

INTRA-SITE ANALYSES AND INTERPRETATIONS

The occupation of the Cazier site from 1844 to 1935 was divided into three distinct chronological periods. The first period was the occupation of Henry Cazier's unknown tenants/gatekeepers from circa 1844 to the late nineteenth century. The second occupation was by the Nicholas Stevenson Family from circa 1880 to circa 1910. The final and shortest period of occupation was by Rudolf Stevenson and his family from the late 1920s to 1935. Combining the results of the chemical soil analysis, the plow zone artifact distributions and the mortar analysis with the archaeological and historical evidence, intra-site interpretations about diachronic and synchronic changes at the Cazier site can be determined and are presented in the following pages.

PLATE 23

Semi-Automated Bottles from Feature 32 (Cellar) and
Feature 170 (Privy)



1: #B58, 1870-1920. 2: #B18, 1880-1920. 3: #B75, 1880-1920. 4: #B24, 1880-1900. 5: #B72, 1880-1920.
6: #G25, 1850-1860 (Feature 170). 7: #B76, 1880-1920.

TABLE 21
Summary of Coins

DESCRIPTION	DATE	UNIT / FEATURE
Flying Eagle cent	1857	N80 E45, Level 1, plow zone
Indian Head cent	1863	Feature 32, Unit E, Level 5
Indian Head cent	1864	Feature 32, Unit E, Level 5
Indian Head cent	1864	N70 E125, Level 1, plow zone
Indian Head cent	1864	N95 E115, Level 1, plow zone
Indian Head cent	1864	N65 E125, Level 1, plow zone
Indian Head cent	1865 or 1866	Feature 195, south half, post hole
Indian Head cent	1873	S5 E55, Level 1, plow zone
Indian Head cent	1882	Feature 32, Unit D, disturbed floor area
Wheat cent	1910	N15 E110, Level 1, plow zone
Wheat cent	1911	N55 E110, Level 1, plow zone
Wheat cent	1914	Feature 32, Unit B, Level 2
Liberty Walking half dollar	1918	N65 E125, Level 1, plow zone
Wheat cent	1918	N20 E80, Level 1, plow zone

TABLE 22
Summary of Faunal Remains from Features

SPECIES	MINIMUM NO. OF INDIVIDUALS	BONE COUNT	% OF BONE	GNAWED BONE	CUT BONE
Cow	2	16	2.4%	3	11
Pig	2	87	13.3%	6	6
Sheep	1	2	0.3%	--	--
Opossum	1	1	0.2%	--	--
Cat	2	306	46.8%	--	--
Rabbit	1	3	0.5%	--	--
Squirrel	1	1	0.2%	--	--
Turtle	2 (1 painted)	6	0.9%	--	--
Rat	3	11	1.7%	--	--
Fish	1	1	0.2%	--	--
Canadian goose	1	1	0.2%	--	--
Bird (species unknown)	--	96	14.7%	7	--
Unidentified mammal	--	123	18.8%	--	--
TOTAL	17	654		16	17

SOIL ANALYSIS

Archaeologically derived patterns or concentration of certain soil trace elements can be correlated with the occurrence of particular activities that reflect site usage or human behavior (Sopko 1983:24-30; McManamon 1984; Custer et al. 1986). This analysis shows general patterns of spatial utilization and can also help determine activity areas, particularly when used in conjunction with artifact distribution patterns (Custer and Cunningham 1986; Coleman et al. 1985; Shaffer et al. 1988:132-141). The chemical analyses of the soils from the Cazier site were conducted by the Soils Laboratory of the University of Delaware College of Agriculture.

Relative frequencies of phosphates, calcium, potassium, and soil pH across the site were studied. Phosphate levels were probably the most significant of the chemical analyses because high levels of phosphate were indicative of chemical evidence of human or animal activities. Accumulation of phosphate was usually caused by the deposition of urine, excrement, and organic refuse. Archaeologists have suggested that such concentrations could be the results of refuse disposal of organic wastes, purposeful manuring, or an area where animals were confined by fences or structures (Catts and Custer 1990, Custer et al. 1986). High calcium concentrations could be the result of agricultural fertilization (i.e., liming), oyster or clam shell deposition, or the presence of building materials in the soils, such as mortar or cement. Magnesium concentrations were affected by most of the processes controlling calcium concentrations, but were especially elevated if dolomitic limestone was in use. Elevated concentrations of potassium were derived from the deposition of wood ash through surface burning or from dumping fireplace or stove ash. Soil pH readings of 7.0 or greater were indicative of alkaline soils, while readings below 7.0 reflected acidic soils. Since Delaware soils are naturally acidic (Matthews and Lavoie 1970), readings above 6.0 indicated agricultural liming.

Soils from the Cazier site were collected from each of the randomly excavated plow zone test units, and from each of the 10' x 10' subsoil units. If chemical patterning of the site had been altered by post-occupational contamination due to agricultural fertilization, the sample taken from the subsoil would be less likely to have been affected, and therefore, more reflective of earlier intra-site soil patterns. A similar sampling scheme was employed with success at the Whitten Road site (Shaffer et al. 1988), The Williams site (Catts and Custer 1990), and the Temple site (Hoseth et al. 1990).

The soil analysis results of the Cazier site are presented in a series of frequency distribution maps (Figures 22-26) that show both the plow zone and subsoil chemical distributions. The similarities of phosphate levels between the plow zone and subsoil were easily discerned. The area west of the western fenceline and south of the southern fenceline exhibited very low levels of phosphate. The yard area inside the fencelines reflected high levels of phosphate, with a major peak located at N70E65 in the plow zone soils and at N70E70 in the subsoil level (Figure 22). This concentration of phosphate was centered around Feature 170 (privy), the northern fenceline, and the possible animal pen.

Potassium levels from the plow zone displayed a number of peaks across the site, with the highest levels located along the eastern limits of excavation near the Route 896 road ditch (Figure 23). These high readings were possibly the result of twentieth century ditch fires, or the materials used in the construction of the road itself and were not directly related to the site occupation. However, in the subsoil, a concentration of potassium was present south of the cellar (Figure 23). It has been verified archaeologically and through interviews that a fireplace, as well as a wood-burning stove, were located along the east wall of the dwelling. Thus, this peak could have reflected a possible wood ash disposal area. The concentration centered around Outbuilding I in the plow zone was a probable result of building demolition. High levels near the nineteenth century privy area (Feature 170) in both the plow zone and the subsoil was likely the result of wood ash dumping or burning of trees or shrubs.

Calcium densities were generally higher in the eastern portion of the site; the area west of the western fenceline displayed minimal readings (Figure 24). The lower elevation of the northeast portion of the site (Figure 10) could have had periods of standing water during wet months throughout the years, accounting for the very high levels of calcium found in both the plow zone and subsoil in this area. A high density of calcium in the subsoil at the location of Outbuilding I and the foundation, as well as the area between the two buildings, could have reflected the presence of building materials used in the construction and subsequent removal of Outbuilding I, the dwelling and the twentieth

