

## WILSON-LEWIS FARM SITE FIELD INVESTIGATIONS AND ANALYSES

### Site History

The Wilson-Lewis Tenant Farm was constructed between 1852 and 1859 as it appears on Byles' atlas (Figure 9). The farm was located on the same parcel as the Benjamin Wynn Tenancy. A detailed Orphans' Court description of the parcel in 1852 does not describe the farm (Kent County Orphans' Court S-156).

In 1852, the Wilson-Lewis parcel was owned by Gustave Wilson who died that year at the age of ca. 71. The land passed to his son Henry L. Wilson (Table 13). Either Henry or his brother Andrew, both of whom were house carpenters according to the 1850 and 1860 population censuses, built the Wilson-Lewis Farm by 1859. Henry Wilson owned the site when Byles' 1859 and Beers' 1868 atlases were made (Figures 9 and 10). At this time, however, he was living in the next house to the east. A third Wilson, Andrew J., settled nearby where he appears on Beers' 1868 atlas (Figure 10).

The Wilson-Lewis Farm Site was occupied from ca. 1859, when a structure appears on Byles' atlas, until sometime before 1889 as the structure does not appear in an Orphans' court evaluation of the property made that year. The structure also does not appear on the 1906 USGS topographic map of the Dover area. No archaeological evidence of an eighteenth century occupation was located at the site. Henry L. Wilson owned the 180-acre tenant farm until his death in 1889. In 1860, Wilson was assessed for 180 acres in the tenure of William Ennis. In this year, the tenant farm was improved with a one story dwelling, cribs, and stable all of which were in "tolerable repair."

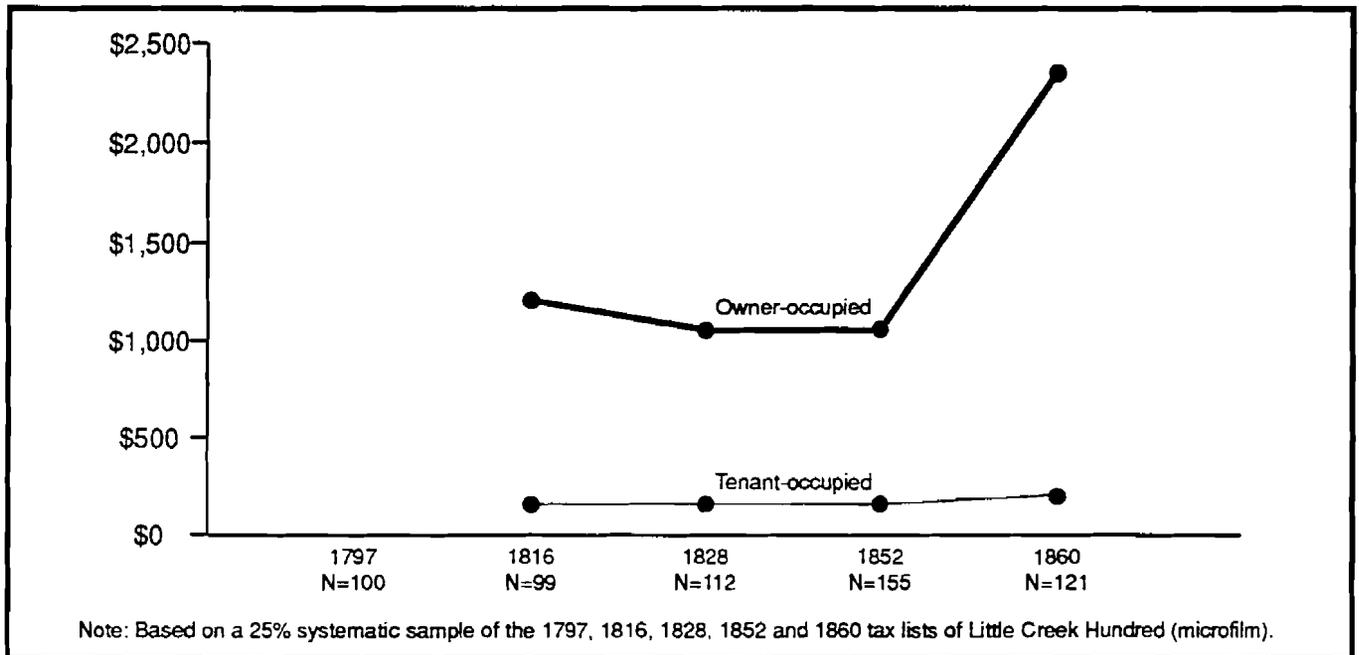
William Ennis was assessed in 1860 for livestock and personal property valued at \$425. The total assessment, including a standard poll tax, was \$625, which placed him in the middle ranks of wealth in Little Creek Hundred. Specifically, Ennis was in the sixth wealth decile. Roughly half of all taxables owned more than he did, and half owned less than he did (Figure 12). The key wealth variable among this middle class was land ownership. Only 29 percent of all taxables owned land in Little Creek Hundred in 1860 and the wealthiest third of the county almost invariably owned land (Figure 13). Compared to other tenants then, Ennis was fairly well-off, but without any land, he was significantly poorer than almost every landowner.

Ennis' personal property was primarily livestock. Ennis' most valuable livestock were two horses and a colt valued at \$295 and a yoke of oxen worth \$55. Ennis also owned three cows valued at \$16 a piece, four calves and yearlings worth \$44, and one sow valued at \$9. As with other tenants, Ennis appears to have chosen to invest in livestock rather than the small amount of marginal land he could probably have afforded. Tenants throughout the nineteenth century invested a greater proportion of their wealth in livestock rather than land. In 1860, tenants typically had 47 percent of their wealth invested in livestock. Landowners, on the other hand, typically had less than 10 percent (9.7%) invested in livestock. While much of the difference was probably due to the great disparity in wealth between landowners and tenants, Ennis appears to have selected to invest in livestock rather than land or material goods as the meager artifact assemblage from the Wilson-Lewis Farm Site noted below suggests.

Henry Wilson's tenant farm was a large and prosperous one compared to other tenant farms in Little Creek Hundred. Wilson's farm was valued in 1860 at \$2,480, more than 10 times the median assessed value of other tenant farms in the hundred. While Ennis lived on a superior tenant farm, this

FIGURE 81

## Median Assessed Value of Owner- and Tenant-Occupied Farms in Little Creek Hundred, 1797-1860



farm was only as valuable as most owner-occupied farms. The median assessed value of owner-occupied farms in the hundred in 1860 was \$2,375, only slightly less than the Wilson-Ennis Farm (Figure 81). The primary reason that the Wilson-Ennis Tenant Farm was so valuable was its large size. At a time when the median size of tenant-occupied farms in Little Creek Hundred was 94 acres, Wilson's 180-acre farm was nearly twice as large (Figure 14). Owner-occupied farms in 1860 were typically about 110 acres in size. In general, farm size had been decreasing since the late eighteenth century as population increased. A second factor in the assessed value of the Wilson-Ennis Farm was the relatively high proportion of improved land on the farm. Tenant farms in Little Creek Hundred typically had a larger proportion of their acreage under cultivation than owner-occupied farms. This fact was not lost on agricultural reformers such as Manlove Hays and William Huffington who both blamed excessive cropping by tenants as a major reason for erosion and declining soil fertility (Hayes 1860; Huffington 1838).

By 1860, Henry Wilson was living next door to the east. According to the census taken that year, Henry was 23 years old and lived with his 67-year-old, widowed mother, Ann. Wilson's tenant and next-door neighbor, William Ennis, however, lived with a much larger family. Forty-year-old William Ennis shared the frame Wilson-Lewis tenant house with his wife Patience (age 38), his daughter Margaret (age 21), and his two-year-old son Robert. Also living with William Ennis were two young men, 12-year-old Henry Brown and 16-year-old Ramsey Nicholson. Both of these young men were probably farm hands as neither attended school that year. In fact, census records indicate that William Ennis and his entire family were illiterate.

It is not known who tenanted the site after 1860, but William Ennis had disappeared from Little Creek Hundred by 1870. Henry Wilson was 33 years old in 1870 and shared his home with his wife, Lucinda, their two young daughters, Jenny and Mary (age six and four years, respectively), his mother

Ann, and two young boarders, 11-year-old Christina Hester and her brother, five-year-old Samuel Hester. Henry Wilson's occupation was now listed as "farmer," suggesting that he abandoned house carpentering after he took over his mother's farm. By 1880, following the death of his mother, Henry Wilson moved his family to a house in the nearby town of Leipsic. Henry Wilson was then 43 years old and lived with his wife, their two teenaged daughters, Jenny and Mary, and their eight-year-old son, Billy. By 1882, Wilson appears to have abandoned farming as he was employed as Leipsic's only butcher. Wilson probably knew—and perhaps even worked with—Rees Taylor and John Woodall, two of Leipsic's previous butchers who lived at the nearby Moore-Taylor Farm.

The Wilson-Lewis Farm Site was definitely abandoned by 1889 when Henry Wilson died. In that year, the Kent County Orphan's Court ordered the sale of Wilson's land at public auction. According to the Orphan's Court, the only tenant farm he owned was the farm he lived in with his mother east of the Wilson-Lewis Farm. John Denny purchased the Wilson-Lewis property at public sale in 1890. The H. Wilson Tenant house does not appear on either the 1906 USGS topographic map or Bausman's 1939 land classification map of Kent County which is consistent with the occupation of the site indicated by archival evidence and archaeological testing noted below.

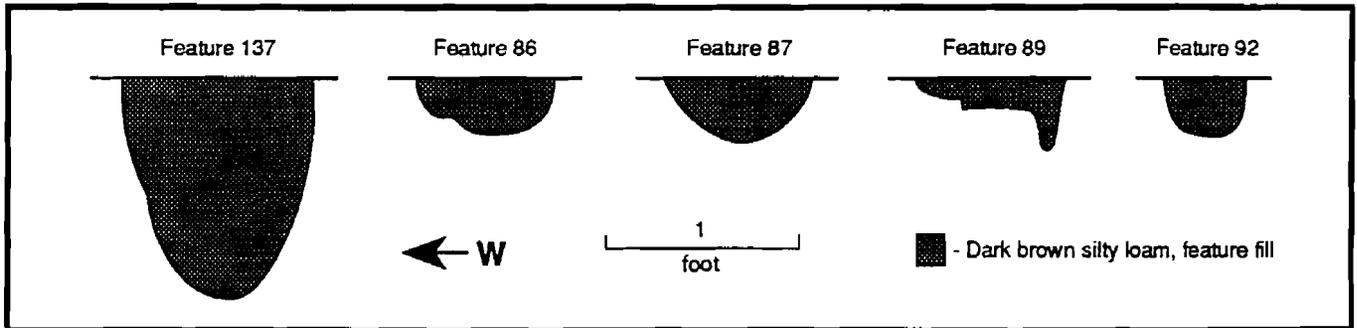
### **Results of Field Investigations**

Phase III data recovery operations at the Wilson-Lewis Farm Site consisted of identifying and excavating all cultural features within the limits of the site determined by Phase II testing. Features were located by the mechanical removal of the plow zone over the entire site. No additional plow zone units were excavated due to the very low artifact densities found by the Phase II survey. With typically less than 30 artifacts per Phase II test unit, it was determined that any additional plow zone sampling would not yield significant additional data. Phase III operations thus concentrated on the recovery of data from features and intact subsoil deposits. A total of 183 features was identified and tested by data recovery operations at the Wilson-Lewis Farm Site (Attachment III). Of these 183 features, 22 features were determined to be non-cultural. The remaining 161 features were the primary archaeological evidence of the Wilson-Lewis Farm Site (Appendix VI). The relatively small number of features reflects both the ephemeral nature of the site and the high degree of recent historical disturbance.

Wilson-Lewis Tenant House. The primary locus of domestic activity at the site was the Wilson-Lewis tenant house. The house was located near the center of the site (Attachment III). In 1860, the one-story frame house was tenanted by William Ennis. The primary evidence for the house are 59 post holes and foundation-related stains (Appendix VI). No evidence of an excavated foundation was located and the core of the structure appears to have been laid on earthfast wooden sills. Very few brick fragments were recovered anywhere on the site making it unlikely that the house or any of the other structures were laid upon brick piers.

The core of the house is approximately 20 feet square. Herman (1987a) suggests that a one story structure of this size would probably have been divided into two eight-foot square rooms separated by a four-foot wide passage. The house core was defined by the presence of centrally located interior features (Features 135-139, 176) and by later, post-supported additions added to the north and east facades (Attachment III). As many as three additions appear to have been added to the house core, after the site had been occupied. These features were more than three times as likely to contain artifacts than

FIGURE 82  
Wilson-Lewis Farm Site - Post Profiles



the core area post features (Attachment III; Appendix VI), which suggests they were built sometime after the house as artifacts had accumulated in the yard. No stratigraphic evidence of the construction sequence of the house was located.

The features associated with the 20-foot square house core are primarily shallow support posts, probably representing interior room divisions. No distinct linear alignments, however, were found. Feature 137 was the largest of post features (Figure 82). These interior posts also tended to be poorly preserved. With the exception of Feature 137, which extended to 1.2 feet below subsoil, all of the house interior features were less than 0.5 feet in depth. No evidence of excavated root cellars, nor a stove or hearth base were located. The interior features are concentrated in the center of the core area at S90 E40. The presence of slight charcoal flecking in all of the features, however, suggests the presence of a stove. The poor preservation of interior features and the almost complete lack of any artifacts precludes any further conclusions about the internal architecture of the house core.

