



**Report for Intensive (Locational) Archaeological Survey of the Old North Church Crypt,
Boston (North End), Massachusetts**

Joseph Bagley
Jane Lyden Rousseau

2018

**NOTE: Out of respect for the deceased, photographs containing human remains have
been redacted from this public report. A complete version is available to view to
qualified researchers by written request to the City Archaeologist.**



City of Boston Archaeology Program
201 Rivermoor St.
Boston, MA 02132

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By
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Jane Lyden Rousseau

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Abstract

In 2017, the City of Boston Archaeology Program and Jane Lyden Rousseau, osteoarchaeologist, conducted two archaeological surveys within the crypt at Old North Church. This work included invasive testing beneath the concrete walkway within the crypt through a series of four test trenches, and a monitoring of the opening of Tomb 12. The goals of the project were to determine if grave shafts exist within the floor of the crypt and to document if and what human remains, coffins, and other funerary objects remained within the opened tomb. While no human remains were found within the walkway of the crypt, several fragments of coffin handles, numerous straight pins, and window glass, all likely associated with burials, were recovered within the walkway. In Unit 1, a single deposit of mottled fill was encountered down to 60 cmbs, with one notable distinction: throughout the strata were distinct areas of black soil, approximately .5-3 cm in size, which contained greasy black soils and fragments of white soft shell clam shells. These dark soils containing shell likely represent soils from a heavily disturbed or destroyed shell midden deposit that were broken up and mixed into the soils as a fill deposit, possibly during the construction of Old North in 1723. Tomb 12 had a minimum of 20 individuals interred within, with strong likelihood of at least 24 individuals, but some of the coffins were obscured due to collapse of the coffins within the tomb. No further archaeological mitigation is recommend within the walkway of the crypt, but all tombs within the crypt should be assumed to contain remains, protected, stabilized, and remain undisturbed. Any future opening of tombs to repair or study tomb doors should be accompanied by non-invasive archaeological monitoring and reporting of the tomb contents.

Management Summary

In 2017, archaeologists and volunteers of the City Archaeology Program and osteoarchaeologist Jane Lyden Rousseau conducted an archaeological survey within a walkway and documented the contents of Tomb 12 within the crypt under Old North (Christ Church). The excavations included four 1x2 meter excavation units. The Tomb documentation did not include artifact recovery.

While the walkway of the crypt contained fragments of coffin hardware and pins possibly associated with burial shrouds, no grave shafts or human remains were documented. Tomb 12 contained approximately 20 coffins and at least three individual human skeletons.

It is recommended that future work to lower the crypt walkway under Old North be monitored by professional archaeologists. Also, any disturbance of tombs should be avoided, and if they are opened or disturbance is unavoidable, additional archaeological mitigation should occur through documentation of the tomb contents.

Acknowledgements

We would like to acknowledge the volunteers of the City Archaeology Program who executed this archaeological survey within the crypt at Old North with respect and care towards those interred. We would also like to acknowledge the assistance of Dr. James Pokenis, Office of the Chief Medical Examiner, who examined the faunal remains collected from the walkway area to confirm the absence of human remains.

Introduction

Scope of Survey

The Old North Church Foundation (Foundation) proposes a series of projects within the crypt of the 1722 Christ Church in the City of Boston (Old North) located at 193 Salem Street, Boston, MA (Figure 1). Old North's crypt began with the construction of a single tomb in the open basement of the church in 1732. Between 1732 and the mid 19th century, 37 brick tombs were built within the crypt roughly echoing the layout of pew boxes in the church's nave, directly above the tombs. The goal of these projects is to stabilize the structure the tombs located within the crypt, improve accessibility to visitors, and remove some of the utilities within the crypt that hinder movability within the space and contribute to heat, humidity, and water impacts on historic architectural fabric.



Figure 1- Old North Church Campus indicated on a USGS map (black circle)

Initial phases of the work included two primary goals: to lower the floor of the Crypt's walkway (Figure 2-3) to increase clearance within the space for visitor safety, and document the conditions of the doorways to individual tombs where rust, rotting wood, and other condition issues make stability of the tombs and their contents an issue.

Because of the archaeological impacts of these two projects, the Foundation has partnered with the City of Boston Archaeology Program to execute recommendations previously submitted in an overall archaeological reconnaissance of the Old North Church Campus (Bagley 2017). The

project area of potential effect (APE) includes the crypt walkway and Tomb 12. Testing included below-ground invasive archaeological survey within the crypt walkway and archaeological monitoring of the opening of Tomb 12.

The crypt floor survey was conducted to determine if proposed excavation and removal of floor soils would impact any grave shafts. The tomb opening was done to determine the condition and structure of the tomb doors, opening, and hinges for future restoration planning.

Both of these surveys were conducted under state-issued archaeological permit (SAP) 3653. Background, methods, and results of this archaeological survey are presented here.

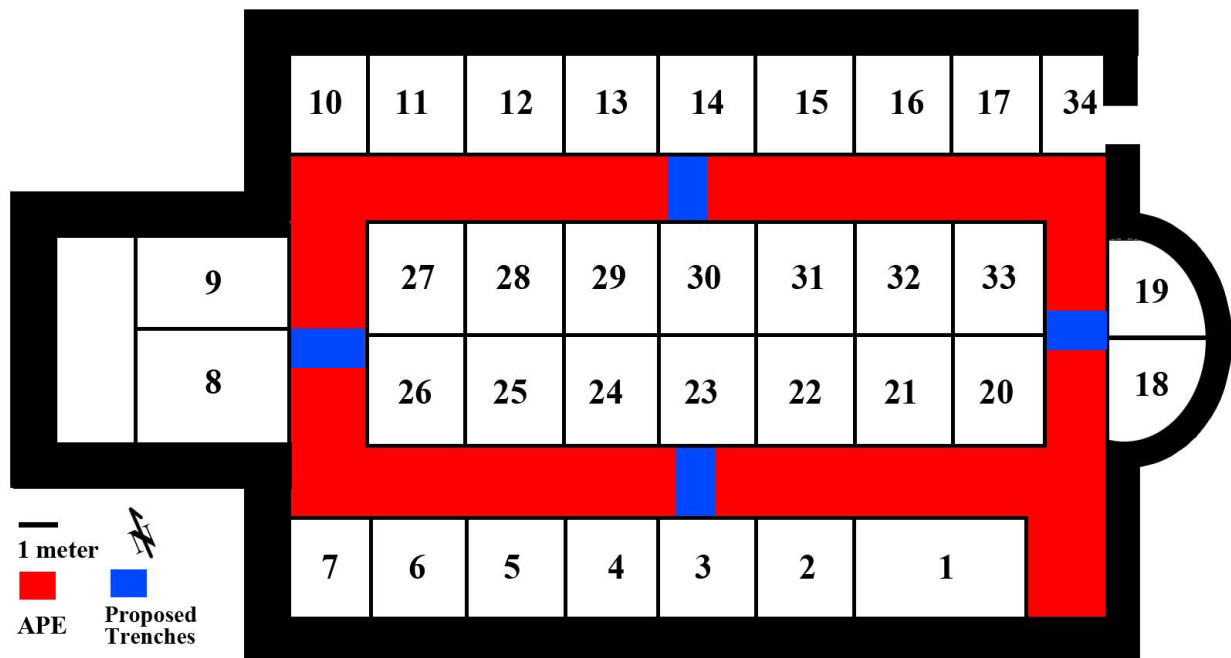


Figure 2: Map of Old North Crypt showing walkway (red), tombs (numbered) and proposed location of excavation trenches (blue).

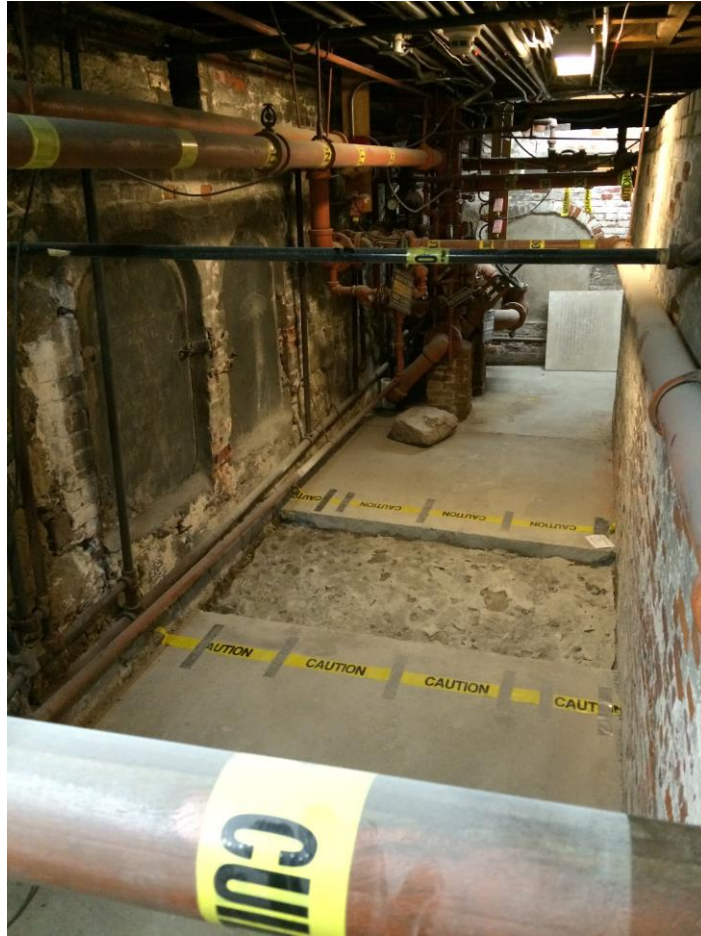


Figure 3- View facing North of the western walkway area. Unit 3 visible in floor. Note the utility lines obstructing easy mobility within the space. The arched doorways of Tombs 8 and 9 are visible on the left. From left-right, unit cut into floor is 180cm wide.

Compliance with Legislation

An existing preservation restriction (PR) on the Old North property requires the review of proposed impacts to both above and below ground historic resources at the property by the Massachusetts Historical Commission (MHC). With this knowledge, the Foundation proposed archaeological mitigation in anticipation of MHC recommendations.

Project History

The archaeological survey was conducted in two parts. The crypt floor survey was conducted March 13-23 2017, and the tomb monitoring occurred on a single day October 24, 2017.

Personnel

The team was co-lead by Joseph Bagley, Boston's City Archaeologist, and Jane Lyden Rousseau, osteoarchaeologist, and was staffed by volunteers of the City Archaeology Program.

Site Background History

Native American History of Site

The Christ Church in the City of Boston (Old North) and its associated campus is situated on the northernmost of several glacial hills that made up the former Shawmut peninsula, the original name for the area of land upon which Boston was founded. This hill formed the majority of what would become the North End neighborhood of Boston. Until approximately 3000 BP (years before present) rising seas from melting glaciers had not filled Boston Harbor, so the North End neighborhood would have been situated upon a hill just south of a bend in the Charles River from the time the last glacier retreated to 3000 BP (Figure 4). During this time, the surrounding area would have been a broad riverine landscape dominated by elongated hills orientated in the same Northeast/Southwest direction and an overall-glacially modified landscape. After 3,000 BP, the North End neighborhood landform was established as a coastal area at the transition from the Charles River estuary to the drowned drumlin island landscape of Boston Harbor.

