



ANDREW OWNBEY RESTORATION LLC

Lane House Report:

A Structural Survey of North Carolina's Earliest Frame Building

By Andrew Ownbey

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Photo credit:Wikipedia

Introduction

In 2011, dendrochronology confirmed that the house located at 304 East Queen Street, Edenton, is the oldest dated frame structure in the state of North Carolina. The house and lot were owned by Steve and Linda Lane and later gifted to the private 501(c)(3) Penelope Barker Foundation. After that discovery, the building had multiple layers of 20th-century interior materials removed, exposing more of its original framework and allowing access for additional studies. This resulted in important scientific discoveries by Michael Worthington, Susan Buck, Jacob Coy Idol, and a preliminary historic structure report by Reid Thomas. In August of 2025, Hamzah Jule, an M.S. candidate at Clemson University's graduate program in historic preservation, completed an important comprehensive framing report based on an investigation of the building using 3D laser scans and Pointcloud models.

Building on their work, a series of intensive on-site investigations by Andrew Ownbey in 2025 compared the architectural evidence now seen in the building's dendro-dated core with that of the porch and shed rooms. The purpose of this report is to present the author's findings showing how the materials and construction techniques of the building's inner core represent the first-period campaign of construction dated through dendrochronology to circa 1719, while the porch and shed rooms appear to be early 19th-century additions.

Today, the building stands on East Queen near the Cotton Mill Village as a story-and-a-half, coastal cottage, hall and parlor-style dwelling, measuring approximately 16' x 25', with a metal roof, concrete block foundation, full-width engaged porch, and shed rooms with later accretions. The 3-bay facade features a door flanked by two glazed windows. An interior chimney sits on the east gable end. The felling date for timbers in the core of the building was identified by Worthington as the winter of 1718/19¹. The porch was not sampled. Regarding the south wall and the rear shed rooms, Worthington explained, *"The four samples from the lean-to did not match the master chronologies and must remain undated."*

Considering a typical harvest and processing timeline, the most likely scenario points to a 1719 completion date for the original building. However, the timbers could have been milled "green" and stockpiled for use at a later date, particularly if they had been mass produced in a saw mill. None of the first period Lane House timbers are sash mill sawn; they are all hand pit sawn. With these dynamics unknown, it is most appropriate to date the structure within a multi-year range. Since this report is not intended to present absolute dates for construction of either the original building or its additions, "circa 1719" is how first-period construction will be described.

The report will examine and discuss the architectural evidence for each of the building's main elements from bottom to top: foundation, sills, sub-floor framing, flooring, individual walls, windows, chimneys, partitions, loft access, roofing, etc. Each segment is supported with photographs, diagrams, and captions. Finally, it will present its conclusions about the original, circa 1719 construction of the main core with the later additions of the front porch and the rear shed rooms.

Evidence:

The following evidence shows how the dated c1719 core is a clearly defined and separate structure from the later shed rooms and porch. This single-story core was @16'x25' with two doors, window openings, possibly a partition wall dividing it into two rooms, with a chimney in the smaller room on one gable end, and an unfinished, unpainted interior with a loft. Notably, a 56" wide loft access was centrally positioned adjacent to one of the exterior doors which was approximately the same width, and both were located in the larger un-heated room. This floorplan suggests the primary use of the building as a business or trade shop, not a dwelling. Construction evidence shows how the additions were constructed in the 19th century as part of an effort to convert what appears to be a commercial building into a domestic dwelling. The 19th century shed, porch, and interior modifications converted the structure into a more typical "coastal cottage" style house allowing it to serve as a comfortable and practical residence.

