

RESULTS OF THE ARCHAEOLOGICAL INVESTIGATIONS AT THE WOODVILLE GRAVE SITE (7NC-E-98A)

The Woodville Grave Site (7NC-E-98A) is located on a small bluff just northeast of the intersection of present-day Route 13 and Route 406 (Figure 64; Plate 22). This unmarked cemetery was first discovered in the summer of 1993 during construction of the State Route 1 Corridor. After discovery of human remains and notification of the State Historic Preservation Officer, the University of Delaware Center for Archaeological Research conducted full excavation of the unmarked cemetery. Because of the unavoidable destruction of the cemetery, the goals of these excavations were not only to define the limits of the Woodville Grave Site but also to fully recover all skeletal materials and any relevant data present at the site.

Previous Archaeological Investigations

Preliminary Phase I and Phase II archaeological testing of this section of the State Route 1 Corridor did not uncover any evidence of this unmarked cemetery in either the original proposed right-of-way or the realignment of the right-of-way (Figure 65) (Hodny, Bachman, and Custer 1989, Kellogg et al. 1994). At the time of Phase I and II testing, the Woodville Grave Site fell outside of the defined proposed right-of-way (Figure 65). Preliminary archival research of this section of the State Route 1 Corridor identified the Woodville Farm Site (7NC-E-98), an owner- and tenant-occupied farmstead whose occupation dates from the early 1700s to as late as 1955, (Hodny, Bachman, and Custer 1989, Kellogg et al. 1994) but no reference to this unmarked cemetery located just south of the Woodville Farmstead was noted (Figure 64). Numerous historical atlases of the area, such as Beers' 1868 and Hopkins 1881 (Figures 7 and 8) depict the Woodville Farmstead; however, no evidence of the grave site is shown.

TABLE 4

Chain of Ownership of the Woodville Farm Site (7NC-E-98)

Transaction	Acres	Date	Deed reference
From the Commissioner of Property [of PA] to George Dakeyn	1100	10 April 1705	N. C. C. Warrants and Surveys D-2-13
From the Commissioner of Property [of PA] to John Pitt	528	18 June 1705	N. C. C. Warrants and Surveys P-2-10
From John Pitt to Peter Hanson	528	2 July 1708	C-1-196
From George Deakyne to Peter Hanse	150	1709	D-1-586 [now lost] W-1-36
From Peter Hanse	230	5 April 1729	N. C. C. Probate Will of Peter Hanse
From William and Anne [Hanse] Deakyne to Patrick Porter	—	April 1752	W-1-36
From Patrick Porter to David, Mary and Jannet Porter	200	4 March 1766	N. C. C. Probate Will of Patrick Porter
From David Porter [son of Jannet Porter] to Evan Reece [Rice] 1/3 right	200	22 Dec. 1802	Z-2-169
From Sheriff Dale for John Jones to Archibald and Mary Alexander 2/3 right	200	13 Dec. 1808	V-3-345
From Evan and Mary Rice to Purnel Veach 1/3 right	200	1 July 1809	H-3-544
From Archibald and Mary Alexander to Purnel Veach 2/3 right	200	28 Dec. 1811	V-3-345
From Purnel Veach to son William P. Veach	142	21 April 1829	N-1-263
From William P. Veach to John L. Shuster	142	20 Nov. 1832	P-4-488
From John L. Shuster to John H. Fromberger	142	7 Feb. 1837	X-4-254
From John H. Fromberger to Ashbury L. Pennington	142	14 April 1838	A-5-284
From Ashbury L. Pennington to sons Louis, Albert, and Benjamin Pennington	142	—	R-8-131
From Albert R. and Louis E. Pennington to Benjamin F. Pennington	142	11 April 1868	R-8-131
From Sheriff Robert L. Armstrong [for B.F. Pennington] to William Bright	142	16 Oct. 1873	C-10-469
From William Bright to James Gray	142	20 March 1874	O-16-469
From Sheriff Gould for James Gray to William Bright	142	9 Nov. 1894	P-16-516
From William Bright to George W. Paul, and Oliver Percey Bright	—	19 Nov. 1894	T-2-47
Numerous transfers from the Bright brothers to thier heirs, and heirs of the heirs.	—	—	—
From the fifteen heirs of the Bright family to Robert E. Patterson	134	20 Feb. 1945	E-45-56
From Dorothy M. Patterson to Tidewater Oil Co.	134	1955	A-56-583

N.C.C. = New Castle County

Site History

The Woodville Grave Site is located in the southern section of a 142-acre parcel identified as the Woodville Farm Site (7NC-E-98). Archaeological and archival surveys of the Woodville Farm Site revealed that this site was once a large owner- and tenant-operated farmstead which was occupied from the early nineteenth century to the mid-twentieth century. Archaeological excavations of the site discovered the remains of a main dwelling, subsurface features and numerous outbuildings (Hodny, Bachman, and Custer 1989). Table 4 lists the chain of title for the site. The following section presents the findings of archival research of the site area and is abstracted from the research of Hodny, Bachman, and Custer (1988).

Originally, the property comprising the Woodville Farm Site encompassed the boundary between an 1100-acre parcel owned by George Dakeyn (Deakyne) of New Castle (NCCWS D-2-13) and a 528-acre property granted to John Pitts of Talbot County, Maryland by Edmund Andross, the Governor of New York (NCC P-2-10) (Figure 66). In 1708, Pitts sold his parcel to Peter Hanson (Hanse) (NCCD C-1-196). In 1709, Peter Hanson purchase 150 acres of adjoining land from George Dakeyn (NCCD W-1-36). This transaction joined the land which would later be referred to as "Woodville." After Hanson's death in 1729, the property fell into the hands of his son, Joseph Hanse. Interestingly, Peter Hanse's will

states "...all that plantation where the Widow former lived..." (NCCW 136) and this quotation is the earliest record of occupancy on the parcel. After Joseph Hanse's death, Hanse's daughter, Anne, acquired rights to the land. In 1752, after Anne's marriage to William Deakyne, the land was sold to Patrick Porter. Total acreage of the property at this time was 230 acres.

In 1761, Patrick Porter sold 87 acres and 16 perches of the northern section of the property to John Murphey (NCCD W-1-36), who eventually built a mill on the land. The area where the mill was located is not part of the Woodville Site and therefore this transaction does not appear in Table 4. This transaction has been included in this discussion because the exchange of the mill site is influential in the Woodville history. After a long accumulation of debt, Murphey's property was seized and 10 acres of his property, which included the mill, was repurchased by Patrick Porter (NCCD X-1-424). In 1766, all of Patrick Porter's land was willed to his son David (NCC Probate). When David Porter died in 1782, the land was passed on to his two sisters: Mary, who was married to Whitehead Jones, and Jannet, the wife of Robert Porter.

Various findings imply that Whitehead Jones and his family lived on the property. Whitehead Jones is noted as having operated a mill (Scharf 1888:966) and "Whitehead Jones House" appears on a 1793 road map of the area (NCC Road Books). In addition, in 1780, overflow of the banks of the St. Georges Creek resulted in large livestock losses at the Reeden Point Farm Company of which Whitehead Jones was manager at the time. Three New Castle Chancery Court cases of 1811 (NCC Chancery Court J-14, J-15, and J-16) involving Jones's heirs refer to these losses. These circumstances suggest that Whitehead Jones and his family may have been forced to move from nearby St. Georges to live and operate the mill on the property.

After Mary (Porter) Jones' death sometime before 1799 and Whitehead Jones' death in 1801 the land was divided between their children, John and Mary. Distribution of the overall Porter land resulted with John Jones owning most of the land, roughly two thirds and the remainder divided between Mary and David Porter, Jannet and Robert Porter's son. John Jones, owner of the largest share, was forced, financially, to have his land sold at a sheriff's sale in 1808. This property was eventually bought by Archibald and Mary Alexander (NCCD V-3-345). Mary Jones, John's sister, married Evans Rice and in 1802, Rice purchased a one-third right of the land from David Porter (NCC Z-2-169).

