A Final Report
Prepared for the
Environmental Planning Office
Tennessee Department of Transportation

The Hammer-Taylor House Site

Archaeological Testing of 40WG60
Johnson City, Washington County, Tennessee

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Sponsored Research Funded
by the
U. S. Department of Transportation - Federal Highways Administration
and the
Tennessee Department of Transportation

February 1990
Abstract

In a project funded by the U. S. Department of Transportation - Federal Highways Administration and the Tennessee Department of Transportation (TDOT), the Jeffrey L. Brown Institute of Archaeology, University of Tennessee at Chattanooga (UTC), conducted archaeological testing of historic site 40WG60 surrounding a residential structure designated the Hammer-Taylor House. Situated off State Route 34 on the northeastern outskirts of Johnson City, Washington County, Tennessee, the architecturally-unique Hammer-Taylor House was to be rehabilitated on a new site pending highway expansion which would engulf its original setting.

The archaeological research was conducted in July, 1989, under a standing agreement between TDOT and the Transportation Center, University of Tennessee, Knoxville. The research was carried out in response to a request for proposal from the Environmental Planning Office, TDOT, Nashville. The Jeffrey L. Brown Institute of Archaeology at the University of Tennessee, Chattanooga, responded to the request-for-proposal (RFP) with a technical proposal and budget for the conduct of secondary archaeological testing on the historic occupation site surrounding the Hammer-Taylor house. A contract to conduct the testing was awarded to the Institute, and an excavation permit was issued by the Division of Archaeology, Department of Conservation.

Consisting of a single pen two-story log cabin built in the period 1790-1806 joined under one roof with a Federal style double pen two-story brick structure built about 1844, the Hammer-Taylor house was scheduled for relocation and rehabilitation. The house proper was determined to be eligible for the National Register of Historic Places and therefore the surrounding archaeological site was required under 36 CFR 60.6 to be tested for significance. A program of subsurface testing was developed to intercept closed-context features such as wells, cisterns, and privies, in addition to sampling sheet refuse deposits around the immediate environs of the house proper.

Archaeological fieldwork in July, 1989, involved hand excavation of eleven test pits situated within a uniform site grid and vertically controlled by semi-permanent transit stations. The fill in approximately half of the eleven test units was sampled by 1/4" screening for uniform artifact recovery, while in the remaining units, artifacts were shovel sorted. Several weeks prior to the testing, two modern additions on the rear and side of the house were removed by heavy machinery, resulting in severe subsurface disturbances (in the form of truncation and rutting) on three sides of the structure. Excavations in the rear of the house documented truncation of soil horizons after c. 1968, while at the southwest corner of the house site, 19th century sheet refuse deposits were intercepted. Two 20th century pipe lines evidently connected the house with a natural spring south of the structure. A cistern in the rear of the house lot was found to contain debris from the last half of the 20th century, although its construction may have occurred early in the 19th century. An unlined privy vault was also noted, and contained refuse discarded after 1968. A sample of the original builders' trench to the brick unit of the house yielded insufficient numbers of datable artifacts to refine the historically-indicated construction date of 1844.

Further controlled hand excavation on the site was not recommended in view of profile truncation and the general absence of undisturbed sheet refuse deposits. Instead, it was recommended that during and after the relocation of the house, the area around the house be stripped by machine and that documentation and excavation of closed-context features be carried out. This salvage operation would occur in the context of excavations associated with archaeological clearance of the road excavations required to transport the Hammer-Taylor house to its new site.

Artifacts recovered during the testing program and all primary site documentation and analysis records will be curated in Nashville by the Division of Archaeology.
Acknowledgements

Excavation of the Hammer-Taylor house site was made possible by funding from the U. S. Department of Transportation - Federal Highways Administration and the Environmental Planning Office of the Tennessee Department of Transportation. Archaeologist Gerald Kline was very helpful in coordinating the research and his assistance is gratefully acknowledged. Dick Kloepping of the TDOT Right of Way Office in Knoxville and Steve Head from the Johnson City office also contributed toward completion of the project. Martha Carver, historic preservation specialist with TDOT, kindly provided background documentary data on the house, as did Patricia E. Coats, state site file curator with the Division of Archaeology.

In Johnson City, Sam Humphreys lent his enthusiasm to the project and shared with us his knowledge of the Hammer family. John Elsea, a relation of the Taylor family and a former resident in the Hammer-Taylor house, provided some of his recollections of the residence to us. We appreciate his cooperation. Mr. William Hammer, a direct descendant of the probable builder of the Hammer-Taylor house, and a Dalton, Georgia resident, traveled to the Institute at Chattanooga to provide us background data on John Hammer Sr. and the early family history. His interest and encouragement are appreciated.

The field crew for the testing of the Hammer-Taylor house site consisted of Marshall Brewer, Beth Laudeman, Tracy Little, and Tim Pugh. I'd like to thank them for their participation in the fieldwork and the discipline they showed in the conduct of the research. Nicholas Honerkamp read and commented on the rough final draft of this report, and his editing skills are appreciated. Administrative support for the project was provided by Diane Miller and Maria Derrick of the Grants and Contracts office, and by Michaele Kennedy of the Department of Sociology/Anthropology.

The final draft was reviewed by the historic preservation section of the Tennessee Department of Transportation, and the comments and suggestions of Gerald Kline and Martha Carver were particularly useful. Any errors in the report are the responsibility of the author.

RBC 2-9-90
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Introduction

This report documents archaeological testing at the site of the Hammer-Taylor house in Johnson City, Washington County, Tennessee. Archaeological research at the Hammer-Taylor house was predicated by imminent highway construction which would engulf the house site and surrounding property. A preliminary cultural resource impact assessment in the vicinity concluded that the old and architecturally-unique Hammer-Taylor house was eligible for the National Register of Historic Places, and that the potential of the house site to yield archaeologically significant data should be determined prior to highway construction, pursuant to Code of Federal Regulations 36 CFR 60.6.

