



David Teniers "Tavern Scene" 1658

**An Archaeological Reevaluation
of the
Great House/ Three Cranes Tavern (1629-1775)
Charlestown, Massachusetts**

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Citizens of the Commonwealth were given a rare opportunity to witness the investigation of part of Boston's earliest colonial past during the city's "Big Dig"/ Central Artery Project in 1985, when the Massachusetts Bay Colony's "Great House" was explored prior to the site's destruction (all of the background information presented here, on both the history of the property and the excavations, is based on Gallagher et al 1994). The Great House, located in City Square in Charlestown, was built in 1629 before Boston was even settled. It was to serve as the first residence of Governor Winthrop and the other prominent members of the company and as the colony's meetinghouse. It is believed to have been erected by a party of 100 men from Salem, who had been sent with orders to build it, lay out streets, and survey the two acre lots to be assigned to settlers. Work was begun in June 1629 and was expected to be completed by the time of the arrival of Winthrop's fleet of 11 ships in the summer of the following year. Archaeologists assumed that it was to have been a formal, professionally designed structure symbolizing the hierarchical nature of the new settlement and serving as a link between the old and new worlds. Unfortunately, soon after the fleet's arrival, a great mortality swept the colony, which the settlers attributed to the brackish drinking water in the new settlement. The majority of them moved to Shawmut (now Boston) and reestablished the colony there, leaving the Great House to eventually serve as the meetinghouse for those who chose to remain (**Figure 1**). As can be seen on the 1693 map of Charlestown, the Great House was not laid out north to south, but at an angle so that it is more like northeast to southwest. As the rest of the town was established in a more orderly fashion along the contours of the peninsula, the Great House remained an anomaly.

The lots on which the Great House stood were sold to Robert Long in 1635. Long had arrived in the colony the same year, having traveled from Dunstable County, Bedford, England with his wife and 10

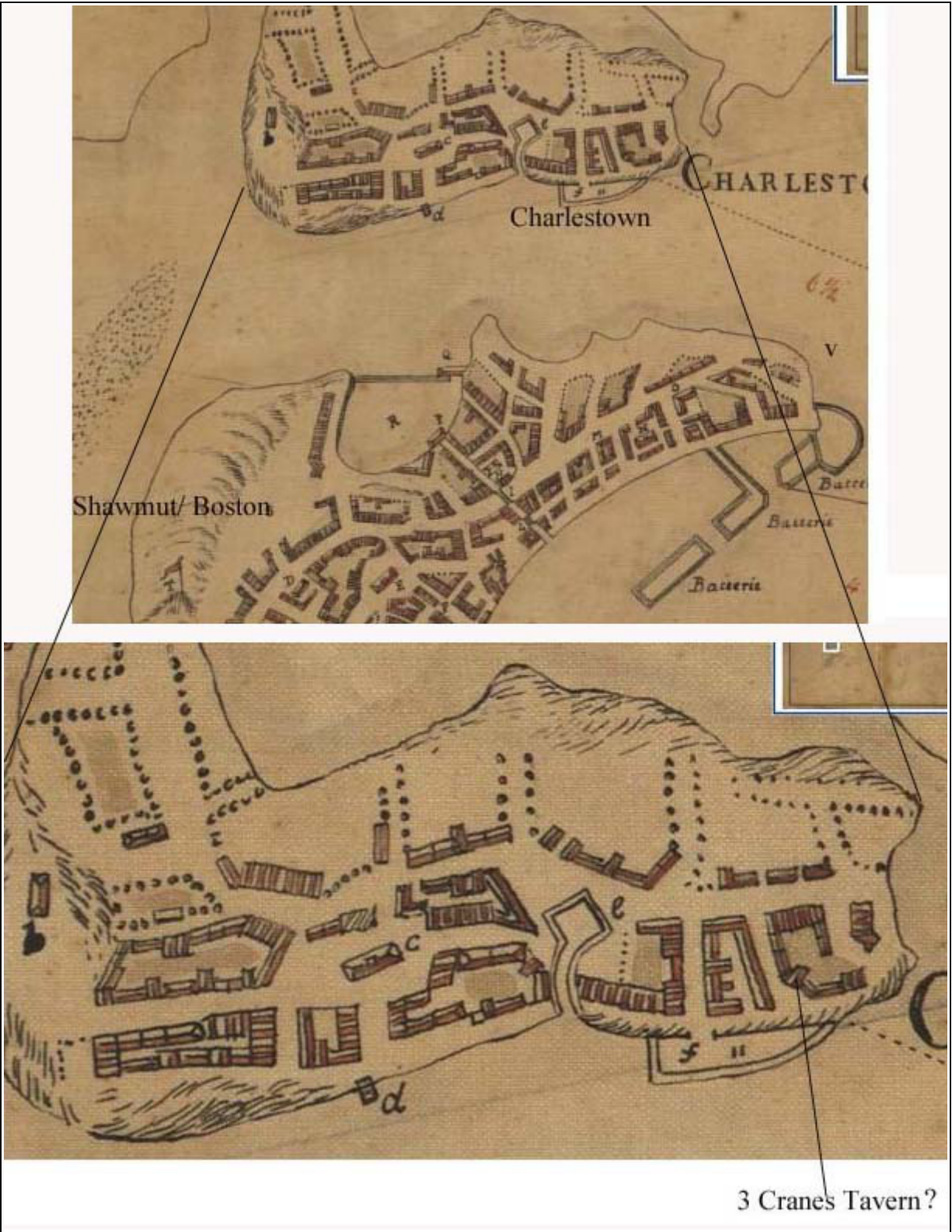


Figure 1. Location of the Great House/ Three Cranes Tavern (City Square, Charlestown) and Shawmut (Boston) (1693 Jean Baptiste Louis Fraquelin *Carte de la ville, baye et environs de Baston*) (North to top of map)

children. The sale from the general court, who had purchased the building from the company for 10£ in 1632, stipulated that Long was to have use of the south room and as much of the chamber as the deacon of the congregation could spare, but that he would not have complete ownership of the house until a suitable meetinghouse was built. The deed also stipulated that Long was to have the plank and boards that lay over the chamber. The East Anglican term “chamber” was synonymous with the more commonly used word “hall” that identified the main room of the house, in which daily activities took place. The deed also stated that the chamber contained “forms and benches”, presumably on which the congregation sat during meetings. A new meetinghouse was apparently soon built, because by 1639, the town had decided to build another meetinghouse to replace the one built after Long had purchased the first one. Long operated a tavern and inn out of the building, being granted permission to sell wine in 1640, with the family probably living upstairs in the chamber. It was at this tavern, in 1638, that the famous traveler and chronicler John Josselyn reported that he saw a rattlesnake a yard and a half long. Long is believed to have built a stable on the property that was described as being 18' wide and 30' long and located to the south of the house (**Figure 2**).

The tavern was identified as having a great low room and kitchen (where the bar was kept) on the first floor and chambers with beds on the second floor. The great low room would have been the hall in the 1663 inventory and it was noted in 1683 that a set of stairs to the chambers were located in the kitchen. A second set of stairs, the main stairs, may have been located in the entry hall.

Robert Long died in 1663, leaving the property to his wife Elizabeth and son John. Robert's inventory identified a hall, kitchen, and porch on the first floor, a bedchamber over the hall, a room over the kitchen, and a room above the porch on the second floor. The hall is believed to be the same room identified as the Long's portion of the meetinghouse in 1635 (the south room) and the kitchen would have been the chamber (the north room) that originally served as the meetinghouse. The house, as described in 1635 and 1663, appears to be a standard Hall and Parlor house with a central chimney and a porch off of the southeast side.

After Robert's death in 1663, his son John re-consolidated the lot, and in 1673, his mother ceded her right to the tavern to him as well, possibly with the proviso that he build her a separate dwelling adjoining it for her. John died in 1683 and his probate indicates that by this time John had expanded the tavern complex by adding the new dwelling house adjacent and connected to the tavern, a wine cellar beneath the kitchen, a bar in the kitchen, and a brewhouse to the northeast of the tavern.

Upon John's death in 1683, the land passed to his widow Mary (she was allowed to continue to live in the dwelling house and receive 20lb/yr from the rent of the tavern).

In 1704, for 40 lb, Mary sold a piece of land 54' long and 30' wide in southwest corner of her garden to her brother-in-law Henry Cookery. The property was described as containing an old barn that was 18' wide and 30' long built (being the barn built by Robert Long between 1635-1663). This piece was sold by Cookery back to Mary's son Samuel in 1718.

Mary divided the remainder of her property in 1711 and gave the tavern and associated outbuildings to her son Samuel. Samuel died in 1730 and left his estate to his widow Sarah, who remarried in 1732 to George Shore. Sarah died in 1744 and left the land, including the tavern, to her husband, who sold it to Chambers Russell in the same year.

