

PHASE II SURVEY

Statement of Purpose

The purpose of this section is to describe the Phase II research that evaluated the significance and integrity of the historic cultural resources located by the Phase I survey. The criteria for this evaluation are those of the Department of the Interior for reviewing nominations to the National Register of Historic Places (36 CFR part 60.6).

Background Research and Methodology

The general excavation plan was to locate test squares in those areas of the site which had yielded subsurface artifacts and features during the Phase I survey. These test squares were excavated to delineate artifact distributions; to identify the structures; to establish the limits and chronology of the site; and to investigate other potentially sensitive areas of the site. Specifically, Test Pits (TP) 15 (5x5 ft.), 18 (3x3 ft.), 19 (5x5 ft.), 40 (5x5 ft.), and 57 (5x5 ft.), and Test Trenches (TR) 16 (2x5 ft.) and 17 (2x10 ft.) were excavated, and a postholer test grid was laid out east of the rubble pile (Map 9). TP 15 was placed so as to define the edge of rubble located by TP 11, while TP 18 and TR 17 were placed over the rubble foundation located in the excavation of shovel test ST 76. TR 16 was placed so as to bisect the stone foundation which was located by ST 63 and TP 19 in the investigation of the mortar layer found in ST 57 (Maps 7 & 8). TP 40 and 57 were designed to test for downslope deposition, such as trash dumps.

The initial background research was to contact the last private owner of the property, Mr. Oliver C. Lynam, Jr., to determine the extent of his knowledge of the history of the property. Although he was located, he could not provide any information. No other informants were located during the survey.

A re-examination of historic maps showed a change in access to the farmstead during the last third of the 19th century. Beers' 1868 Atlas (Map 4)

shows the driveway to the W. M. Hawthorn residence leading in from Route 7 to the east of the site. Baist's 1893 Atlas (Map 5) shows a driveway leading in from Old Churchman's Road which has been built to the northeast in the interim, with the farm listed as belonging to "A. Naudain". Thus the remains of two different lane/driveways could be expected to be found on the property.

A chain of titles was developed from county deed records and is presented in (Figure 8), beginning with the latest and working back to the earliest known owner. Oliver Lynam is shown as the owner of the property on the DeIDOT 1953 New Churchman's Road Construction Map (Map 10), and it is known from deeds to have been in the Lynam family from 1917 to 1962 (Deed Z-26-108). Also shown on this map (Map 10) is a "springhouse" 10 ft. x 10 ft., a "chicken house" slated for demolition by roadway construction, wire-fenced chicken yards attached to it, and a "HO" (House) in the location of what is presently a rubble pile.

Although Elizabeth Naudain, owner of the property from 1899 to 1917 (Deed A-18-393) is not specifically referenced on any maps, "Misses A. & Ella Naudain" were assessed the following taxes in 1899: \$40.55 for a "Frame House & Barn" on 90 acres of land plus \$2.00 for 20 acres of "wood & Brush". It is probable that this is the Hawthorn Farmstead shown on Beers' 1868 Atlas (Map 4) and not only denotes the structures present on the property at the time, but also gives an indication of the portion of the property actively being used, that being 90 of 110 acres.

No property assessments were found for their father, Arnold Naudain, who owned it from 1874 to 1899 (Deed G-10-38) although his ownership is indicated by the label "A. Naudain, Res." (residence) on the 1893 Baist Atlas (Map 5). The "Inventory and Appraisalment of the Goods and Chattels" filed in 1899 at his death indicates he was a farmer with a total appraisal of \$1,040. The inventory provides information on the structures present in appraisals made of "Goods in house,"

FIGURE 8

W.M. HAWTHORN FARMSTEAD

(Delaware Cultural Resource Survey No. N-6264)
State No. 7NC-E-46

CHAIN OF TITLES

<u>Grantee</u>	<u>Grantor</u>	<u>Deed Ref.</u>	<u>Date</u>	<u>Consideration</u>	<u>Acreage</u>	<u>Note Ref.</u>
Welfare Foundation, Inc.	Magness Shopping Mart	K-75-31	6/30/1965	\$ 10 +	52.2	1
Magness Shopping Mart, Inc.	W.W. Lynam, et.al.	U-69-400	7/16/1962	\$ 318,789	108.0	1,2
O.C. Lynam	E.T. Naudain, et.al.	Z-26-108	3/26/1917	\$ 6,000	111	
E. T. Naudain, et.al.	A. Naudain, Jr., et.al.	A-18-393	8/19/1899	\$ 4,000	111	2
A. Naudain	J. Springer	G-10-38	3/24/1874	\$ 4,000	111	
J. Springer	J. Armstrong, Sheriff	D-10-489	5/23/1872	\$ 2,500	111	3
J. Armstrong, Sheriff	W.M. Hawthorn, et.al.	unknown	unknown	unknown	unknown	4

Notes

1. New Churchman's Road has been constructed and is deleted from Acreage transferred.
2. Grantor's received title to the Farmstead following execution of will of previous Grantee.
3. Sheriff sale to pay off \$1,500 debt of W. Hawthorn.
4. Transfer unknown; following deed (D-10-489) mentions that W.M. Hawthorn, et.al. received title to property upon the death of their father (W. Hawthorn).

"Sundries in barn," and "Sundries Lower floor of granary". It also details the material and goods required on a farm operation around the turn of the 20th century: "daily fixtures," "farm wagon," "round all harrow," "mowing machine," "plows," "harrows and cultivators," "4 hogs," "4 shoats," "bay horse," and "black horse." Also listed are goods probably produced on the farm itself: "growing crop of corn," "oats in field," "200 bu. of wheat," and "hay in barn."

Aside from deed information, the only record found of the previous owner, James Springer (1872-1874, Deed D-10-489) is his 1872 tax assessment of \$54.00, which was not itemized.

A sheriff's sale of 1872 (Deed D-10-489) referred to the property as "...being the same land...in which William Hawthorn deceased...descended to his two children and the said William M. Hawthorn and George Hawthorn his only heirs at law." Specific land records referring to the property could not be located for the years prior to 1872, so the chain of title could not be continued. However, the name "W. M. Hawthorn" does appear on the 1868 Beers' Atlas and a "William Hawthorn" is listed in the tax rolls on three separate occasions as owning 111 acres. In 1861, he was assessed a tax of \$41.07 for the acreage and a "Frame House & barn" plus \$3.75 for stock owned and \$4.00 as a poll tax. In 1852, the tax was \$33.50 with a "Frame House & Frame barn", and in 1845, it was \$27.75 for a "Log House & Frame Barn."

An "Inventory and Assessment" for a William Hawthorn dated September 1840 (presumably the father of William M. and George mentioned in the preceding paragraph) listed among his property three "Feather beds," "carpet," "china & glassware," "mahogany washstand," "Winsor chairs," and "brass candlesticks." The Inventory also provides information about the house and outbuildings: "carpet in parlor chamber," "heather rug," "carpet in entry downstairs," "carpeting in common room," "kitchen and irons," "earthware in springhouse," and "stack of hay in barn."

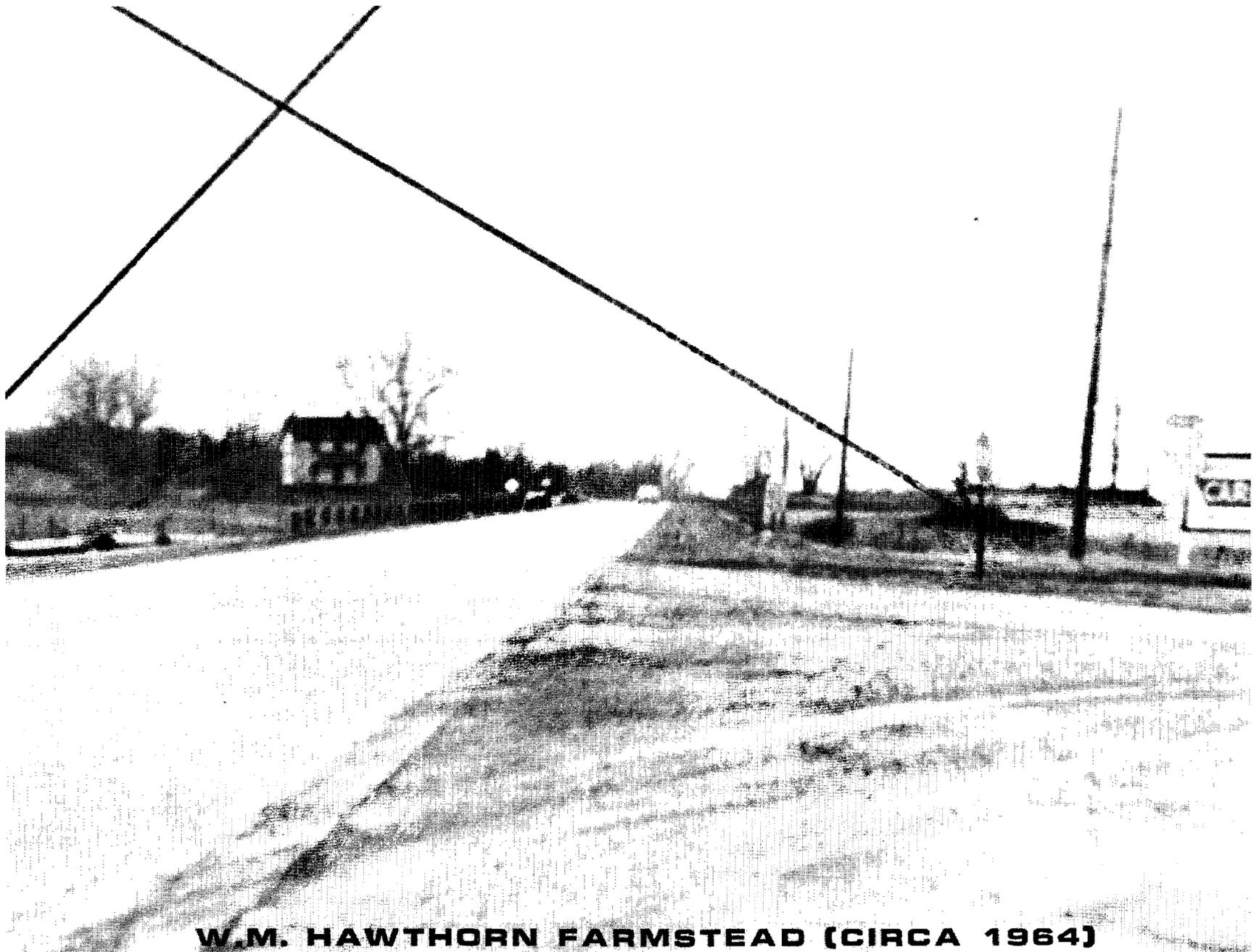
From these few items it is learned that it must have been a substantial house, with multiple stories of at least two and possibly three rooms each, an entryway, and several fireplaces, along with a barn and a springhouse designed to last for many years. The tools and equipment indicate a farm that had been active for some time, as evidenced by "old wood wagon," "old wood plow," and "old wheelbarrow", and one that was still quite active: "family carriage and harness" and "maul, wedges, & post spade." The productivity of the farmstead and its market orientation are indicated by "yoke oxen," 20 cows and calves, four horses of varying ages, eight shoats, several stacks of hay, "unbroken flax," "corn fodder," 300 bushels of "corn, in the ear," and "300 bushels of oats, in the stack..subject to the experience of getting out & delivering at market." The total assessment of the inventory was \$1,357.09.

A photograph of the farmstead was later located in DelDOT's files (Plate 1). It showed the house, and the woodframe structure to the south, and was taken sometime between the construction of New Churchman's Road in 1955 and the demolition of these two structures in the early 1960's. The farmhouse was a three bay, two story structure with a gable roof, at least two chimneys, and a small porch or pent roof over the centered front door. The frame outbuilding with a concrete block foundation was a one-story shed which opened to the south. In the photograph, the springhouse is obscured by vegetation, a road sign, and a line drawn on the negative. However, it already appeared to be in a state of disrepair.

