

Report on 2011 Thwings Pt. Archaeology Excavations Woolwich, Maine



Lee Cranmer

Historical Archaeologist

February 2012

Introduction

During the week of August 8th through the 13th, 2011, a five-day Phase II archaeological dig and field school was conducted at Thwings Point, Woolwich, Maine (Figure 1). The work was sponsored by the Friends of Merrymeeting Bay (FOMB). This excavation was a continuation of a project begun in 2009. The purpose of the project was to locate the mid-17th century home of Thomas Ashley, the c. 1720 house built by Edward Hutchinson, and the mid-18th century home of Nathaniel Thwing, all located on Thwings Point. The general location was first identified during a 2007 reconnaissance level archaeological survey funded by a grant from FOMB and the Land For Maine's Future Board. The 2009 excavations narrowed the location of occupation by uncovering four features, all probable post holes, and artifacts ranging from the 17th century through the mid-19th century.

The paid crew consisted of director Leon Cranmer and skilled excavator Kathy Bridge. Also assisting as a volunteer was experienced excavator Rebecca Hook. A large number of volunteers through FMOB helped out with the project (Figure 2). These included, in alphabetical order: Ted Batutis, Charity Bedell, Carol Bradford, Sarah Cowperthwaite, Steve Cowperthwaite, Mike Decker, Miranda Doak, Marisa Eldridge, Katherine Freemerman, Ed Friedman, Jane Frost, Kayla Getchell, Don Goodrich, Chris Gutscher, John Harvey, Isabel Llorente, Ellie Pass, Mary Perkins, Claire Robinson, Michael Robinson, DJ Rogers, Lynne Thompson, Hilary Warner-Evans. We would like to thank all the volunteers for their help, and my apologies to anyone whose name was left off the list. Special thanks are extended to Claire and Michael Robinson, the property owners, for generously allowing us to dig on their property and also for their help. Claire and Michael dug with us for most of the time we were out there.

Methodology

A series of standardized field and laboratory procedures were utilized for Phase II testing at Thwings Point. The first step prior to excavation was to re-establish the metric grid that had been superimposed over the site in 2009. Subsurface testing was accomplished with the excavation of 1m² test units called test pits (TPs) aligned with the metric grid. Grid coordinates were written on pin flags. Test pits are designated by the grid designation at the southwest corner of each test pit. In other words, if the southwest corner of a certain test pit was located at