Foundation

- ❖ Presently, the entire structure has a 20th-century concrete cinder block foundation that incorporates earlier piers supporting the core.
- ❖ The c1719 core rests on bermuda limestone and brick piers laid with lime mortar.
- ❖ It is likely that these imported limestone blocks and bricks are re-used material laid around the turn of the 20th century.
 - The c1900 estimation for relocation is based on the archaeological report written by Coy Jacob Idol, an East Carolina University Anthropology graduate, in 2015. In his report, Idol writes:

*"Based on historic documents, it was hypothesized that the Lane House does not sit in its original location. Excavating under the structure and in the back yard a terminus post quem, 1849, was established for when the Lane House arrived at its current position. The archaeology was supplemented by historical research to refine the date to a 16-year range, 1894-1910, for when the relocation of the structure could have occurred"*²

- ❖ Bermuda limestone has been used in the foundations of a number of houses in Edenton ranging from the 18th to the 19th century.
 - One example is the Edenton Academy which was split in two and moved across Church Street and now rests on re-used bermuda stone piers.
 - It is known that bermuda limestone was imported to other coastal port towns like Charleston, South Carolina, to be used as raw construction material and processed for mortars as early as the late 17th century.



Fig.1. Bermuda stone and brick pier supporting sills for the c1719 core rear sill (r) and 19th c. shed front sill (l).

Sills and Subfloor Framing

- ❖ The sills of the c1719 core are clearly defined and constructed separately from the shed room sill frame and both frames show clear evidence of early chimneys.
- ❖ The yellow pine sills of the c 1719 core are mortised and pinned with wooden pegs in the corners and notched to receive the pit sawn pine floor joists.
 - The joists are then lapped and pinned vertically into the sill. Pinning floor joists is an unusual approach for the Albemarle region.
- ❖ The east sill is replaced but a pit sawn pine trimmer used to define the side of the hearth is intact, notched into the joist.
 - Measuring about 18 ½" long this trimmer presents the depth of a typical exterior chimney hearth.
 - Above, a mitred notch for an earlier hearth trim can be seen on the rear side of the current chimney, which is clear physical evidence for a hearth in the same location, but more shallow than the current c1900 interior fireplace.
- ❖ No physical evidence can be found for any other fireplace location in the c1719 core.



Fig. 2. Pinned lap joint of c1719 floor joists.



Fig. 3. C1719 west sill and joist with no notches to accommodate a chimney or hearth.



Fig. 4. C1719 trimmer and joist with notches indicating a firebox on the left side.



Fig. 5. Early fireplace evidence in flooring, south of chimney.

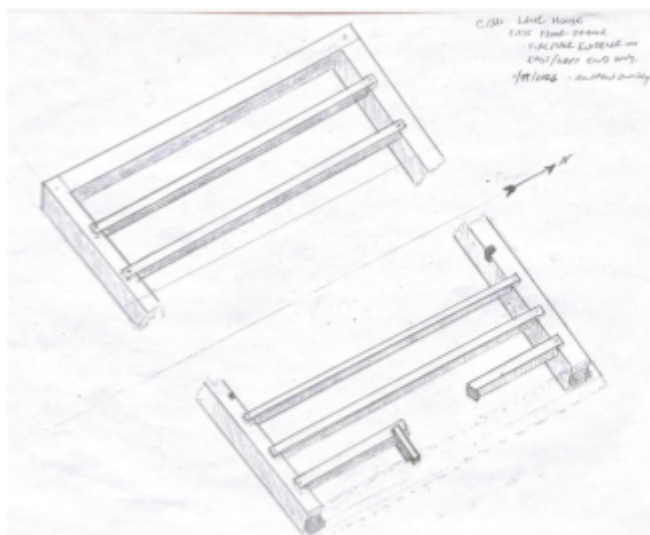


Fig. 6. East vs west first-period subfloor details as seen today clearly showing no fireplace on the west and original fireplace evidence on the east.

- ❖ The yellow pine shed room sills are not integrated into the core frame but are constructed as a separate unit.
- ❖ The shed room sills are mortised and tenoned in the corners and sistered to the rear sill of the core with a 1 ½" gap.
- ❖ The two sills have different dimensions with the core sills measuring 7"h x 9"w while the shed sills measure 8"h x 6"w.
- ❖ They also have different construction techniques. Unlike the pinned joists of the core, the shed joists rest unfixed in the notches, which is the more common method.
- ❖ They were also fashioned differently, as the core joists are pit sawn while the shed room joists are sash sawn.
- ❖ On the west side of the shed rooms, the first joist has trimmer notches for a small 37' wide hearth.
 - This is the only evidence for a fireplace in the rear shed rooms.