Results and Interpretations of Phase II Survey

Test Pit 15 (Fig. 9 & Map 9) was placed in the rubble pile adjacent to the earlier TP 11. At a depth of approximately 3 in. a level of coursed and mortared bricks was located in the east corner. It was oriented east-west and extended to the center of the excavated square. To both the north and south of this was building demolition rubble, to the east was another separate course of bricks, while

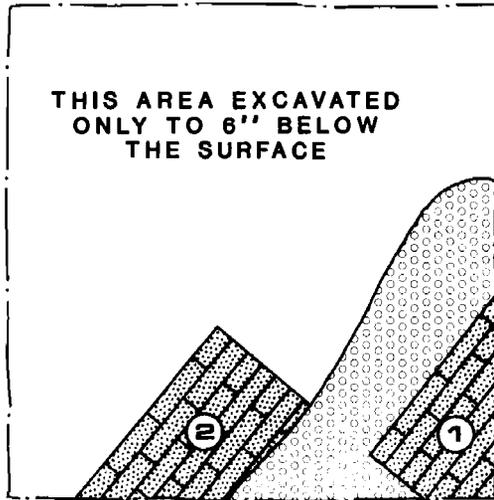
PLATE 1



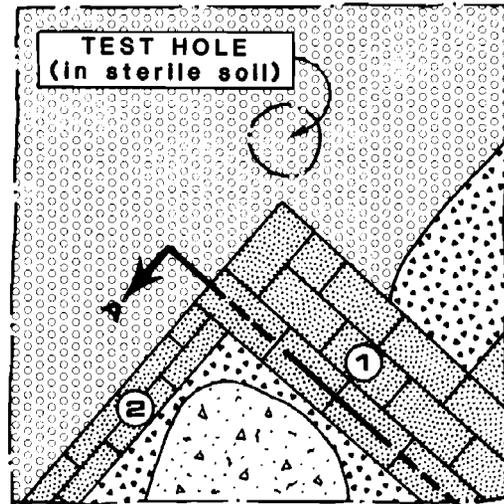
W.M. HAWTHORN FARMSTEAD (CIRCA 1964)

FIGURE 9

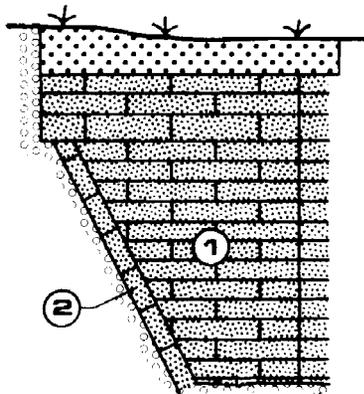
TEST PIT NO. 15, HOUSE RUBBLE PILE



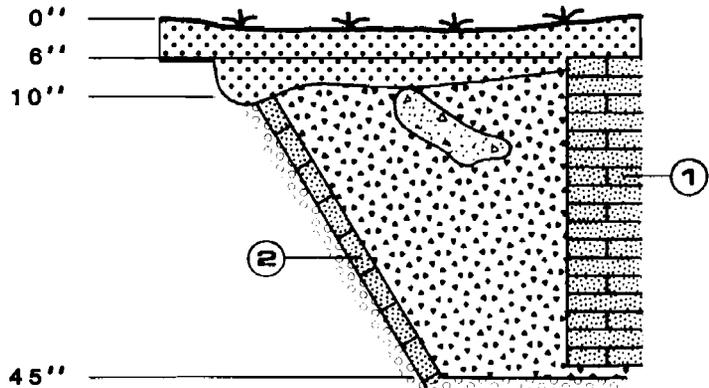
PLAN VIEW
6" BELOW SURFACE



PLAN VIEW
45" BELOW SURFACE
(End of Excavation)



CROSS SECTION A-A'
SHOWING RELATIONSHIP BETWEEN
FEATURE NO. 1 AND FEATURE NO. 2



PROFILE - SOUTH WALL



KEY:

-  -STERILE SOIL - YELLOWISH BROWN CLAY
-  -CONCRETE SLAB
-  -BRICK
-  -DEMOLITION RUBBLE - ASH, TILE, BRICK, CHARCOAL, NAILS, WINDOW GLASS, METAL, MORTAR
-  -RUBBLE & TOPSOIL - DARK BROWN LOAM

 -FEATURE NO.

to the west was sterile soil. Recovered within this initial level was bottle glass, window glass, wire nails, one Lincoln head penny, and a metal toy train fragment embossed with the letters "NYCRR". Excavation continued to 44 in. below the surface and eventually two distinct features were identified: the eastern brick course (Fea. 1) and the western course (Fea. 2), both extending to the full depth. The unit fill surrounding these two features included mostly window glass, wire nails, and asbestos tile shingle fragments. Very few fragments of ceramics or bottle glass were recovered. Much of this unit was not excavated more than 6 in. below surface and no builder's trench was identified.

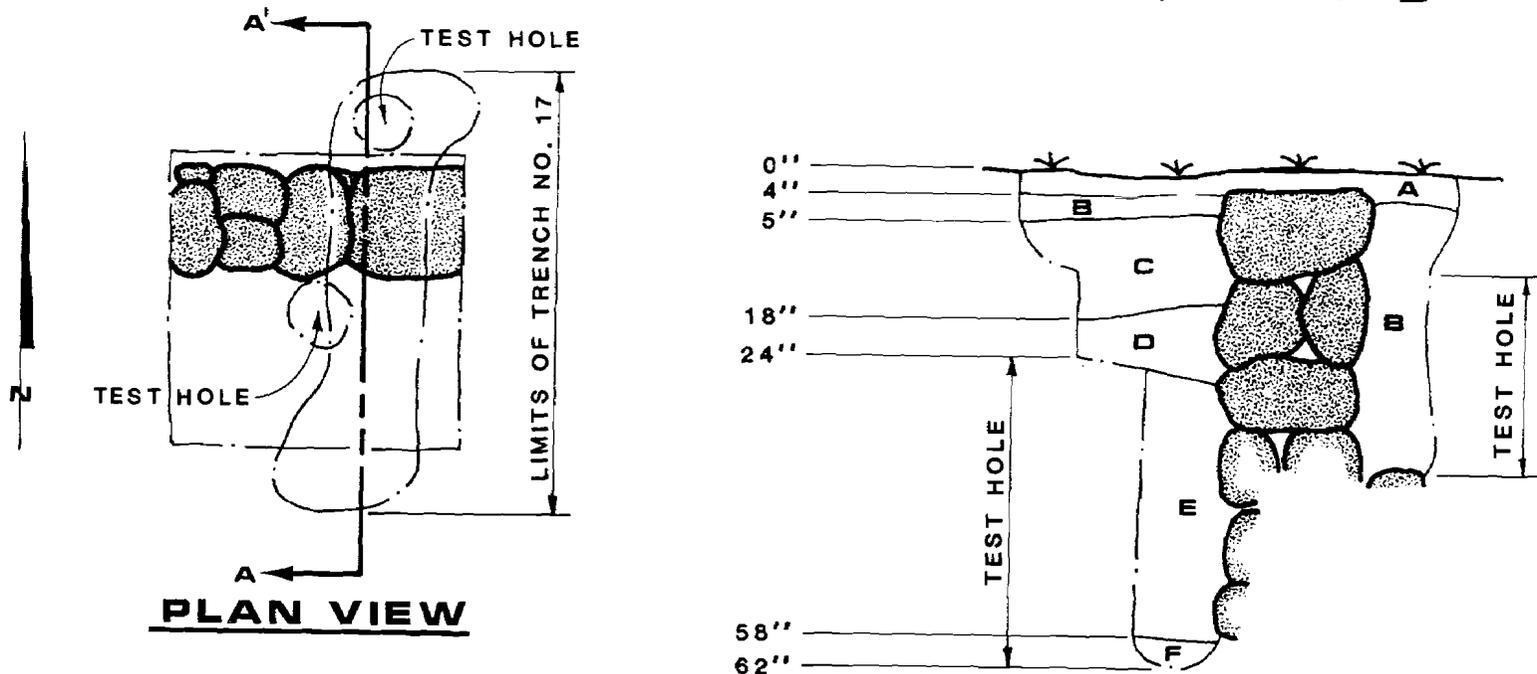
Trench 17, later expanded by Test Pit 18, (Fig. 10, Map 9) was located approximately 12 ft. north of TP 15 and in the same location as ST 76. It exposed a 3 ft. long section of stone foundation composed of unfaced rubble stones and mortar and oriented east-west (Fea. 3). The feature extended to a depth of 58 inches below the surface and rested on yellow sand. Excavation on the north side of the foundation yielded no artifacts and no builder's trench was noted. The south side was filled with demolition rubble, clayey soil fill, and artifacts, including bottle glass, cut and wire nails, asbestos tile fragments, and sherds of whiteware, pearlware, and creamware.

Trench 16 (Fig. 11 & Map 9) bisected the foundation (Fea. 4) exposed by ST 63 and revealed that it extended only 18 in. below the surface. No filled cellar holes were found on either side of the foundation, suggesting that this feature was support for a lighter, perhaps one-story addition to the main building. Artifacts recovered included primarily ironstone and pearlware sherds, and cut nails.

Test Pit 19 (Fig. 12 & Map 9) was superimposed over ST 57 to determine the extent and nature of the mortar layer. This layer was found to be more than six feet in diameter and approximately three inches thick. Recovered artifacts include redware and ironstone sherds, aqua and clear bottle glass, window glass,

FIGURE 10

TEST PIT NO. 18 PLAN AND PROFILE, AREA "D"



CROSS SECTION A-A'

SHOWING COMBINED PROFILE OF TRENCH NO. 17,
TEST PIT NO. 18, AND TEST HOLES



KEY:

A - TOPSOIL - DARK BROWN LOAM

B - YELLOWISH BROWN CLAY

C - TOPSOIL, BRICK, ASH

D - YELLOWISH BROWN CLAY FILL

E - RUBBLE, BRICK, ASH, CLAY, CHARCOAL, TOPSOIL

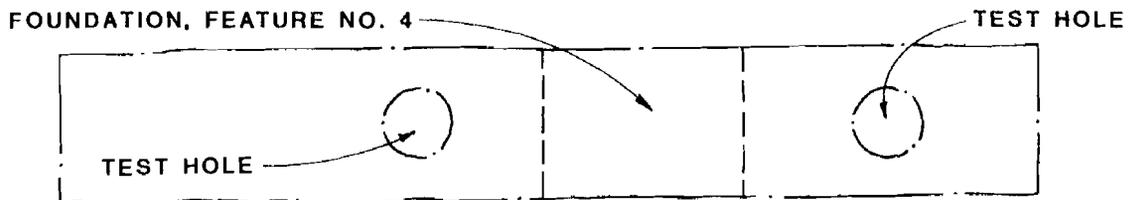
F - MOIST YELLOW SAND



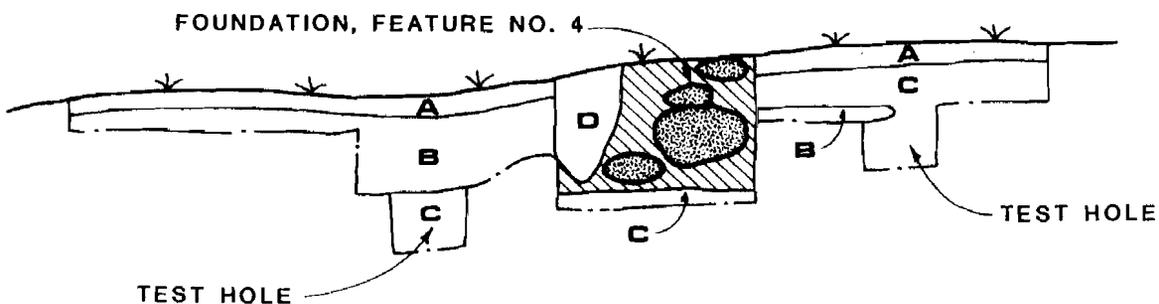
STONE

FIGURE 11

TRENCH NO. 16 PLAN AND PROFILE, AREA "D"



PLAN VIEW



PROFILE - SOUTH WALL

KEY:

