

Clermont Slave Quarter

After Action Report: Historic Fabric

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Introduction

The former Clermont slave quarter underwent a major restoration in 2015, which was made possible with generous support from the Hurricane Sandy Grant Program.¹ At the commencement of the restoration effort the log building was both relatively well preserved and in perilous condition. The integrity of the character defining features was excellent, but the deteriorated condition of portions of the log walls, the roof, and, most alarming, the stone foundation, posed an existential threat that had to be addressed as soon as possible. Earlier investigations also indicated that although the structure had been altered significantly over the years, considerable evidence to track those changes survived.² Therefore, an integral component of the Hurricane Sandy project was to study the building and document any new findings that came to light as a result of the planned interventions. The exposure of more of the historic fabric revealed clearer evidence for the configuration of the first period structure, provided details as to the original materials and methods of construction, and allowed us to better interpret the nature and chronology of subsequent changes.

The goal of the project was to preserve the building as it had evolved over time, rather than to restore it to an earlier period in its history. Therefore, it was deemed critical to fully record the evidence, much of which would be hidden from view at the conclusion of the project. Photogrammetric images and the scaled drawings that were compiled and prepared over the course of the undertaking serve as crucial sources of primary documentation. This report is intended to complement those records by summarizing the overall findings as well as analyzing the specific evidence that is deemed to be of particular interest.³

For a detailed narrative on the overall Clermont Farm Slave Quarter rehabilitation, see the final report submitted to the Virginia Department of Historic Resources (VDHR), dated December 31, 2015. For the approved scope of work for the project, see the revised proposal prepared by Main Street Architecture, PC, dated May 20, 2015.

Chronology

The general chronology of construction and of major alterations to the slave quarter is outlined by a combination of physical, documentary, and photographic evidence. It is possible to order many of the physical changes in a relative sequence, and that evidence has been correlated with other sources that indicate that there were likely to have been several episodes when significant alterations were made to the building. In many instances, but not all, the physical evidence can be associated with those specific bench marks.

The Clermont quarter has been determined via dendrochronological testing to have a construction date of 1822-23.⁴ The building underwent a series of alterations that are documented beginning in 1861, when the two original rooms were divided into four spaces.⁵



Figure 1. Clermont slave quarter, east façade (2010).



Figure 2. Clermont slave quarter, east façade after restoration (2015).

Another round of renovations likely were carried out when the property changed hands in 1917 and many of the outbuildings on the property were extensively repaired. In the 1930s the quarter was upgraded yet again, when a sewer line and indoor toilet facilities were provided, and the porch running the full length of the east elevation was completed. It was in this configuration that two tenants are known to have occupied the structure: a farm worker named Nathaniel Garner from 1939-48, and Geneva Jackson from 1950-53, who was employed as a resident cook for the Beardsall family living in the nearby main house. In 1958 the building was converted into a single family rental residence, and was occupied by the Sealock family from that year until 1962. The Sealocks are the last known residents of the former slave quarter. By 1970 the owners of the property, Edward and Caroline Williams, undertook a major renovation of the main house, and the quarter was made weather tight by installing a new wood shingle roof at that time. Little is known of the use of the building after this date, other than the fact that the last private owner of Clermont, Elizabeth Williams, removed the attic floor boards in 1985 to reuse the wood in building shelves in the main house, and the chimney was damaged and replaced at an unknown date. Physical evidence relating to the changes made to the building provide more detail for these events.⁶

Findings

Roof:

At the start of this project the cedar shingle roof laid on a plywood deck, which had been installed in 1970, had deteriorated severely, with the substrate serving as the only protection from the weather. A new wood roof was installed, therefore, consisting of shingles that are made of cypress, 18” long, square-butted, laid with a roughly 6” exposure. Evidence for a variety of roofing types was found at the slave quarter as well as at the other buildings on the property, which includes a number of historic shingles and shingle fragments.⁷ In consultation with VDHR staff, the decision was made to follow the precedent set in 1970 and use the same type of shingle on all three structures. Cypress was selected as the material because, unlike red cedar, it was commonly used during the period of the 18th and much of the 19th-century.⁸ Based on the physical evidence it is likely that the new roof is the fifth iteration to be installed on the former slave quarter.

The current gable roof frame is a complex hodgepodge of materials, including both original elements of the first roof structure and the results of successive repairs. The frame of the original roof failed and deflected significantly from north to south at an as yet undetermined date. Based on a combination of physical and documentary evidence, however, this event is most likely to have occurred during the early 20th century. The deflected rafters were stabilized in their altered positions and incorporated into the repaired structure. The framing members for the gables had failed as well and were completely replaced (Figures 3 and 4).

All but the end rafters on the east side of the gable relate to the first roof, consisting of naturally tapering pine poles, measuring approximately 4” in diameter. The poles retain their bark except for the flattened top and at the peak, where they were joined in a shiplap and fastened with wooden pegs. Each surviving rafter is marked with a Roman numeral, which would have



Figure 3. The Clermont slave quarter east side roof frame after shingles and plywood deck was removed (2015); note the severe southward lean of the main roof rafters.



Figure 4. The original pole rafters on the east side of the slave quarter roof shifted between 2' and 2'6" to the south (2015); the existing brick chimney is a 20C replacement of the original.

corresponded with the other rafter in each of the original pairs. Oak skip sheathing boards, spaced at an interval of roughly 9", served as nailers for the shingles and survive attached to the tops of the pole rafters. There were no collars, and the combination of their absence along with the wide spacing of the sheathing boards almost certainly contributed to the eventual failure of the roof frame.

The tops of the surviving rafters have shifted as much as 2'6", while the feet of the poles remain in place and attached to the false plate with wrought-headed iron spikes. When the frame was repaired and the new roof covering was installed, the members were stabilized and left in their deflected positions. The rafters currently on the west side of the roof are 20th century replacements, made of dimensional lumber, some of which are machine planed and others are circular sawn. Circular sawn oak boards of varying widths, spaced with a gap of @3" between the rows, are nailed to the tops of the rafters. Although the physical evidence presents a confusing picture, it is most likely that the current west rafters and skip sheathing boards date to the period when the roof was first stabilized.⁹ The mismatched rafter pairs are lapped and nailed at the peak, with the original pole rafters on the east angled to meet with those on the west (Figures 5 and 6).

