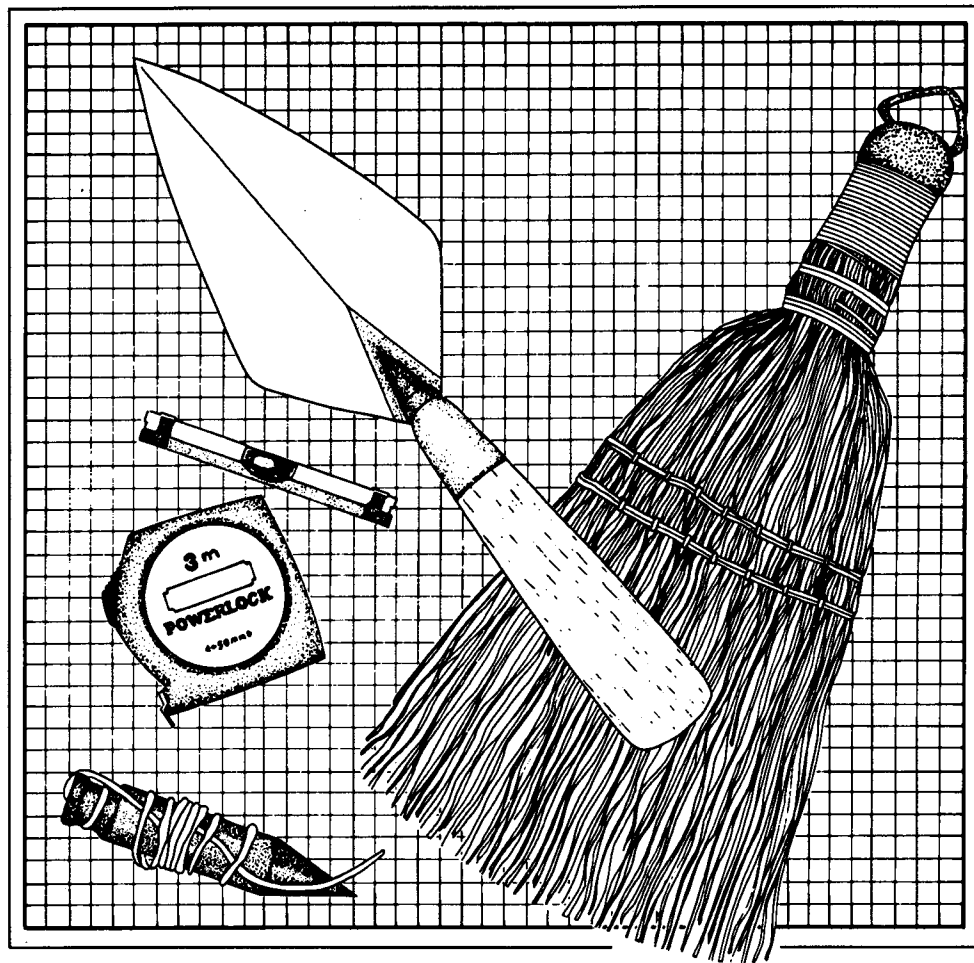


*A Report on the 1991 Excavations at
Ulysses S. Grant National Historic Site,
St. Louis, Missouri*



National Park Service - Midwest Archeological Center

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A REPORT ON THE 1991 EXCAVATIONS AT
ULYSSES S. GRANT NATIONAL HISTORIC SITE,
ST. LOUIS, MISSOURI

By

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This report has been reviewed against the criteria contained in 43CFR Part 7, Subpart A, Section 7.18 (a) (1) and, upon recommendation of the Midwest Field Area Office and the Midwest Archeological Center, has been classified as

Available

Making the report available meets the criteria of 43CFR Part 7, Subpart A, Section 7.18 (a) (1).



ABSTRACT

For three weeks during the summer of 1991, an archeological team investigated the abandoned estate of White Haven, family home of Julia Dent Grant, which now is referred to as Ulysses S. Grant National Historic Site since coming into the National Park System in 1990. Those excavations served two major purposes: (1) to provide information on the structural evolution of White Haven for preparation of a Historic Structures Report on the property; and (2) to examine two large open grassy parcels identified as possible alternative parking areas for the Historic Site. Results of the study have contributed new data bearing on the main house and particularly an attached stone structure. Survey of the parking alternatives, furthermore, eliminated neither parcel completely from consideration at this time.

ACKNOWLEDGMENTS

The study reported here represents the contributions of numerous individuals. Foremost among those instrumental in its making are Superintendent Jill York O'Bright and Historical Architect Al O'Bright, duty stationed at Ulysses S. Grant National Historic Site from the Great Plains System Support Office. It was chiefly through their efforts that funds became available for the 1991 project. Further, Al O'Bright worked closely with the archeological team to define the scope of work that was to be accomplished during our stay.

In addition, former site historian Kim Little and the interning historical architect, Kristin Marolf, provided helpful comments and needed information throughout our investigations. Moreover, former Superintendent Jerry Schoeber of Jefferson National Expansion Memorial Historic Site, which then had direct administrative oversight responsibility for Ulysses S. Grant, took a keen interest in the progress of our research and visited us in the field more than once.

Dr. Mark Lynott maintained general project supervision from our offices at Lincoln, Nebraska. Archeological Technicians Todd Ahlman and Todd Butler performed much of the laboratory processing and artifact analysis, making significant contributions to the completion of this report. Carrol Moxham supervised preparation of the various illustrations herein with contributions from Janet Robertson. John Andresen supervised the editing and production of this report with the assistance of Ken Gobber, and Marie Johnson formatted the text for the final, camera-ready copy.

The Missouri Historical Society deserves special thanks for the prompt and thorough reply to my letter inquiry concerning the nineteenth-century St. Louis manufacturer G.F. Filley. Senior Curator Anne Woodhouse was most helpful in providing the needed information. Her research volunteer Marian Davis was especially diligent in tracking down biographical data on Filley.

Local Boy Scout Andy Kuhnert volunteered several days of service in our field excavations, for which we appreciate his assistance and interest.

Finally, it goes without saying that a competent field crew is the most critical component in any successful archeological project, and the 1991 crew was no disappointment in that regard. Accordingly, my sincere thanks go to Todd Ahlman, Todd Butler, Dennis Naglich, and Harold Roeker for their capable performance in the summer heat of St. Louis, Missouri.

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INTRODUCTION

From June 11 through June 27, 1991, a research team from the National Park Service's Midwest Archeological Center (MWAC) carried out the first archeological investigations ever undertaken at Ulysses S. Grant National Historic Site (ULSG), located in the extreme southwestern part of metropolitan St. Louis, Missouri (Figure 1). At the time of this study, Ulysses S. Grant was the newest National Park Service acquisition in the ten-state Midwest Region, having been transferred to the federal government from private ownership in 1990. Although currently staffed by National Park Service personnel, as of the end of the project the site had not yet been opened to the public on a regular basis. That event has been delayed until the primary historic structure is fully restored and ready for general visitation.

Historically known as White Haven and in modern times as the Grant-Dent House, the estate once was the property of Frederick Dent, father-in-law to Ulysses S. Grant. Now reduced to approximately 9.5 ac (3.8 ha), White Haven, including the main house and several lesser associated outbuildings, was in generally poor repair at the time of acquisition. The main house had been modified and modernized by various owners through the years, and several outbuildings had been razed, moved, or added to the property since the primary historic period. Historical Architect Al O'Bright, who has major responsibility for the preparation of a Historic Structures Report (HSR) on the new Historic Site, was charged with researching such changes and documenting the existing conditions.

The archeological team's primary task was to investigate several areas of the property, particularly about the main house, in order to help resolve lingering questions raised by historical research, as well as to make a physical inspection of the structure itself. To that end, the historical architect directed placement of particular excavation units that would potentially cast light on the historic form of the structure and the sequence of changes made to it. Other units placed at the discretion of the author also were productive.

In addition to efforts in support of the HSR, the team also investigated two areas of the property that were then under consideration as possible parking lots for the site. It was known at the outset that one of the alternates might overlap with a former barn complex. Further, the other alternate is reputed in local lore to have been the site of the Dent family slave cabins, a claim of dubious authenticity.

This report presents the methods and results of the three-week field project carried out on the grounds of White Haven. Test units are described individually, except when it is more appropriate for them to be grouped as elements of a larger analytical unit. The description of particular artifacts is included in the narrative only where it contributes meaningful information that furthers interpretation of a feature or area of the site. All materials recovered in the course of these investigations, however mundane, is summarized in tabular format. The report concludes with a reiteration of the major archeological findings of 1991 and their limitations.

HISTORICAL BACKGROUND

The following historical sketch is drawn primarily from an information sheet prepared without attribution by former site historian Kim Little (Anonymous n.d.). That document is employed by Ulysses S. Grant National Historic Site staff for special tours, media releases, and similar purposes.

Early Occupation

Under terms of a 1796 Spanish land grant, one Hugh Graham acquired a tract of nearly 800 arpents (680 ac) on Gravois Creek in what is now east-central Missouri but was then a part of Spanish Upper Louisiana. Soon thereafter, Graham exchanged the land to James Mackay (spellings vary) in return for some of the latter's holdings along the Missouri River. Mackay, it should be noted, was a prominent trader and entrepreneur of the eighteenth-century West.

Born in Scotland in 1759, Mackay emigrated to America in 1776 and then spent the next 15 years as a trader with the North West Company in Canada. He moved to Missouri in about 1793 and soon returned to trading through the Spanish Commercial Company (sometimes known as the Missouri Company), making trade expeditions from 1795 to 1797. Afterward he took appointment as commandant of the settlement of San Adres, located in the northwest part of what is now St. Louis County. His 1800 marriage to Isabella Long produced many descendants, including some who achieved historical prominence of their own. In later years, after transfer of the territory to the United States, Mackay served as a judge and also as a representative to the Territorial Legislature. He died at St. Louis in 1822 (Quaif 1916:187-188).

In 1808, Mackay sold some of his acreage on Gravois Creek to his brother-in-law, William Long. Long built a two-story frame house on the land, which he later would sell with improvements to Theodore Hunt in 1818. Frederick Dent, Grant's future father-in-law, bought the property from Hunt in 1821.

Dent-Grant Occupation

Dent used the place primarily as a country retreat from the often stifling summer heat of St. Louis, where he maintained his permanent residence. Despite its initial limited function, he made a number of improvements to the property, making it more suitable for his large family and eventually transforming it into a working plantation. Moreover, it was at White Haven, as it became known, that events brought his daughter Julia together with the future Civil War hero and U.S. president.

Dent's son Frederick (Fred) was appointed to West Point, where, as it happens, his roommate was Ulysses S. Grant. Upon graduation from the military academy in 1843, Grant's

first assignment was to Jefferson Barracks, then well south of St. Louis but now within its urban sprawl. While posted there, his high regard for young Frederick led him to call on the Dent family at White Haven, a trip that would have taken him 8.5 mi northwest, as the crow flies. It would appear that Grant was almost immediately taken with Fred's sister, Julia, for when his military company was to be transferred out in 1844 he proposed marriage. For her part, Julia was doubtless equally taken with the young soldier (then aged but 22 years), and they were soon married.

The couple lived at White Haven before his transfer orders came for posts first in New York and then in Michigan. They returned to White Haven periodically, however, and their first son, Frederick Dent Grant, was born there in 1850. When Grant received transfer orders for the West Coast in 1852, Julia and their son remained at White Haven. She traveled to the Ohio home of Grant's parents during that period, however, giving birth to their second son, Ulysses, while there.

Ultimately, the separation from his family over such great distances led Grant to resign his military commission in 1854. He returned to White Haven and lived for a while with his young family in the main house. Soon thereafter they moved into Wish-ton-Wish, the house belonging to Julia's brother and located elsewhere on the plantation.

While residing at Wish-ton-Wish, Grant began to farm 100 ac of White Haven land given to his wife Julia by her father. This at last provided Grant with the opportunity to build his own domicile, a log structure he named Hardscrabble, perhaps only partly in jest. Only a few months after its completion Julia's mother died, however, and her father, probably out of loneliness, requested that they move back to the main house.

Farming proved to be difficult in the years Grant attempted the enterprise at White Haven. A depression in the farm market, an early June frost, and sickness in the family, as well as among the slaves, forced Grant to let go of the farm in 1858. Dent and Grant agreed to sell 400 ac of the estate, including the land on which Hardscrabble stood. However, since Dent had never formally deeded the 100 ac to either his daughter or son-in-law, it is unlikely that Grant profited from the transaction.

The Grant family then moved into the city, where Ulysses formed a brief real estate partnership with Julia's cousin, Harry Boggs. Grant's role in the partnership was to collect delinquent accounts, a task he found distasteful and difficult. Accordingly, with the nation heading toward civil war, Grant headed to Galena, Illinois, where he would work for a time in his father's store.

An abject failure in almost every civilian pursuit he entered, Grant did not hesitate to return to military service when the war came. During the opening years of the war he rose through the ranks, and his distinguished service eventually caught the eye of President Lincoln. Having struggled with one incompetent general after another, Lincoln took a chance by

appointing Grant to head the Army of the Potomac, and Grant singularly honored the president's trust by leading the Union Army to victory over the Confederacy.

Grant's Acquisition and Loss of White Haven

During the war years, Grant reaffirmed his devotion to his wife's family home, White Haven. Whenever he had put aside sufficient funds, Grant would buy parcels of the Dent property. Grant continued that practice after the war and through his presidency, eventually acquiring the entire estate and several neighboring tracts. At its largest, White Haven measured over 1,000 ac.

As perhaps the greatest American war hero since Washington, Republican political brokers quickly seized upon him as the ideal person to pick up the torch from the fallen Lincoln, who was assassinated within a few days after the Confederate surrender. Certainly in their minds he had the makings of a formidable presidential candidate for the 1868 elections, more so at least than the incumbent, Andrew Johnson, who after all was a border-state Democrat soon to be impeached.

The two terms in office of the nation's eighteenth president were hardly distinguished. The Grant administration was rife with scandal, though Grant himself tended to remain above the fray. He was, in essence, an honest man ill-served by his advisors and political cronies. Still, Grant held ambitions for an unprecedented third term of office. Those aspirations would split the Republican party, effectively cutting Grant out of the 1876 polling and bringing forth a dark-horse compromise candidate, James A. Garfield of Ohio, in the 1880 election year. Indeed, a zealous Stalwart loyalist, that is, a member of the Grant faction of the party, shot Garfield early into his term so that the ticket-balancing Stalwart, Vice President Chester Alan Arthur, would succeed to the presidency.

During the presidential years, Grant continued to acquire land and make improvements at White Haven. It would appear from those activities that Grant intended to ready the place for his retirement from public life. His unabated desire for a third term through two elections, however, demanded that he remain close to the centers of political power in the East. Even after the 1880 election, Grant stayed in New York City as a principal partner in a financial concern.

In that last foray into the private sector Grant proved no more successful than in his earlier civilian pursuits. Indeed, the unscrupulous practices of his partner led to financial ruin for the firm, and Grant was left with a mountain of debt when his associate fled the country. Grant would spend the rest of his days trying to make good on those debts, selling off his beloved White Haven and completing his still important memoirs shortly before his death in 1885. The latter effort was particularly crucial in providing a steady income for his widow in a time before presidential pensions.

Over the next hundred years, occasional land sales pared away the property Grant had amassed about the main house at White Haven. Further, during the last fifty years, developers subdivided much of what was then left of the estate for residential construction. Thus, the remaining 9.65-ac plot is now bordered on three sides by modern single-family dwellings. To the west, across Gravois Creek, lies the former Augustus Busch estate, Grant's Farm, now a popular tourist attraction run by the Busch Foundation on lands also formerly owned by Grant. A log structure claimed to be Grant's relocated Hardscrabble is prominently displayed at Grant's Farm; that claim, however, is open to question.

DESCRIPTION OF THE SITE

White Haven is located in part of Section 16, Township 44N, Range 6E, as well as in all of U.S. Survey 9 (Figure 2). The latter tract is retained from early Spanish claims platted in the area and does not conform to the township and range system established by the Northwest Ordinance of 1796. As depicted on the U.S. Geological Survey 7.5-minute Webster Groves Quadrangle map (photorevised 1974; photoinspected 1979, portion shown in Figure 2), UTM coordinates for the property are Northing 4270020 to 4270200, Easting 730800 to 730660 (Zone 15). The site totals approximately 9.5 ac (3.8 ha) in area and has dimensions of approximately 180 m by 260 m (590 ft by 853 ft). White Haven is referred to as "Grant's Home" in the files of the Archaeological Survey of Missouri, which assigned it the site number 23SL765 upon application of the author. A second site number (23SL857) was mistakenly assigned to the site in 1992, but the earlier designation takes precedence in such cases.

The site lies largely between 510 ft and 520 ft amsl (above mean sea level), though the western limits fall to the 500-ft contour (Figure 3). The site can be characterized as a dissected uplands hilltop. Gravois Creek, which drains from the northwest toward the southeast through this area, represents the major source of surface water near White Haven, the center of which lies approximately 200 m east. A small ephemeral stream skirts the current northwest boundary of White Haven and empties into the perennial Gravois Creek. Furthermore, a spring used by the Dent family is on the property. At least one well and one cistern also are known to be present that would have provided potable and utilitarian water, respectively.

At the crest of the hill sits White Haven's main house (Figures 3, 4 and 5). It is a two-story frame structure, with lesser wings and modern additions, some of which have been razed since their original construction. The front porch is a striking double gallery employing irregularly spaced support posts. The gable-ended structure is flanked by massive stone chimneys on either side. The overall appearance is eclectic in style, showing minor influences of the French colonial architecture common to this part of the continent.

A single-story wing addition off the west side includes a hatchway that leads to the cellar by way of exterior stairs (Figure 6). Historic photographs, however, show that, formerly, entry was gained through a short door in the west elevation that must have employed interior stairs to reach the cellar floor (Figure 7). It should also be noted that the west addition is of heavy timber construction and may have been moved here from some another location.

Probably built in the 1950s, a breezeway connects the rear of the main house with a massive stone structure most recently used as an automobile garage (Figure 8). The stone structure (Figures 9 and 10), which may even predate the main house, is reputed to have been a slave cabin. Not only is its original function in question, but historic photographs suggest that it may have been smaller before it was repaired by subsequent owners of White Haven.

A large room added sometime in the 1950s extends eastward from the rear of the stone structure (Figure 11). That addition served as a workshop for the last private residents of White Haven. During the period of our investigations, it had been adapted for use by the team of historical architects working on the HSR investigations.

A set of measured drawings prepared by the Historic American Buildings Survey (HABS) show White Haven as it looked prior to its last major remodeling nearly 50 years ago (Figure 12). Numerous engravings and photographs also depict two former additions to the main house earlier in time (Figures 13-16). Details about uses of those rooms (namely, the east wing and the Hunt addition) are generally lacking. They were demolished in 1940, and the breezeway that connects the main house to the stone building today now partly overlaps their former positions.

Behind the main house, generally toward the north, are two side-by-side outbuildings on the slope leading down to the ephemeral stream that demarcates the north property line. One is believed to have served as a smokehouse, and the other is commonly identified as a shed (Figures 3 and 17). It is believed that a third outbuilding, perhaps a barn, formerly stood in this general area.

A large historic barn stands next to the west property line near the commonly used entrance to the site (Figures 3 and 18). That building, however, originally stood southeast of its current location, along with several minor dependencies, such as a corncrib. It is likely that construction of a subdivision to the south of that complex demanded the barn's relocation and the razing of its several associated structures.

One other standing structure, dating from the early part of this century, is present on the grounds. Built as a caretaker's house, the building lies between the relocated barn and the main house at the base of the hill (Figures 3 and 19). Although not associated with White Haven's designated historic period, the building will be retained indefinitely as administrative headquarters for the site.

Minor site amenities include two circular holding ponds formerly used to cool parts of the main house in the years immediately preceding modern air conditioning. In addition, a flag pole and a standard for either a sundial or bird bath are located just west of the main house. Finally, the grounds are dotted with several hundred trees, some of which are reputed to have direct associations with President Ulysses S. Grant.

ARCHEOLOGICAL INVESTIGATIONS

The 1991 archeological project at Ulysses S. Grant National Historic Site was the first such investigation to be undertaken at the site since federal acquisition. Furthermore, no archeological excavation is known to have taken place at White Haven during the entire period it was in private ownership. As a result, efforts at the site in 1991 produced entirely new information about limited aspects of the former estate. In addition, the excavation project demanded that a formal site number be requested for White Haven through the Archaeological Survey of Missouri. Henceforth, Grant's Home is officially designated 23SL765, identifying it as the 765th archeological site recorded in St. Louis County, Missouri.

