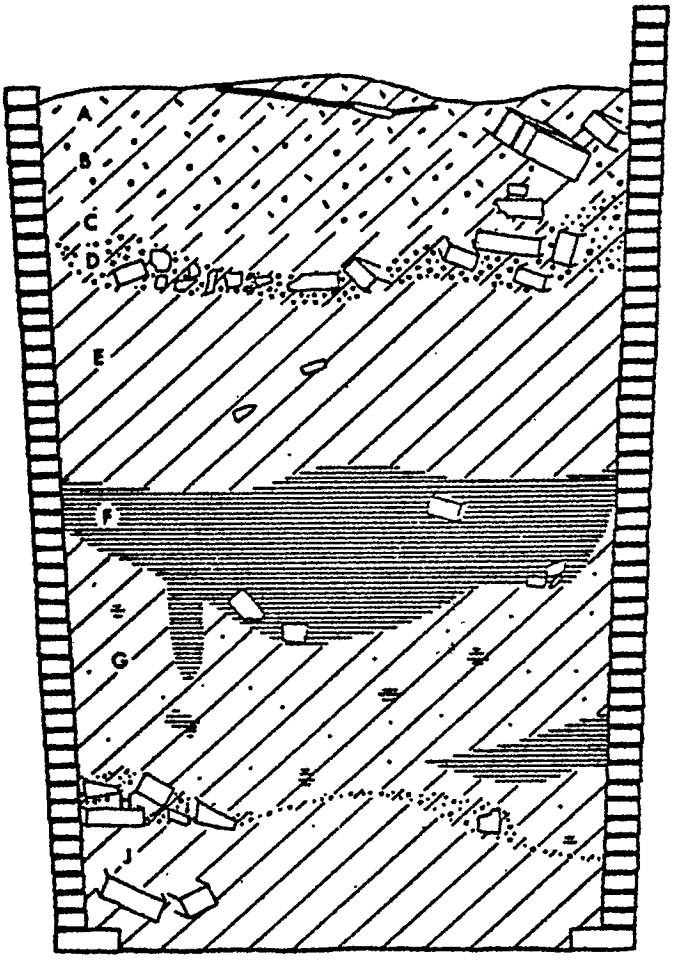
CRBIB#010863
INDEX
391/132951

SALVAGE ARCHAEOLOGY AT AREA F, PHILADELPHIA

by Michael Parrington, MICA



NPS Contract CX4000-9-0013

Salvage Archaeology at Area F,

Independence National Historical Park

Philadelphia, 1979

Michael Parrington
Museum Institute for Conservation
Archaeology
University Museum
Philadelphia, PA

March, 1980

Abstract

Excavations were carried out at Area F , Independence Historical Park, Philadelphia, in April and November, 1979, by the Museum Institute for Conservation Archaeology of the University Museum, Philadelphia, for the National Park Service. Archaeological features excavated included the foundations of eighteenth and nineteenth century buildings and a number of pits of similar date. The artifacts from the pits have been studied in detail and give an insight into eighteenth and nineteenth century life-styles in Philadelphia. The structures excavated have been related to their original eighteenth and nineteenth occupants with the aid of the documentary evidence for the Area F site.

Contents

	Page
Abstract	i
Figure Drawings	iii
Tables	iii
List of Plates	iv
Acknowledgements	vi
Introduction	1
The Features	4
The Interpretation of the Structural Remains	18
Artifacts Discussion	30
Dating	35
The Social Significance of the ER 100 Group	44
Area F, Pits ER 111-109 and ER 113	50
Appendix 1: Area F Artifact Catalog	52
Appendix 2: Hydration Dating of Glass from Area F	74
Appendix 3: Faunal Remains from Area F, by Joseph H. Hall, Ph.D.	77
Bibliography	92

Figure Drawings

		Page
Figure 1:	Area F location plan	1
Figure 2:	Area F Excavation plan	in pocket
Figure 3:	Profile of Pit ER 100	5
Figure 4:	Conjectural ground plan of 13 and 15 Norris Alley in the eighteenth and nineteenth centuries	20
Figure 5:	Diagram showing crossmends among ceramics from Pit ER 100	36

Tables

Table 1:	Distribution by layers of different kinds of imported pottery from ER 100	31
Table 2:	Distribution by layers of different kinds of domestic pottery from ER 100	32
Table 3:	Distribution by layers of different types of glass from ER 100	34
Table 4:	Pottery marks from ER 100 after Godden (1964)	37
Appendix 2:	Table 1: Hydration rim measurements of Area F and Valley Forge glass	76
Appendix 3:	Table 1: ER 100 - Animal bone, Total elements present	84
	Table 2: ER 111 and 113 - Animal bone, Total elements present	85

List of Plates

Plate 1: Machine excavation of site from west

Plate 2: Section of Pit ER 100 from south, scale = 6'

Plate 3: Completed excavation of Pit ER 100 from south, scale = 6'

Plate 4: Completed excavation of Pit ER 104 from south, scale = 6'

Plate 5: View of machine trench in B Line from west, scale = 6'

Plate 6: Pit ER 111 from north, scale = 6'

Plate 7: Wall ER 107 and brick flooring from west, scale = 6'

Plate 8: View of machine trench in C Line from west, scale = 6'

Plate 9: View of walls ER 108 and ER 112 from northwest, scale = 6'

Plate 10: View of west cellar doorway in wall ER 112 from north, scale = 6'

Plate 11: Pearlware bowl with "WR" stamp from ER 100 E, diameter 5 1/2"

Plate 12: Green glass, hand-blown mineral water bottle from ER 100 E, height 4 3/4"

Plate 13: Clear glass, dip mold blown tumbler from ER 100 E, height 3 3/4"

Plate 14: Dark green glass, hand-blown beer-wine bottle from ER 100 F, height 7 1/2"

Plate 15: Gold rimmed porcelain plate with gold painted "AH" monogram, diameter 6 1/4"

Plate 16: Lead-glazed redware, chamber pot from ER 100 G, diameter 9 1/2"

Plate 17: Green glass, dip mold blown mineral water bottle from ER 100 G, height 5 3/4"

Plate 18: Fragment of green glass, mold blown "PANACEA" bottle from ER 100 G, height 4 1/4"

Plate 19: Light green glass, mold-blown "CALCINED MAGNESIA" medicine bottle from ER 100 G, height 4 3/4"

Plate 20: Clear glass, pattern-molded and expanded medicine (?), perfume (?) bottle from ER 100 G, height 3"

Plate 21: Green glass, three mold blown "Ricketts" bottle from ER 100 H, height 7 1/2"

Plate 22: Manganese-glazed redware mug from ER 100 J, diameter 4"

Plate 23: Lead-glazed yellow slipware plate from ER 100 J, diameter 12"

Plate 24: Nottingham stoneware, handled cup from ER 113, diameter 4"

Note: Plates 1 through 10, by Paul Johnston; 11, 15, 16, 22, 23 and 24, by Michael Parrington; and 12, 13, 14, 17, 18, 19, 20 and 21, by Nicholas Hartmann.

Acknowledgements

The excavations at Area F were made possible by the cooperation of the main contractors for the parking garage, Joseph R. Farrell, Inc. In particular, Fred Liddle, the site foreman, was most helpful and made a major contribution to the success of the excavations. Park Service personnel also made a valuable contribution to the archaeological work at Area F, David Orr and Brooke Blades of the Regional Office helped arrange the excavations and made numerous visits during the course of the archaeological work, during which, their good advice was gratefully accepted. Hobart Caywood, Superintendent, Independence NHP, took a lively interest in our work and Bob Giannini, Curator, Independence NHP, was a useful source of information about the previous excavations at Area F and gave up one of his free days to help with the excavation of pit ER 104. Penelope Batcheler, Historic Structures, Denver Service Center, provided valuable guidance in interpreting the structures excavated.

The excavation team for the April, 1979, work was: Joseph Hall (site Director), David Barrett, Nan Barrett, John Brooke, Paul Johnston, Michael Parrington and Helen Schenck. For the November, 1979, excavation, the team was: Michael Parrington (site director), William Burrison, Stuart Eldridge, Joel Fry, Stephen Houston, Helen Schenck and Andrew Weiss. Post excavation help was provided by Joseph Hall (faunal remains report), Barbara Little (glass hydration dating), Nicholas Hartmann (photography) and Helen

Schenck (drafting). Deborah Ducoff Barone carried out some of the documentary research for the project and Harold Spalding helped with the processing of the artifacts. A debt of gratitude is owed to all these people for the application of their various skills to the project.

Introduction (Fig. 1, Plate 1)

The Area F site is located on the east side of Independence National Park, Philadelphia, and comprises a rectangular block of land measuring approximately 400 feet east-west by 140 feet north-south. The land is bounded by four streets: Ionic Street to the north, Sansom Street to the south, Front Street to the east, and Second Street to the west. A further street, Gatzmer Street, runs parallel to the east-west streets in the center of the site. This part of the city was laid out in streets and lots by the late seventeenth century and has been continuously utilized for domestic and industrial purposes since that date.

Previous archaeological work by Temple University in 1976 and 1977 was concentrated in the northern half of the site (Crozier 1977, 1977[a], 1978). These excavations demonstrated the richness of the cultural resource represented by the archaeological and architectural remains at Area F. Consequently, when the construction of a multi-story parking lot commenced in April, 1979, it was thought desirable to carry out salvage work in areas where the archaeological remains would be destroyed or damaged by the construction. Work took place on site from April 16 through April 24, a total of nine days with an average work force of five.

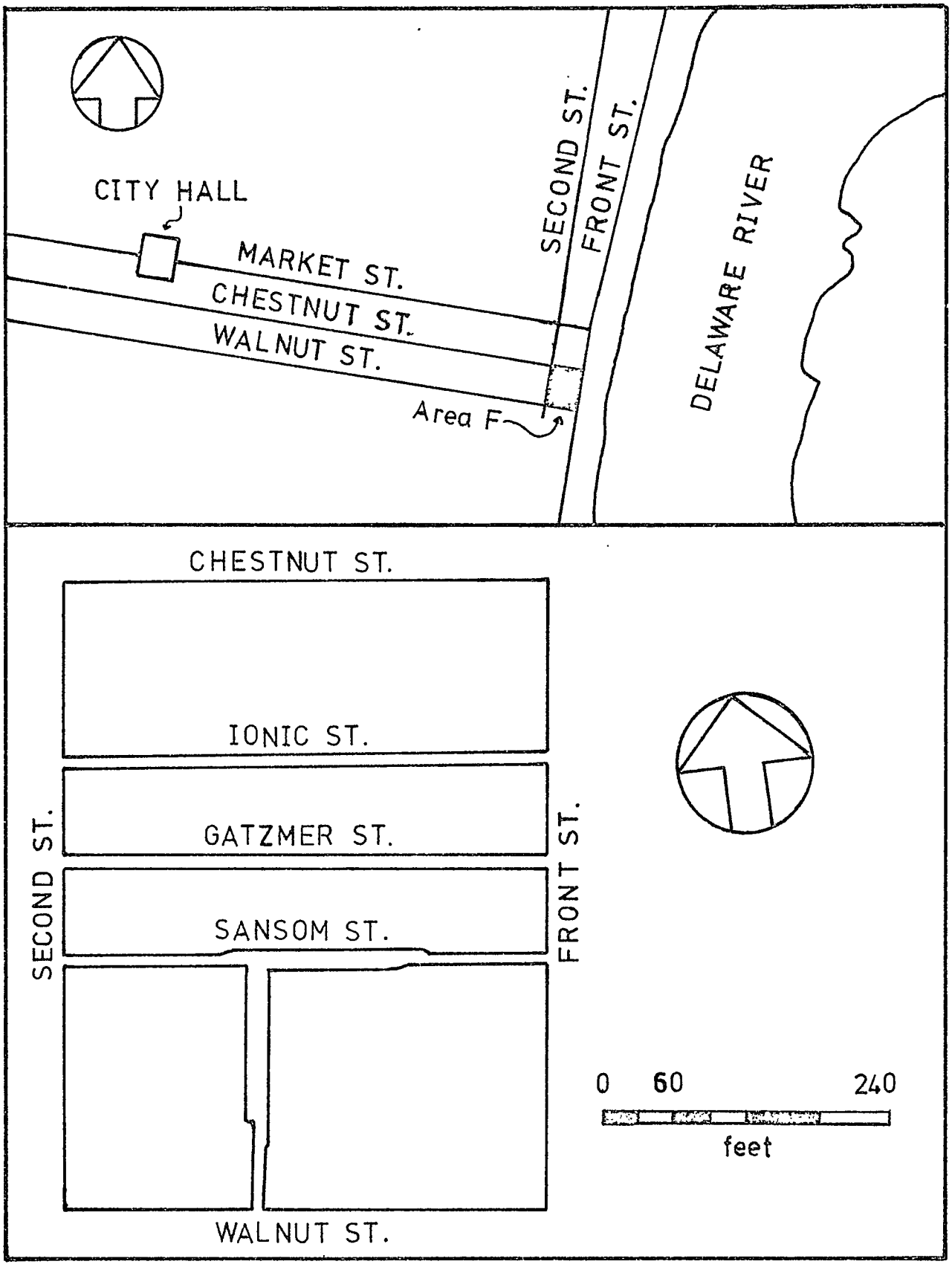


Fig. 1 : Area F location plan, upper map from U.S.G.S. Philadelphia Quad Sheet, 7.5 Minute Series (1967) lower map from Greene (1974) Illustration No. 2 . MP 1980 Area F Philadelphia

Excavation

The method of excavation employed at Area F was dictated by the type of construction methods being used and by the comparatively small amount of time available to carry out the archaeological work. The foundations for the parking garage consisted of three rows of twenty three piles spaced at 18 feet centers. The northern line of piles was designated Line A, the central row, Line B, and the southern row, Line C (Fig. 2). A backhoe was used to dig a seven and a half foot wide trench along the line of the rows of piles. Where an archaeological feature was encountered, its position was recorded and if it would be effected by a pile, it was excavated. Features which would be unaffected by the piles were left untouched, apart from the minimum amount of excavation necessary to record their dimensions.

In practice, using the backhoe proved to be an extremely quick and successful way of locating archaeological remains. It was known before the excavation began, that between 8 to 10 feet of rubble fill had been deposited and compacted on the site in order to provide a secure foundation for the street-level parking area which was formerly on the lot. Over much of Line B, most of the fill had been removed by the contractors, leaving 1 or 2 feet of material to be machined off before natural subsoil was reached. In Line C, a number of masonry walls were encounted and only about half of the rubble fill had been removed from the line. Because it was necessary to record the location of the walls

in Line C much of the re-deposited rubble had to be removed manually, as use of the backhoe would have caused too much disturbance.

The Features

ER 100 (Fig. 2 and 3, Plates 2 and 3) was located in Line B and consisted of a brick-lined privy pit, 7-feet wide and 9-feet, 6-inches deep. The brick lining tapered so that at the bottom of the pit the width was six feet. The bottom course of bricks was laid at right angles to the rest of the lining, forming a course of headers. The bricks in the lining were hand made and varied in size from 8 1/2" x 3 3/4" x 2 1/4" to 8 1/2" x 4 1/2" x 2 1/4". The top of the pit was first defined at the level of the natural sand subsoil. The top fill had been disturbed and was removed until an undisturbed level was reached, at a depth of 6-inches. The pit was then half-sectioned in stratigraphic layers. Nine layers were recorded, layers A through J (layer I was not used). These layers are described below.

ER 100A - Yellow compacted clay and sand flecked with brick fragments and containing several whole bricks, contains thin lens of charcoal, thickness of layer 6-inches, Munsell 10 YR 5/8.

ER 100B - Grey sandy clay and loam mixed with charcoal, coal, brick flecks, mortar and lumps of gray clay, thickness in center is 1-foot, and 6-inches around the sides of the pit, Munsell 10 YR 4/4.

ER 100 C - Dark brown clay mottled with charcoal and fragments of rotted wood, thickness in center is five inches, Munsell 10 YR 3/3.

ER 100D - Dark brown sandy clay with many whole and fragmentary mortared bricks and mortar fragments, also contains black-glazed bricks, thickness on east side is 1-foot, narrowing to 7-inches on the west side, Munsell 10 YR 4/2 - 4/3.

ER 100E - Dark brown clay and sand, flecked with charcoal, thickness is 2-feet, Munsell 10 YR 3/2 - 3/6.

ER 100F - Dark brown clay and sand intermixed with wall plaster and whole and fragmentary bricks, thickness in center is 2-feet, narrowing to 6-inches on the west side and 3-inches on the east side, Munsell 10 YR 3/3.

ER 100G - Dark brown clay and sand, flecked with charcoal, thickness in center is 1-foot, 7-inches, increasing to 2-feet, 3-inches on the east side and 2-feet, 5-inches on the west side, Munsell 10 YR 3/3.

ER 100H - Brown sandy clay mixed with fragments of mortar and wall plaster, confined to west half of pit where it was 8-inches thick, Musell 10 YR 3/3.

ER 100J - Brown sandy clay with whole and fragmentary bricks, 1-foot, 6-inches thick in center, narrowing to 10-inches at the edges, Munsell 10 YR 5/4.

ER 101 (Fig. 2, Plate 5)

ER 101 was a patchy layer of black charcoal-stained soil located in Line B. The layer was up to 1-inch in

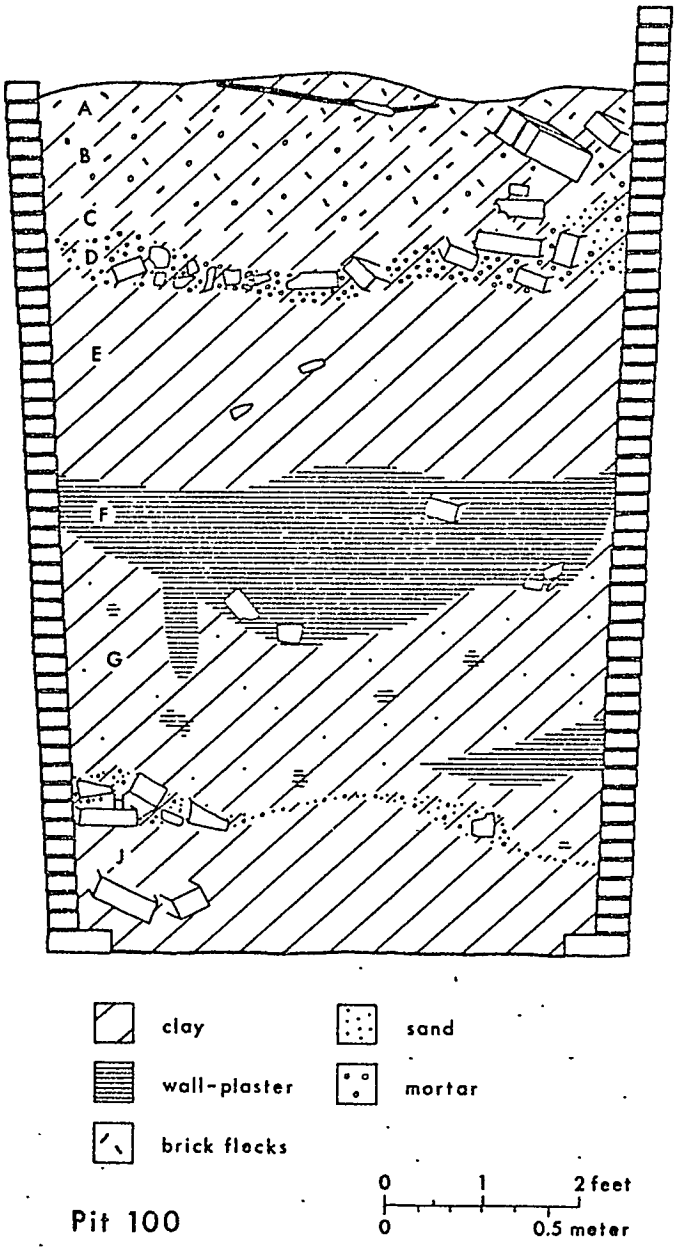


Fig.3 Profile of Pit ER100
Bottom of pit 5.3 feet ASL
HS 1979 Area F Philadelphia

thickness and covered an area of 18-20 feet. The layer was directly above the natural yellow sand subsoil and was covered by modern back fill rubble.

ER 102 (Fig. 2)

ER 102 was the relatively modern fill of a cellar in Line C and consisted of tip layers of ash interspersed with layers of rubble and brown loam. This layer was within the walls of a cellar defined by walls ER 107 and ER 117.

ER 103 (Fig. 2)

ER 103 was a brick-lined privy pit which appeared as a void when the cast iron cap which was sealing it was removed by the backhoe. The pit had an internal diameter of 5-feet and was 11-feet deep. The top of the pit had been sealed by narrowing the opening to 2-feet, 5-inches with bricks, and then inserting the iron cover. Two drain pipes on opposing sides discharged into the pit at a high level.

ER 104 (Plate 4)

ER 104 was a brick-lined privy pit in Line A which was previously half-sectioned by the Temple University team. As the remaining half-section would have been destroyed by the parking garage, it was excavated by MICA and all the artifacts recovered were turned over to Temple for processing with the first half of the pit. For the location of this feature, see Crozier (1977, Fig. 1, Room C, Feature 2).

ER 105, 106 (Fig. 2)

ER 105 was a complex of walls in Line C. The main portion of the wall was built of stone and was aligned east-west. The north face of the wall coincided with the south edge of the Line C backhoe trench. A similar wall was recorded in the backhoe trench cut in the south-east corner of the site where it was associated with the remains of a wooden floor, ER 106. It seems likely that these two walls are part of the same construction.

At the west end of the wall the masonry had been cut away and brick quoins inserted to form a straight vertical edge. The distance from this vertical edge to the continuation of wall ER 105 in the south-east corner of the site is 95-feet. Due to a local collapse of the trench side, it was possible to see in the section, a brick wall which butted up to the vertical edge of ER 105 on the south side of the wall forming a corner to the wall. At some point, a brick buttress had been built against this corner and two further brick buttresses were built approximately 16-feet and 24-feet east of the corner buttress. A brick wall at right angles to ER 105 was located opposite the center buttress. This wall had a doorway one side of which utilized the north face of the buttress.

The main wall, ER 105, was formed of stone blocks up to 2'6" in size with some brick used also. The masonry was bonded together with a hard, light-gray mortar. At some time, the wall had been pointed with pink mortar. Then, at

some later date the face of the wall was rendered with grey wall plaster.

ER 107, 117 (Fig. 2, Plates 7 and 8)

ER 107 and ER 117 were two north-south walls which formed the east and west sides of a cellar, 120-feet in length, in Line C. Both walls were formed from stone blocks up to 2'0" in length bonded together with very hard tan mortar. The west wall face of ER 117 was plastered and the cellar had a concrete floor. ER 107 was unplastered and seemed to have undergone a number of modifications. A mortared fire-brick flue lining had been inserted against the east side of the wall. The top of the wall had also been modified by the addition of several courses of bricks. These bricks appeared to be associated with the vaulted ceiling of a cellar to the west of ER 107, which utilized ER 107 as its east wall.

ER 108, 112, 114, 115, Line C (Fig. 2, Plates 9 and 10)

ER 108 was a north-south mortared stone wall, plastered on the east side. On top of the stone wall were several courses of bricks which formed the remains of brick vaulted ceilings for cellars on the east and west sides of the wall. ER 107 formed the east wall of one cellar and ER 114, a mortared stone wall, formed the west wall of another cellar. Both cellars had the remains of brick floors, surviving in situ, and in the western cellar, some of the collapsed brick vaulting survived above the brick floor. The south wall of

the two cellars was formed by ER 112, a mortared stone wall. There were doorways through ER 112 into each cellar, both centrally placed. The eastern cellar door was 3'10"-wide and the western door was 4'0"-wide. Wall, ER112, butted up to ER 107 and ER114 and ER108 butted up to ER 112. Part of a 3'0"-wide brick pier was recorded approximately 9'0" north of ER 112 in the western cellar. The face of the pier was aligned at a slight angle to the face of ER 112. Both cellars were c. 18'0"-wide east-west.

ER 109-111 (Fig. 2, Plate 6)

The remains of an unlined pit, ER111, cut into the natural subsoil was located inside the cellar formed by walls ER 107, 108, and 112. The pit was circular, 3'3" in diameter and 1'8"-deep below the level of natural subsoil. In profile, the sides of the pit were straight down to a depth of 1'1", where there was a shelf which extended all round the pit for 4" to 6" with the exception of the east side. Within the shelf, the pit's sides were straight again. The fill of the pit was brown loamy sand flecked with charcoal and lumps of grey-green clay. Finds from the top fill, when the pit was being cleared, were numbered ER 109.

ER 113 (Fig. 2)

Below the concrete floor of the cellar, formed by walls 107-117, was a circular, brick-lined privy pit, ER 113. The pit was 16'4" east of ER 107 and was cut into natural subsoil. The outside diameter of the pit was 6'4". Because the pit

would not be effected by the parking garage piles, it was not excavated. A small amount of pottery and bone was recovered from the top fill of the feature when its edges were being defined and a small test hole dug on the west side showed the depth was more than eight courses of bricks (approximately 1'6").

