First Section of Original Plymouth Colony Settlement Discovered in Downtown Plymouth

Since 2013, an archaeological field school from the Fiske Center for Archaeological Research at the University of Massachusetts Boston, in partnership with Plimoth Plantation and the Town of Plymouth, has been working in downtown Plymouth as part of Project 400: The Plymouth Colony Archaeological Survey. The field school consists of five weeks of excavation in the summer, followed by analysis in the UMass Boston laboratories during the rest of the year. The project includes reassessment of the past archaeology of the Plymouth Colony and new excavations to locate sites that were part of the early colonial town.

Working with community partners and descendant organizations, including the Mashpee Wampanoag Tribe, the General Society of Mayflower Descendants, and local museums, we are undertaking a series of initiatives focused on the Plymouth Colony to help advance a complex, inclusive, and scholarly understanding of the region’s Colonial and Native communities. UMass Boston’s NEH funded research focuses on three primary research questions:

1) How did the Colonists’ actions define an English colonial landscape?

2) What are the ecological consequences of the Plymouth Colony settlement?

3) How did interactions between Colonists and Native people create new practices in some cultural spheres while others remained more traditional or distinct?

To answer these questions, we began a program of geophysical survey, excavation, environmental sampling, and collections reanalysis in 2013. The project is directed by David Landon and Christa Beranek, with the assistance of a number of other researchers from UMass Boston (John Steinberg and Brian Damiaita (geophysics); Heather Trigg (paleoethnobotany)) and Plimoth Plantation (Kathryn Ness). Henry Hornblower, James Deetz, Roland Robbins, and others had excavated outlying sites from the 17th-century colony between the early 20th century and the 1970s, but no one had located any intact archaeological features from the original palisaded settlement, long believed to lie under modern downtown Plymouth. We are pleased to report that in 2016, we located the first known features from the 17th-century town.

We have been systematically surveying and testing a strip of land along the eastern edge of Burial Hill, a historic cemetery, in downtown Plymouth (Fig. 1). We purposefully avoided disturbing any of the historic graves and monuments on Burial Hill, which was listed on the National Register of Historic Places in 2013. Before its use as a burial...
ground, which began in the 1680s, Burial Hill was known as Fort Hill. Local tradition held that the fort built by the colonists was situated near the top of the hill, with a palisaded town running down the hill towards Plymouth Bay. At the east edge of the burial ground, there is a gap of roughly 20 meters (65 feet) between the modern street and the start of the burials. This open space was the site of schools, stables, and warehouses in the 19th century (Fig. 2), all now demolished, and we have been systematically testing the space between the back walls of these buildings and the burials with ground penetrating radar (GPR) survey (Fig. 3) and systematic excavations.

We began at the north end of this stretch and have been moving south, so that we would cross from the outside of the 17th-century town to the interior. Our 2014 excavations defined the back walls of many of the 19th-century buildings in order to evaluate the effects that their construction and demolition would have had on the surrounding deposits. Although our target is the 17th century, we are also committed to interpreting the evidence of earlier and later Plymouth that we encounter.

In 2015, we found our first intact early deposits. One excavation unit uncovered a section of a Native stone tool making workshop; the lack of any historic period artifacts suggested that this site predates the colonial settlement and was outside the boundaries of the palisaded town. We performed radiocarbon dating on some charcoal from this site, yielding a date between 1466 and 1632 AD, suggesting that this was an area inhabited by the Wampanoag in the period immediately prior to the English colonial settlement. In 2015, we also found a very small segment of an early colonial feature: a pit that was truncated by the demolition cut of a later building on one side and ran into the wall of our excavation unit on the other. The disturbed deposits above this contained a small number of 17th-century artifacts, including the heel of a pipe marked with the initials RB surrounding a dagger and a heart (Fig. 4), the mark of Richard Berryman from 17th-century Bristol, England, who worked from 1619 and 1652.

2016 and 2017 Results

On the strength of this discovery, we opened 15 square meters adjacent to this in 2016 and 2017. This area contained a complex of 17th-century features, all presenting as soil stains. Our interpretation is this is an outdoor area/yard space within the palisaded settlement containing two refuse disposal pits, a planting hole, a series of posts that may be part of a fence line, and a shallow trench that may be an area trampled by repeated walking or worn away by water (such as along a drip line).

Figure 5 shows our 2016 excavation area. The dark soil along the eastern (top) edge of the excavation area is the continuation of the feature dis-
covered in 2015, a pit filled with a very organically enriched soil with a low artifact density: shell and animal bone, fragments of Native ceramic vessels, and a small number of historic ceramics (redware and North Devon), a trade bead, and a small number of nails. We excavated an additional section of this pit in 2017, taking soil samples for botanical analysis (Fig. 6). These analyses are in progress, and while there do not seem to be abundant botanical remains (pollen or seeds), parasite eggs are present and will be studied further.

In the south central part of the excavation area is a planting hole that contained a large number of fish bones, predominantly the heads of a small fish such as a herring or shad. Running north to south across the excavation area was a shallow trench that contained trade beads, straight pins, lithic flakes, and small fragments of Native and European ceramics including some early stoneware and Border ware. In the center of the trench was a much deeper pit used to bury a butchered calf, largely articulated though missing its head, rear limbs, and feet (Fig. 7). There are post holes both east and west of the trench as well as other soil stains and small pits. Analysis of the artifacts from this area is in progress.