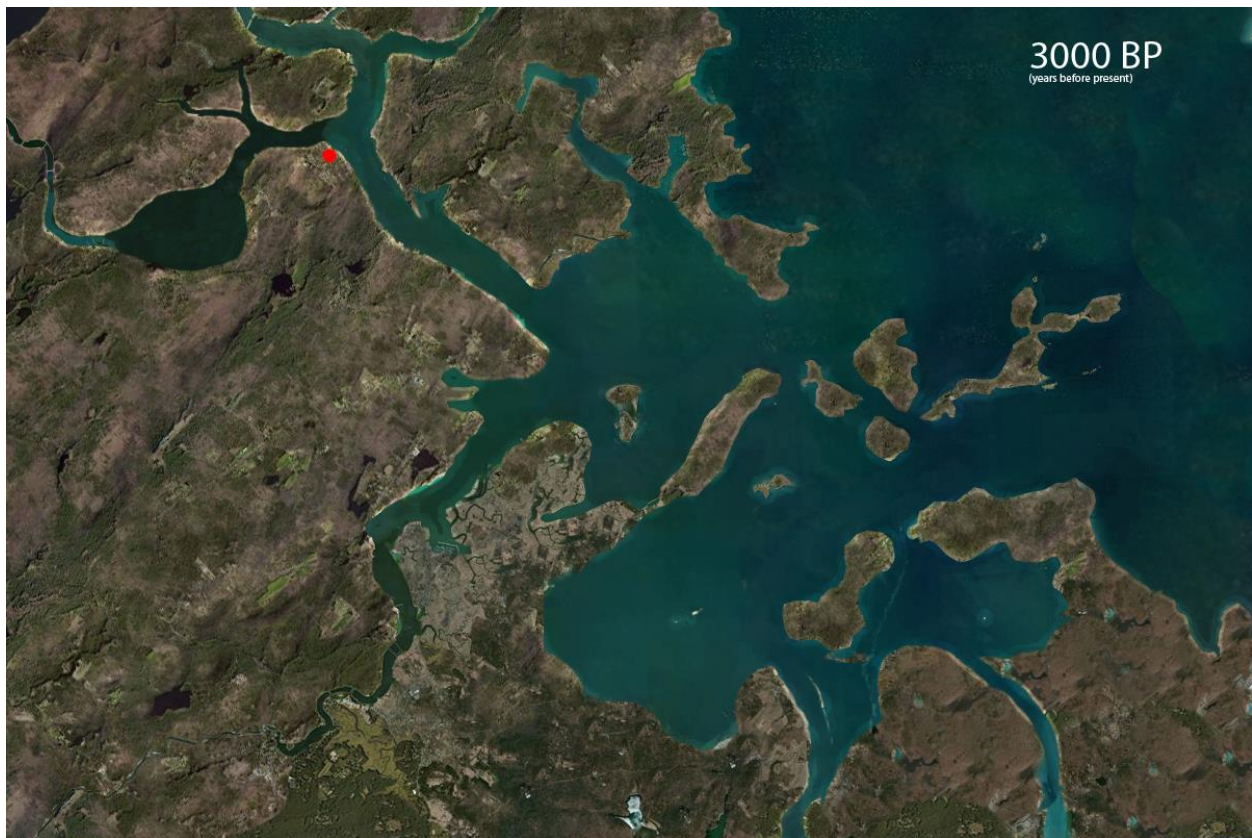


Figure 4- Author's reconstruction of Boston Harbor in 3000 BP, project area noted with red dot.

To date, no intact Native American sites have been located within the North End. However, the recorded presence of Native people in historic records and documented archaeological sites within the immediate surrounding indicates their presence within the neighborhood for

thousands of years, and the lack of archaeological evidence is due to the combination of development and overall lack of archaeological investigation in the neighborhood.

Earlier archaeological testing in the surrounding area can provide for overall Native narrative of the North End. Soon after the retreat of the most recent glacier, early peoples arrived to the area exploiting the natural resources of early Boston including lithic, animal, and plant resources. It is likely that many of these sites would have been near the former coast and river shoreline and lost due to the rising sea levels which have inundated the vast majority of the land that once existed within the (current) Boston Harbor prior to inundation.

The Archaic period, which begins around 10,000 BP and last until around 3,500 BP, started with relatively little physical evidence of activity in the area (though this could be again attributed to sea levels), but by the Middle Archaic (5,500-7,500 BP) numerous occupation sites were established in Boston. This is likely due to a diversification in the use of various ecological locations and resources including the movement away from the coastline and rivers into more upland areas that are well preserved archaeologically. The later archaic period has relatively few occupation sites; however, the construction of massive fish weirs in nearby Back Bay area of Boston indicates that the area was heavily utilized by Native Americans for natural resources, especially along the Charles River.

The Woodland period (3,000-400 BP) saw a movement towards sedentism, especially along the coast, likely brought upon by a series of developments including the introduction of pottery and farming, the stability of climate and sea level (Figure 5) bringing about more readily available food resources that could be returned to and relied upon year after year, and the increase of population causing some stress on natural resources and the need to protect and defend resources from outsiders.

Native American presence has never ceased in Boston or the surrounding area, but after the early 17th century, populations were dramatically impacted by the combined effects of spreading disease and active eradication resulting from the early explorations of European colonists. By the time Europeans arrived to Boston, Native populations were decimated and it appears that those who remained had retreated towards the Watertown area and other nearby areas with access to rivers, but also with enough surrounding land to be able to readily move about in response to European movements including the areas around Mystic Lake in Medford and the mouth of the Neponset River.

The relatively high topography of the North End and its prominent location at the mouth of the Charles River indicates a high potential for the presence of Native occupation in the neighborhood, especially the upper heights and lookout capabilities of Copps Hill, the western shores of the North End with direct access to what is today the Charlestown neighborhood and Back Bay, and the eastern shores of the North End with their direct view and access of Boston Harbor. All three of these areas, as well as the rest of the neighborhood, are highly developed today, though some potential still exists for the presence of intact Native occupation evidence in the few remaining intact Native landscapes within the neighborhood.

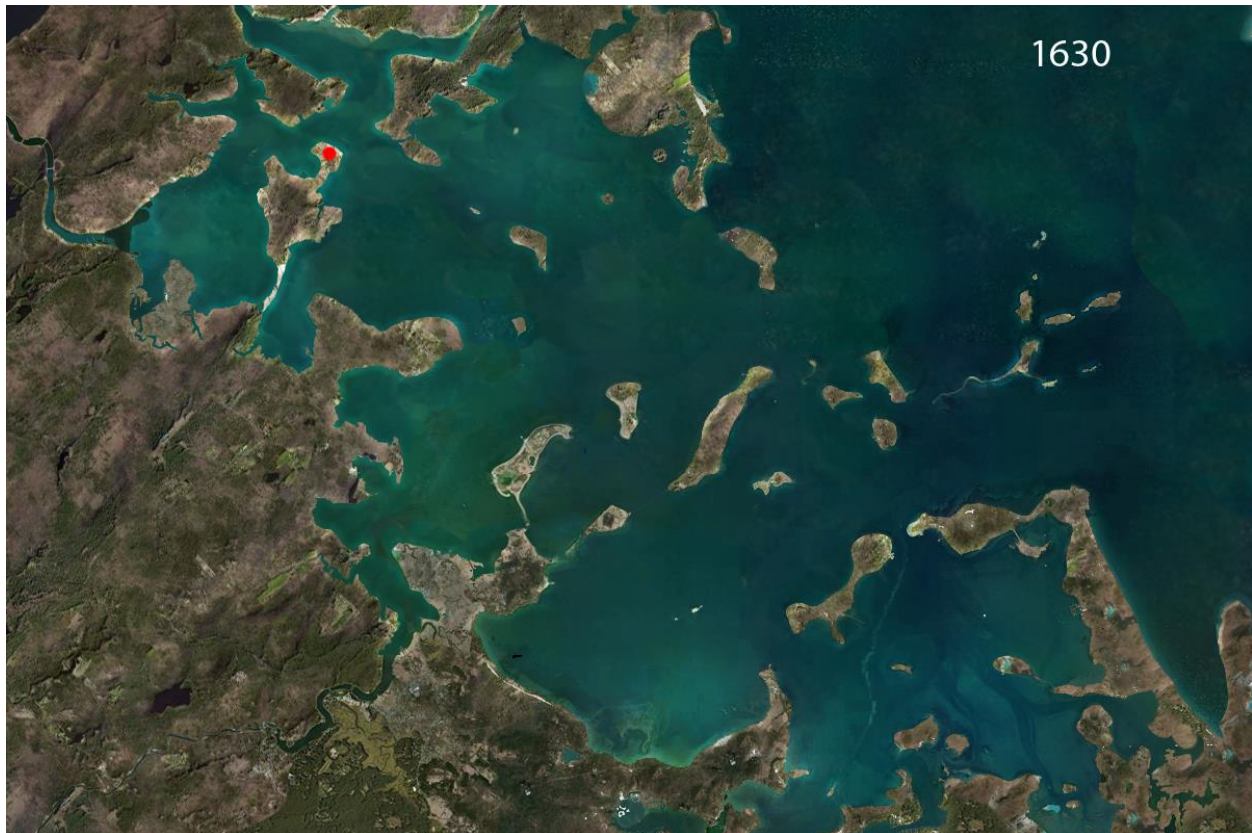


Figure 5- Author's reconstruction of Boston Harbor in 1630, project area noted with red dot.

Post-contact History of Site

The central hill of the North End, now known as Copp's Hill, slopes more steeply along its northern edge where the Charles River has eroded it somewhat, but it has a more gradual slope to the south providing for easier development in the 17th century and later. At the arrival of Europeans, earliest accounts describe the Shawmut peninsula as nearly deforested in the 17th century indicating that the demand for wood by Native Americans for tools, structures, and fire as well as the need to clear forests for agriculture had visual impacts on the ecology of the Shawmut peninsula.

With the land having been nearly cleared, early settlement of the North End focused primarily on the shoreline near the town dock located to the south of the project area, and the northern end of the neighborhood where the First Church was built on North Street at the eastern end of the North End with the western uplands, including the campus, serving primarily as a pasture, grist windmill, and burial ground for early European colonists.

Christ Church (Old North)

This 8,129 square foot parcel currently contains the standing structure of Old North, a surrounding open space, a rectangular open gathering area known as Washington Courtyard, and a rear addition to the main church structure (Figures 6 and 7). Vents from the crypt are visible from Washington Courtyard (Figure 7).



Figure 6- Old North Church (2014 Google street view)



Figure 7- Washington Courtyard facing east with Old North to the right (2013 Google street view). Small crypt vents are visible along base of Old North between red door and downspout. This property was built on land transferred in 1726 (Suffolk County Deed Book 40, pg. 58), though the church itself was built in 1723. As the property was transferred after the construction of the church, it is not known what, if anything, was erected on the property, prior, and there is no mention of structures on the property in the deed transfer indicating that it may have been undeveloped at that time. The church has remained in the same footprint since its construction.

Crypt History and Previous Archaeological Surveys

To date, two archaeological reconnaissance surveys have addressed the Old North crypt. Jane Lyden Rousseau's 2006 report surveyed the crypt's existing conditions, history, and contents (Rousseau 2006), but no below-ground or invasive archaeological surveys have been conducted. This proposal will summarize Rousseau's results paying particular attention to those that specifically pertain to the walkway APE.

An 1812 sermon describes the encounter of a burial within the earthen floor of the church basement during construction of the existing tombs several years earlier (Rousseau 2006, 30). Loose dirt was encountered and then excavated resulting in the recovery of a coffin six feet below the then-grade of the floor with an intact burial within (Rousseau 2006, 30). These remains were identified as a "Mr. Thomas" and reburied in the northeast corner of a cemetery (Rousseau 2006, 31). Rousseau's research reveals that the crypt was often referred to at the time as a "cemetery" indicating that these remains may have been reburied again within the floor of the crypt near the present-day location of Tomb 10. It is possible that additional burials may have existed within the crypt floors prior to the building of tombs before, during, or perhaps after the commencement of tomb construction within the crypt in 1732 (Rousseau 2006, 15 and 31).

