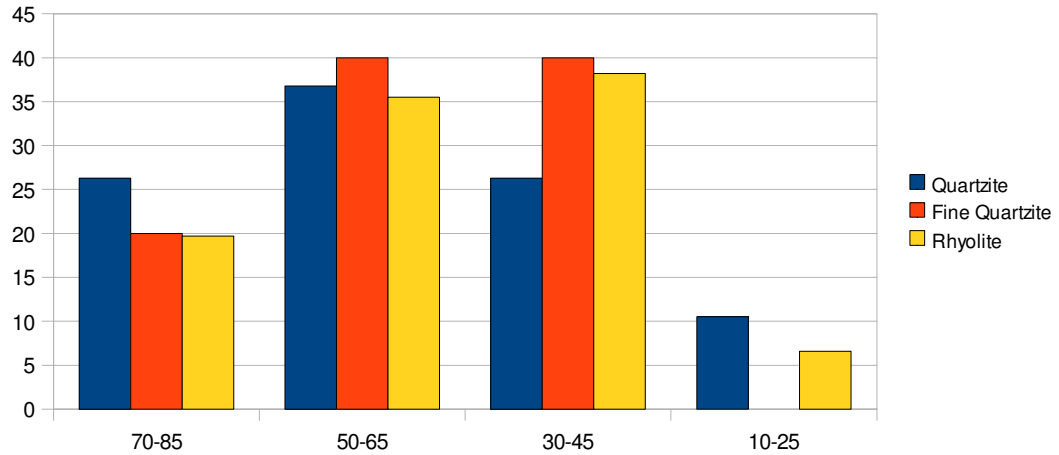

Figure 17. Comparison of striking platform angles from initial reduction (left) to final finishing (right)

Table 4. Comparison of Striking Platform Angles

	10-25	**30-45**	**50-65**	**70-85**	**Total**
Quartzite	4/ 10.5%	10/ 26.3%	14/ 36.8%	10/ 26.3%	**38**
Fine Quartzite	0	2/ 40%	2/ 40%	1/ 20%	**5**
Rhyolite	5/ 6.6%	29/ 38.2%	27/ 35.5%	15/ 19.7%	**76**
Total	**9/ 7.6%**	**41/ 34.5%**	**43/ 36.1%**	**26/ 21.9%**	**119**

This finding was further supported by the measurement of the widths of the flakes and flake fragments (Table 5 and Figure 18). Early and Late Stage reduction was well represented while finishing and resharpening flakes were not as common. In this case though, quartzite appears to have been initially reduced elsewhere and received its later reduction on site.

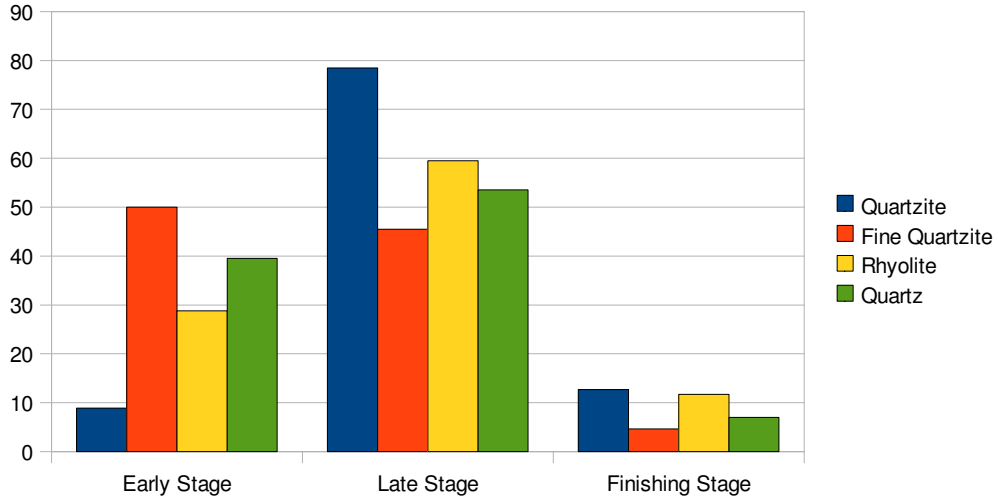

Figure 18. Comparison of flake widths

Table 5. Comparison of Flake Widths

	Early Stage 2+ cm	**Late Stage <1 cm**	**Finishing Stage >1 cm**	**Total**
Quartz	17/ 39.5%	23/ 53.5%	3/ 7%	**43**
Quartzite	7/ 8.9%	62/ 78.5%	10/ 12.7%	**79**
Fine Quartzite	11/ 50%	10/ 45.5%	1/ 4.6%	**22**
Rhyolite	76/ 28.8%	157/ 59.5%	31/ 11.7%	**264**
Total	**111/ 27.2%**	**252/ 61.8%**	**45/ 11%**	**408**

The flakes from the site appear to show that quartz and quartzite were collected fairly locally and reduced on site while the rhyolite and fine quartzite came from a different source and were reduced initially elsewhere. Late stage reduction into roughed out point and tool forms appears to have occurred

on site but the final finishing in all cases appears to have occurred elsewhere. This indicates that the site represented a temporary camp and not a longer term occupation site. The presence of the shell midden at the site which may be associated with the Native occupation, would support the idea that the site was used for procurement and processing of resources to be brought somewhere else for storage and consumption. It is possible that, while the shellfish were being collected and processed, people reduced some locally acquired cobbles (maybe from the beach or Muddy Creek) and some previously acquired materials they brought with them. Once the processing was finished, they left the site to return to a more permanent base camp.

Tools

Relatively few tools were found during the excavations with one hammerstone, four broken bifaces and 11 projectile points and fragments representing the total number of tools to date **(Figure 19)**. The hammerstone would have been used for the initial reduction of cobbles or for cracking bones or nuts. The bifaces are tools that were in the process of being made, but which broke either due to flaws in the stones or a mis-placed blow by the knapper. Three bifaces were made of rhyolite and one was quartz. The presence of broken bifaces of different stages of manufacture (some were more finished than others) supports the idea that creation, but not finishing, of tools was one of the focuses of lithic reduction at the site.

Nine of the 11 projectile points were Late Woodland to Plantation Period (1000-400 years BP) triangular points of the Levanna or Madison varieties. Six were manufactured of rhyolite, two of quartz and one of quartzite. Triangular points made up the majority of those recovered from the nearby Mattaquason Purchase site as well. The remaining two points were a Late Archaic Orient Fishtail (300-2600 years BP) and the tip of an unidentified point made from quartz. None of the triangle points were finished and they all were either broken during manufacture or discarded as rejects due to knapping flaws that left large lumps on their dorsal surfaces. These findings again support a relatively short term occupation focused on initial lithic reduction and resource processing, but not resources that would require scrapers (such as animal skins) as none were found. The abundance of triangle points, some of which look very similar in shape and knapping mistakes, also indicates that they may have all been discarded at one time.

Pottery

Thirty-eight (38) relatively small pieces of Native pottery were recovered from the area immediately south and west of the colonial hearth. All the pieces except one, which was tempered with grit, were shell-tempered. Most of the pieces had either smooth exteriors or were too fragmentry to have an intact surface, but one had marks on the exterior made by a cord-wrapped paddle while another bore incised linear decorations on the exterior **(Figure 19)**. The shell-tempered pieces may have all come from one vessel. The co-occurrence of the Native pottery and the colonial artifacts may indicate that the Native pottery was used in the Nickerson household. A wider variety of pottery was found at the Mattaquason Purchase Site, with the majority being grit-tempered (generally a bit earlier than the shell-tempered), which fits with the site having been occupied at an earlier time than the Nickerson Site.

Distribution of Prehistoric Artifacts

The recovered artifacts were piece plotted on the site map in order to investigate the distributions of various classes. The distribution maps are presented in Appendix E. The distinctive fine quartzite was

recovered chiefly on and around the historic hearth and to the northwest. Quartz was fairly widespread but was concentrated to the northwest and southwest of the colonial hearth. Quartzite was concentrated in the same areas as the quartz. Rhyolite was concentrated around the hearth and to the northwest of it, but was also fairly widespread. Projectile points and bifaces were concentrated around the hearth, generally within 10 meters of it, although a couple of were found at the western edges of the area tested. Native pottery was found to the immediate west of the hearth in a north to south running line. The fact that its concentration appears separate from the lithic concentrations may indicate a different deposition for the pottery versus the lithics.

Historic Artifacts

People make trash as a result of the various activities that they engage in around their homesites and archaeologists actively seek out that trash in order to learn about the people who lived at a site. When we seek to locate a historic site we often are not looking explicitly for things like foundations and hearths, as we know that may factors can affect if those things survive intact, especially since people tended to recycle and remove such items from a site. People generally do not try to remove the yard trash that accumulates around a house, especially not at a 17th century homesite where trash disposal essentially meant throwing it out into the yard to create a sheet midden around the house. Such middens often had their focal points at doorways with the trash spreading out away from there. There were no manicured lawns and there probably wasn't even much grass around a 17th century house, thanks to chickens, children, and livestock.When imagining what William Nickerson's homesite would have looked like, think bare earth, chickens, piles of wood, and scattered shells, bones, and broken pottery underfoot.

Many 17th century historic artifacts from the same period as those of the Nickerson site were also found at the Mattaquason Purchase Site. These included a silver Oak Tree shilling (1652-1682), a latten spoon, a gunflint, flint working debris, a flint Native projectile point, white clay tobacco pipes bearing the LE mark of Llewelyn Evans (1661-1688), and fragments of Bellarmine bottles, Westerwald vessels, Raeren stoneware, English Bron stoneware, wine bottle glass, Redware, brick fragments and hand wrought nails. The colonial artifacts were not reported in as great a detail as the Native material, so it is difficult to evaluate them, but it appears likely that there was a colonial, probably a Nickerson family, house at the site in the 17th century. This may have been the homesite of Sarah Covell. This is the only comparable historic assemblage that has been recovered from Chatham.

Ceramics

The biggest clue that we were on the right spot for a ca. 1664-1690 house were the types of ceramics found. During our initial testing, five of the nine ceramic varieties found (Staffordshire Slipware [1675-1775], Bellarmine [1620-1720], Westerwald Stoneware [1630-1775], Tin-Glazed [1675-1750], and North Devon Gravel-Tempered [1675-1725]) definitely date to the William Nickerson period, two others (Redware and Slip-decorated Redware) probably date to that period, and the remaining two (whiteware [1820-1900+] and Creamware [1762-1820]) appear to represent miscellaneous trash spread around the site after its abandonment **(Figure 20)**. The Nickerson period ceramics were produced in England (Staffordshire Slipware, Tin-Glazed, and North Devon Gravel Tempered) and Germany (Bellarmine and Westerwald stoneware) and represent a cup (Staffordshire Slipware), a probable plate (Tin-Glazed), a probable pan (North Devon Gravel Tempered), a bottle (Bellarmine), and a jug

(Westerwald). A further discussion regarding the specifics of each ceramic type is presented in Appendix F.

Four additional ceramic types were identified in 2017: English Mottledware, North Devon Gravel Free, Fulham Stoneware, and a possible piece of Merida **(Figure 21)**. Vessel forms of these ceramics consisted of a mug, a storage pot, another mug, and some type of holloware vessel like a bowl or basin. We really have not recovered a great number of ceramics, not as many as I would have expected to have found at a site such as this. This may mean that we have not found the main area of trash disposal, that there may be a cellarhole near the hearth that contains much of the trash disposed of when the house was abandoned, or it may be that the Nickersons chose not to express their wealth via ceramics but by silver and pewter vessels that were removed from the site.