In two separate transactions, one in 1809 and the other in 1811, Purnel Veach bought all of the lands comprising the Woodville Site from the Porter heirs (NCCD H-3-544 and V-3-345). The 1809 deed lists Purnel Veach as being from Red Lyon (Lion) Hundred. Whether Purnel Veach and his family were already living on the Woodville property is unknown. Purnel Veach also appears in Red Lion Hundred on the 1810 U.S. Population Census. By 1816, tax assessment records show that Purnel Veach was taxed for 123 acres of land, 80 of which were improved for agriculture. The remainder of the land consisted of marsh and woodland. These records also show that a small dwelling and a stable stood on the land. Purnel Veach died intestate in 1827. At the time of his death, records refer to Veach as Reverend Purnel Veach. He is also listed as owning 142 acres of the present-day Woodville property, six acres of nearby marsh and a house and lot in Christiana (NCC Orphans' Court N-1-178). Figure 67 shows the 1829 Orphans Court plat of the Woodville property.

In 1829, the Orphans Court grants William P. Veach, Purnel Veach's eldest son, permission to acquire all of the Woodville property provided that he paid his siblings the value of their share of the lands. At the auction of his father's personal belongings, William Veach purchased numerous household items but none of the agricultural tools or livestock. William P. Veach and his family appear in the

1830 U.S. Population Census of Red Lion Hundred; however, 1832 tax assessment records show Veach was taxable for land but not for livestock. In 1832, when William Veach sold the property to John L. Shuster, the deed lists Veach as being from New Castle County. These findings suggest that William Veach may have only lived on the land for a short time, if at all, and then possibly ran it as a tenancy.

When John L. Shuster purchased the property from Veach in 1832 he was already a well-established farmer in Red Lion Hundred. Most likely, Shuster did not dwell at the Woodville farm. In 1836, Shuster sold the land to John H. Fromberger from Wilmington (NCCD X-4-254). A 1837 tax assessment of Red Lion Hundred records that Dr. John Fromberger owned 142 acres with a small frame house and that he was not taxed for any livestock. These records suggest that Fromberger may have lived on the property but did not farm the land. In 1837, after about one year of ownership, Fromberger sold the land to Ashbury Pennington (NCCD A-5-284).

Shortly after purchasing the property, Pennington and his family appear to have moved to the farmstead. The 1840 U.S. Census of Red Lion Hundred lists three of the Pennington household as engaging in agriculture. Although Pennington was not taxed for any livestock in 1840, by 1841 he was assessed for \$308.00 of livestock. The 1850 U.S. Census agricultural schedule records that Ashbury Pennington farmed 125 acres of improved land and owned horses, milk cows, oxen and swine. Produce from the farm was relatively broad and included Indian corn, oats, wheat, Irish potatoes, and butter. In 1855 Ashbury Pennington died (DSA - Tatnall Tombstone Collection) and lack of probate records suggests that Jane, his wife, maintained ownership of the land while their son Benjamin Pennington took control of the farm. Tax assessments between 1861 and 1864 for Red Lion Hundred records Benjamin Pennington with 140 acres of farm land, frame buildings, \$837.00 of livestock and 10 acres of swamp. After the death of Jane Pennington in 1868, Benjamin Pennington bought all rights to the Woodville Farmstead (NCCD R-8-131). The name "Woodville" applied to this property first appears on Beers' 1868 Atlas (Figure 67). In 1872, after several years of little change, Bennington fell into debt, and in 1873 the Supreme Court awarded the property to William Bright of Wilmington (NCCD C-10-414).

Bright, a wealthy real estate agent, sold the Woodville farm to James Gray of St. Georges Hundred in 1874 (Scharf 188:809, NCCD O-16-469). This transaction yielded Bright almost \$4000.00 in profit. Gray may have operated Woodville as a tenancy. The 1880 U.S. Population Census listed James and Sarah Gray as residents of St. Georges Hundred. In 1894, Gray died and his probate records from that year noted that he had possessions at a "Home Farm" and at a "Farm Rented". The "Farm Rented" may refer to his Woodville property. At his death, Gray owed William Bright \$3,500.00 in mortgage and Bright regained ownership of the farmstead.

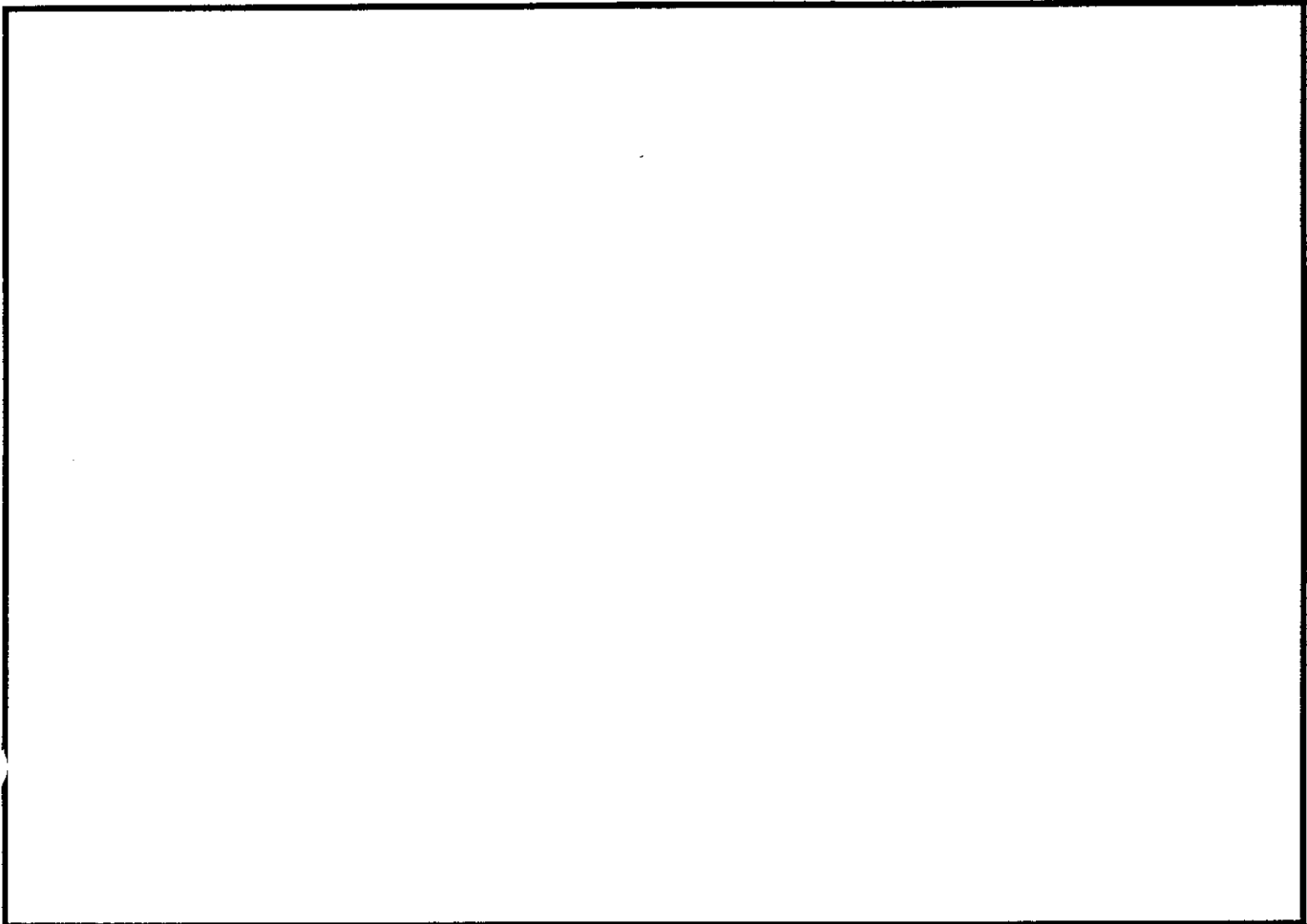
After William Bright's death in 1896 (DSA - Tatnall Tombstone Collection), the Woodville Farmstead exchanged hands among various Bright heirs, none of whom are noted as ever occupying the site, until 1945 when it was bought by Robert E. Patterson (NCCD E-45-56). Robert Patterson and his wife Dorothy lived at Woodville until Robert Patterson's death in 1955 (Gladys Lester, personal communication). In 1955, Woodville was purchased by the Tidewater Oil Company (NCCD A-56-597). By the early 1980s, the house and outbuildings collapsed from vandalism and neglect. In sum, the archival research provides no clues to the property association of the cemetery, or the identity of the individuals interred within it.