A further season of work at Area F took place in November, 1979, as a result of a contract awarded to MICA by the National Park Service, Denver Service Center , (Contract No. CX-2000-0-0002). The work carried out for this project will form the subject of a separate report, but as some of the features excavated are relevant to the interpretation of the structural remains recorded in April, 1979, they will be described and discussed in this report. Likewise, the sections of this report, relevant to the interpretation of the November, 1979, excavation, will be incorporated in the report to be sent to the Denver Service Center.

During the November, 1979, season, six excavation trenches were dug along the northern street frontage of Sansom Street (Fig. 2) in order to locate the front walls of the structures recorded in April, 1979. In trenches 1 through 5, the front walls of the structures were successfully located. In trench 6, no evidence of the street frontage wall was found and it is assumed to be below the 1'6" level to which all the November, 1979, trenches were excavated.

Trench 1 (Fig. 2)

Trench 1 measured 5' by 5' and was laid out along the projected alignment of wall ER 114, to the north of the street frontage of Sansom Street. The fill of the trench consisted of brick bats, stone fragments and ash, mixed with brown soil and clay. At circa 6" below grade, a brick and masonry wall, 1'6" wide and aligned in an east-west direction, was uncovered (F1). A brick wall (F2), 9" wide, projected from the north face of F1 at right angles. Both walls were mortared with similar sandy brown mortar and may be contemporary, although they were not bonded together. The bricks in both walls had the same dimensions, 8 1/2" by 4" by 2" and F1 also incorporated some glazed bricks in its construction.

Down to the 1'6" level the same fill of brick bats, stone fragments and ash, mixed with brown soil and clay persisted. Pieces of plastic and a pull tag from a soft-drink can were found in the fill indicating the comparatively recent date of its deposition. On the south side of F1 at the 1'6" level, what appeared to be natural yellow-sandy subsoil was uncovered. A straight-sided feature with a dark gray soil fill (F3) was cut into the natural subsoil at right angles to F1. This feature is the trench excavated by Temple University in 1976 (Crozier 1977[a], Figs. 16, 27, 28 and 29). A further feature, F4, consisted of a number of dry-laid bricks, three courses high, laid on top of the natural subsoil, along the south edge of the trench.

Trench 2 (Fig. 2)

Trench 2 measured 7'3" east-west by 3'9" north-south and was laid out along the projected alignment of wall ER 108, to the north of the street frontage of Sansom Street. A modern concrete block wall (F1) aligned east-west, was located just below grade level in the center of the trench. The fill on each side of F1 which was stone fragments, brick-bats and ash, mixed with brown soil and clay, was taken down to the 1'9" level at which point, the concrete foundations of F1 were uncovered. F1 was removed and the concrete foundations were found to be sitting on top of a well-made mortared stone wall, also aligned east-west (F2). F2 was 1'6" wide and was composed entirely of limestone, in contrast to T1, F1, which had brick in its construction.

A brick wall (F3) butted up to F2 in the north-east corner of the trench. F3 was 9" wide and was aligned at right angles to F2. To the east of F2, the trench fill persisted below the 1'6" level. Two-feet, nine-inches to the west of F3 was a further brick wall, F4. F4 was 9" wide and was aligned at right angles to F2. F4 was bonded to F2 with similar light brown lime mortar and the two walls appear to be contemporary. F3 also had similar mortar to F2 and F4, but the obvious nature of its butt joint with F2 indicates that it is later. To the west of F4, the trench fill persisted in well-defined sloping layers, below the 1'6" level. The trench fill also continued below the 1'6" level on the south side of F2.

Trench 3 (Fig. 2)

Trench 3 measured 5' by 5' and was laid out on the projected alignment of wall ER 107, to the north of the street frontage of Sansom Street. After the removal of a 6"-thick layer of dark gray, ashy loam and a concrete block wall aligned east-west, a layer of concrete was reached. The concrete was removed with a jack-hammer and proved to be 6"-thick. Below the concrete was a mortared stone wall (F1) aligned in an east-west direction. F1 was irregular in width and appeared to have been disturbed along its front edge by the insertion of iron posts for a modern fence. The wall was 2'3"-wide along the west side of the trench and 2'6"-wide along the east side of the trench. A large flat stone projected from the front face of the wall (F3) and was parallel to a mortared stone wall (F2), which projected at right angles to F1 on the north side.

F2 was 2'6"-wide and was much more regular than F1. Both walls were mortared with similar sandy brown mortar and appeared to be bonded to each other. The remainder of Trench 3 was excavated down to the 1'6" level. To the west of F2, there were thin, well-defined layers of dark gray and black soil with brickbats. To the east of F2, there was red-brown soil mixed with brickbats and mortar. On each side of F2, the layers continued down below the 1'6" level.

Trench 4 (Fig. 2)

Trench 4 measured 5'10" east-west by 3'3" north-south

and was laid out along the projected alignment of wall ER 117, to the north of the street frontage of Sansom Street. After the removal of a layer of dark brown soil, mixed with brick fragments and a concrete block wall aligned east-west, a brick and masonry wall (F1) was uncovered. F1 was 2'3"-wide and was aligned east-west. Another wall (F2) projected at right angles on the north side of F1 and formed a bonded corner. F2 was 1'9"-wide and was built entirely from stone. Both walls were mortared with the same brown sandy mortar and appear to be contemporary. The front face of F1 was disturbed by iron posts for a modern fence.

At the corner formed by F1 and F2, there was a brick buttress (F3). F3 measured 1'4"-wide east-west by 1'6"-wide north-south. The bricks in the buttress were mortared with light brown mortar and the feature clearly butted up to the east face of the corner, formed by F1 and F2. To the east of F3, there were three related features: F4, F5 and F6. F4 was a dressed stone slab, 1'0"-wide and on the same alignment as F1. The stone was partially covered by F3 and had 3 circa 1" square holes on its upper surface, spaced at 5 1/2" centers. South of F4 there was a row of bricks laid flat and set in mortar (F5). North of F4 there was a similar row of brick sloping down at an angle. The remainder of the trench was excavated down to the 1'6" level.

Trench 5 (Fig. 2)

Trench 5 measured 8'6" east-west by 5' north-south and was laid out along the projected alignment of the corner of

wall ER 105. After the removal of a layer of red-brown soil up to 9"-thick, a number of brick and stone features were uncovered, and a spread of light gray mortar in the north-east corner of the trench. The mortar spread overlaid the brick-corbelled cover of a large circular privy pit (F1). Part of the brick-corbelling had collapsed into the pit and the fill which was excavated down to a depth of 2'6", comprised brown loamy soil with numerous bricks and mortar fragments. The pit fill continued below this depth, but as few artifacts were recovered from the fill excavated, no further excavation of this feature took place. Before back-filling took place, a piece of block-board was put in the bottom of the pit to mark the limit of the excavation.

The brick-corbelling of the pit was covered by a layer of light brown clay and loam (F2) which contained a comparatively large number of pottery sherds dating from the late eighteenth or early nineteenth century. Layer F2 overlaid the lower foundations of walls F3 and F4 indicating that it is later than the walls. Wall F3 was aligned east-west and was 2'0"-wide and constructed of mortared limestone. Wall F4 was aligned north-south and formed a corner with F3. The top course of F4 was constructed from brick with one row laid lengthwise and a row of headers forming a wall circa 1'0"-wide. Below the brick, the wall was built from mortared limestone and was up to 1'8"-wide. Wall F4 survived to a higher level than F3 which may originally also have had upper brick courses. Both walls were bonded together at the

corner and are contemporary.

A further wall (F5) butted up to the west face of wall F4. Wall F5 was built from brick and limestone and had two courses of brick on top. The wall was 1'9"-wide and the two brick courses on top were mortared with light gray mortar, similar to the mortar on the corbelled-top of the privy pit and the mortar on the top brick course of F4. The mortar in the other portions of the three walls, however, was brown, sandy mortar, similar to the mortar in the walls in the other trenches. The remainder of the trench was excavated down to the 1'6" level and the brick corbelling over the privy pit was dismantled to avoid damage to the privy when mall construction commences. Removal of the corbelling showed that walls F3 and F4 overlaid the top of the privy.

Trench 6 (Fig. 2)

Trench 6 measured 5' by 5' and was laid out along the projected alignment of a wall which was observed in a contractor's excavation in Line C. This wall is assumed to be the east wall of the structure represented by wall ER 105. Most of the trench was covered by a 6"-thick layer of concrete. This was removed with a jack-hammer. Below the concrete there was a layer of dark gray soil containing ashes and fragments of brick and asphalt, which was up to 9"-thick. Below this layer there was brown clay and loam. The trench was excavated down to the 1'6" level, but no walls were uncovered. The wall, observed in the contractor's excavation in Line C, was 2'6" below grade and so would be

too deep to be located in our excavation or to be affected by the mall construction.

The Interpretation of the Structural Remains

Because of the disturbed nature of the structural remains at Area F, very little archaeological evidence for their date was recovered. Some time, prior to 1960, the majority of the structures on the site were demolished and the debris from their demolition were pushed into the cellars of the buildings. As a consequence of this procedure, all evidence of the super-structures of these buildings was destroyed with very little record of what they looked like. The surviving archaeological evidence consists of the subterranean foundations and cellars of the Area F buildings which, while they may provide a fairly accurate ground plan, are of little help in interpreting the nature of the above ground structures. Virtually all the artifactual material in the cellar fills dates from the demolition which took place on the site and provides no evidence for dating the structures in which it was found.

Despite these problems, data from Batcheler (1978), which traces the development of Area F from Cosans (1977), old maps, deed surveys and tax lists, provide invaluable information about the location, dimensions and dates of the buildings which formerly stood on the site. Correlation between the information in this survey and the archaeological evidence is extremely good and has enabled the structures excavated to be dated and to be equated with their original owners.

All of the excavated structural remains belonged to

buildings which fronted on to Sansom Street. In Batcheler (1978, 1798 Map) the state of development of Area F in 1798 is shown. On Sansom Street (then known as Norris Alley) two houses, numbers 13 and 15 Norris Alley, are located in the area where trenches 1, 2 and 3 were dug and where walls 107, 108, 112 and 114 were excavated. The two houses each had a street frontage of 18-feet and were 25-feet deep. They both had kitchen additions to the rear, measuring 10-feet by 15-feet. The excavated walls correspond very well to these dimensions and it seems likely that these are the remains of two of the three eighteenth century structures which were owned by Achilles Parker (Anon 1965, Area F Documentation, np.). The foundations and cellars of these buildings were stone, but the superstructures were brick.

The original plan of these two buildings is shown in Figure 4. The privy pit, ER 111, which is dated to the last quarter of the eighteenth centruy, was probably in the open yard of number 13 Norris Alley. As well as the north-south party wall which divided number 13 and 15 (F4 in Trench 2), there was a further north-south wall (F3) which was located 2'9" east of F4. This wall appeared to be a later addition to the building as it butted onto the front wall of number 13 Norris Alley. Between the two walls, there was undisturbed natural subsoil and on the east side of F3 and the west side of F4, there was cellar fill. This suggests that F3 may have been an original construction feature, as otherwise, the natural subsoil between the walls would also have

been cellar fill. None of the three cross walls excavated (F2 in Trench 1 and F3 and F4 in Trench 2) were well bonded to the front wall of the building, although they were all obviously associated and it may be that the front wall already existed before numbers 13 and 15 Norris Alley were built and was utilized in the new construction.

The purpose of the 2'9" space between F3 and F4 may have been to create a passage to the rear of the properties. Alternatively, it may have served to enclose a staircase leading to the upper storey of the house or have been a hallway. The dimensions of the houses, 18-feet by 25-feet, suggest that they may have been two rooms deep and they may have been a variant of the "London house-type" (Murtagh 1957, 9-10, Fig. 3) which were two rooms deep with a rear yard to which access was gained by a passage between the houses. If a survey of two properties on Norris Alley, dated August 4, 1752, actually relates to the excavated structures, this may be further evidence for the space between the two walls being a passage, as this survey mentions an alley between the buildings (Anon 1965, Area F Documentation, np.).

Some evidence for the superstructure of the excavated buildings is shown on a photograph of the gable wall of number 125-129 Sansom Street, taken on June 20, 1974 (Photograph on file at Independence, N.H.P. No. 157.2819-C). The east wall of 125-129 Sansom Street also formed the west wall of the excavated structures (equivalent to F2 in Trench 1) and shows the outline and internal structure of the excavated

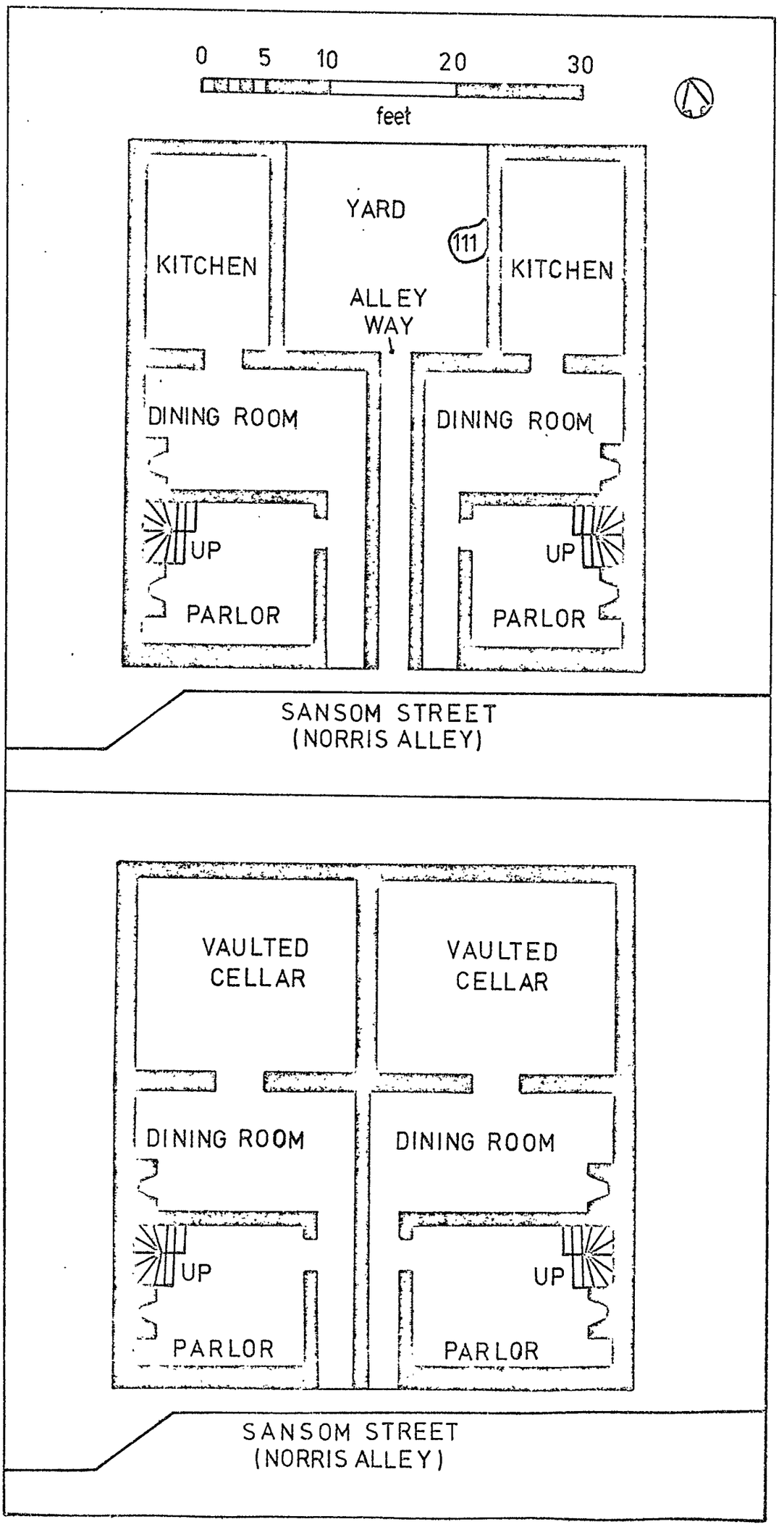


Fig.4 Conjectural ground plan of 13-15 Norris Alley in the eighteenth century (upper) and in the nineteenth century (lower)
MP 1980 Area F Philadelphia

building by virtue of its surviving wall plaster and rendering, which adheres to the wall. This evidence shows the excavated building to have been two and a half storeys high with a mansard roof. The rear extension was two storeys high. The main portion of the house was two rooms deep. Each room had a fireplace and the stairs on each floor led up from the north side of the front chimney breast, against the west wall of the building.

Obviously, the photographic evidence only relates to the most westerly of the two buildings. The eastern building was probably similar, although the location of the possible alley between the two buildings makes it likely that the stairs and fireplaces of the eastern building were located on the east wall. In external appearance, the buildings may have been a larger version of a mansard-roof building which appears in the background of a c. 1840 photograph of the Slate Roof House, which also shows some of the buildings on the south side of Sansom Street (Greene 1974, Illustration No. 6). Unfortunately, this photograph does not show any of the structures on the north side of Sansom Street.

At some point, the rear extensions to the two houses were remodelled (Fig. 4). This is indicated by the fact that the previously open yard was excavated out for a cellar. The two walls, ER 107 and ER 114, were constructed and wall ER 108 was built butting up to wall ER 112. These three walls supported a double-brick vault (Fig. 4) which roofed the cellar. The butt joint between wall ER 108 and ER 112 suggests that

ER 112 was the existing rear wall of the property which was utilized during the reconstruction. There is a problem, however, in interpreting the relationship between walls ER 107, ER 114 and ER 112. ER 112 butted up to both ER 107 and ER 114, yet if ER 112 was the original rear wall of the properties, this relationship should have been reversed and the two newly built walls should have butted onto ER 112.

The construction of the cellars would have been a major undertaking, involving the demolition of the rear extensions to the two buildings down to ground level. It may be that when the reconstruction was taking place, the ends of the rear walls were cut back to allow walls ER 107 and ER 114 to be bonded into the existing north-south walls of the two properties. These two walls had to carry the weight of the brick vault and would have had to be well secured to the main part of the building. This explanation seems less than satisfactory, as it would have been much sounder building practice to bond wall ER 112 into walls ER 107 and ER 114 when the reconstruction was taking place.

Another explanation is suggested by the presence of the two doorways in wall ER 112 which led into the main cellars of the two properties. These doorways must have been inserted at the time the cellars were built and it may be that when they were installed, it weakened the fabric of wall ER 112, causing it to be reconstructed at some later date. If this suggested reconstruction was confined to the west side of the west doorway and the east side of the east doorway, it would

explain the butt joints between wall ER 112 and walls ER 107 and ER 114. In a property which survived for almost 200 years, many phases of refurbishment must have taken place and other solutions and explanations for this problem are possible.

The amount of effort involved in carrying out the alterations described above indicates that the extra space created was badly needed. The reason why the extra space was required is indicated by the 1798 Tax List in which the owner of the properties, Achilles Parker, is described as a wine merchant and bottler (Anon 1965, Area F Documentation, np.). It seems highly likely that after Achilles Parker acquired the property, he instituted the installation of the brick vaulted cellars for wine storage. This may have taken place when he bought the property, or later, as his business expanded.

Achilles Parker is first listed at 13 Norris Alley in 1791 (Biddle 1791). An Archilaus Parker, who is presumably the same person, is listed at 6 Drinkers Court in the 1785 Directory (Macpherson 1785). The inference of this is that Parker started his business at 13 Norris Alley where the 1791 directory lists him as a "bottler of liquors" sometime between 1785 and 1791. In the 1798 Tax List, he is shown as owning three properties, 13 and 15 Norris Alley, both dwelling houses, and 17 Norris Alley, a three-storey brick store (Anon 1965, Area F Documentation, np.). He is still listed on Norris Alley in the 1825 directory (Wilson 1825), but not

in the 1828 directory (Desilver 1828). Presumably, by 1828, he had retired or was dead. For the times, he must have been reasonably prosperous, owning three properties, one of which he rented out, and conducting his business on Norris Alley for c. 40 years.

The previous owner of the lot was Nathan Levy, who bought it from Thomas Venables in 1743 (Cosans 1977, 38). No record of the history of the lot for the next 48 years has been located. It seems quite possible, however, that the site was developed during this period, and that when Achilles Parker established his business there, he moved into an existing structure. If Achilles Parker had actually built the houses himself, it would, given the nature of his business, have been logical to construct the wine cellars then, rather than incurring the extra expense of installing them in an existing structure. The presence of the privy pit, ER 111, dating to the last quarter of the eighteenth century, which was located in the open yard of 13 Norris Alley, may also indicate that the lot was occupied before being bought by Parker. The evidence suggests that the wine cellars were built by Achilles Parker some time after the third quarter of of the eighteenth century, when the privy pit, ER 111, was filled in, and before 1825, when he is last recorded on Norris Alley. As no artifactual evidence associated with the construction of the cellars was recovered, it is impossible to be more precise than this.

To the east of the properties owned by Achilles Parker

were two houses similar in plan, also with rear yards. The eighteenth century brick-lined privy, ER 113, was located approximately along the dividing line between the two yards and may have been shared by the occupants of the two houses, Thomas Dennis and Amelia Corday (Anon. 1965 Area F Documentation, np.). All evidence of these properties with the exception of the west wall of the Dennis dwelling, which was shared by the east wall of the eastern Achilles Parker house, was destroyed by the construction of a massive building by William W. Justice, some time between 1874 and 1896 (Batcheler 1978, 1874 and 1896 Maps). This building utilized wall ER 107 for its western side and the east side of the building incorporated wall ER 117, which gave it a street frontage of 120 feet. This building had a cellar along its whole length with a concrete floor. The depth of the cellar, which was 14-feet below grade, effectively removed all traces of earlier buildings. The street frontage of this building was excavated in Trenches 3 and 4. The corner of wall ER 117, which was located in Trench 4, coincides with the corner of a building which was in existence in 1798 (Batcheler 1978, 1798 Map) and the Justice building may well have utilized it in its construction. The brick buttress in Trench 4 may have been added when the Justice building was constructed to strengthen this corner.

The Justice building also incorporated a small extension fronting onto Sansom Street, which is shown on the 1896 plan (Batcheler 1978, 1896 Map). This extension was 20-feet long

and was represented by F5 in Trench 5, which butted up to the wall of a building which already existed (F4 and F3 in Trench 5) and by F4, F5 and F6 in trench 4, which are interpreted as a ground level window into the basement of the extension which was made secure with vertical iron bars. If, as suggested above, the original Justice building reused the existing corner of the 1798 building, it may be that the extension was built at the same time as the Justice building. It was obviously later than the corner represented by F1 and F2 in Trench 4, but, as virtually none of the superstructure of the Justice building survived here, it is impossible to say what the relationship is.

The extension also incorporated wall ER 105 and the area to the north of it. On the 1896 map, this area is shown as the property of William Justice (Batcheler 1978, 1896 Map). This part of the Justice property had less substantial cellars circa 8-feet deep below grade level and traces of a wooden floor (ER 106) survived at the east end of the property. Wall ER 105 was plastered on the north side, indicating that the cellar which it enclosed, also lay on that side. Its position coincides with that of a wall which was in existence in 1798 (Batcheler 1978, 1798 Map) and it is not impossible that earlier foundations were incorporated in its construction. It had a brick-buttressed corner similar to that recorded in Trench 4 and two further buttresses on the face of the wall to the east of the corner. It seems possible that when William Justice acquired the property, he strengthened

existing walls rather than building new ones.

During the November, 1979, excavations, an east-west wall, which was against the south side of wall ER 105, was observed in the contractors' excavations, south of the C Line. This wall may represent the north wall of a building which was present on the 1860 map (Batcheler 1978, 1860 Map), which had its long axis along Sansom Street with a narrow frontage on Front Street. At this period, there were two communicating buildings on the site with a small building at the west of the range. The two communicating buildings had cellars, as indicated by the nature of the fill to the south of their north walls. The south-west corner of the small end building was excavated in Trench 5, represented by F3 and F4. The privy pit (F1) which was located in this corner and the fill layer above it (F2) indicate that this building had no cellar. The artifacts from the fill layer suggest an early nineteenth century date for the deposition of F2.

This is one of the few instances on the site where useful dating evidence for the excavated walls was recovered. It seems that when the small, west-end building was constructed, the privy pit was sealed over with the brick corbelling and the stone foundations for the walls were built overlying the brick sides of the privy at one point. After the construction of the wall foundations, the corbelling was covered over with mortar, and fill was thrown in to level the interior of the structure. The mortar must have been wet when the fill was thrown in, as the bottom layer of fill was cemented

to the mortar, which indicates the contemporaneity of the two events. No evidence for the date of the privy was recovered, but it must be earlier than the early nineteenth century date indicated for the construction of the west-end building. This part of the site was occupied as early as 1682 (Cosans 1977, 13) and the privy could well be eighteenth century in date. From the point of view of conservation of archaeological resources, it is fortunate that neither the mall construction nor the program of tree planting on the site will adversely affect the privy or any other archaeological features that may survive in this uncellared area.

A small trench was excavated at the south-east corner of the site to try to locate the corner of the two communicating buildings referred to above. The north-south axis of this wall was known from observation of the contractors' excavations south of the C Line, where the east wall of the building was noted at a depth of 2-feet, 6-inches below grade level. No evidence of the wall survived in the excavation trench at the 1-foot, 6-inch level, but the location of the corner is indicated in Figure 2 by projecting the line of the east wall and the line of F3 in Trench 5.

