SUMMER 2005 HOLLOW STABILIZATION REPORT #3, 18 August 2005
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The Hollow, South Front and West Side showing just two bracing and jacking posts, July 7, 2005

David Collins may take pleasure in learning that APVA carpenter Mike Adams, stonemason Edward Ashby and I are collectively enjoying our education at The Hollow studying the framing system and discovering evidence that Thomas Marshall's house was built by skilled craftsmen, and yet, not-so-skilled joiners. There are masterful joints and then there are mystifyingly humble and even never-fastened, uncommon joints. Perhaps we should not be surprised at the latter, considering his growing but active station in 1763, his ownership of just two male slaves, Jacob, age unknown, and Juba, only sixteen years old, and the relative frontier where a scarcity of bound or free trained carpenters would have been challenging to employ on this tenant house.

As work progressed since the first week of July involving removal of areas of skin to assess the state of the structural system, measuring the kilter of the building and evaluating the stone foundation, we three are in full agreement that if we had postponed this stabilization many months longer, The Hollow dwelling would have collapsed to the northeast where it has been long headed. While we have steadfastly tried to hold the scope of this stabilization to the back wall, we realized that there is just no realistic, logical or safe means of achieving the mandatory sound box shape to stop further movement, considering the failing foundation, discovered deterioration of the water-damaged framing members, the unstable joinery and the vast hole in the front foundation. We hoped work would be finished by the end of July, but now we predict continuation through August and into September. Here is a summary of the work description since the July 5th:

1. Measurements of the lean of the building were meticulously and repeatedly taken by Edward for authenticity, and the front SW corner was selected as the benchmark, being the most level. The worst NE rear corner was 5-3/4 inches below the benchmark, quite a raise to level that one. The NW rear corner was 3-3/4 inches below the benchmark, and the SE front corner was 4-3/4 inches under.

2. Mike removed the weatherboards covering the plates and erected more bracing and lifting posts with jacks underneath on the east gable end and south front and started slight raising in early July with Edward's help.

3. More careful dismantling and numbering of parts of the house occurred both to release contrary hold of joints that would not give up their long years of contented skew and to reveal the condition of underlying framing members for the necessary lifting and re-creation of the building's original box shape. The condition of framing members was analyzed on a daily basis which must continue throughout the stabilization.

A. All floor boards (not original) in the hall and chamber/parlor were removed, and the joists were marked and temporarily removed to allow for the eventual squaring up.

B. Removal of the bottom twentieth-century weatherboards to expose the sills on the sides and front elevations has been necessary to determine their structural condition or integrity and course of action. Their condition, as well as most of the joining uprights (studs, corner posts) and down braces must be solid to lift the house for leveling and the new back sill insertion.

REPAIRING STEP BY STEP

New rear foundation to grade. The cinder-block jacking piers are temporary, 7 July 2005.

4. North back foundation – The dismantling of the caved-in back foundation revealed the reason the archaeologists could not find the builder's trench in this only spot they looked except for along the chimneys. Judging by the mortar content, the circa 1895 reconstruction of this foundation surely eradicated any evidence. The first week of July, Edward and his crew had finished rebuilding the north foundation up to grade. They used clay on the outside against the soil and historic common mortar including lime putty inside and at the higher level. The exceptional masons stopped the height slightly above grade until the new oak sill is in place. He will then raise the wall up to it to add masonry support. Edward used Portland cement for the underlying footer for this foundation which is acceptable considering it is underground and desired for added support.

5. East side foundation – Already a hole probably made by an animal, Edward pulled a few more stones out to dig a trench for a cement footer for a temporary block pier for the jacking of the east sill. This enlarged hole will have to be fully repaired during this stabilization campaign along with about two feet at the NE corner joining the new back foundation.

6. East interior foundation – Edward has partly mortared the north end, but the niche has to be supported, and he plans to raise the wall up about a course to serve its load-bearing intent.

7. South front foundation – As a sensible means of properly stabilizing this long neglected eighteenth-century Marshall house, I recommend that we completely repair the front foundation which had collapsed under the south sill from the former window across the elevation. Since the SE corner has to be repaired, this is a stretch of seventeen feet plus another four feet at the SW corner of no support for the twenty-eight-foot long front sill. In the not too distant future, the house will start slipping forward if this is not repaired. Edward's estimate for fully restoring this front and any additional shoring up of the side elevations is $12,000 above the approved $40,000 for the masonry work during this stabilization. He offered that so far his expended labor and material costs are running well within the accepted budget.