A high percentage of the original sheathing boards survive on the east side of the gable roof. The boards measure roughly between 2½" and 2-7/8" wide, by 7/8" thick, and run in parallel rows. Installing the sheathing boards with a gap between the rows was common practice for wood shingle roofs. The relatively wide, @9"-spacing was characteristic of roofs covered with long, @27" side-lapped shingles, each fastened with nails driven into the centers of the boards.¹⁰ Based on analyzing the nail hole patterns in these boards, at least the two earliest roofs were sidelapped shingles fastened with cut nails.¹¹

Boards were inserted in the spaces between the nailers to narrow the gap and to support the next (third) roof covering; this indicates the change over from long sidelap shingles to shorter horizontal lapped versions. Some of the boards likely were salvaged and reused in this application. Others exhibit circular saw marks, and they were attached with wire nails, indicating that the roof they supported was not installed before the early 20th century. Shingle nailing boards, circular sawn and attached with wire nails, also were inserted to span the gap between the new end rafter on the north gable and the adjacent original rafter. These boards were required because of the dramatic tilt of the roof frame, which was the likely cause for installing the third roof. Adding the nailers throughout would also have gone a long way in stiffening and solidifying the frame. All of the holes from nails that were found in the later shingle nailers are round, indicating that beginning with the third roof the shingles were attached with drawn wire nails.

Fragments of a number of shingles were recovered among the debris within the attic space. Two fragments of oak sidelap shingles were discovered, which had been used later as shims. The fragments are from the butt ends of two shingles, 4½" and 5" wide, tapering from 3/8" on the



Figure 5. Original pole rafters butted and fastened to west side replacement rafters (2015).



Figure 6. Replacement rafters, shingle lathe, and false plate on west side (2015).

beveled edge to 1/8" on the opposite side. Nail holes found in the fragments indicate that these singles may have been installed, and in any case it is likely that the fragments relate to one of the first two roofs that covered the building. A complete standard shingle also was recovered that presumably relates to a subsequent roof; it is made of chestnut, 20½" in length, tapering from 3/8" at the butt to 1/8" at the tail. No nail holes were found in the shingle, but the evidence indicates that the shorter shingles for the third roof onward were attached using wire nails.

Both of the gables have been completely rebuilt and the end rafters were replaced. The original outer rafter on the north end survives on the east side of the roof, indicating that the outer rafters were squared on three sides to provide nailing surfaces for the studs, for the exterior siding, and for the skip sheathing boards (Figure 7). The top end of the remaining end rafter has shifted almost 2' to the south, and it now laps against a replacement member on the west to make up the first interior rafter pair. The last two rafter pairs on the south end of the building likely were lost when the frame shifted and they have been replaced with dimensional members. Although both gables were replaced, the physical evidence indicates that the entire north end of the structure had suffered much more deterioration than was the case at the south wall.



Figure 7. Slave quarter interior east side of roof (2015); original end rafter has shifted @2' to the south; boards of irregular width were installed to span the gap between the original end rafter and the 20C replacement.

It is not clear exactly when, or why the roof frame was damaged and shifted so drastically, but strong winds combined with a heavy load, such as snow and/or ice, seem the likeliest cause. The inadequate roof frame and poor maintenance of the building almost certainly were contributing factors. The character of the nailing boards that were inserted between the originals, and those that span the gap between the new and old end rafters, indicates that the event occurred in the 20th century. According to photographic evidence, the porch that runs the length of the east wall of the log building was installed beginning ca. 1938, and the roof frame must have shifted and was stabilized before the porch was added, as the rafters of the shed roof are securely fastened to the main roof according to its current position.

A structural weakness in the north gable end wall almost certainly contributed to the instability of the roof frame. The physical evidence indicates that the gable underwent a series of repairs over the years, and that the two most important framing members, studs positioned near the center of the wall on either side of the roof peak, likely failed due to deterioration of the mortise and tenon joints connecting them with the joist/girt framing the bottom of the gable. The remaining four studs were considerably less substantial and attached to the joist with only a lap joint and nails. With the main structural gable supports compromised, the frame would have been particularly vulnerable to strong winds from the north.

Retaining the original rafters in their dramatically shifted alignment was an unusual decision, in any case, but preserving only one half of the rafters and replacing their counterparts at the same time would have been especially challenging and seemingly not worth the effort. It is also puzzling why the rafters on the east could have survived virtually intact while those on the west required total replacement, unless they were damaged by a subsequent event. Nevertheless, comparing the evidence for the earlier roofs between the west and east faces indicates that this seems to have been the case.

The evidence from the skip sheathing boards reveals that at least four roof coverings were installed on the east, while only two generations of nails were found in the 1" thick oak nailers on the west. Two periods of holes for cut nails are indicated in the original ca. 1822 nailers; two generations of wire nails pierced the later infill boards, as well as the originals, indicating that a third roof had been installed prior to the one in 1970. The wire nails for the third roof had the benefit of the infilled nailers and are spaced with approximately 7" between the rows. On the west side of the roof, only the nails for the 1970 covering and one prior roof were found, with the nails and the pattern for the earlier roof matching those for the third roof on the east.

Gables and End Walls:

Both the north and south gables have been completely rebuilt, and the current end rafters, the studs installed in the south gable, and the siding boards that were in place at the start of this project are 20th century in date. The original end joists remain, lapped over the top logs of the east and west walls and secured with large, cut nails with wrought T-heads. Open mortises in the upper faces of the joists in both gables indicate that six studs were spaced roughly symmetrically in each, with the two in the middle attached with a mortise and tenon joint and the others lap-

joined and nailed. Evidence from the surviving end rafter from the north gable reveals that the studs were butted and toe-nailed to the bottom of the rafter; surviving cut nails in the south gable indicate that the tenons of the middle studs also were through-nailed to the joist (Figures 8 and 9).

A fragment of wood was recovered from within the space that is likely to be the remnant of an original gable siding board. It is cut at an angle that matches with the pitch of the roof, with two square holes for cut nails located near the top and bottom of the board along the angled edge. The fragment is 6" wide and 7/8" thick, without any taper from top to bottom, indicating that the boards were installed butted against their neighbors.

The renewed framing members of the gables do not match. No studs are found on the north, and, instead, vertical planks are attached to the end rafters and nailed to a horizontal girt laid on top of the deteriorated original end joist. Two different types of vertical boards enclose the wall, with tightly butted pine boards on the west side of the roof peak and oak boards spaced with gaps of several inches on the rest. The tightly butted boards would have covered the entire north end wall and presumably were installed when the roof frame was stabilized and repaired. They are attached with a mixture of cut and wire nails

The east boards are thicker and circular sawn, and they appear to have been inserted to meet the tops of boards similar to those on the west that extended up to the plate when the project began. Each of the two types of boards are attached to separate girts running on top of the end joist. A rail has been inserted mid-way in the gable, which is toe-nailed to the east end rafter, but does not extend all of the way to meet the rafter on the west. It ends several inches from the face of the rafter and is attached with a large wire nail to the back surface of one of the siding boards. The rail acts as a nailer for both of the types of vertical gable boards, but it was not set in place before the east boards were installed. These boards therefore appear to have been installed after the roof frame already had been repaired, for an as yet undetermined reason.