Despite the problems of dating and interpreting the remodelling and reuse of the various walls excavated, the excavations do show the evolution of the structures on the site. The division of the block with alleys created the conditions for intensive development for housing. Only nineteen percent of Philadelphians owned their own homes in 1780, and

house building was one of the few investment opportunities available in Philadelphia (Warner 1968, 9). This situation encouraged the transformation of Penn's "Green Country Town" into a muddle of small ad hoc building developments, built or bought by small entrepreneurs like Achilles Parker, who owned three properties on the site in the eighteenth century (Anon. 1965, Area F Documentation, np.).

By the mid-nineteenth century, the urban landscape of Philadelphia was changing with the introduction of large scale manufacturing industry into the city (Warner 1968, 63-78) and large industrial structures, such as the Justice building, replaced the small homes and shops from which much of the cities trade had formerly emanated. In effect, the Area F site is a microcosm of these changes which have transformed the appearance of successive Philadelphias, and which still continue today.

Area F Artifacts Discussion

The majority of the Area F artifacts came from pit ER 100 and consist of 2,286 ceramic sherds, 1,320 sherds of glass and a large number of animal bone and shell fragments. A small number of iron, copper alloy and bone objects were also recovered from ER 100. The pottery was examined visually and divided into groups based on the imported ceramic types used by Stanley South in devising his mean ceramic date formula (South 1977, 210-12). The actual number and percentage of sherds of each type in each pit layer is shown in Tables 1 and 2. Of the total number of sherds found, 1,423, or 62%, were imported from England, consisting mostly of pearlware, 901 sherds, or 39%, and creamware, 475 sherds, or 21%. Chinese porcelain comprised 153 sherds, or a little over 6% of the total. The remainder of the imported pottery consisted of 20 sherds of delftware, 21 sherds of white, salt-glazed stoneware, 4 sherds of imported slipware and 2 sherds of "scratch blue".

The home-produced wares were made up of 553 sherds of redware, or 24%, 69 sherds of stoneware, or 3%, 48 sherds of earthenware, or 2%, and 40 sherds of yellow slipware, or 1.5%. For the purposes of this report, redwares are defined as sherds having a red fabric, either lead or manganese, glazed or unglazed. Stonewares have a blue or gray fabric and are extremely hard fired. Earthenwares differ from redwares, mostly because they have colored glazes, eg., black, yellow or green. Yellow slipwares are basically redwares with the

South Mean Ceramic Formula Type*

Layer #	5	6	7	8	10	11	12	13	16	17	18	19	20	22	34	40	49	56	Totals
100	2	-	-	-	6	1	-	1	-	-	-	1	3	-	-	-	-	-	14
100 A	1	-	-	-	-	-	-	-	1	-	-	-	1	1	-	-	-	-	4
100 B	9	-	2	-	-	19	3	1	1	-	-	8	29	24	1	2	1	-	100
100 C	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
100 D	2	-	-	-	-	4	1	-	-	-	-	1	-	2	-	1	-	-	11
100 E	30	11	8	2	15	92	27	18	-	2	-	32	105	99	-	2	13	4	460
100 F	-	-	-	-	-	23	-	-	-	-	-	20	6	3	-	-	-	-	52
100 G	40	1	6	-	16	53	8	3	-	14	-	49	92	118	1	11	4	-	416
100 H	28	-	7	-	-	94	-	2	1	12	-	50	28	95	-	2	-	-	319
100 J	17	-	1	-	-	8	4	1	-	-	5	17	16	128	-	-	2	-	199
Totals	129	12	24	2	37	294	43	26	3	28	5	178	280	469	2	18	20	4	1,576

TABLE 1

Distribution by layer of different kinds of imported pottery from ER 100
*After South 1977, 210-12

5 = Canton Porcelain
6 = Mocha
7 = Overglaze, enamelled China Trade Porcelain
8 = Finger-painted Pearlware
10 = Willow pattern Pearlware
11 = Transfer-printed Pearlware
12 = Underglaze Polychrome Pearlware
13 = Annular Pearlware
16 = Molded, White-glazed Stoneware
17 = Hand-painted Pearlware
18 = Hand-painted Creamware
19 = Blue and Green edged Pearlware
20 = Undecorated Pearlware
22 = Creamware
34 = Scratch Blue
40 = White, Salt-glazed Stoneware
49 = Eighteenth Century Delftware
56 = Lead-glazed Slipware

Domestically Produced Ceramic Types

Layer #	Redwares	Stonewares	Earthenwares	Yellow Slipwares	Totals
100	2	-	-	-	2
100 A	2	-	-	-	2
100 B	26	2	2	-	30
100 C	-	1	-	-	1
100 D	6	16	-	-	22
100 E	94	33	24	-	151
100 F	9	13	14	-	36
100 G	184	2	5	15	206
100 H	115	-	-	2	117
100 J	115	2	3	23	143
Totals	553	69	48	40	708

TABLE 2

Distribution by layer of different kinds of domestic pottery from ER 100.

addition of yellow slip decoration to the body of the vessel before the lead glaze is applied.

The attribution of the imported wares is based on comparison with a type series in the MICA archaeological lab. Problems were experienced in differentiating between creamware and pearlware, especially in the case of plain-body sherds. It was also difficult to decide if all the plain sherds of pottery, identified as pearlware, really were technically-speaking pearlware. As virtually all the sherds with crevices showed the diagnostic blue tint of pearlware (Noël Hume 1972, 130) it is assumed that plain sherds are also pearlware.

Of the 1320 sherds of glass, the largest number were from wine-beer bottles--436 sherds, or 33%. Window glass formed the second largest category, 331 sherds, or 25%. Table glass comprised 388 sherds, or 29%, and the number of medicine bottle sherds was 47, or 3.5% of the total. Vials consisted of 85 sherds, or 6.5%, which didn't fit into any of the above categories.

In the context of this report, wine-beer bottles are defined as thick-walled, dark-green bottles, usually dip-mold blown. Window glass is clear or light green flat sherds of glass. Table glass consists of tumblers, wine glasses, a decanter and a cup. Medicine bottles are usually light green, mold-blown, square or rectangular bottles, sometimes with embossed lettering. Vials are tubular vessels of various dimensions, usually in light green metal. The remaining glass

consists of sherds from a urinal (?), an oil lamp chimney (?), and various other unidentified vessels. The actual number and percentage of each type in each pit layer is shown in Table 3.

Types of Glass

Layer #	Beer-Wine Bottle	Medicine Bottle	Window	Vials	Table	Other	Totals
100	3	5	12	-	-	2	22
100 A	2	-	3	-	-	1	6
100 B	10	1	9	-	-	1	21
100 C	-	1	-	-	-	-	1
100 D	3	-	4	-	-	-	7
100 E	43	5	128	18	101	56	351
100 F	19	2	60	-	14	9	104
100 G	115	26	-	8	101	1	251
100 H	119	7	70	5	155	14	370
100 J	122	-	45	5	14	1	187
	436	47	331	36	385	85	1,320

TABLE 3

Distribution by layer of different types of glass from ER 100.

Dating

The main dating evidence for the group of material from ER 100 is a series of sherds stamped with their maker's name. The date of operation of most of these manufacturers is known and the latest date of operation provides a terminus post quem, possibly for the group as a whole. The potters and their dates from the stamped sherds are shown in Table 4. What may be the significant date is that attributed to a virtually complete blue and white transfer-printed pearlware bowl from ER 100 E, which has the printed mark "W R", and the words "Persian Opaque China", which probably refers to the pattern name. The mark "W R" is said, by Godden, to refer to William Ridgeway and is dated to the period 1830-4 (Godden 1964, #3301, 538). The fact that the bowl was virtually complete and came from a depth of more than 2'6", precludes the possibility of it being intrusive and the vessel provides a terminus post quem of 1830-4 at least for that layer in the pit. The other significant dating evidence comes from the glass from ER 100. A fairly large number of press-molded tumblers were recovered from the deeper layers in the pit and as the pressing-mold machine was patented in 1827 (Lorrain 1968, 43) this provides another terminus post quem for the pit. At the other end of the dating spectrum, the absence of any two-piece molded bottles from the 436 beer-wine bottle sherds identified suggests that the group should predate c. 1840, when the two-piece, hinged bottle-mold is said to have been invented (Lorrain 1968, 43). Two of the stamped

pottery sherds are attributed to manufacturers who were in operation until 1846 (Table 4), but in view of the absence of two-piece molded bottles, it seems realistic to assume that these pieces were made before the period of operation of their manufacturers ended.

One base sherd from the bottom layer (Layer J) in the pit was stamped "IH", which is attributed to Joshua Heath of Hanley c. 1780-1800 (Godden 1964, 318). This might suggest that the bottom fill was somewhat earlier than the other layers in the pit. However, the number of crossmends between sherds from the different pit layers, including joining sherds from Layers F, H and J and from Layers H and J, suggests that all the material in the pit was deposited smore or less at the same time (ceramic and glass crossmends are shown in diagrammatic form in Fig. 5).

As a further check on the possibility of a disparity in the dates of the various pit layers, the South "mean ceramic formula" was used (South 1977, 201-74). With the exception of Layers A and C, which both had very small numbers of sherds, the dates for B, D, E, F and G all came within the first decade of the nineteenth century. The dates for the bottom two layers, H and J, were 1799 and 1794, respectively. These two dates are in keeping with the date suggested by the Joshua Heath sherd dated to 1780-1800. The dates for the upper layers of the pit are 30 or so years too early, according to the more traditional dating methods used on them, and three sherds from Layer H had stamps of manufacturers who

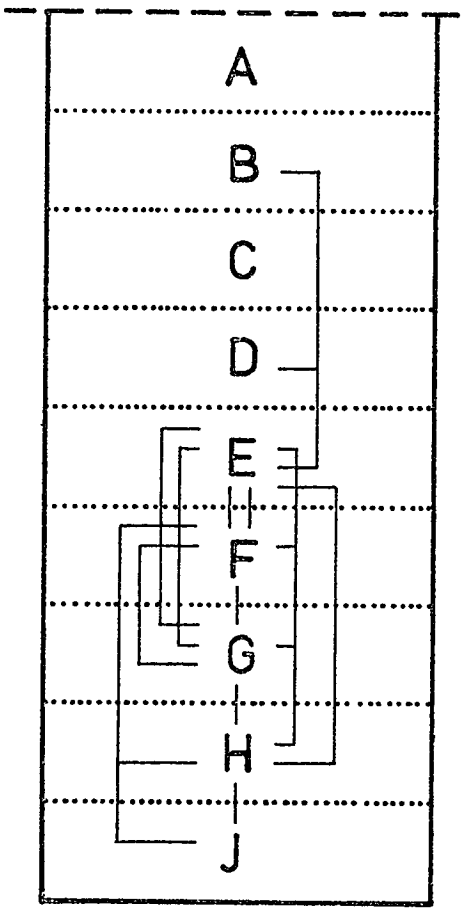


Fig.5: Diagram showing crossmends among ceramic sherds from Pit ER100
HS 1979 Area F Philadelphia

Layer #	Manufacturer's Stamp	Date Range	Godden Number	Comments
100	DAVENPORT	1805-	1181	Impressed stamp on pearlware
100 E	WR (William Ridgeway)	1830-34	3301	Impressed stamp on blue and white transfer pearlware
100 F	DAVENPORT	1805-	1181	Impressed stamp on blue-edged pearlware
100 G	CLEWS WARRANTED STAF-FORDSHIRE	1818-34	919	Impressed stamp on pearlware
100 G	ADAMS WARRANTED STAF-FORDSHIRE	1804-40	19	Impressed stamp on blue-edged creamware
100 G	JOSEPH STUBBS LONGPORT	1822-35	3729	Two plates, impressed stamp, blue-edged creamware
100 H	CLEWS WARRANTED STAF-FORDSHIRE	1818-34	919	Impressed stamp on pearlware
100 H	ENOCH WOOD & SONS BURSLEM	1818-46	4257	Impressed stamp on pearlware
100 H	E WOOD & SONS BURSLEM WARRANTED SEMI CHINA	1818-46	4259	Impressed stamp on blue and white transfer pearlware
100 H	WELLCOMBE WARWICKSHIRE	----	----	Printed mark on green and white transfer pearlware
100 J	IH (J. Heath)	c.1780-1800	1991	Impressed stamp on pearlware

TABLE 4

Pottery marks from ER 100, identifications after Godden (1964)

commenced potting in 1818. This evidence indicates that a late eighteenth century date is much too early for the two bottom layers, and accords with the conclusion reached by an excavator who applied the South formula to several pits at Deerfield, Massachusetts, that the South method is more appropriate to the assemblage from a whole site, rather than one entity from it (Blades 1976, 41). It was also pointed out by South (South 1977, 249) that the formula was not designed for use on sites dating beyond the early nineteenth century.

It seems likely that two factors are mainly responsible for the too early South Formula date for ER 100. The presence of almost fifty sherds of pottery which would be more at home in a mid-eighteenth century context and which is presumably residual, and the relatively high percentage (21%) of creamware from the pit which must represent a high degree of conservatism amongst the people who discarded the ER 100 assemblage. This conservatism may also be reflected in the large numbers of dip-mold blown bottles at this comparatively late date, which has been noted before in Philadelphia in the case of hand-blown bottes which are said to continue as late as 1820 (Noël Hume 1972, 71).

The majority of the ceramic artifacts were fragments of plates. Bowls, tea cup-bowls, chamber pots and flower pots were also represented in the assemblage. A rough minimum numbers count for the different vessels was arrived at by counting the distinctive semi-complete sherds which gave the following numbers: 19 plates, 8 bowls, 6 tea cup-bowls,

4 chamber pots, 8 flower pots and 11 other vessels, including soup tureens, gravy boats, mugs, a wash basin and storage jars. It should be stressed that this is an absolute minimum and many more of each type could have been defined if more time-consuming methods of counting had been used (for example, measuring the diameter and length of the rim of each rim sherd which would have given a more realistic estimate of the real numbers of vessels present at the cost of the outlay of a disproportionate amount of time).

Most of the plates and bowls, and all of the cups, were made from imported wares, i.e., pearlware, creamware and porcelain. A few plates were made from yellow slipware and a few bowls from redware. The storage jars and mugs found were in redware and the soup tureens and gravy boats were made from pearlware.

The most common design motif on pearlware was blue-edging on feather-edged rims, with a few examples of blue-edging on molded dot rims, A very few examples of green edging on feather-edged rims were found, bearing out Noël Hume's observation that green-edged pearlware was never as popular as the blue (Noël Hume 1978, 47).

Transfer-printed designs on pearlware, mostly in blue and white, were common and usually consisted of "willow pattern"-type prints and landscape scenes, edged with geometric and floral patterns. Transfer prints in colors other than blue and white, were less common but examples in purple and white, green and white and yellow and black were noted. Other forms of decoration on pearlware

comprised: annular-decorated wares, mocha, one sherd of purple resist lustreware and one copper-lustre sherd and sherds decorated in polychrome-stencilled, hand-painted and finger-painted floral designs.

Decoration on creamware consisted of: blue-edging on feather-edged plates, moulded-plate rims and five sherds of an overglaze-decorated mug. Porcelain sherds were hand-painted with landscape scenes and with abstract patterns. Several porcelain sherds had gold edging and some had the gold-painted monogram, A.H.

Most of the redware sherds were undecorated, with the exception of some of the flower pots which had notched cordons near the rims, which may have been designed to ease handling as well as being decorative. The slipwares had decoration of yellow curvilinear lines below a clear lead glaze and were found on large diameter plates and on a small bowl. A large stoneware storage jar was decorated with cobalt blue lines and a body sherd from another vessel, possibly a tankard, had molded cobalt blue floral and linear decoration.

A small percentage of the ceramics were probably residual and consisted of white salt-glazed stoneware sherds and of molded plates, mugs, delftware plates, and a few sherds of possible Staffordshire slipware.

Most of the glass from pit 100 was beer-wine bottle glass, the majority of which was broken. Only three intact bottles of this category were recovered, but by counting the

bases, a minimum numbers-estimate of 60, which is probably fairly accurate, was reached. Most of the bottles had pontil marks on the base and no mold seams, and so, presumably were dip-mold blown. One blown three-mold bottle was embossed on the base with the words "H RICKETTS & C:: GLASSWORKS BRISTOL". This type of bottle was patented in 1821 by the Ricketts firm (Jones 1971, 66). Another blown three-mold bottle base was embossed with the letters "J E HOFFMAN & SONS ROTTERDAM". No glass manufacturer of this name is listed in American Glass (Mckearin and Mckearin, 1941) in their corpus of American glass houses. They do, however, refer to two brothers who were glass workers, John and Jeremiah Hoffman who worked at the Peterboro Glass House in New York State (Mckearin and Mckearin 1941, 192). Peterboro is c. 90 miles from Rotterdam, New York, and while it is possible that one or both of the Hoffmans could have set up in business there, it seems strange that no record would have survived of the venture. There is a small town called Hoffman c. three miles north of Rotterdam, New York, so it certainly seems likely that there is a connection between Rotterdam and the name Hoffman. There is, of course, the possibility that the Rotterdam referred to is the original town of that name in Holland. No research was carried out to verify this possibility. Five other three-mold blown bases also came from the pit.

Various patent medicine bottles and vials came from the deposit, including two green fluted bottles embossed with part of the trademark of "SWAIMS PANA CEA PHILADA". The firm of

William Swaim was established in Philadelphia in 1820 to sell his "panacea" (Wilson and Wilson 1971, 140). The type of fluted bottle found in ER 100 was first used in 1828 and a similar-type bottle was marketed until 1875 when the words "TRADE MARK" were added to the embossed legend (Wilson and Wilson 1971, 88). The ingredients included: alcohol, water and mercury, and later, oil of Wintergreen was added to improve the taste (Wilson and Wilson 1971, 140). The panacea was said (by Swaim) to cure "worms, cholera, morbus, dysenery fever and ague, bleeding piles, sick headache &c." (Wilson and Wilson 1971, 88). As Swaim operated from Philadelphia, it seems likely that the bottles for his medicine would have been made locally. However, some "Panacea" bottles may have been made at the Coventry glass works in Commecticut, operating from 1813-42, as excavated examples are illustrated among the finds from this glass house (White 1974, Figs. 15 and 16).

Another square patent medicine bottle had the words "CALCINED MAGNESIA" embossed on two of its sides, unfortunately, the name of it manufacturer, which would have occupied one of the other sides was missing. This substance was used as an indigestion cure and was initially imported into the U.S.A. in the latter part of the eighteenth century by Thomas and William Henry of Manchester England (Wilson and Wilson 1971, 119). This brand was expensive because of a high import duty and a home-produced version was first marketed by Thomas J. Husband of Philadelphia in c. 1844 (Wilson and

Wilson 1971, 121). The 1844 date for Husband's magnesia is possibly a little late for the Area F pit and it seems more likely that the bottle contained the product of the Henrys.

Table wares in the form of tumblers, wine glasses, a cup and a decanter were represented in the pit group. A minimum numbers-count of the numbers of bases of the different types of glass table ware shows that plain glass mold blown tumblers were the most common represented by 29 examples. Seven mold-blown, fluted tumblers were counted and 11 press-molded diamond diaper pattern tumblers. Two press-molded, diamond diaper pattern wine glasses and one plain wine glass were present in the group. Also present were fragments of a fluted decanter and stopper and a glass cup. The diamond diaper wine glasses and tumblers seem likely to be part of a set and the fluted tumblers probably also represent a set.

Other glass items recovered include: a molded fragment interpreted as a foot for a candlestick, an oil lamp chimney, a glass urinal and several other glass vessel fragments of uncertain function.

Although ceramics and glass are the dominant type of artifact recovered, a smaller number of other objects were fould in the pit. These included: iron nails, usually too rusted to distinguish how they were made; iron masonry braces and various unidentifiable fragments of rusted iron. Bone toothbrushes, clay marbles, brass buttons, bone button backings, a glass bead and a slate pencil were among the small domestic articles recovered. Large quantities of wall

plaster and bricks of which a representative sample was retained, were also excavated from the pit.

The Social Significance of the ER 100 Group

In any discussion of the social significance of this group of material, the circumstances in which it came to be discarded must play an integral part. Before any interpretation of the social circumstances of the discarders can be made, it must be decided who they actually were. It must also be decided if the contents of ER 100 were deposited in one fell swoop or whether the deposit was made gradually over a period of years. The origin of the material must also be considered. If the pit contents represent refuse from one household, the interpretation of them will obviously be a different one than if they were the collective garbage of several household.

In the United States 1798 Direct Tax Assessment Records (Anon. 1965, Area F Documentation, np.), the owner of the plot of land where pit 100 was later dug is given as Samuel Powel Griffiths. The land owned by Griffiths had a Front Street frontage of 22-feet and a depth of 186-feet. An undated deed in the Registry Unit, City Hall, Philadelphia, shows that the property was sold by S. P. Griffiths to W. F. Griffiths and others, probably sometime around 1800. The grantor index was examined, but no record of when or if W. F. Griffiths disposed of the plot could be found. On the 1860 Hexamer and Locher map, the Griffith property is shown

divided into four separate plots. It would seem likely that at some time between c. 1800 and 1860, the plot was sold and sub-divided. It is unfortunate that the break in the chain of title prevents us from knowing when this occurred and who acquired the four lots.

Several of the ceramic artifacts from the pit had the painted monogram "AH" and it seems reasonable to assume that these might be the initials of a person who lived in the area where pit 100 was located. To investigate this possibility, Philadelphia City Directories for 1830 and 1840 were checked for people living in the area of the site with the initials A. H. Three people with these initials were listed, all on South Front Street, but none of them were in the same block as the Area F site. Two of these people were on the east side of Front Street, and it seems unlikely that they would have crossed the street to discard trash. The other person was Alfred Hurst, accountant, who is listed in the 1830 directory as residing at 176 South Front Street (Desilver 1830). This address would have been 29 houses south of 118 Front Street and it seems unlikely that trash would have been carried so far before it was disposed of.

The condition in which the Area F pit was found reflects its final use as a trash pit, but its original function was as a privy pit, primarily for the disposal of human waste. These pits were periodically emptied of their contents. The Will of James Cox, who lived in the Bond House on the Area F site, records payments from his estate in 1821 and 1824 for

cleaning the privy and for making the privy seven-feet deeper (Greene 1974,43) presumably because the capacity of the privy was thought inadequate. This indicates that the privies were periodically cleaned out and reused. In operation, the privies would have retained solid waste, while the liquid waste would percolate through the sandy sub-soil into which the pits were cut.

Some degree of communal use of these facilities must have existed. A deed of 1750 specifically grants access to a privy located on a property adjoining the property for which the deed was granted (Cossans 1977 , 32). The fact that only nine probable privy pits were located during the extensive Temple University excavations on the Area F site (Crozier 1977, 1978) is an indication that these facilities were shared as this number would have been insufficient to serve a ratio of one privy to one family. Indeed some families existed without the use of any facilities and in a work published in 1837 there were said to be 30 tenements accomodating 253 people, which did not have the use of a privy (Carey 1837).

The Area F site located in the Fifth Ward, which had the third highest tax assessment in 1820 in Philadelphia (Blumin 1973, 42), probably enjoyed better sanitation than the slums described by Carey. Social conditions in Philadelphia may have improved as the overcrowding created by the rising population eased with the movement to the suburbs (Jackson 1975, 123). In some areas however, overcrowding persisted and in

1853, the situation had worsened to the extent that slums in the Fifth Ward were described as "not fit to be the abiding places of swine" (Sutherland 1973, 179).

If communal use of privies is assumed to be indicated by the above evidence, it also seems likely that when their primary function was no longer viable for whatever reason, that communal back-filling would also take place. The monogrammed porcelain and the sets of drinking and wine glasses suggest that some of the backfillers brought trash from individual households. The cross-mends from different layers in the pit may be an indication that some of the trash was stored in middens where sherds from different complete and semi-complete vessels became dispersed. The presence of residual eighteenth century material in the contents of the pit, also suggests midden storage, prior to disposal in the privy. Quite a large proportion of the refuse deposit from ER 100 consisted of building materials, bricks, mortar, wall plaster and miscellaneous hardware. Most of the pit layers contained some of this kind of material, often accompanied by charcoal-stained soil, indicating disposal of rubble from building or demolition activity.

The condition of the privy pit, when excavated, was extremely good, the brick work was in good order and the construction seemed stable. The expense and time and labour involved in replacing it must have been considerable and the reasons for doing so must have been thought worthwhile. The building rubble indicates that some kind of demolition in the

area was taking place around 1840, the date suggested for the final filling of the pit. This date coincides with the date of a disastrous fire which in 1840 destroyed 23 houses and damaged 20 others in the South Front Street area (Scharf and Wescott, 1, 1884, 654). The inference is that after the fire, which may have been responsible for ER 101, a layer of black charcoal-stained soil near the Front Street end of the site in Line B, the ruined buildings were demolished. The privy pit, ER 100, was back-filled with demolition rubble and household rubbish and the in-filling noted on the 1860 Hexamer and Locher map in Gatzmer Street took place with a structure being built over the top of the pit. The date when this rebuilding took place is uncertain. In McElroys Directory of Philadelphia, Gatzmer Street is first mentioned in (1860). Prior to this date, the street was known as Grays Alley. Grays Alley is last recorded in McElroys Directory in 1857 , in 1858 and 1859 neither street name is mentioned and it is tempting to associate this omission with the infilling of the lot. In view of the known pressure for building space at this time, it seems unlikely that the lot would have remained vacant for so long. By 1874, the pit site had suffered the same fate as the eighteenth century buildings on Sansom Street and was covered by a large coffee house (Batcheler 1978, 1874 Map).