On July 17th, Edward requested approval to tear out this front foundation below the hole up to the inward bow several feet west of the center door where the wall remains structurally sound. His second motive was to pour a cement footer for the necessary inside jack to support the front sill for lifting and during patching. Considering the foundation stood only below grade serving no supportive use and recalling Dr. Collins's advisement that his family is committed to doing what makes sense to preserve the structure, I authorized the crew's dismantling. The jacking footer was poured, and these skilled historic stonemasons started rebuilding the wall up to grade where it has now on hold. It will remain as it was when we started, a gap above ground, although below grade and two feet beneath the frost line, the wall is now structurally sound and can support temporary cinder-block piers if necessary. Should the additional $12,000 above the present $95,000 top budget figure become necessary and be approved by the owners, the wall will be fully restored to support the sill.

The seventeen-foot stretch of non-supportive foundation on the south front, June 18, 2005.

The masons are dismantling the stone foundation below grade. Note the gap at the SW corner, 20 July 2005.

The photograph at right shows the front foundation restoration approaching grade and its stopping point until the determination of funding to bring it up to the sill, July 22, 2005.

8. The floor removal revealed that the short sill up to the chimney in the NW corner was split in two, fully rotted and entirely irreparable, so Buzzy Foster delivered a circa 1806 hewn oak 8 x 8 x ca. 6 feet long to be cut down to about 5 feet last Sunday. It has not been installed yet, but when he does, Mike will stamp a 2005 date on it to mark it as a replacement member of our repair campaign.

9. The south front sill has bowed in at center and had two one-foot long and nearly full-height holes under the center door jambs from continuous water penetration as well as a twentieth-century, initially crudely wire-nailed replacement timber inserted at the SE front corner. Mike removed this barely fastened repair, sawed and hewed a new oak piece, cut scarf joints on both members, tree nailed and glued the main sill and this infill member together and finally anchored the SE end to the corner post. Using approved preservation epoxies, he layer by layer filled in the holes in the center and applied a steel L-plate for additional support. It will not be seen after the weatherboards are reapplied. Lacking a penny, a 2005 quarter, set into the top of the clear consolidate demonstrates the repair date to future investigators.

Mike is hammering the peg into the scarfed sill joint in the top picture. The right twelve-inch wide hole under the door jamb is shown below. The hole under the left jamb did not fully penetrate the front sill, but the punky wood shows. The hole is substantially seen from the top, July 18, 2005.

10. The first sawn 10 x 8 x 30 white oak sill for the north back arrived at The Hollow on July 5th, but it had a 4-1/2-inch bow (more than half its height) at center that we expected to worsen in time. Since we aim to correct the threatening skew in the house, adding a new member about equally bowed to the front sill's point would not have been wise in the long run, so the timber was returned. The second oak sill arrived two weeks ago, and it is quite a well cut timber by the same sawyer. Mike has adzed the inside seen from the cellar, cut the wide mortises for the major upright members into this sill, and the floor joist mortises are started.

At every week's end, we speculate that this major sill will be inserted by the end of the next week. Yet, Mike is working alone on heavy old oak timbers, consolidating deteriorated portions with epoxies which have to be layered and dried before the next coat, anchoring ends with brackets when absolutely necessary, hand hewing, planing, cutting mortises in receiving timbers and preparing the few replacement members for insertion. In addition to strength and good balance, it requires meticulous measurement and re-measurement especially when the new weighty timbers are still outside the building. He is a super timber framer.

11. The floor removal exposed the never-fastened, uncommon beveled joint at the SW end of the west 10 x 8 fireplace hearth girder. This end was setting in mid air several inches above the notched receiving south sill. Although it may have laid into the notch when first constructed, the north movement of the house has long stress-pulled the timber from its proper position, carrying the floor and hearth with it. Secondly, this girt was disconnected at the center hearth point from the inferior slimly-cut shoulder in the E-W summer beam, and there was substantial deterioration at center.

The heavy upright mortises are ready for receiving tenons into the new south oak sill, 11 August 2005.

Unfastened beveled end of the original west hearth girt setting high above the notched south sill, 7/20.

Ever mindful of our mission to preserve the historic integrity of this National Register house and plans for its future education, Mike and I discussed the least invasive repair. While a drilled peg hole or wrought nail would have been less visible to future scholars and investigators visiting the cellar, we ultimately agreed it would be falsifying history to now fasten as it should have been done in the first place, although it would have been cleaner and less obtrusive. Due to the center decay and repair involvement, Mike preferred the application of somewhat more invasive, but stronger, L-brackets on the sides to anchor the bevel into the notched sill and the hewn summer beam. Identifiable and datable to our repair phase, while retaining the historic hand-hewn white oak timber, this method in an infrequently-visited cellar still retains and preserves the integrity of original workmanship and materials. As he had done on the front sill, Mike layered consolidates into the center deteriorated core and anchored the member to the summer after setting it into a steel plate. None of which

will be seen on the primary floor. This 1763-64 heavy oak girder will be ready for the eventual reconstruction of the fireplace hearth whenever that should occur, and it is now ready to receive the new north sill.

