

7 Hanover Square, Part 1 of 6 ✓
USF 169M
1990
Introduction

RECEIVED
ENVIRONMENTAL EDUW

DEC 26 1990

LANDMARKS PRESERVATION
COMMISSION

CEAR

ROTHSCHILD & PICKMAN

1990

7 HANOVER SQUARE

511

THE ARCHAEOLOGICAL EVALUATION OF
THE SEVEN HANOVER SQUARE BLOCK:
A FINAL REPORT

*NYS #624
Museum*

Nan A. Rothschild and Arnold Pickman

Submitted to the New York City
Landmarks Preservation Commission,
December 1990

TABLE OF CONTENTS

Introduction	i	<i>Vol I</i>
Chapter One. Documentary research, field methods, and artifact processing	1	
Chapter Two. Documentary research and excavation of Lot 9 (10, 26*, 27*)	22	<i>94 Summary</i>
Chapter Three. Documentary research and excavation of Lots 11 and 25	113	
Chapter Four. Documentary research and excavation of Lots 12 and 24	155	
Chapter Five. Documentary research and excavation of Lot 13	192	
Chapter Six. Documentary research and excavation of Lot 14	237	
Chapter Seven. Documentary research and excavation of Lot 15	281	
Chapter Eight. Documentary research and excavation of Lot 19	306	
Chapter Nine. Documentary research and excavation of Lots 28, 29, and 8	316	
Summary of landfilling	335	
Afterword	344	

Appendix A. Architectural analysis	Mary Dierickx
Appendix B. Mortar analysis of foundations	Raymond M. Pepi
Appendix C. River bottom geology	Steven Selwyn
Appendix D. Ceramic coding system and analysis	Meta F. Janowitz
Appendix E. Ceramic shop deposit	Meta F. Janowitz and Marie-Lorraine Pipes
Appendix F. Pipe analysis	Diane Dallal
Appendix G. Artifact classification system	Nancy Stehling
Appendix H. Glass analysis	Meta F. Janowitz
Appendix I. Conservation of collection	Nan A. Rothschild
Appendix J. Collection management	Nan A. Rothschild
Appendix K. Paleobotanical analysis	Josselyn F. Moore
Appendix L. Artifact codes	
Appendix M. Artifact catalog	
Appendix N. Concordance tables	

INTRODUCTION -- PROJECT HISTORY

The Hanover Square project began in March 1981 when Tony Leichter, the representative of Swig, Weiler, and Arnow, developers of the Seven Hanover Square Block, retained Nan Rothschild and Diana Wall (Rockman) to do an evaluation of the archaeological potential of the block prior to construction. The developers had just learned that the New York City Landmarks Preservation Commission was going to require this assessment of the impact of the proposed project on archaeological and historic resources. The schedule for building construction called for beginning in May, so the entire archaeological project was conducted with the goal of balancing as much speed as possible with the need to adequately test and mitigate the total destruction of the site that would accompany building construction. The procedures used during the Stadt Huys Block excavation were followed, with documentary research the first stage, succeeded by heavy machine clearing and hand testing. All archaeologists became employees of the construction company, Lehrer-McGovern.

Documentary research began on 23 March and lasted until 13 April. Wendy Harris and Susan Dublin used water lot grants and records from the Department of Buildings, deeds, tax records, directories, will abstracts, and atlases to compile a history of land filling, construction, and land use, and to document

? what page, where?

ii

possible destruction of archaeological resources on all the lots that made up the project area (see Figure 1). The site was located on the northeastern part of the block defined by Pearl Street, (designated site north, although approximately northwest), Hanover Square (to site east), Water Street (to site south), and Coenties Slip (to site west)

Excavation on the block began on 3 April with heavy machinery removing the blacktop and the underlying debris remaining from the demolition of the most recent buildings on the block. This process took about ten days, and was followed by archaeological testing, following the sampling procedure outlined in the Field Methods section of Chapter 1. Since this was the first large-scale project in New York on a landfill block (small-scale excavations like Paul Huey's at Old Slip (1984) and the 64 Pearl Street site excavated by Rothschild and Pickman (1981) had preceeded the Hanover Square Block), we thought it essential to excavate a large sample of the fill. We placed one test unit in each of the original water lot grants, but varied their distance from the original shoreline on Pearl Street to see whether landfilling technology had changed as the river bottom deepened.

The intial stage of testing on the block lasted until early June. At the end of that time a number of important archaeological deposits and features had been identified. After consultation with the New York City Landmarks Preservation Commission it was decided that data recovery excavations would be conducted to mitigate the impact of construction. The data

recovery excavation lasted for an additional 15 field days (3 weeks), and used a large crew of 30 people (two to three times the size of the earlier crew). It should be noted that the 7 Hanover Square Block also was more complex and time-consuming to excavate than anticipated, because of the depth of landfill and the number of early walls and important deposits encountered.

The most significant deposits present on the site were associated with the structures defined by the early foundation walls uncovered during the testing phase of research. These were the first structures to be built on the block (dating to the close of the seventeenth century) and represent the entire community plan of the Pearl Street side of the block, making this site an extremely important and unique one. One of these structures was identified as Robert Livingston's house, built on land acquired from Captain Kidd, and others had been built by a number of Dutch families who had purchased water lot grants. It became clear as we reached the river bottom and examined the stratigraphy adjacent to the walls that the walls had probably served a dual purpose, holding the landfill in place as well as supporting the structures.

In addition to the deposits both inside these buildings and outside in their back yards, that were excavated during this phase, other deposits and features dating to the 18th and 19th centuries were identified and excavated. During the first two weeks of mitigation, work was conducted on the northern part of the block; during the last week, work was conducted on

the southern part as construction had begun on the northern section. We continued work in this area until 10 July, our last field day. There were some difficulties that occurred as a result of the attempt to have construction begin while archaeological mitigation was still underway. Pile driving was begun, creating noise and vibrations that made work difficult, and some of the shifting of dirt in order to construct ramps for the heavy machinery prevented access to some areas.

Staffing of the project changed slightly during the mitigation phase. Arnold Pickman joined the project as Co-director when mitigation began, and for the last week of work, he was the sole Director, as Diana Wall had begun work as Director of the Telco Block excavation. Nan Rothschild was Principal Investigator throughout the project. We had a number of important consultants during excavation. Sherene Baugher, who had recently joined the Landmarks Preservation Commission staff, visited the site frequently; Dr. Steven Selwyn, a geologist from Columbia University's Lamont-Doherty Geological Observatory, came to evaluate the river-bottom surface (Appendix C). Mary Dierickx did the architectural analysis of the early walls (Appendix A), while Ray Pepi of CBC analyzed the mortar (Appendix B).

Laboratory work under the direction of Kate Morgan and Nancy Stehling was begun during the testing stage of work, but the lab crew worked in the field during the mitigation phase. The lab was housed at 87 Pearl Street, and continued with a full staff until December 1981, with some lab work and analysis

lasting until May 1982. The same routines as were used in the Stadt Huys Block lab were followed. Meta Janowitz was the ceramic analyst, and Diane Dallal the pipe analyst.

Conservation of the collections from both the Stadt Huys and Hanover Square blocks was begun in the spring of 1981 and continued for several months during the summer and fall of 1981. James Roberts from the Conservation Program in the New York University School of Fine Arts was in charge of the conservation program, most of which was conducted at New York University, Barnard and Columbia, under the direction of Diane Dallal. Deborah Schorsch, also from NYU, was responsible for the treatment of metals (see Appendix I).

Artifact analysis was done using a program, "SHAARC," written by Arnold Pickman, described in Chapter One. The section on artifact procedures in that chapter was written by Nancy Stehling, Kate Morgan, and Meta Janowitz, while the documentary research section was written by Wendy Harris and Susan Dublin. The Introduction and Afterword were written by Nan Rothschild, and edited by Arnold Pickman (Diana Wall also edited the Introduction). The rest of the report was written by Arnold Pickman, and edited by Nan Rothschild. The appendices have a number of different authors, identified in those sections. The ceramic and glass coding appendices, and the paleobotanical appendix are the same for this report as for the Stadt Huys Block report, and a number of other appendices are quite similar, since they represent similar laboratory procedures.

Most of the artifacts and complete records for the site are stored in the William Duncan Strong Museum in Columbia University's Department of Anthropology. The architectural materials and another set of provenience forms, profiles, and artifact tabulation sheets are at the South Street Seaport Museum.

The report is organized so that each Lot is described as a unit, with documentary research presented first, and the description and interpretation of stratigraphy and artifact findings presented by test cut or in larger units if appropriate. The appendices are used for the presentation of other types of analysis, and to describe how artifacts were classified. There is also a Concordance appendix (N) that presents the stratum descriptions, and catalog numbers associated, so that those who want to use the data in the computer sheets will be able to tie them to the description in the report.

As is true of any large scale project, the work of many people was essential to this final product. We wish to acknowledge the important contributions made by a number of different people. The project was mandated by the New York City Landmarks Preservation Commission, as the second major New York City excavation. Kent Barwick, Dorothy Miner, and Lenore Norman played significant roles in making certain that the excavation of this important block occurred, and Sherene Baugher was equally helpful once it had begun. The project was funded by the developer, Swig, Weiler, and Arnow and we are grateful for their

cooperation in the face of a difficult situation. Some funding for report preparation was provided by Barnard College. Bert Salwen was a vital advisor on field (and other) strategy, and the New York University Department of Anthropology, the Center for Building Conservation, and the South Street Seaport provided storage space for artifacts and records.

Our crew was outstanding, working under difficult circumstances generated by intense time pressure. Anne Donadeo was an excellent, efficient crew chief, and the field and lab crew included: Tom Amorosi, David Barnet, Debbie Bodie, Eugene Boesch, Laurie Boros, Bob Burgio, Al Cammisa, Curt Chapin, Jay Cohen, Anne-Marie Cuskley, Diane Dallal, Valerie DeCarlo, Tansi Decker, Joe Diamond, Susan Dublin, Susan Eiger, Leslie Eisenberg, Diana Farrow, Rick Garcia, Edwina Glueck, Steve Gross, Valerie Hayes, Hildy Hendrickson, Roselle Henn, Gary Hess, Marjorie Horne, Meta Janowitz, Laurie Kalb, Betsy Kearns, Sarah Keyishan, Jed Levin, Sharon Lovich, Leah Mainwaring, Sydne Marshall (who mapped the site), George Myer, Kate Morgan, Wing Ng, Barbara Orlando, Sissie Pipes, Ming Prospero, John Roberts, Julie Rosen, Abbie Roses, Bob Swartz, Leonid Shmookler, Toni Silver, Nancy Stehling, Ernie Weigand, Brock Witham (who served as site photographer), and Joe Zahan.

Once excavation was complete, analysis of certain classes of materials were undertaken by a number of individuals with specific expertise. Meta Janowitz analyzed the ceramics; Diane Dallal, the pipes; Nancy Stehling, the small finds; and

Josselyn Moore, the paleobotanical samples. Darlene Balkwill and Steven Cumbaa of the Zooarchaeological Identification Centre of the National Museum of Natural Science in Ottawa identified and analyzed faunal material, except for much of the domestic mammal material identified by Haskel Greenfield, Meta Janowitz, and Kate Morgan. Funding for the faunal analysis was provided by the National Science Foundation (BNS 83-04132).

We are also grateful to Diana Wall for her continuing interest and input; to Susan Dublin who drew all profiles, plan views, and the map used in the report; and to Mary Misserian of Barnard College who typed a difficult manuscript. We are glad to finally submit the Hanover Square Report. Funding restrictions made it difficult to get it completed immediately, and we are indebted to all the above for their help, persistence, and patience.

Nan A. Rothschild

Arnold Pickman

December 1990, New York City

CHAPTER ONE

DOCUMENTARY RESEARCH

The first stage of research in historical archaeology involves a thorough investigation of documents, maps, and records that pertain to the site in question. In this project there was the information on the construction, ownership, and occupants of the structure built on each lot that is typical of any historical archaeological excavation. However, there was also a type of information unique to land fill sites, namely the records pertaining to the making of land. This research identified the first link in the chain of title for all the lots in Block 30 originating in the late 17th century. The 1686 Dongan Charter was the mandate for all such grants and it gave the city rights to:

All the waste, vacant, unpatented and unappropriated lands lying and being within the City of New York and on Manhattan Island aforesaid extending and reaching to the low water mark (Childs 1861:5).

The owners of the waterfront property were given the first option to purchase and fill the water lots adjoining their parcels. If they did not exercise this option, the lots were sold to the highest bidder (Topographic Division Files).

Eleven water lots were granted between 1686 and 1694 in what is now Block 30. The lots lay between what is now Cornthes Slip on the west and Old Slip on the east. Their breadth ranged from 58' to 24' and each extended 9.5' south beyond the shoreline (Pearl Street).

A second set of 12 water lots were granted in 1697. The

owners of the first set of lots extended their parcels (some of which had been subdivided) an additional 32' to 47' so that the existing landfill ended at the low water mark (Water Street). These grants also contained clauses directing the lot owners to construct a 30' wharf at the end of (and not included in) the footage granted to them. This wharf became the present day Water Street.

In 1734 a third set of water lots were granted on the far (or south side) of Water Street. These water lots were granted and filled under the provisions of the 1730 Montgomerie Charter, which extended the potential landfill area by granting the city the right to make land 400' beyond the low water mark (Water Street). Many of the property owners in Block 30 increased their holdings in 1734. By acquiring the water lots to the south of the original 17th century water lots (Grants of Land Under Water), Libers A and B). The remaining documentary information about water lot grants, as well as that derived from other sources, will be summarized on a lot by lot basis, and included with the chapter describing the excavations in the lot.

FIELD METHODS

Prior to excavation, the 7 Hanover Square site was occupied by a paved parking lot. We expected that the rubble from the demolition of the buildings which previously stood on the site, the bases of the walls of these building and their basement floors could be encountered beneath the

asphalt, with landfill and other earlier deposits beneath the basement floors.

Removal of the asphalt surface and approximately four feet of the underlying demolition debris was accomplished using a 24 ton front end loader (Caterpillar 977L). However, the area where documentary research had indicated that a backyard area may have existed between the buildings fronting on Pearl and Water Street was excavated only to a depth of two feet since it was expected that these areas would have remained at a higher elevation than the basement floors. This procedure was followed except in Lots 14 and 15 where the buildings facing Pearl and Water Streets apparently shared a common rear wall, with no raised backyard area present. Subsequently, we used a smaller front end loader/backhoe (Case 450B) to remove the remainder of the debris in the non-backyard area down to the level of the basement floors. We then laid out a baseline for mapping purposes along the southern edge of the Pearl Street sidewalk.

Once the basement floors and lot walls were defined, the backhoe/front end loader was used to remove these floors. At this point we were able to begin the first phase of the archaeological testing. The objective of the first phase was to sample the 17th century landfill deposits which we knew to be present (as a result of the analysis of the documentary research and previous soil borings) and to determine what other archaeological deposits and/or architectural features

were present on the site.

Testing Strategy

Our strategy for the exploratory phase of the project was to sample the landfill using a stratified random sampling procedure and to place three additional tests in the approximately five foot wide raised backyard area at the rear of lots 10-13, between the buildings which had faced Pearl and Water Streets (Map A). As the rubble was removed, it soon became apparent that in Lots 10 and 11 this backyard area had been almost totally disturbed by the construction of the 20th century buildings which formerly fronted on Water Street. The backyard area was only partially disturbed in Lot 12, however, and a portion of the cistern (Test Cut G) was uncovered and excavated in this lot.

We decided to place one test square in each of the five original water lots fronting Pearl Street in order to test the landfill deposits. The present Lots 13 and 14 constituted only one of the original water lots, as did the present Lots 10 and 11, and 28 and 29. Our procedure enabled us to sample the variability in the landfill deposits used by the various water lot grantees. Lots 10-15 were gridded into five 10 foot wide strips oriented east-west. We also decided to stratify our sample according to distance from the original shoreline, to look for fill retaining structures and differences in filling procedures that were related to increasing river depth. It should be noted that although the original water

lot grants extended some 95 feet south of the shoreline, located at the approximate present alignment of Pearl Street, only the northernmost 50 feet of Lots 10-15 were included in the sampling frame since the land south of this was severely disturbed by 20th century construction and included the partially disturbed backyard areas which were tested separately. In addition, testing could not be carried out for a distance of some three to five feet south of the Pearl Street baseline because the sloping deposits of rubble which underlay the sidewalk could not be safely removed.

We first used a random number table to assign each of the five strips to one of the five water lots which fronted on the Pearl Street shoreline. Then the strip selected in each lot was gridded into five foot squares, excluding the one and a half feet closest to the walls of the most recent buildings to stand on the site, which had been exposed by the backhoe. We excluded this area so that tests would avoid any wall trenches which may have been associated with the most recent buildings. One five foot square in the strip selected in each lot was chosen for excavation using a random number table. Upon testing, we found one square, that selected in Lot 12, to have been heavily disturbed (see discussion of TC E) and deep excavation was not possible at this location. Therefore, the selected squares in Lots 12 and 9 were exchanged to permit sampling of the landfill deposits in both lots.

The southernmost 20 feet of the area covered by the first

(1686-1694) set of water lot grants, as well as the area filled as a result of the second set of grants (1697) was available for testing only in Lots 9, 28 and 29 because of the 20th century disturbance. We had originally anticipated being able to test Lots 24 and 25. However, when the backhoe attempted to clear these lots, we discovered that disturbance by 20th century construction was much deeper than originally thought.

The area in the southern portion of Lot 9 (i.e., Lots 26* and 27*) in which tests could be placed during the exploratory phase of the excavations was severely restricted by the need to provide space for trucks to enter the site and for the backhoe to maneuver while it continued to clear debris from the lots. Therefore this area was not included in the sampling frame for the southern portion of the site. This portion of the site could only be tested in Lots 28 and 29, which constituted one water lot. This area included the southernmost portion of the extent of the first set of water lot grants and the area covered by the second set. We decided to place one test to sample each of these two landfilling episodes. The sampling procedure in Lots 28 and 29 was similar to that used in the northern portion of the site. Of the two ten foot-wide strips remaining in the area of the first set of water lot grants, one was chosen at random with a five by five foot square in this strip chosen for excavations. Similarly, the area of the second set of grants

was divided into three strips, one strip chosen, and one five foot square randomly chosen within that strip. It should be noted that the dividing line between the first and second set of grants was determined by measuring south 95 feet from the Pearl Street baseline. Needless to say, our baseline may not have coincided with the actual shoreline.

Although the southern portion of Lot 9 was excluded from the random sample, we decided to place a test (TC N) in this lot (Lot 27*) in a location where it would not impede the movement of heavy equipment. This test was located so that its north wall was 94 feet south of the Pearl Street baseline. We hoped to encounter any cribbing or bulkheading which may have been constructed at the southern limit of the first filling episode, as well as to sample the landfill deposits at this location.

As a result of the initial testing outlined above, we determined that extensive architectural features and archaeological deposits were present. In particular, we uncovered portions of the foundation walls of a group of late 17th century structures fronting on Pearl Street. Using both manual shovelling and the backhoe, we were able to uncover the tops of major portion of these walls. This enabled us to relate the archaeological deposits and features to these structures. Additional shovel tests and backhoe trenches enabled us to explore the area south of these structures to determine whether any features were present. One result of

this probing was the determination that Lot 19 had not been disturbed to the depth which was originally supposed. Thus, time and resources originally allocated to explore the more severely disturbed Lots 24 and 25 were used to test landfill and uncover the foundation walls in the northern part of Lot 19.

Testing Methods

The random tests placed to sample the landfill were five by five foot squares. The test cuts were excavated using rigorous stratigraphic controls. Nearly all of the soil from the test cuts excavated during the exploratory phase of the project was screened (although some strata were sampled) through one fourth inch mesh. All of these test cuts were excavated until sterile soil was reached (except for those placed in locations which proved to be disturbed). In some cases a posthole augur was used at the bottom of the test cut to penetrate to the water table. In all test cuts, excavation was by "natural" strata. That is, soil types which differed in color and/or texture were excavated, screened and artifacts bagged separately. Where strata were more than four inches thick, they were subdivided into four inch levels and each level was treated separately.

Upon the completion of the excavation of each test cut, profiles were drawn of the test cut wall. All four profiles were drawn where possible. In some cases, because of either a lack of time or the similarity of the profiles of each wall,

only some of the profiles were drawn. However, color photographs were taken of all profiles.

Where appropriate deposits were present, flotation samples were taken. Smaller soil samples were also taken to permit chemical analysis to be done and/or to provide for future identification of soil types. Similar excavation techniques were used in the final phases of the project discussed below, except that the size of the test cuts varied and more deposits were screened at less than 100% than during the exploratory phase.

During the exploratory phase of the project we also used two other methods to determine the nature of the deposits present. First, a number of shovel tests were excavated. In general, these were small tests excavated with shovel and post hole auger with much looser stratigraphic controls than the test cuts. In addition, several trenches were excavated using the backhoe to determine the fill and river bottom stratigraphy and to obtain a larger sample of artifacts from the landfill.

Mitigation

As a result of the exploratory phase of the excavations, more intensive excavations were planned in several areas. We decided to concentrate on deposits which appeared to date to the 17th and early-mid 18th century, since these were judged to be unique resources. However, several later deposits were excavated. The major deposits excavated during the mitigation

included:

1) Shovel tests and one test cut placed in Lot 14 during the exploratory phase uncovered a deposit of dark organic-looking soil containing charcoal and marine shell. We believed this to be a midden which had accumulated in the basement of a structure which existed within the boundaries of the 17th century foundation walls, although at least portions of the accumulation appeared to have been deposited during the 18th century. At a lower level we encountered a stratum which we thought may have been an earlier floor. During the mitigation phase, we placed additional excavations in the lot in a "checker board" pattern which enabled us to obtain a continuous north-south profile. approximately 35% of the area covered by the midden deposit was excavated.

2) The exploratory excavations uncovered what appeared to be the remains of a cobble basement floor and the foundation walls of the "Livingston" house in Lots 10-11. Our plan called for extensive excavation of the deposits associated with this floor. After placing three additional squares, however, we determined that there did not appear to be any such undisturbed deposits associated with the early occupation of the lot. Thus the time and crew originally allocated to additional squares in this lot were used in other parts of the site.

3) In Lot 13, we had encountered a mortar floor with artifacts situated on it which dated to the period of the

initial construction on the lot. We placed squares so that approximately 30% of the estimated extent of this floor were plotted.

4) We excavated a wooden feature previously uncovered in Lot 13 and a major portion of a similar feature uncovered in Lot 15. A larger portion of a wooden bulkhead previously noted in Lot 14 was also exposed.