The contents of the pit provide some evidence of the lifestyle of the people living in the area. One of the most common type of artifact was the dark green mold-blown

beer-wine bottle. Little distinction was made between beer and wine bottle shapes at this period, the only certainty being that they held alcoholic beverages. The temperance movement was gaining strength in the 1840's and opposition to alcohol was becoming a religious issue. Protestants supported temperance and opposed the Catholics, who were generally identified with the use of alcohol (Laurie 1973, 74). The large number of liquor bottles indicates that the people discarding the rubbish were certainly not inclined to temperance, but the presence of so many may be associated with the proximity of Achilles Parker's premises, rather than indicating the religious leanings of the area.

The majority of the ceramics are imported Staffordshire wares or locally made wares, both of which probably retailed very cheaply. Wholesale prices for Staffordshire "edged plates" imported by the Louisville, Kentucky, firm of Rudd and Martin in 1833 were 70¢ a dozen (Stefano, 1978, 206), which gives some indication of the low value of the imported wares. The pressed glass tumblers from the pit are a cheap substitute for the more expensive cut glass drinking wares and the only real indication of any higher social status artifacts are the monogrammed porcelain plates and cups and a few sherds of more exotic pottery. The graffiti on the window glass from ER 100 E (BF and Hew) is an interesting example of a very old practice. A graffiti with the monogram "MH" and the date "1796" is recorded on window glass at the Bond House (Greene 1974, 16) and it was as common a

practice to scrawl graffiti on walls and buildings in the 1840's (Laurie 1973, 78) as it is today. The pit 100 graffiti is incomplete and it is uncertain if the letters represent initials or part of someone's name.

The building rubble give some slight indication of the structure that was demolished. Several of the bricks were glazed on one side, suggesting that they were incorporated in a building that utilized them as a decorative motif. The use of glazed bricks was common in Philadelphia in the eighteenth century and is said to have continued until after the Revolution (Smith 1953, 291). The large iron masonry braces suggest a structure of some size with plastered walls, some painted red indicated by the wall plaster from the pit, and of course, with glazed windows, as shown by the ubiquitous window glass sherds.

Area F, Pits ER 111-109 and ER 113

The ceramic material from these two pits indicates a date for their deposition in the eighteenth century. Pit 113 contained two sherds of a Nottingham-type handled cup, as well as sherds of Chinese porcelain, delftware, redware and white salt-glazed stoneware. The South "mean ceramic formula" (South 1977, 201-74) when applied to this group, gives a date of 1742, which based on a sample of only 27 sherds, may be a little inaccurate, and the date for this pit may be a little later, possibly in the third quarter of the eighteenth century. In addition to the ceramics, sherds of window and

bottle glass came from the feature, as well as two brick fragments and a wall plaster fragment.

Pit 111-109 contained 13 sherds of delftware which included three nine-inch diameter plates with a blue floral decoration and nine sherds of a white, salt-glazed stoneware mug. The assemblage also included eight sherds of porcelain, two sherds of white earthenware and a number of sherds of slipware, redware and one stoneware sherd with cobalt blue decoration. Non-ceramic artifacts comprised window and bottle glass, clay pipe stems, coal and a brick fragment. The South "mean ceramic formula" (South 1977, 201, 74) gave a date of 1748, but again this is based on a small sample of 30 sherds and a more accurate date may be later, possibly in the third quarter of the eighteenth century, as suggested for ER 113.

The other archaeological features contained few artifacts of interest. Two sherds of nineteenth century pottery and some bottle glass came from ER 101, a layer of charcoal stained soil. A representative sample of twentieth century pottery was collected from ER 102, a cellar which was probably filled in during the 1950's. A sample of nineteenth and twentieth century artifacts was collected from ER 110, a layer of rubble and fill above the brick floor of a cellar defined by walls 107, 108 and 112, which may have been filled in at the same time as 102.

Appendix 1: Area F Artifact Catalog

ER 100 - Finds from disturbed fill of 100

1 strap iron, folded, over-all length 2'8"

1 scrap iron fragment

6 iron wire nails

6 iron cut nails

4 iron nails

1 5/16" brass hexagon nut

1 rim sherd, Chinese porcelain

1 rim and base sherd, Chinese porcelain underglaze, yellow and green decoration

6 sherds of pearlware, willow pattern, includes 2 rims

1 rim sherd, blue, feather-edged pearlware plate

3 base sherds, pearlware, one with impressed stamp (Godden 1964, #1181 DAVENPORT with an anchor motif, a post 1805 date is suggested by the fact that the makers name is in upper case letters. p. 189)

1 sherd, annular pearlware, in black, blue and orange glaze

1 sherd blue, transfer-printed pearlware

1 sherd, whiteware, badly crazed

1 sherd, vitreous china

1 sherd, earthenware with green glaze

1 sherd, redware

1 sherd, redware, internal manganese glaze

5 sherds, clear bottle glass, including neck and shoulders of a medicine bottle, complete with cork

1 sherd, wire reinforced window glass

2 sherds, mirror glass

1 sherd, green bottle glass

1 sherd, orange bottle glass

10 sherds window glass

1 sherd, dark green bottle glass

1 sherd, plate glass

1 fragment coal

1 wood fragment

ER 100 A - Yellow compacted sand-flecked clay

2 iron masonry braces, 2'2" x 2" each with 3, 1/2" bolts

1 iron masonry brace, 1'6" x 1"

1 horseshoe-shaped iron masonry brace forming a semi-circle, 1'4 1/2" x 10", 2" strap iron with 4, 1/2" bolts

3 iron headless bolts, 6 1/2" x 1/2"

1 iron pipe elbow, 1"

1 round iron rod fragment, 1 1/2" diameter x 2" long

1 sheet iron fragment with two holes 3 1/4" x 2"

2 unidentified iron objects

1 iron handle, 2 1/2" long

2 triangular pieces sheet iron, 1 1/4" x 1 1/4" x 1 1/4"

1 sheet iron fragment, 2 1/4" x 1 1/2"

4 iron cut nail fragments

13 iron nail fragments

1 sheet aluminum, 1 1/4" x 1 1/8"

1 sherd, Chinese porcelain

1 rim sherd, pearlware

1 sherd, creamware

2 sherds, redware, one with internal lead glaze

1 sherd, molded, white, salt-glazed stoneware, barley pattern

1 brick fragment

1 slate fragment with incised lines

3 sherds, window glass

2 sherds, green bottle glass

1 sherd, mirror glass

1 vulcanized rubber fragment, 4 3/4" x 1 1/8"

ER 100 B - Gray sandy clay and loam mixed with charcoal and brick

1 brass thimble, 5/8" x 1/2" diameter

5 unidentified iron objects

45 iron nail fragments

6 sherds, Chinese porcelain, underglaze blue decoration

1 rim sherd, Chinese porcelain, overglaze red and gold decoration

1 rim sherd, Chinese porcelain, overglaze green decoration

1 rim sherd, polychrome underglaze pearlware, linear blue and gold decoration

3 sherds, Chinese porcelain, 2 rims, 1 base sherd

1 sherd annular pearlware with red and gold glaze

1 body sherd, pearlware with internal yellow glaze

1 sherd, pearlware, polychrome underglaze with brown and green decoration

16 sherds, pearlware with blue and white transfer-print, 3 rims, 2 basal sherds

8 rim sherds, pearlware, blue shell-edged decoration on rims

3 sherds, pearlware, purple transfer-print, including 2 basal sherds

29 sherds, pearlware, including 4 basal sherds, 4 rim sherds

24 sherds, creamware, including 5 rim sherd, 1 with feather-edge pattern

2 sherds, redware, yellow glaze internal, one with brown slip over yellow glaze exterior, one with brown glaze exterior

7 sherds, redware, manganese-glazed, 4 interior-exterior glaze, 2 interior glaze, 1 exterior glaze

10 sherds, redware, lead-glazed, 2 rims exterior glaze, 7 body sherds interior glaze, 1 body sherd interior-exterior glaze

7 sherds, unglazed redware

3 sherds, white, salt-glazed stoneware, including one molded rim with barley pattern

1 sherd, scratch blue stoneware

1 sherd delftware

1 base sherd, gray cobalt-decorated stoneware, cross-mends 100 D, E

1 sherd, gray stoneware

2 body sherds, earthenware

1 fragment, wall plaster, red painted

2 fragments, brick

2 fragments, wood

4 clay pipe stems, 5/64" bore

1 sherd, green, molded bottle with raised letters PH

1 sherd, dark blue case bottle glass

1 neck sherd, dark blue bottle glass

6 sherds, green bottle glass

2 sherds, clear bottle glass

1 sherd, white, opaque glass

9 sherds, clear window glass

ER 100 C - Dark brown clay mottled with charcoal

5 iron nail fragments

1 sherd, pearlware

1 sherd, blue stoneware

1 square, clear glass medicine bottle (?), height 2 5/8"

1 fragment, wall plaster

2 fragments, wood

ER 100 D - Dark brown sandy clay containing bricks and mortar

1 brass disc, 1 1/8" diameter

9 iron nail fragments

2 sherds, Chinese porcelain, blue and white underglaze

3 sherds, pearlware, purple and white transfer-print

1 sherd, pearlware, blue and white transfer-print

1 sherd, polychrome underglaze, pearlware, red and green decoration

1 rim sherd, green-edged pearlware

2 sherds, creamware, including basal sherd

1 sherd, white, salt-glazed stoneware

16 sherds, gray cobalt decorated stoneware, forming large crescent handled storage vessel, rim diameter-8 1/2" crossmends 100 B, E

4 sherds, redware, manganese-glazed, 2 interior glaze, 2 interior-exterior glaze

2 sherds, redware, 1 with internal lead-glaze and yellow slip

3 sherds, green bottle glass

4 sherds, window glass

1 fragment, wall plaster

1 sample of glazed brick from many found in fill, 2" x 4" x 8 1/2" (has yellow mortar adhering to it)

ER 100 E - Dark brown clay and sand flecked with charcoal

128 iron nail fragments, ranging from 3" - 1/2"

54 unidentifiable iron fragments

1 iron bracket, 3" long

1 iron staple, 2" long

1 iron hook, 1 3/4" long

10 brass upholstery nails, 1/2" long

2 unidentified brass fragments, one is sheet brass, 1" x 3/4", the other is sheet brass 1 1/2" x 1/2" with a stamped floral design on one side

1 stamped brass button, diameter 1 1/4", similar to South (1964), type 18

1 brass button with thistle design on face, diameter 1/2"

2 shell buttons, diameters 7/16", South (1964), type 22

1 round enameled clay button, brass shank, diameter 5/8"

2 clay marbles, diameter 6/10" and 3/4"

11 clay pipe stem fragments, 8 5/16" bore, 2 6/64" bore and 1 8/64" bore

2 fragments, clay pipe bowl

1 fragment, slate pencil

2 fragments, slag

1 fragment, coal

1 fragment, wall plaster

1 blue glass bead, diameter 5/16"

13 sherds, Chinese underglaze blue porcelain, includes 3 rim sherds and 3 basal sherds

2 rim sherds, gold-edged porcelain

8 sherds, overglaze, enameled Chinese porcelain, red and gold linear and floral decoration, includes 3 rim sherds

15 sherds, Chinese porcelain, includes 2 rim sherds and 1 foot ring

27 sherds, underglaze, polychrome pearlware, decorated with floral and linear motifs in yellow, green, blue, pink and brown, includes 1 rim sherd of a tea cup

2 sherds, finger-painted polychrome pearlware

2 sherds, underglaze blue hand-painted pearlware, includes 1 rim sherd of a tea cup

18 sherds, annular and finger-painted pearlware, decorated in brown, green, black, white, blue and red, also has

molded floral decoration, includes 1 basal sherd

3 rim sherds, green feather-edged pearlware

3 sherds, blue feather-edged pearlware plate, 8" diameter

9 rim sherds, blue feather-edged pearlware plate, 11" diameter

17 rim sherds, blue-edged pearlware

15 sherds, blue and white transfer-printed pearlware plate, diameter 12", "Willow Pattern"

58 sherds, blue and white transfer-printed pearlware including 8 rim sherds and 4 foot rings

1 almost complete blue and white transfer-printed pearlware bowl, 5 1/2" diameter, 1" deep. Printed mark "WR" (Godden 1964, #3301 Willaim Ridgeway CO., 1830-4, also printed with the words Persian Opaque China, which probably refers to the pattern) Plate 11

11 sherds, blue and white transfer-printed pearlware, tea cup or bowl, diameter 4"

4 sherds, black and white transfer-printed pearlware, gravy boat (?), cross mends 100 F, G, H

6 sherds, purple transfer-printed pearlware, including 1 rim sherd and 3 foot rings

12 sherds, green transfer-printed pearlware, including 3 rim sherds and 1 foot ring, plate, crossmends with 100F

11 sherds, pearlware, blue on yellow "mocha"

105 sherds, pearlware, includes 2 rim sherds and 12 foot rings

99 sherds, creamware including 4 foot rings and 5 rim sherds, one feather-edge pattern, one royal pattern

2 sherds, earthenware, mottled-brown and mottled-blue and yellow glaze

1 sherd, earthenware, copper-colored lustre glaze

2 sherds, white, salt-glazed stoneware

13 sherds of delft, including 5 blue-decorated and 1 polychrome purple and yellow and 1 polychrome blue and brown

21 sherds, manganese-glazed redware, interior glaze, includes 1 basal sherd, 9" diameter and 1 rim sherd with crescent handle, crossmends 100 E, H

28 sherds, manganese-glazed redware, including 1 basal sherd and 1 strap handle

29 sherds, unglazed redware, including 1 basal sherd and 11 rim sherds, some with decoration of notched cordon below rim, flower pots, 10" and 8" rim diameters, crossmends 100 G

5 sherds, hard-fired earthenware with smooth interior-exterior black glaze, including 1 rim sherd of a mug and 1 rim sherd of a flask or bottle

2 sherds, hard-fired earthenware with smooth interior-exterior red glaze, one with combed decoration, one with molded dot decoration

3 sherds, lead-glazed earthenware, interior-exterior glaze

9 sherds, lead-glazed earthenware, interior glaze

3 sherds lead-glazed earthenware, exterior glaze

2 sherds, hard-fired earthenware, interior-exterior brown glaze, includes 1 basal sherd

1 sherd, earthenware, shell-tempered

16 sherds, redware, lead-glazed, yellow slip decorated 4 sherds, possibly Staffordshire

26 sherds, gray cobalt decorated stoneware, cross mends 100 B, D

1 sherd, red stoneware

1 sherd, gray, salt-glazed stoneware

1 sherd, brown stoneware

1 sherd, gray stoneware, basal sherd with reeded decoration

3 sherds, indeterminate stoneware

1 base of dark green glass, hand-blown bottle, diameter 3 1/2", wine bottle

1 base of green glass, hand-blown bottle, diameter 2 3/4" wine bottle

40 sherds, green bottle glass

3 bases, green glass, hand-blown pharmaceutical vial, diameter 2-1 1/4", 1-1"

15 sherds, green glass pharmaceutical vials

4 sherds, including part base, green glass, mold-blown bottle, base diameter 3 1/2", embossed letters in fluted panel "S W"[AIMS PANACEA], cross mends 100 F, medicine bottle

1 green glass mold-blown bottle, rectangular, 1 1/2" x 1" x 2 1/2" height, perfume bottle (?)

1 clear glass bottle, hand-blown (?), diameter 2 1/2" height 4 3/4", Mineral water bottle. Plate 12

19 sherds, clear glass vessel, rim diameter 2", function uncertain

19 sherds, clear glass, mold-blown, glass decanter with faceted design, hand-finished rim, diameter 2 1/2", base diameter 4", cross mends 100 G

53 sherds, clear glass, oil lamp chimney (?)

2 sherds, molded glass, triped foot from candlestick (?)

8 bases, clear glass, mold-blown tumblers, diameters 5-2 1/2", 1-2 1/4", 1-2 3/4", 1-3", Plate 13

3 bases, clear glass, press-molded tumblers, fluted decoration on sides and 2 with ten pointed star on base, diameter 2 3/4"

4 base sherds, clear glass, press-molded tumbler, faceted base with decoration of diamond diapers on sides, diameter 2 1/2"

6 body sherds, clear glass, press-molded tumblers, fluted and diamond diaper decoration

40 sherds, clear glass, tumblers

2 sherds, including the foot press-molded wine glass, diamond diaper pattern, foot diameter 2 1/2"

128 sherds, clear window glass, including 2 sherds with graffiti, "B F" and "H e w"

ER 100 F - Dark brown clay and sand mixed with wall plaster and bricks

10 iron nail fragments ranging from 3" - 1", includes wire nails and cut nails

14 unidentifiable iron fragments

1 clay pipe stem fragment, 5/64" bore

1 bone toothbrush fragment

1 fragment, coal

4 fragments, wall plaster

14 sherds, blue feather-edged pearlware plate, diameter 8" (impressed mark "DAVENPORT" above an anchor, similar to Godden 1964, #1181, where upper case marks are said to be subsequent to 1805, p. 189)

6 rim sherds, blue-edged pearlware

7 sherds, blue and white transfer-printed pearlware plate includes 2 rim sherds and 3 foot ring sherds, diameter 11"

1 basal sherd, blue and white transfer-printed pearlware oval gravy boat

3 sherds, blue and white transfer-printed pearlware, includes 2 rim sherds, tea cup

5 sherds, green and white transfer-printed pearlware, includes 1 rim sherd, printed pattern name "ACROPOLIS" on underside, cross mends with 100 E and 1 cross mend with 100 H, J

4 sherds, black and white transfer-printed pearlware, includes 1 foot ring and 1 carinated sherd, cross mends with 100 E, G, H, gravy boat (?)

3 sherds, yellow and black transfer-printed pearlware, cross mends with 100 G

6 sherds, pearlware, includes 1 rim, 1 foot ring and 1 lid

3 sherds, creamware

5 sherds, manganese-glazed redware, interior glaze, includes 1 basal sherd and 2 rim sherds, diameter 9", storage jar, the inside of this vessel is heavily coated with a lime deposit

1 sherd, manganese-glazed redware, interior-exterior glaze

2 rim sherds, lead-glazed redware, interior glaze, 10 1/2" diameter

1 basal sherd, unglazed redware, flower pot, 6" diameter, cross mends with 100 G

1 dark green glass, hand-blown wine-beer bottle, diameter 3", height 7 1/2", Plate 14

1 base sherd , green glass, hand-blown wine bottle, diameter 2 1/2"

1 base sherd, clear glass, hand-blown bottle, diameter 2 1/4"

1 neck sherd, green glass, wine bottle

15 sherds, green glass, wine-beer bottles

2 sherds, green glass, mold-blown bottle, embossed letters "S W [AIM]S P[ANACE]A" influted panels, cross mends with 100 E, medicine bottle

4 sherds, clear glass, long-necked vessel, uncertain function

13 sherds, clear glass tumblers

5 sherds, clear glass, oil lamp chimney (?)

1 sherd, clear glass, press-molded wine glass, diamond diaper pattern

60 sherds, clear window glass

ER 100 G - Dark brown clay and sand flecked with charcoal

107 iron nail fragments ranging from 3 1/4"-1/2", includes cut nails and wire nails

15 unidentifiable iron fragments

3 iron table knives, 1 with wooden handle and broken blade, overall length 7", 1 overall length 3", 1 overall length 6 1/4"

2 brass pins, 1-2" long, 1-2 1/2" long

1 brass door plate with hole cut out for key, 2 3/4" x 1 1/2"

5 clay pipe stem fragments, 4-5/64" bore, 1-6/64" bore

1 slate pencil fragment

1 unidentifiable carved bone fragment

1 bone toothbrush, 5 1/2" long, marked with incised "+" on handle

3 fragments, coal

1 dark blue glass button, 7/16" diameter

20 sherds, Chinese underglaze blue porcelain, includes 2 foot rings, 2 rims and a handle sherd, tea cups

5 sherds, Chinese underglaze enameled porcelain, decorated with red and gold floral motifs, includes 1 footring

1 rim sherd, Chinese underglaze blue porcelain with overglaze, enamel red and green decoration

11 sherds, gold-edged porcelain, including 1 foot ring and 1 plate rim

5 rim sherds, gold-edged porcelain bowl, diameter 5 1/2" height 1", gold-painted monogram "AH" in center of bowl

1 complete gold-edged porcelain plate, diameter 6 1/4", gold "AH" monogram in center, Plate 15

3 sherds, porcelain, 2 with gold-edging, one with handle, tea cup, diameter 3"

31 rim sherds, blue, feather-edged pearlware plates

10 rim sherds, blue-edged pearlware, plates

16 sherds, blue and white transfer-print pearlware, plate, diameter 8", "Willow Pattern"

18 sherds, blue and white transfer-print, pearlware, bowl, diameter 6", height 1 1/4"

3 sherds, annular polychrome pearlware in brown, blue, green and black glaze

7 sherds, underglaze polychrome pearlware in blue, yellow, brown and red

6 sherds, green-edged pearlware

2 foot ring sherds, blue-edged pearlware

14 sherds, underglaze, blue, hand-painted pearlware, including the foot ring of a carinated tea bowl and 2 rims and a rim-base sherd of a small bowl, diameter 6"

1 sherd, blue and white transfer-printed pearlware, tea cup or bowl, diameter 3 3/4"

1 sherd, blue and white transfer-printed pearlware, tea cup or bowl, diameter 3 3/4" (more thickly potted

and different pattern from the one above)

1 sherd, pearlware, brown and black glaze with tree motif, "Mocha"

4 sherds, black and white, transfer-printed pearlware, includes a foot ring and body sherd of a gravy boat (?), The body sherd has a molded face mask, cross mends 100 E, F, H

5 sherds, green and white transfer-printed pearlware, includes 2 rims and 2 foot rings

2 base sherds, pearlware with impressed stamp (Godden 1964, #919 "CLEWS WARRANTED STAFFORDSHIRE" surrounding a crown, 1818-1834)

1 base sherd, pearlware with impressed three-bladed propeller mark in a circle

89 sherds, pearlware, including 1 rim sherd, 1 handle sherd and 20 foot ring sherds

24 sherds, black and yellow transfer-print pearlware (virtually complete vessel), wash basin, diameter 13 1/2", height 5", cross mends 100 F

1 rim sherd, pearlware, purple enamel with overglaze, gold floral decoration, "resist lustre ware"

13 sherds, blue feather-edged creamware, plate, diameter 7", impressed stamp on base (Godden 1964, #19, "ADAMS WARRANTED STAFFORDSHIRE" surrounding an eagle with outstretched wings, 1804-40, the illustrated example in Godden 1964 is a printed mark)

1 basal sherd, blue feather-edged creamware, plate, diameter 7", identical stamp on base to the above

7 sherds, blue feather-edged creamware, 2 plates, both with impressed stamp (Godden 1964, #3729, "JOSEPH STUBBS LONGPORT, 1822-1835), cross mends 100 H

94 sherds, creamware, including 9 rims, 2 in feather-edge pattern, 1 base with molded-bead decoration, mug, 1 body sherd with fluted decoration and 2 foot ring sherds

3 sherds, creamware, includes 2 foot ring sherds and 1 handle sherd with spot of green glaze, diameter of foot ring 5 1/2", chamber pot

105 sherds, manganese-glazed redware, interior glaze, including 9 basal sherds and 13 rim sherds, one with a crescent handle, large storage vessel, rim diameter 13"

30 sherds, lead-glazed redware, interior-exterior glaze, including 2 rim sherds and 1 basal sherd, chamber pot, height 7", diameter 9 1/2", Plate 16

15 sherds, lead-glazed yellow slip-decorated redware, including 2 sherds, possible Staffordshire and rim-base sherd and 1 base sherd, flanged bowl, height 3", diameter 10"

49 sherds, unglazed redware, including 6 basal sherds and 9 rim sherds, 3 of which have a notched cordon decoration below the rim, flower pots, 1 height 5 1/2" diameter 7", 1 diameter 10", crossmends 100 E, G

4 sherds, hard-fired earthenware with smooth red glaze, including 1 rim and a body sherd with reeded decoration, and 1 sherd with molded-dot decoration

4 sherds, earthenware, green glazed

1 sherd, earthenware, yellow glaze, interior-exterior glaze

1 sherd, earthenware, interior-exterior yellow glaze, blue-edged plate (?), diameter 9"

4 sherds, earthenware, yellow glaze

1 delftware fireplace tile sherd with "Daisy" corner design

5 sherds, delftware, including one with blue decoration

8 sherds, gray stoneware, including 4 with cobalt blue decoration

1 sherd, white, salt-glazed stoneware, "scratch blue"

2 sherds, brown stoneware

3 sherds, indeterminate stoneware

11 sherds, white, salt-glazed stoneware, including 1 strap handle sherd and 1 rim, plate (?)

