

RESULTS OF PHASE I AND II ARCHAEOLOGICAL INVESTIGATIONS WITHIN THE SCOTT'S RUN PROJECT AREA

The following is a summary of the archaeological investigations of the complex of seven sites located in the Scott's Run Project Area. These seven sites, four prehistoric and three historical, are located on a parcel of land approximately one mile south of the St. Georges Bridge. The project area lies on the west side of the present Route 13 and on the south side bank of the head of Scott's Run Creek (Figure 9). The four prehistoric sites are small and are located on slight terraces above Scott's Run. The remaining three historical sites consist of a mid-nineteenth to mid-twentieth century farm complex with tenant house and a late eighteenth to mid-nineteenth century mill.

The entire Scott's Run project area is comprised of relatively low, poorly-drained silt loams characterized as moderately eroded Matapeake silt loam (Matthews and Lavoie 1970), with minimal relief except for eroded slopes along the flood plain of Scott's Run. The project area is heavily overgrown and nearly a third of it has already been disturbed by borrow pit operations (Plate 1). The area had also been disturbed by a recent series of bulldozed cuts that cut across the property to facilitate test coring. All of the sites, excluding the immediate area around the G. W. Townsend House Site (7NC-G-112), had been plowed. These disturbances to the project area along with the heavy overgrowth precluded the surveying of the entire parcel and limited the extent of testing the historical sites.

Most of the Scott's Run project area was overgrown with pioneering communities of kudzu and briars, and other close ground cover making maneuvering difficult and visibility extremely low (Plate 1). Through this dense undergrowth were a series of recent shallow bulldozer cuts made when the Delaware Department of Transportation conducted soil testing of the area. These cuts, in most cases, removed large portions of the plow zone layer and in some cases exposed the subsoil. For management and reference purposes, the Scott's Run project area was divided into seven areas. The location of these areas was determined by the following: accessibility, exposure due to bulldozing, areas of high prehistoric site potential (Custer 1986; Custer and De Santis 1986), and areas of habitation indicated on historical maps. Historical components were identified within Areas B, C, E, and G and prehistoric components were identified within Areas A, B, D, and F.

Area A - Site 7NC-G-114

Area A is oriented to a gently sloping terrace south of Scott's Run and its floodplain (Figure 9; Plate 1). A small, slightly eroded gully on the west side of the site separates it from Area B. A total of 88 shovel test pits (STPs) was excavated in Area A. One small prehistoric site (7NC-G-114) was identified. A portion of the site had been plowed.

Phase I Testing. The Phase I survey consisted of an initial grid of 25 shovel test pits (STPs) at 40-foot intervals laid out in five parallel lines on the upper terrace of Area A (Figure 10). The soil profile in almost all shovel test pits consist of a light brown to yellow-brown silty loam plow zone that varied between 17 and 35 centimeters in thickness. Beneath the plow zone lay an orange to orange-brown silty loam sterile subsoil. There were no indications of subsoil features. One prehistoric and six historical artifacts were recovered. Possible prehistoric artifacts were recovered from Shovel Test Pits 3, 9, 13, and 16 and appeared to include nine flakes of locally available quartz and chert. However, after processing and analysis only the one quartz flake from Shovel Test Pit 3 was determined to be cultural. Historical artifacts included four pearlware and one whiteware sherds along with one piece of window glass (Appendix I). These historical artifacts were small and scattered among Shovel Test Pits 7, 9, 18, and 19 and appear to be from nineteenth century field scatter. All of the artifacts were recovered from the plow zone.

To further define the prehistoric site, a series of 48 shovel test pits at 20-foot intervals was overlain on the central portion of the initial grid (Figure 10). Prehistoric artifacts recovered from Shovel Test Pits 41, 52, 53, 68, 69, and 73 included three quartz flakes, one chert flake, and three pieces of fire-cracked rock.

Fifteen additional shovel test pits were excavated north of the primary area in order to investigate the unplowed lower terrace (Figure 10). The soil profile consisted of varied yellow-brown silty loam and sands with gravel under a 5 to 10 centimeter-thick humus. Only historical artifacts, such as coal, brick, and whiteware, were recovered.

A total of five flakes and three fire-cracked rocks was found in the plow zone of the upper terrace. Only one shovel test contained more than one prehistoric artifact. The distribution of these artifacts and the occurrence of the artifacts in the plow zone only, indicate that the site is very small, and probably of limited occupation. Additional testing was recommended to define site limits, locate possible subsurface features, and to determine if the site is eligible for inclusion on the National Register of Historic Places.

Phase II Testing. Phase II investigations consisted of eight 1- x 1-meter test units located near the artifact bearing shovel test pits identified during Phase I testing (Figure 10). A total of 6 prehistoric and 17 historical artifacts was recovered from the test unit excavations. Prehistoric artifacts were recovered from Test Units 2, 4, and 6. Two fire-cracked rocks came from Unit 2, one chert biface fragment and two fire-cracked rocks came from Unit 4, and one fire-cracked rock was recovered from Unit 6. Numerous historical artifacts such as brick fragments, nails, and historical ceramics were also located. All historical artifacts were small and fragmentary. All artifacts were recovered from the plow zone and no subsoil features were observed. The low number and wide distribution of the artifacts along with no evidence of undisturbed subsoil deposits or features precluded any further testing of this site. No significant cultural resources were identified within Site 7NC-G-114, therefore the site is not considered to be eligible for listing on the National Register of Historic Places. No further archaeological testing is recommended for Area A.

Area B - 7NC-G-111, Bennett-Thomas Mill Site

Area B is also oriented to a gently sloping terrace south of Scott's Run and its floodplain (Figures 9 and 11; Plate 1). A small, slightly eroded gully separates Area B from Area A. A total of 226 shovel test pits was excavated in Area B. One small prehistoric site and one historical site, the Bennett-Thomas Mill Site (7NC-G-111), were identified. Portions of both sites were plowed.

Site History. Archival research indicates that the Bennett-Thomas Mill Site is the remains of a small fulling, grist, and saw mill and associated dwellings and outbuildings. The site was occupied from ca. 1770 until ca. 1852. An earlier occupation, beginning as early as 1753, is suggested by nineteenth century county histories including Scharf (1888:987).

The first deed reference to the mill is a 1793 deed from the heirs of William Bennett to David and Lydia McWhorter, other heirs of William Bennett. The site is located on an 87-acre parcel and a partial chain of title for the property is given in Table 2. The mill was located on an 87-acre parcel bounded on the east by the road from Smyrna to Dover (present Route 13), on the north and west by

TABLE 2
Chain of Ownership
of the Bennett-Thomas Mill and G.W. Townsend Sites

Transaction	Date	Date	Deed reference
From Wm. Bennett to John Bennett, Lydia [Bennett] McWhorter and Mary [Bennett] Buchard	?	?	B-5-374
From John Bennett and David and Mary [Bennett] Buchard to David and Lydia McWhorter	[87]	6-12-1793	B-5-374
From David and Lydia McWhorter to James Thomas	26	3-26-1794	B-5-374
From James Thomas to David Thomas	2/5 part of 87	?	will ?
From William and Margaret Liston and Rebecca Thomas to David Thomas	2/5 part of 87	3-9-1805	D-3-404
From Elizabeth Thomas to David Thomas	1/5 part of 87	4-21-1808	F-3-483
From David Thomas to Jacob Vandegrist	87	4-3-1817	B-5-336
From Jacob Vandegrist to Curtis Bowman	87	3-15-1838	B-5-287
From Curtis and Sarah Bowman to David W. Thomas	87	3-14-1839	B-5-499
From David W. and Susan Thomas to Job Townsend	87	1-3-1842	I-5-174
From Job Townsend to George W. Townsend [Sr.]	87	1893	NCC O. Ct. N-2-343
From George W. Townsend [Sr.] and George W. Simpler, exrs. of George W. Townsend [Sr.], decd. to Harry L. Gray	87	6-13-1896	B-17-298
From Harry L. and Annie Gray to Horace E. Simmons	87	11-24-1919	A-29-469
From Horace and Laura Simmons to Clarence A. Batten	87	1-4-1935	F-39-434
From Clarence A. Batten to Augusta V..B. Roberts	87	9-12-1935	R-39-302
From Wilmington Trust, exrs. of Augusta V. B. Roberts, decd. to the State of Delaware	88.96	6-7-1960	C-066-0387

Key: NCC O. Ct. = New Castle County Orphans Court

Scott's Run, and a millpond. Upon his death ca. 1792, William Bennett's land passed to his three children: son, John Bennett and daughters, Lydia McWhorter and Mary Burchard. The 1793 deed between these heirs describes a large "Fulling Mill Pond" indicating that the mill was operating at least that early.

Beginning in 1794, James Thomas, a neighboring clothier, set out purchasing the fulling mill property from the various heirs of William Bennett. Other deeds describe William Bennett as a farmer and it is likely that a professional miller or clothier, possibly James Thomas, had been operating the mill for Bennett. Thomas succeeded in obtaining most of the property by 1797 when he was assessed for 71 acres. In that year, the Bennett-Thomas Site consisted of a saw and fulling mill, three houses, a kitchen, and stable.

James Thomas owned and operated the saw and fulling mill until his death ca. 1798. By that time, he owned 104 acres in St. Georges Hundred, including the mill. James Thomas died intestate and the property went to his five children: David Thomas, Mary Bird, Margaret Liston, Rebecca Thomas and Elizabeth Thomas. Of all these heirs, David Thomas set out to acquire the rights to the mill and the

rest of the property. David Thomas achieved his goal by 1808 after a series of transactions with the other heirs. Local tax assessments taken in 1803 note the presence of a saw and fulling mill, two dwelling houses, a kitchen, and a barn on the property.

By 1816, the Bennett-Thomas Mill Site had been occupied for at least 20 years. A tax assessment made that year described David Thomas' fulling mill as "old" and described only one other house, a small brick dwelling. The fate of the two other dwellings described in 1797 is not known. It is possible that both structures were either gone or in such poor condition as to be valueless.

David Thomas owned and operated the saw and fulling mill until 1817 when he sold the entire property to Jacob Vandegrist. Vandegrist owned and probably operated the mill until 1838 when he sold the property to Curtis Bowman. Bowman sold the property one year later to David W. Thomas, a relative of David Thomas. David W. Thomas owned the property until 1842 when he sold it to Job Townsend of nearby Appoquinimink Hundred. Thomas himself lived in Appoquinimink Hundred suggesting that he operated the mill through tenants.

Job Townsend owned the Bennett-Thomas mill until his death ca. 1893 when the property passed to his son George W. Townsend. Job Townsend operated a mill on the property at least as late as 1852 when he was assessed for a "brick house, stable and C. mill." The "C. mill" indicates that the mill was processing clover seeds, a common mill function in Delaware and one noted later in other sources for the Bennett-Thomas mill. No other buildings are noted at the site and it is likely that the two or three other dwellings noted in the 1797 and 1816 assessments were gone by 1852.

The Townsend family owned the 87-acre parcel until 1896. After the death of Job Townsend, the property passed to his son, George W. Townsend (Sr.). The senior Townsend died intestate in early 1896 and the property was awarded to his son George W. Townsend (Jr.) by the New Castle County Orphans Court. The Townsends were not living at the mill at the time. According to historical maps, the Townsends were living, as early as 1849, at a large house much nearer to present Route 13. This house and associated outbuildings (7NC-G-112) is located 1,000 feet east of the Bennett-Thomas Mill Site within Area G and will be discussed later in this report.

Harry Gray purchased the Townsend property in 1896. The Bennett-Thomas mill appears to have been abandoned ca. 1852, the last time it appears in local tax records. The abandonment of the site is probably related to the construction of the G. W. Townsend house (7NC-G-112) nearer to present Route 13 ca. 1849. The parcel was then occupied by a series of owners from 1896 until 1960 when the state of Delaware purchased the property. The Bennett-Thomas mill, however, had already been abandoned as it does not appear on Beers' 1868 atlas of St. Georges Hundred.

Phase I Testing. The Phase I survey of Area B consisted of the excavation of 166 shovel test pits, two of which were expanded into 3- x 3-foot test units. An initial grid of 15 shovel test pits were laid out in three lines at 40-foot intervals. The soil profile was identical to the soils in Area A. A total of 17 prehistoric and 704 historical artifacts was recovered from the Phase I excavations (Appendix I). Historical artifacts, ceramics, redware, creamware, whiteware, and glass were recovered from Shovel Test Pits 5 and 6, while brick fragments were observed in Shovel Test Pits 1, 3, 4, 5, and 12. An additional 90 shovel test pits set at 20-foot intervals were excavated over the initial grid expanding the tested areas to the east, north, and northwest (Figure 12). The concentration of historical artifacts increased toward the northern portion of the site and 41 additional shovel test pits were excavated

within that area. Shovel Test Pit 126 and 128 exposed foundation walls and were expanded to 3- x 3-foot units to define direction and character of the walls. The wall located in Shovel Test Pit 126 was of brick and mortar construction and extended in a northwest/southeast direction. The wall located in Shovel Test Pit 128 was constructed of stone and mortar that appeared to run parallel to the brick wall located sixteen feet to the west. A final 22 shovel test pits were excavated in the eastern portion of the edge of the bluff. A cow mandible was uncovered from Shovel Test Pit 107 during this extension.

A prehistoric lithic scatter, approximately 12 x 16 meters in size was located near the edge of the terrace. The site was defined by seven shovel test pits (Shovel Test Pits 53, 58, 80, 97, 108, 127, and 153) located near the center of the tested area (Figure 12). The soil profile consisted of a plow zone that ranged from gray to gray-brown or yellow to yellow-brown silt to silty loam that varied from 20 to 47 centimeters deep. The subsoil consisted of a more uniform orange to yellow-orange silty loam sometimes compacted or containing gravel. This subsoil extended to the limit of excavation and was between 40 and 60 centimeters deep. The prehistoric artifacts consisted of flakes of quartz, jasper, and chert of locally available material. All prehistoric artifacts came from the plow zone. No diagnostic artifacts or fire-cracked rock were found. Additional testing was recommended within Area B to determine the site boundaries and to identify additional subsurface features in order to determine if the site was eligible for inclusion to the National Register of Historic Places.