Nine studs were reinstalled on the south gable, toe-nailed to the top of the original joist and to the bottoms of the new end rafters. The mortises for the six original studs are visible cut into the top of the joist. All of the studs vary in dimension and are circular sawn, attached with wire nails. The middle stud is directly aligned with the peak of the roof and is cut at an angle to abut the bottom of the smaller east rafter. As on the north, the dimensions of the end rafters do not match: the west rafter is 6" by 2" in dimension, the one on the east is only 4¾" by 1½". The north end rafters measure 5½" by 1¾" on the west and 5½" by 2" on the east. All of the rafters exhibit marks resulting either from circular sawing or from planing by machine.



Figure 8. Slave quarter south gable with replacement end rafters and studs (2015).



Figure 9. Slave quarter south gable, open stud mortise with cut nails (2015).

The markedly different methods of enclosing the gables raises the question of whether they are the result of more than one construction episode. The differences between the vertical boards at the north gable, and the associated methods of attachment, indicate at least two periods of construction, with the east boards seemingly changed out long after the original repairs that were made to the shifted roof. The slight differences between the rafter pairs is intriguing but does not necessarily indicate separate building episodes (Figure 10).

A curious pattern of nails and ghost marks found on the exterior of the north wall seems most likely to be related to an effort to provide support for the deteriorating logs and gable. The ghosts form an inverted V with the apex centered on the wall and terminating at the top of the original end joist. Cut nails follow the paths of the arms of the V. Given the poor condition of the joist, it may be that the two joined boards had been nailed in place to serve as a stabilizing brace (Figure 11).



Figure 10. North gable after horizontal siding removed from both the gable and log wall, and after vertical siding removed from the log wall (2015). The ghost of wood brace in the form of an inverted V is visible on the log wall; the deteriorated mortises are visible at the c of the gable end girt.

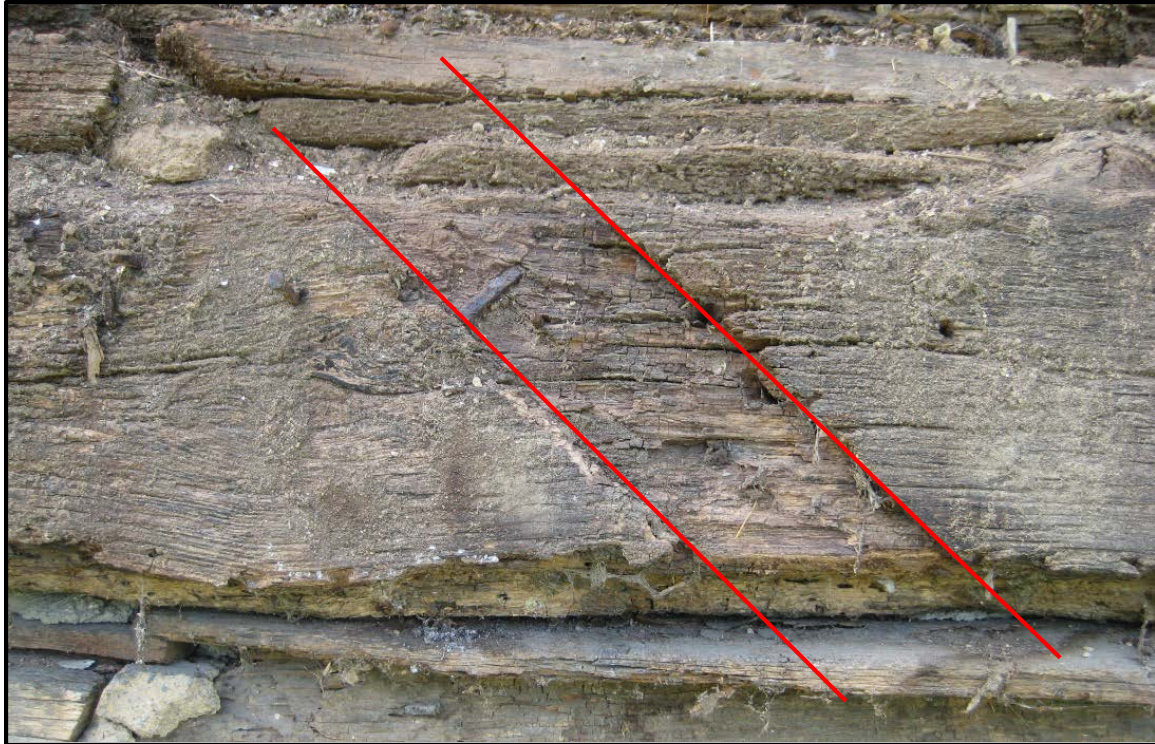


Figure 11. North gable detail (2015); indentation to receive wood brace, with remnants of cut nails and nail holes; reused material uses as chinking above and below the log.

Chinking and Daub:

The chinking is composed of a variety of reused materials, which includes several sections of porch rails salvaged from the main house, along with framing members exhibiting mortises and protruding nails and, in one instance, a hinge pintle. Four fragments of hand rails were revealed, which match the profile of the rails that had been installed in 1788 on the south porch, and exhibit the same green paint that was used on the main house.¹² One of the reused pieces is a fragment of a door or window jamb, with a vertical mortise at the top that received the tenon of the header. A peg is visible in the face at the corner of the jamb piece, where it secured the tenon of the header in the mortise. The architrave also survives nailed to the front of the jamb, from the angled edge of where it was mitred to the adjoining piece that had been secured to the header. The profile of the one-piece, one-step architrave is an ogee backband, flat field, and beaded opening. The architrave is painted green.

Windows:

Four window openings are spaced roughly symmetrically on the west (rear) elevation. The current window jambs, frames, and 6-over-6-pane sashes are of recent vintage, as all of the materials exhibit modern construction methods and materials, and some of the sashes are known to have been completely replaced within the last decade. The openings are @2' 7" wide by 4' 3" tall, with the sashes nominally 2' 4" wide, and panes measuring roughly 8" by 10".

