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HOPWELL VILLAGE
NATIONAL HISTORIC SITE

Revision of Documentation
for the
Historical Base Maps
1830-1840

Earl J. Heydinger
Park Historian
December, 1965

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FOREWORD

While research was done on updating data for the Master Plan Base Map after July 22, 1964 request from the Regional Director, to date ECDC has made no request for this information.

To fulfill this Site's responsibility, the compilation of events since Historian Apple wrote his Documentation for the Historical Base Map in 1956 is enclosed.

Each structure or feature has a reference to Apple by Documentation page and building number. However, the account is presented in alphabetical order, not that of Apple, by actual location. Footnotes follow each structure. An asterisk at the beginning of an account and in the index denotes that mapping or a mapping change is necessary. Building or Feature Numbers need to be applied to post-Apple non historic erections or historic discoveries. (i.e. Stone Bridge)

An index for this revision and a Hopewell created index for Apple are enclosed as a part of this compilation.

Earl J. Heydinger
Historian, Park
December 6, 1965

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* ANTHRACITE FURNACE, Building 11, Apple, II - 96, was stabilized in 1963-64. When the Resource Studies Program was discussed, then-Superintendent Zerbey advised the writer to "wait for the Abel Archeological Report" before completing Part II of the Anthracite Furnace Historic Structures Report. Later correspondence told that a formal report was not coming. Hence the "archeological results" are the historian's interpretations and were so stated in Part II, HSR. Size-interior of the cast house ruins including the furnace- was found to be about 45.3 by 92 feet. The furnace, as built, was about 41 feet high. The pig bed was at the very rear (south) end of the ruins. This pig bed was not "archeologically" investigated.¹

Uncovering of the cast house floor required that the ground level immediately outside to the south to be lowered. There had been "historical pain" when Superintendent Prentice lowered the road level here before 1962. Sherd Painter had recalled this area as "level as a baseball field." Discovery of a bosh-shaped salamander-cinder on the furnace floor where stones of the hearth crucible should have been, verified Martin family tradition that the furnace had "exploded."

Tuyere passages found between the three tuyere arches were also unknown. These appear to be similar to those shown by iron-authority Pearse as existing at a no-too-distant Marietta (Pa.) furnace. Possibly, Clement Brooke, a one-third Hopewell owner as well as manager, copied this Marietta design when he built a successful anthracite furnace at

Robesonia (this county) in 1850, and possibly recycled that design
HERE in 1853-54. Hopewell's Anthracite Furnace operated in 1854-55
according to Hopewell Records and the Reading Berks and Schuylkill
Journal. For an unknown reason the partnership decided by 1855,
shown by the purchase of a waterright, to move the operation to
Monocacy. Rebuilt and possibly operating by 1857, Clement Brooke
and M. Brooke Buckley (and/or Dr. Clingan and E.S. Buckley) finally
sold the Theresa (Monocacy) Furnace in 1864. The new owner was soon
sheriffed.² Eventually, the P&R Coal and Iron "octopus" owned the
property.

In stabilization the entire rear wall (north) had to be rebuilt.³
This work also hid the "sore-thumb" red-cement-capping stabilization
placed by Superintendent Prentice in 1960.⁴

In 1964 and 1965, the east house of this recently uncovered area
was the location of Hopewell's three weekly campfires.

Auxiliary furnace building west of this furnace are archeologically
untouched.

The stabilized furnace ruins need to be mapped.

Footnotes:

1. Statement, Mike McCarthy to writer.
2. Historic Structures Report, Anthracite Furnace Report, 1964.

3. Hopewell Photo, P 1964-247

4. Hopewell Photo, P 1960-144

* ANTHRACITE FURNACE SLAG PILE, no number and not in Apple, directly south of the Anthracite Furnace and immediately southwest of the flume-race junction, is the remains of anthracite operation here in 1853-54. The smallness of the surviving pile illustrates the limited anthracite operation. This pile needs to be mapped.

* BARN, Building 2, Apple, II-43, was restored in 1961 and its story well told in a Barn Completion Report by EODC Architect N. Souder. Amish carpenters under Foreman Christ Beiler erected the woodwork; Mason Russel Bowen the stone work.

One barn dating-item from Apple, II - 76 has been clarified. Hopewell Document 8170000 lists masonry charges for sixteen slots, not actually mentioned under barn by Apple but under Cupola, II-132. Sixteen ventilating slots - requiring extra work to chisel into V-shape and therefore the mason charged extra, - can be seen and counted on a barn in Birdsboro. Built by Matthew Brooks in 1817 and having a date stone with "MB" and "1817" in its gable, this barn is today part of Woody's Garage on Furnace Street, near Office Street.

This dicoverly by Historian Ronsheim returns the construction date of Hopewell's barn to "unknown."

The ¹third stage barn as presented by Apple at II-51, a stone-shed addition, was not restored.

The MAP needs to show the smaller restored barn.

The George Brooke-Birdsboro Carriage Collection, displayed in Hopewell's barn since NPS purchase from Archeologist Motz in 1942, went to the Staten Island Historical Society in the summer of 1963.

In exchange, this Society through Colonel Paul Downing provided (and will provide) equal value appropriate transportation items for Hopewell. A Studebaker chaise, an "ore" wagon, several carts and a hay rig are already here.

While a much-liked display, these old carriages were definitely post-1876 and not appropriate to the pre-1840 Hopewell.

Footnotes:

1. This stone-shed-frame stage is shown on Hopewell Photo 125-04.

BARN, NATHAN CARE, Building 26, Apple, I-9, was stabilized by
Mason Bowen in the Spring of 1966.

BARN, TENANT, Building 23, Apple, II-151, was stabilized by
Mason Bowen in 1959, and received a new shingle roof in the
process.