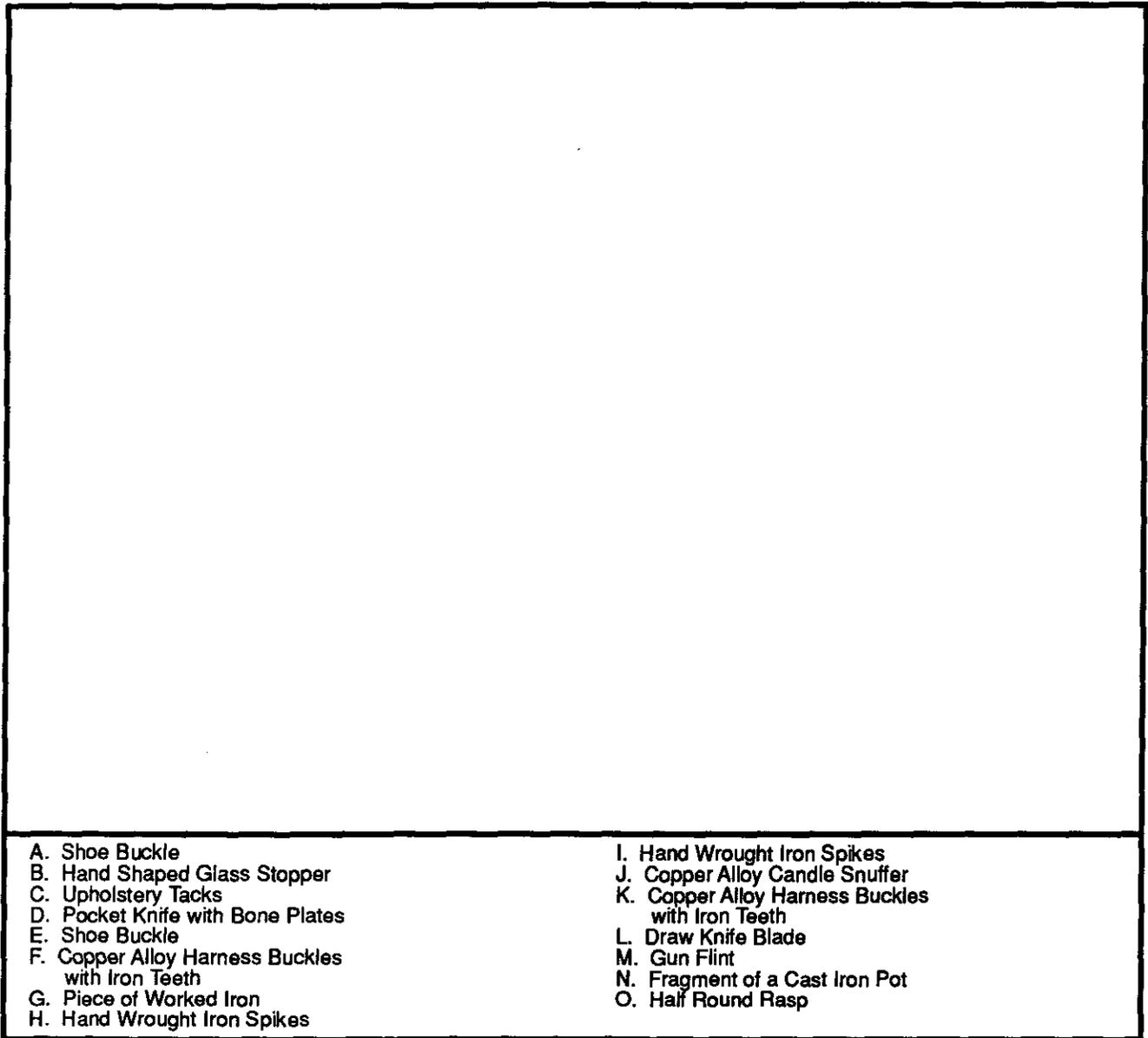
The Bennett-Thomas Mill Site, was identified within the northern half of Area B. The greatest concentration of historical artifacts is approximately 50 feet north of the prehistoric site. The historical site is oriented to an upper terrace of Scott's Run approximately 400 feet south of Scott's Run. Two walls possibly relating to a structure and a number of late eighteenth and early nineteenth century diagnostic artifacts were recovered including fragments of creamwares, pearlwares, white salt-glazed stonewares, and locally-produced redwares. The presence of cut nails, bricks, and window glass fragments indicated the presence of a structure. A Phase II survey was thus recommended. Artifact density ranged from 20 to 110 historical artifacts per shovel test in the vicinity of Shovel Test Pits 53, 84, 101, and 102. A full range of domestic and structural artifacts including cut nails, a brass buckle, (Plate 2) and the jaw bone of a cow were recovered although no structure appears in this location on any later nineteenth century maps. A pedestrian survey was conducted along the length of the stream gully near the site to search for evidence of a mill dam or race but no evidence was found. Additional testing was recommended within Area B to determine site boundaries and to identify additional subsurface features in order to determine if the site is eligible for inclusion to the National Register of Historic Places.

Phase II Testing. Phase II testing consisted of the excavation of 60 additional shovel tests and 145 3- x 3-foot test units. Of the 145 3- x 3-foot test units, 50 were extended to 5- x 5-foot units. The artifacts from the extensions were kept separate from the original 3- x 3-foot unit in order to compare the effectiveness of artifact retrieval between excavating 3- x 3-foot units as opposed to 5- x 5-foot units. A complete discussion of the results of this analysis can be found in Appendix II. All excavations were placed on the same 20-foot grid established during the Phase I survey. A total of 18,180 historical artifacts and 80 prehistoric artifacts was recovered (Appendix I). Phase II testing located the limits of the site and two primary areas of historical artifact distribution, Areas I and II (Figure 13). Area I, the core of the site and the primary locus of domestic activity, contained an artifact density of between 20 and 128 artifacts per shovel test (Figure 13). Area II was defined by an area of low artifact density of between 2 and 20 artifacts per shovel test surrounding Area I (Figure 13).

Diagnostic late eighteenth and early nineteenth century artifacts were recovered from both plow zone and intact subsoil contexts. A plow zone of approximately 1.0 feet thick was found over the entire site, with the possible exception of a small portion of floodplain that was probably part of the historical millpond which has since been partially drained. A total of 17 historical features was identified by Phase II testing (Figure 12). All but two of these features were located in Area I. Nine of these features were brick and mortared field stone foundations. At least two buildings are represented.

PLATE 2

Bennett-Thomas Mill Site, Miscellaneous Artifacts



The largest of these buildings is located near N300 E300 and may be the remains of the Bennett-Thomas fulling mill itself. A floor plan of Unit N300 E300 is shown in Figure 14. Other features located by Phase II testing included a trash pit containing a cow mandible, fenceposts, and artifact concentrations of unknown origins. A typical soil profile is shown in Figure 15. Phase II testing located two features in Area II, a square post hole in Test Unit N200 E280 and an edge of a linear feature with brick fragments in the extension of Test Unit N200 E337, so the potential for further features is high. Area II may contain additional features, but the artifact yield is expected to be low based on the lower artifact counts from both the shovel test pits and the test units.

Diagnostic late-eighteenth to early-nineteenth century ceramics and other artifacts were recovered from intact subsoil deposits in both Areas I and II. Undecorated creamwares and pearlwares, Whieldon wares, and slip-decorated and utilitarian redwares were the most common historical ceramics found. These wares are consistent with the known occupation of the site and their distribution over the site identifies Area I as the primary locus of domestic activity (Figure 16). The distribution map of only the eighteenth and early nineteenth ceramics, as shown in Figure 17, shows four areas of high concentration of these artifacts running roughly northwest to southeast. Distribution plots for nineteenth century ceramics, nails, and shell and faunal remains show this same general alignment in the same general area (Figures 18, 19, 20). Other domestic artifacts included a brass buckle, olive bottle glass, lamp and window glass, and faunal remains. Window glass, brick fragments, and cut nails were also recovered. Prehistoric artifacts were recovered from seven of the 226 total Phase I and II shovel tests, but no

FIGURE 14
 Bennett-Thomas Mill Site, Floor Plan of
 Test Unit N300 E300

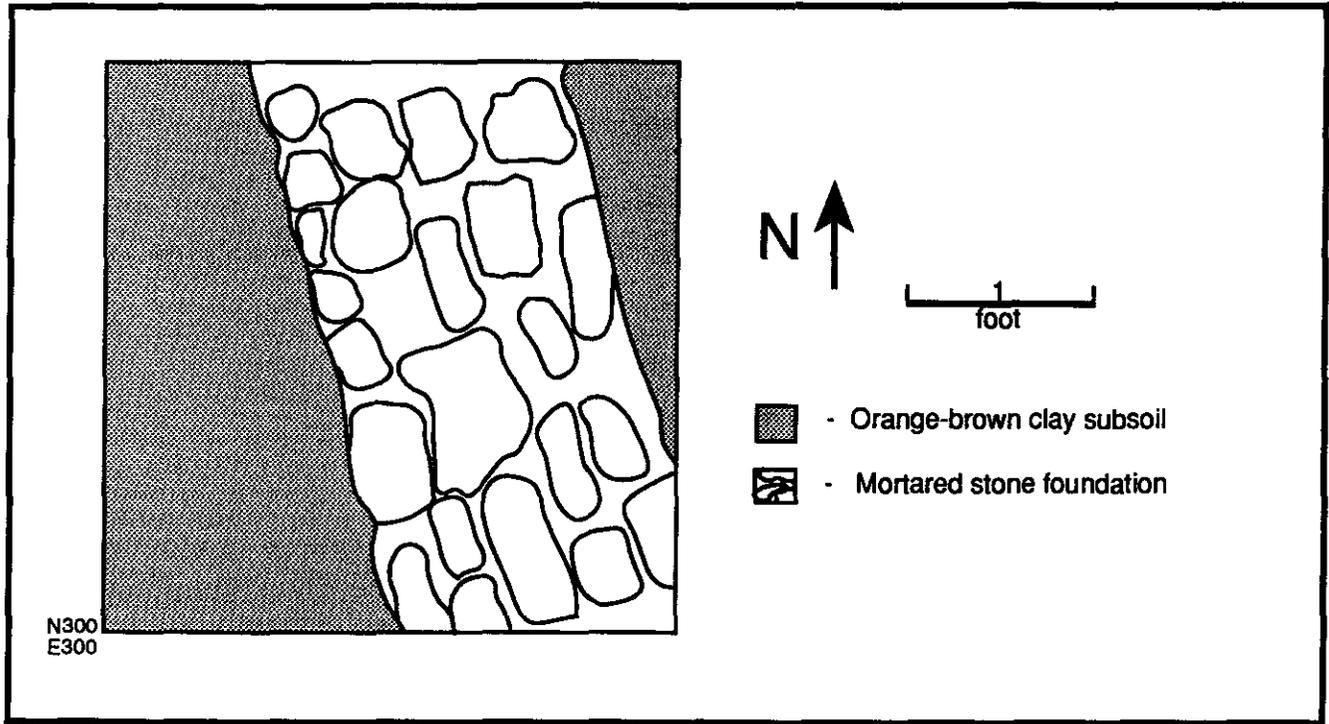
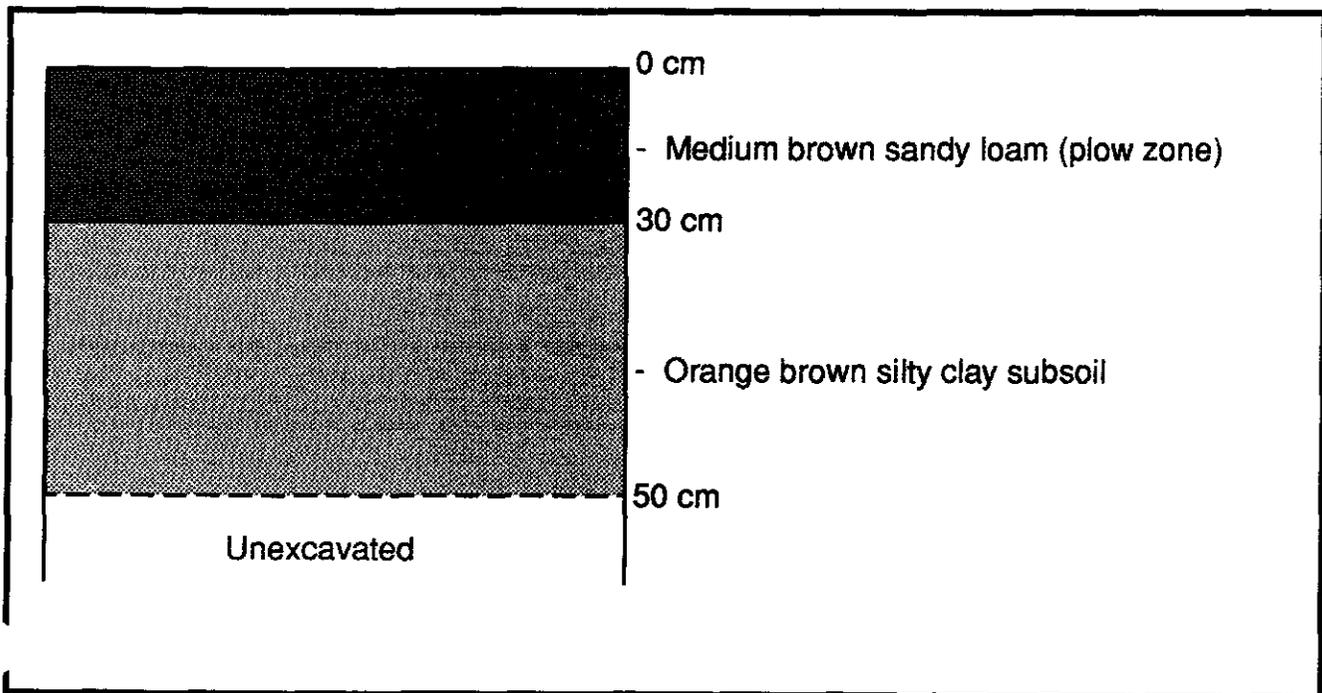


FIGURE 15
 Bennett-Thomas Mill Site, Typical Soil Profile



evidence of any prehistoric subsoil features were identified. However, a Woodland I stemmed point was recovered from Unit N260 E340, a jasper scraper was recovered from Unit N280 E197 (Plate 3), and eight large pieces of fire-cracked rock were recovered from N257 E357. All of these artifacts were recovered from the plow zone.

Besides the northwest-southeast distribution alignments noted above, the distribution maps indicate that there is a separate area of higher artifact density along the west edge of the tested area. The southern distribution of nails, as seen in Figure 19, also argues for a separate and probably smaller structure. An additional separate disposal area for food waste is apparent along the northern edge of Area I along the bluff edge (Figure 20).