A - TOPSOIL - DARK BROWN SANDY LOAM

B - GRAYISH BROWN MOTTLED CLAY

C - YELLOWISH BROWN SANDY CLAY

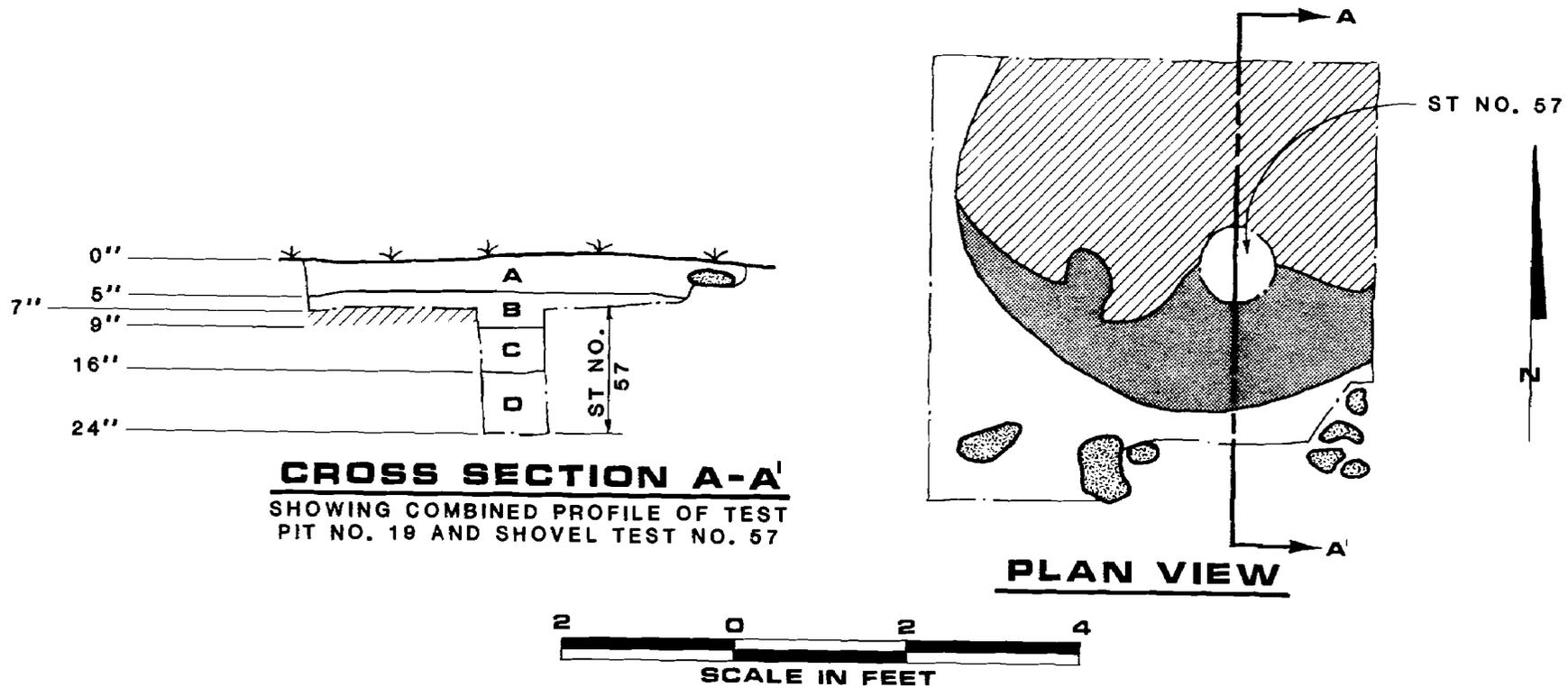
D - MOTTLED BROWN CLAY, SAND, AND CHARCOAL

 - STONE

 - MORTAR

FIGURE 12

TEST PIT NO. 19 PLAN AND PROFILE, AREA "D"



KEY:

A - TOPSOIL - DARK BROWN LOAM

B - DARK BROWN LOAM WITH LOTS OF MORTAR AND BURNED WOOD

C - DARK YELLOWISH BROWN SANDY LOAM WITH PEBBLES

D - YELLOWISH BROWN SANDY LOAM

 - AREA WHERE MORTAR WAS REMOVED

 - STONE

 - MORTAR

and cut nails. Also found beneath the mortar layer were two fragments of a pewter spoon, a metal bale seal and two mocha pearlware fragments. In the southern end of the unit, some loose stones were found, possibly associated with the foundation located in TR 16 and ST 57.

All three historic artifact bearing levels (to 20 in. below surface) yielded prehistoric artifacts. Found along with quartz and quartzite flakes and a chert flake tool were a quartzite Broadspear-like knife or projectile point, two contracting-stemmed bifaces, one of jasper and one of quartzite, and a one-inch long distal section of a fourth, quartzite biface.

The stemmed bifaces are typical of the Woodland I Period (3000 B.C. to 1000 A.D.), described previously. Over half of the flakes found contained cobble cortex, indicating that local cobble resources were being exploited. No prehistoric ceramics, ground stone tools, or other artifacts were found.

A postholer test grid was laid out and excavated to the east and southeast of the rubble pile and indicated extensive undisturbed prehistoric archeological deposits (Map 9).

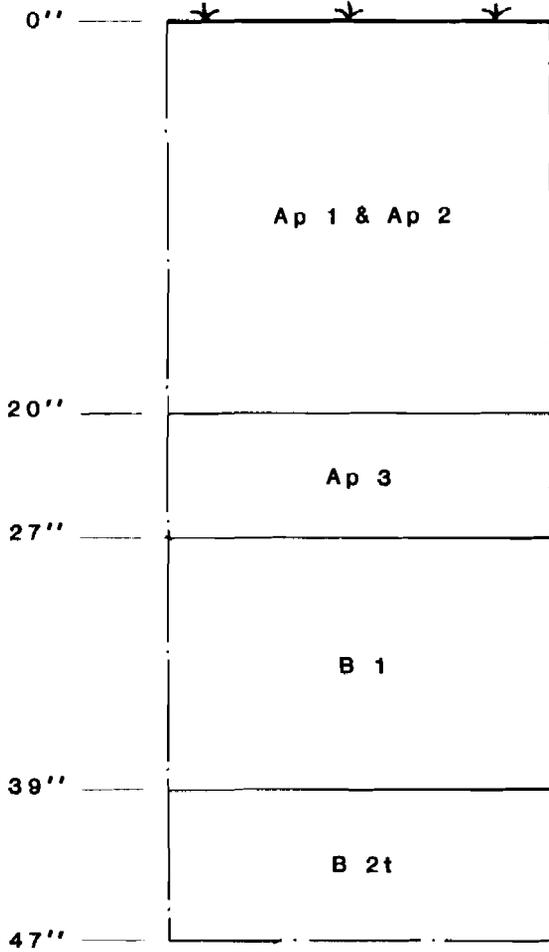
The "70S" and "19OE" grid lines served to form right-angle transects to give an idea of the extent of the deposits (Map 9). The lithics were primarily cryptocrystalline jaspers and cherts, quartz, and occasionally rhyolite, quartzite, and argillite flakes. All of this material was found below the humus or plow zone; and the majority of test holes, except where noted in Appendix 2, contained no historic material. The subsoil bearing the artifacts was primarily yellow-brown silty loams and sands; little clay was encountered.

Test Pits 40 and 57 were also excavated in this area of the site and yielded numerous artifacts in both disturbed and undisturbed contexts. Test Pit 40 (Fig. 13) contained at least three distinct levels of plow zone and/or slope wash (the deepest being a buried horizon) down to 26 in. below the surface with prehistoric

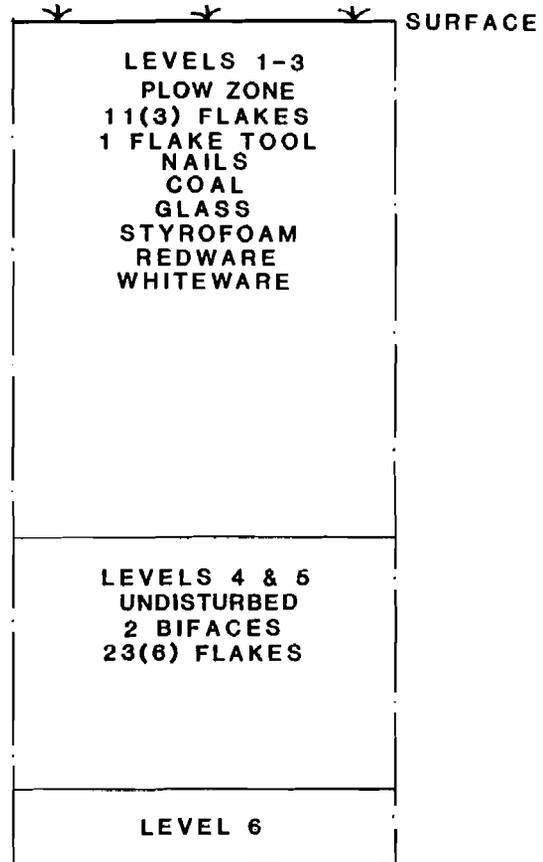
FIGURE 13

WEST WALL TEST PIT NO. 40 5' x 5'

WAGNER, 1982 SOIL LEVELS



DELDOT EXCAVATION LEVELS



flakes and redware, nails, coal, and other historic artifacts throughout. The in-place B soil horizon (subsoil) extended to 42 in. with prehistoric artifacts to 37 inches. Levels 4 and 5 (27-39 in.) contained 21 quartz flakes (5 with cortex), 2 chert flakes (1 with cortex), the distal end of a quartz biface, and a teardrop-shaped quartz biface missing its distal end. Below level 5 lay a sterile argillic subsoil estimated to be 7,000 to 8,000 years old (Daniel P. Wagner, pers. comm. 1982). This would place level 4 and 5 as somewhat younger and would temporally place the artifacts late in the Archaic Period (4000-3000 B.C.) or in the Woodland I Period (3000 B.C. -A.D. 1000).

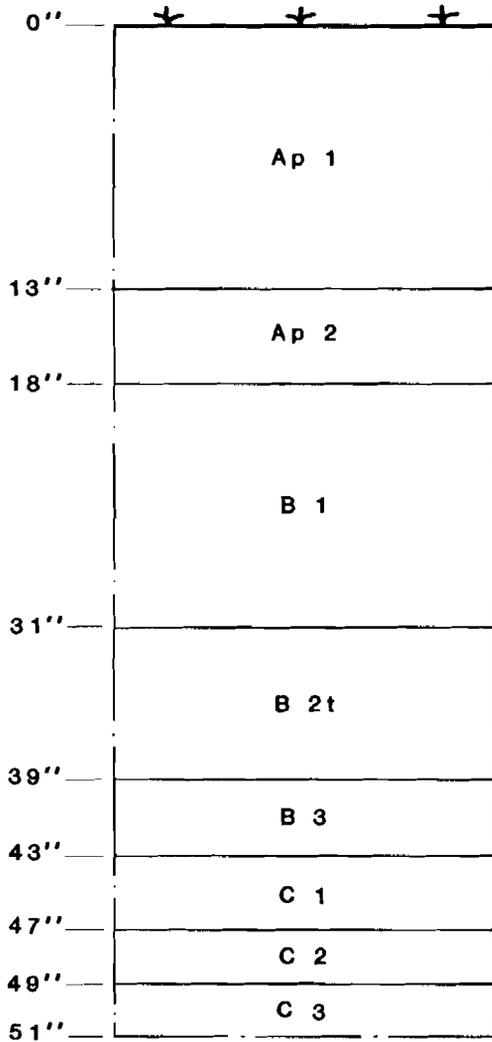
Test Pit 57 (Figs. 14, 15, & 16) contained many artifacts and two features in undisturbed contexts. Two distinct plow zones with slope wash horizons extended to 18 in. below surface and contained 235(74)* flakes, 6 cores, and a square-stemmed jasper projectile point. In the lower of the two plow zones, at about 14 in., a single prehistoric ceramic sherd was found. It is interior/exterior cord-marked, tempered with coarse sand, and generally resembles early ceramic types like Accokeek or Wolfe Neck. Also found were redware, pearlware, and whiteware sherds, clear bottle glass fragments, and other historic artifacts. The B1 subsoil contained levels 4 through 10 and extended from 18 to 32 inches. Appearing at the top of level 6 were prehistoric features 1 and 2, the latter subsuming the former. It is probable that feature No. 1 is the leached portion of No. 2. Together they contained charcoal flecks, fire cracked rocks (FCR), 10(2) flakes, and an undiagnostic fragment of a red jasper biface. Aside from the features, this level produced another 27(7) flakes, while level 7 contained 1(1) flake, and level 10 another 3 flakes. (Levels 7 through 10 were tested by auger hole only.) The

*The number within the parentheses which follows the total number of flakes is that number of flakes within that total which had cortex.

