VOLUME I
TECHNICAL REPORT

ARCHAEOLOGICAL DATA RECOVERY

THE PADDY'S ALLEY AND CROSS STREET BACK LOT SITES (BOS-HA-12/13) BOSTON, MASSACHUSETTS

prepared for

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and

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I. INTRODUCTION

A. Project Description

The Central Artery/Third Harbor Tunnel Project (CA/T) has been undertaken by the Massachusetts Highway Department (MHD), in conjunction with the Federal Highway Administration as a means of improving access from the City of Boston to Logan Airport and of remedying existing traffic conditions on the city's downtown Central Artery, Charles River crossings and Charlestown exteriors. Portions of Interstate Highways 90 and 93 are involved.

The Project will widen and depress a three-mile stretch of roadway from the Sullivan Square, Charlestown area to the proposed I-90 South Boston interchange (Third Harbor Tunnel/Massachusetts Turnpike). After redesign, the Central Artery will accommodate four lanes of traffic in each direction, retaining the existing route of the Artery from Causeway Street to the I-90/I-93 interchange, improving and adding ramp connections along the route. The existing elevated roadway will then be removed.

The newly constructed Third Harbor Tunnel will carry a four-lane extension of I-90 (the Massachusetts Turnpike) in both directions to East Boston's Logan Airport, thus greatly alleviating the present congestion on the Tobin Bridge and Callahan/Sumner tunnels, which presently afford the only traffic crossings of Boston Harbor.

Because of the potentially adverse impacts of the CA/T Project on historic and prehistoric cultural resources, Phase I, Step 2 and Phase II (site examination) archaeological investigations were carried out by the Office of Public Archaeology (OPA) of Boston University between 1987 and 1989. As a result of the Phase I documentary research, 15 study blocks associated with the project path were determined to contain potentially significant resources. Included within these blocks was that designated NE03, are found to contain the Paddy's Alley, Cross Street Back Lot and Mill Pond sites)(Fig. I-1).

Site examination (Phase II evaluation) was carried out by the OPA in six potentially significant locations, including Paddy's Alley and Cross Street Back Lot. Both sites were subsequently recommended for Phase III data recovery. The purpose of the data recovery was to retrieve significant archaeological data in order to mitigate adverse effects resulting from construction during the Central Artery/Tunnel Project. The investigation was conducted in accordance with a permit application (Timelines 1992) approved by the Massachusetts Historical Commission (MHC) under Permit No. 1252, by authority of Massachusetts State Law (950 CMR 70). The permit was extended in October 1994, to April 1996. A permit addendum to excavate Feature 4 in Cross Street Back Lot was approved in October 1994.

John Milner Associates, Inc. (JMA), a subcontractor to Timelines, Inc. of Littleton, Massachusetts, completed the field-work portion of the Phase III Data Recovery at the Paddy's Alley and Cross Street Back Lot sites (BOS-HA-12/13) during October, November, and December of 1992. JMA performed the field work and shared in documentary research, analysis, contextual research and coordination tasks. Timelines conducted laboratory processing and management tasks for the data recoveries, as well as participating in analysis and documentary research.

The project area is defined as the Paddy's Alley (BOS-HA-12) and Cross Street Back Lot sites (BOS-HA-13). The sites are contiguous, and are located in the North End of Boston, between North and Hanover streets, and between Cross and Blackstone streets (Fig. I-2).

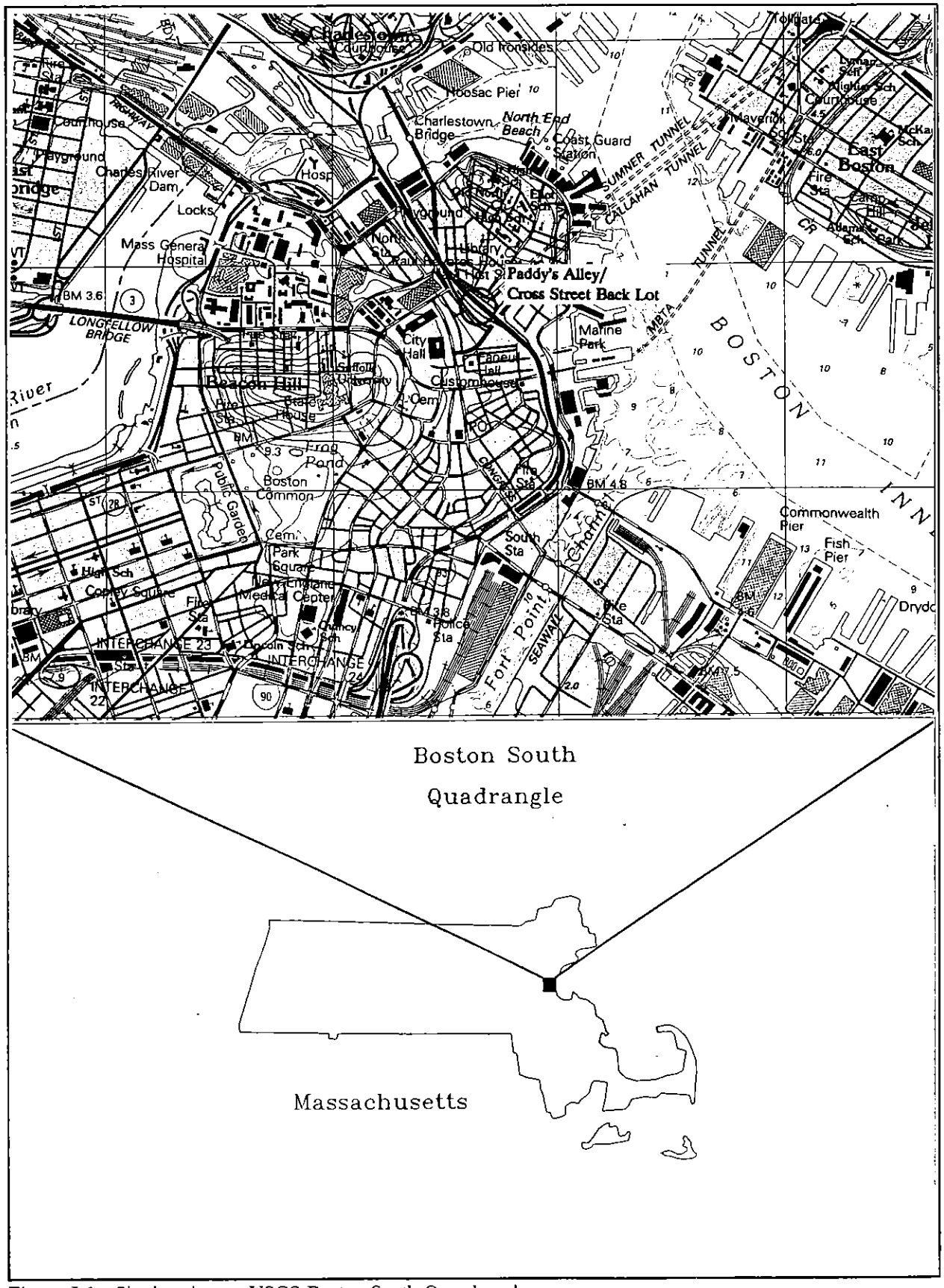


Figure I-1 - Site location on USGS Boston South Quandrangle.

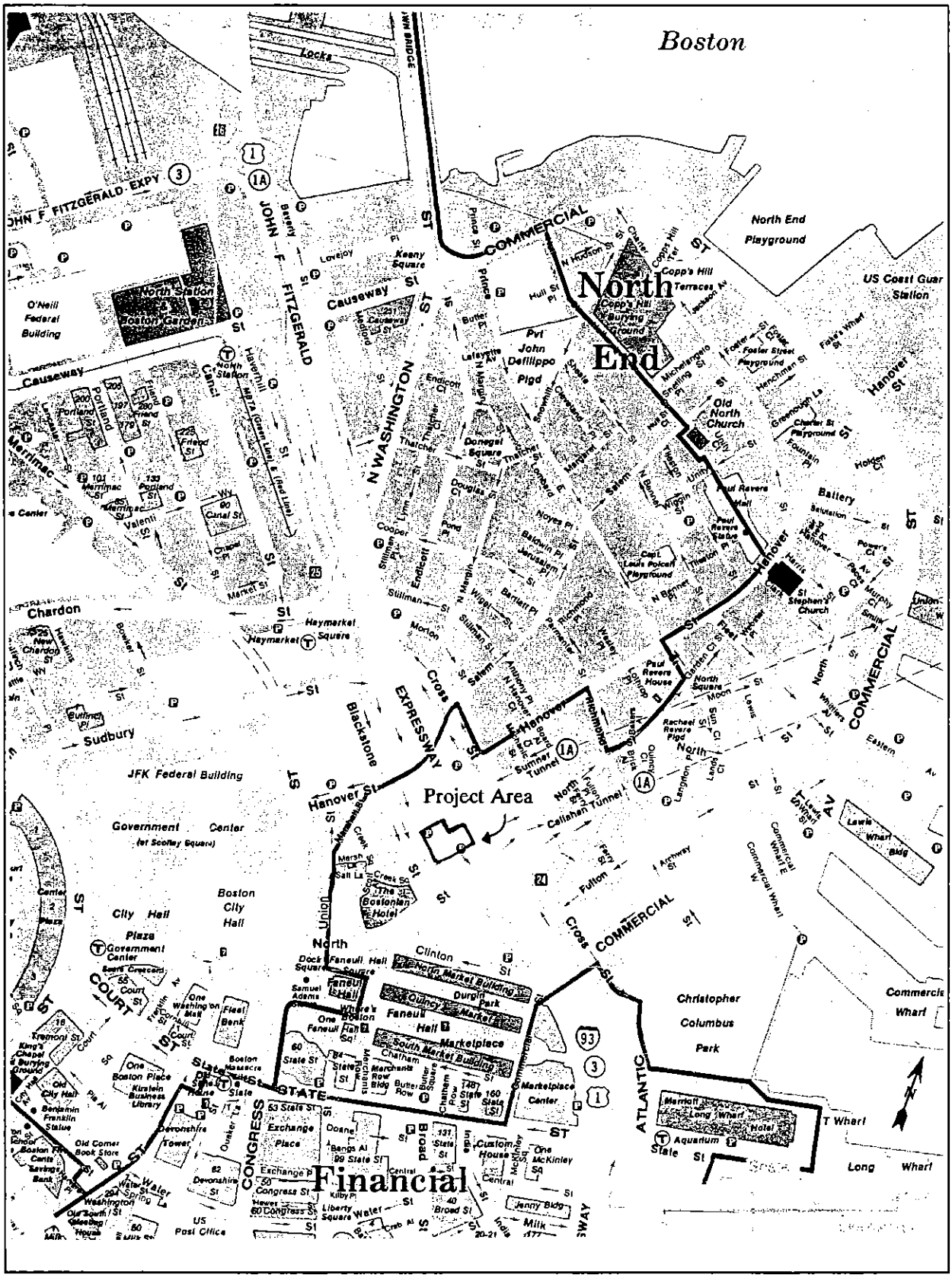


Figure I-2 - Site location of Paddy's Alley and Cross Street Back Lot sites on street map of Boston.

The surviving portion of the Paddy's Alley site (BOS-HA-12) lay within an area measuring approximately 35 ft. x 75 ft. (10.7 m. x 22.8 m.), or 2,625 sq. ft. (243.5 sq. m.). Within this area, JMA proposed to hand-excavate an area measuring 650 sq. ft. (60.3 sq. m.), and remove an area of approximately 1,215 sq. ft. (52.4 sq. m.) with a combination of machine excavation and hand clearing. The remainder of the original site area was occupied by an on-ramp for the existing artery and utilities. The Cross Street Back Lot site (BOS-HA-13) measured approximately 25 ft.x 25 ft. (7.6 m. x 7.6 m.) or 625 sq. ft. (58.0 sq. m.). The remainder of the site had been disturbed by the installation of nineteenth-century warehouses and twentieth-century utilities, as well as bents for the existing artery. JMA proposed to hand excavate 250 sq. ft. (23.2 sq. m.), and remove the remainder of the deposits using a combination of machine stripping, hand clearing, and hand excavation.

Prior to excavation, the project area consisted of an asphalt-surfaced parking lot located beneath the elevated Central Artery in the North End section of Boston. Directly to the west of the site is the Freedom Trail (historic Salem/Hanover Street).

The Phase III excavations were concentrated below some former warehouses on the Paddy's Alley site, and in the open area of the Cross Street Back Lot site. In general, the presence of buildings allowed for the preservation of stratigraphic deposits from earlier occupations. However, archaeological deposits from the nineteenth century were present and contributed to the stratigraphic sequences of both sites. The modern cultural landscape offered few clues to the earlier urban landscape. Alteration of the street plan and demolition of nineteenth- and twentieth-century buildings had created difficulties in accurately placing the excavation location on historic maps. However, the excavations provided data that made it possible to refine the location of the site on historic maps. These data were principally comprised of foundations and property lines associated with the nineteenth- and twentieth-century lots that fronted on Cross and Center streets. Center Street, formerly Paddy's Alley, no longer exists. Its location is now occupied by an off-ramp for the existing artery.

B. Previous Research

Phase I research presented a generalized historical context for the North End of Boston and relied on cartographic sources to identify and locate areas likely to contain intact archaeological resources (Elia and Seasholes 1989:128,133,138-141). Site examination investigations at Trench C, Block NE03 identified the area as back lots for properties fronting along surrounding streets from ca. 1680 to 1740 and recovered remains of a possible refuse pit, a possible post mold, a stone wall, and intact stratified deposits representing several domestic occupations at this Paddy's Alley site, as well as an early nineteenth-century privy at the Cross Street Back Lot site (Elia et al. 1989:33-51). Two of the five properties, defined on the basis of structures represented on the 1929 Sanborn maps, were recommended as eligible for the National Register of Historic Places.

The eligibility of the Paddy's Alley Site (BOS-HA-12), or the "'Storage Building Lot," was established under Criteria C and D (36 CFR 60.4). The site was described as "a representative example of the intensification of residential development during the early eighteenth century in the North End," and as an area likely to contain important information on "settlement and structures" (Elia et al. 1989:42). The significant period at the site was determined to be the Colonial Period (1675-1775) (Elia et al. 1989:75).

The Cross Street Back Lot Site (BOS-HA-13), or the "Open lot north of `Stove Ware Ho.,'" was also considered potentially eligible for the National Register of Historic Places under Criteria C and D. The site was described as

"one of the few parcels of land that escaped the intensive building development that covered the North End during the nineteenth and twentieth centuries," and as "representative of resources under the `settlement and structures' category," with resources dating to the Plantation, Colonial, and Early Republic Periods (1630-1830) (Elia et al. 1989:46,76).

When these two locations were found eligible for inclusion in the National Register of Historic Places, the OPA, in consultation with the Massachusetts Highway Department (MHD), State Historic Preservation Officer (SHPO) and the Boston Landmarks Commission (BLC), recommended a data-recovery program (Phase III).

C. Historic Setting

1. Boston

The full historical context of Boston is, of course, beyond the scope of this report, but a summary is in order. The town was settled in 1630 by a small group of Puritan religious refugees from Britain (Rutman 1965). During the 1630s, the "Great Migration" brought many more individuals (principally from heavily Puritan East Anglia) who soon spread out to settle surrounding towns and developed a social environment based on East Anglian regional culture (Fischer 1989:13-205).

The town's Puritan leaders were initially able to prevent the rise of a merchant class, but ultimately the Puritan ideology was unable to suppress, and so found an accommodation with, individual economic initiative (Rutman 1965). By the 1640s, the records of Boston notary public William Aspinwall speak of extensive long-distance trade with Britain, with the Mediterranean *via* Spain, and with the Caribbean. The principal exports were salt fish, furs, wood, and agricultural produce. While fish and furs decreased in importance, the other commodities fueled the development of Boston into the principal seaport in British North America from the late seventeenth to the mid eighteenth century (Bailyn 1955; McManis 1975; Meinig 1986:100-101).

There were interruptions in prosperity, frequent wars (first with the region's Native American population in 1675-1676 and sporadically into the eighteenth century, later with France) and the rise and fall of economic cycles, but the local economy was able to absorb these. British regulation of commerce became a sore point and, in 1689, Bostonians overthrew Sir Edmund Andros, the unpopular royal governor, and sent him back to England, learning after the fact that the "Glorious Revolution" had deposed his patron, James II (Warden 1970).

After about 1720, Bostonians could no longer count on continuous prosperity. Costly military expenditures and the rise of other ports had an impact. The extent to which social inequalities increased discontent in Boston is a burning question in the absence of systematic tax records for the period between 1695 and 1771. A principal issue of concern to historians is how Bostonians became radicalized to the point of defying royal authority (see Nash 1976; Warden 1976b; and Price 1974 for the essentials of the debate).

The passage of the Stamp Act in the 1760s, and the Townshend Acts a decade later, and the responses in the form of demonstrations and non-importation agreements are too well known to warrant retelling (see Morgan and Morgan 1953; Bridenbaugh 1968; Warden 1970; Hoerder 1976; G. Nash 1979). The same is true of the garrisoning of Boston by British troops, the Boston Massacre, the British march on Lexington and Concord, the siege of Boston and the battle of Bunker Hill (see Porter 1881; Hale 1881; French 1911).

The effect of the Revolution on Boston's merchants ran deep, and was exacerbated by the Jeffersonian embargo and the War of 1812. When the China Trade emerged, other communities were as prominent as Boston, particularly Salem and Newburyport (Labaree 1975). Boston merchants did prosper after 1815, and their profits began to flow into industrial enterprises, initially outside of Boston, with its limited land base (Kasson 1976). With expansion of Boston's South End later in the century, space became available for industries within the town, manufacturing confectionery, furniture, architectural woodwork, and pianos (Stott 1984). These and smaller industries soon replaced artisan production within the city.

Boston, like most Eastern cities of the time, became geographically polarized. African-Americans concentrated in the Beacon Hill area (Bower 1991). By the 1850s, immigrants from Ireland were crowding into the North End and Fort Hill neighborhoods (Handlin 1959). Later, they would be followed by Italians in the North End and West End. All of these arrivals (with the exception of the African-Americans) were too late, however, to play a role in forming the archeological sites that are discussed here.

2. *The North End*

Walter Muir Whitehill characterized the North End as a wealthy residential district that after the Revolution became increasingly "a region of small merchants, tradesmen, and artisans, interspersed with a few conservative families of larger resources, who were blessed if they would budge" (Whitehill 1968:113). But because of the active waterfront, there was probably always a substantial working-class element in the neighborhood. They would have been clearly identifiable on Pope's Day, November 5, when revellers from the North End competed with those from the South End, each group attempting to steal the "Pope" effigy from their opponents and burn it (Savage 1873:31-33; Thwing 1920:78-79). During most of the eighteenth century, wealthy and poor may have lived cheek-by-jowl with one another in the North End; there is evidence that they did so elsewhere in Boston (Pencak 1979). The North End was home to a numerous and varied artisan community in the late eighteenth century (Johnson 1994), but there is evidence that this had been going on for some time. Craftsmen were located throughout the city, but the vicinity of the project area appears to have been noted for its furniture makers in the early eighteenth century (Jobe 1986:9), and at least two metal workers, a pewterer and goldsmith, lived and worked on properties that made up the site (see section IV, below).

It is difficult to see broad residential patterns in the ownership of the Paddy's Alley and Cross Street Back Lot properties, and it is all too easy to read similarities as representative of a neighborhood. Each of the properties was owned at different times by artisans, merchants, heirs, and widows. The two properties that fronted on Ann Street during the seventeenth and early eighteenth centuries (Paddy's Alley East and Cross Street Back Lot) underwent lengthy periods of ownership by widows or heirs from the 1660s and 1670s, and were purchased by successful merchants or artisans. The heyday of artisans on these properties was between 1715 and 1780, when the properties belonged to a joiner, a pewterer, and a goldsmith, though not at the same time. Between 1795 and 1816, all of the properties belonged to small tradesmen, shopkeepers, or "hucksters," those less successful (or successful on a smaller scale) who moved in as the wealthier merchants and artisans died or moved to other parts of the city. Beyond that, however, the individual properties within the site defy generalization.

II. RESEARCH DESIGN

Two overarching concepts that guided the formation and execution of the research design were: the Boston area as a cultural landscape with a specific history; and the Boston area as a regional core that was created by and is the expression of a series of activities. These two concepts subsume the various research foci presented below. The following discussion is taken from the permit application (Timelines 1992).

A cultural landscape is a perceived landform resulting from both conscious modification to create a pleasing landscape and the land-use processes that unintentionally create landscapes in the course of using the land. A cultural landscape is both created and modified by the activities that occurred on the regional and local level and serves to frame and, at least partially, structure those activities. Cultural landscapes occur at different scales -- regional, local, and site, and are both physical and conceptual in nature (Stilgoe 1982:1-29; Daniels and Cosgrove 1988).

Cultural landscapes can be considered within the context of four processes that have shaped the land: patterns of spatial organization, land use and activities, response to natural features, and cultural traditions. Patterns of spatial organization on the regional scale are the result of relationships among the natural setting, the social and political organization, and the organization of the means of production. For example, the major impact on the overall organization of the city of Boston is the urban street system laid out during the Plantation period. The overall pattern was partially affected by the relationship among the major economic activities in the city, trade, which was located along the shoreline, and the administrative offices within the city. This pattern was altered and intensified as the population increased, more land was needed, and additional economic functions requiring transportation networks to the interior, rather than to England, were developed. The local structure and character of the neighborhoods also probably changed with the changes in the economic functions of the city.

At the scale of the site, the cultural landscapes investigated archaeologically during the Historic period tend to be restricted and often private areas that are increasingly circumscribed by the processes and activities of urbanization. However, by conceptualizing these spaces as part of the cultural landscape, one is alerted to aspects of archeological sites that would otherwise not be obvious. This concept directs us to examine how the natural landscape is transformed in the urban setting and to examine the cultural landscape as the center of activities that are important to the individuals that create and are affected by these landscapes. Furthermore, it directs the research to focus on the spatial organization of house lots, on urbanization processes that create limited urban open spaces, and on the creation of new spaces -- new land -- for commercial and residential areas, which affect development of town plans.

The cultural traditions and historic experiences of the majority of the early seventeenth-century immigrants to Massachusetts, who came from eastern England, affected a number of features of the settlement. For example, Massachusetts was the only North American British colony where towns were an important part of the landscape, as they were in eastern England (Fischer 1989:183; Meinig 1986:103-104). Furthermore, the historical experience in this area of England, in conjunction with the cultural values of the Puritan ideology led, if not to a more even distribution of wealth than in other colonies (Fischer 1989:44:166-174), then to a prevailing ethic that sought to minimize the outward display of inequalities of wealth (Beaudry 1984).

A concern with core versus peripheral areas is also an important concept for the project, and in Massachusetts archaeology in general (MHC 1982). The core/periphery model posits that particular local landscapes at any given time do not exist in a vacuum, but are related to economic and social development elsewhere in the region and in the world.

Within the MHC-defined Boston study unit (MHC 1982), which includes the project area, Boston proper emerged early as the core, which continued to grow beyond the bounds of the original town, and ultimately included adjacent communities. Historic Boston in Colonial times was always peripheral to London, providing the European metropolis with primary products of the sea, farms, and forest (Meinig 1986:259). It in turn can be conceived as a regional core with its own periphery that provided the primary products for its sustenance and that it then transhipped to other parts of the Atlantic system.

The regional core concept views historic Boston as playing a series of important roles within the context of the surrounding region. The city came to have this position partly, perhaps primarily, because of its specific role in the Atlantic economy. Boston's position in the Atlantic economy was derived from "the character of trade [of Boston] and of the institutional arrangements produced by the marketing requirements of the goods traded" (Price 1974:140). The characteristics of the relationship between Boston and its periphery and Boston's role as a periphery *vis-a-vis* London, created a regional center that was distinctly different from other New England port cities such as Newport and New Haven.

The research design addresses four general research foci, including environment, commerce, spatial organization, and urban lifeways. To one degree or another, each of these foci is applicable to data recovered from the Paddy's Alley and Cross Street Back Lot sites. The economy is represented by the consumption patterns of the population, as well as by the commerce engaged in by residents of the project area. The characteristics of the population will be explored in the section on urban lifeways, which will focus on the expression of the social position of individual households and neighborhoods, urban foodways, ethnicity, social and economic status, and gender.

A. Environmental Reconstruction

1. Physical Environment

Environment is used here to refer to aspects of the natural world and its modifications with which people interact. In rural areas, interaction with the environment most often occurs during subsistence activities. In urban environments, where most agriculture and husbandry (with the exception of gardening and limited livestock raising) takes place in the hinterland, this interaction takes place in connection with other aspects of daily life. Maintaining a supply of potable water and control or avoidance of environmental hazards and annoyances are among the areas where interaction with the environment occurs most often in cities. Urban subsistence, in the form of foodways, is discussed to a limited extent under land use and spatial organization, but primarily below under "urban lifeways." Following a brief discussion of the environmental context of the project, two aspects of environment will be explored here, namely, land use and issues of health.

The end of the Pleistocene (ca. 10,000 BP) left Boston and its surrounding areas with a physical configuration very different from that of the present time. During the Wisconsinan, last of the Pleistocene glacial advances, a sheet of ice 1.5 km. thick lay over mainland Massachusetts, Nantucket, Martha's Vineyard and Long Island. Because water was tied up in the ice sheets, Bloom (1983) estimates the sea level on the east coast of United States to have been between -32 and -25 m. at 10,000 BP. Oldale (1986) suggests a sea-level rise along the south coast of New England (south of Boston) of about 3 m. per thousand years from about 8000 BP to about 2500 BP and about 1 m. per thousand years from then to the present.

The main consequences of the Pleistocene were to redefine the physiographic nature of the landscape, to determine the succession of biotic communities within which aboriginal groups lived, and to produce a continuous redefinition of the coastline and the maritime resources available to these populations. The climatic changes of the Holocene accompanied a succession of changes in the environment, which evolved from a treeless tundra to an open tundra parkland, to a boreal forest, to a mixed coniferous-deciduous forest.

Bloom (1983) characterizes the New England coast by its shallow bays and estuaries, with mainly muddy sediments; analysis and coring of several tidal salt marshes (which typify the modern coast) in the Boston area suggested to Bloom that they were a late Holocene occurrence, a transgression of the sea onto swampy lowlands. By the time the Europeans established themselves on the Boston Peninsula and surrounding area, the bays and estuaries that had been open water until ca. 3000 BP had become intertidal mud flats.

European presence had considerable effects on the environment within only a few decades of settlement. Wood, in great demand as fuel and construction material, had become increasingly scarce in the Boston Basin during the 1630s. Removal of forest cover combined with overgrazing stimulated erosion, leading to harbor siltation (Cronon 1983:25-26,141,149). Increasing population affected the land more directly, particularly in the dense cores, such as Boston's town center. Changing settlement patterns accommodated a growing number of people to a limited amount of space.

In addition to the changes in settlement pattern, there were a number of large-scale environmental modifications in the immediate vicinity of the Central Artery/Tunnel project corridor. Within the Mill Pond Wharf and North End project areas (NE03), the most notable of these were undoubtedly the damming of the Mill Pond (1640s); the cutting of Mill Creek across the marshy peninsula (1640s); the filling of the Mill Pond with excavated soils from Beacon Hill between 1810 and 1830, as well as "oyster shells, dry-dirt and the debris and street offal collected from all parts of the peninsula" (Shurtleff 1871:113); the filling of Mill Creek in 1833 (Whitehill 1968:11-12,78-84; Shurtleff 1871:108-113); wharfing out along the waterfront of the Town Cove (from the 1660s); construction of warehouses and other structures over most of the open space in the neighborhood (1850-1920); and the construction of the existing Central Artery (1950s). Smaller-scale environmental modifications also occurred, examples being the filling of the marsh around Scottow's dock at the Bostonian Hotel site and the gradual filling of the dock itself (Bradley et al. 1983).

These changes to the landscape modified the environment in the vicinity of the project area. Previous research on downtown Boston indicates that extensive filling on the scale indicated here will be visible in the nonarboreal pollen record (Kelso and Beaudry 1990:75,78).

2. *Managing the Environment: Land Use*

Land use as a term incorporates the notions of both interaction with the environment and the manipulation of the spatial setting in which that interaction occurs. Environment has a limiting effect on land use, but it is through land use that people affect their environments, shaping the built environment to suit their purposes.

Land use is more than the simple process of extracting produce, commodities and less tangible goods from labor in a specific portion of the physical environment. Land is very closely bound up in culture, and is best examined through the culturally and personally biased perceptions of the people who used it, as well as of the people who described and recorded its use. As a process, land use moves in two directions; perceiving and using land changes both the land and the user. In that sense, perhaps, land may be said to use humans.

Changing land use in New England urban waterfronts has often been examined using Stephen Pendery's model for urban process in Portsmouth, New Hampshire (Pendery 1977). This model delineates three phases of waterfront development. The first phase, immediately following settlement, was characterized by small farmsteads, whose owners gathered natural resources and practiced subsistence agriculture. In the second phase, with the rise of the city's maritime, merchant economy, the waterfront area was occupied by a dense mix of residences and artisans' shops. The third phase was characterized by urban decay, with a landscape of tenements owned by absentee slumlords. During the second phase, area residents were sufficiently prosperous to be able to afford to purchase and combine house lots that had grown smaller through partible inheritance. By the last phase, the economic situation of the neighborhood had deteriorated to the point where the only people able to afford to combine house lots were absentee landlords. This model views urban land use in part as a balance between the tendency of house lots to become smaller through partible inheritance, and the ability of people to recombine them into larger units for commercial, industrial, and residential purposes.

Research on waterfront districts in Newburyport and Providence indicates that change in land use is a function of the specific historical circumstances of the neighborhood and the city (Faulkner et al. 1978; Rubertone and Gallagher 1981). The Paddy's Alley and Cross Street Back Lot sites are in an area (Block NE03), believed to have been occupied by "a typical mix of merchants, shopkeepers, craftsmen, laborers, and mariners," during the eighteenth century and by commercial structures, primarily warehouses, during the nineteenth century (Elia and Seasholes 1989:138). This type of characterization, often attributed to eighteenth- and nineteenth-century urban areas, has been refined to acknowledge the importance of scale in offering such generalizations. Although most cities of the eighteenth century were an admixture of different occupational groups, at the neighborhood level or at the scale of individual streets, class distinctions could be quite pronounced (see for example Mrozowski 1987, 1991). One of the aims of the research at Paddy's Alley and Cross Street Back Lot, will be to move beyond this type of generalized image of the early city and look more closely at the social and economic forces shaping contrasting uses of space in neighborhood composition.

We also expect changes in land use to be represented in the density, nature and distribution of archaeologically recovered features. In addition, recent research on environmental context in urban areas indicates that changes in land use on individual house lots may be closely reflected in the changes in yard flora, which are visible through pollen analysis (Kelso 1987:114-116; Kelso 1989; Kelso and Beaudry 1990:75,78).

3. *Health*

The topic of public health and quality of life has recently been identified as an area to which historical archaeology can contribute (e.g., Beaudry n.d.; Bell 1987). Historical archaeologists have access to a body of data on utility construction and maintenance, including sanitation practices, that is unparalleled elsewhere (Honerkamp and Council 1984). The often-repeated admonitions of municipal governments about proper construction and maintenance of sanitary features indicate that such rules were often ignored, and differences between the legislated ideal privy and the excavated features themselves are significant.

Disposal of solid waste was always a problem in urban areas. Boston outlawed the disposal of refuse near the Town Dock, south of the project area, as early as 1634, and in 1652 the Selectmen forbade the disposal of butchering waste in the streets (Bridenbaugh 1955:85). Mill Creek, just southwest of the project area, was the only place authorized for the disposal of butchering waste, because of the swiftness of its waters (Whitehill 1968:12). In many cases, it may have proven easier simply to bury wastes. Night soil was allowed to accumulate in privy vaults. In 1701, the Boston Selectmen forbade the location of privies within 40 ft. of streets, houses or wells unless the privies were 6 ft. deep and well constructed to avoid leakage (Bridenbaugh 1955:239). Privies were periodically cleaned (Roberts and Barrett 1984), a process that was no doubt facilitated by the development of mechanical cleaning devices in the late 1840s (Worthington 1990). Serious attention was paid to privy cleanliness in the aftermath of cholera epidemics in 1832 and 1839 (Rosenberg 1962:94,117).

Surface runoff was also a nuisance, and Boston took the lead in sewer construction, installing common "shores," or sewers, early in the eighteenth century (Bridenbaugh 1968:29). It was not until after the Civil War that reformers such as George Waring advocated increasing use of sewers to dispose of night soil (see for example Waring 1875).

The reasoning behind most of these regulations was to prevent disease, which was seen as resulting from "miasmas," or poor air quality, which could apparently be determined by smell. Prevention of disease was an important consideration for Boston, which was visited by at least 15 epidemics between 1693 and 1764, not to mention cholera in 1832 and 1849 (Bridenbaugh 1955:240n, 399n). It was not until Boston's residents realized that most of these epidemics were the price of an active sea trade, and instituted quarantine measures that the problem began to abate (Bridenbaugh 1955:241; Winslow 1974).

Epidemic disease is not accessible for study through historical archaeology, although some of its effects are visible in changing feature construction. It is, however, expected that contextual analysis, specifically parasitology, will contribute to our understanding of general health by providing information on endemic parasite infestation, which can then be coordinated with historical evidence of social class and ethnicity.

The analysis of parasite ova from privy deposits will play a pivotal role in the project's examination of health-related issues in Boston. It provides one of the most direct measures of parasitism of human and animal populations. In conjunction with other forms of interdisciplinary analysis, parasitology helps to identify health conditions that may be related to occupational or class distinctions (e.g. Reinhard et al. 1986). It can also be used to identify other members of the biotic community that may represent the sources of disease, an example being rats (Mrozowski et al. 1989; Jones 1985). In addition, parasitism provides a method for different human and animal parasites to complete their reproductive cycles. If parasite ova are discovered, specific environmental conditions may be inferred.

Finally, the amount of environmental exposure to a variety of heavy metals, especially lead, has an effect on general health in any population. Living surfaces identified during the data recovery, and differentiated archaeologically from fill episodes, will be tested for heavy metals. It is expected that these tests will provide evidence on environmental lead and heavy-metal exposure, as well as evidence of the presence of certain small-scale industries (e.g., hatmaking, signalled by mercury, goldsmithing) that historically used heavy metals in industrial processes.

B. Spatial Organization

1. The Neighborhood

Although the neighborhood is a difficult and often ambiguous concept to define, neighborhoods are universally characterized by a discrete physical territory, a geographical and physical component, and a population-based, social component (Keller 1968:87-92). Past neighborhoods for eighteenth-century New York have been reconstructed to some degree using maps (Rothschild 1987; 1990), while economic and social characteristics of urban areas can be recovered to a large extent through the use of other documents (Cressey 1983; Wall 1987).

American historians, especially in research on Philadelphia and Boston (most notably Warner 1968:50; 1972:82-83), have stated that individuals of all classes lived in heterogeneous communities within the cities of the Colonial and Early Republic periods. In other words, neighborhoods that segregated individuals by class did not exist. This position is correct in the sense that residential neighborhoods such as were created by the industrialization of America and England did not exist in the cities of the Colonial and Early Republic periods. However, on another level, this position is almost certainly wrong (Cheek and McCarthy 1990).

