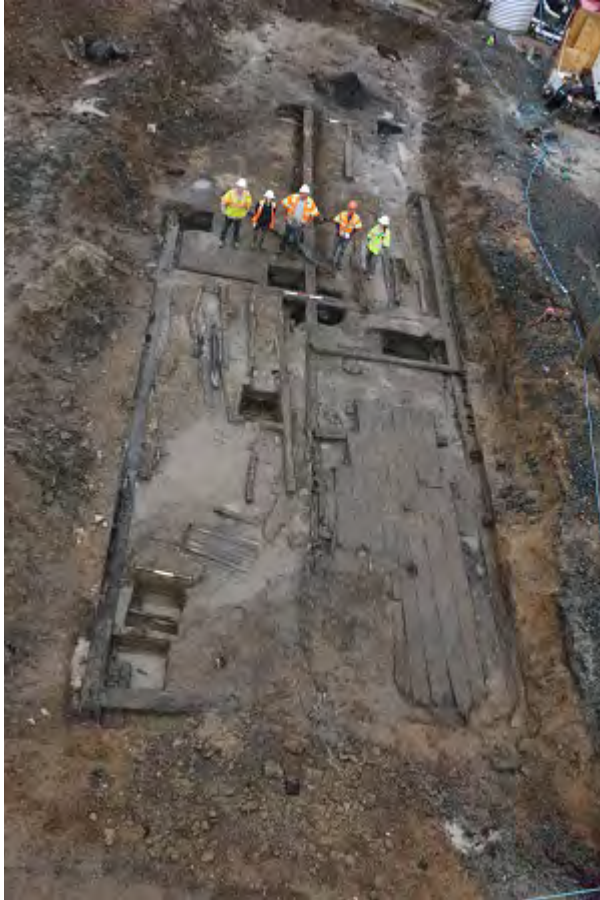


# The 1755 Warehouse

*November 2015*

## The Discovery

During the final days of September, 2015, hints of a possibly exciting discovery began to emerge during the excavations for the garage of the hotel. Large timbers were unearthed as archaeologists from Thunderbird Archaeology monitored the excavation of a trench at the edge of Duke Street prior to the placement of pilings around the periphery of the site. Construction work ceased in this area to allow for a substantial archaeological investigation, which was completed in early November.



Historical records indicated that this area of the hotel site was the location of a 1755 warehouse, constructed at the behest of the Trustees of Alexandria. At their meeting on June 18, 1755, the Trustees:

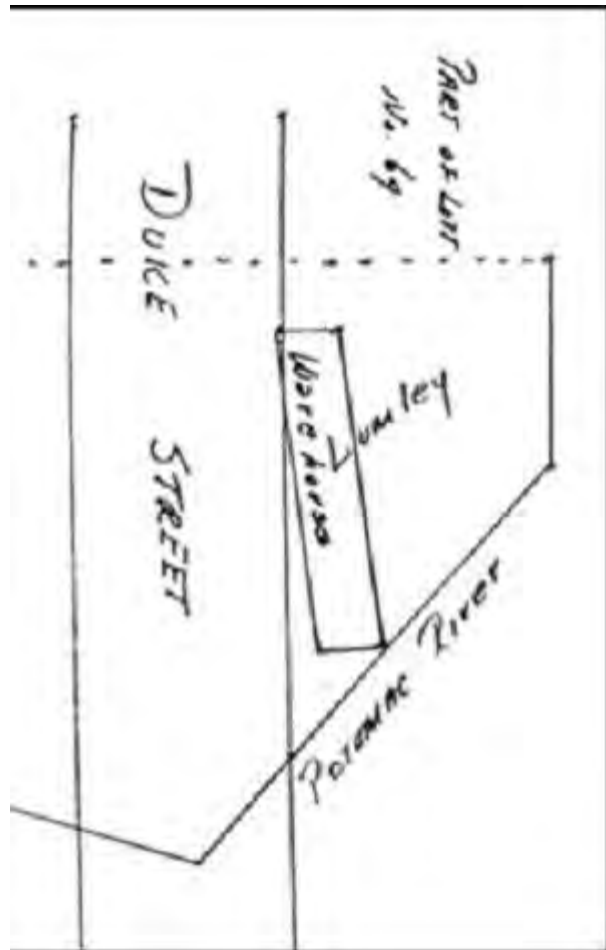
*"Ordered that John Carlyle Gent. Do erect & build a[t] Point Lumley in this Town a Warehouse of the following Demintions One hundred feet long twenty four feet wide thirteen feet Pitch'd To be three Divisions double strided, the sills to be rais'd four feet from the ground & so compleatly finished."*

A plat map drawn of the warehouse in 1774 depicted it on the north side of Duke Street, at a slight angle to the roadway.