FIGURE 14

WEST WALL TEST PIT NO. 57 5' x 5'

WAGNER, 1982 SOIL LEVELS



DELDOT EXCAVATION LEVELS

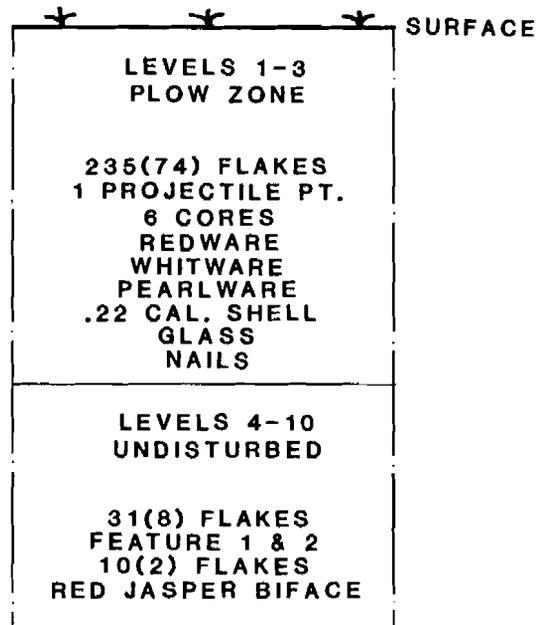
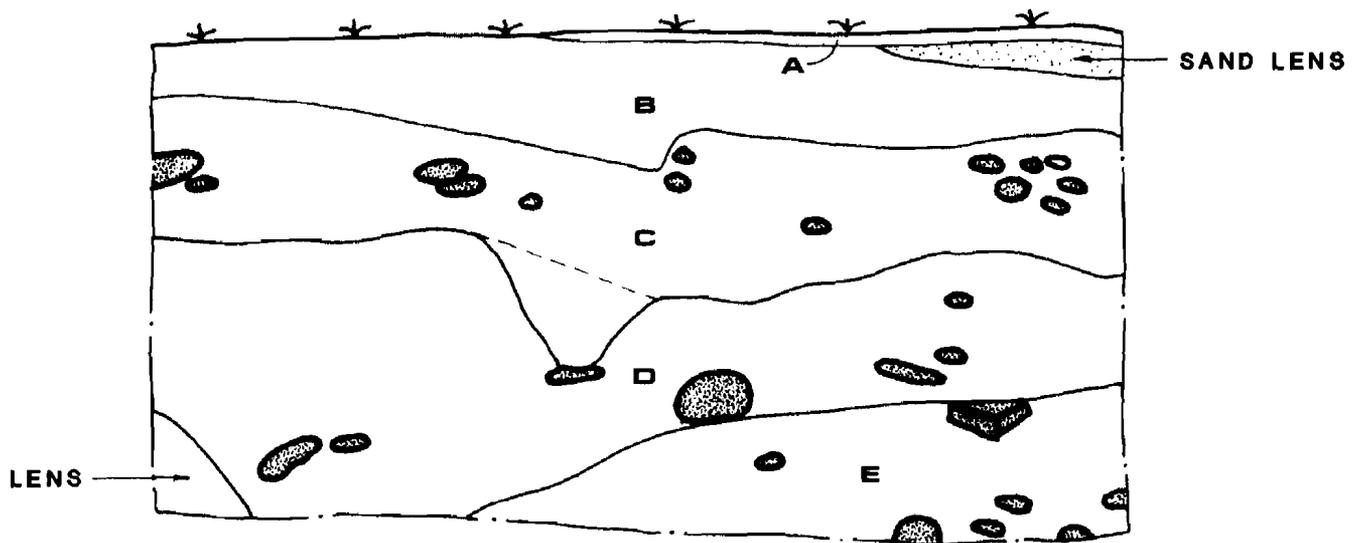


FIGURE 15

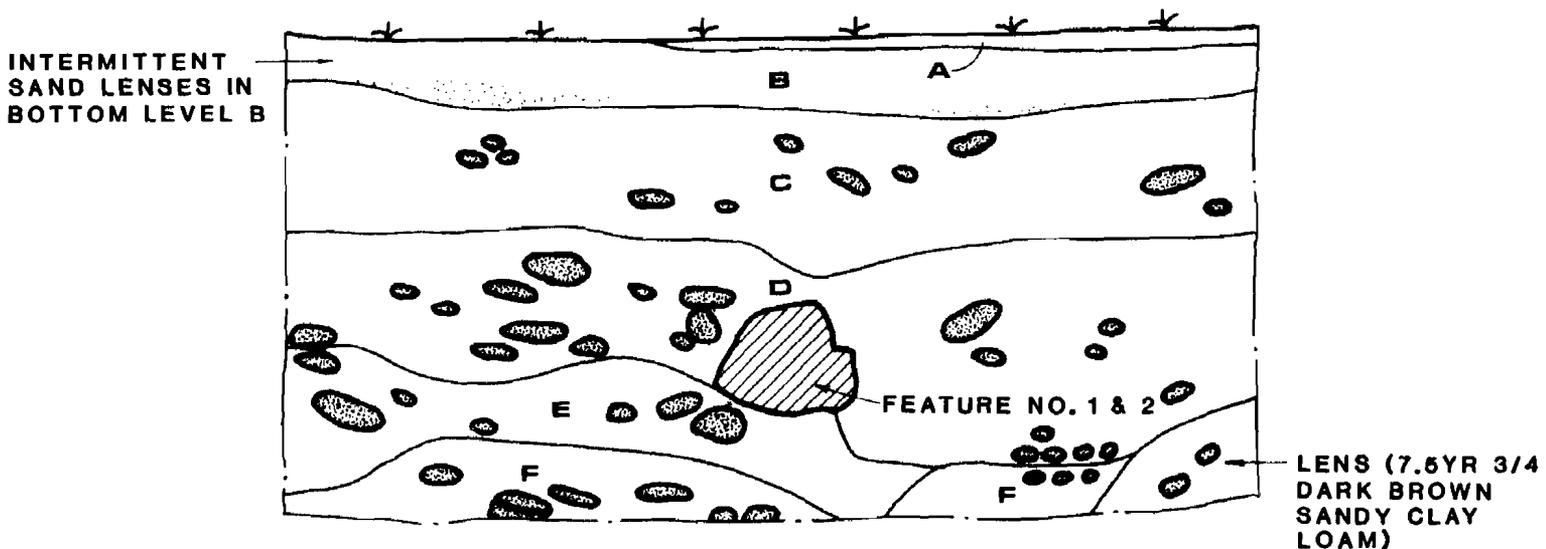
W.M. HAWTHORN SITE

TEST PIT NO. 57 FINAL PROFILES

NATURAL SOIL LEVELS



WEST WALL PROFILE



SOUTH WALL PROFILE

KEY:



- STONE

A - HUMUS

B - 10YR 4/4 DARK YELLOWISH BROWN CLAY LOAM

C - 10YR 3/6 DARK YELLOWISH BROWN SANDY LOAM

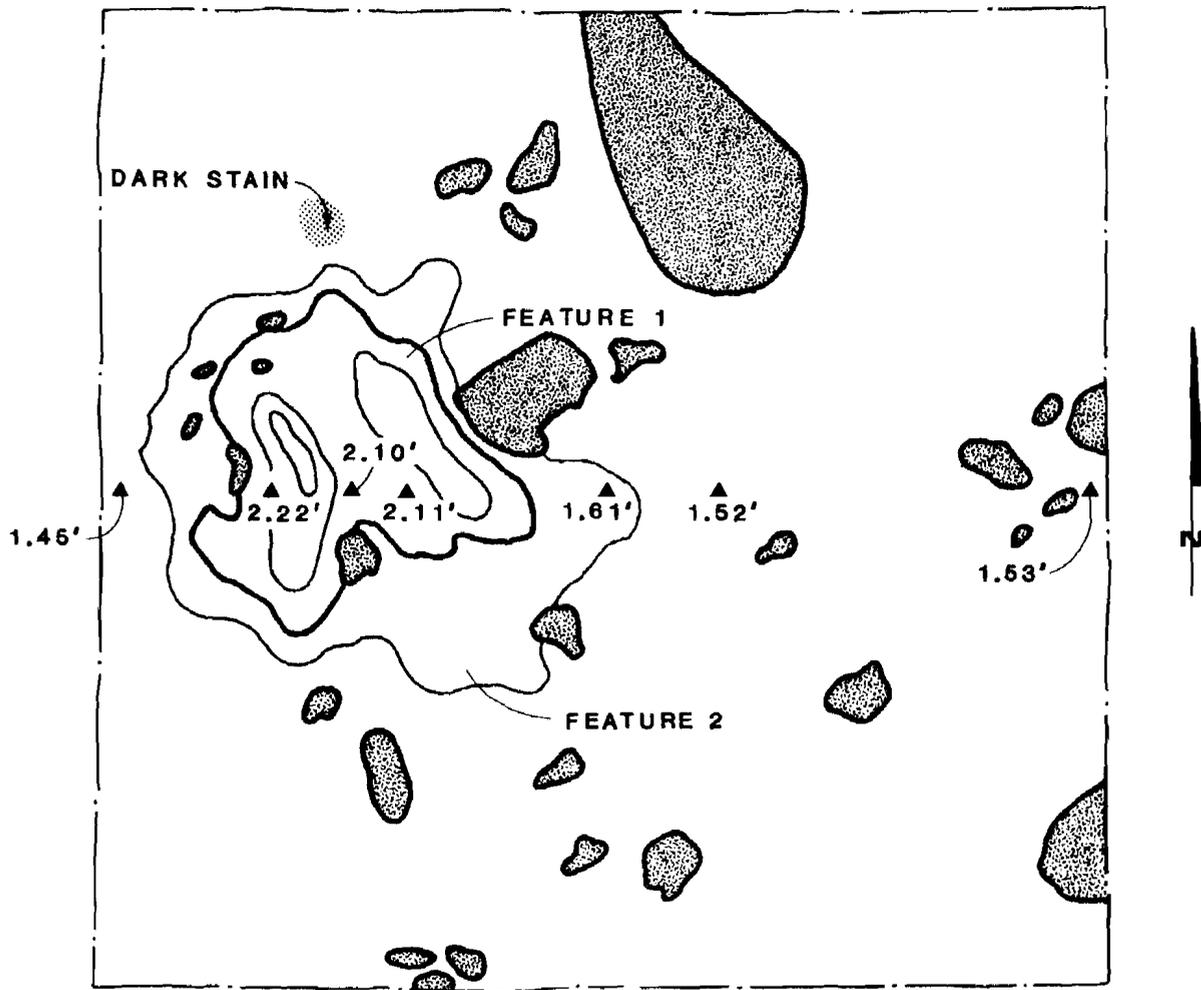
D - 7.5YR 4/4 DARK BROWN SANDY LOAM

E - 7.5YR 4/6 STRONG BROWN SANDY LOAM

F - 7.5YR 5/6 STRONG BROWN SANDY CLAY WITH HEAVY COBBLES

FIGURE 16

W.M. HAWTHORN SITE TEST PIT NO. 57, FEATURE NO. 1 & NO. 2 EXCAVATION LEVEL 6



PLAN VIEW



KEY:

 - STONE

▲ - ELEVATION DEPTH

features were collectively interpreted as a small hearth and bottomed out in level 10 at about 29 in. below the surface.

As in TP 40, TP 57 disclosed a well-developed argillic soil horizon directly beneath the lowest cultural material (Daniel P. Wagner, pers. comm. 1982). Again this places levels 4 through 10 sometime late in the Archaic or in the Woodland I Periods.