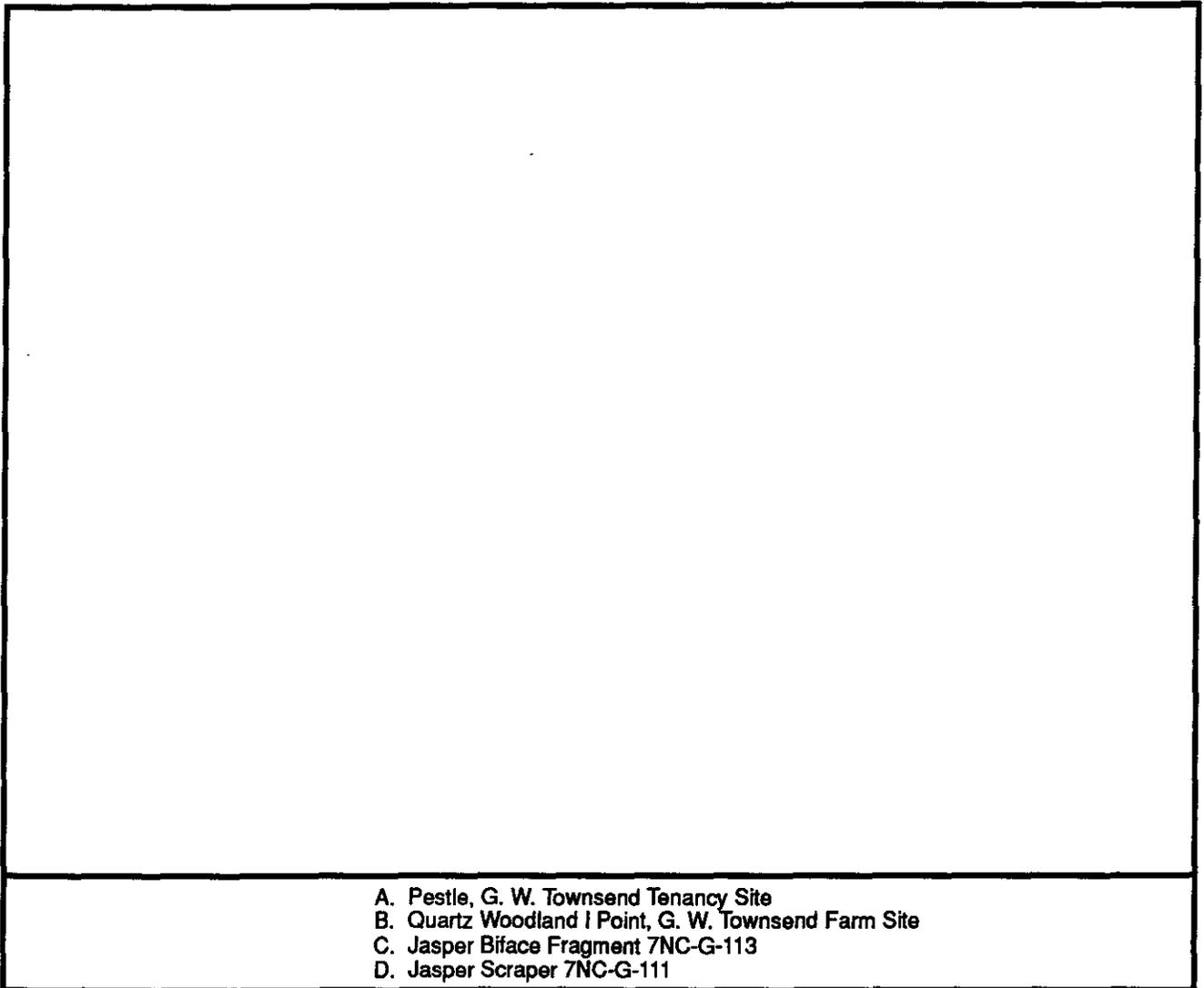
The Delaware historical archaeological management plan (De Cunzo and Catts 1990) provides guidelines for evaluating the potential and significance of eighteenth and nineteenth century rural industrial complexes like the Bennett-Thomas Mill Site (De Cunzo and Catts 1990:192-196). In general these site types will produce significant data if there are well-preserved subsurface features, good contextual integrity, sufficiently high artifact densities to generate spatial distribution maps, and extensive and diverse documentation. The historical documentation for the Bennett-Thomas Mill Site is excellent and the Phase I and II archaeological testing revealed the presence of at least two structures related to the Bennett-Thomas mill, one structure may even be the remains of the fulling mill itself. The Bennett-Thomas Mill Site contains historically significant archaeological resources and meets the requirements to be eligible for inclusion to the National Register of Historic Places.

Additional investigations of the Bennett-Thomas Mill Site could examine the historical context of manufacturing and agricultural change in the Upper Peninsula Zone for the periods 1770-1830 and 1830-1880. The period between 1770-1830 has been identified by Ames et al. (1989) as a period of early industrialization. The period 1830-1880 has been similarly identified as a period of industrialization and early urbanization (Ames et al. 1989). Both of these trends closely affected the processes of site formation and utilization at the Bennett-Thomas Mill Site and data from this site is germane to current historical and archaeological perspectives on these periods.

Using these temporal contexts as they have adapted to historical archaeological sites in Delaware, the archaeological contexts of manufacturing and trade and domestic economy encompass all of the historical contexts noted above (De Cunzo and Catts 1990: 16-21; 131-138). Research concerning manufacture and trade in the periods 1770-1830 and 1830-1880 could focus on three interrelated topics at the intra- and inter-site levels: agriculture and economic change, milling, and landscape change. These three topics overlap significantly and underscore the need for more basic research about the role of rural mills in the agricultural economy, especially agricultural production and processing. More specifically, data from the Bennett-Thomas Mill could address questions concerning rural self-sufficiency, production processes, distribution networks, work patterns, mill architecture, and worker housing. Data on these current research questions could then be compared to other milling sites in Delaware, specifically the mills along Beaver Creek (Gretler, Watson, and Custer 1988) and the Brandywine River (Ackerman 1968, Shogren 1986, Taylor et al. 1989). Industrial sites such as the Lebanon Cannery near Dover (Heite and Heite 1989) and the Mermaid Blacksmith Shop in New Castle County (Catts et al. 1994) could also provide useful comparative data.

PLATE 3

Scott's Run Project Area, Selected Prehistoric Artifacts



On an intra-site level, investigations at the Bennett-Thomas Mill Site can seek to examine changes over both time and space in mill architecture, worker housing, agriculture, and the effects of changing consumer patterns within an increasingly volatile nineteenth century economy as contained in the archaeological record. Manufacturing and trade sites comprise only eight percent of all known historical archaeological sites in Delaware and little is known about the everyday lives of millers and their workers (De Cunzo and Catts 1990:111). For example, why did the Bennett-Thomas mill change its operations so quickly from saw and woolen milling to fulling only, and then to simply milling clover seeds? How did the lives of the workers that lived in the houses near the mill differ from those of surrounding farmers? Did milling as a commercial activity enable workers to purchase more or different goods than farmers forced to rely more on barter? What was the role of these small mills in the local regional economy and how did changes in the regional and national economy affect them? These questions may be answerable through historical documentation as well as archaeological evidence.

The archaeological context of domestic economy can also address research questions on both a local and regional level. According to archival research, in addition to the mill, the Bennett-Thomas Mill Site includes the remains of three houses. These houses were probably inhabited by mill workers who also engaged in agriculture. Indeed, the Bennett-Thomas Mill Site can be interpreted within the larger historical context of agriculture (Ames et al. 1989). Specifically, data from the domestic occupations of the Bennett-Thomas Mill Site could be compared to a number of owner- and tenant-occupied farmsteads in northern and central Delaware (Hodny, Bachman, and Custer 1989; Catts and Custer 1990; Catts, Hodny, and Custer 1989b; Coleman et al. 1983; Hoseth et al. 1990; Heite and Heite 1985; and Scholl, Hoseth, and Grettler 1994). Such comparisons offer the potential for significant information on site layout, economic orientations, and consumer behavior.

In sum, Phase I and II archaeological and archival investigations of the Bennett-Thomas Mill Site has shown that a mill complex was operating at this location from the very late eighteenth to the middle of the nineteenth century. The presence of subsoil features, especially foundation walls, and artifacts that date to the early to mid-nineteenth century indicate that there are substantial archaeological remains with some integrity present at the Bennett-Thomas Mill Site. This site is the only known site of a milling complex in Saint Georges Hundred and is, thus far, the only milling site archaeologically investigated in New Castle County, Delaware which makes it a significant archaeological resource that could address multiple issues and themes such as regional and local economy, agricultural and industrial production, housing, and everyday life of millers and mill workers as identified in the **Management Plan for Delaware's Historical Archaeological Resources** (De Cunzo and Catts 1990: 16-21; 111; 131-138). The documentary and archaeological resources associated with the Bennett-Thomas Mill Site could be used to address these topics and aid in the reconstruction of the past social, demographic, and economic landscape of Delaware. The Bennett-Thomas Mill Site contains historically significant cultural resources and is eligible for inclusion to the National Register of Historic Places. No further archaeological work on this site is currently warranted due to a change by the Delaware Department of Transportation in the construction design that was originally threatening the site. However, if further construction in this area is planned in the future, additional archaeological research is recommended.

Area C

Area C is located along a slight rise of silty loam south of Scott's Run and Areas A and B (Figure 9; Plate 1). It was identified by a pedestrian survey around Area G. During this survey, a pile of rubble and the collapsed remains of a metal-roofed post shed was identified in the area south of Area G (Figure 21). The debris were in an area of a former tree line that was heavily overgrown with kudzu, wild grape, and briar.

Phase I Testing. The Phase I survey consisted of the excavation of 20 shovel test pits at 40-foot intervals and two 3- x 3-foot test units. The grid was located within a level area between bulldozed areas to the east and west. The area was also bounded by an overgrown lane to the south, and a steep downward slope to the north. The soils in Area C consist of 20 to 30 centimeters of gray silty loam above a 42 to 48 centimeter-thick yellow-brown gravely silt that lay 30 to 64 cm below the surface. A total of 17 historical artifacts was recovered from the Phase I excavations. Of the 20 shovel test pits, only Shovel Test Pits 7 and 8 produced artifacts with one sherd of whiteware and one sherd of white

granite respectively. The two test units straddled the collapsed shed and were excavated to a depth of one foot. Eight fragments of glass, six late nineteenth century ceramic fragments, and one unidentifiable nail were found near the surface of the units. The observation of the collapsed shed remains suggest that it was some sort of small agricultural outbuilding of twentieth century construction. It is probably the structure located at the tree line that appears on both the 1937 and 1954 aerial photographs from the Department of Transportation and appears to be related to a simple grass air strip to the west which was related to the twentieth century occupation of the G. W. Townsend Farm Site. A portion of the rubble pile located to the south of the collapsed shed was tested and it was determined to be modern rubble dumped on top of the surface of Area C. The archaeological testing of Area C revealed low artifact counts, no subsoil features, and mid-twentieth century disturbance. The cultural resources within Area C are not historically significant and do not meet the criteria for inclusion to the National Register of Historic Places; therefore, no additional archaeological testing is recommended in Area C.

Area D - Site 7NC-G-115

Area D consists of a small terrace approximately 100 feet southeast of Scott's Run floodplain and 40 feet east of a bluff overlooking Scott's Run (Figures 9 and 22; Plate 1). One prehistoric site was identified by the presence of approximately 50 small fire-cracked rocks visible in a bulldozer path. The entire site was plowed and most of it had been at least partially disturbed by recent bulldozer clearing.

Phase I Testing. The Phase I survey of Area D consisted of a pedestrian survey, in and around the part of the bulldozer path that exposed the fire-cracked rock concentration and the excavation of 64 shovel test pits, set at 20-foot intervals east and south of the western bluff (Figure 22). Except for those shovel test pits next to the bluff, the soil profile consisted of an 18 to 35 cm thick compact yellow-brown silty loam on top of an orange sandy silt with gravel. The bulldozer path was also tested to determine what portion of the plow zone was still extant in the cuts. The pedestrian survey located and mapped the fire-cracked rock concentrations that also included a chert Woodland I contracting stem point and a steatite bowl fragment at the west end of a bulldozer trench. A total of 21 prehistoric and 36 historical artifacts was recovered during the Phase I survey (Appendix I). All but two of the 21 prehistoric artifacts recovered from the shovel test pits came from within 60 feet of the fire-cracked rock concentration. Of special note were Shovel Test Pit 49 which contained three quartz flakes, one of which was recovered from the subsoil, and Shovel Test Pit 50 which had five fire-cracked rocks along with three pieces of pearlware. The bulldozer path southeast of the site was probed to determine what remained of the plow zone which, in this area, ranged from 0 to 20 cm in an irregular distribution. This indicates how unreliable the use of these cuts are for pedestrian survey.

The presence of numerous fire-cracked rock, including five recovered from Shovel Test Pit 50, along with the chert Woodland I point, steatite bowl fragment, and fourteen other prehistoric artifacts indicates a relatively more intensive prehistoric occupation than in Areas A or B. A small number of late eighteenth-early nineteenth century artifacts including creamware and pearlware were also found in the plow zone but probably represent field scatter. In order to more carefully establish the context and integrity of Site 7NC-G-115, Phase II testing was conducted within Area D.

Phase II Testing. Phase II survey of Area D consisted of the excavation of 13 1- x 1-meter test units placed near those Phase I shovel test pits that yielded prehistoric artifacts (Figure 22). A total of 33 prehistoric and 55 historical artifacts was recovered from the Phase II survey (Appendix I). Higher counts of prehistoric artifacts came from the plow zone of Units 5, 6, and 9. Unit 5, located in the bulldozer cut near the fire-cracked rock concentration, produced one hammerstone, two flakes, and two fire-cracked rocks. Unit 6, located to the south side of the bulldozer cut, produced two flakes and three fire-cracked rocks. Unit 9, located outside the southeastern corner of the bulldozer cut, produced three flakes and three fire-cracked rocks. No artifacts were recovered from the subsoil and no features were identified. The site has a core area of about 80 feet (24 meters) in diameter with an isolated lithic scatter 80 feet (24 meters) to the southeast. Artifacts recovered from Site 7NC-G-115 consisted of a large amount of fire-cracked rock and some flakes made from locally available jasper, chert, quartz, and quartzite, and one hammerstone. As with the Phase I survey, a scattering of historical artifacts including cut nails, window glass, and nineteenth century ceramics were also recovered from the plow zone. The diffuse distribution and broken nature of these artifacts suggest that they represent nineteenth century field scatter.

Site 7NC-G-115 appears to be a small procurement or micro-band base camp. The chert late stage contracting stem point and steatite bowl fragment from the Phase I survey indicate that this site was occupied between 3000 B.C. and 500 B.C. during the Woodland I Cultural time period. Several similar sites have been investigated in New Castle County; the Hawthorn Site, 7NC-E-46 (Custer and Bachman 1984), and the Dairy Queen Site, 7NC-D-129 (Custer et. al. 1988). Because of the heavy recent disturbance of the site and lack of subsoil features, Site 7NC-G-115 does not meet the criteria for inclusion to the National Register of Historic Places; therefore, no further work is recommended within Area D.

Area E - 7NC-G-112A, G. W. Townsend Tenancy Site

Area E (Figure 9; Plate 1) is the location of the G. W. Townsend tenant house shown on various mid-to-late nineteenth century historical maps including Baist's 1893 atlas and the 1906 USGS topographical map (Figure 23). A pedestrian survey of Area E located the entrance to the lane that served both the G. W. Townsend agricultural complex and the G. W. Townsend tenant house, but failed to locate any recognizable architectural remains of the tenant house.

Phase I Testing. The Phase I survey of Area E consisted of an initial pedestrian survey and the excavation of 21 shovel test pits. The entire area south of the historical farm lane was heavily overgrown with kudzu, briars, and wild grape, making visibility and maneuverability poor. Two roughly north-south lines were cut south of the lane (Figure 24). A total of 21 shovel test pits was excavated at 20-foot intervals south of an extant wire pasture fence. The soil profile consisted of a 15 to 30 cm brown-gray silty loam (disturbed plow zone) on top of an orange subsoil of variable composition of sandy gravels and silty loams. A total of three historical artifacts was recovered from the Phase I excavations (Appendix I). Only Shovel Test Pits 18 and 21 yielded any artifacts (one brick fragment from Shovel Test Pit 18, and one rivet and one piece of redware from Shovel Test Pit 21). Area E is so thickly overgrown that it was impossible to test further without mechanical clearing. Aerial photographs from 1937, 1954, and 1962 indicate that it is likely that the construction of present Route 13 destroyed the site. In order to more carefully establish the context and integrity of the G. W. Townsend Tenancy Site (7NC-G-112A), Phase II testing was conducted.