Moreover, it is anticipated that the 1991 project will prove to be the first of many similar investigations that will be undertaken over the next decade. In 1992, for example, a research team investigated certain areas of the site using geophysical remote-sensing techniques; specifically, magnetometry and soil resistivity (Noble 1992; Weymouth 1993). That study was then followed by a program of limited testing with the goal of verifying the remote-sensing implications (Noble 1993). More recent excavations focused on deposits beneath a modern concrete floor in the cellar of the west wing (Price 1996a, 1996b) and on the continued search for evidence of the Hunt addition (Price 1995).

Field Methods

Excavation

Because the bulk of our work at White Haven would be aimed at examining certain parts of the main house, placement of many test units followed the specific needs of the HSR study. Accordingly, it was not necessary, nor was it feasible, to establish a surveyed excavation grid about the house. It was sufficient to place the units against a recognized structural element or at a precise distance from some fixed point, such as a corner. This was true even of those units that were well away from the building in areas where evidence of razed additions might have survived.

Having established a test unit on the ground, however, field methods generally followed normal excavation protocols. The team of excavators employed 10-cm (4-in) arbitrary levels, which the team removed with shovels and trowels. In order to ensure near complete recovery of cultural materials, excavators also put removed soils through a quarter-inch (6.4-mm) screen. This procedure continued until it was certain that culturally sterile soils had been reached. The cultural deposits ranged from shallow to deep.

Documentation of the field excavations at White Haven also followed standard operating procedures. Measured field drawings, for example, record all unit-level floors and representative

profile walls. Black-and-white prints and color transparencies record the progress through each unit, as well. Close-up photographs also capture important details of some units.

Shovel Testing

Investigation of the two areas identified for the site as possible parking lot locations proceeded in a more customary manner. Indeed, given the fact that both areas were open, grass-covered lawns with few trees, it was possible to tape out regular grids to assist efforts of the shovel test teams. The 10-m transect spacing thus was more accurate than is the norm for work in a thickly wooded environment, as was the 10-m interval spacing between each shovel test. Accordingly, relocation of any shovel test hole that produced cultural materials of consequence would be much easier.

The standard shovel test routine required that each data point be excavated to a depth of approximately 50 cm (20 in). Depths might vary, however, depending upon the presence or absence of cultural materials in the fill. In addition to enabling the detection of potentially significant artifact scatters, the shovel tests also provided regular glimpses of the stratigraphic profile across two large areas of the site.

Parking Lot Investigations

As noted previously, prior to initiation of the current project park management had identified two areas of the site as possible candidates for the construction of a parking lot. In 1991 there were only a few places designed for parking, and they were not even adequate for the regular staff. Many simply parked on the edges of the several lanes that course through the grounds. Grant's Farm, it bears noting, operates a large parking facility within sight of the White Haven gate. Whether some cooperative parking agreement might be desirable and feasible, however, remains to be seen. In the meantime, a small staff parking area was designed, approved, and built near the former caretaker's house.

Parking Alternate 1

This alternate lies in the western sector of the White Haven grounds (Figures 3 and 20). Further, it lies generally north of the primary access lane that enters the site from Grant Road across the abandoned Missouri and Pacific Railroad tracks. Farther to the north of the parcel is an intermittent stream that borders the site and empties into Gravois Creek.

Parking Alternate 1 is gently sloping, with the ground surface falling from east to west. Some hummocks and surface depressions are observable, but they seem to be the result of such processes as natural tree falls, not human purpose. A well-trimmed lawn of grass covers most of the area in question, though a few large trees grow at the peripheries.

Of particular concern to the investigators was the long-standing belief among locals that this particular patch of ground was where the Dent slave cabins once stood. Though never presented with any compelling evidence in support of this contention, the endurance of local lore dictated that extra caution should be exercised in the examination of this part of the site.

Given the presumption that significant cultural resources were present, the survey team employed a relatively close transect interval of 10 m. The team recovered only a very few artifact fragments from the entire area, however. Even the positive shovel tests normally yielded only one or two items (Table 1). The only find of any consequence was a concentration of large rocks in the southeast quarter of Parking Alternate 1, downslope from the route of the property entrance lane.

In order to investigate the rock concentration further, excavators opened two test units measuring 1 m x 2 m and a third measuring 1 m x 1 m, which represented an adjacent expansion of one of the 1-m-x-2-m units. Those efforts exposed more rock, but no meaningful pattern could be discerned in their relative positions. Artifacts were fairly numerous about the rocks, but they constitute a temporally mixed assemblage. Items of clearly modern origin were deposited with materials that appear to date from the turn of the century, as well as with some that are prehistoric. Accordingly, it is likely that the artifacts are redeposited debris, and they might have accumulated here during improvement of the lane.

Test Unit 1 in Parking Alternate 1 extended to a depth of 30 cm, or three arbitrary levels. The content included largely artifacts associated with domestic activities, such as ceramics and bottle glass (Table 2). Both cut and wire nails occur in the unit, with one modern-type wire nail deriving from Level 3 (20–30 cm below surface [cmbs]). None of the historic artifacts, however, is indicative of any narrow time frame; some are generally nineteenth-century items, whereas others represent the twentieth century. It is interesting that four flakes of Burlington chert came out of Unit 1, and a fifth flake of the same material showed clear signs of retouch on its surfaces. In addition, excavators retrieved what appears to be a decortication flake from Level 3.

Unit 2 in Parking Alternate 1 yielded a similar mixture of modern and older artifacts (Table 3). Because nineteenth-century items lay in the same depositional contexts as twentieth-century artifacts, establishment of a more specific date for this area of the site was impossible from such evidence. In addition, Level 5 (40–50 cmbs) yielded two flakes of Burlington chert. Even at that deep level, however, excavators found a cut nail and a sherd of undecorated whiteware. Further, the final level, Level 6 (50–60 cmbs), contained yet another fragment of whiteware and two sherds of bottle glass.

Unit 3, measuring only 1 m x 1 m, expanded Unit 2 in order to examine further the concentration of rock exposed there. Unfortunately, that extra effort revealed nothing to increase our understanding of the remains in the other test units. In all four levels excavated, the materials again were highly mixed, and specific items were only generally indicative of the century of manufacture (Table 4). More prehistoric materials were present in Unit 3, including several small flakes and apparent cores of Burlington chert.

Parking Alternate 2

This alternate also lies in the western sector of White Haven's grounds, though generally south of the primary access lane (Figures 3 and 21). Both the relocated barn and the former caretaker's house, now park headquarters, lie between Parking Alternates 1 and 2. There is good documentation, furthermore, that the barn and several associated dependencies (e.g., a corncrib) once stood on part of Parking Alternate 2. Accordingly, expectations were that the distribution of historic artifacts in this area might be more concentrated where structures had been razed.

Investigation of Parking Alternate 2 followed the same pattern as that undertaken for Parking Alternate 1. Again, the open, level space enabled the archeological team to establish a controlled grid by using surveying instruments, which would assist implementation of the systematic transect interval shovel testing. Such control would facilitate collection of materials from the study area and also help relocate find spots in the field after the fact, should that be necessary.

Shovel tests in Parking Alternate 2 generally revealed few materials of any consequence. Larger concentrations of material seemed to lie at the eastern end of the study area, but even those were slight in comparison to what would be expected for a former barn complex. Moreover, most of the materials recovered do not suggest correlations with a service building. To the contrary, almost all of the identifiable artifacts, such as ceramic and bottle sherds, are more commonly associated with domestic activities (Table 5). Datable artifacts recovered were few and include a partial 12-gauge shotgun shell marked "U.M.C. CO. / NEW CLUB" around its base. The Union Metallic Cartridge Co. used the designation "U.M.C." on many of its shells and cartridges produced from 1867 through 1911 (White and Munhall 1977:148). Unfortunately, other datable materials in direct association with this artifact were not present for refinement of that date range.

The field crew excavated two controlled test units measuring 1 m x 2 m at locations where artifact distributions were slightly more concentrated in Parking Alternate 2. The units, however, revealed relatively little about the area in question. Together, they suggest that demolition of the various outbuildings was complete, leaving a temporally and functionally mixed deposit.

Materials found in Unit 1 of Parking Alternate 2 represent primarily domestic refuse (Table 6). Most of the recovered items cannot be considered temporally diagnostic, but a few could be roughly dated. Cut nails found throughout the unit, for example, could derive from almost any time in the nineteenth century. Four solarized, amethyst-colored bottle glass sherds from Levels 2 and 3 generally are more narrowly associated with the period beginning in the last quarter of the nineteenth century, circa 1880, to the onset of World War I, circa 1916 (Munsey 1970:55). It is also worth noting that the unit yielded four flakes of Burlington chert, indicating that a prehistoric archeological deposit may have been present at this location prior to construction and demolition of the outbuildings.

The second test unit excavated in Parking Alternate 2 yielded substantially more artifacts than the first (Table 7). The materials from Unit 2, however, proved little more informative than those of Unit 1 because of their jumbled depositional context. The only historic artifact with much power to ascribe a rough date to the deposit is a milk glass storage jar lid liner, typically used in concert with a zinc jar lid. The Boyd Company patented two versions of the liner in 1869 (Toulouse 1971:116), which represents the earliest possible date of deposition for this artifact type. Since milk glass lid liners enjoyed prolonged use in home canning, it is likely that this specimen was deposited many years later.

Two solarized bottle glass sherds (Munsey 1970:55) would likely have been manufactured in the period circa 1880–1916. Again, that does not mean those sherds came to be deposited during that precise period. The date could not have been earlier than 1880, to be sure, but it could have been much later than 1916.

Almost no prehistoric materials surfaced in Unit 2, with only a possible core deriving from Level 2 (10–20 cmbs). Given the numbers of flakes present in Unit 1, however, as well as the shovel tests, it is likely that a prehistoric occupation site predated the early historic settlement of this land.

Summary

Investigation of the two parking alternates tentatively identified in 1991 revealed little of consequence. Transect interval shovel testing, of course, merely provides sample data on the areas so examined. Accordingly, the method is not foolproof and might fail to intersect and detect some classes of cultural remains. Based upon current information, however, it would appear that no real archeological impediment stands in the way of developing either parcel for visitor parking.

It is worth noting that archeologists performed a follow-up study in the two parking alternates during 1992 as part of a larger remote-sensing investigation of the historic site. Researchers employed a proton magnetometer and soil resistance meter in an attempt to delineate any subsurface anomalies. Subsequent ground truth verification in 1993 corroborated the presence of several anomaly sources that had been indicated by the geophysical examination. Results showed that Parking Alternate 1 contains a thick cover of soil, both natural alluvium and purposeful fill, exceeding 70 cm in some places. Further, the old ground surface exposed below that layer has apparent World War II-era materials associated with it. Parking Alternate 2, on the other hand, proved to be radically disturbed by demolition and relocation of the former barn complex. Thus, the remote-sensing project, which served in part as an evaluative check on the efficacy of transect interval shovel testing, confirms that neither alternative should be excluded from consideration as parking locations on the basis of cultural resources (Noble 1992, 1993; Weymouth 1993).

Stone Building Interior

As noted previously in this report, a building made of local stone stands at the rear of the White Haven main house, perpendicular to it (Figure 22; see also Figure 4). Now attached to the main house by a 1950s-era breezeway, the stone building was once an independent structure. Origins of the building are veiled in obscurity, but many local residents believe it to have been a slave quarters. Others argue that it was simply a summer kitchen, and there even has been some speculation that it might be the surviving first structure built on the tract. Whatever the case might be, the excavators hoped that testing inside and outside of the structure would shed light on the many questions that bear on it.

The last private owners of White Haven converted the stone building for use as an automobile garage. That conversion, of course, presumably required removal of most of the structure's west wall for installation of two large garage doors. A possibly original doorway is present at either gable end of the building, though the south portal may have been raised several inches to meet the breezeway floor level (risers are required inside the stone building for access to the breezeway, whereas the north door lacks risers both inside and out). A third doorway at the northeast corner is in all likelihood modern, for it provides communication between the stone building and the 1950s workshop. A single window brings light into the room through the east wall. It is unknown whether that opening is original to the stone structure, or a more recent addition. Further, it is possible that other openings formerly were present in the east wall.

Other remarkable features of the stone building interior are two large fireplaces, one each in the two gable ends. Together, they at least suggest that the building may have been divided at the time of construction by a central wall. Moreover, that initial hypothesis seems to be borne out by the archeological evidence uncovered in 1991 and described shortly.

The several modifications necessary to convert the stone building into a garage alternately helped and hindered interior investigations. The large garage doors facilitated the movement of people and equipment into the building and usually allowed sufficient light to fall on the floor, enabling careful excavation. On the other hand, the entire floor was covered with loose-laid brick on a poured concrete slab, a portion of which had to be removed before work began. Historical Architect Al O'Bright, however, accomplished that task prior to our arrival. The only other impediment was the presence of some utility lines buried under the concrete. Not only did they present obstacles to our progress, but their installation made linear disturbances across the structure's subfloor.

O'Bright had broken up the concrete in such a manner as to form a rough T in the central part of the garage. The cross-bar of that opening lay along the western edge of the interior, just inside the garage doors, approximately 1.5 m (5 ft) from the exterior stone face of the west wall. It was in that general area that O'Bright expected to see evidence of an earlier foundation wall representing a smaller incarnation of the stone structure. Similarly, the perpendicular element of the opening fell over an area where indications of the supposed central dividing wall might lie.

In all, the excavators collected five 1-m-x-2-m test units, as well as extensions off two of them measuring less than 1 m by 1 m (Figure 22). There was little variation in the soil matrix from unit to unit, so it should be sufficient to provide only one general description. However, the features present and the artifacts recovered warrant separate treatment.

Unit G1

The first unit excavated in the stone building can be said to form the north arm of the T cross-bar (Figure 22). Upon preparing the unit for excavation, the team noted the presence of sand and black, gritty cinders immediately below the concrete layer and across the entire unit floor. Apparently put in as fill before pouring the concrete, the rather thin (≤ 10 cm) deposit contained fewer artifacts relative to the layers subsequently removed (Table 8), though several specimens are quite interesting.

Among the artifacts collected from Level 1 (0–10 cmbs) is an 1840 Liberty Seated half dime bearing the distinctive "O" mint mark on the obverse, indicating manufacture in New Orleans (Figure 29a). Although the United States government struck half dimes in silver from 1794 to 1873, minting of the seated variety occurred only between 1837 and 1873 (Stack 1986:68). Another interesting artifact from that level is a two-piece military button bearing the flying-eagle device above the letters "U.S." and an oval wreath below (Figure 29c). The words "United States" and a series of stars appear on the reverse. Wyckoff (1984:85–86) offers a date range of 1820 to circa 1840 for the variety and believes it to be a greatcoat button. Although the two items described above are consistent with the period of historical significance for White Haven, it is unlikely that any materials in this deposit lie in a primary depositional context.

Clearing of the fill layer from the floor revealed a concentration of limestone boulders and tabular fragments, some of which appeared to align (Figure 23). The major elements of this concentration seemed to fall at the north end of the rectangular unit. Smaller stones lay scattered in a seemingly random fashion in the south half of the unit.

Below the layer of cinder, the excavators encountered a dense deposit of reddish-brown, silty clay, which may represent the original prepared floor surface of the structure. Level 2 (10–20 cmbs) produced a variety of artifacts suggesting domestic use of the structure, such as bottle glass, ceramics, and buttons (Table 8). In this level, however, the presumed stone foundation alignment became more definite, and an apparent construction trench containing dark fill lay adjacent to its west edge (Figure 24). That trench could be seen to stretch the entire 2-m length of the test unit, despite the fact that the patterned stone ended approximately 1.17 m from the north profile. That might indicate that other stones in the alignment had been present and have since been removed.

The excavators collected the apparent construction trench separately in order to determine if it contained diagnostic materials that might enlighten interpretation of the feature (Table 8). Unfortunately, the specimens recovered were mundane. The most definitive item from the trench, a small sherd of luster-decorated whiteware, can hardly be considered temporally diagnostic.

Unit G1 Extension

In order to examine the stone alignment discovered in Unit G1 more fully, excavators extended that unit another 0.5 m north (Figure 22). What underlay the 3 cm of cinder fill proved to be no more than loose limestone, rubble and mortar fill, and the same reddish-brown, silty clay found elsewhere in this area. The defined stone alignment did not continue to the north.

Despite the smaller area excavated in the G1 Extension, artifacts were plentiful (Table 9). Coins included a 1919 penny and a Liberty Seated half dime identical to the Unit G1 specimen except for its 1853 date. In addition, the first level yielded a fragmentary embossed patent medicine bottle (Figure 30a) that may represent McLEAN'S//VOLCANIC//OIL//LINIMENT. The Dr. J. H. McLean Medicine Company operated out of St. Louis, Missouri, at 3114 Franklin Avenue, and introduced that particular product in 1841 (Fike 1987:194).

Level 2 (10–20 cmbs) also yielded a few interesting artifact specimens. Among them were two fragments of a terra-cotta stub-stemmed pipe, similar to nineteenth-century products of several Ohio River towns. Although the molded zig-zag design on the bowl is distinctive, it cannot be precisely dated nor attributed to a particular manufacturer. Further, there is a bottle fragment exhibiting the distinctive "gob top" of a Hutchinson spring stopper closure system (Figure 30b). Patented in 1879, such closures continued to be used well into the 1900s (Paul and Parmalee 1973:12–13). Discovery of this relatively late artifact supports the belief that disturbances have mixed the depositional context of the stone building floor.

Unit G2

Immediately south of Unit G1 in the stone building, Unit G2 forms the central portion of the cross-bar that tops the T-shaped excavation opening (Figure 22). Numerous angular stones appeared beneath the gritty cinder fill, which here was much thinner (≈ 3 cm) than had been the case in Unit G1. Excavation of Level 1 (0–10 cmbs), therefore, for the most part removed the underlying reddish-brown, silty clay deposit.

The stone present in Unit G2 was not aligned in a clear pattern suggesting a foundation (cf. Figure 25). Rather, the stones are displaced, obscuring their original relationship. The supposed construction trench, however, is still visible along the same path it took in Unit G1. It also bears note that a trench containing a water pipe angles across the southeast corner of this unit. Although it does not appear to have been responsible for disrupting the stone alignment, it most certainly affected the depositional context of Unit G2.

Artifacts collected from Unit G2 (Table 10) include a few temporally diagnostic materials. Furthermore, most of the specimens recovered here might be associated with domestic activities. The most readily identifiable and datable item is a U.S. coin dated 1851 (Figure 29b). The obverse of the silver coin bears a six-pointed star and the reverse shows a Roman numeral three (III) within a large cursive "C," representing the word *cents*. Small three-cent pieces struck in

silver, such as the specimen in question, date from 1851 through 1873 (Stack 1986:55). Accordingly, the coin found in Unit G2 derives from the first year of minting this variety.

The remaining roughly datable artifacts, such as ceramics and bottle glass, derive mainly from the second half of the nineteenth century. One sherd of flow blue ceramic is likely to date between 1840 and 1860 (Lofstrom et al. 1982:9), but the others provide relatively broad ranges of time. In Level 2 (10–20 cmbs) it was possible to collect the presumed construction trench separately from the rest of the unit floor. That effort went unrewarded, however, since it produced only four nondiagnostic pieces of glass and two cut nails (Table 10).

Unit G3

Last in the series of original north-south test units in the stone building, Unit G3 formed the south arm of the T-shaped open excavation (Figure 22). A continuation of the trench containing a water pipe angled across the northwest quarter of the unit. Other than that there was little of note and no substantial rocks that could be interpreted as foundation stones. Given the amount of ground disturbance here, however, it is quite possible that such stones could have been removed.

The material culture recovered from Level 1 (0–10 cmbs) is largely unremarkable (Table 11). One corroded piece of iron with a carved bone utensil handle could be a button hook. A bottle fragment is embossed "J. WALKER'S / V.B." on its base (Figure 30d). According to Fike (1987:185), Joseph Walker patented his "California Vegetable Renovating Vinegar Bitters" in 1863. A slightly different product, "J. Walker's Vinegar Bitters," was also available from the Stockton, California, firm by 1866, and it is that product to which the mark refers. Walker appears to have moved to New York around 1870 and is said to have died soon thereafter. The bitters may have still been sold by a former partner, however, until 1890.

Other diagnostic items from Level 1 include a sherd of flow blue whiteware, which preceded the Civil War Era; developed in the 1840s, the ware type remained popular until the 1860s (Lofstrom et al. 1982:9). In addition, an 1846 large cent occurred in the fill of Level 1 (Figure 31a). Large cents issued by the United States date from 1793 through 1857. The 1846 specimen found here, Liberty with Braided Hair, was among the last of seven large cent types to be put in circulation, minted during the years 1839–1857 (Stack 1986:37–38).