History of the Hammer-Taylor House

The Hammer-Taylor house stands on gently sloping ground a dozen meters north of State Route 34/U. S. Route 11E on the northeastern outskirts of Johnson City, Tennessee (Figures 1 and 2). The two-lane highway runs past the house northeast to southwest, and the immediate environs of the house formerly consisted of farmsteads, small commercial enterprises, and single-family residences. The Johnson City, Tennessee, to Bristol, Virginia, thoroughfare has become increasingly busy in recent years and follows closely the historically busy trail from Abingdon, Virginia, to Jonesboro, Tennessee, a few miles west of Johnson City. Situated on the southeast flank of a ridgeline known as Indian Ridge, the drainage around the house site flows south and east into the waters of Knob Creek, a tributary of the nearby Watauga River.

A detailed documentary history of the construction and occupation of the Hammer-Taylor house has yet to be compiled, and only the outlines of its use can be presented here. The following historical narrative is based substantially on information collected by researchers with the Environmental Planning Office, TDOT, during a cultural resource survey in 1978 (Nolen 1978; TDOT 1978a, 1978b) as well as from genealogical notes by the Hammer family (Hammer 1928).

An archaeological survey of State Route 34 from Johnson City east approximately 9 miles toward Bluff City was made in 1978 (Cobb 1978). This reconnaissance was an auto and pedestrian survey with no sub-surface testing. The Hammer-Taylor house was first noted during this survey, and was referred to historic preservation specialists for more detailed examination. Cultural resource specialists with the TDOT recorded the structure in 1978 and collected some limited data on its history, filing a "Documentation for a Determination of Eligibility" (DOE) form on the residence (TDOT 1978b).

The name of the house is taken from the two principal families that occupied the structure. The Hammer family built and initially occupied the house in the very late 18th century or early 19th century, and the Taylor family lived in the structure for most of the present century. The structure is architecturally significant as an example of two types of early vernacular residential architecture. The Hammer-Taylor house consists of a two-story log pen cabin joined under a common roof with a two-story double pen brick house (Figures 3 and 4).
Figure 1. Site location map, 40WG60, based on U.S.G.S. topographic quadrangle maps.
Figure 2. Detail, site location map, 40WG60, based on U.S.G.S. topographic quadrangle maps.

The log pen portion of the house was apparently in existence by 1806, but the identity of the builder is not clear. It was probably John Hammer Sr., who may have erected it as early as 1790. In that year he obtained a land grant from the State of North Carolina for a tract near the mouth of Knob Creek on the Watauga River. It is on this tract of land that the Hammer-Taylor house stands. One of his sons, Jonathon Hammer, was deeded the structure in 1806, and from the deed we learn that John Hammer Sr. resided in the house as of that year. Another son, John Hammer Jr., moved several miles to the southwest along the flank of Indian Ridge following Knob Creek to its headwaters at a place called Walnut Grove and there erected his residence. The house at Walnut Grove has disappeared with time, but another Hammer house has fared better. John Hammer Jr.'s sibling, Isaac Hammer, erected a stout two-story log cabin barely a quarter mile northwest of his father's log house in 1793. The restored Isaac Hammer house still stands today and bears its construction date cut into the foundation stone on the west side of the house. Thus, the Hammer-Taylor house is linked with one of the earliest Euro-American families to settle in what is now Washington County.
Figure 3. South and west facades of the Hammer-Taylor House. The face of the west chimney and gable wall of the log pen show superficial evidence of at least three pitched roof lines of additions, the lowest of the roof line scars being the most prominent. The 2m scale at the southwest corner of the house is directly above the extant entrance to the basement of the structure.

About 1830 Lemuel Bogart acquired the John Hammer Sr. house and shortly conveyed the property to William G. Looney who retained possession until 1837. Henry Young then assumed ownership of the house and was responsible for doubling the size of the residence by construction of a brick wing attached to the log house. The brick addition to the structure was apparently made about 1844. Young conveyed the enlarged house to E. W. King in 1856, who in turn sold it to H. H. and Catherine Edens in 1862. As survivor to her husband who died during the Civil War, Catherine Edens willed the structure to her son John and wife Stacy Edens. The transfer of ownership took place about 1875. According to a National Park Service architectural data form on the house, about 1890 a front porch was added to the structure. Between 1906 and 1911, D. K. Tranum owned the house. During this period, the Moody family rented the house.

Sallie McCollum Taylor purchased the house from Tranum in June, 1911. Possession of the house followed through her daughter, Fannie McCollum Taylor and in turn to her daughter, Hazel Taylor Austin. The last occupants of the house, Mr. and Mrs. Charles R. Austin, vacated the structure in 1988. During the Austin tenure in the house, an ell addition (construction date unknown) was removed and a major addition was placed on the rear (north) of the structure about 1950. A second addition was placed on the gable end of the log pen about 1973 (TDOT 1978a). These structures served as kitchen and bathroom, respectively.
In 1988, the house and land were purchased by TDOT as part of an expansion of the highway on which the house fronts. The Austin family vacated the structure barely a year before our testing. In view of the architectural significance of the structure, plans were made to offer the house to qualified recipients for relocation and restoration (TDOT 1989). A local resident and occupant of the restored Isaac Hammer house, Samuel Humphreys, received the house and, after the conclusion of the testing described below, placed it on a new site roughly a quarter mile to the northwest of its original location.

At the time of our excavation in July, 1989, the modern additions on the rear and side of the house had been recently removed. Regrettably, serious subsurface disturbance resulted due to the use of heavy clearing equipment. Unseasonably heavy rains had saturated the clay soils of the site, rendering them quite soft. The concrete pad supporting the addition on the rear of the house was scooped out with heavy machinery, leaving a truncated and deeply tire-rutted area at the rear of the house. Deep tire ruts were also present on the gable ends of the houses, leaving only the front yard relatively intact. In the course of our testing program, the front porch of the structure was removed, but no subsurface impacts occurred.