FIGURE 22
Phosphate Distribution

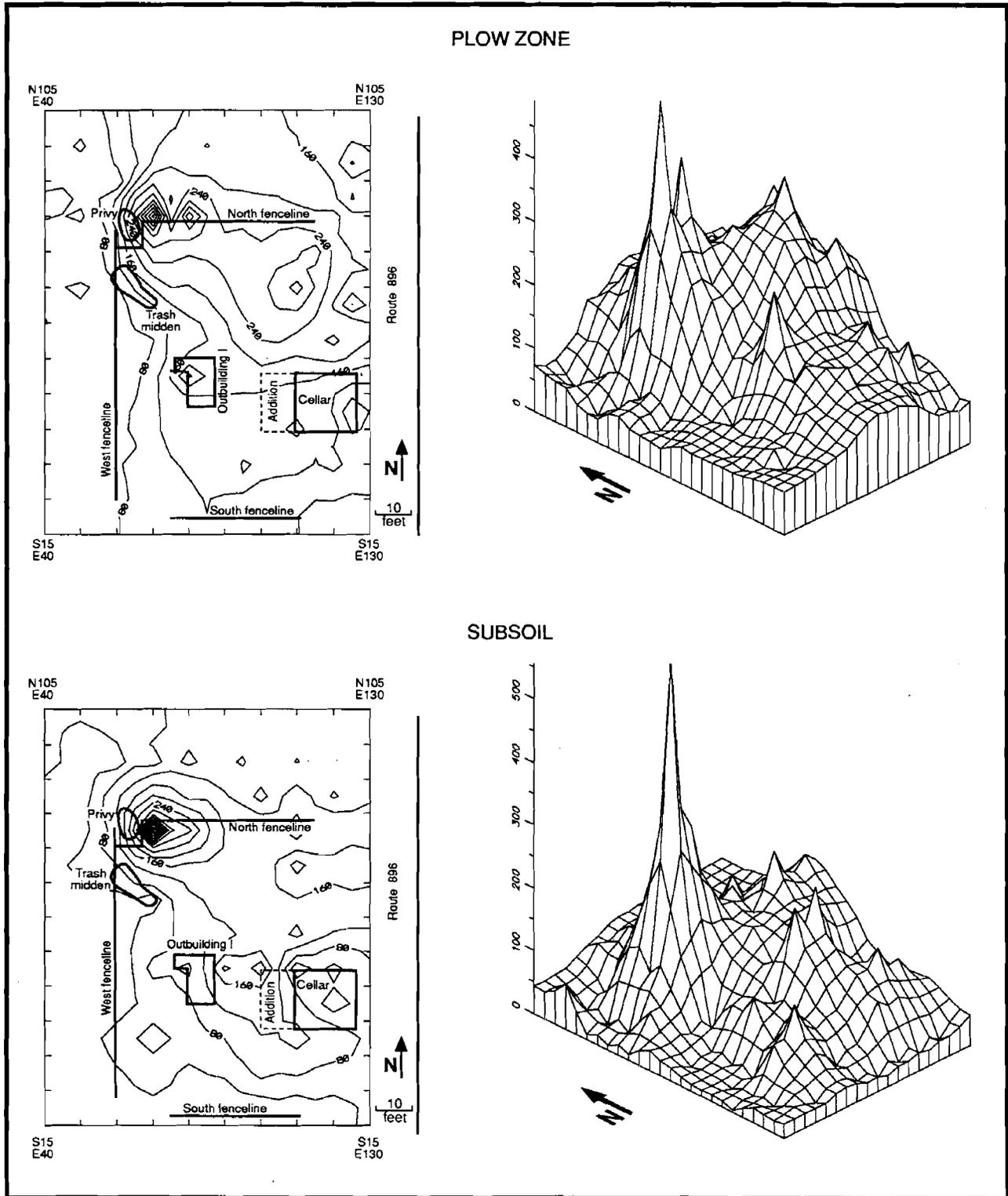


FIGURE 23
Potassium Distribution

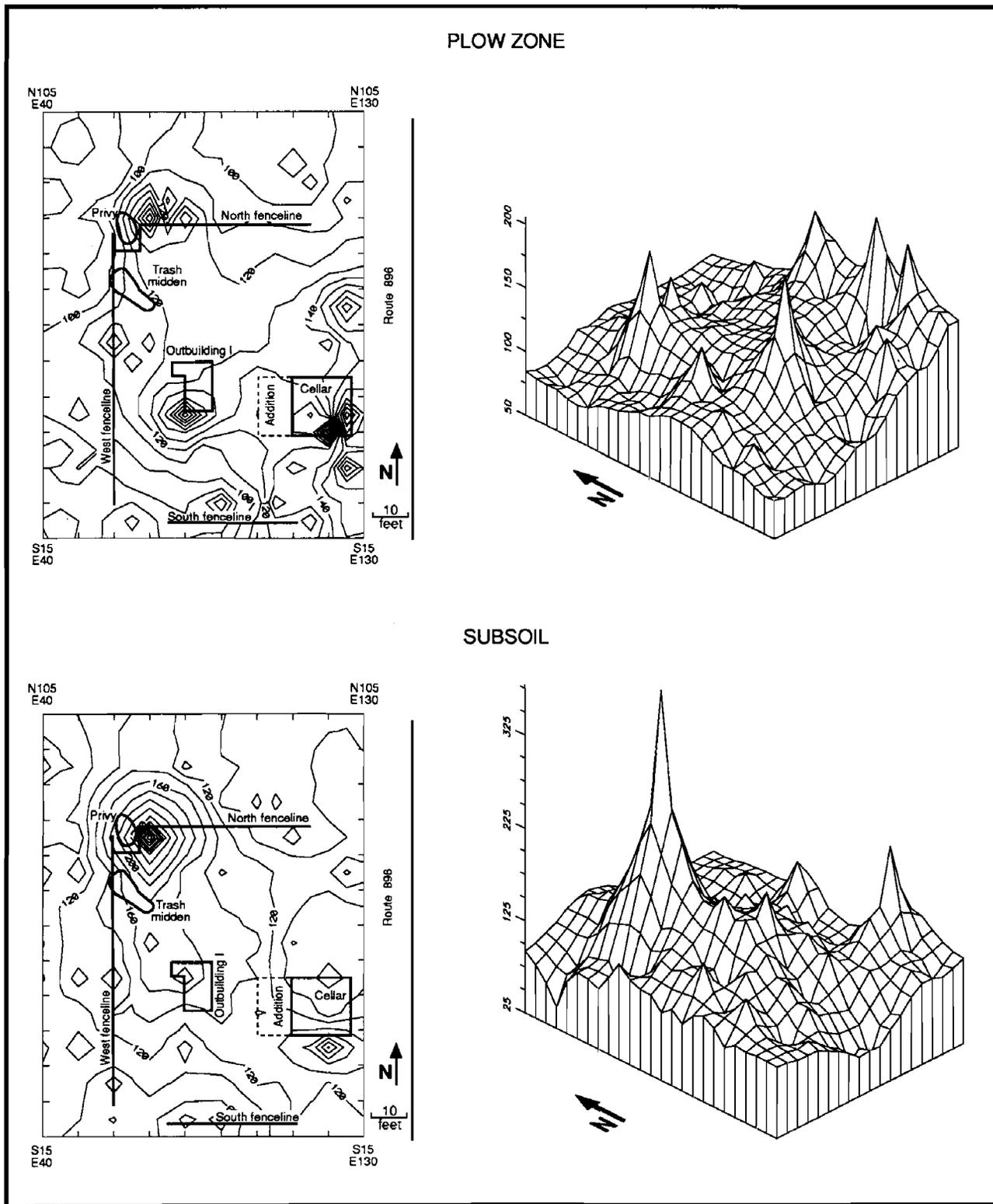


FIGURE 24
Calcium Distribution

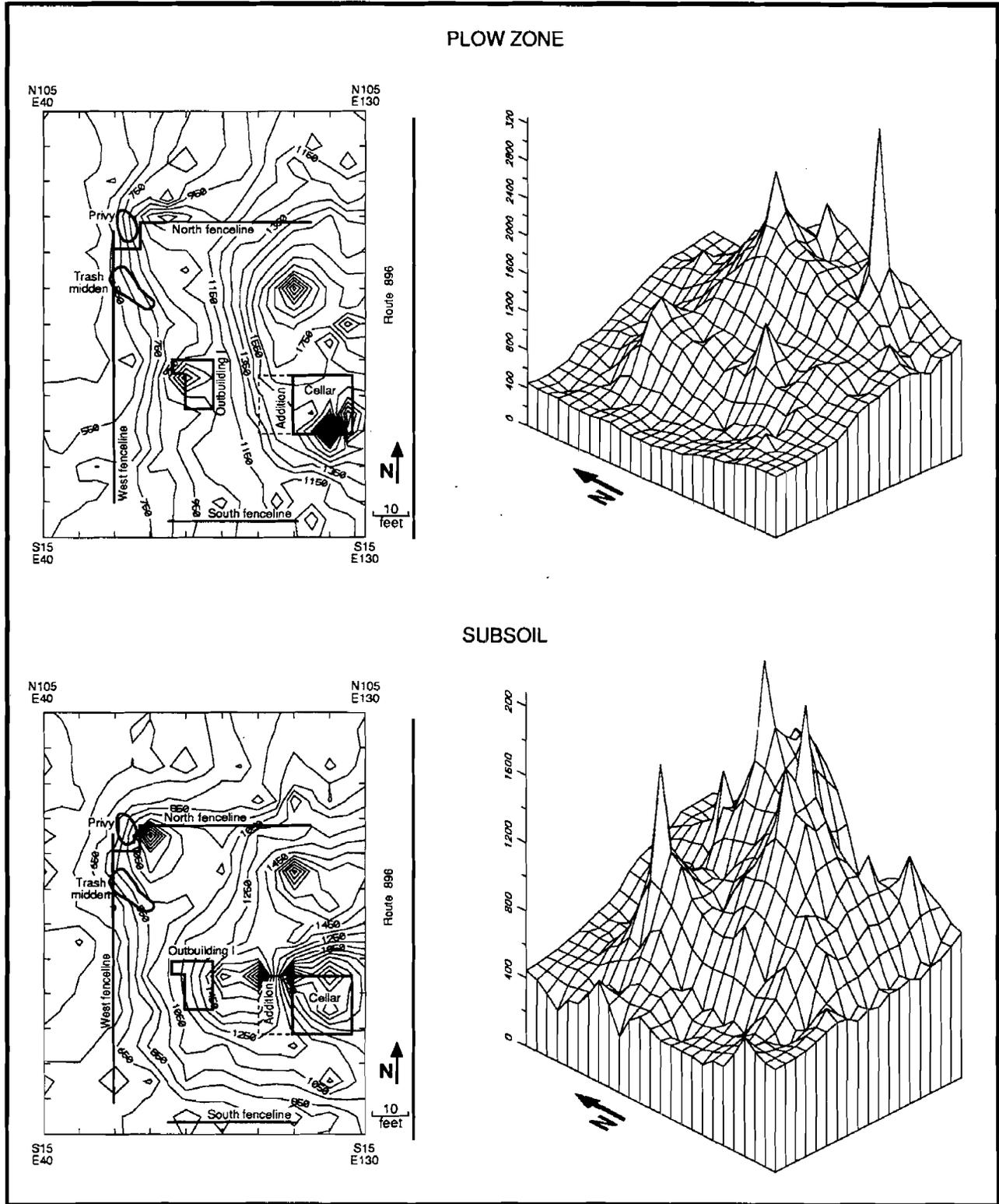


FIGURE 25
Magnesium Distribution

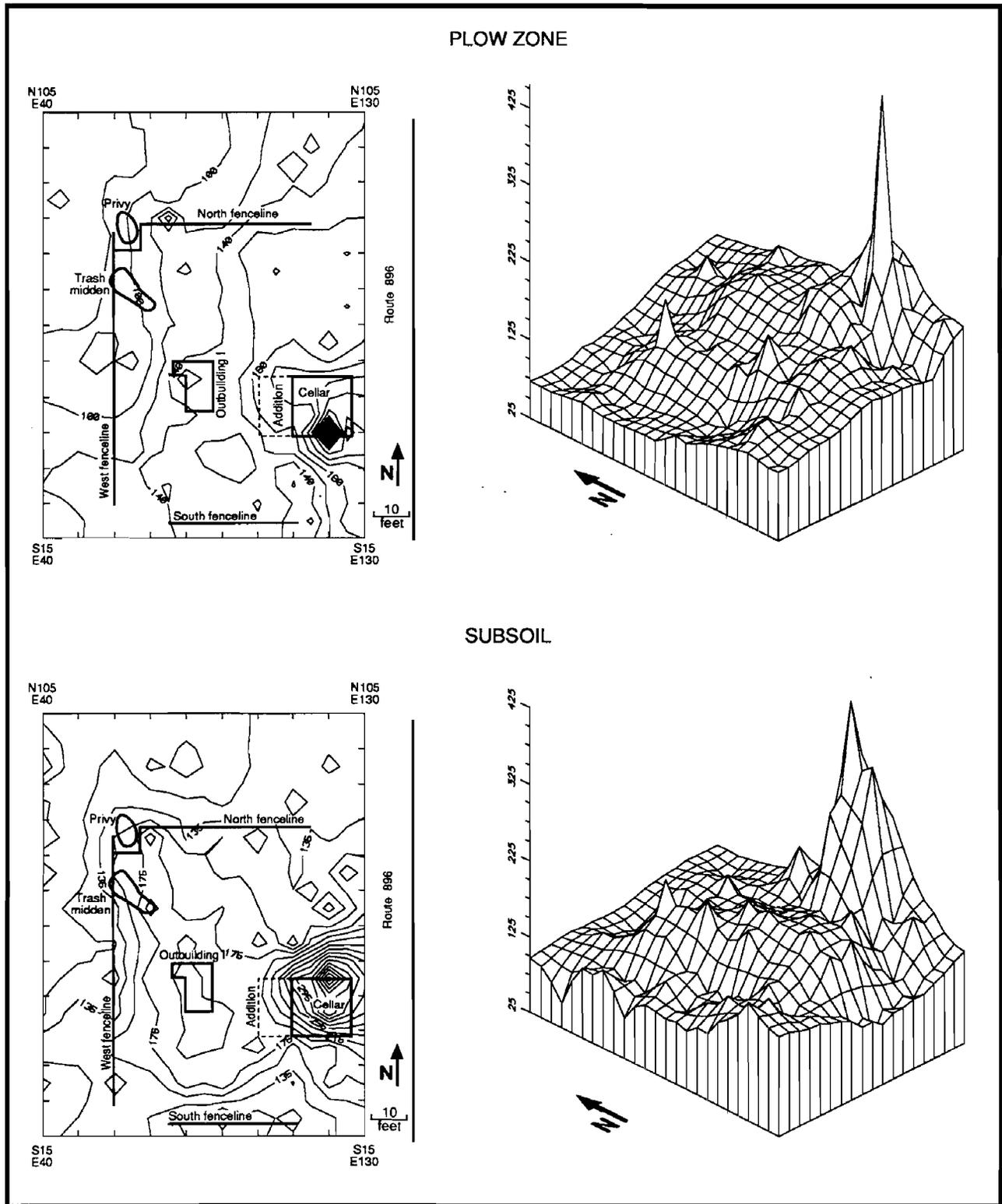
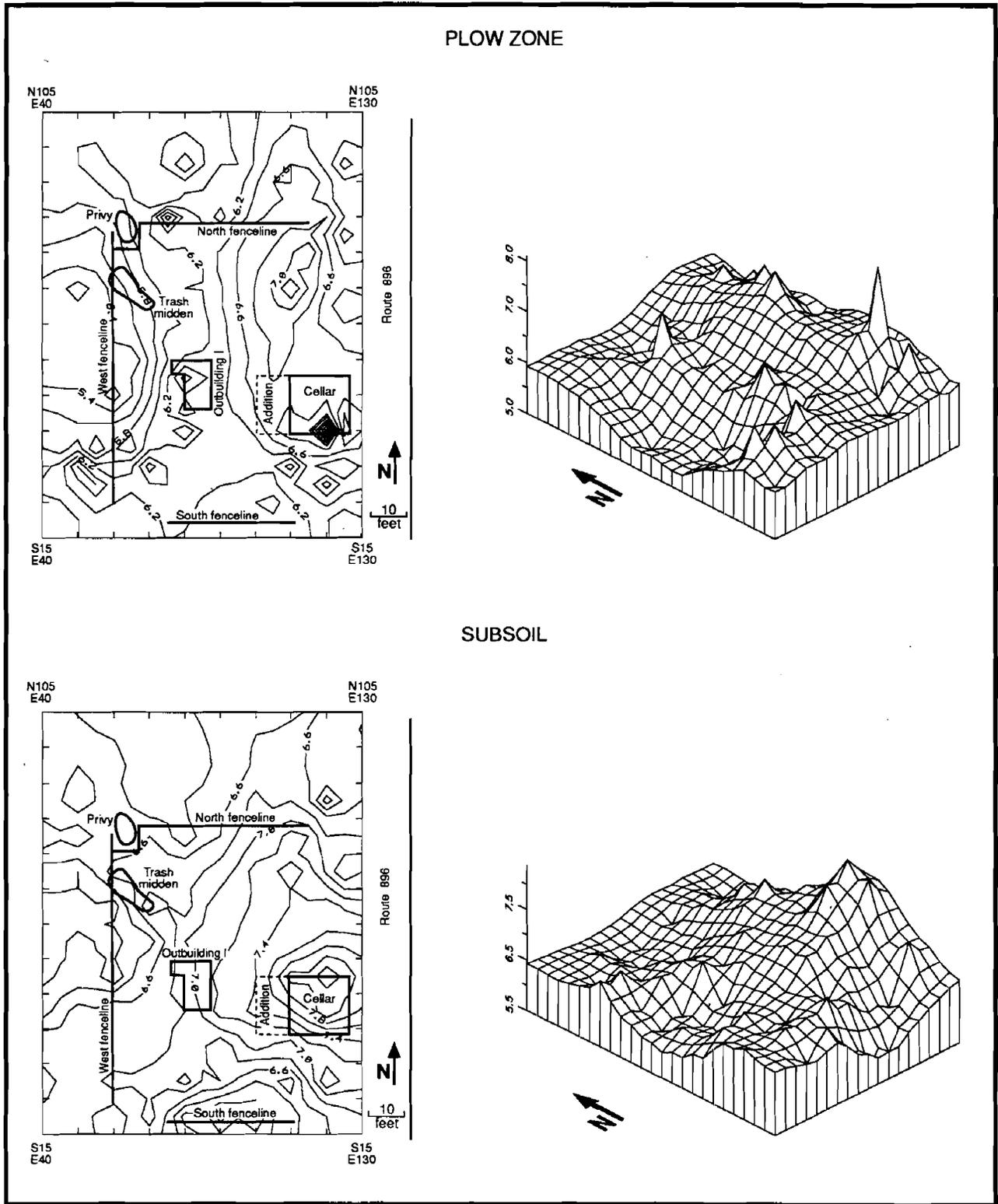


FIGURE 26
pH Distribution



century privy (Features 36 and 173). The high concentration near the nineteenth century privy area (Feature 170) in the subsoil was not well reflected in the plow zone soils. The Stevenson family maintained a garden in this area in the late 1800s that was probably fertilized with lime and/or clam and oyster shells accounting for the high calcium readings in the subsoil. Farming activities in this area during the twentieth century could also have been a factor in the uniform calcium densities in the plow zone.

Magnesium levels were high in the eastern three quarters of the site in the plow zone soils with a dramatic increase located above the south wall of the foundation (Figure 25). Subsoil levels were similar to plow zone magnesium levels, but the highest reading was centered around the north wall of the foundation rather than the south wall. This concentration reflected the presence of building material, rather than agricultural liming.

The pH soil levels were low in the western portion of the site and gradually became higher moving east across the site, peaking along the eastern limits of excavation. This trend was observed in the plow zone soil, as well as the subsoil (Figure 26). The alkaline soils found along the eastern edge of the site limit could have either reflected road construction activities or years of accumulated agricultural liming, since the elevation toward the eastern portion of the site drops-off into the road ditch.

