

Slave Housing Data Base

Building Name: Arcola Slave Quarters [West Duplex (I) and East Duplex (II)]

Evidence Type: Extant

City or Vicinity: near Chantilly and Sterling

County: Loudoun

State: Virginia

Investigators: Douglas W. Sanford, Gary S. Stanton, Carter L. Hudgins; Dennis J. Pogue

Institutions: Center for Historic Preservation, UMW; Mount Vernon Ladies' Association and University of Maryland

Project Start: 8/5/08; 10/13/08; 3/5/09; 2/2/18

Project End: 2/2/18

Additional Investigators: Daniel Miles

Institutions: Oxford Dendrochronological Laboratory

Summary Description:

This one-story, side-gable-roofed stone building consists of two adjoining sets of two rooms each, which were erected and joined together in two separate building episodes (1813 and 1845). The layout of the footprint consists of four first-floor rooms, all of which once were separate finished compartments, each accessed via single doorways set in the south-facing façade. The four rooms are arranged like two duplexes, with a single chimney serving fireplaces in each pair of rooms. Windows in each room are set in the opposing north wall, with another window positioned in the end wall in the westernmost room. A full cellar is located below the west room, with an infilled fireplace in the east interior wall, an exterior doorway in the northwest corner of the end wall, and a large infilled opening on the north wall. The ground surface slopes steeply to the west, allowing sufficient elevation to insert the cellar room with the doorway at grade. The floors in three of the four rooms may have been packed earth, as evidence for a wooden floor is confined to the westernmost room (over the cellar), and a vestige of a packed earth floor survives in the easternmost room. The overall dimensions of the structure are 60' E-W by 16'9" N-S, with the west duplex approximately three feet longer than the (later) one on the east.

A garret that may have served as living space is contained within the roof above all four of the first floor rooms, although no fireplace openings exist on this floor level. Remnants of a partition (studs, nails, and fragments of partition boards) found on either side of the chimney stack in both duplexes indicate that the garret was divided into a total of four spaces at one time (but many of the existing boards exhibit circular saw marks), although it appears that access to the garret from the floor below may have been limited to one of the rooms in each duplex. There is evidence (opposing notches in ceiling joists) for trimmer boards that may mark the opening for a ladder stair in one room (#4) in the east duplex, and a notch in one of the joists near the fireplace in one of the western rooms (#1) also likely indicates the location of a stairway. No roof collars ever existed in either space, but the roof rafters were left exposed and they exhibit no evidence of having been

whitewashed. Several floor boards are nailed to the tops of the ceiling joists in both duplexes.

The structure was built in two phases. The western portion (16' 9" N-S by 28' 6" E-W) was built first, following the design of a duplex quarter, with the two non-communicating first floor rooms served by a central chimney. A fireplace (now blocked) was in the interior wall of the cellar room as well. Abundant structural evidence indicates that the eastern portion (31' 3" E-W by 16' 9" N-S) was added: the stone walls for the east duplex abut the end wall of the west duplex, and what had been the east gable of the Phase I structure survives within the roof of the addition, complete with a window frame and remnants of pintles for an exterior shutter. Structural differences between the two phases are relatively subtle, consisting of different types of stone and the method of its coursing, the use of hand-headed nails in Phase I and machine-headed nails in Phase II, and tapered and squared rafters in Phase I and flattened, debarked poles in Phase II.

The results of the dendrochronological testing confirm that the structure was constructed in two phases, with a date of 1813 determined for Phase I (west duplex) and 1845 for Phase II. While the 1813 date is not particularly surprising, given the evidence of hand-headed nails in the siding and the window trim, and a relatively thin bead (<3/8") incorporated into the window casing, the lapse of more than 30 years between phases seems notable. Although the requirements of building on to an existing structure would likely impose restrictions on the character of the addition, and the fact that it is a stone structure would further limit possible variations, the differences between the two phases seem remarkably minor.

A number of modern changes have been made to the structure. The door openings in the east duplex have been substantially enlarged, to allow the insertion of sliding double doors (remnants of the track survive) to accommodate vehicles. Several ceiling joists in both rooms in the east duplex also have been cut and portions removed. The fireplace in room 2 in the west duplex has been filled with concrete blocks. In the cellar room, the fireplace and the opening in the north wall have been blocked with brick and stone, respectively, the south wall has been shored with poured concrete, the floor is concrete, and a cinder block-based chimney for a wood stove was added in front of this fireplace and in front of the blocked fireplace in the room above. An infilled circular opening in the wall above the fireplace indicates the existence of a stove pipe before the concrete block stack was installed. This installation was likely related to the removal of the upper portion of the chimney stack in the west duplex.