Surrounding the 20-foot square house core are as many as three post-in-ground additions. The additions were constructed along both the north and east walls of the house. Both facades would have been oriented to the backyard of the house and are on the least visible sides from Lewis Drive, approximately 40 feet to the west. Archaeological evidence indicates that all three additions were added to the core over a relatively short time following initial construction. All three additions were built with hole-set posts. No evidence of the construction sequence of the three additions was found.

The largest addition, a possible shed, was built along the eastern two-thirds of the house (Attachment III). The addition was 8 x 12 feet in size. It was also probably enclosed as it was anchored with eight large hole-set posts (Features 23, 39, 40, 42, 43, and 140-142). The addition seems to have been as relatively short-lived as the rest of the house. No evidence of post repair nor post replacement was seen. Artifacts were found in six of the eight posts that supported the addition (Appendix VI). All of the artifacts recovered were common mid-to-late nineteenth century whiteware, wire nails, and green bottle glass fragments.

The second largest addition, a porch, or another shed addition was built along the entire length of the north wall of the house (Attachment III). The porch was supported by 17 relatively smaller posts (0.45 to 1.85 feet in diameter) and would have measured 6 x 24 feet. These post holes (Features 42-44, 46-49, and 83-92) were relatively shallow and insubstantial. None extended deeper than 1.1 feet into subsoil and most of them went less than 0.4 feet into subsoil. Profiles of typical post holes from addition supports are shown in Figure 82.

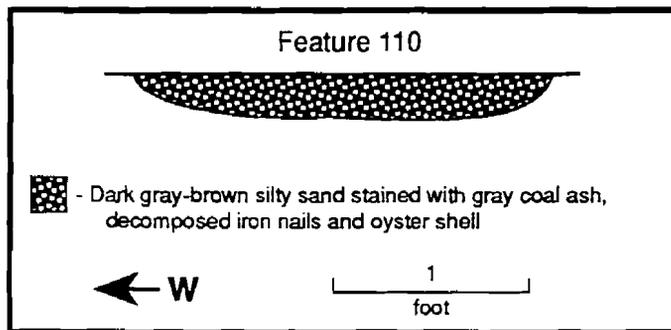
The third addition, probably another shed, was built along the remaining one-third of the east wall of the house (Attachment III). The shed abutted the larger possible northeast shed addition near the midline of the building and was approximately 8 x 10 feet in dimension. This shed probably shared some of the same structural posts (Features 140-142) as the larger addition to the north (Appendix VI). Both of these east wall additions appear to have been erected at roughly the same time as none of the post-related features overlapped, contained different artifacts, or showed any evidence of repair. The third addition was defined by 15 post-related features (Features 140-154). All except six (Features 145, 147, and 151-154) contained artifacts. As with the two other additions, the high percentage of features containing artifacts indicates that this shed was added after the house had been occupied. These artifacts consisted of common mid-to-late nineteenth century whiteware, white granite ware, mold-blown green bottle glass, and window glass fragments. All ceramic artifacts recovered were undecorated body sherds. None had any maker's marks or other distinguishing characteristics. The artifact assemblage from the third addition was nearly identical to that of the other two additions suggesting similar periods of construction. Feature 149, the largest of the post-related features in the third addition, contained one small white clay pipe fragment. This fragment was part of an undecorated bowl probably dating to the second to third quarter of the nineteenth century on the basis of stem angle (Noel-Hume 1978:Figure 97, type #23).

In conclusion, the Wilson-Lewis tenant house was a simple two-bay, one-story dwelling. Three additions, two sheds along the east wall and a porch or shed along the north, were added shortly after the house was built. The three additions were supported by a number of relatively small, shallow posts that contained small amounts of mid-to-late nineteenth century artifacts. No subsurface structural remains of the original core were located indicating that this part of the house was probably set upon simple wooden sills.

Wilson-Lewis Stable. Evidence of only one other structure, a stable, was located by archaeological testing at the Wilson-Lewis Farm Site. The stable was located 10 feet northwest of the house (Attachment III). The stable was oriented to the house and would have been less than 15 feet from Lewis Drive. Tax records described the stable as being in "tolerable repair" in 1860. The archaeological evidence of the stable are 17 post-related features northwest of the house (Attachment III; Appendix VI). The stable was approximately 30 x 15 feet in size. No internal supports or divisions were located, but the size and alignment of these external posts suggest that the stable consisted of two eight-foot bays connected by a narrow passage. Such a design is typical of nineteenth century stables in central Delaware (Herman 1987b:202).

As with all of the other structural features at the site, the stable supports were poorly preserved. The two deepest supports, Features 111 and 102, extended 1.5 feet and 1.2 feet respectively into subsoil (Appendix VI), and were located along the north wall of the stable (Attachment III). All of the other features were much shallower; indeed, most of them extended less than one half of a foot into subsoil. Artifacts were recovered from 13 of the 17 features associated with the stable (Appendix VI). The entire assemblage from these features, however, was small. These artifacts were relatively nondiagnostic wire and cut nails, coal, window glass, whiteware, and white granite ware fragments. The assemblage from the stable was identical to that recovered from the house area features and throughout the plow zone during Phase II testing.

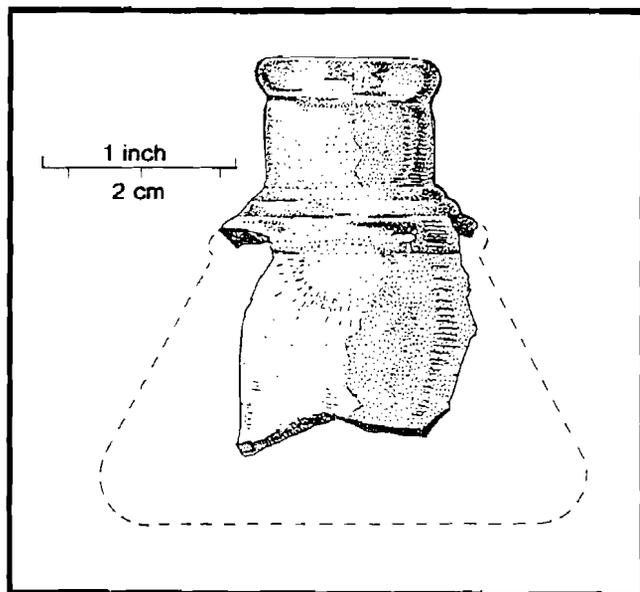
FIGURE 83  
Wilson-Lewis Farm Site -  
Profile of Feature 110  
(Trash Deposit)



One very shallow trash pit (Feature 110) was found near the northwest corner of the stable (Attachment III). This feature, Feature 110, was a shallow 2.3- x 1.3-foot deposit of 29 iron nail fragments, two white metal fragments, two pieces of window glass, three pieces of coal ash, a piece of wood, and three undecorated yellowware bowl fragments (Appendix VI). Feature 110 extended to only 0.2 feet into subsoil (Figure 83). The feature fill consisted of a dark gray-brown silty sand heavily mottled with coal ash, rusting iron nails, and small oyster shell fragments. The very shallow depth of this deposit, however, indicates the degree of plow disturbance over the site.

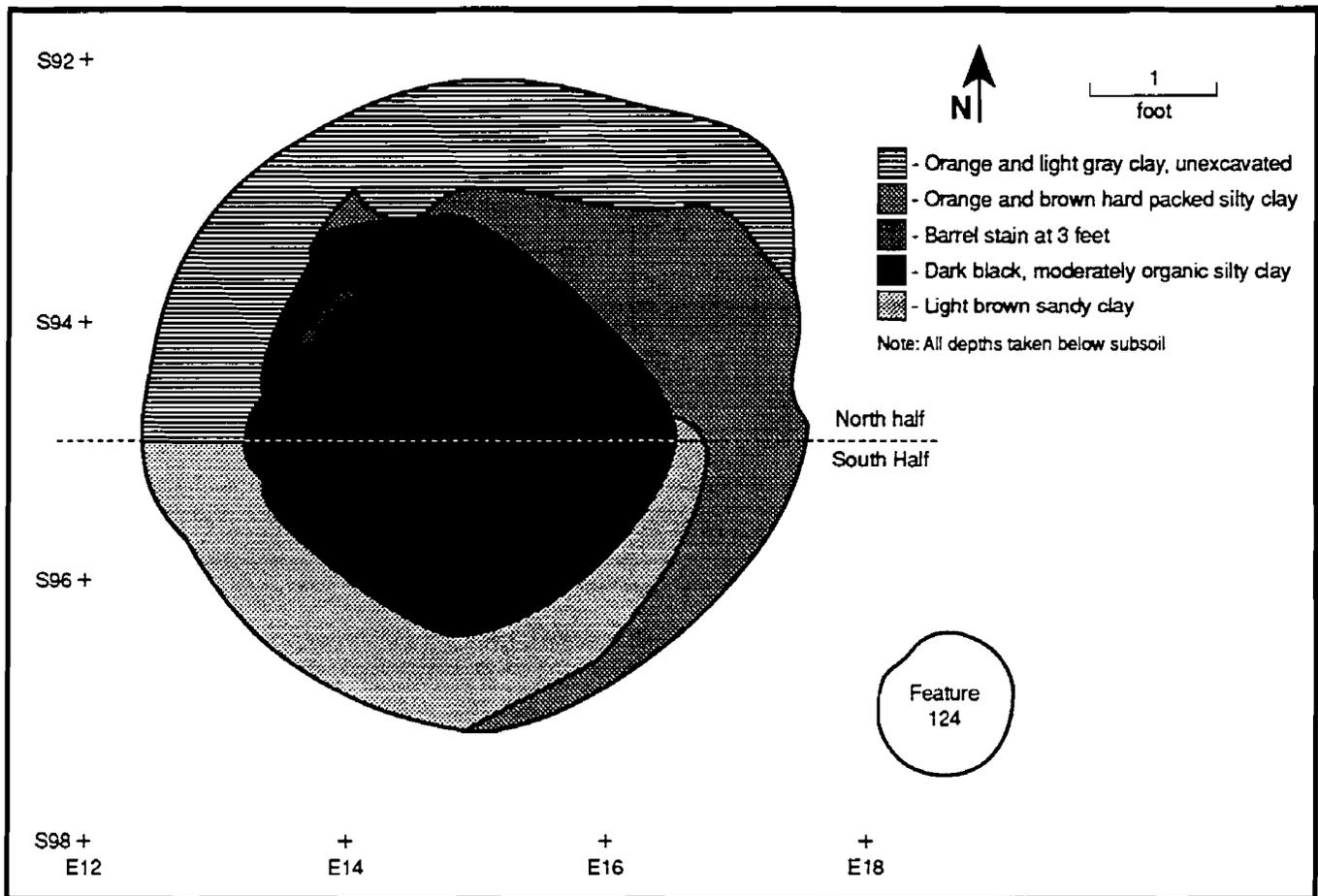
Wells and Associated Features. Two shallow barrel wells, Features 123 and 127 were also located during Phase III operations. These two wells were located in the front yard approximately 25 feet south of the stable and 10 feet west of the house (Attachment III). The wells were located only six feet apart and were both less than 20 feet east of Lewis Drive. Their location in the front yard and proximity to Lewis Drive makes it unlikely that both features were privies although a series of seven post holes around both wells suggests that they were perhaps covered by a single small structure.

FIGURE 84  
Wilson-Lewis Farm Site -  
Mucilage Bottle  
from Feature 123



Based on vessel cross-mends and differences in artifact assemblages, it was determined that the well farthest from the house, Feature 123, was the first well at the site. The second well, Feature 127, clearly postdated the first well and was probably constructed immediately after Feature 123 as fragments of the same brown glass mucilage or paste bottle (Figure 84) were found in the well shaft of Feature 123 and the builder's trench of Feature 127. Thus, Feature 127 postdates Feature 123 and both may have been open simultaneously for a short period while the later well was being dug. The proximity of both wells also suggests that the second well, Feature 127, was dug for some reason other than insufficient or contaminated water. If the first well went dry or was contaminated, it is unlikely that a second well would have been constructed so close by. The first well, Feature 123, was abandoned and the second well constructed sometime after 1869. Sherds of an opal-white glass canning jar lid liner marked "CONSOLIDATED FRUIT JAR COMPANY" was excavated from the well shaft. While the

FIGURE 85  
**Wilson-Lewis Farm Site - Closing Plan View  
of Features 123 (Well) and 124 (Associated Post Mold)**

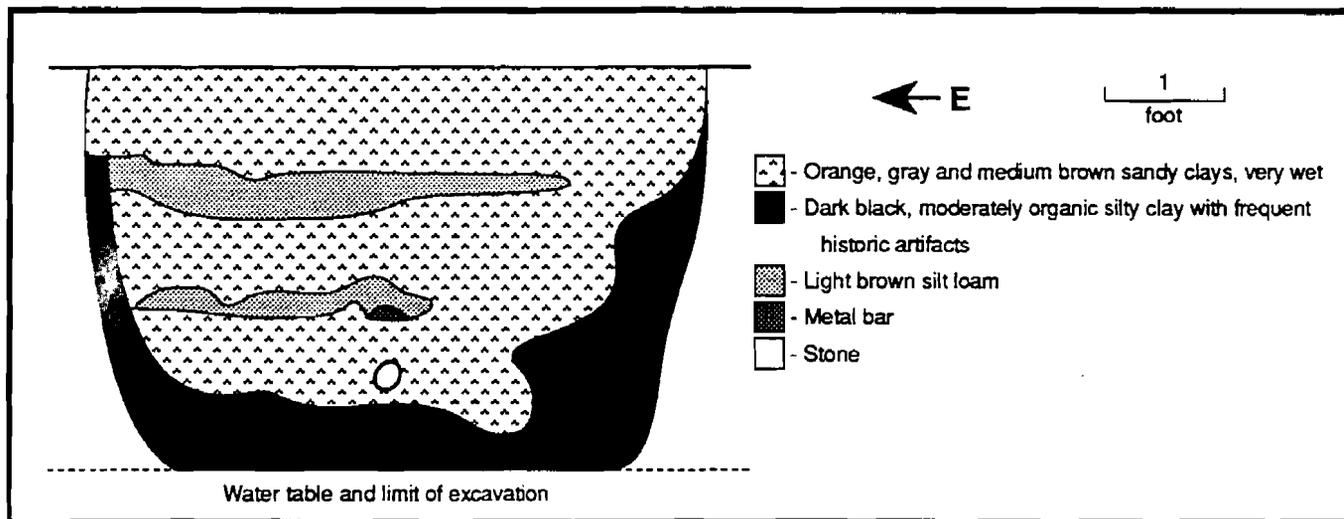


Consolidated Fruit Jar Company was founded in 1867, this type of glass lid liner was not patented until 1869 by Lewis R. Boyd (Toulouse 1971:350). The glass liner was probably made between 1869 and 1885 when the company ceased to manufacture their own fruit jars following a disastrous fire.