The following discussion of the architecture of the house is based on the 1978 DOE research. Unless otherwise specified, the front of the house is considered to be the south facade, facing downslope toward the modern highway, and the rear of the house is the
north. There is evidence, summarized below, that the modern front of the house, the south facade, was in the past the rear of the structure.

The Victorian-period front porch had provided a sheltered entrance protecting two front doors to the structure, one in the middle of the log pen and the other in the middle of the brick wing (Figure 5). The front entrances to the two portions of the house also had parallel doorways on the rear or north side of the house. Two more doorways had been added through time. One, situated on the north side of the fireplace in the log pen, opened into the modern addition situated on the west side of the house. Another doorway opened from the entranceway and staircase room on the west side of the brick pen into the addition placed on the rear of the house.

In 1989, the house had a low full basement underneath the log and brick portions of the structure. Whether one or both basement areas were original constructions is a moot point. Access to the basement is also a point of controversy. The existing access to the basement in 1989 was from the west side of the structure south of the log pen chimney. This stairwell was framed in modern concrete blocks and was conceivably a late improvement. An early doorway into the basement may have been situated in the south facade of the brick unit near the southeast corner of the structure. At the start of our excavations, the front porch of the house and a pile of redeposited fill underneath obscured the view of two apparent basement windows below and to the east of the main door to the brick pen. As detailed below, in subsequent clearing the larger of the two apertures was exposed but not carefully examined.

Some examination of the interior of the house was made, but there was no attempt to systematically explore the history of changes to the structure. Several observations are noteworthy. At the time of the archaeological testing, the ceiling height in the ground floor room of the log pen is relatively low due to the presence of a modern suspended acoustic tile ceiling. After the testing program, this ceiling was removed, revealing an older surface of narrow beaded boards. In the room above, the ceiling is high, and the floor of the second-story room is a step below the level of the adjoining floor in the brick portion of the house. On the second floor of the log pen, in the southwest corner of the room, a patched board area was noted, forming an ell against the interior walls. This was the landing opening for the original staircase from the first to second floors of the log pen. Further along the west wall of the room, in the ceiling, was a patched opening into the attic. This opening may have been for a steep, narrow attic access staircase. The documentation for a DOE also noted that in the western pen of the brick portion of the house, in the rooms housing the main staircase, the existing stair plan had been reversed within the present century, the former staircase evidently having risen back to front as opposed to front to back. The present staircase impinges on the upper framing of the doorway exiting the central pen to the rear yard.

Measured drawings of the modern additions to the house were made by TDOT personnel prior to their removal. At the time of our testing, some footings for the west addition on the gable end of the log pen remained, but no remnants of the north addition to the rear of the house were left in situ. The rear addition was sizeable, nearly doubling the floor space of the main house, and featured a simple shed-type roof over the one-story plan. The floor of this rear addition was a heavy concrete pad, and its creation required some grading and levelling of the rising terrain behind the house. Although no precise measurements have been recorded, the addition was perhaps 6m deep and extending nearly the full length of the main house, or about 12m. A narrow covered porch extended along the west side of this rear addition.
Figure 5. The Hammer-Taylor House floor plan, adapted from plans prepared by Tennessee Department of Transportation personnel.
Also of one story height was the western addition. This structure, resting on a foundation of concrete blocks, was roughly 5m by 5m. The west addition had a pitched roof peaked along the same axis as the main house. Exposed by the demolition of the addition, the west gable wall of the log pen house displayed no less than three pitched roof line scars, indicating continual remodelling along that facade. These modern additions were recorded in photographs which accompanied the 1978 survey of the house.

In summary, it is assumed that John Hammer Sr. built the log pen house on the site some time prior to 1806 and possibly as early as 1790. About 1844, the double pen brick house was constructed abutting the log house, with one pen of the brick unit housing a central staircase. About 1890, a wide front porch joined the two front entrances to the structure under one roof. An ell of unknown construction date was removed about 1950 and an addition was built on the north side of the house. About 1973, a second addition was placed on the west side of the structure. These additions were removed in 1989, prior to archaeological testing.

There is evidence to suggest that the modern front of the Hammer-Taylor house, the south facade, was formerly the rear of the structure. Carver (1989) notes that the north side of the brick pen is penciled, a decorative technique typically used on the principal facade, and that the south elevation is not. Similarly, flat arch radiating voussoirs are penciled over the openings on the north facade of the brick pen, detailing usually reserved for the front of a structure. If the large opening into the basement observed on the south face of the brick pen was an entrance to that area of the house, this basement door would most likely have been at the rear of the house. The reversal of the hall staircase noted above may also reflect a shift in the principal facade of the house. Carver also notes a documentary description of a 19th century stagecoach road north of the house, a route upon which the building may have fronted.

The Hammer-Taylor house was, of course, merely the principal residential structure within a complex of functional buildings related to farming and other commercial enterprises run by the occupants of the house. Wooden barns and outbuildings still stood east of the house across an abandoned field in July of 1989. Several modern concrete block structures remained north and northwest of the house at the time of the excavations. One informant pointed out that an improved spring and springhouse, located on the south side of State Route 34/U. S.11E, had been used as a household water supply during recent decades in this century.

The Archaeological Testing Program

Two types of archaeological deposits were sought during the testing of the Hammer-Taylor house site. Each reveal different aspects of residential occupation of the structure through time. Closed-context features such as abandoned and backfilled cisterns, wells, and privies were sought for high artifact concentrations representing relatively discrete temporal events. Sheet refuse deposits, consisting of primary and secondary domestic refuse discarded or lost immediately adjacent to the house, reveal generalized activity areas and document the continuity of occupation at the structure.