5) A square was placed to expose and sample what was thought to be a midden deposit in Lot 11 at the rear of the "Livingston" house.

6) Other excavations were placed to expose portions of possible floors and wooden backyard features which had been noted in the walls of backhoe trenches and shovel tests in Lots 10, 12 and 15.

7) We further exposed and defined the early stone walls on the northern part of the site and photographed and mapped the patterning of these walls.

8) Because of the need to accommodate the excavations to the schedule for construction of the new building on the 7 Hanover Square site, excavations on the northern part of the site terminated on July 1, 1981. However, we were able to continue excavations in the southern part of Lot 9 (Lots 26* and 27*) until July 10. This enabled us to further investigate several features encountered during the exploratory phase of the project which were thought to date to the late 18th through 19th century. In particular, we were

able to completely excavate a deposit of broken ceramics associated with a late 18th-early 19th century glass and china shop. This deposit had been sampled during the exploratory phase. Excavations during this last part of the project also encountered additional early walls and at least one early feature, which was excavated. *? date ident. #*

ARTIFACT PROCESSING

Excavated materials arrived at the Hanover Square lab in brown paper bags, which were labelled with all provenience information. The contents of each bag were then sorted into washable (bone, ceramic, glass, building materials) and unwashable (metal, wood, leather) artifact categories. Washing was done by the technicians using plain tap water and was done in plastic dishpans using soft bristle toothbrushes. The washing was done catalogue number by catalogue number; one catalogue number was completely washed prior to the start of another. Drying was done in open air with the artifacts in flat trays. When completely dry, the artifacts were then sorted into gross categories. These were "diagnostic," "non-diagnostic," and floral/faunal. Diagnostic artifacts included ceramics, bottle glass, clay pipes, coins, personal items such as jewelry, and other small finds. Non-diagnostic artifacts were building materials and construction/destruction related hardware. After the sorting was done, the diagnostic artifacts were numbered. The numbering system consisted of

the State site number designation (624), the catalogue number assigned in the field, and accession numbers of the individual artifacts (1-n for each catalogue number). The next phase of the lab procedures was the tabulation/identification phase. All artifacts recovered from the Hanover Square excavation were tabulated using an established format based on Stanley South's classification system (South 19⁷⁷#). The tabulation was recorded on paper by hand to generate a permanent record. Tabulation sheets were generated for each individual catalogue number for all three gross artifact categories. The data from these sheets were to be computer coded at a later date to facilitate analysis. All artifacts were counted and several classes were weighed as well. Weights in grams were computed using O House triple beam balance scales. measurements were taken in both English and Metric units wherever appropriate (i.e. brick, nails). Upon completion of the tabulation phase, the artifacts were then boxed. Diagnostic artifacts and faunal/floral material were boxed by catalogue number; non-diagnostic artifacts were boxed by test cut.

COMPUTERIZED ANALYTICAL SYSTEM

Because of the large quantity of artifacts, floral and vegetal material recovered from the 7 Hanover Square excavations it soon became apparent that the tabulations and calculations required to permit a thorough analysis of the archaeological deposits would be inordinately time-consuming

if done manually. Therefore, a computer based analytical system was designed and programmed by one of the Co-directors of the excavations (A. Pickman). The system, which we named SHAARC (System for Historical Artifact Analysis and Retrieval by Computer) enables the analyst to obtain summary tabulations and calculations of any excavated context (catalog number) or combination of contexts. This is an important capability because it was not always possible to determine in the field which excavated contexts constituted a single depositional event. In some cases, being able to obtain totals for various combinations of contexts is an important part in the identification of the nature of deposits. The system also enabled us to obtain totals for individual test cuts and to obtain summary data for the entire site. The system can also list the contexts (catalog numbers) in which any given type of artifact, ceramic or smoking pipe fragment is present and the number of occurrences in that context.

Input and Coding System

To provide data for the SHAARC system, information tabulated during laboratory processing was coded and punched on cards. The coding system used is not hierarchical. That is, a unique three digit code was assigned to each type of artifact and ceramic type as defined by the project staff. The computer system entry consists of the identifying context (catalog) number, test cut number, stratum and level designations, followed by pairs of numbers, each of which

consists of one of the three digit code numbers followed by the number of occurrences of that type in the particular context. A separate input is required for ceramic data, pipe fragment data and artifact/faunal/vegetal data from each excavated context. These data are maintained in three separate files within the computer system. In addition to the data files, the system also maintains a list of code numbers and associated dates and analytical groupings discussed below. Therefore changes, for example in ceramic manufacturing dates, can readily be made as research provides additional information, without altering the program itself.

Program Modules

The SHAARC system contains three program modules, for ceramics, smoking pipe fragments, and general artifact/faunal analysis. One of these modules can be accessed each time the program is run.

Artifacts

The artifact program module provides summary tabulations of the types of artifacts, faunal and vegetal remains present. The system places each type of artifact within several "functional" categories, which have been modified from those given by South (1977). This classification is an attempt to reflect how and where various artifacts are most likely to be used, which in turn affects the manner in which the artifact is deposited in archaeological context. The categories used in the system are:

1) Household artifacts--artifacts which are normally found in the household are grouped together. These would most likely be disposed of when broken or worn out and found in archaeological context as secondary refuse.

2) Personal items--these would usually be carried in pocket or purse and would be more likely to be found as primary refuse than household artifacts. These artifacts could be discarded or lost by the user at a particular location rather than being part of a trash deposit. However, these personal items could also be found in the home and disposed of as secondary refuse as noted above.

3) Clothing and personal ornaments--these artifacts could also be disposed of as either primary or secondary deposits. Ornaments, in particular, are susceptible to loss as well as being disposed of when broken.

4) Auxiliary--these are artifacts which would normally be associated with activities performed in outbuildings (e.g. stables, sheds).

5) Weapon-related--these could be found at the site of manufacture or storage and also at the point of use.

6) Manufactures--these items could be used in the home for normal repair tasks, but if found in substantial quantities could indicate the presence of cottage industries. Their presence in large quantities in the absence of substantial quantities of household artifacts could indicate a locus of full scale commercial activity.

7) Architectural--this group includes all artifacts normally used in construction activities. Large quantities can indicate deposition due to structural demolition.

The system tabulates the number of artifacts in each group for each requested group of contexts. If data on the thickness and areal extent of each excavated context, and the fraction of the context which was screened is entered into the system, the density (number or weight per cubic foot of excavated soil) is also calculated for the artifacts within the various groupings as well as for the total number of bone fragments, the weight of marine shell, and the weight of brick and mortar present. This is useful in comparing various deposits. The system also groups artifacts into total architectural and non-architectural categories and calculates the ratio of non-architectural to architectural artifacts. This is referred to in the text as the "NA/A" ratio. This ratio can be suggestive of possible depositional events. For example, a domestic midden would generally be expected to have a relatively high NA/A ratio.

The artifacts module also calculates ratios of red/yellow brick and the average weight of the whole marine shell valves excavated from each group of contexts. Where possible, glass fragments, e.g. bottle necks and bases, were assigned dates. The system provides lists of these datable fragments for each context.

Ceramics

The ceramics module is primarily aimed at providing information useful in dating deposits. The ceramic type classification and the initial and final manufacturing dates are based on South's (1977) classification as modified by research conducted by Meta Janowitz, the project ceramicist. The program module output lists the quantity of each type of ceramic present in each context and provides totals for each group of context numbers requested by the analyst. The mean ceramic date (weighted average of initial and final dates of manufacture of each ceramic type) is calculated for each group of context numbers according to the method developed by South (1977), and the total number of sherds present and the number of sherds on which the mean ceramic date is calculated or listed. The system also calculates and plots cumulative frequency curves according to the method published by Salwen and Bridges (1977).

In addition to the above, the system classifies each ceramic type into one of eleven analytical categories. These more closely reflect a temporal progression than categories based solely on ware type. This is an experimental classification system which may facilitate the comparison of deposits.

The categories are:

- 1) 17th-century earthenwares. These are essentially medieval ceramics whose manufacture continued into the 17th

century. They include salmon and buff/white bodied wares and those red earthenware sherds which can be assigned to the 17th century based on rim shape and other morphological criteria. Bellarmine stoneware sherds have also been placed in this category.

2) Delftware.

3) Northern European Stonewares. This category includes the late 17th-early 18th-century Rhenish/Westerwald types.

4) Early 18th century earthenwares. Manufacturing dates for these ceramic types extend from the late 17th through the late 18th century but they had their greatest popularity in the early part of this period. Slip wares are included in this group.

5) Early-mid 18th-century stonewares and refined earthenwares. Some manufacturing dates for this group continue into the late 18th century. The group includes white salt glazed stonewares, and other glazed and non-salt glazed stonewares as well as several types of red and yellow bodied earthenwares.

6) Creamwares.

7) Pearlwares.

8) Whitewares and other predominantly 19th-century ceramic types.

9) Oriental Export Porcelains.

10) Non-diagnostic. This group includes sherds which can be identified as to type but for which manufacturing dates are

not known, uncertain, or are so broad as to make their inclusion in mean ceramic date calculations meaningless.

11) Miscellaneous. This category includes sherds which are too small or burned to include in any of the other categories.

Smoking Pipe Fragments

Coding for the pipe module uses the same structure as the other modules. However, this module differs in that it includes coding of some attributes. Thus, a given fragment can generate a number of three digit codes to describe the type of fragment, makers' marks, other decorative elements, etc. The classification system for these attributes was developed during research on the dating of makers' marks and other elements conducted by the project's pipe specialist, Diane Dallal.

The system provides summary tabulations, for each requested context, on the quantity of various types of fragments (bowls, stems, etc.) stem reworking, and decorative elements present. It also lists the maker's marks present and the associated dates. For each group of context numbers requested, the system provides totals for the number and percentage of fragments with various bore diameters, and calculates the Binford (1962) pipe stem date.

Location

The present version of the SHAARC system has been programmed using the Fortran IV language and compiled using

the IBM Fortran HQ compiler on the Columbia University IBM 4341 computer. The SHAARC system has been designated so that certain of the data outputs described above, in addition to being displayed as printed output or at a terminal, are temporarily stored within the computer system files. This data output can thus be further processed by several program "packages" installed on the Columbia system. Several graphical and statistical outputs have been obtained using the SAS (Statistical Analysis System) package.

CHAPTER TWO

LOTS 9*, 26* AND 27*

Documentary Research

Lot 9 in the present day contains four separate 18th and 19th century lots: Lot 9* (27' X 67'), Lot 27* (27' X 69'), Lot 10* (25' X 70') and Lot 26* (24' X 69'). Asterisks denote these earlier designations.

In the 17th century Lots 9* and 27* formed a single parcel. Lots 10* and 26* were then part of another larger parcel which also contained lots 11 and 25. By the 1730s the four lots apparently belonged to one individual and it is unknown whether they served as four separate building lots. In 1751 there were definitely two separate structures on Lots 9* and 27* (belonging to one family) and probably two more structures on Lots 10* and 26*. The four lots were joined and separated continuously throughout the 18th and 19th centuries. The resultant occupancy and title histories are very complex. The Lot 9 parcel and its four constituent lots (9*, 10*, 27*, 26*) are thus described here separately and sequentially through time.

LOTS 9* and 27* (1687-1734)

Lots 9* and 27* were included in the 1697 water lot granted to the merchant Andrew Teller. This lot measured 24' X 95' (Liber A, p37). Teller received an additional Water Lot Grant in 1697 measuring 24' X 38'/40' (Liber A, p. 37).

Tax assessment records place an Oliver Teller here in 1721 and Andrew Teller in 1723 and 1724. These same records describe the parcel as containing a "house and back houses." The structure was occupied by Widow Vlack in 1730, followed by Mrs. Fitch in 1733-4 (tax assessment records).

LOT 10* AND 26* (1687-1734)

Lots 10* and 26* (along with neighboring Lots 11 and 25) originated in a 46' X 95' water lot granted to the merchant William Cox in 1687 (Liber A, p40). Cox was dead by 1689, the victim of a drowning accident, and left the property to his widow, Sarah, who subsequently married a wealthy merchant, John Oort. Oort died shortly thereafter. Sarah then married the "pirate" Captain William Kidd.

In 1693, Sarah and William Kidd sold the parcel containing Lots 10* and 11 and also the northern section of Lots 26* and 25 to Robert Livingston (L21, p155). Livingston obtained a Water Lot Grant in 1697 to extend the original parcel an additional 46'2" X 40'/43' (Liber A, p221). Livingston, the owner of Lots 10*, 26*, 11, and 25 was born in 1654 in Scotland, the son of a Presbyterian minister. The Livingstons fled to Rotterdam during the Restoration and here he acquired both the Dutch language and considerable business experience while still quite a young man. Livingston emigrated to the colonies where his skills were ideally suited for the upstate New York fur trade. He became a successful Albany merchant and eventually married Alida Schuyler, widow

of Nicholas Van Rensselaer. This alliance cemented his connections with two of New York's leading families and also led to his securing the proprietorship of Livingston Manor in 1686. During the late 17th and early 18th centuries, Livingston was active in the management of his vast land holdings, the upstate fur trade, politics and a number of business ventures including his partnership with William Kidd (Bonomi 1971:71-75; Stokes I:247). Available evidence suggests that Kidd, who was finally executed in 1701 (see Stokes Chronology: 5/23/1701), obtained the financing necessary for his privaterring activities from respected members of New York's mercantile community. Livingston is said to have invested £6000 in Kidd's Madagascar expedition (Archdeacon 1976:68; Bonomi 1971:71-75).

Stokes commentary on the 1717 Burgis View describes Livingston's property as "a wide lot fronting Pearl Street, on which appears the palatial residence with the high roof and two stacks of chimneys." Stokes notes that Livingston was living in Albany at this time (Stokes I:246). Both Stokes commentary and the Burgis View are of questionable accuracy but the placement of this large residence on Livingston's wide lot (46') agrees with the existing deeds and tax assessment records.

It is assumed then that modern Lot 9 held 1½ residential structures during the late 17th and early 18th centuries. Teller's buildings occupied Lots 9* and 27*. Livingston's

home (which may rate to either Cox's or Kidd's ownership) occupied Lots 10* and 26* and the rest of the structure was on Lots 11 and 25. Tax records dating as early as 1706 place Livingston's sheds and back houses on Lots 26* and 25, fronting on Water Street.

LOTS 9*, 10, 26* AND 27* (1734-1751)

By 1734, the parcel containing 27*, 26* and probably Lots 9* and 10* (subsequent deeds refer to Lots 9*/27* and 10*/26* as units) belonged to the merchant Stephen Bayard. Bayard, a member of one of New York's most powerful families and holder of a Common Council seat, obtained a 1734 Water Lot Grant to fill the area on the south side of Water Street (Bonomi 1971:160; Archdeacon 1976:110-111; Liber B, p154). Bayard also owned neighboring Lots 8, 28 and 29 and the total breadth of his 1734 water lot measured 85' (Liber B, p125) which almost equals the modern breadth of his lots on Block 30. The tax assessment records for Lots 28 and 29 suggest that these latter lots were also his place of residence at this time. The parcel containing Lots 9*, 10*, 26* and 27* was subdivided between 1734 and 1751 (L34 p276, L41 p252).

LOTS 9* AND 27* (1751-1820)

By 1751, a parcel containing Lots 9* and 27* (27' X 135') belonged to Samuel Lawrence and his son, Laurence Lawrence. There are two residential structures described in the deeds here, one occupied by Laurence Lawrence in Lot 27* and the other in Lot 9* occupied by the "widow of Jacob Morris,

Grocer" (L34 p276, L41 p252). It is not known whether the structures described above date back to the period of Bayard's ownership.

The 9*/27* parcel no longer belonged to the Lawrence family by 1785. Lot 27* had passed to John Oothout, who also purchased Lot 13 in 1818 (L43 p164, L126 p116), L155 p464). A 1791 deed suggests that Alexander Hamilton was one of several Lot 9* owners at this time.

In 1791, Issac Moses, described in the deeds as an auctioneer, purchased Lot 9* (L46 p528). Lot 27* remained in the Oothout family until 1836 (L356 p326). During the late 18th and early 19th century it was occupied by John Morley (1798-1820) both of whom sold china, glass and earthenware (NYD).

LOTS 9*, 10* AND 26* (1751-1824)

The Lot 10* and 26* component of Stephen Bayard's parcel belonged to Margaret Beach by 1751. Beach was listed as deceased by 1784 and from then on Lots 10* and 26* were conveyed separately (L41 p252, L34 p276, L46 p528). Lot 10*, seized from the merchant James Abeel for non-payment of debts in 1773, was sold at public auction to Francis Lewis in 1790 (L46 p79). Lewis subsequently sold Lot 10* to Issac Moses, owner of Lots 9*, 8, 28 and 29 (L47 p106). Lots 9* and 10* remained in the Moses family from 1791/2 until 1824 when Reyna Moses sold the parcel to John Peters (L99 p451, L150 p47).

After the subdivision of the Lot 10*/26* parcel (prior to 1773, see L46 p79), Lot 26* passed to William Bayard, a

wealthy merchant and New York County representative to the General Assembly from 1761 to 1768 (Bonomi 1971:231, 240). Bayard's Tory sympathies are witnessed in the 1784 seizure of all of his property, including Lot 26, by the Commissioners of Forfeiture (L43 p164, L48 p484 p486 p536). Lot 26 was sold first to Peter Mesier in 1793 and then to Peter Elting and Abraham Varick later in the same year (L48 p486). Included in the 24'8" breadth of this lot was an 18" gangway "in common on the easterly side thereof" (L48 p486). A 1793 deed for adjacent Lot 25 also included provisions for the use of the alley which apparently ran from Pearl Street to Water Street between Lots 10*/26* and Lots 11/25 (L48 p484).

Elting and Varick, the owners of Lot 26 are described in the directories as "ironmongers" (1790). However, the directories and tax assessment records also indicate that the structure served as the Varick family residence until 1819.

The Lot 9* structure, which had housed "the Widow of Jacob Morris" ca 1751, was no longer standing in 1794, when the tax assessment records list Moses' property as a vacant lot (L34 p2765, L41 p252). By 1795 he had constructed a new building (tax assessment records). The tax assessment records and directories suggest that both Lots 9* and 10* remained residential until 1809. Lot 27* was occupied by John Elting (1794-1795) and then by John Morley (1798-1820) both of whom sold china, glass, and earthenware (NYD).

Lots 9* and 10*, property of the Moses family, became the

site of two boarding houses, operated separately at first from 1810 to 1812 and then under one manager until 1824 (NYD).

LOTS 9*, 10*, 26* AND 27*--THE PEARL STREET HOUSE (1824-1853)

John Peters bought Lots 9*, 10* and 26* in 1824 (L170 p373, L183 p81) and by 1825 this address appears in the directory as the Pearl Street House. The Pearl Street House appears in Fay's 1831-2 Views of the City of New York. It is a wide four story building. The upper windows are shuttered and those at street level are set in recessed arches, a motif characteristic of Federal Style architecture. Architectural historians generally assign this period dates of 1790 to 1820 (Rifkind 1980:29-37). A sign painted across the length of the building between the second and third stories and continuing between the second and first reads "Pearl Street House and Ohio Hotel." The text accompanying the engraving states that the hotel was "extensively known as the resort of merchants from every part of the Union, especially from Ohio" (Kamienhoven 1972:138). The architecture and the 1795 tax assessments suggest that these buildings dated to 1795 when Moses constructed a new building in Lot 9* and possibly also in Lot 10*. These two buildings eventually became boarding houses. Post-1795 structural alterations transformed the Lot 9* and 10* buildings (and possibly Lot 26*) into the single building seen in the 1830 engraving described above. During the 1820s and 1830s, Lot 27 housed a private residence, a sailduck store and a cheese and fruit store. Although it

belonged to the Oohout family until 1836, Lot 27* had become part of the Pearl Street House by 1832 (L356 p326; NYD).

The structures on Lots 26* and 27* were destroyed by the 1835 fire and rebuilt by 1836 (tax assessment records). From 1836 until 1841 Lots 26*, 27*, and 25 were assessed as a unit along with Lots 9* and 10* as the Pearl Street House.

The Pearl Street House structure apparently contained two older buildings (ca 1795) which had been incorporated into the single building seen in the 1830 engraving described above (tax assessment records).

The rear or Water Street buildings on Lots 26* and 27* served various functions during the 1820s and 1830s. The Lot 26* building was a private residence. Lot 27* housed a private residence as well as a sailduck store and a cheese and fruit store. Although this latter lot belonged to the Oothout family until 1836, it became a part of the Pearl Street House by 1832 (L356 p326; NYD).

The structures on Lots 26* and 27* were destroyed by the 1835 fire and rebuilt by 1836 (tax assessment records). From 1836 until 1841 Lots 26*, 27* and 25 were assessed as a unit along with Lots 9* and 10*, all five listed as the Pearl Street House. The directories, however, list a coffeehouse in Lot 27* from 1836 to 1841 and Silas Constant "Oils" in Lot 26* from 1834 to 1841. It thus seems that these buildings functioned independently and were not actually part of the Pearl Street House immediately after or before the 1835 fire.

Peters sold the Pearl Street House property (including 9*, 10*, 26* and 27*) to Thomas Davis in 1839. The parcel was resold in the same year to John Latson who continued to operate a hotel in Lots 9*, 10*, 26*, 27* and 25 (1845-52) (L451 p349; NYD). William Chauncey acquired the property in 1852 and subsequently subdivided the property, selling Lot 25 to Joseph King in 1853 and present day Lot 9 (9*, 10*, 26* and 27*) to New York Warehouse in 1862 (L653 p57, L857 p640).

LOT 9--CONCLUSION

After 1853, the directories no longer listed the Pearl Street House. The 1860 tax assessments describe two six-story structures on Lot 9. The one fronting Pearl Street measured 52'2" X 70' and the other, on Water Street, measured 51' X 70'. These two buildings, which are probably the same structures which housed New York Warehouse after 1862, could be the same buildings (with considerable structural renovations) assessed from 1836 to 1841 as the Pearl Street House. If this is so, then the building fronting Pearl Street would date to 1795 and the one on Water Street would date to 1836.

Lot 9 has thus undergone a series of building episodes, some of which are documented. Lot 9* held one residential structure and Lot 10* held half a structure in the late 17th and early 18th centuries. An 18th century subdivision separating Lots 10*/26* from Lots 11/25 (Liber 13 p154) suggests that Livingston's house, which originally straddled Lots 10* and 11, was no longer standing. It is assumed that

by 1734 (under Bayard's ownership) Lots 10*, 27* and 26* held structures built as replacements for the houses and back houses of the original grant holders. The first documented reference to a Water Street structure occurs in a 1706 tax assessment record placing a shed belonging to Robert Livingston in Lots 25 and 26*. By 1751 the shed has been replaced by the Lawrence family residence in Lot 26* (L34 p276, L41 p252).