DISTRIBUTION OF PLOW ZONE ARTIFACTS

Artifacts collected during the plow zone sampling were plotted according to the frequencies where they occurred. Thirteen distribution maps were prepared based on the raw artifact counts obtained from the 5'x 5' and 3'x 3' test units (Figures 27-33). The distribution maps revealed areas of the site that contained artifact concentrations for specific artifact classes or groups. Intra-site comparisons among these artifact classes, as well as comparisons with other known cultural features, such as structures and fencelines, were useful in the determination of yard uses and patterns. Six separate ceramic categories were plotted according to their general chronology of manufacture: pearlwares, creamwares and other early nineteenth century wares, whiteware, and ironstone and other mid-nineteenth century wares (Rockingham and yellowware), all porcelains, all stonewares, all redwares, and a distribution map of all ceramics combined. Ceramics comprised the second largest artifact category recovered from the plow zone (27.9 percent). Two other groups of kitchen artifacts were plotted; one distribution map showed the frequency of bottle glass and another showed the frequency of all jar, table, household and unidentifiable glass. Kitchen glass represented the largest category of artifacts recovered from the plow zone (32.6 percent). Architecturally related artifacts were plotted on four distribution maps — window glass, brick (by weight), cut nails, wire nails, and one map depicting the frequency of all nails, including unidentifiable nails.