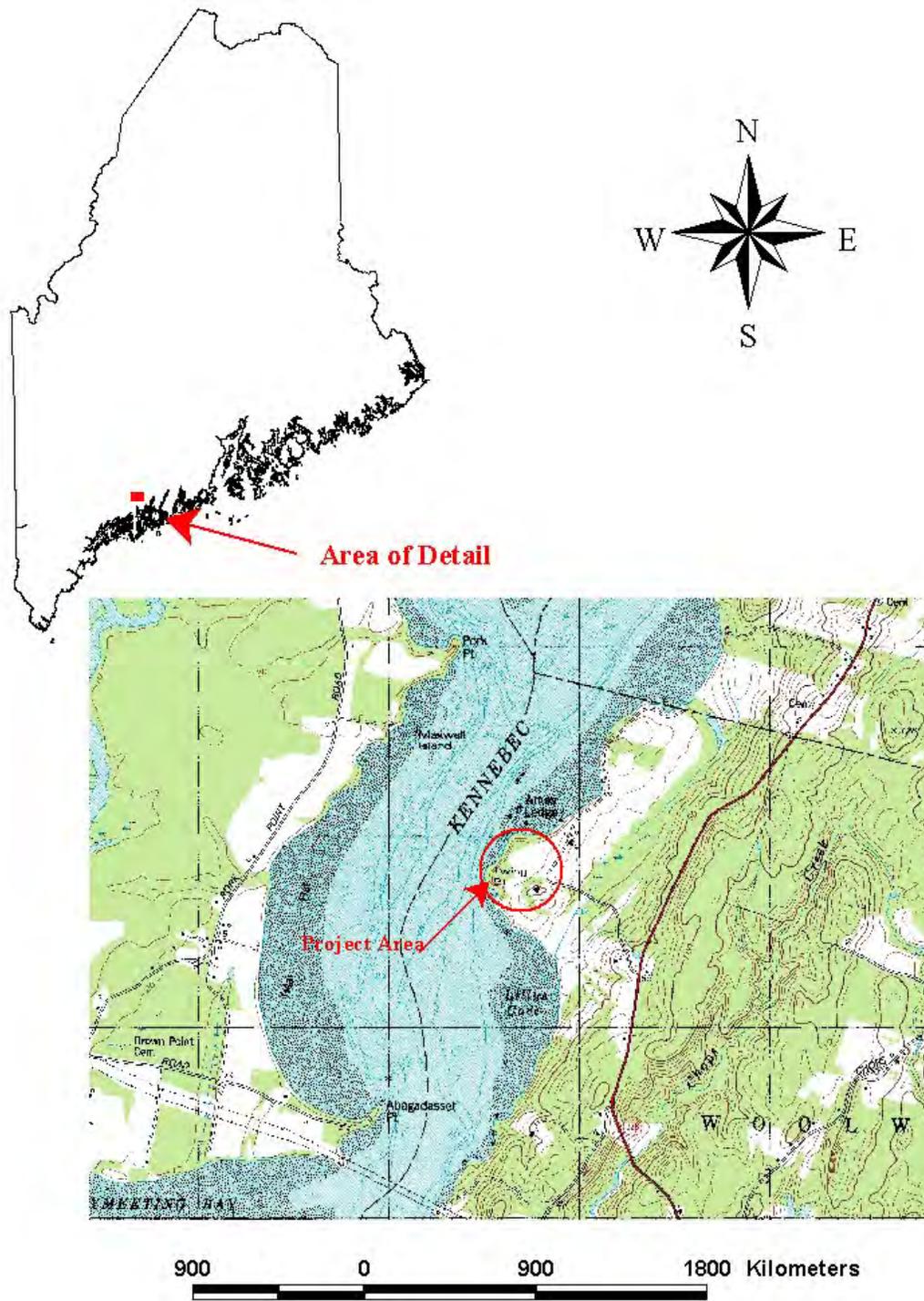


Figure 1. Project area as shown on Richmond USGS quad.



Figure 2. Showing some of the many volunteers at work.

the north 100 east 100 grid point, then that test pit would be designated N100 E100. Most initial excavation was done with sharpened shovels, and then trowels were used where appropriate. Excavations were done in arbitrary, natural or man-made soil levels. By natural levels we mean soil horizons and unmodified flood deposits. Man-made soil levels are present where human disturbance has artificially created soil changes. Arbitrary levels are usually 10 - 20cm thick. All soils were screened through $\frac{1}{4}$ " mesh hardware cloth to ensure the recovery of small artifacts. All soils were sifted onto tarps to facilitate backfilling the test pits and to leave less obvious ground disturbance. Profiles or floor plans of test units were drawn where needed. Digital color photographs were taken where relevant. Artifacts were bagged and taken to the Maine Historic Preservation Commission (MHPC) Archaeology Lab in Augusta where they were washed and dried by provenience unit. They were then taken to Cranmer's home where they were sorted, identified, counted, and entered into a relational database using a cataloging program written in Access. Artifacts were then analyzed, and are temporarily stored at the MHPC Archaeology lab. The artifacts are the property of the landowners, the Robinsons.

Fieldwork

It was noted that the number of artifacts found during the 2009 excavations increased as the work progressed west. With this in mind, once the metric grid was re-established, we extended the grid to the west. (See Figure 3 for the following discussion.) One meter square test units were laid out and excavated at N199 E186, N199 E183, and N199 E181. All three test units were excavated to an average depth of 27cm below datum (b.d.) where plow scars began to appear. As the name implies, this is evidence left in the subsoil where plowing has taken place. The plow scars in N199 E186 and N199 E183 were excavated and the test units backfilled.

In N199 E181, however, the northwest half of the pit continued to exhibit disturbed soils. Figure 4 shows a plow scar running NW/SE in the lower left corner of the square while another fainter stain can be seen covering the NW half of the pit. After the plow scar was removed the dark stain in the northwest half of the square remained. We began to excavate the stain, and it wasn't long before we realized we had a feature. As the excavation of the stain dove deeper, it also wasn't long before we ran out of room to excavate. Therefore we opened the adjoining square to the north at N200 E181. This entire test unit appeared to be part of the feature, and excavation continued.

It soon became clear we had a cellar hole which was confirmed when we came down on a line of foundation stone first encountered at a depth of 78cm b.d. The foundation ran in a SW/NE line against the southeast edge of the cellar excavation. In the center of this line of stone we found the remains of a post at a depth of 113cm b.d. The post was surrounded by smaller stone. The floor of the cellar was reached at 135cm b.d. (Figures 5 & 6). This cellar was designated Feature 5.

The two test units of Feature 5 took most of the rest of the week to excavate and record. Rather than excavating more of Feature 5 to find its limits and spending most of the week doing so, excavations continued elsewhere to probe the limits of the site. Test pits were opened at N195 E184 and N201 E184. In both squares plow scars were encountered heading diagonally NW/SE. The plow scars were excavated to a maximum of about 30cm b.d. in N195 E184 and to about 37cm b.d. in N201 E184. The artifact count in both of these squares was about half of that found in the test pits excavated along the N199 line previously. Both test units were backfilled and we moved further east.