The vessel forms that have been identified to date were used on the table for eating and drinking (English Mottledware mug, Staffordshire Slipware cup and plate, Westerwald jug, Redware drinking pot, North Devon Gravel-Tempered pitcher), in the buttery for storage (Bellarmine bottle, North Devon Gravel Free baluster jar, Redware storage pot), and in the kitchen for processing (North Devon Gravel-Tempered milk pan) and baking (Redware baking pan). It is not a particularly noteworthy assemblage in terms of ceramic types, but the inclusion of the Staffordshire Slipware plate and the North Devon Gravel-Tempered pitcher, are rare on 17th century sites, so these vessels do standout. The presence of North Devon wares is often an indication of people who were involved in trade, as these items often came from fisherman and English settlements in Newfoundland or straight from the West Country ports in Devon, England. They have been found in abundance at the John Howland Site in Kingston, Massachusetts (ca. 1638-1680), and the Josias Winslow Site in Marshfield (ca. 1660-1720), but are noticeably absent at the Richard Taylor Site in Yarmouth (ca. 1646-1820).

Ceramics were lightly distributed across the project area but were concentrated south of the hearth (Appendix E). This appears to be the main midden area associated with the house.

Tobacco Pipes

Tobacco pipes are beloved by archaeologists because of how such a simple and readily discarded artifact can be used to help date a site. This is because the size of the holes in the stems (the stem bore) changed at a regular rate over time. When pipes were first introduced in the 1580s, the stems were short, meaning the stem bores could be relatively large (9/64”), by 1620 the bore had shrunk to 8/64”, a size it maintained until about 1650 when they measured 7/64”. By the middle of the seventeenth century the stems had become more fashionably longer as smoking became more commonly used as a recreational drug and people wanted a cooler smoke, thus a longer stem. The 7/64” stem bore was maintained until 1680 when they it was reduced to 6/64” until 1710, and then, through the eighteenth century, was reduced further to 5/64” and finally 4/64” by 1750. Unfortunately, pipes continued to be made throughout the nineteenth century with the bore size becoming less consistent, randomly ranging between 5 and 4/64” with some 6/64” being known to occur as well.

A total of 60 white clay tobacco pipe fragment were recovered from the site **(Figure 22)**. These artifacts provide some of the strongest proof that we are at William Nickerson's homesite. The distribution of the sizes of the bore holes in the stems shows two apparent peaks in the early period and in the late period:

9/64" Stem Bore	1580-1620	1
8/64" Stem Bore	1620-1650	9
7/64" Stem Bore	1650-1680	2
6/64" Stem Bore	1680-1710	9

This is somewhat misleading as any bore size was not confirmed to the period shown above, but did have a bit of overlap into each period pre and succeeding it. So, the period of maximum popularity for 8/64" stems was 1620 to 1650, but they were first used a few years before and continued a few years later. There is also the problems that Dutch pipes were not as standardized as English, and it is possible to get Dutch pipes dating from the 1630s that have 6/64" stem bores. All said, the pipe stem data has to be taken bearing the above mentioned caveats in mind, but is shows a solid occupation in the middle 17th to late 17th century, a finding that coincides well with the ceramic data.

A few of the pipes also bore maker's marks, and these also help to date them and secure the identification of the site as William Nickerson's homesite **(Figure 22)**. One was marked LE with a series of diamonds and lines on the stem, a mark characteristic of Bristol pipe maker Llewelyn Evans, who was producing pipes from 1661-1688. The other mark is from William Evans, another pipe maker who was producing them from 1660-1682, or perhaps a bit later as there was a William and a William II.

The other datable feature of the tobacco pipes are the shapes of the pipes themselves. Two styles have been found to date: a heeless funnel (also called a trade pipe style) dating from 1680-1740 and a small belly bowl style that dates from ca. 1640-1670 **(Figure 22)**.

The distribution of the tobacco pipe fragments (Appendix E) show a concentration to the south of the presumed location of the south side of the house, basically in front of the front door and into the south yard.

Redware Pipe

Red clay pipes were locally produced, probably in Charlestown near Boston, in the 1670s to 1680s. They were often used for trade with the Natives and represented a low cost (although, due to the guild system in England, also probably illegal) alternative to the white pipes that were produced in England.

Three fragments have been found so far, two stems being 8/64" stem bores, and a heeless funnel style bowl fragment **(Figure 22)**. These were found to the south of the house (N=2) and in the west yard. These are a relatively rare pipe type with examples having been found on Cape Cod at the Aptucxet Trading Post Museum/ Ezra Perry II Site (1670s-1720s) and the Wing Fort House (1646- present), but being much more common at trading post sites in Maine.

Faunal Remains

The animal remains indicate that the people living at the site raised and ate the common domestic varieties expected to occur around the 17th century farm yard - cattle, sheep, and chickens- and that they appear to have netted or fished for sturgeon in Ryder Cove.

Shellfish

Being right near the coast, shellfish was an important part of both the Native and the Colonists' diets. The numerous shellfish remains represent several species that could be locally collected, but I don't believe that these shells were the result of early clambakes. The small size of the individuals, the variety of species, and the condition of the shells (with sponge bore holes and predatory snail holes, and the small size of the fragments themselves) leads me to believe that these shells were collected en masse from the beach as opposed to having been selectively dug for consumption. The mass collection was most probably for the use of the shells either as a source for lime for mortar or whitewashing, or was accidental when seaweed was collected for fertilizer. There is no natural source of limestone on Massachusetts' east coast (especially on Cape Cod) and commonly people would burn shells (often harvesting raw materials from Native shell middens) to create lime. One piece of burned shell was found, along with pieces of shell-tempered mortar.

Shellfish remains included several species that could have been collected locally. The occurrences of the species and their contribution to the diet at the site are presented in Table 6 below.

Table 6. Shell fish comparison

Shell	Count	MNI	Weight
Blue Mussel	5	1	1 gram
Boat Shell	60	60	60 grams
Forest Snail	1	1	1 gram
Mud Nassa	6	6	3 grams
Oyster	818	69	1017 grams
Quahog	5816	267	6557 grams
Scallop	20	2	13 grams
Soft Shell Clam	8938	703	3829 grams
Surf Clam	3	1	4 grams
Whelk	20	11	72 grams

All the shellfish species present could have been collected in Muddy Cove. It appears that soft shell clams were the most popular shellfish, offering the most meat for each individual collected, while quahogs were the second most common.

The distribution of the shellfish remains more closely follows the pattern for the historic versus the prehistoric artifacts, making it more likely that they are associated with the Nickersons. They also occur to the south of the house in what would be the south yard.

Bone

The bone fragments indicate that the people living at the site raised and ate the common domestic varieties expected to occur around the 17th century farm yard - cattle, sheep, and chickens- and that they

appear to have netted or fished for sturgeon in Ryder Cove. Sturgeon commonly are recovered from Native and Colonial 17th and 18th century sites. These prehistoric looking-fish have skeletons made of cartilage and were reported to have grown up to 17' long in the period. The only traces of these fish that are found archaeologically are fragments of the armor-like plates (called scutes) that covered their backs. Aside from using nets spread across the mouths of rivers and bays, a common Native fishing technique was to go out at night in a canoe and wave a burning torch over the water. The sturgeon, attracted to the light, will swim up to the surface and roll over on their backs to reportedly play in the light. The fisherman then would dispatch them by spearing them in the exposed and unarmored belly.

The species recovered included both wild and domestic. . It appears that the Nickersons were eating painted turtle (which was used medicinally as well as a food), goose, raccoon, sturgeon, rock bass, as well as the usual domestic species (cattle, sheep or goat [caprine], chicken, and swine). One beaver toe bone was recovered from the hearth area. This bone may have arrived at the site as food or as a foot attached to a pelt that was eventually sold or traded. Many of the bones could only be identified as medium sized mammal (a generic class that is inclusive of such species as sheep, swine, goats, and deer), probably as a result of having been scattered in the yard area and trampled. Burned and calcined bones were also common. These bones probably represent the result of cleaning out the hearth and spreading the ash out in the yard. The distribution of the burned and calcined bone in the south yard, southwest of the hearth show a correlation with the shell , historic ceramics, and tobacco pipes, confirming that it must be associated with the Nickerson occupation (Appendix E).

Other Foodways Artifacts

Only a few additional pieces were recovered that were used in the Nickerson's kitchen or on their table. These are five pieces of wine bottle glass, three pieces of wine glass, and six pieces of brass kettle. At a time when things were often thrown away only after every last bit of use had been wrung out of them, burned through brass kettles were a ready source of raw material for lots of things including patches for other kettles that had burned through! Kettles were cut up using shears and chisels and used for rivets, patches, funnels, and trade with the Natives. Native people loved brass and often made ornaments and even arrowheads out of it. A burned out kettle would have been an important household and trade resource for the isolated Nickerson family.

Architectural Class

The architectural class provided us with the first indication that we were on a site where a structure had once stood. If we hadn't found nails and brick, we could have come to the conclusion that the site represented nothing other than a dumping area or even an area where soil from another location had been brought. While not the most exciting of artifacts, before the hearth was found, the nails, and especially the bricks gave us our best support for the notion that the house was nearby.

Brick

The first record of bricks being made in Plymouth Colony was in 1643, although it is possible that they were made earlier. Masons, the men who actually laid up the bricks to make chimneys and hearths, often produced the bricks as well. They would travel to the location where someone wanted some masonry, find a local source of clay, dig it up, form the bricks in molds, let them dry, fire them on site, make the mortar (often using burned sea shells as a source of lime), and lay up the bricks in that mortar or in clay. Many small pieces of brick were found. These were too small to say for sure that they are

17th century bricks, but given their context and co-occurrence with 17th century material, it seems pretty definite that they are. The small size of the bricks may be the result of the demolition, salvage, and eventual decay of the chimney and hearth that they were originally part of. The 2017 work resulted in the recovery of larger brick pieces, complete enough to provide us with some dimensional measurements. The bricks were between 5 and 5.7 cm thick (5, 5.5, and 5.7 cm [2-2.2 inches]) and the one brick we had that was complete enough, provided a width of 8.4 cm (3.3 inches). Medieval bricks averaged 8.5 x 4 x 2" to 10 x 5 x 2" with width being twice the thickness and length being twice the width. This would make the bricks from the Nickerson site 2" thick, 4-4.4" wide and 8-8.8" long, well within the range for early bricks.

Not surprisingly, brick fragments were concentrated around the hearth, but were also found in the south yard. While we did recover 2695 pieces of brick, most were fairly small. This is most likely the result of someone salvaging the bricks from the chimney and hearth after the house was no longer lived in. The small pieces would have been the result of separating the bricks from each other. Some of this work may have been carried out in the south yard, resulting in the secondary concentration of fragments in that area.

Bricks were laid up either in clay, when what was being constructed was located under a roof (like the lower portions of a chimney or hearth) or with mortar when it was going to be exposed to the weather. Mortar (as opposed to just clay) is a mixture of sand, clay, and lime, and dries harder and is more resilient to weathering. Unfortunately for early masons, there is no readily available source of limestone in eastern Massachusetts, as a result, early masons burned seashells to create their own lime which was mixed with the clay and sand to make the mortar. Mortar was concentrated around the hearth, specifically to the immediate southeast of the hearth itself, indicating an area where it was being chipped off the bricks.