No clear diagnostics appeared in Level 2 (10–20 cmbs). Similarly, Level 3 (20–30 cmbs), the last level excavated, contained only one possible diagnostic (Table 11). That clay pipestem fragment, however, could not be identified, owing to the fragmented maker's mark it bears. This unit, as a result, provides little assistance in the interpretation of remains within the stone building.

Unit G4

This was the upper half of the vertical part of the T excavated in the stone building floor (Figure 22). As a result, it lay adjacent and perpendicular to Unit G2. It will be recalled that Unit G4, and Unit G5 farther east, sought to confirm the supposed former presence of a central dividing wall.

Level 1 (0–10 cmbs) Unit G4 revealed 1–2 cm of black cinder fill spread thinly over 8–10 cm of reddish-brown, silty clay. Most obvious was a continuation of the water line trench already noted in previously described test units. Limestone cobbles also occurred throughout the level, but they were not in a compact pattern that would suggest the foundation of a central wall. If such a wall were not load bearing, however, substantial support probably would not be required.

Among the artifacts recovered from the first level were several diagnostics (Table 12). Perhaps most interesting were four marbles, all of which appear to date from the mid-1800s (Figure 32d). The types include three that date from the 1850s and 1860s—a marble with intersecting parallel lines, a regular bull's-eye marble, and a bull's-eye with parallel lines—as well as a plain porcelain marble made as early as 1830 (Carskadden and Gartley 1990:61–63). In addition, there appeared a "gob top" bottle finish exclusive to the Hutchinson stopper closure system used after 1879 (Paul and Parmalee 1973:12–13). Furthermore, that the glass is solarized indicates that the bottle probably was made prior to World War I (Munsey 1970:55).

Excavation of the next two levels revealed no soil changes or other indications of a cultural feature. Only the water line trench persisted (collected as area "36b"); so the excavators halted efforts in Unit G4 after completion of Level 3 (20–30 cmbs), which was otherwise sterile. Some interesting artifacts, such as a brass cane tip, did come to light, but temporally diagnostic artifacts were not present in either of the last two levels (Table 12).

Unit G5

This test unit, the last of those originally laid out in the stone building floor, represents the base of the T formed by the entire set of excavations (Figure 22). In fact, its eastern limit nearly reached the back wall of the garage. As in the case of other units excavated before it, Unit G5 contained a thin zone of sand and cinder fill over a reddish-brown clay. Unlike Unit G4, however, this excavation did indeed show evidence of a stone foundation.

The alignment of limestone exposed in Level 1 (0–10 cmbs) lay entirely within the southwest quarter of the 1-m-x-2-m test unit. Oriented east and west, the line of stone almost precisely paralleled the surveyed edge of our unit. Furthermore, limited probing beneath the lip of cut concrete showed that very little of the apparent foundation extended beyond where we could see. Accordingly, it would appear that the approximate width of the foundation is no more than 20 cm (or slightly less than 9 in). Evidence of the foundation, however, was not continuous across the length of the unit, terminating about 1 m from the east edge of the unit.

Artifacts from the first level were largely unremarkable (Table 13), and none can be considered temporally diagnostic. One sherd of white earthenware bears a partial mark (apparently the British Coat of Arms), but this is insufficient to make an identification. Level 2 (10–20 cmbs), the second and last level excavated in Unit G5, yielded only a few artifacts, which again were of little interpretive value (Table 13).

Unit G5 Extension

In order to expose the stone alignment more completely, excavators extended Unit G5 a short distance south (Figure 22). The extra effort went unrewarded, however, because it exposed no additional foundation stones. Furthermore, only a few artifacts turned up in Level 1 (0–10 cmbs) and none in the second level of excavation (Table 14). The one item worth mentioning was a brass button marked "LEAVENWORTHS & KENDRICK / DOUBLE GILT" on its back surface (Figure 29e). That Waterville, Connecticut, firm is known to have manufactured such gilt buttons during the period 1829–1837 (Luscomb 1967:117).

Summary

Although preservation was not the best, there was sufficient tabular limestone to indicate the presence of an earlier primary foundation, as well as the support for an interior dividing wall. Although the stones were not dressed with mason's tools, they seem to have been selected for size and shape. There is little doubt that remodeling efforts in the stone building resulted in the removal of many stones, which perhaps ended up being reused in other structures.

Remains of the central wall were not quite so dramatic, yet the few stone remnants appeared to lie precisely at the room's midpoint. That would tend to support the position that a dividing wall at one time split the large room in two, each separate room having its own fireplace. We did not attempt, however, to determine whether the open room was subdivided into any smaller rooms.

The material culture recovered from the stone building floor primarily consisted of domestic refuse, such as ceramic sherds, bottle glass, and various personal items. Many of the datable items probably represent the mid-nineteenth century. Their depositional contexts are not firm, since to some degree they seem to derive from temporally mixed deposits. More excavation of the stone building floor will be necessary in order to attempt any clear interpretations concerning the function of that structure.

Stone Building Exterior

Investigation of the stone building continued with the excavation of two test units along the exterior perimeter of the structure. Both units measured 1 m by 1 m and lay flush against the foundation (Figure 22). The first described here fell directly below the window opening at the rear of the building. There was some thought at the time that the window might in fact

represent a partly filled doorway. The other test unit was a short distance north, where the modern workshop addition meets the stone building. That location also seemed to be near the place where a doorway might have formerly passed through the rear wall. Indeed, in this instance the regular, linear masonry noted here strongly argued that a portal had been filled with stone to match the original character of the wall.

Window Unit

Located as it was beneath the only window in the stone building (Figure 22), the excavators anticipated that the unit would yield numerous artifacts within the "toss zone" of the opening. In addition, it seemed reasonable to expect the presence of a trench associated with construction of the stone building. It was also possible, however, that repair of the structure might have obliterated such evidence.

Level 1 (0–10 cmbs) consisted of a dark topsoil strewn with numerous pieces of broken, angular limestone. Those rocks are likely to have derived from occasional repair to the structure, which may have had some sections totally rebuilt. Artifacts in the first level were fairly mundane (Table 15). Some of the ceramic sherds are of interest, but only one is narrowly datable: a sherd of slip-banded mocha ware with finger-swirled decoration. Although never commonplace, mocha varieties were popular during the first half of the nineteenth century (Cleland 1983:38–39). In addition to the ceramics, two iron objects were present: a mule shoe and the bit from an axe head.

Level 2 (10–20 cmbs) yielded only two bottle glass fragments that deserve comment; the rest of the inventory is unremarkable (Table 15). One of the pieces is from a panel bottle and bears the partial mark DR HA.... A search of Richard Fike's (1987) *Bottle Book* failed to locate a product name with those four characters together, though there are many entries with surnames beginning with the letters "HA." The other is a fragment of a cathedral-type pickle jar, which was a popular jar form starting in the 1860s and continuing through the 1890s (Munsey 1970:152; Switzer 1974:51–58; Zumwalt 1980:452–458).

Level 3 (20–30 cmbs) contained another sherd from a cathedral-type pickle jar, probably representing the same vessel as that in Level 2. As noted above, such vessels appear to date primarily from the 1860s to the 1890s. Several stoneware ceramics bearing various types of slip decoration also occurred, but they cannot be defined any more specifically than having derived from the nineteenth century. One whiteware sherd could be part of a flow blue table service, which became available in the 1840s and continued in popularity until the 1860s (Lofstrom et al. 1982:9). The sherd, however, is too small for us to be certain of the ware identification. Other materials recovered from Level 3 are less consequential (Table 15).

Level 4 (30–40) contained numerous artifacts, among which were 12 sherds of solarized glass deriving from a Mason jar (Table 15). Patented in 1858, the canning container is still widely used today, though changed in some key respects. A narrower time range, however, is suggested by the fact that solarization has changed the glass from clear to a bright amethyst color.

That fact indicates that the storage jar would likely have been manufactured in the period circa 1880–1916 (Munsey 1970:55). A solarized "gob top" closure from a Hutchinson spring stopper also is solarized, tending to affirm that time range.

Most remarkable, however, are the Level 4 ceramics, which include a flow blue sherd, dating roughly from the mid-nineteenth century (Lofstrom et al. 1982:9). Part of a green transfer-printed pearlware plate was found bearing a patriotic motif called "Arms of the United States," which is printed in large capital letters among clouds at the top of the design (Figure 32a). Other sherds recovered lower in this unit and in the nearby stone building doorway unit provided enough parts of the design to identify the shell-edged plate precisely. Other design elements include stars above an eagle with a shield on its breast; a scarf displaying the phrase "E PLURIBUS UNUM" in the eagle's beak; and below the eagle a scroll bearing the motto "MAY SUCCESS ATTEND OUR AGRICULTURE, TRADE, AND MANUFACTURES." The unmarked plate is illustrated as No. 658 in Ellouise Baker Larsen's (1975:240) *American Historical Views on Staffordshire China*, but she gives no specific dating information on the type. Larsen notes in the introduction, however, that the Staffordshire potters produced most of their American ceramic views during the period 1818–1860 (Larsen 1975:1). It may be safe to assume, then, that the Grant finds represent a pre-Civil War specimen.

In the course of excavating Level 5 (40–50 cmbs), the excavators collected a wide variety of artifacts in good number (Table 15). Most interesting was a secret society/lodge pin or button struck in brass and covered with esoteric symbols. The item's iconography includes a lamb, an upraised palm, a sunburst, an eye, and a chain of three links (Figure 31e). That particular combination of symbols is exclusively associated with the IOOF (Independent Order of Odd Fellows). It is not known, however, if any resident of White Haven belonged to that organization.

In addition, Level 5 yielded a four-holed pewter trouser button and a white metal button face crimped over a clay filler; the button back was absent. Two rim sherds are clearly from the same scalloped blue shell-edged plate, which is a type of ceramic decoration popular before the 1830s (Price 1979:18). Despite such early specimens in the fill, however, wire nails and plastic also occurred at this level (Table 15). Accordingly, it is clear that this is not a primary deposit, but a mixture of redeposited materials representing a long time span.

The dominant artifact class in Level 6 (50–60 cmbs) of the stone building's window unit was ceramics, 64 sherds of various kinds being collected (Table 15). One sherd derived from the green transfer-printed patriotic plate, apparently pre-Civil War, which was also represented by sherds found in Level 4 of this unit and in the Doorway Unit to be described shortly. Four Old Blue transfer-printed sherds can be assumed to date from the first quarter of the nineteenth century (Cleland 1983:36). Five different motif patterns are evident among the six black transfer-printed sherds, and another five patterns are discernable among the 11 blue transfer-printed sherds. Four other sherds appear to be embossed wares, perhaps of the fish scale variety. Such edged wares are believed to have been at their peak of popularity from about 1820 through the early 1840s (Miller and Hunter 1990:117–118).

Levels 7 (60–70 cmbs) and 8 (70–80 cmbs) contained a similar variety of ceramics, as well as a large number of probable window glass sherds (Table 15). Several of the ware types, such as the finger-trailed mocha, flow blue, and molded blue-edged ceramics, are common to the first half of the nineteenth century, whereas others are not distinctive. Further, it is quite possible that many of the like sherds derive from a single vessel. In addition, Level 7 yielded some white clay pipe fragments, a partial stemware base, and a brass garter catch. Level 8 had only one other remarkable artifact, a four-hole bone button with "rolled" edge. Although interesting, those particular artifacts cannot be reliably dated.

Level 9 (80–90 cmbs) yielded no materials that can be considered temporally diagnostic, though one piece of burned chert debitage is certainly prehistoric (Table 15). At the floor of that level, however, the construction trench used in laying up the stone foundation at last became apparent. The trench at that level appeared as a zone of dark organic soil with a straight edge parallel to the foundation line and approximately 20 cm from it. Accordingly, the excavators limited collection of Level 10 (90–100 cmbs) to that discrete area, the remainder of the unit being sterile at that depth. Unfortunately, no good datable artifacts that would help narrow the period of probable construction occurred in this apparently undisturbed context. In fact, only a bone utensil handle with incised cross-hatching (Figure 30c) and four porcelain sherds, all apparently from a single claw-footed, basketlike vessel (Figure 30e), are worthy of remark.

Although the construction trench seemed to terminate at or about 100 cmbs, it was also apparent that the stone foundation continued below that depth an unknown distance. Safety concerns, however, prevented the excavators from seeking out that information. It was also possible, of course, that any additional excavation might compromise the structural stability of the foundation.

Doorway Unit

In addition to the window unit described above, excavators placed a second test against the stone building's east exterior (Figure 22). As noted earlier, that second unit fell at the 90-degree turn where the south elevation of the shop addition meets the much earlier stone building. Accordingly, the two foundations formed north and west limits of the test unit, which sought more explicit evidence of a suggested former doorway into the stone building.

Excavation of the unit immediately demonstrated its similarities to the stone building's window unit. The soil matrix and fill materials were of the same sort as that previously described test unit. Furthermore, the artifacts contained in this unit showed the same degree of mixture that typified the window unit. Accordingly, it is not possible to draw inferences concerning age or function of the stone building from the evidence gathered from the doorway unit.

Level 1 (0–10 cmbs) of the doorway unit yielded few artifacts that can be considered good indicators of temporal associations (Table 16). In fact, only a single sherd of painted pearlware can be dated with any confidence; that particular ware type was popular in the Midwest around

1830–1840 (Price 1979:18). Other than that, the only remarkable artifacts in the first level were a carved seven-value (4/3) ivory domino face (Figure 32b), two mold-decorated whiteware sherds that mend into a plate, and thirteen plain whiteware sherds that form a complete bowl and serving dish when articulated.

The second level (10–20 cmbs) also had little in the way of diagnostic material (Table 16). The only good, datable artifact in the level was a single rimsherd from a scalloped green shell-edged whiteware, which probably predates 1840 (Miller and Hunter 1990:10). Despite that early date, however, other items in the fill are almost certainly of the present century.

In Level 3 (20–30 cmbs) fewer materials came to light, only one of which is useful for dating purposes (Table 16). That item is a sherd of whiteware marked "[M]AN[UFACTURED] FOR G.F. FILLEY [S]t. LOUIS" on its inferior surface (Figure 32c). Research into the biographical files of the Missouri Historical Society shows that Giles F. Filley (1815–1900) was a prominent citizen of St. Louis, and that his various endeavors included a pottery business that operated from 1841 to 1849.

Since the pottery mark claims the vessel was "manufactured for" Filley, it is probable that it dates from the period 1841–1844. After an 1844 trip to England, he attempted to import skilled workers and technology to St. Louis to exploit the abundant local clays. His pottery works failed by 1849, however, and Filley established the Excelsior Stove Works (later the Excelsior Manufacturing Company and, after 1895, the Charter Oak Range & Iron Company). That long-lived business concern, which made the famed "Charter Oak" cooking stoves he first developed in 1851, elevated Filley to national renown as a manufacturer.

No temporally diagnostic artifacts turned up in the course of excavating Level 4 (30–40 cmbs); indeed, nothing in that level was remarkable (Table 16). In Level 5 (40–50 cmbs), however, a larger sample was present (Table 16). Ceramics in this level were numerous, and several wares represented can be dated with some certainty. Among them are scalloped edge wares (four blue rimsherds and one green) that date to the period 1800–1840 (Miller and Hunter 1990:147) and the finger-trailed variety of mocha, which also corresponds generally to the first half of the nineteenth century (Cleland 1983:39).

Level 6 (50–60 cmbs) yielded an even larger number of artifacts and several diagnostics (Table 16). Chief among those were the ceramics, which included five sherds of the pre-1840 patriotic plate excavated in the window unit and already described fully under that heading. In addition, there were two rimsherds of scalloped green edge-decorated pearlware, suggesting a range of dates from 1800 to 1840 (Miller and Hunter 1990:117). There also was one scalloped blue edge-decorated sherd that most likely derives from a soup tureen or similar hollowware. Miller and Hunter (1990:117) ascribe the period 1780–1810 to such wares. Two flow blue sherds, on the other hand probably date to the period 1840–1860 (Lofstrom et al. 1982:9).

The Level 7 (60–70 cmbs) artifact assemblage was much smaller than was the case for Level 6, and fewer diagnostics turned up (Table 16). At least one sherd of the pre-1840 plate

appeared in this level, as did a rim representing a scalloped green edge-decorated plate (perhaps the patriotic plate) of the sort popular from 1800 to 1840 (Miller and Hunter 1990:117). Other items recovered from the level cannot be so readily dated.

The 38-item assemblage recovered from Level 8 (70–80 cmbs) was paltry in comparison with the upper levels. Nothing in it can be considered diagnostic, and the same can be said for the 52 artifacts that Level 9 (80–90 cmbs) gave forth (Table 16). The final level excavated, however, contained a relatively large number of artifacts, some of which are worthy of discussion.

As in the case of the window unit, Level 10 (90–100 cmbs) was the last level to be excavated in the doorway unit. Although there was no indication here of an extant construction trench, it was surprising to find an extremely high number of artifacts at this depth (Table 16). Indeed, there were 84 ceramic sherds and 187 pieces of flat glass among the other materials. Few of the items, however, can be dated with any precision. Those that can be dated approximately include finger-trailed mocha and flow blue sherds, of which the former dates to the first half of the nineteenth century and the latter more generally to mid-century (Cleland 1983:36, 39). Two Old Blue sherds represent a type popular in the first quarter of the nineteenth century (Cleland 1983:36). One creamware bowl base is probably among the oldest ceramics found on the site, but its age cannot be determined with certainty. Although such ceramics might appear on the eastern seaboard shortly after 1761, it is unlikely that they would be present at a far interior location until the last quarter of the eighteenth century. It is also possible, of course, that this particular ceramic—and almost any other, for that matter—could have been curated for a long period of time before being brought to the St. Louis area and deposited next to the stone building foundation.

Summary

The two test excavations against the east exterior wall of the stone building provided evidence that the foundation of that structure is of substantial proportions. Confirmed to reach more than a meter in depth below the ground surface, the foundation also appeared to be laid without mortar. Only in the window unit, however, could a construction trench be discerned extending approximately 20 cm from the foundation.

Artifacts recovered from both units largely appeared to be redeposited. Especially in the upper levels of excavation, the unit yielded artifacts of mixed temporal affiliation. That is, pre-Civil War items lay in close association with materials of much more recent vintage. Accordingly, it is impossible to make any informed estimate of age for the stone building from this evidence. Even so, the high number of artifacts from the first half of the nineteenth century, even if not in primary context, suggest an early date for the structure.

The matter of interpreting age of the structure from archeological data might have been enlightened by recovery of temporally diagnostic artifacts from the apparent construction trench fill exposed in the window unit. Unfortunately, the specific items recovered in 1991 from that

apparently undisturbed context were not the sort that would provide much information. Discovery of the trench, however, suggests that further investigations around the stone building perimeter might result in collection of diagnostic artifact types that could indicate a more definite period of construction.

Breezeway Area

At the suggestion of the project historical architect, the excavation team examined the area immediately west of the breezeway connecting the main house to the stone building. Specifically, efforts focused on an area where it was believed that evidence of the former Hunt Addition, removed in 1940, might be found (Figures 13 and 14). Placement of the test units was guided by reference to the HABS plan drawing prepared prior to the White Haven remodeling (Figure 12). It was first necessary, however, to remove a layer of brick pavers that formed a makeshift patio.

Unit B1

This 1-m-x-2-m test unit paralleled the breezeway, with its northeast corner located 160 cm south of the stone building's southwest corner and 40 cm west of the breezeway (Figure 26). Excavation of the first level revealed a drainage line running perpendicular to the breezeway through the north half of the unit. Numerous tabular limestone fragments also seemed to form an east-west line immediately south of the drainpipes.

In addition to those elements, the southwest corner of Unit B1 revealed a poured-concrete support for a square post. The concrete surrounded a posthole measuring approximately 13 cm (5 in) square. Furthermore, the posthole contained a grey-brown clay and small pieces of wood. Given the small size of both the concrete pour and the posthole, most probably the concrete held the support for an awning or some other relatively light burden. It is unlikely that the rather slight support indicated by the post mold could have been a porch pier.

The first level yielded few artifacts, and none were diagnostic (Table 17). Level 2 (10–20 cmbs) gave up even fewer artifacts (Table 17), though one specimen can be dated roughly. That artifact, a brass button, is of three-piece construction with a crimped face. The backing bears a stamped maker's mark, "BENEDICT & BURNHAM / EXTRA," around the perimeter (Figure 31c). According to Sally C. Luscomb (1967:21), the Benedict & Burnham Manufacturing Company produced such buttons in Waterbury, Connecticut, between 1843 and 1849. Lacking any good feature context, however, the button cannot be employed to its fullest interpretive potential.