The crypt consists of four corridors 1.5-1.8 meters wide in a rectangular path around the footprint of the church with thirty-seven individual tombs facing inwards along the outer walls of the church's foundations and inner tombs facing outwards from the central block in the cellar (Rousseau 2006, 5-6). Each tomb is accessible from the pathway through a central opening covered by a slate tablet, though several have since been concreted over or filled with other materials (Rousseau 2006, 5). The main part of the crypt contains 34 tombs, with the last three tombs (35-37) having been built beneath the vestry, behind what is now the columbarium. Only the 34 tombs located along the walkway are within the project area.

Portions of the tombs are structural including the outer walls of the outer tombs, which are the foundations of the church, and the rear walls of the inner block of tombs, which form a central brick support structure down the center of the church (Rousseau 2006, 6).

The existing concrete floor was installed in a 1968 during a renovation to the crypt's structural support (Rousseau 2006, 10). This work included the replacement of existing brick piers and tomb elements supporting the floor of the church with new brick piers within the original footprint of the original piers (Rousseau 2006, 10). This work likely destroyed the original footings, but any impacts to the soils under walkway by this installation are unknown (Rousseau 2006, 10)

The first documented burial occurred in 1732 when Tomb 1 was built in the southeast corner of the cellar ((Rousseau 2006, 15). Many others followed with the 36th tomb being constructed in 1836 (Rousseau 2006, 21). In 1845, the earliest tombs were cleaned removing skeletal remains for additional entombment (Rousseau 2006, 22). Further tomb cleanouts were conducted and in 1845, the last tomb, number 37 (outside APE), was constructed to house the skeletal remains of the cleared tombs following practices of European chanel houses (Rousseau 2006, 22-23). This tomb, unlike the others, contains an excavated pit containing the bones of cleared tombs in an ossuary beneath the existing grade of the tombs, but not likely to be within the APE of this project.

In 1992 a columbarium was constructed above what would have been the ossuary. During this work, the floor of the cellar was lowered above the ossuary approximately 18 inches encountering a human femur resulting in the ceasing of further excavations (Rousseau 2006, 25).

The tombs were ordered closed by the City of Boston in 1853 though internments continued until 1860, at which point the tombs were sealed closed (Rousseau 2006, 26).

In 2016, an archaeological reconnaissance survey conducted by the author of this proposal identified the entire crypt area of the Old North Church campus as sensitive for the presence of human remains from the 18th-19th centuries (Bagley 2016).

Tomb 12

Prior to the survey, one tomb was selected by the Foundation as a test case for determining the best methods for restoring the tomb doors within the crypt. Tomb 12 (Figure 8) was selected for a variety of reasons. The condition of the door was deteriorating, with the door itself being constructed in wood, with added wooden lathes covered in metal mesh and coarse mortar. This metal mesh had begun to rust causing expansion within the mortar, mortar collapse and loss, and exposure of the sub-layers of wooden lathe and the wooden door to the tomb. Additionally, rust on the main hinges of the door was great enough to likely need restoration as part of the overall crypt restoration efforts, but the exact construction and conditions of the hinges were not visible without removing the door. Finally, the tomb was accessible among large quantities and volumes of utility lines, which facilities easy access by both construction crew and monitors/observers. The following is a summary of the known history of Tomb 12.

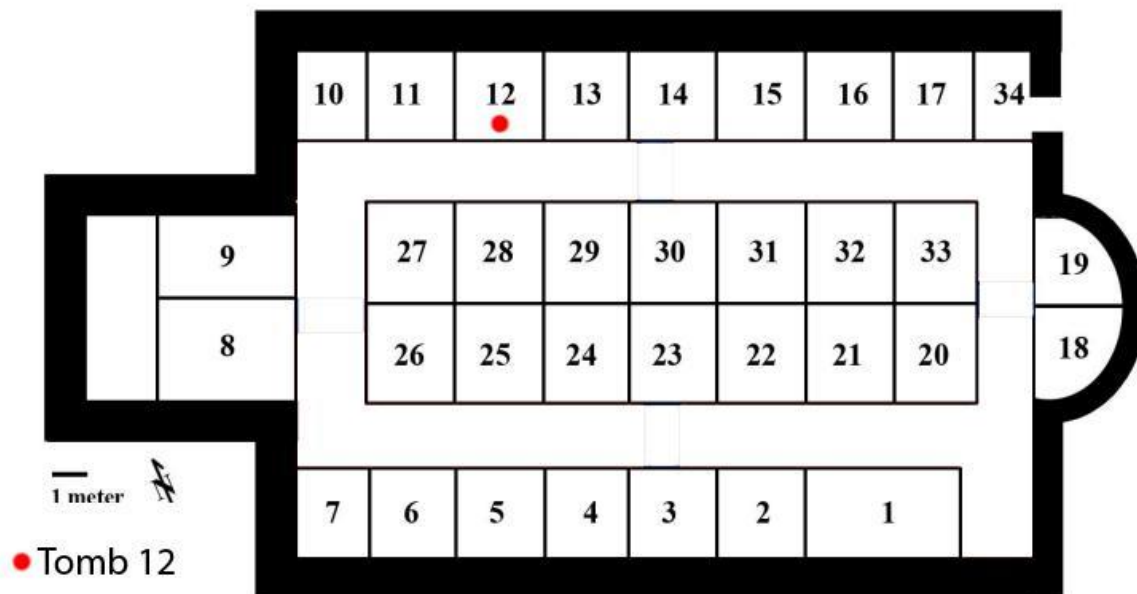


Figure 8- Location and condition of Tomb 12 prior to opening.

Tomb construction within the crypt occurred over nearly a century with the goal of both providing burial places for church members as well as to raise funds for the Church itself. By 1805, a vote was taken to examine the crypt, determine the conditions of existing tombs, and make a recommendation as to where and when additional tombs could be built to raise funds and expand the areas in which members could be buried (Rousseau 2006, 16). In 1805, 25 tombs were built in addition to the 17 tombs already present at that time. It is not clear if Tomb 12 was one of the 25 new tombs or the existing 17, as the current numbering system within the crypt was added after and Tombs 1 and 18 are known to pre-date 1805 (Rousseau 2006, 18).

Regardless, the construction of Tomb 12 occurred no later than 1808 as it appears on a map dated to that period (Figure 9). As it matches the appearance of many nearby tombs located on the opposite side of the crypt as earlier tombs (including Tomb 1), it can be assumed that it was part of the bulk-building of 25 tombs beginning in 1805, giving Tomb 12's opening as between 1805 and 1808.

In 1820 church records, Tomb 12 is listed as one of several tombs that remained property of the Church, with the others being formally sold to individual parishioners for their personal use (Rousseau 2006, 20). This same document describes Tomb 12 as being "free of coffins" with nearby tombs receiving coffins for a fee of \$10 each (Rousseau 2006, 21).

With the tombs being filled quickly, an 1845 document recommends the cleaning of existing tombs, with tombs 1 and 20-24 being avoided as they are "ancient" (Rousseau 2006, 22). As part of this cleaning, a charnel pit or ossuary was constructed in the floor of the vestry to the east and north of Tomb 12. It is presumed that the contents of Tomb 12 would have been removed and placed in the charnel pit at this time. Church records indicate that Tomb 12 was cleared in November of 1844 and closed in February of 1846 (Rousseau 2006, 65).

Alternatively, records indicate that in the case of Tomb 1, the first tomb constructed, individual remains were consolidated into smaller, individual boxes, with metal coffin labels removed from coffins and affixed to these smaller ossuary boxes (Rousseau 2006, 23), introducing a second method for clearing room in existing tombs besides removal and bulk deposit in the Charnel Pit.

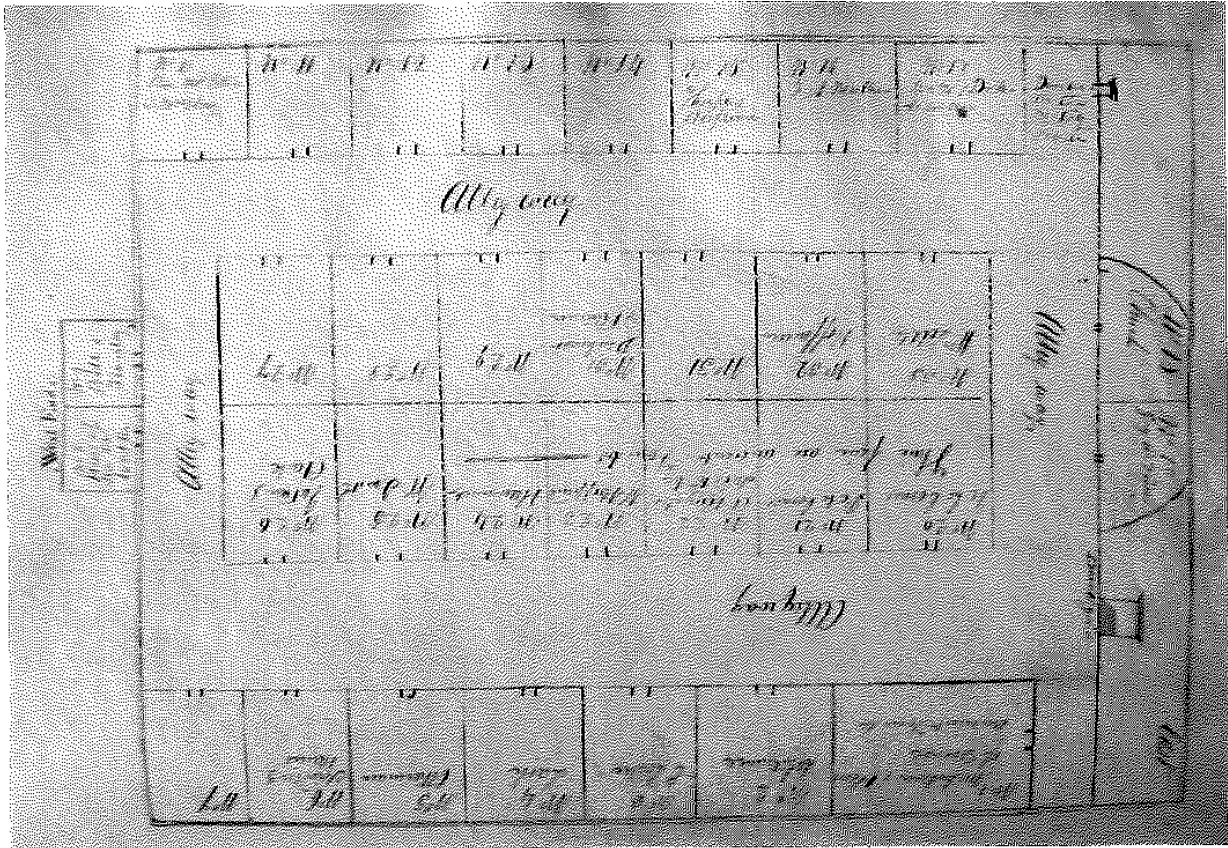


Figure 9- Tombs in 1808. Tomb 12 located in upper left

In 1853, Boston ordered all tombs closed in crypts, but church records indicate that cleanings of tombs and burials likely continued until 1860 when the parishioners voted to formally close the tombs in the crypt (Rousseau 2006, 23-26).

To further prevent the interment of additional coffins, the church removed titles to individual tombs owned by prisoners or their family (Rousseau 2006, 28).

A 1912 restoration effort within the church removed crumbling doors, replacing them with wooden doors, which were later covered in wooden lathe, wire mesh, and plastered (Rousseau 2006, 28). It is likely that this is the date of the door to Tomb 12. The hinges may be earlier.

In summary, Tomb 12 was likely built around 1805, but thoroughly cleaned in 1844 or 1845. Records indicate that it was formally closed in 1846, but may have been in use as late as 1860. It was likely re-opened in 1912 during the installation of the door, but likely remained closed until its opening for this project.