A steel L-bracket now anchors the unfastened beveled end of the west hearth girt into the sill, August 2, 2005.

The slimly-cut shoulder joint on the summer beam and west girder at the deteriorated center hearth area, 28 July 2005.

Below, anchored summer beam into consolidated hearth of girt, 8/2.

12. <u>East 8 x 8 x 16 fireplace girder</u> – This circular-sawn replaced timber was punky from end to end, so a new white oak member was ordered, arriving with the back sill. A ten-inch-long, full-width knot at one end was concerning, but Mike was able to eliminate much of it through his tenon and shoulder cutting. This new timber is also broadly checked from end to end, and it is wise to infill those with Abatron, another time-consuming procedure. He spent much of Monday this week hewing the inside facing the cellar because gritty dirt had splashed on the girt while stored in the lumber yard, and it kept dulling his axe. Demonstrating experience and good workmanship, his hewn side is straighter than the sawn side. Determined to move the member into position for cutting the tenons the next day, he worked later Monday night, hauling and sliding the heavy timber across his sturdy, scarfed and pegged front sill piece. During Tuesday's late afternoon storm and faster than the camera shutter, he finished cutting the tenons and had the girt so level he seemed to easily slide the front tenon into the mortise he had cut in the scarfed sill corner. The period-one summer beam, which appears to have had a double tusk tenon at this east end originally, had only the bottom tusk roughly in situ. Mike had to slightly chisel this tusk, and it then fit into his new girder beautifully, now ready for the north sill insertion.

This new oak east hearth girder at left is cleanly joined into the front sill, and the tusk tenon joint, missing its upper half, is anchored to the summer beam. The checks that even carry through the tenon will have to be filled in with consolidate. Note the straightness of the adzed interior side, 18 August 2005.

13. Center hewn girder, north of summer beam – Water probably rotted off the original tenon connected to either the period-one sill or the removed sill, but a ground hog or some fairly large critter then gnawed away at the end. It looked too short to remedy without steel anchors, but Mike found a way to get a well-sized tenon cut into the member. The gnaw marks remain on the end of the tenon as can be seen in the picture at right, August 18, 2005.

14. North back studs and down braces - Decomposition evidence indicates that this back wall has taken in water for a very long time. The outward slant of the bottom wall is easily read on the decayed lower third to one-half of these uprights and down braces. Analysis of the stone foundation suggests that the lean and problems began before the late nineteenth century. Mike numbered and temporarily removed five of the thirteen studs on the back wall, leaving eight in place, representing those that need work on their ends, either false tenons or scarf-joined new bottoms, considering the amount of deterioration. At various times throughout the weeks, he has marked and cut new mortises on the longer studs and the two corner posts for the eventual false tenon that will be inserted into these members to connect into the mortises in the new sill. Several of these uprights were rather punky but still salvageable and received consolidate to fill in holes and further preserve them. A 4 x 8 x 6 white oak member was purchased to splice into one of the down braces which Mike nicely finished.

Where new lower ends or false tenons are required, we are using recycled oak brought to the site on a short trailer for $400. Mighty good old wood from a nineteenth-century building, the cut nails have to be removed before they are sawed down to size. Even if they are replacing too-decayed replacement timbers or original hewn wood, we determined to replicate the tool marks on all new replacement members, at least on the visible sides and date stamp the alteration in a not too obvious place. In the July 1st emailed report, Mike was shown fastening one new end to an old stud. This week he fully finished sawing, hewing, drilling and pegging together two of the stud ends as they hung from the plate – a challenging balance of coordination of materials and tools with no additional hands to hold the members together. See the August 18th photograph above right.

15. Documentation of framing – In addition to ongoing photographic documentation of the work on biweekly visits, I took measurements of the exposed framing all around the house for measured drawings. The rough field sketches will eventually be turned into finished drawings.

16. Leveling – Mike has been periodically slowly raising the house following his calculated repair progress inside and around the building as described above. As of Thursday, August 18th, it appears that the NE corner has just about half an inch to go, but that is before the insertion of the back sill. Edward, Mike and I are thrilled by that amount of leveling, for we initially speculated that we might have to be satisfied with getting the NE corner to rise half of the six inches. The leveling is monitored daily. Wednesday morning

Mike noticed the plate near the NW corner had dropped, and he had to tighten the jack to regain its proper height.

Photographed on the 2nd of August after many periods of measured jacking, notice the house is leveling quite nicely in comparison to the photograph on the first page.

CONSIDERATIONS

Only three full-length timber replacements have been required so far during this stabilization, and two of those were already replaced members!

The Protective Envelope – Weatherboard - following stabilization – The existing twentieth-century weatherboard is in deplorable shape, full of holes and cracks. What should we do?