Footnotes:

1. Hopswell Photo P 1959-181

BETHESDA CHURCH, Building 79, Apple, I-16, through an A-frame in its attic had its ceiling returned to proper level. A long-ago fire had been a partial cause for ceiling sag. Noted on a rafter in the attic was "1782, built by T. Lloyd." The ceiling in addition to being restored to proper level received considerable replastering and two coats of paint. Walls, also replastered partially, and benches were repainted with two coats. A new chimney built.¹

The exterior cemetery wall was extensively restored in fall of 1965 by Mason Bowen.

Footnotes:

1. Information from Maintenance Foreman Charles Seidel and Painter Daniel Miller, November 22, 1965.

BIG HOUSE, Building 1, Apple, II-69, received considerable interior work in 1958. To raise sunken ceilings (and floors above) over the living room required deplastering of the area, floor raising by bolts and A-frames in the attic. While unplastered, EODC recommended replacing the old (dirty) anthracite furnace with electric heat in the first floor ceiling. Hence, the ceilings of the entire first floor were replaced and heating wires installed under the new plaster. (Electricity went to the Barn and Office-Store also). The building has been kept at 55° every winter. Artifacts stored in the damp basement moulder's dining room from 1935 went into the new maintenance building in 1959 and the adjacent kitchen was "furnished" and opened to visitor viewing.

A house existed on the tract purchased by Mark Bird in 1768. This tract was resurveyed in 1963 to definitely determine whether the Big House was on this Hugh tract. Results proved the House to be on the tract; the west line passed between the Office-Store and the Furnace with its northern line just southwest of the new Maintenance Building. This did NOT prove that the older northwestern corner of the Big House was the house on the 1768 tract. The front porch was stabilized in 1963, the kitchen porch and yard wall to the south-west of the front porch in 1965. Research on the Big House has progressed to the Furnishings Plan stage.

Footnotes:

1. Hopewell Photo, P 1958-115.
2. Ibid., P 1963-122
3. Statement, Painter Daniel Miller, November 24, 1965 and Hopewell Photos, P 1965-60, -61.

* BIG HOUSE TOILETS, Building 15, Apple, II-21 (for the more recent toilet). After archeology to a depth of over 11 feet at the known (1876) toilet, Mr. Abel perceived a second location, a slight depression nearby in the Garden. Test proved it to be a second and earlier toilet. However, it dated back to c 1830. As a result, the archeologist proposed that a yet-earlier toilet or toilets may be eventually found. A possible location was at the end of a "walk" exposed by Dr. Cotter northwest of the Big House front porch, but not examined by Mr. Abel. Whether EVERY toilet at Hopewell was a pit toilet is unknown.

Mr. Abel also discovered the Big House cesspool under the north porch, as related by Harker Long. The earlier toilet and the cesspool need to be mapped and the building number transferred from the newer to the older structure.

Footnotes:

1. Leland J. Abel, Archeological Studies at the Ironmaster's House, 1964, p 65 and 75. Hereafter cited as Abel.

2. John L. Cotter, Archeological Tests, HYNHS Garden Area
of Ironmaster's House, 1958. Test 2K, p 7.

3. Abel, p 55, and H2215 Interview Harker Long, p 2.

BLACKSMITH SHOP, Building 6, Apple, II-124, had its exterior levels to the east and north lowered in 1965 by regrading for proper drainage after by Cast House reconstruction and the discovery of an unknown bridge to the northwest. A Historic Structures Report was compiled as a result of this grading and the work to be done.

* BRIDGE, FRENCH CREEK, No number and not in Apple. "Was always there,"
said Sally Boone, born c 1854. Both foundation and structure were
rebuilt by Superintendent Zerby in 1963. Abutments were repaired
by Mason Russel Bowen and surplus steel beams became the timber
floor support.

None of the modern work is visible to the visitor.

Footnotes:

1. H2215 Interview Mrs. Sally Boone and Son, David. p 3.
2. Hopewell Photos, P 1963-432, P 1963-115.

* BRIDGE, STONE, No number, unknown to Apple, was uncovered by Abel-
pit investigation of the lower working area. Complete excavation
showed the Bridge to a series with the vaulted and flat-stone
covered Tail Race, on and in the original location of French Creek.
As a result the Bridge has been restored in 1965 and in the necessary
grading to keep surface water out of the Cast House, the nearby
Scales Pit, Building 4, Apple, II-76, had to be removed to below
ground surface.

Footnotes:

1. Leland J. Abel, Archeological Excavations at Hopewell Furnace,
1964, p 78-85.

* BRIDGE HOUSE, Building 10, Apple, II-82, was reconstructed in 1957¹ by Contractor C. S. "Sherd" Painter (whose family roots at Hopewell go into the 1770's). Supporting walls F1 and F2² were reconstructed by Superintendent Zerbey just before the 1964 initiation of Cast House reconstruction. These walls not only gave further support to the Bridge House but also provided a closing for the area between the Cast House roof and the Bridge House floor line. A wall of this construction is shown on Historic Hopewell Photo 35-25 of 1928.

Footnotes:

1. Hopewell Photo, P 1957-236.
2. Ibid., P 1964-83

BULL RING, No number, Apple, II-78, was NOT located in the 1962-63 Abel archeology, despite four statements about the feature in Tradition.

Footnotes:

1. H2215 Interviews, Reginald Smith, Chas. E. Stevenson, Nathan Care and Mr. and Mrs. C.S. Care.

* CASTHOUSE, Building 33, Apple, II-108, (after 1962-63 archeology) was reconstructed by Amish carpenters under Christ Bailer in 1964-65. The south molding room of 35 by 60 feet was based entirely on archeological findings.¹ Six roof-support posts and "thousands" of tile fragments convinced Archeologist Abel, Architect Souder, Superintendent Zerbey and writer that the 1840 period cast house had a tile roof. No record of tile purchases was found in the period of supposed enlargement, 1827, and the historian² so presented these facts. This decision was made before the area north of Wall G was excavated. The historian was not invited to discuss the decision.