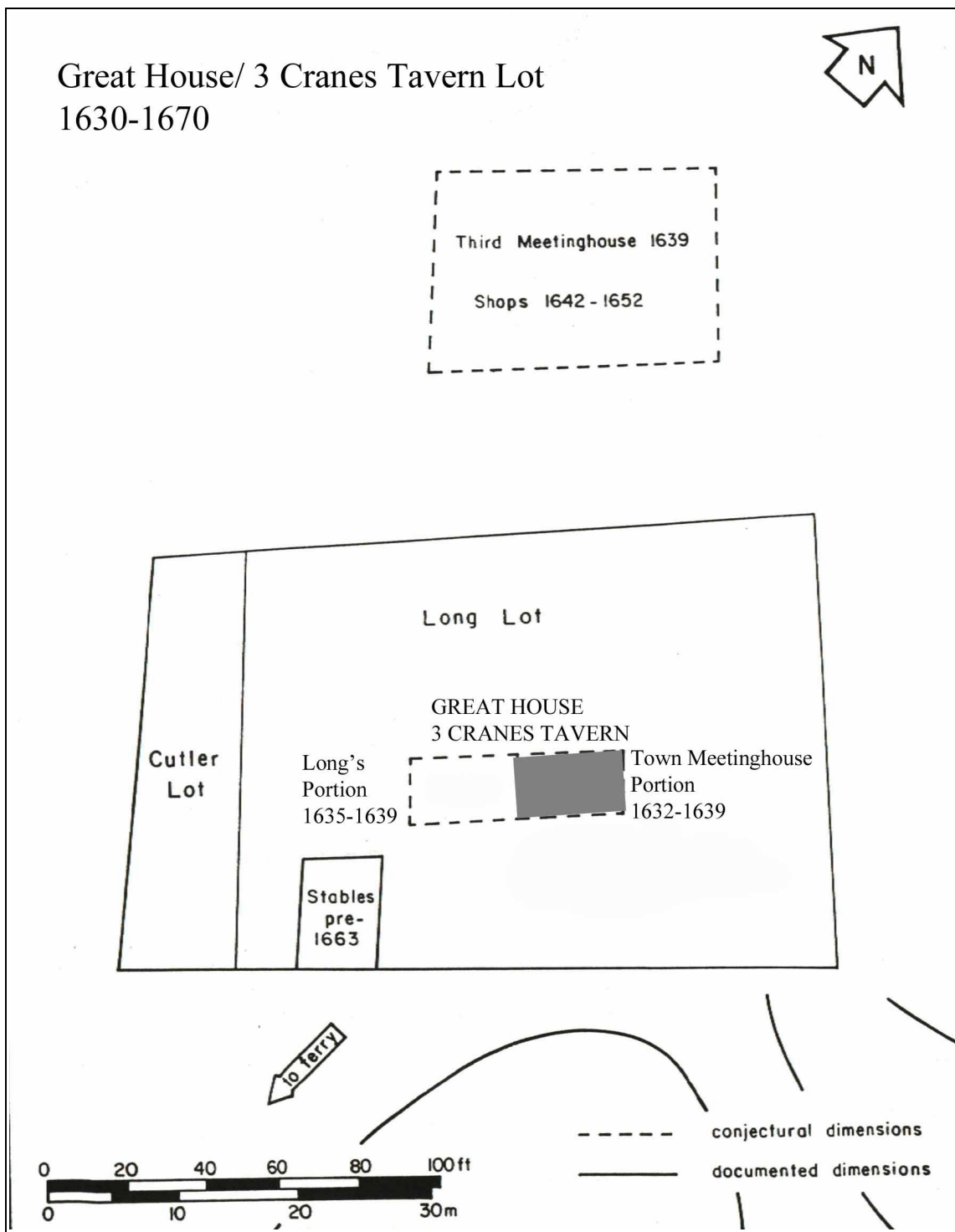


Figure 2. The Great House/ Three Cranes Tavern property in the 17th century (figure from Gallagher et al 1994)

Chambers Russell sold it in 1746 to Nathaniel Brown, who continued to run the tavern and was forced to hand the title over to the Ancient and Honorable Artillery Company Treasurer in lieu of debts in 1766. It was during Brown's ownership that extensive repairs were probably made to the old, and probably decrepit, building. These repairs included installing a cobble foundation below the wooden sills (probably cutting off the ends of the original earthfast posts that supported the frame) and burying a dead cat inside of the front door for protection and luck.

The dwelling house built for John's mother in the late 17th century was probably fairly small and may have been of a hall and parlor design as well. It was described as having a little kitchen with a fireplace for cooking, a parlor next to it, also with a fireplace and two chambers above- a parlor chamber and a kitchen chamber. The last room described was a low room chamber in the entry between the tavern and the dwelling house. The passage between the tavern and adjacent house entered the tavern in the "great low room", the hall, indicating that the house was located to the southwest or west of the tavern. We know this, because, following the initial excavation at the site, when the brick floor of the cellar was removed for curation, a drain was found located in the southwest corner. When Mary Long sold a portion of her garden plot to Henry Cookery in 1704, she added a proviso that she be allowed access through Cookery's property to repair the drain that ran from her cellar to the cellar of the tavern. Because the drain found in 1985 was in the southwest corner of the tavern, her house must have been to the southwest or west of the tavern, making the great low room, not the kitchen, but the other room described John Long's inventory.

If we accept that the ca. 1673 Long house was located to the west of the south room of the tavern, under the area that was not investigated during the data recovery excavation, then the building identified by the excavators to the immediate west of the north room of the tavern may have been the brewhouse. The building does not seem to have continued to the west past what was interpreted as a shallow cellar, as a cobbled surface, possibly part of the 1735 city paving of the market, existed in this area and did not overlap the building.

I believe that the brewhouse was excavated by the archaeologists in 1985, although they did not know it at the time, as they identified the structure to the west of the tavern as the Mary Long house. The brewhouse appears to have been attached to the tavern and was probably entered through the kitchen. The hearth identified by the archaeologists to the west of the tavern was probably the remains of the hearth associated with the brewing copper. The small cellar to the northwest may have been used to store grain or brewing.

The tavern passed into John's son Samuel's hands, who continued to operate it as such. John's widow Mary continued to live in the attached house until her death in 1729. Mary Long left the house to her granddaughter Mary Bradstreet who married Reverend Hull Abbott in 1731. The town voted to build a parsonage house for the reverend, and while the couple still owned, but no longer lived in, the house attached to the tavern, it is unknown what happened to it.

The end of the Great House/ Three Cranes Tavern came in 1775 when every standing building on the property was burned during the British bombing of Charlestown.

Archaeological Excavation

Excavations encountered numerous known and unexpected utilities within the impact area of the City Square Archaeological District (**Figures 3 and 4**), resulting in a restricted excavation area that had been seriously disturbed in some areas.

Archaeologists found features dating from all periods of occupation of the site during their 1985 field work. Many of the features were found to relate to either the Great House, the Three Cranes Tavern, or the addition to the tavern built to the northwest of the building.

Seven posthole/ postmold features were found that were interpreted as being associated with scaffolding erected when the chimney of the Great House was built. These ranged from 10-37 cm in diameter and 10-42 cm deep and were located surrounding the hearth base (**Figure 5**).

The archaeologists interpreted that the features that they had found indicated that the building measured 34.8 x 14' (10.7 x 4.4 m) and that it had a dry-laid stonewalled cellar with a brick floor with an interior dimension of 9.75 x 12' (3 x 3.7 m.) in the south west room and a relatively intact hearth base that measured 5.3 x 4.6' (1.6 x 1.4 m) in the center of the building. They interpreted a 1 m wide break in the southeast corner of the cellar wall as representing the location for access into the cellar (presumably, although not specifically stated, by means of a bulkhead). The house, as they interpreted it, appeared to be a hall and parlor style, with a hall (beneath which the cellar was located) measuring 14' wide by 19.5' long (4.4 x 6 m) and a parlor measuring 6.5' long by 14' wide. Two roughly parallel lines of stones on the east side of what they identified as the original building were interpreted as representing a very small 18th century addition measuring 8' long x 5.7' wide (2.5 m long by 1.75m wide). The dimensions of the rooms, most noticeably the parlor and 18th century addition, seem ridiculously small and harken back to when Roland Robbins and later Dr. James Deetz (in his book *In Small Things Forgotten*) tried to argue that longhouses like the original Alden house, measured only 10' wide and 40' long (Deetz 1979). One of the most interesting features identified was Feature 193, a shallow pit located beneath a section of the tavern foundation that contained the articulated skeleton of a cat that had been buried with two slip-decorated vessels with possible date ranges of 1725-1740. What was interpreted as the 18th century tavern addition foundation overlaid it (although not noted by the original excavators, this feature was probably where the front door into the tavern was located and may have been an attempt to use folk magic to keep witches [or more practically rats!] out of the tavern).

Addition

A group of features located to the west of the tavern were interpreted by the excavators as the remains of the house built for the widow of Robert Long ca. 1673. The most prominent features identified here was a foundation made of fieldstone and brick (Feature 84), a small stone lined cellar (believed to have been constructed in the mid 18th century) and a hearth, located just north of the tavern foundation.

The section of stone foundation measured 3.8 m long 40-65 cm wide and was composed of 4 courses of unmortared brick resting on 3 irregular courses of slate slabs that in turn rested on large fieldstones approximately 60 cm below the grade (a fairly elaborate construction for what the probates appear to represent as a modest structure!).

The cellar hole (Feature 210) was located at the northeast corner of the northeast addition foundation, but much of the south wall had been destroyed by later disturbance with only a 1.3 m. long section remaining. The west wall appeared complete and measured 1.6 m long and the north wall had been

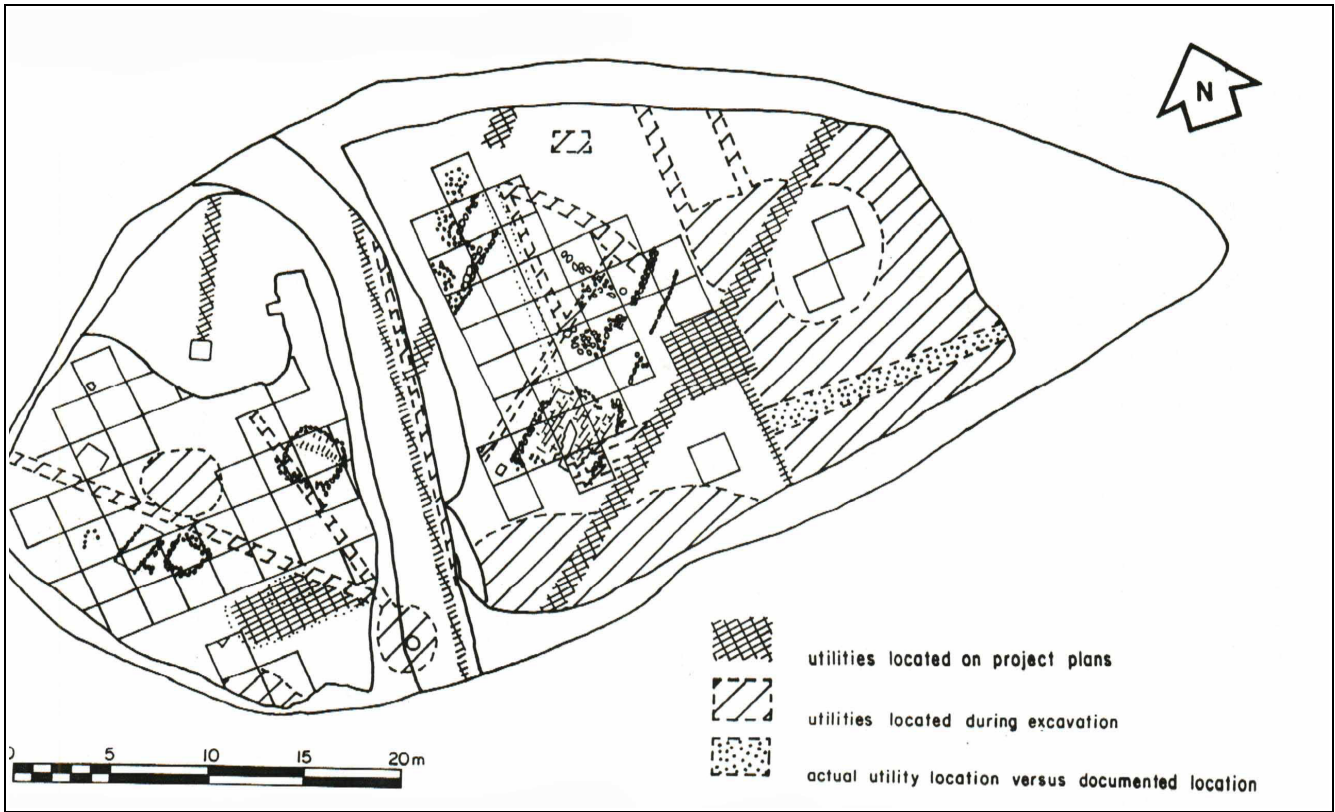


Figure 3. Excavated area in City Square 1985 (from Gallagher et al 1994)