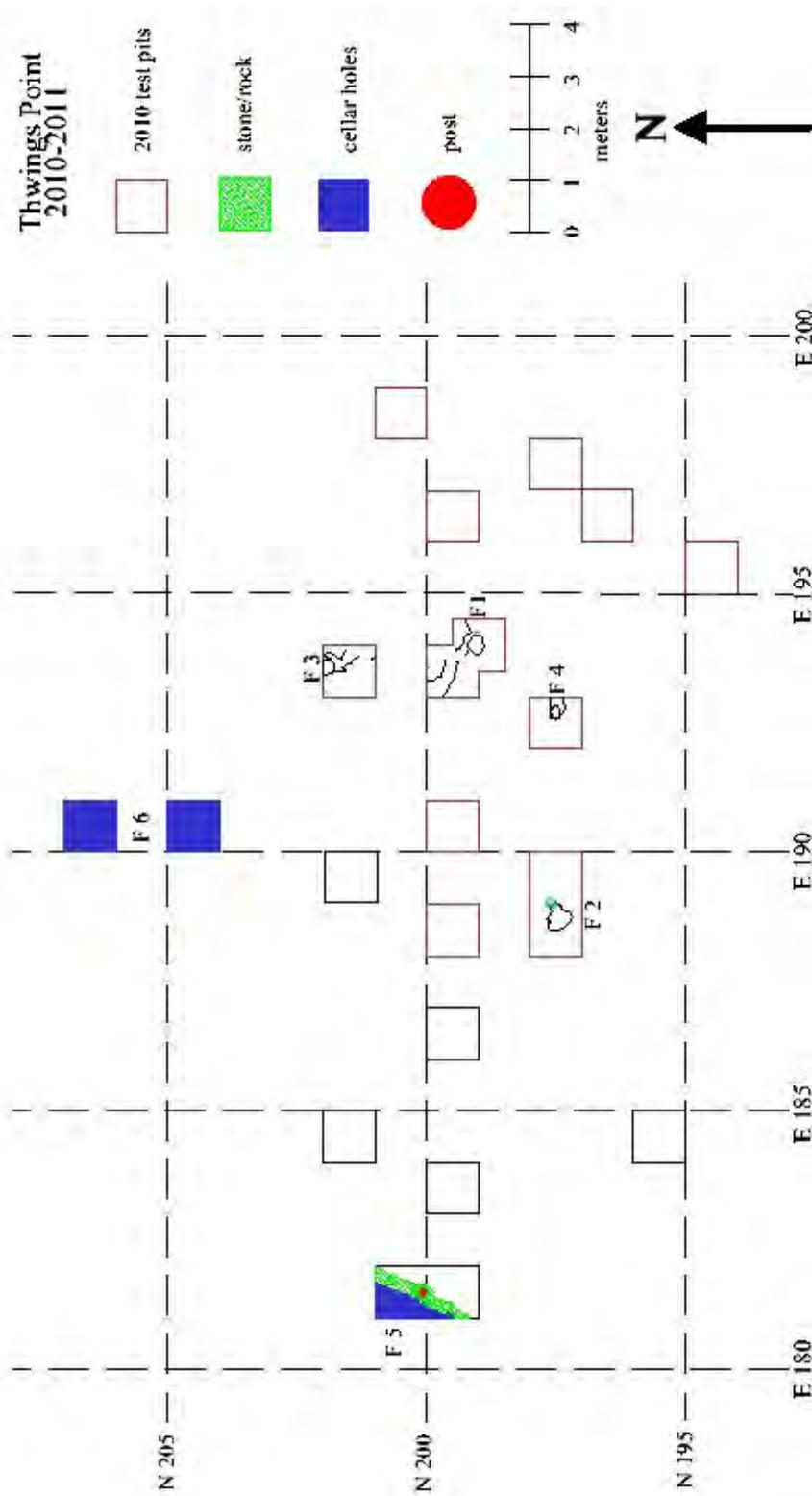


Figure 3. Site plan showing both 2009 and 2011 excavations.



Figure 4. Test pit N199 E181 showing a NW/SE plow scar and the top of Feature 5.

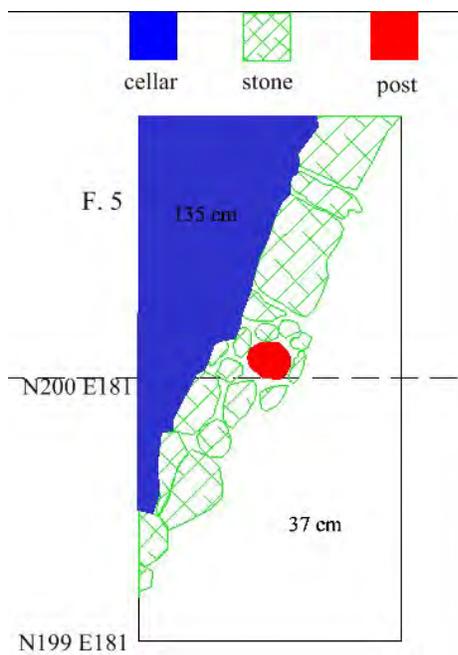


Figure 5. Plan of N199 E181 and N200 E181 showing Feature 5.



Figure 6. Feature 5 cellar hole excavated.