However, the earlier cast house, bridge house, wheelhouse (and the blacksmith shop) roofs were archeologically found to have been tile³ and the tiles from these roofs may have been transferred to the historic cast house, the structure reconstructed.

Tradition was silent, but there was NO tradition for the tile roof on the blacksmith shop restored in 1950, archeology there found ample evidence.

USE OF OAKEN SHAKES ON ROOF

The huge quantity of Appalachian oaken hand-split shakes, sent to Hopewell for the 1958 Visitor Center roof- which the contractor refused to apply without a release for leakage responsibility- were

finally used. Under each tile joint a thin-planed oaken splint (made from these shakes) made the Hopewell Cast House tile roof like that on the 1740's High (Kaittle) Farm, opposite the new Met. Edison Generating plant on Poplar Neck. Here a plastered tiled-roofed building had a splint ~~under-the~~ joint application and the plaster was quite good until recent disregard for it.

4

The blocked front door of the north moulding room was not re-opened and neither this nor the back door of the south moulding room were visible before archeology. This is minor, as the unopened door is proven by photos and the second is entirely within the realm of possibility.

* The designation, the cleaning ANNEX, by the architect for the previously-unknown archeologically-discovered front structure is fitting though without historical basis EXCEPT that the moulder⁵ paid to have castings cleaned and tradition lists several locations⁶ for structures having this cleaning function. Cleaning was necessary (1) to discover defective castings and (2) to avoid paying freight on sand adhering to plates- Hopewell delivered stoves to the dealer freight-paid. Hence, a cleaning area larger than this designated one was most likely necessary. The CLEANING-SHED (Wheelright-Shop) is a candidate. (Since tradition had⁷ moulders sleeping in that structure, it HAD to exist prior to 1845). The tentative roof line of the Annex, based on the higher

center windows above it,⁸ is logical and most probably correct. WALL L, found and partly explored by Archeologist Schumacher⁹ in 1955, proved to be a covered drain leading almost from the tuyere-arch area eastward out of the Cast House door and parallel with the front (east) wall of the south moulding room into the vaulted Tail Race through the drain opening¹⁰ found by Archeologist¹¹ Mason at the southeast corner of the Cast House.

In the north moulding room, under the (clay and) wooden floor reconstructed because of the joist marks found archeologically¹² (as in the Annex, and in the south moulding room) Hopewell's maintenance crew before reconstruction placed fiber drain pipe to better drain the "spring" along Wall G into the Wall L drain.

Concrete was pumped into the south moulding room post area in the fall of 1965 to stop settlement of the six (surface ?) piers¹³ of that area. Future prospects for any archeology in this area are dim. Work was necessary in order to stabilize posts in the area in order to provide stronger support for this heavy roof. Separation of joints and tenons was readily visible and the main concern was to protect the visitor from harm or injury while in the area and also to protect the structure from any further damages.

One bit of post-Apple research is of considerable interest.

Inquiry at National Archives produced a record paying Mark Bird for 112 TONS, 16 Cwt, 1 Qr and 16 pounds of cast iron cannon.

Warrent No. 21 p 6 Abstract of the Payments Made by Joseph Nourse, Paymaster to the Board of Ordnance, May 8, 1778.

Mark Bird is credited with 15,042 dollars by this entry, or about \$130 a ton.

In relation to the LIMITED archeology in the LOWEST cast house work floor by Archeologist Abel AND his statement that Mark Bird COULD NOT have cast cannon at Hopewell, this documentary evidence (backed by tradition) assumes greater importance. Had Mr. Abel added "in a vertical pit" he would have been more accurate.

Footnotes:

1. Ronald J. Mason, Archeological Exploration of the Site of Casting House, Hopewell Furnace, HVNHS. Hereafter cited as Mason, and Leland J. Abel, Archeological Excavations at Hopewell Furnace, p 17-39. Hereafter cited as Abel.
2. Part II, Historic Structures Report, Cast House, February 20, 1964, p 2.
3. Paul H. Gebhard, Report of Wheelpit Excavations, from December 3, 1941 to March 27, 1942 (Accessions 355 - 496) uncovered fragments.
4. Hopewell Photos, 101-07, 101-05.
5. Hopewell Records, SM 41 p 34b for 1784, SM 15 p 22a for 1835, are a few examples.
6. E. J. Heydinger, Orientation Report for Archeology in the Lower Working Level at HVNHS, pages 3-7, and H2215 Interviews, Thomas Hoffman, Mr. & Mrs. C. S. Care and Mr. & Mrs. M. L. Care.
7. H2215 Interview Mr. & Mrs. C. S. Care.
8. Hopewell Photo, 125-01
9. Shown on Sheet 1 of 5, Drawing NHS-IV 3006.
10. Abel, p 58-60.
11. Mason, p 10.
12. Abel, p 57, 58 and 65.
13. Ibid., p 29 -----. For the concrete work, Hopewell Photos, P 1965- 185-189.

CHARCOAL COOLING SHED, Building 9, Apple, II-96 and Building 12, Apple, II-82, was reconstructed in 1958 by contractor Sherd Painter. ¹

Footnotes:

1. Hopewell Photo, P 1958-344.

* CHARCOAL HOUSE, Building 9, Apple, II-88, received a completely new superstructure and roof, had its north windows altered into doors and the 1880 wooden addition (south side) replaced by an additional bay of the Connecting Shed, (Building 12, Apple, II-82). This work in the spring of 1965 was performed by an Amish carpenter crew under Christ Beiler of Leola, Pa., the same crew that restored the barn and the cast house. Hopewell Document of 1800, X800320, NOT available for use by Historians Apple and Ronsheim, gives an interior width between stone walls within several inches of existing walls, suggesting, but not proving, that the present structure might date to 1800 or earlier.

The removal of the 1880 wooden entrance and the building of the new bay needs to be mapped.