Phase II Testing. The Phase II survey of Area E started with a mechanical clearing of the overgrowth. An additional 55 shovel test pits (Figure 25) were laid out in 10-foot and 20-foot intervals mostly concentrating on the area immediately south of the farm lane and north of the livestock fence. Two additional lines of shovel test pits extended south of the fence. Seven 3- x 3-foot test units were then excavated in the areas of highest artifact density and the most likely areas for the tenant house. A total of 1,802 historical and four prehistoric artifacts was recovered from the Phase II excavations (Appendix I).

The shovel test pits between the fence and the lane closest to Route 13 produced the largest amount of artifacts which consisted mostly of window glass, architectural materials, cut and wire nails, brick, nineteenth century ceramic, redware, and whiteware. All of the artifacts came from either the recent plow zone or the underlying thick layer of fill that ranged between 12 to 36 inches in depth. The fill layer was too deep to be excavated by shovel test pits.

The seven test units were excavated down to undisturbed subsoil. A buried and truncated plow zone was located at varying depths under disturbed modern fill that was apparently brought in to bring the downward slope up to grade (Figure 26). The disturbance is evident from four of the test units which had different profiles on each wall. A fragment of a prehistoric stone pestle (Plate 3) and some nineteenth century artifacts, glass, cut nails, and whiteware were recovered from the buried plow zone. Representative artifacts recovered from the G. W. Townsend Tenancy Site are shown in Plate 4. One feature, a post mold, was found beneath the buried plow zone in Unit 7 at a depth of 3.8 feet. Disturbed subsoil was also found beneath the buried plow zone in Unit 6. The buried plow zone also appears to have been disturbed and truncated; in three of the four units, the plow zone was less than 0.4 feet thick.

Although there is documentary evidence for a historical structure at this site, no intact archaeological resources were found. The demolition and subsequent reworking of the property has badly damaged the cultural integrity of the site. The G. W. Townsend Tenancy Site is therefore not eligible for inclusion on the National Register of Historic Places and no further archaeological work is recommended for Area E.

Area F - Site 7NC-G-113

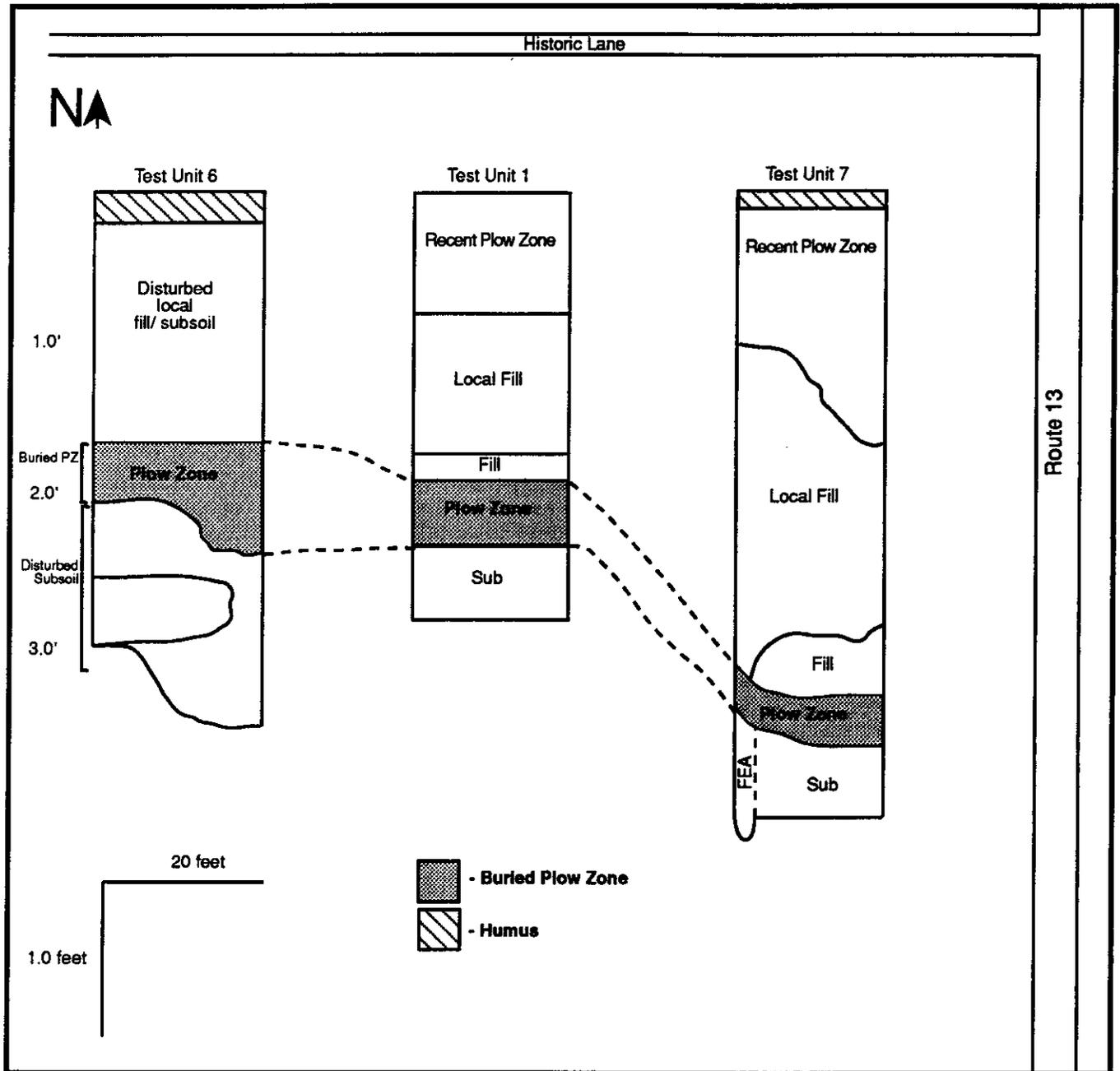
Area F is a small upper terrace to Scott's Run approximately 200 feet (60 meters) to the northeast of Area A and B (Figure 9; Plate 1). Area F was first located by identifying a small, 50-foot (15-meter) diameter scatter of fire-cracked rock in a bulldozer path. Visibility was good, but the area of the fire-cracked rock was heavily disturbed by bulldozer activity and the potential for intact archaeological remains is low.

Phase I Testing. The Phase I survey consisted of a pedestrian survey of the bulldozer cut and the excavation of a series of shovel test pits along the lower and upper terrace of Area F (Figure 27). The pedestrian survey identified 29 fire-cracked rocks on the surface of a bulldozer cut on the southeast portion of Area F. A total of 18 shovel test pits was excavated yielding two historical (not including brick fragments) and three prehistoric artifacts (Appendix I). An initial line of 10 shovel test pits, set at 20-foot intervals was excavated parallel to the edge of the lower terrace. The lower terrace is unplowed with alternating areas of light brown loam and yellow-orange silty sand. The upper terrace is characterized by a plow zone of light brown to yellow-brown silty loam 15 to 40 centimeter deep over an orange to red clay. Of these 10 shovel test pits, only three, Shovel Test Pits 4, 5, and 6 contained any artifacts. Shovel Test Pit 4 and 5 yielded one brick fragment each and Shovel Test Pit 6 yielded 10 brick fragments.

Another line of eight shovel test pits were then laid out perpendicular to the first line and another 18 shovel test pits were excavated on the upper terrace. Prehistoric artifacts were located in only three shovel test pits, 17, 21, and 27. Shovel Test Pit 17 contained one quartz flake, Shovel Test Pit 21 had one chert flake, and Shovel Test Pit 27 contained one fire-cracked rock. The prehistoric artifacts recovered from Area F occur in an area about 24 meters (80 feet) in diameter in the southeast corner of the test grid (Figure 27). Based on the results of the Phase I testing, further archaeological work was necessary to determine site limits, locate any intact subsurface features, and to determine the site's eligibility for inclusion on the National Register of Historic Places.

Phase II Testing. The Phase II survey of Area F consisted of the excavation of four 1- x 1-meter test units located near Phase I shovel test pits that produced prehistoric artifacts (Figure 27). A total of six prehistoric artifacts was recovered from the plow zone of Test Units 1, 3, and 4 (Appendix

FIGURE 26
 G. W. Townsend Tenancy Site, Soil Profiles



D). The artifacts consisted of two flakes, two fire-cracked rocks, one flake tool, and one late stage biface fragment. All flakes and flaked artifacts were made from locally available materials. No subsoil features were identified in the test units.

Site, 7NC-G-113, has a core area of artifacts approximately 24 x 18 meters (80 x 60 feet) in the southeast corner of Area F. The site consists of a large amount of fire-cracked rock, some flakes of local material, a late stage jasper biface fragment (Plate 3), and a quartzite flake tool. The site appears to be a small procurement site or micro-band base camp. No specific time period can be assigned to Site 7NC-G-113 because no diagnostic artifacts were recovered from the site. Similar sites have been investigated in New Castle County, such as the Hawthorn Site, 7NC-E-46 (Custer and Bachman 1984) and the Dairy Queen Site, 7NC-D-29 (Custer et. al. 1988). However, due to the disturbed nature of this site, lack of diagnostic artifacts, and the absence of intact prehistoric deposits, the site is not considered eligible for inclusion on the National Register of Historic Places and no further archaeological work is recommended within Area F.

Area G - 7NC-G-112, G. W. Townsend Farm Site

Archival research indicated that Area G is the probable location of the G. W. Townsend house shown on various mid-to-late nineteenth century historical maps including Baist's 1893 atlas (Figure 23). This house and farm complex is on the edge of the large knoll in the middle of the project area (Figure 9; Plate 1). The site is bounded to the north and east by a borrow pit and bulldozer cut, and to the south and west by a construction road. The area contained several piles of overgrown building destruction rubble.

Site History. The 87-acre project area, including the farm complex, was purchased by Job Townsend of Appoquinimink Hundred from David Thomas in 1842. The Bennett-Thomas mill appears to have been abandoned ca. 1852, the last time it appears in local tax records and it does not appear on Beers' 1868 atlas of St. Georges Hundred. The abandonment of the mill site is probably related to the construction of the G.W. Townsend house and subsequent farm complex (7NC-G-112) nearer to present Route 13 ca. 1849. The Townsend family owned the 87-acre parcel until 1896. After the death of Job Townsend, the property passed to his son, George W. Townsend (Sr.). The senior Townsend died intestate in early 1896 and the property was awarded to his son George W. Townsend (Jr.) by the New Castle County Orphans Court. Harry Gray purchased the Townsend property in 1896. The parcel was then occupied by a series of owners from 1896 until 1960 when the state of Delaware purchased the property (Table 2).

Phase I Testing. The Phase I survey consisted of a pedestrian survey and the excavation of a series of shovel test pits. The pedestrian survey identified seven overgrown mounds of building debris, a large concentration of broken cinder blocks, and concrete believed to have been a garage. A total of 31 shovel test pits was placed on and around the debris piles and three rough north-south lines, one to the east of the piles, and two to the west (Figure 28). No plow zone soil was located in the shovel test pits because of the destruction and smearing of rubble from the G.W. Townsend farm complex. No standard profile was discernible other than the subsoil which consisted of a yellow-brown to orange silty loam with gravel or sand. A total of 232 historical artifacts was recovered from the Phase I excavations (Appendix I) these included nails, window glass, shingles, domestic whiteware, yellowware, and a thimble. Most of the artifacts were recovered from Shovel Test Pits 1 - 12. These shovel test pits centered around the rubble piles in the center of the site. Artifact concentrations dropped dramatically

along the east and west shovel test pit lines. Intact cultural features were located in four of the shovel test pits including a post hole identified in both Shovel Test Pits 6 and 14 and a cobble stone floor or walk located in Shovel Test Pit 7. This shovel test pit was expanded to a 1- x 5-meter trench to define the cobble feature. This trench revealed that the cobbled area was edged with brick. A stone and mortar wall bounded with rubble was located in Shovel Test Pit 8. The high artifact counts along with the presence of subsoil features argues for additional work on the W. G. Townsend farm complex to determine its limits and integrity in order to determine if it is eligible for inclusion on the National Register of Historic Places.

Phase II Testing. The Phase II archaeological testing of the G. W. Townsend Farm Site (7NC-G-112) consisted of an additional 25 shovel test pits set on a 20-foot grid south and west of the Phase I shovel test pits. The shovel test pit and test unit soil profiles, along with auger probing, were used to map out plow zone depths (Figure 28). Six test trenches were also excavated to delimit features, walls, and depth of rubble fill. Because of the overgrowth and massive piles of debris covering the site, the area was mechanically stripped after test unit excavations were finished in order to assess the integrity and extent of subsurface features (Plate 4). A total of 255 historical artifacts was recovered from these shovel test pits (Appendix I).

Phase II testing revealed three areas of artifact concentration. The first area was centered around the G. W. Townsend farm complex house foundation and was located during the initial Phase I testing. The second is to the south of the Townsend house foundation along the middle of the N220 line, and around a square concrete foundation pad (possibly a garage). The third was to the west around N280 E200. All three areas produced window glass, nails, rusted iron sheet metal, and nineteenth century ceramics. Shovel Test Pit N300 E200 also produced newspaper fragments from the 1950s.

Twenty of the 30 3- x 3-foot test units were laid out in the northeast corner of the site. All but two of these units encountered cultural features below the plow zone. The features exposed consisted of a brick lined cobble path, a house foundation with basement steps, and rubble or ash fill (Figure 29). Of the 10 test units opposite the bulldozed lanes, seven had features. A total of 3,960 historical artifacts was recovered from these units and the units that were placed around the foundations (Appendix I). Representative artifacts recovered from the Phase I and II excavations of the G. W. Townsend Farm Site are depicted in Plate 5. Test trenches were extended from four of the units. Six expansion trenches were excavated. Trenches I and III extended north and east of Test Unit N277 E328 respectively in order to define the limits of the cobble path (Figure 28). Trench II was extended north from Test Unit N368 E364 to expose the basement floor. Trench IV was extended southward from Test Unit N350 E321 to test the depth of rubble fill which was 2.0 feet thick and lay directly above the subsoil. Trench V identified a brick wall set in cement extending 7.5 feet northeast of the foundation wall with an extension near its east end that extended southeast beneath the rubble pile. Trench VI extended east from Test Unit N359 E318 to determine the extent of a brick pavement that was located along the north wall of the test unit at a depth of 3.0 feet.

Mechanical stripping of the overgrowth and debris piles was conducted after the initial 30 test units were completed. Stripping revealed 510 cultural and non-cultural subsoil features including the foundations for a house, barn, and garage, a well, icehouse, drain pipe lines, driveway and numerous posts. A complete list of all cultural features can be found in (Appendix III). All features were mapped (Attachment I) and the post holes were sectioned or completely excavated while the larger features were tested with 3- x 3-foot test units.