Most studies of human settlement patterns document that when given the chance people tend to settle with relatives and with families similar to themselves in their "station in life." Historical geographers have evidence from medieval cities in England of such patterns of association and it is difficult to believe that this pattern was abandoned with the development of American Colonial cities. In fact, recent research in Philadelphia suggests that there is a high degree of homogeneity on the scale of the street face by 1860 (Blumin 1989:163-179), that this degree of homogeneity was in evidence by 1850 (Pack 1984), and that a substantial degree of homogeneity was also found in the immediately post-Colonial city as evidenced in the 1798 Federal Direct Tax (Blumin 1989:41-51). The distribution of the various classes in the core, semiperiphery, and periphery of Philadelphia is distinctively nonrandom, with over 50% of the residents in the core having nonmanual occupations, and 51 and 71% of the residents of the semiperiphery and periphery, respectively, having manual occupations (Blumin 1989:47). However, behavioral and social separation was even greater than these figures indicate since, as in English cities, classes were segregated by location within a block, with the lower classes located on the interiors of the blocks and the well-to-do and "middling sorts" mostly on the street faces.

Such segregation by class has implications for the study of consumer behavior in urban contexts (Cheek and McCarthy 1990). The utility of the household for the study of consumer behavior is dependent on the correlation of a historic household with specific archaeological deposits. This is often difficult because of the mobility of the working-class population, and the lack of assurance that the household will be representative of its class or ethnic group (Cheek and McCarthy 1990). In urban sites that have few sealed features, the problem is greater. This is where the contextual analysis should provide much-needed aid. Through the detailed examination of site strata by a combination of palynological, archaeobotanical and soils analysis, it should be possible to determine the character

of these deposits, the rates at which they were formed and their composition, i.e., redeposited fill, rapidly accumulated fill, slowly accumulating cultural surface. This is the great advantage of the contextual analysis. Through this level of analysis, individual strata can often be associated with separate households (Kelso, Mrozowski and Fisher 1987). If neighborhoods can be documented in Boston in the Colonial and Early Republic periods at the scale of the street face and block, then artifact assemblages from other than sealed features may be used to examine differences among household types, as has been done for nineteenth-century urban deposits (Cheek and Seifert 1991).

Research at the level of the neighborhood will focus on the geographical and social position of this section of the North End within Boston. Documentary data on this area will provide the most useful information for defining the characteristics of the neighborhood. The archaeological data can then be used to examine the consumption patterns of the occupants.

2. The Urban House Lot

The house lot is the basic unit of spatial analysis for urban historical archaeological excavations (Beaudry 1986). It is also the scale at which the household, a basic unit of archaeological and historical analysis, becomes visible (Deetz 1982; Beaudry 1984a). The form of occupancy, whether by owners, tenants or both, will affect the number and nature of backyard activities and structural features. Title research on individual lots will provide a basis for determining whether the properties were owned by occupants or absentee landlords through time. Title research, cartographic evidence and archaeological evidence in the form of the location of boundary features are also useful to document changes in lot lines. The division and consolidation of house lots may be reflected in the installation and abandonment of certain features, such as fences and privies.

Spatial patterning of urban house lots has never been a topic of particular interest to scholars (cf. Amsden 1979; St. George 1982:161). Architectural historians tend to concentrate on structures themselves rather than on the organization of the space around them or the ancillary structures that define or occupy that space. While landscape historians occasionally point out the value of archaeological research to landscape studies (e.g., Jackson 1984:xi), they seldom approach private urban space as a vernacular construct (Borchert 1979 is an exception). Although urban public spaces and streetscapes have frequently been studied, glimpses of urban vernacular space are rare in the scholarly literature, and they are usually presented as counterpoints to idealized suburban or rural landscapes. It may be true that for middle- and upper-class urban dwellers, "most people avoided the backyards entirely; a social occasion there would have been unthinkable" (Jackson 1985:56), but for many urban dwellers, such environments were home. John Fiske discusses the way that people adapt by controlling impersonal "places," bringing them under their control and turning them into personal "spaces" through use (Fiske 1989:36-41). One focus of our consideration of backyard spaces will be to examine the way in which people structured those spaces through the imposition of "fixed features," such as fences, walls, and structures (Hall 1969:103-107), and how they used the spaces they created by moving through them and using them. Such structuring -- the "constructing of space" in Fiske's terms -- is the result of a process of intentional decision-making, constrained by property boundaries and the social and practical needs of site owners and occupants.

The activity-area concept has been used in analysis of historic sites, based on the premise that activities may be defined through examination of the nature and distribution of the artifacts recovered from the area where the activity occurred. The predominance of secondary and tertiary refuse in urban contexts has forced historic archaeologists to address the nature of refuse disposal and its effects on the archaeological record. In fact, historic archaeologists

have encountered serious difficulties in attempting to filter out evidence of other activities from refuse. Despite such problems, archaeologists have tended to interpret urban yards and features as though their primary function was as receptacles for refuse and convenient places to deposit layer upon layer of "fill," interspersed with sheet refuse, and they have too often considered their work complete when they have mined the features and counted and interpreted the artifacts (Beaudry 1986:39). Often, studies of refuse disposal in space have been offered as models of spatial utilization. The Brunswick pattern examines the locations of refuse disposal within the framework of architecturally defined space (South 1977:47-48). However, while the Brunswick pattern informs us about spatial aspects of discard, as was its intended function, it tells us nothing about the use of space beyond that single activity.

Models that are explicitly based on the interpretation of documents, particularly historic maps, may be faulted for their bias toward definitions of space in architectural, rather than social terms. "Vacant" or "unoccupied" areas constitute the category of space that is the most relevant to urban archaeology, yet it is the one about which maps often tell us the least. That yard areas are not occupied by structures, and appear as blank on atlases and maps does not mean, of course, that they were not used. Features associated with fences, garden beds, and undocumented structures, such as privies, testify to activities of at least seasonal duration. Even the "vacant" areas no doubt saw more transitory uses, if only as thoroughfares for people or animals.

In fact, urban yards were often settings for a variety of activities, including production of foodstuffs for table and market, and for maintenance functions (Stewart-Abernathy 1986). Although some secondary refuse disposal occurred in privies and trash sheds, much more refuse would have passed through such features than would have remained there, due to periodic cleaning (Roberts and Barrett 1984). While the interpretation of terminal deposits in features is important, so is the interpretation of those features -- and the spaces between them -- as components of functioning social and practical landscapes that possessed both utility and meaning.

A useful conceptual framework for historical archaeologists in examining space is an approach taken by Alexandria Archaeology, an archaeological program in Alexandria, Virginia. This approach examines yard space by dividing it into three zones and examining refuse disposal in those zones. Zone 1 is the area from the street front to the rear of the house itself, including side yards and passages. Zone 2 is the area immediately adjacent to and behind the house. Zone 3 is the area within 6 m. (around 20 ft.) of the rear property line (Cressey and Stephens 1982:53, Figure 3.6; Cressey et al. 1984:12). Most of the refuse that was recovered in the Alexandria study appeared to be concentrated along the rear property line (in Zone 3), largely because of the presence of wells and privies that had been filled with trash (Cressey et al. 1982:156-158; Cressey, Magid, and Shephard 1984:12; Stephen J. Shephard, personal communication). Differences in disposal of refuse between zones were identified and attributed to differences in ethnicity and social class of site occupants (Cressey et al. 1984:4). The use of this spatial model by Alexandria Archaeology represents a rare attempt to divide the house lot into smaller units for archaeological analysis. Despite its explicit focus on refuse disposal, it implies differences in land use between areas of the house lot.

A focus on interior and exterior spaces, and on movement between spaces, provides a useful perspective on spatial organization (Hillier and Hanson 1984). What is ultimately needed is a systematic approach to the utilization of urban space that is thorough and based on architectural, documentary and archaeological evidence similar in scope to that found in Hubka's (1984) study of rural New England farmsteads. The present study will not approach that ideal, as certain architectural evidence (dwelling houses, etc.) is not present in the project area. The approach to land-use at the lot level applied to the project area utilized data from the following sources:

1) Documentary: Title information and cartographic evidence was used to examine changes in lot boundaries and ownership. Maps were also used, to the limited extent possible, to determine the spatial relationships among open space and roofed-over space, yard areas and structures. Censuses, city directories, tax-valuation lists, etc., were used to identify structure functions (e.g., residential, commercial, industrial) that were expected to affect the uses of yard space.

2) Archaeological: The excavation of yard areas allowed the spatial relationships between various types of features, such as privies, lot boundaries, structures, etc., to be examined. The tabulation of recovered material from specific contexts was used to address patterns of refuse disposal.

3) Contextual: Generally, soil analysis was not successful in defining potential activity areas. Palynological data did, however, provide a certain amount of information about utilization of particular areas of the sites.

The focus on land use at the lot level will be on the use of space by its past occupants, specifically on the spatial structure of the urban home lot and the relationship among pathways, open areas and structure locations. Particular attention was devoted to examining changes in spatial structure that may be related to changing land use or other factors such as ethnic and/or class succession or owner occupancy versus tenancy. Data on spatial use was compared within and between sites. Differences in spatial patterning are addressed in the light of differences in land use, ownership and occupancy patterns over time and between sites.

C. Urban Lifeways

This research focus is concerned with consumer behavior of different categories of persons and households. These categories are defined by ethnicity, social class, age, and gender. We stress that none of these domains of culture can stand alone as a sole motivation for any behavior and activity. A laborer cannot be seen as only a laborer; he may also be a free, middle-aged, married African-American, and all of these aspects of identity will affect his material life.

1. Ethnicity

Historical archaeologists have tended to approach ethnicity in very broad terms, in that they have most often used ethnicity to frame research questions concerning groups who came from different continents; African-Americans and Asian-Americans are the groups most frequently studied from the viewpoint of ethnicity (see, for example, the essays in Schuyler 1980). Areas of ethnic behavior on which studies have concentrated include the role of ceramics in the foodways of different groups (Otto 1977; Baker 1980:33-34), mortuary customs (Handler and Lange 1978), and in some cases simple identification (Ferguson 1980).

Most often, archaeological discussions of ethnicity are predicated on documentary evidence of the ethnic membership of site occupants, although on more recent sites oral history is also useful (Schuyler 1974). The usual pattern is that documentary evidence is used to identify ethnic differences, which are then searched for in the archaeological record. While African-American archaeology and Asian-American archaeology have advanced beyond the search for ethnic markers and patterns and have arrived at the point where they can explore ethnic differences, less thoroughly researched groups have not yet been treated in sufficient depth.

Acculturation has also been studied by archaeologists, but it remains a problematic area. Attempts have been made to quantify acculturation by comparing the ratio of foreign products to domestic products on the assumption that acculturation will result in consumption patterns similar to those of domestic populations (see Praetzellis et al. 1987 for a brief discussion and critique of this method). It cannot be assumed that social changes such as acculturation will be directly reflected in material ways (Kelly and Kelly 1980:135-136; Staski 1987:55).

The use of ethnic symbols, including objects, has been approached by both anthropologists and historical archaeologists (Kelly and Kelly 1980:134; De Cunzo 1983:384-385; Cook 1989:221-222). A wide variety of materials may come to have symbolic connotations through use in social action and interaction by which people are linked in communities (Cook 1992). The approach that we take to ethnicity emphasizes this active component; ethnicity is a range of actions that serve to integrate the individual with the collective in the construction of communities based on the perception of common origins, history, and interests (M. Nash 1989:5-6). Communities are constructed and maintained by people through action, rather than simply being static categories into which people passively "fall." Some of the construction and maintenance of community that constitutes ethnicity involves the manipulation, often consciously, of a wide range of material culture. Identifying ethnic action requires going beyond the examination of recovered artifacts to the documentary record of actions and intentions that transcends site-specific documentation.

The present level of knowledge about the day-to-day lives of Boston's ethnic groups permits the formulation of limited research questions only. Some of the more pertinent include: What strategies did Boston's ethnic groups utilize in the construction of their communities? To what extent was material culture manipulated (used, displayed, "symbolled," etc.) in the construction of different ethnic communities? And finally, how did material culture, as symbol and artifact, figure in interactions between groups?

Ethnically, most of the Colonial immigrants to Boston were English speakers, although a number of French Huguenots, religious refugees, settled in the city during the seventeenth century. African-Americans were also present from at least 1638 as slaves, and later as a free population as well (Higginbotham 1978:61). In fact, their numbers may have been underestimated in eighteenth-century censuses (G. Nash 1979:445, n25). Native Americans were of course living on the Shawmut Peninsula and elsewhere around the harbor before Boston was settled, and some continued to do so through the seventeenth and into the eighteenth century. Nineteenth-century immigrants to Boston included the Irish, early in the century (Handlin 1979), and the Italians, toward its close (Whyte 1943). The historical record will be examined for the presence of ethnic groups on the sites, whether African-American, Native American, or European (Huguenot or regional English, for example), and for information on the ways in which specific classes of material culture may have functioned in the integration of community.

Archaeologically, specific material markers of ethnicity are rare. The historic record will be searched for the presence and nature of specific artifact classes through which ethnic community membership and identity were expressed. If such items are found archaeologically, they will be described and interpreted. In addition, assemblages will be examined for evidence that may not appear clearly in the documentary record. In the case of European ethnicity, the presence (or absence) of ceramics or other items traceable to the countries of origin of site occupants will be interpreted, as will quantitative and qualitative comparisons between the artifact assemblages of different ethnic groups. In the case of African-Americans and Native Americans, additional evidence will be sought through the identification of particular items showing African or Native American form and/or decoration. Differences in faunal assemblages between sites will be interpreted where appropriate in the light of information on ethnic foodways. In addition, the recovered environmental and land-use data, as well as spatial patterns and feature-

construction methods, will be closely examined and compared. Contemporary documentation, including travel accounts, etc., will be consulted for mention of such patterning. Considerable evidence exists for ethnic differences among European populations (Carrillo 1977), as well as groups from within England (Fischer 1989).

2. *Class and Status*

With respect to social class, as Raymond Williams points out (1983:66), the use of "socioeconomic groups" as a means of grouping people for study is a way of uniting several different models of "class," and the notion of "status." The problem is, however, that three senses of "class" have arisen, one referring to generalized groupings of people, another to relative social positioning and social distinction (rank), and the third to social formations arising from "fundamental economic relationships" such as a common relation to the means of production (Williams 1983:65-69). Status developed as a concept in modern sociology "where it is frequently offered as a more precise and measurable term, in preference to class" (Williams 1983:299). Williams sees the concept of status as a way to avoid analyzing social ranking while also avoiding the complications of social groupings and formations.

Social class and status offer the opportunity to investigate important research questions. We hope to avoid the tendency in past research to focus exclusively on unilinear, quantitative measures of "status" in lieu of exploring what class and status are and how they function. The assumption in much research has been that material culture is a passive reflection of status (see Spencer-Wood 1987). Rather, we hope to approach material culture as an active component in the expression of class and status.

The principal research questions that we hope to address are:

1) To what extent are social class and economic status expressed through material culture in seventeenth- and eighteenth-century Boston?

2) What are the specific meanings of particular items in terms of class and status? and

3) How are these meanings interrelated with the meanings of other items, and with other expressions, such as those of ethnicity and gender?

In examining the relationship between documented wealth and excavated material culture from three seventeenth-century rural Massachusetts sites, Mary Beaudry found that

> . . . in seventeenth-century Massachusetts, men often defined their social position by means other than conspicuous display of luxury goods or fine housing . . . . Prestige could be attained by actions and by accumulations of property that may not be reflected in the archaeological household (Beaudry 1984c:59).

In essence, the Puritan ethic may have militated against status display through material culture, and may in fact have served to mask the expression of status differences. In addition, Beaudry hypothesized that "in the city, social differentiation took a more elaborate form of material expression, and fashion was a far more crucial distinguishing factor than it was in the countryside" (Beaudry 1984c:59). Beaudry's research emphasizes the importance of going beyond artifactual evidence to examine class and status through other types of material expression, such as architecture, or evidence of capital investment, which is more amenable to research in the documentary record.

Several interesting potential research questions emerge from Beaudry's research. First, are there considerable differences in the material expressions of status between the city and the countryside? In addition, does the material expression of class and economic differences in Boston change through the seventeenth and eighteenth centuries with the decline in Puritan influence? To what extent does material expression of class differences vary with economic status? Does it do so directly, or are less wealthy households able or inclined to resort more to status display than wealthier households? To what extent does status display vary with ethnicity and gender?

The investigation of class and status will require the use of "multiple lines of evidence" (Garrow 1987), including documentary research and analysis of recovered artifactual and foodways data. Documentary evidence will be used to place material culture within its past social and cultural frameworks. The documentary record is expected to contain considerable evidence on status expression through material culture in Boston (Stone 1970), and considerable data is expected from secondary sources on comparable cities (e.g., Brown 1973). Where possible, land evidence and tax records will be used to assess the overall wealth and occupational status of owner/occupants and tenant/occupants of the specific properties and neighborhoods investigated.

Archaeological evidence will be used to complement documentary models, to tie hypothetical or possible modes of status expression to concrete situations. Analysis of recovered materials will involve a simple quantitative assessment of collections in the light of documentary models (no specific quantitative measures exist for the period of time under consideration). Intersite comparisons are expected to be a useful tool in approaching economic differences. The categories of material culture and their attributes that will be examined will include ceramics (ware, decoration, and form); glass tablewares (decoration and form); faunal assemblages (diversity of species, relative cost of parts represented). In our analysis, we expect to emphasize sealed single-household features such as discrete trash pits and privy vaults, where present, as these are most likely to offer the temporal control needed to match site-specific documentary information. We may also attempt to match multihousehold deposits, such as fill layers and some surfaces, with documentary data gathered at the neighborhood level.

3. Gender

Gender is an issue of increasing importance in historical archaeology. Because of the complexity of the urban archaeological record, however, gender is not easily approachable on urban sites through excavated evidence alone (Cook 1991). We expect that background research, as discussed above, will allow reconstruction of the makeup of households on each site through time. One element of household makeup that will be particularly important will be the gender of household members. As gender is brought forward as a factor in household composition, it is expected that particular gender-related social and material strategies will emerge. These strategies may then be investigated in the archaeological record.

We expect that the use of the POTS system for cataloging ceramics, and a general functional (i.e., task-oriented) approach to the analysis of recovered materials (see above), will assist in discriminating various gender-based activities as they occur in the archaeological record. This in turn assists in identifying how "gender-based organizing principles might be seen in material culture" (Yentsch 1991:144-145).

We have been able to bring out issues relating to gender in the report through narrative discussions of the histories of particular households (see Gero 1991). Among the issues that arose in the course of research were: family and family structure; widowhood; and domestic violence and divorce.

III. METHODS

A. Background and Historic Research

Historical information was sought in three research domains: the occupants of the sites; the social and economic context; and the composition of the neighborhoods in which the sites are found. Data collected on the occupants of the sites included information on owners, resident or not, as well as tenants, where possible. To obtain these data, records such as deeds, probate records, censuses, tax records and city directories were examined.

Documentary research is vitally important to the Central Artery/Tunnel Project archaeology. The approach we have chosen focuses research efforts on identifying both the unique characteristics of the residents and/or owners of the project areas with the general social and historic processes within which these individuals are embedded. In other words, we are focusing on social history and social science concerns as well as how unique individuals express their participation in the community. On the other hand, we are not ignoring the major events in Boston's history that shaped the social and historical processes. Such events include catastrophes like the fires and epidemics (e.g., Pencak 1979; Winslow 1974) that repeatedly ravaged Boston and that had intense but localized effects. Events with more general consequences include the economic recession in the 1740s and 1750s, caused partially by the Spanish-English War, which has been implicated in the cessation of population growth (Price 1976:143-144). In addition to providing background information that allows the archaeological data to be integrated with broader social and historical contexts, documentary research provides considerable "foreground," by identifying specific research questions that may be addressed through archaeological evidence.

This section summarizes the utility of some general classes of documentation, and specific documents or sets of records, and indicates their use in the project.

Land and Probate Records: A wide variety of land evidence, including deeds, probate, conveyancers' records, and reconstructions of lot ownership at particular times (the Clough and Thwing records) were utilized. These records provided some evidence about commerce and urban lifeways on some sites, but their particular value was in the areas of spatial organization and site-specific historical information. The reconstructions of property ownership also provided the basis for neighborhood analyses for different periods.

Residence and Tax Records: This category included city directories and tax records such as the 1771 Provincial Tax and the 1798 Federal Direct Tax. These records provided information on commerce, spatial organization, urban lifeways, and site-specific occupation and land uses, as well as valuable information at the neighborhood scale.

Demographic Sources: These records, which included censuses and vital records, were used to generate profiles of households within the project area, as well as providing information on the neighborhood scale. Genealogical sources were also consulted for their information on family structure, interconnection, and history.

Government Documents: A wide range of official documents was utilized, including city and colony records, Selectmen's records, and court records.

Secondary Sources: Research into secondary sources provided additional information on all of the research topics investigated.

Cartographic Sources: Maps provided information on spatial organization; and site-specific topics.

These document classes were combined during analysis to provide information on the specific research topics. Specific information on the history of land ownership was gathered through the deed research and the construction of title chains for all three sites. The primary focus of the title chains was from the 1630s to the 1830s.

Reconstruction of the class (socioeconomic status), ethnicity, and composition of the households in the neighborhood was undertaken for at least two points in time. For the Paddy's Alley and Cross Street Back Lot sites, the periods of interest were the Colonial and Early Republic periods, and the reconstruction included, but was not limited to, the 1687 tax list (Record Commissioners 1:91-133), and the Provincial Tax of 1771 (Massachusetts Archives 132:92-147). The gap between these two sources is filled by an examination of interaction between neighbors as appears in the site-specific documentary record.

Three characteristics of the household have been proven to be important factors in general and for archaeology in particular, in explaining consumer behavior. These are class (Spencer-Wood 1987), household composition (LeeDecker et al. 1987; Schiffer et al. 1981; Cheek and Seifert 1991), and ethnicity (Cheek and Friedlander 1990). Neighborhood reconstruction was designed to recover information on these variables from the historical record, to the extent possible.

The focus of the reconstructions was on the blocks that contain the sites, the houses facing each other across the streets defining the blocks, and lots on the remaining corner of the street intersections. This focus reflects the historical fact that households on opposite sides of the street from each other tend to be similar and that households at corners also tend to be similar (Cressey and Stephens 1982:53).

Repositories visited during the background and historical research included the following:

Boston City Hall, Boston, MA
Boston Department of Public Works, Boston, MA
Boston Public Library, Boston, MA
The Bostonian Society, Boston, MA
Harvard University Libraries, Cambridge, MA
The Massachusetts Archives, Boston, MA
The Massachusetts Historical Society, Boston, MA
Mugar Memorial Library, Boston University, Boston, MA
National Archives and Record Center, Waltham, MA
The New England Historical Genealogical Society, Boston, MA
The Paul Revere Memorial Association, Boston, MA
Special Collections, State House, Boston, MA
State House Library, Boston, MA
Suffolk County Registry of Deeds, Boston, MA
Suffolk County Registry of Probate, Boston, MA

B. Field Methods

1. Excavations

The Phase III excavations at sites BOS-HA-12 and BOS-HA-13 were conducted from October 10, 1992, to December 11, 1992, by a 10-person team. Field investigations included the manual excavation of 38 excavation units, plus mechanical stripping and test trenching. The total area recommended for Phase III excavation included 1,900 sq. ft. (116 sq. m.) at the Paddy's Alley site and approximately 400 sq. ft. (27 sq. m.) at the Cross Street Back Lot site.

Excavations at BOS-HA-13 were suspended in 1992 upon the discovery of significant resources (Feature 4) which could not be adequately mitigated under the BOS-HA-12 and BOS-HA-13 permit application research design. The investigation of Feature 4 involved field techniques and strategies not in place in 1992. Based upon preliminary analysis and consultations between JMA, Timelines, MHD, and various contextual analysts a specific research design was developed. Excavations resumed and were conducted between October 28, 1994, and November 22, 1994 by a five-person team. Field methods used during the 1994 excavations are specifically geared toward the recovery of information from one feature, therefore the methods are included with BOS-HA-13 results (Section V.C.).

The project area was an asphalt-surfaced parking lot located in downtown Boston, Massachusetts (Figure I-1, Figure III-1). The modern landscape offered few clues to the location of the buildings, yards, and streets that characterized the historic landscape. On the basis of the 1989 Phase II site examination, the areas to be sampled were identified,

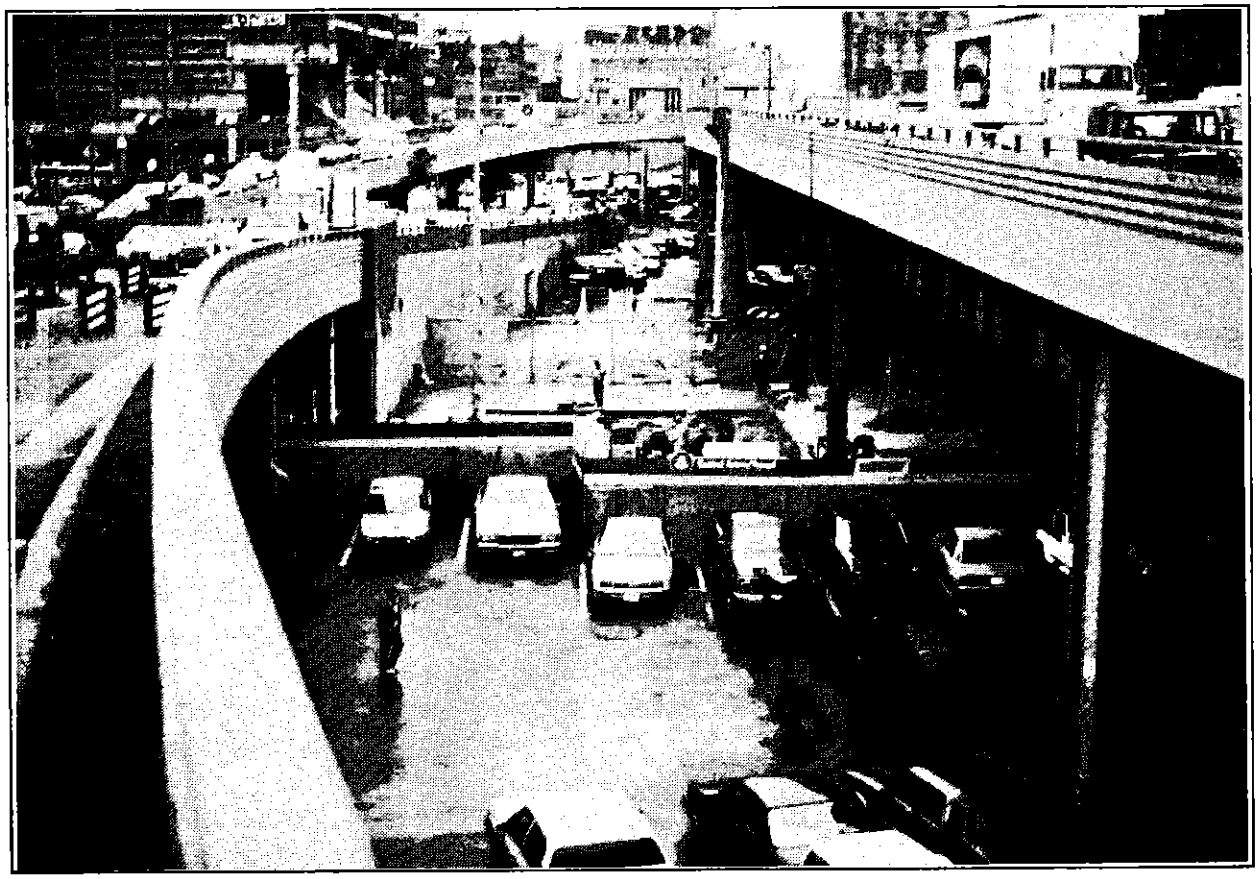


Figure III-1 - Project area overview, facing west.

marked with spray paint, then stripped with a back hoe and front-end loader. The stripping of the asphalt included the removal of modern bedding materials. Asphalt was removed from approximately 1,300 sq. ft. (120.77 sq. m.) of the parking lot. Significant deposits were limited to an area of approximately 600 sq. ft. (55.74 sq. m.) contained within the nineteenth-century warehouse foundation. The majority of backfill from the 1989 site-examination test excavations was also removed.

Field methods used during the excavations were designed to maximize the recovery of archaeologically significant data. Expected stratigraphic matrices included but were not limited to fill, sheet refuse, middens, and various features, such as refuse pits, privies, wells, post-holes, planting beds, drains, building foundations and retaining walls. Placement of excavation units was guided by the results of the 1989 site examination and by field observations.

The horizontal grid used during the 1989 site examination was reestablished as accurately as possible after checking original field notes and drawings. A new horizontal datum was established and tied into several local landmarks. An arbitrary site datum was set at North 100, East 10. A grid consisting of 5 x 5 ft. squares (1.5 x 1.5 m) was laid out over the entire project area (Figure III-2). This allowed for the expansion of the excavations as warranted by the discovery of stratified deposits. Grid coordinates corresponding to the coordinates of the northeast corner were assigned to each unit. A transit was used to establish horizontal and vertical control. A vertical datum and transit station were established and it was tied into the Central Artery Tunnel Project's vertical control (Construction Survey Reference Control Point 2635). All field measurements were recorded in the English measurement system, using engineer's scale (10 to 1). As appropriate, both engineer's and metric scales were placed in photographs to facilitate metric conversions.

The basic excavation unit was a 5-by-5 ft. (1.5-by-1.5 m.) unit; all units corresponded to a square on the site grid. A contiguous block of 24 units was excavated at the Paddy's Alley site and a block of 13 units was excavated at the Cross Street Back Lot site. In addition, one unit was positioned to the south of the main excavation area at the Paddy's Alley site to test for stratified deposits at this location (Figure III-2). Contiguous blocks of units maximized the exposure of features and facilitated interpretation.

All hand-excavated soil matrix was screened through 0.02-ft. (0.6-cm.) hardware-cloth screens to insure the uniform recovery of cultural remains. However, this procedure was modified in the field in certain situations. As time and weather allowed, matrices from several feature contexts (privies) were water screened through 0.02-ft. (0.6-cm.) hardware cloth to increase the recovery sample of botanical and faunal remains. Recovered materials were separated by type (artifact, shell, soil, charcoal, pollen, vegetal and faunal remains) and placed in polyethylene bags marked with the appropriate provenience information. Each bag was assigned a sequential number, which was entered into a field-specimen log.

Standard excavation and recording procedures, as presented in the permit application, were followed during the field work (Figures III-3 and III-4). Once the modern fill had been mechanically removed, units were excavated by trowel, shovel, and, as appropriate, pick. The basic collection unit was the contextual unit, following the practice of the previous excavations. Since contextual units were excavated by excavation unit to provide horizontal control of artifacts, contextual-unit data were recorded on a standard excavation-unit record form. Information was recorded on the horizontal and vertical boundaries of contextual units, relationships between overlying and underlying strata, and artifact content. Soil matrix was described using standard soil texture classes and Munsell color designations (Munsell 1990). Plan maps and elevations were recorded for each contextual unit.

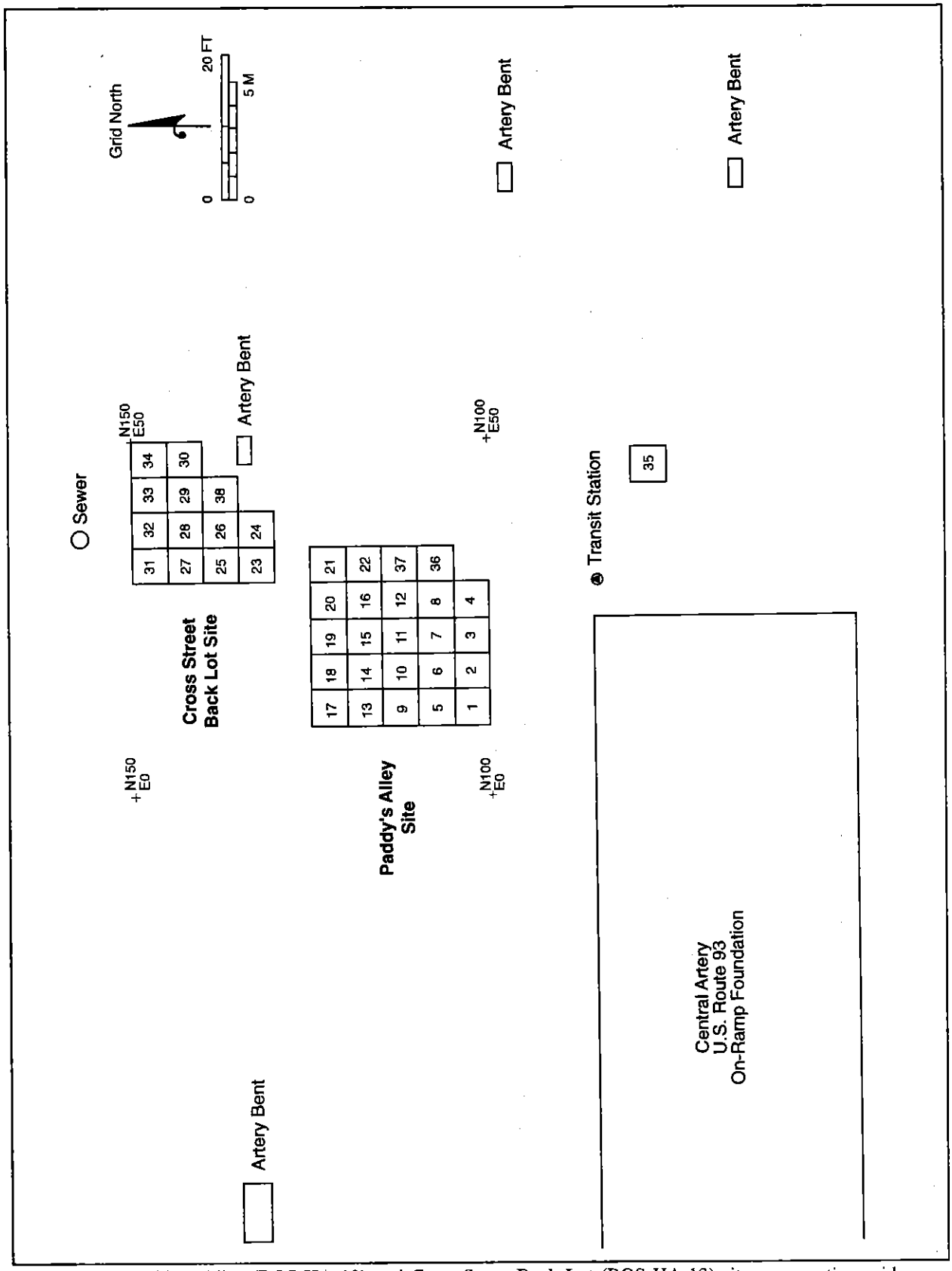


Figure III-2 - Paddy's Alley (BOS-HA-12) and Cross Street Back Lot (BOS-HA-13) sites, excavation grid.

Figure III-3 - Paddy's Alley, facing east.