Feature 123 was first identified as a 5.0-foot diameter dark, circular stain near S95 E16 (Figure 85). This dark stain was surrounded by a 0.8- to 1.2-foot thick band of various orange, brown and gray clays representing various subsoils displaced during construction of the well shaft. The partial remains of one wooden (3.0- to 4.0-foot diameter) barrel along the outside edge of the center stain was encountered at 3.0 feet below subsoil, indicating that the well was partially barrel lined. This barrel stain appeared in the north half of Feature 123, but did not extend into the south half (Figure 85). The profile of the south half of Feature 123 is shown in Figure 86. The dark black, moderately organic silty clay fill (Level 1) of the well shaft is clearly visible. Except for two thin lenses of a lighter brown silty loam (Level 2), this dark black feature fill extended down to 2.9 feet below subsoil (Figure 86). Upon excavation, the orange, gray, and brown clays (Level 3) of the surrounding well shaft varied considerably although their location with respect to the circular core was consistent.

FIGURE 86

Wilson-Lewis Farm Site - Closing Profile of Feature 123 (Well)



A total of 607 artifacts was recovered from Feature 123 (Appendix VI). Approximately 326 of these artifacts were diagnostic (Appendix VI). Almost all of the artifacts recovered came from the dark core of the well shaft. Very few artifacts were recovered from the surrounding displaced subsoils and all of the artifacts that did come from these contexts came from the interface with the well core. Domestic trash, including 243 tin can fragments and 28 nineteenth century mold-blown aqua bottle and canning jar fragments, accounted for a majority (58%) of the artifacts discovered. Other domestic artifacts found in Feature 123 included one nine-inch diameter cast iron stove plate lid, 11 small unidentified mammal bones, and 38 diagnostic ceramic sherds.

Four minimum ceramic vessels were identified from Feature 123. Two of the vessels were whiteware hollowwares of unknown form. Both vessels were decorated with a light blue glaze and a single black or red stripe along the exterior. The third vessel was a slip-decorated redware, probably a pie plate or other tableware. The fourth vessel was a small white granite ware cup decorated with a light blue glaze similar to that seen on the two whiteware vessels. No ceramic artifacts from any other features cross-mended with these four vessels.

The 151 structurally-related artifacts accounted for 25 percent of all artifacts recovered from Feature 123. The assemblage was comprised primarily of 96 badly eroded wire nails and clear, flat window glass fragments. Only two cut nails were recovered. The predominance of wire rather than cut nails is consistent with the mid-to-late nineteenth century occupation indicated by archival research.

A second well (Feature 127) was similar in construction and feature fill to Feature 123. Both wells were barrel-lined, roughly the same size, and constructed with similar well shafts. The presence of occasional brick fragments in Feature 127 is probably structural debris rather than an indication of any brick lining. Feature 127 was located about five feet southeast of the first well slightly closer to the house and Fenceline A (Attachment III). Feature 127 was first defined as a large, 5.2-foot diameter

FIGURE 87

Wilson-Lewis Farm Site - Plan View of Feature 127 (Well)  
at 2.4 Feet Below Subsoil

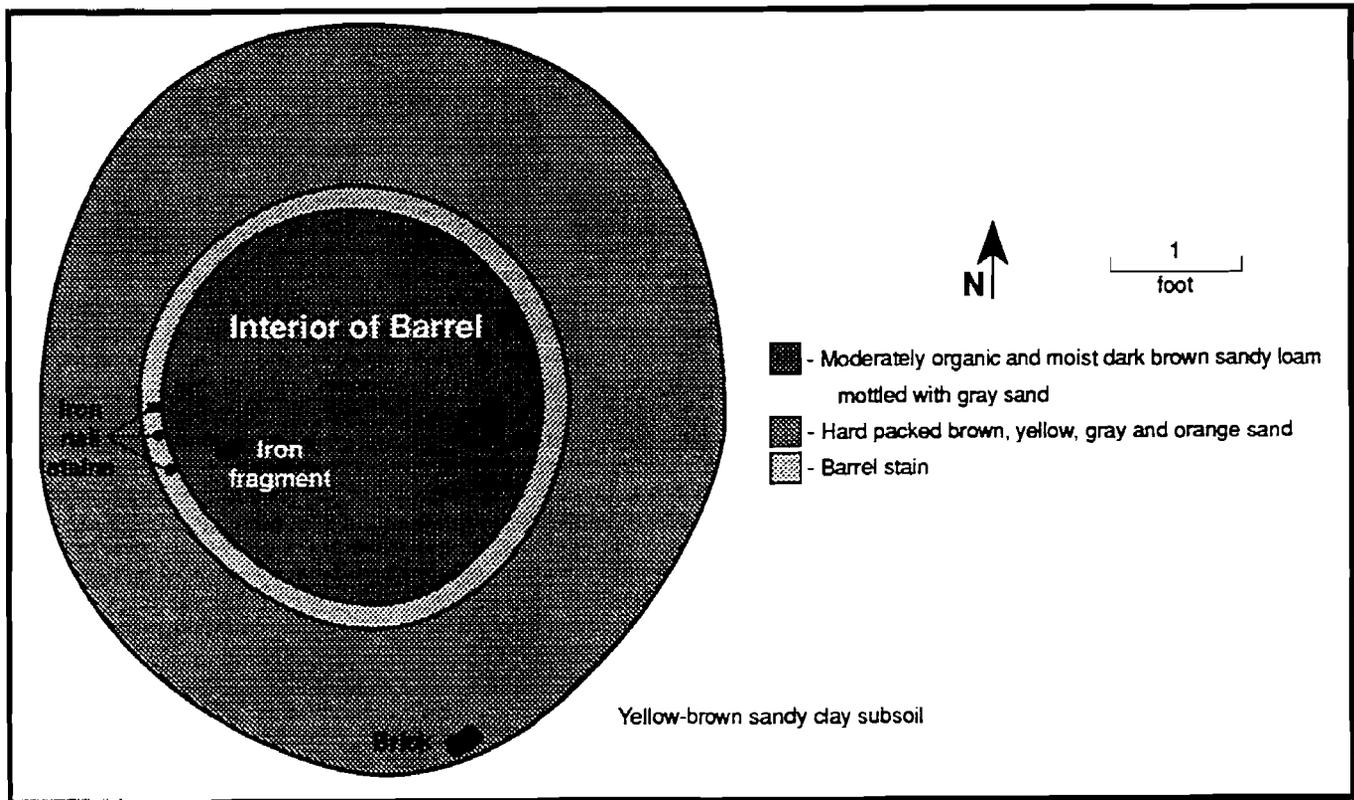


FIGURE 88

Wilson-Lewis Farm Site - Profile of Feature 127 (Well)

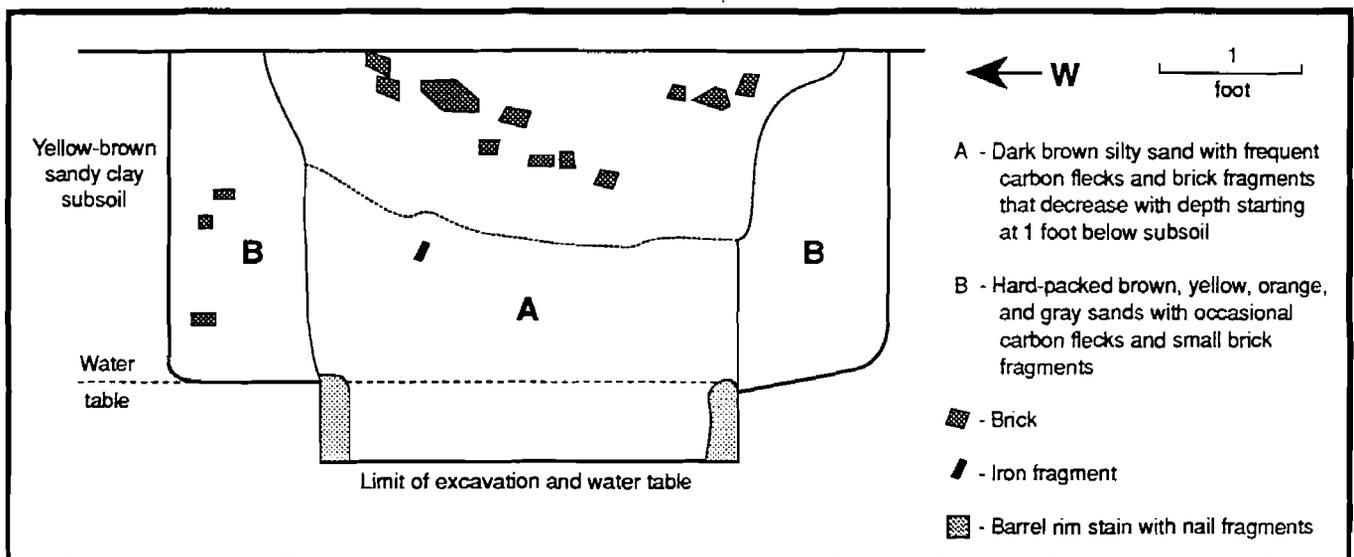
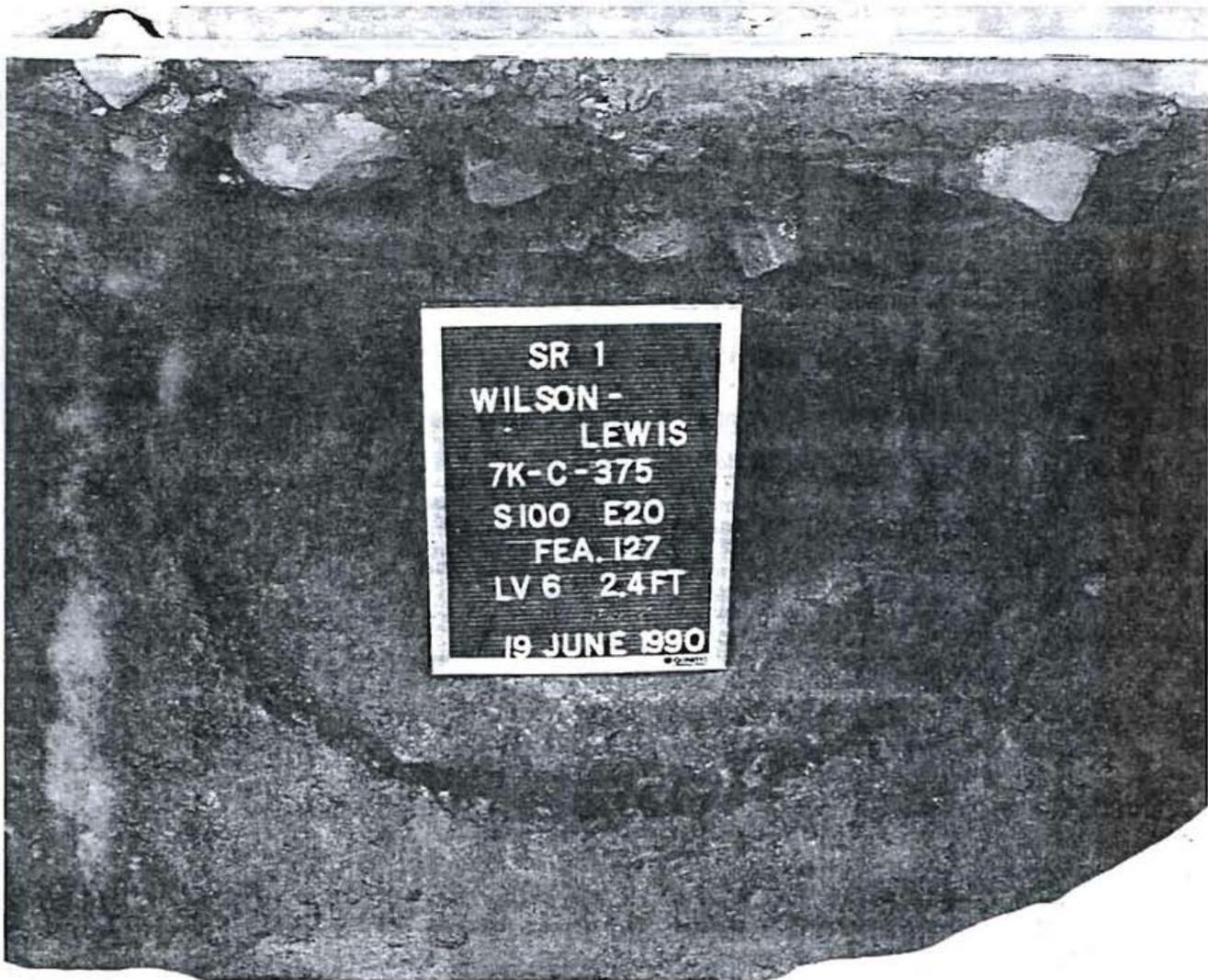


PLATE 33

Wilson-Lewis Farm Site - Feature 127 (Well)



dark circular stain (Figure 87). This stain had been heavily plowed and a single 0.4-foot level was removed over the entire feature to more clearly define its edges. At that depth, two distinct soils nearly identical to those of the other well were found. The two distinct soils correspond to the dark, moderately organic core of the well (Soil A) and a surrounding area of displaced brown, yellow, orange, and gray sand subsoil (Soil B) from the construction of the well shaft. Also visible in the profile are the brick fragments concentrated in the 3.2-foot diameter dark silty sand stain (Figure 88).

