

Report on the 2022 Excavations at the C-5 Joseph Howland Site

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Introduction

The 2022 excavations at the C-5 Joseph Howland Homesite ran from August 8-11 with August 12th being a finishing day. The goals of the excavations this year were to attempt to locate the hearth discovered by Dr. James Deetz during his original excavations and to investigate a pile of erratics discovered by John Howland Society historian Eldon Gay during his ongoing efforts to battle back the Rocky Nook jungle that seeks to once again engulf the site (**Figure 1**).

Background

Joseph Howland located his homesite on the west side of Howland Lane on Rocky Nook peninsula in Kingston, Massachusetts, approximately 27' above sea level on a west facing terrace above wetlands associated with the Jones River. Construction of a wall around the edges improved the spring to the southwest of the site. This spring may have served as the original source of drinking water for the occupants of both this and the John Howland homesite across the lane to the east.

Joseph Howland initially built on, and occupied, the property, probably in the 1660s soon after he and Elizabeth Southworth married. Joseph was born across Howland Lane at his parents homesite around 1640. He and Elizabeth, daughter of the Captain Thomas Southworth, a prominent Plymouth resident, married **ca 1665**. This report assumes, and this is backed up by the archaeological data, that Joseph and Elizabeth were the first occupants of the property on the west side of Howland Lane, and that they built the house here soon after their marriage in 1665.

Joseph was very active in the colonial government, serving as a surveyor, a Lieutenant, later a Captain, in the militia, and as a provisioner. Upon Joseph's death in **1704**, the property passed to his son James (born in 1669 and married in 1697) who, may have lived either on this site, or across the street at the John Howland site, where artifacts from the "dew Pond" cellarhole were found to date from 1681-after 1723 (based on dated window leads and a coin). James sold the property to Benjamin Lothrop in 1735 and moved to Barnstable where he died in 1738. Artifacts dating to after 1720 (Tobacco pipes), as well as lead window kames bearing the dates of 1681 and 1711 or 1712, were recovered from the C-5 Joseph Howland site, indicating that someone was living there at the time when James, and subsequently Benjamin Lothrop, owned the property. The lack of a charcoal or burn layer in either of the cellar holes may indicate that the house only partially burned at some point in its history. Benjamin Lothrop is believed to have **moved from the site in 1746**.

Occupation at the site may have been as follows:

Joseph and Elizabeth Howland 1665-1704 39 years

James and Mary (Lothrop) Howland 1704-1735 31 years

Benjamin and Experience (Howland) Lothrop 1735-**1746** (Experience died 1748) 11 years

Previous Excavations

Two programs of archaeological excavations are known to have occurred at the site, although illicit, but limited, pothunting occurred as well. Local residents and Howland descendants knew of the site prior to the start of Deetz's excavations. Deetz

succeeded in locating the original chimney and two cellar holes associated with the house, but was unable to discern the footprint of the building itself.

Deetz's work was followed a generation later by Derek Wheeler who focused his investigations, albeit accidentally, on the yard areas to the south and west of the house itself, providing us with an unprecedented glimpse into how Joseph organized that space around his house, while Deetz's work gave us a glimpse of the house itself.

Plimoth Plantation/ Dr. James Deetz Investigations

Plimoth Plantation's excavations, under the direction of Dr. James Deetz, began their investigation at the site in July of 1959 and they continued through August of that year. The Joseph Howland site has the distinction for being the only Plymouth Colony site that Deetz actually created something of a site report when he produced a two page summary in August, 1959. The report gave an overview of what had been accomplished at the site in approximately a month's worth of digging. He further elaborated on his preliminary conclusions in two articles written for the Howland Quarterly in 1960. Deetz's excavations at the Joseph Howland homesite began on July 30, 1959 and he finished the report by August 13 of the same year. In it, he presented a conclusion suggesting that two buildings once occupied the site, a view that he reaffirmed in his 2000 book *The Times of Their Lives*. The buildings, as he saw them, consisted of a main house represented by a 5' square hearth base at the east end and a 3' deep cellar hole 20' to the west. A jumble of stones that survived to not over a single course in height was interpreted as representing all that survived of the foundation. The chimney was constructed of brick and had a brick apron on three sides and stone paving inside of it. He estimated the entire structure measured 20' long (east to west) with an orientation perpendicular to Howland Lane. Deetz located what he believed was a second house to the northeast of the hearth, where he identified a 3' deep, artifact-rich, cellar hole. Deetz's conclusion was, the building was built ca. 1676, occupied for 30-40 years until ca. 1700, when it burned and collapsed while still occupied. Among the artifact assemblage, Deetz noted that there were an abundance of gunflints, a button mold, sharpening stones, a scatter of Native artifacts, a stone copy of a 17th century tobacco pipe, four coins, lots of bones and shell, and the usual domestic artifacts.

Deetz further elaborated on his initial conclusions in two articles written for the Howland Quarterly in 1960. The following information is summarized from those articles. The archaeologists first visited the densely overgrown site in July of 1959 and noted that the house location was visible as an artifact strewn mound measuring about 20' in diameter. He found evidence of pot-hunting/ looting, which took the form of two small pits dug into the mound, interpreted as the result of people looking for Native artifacts. Testing began with the excavation of trenches across the mound extending some distance to the north and south beyond it. Excavators reportedly screened all the soil through 1/4" hardware cloth screens. They found a dense deposit of artifacts extending to an average depth of 10-12" below the surface, which placed it at the interface between the topsoil and the subsoil. Investigation continued in 5' squares excavated in 6" levels.

The mound composed of brick from the collapse of the chimney. The hearth base measured 12' north to south and 6' east to west, being composed of granite slabs, the largest of which was 2' long and 1' wide. A brick apron in front of the hearth, similar to what was found at the John Howland House, was found to exist on three sides of the

chimney. The fourth side had either been removed or never existed. Excavation of the hearth base found it built on top of an older stone wall resting on beaten clay, which suggested that an earlier house had existed at the site. Archaeologists found that 4" of disturbed soil separated the wall and the hearth base. Beneath the hearth, Deetz found a pipe bowl with a shape and maker's mark indicating it was made before 1676.

Deetz conducted further excavations in 1960 and found that the house had been built on the same site as an earlier Native camp. He reportedly recovered a bone awl and hammerstone beneath colonial material in the west cellar and found that one cellar was filled with compacted refuse while the other had complete or near complete artifacts. Returning in 1968, they focused work on the hearth area. At some point, excavators from Harvard, possibly Deetz's graduate or undergraduate students, excavated at the site. Unfortunately, none of the excavations that were carried out at the site have left any notes and only a few general photographs could be found documenting their work, making the analysis of the archaeological work at this site difficult. One map exists of the two early years of work. Aside from the very general comments regarding stratigraphy and the depths of excavations presented by Deetz in his Howland Quarterly articles, nothing else is known about the vertical depth of the excavation.

Derek Wheeler's Excavations

Wheeler began work at the C-5 site in 2005 and spent the next eight years excavating for a week each year, for a total of 88 5 x 5' units being dug during that time. The field season each year consisted of clearing the underbrush from an area measuring approximately 40 x 40' square with 5' square units subsequently being laid out in the cleared area. Topsoil was removed and a portion of each block was excavated to sterile subsoil. The strategy was to identify areas where artifact densities were low, which could represent the original area excavated by Deetz, with areas of higher artifact concentrations outside of the low density areas (representing previously unexcavated areas). Unfortunately, most probably due to Deetz's inconsistent screening of soils, artifacts were found virtually everywhere. An area was excavated in 2007 and 2008 that appeared to represent clear evidence of previous excavation with evidence of what appeared to be a checkerboard of excavation units and unexcavated balks being found in the 15 x 15' block. Excavation was carried out to the subsoil, and a late 1960s Coke bottle was found resting on the subsoil surface, proving that the area had been excavated by Deetz in the late 1960s. Wheeler found only a few features, most relatively modern. Charcoal concentrations resulting from campfires and pits from someone pothunting at the site were found in squares 177, 184, 185, 186, and 190.

2022 Fieldwork

Fieldwork this year was carried out by a small crew from Monday to Thursday with Friday being a finish up and start backfilling day. Fieldwork began with a meeting between Craig and Eldon Gay to discuss where the units should be placed for the year and what theories were being tested. Previous work had failed to firmly locate any of the features (specifically Features 3 [the hearth] and Features 7 and 8 [the cellarholes]) identified in the 1950s and 60s. Probing by Eldon Gay led him to believe that the remains of the hearth, which contained large flat stones that should be easily identifiable, may have been located between the 2020 excavation area and Derek Wheeler's excavations. It was determined that a large testing block measuring 15 x 25' would be

the best way to locate the hearth and cellarholes. This area was in the same general area predicted by Chartier in his 2017 report on the previous excavations at the site. Gay also identified a large pile of stones to the north of this area, close to the stonewall that delineates the northern boundary of the property. He theorized that this may be the remains of another building due the size of the rocks and their concentration in this area.

The locations of the Deetz, Wheeler, 2020, and 2022 excavation areas are shown in **Figure 2**.

Findings

Excavation: Larger area

The grass covering the first soil layer was removed from the entire excavation area with the soil being screened and artifacts (except for brick, shell, and charcoal fragments) being saved in one area bag (**Figures 3 and 4**). Most of the entire area appears to have been previously excavated and backfilled by the 1950s and 1960s excavations. The area was found to have 6-8" of dark brown previous excavation fill overlying either a B1 subsoil, partially exposed in Unit 7's south quarter, or a second, lighter colored, fill layer. The area was excavated to between 1 and 10" bs with shallower excavations happening in the eastern quarter (**Figure 5**).

Unit 1 located at the SW corner of the 2022 grid in area with rocks exposed by Eldon prior to the start of the 2022 season

A trench measuring 18" extending east from the west wall was excavated to 12" bs to the top of the subsoil. An additional area measuring 18' east to west by 18" north to south was excavated to the east of the northern portion of the initial trench to investigate a possible linear concentration of stones (**Figure 6**). The remaining portion of this unit was unexcavated due to the presence of sumac trees. Excavation was conducted in 6" layers within the natural stratigraphy. The first layer was from the surface to 4" bs in a dark brown fill. The second layer extended from 4 to 10" bs in a dark olive brown topsoil that continued to 12" bs. The excavation appeared to encounter unexcavated soils with artifacts concentrated in the north half near the brick and stones found here. The stones were not found to appear to represent an intact wall but appeared to be random.

Unit 2 saw a continuation of the trench excavated in Unit 1, further to the north. This trench segment was also 18" wide and 32" long, ending at a balk in the northwest corner associated with a sumac tree. The remainder of the unit was unexcavated. Gravel and brick fragments were found on top of rocks in the south half associated with a larger ceramic fragment. The soils here also looked undisturbed.

Unit 7 uncovered a larger stone along the wall between units 4 and 7 with another extending at a downward angle beneath it extending to the west. Subsoil was exposed in the northeast and southern halves at between 6 and 8" bs. An 18" wide previously excavated and backfilled trench was found extending to the east of the large stone (**Figures 7 and 8**). This trench is interpreted as representing an attempt by Deetz to locate any other walls from a possible earlier structure associated with the possible north to south running wall found beneath the hearth. Augering into the trench found that it extended at least another 12" bs.

Unit 8 was excavated to the second fill layer with the entire square containing disturbed soils at 10"bs.

Northern Rock Pile

Eldon rock mound located 25' North of NE corner of larger excavation area (**Figures 9 and 10**).

U16 on east side of pile 7' east to west 5' north to south

A possible foundation wall line was encountered running east to west in the northern quarter of the unit. The possible wall line consisted of cobbles and dark soil measuring 18" wide and associated artifacts (**Figures 11 and 12**). The possible wall is located 33' north of the possible hearth area in Unit 7 and 44' north of two large stones just south of the 2022 excavation area that could represent door stones. The large rocks found in the unit all represent recent deposits, post-abandonment at least and possibly more recent. Tree root disturbance and associated silty soil was encountered in the south half along with rotted wood adjacent to rock 1 in the north half. The large rock, in the western quarter appears to have been deposited there in the past on top of the B1 soil.

U17 on west side of rock pile, 10' west of western wall of U16

Measures 5 x 5' with a 2x2' extension off to the north from the NW corner and a smaller extension off to the west from the NW corner looking to follow the possible rock line. Large stones were encountered in the eastern quarter of this unit, associated with the stone mound that first identified this area. This unit was excavated to a depth of 10-12"bs, onto the sterile B1 subsoil. A patch of dark organic soil associated with a former location of a tree, was encountered in the NE quadrant adjacent to the large stone here. A line of 3-4 medium size cobbles was encountered along the north wall in the NW quadrant. A 2 x 2' test unit was extended to the north of the NW corner of the stones to investigate their northern distribution. The stones were not found to extend north (**Figure 13**). The stones start at 8" bs and rest on top of, and slightly into the subsoil. This could represent a shallow foundation, but the orientation would be different from that of the structure identified by Deetz.

Test Pit 1

Located 43' north and 8' east of the NW corner of the larger excavation area. This 2' square test pit was placed in at the location it was in order to examine the stratigraphy and artifact distribution near the extreme north end of the site. The test was excavated in 4" levels within natural stratigraphic horizons down to the B1/ subsoil horizon. All artifacts encountered were saved and soil samples were collected from each 4" layer at the completion of the excavation. The first level from 0-4" bs consisted of loose, dry topsoil with a piece of redware and a plastic ziplock bag. This was identified as Layer I, a very dark grayish brown (10YR3/2) silty loam with two large loose rocks.

Layer I extended to 6"bs, containing a large piece of brick and a layer of rocks covering the floor at 6". Layer I was interpreted as post Deetz excavation accumulation of soil. The rocks at 6" were easily removed and excavation to 8"bs yielded many small piece of brick and two nails. This was identified as Layer II, a 10YR4/3/ brown loam. Layer II continued to 20"bs and was interpreted as an intact, unexcavated A1/ topsoil layer, the upper portion of which contained stones and brick fragments deposited here during the 1950s and 60s excavations. Few artifacts were found below 8"bs, indicating that this area of the site did not see a great deal of refuse deposition during the occupation

of the site. Layer III was the B1/ subsoil, encountered at 20"bs, consisting of a 10YR5/6/ dark yellowish brown silty loam with more gravel than Layers I and II. Excavation did not extend into the subsoil.

Test Pit 2

Located 25' north and 10' west of the NW corner of the larger excavation area This 2' square test pit was located 5' west of Unit 17 in a slightly depressed area that was theorized as being a possible privy location. Excavation did not find any evidence of a privy here. The test was excavated in 4" levels within natural stratigraphic horizons down to the B1/ subsoil horizon. All artifacts encountered were saved and soil samples were collected from each 4" layer at the completion of the excavation.

The first level from 0-4" bs consisted of topsoil with many small grapevine roots and one piece of modern, clear, machine-made bottle glass. This was identified as Layer I, a very dark grayish brown (10YR3/2) silty loam. Layer I extended to 4"bs. Layer I was interpreted as post-Deetz excavation accumulation of soil. Layer II extended from 4-12" bs, also being a very dark grayish brown (10YR3/2) silty loam with more artifacts. This was interpreted as possibly previously excavated soils with small shell and brick fragments and a piece of modern machine-made bottle glass. The interpretation of this as previously excavated soil was based on the presence of small shell fragments, brick, bone, lithics, redware that was missing glaze, and the occasional nail, all consistent with the findings from previously excavated soils to the south in the main excavation area. Layer III was the B1/subsoil, a 10YR5/6/ dark yellowish brown silty loam with more gravel than previous layers. Excavation did not extend into the subsoil.