Hand-Wrought Nails

Only a relative few hand-wrought nails and nail fragments were found (N=101), indicating that the house may have been removed in total without being dismantled. Nailers, people who specialized in making nails for a living, were in Plymouth Colony from the earliest days, most nails were probably imported by the barrel load from England, while larger spikes may have been made locally. Hand made nails differ from later 19th century machine made nails, in that they have hand struck heads and their shanks are pointed as opposed to blunt-ended. The distribution of the nails parallels that of the brick fragments.

Window Glass and Lead Kames

Twenty-eight pieces of 17th century window glass were recovered from site, most coming from the south yard, but generally being scattered across the site. The windows in the house would have been of the casement type with diamond-shaped quarrels of glass. The quarrels would have been held in place by means of lead strips called kames, three fragments of which we found at the site **(Figure 23)**. The kames sometimes contain the initials and year of manufacturer on the interior. Unfortunately none of the pieces from the site bore dates or initials. The kames were found to the south of the hearth.

Wood

The majority of the structures built by early settlers were primarily built of hewn wood. Wood was

common in New England and lead to a building tradition where it was used for everything- the frame, the floor, the walls, the roof, and sometimes even the chimney. The fragments of wood that were found at the Nickerson Site in 2016 are believed to have come from a post (as they were found standing upright inside a soil stain we call a posthole) but what that post was is not yet known. It appeared too small to be a house post, but it may have been from a fence or a smaller outbuilding.

Industrial Residue

One of the most interesting findings was the recovery of many fragments of iron slag of the kind that commonly is found at the bottom of a blacksmith's forge. As a smith works raw iron, bits of the metal sift down through the charcoal used to power the forge to accumulate in the base. When the forge is dismantled or destroyed, the accumulated slag is then exposed and disposed of. This slag, along with the large pieces of dense hardwood charcoal and the pieces of brass scrap, all point to someone operating a forge in the area in the 17th century. As this was the eastern frontier of Plymouth Colony at the time, and a trip to a blacksmith to replace or have a broken tool repaired would have been a multi-day journey, a resourceful man like William Nickerson may have felt it necessary to have his own on site forge to fix and create his own tools, and probably, as a side business, repair the metal items that were becoming increasingly a part of the local Native American household. This could have included firearms as well as brass kettles, which, if the Plymouth officials ever found out, would have caused them even more consternation than Nickerson had already done. The brick fragments, nails, and even the postholes, may have all been parts of the same blacksmith forge and shop as well.

Charcoal

Charcoal was very abundant in some of the pits, but there was no evidence of burning,so it does not appear that we had a house or building that burned at that location, but obviously someone was burning wood somewhere nearby. People of course used wood to cook and heat their homes, but they also used it to make charcoal that was used to power a forge. Charcoal was concentrated in a dense deposit of large pieces immediately south of the hearth, and at the south edge of the site. These may mark the locations of features such as a forge or bake oven.

Slag

If we had just found the charcoal by itself, we could easily conclude that it was the product of someone cleaning out their kitchen hearth and throwing the waste charcoal and ashes out, but we found what appears to be slag along with the charcoal. Slag is a byproduct of making or working iron. Basically when the iron is heated up, bits of impurities in the iron melt (or slag) off and drip to the bottom of the forge where they collect in a lumpy slag that sort of looks like a meteorite, but is often shiny from burned salts and sand. Finding slag is common on 19th century sites, as it was a waste product of the numerous iron foundries that were operating by that time and was commonly used as road and pathway fill. Finding it at a 17th century site is far less common and is a strong indication that blacksmithing may have been going on.

A total of 180 pieces of slag have been recovered **(Figure 24)**. These were found to be concentrated along the southern edge of the site close to the locations where the postholes were discovered in 2016. The co-occurrence of the slag and the postholes and the charcoal may indicate that this is the likely location of a forge. One piece of brick was also found to have slag adhering to one edge, possibly connecting some of the brick fragments to the the possible forge **(Figure 24)**.

Fire-Cracked Rock

Hearths, both Native and English, often used local granite rocks for their bases and sides. Over time, these rocks heated and cooled, heated and cooled, eventually cracking and crumbling due to thermal induced failure. The fire cracked rocks we found could have come from either a older Native hearth, the Nickerson family's household hearth, or may have been part of the possible forge.

Fire-cracked rock was concentrated around the colonial hearth and along the southern edge of the project area in association with the charcoal and slag, supporting the possible location of a forge.

Horseshoe Nail

In the seventeenth century you could travel by foot, by boat, by canoe, or by horse, and if you used the later option, one thing you would sometimes need were shoes. Horseshoe nails are used to affix the shoe to a horse's hoof. This was work that was often done by blacksmiths as well. Two horseshoe nails were recovered in 2016 from units 1 and 2, in the general area of the possible forge location.

Flint Fragment

Thirteen (13) pieces gray English flint were found. Flint was imported from England as ship's ballast, commonly dredged up in the harbor of whatever port the ship was leaving from and then dumped in the New World as products were loaded to be shipped back to England. It was used for gunflints as well as for strike-a-lights- the flint in a flint and steel fire starting kits used to light the home fires. Most of the pieces were flakes and pieces of shatter, but one strike-a-light and one spall type gunflint were found **(Figure 25)**.

Flint was distributed around the hearth, west, and south yards. The gunflint and strike-a-light were found in the west yard.

19th Century Material

While occupation of the site appears to have ceased in the late 17th century, use of the site apparently continued in the 19th and 20th centuries, as evidenced by the scattered pieces of more recent material recovered. The more recent material presumably ended up at the site as a result of its known use as a garden, with the 19th century refuse being deposited at the site as part of compost/ household trash used to manure the site. The material was concentrated on the edges of the site and ranged from coal to ceramics to a 19th century fork and spoon, the latter showing definite evidence of having been hit by a plow or rototiller **(Figure 23)**. Twentieth century material was most probably deposited by the neighbors and included chicken wire fragments that once encircled plantings that were represented at the site by scattered holes in the western portion of the project area.

Conclusions

The 2016 and 2017 excavations at the site succeeded in identifying the location of a 17th century homesite that appears to be have been inhabited by William and Anne Nickerson from ca. 1664-ca. 1690. We located and defined the hearth and determined its orientation, found evidence of the probable location of a 17th century forge, and recovered evidence of the foods eaten and the dishes used for storing, preparing, and serving food by the Nickersons, including possible evidence for the use of a Native pot by the Nickerson household. The possible postholes we found are believed to have been associated with the main house as well as outbuildings or fencing south of the house. Further

information regarding post-in-ground architecture in Plymouth Colony is provided in Appendix G. The preliminary interpretation, which is subject to change as we do more work, is that the house was a hall and parlor style with a chimney and hearth located at the east gable end and a front door facing south. It is believed that it would have looked similar in appearance to John Howland's house in Kingston, Massachusetts and Richard Taylor's house in Yarmouth **(Figures 26 and 27).** It appears that after the death of William and Anne, and possibly their daughter, Sarah, who next owned the house, the building was removed as one unit after first removing the hearth and chimney. If this did actually occur, it was probably done by one of Sarah's children or grandchildren and was likely reused nearby.

We also located evidence of Native occupation at the site and were able to determine that the site was not a long-term base camp, but was probably used for a relatively short period of time by people collecting resources and performing the initial reduction of stone tools. This makes it less likely that any graves would be encountered on a site such as this.

As a way of examining what the house may have looked like, I examined the three probates that I was able to locate for William and Anne's children- Robert Eldred (Elizabeth Nickerson's husband) (1682), Nicholas Nickerson (1680), and Samuel Nickerson (1716). The contents of the probates are presented in Appendix H. Robert Eldred and Nicholas Nickerson were found to have had what would be considered upper class households in the 17th century. They contained large numbers of what were considered luxury items such as pewter, books, linens, tables and chairs, and livestock. Robert also had honey bees, which is the earliest reference to honey bees I have seen from Cape Cod. Robert's estate was valued at 316 pounds 0 shillings and 3 pence, while Nicholas' was valued at 129 pounds 17 shillings and 9 pence. Table 7 puts these values into perspective with some other well known 17th century persons.

Table 7. Comparison of Nickerson and Plymouth Colony leader's probates

Person	Date	Value (pounds-shillings-pence)
William Bradford	1657	854-15-03
Myles Standish	1656	358-07-00
William Brewster	1644	181-10-08
John Howland	1673	164-11-03
John Alden	1687	49-17-06
Robert Eldred	**1682**	**316-00-03**
Nicholas Nickerson	**1680**	**129-17-09**
Samuel Nickerson	**1716**	**13-7-4**

It appears that Robert Eldred and his family were as well off as someone like Myles Standish while Nicholas Nickerson was less wealthy at death than John Howland, but still what could be considered the upper class in the 17th century. The anomalies in these comparisons are John Alden and Samuel Nickerson, both of whom appear of a much lower level of wealth than one would expect when compared with their peer group. I think the solution to this difference in apparent wealth has to do with

their ages at death. John Alden was 87 and Samuel Nickerson was 81. I believe that they both were living in rooms within one of their children's houses when they died, as neither had any housing or lands among their possessions. I assume that as they got older they gave away their houses and lands with the proviso that they would be allowed to live in a room of the house of one of their children.

The layouts of the houses of Robert Eldred and Nicholas Nickerson indicate that they probably had hall and parlor style homes but it could not be determined if it was a central chimney style house or an end chimney style as I have proposed for William Nickerson's house. Each also appeared to have a barn and a shed or leanto buttery attached to the house in which milk processing and beer making was conducted. Samuel's barn may have had an additional shed or leanto that served as a storage area for barrels of tar and other miscellaneous items. The items in both of their houses should be seen as examples of the sorts of things that would have been in William and Anne's house and give a hint at what we may expect to find in the future (depending on how well the house was cleaned out before the site was abandoned).

Recommendations

Further work should focus on the following:

- determining the outline of the actual house
- determining if a cellar was present
- determining if the material recovered from south of the house does indeed represent a forge
- determining the location of outbuildings such as stables, a barn, and animal housing
- determining for certain, through radiocarbon dating, whether the shell found in the south yard is associated with the Native or colonial occupation.

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Suffolk Deeds Book 3
1885 Suffolk Deeds. Rockwell and Churchill, City Printers. Boston, Massachusetts.