We moved further east to try and determine why there were such high artifact counts in that direction, particularly in N199 E188 (n=770) which was excavated in 2009 and because of the four features found in that direction in 2009. With this in mind we opened test pits at N201 E189 and N204 E190. The latter test unit had an additional claim in that it was located in a slight depression. This depression had gone unnoticed in 2009 because it was covered with heavy brush and tree growth.

Test pit N201 E189 was excavated to subsoil at 28cm in most of the square, except in the northeast corner where a dark stain dipped to 32cm b.d. The artifact count was higher than previous pits except for those two pits containing Feature 5, the cellar hole.



Figure 7. Showing stone layer in feature fill.

In N204 E190 we found another cellar hole. Excavation continued down past the average depth of the plow zone on the site (about 30cm b.d.) to where we reached a layer of stone at 50cm b.d. that eventually covered the entire test unit (Figure 7). There were artifacts among and below the stone suggesting the stone was part of the fill of the cellar hole and could

therefore be removed. The stone layer ended at an average depth of 64cm b.d. There was a considerable amount of brick and mortar appearing particularly between 70cm and 80cm b.d. There were also several large pieces of redware recovered from the lower layers of the fill. The test unit was excavated to an average depth of 126cm b.d. Many large flecks of charcoal were visible on the cellar floor. This cellar was designated Feature 6.

A final test pit was begun at N206 E190 to follow the cellar and possibly find one of its limits. This pit was begun late in the week and we were unable to finish it. The test pit was

excavated to a maximum depth of 90cm b.d., but that was enough to confirm that the square was totally within the cellar hole. This pit also contained large pieces of redware as well as large pieces of creamware. These artifacts will be discussed in the following section.

Artifacts

A total of 5842 artifacts were recovered during this week-long dig. Probably the most numerous artifact type found on the site was brick. Although only 465 fragments of brick were cataloged, we were only saving about 10% of the brick. Three whole or nearly whole bricks were found. What is most significant is that one of the bricks (#1505) was thinner and wider than the other two modern-size bricks. The length of this brick could not be determined but it measured 4 ¼" wide and 1 7/8" thick. This is similar in size to a half-brick found in Feature 4 in 2009. Size of bricks alone cannot be used for dating purposes, but there was a general tendency that 17th and early 18th – century bricks were longer, thinner and wider than later brick as can be seen in attempts to standardize brick sizes. In England in 1571 there was an attempt to standardize brick size to 9" x 4 ½" x 2", close to the size of the brick we found. The English colonists would have brought their knowledge of brickmaking to New England with them. It apparently took some time before a smaller, more standard-size brick became common.

A total of 385 pieces of daub were found during the 2011 excavations. Daub is a medieval building material consisting of a mixture of clay, straw and occasionally other ingredients such as manure, used as in-fill between woven sticks, called wattle, and used to form a wall. Wattle and daub construction was also used for chimneys, and daub alone could be used as chinking between the logs of a log structure. This building technique was brought to America from Europe and used throughout the 17th and early 18th centuries by the earliest settlers to an area. Once sawmills were established, wattle and daub structures would be replaced or at least covered over with wood. When a wattle and daub structure burned, the daub would be fired and the end result resembles brick. It is sometimes difficult to distinguish between the two so it is possible some of the daub was discarded with the brick or simply misidentified.

Also in the architectural category of artifacts are nails, of which 1884 were found. Recovered were 825 cut nails, 757 unidentified square nails, 253 hand-forged nails, 47 wire nails and 2 horseshoe nails. Handforged or hand wrought nails were the earliest type of nail to be made in the American colonies, and were still used, but in a very limited number, after cut nails

were introduced. The process for making cut nails was developed in 1790 and they are still used today, but their use declined dramatically when wire nails, developed in the 1850s, became widely used around the 1880s. In addition to these nails we also found 61 cut spikes.

A total of 213 shards of window glass was recovered.



Figure 8. Portion of strap hinge #1031.

One other piece can be attributed to the architectural category of artifact. This is #1031, a portion of a large strap hinge (Figure 8). This 24cm (9¹/₂") long strap includes 4 cut nails and the head of another. One end is bent 90° and split. The split does not appear intentional since a crack from the split travels along the strap to a cut nail.

Figure 9. Broken file #607 & #909.



The only tool recovered was two pieces of what appears to be the same file (#607 & #909, Figure 9). They were found in the plow zone of two adjoining squares, N199 E181 and N200 E181. The flat file is 31.75cm (12.5") long with a smooth single cut pattern.

After architectural artifacts, the most numerous category of artifacts was those for food storage, preparation and service, mainly ceramics. By far the most common ceramic found was 846 shards of redware. Redware, as the name implies, is a red-bodied utilitarian ware which in most cases is non-diagnostic, found on American sites from the earliest settlement to the present. Much of the redware found was small non-descript shards, but in both cellar holes larger pieces were found as well. Figure 10 shows several redware examples that have been cross-mended or

put back together. In the center is the rim of a large jar or a crock. In the center of the rim and to the upper left are pieces of the body of the same vessel, all from Feature 5. Also from feature 5 is the body of a second crock or jar at the top right and part of a milk pan at the bottom left. At the bottom right is part of a milk pan from Feature 6. (Illustrated are artifact #s 1129, 1144, 1208 and 1225.)