Artifacts

A total of 1144 artifacts were collected during the course of the 2022 excavations. Within the areas previously excavated, piece of brick, charcoal and shell were not saved as these were determined to be undiagnostic and displaced from their original contexts. Most modern refuse, especially that which could be determined to date to after 1970, were not saved. All other remaining artifact classes were saved. All artifacts from undisturbed soils and test pits were saved to provide a idea of what amount of all classes were present in undisturbed areas. It was found that the previous excavations tended to not save every piece of bone, lithics, shell, redware, and brick. We could actually tell what areas had been previously excavated based on the types and sizes of the artifacts we found. If we found pipes and glass and glazed ceramics, especially larger piece of any of these, it indicated we were I areas that had not been excavated.

Tables of the artifacts found in each of the units is provided in Appendix B and the 2022 catalog is in Appendix D. Essentially we found more of the same that had been found before with no new classes or artifact types. The artifacts continue to point to an occupation range from the 1660s to the 1730. This may support the idea that The site was occupied by Joseph and James but not by Benjamin Lothrop, who may have lived on the east side of the lane near the John Howland homesite, as evidenced by the two cellarholes there that contained somewhat later artifacts. Artifacts commonly associated with occupation after 1730 are missing from both sites, specifically white salt glazed stoneware, making it difficult to say definitely who was living where after the first generation had passed away.

The following is a discussion of the artifacts of the types of artifacts that had been found at the site previously by Deetz and Wheeler, with a discussion under each class, of what was found in 2022. The discussion of artifacts is taken from Chartier's 2017 report on the previous excavations.

A total of 83,229 artifacts were recovered during the years that Deetz and Wheeler excavated the site and Wheeler's artifact assemblage complements Deetz's in terms of materials recovered, quite well. Deetz recovered his assemblage from within and immediately around the house while Wheeler's represents a yard scatter/ midden deposit.

Prehistoric

Deetz and Wheeler excavations recovered 1927 pieces of prehistoric material. It should be no surprise that Joseph Howland chose to build his house on the most favorable location on the west side of the lane, on roughly the exact same spot as where the Native people had chosen to settled millennia before. The presence of a spring to the southwest of the homesite may account for both occupations. This may have been the spring that everyone who lived in the general area had traditionally used, including John Jenney who may have been motivated to settle here because of it. Another spring is located to the northeast of the John Howland site, but this may be a later watering pond created either by the Howlands to water their animals or by Watson, the farmer who eventually owned and farmed the property to the north.

Excavators found prehistoric material scattered in the immediate area of the house, especially in the north yard, and to the immediate south and west of the building. Identifiable prehistoric tools consisted of three Late Archaic (6000-3000 years ago) Small Stemmed spear points, seven Late Archaic Squibnocket Triangle points, one fragment of what is probably a Late Archaic point, on Transitional Archaic (3500-3200 years ago) Atlantic point, one Transitional Archaic Orient Fishtail point, one fragment of a Late Archaic broad bladed point, five Late Woodland to Plantation Period (1000-400 years ago) Levanna arrowheads, a pestle, an celt head, a fishing plummet and a fishing net weight, a sinew stone, several biface fragments, one utilized flake, and one hammerstone. The tools indicate that the people who occupied the site before the Howlands hunted, fished, and prepared plant foods at the site.

A comparison of the flake widths between the Joseph and John Howland sites shows that much more finishing of tools (as represented by Late Stage and Finishing flakes) was carried out at the John Howland homesite. It is possible that the initial reduction, which was louder and more energetic, was selectively separated from the main habitation areas, whereas the finishing was deemed a more appropriate activity for the area around which people were actually living. More finished tools, pottery, and fire-cracked rock were also found at the John Howland site. These are all artifacts associated with habitations versus work areas, which supports the idea that the Joseph Howland site may have been used, at least occasionally, as only a lithic work camp and not a habitation site.

2022

Prehistoric artifacts recovered in 2022 were limited to 44 quartz, quartzite and rhyolite flakes. These pieces were of similar materials and sizes to those recovered previously. They represent in situ artifacts from previously unexcavated areas as well as artifacts missed during Deetz's previous excavations.

Architectural

The majority of the architectural material consisted of brick fragments and hand wrought nails, which also highlights some of the differences between Wheeler's and Deetz excavations. First, Deetz did not save every piece of brick that he encountered, while Wheeler did. Second, because Deetz was excavating the house itself, he had a greater number and variety of architecturally related artifacts than Wheeler did (who was excavating the yard around the house). Deetz stated that the largest concentration of brick came from the collapsed chimney mound in the center of the site. He reported that the hearths had what appeared to be a one brick wide "brick apron" on at least three of the sides and the average brick size he found was 8" long 4" wide and 2" thick. Two had footprints animals (one being a wolf and the other an unidentified animal) while a third had the impression of a coarse fabric. The brick with the impression of the wolf or dog footprint remains in the collection but the others could not be located.

A total of 2762 (26%) of the 10,579 nails recovered were burned. Of the nails Deetz recovered, 31.9% were burned, but only 6.4% of those recovered by Wheeler were burned. This distribution- more burned nails in association with the house versus the yard- supports Deetz's conclusion that the original house burned in place. The distribution of burned nails by size shows the majority were found by Deetz with a higher percentage of the shingle and the framing nails being found by Deetz while more of the plank nails, possibly those used for roof boards, were found in the yard by Wheeler. This distribution may reflect the way the house fell during or after being burned. Numerous lead window kames were found, which can bear the initials of the manufacturer and the date of manufacture. Of the 115 kame recovered, several bore dates of 1711 or 1712, indicating someone, probably James, was occupying and refurbishing the house after Joseph's death.

2022

One hundred sixty-one (161) fragments of brick were recovered this year, including a half brick fragment from the northern end of the project area. Brick was only saved if it came from undisturbed contexts. The recovery of brick across the project area shows the extent that the leveling and cleanup following Deetz's excavations took. It appears they spread material far and wide across the site, probably raking it to level the ground. Nineteen flat window glass fragments were found, none burned or melted. These were found mostly in unexcavated contexts. One hundred twenty-five (125) hand-wrought nails were recovered, including 35 that could have their complete lengths measured. Most of these measured between 5 and 8.5 cm (2-3.3 inches) long. Several were burned. One lead kame was found but was too crushed to attempt to open.

Fuel- Charcoal

If we believe that the house burned, then it is surprising that very little charcoal (n=85) was recovered, or mentioned, by Deetz. Deetz did recover, or at least he collected, 28 pieces from the west cellar hole, and many pieces were found in the north yard. It is quite possible that he may have seen more but did not collect it. It is strange that he did not note any burning or ash layers being present in the cellars, which you would expect to be present if the house burned. But, it is possible that the entire house did not burn, but only the superstructure. Maybe the fire was put out or went out before it reached the floor

or maybe the fire did enough damage to an old house to make whoever was living there to abandon instead of repair it. That the occupants abandoned and razed the house is proven by how the cellars were filled, as will be discussed further below.

Wheeler recovered substantially more charcoal (n=1109) but he also noted the presence of modern camp fires on the site. Charcoal concentrations that were the result of campfires and pits from someone pothunting at the site were found in squares 177, 184, 185, 186, and 190. Charcoal from both excavations was also deposited as a result of the periodic cleaning and disposal of the hearth waste (charcoal and calcined bone) into the yards around the house.

2022

Eleven pieces of charcoal were found in areas that not previously been excavated. many other pieces of charcoal were found in the previously excavated areas but it could not be determined if they were old or new charcoal. Many were larger pieces that appeared relatively fresh and may represent campfires at the site in the 20th century.

Foodways

The foodways class encompasses the categories of artifacts related to the preparation, serving, and consumption of food, both solid and liquid.

Bone

Bone was abundant in both of the excavations, with slightly more being found by Wheeler (n=5084) than by Deetz (n=4361). Excavations recovered 9443 pieces of bone from both domestic and wild species. Cattle, swine, horse, and sheep made up the domestic mammals. The minimum number of individuals represented for each domestic species was calculated during analysis by identifying the skeletal elements, their representative side, and the ages of each element and tooth. Analysis estimated that the bone collection represented at least 10 cattle, 18 swine, and 48 sheep. This total does not seem too large when it is known that the site was occupied for at least 70 years, but it has to be remembered that this is a minimum number, we will never know the true final number of animals that the occupants consumed at the site due to various processes that affected what bones actually survived the hundreds of years of disposal and burial at the site. It is known that dogs and rats lived at the site (as represented by the footprint of a dog preserved in one of the bricks, the chew marks caused by dogs on some of the bones, and the bones of rats found across the site) and it is known that the occupants of the site also burned some of the bones (as represented by the burned and calcined bones that were later thrown out in the yard). Both of these factors eliminated some of the elements and reduced others to unidentifiable splinters. It is also possible that the occupants sold some of their slaughtered animals, possibly retaining the heads and feet on the skins. This would cause a greater number of head and foot elements but would reduce the number of other skeletal parts that archaeologists would find later. Finally, there is also just simple weathering and the acidic nature of New England's soils that surely reduced some of the bones to stains or mere crumbs.

The age of slaughter profile for the cattle indicates that the occupants had a preference for animals that were in the prime of their life (older than 18 months but under 42 months) indicating that cattle were raised primarily for meat and milk. Analysis identified at least one young animal under 6 months old, and two over 42 months. These

extremes represent the occasional calf (probably a bull calf) that was eaten as well as the consumption of older individuals (possibly oxen). The 18 swine identified were predominantly males and females over 10 months old, with a slight majority (n=8) being under 20 months old while the remainder (n=7) were between 10 and 20 months old. The prime age of slaughter (the age when the best balance of fat and meat is present on the carcass) for swine for meat is 18 months. The abundance of animals over 20 months old may indicate a desire on the part of the family to raise the swine for fat (suet) versus meat or a desire to raise them equally for both. A few individuals under the age of 10 months, probably piglets (n=3) were present, perhaps representing special occasion meals.

Sheep were the predominate domestic species in the assemblage with a minimum of 48 individuals. The majority of these (n=33) were between the ages of one and two years old, too young to have been slaughtered after they no longer were bearing quality wool, but within the age range for animals raised for meat. The occupants slaughtered two individuals under the age of five months, a small portion of lamb in the household diet, and 13 were slaughtered over the age of two years, animals raised for wool and/ or mutton.

Common farmyard species were well represented at the homesite, and the ages at slaughter indicate the household raised cattle for meat, dairy and as work animals; they raised sheep for wool and meat; and they raised swine for meat and suet. The household attempted to get the most out of each species and carefully managed breeding and slaughter. The distribution of domestic mammal skeletal elements showed a high occurrence of teeth, toes, and metacarpal/ metatarsal bones (the bones that make up the palm of our hands and the lower legs of these animals). The dominance of the assemblage by teeth may indicate that the occupants were selling partially processed carcasses that had been skinned with the skulls and lower limbs left attached to the skin, as was commonly done. The presence of other species, represented only by skull and lower limb elements at the site (wolf, horse, and deer) offers further support to the theory that skins were being reserved either for sale elsewhere or for on site processing. As will be discussed below, several tools associated with processing skins were also present at the site, making it probable that someone was initially processing the skins of the animals. They may have purchased raw skins from other people and at least did the initial processing before selling them to either a local or foreign fellmonger (a dealer in hides and skins, especially sheep skins). The wild animals in the assemblage represent Howland's reliance on fresh and salt water aquatic species- reptile, fish, birds, and to a lesser degree, mammals. It appears that the occupants of both this site and the Dew Pond house across the lane enjoyed fowling, which may account for the lack of larger shot in the artifact assemblage and the partially for the abundance of gunflints. The turkey and goose, and possibly even some of the ducks, may represent domestic species, but with the apparent abundance of wildfowl in the area, as attested by the bones present in the assemblage, the household would have no need to raise such species. The only other domestic species in the assemblage is the chicken, which was raised for both eggs and meat. The mink, skunk, raccoon, squirrel, and fox, may all represent species that happened to die at the site, which is especially true in the case of the fox, as it seems the excavators must have found the buried remains of a complete individual.

The occupants may have brought the skins with heads and lower legs attached, of two of the wild species, the wolf and deer. The same is probably true for the horse

remains. The calcined and burned bone represents hearth waste thrown into the yard. These materials were most abundant in the North, South, and West yards, indicating that occupants periodically threw the ashes and waste from the hearth into those areas. Little calcined or burned bone was found in the hearth itself, possibly indicating that it had been cleaned out just prior to the abandonment of the site. Little calcined bone was found in the cellar holes, indicating that they were not filled with dirt dug out of the yards, at least not out of the yards that had calcined and burned bone, but that they may have been filled with household waste and subsequently had soil wash into and between the refuse.

2022

One hundred seventy-three (173) pieces of animal bone were recovered, including a cattle ankle bone that was given to the excavators by a neighbor who had happened to recover it from the property years ago. Species included swine, sheep, cattle, horse, cod, and bird. Many of these pieces came from previously excavated areas.

Shell

Excavations recovered a total of 9724 pieces of shell from across the site, the majority of which came from the west yard. Shell was a rare find in the East Cellar, but was more abundant in the West Cellar, where it may have arrived as part of a yard scraping used to fill the cellar itself. The principle species consumed at the site appear to be soft shell clam (a minimum of 2064 individuals represented by hinges), quahog (a minimum of 70 individuals represented by hinges), and surf clam (a minimum of 41 individuals represented by hinges). The other species occurred in much smaller quantities with many of them (blue mussel, crab, mud nassa, scallop, oyster, slipper shell) possibly representing species accidentally brought to the site with loads of seaweed that may have been used as animal feed or fertilizer. They also could have arrived mixed in with salt marsh hay cut to feed to animals. While most of the species present could be harvested either from the east or west shores of Rocky Nook, two individual shells did not come from the immediate area. The Olive shells are common along the southern coasts of the United States and may represent shells picked up as souvenirs by someone living at or visiting the site. They offer further support for the idea that someone at the site was involved in merchant activities, possibly to the southern colonies.

2022

Two hundred and twenty-two pieces of shell were recovered from intact soil horizons. Species included surf clam, moonshell, soft shell clam and quahog. Soft shell clam dominated the assemblage.

Ceramics

Archaeologists recovered 16,077 pieces of ceramics, with redware and tin-glazed wares making up the bulk of the assemblage. Sherds were found primarily in the North, South, and West yards at the site, indicating these were the principle areas of household refuse disposal. Analysis did not reveal differences in the distribution of earlier versus later wares. It appears that the yard area immediately around the house did not witness any perceivable changes in use patterns that would result in ceramics being differentially distributed at different times.

Excavation recovered similar types of vessels from the Joseph and John Howland homesites, with differences being a greater variety of older wares from the older, John

Howland site and a greater emphasis on ceramic hygiene, food preparation vessels at the John Howland versus more solid consumption and solid storage vessels at the Joseph site. The difference in hygiene and solid consumption vessel types may be the result of the possible use of metal chamberpots at the Joseph Howland site and pewter or wooden plates/ trenchers at the John Howland site. Differences in the preparation class relate to the use of milk and baking pans at the sites. It is possible that John Howland placed greater emphasis on dairying (he did have a fully equipped dairy on the north side of the house) and baking pies in the oven, whereas Joseph Howland may not have dairied as much and may have used his parent's oven and pans. The occurrence of solid storage vessels (storage/ butter pots) at the Joseph Howland site may be reflective of the possible small scale merchant activities that may have been undertaken.