APPENDIX A

Report Figures

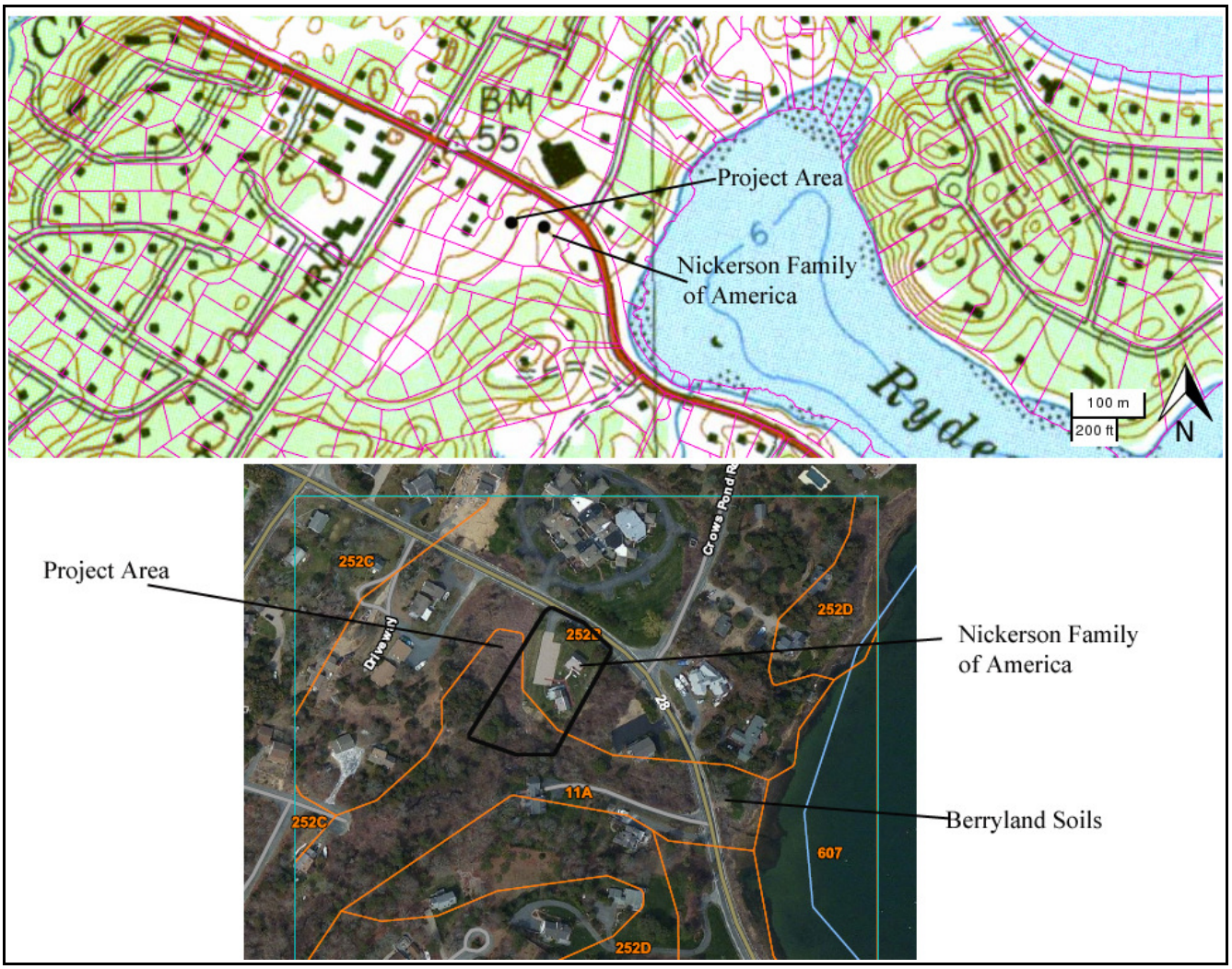


Figure 1. Project area location in Chatham and site location on USDA soil map

Figure 2. Presumed site location on 1880 map of Chatham

Figure 3. Location of Norwich in England.