Unit B2

Excavators opened a 1-m-x-1-m test unit next to Unit B1 in order to obtain more information about the apparent limestone alignment that lay next to the drainage conduit

(Figure 26). The drain tiles did continue through Unit B2, not surprisingly, but there was no good indication of a foundation remnant. It is quite possible, however, that such evidence might have been obliterated by more recent construction or demolition activities. The artifacts recovered in three levels of excavation, furthermore, proved to be unremarkable (Table 18).

East-Wing Area

There is ample photographic and other documentary evidence to show that a small addition to the main house formerly stood adjacent to the present breezeway along the east elevation (Figures 15-16). Although that room would not be reconstructed as part of the period restoration, since it was of more recent construction, preparers of the Historic Structures Report desired more detailed information on the addition. In order to confirm its precise location, however, it would be necessary to excavate certain areas of the east lawn. Accordingly, the research team laid out test units with reference to measured drawings produced by the Historic American Buildings Survey in 1940 (Figure 12). The five 1-m-x-1-m units excavated in this area fell in line with the supposed locations of the addition's foundation walls.

Unit EW1

Located 4 m outward from the east elevation of White Haven's breezeway and 2.5 m north of the northeast corner of the main house, Unit EW1 should have straddled the east edge of the east wing (Figure 26). The first level (0-10 cmbs), however, revealed neither artifact concentrations nor indications of cultural features being present. Cultural materials were few and largely uninformative (Table 19). The only diagnostic artifacts were three ceramic sherds probably deriving from the same Old Blue vessel; such decorated wares are believed to have been popular during the first quarter of the nineteenth century (Cleland 1983:36). As for a possible foundation, the only suggestion of that was in the scattered pieces of mortar and limestone throughout Level 1.

Level 2 (10-20 cmbs) was not much more informative. Again, the artifact assemblage was small and mundane (Table 19). The only artifacts that might provide temporal data were clearly modern: a plastic cigarette mouthpiece and a piece of cobalt blue glass bearing the partial product name of Bromo Seltzer. Several larger pieces of tabular limestone came to light, but they formed no kind of pattern that might suggest their being parts of a foundation. Furthermore, probing of the soils gave no indication that more substantial stones lay below this level. Removal of a third and final level yielded only a single cut nail fragment and no evidence of the elusive east foundation of the addition.

Unit EW2

This 1-m square also lay 4 m east of the breezeway. Its distance north from the northeast corner of the main house, however, measured 5.8 m to the southwest stake (Figure 26). That left a space of 2.3 m between the north profile of Unit EW1 and the south profile of Unit EW2.

Fewer than 20 artifacts derived from Level 1 (0–10 cmbs), though they appeared to increase in frequency with greater depth through the 10-cm level (Table 20). Further, given the relatively small sample of materials, it is not surprising that no diagnostics appear among the collection from this level. Nor did examination of the unit floor reveal any sign of a feature such as the supposed foundation wall.

Artifact tallies increased dramatically in Level 2 (10–20 cmbs), though the number of diagnostics was not substantially improved (Table 20). Three ceramic sherds appear to be cream-colored earthenware, a distinctive ware type produced in England after 1761 and a dominant commodity from then until the first quarter of the nineteenth century. Creamware continues to be a popular table service, however, even today. As in the case of Unit EW2, Level 2 exposed several large pieces of limestone that could conceivably represent elements of a stone foundation. Still, they clearly were not bonded into a structure, nor did the lay of the stones reveal any pattern.

Level 3 (20–30 cmbs), the last excavated in EW2, saw a reversion to the lower artifact frequencies manifested by Level 1 (Table 20). The sole diagnostic artifact, a sherd of creamware, provides little temporal definition, owing to the long period of use for such wares. Scattered pieces of limestone occurred in this level, but again they showed no discernible pattern to their distribution. An iron pipe trended across the west half of the unit, angling slightly southeast to northwest. This doubtless is associated with the chilled water line system formerly used for cooling the main house. Accordingly, it probably dates near the time of World War II or shortly thereafter.

Unit EW3

The third test unit excavated in the general area of the former east wing addition lay adjacent to the west edge of EW2 (Figure 26). The 1-m square fell toward the breezeway portion of the house on the prospect that EW2 might lie outside the east foundation of the razed addition. Evidence gathered from EW3, however, gave no indication of that being the case.

Level 1 (0–10 cmbs) revealed a large limestone slab in the center of the unit's west edge. At first, the presence of that stone and surrounding rubble gave hope that a foundation remnant would be exposed. Continued excavation, however, failed to lend greater credence to that supposition. Artifacts from the level, furthermore, were relatively few and unremarkable (Table 21). Only a single sherd of flow blue whiteware can be considered to have any diagnostic power, and its depositional context is poor.

The large limestone slab evident in Level 1 continued into Level 2 (10–20 cmbs), and smaller pieces of limestone rubble and flecks of mortar were also present. Together they suggest that a stone foundation might have been present in this general vicinity. It appears, however, that demolition of the addition precludes confirmation of the precise location. Artifacts again were uninformative, though more numerous in Level 2 (Table 21).

Level 3 (20–30 cmbs), the last level excavated in Unit EW3, revealed no additional stones of substantial size. Furthermore, the artifact inventory diminished markedly to a mere 27 specimens (Table 21). Accordingly, the excavators abandoned efforts at the base of this level.

Unit EW4

Unit EW4 expanded Unit EW1 to the north by an additional meter (Figure 26). Because no good evidence of a foundation line appeared in EW1, it was possible that the first unit lay outside the razed addition. Therefore, opening an adjacent unit to the north might succeed in intersecting a foundation remnant. Unfortunately, that proved not to be the case.

Level 1 (0–10 cmbs) appeared devoid of any substantial deposits or materials that would be consistent with the remains of a building foundation. The artifact inventory, however, includes a good number of specimens, including several diagnostic materials (Table 22). The ceramics include three flow blue sherds (circa 1840–1860s), four creamware sherds (late eighteenth and early nineteenth centuries), and one finger-trailed mocha whiteware sherd (first half of the nineteenth century) among others (Cleland 1983:36–39). A panel bottle bearing the partial mark "...VOGELE... /...LTIMO..." appears to have contained "St. Jakob's Oel," the circa 1879 product of A. Vogeler & Co., a Baltimore firm (Wilson and Wilson 1971:79). In addition, a .22-caliber cartridge casing is marked with a "U" headstamp at its center. That single maker's mark represented the Union Metallic Cartridge Company (1861–1911), the Remington Arms–Union Metallic Cartridge Company (1911–1921), and the Remington Arms Company (1921–present), all of Bridgeport, Connecticut (White and Munhall 1977:31). Although identifiable, the mark cannot be considered tightly datable, since the same mark has been in use for over 130 years.

In Level 2 (10–20 cmbs) the situation did not change. No substantive evidence of any element associated with the east wing addition came to light, and artifact frequencies were minimal (Table 22). Diagnostic materials also were few and do not contribute to a better understanding of the deposits. The same can be said of Level 3 (20–30 cmbs), which for lack of compelling results was the last excavated in EW4. Artifacts were limited to a mere seven fragmentary items (Table 22).

Unit EW5

This unit, the last to be opened in the east wing area, lay directly against the east edge of the breezeway (Figure 26). The purpose of the excavation was to explore for remains of a chimney base that photographs indicated should be present here. Further, it appeared that the 1-m-x-2-m test unit should expose evidence of the east-wing addition.

Considering the fact that the unit is twice the area of the standard 1-m square, artifact totals in Level 1 (0–10 cmbs) were slight (Table 23). Effective area of the deposit, however, was much less, resulting from the confirmed presence of a chimney foundation. Diagnostic materials in the first level gave clear indication of a mixed deposit. Although a mid-nineteenth-century flow blue sherd was present, so also were such modern items as a clay skeet target, a plastic button, a

plastic cigarette filter casing, and pieces of a plastic sandwich pick from a Howard Johnson restaurant.

Excavation of Level 2 (10–20 cmbs) helped define the chimney base (Figure 27). The level also yielded artifacts on a par with the first (Table 23). Again, the materials that could be roughly dated showed the deposits to be mixed. Some of the ceramics probably derive from the late nineteenth century, whereas other specimens are clearly of the recent past. The latter category includes a galvanized roofing nail and yet another plastic cigarette filter casing. A small aluminum tag bears the stamped partial product or company name, "Lawn...." The tag also identifies a city of origin, which may be Belleville, Kentucky.

The remaining three levels in Unit EW5 continued to yield artifacts in approximately the same numbers (Table 23), but never gave any evidence that could be directly associated with the east wing addition. The chimney base proved to be of substantial size and appeared to be sited at the location suggested by photographs and earlier measured drawings. Only one green shell-edge rim sherd from Level 4 (30–40 cmbs), dating circa 1800–1840 (Miller and Hunter 1990:10), can be considered remarkable.

Summary

Excavations in search of the White Haven east-wing addition simply were unproductive. Although situated in the most likely spots to intersect sections of the addition, according to its depiction on the 1940 HABS plan drawing, no irrefutable evidence of a foundation could be discerned. Since there is no doubt of the east wing's former existence or position, it must then be concluded that either demolition obliterated the evidence or such expected evidence never existed. The latter case would obtain, perhaps, if the addition stood on piers rather than a full foundation. The limited presence of rock and mortar would be consistent with the use of piers, but it could also be a result of demolition debris having been removed incompletely. Failure to confirm the former presence of a documented structural element emphasizes the limitations of archeological investigation under certain circumstances.

Chimney Stacks

The main house at White Haven is flanked by two massive limestone chimney stacks (Figure 4). The project historical architect was interested in resolving certain questions about their construction, as well as the relationship of those features to other elements of the domicile.

East Chimney

Examination of the east chimney base entailed the initial excavation of a single 1-m square against the south half of the structure (Figure 4). The purpose was twofold: to inspect the limestone stack for its manner of construction and current condition and to explore the adjacent soils for evidence of the ground rod for a supposed lightning suppression system. Later, in order

to examine the chimney more fully, the excavators extended the unit 50 cm to the north. The initial unit and its extension are both described as a single entity in the following paragraphs.

The excavator of the east chimney unit accomplished the collection of six levels in the primary unit and its extension before abandoning the effort. The excavation of those levels resulted in the accumulation of a good number of artifacts (Tables 24 and 25). Few of them are useful in interpreting the deposits at this location, however, primarily because the materials are likely to have been redeposited. The more interesting items are reported below by level.

Level 1 (0–10 cmbs) yielded one scalloped blue shell-edge whiteware sherd among its ceramics; such decoration is generally associated with the period circa 1800–1840 (Miller and Hunter 1990:117). There is also a sherd of sprig-decorated whiteware, which is a type believed to occur only after circa 1836 (Lofstrom 1976:29–32). In addition, there was a single, retouched flake of Burlington chert that confirms a prehistoric component at the site even though the deposits are now mixed.

In Level 2 (10–20 cmbs) of the unit and its extension several recovered artifacts are worthy of remark. Chief among them is a silver Spanish *real* piece of small denomination bearing an apparent 1753 mint mark (Figure 31b). As author Laurence Brown (1962:104) points out, throughout the colonial period Spanish specie "remained the principal form of currency and it was not until 1857 that these coins were officially demonetized." It is probable that, especially on what was then the western edge of American expansion, such coins continued to be exchanged as payment of indebtedness for several years thereafter.

Other Level 2 diagnostic items include five monochrome blue-painted pearlware sherds, which derive largely from the first quarter to the middle–second quarter of the nineteenth century (Lofstrom 1976:29–32). A brass suspender guide, furthermore, is stamped with the legend "PATENT 1854" (Figure 31d). In addition, two bottle fragments exhibit diagnostic attributes: an empontiled base, which suggests a pre-1870s manufacture, and an improved lipping tool finish, which ranges generally from the 1870s to circa 1910.

Level 3 (20–30 cmbs) contained a sherd of cream-colored earthenware and five sherds of blue transfer-printed pearlware, both types deriving from the early nineteenth century at the latest. Three other sherds are possibly decorated in the style of Old Blue wares, also dating to the first quarter of the nineteenth century (Cleland 1983:36). In addition, a two-piece military button bearing the eagle-on-cannon device, with the word "CORPS" below, came out of the extension at this level (Figure 29d). Martin Wyckoff (1984:41–42) refers to such buttons in his typology as belonging to Series G, Type 1, Variety 1, sub-variety 1, and dates them to the period 1814–1821. A spread-eagle device adopted by all services in 1821 quickly replaced this particular variety.

No good diagnostic artifacts occurred in Level 4 (30–40 cmbs) of the primary east chimney unit, and the extension was virtually sterile. In Level 5 (40–50 cmbs) the combined artifact total of both was negligible, consisting of 1 cut nail, 4 bottle glass sherds, 10 pieces of mortar, and

9 small limestone fragments. Level 6 (50–60 cmbs) yielded materials only from the initial test unit, but included a Burlington chert flake and a small nodule of the same material.

Excavation of the east chimney test unit and its extension revealed no indication of a lightning ground rod, or any other cultural feature, having been present here. A very narrow line of dark organic soil suggests that construction of the chimney proceeded by laying up the stones within a space only slightly larger than the base itself. In addition, a small copper gas line ran through the chimney stone, and an armored cable ran through the unit toward some other connection with the house.

West Chimney

The project historical architect desired more detailed information on construction of the west chimney; so from the beginning investigators employed a larger test unit at this location. The 1-m-x-2-m unit stretched across nearly the entire width of the chimney base and butted against the cellar entry bulkhead at the south end (Figure 4). That conjunction would allow the simultaneous examination of the chimney and the cellar entry, an element of the house that appears to have changed over the years.

Because of root disturbances from several bushes, Level 1 (0–10 cmbs) provided little contextual information on either the cellar bulkhead or construction of the west chimney. Even the artifacts in this level were relatively few, considering the fact the unit was twice the standard area (Table 26). One sherd of whiteware bears a mark, but it is too fragmentary to be read. The only other item that can be roughly dated is an empontiled medicine bottle, probably manufactured before 1870.

Level 2 (10–20 cmbs) continued to show the effects of root disturbances across much of the floor. Soils became more loosely compacted, however, and easier to excavate. A small triangular area of light-colored soil approximately 50 cm from the north end of the unit surrounded a smaller ovate, dark organic stain. Such an anomaly would be consistent with a post mold, suggesting that this could be associated with a trellis that stood against the chimney in many historic photographs of White Haven. Artifacts in the level represent a long time span, ranging from pre-Civil War era ceramics to a modern crown cap bottle closure (Table 26).

In Level 3 (20–30 cmbs) one could distinguish the possible trellis post mold readily and collect it separately from the rest of the test unit. Although cultural materials were indeed present in the soil anomaly, they were not of the sort that would give clearer insights into the character of the anomaly or its age (Table 26). The general fill of the level, on the other hand, yielded a great variety of materials, though most of the artifact varieties were each represented by only a few specimens (Table 26). A single sherd of flow blue whiteware probably derives from the period 1840–1860 (Lofstrom et al. 1982:9), but no other item can be dated to even that general level of precision. A small cast-iron pintle is not temporally diagnostic, but it could have been shutter hardware for a nearby window or even part of a hinge assembly for the outer cellar door.

Level 4 (30–40 cmbs) still yielded a good number of artifacts (Table 26), most of them seeming to derive from along the chimney base, though no construction trench was apparent at that depth. Fewer items derived from the soil anomaly, collected separately, and the anomaly itself appeared to be diminishing. Accordingly, the excavators bisected the soil zone and examined it in profile. That action showed that the anomaly terminated only about 3–4 cm below the floor of Level 4. It also appeared that the anomaly was not the result of natural causes, though it could not be confirmed that it represents a trellis post hole.

Because most of the cultural material seemed to be originating from the area immediately adjacent to the chimney base, for Level 5 (40–50 cmbs) the excavators removed only a 30-cm-wide strip the length of the unit along the masonry. No construction trench became apparent in this level, though a root cast and two pieces a tabular limestone were evident. Artifacts were few in Level 5, totaling 26 items (Table 26); none can be considered diagnostic.

Level 6 (50–60 cmbs) was the last level excavated in the west chimney unit. Once again, of course, the level consisted of only the 30-cm strip alongside the chimney base. Here, however, a sizeable arc of dark organic soil appeared through much of the northern half of the excavated area. The soil stain, which contained several small slabs of limestone, may be related to construction of the chimney. Only three pieces of probable window glass came out of the anomalous zone, however (Table 26).

Summary

Excavations next to the west chimney resulted in the collection of several very interesting artifacts, though their contexts offer only limited analytical power. Similarly, the soil matrix itself revealed no sign of interpretable cultural features or possibly meaningful soil anomalies. The only findings of consequence relate to the presence of two modern utility lines that pass through the test unit, one of which is a gas line that enters the main house through the chimney masonry.

Controlled excavation against the west chimney provided scant new information. Primarily the exercise enabled the project historical architect to examine the stone masonry at some depth below grade. The test unit also revealed a soil anomaly that possibly represents a post mold left by the support for a trellis that stood against the chimney stack. Even if that interpretation is correct, however, the existence of a trellis at that location was already well known. Therefore, the possible confirmation of its presence here is of little significance.

Front Porch

In order to determine if the front porch configuration might have been different in the past, excavators opened a small test unit underneath the decking. The unit measured 2 m by 50 cm and fell immediately west (left) of the porch steps between two piers (Figure 28). This would enable inspection of an area that might contain remains of one or more former porch piers.

Removal of the obvious layer of recent overburden resulted in the collection of three probable window glass sherds, a sherd of blue transfer-printed ceramic, and a length of electrical cord (Table 27). Excavation of Level 1 (0–10 cmbs) resulted in the collection of a mixture of modern and much earlier materials (Table 27). Most remarkable of the latter category was a ceramic marble featuring a bull's-eye with repeating palmate leaf pattern as decoration (Figure 32e). Carskadden and Gartley (1990:62–63) refer to the decorative motif as "Type #4" in their classification and attribute it to the middle decades of the nineteenth century (primarily the 1850s and 1860s).

Between the two brick porch piers, excavators found ample evidence to suggest that limestone piers formerly supported the porch joist. Several angular limestone tablets lay in close association, and others lay scattered about the remainder of the test unit. It could not be determined from their present positions whether the stone piers once stood where the brick piers now stand or in some other spot. It did seem likely, however, that the fallen stones represented a single pier.

The second and last level excavated in the front porch unit failed to clarify the questions left by Level 1. Limestone was even more prevalent in Level 2 (10–20 cmbs), but patterning of the tablets was not sufficient to indicate precisely the former position or positions of any earlier piers. Artifacts recovered in this level, furthermore, provide little help toward fuller understanding of the front porch configuration (Table 27).

Summary

Limited excavations beneath the White Haven front porch indicate only that limestone piers apparently preceded the current joist supports. The use of such material should not be surprising, since several other elements of the structure employ limestone. It should also be cautioned, though, that the archeological data at hand cannot confirm that the porch evidence described relates to *original* construction of the Grant–Dent House. Rather, they could relate to a more recent replacement of the original piers.

CONCLUSION

The survey work and excavations described herein contribute the first archeological data on the property known historically as White Haven. The investigations focused on two distinct areas of inquiry. First, excavators sought information on the structural evolution of White Haven in order to assist efforts to prepare a Historic Structures Report. Second, the investigators employed transect interval shovel testing to search two proposed parking lot alternates to assess the impact of any contemplated construction upon the cultural resource base.

Investigation of the house itself involved excavations both inside and outside parts of the structure. Five test units inside the stone building (adapted in modern times for use as a garage) demonstrated that the west elevation once stood approximately 2 m east of where it now stands, indicating that the stone building was once narrower. In addition, testing beneath the floor revealed that a smaller foundation effectively bisects the large interior space, suggesting that a wall once divided the structure into two rooms. Fireplaces located at either end of the stone building are consistent with that finding.

Perhaps even more significant were the findings in two test units outside the east elevation of the stone building. Although in themselves they did not confirm the former existence of any additional doors or windows in the structure, they did yield a large number of interesting artifacts. Further, they revealed the presence of a sizeable construction trench about the foundation perimeter. Thus, it is possible that recovery of temporally diagnostic artifacts from the fill of that trench will provide data that will assist interpretation of this presumed early structure.