The next documented construction occurs in 1836 when buildings in Lots 26* and 27* are rebuilt following an 1835 fire (tax assessment records). The Pearl Street House, active from 1825 to 1852, was on Lots 9* and 10* and was probably built in 1795 (tax assessment records) and might well be the building described in the 1860 tax records. Lots 10*, 26* and 27* have each seen a minimum of three building episodes before 1860, and Lot 9* a minimum of two episodes before 1860.

Excavation - Introduction

As noted in the documentary research, the lot boundaries in the eastern portion of the project area have undergone a number of changes. The Lot numbered 9 in the most recent numbering system included four former lots which we have numbered 9*, 10*, 26* and 27* (see Site Map). To complicate matters further, in the late 17th century, after the block was created by landfilling, the area designated here as Lot 10* was combined with Lot 11 and this land was the site of the

Livingston house. Because this structure was a major focus of our excavations in this area, these lot excavations are discussed in a separate section of this report.

After the rubble was cleared from the basement of the most recent building to stand on Lot 9, a brick floor was exposed which included the entire area incorporating the former Lots 9*, 10*, 26*, and 27*. On removal of this floor, a complex of earlier walls was exposed. In the center of the lot there was a rectangular brick wall, approximately 23 feet north-south and 13 feet east-west. The northern extent of these walls was located approximately 57 feet south of the Pearl Street baseline. The relationship between this rectangular construction and other walls indicates that this area represented a courtyard or patio associated with buildings which fronted Pearl and Water Streets. Due to scheduling considerations, excavation in this area was conducted during the last week of the project and we were unable to fully expose the extent of these architectural features, especially in the south or Water Street portion of the lot. It should be noted that clearing operations resulted in the removal of an average of one and one half to two feet of deposits between the final common brick basement floor on Lot 9 and the surface from which manual excavations were conducted.

Two test units were placed in Lot 9 as part of our landfill sampling procedure. TC I was placed in Lot 9*, and

TC N in Lot 26*. TC AN was also placed in Lot 9* to test the area within an oval brick feature which intersected the wall of the "patio." The deposits in Lot 26* were tested during the last phase of the project by means of a trench consisting of three test units; AQ, AR, and AS. A fourth test unit, TC AT, was placed in Lot 27 at right angles to this trench. Two additional test units were also placed in Lot 26*. TC AP was placed to test the deposits within a feature exposed in the profile of backhoe trench #12. TC AU was placed to test the deposits within the patio area. This unit was located at the approximate location of the boundary line between Lots 10* and 26*.

The following sections discuss the excavations within Lots 9*, 26* and 27*. A concluding section will attempt to correlate the results of the excavations and the documentary research.

LOT 9*

TEST CUT I

A single test cut, TC I, was placed in Lot 9* as part of the landfill sampling plan. It was located 11½ feet south of the Pearl Street base line and seven feet east of the Lot 8/9 boundary wall. TC I was the northernmost of the test cuts excavated during the first phase of the project (Figure 2-3).

Excavation of TC I began at the level of the brick basement floor of the most recent building to occupy Lot 9.

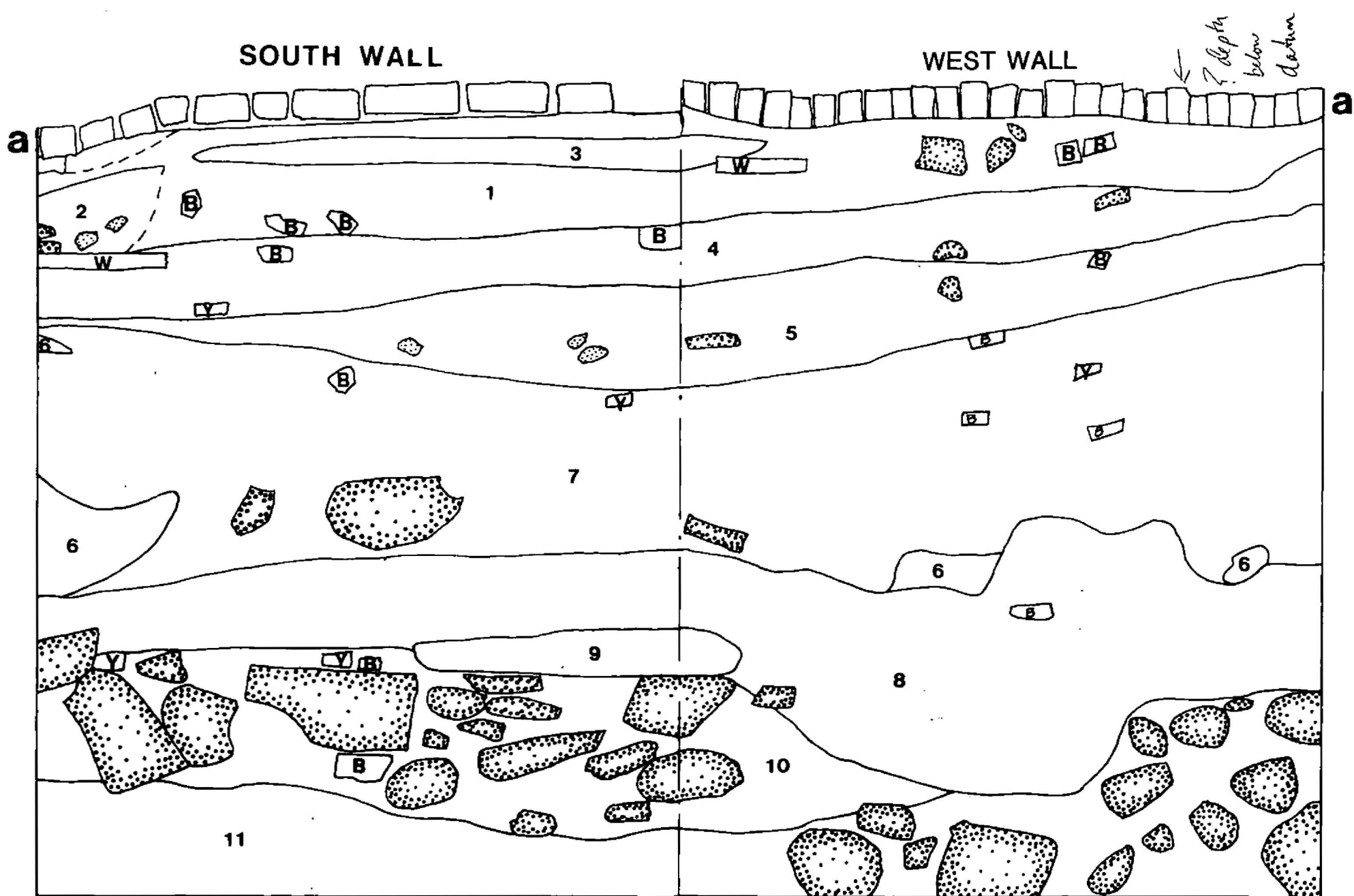


FIG 2-3

TEST CUT I



Figure 2-3. Test Cut I

1. hard-packed reddish-brown sand mottled with yellow clay
2. yellow-green silty sand mottled with charcoal and yellow clay
3. hard-packed yellow silty sand
4. yellow-green silty sand mottled with charcoal and yellow clay
5. red sand
6. green silt
7. yellow-green sandy silt with brick and shell
8. green sandy silt with pockets of brown and black clay
9. coarse gray sand
10. coarse green sand mottled with silt
11. red sand

a = brick - recessed 3 inches

This floor was present in Lots 9*, 10*, 26* and 27*, which were combined to form Lot 9. Immediately below the brick floor, we encountered a thin layer of mortar followed by a layer of hard packed reddish brown sand with yellow mottling. The sand was probably deposited to level the ground surface prior to construction of the brick floor. The presence of creamware, pearlware and whiteware ceramic sherds in this sand indicate a probable deposition during the early-mid 19th century. This is consistent with the estimated date of construction of the floor derived from the excavations in Lot 10*.

Beneath the reddish brown sand, a stratum of yellow/green silty sand with yellow mottling was encountered, followed by a thin stratum of red sand. Both of these strata sloped downward from north to south. The artifacts recovered from these strata are not inconsistent with a seventeenth century deposition except for one creamware sherd recovered at the top of the yellow/green silty sand which was probably intrusive from the overlying 19th century stratum. These two strata may either represent the topmost strata of the seventeenth century landfill or may have been deposited by events which occurred subsequent to the initial deposition of landfill. The red sand layer ended at 13 inches below the surface of the test cut in the north and at a depth of 26 inches in the south.

Approximately 15-30 inches of yellow/green sandy silt and green silt were encountered beneath the band of red sand,

followed by 4-25 inches of green sandy silt containing pockets of brown and black clay. The latter stratum ended between 50 and 65 inches below the surface of the test cut. In the northern part of TC I, the slit/clay stratum was directly underlain by a stratum of red sand containing rocks. The red sand began at about 55 inches in this part of the test cut and the rocks included in the soil matrix continued to about 75 inches, with the red sand continuing below the rocks. This stratum sloped downward from north to south. It should be noted that the rocks were included in the red sand only in the northernmost three to four feet of TC I. The southernmost part of the red sand stratum did not contain rocks.

In the southern part of the test cut, the stratum of green sandy silt with pockets of brown and black clay was underlain, at approximately 52 inches, by a layer of coarse brown sand which also contained rocks. This deposit sloped downward from south to north and ended approximately halfway between the south and north walls of TC I. The base of this stratum was at between 66-72 inches. The stratum was underlain by the red sand which did not contain rocks. Thus there are two separate strata containing rocks which began at approximately the same depth, a stratum of brown sand in the south portion of TC I and a layer of red sand in the north. The latter deposit sloped downward and continued beneath the brown sand in the southern portion of TC I. A post hole test in the bottom of the test cut indicated that the red sand

continued to at least 99½ inches below the surface of TC I.

Interpretation and Dating 629 TC I

As described above, two strata of yellow/green silty sand, separated by a thin layer of red sand, were encountered during the excavation of Test Cut I. The uppermost yellow/green silt was excavated as strata IV and VI, the red sand as stratum VII and the lower yellow/green silt as strata VIII and IX. The mean ceramic date for strata IV and VI is 1683.8 (103 dated sherds). The mean ceramic date for strata VIII and IX is 1680.0 (232 dated sherds). Because of the wide range of manufacturing dates for the ceramic types in use during this period, the mean ceramic date may be of limited utility in assessing the relative dates of deposition of these two deposits. The difference in the presence of certain ceramic types may be significant in supporting an earlier date of deposition for the lower silt strata. For example, four sherds of light blue glazed delftware, which had an initial date of manufacture of c. 1690, were recovered from strata IV and VI, and 10 sherds from strata VIII and XI. These figures represent 3.8% and 4.3%, respectively of the dated sherds from these contexts. However, nine of the 10 sherds from stratum VIII were recovered from the first excavated level of this deposit, which is likely to have included material from the overlying strata. The difference in the proportion of 17th-century-type salmon and buff/white bodied wares may also be of significance. Fifteen of these sherds were recovered from

strata IV and VI, 14.6% of the dated sherds, while 69 sherds were recovered from strata VIII and IX, 29.7% of the dated sherds.

The calculated Binford pipe stem date for strata IV and VI is 1697.76 (N=220) while for strata VIII and IX the calculated date is 1677.90 (N=193). This reflects the fact that the modal bore size for strata IV and VI is #6 (67% of measurable bores) while the modal size for strata VIII and IX is #7 (48% of measurable bores). It should be noted that the first excavated level of stratum VIII has a bore size distribution similar to that of stratum IV, reflecting the fact that some of the overlying material was probably excavated with stratum VIIIA. The differences in pipe stem dates would otherwise be even more pronounced. Other smoking pipe characteristics support the differences in dates. The fleur-de-lis motif, characteristic of Dutch 17th-century pipes, appears on five of the stem fragments from stratum XI. None were recovered from the other strata.

Another 17th-century decorative motif, the runs-of-dots, appears on five pipe fragments from strata VIII and IX and only one from strata IV and VI. Eight fragments of pipe bowls with the characteristic Dutch 17th-century belly bowl shape were recovered from strata VII and XI and only one from stratum IV. According to McCashion (1979), Dutch pipes were replaced by those imported from England beginning in the 1690s. Thus increasingly later deposits should contain fewer

Dutch pipe fragments.

As far as pipe maker's marks are concerned, the only datable mark from stratum IV is "T0," dated to 1668-1725. The same mark was present on a pipe fragment recovered from the soil excavated immediately above stratum IV. The range of dates for the marks present on pipe fragments excavated from strata VIII and XI is earlier. Four of these marks are "EB," 1624-1668. Other marks from this deposit are "WW," 1650-1677; "PE," 1654-1680, "IW," 1630-1660; and "HG," 1668-1688.

The above data suggest that strata IV and VI represent a separate, and later, depositional event than strata VIII and IX. One possibility is that two episodes of filling took place at this location, with a gap of several years between them. Another possibility is that strata IV and VI were deposited either in association with the construction of a building on the lot after the land-filling was completed, or in association with the demolition of the first building constructed on the lot.

Although strata IV and VI, as well as the red sand layer which separated strata IV and VI from strata VIII and IX, contained a high density of mortar, neither of these deposits contained high densities of brick or architectural artifacts. Thus the most likely explanation is that strata IV and VI represent a second episode of land filling, with the red sand accumulating while the land was unoccupied between the two land-filling episodes. The fact that strata IV and VI contain

a higher artifact and oyster shell density than strata VIII and IX suggests that the source of this landfill was an area of more intense occupational activity than the area from which the earlier landfill was taken.

The deposit of green sandy silt with clay which underlay the above deposits contained a lower density of cultural materials in all categories, suggesting that this deposit had a different origin. The mean ceramic date and pipe stem dates for this deposit are 1677.4 and 1664.0 respectively, compared with 1680.0 and 1677.9 for strata VIII and IX. However, these differences may not be significant since the figures for the deposit of green sandy silt with clay are based on only 35 pipe stems and 53 sherds.

The two deposits which contained a large quantity of rocks, red sand in the northern portion of the test cut and brown sand in the south, probably had different origins. The rocks present in the red sand consisted largely of smooth cobbles, apparently water-worn. Those present in the brown sand were largely Manhattan schist, and did not appear water-worn. The excavation records suggest that there were few, if any, artifacts in these deposits. However, since much of the brown and red sand was excavated in arbitrary levels, and included soil from both deposits, as well as some of the overlying sandy silt, it is difficult to determine whether either or both of these deposits containing rocks were culturally sterile.

Examination of the profile from Backhoe Trench 6, which extended the TC I profile to the north and south (see landfill discussion in Chapter 9), suggests that the deposit of red sand with rocks was present on the river bottom prior to the land-filling while the brown sand with rocks may have been part of the landfill. Several artifacts were noted in the latter deposits in the backhoe trench profile. This conclusion is consistent with the observed differences in the rocks contained in the two deposits. However, as discussed in the same section, other evidence from Backhoe Trench 6 supports an interpretation of the stratum of brown sand with rocks as part of the pre-landfilling ground surface.

TEST CUT AN

During the early stages of the project we uncovered the walls of the Lot 9 patio which occupied the central portion of the former lots designated 9*, 10*, 26* and 27*. During the clearing operation we noted a curved brick wall which intersected the southern portion of the east wall of the patio. Further clearing exposed the top of the brick wall which defined a feature extending east and north of the patio. Further excavation indicated that the southeastern portion of the feature had been destroyed by construction of the patio. East of the patio, the feature wall was cut off by a stone wall representing an extension of the Lot 9*/10* boundary wall. We were not able to determine whether the northeastern portion of the feature, east of this wall and north of the

outbuilding, remained intact. The remaining portion of the feature wall indicated that it had been roughly oval in shape. From the portion remaining we estimate that it had extended approximately 17-18 feet north-south. The east-west extent is somewhat more difficult to estimate, but the feature may have extended some 12-13 feet in this direction.

During the final phase of the project we decided to place a test cut to sample the deposits within the feature and expose details of its construction. Test Cut AN (Figure 4) was placed in the northwestern corner of the feature, north of the patio. The test cut initially measured six feet north-south and four feet east-west. It was located so that its southern portion would test the deposits within the feature, while its northern portion would test the deposits outside the feature.

Excavation of Test Cut AN exposed the floor of the feature only some five inches below the surface of the test cut. Only two courses of the feature's brick wall remained intact.

The same brown silty sand with rubble was excavated within the feature and immediately north of it. It should be recalled that the walls of the patio were exposed only after the brick basement floor of the last building to stand on Lot 9 had been removed. While the brown silty sand deposit may have been contaminated during the removal of the overlying floor, it was probably deposited during the demolition of the

building associated with the feature and/or the subsequent construction of the patio and the structure associated with the north-south stone wall immediately east of the TC AN boundary. The 14 dated sherds from this deposit included one creamware and one whiteware sherd. The other ceramics are of types consistent with the late 17th-century landfill. This deposit also included six fragments of post-1800 mold-made bottle glass. The data thus indicates a 19th century date of deposition for the deposit.

The easternmost six inches of the feature floor had been disturbed by the construction of the north-south stone wall about six inches east of the eastern boundary of TC AN. The brown sandy silt in this disturbed area below the level of the top of the feature floor was excavated separately in the southeastern corner of TC N (the portion of the unit where the floor was not removed). The one dated ceramic sherd recovered from this deposit was creamware.

After the excavation of the overlying rubble, the wall of the feature was removed within the boundaries of test cut AN and the feature floor was removed to a point one foot north of the southern extent of the test cut. One of the bricks from the feature wall was saved. It was wedged shaped, with its curved wider edge apparently forming the outer circumference of the feature wall. The brick contained the lettering "McKee's Masonry."

The floor of the feature was solidly constructed. It

consisted of an approximately one half inch thick layer of mortar which overlay slabs of schist, one or two layers thick, totalling two to three inches in thickness; a single course^r of ✓ brick underlay the schist. The schist slabs and mortar ended at the brick side walls of the feature, with the remaining courses of this wall overlying the bricks of the floor. A thin (less than one half inch thick) layer of decaying wood underlay both the floor and walls of the feature. The excavations north of the feature indicated that the wood layer did not continue past the feature boundary. The wood was probably laid down first to serve as a platform for the brick layer. A thin layer of gray clay was noted underneath the wood stain in the eastern profile of TC N. This stratum may represent decaying wood or clay deposited to level the surface prior to the construction of the feature. It was not noted by the excavators separately from the decaying wood. The fact that the wood stain is present beneath the disturbed portion of the floor suggests that the base of the wall located east of the unit was probably at the same approximate elevation as the base of the feature. Its construction had apparently disturbed the schist slabs and brick layer of the floor, leaving the wood intact. A total of five datable sherds, presumably deriving from the immediately underlying soil, were removed with the decaying wood. Four of the five sherds were creamware, with the fifth being delftware. This is consistent with a late 18th-early 19th-century date of construction for

the feature. The feature probably functioned as a cistern, with the floor being solidly made to support the weight of the water and to prevent leakage. It was located in the backyard of a building fronting on Pearl Street. Since the feature was situated on both sides of the Lot 9*/10* boundary wall, the building associated with it must have stood on both of these lots. According to the documentary research, Lots 9* and 10* were assessed as one lot as early as 1818 and it is known that by 1824 the Pearl Street House stood on these lots and it is likely that the feature was the large cistern which provides water for the hotel.

The deposit immediately below the brown sandy rubble north of the feature wall was described by the excavators as orange sand except for an area in the easternmost portion of the unit which had been disturbed by the construction of the stone wall east of TC AN. No ceramics or other datable artifacts were recovered from the orange sand. A single bottle glass fragment and a small amount of oyster shell and brick were the only artifacts recovered from this deposit. The material within the disturbed area and that underlying the orange sand to a depth of approximately 13 inches (the level at which the base of the feature floor had been reached) were removed together. A single delftware sherd was the only ceramic recovered. Three fragments of post-1800 mold-made bottle glass were also recovered from this material.

The soil below the level of the cistern floor, both

underneath the feature and to the north, was described as red/brown sandy silt mottled with yellow and gray silt. This deposit continued to a depth of approximately 19 inches below the test cut datum. The profile drawings suggest the possibility that at least some of this material may have been associated with the construction of the feature. This is supported by the artifactual evidence. Of the ten dated ceramic sherds four were creamware and one was pearlware. The other five sherds consist of 17th century-type earthenware, delftware and slipware. The latter sherds probably derived from the underlying landfill. This deposit also yielded two sherds of post-1800 mold-made bottle glass, and one sherd of bottle glass dating to the period 1780-1810/30. These data provide further support for an early 19th-century date of construction of the feature consistent with the known construction of the Pearl Street House. This deposit was underlain by red orange sand with pockets of blackish brown and yellow silt, excavated only in the southern portion of the test cut to a depth of 23 inches. No artifacts and only a small amount of brick and marine shell were recovered from this stratum. Although only a small sample of this stratum was excavated in TC AN, landfill consisting of red sand found in other portions of the site also had low artifact densities.

why
- not
shown?

LOT 26*/27*

As noted above, prior to the excavation of the test units on this portion of the site, some of the deposits underlying

the brick basement floor of the final building to stand on Lots 9*, 10*, 26* and 27* (building #1) had been removed by construction activities. However, because of the need to maintain a ramp to permit trucks to access the site, a strip of land extending approximately 20 feet north from the Water Street sidewalk remained unexcavated and covered by overburden. Thus a profile of the deposits which had been removed was visible beneath the overburden, approximately 12 feet south of the location of Test Cut AT. This profile indicated that an earlier mortar and/or wooden basement floor was present approximately one foot below the brick floor, and that the deposits between the two floors were presumably associated with the demolition of the building associated with the lower floor (building #2). Since the location at which the profile was drawn was aligned with the exposed portion of the cut stone lot boundary wall visible on the surface at which the test cuts were excavated in this portion of Lot 9, it can be inferred that the lower basement floor was present in both Lots 26* and 27* and that building #2 stood on both of these lots. The profile indicates that the lot boundary wall extended only some six inches above the excavation surface with its top approximately six inches below floor #2. Thus in the construction phase prior to the erection of building #2, separate buildings stood on Lots 26* and 27*. The lot boundary wall immediately west of Test Cut AT was probably the side wall of this building (building #3),

possibly a party wall for the Lot 26* and 27* structures.

TEST CUT AT

TC AT was placed in Lot 27* just to the west of the Lot 26*/27* boundary wall, and perpendicular to this wall and to TC AQ, which was excavated east of the wall (Figure 5-6). TC AT measured two and a half feet north-south and six feet east-west.