Feature 127 was sectioned and the two soils of both halves removed separately. At 2.4 feet below subsoil, the remains of a wooden barrel was encountered (Plate 33). At this depth, the surrounding displaced subsoil of the well shaft ended and the feature narrowed to the 3.0-foot diameter of the barrel (Figure 88). The remains of three nails used to construct the barrel are also visible. Except for the nails, the soil inside the barrel differed only slightly from the soil above it. Feature 127 was excavated to a depth of 3.0 feet below the plow zone where the water table was encountered. Like Feature 123, historical artifacts were concentrated in the soils of the dark central stain. The surrounding displaced

TABLE 21

## Wilson-Lewis Farm Site - Non-Redware Minimum Vessels from Features 123 and 127

Vessel number	Form	Ware	Decoration	Color	Attributed begin date	Attributed end date
<b>FEATURE 123</b>						
45	cup	whiteware	painting	apple green, black, and red	1860	1890
51	cup	white granite	painting	red line around body	1860	1890
35	saucer	whiteware	painting	red lines below rim, apple green and purple flowers	1860	1890
44	plate	whiteware	painting	light blue	1840	1860
<b>Mean Dates</b> -----					<b>1855.00</b>	<b>1882.50</b>
<b>FEATURE 127</b>						
32	cup	whiteware	painting	small red and blue spots from decorating	1830	1900
22	cup	white granite	fluted	plain white, with a light blue tint to the glaze	1845	1900
34	saucer	whiteware	painting	black line below rim	1850	1900
48	teapot	whiteware	painting	chrome, green, and red foliage with black stems	1840	1870
55	plate	white granite	undecorated	plain white	1846	1865
52	hollowware	white granite	molded	plain white	1845	1900
<b>Mean Dates</b> -----					<b>1842.70</b>	<b>1889.20</b>
<b>WELL SHAFT FILL (Features 123 and 127)</b>						
46	cup	bone china	---	unknown	1794	1900
39	cup	whiteware	cut sponge stamped	red, black, green, and mustard yellow floral pattern	1855	1890
25	cup	whiteware	painting	apple green, red, and purple painted floral pattern	1860	1890
24	cup	white granite	molded	plain white	1865	1900
36	cup	white granite	painting	red line parallel to rim	1860	1900
56	saucer	whiteware	---	---	1830	1890
26	bowl	whiteware	dipt	blue bands on white	1845	1900
<b>Mean Dates</b> -----					<b>1844.14</b>	<b>1895.71</b>

subsoils were almost completely culturally sterile except for an occasional brick fragment. Some of the brick fragments in the well shaft are shown in the profile (Figure 88). The presence of brick fragments in these subsoils indicates that Feature 127 was dug after the site had been occupied for a period and brick fragments were available for deposition, thus providing additional evidence that it is the later of the two wells at the Wilson-Lewis Farm Site.

The ceramic assemblage from Feature 127, in fact, clearly identifies it as the more recent of the two wells (Table 21). A minimum of 11 non-redware ceramic vessels were recovered from Feature 127. The small number for each feature, only six for Feature 123 and 11 for Feature 127, should be taken into account. Indeed, the mean ceramic dates by artifact counts of all non-redwares in both features were similarly close: 1865.9 for Feature 123 (N=38) and 1867.9 for Feature 127 (N=92).

TABLE 22

**Wilson-Lewis Farm Site -  
Summary of Floral Remains from the Two Wells**

	Feature 123	Feature 127
<b>Farmland Species</b>		
Pigweed ( <i>Amaranthus</i> )		X
Purslane ( <i>Portulaca</i> )	X	X
Bristlegrass ( <i>Setaria</i> )	X	X
Pokeweed ( <i>Phytolaca</i> )		X
Carpenterweed ( <i>Molluga</i> )	X	X
Copperleaf ( <i>Acalypha</i> )	X	X
Crabgrass ( <i>Digitaria</i> )		X
Flatsedge ( <i>Cyperus</i> )		X
Nightshade ( <i>Solanum</i> )	X	X
Oxalis ( <i>Oxalis</i> )	X	
Stinkgrass ( <i>Eragrostis</i> )	X	
<b>Woodland Species</b>		
Raspberry ( <i>Rubus</i> )	X	X
Blueberry ( <i>Vaccinium</i> )		X
Deerberry ( <i>Vaccinium</i> )		X
Peach ( <i>Prunus</i> )		X
<b>Wetland Species</b>		
Wetgrass ( <i>Panicum</i> )		X

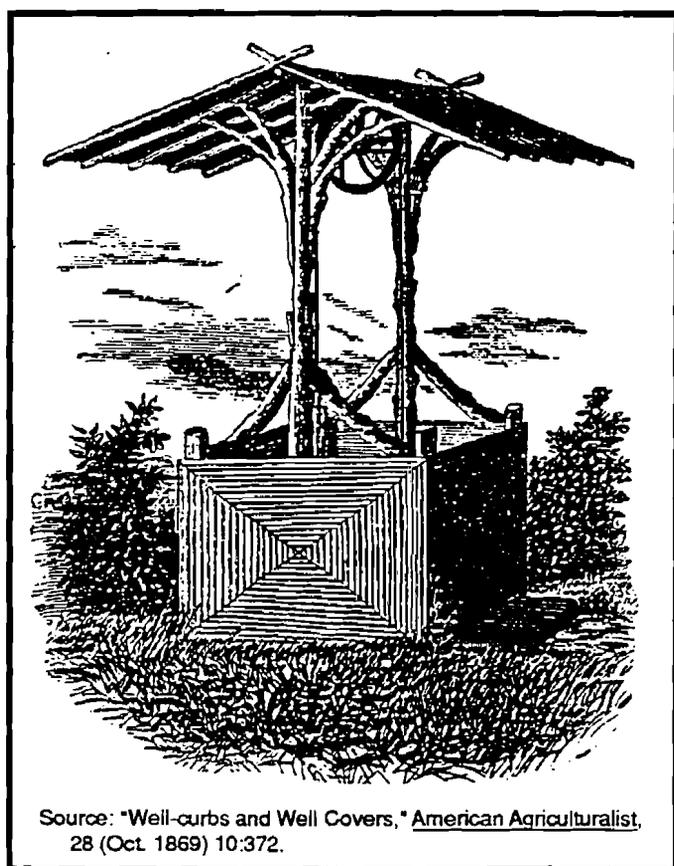
A total of 557 artifacts was recovered from Feature 127. The majority of these artifacts (75%) were structural brick, nail, and window glass fragments. Indeed, the greatest difference between the two wells was the presence of 303 brick fragments in Feature 127. Excluding brick, however, the percentage of artifacts constituted similar percentages of all artifacts for each feature: 20 percent for Feature 127 and 25 percent for Feature 123.

Three major differences in the artifact assemblages of both wells were identified. First, the earlier well (Feature 123) contained more than eight times the domestic artifacts as Feature 127. The bulk of this difference was due to the presence of 243 tin can fragments in Feature 123. It is possible that the higher percentage of domestic artifacts in Feature 123 indicates that it was indeed the earlier well—the feature would have been filled while the site was occupied and more domestic debris was available for deposition. Relying simply on the number of artifacts, however, may be misleading. The second major difference between the two wells was in the frequency of late nineteenth century wares. Nearly twice as many later whitewares and white granite wares were found in Feature 127 than Feature 123. While single fragments of pearlware were found in the plow zone above both wells, only the earlier well contained any slip-decorated redwares, the only other potentially earlier ware.

The third major difference between the two wells was the range of floral species identified in each well. Soil samples were taken from each excavation level of each well (Table 22). While both wells contained floral remains from identical environments, Feature 123 consistently contained only half the number of individual species as the later well, Feature 127. This difference indicates that the earlier well was open for a much shorter period of time than the later well. The range of woodland, farmland, and wetland species in each well were identical and did not vary with depth in the unstratified deposits. Thus, the difference in the number of species between the two wells was not due to environmental factors, but to differences in the length of time each well was open to receive pollen and seeds.

Eleven minimum non-redware ceramic vessels were recovered from Feature 127 (Table 21). Ten of the vessels were various plain and simply decorated whitewares. Six of the whitewares were cups. Three of the cups, Vessels 25, 36, and 45, were decorated with hand-painted floral designs with single red stripes along the rim. Two of the whiteware cups mended with fragments from the largest trash deposit, Vessel 110. The remaining three whitewares were two small saucers, a blue annular bowl, and a blue shell-edged plate. The only non-whiteware refined minimum vessel was an undecorated porcelain teacup. This teacup was the only fragment of porcelain recovered from the Wilson-Lewis Farm Site. Four other minimum vessels, all redwares, were recovered from Feature 127. All of the redware vessels were locally-produced utilitarian redwares. The form and function of only one vessel, a milk pan, could be identified.

FIGURE 89  
"Rustic Well Curb"



Five additional post holes were found associated with the wells (Attachment III). These five features (Features 124, 126 and 131-133) may have supported a structure that probably covered both wells. Such structures were a common feature in the nineteenth century and served to protect from contamination and prevent household accidents (i.e., *American Agriculturalist* 1869:372). Two of the features, Features 124 and 126, are located along the southeast edges of Features 123 and 127 respectively. These two shallow features (0.1 and 0.2 feet below subsoil) are probably the remains of a hoist above each well. A typical nineteenth century well-cover is shown in Figure 89. The remaining three post holes (Features 131-133) suggest a well cover approximately 10 x 12 feet in dimension. A structure of this size would have likely abutted Fenceline A to the south (Attachment III). All three features, however, were very shallow (less 0.25 feet deep) suggesting that the other posts from the building did not survive subsequent plowing. Such well covers, however, have been found on other nineteenth century sites in central Delaware including the Buchanan-Savin Farmstead (Scholl, Hoseth, and Grettler 1994) and the nearby Moore-Taylor Farm Site previously described in this report.

Fencelines. Further evidence of site layout is provided by four major fencelines, Fencelines A-D (Attachment III). The fencelines are oriented to both the stable and house. Fencelines A-D mark important activity areas and boundaries and are summarized in Appendix VI. Three other fencelines, Fencelines E-G, represent later, intrusive twentieth century fencelines constructed after the Wilson-Lewis Farm Site was occupied. Fencelines E-G were identified by their different orientation (Attachment III) and by recent amber beer bottle and wire fragments in the post hole fill. Fencelines E-G are summarized in Appendix VI.

Fenceline A is located 10 feet south of the house and the two wells at approximately S105 (Attachment III). Fenceline A consists of seven simple post holes eight to 10 feet apart (Appendix VI). Fenceline A is oriented east to west and would have formed the southern limit of the yard area of the site. Fenceline B is located approximately 50 feet to the north of Fenceline A, along the northern edge of the stable (Attachment

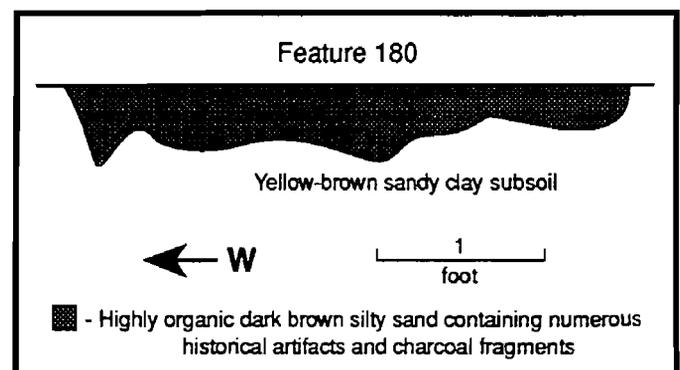
III). This fenceline is oriented east to west at approximately the S55 line. Part of this fenceline was probably attached to the stable along its northern edge. Five post-related features defined Fenceline B (Appendix VI).