Excavations about the main house, unfortunately, were less informative. Attempts to locate evidence of two removed room additions were unsuccessful; either earlier demolition activities destroyed any such evidence, or such evidence never existed in a form sufficient to be detected. Similarly, work adjacent to the two huge chimney stacks revealed nothing not already known through documentary sources. Those excavations, however, did enable direct inspection of the stone masonry below grade.

Investigation of the two contemplated parking lot alternates confirmed the presence of debris from a former barn complex in Alternate 2 but failed to locate any evidence of a reputed slave cabin compound in Alternate 1. Shovel tests and two controlled excavations in Alternate 2, south of the present barn location, yielded various late-nineteenth-century artifacts but no sign of features that would indicate the locations of structural elements. Alternate 1, on the other hand, provided even fewer indications of cultural activity. Based upon these findings alone, it seems that selection of Alternate 1 for construction would likely result in less impact on significant cultural resources. Subsequent investigations at the site in 1992 and 1993, however, showed that neither alternative contains cultural resources that would affect the proposed facility location.

The 1991 archeological investigations at Ulysses S. Grant National Historic Site represent the first such examination of that recent National Park Service acquisition. Further, the expressed purpose of the investigations was to provide general planning information on the possible location of a future parking facility and to address specific questions concerning discrete elements of the primary historic structure. Accordingly, grand findings and conclusions can hardly be expected from such a limited scope of work. Rather, the 1991 excavation project should be seen more as a foundation upon which future research efforts can build.

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Table 1. Artifact inventory, Parking Alternate 1, shovel tests.

Description	Shovel Tests														Total
	1-3	1-12	2-1	2-2	2-5	3-2	3-3	3-5	5-2	5-5	6-2	6-6	7-5	7-7	
Whiteware	-	-	-	-	-	-	3	-	1	-	-	-	-	-	4
Curved glass—aqua	-	1	-	-	-	-	3	-	-	-	-	-	-	-	4
Curved glass—colorless	-	-	-	-	-	1	-	-	9	-	-	2	1	1	14
Colorless mason jar finish	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Curved glass—dark green	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Curved glass—purple tint	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1
Flat glass	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Wrought iron, twisted	2	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Iron bar	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Barbed wire fragment	-	-	-	-	-	-	4	-	1	-	-	-	-	-	4
Metal nut	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Metal staple	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
12-gauge shell end	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Unidentified metal	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2
Brick fragment	-	-	-	-	-	-	-	1	-	1	-	-	-	-	2
Plastic bag tie (not collected)	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2
Total	2	1	1	1	1	1	11	1	14	1	1	2	3	1	41

Table 2. Artifact inventory, Parking Alternate 1, Unit 1.

Description	Level				Total
	1	2	3a	3b	
Burlington chert flake	1	3	-	-	4
Worked flake	-	-	1	-	1
Decortication flake	-	-	-	1	1
Whiteware	1	4	-	-	5
Albany slip stoneware	1	2	-	-	3
Porcelain (doll fragment?)	-	1	-	-	1
Curved glass—amber	2	3	-	-	5
Curved glass—aqua	-	2	1	-	3
Curved glass—purple tint	-	-	-	2	2
Wire nail	1	2	1	-	4
Cut nail	-	4	-	-	4
Iron harness buckle	-	1	-	-	1
Unidentified metal	-	-	-	1	1
Coal	-	1	-	-	1
Brick	-	-	-	1	1
Plastic toy fragment (not collected)	1	-	-	-	1
Total	7	23	3	5	38
3a = General fill					
3b = Inside southeast corner					

Table 3. Artifact inventory, Parking Alternate 1, Unit 2.

Description	Level						Total
	1	2	3	4	5	6	
Rock (not collected)	1	-	-	-	1	-	2
Chert flake—unworked	-	-	-	-	1	-	1
Chert flake—worked	-	-	-	-	1	-	1
Clay pigeon fragment	30	1	-	-	-	-	31
Ceramic drain tile	-	-	2	-	-	-	2
Whiteware	-	-	2	3	1	1	7
Blue transfer print	-	-	-	1	-	-	1
Porcelain	-	-	-	1	-	-	1
Curved glass—amber	-	2	-	1	-	-	3
Curved glass—aquia	-	-	-	1	-	1	2
Curved glass—dark green	-	-	-	-	-	1	1
Curved glass—colorless	-	3	3	1	-	-	7
Flat glass	-	2	1	2	-	-	5
Wire nail or fragment	-	-	2	3	-	-	5
Cut nail or fragment	-	-	2	1	1	-	4
Large iron staple	-	1	-	-	-	-	1
Shell—oyster	-	-	-	4	-	-	4
Brick fragment	-	-	4	-	-	-	4
Cinder (not collected)	-	-	9	-	3	-	12
Plastic toothbrush handle	-	-	1	-	-	-	1
Total	31	9	26	18	8	3	95

Table 4. Artifact inventory, Parking Alternate 1, Unit 3

Description	Level					Total
	1	2	3a	3b	4	
Flake	-	-	-	-	1	1
Chert flake	-	-	1	1	-	2
Heat-spalled flake fragment	-	-	-	-	1	1
Possible flake	-	1	-	-	-	1
Chert shatter	-	-	1	-	-	1
Chert core	-	-	2	-	-	2
Core	-	-	-	-	1	1
Whiteware	-	2	-	-	2	4
Stoneware—Albany slip interior	-	-	1	-	-	1
Stoneware lid	1	-	-	-	-	1
Hand painted porcelain	-	-	-	-	1	1
Curved glass—aqua	-	-	-	-	2	2
Curved glass—amber	-	2	-	-	-	2
Curved glass—dark green	-	-	1	-	-	1
Curved glass—colorless	-	4	1	1	1	7
Flat glass	-	-	1	-	-	1
Cut nail fragment	-	3	-	2	3	8
Knife or saw blade fragment	-	1	-	-	-	1
Unidentified lead w/ screw perforation	-	-	1	-	-	1
Cinder (not collected)	2	-	-	-	1	3
Charcoal	-	2	-	-	-	2
Coal fragment	-	-	3	-	-	3
Total	3	15	12	4	13	47
3a = General fill						
3b = Southwest corner						

Table 5a. Artifact inventory, Parking Alternate 2, shovel tests (first group).

Description	Shovel Test											Total
	1-1	1-2	1-3	1-4	1-5	1-9	1-12	2-2	2-4	2-5	2-8	
Chert flake	-	-	-	-	1	-	-	-	-	-	-	1
Heated rock	-	-	-	-	-	-	-	-	-	-	-	-
Blue rock fragments	-	-	-	-	-	-	-	-	-	-	-	-
Whiteware	-	-	-	-	-	1	1	-	-	-	-	2
Molded whiteware	-	-	-	1	-	-	-	-	-	-	-	1
Blue transfer print	-	-	-	-	-	-	-	1	-	-	-	1
Albany slip stoneware	-	-	1	-	-	-	-	-	-	-	-	1
Decal porcelain	-	-	-	-	-	-	-	-	2	-	-	3
Curved glass, aqua	-	-	-	-	1	-	-	-	-	-	-	2
Curved glass, colorless	-	1	1	-	-	-	-	-	-	-	-	-
Curved glass, purple tint	-	-	-	-	-	-	-	-	-	-	-	6
Flat glass	2	2	-	2	-	-	-	-	-	-	-	2
Plate glass	-	-	2	-	-	-	-	-	-	-	-	2
Cut nail fragment	-	-	-	-	1	-	-	-	-	1	-	1
Iron bar	-	-	-	-	1	-	-	-	-	-	1	1
12-gauge shell end	-	-	-	-	-	-	-	-	-	-	-	-
Iron hook	-	-	-	-	-	-	-	-	-	-	-	-
Brass tube	-	-	-	-	-	-	-	-	-	-	-	-
Shingle fragment	-	-	-	-	-	-	-	-	-	-	-	-
Shell fragment	-	-	-	-	-	-	-	-	-	1	-	1
Total	2	3	4	3	4	1	1	1	2	2	1	24

Table 5b. Artifact inventory, Parking Alternate 2, shovel tests (second group).

Description	Shovel Test											Total
	3-2	3-3	3-4	3-5	3-6	3-7	3-10	3-11	4-3	4-4	6-3	
Chert flake	-	-	-	-	-	-	-	-	-	-	-	-
Heated rock	2	-	-	-	-	-	-	-	-	-	-	2
Blue rock fragments	-	-	-	-	-	-	-	-	-	-	2	2
Whiteware	-	-	-	-	-	-	1	1	-	-	-	2
Molded whiteware	-	1	-	-	-	-	-	-	-	-	-	1
Blue transfer print	-	-	-	-	-	-	-	-	-	-	-	-
Albany slip stoneware	-	-	-	-	-	-	-	-	-	-	-	-
Decal porcelain	-	-	-	-	-	-	-	-	3	-	-	3
Curved glass, aqua	-	-	-	-	1	-	-	-	-	-	-	1
Curved glass, colorless	1	1	-	1	2	-	-	-	-	2	-	7
Curved glass, purple tint	-	-	-	-	-	1	-	-	-	-	-	1
Flat glass	-	-	2	-	-	1	-	1	-	1	-	5
Plate glass	-	-	-	-	-	-	-	-	-	-	-	-
Cut nail fragment	-	-	-	-	-	-	-	-	-	-	-	-
Iron bar	-	-	-	-	-	-	-	-	-	-	-	-
Brass tube	-	-	-	1	-	-	-	-	-	-	-	1
12-gauge shell end	-	-	-	-	-	-	-	-	-	-	-	-
Iron hook	-	-	1	-	-	-	-	-	-	-	-	1
Shingle fragment	-	-	-	-	1	-	-	-	-	-	-	1
Shell fragment	-	-	-	-	-	-	-	-	-	-	-	-
Total	3	2	3	2	4	2	1	2	3	3	2	27

Table 6. Artifact inventory, Parking Alternate 2, Unit 1.

Description	Level				Total
	1	2	3	4	
Fire-cracked rock	1	-	-	-	1
Chert flake	-	3	-	-	3
Flake	-	-	-	1	1
Whiteware (plain)	3	1	-	-	4
Over glaze painted whiteware	2	-	-	-	2
Blue transfer print	-	1	-	-	1
Curved glass—amber	1	-	-	-	1
Curved glass—aqua	4	3	1	-	8
Curved glass—cobalt blue	1	-	-	-	1
Curved glass—colorless	5	2	-	-	7
Curved glass—colorless & pressed	1	-	-	-	1
Curved glass—dark green	-	2	-	-	2
Flat glass	9	2	-	-	11
Cut nail fragment	-	11	5	-	16
Roofing nail	-	2	-	-	2
Iron strip	-	1	-	-	1
Unidentified metal	-	1	-	-	1
Mortar	-	-	1	-	1
Total	27	29	7	1	64

Table 7. Artifact inventory, Parking Alternate 2, Unit 2.

Description	Level				Total
	1	2	3	4	
Possible fire-cracked rock	-	1	-	-	1
Core	-	1	-	-	1
Whiteware	1	3	-	-	4
Albany slip stoneware	-	1	-	-	1
Curved glass—aqua	1	1	-	-	2
Curved glass—colorless	2	9	2	-	13
Curved glass—colorless and pressed	1	-	-	-	1
Flat glass	6	13	1	1	21
Glass frag. from lightbulb filament	-	1	-	-	1
Milk glass jar lid liner fragment	1	-	-	-	1
Cut nail/cut nail fragment	15	12	6	-	33
Wire nail	1	5	-	-	6
Wire	1	-	-	-	1
Bolt	-	1	-	-	1
Cast-iron fragment	-	1	-	-	1
Tin fragment	-	2	-	-	2
Lead alloy tube application spout	-	1	-	-	1
Unidentified metal	-	-	-	1	1
Charcoal	-	2	-	1	3
Cinder (not collected)	-	3	-	-	3
Pebble (not collected)	-	3	-	-	3
Total	29	60	9	3	101

Table 8. Artifact inventory, stone building interior, Unit G1.

Description	Level			Total
	1	2a	2b	
Coin	1	-	-	1
Brick fragment	3	-	-	3
Bone	2	1	1	4
Shell	2	-	-	2
Tooth	-	-	1	1
Clay pipe fragment	1	-	-	1
Button	5	2	1	8
Limestone	2	-	-	2
Cinder	2	-	1	3
Burlington chert	1	-	-	1
Earthenware	9	1	2	12
Stoneware	1	1	-	2
Porcelain	2	-	-	2
Curved glass	40	10	1	51
Flat glass	44	-	-	44
Mirror glass	1	5	-	6
Nonferrous metal	1	-	-	1
Metal	2	-	-	2
Wire nail	25	-	-	25
Cut nail	3	6	-	9
Total	147	26	7	180

2a = General fill

2b = Possible foundation trench

Table 9. Artifact inventory, stone building interior, Unit G1 Extension.

Description	Level		Total
	1	2	
Coin	2	-	2
Button	-	2	2
Mortar	7	-	7
Concrete	1	-	1
Limestone	3	2	5
Slag	4	-	4
Charcoal	-	1	1
Shell fragment	-	1	1
Clay pipe fragment	-	2	2
Bone	-	9	9
Tooth	1	1	2
Brick	-	1	1
Earthenware	3	16	19
Stoneware	1	1	2
Porcelain	-	13	13
Curved glass	2	30	32
Flat glass	4	29	33
Cut nail	4	34	38
Wire nail	3	-	3
Metal	-	1	1
Total	35	143	178

Table 10. Artifact inventory, stone building interior, Unit G2.

Description	Level					Total
	1	2a	2b	2c	2d	
Marble	2	-	-	-	-	2
Bone	9	1	-	1	2	13
Coin	1	-	-	-	-	1
Button	3	-	-	-	-	3
Hard rubber comb fragment	1	-	-	-	-	1
Brick fragment	1	-	-	-	-	1
Earthenware	6	1	-	2	1	10
Porcelain	2	-	-	-	-	2
Stoneware	1	-	-	-	-	1
Curved glass	60	2	3	3	16	84
Flat glass	37	5	1	3	2	48
Metal	7	2	-	-	-	9
Wire nail	2	-	-	-	-	2
Cut nail	46	1	2	4	4	57
Total	178	12	6	13	25	234

2a = General fill

2b = Soil from west of stones

2c = Water pipe trench

2d = Foundation trench rubble fill

Table 11. Artifact inventory, stone building interior, Unit G3.

Description	Level			Total
	1	2	3	
Bone utensil handle	1	-	-	1
Bone	22	5	4	31
Tooth	1	-	1	2
Nonferrous metal	3	-	-	3
Brick fragment	10	-	2	12
Mortar fragment	6	4	-	10
Clay pipe fragment	1	-	1	2
Charcoal	10	22	6	38
Limestone	5	-	-	5
Button	6	1	-	7
Coin	1	-	-	1
Debitage, chert	1	1	-	2
Porcelain doll fragment	-	-	1	1
Earthenware	27	4	4	35
Redware	2	-	1	3
Porcelain	8	3	2	13
Curved glass	26	16	14	56
Flat glass	36	14	17	67
Melted glass	3	-	-	3
Metal	4	3	2	9
Cut nail	55	20	18	93
Wire nail	1	-	-	1
Shell	-	1	-	1
Total	229	94	73	396

Table 12. Artifact inventory, stone building interior, Unit G4.

Description	Level				Total
	1	2a	2b	3b	
Marble	4	-	3	-	7
Button	2	-	1	1	5
Nonferrous metal	2	-	-	1	3
Slag	1	-	-	-	1
Limestone	2	-	2	-	4
Clay pipe fragment	2	-	-	-	2
Bone	45	1	14	-	60
Tooth	-	-	1	-	1
Bone toothbrush	1	-	-	-	1
Shell	-	1	-	-	1
Earthenware	9	-	2	3	14
Porcelain	1	-	-	-	1
Curved glass	36	-	5	2	43
Flat glass	84	1	20	11	115
Mirror glass	3	-	-	-	3
Melted glass	1	-	-	-	1
Metal	8	1	9	-	18
Wire nail	2	2	3	6	13
Cut nail	23	5	5	3	36
Mortar	-	-	10	-	10
Total	226	11	75	27	339

2a = General area

2b = Trench fill

3b = Trench fill

3a (General Area) was sterile.

Table 13. Artifact inventory, stone building interior, Unit G5.

Description	Level		Total
	1	2	
Snail shell	2	-	2
Button	1	-	1
Brick fragment	1	-	1
Concrete	1	-	1
Chert flake	1	-	1
Bone	22	10	32
Earthenware	8	1	9
Porcelain	2	-	2
Redware	1	-	1
Curved glass	10	3	13
Flat glass	23	3	26
Metal	4	-	4
Cut nail	8	-	8
Total	84	17	101

Table 14. Artifact inventory, stone building interior, Unit G5 Extension.

Description	Level 1
Button	2
Limestone	2
Bone	6
Plaster	1
Cinder	1
Charcoal	1
Concrete	1
Possible chert flake	1
Porcelain	1
Curved glass	6
Flat glass	1
Nonferrous metal	3
Cut nail	1
Total	27

Note: Level 2 was excavated but no artifacts were encountered.

Table 15. Artifact inventory, stone building exterior, Window Unit.

Description	Level											Total
	1	2	3	4	5	6	7	8	9	10	11	
Plastic	7	-	2	1	2	-	-	-	-	-	-	12
Bone	7	1	10	4	10	5	10	5	10	1	-	63
Brick fragment	5	1	3	-	5	-	1	1	2	2	1	21
Concrete	1	-	-	2	-	-	-	-	-	-	-	3
Charcoal	-	4	-	6	7	-	1	1	-	-	-	19
Rock	-	2	-	-	-	-	-	-	-	-	-	2
Cinder	-	-	9	-	-	-	-	-	-	-	-	9
Teeth	-	-	-	4	3	3	1	1	2	1	-	15
Caulking	-	-	-	2	-	-	-	-	-	-	-	2
Eyelet	-	-	-	1	-	-	-	-	-	-	-	1
Shell	-	-	-	-	2	1	1	-	-	-	-	4
Button	-	-	-	-	2	2	1	1	-	-	-	6
Limestone	-	-	-	-	3	1	4	4	3	-	-	15
Slate	-	-	-	-	4	-	-	-	-	-	-	4
Lodge pin	-	-	-	-	1	-	-	-	-	-	-	1
Mortar	-	-	-	-	-	1	-	1	1	-	2	5
Clay pipe fragment	-	-	-	-	-	-	3	-	-	-	-	3
Chert debitage	-	-	-	-	-	-	-	-	1	-	-	1
Bone utensil handle	-	-	-	-	-	-	-	-	-	-	1	1
Earthenware	18	1	8	30	70	60	20	23	11	1	5	247
Porcelain	1	2	2	5	12	1	3	2	1	4	-	34
Redware	24	8	6	7	5	1	1	1	1	-	-	54
Stoneware	-	1	14	4	3	2	4	-	2	-	-	30
Unidentified ceramic	-	-	-	1	1	-	-	-	-	-	-	2
Curved glass	12	15	39	61	75	16	8	14	6	22	6	274
Flat glass	44	29	108	347	367	58	64	33	27	17	12	1106
Mirror glass	-	-	-	-	1	-	1	-	-	-	-	2
Melted glass	-	-	-	1	-	-	-	-	-	-	-	1
Nonferrous metal	4	1	2	1	2	-	1	-	-	-	-	11
Metal	28	11	15	6	4	8	2	1	4	-	-	79
Cut nail	-	16	48	57	40	21	9	1	-	8	5	205
Wire nail	7	-	1	-	1	-	-	-	-	-	-	9
Roofing nail	-	-	-	-	1	-	-	-	-	-	-	1
Total	158	92	267	540	622	180	135	89	71	56	32	2242

Level 11 = South wall scrapings

Table 16. Artifact inventory, stone building exterior, Doorway Unit.