The original window openings were several inches narrower than currently, each of which would have accommodated two 4-light sashes. The logs forming the sides of two of the window openings were completely exposed as a consequence of repairing or replacing a number of adjacent logs. This revealed that both of the openings were enlarged @4" by cutting the ends of the logs to accommodate the wider, 6-over-6 replacement sashes. For the opening near the southwest corner of the west wall (room 504), the logs on the south side were cut the full 4"; the adjacent opening was enlarged by cutting @2" from the logs on either side of opening. Thus, the corner window was essentially shifted 4" to the south, while the second window retained its original alignment (Figure 12).

According to the physical evidence the windows originally had been framed using thicker material, probably in the range of 2", and were attached to the wall logs by wooden pegs driven into holes drilled near the center of each log. All of the surviving original logs had holes that are @1" in diameter, with a maximum depth of 5 3/8". Fragments of two of the pegs survived, indicating that they had been sawed off to free and remove the original jamb pieces. One of the pegs was extracted from the hole, which revealed that the pegs were hand carved and tapered to a blunt point. Holes containing remnants of pegs were found in both locations inserted in the bottom face of the log at the top of the openings. The holes were drilled on an angle, canted in the direction of the original window frame. Remnants of all of the top pegs survived, indicating that they had been sawn off as well. The method of securing the window frames to the upper logs was different than is the case for the two original doorways, where the side pieces were notched into the upper log. This is unlikely to indicate that the window and door openings were installed at different times, however, as both methods were commonly used virtually interchangeably (Figures 13-15).

The sides of the other two window openings were not fully exposed, but in both instances angled pegs/holes were just visible in the bottom surface of the top logs and with several holes for pegs discernible in the side logs. It could not be determined whether the openings were expanded in the same way to mirror the two windows to the south. But the smaller size of the rooms that were created at the south and north ends of the building could be the reason why the window opening was shifted at the southwest corner, which served to better center the window on the wall. Therefore, it is likely that the same strategy was employed with the window at the northwest corner as well.



Figure 12. Slave quarter west wall (2015); all window openings have been widened 4”.



Figure 13. Slave quarter west wall, SW window (2015), cut-off pegs in top log of opening, cut stud and siding in room 504.



Figure 14. Slave quarter SW window opening (2015); stud and siding boards installed ca. 1917 in room 504 cut to widen opening.



Figure 15. Slave quarter SW window opening (2015); holes for pegs in three side logs, one with sawed off remnant of peg.

The original two rooms in the cabin were subdivided to add two more spaces, the new south room (504) was enclosed on the interior with butted horizontal boards attached to @2” by 4” vertical studs that were nailed to the wall logs. The character of the paneling conforms with the methods and materials that would have been used in the early 20th century, and the current hypothesis is that they were installed ca. 1917. The siding and support stud were cut to allow the window opening to be enlarged.

Attaching the window jambs securely to each of the side logs was the standard practice for log construction during the 18th and 19th centuries, and was an important measure to retain the structural integrity of the log crib. This was especially important when window openings were placed near corners, as the shorter lengths of the logs would make them prone to movement. In the case of Clermont, this would have been particularly prudent, as the floor joists were not mortised into the wall logs, and thus did not provide any structural support. The length of the building combined with the lack of lateral bracing and the inadequate roof frame also contributed to the instability of the structure, which is evidenced by the deflection (racking) of the crib along the east and west walls. When the jambs were removed they were replaced with boards that were much less substantial, and they were attached to the logs with relatively small wire finishing nails. The inadequacy of this approach was borne out by the finding that the logs running between the window and the southwest corner had deflected and sunk several inches.

If the current outer doorways in the façade replaced original window openings there, no evidence for their earlier existence has been found. The original window openings likely would have matched with those on the rear wall. Removing the architraves from around at least one of the current doorways may reveal remnants of pegs/holes related to the conjectured windows.

Doorways:

The jambs of the two center doorways are notched into the top wall logs, which was a standard technique found in log construction (Figure 16 and 17). (Presumably the jambs were secured to the top logs using cut nails, as well as pegged to the side logs, but the door frame obscures the view.) The other two doorways are not framed in this manner, confirming that they were additions. Doors are not currently mounted in either of the later doorways; evidence of a rabbet to receive the door in the south opening and butt hinges for the door on the north indicates that a door had been installed in each opening at some time in the past. The doorway in the central partition is not notched to the logs like the center outer doors, confirming that this opening was also added, presumably ca. 1861.¹³

Physical evidence indicates that the exterior doorway in room 504 was the one installed in 1861, and that the opening was modified as part of two subsequent construction episodes. The architrave survives on the north jamb of the doorway, which matches in profile and material with those around the two center doorways. When the studs and horizontal boards were installed in room 504 to square up the racked walls, the doorway was inset from the log wall and reframed with flat boards for the header and jambs. At 36” the new opening was considerably wider than the standard 31” width of the original doorway. The opening was narrowed considerably ca. 1938 to accommodate the addition of the south porch room, which overlapped the original



Figure 16. Slave quarter east façade (2015), two original exterior doorways; architraves for both doorways likely installed ca. 1861, cut evenly to suggest earlier floor level of porch (red line).



Figure 17. East façade detail (2015), notched jamb for original doorway.

opening. There is no evidence that a door was hung there, and it would have served as a pass-through from room 504 to the toilet and kitchen facilities that were installed in the porch.

Heating System:

The structure was heated by iron stoves for the entire time that it was occupied. The current chimney and its footing are a 20th century replacement, with extruded bricks for the stack and supported by a poured concrete base. The chimney in room 505 is parged with cement and painted. The lack of evidence for fireplaces, which would be easily discernible given the log wall construction, means that the chimney was always located in this position. Holes penetrating the chimney relate to stoves located in the two middle rooms (505 and 506), which most likely replicates the original condition.

Two other round openings that seem certain to have accommodated stove pipes were cut in the ceilings of rooms 505 and 506. They are located near the walls opposite the chimney and on line with the other holes in the stack. The holes in the ceiling have been covered over with plates of thin sheet metal. Given that there is no evidence of holes for stove pipes in either of the two outer rooms (504 and 507) it is puzzling that the holes appear in these locations. If stoves were installed where the holes in the ceiling are located, there is no evidence on the floor to indicate their presence, and it seems highly unlikely that no evidence for the stoves would remain. A hole for a stove pipe and ghost marks and bricks indicating the location of an exterior brick chimney are located at the northeast corner of the porch, which indicates that the northern room was heated as well.