One additional east-west fenceline was identified north of Fenceline B near the northern edge of the site. This fenceline, Fenceline C, consisted of nine simple post holes along the S40 line (Attachment III; Appendix VI). One 12-foot gap was found between S42 E28 and S42 E40 was probably the location of a gate or other opening in the fence. The remaining primary fenceline, Fenceline D, connected Fencelines B and C. Fenceline D was oriented north to south along the E60 line and extended from Feature 65 at S56.5 E59.5 north to Feature 116 at S16 E56.5 (Attachment III). This fenceline consisted of 16 simple post holes at eight- to 10-foot intervals (Appendix VI). Indeed, the spacing and method of construction of Fencelines A-D was consistent. The shallow depth of Feature 65, only 0.23 feet below plow zone, is typical of the poor preservation of all post-related features at the site.

Trash Deposits. The structures and four main fencelines define the primary historical activity areas at the Wilson-Lewis Farm Site. Trash deposition patterns in particular were found along the four fencelines. A total of seven small, plow disturbed trash midden deposits was identified by Phase III excavations. All of these features were completely excavated. Unfortunately, less than 0.5 feet of fill survived in each feature, severely limiting the number of historical artifacts recovered. Three areas of casual sheet deposition along the edges of the site were also identified. The most intensive area of deposition was along the northern edge of the site near the stable and Fenceline C (Attachment III). Three small trash deposits were located: Features 78, 110, and 180. The second area of deposition occurred along the eastern edge of the site behind the Wilson-Lewis tenant house (Attachment III). In this location, three very small possible trash deposits (Features 17, 25, and 28) were identified. The third area of casual trash deposition was the southern edge of the site near Lewis Drive. One trash feature, Feature 130, was identified at S129 E16.5.

Despite extremely poor preservation of the seven trash features, a few conclusions about trash disposal patterns and site layout may be made. First, the presence of trash deposits along the northern and eastern edges of the site is consistent with the layout of the site indicated by the presence of structures and fencelines. Casual trash disposal along the edges of house and farm lots is typical of eighteenth and nineteenth century sites in central Delaware. Similar trash disposal patterns have been found at the nearby W. Eager Site (Grettlar et al. 1991a), Buchanan-Savin Farmstead (Scholl, Hoseth, and Grettlar 1994), and Moore-Taylor Farm Site. Second, the seven trash features were probably natural depressions filled with refuse. Not one of the features appear to be an intentionally excavated trash pit as none showed any evidence of excavation. The largest of the features, Feature 180, was an amorphous 5.6- x 3.4-foot deposit of dark brown silty sand extending from 0.2 to 0.5 feet below subsoil (Figure 90). This profile is typical of all six features. The bottom and sides of Feature 180 were highly irregular and showed no evidence of

FIGURE 90  
Wilson-Lewis Farm Site -  
Profile of Feature 180  
(Trash Deposit)



excavation. The feature fill of Feature 180, as with the other two trash deposits, consisted of a single, simple deposit of dark brown silty sand heavily mottled with carbon and some historical artifacts. None of the six features had any internal stratification or any other evidence of reuse or multiple deposits.

The feature fill and artifact assemblage of Features 78, 110, and 180 to the north and Features 17, 25, and 28 to the east were similar. The extremely poor preservation of these features and their shallowness, however, left little feature fill to be recovered archaeologically. A total of 793 artifacts was recovered from Features 78, 110, and 180. Most of these artifacts (95%) were small wood fragments (less than 2 inches long) found in Feature 180. The fragments are probably stove debris as no evidence of a hearth was found. Further evidence of a stove was visible in Feature 78, a small, amorphous stain of small coal fragments 15 feet south of Feature 180.

The small wood and carbon fragments in Feature 180, however, may also relate to the destruction of the Wilson-Lewis Farm Site. Window glass and nail fragments were also recovered, but constituted only eight percent of all artifacts. In addition, all of the nails were heavily corroded. Equally few ceramic and domestic artifacts were found from Feature 180 and all of the other trash deposits. In fact, only six domestically-related artifacts, one undecorated whiteware sherd, two yellowware sherds, two annular whiteware bowl fragments, and a single white clay pipe stem were recovered from all three features. No bone or other domestically-related artifacts were recovered, although the fill of each feature was dark and highly organic.

Features 17, 25, and 28 along the eastern edge of the site behind the tenant house yielded similar densities and types of artifacts. Feature 17, the largest of these three features, was a small, amorphous stain of dark silty sand approximately 4.3 x 2.5 feet in dimension and partially disturbed by an adjacent plow scar. Feature 17 was sectioned and completely excavated. Upon excavation, most of Feature 17 was found to be 0.4 feet deep, although one part of its highly irregular bottom extended to 0.75 feet below subsoil. Feature 17 contained few artifacts: one undecorated whiteware and one local coarse redware sherd and two nails, four brick, and one window glass fragment. Occasional small charcoal and carbon flecks, probably stove ashes, were seen throughout the feature fill.

Additional Features. Evidence of three later, intrusive fencelines were also identified at the Wilson-Lewis Farm Site. These three fencelines, Fencelines E-G are not oriented to the Wilson-Lewis house and stable and were erected in the early twentieth century after the tenant farm had been abandoned (Attachment III; Appendix VI). The later construction of these fencelines is indicated by their unusual orientation. Four simple post holes (Features 2-4, and 14) comprise Fencelines E (Attachment III). Fenceline E is the northernmost of the three later fences, and is located east of Fencelines B, C, and D. Fencelines F and G are located near the southern edge of the site approximately 35 feet southeast of the tenant house. Features 160, 161, and 177 comprise Fenceline F and Features 36, 38, 160, and 178 comprise Fenceline G. All of these features, except Feature 38, are the poorly preserved remains of simple post holes generally extending less than 0.5 feet into subsoil. Feature 38 was a post hole disturbed by the remains of a tree probably used to anchor the eastern end of Fenceline G. As with the other fencelines at the Wilson-Lewis Farm Site, relatively few of the features of Fencelines E-G contained any artifacts. One small piece of undecorated whiteware was found in Feature 160 at the intersection of Fencelines F and G near S140 E50.

The presence of two large tree stains (Features 167 and 119) along the northern edge of the site confirm the use of this area as one of casual sheet midden deposition. Feature 167 is approximately eight feet north of Fenceline C and Feature 119 approximately 10 feet north of the northern terminus of Fenceline D (Attachment III). Both features consisted of large, heavily mottled stains. Both features were sectioned and determined to be the remains of trees at least 3.0 feet in diameter. The location of Feature 167 near a 10-foot gap in Fenceline C suggests that this tree stood immediately north of a gate. No evidence of a gate, however, was seen in either Feature 100 or Feature 58, the two nearest fenceposts in Fenceline C.

No evidence of a privy was encountered during Phase II or III investigations. Significantly, the corn crib described in the 1860 tax list also was not located by archaeological testing. Corn cribs are notoriously ephemeral structures in central Delaware. Cribs were commonly constructed upon simple wooden blocks. Only rarely were subsurface supports or foundations used. Thus, it is not surprising that no evidence of this structure has survived the extensive plowing at the site. Herman (1987b:62) notes that nearly 80 percent of all early nineteenth century farms in central Delaware were improved with corn cribs. Few of these "corn houses," as they were known, survive today because of their ephemeral construction.

### **Artifact Analyses**

The total artifact assemblage of the Wilson-Lewis Farm Site was analyzed to provide additional information on the site and its occupants. Overall, the artifact assemblage from the site was meager. Excluding brick fragments, only 5,145 artifacts were recovered from Phase III testing. Because of the low number of overall artifacts, the 2,250 artifacts recovered from Phase I and II testing will also be considered in this discussion. The paucity of artifacts at the site was probably due to two factors. First, there was a high degree of mechanical disturbance and overall poor preservation of features and cultural materials at the site. Second, the relative poverty of the tenants occupying the site suggests that the original artifact assemblage was small.

The relative poverty of the Wilson-Lewis tenants, however, suggests several important questions about tenant life in central Delaware that artifact analyses could begin to answer. Three of these questions guided artifact analyses at the Wilson-Lewis Farm Site. First, does the artifact assemblage correspond to the relative poverty of the occupants indicated by archival records? Second, do the types and frequencies of different artifacts indicate any tenant- versus owner-occupied patterns? Finally, if significant differences can be found between the assemblages of owner- versus tenant-occupied sites, are these differences due to simple differences in wealth or to other factors, such as ethnicity?

A total of 57,204 mid-to-late nineteenth and early twentieth century artifacts was recovered from all phases of archaeological investigation at the Wilson-Lewis Farm Site. Almost 90 percent of these artifacts (49,809 items), however, were very small brick fragments. Despite these high numbers, all of these brick fragments weighed approximately one hundred and 50 pounds, the equivalent of less than 50 whole bricks, assuming a whole brick weighed approximately 3.5 pounds. Of the total 6,183 non-brick artifacts recovered from all phases of excavation, historical ceramic artifacts and other domestically-related artifacts comprised one-quarter (25%, N=1,556) of the total assemblage. Architecturally-related artifacts, primarily window glass and heavily corroded wire nails, comprised the remaining three-quarters of all non-brick artifacts.

Ceramic Assemblage. Because the Wilson-Lewis Farm Site was occupied for a relatively short time period, some of the contexts offer better dates for the ceramics than the ceramics do for the site. The sherds from this site came from a minimum of 55 different ceramic vessels. This minimal vessel count indicates that, at the very least, there were between 1.5 and 1.8 vessels discarded per year of the site's occupation. Given that 25 percent of the plow zone and all of the features were excavated as well as sherds collected from the mechanical stripping of the site, it is a safe assumption that the minimal vessel count probably represents more than 25 percent of the vessels discarded at this site. While the excavations have not recovered all of the vessels that would have been broken at the site, the sample is large enough to draw some meaningful conclusions as to the consumption patterns of those occupying the site.

Many of the vessels are represented by a single sherd which limits our ability to make an estimate of the vessel population using the "Fish and Sherds" model (Miller and Moodey 1986). Given that almost all of the vessels are less than five percent extant, it would appear that garbage was carted away from the house. While the recovered sample probably represents at least 25 percent of the vessels from the occupation area of the site, the off-site disposal of garbage would mean that the sample is probably a smaller proportion of what was broken and discarded by the occupants of the site.

Despite these unknowns, the sample appears to be large enough to be representative of the population of broken vessels, and nothing has been found to suggest any skewing of the recovered sample. The mean beginning and end dates for the 55 vessels is 1840 to 1894 (Table 23). Twenty-six of the 55 vessels were teawares which can be more tightly dated. Beginning mean and end dates for the teawares are 1847 and 1894 which is closer to the occupation dates of the site derived from archival research. These dates suggest an even distribution of the ceramic artifacts from all periods of the site's occupation.

The small number of ceramic artifacts and other household garbage from the Wilson-Lewis Farm Site may have resulted from two factors. First, the tenants may have chosen not to invest in numerous ceramics. Second, the tenants may have disposed of their garbage off-site. The vessels from the fill of the two barrel wells (Features 123 and 127) and the small possible trash pit (Feature 110) were less than five percent extant suggesting that they were secondary rather than primary deposits. Under these circumstances, there probably was a significant proportion of the vessels used and broken at this site that are not represented in the archaeological sample. The minimal amount of garbage found in the fill from the wells suggests that the occupants had some sense of the possible health consequences of depositing household debris near the house and in locations where it could affect the quality of their water supply. The water table is within a few feet of the surface at the site. Whether the dumping is the result of a personal esthetic towards neatness (Gretler 1990), or concern for water quality is a difficult question to answer from a single site. The question, however, can be considered as more small farm sites are excavated.