1 green glass, hand-blown wine bottle, diameter 2 3/4", height 12"

1 light green glass, hand-blown bottle, diameter 2 1/2" height 5 3/4", mineral water bottle, Plate 17

8 bases, green glass, hand-blown bottles, diameter 1-4", 3-3 3/4", 2-3 1/2", 2-3", beer-wine bottles

1 base, green glass, mold-blown bottle, diameter 3 3/4" beer-wine bottle

9 necks, green glass, hand-finished bottles, beer-wine bottles

88 sherds, green glass, beer-wine bottles

16 sherds, including the base, green glass, mold-blown bottle, embossed letters "[S W A] I M S [P] A N A C E A [P H I] L A D A" in fluted panels, medicine bottle different from 100 E, F, Plate 18

1 base sherd, green glass, hand-blown vial

7 sherds, light green bottle glass

1 base sherd, hand-blown, green glass vial, diameter 1 1/8"

1 base sherd, mold-blown, green glass vial, square base 7/8"

5 sherds, clear glass vial

5 sherds, light green glass, mold-blown bottle with embossed letters "CALCINED MAGNESIA", base 1 1/8", square, height 4 3/4", medicine bottle, Plate 19

3 sherds, clear glass, mold-blown bottle, base 1 1/2" square, medicine bottle

2 sherds, clear glass, pattern-moulded and expanded bottleraised design on side of madonna and child (?), twin-molded columns on each corner of the rectangular bottle, base diameter 1 1/4" x 2 1/8", medicine bottle (?), perfume (?), Plate 20

9 bases, clear glass, mold-blown tumblers, diameters 3-2 3/4", 2-2 1/2"

1 part base, clear glass, mold-blown tumbler, crossmends 100 H

3 base sherds, clear glass, press-molded tumblers, fluted decoration on sides and ten pointed star motif on base diameter 3"

2 base sherds, clear glass, press-molded tumblers; faceted around base, diamond diaper on side, fluted base, diameter 2 3/4", joins body sherd which gives height of 3 1/2"

14 sherds, clear glass tumblers, diamond diaper pattern

3 sherds, clear glass tumblers, fluted pattern

52 sherds, clear glass tumblers

16 sherds, clear glass, mold-blown decanter, base diameter 4 1/8"

1 base sherd, clear glass decanter, crossmends 100 E

1 neck sherd, clear glass, diameter 4 1/2", wide-necked vessel, function uncertain

ER 100 H - Brown sandy clay mixed with mortar and wall plaster

7 iron nail fragments ranging from 2 1/2" - 1"

16 unidentifiable iron objects

1 iron object, rectangular 1 1/2" x 2" x 12" long, firebar (?)

1 sample of lime from inside of redware pot

8 brass pins, 4-1/4" long and 4 fragmentary examples

1 brass ring, 7/8" diameter around the remains of wooden handle

1 unidentifiable brass fragment

2 bone knife handles, 1-3 1/4" long, 1-2 3/4" long, both with grooves cut in to increase grip

3 clay marbles, 6/10" diameters

1 fragment, wall plaster

5 fragments, coal

11 sherds, Chinese blue underglaze porcelain, includes sherds of a dish or platter, diameter c. 8", the spout from a jug or pitcher and the base of a small bowl, diameter 2 1/4"

9 sherds, gold-edged porcelain, includes 3 base sherds, (2 vessels), 2 handle sherds and 3 rim sherds, cup, diameter 3", gold-painted monogram on side, "AH"

8 sherds, gold-edged porcelain, includes 7 rim sherds and 1 base sherd with gold-painted monogram, "AH", diameter c. 9"

7 sherds, overglaze enamelled Chinese porcelain, includes 4 rim sherds, decoration consists of linear and curvilinear lines in faded browns and grays

5 sherds, blue, feather-edged pearlware, large oval dish, internal dimensions c. 12" x 9"

7 sherds, blue-edged pearlware, plate, diameter 8"

13 sherds, blue, feather-edged pearlware, plate, diameter 9"

17 rim sherds, blue, feather-edged pearlware

7 rim sherds, blue-edged pearlware

23 sherds, blue and white, transfer-printed pearlware, oval gravy boat or soup tureen, crossmends 100 E, F, G

59 sherds, blue and white transfer-printed pearlware, small bowls (at least three different patterns), diameters 6", heights 1 1/4"

2 sherds, blue and white transfer-printed pearlware, cup

1 base sherd, blue, feather-edged pearlware with part of same stamp as ER 100 G ("JOSEPH STUBBS LONGPORT", see above) plate, diameter 7", crossmends 100 G

1 base sherd, pearlware, with impressed stamp (Godden, #4257, "ENOCH WOOD & SONS BURSLEM" surrounding an eagle, 1818-46)

1 base sherd, blue and white transfer-printed pearlware with impressed stamp (Godden 1964, #4259, "E WOOD & SONS BURSLEM WARRANTED SEMI CHINA", surrounding an eagle, 1818-46)

1 base sherd, pearlware with impressed stamp (Godden, #919 "CLEWS WARRANTED STAFFORDSHIRE", surrounding a crown, 1818-34)

4 sherds, pearlware, black and white transfer-printed, 1 with identical impressed stamp to the above, gravy boat (?), crossmends 100 E, F, G

1 base sherd, pearlware with partial impressed stamp, not deciperable

2 base sherds, pearlware; one, a blue, feather-edged plate, diameter 6 1/2", both with impressed three-bladed propellor stamp inside a circle

3 base sherds, green and white transfer-printed pearlware, with printed mark "WELLCOMBE WARWICKSHIRE" inside a scroll with floral decoration on base, crossmends with 100 F, J (not illustrated in Godden 1964)

12 sherds, underglaze blue, hand-painted pearlware, comprising 2 tea bowls, diameter 3 3/4", height 2 1/2" and diameter 4", height 2 3/4"

2 sherds, black and white transfer-printed pearlware, plate

24 sherds, pearlware, including 9 foot ring sherds

2 sherds, annular and finger-painted polychrome pearlware in blue, brown and gray

1 footring sherd, pearlware, scalloped dish

1 rim sherd, pearlware, bowl (?), diameter 12"

4 sherds, blue feather-edged creamware, plate, diameter 8"

7 sherds, blue feather-edged creamware, plate, diameter 10"

84 sherds, creamware, includes a chamber pot with folded rim, diameter 8", sherds from a tea-pot and a mug

40 sherds, manganese-glazed redware, interior glaze, including 10 basal sherds and 6 rim sherds, including one with crescent handle, large storage vessel, rim diameter 14", inside coated with lime deposit

34 sherds, manganese-glazed redware, interior-exterior glaze, including 14 rim sherds, 1 base sherd, and 1 strap handle sherd, chamber pot, height 6 1/2", diameter 9", crossmends 100 J

18 sherds, lead-glazed redware, interior-exterior glaze, including 6 rim sherds and 2 strap handle sherds, chamber pot, diameter 9 1/2"

1 base sherd, manganese-glazed redware, interior-exterior glaze, diameter 5"

5 sherds, lead-glazed redware, interior-exterior glaze, including 1 base sherd and 4 rim sherds, one with strap handle, one with pouring lip, height 4 1/2", diameter 3 1/2"

17 sherds, unglazed redware, including 1 basal sherd and 5 rim sherds, 3 of which have a notched cordon decoration below the rim, flower pots, diameters 7" and 6"

2 sherds, lead-glazed yellow slip-decorated redware

5 sherds, yellow-glazed earthenware, interior-exterior glaze, includes 3 basal sherds and a body sherd of a small earthenware bowl and a rim sherd of a plate (?), with blue edging

2 sherds white salt-glazed stoneware, one with molded floral decoration

1 sherd stoneware

1 sherd, gray stoneware with raised cobalt blue floral and linear decoration

1 green glass, three-mold blown bottle, embossed letters on base, "H RICKETTS & C : : GLASSWORKS BRISTOL", wine-beer bottle, height 7 1/2", Plate 21

6 bases, green glass, three mold-blown, 1 with embossed letters on base, "J E HOFFMAN & SONS ROTTERDAM", diameters 3 1/2", wine-beer bottles

32 bases, green glass, hand-blown, diameters 1-2 1/2", 2-2 3/4", 5-3", 2-3 1/4", 6-3 1/2", 11-3 3/4", 5-4", beer-wine bottles

37 necks, green glass, hand-finished bottles, wine-beer bottles

344 sherds, green glass, wine-beer bottles

6 sherds, light green, mold-blown bottle, embossed letters on one side "Holmes", rectangular medicine bottle with chamfered corners, base measurements 2 1/4" x 1 5/8"

1 base sherd, ligh green, mold-blown bottle, embossed letters on one side [ON] , square medicine bottle with fluted corners, base measurement 1 1/2" x 1 1/2"

4 base sherds, clear glass vials, diameters 7/8"

1 base sherd, light green glass vial, diameter 1 1/8"

6 sherds, light green glass, mold-blown vessel, wide neck with tapering base, neck diameter 2 1/2", base diameter 1 3/4", height 10", urinal (?)

7 sherds, light green glass, mold-blown vessel, similar to one above, but smaller, neck diameter 1 3/4", base diameter 1 1/2"

1 base sherd, clear glass, mold-blown bottle, fluting around base, diameter 1 1/2", sauce bottle (?)

1 sherd, clear glass, press-molded wine glass, diamond diaper pattern

3 sherds, clear glass, mold-blown cup with luted handle, base diameter 1 5/8"

16 base sherds, clear glass, mold-blown tumblers, 8-2 3/4" diameter, including one 3 1/2" tall, 4-2 1/2" diameter including one 3" tall, 2-2 1/4" diameter, 1-3" diameter and one crossmend with 100 G

1 base, clear glass, press-molded tumbler with rilling on sides and ten-pointed star on base, diameter 2 3/4"

5 bases, clear glass, press-molded tumblers, diamond diaper patter and faceted round base, diameters 3-2 1/2", 2-2 3/4"

25 sherds, clear glass, press-molded tumblers, diamond diaper pattern

104 sherds, clear glass, tumblers

70 sherds, clear window glass

ER 100 J - Brown sandy clay with whole and fragmentary bricks

5 unidentifiable iron objects

1 iron horseshoe fragment

4 brass buttons, diameters 1 3/8", similar to South (1964) Type 9

1 brass button, diameter 7/8", South (1964), Type 27

5 brass buttons, diameters 2-1/2", 2-5/8", 1-3/4"

1 fragment, lead, 4" long

3 bone button discs, diameters 2-3/4", 1-5/8"

1 bone toothbrush, length 5"

1 bone knife handle, length 3 1/2"

1 bone object, lathe-turned with bored hole through centre, possibly a pipe stem, length 3 1/2"

1 slate pencil fragment

1 fragment, coal

15 sherds, Chinese underglaze blue porcelain, including 8 rim sherds and 2 footrings (3 different vessels, 1 platter, 1 plate and 1 bowl)

1 sherd, overglaze enamel Chinese porcelain, decorated in red and gold

2 sherds, Chinese porcelain

3 sherds, blue, feather-edged pearlware, platter

14 sherds, blue-edged pearlware, plates

7 sherds, blue and white transfer-printed pearlware, includes 3 rim sherds

1 sherd, green, transfer-printed pearlware, crossmends 100 F, H

15 sherds, pearlware, includes 4 footring sherds

1 basal sherd, pearlware with impressed stamp (Godden 1964, #1991, "IH"J HEATH , c. 1780-1800)

1 sherd, pearlware with annular and finger-painted polychrome underglaze decoration

3 clay marbles, diameter 1/2"

4 sherds, pearlware with underglaze polychrome decoration in yellow, orange, green, blue and brown, linear and floral motifs

3 sherds, green, feather-edged creamware, plate, diameter c. 8"

5 sherds, overglaze enamelled hand-painted creamware, mug red linear and floral decoration, diameter 5"

125 sherds of creamware, including 10 basal sherds, 9 rim sherds, 7 handle sherds and 3 sherds from a scalloped vessel, (this assemblage includes a mug, at least 2 plates and a chamber pot

41 sherds, manganese-glazed redware, interior-exterior glaze, including 1 rim sherd and 3 basal sherds, chamber pot, diameter 9", crossmends 100 H

16 sherds, manganese-glazed redware, interior glaze, including 4 basal sherds and 2 rim sherds, storage jar, diameter 8"

1 base sherd, manganese-glazed redware, interior-exterior glaze, mug, diameter 4", Plate 22

1 base and strap handle sherd, manganese-glazed redware, interior-exterior glaze, mug, diameter 3 1/2"

1 base sherd, manganese-glazed redware, interior glaze, ointment pot, diameter 1 3/4"

14 sherds, lead-glazed redware, interior glaze, includes 3 basal sherds and 2 rim sherds, flanged storage jar, diameter 5"

19 sherds, lead-glazed yellow slipware, interior glaze, including 11 notched rim sherds, plate, diameter 12" Plate 23

1 notched rim sherd, lead-glazed yellow slipware, interior glaze, plate, diameter c. 12"

3 base-rim sherds, lead-glazed, yellow slipware, interior glaze, small dish, height 2", diameter 8"

41 sherds, redware, including 5 rims with notched cordons and 4 base sherds, flower pot, diameter 9"

2 sherds, hard-fired red-glazed earthenware, 1 with combed decoration and interior-exterior glaze

1 sherd, yellow-glazed earthenware, interior-exterior glaze

2 sherds, delftware

1 sherd, brown stoneware

1 sherd, gray stoneware

4 bases, green glass, hand-blown bottles, diameter 3-3 1/2", 1-2 3/4", beer or wine bottles

8 sherds, green glass, mold-blown case bottle, 3" square

2 necks, green glass, hand-finished, beer or wine bottles

108 sherds, green glass, beer or wine bottles

4 sherds, light green glass, hand-blown vial, base diameter 1 1/8"

1 sherd, clear glass, wine glass foot and stem, diameter 2 3/8"

1 sherd, clear glass, press-molded wine glass fragment

1 sherd, clear glass, decanter stopper

11 sherds, clear glass, tumblers

1 sherd, clear glass, tubular horn-shaped with applied spiral cordon, probably a decorative element of some kind of glass object

45 sherds, clear window glass

ER 101 - Black charcoal-stained soil

1 basal sherd, pearlware, blue and white transfer print

1 sherd, redware, interior-exterior manganese glaze

1 sherd, green bottle glass

1 sherd, blue bottle glass

ER 102 - Tip layers of ash interspersed with rubble and brown loam.

1 rim sherd, transfer-printed, soft paste porcelain, shallow dish, diameter c. 4 1/2"

1 sherd, overglaze enamelled soft paste porcelain, decorated in red, green, yellow and blue

4 semi-complete vessels, whiteware, green transfer print, printed mark on base "O.P. CO. SYRACUSE CHINA 1-Q", cups, diameter 3 1/2", height 3"

1 semi-complete vessel, whiteware, green transfer print, printed mark on base "MAYER CHINA EST 1881 MARION 18", cup diameter 3 1/2", height 3"

4 base sherds, whiteware, green transfer print, printed mark on base "O.P. CO. SYRACUSE CHINA 6P", plates, 3 vessels represented, 2-6" diameters, 1-9" diameter

2 base sherds, whiteware, green transfer print, printed mark on base "NASSAU © 68034 MAYER CHINA MADE FOR HORN & HARDART CO WRIGHT TYNDALE & VAN RODEN", plates, 2 vessels represented, diameters 7" and 9"

3 base sherds, whiteware, green transfer print, printed mark on base "MAYER CHINA EST 1881 MARION", plates, 2 vessels represented, diameters 7" and 9"

1 complete vessel whiteware, impressed mark on base "JOK POTTERY CO TRENTON N J, saucer, diameter 6"

1 base sherd, whiteware, green transfer print, printed stamp on base, "O.P. CO. SYRACUSE CHINA 7Q", oval dish, 4" x 5" diameter

1 base sherd, whiteware, green transfer print, part of same printed stamp as above on base, bowl diameter 5 1/2", height 2"

1 semi-complete vessel, whiteware, green transfer print, printed mark on base, "MAYER CHINA EST 1881 MARION", bowl, diameter 5 1/2"

2 base sherds, blue and white transfer-printed pearlware

1 base sherd, whiteware, exterior brown glaze, printed mark on base "HALL MADE IN USA", oval bowl, diameter c. 5" x 7"

1 glass, press-molded tumbler, diameter 3", height 4 3/4"

1 glass, press-molded tumbler, diameter 2 1/2", height 4 1/4"

1 glass milk bottle, diameter 2 1/2:, height 5 1/2", printed marks on side "SCOTT POWELL Aristocrat DAIRY PRODUCTS"

1 miniature glass milk bottle, diameter 1 1/4", height 2 1/4"

ER 109 - Brown loamy sand flecked with charcoal (upper fill of ER 111)

1 rim sherd, delftware

4 sherds, marbled slipware bowl, interior lead-glazed, 3 notched rim sherds

1 sherd, yellow slipware

1 rim sherd, yellow-glazed earthenware, bowl

7 sherds, redware, interior-exterior manganese glaze, 4 rim sherds, 1 basal sherd

1 sherd, redware, interior manganese glaze

1 sherd, redware, interior-exterior lead glaze

1 sherd, green bottle glass

2 clay pipe stems, 7/64" and 4/64" bores

1 fragment, brick

ER 110 - Rubble layer and brick floor

1 unidentified iron object

1 basal sherd, vitreous china

1 sherd, pearlware, annular, blue and gray decoration with tree motif, "Mocha"

1 basal sherd, pearlware, blue and white transfer print

2 sherds, redware, interior-exterior manganese glaze, 1 basal sherd

3 sherd, redware, interior lead glaze, 2 basal sherds

4 sherds, brown stoneware bottle (1 sherd with impressed inscription, "SELZER WASSER -- LEONHARDI QUEL ---- BRUNNER = VERWAL ------ GROSS=KARBEN ---", another sherd is inscribed, "N^{O} 1")

6 sherds, mottled-brown stoneware bottle

1 clay pipe stem fragment, 5/64" bore

1 clear glass perfume (?) bottle, height 2 3/4"

1 clear glass salt shaker with rusted iron top, height 4 1/2"

1 clear, eye-glass sherd

1 clear, plate-glass sherd

1 fragment, mortar with 5 hexagonal floor tiles adhering

2 fragment, wall plaster

ER 111 - Brown loamy sand flecked with charcoal

1 unidentified iron object

4 iron nails

12 sherds, delftware, plate, blue floral design, includes sherds from 3 plates, each c. 9" in diameter

9 sherds, white salt-glazed stoneware mug

2 sherds, whiteware

8 sherds, Chinese export porcelain, underglaze, blue decoration, 3 basal sherds, 2 rim sherds

3 sherds, earthenware, bowl, interior green glaze, 2 rim sherds

11 sherds, lead-glazed, marbled slipware, bowl, 5 notched rim sherds

1 sherd, gray stoneware with cobalt blue decoration

70 sherds, redware, interior-exterior manganese glaze, 3 basal sherds, 5 rim sherds, 1 rim-handle sherd, 3 handle sherds

11 sherds, redware, interior manganese glaze, 3 basal sherds, 4 rim sherds

9 sherds, redware, interior lead glaze, 1 basal sherd, 1 rim sherd

4 clay pipe stem fragments, 5/64" bore

3 sherds, clear window glass

1 sherd, green bottle glass

2 fragments, coal

ER 113 - Brown sandy loam

14 sherds, Chinese underglaze blue porcelain, tea bowl, height 1 5/8", diameter 2 1/2"

2 sherds, Chinese porcelain

14 sherds, manganese-glazed redware, interior-exterior glaze, includes 2 rim sherds, 1 rim-handle sherd and 1 basal sherd

2 sherds, lead-glazed redware, interior-exterior glaze

1 sherd, delftware

8 sherds, white, salt-glazed stoneware, includes 2 rim sherds, 2 sherds with brown overglaze decoration and 1 rosette-shaped terminal with brown overglaze decoration

2 sherds, Nottingham stoneware, diameter 4", height 2 1/2", handled cup, Plate 24

1 sherd, green bottle glass

1 rim sherd, clear glass, wine glass (?)

4 sherds, clear window glass

2 brick fragments

1 wall plaster fragment

Appendix 2: Hydration Dating of Glass from Area F

This section of the report briefly describes an attempt to apply the technique of hydration rim dating to sherds of glass from Area F and to a small sample of glass from the Revolutionary War encampment at Valley Forge. The research for this project was carried out at the Museum Applied Science for Archaeology Laboratories at the University Museum, Philadelphia, by Barbara J. Little. This account of the preliminary results of this research is based on the report furnished by Barbara Little to MICA. An introductory report on the work has been published in the MASCA Journal (Parrington and Schenck 1979, 78-9) and the results of the research will be published in a future volume.

The hydration rim dating technique, which has been applied with varying success to obsidian, has not been widely used on man-made glass. The hydration process is explained in detail in Michels and Bebrich (1971) and is based on the fact that glass absorbs moisture and if a sherd is thin-sectioned and examined under a microscope, the amount of absorbtion can be seen as a hydration rind. The thickness of the hydration rind is a factor of the absorbtion rate of the glass, which in turn is effected by the composition of the glass.

For comparative purposes, three sherds of glass from Valley Forge and two sherds from pit ER 111 were tested and compared with twenty sherds from pit ER 100. The Valley Forge sherds and the ER 111 sherds are comparable in date and

are fifty or sixty years older than the ER 100 glass. Two of the Valley Forge sherds had thicker hydration rims than the ER 100 samples. The other Valley Forge sherd and the two from ER 111 had similar hydration rim measurements to the ER 100 glass. The two sherds tested from ER 100 A, the top layer in the pit which had some later intrusive material in it, produced the thinnest rim measurements, suggesting that this material is later than the rest. The rim measurements for all the sherds are shown in Table 1.

The variations in the measurements of the sherds from the same context is probably caused by the differing chemical compositions of the material. Surface decay of the glass will also affect the thickness of the hydration rim. Research is continuing into the chemical composition of the glass tested and this work may show the correlation between the composition of the glass and its hydration absorbtion rate. This method of dating glass will probably not allow precise dates to be applied to glass. Its chief use should be in enabling a relative chronology to be developed for a site, using those ubiquitous sherds of glass, formerly of little value to the historical archaeologist.

Context	Brief Description	Micron Value
ER 100 E	clear molded glass	0.7
ER 100 G	green glass "PANACEA" bottle	1.4
ER 100 A	light green glass	0.6
ER 100 B	dark green bottle glass	0.8
ER 100 D	thin, dark green glass	0.9
ER 100 E	thick, dark green glass	1.1
ER 100 F	dark green glass	0.8
ER 100 G	dark green glass	0.8
ER 100 H	thick, light green glass	1.3
ER 100 J	green glass	0.8
ER 100 A	mirror glass	0.6
ER 100 B	dark blue, case, bottle glass	0.8
ER 100 D	light green glass	0.9
ER 100 E	clear glass tumbler	1.1
ER 100 E	dark green glass	1.2
ER 100 F	clear glass tumbler	0.9
ER 100 F	light green glass	1.0
ER 100 G	dark green glass	1.1
ER 100 H	dark green glass	1.2
ER 100 J	dark green glass	0.9
ER 111	green glass	1.0
ER 109 (111)	green glass	1.0
Valley Forge	dark green bottle glass	1.2
Valley Forge	dark green bottle glass	1.5
Valley Forge	dark green bottle glass	1.7

Appendix 2: Table 1

Hydration rim measurements of Area F and Valley Forge glass

Appendix 3: FAUNAL OSTEOLOGICAL REMAINS FROM AREA F INDEPENDENCE NATIONAL HISTORICAL PARK PHILADELPHIA, PA

Joseph H. Hall, Ph.D.

The analysis of faunal remains from Area F, Independence National Historical Park, focuses on the context most productive of osteological material. This was feature 100 (ER 100), an early to mid-nineteenth century privy. Two smaller features, ER 111 and ER 113, both mid-eighteenth century contexts of uncertain function, also produced a small amount of animal bone. ER 111 and 113 contained so little material, that statistically valid conclusions could not be drawn. They are treated in both the catalogue and in Table 2.

Table 1 illustrates the distribution of total bone fragments from ER 100, organized by species and anatomical location. It also shows the minimum number of each species the remains represent. There were nine separate levels within ER 100.

It can be argued that observable layers in a privy may not represent discreet events, and surely some mechanical mixing does occur between levels of such a deep feature. Nevertheless, total minimum numbers of individuals of each species were obtained by first calculating minimum numbers for each level, and the sum of these was taken to represent minimum numbers for the feature as a whole. The figure would be somwhat lower if the sum of elements, as presented in Table 1, were used to calculate the minimum number of individuals.

Cattle (Bos), sheep (Ovis) and pigs (Sus) were the most frequent mammals present, as is expected. Seven cattle represented 2,800 lbs. of meat, 6 pigs represented 810 lbs.

of meat and 7 sheep represented 350 lbs. It is recognized that some difficulty exists in estimating average dressed weights of animals in the past. For further discussion, see Lemon (1967) and Bidwell and Falconer (1925).

The osteological material at Area F was generally less densely concentrated than in other know privies. For example, Burnston (1974) has analyzed two other Philadelphia features from Franklin Court, Feature 9 and Feature 22. There are both fewer osteological elements and fewer individuals present at Area F. The Franklin Court features date a bit earlier than Area F, being from the late eighteenth century. Nonetheless, for a site located only a few blocks away in the same city, the contrast is striking. At Franklin Court, F9 totalled 760 fragments and F22 totalled 1,891. Our deep privy, ER 100, contained only 188 identifiable fragments. While Bos was the major mamalian species in minimum numbers, percent of fragments and weight of meat provided, Franklin Court feature 9 produces 194 fragments of Bos, while ER 100 at Area F produced only 39.