The total of all ceramics excavated is shown in Figure 27. The highest concentration of ceramics was located in the eastern three quarters of the site. High concentrations of ceramics were located directly above and north of the foundation. Ceramic concentrations were noticeably higher in the plow zone north of the northern fenceline, near the eastern site limit. The same high frequency was present along the southern fenceline.

Pearlware and creamware represented only 1.7 percent of all the ceramics excavated from the plow zone. Concentrations of these late eighteenth to early nineteenth century ceramics were located within the confines of the fencelines (Figure 27). An elongated peak was evident in the area between Outbuilding I and the addition. Another concentration was noticed south of the north fenceline at N55E90. A concentration of pearlware and creamware was evident just south of the trash midden.

The majority of the ceramics found in the plow zone were whitewares, yellowwares, and ironstone (77 percent). The distribution of these mid-to-late nineteenth century ceramics was generally highest within the fencelines (Figure 28). High plateaus were noticed directly above the foundation and addition, increasing northward along the eastern limits of excavation and peaking on the north side of the northern fenceline. Low frequencies were apparent west of the western fenceline and the northwest corner of the site.

Figure 28 shows the distribution of porcelain excavated from the plow zone. The highest concentrations of porcelain were noticed at the northeast corner of the site on the south side of the northern fenceline.

FIGURE 27

Plow Zone Distribution of Total Ceramics and Late Eighteenth to Early Nineteenth Century Ceramics