Sorting ceramic artifacts into functional categories is problematic because there were glass vessels that served some of the same functions as ceramic vessels. In addition, by the second half of the nineteenth century, the production of glass containers had greatly expanded. This leaves the question of whether or not to count commercial containers as storage vessels. Glass containers from the site are represented by

TABLE 23

## Wilson-Lewis Farm Site - Ceramic Minimum Vessels

Vessel number	Form	Ware	Decoration	Color	Attributed begin date	Attributed end date
W-T-1	milk pan	American salt-glazed	painted	blue on gray	1775	1900
W-T-2	jug	American salt-glazed	undecorated	brown alban slip inside	1805	1900
W-T-3	churn	American salt-glazed	painted	cobalt blue painted, brown alban slip inside	1805	1900
W-T-4	bowl	yellowware	annular bands	white lines	1830	1940
W-T-5	bowl	yellowware	fluted	yellow	1830	1940
W-T-6	milk pan	redware	undecorated	brown	1832	1900
W-T-7	hollowware	redware	undecorated	brown	1832	1900
W-T-8	milk pan	redware	undecorated	brown	1832	1900
W-T-9	pitcher	redware		white slip interior	1832	1900
W-T-10	crock	redware	undecorated	brown	1832	1900
W-T-11	hollowware	redware, refined	undecorated	white slip	1832	1900
W-T-12	crock	redware	incised design	brown	1832	1900
W-T-13	bowl	redware	undecorated	brown	1832	1900
W-T-14	milk pan	redware	undecorated	brown	1832	1900
W-T-15	plate	whiteware	unscaloped, shell edge	blue edge	1841	1857
W-T-16	plate	whiteware	unscaloped, shell edge	blue edge	1841	1857
W-T-17	plate	whiteware	unscaloped, shell edge	blue edge	1841	1857
W-T-18	bowl	whiteware	dipt	olive-green lines below rim; blue band around the body	1845	1900
W-T-19	saucer	white granite	painted	chrome, red, and green floral motif	1845	1880
W-T-22	cup	white granite	fluted	white; light blue tint	1845	1900
W-T-23	cup	white granite	fluted	white; light blue tint	1845	1900
W-T-24	cup	white granite	molded	plain white	1865	1900
W-T-25	cup	whiteware	painted	apple green, red, and purple floral motif	1860	1890
W-T-26	bowl	whiteware	dipt	blue lines on white	1845	1900
W-T-27	saucer	whiteware	painted	probably painted	1840	1880
W-T-28	plate	white granite	undecorated	plain white	1845	1900
W-T-29	saucer	whiteware		probably painted	1830	1900
W-T-30	cup	whiteware	painted	red line below rim; blue area below	1830	1900
W-T-31	cup	whiteware		white	1830	1900
W-T-32	cup	whiteware	painted	small red and blue spots from painting	1830	1900
W-T-33	saucer	whiteware	painted	red line below rim; probably polychrome	1860	1890
W-T-34	saucer	whiteware	painted	black line below rim	1850	1900
W-T-35	saucer	whiteware	painted	red lines below rim; apple green and purple flowers	1860	1890
W-T-36	cup	white granite	painted	red line below rim	1860	1900
W-T-37	cup	white granite	undecorated	white	1845	1900
W-T-38	basin	whiteware	undecorated	white	1820	1900
W-T-39	cup	whiteware	cut sponge stamped	red, black, green, and mustard yellow floral pattern	1855	1890
W-T-40	cup	white granite	undecorated	white	1845	1900
W-T-41	cup	white granite	molded	blue tinted glaze	1845	1900
W-T-42	plate	white granite	undecorated	plain white	1845	1900
W-T-43	saucer	whiteware	cut sponge stamped	red line below rim; green floral sponge pattern	1855	1890
W-T-44	plate	whiteware	printed	light blue	1840	1860
W-T-45	cup	whiteware	painted	apple green, black, and red	1860	1890
W-T-46	cup	bone china		unknown	1794	1900
W-T-47	hollowware	whiteware	dipt	annular brown lines on grey bands	1830	1860
W-T-48	teapot	whiteware	painted	red foliage with black stems	1840	1870
W-T-49	saucer	whiteware	printed	light blue	1870	1900
W-T-50	muffin plate	whiteware	printed	green	1870	1900
W-T-51	cup	white granite	painted	red line below rim	1860	1890
W-T-52	hollowware	white granite	molded	white	1845	1900
W-T-53	chamber pot	yellowware	dipt	possible blue banding	1840	1930
W-T-54	teapot	redware	undecorated	black glaze	1760	1950
W-T-55	plate	white granite	undecorated	white	1846	1865
W-T-56	saucer	whiteware		—	1830	1890
W-T-57	crock	redware	undecorated	brown	1832	1900

TABLE 24

## Wilson-Lewis Farm Site - Summary of Vessel Functions

	Ceramic Vessels	Glass Vessels	Percentage of Ceramics	Percentage of All Vessels
teawares	26		47.27	44.07
tablewares	8	2	14.55	16.95
kitchenwares	9		16.36	15.25
toilet wares	2		3.64	3.39
dairy wares	5		9.09	8.47
storage	4	2	7.27	10.17
unknown	1		1.82	1.69
	<hr/> 55	<hr/> 4	<hr/> 100.00	<hr/> 100.00

a tumbler, a milk glass vessel, and two canning jars. Clearly the sample is rather small, but it is large enough to affect the percentages of the functional types (Table 24). In addition there were glass sherds to at least eight bottles including medicines, liquor, and gummage or ink.

Dairy wares included four milk pans and a churn. William Ennis, the one known tenant of the site, was assessed in 1860 for three cows, four calves and a yearling. The dairying wares suggest that butter and possibly cheese were made to sell at a local country store. Two of the milk pans are lead-glazed redware, while the other two and the churn are salt-glazed stoneware. Milk pans are broad shallow bowls in which the milk, warm from the cow's udder is allowed to sit so that the cream could float to the top for skimming. Redware milk pans are generally only glazed on the inside surface so that the porous body of the pan can soak up water which will cool the milk as the water evaporates. Letting milk soak in a lead-glazed pan is a health problem. Because milk is slightly acidic it will dissolve any lead that is not chemically bound with the glaze. Thus, the milk and cream that had been separated in a lead-glazed milk pan had a potential for exposing the consumer to small doses of lead that can accumulate in the body.

Three of the four storage crocks from the site also were lead-glazed redwares. If these were used to pickle anything with vinegar, then the lead would have been dissolved and ingested by those eating the pickled food. The potential for lead poisoning of the occupants of this site would have been fairly good. Knowledge of the problem with lead glazes existed from 1774 when Dr. Thomas Percival published an article "Observations and Experiments on the Poison of Lead" (Finer and Savage 1965:153). Obviously, Percival's article did not have a major impact as lead-glazed redware milk pans and canning crocks were clearly being used well into the second half of the nineteenth century.

Comparison of the tea, table and toilet wares as sub-assemblages provides an insight into the consumption patterns of the occupants of the Wilson-Lewis Farm Site. Most of these vessels were refined English whitewares. Minor types in this assemblage include an English redware teapot, and a couple of American yellowware bowls. Ongoing research into the market basket of ceramics typically available at country stores from 1780 to 1900 provides some assemblages for comparison to the Wilson-Lewis wares (Miller 1991). The market basket research compiles assemblages from invoices for ceramics sold to country stores. Ceramics sold to a store in Gettysburg, Pennsylvania for the years 1856, 1857, and 1858 provide a base for comparing the ceramic sub-assemblage from the Wilson-Lewis Farm Site (Table 25). From this breakdown, it can be seen that proportions of teawares in all four of the assemblages are fairly close. However, tableware proportions from the Wilson-Lewis Farm Site are rather low. Ratios of tea to tableware make the point even more clear (Table 26). One could assume the differences are due to the small size of the sample from the Wilson-Lewis Farm Site and thus are not meaningful.

TABLE 25

Tea, Table, Kitchen, and Toilet Wares from Wilson-Lewis Farm Site  
Compared to Country Store Assemblages

	Vessels	Teaware	Tableware	Kitchenware	Toilet Ware	Total
<b>Gettysburg</b>						
1856	2,463	63.5	26.7	6.0	3.8	100.00
1857	4,344	54.8	33.5	7.7	4.0	100.00
1858	6,725	53.1	38.3	6.1	2.4	99.9
<b>Wilson-Lewis</b>	45	57.8	17.8	20.0	4.4	100.00

TABLE 26

Ratio of Tea to Table Wares Comparing Wilson-Lewis Farm Site  
Assemblage to Country Store Assemblages

	Tableware	Teaware
<b>Gettysburg</b>		
1856	1	to 2.4 vessels
1857	1	to 1.6 vessels
1858	1	to 1.4 vessels
<b>H. Wilson-Lewis</b>	1	to 3.25 vessels

TABLE 27

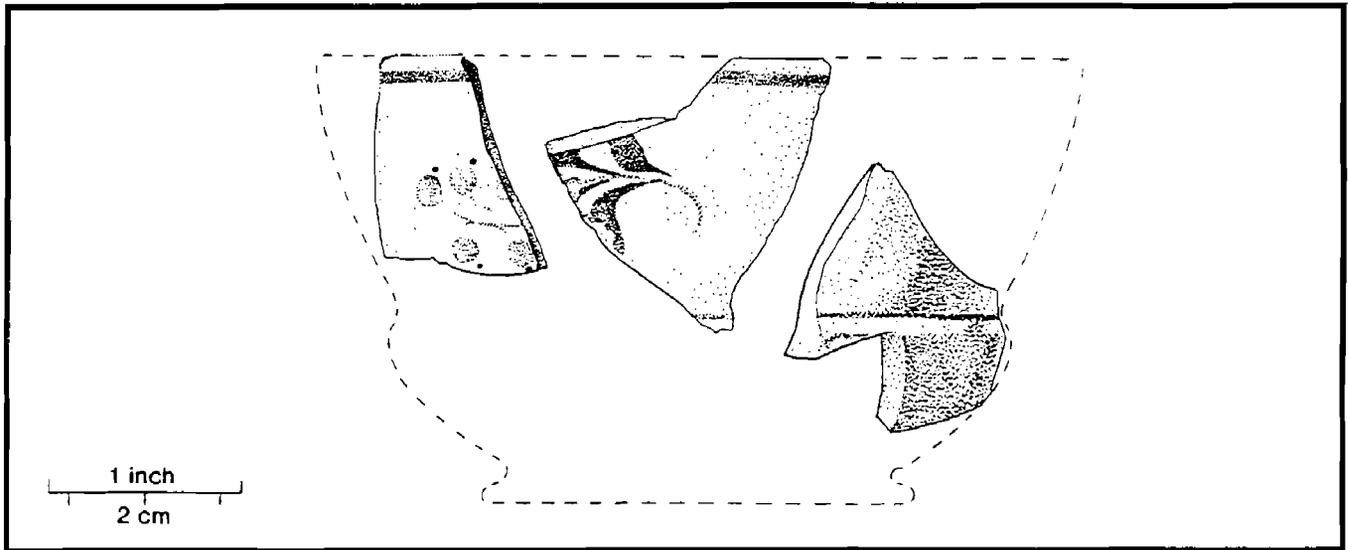
Wilson-Lewis Farm Site - Mean Beginning and End Dates  
for Tea, Table, and Kitchen Wares

	Number	Beginning Date	End Date
Tea	26	1847	1894
Table	8	1846	1874
Kitchen	9	1835	1900
Historical Dates		1852-9	1889

However, there is another piece of evidence coming from the dating of the tea, table, and kitchen wares that suggests a reason for the differences for the high ratio of tea to tableware in the Wilson-Lewis Farm Site assemblage.

Using Stanley South's mean ceramic date formula, the mean beginning and end dates were calculated for the tea, table and kitchen ware (Table 27). Again, the sample size makes the calculations problematic; however, the mean end date for the tableware is 15 years short for the end date of the site's occupation, whereas the end date for the teaware is five years after the site's occupation. The low ratio of plates to teaware and the fact that the plates date earlier suggest a switch to enameled metal plates during the later occupation of the site. Commercial production of enameled metal wares began in the late 1860s (Keene 1982:296). A switch to metal plates in the later period of the occupation could account for the low ratio of plates to teaware and the earlier mean dates for the tableware.

FIGURE 91  
Wilson-Lewis Farm Site -  
Painted Floral Design on Composite Cup



For the most part, the vessels recovered from the Wilson-Lewis Farm Site do not match each other suggesting a pattern of replacement of individual vessels as they broke. This consumption pattern has also been seen at the Moses Tabbs Tenant Farm Site in St. Mary's County, Maryland (Miller 1974). However, there is an exception to the single vessel purchase pattern which is represented by what appears to be the remains of a "set of teas." "Sets of teas" were the most common selling unit which was composed of six matching cups and saucers (Miller 1984:46). Sherds to three cups and two saucers (vessels 25, 33, 35, 45, 51) which appear to be to a "set of teas" were recovered, which would have represented 41.67 percent of that set. It is tempting to extend that number to suggest that the excavation recovered around 40 percent of the vessels from the site, but that suggestion over-extends the available data.

The recovered tea set had a floral painted pattern with green and purple foliage and red rim lines (Figure 91). The cups and saucers are in a double curve shape which was introduced in the 1830s and remained popular into the 1880s. The saucer represented by Vessel 35 has part of the base extant which shows a cup well ring. This is a feature that first appeared on saucers around 1860. The saucer also has a wide flat footring which could mean that it was thrown on a mechanical jolly. Some pottery manufacturers attempted to introduce the jigger and jolly into the Staffordshire around 1845; however, the unions kept it out until the early 1860s. Given this evidence, it would appear that the painted set of teas from the Wilson-Lewis Farm Site was made after 1860. None of the sherds from this set were recovered from the fill of the first well; however, sherds from three of the vessels were recovered from the construction fill around the outside of the barrel in the second well, which was built sometime after 1870. Clearly, the set of teas came into use before the digging of the second well. Cross-mending sherds from Vessel 25, a cup from the set, establish a time link between Feature 110 and the fill of the second well. In summary, the tea set was used before the second well was dug. The tea set was also probably in use through the rest of the site's occupation when some of the sherds from the set became part of the fill of the well. This pattern suggests that at least one tenant family occupied the site for a fairly long period of time.

TABLE 28  
Wilson-Lewis Farm Site -  
Index Values and Prices for Teawares for 1871

	Index Value	Index Year	Price Per Set
cream color teas	1.00	1871	27 cents
painted teas	1.15	1871	31 cents
sponged teas	1.16	1871	31 cents
white granite teas	2.04	1871	55 cents*
bone china teas	2.20	1871	59 cents

\* price from the Montgomery Ward and Company Catalogue.

The cost of painted set of teas would not have been very great. Painted teas were the cheapest type available with decoration throughout the 19th century (Miller 1981, 7&17). Archaeologists use ceramic cost index values to describe the relative cost of different ceramic assemblages. These are known as *CC index values* and were generated by dividing the cost of undecorated creamware (CC) into the cost of the other more expensive wares. Descriptions of these index values can be found in Miller 1980 and 1981. Using the CC index values for the year 1871 along with the ceramic prices in the 1880 Montgomery Ward and Company Catalogue, it was possible to generate the probable price of the teas at the Wilson-Lewis Farm Site which is presented in Table 28. This table lists the cost of a "set teas" consisting six cups and saucers of unhandled teas.