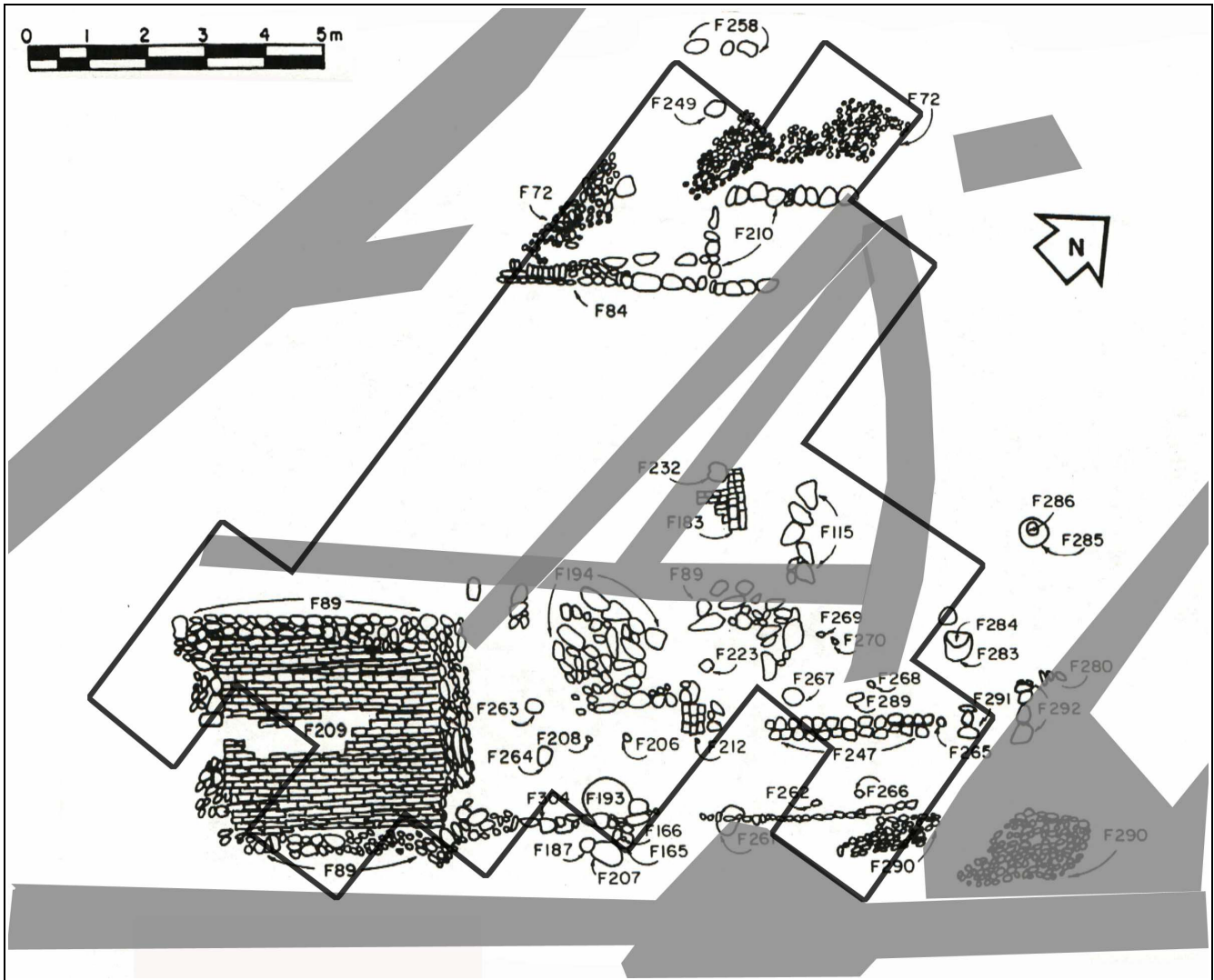


Figure 4. Disturbance and excavation area of the 1985 work around the site (Gray bands are areas of modern utility disturbance)

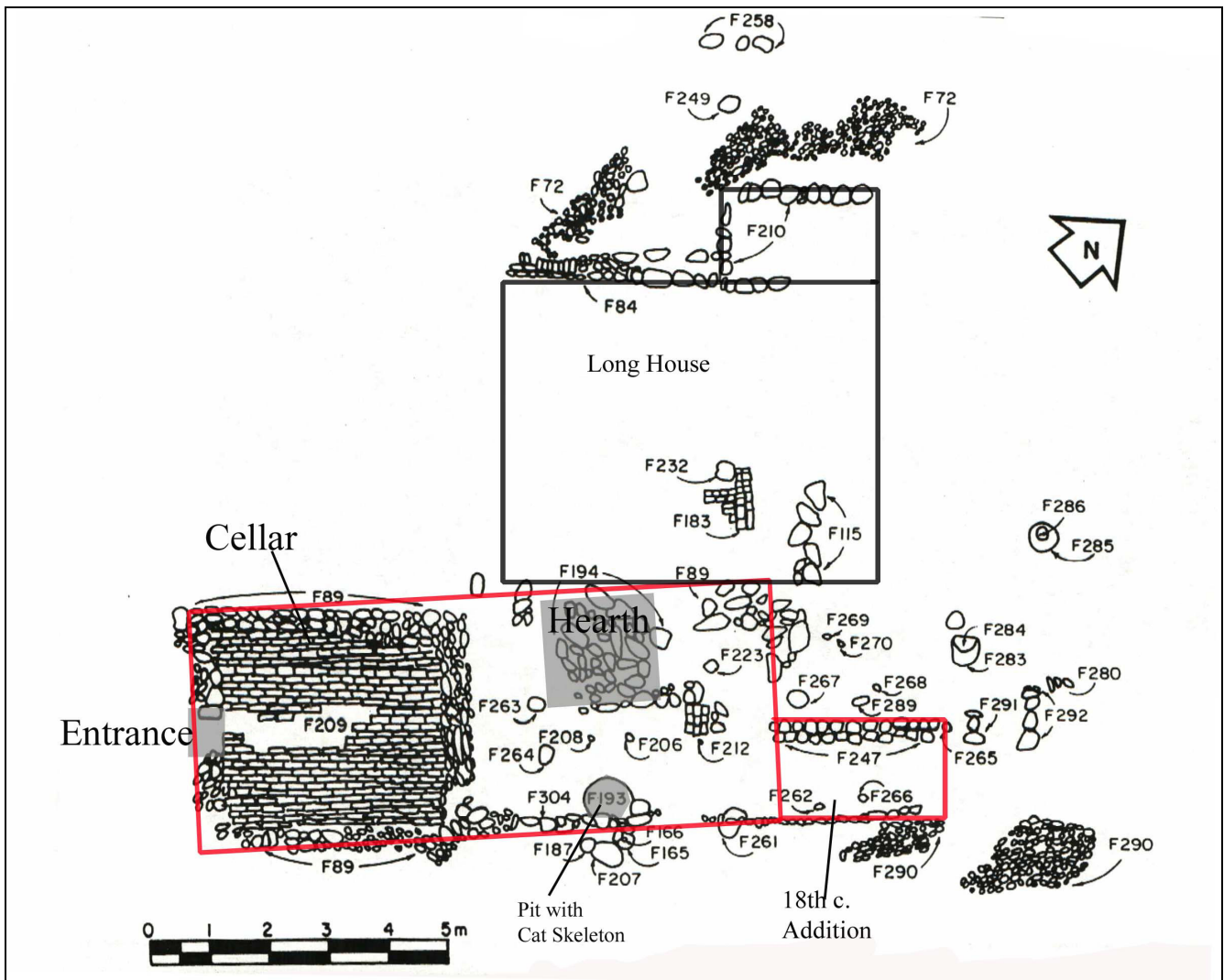


Figure 5. 1985 interpretation of the Great House/ Three Cranes Tavern (interpreted by the present author based on the 1994 report using the 1994 graphic provided with that report) (postholes around the hearth are marked P263, 264, 208, 206, and 212)

partially destroyed with a 2.2 m long section remaining. All wall segments were 20-40 cm thick and extended between 20 and 40 cm below grade.

The hearth was made of two courses of whole bricks (each measuring 4 x 8 x 2"), and was rectangular in form. Only a portion measuring 94 x 76 cm remained intact. A large circular post hole (Feature 232) was encountered under the hearth. This posthole measured 34 cm in diameter and was 70 cm deep with no artifacts being recovered from within it (the lack of artifacts is probably a good indication that it may have been associated with the 1629 Great House). The south end of this post was impacted by a second post to the north that terminated 3 cm below the first (possibly representing a replacement post).

Two postholes were found in association with the northwest addition. The first, Feature 205 (not shown on the excavation drawing included in the final report) was associated with the foundation (feature 84) being located between its south and west walls. The feature was a rectangular soil stain that was interpreted as possibly representing the remains of a plank or floor joist between the south and west walls of the foundation. The feature measured 52 x 24 cm and contained a circular stain measuring 17 cm in diameter and 20 cm deep. A second posthole (Feature 249) was square in shape (measuring 32 x 28 cm) and was located to the northwest of foundation in close association with beach cobble paving (F.72 which may date to 1735 and represent the paving of the area around the market place at that time) that butted against the north side of the foundation. This posthole was interpreted as possibly serving as post for back porch or overhang on north side of house.