Crypt Floor Survey Field Results

Crypt Walkway Survey

Project Area Description

The project APE consisted of the entirety of the walkway of the crypt under Old North Church. After consultation with the City Archaeologist, Old North Church Foundation Executive Director and Old North Vicar, Stephen Ayres, instructed private contractors to cut 1-meter wide trenches through the concrete near the center point of each of the four walkways in the crypt. A plan drawing of the crypt (Figure 10) indicates the location and size of each of these units. The trenches/units were numbered 1-4 beginning on the eastern walkway and continuing counterclockwise.

Old North Church Crypt
Plan of 2017 Excavations

(36)

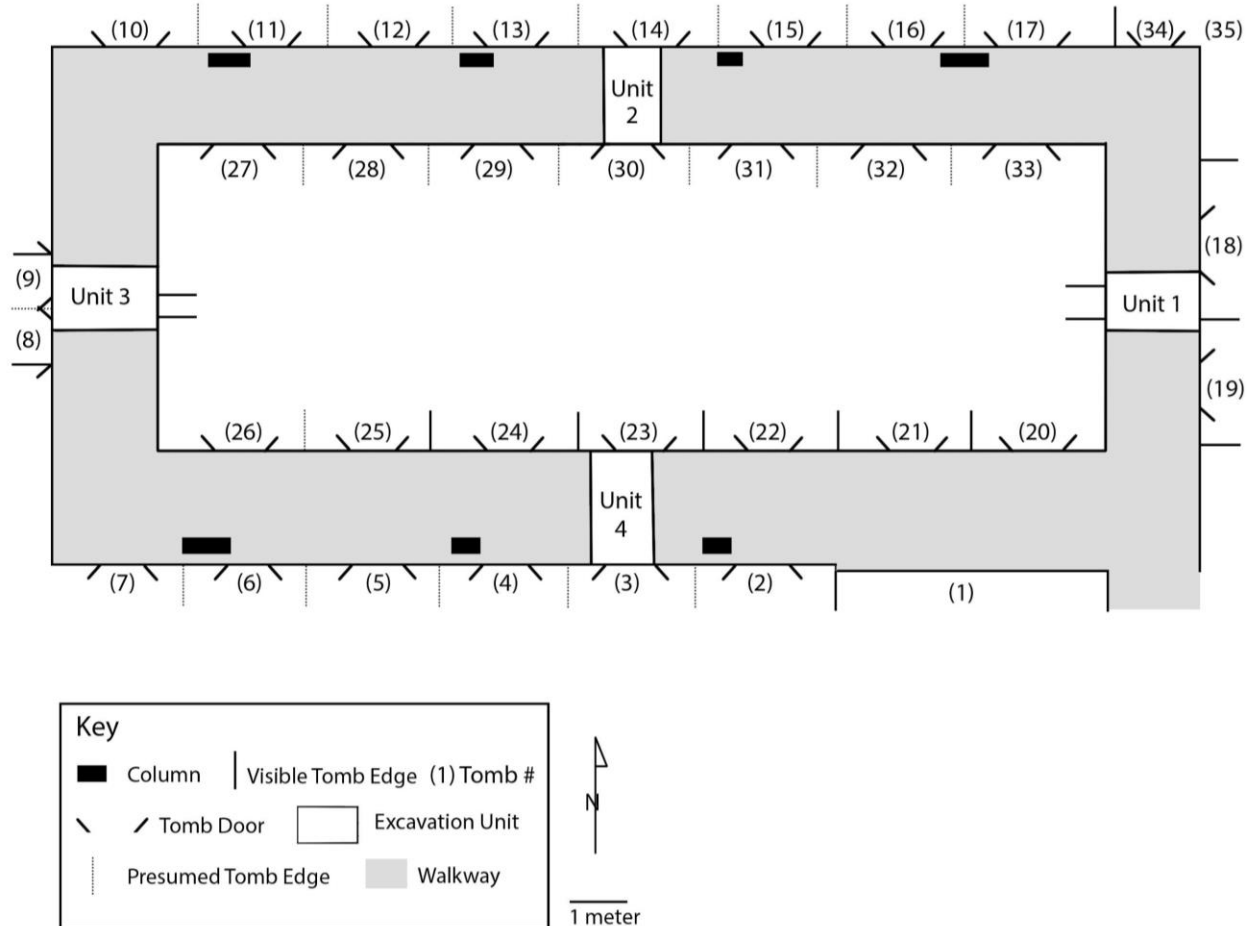


Figure 10- Scale drawing of Old North Church crypt walkway showing edges of existing tombs, tomb doorways, walls, columns, and the location of the four test units.

Project Goal

The goal of this crypt floor survey was to determine if there were burials existing within the floor of the crypt that may be impacted if the floor of the crypt was excavated to increase head clearance within the crypt for visitors.

Excavation Methods

The concrete was strata 1 in all units. All excavations were bagged and recorded by strata, which was sub-divided into 5-cm arbitrary levels, with photos taken of the floor of the unit at the transition between strata or at the bottom of an arbitrary level. All soils were screened through 1/8" mesh.

Unit Results

In total, 668 artifacts were recovered from four units (Appendix A- Proveniences) (Appendix B-Catalog)

Unit 1

Unit 1 was located on the eastern walkway in between Tombs 18 and 19, the tombs reserved for church leaders including former vicars. A tombstone for Tomb 18 includes Capt. Thomas Potts and Timothy and Elizabeth Cutler, Cutler being the founding reverend of Old North. The western wall of the unit abuts a column or end of wall that appears to span the central length of the crypt and appears to be the central floor support of the church floor, above. The tombs within the center portion of the crypt appear to abut this central wall, having been built outward to the north and south with their entrances facing the rectangular walkway.

Unit 1 measured 1.5 meters east-west and 1.03 meters north-south.

Two strata were encountered in Unit 1 (Figure 11). Strata 1 consisted of the existing concrete walkway, which was removed prior to the arrival of the survey team. No artifacts were collected from this strata. Strata 2 was a dark yellow-brown fine sandy silt. Excavations stopped at 60 cmbs as proposed in the archaeological permit with the assumption that if burials existed within the floor of the crypt, their presence would be visible by this depth. No evidence of grave shafts was encountered.

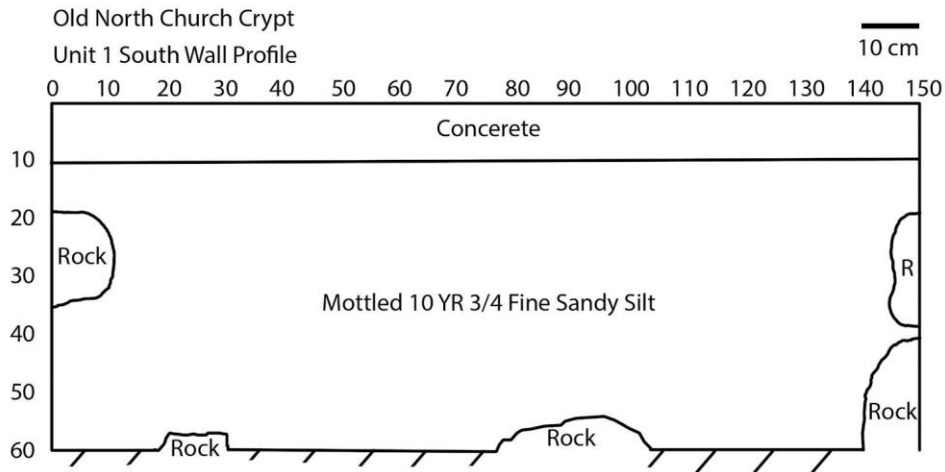


Figure 11- South wall profile of Unit 1, Old North Church crypt.

Just below the concrete and metal mesh was a layer of plastic, assumed to be a vapor barrier placed in the 1960s just before the pouring of concrete. When the plastic was removed a layer of very compact soils was encountered with pockets of mortar dust (Figure 12).

In the northeast corner of the unit, there appeared a rodent burrow, which was visible due to slightly looser soils and a concentration of rodent bones and artifacts including longer mammal bones.



Figure 12. Unit 1 showing plastic just under concrete layer. North arrow is 20 cm long.

Soils remained consistent from the upper limits of the strata to 60 cmbs, with one notable distinction: throughout the strata were distinct areas of black soil, approximately .5-3 cm in size, which contained greasy black soils and fragments of white soft shell clam shells. From experience on numerous shell middens, the author of this report suspects that these represent soils from a shell midden that were broken up and mixed into the soils as a fill deposit, possibly during the construction of Old North in 1723.

Overall, only 301 artifacts were recovered from the unit, all from the same strata (2) and most being shell (n=216) and bone (38). The remaining artifacts include nails, possibly from coffins but also possibly from the building or tombs themselves, roofing slate, wood, and brick. Datable artifacts were very few, but include a fragment of undecorated tin-glazed earthenware of 17th-18th century in age (Artifact #ONC.001.003) and several fragments of 18th century 5/64" pipe stems. Overall, the artifacts indicate a sparsely used fill with re-deposited possible midden, and with little additional artifact accumulation during use suggesting a cap on the surface.

The soils themselves appear to be disturbed, with the foundations of the abutting tombs extending below the 60 cmbs depth of the unit (Figure 13) suggesting that the soils excavated in Unit 1 were likely disturbed during the construction of the tombs themselves. If graves existed within the floor in this area, their presence may be obscured by disturbances done to the ground during tomb construction, but as the floor lower will not go below these disturbances, no intact grave shafts will be disturbed in this area of the crypt, if they were ever present, with the proposed lowering of the crypt floor plans.



Figure 13- West wall profile of Unit 1 showing foundation of central wall in crypt (center) and stone foundation of Tombs 20 (left) and 33 (right). Depth from bottom of measuring tape to surface is 50 cm.

Unit 2

Unit 2 was located mid-way down the northern pathway. It lies nearly in front of two tombs. To the south is Tomb 30, which according to the inscription houses John Dewhurst and William Palmers and the date 1811. To the north is Tomb 14, which houses the stranger's tomb, and is dated 1812. 129 artifacts were recovered from Unit 2.

Strata 1 was the concrete floor of the crypt. Strat 2 was a compact brown soil with notably more mortar and brick than Unit 1 implying a demo debris fill. Strat 2 contained 68 artifacts, mostly shell and architectural fragments with possible window glass and nails from coffins or architectural use. Datable artifacts include a fragment of 17th or 18th century blue-painted tin glazed earthenware and a fragment of creamware with a TPQ of 1762 (Artifact #ONC.004.010). All suggest deposition after the construction of the church in 1723 and opening of the crypt in the 1730s, but the overall lack of artifacts suggest little regular use of the space or a covering to the floor (see Feature 2)

As demo debris increased, this was given its own strata, 3, and it appeared first in the eastern half of the unit. Between 15 and 20 cm, large fragments of brick were present, some mortared together, suggesting wall elements were deposited as fill. In the southwest corner, mortared

slate fragments were encountered between 15-20 cm suggesting the presence of a floor at some point that was later removed leaving behind a rind of slate mortared to stone foundation walls (Figure 14)



Figure 14- Plan of Unit 2 at 25 cmbs showing slate to south (Feature 2), mortared brick in center (Feature 1), and demo debris to east. Arrow is 20 cm long.

The square-shaped brick wall element was labeled Feature 1 with the slate area labeled Feature 2.

Feature 1

Feature 1 was a three-sided brick wall element. The top of the feature begins between 20-25cm cmbs. Within the walls, the center of the feature contained large amounts of white mortar dust and sand. The entire feature was gone by 30 cmbs. This feature appears to be some sort of column element, which was deposited as fill into the pit and is not significant. This likely dates to the 1960s column installation within the crypt. Feature 1 only contained architectural fragments.

Feature 2

This feature begins at 25 cmbs. Three layers of slate were found before ending suddenly. It is likely that this features represents elements of a former slate walkway within the crypt.

Strata 4 was found below Features 1 and 2. It has an increase in artifacts [insert artifact description]. To the north a darker soil was encountered likely being builder's trench for the construction of the Stranger's tomb. This builder's trench was called Feature 3.