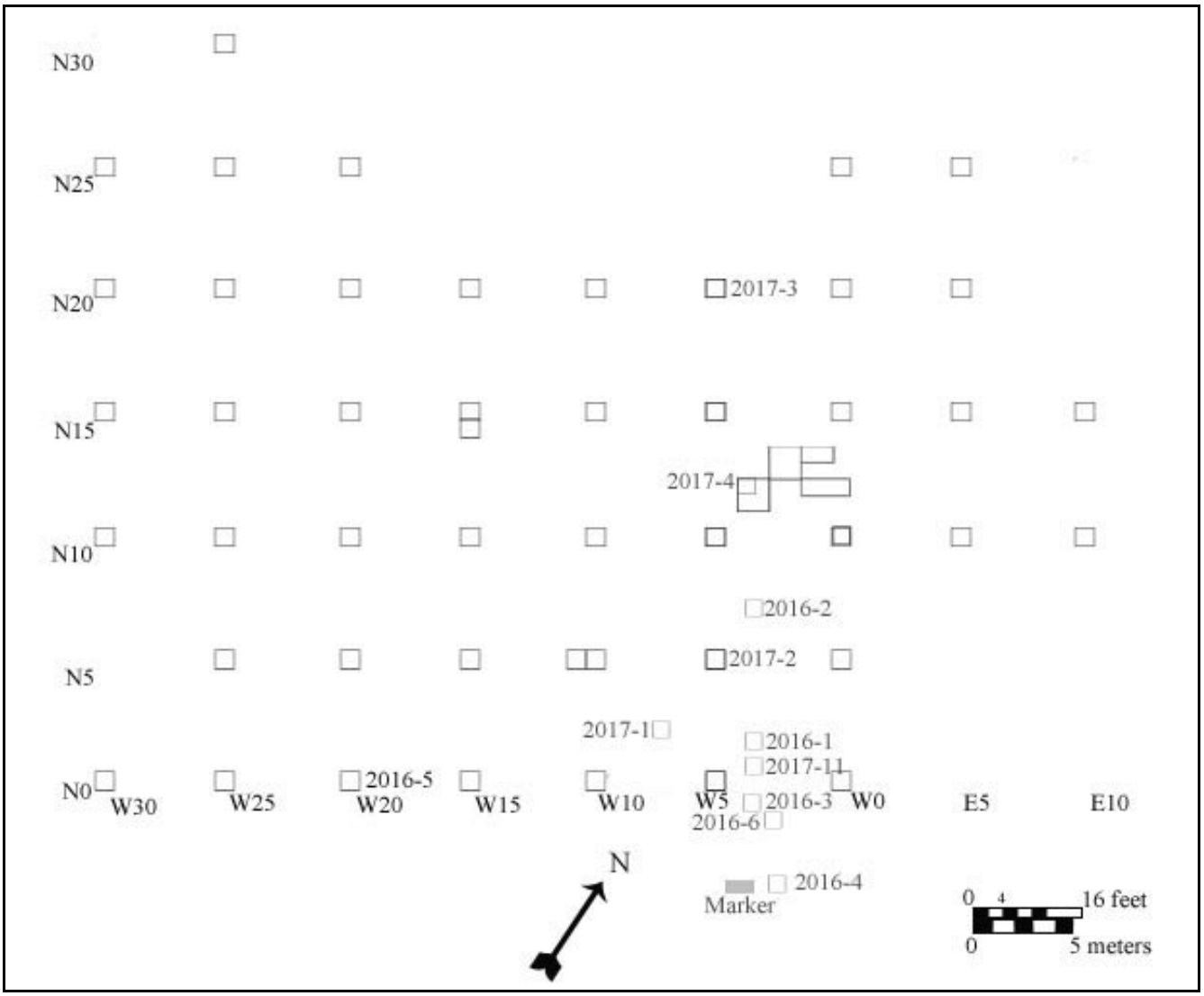


Figure 4. 2016 to 2017 testing

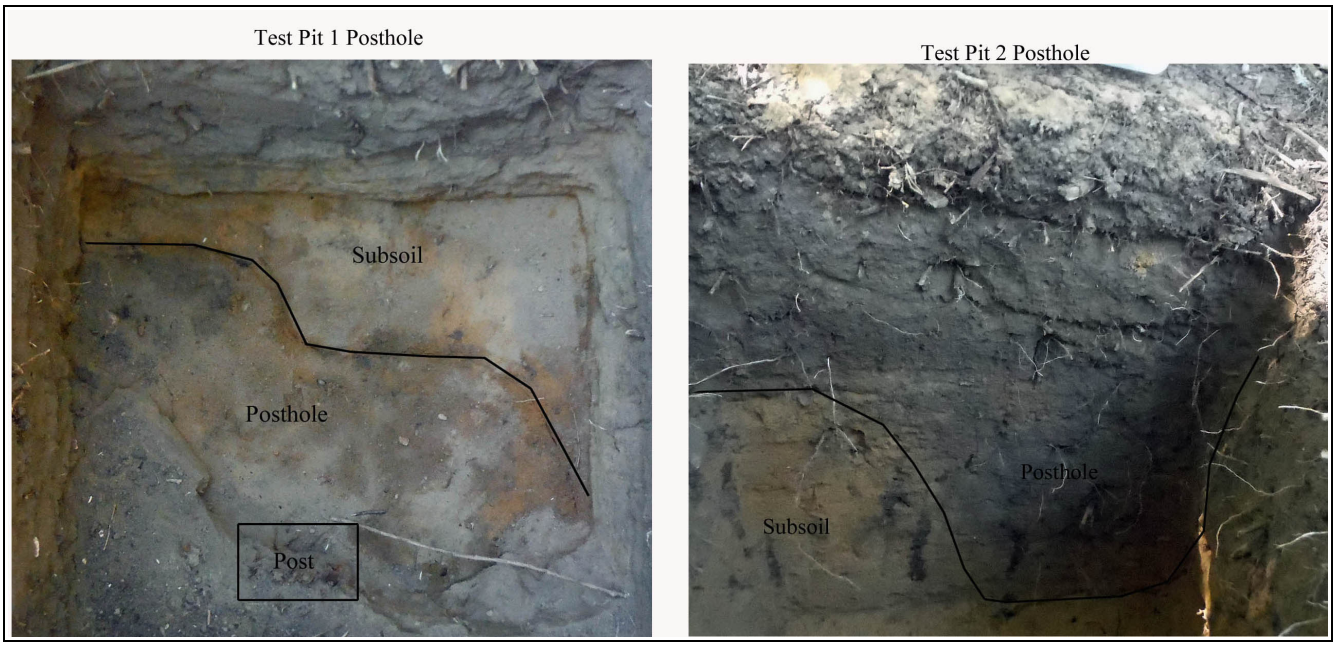


Figure 5. Postholes identified in 2016

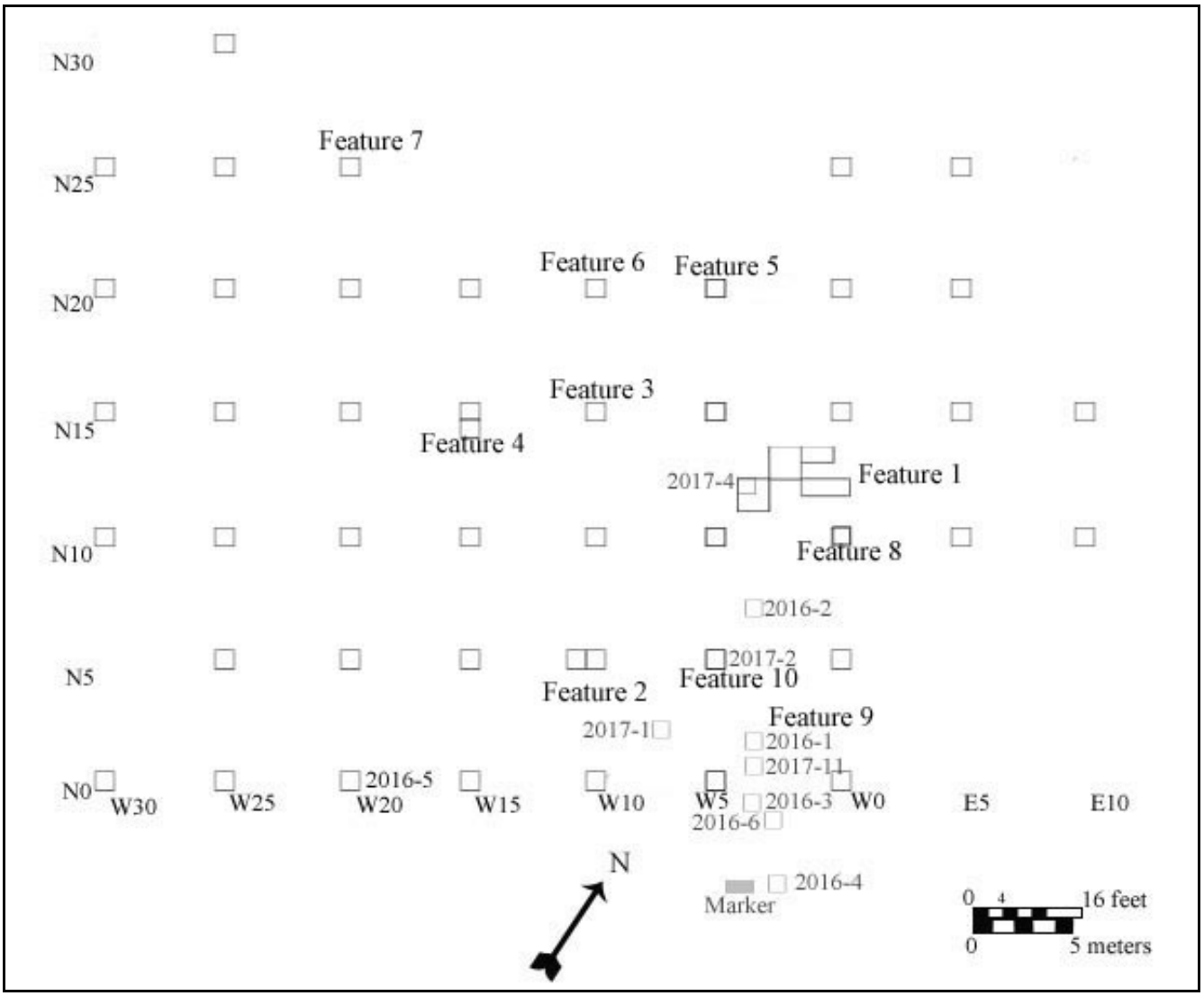


Figure 6. Locations of features identified in 2016 and 2017

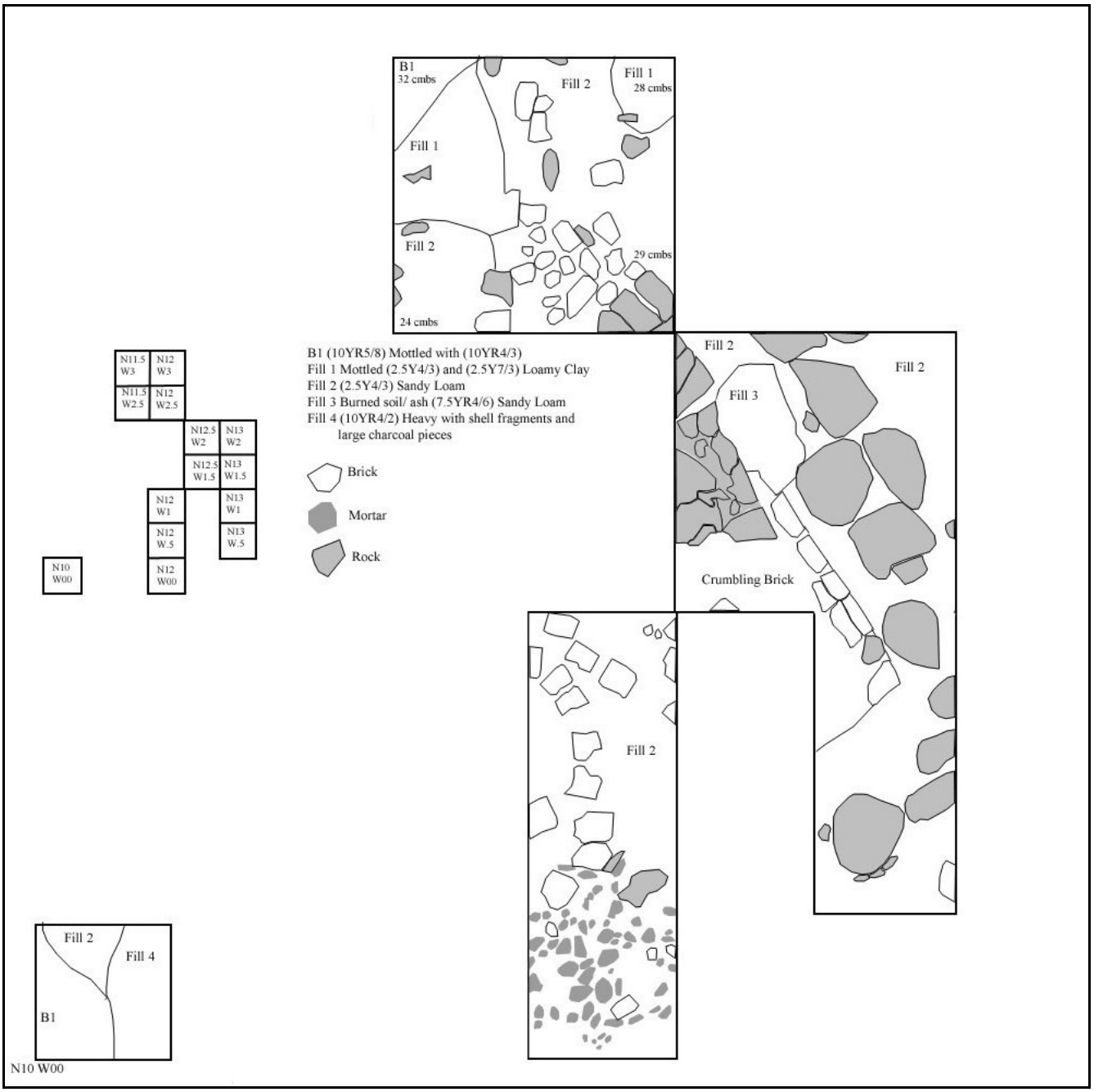


Figure 7. Plan of Feature 1 the colonial hearth

Figure 8. Feature 1 photographs

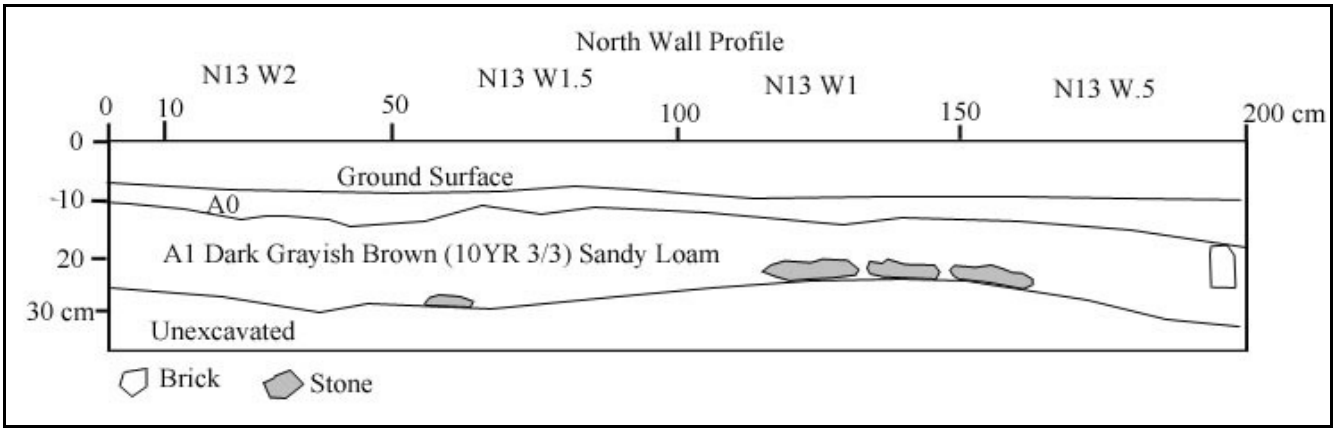


Figure 9. Soil profile of Feature 1

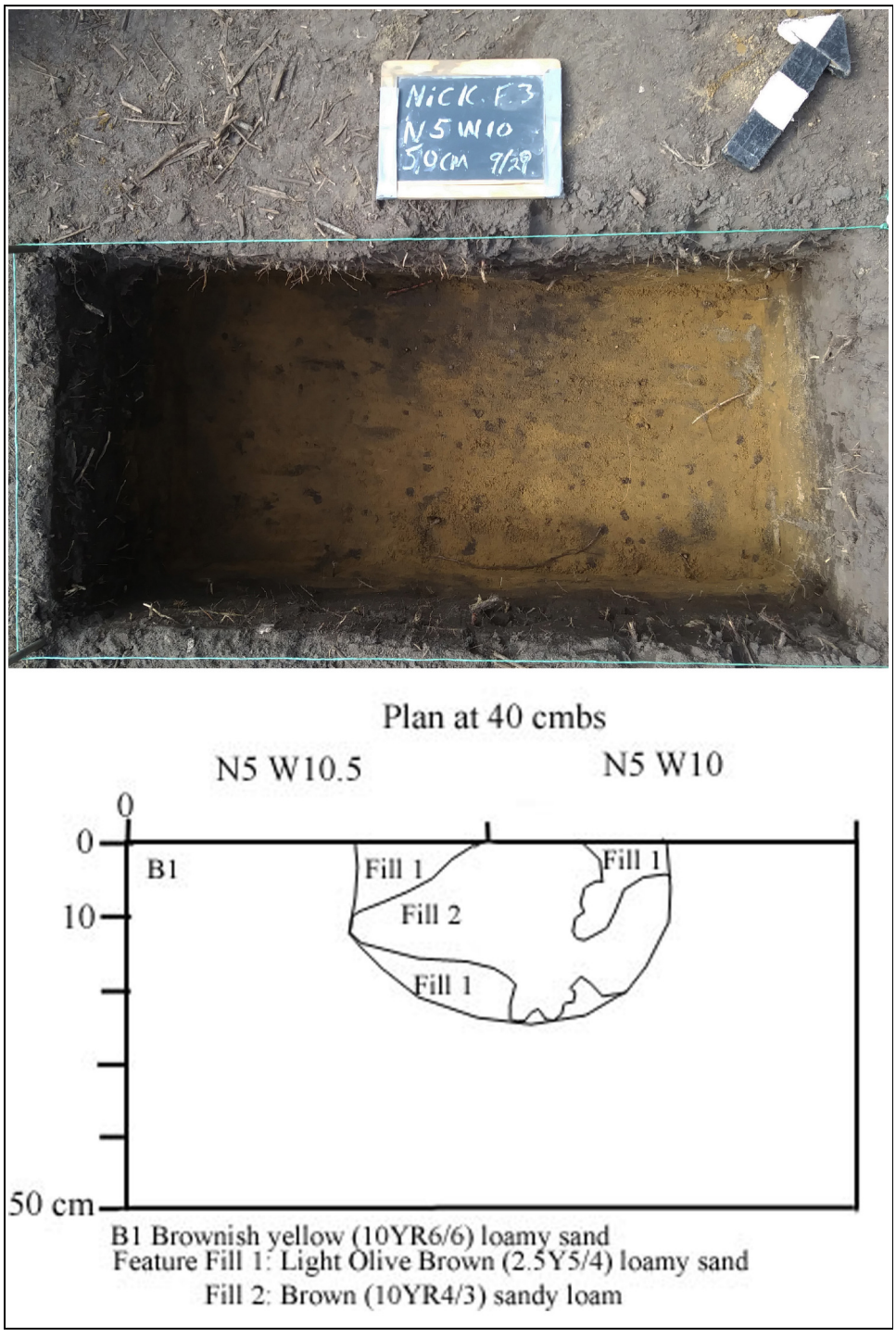
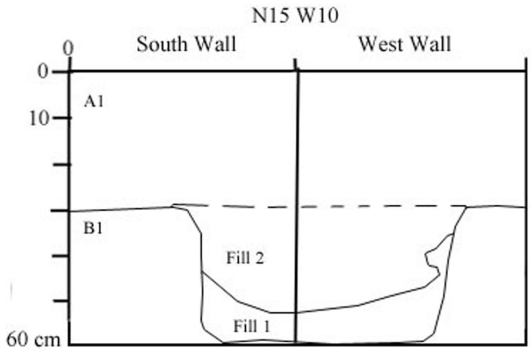