Fig. 7. Shed sill with joist notched with no pins.



Fig. 8. Shed sill with straight sash saw marks.



Fig. 9 Notches in shed room for trimmers spaced 37" wide. Note the sill appears to be replaced.

Flooring

- ❖ The floors in the core are tongue-and-groove yellow pine with a break at the current partition wall.
- ❖ The west-side floors are very early using wide, pit-sawn boards, possibly original.
- ❖ The east side floors are replaced using narrower, sash-sawn, gauged, tongue and groove boards laid with machine cut nails.
- ❖ The shed room floors are a mix of boards with some sash-sawn and clearly later.
- ❖ The shed room floors are not all exposed, but could be reused flooring.



Fig. 10. Bottom side of early, possibly original, pit sawn flooring on west side of core.



Fig. 11. c1719 pit sawn joist with later sash sawn gauged flooring on east side of core.

North Wall Windows

- ❖ Evidence can be found for 2 original front window locations for narrower 27" wide windows.
- ❖ So far, no evidence has been found to prove if these openings had lead casement windows, wooden sash, or just shutters.
- ❖ Susan Buck's 2025 paint research identified whitewashed studs along the east side of the north wall as first-period with slightly later beaded siding wrought nailed to them.³
- ❖ The interior framing remained exposed until at least 1804 based on a newspaper fragment found in whitewash mentioning "Mr. Giles", "Senate", and "Resolve..". William Branch Giles (1762-1830) was a Virginia senator from 1804-1815.
- ❖ The west window on the north wall has also been moved but two mortises spaced 27" apart are found in the header and sill, placing the original window locations symmetrically on the front facade.
- ❖ The first-period east window on the north wall can be identified by sloped sill plate notches 36" up from the sill concealed behind later jambs on one of these original posts.
 - The inboard (west) stud appears to have been moved to widen the opening from a 27" to a 28 ½" spacing to accommodate a later, but still possibly 18th century, window.
 - The upper sash at this location has wider muntins, associated with 18th-century sash designs.
 - The outboard (east) post appears to be in situ, landing on the toe of the down brace.

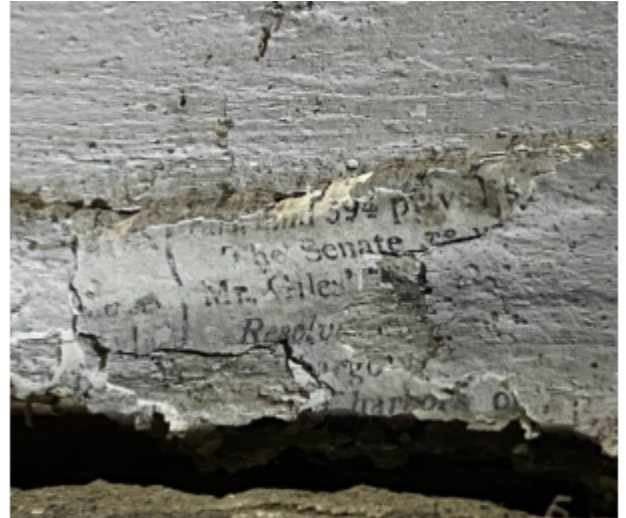


Fig. 12. "Mr. Giles" / "Senate" / "Resolve.." typed on paper trapped in lime putty on the interior of siding.



Fig. 13. Sill notch in identified c1719 post.



Fig. 14. Original post location with 27" spacing.



Fig. 15. Mortises with 27" spacing on west side of north wall.

East Wall Windows

- ❖ Sloped sill notches were also found on the original lime washed studs flanking the chimney, located to the north and south side at the current window locations.
- ❖ These notches are covered by the later window jamb and a chair rail but can be seen without their removal.
- ❖ Again, the posts have been moved to accommodate the current window but mortises spaced 27" can be found in the header.



Fig. 16. Sill notch behind chair rail in south post of north window on east gable.



Fig. 17. Notch in post mortised to east gable header to north of fireplace indicating an early window opening.