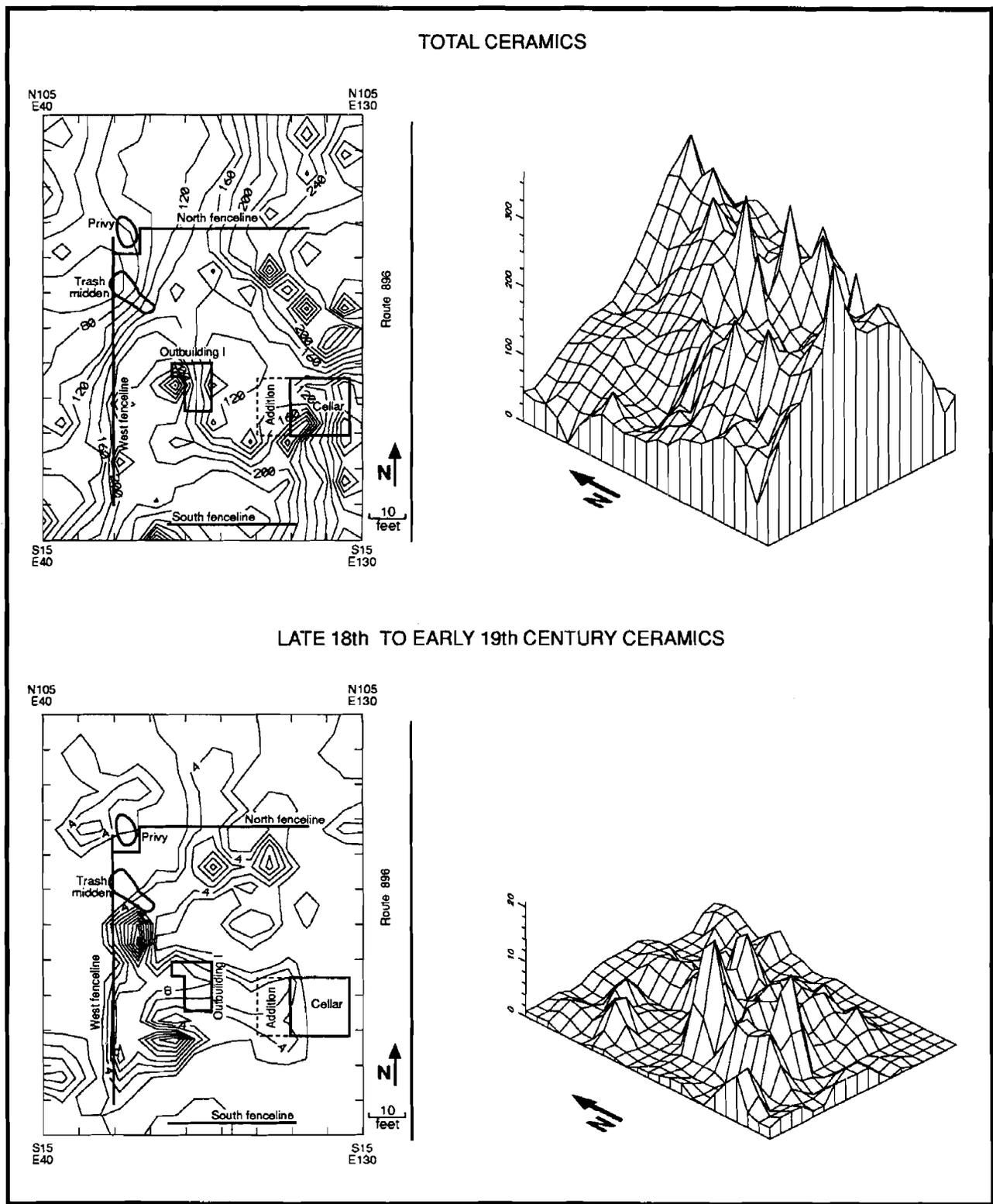


FIGURE 28

Plow Zone Distribution of Mid-to-Late Nineteenth Century Ceramics and Porcelain

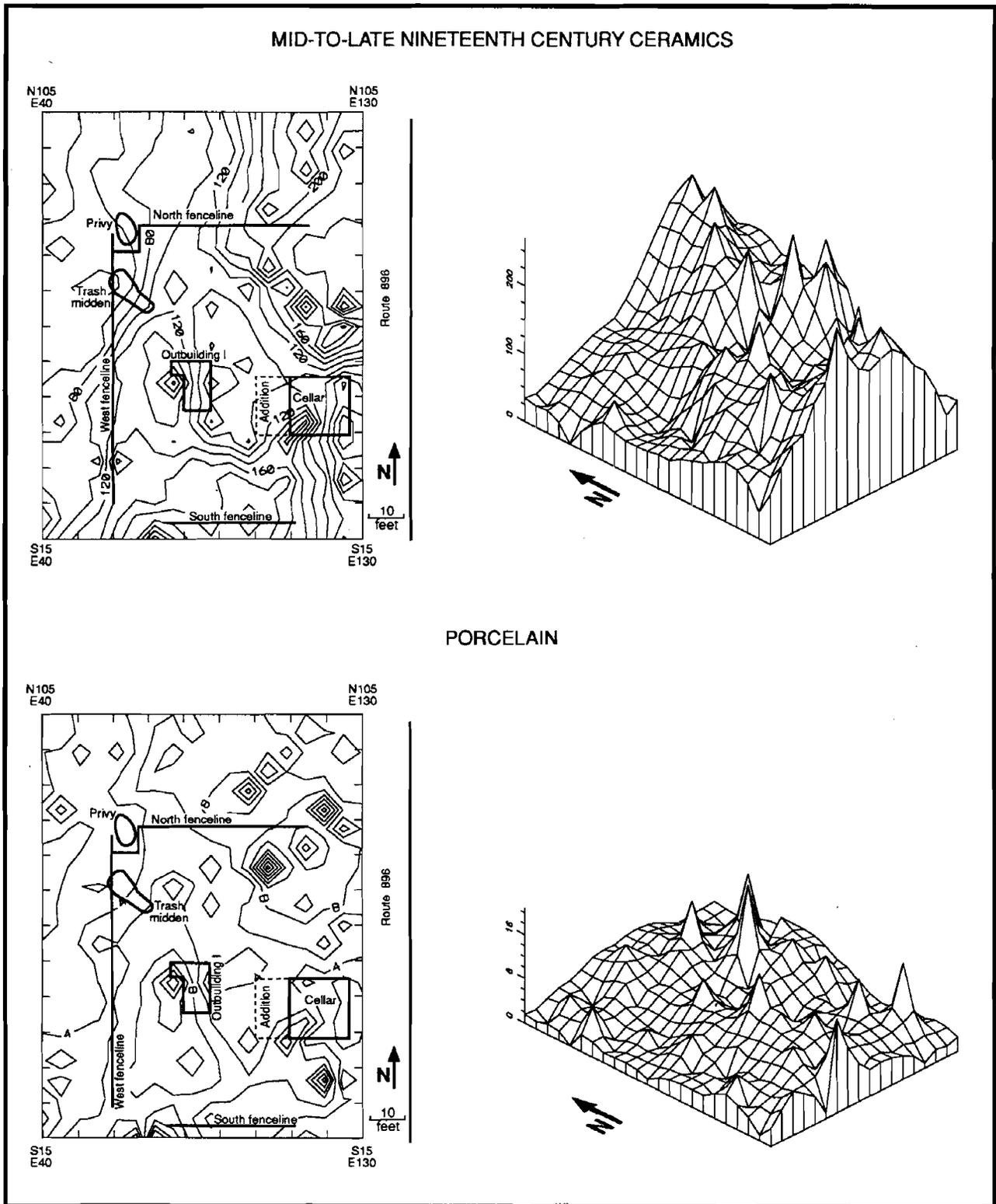


FIGURE 29

Plow Zone Distribution of Stoneware and Redware

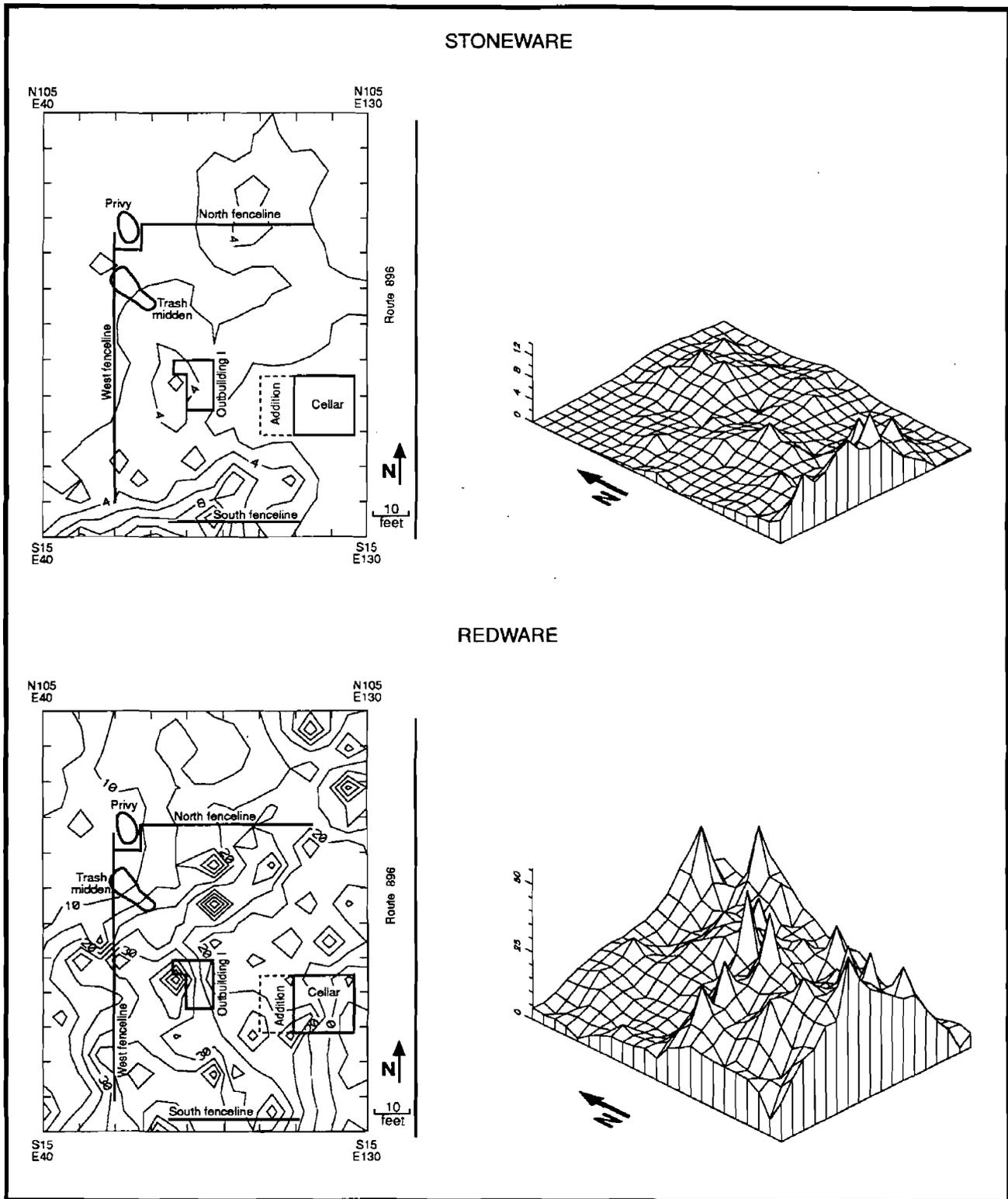


FIGURE 30

Plow Zone Distribution of Bottle Glass and Jar, Table, Household and Unidentifiable Glass