Excavation of TC AT began approximately one and one third feet below the wooden basement floor of building #2 (see preceding section). A number of stones were noted on the surface in the northern and western portions of the area excavated in TC AT, and after the excavation of the first level of the uppermost deposit, which consisted of brown silty sand with a large quantity of mortar, the stones were defined as a portion of what had been a roughly circular stone feature. The northern edge of TC AT was tangent to the northern portion of the stone ring, which curved across the western portion of the test cut. Thus the area lying within the stone ring was in the eastern portion of the test cut. Photographs indicate that the feature had been cut off outside the boundaries of TC AT. East of the test cut, this was presumably due to the construction of the lot boundary wall. Thus, the stone feature was probably associated with a building phase prior to the construction of building #3. To the south the feature was probably removed by the installation of stone slabs associated with one of the later building phases.

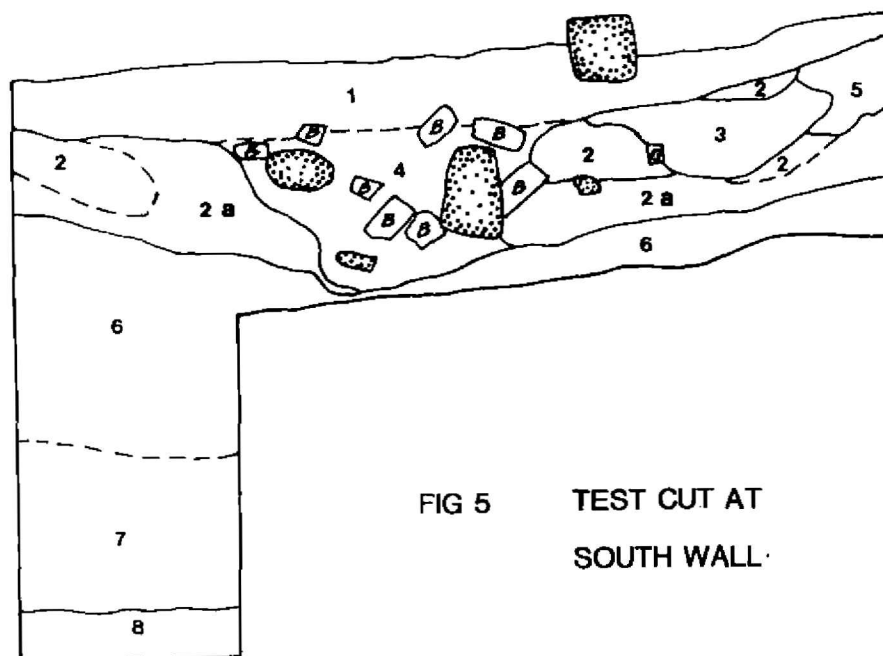


FIG 5 TEST CUT AT
SOUTH WALL

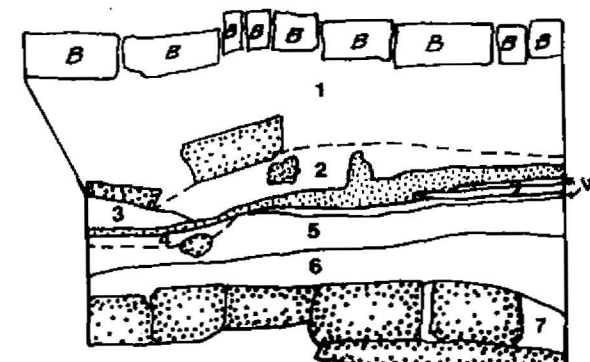


FIG 6 TEST AT/AQ
SOUTH WALL

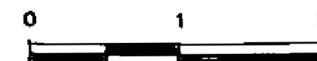


Figure 5. Test Cut AT

1. brown silty sand, heavily mottled with mortar, brick, and charcoal
2. mixed yellow silt and gray-blue clay
- 2a. gray-blue clay
3. brown silty sand, very heavily mottled with mortar, brick, and charcoal
4. brown silty sand with construction rubble
5. gray-brown silty sand with brick, mortar, and charcoal
6. reddish-brown sand
7. brown sand, less mottled

Figure 6. Test Cut AT/AQ

1. yellow-brown sand with chunks of decaying mortar
2. pink sand
3. grayish-yellow sand with decaying mortar
4. dark brown sand (decayed wood?)
5. yellow-brown sand
6. grayish-yellow sand with mortar
7. mixed cinder and mortar

The remaining portion of the feature which remained intact within the boundaries of TC AT consisted only of one course of stones which were embedded in the brown silty sand with mortar that constituted the uppermost deposit excavated in the test cut. This deposit sloped downward from west to east and was two to six inches thick. This deposit probably represents the pit dug for the installation of the feature. In the excavation of TC AT, only a portion of this deposit was excavated by itself without being mixed with underlying deposits. Only one ceramic sherd, creamware, was recovered the unmixed deposit, with the artifactual material consisting largely of brick and mortar.

However, at a depth of approximately six inches below the excavation surface, there was a pit dug to a deeper level within the feature, near its western border. The matrix within the pit was the same brown silty sand which overlay it, but the pit appeared to include more cut stone and cobbles. It would appear that the pit was a deeper extension of the hole dug to install the feature. It is possible that the feature functioned either as a privy or a drainage sump. In either case, the deeper hole in the middle could have been dug to promote drainage. The stone and cobbles in this pit deposit would be consistent with this function. A portion of the deposits in the pit were excavated separately without being mixed with the surrounding soil. A total of seventeen dated ceramic sherds was recovered. These included six

delftware, one overglaze-decorated white salt-glazed stoneware and ten creamware sherds, yielding a mean ceramic date of 1759.9. This ceramic assemblage suggests that the feature was installed after the introduction of creamware in the 1760s and probably before the introduction of pearlware in the 1780s. The material which filled the pit and the trench excavated for the installation of the feature may have been associated with the demolition of the building which preceded the one associated with the feature, with the trench being excavated through this deposit and backfilled with it. The building associated with the feature would be building #4 (building numbers get higher as depth below surface increases) with the deposit in the trench dug to install it dating to the demolition of building #5, presumably during the third quarter of the 18th century.

The deposit immediately underlying the one associated with the installation of the feature consisted mainly of a mottled yellow silt, underlain by a thin (two to four inches in most places) layer of blue/gray clay. Because of difficulties in seeing these soil changes, due to the presence in the yellow silt of various lenses consisting of both the overlying and underlying material, the excavated yellow silt was contaminated with material from the brown silty sand from the feature trench and pit and with the underlying blue/gray clay. The two uppermost of the excavated contexts which contained these mixed deposits (Catalog #1118 and #1124, and

Catalog #1131) yielded an additional 36 dated sherds. These include three pearlware sherds, in addition to nineteen creamware, six delftware and one sherd of 18th century Buckley ware and five sherds of 18th-century Oriental Export porcelain. The presence of the pearlware, in addition to ceramic types recovered from the trench and pit below the feature indicate that the date of demolition of building #5 and installation of the feature occurred somewhat later than indicated by the latter deposits, perhaps early in the last quarter of the 18th century. (It should be noted that due to a coding error the computer catalog sheets indicate one sherd of whiteware in this deposit. This sherd was actually identified as pearlware). The lowest of the mixed deposits (Cat. 1153 and 1159) contained only creamware, delftware, white salt-glazed stoneware and 18th-century porcelain. The decrease in the density of building materials with depth among these three mixed contexts (7097, 2073, and 1259 grams/cu.ft.) and the declining mean ceramic date (1782.8, 1769.5 and 1758.8) reflect the decreasing amount of material deriving from the feature trench and pit. The yellow silt may represent material deposited to raise the ground surface prior to construction of building #5, probably in the third quarter of the 18th century, or additional material from its demolition. The underlying blue/gray clay stratum abutted a fieldstone wall in the eastern part of the test cut. This wall extended approximately six inches into the test cut. The

more recent Lot 26*/27* boundary wall may have overlain this wall, with the earlier wall extending outward to the east. However, TC AT did not expose the intersection of the two walls.

Only a small portion of the blue/gray clay was excavated separately, and only one dated sherd was recovered from this deposit. This sherd was underglaze decorated, brown rim, 18th-century Oriental export Porcelain. The presence of this ceramic type, with an initial date of manufacture of 1700 suggests that the blue clay stratum is not part of the landfill. The clay may have been deposited in the basement of building #5 or an earlier, post-landfill structure to seal out moisture. A similar deposit of clay was encountered in Lot 14. The landfill deposits, consisting of reddish brown sand, began beneath the blue/gray clay stratum, and were excavated only in the easternmost one and a half feet of TC AT. The water table was reached at a depth of 54 inches below the TC AT datum, and excavation was terminated at a depth of 58 inches. The landfill deposits and the stone wall continued below this depth. The small sample of landfill recovered from this test contained low densities of artifacts, faunal and building material. The six dated ceramic sherds consisted of one combed slipware and six delftware sherds, consistent with the ceramic types typically recovered from the landfill deposits on the site.

There was no indication in TC AT of a wall trench for the

stone wall. The TC AT wall may be the west wall of a building whose rear wall was exposed in TC N and AR. It should be noted that the elevations of the top and base of this wall suggests that it was constructed at the time of the land-filling as discussed in the description of TC N.

TEST CUT N

Excavation of TC N began after the test of the brick floor of the most recent building which extended over Lots 9*, 10*, 26* and 27* (the modern Lot 9). Since the water lot grants indicate that the limit of the initial period of landfilling was 90 feet south of the Pearl Street baseline TC N was placed 94 feet south of the baseline in an effort to detect any fill retaining structure marking the border between the first and second 17th century filling episodes. The test cut initially extended four feet east-west and six feet north-south. However, because the architectural features uncovered in the west and north portions of the test cut reduced the area which could be excavated, the test cut was subsequently extended two feet to the south and one foot to the east (Figures 7,8,9,20).

To a depth of 8-13.5 inches below the test cut datum, the excavated material consisted of overburden, much of this material probably consisting of the debris which underlay the most recent (common) brick basement floor of Lot 9. Seventeen of the 25 ceramic sherds from this deposit (68%) consisted of 19th-century whiteware and Albany slipped stoneware. The

FIG 7 EAST WALL

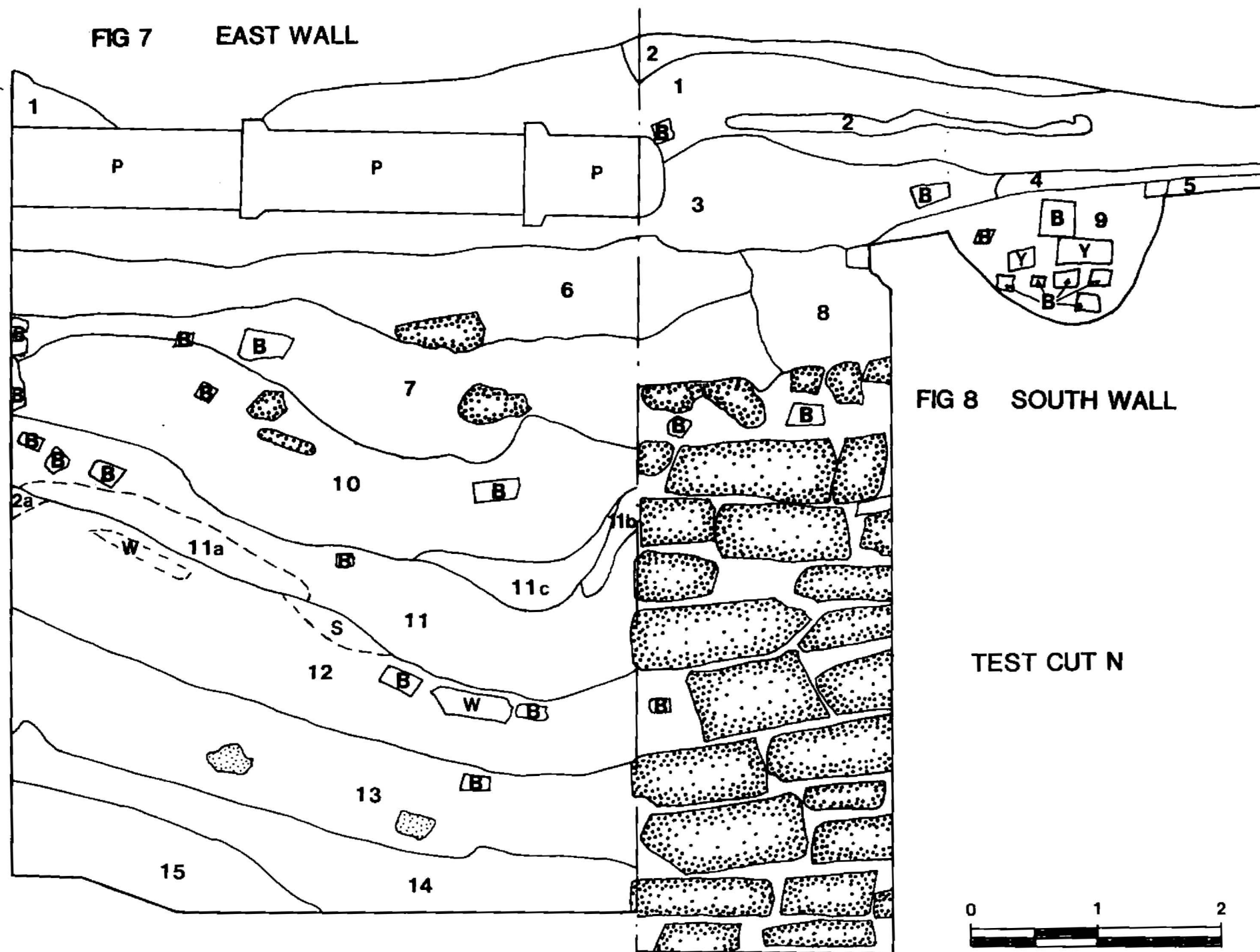
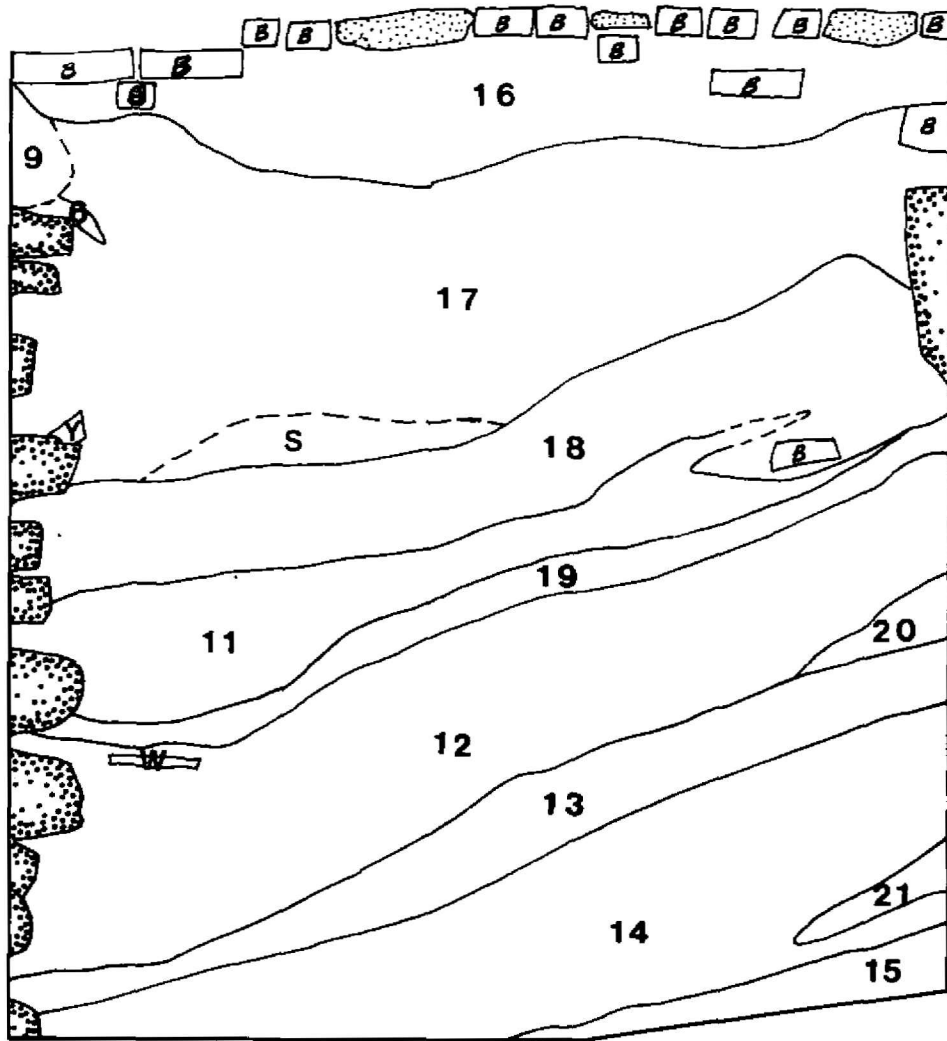


FIG 8 SOUTH WALL

TEST CUT N





WEST WALL

FIG 9

TEST CUT N



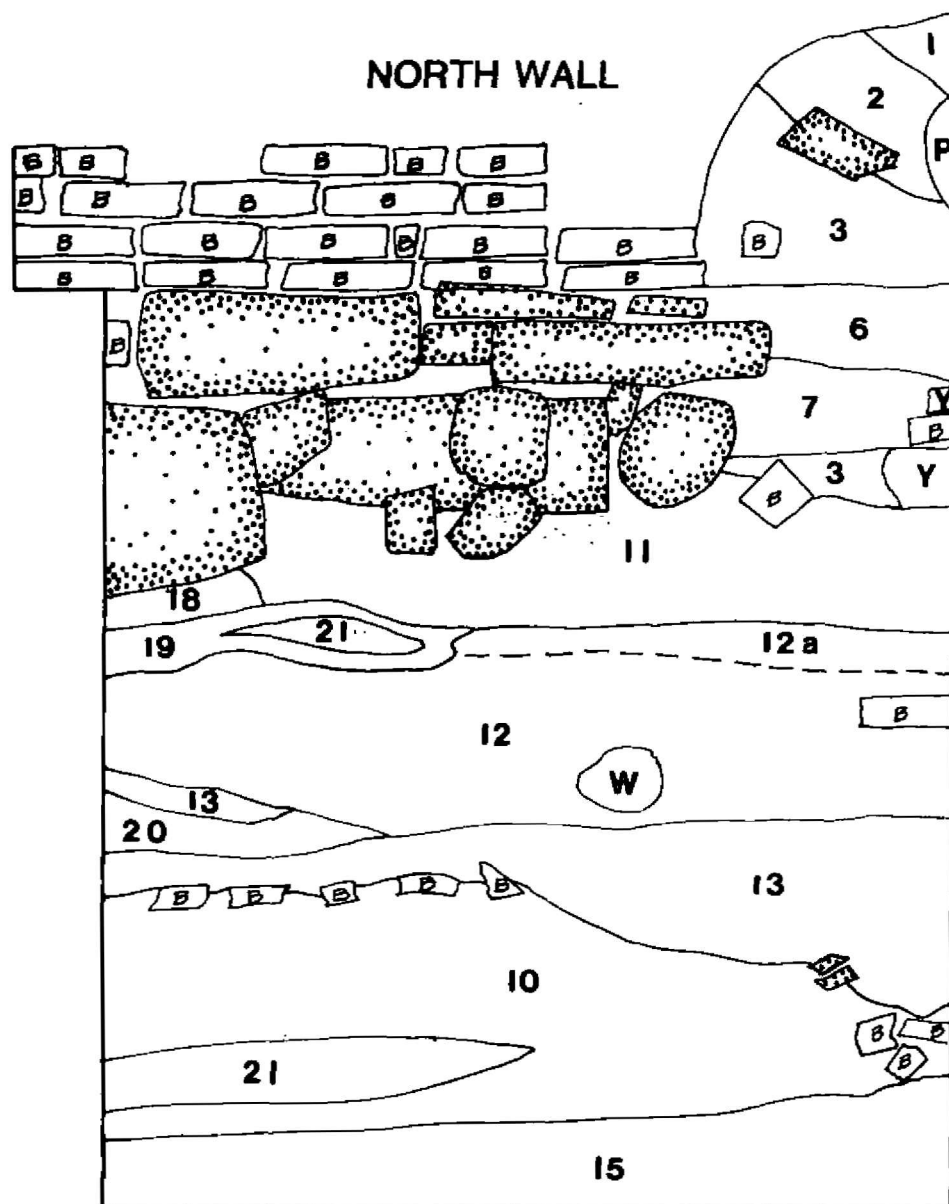


FIG 10

TEST CUT N



Figures 7-10. Test Cut N

1. reddish silty sand with construction debris
2. white sand with pockets of yellow silty sand
3. gray silty sand with mortar and charcoal
4. hard-packed reddish mortar
5. black silty sand with red and yellow brick and rocks
6. rusty yellow sand mottled with black silt and mortar
7. black silty sand with mortar, charcoal, and brick
8. orange sand mottled with gray silt
9. gray silt
10. greenish-gray silty sand mottled with orange silt
11. greenish sandy silt mottled with orange silt
- 11b. orange silt
- 11c. greenish-brown sandy silt mottled with orange silt
12. yellow-green silty sand with fragments of burned wood
13. gray clayey silt
14. hard-packed yellow sandy silt
15. sterile red sand
16. coarse red-brown silty sand
17. sterile red sand
18. yellow silt with mortar
19. decayed wood
20. orange sand mottled with gray silt
21. bluish silt

presence of a pipe fragment with a maker's mark of TD enclosed by stars indicates a date of deposition post-dating 1845, when this mark was first used, and confirms a mid-late 19th-century date of deposition for the floor.

At a depth of approximately 14 inches below the TC N datum, we encountered the top of a "trough" constructed of red brick lined with plaster on the inside. The trough had a U-shaped cross-section. It extended across the southwestern portion of TC N, running from southwest to northeast. It intersected the south wall of the test cut about three feet east of the west wall and the west wall two feet south of the north wall. To avoid undercutting the trough, the soil beneath it was not excavated, and the square was extended as noted above. It should be noted that the west wall profile of TC N is drawn along the diagonally oriented wall underlying the trough. The interior of the trough was approximately 20 inches across at the top and 12 inches deep. It apparently functioned as a drainage trough analogous to the earlier wooden troughs encountered in TC AQ in Lot 26* and in several of the excavations in the northern portion of the site. The deposits within and immediately above the trough consisted of a gray sandy silt with rubble. This deposit contained a relatively high density of building materials and a NA/A ratio of .9, and is probably associated with the demolition of the building which stood on Lot 26* prior to the joining of the four lots to form the modern lot 9. Twenty-six of the 50

ceramic sherds recovered from this deposit consisted of whiteware and other 19th-century ceramic types. Eight fragments of 19th-century beer/ale bottle glass were also present. The presence of a sherd of transfer printed whiteware datable to the 1830s suggests a deposition after this date.