Figure 10. Feature 2

West Wall Profile



A1 Very Dark Grayish Brown (10YR3/2) sandy loam
B1 Brownish Yellow (10YR6/6) loamy sand
Feature Fill 1: Mottled Brownish Yellow (10YR6/6) and
Very Dark Grayish Brown (10YR3/2) sandy loam
Fill 2: Very Dark Grayish Brown (10YR3/2) sandy loam

Figure 11. Feature 3

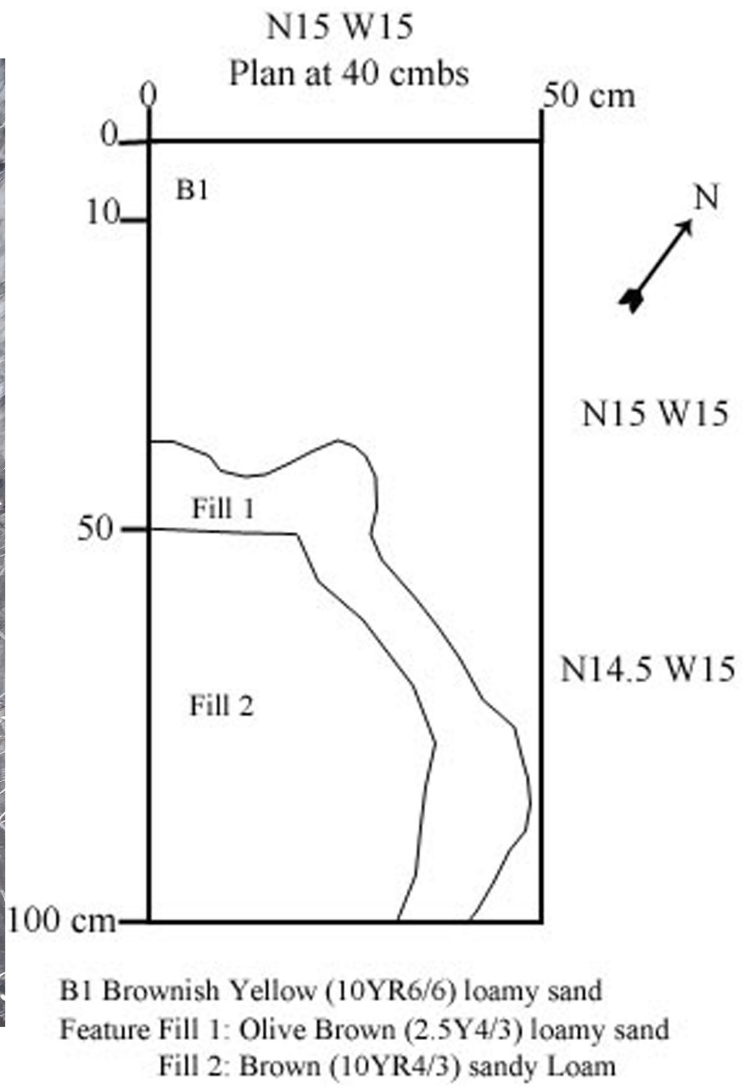


Figure 12. Feature 4

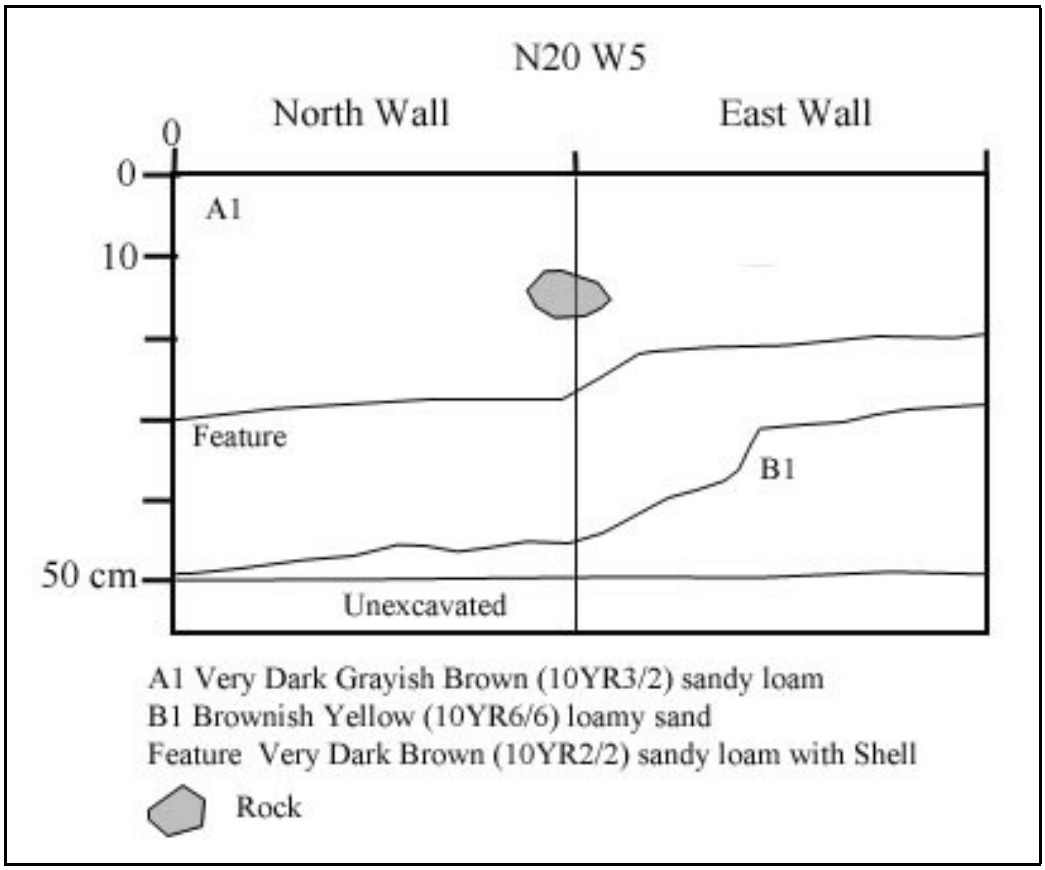
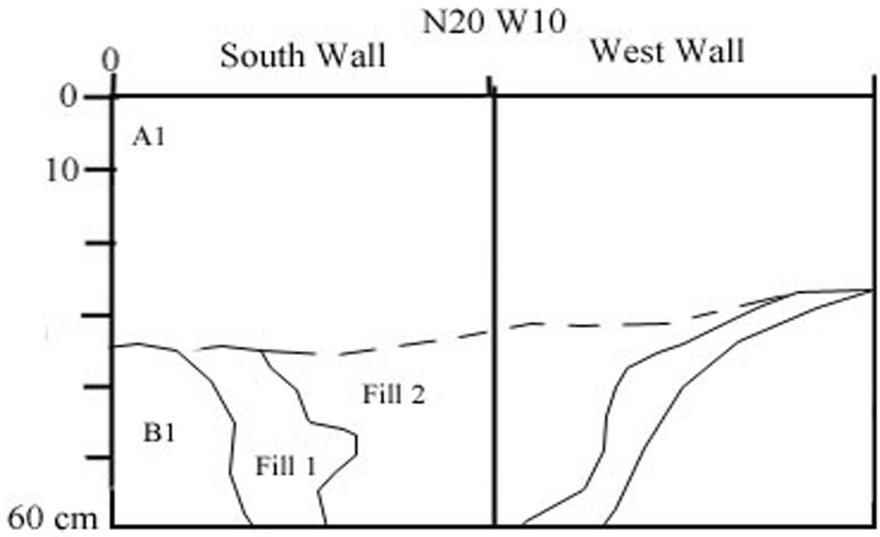


Figure 13. Feature 5

Plan 30 cmbs

South Wall Profile

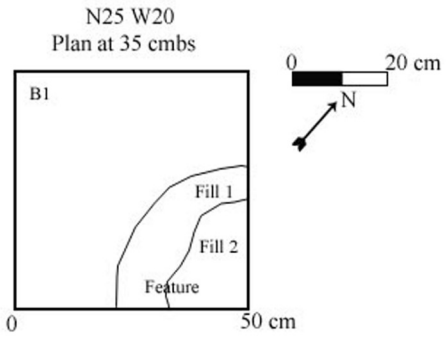


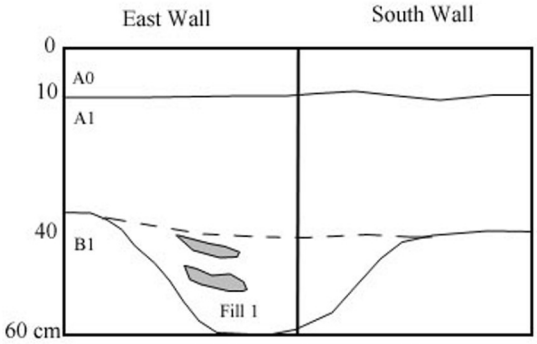
A1 Very Dark Grayish Brown (10YR3/2) sandy loam
B1 Brownish Yellow (10YR6/6) loamy sand
Feature Fill 1: Mottled Brownish Yellow (10YR6/6) and
Very Dark Grayish Brown (10YR3/2) sandy loam
Fill 2: Very Dark Grayish Brown (10YR3/2) sandy loam

Figure 14. Feature 6

Plan at 30 cmbs

East Wall Profile





A1 Very Dark Grayish Brown (10YR3/2) sandy loam
B1 Brownish Yellow (10YR6/6) loamy sand
Feature Fill 1: Yellowish Brown (10YR5/4) loamy sand
Fill 2: Dark Grayish Brown (10YR4/2) sandy loam
Shell