A combination of evidence suggests that the cellar room had served a non-domestic function, likely for food preparation. This includes specialized treatment of the flooring, the slightly wider fireplace (3'5" in comparison with the 3'1" width elsewhere in the building), the exterior doorway, and the large opening of unknown function. In addition, the western rooms in the Period I duplex are substantially larger than the other first-floor room.

The wooden floor in the first floor room of the western duplex has been replaced, along with most of the joists that support it. One original joist survives running adjacent to the west end wall, and two partial joists also survive embedded into the stonework of the opposite wall. A series of shallow (@1") notches, 4" long, are cut into the top surface of the surviving joists, spaced at roughly 9" intervals. Other slave buildings that served a combined function as a kitchen on the first floor and quarters above exhibit similar evidence, with boards (battens) inserted in the notches, positioned so that they covered the gaps between the overlying floorboards. This is likely to have been intended as a means to inhibit smoke and fumes from penetrating between the floorboards into the living space above (see Clifton kitchen-quarter, dendro-dated 1820, in Fauquier County).

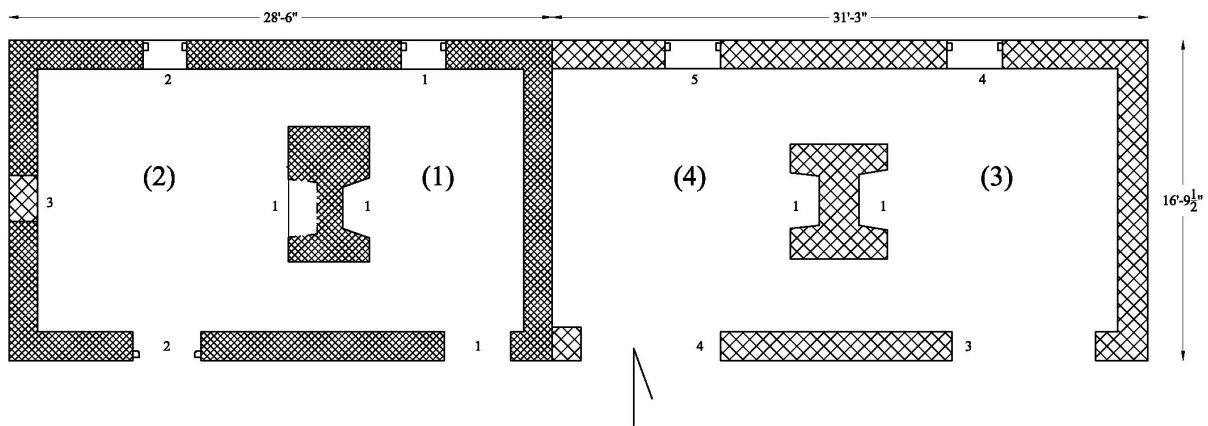
Bibliography:

Arcola Slave Quarters National Register Nomination, VDHR File No. 053-0984

Miles and Worthington, *The Tree Ring Dating of Eight Virginia Slave Houses* (2008)

Principal Construction Type: Masonry (stone)
One Story – With Garret

Footprint:



Number of Rooms: 9 total, 4 down (Rooms 1 and 2 in the West Duplex; Rooms 3 and 4 in the East Duplex); 1 cellar room (Room 5 in the West Duplex); and, 4 up (Garret rooms 6 and 7 in the West Duplex; Garret rooms 8 and 9 in East Duplex).

- Dimensions:** (1) 13 ft. 9 in. (N-S) x 10 ft. (E-W); 7 ft. 2 in. to 7 ft. 4.5 in. (H)
 (2) 13 ft. 9 in. (N-S) x 13 ft. 2 in. (E-W); 7 ft. 9 in. (H)
 (3) 13 ft. 9.5 in. (N-S) x 14 ft. 7 in. (E-W); 7 ft. 5.5 in. (H – from floor to bottom of joists)
 (4) 13 ft. 9.5 in. (N-S) x 15 ft. (E-W, to the partition); 7 ft. 8 in. (H)
 (5) 13 ft. 0 in. (E-W) x 12 ft. 6 in. (N-S); 6 ft. 9.5 in. (H; to bottom of joists).

Information for the West Duplex (Period 1)

EXTERIOR

Foundation:

Continuous Masonry: Stone (mixture, see Wall description)

Thickness: 1 ft. 6 in.

Bond: Irregular coursing

Mortar Type: Clay Only

Joint: Flush

Shed/Porch: No

Roof: Roof pitch: 11⁷/₁₂ (Rise/Run)

Form: Gable

Roof Covering: Square-butted wood shingles (installed ca. 2010); previously asphalt sheathing (above sheet metal), remnants of square-butted wood shingles in attic space.

Roof Framing:

Exposed: Yes

Form: Common rafters, mortise and tenon joints at the peak, joined with wood pegs

Rafter Number: 14 pairs, associated with 12 joists and 2 end girts.