Research Methods

Pedestrian survey of the overall area of the Woodville Grave Site did not reveal the presence of any gravestones, grave markers, or site limits. After these investigations, the site was mechanically stripped and flat shoveled of plow zone soils to better identify grave shafts and other subsurface features. All features were mapped, recorded, and photographed on black and white still, color slide, and video films. All features were hand excavated and the feature soils dry-screened through 1/4-inch mesh. Grave shaft features were excavated in natural levels to better expose and record coffin stains and skeletal remains in situ. All uncovered skeletal materials were removed. Non-grave features were bisected and excavated in halves to discern stratification. At least one liter of soil was collected from each feature for flotation. Additional soil samples were collected from unusual or interesting soils within the feature fill. Loose soils resulting from road construction crew demolition of the natural bluff were also dry-screened through 1/4-inch mesh to recover any displaced skeletal material.

All artifacts and skeletal remains recovered from the Woodville Grave Site were washed and marked with the procedures developed by the Delaware Bureau of Museums. Soils which surrounded the bones were collected during laboratory processing for further analysis. All skeletal remains recovered from the site were submitted to Dr. Karen Rosenberg of the University of Delaware Department of Anthropology for osteological analysis (Appendix VII).

PLATE 23
Woodville Grave Site,
Profile of Bluff



Excavation Results

Stratigraphy. The partial excavation into the natural bluff by road construction crews enabled a complete cross section of the site (Figure 68; Plate 23). The stratigraphy of the Woodville Grave Site consisted of three main soil horizons. The top horizon, Horizon I, was an eroded plow zone which ranged from 0.5 to 1.2 feet thick across the site and consisted of a dark brown silty loam (Figure 68). Underneath the plow zone the soil was a brown-orange clayey sand of medium grain (Figure 68). In addition to containing many gravels, Horizon II was also mottled with several pockets of red, brown, and yellow clayey sands. At approximately six feet below the surface, at the bottom of the bluff, Horizon II graded into Horizon III, a coarse red-orange gravelly sand which was found to be highly compacted in many sections (Figure 68). Except for the upper eroded plow zone soil, the soils at the site were all of Pleistocene Age, more than 15,000 years old, and, therefore, too old to contain archaeological materials outside the excavated grave features.

Grave Features. A total of 11 graves were identified and fully excavated (Table 5; Figure 69). In all but one grave, Grave 6, the skeletal remains were in anatomically correct position. The graves were aligned in the Christian manner with the head placed in the west end of the grave shaft (Plate 24).

TABLE 5
Woodville Grave Site, Feature Type Summary

FEATURE	DIMENSIONS width x length x depth (feet)	DESCRIPTION
GRAVES		
G1	3.1 x 6.7 x 3.4	Intact Grave
G2	2.7 x 6.1 x 2.5	Intact Grave
G3	2.6 x 7.3 x 1.7	Intact Grave
G4	2.4 x 3.3(+) x 1.8	Truncated Grave
G5	1.2 x 2.3 x 0.6	Truncated Grave
G6	1.4 x 2.7(+) x 0.4	Disturbed and Truncated Grave
G8	1.8 x 6.4 x 1.7	Truncated Grave
G10	1.9 x 6.5 x 1.6	Intact Grave
G11/F14	1.75 x 5.7 x 2.3	Intact Grave
G12	2.2 x 7.1 x 1.9	Intact Grave
G13	1.2 x 3.1 x 1.0	Intact Grave
NON-GRAVE FEATURES		
F1	0.7 x 0.9 x 1.4	Post
F2	3.5 x 4.3 x 0.9	Non-Cultural
F3		Non-Cultural
F4	1.1 x 1.2 x 1.8	Post
F5	1.0 x 1.6 x 1.6	Post
F6	1.3 x 1.4 x 1.2	Post
F7	1.2 x 1.4 x 0.8	Post
F8	1.6 x 2.7 x 1.5	Post
F10	1.1 x 1.1 x 0.9	Post
F11	1.1 x 1.4 x 0.4	Post
F11A	6.8 x 8.8 x 1.4	Prehistoric pit
F11B	1.15 x 1.15 x 1.2	Post
F12	1.0 x 1.3 x 1.2	Post
F13		Non-Cultural
F15	2.3 x 5.0 x 1.3	Non-Cultural
F16	4.5 x 3.3 x 2.5	Disturbance Possibly related to Grave 6
NOTE: "Intact Grave" description denotes skeletal remains were in anatomically correct positions.		