Closed context features have highly-defined spatial limits and are created by behaviors occurring in relatively short intervals of time. In essence, they provide a glimpse at a household unit at a particular point in time. For example, the abandonment of a privy vault creates a convenient trash disposal pit. Households use the pit to contain refuse until the feature is filled, usually within a few months. Similarly, abandoned wells, cisterns, and unused basements fill with household refuse in a very short period of time. In addition to the relatively short time frame of filling, these features also possess a desirable archaeological characteristic: distinct boundaries and outlines.
In contrast to the rapid formation of closed-context features, sheet refuse deposits reveal diachronic or long-term behaviors associated with continual use of certain areas of the yard surrounding a house for particular activities. The accumulation of refuse in the ground surrounding a house is in some ways a more controlled phenomenon. Large pieces of debris, for example, would not normally be allowed to accumulate around entries to a structure or in more public spaces such as the front of a house. On the other hand, small, nearly invisible artifacts would remain unnoticed in the topsoil and its vegetation. The conscious act of bulk trash disposal in an abandoned privy vault stands in contrast to the largely unconscious accumulation of small artifacts on the ground surface surrounding a house. In the sheet refuse deposits, long-term activities are vertically compressed in soil strata.

Both deposits have analytical utility to archaeologists seeking to understand the activities of a household level social unit. For example, Stanley South (1977) defined the Brunswick Pattern of Refuse Disposal as an 18th century British-American phenomena of fan-like deposits of household debris gathered around principal entrances and exits of residential units. South speculated that the pattern of refuse accumulation was culturally conditioned, and that German-American household refuse disposal habits were far more fastidious than their British counterparts, leaving relatively less debris around the approaches to the house (1977:77).

The artifacts in the closed-context feature provide a sample of household behavior that is synchronic or narrow in time, while the sheet refuse reveals activities of the household through time. Sheet refuse deposits, unlike most closed-context features, are subject to mixing by various forms of bioturbation. Thus sheet refuse deposits often contain artifacts from disparate time periods in common association. The period during which the debris was generated can be determined through application of the Mean Ceramic Date Formula, a dating technique developed by South (1977, 1978) using the historically-determined manufacture periods of various types of pottery. The formula was developed principally on 18th century sites, and uses sherd frequencies multiplied by median manufacture dates to yield a mean date in calendar years expressing the statistical middle point of the occupation represented by an artifact collection.

Typically, the organization of structures associated with domestic units was more or less structured, more so in the confines of urban settings than in suburban or rural settings. Privies, for example, tended to be situated close to the household unit but not as close as wells or cisterns. In urban settings, the back of a residential lot would be subdivided into midlot activity areas housing wells and cisterns and rearlot areas containing privies and utilitarian outbuildings. In rural settings, as in farmsteads, utilitarian buildings radiate out from the house and its immediate appurtenances.

Research Design and Methodology

A plan was developed to systematically test for closed-context yard features such as wells, cisterns, and privies, and to sample sheet refuse deposits surrounding the house. Sheet refuse deposits were expected to occur on all sides of the house, but principally in the front and rear of the structure within a few meters of the house. Closed-context features such as wells, privies, and cisterns probably occur in the rear lot of the structure within a range of perhaps a dozen meters or less. The integrity of the site within these gross ranges was critically important. Complicating the testing was the possibility that the front and rear of the house, with attendant features and artifact deposition patterns, may have been reversed during the mid to late 19th century. As noted above, references made to the front and rear of the house refer to its modern orientation.

The Institute proposed to lay out a metric grid around the house and to systematically excavate small, hand-excavated screened test pits to sample sheet refuse deposits and to seek closed context features, particularly in the rear of the house. If the screened 1m by 1m and 1m by 2m test units failed to encounter closed-context yard
features, screening was stopped and unscreened test pits were excavated to search for features. Screening was resumed once a feature had been adequately defined.

Late in June, 1989, the project director visited the site to view the rear of the house where modern additions had recently been removed to facilitate excavation of the site. Unseasonably heavy rains had softened the clay soils to the point that the front end loader and dump truck used to scoop and haul the foundation debris left deep ruts in the ground. Moreover, the ground surface had been truncated up to a meter in places at the rear of the house. Some truncation had doubtless occurred at the time of the construction of the rear addition in the 1950s, but the churning caused by the heavy equipment tires exacerbated the intensity of disturbances to the rear of the housesite. As subsequent excavations showed, the ground surface at the rear of the house had been truncated well into culturally-sterile horizons. Consequently, examination of sheet refuse deposits at the immediate rear of the house was not possible. Similarly, deposits on the gable ends of the house were disturbed by heavy machinery (Figure 6). Hence, the archaeological testing in the rear of the house concentrated on locating features as opposed to sampling sheet refuse deposits.

A metric, cartesian grid system was commenced at a point near the north fenceline of the enclosure and at the center of the backlot. The point was given an arbitrary grid coordinate of 500N/500E. An east-west baseline was shot off this stake roughly paralleling the chain-link fenceline, and a perpendicular line was established to provide a grid north baseline. Grid north was 50 degrees west of magnetic north. The Hammer-Taylor house was not on the excavation grid alignment, and for purposes of the following narrative, the gable ends of the structure faced east and west, the front of the house, south, and the rear, north. The magnetic orientation of the long axis of the structure is 48 degrees east of north. Survey stakes were set in with nail-head accuracy and laid on 4m intervals (Figure 7).

It was not possible to establish one datum plane for vertical control over the entire site, the house imposing itself across the line of sight from front to rear of the property. Therefore, two temporary transit stations were established, TS#1 controlling the excavations in the rear of the house, and TS#2 controlling the front. It was determined that TS#2 was 2.49m lower than TS#1. Neither datum plane could be tied into a known elevation point at the time of the fieldwork.

Proveniences were discriminated on the basis of visible soil differences and arbitrary 20cm levels. Level intervals commenced at the highest opening point in the test unit; field specimen changes thus occurred regularly at 20cm intervals thereafter. At the same time, field specimen changes were made in every instance where soil color and texture changes occurred, as between zones of fill and natural soil layers. Thus, one natural zone deeper than 20cm could appear in several levels (e.g. Level 2B, Level 3B), and one level might contain several soils zones if the layers sloped any appreciable degree (e.g. Level 1A, Level 1B). A field specimen catalog was maintained.