CLEANING SHED (WHEELRIGHT SHOP), Building 35, Apple, II-105, had
NO size traces found in 1963 archeology, but stucco had been
FOUND by archeologist Mason in the DEEPER drain at the southeast
corner of the south moulding room of the Cast House. Archeologist
Abel did uncover a stone wheel-pit, - used to assemble spokes and
rims on a hub, NOT to set hot tires. Since Harker Long placed
this wheel pit in the NORTH end of the building, the CLEANING
SHED (WHEELRIGHT SHOP) did NOT trespass ON the south moulding
room of the Cast House as shown by Archeologist Abel on his
(unnumbered) "Plan of Hopewell Furnace and Casting House about
1840" in Archeological Excavations at Hopewell Furnace.

Incomplete Records placed a resident wheelright in Hopewell ONLY
in the 1876-Harker Long period, verifying partially his statements
about wheelwrighting here. All other 1820-1840 Records of wheel-
wrighting found to date, including those quoted by Apple, are
statements of work done at shops away from Hopewell, always
entered as per account; NEVER AS monthly labor by a resident
wheelright. The Historic Structures Report Wheelwright Shop
documents the above statements.

USE IN PRE-1840 PERIOD

Since tradition in the Care family had the moulders sleeping in
the attic of this building, it HAD to exist in moulding time. It

probably appeared as shown by late photos, and the cleaning and packing of castings most likely was labor on the ground floor before moulding ended in 1845. Recall that the only resident wheelwright found in (incomplete) Records is in Harker Long's time, post-1867, and he is the main authority for designating this missing building as the wheelright shop. We suggest this structure be redesignated as "CLEANING SHED (WHEELWRIGHT SHOP)."

UNKNOWN SIZE AFTER ARCHEOLOGY

Because no foundations (nor traces of stucco shown on Bull and Stokes photos) for this structure were archeologically found, the supposition that the building may have been moved to its LAST location may be valid, Mr. Abel did not excavated all suggested sites. Size of the structure can be determined mathematically from the Bull photo since the known size Blacksmith Shop is also shown.

Footnotes:

1. Leland J. Abel, Archeological Excavation at Hopewell Furnace, March 6, 1964, p 18. Hereafter cited as Abel.
2. Ronald J. Mason, Archeological Exploration of the Site of the Casting House, Hopewell Furnace, HVNHIS (1958) p 11. Hereafter cited as Mason. See Abel, 22.
3. Abel, p 18.
4. H2215 Interview Harker Long, p 31. Hereafter cited as Long.
5. In envelope (at rear) of Abel.

6. No Journals exist in the periods 1814-16, 1819-1824, 1837-46 and 1853-66. While Ledgers cover part of these vacuums, their information is sketchy.
7. See FN 4.
8. Russell A. Apple, Documentation for the Historical Base Map, 1830-1840 p II-106, 107.
9. Wm Barkley is a resident wheelwright in 1876. Historic Structures Report Part II. Wheelwright Shop 1964 p 5,6.
10. Hopewell Photos 125-01 "Stokes" and 101-03 "Bull"
11. See FN 4.
12. See FN 1.
13. Hopewell Photo. 101-03 "Bull"

FORD AND FOOTBRIDGE AT FRENCH CREEK, no number, Apple, II-127.

The archeological discovery of the Stone Bridge in the working yard dates this ford and footbridge to the comparative recent.

Sally Boone, born about 1850, might recall items from the year 1855.¹

Footnotes:

1. H2215 Interview Sally Boone & son David, p I-3.

* GARDEN (and GREENHOUSE), No number, Apple, II-30, 36, 39,
apparently abandoned after the Clingan family left Hopewell c 1876,
had been cared for by a full-time gardner after the 1829-30
erection of the greenhouse into the 1876 period.¹ Therefore this
area should be as beautiful as a full-time employee would have
kept it. Restoration will be based on Mrs. Krewson's 1880
Recollections.²

* Foundations for the two east-west stone terrace walls, located
by Dr. Cotter in 1958 archeology,³ need to be mapped.

Footnotes:

1. Hopewell Records, SM 21, p 85 for 1834; SM 62M Jan. 10, 1876.
2. H2215 Interview H.H. Huston and Mrs. Mary Krewson. Map drawn by her.
3. John L. Cotter, Archeological Tests HNHHS, Garden Area of Ironmaster's House, test 2e p 4,5.

- * GARDEN, TOURPATH BRIDGE, no number, post-Apple¹ was placed before 1958 by Superintendent Prentice on foundations, discovered by " archeology " related under East Head Race.

Footnote:

1. Hopewell Photo, P 1960-123.

- * GARDEN STEPS AND WALKS, no number, Apple, II-30, 36, 39. Early Photos show the middle two series of steps (NOT the first series¹ nor uppermost), to have existed in 1935. Superintendent Prentice told that "there was a depression" where he placed the lower series. He also placed the upper set- those leading into the (to be) Ice-Summer-House, which may be correct- and the walk and steps out of the Garden at the Gate on the St. Peter's Road. This was during the building of a Tour Path after 1955.² When he placed black top after 1961, on the walk above the race,³ (Archeology had shown no trace of walk materials there) red pebbles³ were to have been "rolled into" the blacktop, but attempts to do this were unsuccessful.⁴

Superintendent Prentice also stabilized the two middle step series⁵ with their historic eleven-inch risers in 1960. In 1963, Superintendent Zerbey, for safety and easier tourist use (and to prevent the erection of safer by-passing steps) reduced the eleven-inch

risers to seven inches, added sufficient steps from Joanna
Furnace to bring walks to a proper and most-likely historical
levels.⁶

*

He also placed four benches between the step series at the same
time to encourage visitors to pause and rest. These were modeled
on benches suggested by Architect Souder for placement at front
and rear of the *Office-Store. Arbors with seats will eventually
replace these cruder seats.

