



Alexandria Times

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Out of the Attic

Historic Alexandria: brick by brick (part 1)

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Image: Brick house in Alexandria. Photo, Al Cox, Office of Historic Preservation.

Buildings constructed of brick or stone are long lasting and fire resistive and convey wealth and permanence. Walking around Old Town, one can see examples of bricks spanning three centuries. Some knowledge of how stone, brick and mortar were used can help identify when a building was constructed.

For instance, local fieldstone was historically only used here on the first floor of warehouses subject to flooding or for basement walls of dwellings because 18th and early 19th century brick was too soft and porous to use below grade. Where fieldstone is exposed on a residential foundation today, it means that dwelling was constructed before the street grade was lowered in some areas in the late 18th century to “bank out” that land into the shallow marsh of the Potomac River.

With numerous early buildings constructed of the local clay soil, Alexandria has always been known as a red brick town. Eighteenth and early 19th-century brick was often hand-pressed in individual wood molds and this resulted in a slightly irregular shape with a much softer composition and greater porosity due to the low temperatures and relative distance of that brick from the wood fire in the kiln.

Early brick was laid with a mortar made with local sand, water and lime. In this region, oyster shells were typically crushed and burned on site to create lime and small pieces of the shells are often still evident in the mortar. The soft lime mortar and soft brick had similar coefficients of expansion and the brick wall could breathe and settle over time without cracking the brick. Interlocking bonding patterns assured the structural integrity of the wall and also provided a decorative pattern.

From the middle to end of the 19th century, brick manufacturing had evolved and extruded bricks were fired at a much higher temperature in gas kilns, resulting in stronger bricks. These advances also led to more experimentation with brick color, size and shapes, allowing the use of molded brick for the decorative shadow patterns that came to define late Victorian masonry construction.

Due to the crisp, uniform brick sizes, industrially produced lime allowed mortar joints to become increasingly thin, known as butter joints, and these were sometimes colored for dramatic effect. In Alexandria, it is common in all periods to find high-quality decorative brick on the front and more common less expensive brick on the side and rear, but it is particularly evident in buildings of the Victorian period.





Office of Historic Alexandria City of Alexandria, Virginia

Beginning around 1920, modern hard-fired bricks were laid with a rigid impervious mortar containing varying degrees of Portland Cement. This ingredient was an important structural and workability improvement for modern construction but its use on historic brick walls can irreversibly damage the brick and exacerbate moisture problems. Although brick is one of the most durable and historic building materials in use around the world, it still requires appropriate care to ensure its longevity. Next week we will review recommended methods for caring for your masonry building – including cleaning, repointing and paint removal.

May is Preservation Month, a time when communities across the country celebrate historic preservation locally. The city is hosting a series of events to highlight Alexandria's historic preservation initiatives. For more information, please visit historicalalexandria.org.

"Out of the Attic" is published each week in the Alexandria Times newspaper. The column began in September 2007 as "Marking Time" and explored Alexandria's history through collection items, historical images and architectural representations. Within the first year, it evolved into "Out of the Attic" and featured historical photographs of Alexandria.

These articles appear with the permission of the Alexandria Times and are provided by staff of the Office of Historic Alexandria. This week's column was brought to you by the Office of Historic Preservation.