Excavation units were nominally designated by the grid coordinate at the northeast corner of the unit. Features were numbered sequentially on the site and were normally recorded with plan view maps and photography. Upon completion of excavation in a unit, one representative profile was selected for photography and/or profile drawing for record purposes. Captions for field photographs were recorded in a photographic log. Narrative style field notes were maintained by the project director. All test pits were backfilled.
Figure 6. Rutted area at the northeast corner of the house. This view illustrates the deep rutting caused by heavy machinery used to remove the concrete pad under the rear addition to the house. The ground surface at the rear of the house was truncated up to one meter in depth by removal of the foundation pad.
Figure 7. Excavation Plan, 40WG60. Ground surface contours have been omitted for clarity.
Test Unit Results

Testing at the Hammer-Taylor site commenced on the north side of the house. The vegetation in the area was mowed prior to the excavations, and a walkover and visual inspection revealed at least one possible feature marked by a prominent depression. Fill from the first test units was 1/4" screened to standardize artifact recovery (Figure 8).

Figure 8. Excavations in progress at the rear of the house. Test excavations began in the undisturbed portions of the rear yard. In the foreground is a 2m by 2m unit laid out to provide a profile through the Feature 1 cistern.

Unit 499N/500E was a 2m by 2m pit straddling an intriguing depression in the ground surface at the rear of the house and on an approximate centerline separating the two portions of the house. This was considered a prime location for a well, and the test unit was situated to yield a profile across the center of the depression. Excavation revealed a circular brick structure with mortared walls and a concrete lining.

Mr. John Elsea identified the feature as a cistern, not a well, and also noted that the cistern had been in use during his lifetime. The sloping walls of the feature confirmed this identification. As excavation of the interior proceeded, debris cast into the structure within the last two decades was revealed, documenting that the cistern had been in use into the 1960s. It was thus thought unlikely that even the deepest levels of the feature would contain early 19th century debris. Excavation of the interior was suspended at a depth of 3.10m BD (below datum) or about 1.0m below the highest surviving course of bricks of the feature. The absolute depth of the cistern was not determined.
No builders' trench was noted for the Feature 1 cistern, indicating that the excavation of the cavity had proceeded from the inside out. This was feasible given the dense clays of the site's subsoil. Without a discernible builders' trench, it was not possible to obtain artifacts to yield a *terminus post quem* (TPQ) on the construction date. It is possible that the feature was actually constructed in the last century. The bricks in the lining were hand made like those used in the construction of the house. Two examples taken as samples measured 7.4cm to 7.7cm in thickness, 9.4cm to 10.9cm in width, and 21.5cm to 22cm in length.

Less than a meter to the west of the cistern, a fieldstone wall foundation was noted within the west unit baulk on a line perpendicular to the north wall of the main house. Feature 2, as the footing was designated, was composed of irregular, untrimmed limestone stones, and was dry laid to a width of 45cm to 50cm. In order to expose the full width of Feature 2 and to search for adjoining features, the pit was expanded west two meters (Figure 9).

Unit 499N/498E was an expansion off the unit which first encountered Features 1 and 2. This 2m by 2m extension west from 499N/500E revealed no new additional features and the fill was not screened. The full width of the Feature 2 footing was uncovered by the expansion. Excavation revealed sterile red clay at a slightly higher elevation on the west side of the wall than on the east, the side on which the cistern had appeared. Feature 2 evidently supported an ell addition on the rear of the house or an outbuilding set on the same construction grid as the house.

No artifacts were recovered in immediate association with the Feature 2 wall, leaving the chronological position of this foundation uncertain. At the end of the excavation period at the site, unscreened, uncontrolled extensions off 499N/498-500E were cut by shovel in order to follow the wall foundation. Figure 10 shows the final exposure of the footing and its apparent extensions.

Unit 500N/503E was a 1m by 2m unit and fill from the unit was not screened. No features were encountered in the unit, with the exception of a 1" diameter galvanized water line running grid northwest from a standing water spigot situated just east of the test pit. Zone A sod and Zone B topsoil produced little debris, but the Zone C accumulation in this unit yielded midden debris from the last half of the 19th century, including wire nails and several varieties of decorated and undecorated ironstone pottery.

Unit 500N/507E was a 1m by 2m unit, and was 1/4" screened below the sod zone. The dark brown topsoil, Zone B, contained a wide variety of modern plastics, ceramics and glass. Within the vertical limits of Level 2 (20-40cm below ground surface), Zone C soils, marking the transition to sterile subsoil, appeared along the west baulk of the unit. A concentration of debris was noted in the center of the unit, and in Level 3, Zone B, a TPQ of 1968 was obtained on an embossed bottle base. Subsequently, it was determined that this artifact concentration was the top of a distinct trash-filled feature. Feature 3 was defined as a rectangular privy pit excavated into sterile soil. At some time after 1968, the upper levels of Feature 3 had been truncated (Figures 11 and 12).
Figure 9. Features 1 and 2. This view faces grid west across the Feature 1 brick-lined cistern and the fieldstone foundation, Feature 2.
Figure 10. Plan of Features 1, 2, and 4 in the rear of the Hammer-Taylor house lot.
Figure 11. The Feature 3 privy vault is shown reamed in this view, facing grid east.
Figure 12. North profile of unit 500N/507E. The modern sod and humus layer (A) was followed by a shallow dark brown loam topsoil zone (B). Disturbed and redeposited fill (C) obscured the top of the privy and its constituent fill lenses (D, E, F). Natural, culturally sterile soil horizons graded from a pale tan-brown sandy clay (G) through a transition zone (H) into reddish brown clay (I).
Unit 501N/495E was a 1m by 2m unit situated in the back lot area of the house at a point off the northwest corner of the structure. The fill from this unit was not screened. Excavation revealed the presence of scarcely 20cm of modern sod and dark, rich brown topsoil before the abrupt appearance of red, sterile clay. In the southeast corner of the unit a cluster of fieldstones was noted, and subsequent expansion south off that corner revealed the apparent line of a wall footing designated Feature 4. Feature 4 was determined to be the companion wall to Feature 2, which it parallels at an outside distance of 4.1m. (see Figure 10)

Unit 497N/507E was a 1m by 2m unit excavated south of the test pit containing the Feature 3 privy vault. The fill from this unit was not screened, and artifacts were recovered visually during shovel excavation. No features or artifact concentrations were noted in the unit.