Description	Level										Total
	1	2	3	4	5	6	7	8	9	10	
Coal	3	-	-	-	-	-	-	-	-	-	3
Buttons	2	-	-	-	-	4	-	-	-	1	7
Ivory domino face	1	-	-	-	-	-	-	-	-	-	1
Teeth	2	1	-	-	1	3	1	-	-	1	9
Brick fragments	1	-	-	-	-	-	1	2	-	1	5
Bone	6	1	2	1	5	15	-	4	3	8	45
Cinder	-	1	-	-	-	-	-	-	-	-	1
Mortar	-	-	3	-	-	-	1	-	-	-	4
Charcoal	-	-	4	8	-	-	4	-	-	-	16
Plastic	-	-	1	-	-	-	-	-	-	-	1
Shell fragment	-	-	-	2	15	2	1	-	-	-	20
Burnt flake	-	-	-	1	-	-	-	-	-	-	1
Limestone	-	-	-	3	-	-	9	-	-	-	12
Clay pipe fragment	-	-	-	-	-	1	-	-	-	-	1
Bone utensil handle	-	-	-	-	-	-	-	-	-	1	1
Earthenware	54	14	15	6	79	101	26	1	5	78	379
Porcelain	4	1	1	1	9	8	2	-	-	4	30
Redware	-	1	-	-	2	-	1	-	-	-	4
Stoneware	3	2	-	4	20	3	1	-	-	2	35
Curved glass	52	5	28	35	68	53	20	6	6	26	299
Flat glass	147	17	32	22	158	274	50	23	30	187	940
Mirror glass	1	-	-	-	2	3	1	1	3	6	17
Glass slag	1	-	-	-	-	-	-	-	-	-	1
Nonferrous metal	-	2	1	-	-	-	1	-	-	-	4
Metal	4	-	1	3	3	1	-	-	3	11	26
Cut nail	8	9	14	10	27	29	3	1	2	26	129
Wire nail	-	7	13	3	-	-	-	-	-	-	23
Roofing nail	-	2	2	5	-	-	1	-	-	-	10
Total	289	63	117	104	389	497	123	38	52	352	2024

Table 17. Artifact inventory, breezeway area, Unit B1.

Description	Level		Total
	1	2	
Button	1	1	2
Bone	1	5	6
Mortar	-	1	1
Earthenware	1	2	3
Redware	1	-	1
Stoneware	6	-	6
Porcelain	-	1	1
Curved glass	10	3	13
Flat glass	-	6	6
Wire nail	4	1	5
Cut nail	5	1	6
Total	29	21	50

Table 18. Artifact inventory, breezeway area, Unit B2.

Description	Level			Total
	1	2	3	
Bone	2	3	1	6
Ceramic drain tile	1	-	-	1
Mortar	2	-	-	2
Brick fragment	-	-	1	1
Earthenware	10	4	-	14
Porcelain	-	2	-	2
Curved glass	4	6	1	11
Flat glass	11	12	2	25
Metal	-	-	1	1
Wire nail	7	1	-	8
Cut nail	1	-	-	1
Total	38	28	6	72

Table 19. Artifact inventory, east-wing area, Unit EW1.

Description	Level			Total
	1	2	3	
Bone	4	3	-	7
Cigarette filter	-	1	-	1
Coal	-	2	-	2
Earthenware	10	14	-	24
Porcelain	2	2	-	4
Stoneware	-	1	-	1
Curved glass	22	29	-	51
Flat glass	35	33	-	68
Metal	1	2	-	3
Cut nail	4	19	-	23
Wire nail	2	9	1	12
Total	80	115	1	196

Table 20. Artifact inventory, east-wing area, Unit EW2.

Description	Level			Total
	1	2	3	
Concrete	1	-	-	1
Brick fragment	-	1	-	1
Bone/tooth	-	3	1	4
Earthenware	3	12	2	17
Redware	1	5	-	6
Stoneware	-	1	1	2
Curved glass	7	25	5	37
Flat glass	5	42	8	55
Nonferrous metal	-	1	-	1
Cut nail	1	13	4	18
Wire nail	-	5	-	5
Roofing nail	-	-	1	1
Total	18	108	22	148

Table 21. Artifact inventory, east-wing area, Unit EW3.

Description	Level			Total
	1	2	3	
Button	-	1	-	1
Bone	-	3	-	3
Brick fragment	-	1	-	1
Earthenware	7	16	4	27
Redware	-	1	-	1
Porcelain	1	1	-	2
Stoneware	1	3	4	8
Curved glass	17	35	4	56
Flat glass	18	48	8	74
Metal	-	-	1	1
Cut nail	10	15	6	31
Wire nail	4	10	-	14
Total	58	134	27	219

Table 22. Artifact inventory, east-wing area, Unit EW4.

Description	Level			Total
	1	2	3	
Bone	7	3	-	10
Mortar	1	-	-	1
Burlington chert	1	-	-	1
Slate	1	-	-	1
Coal	-	1	-	1
Slag	-	1	-	1
Shotgun shell casing	-	1	-	1
.22-caliber casing	1	-	-	1
Earthenware	18	6	1	25
Porcelain	3	-	-	3
Stoneware	-	1	-	1
Curved glass	23	4	3	30
Flat glass	38	7	1	46
Metal	2	1	1	4
Cut nail	167	10	-	26
Wire nail	1	4	1	6
Total	112	39	7	158

Table 23. Artifact inventory, east-wing area, Unit EW5.

Description	Level					Total
	1	2	3	4	5	
Concrete	3	1	-	-	2	6
Bone	1	-	1	2	-	4
Button	1	-	-	-	-	1
Blue rock fragment	1	-	-	-	-	1
Brick	1	-	-	-	-	1
Cigarette filter	1	1	-	-	-	2
Hard rubber comb fragment	1	-	-	-	-	1
Sandwich pick fragment	2	-	-	-	-	2
Burnt wood	-	1	-	-	-	1
Coal	-	3	3	-	-	6
Seed/nut shell	-	1	-	-	-	1
Rock	-	3	-	-	-	3
Ceramic drain tile	1	-	2	1	2	6
Limestone	-	1	-	-	3	4
Mortar	-	-	-	-	2	2
Earthenware	3	3	2	3	9	20
Redware	14	10	11	3	3	41
Stoneware	2	-	-	-	1	3
Porcelain	-	1	-	-	-	1
Curved glass	11	8	8	20	6	53
Flat glass	14	2	12	27	9	64
Nonferrous metal	1	1	-	-	1	2
Metal	13	-	1	4	2	20
Cut nail	2	2	3	7	2	16
Wire nail	-	5	-	3	1	9
Roofing nail	-	1	1	1	1	4
Total	72	43	44	71	44	274

Table 24. Artifact inventory, East Chimney.

Description	Level						Total
	1	2	3	4	5	6	
Button	1	-	-	-	-	-	1
Brick fragment	1	1	3	-	-	-	5
Limestone	3	-	-	-	2	4	9
Mortar	2	1	1	2	3	3	12
Burlington chert	1	-	-	-	-	2	3
Seed	3	1	-	-	-	-	4
Cinder	2	9	-	-	-	-	11
Bone	-	1	2	-	-	-	3
.32-caliber casing	1	-	-	-	-	-	1
Earthenware	11	14	7	8	-	-	40
Porcelain	1	-	1	-	-	-	2
Stoneware	7	6	-	-	-	-	13
Curved glass	44	43	18	6	1	-	112
Flat glass	85	86	56	-	-	-	227
Mirror glass	1	-	2	12	-	-	15
Suspender guide	-	1	-	-	-	-	1
Cut nail	22	21	11	5	1	1	61
Wire nail	1	-	-	-	-	-	1
Roofing nail	1	-	-	-	-	-	1
Staple	1	-	-	-	-	-	1
Nonferrous metal	1	-	-	-	-	-	1
Total	189	184	101	33	7	10	524

Table 25. Artifact inventory, East Chimney Extension.

Description	Level					Total
	1	2	3	4	5	
Cinder	-	1	-	-	-	1
Coin	-	1	-	-	-	1
Brick fragment	-	2	1	-	-	3
Bone	-	4	-	-	-	4
Mortar	-	2	3	2	7	14
Limestone	-	2	5	-	7	14
Concrete	-	-	12	-	-	12
.38-caliber casing	-	1	-	-	-	1
Button	-	-	1	-	-	1
Earthenware	12	6	8	-	-	26
Porcelain	1	-	-	-	-	1
Redware	1	-	-	-	-	1
Stoneware	-	1	-	-	-	1
Curved glass	15	15	7	-	3	40
Flat glass	2	43	12	4	-	61
Cut nail	4	8	2	-	-	14
Roofing nail	1	-	-	-	-	1
Total	36	86	51	6	17	196

Table 26. Artifact inventory, West Chimney.

Description	Level								Total
	1	2	3a	3b	4a	4b	5*	6*	
Seed/nut shell	3	-	-	1	-	-	-	-	4
Concrete	7	-	-	5	-	-	-	-	12
Limestone	2	-	-	-	-	-	-	-	2
Charcoal	2	-	-	-	-	-	-	-	2
Mortar	-	1	-	3	2	5	-	-	11
Bone	-	4	2	1	6	-	7	-	20
Shell	1	-	-	-	-	-	-	-	1
Tooth	-	-	1	-	-	-	-	-	1
Cinder	-	-	1	-	-	1	-	-	2
Button	-	-	2	-	-	-	-	-	2
Brick fragment	-	-	1	-	2	-	-	-	3
Earthenware	6	17	7	-	5	1	3	-	39
Redware	3	5	1	1	2	-	-	-	12
Porcelain	1	3	1	-	-	1	-	-	6
Curved glass	8	22	21	1	3	1	2	-	58
Flat glass	16	45	59	7	44	1	14	3	189
Metal	2	6	2	1	2	-	-	-	13
Wire nail	4	9	-	-	3	-	-	-	16
Cut nail	5	36	28	2	12	-	-	-	83
Roofing nail	2	-	1	-	-	-	-	-	3
Nonferrous metal	2	-	-	-	-	-	-	-	2
Total	64	148	127	22	81	10	26	3	481

3a = General fill

3b = Soil anomaly

4a = General fill

4b = Soil feature

*Levels 5 and 6 are trench fill

Table 27. Artifact inventory, Front Porch.

Description	Level			Total
	0	1	2	
Electrical cord	1	-	-	1
Plastic	-	1	-	1
Missouri sales tax token	-	1	-	1
Shell fragment	-	1	-	1
Marble	-	1	-	1
Cork disk	-	1	-	1
Brick fragment	-	1	3	4
Bone	-	-	3	3
Mortar	-	-	1	1
Earthenware	1	3	5	9
Redware	-	2	-	2
Curved glass	-	10	8	18
Flat glass	3	14	9	26
Metal	-	1	1	2
Cut nail	-	8	9	17
Wire nail	-	4	-	4
Total	5	48	39	92

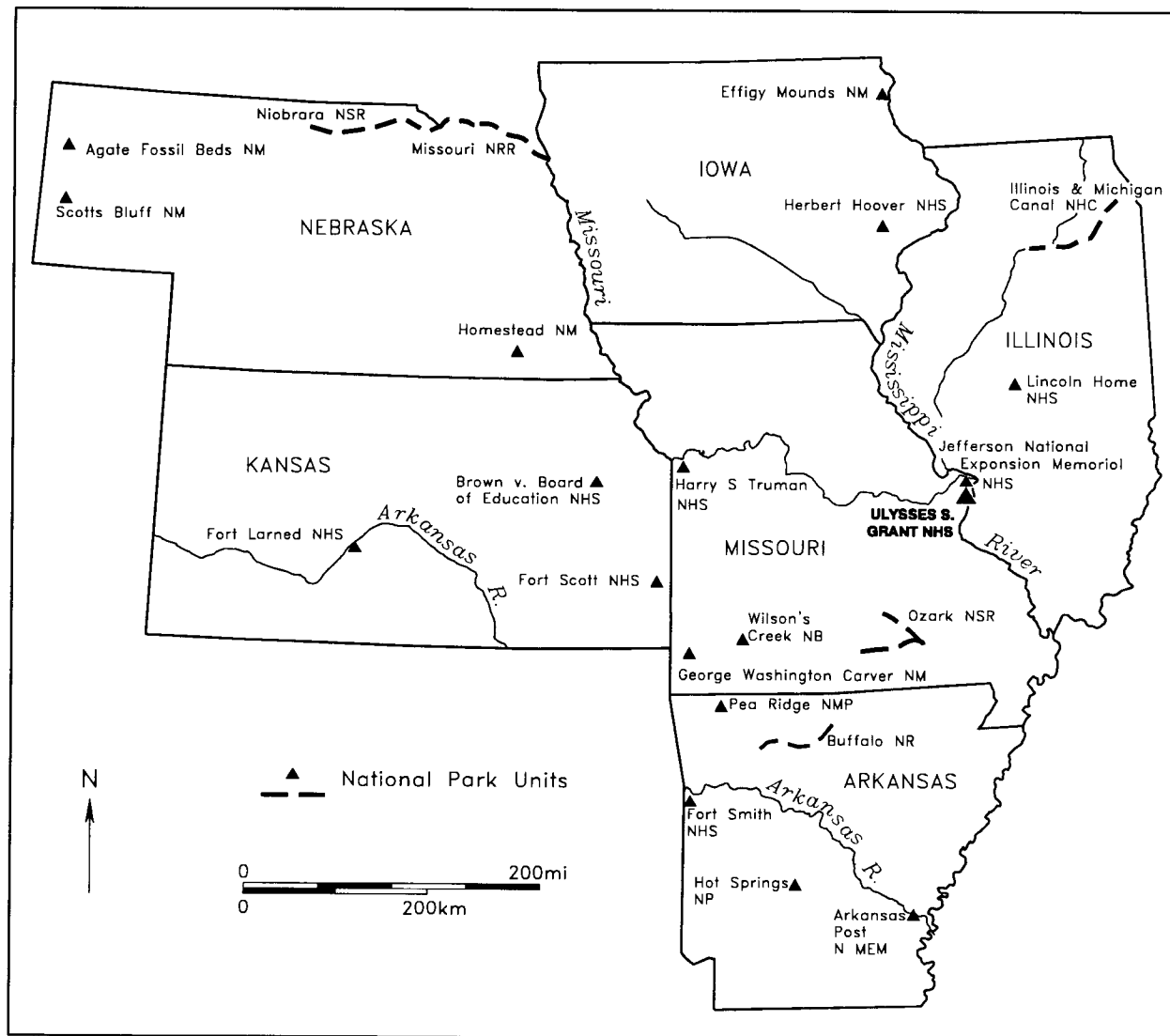


Figure 1. Location of Ulysses S. Grant National Historic Site.



Figure 2. Webster Groves USGS 7.5 minute quadrangle.

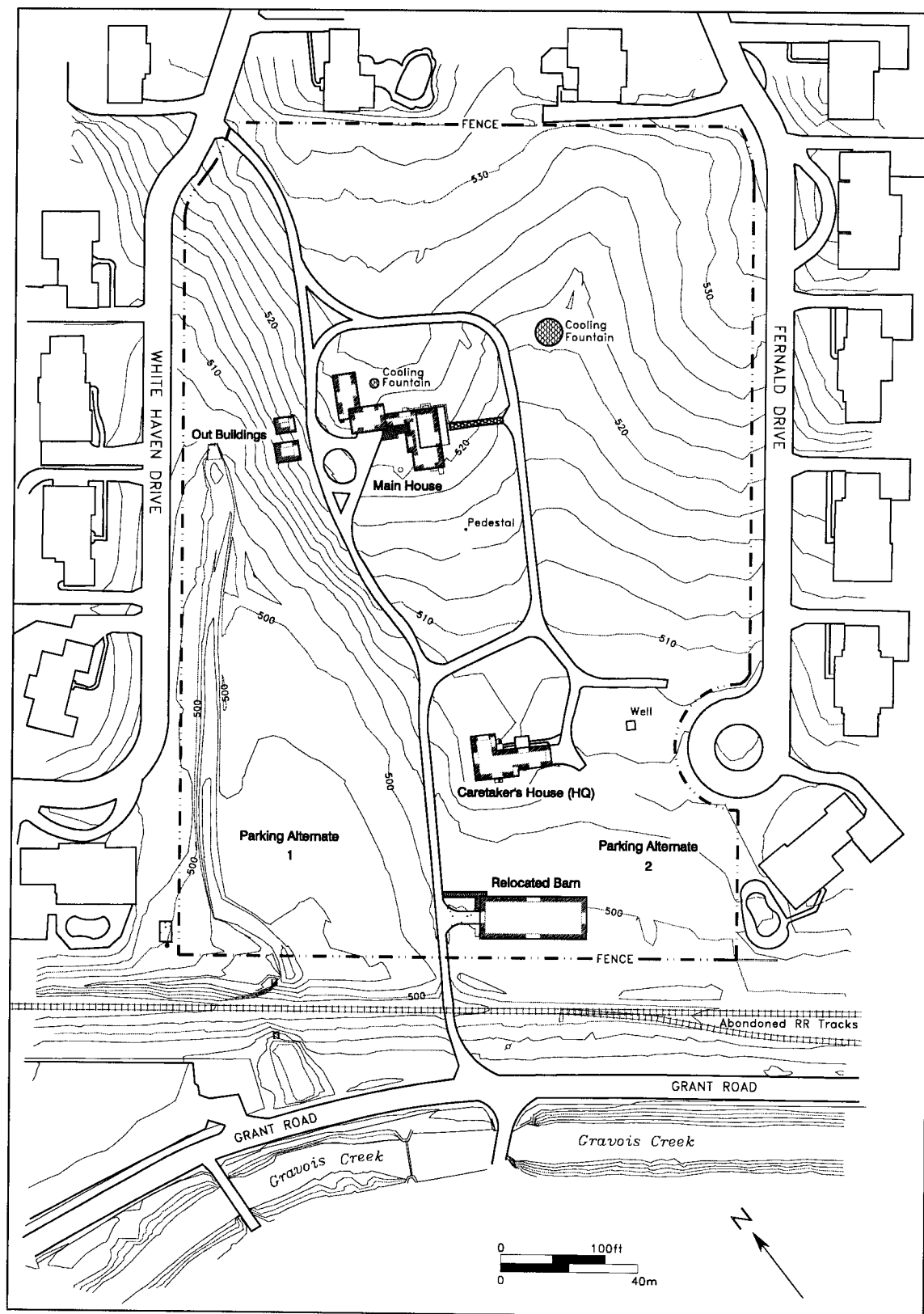


Figure 3. Plan map of Ulysses S. Grant National Historic Site.

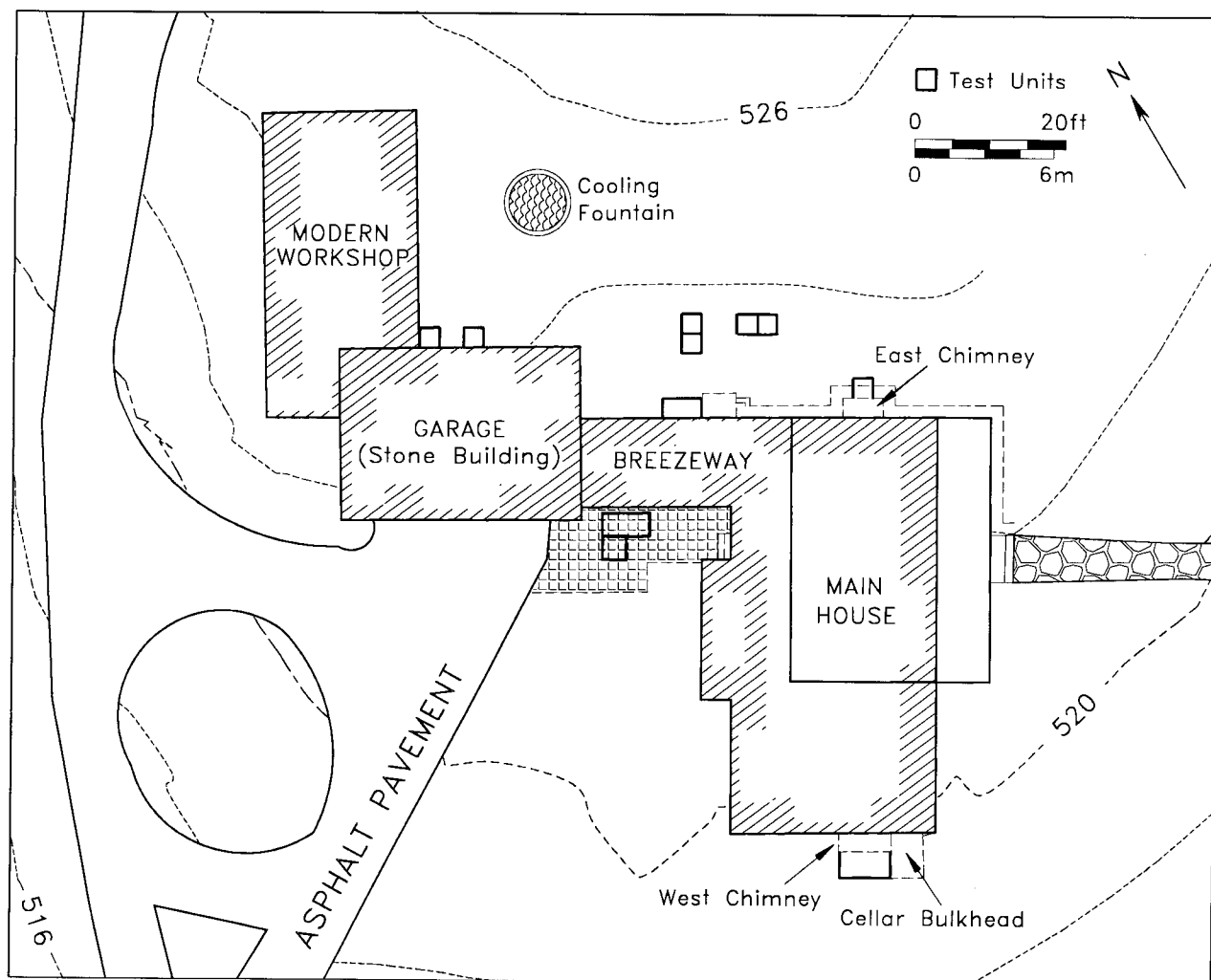


Figure 4. Plan of White Haven.