Another difference in the assemblages was the much higher occurrence and variety of tin-glazed vessels at the Joseph Howland site, including vessels that may have originated in Portugal. It would appear that the occupants liked to show off their status through the use and display of brightly colored tin-glazed vessels and possible merchant activities may have provided greater access to vessels originating in Portugal. Because of the English Civil War (1640-1660), trade between England and the colonies was drastically curtailed, forcing colonial merchants to find other sources of the goods they desired. Portugal revolted against Spain in 1643 and became its own country and with its newfound freedom was a need for goods- specifically wood for wine casks, fish, and wheat. The colonies in turn needed wine, brandy, luxury goods, and salt. It appears that the two countries quickly became fast economic allies, at least until after the Restoration in 1660 when the Navigation Acts severely limited with whom the colonies could trade. Because Portugal was not one of the countries that the acts specifically was aimed at (Netherlands, Spain and France) trade probably continued relatively unhindered.

2022

Two hundred sixty-three (263) pieces of historic ceramics were recovered from across the areas tested. The majority of the redware consisted of fragments missing any trace of glaze, which were found in the previously excavated soils. Ceramic types included English Mottled ware (n=3), French (bellarmine) stoneware (n=1), North Devon Sgraffito (n=3), North Devon Gravel-Tempered (n=7) Redware (n=216), Staffordshire slipware (n=10), gray and white Westerwald stonewares (n=5), and tin-glazed (n=18) (**Figure 14**). All these ceramics had been recovered previously at the site. Notable ceramics included a piece of white Westerwald stoneware and a piece of Portuguese tin-glazed ware.

Vessel Glass

Hand blown vessel glass, well represented at the site with 837 pieces, consisted of wine bottles, small general purpose bottles, and wine glasses. Analysis arrived at an estimate of the minimum number of bottles represented in the assemblage by examining the rims and bases. It was found that over the 80 years that people occupied the site, a least 30 vessels were broken. The aqua, olive, and medicine bottles measured from 4-10 cm in body diameter and they would have held medicines, oil, vinegar, or virtually anything needed in smaller amounts. Archaeologists recovered an appreciable number of wine bottles and wine glasses, including a wine bottle seal bearing an image of the

goddess Fortuna, patron of merchants and sailors. The wine glasses all appear to date to the late 17th to early 18th century.

2022

Eight pieces of 17th to early 18th century vessel glass were found. Vessel forms included wine bottle, medicine bottle, a drinking glass. Most of the vessel glass was recovered from undisturbed soils.

Other Foodways Items

Both Deetz and Wheeler recovered a variety of other items used in the kitchen or on the table. While the majority are what one would expect to find at any 17th to 18th century house (kettles, hearth equipment, forks), two classes (knives and spoons) stand out for the sheer number of items present. The spoons appear to span several periods with some bearing broad oval bowls and "slipped-in-stalk" handles characteristic of the middle to late seventeenth century, while others have elongated oval bowls and trifid ends more characteristic of the very late 17th and first half of the 18th century. The pewter spoons date to the late 17th to 18th century. The famous Howland Spoon appears to be a William III portrait spoon. These were popular from 1694-1702 and made in Boston. Several bone handles were found to go along with the iron knives, which is a rare occurrence as bone handles usually decompose rapidly in New England's soils. The knives themselves took the form of both forged bolster (one with an elongated tang at the butt end) and slab handled forms (where the handle is a flattened sheet to which bone slabs were attached on either side to form the handle). The abundance of spoons and knives may point to their use as trade items.

2022

One piece of pewter from an unknown form was recovered in 2022. .

Pipes

Deetz and Wheeler found over 7,500 tobacco pipe fragments and tobacco -related artifacts. The pipe bowl styles span the entire occupation of the site, showing that the property was occupied around the middle of the 17th century, a date that coincides with Joseph and Elizabeth's marriage ca. 1665. The most common style was a heeless funnel (1720-1820), indicates that someone was using an appreciable number of pipes, or at least stored a large number of pipes, on the site after Joseph's death in 1703. This may have been his son James, but it is much more probable that the abundance of pipes from the first half of the 18th century are related to the occupation of the site by Benjamin Lothrop, a merchant, who would have had the best reason for having so many pipes in his home. Tobacco pipes dating to the Joseph Howland period (pipe stems of the 9/64" to 6/64" stem bore; bowl styles 1, 7, 8, 10, 12, 17; redware pipes; and the Virginia pipe) account for 22.8% of the stem fragments and 12.5% of the dated pipe styles. The remainder of the pipe fragments date to after 1700 and presumably must be associated with someone other than Joseph. As his son James does not appear to have been as industrious as his father (showing up only a few times in colonial records) it is more probable that Benjamin Lothrop, a merchant, would be the one to whom many of the artifacts recovered at the site, including the tobacco pipes, are associated with.

The distribution of dated styles appears relatively similar for both the Joseph and Post- Joseph periods, which indicates no substantial changes in the way that people made

use of the yards. The density analysis shows that the south yard may have seen slightly more use during the later period while the occupants may have used the North Yard more intensively during the earlier period. This change from the disposal of material in the North Yard to the South Yard may reflect either the movement of the household away from this site during Benjamin Lothrop's occupation (thus the disposal of material on the south side of the house as the house is being abandoned) whereas the North yard reflects common 17th and 18th century disposal patterns that favored that side of the house for refuse disposal. An examination of the median dates of occupation of the site, as represented by the occupation ranges of various inhabitants and the median use dates of the tobacco pipes, offers further support to the interpretation that Joseph, James, and Benjamin Lothrop all lived at this site. The comparison shows that if only Joseph and Elizabeth occupied the site, then much earlier median dates would be expected for the pipes recovered in the cellar holes (similar to the earlier dates found at the John Howland house for Strickland's dig, which focused on the house, and Wheeler's at the same site, which focused more on the yard. The median dates of occupation for the cellar holes correlate better with an occupation that started with Joseph Howland, continued with James, and ended with Benjamin Lothrop, possibly due to the house being abandoned due to fire. The occupation of the Dew Pond correlates better with occupation by Benjamin Lothrop versus James Howland. It is possible that Benjamin Lothrop began by living in the Joseph house and moved to the other side of the lane partway through his occupation of the property. The similarity in the median dates for the East and West cellars indicates that they were both abandoned and filled at approximately the same time. Deetz felt that one cellar was older than the other, but the tobacco pipe data, and all the other data, does not support this conclusion.

Excavations recovered a few other interesting pipes and pipe-related objects including red clay pipes, a possible Virginia pipe, and two smoker's companions. The red clay pipes are only found on sites occupied during the ca. 1670s. These are believed to have been made in Charleston, Massachusetts as a local alternative to the imported pipes. Their short period of popularity (ca. 1670-1680) has been credited to the British enactment and enforcement of the Navigation Acts and the concomitant increase in regulation of colonial industries. The possible Virginia pipe is a round bellied bowl with three rows of dentate stamping, similar to what it seen on pipes from Virginia. It is also possible that this is a local Native pipe bowl. If it is Virginian, it would support the idea that someone was trading down the coast in the 17th or 18th centuries.

Smoker's companions are multi-purpose tools used by the serious pipe smoker. The iron tongs were used to clutch coals used to light pipes and to ream out bowls, while the end opposite the tongs often bore a tamper to tamp the tobacco in the pipe. The are rarely found on New England sites, but are more common in the Mid-Atlantic states where tobacco was more a part of the culture. They date from the late 17th to middle 18th centuries.

2022

Thirty kaolin pipe fragments were recovered in 2022. Measurable stems (N=15) were dominated by those with bores measuring 5/64" (n=10) (~1710-175, with a few 6/64" (n=4) (~1680-1710) and one 8/64" (~1620-1650). No identifiable makers marks were found, but the bowl shapes appeared to be heeless funnels which date from 1680 to 1720 (**Figure 15**).

Personal Items

Personal artifacts are those that were used on a person's body or which may have had a more intimate association with the site's occupants. Deetz found the majority of the personal items from within and immediately around the house. This artifact class offers more evidence for mercantile activity at the site in the form of scale weights, bale seals, numerous pairs of scissors, several combs, a padlock and chest locks, and the lenses. This final artifact is interesting as they were identified as optical lenses possibly for a telescope, by Deetz. What they are, are burning lenses used to start fires by focusing sunlight. These were often used as trade items for the Native people. The earlier excavations resulted in the recovery of a bone awl made from a pig lower leg bone (fibula) from the hearth area. Deetz cited this bone as evidence of Native presence at the site, but it was, in fact, obviously made by one of the European inhabitants for sewing. Another piece of sewing evidence was a bone bodkin, a flat tool used for lacing garments, found in the North Yard. To go along with the bodkin was a piece of silver threaded galloon, a narrow tightly woven trimming used on clothing, found in the Western Cellar. Two very personal artifacts were found in the North Yard- human first molars. These teeth came from some adult who lived at, or visited the site. Both bore large cavities, which must have precluded the need to remove the offending members.

When John Howland died in 1673, there were a large number of books present in his library and a question I always had, was what became of those books. We know that some of the books listed later show up in his wife Elizabeth's probate when she died in 1687. A total of 10 brass book clasps were recovered from the Joseph Howland site, several of which were matching pairs. It appears that part of the mystery of what happened to John Howland's library is solved, they probably ended up at Joseph's house and were eventually thrown out (at least the covers or the clasps were anyway).

Deetz reported that his excavations recovered four coins, all William III, one with a date of 1700 another with the date 1724 coin in the east cellar. He also reportedly recovered two small silver discs, neither of which is in the collection any longer. Two coins are present in the collection today. One is a c. 1697 William III half penny while the other is a smooth disc, which may be a William II half penny, but this can not be confirmed. One was found in the house and the other in the South Yard.

Archaeologists found a perforated lead disc with jagged edges in the South Yard. It appears to be a failed attempt at making a whizzer, an antique toy that has two holes in the center through which a cord is strung. When the opposite ends of the string are pulled taught, the center whizzer disc spins, producing a whizzing sound. Someone spent the time cutting the edges, only to fail by making one hole in the center. Another toy found was a pewter plate with two fish molded onto it. This is a very unique toy and probably dates to the 18th century.

A bronze alchemy spoon bearing a double stamped alchemy symbol for Vitrol (the archaic name for sulfuric acid) which was used by alchemists to make sulfates (salts) of various metals such as iron, copper, and tin was found. The salts were then used for other alchemical or metallurgical purposes.

Rarely do organics like leather survive at archaeological sites, but several leather scraps and a complete leather knife sheath were recovered from the cellars at the site. The sheath is 15.7 cm long, 3.2 cm wide at the tip, 6 cm wide at top, with a 2.1 cm wide belt

attachment on back and 4.5 cm long belt cuts. It is roughly stitched along the edge with a thick leather thong bearing a knot at one end and 14 holes on the edge. The bottom is open and use wear is present on the front and back. It was obviously a working person's knife sheath, nothing fancy but something quickly made to keep a knife in.

Half of a stone button mold was found in the House. It is made from gray slate and is 4.8 cm long with a 1.5 cm diameter button hole that is dome shaped and .2 cm deep. No corresponding buttons of this shape were recovered, but several matching pewter buttons were found concentrated in the North Yard, possibly representing a complete garment that was discarded here.

Six lead bale seals, which were affixed to bales of cloth to identify them as having been inspected, certified as to what they were, and taxed, were recovered. They range in size from 1.5 to 3 cm wide. Two of them bore imprints of a coarse woven cloth on the interior. Another is stamped "P" with an unidentified mark, while a third bears a Fleur de lis on 1 side and the GURENG/ LANG on the other. A final seal bears what looks like to sets of tooth arcade imprints on each side. The size of the bite corresponds to a child. Bale seals are associated with merchant goods and are not generally found on non-mercantile related sites.

2022

No personal items were found this year.

Husbandry

Husbandry-related artifacts were those associated with domestic animals. On most sites we find a few horseshoes a few horseshoe nails, and maybe, if we are lucky, a spur, a bridle fragment, and maybe a stirrup. At this site, there were dozens of horseshoes, over a hundred horseshoe nails, silver and brass harness and spur accouterments, several spurs, and even more bridle bits. Joseph's probate indicates that he owned two mares when he died, as well as a saddle and pillion, and many more cattle, yet the artifacts show a strong bias towards horses and less evidence of cattle (just two oxen shoes). This may be the result of the fact that riding and using a horse requires many more extras as opposed to using milk cows or a team of oxen. The abundance of horse-related pieces also show that horses, which were animals used more to show off status in New England colonial times, were very important components of the life at this site.

Husbandry equipment was scattered across the site, but in terms of relative density, the cellar holes had the highest, while the House, North Yard, and South yard all had relatively moderate densities. The East and West yards both had low densities. This density distribution indicates that disposal or loss of husbandry related artifacts was highest in the cellarholes, where they were presumably discarded when the house was abandoned, and in the House, North, and South yard areas where they were stored and used. This may indicate that stables or barns, or at least work or refuse discard areas, were located to the north and south of the house, right where one would expect them.

2022

The only husbandry items were three horseshoe nails.

Tools

Excavations recovered a total of 57 tools with the majority having been found around the house by Deetz. Joseph's probate listed a spade, a froe, draw knife, ax and

scythe, all of which (except for the froe) were found archaeologically. The tools were distributed around the site, but, aside from the cellars which had the highest densities, the density was highest in the house, around and in the hearth, and in the East Yard. These are different locations than other artifact classes and may represent the more valuable nature of these tools versus horseshoes or horseshoe nails for example. These were tools, artifacts that the people who lived at the site may have relied closely on to make a living or make important repairs to the house itself.

The brass face of a 17th century mariner's pocket sundial and compass was found. It bears a folding sundial gnomon, which when aligned with magnetic north, enabled telling local time in mid-latitudes such as the Chesapeake. This may have been a compass used by Joseph Howland for survey work, but more probably was used on board a ship. Unfortunately, the locational information (where it was found on the site) has been lost and it was not identified as a compass until Derek Wheeler took it to be cleaned and conserved.

Archaeologists recovered a total of 30 artifacts that I have called “wedges”, for lack of a better explanation for what they were, from across the site. These iron pieces have broad, rectangular shaped heads, often curved shanks, and spade bit ends. The heads are often battered from repeated striking. Whether they were actual wedges used for splitting wood, wedges to hold the heads on tools, or wedges used for some architectural purpose, is not known. They average 1.3 to 8 cm long.

Another type of artifact were what may have either been draw knives or spokeshaves, or were more likely, fleshing knives used to scrape raw animal skins to remove the fat, muscle and membrane. These fleshing knives were used along with a wooden beam, set up at a 45 degree angle, on which the skins were laid and scraped. Once scraped they could be further tanned or they could be dried for transportation. It is believed that these tools, along with the animal species that were represented by mostly head and foot elements, represent on site hide tanning, or at least hide preparing, that was part of larger mercantile activities carried out by the inhabitants.

Other tools that were found include wood working tools like an ax, chisels, gimlets (piercers), and drill parts, as well as agricultural tools such as an iron spade shoe (the metal edge to a wooden shovel), a scythe, and several stone whetstones used to sharpen any edged tool. An iron saw tooth set, used to adjust the angle of large saw blade teeth, was also found. One curious artifact appears to be a bunghole reamer, used to make the holes in barrels containing liquid. It is not known what may have been shipped from the site that required a bunghole.

2022

No tools were recovered this year.

Weapons and Subsistence

Deetz recovered numerous weapons and subsistence-related artifacts, with most having been recovered from around the house. Six of the pieces were associated with one or more flintlocks. Flintlocks were a type of firearm that used a flint to make sparks that ignited the gunpowder to set off the charge and fire a shot. The earliest forms, snaphaunces, were developed in the 1550s and were used until the 1680s in Plymouth Colony. Flintlocks were developed in the early 17th century and continued in use throughout the 18th. The pieces recovered from the Joseph Howland homesite may have

once belonged to John or Joseph Howland. Pieces were recovered from the house and North and South yards.