It is virtually impossible that the chimney stack could have survived intact when the roof frame failed and shifted so dramatically to the south. Therefore, the current chimney either was erected at the same time that the roof frame was stabilized, or it is an even later replacement. According to the accounts of Elizabeth Williams, the chimney was damaged by a lightning strike and replaced during her ownership. Williams was writing in 1996, and she maintained that the event occurred “several years ago,” which further suggests that the current chimney does not date to when the roof frame was stabilized as early as ca. 1917.

Foundation and Floor:

The Clermont quarter is supported by a continuous foundation, composed of uncoursed and roughly finished, locally sourced limestone, laid with a high-lime mortar.¹⁴ The modal dimension of the width of the foundation is roughly 1’ 6”, and comprises two stepped levels. A lower “shelf” runs on the interior, overlaid by a flat wooden sill (7-8” by 1”) upon which rest the ends of the log floor joists. The joists are debarked, left in the round except flattened on the top to accommodate attaching the floor boards, and notched and flattened on the bottom at the ends to rest on the sill. The outer half of the foundation extends roughly 10” higher and supports the bottom logs of the crib walls. The foundation along the north and south walls are lower to accommodate the lower bottom logs there. At the northwest corner of the structure a roughly 3’ section of the original west foundation and the sill had been replaced. In general, the foundation and the log wall at the north end of the building, the bottom of which was closer to the ground, had deteriorated to a greater degree than was found elsewhere. The failure of the foundation and

the sill in this location was undoubtedly due to lengthy exposure to water penetration largely resulting from faulty drainage, the slightly raised adjacent ground level, and the lower height of the foundation (Figure 18).

Remnants of the original mortar joints were revealed in a few relatively sheltered locations. The joint is tooled with the profile forming a raised “V”. Two layers of mortar were observed, with a brown clay-like mixture used to bed the stones, overlain by a finer and whiter “finishing” mortar. One sample of the bedding mortar and three samples of what is believed to be the original chinking daub were retrieved from similarly protected locations in the log walls and the foundation and were analyzed to determine the character of the mixture used for those applications. The results indicate that the daub was composed of a matrix of locally sourced clay/soil combined with roughly 14% lime. This low proportion of lime was typical when used for non-structural applications such as daubing over the chinking between the logs. As the volume of the surviving original finishing mortar in the foundation was quite small, it was determined not to remove samples for testing. The results from the other tests were used as the



Figure 18. Slave quarter SW corner (2015); end joist notched to lap over flat sill resting on interior portion of foundation.

basis for selecting the clay-soil matrix, but a higher proportion (@33%) of lime was introduced to the mixture for both the bed and finish mortar.

The original flooring survives intact throughout the building, but it has been covered by a second generation of floor boards, and in one area (room 506) by yet a third layer (Figure 19). Boards were spaced and laid on top of the first floor, which runs in a north-south direction, to act as shims to level and provide support for the second floor, also running north-south. A third floor was laid in room 506, which was placed directly on the boards of the second floor, and runs east-west. The boards in all three of the floors are laid with a tongue-and-groove joint. The first generation of pine floor boards are the widest (@1 3/8" by 11 1/2") and were band sawn on the bottom and planed on the top, attached to the joists with cut nails. The boards in the second floor are narrower and thinner, ranging from 2 1/2" to as much as 6" in some locations, and blind nailed to the sleepers with wire nails. Those in the third layer of flooring are more regular at 3 1/4", and they also are blind nailed.



Figure 19. Slave quarter NW corner, interior (2015); joists notched over flat sill, two levels of flooring separated by nailers/spacers for second floor (room 507).

Interior Finishes:

The beaded ceiling and wall boards have a standard dimension of 3 1/4" by 1/2" and are joined with a tongue and groove and attached with wire nails. This type of finish was popular during much of the first half of the 20th century, and was a relatively cheap alternative for covering over previous finishes. The character of the plank siding and the associated fasteners in room 504 indicates a 20th century date. As the south end wall appears never to have been enclosed with

siding, perhaps the boards on the interior were intended to serve as insulation as well as to square up the canted walls. The partitions were not covered with bead boards, and were whitewashed and painted, and received at least one layer of wallpaper during the period between when they were reinstalled ca. 1917 until they were covered with plaster board panels ca. 1958 (Figure 20).



Figure 20. Slave quarter, interior view (2013); south wall room 506, vertical beaded planks applied to log walls and ceiling, hole and thimble for stove pipe visible in portion of exposed logs; plaster board applied to south wall of room 505; horizontal plank siding on south wall of room 504.

Interpretation

1822-23:

The building was erected as a side-gable roofed, one-story log structure, supported by a continuous stone foundation, with two equal-sized rooms separated by a log partition. There is no evidence for fireplaces, so a central chimney (which has been replaced) apparently served from the beginning as a flue for wood stoves located in each of the rooms.¹⁵ Two doorways on

the east façade provided access to the rooms, possibly with two symmetrically arranged flanking windows; four regularly spaced windows were positioned in the rear wall (Figure 21).

The oak wall logs were hewn flat on two sides and left in the round on the top and bottom, joined at the corners with V-notches. The logs on both the exterior and the interior were exposed and were whitewashed from an early date; the gables were enclosed with studs and butted weather boards. The attic space was not readily accessible or finished, and the tightly butted pine floorboards served as the ceiling for the rooms below. The undersides of the boards and the joists were whitewashed along with the walls; the gaps between the ceiling joists and the tops of the walls were infilled with clay daub, and whitewashed as well.