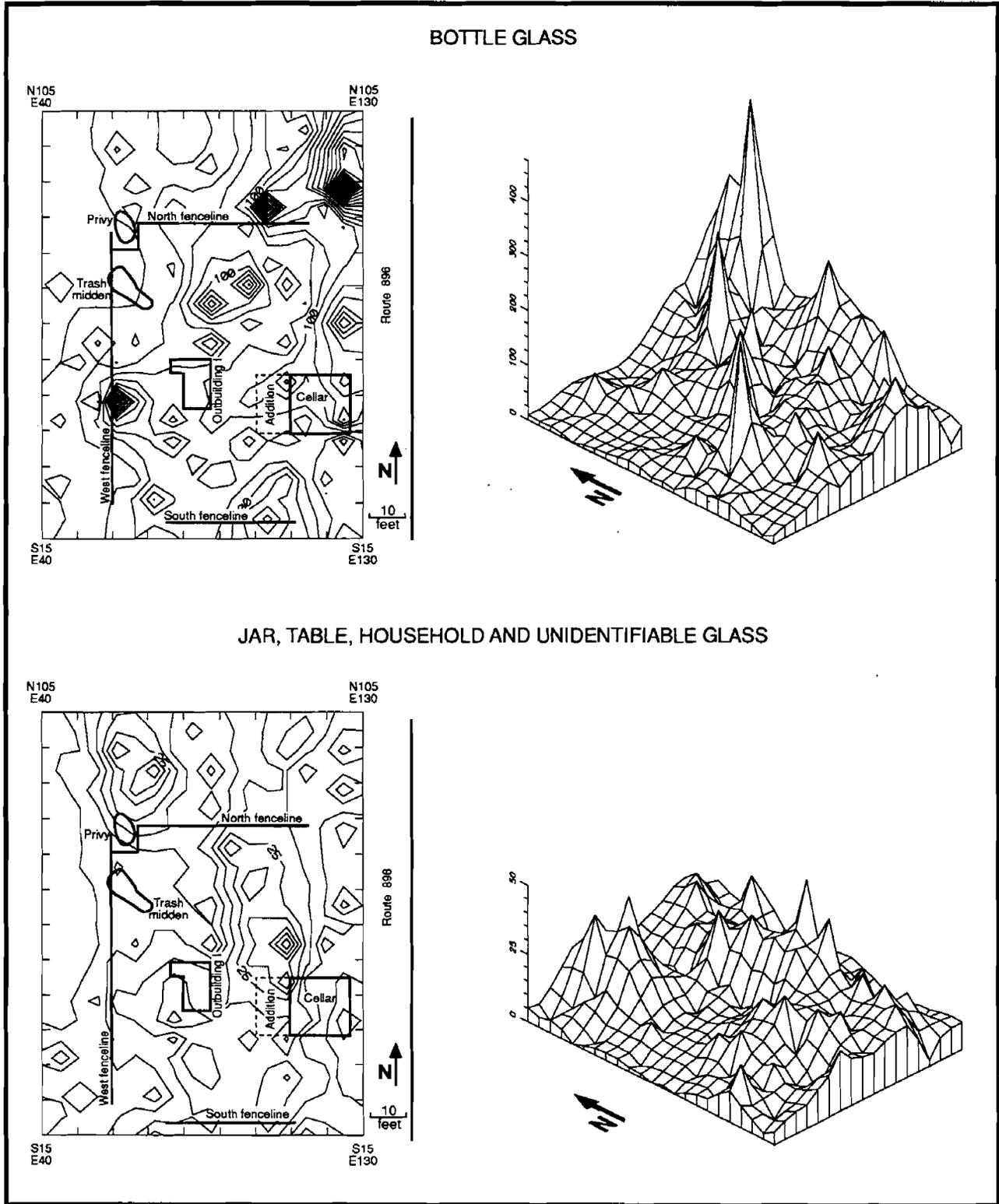


FIGURE 31
 Plow Zone Distribution of Window Glass and Total Nails

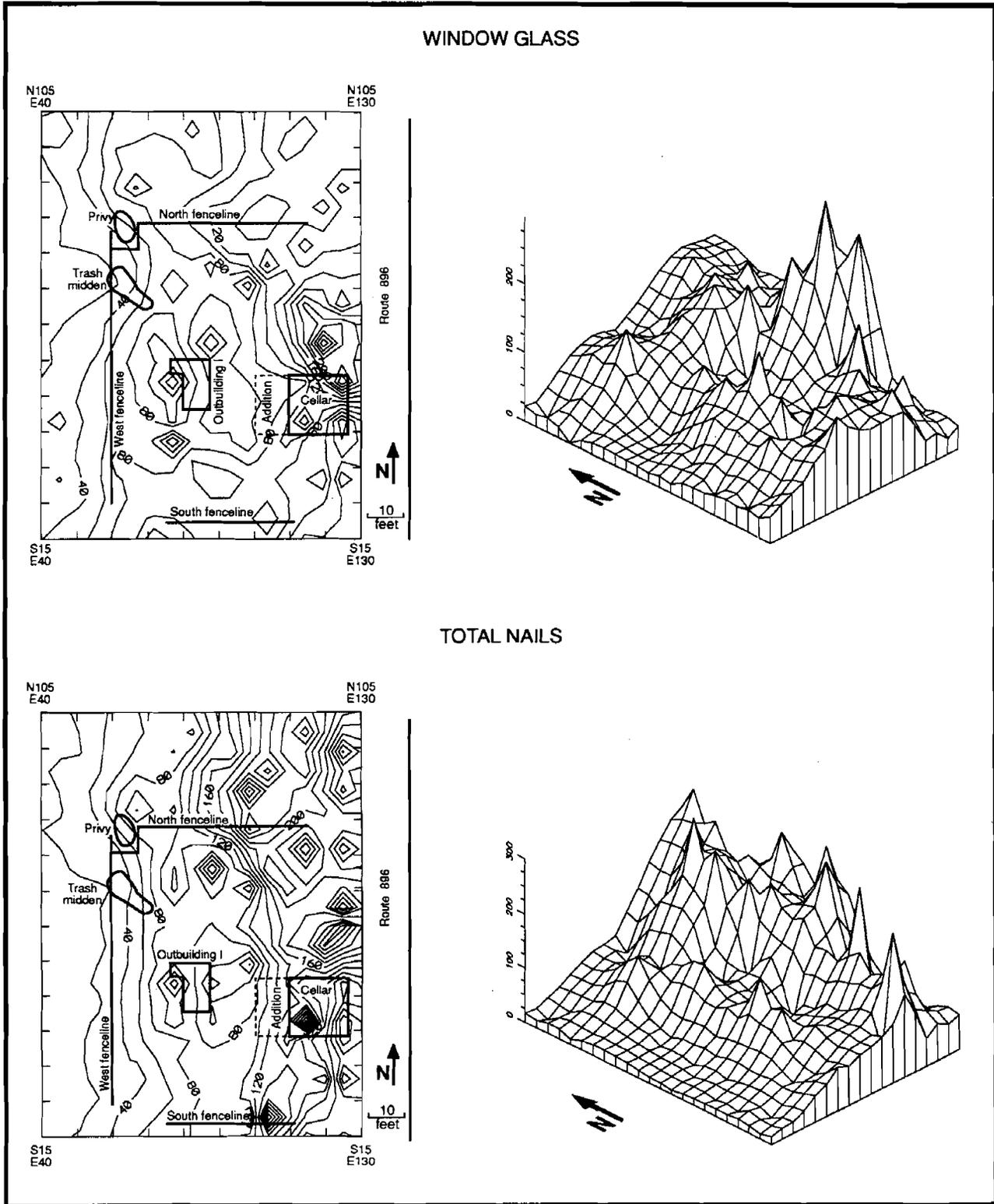


FIGURE 32
 Plow Zone Distribution of Cut Nails and Wire Nails

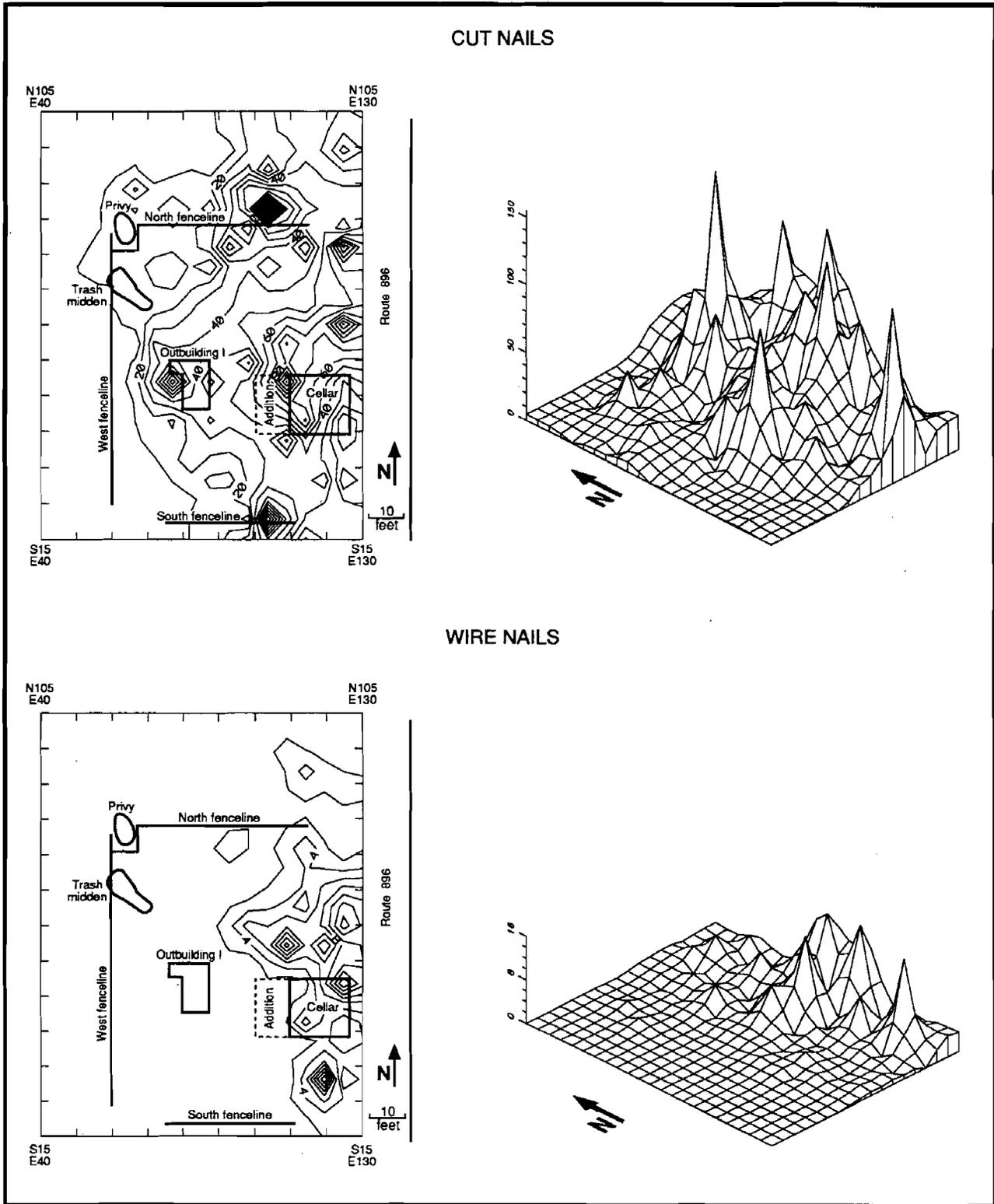
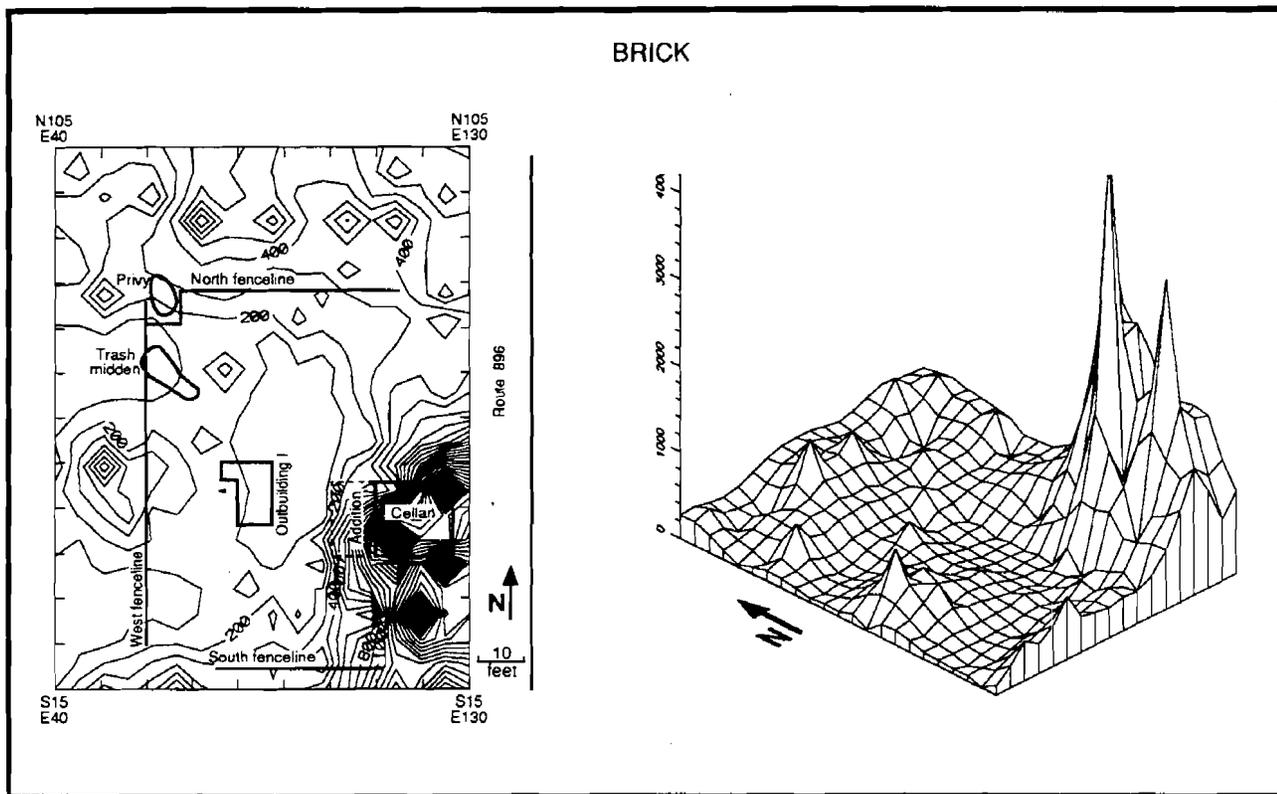


FIGURE 33
Plow Zone Distribution of Brick



Less than 300 fragments of stoneware were excavated from the plow zone, but the distribution map revealed a linear concentration of stoneware apparent along the south fenceline (Figure 29). A definite lack of stoneware was apparent in the northwest portion of the site.

The highest frequency of redware excavated from the plow zone was observed north of the northern fenceline (Figure 29). Another concentration of redware was located between Outbuilding I and the western fenceline.