PLATE 4
Aerial View of the G. W. Townsend Farm Site

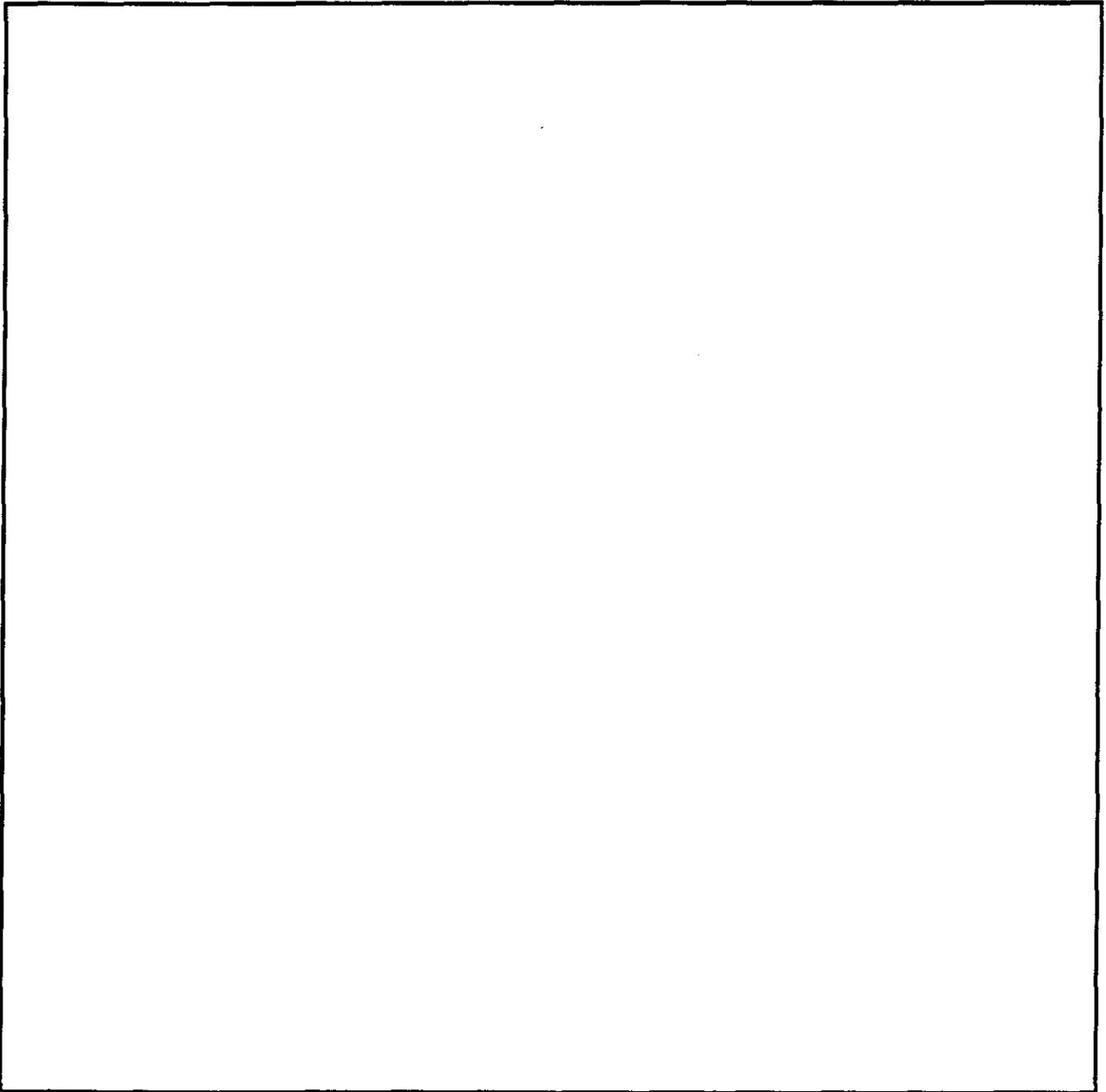
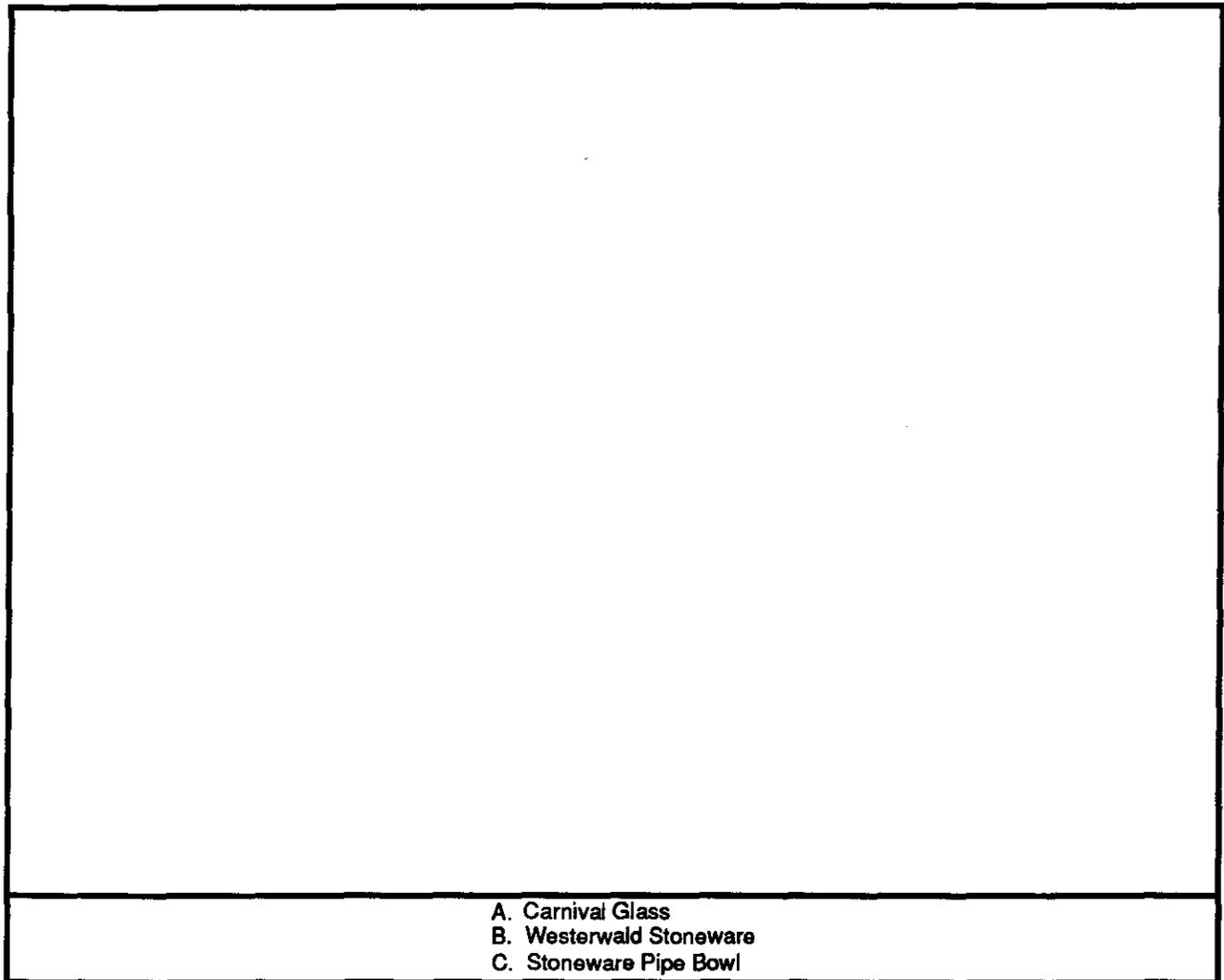


PLATE 5

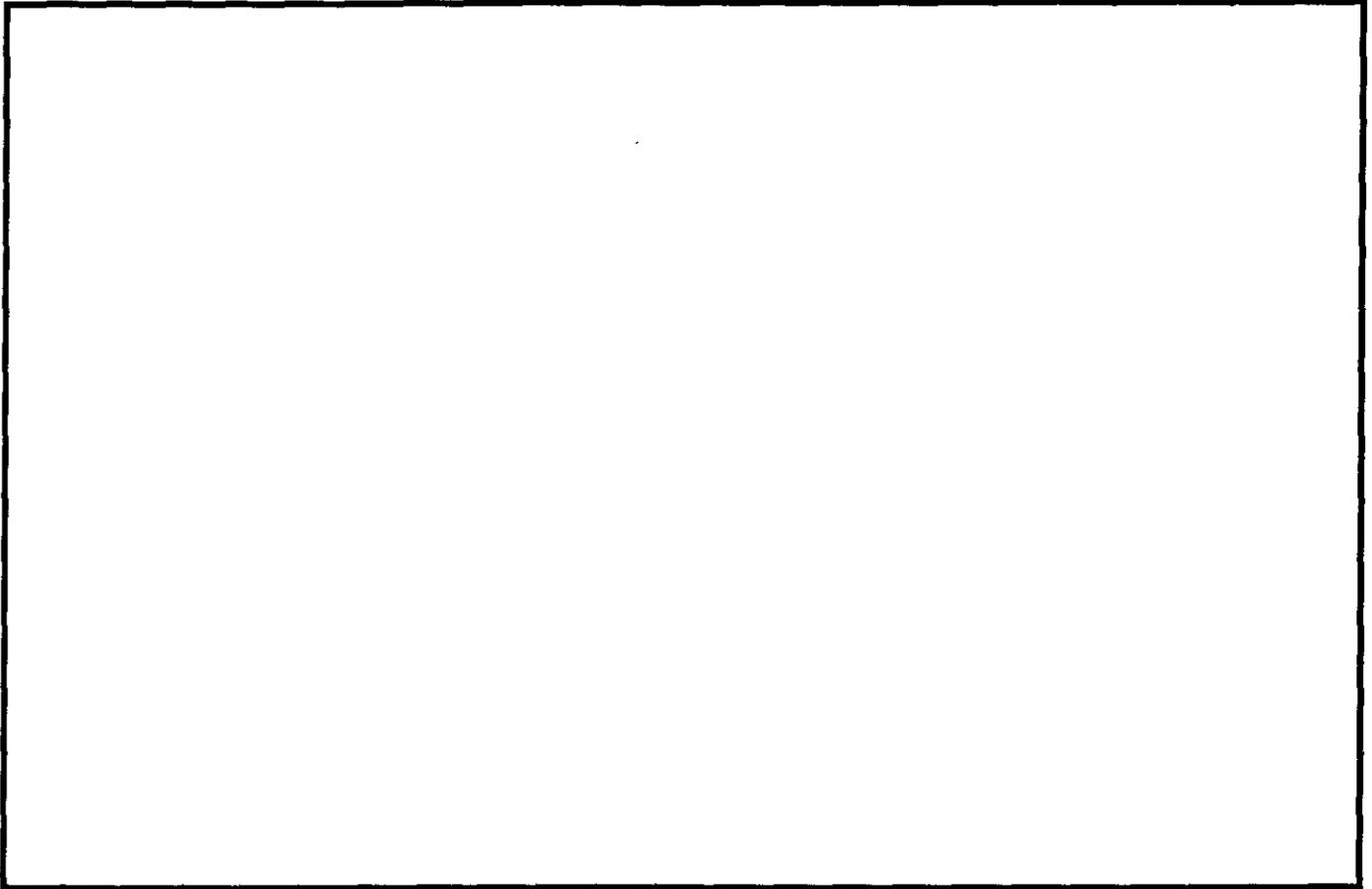
G. W. Townsend Tenancy Site, Miscellaneous Artifacts



Certain features, Features 1 through 5, 49, 177, 418, 468, 489, and 508, are worth noting in some detail. These features are associated with the G. W. Townsend farm complex. The first set of features, Features 1 through 5, are the major components of the G. W. Townsend house, Structure I. The house foundation received further testing in an effort to determine the date of the structure. Feature 49, Outbuilding I, is the remains of a highly disturbed and filled-in icehouse. Feature 177, Outbuilding II, appears to be a small shed. Feature 418, Outbuilding III, is the remains of a poured-concrete slab surrounded by cinder block walls that probably served as a garage. Feature 468, Outbuilding IV, represents the remains of a barn foundation. Feature 489, Outbuilding V, is the remains of a large chicken coop. Outbuildings VI and VII were small post-in-ground structures located in the area of intensive fencing along the southern portion of the site. Feature 508 is the remains of a driveway. These features will be discussed in more detail below.

PLATE 6

G. W. Townsend Farm Site, Structure I (Farm House)



Structure 1. The G. W. Townsend house consisted of a central house foundation (Feature 1) that was 40 feet long and 17 feet wide (Plate 6). The 1.5-foot wide foundation was made of stone and mortar with a bulkhead entrance that contained brick stairs in the southwest corner (Figure 30). The central house foundation had a completely excavated basement with a brick floor. Located in the northern half of the basement was a poured concrete basin which probably held an oil tank. In the southeast corner of the basement were a pair of wood blocks set in the brick pavement along with several holes in the pavement which are interpreted as the remains of a coal bunker.

Two additions to Structure I were located off the rear, or west side, of the house (Figure 30; Plate 6). The larger addition, Feature 4, measured 17.5 feet long and 18 feet wide. Oddly, the stone and mortar foundation for this addition was only on the south and west sides although a partial or disturbed wall 4.5 feet in length extended from close to the north end of the west wall toward the rear wall of the main house. These walls were also 1.5 feet wide. The second addition, Feature 3, located off the south wall of the larger addition and the west wall of the main house, was built of cinder blocks on top of a poured concrete footer.

The entire exterior perimeter of the main house and the larger addition were sheathed in with a thin wall, Feature 5, of precast concrete blocks on top of a poured concrete footing. This 0.4 foot wide wall was probably the foundation for a later brick facade that covered the original frame house. A set of stairs (Feature 2) that flare slightly away from the house is positioned off the middle of the front wall of the main house. Additionally a series of post holes paralleling the north, east, and west sides of the house suggest the presence of porches.

The test units placed around the house produced few historically diagnostic artifacts but did reveal information about the construction sequence of the structure. The only ceramics recovered from these units were the ubiquitous redware, stoneware, and the occasional whiteware. A quartz teardrop Woodland I point was recovered from Unit B. The builder's trench in Unit K, located next to the west wall of the main house, produced a vulcanized rubber button that had the 1851 Goodyear patent date. Feature 5A, the builders trench for the poured concrete blocks that sheathed the building, contained only building rubble such as brick and concrete fragments. This prompted the excavation of Test Units E, H, J, K, and L inside the large addition against the west wall of the main portion of the house, Feature 1, where the original builders trench was undisturbed (Figure 30). The test units indicate that the main portion of the house was built first, then the large addition, Feature 4, was built next to but not married into the original foundation. The ceramics, cut nails, and the vulcanized rubber button from the undisturbed builders trench along with the stone and mortar construction of these walls argue for a nineteenth century date of construction. The juxtaposition of the various walls indicate that the house was later sheathed with a wall of precast concrete blocks, Feature 5. This wall was probably the foundation for a brick veneer that covered the original frame house. The cinder block foundation of a mud room or pantry, Feature 3, was added some time after 1920 when cinder blocks were first manufactured. The brick and cement stairs, Feature 2, were added after 1950 because of the presence of an eight ounce Coca Cola bottle that was embedded in the cement of the footing of the stairs (Gilborn 1970:25). The footing of the stairs abuts but does not cross the concrete block sheathing wall indicating that the stairs were added after the sheathing wall was installed.