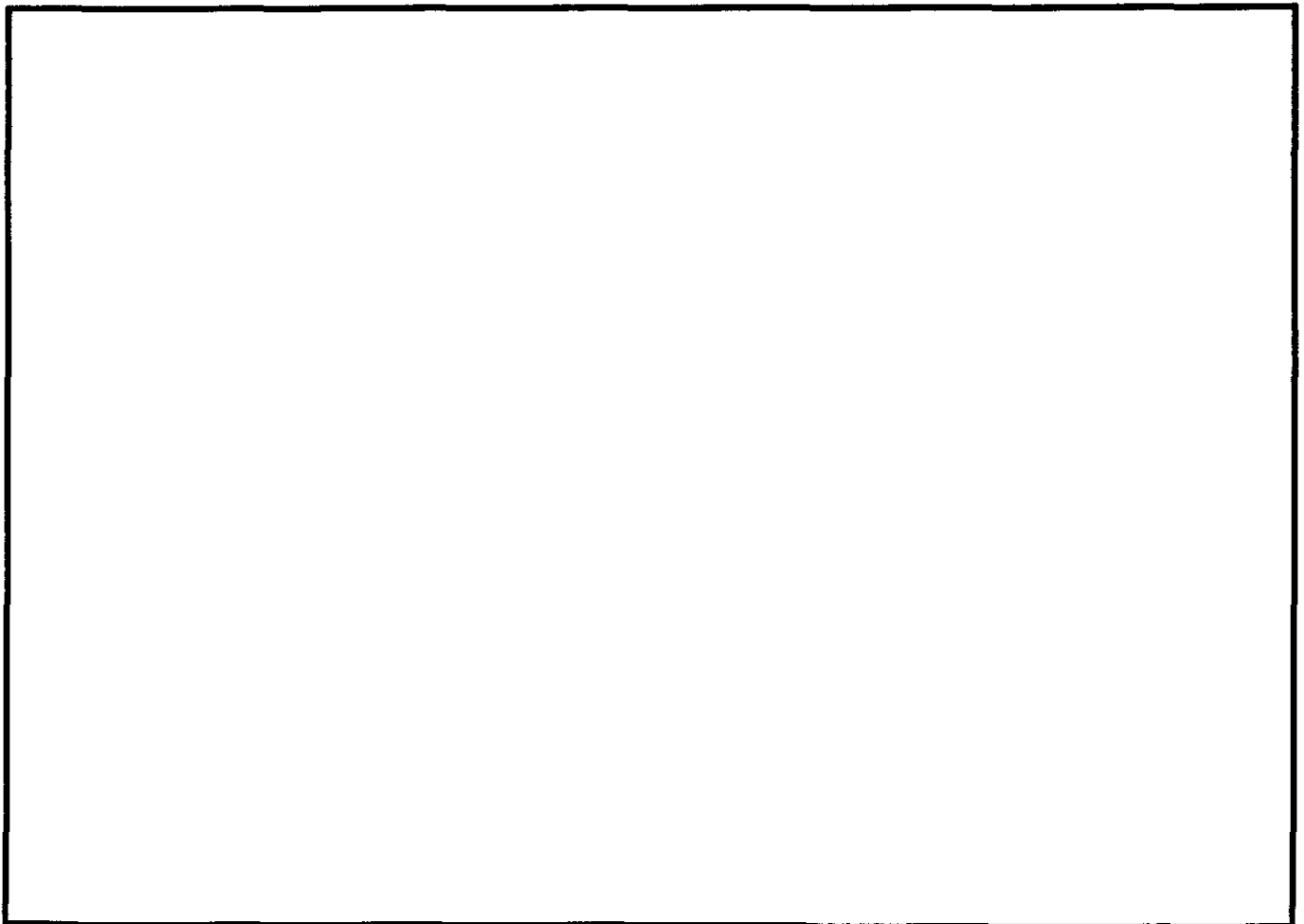
Four of the graves, (Graves 4, 5, 6, and 8) were truncated by the earlier road construction. All of the graves appeared rectangular in shape in opening plan view. Coffin stains within the grave shaft fill were easily recognized and all were relatively hexagonal in shape (Plate 25). A complete listing of the graves, their dimensions, and the depth of the appearance of the coffin stains below the surface are presented in Tables 5 and 6.

Grave 1, (Figure 69) the easternmost grave at the site, was the deepest grave. In opening plan view, the grave appeared as a rectangular stain roughly 6.1 feet in length (Figures 70 and 71; Plate 26). The western end of the feature measured 3.2 feet wide and gradually tapered to 2.0 feet at the east end. Excavation of the grave was conducted in natural levels to locate the top of the coffin stain. The first soil horizon of Grave 1 consisted of a dark red-brown clayey sand with many gravels (Figures 70 and 71). At 1.0 feet below the surface a hexagonal coffin stain was identified (Figure 70; Plate 26). A small "ledge" of sterile subsoil ranging from 0.2- to 1.0 feet wide surrounded the stain (Figure 70). The coffin fill, a dark red-brown organic sandy loam, was removed and screened separately. The walls of the grave shaft continued to narrow and at 1.2 feet below the surface, numerous fragments of coffin wood and nails were uncovered (Figure 70). Skeletal remains were uncovered at 1.3 to 1.4 feet below

TABLE 6
Woodville Grave Site,
Grave Feature Summary

GRAVE	DEPTH BELOW SURFACE OF COFFIN (feet)	COFFIN SHAPE
G1	1.2 - 2.3	Hexagonal
G2	0.5	Hexagonal
G3	0.2 - 0.8	Hexagonal
G4	1.2	Unknown
G5	0.5	Unknown
G6	0.4	Unknown
G8	0.2	Unknown
G10	1.1	Hexagonal
G11/F14	1.8	Hexagonal
G12	1.1	Hexagonal
G13	0.6	Hexagonal

PLATE 26
Woodville Grave Site,
Grave 1 - Opening Plan View



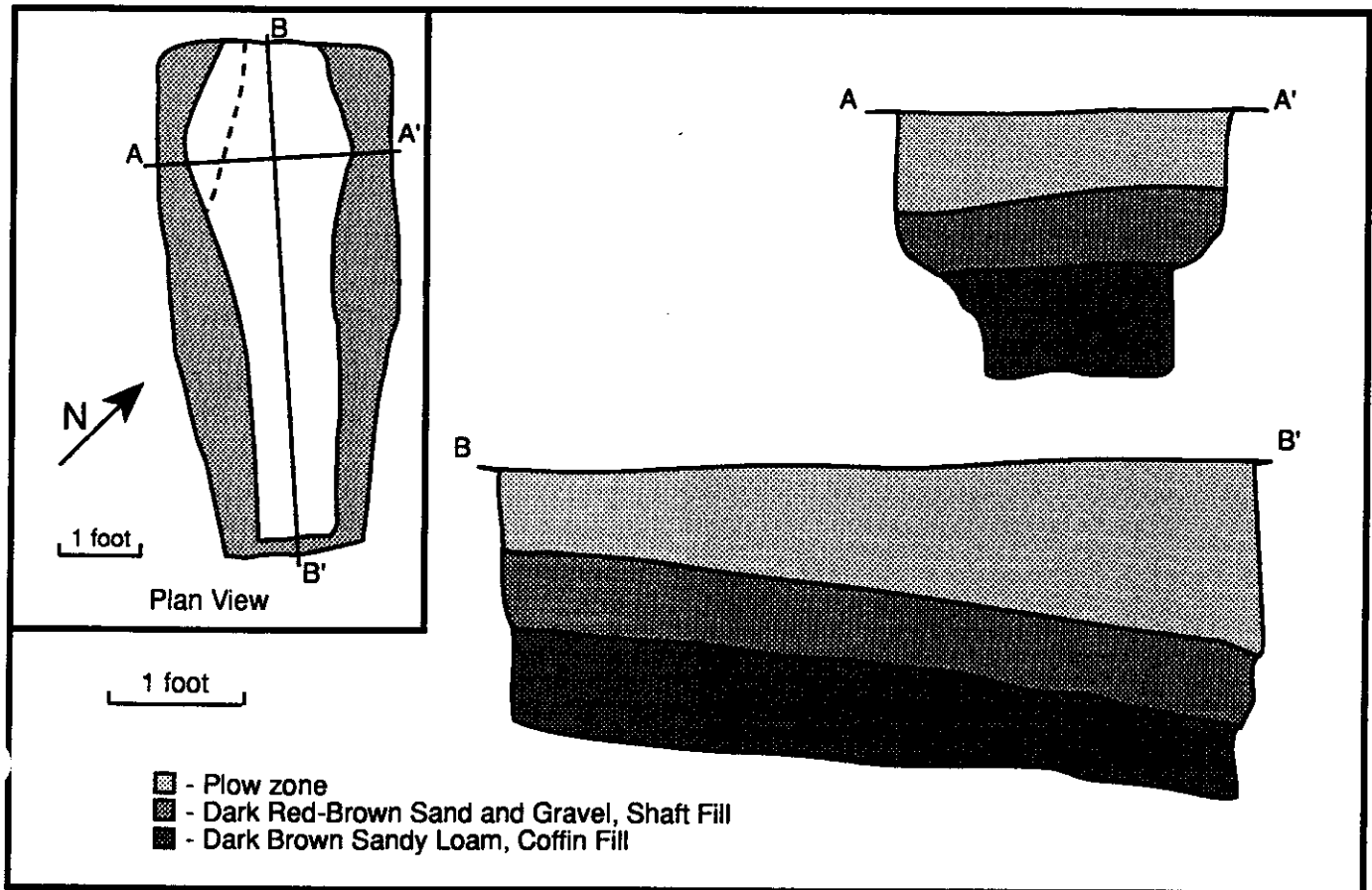
the surface (Figure 70; Plate 27). The skeleton was supine with the arms straight against the side of the body and the hands positioned at the hips (Plate 27). The skull was turned toward the south. Although some deterioration of the bones was present, the majority of the long bones, pelvis, and skull were intact. Final depth of the grave shaft was 3.6 feet below surface. The walls of the grave shaft consisted of the dark red-brown clayey sand surrounding subsoil which became more compact toward the bottom of the grave (Figures 70 and 71).