Feature 3

Feature 3 begins at 25 cmbs and appears to be a trench dug through fill in Unit 2 to construct Tomb 14, the Stranger's tomb, around 1805. Feature 3 ends by 50 cmbs. The feature contained one fragment of coffin handle (ONC.013.001)

Strata 4 begins with an increase in artifacts, but artifacts quickly disappear and the soils become sandier and more olive in color. The unit ends at 50 cm after two layers of sterile soil and contains architectural fragments and several pieces of tin-glazed earthenware.

The unit appears to have two main strata (Figure 15), a compacted fill that was once covered in a slate floor and rubble fill (Features 1 and 2), all over a C soil (Strata 4). As the Old North Church was built into Copps hill, this suggests that excavations will encounter deeper natural soils within the units as the foundations were excavated further into the hill as they progressed westward. Unit 2 suggests that the floor of the crypt in this area was C soils prior to the construction of tombs in the crypt.

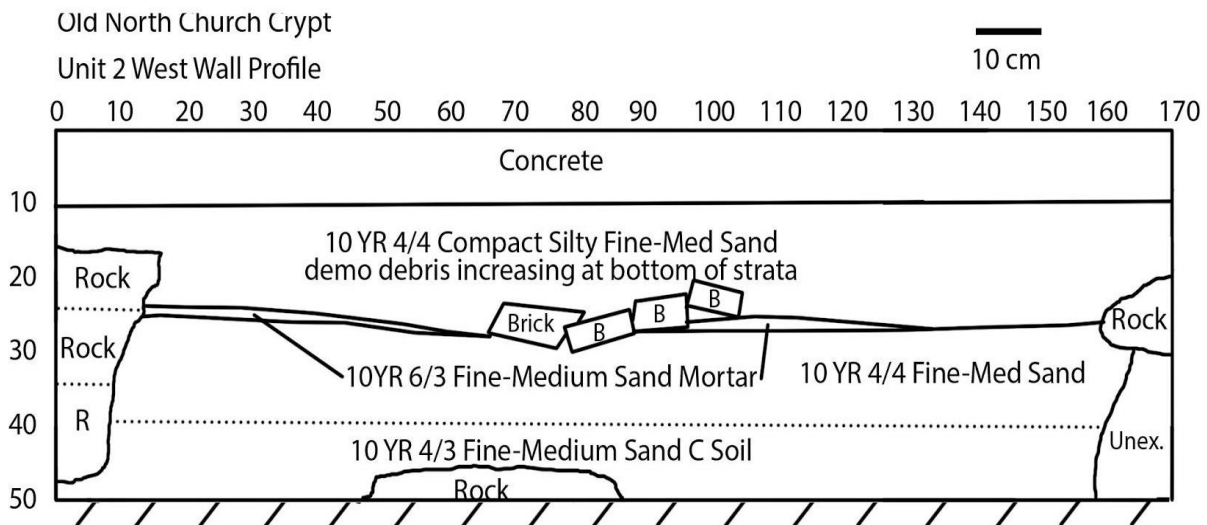


Figure 15- West wall profile of Unit 2.

Unit 3

Unit 3 was located on the western end of the walkway abutting the front of Tombs 8 and 9, and the western walls of Tombs 26 and 27.

Unit 2 suggested that natural soils were excavated into to build the foundation of Old North, and that the further west the excavations were done, the relatively deeper into the original hillside the soils would be. Unit 3 confirmed these suspicions.

The first 10 cm of the unit were the concrete floor, but soils were only excavated to a depth of 30 cmbs due to the presence of large quantities of water. Just below the concrete was a greenish clay deposit embedded with large quantities of brick (Figure 16).



Figure 16- Unit 3 at 25 cmbs showing bricks and clay substrate. Arrow is 20 cm long.

Though the bricks appeared as a single layer, it was not entirely clear if they represented a path or a general scatter. The moisture in the soil suggests that they may have been deliberately placed onto the walkway to provide slightly dryer areas to walk if groundwater seeped into the floor making the clay slippery.

Despite being very shallow, the density of the artifacts in Unit 3 were slightly elevated at 156 artifacts in just 20 cm of excavation. Overall, more pipe stems and window glass, possibly viewing glass, were encountered in this unit. A fragment of plastic was documented suggesting some disturbance to the upper levels in this area. Two refittable fragments of a bone fan strut (ONC.028.013) were also found, but it is not know if this was dropped by a visitor to the crypt or

a grave good. The increased artifacts could be due to the clay as it would have prevented dropped artifacts from being easily picked up if wet. That said, there was still no evidence of human remains embedded in the clay suggesting that these were carefully curated when being moved out of tombs.

At 25 cmbs, bands of iron began to be visible in the clay suggesting the clay was subsoil, but large quantities of water seeping into the pit made further excavation and confirmation of C soil impossible. Besides the depth of the excavation of the foundation into the Copps hillside, which could increase the likelihood of reaching groundwater saturation, a leaking pipe nearby likely contributed to the overall saturation of the soils in this area of the excavation (Figure 17-18).

It is highly likely that the unit reached C soils at 30 cmbs, and no evidence for grave shafts in the unit were visible as these would have left cuts in the clay floor of the unit.



Figure 17- Standing water in Unit 3

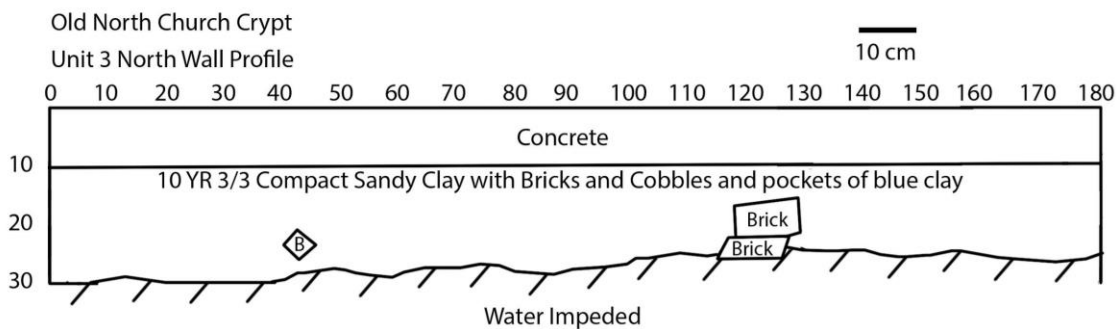


Figure 18- Profile of Unit 3

Unit 4

Unit 4 was located on the southernmost end of the walkway. It contained just three strata and the fewest artifacts at 82, total. Strata 1 was the concrete layer, and Strata 2 was a mixed deposit, likely present while the walkway was active. The disturbed layer with demo debris transitioned into C soil, similarly to what happened in Unit 2 (Figure 19). This stratigraphic profile confirms the hypothesis that the foundations of Old North cut deeply into natural soils of Copps Hill exposing sterile subsoil in the central and western ends of the church foundation.

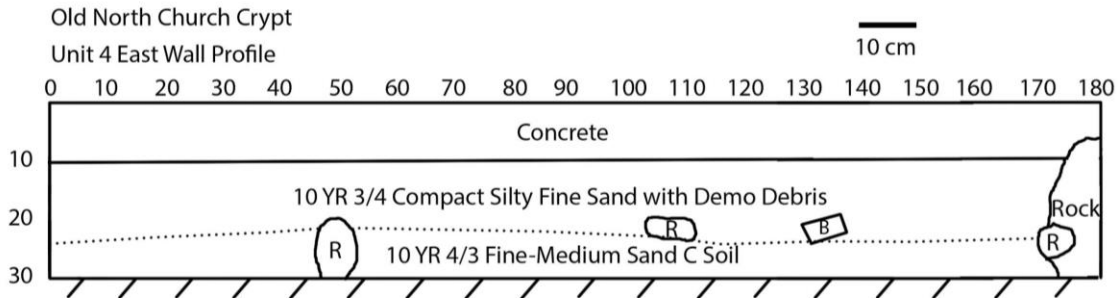


Figure 19- Profile of Unit 4 in Old North Church crypt.

The stratigraphy of Unit 4 was not complex, but the unit did possess the largest assemblage of artifacts related to the crypt. Among the artifacts were window glass possibly associated with viewing plates, a coffin handle (ONC.027.003), and six straight pins (ONC.027.010). A post-1775 pearlware fragment (ONC.027.009) and a piece of 18th century staffordshire slipware (ONC.030.008) are the only datable artifacts from this unit.

Crypt Floor Survey Discussion

While the excavations within the crypt floor represent a relatively small area of excavation within the APE, these units were highly illustrative and informative of the Church's construction and location in the North End.

Stratigraphy of the units suggests the original landscape of the North End prior to the construction of Old North. There may have been a Native American shell midden present near the rear of Old North Church prior to the construction of the church. In the easternmost end of the property some soils were mixed to the ground in order to build up the crypt surface, possibly including a shell midden. Near the center point of the church, excavations exposed the sandy C soils under the topsoil of the hill, with deeper glacial clay lens deposits present in the western end of the excavations. A hypothesized soil profile of the eastern slope of Copps Hill is shown in Figure 20.



Figure 20- Hypothetical east-west cross section of Old North showing reconstruction of original soils and slope of hill where Old North was built including possible shell midden, and C soils consisting of varying beds of clay and sand.

As each tomb was created, it appears that fieldstone were used for below-grade foundations, with brick above. The profile in Figure 13 suggests gradual buildup of soils within the crypt walkway. The central column/wall in Figure 13 has a stone foundation slightly deeper than Tomb 20 (left) and significantly deeper than Tomb 33 (right).

Assuming Tomb 20 is earlier than Tomb 33, it would suggest approximately 10 cm of deposits accumulated in the crypt between the two tomb construction episodes. This also resulted in earlier wall elements having their brick components buried, which likely contributes to current issues with salt and water infiltration into the brick walls of the tombs.

Suggestions of a former surface exist, especially in Unit 2. If so, it was likely composed of slate slabs mortared together. As the light in the tomb was likely minimal, this slate likely would have provided a more sure footing for those visiting tombs or bringing coffins into tombs, helped with water control, and possibly created a more formal environment for the crypt as opposed to earthen floors.

A stone floor would also be a possible cause of a lack of human bone within the crypt floor. Prior to arrival the archaeologists assumed that with well over 1,000 individuals passing through the tombs within the crypt and regular cleaning and moving episodes, human remains such as small bones or teeth would be casually dropped. No human remains were found during excavation and this was confirmed by the State Medical Examiner after all bones were washed at the lab.

If bones were dropped, a stone floor would have allowed those who may be greatly concerned about leaving human remains behind the ability to carefully examine the floors for these remains and remove them. Alternatively, a stone floor would provide a hard surface for accidental crushing of bones and teeth, which would then be missed even in $\frac{1}{8}$ " screens.

The presence of straight pins, coffin handles, and window glass (Figure 21) strongly suggests the dropping of coffin hardware and burial shroud pins within the walkways. With these being present, it further complicates the overall lack of human remains. Regardless, the lack of human remains coupled with the lack of any obvious burial shafts in any of the four test units suggests that if burials were ever present within the floor of the crypt, they were either done in areas now occupied by tombs or disturbed to such a depth that they will avoid any impact by the proposed lowering of the crypt floor.

In total 668 artifacts were found within the excavation units. The majority of these were nails and animal bones. Although the crypt floor was exposed in the 1960s prior to cement being added, there is a relative lack of later materials within the excavation units. Late 18th and early 19th century Westerwald, pearlware, and tin-glazed earthenware were the most common, datable ceramics, which aligns well with the c. 1730-1840 use of the crypt, but artifact density was very low in the crypt. All artifacts could be associated with visitors to the tombs, fill deposits, or the eating or depositing of food within the crypt for some unknown reason. No clear funerary practices outside of the coffin hardware can be determined from these artifacts.