Porches. A number of post holes paralleling the north, west, and east sides of the building are evidence of the location of porches (Figure 30). The front porch, which measured 25 x 12 feet, is composed of Features 6, 7, 11, and 12. These post holes may have been supplemented with the posts of Features 8, 9, and 127. These post holes cover an area that also has the footing of what were probably front stairs. The footing consists of a poured concrete footer with embedded brick fragments and a post 1950 Coke bottle. The porch along the north wall, which measured 37 x 10 feet, was supported by three approximately 1.0-foot diameter post holes (Features 15, 23, and 31) spaced between 17 and 19 feet apart. Replacement and repair posts are represented by Features 16, 17, 19, 20, 21, 22, 24, and 27. Most of these post holes range around 1.0 foot in diameter and are located between Features 15 and 24. The rear porch, which measured 20 x 9 feet, is comprised of six posts, Features 51, 52, 55B, 56, 58, and 61. The brick pier on the southeast corner of Feature 3, and the cinder block addition, could also be part of the porch. Most of the post holes associated with the porch features contained no artifacts. The few post holes that contained artifacts only had artifacts such as undecorated fragments of redware and whiteware, rusted metal, and window glass that are only minimally diagnostic. Thus, the dating of the construction of the porches is problematic. However, it is likely that the 1950s front stairs replaced the front porch because of the stairs' later date and size.

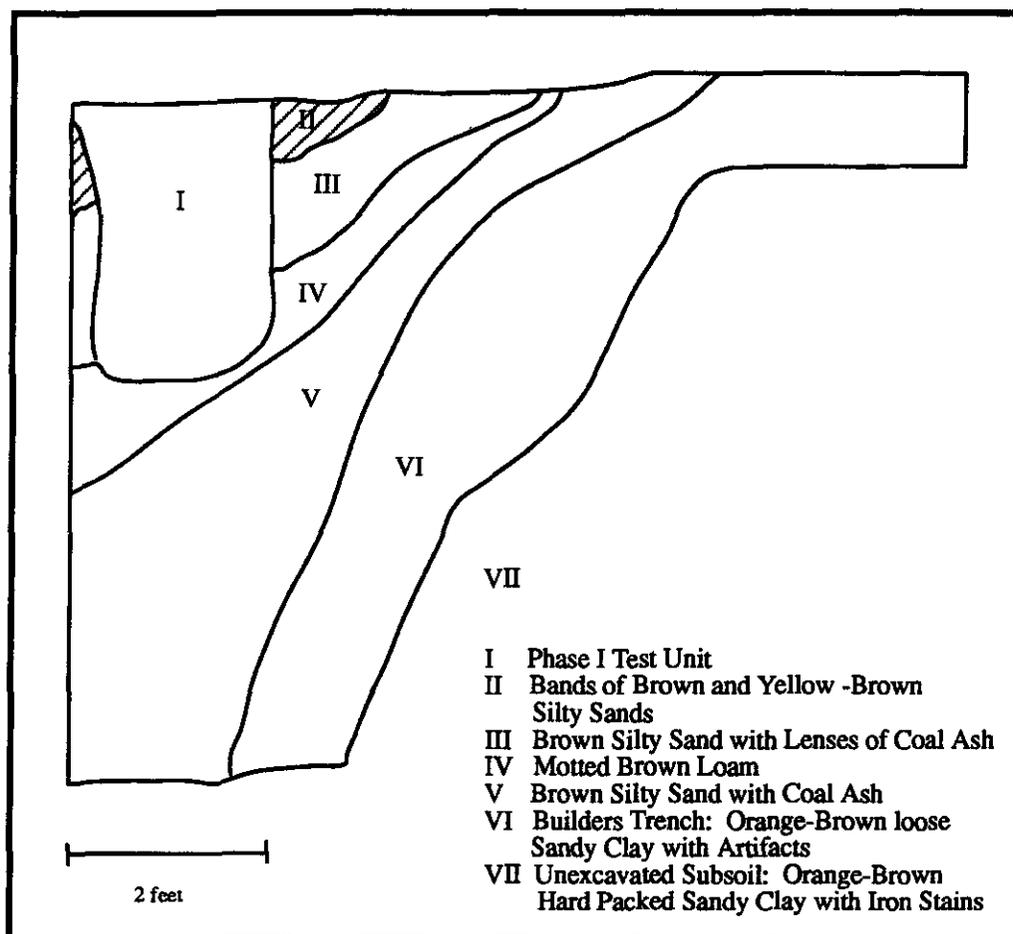
Outbuildings. Outbuilding I consists of the remains of an icehouse, Feature 49, which was heavily disturbed by recent DeIDOT activities. The icehouse measured approximately 15- x 8- feet and was 7.0 feet deep. Feature 49 was filled with alternating levels of compact and loose debris (Figure 31) which made hand excavation beyond 4.0 feet difficult so the feature was sampled with the aid of a backhoe. A total of 2,661 historical artifacts and one chert flake was recovered from the testing of Outbuilding I (Appendix I) including 37 Rumford Baking Powder bottles, stoneware crocks including one from the Hare pottery of Wilmington, Delaware, and a steel fireplace broiler (Plates 7, 8, and 9). See Appendix IV for a complete list of embossed bottles and Appendix V for a list of potter's marks retrieved from Feature 49. After the icehouse was abandoned, it apparently was used as a dump. The sides of the icehouse were also collapsed giving it the irregular surface as seen in the plan view (Attachment I). All of the artifacts retrieved from Feature 49 date to the last quarter of the nineteenth century. Similarly, another icehouse also used as a trash dump after its abandonment was excavated at 7NC-G-100, the Woodville Site, another nineteenth through twentieth century farm complex just over four miles north of the Scott's Run project area. Noel-Hume (1969:141,144) briefly describes seventeenth and eighteenth century icehouses as ranging between six and sixteen feet in diameter with straight walls usually lined with boards or brick with a depth between eight and fifteen feet. He also notes that beginning in the eighteenth century icehouses had "walls rising to some seven feet above ground capped with a shingle or slate roof" (Noel-Hume 1969:144). A more elaborate icehouse is an extant combination icehouse and dairy in Wharton State Forrest, Batsto, New Jersey. This icehouse is within 15 feet of the iron master's house at Batsto Iron Furnace. This combined icehouse and dairy is of masonry construction with a shingle roof. It measures 31 x 23 feet externally with the ice pit measuring 15.5 x 19 feet and extending about nine feet below grade (New Jersey State Parks Service: personal communication).

Feature 177 is the remains of Outbuilding II and was located to the southwest of the house on the south side of the driveway (Attachment I). It was a rectangular depression ranging from 0.2 to 0.5 feet deep and measured 7.6 x 5.3 feet. Feature 177 was surrounded by seven post hole features (Features 175, 176, 178, 179, 180, 181, and 189). All of the post holes except Feature 189 were slightly less than one foot square. Four small 0.1- x 0.4-foot depressions were in the southwest corner of the feature (Figure 32; Plate 10). Feature 177 probably served as an open front livestock or feeding shed. Outbuilding II appears to straddle Fenceline A.

Feature 418 was located to the west of Feature 177 and represents the remains of Outbuilding III (Attachment I). This feature, interpreted as a garage, was a 13-foot square foundation of cinder blocks with poured cement floor. Test Unit N was placed in the northeast corner of the foundation (Attachment I). The excavation of this unit revealed a loose layer of cobbles directly below the north and east walls of the feature. A total of 235 artifacts was recovered from the level beneath the cement including 98 bone fragments, a copper alloy rein guide, a glass liner to a canning jar, a thin piece of metal with "CHEVROLET" molded on it. The southeast quarter of Feature 418 was then excavated. Immediately under the cement floor was a thin layer of sand with artifacts. The cobbles continue half way down the east wall. The northwest quarter of the feature was then excavated. Like the north wall in Unit N there were cobbles below the foundation along with a dry laid brick pier (Figure 33) and a shallow linear sand-filled depression. Before the site was stripped, cobbles were noticed in front of the north wall. A similar cobbled walk was present south of the well, Feature 126, which was disturbed by the later pipe trenches. A similar pipe trench extends south westward from the west wall of the Feature 418 and almost connects with one of the pipe trenches from the well (Attachment I). The location of

FIGURE 31

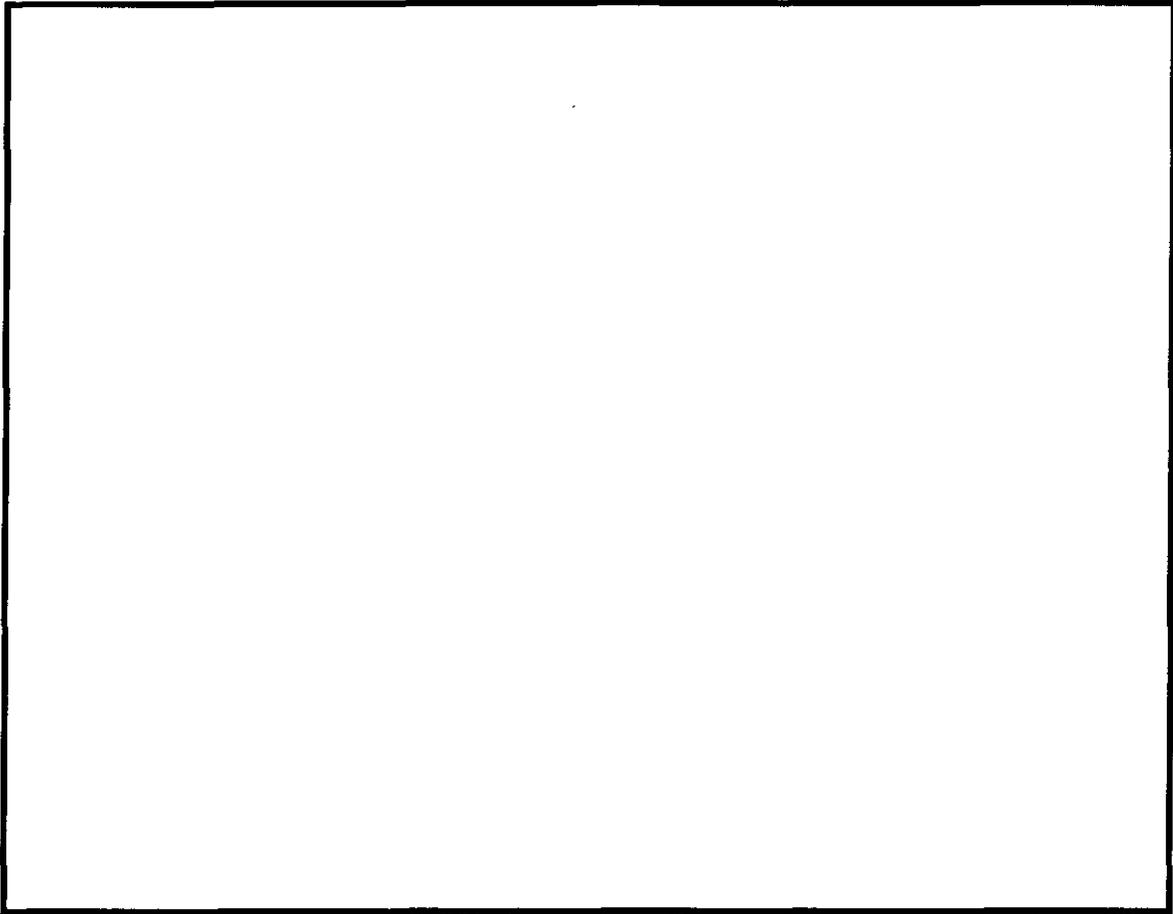
G. W. Townsend Farm Site, Outbuilding I (Icehouse) Profile



the cobbles up to and underneath the cement foundation, as well as the presence of a brick pier indicates that an earlier structure may have been located below the more modern, cinder block garage (Feature 418).

Feature 468 was the foundation for a barn (Outbuilding IV - Attachment I) which was located in the southwestern corner of the site. The foundation consisted of a centrally partitioned rectangle 20 feet wide and at least 60 feet long. The exact length is unknown due to the removal of the eastern end during clearing operations. The foundation is of a mixed stone and brick construction which averages 2.5 feet wide. Test Unit O was placed next to an interior wall in an area of darker soil within Feature 468. The test unit revealed that the floor of the barn had a thin layer of soil with historical artifacts on top of subsoil. The artifacts consisted of container glass, unidentified nails, whiteware and redware. Abutting the rear wall of the barn was Feature 467 which was a shallow trash dump filled with tires, wood, and large pieces of unidentified iron scrap.

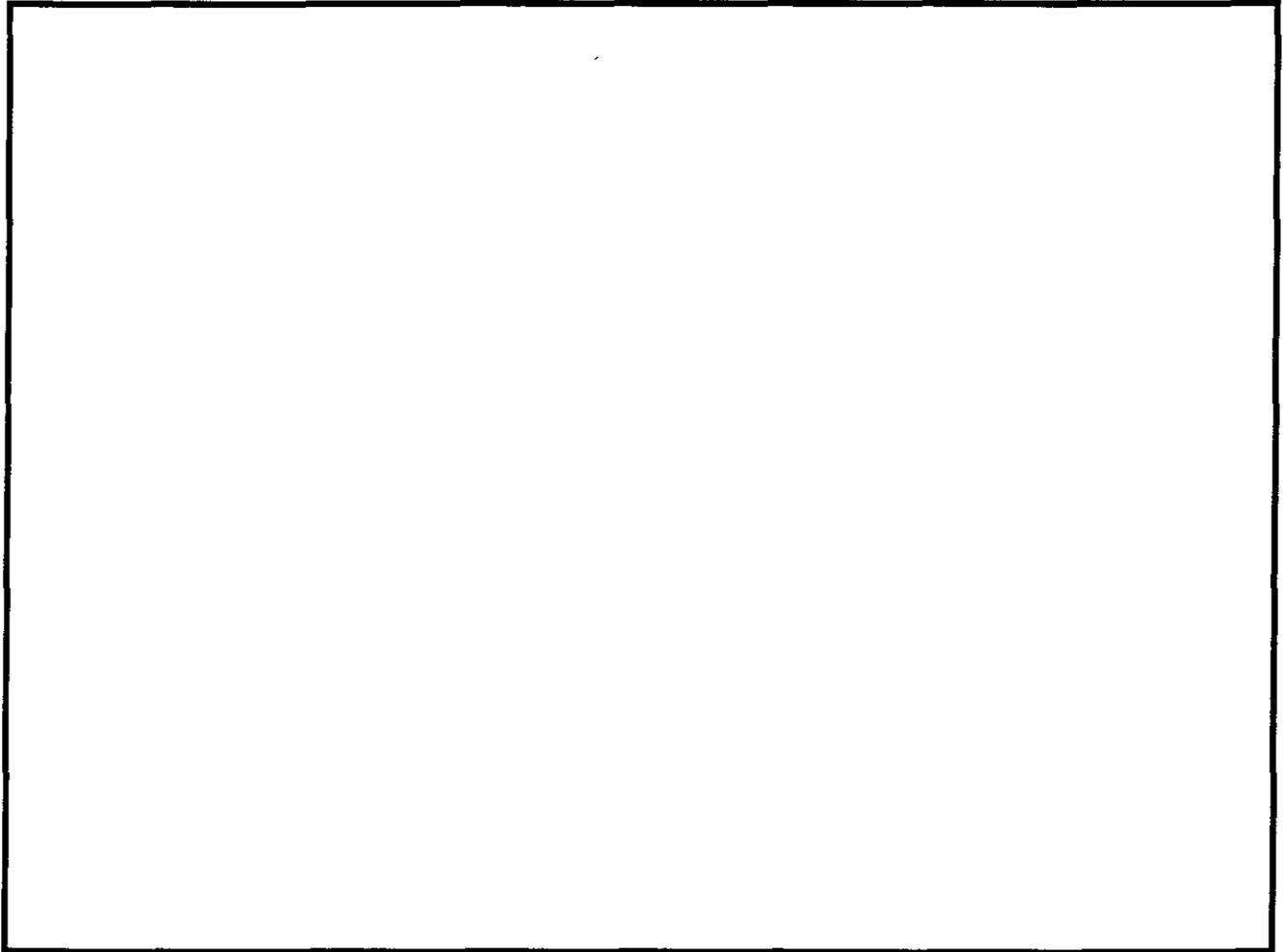
PLATE 7
G. W. Townsend Farm Site,
Assorted Bottles from Outbuilding I (Icehouse)



Feature 489 was a shallow depression that marked the location of a long chicken coop in the northwest corner of the site (Outbuilding V - Attachment I). The depression was 45 feet long and 7.0 feet wide. Five 5- x 5-foot test units were excavated within Feature 489 in order to obtain a profile and to sample the feature (Figure 34). The feature was 1.0 feet deep and filled with architectural debris including tin roofing, wood, nails, window glass, and iron wire. The majority of the nails were wire nails. Other artifacts included bottle glass, newsprint from the 1950s, and a fragment of a paperback book. The floor of the feature had a series of wooden boards impressed into the subsoil and running parallel to the length of the building. No support posts or foundations were identified inside or outside the feature to indicate how Outbuilding V was constructed. However the unusual bulges located half way along the north and south walls could have been caused when the central support posts were collapsed.