Two variables should be considered regarding interpretation of the Area F bones. Very few of the elements recorded were whole bones, and many of the fragments were chips and slivers which could not be identified. The longbones especially were cracked, apparently for marrow removal, before burial. Furthermore, many bones showed signs of weathering (surface crazing and flaking), such as are produced by exposure, and some had been gnawed by rodents.

It would seem these conditions would be better produced if some of the bones were yard- or gutter-refuse that was later dumped into the abandoned privy, than if all the bones were deposited directly from the table. Several Rattus bones were recovered, and it is feasible that the gnawing occurred in situ in the privy, although it is seen as a less likely explanation. In further support of the yard-refuse theory, is the fact that one of the oyster (Crassostrea) shells was embedded in the building mortar. While the oysters and hard clams (Mercenaria) can be interpreted as food remains in most cases, this mortared shell presents the possibility that general rubble and litter was the source of at least some of the deposited faunal material.

Culturally, two separate culinary traditions converge in eighteenth and nineteenth century Philadelphia: the northern and southern Anglican tradition with emphasis on beef and sheep; and the Southeastern Pennsylvania German tradition with emphasis on the pig. In this way, the colonial triad of Bos, Ovis and Sus are represented in nearly equal numbers at Area F.

Table 1 allows a comparison of portions of animals which were favored. The anatomical parts are arranged so that hind-quarters, forequarters and skull portions are grouped. In cow, sheep and pig, the hindquarters are slightly favored, while the feet and cranial portions of pig may relate to such preparations as pigs feet or hog jowls. The preparation of pig crania for the table can have an origin in Germany, or in

England as part of the Boar's head feast.

It is rather important that none of the elements, especially of the lower limbs and phalanges, were articulated. Had the elements been cooked and eaten, the likelihood of their separation from each other in burial is increased. If the foot bones, for instance, were recovered with all their adjoining members, it would be necessary to postulate their disposal in a fully articulated position position as the waste products of butchering.

In comparison with a published example of the osteology of a deep feature in the South, the late-eighteenth century Bray well in Kingsmill, Virginia, (Barber, 1976), fewer wild species occurred in Area F. Only one deer (Odocoileus) bone and a duck (Anas) bone were recovered at Area F, and the duck may be domestic.

At least three explanations can be made for the greater number of wild species at Bray. First, the Kingsmill situation is rural, while Area F is urban. Thus, the natural occurence of wild species in the vicinity for either food or carcass disposal is reduced at Area F. Second, ER 100 dates from the nineteenth century, when Philadelphia was an urbane and leading city in the young nation. Tastes were beginning to favor domestic species for the table over wild game. Third, cultural food preferences in the Colonial South diverged somewhat from the Middle Colonies and New England. By the late eighteenth century, regional tastes and specialities were well developed.

Among the less common food species which were identified at Area F were two snapping turtles (Chelydra) and a single claw (Chela) of a blue claw crab (Callinectes). Both are still regional favorites in this estuary region of the Middle Atlantic Coast, as are the large numbers of oyster (Crassostrea) and hard clam (Mercenaria) listed in the catalogue.

Two interesting invertebrate marine mollusks were recovered which are not usually considered food species. Both valves of a species called False Angel Wings (Petricola pholadiformis), and a simgle specimen of the snail Northern Moon Shell (Lunatia heros) were found in ER 100. These are both common Atlantic Species and were probably inadvertently brought in with a take of oysters or clams.

A large number of cats (Felis domesticus) were noted in the Bray well and Franklin Court features, and four occurred in ER 100. A point should be made concerning Barber's (1976:70) interpretation of 13 cats in the Bray well as "carcass disposal". While cats were surely not eaten at either Area F or Bray, the species itself displays behavioral proclivities that can lead to death in tightly enclosed places such as abandoned wells. Cats seek shelter in such dark, covered spaces, and may pursue rodents which congregate there. A croded urban refuse situation is perhaps better for envisioning this process than a plantation, especially since the Bray well produced only on specimen of Rattus.

Likewise with chickens (Gallus), F22 at Franklin Court

produced 14, the Bray well produced 14, and ER 100 produced 13, the most numerous of the birds. The chicken, know in the eighteenth and nineteenth centuries as "Dunghill Fowl", is a very adaptable bird which fares well feeding on household refuse in a relatively small yard area. It is possible that chickens were kept even in urban nineteenth century Philadelphia, for both eggs and consumption. Table 1 shows that unlike the large mammals, chicken wings and forelimbs were preferred over legs. One of the specimens of Gallus from Area F was a rooster, with a large spur core prominently displayed on the tarsometatarsus.

Finally, a single piece of bone was identified which had been altered into an artifact. A segment of a rib was sawed flat on one side and scored in a criss-cross pattern on the rounded side. It was drilled in two places for fastening it, apparently to a table utensil such as a bone handled knife, fork, or spoon.

Appendix 3: Table 1: ER 100 - Animal bone, Total Elements Present

	Minimum #	Bos taurus	Ovis aries	Sus scrofa	Odocoileus virginianus	Canis familiaris	Felis domesticus	Rattus norvegicus	Gallus gallus	Meleagris gallopavo	Anas sp.	unidentified Avian	Chelydra serpentina	Callinectes sapidus
pelvis	7	3	1						3		1			
femur	7	1	2	1			2	1	1					
tibia	6	3	1	2			2	1						
tarsals	1	10	3			1								
metatarsals	1	2		1										
scapula	1		2											
humerus	4	5	3		1		2	2	6		1	1		
radius	2						2		12			1		
ulna	1						6		2					
carpals														
metacarpals	1		1											
metapodials	1	3	5	2										
phalanges	5	2	3	5					2	1				
cranium	1		1	1										
mandible	2	3	1	2						2			1	
teeth	1	6		9										
vertebrae														
ribs	1	1												
sternum	1													
coracoid	1								6			1		
tarsometatarsus	1								11					
tibiotarsus	2								5	4		2		
tendon	1								1	3				
carapace	1												15	
chela	1													1

Appendix 3: Table 2: ER 111 and 113 - Animal bone, Total Elements Present

pelvis		1			2			
femur		1		1				
tibia		1			1			
tarsals					2	1	1	
metatarsals								
scapula								
humerus			1		1	1		
radius								
ulna			1					
carpals								
metacarpals								
metapodials						1		
phalanges								
cranium								
mandible				1				
teeth								
vertebrae								
ribs							1	
sternum								
carapace	2							

Minimum #	ER 111	Chelydra serpentina	Rattus norbegicus	Gallus gallus	Sus scrofa	Ovis aries	Bos taurus	ER 113	Bos taurus
	1		1	1	1	2	1		1

Catalogue - Faunal Remains

ER 100 A

1 Crassostrea virginica

Unidentified Mammalian Fragments
3 ribs

ER 100 B

21 Crassostrea virginica

16 Mercenaria mercenaria

Bos taurus
1 lower premolar
2 astragali

Ovis aries
1 femur

Sus scrofa
1 femur
1 tibia
1 calcaneum
1 phalanx

Gallus gallus
1 tarsometatarsus
2 coracoids
1 ulna
3 radii
1 humerus

Unidentified Avian Fragments
1 coracoid
1 tibiotarsus
1 ossified tendon
8 longbone

ER 100 C

Sus scrofa
1 phalanx

Unidentified Mamalian Fragments
1 rib
1 vertebra
1 metapodial

Gallus gallus
1 coracoid

ER 100 D

1 Crassostrea virginica

Unidentified Mammalian Fragments
1 rib
1 unidentified fragment
2 crania

Gallus gallus
2 humerii
1 tibiotarsus

Meleagris gallopavo
1 tibiotarsus

ER 100 E

47 Crassostrea virginica

67 Mercenaria mercenaria

1 Lunatia heros

Bos taurus
1 pelvic fragment
1 rib
2 mandibles
3 teeth (lower first premolar, second and third molars)
2 tarsals
1 metapodial
1 phalanx

Ovis aries
1 femur
2 metapodial
1 humerus
1 cuboid
1 calcaneum

Sus scrofa
2 metapodials
1 tibia
2 phalanges

Odocoileus virginianus
1 humerus

Canis familiaris
1 calcaneum

Rattus norvegicus
1 femur
1 rib

Unidentified Mammalian Fragments
67 rib
18 vertebrae
15 longbone
4 calcined
15 unidentified fragments

Gallus gallus
1 radius

2 humerii
2 tibiotarsals
3 tarsometatarsals

Meleagris gallopavo
2 tibiotarsals
3 ossified tendons
1 phalanx

Unidentified Avian Fragments
9 longbone fragments

Chelydra serpentina
15 carapace fragments
1 shell fragment

ER 100 F

5 Crassostrea virginica

5 Mercenaria mercenaria

Bos taurus
1 pelvic fragment (acetabulum)

Ovis aries
1 humerus
1 metacarpal
1 phalanx

Unidentified Mammalian Fragments
2 vertebrae
14 rib

Gallus gallus
1 radius
1 ulna
1 tibiotarsus
1 tarsometatarsus

ER 100 G

77 Crassostrea virginica

32 Mercenaria mercenaria

Bos taurus
4 humerii
1 premolar
1 femur
2 astragali
2 cuboids
2 calcanea
2 metapodials
2 tibiae
1 pelvis (4 fragments)
21 rib fragments (probably Bos)

Ovis aries
1 skull (cranium + mandible)

1 humerus
1 pelvis
2 scapulae
1 astragalus
1 metapodial
2 phalanges

Sus scrofa
5 teeth (2 premolars, 1 molar, 1 canine)

Felis domesticus
1 ulna

Rattus norvegicus
2 humerii
1 tibia/fibula

Unidentified Mammalian Fragments
48 rib
23 longbone
20 vertebrae

Anas sp.
1 pelvis

Gallus gallus
3 pelvic fragments
1 sternum
2 coracoids
1 femur
4 radii
1 humerus
1 tibiotarsus
5 tarsometarsals
2 phalanges

Meleagris gallopavo
2 mandibular fragments
1 tibiotarsus

Unidentified Avian Fragments
1 radius
1 humerus
1 tibiotarsus
1 vertebra
12 longbones

Chelydra serpentina
1 mandible

ER 100 H

10 Crassostrea virginica

5 Mercenaria mercenaria

2 Petricola pholadiformis

1 Callinectes sapidus (chela)

Bos taurus
2 mandibles
1 molar
1 astragalus
1 calcaneum
1 tibia

Ovis aries
1 tibia

Sus scrofa
1 phalanx

Unidentified Mammalian Fragments
5 cranial
15 rib
3 vertebral
1 scapular
2 metapodial
10 unidentified fragments

ER 100 J

12 Crassostrea virginica

9 Mercenaria mercenaria

Ovis aries
2 metapodials

Felis domesticus
5 ulnae
2 humerii
2 radii
2 tibiae
2 femora

Sus scrofa
2 mandibles
2 maxillae
4 teeth (2 molars, 2 incisors)

Bos taurus
1 phalanx

Unidentified Mammalian Fragments
15 cranial
9 rib
2 vertebral
1 pelvic
3 longbone
19 unidentified fragments

Gallus gallus
2 radii
1 tarsometatarsus (male with spur core)

Unidentified Avian Fragments
4 longbone

ER 110

1 Mercenaria mercenaria

Ovis aries
1 calcaneum

Sus scrofa
1 phalanx

Unidentified Mammalian Fragments
1 rib

ER 111

70 Crassostrea virginica

Unidentified Mammalian Fragments
24 ribs
9 vertebral
2 cranial
3 longbone
24 fragments

ER 113

2 Crassostrea virginica

Bos taurus
1 rib
1 astragalus

Bibliography

Anon, 1965. Historical Data For Historical Base Map For Area A, C and F and Deshler-Morris House, on file at NPS Regional Office, Philadelphia.

Barber, Michael. 1976 "The Vertebrate Fauna from a late Eighteenth Century Well: The Bray Plantation, Kingsmill, Virginia". Historical Archaeology. Vol. 10, 68-72.

Batcheler, Penelope Hartshorne. 1978. Historic Structures Report Area F, Architectural Data Section, Independence National Historical Park, Philadelphia PA, draft report, Denver Service Center, National Park Service.

Biddle, Clement. 1791. The Philadelphia Directory. James and Johnson, Philadelphia.

Bidwell, Percy Wells and John I. Falconer. 1925. History of Agriculture in Northern United States 1620 - 1860. Carnegie Institute, Washington.

Blades, Brooke S. 1976. Cultural Behavior And Material Culture In Eighteenth-Century Deerfield, Massachusetts, on file at Historic Deerfield, Massachusetts.

Blumin, Stuart M. 1973. "Residential Mobility Within the Nineteenth-Century City" in (eds) Allen F. Davis and Mark H. Haller The Peoples of Philadelphia. 37-51. Temple University Press, Philadelphia.

Burnston, Sharon Anne. 1974. "Faunal Analysis of Franklin Court" in Elizabeth Cosans Franklin Court Report 1974, on file at NPS Regional Office, Philadelphia.

Carey, Mathew. 1837. A Plea for the Poor. Philadelphia.

Cosans, Elizabeth. 1977. "Area F Historical Report in Daniel G. Crozier. Archaeological Survey Report Area F, on file at NPS Regional Office, Philadelphia.

Crozier, Daniel G. 1977. Archaeological Investigation Area F Independence National Historical Park, on file at NPS Regional Office, Philadelphia.

_____. 1977[a]. Archaeological Survey Report Area F, on file at NPS Regional Office, Philadelphia.

_____. 1978. Addendum Archaeological Investigations Area F, INHP, on file at NPS Regional Office, Philadelphia.

Desilver, Robert. 1828. Desilver's Philadelphia Directory and Strangers Guide 1828. Robert Desilver, Philadelphia.

_____. 1830. Desilver's Philadelphia Directory and Strangers Guide 1830. Robert Desilver, Philadelphia.

Godden, G. A. 1964. Encyclopaedia of British Pottery And Porcelain Marks. Bonanza Books, New York.

Greene, Jerome A. 1974. Historic Structure Report Historical Data Section Area F Independence National Historical Park, Pennsylvania. Denver Service Center, National Park Service.

Jackson, Keneth T. 1975. "Urban Deconcentration in the Nineteenth Century: A Statistical Inquiry" in (ed) Leo F. Schnore, The New Urban History, 110-144, Princeton University Press, New Jersey.

Jones, Olive. 1971. "Glass Bottle Push-Ups and Pontil Marks". Historical Archaeology. Vol V, 62-73.

Laurie, Bruce. 1973. "Fire Companies and Gangs in Southwark: The 1840 s" in (eds) Allen F. Davis and Mark H. Haller, The Peoples of Philadelphia, 71-87, Temple University Press, Philadelphia.

Lemon, James T. 1967. "Household Consumption in Eighteenth-Century America and its Relationship to Production and Trade: The Situation Among Farmers in Southeastern Pennsylvania", Agricultural History. Vol. 41, No. 1.

Lorrain, Dessamae. 1968. "An Archaeologists Guide to Nineteenth Century American Glass", Historical Archaeology, Vol. II, 35-44.

Macpherson. 1785. Macpherson's Directory for the City and Suburbs of Philadelphia. Frances Bailey, Philadelphia.

McElroy, A. 1857. McElroy's Philadelphia Directory for 1857. Edward and John Biddle, Philadelphia.

_____. 1860. McElroy's Philadelphia Directory for 1860. Edward and John Biddle, Philadelphia.

McKearin, George S. and Helen. 1941. American Glass. Crown Publishers, New York.

Michels, Joseph W. and Carl A. Bebrich. 1971. "Obsidian Hydration Dating" in (eds) Henry H. Michael and Elizabeth K. Ralph. Dating Techniques for the Archaeologist. 164-221, MIT Press, Cambridge, Massachusetts.

Murtagh, William. 1957. "The Philadelphia Row House". Journal of The Society of Architectural Historians. Vol. XVI, Dec. 8-13.

Noël Hume, Ivor. 1972. A Guide to Artifacts of Colonial America. Alfred A. Knopf, New York.

_____. 1978. "Pearlware: Forgotten Milestone of English Ceramic History" in (ed) Paul Atterbury, English Pottery and Porcelain, 42-49, Universe Books, New York.

Olsen, Stanley J. 1964. Mammal Remains from Archaeological Sites, Part 1: Southeastern and Southwestern United States, Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University, Vol. LVI, No. 1.

_____. 1968. Fish, Amphibian and Reptile Remains from Archaeological Sites, Part 1: Southeastern and Southwestern United States; Appendix: The Osteology of the of the Wild Turkey, Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University, Vol. LVI, No. 2.

_____. 1972. Osteology for the Archaeologist, No. 4, North American Birds, Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University, Vol. 56, No. 4.

Parrington, Michael and Helen R. Schenck. 1979. "Salvage Archaeology and Science at Independence National Historical Park, Philadelphia". MASCA Journal. Vol. 1, No. 3, 78-79.

Scharf, J. Thomas and Thompson Westcott. 1884. History of Philadelphia, 1609-1884. L. H. Evarts and Co., Philadelphia.

Smith Robert C. 1953. "Two Centuries of Philadelphia Architecture: 1700-1900". Transactions of the American Philosophical Society. Vol. 43, Part 1, 289-303.

South, Stanley. 1964. "Analysis of the Buttons from Brunswick Town and Fort Fisher". Florida Anthropologist. Vol. 17, No. 2, 113-133.

_____. 1977. Method and Theory in Historical Archaeology. Academic Press, New York.

Stefano, Frank, Jr. 1978. "James and Ralph Clews, Nineteenth-Century Potters, Part 1: The English Experience", in (ed) Paul Atterbury, English Pottery and Porcelain, 202-206, Universe Books, New York.

Sutherland, John F. 1973. "Housing the Poor in the City of Homes: Philadelphia at the turn of the Century", in (eds) Allen F. Davis and Mark H. Haller, The Peoples of Philadelphia, 175-201, Temple University Press, Philadelphia.

Warner, Sam Bass, Jr. 1968. The Private City. University of Pennsylvania Press, Philadelphia.

White, Harry Hall. 1974. "More light on Coventry And Its Products", in (ed) Marvin D. Schwartz, American Glass, 153-156, The Pyne Press, Princeton, New Jersey.

Wilson, Bill and Betty. 1971. 19th Century Medicine In Glass. 19th Century Hobby and Publishing Co., Box 245, Amador City, CA, 95601.

Wilson, Thomas. 1825. The Philadelphia Directory and Strangers Guide for 1825. Wilson and Vanbaum, Philadelphia.