Fig. 18. Notch in post with corresponding mortise in east gable header to south of fireplace indicating an early window opening.

West Wall Window

- ❖ This window location may not be original. Several generations of mortises are found in the header along the west gable end but none of them have a 27" spacing, all are more narrow.
- ❖ A lime washed post on the north side of the current window has a sloped sill notch at the same height as the others.
- ❖ The post approximately 27" toward the south wall has the same lime wash evidence but has been cut off to allow for the current wider window.
- ❖ A section of the post with the sloped sill notch was cut off and has been flipped upside down and used as a nailer to the top of the window.
- ❖ This evidence proves an early window location but there is an empty mortise above it and the post toward the north is nailed in a beveled lap joint from the outside with no tenon for the mortise below which indicates a modification.
- ❖ Further research is needed to understand the timeline of this early window location.



Fig. 19-21. Sill notches on west gable end for previous window, possibly an early modification using lap joints.

South Wall Windows

- ❖ The rear wall has had numerous modifications but two sets of mortises can be found with 27" spacing directly in line with the two front window locations directly opposite on the front wall.
- ❖ The rear wall down braces and minor studs show evidence of being replaced.
- ❖ This modification coincides with the rear shed room additions when no windows were needed on the rear wall.
- ❖ All other first floor stud spacing is more narrow and variable.



Fig. 22. South studs with 27" spacing mirroring north window location east of door



Fig. 23. South wall studs spaced 27" mirroring north window, east of door.

Loft Window

- ❖ In the loft, a single window located in the center of the west gable measures 27" to the outside of the jamb, but it is not clear if this is an original opening location.

Unidentified Large Mortises

- ❖ On both gable end headers, large (about 6" wide) empty mortises are found about 2' from the corner posts.
 - These mortises pass completely through the header and have heavy oxidation and soot buildup indicating they have been empty for a very long time.
 - The west sill is original but does not have corresponding large mortises below.
 - All four mortises have tenons inserted from above for gable studs, one of which has been cut off.
- ❖ The mortise on the south of the east gable has what appears to be a cut off tenon still inserted.
- ❖ These four large mortises clearly did not function for supporting a span across a fireplace since no evidence exists for a fireplace on the right end and the fireplace on the left was much more narrow in width than these mortises.
- ❖ These large mortises could have served as mortises for up-braces which have been later modified to down braces or for two posts to share a mortise; one from above and one from below.
- ❖ Further research could prove their use, but they do not appear to indicate the location of a door, window or any other opening as major posts typically do in Virginia style framing.⁴



Fig. 24. Large northeast mortise with gable stud tenon inserted.



Fig. 25. Large southeast mortise with a possible cut off tenon still inserted.



Fig. 26. Northwest large mortise with gable stud from top.

Circa 1719 Core South Wall Framing

- ❖ The south wall has undergone numerous alterations. It has large corner posts that appear to be original, but the minor posts in between are likely replaced.
- ❖ Both south corner posts show evidence of early exterior siding with a row of nails spaced about 8" apart vertically.
 - This matches the wrought-nailed, beaded siding found to the left of the front door that was discussed in Susan Buck's paint report
 - Although it is wrought-nailed and beaded, this siding was identified by Buck as early but not original when compared to the evidence for grime and early lime wash layers on the post they are nailed to.
- ❖ Some of the nails on these posts are in-situ while some have been removed for later plaster lathe that was installed with machine cut nails in the 19th century shed rooms.
- ❖ Just to the outside of these nails are a series of holes spaced approximately 5" apart. These may have been for an early, possibly original clapboard siding application or the trim for it.



Fig. 27. Southwest corner post south face with siding nails at @ 8" vertical spacing (red) and earlier(?) smaller nails spaced approximately 5" (blue).



Fig. 28. Northeast siding with wrought nails at @. 8" vertical spacing.

- ❖ The south wall minor studs have no history of exterior siding nails like the corner posts and no history of whitewash on their inside faces.
 - They only have machine cut nails for plaster lathe on their exterior face.
- ❖ These smaller posts are set flush to the outside of the header with the wider dimension running parallel to the header, unlike the north in situ wall studs which are the same depth of the header.