A total of 33 pieces of what appears to be armor, specifically a tasset (plate that covered the upper leg) from a suite of pikeman's armor, were recovered from the West Cellar and North and South yards. The pattern of the rivets on some of the pieces of the possible armor appears to be circular, and may match the tasset from the John Howland homesite, where it may have been used as a fireback. Several separate lames (separate pieces making up a tasset) represent a second type of possible tasset. These two types of tassets- separated and joined lames) were in use at the same time in the 17th century.

Another type armor may be represented by six squares of iron measuring 1.5 x 2.3 cm, 2 x 2.6 cm, 2.3 x 3.5 cm, 2.4 x 2.9 cm, 2.6 x 2.6 cm, and 3.6 x 4.3 cm, were recovered from the East, North and South yards. These pieces are all pierced and may be part of a quilted armored vest called a jack coat. These were relatively light as compared to a pikeman's suite of armor, and flexible. When the Pilgrims were on Cape Cod in November of 1620, it is recorded in Mourt's Relations that "we marched through boughs and bushes, and under hills and valleys, which tore our very armor in pieces". They may have very well been talking about the cloth jack coats being "torn to pieces" versus plate armor (which could have been torn to pieces only metaphorically by thorns).

Jack coats were used until the late 17th century and may have belonged to Joseph Howland. He may have used it during King Philip's War, where he served as a Lieutenant. This is the only identified possible occurrence of this type of armor in New England. Deetz recovered two artifacts, identified as a possible pike tip and a possible pole cap (the cap that would go on the opposite end of a pole arm like a pike). It is not known for sure that these artifacts are as they appear, but the identification is a possibility.

Eight pieces of lead shot (four bird shot and two shot measuring 1.5 cm [.6 "] were recovered from the House, the Hearth, and the South and West yards. As shot was an important item, it is not surprising that they were found in the house and near the hearth. Lead scrap and waste, at least partially the result and intended for, the manufacture of lead shot, were found in the Hearth and House, and in the North, South, and West yards. Archaeologists found one piece of lead possible sprue, the scrap left over when casting multiple shot, in the West Yard.

Flint debris (flakes, cobbles, cores, shatter, and strike-a-light), numbering 163 pieces, was recovered from across the site. These pieces were the result of the manufacture of the 99 gunflints that were recovered. Four types of gunflints were found (bifacial, advantageous, spall, and wedge), concentrated in the East Cellar, Hearth and House. These gunflints had been used by the occupants of the site, presumably at least in part for hunting the numerous waterfowl represented at the site, but may have also been sold as part of the mercantile activity that the occupants engaged in. Numerous gunflints had also been recovered from the William Clark/ RM Site (a known Plymouth merchant's house destroyed in 1676), the homesite of a man who may have been supplying gunflints to the colonial militia during King Philip's War. Joseph Howland or Benjamin Lothrop may have been manufacturing gunflints for sale to the colonial government as well. Deetz found a possible flint knapping hammer head measuring only 2" (5 cm) long. Subsistence-related items included a possible eel spear and several large fish hooks (probably used for cod).

2022

One piece of melted lead, possibly from making shots was found. Four gunflints (**Figure 16**), a flint flake and two pieces of flint shatter were recovered.

Other Artifacts

Other artifacts recovered in 2022 included 10 pieces of undiagnostic corroded iron and 64 pieces of modern refuse dating to the 1950s and 1960s. Deetz era refuse was limited to ceramic fragments, machine-made bottle glass, aluminum can fragments, bottle cap, cigarette butt, and record fragments (**Figure 17**).

2022 Soil Analysis

Soil samples were collected from across the site area in order to examine the types of soils present and the presence or absence of clay. High occurrences of clay were hypothesized as possibly being indicative of its use for walls or chimneys in wattle and daub construction. It may also indicate the presence of clay used for mortar used for mortaring a brick chimney. Samples were collected from Test Pits 1 and 2, Unit 17's northwestern extension, from four areas in Unit 16, soil from under a large rock in Unit 17, and the Deetz backfill layer I in Unit 7. Soils were analyzed by soil separation, sand and gravel analysis, and acidity testing. The acidity of the soil was measured using pH paper and a color scale. Soil separation was carried out by placing a sample of soil in a glass vial, adding water, agitating for a minute, and the allowing the sample to settle for several hours. As the gravel and sand are the heaviest, they will settle out first to the bottom of the vial. Silts settle out second, and finally the clays settle out slowly over time to the top of the sample. Once the soils are settled, each layer is measured and each is divided by the total depth of the sample, then multiplied by 100 to get a percentage of clay, sand, and silt for each sample. The percentages were then plotted on a soil pyramid to determine the type present. The findings of the soil analysis are presented in **Table 1**.

Sand and gravel analysis was conducted using soil sieves of the 5, 10, and 60 mesh measurement. A specific sub-sample of soil was collected for each field collected sample. This sub-sample was weighed and then washed through the soil sieves. The silt and clay was washed out and the resulting sand and gravel samples were dried and then weighed with gravel being recovered in the 5 and 10 mesh measurements and sand in the 60. These results are presented in **Table 2**.

Prior to the start of the excavation, the soils that should be present at the site were examined by a review of the USDA web soil survey for the project area. It was seen that the soils should be of the Gloucester-Canton complex (soil type 453B), on 3-8% slopes, extremely stony. Gloucester soils are extremely bouldery, sandy loams with a profile as follows:

- A1 0-6" 10YR3/2 very dark grayish brown sandy loam very strongly acid
10% gravel
- B1 6-15" 7.5YR5/6 strong brown gravelly sandy loam strongly acid 30%
gravel and cobble
- B2 15-29" 10YR5/6 yellowish brown very gravelly loamy coarse sand
strongly acid, 40% gravel and cobbles
- C1 29-65" 2.5Y6/4 light yellowish brown gravelly loamy coarse sand strongly
acid 40% gravel and cobbles

Canton soils are fine sandy loams, also extremely bouldery, with the following profile:

- A1 0-13cm 10YR3/2 very dark grayish brown sandy loam very strongly acid
ph 4.6 5% gravel
- B1 13-30cm 10YR5/6 yellowish brown fine sandy loam very strongly acid
ph 4.6 5% gravel
- B2 30-49 cm 10YR5/4 yellowish brown fine sandy loam strongly acid ph5.1,
5% gravel
- B3 41-56 cm 10YR5/4 yellowish brown gravelly fine sandy loam strongly
acid ph 5.4, 15% gravel
- C1 56-170cm 2.5Y5/2 grayish brown gravelly loamy sand moderately
acid ph 5.6 25% gravel

Table 1. Soil characteristics

Location	Color	Clay %	Silt %	Sand %	Soil Type	PH
TP-1 I/A1	10YR3/2 very dark grayish brown	6	53	41	Silty Loam	6
II/A2	10YR4/3 brown	7.7	46	46	Loam	5.5
III/B1	10YR5/6 yellowish brown	6.7	60	33	Silty Loam	5
TP-2 I/A1	10YR3/2 very dark grayish brown	14.2	35.7	50	Loam	6.5
II/A2	10YR3/2 very dark grayish brown	12.5	37.5	50	Loam	6.5
III/B1	10YR5/6 yellowish brown	2.5	51.8	37	Silty Loam	6.5
U7 Deetz Layer I 0-6"	10YR4/2 dark grayish brown	5	45	50	Sandy Loam	5
U16-1 Topsoil around SW rock	10YR3/2 very dark grayish brown	14	43	43	Loam	6.5
-2 Subsoil	10YR5/6 yellowish brown	20	40	40	Loam	6
-3 Topsoil E of SW rock	10YR3/2 very dark grayish brown	10	23.8	66.7	Loam	6.5
-4 Topsoil N of SW rock	10YR3/2 very dark grayish brown	9	36	55	Loam	6.5
U17 Soil Under Rock	10YR3/2 very dark grayish brown	9.4	45.5	45.5	Loam	6
U17 NW I/ A1 0-4"	10YR3/2 very dark grayish brown	7	47	47	Loam	6
II/ A2 4-8"	10YR4/3 brown	5	37	58	Sandy Loam	6.5
II/ A2 8-10"	10YR4/3 brown	7	29	64	Sandy	6.5

					Loam	
III/ A3 10-12"	10YR3/2 very dark grayish brown	15	39	46	Loam	8
IV/ B1 12"	10YR5/6 yellowish brown	14	57	29	Silty Loam	8

Table 2. Sand and gravel occurrences

Location	5 (Gravel)	10 (Gravel)	60 (Sand)	Sample Wt	% Gravel	% Sand
TP-1 I/A1	1.7g	1.6g	11.6g	39.6g	6.9	29.3
II/A2	2.6g	2.5g	10g	37.4g	13.6	26.7
III/B1	1.4g	2.3g	14.1g	45.4g	8.1	31.1
TP-2 I/A1	.4g	.4g	6g	40.5g	2	17.1
II/A2	3.4g	2.5g	6.9g	35g	16.9	19.7
III/B1	12.1g	4.2g	10.4g	50.2g	33.1	20.7
U7 Deetz Layer I 0-6"	7.7g	2.6g	12.1g	68.5g	15.3	17.7
U16-1 TS near SW rock	.7g	.6g	7.8g	48.6g	2.7	16.1
-2 Subsoil	.8g	2.8g	11.7g	45.3g	7.9	25.8
-3 TS E of SW rock	1.3g	1g	7.2g	35.4g	6.5	20.4
-4 TS N of SW rock	18.5g	2.8g	6.8g	47.4g	44.9	14.3
U17 Soil Under Rock	.2g	.8g	6.5g	35.3g	2.8	18.4
U17 NW I/ A1 0-4"	.8g	.3g	6.5g	43g	2.6	15.1
II/ A2 4-8"	.1g	.5g	6.8g	37.1g	1.6	18.3
II/ A2 8-10"	.1g	.2g	7.4g	34.4g	.9	21.5
III/ A3 10-12"	8.7g	1.7g	7g	43.5g	23.9	16.1
IV/ B1 12"	4.7g	2.9g	8.2g	40.1g	19	20.4

TS- Topsoil

Soil colors matched well with those expected for the Canton soil type. The soils were found to be generally more silty than expected, possibly as a result of the site location being at the bottom of a slope. Overall they were found to be loams and sandy loams with no samples with high percentages of clay being present. A sample with a high degree of clay would have a clay percentage above 20% and a low percentage of sand. The only sample that had 20% clay was the subsoil in Unit 16 and that still had 40% sand. Overall, the samples matched closely the soil characteristics expected for Canton soils and not for soils with added clay from daub or mortar.

Features

Two features, one definite and one possible, were identified during excavation. The first was found in Unit 7 of the main excavation area. It consisted of a trench cutting into the subsoil running east to west. This feature is hypothesized to represent a trench excavated by Deetz to examine the possibility of there being an east to west running wall to compliment the one he thought had found beneath the hearth. The western end of the trench ended at a large rock that was tipped downward. It is believed that this represents a former hearth stone that was deposited into the excavation of the hearth area during backfilling. The lack of any definitive evidence of an intact hearth may mean that Deetz completely disassembled the hearth in order to explore the possibility of the presence of an earlier wall. The possible wall Deetz found appears to have been too deep to be a foundation wall, as these appear to have sat on the surface and may have only been a stone or two tall, and may be related to the actual construction of the hearth base.

The second possible feature was a line of dark soil containing stones found at the northern end of Unit 16. This line of stones on dark soil appears to coincide with undisturbed soils and could represent a wall base for an outbuilding. The wall, if that is what it is, appears to run east to west, which is not the same angle as the cellar walls Deetz had found which were skewed off an east to west or north to south alignment. This would mean that this wall represented a building on a different orientation to the other buildings making it earlier or younger than them. No artifacts were found that would date the use of this area any differently than the rest of the site, making this unlikely. This possible wall line may be nothing more than wishful thinking, especially since it lines up with the edge of the excavation unit. Further testing would determine if it is in fact a wall versus just an artifact of excavation or a result of paradolia.

Conclusion

The 2022 excavations appear to have succeeded in locating where the earlier excavations were carried out and they appear to lie in the one area that Derek Wheeler had not excavated. It may be that he suspected that the previous excavations were located there and thus avoided it on purpose in order to further explore the yard area that had not been previously tested. It may have been that he simply did not think that the previous excavation area was here. Either way, we did succeed in locating previously excavated features, specifically the hearth. Further excavations can be carried out in this area to locate the cellars. It appears that up to 12" of backfill lay on top of the previously excavated areas, so further investigations may involve a great deal of soil removal. The location of these features appears to be slightly further north than I had suspected in 2017 (**Figure 18**).

Further investigation could be carried out in the northern area as well near the rock pile to determine if what appears to be a wall trench really is. No evidence of clay was found in this area and the larger stones do not appear to represent a hearth base, so it is unlikely that this is another house foundation. The most likely explanation is that these are a combination of naturally occurring glacial erratics and stones dumped in this area, because of the pre-existing glacial erratics, by the Deetz era excavators as a convenient place to get stones out of the way.

Excavations should not be carried out to get a larger artifact assemblage though, for as it is always exciting to find things, the information is just redundant at this point and with the tens of thousands of pieces already excavated needing further analysis and conservation, there really is no need to dig just to find more. Because of the amount of fill on top of the previously excavated features, a more focused program should be planned for future years to expose and define these features: one year for the hearth; one year for the west cellar; one year for the east cellar. Goals for each year should be kept small and the volunteer staff kept limited.

Appendix A: Figures



Figure 1. 2022 Excavations areas: left larger excavation area right rock pile



Figure 2. Location of 2022 excavation area in relation to Deetz (black lines), Wheeler (Blue lines) and 2020 excavations.

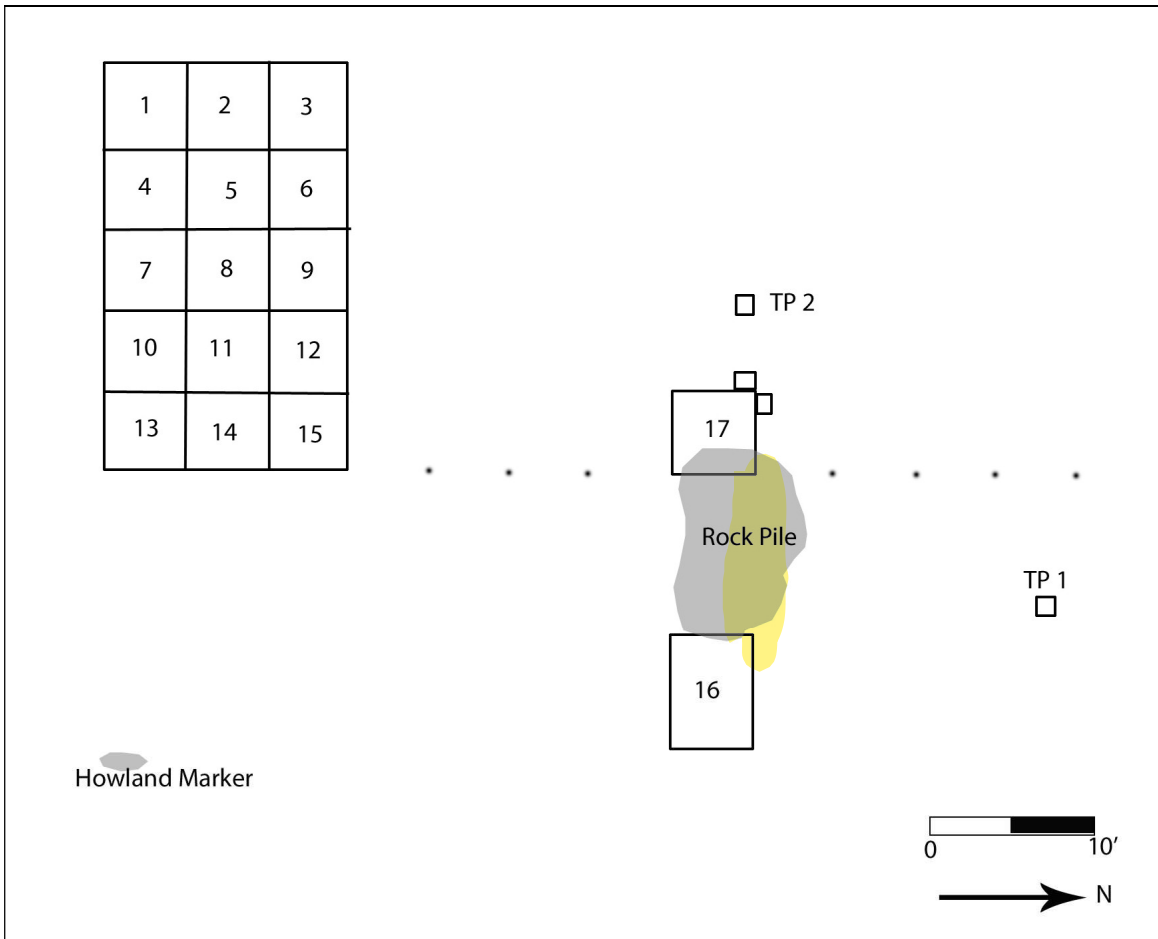


Figure 3. 2022 excavations



Figure 4. 2022 larger excavation area stripped of grass.