Burned moulding sand from the Cast House filled low-garden
levels.⁷

* Flagstone WALKS (with steps) below the East Head Race Bridge to
the north^{porch} of the Big House were placed in 1963 by Superintendent
Zerbey on the basis of statements by Mrs. Daniel (Violet) Care,
who had lived in the Big House 1916 - 1935. She told that this
flag-type walk, (existing NOW at the south door of the Spring
House), not only extended in the area restored but also to the
front porch and on to the steps at the Road, opposite the Office
Store. Further, she related that all these walks were destroyed
by the CCC stonecrusher as were all the stone fence rows.⁹

Footnotes:

1. Hopewell Photos, P 1935-10.
2. Ibid., P 1962-73.
3. Ibid., P 1961-174A, and
John L. Cotter, Archeological Tests, MVNHS, Garden Area of
Ironmaster's House, July 1958, Tests 2a and 2b, page 3.
4. Statement, Lloyd Hryett, maintenance staff, to writer.
5. Hopewell Photos, P 1960 - 90 to - 93. The latter for the
lower series.
6. Ibid., P 1963-447.
7. Ibid., P 1961 - 126.
8. Ibid., P 1963 - 65.
9. H2215 Interview Mrs. Violet (Daniel) Care.

GREENHOUSE, Building 41, Apple, II-23, has had no repair since
uncompleted Motz Archeology in 1941. Regular operation after its¹
1829-30 erection is suggested by the presence of year-round
gardeners after 1830 and the payment of a gardner in January 1876.²

Footnotes:

1. File 13, H30.
2. Hopewell Records, SM 62, January 10, 1876.

HOPEWELL FURNACE, Building 7, Apple, II-112, had a temporary triangular dam stone with a tap hole placed at its east arch in spring of 1965. This makes the arch more accurate historically and allows the visitor to better visualize tapping of pigs and ladle filling. A wooden-burned water trough, purchased at Hamburg with flasks, was also placed at the east arch. (This arch requires accurate rebuilding as part of the Furnishings Plan.) At the time this damstone was placed, an iron salamander hearth-crucible shaped and of unknown depth below the tapping level was discovered.

¹
Since CCC pre-1938 restoration of the furnace filled most of the insulating space between the in- and outer walls with concrete, operation (unplanned) is impossible.

Footnote:

1. Hopewell Photo, 157-14, and others.

HOUSE, BOARDING, Building 24, Apple, II-144, has this terminology first recorded in Hopewell Records in 1875.¹

Possible Erection Date and Early Boarding Facts

Archeologist Abel states: "having already established that the oldest part of the Boarding House was built about 1830."² However, Mr. Abel did not know that John Wert (not Peter Wert as in Abel, p 42) was an IN-LAW³ of Thomas Care, who boarded (occasionally paying for his son's boarding also) with Wert. Hence, boarding as early as November 1, 1825 of Care with Wert,⁴ may or may not occurred in Building 24.

The next person-to-person boarding (NOT person to furnace, as pre-1825) found in incomplete Records was Thomas Foster's boarding credit in 1844.⁵ Whether this limited boarding occurred in Building 26 is also unknown.

Structural Changes

The first-floor north-east window was reopened and exterior white-washed under Superintendent Prentice; received new first-floor joists, flooring and repair replastering through the Accelerated Public Works Program.⁶ "Archeology" under-this-floor area was reported by Mr. Abel.⁷ Ventilators under the new floor provided better humidity control.

Exterior woodwork went from barn-red to light gray, found to be
the original color here and at the other tenant houses.

Future Archeology here should also bring electricity for modern
cleaning of the furnished structure.

Footnotes:

1. First use of term in Records is 1875, SM 31 p 221a, 234a.
2. Leland J. Abel, Archeological Notes on the Boarding House, Hopewell Village, 1963, p 44. Hereafter cited as Abel.
3. Wert married Rebecca CARE on January 15, 1826, according to p 195, Records of St. Mary's Church, Warwick, at the Historical Society of Berks County.
4. Boarding paid by Care to Wert on May 18, 1827, Hopewell Record (SM 54, p 95b) was for 19 months and two weeks thus extending back to November 1, 1825.
5. Hopewell Record, SM 38, p 431, on April 1, 1844 credits Forster with \$93.60 for boarding. This Record is a Ledger with limited information; no Journal for the period survives.
6. Hopewell Photo, P 1958-381. Window was closed by Harper Long-post-1867.
7. Abel, 44 pages, plus.
8. Norman M. Souder, Historic Structures Report, Tenant House No. 1, HVNHS "Architectural Data Section" September 1964 p 10.

HOUSE, NATHAN CARE, Building 25, Apple, I-7, had its front appearance historically harmoniously changed by enlarging a window on the northeast side into a door.¹ The structure received a new oil furnace -radiant heat at the same time, October 1962.

Footnote:

1. Hopewell Photo P 1962 - 215.

HOUSE, LLOYD, Building 71, Apple, I-26, received a new oil-hot-air furnace, a coat of paint interior and exterior, and had its rear porch stabilized. Currently, the spring here has not been meeting Pennsylvania water standards. Plans are being made to test drill for new well site. The old well then would be used for standby purposes only.

- * HOUSE OLD LLOYD, Building 44, Apple, I-4, pre-1798, remote and invisible from Hopewell and in very bad condition, was deliberately destroyed by fire and bulldozing by January 14, 1965 after permission and official removal of the structure from the Historical Structures Inventory. This building should be deleted or marked as "site."

* HOUSE, JOHN CHURCH, Building 27, Apple, I-23, should be redesignated as here given. (STABLE, Building 28 also). Son of Thomas Church, (Mrs. Clement Brooke's brother) John Church was storekeeper and clerk before managing Hopewell in 1848 and moving to Union County, Pennsylvania by 1849.¹ (Dr. Clingan, Clement Brooke's son-in-law became manager in 1849.) Tradition by at least three Hopewell interviews places John Church in Building 27.²

This building had appropriate second-hand shutters placed at its second-story windows in the old historic section the Fall of 1965. Plans are to secure second-hand shutters for the windows of the 1940-41 addition which would include the kitchen downstairs, and the one bed-room and the bathroom upstairs. New shingles were placed on the roof of the historic front porch and on the garage during this same period.