The prices of these wares in a local country store would have been a little higher. However, it is clear that a set of painted teas would have cost less than half a days labor or could have easily been bartered from the country store for products from the farm. Painted sets of teas would have been the cheapest available with decoration (Table 29). The average index value is 1.55. This would amount to an average price of around seven cents per cup and saucer at mail order prices. Again, the price would be a little higher from a country store.

TABLE 29  
Wilson-Lewis Farm Site - Index Values for Teawares

	Number	Index Value	Scale Year	Total
painted	14	1.15	1871	16.10
sponged	2	1.16	1871	2.32
white granite	6	2.04	1871	12.24
printed	1	2.89	1848	2.89
bone china	1	2.20	1871	2.20
<b>Total</b>	<b>24</b>			<b>35.75</b>

TABLE 30  
Wilson-Lewis Farm Site -  
Index Values and Prices for Tablewares for 1871

	Index Value	Index Year	Price Per Set
tin plates	0.56*	---	.31
cream color plates	1.00	1871	.56
shell-edged plates	1.11	1871	.62
printed plates	1.33 (willow)	1870	.74
white granite plates	2.07*	1871	1.15

\* price from the Montgomery Ward and Company Catalogue

TABLE 31  
Wilson-Lewis Farm Site -  
Average Index Values for Plates

	Number	Index Value	Scale Year	Total
shell-edge	3	1.11	1871	3.33
printed	2	1.33 (willow)	1870	2.66
white granite	3	2.07	1871	6.21
<b>Total</b>	<b>8</b>			<b>12.20</b>

The plates have a similar story to tell. In the 1880 Montgomery Ward & Company Catalogue, eight-inch white granite plates were \$1.15 a dozen, while tin plates of the same size were \$.42 per dozen. Using the cream color index values for 1871 generates the prices for the types occurring at the Wilson-Lewis Farm Site (Table 30). The index values for eight plates from the site are broken down in Table 31. Average index value for plates equals 1.525 which comes out to about seven cents a plate at mail order prices. That is the same average price as a cup and saucer. These figures are, however, misleading because there is a good probability that the later occupants of the site used metal plates.

Only five bowls were recovered, two dipt whitewares, two yellowwares, and one redware bowl. The red and yellowware bowls would most likely have had a cream color index value of less than one. Dipt bowls in 1871 had an index value of 1.16. Even if the red and yellowware bowls had an index value of 1.00, the average value of this collection would only be 1.06 which is close to the value of plain cream color ware.

In summary, the cups, saucers, plates and bowls account for 43 of the 55 vessels from the Wilson-Lewis Farm Site or 78.2 percent of the assemblage. The average index values for these wares are 1.55 for teas, 1.53 for plates, and 1.06 for bowls. As stated above, the last two values are probably too high. Given these over-valuations, this site is very similar to most other sites in which the highest index value averages are for teas, followed by plates, with bowls having the lowest average index value.

TABLE 32

## Comparison of Index Values Between Wilson-Lewis Farm Site and Moses Tabbs Tenant Farm Site

	Tabbs Site 1846 Index Values	Wilson-Lewis Farm Site 1871 Index Values
teas	1.48	1.55
plates	1.39	1.53
bowls	1.20	1.06

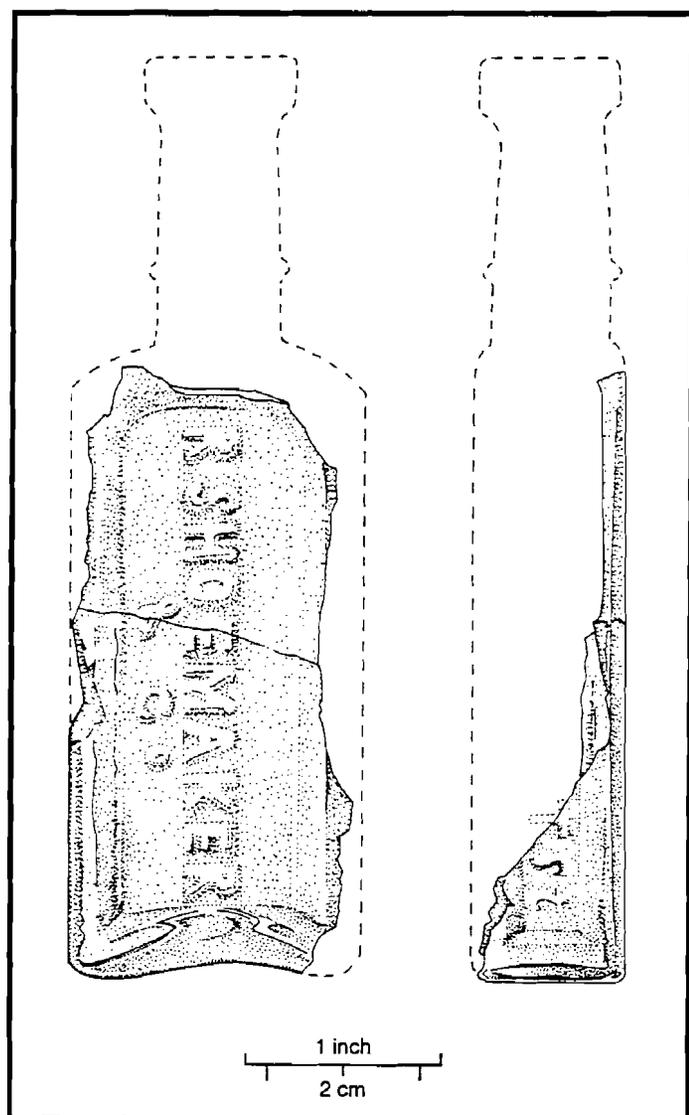
Unfortunately, there are very few sites for which index values have been worked out for the post-Civil War period. This is because new index values for the post 1850 period have just been published in 1991 (Miller 1991). Secondly, the index values published in 1980 placed too high of a value on printed wares for the post 1846 period. Thus, the extensive list of cream color index values published in Adams and Boling's (1991) article "Status and Ceramics for Planters and Slaves on Three Georgia Coastal Plantations" are problematic in that they overstate the 1846 values. The other problem is that there were significant changes in the prices of English ceramics which make the comparison of values from 1846 to 1871 questionable. However, the values for the later context of the Moses Tabbs Tenant Farm Site in St. Mary's City, Maryland have been recalculated for purposes of comparison with the Wilson-Lewis Farm Site ceramic artifacts (Table 32). These figures are very close; however, the price of ceramics continued to fall following the Civil War suggesting that the occupants of the Wilson-Lewis Farm Site probably spent less than the tenants of the Tabbs Purchase Site. Also at the Tabbs Site, the ratio of plates to cups was 18 cups to 19 plates suggesting that they did not use metal plates.

Ceramic artifacts recovered from the Wilson-Lewis Farm Site suggest a pattern of purchasing one vessel at a time which most likely was done to replace vessels as they broke. This pattern could also be generated by frequent changes of tenants occupying the site. The remains of one set of teas, however, suggests that there was some level of stability and that tenants occupied the house for at least 37 years. The ceramics purchased were generally the cheapest available with decoration, with the exception of white granite plates and teas and one bone china cup. From the mean beginning, end, and mean dates for the assemblages of tea and table wares it appears that there was a shift to metal plates part way through the site's occupation. Milk pans and a churn plus the tax lists indicate some level of dairying activities.

The small extant proportion of the recovered vessels indicates that the occupants of the site disposed of some of their garbage off-site. Even when the original well was being filled, it was not used as a trash pit. The water table was very close to the surface at this site, and maybe the occupants of the site realized the potential for contamination of their new well which was only six feet from the old one. The high water table may also account for the lack of any evidence of a privy. The recovery of part of one yellowware chamber pot suggests that they may have relied on chamber pots rather than a privy.

Glass Assemblage. Household bottle, table and jar glass accounted for more than 80 percent (N=661) of all non-ceramic domestic artifacts. Other kinds of household glass included 16 lamp glass fragments, three table glass fragments, three milk glass and decorative glass fragments, and one mirror fragment. Almost all (98%) of the 661 household glass artifacts were clear and aqua bottle glass fragments. Unfortunately, most (82%) of these 593 bottle glass fragments were small, heavily damaged fragments

FIGURE 92  
 Wilson-Lewis Farm Site -  
 "R. Shoemaker & Co"  
 Plate Molded Panel Bottle



from disturbed plow zone contexts. The remaining 104 bottle fragments recovered from feature contexts were equally small and nondiagnostic. The majority of the bottle glass fragments appear to be mold-blown soda, medicine, liquor, and possibly condiment bottles. The small size of the fragments, even from feature contexts, precludes further analysis.

Fragments of at least one panel bottle, however, were identified from plow zone and feature contexts, all small and very poorly preserved. Some of the fragments were embossed with partial letters and only one panel fragment from the well shaft of Feature 127 contained a larger portion of text. This fragment was the front panel of a small, light aqua green medicine bottle. It was embossed with "R. SHOEMAKER & Co." (Figure 92). This bottle may have come from the Wilmington druggist B. and C. Shoemaker who operated a pharmacy at 803 Market Street from 1866 to 1878. While the connection between "R." and "B. and C." Shoemaker is not known, a partial inscription of "...T St." on the side panel of the bottle could be from the Market Street address of the druggist.

One large fragment of a twentieth century colorless glass milk bottle with an embossed seal was located in the plow zone while mechanically stripping the site. This bottle was a half-pint milk or possibly cream bottle from the Lewes Dairy of Lewes, Delaware, located approximately 50 miles to the south. The Lewes Dairy was one of at least three early twentieth century dairies in Lewes. Three large base and panel fragments of this bottle embossed with "LEWES DAIRY, INC/ BUY IT BY THE GALLON" were recovered. This bottle dates

to the first quarter of the twentieth century and represents post-occupational debris deposited along Lewis Drive. A more precise date is impossible because the neck and seal portions, the primary dating features of milk bottles, are missing.

Surprisingly, only eight fragments of colorless and aqua canning jars were recovered from all phases of excavation at the site. Jar fragments thus accounted for less than one percent of all glass artifacts and an even more minuscule portion of all domestically-related artifacts. Other mid-nineteenth to early twentieth century owner- and tenant-occupied sites in central and northern Delaware contained proportionately more canning jar remains. At two other tenant sites, the W. Eager and the Thomas Williams sites, glass jar fragments accounted for four percent and five percent of all bottle, table, and household glass, excluding window glass (Gretler et al. 1991a:172; Catts and Custer 1990:288). Jars accounted for 2.5 percent of all domestic glass at another tenant site in New Castle County, the A. Temple Site and slightly more than one percent at the Buchanan-Savin Farm Site, a owner-occupied farm near Smyrna (Hoseth et al. 1990:218; Scholl, Hoseth, and Gretler 1994).

The low percentage of jar fragments at the Wilson-Lewis Farm Site probably relates to a number of factors. The most important of which is the lack of a large plow zone sample, a feature of the previous four sites. Another factor, however, may relate to the foodways and consumption patterns of the relatively poor tenants living at the Wilson-Lewis Farm Site. The small number of jars may indicate that the occupants preserved little of their own food and relied upon fresh or store-bought and other commercially preserved foods. Given the number of fruit and vegetable crops in the local economy and the number of local canneries (Heite 1990), the tenants of the site may have chosen to purchase, rather than preserve, their own vegetables and fruits.

Architectural Artifacts. Architecturally-related artifacts accounted for 75 percent of the 6,183 non-brick artifacts recovered during archaeological testing at the Wilson-Lewis Farm Site. When brick fragments are considered, the percentage of structurally-related artifacts rises to 95 percent of all artifacts recovered. With the exception of two large carriage bolts and a piece of an iron bar, all of the structurally-related artifacts were small, poorly-preserved brick, nail, and window glass fragments. For example, less than two percent of all nail fragments were diagnostic. These diagnostic nails consisted of 89 cut nails and three wrought nails. Other structural artifacts included small wood fragments, pieces of plastic, and screws.

Floral and Faunal Remains. Floral and faunal food remains accounted for less than one percent of all domestic artifacts. Floral remains were only recovered from the two wells and only 41 total faunal remains were recovered from the entire site. The floral remains recovered from the two wells, Features 123 and 127, consisted of one peach pit and 46 raspberry, blueberry, and deerberry (*Vaccinium*) seeds in the top three levels of these unstratified wells. The 41 total faunal remains included 18 small, unidentifiable oyster shell fragments. Another 18 remains were the only diagnostic remains that could be identified at the species level.

As reflected in the very small sample of bone from the site, faunal preservation was generally very poor. Indeed, all of the diagnostic bone and teeth except for a cow molar and three right femur fragments came from the only two deep features at the site, the two wells. The minimum number of individual analyses of the faunal remains indicated that only one pig, one cow, and sheep or goat could be identified from the collection. The four diagnostic pig remains were lower molars found in one of the wells, Feature 127. These molars probably came from the same animal as they showed similar wear (Amorosi 1989; Grant 1982).