Plate 1: Machine excavation of site from west

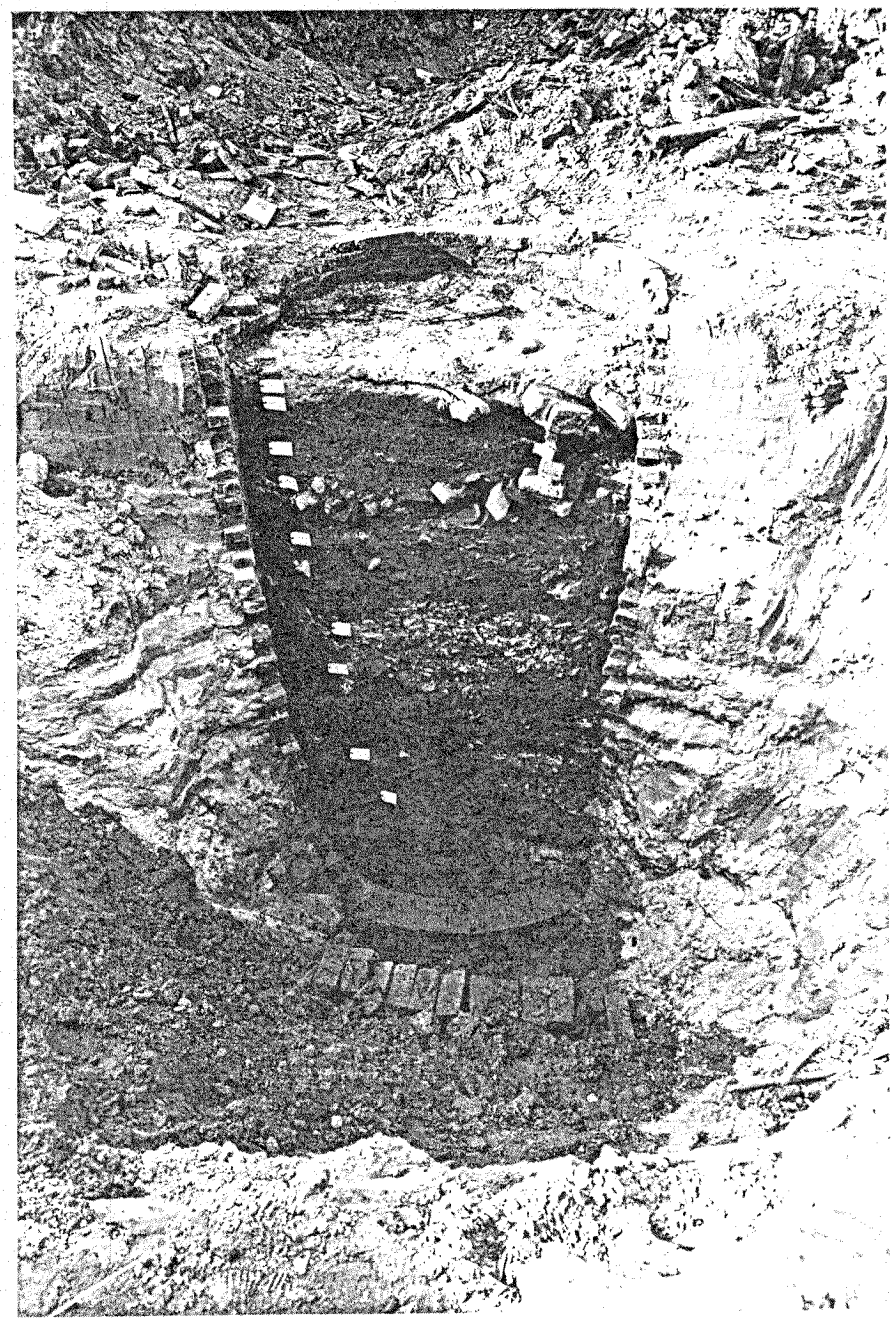


Plate 2: Section of pit ER100 from south scale 6 feet

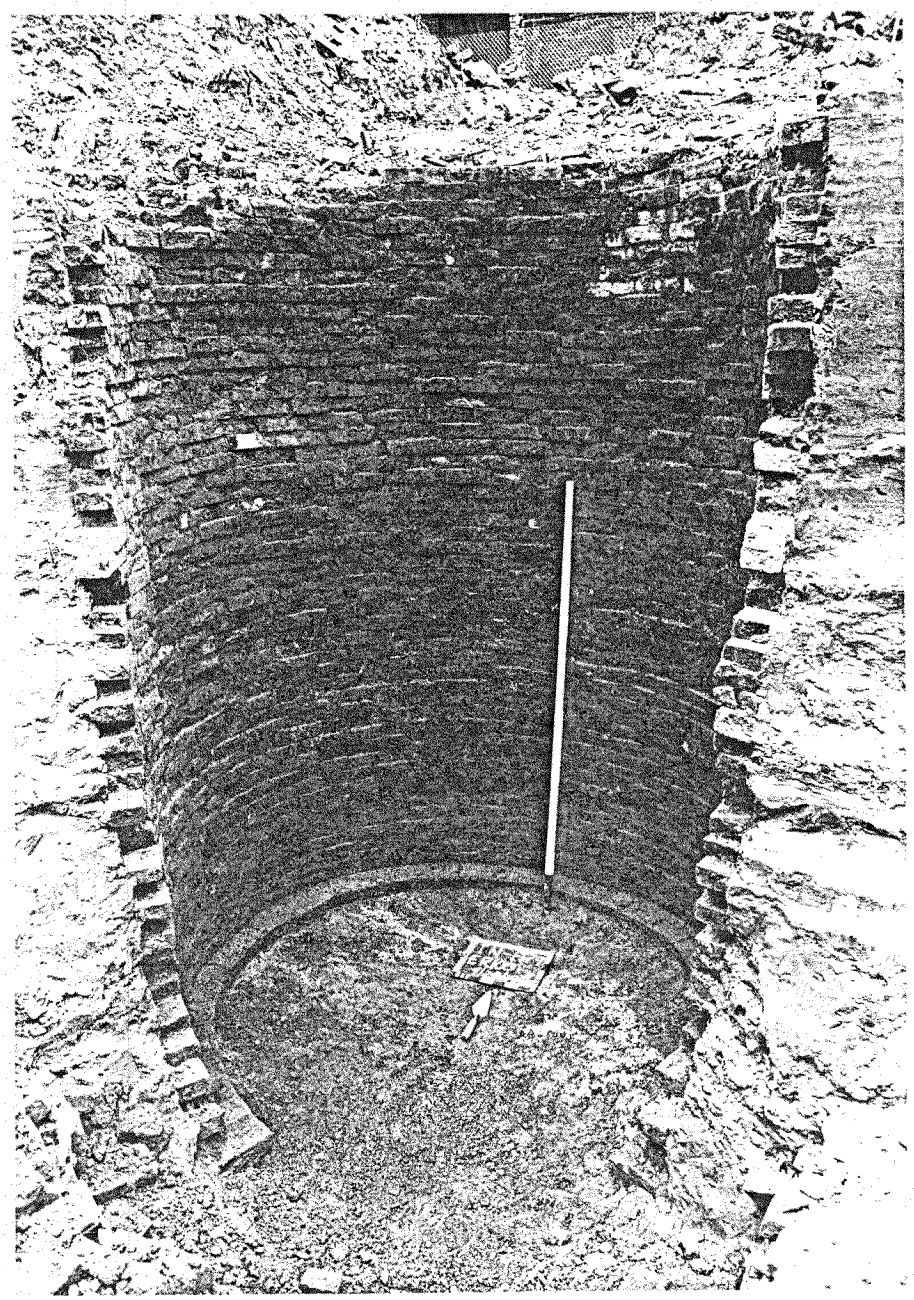


Plate 3: Completed excavation of pit ER100 from south
scale 6 feet

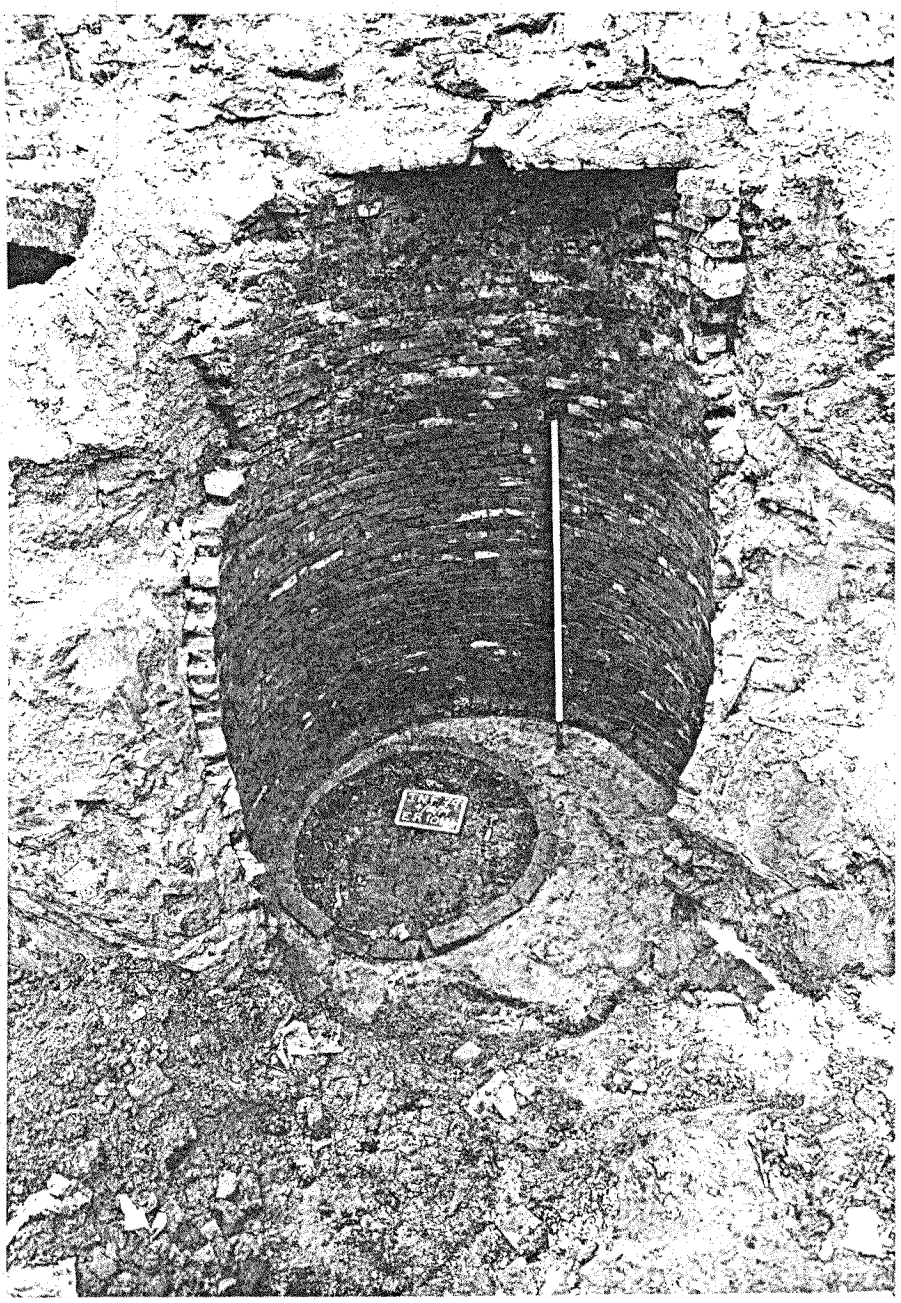


Plate 4: Completed excavation of pit ER104 from south scale 6 feet



Plate 5: View of machine trench in B line from west
scale 6 feet

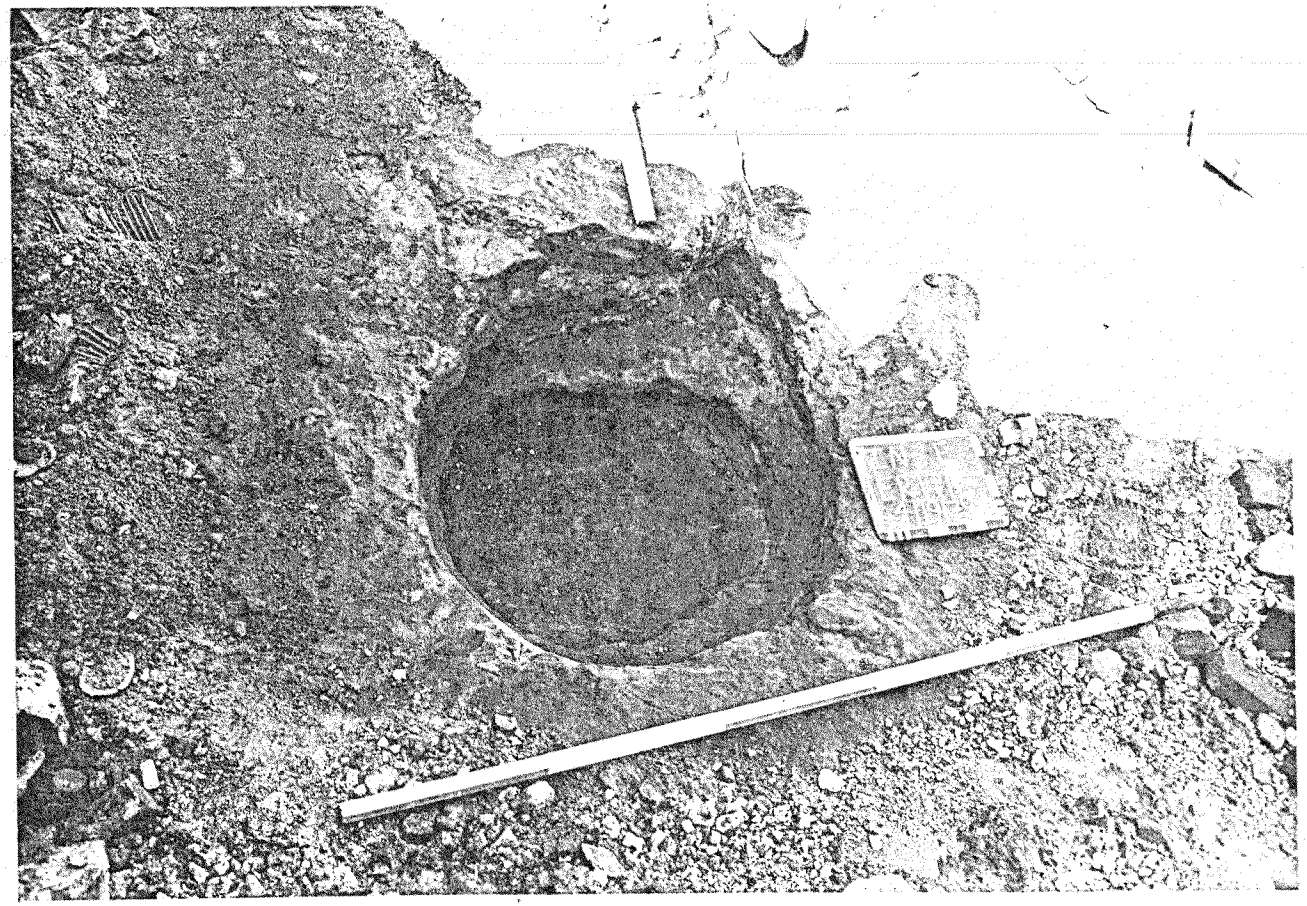


Plate 6: Pit ER111 from north scale 6 feet

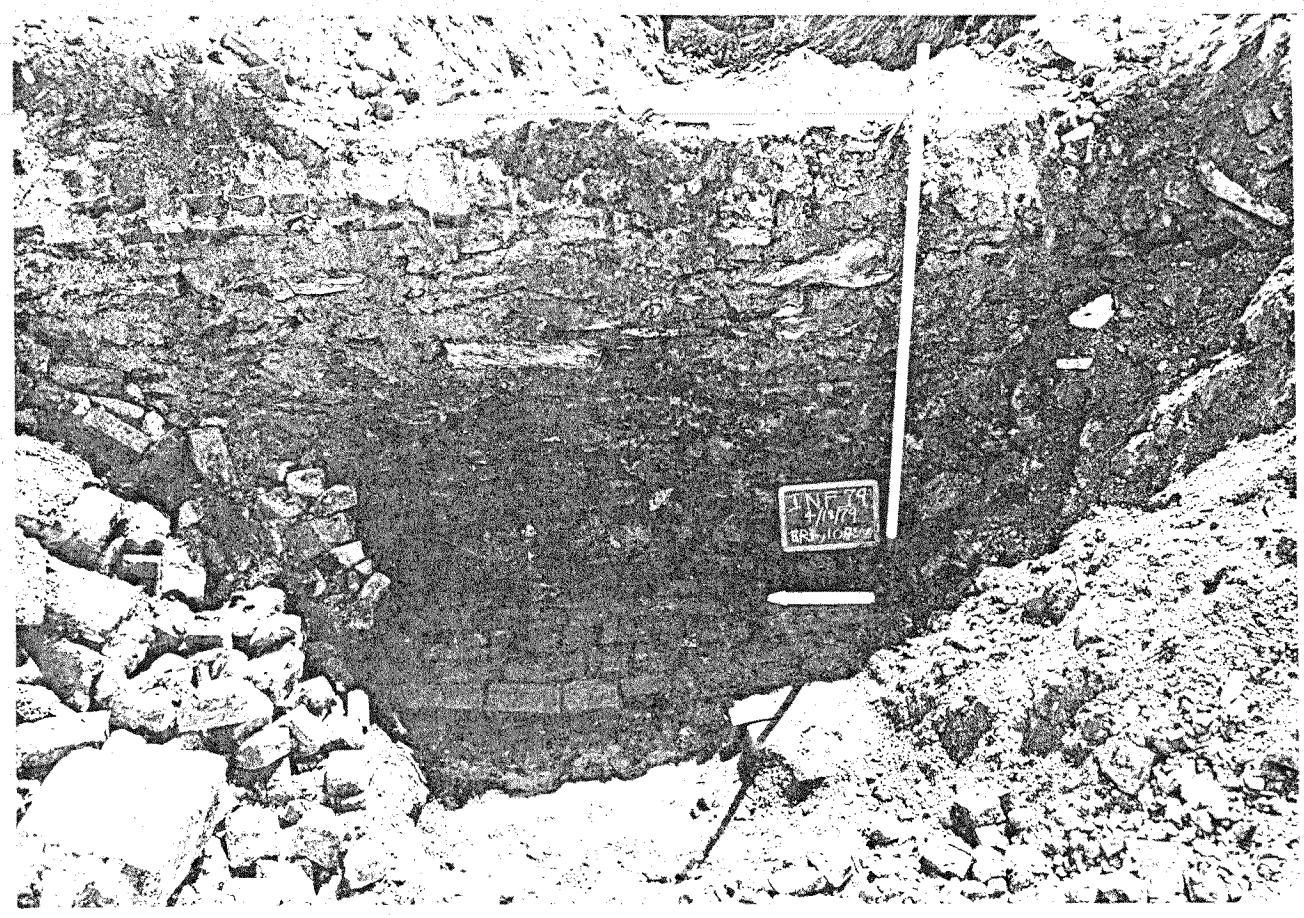


Plate 7: Wall ER107 and brick flooring from west
scale 6 feet

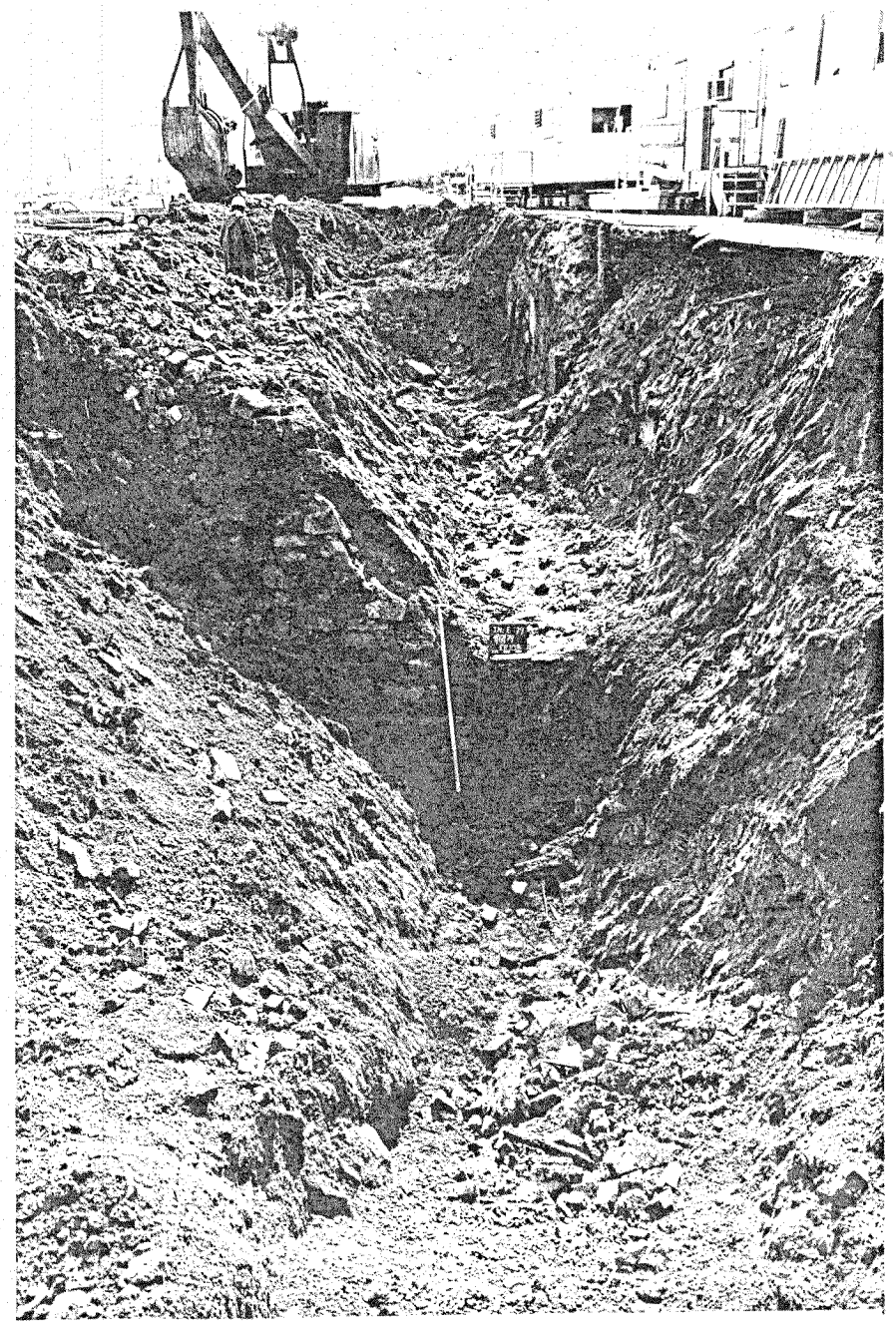


Plate 8: View of machine trench in C line from west
scale 6 feet

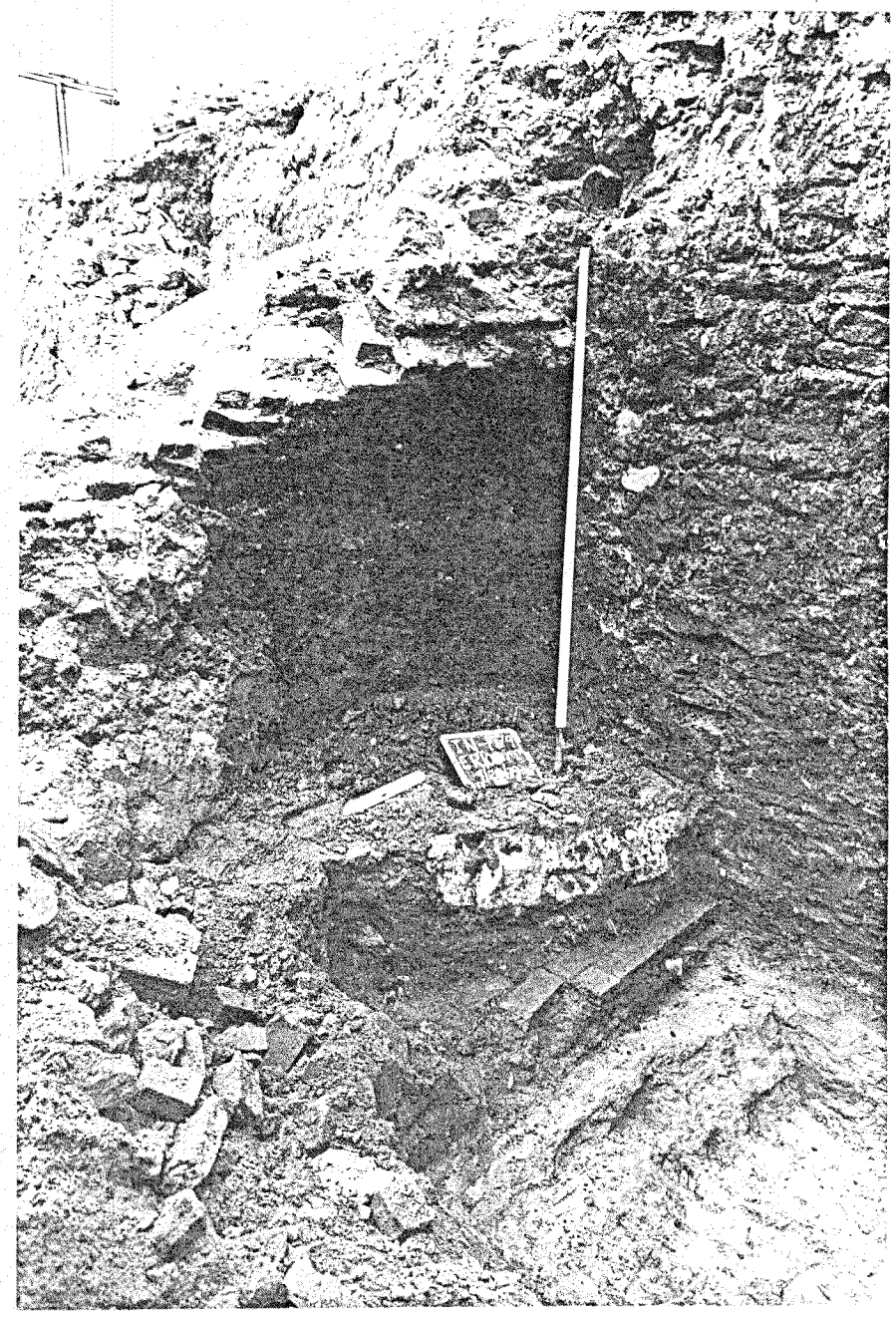


Plate 9: View of walls ER108 and ER112 from north-west scale 6 feet

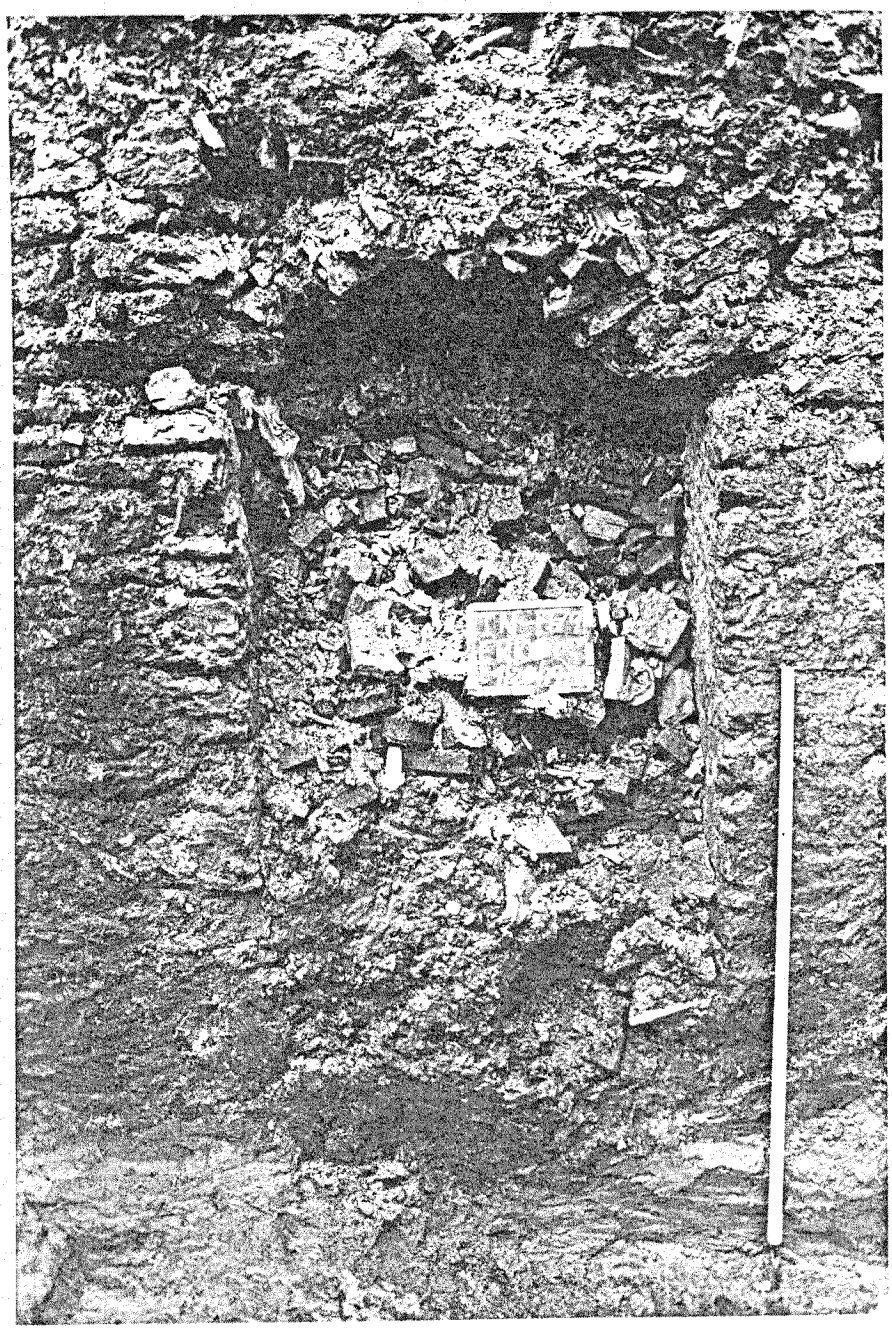


Plate 10: View of west cellar doorway in wall ER112 from north scale 6 feet

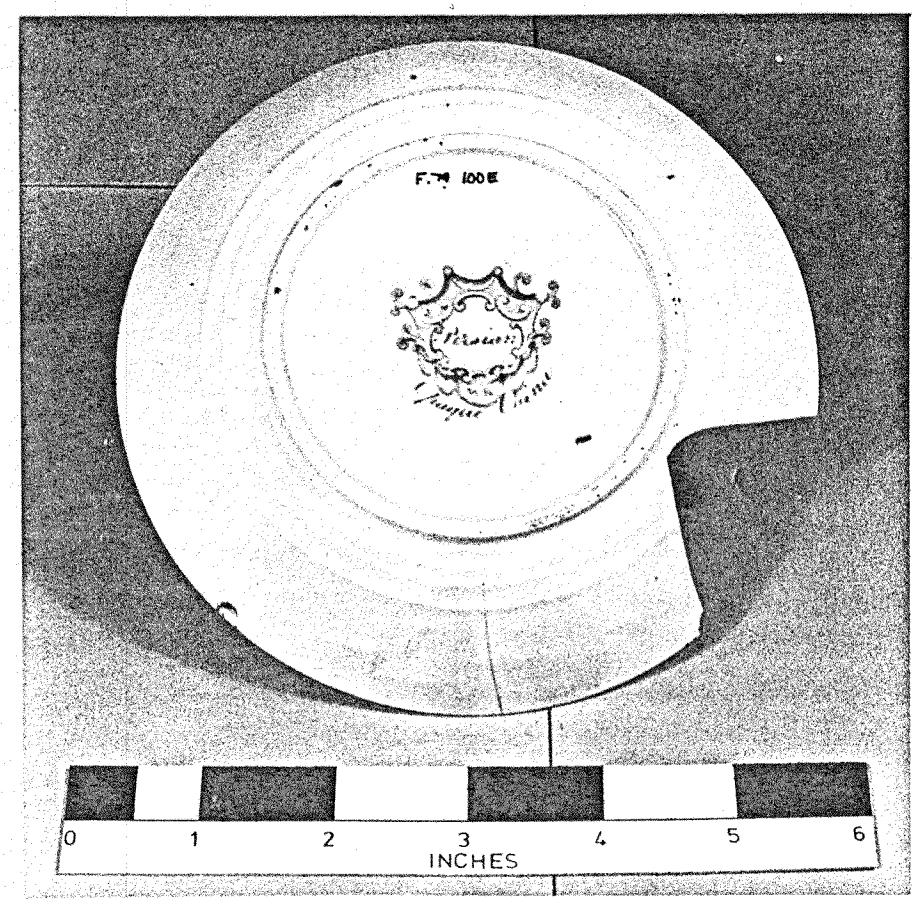


Plate 11: Pearlware bowl with WR stamp from ER100E diameter 5 1/2"