Figure 10. Example of large redware pieces from cellar holes, Features 5 & 6.

The second most common ceramic type recovered was 680 shards of pearlware. Pearlware, an English refined earthenware, was first introduced about 1775, and produced in some forms until the mid-19th century. Most of the pearlware found were small shards, but covered a wide variety of the ceramic. Figure 11 shows some of the larger pieces and provides a limited example of the variety found. The two larger pieces shown are an even-scalloped blue shell-edge plate rim (#1387) at top, and sponge-decorated small bowl base (#1401) at bottom.



Figure 11. An example of some of the variety of pearlware found during excavations.

Creamware was an English refined earthenware manufactured from 1762 to about 1820, and was the predecessor of pearlware. A total of 187 shards of creamware were found during this year's excavations. Most of the creamware found was small shards, but in the Feature 6 cellar hole we found several large pieces that cross-mended to form about $\frac{1}{3}$ of a plain Royal-pattern edge dinner plate (#1565 Figure 12.) The majority of the creamware found was plain, undecorated shards, but a few pieces were decorated. Shown in Figure 13 are: top left, Whieldon ware with sprig-molded decoration, from a vessel such as a tea pot (#1564); top right, another piece of a Whieldon ware plate showing clouded decoration with a tortoise-shell stipple on the reverse side (#64). Seven shards of Whieldon ware were found. At bottom are three examples with an over-glaze polychrome with annular banding and a green stipple decoration (#s 1403, 1544 and 1405).



Figure 12. Cross-mended plain creamware plate with a Royal-pattern edge.



Figure 13. Example of decorated creamwares from the site.

A variety of other ceramic types were found as shown in Figure 14. On the yellow background at the top are 3 of the 7 shards of Jackfield recovered. Jackfield is a refined, high-fired redware with a black glaze both inside and out with a purple or gray body, dating from 1740 to about 1800. At top right is a shard of English brown salt-glaze stoneware manufactured from about 1672 to 1775. The next four pieces down the right side are gray stonewares. The top three are Rhenish gray stoneware dating from about 1690 to 1775. The one with the blue