Footnotes:

1. Hopewell Records, SM 32 p 64a, March 31, 1849.
2. H2215 Interviews Alber Painter, April 26, 1950, December 12, 1947, p 1 and 2, and April 26, 1958; Hunter Care, 1941, p 3, and Charles Sheridan Painter p 3.

HOUSE, TENANT #1, Building 19, Apple, II-111, after exterior
repairs by Superintendent Prentice, received new joists and floors
in the winter of 1963-64 through the Accelerated Public Works
Program. Under-floor "archeology" was reported by Mr. Abel.
Area archeology is yet to be done by a PCP to discover paths,
fences, woodpile locations, toilets, garden beds, etc. (Forms
were made by hystorian in October 1965). Tenant House #1 was
restored in fall of 1965 and a main new discovery, a credit to
the restoration carpenter, was an unknown board partition near
the front door downstairs and at the same position upstairs. The
structure was so restored. Dampness is a problem in this structure
as in practically every Hopewell building having board partitions
and doors. (Office-Store, Cast House). Moisture averaged 76.9%
in Tenant House #1 July-October, 1965.

Based upon an approved Furnishings Plan this structure is being
furnished with artifacts of the 1820-1840 period. The house as
it stands and as furnished by Architect Norman Souder is an excellent
example of explicit care and taste used to create a particular mood
and/or period and to tell a story and to provide for proper
interpretation to a Furnished Historic Structure Museum.

Footnotes:

1. Hopewell Photos, P 1958-384 and P 1959-16.
2. Leland J. Abel, Archeological Notes on Tenant House 1, p 1-23.
3. See attached copy of Memo: Atmospheric Test Results,
October 25, 1965.

D-2223

October 25, 1965

Memorandum

To: Regional Director, Northeast Region
From: Superintendent, Hopewell Village N.M.S.
Subject: Atmospheric Test Results

The humidity readings in the Big House, Tenant House #1 and the artifacts room for July through October 19, 1965 are recorded as averages below:

Month	Average Humidity		
	Big House	Tenant House #1	Artifacts Room
July	57.8%	76.8%	52.2%
August	68.8%	74.1%	59.4%
September	72.8%	80.4%	64.7%
October	54.6%	76.8%	52.2%

The high average humidity in the Big House and Tenant House #1 seem to indicate the need for dehumidifiers in these two buildings.

John C. W. Riddle
Superintendent

* TENANT HOUSE, No. 2, Building 20, Apple, II-149, was externally repaired historically correct and modern elements (sunporch-back door, etc.) removed by Superintendent Prentice.¹ New joists and flooring went into the structure under Accelerated Public Works. Ventilators placed under flooring for humidity control.

The late privy of this house is visible on Hopewell Photo, 22-2.

Footnotes:

1. Hopewell Photo, P 1958-82 and P 1959-57.

* HOUSE, TENANT #3, Building 21, Apple, II-150, was modernized in 1958 inside from a duplex into living quarters for Hopewell's ranger, despite "efforts" to discourage this conversion. Choosing to minimize tradition and Record reference to this structure as the Shaffer house,¹ seemingly built c 1840 for John Shaffer, a single traditional statement was emphasized - that the house had been² built for John Church, a nephew of Clement Brooke and Hopewell manager in 1848. Tradition also designated the present Superintendent's quarters (Building 27, Apple, I-23) as the John Church house.³

Under Superintendent Zerbey, this building received a new shingle roof and a late-period porch (then discovered) was replaced by an

4.
earlier design.

Footnotes:

1. H2215 Interview Mrs. Elizabeth Care, p 1; Miss Rose Sands and Mrs. Catherine Rhodes, p II-2; Sally Boone and Son, David, P I-1 "new for Schaffer" and Hopewell Records, (1877 on,) SM 34 p 255a, 261a and SM 76, p 90.
2. H2215 Interview Albert Painter, December 19, 1958 (1st) said both "yes" and "no" about Shaffer House being the Church House and (2nd) December 19, 1958, says "yes".
3. Ibid., April 26, 1950 "Houck House built for John Church," also December 12, 1947, p 1 and 2, and April 26, 1958 (Heard by writer) Hunter Care, 1941, p 3, and Charles Sheridan Painter, p 3.
4. Hopewell Photo, P 1964-229 shows old porch off.

ICE-SUMMERHOUSE, Building 12, Apple, II-25, had its foundation¹
discovered by Dr. Cotter Archeology in 1958, four feet below
the present surface. Superintendent Prentice placed steps²
near this site before 1960.

Footnotes:

1. John L Cotter, Archeological Tests, HVNHS, Garden Area
of Ironmaster's House, July 1958, Test 2h, p 6.
2. Hopewell Photo, P 1960-123.

* KILN, CHARCOAL, Building 39, Apple, II-99. Prior to 1961
1
archeology by Dr. Cotter, only the westernmost kiln was known.
In the opinion of Superintendent Prentice (with which the writer
agrees) the stone foundation of the first ~~easternmost~~ and new)
2
kiln were enlarged, possibly at the time the second (brickhouse)
kiln was built. The initial Historic Structures Report, because
there was "no charcoal found in archeology" so strongly desired
to rebury both kilns, that an 1837 Grubb brothers letter (in
Hopewell Documents, X8370000) about successful kiln operation
at Mt. Vernon Furnace (Lancaster County) was hidden by burying
3
its date in the footnotes. In addition, Grubbs were intermarried
with the Buckleys, third-owners of Hopewell. ONLY by knowing
that X8370000 was Hopewell's current designation for cataloging
Documents of 1837 was the Regional Office (and above) reader
able to apply this Grubb information to its time, 1837. A tree
stump was ring-counted back to 1900, ending house use before
that date. Stabilized by Superintendent Zerbey in 1963, the
kilns now have a metal-photo Wayside Exhibit Team sign with an
Artist-Clint-Shilling drawing which enables the visitor to
visualize the two brickarched kilns in operation.