- Oddly, lime wash can be found on the inside faces of some of these posts and a number of empty mortises can be found along the rear sill and header.
- These posts have no whitewash and nails assumed to be for sheathing, but the corner post has a later nailer for this sheathing showing the sheathing was not first period, further pointing to the rear studs being replaced.
- ❖ A lap joint in the rear sill may be part of this rear wall change or repair as well.



Fig. 29. Southeast post with later nailer for sheathing.



Fig. 30. Lap joint in south sill of c1719 core indicating a possible repair.

Wide Door On South Wall

- ❖ The current South door opening is 30" with the left stud showing evidence of being moved to its current location but previously forming a 56" wide door.
- ❖ The top of the post is held on with a beveled lap joint held with wrought nails.
 - Beveled lap joints can indicate a modification of a standing structure otherwise constructed using mortise and tenon joints.
- ❖ As mentioned, the stud spacing at the original window locations on the north are 27" and directly across on the south wall there are studs and empty mortises with the same 27" spacing.
 - This is all evidence of two original window locations flanking an unusually large door on the south wall.
- ❖ There is currently no evidence to prove which side served as the original front of the structure, so it is possible that the large door served as the principal entrance for carrying in large goods.

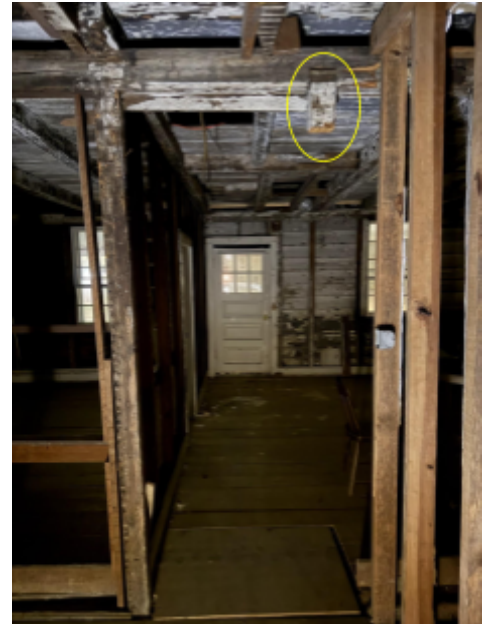


Fig. 31. Current 30" south door location with lap joint circled in yellow.

Possible Early Porch or Shed Evidence

- ❖ A header is mortised horizontally into the outside side of the core's south east post.
 - It has an empty mortise on the underside.
 - It has been reduced in height on the underside as well.
 - This timber does not match any of the 19th-century rear shed rooms material.
 - It is larger than any of the framing material used in the core and has many alterations.
- ❖ It could be part of an early shed or porch modification, pre-dating the current shed room addition.
 - further research is required to understand the purpose and origin of this timber.



Fig. 32. Heavily modified header mortised into the south face of southeast corner post. Possibly part of an early shed modification.

Loft and Roof Framing

- ❖ The c1719 core ceiling joists, header, false plate, rafters, collar ties, and studs are all found to be hewn and pit sawn yellow pine.
- ❖ The shed and porch rafters are all sash sawn lumber mostly in cypress.
 - Some reused material with white wash, nail holes etc. can be found in the shed studs on the right wall and as nailers on the shed ceiling joists.
- ❖ The c1719 ceiling joists have ogee molded lower corners and are notched over the header with vestigial chamfers on the originally exposed ends.
- ❖ A thick molded edge false plate is attached with pins piercing through to the bottom of the joists.
- ❖ The c1719 rafters are notched to the false plate and fastened with wrought nails.
- ❖ Alternatively, the shed rafters were cut nailed and extended past the header having exposed tails at the eave.



Fig. 33. 19th c. sash sawn shed rafter nailed to the top of c1719 rear rafter.



Fig. 34. c1719 notched rafter pulled out of the north false plate. Note wrought nails.



Fig. 35. 19th c. shed rafter tails that once extended over their header. Note original cut nail.