Unit 507N/501E was a 1m by 2m unscreened test unit situated outside the chainlink fence enclosing the house. This test was the highest in terms of absolute elevation and was placed at a distance of about 16m from the rear centerline of the Hammer-Taylor house. With the growing evidence of profile truncation near the house, the reason for excavating this unit was to determine if undisturbed natural stratigraphy was present at a slightly greater distance from the structure.

In Level 3, Zone C, (40cm to 60cm below ground surface), a 1" diameter galvanized water pipe crossed one corner of the unit, apparently without a trench being cut through superimposed layers for its installation. Consequently Zone C represents a redeposited fill layer and not a naturally aggrading ground surface. The presence of plastics in the zone suggested redeposition in the last half of this century. This test unit evidenced large scale landscape alterations in the rear of the house.

At the conclusion of testing in the back yard of the house, it was evident that this area of the site had been truncated at some point in time, removing the sheet refuse deposits associated with domestic activity at the immediate rear of the house. Since the upper elevations of the Feature 3 privy vault had been sheared off, the TPQ of 1968 for the filling of that feature also provides a TPQ for the clearing of the back yard. The testing program was then shifted to the front of the house.

Unit 480N/495E was a screened 1m by 2m test unit situated at the modern front of the Hammer-Taylor house. A shallow sod zone was followed by a thin layer of topsoil containing a variety of artifacts including modern plastics. The topsoil rested on a layer of dense, redeposited red sterile clay which was peeled off without screening after a screened sample of the material yielded no artifacts. For analytical purposes, the clay zone was included with the topsoil. Beneath this fill was a gray-brown sandy loam horizon containing a high density of domestic debris, Zone C. The presence of this layer provided concrete evidence of sheet refuse deposits from the first half of the 19th century. The upper level of this zone (FS 42) contained a mixture of 19th and 20th century debris, with modern plastic fragments being present in minor quantities. In the lower level of the fill (FS 43), only two plastic buttons were present to indicate modern contamination, and these items are small enough to have been present due to bioturbation. Following South's (1978) corrected formula, a Mean Ceramic Date (MCD) obtained on 120 datable sherds representing 11 refined earthenware types in FS 43 yielded the year 1835.9. If the house was occupied beginning in 1790, and with a median date of 1836, the lower portion of the Zone C midden would have nominally been accumulating up to 1882.

Unit 480N/491E was screened from the base of the sod zone, and was a 1m by 2m unit situated off the southwest corner of the house. Modern sod and humus (Zones A) was followed by a very thin zone of topsoil (Zone B) resting on a distinct layer of redeposited red clay fill (Zone C). Beneath the red clay cap was a layer of gray-brown sandy loam containing a high density of occupation debris, Zone D. A piece of insulated electrical wire was the single modern artifact contaminating the layer and may have intruded into the zone during the deposition of the capping red clay layer.
A mean ceramic date generated by 13 datable ceramic types (129 sherds) present in FS 51 (Level 2 Zone D) yielded a theoretical median occupation date of 1832.9 using the corrected formula developed by South (1978). Again assuming occupation commencing in 1790, and a median date of 1833, the MCD nominally dates an occupation span of 1790-1876. Most of the ceramic debris in Zone D of this unit (and Zone C of 480N/491E) was small in size, conforming with our general expectation for Brunswick pattern refuse at the front or public face of the residence.

Undetected during the excavation of the floor of the unit and penetrating this zone from the clay-loam interface was a pipe trench housing two 2" galvanized water pipes running south in the east baulk of the unit. This feature was of apparent early 20th century origin and was not assigned a feature number in the field, having been noted only in the profile and not being represented by a sample of artifacts from its fill. *Post facto*, the pipe trench was designated Feature 8 (see Figure 13). Having failed to recognize the pipe trench as an intrusion, the artifact collection from the midden, Zone D, had to be considered as contaminated. Apart from the insulated wire fragment in FS 51, however, there was no demonstrably 20th century debris.

Unit 480N/503E was a 1m by 2m unit situated at the front of the house near the southeast corner of the structure. The unit was screened from the base of the sod zone. Absent was the layer of sheet refuse comparable to that in nearby units along the front of the house. Instead, a dense root mat zone was present, generously supplied by a nearby tree. Within Level 3 (40cm to 60cm below ground surface), a linear feature was noted in the floor of the unit. Feature 7 was defined as a deep trench feature running north-south across the center of the unit. The trench was 55cm wide and at least 80cm deep. Steep, nearly vertical sides strongly suggested a modern machine-cut trench, but neither the superimposed layer nor the screened fill from the trench itself yielded demonstrably late artifacts. No pipe or utility line was found in the trench, and its date of excavation and function are unclear. If extended, the trench would have intercepted the south face of the brick portion of the house 1.5m-2.0m from the southeast corner of the structure.

Test Unit A was an off-grid 1m by 1m pit excavated against the east gable footing of the house to search specifically for the construction or builders' trench. This was done principally to gauge the depth below surface of the start of the construction trench and secondarily to obtain artifacts which would yield a TPQ for erection of the brick unit. The results were disappointing.

The assumption was made that normal ground aggradation since 1790-1806 would place the top of the builders' trench well below the modern ground surface. Removal of barely 10cm of modern sod, humus, and leaf litter exposed the outline of the construction trench, which was designated Feature 5. This suggested that any aggradation of profiles occurring after construction of the brick unit had been erased by truncation, from natural or cultural causes. The construction trench was about 60cm wide.

Only one datable sherd was recovered in the excavated sample of the builders' trench. The TPQ of c. 1826 on a fragment of red transfer-printed whiteware from the trench fill provided little corroborative data on the historically indicated construction date of c. 1844. The builders' trench was not excavated to the base of the wall footing.