The one minimum cow was represented by two premolars, four lower molars, and three incisors. Three of the molars found came from a cow that was at least two years old. The only diagnostic cow bone found was a small portion of a right femur. This femur fragment came from a plow zone test unit above the first well, Feature 123. This femur was also burnt and had both saw and chop marks on it. These butcher marks were the only such marks found on any of the diagnostic bone fragments found at the site. A minimum of one sheep or goat was also identified from the collection of diagnostic faunal remains. This individual was represented by four fragments of a left radius. No butcher marks were found on any of these artifacts.

No bird or wild species remains except for a few small scales found in the flotation of one well were found at the site. The paucity of faunal remains at the Wilson-Lewis Farm Site reflects the overall poor preservation of the site and casual trash deposition, including likely off-site disposal of some remains. The presence of pig and cow teeth suggests that butchering and primary carcass processing occurred at the site. Moreover, the presence of saw and chop marks on the lower part of the single cow femur also indicates the preparation of coarse beef cuts for soups and stews. These dietary patterns are consistent with the relative poverty of the tenants occupying the site.

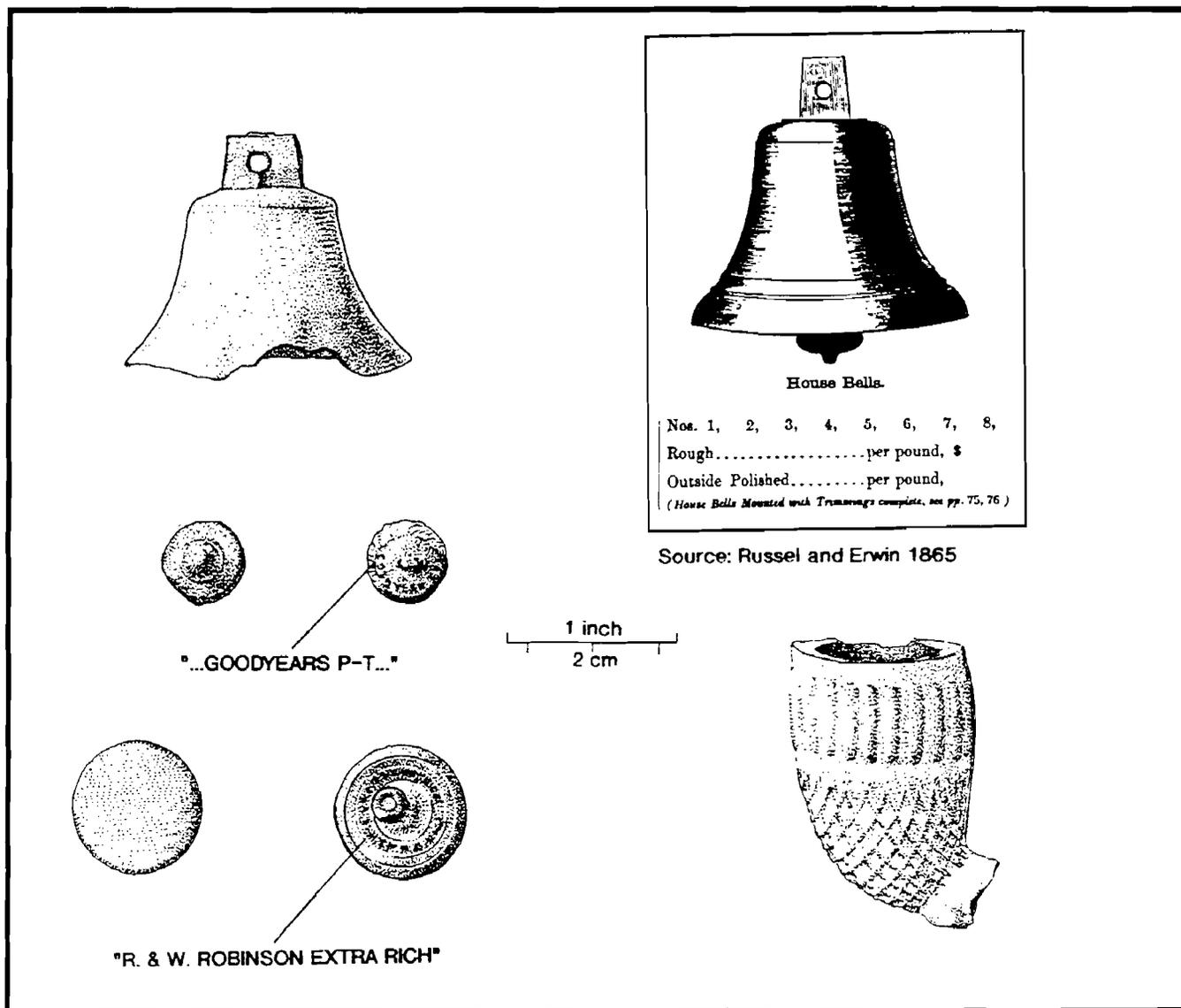
Personal and Tobacco Artifacts. Personal and tobacco-related artifacts comprised less than one percent of all artifacts recovered from all phases of excavation at the site. Personal artifacts consisted of six buttons, one textile fragment, a slate pencil, a copper bell, and a fragment of a ceramic doll's head. One heavily worn, nondiagnostic copper coin, probably a penny, was recovered from the plow zone during mechanical stripping. No other coins were discovered from feature contexts. Tobacco artifacts consisted of 20 small white clay pipe stem and bowl fragments.

Four of the six total buttons came from the plow zone. Two of these four buttons were small white milk glass buttons and the other two buttons were stamped, soldered eye iron buttons. Both of these types of buttons were mass-produced from the mid-nineteenth to the twentieth centuries (McDaniel and Russ 1989:60). The remaining two buttons came from the later well, Feature 127. One of these buttons was a small, hard rubber button with a brass loop shank marked with the partial inscription "Goodyear's T-P...." (Figure 93). This is a very common type of button first produced in 1849-51 (Luscomb 1967:91). The second button was a brass shank button inscribed with "R & W ROBINSON EXTRA RICH" (Figure 93). According to Luscomb's The Collector's Encyclopedia of Buttons, the R & W Robinson company was in business from 1812 until the 1840s (Luscomb 1967:163). The inscription "EXTRA RICH" refers to gold plating, some of which was still visible on the back of the button. The front of the button was decorated with closely spaced stipples designed to imitate more expensive fabric-covered buttons. Buttons were first electroplated in 1843 (Chadwick 1958:633) and were commonly found on men's wool dress or suit coats. The presence of gold plated buttons suggests some level of interest in fashion and status by the inhabitants of the site.

The textile fragment, copper bell, and slate pencil were also recovered from Feature 127. The copper bell was only 5/8-inch in diameter and may have been part of a toy or one of the smaller sizes of "Common Metal House Bells" illustrated in the 1865 Russel and Erwin Manufacturing Company Hardware catalog (Russel and Erwin 1865; Figure 93). The single textile fragment was small and very poorly preserved, but appeared to be a small fragment of a heavy wool twill, possibly from a suit or overcoat.

FIGURE 93

Wilson-Lewis Farm Site -  
Copper Bell, Hard Rubber Button, Brass Shank Button,  
and Pipe Bowl from Feature 127 (Well)



A total of 20 mid-nineteenth century tobacco pipe fragments was recovered from all phases of excavation at the Wilson-Lewis Farm Site. Twelve pipe fragments were recovered from feature contexts: five from Feature 123; four from the other well, Feature 127; and one each from Features 111, 130, and 149. Features 111 and 149 are post holes associated with Fenceline B and the southeast addition of the tenant house respectively. Feature 130 is a trash pit in the southeast edge of the site, near Lewis Drive. Five of the 12 pipe fragments from feature contexts were decorated with ornate molded patterns typical of nineteenth century tobacco pipes (Figure 93).

## Soil Chemical Analysis

The chemical analysis of soils from the site is presented in a series of frequency distribution maps that illustrate both the plow zone and the subsoil chemical distributions (Figures 94-96). There are a number of interesting correlations between the plow zone and subsoil distributions. In general, the distribution of plow zone chemicals varied more than subsoil chemicals. This variation is probably due to mechanical plowing and fertilization that has artificially increased the overall chemical densities of the plow zone.

The impact of recent plowing and fertilization is particularly visible in the differences between the plow zone and subsoil pH densities (Figure 94). The plow zone pH distribution shows much less variation over the site and indicate much less acidity than the underlying subsoils. As Delaware soils tend to be acidic, alkaline plow zone samples indicates extensive agricultural fertilization.

An even more significant correlation between plow zone and subsoil chemical densities was found in the distribution of phosphorus. The phosphorus levels of both the plow zone and the subsoil peak near the stable and Fenceline C along the northern edge of the site (Figure 94). The highest concentrations of phosphorus peak near S30 E10. These high concentrations confirm the use of the stable and indicates additional animal housing in an adjacent pen between the stable and Fenceline C. Fenceline C thus marks the northern limit of the farmyard and the location of an animal pen alongside the stable. One other slight concentration of phosphorus was located southeast of the tenant house along Fenceline A (Figure 94). This concentration at approximately S120 E15 was visible only in the subsoil samples. This slight subsoil concentration suggests that a privy may have been nearby, but this evidence is hardly conclusive. Plow zone densities showed no comparable concentration, but did show a large area of high phosphorus between the road, to the west, and the tenant house. Historical nineteenth century privies are difficult to locate precisely through soil chemical densities because of periodic cleaning. An equally plausible interpretation for this concentration of phosphorus south of the tenant house would have been the casual deposition of human wastes and other "night soil" along the southern edge of the site along Fenceline A. Although most farms in central Delaware had privies by the mid-nineteenth century, some tenant farms on the western shore of Maryland did not have privies until the first decades of the twentieth century (McDaniel 1982).

Phosphorous concentrations are conspicuously absent from the eastern half of the site behind the stable and tenant house. One slight concentration near S110 E90 east of Fenceline A and southeast of the house, however, was identified in the subsoil (Figure 94). This location behind the house would have been an ideal place for a privy and one may have been located here. Similar privy locations have been noted for other local farms, such as the previously discussed Moore-Taylor Farm Site.

High potassium levels generally indicate the presence of wood ash deposited during burning or as stove or fireplace ashes. One very high concentration of potassium was located in the subsoil near the southeast corner of the site near S130 E90 (Figure 95). This concentration is 20 feet south of the probable privy location and about 30 feet southeast of Fenceline A. No corresponding high densities of potassium were seen in the plow zone, although overall subsoil and plow zone densities tended to be higher near the house and stable and along Lewis Drive. The presence of a single very high potassium concentration near the southeast edge of the site suggests the presence of a small trash burning area south of Fenceline A. The less concentrated, but larger, areas of high plow zone and subsoil potassium west of the house and south of the stable indicate the casual deposition of stove ashes over the front yard near Lewis Drive (Figure 95). The use of a stove rather than a fireplace at the site is further indicated by the absence of any high plow zone or subsoil potassium levels within the tenant house (Figure 95).

High calcium concentrations generally indicate the presence of mortar, plaster, lime, and building materials. The distribution of plow zone and subsoil calcium show two distinct areas of high calcium density. The highest levels of subsoil calcium are located at the tenant house at S95 E40 and between the house and the stable near S70 E20 (Figure 95). This high concentration probably indicates the presence of plaster or lime used in the tenant house. Similar associations between calcium-based interior finishes and corresponding subsoil calcium densities has been seen at other nearby tenant sites, most notably the W. Eager Site (7K-C-383 - Grettler et al. 1991a) where calcium densities successfully located the house. The second area of high calcium was in the plow zone along the eastern edge of the site near the E80 line (Figure 95). Calcium densities in this area of the plow zone averaged nearly twice as high as the rest of the site. A similar, though much less pronounced, trend can be seen in the subsoil calcium densities. These consistently high calcium densities along the eastern half of the site are probably due to post-occupational plowing and fertilization.

Magnesium levels in both the plow zone and the subsoil mirror those of calcium (Figure 96). As was the case with calcium, high concentrations of magnesium generally indicate the presence of mortar, cement, bricks, and other structural elements. The lack of any significant concentrations of either calcium or magnesium along both gable ends of the tenant house provide additional evidence that the tenant house did not have a fireplace. Hearths and chimneys in nineteenth century Delaware were typically constructed at least partially of mortared brick—enough usually to be identified by chemical analysis (Catts and Custer 1990:186).

## Summary

The Wilson-Lewis Farm Site was a small tenant farm occupied from ca. 1852-1889. The occupants of the site were relatively poor. Two simple structures were found—a small 20-foot square wooden tenant house and a stable. The house was enlarged with three additions shortly after it was constructed. Two wells, seven small trash deposits, and four nineteenth century fencelines were also excavated. An artist's reconstruction of the Wilson-Lewis Farm Site ca. 1860 showing these major elements appears in Figure 97. No artifact deposits from specific households could be identified. Soil chemical analyses confirmed the location of major structures and identified additional patterns of farmstead layout, activity areas, and trash disposal patterns. Two major activity areas were defined through archaeological features, artifact densities, and soil chemistry (Figure 98). The largest area was an area of concentrated domestic activity surrounding the house and stable. This area contained the highest densities of domestic artifacts, cultural features, and non-phosphorus soil chemical densities. The second activity area was the primary locus of agricultural activity at the site. This area was located north of the stable and included a large animal pen associated with this outbuilding. Artifact densities were lower in this agricultural area, but manure-related phosphorus soil chemical densities were extremely high.

FIGURE 97

Artist's Reconstruction of the Wilson-Lewis Farm Site, Circa 1860