Privies

Five privies were found to the west of the tavern. The all showed evidence of periodic cleaning and reuse until either changes in property ownership or disrepair lead to their abandonment. Each contained large amounts of household refuse (floral remains, bone, shell, discarded glass and ceramics, clothing fasteners, textiles and leather, and clay pipes) and architectural debris.

Privy 1 was a square and wood-lined box privy with exterior support posts and interior planks. Most of it had been previously destroyed with only about 70 cm left intact.

Privy 2 was a dry-laid stone pit rectangle with a wood lining and wooden support posts similar to privy 1. It measured 1.7 x 1.5 m with a maximum depth of 3 meters.

Privy 3 was round, stone-lined and 3 m in diameter. The walls were dry-laid with round cobbles to a depth of 100 cmbs. What was interpreted as a possible brick footrest was located along one side.

Privy 4 was similar to Privy 2, being a dry-laid stone rectangle with a wood lining. It measured 2.3 x 1 m and was 40 cm north of Privy 2.

Privy 5 was rectangular and wood-lined, measuring 1.5 m. wide and at least 1.9 m. long. The wood lining consisted of horizontally laid planks held in place by round corner posts that had their lower ends sharpened to points.

Five features, identified as trash pits, were found near the tavern. Each pit was found to contain household trash and brick but no botanicals, cloth or leather and only one personal object. These may have been wallows or pits from which soil had previously been removed for other purposes that later served as convenient places to get rid of trash while also filling in holes in the yard. At least two of

them appeared to be 1m. or more in length, but none appears to be too deep and two were actually located on top of each other.

Overall, the authors of the report felt that the distribution of material recovered indicated that the occupants of the tavern had cleaned it out prior to the British bombardment, removing items such as imported bottles of wine, barrels of beer and cider, better furniture, more expensive and fashionable ceramics, personal goods (clothing, metal currency, tools, weapons), resulting in mostly architectural remains being recovered.

Prior to the site being backfilled, the decision was made to remove the foundation stones and the cellar for curation and possibly eventual reuse in an on site display. During the removal of these stones, a total of 15 new features were identified and several interpretations were modified. The brick floor of the cellar was found to overlay a shallow fill containing earlier 17th century artifacts (Dutch tin-glazed apothecary jar, north Italian slip decorated redware, blue-on-white tin-glazed, redware storage jar and milk pan). It appears that the brick floor had been added in the last quarter of the 17th century to improve an earlier earthen cellar floor. This was done at the same time that a dry-laid masonry drain was constructed in the cellar. The drain was constructed using a series of small angular stone blocks making a channel 42 cm wide and 18 cm deep. This drain was capped with flagstones and subsequently the brick floor was laid on top of these.

The removal of the easternmost extent of Feature 89 (the dry-laid stone foundation for the tavern) found that at least portions of what was believed to be the original foundation (Features 247 and 115) had been added at some point after the 17th century, but probably before the building's destruction.

Other features identified included a postmold (Feature 279) that was determined to possibly have been part of a later fenceline to the northwest of Feature 292 (a post destruction building); another portion (Feature 280) of the post 1775 foundation (Features 291 and 292); a large posthole and postmold (Features 283 and 284); another large posthole and postmold (Features 285 and 286); two other possible postmolds that may have been natural- Features 287 and 288); a possible internal support for the tavern (Feature 289); an area of paving believed to date to 1735 located on the south side of the tavern (Feature 290); and a postmold located to the north of what they determined was the tavern foundation (Feature 293). Unfortunately, many of the postholes are not shown on the maps included in the final report on the project, so it is difficult to determine their relationship to the tavern.

The original report concluded that the only evidence of the original 1629 Great House consisted of a series of postholes underlying sections of the later stone foundation and the hearth base and possibly areas of soil stains, charcoal and brick. No stone foundations, brick or stone chimney bases or large support posts could be firmly attributed by the original excavators to this period. This suggested to the excavators that the original Great House was an earthfast, impermanent structure possibly consisting of nothing more than wooden sills laid either directly on the ground surface or in shallow trenches and possibly with a wood framed chimney, as evidenced by the postholes near the hearth.

The excavators concluded that once Robert Long purchased the building, he greatly altered its structure, possibly building a stone-walled cellar under the southern portion between 1635 and 1660. He may have also constructed the brick or stone chimney, which may have originally been single-backed and later altered to be double backed after the construction of the house for the widow Long on the north side of the tavern between 1663 and 1683. Between Robert Long and John Long's deaths, a

stable had been constructed outside, the tavern was probably served by Privy 1 and a brewhouse, a bar was installed in the kitchen, and the stone drain and brick floor were added to the cellar. In the 18th century, a small cellared addition may have been added to the building on the north side of the house and a new brick footing may have been placed around the kitchen hearth.

All in all, the original excavators presented a jumbled picture of what may have been happening at the site and what archaeological remains may have related to the original building. The following section is the present author's attempt to wrestle a better understanding of this complex and important site.

2016 Interpretation

Two things stood out to me as I read the original report. The first was that the authors definitely did not understand 17th century vernacular architecture and even with the inclusion of Robert Blair St. George as one of the consultants, no one could really make sense of the site. The second was that the authors often did not attempt to reconcile the historical records with what was found archaeologically. I know this sounds kind of harsh, but it is not meant to be. Boston's Big Dig was large, and involved, sometimes underfunded, and sometimes chaotic, and the purpose of this kind of cultural resource management is to collect and curate artifacts and data so that researchers in the future can reanalyze what was found and possibly reinterpret it. That is what I have intended to do here. No disrespect is intended towards the original investigators.

Great House

One of things that can be consistently seen when looking at 17th century vernacular architecture in New England is that people had a plan and knew what they were doing when building a structure in the period and they took into consideration various factors such as the size of the group that would be using it, how long it was meant to last, and how quickly it needed to be constructed. It is believed that the men who built the original Great House were contracted to build a "Great House" for the use of the Massachusetts Bay colonists that would be arriving the following year. A Great House in England in the 17th century was one of the largest of the country houses, houses built by the country's most powerful designed to display their power. These houses were often built by the heads of state, in this case, it was to be Winthrop's house. Contemporary great houses in Virginia, houses owned by people such as Captain Samuel Matthews (member of the general Assembly and Governor's Council) (1630s, hall and parlor house, central chimney, 20' wide and 44' long with a porch), Abraham Peirse (merchant, member of the Governor's Council) (1626, hall and parlor house, offset central chimney, 24.5 x 41.5' with a porch), Thomas Harris (member of the general Assembly and leader of the militia) (1630s, hall and parlor house, central chimney, 20.5' x at least 55' long, no porch), and Richard Kemp (Secretary of the Colony) (1636, hall and parlor, central chimney, 20 x 35', no porch) were hall and parlor structures and 20' wide at a minimum (Brown 1998).

We know from the historical documents that the building was of a hall and parlor style in 1632, three years after it was built, because the agreement between Robert Long and the General Court stipulated that Long was to have use of the south room, the congregation was to have use of the north room, and that Long could also use whatever the space in the chamber above the north room that the deacon of the congregation could spare- north room, south room, at least 1 ½ stories high, and probably with a central chimney separating the north and south rooms. It does not seem reasonable to suggest that the original structure, built just three years before and not meant to be used until two years before and not used much at all, but, which was suppose to be the Great House of the Colony's leader, would have been anything smaller than the hall and parlor house suggested by the 1632 agreement. Robert Long's 1663

probate also mentions a porch, and I wouldn't be surprised if that was not part of the original build as well. Seeing how porches appear to have been common among the elite in Virginia in the 1630s as well.

The problem of what the extent of the building was is compounded by three main factors- 1) the amount of disturbance from utilities that apparently happened in the 20th century; 2) the inexperience that the original excavators (and most other New England archaeologists) had with identifying and exploring earthfast architecture in the 1980s; 3) the physical limits to the excavation at the time (due to utilities and the excavator's expectations of what they were seeing and how far away from features like the cellar they were willing to excavate). Factors 2 and 3 were highlighted by the fact that when the excavators returned to the site to remove stones that were to be used for an on site marker, they ended up finding more postholes in and near the original excavation area. Some of these postholes were located beneath foundation stones while others appear to have probably just been missed during the original excavation.

Architecture

The basic "house" in early 17th century Massachusetts (Plymouth and Massachusetts Bay colonies) could take several forms, from the basic cottage, a one-room/ one bay/ single cell structure that often measured as small as 16 x 12' in Medieval times, to longhouses of around 33 by 13 feet, to hall and parlor plan (with central or end chimneys) houses common in East Anglia in Old England (Hurst 1972: 104; Hanawalt 1986: 32; Cummings 1979).

The post holes were evidence that the original house on the site had been built using a technique that is rarely found in New England. The posts that formed the framework of the house were originally seated within these post holes. Using in the ground posts is a construction technique called "post-in-ground" or earthfast construction, construction where the framing members of a building are "standing or lying directly on the ground or erected in post holes" (Carson et al 1981: 136). Essentially what was done was that holes were dug where the posts were to be seated. After the holes were dug, the framework for the walls of the structure was constructed on the ground adjacent to post holes. When the wall sections were completed, they were raised up and slid into the post holes. The wall sections were secured into the adjacent wall section and the whole framework tied together to create a box like framework for the structure. The roof timbers were then raised onto the top of the walls and the roof and interior floors framed. This was an ancient technique, dating back to the prehistoric times in Europe and is believed to be the technique used for the construction of the first houses at Plymouth in 1620-1621.

Cary Carson, Norman Barka, William Kelso, Gary Wheeler Stone and Dell Upton described earthfast architecture in the southern colonies as being an impermanent form of architecture that was inferior to framed construction and which, in the early seventeenth century, was seldom used in England and was only used in extreme cases in the New World (Carson et al 1981). They posited that the early settlers used earthfast architecture as a quick and expedient way to raise a structure in the first years of colonization, but that settlers who remained in a colony would have preferred, and in many cases replaced the earlier earthfast structures, with more permanent and structurally sound framed houses when means and position afforded it. Earthfast architecture was used from the start in places like Jamestown, Virginia (1607) and St. George's fort, Maine (1607), and it continued to be used throughout the 17th and 18th century for impermanent architecture. Builders who used decay resistant materials like oak could expect a post-in-ground house to last anywhere from 30 to over 50 years (Carson et al 1981:

156-158).