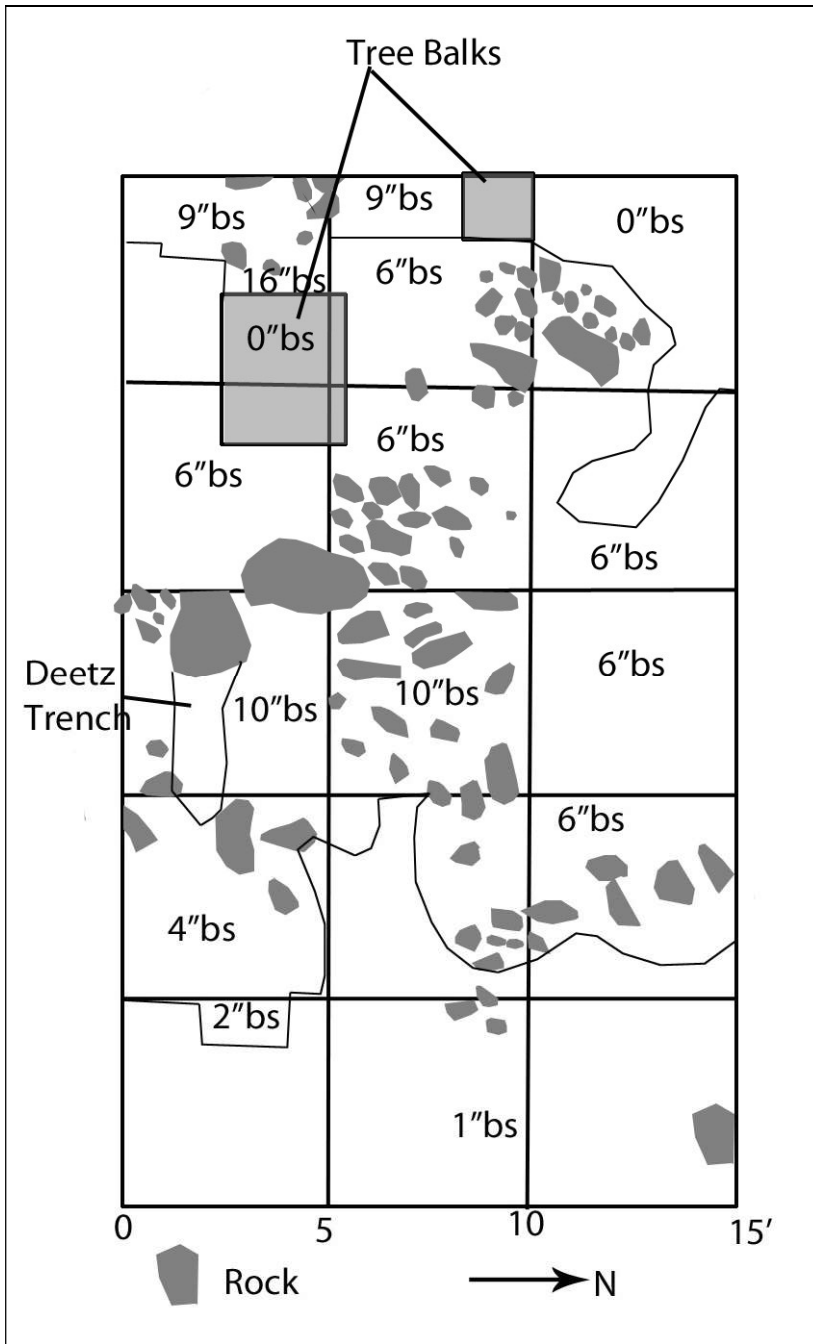




Figure 6. Unit 1 to Unit 2 excavation trench



Figure 7. Unit 7 Deetz era trench

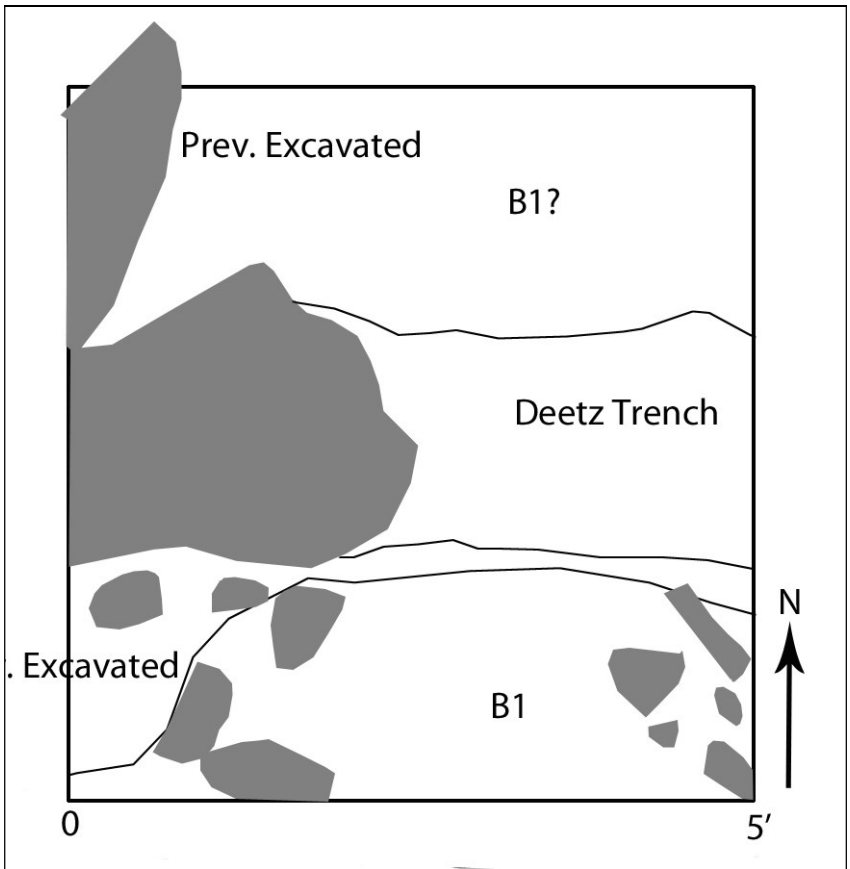


Figure 8. Drawing of Unit 7 plan or Deetz era trench



Figure 9. Rock pile area

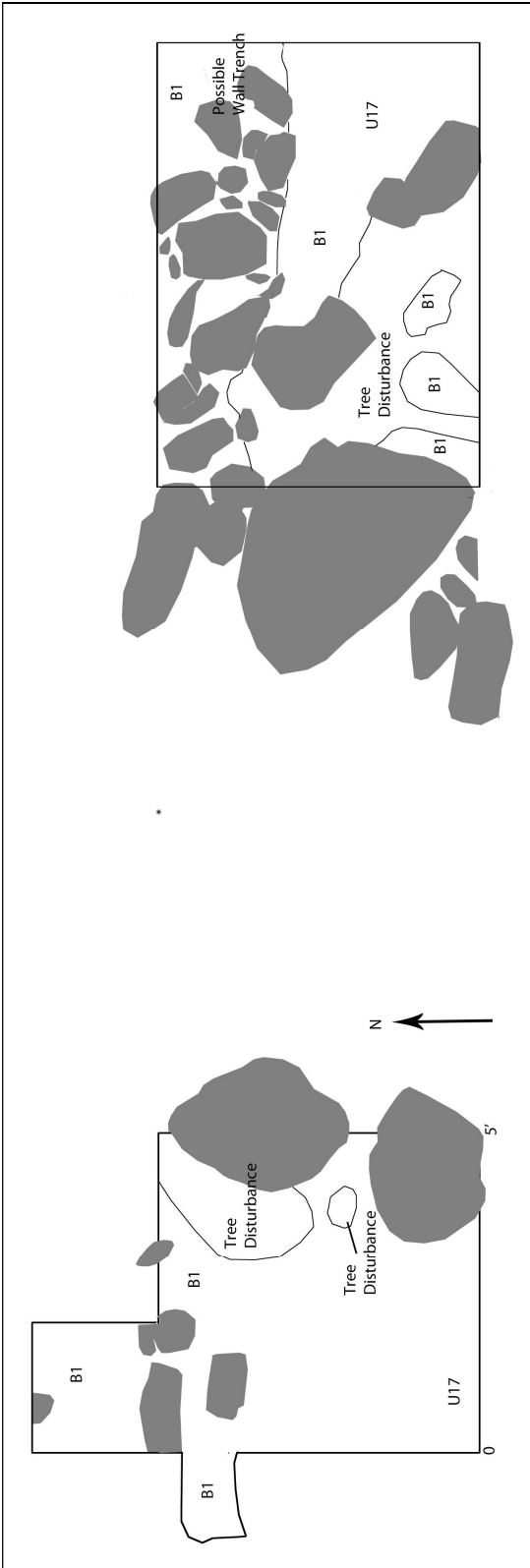


Figure 10. Rock pile area excavation units 16 and 17



Figure 11. Unit 16 plan



Figure 12. Possible foundation trench

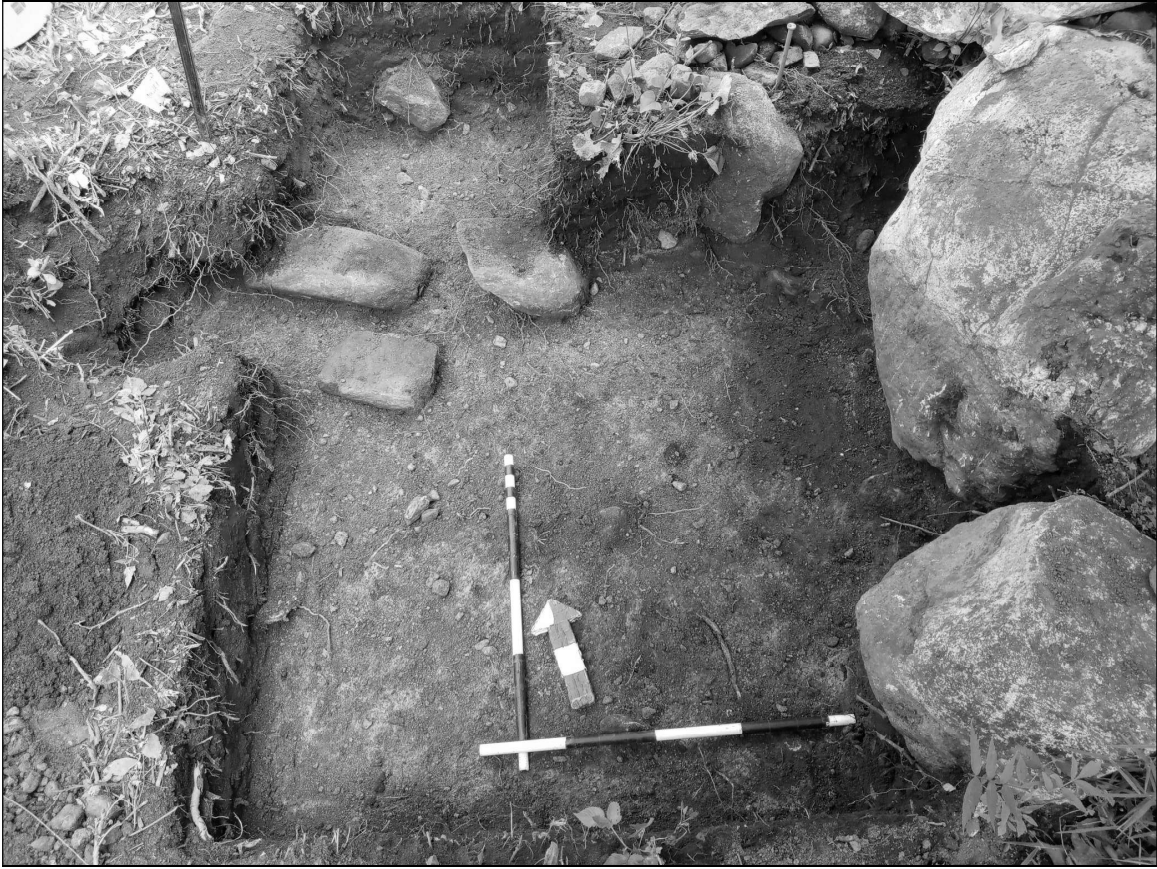


Figure 13. Unit 17 plan

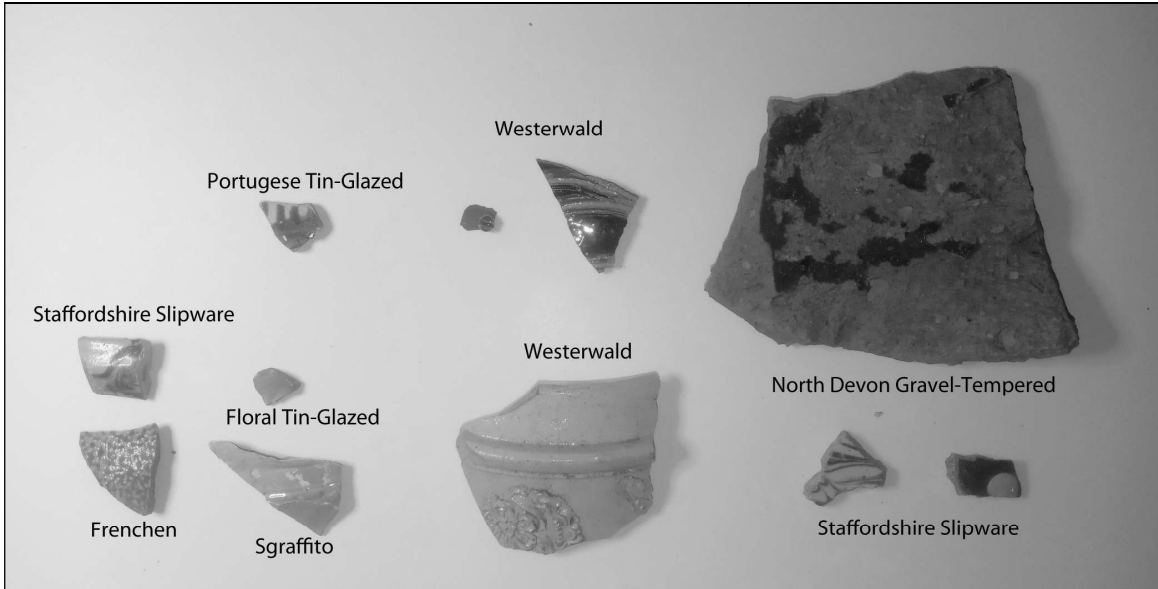


Figure 14. Ceramics from 2022 excavations



Figure 15. Tobacco pipe shapes 2022



Figure 16. Gunflint from 2022

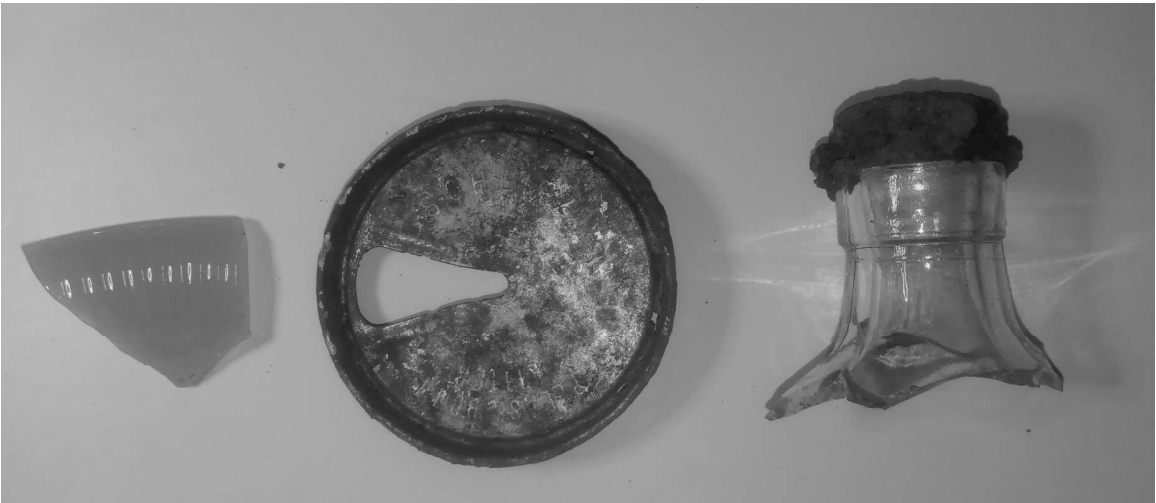


Figure 17. Modern material from 2022



Figure 18. Proposed ne location for Deetz excavations (in red)

Appendix B: Unit Summary

Excavation area 2022

Measured 15' N-S x 25' east to west extends from Derek excavation to 2020 excavation area

- Unit 1 An 18" wide trench excavated along the west wall in a previously unexcavated area. A concentrations of stones were encountered in the north half but they appeared to be scatter and not in any pattern. Unexcavated soils contained teeth, larger pieces of brick and ceramics, and flat glass and a lead kame- artifacts that would not have been left if it had been excavated. Scraping of the remaining portion of the unit not left as a balk, identified denser gravel to the east that may represent previously excavated soils.
- Unit 2 The 18" wide trench begun in Unit 1 was continued into this unit along the west wall up to the balk for another sumac ree. The soils here appeared undisturbed. The remainder of the unit to the east was excavated to 6"bs, having a concentration of cobbles and rocks that were left on the surface at the end of the 2022 excavation season. These stones appear to be associated with backfilling of the previous Deetz excavation units. The soils were all identified as Deetz backfill layer I soils.
- Unit 3 The northwestern quadrant did not see any excavation in 2022. A concentration of stones, including one that appears to dip down into a backfilled pit to the southwest, was present. The southeast quadrant of the unit was excavated to 6"bs by the end of the 2022 field season. All the soils in this unit were identified as Deetz backfill layer I soils.
- Unit 4 A large rock in the northeastern corner was identified as a possible hearth rock from one of the previous excavation photographs. All the soils in this unit were identified as Deetz backfill layer I soils. This unit was excavated to 6"bs by the end of the 2022 excavation season.
- Unit 5 The north half of the unit was excavated to the Deetz backfill layer I at 6"bs, while the south half was taken down to Deetz backfill layer II at 8"bs. This layer was an olive yellow brown in color with large cobbles and a large rock in the southeastern quadrant.
- Unit 6 This unit was mostly unexcavated due to a sumac and its associated root mass. The northeastern quadrant was taken down to 6"bs in the Deetz backfill layer I.
- Unit 7 This unit encountered B1 soil in the south and possibly the north halves with an old excavation area in the western half. A 16" wide trench ran east to west across the center of the unit, possibly in an attempt by Deetz to look for a wall. The backfilled soil within the trench was a mixture of A1, B1, B2, and C1 soils. The large stone that the trench ends in at the western side may be one of the hearth stones uncovered by Deetz. It angles down to the southwest. This stone was located 32' from the south end of the Joseph Howland memorial stone. The fill above it was Deetz backfill layer I soil. The B1 in the south half was encountered at 8"bs while the remainder of the unit was taken down to 10"bs.
- Unit 8 This unit was excavated through the Deetz backfill layer I to the Deetz backfill

- layer II at 10". Cobbles were encountered across the floor.
- Unit 9 The Deetz backfill layer I was exposed at 6"bs beneath the grass layer, but was not excavated in 2022.
- Unit 10 The Deetz backfill layer I was exposed at 4"bs beneath the grass layer, but was not excavated in 2022.
- Unit 11 The southern half of this unit exposed the Deetz backfill layer I at 1"bs but was not excavated further. This layer was also exposed in the north half with excavation ceasing at 6"bs. Cobbles were exposed at 6"bs in the north half.
- Unit 12 The eastern quarter of this unit exposed the Deetz backfill layer I at 1"bs but was not excavated further. This layer was also exposed in the western two-thirds with excavation ceasing at 6"bs. Cobbles were exposed at 6"bs in the western half.
- Unit 13 The grass was removed to a depth of 1"bs in this unit, exposing the Deetz backfill layer I, but no further excavation occurred in 2022.
- Unit 14 The grass was removed to a depth of 1"bs in this unit, exposing the Deetz backfill layer I, but no further excavation occurred in 2022.
- Unit 15 The grass was removed to a depth of 1"bs in this unit, exposing the Deetz backfill layer I, but no further excavation occurred in 2022.

Appendix C: Recovered Artifact Tables
Main Area

Artifact	U1-15 0-6''	U1 4-17''	U5 6-8''	U7 0-8''	U8 4-10''
Architectural					
Brick		1		42	
Window Glass	2	12			1
Window Lead		1			
Hand-Wrought Nail	33	13		2	7
Foodways					
Frenchen/ Bellarmine		1			
Redware	39	15		2	7
Tin-Glazed	9	1			1
Staff. Slipware	4	2			
Sgraffito	1	1			
Gray Stoneware		1			
Westerwald	1				
N.D. Gravel Temp	1	2			1
Bone	59	8	1	5	9
Shell				4	8
Charcoal				6	
Wine Bottle	1				2
Small Bottle	1				
Personal					
Pipe Stem	1				
Pipe Stem 5/64''	2		1		2
Pipe Bowl	5	2			
Gunflint	2				1
Flint Debris	2	1			
Other					
Iron Lump				1	
Lead Lump					1
Native Lithics	14	8			2
Modern					
Mach. Made Bott	20				12
Whiteware	5				
Beer Can Lid	2				
Bottle Cap	1				
Cigarette Butt	1				
Record Fragments	5				
Aluminum Foil				1	

Units 16 and 17

Artifact	U16	U17
Architectural		
Hand-Wrought Nail	18	26
Foodways		
Eng. Mott. ware	1	
Redware	32	38
Staff. Slipware	1	1
Westerwald	2	1
N.D. Gravel Temp		2
Bone	7	10
Small Bottle	1	2
Personal		
Pipe Stem 5/64"	1	2
Pipe Stem 6/64"		1
Pipe Bowl	1	1
Horseshoe Nail		2
Gunflint		1
Other		
Curved Iron	1	
Flat Iron Frag.	5	
Native Lithics	4	4
Modern		
Mach. Made Bott	3	3
Whiteware		4

U17 NW Extension

Artifact	0-4''	4-8''	8-10''	10-12''	0-12''
Architectural					
Brick	14	11	24	13	
Window Glass			1		
Hand-Wrought Nail	1		8	10	4
Foodways					
Eng. Mott. ware			2		
Redware			32	37	9
Tin-Glazed	1		3	2	
Staff. Slipware			1		
Sgraffito			1		
N.D. Gravel Temp			1		
Bone	2	3	35	28	2
Shell	1		109	87	6
Charcoal			5		
Wine Glass			1		
Wine Bottle				2	
Pewter Fragment			1		
Personal					
Pipe Stem			1		
Pipe Stem 5/64''			1		