A deposit in the western part of the square, adjacent to the trough, and described by the excavators as orange, orange/brown, orange/gray or orange/tan sandy silt, represents the trench dug for the construction of the trough. This deposit is shown on the west profile of the test cut as tan silty sand. The 21 dated ceramic sherds are consistent with the interpretation that this trench was excavated through earlier deposits in the 19th century, as indicated by the presence of three whiteware sherds. The fact that these sherds constitute only 8.8% of the 34 sherds, as contrasted with the much higher percentage present in the deposits within the trough, confirms that this feature was associated with the construction of an earlier 19th-century structure which preceded the final building phase on this lot.

A ceramic sewer or drain pipe was encountered in the eastern portion of TC N, approximately six inches below the test cut datum. The trench dug to install this pipe was filled with a dark brown sandy silt. The artifactual material in the pipe trench consisted mainly of building materials, and artifacts with an architectural/non-architectural ratio of

two to one. As was the case with the deposits immediately underlying the floor of the most recent building to stand on the lot, a majority of the ceramic sherds from the pipe trench (56% of the 50 sherds recovered), consisted of whiteware. A fragment of 19th-century mold-made bottle glass was also present. These data suggest that the pipe was installed under the floor of the last building to be constructed on Lot 9 immediately prior to construction of the basement floor.

At about 18 inches below the TC N datum, the top of a cut stone block wall was encountered in the northern portion of the test cut. Two courses of this wall remained, extending to a depth of approximately 32 inches. The bricks shown overlying the wall in the north profile of TC N may have represented the base of a superstructure wall. These bricks are below the elevation of the brick basement floor of the final structure. It should be noted that this wall does not connect with the fieldstone foundation wall encountered in the south part of TC N which is discussed below. The profile drawings indicate that the cut stone wall encountered in the north portion of TC N predated both the stone trough and the ceramic pipe, since there does not appear to be a wall trench visible in the profile. We were not able to fully follow the course of this wall, but it is possible that it intersects with an east-west wall just north of TC N. It also may have connected with the curving wall noted slightly north of the location of TC N in the final phase of the project.

The 17th-century landfill deposits were encountered immediately beneath the wall in the northern portion of the test cut and the trenches dug for the installation of the trough and the ceramic pipe. In the southern portion of the test cut, at the same approximate elevation that the landfill deposits began we encountered the top of a fieldstone wall which extended in an east-west direction. The top of the wall was about 41 inches below the test cut datum, and the wall protruded northward five to seven inches into the test cut. This wall is apparently the rear wall of a late 17th-century building constructed on this lot. The wall extended to the west, as it was encountered in TC AQ and AR, and it will be discussed further in the descriptions of those excavation units.

It should be noted that TC N is located in the extreme eastern portion of Lot 26*. After excavation of the test cut was completed and the eastern profile drawn, a probe into the eastern profile seemed to encounter another stone wall only several inches further to the east. However, upon removing the soil of the eastern wall, we discovered that this "stone wall" was, in fact a large mass of concrete associated with the large 20th century building which had disturbed most of the southern portion of the block east of Lot 26*. The fieldstone wall in the south of TC N had been cut off by the installation of this concrete block just east of the easternmost extent of TC N.

The landfill deposits consisted of five types of soil. From the top of the deposits, these consisted of a grayish or greenish brown sandy silt with orange or yellow mottling (fill stratum #1), a grayish or greenish brown sandy silt containing a large amount of wood and brick (fill stratum #2), a gray silt (fill stratum #3), a yellowish brown sandy silt with mortar (fill stratum #4), and finally a stratum of red sand (fill stratum #5). The fill strata sloped downward from north to south. The water table was encountered at a depth of 85 inches below the test cut datum. In the southern part of the test cut, the water table intersected fill stratum #4, with the stone wall extending below the water table. Excavation of the test cut continued below the water table in a small portion of the southern part of the cut. The red sand (fill stratum #5) continued to a depth of 90 inches, and the wall appeared to end in this stratum. Between 90 and 100 inches, a deposit of gray silt with wood, shell, pebbles, cobbles and rocks was encountered. This deposit represented the pre-filling river bottom silt. Thus, the overlying red sand was a landfill deposit, not the river bed. Deposits of sterile gray sand (100-110 inches) and red sand (excavated to 113 inches) were encountered beneath the gray silt. These strata represented the river bed. Since the river bottom silts sloped downward from north to south, as shown in the Backhoe Trench #6 profile discussed above, it is likely that the landfill was deposited in such a way as to follow this slope.

As indicated in the TC N profile, there was apparently no builder's trench associated with the early stone wall. The manner in which the landfill deposits intersect the wall suggest that the wall was put in place prior to the land filling with the fill being thrown up against the wall which supported the fill. No other fill supporting structure was encountered in TC N, Backhoe Trench 6 or any of the other test cuts in the southern portion of the lot. It is possible that the practice of constructing house walls prior to the land-filling, so that these walls could also serve to support the fill, noted for the northern portion of the site, was continued for the later land-filling episode. However, the presence of the 10 inches of river bottom silts at this location suggest that this portion of the site was, in fact, under water during a major portion of the tidal cycle. At least the basal portion of the stone wall would have had to have been constructed beneath a shallow depth of water.

Landfill Artifact Contents and Dating

The five landfill strata differed in artifactual content. The lower two deposits (#4 and #5) had low artifact densities although fill deposit #4 contained a high density of building materials. Of the upper three deposits, the second contained the highest density of building materials, as well as wood and timbers, and the highest ratio of architectural to non-architectural artifacts (NA/A = .6). This deposit apparently came from a location which contained debris from structural

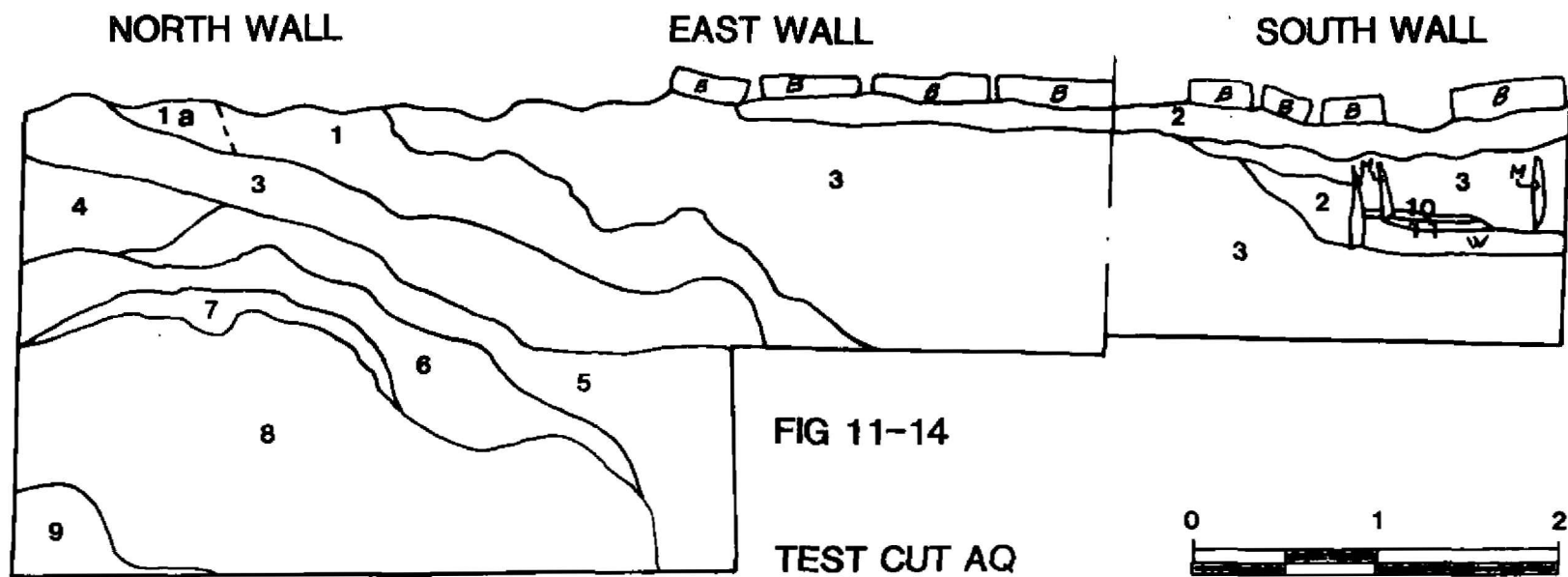
demolition.

Fill deposits #1 and #2 contained substantially higher densities of bone than the other three landfill strata, fill stratum #3 contained marine shell densities similar to the two overlying deposits, while fill strata #4 and #5 contained low bone and shell densities. Fill deposit #3 also yielded vegetal material including 44 pits. Fill stratum #3 may represent material dredged from the river bottom on the basis of soil color and texture, and the presence of shell without cultural material.

Fill deposit #1 yielded 89 dated ceramic sherds with a mean ceramic date of 1682.2 and deposit #3 yielded 21 dated sherds with a mean ceramic date of 1681.2. Deposits #2, #4 and #5 yielded only 8, 4 and 1 dated sherds, respectively. All of the sherds recovered are consistent with inclusion in the late 17th-century landfill deposits with the exception of one sherd from deposit #4 which was identified as whiteware. This sherd must have been intrusive into this deposit.

TEST CUT AQ

TC AQ was the southernmost of the three north-south aligned test cuts placed in Lot 26*. The test cut was located approximately six inches east of the Lot 26*\Lot 27* boundary wall. The unit measured two and a half feet east-west and eight and a half feet north-south (Figures 11,12,13,14). The northern portion of the test cut included stones which turned out to be the top of a wall. At the elevation at which the



Figures 11-14. Test Cut AQ

1. gray-brown sand mottled with yellow silt
- 1a. gray-brown sand (grayer than #1) with charcoal flecks
2. red sand
3. gray-brown sandy silt with shell, brick, and charcoal
4. yellow-brown silty sand mottled with yellow silt
5. mixed gray, red, and yellow sandy silt
6. gray silt mottled with rust
7. rust stain
8. gray-brown and orange mottled silt
9. red sand
10. dark gray clay
11. light sand

excavation began, the area immediately south of the test cut included a complex of stone slabs and brick flooring. As discussed in the description of TC AT, this surface was approximately two feet below the brick basement floor of the most recent structure to stand on Lots 9*, 10*, 26* and 27* (building #1), and one to one and a half feet below a second wood/mortar basement floor of a building which apparently stood on Lots 26* and 27* (building #2). The lot boundary wall seemed to be associated with two earlier individual structures which stood on Lots 26* and 27* and the bricks and slabs north of TC AQ were apparently the basement floor of this Lot 26* structure (building #3). This floor had been removed by construction equipment at the location of TC AQ prior to excavation except in the southernmost two to two and a half feet of the unit. The brick floor at this location was one course thick. Immediately beneath it was a layer of red sand one to two inches thick, apparently deposited as a bedding for the brick floor at the time of its construction. This deposit yielded four ceramic sherds, three of which were whiteware. This indicates a 19th century date of construction for this floor, which was probably associated with building #3.

The sides of a wooden trough were exposed in the western portion of TC AQ approximately one inch below the red sand bedding. The trough proved to be about three inches deep with vertical sides. Its total width including the sides was 14

inches. The east side of the trough was 10-12 inches from the east wall of TC AQ, with its west side at the location of the west wall of the test cut. The trough ran the length of TC AQ, terminating at the stone wall at the north end of the unit. There were two wooden "ridges" in the center of bottom of the trough, approximately four inches apart and extending the length of the trough. This may represent an inner trough set within the larger one. The function of this trough is uncertain, but it probably functioned to provide drainage. This would represent a better preserved version of the wooden troughs uncovered in Lots 11, 13, 14, and 15. Since no basement floor was uncovered below the trough, it is possible that it was located in an alley between buildings located on Lots 26* and 27*.

The same brown silty sand with rubble which overlay the trough also filled it. This material was probably deposited when the building associated with the trough (building #4) was demolished and the ground level raised prior to the construction of the next structure to stand on the lot. The 46 ceramic sherds from this deposit included 18 creamware and 14 pearlware sherds, in addition to a lesser number of delftware, combed slipware, porcelain and apparently redeposited 17th-century-type earthenware sherds. These ceramics indicate that building #4 was probably demolished in the latter part of the 18th or beginning of the 19th century, before the widespread introduction of whiteware.

At the bottom of the trough, there was a thin deposit of dark gray clay and red sand which may represent sediments deposited in the trough at its time of use. Two ceramic sherds were recovered from this deposit, one 17th-century-type earthenware and one Oriental Export porcelain sherd.

The wooden trough was subsequently removed and the soil with it was screened. One creamware sherd and one delftware sherd were recovered. This is not inconsistent with a late 18th century period of usage of the trough.

Soil within the limits of TC AQ east of the wooden trough were excavated separately from the deposits within the trough. The soil consisted of gray sandy silt with a lens of tan silt and orange sand in the northern portion of the excavated area. The nine ceramic sherds from these deposits consisted of 17th-century-type earthenware and delftware. This allows the identification of this deposit as part of the 17th-century landfill. It should be noted that the south wall profile of TC AQ shows a small pocket of red sand immediately east of the trough and ending at its base. It is possible that this represents a shallow trench dug through the landfill to install the trough. However this deposit was not noted during the excavation of the test cut.

Subsequent to the removal of the wooden trough, the underlying deposits were excavated to a depth of approximately 15 inches in the south portion of TC AQ and 30 inches in the northernmost two feet of the test cut abutting the stone wall.

The bottom 10 inches of the excavated material was shoveled out without screening in order to expose the base of the stone wall. The nineteen dated ceramic sherds recovered from these deposits were also types typically found in the landfill. The landfill deposits in TC AQ consist mainly of deposits of gray/brown and yellow/brown sandy silt and silty sand. To the extent that they were exposed in this test cut, the deposits appear to slope downward from north to south. Low densities of artifacts, faunal and building materials were recovered from the excavated landfill deposits.

Photographs of the stone wall in the north end of TC AQ indicate that the base of this wall was reached at about the deepest point of the excavation. However, excavation of TC AR, on the north side of this wall indicates that the wall continues well below this depth. It is possible that the northern part of the wall was built first, during the landfilling process (see discussion of TC AR), with the southern portion exposed in TC AQ installed later in conjunction with the construction of a later building. However, neither the east wall profile of TC AQ nor the artifactual evidence from the excavation support this interpretation. It is more likely that after the construction of this wall was begun in conjunction with the landfilling, it was decided to widen the wall and the upper portion was consequently made thicker, with the base of this upper portion resting on the landfill which had already been deposited.

However, this reasoning does not explain why the wooden trough, which apparently dates to the late 18th century at the earliest, terminates at this wall, unless the function of the spaces between the wall were to serve as a sump to drain the water carried off by the trough.

Subsequent to the excavation of TC AQ, we removed the several inches of landfill deposits which separated the test cut from the stone wall to the west. This is the same wall which had been exposed in TC AT. Photographs show this wall continuing below the depth to which TC AQ had been excavated. The results of TC AT indicate that this wall continued at least two feet below the bottom of the northern stone wall in TC AQ and the photographs indicate that the former wall was built first, with the TC AQ wall abutting it.

Photographs and profiles of the south wall of the more deeply excavated northern portion of TC AQ (section A-A) indicate the presence of what appears to be a wall trench for the stone wall west of the test cut. However, the excavation records and the artifactual content of the excavated material, as well as the results of TC AT, offer no supporting evidence for this interpretation. It is possible that this deposit represents a wall repair trench dug shortly after the land-filling was completed.

TEST CUT AR

In examining the surface of Lot 26* prior to excavation, we noted an area on the surface which was covered with rocks.

Test Cut AR was placed so as to cut across this area of rocks and define any associated feature. The test was extended to intersect what appeared to be two stone walls noted north and south of the possible feature. The test cut measured two and a half feet east-west and eight feet five inches north-south (Figure 15). Excavation of the unit began in the area defined by the rocks. By the end of the first excavated level, the excavation had exposed planking which bounded the rocks on the north and south. Subsequent excavation exposed a wooden "box" which measured approximately four and a half feet square and contained the rocks. The original boundaries of TC AR were extended four to six inches to the west so as to expose the western wall of the wooden box feature. The deposits in the westernmost 34 to 44 inches of the box were excavated, exposing a profile of the deposits within it along the eastern edge of TC AR. Excavation of a small area outside the northeastern corner of the box enabled us to determine its dimensions and provided further data on the details of its construction.

The wooden walls of the box began at depths of two to seven inches below the TC AR datum. Since the deposits extended above the walls of the box and since the tops of these wooden walls were uneven, it would appear that the top of the box had originally been higher, being disturbed either by construction activities associated with the periodic episodes of rebuilding on Lot 26, or by natural decay. The

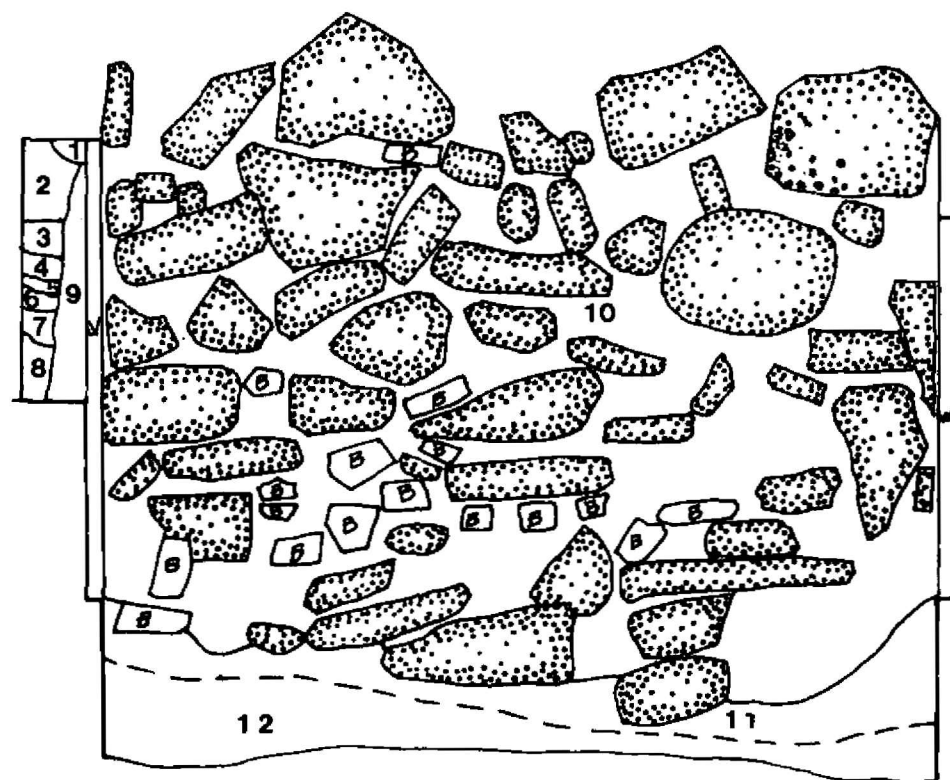


FIG 15

TEST CUT AR

EAST WALL

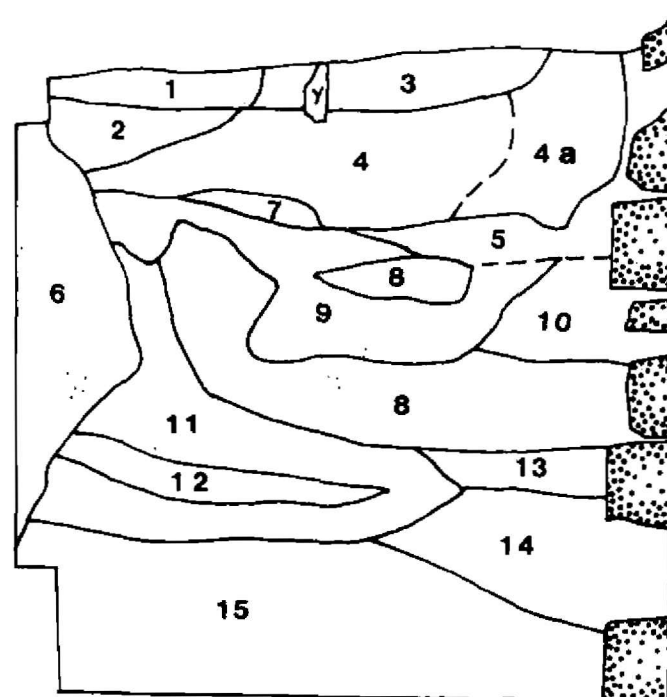


Figure 15. Test Cut AR

1. mixed tan sand and gray sandy silt
2. tan silt mottled with orange and gray sand
3. tan silt
4. gray-brown sand
- 4a. brown sand
5. tan silt
6. gray sand mottled with orange
7. orange sand mottled with tan silt
8. gray silt
9. tan sand with wood
10. mixed orange, tan, and brown silt
11. orange sand mottled with gray
12. gray silt
13. gray sand
14. tan silt mottled with orange sand and gray silt
15. heavily organic gray silt

bottom of the walls of the box extended to a depth of 30-32 inches below the test cut datum. The feature was constructed of horizontally oriented sawn boards and did not have a floor. The west wall of the box consisted of three boards. The lowest board was seven to eight inches wide, the center one was 12-13 inches wide and the remaining portion of the topmost board had a maximum width of twelve inches. Photographs and field notes indicate that the north, south and east sides of the box were constructed of two boards. The topmost of the two boards on the east side of the box was one and one eighth inches thick with the lower board being one and one half inches thick. Unlike the wooden boxes excavated in Lots 13 and 15, which were built of vertical boards carefully fitted together with tongue-in-groove construction, these boards were not fitted together but rested one atop the other. However, examination of the inner surfaces of the boards indicated rust stains at the top and bottom corners of each board. A square hole was associated with each of these rust stains, and in some cases rusted remnants of the nails which made these holes were found adhering to the boards. The rust stains were presumably made by angle brackets which were nailed to the boards and which served to hold them together.

The deposits in the box consisted of a dense accumulation of rocks (sandstone, schist and sedimentary rocks), bricks, and mortar. The soil matrix was described as brown sand and gray/brown and brown silt in the topmost 16/22 inches of the

deposit and as gray sandy silt from this depth to the base of the box walls. The profile drawings show the deposits in the box dipping a maximum of seven inches below the walls of the box. The soil below the base of the feature walls was apparently the orange and reddish brown sandy silt excavated as context #1186. The underlying deposits consisted of gray silt with a large number of wood fragments and other organic material.