Feature 6 appeared within the Feature 5 builders' trench and consisted of the stain of a square post 21cm wide. Postmolds like Feature 6 have been found in similar contexts (adjacent to chimney stacks) at the Hermitage (Smith 1976: 122) and Castalian Springs (Smith 1976: 53) although no functional attribution has been offered. It is here suggested that these molds are associated with scaffolding erected during the construction and/or repair of chimneys.
Figure 13. South profile of unit 480N/491E. A very thin humus and litter zone (A) and dark brown loam topsoil (B) rested atop a thick layer of redeposited sterile red clay (C). Beneath the red clay zone was a layer of tan-brown sandy clay containing finely-broken domestic debris. Intruding into this occupation zone was a pipe trench (Feature 8) with two distinct layers of fill (D, E). One of the two 2" water lines seated in this trench was in the east profile of the unit and is not shown. Tan-brown sandy clay soils (G) mark the beginning of culturally-sterile horizons, which transition into dense reddish-brown clay (H).
Also on the east gable end of the structure was superficial evidence of modern alterations involving sub-surface disturbances to the ground around the house. A basement window in the east facade south of the chimney had been bricked and blocked in, evidently as part of a sequence of modifications involving installation of an oil furnace heating system. East of the blocked window were deep tire ruts and the top of an oil tank supply pipe.

Of architectural interest was the modern front or south facade of the brick unit of the house (Figure 14) and two basement-level apertures in the foundation walls. After removal of the front porch of the house, this facade revealed the presence of a small window situated under the doorway into the brick portion of the house and a larger window or doorway to its right. It was speculated that the larger of the two apertures was in fact an early basement door, being over one meter in width. In the fairly recent past, the basement under the brick unit of the house had been enlarged, and the spoil ejected through the openings in the south foundation. These openings were subsequently boarded over to hold back the fill.

Figure 14. South face of the brick portion of the house. Removal of the Victorian front porch of the house revealed a pile of modern redeposited fill at the southeast corner of the house. The fill obscured a small basement window under the doorway and a much wider and original cellar door (?) to the east. Prior to construction of the porch, the brick portion of the house had been unpainted; this view illustrates the shadow of the unpainted brick framed in modern white paint.
This modern fill was partially removed by hand, exposing the eastern aperture which measured 1.15m wide and at least 1.35m deep (Figure 15). A rough stone footing bordered the east side at the front of the opening although its function (e.g. retaining wall) was not clear. The Victorian-period front porch had been supported by wooden piers resting on simple slabs of stone, and the rough stone footing had no apparent connection with the support of the front porch. The large aperture was either a large basement light or a low basement door with an exterior entrance well. The basement under the brick unit may have been finished as living space or winter kitchen.

Figure 15. Cellar door (?) at the southeast corner of the house. The paint shadow of the absent Victorian porch frames the two openings into the basement of the brick pen portion of the house. The wide window or doorway on the right features a heavy wooden sill which appears to be integral with the brickwork, suggesting it was an original feature. The smaller window to the left may also be original, the window lintel consisting of brick headers.

Synopsis of Field Data

As might be expected with a house continuously occupied for over 180 years, substantial modifications have been made to both the timber and brick units. Similarly, in the ground surrounding the house, there was evidence of numerous and sometimes dramatic changes in the archaeological record of the site.

Excavation units on the south and north sides of the house indicated ground truncation in varying intensities. At some point after 1968, the terrain on the north side of
the Hammer-Taylor house was stripped, removing sheet refuse deposits generated in the 19th century and truncating soil profiles. This truncation also seems to have affected the east side of the house and yard. Compounding the removal of soils associated with the early occupation of the house was disturbance caused by removal of modern additions placed on the modern rear and west side of the house prior to the archaeological testing program. A large area on the north side of the house was obliterated.

Features 2 and 4 were elements of one wall footing probably supporting a frame superstructure 4.1m wide (east-west) and at least 3.9m long (north-south). The superstructure may have been an attached ell and extending an overall length of 10.5m to the northwest corner of the house. This might well have been the footing for an ell addition on the rear of the house torn down in the first half of this century. However, if Features 2 and 4 supported an attached ell, the finished floor elevation of that addition would have been over 35cm higher than the extant doorsill elevation of the rear door in the log pen portion of the house. It will be recalled that the ground rises steadily behind the main house, and any structures built in that area would intercept the slope.

The Feature 1 cistern may have been constructed in the 19th century, but the contents of the structure clearly indicated abandonment and filling in the late 20th century. This supports the information provided by John Elsea that the feature was in use in the recent past. As expected with a closed-context feature, the cistern contained a great deal of cultural debris, all of it sampled being from the last half of this century. There may have been some type of frame structure bordering the cistern on the north side, away from the house. The plan of Features 2 and 4 shown in Figure 10 suggests a continuation of the northern wall line east past the cistern.

The 20th century Taylor household was supplied with water both from the cistern at the rear of the house and the spring a dozen or more meters to the south across the highway. The twin pipes intercepted in 480N/491E and running from the southwest corner of the house toward the spring may have been for pumped water. A conventional well may not have been needed at the housesite. The Feature 3 privy, although probably not in use in the late 1960s, was nonetheless being used as a trash disposal feature as late as 1968. Doubtless, other unlined privy vaults are present in the rear lot areas of the house.

After 1968, the soil profile at the rear of the house was dramatically lowered, perhaps due to agricultural use of the land or as part of landscaping activities. Sheet refuse deposits from the 19th century were evidently truncated. The cistern may have been abandoned at this time as well, and in the course of clearing for additions the upper levels of the Feature 2-4 foundation were removed.

The MCD data from the front yard test pits can also be interpreted as reflecting a stratigraphic discontinuity in the occupational debris from the house. Although nominally median dates in an occupation range from c. 1790 to c. 1880, the dates are derived largely from ceramics types confined to the first half of the 19th century. The absence of popular ceramic types from the late 19th century, for example, plain yellow-ware (1826-1880), Rockingham-style yellow-wares (1841-1900), and flowing-blue transfer printed whiteware (1841-1900), suggests a change in deposition patterns at the house site or a loss of these deposits by truncation.