Grave 2 was located in the eastern portion of the site and one foot south of Grave 1 (Figure 69). In opening plan view, Grave 2 was a 2.6 by 7.3-foot rectangular stain of dark brown-red clayey sand with many gravels (Figure 72). At first, definition of Grave 2 was difficult to discern but the loosely compacted nature of the soil set it apart from the similar but more compacted surrounding sterile subsoil. Excavation of Grave 2 was conducted in natural levels, following the walls of the grave shaft, to reveal the presence of a coffin stain. Soils from these excavations yielded a few coffin nails. At 0.5 feet below surface, a hexagonal coffin stain was defined (Figures 72 and 73; Plate 28). The coffin stain ranged from 1.8 to 0.9 feet wide and was 5.8 feet long. This stain was positioned about 1.5 feet away from the grave shaft walls (Figures 72 and 73; Plate 28). The surrounding soil of the coffin stain consisted of the sterile red-brown clayey sand of the site. The soil of the coffin fill was a dark brown

sandy loam. Excavation of this soil fully uncovered skeletal remains at 1.5 feet below surface. The skeleton was supine and in anatomically correct position. The hands of the skeleton were clasped across the chest (Figures 72 and 73; Plate 29). Several cut coffin nails were observed above the head and below the feet (Figure 72). Additional coffin nails were recovered from the soil above and surrounding the remains. Complete excavation of Grave 2 resulted in a 2.3-foot deep rectangular grave shaft with a flat bottom and straight sides which angled sharply where the coffin once laid (Figure 72). The soils of the walls consisted of the dark red-brown gravels sand which became increasingly more compacted toward the bottom and at the floor of the grave shaft.

Grave 3, was located south of Grave 2 (Figure 69). This grave first appeared as a 2.6 by 7.3-foot rectangular stain within the surrounding sterile subsoil (Figures 74 and 75). Excavation of the grave shaft was conducted in natural levels and a hexagonal coffin stain was discovered between 0.2 and 0.8 feet below the surface (Figures 74 and 75). The soil of the grave shaft consisted of a dark brown sandy loam. Excavation of the coffin fill continued while following the edge of the grave shaft. Skeletal remains were located at 1.6 feet below surface (Figures 74 and 75). The soil of the coffin fill was a dark brown sandy loam. Organic content of the soil was high, a result of the decomposition of the wood coffin and its contents. The soil grew more organic toward the body cavity of the skeletal remains. Unlike Grave 1, the skull faced upwards, the left arm was laid across the body, and the feet were crossed (Plate 30). The pelvis area of the grave exhibited considerable root disturbances. Numerous

FIGURE 73
Woodville Grave Site, Profile of Grave 2

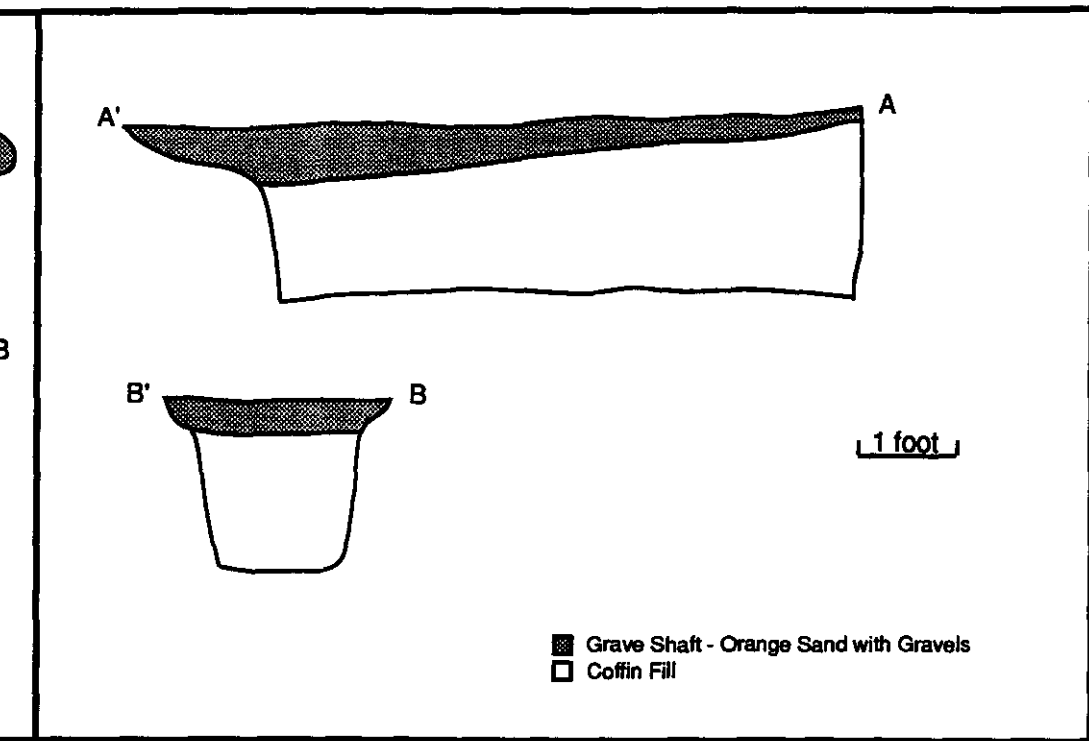


coffin nails were recovered throughout the coffin fill soils. After removal of the skeletal remains excavation of the grave shaft continued to a highly compacted red-brown clayey sand floor (Figures 74 and 75; Plate 31). Final depth of the grave was 1.8 feet below the surface.

Grave 6 was the only grave at the site which exhibited any internal severe post-depositional disturbance. This truncated grave was first identified in the east wall profile of the bluff (Figure 69). In opening plan view, the grave appeared as a small rectangular stain 1.4 feet wide and 4.0 feet long (Figure 76). The soil of the grave shaft consisted of a red-brown sand with many gravels. During excavation, no discernible coffin stain was apparent; however, the feature soil increased in organic content with depth. Long bones were exposed at approximately 0.4 feet below the surface. Boundaries of an intruding disturbance at the northeastern end of the grave were also discovered. The soil of this intrusion consisted of a loose red-brown sand of coarse grain. Complete exposure of the skeletal remains revealed that the bones were not in anatomically correct position (Figure 76; Plate 32).

FIGURE 75

Woodville Grave Site, Profile of Grave 3



To better discern whether or not the disturbance encountered in the northeastern end of the grave shaft was related to the disturbance of the bones, the surface area and profile section of the bluff were hand troweled. Surface scrapping of these areas revealed an amorphous stain to the south of Grave 6 (Figure 77). This stain was designated Feature 16. Results of spoon probe testing and examination of the bluff profile concluded the feature fill was disturbed. Based on these findings, Feature 16 was excavated in one level. Small fragments of rubber, plastic, plastic wrap, and coffin nails which probably originated from Grave 6, were recovered from the feature soil. Complete excavation of Feature 16 resulted in a 4.5- by 3.3-foot semi-circular depression (Figure 77). Maximum depth of Feature 16 was recorded at 2.5 feet below surface. Because of the lack of skeletal material within Feature 16, this feature was concluded to be the remains of an intrusive pit into Grave 6, such as an uprooted tree, which may have been hastily refilled upon discovery of the skeletal remains.