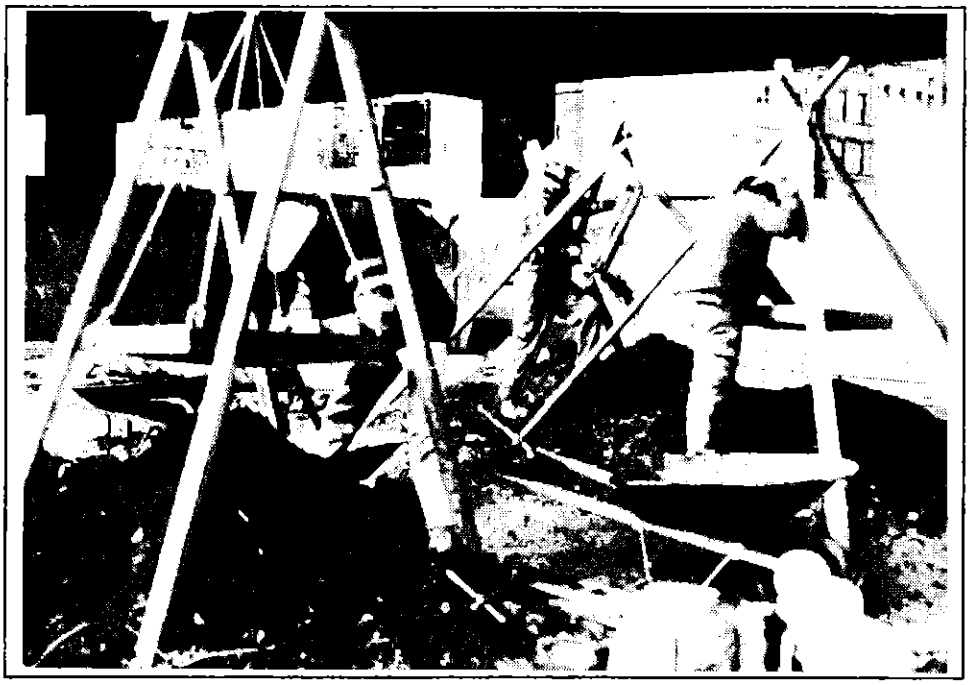


Figure III-4 - Paddy's Alley, crew screening.

The basic unit of analysis was the unit of stratification, that is, a distinct deposition unit, which could possibly extend over several excavation units and be composed of several contextual units. Whenever possible, a unit of stratification was removed in its entirely from all surrounding units; then underlying units of stratification were excavated. Consequently, profiles showing the stratigraphic sequence across the site were not preserved. To provide for the construction of site profiles, a plan map was made at the base of each arbitrary and natural contextual unit. All plan maps included numerous elevations along the unit boundaries to facilitate the reconstruction of profiles. The site was documented in both black-and-white prints and color slides.

Excavation was by cultural or natural stratigraphic units, with the following exceptions. In landfill areas with stratigraphic deposits deeper than 1 ft. (30 cm.), the stratigraphic deposit was divided into 1-ft. (30-cm.) arbitrary levels. In non-site deposits, arbitrary levels were assigned when deposits reached a depth of 0.5 ft. (15 cm.). The differential treatment of the various types of deposits reflected the amount of information that could be gained from the deposits. Feature-excavation methods varied by size of the feature. Small and medium-sized features were sectioned and soil matrix removed separately. One deep feature was excavated in arbitrary levels within natural strata.

2. *Stratigraphic Recording*

The stratigraphic recording system used in the field was based on the Harris system (Harris 1989), which has been found to be useful in recording and clarifying complex stratigraphic sequences (Praetzellis et al. 1980; Cheek et al. 1983; Harris 1989; Cheek et al. 1991; Harris et al. 1993). This system gives equal stratigraphic weight to deposits and interfaces and assigns a unique number to each unit of stratification. The use of the Harris system of stratigraphic principles assumes that each stratigraphic context is deposited at one time and should receive one stratigraphic referent (Harris number). Thus, excavated contextual units that were derived from the same unit of stratification were given the same Harris number. Each excavator recorded the relationships of the contextual unit being excavated. Field forms included a space for recording these relationships. The result was the creation of a Harris Matrix for each unit, which then could be combined into a large site matrix (Bibby 1993; Brown and Muraca 1993). The intersite correlation of stratigraphy and the construction of the site Harris Matrix was the responsibility of the project and assistant archeologists; for consistency, they recorded and described all soil information for the Harris Matrix.

The field investigations utilized a two-part numbering system to identify each contextual unit within an excavation unit. The first number represents the excavation unit. The second number identifies a unit of stratification or a portion of a unit of stratification within that unit. For example, the contextual unit number for excavation unit 5, unit of stratification 1, would be 5.1. The excavation of a unit resulted in a series of these two-part numbers being assigned to each unit of stratification encountered. However, the numbering system did not record sequence information relating to stratigraphic position. The contextual unit numbers were then grouped by Harris numbers. In addition, arbitrary contextual units within a soil matrix greater than 1 ft. (30 cm.) in depth were grouped under the same Harris number. Each Harris number represented a unit of stratification (a group of contextual unit numbers; an interface, or a feature). This two-tiered approach to the creation of Harris numbers was used because it provided flexibility in interpreting the data and in recording the field excavations. While contextual unit numbers are useful during the field work, the stratigraphic analysis is based on Harris numbers. Furthermore, within the stratigraphic analysis, Harris numbers are grouped into phases, reflecting site occupation.

Within the Harris system, all units of stratification receive equal treatment. As such, traditional features were provided a feature number, but were not considered different from other units of stratification. The feature excavations focused on features that contributed to addressing one or more of the research topics. For example, features from later time periods, such as the Early Industrial Period (1830) and later, that penetrated the significant deposits were not excavated, but were mapped and removed. Architectural features were excavated and recorded using the same methodology employed to excavate units of stratification from the period of significance.

An overall composite plan map was drawn of the site. Additionally, single-layer plan maps were drawn for each individual Harris Matrix number. These plans were combined into maps showing site phases and subphases. According to Harris (1989:95-104), single-layer plan maps are useful in the interpretation and presentation of stratigraphic sequences because they provide the archaeologist with the most complete record of each unit of stratification. The reconstruction of the stratigraphic sequence of a complex site cannot be fully understood through a technique based solely on profiles, because profiles provide a limited view of a unit of stratification.

Constant-volume 30-cu.-in. (500-ml.) soil samples were collected from selected matrices within the excavated units and within features. Pollen samples, using a continuous-profile sampling method, were taken at locations determined by the pollen specialist, Gerald Kelso. Additional samples were taken from within features. Faunal materials were collected during excavation and bagged separately for cleaning and processing. Botanical and parasitological samples were recovered from soil samples taken from appropriate features and other contexts, as were samples for heavy metals testing.

C. Laboratory Processing

Artifacts recovered during the field investigations were returned to Timelines' Charlestown laboratory for processing. Artifacts requiring special handling or composed of organic materials, specifically wood and leather, were processed immediately. Refrigeration was used for temporary storage of floral samples, wood objects, and leather objects, which, when exposed to air, would otherwise have rapidly deteriorated. Artifacts with stable surfaces, including metal, ceramics, glass, and bone, were washed, separated by material class, and placed in a deionized water bath.

The deionized water bath was used to reduce the level of chlorides impregnating the ceramics, glass, bone and shell. When chlorides accumulate in artifacts buried in the ground, the chlorides can cause artifacts to deteriorate. Extended soaking in a deionized bath, including frequent water changes, extracts most of the chlorides. Artifacts were removed from the bath when the level of chlorides was reduced to < 10 parts per million (ppm.) for ceramic and glass and < 30 ppm. for bone and shell. Metal artifacts were soaked in solutions of sodium hydroxide and sodium sesquicarbonate to reduce chlorides. Leather was soaked in a bath of deionized water and oxalic acid or ammonium citrate to neutralize iron chlorides and return the leather to its original coloration. Once the chloride levels were reduced, a process requiring up to two months, artifacts were air dried, labeled or submitted to conservation, as appropriate. The high chloride levels of the site soils were attributed to dripping of highway salt from the overhead artery in winter.

Cataloguing was an ongoing process; artifacts were cataloged wet, as stabilization procedures were still in progress, but the initial cataloging was checked when the artifacts were labeled. To the extent possible, artifacts were identified by type, material, and function. Diagnostic artifacts, unique objects and large objects were labeled. For ceramics, rims, bases, and decorated sherds were labeled. Labeled glass artifacts included bottle finishes, large neck fragments,

bases, and decorated fragments. Labeling included site number, catalogue number, and provenience information. When artifact stabilization (chloride reduction) and cataloguing were completed, artifacts were packed in polyethylene bags containing acid-free labels.

Artifact conservation included the stabilization of glass, metal, and leather. When chloride levels had been reduced, glass artifacts to be conserved were dewatered in baths consisting of increasing concentrations of ethanol to prevent delamination, then these artifacts were impregnated with a solution of acryloid B-72 and dried. For metal, once chloride levels were reduced, the artifact was soaked in a bath of deionized water to remove chloride reducing chemicals, dried, and finally coated with acryloid B-72. Once the chloride levels in leather artifacts were reduced, the objects were prepared for preservation by impregnating them with polyethylene glycol (PEG). Leather objects were first reshaped and supported, then freeze dried to remove any remaining moisture. In addition, wood was soaked in a deionized water bath, impregnated with PEG and finally freeze dried.

D. Artifact Analysis

Artifacts from the Paddy's Alley and Cross Street Back Lot sites included ceramics, glass, metal, faunal materials and floral materials. This section deals specifically with ceramics, glass, and metal artifacts. The analysis of these classes of artifacts was the responsibility of the laboratory supervisor, principle investigator, and project archeologist. Faunal and floral materials were sent to the appropriate contextual specialists for analysis. The methodologies used in the faunal and floral analyses are discussed in section III.E.

All artifacts were entered into a database, which included provenience, artifact type, artifact class, material type, and date range fields. Information from the artifact data base was used to create the artifact catalogue (Appendix J) and for several artifact analyses. The database provided the flexibility needed to manipulate the entered data in a variety of ways.

1. Artifact Pattern Analysis

The database also included fields organized according to South's artifact pattern analysis (South 1977). Artifacts were placed in groups and classes defined on the basis of function. Each of these artifact groups was then assigned a unique functional code. All non-faunal or -floral artifacts were grouped within eight functional categories (activities, architecture, arms, clothing, furniture, kitchen, personal, and tobacco-related) and one miscellaneous category. Each group was further subdivided into other functional divisions called classes, into which specific artifact types were placed. For example, the kitchen group included such classes as ceramics, tumblers, glass tableware, and bottles, and the personal group includes the classes of coins, keys, and jewelry. The functions associated with each group were mostly self-explanatory with the exception of the activities group. This group included artifacts associated primarily with predominately male work-related activities, such as construction hardware, tools, and fishing gear, as well as some miscellaneous artifacts, such as toys. The artifact pattern analysis was used to examine site formation processes in different deposits and assemblage differences and similarities between phases.

2. Mean Ceramic Date

Mean ceramic dates (MCDs) were calculated for each contextual unit (CU), Harris number (HN), and phase. Mean ceramic dates, developed by South (1977), are a weighted mean of a range of manufacture dates. They are reliable for the late eighteenth and early nineteenth century when there was a rapid replacement of ceramic types. They are

less reliable for the early eighteenth century because most of ceramic wares in use during this interval were manufactured for a long period. For example, plain white tin-glazed ceramics, a common ceramic ware from both sites, was manufactured from 1640 through 1780. The effect of the longevity of ceramic wares on the MCD may skew eighteenth-century deposits towards earlier dates. In general, ceramic wares exhibiting a long period of use were manufactured prior to 1762, when the development of creamware rapidly changed the world ceramic market. Although the MCD is not as reliable an indicator of site occupation in the first half of the eighteenth century, it was felt that the large artifact sample sizes created by the grouping of matrices within phases would provide an MCD reflecting the approximate date of the phase.

In addition to the relative dating of a unit of stratification, the MCD can be used to examine site-formation practices. Within the Harris system of stratigraphic recording, variance in the MCD from the expected date of the unit of stratification can be used to examine cultural or environmental formation processes (Gerrard 1993:235-236). Consequently, using the MCD, each excavation provenience can be assessed and compared to other provenience units within the HN to determine whether artifacts were mixed. Furthermore, MCD dates provide input into the grouping of HNs within large phases. Finally, if the stratigraphic sequence is constructed correctly and if the units of stratification within the site represent primary deposits exhibiting little artifact mixing, the earliest MCD should be at the base of the sequence and the later MCD dates at the top.

3. *Terminus Post Quem*

Terminus post quem (TPQ) dates were calculated for each CU, HN, and phase. The TPQ is the latest beginning date for an artifact in a deposit and provides a date after which a matrix was deposited. In principle, the TPQ date provides the earliest date when a matrix could have been deposited; however, the artifacts used to provided TPQ dates are affected by site-formation processes. If artifacts from later periods migrate downward through natural processes or disturbances into lower levels of a site, the TPQ dates will be later. The use of TPQ dates must include the examination of each analytical unit for artifact mixing. Because the TPQ can be based on single artifact or a small number of artifacts, the TPQ date can be greatly influenced by artifact infiltration.

4. *Ceramic Price Indices*

In 1980, George Miller published a procedure for quantifying the relation between ceramics and socioeconomic status. He examined price lists used by English firms that controlled the world ceramic market and developed a series of index values for different decorative types and forms (Miller 1980). The index values were based on the cost of common creamware. One of the problems with the application of this analytical tool is inflation of later index values compared to earlier values. However, Miller has identified the cause of the inflation as the prevalence of discounting (selling ceramics below the list price that was used in calculating his original). As a result, he recalculated the indices (Miller 1991). Miller's indices are currently restricted to the period from 1787 to 1880. As a result, only ceramics from Early Republic period (1775-1830) contexts were used in this analysis.

The ceramic index analysis was conducted to examine the relationship between consumer behavior and socioeconomic status and to identify other consumer-behavior patterns related to the purchase of ceramics (Spencer-Wood 1987). Although these two goals are similar, they address different aspects of consumption. It has been demonstrated that the ceramic index values from archeological sites often correlate to some degree with socioeconomic status as reflected in historic documents, particularly status based on head-of-household's occupation.

However, factors such as household composition, location with respect to trade routes, ethnicity, and changes in the marketplace may affect the correlation. Other consumer-behavior patterns, however, may also be examined through the use of these indices, examples being differences in consumption patterns among household types and neighborhoods (Cheek et al. 1991; Wall 1991).

5. *Minimum Vessel Analysis and Crossmending*

The goals of the minimum-vessel analysis and cross-mending include aiding in: identification of vessel form, the examination of site-formation processes, and stratigraphic analysis. The analysis provides a data set that includes ceramic vessel types and numbers within excavated proveniences. These data are then used to address lifeways, ethnicity, consumer behavior, and, to an extent, market availability.

The cross-mending complements the stratigraphic analysis by providing information on artifact movement. The interpretation of crossmends between ceramic vessels depends on context. Crossmends are generally assumed to indicate that the deposits in which they are found are stratigraphically related, have the same origin, or have different origins but have been mixed. Crossmends between two different units of stratification indicate that either cultural or environmental processes, or a combination of the two, were acting upon the deposit. Crossmends between intrusive matrices and earlier matrices are assumed to be due to mixing.

6. *Identification of Maker's Marks and Other Identifying Marks*

During the cataloging processes and in the case of metals after conservation, note was made of maker's marks or dates where present. Maker's marks may be present on a variety of artifacts, including ceramics, bottle glass, wig curlers, spoons, and tobacco pipes. After the mark was recorded, an attempt was made to identify maker. Information from maker's marks can aid matrix dating and provide information on markets.

Information concerning the date of a matrix can also be obtained from coinage. If the preservation of the coin was good, information was recorded during the conservation process, otherwise the recording of pertinent information was left until the artifact had been conserved, when information was more legible. All data on a coin's type, value, and country of origin were recorded.

7. *Tobacco-Pipe Analysis*

Clay tobacco-pipe fragments were examined for morphological information, including bowl shape and stem-bore diameter. Decorative elements, including maker's marks, were recorded. No attempt was made to date deposits by using pipestem-bore information, as the sample size for all matrices was too low to provide accurate results.

E. Contextual Analysis

Contextual analysis played an integrative role in the project. It was designed to provide information employed in the reconstruction of micro-environments such as yardscapes, as well as supplementing the overall interpretation of site stratigraphy. In the latter case, the contextual analysis was a powerful addition to the Harris matrix as a method of classifying stratigraphic units and the phasing of each site as a whole.

The conventional use of contextual analysis has been to provide the type of environmental data required to reconstruct living conditions and address such research concerns as health and hygiene. By insuring that specialists play an active role in the development and implementation of the overall sampling design of the project, the pitfalls that have limited the interpretive potential of "Environmental Archaeology" as practiced in Britain and Europe can be avoided (see M. Jones 1984; Mrozowski et al. 1989). Specialist consultants to the CA/T archaeology project communicated on a regular basis with other project staff to coordinate the collection of samples. This entailed not only the sampling of cultural contexts, but the collection of control samples. To facilitate comparisons, large, multipurpose samples were collected for different analyses. In some cases, additional, specifically designed (palynological) sampling techniques were employed (see below).

The second major component of the contextual analysis, the examination of formation processes, required that samples be collected from site strata. The coordination of this activity was aided by the consulting contextual archaeologist, who consulted on issues of approximate areas of study, sampling and retrieval techniques. The analysis and interpretation of these samples was conducted in conjunction with the examination of material culture and site stratigraphy by project archaeologists. The following descriptions the contextual methods will be amplified upon receipt of final reports from the various specialists.

1. Pollen Analysis

Pollen samples were taken using a continuous-profile sampling method. This method has proven effective in recovering a wide range of land-use and site-formation information in urban environments (e.g., Kelso and Beaudry 1990).

At the Paddy's Alley site, pollen was sampled as follows. On the eastern lot, a complete back-lot profile, consisting of 17 samples (recovered during the site-examination research, but never fully analyzed) was utilized. The original research design called for the sampling of features identified during the site examination, which could not be located during the data-recovery excavations. In the western lot, several 20-sample profiles were taken for analysis. In addition, samples were taken from features encountered during the excavations.

Pollen was sampled on the Cross Street Back Lot site as follows. Several samples were taken from Feature 1. Two cores were taken within Feature 4, however, the core was dramatically compressed. An additional seven matrix samples were taken during excavation of the feature, representing the depositional episodes in the privy. Unfortunately, there was no undisturbed location identified during the excavations that would have been amenable to "background" profile sampling.

2. Faunal Analysis

Faunal material was collected concurrently with artifact collection. Faunal materials were placed in separate bags and assigned separate bag-lot inventory numbers, to minimize breakage during handling and to facilitate tracking during laboratory analysis.

3. *Floral Analysis*

Constant-volume soil samples were taken for flotation of preserved floral remains. At least one sample was taken from features encountered during excavation. Samples were also taken from midden deposits, and from yard sheet middens. After flotation, the light fraction was dried and examined by the ethnobotanical consultant. The results were used in our analyses of past environments and foodways at the sites.

4. *Parasitological Analysis*

Parasitological samples were only collected from contexts known to promote the preservation of parasite ova. These include privies, wells and drainage features, although the latter are much less reliable. In privies, samples were collected from each level and at 10-cm. intervals if possible. This sampling strategy assured that patchy fecal deposits mixed with fills would not be missed.

5. *Heavy-Metals Analysis*

Heavy-metals trace analysis was among the contextual methods proposed and accepted in the permit application. Documentary and archaeological evidence indicates that the eastern portion of the Paddy's Alley site was owned and occupied by John Carnes, a pewterer. The possibility exists that the structure encountered during the course of the field work in the rear yard of Carnes' property, was a workshop used in the production of pewter. In addition, documentary evidence was encountered linking an occupant of the western portion of Paddy's Alley (Simpkins) with goldsmithing. It was possible that soils in the rear yard areas of these lots, and within the structure on Carnes' lot, might contain sufficient trace levels of metals to indicate that the metal-working activities were occurring on the site when the soils were deposited.

Thirty-three soil samples from five areas were analyzed: 1) Paddy's Alley East, south of the structure, including the CU from which the Carnes wine-bottle seals were recovered (4 samples); 2) Paddy's Alley East, within the structure (6 samples from an area with intact wooden floor remains); 3) Paddy's Alley West, yard deposits (9 samples); 4) Cross Street Back Lot, yard and feature deposits (5 samples); and 5) Paddy's Alley East, drain sediments (9 samples). Specific elements tested for were those known to have been used in the manufacture (and adulteration) of pewter alloys, to wit: tin (Sn), copper (Cu), lead (Pb), antimony (Sb), and bismuth (Bi).

In addition, all samples were tested for elements associated with the working of precious metals, to wit: gold (Au), silver (Ag), and mercury (Hg). Samples were tested by Zecco Laboratories.

6. *Coleopteran (Beetle) Analysis*

Coleopteran samples were only collected during the excavation of Feature 4. Preliminary testing of this feature indicated that insect remains were present and will preserved. This analysis was added to the contextual studies a part of the revised permit application/research design for Feature 4. Two one liter samples were taken from each matrix excavated within the Feature. The sampling strategy allowed for the creation of two columns of samples from different parts of the privy. Samples were sent to the coleopteran consultant from flotation and extraction of insect remains. The results were used in the analysis of past environments, yard use, and foodways at BOS-HA-13.

7. *Textile Analysis*

The 1994 excavation of Feature 4 resulted in the recovery of a large sample of late-seventeenth-century clothing and cloth fragments. These textiles are the only know seventeenth-century archeologically recovered textiles from a colonial New England city. As such this data set provided a significant opportunity to examine seventeenth-century clothing and textile technology. After conservation, the textiles were sent to the textile consultant who determined materials and weave. Results were incorporated into our analysis of gender, class and status, and ethnicity.

8. *Footwear*

The 1994 excavation of Feature 4 resulted in the recovery of a large sample of late-seventeenth-century footwear. After conservation , selected footwear artifacts were analyzed by a University of Rhode Island student as part of the requirements for a Master's Thesis. Footwear artifacts were drawn, photographed, and where possible reconstructed and reformed. Historical research was undertaken into colonial footwear and shoe-making in Boston. Results were incorporated into the analysis of class and status.

IV. HISTORIC RESEARCH RESULTS

A. Introduction

In no case is what historians call an event grasped directly and fully; it is always grasped incompletely and laterally, through documents or statements, let us say through tekmeria, traces, impressions. . . . In essence, history is knowledge through documents. Thus, historical narration goes beyond all documents, since none of them can be the event (Veyne 1984:4-5).

The narratives that make up the bulk of this section discuss the ownership and occupation of the three properties that comprised the Paddy's Alley and Cross Street Back Lot sites between ca. 1650 and ca. 1850. They are presented as "background," but they are something deeper: a temporal and social context within which the archeological remains must be interpreted. There are other contexts as well, the history of the town and the neighborhood, and contexts that can be constructed around some of the principal occupational groups whose members owned or lived on the properties; merchants, artisans, working-class men and women, widows, African-American slaves, and servants. Many of these contexts are discussed below under urban lifeways in section VII.

B. Paddy's Alley West

John Oliver

John Oliver is the earliest known owner of this portion of the Paddy's Alley site. Oliver was a Selectman for several years in the early 1640s, and was the town treasurer in 1641 (Record Commissioners 2:63,79). His responsibilities also included laying out pasture lots at different locations around the harbor for distribution to residents (Rutman 1965:85-86). The Book of Possessions describes the property as:

> One house and garden about halfe an Acre bounded with Valentine Hill northeast and southeast: John Pierce and John Knight southwest: and the [Middle] streete northwest (Record Commissioners 2:9).

Oliver also owned 50 acres of upland and marsh at Pullen Point Neck (Record Commissioners 2:29). By 1647, John Oliver had died, and his son James sold the property.

John Jepson, Sr.

After John Oliver's death, his son and heir James sold the property to John Jepson, Sr. (also Jephson, Jebson). The Book of Possessions describes the transaction and property as follows:

> *The possession of John Jephson in Boston.*
> James Oliver by vertue of the last will and testament of John Oliver late of Boston deceased, hath granted unto John Jepson the house and garden in Boston which formerly was Mr. John Olivers: bounded with Valentine Hill southeast and northeast: the streete, northwest: and John Pierce and John Knight southwest: as also the lott of Thomas Marshall which for one rod length abutteth on the southwest at the southerly end of John Knights and John Pierces lott: and this was by an

absolute deed of sale dated 30 (2) 1647, and acknowledged before the Governor the same day (Record Commissioners 2:41-42).

Jepson, a shoemaker, was born in about 1610 in Britain, and came to Boston by 1639. In 1656, he married Emm, the widow of John Coddington, by whom he had eight children, six of whom survived him. Several of these children were born in Mendon, MA, where Jepson owned land in the late 1670s (Coddington 1943-1944:85-86, 95-97).

In 1663, Jepson was fined 20 shillings "for breach of Towne order." In 1672, he was elected a sealer of leather, an office for which his occupation of cordwainer not doubt suited him. In 1676, he was appointed by the Selectmen to oversee licensed taverns and liquor sellers in the neighborhood. One of his duties was to report to the constables the names of those involved in incidents of excessive drinking (Record Commissioners 7:17, 66, 101). There is no evidence that he himself was a problem drinker, as one genealogist (Coddington 1943) implied. In fact, his appointment to oversee the liquor industry implies the opposite.

In 1677, John Cosser, a fellow cordwainer, together with his wife Margaret, sold personal property and household furnishings to Jepson and John Cotte, a tailor. In May of 1678, the Cossers also sold land and buildings between the Town Dock and the Mill Bridge to Jepson and Cotte (Suffolk Deeds 11:242-243).

John Jepson, Sr., died before the end of March, 1688, when his estate was probated. He left his widow and six children (Coddington 1943-1944:86, 95-97). In 1700, Emm Jepson and three of the children sold a portion of the estate to Robert Weare, a carpenter with whom John Jepson, Jr. had worked (Suffolk Deeds 23:94). The portion of the estate containing the site, however, had been sold to John Jepson, Jr., before his father's death.

John Jepson, Jr.

By 1685, John Jepson, Jr. was 24 years old and working as a house carpenter. On December 18 of that year, John, Sr. and his wife Emm sold the southeast portion of their home lot, measuring approximately 155 ft. northeast from the Mill Creek and 42 ft. wide, to their son for £80 (Suffolk Deeds 9:460). At this time, access to the property was through an 11-ft.-wide passage along the elder Jepson's land, opening on Middle Street, and by Mill Creek.

John Jepson, Jr. worked with Robert Weare framing a wharf near his house in 1698, and worked with an assistant at the fort on Castle Island for several days in 1702 (Massachusetts State Archives 8:72, 244:doc. 22, fol. 13). His involvement with Weare led to some unpaid debts, and in 1718, Jepson sued Weare's executor, John Brewer, also a house carpenter, for a total of £11. The accounts of the case indicate traffic between Jepson and Weare in the form of tools, timber, boards (walnut and oak are mentioned), shingles, and days of labor at 4 shillings, 6 pence per day (Superior Court Records of Suffolk County 118:33). John Jepson was of sufficient standing in the community to be chosen as tithing man for the town's third division at the annual meetings in 1699 and 1700 (Record Commissioners 7:234,239).

Shortly after receiving the property from his father, John Jepson, Jr. married Ruth Gardner of Woburn. Of the five children born to them before Ruth's death in 1695, two lived past infancy. In 1696, Jepson married Apphia Rolfe, daughter of Benjamin Rolfe of Newbury, and a first cousin of Ruth Gardner Jepson. He had another seven children by Apphia, four of whom shared in their father's estate. Apphia died in 1713, and in 1714, John married Mercy Daniels, by whom he had one child (Coddington 1943-1944:174-177).

Several months before marrying Apphia Rolfe, John Jepson, Jr., deeded his property on Mill Creek to her father, Benjamin Rolfe for £80 (Suffolk Deeds 14:322). Ten days later, still before the wedding, Rolfe deeded the property back to John and Apphia, with provisions that it should pass to the surviving spouse for life and then to the children of Apphia by John (Suffolk Deeds 30:64). The latter deed was not registered until November, 1715, two years after Apphia had died. It explains why only John Jepson's children by Apphia share in the distribution of the property after John's death.

Jepson's property lay on both sides of a "six-foot way" connecting Paddy's Alley, which ran northwest from Ann Street, with an alley that ran southeast from Middle, or Hanover Street. A plat made several years after his death (Figure IV-1) shows the area north of the 6-ft. way as occupied by the dwelling house and barn, with a yard between them, and a garden in the rear of the property. The area southwest of the 6-ft. way was probably a storage and work area associated with Jepson's house carpentry activities, with a wharf on Mill Creek. In 1717, the Selectmen resolved to carry Paddy's Alley through Jepson's land to Hanover Street. This decision may not have been popular with Jepson, who was summoned to be present, as were several witnesses (Record Commissioners 13:15-16). Bonner's 1722 map shows Paddy's Alley as cutting directly across the block (Figure IV-2), but as both Figure IV-I and Bowditch's reconstruction of property lines in the vicinity (Figure IV-3) show, the alley jogged to the southeast in the vicinity of the site.

Heirs of John Jepson

John Jepson died intestate in November, 1721, and his son-in-law, shipwright Edward Paige, was granted letters of administration. All four of Jepson's children by Apphia were minors, and guardians were chosen or appointed for them. John III (aged about 20) chose Edward Paige. William (aged about 18) chose his master, Thomas Waite, a tailor, as his guardian. Benjamin (aged about 16), chose his uncle Henry Rolfe of Newbury, who was also appointed as guardian of Mary Jepson (aged about 12) (Suffolk Probate No. 4459-4463). By October, 1728, all of the heirs except Mary had reached their majority, and William and Benjamin petitioned the Superior Court to divide the land. Recourse to such a high court was probably necessary because Mary was still a minor. The committee appointed by the court met and divided the property on March 24, 1728/9, giving to John Jepson, III, a mariner, most of the portion of the lot southwest of the 6-ft. way, including the wharf. William, a tailor, and Mary received portions on the northwest side of the portion of the property that lay northeast of the way, splitting the dwelling house, while Benjamin, a barber, was granted the southeast side of that portion of the site, which included the barn and portions of the yard and garden (Superior Court of Suffolk County 193:97). Benjamin's portion of the property contained the area that is presently the Paddy's Alley site. The subsequent disposition of the other portions of the property is outlined in Figure IV-3, Bowditch's sketch map of the property.

Benjamin Jepson

Benjamin, born in March 1705/6, was a barber and wig maker, and single at the time that his father's estate was divided. He had been following his trade at least as early as 1726, when he made a wig for Boston merchant Joseph Evans, suing when Evans failed to pay him (Superior Court of Suffolk County 184:90).

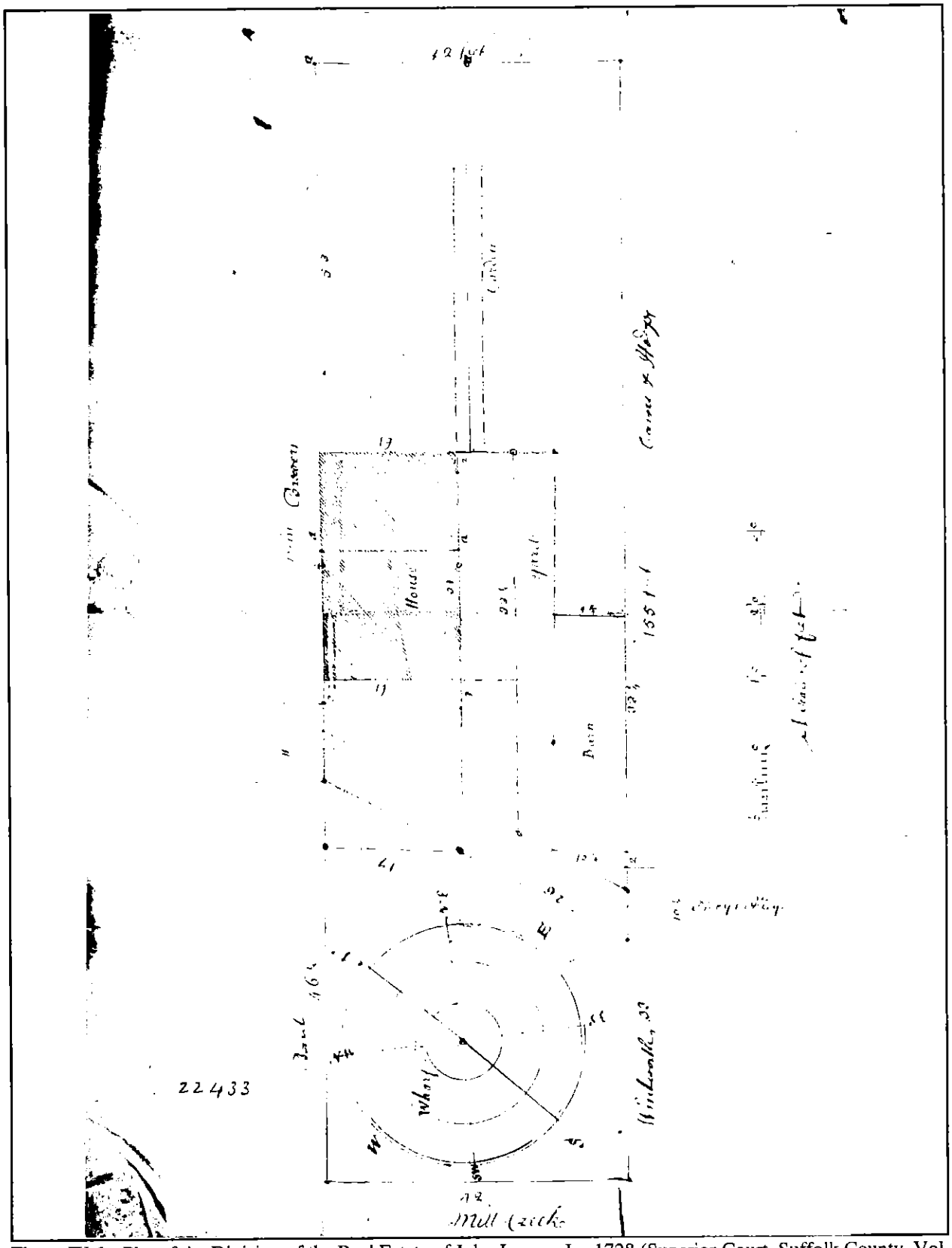


Figure IV-1 - Plat of the Division of the Real Estate of John Jepson, Jr., 1728 (Superior Court, Suffolk County, Vol. 93., p. 97. Courtesy of the Massachusetts Archives).