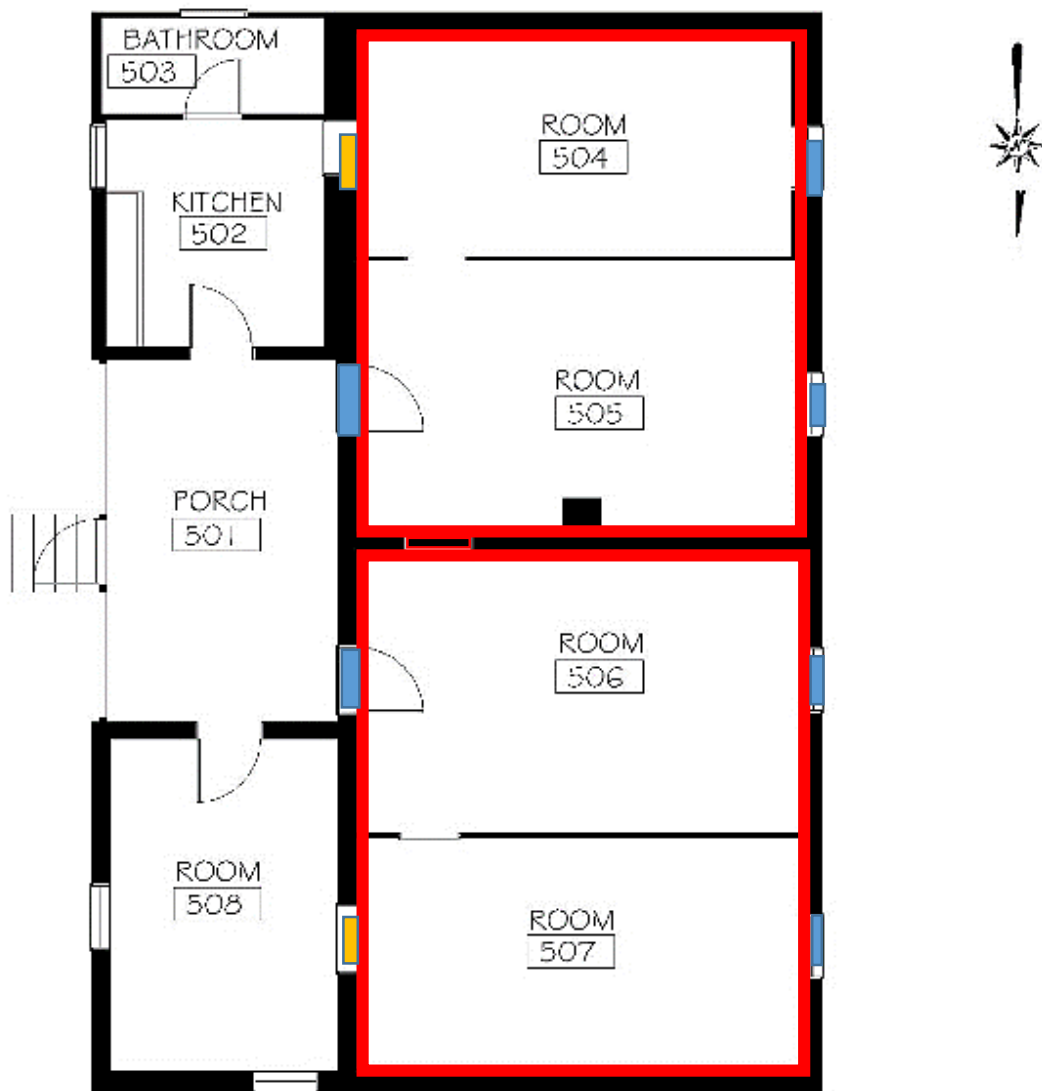


Figure 21. Slave quarter plan ca. 1823; two main rooms, two exterior doorways, two windows likely on the east and four windows on the west.

The recent investigations revealed the original locations of the four rear windows. The openings were roughly 4” narrower, which was sufficient to hold four-over-four-pane window sashes. Pegs were used to attach the window jambs to the wall logs on either side, and to the top log in each of the openings. In the 20th century the openings were widened to accommodate the current six-over-six sashes.

The stone foundation was laid with a brownish, high-lime bedding mortar overlain by a lighter colored mortar finished with a raised V-joint. The gaps between the logs in the walls were chinked with a mixture of materials, including stones and brick fragments, tree limbs, and a variety of reused wood fragments, which included handrails salvaged from the south porch on the main house. The chinking was daubed with a high-lime mortar that was quite similar in composition to the bedding mortar used in the foundation.

Pole rafters and skip sheathing boards survive on the east side of the roof; the spacing of the oak boards and the nail holes found there indicate that the original roof was composed of sidelapped long shingles; surviving wood fragments indicate that the shingles were also made of oak.

Ca. 1861:

According to a work receipt dated to April of 1861, the structure was modified significantly in that year. The document indicates that the quarter (referred to as the “negro house”) was further subdivided by “plank” partitions and that a door was cut in the log partition that originally divided the rooms.¹⁶ A third exterior doorway was installed as well, and physical evidence supports the interpretation that the two centered exterior doorways are original and the opening to the south was the one added in 1861. The physical evidence also indicates that the partitions were removed and replaced at a later date when a second generation of flooring was installed throughout the building.

A portion of the interior architrave of the doorway that was installed in 1861 survives, which matches in profile and material with the exterior architraves of the two center doorways. There is a gap of several inches between the bottoms of the exterior architraves and the current porch floor. As the bottoms of the architraves are all even and level, this suggests that they had abutted the floor of an earlier porch, which may have been installed as part of the renovations that were undertaken in 1861.

While the rather significant alterations made at this time suggest the possibility that the roof was renewed as well, there is no reference for doing so in the work order. Physical evidence indicates that sidelapped shingles comprised the second roof covering as well, attached with cut nails. Both cut nails and sidelapped shingles continued to be used in the region until well into the 19th century, and in some instances extended into the 20th century. Given the longevity of old growth oak, it is notable but not unusual that the shingles for the first roof could have lasted for many years after 1861.

Ca. 1917:

During the period between the renovations that were carried out in 1861 and the early 20th century, the former quarter had suffered significantly from deterioration and structural failure.

The integrity of the log walls had been compromised, which likely was caused at least in part by deterioration of the stone foundation. The roof frame experienced almost total failure, which necessitated extensive repairs and replacing all of the rafters on the west side of the roof along with the structural supports for both end gables. The extent of the damage to the roof and to the log walls suggests that those conditions were related, and that the major interventions that were undertaken to address those failures all were likely carried out at the same time. The Clermont property changed hands in 1917, and the new owner, A.M.D. McCormick, embarked on a variety of repairs to a number of structures. It is therefore highly likely that he carried out extensive work on the former quarter during his period of ownership.

Under McCormick's direction an effort was made to reinforce the deteriorated foundation by pouring unreinforced concrete formed against the stones at several points along the west wall. Similar interventions were made at other buildings on the property, which included inscribing both the name of McCormick's farm manager and the date in the concrete (but which was not the case at the quarter).¹⁷

The most compelling evidence for associating repairs made to the building with this time period comes from the interventions undertaken in the southernmost room, designated as number 504. The log crib that comprises the structure of the main part of the building deflected all along the east wall, with the greatest distortion occurring to the south of the central partition, and which is especially evident at the southeast corner. The plane of the wall has tilted outward so that it is as much as 12" out of plumb.