Non-Grave Features. Twelve non-grave cultural features were identified and excavated at the Woodville Grave Site (Table 5). Ten of these features (Features 1, 4-11, 11B, and 12) were historical post holes, one feature (Feature 16) was a pit related to Grave 6, and the last feature (Feature 11A) was a single prehistoric pit feature.

Alignment of the post holes across the site suggest northern, eastern, southern, and western fencelines that outline the boundaries of the cemetery (Figure 69). Average diameter of the post holes were 1.18 feet and average depth of the post holes were 1.16 feet below the surface. Spatial intervals between the post holes did not exhibit any significant patterns. Numerous noncultural features, probably remains of trees, were observed in alignment to the post holes and these trees may have once been incorporated in the fencelines. No evidence of gateposts or markers were found at the site. The gate may have existed in the northern portion of the site.

A single, isolated prehistoric pit feature was also encountered at the Woodville Grave Site (Table 5; Figures 69 and 78). Located in the western section of the site, Feature 11A was originally thought to be a noncultural disturbance. After excavation of Features 11 and 11B, two historical post holes, the overall area was surface-troweled to better define the limits of this feature. Surface scrapings of the areas yielded five flakes and one hammerstone. In opening plan view, Feature 11A was a pear-shaped stain approximately 7.9 feet long and 6.0 feet wide (Figure 78). The feature was bisected along its north-south axis and the east half was removed to exposed a cross section profile of the feature. The fill soil of Feature 11A consisted of a dark brown silty loam with many gravels distributed throughout the matrix. Examination of the mid-excavation profile did not reveal any internal stratification of the feature fill and the west half was excavated as one level (Figure 78). Artifacts recovered from Feature 11A included flakes, utilized flakes, and hammerstones. Complete excavation of Feature 11A resulted in a large 8.9 by 7.0-foot basin-shaped pit with gently sloping sides (Figure 78; Plate 33). The walls of Feature 11 consisted of the orange-brown clayey sand sterile subsoil which decreased in clay content toward the floor of the feature. Overall, the depth of the feature was relatively uniform. Maximum depth of Feature 11A was 1.3 feet below the surface.

Excavated Artifacts. A total of 569 artifacts (304 historical and 265 prehistoric artifacts) were recovered from the Woodville Grave Site. Distribution of the artifact assemblage is presented in Table 7. Surface collection and screening of the displaced soils from the site yielded almost 14 percent of the assemblage. All of the ceramic sherds and most of the glass, predominately bottle glass, originated from these soils.

Approximately 42 percent of the artifacts were collected from grave feature excavations. These features contained a very limited variety of artifact types. The majority of these artifacts, 91.3 percent of the grave feature assemblage, were cut nails and brads associated with coffin construction. Copper alloy straight shroud pins comprised only 2.9 percent of the artifacts recovered from grave feature soils. The only nonfunerary artifact was a four-hole bone button which was recovered from Grave 1. Plate 34 shows a representative sample of the grave feature assemblage. Osteological inventory and analysis of recovered skeletal remains from the site are presented in Appendix VII.

A small variety of prehistoric lithic artifacts were also recovered from excavations at the site. Artifacts recovered from feature soils of Feature 11A, the only prehistoric feature at the site, comprised 86.14 percent of the prehistoric assemblage. Present in the prehistoric artifact assemblage were flakes, utilized flakes, a flake tool, cores, hammerstones, and small fragments of fire-cracked rock. Plate 35

FIGURE 78

Woodville Grave Site, Plan View and Profile of Feature 11A

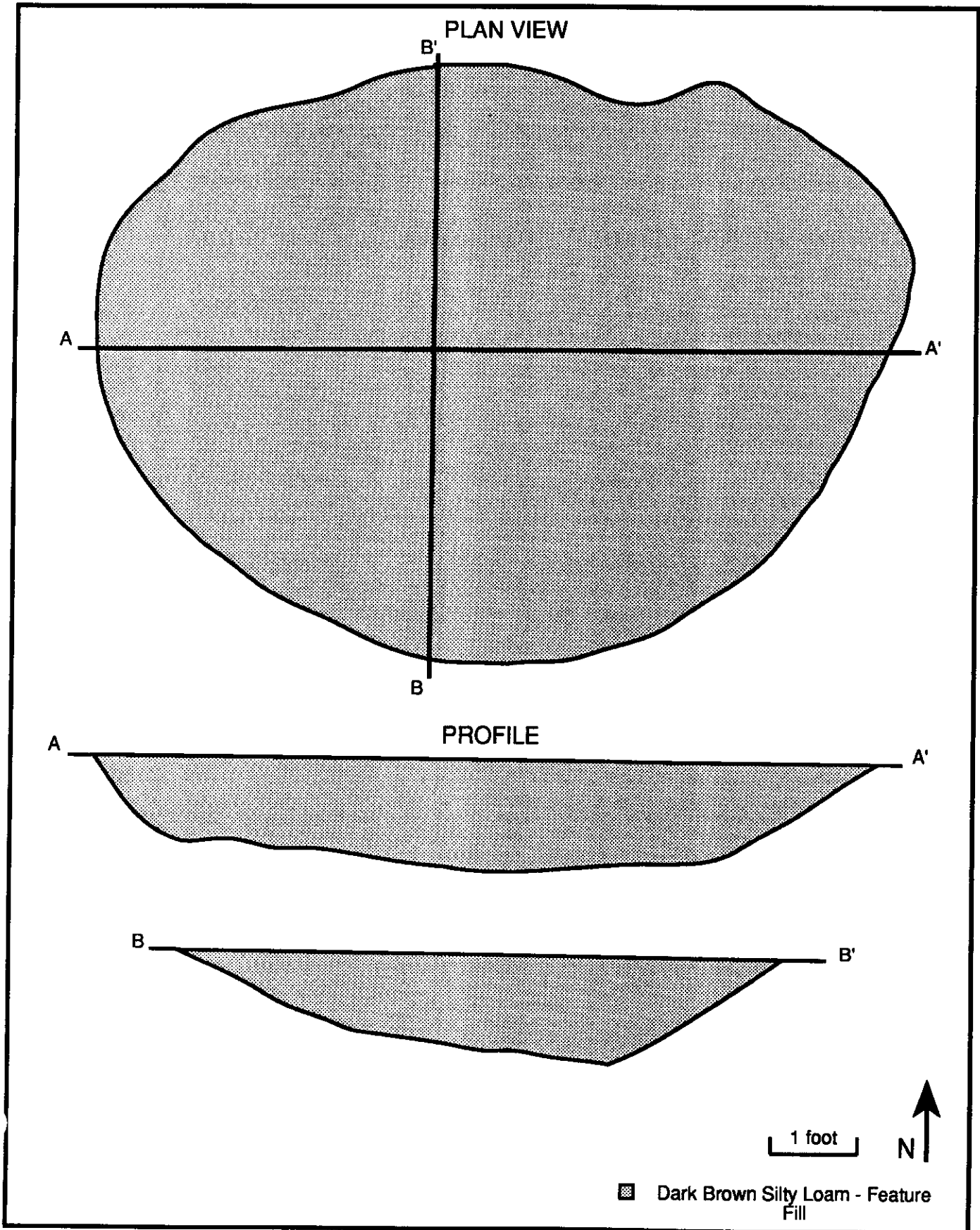
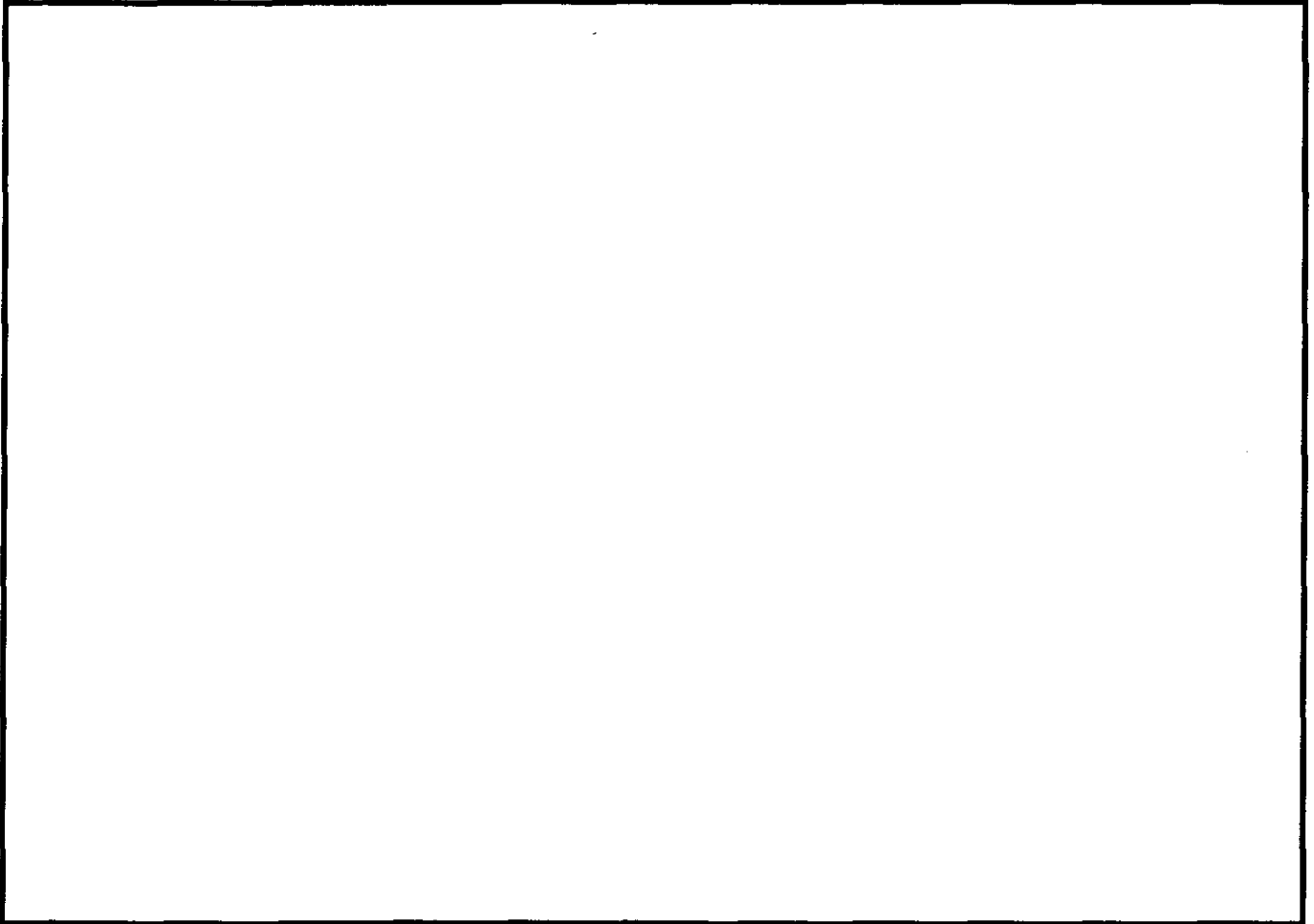