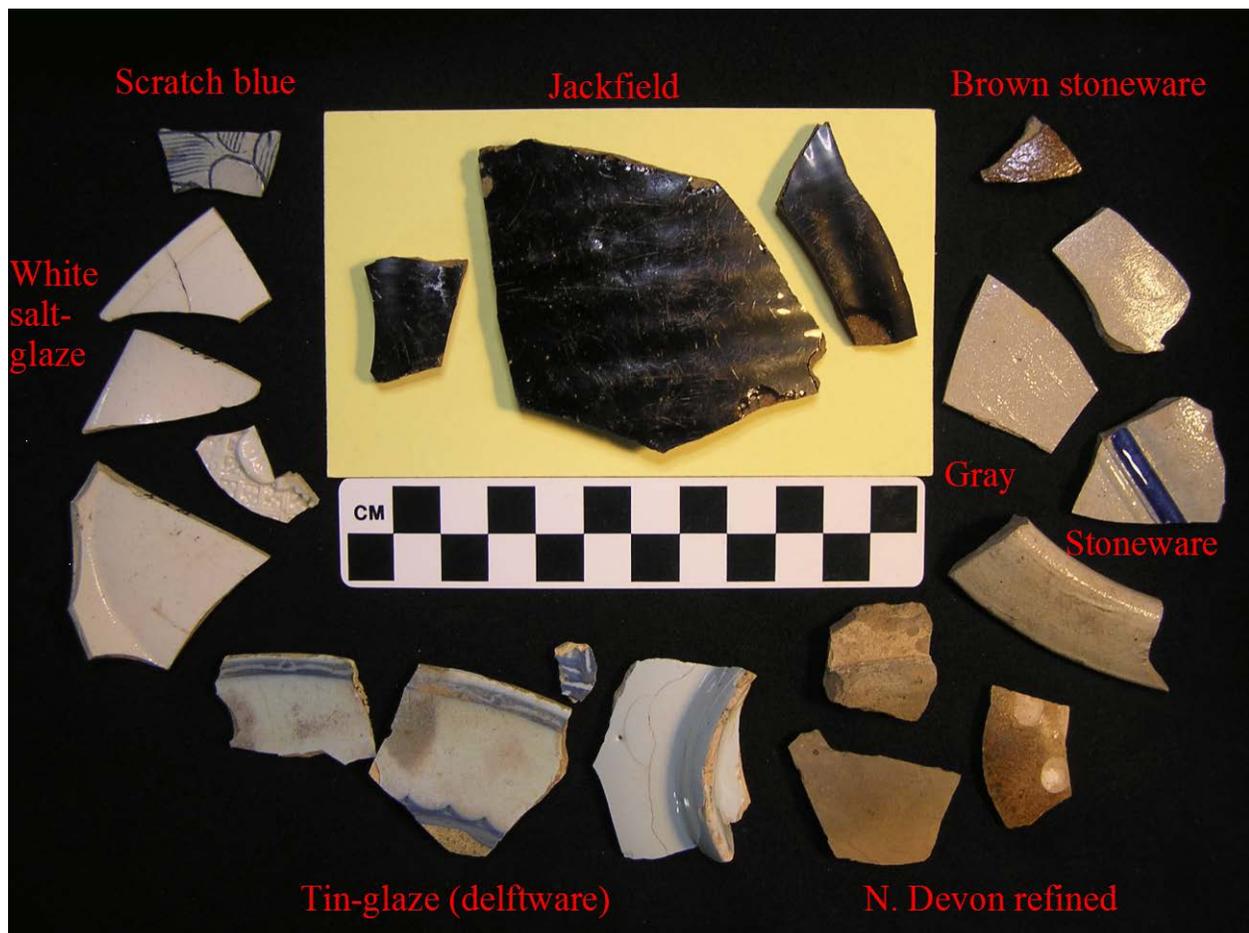


Figure 14. A sample of the variety of ceramics from the site.

incised line is Westerwald with cobalt infill. The fourth piece of stoneware is part of the rim of an English chamber pot dating from the 1730s to about 1800. There were 13 shards of stonewares found during the excavations.

In the lower right corner of Figure 14 are 3 shards of North Devon refined (gravel free)

Earthenware. North Devon wares came from the West Country of England, principally around the towns of Barnstable, Bideford and Great Torrington, all in North Devon. North Devon wares were popular through the American colonies from the period of first settlement to well into the 18th century. Gravel-free ware is found on the earliest colonial sites and is characterized by the outside of the vessels being fired to an oxidized orange or red color, while the inside was reduced to gray, the result of firing the vessel upside down, thus limiting oxygen to the inside.

At bottom center of figure 14 are four pieces of tin-glaze earthenware or delftware. Delftware is a soft, buff-to-pink-bodied, fine earthenware, with a thick enameled glaze or lead glaze made opaque with tin, manufactured from the 16th century into the early 19th century. A total of 62 pieces of delftware were recovered, which includes pieces of just the glaze which tends to pop off from the body.

Along the left side of Figure 14 are five shards of English white salt-glaze stoneware, a refined stoneware, which dates from 1720 to 1805. The bottom piece is part of the base of a 7cm diameter vessel, probably a bowl. The small shard above the base is molded with a dot, diaper, basket pattern. Although most commonly seen on plate rims, this piece was not from a plate. This pattern was also used on other pieces such as the upper two soup tureens as seen in Figure 15. The next two shards shown on the left side of Figure 14 are a cup and a bowl rim.



Figure 15. Showing the dot, diaper, basket pattern on the two soup tureens at top.
(After Skerry and Hood 2009: 147.)

At the top left corner is a piece of scratch blue white salt-glaze. Scratch blue dates from about 1744 to 1775. A total of 16 shards of white salt-glaze were found this year on the site.

Other ceramics not shown include three shards of Staffordshire. Staffordshire is a lead glazed, buff-bodied, yellow English slipware decorated with brown iron oxide dots and combed lines. It was produced from about 1680 to 1780. The three pieces in this assemblage were too small to get a meaningful picture. There was one shard of whiteware. Hard white or whiteware, still manufactured today, was first produced about 1805 but is not common on American sites until about 1820. Finally, there were 28 shards of earthenwares that had no glaze or were burned



Figure 15. Some of the better examples of bottle glass found. The bottle had a cut-off finish with a fire-polished lip, but practically no neck, which is what makes it unusual. The fire-polished lip suggests a date of manufacture before 1860, but no exact example of such a bottle could be found. If it is an inkwell it would date to the late-18th to early-19th century. Finally, artifact #1122 is the base of a small medicinal bottle. It has a pointed push-up made with a sharpened wood or metal rod, and evidence around the base of a

so as to be unidentifiable.

Also in the food storage, preparation and serving category we found 173 shards of bottle glass. Four pieces are illustrated in Figure 15. The two shards of dark green glass (#1588) cross-mend and are part of a wine bottle. The cross-mended shards form part of the body and shoulder of an 18th to early 19th century bottle. Artifact #762 is unusual in that it appears to be the shoulder and lip of a probable medicinal bottle. It is also possible that this could be part of

glass-tipped pontil scar. Glass-tipped impontiling is an early technique suggesting this is an 18th-century bottle.



Figure 16. The decorated tableware recovered.

The final artifacts in the food storage, preparation and serving category are tablewares. Eight shards of tableware were found, and the four that were decorated are shown in Figure 16. Three of these are wheel engraved. Although wheel engraving had been used for some time, copper-wheel engraving was perfected in England around 1725. Most wheel-engraved pieces found on American sites date to 1780 - 1820. The fourth shard, #1059, is etched. The art of etching glass became popular in the mid-19th century.