There are three different types of earthfast architecture: sill on ground, free set post, and bent set posts. The simplest way to build a structure is by merely setting the sills of the building directly on the ground with nothing being between it and the earth. While this is a quick way to build a building, the sills will quickly rot. Building a structure with free set posts means that individual posts are placed in the ground free of any other framing members. Following their planting, the upper end of the posts are trimmed to similar heights and are then framed together with horizontal timbers connecting the vertical posts. A structure can be built with as few as four posts in this manner, one at each corner, or it may be constructed using several posts closely spaced on each side. The posts are then joined together by exterior clapboards with very limited additional framing being present. When a building is constructed with closely spaced posts (averaging five feet or less between them [this being the average length of clapboards]) it is said to be of pallisadoe or puncheon construction. Quick to build and described by archaeologists as “ephemeral structures raised around a gaggle of earthfast uprights” (Carson et al 1981: 125).

Bent set framing involves connecting two hewn vertical members (posts) to a hewn horizontal member (the plate or tie beam) on the ground and then raising the whole assembly (referred to as a bent) up as one unit, sort of like an Amish barn raising. The post holes for a free set post structure are generally round to slightly oval and are just slightly larger than the post that was seated into it. The bottom depths of the holes will have much more variability because the bottom depth does not matter as the tops will be cut to length after they are set up. The holes for a bent set structure are much roughly oval and larger, averaging four feet or more in length and they will all be of very similar depths. This is due to fact that when raising a bent it must be slid into the hole and then raised up. The bent must be level when in place so that the framing for the house will not be skewed. Bent set construction requires much more forethought and planning than free set post construction, which in turn requires more planning than puncheon construction.

The colonists at Plymouth erected an earthfast structure for trading at Aptuxet on Cape Cod in 1626, and quickly abandoned the site and focused their trade on Maine. In 1635, William Bradford described a hurricane that struck the colony: “This year, the 14 or 15 of August (being Saturday) was such a mighty storme of wind and raine, as none living in these parts, either English or Indeans, ever saw. ... It caused the sea to swell (to the southward of this place) above-20-foote, right up and downe, and made many of the Indeans to clime into trees for their saftie; it tooke of the horded roofe of a house which belonged to this plantation at Manamet, and floted it to another place, the posts still standing in the ground” (Bradford 1912: 213-214). So even though this storm blew down many hundreds of thousands of trees, the posts that were put in the ground nine years prior, still remained, although the rest of the structure was gone.

The use of earthfast architectural techniques has been hypothesized as providing a quick and relatively cheap way to build structures that may not have been meant to be permanent abodes. The need to quickly erect a structure that could be lived in until the time when a better constructed and more permanent building (one that rested on a foundation raised off of the ground and thus not prone to decay as quickly) may have contributed to the use of this technique during the initial occupation of all kinds of 17th and 18th century sites. It is assumed that the owners of the earthfast structures would have wanted to eventually have a fully framed, fine, and fair house as their permanent home, but due to financial limitations, the death of the head of the household, or just the fact that life gets in the way of

living (the best laid schemes of mice and men often go awry), the buildings were not replaced until they may have been beyond repair. Repairs were made during the original earthfast building's life, posts were added and replaced, stones replaced rotted post sections, and additions were made to accommodate for growing families and changing needs, but eventually the buildings were either purposefully razed and replaced, burned down, or were demolished.

Single Cell Cottages

The cottage was typically considered appropriate for those of lower social scale in the Middle Ages, but by the time of the settling of Massachusetts, it was often found to be a “starter” home for colonists. In Massachusetts Bay, single bay cottages were common throughout the seventeenth century and into the eighteenth (Cummings 1979: 22). A 1640 contract stipulated that the house to be built was “16 foot long and 14 foote wyde...the Chimney framed without dawbing to be done with hewen timber.” (Cummings 1979: 22). Cummings found that of the 79 dwellings whose dimensions were recoded in documents from 1637 to 1706, 39 were single-bay cottages with only two being less than 15 feet square (Cummings 1979: 22). Seventeen of the measured from 22-28 feet long and 18-20 feet wide (Cummings 1979: 22). These small houses appear to be limited to individuals with limited means with estates ranging from £15-163 (Cummings 1979: 22). This was not always the case though, as deputy to the General Court John Whipple also had a single-bay house (Cummings 1979: 22). Cummings also noted that “a significant portion of surviving 17th-century two-room, central-chimney houses... commenced life as dwellings of single-room plan. Clearly the immediate need for shelter under pioneer conditions... seems to have dictated for many of the settlers *at every class and economic level* a simple single-unit dwelling for a start, to be soon enlarged as their situation in life improved.” (Cummings 1979:22, emphasis added). Cummings found that the earliest surviving houses of one room plan in Massachusetts Bay had been enlarged several times in their existence. The expansion began longitudinally and then laterally with a lean to addition to the rear (Cummings 1979:23).

The second Plymouth Colony earthfast house was the C-21/ Allerton site in Kingston, excavated in 1972, and dating to the 1630s to 1690s. Background research determined that the site was originally settled by Isaac Allerton in the late 1620s to early 1630s and subsequently was the home of his daughter Mary and his son-in-law Thomas Cushman. Excavations by James Deetz identified at least 28 features, some of which appear to have been given a feature number but were subsequently determined to be unworthy of further comment. Two sections of palisade trench, three house corner post holes, two possible shed or lean to post molds, another small post mold, a cobble hearth, and an E-shaped series of sill/ joist stain, were all associated with the first occupation which is believed to have begun as early as the late 1620s and was associated with the Allerton, Prence, and the early Cushman occupation. The cellarhole and a fenceline slot-trench were associated with the second, post 1675, occupation by the Cushmans. Several pit anomalies in the north yard and one anomaly in the west yard are believed to be prehistoric in origin.

Excavation of the cellar hole resulted in the recovery of a ca. 1690 wine bottle at the bottom of it, indicating that it was filled after this time. Cellar hole excavation also resulted in the identification of a stone hearth floor that had been barely cut by the southeast corner of the cellar hole (Deetz and Deetz 2000:228). The hearth was composed of heavily burned cobbles and was situated at a different angle than the cellar, indicating that it belonged to an earlier house. It was aligned with the deep possible palisade trench, making it probable that it was associated with that feature. The possibility that two houses were present at the same location was later confirmed when four large post molds measuring up to 10” in diameter were identified aligned with the hearth and the possible palisade trench. These post

holes outlined a house measuring 22 by 20 feet with a chimney located at the eastern gable end. Three smaller posts were located to the south of the house and are interpreted as a shed attached onto this side of the house. The main structure appears to have been a square with free set posts at the four corners.

Longhouses

Longhouses evolved out of Medieval houses that sheltered both man and beast, people at one end in the house and animals at the other in a byre, all under one roof. They were typical Medieval peasant housing that were common in many regions of England and absent in the central Midlands, East Anglia and Kent (Hanawalt 1986: 33). The differential distribution has been attributed by some to the latter areas ability to produce abundant amounts of grain which resulted in abundant straw for bedding in crew yards versus in byres (Hanawalt 1986: 33). By early in the Tudor period (1485-1603) lowland farmers had abandoned the animal bier/ dwelling house form of the longhouse as the separation of domestic and industrial buildings of the farm became the norm (Harvey 1984:43). The longhouse form did continue into the 17th century with portion of the house that once housed cattle now being known as the “backhouse” in East Anglia (Harvey 1984:43). The backhouse became a combination milkroom, buttery and kitchen or in Yorkshire, it had become a general purpose storage room (Harvey 1984:45). When Edward Winslow sold his original house in Plymouth in 1640 to Thomas Wallis, included in the sale was the “house and garden backhouse and fould yard” (Records of the Colony of New Plymouth Vol. 1: 97).

The longhouse also seems to have been a common house form associated with trade and storehouses in Virginia and New England. Longhouses were common at Jamestown and the first common house built in Plymouth in 1620 was probably also of this form. Using a longhouse for a trading and storehouse is a logical step as it allows people to live in relative comfort in the one half that contained the hearth, and goods to be secured in close proximity to the inhabitants in the unheated backhouse portion. Add a cellar beneath the backhouse and you have a building where you can store goods that are immune to freezing temperatures (kettles, cloth, knives, etc.) upstairs, and keep liquids below ground where they are less likely to freeze even in winter.

Fewer earthfast structures have been excavated in Plymouth Colony than in Maine or the Mid-Atlantic and southern colonies, but those excavated show a range of sizes and techniques of construction. The first post-in-ground house to be excavated was the RM/ William Clarke homesite in Plymouth. The site is located on a knoll overlooking the Eel River on the property of Plimoth Plantation and was built in the 1630s and destroyed in 1676. Clark was a merchant and there is abundant evidence for trade with the Natives- beads, scissors, knives, brass scrap, tobacco pipes, bale seals (cloth), as well as the historic record that talks about the Natives visiting him (for trade?) right before they attacked. The house was probably his trading house and residence, just like the houses in Maine.

Excavations were carried out in the 1940s by Plimoth Plantation's founder Harry Hornblower and later by Carl Fernstrom of Harvard University. In the 1960s, Dr. James Deetz excavated at the site and limited work was done near the house by the Plantation in the 1980s. The excavations revealed that William Clarke's house was of a longhouse form measuring 54 feet east to west by 18 feet north to south. It had been constructed using the free set post earthfast technique and evidence for the earthfast construction was most visible in the western half of the structure where a total of five post holes of varying depths were uncovered. No postholes were identified in the eastern half of the structure but here a series of four clusters of rocks, identified in the field as foundation piers for sills, were identified. It is not recorded that these foundation piers were excavated and it is possible that they

represent the location of rotted posts that were supported by stones.

Posthole and foundation pier spacing appeared equal at the site with both elements being spaced regularly at nine feet center to center on the north and south sides and six feet on the east and possibly west sides. The six foot spacing on the eastern side may be related to the presence of a smoke hood at this end of the house whereas on the western side there may have been only one post spaced 9 feet from the corners. This spacing creates a house with either three bays that were 18 x 18', two bays of 27 x 18', or an eastern bay measuring 27 x 18', a 9 x 18' cross passage and an 18 x 18' western room. It is believed that a cross passage existed between the rooms in the center of the house. A wood lined cellar hole measuring 8' square was identified under the floor in the western room. The hearth was located in the eastern room close to the eastern gable end. The posts at the Clarke house appear to have been free set.

The Cushnoc Site in Augsuta was a trading house built by Plymouth Colony settlers in 1628. The building is of a longhouse style and was constructed with bent set posts. The overall dimensions are 20' wide by 44' long with each bay being approximately 15' long by 20' wide. Intermediate posts set between in the middle of the long side of the center bay were interpreted as being associated with a cross-passage corridor. A post set ~3-4' east of the west end of the building was hypothesized as representing a support for a daubed fire hood associated with the hearth. No traces of burned soil remained associated with the hearth location.