PLATE 33
Woodville Grave Site,
Feature 11A - Closing Plan View



presents a representative sample of these prehistoric artifacts. The types of lithic artifacts recovered at the site are characteristic of cobble reduction activities. The abundance of Pleistocene gravels at the surface of the site may have served as a lithic resource for prehistoric populations. Even though the context of Feature 11A is relatively good, the lack of diagnostic artifacts and presence of only one prehistoric feature limits any conclusions regarding use of the site by prehistoric groups.

TABLE 7
Woodville Grave Site, Summary Catalog of
Artifacts Recovered from Excavations

ARTIFACT TYPE	SURFACE COLLECTION/ SLUMP	GRAVE FEATURES	FEATURE 11A	OTHER FEATURES	TOTAL ARTIFACTS
Nails	10	197	0	5	212
Brads	4	23	0	0	27
Screws	1	2	0	0	3
Glass					
window	6	0	0	0	6
bottle	24	2	0	0	26
Ceramic					
Redware	2	0	0	0	2
Bone China	1	0	0	0	1
Whiteware	3	0	0	0	3
Tile	1	0	0	0	1
Pins	0	7	0	0	7
Cloth	0	1	0	0	1
Button	0	1	0	0	1
Prehistoric Artifacts					
flakes	10	5	113	10	138
utilized flakes	0	0	5	0	5
flake tools	0	0	0	1	1
misc. bifaces	1	0	0	0	1
cores	1	0	15	1	17
hammerstones	1	0	6	1	8
fire-cracked rock	4	1	90	0	95
Other					
wood	8	2	0	1	11
rubber tire fragments	0	0	0	1	1
chain link	1	0	0	0	1
casing	1	0	0	0	1
TOTAL	79	241	229	20	569

TABLE 8
Woodville Grave Site, Grave Bearings

GRAVE	DEGREES SOUTH OF EAST	GENDER	AGE	REMARKS
* G1	47	male	adult	40+ years
* G2	45	female	adult	middle age
* G3	42	female	adult	middle age +
G4	43	male	adult	middle age
G5	35	unknown	unknown	unknown
G6	50	unknown	sub-adult	early adolescence
G8	54	female	adult	late middle age
+ G10	49	female	adult	late middle age
+ G11/F14	74	unknown	child	3-4 years
G12	48	male	adult	middle age
+ G13	55	unknown	infant	birth - 1 year
* Cluster 1	mean = 49.27 degrees south of east			
+ Cluster 2	standard deviation = 9.94			

Analyses and Conclusions

Although earlier impact to the site limits comprehensive analyses, numerous observations regarding the internal structure of the site are worth noting. All of the graves at the Woodville Grave Site were oriented roughly in an east-west manner with the feet pointing east. This alignment, with the body positioned to face east toward the rising sun, is characteristic of Christian burials. Comparison of grave orientation of Christian cemeteries have been conducted with intent to better discern associations among the graves within the cemetery (Bachman and Catts 1990). At the Lafferty Lane Cemetery (7K-D-11), in Dover, Delaware, tilt of the grave shafts away from due east was recorded and compared (Bachman and Catts 1990). Measurements of the graves at the Lafferty Lane Site indicated that most of the graves at this site did not fall directly along the true east-west axis. Based on these data, Bachman and Catts (1990) were able to define numerous feature clusters and groupings at the site.

To determine whether or not any purposeful spatial orientations of the graves existed at the Woodville Grave Site, tilt of the grave shafts from magnetic east was measured. All of the graves at the site were tilted and these bearings ranged from 35 to 74 degrees south of east. The mean and standard deviation of the grave shaft bearings were 49.27 and 9.94, respectively (Table 8).

Grave Clusters. At least two grave clusters are present at the site. The first cluster, Cluster 1, is located in the northeastern section of the site and consists of Graves 1, 2, and 3 (Figure 79). Bearing of these graves ranges from 42 to 45 degrees south of east and these graves fall within approximately one foot of another (Table 8; Figure 79). The individuals in Cluster 1 were identified as two females (Graves 2 and 3) and one male (Grave 1). All of these individuals were determined to be at least of middle-age (Appendix VII). The relationship of these individuals to one another is unknown but this cluster may include a husband and wife. Neighboring partial Graves 4, 5, 6, and 8 which fall slightly west of the three graves may also be in association with the cluster. Unfortunately, the relationships between them and with Graves 1, 2, and 3 are difficult to ascertain.