Pipe Stem 6/64''					1
Pipe Stem 8/64''			1		
Pipe Bowl			5		
Horseshoe Nail	1				
Other					
Iron Lump			1		
Flat Iron Frag.				1	
Native Lithics		1	4	5	
Modern					
Mach. Made Bott	1				2

Test Pit 1

Artifact	0-4''	4-6''	6-8''	8-12''	12-16''
Architectural					
Brick		10	31	2	8
Hand-Wrought Nail			2		
Foodways					
Redware	1				
Other					
Curved Iron					1
Modern					
Plastic	2				

Test Pit 2

Artifact	0-4''	4-8''	8-12''
Architectural			
Brick		2	3
Window Glass		1	
Hand-Wrought Nail			1
Foodways			
Redware		2	2
Bone			3
Shell		5	3
Native Lithics			2
Modern			
Mach. Made Bott	1	1	

Appendix D. Architecture of Joseph Howland's House and a Comparison of the contents of Deetz cellarholes Features 7 and 8

Joseph Howland's house looks like it measured 40' east to west by at least 22' north to south and was a hall and parlor style. The pipe stem dates do not support the idea of two separate buildings. The building may have begun as a smaller single cell house that was enlarged to a hall and parlor, but overall the east and west cellars have the same material, just one was filled first. The house looks like it was deliberately removed versus burning down as well. Based on Deetz rudimentary drawing, it does not appear that either cellar nor the hearth line up with each other. It has to be concluded that, while Deetz may have recorded what he saw (or interpreted that he saw) it may not have been what was really there. The walls of the cellars could have shifted and what he recorded was the shift and not the true orientation of the walls, and he also admits that, while he did not see a brick apron on the east side of the hearth, it may have been there but had been removed. I think that what happened is that as he excavated he came up with the idea that there were two buildings, and then never changed his mind about it.

Joseph Howland's house may have had an evolution commonly seen in 17th century homes. They start as a single room structure with a chimney at one gable end and then expand laterally so that the chimney is then in the center and then expand to the north, with the final product being a salt box style house, central chimney, hall and parlor house. The Joseph Howland house may have started with a one room building represented by the eastern half of the house, which may have measured 25' long (east to west) by at least 22' wide (north to south) with a 5' hearth on the western wall, the original cottage. The addition of the western room (15' east to west), which would have been the parlor, transformed the structure into a hall and parlor house. This transformation may be evident in the wall that Deetz claimed to have found beneath the hearth, which could represent the original house's west wall versus an earlier hearth. It is possible that Joseph expanded his house in the 1680s when the maximum number of people in the original small house may have reached critical mass at over 9 people. His son James may have remained in the house when he married in 1694, sharing it with his aging parents. After Joseph's death in 1703, his wife Elizabeth appears to have eventually moved to Barnstable to live with their daughter Abigail (Seabury). Benjamin Lothrop, the next owner of the property after Joseph's son James, may have begun by living in Joseph's house, eventually using parts of the original Joseph Howland home to build a new house on the east side of the lane. This could account for the window leads bearing that date of 1681 at the Dew Pond house site.

Construction of Joseph's house in what appears to be a less desirable location than the original John Howland house, also suggests that it was constructed while the original family homestead was still occupied and in use, making it likely that Joseph built his house soon after he was married, and not after his father's death a decade later. The presence of pipe stems with stem bore measurements of 8 and 9/64" (dating to around mid 17th century) support this interpretation. The possibility exists that Joseph's house or at least the house location, was the spot where John Jenney built his original house, thus accounting for the earlier pipe stems. Unfortunately, the only evidence to support this theory are the 8 and 9/64" pipe stems. The location itself is not consistent with where the early colonists situated their houses- they preferred high, dry knolls versus lower,

possibly wetter areas. They had their choice of prime locations on which to build, and it appears that they favored the knolls overlooking water with fresh water nearby. If, in the future, further excavations are conducted at the actual location of the house (the cellar holes and the hearth) and either a post-in-ground (earthfast) house is found beneath or close by to Joseph's House, with artifacts dating it exclusively to the first half of the 17th century, then the theory that this was John Jenney's original homesite would need to be reconsidered. I think it is much more probable that Joseph built his house near his parents on the next best land available.

Comparison of the contents of Deetz cellarholes Features 7 and 8

Artifact	Feature 7	Feature 8
Prehistoric	270	
Chert	61	27
Quartz	12	23
Quartzite	27	3
Rhyolite	162	72
Saugus Jasper	2	0
Slate- Natural	6	9
Granite- Natural	0	1
Granite- Net Weight	0	1
Architectural		
Brick	6	4
Mortar- Shell-Tempered	5	252
Window Glass	116	392
Lead kame	12	19 (dated 1711, 1712)
Hand-Wrought Nails	551	1160
Hand-Wrought Spikes	23	13
Wood	43	1
Pintle	1	0
Strap Hinge	3	2
Foodways		
Mottledware- Mug	4	0
North Devon Gravel Free- Baluster Jar	0	1
North Devon Gravel-Tempered- Pan	1	3
Unknown	0	1
Redware- Chamberpot	4	2
Costrel?	0	1
Drinking Pot	1	0
Holloware	3	6
Milkpan	17	10
Mug	6	29
Pan	21	31
Pot	80	94
Pitcher	35	15
Small Pot	2	2
Tall Pan	0	1
Unknown	268	225
Slip-Decorated Holloware	1	0
Slip-Decorated Pan	2	1
Staffordshire Slipware- Cup	1	0
Mug	6	4
Posset Pot	3	2

Stoneware- Tan- Holloware	1	0
Tin-Glazed- Basin	1	1
Cup	11	4
Drug Pot	5	6
Malling Cup	1	1
Mug	1	1
Plate	23	17
Holloware	0	2
Vessel Glass- Case Bottle	1	1
Wine Bottle	51	27
Wine Glass	1	11
Clear Bottle	0	5
Thing Medicine Bottle	0	8
Bone-Large Mammal Burned	1	
Medium Mammal Burned	1	1
Medium Mammal Calcined	5	3
Bird	0	4
Black Duck	0	10
Bluefish	0	1
Cattle	40	68
Chicken	1	21
Cod	2	17
Cormorant	0	1
Deer	0	1
Fish	0	2
Fox	1	1
Goose	0	2
Horse	3	4
Killdeer	0	5
Large Mammal	5	6
Loon	0	5
Mallard	4	116
Medium Mammal	24	23
Passenger Pigeon	1	7
Rat	3	8
Sheep	118	138
Small Duck	4	22
Snapping Turtle	1	1
Swine	56	78
Turkey	0	7
Wolf	1	1
Shell- Quahog	2	8
Soft Shell Clam	24	360
Blue Mussel	0	1
Moonsnail	0	10
Mud Nassa	0	1
Olive Shell	0	1
Oyster	0	2
Surf Clam	2	2
Unidentified	1	0
Brass Kettle	6	3
Bronze Pot	0	1
Cast Iron Kettle	0	5