A total of 32 sherds, 20 of which were dated, were recovered from the box fill. The dated sherds yielded a mean ceramic date of 1771.4. The ceramics included one sherd of 17th-century-type earthenware, two delftware sherds, one combed slipware, two white saltglazed stoneware, one sherd of Oriental Export Porcelain, 11 creamware and three pearlware sherds. The 17th century earthenware, combed slipware, both of the white saltglazed stoneware and one of the creamware sherds were recovered from the first excavated context (cat. #1081) which includes surface material which could possibly have been contaminated. Of the remaining ceramics, three pearlware sherds were recovered from the brown sand with mortar encountered in the uppermost portion of the box. The underlying gray silt contained only the Oriental Export Porcelain sherd noted above.

The deposit beneath the level of the wooden box walls yielded seven creamware and two delftware sherds. An additional creamware sherd was recovered from the immediately-

underlying excavated context (#1198) which included the base of this deposit. The data indicate that the material within the box was deposited during the latter part of the 18th century, after the introduction of pearlware in the 1780s. The presence of two pipe stem fragments with #4 bores, one recovered from the brown sand and one from the basal deposit in the feature, also are consistent with a late 18th-century deposition of the box fill.

In addition to the rocks noted above, the box fill was characterized primarily by a high density of brick and mortar with low artifact and bone densities in both the brown sand and gray silt soil matrices. A moderate density of shell was also present in the gray silt. The orange and reddish brown sandy silt at the base of the deposit differed markedly from the above strata. While this deposit also had a high density of mortar, the brick density was dramatically lower, and the density of domestic artifacts and bone was dramatically higher. Twenty seven non-architectural artifacts and only one architectural artifact were recovered from this deposit.

The gray silt underlying the feature contained high densities of bone and vegetal material as well as wood and leather fragments, including portions of leather shoes. The majority of the vegetal material recovered consisted of cherry, walnut and peach. Hickory, and acorn were among other species present, and several fragments of coconut husks were also recovered. This deposit probably represents the river

bottom silts. Deposits identified as river bottom silt were encountered in TC AS, immediately north of TC AR, at approximately the same elevation.

The differences in construction between the TC AR box and those excavated in Lots 13 and 15 indicate that these features had different functions. The morphology of the TC AR box and the nature of the deposits within it suggest two possible functions. First, the box could have been installed and filled with rocks to serve as a structural support for a pillar or other architectural feature. With this interpretation, the deposits within the box would have been deposited at the time of its construction. This explanation does not account, however, for the differences between the basal deposit and the overlying portions of the box fill. A more likely explanation is that this feature was a privy which had been cleaned out after its period of usage. It is possibly that the privy pit stood open for a short time after it was no longer used and the basal deposit containing domestic refuse accumulated within it. The deposit of brick and stones filling the box would have been subsequently deposited when the structure with which the privy was associated was demolished. This may have been the same structure identified as structure #4 in the discussion of TC AT.

Approximately three and a half feet separated the south wall of the wooden feature from the stone wall that marked the southern boundary of TC AR. The deposits encountered include

a number of thin strata and lenses consisting of orange, tan, brown and gray silts and sands consistent with the appearance of the late 17th landfill deposits in some portions of the site. The soil in the uppermost portion of the excavation was described by the excavators as consisting mainly of yellow-brown sandy silts to a depth of four to nine and a half inches, with gray/brown and gray/rust colored sand below this to a depth of 10.5-13.5 inches. At this depth it became apparent that an area adjacent to the wooden south wall of the feature had been disturbed by its installation. This area is indicated on the profile drawing as #6, gray mottled sand. It extended to the base of the wooden feature and was excavated separately. A pit had seemingly been dug to install the feature, and the portion of the pit remaining outside the wooden walls was then backfilled.

The separately excavated material from the backfilled pit dug to install the feature yielded 36 ceramic sherds, 28 of them dated. These included one mottled-brown yellowware sherd. The manufacturing dates for this ceramic type are 1660-1750, but the type was most popular in the 18th century. The other sherds consisted of 17th century earthenwares, delftware and one slipware sherd. The ceramic assemblage suggests that the feature could have been associated with the early post-landfill structure. It was located slightly north of the rear wall of the main portion of this structure, which was exposed in the southern portion of TC N and AR. The feature would

have remained in use until the latter part of the 18th century, as discussed above.

The material recovered from the feature pit contained a high density of bone, artifacts and vegetal material. This may reflect the inclusion of redeposited river bottom silt in the pit fill.

The deposits which were encountered below 10.5-13.5 inches south of the disturbed area consisted mainly of tan, gray and gray brown silts mottled with orange silt in some areas to a depth of 17.5-21 inches, with dark blue/gray clayey silt being encountered below this to a depth of approximately 23-25.5 inches. This clayey material was apparently landfill, probably redeposited river bottom silt.

Due to a lack of time, the material below this level was excavated to a depth of approximately 38-39 inches without screening in order to expose the base of the feature. Photographs indicate that the stone wall may have continued somewhat below this depth. *why not provided?*

The profile drawings indicate that a deposit of organic gray silt began approximately two inches above the elevation of the base of the wooden feature wall. This appeared to be the same deposit of river bottom silt which was encountered beneath the feature.

The profile drawings and photographs suggest several possibilities regarding the construction of the stone wall, with the soil nearest the wall appearing to be different than

the soil further to the north. First, a wide builder's trench including the strata numbered 8, 13 and 14 may have been present. However, it should be noted that the site map indicates that the TC AR wall is aligned with the wall uncovered earlier in the excavation of TC N. There was no indication of a builder's trench in the latter test cut. It is also possible that a shallower trench (#13 and 14 on the profile) was excavated in river bottom silts, represented by #15 on the profile, to facilitate construction of the base of the wall prior to landfilling. Another possibility is that the strata indicated as #5 and #10, adjacent to the top of the wall, may have been associated with a reconstruction or repair episode. It should be noted that the base of the shallower wall exposed in TC AQ was at an elevation measured at only six inches below the base of stratum #10 as indicated on the profile drawing. It is possible, therefore, that the wall exposed in TC N and AR was constructed at the time of the landfilling, with the top portion being rebuilt and made wider during a later construction episode.

With the exception of the separately excavated, disturbed soil adjoining the feature, a total of 114 sherds, 68 of them dated, were recovered from the TC AR excavations south of the feature. Three of these sherds were inconsistent with the identification of these deposits as 17th-century landfill. One of these, a sherd of 18th-century, brown glazed Oriental Export Porcelain (manufacturing dates, 1720-1780) was

recovered from the gray/rust colored sand above the level at which the feature disturbance was recognized. This sherd could have derived from the pit dug to install the feature. One pearlware sherd and one creamware sherd were recovered from tan and gray mottled silt at depths below that at which the feature disturbance was separately excavated and consistent with strata #5 and #10 shown on the profile drawing adjacent to the stone wall. This would support an interpretation of the reconstruction of the top portion of the wall in the latter part of the 18th century. It is also possible that a portion of the material within the disturbed area adjacent to the feature was included with the adjacent strata and that these sherds actually originated in the disturbed area.

The yellow-brown sandy silt deposit was characterized by a higher brick/mortar density than the underlying strata while the gray/brown and gray/rust sand contained almost no brick and mortar with a high density of artifacts and bone. The tan, gray and brown silts also had a low building material density and a high ratio of non-architectural to architectural artifacts. The blue/gray clayey silt also had a fairly high density of domestic artifacts and a low density of building materials. Twenty vegetal fragments were recovered from this deposit, of similar types to those recovered from the river bottom silt beneath the feature. As noted above, the stratigraphy indicates that this deposit was probably

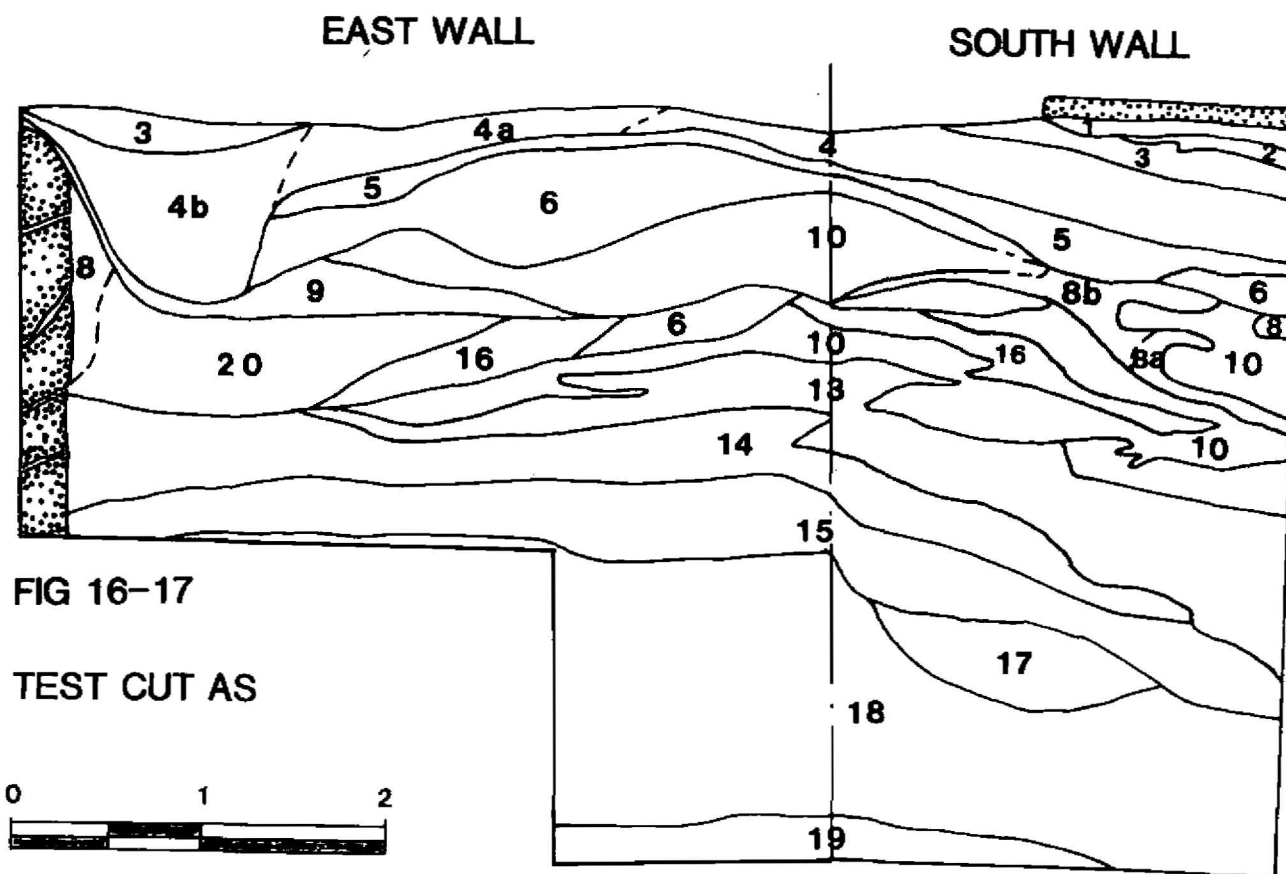
redeposited river bottom material.

There was a space of only some four-six inches between the north end of the wooden feature and the wall which marked the northern boundary of TC AR. This small area was excavated to a depth of approximately 18/20 inches. The strata shown in the profile drawings appear to match up with the landfill strata excavated in TC AS north of the stone wall, which proved to be only one course deep. Although the topmost excavated stratum in this portion of TC AR may have been associated with this wall, none of the artifacts recovered, which include only four dated ceramic sherds, are inconsistent with the identification of these deposits as the 17th-century landfill. A thin band of gray sand immediately adjacent to the wooden feature represents the backfilled pit dug to install the feature; it was also encountered south of the feature.

TEST CUT AS

Test Cut AS was the northernmost of the three test cuts which formed the "trench" placed to test the deposits in Lot 26*. The northernmost boundary of TC AS was placed just south of the location of the southernmost wall of the "patio" which occupied the center of Lots 9*, 10*, 26*, and 27*. The south wall of TC AS was located slightly north of another east-west stone wall (Figures 16,17). This wall was exposed in TC AR.

As noted in the introduction to this section, construction equipment had removed some of the deposits



Figures 16-17. Test Cut AS

1. coarse reddish-brown sand
2. brown sandy silt mottled with yellow
3. red silt mottled with yellow silt and flecks of red brick
4. light brown sandy silt flecked with charcoal
- 4a. light brown sandy silt flecked with charcoal and mottled with gold silt
- 4b. brown sandy silt flecked with charcoal
5. burned wood and metal
6. mottled brown and rust silty sand
8. mottled rust, tan, and brown sand
- 8a. tan sand
- 8b. mottled gray silt and rusty tan sand
9. gray-black sandy silt with charcoal
10. gray silt flecked with charcoal and brick
12. orange-rust sand
13. red sand
14. gray sand with leather
15. gray-rust sand and decayed wood
16. gray sand flecked with charcoal
17. reddish-gray sand
18. light gray silt and decayed wood
19. gray sandy silt with organic debris
20. grayish-red sand

underlying the most recent Lot 9 basement floor south of the "outbuilding" foundation prior to the archaeological excavations in this portion of the site. Transit elevations indicate that at the location of TC AS, excavation began approximately three feet ^e below the elevation of the basement floor. ✓

? depth in
relation to datum

The topmost one to five inches of the TC AS deposits consisted of a hard packed reddish brown sandy silty overburden formed after the exposure of the excavation surface. The landfill deposits began immediately beneath this overburden. It should be noted that the surface elevation at the location of TC AS is about the same as that at which the landfill deposits were encountered in TC N, located six feet north of TC AS and excavated before the removal of the deposits immediately underlying the Lot 9 basement floor. This is consistent with the interpretation of the deposits in TC AS below the overburden as landfill. As shown on the TS AS profiles, the landfill deposits at this location sloped downward from east to west, rather than from north to south as was the case in TC N.

The landfill deposits to a depth of roughly 18-24 inches below the TC AS datum contained pieces of what appeared to be burnt wood and sheets of rusted metal. The topmost portion of these deposits was browner and sandier while the material underlying was grayer and siltier. Immediately underlying this silty deposit was a stratum of reddish and orange/rust

colored sands, followed by a deposit of gray siltier sand. The gray silt which underlay these deposits probably represents the river bottom silt underlying the landfill. The river bottom silt was encountered in TC N, approximately six feet north of TC AS, at an elevation approximately one to one and a half feet lower than the top of this silt stratum. This is consistent with the downward slope of the river bottom away from the Pearl Street shoreline. This silt deposit was excavated only in the southernmost one foot of the test cut in order to expose the profile, and only the upper portion of this deposit was screened. The water table was encountered at 46 inches below the test cut datum and excavation terminated in the silt deposit several inches below this level.

The uppermost landfill deposits yielded 66 and 64 dated ceramic sherds, respectively, from the brown sandier and gray siltier material. The major difference in the ceramic assemblages from the two deposits is the presence of a greater percentage of combed slipware in the upper portion of the first deposit. However, the dates of manufacture of this ceramic type are ~~not~~ inconsistent with the identification of this deposit as landfill. Another difference in artifacts is the higher NA/A ratio in the siltier material, due mainly to the lower density of architectural artifacts in this deposit. Neither deposit had a particularly high density of building debris or faunal material. The deposits of red and

orange/rust sandy landfill which underlay this material yielded only 12 artifacts (a density of only 1.9/cu. ft.), only six bone fragments, 243 grams of shell, and no building material. Only one ceramic sherd (undatable) was present in this deposit. The immediately underlying deposit of gray silty sand was characterized by the presence of 150 pieces of leather, resulting in an artifact density of 70.7 and an NA/A ratio of 41.4 for this deposit. Only 10 dated ceramic sherds were recovered. The excavated portion of the underlying gray silt differed from the landfill deposits in this test cut mainly by having a higher density of building materials. No leather and only 14 dated ceramic sherds were recovered from this soil. However, only a small sample of this material was excavated. None of the excavated material was inconsistent with the identification of this stratum as either landfill or river bottom silt.

The northern portion of TC AS was adjacent to a fieldstone wall which underlay the southern wall of the Lot 9 "patio." Photographs show two large stone blocks on top of this wall. These blocks were set back somewhat from the south face of the fieldstone wall and are not shown in the TC AS profiles.

The base of the wall was reached in the sandy landfill deposits which overlay the river bottom silt in TC AS. It is unclear whether or not TC AS includes deposits which were associated with the construction of this wall. The excavators

noted a thin band of red sand immediately adjacent to the wall and extending only some three-eight inches from it. This band began approximately 12 inches below the test cut datum at the top of the wall) and ended at approximately 20 inches, above the base of the wall. This sand was excavated separately. It contained only two dated ceramic sherds of types (delftware and slipware) also found in the landfill deposits. No other diagnostic material was found in this soil. Photographs of TC AS show a deposit of red sand in the east wall profile which is cut through just north of the south wall of the test cut. This red sand is shown in the west wall profile as being cut off close to the stone wall. This red sand would correspond to the deposit indicated as #13 on the profile drawings. It is possible that this indicates a trench dug for the construction of the stone wall which was then backfilled with the same material. On the other hand, the difference between the red sand and the orange/rust colored sands, both of which overlay the red sand at the same depth close to the stone wall, could be due to the deposition of various lenses of landfill at this location. The overall profile morphology does not strongly indicate the presence of a wall trench. It should also be noted that none of the artifacts recovered from any of the deposits in TC AS are inconsistent with the period of deposition of the landfill.

The elevation of the top of the fieldstone wall is approximately two and four tenths feet below the top of the

brick south wall of the patio. This brick wall was apparently removed prior to excavation of TC AS. It is possible that the stone blocks atop the fieldstone wall served as a footing for the brick patio wall. The fieldstone wall may have been the wall of the earlier structure which was reused as a base for the rear wall of the outbuilding. The fact that the wall of a cistern underlay the northwest corner of the patio (see TC AN) makes it unlikely that the fieldstone wall was constructed specifically as the foundation of the patio. While this stone wall is apparently earlier than the brick wall of the patio it is not clear whether this wall was associated with the period of landfilling in Lot 26*, as were the walls encountered in TC N, AT and AR, or whether this wall was constructed at a later time.

TEST CUT AP

During the initial exploratory phase of the project, Backhoe Trench 12 was excavated towards the rear of the eastern portion of Lots 10* and 26*, approximately seven feet east of the eastern brick wall of the Lot 9 patio. We noted the presence of a feature in the west profile of the backhoe trench. The feature appeared to be bounded by decaying wood and filled with coal and cinder. The deposits within the feature were tested by TC AP, which was located so that its eastern boundary coincided with the west wall of Backhoe Trench 12. Test Cut AP extended three feet west of this point and extended four feet north-south (Figures 18,19).

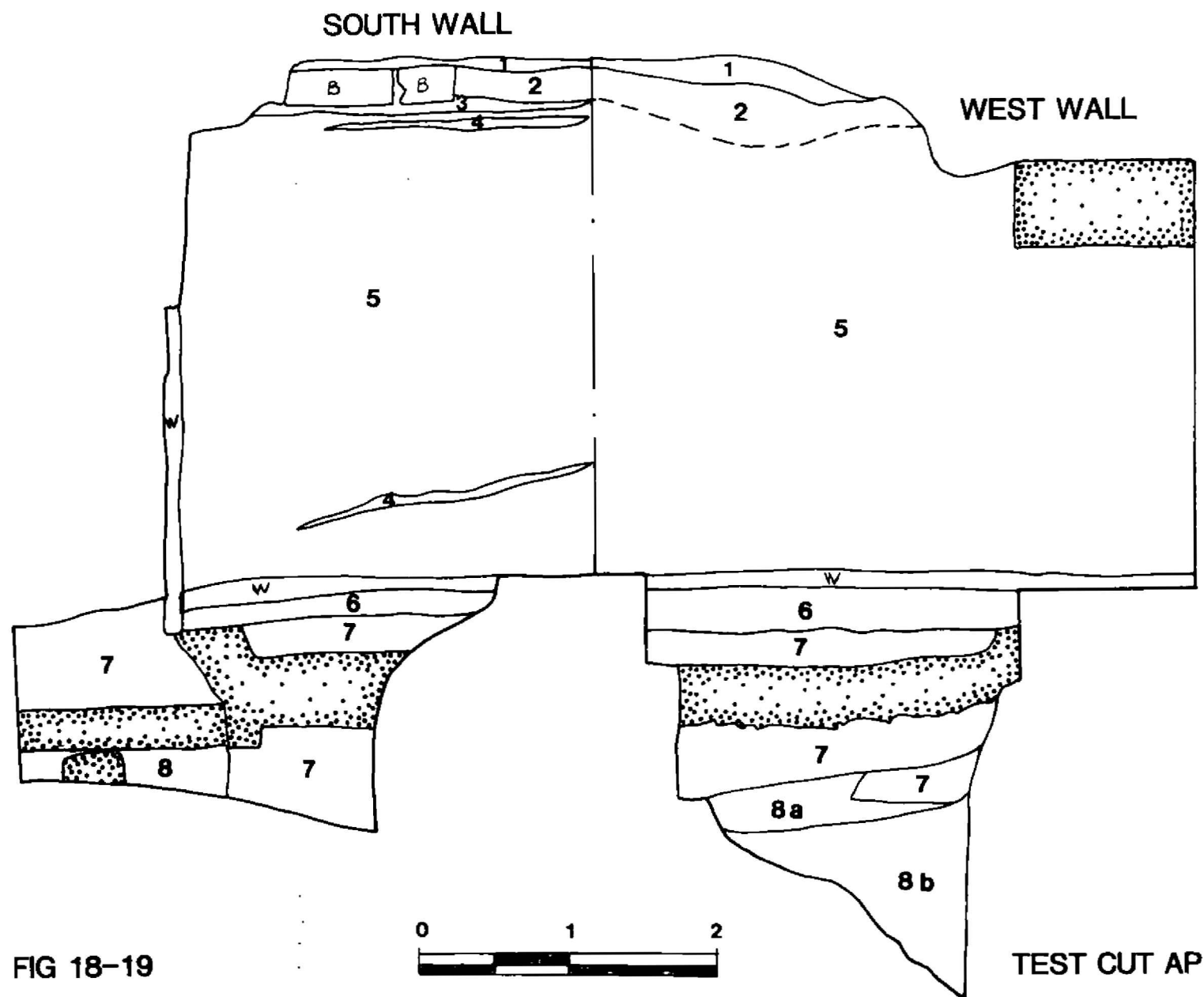


FIG 18-19

Figures 18-19. Test Cut AP

1. overburden
2. yellowish mortar mottled with gray and charcoal
3. pinkish-white sand
4. charcoal
5. grayish-brown sand with coal
6. hard-packed gray sand with mortar and charcoal
7. red brick
8. gray silt
- 8a. gray silt and brown sand
- 8b. mortar and gray silt

Backhoe Trench 12 had apparently grazed the eastern portion of the feature, the bottom portions of two vertical boards were exposed in the backhoe trench profile in the southern portion of the area excavated as TC AP. The boards had been removed by the backhoe immediately north of this, exposing the deposits within the feature. Excavation of TC AP indicated that there were areas of rusted metal in conjunction with the boards. These may have represented metal bands or straps which served to hold the vertical board sides of the feature together. It also appears that brick and mortar were poured outside of the cooperage to further support the feature. We attempted to follow the decaying wood stains on the surface adjacent to TC AP in order to determine the extent of the feature. However, the presence of a substantial amount of overburden and large stone slabs on the surface (and a lack of time) made it difficult to fully accomplish this.