Horizontal wood boards were installed to serve as paneling in room 504. Vertical wood studs were attached to the surfaces of the three exterior walls to act as nailers for the horizontal boards, which ran from floor to ceiling. The studs on the east wall were tapered at an acute angle so that the plank wall would form a plane that was relatively vertical. The wall studs rest on the surface of the tongue-and-grooved boards of the original floor, which indicates that the paneling must have been installed prior to laying the boards for the second generation of flooring. All three of the planked walls in room 504 extended beyond the joists to butt up against the underside of the attic flooring, which served as the ceiling for all of the rooms in the building (Figure 22). The floor boards and the walls were whitewashed. Thus, the horizontal paneling in the space was installed when the ceiling in that room, at least, was exposed. The methods and materials for the wall siding – dimensional circular sawn lumber, 2" by 4" studs, and a combination of both cut and wire nails -- indicate a 20th-century date.

The character of the materials used to stabilize and replace much of the roof frame indicates that those interventions were carried out in the 20th century. Given that the racking of the log walls must have occurred before the extensive repairs that were undertaken in room 504, it is quite likely that the work on the roof was accomplished at the same time. Physical evidence indicates that the third roof was attached using wire nails; a shingle made of chestnut was found in the attic, which may relate to this roof. Vertical pine boards were installed to cover the entire north end wall at the time that the roof frame was stabilized and the gables were rebuilt. In addition to protecting the wall logs, which appear to have deteriorated significantly by this time, the boards



Figure 22. Slave quarter attic detail (2017); horizontal siding boards for room 504 extended to the underside of the original attic floorboards; the underside of the floorboards and the exposed joists, as well as the siding boards, were whitewashed.

both enclosed and structurally supported the gable in the absence of the earlier or replacement studs.

Ca. 1938:

A variety of repairs were undertaken concurrently, which may relate to upgrading the building in the late 1930s. This likely included leveling the floor throughout the building, installing beaded boards on the ceilings and walls, and adding a porch extending the length of the east façade that included an indoor toilet.

Physical evidence indicates that the partitions that were installed in 1861 were removed and replaced during a later round of renovations. The current partitions are composed of circular sawn vertical planks, which are toe-nailed to the tongue-and-grooved boards that comprise the second generation of flooring. There are holes from small finish nails running on either side of the joints suggesting the former use of battens. Both the vertical boards in the partition and the floor boards are attached with wire nails.

Narrow wood boards were laid on the surface of the original flooring to act as shims to elevate the level of the second floor and to serve as nailers for the floor boards. The gap between the two floor levels in room 507 is 4" – there is a gap of 2½" in room 505. Therefore, the second floor almost certainly was laid at the same time that the partitions were removed and reinstalled, and the likely reason for the work was to create a level surface.

The interior surfaces of the walls are covered with three distinctly different finishes, which likely represent discrete campaigns of renovations. The ceilings throughout are enclosed with thin, bead board planks, which match the treatment of all or portions of the walls in rooms 505, 506, and 507. The bead boards likely were installed in ca. 1938. The partitions separating rooms 506/507, and rooms 504/505, and the east wall in room 505, are covered with plaster board, which likely was installed at a later date, perhaps in 1958. On the partitions the plaster board is applied over vertical planks that exhibit multiple layers of white wash and paint, and at least one layer of wallpaper. This indicates that the surfaces of the partitions were treated differently even after the bead boards were installed. Perhaps the wallpaper was installed in 1938 to dress up the board walls as part of the upgrades made at that time. The three remaining walls in room 504 are covered with butted boards running horizontally, nailed to studs that were attached to the log walls.

The porch that runs the full length of the east elevation likely was completed at this time. A series of photographs provided by members of the Royston family depict the former slave quarter during the period between 1939 and 1948, when Gilbert Royston served as the Clermont farm manager. All three photographs show the quarter as painted white, with the porch clearly depicted on the east elevation; one of the three images is dated to December 25, 1941 (Figure 23). The catalyst for erecting, or extending, the porch likely was the construction of a sewer line in ca. 1938 running from the new sewage treatment plant in the nearby town of Berryville across the Clermont farm. In exchange for allowing right of way to lay the line through the property, three connections were provided: for the main house, the tenant house, and the former slave quarter.¹⁸

The southeast porch room accommodated a toilet, which must have been installed after the sewer line ca. 1938 and before the picture taken by the Royston's in December 1941. Geneva Jackson reports that the toilet was in place during the time she lived in the building, beginning in 1950. The small frame structure shown to the west and slightly south of the building in the Royston family photographs was a privy (outhouse), which remained in use in some capacity even after the indoor toilet was installed. To accommodate the toilet room, the doorway leading from the porch to room 504 was narrowed significantly in size, to 23" wide.



Figure 23. Royston family photograph (1941); former slave quarter viewed from the south, with full-length east porch, painted white, and surviving privy.

The similarities in materials and methods indicate that the southeast and northeast rooms of the porch were constructed contemporaneously. The materials used to frame the center section of the porch, which is only enclosed on the exterior wall by an open railing and window screens, is of a different character, and the space is not incorporated into the framing for the rest of the porch. The current central section may therefore be an infill, but it may have replaced an earlier porch that had existed before the corner rooms were added.

Another photograph that shows the northeast corner of the structure predates the porch addition. Other features of the property that are depicted – in particular a white, cross-railed fence that is also shown in the Royston photographs – suggest that this image dates to the 1930s. The image is extremely hazy and it is not possible to discern the treatment of the north wall, but it is not depicted as white in color as in the Royston photos.

Along with adding the toilet and kitchen facilities in the southeast room of the porch, it is likely that the fourth doorway was added to provide direct access between the porch and room 507. The north room in the porch was outfitted with a wood stove and an exterior brick chimney at some point in time.

The physical evidence indicates that the south wall of the log structure was never covered by siding, but the west and north walls were enclosed up until 2015 with horizontal lapped weather boards. On the north wall the horizontal siding overlaid the vertical boards that likely had been added when the roof frame was repaired. The horizontal siding was almost certainly installed during the renovations that were carried out between 1938 and 1941.

Ca. 1958:

When the ownership of Clermont transferred to Edward McCormick Williams in 1958, he devoted considerable attention to repairing and improving the buildings on the property, to include renovating the former slave quarter as a rental opportunity.¹⁹ Among the likely upgrades that he made to the structure was to enlarge the four windows on the rear elevation. The windows were altered after the horizontal siding had been installed in room 504, as a portion of the horizontal siding, and one of the supporting studs, was cut to accommodate the change. The current toilet in the southeast room of the porch is a model that was introduced in 1954.

1970-71:

The roof on both the main section of the cabin and the porch were replaced with cedar shingles attached to plywood decking (Figure 24).



Figure 24. Remnant of 1970 cedar shingle roof, underlain by tarpaper and attached to plywood decking (2015).

Ca. 1985:

The floor boards in the attic were removed and used for making shelves for the library in the main house.