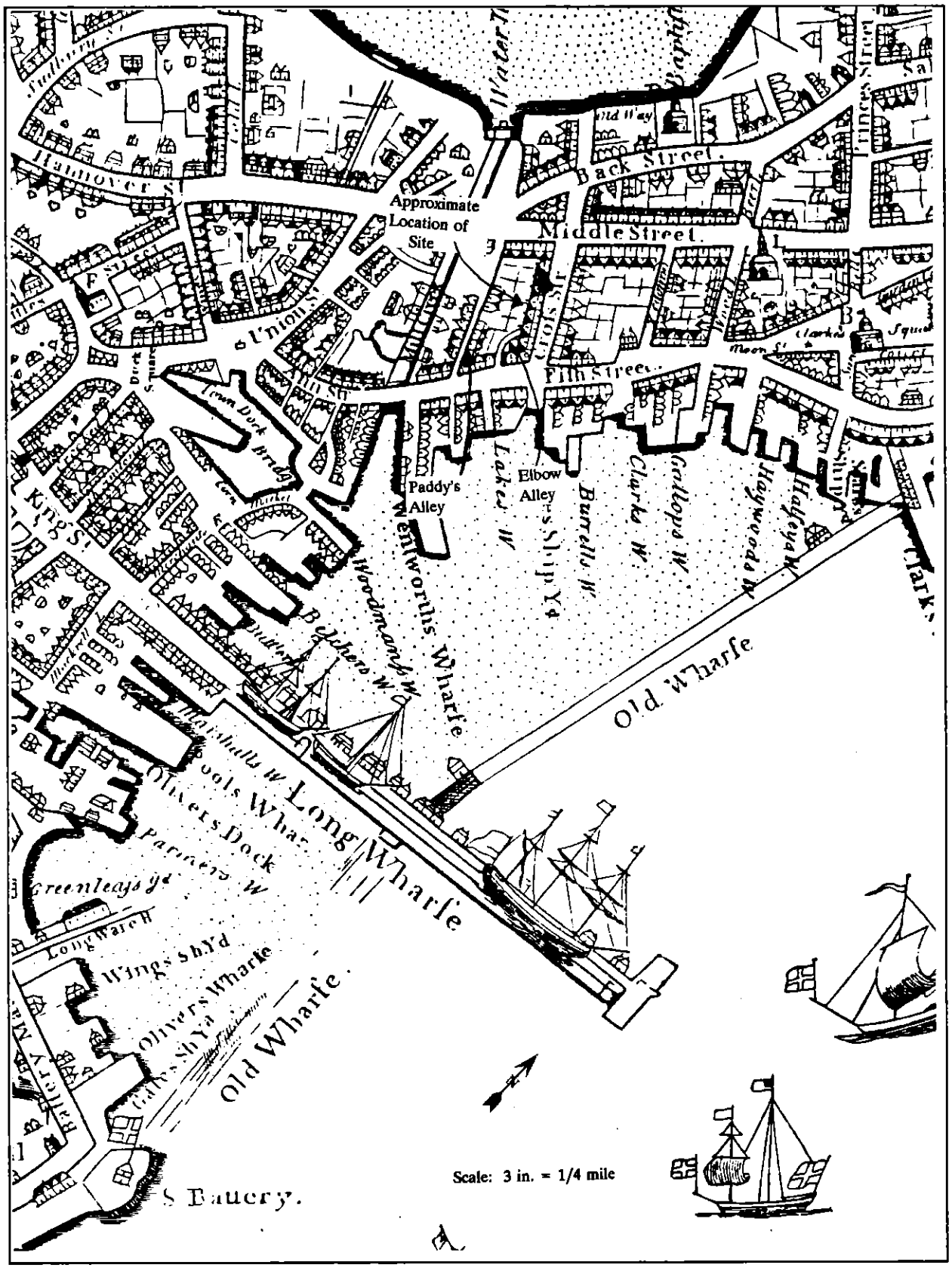


Figure IV-2 - Detail of John Bonner's 1722 Map of Boston (Bonner 1722).

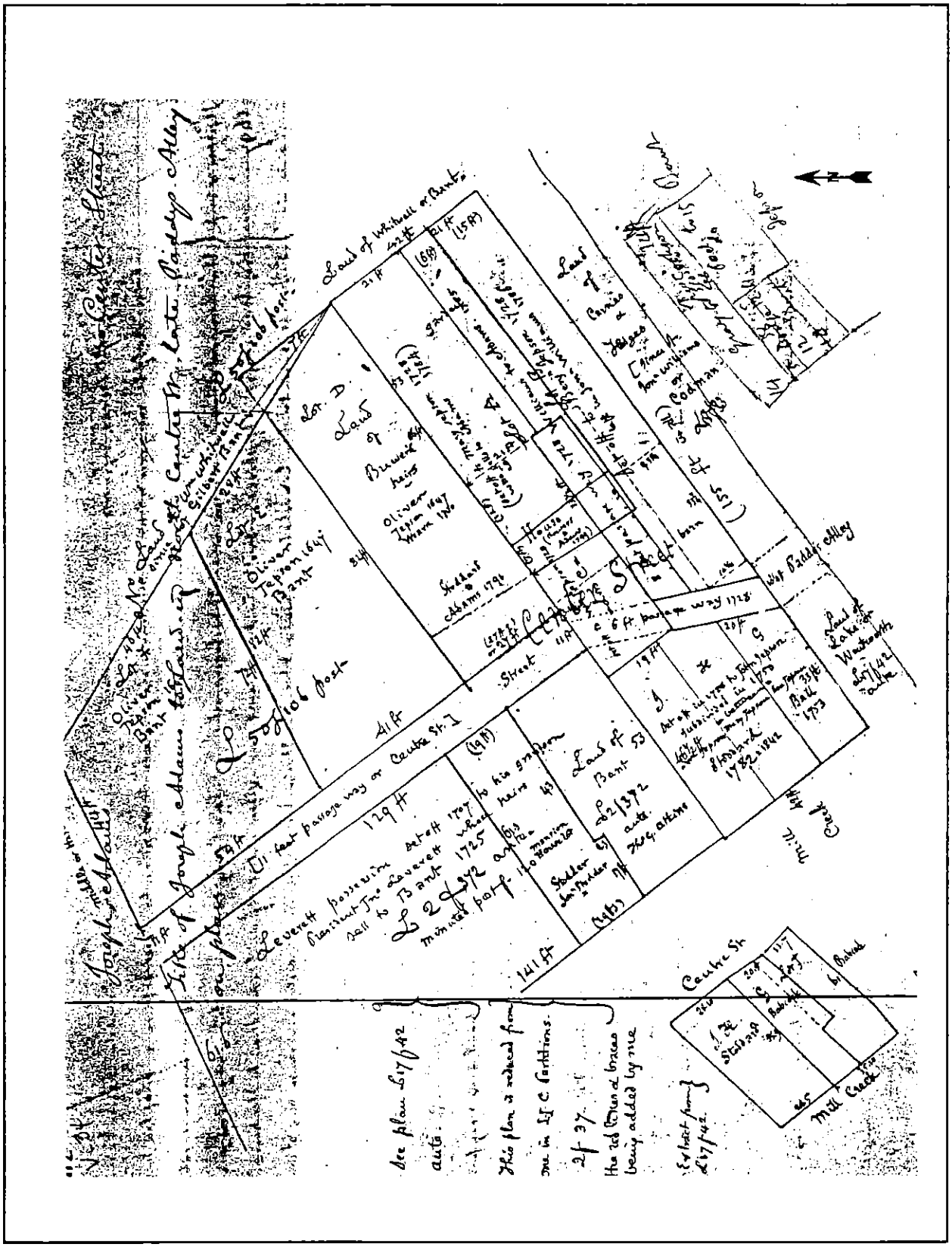


Figure IV-3 - Sketch map of the Disposition of John Jepson Jr.'s Estate (1728-1786), from Bowditch Title Records (Nathaniel S. Bowditch Collection; Courtesy of the Massachusetts Historical Society).

Four days after being granted his share of the property, he sold it to Elisha Hedges, a tailor from Shrewsbury, for £200. The property was described as containing two tenements (Suffolk Deeds 43:157). Whether these were newly constructed, or whether the barn on the property had been renovated and made habitable, is unknown. These changes must have occurred between the visit of the court commissioners, which occurred before February 20, 1728/9, when a barn is the only structure described on the portion of the property that went to Benjamin Jepson, and March 24 of the same year, when Jepson sold the property.

Elisha Hedges

Although described as a tailor from the Central Massachusetts town of Shrewsbury when he bought the Jepson property, Hedges (or Hedge) already owned land in the neighborhood that he had purchased from Joseph Ricks (Suffolk Deeds 42:92).

Hedges, whose intention to marry Martha Johnson was published in 1727/8, had a child, also named Elisha, the following year (Thwing Index: Elisha Hedges). His intention of marriage and the birth record of his son indicate that Hedges lived in Boston in the late 1720s, although he probably did not actually live on the property, which is not recorded as having a dwelling house on it at the time. Boston life may not have suited him, however. In 1729/30 he deeded the former Ricks property to Jacob Emmons (Thwing Index: Elisha Hedges), and on January 19, 1730, still described as a tailor of Shrewsbury, he sold the Jepson lot to Gershom Keyes, a Shrewsbury trader for £700 (Suffolk Deeds 45:80).

Gershom Keyes

Keyes had been born in 1698 in Shrewsbury, where he married Sarah Eager in 1718. He was involved in a purchase and mortgage of property near Sudbury Street in Boston in 1726, although apparently still a resident of Shrewsbury, where he was taxed in 1729. Keyes moved to Boston with his wife and five children and went into business (Keyes 1880:215-216). He is described in deeds as having a variety of occupations; in 1726 he was a trader, in 1732 a shopkeeper, and in 1735 a merchant (Thwing Index:Gershom Keyes).

Whether Keyes lived on the lot is unknown. He certainly owned other property in Boston, and was probably treating the Paddy's Alley West property as an investment. In 1734, he was living in Captain John Henderson's house in Marlborough Street, but by then he no longer owned the project-area property (Record Commissioners 13:263). On October 19, 1730, he had sold the property to Benjamin Townsend, a Worcester husbandman, for £800, an increase of £100 over his purchase price eight months earlier (Suffolk Deeds 46:90).

Benjamin Townsend

Townsend's brief ownership of the property is the only evidence of his activities in Boston. Worcester and Shrewsbury are adjacent to one another, and it is quite possible that Keyes knew Townsend before moving to Boston. Townsend probably never lived on the property, which he owned at a transitional stage of his life. When he sold the property back to Keyes in March, 1732, nearly five months after purchasing it, he was described as a mariner (Suffolk Deeds 47:110). The price was the same £800.

Gershom Keyes

Keyes kept the property for nearly a year, selling it to Hugh Hall, a Boston merchant for £550 (Suffolk Deeds 47:117). Hall was acting as attorney for Thomas Woolford, a Barbados merchant. Why the purchase price dropped £250 in a year is unclear, but the property may have been part of a larger transaction between Keyes and Woolford. Keyes was subsequently involved in the liquor trade, although his petition to retail liquor was denied by the Selectmen in 1733 (Record Commissioners 13:234). Woolford would have been excellently situated to supply him with either rum or its raw material, molasses.

After selling the property, Keyes achieved a certain prominence in town affairs. In 1735, he was among those who promised to contribute £10 towards the construction of an almshouse, and was chosen as a committee member to inspect, survey and plat three townships belonging to Boston. The following year, he was elected to the office of constable, but was able to avoid serving, probably because of his surveying responsibilities (Record Commissioners 12:125,158,182). Keyes apparently sold the last of his land in Boston in 1742 (Suffolk Deeds 66:202). He left Boston and, by 1755, had established a ferry in the Shenandoah Valley, near what is now Charlestown, Jefferson County, West Virginia. In that year, General Braddock's troops passed across Keyes Ferry on their ill-fated advance on Fort Duquesne (now Pittsburgh) (Keyes 1880:215).

Thomas Woolford

Woolford probably never saw his Boston property, purchasing it through an attorney, which is to say someone empowered to act legally on his behalf. Limited power-of-attorney agreements had been an essential element of long-distance trade since at least as early as the 1640s, when so many of them appear in *A Volume Relating to the Early History of Boston Containing the Aspinwall Notarial Records* (City of Boston Registry Department 1903). Such agreements facilitated trade and the collection of debts, without requiring the actual presence of the merchant.

Woolford owned the property for six years, and almost certainly rented it out, although the names of the tenants are not recorded. In March, 1739, Woolford appointed another attorney, Leonard Lockman, a local "Practitioner of Physick and Surgery" (Suffolk Deeds 57:194). Later that month, Lockman sold the property to Dr. William Douglas, whom he almost certainly knew from his medical activities, for £550 (Suffolk Deeds 57:210). The price was identical to the amount for which Woolford had purchased the property six years earlier.

William Douglas

Dr. Douglas was a Scotsman, educated at Utrecht and Leyden, who arrived in Boston in 1718 (Blake 1959:23,40). He was one of several European-trained physicians in Boston at the time (Bridenbaugh 1955:242).

Douglas became embroiled in controversy within a few years of his arrival in the town. During the smallpox epidemic of 1721, he opposed the experimental practice of inoculation, because it did not make sense to him to infect patients with a disease that they might otherwise be fortunate enough to avoid. As the procedure demonstrated its value, he modified his position, favoring inoculation by 1730 (Blake 1959:57,71,84). He may have been inclined to oppose inoculation because its principal supporters were a locally-trained doctor (Zabdiel Boyleston) and a clergyman (Cotton Mather), neither of whom Douglas felt was up to his medical standards.

Douglas founded a medical society called the "Physicall Club" in Boston in 1735. A visitor in 1744 found them meeting in the Sun Tavern, where they "drank punch, smoaked tobacco, and talk of sundry physicall matters" (quoted in Blake 1959:45). Douglas was slow to alter his opinions of himself and others, so these meetings almost certainly involved criticism of local and English physicians.

Douglas probably never lived on the property, but rented it out, as he did other Boston properties. In 1738, before buying from Woolford, he was living on Hanover Street, possibly near the site (Record Commissioners 15:104). At his death, he lived in Green Dragon Lane, north of the intersection of Hanover and Union streets, west of the project area (Suffolk Probate No. 10200).

Douglas once wrote to an acquaintance that in Boston he found he could "live handsomely by the means of my practice, and save some small matter" (Blake 1959:40). What he saved went into real estate. His inventory, taken in 1753, lists 31 land holdings in Worcester, Middlesex, and Hampshire counties, worth £1,220. Ten properties in Suffolk County and a mortgage on an eleventh were worth another £1,884. An estate worth, including personal property, more than £3,200 was no "small matter." The Paddy's Alley West property is described in the inventory as the "House and Land near ye Mill Creek now tenanted by mr. Bird & mrs. Lord [Value] £93:06:08" (Suffolk Probate No. 10200).

Exactly who Bird and Lord were is unclear in the absence of given names. The fact that they appear in the inventory (1753) and in a division deed of 1756 gives at least minimum dates for their tenancies, and the fact that they are listed as two separate parties reinforces the deed descriptions of a "dwelling consisting of two tenements" (see Suffolk Deeds 88:170).

Cornelius Douglas

Upon the division of William Douglas' estate in 1756, the property, described as a "messuage near Mill Creek tenanted by Bird and Lord purchased from Leonard Lockman," went to Cornelius Douglas, William's nephew (Suffolk Deeds 88:76). The younger Douglas owned the property for just under two months, selling it in April, 1756 to William Simpkins, a Boston goldsmith, for £60:06:08. Cornelius was described as a cabinetmaker "of Gifford Hall in Scotland formerly of Boston," and acted through an attorney, William Hyslop (Suffolk Deeds 88:170).

William Simpkins

Simpkins was born on October 7, 1704, the son of Thomas and Marjorie Simpkins. In May, 1726, he married Elizabeth Symmes (Thacher 1890:9-10). Between 1727 and 1744, they had at least seven children (Thwing Index:William Simpkins).

Simpkins joined the Ancient and Honorable Artillery Company in 1739, serving as a third sergeant in 1743 and as ensign in 1757. He was elected constable by the town in 1743, but avoided serving by paying a fine (Roberts 1895,II:11).

In addition to the Paddy's Alley West property, Simpkins also owned land on the south side of Paddy's Alley (Thwing Index:William Simpkins). In the Provincial Tax schedule of 1771, William Simpkins' property is described as occupied by himself and his son, Thomas Barber Simpkins (also a goldsmith). The dwelling and a detached shop

are assigned an "annual worth" of £16, with an additional £4 stock in trade (Massachusetts State Archives 132:114). As "annual worth" amounted at the time to one sixth of the assessed value, and as properties were generally assessed at about one half of their market value (Warden 1976:588), we can calculate an approximate market value of £192 for the property.

William Simpkins died on March 22, 1780, leaving no will. His son, John Simpkins, a Boston merchant, was appointed administrator of the estate. His estate inventory, taken the following month, lists a "Dwelling House & Land," valued at £12,800, and "2 shops adjoyn'g" at £6,000 (Suffolk Probate No. 17187). While some improvements had clearly been made to the property, most of the increase is almost certainly due to the phenomenal wartime inflation of Massachusetts' currency, which by late April, 1780, was running at about 5,000% over a little more than three years (McCusker 1992:351-355).

Simpkins' estate took an unusually long time to settle. Accounts were still being kept in 1798, even after Katherine (Simpkins) Davis, William's daughter, appealed to the probate court to enquire as to why settlement had not been reached (Suffolk Probate No. 17187).

By that time, however, the property had been outside the estate for about a decade and a half. By early 1782, it belonged to several members of the Walker family (Suffolk Deeds 144:70). How they obtained title is a minor mystery. Neither William, nor his children, nor his estate appears to have sold. Nathaniel Bowditch, Boston's assiduous nineteenth-century conveyancer, leaves a blank space where the intervening transaction should occur, indicating that he could find no link (Bowditch Papers 34:118).

Peter Edes, Elizabeth Walker Edes, and Mary Walker

On April 4, 1782, Peter Edes (a printer), his wife Elizabeth Edes, and Mary Walker (a spinster), all residents of Boston, sold the Paddy's Alley West property to John Dinsdall (or Dinsdale) for £42 (Suffolk Deeds 144:70). Peter Edes had married Elizabeth Walker in 1781 (Thwing Index:Peter Edes). As discussed above, it is unclear how they came by the property, but the most likely scenario is that Elizabeth and Mary Walker inherited, with Peter Edes involved only as Elizabeth's husband.

John Dinsdale

Dinsdale is described variously as a carter and a trader, both occupations near the low end of the commercial spectrum. He was married, but not much else is known about him except that he had purchased property somewhere on the south side of Paddy's Alley in 1780 (Thwing Index:John Dinsdale). He was elected to town offices in the early 1780s; as scavenger in 1780 and constable in 1782 (Record Commissioners 26:113,239). Two years and a day after buying the Paddy's Alley West property, Dinsdale sold it to Jonathan Williams, Esq. for £60 (Suffolk Deeds 144:72)

Jonathan Williams

Williams Sr. was born in 1699. He and his first wife Martha had three children between 1725 and 1730. In 1746, he married Grace Harris, with whom he had another eight children by 1760 (Thwing Index:Jonathan Williams).

Williams Sr. was a wine merchant, authorized by the Selectmen from 1728 to retail wine on Cornhill. He joined the Ancient and Honorable Artillery Company in 1729, ultimately serving as captain in 1751. He was elected to a number of town offices, including clerk of the market (1729), constable (1731), fireward (1764-1768), visitor of the schools (1766), and overseer of the poor (1767). Between 1739 and 1757, he served on a committee to investigate town ownership of land along the shoreline near Fort Hill (Roberts 1895,I:438).

In 1739, Williams lived in Cold Lane, west of the project area. During the 1750s, he purchased land in the neighborhood of the site (Roberts 1895,I:438; Suffolk Deeds 88:224,228). In 1761, he purchased Paddy's Alley East from John Carnes, Jr. (see below), immediately mortgaging it back to the Carnes heirs, and discharging the mortgage in 1784 (Suffolk Deeds 96:117, 126).

Williams played a major role in the events leading up to the Revolution. While an overseer of the poor in 1767, he was appointed to a committee to encourage home manufactures. The committee's report led to the adoption by the town of the non-importation agreement later in the year. Williams was the moderator at the mass meeting prior to the Boston Tea Party in 1773, and was a member of the Committee of Correspondence elected in 1775. He died in 1788 (Roberts 1895,I:437-438).

The purchase of Paddy's Alley West property from Dinsdale gave Jonathan Williams, Sr., an additional 21 ft. on the rear of the Carnes property, which he already owned (see Paddy's Alley East, below). Jonathan, Sr., deeded all of his property to one of his sons, John, in 1785 (Suffolk Deeds 149:210). John deeded all of this property back to Jonathan, Sr., in 1786 (Suffolk Deeds 154:116). In the meantime, though, John Williams had sold the western 6 ft. of Paddy's Alley West to Joseph Adams (Suffolk Deeds 179:280). This is not, however, clearly reflected in John's 1786 deed to his father. In fact, John does convey a 15 ft. wide property that appears to represent the remainder of the Paddy's Alley West property after the sale to Adams, but he *also* conveys a 21 ft. lot that apparently consists of the *entire* Paddy's Alley West property, including the 6 ft. already sold to Adams. Thus, the 1786 deed from John Williams to his father not only conveys the same property twice, but it also appears to convey property not owned by the grantor. The purchase of both Paddy's Alley West and Paddy's Alley East by Joseph Hall, Esq., of Boston continues the title problem, as it too conveys both the 21 ft. lot and the 15 ft. lot (Suffolk Deeds 179:204).

Joseph Hall

Hall, a lawyer, was born in 1761. On April 18, 1775, his father sent him from Boston to Roxbury to carry the warning that British troops were marching on Lexington and Concord. Despite the war, he graduated from Harvard in 1781, and in 1788 joined the Ancient and Honorable Artillery Company. After the Revolution, he was on General Brooks' staff, and served as a representative to the General Court during Shays' Rebellion. He later served as the High Sheriff of Suffolk county and as a probate judge (Roberts 1895,II:231)

Isaac White

In 1795, Hall combined the remaining 15 ft. of Paddy's Alley West with the westernmost 15 ft. of Paddy's Alley East into a single lot, which he sold to Isaac White, described as a trader (Suffolk Deeds 180:39). For the further history of the property, see section IV.C., below.

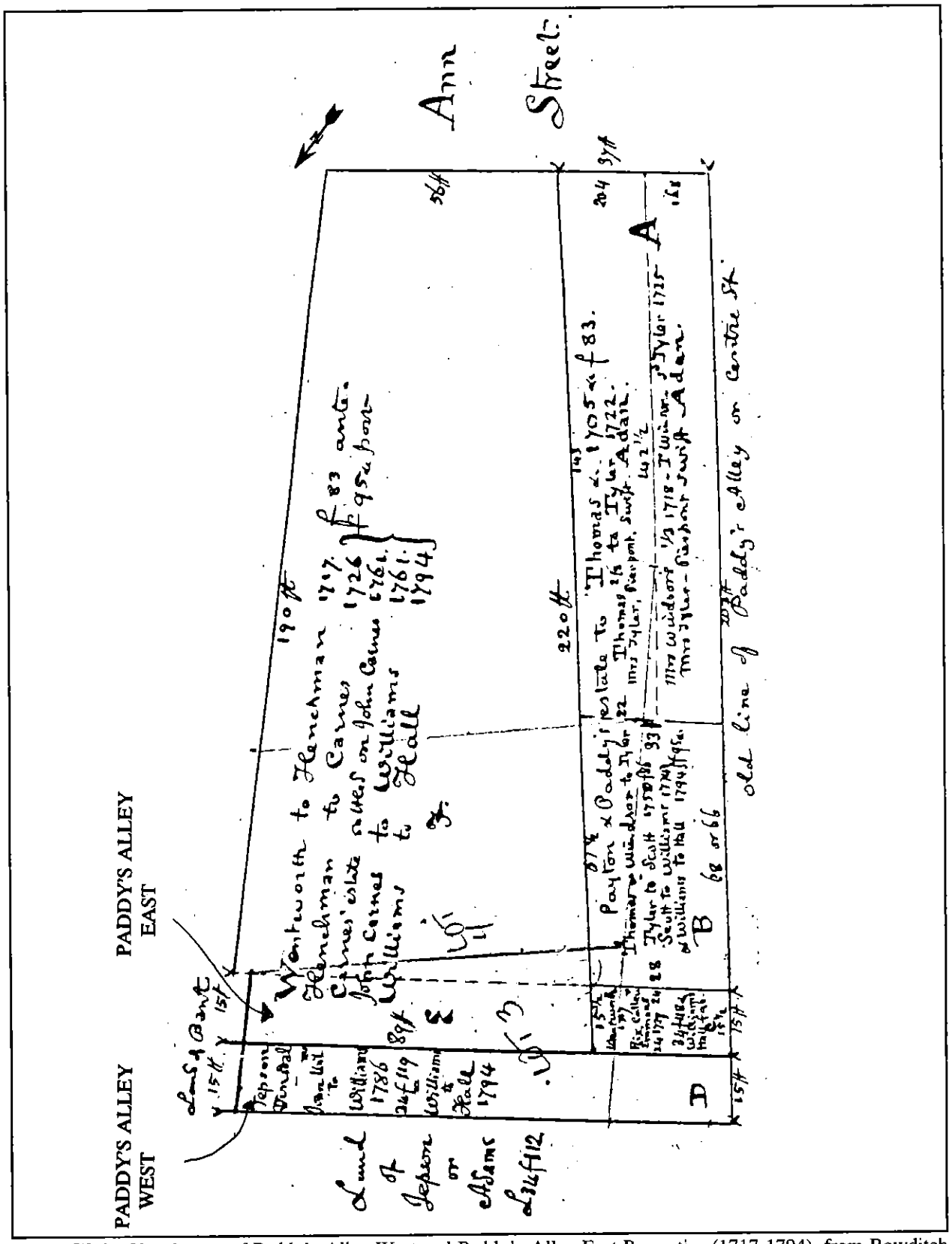


Figure IV-4 - Sketch map of Paddy's Alley West and Paddy's Alley East Properties (1717-1794), from Bowditch Title Records (Nathaniel S. Bowditch Collection; Courtesy of the Massachusetts Historical Society).

C. Paddy's Alley East

Figure IV-4 shows the configuration of the Paddy's Alley East property, and its relationship to Paddy's Alley West, from roughly 1717 until 1794. Figure IV-5 shows configuration of the Paddy's Alley property from 1795, when the west and east properties were united, until 1850.

William Paddy

William Paddy was a skinner and merchant who arrived in Plymouth in about 1635, and was in Boston around 1650. A few years later, he bought property from Thomas Lake (Thwing 1920:58). Paddy died in 1658.

Nathaniel Eldred

Eldred is mentioned in the Book of Possessions as an abutter, in a location that places him as a predecessor to Thomas Lake on this property, but no clear description of his property is given (Record Commissioners 2:47).

Thomas Lake

Lake was born in 1615 in Lincolnshire. His father was well off and his uncle was knighted in the service of the Crown (Hubbard 1865, II:162n). Lake immigrated initially to New Haven, where he married Mary Goodyear, daughter of Stephen Goodyear, the deputy governor of that colony. He owned land in Boston before relocating there in the mid-1640s. Lake served as a Selectman for the town from 1658 until his death. He became involved in the Indian trade in "the Mayne," as the coast north of the Bay Colony was known. With Thomas Clark, he purchased a trading post on Arrowsic Island in the mouth of the Kennebec River in 1654 (J. Savage 1865, III:45; E. Baker 1983).

Lake held a commission as a Captain in the New England Militia. As the native uprising led by Metacom, or "King Philip," spread northward, the Arrowsic trading post was fortified and garrisoned with a contingent of troops. Early on the morning of August 14, 1676, the trading post was attacked and taken. Fifty-three persons were killed or captured in the attack, among whom was Captain Lake, dead at age 61. His remains were recovered and returned to Boston the following spring (Hubbard 1865, II:159-162, 224).

Lake had at least 11 children, two of whom are known to have reached adulthood. In 1656, he had an African or African-American servant, Besse, who had a daughter that year. In addition, the Lake household was no doubt host to a transient population of employees and Maine natives, one of whom is known to have died there in 1663 (Record Commissioners 9:90).

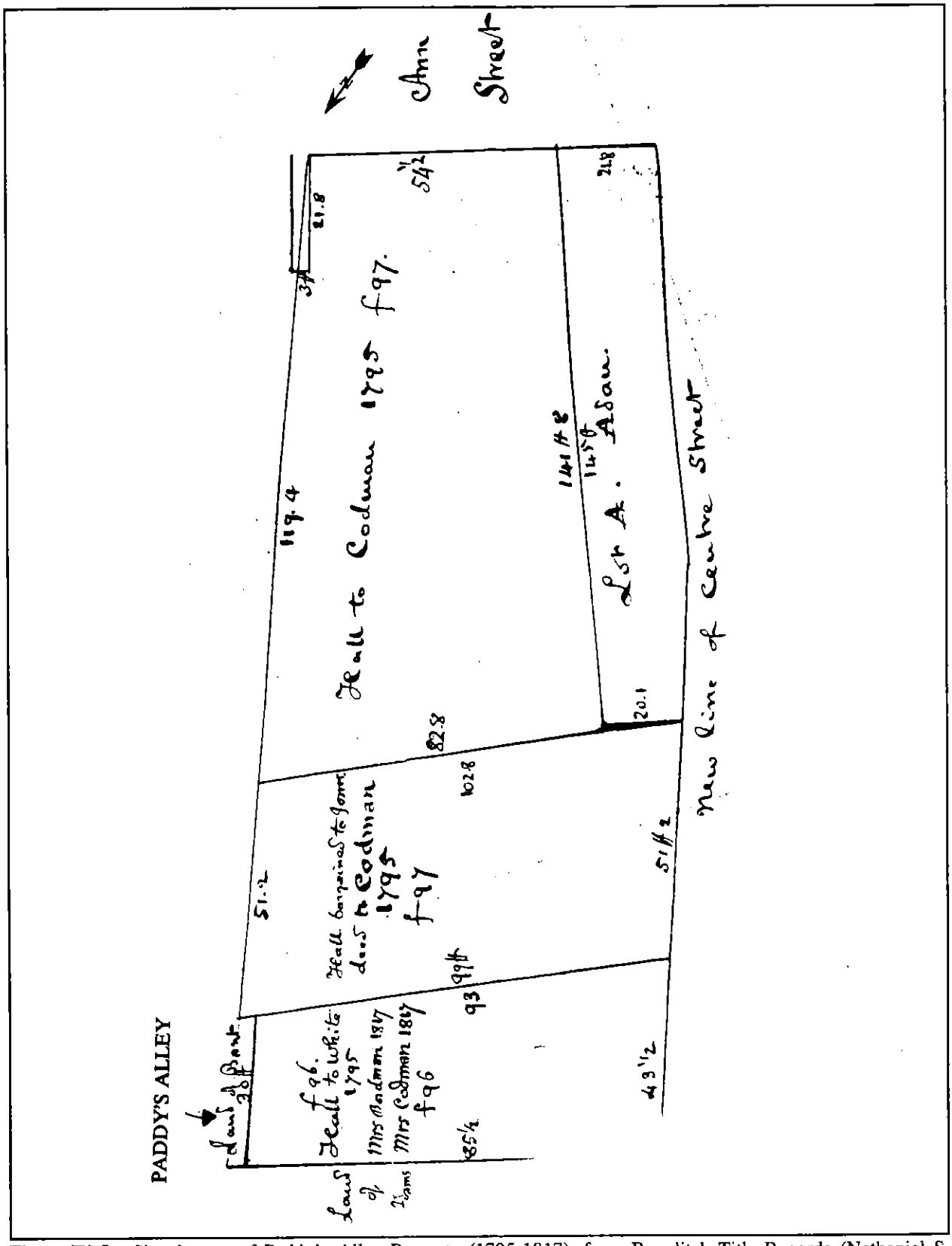


Figure IV-5 - Sketch map of Paddy's Alley Property (1795-1817), from Bowditch Title Records (Nathaniel S. Bowditch Collection; Courtesy of the Massachusetts Historical Society).

Mary Lake, Ann Cotton, Thomas Lake, and Byby Lake

After Thomas Lake's death, his heirs owned the property until 1712. His widow, Mary, held a life estate until her death. Lake's two children inherited shares in the property. His daughter Ann Lake (b. 1663) married Reverend John Cotton by 1687, and after his death, Reverend Increase Mather. His son Thomas Lake, Jr. (b. 1656) returned to England to become a barrister of the Middle Temple, dying on 22 May, 1711. Thomas' son Byby Lake, a Baronet, inherited his father's share in his grandfather's property in Boston and Maine, and it is probably his desire to sell that prompted the heirs to dispose of the property so soon after the death of Thomas Lake, Jr. (Hubbard 1865, II:162n; Record Commissioners 1883:55,88,173).

In 1712, none of the heirs appears to have been resident on the property. Instead, it was occupied by tenants, including Elizabeth Hall (a widow), individuals named Sparry and Treworthy and "others" (Suffolk Deeds 26:181). The widow Hall probably resided there, while Sparry, Treworthy and the others were probably shopkeepers or tradesmen occupying the shops fronting along Ann Street.

Samuel Wentworth

Anne Cotton and Byby Lake sold the property to Samuel Wentworth on June 6, 1712 (Suffolk Deeds 26:181). Wentworth was born in Portsmouth, NH, in 1666. Upon the death of his father in 1690/91, he moved to Boston, and became involved in trade. He married three times and had three sons, the last of whom had died at age 25 the year before Wentworth purchased the property. He also had two step-children, born to his third wife, Abigail Goffe, in a previous marriage of hers (Wentworth 1878:175-177). His probate inventory, taken in 1736, included three African Americans, Cato, Tom, and Rose, valued at £100, £70, and £70, respectively (Wentworth 1878:177). They, or other slaves, were probably members of the Wentworth household while it occupied the site.

Wentworth was active in public affairs. He joined the Ancient and Honorable Artillery Company in 1693. He held town offices, including those of tithingman and constable, with considerable frequency between 1690 and 1720. During his residence on the site, he was the Mill Bridge Ward's "scavenger," in which capacity he was a sort of "health officer" responsible for ensuring the cleanliness of the streets (Roberts 1895,I:301). In 1713, shortly after purchasing the property he was given leave to dig up Ann Street to install a drain for his cellar.

Nathaniel Henchman

Nathaniel Henchman's birth is not recorded in Boston's vital records, but on January 11, 1693, he married Hannah Green (Record Commissioners 9:210). Of their three children, Mary (b. 1697) and Nathaniel, Jr. (b. 1699) lived past infancy. After Hannah died, in 1706, Henchman married Dorothy Emerson (Thwing Index, Nathaniel Henchman).

Henchman was successful in mercantile activities and was involved in many land transactions in Boston. He had once owned the land on which Christ Church was built in 1723 (Thwing 1920:65). The diarist Samuel Sewall recorded an episode involving him on April 3, 1708.

> I went to Cous. Dummer's to see his News-Letter: while I was there Mr. Nathl Henchman came in with his Flaxen Wigg: I wish'd him joy, i. e. of his wedding. I could not observe that he said a Word to me; and generally he turn'd his back upon me, when none were in the room but he and I. This is the Second time I have spoken to him, in vain, as to any Answer from him. First was upon the death of his Wife, I crossed the way near our house, and ask'd him how he did: He only shew'd his Teeth (Sewall 1967:118).

Henchman was often elected to minor town offices, such as those of tithingman in 1697, 1706, 1715, 1718, and 1720, constable in 1698, and assessor in 1708 (Record Commissioners 7:226, 229; 8:36, 49, 109, 130). In 1717, the year that he purchased the Ann Street property, he also owned property in Prince Street, where he was charged 15/6 for sewer repairs (Record Commissioners 13:31).