The remainder of kitchen artifacts were plotted on two maps. Figure 30 shows the distribution of bottle glass and the distribution of jar, table, household, and unidentifiable glass respectively. Bottle glass concentrations were highest in the northeast corner of the site, north of the northern fenceline. High concentrations of bottle glass were also apparent along the western fenceline at N20E60, and along the eastern wall of the foundation. Densities of jar, table, and household glass were generally higher north of the northern fenceline and north of the cellar.

Window glass concentrations were located in the plow zone directly above the foundation and addition, and above Outbuilding I (Figure 31). The area west of the western fenceline (50 feet from the foundation) had very low amounts of window glass.

Figure 31 revealed definite concentrations of nails directly above the foundation and addition in the plow zone. Other concentrations were noticed in the northeast corner of the site north and south of the northern fenceline. Both the cut nail distribution and the wire nail distribution presented similar concentrations north of the addition (Figure 32). A high density of cut nails was identified in the plow zone in the northeast corner of the site at N70E100 and directly above Outbuilding I at N25E75. Wire nail frequencies were higher along the eastern limits of excavation, along the road (Route 896) ditch.

TABLE 23
Mortar Sample Numbers and Ratio Percentages

SAMPLE #	UNIT	LEVEL	FEATURE	LIME %	CLAY %	SAND %	PROPORTION
1	B	4	32	81	1.0	10	High lime
2	B	2	32	93	0.2	2	High lime
3	B	2	32	31	0.3	65	Similar
4	B	3	32	31	0.5	64	Similar
5	B	--	32	30	0.5	68	Similar
6	B	4	32	92	0.0	3	High lime
7	C	3	32	53	--	39	Similar
8	C	4	32	48	2.0	46	Similar
9	C	4	32	13	2.0	82	High sand
10	E	2	32	51	0.3	44	Similar
11	E	3	32	31	0.3	66	Similar
12	E	5	32	56	1.0	37	Similar
13	--	--	32	54	1.0	34	Similar
14	--	--	59	88	0.0	8	High lime
15	--	--	65 S1/2	58	0.0	36	Similar
16	--	--	65 N1/2	56	--	38	Similar
17	--	--	139 S1/2	52	0.0	40	Similar
18	--	--	139 N1/2	47	3.0	37	Similar
19	--	--	132	34	1.0	60	Similar
20	--	--	99	93	0.0	3	High lime
21	--	--	118	92	1.0	1	High lime
22	--	--	71	9	3.0	81	High sand

As was expected, a high frequency of brick was centered above and in the immediate vicinity of the brick house foundation (Figure 33). This smearing of the brick fragments around the house foundation was probably a result of twentieth century farming activities.

MORTAR ANALYSIS

A variety of mortar types dating from the nineteenth through the twentieth centuries were recovered from the Cazier site. The ratio of lime versus clay versus sand was used to determine the type of mortar formula used in the construction of buildings, following processes developed by Alan Tabachnick (1988:1-7). Generally lime-sand mortars were used in construction until 1880, and Portland Cement was a major ingredient in mortar after 1880 (McKee 1980:69). Mortar containing Portland Cement exhibits high ratios of sand versus lime and clay.

Thirteen mortar samples were examined from various levels in Units B, C, and E of Feature 32 (Cellar; Figure 11). All mortar samples contained little or no clay. Nine of the samples contained similar proportions of lime and sand, in which the ratio of lime versus sand was nearly equal with small traces of clay (Sample Numbers 3, 4, 5, 7, 8, 10, 11, 12, and 13; Table 23). Three samples from Unit B (Figure 11) contained high lime ratios — eight to nine parts lime to one part sand and less than one half part clay (Sample Numbers 1, 2, and 6; Table 23). One sample from Unit C (Figure 11) contained a high sand ratio — eight parts sand to one and a half part lime to one half part clay (Sample Number 9; Table 23). The high ratio of sand in the sample suggested the use of Portland Cement in the mortar, indicating a date of post 1880. Unfortunately, all samples from the cellar were taken from the cellar fill that was determined at a later date to have been debris from the demolition of the brick house in the 1920s.

One mortar fragment excavated from a support post of the west wall of the western addition (Sample Number 14; Table 23; Figure 11) contained a high ratio of lime versus sand. This sample was very similar to the mortar samples excavated from Unit B (Sample Numbers 1, 2 and 6). Two mortar samples taken from the Trash Midden (Features 37, 37A, and 65; Figure 10) contained equal proportions of lime versus sand (Sample Numbers 15 and 16; Table 23). Mortar samples excavated from Feature 139 and 132 (support posts for Outbuilding I; Figure 10) also contained equal lime and sand ratios (Sample Numbers 17, 18, and 19; Table 23). Features 59, 99, and 118 contained fragments of mortar with high ratios of lime — nine parts lime to less than one part sand (Sample Numbers 14, 20 and 21; Table 23; Figure 10). A post feature (Feature 71; Figure 10) in the northern fenceline contained a mortar fragment that exhibited a high ratio of sand (Sample Number 22; Table 23), suggesting a date of post 1880, based on the presence of Portland Cement.

Although the majority of the mortar samples taken from the Cazier site were from secondary deposits of cellar fill, general statements using the information gleaned from the mortar analysis were made. Twelve of the thirteen mortar samples from the cellar (Feature 32) were determined to be lime-sand mortar, with varying ratios of lime to sand. Historical documentation stated that the brick house was built in 1844. The mortar analysis indicated that the dwelling was constructed using a variety of lime-sand mortar ratios, a method commonly used in structures built before 1880 (McKee 1980:62). Only one fragment of mortar displayed high sand ratios that would indicate a date of post 1880. This mortar sample could have been from a wall that was repaired after initial construction.

Only one mortar fragment was recovered from the support posts of the western addition (Feature 59). Mortar analysis testing indicated a high ratio of lime to sand, similar to the mortar fragments found within the cellar fill. Only a general construction date of pre-1880 can be made from the mortar analysis at the present time. But, this information linked with the presence of creamware and cut nails excavated from the structural posts, as well as the absence of windows on the west side of the house and the intrusion of structural posts into the builder's trench indicated that the addition was probably built after 1844 and before 1880.

SITE INTERPRETATIONS AND CONCLUSIONS

Archival research determined that the Cazier site foundation was the remains of a tenant house built by Henry Cazier in 1844. Henry Cazier intentionally constructed the brick house at the juncture of Route 896 and the lane that led to his farm, "Mount Vernon Place." Contingent upon renting the small house was an agreement by the tenant to open and close the gate. This was probably how the brick house became locally known as the "gate-house for Cazier's mansion." The brick foundation measured 17.6 feet by 17.4 feet. A bulkhead entrance on the south side of the dwelling led into the cellar, which had a dry-laid brick floor and a brick chimney in the center of the east wall.

The identity of the first occupants remains unknown. More is known about the second period of occupation from circa 1880 to 1910. The occupants in this period was Nicholas Stevenson and his family. Elizabeth Stevenson Stafford, his daughter, provided an oral history of the site. The tax assessment of 1890 indicated that Stevenson was a black day laborer living in Pencader Hundred, who did not own property. Nicholas worked as a "horseman" for Jacob Cazier and drove a two horse family carriage. He walked up the lane to work everyday, sometimes taking a few of his children to play at the mansion. The Stevenson family maintained a garden on the tenant property located behind the privy and northwest of the house. Nicholas, his wife Mary, and four of their nine children lived in the gate-house until circa 1910, when he received a few acres of land near Lums Pond from the federal government.

Jacob Cazier died in 1918 and the responsibilities of Mount Vernon Place fell upon his wife, Sarah. Nothing was known of the inhabitants of the gate-house during this time. Sarah Cazier died three years later and the estate went to her daughter Edna Cazier Townsend, who rented the whole Mount Vernon Place farm to the Biddle family in 1925. Richard Biddle remembered that the little brick house was empty when his family first moved to the mansion. He and his father farmed the land surrounding the gate-house, leaving only 15-20 feet from the field edge to the house and outhouse. The outhouse was located 10 feet west of the brick house.

The third identifiable period of occupation was by Rudolph and Ethel Stevenson from circa 1920 to 1935. Rudolph was involved with the expansion of the Chesapeake and Delaware Canal and Ethel worked for the Biddle family

as a laundress. The Stevensons had a very small yard area between the front wooden porch and their strip garden, located south of the lane to the mansion. The Rudolf Stevensons moved from the house in 1934, and the house was torn down shortly thereafter.

Temporal yard usage and size of the Cazier site changed from the nineteenth century to the twentieth century because the requirements of the tenant families varied—based on their occupations and size of their families. The Nicholas Stevenson family consisted of 6 people and would have required more living space than the two members of the Rudolf Stevenson family. Both men were day laborers, working away from their homes each day. Both families maintained a garden. During the nineteenth century, the tenant house, outbuildings, and fenced yard were probably required to be kept neat and in good repair due to the proximity of the tenant property to Glasgow Road (Route 896) and the function of the dwelling as a gate-house. Henry and Jacob Cazier not only used the dwelling to house their gatekeepers and carriage drivers, but as a symbol of their high status. The size of the Cazier site yard was reduced from 600 square feet to 200 square feet in the twentieth century during the Rudolf Stevenson occupation. After the death of Jacob Cazier, the gate-house was no longer needed as a status symbol.