Figure 5. White Haven main house, 1991.



Figure 6. Cellar bulkhead, 1991.



Figure 7. Main house, showing cellar entrance, 1913.



Figure 8. Stone building, 1991.



Figure 9. White Haven from northwest, 1875 engraving.



Figure 10. Detail of 1875 engraving, showing stone building.



Figure 11. Workshop addition, 1991.

Figure 12. HABS plan drawing, 1940.



Figure 13. Hunt addition ("Room 6") from northwest, 1913, at left.



Figure 14. Hunt addition during demolition, 1940.



Figure 15. Main House from southeast, showing east wing and stone building in background, circa 1872 engraving.



Figure 16. Former east wing and stone building, circa 1938.

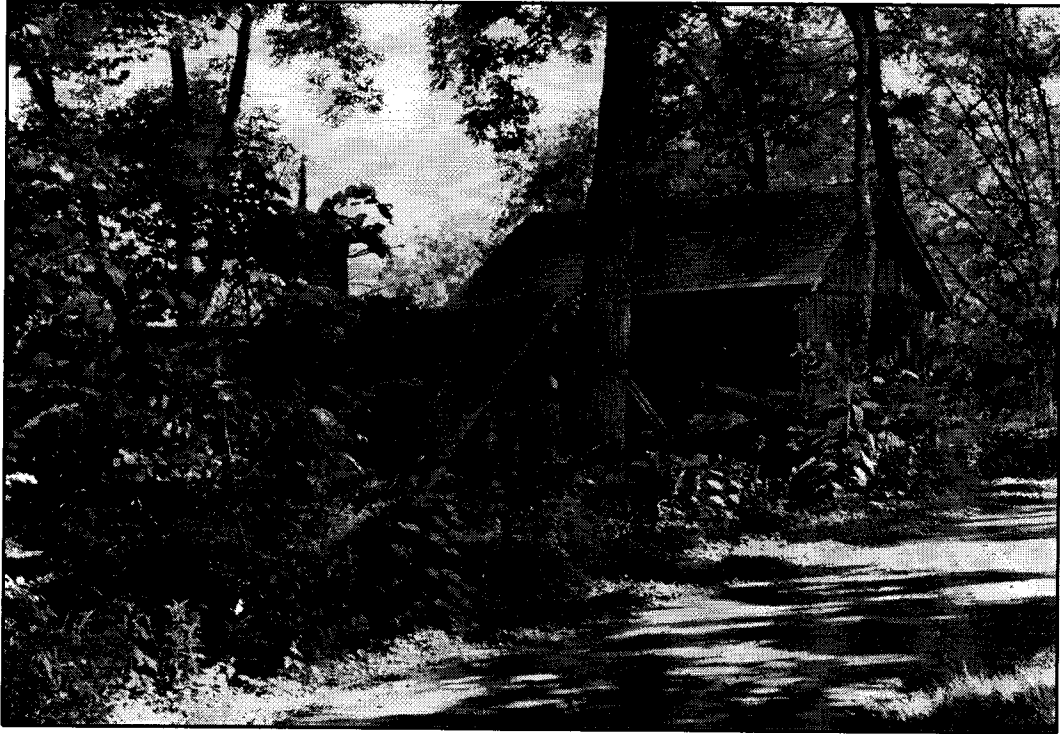


Figure 17. Outbuildings at rear of White Haven, 1991.

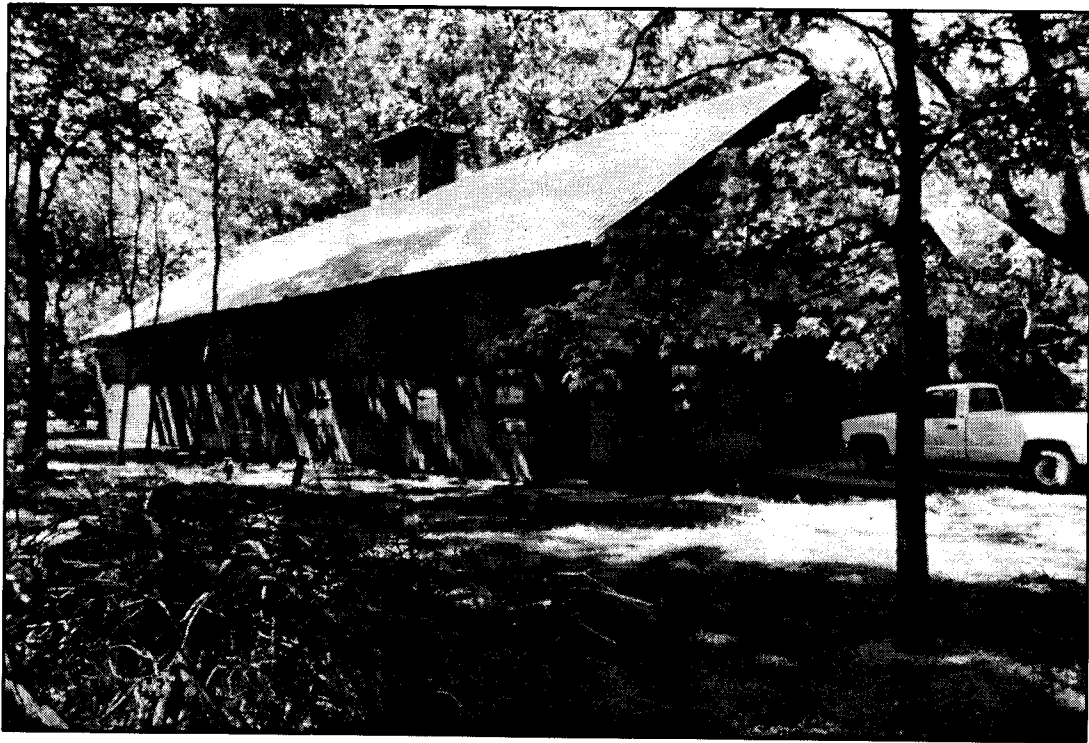


Figure 18. Relocated historic barn, 1993.



Figure 19. Caretaker's house, 1991.



Figure 20. Parking Alternate 1.

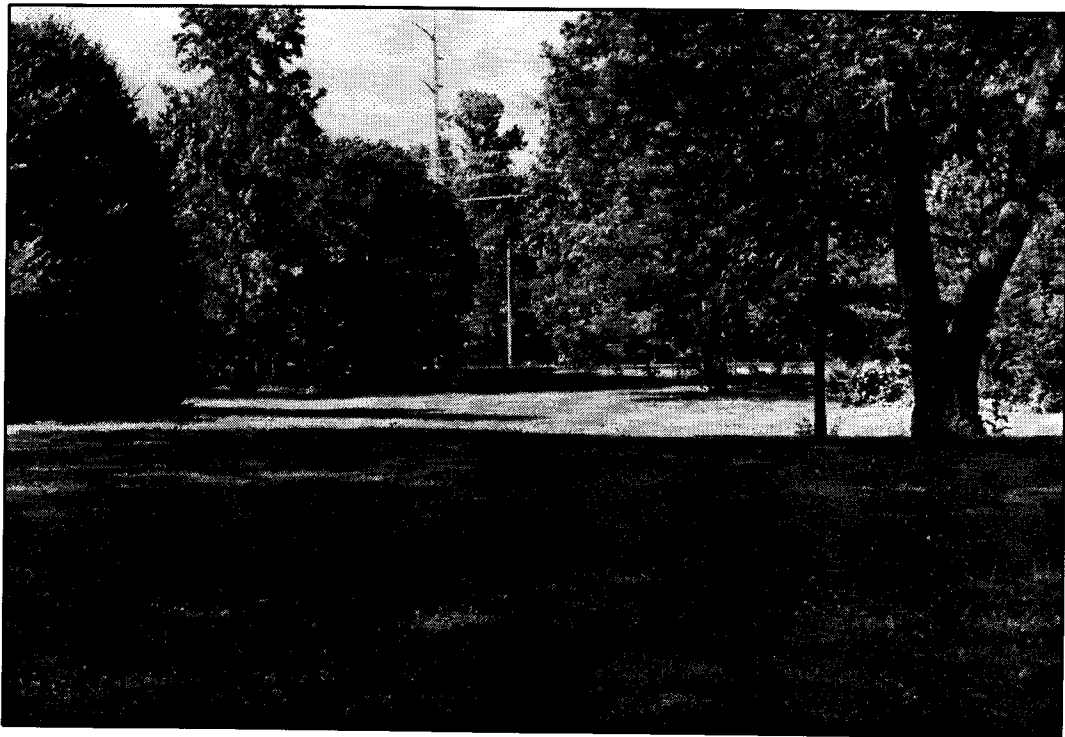


Figure 21. Parking Alternate 2.

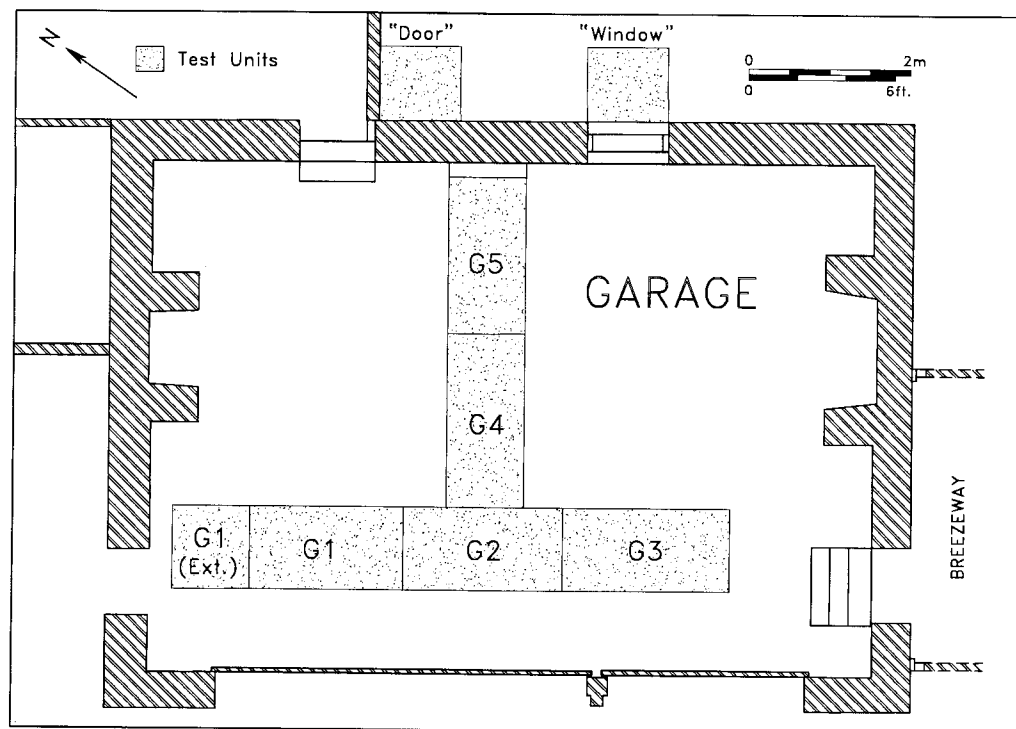


Figure 22. Plan of stone building excavations.

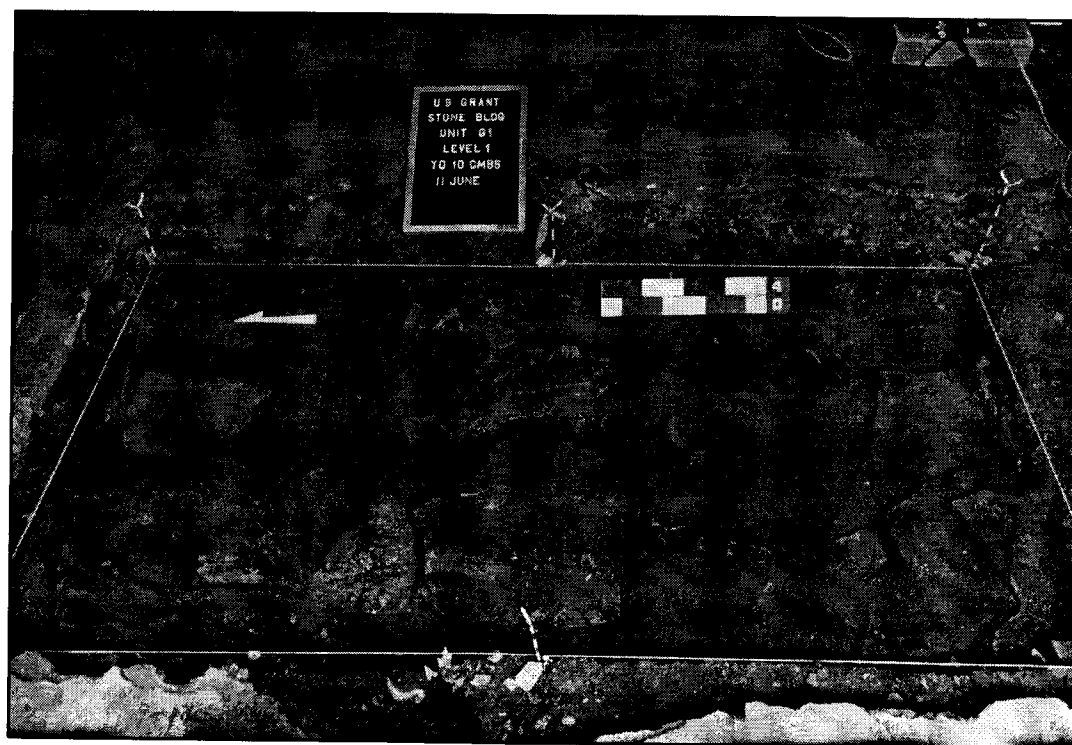


Figure 23. Unit G1, Level 1, showing foundation.

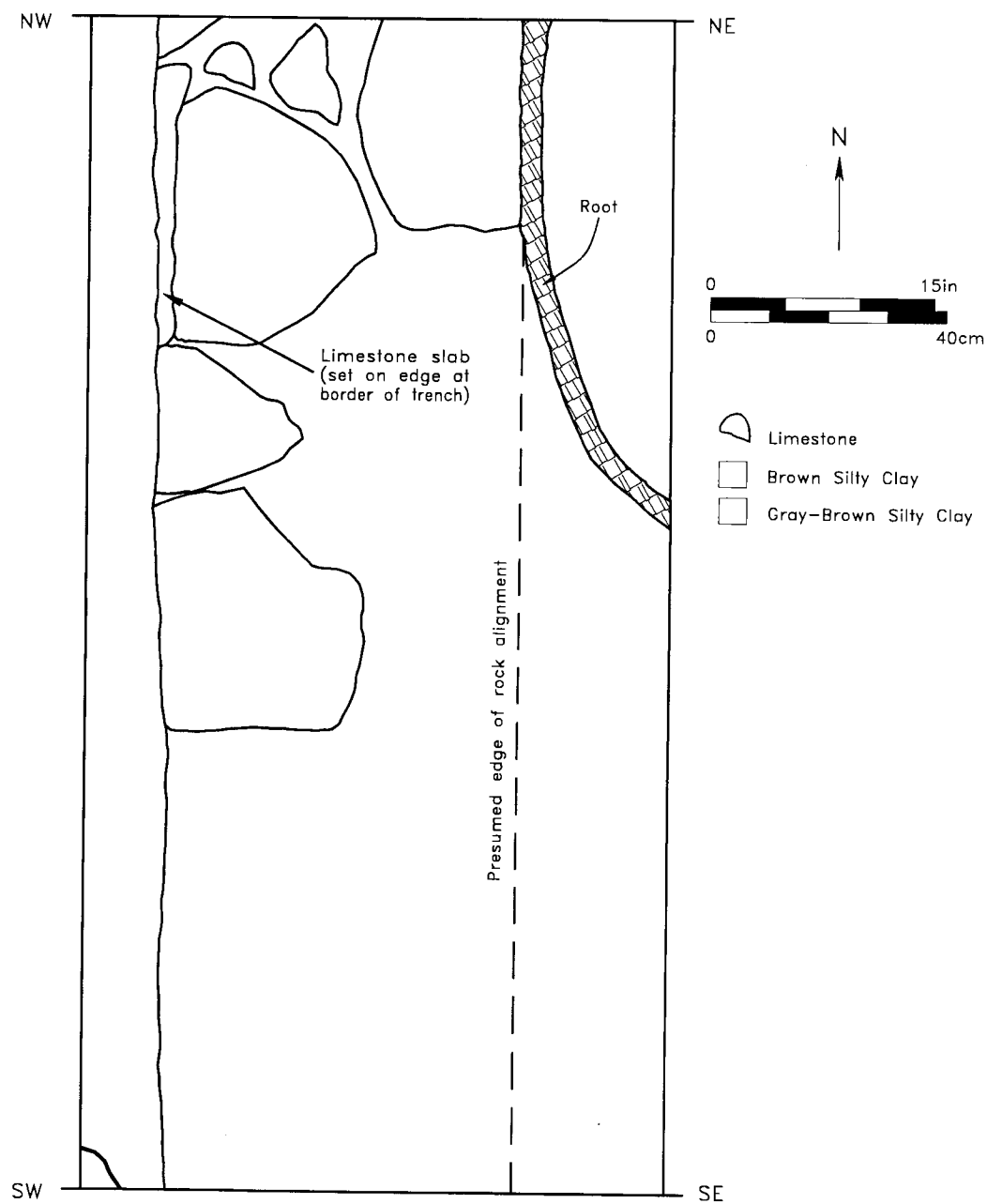


Figure 24. Plan drawing of Unit G1, Level 2.

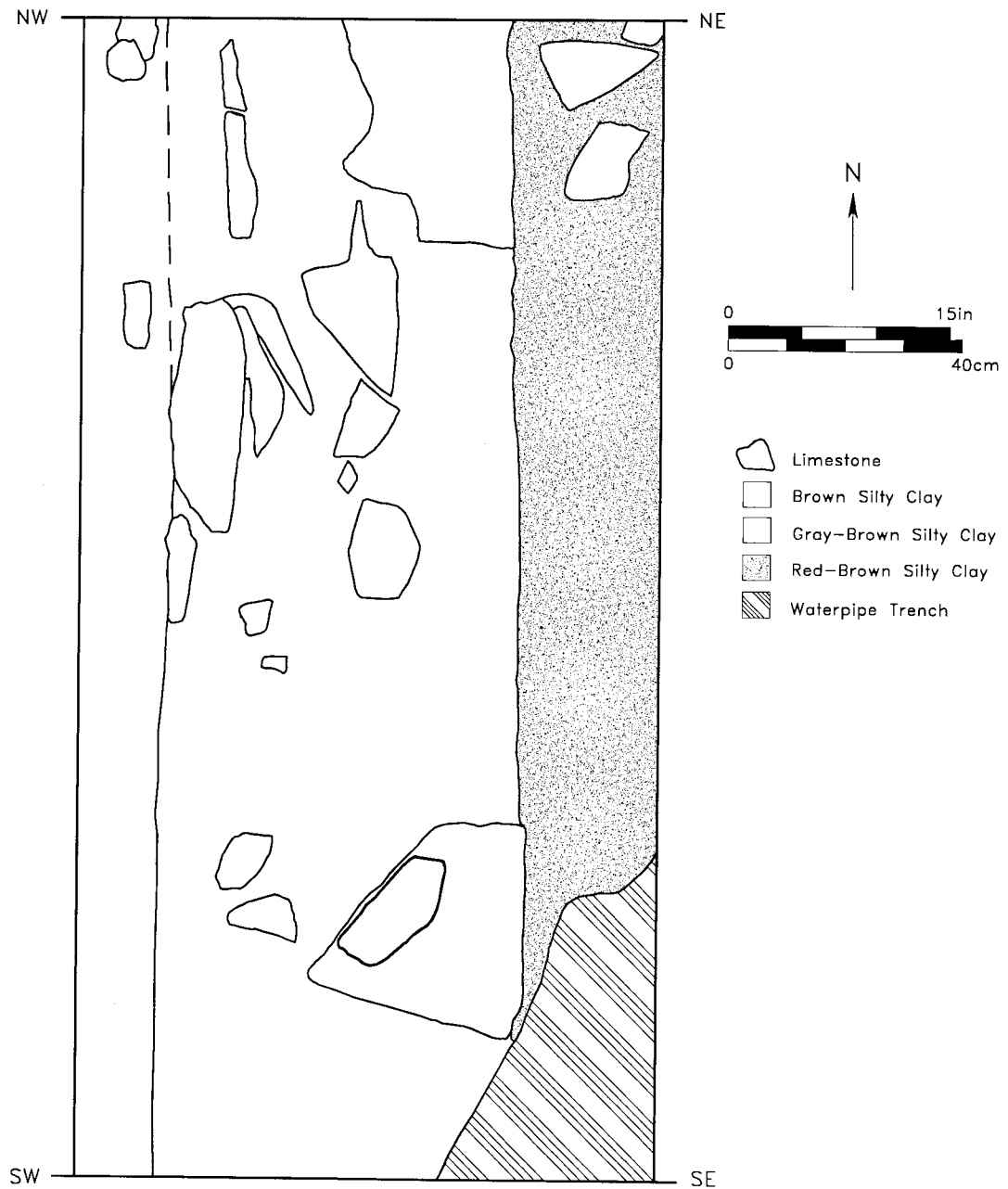


Figure 25. Plan drawing of Unit G2, Level 1.