John Carnes

On December 14, 1726, Henchman sold the Ann Street property to John Carnes (Fig. IV-7). Carnes had been born in Boston in 1698, the son of a captain in the British navy. In 1720, he married Eliza Greenough. Two years later, after Eliza's presumed death, he married Sarah Baker, who bore him fourteen children (Roberts 1895,I:454). Sarah died in 1740 and the widower then married Dorothy Farnum, who apparently took on the daunting task of raising Sarah's fourteen children, then aged two to eighteen. For whatever reason, Dorothy had no children of her own.

Figure IV-6 - Touch of Colonel John Carnes, Boston, 1723-1760 (Laughlin 1981, Plate XLIV).

John Carnes was described in his deed of purchase as a brazier, a worker in pewter and brass, and is best known for his work as a pewterer. His shop (Fig. IV-8) must have produced a significant number of vessels, for at the time of his death his probate inventory (Suffolk Probate 12299) listed a pewterer's wheel and 695 lbs. of pewterer's molds. This is almost twice as many molds by weight as were listed for two other Boston pewterers combined (Laughlin 1981:64). In fact, Carnes paid the Harvard tuition of one of his sons with an assortment of knives, forks, spoons, and sugar, in-kind payments such as this being not uncommon at the time (Shipton 1960:137).

Despite Carnes' large production capacity, relatively few objects can today be attributed to his workshop. One of them, a pewter tankard now in the collection of the Henry F. DuPont Winterthur Museum, is the only pre-Revolutionary example of a Boston-made pewter mug whose maker can be identified with certainty (Fig. IV-9) (Laughlin 1981:Plate LXXXV).

Carnes joined the Ancient and Honorable Artillery Company in 1733. In that year, he served as a second sergeant, but he had risen to lieutenant in 1745, and captain of the company in 1748. He also joined the Boston militia regiment, and had been promoted to lieutenant-colonel by his death (Roberts 1895,I:454-455). His inventory contained considerable military equipage, including "4 small arms, 2 swords, a pike & sundry other articles" (Suffolk Probate No. 12299). Two of Carnes' sons followed him into the Artillery Company. Thomas Carnes, a shopkeeper and trader in 1754, became a second sergeant in 1758; he also joined the Boston militia, where he rose to the rank of captain. Edward Carnes, a rope maker, joined in 1755 and became a major, serving in the Continental army during the Revolution (Roberts 1895, II:65-66,73). Military status was clearly important to John Carnes and his

family; he had a picture made showing himself on horseback, drilling his company on Boston Common (Roberts 1895, I:455).

By March 4, 1760, when his will was made out, Carnes was apparently in poor health, as the will had to be written out for him. In it, he made provision for his mother, who must still have been alive, and for his wife, during their natural lives, and divided his property equally among his children, accounting for the fact that several children had already received more from him than others (Suffolk Probate No. 12299). John Carnes died on March 10, after having been ill for a few days with a fever. Officers of the Ancient and Honorable Artillery Company preceded the deceased in his funeral procession on its way to Copp's Hill cemetery in the North End (Roberts 1895, I:455).

When Carnes purchased the property, it was described as a stone messuage (dwelling house) with four tenements in front of it along Ann Street (Suffolk Deeds 40:165). Deeds executed after his death describe it similarly (e.g., Suffolk Deeds 96:126), but the presence of an additional structure is documented. When his widow's portion of his estate was laid out in 1761, her life estate extended 169 ft. back from

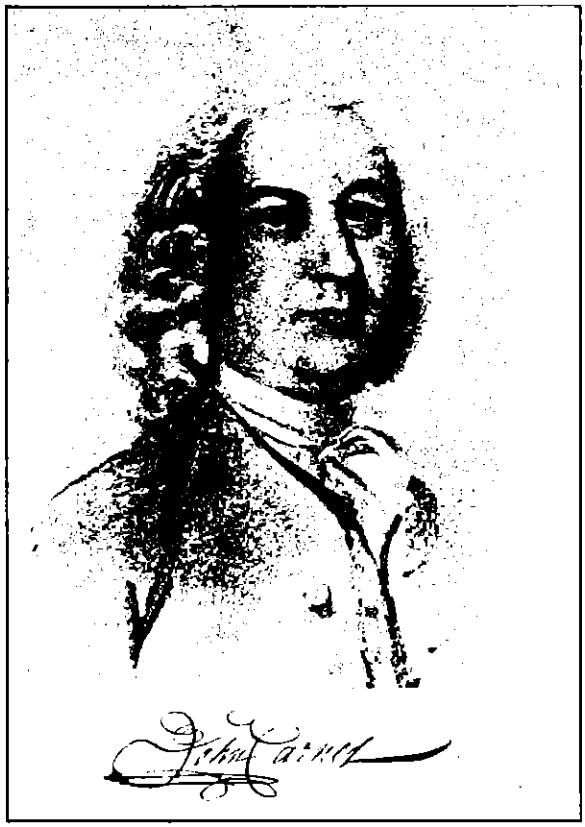


Figure IV-7 - Colonel John Carnes, Boston, 1698-1760. From *History of the Military Company of the Massachusetts*, Laughlin 1981, Plate VII.

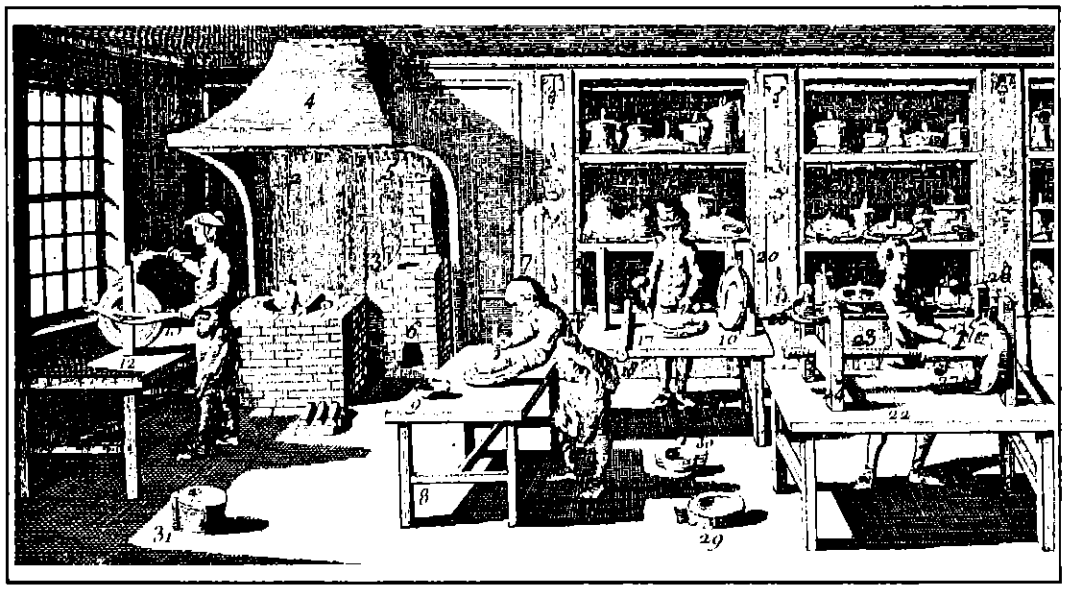


Figure IV-8 - Typical 18th century pewter shop. Originally printed in *L'Art du Potier d'Etain*, Laughlin 1981, Plate I.

Ann Street, where it was bounded "Northwesterly in the Rear on a Wooden Warehouse and Land belonging to said [Carnes] Estate, there measuring Twenty ft." (Suffolk Probate No. 12299). As the full depth of the property was 190 ft., that left 21 ft. to contain the warehouse, which may have measured approximately 20 ft. by 20 ft., and which was located in the northwest corner of the property. This is probably the structure excavated during the data-recovery (Features 14 and 15). Entry to the front of the property was through an archway with four brick tenements (possibly two to a single structure) flanking the entrance. The stone house was located in the south-central portion of the property, and the wooden warehouse was in the northwest corner. The northwest portion of the property was described as a "garden" in deeds of 1712 and 1726. The property continued to contain a garden, even after construction of the warehouse, and one is mentioned in the following listing of real estate for sale in the *Boston Gazette* for July 21, 1760:

Figure IV-9 - Quart tankard, Col. John Carnes, Boston, c.1720-1760. Courtesy of Henry Francis du Pont Winterthur Museum. Laughlin 1981, Plate LXXXV.

> To be Sold, for the Benefit of the Heirs, having obtained Leave from the Great and General Court for that End, The Real Estate of *John Carnes* [1733], late of *Boston*, Esq; deceased; Consisting of a Stone-House, with a good Garden; Two Brick Tenements and a large Shop, fronting Ann-Street, with a Blacksmith's Shop and several Stores back, two good Wells of Water with Pumps, very convenient for a Merchant or Shop keeper; also two Tenements in Sun-Court, so called, near the Old North Meeting House. Also a young Negro Man capable of any Business, a Marble Table, and a Mahogany ditto. Inquire of Arthur Savage in Ann-Street.
>
> N.B. All that are indebted to said Estate, are desired to make speedy Payment; and all to whom the Estate is indebted, are desired to come and receive their money.

Settling Carnes' estate was no easy matter. His inventory, taken about a week-and-a-half after his death, totalled £1,852:16:14, £1,106:13:4 of which was real estate. The "Houses & Land in Ann Street" were worth £1,000; the remaining £106:13:4 was for the two "tenements" in Sun Court, a short street that ran southeast from North Square to the waterfront. One-third of the real estate was set off as life estate (dower) to his widow, Dorothy Carnes, by the probate court in February 1761. This took the form of the northern portion of the Ann Street property, including a brick tenement occupied by two tenants, Samuel Ross and John Bradford (Suffolk Probate No. 12299).

Meanwhile, it became apparent to the court that the remaining property could not easily be divided among Carnes' children, "without inconveniencing the whole estate," and "without great prejudice." The court determined that the solution was to settle the real estate on John Carnes, Jr., who could then sell it and divide the proceeds among the heirs. The real estate was accordingly reassessed at £1,156:13:4, £1,066:13:4 of which was for the Ann Street property. Complicating matters was the need to provide for the widow. Dorothy Carnes' third belonged to her as a life estate, reverting to her heirs upon her death, so it was still a part of John Carnes' estate, but at the same time it could not be sold unless she were otherwise compensated. The arrangement that was arrived at was that John Carnes, Jr. would provide his mother with the interest from £400, for the rest of her life in lieu of her tenure of any portion of the real estate. He would also give each of his brothers and sisters £68:15:9 within one year, and £36:7:3

upon his mother's death, when the £400, the interest from which she was enjoying, reverted to the estate. The second payments were made, and John Carnes' estate settled, in August, 1784 (Suffolk Probate No. 12299).

John Carnes, Jr. was required to post a bond of £1,000 to ensure satisfactory performance of his administrative duties. Jonathan Williams, a Boston Merchant who owned land in the neighborhood, appears to have put up the bond money; he cosigned the bond with Carnes (Suffolk Probate No. 12299). His interest was not entirely altruistic, however, and he had no doubt been negotiating with the heirs as a potential purchaser of the estate. Indeed, four days after the bond was posted and the disbursement arrangements finalized, on May 19, 1761, Carnes sold his two-thirds interest in the Ann Street estate that the court had assigned him, plus his reversion rights to the remaining third, to Williams for the assessed value of the property, £1,066:13:4 (Suffolk Deeds 96:126). At the same time, Dorothy Carnes assigned her dower rights to Williams (Suffolk Deeds 96:127). (See discussion of Williams as a property owner, above, in section IV.B. Paddy's Alley West.)

John Carnes, Jr.

While the other Carnes sons followed their father into militia units, the eldest, John Jr., sought achievement in another calling, graduating from Harvard College in 1742 and entering the Congregational ministry. He ultimately failed to get along with his parishioners in Stoneham, Norfolk County (1746-1755), or Rehoboth, Bristol County (1759-1764), and left both parishes. He later became a liquor salesman in Boston's South End, a chaplain in the Continental Army during the Revolution, a member of the Massachusetts House of Representatives and a Justice of the Peace (Shipton 1960:137-142). John Carnes, Jr. held the property for only four days after it was assigned to him, before selling it to Jonathan Williams, a Boston merchant, for £1,066:13:04. Dorothy Carnes also signed away her dower rights (Suffolk Deeds 96:126,127).

Jonathan Williams

Williams is discussed more fully above, in Section IV.B. His connection with the Carnes family may have originated with the Ancient and Honorable Artillery Company, of which both he and John Carnes, Sr., had been members, and to which two of Carnes' sons still belonged.

Williams sold both Paddy's Alley East and Paddy's Alley West in 1785 to his son, John Williams, who reconveyed them to him in 1786 (Suffolk Deeds 149:210, 154:116). On November 29, 1794, Williams sold a number of lots, including both properties, to Joseph Hall, Esq., of Boston (Suffolk Deeds 179:204). These transactions are problematic, as discussed above.

Joseph Hall

Hall is discussed fully in Section IV.B., above. On July 2, 1795, he sold the remaining 15 ft. of Paddy's Alley West and the westernmost 15 ft. of Paddy's Alley East to Isaac White, giving the lot its configuration as excavated (Suffolk Deeds 180:39: see Figure IV-5).

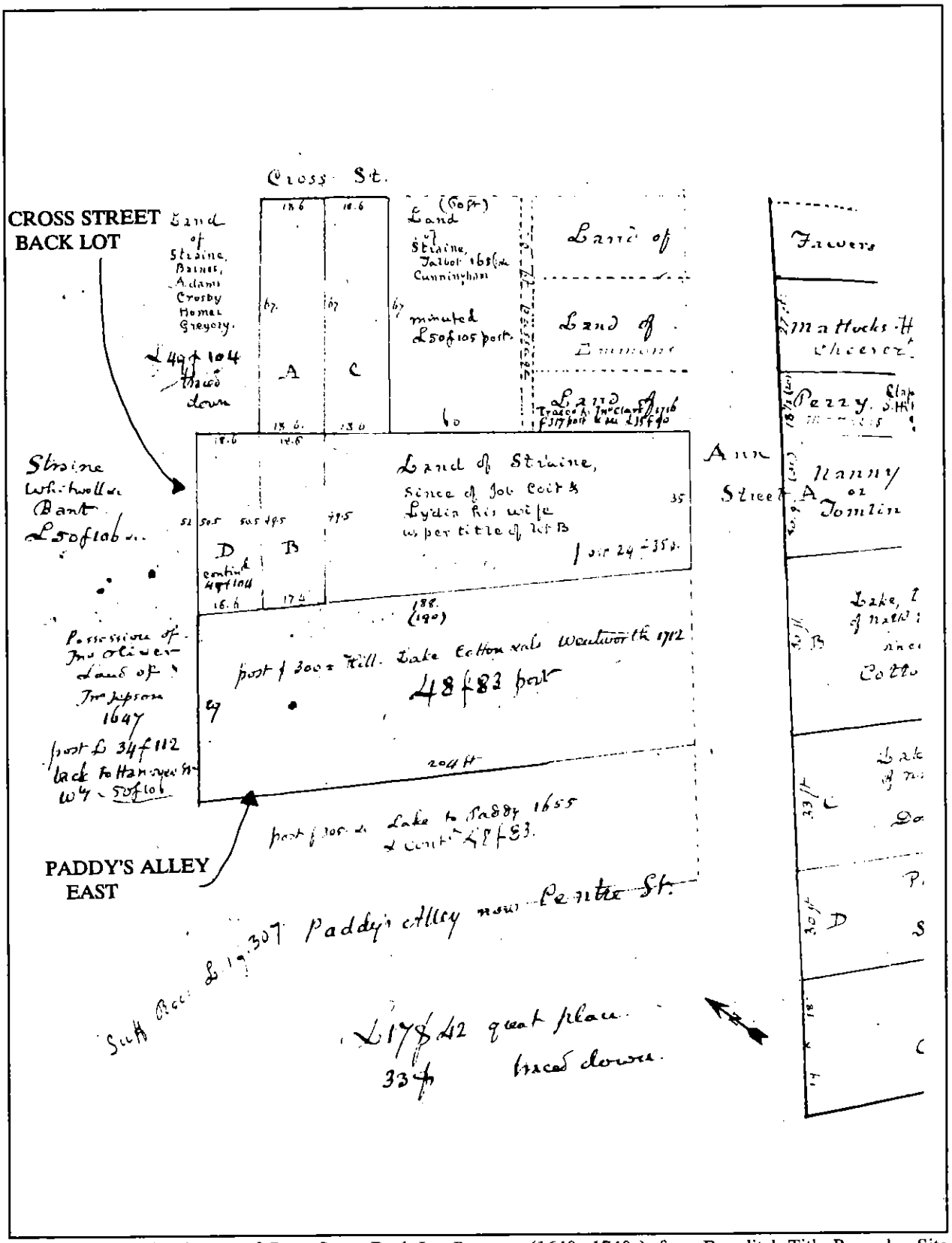


Figure IV-10 - Sketch map of Cross Street Back Lot Property (1640s-1740s), from Bowditch Title Records. Site is within Lot D (Nathaniel S. Bowditch Collection; courtesy of the Massachusetts Historical Society).

Isaac White

In 1795, Hall sold the property to Isaac White, who is described as a trader (Suffolk Deeds 180:39). White held the property until his death in 1816, when the property passed to Joseph White and Lydia White Boardman (Bowditch Papers 48:97). Isaac White's real estate was divided by the heirs, and John Boardman and Lydia Boardman received the property containing the site (Suffolk Deeds 238:28), which they sold to Catherine Codman early in 1817 (Suffolk Deeds 254:229).

Codman Family

Members of the Codman family acquired considerable property in the area from 1795 throughout the first half of the nineteenth century. The Eastern Stage Company office and a tavern were located on various Codman properties to the east (Bowditch Papers 48:99,102). Shortly after mid-century, the Codman Estate was broken up, and warehouses were built on the site.

D. Cross Street Back Lot

Figure IV-10 shows the configuration of the Cross Street Back Lot property from the 1640s to the 1740s. Figure IV-11 shows the configuration of the property from 1772 to around 1850.

Valentine Hill

The earliest documented owner of the Cross Street Back Lot site was Valentine Hill. Hill, a merchant and shipowner, arrived in Boston in 1636, with commercial connections in London in the form of his brother John Hill, of Cheapside (City of Boston Registry Department 1903a:197). By the 1640s, there was scarcely a mercantile or speculative venture in the town with which he was not in some way involved.

> He traded in wheat and, through his connections in London, acted as agent for London merchants in the fish trade, gathering cargoes along the coast from Cape Ann northward for delivery to London vessels; he retailed and wholesaled English imports, lent money, and speculated in town lots, buying and selling at least twelve during the decade; he headed the group developing Town Dock and had a financial interest in the Mill Creek project; he was involved in the Indian trade, being one of four Boston merchants given special privileges in 1641 (Rutman 1965:199).

In addition, he was involved in the exchange of pork, cattle, "Indian" corn, sugar, wood products such as clapboards and pipe staves, and tobacco with Virginia and Barbados (City of Boston Registry Department 1903a:19,20,47,103).

The area near the juncture of Cross and North streets was one of Hill's real estate ventures, and nearly all of the property titles on the west side of Cross Street between Ann and Middle streets may be traced to him. In 1648, he sold the Cross Street Back Lot property, which extended from the waterfront to the west side of Ann Street, to Richard Straine.

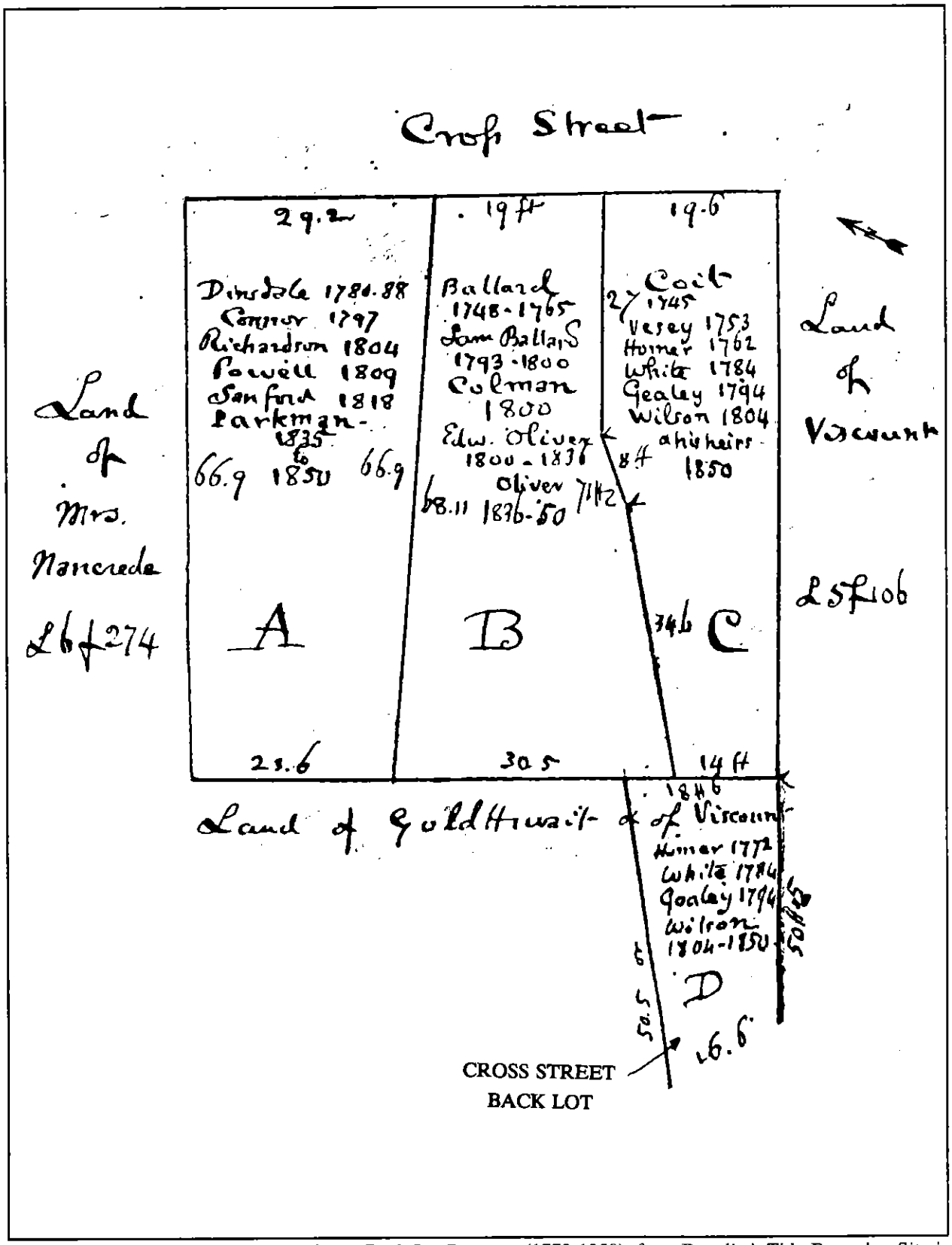


Figure IV-11 - Sketch map of Cross Street Back Lot Property (1772-1850), from Bowditch Title Records. Site is within Lot D. (Nathaniel S. Bowditch Collection; courtesy of the Massachusetts Historical Society).

Richard Straine

Little is known about Straine's occupation of the site. The book of possessions records his acquisition of the property as follows:

> *Richard Straine his possession in Boston.*
> 25 (7) 1648. Valentine Hill of Boston granted unto Richard Straine of Boston, one acre of land in Boston, be the same more or lesse, being bounded on the southwest with Mr. Nathaniel Eldred: Mr. John Oliver and the high wayes northwest and northeast: Arthur Perry and the greate Cove southeast: and this was by an absolute deed of sale dated the 27th of August 1648, and Acknowledged by Mr. Hill before mee Wm. Aspinwall 25 (7) 1648. Witnes Henry Shrimpton and Thom. Bomsted (Record Commissioners 2:47).

No structures are mentioned on the property at the time. Whatever the details of his tenure, Straine soon found himself in legal difficulties with Paul Allistre, who won the property from Straine in a court case.

Paul Allistre

Allistre held the property for, at most, two years, and probably less. He may have turned it over immediately upon acquiring it, and whether he lived there is not known.

Robert Nanny

Nanny had arrived in New England, probably at Dover, NH or Saco (today in Maine, but then in Massachusetts), on the ship *Increase* in 1635 at age 22, as an agent of Robert Cordell, a London goldsmith (J. Savage 1865,III:260). In 1641, Nanny was in Dover, where he signed a protest against proposed annexation of Dover by Massachusetts Bay. He was taxed there in 1649, after which he moved to Boston, where he succeeded as a merchant (Quint 1879:97). He ultimately held an extensive estate in Barbados, which he administered from Boston (Rutman 1965:253).

> 16 (7) 1650. Paul Allistre granted to Robert Nanney his dwelling house in Boston, taken in execution of a Judgmt. against Rich: Straine, bounded with the land of Thomas Lake southwest: Arthur Perry northeast: Robert Wing northwest: and the cove southeast, (being in breadth 31 foote as appeares by the apprisement), together with the land and wharfe to the sd. house belonging: with warrantie against all that shall challeng [sic] any title thereto by, from, or under him or Richard Straine or his p'decessors: and this was by a deed dated 16 (7) 1650.
>
> Pau. Allistre and a seale
> (Record Commissioners 2:40).

Nanny's Ann Street property was not in the best of condition, and he was warned several times in 1655 by the Selectmen about various maintenance issues that had become public nuisances. In April,

> For as much as many complaints of greatt danger by a well of Robt. Nannyes, itt is therefore ordered that the said well shall be made up secure by the 6th of the next mo., upon penalty of

> twenty shillings, and for every week afterwards 20*s*., and hee is to secure his sellar in the streete upon the said penalty (Record Commissioners 2:124).

In September, Nanny and three other men were fined ten shillings each "for their Chymnyes being on fire" (Record Commissioners 2:127). In a city of wooden dwellings, plagued by fires, the presence of smoldering chimneys, generally the result of the buildup of soot and creosote, could be dangerous indeed.

Robert Nanny married Katherine Wheelwright. She had been born in Bilsby, Lincolnshire, where her father, Rev. John Wheelwright was vicar, in 1630 (Quint 1879:99; Heard 1930:11). Wheelwright had come to Boston in 1636 (Erikson 1966:78). He had found himself on the losing side of the Antinomian religious controversy, and he and his family were banished in 1638. From Boston he went to Exeter, NH. After the New Hampshire settlements were annexed by Massachusetts Bay in 1641, he moved on to Wells, in Maine, where he remained until returning to Exeter in 1646. Wheelwright went to England in 1657, but returned to be the Minister of Salisbury (J. Savage 1865,IV:502-503; Wentworth 1878:81-85). When Nanny married Katherine is unknown, but it would certainly not have been before her father returned from Wells to Exeter in 1646, nor after the birth of their first child in 1653/4. In all, Robert and Katherine Nanny had seven children, two of whom, Samuel (1659) and Mary (1661), lived past childhood. An eighth child, unborn, is mentioned in Nanny's will (J. Savage 1865,III:260).

In April, 1663, Nanny conveyed all of his property to his father-in-law, Rev. John Wheelwright of Salisbury, and brother-in law, Samuel Wheelwright, of Wells, Maine, in trust for his family (Suffolk Deeds 7:171). In his will, dated August 22 of the same year, he gave his property to his wife, in trust for his children, with reversion to her in the event of their death (Suffolk Probate No. 348). Five days later, on August 27, 1663, Robert Nanny died (J. Savage 1865,III:260).

Katherine Nanny

Within a few years, Katherine Nanny married Edward Naylor, a merchant. Naylor had emigrated from London to the Caribbean island of St. Christopher in September, 1635, at age 21, apparently accompanied by a younger brother named John (Anonymous 1860:355). Three years later, Naylor was among those listed as owning more than 10 acres on Barbados (Briggs 1885:138). In the course of time, he may have met Robert Nanny, who later owned an extensive estate on the island. In any event, Naylor was clearly in Boston by November, 1664, when he (with Samuel Mattocks and Edward Page, residents of the Ann Street neighborhood) was among the debtors to the estate of Elkanah Gladman (Trask 1862:50). By November 28, 1666, he was clearly married to Katherine and living on the property, when the Selectmen granted him and his neighbors "liberty to wharfe or make dockes as they shall agree on, or any of them before theire owne landes betwenn [sic] the mill Creeke & John Phillips dock" (Record Commissioners 7:33).

Edward Naylor and Katherine Nanny Naylor had two children; Tabitha, born in 1667, and Lydia, born in 1668 (J. Savage 1865,III:263). Before very long, Naylor's behavior began to exhibit serious signs of deterioration. In 1671, Katherine Naylor brought her husband to court, charging him with adultery and abuse. The chronology of events is difficult to establish with certainty, as the many depositions and court papers are in no particular order, and as many of the depositions are sketchy about the dates of the events that they describe (Superior Court of Suffolk County 12:57-67). In 1671, Naylor left the house one evening, and traveled north with Mary Read, a pregnant household servant. Delivered of a child in New Hampshire, Read told the midwives that Edward Naylor was the

father, an assertion that she repeated in a deposition for the benefit of the court. For his part, Naylor attempted to bribe a man to pay any fine that might be levied against Read. The court took a string of depositions from innkeepers who had noted the couple's suspicious behavior in their establishments. Another set of depositions related to similar behavior between Naylor and Mary Moore, another servant, a few years previously. Hannah Allen, an 18 year old servant, testified that Naylor had attempted to kiss her, and had offered to "make a bargon" with her, after returning to the house in the wee hours of the morning; she ran from him "but I sopose he was soe drunk he could not follow me" (Superior Court of Suffolk County 12:66).

In addition to adultery, the depositions set out a pattern of abusive behavior on the part of Naylor towards his wife and children. At various times he threw "erthen platers," food, and chairs at or near family members. He threw one of his children, probably Lydia, repeatedly to the floor in the course of one evening, and "kikt her downe the garet stayres." He also forced his wife, lying in from the birth of a child, to go to a neighbor's house on a social visit, despite her own entreaties and those of a servant (Superior Court of Suffolk County 12:63).

At one point, Katherine became ill after drinking some beer. It later emerged that Mary Read had bought some henbane shortly before from a neighbor, Mrs. Jemima Bisse, and drew suspicion on herself by her subsequent behavior (Superior Court of Suffolk County 12:63). Naylor's involvement in this episode is unclear, but with Read's advancing pregnancy, it may have been a precipitating factor in their flight.

Naylor wrote a long and impassioned letter to his wife from Pemaquid, dated June 24, 1672. In it he begged for forgiveness ("O: that we might [live] one with another as we ought to doe"), admitted his faults ("My wicked hart & the evell of my doings doth deprive me of enjoying the satisfaction of thy good company"), and asked her to send him some clothing ("as I have none to ware especially linnen & shoes") (Superior Court of Suffolk County 12:58). For her part, Katherine addressed a petition to the superior court in which she asked "for her release against the cruelty and oppression and many abuses she frequently indeed daily receives from her husband besides his whoredoms and abuses of the marriage bed," pointing out that "she goes in danger of her life" (Superior Court of Suffolk County 12:58). A second petition was addressed to the Court of Assistants, when the case reached them. By this time she had an additional concern in that her husband's creditors were demanding satisfaction. She reminded the court that Nanny's estate had been put in trust for his children, and asked that her children by Naylor be supported and educated out of what remained of Naylor's property (Superior Court of Suffolk County 12:60).

After hearing from at least 25 witnesses, the jury found Edward Naylor "guilty of Inhumane carriage & several cruelties in abusing his wife and children," of "uncivil carriage," and fornication with Mary Read (Superior Court of Suffolk County 12:60). Whether the court also granted Katherine's wish for a divorce is unclear; she frequently referred to herself as "Katherine Nanney alias Naylor" in legal documents. At least some of Naylor's creditor's caught up with him in 1673/4. John Freake and Richard Wayte won a court judgment against Naylor, taking a property that he had bought in the South End a few years earlier (Suffolk Deeds 8:369). Naylor is listed in the 1674 tax list (Record Commissioners 1:35). After that date, he no longer appears as a resident of Boston.

After Edward Naylor's departure from the household, Katherine continued to occupy the property, with her children. In 1679/80, Mary Nanny married Benjamin Dyer, a Boston shopkeeper (Suffolk Probate No. 348). She died in March, 1690, and under the terms of Robert Nanny's will, her share reverted to Katherine (Record Commissioners 9:193). The following year Benjamin Dyer married Hannah Odlin, and they had five children during the 1690s (Record Commissioners 9:198,201,206,221,226,240).

Also in 1691, Samuel Nanny, Robert Nanny's remaining child, died without heirs. His estate was administered by brother-in-law Benjamin Dyer. Samuel had followed his father in mercantile dealings. Part of his estate consisted of goods "that was sent aventure by mr. Samuell Naney to Bermoodas," including earthenware lamps, porringers, pitchers and platters, saddles and other horse tack, shoe buckles, shoemakers' tools, glue, dyestuffs, gloves and silk cloth and clothing, to the sum of £20:18:9 (Suffolk Probate No. 1905). Upon Samuel's death, the remaining third of the property reverted to Katherine.

In 1692, Katherine Nanny Naylor and Samuel Wheelwright of Wells mortgaged the property for £100 to John Soames, a neighbor. The mortgage was repaid in 1693 (Suffolk Deeds 15:192).

In about 1700, Katherine Nanny Naylor moved to Charlestown, where she lived with Jonathan and Hannah Cary. Katherine's will, written in 1700, gave the Boston property to her daughters, and provided a legacy to Hannah Cary (Suffolk Probate No. 3718). Hannah did not live to receive it, dying in December of 1715 (Wyman 1879:178). Several months later, on February 26, 1715/16, Katherine died in Charlestown. Jonathan Cary, the executor of her estate,stated in a deposition that Katherine

> was cared for at his house for 15 years and was blind and in a peculiarly helpless condition, but as she was a good woman, the service was willing, although it shortened his wife's days (Wyman 1879:696).

During the period from about 1700 to 1715, the Cross Street Back Lot property was apparently occupied by tenants. Katherine was in Charlestown, Lydia had married and apparently moved away from the property, and Tabitha was living with her husband, George Peake, on Cape Cod. We know the names of several of these tenants. A 1712 deed for the property to the southwest mentions that the property belonged to Nanny, but was "in the Occupation of Joshua Woods, Widow Belcher and Davis" (Suffolk Deeds 26:180). Woods was a tobacco merchant whose will was probated in 1717 (Thwing Index: Joshua Woods); the other two tenants could not be conclusively identified. In 1716, the property was tenanted by John Smith, a fisherman (Suffolk Deeds 31:6), about whom nothing else is known. The property at this time was narrow, running northwest from Ann Street, the section on the east, or Cove side of the street having been sold by Katherine in 1698. The portion of the property occupied by the Cross Street Back Lot site was the western or southwestern corner.

Upon Katherine's death, her estate would in the normal course of events have gone to her daughters. A challenge to Katherine's will was lodged, however, by her former son-in-law, Benjamin Dyer. Dyer filed three petitions setting out his case, each retreating further into biblical law and the prohibitions of Leviticus than the last. Briefly, his case was that as the heir of his deceased wife Mary, the daughter of Robert Nanny, he was entitled to inherit Robert's estate, as no other more closely related person existed. Katherine's daughters by Naylor were, he held, not entitled to the estate because they were not Robert Nanny's children.