Fig. 36. Ogee molded edge of joists.



Fig. 37. c1719 south cornice with rafter notched to the thick molded edge pinned false plate.

- ❖ Late 18th century eave shingles on the north slope of the core roof are encapsulated by the 19th century porch roof.
- ❖ The south eave shingles and original lath were removed apparently when the shed rafters were added.
- ❖ Empty nail holes in the c1719 south rafters are on 5" spacing, where the in situ north wood shingle lath is on 7"-8" spacing.
- ❖ Some of the shingle lath on in the loft has whitewash and shows evidence of being reused and repositioned for the later shingles.
 - This shingle lath was set to $\frac{1}{3}$ the shingle length, with most early shingles ranging between 18' and 24".
- ❖ The narrow +/- 5" hole spacing on the south rafters is evidence of a first period roof that may have been riven clapboards which did not use shingle lath.
 - This aligns with the small +/- 5" nail spacing found on the southwest corner post which may also be evidence for early clapboard siding.
 - Further research is needed to confirm the early siding application.



Fig. 38. Core rafters with Later shingles and lath spaced 8" under porch roof.



Fig. 39. Top side of core south rafter with 5" nail spacing from original roofing material.

C1719 Loft Access

- ❖ The original loft access, located in the center of the south wall of the structure, is a very large 68" x 56" ladder- or stairwell defined by a trimmer spanning 3 joists, mortised and pinned into the supporting joists and supporting a joist set in a mortice in the center.
 - This trimmer has an ogee profile molding applied to only its outward face.
- ❖ Evidence shows at least 3 later stairs were incorporated as modifications to the structure located to the right of the front door along the front wall.
- ❖ The loft access may have also been modified for a staircase.



Fig. 40. Loft stair/ladder well.
Original material marked in red.

Early Partition Wall Evidence

- ❖ A series of notches for beveled lap joints have been cut into the ceiling joist located just to the east of the north door.
- ❖ These joints vary in spacing and size indicating two generations of partitions may have been installed in the same location.
- ❖ More research is needed to understand if this partition wall was first period.
- ❖ Possibly original, this partition wall created a large unheated room accessible by both exterior entrances, and a small heated room only accessible from the large room.
- ❖ Other lap joints in the structure are clear modifications but whitewash evidence within these empty notches proves these are early, possibly first period lap joints.



Fig. 41-43. North, center, and south sections of header with
lap joint notches for early partition wall.
Note presence of early lime wash inside notches.

- ❖ There is evidence for two different partition walls in the loft each flanking the access well.
 - Both were installed using beveled lap joints on the top cut into the then exposed collar ties, and mortises just through the floor boards in the bottom.
 - Since beveled lap joints are part of obvious modifications in other locations on the structure, these also have to be considered as modifications unless more evidence proves they are first period.
 - Further research would be needed to prove if these were in fact first period.



Fig. 44-45. Beveled lap notches in collar ties for loft partitions east and west of access well.

Circa 1719 Core Chimney

- ❖ Evidence for a single first period external chimney is found on the east gable end.
 - The current c1900 interior chimney is in the same location.
- ❖ This chimney location is defined by an in situ 18" hearth trimmer notched into the first joist.
 - The trimmer appears to be of the same pit sawn stock as the joist which originally extended past the trimmer defining the front of the hearth.
 - The hearth is centered on the east wall and would have been approximately 60" wide with a 32"-36" firebox.



Fig. 46. Hearth trimmer on east wall.



Fig. 47. Early hearth evidence seen in replaced flooring, note miter circled in red.

- ❖ Large mortises located along the gable headers, approximately 30- 32” in from each corner post, have been proposed as locations for major posts potentially associated with fireplaces.
- ❖ Evidence for the smaller fireplace found in the sub-structure does not support the theory of these mortises being for two fireplaces that would have been larger than those found in most kitchens.
- ❖ All 4 large mortises had gable stud tenons sharing the mortise with previous elements from below.
- ❖ The sills do not have corresponding mortises below and the two front posts have mortise joints for their down braces, while the rear posts have only lap joints for their down braces.
 - This likely indicates a major early repair/change.
 - These large mortises could have had up-braces from the posts, or a smaller post below.
 - Each gable header has other original mortises for minor studs further toward the center from these large mortises.