Iron Hearth Chain Loop	1	0
Iron Knife	1	6
Iron and Bone Knife	1	0
Iron and Lead Knife	0	1
Latten Spoon	2	3
Pewter Spoon	1	2
Iron Tripod	0	1
Personal Items		
Pipes- 4/64"	3	3
4/64" 1720-1820 Heeless Funnel	1	0
5/64"	83	86
5/64" 1700-1770 Hume 14	1	1
5/64" 1720-1820 Hume 18	3	2
5/64" 1680-1820 Heeless Funnel	14	5
5/64" IP on side	0	1
6/64"	30	45
6/64" 1650-1680 Hume 10	0	1
6/64" 1720-1820 Hume 18	0	2
6/64" molded circle of dots on stem	0	1
6/64" 1680-1710" Hume 13	1	0
6/64" 1680-1820 Heeless Funnel	6	5
7/64"	25	38
7/64" 1680-1710 Heeless Funnel	3	0
7/64" 1680-1720 Heeless Funnel	0	1
7/64" 1720-1820 Heeless Funnel	0	4
7/64" 1680-1820 Heeless Funnel	5	0
7/64" LE with Diamonds and Rouletted Lines	1	0
7/64" Rouletted Lines and Triangles	1	0
8/64"	7	12
8/64" LE with Diamonds and Rouletted Lines	1	0
9/64"	0	1
Bowl Fragments- Unidentified Type	6	13
Bowl Fragment 1650-1680 Trade Pipe	1	0
Bowl Fragment 1680-1710 Heeless Funnel	6	0
Bowl Fragment 1720-1820 Heeless Funnel	18	17
Bowl Fragment 1650-1680 Large Belly Bowl	0	1
Bowl Fragment 1660-1680 Large Belly Bowl	1	
Bowl Fragment 1680-1710 RT in large letters	1	
Bowl Fragment 1720-1820 RT in small letters	1	3
Bowl Fragment IP in Cartouche on Side	0	1
Bowl Fragment 1720-1820 RT in Cartouche on Side	0	3
Bowl Fragments Probable Heeless Funnel	40	23
Leather Fragments	8	0
Leather Knife Sheath	0	1
Brass Pin	1	0
Iron candlestick	1	0
Iron Chest Lock	1	0
Iron Clothing Hook	1	0
Iron Clothing Eye	0	1
Iron Pocket Knife	1	0
Scissors	2	3
Pewter Button	1	0
Silver Plated Button	1	0

Cloth with Gold Thread	0	1
Bone Fan Blade	0	1
Book Clasp	0	2
Brass Buckle	0	2
Brass Furniture Pull Plate	0	1
Iron Cabinet Hinge	0	1
Bale Seal	0	2
Tools		
Whetstone	1	2
Flint Debris	16	9
Flint Gunflint	10	4
Armor?	2	33
Tasset Armor Hinge	0	1
Iron Buckle	1	5
Iron Buckle Tongue	0	1
Drawknife Blade	1	1
Drill Bit	1	0
Eel Spear	1	0
Horseshoe	3	5
Horseshoe Nails	8	4
Plane Blade	1	0
Spur	1	0
Stirrup	0	1
Striker	1	0
Tool Fragment	1	0
Wedge	2	1
Glass Lens	0	2
Auger	0	1
Brace Bit	0	1
Fishhook	0	1
Musket Side Plate	0	1
Lead Scale Weight	0	6
Other		
Cast Iron Fragment	4	0
Iron Flat Fragments	14	0
Iron Lump	3	3
Iron Rod Fragments	3	4
Rolled Iron Cone	1	0
Thick Iron Wire Fragments	2	0
Iron Wire Fragment	1	5
Lead Scrap	1	1
Lead Waste	3	2
Charcoal	2	28
Brass Tube Fragment	0	1
Modern Can	0	1
Oil Can	0	1
Recent Iron pan	0	1

Appendix E: Artifact Catalog

1-15 overall 0-6"	1	5 synthetic plastic	record frags		
1-15 overall 0-6"	1	14 ceramics redware	glz miss		
1-15 overall 0-6"	1	13 ceramics redware	int miss ext unglzd	olive bn	
1-15 overall 0-6"	1	13 ceramics north devon gravel temp	int glzd ext miss	bn	
1-15 overall 0-6"	1	3 ceramics redware	int glzd ext miss	bn	
1-15 overall 0-6"	1	2 ceramics redware	int glzd ext miss	tan	
1-15 overall 0-6"	1	2 ceramics redware	int glzd ext miss	bn	
1-15 overall 0-6"	1	1 ceramics redware	int and ext glzd	olive ext olive and bn mott int	
1-15 overall 0-6"	1	1 ceramics redware	int glzd ext miss	dark bn	
1-15 overall 0-6"	1	2 ceramics redware	int glzd ext miss	bn	
1-15 overall 0-6"	1	2 ceramics redware	int glzd ext miss	mott bn and red bn	1.9 cm wd
1-15 overall 0-6"	1	1 lithics rhyolite	Flake frag	green	3.2 cm wd
1-15 overall 0-6"	1	1 lithics rhyolite	Flake frag	green	1.8 cm lng 1.3 cm wd
1-15 overall 0-6"	1	1 lithics rhyolite	flake	green	2.2 cm wd
1-15 overall 0-6"	1	1 lithics rhyolite	Flake frag	purple gray	1 cm wd
1-15 overall 0-6"	1	1 lithics rhyolite	Flake frag	purple gray	1.6 cm wd
1-15 overall 0-6"	1	1 lithics rhyolite	Flake frag	purple gray	2.3 cm wd
1-15 overall 0-6"	1	1 lithics rhyolite	Flake frag	purple gray	1.5 cm wd
1-15 overall 0-6"	1	1 lithics rhyolite	Flake frag	purple gray	2.5 cm wd
1-15 overall 0-6"	1	1 lithics rhyolite	Flake frag	gray	1.7 cm wd
1-15 overall 0-6"	1	1 lithics Quartz	Flake frag	gray	2 cm wd
1-15 overall 0-6"	1	1 lithics Quartz	Flake frag	white clear	1.6 cm wd
1-15 overall 0-6"	1	1 lithics Quartz	Flake frag	white clear	1.9 cm wd
1-15 overall 0-6"	1	1 lithics Quartz	Flake frag	white clear	1.1 cm wd
1-15 overall 0-6"	1	1 Faunal Bone	swine tibia		
1-15 overall 0-6"	1	1 Faunal Bone	swine male canine		
1-15 overall 0-6"	1	6 Faunal Bone	large mam lngbn		
1-15 overall 0-6"	1	15 Faunal Bone	med mam lngbn		
1-15 overall 0-6"	1	8 Faunal Bone	med mam filbn		
1-15 overall 0-6"	1	1 Faunal Bone	med mam femur		
1-15 overall 0-6"	1	1 Faunal Bone	sheep humerus		
1-15 overall 0-6"	1	2 Faunal Bone	sheep molars		
1-15 overall 0-6"	1	1 Faunal Bone	swine scapula		
1-15 overall 0-6"	1	2 Faunal Bone	cattle scapula		
1-15 overall 0-6"	1	1 Faunal Bone	cod vertebra		
1-15 overall 0-6"	1	13 Faunal Bone	med mam filbn		
1-15 overall 0-6"	1	6 Faunal Bone	med mam lngbn		
1-15 overall 0-6"	1	1 Faunal Bone	large mam lngbn		
1-15 overall 0-6"	1	1 ceramics tin-glzd	int glzd ext glzd	white	
1 4-10"	11	1 glass flat	window	olive	
1 4-10"	11	1 glass flat	window	olive	
1 4-10"	11	2 glass flat	window	aqua	
1 4-10"	11	1 lithics rhyolite	flake	light aqua	1.9 cm lng .9 cm wd
1 4-10"	11	1 ceramics stoneware- gray	int unglzd ext salt glz	gray	
1 4-10"	11	1 ceramics staff slipware	int glzd ext unglzd	gray and blue	
1 4-10"	11	1 lithics flint	flake	yw and bn	1.1 x 1 cm
1 4-10"	11	2 Metal Iron	wrought nails	gray	
1 4-10"	11	1 Metal Iron	wrought nail		3.2cm lng

1 4-10"		4 Faunal	Bone	sheep molars	dark bn	
1 4-10"		1 ceramics	redware	int and ext glzd	bn	
1 4-10"		1 ceramics	redware	int glzd ext miss	bn	
1 4-10"		1 ceramics	redware	int and ext glzd	bn	
1 4-10"		1 ceramics	north devon gravel temp	int glzd ext unglzd	tan	
1 4-12"	fill	1 Metal	Iron	wrought nail		5.6cm
1 4-12"	fill	1 Metal	Iron	wrought nail		
1 4-12"	fill	1 ceramics	kaolin	pipe bowl frag		
1 4-12"	fill	1 ceramics	redware	int miss ext unglzd	bn	
1 4-12"	fill	1 ceramics	redware	int glzd ext miss	bn	
1 4-12"	fill	1 ceramics	north devon gravel temp	int glzd ext miss	tan	
1 4-12"	fill	1 Glass	flat	int glzd ext miss	tan	
1 4-12"	fill	1 Glass	flat	window	aqua	
1 4-12"	fill	1 lithics	rhyolite	flake frag	bn	1 cm wd
1 4-12"	fill	1 lithics	rhyolite	flake frag	bn	1.3 cm wd
1 4-12"	fill	1 lithics	rhyolite	flake frag	gray	1.5 cm wd
1 4-12"	fill	1 lithics	rhyolite	flake frag	green	
1 4-12"	fill	1 lithics	rhyolite	flake frag	gray	1.4 cm wd
1 part 2		3 Metal	Iron	wrought nails		
1 part 2		5 Metal	Iron	wrought nails		
1 part 2		1 Metal	lead	window lead frag		
1 part 2		1 Faunal	Bone	med mam filbn		
1 part 2		3 Faunal	Bone	med mam filbn		
1 part 2		1 ceramics	kaolin	pipe bowl frag		
1 part 2		1 ceramics	brick	frag		
1 part 2		7 Glass	flat	window	aqua	
1 part 2		1 ceramics	north devol sgrafitto	int and ext glzd	yw	
1 part 2		1 ceramics	tin-glzd	int glzd ext miss	green	
1 part 2		1 ceramics	frenchen	int slipped ext tiger glz	bn and tan	
1 part 2		1 ceramics	staff slipware	ext glzd int miss- handle	bn and yw	
1 part 2		2 ceramics	redware	glz miss	bn metallic	
1 part 2		1 ceramics	redware	int and ext glzd	bn	
1 part 2		1 ceramics	redware	int glzd ext miss		
1 part 2		1 ceramics	redware	int miss ext unglzd		
1 part 2		5 ceramics	redware	int miss ext unglzd		
1 part 2		1 lithics	rhyolite	flake frag	red bn	1.6 cm wd
1 part 2		1 lithics	rhyolite	flake frag	purple bn	1.9 cm wd
1 part 2		1 lithics	rhyolite	flake frag	purple grey	1.6 cm wd
1 part 2		1 lithics	rhyolite	flake frag		
1 part 2		1 ceramics	kaolin	pipe stem frag		5/64" stem bore
5		1 Faunal	Bone	med mam hghn		
5		1 Faunal	Bone	med mam hghn		
7 0-6"		1 Faunal	Bone	med mam hghn		
7 0-6"		1 Metal	iron	hand wrought nail		
7 0-6"		2 ceramics	redware	int miss ext unglzd		
7 0-8"		42 ceramics	brick	frags		
7 0-8"		3 Faunal	shell	soft shell clam		
7 0-8"		1 Faunal	shell	quahog		
7 0-8"		6 floral	charcoal	frags		
7 0-8"		1 Metal	aluminum	foil	gold	
7 0-8"		1 Metal	Iron	lump		
7 0-8"		1 Metal	Iron	wrought nail		
7 0-8"		1 Faunal	Bone	cattle tarsal		

7 0-8"	I	1 Faunal	Bone	med mam lngbn		
7 0-8"	I	1 Faunal	Bone	large mam fltbn		
7 0-8"	I	1 Faunal	Bone	med mam fltbn		
8 4-10"	II/ Fill	1 ceramics	redware	int and ext glzld	orange	
8 4-10"	II/ Fill	1 ceramics	redware	gliz miss		
8 4-10"	II/ Fill	1 Faunal	Bone	large mam lngbn		
8 4-10"	II/ Fill	1 Glass	flat	window	aqua	
8 4-10"	II/ Fill	2 Glass	curved	machine made bottle	clear	
8 4-10"	II/ Fill	1 lithics	rhyolite	flake frag	purple gray	1.6 cm wd
8	II	3 Faunal	shell	quahog		
8	II	2 Faunal	shell	surf clam		
8	II	3 Faunal	shell	soft shell clam		
8	II	3 Metal	Iron	wrought nails		
8	II	1 Metal	Iron	wrought nails		
8	II	2 Metal	Iron	wrought nails		
8	II	1 Metal	Iron	wrought nails		
8	II	1 Glass	curved	hand blown wine bottle	olive	4.5 cm lng 5.3 cm lng
8	II	1 ceramics	tin-glzld	int and ext glzld	int purple and blue hndpdt	
8	II	1 ceramics	kaolin	pipe stem/ bowl juncture		
8	II	1 ceramics	kaolin	pipe stem	green	5/64" stem bore
8	II	2 Glass	curved	machine-made bottle	bn	5/64" stem bore
8	II	2 Glass	curved	machine-made bottle	clear	
8	II	6 glass	curved	int miss ext unglzld		
8	II	1 ceramics	north devon gravel temp	melted lump		
8	II	1 Metal	lead	gunflint	calcined white	2.7 x 2.3 cm
8	II	1 lithics	flint	flake frag	gray	2.6 cm wd
8	II	1 lithics	rhyolite	int glzld ext miss	yw	
8	II	1 ceramics	redware	int glzld ext miss	tan	
8	II	3 ceramics	redware	int miss ext unglzld		
8	II	4 Faunal	Bone	med mam lngbn		
8	II	2 Faunal	Bone	large mam lngbn		
8	II	1 Faunal	Bone	med mam fltbn		
8	II	1 Faunal	Bone	med mam fltbn		
16 0-10"	I	6 Metal	iron	wrought nails		
16 0-10"	I	5 Metal	iron	wrought nails		
16 0-10"	I	3 Metal	iron	wrought nails		4.6 cm lng
16 0-10"	I	1 Metal	iron	wrought nails		5.5 cm lng
16 0-10"	I	2 Metal	iron	wrought nails		3.7 cm lng
16 0-10"	I	1 Metal	iron	wrought nails		2.7 cm lng
16 0-10"	I	5 Metal	iron	flat frags		
16 0-10"	I	1 Metal	iron	curved piece		
16 0-10"	I	1 glass	curved	machine-made bottle	clear	
16 0-10"	I	2 glass	curved	machine-made	clear	
16 0-10"	I	1 glass	curved	hand-blown bottle	aqua	
16 0-10"	I	2 ceramics	kaolin	pipe bowl frag		
16 0-10"	I	2 ceramics	kaolin	pipe stem		
16 0-10"	I	1 Faunal	Bone	med mam fltbn		5/64" bore
16 0-10"	I	1 Faunal	Bone	med mam lngbn		