South of the southern boundary of TC AP the feature curved to the west. Its southernmost extent appeared to occur approximately four and a half feet south of the southern boundary of TC AP. We were able to follow this southern portion of the feature wall to a point approximately five feet west of the backhoe trench. It is probable that the western portion of the feature was cut off by the construction of the patio and the northern portion may have been disturbed by the construction of a brick wall and associated stone slabs immediately north of the location of TC AP. It is difficult

to determine the size of the feature from the portion of the feature wall which was exposed. However, it appears to have been approximately oval in shape. Its east-west extent may have been approximately eight to ten feet and its north-south extent 12-15 feet.

The excavation of TC AP began approximately one to one and a half feet beneath the elevation of the most recent Lot 9 basement floor. The topmost two to four inches of excavated material appeared to consist of overburden deposited during clearing operations. The feature deposits were encountered immediately below this level. It should be noted that an area of stone slabs associated with a brick wall were encountered in the northern part of the test cut. The feature deposits began beneath these slabs. The brick wall appears to connect with the east wall of the patio, and is probably part of the same construction phase. The relationship between the slabs and the feature suggests that the feature was associated with the previous construction phase. One of the slabs in the northeast corner of TC AP was removed and excavation continued beneath it. However, the slab in the northwest portion of the test cut was too large and heavy to remove manually. This slab was left pedestalled, so that a portion of the feature deposits within the boundary of the test cut measuring approximately 14 inches north-south and 15 inches east-west remained unexcavated. The remaining portion of the feature contained about three feet of deposits. The floor of the

feature immediately beneath the deposits was reached at a depth of some 42 inches below the excavation surface and 33 inches below the test cut datum, which was located on the slab in the northwest corner.

The deposits within the feature were described by the excavators as a dark grayish brown silty sand with coal to a depth of approximately four to six inches below the test cut datum and as a mixture of grayish, yellowish and rust brown silty sand with coal below this. The test cut profiles, and the profile drawn of the west wall of the backhoe trench in the area of TC AP prior to the excavation of the test cut, indicate the presence of lenses of dark gray/brown, brown/black, and rust colored silty sand within the feature.

The northeast corner of the test cut contained an area of rust colored silt and decayed mortar. This apparently represents a portion of the mortar surrounding the feature outside its wooden sides. This material was excavated separately below a depth of nine inches.

The deposits within the feature yielded 426 ceramic sherds, 401 of which have been dated. Except for a single sherd of delftware, all of the dated sherds consist of creamware (203 sherds), pearlware (15 sherds), whiteware (178 sherds) and four sherds of 19th century brown bodied stone ware. The calculated mean ceramic date for these sherds is 1820.4. However, it is likely that the actual date of deposition was later than this. First of all, the ceramic analysts

noted that the creamware recovered from this deposit appeared to be 19th century "CC" ware (see Miller 1980) while other of the ceramics appeared to be similar to the 19th century ceramics classed as "Opaque Porcelain" (see Praetzellis et. al. 1980). The analysts noted that the ceramic assemblage appeared to date to the period c. 1840-1850. Furthermore, four of the whiteware sherds were transfer printed with colors (e.g. brown, purple) not widely used until the 1830s. In addition, three sherds with manufacturer's marks were recovered from context #1114. One of these had the fragmentary impressed inscription "...AD...ONE." The two others had a blue stamped mark bearing the name, "Ridgway." Both of these sherds show the left portion of the mark which consists of a depiction of a large building, apparently a pottery kiln, with the name "RIDGWAY" in a "ribbon" type border underneath. One of the sherds also has the inscription "IMPROV...GRANITE..." in the space between the kiln and the ribbon. Godden (1964:535) illustrates this mark. In the example shown by Godden the words "Improved Granite" are replaced by "Patent Iron Stone China." However, another mark shown by Godden from the same pottery uses the phrase "Improved Granite China." The mark is that of the Staffordshire potters Ridgway and Morley, Broad Street, Shelton Hanley. In the example shown by Godden, the words "and Morley" were included in the mark in the portion of the ribbon not present in the TC AP specimens. The mark is dated by Godden to the period 1842-1844.

Thus, it seems that the feature was filled after 1842. This date accords with the ceramic analyst's impression of the entire ceramic assemblage noted above.

Of the approximately 170 bottle glass fragments recovered from this deposit, all 136 of the datable fragments were manufactured during the 19th century.

The feature deposit yielded a total of 1449 artifacts, with a high artifact density of 46.9/cu.ft. The artifacts were divided fairly evenly between architectural and non architectural artifacts (NA/A=1.1) with most of the architectural artifacts consisting of window glass. One hundred and forty two bone fragments were recovered, but only 42 grams of marine shell. The deposit also yielded 15 peach pits. It is interesting to note that only one smoking pipe fragment was recovered from the deposit. While 15,255 grams of brick were recovered, the density was not especially high, 494 grams/cu.ft. As was expected from the appearance of the deposit a large quantity of coal, cinder and slag was recovered. Most of this material was burned. Two thousand eight hundred and eighty grams were classified as coal (unburned) and more than 73,000 grams as cinder and slag. Two thousand seven hundred and eleven grams of wood charcoal were also recovered.

The material within the feature may have been deposited over a period of time rather than in a single episode of dumping. This is suggested not only by the appearance of the

deposit but by variations in artifact densities with depth. There also appears to be some variation in the ceramic assemblage, with the material toward the top of the deposit having a greater percentage of creamware than whiteware, with material toward the base of the deposit having a preponderance of whiteware. Since the creamware consists of 19th century "CC" ware, this does not necessarily have temporal significance.

The mortar-y deposit excavated in the northeast corner of TC AP and associated with the construction of the feature contained mainly brick and mortar, with only 12 artifacts being recovered. These included three dated ceramic sherds, all pearlware (one annular-decorated). Although this is a small sample, it contrasts with the small percentage of pearlware within the feature and suggests that the excavated material was in fact associated with the construction of the feature. The presence of the annular pearlware sherd would date this to after the introduction of this ceramic type c. 1790.

After the deposit within the feature was excavated, we removed its wooden floor. The floor was constructed of wooden boards approximately one inch thick, oriented north-south and connected with wooden dowels inserted into holes drilled horizontally into the edges of the boards. One east-west oriented board overlying the floor boards was exposed within the boundaries of TC AP. It was attached to the floor boards with metal bolts, and apparently served, with others outside

the test cut boundaries, to hold the floor together.

The wood was removed within the bounds of TC AP except for an area of approximately six inches extending outward from the west and south walls of the test cut. Roughly three inches below the wooden floor (floor layer #1) was another floor consisting of a single layer of brick (floor layer #2). The material between the floors was described as mortar and yellow brown silty sand, which may represent decayed mortar. There was little besides mortar in the material. Eight domestic artifacts were recovered, including four glass fragments, a straight pin and three ceramic sherds, two of which were creamware. The analysts did not note whether this was "CC" ware, or the earlier form of creamware. One of the creamware sherds was transfer printed. If this were the earlier form of creamware, rather than the later "CC" ware, it would not have been manufactured after 1815. This would be consistent with a late 18th-early 19th century date of construction for the feature.

After the brick floor, which was bordered by mortar and underlay the wooden sides of the feature was removed, an underlying "floor" composed of stone set in mortar (floor layer #3) was exposed. The material removed with the brick floor yielded one pearlware sherd. This may have come from the material beneath the floor or from the mortar bounding it. The pearlware sherd was sponge decorated, a type of decoration more frequently found on whiteware. The stone and mortar

floor (#3) was approximately five to six inches thick and beneath this were an additional two courses of brick set in mortar (floor layer #4). The mortar used in the construction was quite unusual in that it contained not only shell, but straw, cotton, and a coarse buff-colored fabric.

Before excavation of TC AP was completed, the unit was extended to the east to permit excavation of the material below the floor of Backhoe Trench #12. This permitted us to more fully observe the details of feature construction, as shown in the south wall profile of TC AP. Soil removed from the test cut extension was not screened. It appears that, as observed in the northeast corner of the original TC AP boundaries, brick and mortar had been laid against the outside of the wooden walls of the feature. The brick and mortar extended some six inches below the wooden sides of the feature and extended slightly beneath the feature itself, abutting stone floor layer #3. This brick and mortar rested on a base of cut stone which abutted the base of floor layer #3. The lower brick floor layer #4 only underlay the feature and did not extend outside its boundaries.

A portion of the brick and mortar beneath the wooden feature sides was excavated within the original bounds of the test cut. The excavators noted the presence of brown sand, possibly decaying mortar, among the bricks. This material yielded three dated ceramic sherds. These include one sponged pearlware sherd of the type noted above, one creamware sherd

and one 17th century-type green/ginger glazed redware which may have derived from the underlying deposit. The ceramics recovered from the brick/mortar supporting the walls of the feature support the inference of an early-19th-century date of construction.

The soil encountered immediately beneath the feature floor consisted of brown, red and gray sand lenses. The small portion of this material which was sampled yielded eight ceramic sherds. Six of these were non-dated redwares and two were delftware. Two smoking pipe fragments (one with a #6 bore) and a black chert gunflint were also recovered. The artifacts are consistent with identification of this deposit as a portion of the late 17th-century landfill. Below this stratum, we encountered gray clayey silt which appeared to slope downward toward the south. The only ceramic recovered was a single sherd of delftware. A lump (1051 grams) of coral was also recovered from this deposit. The unscreened portion of this stratum from the extension of TC AP east of its original boundary yielded another delftware sherd, as well as a nearly complete smoking pipe with a rouletted rim and #8 bore. A shoe sole was also recovered. These artifacts are consistent with the identification of this deposit as the pre-landfilling river-bottom silt.

The feature sampled by test cut AP most likely functioned as a large cistern, probably serving the structure which stood on Lots 26* and 27*, fronting on Water Street, in the 19th

century. The feature was of cooperage construction, supported by a brick and mortar "wall" and underlain by a thick floor to prevent leakage and to support the weight of the water. It should be noted that the remains of a cistern which probably served the boarding house(s) which fronted on Pearl Street (Lots 9* and 10*) during the same period was encountered in TC AN. The floor of the Lot 26*/27* cistern was approximately three feet below the elevation of the Lot 9*/10* cistern floor. The period of use of the cistern excavated by TC AP apparently ended before the demolition of the structure with which it was associated. This probably occurred after the introduction of running water to lower Manhattan. Thus the major fill within the structure consisted of domestic trash and furnace debris from the boarding house(s). It is likely that the material in the feature was deposited within a relatively short period of time, between the introduction of running water and the demolition of the structure with which the feature was associated.

TEST CUT AU

Test Cut AU, measuring three by three feet, was placed so as to test the deposits within the Lot 9 patio area. It was located just north of the Lot 10*/26* boundary line and its eastern boundary was less than one foot west of the east wall of the patio. Approximately one and a half feet of deposits had been removed between the latest Lot 9 brick floor and the surface from which the excavation of TC AU began.

Examination of profile drawings and photographs of TC AU (Figures 20,21,22,23) indicates that the basal portion of the wall of a circular brick feature had at one time been present in the western portion of the area included within the excavation unit. The northern profile shows three courses of brick in the westernmost 18 inches of the north wall of TC AU, beginning at a depth of eight inches below the test cut datum and ending at 16 inches. Photographs indicate that this wall curved outward slightly. The remnant of this wall protruded some eight inches southward into the excavation unit. A single brick protruding from the south wall of TC AU at a depth of 12 inches may have been associated with the wall of the feature.

There were a number of rocks present in the west portion of the unit and a row of these is shown in the western profile at approximately 19-25 inches below the TC AU datum. Since this feature did not have a floor, it may have functioned as a privy.

A second feature was also uncovered in TC AU--a U-shaped brick structure in the center of the unit. The tops of the bricks forming the sides and back of the "U" were encountered 12-15 inches below the test cut datum. The structure was oriented so that it ran from slightly north of west to slightly south of east. It was approximately two feet wide as measured on the outside of the arms of the "U" and about 12 inches wide inside the arms. The westernmost extent of the

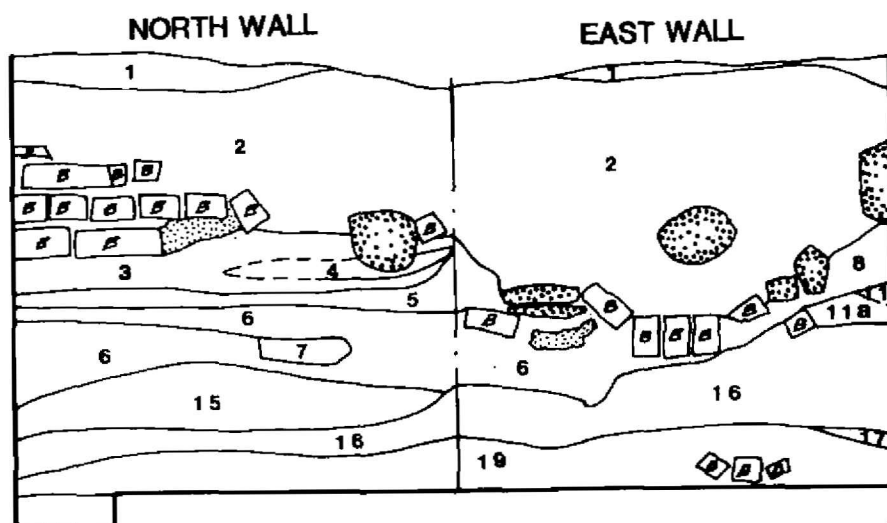


FIG 20-23

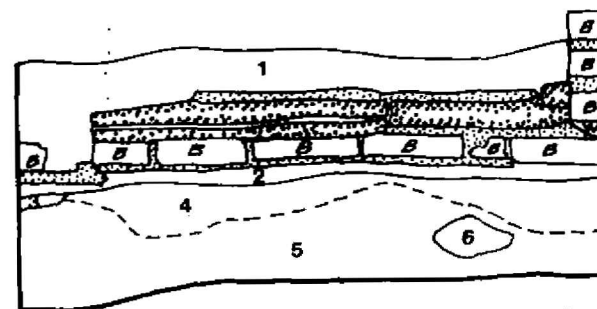
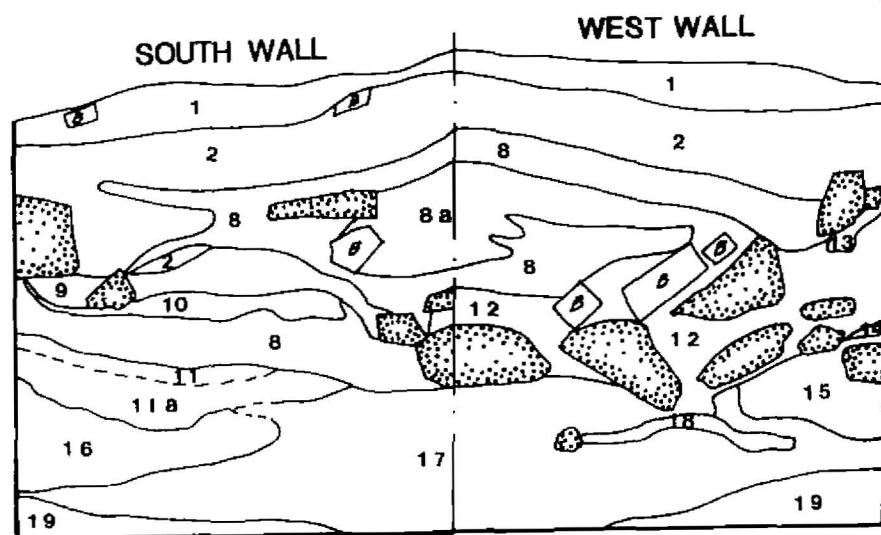


FIG 4

TEST CUT AN

TEST CUT AU



SOUTH WALL

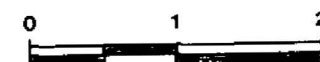


Figure 4. Test Cut AN

1. brown sandy silt with rubble
2. wood stain
3. grayish-tan clay
4. red-brown sand mottled with gray and yellow silt
5. red sand
6. dark gray silt

Figures 20-23. Test Cut AU

1. light brown sand with brick fragments
2. dark brown and gray sandy silt with brick, stone, and charcoal
3. decayed wood
4. light brown silty sand
5. reddish-brown sand mottled with gray
6. mortar with light brown sand and brick
7. pocket of light brown sand
8. gray silt with decomposed shell and charcoal
9. reddish-brown sand
10. gray silt with decomposed shell and charcoal
11. light gray sandy silt with some red sand
- 11a. light gray sandy silt with more red sand
12. dark brown sandy silt
13. pocket of gray sand
14. red-brown sand mottled with gray
15. gray sandy silt with mortar and shell
16. charcoal with gray sand and shell
17. reddish-brown sand
18. gray silt with some sand
19. gray-brown silty sand with mortar and shell

base of the "U" was two feet west of the east wall of the excavation unit. At a depth of approximately $21\frac{1}{2}$ inches a brick trough covered with mortar was exposed between the arms of the "U," running eastward to the east wall of the test cut. The trough is shown in the TC AU east wall profile. From its morphology, we can infer that this feature probably functioned as a catch basin and drainage trough.

The most likely explanation of the stratigraphy encountered in TC AU is that a pit was dug sloping downward from west to east, beginning just east of the TC AU west wall, resulting in the removal of the east wall of the circular feature. This pit was dug to install the catch basin and trough. Both of the features were probably associated with building phases which preceded the one associated with the patio. When the building associated with the circular feature was demolished, the rocks may have been deposited in the bottom of the feature. In association with the construction of the next building phase, the pit was dug to install the catch basin and drainage trough. When the building associated with the trough was demolished, the material which overlay both the trough and the stones at the bottom of the feature was deposited. Both of the prior building phases probably preceded the construction of the patio. The floor of the patio was probably located above the level at which excavation of TC AU began. Since no floor of this patio was encountered during backhoe clearing operations, it probably was removed

during later construction episodes.

The uppermost two to five inches of the excavated deposits consisted of brown sandy soil which was most likely disturbed prior to the beginning of excavation of TC AU. The underlying soil was described as "brown silty sand with black coal-y areas" to approximately 9.5-14 inches and "light brown silty sand with black coal-y areas and mortar" below this to approximately 17/19.5 inches. Both of these deposits were characterized by high densities of brick and mortar, and except for a slightly higher density of building materials in the lighter soil, the artifactual content of the two soil types was similar. These deposits yielded approximately 7500 grams of coal. Among the non-architectural artifacts recovered were two fragments of a circular blue glass, multifaceted bead, and a plummet-shaped piece of dressed stone (for jewelry), pink/light gray in color, recovered from the base of the lighter soil. These deposits yielded 37 dated ceramic sherds, of which 16 were whiteware and two, 19th century yellowware (initial manufacturing date--1820) Ten of the sherds were pearlware, five of which were sponge-decorated, a type also recovered from TC AP. The other sherds included three delftware, two monochrome slipware, two creamware and one Nottingham-type gray salt glazed stoneware. The mean ceramic date for these sherds is 1820.5 for the upper part of the deposit and 1804.7 for the lower part. The combined mean ceramic date is 1813.7. However, the presence

of the high percentage of whiteware and yellowware, as well as the sponge-decorated pearlware, suggest a later date of deposition.

The base of the deposit in the extreme western portion of TC AU, within the demolished circular feature, was excavated separately between 18.5/19.5 and 21 inches below the TC AU datum. Only two dated ceramic sherds were recovered. One of these was pearlware and the other French delftware (manufacturing dates, 1775-1825). The material recovered was largely brick and mortar, with a few pieces of window glass and metal. The nature of this material is consistent with the identification of the deposit as demolition debris deposited after the period of use of the feature.

Four dated ceramic sherds were recovered from the soil associated with the removal of the brick trough and catch basin. One of these was creamware, two pearlware and one European-style overglaze decorated Oriental Export Porcelain (manufacturing dates 1750-1840).

The soil excavated adjacent to the catch basin and trough before its removal, and below the feature after its removal consisted of brown and gray silt. This soil may have filled the pit dug for the installation of this feature. This soil yielded 10 dated sherds. Nine of these were delftware and one was Oriental Export Porcelain. It is possible that this soil is redeposited landfill. That is, the landfill may have been excavated and then backfilled in the process of constructing

the feature. It should be noted that this material did not contain 17th-century earthenwares, which were present in the excavated sample of the underlying landfill/river bottom silt deposits. The difference in the two deposits may, however, be due to sampling error.

The soil excavated beneath the deposits within the circular brick feature in the west wall of TC AU consisted of reddish-brown sand. The stratigraphy suggests that this may represent the late 17th-century landfill. This soil was nearly completely sterile. One delftware sherd was recovered from the deposit.

After the red sand in the west part of TC AU and the gray silt underlying the catch basin and trough were removed, the soil within the entire area of TC AU consisted of gray sandy silt with charcoal and shell. Eleven dated sherds were recovered from this deposit. Nine of these were 17th century-type earthenwares and two were delftware. This stratum represents either the landfill or the pre-landfill river bottom silts. The stratum contained high densities of bone and marine shell.

LOTS 9&/26*/27*--SUMMARY

The Livingston papers contain an agreement between Livingston and Capt. Teunis DeKay dated October 6, 1696 which is relevant to the earliest events on Lot 26* as well as Lot 10*. According to the agreement

The sd. Capt. Teunis DeKay doth promise and engage to fill up the sd. Livingstones Lott with sand or other

earth which lyes opposite to the house that Mr. Lurting lives in and the house of Andries Teller which Lott contains in bredth Six & forty foot & two inches English measure and in lenth from the street to the dock being about one hundred & six & thirty foot or thereabouts.