As noted above, the modern front of the house (the south facade) may have been the rear of the structure at the time the brick pen was added to the log pen. The possible basement door and window exposed in the south face of the brick pen would likely not have been present in the principal facade. Several decorative details in the north face of the brick pen (penciled voussoirs, etc.) support this assumption. The apparent temporal discontinuity in sheet refuse deposits on the south side of the structure may be related to a shift in orientation of the principal facade and entrances to the house in the late 19th century.
Artifact Analysis

Field specimen collections were washed, dried and sorted by material group (glass, ceramics, bone, stone, etc.) prior to artifact classification. Artifacts were classified using an open-ended system of identification as opposed to numeric or alpha-numeric computer coding systems. Identifications, descriptions, counts, and weights by artifact type were recorded in manuscript form on field specimen inventory sheets, along with appended notes on temporal indicators and additional descriptive information. These rough tallies were then input into a Macintosh SE computer furnished with an Overvue data management program.

Metallic artifacts were common on the site; a total of 1779 individual fragments were classified, a number of these being either modern wire nails (n=593) or slightly older machine cut square nails (n=337). Selected classes of ferrous materials were subject to discard after quantification. The criteria used for discard included identifiability and stability. In particular, thin sheet metal which could not be successfully cleaned by electrolysis and which held little future potential for information was discarded in the lab. Similarly, nondescript lengths of ferrous wire under 2mm in diameter were discarded. Metallic items with analytical or illustrative value were segregated for cleaning.

Ferrous items selected for electrolytic cleaning were electro-chemically reduced in a 5% solution of sodium hydroxide at currents up to 4 volts and 20 amperes. Gross incrustations not reduced electrolytically were mechanically removed. The surface of cleaned items was treated in a solution of tannic acid to produce a stable oxide layer and then sealed with an acrylic polymer.

Ceramic artifacts were classified by ware (earthenware, refined earthenware, stoneware, and porcelain), decorative modes (hand-painted, transfer-printed, etc.), and color. No attempt was made to systematically cross-mend and make minimum number of vessel determinations. Over seventy ceramic types were classified, totalling 868 sherds. Porous utilitarian earthenwares (n=222) were overwhelmingly redwares (n=215), with clear or tinted lead glazes being the predominant surface treatment (n=192) within that subgroup. Hard paste refined earthenwares included one fragment of creamware, 197 pieces of pearlware, 304 fragments of whiteware, 47 fragments of ironstones, and seven burned and unidentifiable fragments of refined earthenware types. Utilitarian stonewares were represented by 64 fragments, and vitreous paste porcelains were represented by 23 fragments.

A total of 982 fragments of glass was recovered in the excavations. Datable technological marks such as bottle bases with Owens bottle machine scars were noted on the field specimen inventory sheets and were useful for provenience dating. The largest groups of glass artifacts were fragments of clear to pale green windowpane glass (n=408) and curved body shards of clear or pale green container glass (bottles, jars, etc.; n=353).

Food bone was recovered in quantity, particularly from the rear of the house. A total of 650 bone fragments was recovered, amounting to 2738.7g of material. No funds were budgeted for faunal analysis, and fragments were identified only at the grossest level. All the classified bone was generically identified as bird bone, mammal bone, or sawn mammal bone.

Given the occupation of the house until 1988, a variety of plastic artifacts were recovered, particularly from the uppermost occupation zones. No attempt was made to systematically classify this material.

Several aboriginal artifacts were recovered in the excavations, although there is no stratigraphic evidence of a prehistoric activity area in the immediate vicinity of the Hammer-Taylor site. These objects may well have been collected at other localities by the inhabitants of the house and lost within the yard. The aboriginal items recovered include several pieces of gray flint debitage, a blade tip from a projectile point or knife, a bifacially-thinned leaf-shaped scraper, and one triangular stemmed projectile point/knife. No aboriginal ceramics...
were recovered. Site 40WG60 is evidently not superimposed directly on a prehistoric activity locality.

Conclusions and Recommendations

The Hammer-Taylor archaeological site, 40WG60, does not merit further investigation involving Phase III data recovery and mitigation by intensive hand excavation. Due to its lack of integrity, the site is thought not to be eligible for inclusion to the National Register of Historic places.

Additional architectural recording on the basement level of the house is extremely desirable, with a view to establish, among other points, the nature of the basement under the brick portion of the house and the configuration of basement doors and/or windows in that area.

In the process of moving the house, a roadway not exceeding 5% grade will be cut along a northwesterly route away from the original site. Moreover, grading of a path along which the house will be towed will pass out of 40WG60 into other untested areas. Consequently, we recommend monitoring of the house move and the conduct of salvage archaeological excavations as needed. After the removal of the chain-link fence and grading prior to removal of the Hammer-Taylor house from the site, closed-context features associated with the house as well as other deposits not within the historic domestic site may be exposed.

Some structures associated with the Hammer-Taylor farmstead are located outside the area examined during our secondary testing. The spring and springhouse, located across Route 34/11E, for example, are directly linked with the occupation history at the house; water from the spring was evidently piped in to the Hammer-Taylor house in this century, and the spring house served cold storage purposes for the household. A cursory examination of the foundation elements of the springhouse suggest probable 19th century construction of that building, and it may well date to the very early portion of that century. This structure should be examined by an architectural specialist.

The meadow below (south) of the spring to the waters of Knob Creek is also known as a locality for prehistoric activities, and extensive surface collections are said to have been made in the bottom lands adjoining the creek. The spring, springhouse, and probable prehistoric archaeological site were not specifically noted during the 1978 survey of Route 34 (Cobb 1978), perhaps due to the reported 80% coverage and lack of subsurface testing. Additional sub-surface testing is recommended for this locality prior to any construction impacts on the area.