Dyer reminded the court that if Katherine Nanny had settled a share of Robert Nanny's estate on Mary Nanny Dyer, as was normally done, that share would have passed to him. Although he produced ample proof that he had married Mary Nanny with her mother's consent, and that Katherine had in fact held a celebration after the wedding, he did not prevail. The court appears to have decided against him because of the clear language of Robert Nanny's will, specifying that "in caise of the death of any of my children the estaite of such childe or children to fal to my wife," rather than to the heirs of those children (Suffolk Probate No. 348). "Wills are construed with extreme technicality

by the courts" (Archer 1925:64). Dyer may not have been satisfied by the decision, as he later sued Job Coit, an owner of the property. The cause of the suit is unknown, but a decision was rendered in favor of Coit and Dyer was ordered to pay the court costs (Superior Court of Suffolk County 210:9).

Lydia Naylor Amie and Tabitha Naylor Peake

Both of Katherine Nanny Naylor's daughters had married. After the settlement of Katherine's estate, they held the Ann Street property in common, as well as some land in Wells. In January of 1716, Lydia Naylor Amie, a Boston widow, deeded an undivided one-fourth part of the property to Job Coit, a joiner or furniture maker (Suffolk Deeds 31:6). Coit was Amie's son-in-law, having married her daughter, also named Lydia. On the following day, George Peake, a net braider from Truro, and his wife Tabitha Naylor Peake, sold their one-half interest in the property to Coit for £120 (Suffolk Deeds 31:7). This gave Job Coit three undivided fourths of the property. Lydia Amie still held the remaining fourth, deeding it to her daughter in 1748, after Job Coit's death (Suffolk Deeds 76:625).

Job Coit

Job Coit was born in 1692, and was probably the son of Nathaniel Coit of Gloucester (Roberts 1895,I:425; Lovell 1986:90n). He married Lydia Amie, daughter of Joseph and Lydia Naylor Amie in 1713, upon reaching his majority (Kaye 1986:276). Between 1715 and 1730, Job and Lydia Coit had eight children (Thwing Index:Job Coit).

Coit worked as a joiner, or cabinetmaker, and used his Ann Street property as a residence and workshop. He was not alone in this. Other Ann Street craftsmen were doing the same, including his next-door neighbors to the north, James and Samuel Mattocks (joiner and chair maker, respectively) (Kaye 1986:288). By 1720, he was referring to "Job Coit and Company." Three of his sons, Nathaniel (b. 1714/15), Job, Jr. (b. 1717), and Joseph (b. 1721), followed him into the business (Kaye 1986:276). Coit and many other Boston joiners specialized in "blockfront" furniture (characterized by "the alternate raising and depressing of vertical façade panels") (Lovell 1986:79). A blockfront desk and bookcase in the Winterthur Museum, signed by Coit and his son, Job, Jr., in 1738 is the earliest dated American example of the type. Its design has been described as "quite harmonious and successfully complex," while "the level of finesse in the construction...is rather mediocre" (Lovell 1986:94). Coit had an apprentice, Joseph Davis, working in his shop in 1726, who was probably working on his own in Boston by 1729 (Lovell 1986:99-100). There may have been other apprentices as well, but their names have not survived. It may be that by the late 1720s, Coit was training his sons and utilizing their labor in the business.

Coit is known to have made changes to the property. On June 5, 1726

> Liberty was granted [by the Selectmen] to Job Coit to Remoue a Smal Wooden Building, adjoyning to the Back Part of his house in Ann Street as set forth in his Petition now on file and Recorded in the Book for wooden Buildings (Record Commissioners 13:83).

There is a possibility that this may refer to the outhouse over Feature 4, depending on how the selectmen defined "adjoyning," although it would appear to be at least a decade too late.

Coit was elected clerk of the market at the annual meetings in 1721 and 1722, and constable in 1726 and 1727. He joined the Ancient and Honorable Artillery Company in 1727, and was a third sergeant in 1731 (O. Roberts 1895, I:425).

Job Coit, Sr.'s will was drawn up in June, 1741. In it he left his wife Lydia one-third of his estate, dividing the rest of it among his four youngest children. The two eldest, Nathaniel and Job, Jr., received only token sums, as Coit had apparently already provided for them. He died January 12, 1741/2 (O. Roberts 1895, I:425; Suffolk Probate No. 7704).

Lydia Coit

Coit's widow Lydia continued to occupy the property after her husband's death. Her intention to marry William Fullerton, Sr., a chair maker, was announced in 1742 (Kaye 1986:280). In June, 1743, she sold the rear portion of her property, averaging 34 ft. in length and 49 ft., 5 in. in width, to Philip Viscount, a Boston mariner for £75 (Lots B and D on Figure IV-10). At the same time, Joseph Coit, Job's son, signed his interest in the lot over to Viscount; Nanny Coit did the same in 1745 (Suffolk Deeds 70:55, 72:168). The southwestern portion of the lot contained what is now the Cross Street Back Lot site.

Philip Viscount

Viscount owned one of the two properties that abutted the lot on the north, or Cross Street side (Figure IV-10). Until this sale, the site's access had been from the east, and its orientation towards Ann Street. From now on, its orientation would be to Cross Street, although site access would still be from the east. His purchase gave Viscount a lot that ran southwest from Cross Street, and then turned to the northwest and ran behind the property that fronted on Cross Street to the west of Viscount's. His property was shaped like a reverse "L" with the site at its western corner (Lots , B, and D on Figure IV-10).

Viscount lived in Cross Street, referring in his will to "the House & Land in Cross Street wherein I now dwell." The same will devised that house and land to his son, James, with one-third to his wife Dorcas, during her life. He also willed her his "four Negros" (Suffolk Probate No. 9847).

Viscount stated in the will, dated September 12, 1751, that he was "very sick and week in Body." He died within a month and the will was probated on October 8, 1751 (Suffolk Probate No. 9847). At this point, the property passed to James Viscount, who could not sell it during his mother's lifetime.

Dorcas Viscount

James Viscount apparently died before his mother, leaving a son and daughter. Dorcas Viscount's grandchildren, Philip and Sarah Viscount, would inherit, but under the same conditions, i.e. Dorcas' life estate would still be valid. In her will, Dorcas devised her real and personal estate to Philip (II) (Suffolk Probate No. 14478). The will was written on May 13, 1769, and probated June 2, Dorcas having died in the interim.

Philip Viscount (II)

Viscount, a housewright, held the property for nearly two months before selling it to Thomas Capron, a tailor. Two lots were sold; the house lot fronting on Cross Street, and the rear lot or "land that my grandfather bought of Lydia Coit" (Suffolk Deeds 115:141).

Thomas Capron

In the 1771 Provincial Tax schedule, Capron is listed as having two males of voting age in his household, which was on property belonging to Thomas Hitchborne, Jr. Capron was taxed for a separately standing shop, but the Cross Street property does not appear (Massachusetts Archives 132:113).

Three years after buying the property, Capron sold the portion of it that projected behind the neighboring lot to the owner of that lot, Benjamin Homer, for £26:13:04. This piece was 16 ft., 5 in. wide and 50 ft., 5 in. long, and the project site was now at the rear or southern end of the joined properties (Suffolk Deeds 172:253). This lot is lot D on both Figure IV-10 and Figure IV-11. From this point, both access and orientation were towards Cross Street, northeast of the site.

Benjamin Homer

Homer was described in the purchase deed as a mariner, but was also a merchant and ship owner. Born in 1731 in Yarmouth on Cape Cod, he moved to Boston, where he married Mary Perrott in 1759. Mary was the daughter of Bryant Perrott, a merchant living in Water Street. Benjamin and Mary had five children (Dixon 1889:18-20).

In the 1771 Provincial Tax schedule, before his purchase of the property, Homer (spelled Hosmer) is listed as a neighborhood resident, a tenant of William Ballard. Although he did not own any real estate, Homer was taxed for 20 tons of vessels and £60 stock in trade (Massachusetts State Archives 132:113).

Benjamin Homer and his family lived in the Cross Street house. Homer reportedly had several African-American slaves as house servants, although none appears in the 1771 tax schedule or in his inventory.

> To give some idea of the times, his son, Mr. Benj. Perrott Homer told me when I was a boy that he, when of the same age, had a negro boy to attend to himself alone; that he then wore breeches with little gold knee and shoe buckles, carried a little gold headed cane, and his negro attended him to school and followed him everywhere (Dixon 1889:19).

Benjamin's mercantile activities were conducted in conjunction with those of his brother John. John became a member of the Sons of Liberty and took part in the Stamp Act agitation and other events leading up to the Revolution. He turned out to be a Loyalist, however, and when the British army evacuated Boston in April of 1776, he accompanied them to Nova Scotia. His property, including land and shipping, was later confiscated by the United States government (Dixon 1889:17-18).

In the meantime, Benjamin Homer had died on March 30, 1776, while returning from Montreal on horseback, when he was knocked off of his horse by a landslide in Farmington, CT (Dixon 1889:20). Job Prince, a merchant, and Benjamin Cobb, a distiller were appointed as administrators. Homer's inventory, taken in January, 1777, lists the "House & Land in Cross Street, valued at £200, in a total estate valued at £347. In addition, Homer held more than £1,000 in notes from others (Suffolk Probate No. 15996).

Heirs of Benjamin Homer

Homer's widow and children presumably remained on the property after his death. The estate continued to provide them with food and firewood (Suffolk Probate No. 15996). Mary Homer died in 1779 at 39 years of age, when the oldest child was 18 (Dixon 1889:20), leaving only the children as heirs. By 1784, Benjamin Perrott Homer had reached 21 years of age, as had his remaining unmarried sister, Ruth. On March 29 of that year, they, along with Job Prince and Benjamin Cobb, the administrators of the estate, sold the easternmost half of the dwelling house and lot, along with the entire rear portion of the property, to Samuel White of Boston, yeoman, for £300 (Suffolk Deeds 142:204). This property consisted of lots C and D on Figure IV-11.

Samuel White

White owned the property for ten years. In 1789, Boston's first City Directory listed him as "boarding-house and truckman, Cross-street" (John Norman 1789:46). The 1790 Federal Census indicates that his household consisted of himself and another male above the age of 16 years, two younger males, and four females (Record Commissioners 22:449). White was elected constable every year between 1791 and 1802 (Record Commissioners 31:249, 35:121).

In September, 1794, White sold the property to Daniel Gealy for £425. The property still included only the "eastern moiety" or half of the property along the street. White had mortgaged it to Benjamin Homer, the son of the previous owner, earlier in the year, and a condition of the sale was that Gealy pay off the £200 mortgage (Suffolk Deeds 178:274).

Daniel Gealy

Gealy was described in the deed as a trader, and in other documents as a huckster, and as a rental agent. He seems to have been aspiring to a career as a merchant. The Cross Street property is described in the 1798 Federal Direct Tax schedule as measuring 2,106 sq. ft., with a two-story wooden dwelling with 22 windows, measuring 1,260 sq. ft. on it. The premises, valued at $1,600, were occupied by Samuel Wild (Record Commissioners 22:215). Gealy was also the "agent" for the adjacent property to the west, which was owned by Samuel Ballard, and was presumably the western half of the old Homer property. Gealy and his family lived on Leverett Street, in a house (much smaller than his own on Cross Street) owned by Jonathan Amory (Record Commissioners 22:209,211). This is probably the same location where he had a shop in 1789 (John Norman 1789:22).

Wild, who occupied the Cross Street premises as stated above, had a store selling East India goods near the town dock in 1789 (John Norman 1789:57). By 1796, he was running the Green Dragon Tavern, north of Hanover Street, while Gealy was listed as occupying the Cross Street house (John West 1796:47) In 1802, the Ward Transfer Book shows Gealy as the owner of the property, valued at $1,000, and describes him as a huckster (Ward Transfer Book, Ward 5 1802:9)

Gealy's use of the property in connection with financial dealings was extensive and complicated. He conveyed it to Patrick Connor, his next-door neighbor, in 1798 and 1799, buying it back within several days each time (Suffolk Deeds 190:83, 191:55,154,256). He mortgaged it in 1794 for £200, and in 1798 for $1,200, discharging the mortgage each time (Suffolk Deeds 179:120, 191:54).

In the summer of 1799, Gealy mortgaged the premises twice to James Williams, for $1,866.71, and $900. When Gealy defaulted on the first, larger mortgage, Williams sued and got a judgement of possession of the property in December, 1801. Two months later, Williams assigned the second, presumably uncollectible mortgage to John Moriarty (Suffolk Deeds 192:48,158, 210:65).

James Williams, Robert G. Shaw and Ann Doyle

There followed a series of short ownerships, during which Gealy apparently continued to live on the property. He is listed in the 1803 directory as living at No 10, Cross Street (John West 1803:54). Williams sold to Robert G. Shaw for $2,105, two days after gaining possession of the property in 1801 (Suffolk Deeds 200:215). Less than a year later, in September, 1802, Shaw sold the property for the same amount to Ann Doyle, a widow (Suffolk Deeds 202:150). In November 1804, Doyle sold the premises for $2,106 to Jason Wilson (Suffolk Deeds 210:70). Gealy had meanwhile died, and his administrator sold any remaining interest in the property to Wilson for $30 (Suffolk Deeds 210:67).

Jason Wilson

Wilson is listed in the 1805 directory as a "retailer, Exchange Lane house Cross Street" (Edward Cotton 1805:135). The Ward Transfer Book for 1805 listed him as a grocer owning several properties in Cross Street with personal estate of $300; the property in question was worth $800. John Wilson, a harbor pilot, also occupied the premises, with personal estate of $200 (Ward Transfer Book 1805:25).

The 1810 Federal Census schedule had four households bracketed as occupying the property (United States Census, Massachusetts, 1810 Reel 21:174). Wilson's household consisted of six people; himself (male between 26 and 45 years), a male between 10 and 16 years, two females less than 10 years, one female between 16 and 26, and another between 26 and 45. The directory for that year gives his address as 10 Cross Street (Edward Cotton 1810:213). Susanna Newcomb's household was weighted toward men between 26 and 45, who comprised four of the seven members. Not surprisingly, the 1810 directory gives her occupation as "Boarding House 11 Cross Street" (Edward Cotton 1810:144). Michael Quilty was a laborer whose household included three children, two adult men and an adult woman. His address is given as 12 Cross Street in 1806, 11 Cross Street in 1807 and 1809; by 1813 he was living elsewhere in town (Edward Cotton 1806:102, 1807:125, 1809:114, 1813:209). Thomas Harney's household consisted of one male over 45 years (himself, and three women between 26 and 45 years. The picture that we have of the property in 1810, assuming that the census taker's brackets are accurate, is of a severely crowded structure containing 23 people -- eight children below the age of 16 years and 15 adults.

By contrast, the 1820 census schedule listed the property as a single household containing 10 people; one male between 16 and 26 years, three between 26 and 45 years, and one older than 45, one female 10 to 16 years, two between 16 and 26, one between 26 and 45, and one older than 45 (United States Census, Massachusetts, Reel 53:88). Some of the increase appears to consist of adult men, implying that the Wilsons were also taking in boarders or male relatives.

Heirs of Jason Wilson

Jason Wilson died in 1834, and his estate went to his widow, Lucy, who received a one-third life estate, and the rest went to his two daughters and his stepdaughter, all of whom had married. The widow died in 1843, and in November, 1850, the remaining heirs sold the property to Moses Williams for $4,912.20 (Bowditch Papers 49:115).

V. ARCHAEOLOGICAL FIELD RESULTS

A. Introduction

The archaeological deposits at both the Paddy's Alley and Cross Street Back Lot sites form complex multilinear stratigraphic sequences. This section presents the field results and the stratigraphic analysis of both sites. The stratigraphic analysis, in conjunction with artifact dating and historical data, guides the analytical process by defining data sets, which are then used to address the research topics.

The combined interaction of natural and cultural formation processes often results in an archaeological site consisting of complex stratigraphy, including numerous features (foundation walls, privies, and post holes) and artifacts. Typically, urban sites contain complex stratigraphy that reflects the intensive use of a small space over time (Rothschild and Rockman 1982). Furthermore, social and cultural practices confine certain activities to specific areas. The result is often that archaeological resources record a wide range of human activity within a compact space. The most extensive and comprehensive approach to examining complex stratigraphic sequences such as these has been offered by Harris (1989).

Harris (1989:xi) emphasizes that stratigraphic analysis results in the sequential ordering of deposits based on their physical relationships, without reference to artifacts within individual strata (Harris 1989:121). There are four fundamental laws of archaeological stratigraphy that determine the relationship of a unit of stratigraphy. These laws are the Law of Superposition; the Law of Original Horizontality; the Law of Original Continuity; and the Law of Stratigraphical Succession (Harris 1989:29-39). By applying these laws to the deposits being excavated, archaeologists can construct a sequence, known as a Harris matrix, that records the stratigraphic history of the site.

The Law of Superposition states that in "a series of layers and interfacial features, as originally created, the upper units of stratification are younger and the lower are older, for each must have been deposited on, or created by the removal of, a pre-existing mass of archaeological stratification" (Harris 1989:30).

The Law of Original Horizontality asserts that "any archaeological layer deposited in an unconsolidated form will tend towards a horizontal position. Strata that are found with tilted surfaces were originally deposited that way, or lie in conformity with the contours of a pre-existing basin of deposition" (Harris 1989:31).

The Law of Original Continuity indicates that "any archaeological deposit, as originally laid down, or any interfacial feature, as originally created, will be bounded by a basin of deposition, or may thin down to a feather-edge. Therefore, if any edge of a deposit or interfacial feature is exposed in a vertical view, a part of its original extent must have been removed by excavation or erosion, and its continuity must be sought , or its absence explained" (Harris 1989:32).

Finally, The Law of Stratigraphical Succession states that "a unit of archaeological stratification takes its place in the stratigraphic sequence of a site from its position between the undermost (or earliest) of the units that lie above it and the uppermost (or latest) of all the units that lie below it and with which the unit has a physical contact, all other superpositional relationships being redundant" (Harris 1989:34).

The data recovery field investigations were designed to record stratigraphic relationships between units of stratification under the Harris matrix system. Units of stratification included soil matrices, surfaces, and features. The Harris system recognizes only three relationships between units of stratification: no direct stratigraphic connection; superposition; and correlation (Harris 1989:36, 140). If units of stratification show neither direct stratigraphic relationship nor interfaces, and cannot be linked, then they show no direct stratigraphic connection. Superposition of units of stratification refers to the situation in which one unit of stratification lies over another, such as an activity surface over subsoil. Units of stratification are said to be correlated if they represent deposits which were once part of a whole. An example of correlation would be a yard surface into which a foundation was built, where the foundation separates the yard surface into separate but related stratification units. The use of the Harris system of stratigraphic principles assumes that each stratigraphic context is deposited at one time and should receive one stratigraphic referent, the Harris number (HN).

Analysis of stratigraphic information gathered during field investigations results in the creation of a diagram that illustrates the physical stratigraphic sequence of the site (Fig. V-1). The diagram is a flow chart that graphically displays, from initial occupation to the present, the position of each unit of stratification identified. Initially, this diagram is based on physical relationships among units of stratification and does not utilize documentary or artifact data. When the physical relationships have been established, the phasing or periodization of the stratigraphic sequence can be undertaken (Harris 1989:105-119). The phasing of the units of stratification within the Harris matrix is the grouping of stratigraphic matrices into aggregates reflecting periods of occupation, activities, or time periods. Although this can be attempted in the field, site phasing relies on information from the material culture and the historical record. Data from artifact analysis and from background research contribute to the transformation of the diagram from one showing only physical relationships to one illustrating both physical and temporal aggregates. The dates provided by artifacts (mean ceramic dates or MCDs, and *terminus post quem* or TPQ ranges of occupation inferred from the historical record, and site stratigraphy) provide the framework for the phasing. The phasing of the Harris numbers into aggregates provides the analytical units for contextual analyses.

Formation processes create archaeological deposits. Although examination of the processes is not necessary to produce a Harris matrix, such examination is useful in describing and interpreting the archaeological deposits. Both natural and human processes interact to create a record of human occupation at a particular locality.

Schiffer (1987) has defined four culturally produced formation processes (cultural deposition, disturbance, reclamation, and reuse) that contribute to the development of the archaeological record. Harris (1989:121-122) has defined three types of artifact remains (indigenous, residual and infiltrated). Artifact remains enter into the archaeological record and are altered by site-formation processes. At the Paddy's Alley and Cross Street Back Lot sites, cultural deposition and disturbance were the processes responsible for the majority of the archaeological deposits.

Cultural deposition is the discard of objects. Cultural deposition creates a unit of stratification that contains indigenous artifact remains. In other words, in the absence of deposit-altering variables, the artifacts within the deposit should date to the time the deposit was laid down.

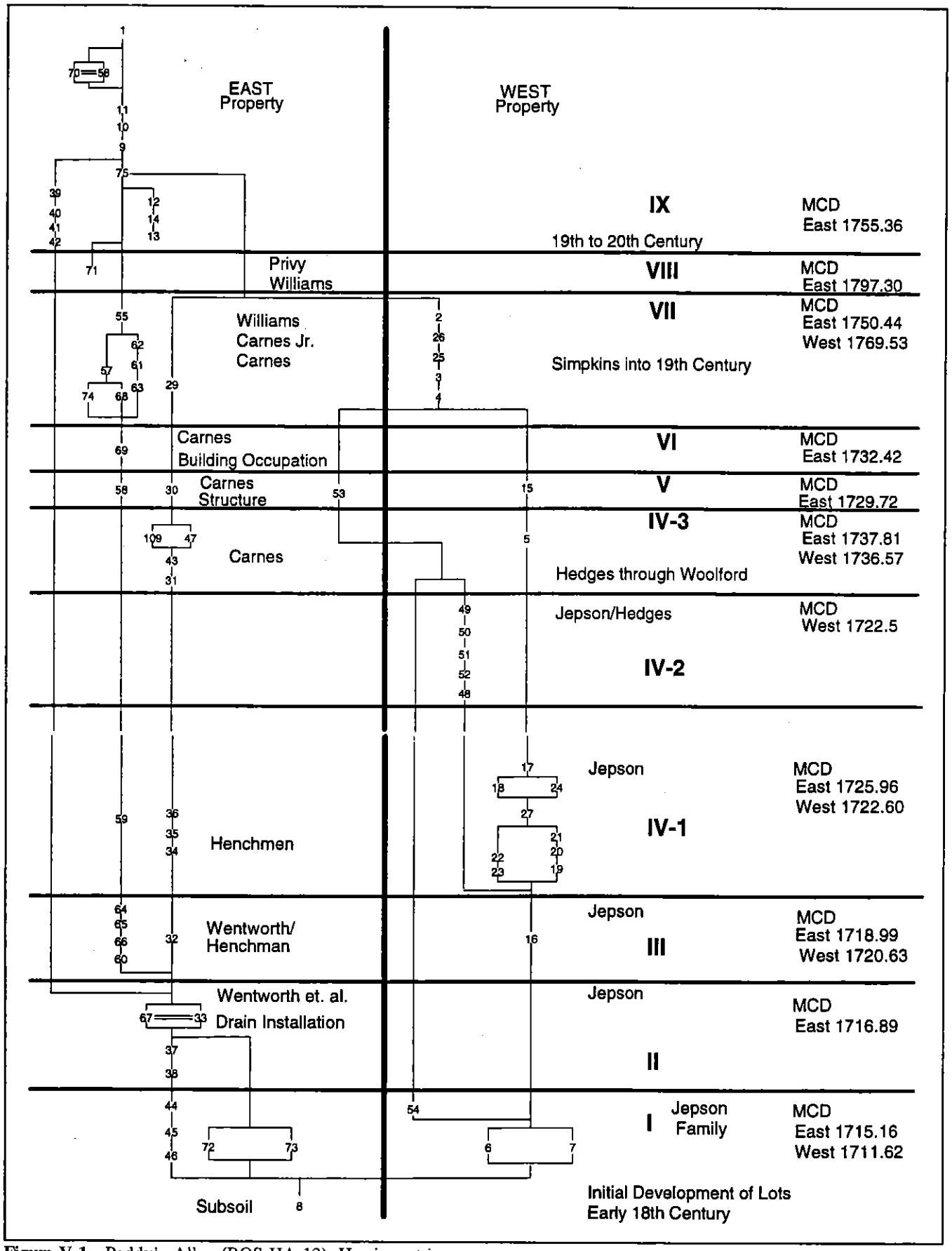


Figure V-1 - Paddy's Alley (BOS-HA-12), Harris matrix.

Disturbance processes create, modify or move archaeological resources; however, unlike the reclamation process, artifacts are not removed from their archaeological context. Many activities associated with construction are disturbance processes (for example, the excavation and filling of a builder's trench). The movement of artifacts can be vertical, horizontal, or both. Disturbance processes, in general, move objects vertically within the stratigraphic sequence of the site. As a consequence, objects from earlier deposits (residual remains) are introduced into units of stratification dating to later occupations of the site.

Reclamation is the reintroduction of archaeological resources from their archaeological context to another context, and reuse is the retention of an object that would otherwise have been discarded or replaced. Reclamation and reuse processes contributed little to the development of the stratigraphic sequence at either site; however, these processes cannot be discounted.

Objects from later occupations (infiltrated remains) can be introduced into earlier deposits through a variety of processes, both cultural and environmental. Disturbance processes produce the majority of residual remains, while environmental processes are the primary depositional agents creating infiltrated remains. The preservation of artifacts, to an extent, is determined by exposure or lack of exposure to particular environmental factors. Together with cultural formation processes, environmental formation processes determine which archaeological resources decay and which are preserved. The environment affects artifacts and features in the ground. Soil mixing and pedoturbation move artifacts within an archaeological site. Environmental factors move artifacts both vertically and laterally. Vertical movement can result in the upward (residual) or downward (infiltrated) migration of artifacts, creating difficulties in evaluating the date from any particular unit of stratification. Lateral movement can make recognition of purposeful arrangements or artifact patterns impossible.

B. Paddy's Alley (BOS-HA-12) Field Results

The main excavation area for the data recovery consisted of a block of 24 contiguous 5-ft.-by-5-ft. (1.5-m.-by-1.5-m.) units (Figs. V-2, V-3 and V-4). In addition, one unit was sited to the south of the main excavation block, in order to assess a location untested during the 1989 site examination (Figure III-1). The 1989 site examination included the manual excavation of nine units and one deep test (Fig. V-5). Eligible archaeological resources dating primarily to the Colonial period survived under a mid-nineteenth-century storage building. Mechanically excavated trenches in conjunction with hand-excavated units were used to determine the boundaries of the significant archaeological deposits. These deposits were bounded to the north and east by the foundation of the storage building; to the south by a ramp to the Central Artery; and to the west by disturbance associated with the installation of a twentieth-century poured-concrete utility conduit (Fig. V-6). Construction of the Central Artery in the 1950s had entailed the stripping of most post-1800 surfaces from the site and some mixing of artifacts into the exposed surfaces. Significant deposits were exposed directly beneath the modern deposits created by construction of the Central Artery and paving of the site area.

The data-recovery investigations at the Paddy's Alley site identified and recorded a stratigraphic sequence that represents the initial development of the property and its occupations dating to the Colonial (1675-1775) and Early Republic (1775-1830) periods, as defined by the Massachusetts Historical Commission (1982). Mid-to-late nineteenth-century deposits were also present, but the 1989 site-examination report found that none of the nineteenth-century deposits was significant or warranted further investigation. Some such deposits were excavated during the data-recovery investigations to clarify stratigraphic relationships. The 1989 site examination interpreted three deposits

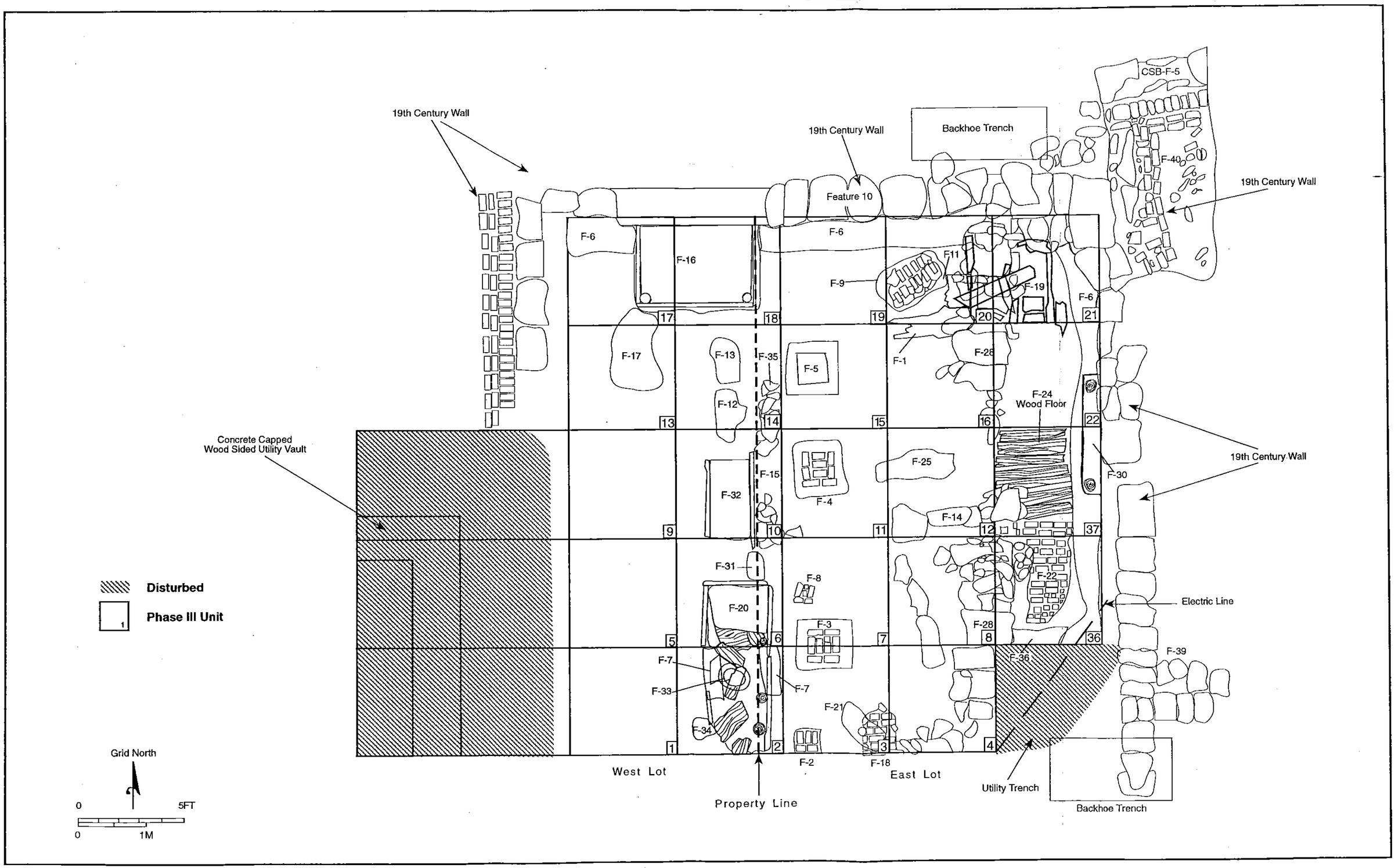


Figure V-2 - Paddy's Alley, composite plan view.

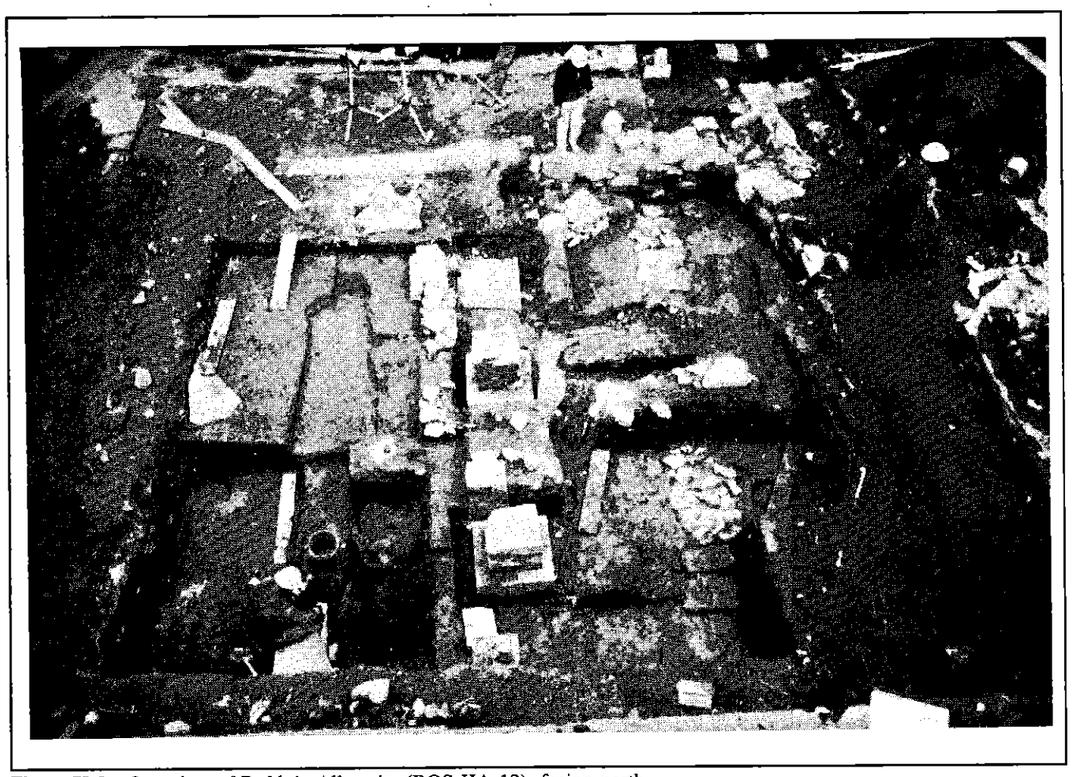


Figure V-3 - Overview of Paddy's Alley site (BOS-HA-12), facing north.

