“And Fill It Solidly With Brushwood and Earth or Such of Them As Would Suit Him Best”: 18th and 19th Century Landmarking in Alexandria, VA

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Landmarking in the 18th and 19th centuries

Eighteenth century engineering was not the formal, standardized undertaking it became during the 19th century, especially for quotidian things like wharves. Individuals employed whatever means necessary to construct landmarking structures. Methods and materials varied even within the Anglo-American world, depending on the corporate conditions as well as on the technical knowledge of those doing the construction. Archaeological evidence is critical for understanding and comparing these types of massive and largely undocumented undertakings.

How do you make land?

Two basic methods:
- p roducing structures perpendicular to shore (piers, jetties)
- three sided structures parallel to shore (wharves, quays)

Materials:
- Wood: boards, unhewn logs, saplings, twigs, brush, etc.
- Stone, cobbles, rocks
- Dirt, clay
- Old ships
- Trash

Cribbling:
- Tightly stacked, notched, alternating courses of timber
- Form a box
- Secured with iron spikes or wooden dowels
- Filled with cobbles, gravel, or soil

Cobble:
- Perpendicular, stacked timbers
- Not as tightly spaced as cribbing
- Larger fill materials needed

Linear Walls:
- Horizontally stacked planking
- Secured with vertical pins
- Infilled behind wall

Grillage:
- Alternating, perpendicular layers of timber
- Weighted with stone
- No central box

Archaeological Evidence

Archaeology is rewriting the history of maritime Alexandria, filling in the gaps left by documentary evidence. We are gaining a better understanding of who banking out, how, and when. Dendrochronology samples were taken from trees across the waterfront and may provide a tighter chronology of when specific lots and wharves were filled, maintained and repaired.

Wharves and the Reuse of Ships

- Using ships for landmarking common in 18th century, rarely newsworthy
- Multiple archaeological documented instances in Alexandria, including four found in the past four years
- Reuse of private vessels as landfill dependent on preference of individual property owner
- Some vessels intentionally notched into wharves while others likely pulled to shore and filled around opportunistically
- Increasing construction standardization in the 19th century made vessel useless common over time

Banking Out in Alexandria

When a young George Washington mapped the town in 1749, it was located on a crescent-shaped bay between two points. The original shoreline consisted of 15-20 feet tall cliffs rising above the Potomac’s mud flats. The immediately adjacent river was only 4-5 feet deep, too shallow for large vessels to dock. Early Alexandrians “banked out” to reach deeper water by cutting down the bluffs and constructing a variety of landmarking structures along the waterfront. Land creation was driven by individual waterfront lot owners with very little coordination or government oversight over how and where banking out occurred. Though there was no concerted municipal push to extend the shoreline, lot owners were encouraged to do so very early on by the town trustees.

Our understanding of when lot owners filled in the waterfront is largely based on a handful of maps each with omissions and biases. The very definition of “shoreline” is a fluid concept, potentially referring to the high water mark or the bluff tops, tides, tax assessments, and legal cases have furthered our understanding somewhat, but will provide a piecemeal vision of how land was created.

The City’s Archaeological Protection Code allows us to study landmarking structures across a large portion of the waterfront. These shoreline structures provided the foundation on which early Alexandrians built their homes and commercial ventures and helped create the city’s modern outlines. Extending the shoreline provided access to deepwater, bringing ships, goods, and people from around the world to the city. Banking out was fundamental to the development of the port and these wharves and piers served as Alexandria’s lifeline to the world.

Comparing Land Creation Factors

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<th>Alexandria</th>
<th>NYC (South St Seaport Area)</th>
<th>Boston (Mill Pond)</th>
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<tr>
<td>Construction Method</td>
<td>Crib, cobb, grille, linear features, reuse of ships</td>
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<td>Changes over time from parallel quays/wharves (17th and early 18th century)</td>
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<td>Protecting piers (later 18th century)</td>
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Conclusions

Studying bulkhead wharves and other landmarking structures in their particular social, economic, and environmental contexts is critical for understanding how cities molded their shorelines to meet particular needs. Work in Alexandria and elsewhere shows that archaeology provides valuable additional details about early development beyond what is gleaned from historic documents. Archaeology provides refined chronology of when shorelines were filled in and a physical, concrete understanding of the techniques and strategies used to make land.

The same basic construction methods were used to make land; there are only so many ways to construct soil filled boxes. However, a broader view of landmarking suggests that the process of banking out differed even in the Anglo-American world. The corporate and economic environment under which shoreline extension occurred influenced the construction strategies and methods. This is in turn directly impacted the physical form of landmarking structures, that can be archaeologically recovered.

Acknowledgements

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