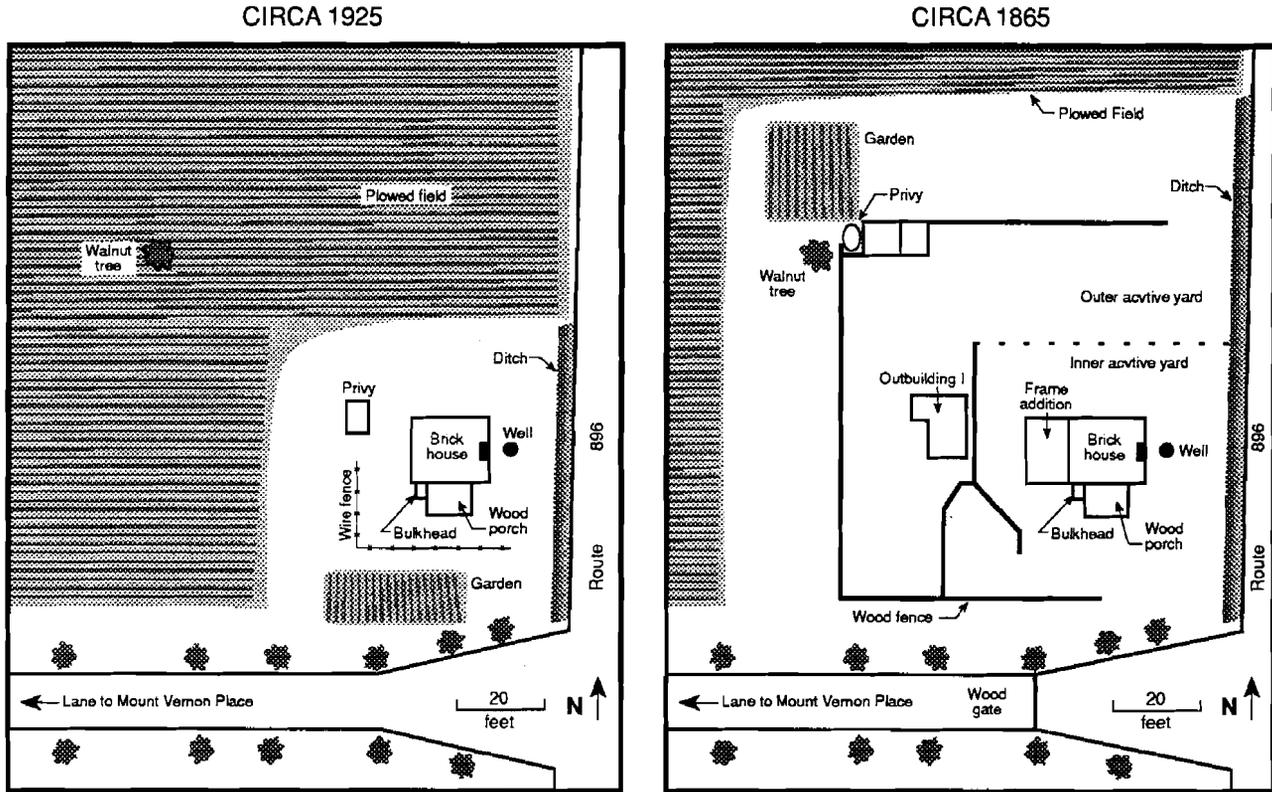
Based on the patterns of post hole features located west of the brick foundation, a 17' x 9' post-in-ground addition to the small brick house was made after initial construction of the dwelling. Posts along the west wall of the foundation intruded into the foundation's builder's trench. Richard Biddle, a tenant farmer of the land surrounding the Cazier site from 1925 to 1945, remembered only a small brick house with attached wooden porch on the south side. He made no mention of a wooden addition on the west side, but stated that no windows were present on this side, unlike the east side that had two windows with four panes each. The absence of windows on the west side of the house, and the presence of post patterns, some intruding into the house foundation builder's trench, suggested that a frame addition was constructed after 1844. The oldest artifacts recovered from the plow zone and feature excavation were found in this area. These artifacts included cut nails, creamware and pearlware. The addition to the small brick house could have also represented the presence of a larger tenant family than was originally intended. Through twentieth century oral history it was known that by 1925 the addition was no longer extant. The removal of the addition in the beginning of the twentieth century suggested that the number of house occupants, or family size, continued to play a role with determining the size of the house.

A 10' X 5' wooden porch was added to the south side of the brick house sometime after 1865 or 1866, based on the large post hole and mold patterns in this area and the excavation of an Indian Head 1865 or 1866 coin from the post hole of one of the porch support posts. The porch remained a part of the gate-house until 1935, when the house was demolished by the Delaware Transportation Department during the widening of Route 896.

All the equipment and storage facilities necessary for the proficient operation of Cazier's large farm were located less than one half of a mile away, just down the lane from the tenant house. An illustration printed in Scharf's *History of Delaware* (1888) depicted the mansion and a barn, as well as several other outbuildings (Plate 4). The tenant living in the gate-house would have no need for his own farm equipment or storage for such items. The tenant family however, would require ancillary household support buildings such as privies and woodsheds. Research on extant farm complexes of the mid-nineteenth century in Delaware has shown that these types of household support structures were located close to the dwellings (Herman 1987a:176-179), while the placement of a privy would be a fair distance from the house and well for standard hygiene (Catts 1984). The placement of the nineteenth century privy at the Cazier site was approximately 50 feet northwest of the dwelling (Figure 34) — a fairly standard distance for the placement of the privies at other local rural sites in Delaware and Maryland (McDaniel 1982; Catts and Custer 1990; Hoseth et al. 1990). Similar placement has been observed in historical sites dating to the late nineteenth century in east Texas (Moir 1987:231-233). The twentieth century privy (Features 36 and 173) was anomalous, since it was located less than 10 feet from the house (Figure 34). This location was probably due to the small size of the yard area during this time.

The combination of oral documentation, archaeological features, artifact frequencies, and soil analyses results provided a unique view of temporal yard usage and proxemics for the occupants of the Cazier site (Figure 34). Moir and Journey (1987:230) defined yard proxemics as the interpretations of the patterns of the yardscape around typical dwellings over time; in particular, the term referred to the "nature, degree, and effect of spatial separation between support structures, features, gardens, flower beds, fences, paths, and activity areas, around a primary structure".

FIGURE 34
 Circa 1925 and 1865 Yard Proxemics



The majority of the features excavated at the Cazier site related to the late nineteenth century, when the site was occupied by an unknown tenant farm family or families and by the large Nicholas Stevenson family. It was possible that the property was abandoned for a period of time after the Stevensons moved and before the arrival of the Rudolf Stevenson family. The neglected house and outbuildings could have fallen into a state of disrepair and may have been torn down, providing more land to be farmed. Richard Biddle reported that his family plowed 15-20 feet from the brick house, suggesting that any earlier structures, like the western addition and Outbuilding I, were indeed gone by 1925.

Mr. Biddle recounted that the small brick house did not have a frame addition on the west side, but a wooden outhouse was situated ten feet west of the house and a pile of cut wood south of the outhouse. A large shallow feature filled with burned bone, glass, ceramics, cut and wire nails was located in the area mentioned by Mr. Biddle as the location of the twentieth century outhouse (Features 36 and 173; Figures 10 and 34). A slightly higher phosphate level was observed in the subsoil of this area, not as high as the phosphate levels of the nineteenth century privy (Feature 190), but the later privy was used for a much shorter period of time. Except for Features 36 and 173 and the cellar fill, no other features could clearly be associated with the Rudolf Stevenson occupation of the site, possibly due to the small yard the couple maintained.

The privy located 50 feet northwest of the house (Feature 170) was determined to have been in use from the initial construction of the dwelling until at least 1910 based on the ceramic types found in the feature fill. The mean ceramic date for the privy was 1837, due to the recovered fragments of creamware and pearlware. A glass panel medicine vial recovered from the flotation sample from Soil #1 was manufactured between 1850-1860. Very high peaks of phosphates and potassium were present in the plow zone and subsoils of this area.

A pattern of post features next to the privy could have been a 14' x 5' ephemeral outbuilding, covered woodpile, or even an animal pen (indicated by the high phosphate peaks in the area). One other structure belonging to the early tenants of the brick house was represented by a 12' x 8' rectangular series of post-hole and mold features thirty feet west of the dwelling (Figure 34). The ceramics found within the features of Outbuilding I provided a mean ceramic date of 1856.

The study by Moir and Journey (1987:230-233) of the yard proxemics for late nineteenth century farms in east Texas indicated that an Active Yard (consisting of an Inner and Outer Active Yard) formed the nucleus of a farmstead. The Active Yard generally contains the dwelling, well, sheds and privy. Generally the Inner Yard was less-used and better maintained and the Outer Yard was more intensively used. On sites in Texas, the locations of privies and wells served to mark the border between the Outer Yard and the rest of the property. Researchers using yard proxemic theories in the study of tenant sites in rural Delaware have observed similar farmstead layouts as those in east Texas (Catts and Custer 1990 and Hoseth et al. 1990).

The Outer Active Yard at the Cazier site was defined by the northern, western and southern fencelines. Route 896 would have served as the eastern border. The Outer Yard was separated from the dwelling and Inner Active Yard by the central fenceline, and various alignments, located between the addition and Outbuilding I (Figure 34). The privy and a large walnut tree was located at the juncture of the northern and western fencelines. The garden was behind the privy outside the fenceline. A large trash midden was evident along the western fenceline. Other refuse areas not evident in the subsoil, were located north and south of the northern fenceline, and west of the possible animal pen or shed. The plow zone artifacts distribution maps show high frequencies of all types of artifacts in this area (Figures 27, 30, 31 and 33). The presence of a sheet midden in this area accounted for the lack of subsoil features. Two domestic cat burials were found within the Outer Active Yard.

Mr. Biddle reported a well located midway along the east wall of the dwelling, approximately 5-7 feet from the side of the house (Figure 34). The well was filled and eventually covered by the pavement of Route 896. This well served as the only source of water for the Cazier site throughout its entire history.