Figure 21. Sample of possible coffin/burial-related goods. Top to bottom, left to right: coffin handle (Unit 2 ONC.016.001), coffin handle (Unit 4 ONC.027.023), tack (Unit 4 ONC.027.008), pins (Unit 4 ONC.027.010), and window glass

Crypt Floor Recommendations

No evidence was found to support the presence of intact graves or grave shafts within the walkway area of the crypt at Old North Church to a depth of 60 cmbs. No further archaeological mitigation is recommended for the lowering of the crypt floor, if the floor excavations do not exceed 60 cm in depth (two feet) below the current concrete floor surface.

Tomb 12 Field results

The door to Tomb 12 was opened October 24, 2017. Prior to the opening it was decided that once opened, a team of archaeologists and forensic archaeologists would examine the tomb from the outside to document what, if anything, remained in the tomb, but nobody would enter the tomb, and none of the objects in the tomb would be disturbed or modified. No images of the deceased would be shared publicly. Images in this report are not for public viewing and will either be modified or censored in any versions of this report made available to the public out of respect for the deceased.

Tomb 12 Door

On the morning of the opening, the door of Tomb 12 was as it appears in Figure 22 with partial elements of mortar and wire mesh over wood lathe. The wooden door and iron hinge were partially visible.

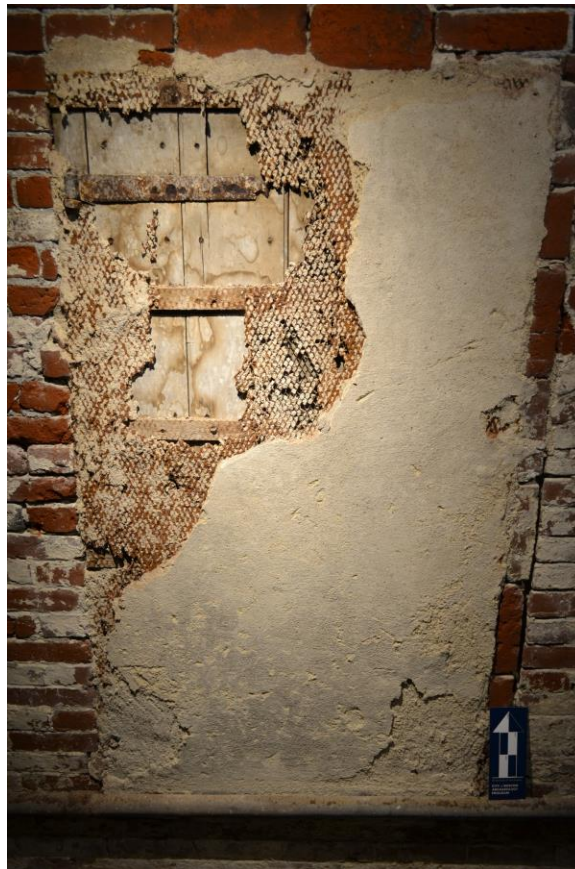


Figure 22- Door to Tomb 12 prior to opening. Scale in lower right is 15 cm long

After removing mortar, mesh, and wood lathe, the door of Tomb 12 was fully exposed (Figure 23).



Figure 23- Tomb 12 door after removal of mortar, metal mesh, and lathe. Exposed yellow portion of Measuring tape is 75 cm in length.

Upon removal, the interior of the door was made visible (Figure 24)



Figure 24- Interior of Tomb 12 Door. Note cinched wire nails. Door measures approximately 32x50 inches (75x125 cm).

The door to Tomb 12 consists of an interior layer of five horizontal boards, approximately 1" thick each, and varying in width from between approximately 8 to 12 inches. These were sandwiched with four exterior boards measuring approximately 1" thick and each measuring approximately 7 inches wide. These two layers were held together by wire nails cinched on the interior side. The presence of wire nails likely confirms the earlier hypothesis that this door is a replacement door installed in 1912.

Tomb 12 Contents

Tomb 12 was not empty.

Just inside the door of the tomb, leaning against the opening and eastern side of the opening and diagonally across the lower portion of the opening to the west were several wooden boards just under 1" in thickness (Figure 23-24). These may have been portions of a former door that once covered the opening, or perhaps an interior door. These now lay just inside the opening and partially obstruct the view from the outside. These were not moved.

Tomb 12 was roughly rectangular. While measurements were not possible without entering the tomb itself, it measures approximately 8 feet deep by 6 feet wide (180x240 cm)

Just beyond the entrance and interior plank were large quantities of wooden planks, wood shavings, and several human skeletal elements confirming the presence of coffins and individuals within the tomb. Mouse droppings were visible throughout the interior floor of the tomb, but were minimal on the coffins themselves.

Analysis and interpretation was naturally limited due to the inability to enter the tomb or move its contents, but numerous observations were possible despite this.

Tomb 12 Structure

The tomb itself is constructed of brick, rectangular in plan, and has a barrel roof (Figure 25-26). The vaulted roofs are structural for the individual tombs, but are not in any way supporting the floor of the nave above. The depth of the tomb is eight feet. This confirms that the open tomb located in Tomb 24, currently housing a small exhibit of coffin fragments, is nearly identical to Tomb 12 and accurately represents the structure of the tombs, though Tomb 24 is slightly shorter due to a later false wall.

The rear of the tomb is the mortared fieldstone foundation of Old North Church visible from the exterior of the building. The floor of the tomb was not visible.

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Figure 25- View inside tomb just after opening. Planks on inside of tomb opening (far right behind scale and extreme bottom of image). Coffin columns 2-4 visible as are Individuals 1 and 2. Scale is in 10 cm increments by color.

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Figure 26- Tomb 12 structure showing barrel roof, fieldstone foundation of church on northern wall, and brick walls dividers between tombs. Bright spot on opposite wall due to mica reflection in schist foundation stone. A scale could not be added without entering the tomb. Back wall is approximately 6 feet (180 cm) wide.

Tomb 12 Coffins

14 individual adult coffins were visible, but it is likely that the tomb contains 16 coffins (see discussion below). An additional minimum of 6 children's coffins were visible with approximately lengths between 2 and 4 feet indicating these were likely infants and young children. While the *visible* minimum number of individual (MNI) is 20 coffins, it is likely that the actual MNI is 22 but two adult coffins are hard to distinguish in the collapsed columns of coffins.

In overall appearance, the coffins were found to be mostly collapsed into various coffin parts jumbled with large quantities of wood shavings, which acted as liquid absorption and space filler inside the individual coffins. One intact stack of coffins remain on the eastern wall of the tomb with small children's coffins on top.

Adult-size Coffins appear to have been originally placed into four stacks of four coffins stacked close to the opening of the tomb allowing for a cap at the tomb's rear. The coffins were stacked to the height of the wall transition to arched roof with smaller children's coffins placed on top of the larger adult coffins within the arch of the tomb (Figure 27). For the purpose of discussion, the stacks of coffins will be numbered 1-4 from west to east.

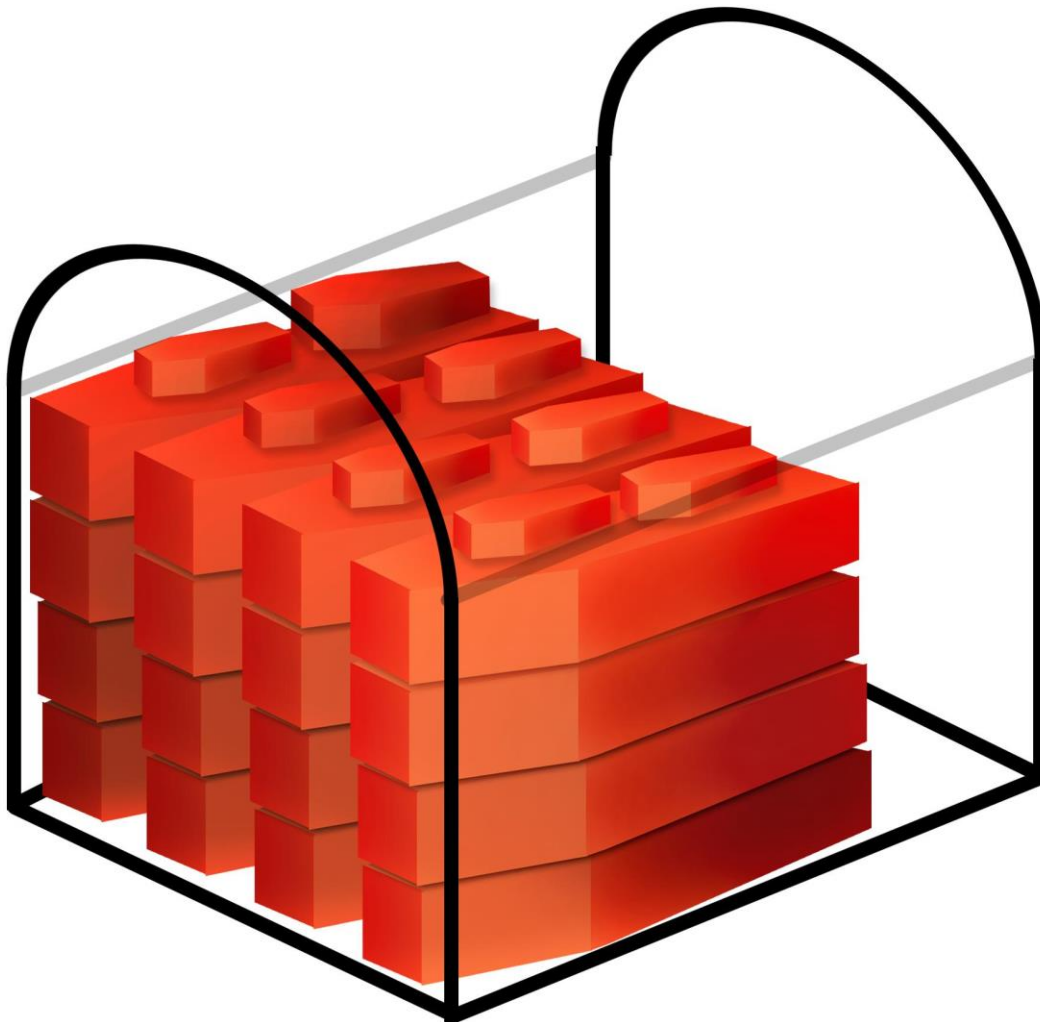


Figure 27- Hypothetical reconstruction of the contents of Tomb 12 prior to coffin collapse. Door to left near heads of coffins.

Coffin column 1 is on the western side of the tomb (Figure 28). All four adult coffins appear to be in various stages of collapse, though rot is minimal. All coffins appear to be reddish in color, though black and white mold is visible. This stack appears to be the lowest and therefore most-collapsed, though it is believed that four entire coffins are present in the stack. The top of the coffin stack has at least three children's coffins with two being larger than the other children's coffins in the tomb.

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Figure 28- Collapsed coffin column 1 against western wall of Tomb 12. Note children's coffins towards the rear. No scale could be added without entering tomb. Boards are each between 8-12" in width (20-30 cm).

Column 2 is slightly taller than column 1, with a large 6'5" and 18" wide intact coffin lid or base present at the top with a much smaller and much lighter in color child's coffin base, viewing glass frame, and octagonal viewing glass plate on top of the large coffin (Figure 29). A skull fragment is visible among the stack of coffin lumber. The lighter colored children's coffin fragment may have been placed into the tomb at a later date due to its different color and precarious placement on top of the large tomb, but this is speculative. Three pages of scripture were found on the largest coffin fragment and will be described, below.

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Figure 29- Column 2 with large 6'5" coffin lid (under small child's coffin lid and window. Upper, lighter-color coffin lid measures approximately 2.5 feet long (80 cm)

Column 3 has two collapsed coffins at its base with two tumbled and partially collapsed coffins on top tilted at an angle that allowed the contents of wood shavings and skeleton elements to come out (Figure 30).