The second cluster, Cluster 2, is located in the western section of the site (Figure 79). Definition of this cluster is more difficult. The bearings of Grave 10 and Grave 12 were 49 and 48 degrees south of east, respectively (Table 8). The bearing of Grave 13, measured at 74 degrees south of east (Table 8), is more severe, but this may be a result of displacement of the grave by a large natural disturbance, probably a tree (originally designated Feature 14), which was discovered above the grave shaft. The distance between Graves 10, 12, and 13 was roughly two feet (Figure 79). In comparison, the distance between the graves in Cluster 2 is greater than the measurements observed in Cluster 1. The proximity of the Cluster 2 graves, as compared to their distance to other graves at the site, and their bearings, suggests that Graves 10, 12, and 13 form a feature group. The individuals interred in these graves were identified as a female of late middle age (Grave 10), a child between the age of three and four years (Grave 12), and an infant which died between soon after birth and one years of age (Grave 13) (Appendix VII). The combination of these graves may represent a mother and her dead children; however, this remains speculative at best. Whether or not any graves once existed north of Cluster 2, and their relation to Cluster 2, is unknown.

Comparison of Grave Orientation. The orientation of the graves was also examined for additional significant patterns regarding the overall site layout. The location of “east” as defined by the point on the horizon at which the sun rises is variable by at least 46 degrees throughout the calendar year (Bachman and Catts 1990). This variation may be a tentative indicator of when interment occurred.

Using an astronomical simulation computer software package, Skyglobe, sun rise angles for northern Delaware between 1700 and 1900 were reconstructed. These simulations demonstrated that sun rise tended to strike the site area at different angles throughout the calendar year. In general, the sun tended to rise over the southeastern quadrant in the winter months and over the northeastern quadrant in the summer months. As would be expected, the sun rise came closest to rising at due east toward the two equinoxes. If sun rise angles are indeed influential in grave orientation, then burials conducted during the summer months would tend to angle toward the northeast, while graves dug in the winter months would angle south of east (Figure 80). All of the graves at the Woodville Grave Site were

directed south of east, toward the southeastern sky (Figure 69; Table 8). Although it has been noted that grave orientation often plays a secondary role to other variables such as overall appearance of the site (Bachman and Catts 1990), it can be suggested that the time of year burial occurred may have been a factor in the orientation of a grave.

To better examine this possibility, the grave angles of the Lafferty Lane Cemetery (7K-D-11) were compared to the measurements observed at the Woodville Grave Site. Grave bearings at Lafferty Lane ranged from 66 degrees north of east to 57 degrees south of east (Bachman and Catts 1990:59). Unlike the Woodville Grave Site, the Lafferty Lane Cemetery contained graves which pointed toward both the northeastern and southeastern sections of the site. In most of the identified grave clusters at Lafferty Lane, the graves within each cluster tended to be oriented in the same way although not all of the grave clusters were oriented in the same way (Figure 81). For example, overall, Cluster 1 at Lafferty Lane is oriented north of east. In contrast, the majority of the graves in Cluster 13 at Lafferty Lane were directed toward the southeast. It is possible that the first interment in Cluster 1 took place during the summer months while the first interment in Cluster 13 occurred some time during the winter months. Subsequent graves placed in each cluster were then oriented in accordance for conformity. Interestingly, some of the grave clusters in Lafferty Lane, such as Cluster 16, contained graves oriented in different directions (Figure 81). The degrees of variation among the graves at Lafferty Lane strongly implies that some of the interments may have occurred during different seasons of the year.

While these data may be convincing, the impact of seasonal sun rise shifts on grave orientation must remain tentative. Other factors, such as the aforementioned conformity of the plot, must be considered. Proximity of the cemetery to existing roads or access to the cemetery may also influence grave positions. Former markers, if any markers once existed, at the Woodville Grave Site could have been positioned to face School House Road (Route 406), and the graves dug in alignment with these markers. Regardless, grave bearings should be considered a useful tool in understanding cemetery layouts and warrants further research.

Occupation of the Site. Neither the original nor further archival research uncovered any information pertaining to the existence of the Woodville Grave Site. This lack of data necessitated use of other methods for dating the unmarked cemetery. The variety of artifacts within the Woodville Grave Site assemblage was limited and all of the more diagnostic artifacts, specifically ceramic sherds and glass, were recovered from poor contexts, primarily surface soils. Nelson (1968) has dated the replacement of wrought nails with cut nails to between 1790 and 1830. The presence of cut nails and brads in all of the grave shafts at the site indicates that coffin construction, and consequently, interment did not occur prior to 1790.

Coffin and grave shaft shapes may also be tentative indicators of the time span of a cemetery. Although examination of grave shafts at other cemeteries have yielded varying results, the use of rectangular coffins does not become common until around 1850 and coffin shape may be considered as a more consistent indicator (Bachman and Catts 1990). The presence of hexagonal coffin shapes in all of the graves at the Woodville Grave Site places use of the location at sometime before 1850.

The last indicator which may shed insight on the site's occupation is its location on the Woodville Farmstead property. Presently, the Woodville Farmstead is flanked by Governor Lea Road (Road 405) to the north and School House Road (Road 406), formerly known as Dragon Neck Road, to the south. Of the two roads, School House Road is the oldest and was constructed in 1835 and is depicted on the 1849 Rea and Price map (Figure 6). Construction of Road 406 was not until 1878. The location of the

cemetery at the property drive and School House Road suggest that access to the cemetery was relatively limited. These findings project a beginning date for the cemetery of 1790. The lack of evidence post-dating 1850 also indicate that use of the cemetery probably ceased by 1880.

Identification of the individuals interred at the Woodville Grave Site is more difficult to discern. No locations of burial for the owners of the Woodville property prior to the Penningtons were discovered during archival research of the property. During the date range projected for the cemetery, the property was owned first by the Porters and last by the Grays. Whether or not the individuals interred at the cemetery were owners or tenants of the property is unknown.

Intrasite Analysis. The size and limited documentation of the Woodville Grave Site strongly suggest that the unmarked cemetery probably functioned as a small family graveyard. Studies of other family graveyards in Delaware have identified numerous characteristics associated with these family plots (Bachman and Catts 1990). In their analysis of graveyard distance to the main dwelling in Kent County, Delaware, Bachman and Catts (1990) observed that this distance ranges from 200 to 1600 feet. Distance of the Woodville Grave Site to the main structure on the property was 750 feet and this distance falls within the established range (Figure 82). As is apparent in Figure 82, the majority of the graveyards tended to fall toward the rear of the dwelling. This trend has been attributed to many cultural factors such as separation of the burial ground from everyday activities and worship beliefs (Bachman and Catts 1990). Unlike most of the graveyards, the Woodville Grave Site is located toward the front of the property (Figure 64). The limited access to the site, as noted earlier, may account for its location on the property. In addition, grave sites are often placed on low ridges or rises on a property for drainage purposes (Bachman and Catts 1990). One of the areas of higher elevation on the Woodville property is the area which the graveyard is situated. Nonetheless, there is really no direct evidence to specifically link the cemetery with any specific occupation of the Woodville Site, or for that matter, the site itself.

Conclusions

The Woodville Grave Site is one of many small, and often unmarked, grave sites located throughout Delaware. The study of these types of sites is interesting because it provides information on the traditions and material culture associated with funerary practices in nineteenth century Delaware. Osteological analyses of the remains interred in these grave sites can provide additional information on the health and nutrition of these populations. In sum, these small cemeteries can serve as a valuable tool in understanding Delaware's historical lifeways.