Rafter Dimensions: 3 in. square (hewn)

Collar Ties: No

Joists: Hewn measuring 4 in. by 7 in.

The ceiling joists in Rm. 2 are on 22 in. to 27 in. centers and measure 4 in. by 7 in.; the joists in Rm.1 are on 27 in. to 30 in. centers and measure 3.5- 4 in. by 6.5- 7 in.

The current partition in Rm. 1 at the south side of the chimney is made of circular sawn boards fastened with wire nails; an H-hinge is attached to one of the boards.

Height of bottom of ceiling boards from floor: 7 ft. 5 in.

Building Height: SW corner: 12 ft. 5.5 in. from bottom of end girt to ground. NW corner: 14 ft. 6.25 in. from bottom of girt to ground.

Ground to Soffit: SW corner, 12 ft. 5.5 in.; NW corner, 14 ft. 6.25 in.

Ground to Apex: 22 ft. 3 in. (west gable, center)

Walls:

Masonry: Stone

Bond: Irregular coursing, but with more linear coursing than eastern duplex (mixture of Aquia sandstone, quartz, granitic stone, with slate or shale in joints at times).

Mortar Type: Clay Only

Joint: Flush

Repaired: Yes, with later cement mortar.

Chimney(s): Stack in garret measures 3 ft. 9 in. (E-W) x 6 ft. (N-S).

Chimney (1): 7 ft. 1.5 in. (N-S) x 4 ft. 3 in. (E-W)

Material: Stone (only base survives)

Location: Interior/Center

Height: NA

INTERIOR

Wall Framing: Stone

Wall Finish: Plaster & Whitewash

Fireplace (1): At west end of room, off-set in partition

Fireplace Material: Stone (note large lintel stone, 3 ft. 8.5 in across).

Fireplace Overall Dimensions: 7 ft. 1 in.

Fireplace Opening Dimensions: 3 ft. 1 in. (W) x 3 ft. 0 in. (H) x 1 ft. 4 in. (D)

Hearth: Removed, no surviving evidence

Fireplace (2): At east end of room, off-set in partition

Fireplace Material: Stone (filled in with brick)

Fireplace Overall Dimensions: 7 ft. 1 in.

Fireplace Opening Dimensions: 3 ft. 0 in. (W) x ? (H)

Hearth Material: Removed, no surviving evidence.

Fireplace (5): End (along east wall of cellar room)

Fireplace Material: Stone (filled in with brick)

Fireplace Overall Dimensions: 7 ft. 1 in.

Fireplace Opening Dimensions: 3 ft. 6 in. (W) x 2 ft. 7 in. (H) x unknown (D)

Hearth Material: Unknown (floor replaced with concrete)

Stairs: Yes – but no surviving evidence of staircase/ladder

Type: Ladder (presumed, north side of chimney)

Subfloor Pit: No

Floor: Wood

Floorboards Dimension: Replaced

Dating:

Dendrochronology Date: 1813

Dating Evidence:

Saw Marks: Hewn and Pit Sawn in original elements; circular Sawn in later additions.

Nails: Hand-headed

Doors: 3

	Rm. 1 (1)	Rm. 2 (2)	Rm. 5 (Cellar) (5)
Type:	Unknown (door does not survive)	Unknown (door does not survive)	Unknown (door does not survive)
Dimensions:	3 ft. 5 in. (W) x 6 ft. 0.5 in. (H) - estimated	3 ft. 6 in. (W) x 6 ft. 7 in. (H) – opening (stone to stone)	3 ft. 7. in. (W) x 6 ft. 3 in. (H) – opening (stone to stone)
Hardware:	None	None	None
Swing:	Unknown	Unknown	Unknown
Replacement:	Current opening is boarded over/enclosed.	Current opening is boarded over/enclosed.	Current opening is boarded over/enclosed.

Windows: 4

	Rm. 1 (1)	Rm. 2 (2)	Rm. 2 (3)
Type:	Unknown	Unknown	Unknown (blocked in with brick)
Dimensions:	2 ft. 4 in. (W) x 4 ft. 5 in. (H)	2 ft. 3.5 in. (W) x 4 ft. 5 in. (H)	2 ft. 5 in. (W) x 4 ft. 4.5 in. (H)
Hardware:	None	None	None
Shuttered/ Slide/ Swing:	Unknown	Unknown	Unknown

Rm. 5 (7)

Type:	Unknown; removed and filled with stone	
Dimensions:	5 ft. 2 in. (W) x 2 ft. 7 in. (H) Opening 3ft. 10.5 in. from floor	
Hardware:	None	
Shuttered/Slide/Swing:	Unknown	

Information for the East Duplex (Period II)

EXTERIOR

Foundation:

Continuous Masonry: Stone (see description above)

Thickness: 1 ft. 6 in.

Bond: Irregular courses

Mortar Type: Clay Only

Joint: Flush

Repaired: Yes – with Portland cement-type mortar.