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Figure 30- Column 3 of coffins. Note upper-most coffin is leaning at 90 degree angle with top facing to the left (west). Note also the white cranium in column 2, and intact cranium of column 3 facing downward just below and to the right of the white cranium in this image. Spilled shavings and skeletal remains obscure view of coffins. Skull is approximately 15 cm wide.

Column 4 is against the eastern-most wall and is likely represents an approximation of how all four columns looked at some point (Figure 31). The column consists of four stacked intact coffins of nearly identical size and shape, with two children's coffins on top. The two children's coffins are missing one of their sideboards and lids exposing the individual children's remains in their coffins.

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Figure 31- Column 4 of coffins, the most intact of the four columns showing four stacked coffins with smaller children's coffins on top. Scale to right is in 10 cm increments.

Overall, the coffins appear relatively uniform despite the varying size. All are orientated with the head end of the individual facing the entrance, and there is a distinct gap between the foot-ends of the coffins and the rear of the tomb. The gap was unexpected as it limited the maximum coffin capacity of the tomb while also making the side coffins harder to access as they were blocked by coffins immediately in front of the door. A gap on the door-end of the tomb would have allowed for more space to access the coffins and additional room for more coffins as it filled back-to-front.

The coffins all appear to be brown or reddish in color, perhaps a iron oxide stain or a natural oxidation from resting the inside of the tomb. All coffins appear to be single-break style constructed of six boards: a lid, two side panels bent at the shoulder with interior cut kerfs, headboard, footboard, and base.

Most lids appear to have a hole cut into them for a viewing plate though only one of the children's lids appear to have viewing plates (Figure 32). Some coffins appear to have a hinge suggesting a openable lid over the viewing plate (Figure 33). This was the largest of all the children's coffins and was found in the northwestern corner of the tomb, likely falling from the top of the coffin column. The opening for viewing plates was created by cutting a rectangular hole out of the lid from the head of the coffin downward. While viewing plate glass, glass frames, openings, and viewing lids were found throughout the tomb, no intact viewing window construction was found on any of the visible coffins.

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Figure 32. Children's coffin with viewing window in column 1. Scale was not possible without entering tomb. Bricks on left approximately 8 inches long (20 cm).

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Figure 33. Hinge (center) on viewing window in column 3.

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Figure 34. Components of viewing window on top of column 2 including frame (upper left), octagonal glass (center) and window in tomb cover (just under and to right of Octagonal glass). Upper-most coffin fragment is 2.5 feet long (80 cm)

The majority of the coffins appear to be constructed in the single-break style (see Discussion section) (Figure 35)

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Figure 35- Single-break coffin headboard showing gap where sideboard attaches to end of headboard. Copper latch for viewing window visible in upper left. Coffin backboard not visible as it is set inside the head and sideboards. Similarly-constructed coffin visible behind foreground coffin to lower left of image. Height of coffin is approximately 12 inches (30 cm) from upper left to lower right.

These coffins and all were very plain. While a tack was recovered from the walkway excavations, no tacks were visible in the Tomb either as decoration on the outside of the coffins, or interior of the coffins to hold fabric. The presence of the wooden shavings suggests the interiors were lined with cloth over wood shaving padding, but that cloth is not apparent except for a golden-colored fabric visible in the lower coffin of column 2. It can not be determined if that is fabric lining or the clothing of the deceased.

No metal labels or “depositum plates” were visible on top of the coffins that were observable from the entrance, though most of the coffin lids were obscured. Despite their presence within the crypt walkway, no handles or coffin-grips were visible on any of the coffins in Tomb 12.

No painting appears to be present on the coffins, though one coffin near the base of column 2 is nearly white. This is likely mold, but closer examination was not possible.

Nails were visible in most coffin wood elements as they held together the coffins. It appears that rusting of the nails led to failure of the nails and collapse of the coffins, not rot, as the wood

within the tomb is in relatively good condition. Increasing mold and collapsed conditions at the lower levels of the tomb may be obscuring greater levels of wood rot within the tomb, but the upper coffins appear in good, but fragmentary condition, and the four large coffins in column 4 are in very good condition. Also of note was an overall lack of decay odor, overall dry and cool conditions of the tomb interior, and minimal mold and mineral growth on the tomb walls.

Tomb 12 Human Remains

Three individuals were visible within Tomb 12, a fourth is suspected, and it is likely that among the coffin and wood shavings are the remains of at least 22 individuals (Figure 36). In general, no definitive signs of disease, trauma, or other cause of death were observed on the remains of Individuals 1-4.

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Figure 35- Location of individuals visible from opening of Tomb 12. Scale in 10 cm increments.

Individual 1

Individual 1 was the first individual encountered upon the opening of the tomb (Figures 37-39). When opened, the collapsed remains of coffins in column 2 and 3 formed a series of horizontal boards separated by wood shavings and coffin fragments. Upon one of these, nearly centered in the opening of the tomb was the partial cranium of Individual 1.

Individual 1 appears to a Partial cranium of an adult that is possibly female. The cranium received a postmortem cut along the coronal plane, posterior to both external auditory canals and mastoid processes. This cut appears to have separated the frontal and facial structures from posterior of the cranium (Figure 40) . This cut appears to have separated the woman's forehead, eyes, nose, and upper palate from the remainder of her skull. She was facing north within the tomb such that the interior of her anterior cranial vault was visible from the tomb entrance. On top of column stack 1 was an additional skull fragment with a similar coronal cut, which we hypothesize is the posterior portion of Individual 1's cranium (Figure 41).

There is possible trauma to the forehead of Individual 1, but that cannot be accurately determined without closer physical assessment, which was not possible without entering the tomb.

Most notable about Individual 1 beside the location of the skull in the tomb and its post-mortem alterations is its color. Unlike all other human remains within the tomb, Individual 1 was very white, suggesting a different depositional history to the other individuals in the tomb. The authors suspect that Individual 1 was added to Tomb 12 much later than the other individuals in the tomb, and these signs of postmortem intervention suggest that the cranium may have been processed for medical or educational purposes, and someone felt that Tomb 12 was an appropriate permanent location for Individual 1 remains. If this is true, it is unlikely that the rest of Individual 1's remains are within Tomb 12.

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Figure 37- View of Individual 1 from outside of tomb looking North. View is interior of cranium as Individual 1 faces north. Skull approximately 15 cm wide.

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Figure 38- View west of Individual 1's profile showing location and direction of coronal cut.

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Figure 39- View from above of Individual 1

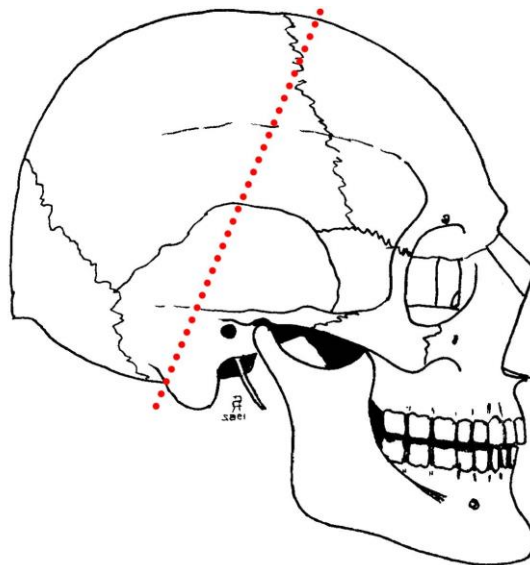


Figure 40- Illustration of coronal cut of Individual 1.

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Figure 41- Possible remainder of Individual 1's cranium in column 1. Bricks measure approximately 8 inches (20 cm) in length.

Individual 2

Individual 2 was also visible upon the opening of the tomb (Figure 42). This individual likely originate in column 3, but came out of their coffin when it collapsed. Individual 2 is represented by a full cranium. It is an adult, likely an older individual due to the absence of antemortem dentition and some alveolar resorption due to antemortem loss of dentition with resorption of alveolar bone. Some teeth were lost prior to death, and the bone surrounding the empty sockets had wasted. .

Individual 2's cranium was fractured postmortem, likely during the coffin collapse. Their skull has a waxy adipocere coating on the bone, but otherwise seems intact with scant remnants of tissue present on the bones. The sex of Individual 2 could not be determined.

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Figure 42- Individual 2

Individual 3

The third and final definite human remains were found within a partially collapsed coffin on top of coffin column 4 (Figure 43). Individual 3 is a small child, likely an infant, of unknown sex. This child's remains appear to still be intact and partially mummified with desiccated flesh visible on the child's feet and limbs (Figure 44). The child's cranium is exposed, and there is a fabric strap across the skull, possibly some sort of cap, with copper dots, possibly tacks (Figure 44). The infant measures between 2 and 3 feet long.

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Figure 43- Individual 3. Intact bricks measure approximately 8 inches (20 cm) in length.

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Figure 44- Closeup of feet of Individual 3. Length of foot is approximately 15 cm.

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Figure 45- Closeup of head of Individual 3. Length of fabric strip on skull is approximately 15 cm.

Individual 4

The remains of an adult were visible within one of the lower coffins in column 3 including a spinal column, part of a pelvis, and rib cage (Figure 46). Some tissue preservation appears to be visible though the body is mostly skeletonized.

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Figure 46. Remains of Individual 4. Spinal column visible in center of photo.

Possible Individual 5

A second coffin next to Individual 3 contains residue that may be an individual, but closer examination was not possible (Figure 47)

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Figure 47- Possible infant remains Height of coffin is approximately 6 inches (15 cm).

Tomb 12 Other Contents

Curls of wood shavings from a plane were found throughout the tomb (Figure 48). These were all parallel to the grain suggesting the use of a wood plane on the edge of a board, likely a carpenter's waste or the shavings from the coffin maker's shop.

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Figure 48- Detail of wood shavings in Tomb 12.

The only fabric that was visible was a partial strip on the head of Individual 3 and a golden yellow satin-woven fragment near the bottom of column 3. Unfortunately the golden fabric could not be photographed without disturbing the contents of the tomb.

Three pages of the Bible were found within the tomb (Figure 49), all on top of the upper-most coffins in column 2 and 3. Two on column 2 are seen in Figures 50-51. The third was on column 3 and can be seen in Figure 52.

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Figure 48- Pages on top of coffin in column 2. Pages measure approximately 20 cm in length.

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Figure 50- Luke, from zoomed-in image of paper. No better quality image is available.

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Figure 51- II Corinthians chapter III

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Figure 52- II Corinthians Chapter VIII

One is from the gospel of Luke, chapter XXIV, describing the resurrection of Jesus, a highly appropriate offering for a tomb.

The second and third pages are both from II Corinthians, and include the beginnings of Chapter 3 and 7. Chapter 3 asks if apostle Paul needs a letter of recommendation: “Do we begin again to commend ourselves? Or do we need, as some others, epistles of commendation to you or letters of commendation from you? You are our epistle written in our hearts, known and read by all men.” This passage suggests that Paul does not need people to write letters supporting his ministry, but that the people he has affected are that recommendation and support.

Chapter 7 recommends the separation of the self from worldly thinking and acting to be closer to God.

The relevance of Chapters 3 and 7 of II Corinthians to the burial is currently unknown.

Discussion

This section is based heavily on the research of co-author Jane Lyden Rousseau in her previously written monograph, *Of the Lonely Belfry and the Dead: An Historical and Archaeological Study of the Burial Crypts of Boston's Old North Church* (2006). Rousseau's work is more detailed than the summary provided here and thoroughly cited with relevant resources. The purpose of this portion of the report is to combine the observed data within the crypt at Old North Church with the previous research. As mentioned previously, the coffins within Tomb 12 likely date to the mid 19th century possibly 1844-1846.