Further up the slope, a single 1x2 meter excavation unit excavated in 2016 recovered a significant collection of likely 17th-century artifacts (Fig. 8) in mixed contexts which included a piece of lead shot, red earthenwares, North Devon and Border wares, brown stoneware, and smoking pipes. This relatively large collection of 17th-century types suggests that there is another site in close proximity. We came back to this area in 2017 and opened...
another excavation unit that contained two post molds—stains left from decayed wooden posts—suggesting that there was a structure in this area. We also found a small number of 17th-century artifacts including a lead seal that was once attached to a bale of cloth (Fig. 9). This seal is of a type called an alnage seal, and this one seems to be part of a series of county specific seals showing a crowned thistle that were used during the reign on Charles I (1625-1649). This area will be one of the main excavation locations in 2018.

We are also doing exploratory testing elsewhere in Plymouth. Because of centuries of urban development, we expect areas where 17th-century deposits are preserved to be small and discontinuous, and strongly affected by several waves of urban renewal. The area of Brewster Garden along Town Brook is one of our test areas. The brook is a historic watercourse that has been dammed and filled, creating a narrow brook where there was once a broader estuary. In 2016, we did coring along the margins of this area to begin the process of locating the historic shore line and to take a pollen core to study long term environmental change. In 2017, we did test excavations in three areas. None of these located 17th-century deposits, but one did encounter buried, waterlogged posts that may have been part of an 18th-century dock.

**Interpretation**

We are still actively collecting and analyzing data, but have also taken some preliminary steps towards addressing our major research questions. Spatially, we believe we have de-
fined areas inside versus outside the palisaded settlement, though we have not found the palisade itself. Within the palisade, we have identified a yard area and possibly an associated structure, both on the relatively steep slope of Burial Hill.

One of our primary research questions is whether the Native ceramic fragments and lithic debitage in the 17th-century features indicate Native-colonist interaction or whether they were part of an older underlying site, redeposited in the 17th century. To determine this, we compared the ratios of Native ceramics to chipped stone at two Native sites and in the 17th-century features. The ratio of ceramics to lithics was higher in the 17th-century features, suggesting that there were more ceramics present than one would expect if an older site was simply re-deposited. Our current interpretation is that these fragments come from Native pots that were being used in English houses. Microscopic analysis shows that some sherds have burned organic residue on the inside, indicating that they were used for cooking.

One of the most challenging questions is what time period is represented by these deposits. We know that these are features from the 17th century, but are they from 1630 or 1660? So far, we have found two marked artifacts that can be precisely dated (one smoking pipe and the bale seal), and both of these have pre-1650 date ranges.

The Material Assemblage

All of the features that we have identified so far have contained only very small and/or fragmentary artifacts, typical of what you might find trampled in a yard space (Fig. 10). Although we do have two refuse pits, both of these seem to have been purpose-dug for organic waste (the calf skeleton and undetermined organic refuse such as human or animal waste or meat or vegetable scraps).

Ceramics: We have a number of European ceramic types, listed below, but more significantly we have found a roughly equal number of Native ceramic fragments. The Native ceramics are lower fired and more fragile than many of the European imports, so all of the pieces are very small, most smaller than a finger nail. The European ceramic types represented include North Devon, Border ware, tin glazed wares, redware, and brown stone-ware (probably German). Redware and North Devon are the most common of the European types. Most pieces are too small to identify the vessel type, although some ware types exist primarily in specific vessel shapes (i.e., German stoneware bottles).

Glass: There is very little glass from the 17th-century contexts. There are a few olive and dark green curved fragments from bottles. There are a larger number of pieces of flat, olive green glass that may either be from window panes or the flat sides of a case bottle. The flat glass is being analyzed for its elemental composition using portable x-ray fluorescence (p-XRF), and preliminary results indicate that much of it is case bottle glass. The composition of window glass changed after 1660,
so the goal of the p-XRF analysis is to identify and date any window glass.

**Nails and Building Materials:** There are a number of wrought nails and some fragments of mortar or daub, but no brick. Two pieces of lead may come from window cames.

**Firearms:** We have two partial gun flints, at least six pieces of shot, and some melted lead drips possibly from making shot.

**Flora and Fauna:** We took soil samples from the features in case there were preserved seeds, but so far, none of these samples have produced good seed assemblages. Bone and shell are concentrated in the two refuse disposal pits. The calf has been studied, documenting the butchery marks on the skeleton, but the other bone and shell has not yet been analyzed. The bone in the deep organic refuse pit includes fragments of turtle shell.

**Small Finds:** We have a small number of smoking pipe stems and bowls, only one of which is marked (see above), one bale seal, roughly six beads, one fragmentary buckle, and a number of straight pins.

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We welcome questions, comments, and site visitors! We will be running the field school in Plymouth from May 29 to June 29, 2018, and you are welcome to visit the fieldwork at any time (weekdays, 8:30 to 3). You can also learn more about past finds and follow along with current activities on our blog and social media sites, listed below.

Follow the project online!

Blog: blogs.umb.edu/fiskecenter
Facebook: https://www.facebook.com/FiskeCenter/
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Figure 10. A selection of artifacts from the early features; top, ceramic types: Border ware, North Devon, and stoneware; bottom: lead shot, trade beads, and straight pins.