Shed/Porch: No

Roof: Roof pitch: 11”/12” (Rise/Run)

Roof Form: Gable

Roof Covering: Square-butted wood shingles (ca. 2010)

Roof Framing:

Exposed: Yes (end rafter hewn on all 4 sides; other interior rafters left in round, flattened on top as needed. Rafters rest on 1 in. x 6 in. false plate.)

Form: Common Rafters (poles, squared up at feet and at peak; lapped at peak & pegged).

Rafter Number: 9 pairs (matching number of joists)

Rafter Dimensions: 4 in. x 3.5 in. (hewn end rafter); 4 in. Diameter (pole rafters). The rafters consist of debarked pine logs; both the joists and rafters are spaced 24” apart, center-to-center.

Collar Ties: No

Height from floor to peak: 7 ft. 5.5 in.

Joists:

The ceiling joists are hewn on all four sides, measuring 6.5 in. by 4 in.

The siding on the east gable has been completely replaced, as have three of the studs (circular sawn, wire nails), but three original studs survive (hewn with cut nails).

Building Height: NE corner: 11 ft. 4 in. from bottom of girt to ground. SE corner: 7 ft. 5.5 in. from bottom of end girt to ground.

Ground to Soffit: NE corner, 11 ft. 4 in.; SE corner, 7 ft. 5.5 in.

Ground to Apex: 17 ft. 3/8 in.

Walls:

Masonry: Stone

Bond: Irregular courses and more random stonework that mixes smaller and regular amounts of larger stones. Stones mixture of Aquia sandstone, a few quartz and/or quartzite, regular amounts of dark granitic stone, with thinner slate/shale (reddish color) stone used as filler between courses.

Mortar Type: Clay Only

Joint: Flush

Repaired: Yes (on south side for modern bay doors)

Chimney(s):

Chimney (1): Stack at garret level measures 4 ft. 2 in. (E-W) x 3 ft. 7 in. (N-S). At 5 ft. 9 in. above top of chimney base, stack narrows, with 8 in. setback, for transition to brick stack that exits the roof.

Material: Stone base & Brick stack and cap

Dimensions: 5 ft. (E-W) x 6 ft. (N-S)

Location: Interior/Center

Height: NA

INTERIOR

Wall Framing: Exposed (stone)

Wall Finish: Plaster and Whitewash (also seen on joists)

Fireplace (3): East Room, at west end, centered on partition

Fireplace Material: Stone

Fireplace Overall Dimensions: 6 ft. 2 in.

Fireplace Opening Dimensions: 3 ft. 2 in. (W) x approx. 2 ft. 8 in. (H) x 1 ft. 6 in. (D)

Hearth Material: No evidence, hearth removed and area highly disturbed by groundhogs.

Fireplace (4): West room, at east end, centered on partition.

Fireplace Material: Stone

Fireplace Overall Dimensions: 6 ft. 2 in.

Fireplace Opening Dimensions: 3 ft. 2 in. (W) x 2 ft. 9 in. (H) x 1 ft. 6 in. (D)

Hearth Material: No surviving evidence.

Stairs: Yes

Type: Ladder & likely hatch, on north side of chimney

Stairwell Dimensions: No surviving evidence

Subfloor Pit: No

Floor: Earth (possibly puddle mud/plaster) in Rm. 3, near Window #4. Dirt floor in Room 4.

Floorboards Dimension: N/A

Dating:

Dendrochronology Date: 1844/45

Dating Evidence:

Saw Marks: Hewn and Pit Sawn in the original elements; circular Sawn in later additions.

Nails: Machine Cut (with rectangular heads) in original construction; some wire nails in later alterations.

Doors: 2

	(3) Rm. 3	(4) Rm. 4
Type:	Unknown (original opening largely removed for modern bay doors)	Unknown (original opening largely removed for modern bay doors)
Dimensions:	Unknown (current opening is 7 ft. 7 in. wide (E-W))	Unknown (current opening is 7 ft. 5 in. wide (E-W))
Hardware:	None survives	None survives
Swing:	Unknown	Unknown

Replacement:	Only western edge of door opening survives	Only eastern edge survives
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Windows: 3

	(4) Rm. 3	(5) Rm. 4	(6) E. gable
Type:	Unknown	Unknown	No evidence of sash
Dimensions:	2 ft. 11 in. (W) x 4 ft. 3.5 in. (H)	2 ft. 11 in. (W) x 4 ft. 7 in. (H)	1 ft. 11.75 in. (W) x 2 ft. 2.5 in. (H)
Hardware:	None	None	0.5 in. pintles, spaced 14 in. apart
Shuttered/Slide/Swing:	Unknown; framing measures 2 ft. 4.5 in. (W) x 3 ft. 11 in. (H)	Unknown	Shuttered Swing out