*Left: The Thunderbird Archaeology crew posing with the uncovered 1755 Carlyle Warehouse.*

*Right: This plat from 1774 shows the location of the warehouse and its lot in relation to Duke Street and the Potomac River.*

It was unknown whether any remains of this structure would still exist after 260 years of waterfront development and change. However, as archaeologists peeled back the soils covering the wood, the outline of a building 24-feet wide and 90-feet long began to emerge in the location shown on the plat, not quite parallel to Duke Street. Archaeologists uncovered some of the major framing elements for the foundation of this building, sections of the floor, and even parts of the interior walls, all *in situ*. Only the easternmost ten feet of the structure's foundation had been fully destroyed by previous construction activities.



The frame foundation of the building consisted of massive timbers, possibly 20 to 30 feet long, with 12-inch-square cross-sections. These wood sills spanned much of the length of the building. Stone foundations up to three feet in height lay under the sills. A similarly robust, load-bearing beam, known as a summer-beam, divided the structure in half lengthwise, and a large cross-beam survived as evidence of the “three Divisions” ordered by the Trustees. Fragments of the exterior walls (as well as a thin interior wall on top of the summer-beam) were still visible perpendicular to the sills, as were remnants of wood posts and studs that held up the roof and walls. Much of the building sat on a stone foundation, up to three feet deep. The intersection of the cross-beam with the summer-beam was supported by a massive pier of dry-laid stones. In one section, portions of the floor boards underlain by joists also remained intact. In the other sections, small round timbers—some of which were not *in situ*, were less well-preserved than the massive timbers; these may also have served as joists for floor boards. One of these rounded timbers appeared to have been the mast of a small ship, reused in the construction of the warehouse.

*Right: This summer beam and two others like it would have run between the center crossbeams and divided the warehouse in half lengthwise. Carved into this beam are tenons where they joined the crossbeams and mortises where the posts holding up the roof and the studs holding up the wall would be attached.*



*Above: An archaeologist brushes dirt away from the exposed timber. Visible here are the mortises into which posts and studs would be fitted as well as a pair of studs and wall covering still in situ.*





*Left: Running under many of the beams of the warehouse is a stone foundation wall. In some places, this wall is more than three feet deep and helps to support the weight of the massive building above it.*



*Above: This stone pier is located under the intersection of the summer beams and the center crossbeam. After these beams were removed, archaeologists carefully numbered and labeled each of the stones that hold up this key junction of the warehouse.*

The discovery of this structure provides a unique opportunity to document and understand some of the methods that were used in the construction of an 18<sup>th</sup>-century wooden building. In particular, mortise and tenon joints were present throughout the building. The basic mortise and tenon joint consists of a mortise hole cut into one timber with the tenon cut on the other timber to fit exactly into the mortise hole. This construction technique was evident in the placement of the tenons of the stud timbers into the mortises on the sills of the warehouse. The intersection of the cross-beam with the summer-beam also provided a glimpse into the methods of 18<sup>th</sup>-century joinery. In addition, the discovery of smaller wooden structural artifacts, such as trunnels (treenails—wooden pegs, pins or dowels used to attach pieces of wood together), wedges, and wooden roofing shingles allows for further study of the construction practices.

Other artifacts unearthed in association with the warehouse included the tops or bottoms of barrels that would have been used to transport goods in the 18<sup>th</sup> century and the unusual find of a large mammal skull discovered at what would have been the floor level inside the warehouse.



*Above left: An intact mortise and tenon joint from above.*



*Above right: Detail of a mortise and tenon joint discovered while unloading the warehouse at the MAC Lab. Note the peg holes that run through this piece that would have secured the joint. Because of the dirt covering these beams, we had not previously seen this architectural feature. As the wood is cleaned at the MAC Lab, we expect to learn more about the architecture of this building.*



*To the left, the architectural elements of the warehouse are marked. The light blue beams are the bottom of the exterior frame of this building. The dark blue beam is the crossbeam. The red beams are the summer beams that intersect with the crossbeam in the center of the building. The orange elements are floor joists which support the floorboards, marked in green. Missing or conjectural elements are noted by dashed lines of the appropriate color.*



*Above left: Several barrel heads like this one (the tops and bottoms of wooden barrels) were recovered from the site of the warehouse. Barrels would have been used to transport a wide range of goods.*

*Above right: Mammal skull.*

## Significance

The warehouse represents the earliest historical structure archaeologically excavated in Alexandria to date. The town was only six years old when the Trustees ordered its construction. George Washington was still a young man at the time, and we were still a British colony.

Built at Point Lumley prior to the “banking out,” the structure stood below the bluffs on the sand flats adjacent to the Potomac. It was situated on one of the few places where ocean-going vessels could pull up close to the shoreline, and is thus a reminder of the aspirations of the town’s founders to establish a major international port.