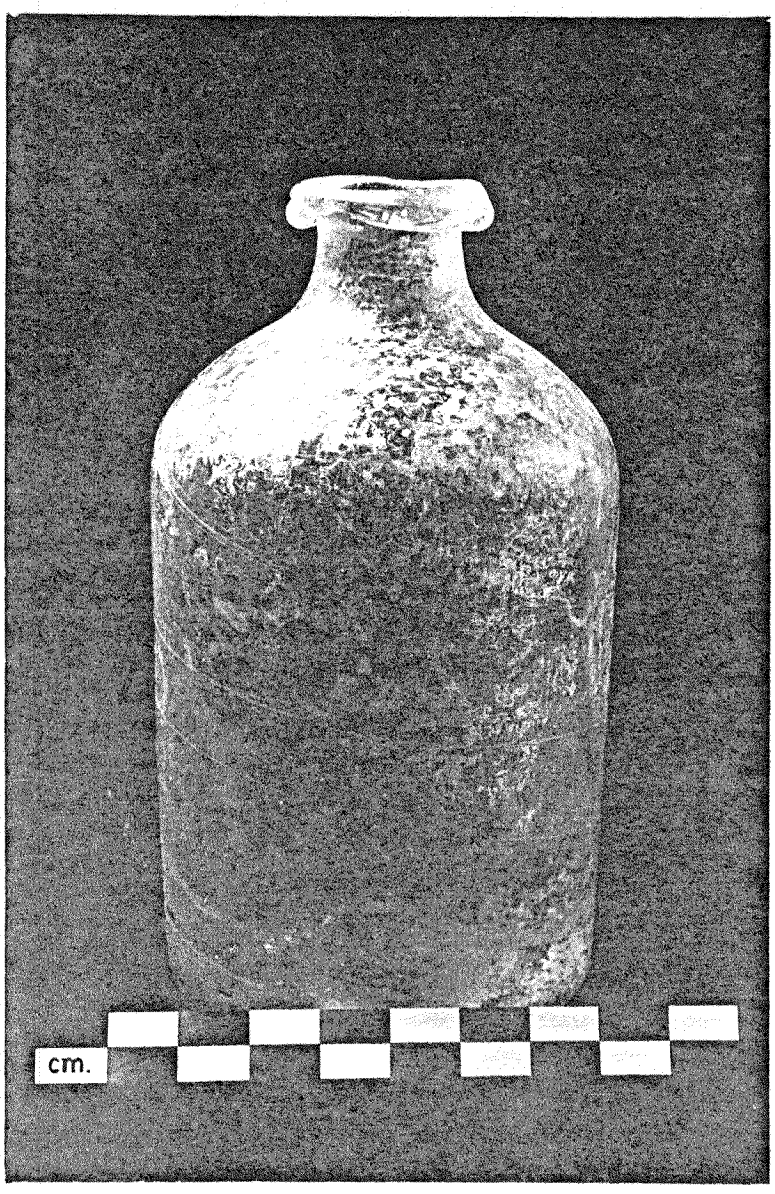


Plate 12: Green glass hand blown mineral water bottle from ER100E height 4 3/4"

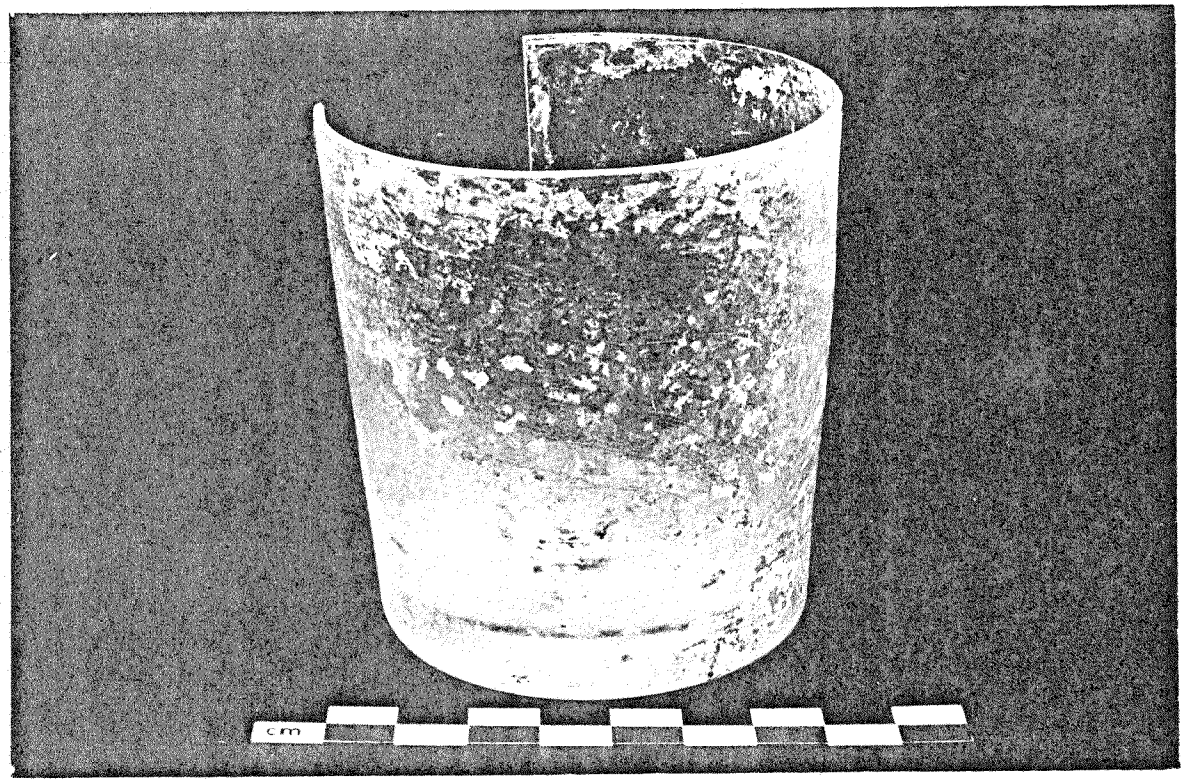


Plate 13: Clear glass dip mold blown tumbler from ER100E height 3 3/4"



Plate 14: Dark green glass hand blown beer-wine bottle from ER100F height 7 1/2"

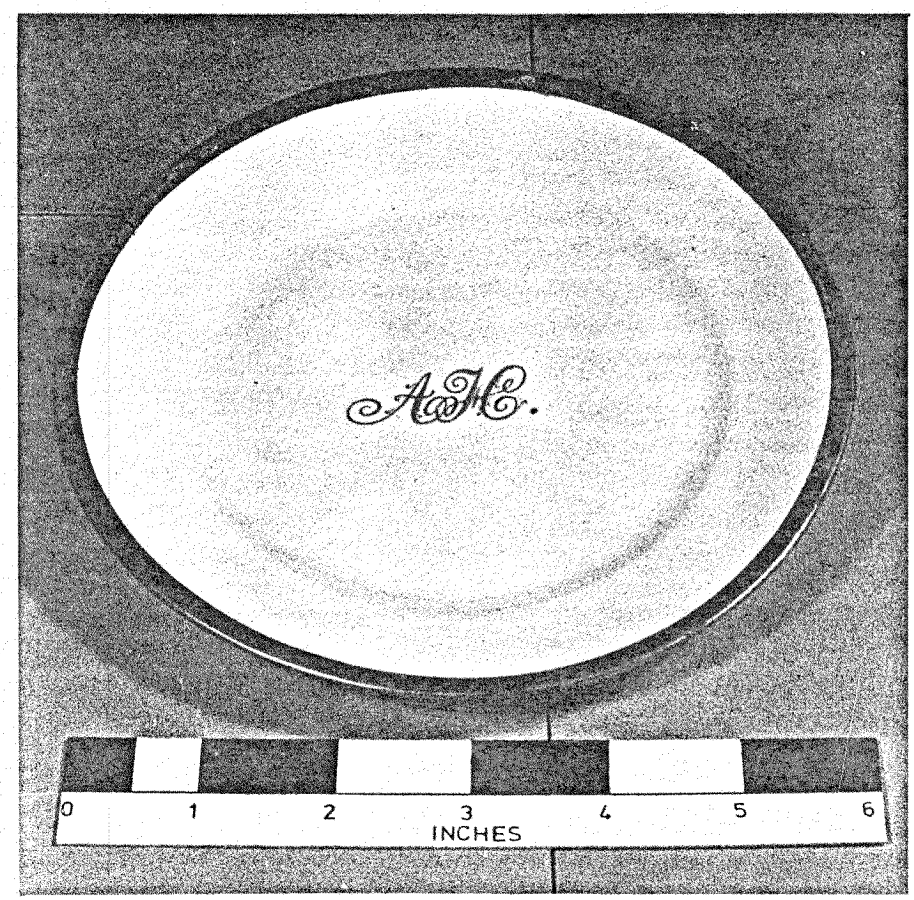


Plate 15: Gold rimmed porcelain plate with gold painted AH monogram diameter 6 1/4"

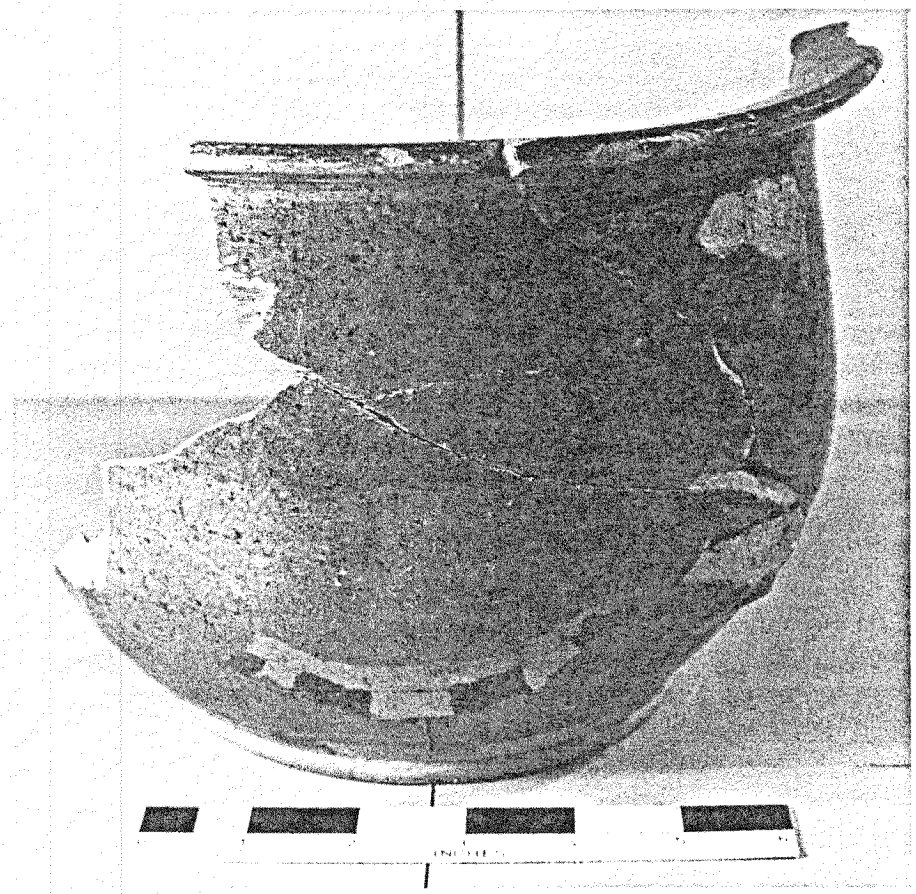


Plate 16: Lead glazed redware chamber pot from ER100G diameter 9 1/2"



Plate 17: Green glass dip mold blown mineral water bottle from ER100G height 5 3/4"

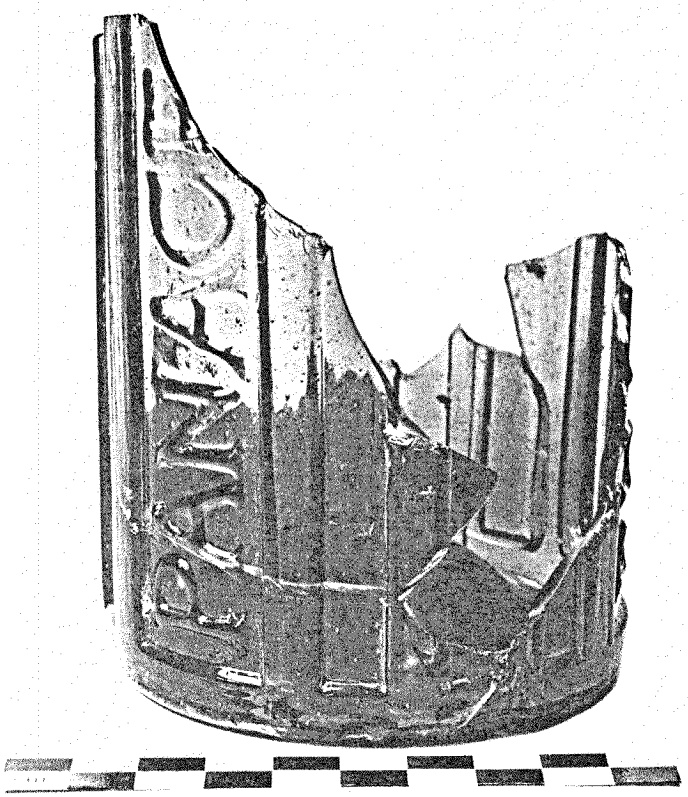


Plate 18: Fragment of green glass mold blown "PANACEA" bottle from ER100G height 4 1/4"

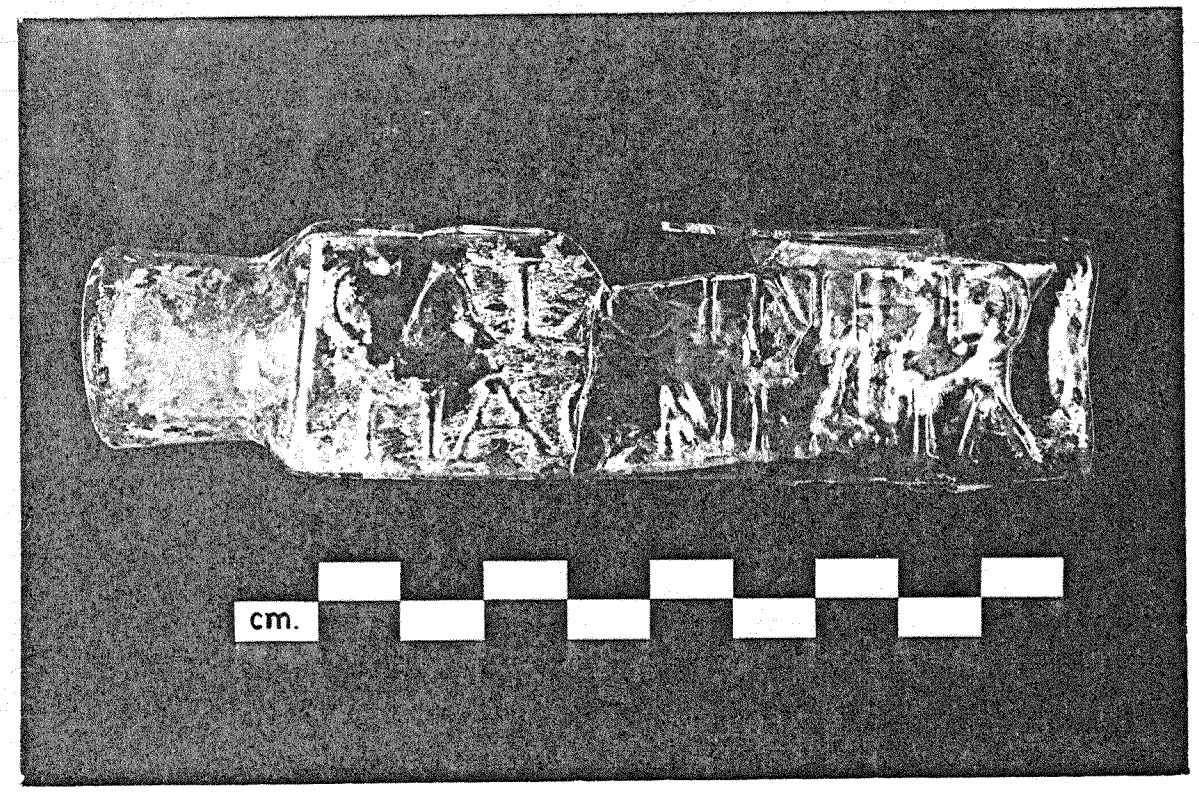


Plate 19: Light green glass mold blown "CALCINED MAGNESIA" medicine bottle from ER100G height 4 3/4"



Plate 20: Clear glass pattern molded and expanded medicine? perfume? bottle from ER100G height 3"



Plate 21: Green glass three mold blown "Ricketts" bottle from ER100H height 7 1/2"



Plate 22: Manganese glazed redware mug from ER100J
diameter 4"



Plate 23: Lead glazed yellow slipware plate from ER100J
diameter 12"

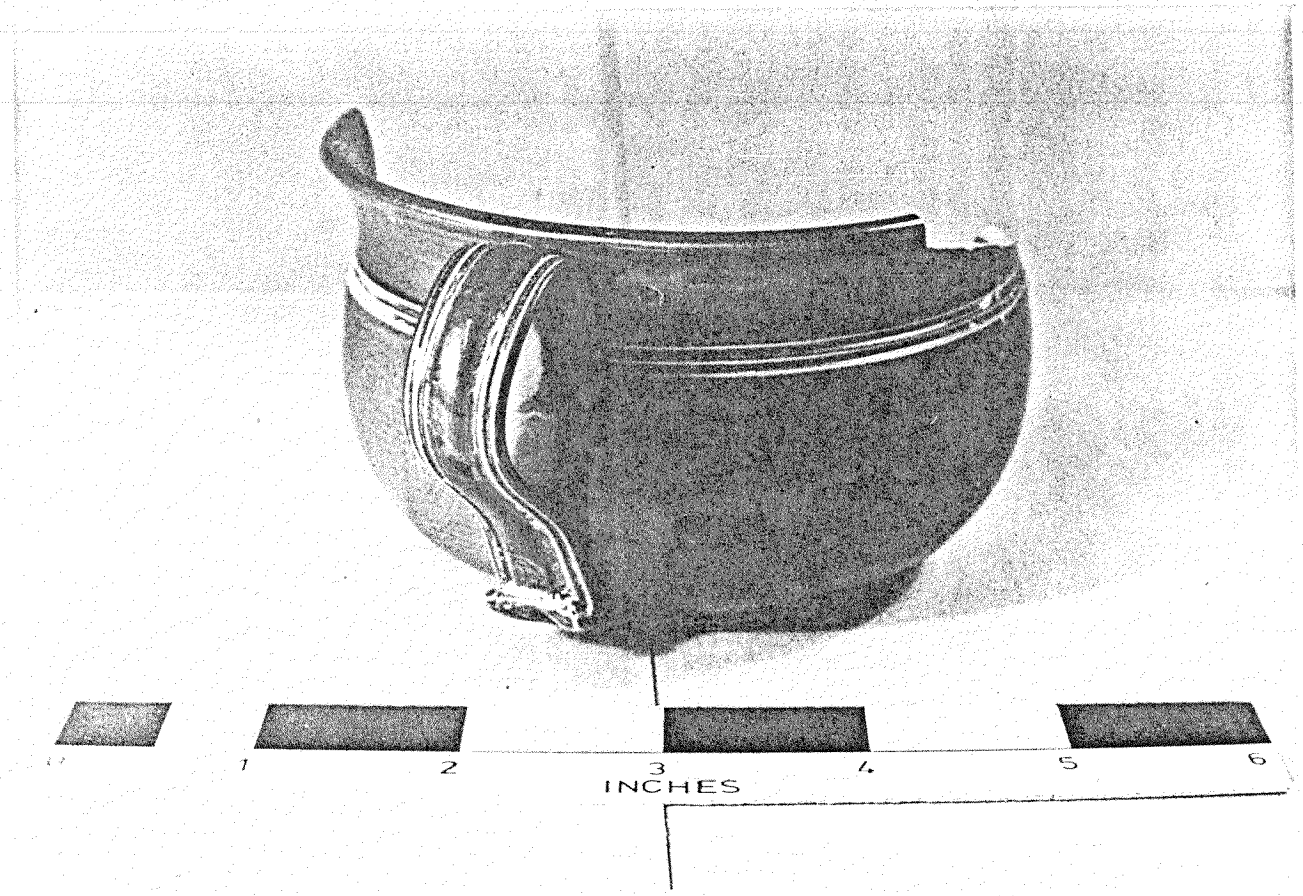


Plate 24: Nottingham stoneware handled cup from ER113
diameter 4"

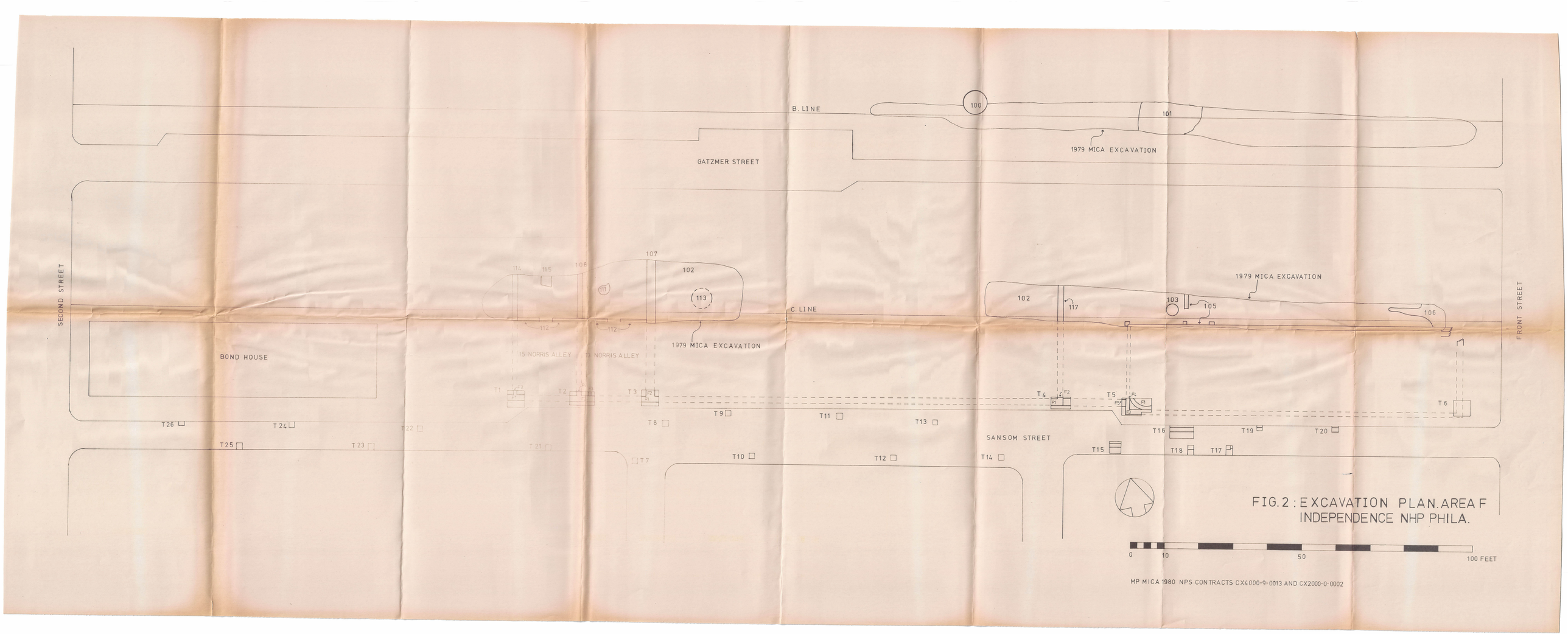


FIG. 2 : EXCAVATION PLAN. AREA F
INDEPENDENCE NHP PHILA.

MP MICA 1980 NPS CONTRACTS CX4000-9-0013 AND CX2000-0-0002