16 0-10"	1	1 Faunal	bone	large mam lngbn		
16 0-10"	1	1 Faunal	Bone	Horse phalange 2		
16 0-10"	1	1 Faunal	Bone	sheep molar		
16 0-10"	2	2 Faunal	Bone	med mam lngbn		
16 0-10"	1	1 ceramics	staff slipware	int and ext glzd	yw	
16 0-10"	1	1 ceramics	westernwald	ext incised decoration	blue and gray	
16 0-10"	1	1 ceramics	westernwald	ext applied decoration	blue	
16 0-10"	8	8 ceramics	redware	glz miss		
16 0-10"	5	5 ceramics	redware	int miss ext unglzd		
16 0-10"	4	4 ceramics	redware	int glzd ext unglzd	splotchy/red bn	
16 0-10"	2	2 ceramics	redware	int glzd ext unglzd	dark bn black	
16 0-10"	3	3 ceramics	redware	int and ext glzd	metallic bn	
16 0-10"	1	1 ceramics	redware	int glzd ext miss	red bn	
16 0-10"	2	2 ceramics	redware	int glzd ext miss	manganese mott	
16 0-10"	1	1 ceramics	redware	int and ext glzd	bn	
16 0-10"	1	1 ceramics	redware	int miss ext glzd	bn	
16 0-10"	1	1 ceramics	english mottware	int and ext glzd	mott bn, dark bn	
16 0-10"	2	2 ceramics	redware	int and ext glzd	metallic bn	
16 0-10"	2	2 ceramics	redware	int glzd ext miss	tan	
16 0-10"	1	1 ceramics	redware	int glzd ext miss	red bn	1.8 cm wd
16 0-10"	1	1 lithics	quartzite	flake frag	purple gray	1.5 cm lng 1.8 cm wd
16 0-10"	1	1 lithics	quartzite	flake	clear white	1.8 cm lng 2.2 cm wd
16 0-10"	1	1 lithics	quartzite	flake frag	white clear	.7 cm wd
16 0-10"	1	1 lithics	quartzite	flake frag	white	
17 0-8"	1	1 ceramics	westernwald	ext applied decoration	white	
17 0-8"	4	4 ceramics	whiteware	undec	white	
17 0-8"	2	2 ceramics	north devon gravel temp	int glzd ext unglzd	tan	
17 0-8"	1	1 ceramics	staff slipware	int and ext glzd	bn	
17 0-8"	1	1 ceramics	kaolin	pipe stem/ bowl juncture	bn	5/64" bore
17 0-8"	1	1 ceramics	kaolin	pipe stem	bn	5/64" bore
17 0-8"	1	1 ceramics	kaolin	pipe stem	bn	6/64" bore
17 0-8"	1	1 ceramics	kaolin	pipe stem	bn	
17 0-8"	2	2 Glass	curved	hand blown	aqua	
17 0-8"	2	2 Glass	curved	machine-made	green	
17 0-8"	1	1 Glass	curved	machine-made	clear	
17 0-8"	1	1 lithics	flint	gunflint	gray	2.3 x 2.2 x 1 cm thk
17 0-8"	1	1 lithics	rhylvolite	flake frag	gray	2.2 cm wd
17 0-8"	1	1 lithics	rhylvolite	flake frag	purple gray	1.5 cm wd
17 0-8"	1	1 lithics	quartz	flake frag	clear white	
17 0-8"	1	1 lithics	quartz	flake	clear white	
17 0-8"	2	2 Metal	Iron	horseshoe nails		4.3 cm lng 3.2 cm wd
17 0-8"	4	4 Metal	Iron	wrought nails		3.5 cm lng
17 0-8"	9	9 Metal	Iron	wrought nails		
17 0-8"	1	1 Metal	iron	wrought nails		5.5 cm lng
17 0-8"	1	1 Metal	iron	wrought nails		6 cm lng
17 0-8"	4	4 Metal	iron	wrought nails		5.5 cm lng
17 0-8"	2	2 Metal	iron	wrought nails		6 cm lng
17 0-8"	3	3 Metal	iron	wrought nails		8 cm lng
17 0-8"	2	2 Metal	iron	wrought nails		4 cm lng

17 0-8"		1 Faunal	Bone	swine male canine	
17 0-8"		1 Faunal	Bone	swine male canine	
17 0-8"		1 Faunal	Bone	large mam lngbn	
17 0-8"		3 Faunal	Bone	med mam fltbn	
17 0-8"		1 Faunal	Bone	med mam lngbn	
17 0-8"		1 Faunal	Bone	sheep molar	
17 0-8"		1 Faunal	Bone	med mam fltbn	
17 0-8"		1 Faunal	Bone	med mam lngbn	
17 0-8"		3 ceramics	redware	int and ext glzld	olive bn int and ext
17 0-8"		5 ceramics	redware	glz miss	
17 0-8"		2 ceramics	redware	int and ext glzld	metallic bn
17 0-8"		1 ceramics	redware	int and ext glzld	tan olive
17 0-8"		1 ceramics	redware	int and ext glzld	dark olive bn
17 0-8"		3 ceramics	redware	int glzld ext miss	bn
17 0-8"		2 ceramics	redware	int glzld ext miss	dark bn
17 0-8"		1 ceramics	redware	int and ext glzld	red bn
17 0-8"		9 ceramics	redware	int glzld ext miss	red bn
17 0-8"		1 Faunal	Bone	med mam fltbn	
17 N ext		6 Faunal	Bone	med mam fltbn	
17 N ext		71 Faunal	shell	soft shell clam	
17 N ext		3 Faunal	shell	quahog	
17 N ext		6 Faunal	shell	soft shell clam	
17 N ext		7 Faunal	shell	soft shell clam	
17 N ext		13 ceramics	brick	frags	
17 N ext		4 Metal	iron	wrought nails	
17 N ext		4 Metal	iron	wrought nails	
17 N ext		1 Metal	iron	wrought nails	
17 N ext		1 Metal	iron	wrought nails	
17 N ext		4 Faunal	Bone	med mam lngbn	5 cm lng
17 N ext		8 Faunal	Bone	med mam fltbn	8.5 cm lng
17 N ext		1 Faunal	Bone	sheep molar	
17 N ext		3 Faunal	Bone	large mam lngbn	
17 N ext		3 Faunal	Bone	med bird lngbn	
17 N ext		2 Faunal	Bone	tooth enamel	
17 N ext		1 Metal	Iron	flat frag	
17 N ext		1 glass	flat	window	patinated
17 N ext		1 glass	curved	wine bottle	patinated
17 N ext		1 glass	flat	window	light aqua
17 N ext		15 ceramics	redware	glz miss	
17 N ext		9 ceramics	redware	int miss ext unglzld	
17 N ext		1 ceramics	redware	int miss ext unglzld	
17 N ext		1 ceramics	tin-glzd	int glzld ext miss	white
17 N ext		1 ceramics	redware	int and ext glzld	black and red bn mott
17 N ext		1 ceramics	redware	int and ext glzld	black and red bn mott
17 N ext		1 ceramics	tin-glzd?	int and ext glzld	burned gray
17 N ext		2 ceramics	redware	int glzld ext miss	bn
17 N ext		1 ceramics	redware	int glzld ext unglzld	bn
17 N ext		4 ceramics	redware	int glzld ext miss	dark bn

17 N ext	10-12"	III	1 ceramics	redware	int slip decoration ext unglzld	mott bn, dk bn copper slip dec	
17 N ext	10-12"	III	1 ceramics	redware	int glzd ext miss	orange	
17 N ext	10-12"	III	1 ceramics	redware	int and ext glzd	orange int, org and blk mott ext	
17 N ext	10-12"	III	1 lithics	rhyolite	flake	green	1.6 cm lng 1.1 cm wd
17 N ext	10-12"	III	1 lithics	rhyolite	flake frag	gray	1.1 cm wd
17 N ext	10-12"	III	1 lithics	rhyolite	flake	gray	2 cm lng 2 cm wd
17 N ext	10-12"	III	1 lithics	rhyolite	flake frag	dark gray	2 cm wd
17 N ext	10-12"	III	1 lithics	rhyolite	flake frag	gray	1.6 cm wd
17 N ext	4-8"		11 ceramics	brck	frags		
17 N ext	4-8"		2 Faunal	Bone	med mam filbn		
17 N ext	4-8"		1 Faunal	Bone	med mam filbn		
17 N ext	4-8"		1 lithics	rhyolite	flake frag	green	.9 cm wd
17 N ext	8-10"		85 Faunal	shell	soft shell clam		
17 N ext	8-10"		13 Faunal	shell	soft shell clam		
17 N ext	8-10"		8 Faunal	shell	soft shell clam		
17 N ext	8-10"		2 Faunal	shell	quahog		
17 N ext	8-10"		1 Faunal	shell	moonsnail		
17 N ext	8-10"		24 ceramics	brck	frags		
17 N ext	8-10"		5 floral	charcoal	frags		
17 N ext	8-10"		5 Metal	Iron	wrought nails		
17 N ext	8-10"		3 Metal	Iron	wrought nails		
17 N ext	8-10"		1 Metal	Iron	lump		
17 N ext	8-10"		1 Glass	flat	window	light aqua	
17 N ext	8-10"		1 glass	curved	hand blown vessel	clear	
17 N ext	8-10"		1 Metal	pewter	frag		
17 N ext	8-10"		2 ceramics	stiff slipware	int and ext glzd	ext bn and yw	
17 N ext	8-10"		1 ceramics	sgraffito slipware	int glzd ext miss	yw	
17 N ext	8-10"		1 ceramics	english mottware	int miss ext glzd	bn mott	
17 N ext	8-10"		1 ceramics	english mottware	int miss ext unglzld		
17 N ext	8-10"		2 ceramics	tin-glzd	glz miss		
17 N ext	8-10"		1 ceramics	tin-glzd	ext minning int glzld	blue and white	
17 N ext	8-10"		1 ceramics	north devon gravel temp	glz miss		
17 N ext	8-10"		7 ceramics	redware	int miss ext unglzld		
17 N ext	8-10"		15 ceramics	redware	glz miss		
17 N ext	8-10"		1 ceramics	redware	glz miss		
17 N ext	8-10"		1 ceramics	redware	glz miss		
17 N ext	8-10"		1 ceramics	redware	int and ext glzd	dark bn	
17 N ext	8-10"		1 ceramics	redware	int glzd ext miss	bn	
17 N ext	8-10"		1 ceramics	redware	int miss ext glzd	bn	
17 N ext	8-10"		2 ceramics	redware	int glzd ext unglzld	olive bn	
17 N ext	8-10"		2 ceramics	redware	int glzd ext miss	red bn	
17 N ext	8-10"		2 ceramics	redware	int glzd ext miss	bn	
17 N ext	8-10"		1 ceramics	kaolin	pipe stem		8/64" bore
17 N ext	8-10"		1 ceramics	kaolin	pipe stem		5/64" bore
17 N ext	8-10"		1 ceramics	kaolin	pipe stem		
17 N ext	8-10"		5 ceramics	kaolin	pipe bowl frag		
17 N ext	8-10"		4 Faunal	Bone	med mam filbn		
17 N ext	8-10"		3 Faunal	Bone	med mam filbn		
17 N ext	8-10"		1 Faunal	Bone	med bird digit		
17 N ext	8-10"		1 Faunal	Bone	sheep astragalous		

17 N ext	8-10"	1 Faunal	Bone	bird radius	
17 N ext	8-10"	2 Faunal	Bone	med bird lngbn	
17 N ext	8-10"	1 Faunal	Bone	pig canine- male	
17 N ext	8-10"	1 Faunal	Bone	pig fibula	
17 N ext	8-10"	1 Faunal	Bone	pig incisor	
17 N ext	8-10"	2 Faunal	Bone	sheep molar	
17 N ext	8-10"	1 Faunal	Bone	large mam filbn	
17 N ext	8-10"	9 Faunal	Bone	med mam lngbn	
17 N ext	8-10"	8 Faunal	Bone	med mam filbn	
17 N ext	8-10"	1 lithics	quartzite	flake	tan
17 N ext	8-10"	1 lithics	rhyolite	flake frag	gray
17 N ext	8-10"	1 lithics	rhyolite	flake frag	gray
17 N ext	8-10"	1 lithics	rhyolite	flake	gray
17 N ext	8-10"	1 Glass	curved	machine-made bottle	bn
17 N ext	0-4"	14 ceramics	brick	frags	
17 N ext	0-4"	1 Faunal	shell	soft shell clam	
17 N ext	0-4"	1 Faunal	Bone	med mam lngbn	
17 N ext	0-4"	1 Faunal	Bone	med mam filbn	
17 N ext	0-4"	2 ceramics	tin-glzd	glz miss	
17 N ext	0-4"	1 Metal	Iron	wrought nail	
17 N ext	0-4"	1 Metal	Iron	horseshoe nail	
17 NW	0-12"	1 Faunal	Bone	Sheep phalange 2 frag	5.6 cm lng
17 NW	0-12"	1 Faunal	shell	quahog	
17 NW	0-12"	3 Faunal	shell	soft shell clam	
17 NW	0-12"	2 Faunal	shell	soft shell clam	
17 NW	0-12"	1 Faunal	Bone	med mam filbn	
17 NW	0-12"	2 Glass	Glass	bottle glass-- machine made	clear
17 NW	0-12"	3 Metal	Iron	wrought nails	
17 NW	0-12"	1 Metal	Iron	wrought nail	
17 NW	0-12"	1 ceramics	kaolin	pipe stem frag	5 cm lng
17 NW	0-12"	3 ceramics	redware	glz miss	6/64" bore
17 NW	0-12"	1 ceramics	redware	int glz miss ext unglzd	
17 NW	0-12"	3 ceramics	redware	int glzd ext unglzd	bn
17 NW	0-12"	2 ceramics	redware	int glzd ext miss	bn
17 NW	0-12"	1 ceramics	redware	int and ext glzd	bn metallic
TP1	0-4"	2 plastic	Plastic	plastic bag frags	clear
TP1	0-4"	8 ceramics	brick	frag	
TP1	12-16"	1 Metal	Iron	curved piece	
TP1	12-16"	9 ceramics	brick	frags	
TP1	4-6"	1 ceramics	brick	half	1.07cm wd 5.6cm thk
TP1	4-6"	31 ceramics	brick	frag	
TP1	6-8"	2 Metal	Iron	wrought nails	
TP1	6-8"	2 ceramics	brick	frag	
TP2	0-4"	1 glass	glass	machine made bottle	clear
TP2	4-8"	2 ceramics	brick	frags	
TP2	4-8"	2 Faunal	shell	soft shell clam	
TP2	4-8"	1 Faunal	shell	soft clam	
TP2	4-8"	1 Faunal	shell	soft shell clam	
TP2	4-8"	1 Faunal	shell	quahog	

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TP2	4-8"	1 Glass	curved	machine-made bottle	clear	
TP2	4-8"	1 Glass	flat	wi	aqua	
TP2	4-8"	2 ceramics	redware	glz miss		
TP2	8-12"	1 Metal	Iron	wrought nail		
TP2	8-12"	1 Faunal	Bone	med mam filbn		
TP2	8-12"	2 Faunal	Bone	med mam filbn		
TP2	8-12"	2 Faunal	shell	soft shell clam		
TP2	8-12"	1 Faunal	shell	soft shell clam		
TP2	8-12"	3 ceramics	brick	frags		
TP2	8-12"	2 ceramics	redware	int miss ext unglzd		2.4 cm lng 2.1 cm wd
TP2	8-12"	1 lithics	rhyolite	flake	pink	
TP2	8-12"	1 lithics	quartz	flake	white	1.4 cm lng 1.1 cm wd