The correct sizes of these two kilns need be placed on the map,
15.6' x 41.5' and 15.2' x 41.7'.

Footnotes:

1. John L. Cotter, Charcoal Kilns, Archeological Data Section, 1961.
2. Historic Structures Report, Adm. Section, 1961. Fig. 14 shows this masonry change.
3. Ibid., p 10 and FN 24.

* NONHISTORIC CHARCOAL HEARTH and COLLIER'S HUT

No number, post-Apple, first located by Superintendent Prentice,¹ beyond the blacksmith shop were placed at their present location near the charcoal complex for the convenience of the visitor and the Service in 1961.² The nearest actual hearth was beyond the School (Building 18, Apple, II-139). Charcoalmaking has been a two-months Hopewell demonstration since the beginning of Establishment Day.³ Collier Elmer Kohl is the demonstrator.

Footnotes:

1. First Sunday in August, 1959, always the date nearest August 3, 1938 when HVNHS came into being. Hopewell Photos, P 1959-198, and 257.
2. Ibid., P 1961-40, 41.
3. See FN 1.

* NONHISTORIC CORD OF WOOD, no number, post-Apple, has a high visual value telling that Hopewell required 5000 cords annually, cut on a rotating-block basis, a complete cutting of Hopewell's acres every 20-25 years, plus 2000 cords purchased annually from Hopewell's neighbors. This feature, needing MAPPING, was Superintendent Prentice's idea and was set up in 1961.

NON-HISTORIC PARKING LOT-ORCHARD, no number, Apple, II-1,

Planted in 1960 because Mark Bird had advertised in the Penna. Packet and Daily Advertiser, March 22, 1788, that Hopewell had an orchard of 250 bearing trees.

* NON-HISTORIC VISITOR CENTER, UPPER PARKING LOT, MAINTENANCE BUILDING AND RESIDENCES, post-Apple, were built in the Eisenhower Recession of 1958-59.

OFFICE-STORE, Building 3, Apple, II-43, was restored in 1960-61 and refurnished in July 1965. Restoration is very well told in Architect Souder's Office Store Completion Report. Indirectly, Harker Long is quoted as telling that negroes lived in the basement of this building, verifying opinion of Superintendent Prentice (who found linen tow stuffed in window cracks) and the Architect.

Its size remains as mapped by Apple.

Footnotes:

1. H2215 Interview George Haws. Haws worked for Harker Long.

ORE ROASTER - 1817 CUPOLA (?) Building 34, Apple, II-80, II-138.

¹
Archeology in this area was confined to the depth of the stone platform surviving (partially around the 1880 ore-roaster cone, and provided NO clues about possible forced draft for the roaster (unless piping was above ground or draft was natural).

However, in the later grading necessary to keep cast house-Bridge house water from running into the reconstructed cast house, an unknown north-south "wall" was discovered and photoed.²

The whereabouts of the easily-proven-to exist 1817 CUPOLA building 38, Apple, II-130, remains unknown.

Footnotes:

1. Leland J. Abel, Archeological Excavations at Hopewell Furnace pages 97-102, 145.
2. Hopewell Photo, P 1965-31, 32.

* PRIVY (?), no number, Apple, II-78, a foundation, thought by Archeologist Schumacher, Historian Apple and Superintendent Prentice to possibly have been a toilet, was "proven" by Archeologist Abel to have NOT been a pit toilet. Were all toilets pit toilets? No structure at this location is mentioned by tradition. A moulder's toilet may have been HERE, or just outside the west door of the Cast House- across the Tail Race, or over the race itself, or back of the blacksmith shop and/or under the slag pile.

Size suggests a toilet and archeology suggested a tile roof.

Footnotes:

1. Paul J. F. Schumacher, Archeological Field Notes, Historic Road Project HVNHS, 1956, p 30 line 4 from top "or the privy," "probably formed the walls to an outhouse, although the privy was not located." Map NHS-HV 3007 Documentation for Base Map product lists structure as "privy".
2. Leland J. Abel, Archeological Excavations at Hopewell Furnace, 1964, p 115-119.
3. See FN 1. p 30.

EAST HEAD RACE, no number, Apple, I-31 and II-7 and -87.

Schumacher archeology in 1955 opened this race in the Garden. The remainder to the junction of the St. Peter's Road with the Parking Lot Road was opened by Superintendent Prentice in 1956-1958 as a "storm sewer on the advice of Region."¹

Footnotes:

1. See Historic Structures Report, East Head Race.

FIRST WEST HEAD RACE, no number, Apple II-134 and off map area, is NOT visible on the Site but is prominent in French Creek State Park just north of Hopewell Lake at several locations at a higher level, and along the Jones Mine Road on privately-owned land above the Yeager Farm (after and opposite the log houses). Albert Painter pointed out and told the writer that at the new Guest family house "a stone retaining wall for the older West Head Race was bulldozed down." This location is just below where this older race tapped Pine Creek.

SECOND WEST HEAD RACE, not numbered, Apple, I-20 and II-134, had its 1952 flume restored in the spring of 1964 to its historic¹ four-foot width, shown by masonry pier supports and as recalled by Sherd Painter, born at Hopewell. See Historic Structures Report, Headrace Flume.

The stone steps between the curved wall (north of the flume-race junction) and "Wall H extended" have no historical basis and were built to control erosion and to provide safe access for the staff to the Race control gate. The fence gate above is likewise without historical basis and is also a safety installation. (Fencing along the Tail Race and barberry at the light well of the Big House are in the same category.)