Options

1. Reapply the removed weatherboards and after October 1st, wrap the house in continuous, uncut, multi-layers of Tyvek which should last a year, possibly slightly more on that windy hill, also factoring in sun, heat, frost, snow, rain. The sectioned sheets of nailed Tyvek applied in 2004 after the chimney removal and mothballing ripped off in less than a year.

2. Apply plywood which is more expensive and invasive in requiring screw fasteners on the studs, corner posts, plates and sills.

3. Original 1763-64 weatherboard is of poplar. Buzzy Foster is pursuing prices and whether it could be obtained. He suggested that a couple of guys could have it hand planed and ready to throw on the house in a week or so.

4. There is no likelihood of finding eighteenth-century poplar siding around. Buzzy has a pile of nineteenth-century weatherboards, but he said they are all too thin and the bead is wrong.

5. Buzzy could get vertically-grained western cedar, hand planed and beaded for about $2 a linear foot. Consideration should be given to any concern anyone has about the new look of new weatherboards. There would still be old weathered features on the exterior, including the back cornice, the corner boards and exposed front plate.

TERMITES - There are termites on the site as they have attacked the modern wood pile thrown about twenty feet out from the house on the north back near the chicken house. Fortunately, none have appeared in the house. Mike has already ordered the APVA's standard treatment chemicals which will be poured in a trench dug around the house either during or at the conclusion of this stabilization phase.

ARTIFACT FINDS stumbled across – Several axe heads have been found in the cellar or within the foundation, however, the most exciting was the discovery of a **side-axe head at the bottom of the front foundation** during removal of that part underneath the gap, meaning it had to have fallen there during period-one construction of the dwelling. Mike has it in possession temporarily to show a Jamestown archaeologist, but we expect a broad dating range. Yet, it is the provenance of the axe under an undisturbed foundation that weighs heavily on the 1763-64 date we hope to hear within the range.

The side-axe head laying in the dirt as uncovered at the bottom of the front foundation and in Mike's hand on July 18, 2005.

Major Artifact #2 found in the cellar near the front work area as soil was cleared back is the **WWI dog tag of "Theodore M. Triplett, Jr., USNR."** Follow-up research into his WWI Registration Card, dated June 5, 1917 revealed his identity as Theodore Montgomery Triplett, Jr., age 23, DOB 9 February 1894, residence in Markham, VA, occupation Merchant & Miller, single, Caucasian, medium build, stout, light blue eyes, light brown hair. The 1920 census, Markham township, lists Theodore M. Triplett, Jr. as a dry-goods merchant and the 24-year-old son of farmer Theodore M. Triplett and Mary A., with a sister Mary F. In the 1930 census, the 36-year-old TMT, Jr.'s occupation is general farmer, and he's listed with wife Virginia C., children: Mary C., George C., Theodore M., Jr.

WWI Theodore M. Triplett Jr. is buried in Leeds Episcopal Church Cemetery, DOD 25 January 1949. His wife Virginia C. died in 1935, son George C. died in 1985, the certain whereabouts of son Theodore M. Triplett, Jr. (yes again) and daughter Mary Catherine remain unknown at this time. Bill Stribling knew the family and reported that "Theodore M. Triplett came to Markham as a merchant (time unknown) and lived in the large house adjacent to the east side of The Hollow and Rose Bank property. Theodore, Jr., Mary Foote and William Wirt were the children. Theodore Jr. (called Thee, pronounced like thing) took over the store, Wirt ran the mill, Mary Foote never married and lived in the home. Thee's children were Mary Catherine, who married a Wine(s) and lives(ed) in Front Royal. George and Ted were twins. George never married, Ted married Mary Keyser, no children. Ted and George were my age and Mary Catherine was older."

Major Artifact #3, I discovered lying on top of the front sill after removal of the bottom weatherboards for sill exposure. Remaining in good condition: a **glass Iodine bottle from Leadbeater's in Alexandria, label unbelievably largely intact**. The label provides the Iodine was a product of Leadbeater Drug Corp. Established in 1792 by Quaker Edward Stabler, John Marshall very likely visited his apothecary during a trip to Alexandria. Becoming John Leadbeater's in 1852 and E. S. Leadbeater's thereafter, the Leadbeater Drug Corporation was created in 1916, closing in 1933. Therefore, this bottle **dates to 1916-1933**. The Depression closed Leadbeater's in 1933, and the Stabler-Leadbeater Apothecary Museum opened in the building in 1939. Other interesting artifacts discovered as cellar earth was moved for foundation work include more porcelain and glass marbles, watch parts, a porcelain doll head, a silver plate fork, a silverware handle and hundreds of dish and glass shards. The very thin delicate window glass probably dates to the 18th century.