Conclusions of the Phase II Survey

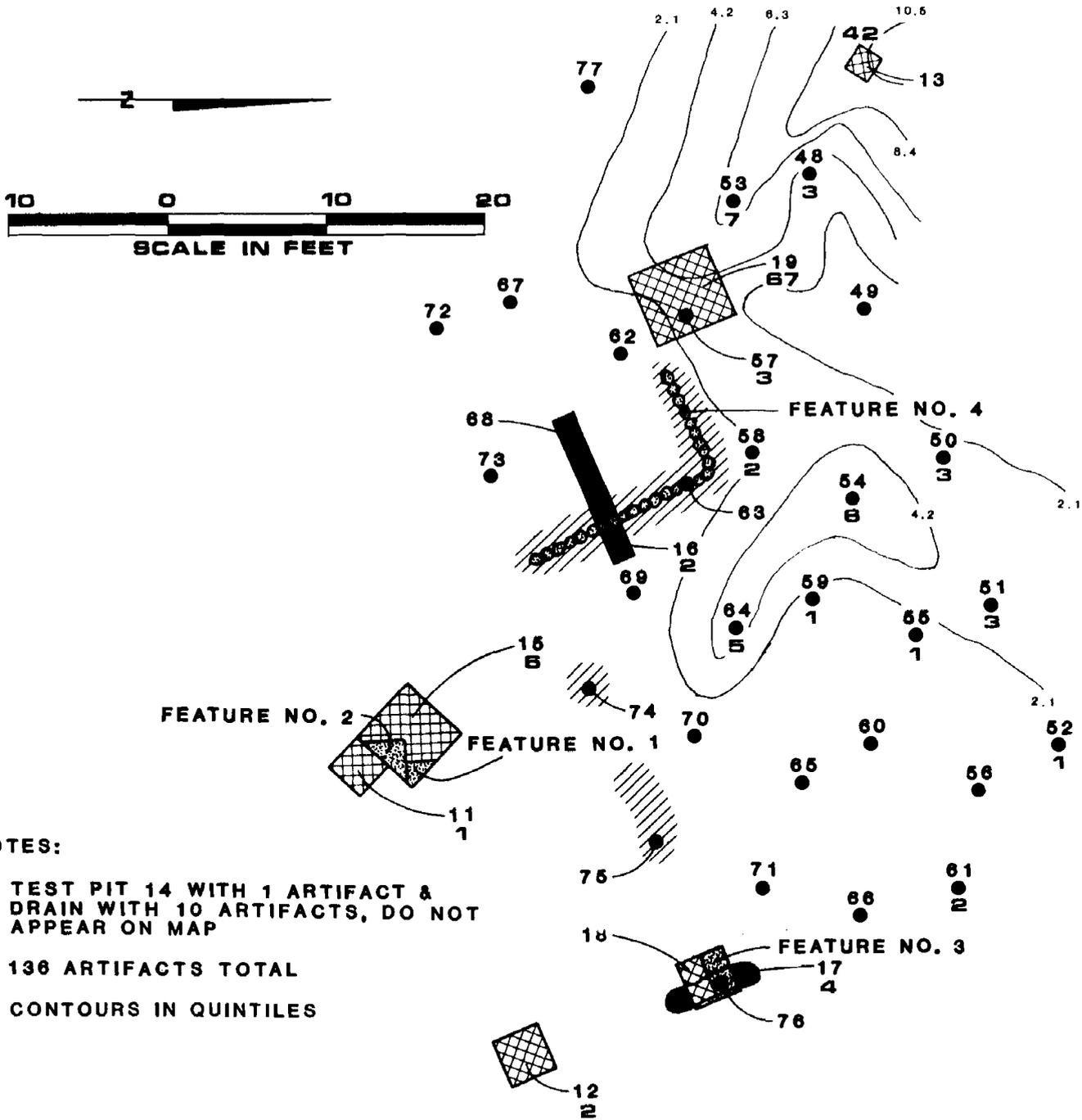
The Phase II subsurface testing at the Hawthorn Farmstead served to distinguish three and possibly four intact subsurface foundations and two undisturbed prehistoric features plus associated artifacts: Feature 1, the easterly of the two brick foundations located in TP 15; Feature 3, found in TR 17 & TP 18 and ST 76; Feature 4, exposed by TR 16; and Prehistoric Features 1 & 2 in TP 57. Further excavation is required to determine the structural integrity and contents of the slanting brick foundation located in TP 15 (Feature 2).

The foundations suggest three different functions or building episodes. The foundation located in TR 17 and TP 18 is thought to be part of the main block of the house, based upon its width and depth. The brick structure found in TP 15 may be an internal basement partition wall or a rear addition to the main block. As mentioned, the shallow foundation found in TR16 and ST 63 may have supported a one story addition, perhaps a service or kitchen wing built onto the main block. The artifacts recovered from units in the vicinity (TR 16 and TP 19) serve neither to support nor to refute this supposition, and additional testing is required.

Artifact distribution maps for historic artifact types, including temporally diagnostic ceramics, glass, and nails, were prepared to see if any spatial patterning through time was evident at the site (Maps 11-19). Although the spatial coverage was somewhat biased and several units were filled with demolition debris and as such had poor context for the artifacts recovered, some tentative interpretations

MAP 11

REDWARE DISTRIBUTION (1600 - 1805)



NOTES:

TEST PIT 14 WITH 1 ARTIFACT & DRAIN WITH 10 ARTIFACTS, DO NOT APPEAR ON MAP

136 ARTIFACTS TOTAL

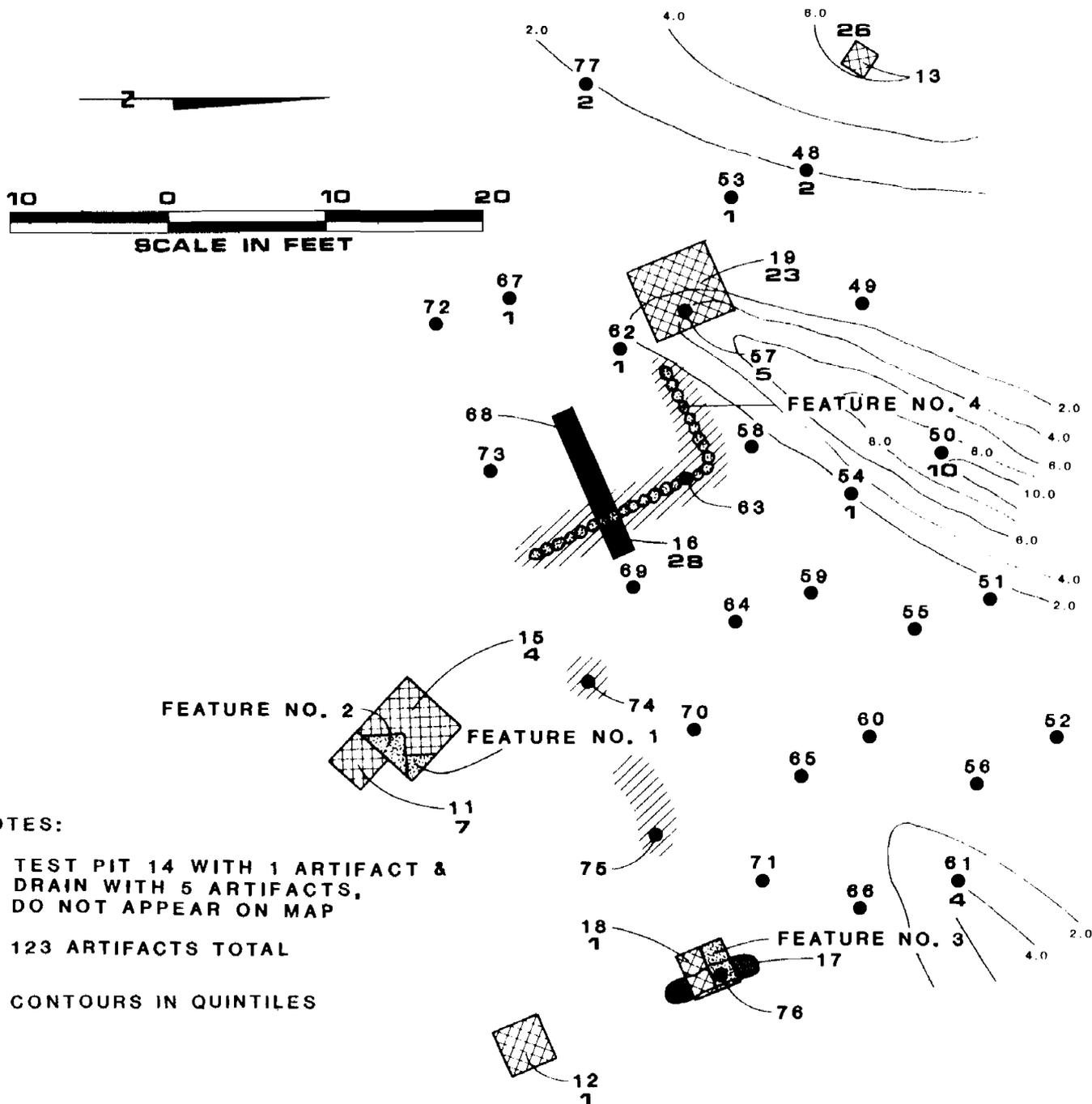
CONTOURS IN QUINTILES

KEY:

- | | | | |
|--|---------------------------|---|---------------------|
|  | -TEST PIT EXCAVATION UNIT |  | -SHOVEL TEST UNIT |
|  | -TOPSOIL REMOVED |  | -IDENTIFICATION NO. |
|  | -STRUCTURAL FEATURE |  | -ARTIFACT COUNT NO. |
|  | -TRENCH |  | -CONTOUR VALUES |

MAP 12

WHITEWARE AND IRONSTONE DISTRIBUTION (1820 - 1900)



NOTES:

TEST PIT 14 WITH 1 ARTIFACT &
DRAIN WITH 5 ARTIFACTS,
DO NOT APPEAR ON MAP

123 ARTIFACTS TOTAL

CONTOURS IN QUINTILES

KEY:

-TEST PIT EXCAVATION UNIT

-TOPSOIL REMOVED

-STRUCTURAL FEATURE

-TRENCH

-SHOVEL TEST UNIT

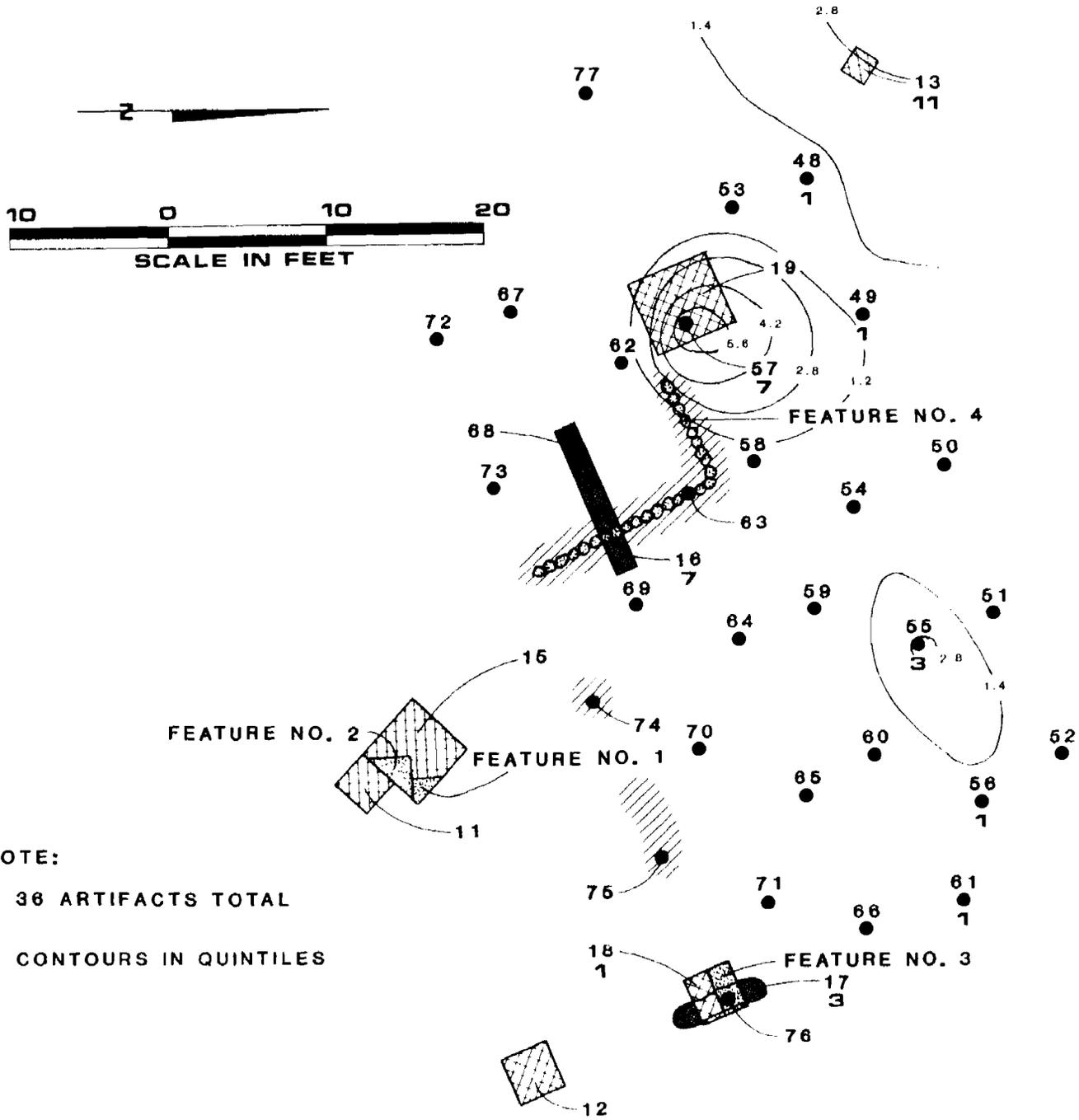
0-IDENTIFICATION NO.