The construction of the warehouse can be considered one of the first public works projects in the City. While other lots of the gridded town had been auctioned off to private individuals, this remained public land, and the Trustees leased it to merchants and other businessmen. Andrew Wales started the town’s first brewery in the warehouse in 1770 and operated at Point Lumley until 1774.

The remarkable discovery of the remnants of this 260-year-old building help us to envision what the town would have looked like at the time of its founding. The warehouse remains provide a unique opportunity to study the 18<sup>th</sup>-century building techniques and help to provide insight into the early historical activities on the waterfront as the town strove to become a center of international trade. By the end of the 18<sup>th</sup> century, this vision had become reality, with Alexandria rated among the ten busiest ports in America.

## Conservation

The significance of this site for understanding and interpreting Alexandria’s past called for special treatment of the warehouse discovery. It is extremely uncommon for wood timbers like these to survive archaeologically. Ordinarily, archaeologists merely encounter stains in the soil where wood used to be. The environmental conditions of burial influence the level of

preservation. When wood is constantly wet in its buried environment, preservation is greatly enhanced. The burial of the warehouse timbers in a wet environment next to the river resulted in their preservation for 260 years. However, as soon as water-logged timbers are exposed to the air, they begun to dry out, degrade, and decompose. After this exposure, fluctuations between wet and dry as well as hot and cold further this process.

As a result, it was clear that this discovery could never be interpreted *in situ*, and would need special care and treatment. In the short term, archaeologists on site kept the wood covered and moist to prevent continued deterioration while archaeological and architectural documentation of the feature was underway. However, for long term preservation, the wood needed to be removed and conserved. Only through implementation of a substantial conservation process would the warehouse remnants be available for future study and exhibits to conjure up the activities in the first decades of the founding of the town.



*Above Left: It is important to keep the site covered to help protect the wooden features of this building and keep them wet until the archaeologists are ready to remove them.*



*Above Right: When the building is uncovered, it is important to keep the wood wet. Here, an archaeologist sprays these floorboards with water to keep them from drying out.*

City archaeologists contracted with the Maryland Archaeological Conservation Laboratory to conduct this work. Conservation of wood that has been waterlogged involves submerging it in a solution of polyethylene glycol (PEG) until the chemical has replaced the water in the cellulose of the wood. The wood is then freeze-dried to complete the conservation process. It is estimated that the conservation of the wood from the warehouse could take up to three years.

The removal of the warehouse wood and transport to the conservation lab in St. Leonard, Maryland, was a monumental and collaborative task. The conservationists worked with the staff of Alexandria Archaeology and Thunderbird Archaeology to lift the wood. The City's Transportation and Environmental Services Department aided in the conveyance of the materials to Maryland. Some of the long timbers had to be cut, because the freeze dryer in the lab is only 12 feet long (the largest one that exists on the east coast). The size and weight meant that the timbers had to be mechanically lifted from their position on the site, and the Carr project provided the support for the backhoe use. Slings hanging from a hook on the backhoe bucket were fed under the timbers. They were carefully lifted off the site, wrapped to protect them from drying out, and placed on a flatbed trailer for transport. The wood currently resides at

the Maryland Conservation Laboratory. Imagine the size of the tanks of PEG that they will soak in as the conservation process begins!



*Trucks from the City arrive at the MAC Lab to unload the warehouse*



*After labeling each of the pieces of wood to be removed, archaeologists carefully carry a floorboard away so it can be wrapped and loaded onto the trailer for transportation to the MAC Lab.*



*Above left: Archaeologists from Alexandria Archaeology and the MAC Lab prepare to remove the center crossbeam from the ground.*



*Above right: Lifting the summer beam with the help of the backhoe.*





*Archaeologists from Alexandria Archaeology and the MAC Lab load the warehouse onto a trailer for transportation to the MAC Lab.*



*Temporary storage at the MAC Lab*

## The Future of the Warehouse

The conservation of the warehouse timbers opens the door for its interpretation as plans for the design of the parkland along the waterfront progress. Opportunities exist for at least a partial reconstruction within park. Ideally, this could occur in the vicinity of its discovery. Another possibility includes exhibits within a proposed civic building along the waterfront. Certainly, Alexandria Archaeology will feature the warehouse finds in a planned future exhibit on waterfront discoveries. In addition, the developers plan to highlight the location of the 1749 shoreline throughout the lobby and open space of their project area and have expressed an interest in using some of the materials in an exhibit in the hotel. The warehouse will not be forgotten and will foster a greater understanding of Alexandria's past, enriching the lives of its residents and adding to the experiences of its visitors.

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