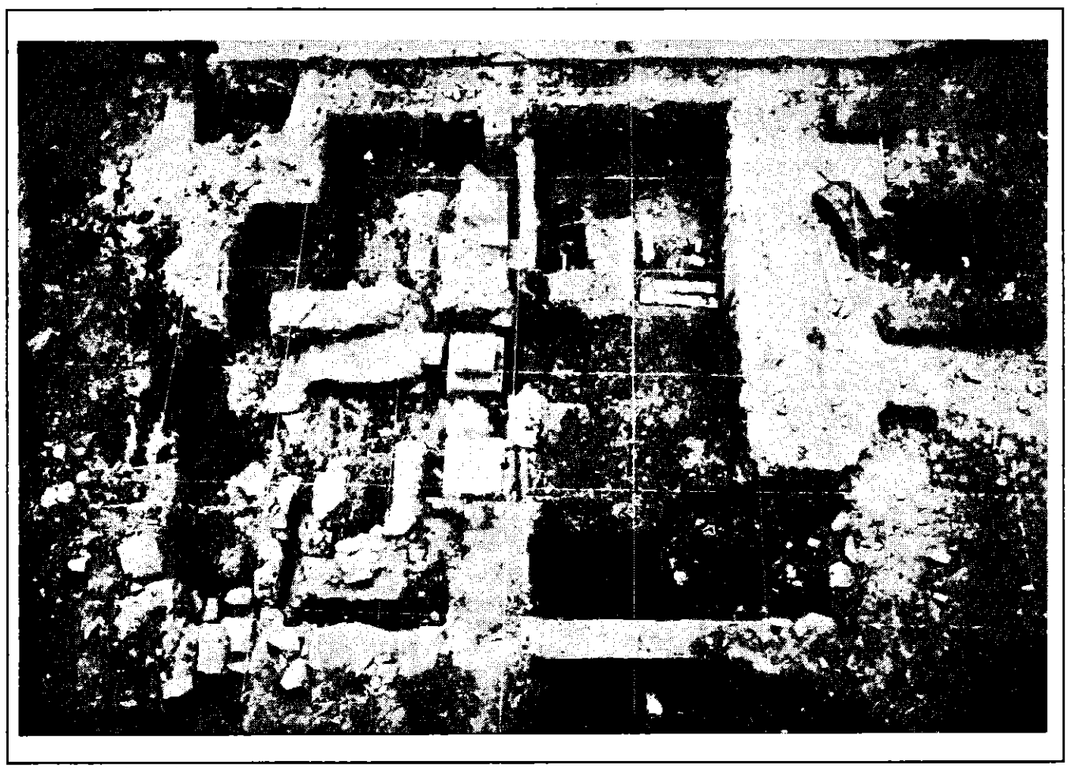


Figure V-4 - Overview of Paddy's Alley site (BOS-HA-12), facing south.

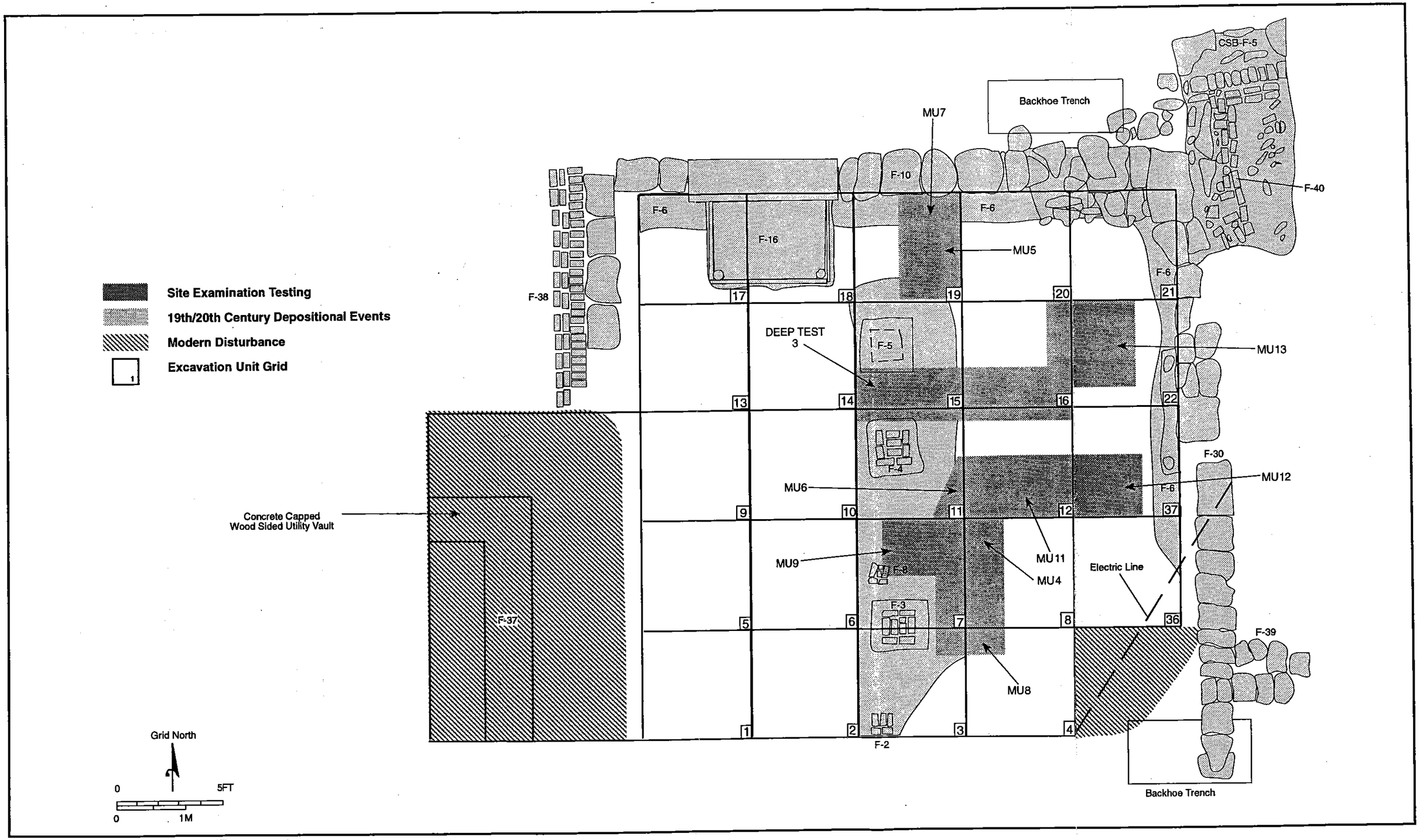


Figure V-5 - Paddy's Alley, location of site examination testing, plan view.

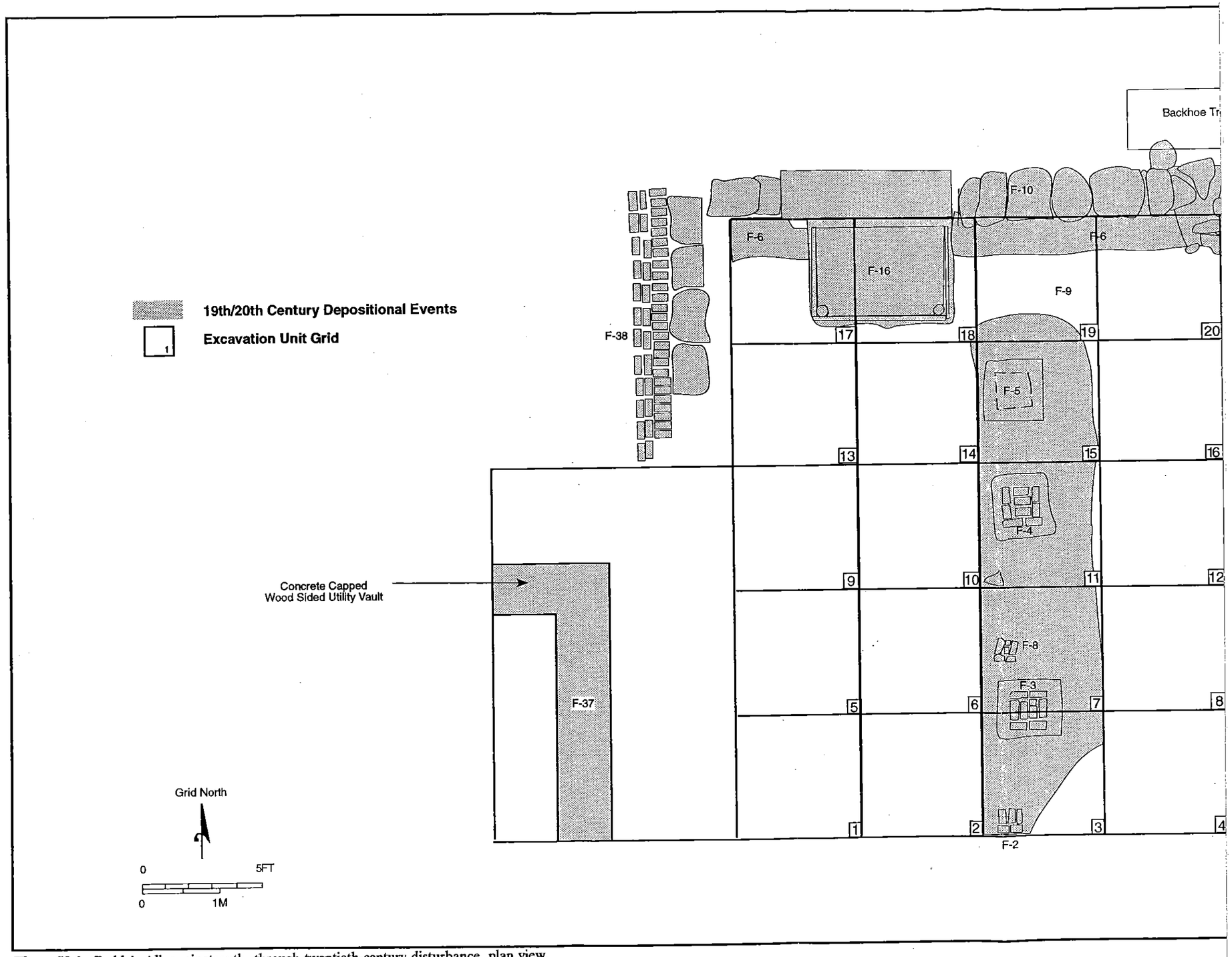
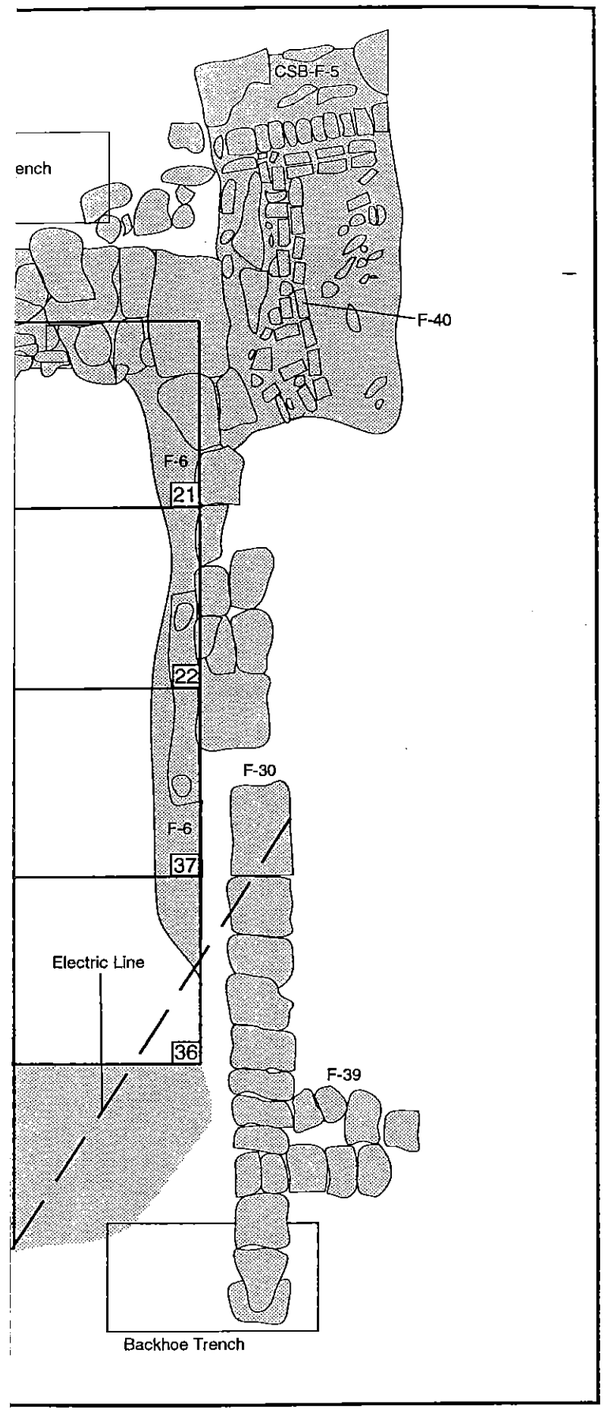


Figure V-6 - Paddy's Alley, nineteenth- through twentieth-century disturbance, plan view.


CSB-F-5
ench
F-40
F-6
21
22
F-30
F-6
37
Electric Line
36
F-39
Backhoe Trench

(CUs 15, 29, and 32) as dating to the late seventeenth and early eighteenth centuries; however, profile illustrations in the 1989 site-examination report show inverted stratigraphy, with older deposits extending over nineteenth-century features (Elia et al. 1989:Figures 4.34 and 4.38). Consequently, to assure that data-recovery excavations minimized contamination between units of stratification, a considerable amount of field time was devoted to defining the limits of the nineteenth-century deposits. As will be shown, construction during the nineteenth century included the excavation of large builders' trenches associated with several architectural features. These deposits were not identified during the 1989 excavations; thus, it is likely that some of the 1989 site-examination's artifact samples are mixed. Examination of the 1989 site-examination artifact inventory indicates that large numbers of creamware, pearlware, and whiteware sherds were recovered from CUs 15 and 29, numbering 18 and 32 %, respectively. However, CU 32 did not appear to contain intrusive artifacts. In general, the later deposits intruded into, and consequently physically separated, earlier deposits, complicating the stratigraphic analysis.

Seventy-six units of stratification were identified during the data-recovery excavation. Some interfaces (primarily pit outlines) were not assigned a Harris number. Throughout the field investigations, excavation was hampered by inclement weather, including snow, rain, flooding, and freezing (Figs. 7 and 8). In spite of attempts to protect the site (Plate 7), some of the subtle units of stratification may have been masked by weather-related conditions; however, the phasing or stratigraphic interpretations would not have been changed by such units.

The floors of mid-nineteenth-century buildings capped the stratigraphic deposits from earlier occupations, preserving them. The nineteenth-century deposits associated with the construction of these buildings, however, were extensive and intruded through the earlier deposits and into subsoil (Fig. V-6). As a result, pre-nineteenth-century deposits at the site were discontinuous.

Stratigraphic analysis provided information on nine main phases and three subphases of activity at the site: Phase I, ca. 1700 initial occupation; Phase II, ca. 1710 drain installation; Phase III, ca. 1715-1730 occupation; Phase IV-1, ca. 1720-1725 privy; Phase IV-2, ca. 1725-1730 privy; Phase IV-3, ca. 1730 occupation; Phase V, ca. 1730 construction of a structure; Phase VI, ca. 1730 use of the structure; Phase VII, ca. 1760-1790 occupation; Phase VIII, ca. 1800 privy; and Phase IX, nineteenth- through twentieth-century occupation. Each subphase reflects either a discrete activity or a series of related activities that could be combined.

Documentary research indicated that during most of the period of significance, the site area consisted of two properties. During Phases I through VII, a property line divided the site area into east and west lots of approximately equal size. The division of the site into two lots was not apparent during the field investigations because construction of the mid-nineteenth-century storage building had included an interior wall supported by brick piers placed along the historic property line. The piers and associated builder's trenches intruded into the earlier deposits, destroyed direct stratigraphic evidence distinguishing the east and west portions of the site, and made determination of the property boundary difficult. However, additional documentary research, examination of recorded nineteenth-century building features, and artifact analysis provided evidence for the determination of the property line (see section IV). Figure V-2 shows the approximate north-south property line that divided the site through most of the eighteenth century. Comparison of nineteenth-century building foundations to Bowditch's sketch maps allowed for a reconstruction of the original property lines. According to Bowditch (Fig. IV-6), the property line was 15 ft. west of the east foundation wall, placing it in excavation Units 2, 6, 10, 14, and 18.

Figure V-7 - Photo of storm damage at Paddy's Alley site, facing southeast.

Figure V-8 - Photo of storm damage at Paddy's Alley site, facing south.

The property boundary occurred approximately at the interface of Features 20 and 32 with Feature 15. This boundary is not exact; several matrices extend over the boundary line. As will be shown, Features 20 and 32 belong to the west lot and Feature 15, to the east lot; however, because these features and other matrices encroach on the boundary, it appears that activities were not strictly segregated. In fact, prior to the documentary research and artifact analysis, it was not clear whether Features 20 and 32 belonged to the depositional sequence of the west lot or the east lot.

The description of the stratigraphy is chronological, with the earliest deposits discussed first and the nineteenth-century through twentieth-century deposits discussed last. Specific features or other matrices of interest will be discussed within the appropriate phase. For purposes of the stratigraphic analysis, the site is viewed as a whole; however, the different sequences in the east and west lots are separated within phases.

1. Phase I: Ca. 1700 Initial Occupation

Activity postdating the initial occupation of the project area and vicinity has destroyed, altered, or obscured the majority of matrices associated with this phase. However, matrices have survived in the west (Units 1, 5, 9, 13) and east (Units 22, 36, 37). The deposits were grouped into east and west properties on the basis of horizontal separation, artifact content, and document research. Excavations did not identify any location where the stratigraphic matrices on the east and west were directly associated with each other. Figure V-9 shows the composite plan view of the matrices associated with this phase. All Phase 1 deposits rested on subsoil (HN 8).

Phase I deposits, on the east side of the site, were ephemeral and discontinuous, owing to intrusion by later activities. The deposits that had survived dated to the first two decades of the eighteenth century. However, artifact density was low and no features dated to this phase. The surviving soil matrices probably represented a remnant of a larger activity surface that had been destroyed by subsequent activities at the site. In the east lot, five separate matrices (HNs 44, 45, 46, 72, and 73) were assigned to this phase.

Three matrices (HNs 44, 45, and 46) were identified only in Units 36 and 37. These deposits probably represented remnant activity surfaces, but the limited extent of the deposits made any inferences tenuous. The north, east, and west limits of these matrices were truncated by later depositional activities, primarily associated with Phase II. The south limits of these matrices were not defined because a modern utility installation precluded expansion of the excavations to the south. These deposits rested directly upon subsoil.

The remnant deposits associated with Phase I contained few data that addressed the research questions. During the two decades of the eighteenth century, the east lot was occupied by several individuals. Because of the paucity of archaeological deposits dating to this phase and the diversity of individuals occupying this property, little could inferred from the deposits.

Two matrices (HNs 72 and 73) were present only in Unit 22. These matrices represented remnant pockets of the Phase I occupation that survived beneath Phase II construction activities and rest on subsoil. These matrices were in the approximate location of two possible features (CUs 60 and 61) identified during the 1989 site examination (Elia et al. 1989:39). However, the matrices did not correspond to the plan map provided in the 1989 report (Elia et al. 1989:Figure 4.37). These matrices were probably those initially identified during the 1989 site examination, but the data-recovery excavation of these matrices determined that they were not features.

These deposits may represent the natural ground surface predating European settlement and accretion of soils over the first occupation.

Phase I deposits over the subsoil, which were more extensive on the west, were present in Units 1, 5, 9, and 13. These matrices represented a buried plow zone (HN 6) and at least one episode of early fill (HN 7). HN 6 extended across most of the west lot, but HN 7 extended approximately 1 ft. (30 cm.) from the south wall into Unit 1 and may have represented the original surface. This fill episode (HN 7), which covered a small area, is of unknown origin. In addition, the limited exposure of HN 7 rendered the stratigraphic relationship between it and HN 6 unclear. Artifact density was low and no features were present in HN 6. Mean ceramic dates indicate that these deposits accumulated in the first decade of the eighteenth century. The only abundant artifacts were flint nodules, possibly representing ballast. The Phase I deposits were truncated on the west by a large disturbance associated with a modern utility vault (Fig. V-2). Historic research suggests that the main focus of occupation for the lot and the dwelling was located toward south and west of the site area. The portion of the property examined by the excavations was the northeast part of the lot, rear, along the east lot line.

In the west lot, Phase I was associated with the occupation of the west property by John Jebson, Jr. The buried plow zone deposit (HN 6) was approximately 0.50 to 0.80 ft. (15 to 24 cm.) deep. A Bowditch sketch map of the property from 1728 to 1786 indicates that this portion of the west lot was used as a garden (Fig. IV-3). Pollen analysis suggests that this garden deposit developed gradually over a long period of time. The pollen record indicates that this matrix was a normal stratigraphic accumulation, not episodic fill. Stratigraphic analysis suggests that cultural deposition associated with gardening or with keeping the lot as open space and clear of most vegetation continued through Phase VII. Pollen analysis suggests that the garden may have been a grass-covered lawn and not an actual garden.

A single post hole (Feature 35) was located along the lot boundary. The post hole (HN 54) was truncated by depositional episodes associated with Phases III and V. The deposits into which the post hole was dug were removed, and only the portion of the feature extending into subsoil was found to have survived. It is likely that this feature belongs with Phase I. The position of this feature in relation to the east property line suggested that it may have been a remnant of a boundary fence.

The presence of flint nodules throughout the Phase I deposits in the west lot was of interest. This artifact type occurred primarily on the west lot, in the Phase I deposits, and in the deposits (Phase IV-3) directly over Phase I. As will be discussed below, the Phase IV-3 west deposits appeared to reflect the continued use of this location as a garden. Deposits that accumulated during the period when the Jebson family owned the west property accounted for over three-quarters of the total recovered flint. Deposits post-dating Jebson's tenure on the property or representing the east property contained a lower frequency of this artifact type. The flint is European in origin, probably transported as ballast from ships. It is unclear how or why these artifacts would have come to be included within these deposits. Finally, the paucity of other types of artifacts and absence of features suggests that, at the time these matrices were deposited, this portion of the lot was not extensively used except as a garden.

2. *Phase II: Ca. 1710 Drain Installation*

Activities and deposits in this phase, which were restricted to the east property, were associated with the construction of a large drain. Early in the development of the project area and surrounding neighborhood, this drain (Feature 28) was constructed along the west side of the east lot (Figs. V-3 and V-10). The drain extended 25 ft. (7.62 m.) across the site (Units 4, 8, 12, 16, 20, and 21) from north to south. Neither the origin nor the terminus of the drain fell within the limits of the data recovery excavation. Drain flow (inferred from elevations taken on the interior of the drain) was toward the historic Mill Creek (beneath modern Blackstone Street), south of the site. Although the drain ran north to south across the excavated area, there were turns at both the north and south ends of the exposed section, making a projection of the drain's course difficult. Machine excavation on the north side of Feature 10, a nineteenth-century wall foundation, did not encounter the drain. Presumably, nineteenth-century activities in this area destroyed evidence of the drain at this location. Alternatively, as this location is in the vicinity of several property lines, the drain may have turned to the east and followed the north property line toward Ann Street, at the front of the east property. The elevation of the top of the clay cap for the drain corresponded to that of the top of a large brick feature (Feature 4) on the Cross Street Back Lot site, immediately to the north. Although no direct association existed between the two features, they reflected the earliest identified use of both sites.

The drain was made of field stones and partially dressed granite blocks that were set into subsoil (Figs. V-3, and V-11 to V-14). No builder's trench for the drain was identified: presumably, a trench was excavated and the stones that formed the wall were pressed into the side of the construction trench. The sides consisted of granite blocks, the majority of which were dressed on the side that formed the inner drain cavity. All of these stones were unmodified on their exterior. The top of the drain was made from large, irregular, but flat, field stones (Figs. V-13 and V-14). These stones were large enough to cover both the drainage cavity and the stones that formed the walls. The base of the drain cavity was exposed subsoil, and there was no evidence that the drain had been lined. The interior drainage cavity was approximately 1.4 ft. (43 cm.) wide and is 1.3 ft. (40 cm.) deep (Figs. V-15 and V-16). Covering the entire drain was a clay cap of varying thickness, which sealed the drain (Fig. V-15). The thickness of the clay cap varied between 0.20 and 0.80 ft. (6 and 24 cm.), with the cap being thicker over the drain and tapering at the edges that rested on the disturbed Phase I surface or subsoil.

The drain is interpreted as part of the original drainage system installed during the initial development of this and the adjacent properties. The cap over the drain was made with impermeable clay, indicating that the drain was not intended to drain the site area and that its function was to move water through the site. The section of the drain within the project area did not have any feeder drains or intakes. Whether the drain functioned as a communal drain or had the sole purpose of draining a single property or structure could not be ascertained from either the field excavations or historic research. In the 25 ft. (7.62 m.) of its length, the drain crossed portions of Units 8, 12, 16, 20, 21, and 36, and the fieldstone cap of the drain dropped 0.49 ft. (15 cm.). The interior dropped 0.12 ft. (4 cm.), following the top of exposed subsoil. The gradient of the drain was not steep;. therefore, water movement through the drain would not have been swift. However, in Unit 4, at the southern limit of the excavation, both the direction and the gradient of the drain changed. There, within 5 ft. (1.5 m.), the drain turned toward the southwest and dropped almost a foot.

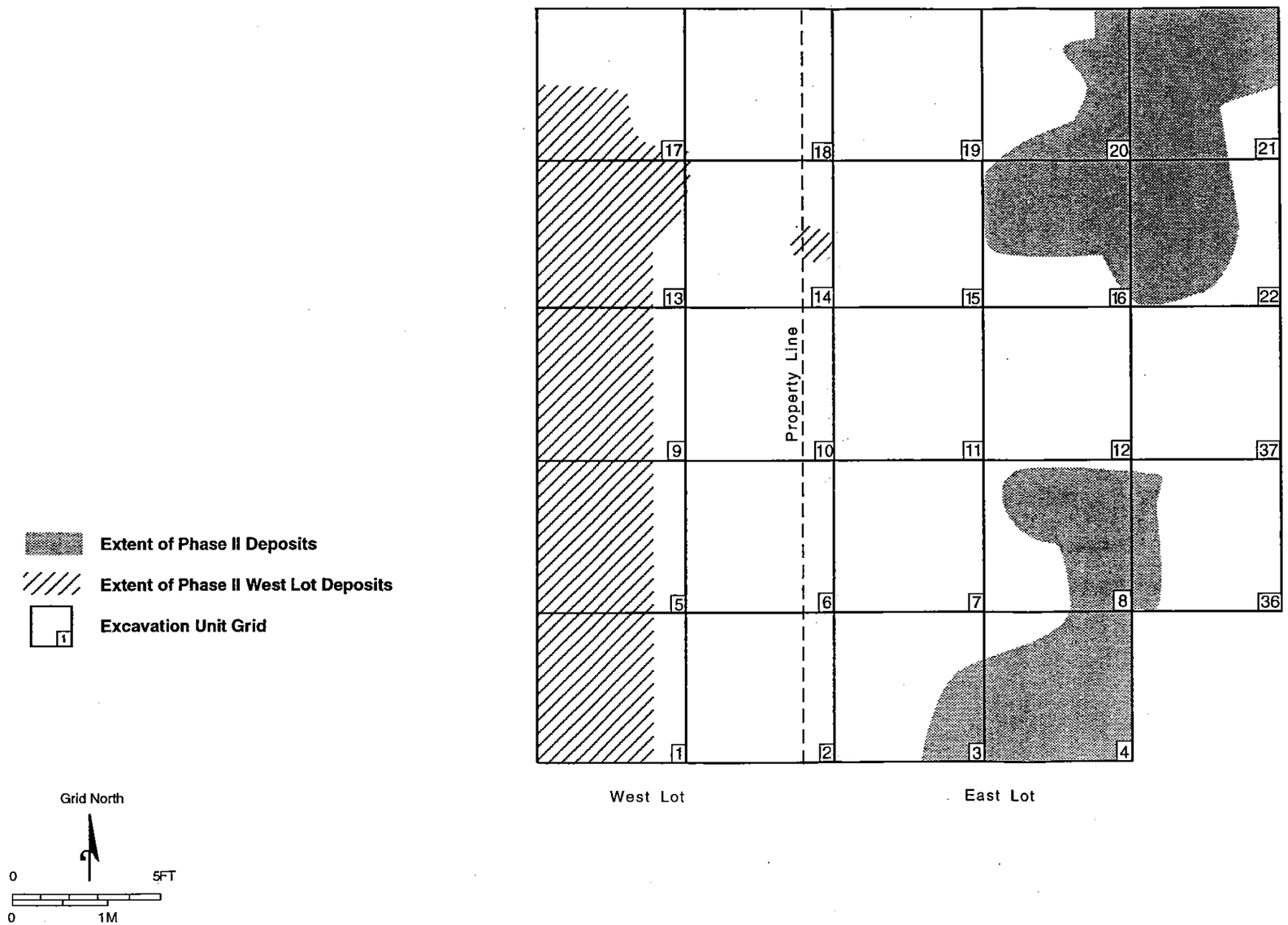


Figure V-10 - Paddy's Alley, Phase II composite plan view.

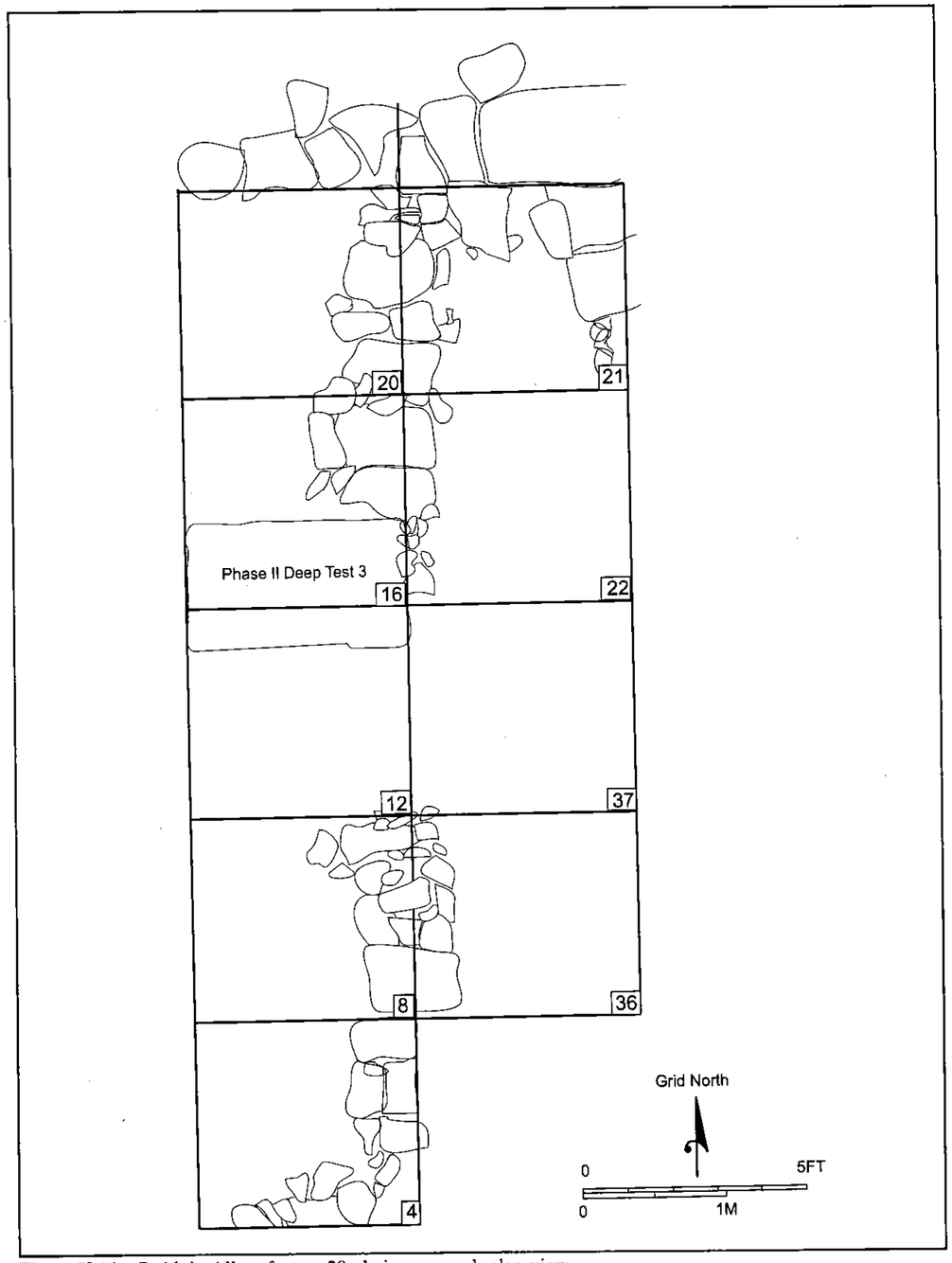


Figure V-11 - Paddy's Alley, feature 28, drain, exposed, plan view.

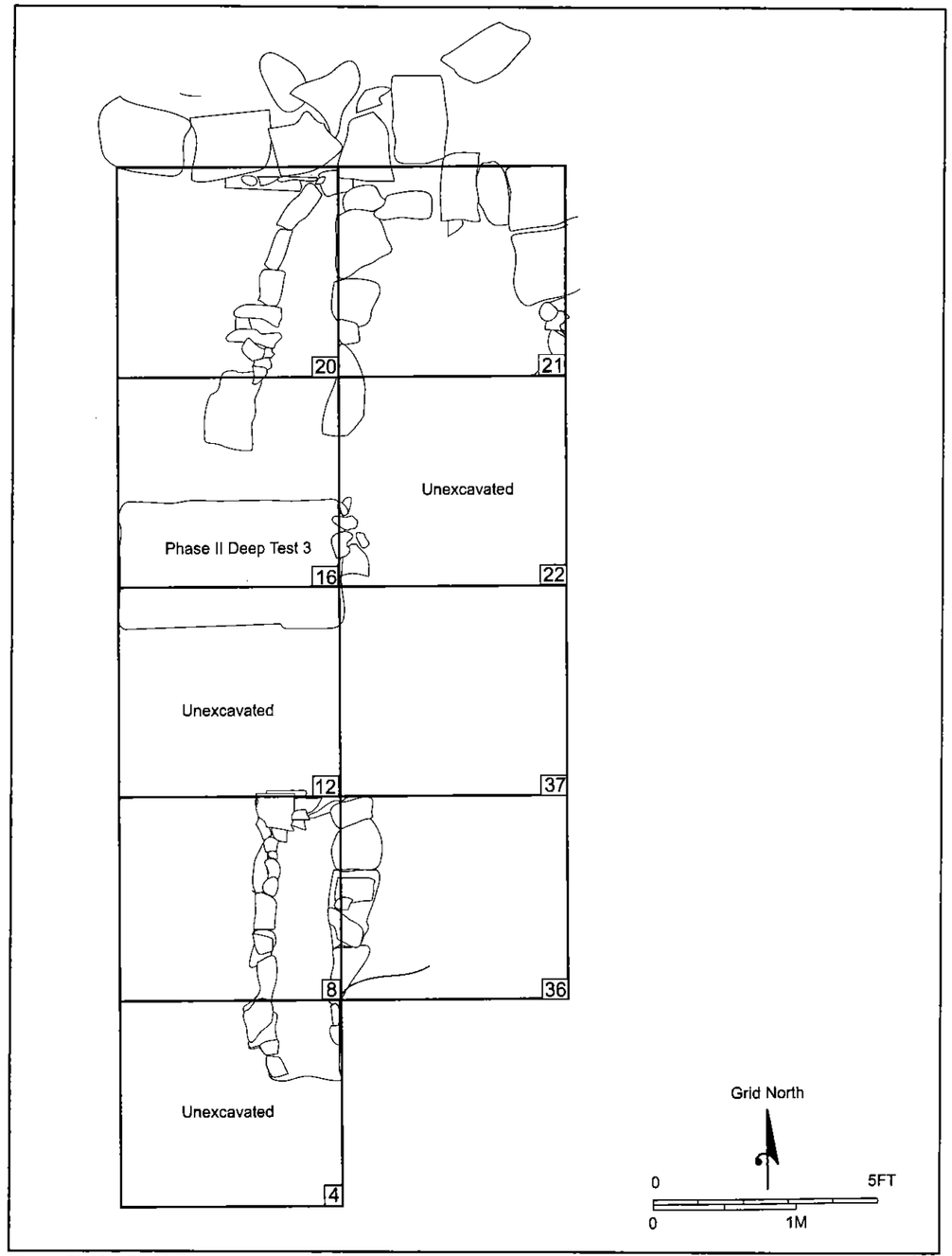
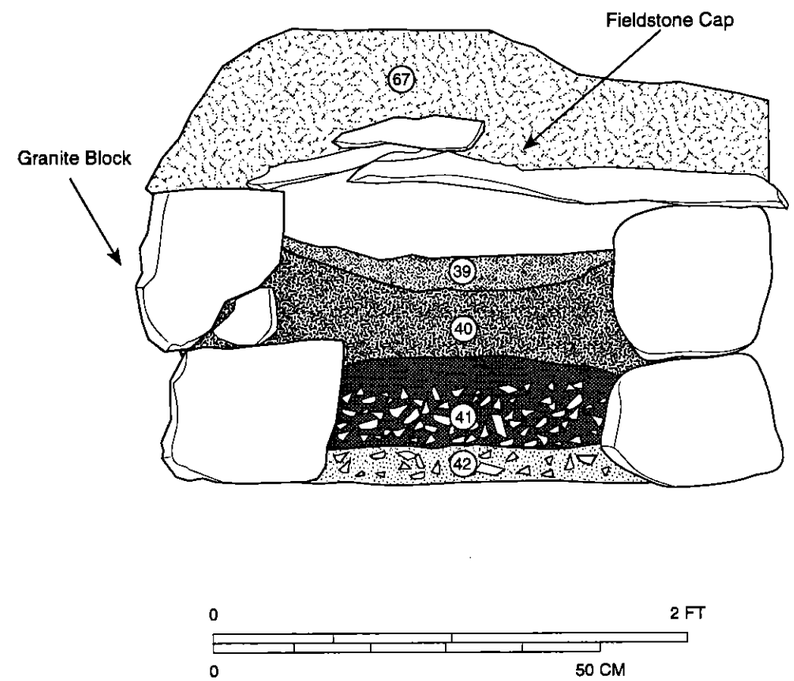


Figure V-12 - Paddy's Alley, feature 28, drain, excavated, plan view.