Footnotes:

1. Hopewell Photo, P 1964-235.
2. Ibid., P 1962-7.

* SCALES PIT, Building 4, Apple, II-76, related by tradition, uncovered by Archeologist Schumacher and "restored" by Superintendent Prentice after 1955, "died" through Abel's archeological discovery of a STONE BRIDGE (no number, unknown to Apple), its restoration was necessary as part of the cast house erection and regrading. To control surface and roof drainage at and around this structure the vaulted tail race was opened (after grading) on both sides of the bridge. (Cast grates would have been more appropriate here since Hopewell produced them in the historic period.) The ground level around the Cast House and Annex was lowered to provide proper drainage. That the present grade is sufficiently back in time is suggested by the appearance of two cannon balls (by erosion) in the past two months.

* Archeologist Abel uncovered a scales-like structure (north of Scales Pit, no number, post-Apple) nearer the Office-Store and suggested that it may have been a pre-1845 Scale.

Footnotes:

1. H2215 Interview, Harker Long p 30, and Hopewell Photos, P 124.006, and 1963-293.
2. Leland J. Abel, Archeological Excavations at Hopewell Furnace, 1964, p 78-85. Hereafter cited as Furnace Archeology.
3. Hopewell Photos, P 1965-17.
4. Hopewell Records, SM 7, November 21, 1816.
5. Hopewell Photo, P 1965-218.
6. Hopewell Accession #441, August 25, 1965.
7. Furnace Archeology, p 87-96.

SLAG PILE, CHARCOAL, No number, Apple, II-103, is practically 100 percent Joanna slag, made with the same ore and cold-blast-charcoal process, and was a gift to the Park Service by Bethlehem Steel. Cost to the Site was loading and transportation from Joanna. This pile was erected, according to the Superintendent's Monthly Narrative Report by November 1958, without any archeology of the area. It would be desirable to remove portions of this slag pile to provide for more archeological study in this very important sector of the Village Site. Further proof still needs to be uncovered which would be linked with well documented records of such historic structures as the 1817 Cupola, Wheelwright Shop, and the Stamping Mill.

STABLE, JOHN CHURCH, Building 28, Apple, I-25, should be redesignated as above. Because Apple's dating Record has¹ "at the mines" as part of Alexander Church's pay, the stable was NOT here and, as a result, the date goes back to the unknown.

The north wall of this stable was rebuilt by Mason Bowen² in 1958.

Footnotes:

1. Hopewell Record, SM 14, May 14, 1830.
2. Hopewell Photo, P 1958-347.

* STAMPING MILL, not in Apple, no number, like the CUPOLA is well documented but at an UNKNOWN location, it seemingly operated from 1805 into 1822.¹ Waterpowered to crush slag for the recovery (and remelting) of BB iron particles too small and light to penetrate congealing slag (in the furnace hearth), this device had to be located below one of the two head races (or tail race, or French Creek) conveniently located for slag handling. Archeologist Abel thought he had located a stamping mill back of the Barn and outside of the lower working area on the waters of the Tail Race, but this masonry feature proved to have been a "modern" carriage shed, existing in the memory-time of Sherd Painter.

Footnote:

1. First documentation in 1805, Hopewell Record, SM 44m, July 22, 1805; Repairing in 1808, Hopewell Document, 8080223; Operating in 1809 - 1812, Ibid., 8090405, 8091227 and Hopewell Record, SM 4, p 261a; Rebuilt in 1814, Hopewell Document, 8140321; Product used in furnace charge in 1816; Hopewell Record, SM 9, p 137a; and Operating (?) and selling stampings in 1822 to Hampton Forge (same owners) Ibid., SM 4, p 261b, 264.

STEPS, west of Office-Store, no number, Apple, II-79, were restored by Superintendent Prentice in 1955 - 58. Safety cut step-risers height from the historic to that convenient and safe for the visitor and extended the steps farther southward than the historical steps had extended.¹

Footnote:

1. Statement Superintendent Prentice to writer in 1958.

SPRING HOUSE, Building 17, Apple, II-60, had its non-historic concrete floor removed in the winter of 1963-64 under the Accelerated Public Works Program. Stone flooring was found only in the spring section, the north room, and a wood floor had supposedly been in the center room. Limited archeology by Mr. Abel found a "water pit" in the southeast corner of the "lard-kitchen," but located neither tile roofing traces nor any sign of the 1850 water ram, located in or near this structure by Lafayette Houck. Work to control spring flow by Restoration Specialist Dungan in November 1965 showed that the concrete spring box shown on Drawing NHS-HV-2060 was NEVER constructed. (Apple, II-62 thought this work had been done.)

The structure was completely restored in November-December 1965 with all new woodwork and all stone gable ends. These stone gables are partially the inability to determine how much "79 $\frac{1}{2}$ perches of 1806" were and partly because the upper (gable) door frame had provisions for installation in a stone wall. This door frame may have been taken from a stone building and installed here. The 30' by 30' stone smoke house adjacent until post-1867 may have been the door-frame source.

Footnotes:

1. Benjamin J. Zerbey Administrative Section, Historic Structures Report, Spring House, Building 17, p 1.
2. Hopewell Record, SM 31, March 29, 1850.
3. Map, Lafayette Houck's 1936 "Sketch of Furnace and Village 020."
4. Hopewell Record, SM 4, p 127a December 22, 1806.
5. H2215 Interview Harker Long, p 2, 27.

* VISITOR SHELTER on Jones Mine-French Creek State Park Road,
no number, post-Apple, was built at the Parking Lot and
moved to its present location, near the School site, by
Superintendent Prentice after Visitor Center opening in 1959.
Here the walk-in visitor is invited to the Visitor Center and
is offered self-guiding literature.

Footnote:

1. Hopewell Photos, P 1959-22

* WALK, Bake Oven to Spring House (Spring House to Water Fountain)

Not in Apple, no number. After Dr. Cotter informed Superintendent Prentice that wooden walks generally left no archeological traces, the Superintendent made visitor touring more safe and controlled erosion in July 1961 by installing quarters of logs appropriately wide as steps on the walks between the Bake Ovens-¹ Spring House and the water fountain.

Footnote:

1. Hopewell Photo, P 1961-85.