English Death and Burial Ritual

During the 18th and 19th centuries, burials within churches or adjacent burial transitioned from a practice reserved for clergy and wealthy parishioners to one open to all parishioners (Rousseau 2006, 33). By expanding burials to all parishioners, the church not only expanded the services they provided to their members from baptism to burial but also provided them with a service to render them equal to their wealthy peers and religious leaders, at least in death (Rousseau 2006, 33).

It is important to remember that the coffins and the individuals they contain were participants in a series of ritualized events, beginning with death, and ending with the interment. Upon the death of an individual in Anglican Boston, the deceased were washed, dressed, and placed within coffins. The deceased, now contained in the coffin, would reside on display, often in a parlor, where the coffin would either be laid out open to show a partial or full-length view of the deceased and the coffin's interior, or if viewing windows were present, The glass window allowed mourners to view the deceased while the coffin (and window) could remain closed (Rousseau 2006, 35). Coffins were a required component to the death and burial ritual (see below). The deceased would remain on display until the funeral. The family would process with the coffin to the church for the funeral service, then the procession would continue to the final place of rest, in this case the Crypt at Christ Church. The family members themselves would place the coffin within the tomb.

If the coffins do date to the 1844-1846 period, they may represent a conscious decision on the part of the deceased family to place the coffins within the tomb to the exclusion of other, more popular options. In 1831, Mt. Auburn Cemetery opened in the southern portion of Boston, and the vast majority of Boston's deceased were buried there instead of the crowded cemeteries and crypts of urban Boston.

Within Tomb 12, only some of these practices are observable. No evidence for the procession is preserved within the tomb, but the stacking of coffins and deposition of religious text indicates the practice of family placement of the coffins in the Tombs were clearly practiced. No other grave offerings were noted, though the bone rib from the mourning fan that we recovered during excavation could very likely be from a burial procession. The coffins all appear to be carefully

stacked in four columns of four coffins with children's coffins placed on top of them. Unless all 20+ individuals were placed within the tomb at the same time, it is likely that some amount of movement within the tomb must have occurred in order to both maintain the organized stacks and also have the small child's coffins on top of each stack. It is likely that at the very least, the children's coffins would have had to have been moved several times during the use of the tomb, especially if they were relatively early occupants of the space. Whether this rearranging was done by the families of the individual being interred or the space prepared ahead of time by church staff is unknown, though it was likely performed by wardens of the Church, to organize the tomb and make room for more burials. One may hypothesize that a grieving family would be especially inconvenienced to have to move, possibly remove, coffins of others which may also include decomposing bodies while trying to put their family member into the tomb. Worse yet, coffins could have collapsed during this process, spilling their contents. Therefore, this adjustment phase most-likely occurred prior to entombment by staff or others before additional coffins were added.

Coffins

In the mid 19th century, a variety of coffin styles were available. The Christ Church, Spitalfields in London has a well documented crypt excavations of burials dating 1730-1860 that provide an ideal comparison to the Old North Church crypt in both date and religious affiliation (Rousseau 2006, 38). In Spitalfields, both wooden coffins, lead coffins, and a combination form of the two were documented (Rousseau 2006, 39). To date, no lead coffins have been identified in New England church crypts (Rousseau 2006, 38), and Tomb 12 continues the trend.

The most-common wooden coffin type in Spitalfields were single-break coffins consisting of a backboard, side boards with shoulder kerf cuts to bend the wood, head and footboards, and a lid (Rousseau 2006, 39). More-specifically, the backboard of the coffins fitted inside of the side and end boards, whereas the lid fit over the side and end boards. Traditionally, coffins were painted red (Rousseau 2006, 36) Many of the Spitalfields were sealed with pitch and filled with sawdust. All of the interiors were well preserved and had evidence of upholstered linings, and the majority of the coffins had metal handles, decorative metal work on the lids, and breastplates containing the name and death date of the individual contained within (Rousseau 2006, 39).

Tomb 12 contained a modified version of the Spitalfields comparison. The coffins, overall appeared to be painted a very consistent red color, and all were wood. All coffins where parts could be observed, appeared to be six-board single-break coffins with kerfed sideboards. All lids appeared to be resting on top of sideboards and backboards were not visible suggesting a similar style of construction to the mid 19th century single-break coffins at Spitalfields. All headboards were placed between the two sideboards and nailed from the outside of the sideboards. The only footboards visible were in child coffins, and these were constructed so that the footboard was placed outside of the backboard, but between the two sideboards, and under the lid.

No pitch was visible on any of the edges or surfaces of the coffins. Sawdust was also not visible within the coffins, but instead large quantities of wood shavings were ubiquitous. Perhaps the local coffin-maker's preference was to use planed wood shavings as stuffing for the lining of coffins. This could be a sign of regional practice, or just a preference of the individual coffin maker. Regardless, it differs from Spitalfields, but was also remarkably consistent within all visible coffin interiors including the children's coffins.

Many of the Tomb 12 coffins contained viewing windows, but not all, suggesting that during the viewing phase of the burial ritual, the coffins were either opened completely for the window-less coffins or just the windows were opened. As stated earlier, no coffin labels were noted, but most coffin lids were not visible due to stacking. The coffins were overall quite plain with no visible exterior decorations, which differs greatly from Spitalfields suggesting the preference of the coffin maker, the lack of choice in coffin types or coffin makers, a style trend, or the overall lower financial means of the family of those interred. Despite this fact, handles and tacks were located in the walkways suggesting that other coffins within the crypt had decorative elements.

The overall consistency of the coffins in color, shape, size, and construction suggests they were all made by the same maker following the same designs, which supports the possible tight dating of the coffins to 1844-1846.

Viewing windows were designed to display the body without having to keep the coffin open during a viewing, so the windows themselves are fixed and don't open. They're a common feature of a movement in English Victorian and American funerary customs commonly called "the beautification of death. During the mid to late 1800s, the body itself was beautified and put on display. (A huge thanks to the invention and improvement of modern embalming during the Civil War. Embalming arose from the need for soldiers' bodies to stave off decomposition during their many-days journey back home from battlefield). Having said that, these windows are much more common in the later half of the century. Additionally, I would expect coffins at this time to have been more highly decorated with tacks, fabric, or at least a name plate.

So, perhaps this tomb (and its proposed dates) is representative of a transition from a simpler death design to the beautification period. If the coffins date to the 1840s, this is an interesting possibility. Alternatively, the coffins may be from several different periods, and were moved into the tomb during some sort of reorganization. Perhaps to keep all the remains of Church officials and their families within these few designated "church official tombs."

Burial clothing

At Spitalfields, the limbs of the deceased were secured around their waist and body, with caps or bonnets placed on heads and the bodies either unclothed or wrapped in white, backless burial clothing (Rousseau 2006, 41-42). Due to decomposition, very little evidence for clothing

was present except for the yellow cloth in the lowest portions of the coffin stack, and a thin white strip of cloth on a child's skull. The yellow cloth could indicate burial clothing, but the Spitalfields example suggests that clothing was plain white or non-existent on most burials. More likely, the yellow cloth represents a lining to the coffin under which the shavings of wood were used for absorption and padding. The white strip on the child's skull may be a burial cap or bonnet.

Old North Crypt and Tomb 12 Conclusions

Despite the written evidence to suggest it was cleaned, Tomb 12 appears to be filled to capacity. Furthermore, if the tomb was in fact cleaned in 1844 and sealed in 1846 as recorded, this suggests the entirety of the tomb's contents were placed there in a span of two years. The consistency of the coffin appearances supports the idea that the coffins come from the same period, possibly the same maker, and all relate to individuals of similar means due their consistent adornment, or lack thereof.

There are estimated to have been somewhere between 1,100 and 3,000 individuals who were possibly interred within the crypt but the exact number is not recorded and difficult to determine due to the lack of records indicating where individuals whose funerals occurred at Old North ultimately were buried. Regardless, if Tomb 12 represents a relatively "normal" tomb capacity within the crypt, it should be assumed that the remaining unopened tombs within the Crypt contain coffins and individuals, and that the 37 tombs in the Crypt at Old North have a combined capacity of approximately 720 coffins/individuals.

Recommendations

It should be assumed based on these results that all of the tombs within the crypt at Old North contain human remains. If any further tombs are opened, it is recommended that it be done in the presence of a professional archaeologist and individual with forensic or osteological training for proper documentation. All disturbances to the interior of tombs should be avoided if at all possible.

Within the crypt walkway floor, no burials were encountered, but there may be some that were not seen during excavations. Archaeological monitoring is recommended if and when the floors of the crypt are opened and excavated.

References Cited

2016 Bagley, Joseph M. "Christ Church in the City of Boston (Old North) Campus Archaeological Reconnaissance Survey." On file at the Massachusetts Historical Commission.

2006 Rousseau, Jane Lyden. "Of the Lonely Belfry and the Dead: An Historical and Archaeological Study of the Burial Crypts of Boston's Old North Church."

Appendix A- Provenience List

List of Proveniences in Order by Provenience

Unit Name	Feature #	Strata	Level	Depth	Context Code
Unit 1		2	3	10-15	ONC.001
Unit 1		2	4	15-20	ONC.003
Unit 1		2	5	20-25	ONC.010
Unit 1		2	7	30-35	ONC.014
Unit 1		2	8	35-40	ONC.015
Unit 1		2	9	40-45	ONC.018
Unit 1		2	10	45-50	ONC.019
Unit 1		2	11	50-55	ONC.022
Unit 1		2	12	55-60	ONC.023
Unit 2	1	1	5	20-25	ONC.008
Unit 2	1	1	6	25-30	ONC.012
Unit 2	2	1	6	25-30	ONC.013
Unit 2	3	1	7	30-35	ONC.016
Unit 2	3	1	8	35-40	ONC.020
Unit 2		2	3	10-15	ONC.002
Unit 2		2	4	15-20	ONC.004
Unit 2		3	4	15-20	ONC.005
Unit 2		2	5	20-25	ONC.007
Unit 2		4	6	25-30	ONC.009
Unit 2		4	8	35-40	ONC.021
Unit 3		2	3	10-15	ONC.026
Unit 3		2	4	15-20	ONC.029
Unit 3		2	5	20-25	ONC.032
Unit 3		2	6	25-30	ONC.034
Unit 3		2	7	30-35	ONC.035
Unit 3		4	7	30-35	ONC.017
Unit 4		2	3	10-15	ONC.027
Unit 4		2	4	15-20	ONC.028
Unit 4		2	5	20-25	ONC.030

List of Proveniences in Order by Context Code

Unit Name	Feature #	Strata	Level	Depth	Context Code
Unit 1		2	3	10-15	ONC.001
Unit 2		2	3	10-15	ONC.002
Unit 1		2	4	15-20	ONC.003
Unit 2		2	4	15-20	ONC.004
Unit 2		3	4	15-20	ONC.005
Unit 2		2	5	20-25	ONC.007
Unit 2	1	1	5	20-25	ONC.008
Unit 2		4	6	25-30	ONC.009
Unit 1		2	5	20-25	ONC.010
Unit 2	1	1	6	25-30	ONC.012
Unit 2	2	1	6	25-30	ONC.013
Unit 1		2	7	30-35	ONC.014
Unit 1		2	8	35-40	ONC.015
Unit 2	3	1	7	30-35	ONC.016
Unit 3		4	7	30-35	ONC.017
Unit 1		2	9	40-45	ONC.018
Unit 1		2	10	45-50	ONC.019
Unit 2	3	1	8	35-40	ONC.020
Unit 2		4	8	35-40	ONC.021
Unit 1		2	11	50-55	ONC.022
Unit 1		2	12	55-60	ONC.023
Unit 3		2	3	10-15	ONC.026
Unit 4		2	3	10-15	ONC.027
Unit 4		2	4	15-20	ONC.028
Unit 3		2	4	15-20	ONC.029
Unit 4		2	5	20-25	ONC.030
Unit 3		2	5	20-25	ONC.032
Unit 3		2	6	25-30	ONC.034
Unit 3		2	7	30-35	ONC.035

Appendix B- Artifact Catalog