The final artifact category to be discussed is personal items beginning with clay tobacco pipes. The clay tobacco pipe is one of the most useful artifacts for the archaeologist, and one of the most numerous found on colonial American sites. The bore or hole diameter in the stem of a clay tobacco pipe is one of its more diagnostic characteristics and can be used to provide a mean date for the pipe's manufacture. From the introduction of the pipe in the 1570s until the 1750s, the bore in the stem of the pipe decreased in diameter at a regular rate. The bore sizes generally range from $\frac{9}{64}$ " for the earlier pipes to $\frac{4}{64}$ " for 19th and 20th-century pipes. Unfortunately, the formula used to establish the mean date of pipestems is less accurate on either end of the clay tobacco pipes' time span. The pipe bowl is also diagnostic in that its size, shape, and decoration changed over time.

A total of 26 clay tobacco pipe fragments were found. Eleven of these were pipestem fragments with bore hole diameters distributed as follows: 4 - $\frac{4}{64}$ "; 5 - $\frac{5}{64}$ "; 1 - $\frac{7}{64}$ " and 1 - $\frac{9}{64}$." The remaining four pieces were split and un-measurable. None of the pipestems were decorated and the only one of interest was #401 which had a whittled end (Figure 17).

Clay pipes broke easily (thus they are so common on archaeological sites) and, if it was the stem that broke, the pipe could be reused by whittling down the stem to form a mouthpiece. Artifact



Figure 17. Diagnostic clay tobacco pipe fragments.

#1242 is the most complete bowl found.

As seen in the photo, it has a maker's mark "TH" impressed in the bowl.

Unfortunately there were 26 pipemakers with the initials "TH" working in England from 1654 to 1925. The bowl form with the heel is similar to one dated by Noël Hume (1969: 303 #14) to 1680-1710. The loose $\frac{5}{64}$ " bore hole in the remains of the stem would fit with the 1710 date or perhaps a little later.

Artifact #1393 appears similar in form to #1242. Final, #948 in Figure 17 is a bowl fragment with rouletting around the rim. This type of decoration was most common in the 17th century. What can be determined from the shape would

place it in the latter half of that period.

Several small artifacts of personal use were found as shown in Figure 18, including five buttons. Button #477 is a molded black glass sleeve button. Black glass buttons were produced in the millions beginning about 1840. Button #922 is the best documented of all the buttons. This is a two-piece brass pants button. On the back are the words "WILLIAM ASTON PATENT NEW." William Aston manufactured buttons in Birmingham, England from 1849 to 1881. In 1864 he was employing 800-900 workers, well over half of whom were children. The front of the button reads "CALL & TUTTLE BOSTON." No information could be found on Call & Tuttle, but they were probably Boston clothing manufacturers getting their buttons from Aston. Artifact #950 is also a two-piece metal pants button, but in this case made of iron and in too poor a condition to provide any information.



Figure 18. Small personal items found.

Button #1128 is a small flat brass button with a loop shank. On the back is the word “PLATED” indicating that the front had been silver plated. A patent for electroplating gold and silver was first issued in 1840 in Birmingham, England. This discovery and the fact that Birmingham was a major button production area (including Aston’s company) is probably not a coincidence. The plain face of this button was most popular between 1800 and 1830. Most likely the button was made when electroplating of gold and silver was first introduced. Button # 1039 is either pewter or more likely Britannia metal, with a cone shank and a missing iron loop. The face has the molded impression of a stylized anchor. The stock, or cross member at the top, is not straight as an anchor should be, but rather points upward and looks like two leaves. A match for this design could not be found, but it is pretty certain that it is not a military button. It probably dates from the 1770s to the early 1800s.

Also shown in Figure 18 is artifact #646, a possible iron sewing needle. This is not a definite identification. If it is a needle, the curve in it is accidental, as it does not match other forms of needles with curves such as collar needles or pack needles. Pack needles (the most likely candidate) were used for sewing up packages for shipment (for example, packages of furs

from a trading post). Artifact #1535 is probably one of the finest artifacts found this season. This is a brass child's thimble. The hole for the finger is very small, being 0.44." Girls were taught needlework beginning at an early age, and they would continually require larger thimbles as their fingers grew. Therefore it is not unusual to find children's thimbles with no appreciable wear, such as this thimble. There are no maker's marks or size marks on the piece. In her book on the archaeology of needlework, Mary Beaudry illustrates a thimble almost identical in material, size and form which she dates from the late 18th to the early-19th centuries (Beaudry 2006:107).

The final artifacts to be discussed are shown in Figure 19. Artifacts #1223 and #1403 are (probably English) gray flint. Number 1223 is part of a broken spaul type gunflint. Number 1403 was probably a gunflint at one time, but appears to have later been used as a strike-a-light, the process of striking a flint against a specifically shaped piece to produce a spark to start a fire. A related artifact, #1280, is lead sprue from making lead shot. Artifact #1190 is two



Figure 19. Miscellaneous artifacts.

burned pieces of an incised bone handle. And finally, artifact #969 is an iron, cod size fishing hook.