Ca. 1990:

The chimney may have been replaced for the second time.

2015:

The former quarter was preserved and restored with funding from a Hurricane Sandy NPS grant.

¹ Hurricane Sandy Program Grant No. 2014-1450 VA-11.

² Maral S. Kalbian, Dennis J. Pogue, Kenneth R. Livingston, *Clermont Farm Historic Structure Report* (Clermont Foundation: 2013), pp. 4.46-47, 5.74-76

³ The physical investigations of historic fabric were carried out by Ken Livingston and Dennis Pogue, in collaboration with Maral Kalbian, David Gibney and John Bales (HistoriCorps), Kerry Shackelford (Museum Resources, Inc.), and Bob Stieg (Clermont Foundation). Photogrammetry was performed by Peter Aaslestad (Aaslestad Preservation Consulting, LLC). Archaeological investigations were directed by Carole Nash and Clarence Geier (James Madison University).

⁴ Dan Miles, *The Tree-Ring Dating of Clermont Farm, Berryville, Clarke County, Virginia* (Oxford Dendrochronology Laboratory: 2010, with revisions 2012).

⁵ *Clermont HSR* (2013), p. 2.18.

⁶ Bob Stieg, "Chronology of Items Affecting Development of the Clermont Slave Quarter," personal communication, August 19, 2017.

⁷ *Clermont HSR* (2013), pp. 5.1-85.

⁸ Cypress has also been demonstrated to have greater longevity than cedar, while being generally visually compatible.

⁹ Stabilizing the old rafters and installing new members on the west and new end rafters all at the same time would have been a logistical challenge, and raises the obvious question why the west rafters failed to the degree they needed to be replaced while almost all of the east rafters remained sound. If the entire roof frame shifted to the south, then stabilizing the ensemble and installing new end rafter pairs would seem a more reasonable approach. The vertical siding boards on the north gable, which are attached with a combination of cut and wire nails, must have been installed after the roof frame shifted, as they remain nailed to the dimensional rafter. The dimensions of the end rafters do not match with the others on the west side, raising the possibility that they were installed at different times. The presence of one generation of old wire nails, which are identical to those on the east side, seems to preclude that possibility, however, unless the evidence for another roof on the east has been mis-identified.

¹⁰ A 27"-long sidelapped shingle was found in the attic at Rose Hill, a log house in Frederick County, Virginia, which is dendro-dated to ca. 1797.

¹¹ Sidelapped shingles were longer (generally @27") and tapered in both directions, from side to side and from the bottom (butt) to the top (tail). The shingles were laid to overlap on the sides in the same row and at the ends between rows. The edge of the tapered thinner side was overlain by the thicker side of its neighbor, which was cut at a slight bevel to slope toward the face of the adjoining shingle. The shingles were also laid in vertical rows, with the squared butt of the upper shingle overlying the tail of the one below. The exposed lower end of the shingles was roughly 12", but may have been longer in certain circumstances. The sheathing boards (nailers) were installed with a gap of 8"-10" between the rows, with the shingles spanning three of the nailers and attached to each. Each of the nails driven into the boards pierced the overlapping shingles at the sides. Therefore, for every sidelapped shingle, as many as six shared nails would be required as fasteners. The nails would be spaced according to the width of the shingle; if a 5"-wide shingle, then the nails would be placed at an interval of roughly 4". A 5" shingle would have roughly 4" of its surface exposed to the weather. "Standard" shingles were shorter (usually between 16" and 20", but @18" was typical) and tapered in only one direction, from the butt to the tail. Standard shingles may have been left with a squared butt, or were cut on a rounded arc. The shingles were laid in horizontal rows and were staggered so that the vertical joints would not line up with those in the rows above and below. As with the sidelapped shingles, standard practice called for the shingles to be laid to overlap in what is referred to as a triple-course. But in this instance, each shingle was overlapped by the others so that only roughly one-third, but usually no more than 6", of the bottom portion of the shingle was left exposed. No nails were driven through the exposed lower portion of the shingle, as the overlying unit was attached roughly 6-7" back from the butt; those nails would be covered by the lower end of the shingle in the row above. The nails were spaced so that two nails per shingle may have penetrated the sheathing board, but in some instances each shingle was originally held in place by a single nail, and variations in length could mean that each shingle was only attached by a total of two nails, one in each of the upper two sheathing boards (as was the case at the Clermont main house). The narrow skip sheathing (@3" wide) was installed to reflect this pattern, to receive nails at roughly a 6-7" interval, with a gap

of @3” between the boards. The obvious advantage of sidelapped shingles is their greater length and exposure, which significantly reduced the number of units (usually by at least 50%) and the number of nails to attach them. On the other hand, special care was required to align the rows and to ensure a tight junction between the shingles along the highly exposed vertical seam. For each shingle at least one nail was exposed to the weather, which offered potential for water penetration. The shorter standard shingles apparently were considered more visually appealing and were more fashionable than the sidelapped versions. Standard shingles were better at resisting weather-related deterioration, which likely was the main functional reason why they gained in popularity over time, and sidelapped shingles were relegated for use on secondary structures. The shorter units were also likely easier to split, and tapering in only one direction would have reduced labor time. But in Virginia, at least, the butts of standard shingles were regularly rounded, which would have required an additional step in their preparation. That the expense of rounding the butts likely was deemed worth it was because the shape was believed to help retard curling and splitting. Finally, the method of attaching the triple overlapping courses meant that less of the shingle was exposed and no nail heads were visible. “Shingle,” in Carl R. Lounsbury, *An Illustrated Glossary of early Southern Architecture and Landscape* (Oxford: New York, 1996), p. 329.

¹² Susan L. Buck, *Cross-Section Microscopy Report, Clermont Farm, Berryville, Virginia* (2013), p. 108-109.

¹³ This interpretation of the temporal sequence of the doorways differs from the findings in *Clermont HSR* (2013), p. 5.74, which argued that the north doorway was more likely to have been added in 1861.

¹⁴ The mortar and chinking samples were analyzed by Lancaster Lime Works of Lancaster, Pennsylvania, with the results outlined in a letter prepared by Jonathan E. Owens, dated June 11, 2015.

¹⁵ For advice on the desirability of wood stoves for use in slave quarters, see James O. Breeden, *Advice among Masters: The Ideal in Slave Management in the Old South* (Greenwood Press: 1980).

¹⁶ *Clermont HSR* (2013), p. 2.18.

¹⁷ *Clermont HSR* (2013), p. 2.20.

¹⁸ Stieg, “Chronology of Items” (2017).

¹⁹ *Ibid.*