A third 17th century site was excavated in the 1970s but very little is know about the excavations that were carried out by archaeologists from Plimoth Plantation. This site, the C-14/ Edward Winslow (1630s-1670s) house, was never written up and aside from feature drawings and artifacts, little information exists on the dig. Reconstructive work by the author revealed that the various features appear to show another house of longhouse form measuring 18 feet east to west by at least 32 feet north to south. It appears to have been constructed using free set posts set approximately 6-8' apart. A chimney bay may have been located at the south end of the house where a series of posts were closely spaced and outlined an area 6' wide along this end of the house. The paucity of notes on this site limit what can be reliably said about the house.

Hall and Parlor Houses

The Hall and Parlor house is a house that contains two rooms on the ground floor- one being the hall and the other the parlor. The hall was the main work area of the house. It was where the kitchen was located and was used as a dining room, workroom, bedroom, and storage chamber The parlor was invariably a smaller room and was for more intimate settings. The parent's bed was located here and the room itself as used for intimate dining with guests, often being better finished and furnished than the more utilitarian hall. The Hall and Parlor house developed from 16th century English roots at a time when a desire for intimacy and privacy, effectively an escape from the day to day world, were making an appearance in wealthier English homes. One easy way to accomplish this was to merely wall off a portion of your house, at a time when houses generally just consisted of a great hall where everything was done. Eventually the parlor became an integral part of house design leading to later 17th century central chimney houses with a hall on one side of the chimney and a parlor on the other. Earlier Hall and Parlor houses consisted of a chimney placed on one gable end wall. The chimney opened into the hall hearth with the parlor being located on the opposite gable end. The stairs or ladder to the upper chamber would be located against the wall of the chimney furthest from the front door. Visitors would

enter a house like this directly into the hall and then could either remain here or be invited into the chamber. In later 17th century houses, visitors would enter into a front room and then could choose to either proceed up the stairs that would be located immediately in front of them, or turn left or right, enter through another door and be in either the hall or parlor. Common dimensions for the entire house were between 16 to 20 feet (5 to 6 m) deep and 20 to 40 feet (6 to 12 m) wide. Traditionally in East Anglia, England, stairways to the second floor were located on the backside of the chimney stack (Cummings 1979: 26). In New England they eventually were placed on the front side of the chimney stacks, to be encountered as soon as one would enter the house.

Three good archaeological examples of early Massachusetts Hall and Parlor houses are the John Howland house in Kingston, the Ezra Perry house in Bourne, and the Richard and Ruth Taylor house in Yarmouth, Massachusetts.

The John Howland house, probably originally built by John Jenney ca. 1633, was excavated by Sidney Strickland in the 1930s. He uncovered the stone foundation for a house measuring 17'6" by 33' for the main house with a 9' x 25' lean to added to the north side. A large stone chimney, measuring 3.9 m x 1.5 m (13'2 1/2" x 5'), was located on the west wall. Upon John Howland's death in 1672, a probate was drawn up that gives a good indication of the layout of the building. The persons charged with taking the inventory entered into the hall (referred to as the "Fire Room" in the probate) through the front door, located on the south side of the house. The other room named in the probate was the parlor (called the "Inner Room"). Archaeologists found a shallow cellar beneath the ell on the north side of the house (not named in the probate but its presence could be surmised at based on the fact that archaeologically we knew it was present).

The Ezra Perry house in Borne, Massachusetts represents another hall and parlor house, similar to the John Howland house, built in the later 17th century. The building measured 27.6' long by 25.3' wide and had a stone foundation and the hearth, located on the east wall, measured 8.9 x 7'. An addition measuring 21' east to west by 15' north to south, was built on the east side of the house, probably as a storage or work room, in the 18th century.

A team of professional archaeologists and volunteer excavators determined that the original Richard and Ruth Taylor house measured 18 feet north to south by 27 feet east to west. Gable ends are believed to have been located on the east and west sides and the entrance would have been on the south side. The distribution of brick, charcoal, and tobacco pipe fragments provides strong evidence that the chimney was probably located on the west wall close to the northwest corner of the house. The front door may have been centered on the south wall. Using the evidence provided by timbers from the original house that had been reused in the present Samuel Taylor homestead, archaeologists concluded that the building was two and one half stories tall and the ground floor plan was divided into two rooms- an eastern parlor that was painted with red milk paint and paneled and a western hall that was whitewashed. The upstairs contained at least one chamber that was not whitewashed that probably extended all the way to the roof peak. The building had been constructed by raising three bents measuring 27' wide from north to south and seating them in three sets of deep post holes. At a later date, probably in the 18th century after Richard and Ruth's deaths, an 18 x 18' addition had been added to the northeast corner possibly for use as a buttery, milkhouse, or just as storage space. A cellar with dimensions of 18' north to south by 14' east to west was added, probably in the 18th century.

The overall dimensions of the houses discussed above are shown in the table below:

Table 1. Dimensions of 17th century houses archaeologically excavated in Plymouth Colony

House	Date	Width	Length
Single cell House			
Allerton	ca. 1633	20' (6.2 m)	22' (6.8 m)
Longhouse			
RM Site	ca. 1633	18' (5.5 m)	54' (16.6 m)
Cushnoc	1628	20' (6.2 m)	44' (13.5 m)
Winslow	ca. 1633	18' (5.5 m)	32'+ (9.9 m+)
Early Hall and Parlor			
Howland	ca. 1633	17.6' (5.3 m)	33' (10.2 m)
Perry	ca. 1673	25.3' (7.8 m)	27.6' (8.5 m)
Taylor	ca. 1646	18' (5.5 m)	27' (8.3 m)

A common measurement for buildings appeared to have involved approximately 9' divisions for the widths 9 to 11' for the lengths.

Looking at the plan of the excavation that was provided in the final report (**Figure 6**), the reasons why the original excavators interpreted the site as they did are obvious. The dimensions of the cellarhole were apparently assumed to represent the extent of the width of the house. The foundation line extending to the northeast away from the cellarhole represented the southeast wall of the building. Where that wall ended to the northeast, another wall was present just 2 m. to the northwest, this was too small to be a full room, so it must represent an addition to the original building which must lay further back to the southwest. Looking back southwest of the end of the western portion of that “addition”, a concentration of stones were found that was located parallel with the cellarhole. This was taken to represent the northwest corner of the tavern, making the whole building only 14.5' wide and 34' long. It was known that an addition that served as a home for the Widow Long was placed somewhere near the building and a foundation and hearth were found to the northwest of what the excavators identified as the tavern, thus, this must be the Long family addition.

Unfortunately, the dimensions of the house, as interpreted by the original excavators, make no sense when compared to other First Period English Colonial homes. The First Period houses looked at for this project all have widths of at least 20' and while the length is variable, given the position of the hearth, the theory that the width of the cellar in the south room represents the width of the room and that this room represents the hall of the house, the room on the other side of the hearth would be expected to be smaller, but not significantly smaller as the original excavators made it. Cummings also found that in the First Period houses that he looked at, the dimensions ranged from 16-20' wide and 30-50' long with 36-50' being the most common (Cummings 1979: 24).

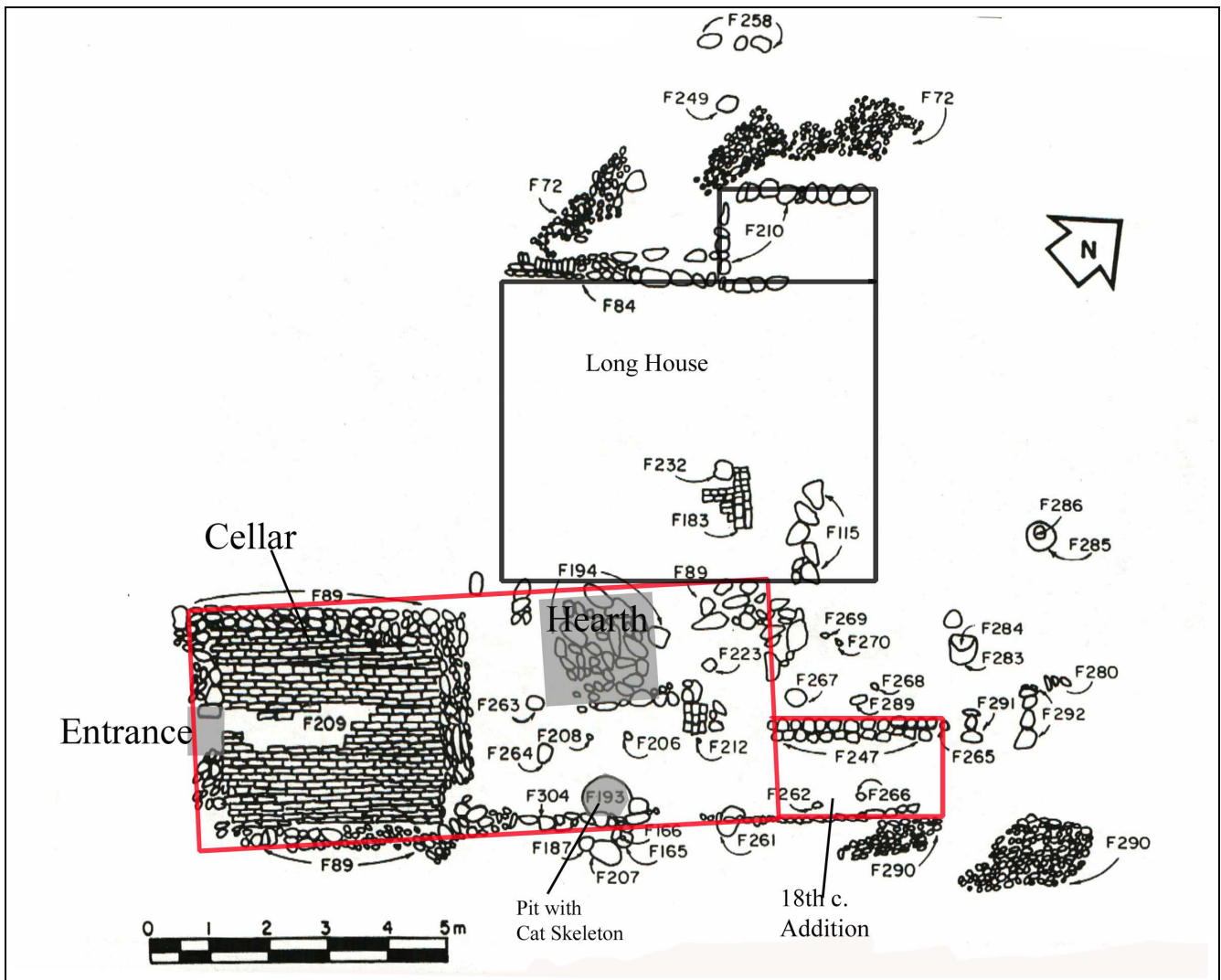


Figure 6. The 1985 interpretation of the Great House/ Three Cranes Tavern site (building outlines by the present author based on the 1994 report and using the 1994 site map)