-ARTIFACT COUNT NO.

0.0 -CONTOUR VALUES

MAP 13

PEARLWARE DISTRIBUTION (1780 - 1830)



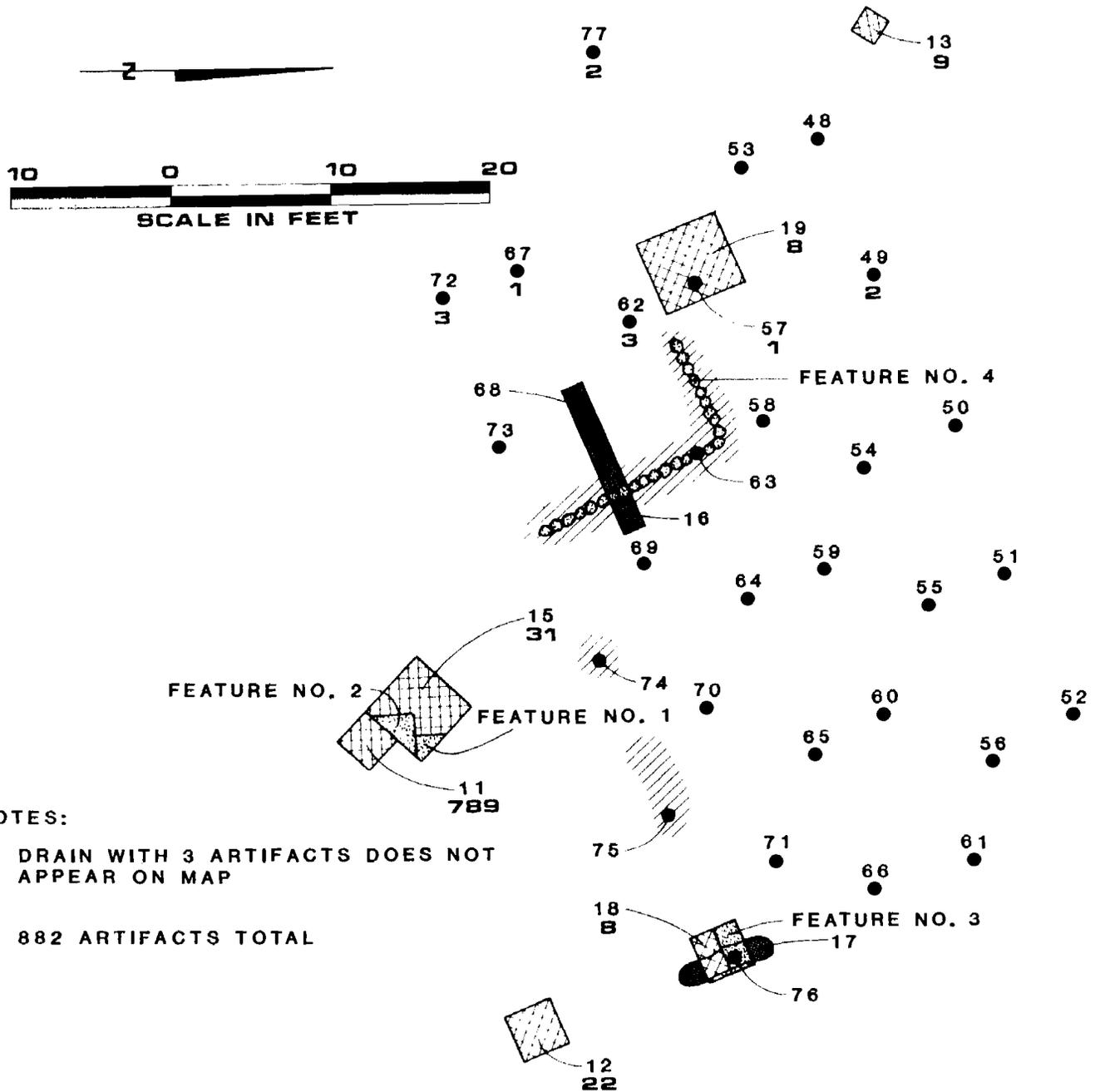
NOTE:
 36 ARTIFACTS TOTAL
 CONTOURS IN QUINTILES

KEY:

- | | |
|--|---|
|  -TEST PIT EXCAVATION UNIT |  -SHOVEL TEST UNIT |
|  -TOPSOIL REMOVED |  -IDENTIFICATION NO. |
|  -STRUCTURAL FEATURE |  -ARTIFACT COUNT NO. |
|  -TRENCH | 0.0 -CONTOUR VALUES |

MAP 14

CLEAR GLASS BOTTLE DISTRIBUTION (LATE 19TH CENTURY)



NOTES:

DRAIN WITH 3 ARTIFACTS DOES NOT APPEAR ON MAP

882 ARTIFACTS TOTAL

KEY:

 -TEST PIT EXCAVATION UNIT

● -SHOVEL TEST UNIT

 -TOPSOIL REMOVED

○ -IDENTIFICATION NO.

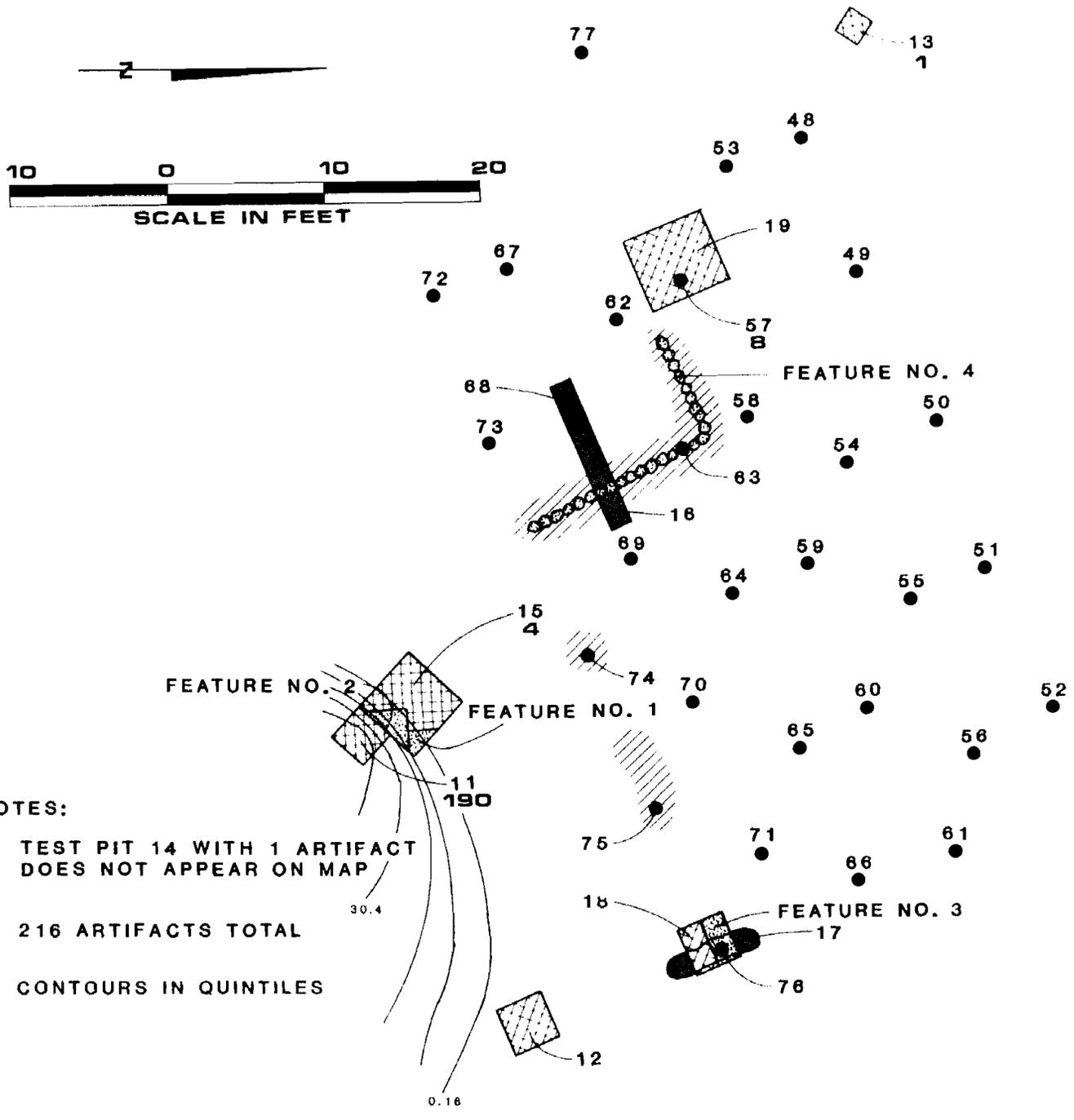
 -STRUCTURAL FEATURE

□ -ARTIFACT COUNT NO.

 -TRENCH

MAP 15

STORAGE GLASS DISTRIBUTION



NOTES:

TEST PIT 14 WITH 1 ARTIFACT DOES NOT APPEAR ON MAP

216 ARTIFACTS TOTAL

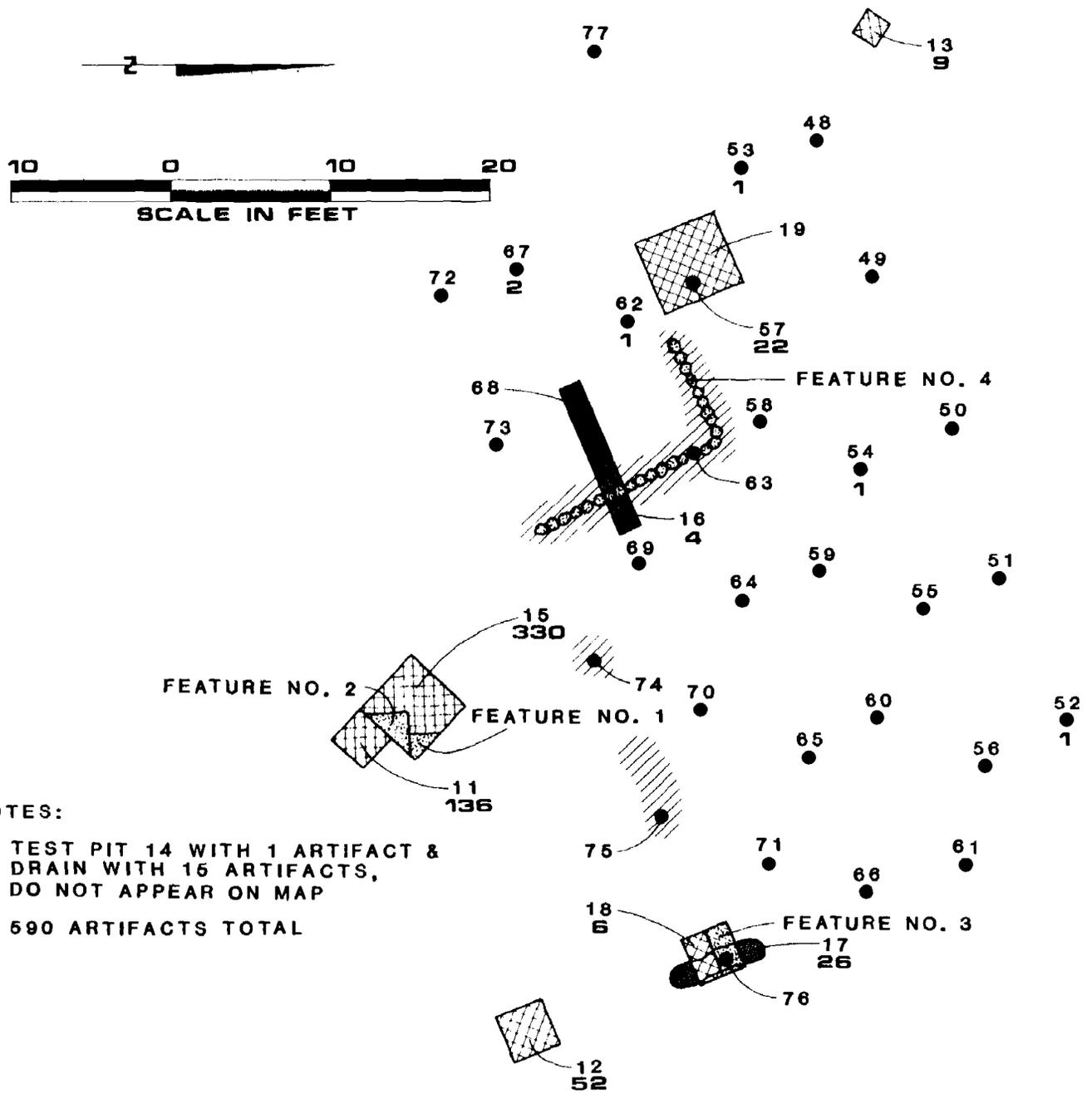
CONTOURS IN QUINTILES

KEY:

- | | |
|--|---|
|  -TEST PIT EXCAVATION UNIT |  -SHOVEL TEST UNIT |
|  -TOPSOIL REMOVED | ○-IDENTIFICATION NO. |
|  -STRUCTURAL FEATURE | ○-ARTIFACT COUNT NO. |
|  -TRENCH | 0.0 CONTOUR VALUES |

MAP 16

WINDOW GLASS DISTRIBUTION



NOTES:

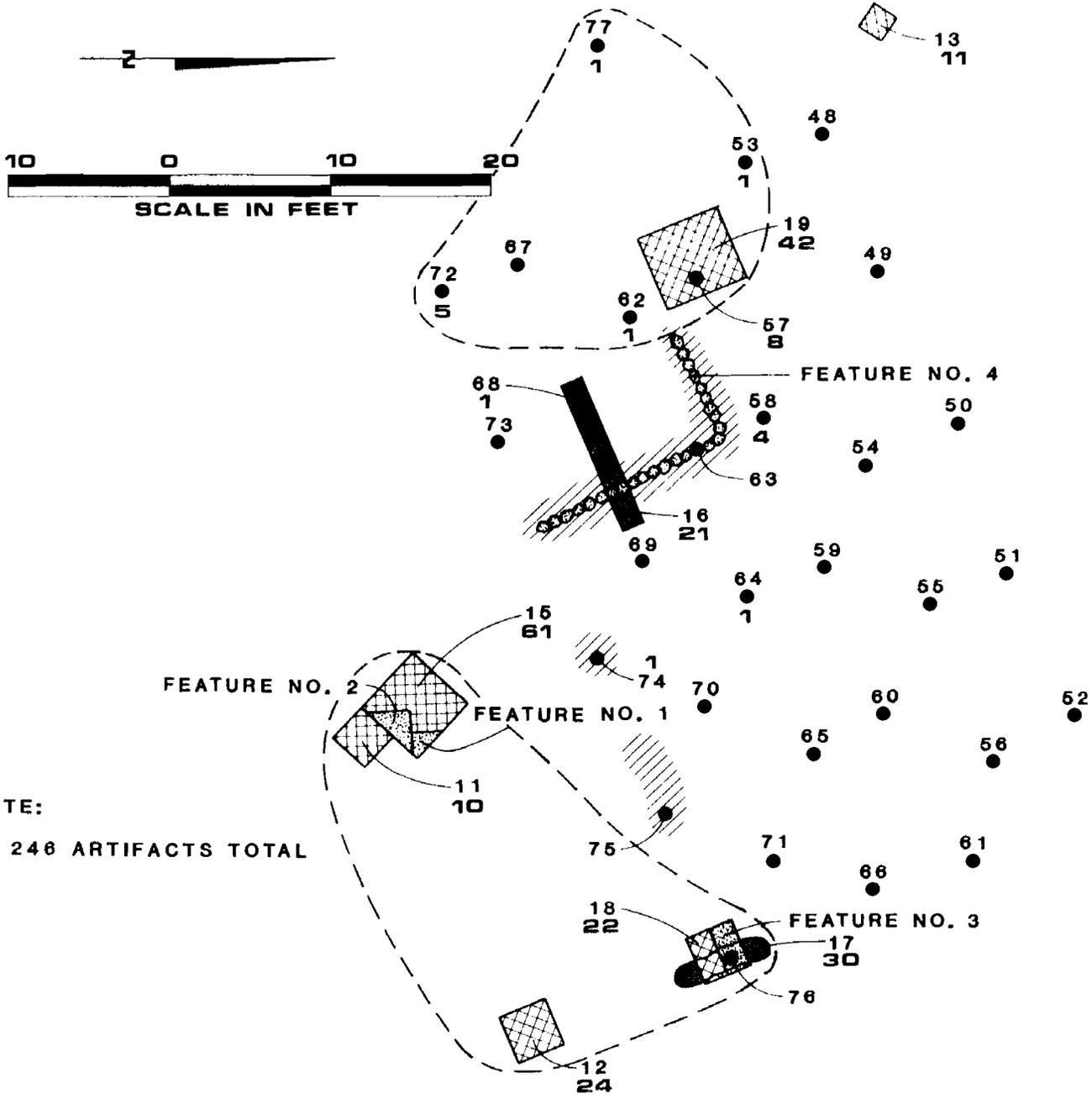
TEST PIT 14 WITH 1 ARTIFACT &
DRAIN WITH 16 ARTIFACTS,
DO NOT APPEAR ON MAP
690 ARTIFACTS TOTAL

KEY:

- | | |
|---|---|
|  -TEST PIT EXCAVATION UNIT |  -SHOVEL TEST UNIT |
|  -TOPSOIL REMOVED |  -IDENTIFICATION NO. |
|  -STRUCTURAL FEATURE |  -ARTIFACT COUNT NO. |
|  -TRENCH | |

MAP 17

CUT NAIL DISTRIBUTION

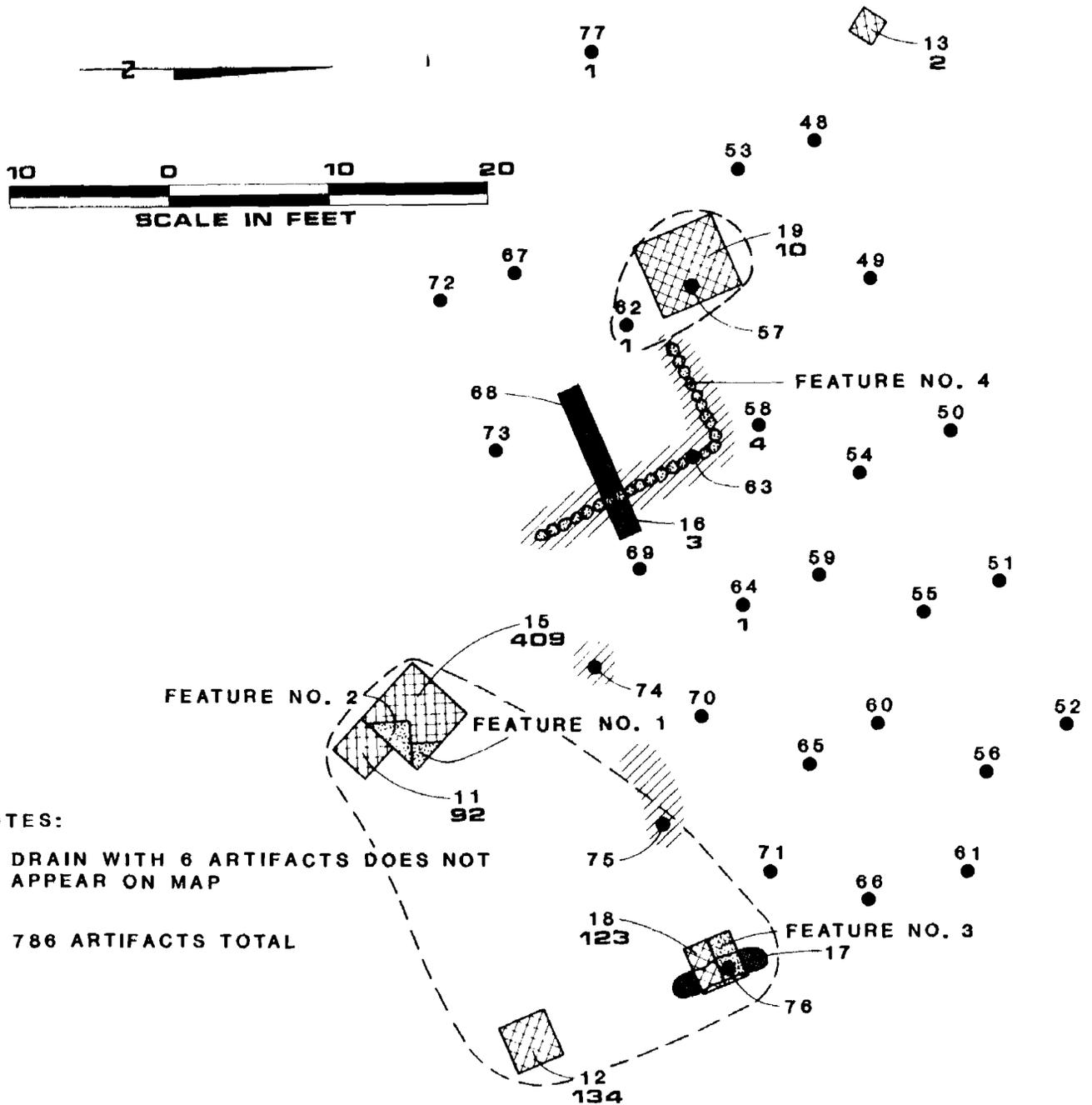


NOTE:
246 ARTIFACTS TOTAL

- KEY:**
- TEST PIT EXCAVATION UNIT
 - TOPSOIL REMOVED
 - STRUCTURAL FEATURE
 - TRENCH
 - SHOVEL TEST UNIT
 - IDENTIFICATION NO.
 - ARTIFACT COUNT NO.
 - ARTIFACT CONCENTRATIONS

MAP 18

WIRE NAIL DISTRIBUTION



NOTES:

DRAIN WITH 6 ARTIFACTS DOES NOT APPEAR ON MAP

786 ARTIFACTS TOTAL

KEY:

-  -TEST PIT EXCAVATION UNIT
-  -TOPSOIL REMOVED
-  -STRUCTURAL FEATURE
-  -TRENCH
-  -SHOVEL TEST UNIT
-  -IDENTIFICATION NO.
-  -ARTIFACT COUNT NO.
-  -ARTIFACT CONCENTRATIONS

of spatial patterning can be offered. The area of the site northeast and northwest of the foundation (Feature 4) including Test Pits 13 and 19, Trench 16, and Shovel Tests 48, 49, 53, 57, 67, 68, 72, and 73, contained late 19th-century bottle glass, pearlware dated to between 1780 and 1830, whiteware and ironstone ceramics dating to and between 1820 and the early 20th-century, cut nails dating to between 1825 and 1890, and wire nails dating from after 1890. Trash deposition in this area seemed to post-date the beginning of the 19th-century. A second area southeast of Feature 4 including Test Pits, 11, 12, 15, and 18, Trench 17, and shovel Tests 71, 75, and 76 is dated slightly later (post 1820) and included late 19th-century bottle glass, whiteware, ironstone and cut nails. These two areas can be contrasted to a third area northeast and east of Feature 4 that includes Shovel Tests 50, 51, 54, 55, 58-60, 63, 64, and 70, and contained primarily redware predating 1805. These distributions seem to suggest that dumping of trash and deposition of artifacts varied through time and that spatial utilization of the Hawthorn Farmstead probably varied as well. The date of the shift in trash deposition patterns would be ca 1780-1820. Additionally, the earlier deposits seem to be buried in undisturbed contexts (see Figure 7 and associated profiles) suggesting in situ buried deposits spatially distinct from later deposits.