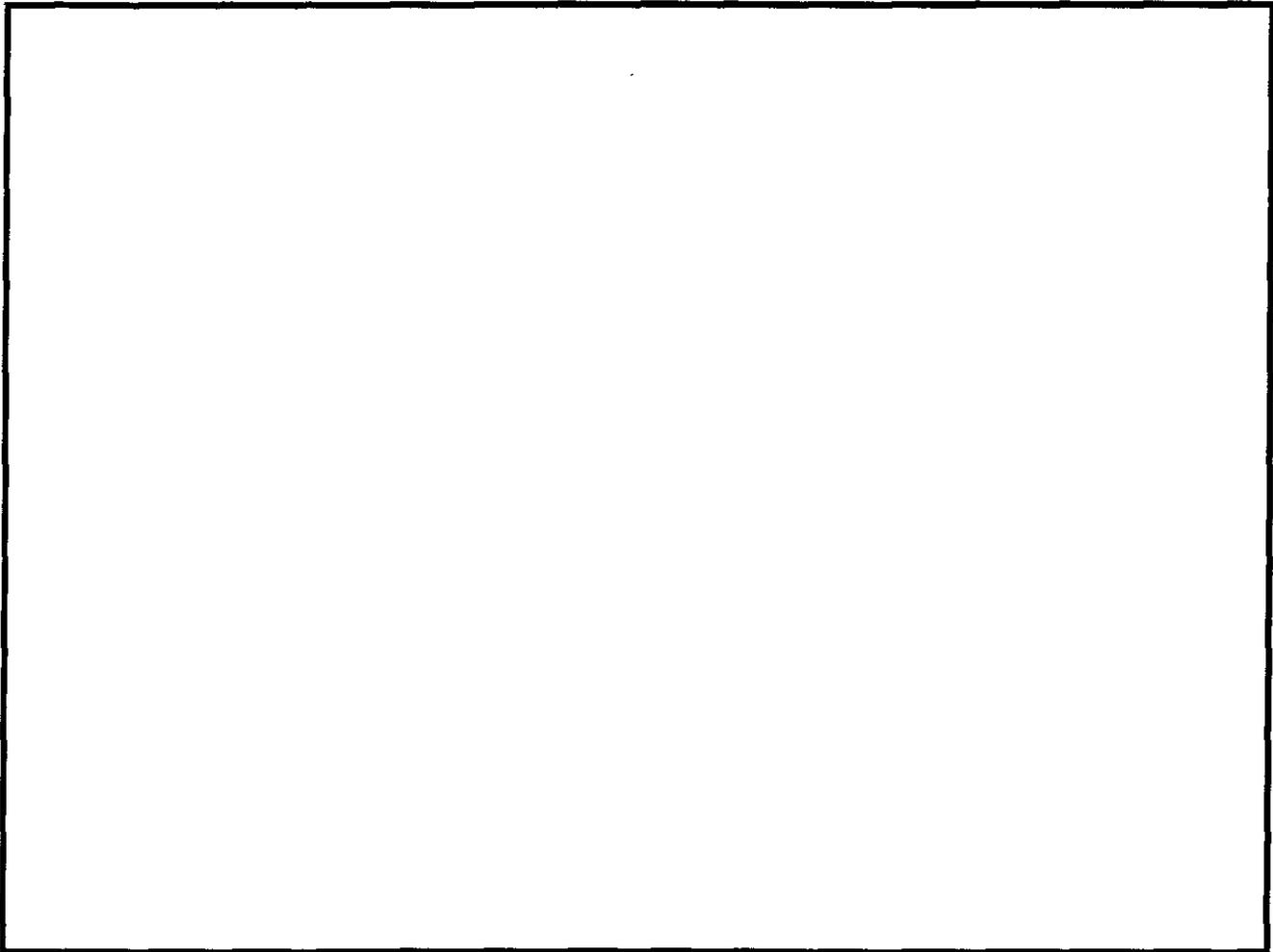
In the southern end of the site, immediately south of Outbuildings II and III, was an area of multiple post holes and trees that indicate repeated fence building and repair (Attachment I). These 65 post holes include two sets of post holes that represent small post-in-ground sheds, one with nine posts and one with four post holes. The set of nine post holes, Outbuilding VI, had six post holes that

PLATE 8
G. W. Townsend Farm Site,
Stoneware Vessels from Outbuilding I (Icehouse)



represent a small post-in-ground structure that probably served as a chicken coop. Features 220, 229, 232, 233, 234, and 265 define a rectangular 12- x 5- foot building. All of these features have the remains of posts in the post holes. Three of the nine features (Features 217, 221, and 266) probably demark a fenced-in yard area surrounding Outbuilding VI. Outbuilding VII consisted of four posts, Features 239, 240, 241, and 242. This shed was also rectangular and measured 6 x 5 feet. Most of these post holes had no artifacts and those that did had only one or two. One piece of whiteware was the only slightly datable artifact retrieved. The fact that the features mentioned above are some of the few that had post holes with molds indicate that they were either probably the most recent of the posts or that they were some of the few that were not pulled or removed and left to rot in place.

PLATE 9
G. W. Townsend Farm Site,
Steel Broiler from Outbuilding I (Icehouse)



Utilities. Several utility features were also uncovered. These consisted of a well, septic tank, three privies, and drain pipe trenches. The well, Feature 126, was a brick-lined shaft at least 20 feet deep with a 5-foot square cap of concrete (Attachment I). No additional excavations were conducted on this feature because of clear lack of archaeological deposits in the well and the inherent danger of working in and around well shafts.

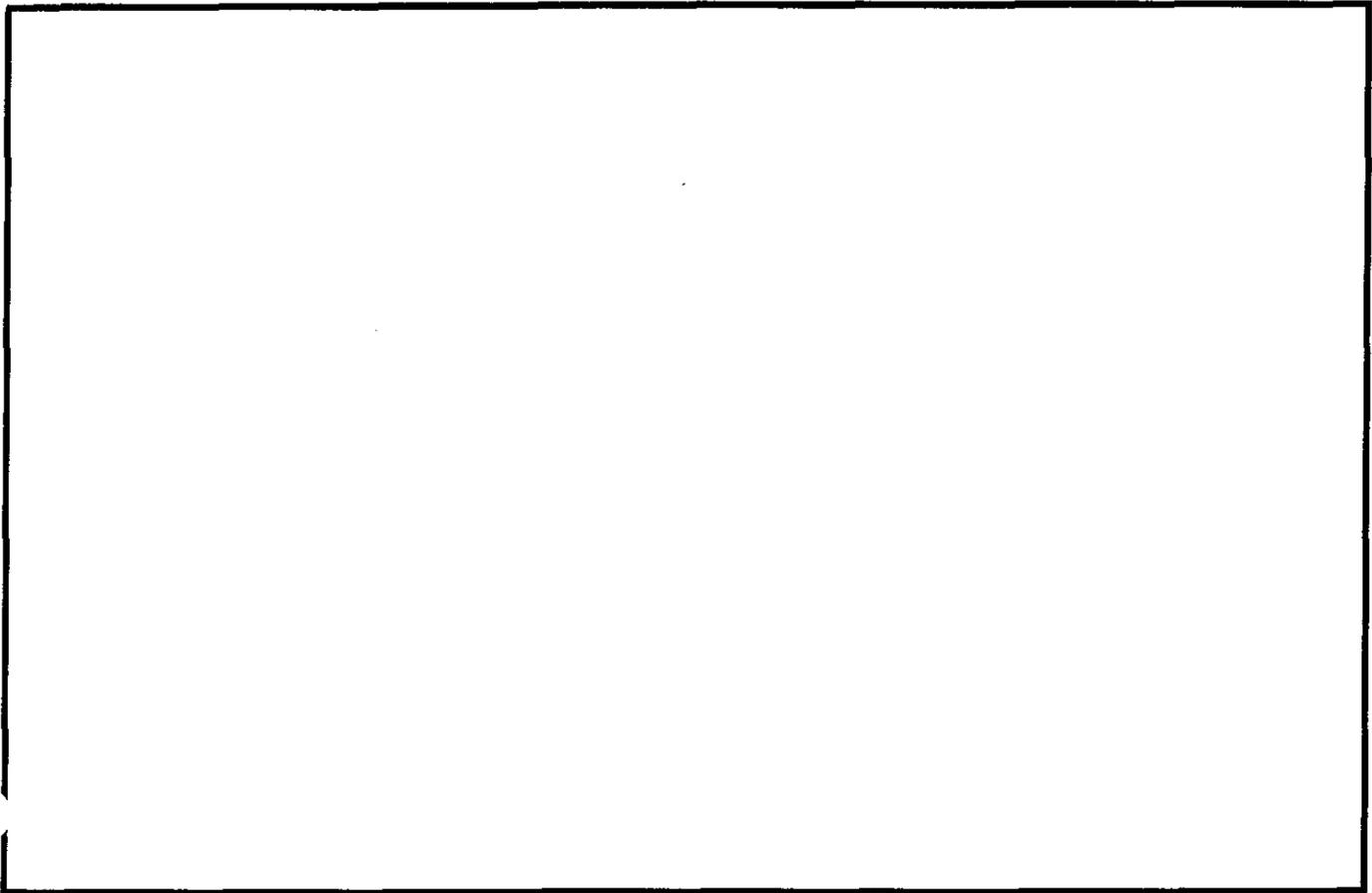
Feature 125 was the remains of a septic tank (Plate 11). Pipe trenches lead from the large addition to the house and then to both the well (Feature 126) and the septic tank. Two drain pipe trenches extended from the southwest corner of Structure I's large addition; Pipe Trench I went to the well; Pipe Trench II went to Pipe Trench III (Attachment I). Pipe Trench III ran from the septic system across the driveway and toward Route 13. Pipe Trench IV ran from the well, across Trench III and the driveway and disappeared between Outbuildings III and IV. Pipe Trench V extended east from the well, disrupting the cobbled walk and terminated under the bulkhead stairs where pipes protruded from

beneath the south corner of the bottom stair. Pipe Trench VI ran along the east edge of the stripped area. Pipe Trench VII was located west of Outbuilding III and terminated near a depression close to where Pipe Trench IV terminated.

Three privy pits were located off the southwest corner of Structure I. Features 110, 117 and 417 lie between 30 and 50 feet southwest of the house on either side of the driveway (Attachment I). Privy I, Feature 110, was irregularly shaped (2.0 x 2.5 feet) and was 2.7 feet deep. A total of 65 artifacts was recovered from Privy I including cut nails, two unidentified bone fragments, redware, creamware, whiteware, bottle glass, and a Woodland I contracting stem point. Privy II, Feature 117, was a 3.5-foot diameter stain with a small extension of the southern edge. The feature was shallow, only 0.4 feet deep with lime deposited around the edge. A total of five artifacts was recovered from Privy II including one piece each of redware, stoneware, window glass, unidentified metal and a button. Privy III, Feature 417, was the largest of the three privies and was 4.0 feet in diameter and 22.5 feet deep. A total of 30 artifacts was recovered from Feature 417, including container glass, cut nails, redware and whiteware. The fill of all three privies was of a general nineteenth to early twentieth century date.

PLATE 10

G. W. Townsend Farm Site, Outbuilding II



Driveway. Feature 508 was a driveway located south of the house (Attachment I). This feature is defined by sand filled ruts with coal ash. The aerial photographs of the site shows the drive going to the barn but this is not so readily apparent at ground level as the coal ash distribution stops in front of the garage (Feature 418). No testing was conducted on this feature.

Fencelines. Fenceline A consisted of at least 20 and possibly up to 28 post holes that once lay in a line between Outbuildings II and VI and extends east of Outbuilding II with a spur that approaches the driveway (Attachment I). South of Fenceline A and Outbuildings II, III, and IV, was an area of intensive fence building and replacement (Attachment I). This fenced area consisted of 51 post holes and three trees that could have also been incorporated into the fencing plans. Whiteware and yellowware were the only slightly diagnostic artifacts recovered from any of the post holes from Fenceline A or the area of intensive fencing indicating that some of the posts were removed during the nineteenth century. Although a long history of fences on this site is evident, no other clearly discernible fencelines are apparent on the site due to the large number of post holes scattered across the site.