Fig. 48. Northwest mortise in header shown with gable post in situ.



Fig. 49. Northeast large mortise in header with gable stud in situ.



Fig. 50. In situ posts mortised into north end of east header.

Second Floor Fireplace

- ❖ Evidence for a hearth on the second floor at the current chimney stack location can be seen.
- ❖ A 20" deep 45" wide cutout in the flooring that is supported by trimmers notched into the joists and headers below with corresponding patches in the plaster lathe up the wall are all clear evidence of this fireplace.
 - These patches have 20th century sawn lath with wire nails while the adjacent plaster has riven lathe with cut nails.
- ❖ The trimmers have paint history like the joist they are notched into.
 - Like the first floor hearth, the measurements suggest it was part of an exterior chimney.



Fig. 51. Loft hearth evidence found in flooring.



Fig. 52. Loft fireplace location outlined in red.



Fig. 53. Possibly original second floor hearth trimmer notched to header and joist.

Porch

- ❖ The porch rafters are sash milled cypress and yellow pine.
- ❖ The shingle lath is also sash milled cypress and yellow pine with square butt shingles laid with cut nails.
- ❖ Cut-off hand rail tenons can be found in mortises about 37" up the trim board on the northeast corner of the core.



Fig. 54-55. Porch rafters in sash sawn cypress and cut off rail tenon on left post.

Conclusions:

Circa 1719 Core

Based on the totality of evidence, the structure at 304 East Queen began life as a roughly 16' x 25' timber frame building. It had a single exterior chimney on the east gable end flanked by two small windows, possibly a single window in the opposite gable end, a 3-bay facade with a slightly off-center door and two windows, and a 3-bay facade opposite with a large 56" wide door flanked by two windows. The exterior was likely entirely clad with riven clapboards.

The interior had a large unheated room accessed by two exterior doors, with a smaller heated room on one side accessed only from the large room. The interior framing was originally fully exposed and unpainted.³ The exposed framing had the refinement, however, of decoratively ogee-molded ceiling joists and chamfered joist ends. The single chimney with a small fireplace on the east end wall would have partially heated the first floor and the loft. The larger room had an unusually large ladder- or stairwell located directly in front of the 56" wide door. This wide door with matching loft access are important, purpose-built features that dominate the structure's framing design. They also help us define the original use of the structure, providing access for large objects to be brought into the building and carried or hoisted to the second floor.

Taken together, these features do not coincide with our current understanding of the typical designs for early dwellings, particularly the numerous examples of hall and parlor, story-and-a-half houses built throughout the lower Chesapeake. Alternatively, the building would have met the architectural needs of an Edenton merchant or tradesmen of the 1720s with ample light, plentiful space for work and storage, sufficient access to these spaces, and a smaller, heated inner room. The proper joinery and decorative treatments added to the framing stand as a testament to the quality of the early craftsmen who found Edenton a destination eager for their skills.

Substantial updates and modifications can be found throughout the structure. The most obvious changes are the rear shed room and porch additions, the narrowing of the rear door and loft access, relocation of the staircase, the layers of early lime wash over the exposed interior framing, and the post-1804 addition of plaster with baseboards and chairboards. Repositioning the partition wall from left to right moved the core's single heat source from the small inner room to a larger public room, complemented by the addition of a new rear shed room with its own chimney and fireplace. These modifications would have transformed an 18th-century commercial or workspace into the more typical, 19th-century middle class dwelling we see today.

Porch

Evidence shows the current porch is a 19th-century timber frame addition built using sash sawn cypress. The rafters have sash-milled lath and hand-split shingles nailed with machine cut nails. The rafters engage the core's roof line well above the eave and encapsulate the lower portion of 19th-century round butt shingles also laid with machine cut nails. Evidence for a porch railing can be found on the trim boards on each end about 37" above the porch floor. Overall, the porch construction is like that of the rear shed rooms, and likely dates from the first or second quarter of the 19th century.