The said Lot is to be filled up as high as the Dock now is, the sd. Livingston is to lay the foundation of both his houses and kitchin that is of his house toward the street this fall and the (other) towards the Dock next summer.

The sd. Capt. DeKay is to fill up hour foot between the dock and the wall of his house the whole bredth with mudd putting boards between the dock and sd. mudd to klipstin but the sd. Livingston is to furnish the boards.

This agreement tells us several things. First although some previous filling may have been done by the previous owners of the lot, the agreement envisions practically the entire width of the block as being filled by DeKay. Thus, there would not necessarily have been a fill retaining structure at the location of TC N, as we expected, based on the terms of the water lot grants. The agreement also indicates that two houses were to be built on the filled land. The first, "toward the street" is the house whose foundation walls were exposed by our excavations on Lots 10* and 11 (see below). The second house, apparently built shortly after the first, was the house "towards the Dock." The west wall of this house was apparently the fieldstone wall exposed by TC AT and AQ. The north, or rear wall of the house was exposed in TC AQ and N. This wall was cut off just east of the TC N location by 20th century construction, but it must have continued eastward into Lot 25, which was part of the Livingston lot. During the last phase of the excavations,

after the excavation of TC N was completed, backhoe clearing exposed the top of another north-south fieldstone wall just west of the location of TC N. This was apparently the wall of the kitchen extension of the house, the morphology of which was apparently the same as the Lot 10*/11 house. This wall would have also extended to the east into Lot 25. It would appear that the depths of the kitchen extensions of both houses were the same.

The agreement indicates that the walls of the early houses served also to hold the fill. The walls were built first and then the fill was deposited. The archaeology on the north side of the block confirmed this and the results of excavation of TC N and TC AR suggest that the walls of Livingston's Water Street house also served to retain fill.

The agreement indicates that the second house was to have been constructed in the summer of 1697. The 1699 tax lists suggest that Miles Forester was a tenant in this house and a letter from Forester to Livingston dated in that year complains about the unfinished condition of the house. Livingston's will dated 1710 leaves this house "on the dock fronting the East River" to Johanna Van Horne.

The wooden "privy" excavated in TC AR may have been constructed during the period of occupation of this house, although it was apparently installed after the filling was completed. The privy was located just north of the rear wall of the main portion of the house and west of the kitchen

extension.

The fieldstone wall which appeared to underlie the south wall of the patio in Lot 26* may have been the foundation wall of an outbuilding associated with the period of Livingston's ownership of Lots 10* and 26*.

The fate of the Livingston house is uncertain as the 1706 tax records refer to Livingston's sheds and backhouses" on Lots 25 and 26*, and the larger structure does not seem to be shown on the 1717 Burgis view. By the time that Stephen Bayard acquired Lot 26* in 1734, the larger Livingston structure was apparently no longer standing since Bayard's purchase did not include Lot 25. It could be that portions of the Livingston foundation were reused, however, and it is possible that the wooden privy in TC AR was constructed in the early 18th century, after Livingston no longer owned the lot.

A 1784 deed refers to a "gangway" in common on the east side of Lot 26*, and it is possible that a similar "gangway" was located between the structures on Lots 26* and 27*. The trough uncovered in TC AQ, apparently associated with an 18th century structure, may have been located in such an alley.

The early-mid 18th century structures which stood on Lots 26* and 27* seem to have been demolished in the latter part of the 18th century or early years of the 19th century. The feature whose basal portion was uncovered in TC AT was associated with a late 18th century structure. Its position with respect to the location of Water Street indicates that

this was probably not a "backyard" feature, but rather was located either in an alley between Lots 26* and 27* or possibly in the basement of a structure. This structure may date to the period of ownership of the lot by John Oothout, who bought the property c. 1785.

Debris from the demolition of an 18th-century structure apparently was used to fill in the wooden box in TC AR, and the trough in TC AQ. The construction of the next structure on these lots probably involved the construction of the Lot 26*/27* "boundary wall," and perhaps the reconstruction and reuse of the rear wall of the late 17th/early 18th structure in Lot 26*. This structure was probably the one which served as the Varick residence until 1819. The brick floor uncovered at the location of TC AQ may have been associated with this building, as it was not found in TC AT, in Lot 27*. The Lot 27* structure of this period is probably the one occupied by Elting and Manley from the 1790s through 1820.

The large cistern sampled in TC AN seems to date to the period when the Lot 9* and 10* structures were combined. The documentary research indicates that two boarding houses on these lots were operated under joint management from 1812-1824, before being combined into the Pearl Street House in 1824. While this cistern almost certainly served the Pearl Street House, the ceramics recovered from below its floor suggest the possibility that it was constructed during the preceding period when the two boarding houses were under joint

operation.

While Lot 26 was apparently incorporated into the Pearl Street house at its inception in 1824, the documentary research indicates that the structure on Lot 27* was not incorporated into the Pearl Street House until the early 1830s. It seems that the large cistern tested by TC AP may have been constructed before the incorporation of the Lot 26* structure into the Pearl Street house, but it almost certainly served the latter establishment. The feature exposed in the western part of TC AU, presumably a privy, may have been constructed during the period of use of the cistern, but more likely it dated to the preceding period of construction. The "drainage trough" exposed in TC AU may have actually served to channel water into the cistern.

The wood floor exposed in the profile in the southern portion of Lots 26* and 27* suggests that the buildings on lots 26* and 27* were modified, with the construction of a common basement floor, after these structures became part of the Pearl Street house in the early 1830s. Apparently the Pearl Street house consisted of two separate structures, one fronting on Pearl Street and the other on Water Street, with the two large cisterns serving the two respective buildings. At this time the rear wall of the building fronting Pearl Street would have been north of the location of TC AN and the rear wall of the Water Street building would have been south of the location of TC AP, perhaps the wall shown on the map

as (A6). There would have been a large backyard area between the two buildings.

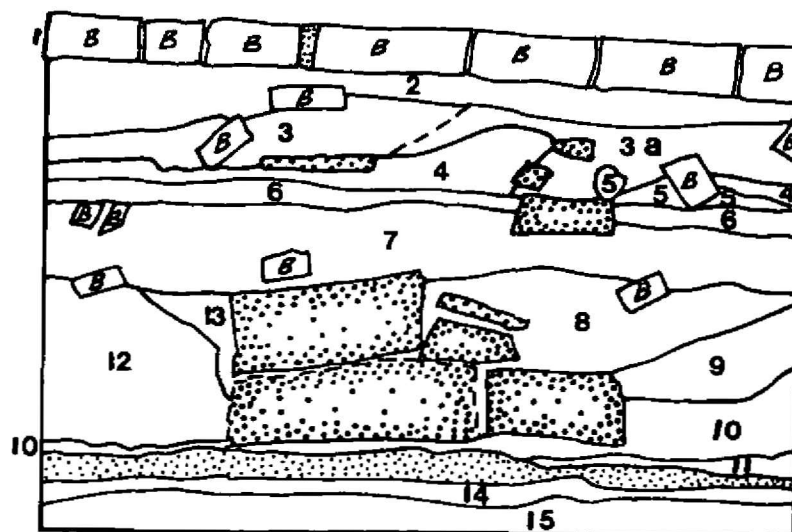
The documentary research indicates that after the fire of 1835, the Water Street buildings may not have functioned as part of the Pearl Street House. However, the large backyard area must have remained, as we know that the TC AP cistern probably continued in use into the 1840s. The Pearl Street House property was sold c. 1840 and the buildings were apparently once again operated as a hotel. It is likely that the period of use of the two cisterns ended following the availability of piped-in water after the completion of the Croton Aqueduct in 1842. Since the large backyard areas were no longer needed for cisterns and privies, a reconstruction of the buildings probably took place at that time. The rear walls of the structures fronting Pearl and Water Streets abutted with the open patio area being left in the center of Lot 9. The Perris Atlas dated 1855 still shows a courtyard in the center of the block which is approximately the same width as the patio but only about half as long. This indicates that further alterations to the structures on Lot 9 had probably occurred after the change in ownership of the lot which occurred in 1852. The final building phase probably occurred subsequent to the sale of Lot 9 to New York Warehouse in 1862. Construction of the common brick basement floor probably dates to this period. The 1867 Dripps map shows a single structure on the lot.

CERAMIC DEPOSIT--LOT 27***TEST CUT AO, SHOVEL TEST 16, SHOVEL TEST 22**

During the exploratory phase of the project, Shovel Test (ST) 16 was placed in Lot 27* approximately five feet west of the Lot 27*/28* boundary wall, in line with the stone wall uncovered in TC J in Lot 28. The objective was to determine whether the stone wall extended eastward into Lot 27* (Figure 24).

At the time ST 16 was excavated, clearing operations had removed the brick floor of the latest building in Lot 9, a large hotel which stood on the former Lots 9*, 10*, 26* and 27*. The shovel test was placed just south of the point at which the floor was still undisturbed so that the north profile of ST 16 shows this floor. Because of the clearing operations, excavation of ST 16 began some 12 inches below the level of the brick floor.

Shovel Test 16 did not encounter the stone wall uncovered in TC J. However, it did reveal a dense deposit of ceramics in a matrix of red/light brown sand. The shovel test, which measured approximately two by two and a half feet, yielded a total of 19,062 ceramic sherds, discussed below in further detail. In addition, the western part of the shovel test encountered a number of stones which seemed to be part of a wall. There also appeared to be a stone wall in the eastern portion of ST 16. The ceramic deposit was excavated to its base at a depth of 30 inches below the brick floor.



NORTH WALL

FIG 24

TEST CUT AO



Figure 24. Test Cut AO

1. brick floor
2. reddish-brown fine silty sand
3. yellow sand (decomposed mortar)
- 3a. gray-brown silty sand
4. light gray-brown silty sand
5. charcoal
6. light brown silt
7. light brown sand with mortar
8. light brown silty sand
9. reddish-brown sandy silt
10. light brown sandy silt
11. dark brown silt
12. rust brown sand
13. gray-brown sandy silt
14. hard-packed red (decomposed rock?)
15. brown sandy silt with brick and stone

During the mitigation phase of the project, we decided to obtain a larger sample from this deposit. ^{Why?} Therefore, TC AO, measuring four by six feet, was placed so that the area excavated as ST 16 was located within the bounds of the test cut, in the east central portion.

The northernmost one and a half feet of TC AO began at the top of the brick floor. The excavation of the southernmost four and a half feet, in the area in which the brick floor had previously been removed by the backhoe, began approximately 16 inches below the brick floor.

Excavation of the northern portion of TC AO began with the removal of the brick floor and underlying red/brown sand. At a depth of about six/ten inches below the brick floor, a stratum of light brown silty sand and decayed mortar was encountered. Below this stratum, at a depth of approximately 10/12 inches below the brick floor, we encountered the remains of a burnt and decayed wooden floor. A stratum of light brown sandy silt with mortar underlay the burnt wooden floor followed by a stratum of tan coarse sand beneath which was a layer of dark brown silty sand with rocks. As this level was excavated, it became clearer that the rocks were concentrated in the western part of the test cut, and it was these rocks which had been encountered in ST 16.

In the eastern portion of TC AO, a deposit of red/brown sand was encountered below the dark brown sand at a depth of 18/20 inches below the brick floor. This soil contained the

major portion of the ceramic deposit. The red/brown sand continued beneath the rocks in the western portion of the test cut at 23/24 inches below the brick floor. Beneath the red/brown sand a small lens of black sandy clay, also containing ceramics, was encountered in the northeast corner of the test cut. The red/brown sand and clay lens ended at approximately 28/30 inches beneath the brick floor. Beneath this deposit we encountered a mortar floor. At this point we had reached the base of two low stone walls which bordered TC AO on the east and south sides. Each of these consisted of two courses of cut stone slabs. The walls ended at the level of the mortar floor.

We removed the mortar floor in the northern portion of TC AO. A one-half to one inch-thick deposit of hard packed reddish material, possibly decomposed stone, which is shown in the north wall profile was removed with the mortar. Beneath this, we encountered a two inch-thick deposit of brown sandy silt. The soil below this consisted of red sand and a light and dark brown mottled silt, which was not excavated.

Examination of the west wall of TC AO indicated that a thin deposit of ceramics (several inches in thickness) continued to the west. A probe 14 inches west of the west wall of TC AO indicated that the deposit extended to this point. A probe south of the southern stone wall of TC AO confirmed that the stone walls bounded the ceramic deposit on the east and south.

The north profile of TC AO indicated that the ceramic deposit, approximately 11 inches thick at this location, continued to the north. Therefore, we placed ST 22 north of TC AO, at first leaving a two foot baulk between TC AO and ST 22. Excavation of ST 22 involved the removal of the deposits above the ceramic deposit, and above the associated area containing rocks, as a single unit.

The ceramic deposit and the stone wall on the eastern side of TC AO ended just north of the baulk (i.e. approximately two feet north of the northern wall of TC AO). The disturbed area with rocks in the western portion of TC AO apparently continued northward into ST 22. This deposit in ST 22 yielded 312 ceramic sherds. However, the northeastern portion of ST 22 consisted of a deposit of reddish silt which was never part of the ceramic deposit. It is apparent from a photograph of the north wall of ST 22 that the darker silt with rocks and rubble in the western portion of the shovel test was intrusive into the earlier deposit of reddish brown silty sand. The southern portion of ST 22 and the northern portion of the baulk area also contained a deposit of rocks extending in an east/west direction. The excavator noted that there were three courses of rocks between 17 and 36 inches below the TC AO datum. These rocks may have represented the remains of a stone wall which defined the northern boundary of the ceramic deposit. The western portion of this wall was apparently disturbed by the intrusive event mentioned above.

Ceramics and Other Artifacts

A total of 36,146 ceramic sherds were recovered from TC AO, ST 16 and ST 22. The mean ceramic date calculated for the 35,788 datable sherds was 1800.5. Of the 36,146 sherds, 25,780 were recovered from the sandy matrix which represented the undisturbed ceramic deposit. All but 97 of these sherds were dated, their mean ceramic date being 1800.9. Of the dated sherds from this deposit, 41.9% were creamware and 53.4% pearlware, with 3.9% Oriental Export Porcelain and .7% classified as "mid-18th century types." These latter consisted of 102 sherds of "Jackfield" type red earthenware (1740-1780), 82 sherds of engine turned stoneware (1763-1775) and one sherd of black basalt stoneware (1750-1820). Nine hundred and seventeen of the 1,012 porcelain sherds were "18th-century" overglaze decorated types. In addition to the above, the deposit yielded seven delftware sherds and two 19th-century whiteware sherds. Although only two of the pearlware sherds were transfer printed, 8,678 sherds were underglaze polychrome decorated. This type has an initial manufacture date of 1795, suggesting that accumulation of the deposit began after this date. (Forty additional sherds were annular decorated pearlware with an initial manufacturing date of 1790, compared to an initial date of 1780 for plain pearlware.)

In both TC AO and ST 16 two levels were excavated within the ceramic deposit. In the case of TC AO, the uppermost

level had a later mean ceramic date than the lower level, 1800.5 (5,557 dated sherds) as opposed to 1798.3 (4,341 dated sherds). However, in ST 16 the upper level had an earlier mean ceramic date, 1800.4 (5,024 dated sherds) than the lower level (1802.5 for 10,741 dated sherds). Since there are substantial quantities of underglaze polychrome pearlware in both levels (46% of all pearlware sherds in the lower level of TC AO and 72% in ST 16 are underglaze polychrome and 48% and 68%, respectively in the upper levels are of this type), it is unlikely that accumulation of the deposit began before 1795. In addition, the data suggest that the deposit accumulated during a relatively short period of time. The greater percentage of underglaze polychrome pearlware in ST 16 than in TC AO and the later mean ceramic date for ST 16 (1801.8) than for TC AO (1799.5) suggests the possibility that the deposit accumulated horizontally rather than vertically.

In both TC AO and ST 16 a single whiteware sherd was recovered from the topmost level of the ceramic deposit. The sherd from ST 16 was decorated with a type of transfer printing not common until after 1830 and was most likely intrusive in the deposit. The fact that more whiteware was not present indicates that deposition most likely did not continue much past 1810, the initial date of manufacture of whiteware.

Nine creamware plate bases recovered from the ceramic deposit contain the makers mark "D.D. & Co. Castleford

Pottery." According to Chaffers (1946) and Thorn (1947), this mark was used by David Dunderdale between 1790 and 1820, which would accord with the dates of deposition calculated from the other ceramic evidence. One creamware sherd from the material excavated beneath the baulk had the impressed mark "Herculaneum." This mark was used by the Herculaneum pottery between its founding in 1796 and 1841.

The ceramic evidence cited above indicates that deposition of the material coincides with the period during which a ceramics shop was known to be present on Lot 27*.

One hundred and seventy-three ceramic sherds excavated below the mortar floor which underlay the ceramic deposit yielded a mean ceramic date of 1798.3. The ceramics suggest that the mortar floor was constructed during the same period in which the ceramic deposit accumulated, probably after the building on this lot began to be used as a ceramics shop.

The soil associated with the disturbed area in the western portion of TC AO yielded 1,002 ceramic sherds, 988 of which were dated, with a mean ceramic date of 1797.1. The earlier date than that of the undisturbed deposit is due mainly to the higher proportion of creamware than pearlware in this deposit than in the undisturbed deposit since creamware has an earlier mean date of manufacture. The absence of whiteware in this deposit suggests that the disturbance took place shortly after the deposition of the broken ceramics.

The soil deposited below the burned wooden floor and above the ceramic deposit in the eastern portion and the disturbed deposit in the western portion of TC AO yielded 458 sherds with a mean ceramic date of 1799.2, based on 438 dated sherds. This deposit had a higher percentage of creamware than the lower deposits, accounting for the earlier mean ceramic date. However, unlike the lower, disturbed deposit, this assemblage contained 10 whiteware sherds (two point two percent of the dated sherds) suggesting deposition of this material subsequent to 1810. In addition, the rubble between the brick and wood floors, deposited later, contained no whiteware sherds, and has an earlier mean ceramic date (1794.8 based on 365 dated sherds) than the underlying deposits. This earlier date is also due to the higher percentage of creamware, with 59% of the deposit consisting of this type.

In ST 22, the brown and dark brownish gray sand silt removed with the rocks in the western part of the shovel test yielded 16 whiteware sherds of a total of 301 dated sherds (five point two percent). Fifteen of these are transfer printed sherds manufactured after 1830. This suggests that this may not be the same disturbance as noted in the western portion of TC AO, and may have occurred later. Another possibility is that the whiteware sherds may have originated in the overlying rubble, which was shoveled out in ST 22. The soil removed from the baulk area in ST 22 yielded 4,716 sherds, 4,543 of which were dated with a mean ceramic date of

1799.2. Most of these sherds probably originated in the undisturbed ceramic deposit.

We suggest that the ceramic deposit represents breakage from a ceramic shop which stood on Lot 27* (see below). This suggestion is strengthened by the relative paucity of other artifacts. In contrast with the 25,780 sherds in the undisturbed portion of the deposit excavated in TC AO and ST 16, only 380 other artifacts were recovered (one percent of the total). Most of these artifacts (283) consist of bottle and table glass. The table glass (154 pieces) could also have been breakage from the shop. Sixty nine of the 129 pieces of bottle glass were dated to the period 1780-1810/30, with 29 other mold-made pieces dating to the post-1800 period. The material excavated from the TC AO/ST 22 baulk area yielded 40 additional pieces of bottle glass dated to 1780-/1800/30 and 29 mold-made pieces dated post-1800. These dates are consistent with the ceramic evidence. Only 42 artifacts in the clothing and personal ornament category, one smoking pipe fragment, one button and 40 glass pocket flask fragments were recovered. The latter could have been sold in the glass and china shop. Only 55 architectural artifacts were recovered, eight of these being window glass. While 2,769 grams of brick were recovered, 2,707 of these came from the upper level in TC AO and could have originated in the overlaying material.

It is interesting that 240 pieces of bone (20.1 pcs/cu.ft.) and 367 grams of shell were recovered from the

undisturbed deposit. The material removed from the baulk area yielded an additional 561 pieces of bone and 954 grams of marine shell, most of which probably originated in the undisturbed deposit. This bone and shell may represent the remains of food eaten by those working in the shop and was discarded behind it.

The disturbed and mixed contexts from TC AO, ST 16 and ST 22 also contained relatively few non-architectural artifacts, primarily table and bottle glass. None of these deposits contained the concentration of bone and shell present in the "undisturbed" deposit. The material in TC AO between the brick and wood floors yielded a large concentration of brick and mortar, consistent with the interpretation of this deposit as building demolition rubble. The material immediately below the wooden floor also contained a large concentration of building material, and unlike the other deposits from TC AO, a high density of architectural artifacts, mainly window glass.

Summary

The cut stone walls at the southern and eastern border of TC AO and the associated mortar floor may have represented a backyard area or, more likely, the interior of a covered extension of a building standing on the site in the late 18th and early 19th centuries. The documentary research indicates that from 1794-1795 John Elting ran a "China, Glass and Earthenware" shop on Lot 27* and John Manley is identified as

running a "Glass and China Store" between 1798 and 1820. The ceramic and other artifactual evidence is consistent with these dates. The ceramic deposit in the sandy matrix most likely represents the deposition of breakage from one or both of these china shops. The breakage was apparently dumped behind the shop in the alley way or covered extension which probably extended from the stone wall in the eastern portion of TC AO and ST 22 to the Lot 27*/28 boundary wall. Workers in the shop may have disposed of their lunch refuse in the same area.

Except in the area of ST 16 and the eastern portion of TC AO, the ceramic deposit was apparently heavily disturbed by later events. Since the top of the undisturbed ceramic deposit was at the same level as the top of the cut stone wall, the highest point of which was approximately 15 inches below the TC AO datum, it is possible that disturbance of the deposit was associated with the demolition of the building extension. excavation and filling of the area in the western part of TC AO apparently mixed ceramics from the deposit with stones from a disturbed wall.

Ceramics from the deposit were also apparently mixed with soil deposited over both the undisturbed ceramic deposit and the disturbed area with stones in the western part of TC AO. This occurred prior to the construction of the overlying wooden floor, which was subsequently burned. The inclusion of whiteware in the fill below the floor and the burned

condition of the floor suggest that the building extension may have been demolished and the wooden floor built between about 1820, when the ceramic shop was no longer in operation and the 1835 fire, which may have burned the floor.

Ceramics from the deposit were also included in the rubble between the wooden floor and later brick floor, perhaps during the demolition of the main portion of the building which housed the ceramics shop. This would suggest that Lot 27 was not incorporated into the Pearl Street House until after the 1835 fire (see documentary research section).