Conclusions

The conclusion for the 2009 report reads, “We have yet to find more substantial architectural evidence such as at least two cellar holes.” Now we have found those two cellar holes. The problem we now face is to determine which cellar hole belongs to which house, Hutchinson’s or Thwing’s. We can’t really compare the quantity of artifacts from the two features since the two test pits in Feature 5 were not totally within the feature while the two test pits in Feature 6 were both totally within the cellar hole. Feature 5 contained a total of 813 artifacts while Feature 6 contained 1821, a ratio of 1:2.2. Both cellar holes contained the same type of artifacts. But if we look at the totals of certain types of artifacts we could perhaps come to a tentative conclusion. The most dramatic difference is seen in the total amount of pearlware found in the two cellar holes. There were 21 shards of pearlware found in Feature 5 and 360 shards of pearlware found in Feature 6. This is a dramatic difference, well beyond the 1:2.2 overall ratio of artifacts found between the two cellar holes. But what does this mean? Was the cellar hole of Feature 6 the earliest cellar and used as a trash dump when the structure of Feature 5 was occupied, or was Feature 6 the cellar for the later structure and used as a trash dump after occupation had moved to its present location on the hill?

The first of the above scenarios seems the most logical but we can’t prove it with the evidence we have. To determine which structure is which, more work needs to be done on the two cellar holes, not only to recover more artifacts to help us answer this question, but also to determine the size and shape of the two structures. For this more time than one week would be needed. It took one week just to excavate one edge of Feature 5, and we were not able to complete one of the test pits in Feature 6. In addition to determining which cellar is which, Ashley’s 17th century site needs to be found. We know it is close by. Perhaps Hutchinson reused Ashley’s cellar. There are many questions still to be answered.

Sources

Alexander, L. T.

1979 "Clay Pipes From the Buck Site in Maryland." In *The Archaeology of the Clay Tobacco Pipe II. The United States of America*. BAR International Series 60, edited by Davey, Peter, Oxford : 37-61

Beaudry, Mary C.

2006 *Findings: The Material Culture of Needlework and Sewing*. Yale University Press, New Haven, CT.

Cranmer, Leon

2010 "Report on 2009 Archaeological Excavations At Thwings Point, Woolwich, Maine." On file MHPC, Augusta, ME.

Extraordinary Book of Doors

2011 "Windows and External Doorways in English Secular Architecture 700-1800."
<http://extraordinarybookofdoors.com/BrickAndTerracotta.aspx>.

Jones, Olive

1971 "Glass Bottle Push-ups and Pontil Marks." In *Historical Archaeology* Vol. 5 No. 1: pp62-73.

Luscomb, Sally C.

1967 *The Collector's Encyclopedia of Buttons*. 1992 printing. Schiffer Publishing, Ltd., West Chester, PA.

Mainfort, Robert C., Jr. And James M. Davidson, eds.

2006 *Two Historic Cemeteries in Crawford County, Arkansas*. Arkansas Archaeological Research Series N. 62. Arkansas Archaeological Survey, Fayetteville, AR.

Miller, George L., with contributions by Patricia Samford, Ellen Shlasko, and Andrew Madsen.

2000 "Telling Time for Archaeologists." In *Northeast Historical Archaeology* 29 (2000): 1-22.

Noël Hume, Ivor

1969 *A Guide to Artifacts of Colonial America*. Alfred A. Knopf, New York. Reprint ed. Vantage Books, New York, 1991.

Osborne, Peggy Ann

1993 *Button Button Identification and Price Guide*. Schiffer Publishing, Ltd., Atglen, PA.

Oswald, Adrian

1960 "The Archaeology and Economic History of English Clay Tobacco Pipes." *The Journal of the British Archaeological Association* Vol. XXIII (1960). Reprinted as offprint 1967.

Salaman, R. A.

1990 *Dictionary of Woodworking Tools*. The Taunton Press, Inc., Newtown, CT.

Skerry, Janine E. and Suzanne Findlin Hood

2009 *Salt-Glazed Stoneware in Early America*. The Colonial Williamsburg Foundation, Williamsburg, VA.

Wicks, John

2003 *Identifying Glass Bottles*. NAHOP Artifact Studies 2. Archaeology Unit at Memorial University of Newfoundland, St. Johns, Newfoundland.

Bone Supplement

A total of 435 mammal bones were recovered during the dig. These consisted of both domestic and wild animals, chiefly, cow/moose, sheep/goat, many pig, and deer. We also found 9 fish bones and 56 bird bones. The bird bones included turkey, but since wild turkeys were present in Maine until the 1880's, and domestic turkeys were here since earliest European settlement, we can't say what type of turkey these bones represent. The 9 fish bones include scales, ribs and 1 or 2 vertebrae, in not very good condition.