Figure 15. Feature 7

Figure 16. Feature 8

Figures 17 and 18 are in text

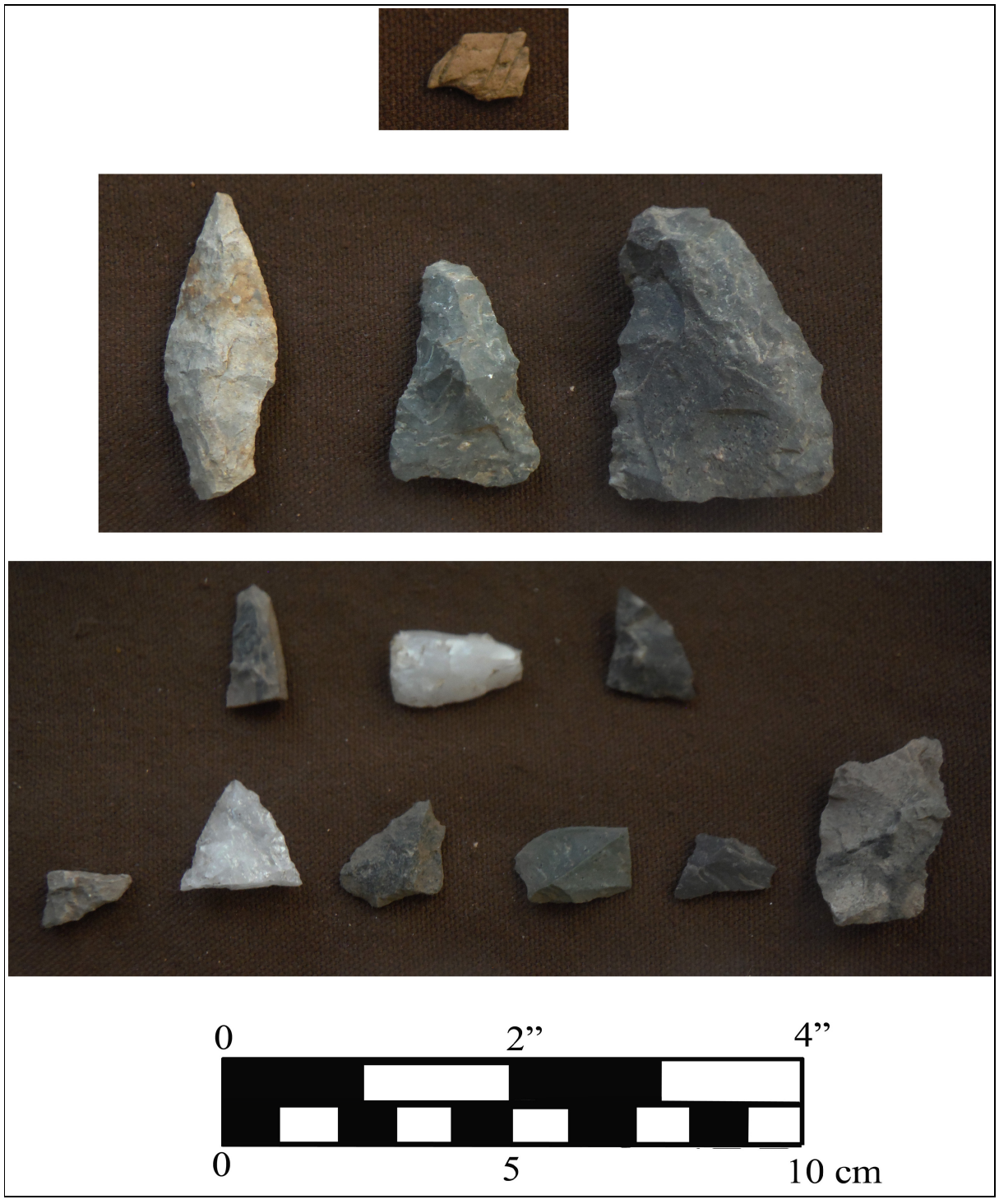


Figure 19. Prehistoric artifacts

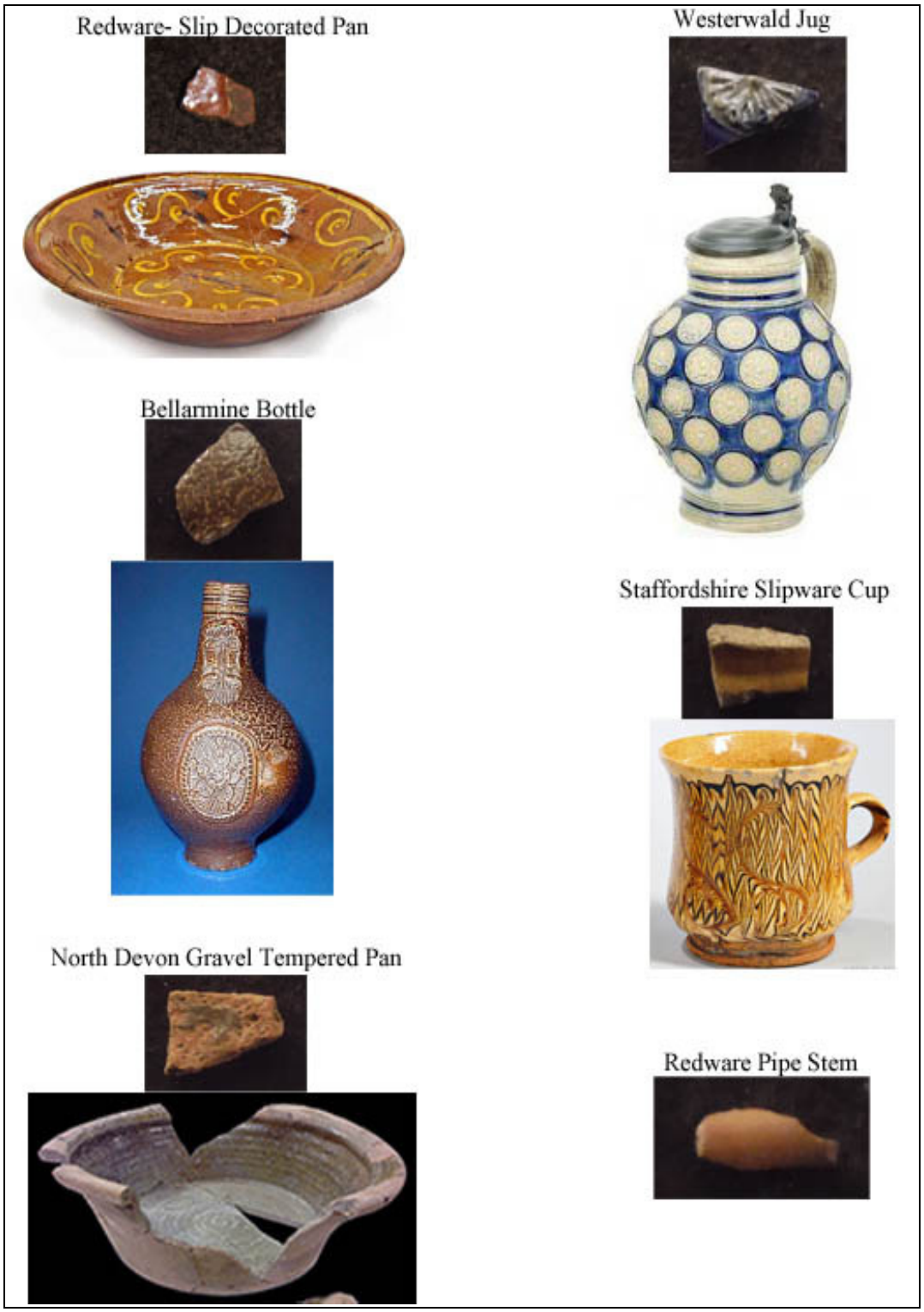


Figure 20. 2016 ceramics

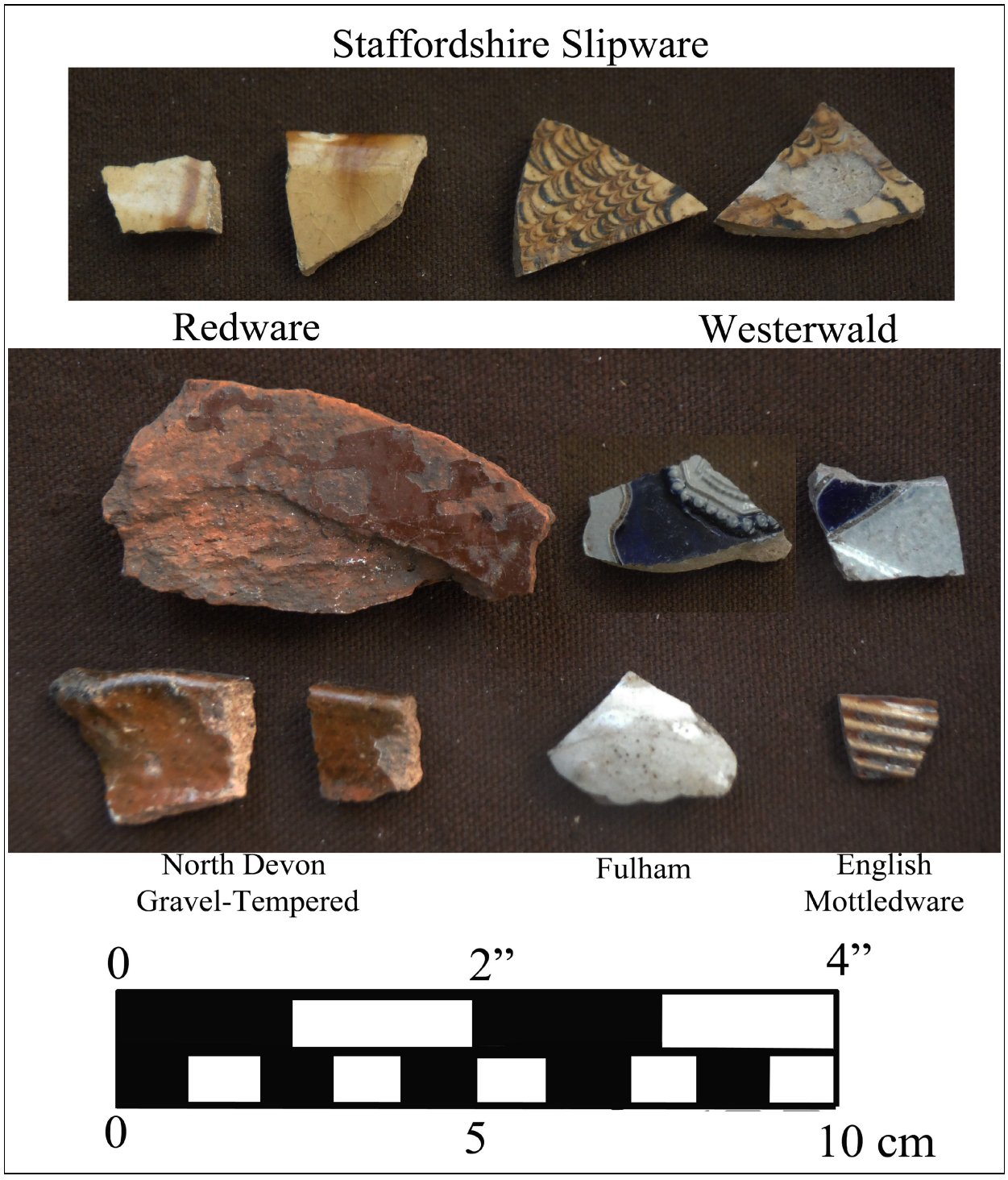


Figure 21. 2017 ceramics

Figure 22. Tobacco pipe fragments (Top Row Left to Right: red clay pipe bowl, 2 small belly bowl fragment; Bottom Row Left to Right: middle to late 17th century bowl, stem marked LE, bowl marked WE)