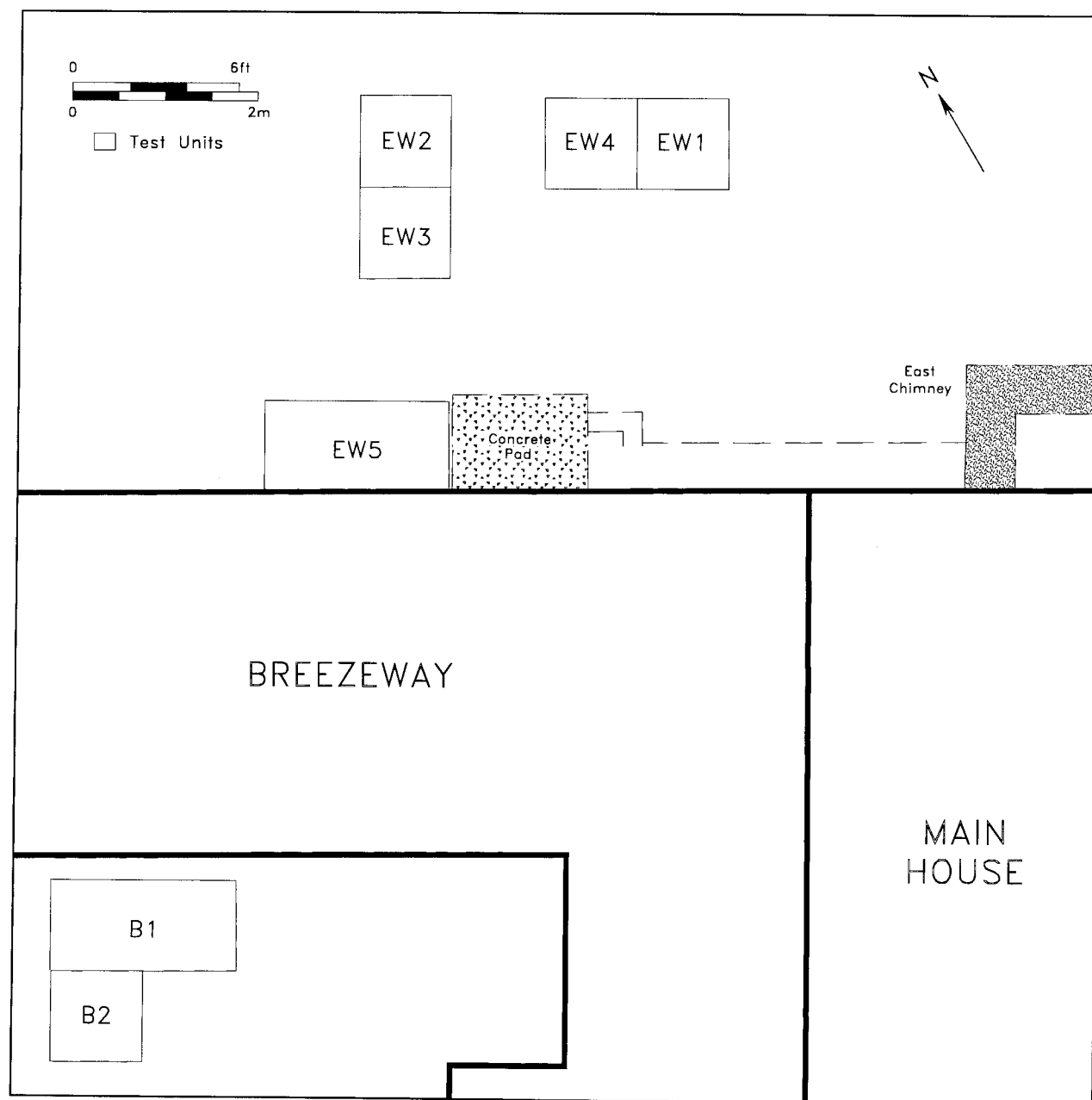


Figure 26. Plan of breezeway and east wing test units.

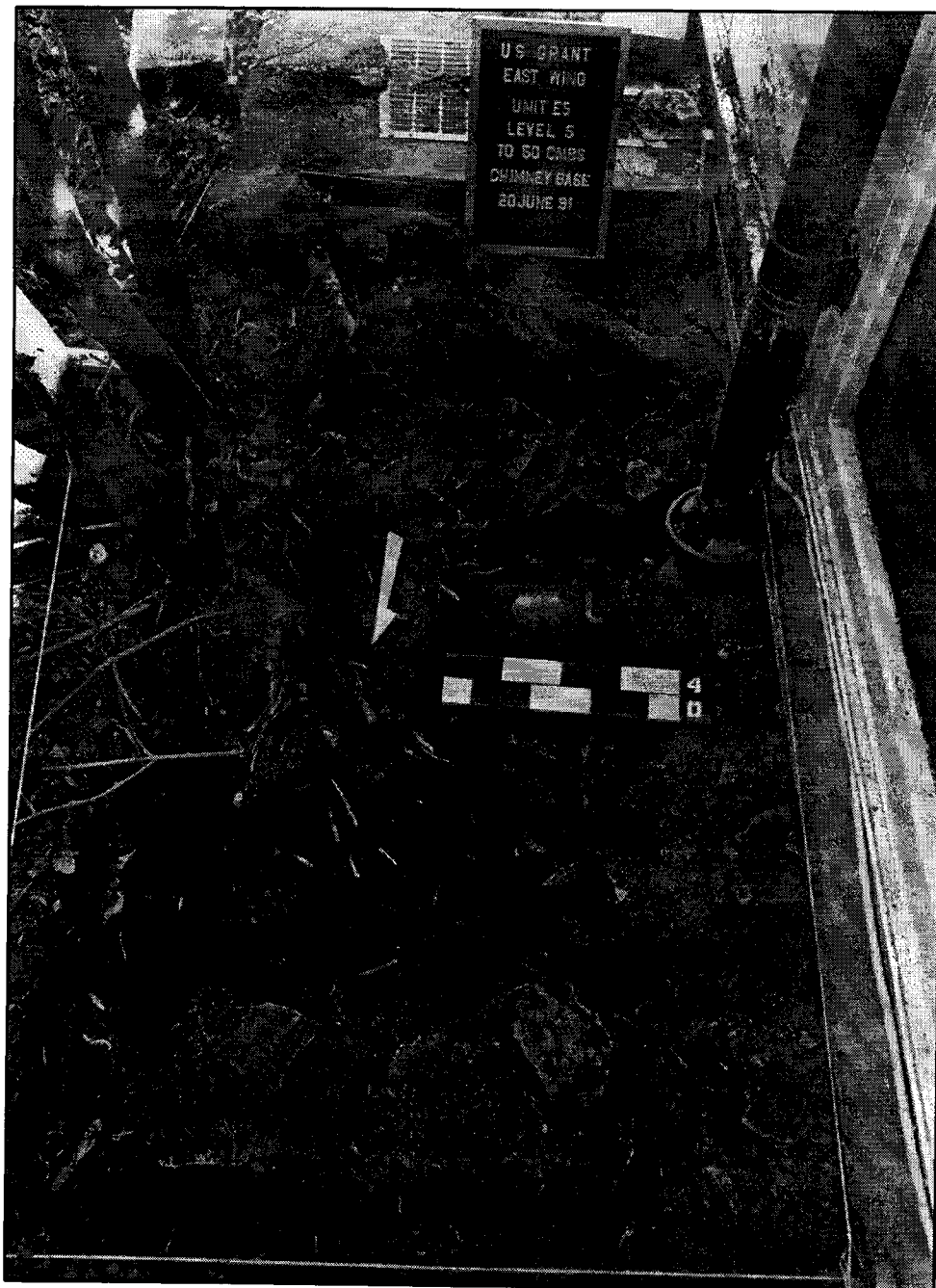


Figure 27. Chimney base ruins in Unit EW5.

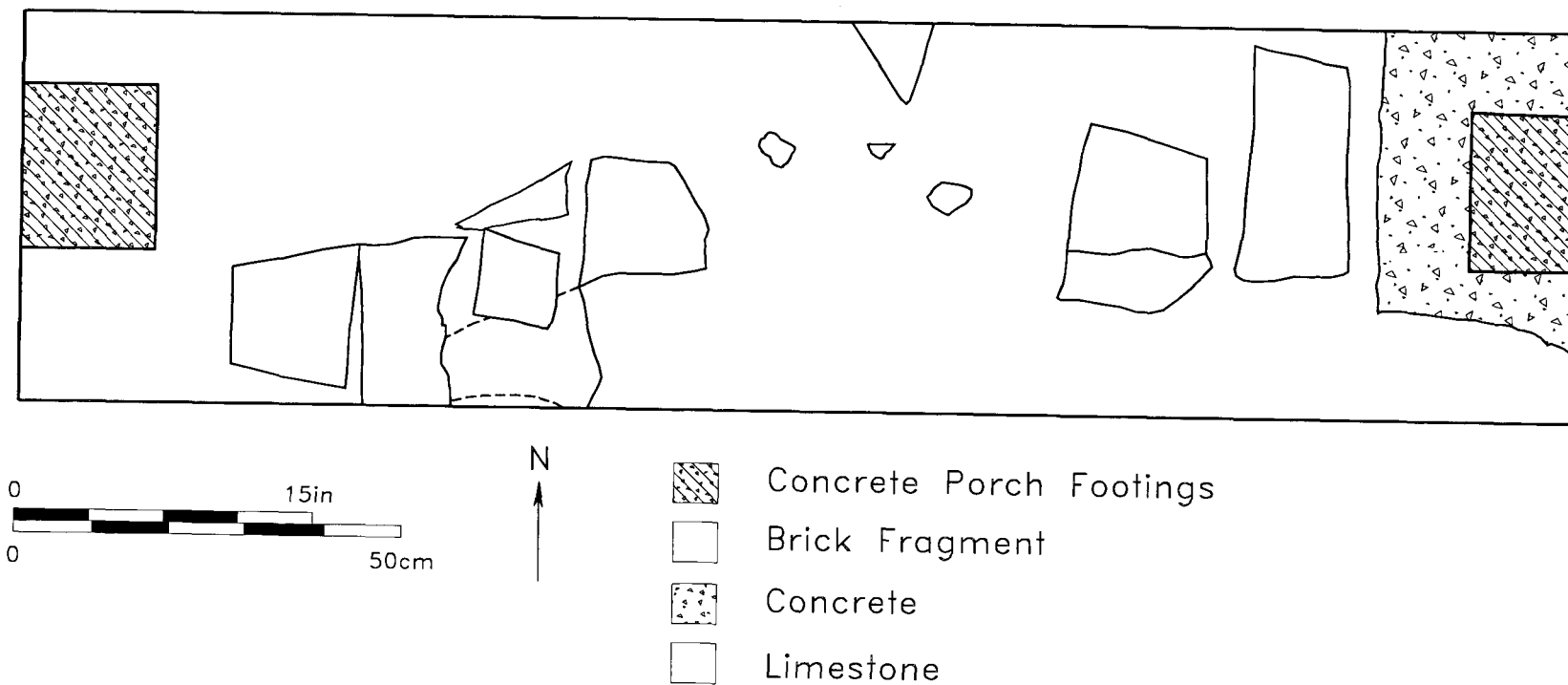


Figure 28. Porch excavation plan, Level 1.



Figure 29. Diagnostic artifacts.

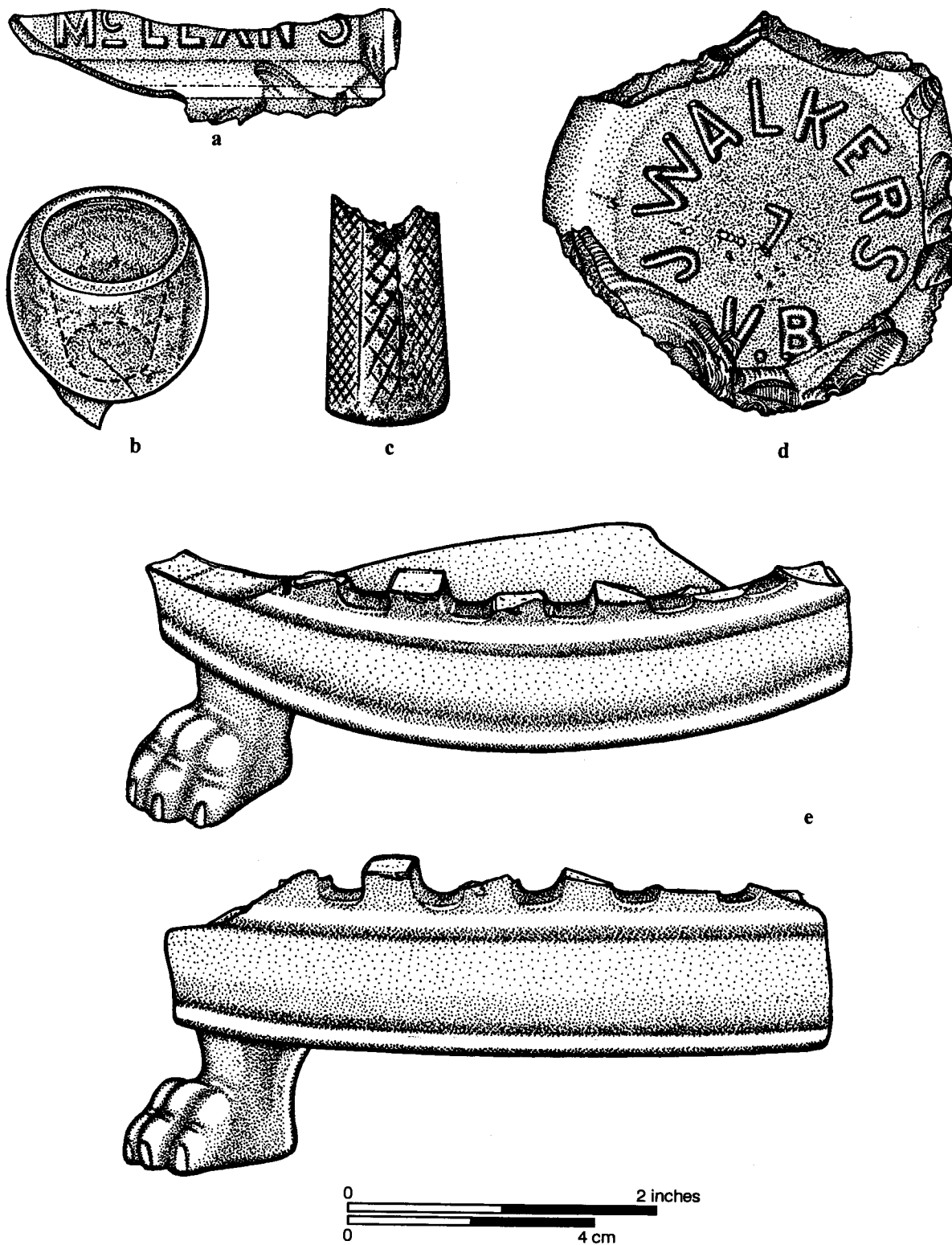


Figure 30. Diagnostic artifacts.



Figure 31. Diagnostic artifacts.

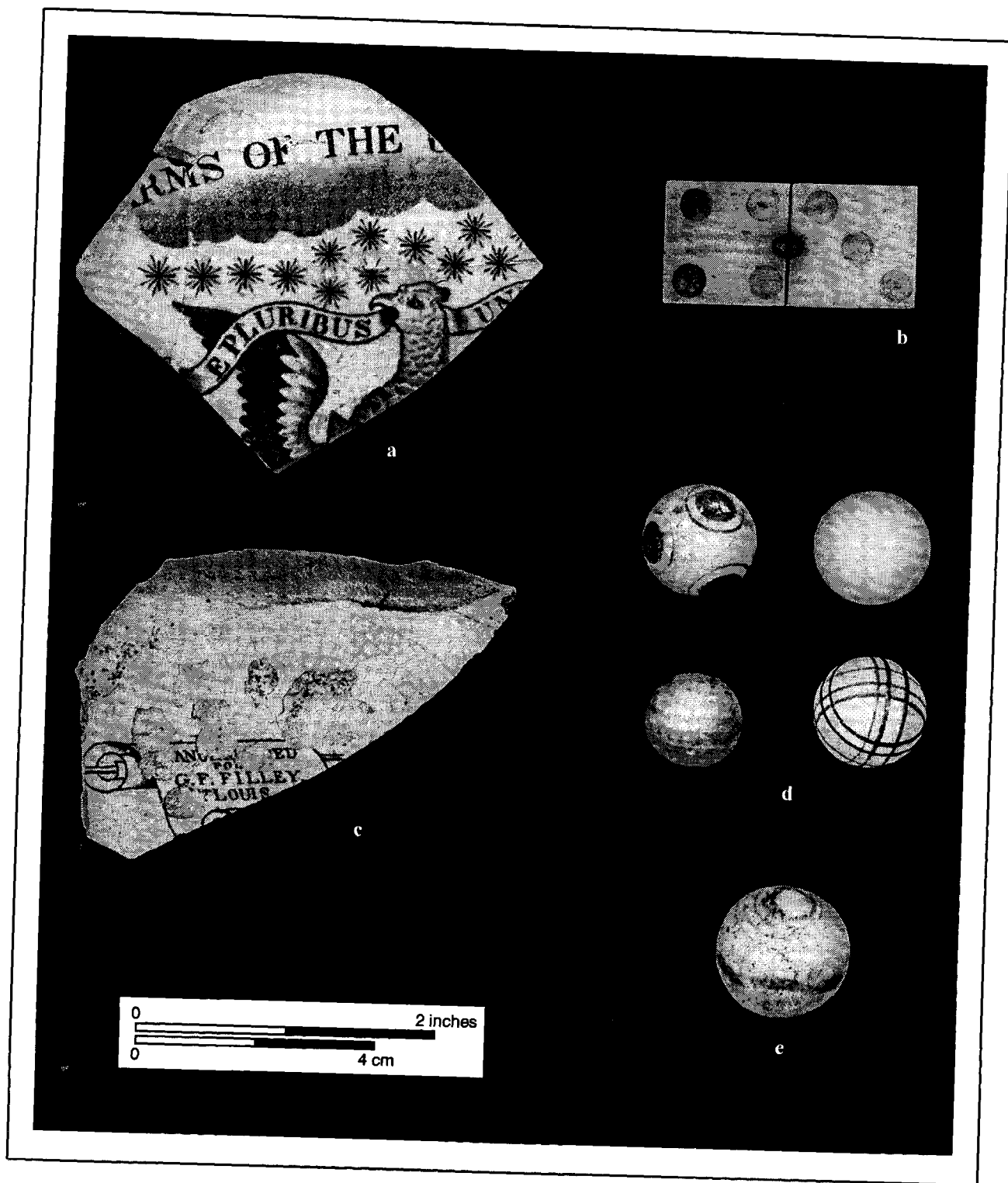


Figure 32. Diagnostic artifacts.