My first thought was that the original house could possibly have been a single-cell cottage with what later became the north room being the original house. This idea was based on the occurrence of postholes and postmolds only in this half of the site. But after reviewing the historical record and realizing the short time frame between the construction of the house and the renting of half of it to Robert Long, it doesn't seem reasonable to conclude that the small congregation that remained at the site would have needed to expand the original building in such a short amount of time. I believe that the postholes that I hypothesize would have been present south of the hearth, were probably replaced on the east and most of the south side by the cellar walls (which would have carried the weight via a foundation on which the sills rested, physically and functionally eliminating the postholes) when that cellar was created later in the 17th century. This seems to have been the case with postholes along the east side of the building, as some postholes were later found when the archaeologists removed the foundation stones. It appears that the posts had rotted in the 17th or 18th century and the stone foundation was used to replace the support that the rotted posts were no longer offering. The missing postholes along much of the building can be explained as a result of later disturbance that either eliminated the features completely or led to their disturbance to the point that the excavators missed them.

Once I realized that the building most probably was not a single-cell cottage, the idea that it may have been a hall and parlor house (as the original excavators had proposed) seemed much more probable, but the size did not seem reasonable. I then examined the locations of the postholes that were identified to see if they formed any reasonable pattern that fit known First Period housing dimensions. I found that two appeared to be paired (Features 261 and 232) along the southeast and northwest walls. The distance between these two postholes measured approximately 19.5' (6m.), very close to 20' and a distance that was found to commonly reoccur when looking at First Period house widths. The length of the hall on the south side seemed fine, but what about the parlor on the north side, the original excavator's length seemed too short. Were there any postholes to the northeast of the hearth that could represent a reasonable length for the parlor. Features 283 and 284, a posthole and postmold set found during the stage of the excavation when foundation stones were being removed, seemed a perfect distance from the hearth for a parlor wall. If this is in fact the northeast wall of the parlor, this would make the room 13.8' (4.25 m.) long and 19.5' wide. Accepting that this is the actual wall necessitates the dismissal of what the excavators claimed was an 18th century addition off of the original parlor (Feature 247). This feature was found in an area where other dry-laid stone wall segments were found to date to after the destruction of the tavern, so it makes it possible that this wall could also be nothing more than a later construction. Alternately, the stones could have served as a support for rotted or weak floor joists.

I propose that the original Great House measured approximately 43' (13.25 m.) in length and 19.5' (6 m.) in width (**Figure 7**). The Hall, under which the cellar was later added, measured 19.5' (6 m.) in width and 19.5' (6 m.) in length while the parlor measured 13.8' (4.25 m.) long and 19.5' wide. The original hearth was probably timber framed (just as the original excavators had presumed) and the large and small postholes found around and under the later hearth foundation. The original hearth may have measured as much as 8' (2.5 m.) square. It appears that there was an entry hall on the southeast side of the hearth and, while no archaeological evidence was found, it is assumed that a porch was located on the same side. Stairs leading to the chambers above the ground floor may have been located on the southwest side of the house between the hall and parlor, backing up to the chimney mass.

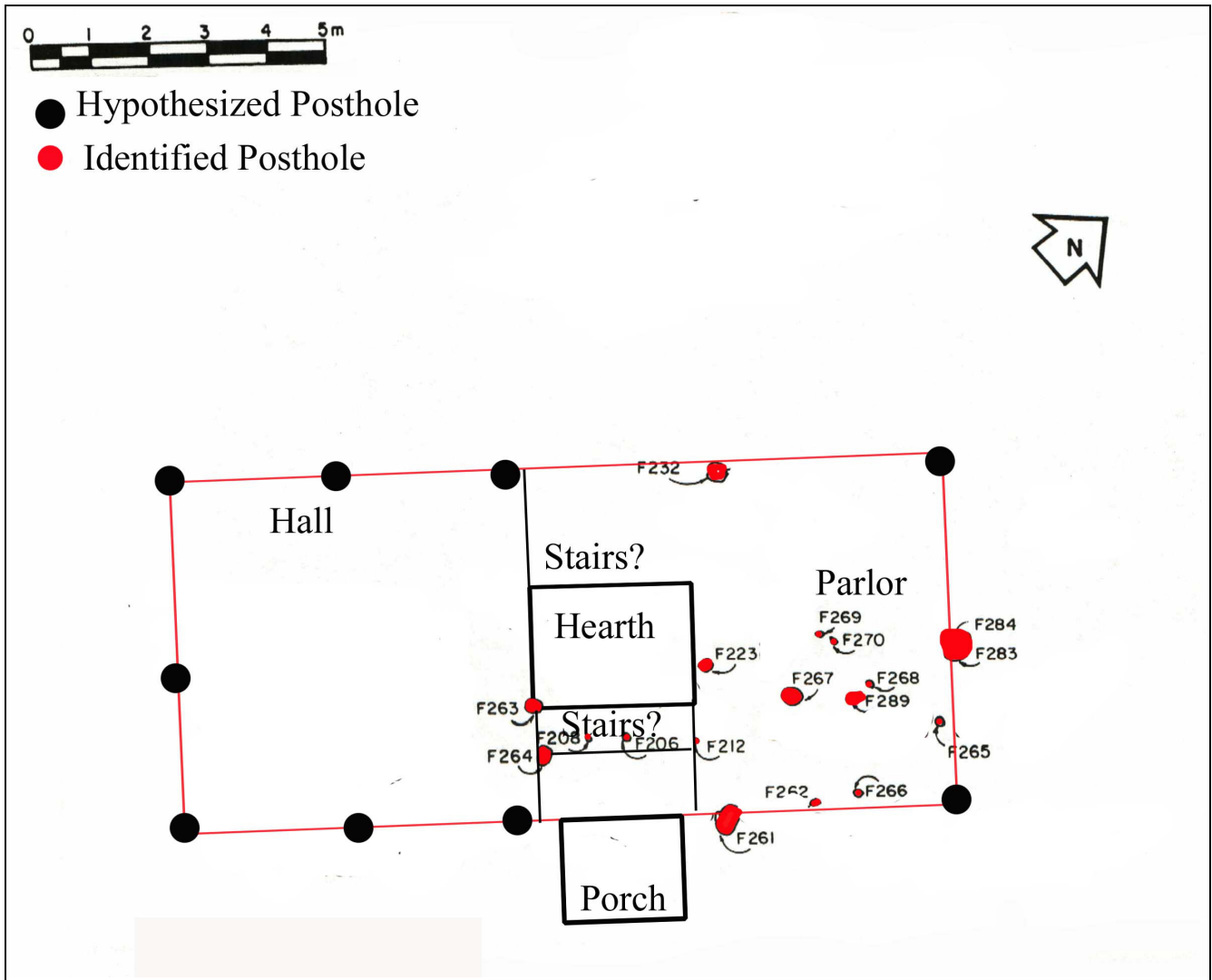


Figure 7. The present author's reconstruction of the layout of the Great House ca. 1629

Later in the century, the cellar was added beneath the hall and either in the 18th century (probably during Brown's ownership, a stone foundation was placed at least along the southwest side of the building. This foundation covered the shallow pit that contained the cat skeleton (dated to after 1740). A small hearth was added between the parlor and the possible stairs, possibly creating a kitchen space on the southwest side of the tavern. This hearth covered one of the postholes for the original house, so it is likely that at least part of the wall in this section was removed at this time as well. It should be remembered that the changes that left traces archaeologically were probably paralleled with changes to the building fabric itself (changes in roof height and the placement of interior walls) that failed to leave any trace in the ground.

Northwest Addition

The original excavators assumed that the foundation and cellar (and the small hearth) that they had found to the northwest of the tavern represented the remains of the house built for Mary Long after her husband Robert's death in 1663. No evidence of a connecting passage, as was identified in Mary's probate, was found, and, as will be evident below, the location of the building is not right. I feel that it is much more probable that this building was the brewhouse known to have been built by John Long after he took over the tavern in 1663 (**Figure 8**). The typical 17th century brewhouse would have needed space for heating water, accommodating large vats for fermentation, and storing both the ingredients for making the beer and the large quantities of beer that would be produced. Beer production involved the slow fermentation of malted and hopped liquid, the ingredients of which were water, grain (generally barley, but corn, oats, wheat, and rye could be used), hops, and some sugar source (usually honey or molasses). The process begins by soaking the malted grain in large wooden mash tubs at a low temperature. After a suitable amount of time, the liquid and the grain mash were separated (the mash being commonly fed to farm animals) and the liquid, referred to as wort, was transferred to a large copper kettle (called a keeler) and the hops and sugar added. The mixture was boiled for several hours, cooled, sprinkled with yeast (which digests the sugar and produces alcohol), and transferred to barrels for storage after fermentation was complete. Because the various stages take different amounts of time, it is assumed that several batches of beer would have constantly been in production. The beer could have been stored in the cellar beneath the hall after it was barreled.

The brick and slate foundation section found at the southwest corner of the addition foundation may represent all that is left of the hearth that was used to heat the water in the brewhouse. The construction of this feature is unique and while it was in line with the foundation immediately adjacent to it or to the cellar to the north, it was not built the same way. The use of brick, slate and foundation stones placed fairly deeply in the ground is more consistent with a hearth than a wall. It is most probable that the hearth's back wall formed at least a portion of the wall of the addition at this point. The brewhouse may have also had a bakehouse in it, as was the case at the brewhouse in Ferryland, Nova Scotia. The Ferryland brew/ bakehouse measured 16' (4.88 m.) wide by 24' (7.32 m.) long and the hearth took up most of the western gable wall. The hearth itself was 14' (4.5 m.) wide and 9.75' (3 m.) deep with a 8' (2.5 m.) wide firebox. The possible hearth back wall in the Three Cranes Tavern addition measured 6.5' (2 m.) long and I estimate that the whole addition could have measured up to 23' (7 m.) north to south by 10' (3 m.) east to west. The cellar at the northwest corner could have been used to store ingredients or may have been a foundation for the vats. Brewing involves the use of a lot of water for the physical brewing as well as for keeping everything clean, so a well, possibly for the use of the tavern as well as the brewhouse, should have been located somewhere nearby, but was not found during the archaeological fieldwork, most probably because of the various utility disturbances around the site.