Figure 23. Metal artifacts from 2017

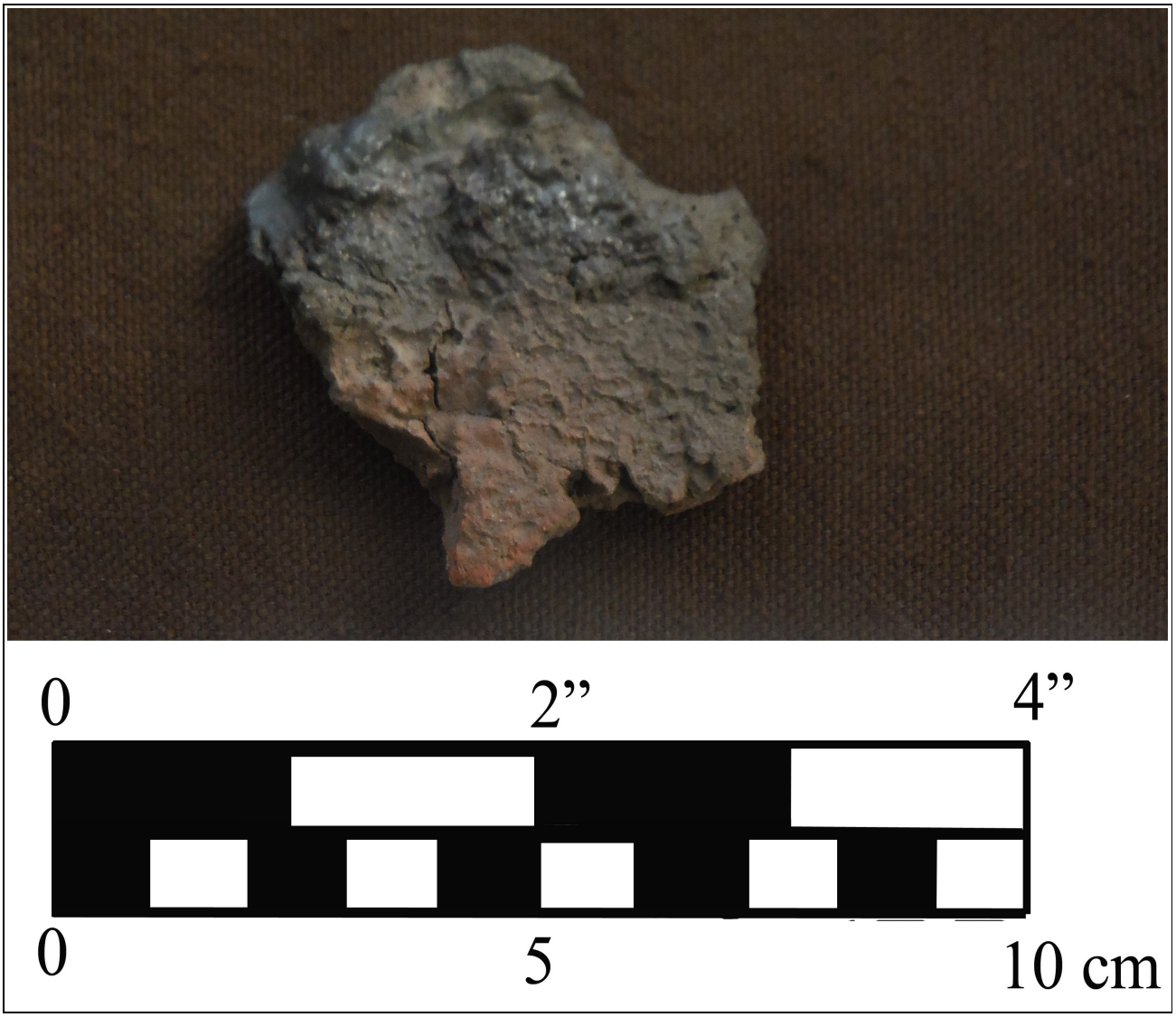


Figure 24. 2017 slag on a brick fragment

Figure 25. Gunflint (left) and strike-a-light (right)

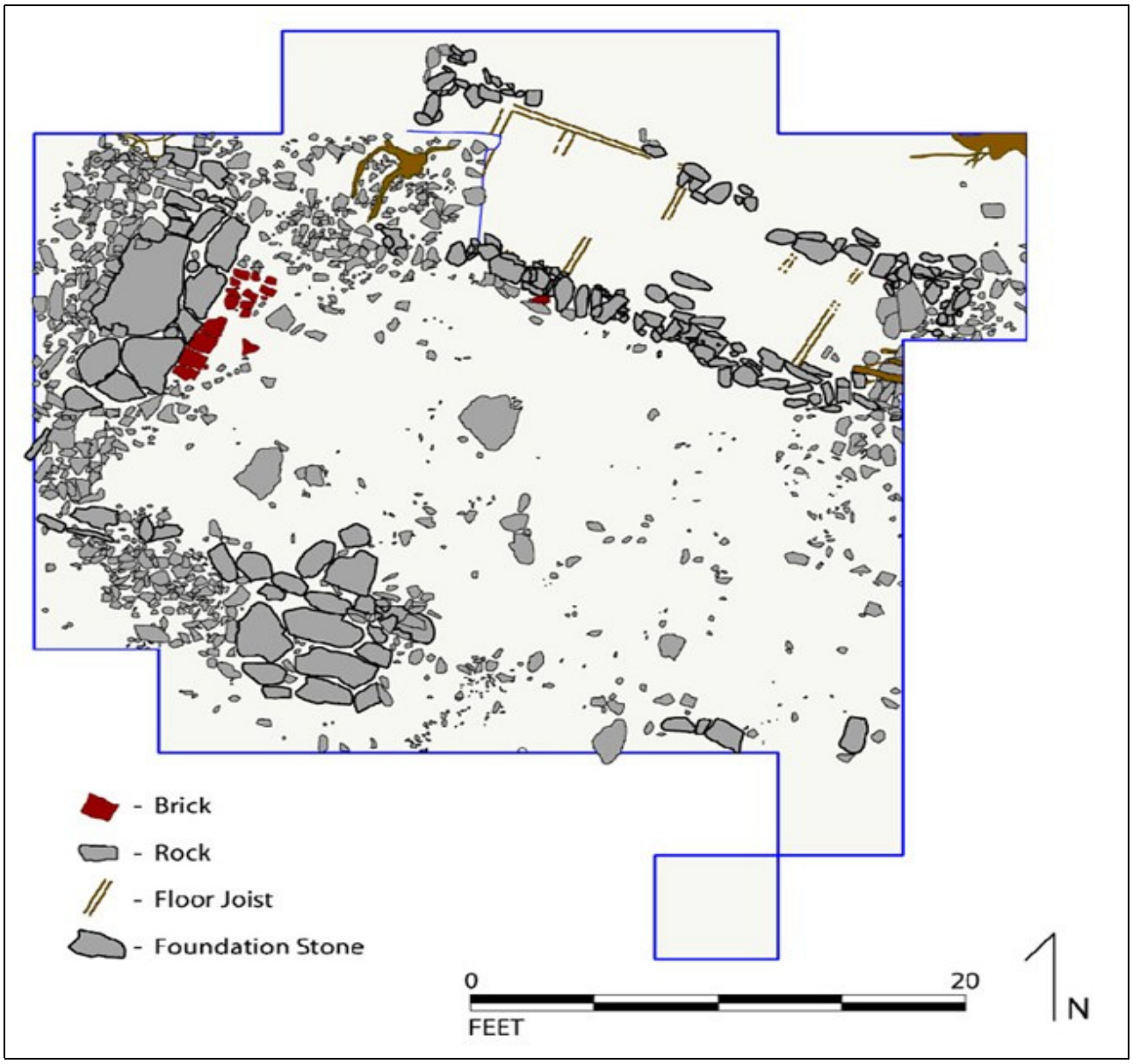


Figure 26. John Howland homesite plan and possible reconstruction

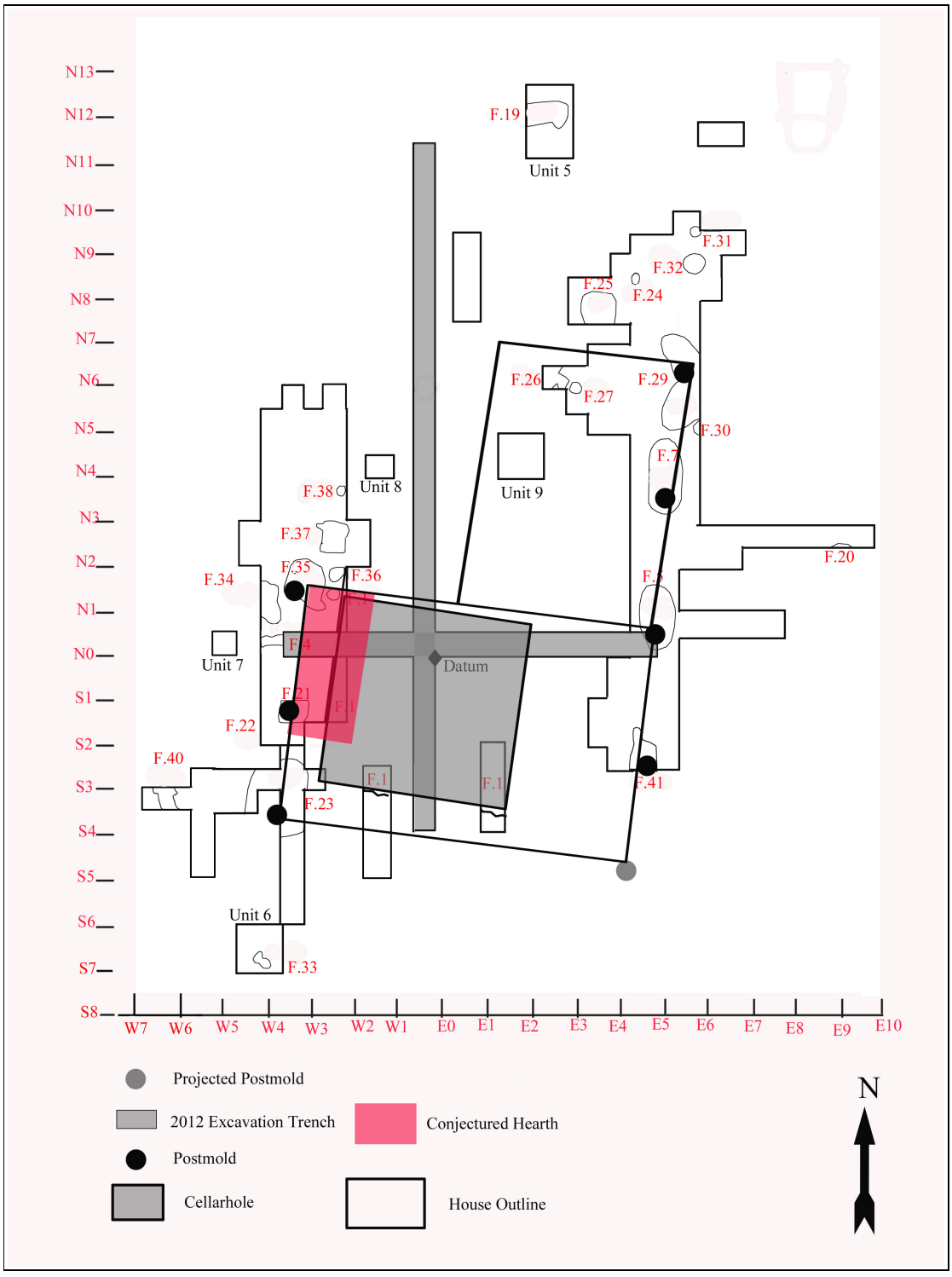


Figure 27. Plan of Richard Taylor site showing house outline and posthole plans