The varied artifact and spatial deposition and utilization at the Hawthorn Farmstead through time and the presence of undisturbed, buried, artifact-bearing horizons in the surrounds of a residential structure dating from the late 18th-to mid 20th-century provide unique opportunities to study the changing lifeways of the Delaware Farmer. For the same reasons, the site could be used to develop a comparative data base for future excavations at other similar sites. No farmsteads of a similar socio-economic group have been excavated in the northern Delaware area. Only one additional farmstead, the Robert Ferguson Site, has been studied by Delaware Department of Transportation archaeologists (Coleman et al 1983);

however, the Ferguson site was a tenant house with associated outbuildings. The apparent non-tenant occupation of the Hawthorn Site should produce contrasting information to that discovered at Ferguson.

Study of the changing lifeways at rural farmsteads is a interesting research question for the northern Delaware area, as well as for the entire Middle Atlantic region, and this accentuates the significance of the Hawthorn Site. Fletcher (1950) suggests that most farming operations in the central Middle Atlantic were primarily subsistence economies in the late 18th- and early 19th-century. However with the development of improved transportation networks, the coming of the industrial revolution, and increased population densities in urban areas, farm economies in the central Middle Atlantic were drawn into a broader market economy (Lemon 1972:224-228). In the northern Delaware area, local historical (Hoffecker 1974) and archaeological studies (Klein and Garrow 1982) of Wilmington, Delaware (less than 15 miles from the Hawthorn Site), indicate an emerging transportation and commercial center through the late 18th- and 19th-centuries. With further industrialization, varied patterns of ethnic and socio-economic groups with different residence patterns and complex changes in land use seem to be apparent in urban contexts. However, the effects of industrialization, expanding markets, and improved transportation on rural areas are not known at present. The Hawthorn Site provides a unique setting to see if these historically documented urban and regional trends had effects on farmsteads in rural, yet not isolated, areas. Archaeological studies of these effects may be particularly useful because they may identify changes in material culture and spatial utilization patterns that would not necessarily be documented in the historical record. The fact that the break in spatial distributions at the Hawthorn site occurs ca 1780-1820 indicates that the site may provide significant data for this regional research issue.

Because the site contains artifacts that are likely to provide relevant information for significant research issues, it is considered to be eligible for listing on the National Register of Historic Places (see Appendix 5). The archaeological study of rural farmsteads, such as the Hawthorn Site, in this area of the Middle Atlantic is undeveloped. Therefore, one major goal of further research should be to provide a broad data base that can be used for comparisons with other rural sites that may be excavated in the future, and to compare the data to previously studied sites in the Chesapeake where much more work has been done. Additionally, other more general research issues can be developed from the regional land use and economic patterns noted above and from more general studies in Middle Atlantic historical archaeology (H. Miller 1980). These questions include:

- 1) Are changes in artifact distributions present and are they indicative of changing spatial utilization present at the site? Can such changes in patterns be related to historically-documented economic and social changes in the surrounding area?
- 2) Are there changes in the presence or absence, and frequencies, of certain artifact classes through time that can be related to changes and/or stability in purchase and consumption habits of the site's occupants?
- 3) Can changes in either of the above categories of data be analyzed for meaningful covariance?

Each of these three questions is discussed below.

- 1) Patterns of Artifact Distribution and Spatial Utilization

Based on the work of South (1979), it can be expected that changing uses of the Hawthorn Farmstead through time would have produced different distributions of varied classes of artifacts such as domestic refuse, agricultural refuse, and subsistence refuse during different time periods. Similarly, artificial changes in

site landscape may have been accomplished through time as the activities at the farmstead changed (Handsman 1981). All of these changes may reflect variation in the economic orientation of the farmstead (e.g., from agricultural to livestock) and are related to regional economic trends (see Lemon 1972). Preliminary documentary and archaeological research suggests that the farmstead has been primarily oriented toward moderate scale grain agriculture throughout its documented history and little distributional change is expected.

Previous research at this site was limited in its areal extent and has limited interpretive value for such questions. Nevertheless, a locus of late 18th- and early 19th-century artifacts was discovered within the general distribution of late 19th- and 20th-century artifacts. Therefore, the major research task should be to obtain a representative sampling of the various sections of the site and to further investigate the possible spatially distinct late 18th- and early 19th-century artifacts. A sample of varied site areas such as front yard and back yard should also be obtained using stratified sampling techniques. These samples should consist of a series of test units (measured excavation units and postholer tests, depending on stratigraphy) placed at regular intervals in transects across the known site area and within special site areas.

Cataloging and laboratory analysis of the artifacts from the excavations should focus on variation in function and should follow the methods proposed and described by South (1979). Expected categories to be delineated include household vs. farm implement, ceramic vs. metals, and varied ages. Diagnostic artifacts and histograms of ceramic and glass categories should be used to define chronological controls within the spatial analysis. A series of distribution maps for various points in time should be produced to show the presence or absence of changes in spatial distribution.

2). Purchase and Consumption Habits

The regional socio-economic changes described earlier may not only have changed spatial utilization at the site, but may also have affected the income of the site's inhabitants and their purchase and consumption habits. For example, as northern Delaware was drawn into wider ranging market economies, new goods and perhaps foods might have become available. This is especially true given the role of Philadelphia and Wilmington as import/export centers. Also, the vagaries of local and regional economies may have had important effects upon the economic standings of farms. Lemon (1972:224) notes that in nearby southeastern Pennsylvania, the period between 1760 and 1790 was one of disruption of "normal economic patterns" due partly to the Revolutionary War, but also due to a major reorientation of immigration patterns and fluctuations in the values of goods within the trans-Atlantic market. There are some indications that real income rose throughout the new "national" economy in the 1790's and again between 1815 and 1830 (Adams 1968). However, Fletcher's (1950) study of agricultural economy during the same period does not clearly indicate a change in agricultural income until after 1840.

Both archival and archaeological research should be used to analyze the economic standing of the inhabitants of the Hawthorn Site through time. The original archival research suggests that on the basis of size, land holding, and taxes the Hawthorn Site was in the middle income range and little change could be seen in its economic status over time. However, the initial research did not include a consideration of regional and local economic trends and there is really no existing basis for comparison to other rural farm economies in northern Delaware. Consequently, some archival research should be carried out to document the comparative backdrop of regional and local agricultural economies against which the Hawthorn Site can be considered. Archaeological research should consist

primarily of artifact analysis and utilize the artifacts recovered during the testing program described for the analysis of spatial distributions. These artifacts should be analyzed as indicators of socio-economic status using techniques similar to those utilized by G. Miller (1974, 1980). The varied classes of artifacts recovered should also be analyzed for indications of changing primary trade networks.

The presence of stratified remains, including a variety of household and agricultural artifacts, recovered in the initial testing of the site ensures that there should be sufficient archaeological data to analyze this research topic.

3) Covariation of Change

Changes in any of the data categories noted above may or may not be correlated with each other. As part of the overview of the analysis, the covariation of the changes should be studied specifically. This research should reveal the different ways by which varied cultural sub-systems are intergrated with one another and with the changing biosocial environment (Binford 1965). It is also possible that the data categories may show no change in the face of regional socio-economic change. In this case, the conservative resiliency of certain kinds of rural economies may be apparent, or perhaps archaeological data do not reveal these kinds of changes.

The prehistoric components of 7NC-E-46 seem to date to the Late Archaic-Woodland I Period based on the recovered artifacts (stemmed points) and soils analysis. Excavation of a storage feature present in test unit 57 recovered bifaces and large amounts of debitage. Based on this preliminary evidence, along with its setting adjacent to an ephemeral stream and spring, the site is probably a micro-band base camp (Custer 1983, 1981) of the Woodland I Period. Previous research in the immediate area has revealed the presence of large macro-band (Clyde Farm Site, Custer 1982; Delaware Park Site, Thomas 1981) and micro-band base camps (Green Valley Complex, Custer et al. 1982). In most cases large portions of these

known sites have been partially disturbed by plowing. In contrast, the cultural materials at 7NC-E-46 have been buried by slope wash, and possibly some aeolian deposition, and protected from disturbance by agricultural activities. As such, 7NC-E-46 offers the unique opportunity to study an undisturbed Late Archaic-Woodland I micro-band base camp.

Research on sites of the Late Archaic-Woodland I Period from this section of New Castle County has recently focused on the processes by which these societies developed a sedentary lifestyle with associated exchange networks, storage facilities, and intensified food production systems (Custer 1982, 1983). At the large macro-band base camps special emphasis has been placed on understanding intra-site patterning of tool production activities, storage, and habitation areas (Custer 1982; Thomas 1981). Similar research has also been carried out at micro-band base camps (Custer et al. 1981). It is proposed here that similar research be carried out at 7NC-E-46 by opening contiguous squares in several sections of the site and carefully recording the locations and configurations of any features and artifact concentrations. Analysis of distribution patterns of artifact classes such as fire-cracked rock (indicative of hearths and habitation areas) and debitage (indicative of tool production areas) will be important. Similarly, close analysis of tool use by microscopic and macroscopic analysis should be undertaken to further differentiate varied activity areas within the site. Flotation analysis of feature fill and living floors will also be used to gain further information on food production systems at the site.

The above-noted methods and research activities will maximize the information recovered from the site; however, they are also designed to be comparable to research methods used at the other sites in the area (particularly Clyde Farm, Delaware Park, and Green Valley). This will facilitate the comparison of the results of the excavations of 7NC-E-46 to the other sites. Such a comparison will

allow the consideration of the data from a regional perspective and will reveal the role of the site in larger settlement subsistence systems. For example, it is not clear whether or not the large macro-band base camps of the area are seasonally revisited locations with related sporadically revisited micro-band camp sites. Fusion and fission of social units would accompany such a pattern, and micro-band base camps would be expected to be miniature versions of the large macro-band base camps. On the other hand, macro-band base camps may represent sedentary occupations, and the micro-band base camps may be special purpose camps that were visited for extended periods of time for special intensive resource procurement activities. In this case social organizations would be less flexible. Also, the micro-band base camps might not contain all of the activities seen at a macro-band base camp or they may contain disproportionate numbers of special purpose tools. No matter which scenario is accurate, the research design proposed here, with its insurance of comparable data, should be able to clarify the role of micro-band base camps in the regional settlement system.

Because the size of the site prohibits complete excavation, a sampling strategy is necessary. Also, it is very likely given excavation experiences at similar sites in New Jersey (Stewart 1981), that complete excavation would generate much redundant data. It is proposed here that the sampling design for the site be based on regular testing of the site with 5ft. x 5ft. excavation units. These units should be placed to cover the spatial extent of the site within the area of highest artifact density based on the preliminary test results. When subsurface concentrations of artifacts are encountered, adjacent units should be opened up to generate broader horizontal exposure and maximize the spatial data from the excavations. If adjacent units do not contain more cultural materials, the coverage of the testing could be expanded.

Preliminary test results show that the artifact-bearing horizons at the site are buried under culturally-sterile slope wash approximately 1 ft. deep. This overburden should be removed with minimal examination for cultural materials. It should not be screened. The remaining soils containing artifacts should be excavated in 3 in. arbitrary levels within any natural soil horizons. Excavation of the arbitrary levels should utilize a variety of methods. Initial excavation of the levels should be done with shovels and the minimum provenience unit should be quadrants of a 5 ft. square. If features or high density artifact concentrations are encountered, methods should be changed to exact provenience techniques using trowels. Also, any diagnostic stone tools (projectile points, knives and ceramics) should be treated with exact provenience techniques. Flotation samples of a standard volume, to be determined later, should be taken from excavation levels and all features should be floated. Standard pollen samples should also be taken from excavation levels and features. A standard volume soil sample should also be taken from all excavation units and features.

In sum, both the historic and prehistoric components of the Hawthorn Site have been determined eligible for listing on the National Register of Historic Places and the Determination of Eligibility for both components is included as Appendix 5. While a portion of the prehistoric component was disturbed by historic occupation, much of it retains contextual integrity. This undisturbed portion, as well as the historic component, will be destroyed by the proposed widening of New Churchman's Road and thus will be directly impacted. Therefore, it is recommended that Phase III excavation as described above be scheduled for both components to determine their nature and place in local cultural development. Data recovery plans, schedules and budgets for both components have been proposed and are included as Appendices 6 and 7.

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