Shed Rooms

Evidence shows that the current shed rooms are a 19th-century addition built with sash-milled material sistered to the c1719 core. The sub-floor structure was built adjacent to the rear of the original core and not integrated into the core sills. Early roofing material was removed from the core when the shed roof was attached using machine cut nails. No early whitewash and no wrought nails can be found in the shed room construction. According to John Bivins' *"The Furniture of Coastal North Carolina 1700-1820"*, the use of machine-made cut nails indicates a building date of no earlier than the 1790s.⁵ The shed rafter tails, once exposed, sat directly on the rear header and were fastened with the same machine-made nails. On the west shed room wall, there was once a small fireplace with an exterior chimney. Considering the architectural evidence and that dendro samples from the shed do not align with the c1719 core, the rear shed rooms likely date from the first or second quarter of the 19th century.

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Circa 1719 Core and Shed Rooms: Comparison of First-Period Materials and Applications

Detail	c1719 Core	19th c. Shed Rooms
Dendro date	Winter 1718/19	No match, undated
Timbers	Hand pit-sawn and hewn yellow pine	Machine sash-milled cypress
Joinery	Timber framed using early methods, e.g., pinned joists; thick pinned false plate notched for rafters; pit sawn and wrought-nailed rafters.	Timber framed using later methods, e.g., floor system is butted to the core, not integrated; un-pinned joists; sash sawn rafters fastened with machine-made cut nails .
Flooring	Pit-sawn yellow pine.	Sash-milled yellow pine/salvaged materials.
Fasteners	Hand forged wrought nails.	Machine made cut nails (post1790 ⁵)
Interior Surface	Unpainted, with the addition of mid 18th-century lime wash, the interior framing remained exposed until likely the first quarter of the 19th c. but not any earlier than 1804. ³	Plaster on lath with machine cut nails.
Exterior Siding	Likely riven clapboard replaced by 18th c. 8" beaded beveled siding.	Currently covered by asbestos siding but likely beaded with cut nails.
Roofing Material	5" spaced, likely riven clapboard, replaced by 22-24" round butt shingles on lath.	Square butt shingles with machine cut nails.
Heat Source	Small exterior chimney in the center of the left gable.	Small exterior chimney on the right shed room wall.

Notes

- 1) Worthington, M J and Seiter, J I, *The Tree-Ring Dating of 304 East Queen Street, Edenton, North Carolina*, Oxford Tree-Ring Laboratory archive report 2012/14.
<https://www.dendrochronology.us/edenx1.html>
- 2) Coy Jacob Idol, *Investigations Into The Oldest Standing Structure in North Carolina: A Thesis Presented to the Faculty of the Department of Anthropology, East Carolina University*. Master's Thesis, ECU , ed. Dr. Charles R. Ewen, 2015
<https://docslib.org/doc/8720902/investigations-into-the-oldest-standing-structure-in-north-carolina-by-coy->
- 3) Susan Buck, *Optical Microscopy Paint Analysis, Interior Limewash Investigation: 304 East Queen Street*, unpublished report, 2025.
- 4) Cary Carson and Carl R. Lounsbury, ed., *The Chesapeake House*, The Colonial Williamsburg Foundation, 2013.
- 5) John Bivins, *The Furniture of Coastal North Carolina 1700-1820*, The Museum of Early Southern Decorative Arts, 1988.
- 6) Hamzah Jule, *The Oldest Dated Building Framing Report*, unpublished report, Clemson University/Edenton Historical Commission summer internship, June-August 2025.
- 7) Reid Thomas, *The Oldest Dated House, Unravelling the mysteries of an unexpected and recently discovered early domestic dwelling in North Carolina*, unpublished report (draft), July 2019.
- 8) Justin M. Schwebler, *The Forgotten Stone: A History and Analysis of Bermuda Stone in Charleston, South Carolina: A Thesis Presented to the Graduate School of Clemson University*. Master's Thesis, Historic Preservation, Clemson University, Accepted by Amalia Leifeste, Committee Chair, R. Grant Gilmore III, PhD, Katherine Saunders Pemberton, Richard Marks, 2015.