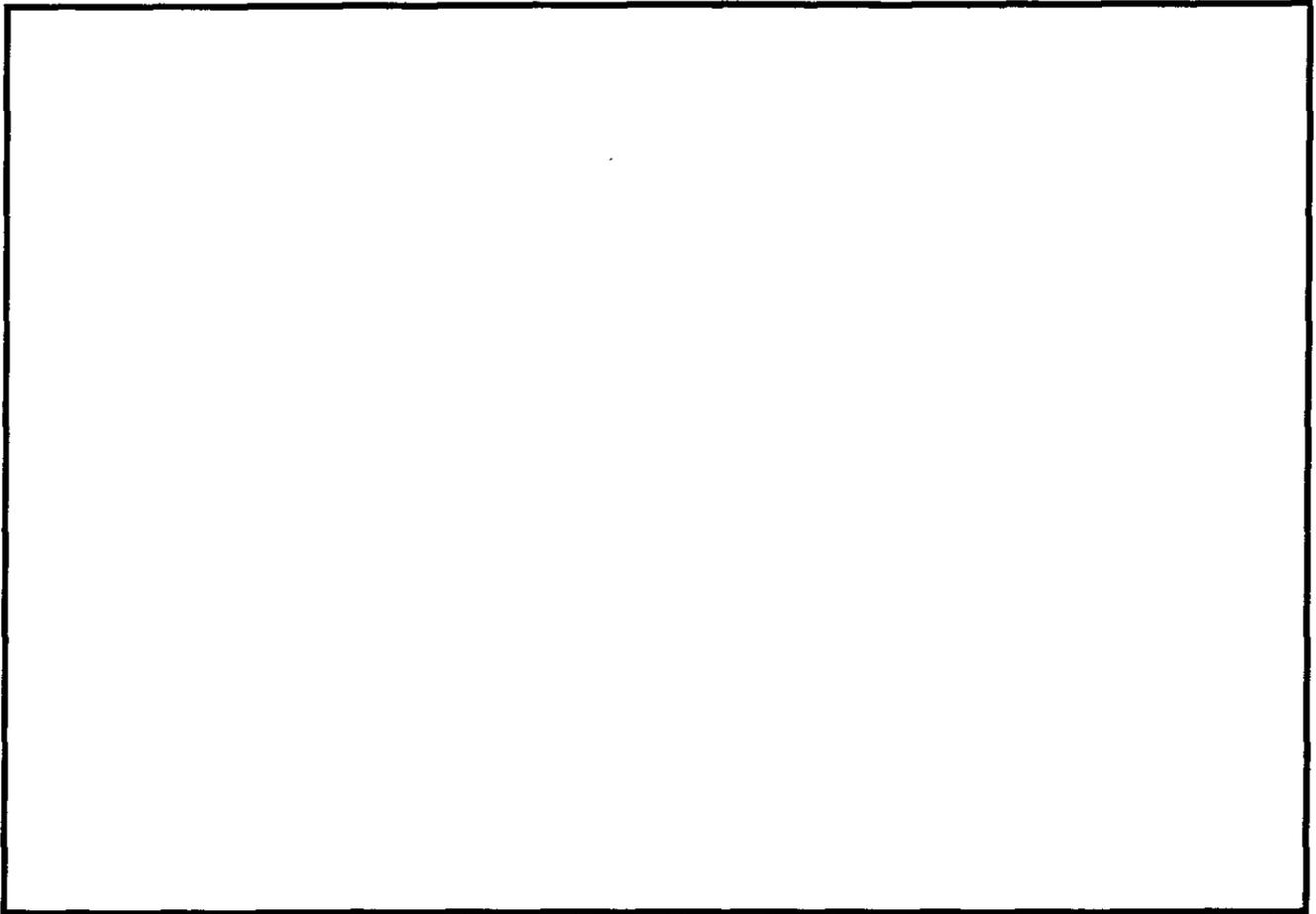
The G. W. Townsend Farm Site, 7NC-G-112, included a house, well, icehouse, septic tank, barn, garage, long chicken coop, privies, sheds, and fencelines. A total of 11,339 historical and 14 prehistoric artifacts was recovered from the G. W. Townsend farm complex during archaeological

investigations. Most of the recovered artifacts are of a mid-nineteenth century to early twentieth century date. Two Woodland I points were also recovered from disturbed contexts, while they were obviously not part of the historical farm they are probably related to the prehistoric sites located in the Scott's Run project area.

The Delaware historical archaeological management plan (De Cunzo and Catts 1990:192-196) and the historical context for the 1830 to 1940 period for agriculture in Delaware (De Cunzo and Garcia 1992:298-300) provide guidelines for evaluating the potential and significance of nineteenth and twentieth century agricultural complexes like the G. W. Townsend Farm Site. The historical documentation for the site is adequate, but the archaeological integrity of the site is poor. The farm complex has been extensively modified through time and the later twentieth century modifications have heavily impacted the earlier attributes of the farm complex. Aerial photographs also show that the site underwent major change between 1937 and 1954. In this period a tree farm or orchard west of (or behind) Structure I was replaced with the barn (Feature 468) and large chicken coop (Feature 489). Two additional structures located north of Structure I, and outside of the tested area were removed. Structure I along with its outbuildings were torn down between 1960 and 1962 according to aerial photographs. The entire site has also been compromised and truncated by the destruction of the house and recent bulldozing and borrow pit operations by the Department of Transportation. These factors have compromised the integrity of the site to the point that it does not qualify for inclusion on the

PLATE 11

G. W. Townsend Farm Site, Septic Tank



National Register of Historic Sites. Further degradation of the site is continuing by the current construction and earth moving work by the Delaware Department of Transportation; therefore no further archaeological work is recommended at the G. W. Townsend Farm Site.

Conclusions and Recommendations

The archaeological investigations of the Scott's Run project area, identified three historical and four prehistoric sites. Phase I and Phase II investigations were conducted at all but the prehistoric component of Area B, 7NC-G-111, and Area C. The Phase I survey consisted of pedestrian surveys and series of shovel test pits. The Phase II surveys consisted in some cases of additional shovel test pits and test units around areas of high artifact concentration.

The prehistoric sites, 7NC-G-111, 7NC-G-113, 7NC-G-114, and 7NC-G-115, were located on gently sloping terraces on the south side of Scott's Run. Only two sites contained diagnostic artifacts which both date to the Woodland I cultural period (3000 B.C. to A. D. 500). These were Site 7NC-G-115, which had a steatite bowl fragment and contracting stemmed point and the prehistoric component of Site 7NC-G-111 which also had a stemmed point. All of these sites had been disturbed by plowing and all artifacts except one flake from Site 7NC-G-115 were recovered from the plow zone. No

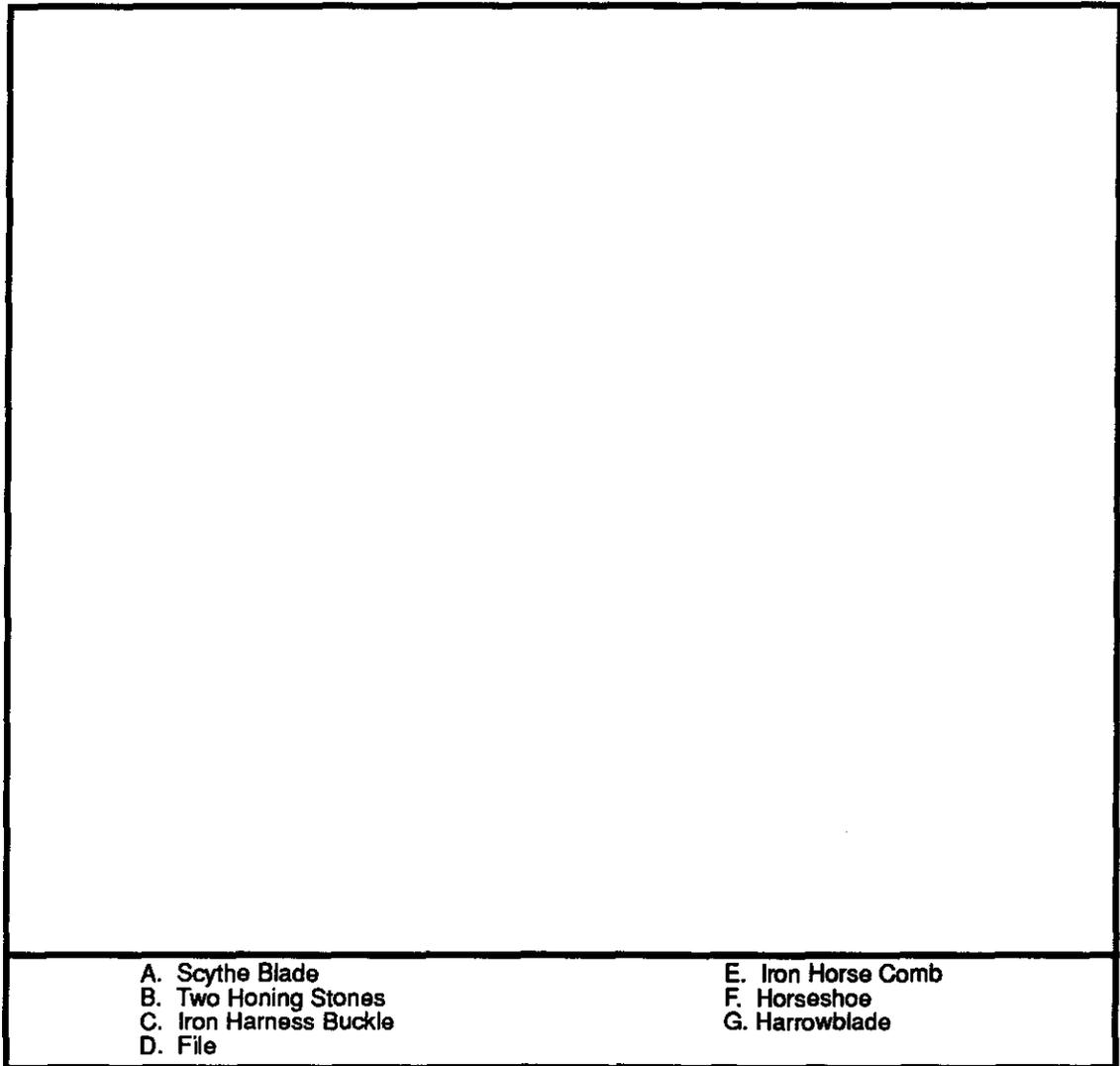
prehistoric subsoil features were located at any of the sites. Site 7NC-G-111 was a 12- x 16-meter lithic scatter. Site 7NC-G-113 was a 5.4- x 7.2-meter procurement camp that consisted of fire-cracked rock, flakes, a flake tool, and a late stage biface fragment. Site 7NC-G-114 yielded a fire-cracked rock, flakes, and a biface fragment and also appears to have been a procurement camp. And finally Site 7NC-G-115 was approximately 36 meters in diameter and produced a hammerstone, flakes, fire-cracked rocks, and a piece of a steatite bowl. This site too, appears to have been utilized as a procurement site or small base camp. Although not associated directly with these sites, two other Woodland I projectile points, one rhyolite stemmed point and one quartz teardrop point were recovered from Site 7NC-G-112 and a pestle fragment was recovered from Area E. Pestles also begin occurring in the archaeological record during the Woodland I cultural period. The pestle fragment was recovered from the buried plow zone of Area E, the G. W. Townsend Tenant House Site. The prehistoric sites in this project area represent small base or procurement camps from 3000 B.C. to A.D. 500 and may be associated with a nearby Woodland I band base camp, the Snapp Site (7NC-G-101), that is 0.8 miles north of the project area (Custer and Silber 1995). Because of the disturbed nature of these small prehistoric sites, they are not eligible for inclusion on the National Register of Historic Places and no further archaeological work is recommended.

Three historical sites were investigated in the Scott's Run project area, the Bennett-Thomas Mill Site (7NC-G-111), the G. W. Townsend Farm Site (7NC-G-112), with associated outbuildings in Area C, the G. W. Townsend Tenancy (7NC-G-112A). Of these three sites, only the Bennett-Thomas Mill Site meets the criteria for inclusion on the National Register of Historic Places. It has both good documentation and intact subsoil features. The documentation for the G.W. Townsend Farm Site is adequate, but its archaeological resources have been heavily compromised or destroyed. The documentation for the G. W. Townsend Tenancy Site is poor and the archaeological resources have been severely compromised by mid-twentieth century road construction and subsequent landscaping.

The Bennett-Thomas Mill Site, 7NC-G-111, has the remains of stone and mortar foundation walls and a variety of late eighteenth century to mid-nineteenth century artifacts, and subsoil features. The archival research indicates that the mill operated from circa 1793 to 1850. No other mill complexes from this time period in St. Georges Hundred are known. The aforementioned attributes of this site will yield significant information about a rural industry that was once commonplace on the Delaware landscape. Further work at this site will address many of the research themes that are stated in the **Management Plan for Delaware's Historical Archaeological Resources** (De Cunzo and Catts 1990), such as Manufacture and Trade, Landscape, Domestic Economy, and possibly Group Affiliation. The Delaware Department of Transportation changed construction plans in order to avoid impacting the Bennett-Thomas Mill Site; therefore, archaeological investigations at the site were terminated after the completion of the plow zone testing. However, because of the significance of the site and its eligibility for the National Register, further archaeological work on this site is recommended if future construction or activities in the immediate area of the site are contemplated.

The G. W. Townsend Farm Site, 7NC-G-112, included the archaeological remains of a house, well, icehouse, septic tank, barn, garage, long chicken coop, privies, sheds and fencelines. Most of the recovered artifacts are of a mid-nineteenth century to early twentieth century date and included a variety of agricultural implements (Figure 12). Two Woodland I points were also recovered from disturbed contexts, while they were obviously not part of the historical farm they are probably related to the prehistoric sites located in the Scott's Run project area. The farm complex has been extensively modified through time and the later twentieth century modifications have heavily impacted the earlier

PLATE 12
G. W. Townsend Farm Site,
Miscellaneous Agricultural Tools



attributes of the farm complex. The farm underwent a series of modifications or improvements in the twentieth century including addition to the house along with the installation of a brick facade, front steps, plumbing, and heating systems. A cement and cinder block garage replaced an earlier structure and a tractor shed was installed. The filling-in of the icehouse during the last quarter of the nineteenth century probably relates to the cleaning of the house after the death of George W. Townsend Sr. and the subsequent deeding of the house to Harry Gray (Table 2). The advent of commercially produced ice and its distribution during this period and the earlier demise of the mill and pond made ice harvesting more difficult and mass storing of ice obsolete. The icehouse at the Woodville Farm Site (7NC-E-98), just five miles north of the G. W. Townsend Farm Site, was also abandoned and filled around the turn of the century for similar reasons. The archaeological integrity of the G. W. Townsend Farm Site was severely compromised by the destruction of the house and recent bulldozing and borrow pit operations by the Delaware Department of Transportation. Aerial photographs also show that the site underwent major change between 1937 and 1954. In this period a tree farm or orchard west of Structure I was replaced with a barn and large chicken coop. Two additional structures located north of Structure I, and outside of the tested area, were removed. Structure I along with its outbuildings were torn down by 1962 according to aerial photographs. These factors have compromised the integrity of the G. W. Townsend Farm Site to the point that no further archaeological work is recommended.

The collapsed structure in Area C appears to have been a twentieth century farm outbuilding with no associated subsoil features that may have been related to the airstrip associated with the twentieth century occupants of the G. W. Townsend Farm Site. No further archaeological work is recommended within Area C.

One or two tenancies owned by G. W. Townsend appear on late nineteenth and early twentieth century maps very close to present-day Route 13. Phase I testing was completed within the area where the G. W. Townsend Tenancy (7NC-G-112A) was likely to be located, but no trace of architectural remains were identified. The soil profiles in this area indicate that the site has been greatly altered and disturbed to a degree that the chance of locating intact archaeological deposits is very small. It is likely that the structure was destroyed with the construction of the dualized Route 13 in the 1920s. No further archaeological work is recommended for the G. W. Townsend Tenancy Site.