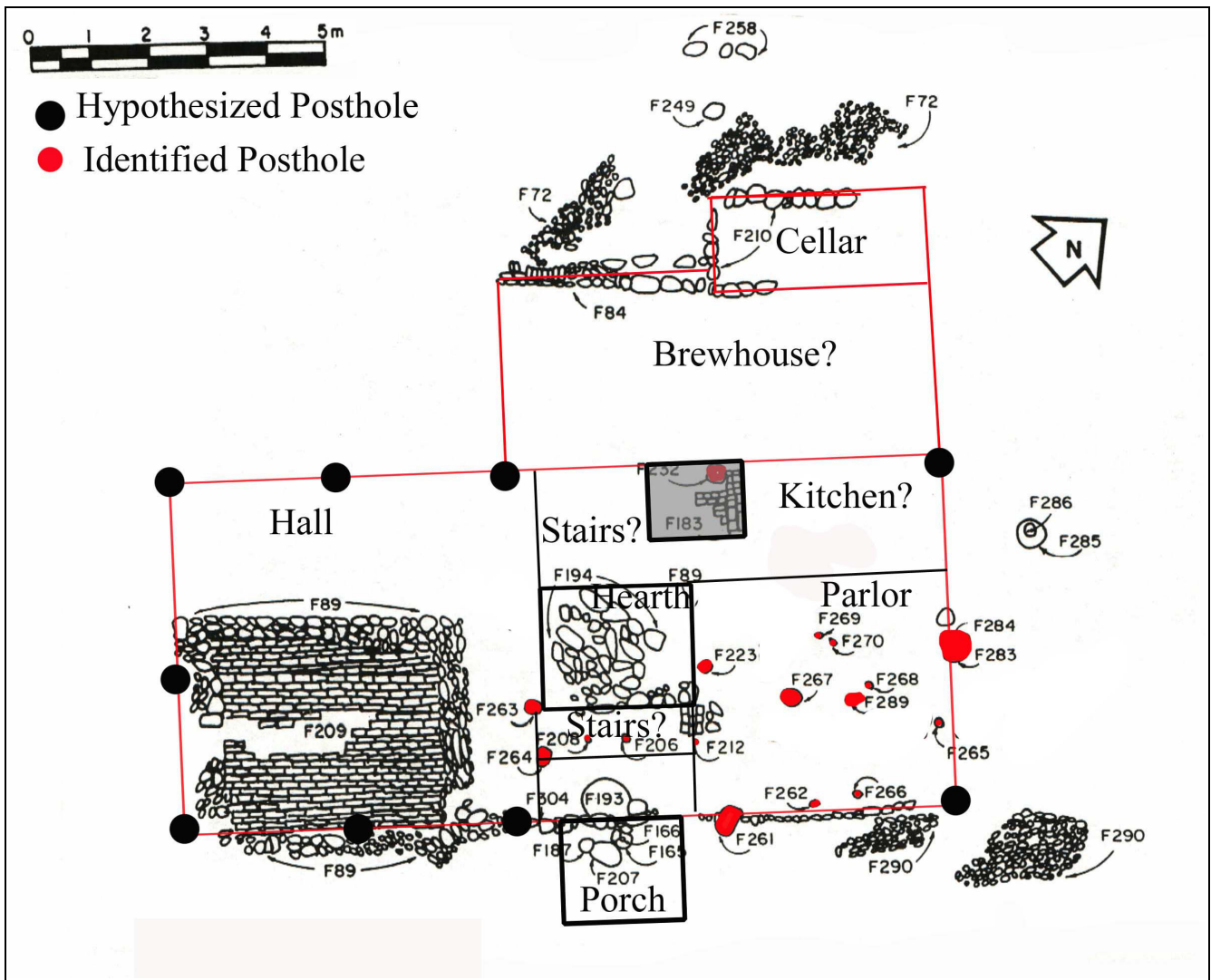


Figure 8. The present author's reconstruction of the Three Cranes Tavern and possible brewhouse

Mary/ Widow Long House

The drains that were found in the cellar when the brick flooring was removed indicate that the Widow Long's house must have been located to the southwest of the house and not to the northwest. This is due to the fact that when Mary Long sold a portion of her garden plot to Henry Cookery in 1704, she added a proviso that she be allowed access through Cookery's property to repair the drain that ran from her cellar to the cellar of the tavern, the drain found in 1985 was in the southwest corner of the tavern, indicating that her house must have been to the southwest or west of the tavern and meaning that her house was separated from the tavern by the Cookery yard. It is not known why she had a drain connecting her cellar to the taverns, but they may have been part of a more elaborate drainage system that emptied into the harbor or into other drains in the street. With the knowledge that at least one, and probably more like two houses (Mary Long's and Henry Cookery's) were located to the south of the tavern, it has to be concluded that the privies located to the northwest of the tavern may have been associated with any of these buildings, and not necessarily just with the tavern.

Conclusion

In some ways the present study creates more questions than it answers. If the Great House was earthfast, where are the missing postholes? If the addition to the northwest was not Mary Long's house, where was it? Where was the well that was used by the tavern and the brewhouse? What function did the drains in the cellars of the tavern and the Long house serve and where did they drain to? But, all in all, I think that the present interpretation of the archaeological evidence fits better with what was found in 1985 and what is known about 17th century vernacular architecture, than the previous interpretation.

I think, that as a Great House (a house built for the highest ranking member of the government of the new colony) it is very likely that the building was a hall and parlor style house, that it was larger and more spacious than the excavators believed it was, and the present hypothesized dimensions are much more in keeping with other known First Period houses from New England and Virginia. I also think that the utility disturbance that occurred in the 20th century, seriously hindered the archaeologists' ability to see all the aspects of the site in 1985, leading to the difficulty in interpreting what they found. As can be seen in **Figure 9**, the limits of the 1985 excavation (as presented in the 1994 report) and the various utility lines made it difficult to identify all the postholes that may have been present at the site.

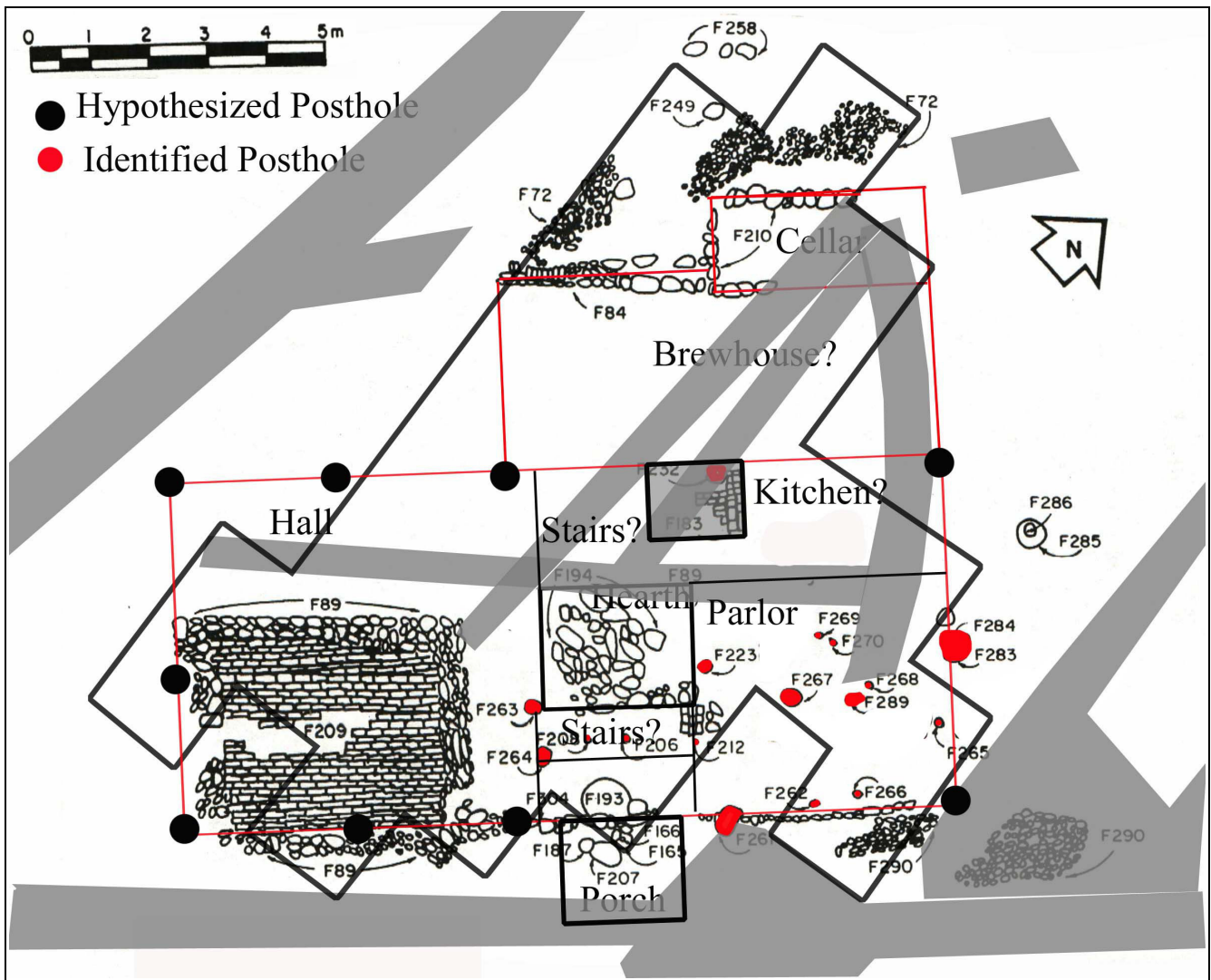


Figure 9. The present author's interpretation of the Great House/ Three Cranes Tavern, the limits of the excavated area, and the areas of recorded disturbance at the site (Gray bands are utility disturbance, black outline represents the limits of the excavation as presented in the 1994 report)

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