Figure V-13 - Plan view of excavation units 16, 20, 21, and 22, showing the fieldstone cap of the drain (Phase II, feature 28) exposed, facing north.

Figure V-14 - Plan view of excavation units 4, 8 and 36, showing the fieldstone cap of the drain (Phase II, feature 28) exposed, facing north.



39 **10YR3/3 dark brown fine sandy silt**

40 **7.5YR2/1 black fine sandy silt**

41 **7.5YR3/1 very dark gray silt with large amounts of gravel**

42 **10YR3/1 very dark gray fine sand with gravel**

67 **5Y5/3 olive compact silty clay mottled with 5Y3/2 dark olive clay; clay cap**

Figure V-15 - Paddy's Alley, excavation unit 8, feature 28, drain, cross section profile.

Figure V-16 - Drain (Phase II, feature 28), field stone cap removed and sediment excavated, facing northeast.

Although the drain was part of the original infrastructure installed in the early-eighteenth century, by the mid nineteenth century the drainage system had been altered by construction of several buildings on the historic block. During the construction of the warehouse on the property, the drain was reoriented to aid in the drainage of a nineteenth-century foundation wall (Feature 10). The builders of this foundation apparently modified the drain to aid in the drainage of the building's foundation. The drain was not destroyed by the builder's trench (Feature 6) for the building and was instead incorporated into the foundation. The removal of the drain from its eighteenth century context and its incorporation within a nineteenth-century drainage system is an example of reclamation. This is the only example of the reclamation site-formation process found on the site. It is also an example of the reuse formation process, since, by the nineteenth century, the drain was probably abandoned and not part of a functioning drainage system. By reusing the drain, the builders of the warehouse changed the context of the drain by incorporating it into the nineteenth-century drainage system, altering the eighteenth-century context of the drain.

The majority of the interior drain sediments was excavated. Despite the long time span during which this drain was in use, only approximately the bottom three-quarters of the drain cavity was filled with sediment and water was observed flowing through the drain. Excavation of the drain deposits revealed four separate soil matrices (HNs 39, 40, 41, 42); (Fig. V-15). The stratified deposits excavated from within the drain were assigned to Phase IX, not Phase II, as the MCD of the matrices would suggest. The association of these matrices with the nineteenth-century occupation rather than to the eighteenth century is based on the reuse of the drain in the nineteenth century. The artifacts recovered from the drain sediments are interpreted as residual artifacts that had been removed from their original context. It is possible that the sediments were deposited earlier but, because of the altered context and the unknown origin of these sediments, no pre-nineteenth-century temporal associations can be made. The drain sediments were anomalies within the site. Thus whether these sediments reflected eighteenth- or nineteenth-century use of the drain is unimportant, since the overlying reason why these matrices yielded little information on the site was that they were intrusive secondary deposits.

3. Phase III: Ca. 1700-1720 Occupation

Deposits associated with this phase, which were present in both the east and west lots, corresponded to activities between 1710 and 1720 (Fig. V-17). The activities within the two lots appear to be different. Deposits in the east (Phase III, east) reflected filling and dumping. In the west lot (Phase III, west), the gardening originating in Phase I appears to have continued, but some new activity was added.

On the east side of the property, Phase III was represented by five matrices (HNs 32, 60, 64, 65, and 66). Four of the matrices are interpreted as fill added to the yard for landscaping, while the fifth is interpreted as a refuse midden. These matrices accumulated during the time the property was occupied by Samuel Wentworth or Nathaniel Henchman or perhaps both. The fill and refuse may reflect land modification that occurred after the transfer of the property between these individuals. No clear activity surfaces could be identified for this phase; rather, this portion of the property was used for refuse disposal.

Deposits in the northeast section of the site consisted of interdigitated fill matrices (HNs 60, 64-66). Matrix HN 64 (Feature 19) was a deposit containing a large amount of wood fragments. Only a small portion of this matrix survived, in Units 20 and 21. The wood fragments did not articulate and appeared to be debris, rather than structural remains.

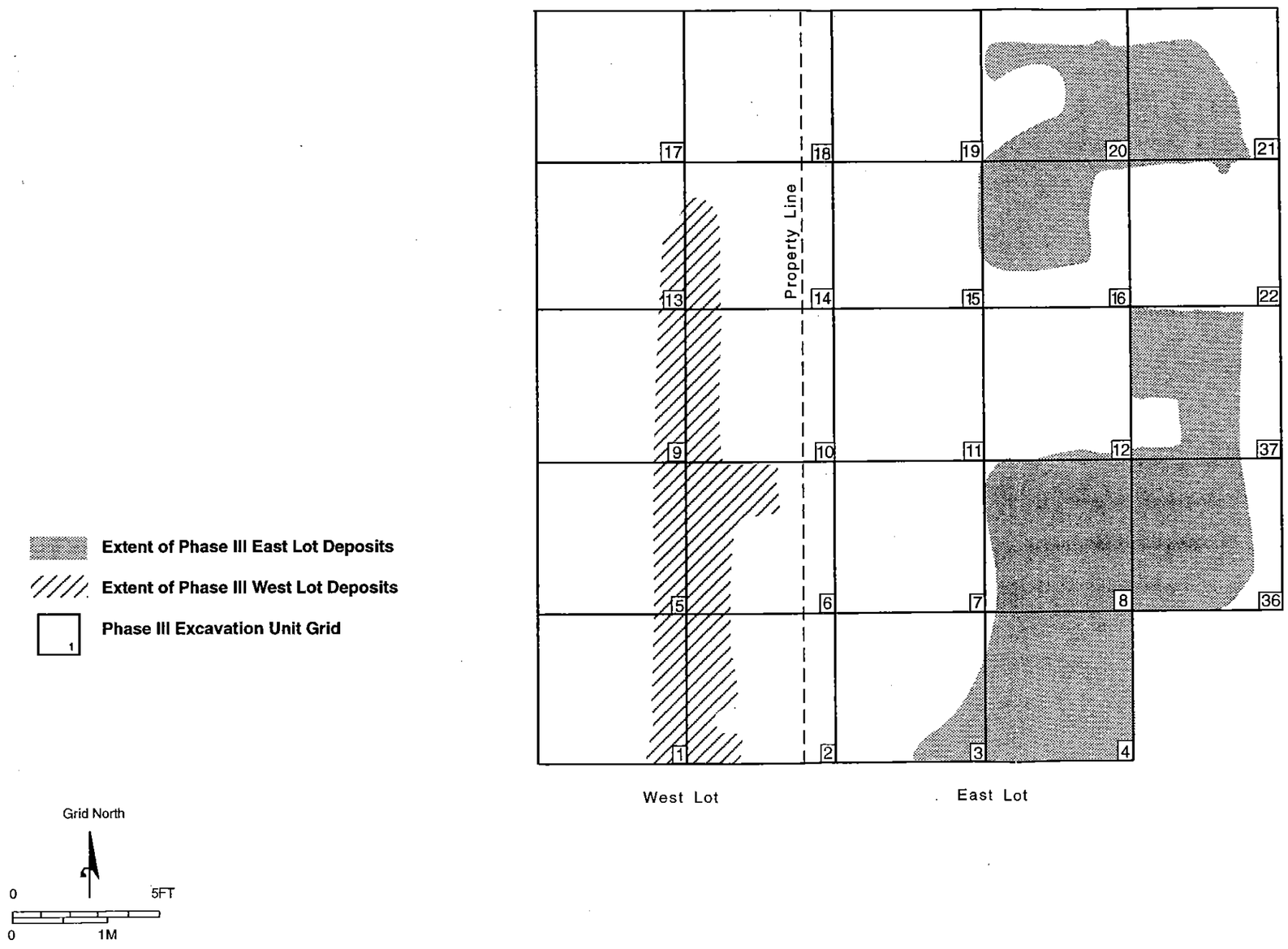


Figure V-17 - Paddy's Alley, Phase III composite plan view.

The refuse midden (HN 32) was located in Units 3, 4, 7, 8, 36, and 37, in a matrix approximately 1.5 ft. (46 cm.) thick. The surface of the midden must have been exposed for a period of time, because a post hole (Feature 21) was encountered at the interface of this matrix and the matrix immediately above it. This deposit may be the same as the CU 32 encountered during the 1989 site examination. However, horizontal exposure during data recovery excavations resulted in the identification of two separate units of stratification (HNs 31 and 32) belonging to two phases. It was not clear to which matrix the artifacts from CU 32 belonged, so they have not been included in either.

On the west side of the site, Phase III was represented by matrix HN 16 and was present in Units 1, 2, 5, 6, 9, 10, 13, and 14. This matrix ran north to south along the east boundary of the property (Fig. V-17). The deposit represented a trench extending approximately 37 ft. (11.27 m.) north of the southern limits of the excavation. It could not be traced further north because of a nineteenth-century privy in Units 17 and 18. The width of the trench varied between 3 ft. and 8 ft. (91 cm. and 2.44 m.). The depth of the trench also varied, from 1.2 to 1.9 ft. (37 to 58 cm.). Deposits associated with later activities (Phases IV-1, IV-2, and V) had destroyed most of the east boundary of the trench. Stratigraphically, the matrix postdated Phase I and predated Phases IV-1 and IV-2. The trench intruded into the matrices of Phase I, and both privies (Phases IV-1 and IV-2) intruded into this matrix (HN 16). When this matrix was first uncovered, excavators believed that it represented a builder's trench for two privies; however, the trench was found to continue to the north and may represent the installation of a boundary marker, such as a fence line, although no post holes were identified within the matrix. Alternatively, the trench may have functioned as a drainage ditch or as a ditch marking the boundary.

4. Phase IV-1: Ca. 1720-1725 Occupation (Privy)

In the east lot, Phase IV-1 was the period between the deposition of the fill and midden matrices representing the Wentworth and Henchmen occupations (Phase III) and the beginning of the Carnes occupation (Phase IV-3). These deposits were probably associated with Henchmen: the artifacts reflected a later occupation, but there was no clear association. It is possible that these deposits reflect work undertaken when the property changed ownership.

In Phase IV-1 (Fig. V-18), the activities undertaken within the west lot continued to be associated with garden activities and the disposal of human waste (Fig. V-19). Phase IV-1 was represented by the construction, use, and abandonment of a small privy along the lot line (Feature 20). The privy consisted of a small, shallow privy box on the north end and evidence of the superstructure to the south. It appears that this feature was used for only a short time and was emptied often. The apparently short period of use for this privy precluded the separation of construction, use, and abandonment into separate phases or subphases.

The privy (Feature 20), excavated in Units 2 and 6, dated to ca. 1720 (Fig. 19). It consisted of several components: privy box, superstructure, post holes and molds. Two post holes were assigned separate feature numbers (Features 33 and 34). The privy, including evidence of the superstructure, measured 3 ft. by 8 ft. (91 cm. by 2.44 m.). The stratigraphic deposits associated with the privy represented the construction (HN 19, 20, 21,22, 23 and 27), use (HN 18 and 24), and abandonment (HN 17) of this Feature.

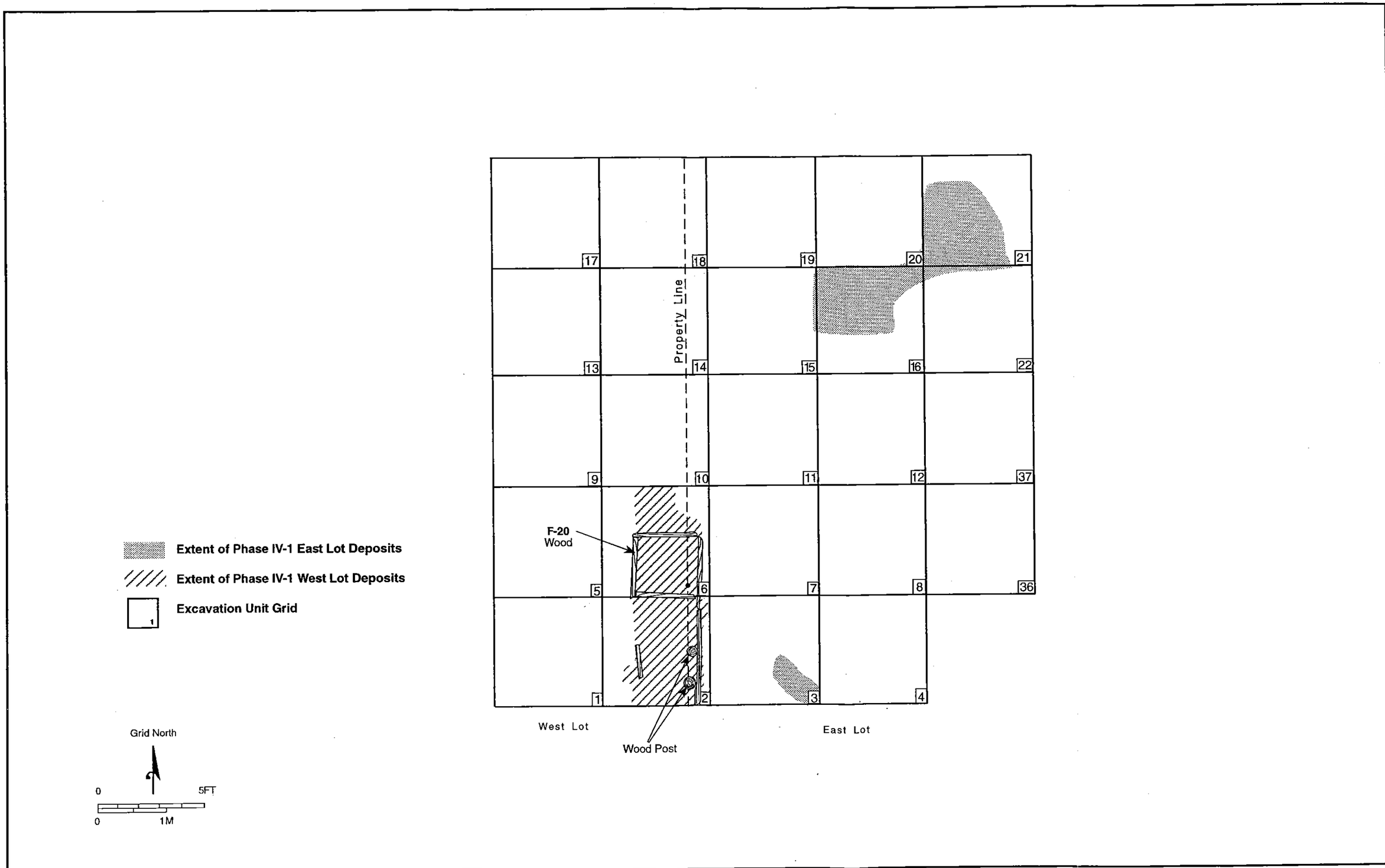


Figure V-18 - Paddy's Alley, Phase IV-1, composite plan view.

Figure V-19 - Plan view of excavation units 2 and 6, showing privy (Phase VI-1, feature 20) excavation in progress, facing south.

The privy superstructure was a post-in-ground structure. Evidence for four posts was uncovered, two of which were driven into the ground while the other two (Features 33 and 34) were placed in post holes (Figs. V-20 and V-21). The alternative methods of post installation may reflect repair to the structure. Wooden planks were used to construct the privy box, at the north end of the structure.

The privy box measured 3 ft. by 3.5 ft. (91 cm. by 1.07 m.) and was approximately 2.3 ft. (70 cm.) deep. The overall volume of the privy box was slightly over 24 cu. ft. The privy had been deliberately closed. Part of the superstructure was knocked over upon itself and the privy box and debris were covered with a 0.78-ft. (24-cm.) cap of clay (HN 17).

It is not clear why the privy box would have been so small , since it would have had to be emptied frequently. The location of the privy next to a garden plot, and its small size, suggest that the one of the functions of the feature was to provide night soil for the garden.

Feature 20 appears to have been filled in after the death of John Jepson, Jr., which occurred in 1721 (see section IV.B.1, above). During this period, lasting until 1728, the property was occupied by his widow and children, when it was divided, and the portion containing the site sold off. It is unclear whether the privy was filled before the 1728 sale, or shortly after it.

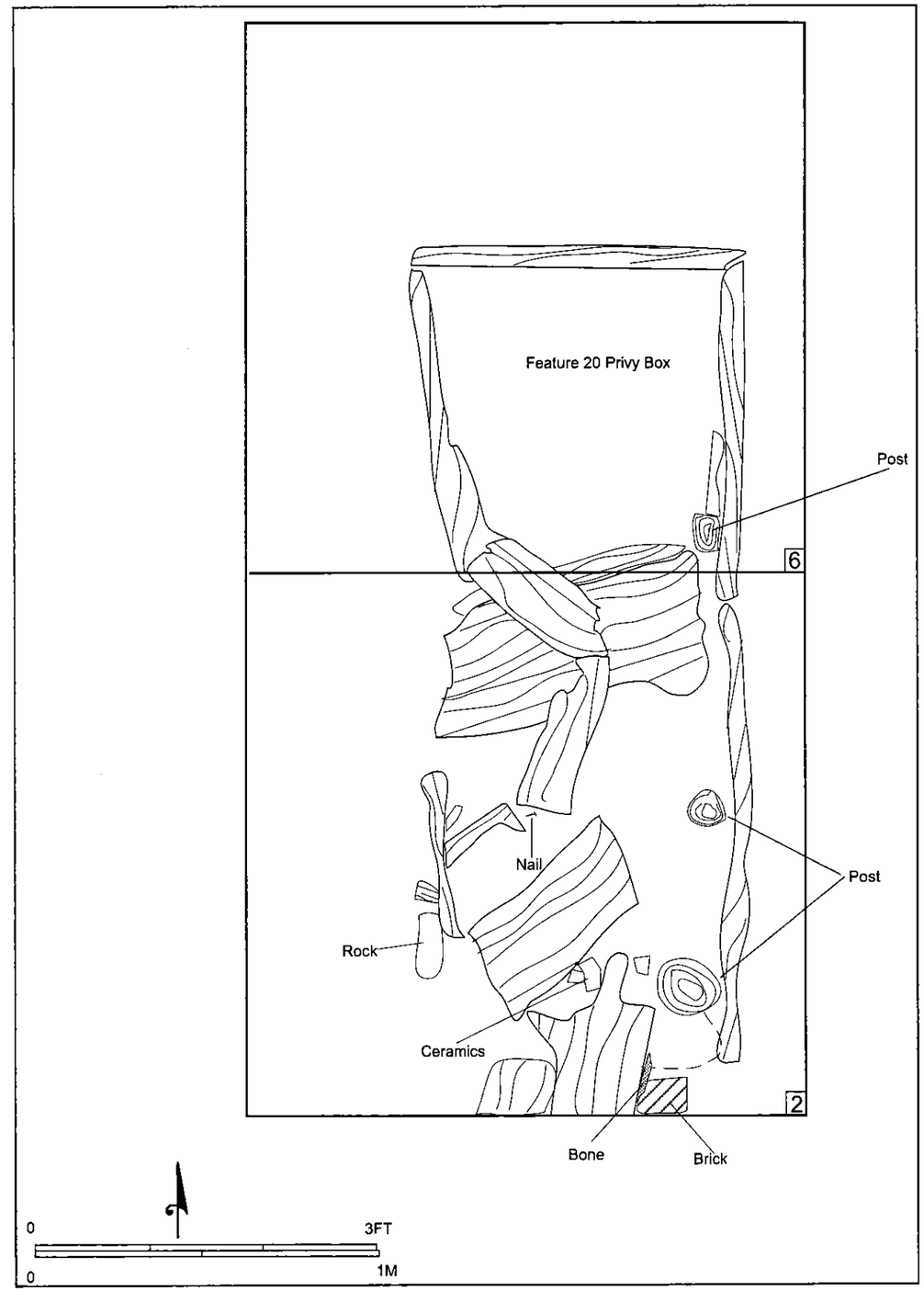


Figure V-20 - Paddy's Alley, feature 20, privy, plan view.

Figure V-21 - Plan view of excavation units 2 and 6, showing privy remnant of superstructure exposed and privy box excavated, facing northeast.

5. *Phase IV-2: Ca. 1725-1730 Occupation (Privy)*

Within the west lot, Phase IV-2 was represented by the remnant of a privy box (Feature 32). The privy and associated matrices were the only matrices assigned to this phase (Fig. V-22). There were no matrices assigned to this phase in the east lot. Dated artifacts indicate that this feature postdates Feature 20 (Phase IV-1), but predates Phase V.

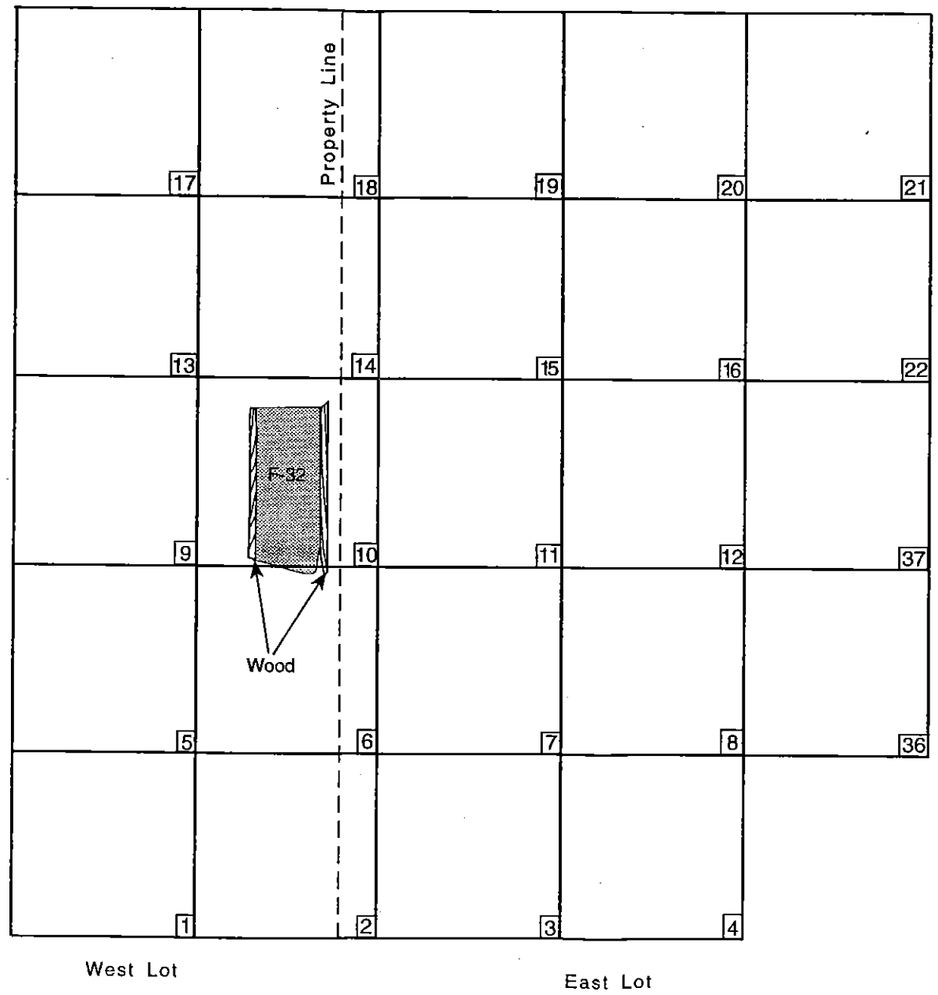
The remnant of the privy box, which dated to ca. 1722, consisted of a partially wood-lined privy box (HN 48) and four matrices representing feature fill (HNs 49, 50, 51, and 52). The privy box was adjacent to the lot line. A portion of the privy deposit lay beneath Phase V deposits associated with a later warehouse on the east lot.

The privy box was 2 ft. by 4.5 ft. (61 cm. by 1.37 m.), constructed from four wood planks. Unlike the privy located to the south (Feature 20), no evidence of this privy's superstructure has survived. In form, however, Feature 32 was similar to the privy box in Feature 20. The interior of the box was 1.3 ft. (41 cm.) deep. Consequently, the inferred capacity of the privy was small, 11.7 cu. ft. (331 cu. l.). The stratification reflects abandonment of the privy. Because of the privy's small size, it was probably periodically emptied. As with Feature 20, this privy probably contributed night soil to the garden. It appears that during the final filling of this privy, it was a receptacle for both fecal matter and ash. The fill within the feature was stratified, and four separate matrices were identified (HN 49, 50, 51, and 52). The clay cap that sealed the privy (HN 49) was restricted to the limits of the feature, while the three matrices that made up the privy contents consisted of a deposit of ash and clay (HN 50) directly beneath the clay cap; a deposit of sandy silt (HN 51); and, at the base of the privy, a deposit of ash and clay (HN 52).

6. *Phase IV-3: Ca. 1730s Occupation*

Within the east lot, this phase represented activities associated with the acquisition of the property by Carnes (Fig. V-23). It was the period of time between his purchase of the property (1726) and the construction of a building in Phase V. The exact date when the building was constructed is unknown, but dated artifacts suggest a ca. 1730 date of building construction. Midden deposits containing a large amount of cultural material and associated with the Carnes occupation were excavated in the southwest section of the east lot. Recovered from the midden was a wine bottle seal reading "John Carnes." As John Carnes was a pewterer and brazier (or pewter worker), the midden deposits may reflect activities associated with metallurgy. Archaeological evidence supporting this interpretation includes crucible fragments, unfinished castings, and metallic concretions.

Phase IV-3 was represented in the west lot by one matrix (HN 5). This matrix reflected continued cultural deposition associated with the use of this location as a garden. Stratigraphic analysis and pollen analysis were found to complement each other in that each indicated that the gardening activities that began in Phase I continued at least until Phase V.



Extent of Phase VI-2 Deposits

Excavation Unit Grid

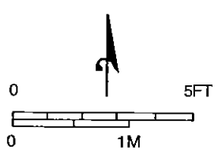


Figure V-22 - Paddy's Alley, Phase IV-2 composite plan view.

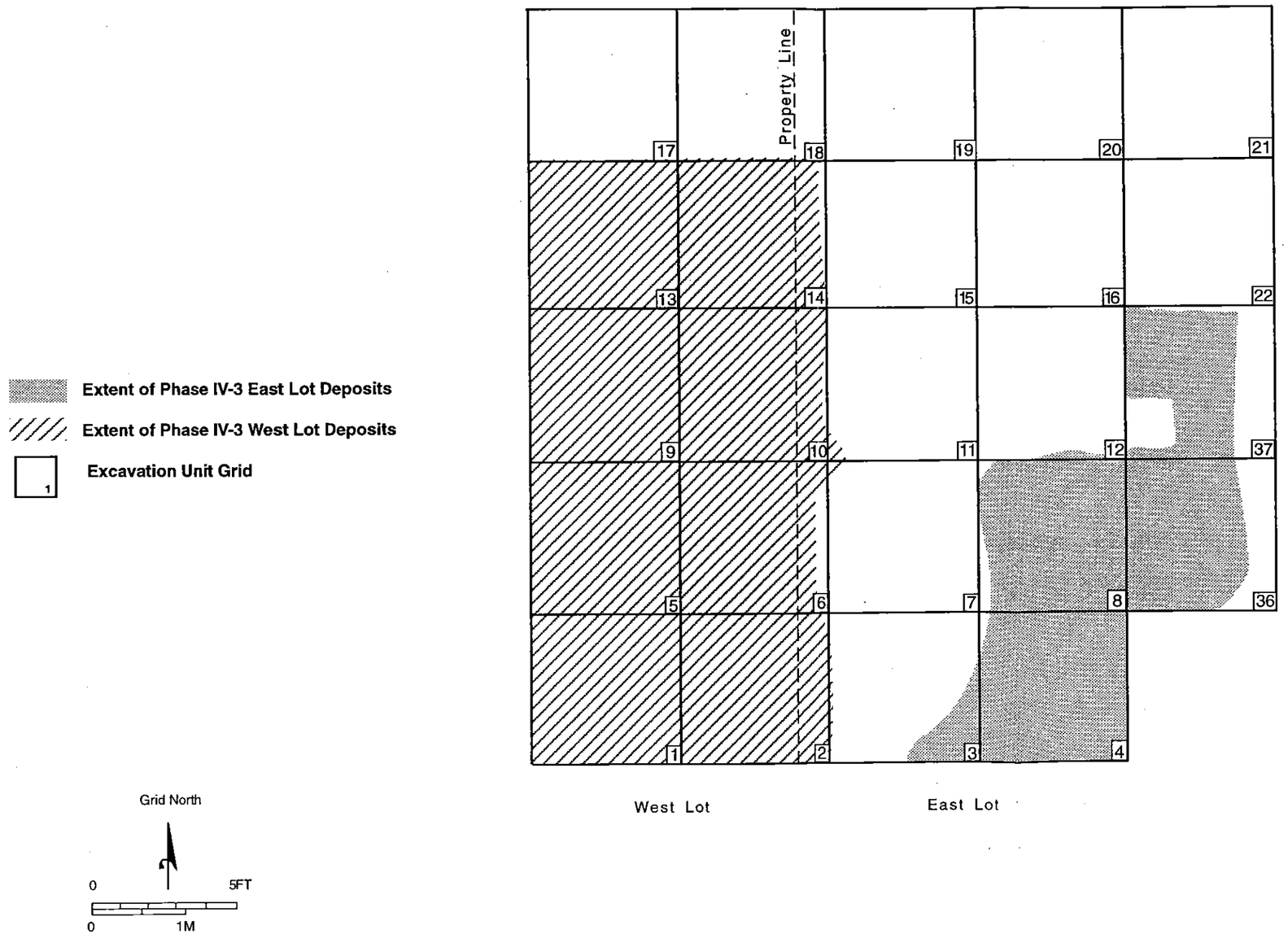


Figure V-23 - Paddy's Alley, Phase IV-3 composite plan view.

7. *Phase V: Ca. 1730 Construction of Structure*

This phase represented the construction of a building at the rear of the Paddy's Alley east property (Fig. V-24). The building was described in 1761 as a warehouse, but it may also have functioned as a workshop for John Carnes. The deposits associated with this phase included foundation walls (HN 53), wood-plank interior floor (HN 58), and an exterior brick paving (HN 30).

The complete footprint of the building could not be traced because of disturbances caused by later activities on the site (Figs. V-6 and V-24), which has precluded an estimate of the size of the building. Surviving portions included part of the west and south foundation walls, as well as the southwest corner (Fig. V-24). The foundation consisted of dry-laid field stones (Features 14 and 15). Much of the foundation had been disturbed by nineteenth-century activities and was, therefore, discontinuous. For this reason, the south (Feature 14) and west (Feature 15) wall remnants received separate feature numbers in the field. The south wall remnant was first identified during the 1989 site examination and designated CU 53. No builder's trench for the south wall was identified by the 1989 site-examination or data-recovery investigations.

The brick paving (Feature 22) was identified in Units 3, 4, 8, 36, and 37. Although the paving was present in all of these units, undisturbed remnants of the paving were identified only in Units 3, 4, 36, and 37. In general, this matrix was disturbed by later activities. The brick paving was identified during the 1989 site examination and designated as CU 17. The 1989 site-examination report interpreted the brick paving as the floor of the nineteenth-century warehouse. Increased exposure of this matrix during the data-recovery excavations indicated, however, that the brick paving was associated with the Carnes structure. The south wall (Feature 14) terminated at the brick paving (Feature 22), suggesting a doorjamb and entrance (Figs. V-25, V-26, and V-27). A nineteenth-century foundation has truncated these deposits further east; consequently, neither the full width of the entrance nor any eastern extension of the south wall has survived.

Through historic research, the building was identified as a warehouse standing at the northwest rear portion of John Carnes' property. Approximate dimensions of the warehouse can be inferred from the historical record (see discussion in Section IV.B.2). The warehouse may have measured 20 ft. by 20 ft. (6.1 m. by 6.1 m.), but these measurements could not be checked by the surviving foundation remnants. Historic records also suggested the likelihood that an entrance to the warehouse was on the south side of the building. The location of the suggested doorjamb in Unit 37 would have put the entrance of the warehouse at the middle of the south wall.

Excavation within the structure supported the location of an entrance in this area (Figs. V-24 to V-27). A remnant of a wooden floor (Features 1 and 24), encountered in Units 16, 20, 21, and 37, abutted both the base of the south foundation wall and the brick paving (Figs. V-24, V-25 and V-27 to V-29). In general, the wood was deteriorated, rendering this matrix difficult to discern. Both 1989 site examination manual Unit 13 and deep test 3 were excavated within the interior of the building, but the wood floor was not identified. This is understandable, because the matrix had only survived in limited areas and the wood was in poor condition. The removal of single layers across a wide area allowed for the identification of matrices which were otherwise difficult to discern.

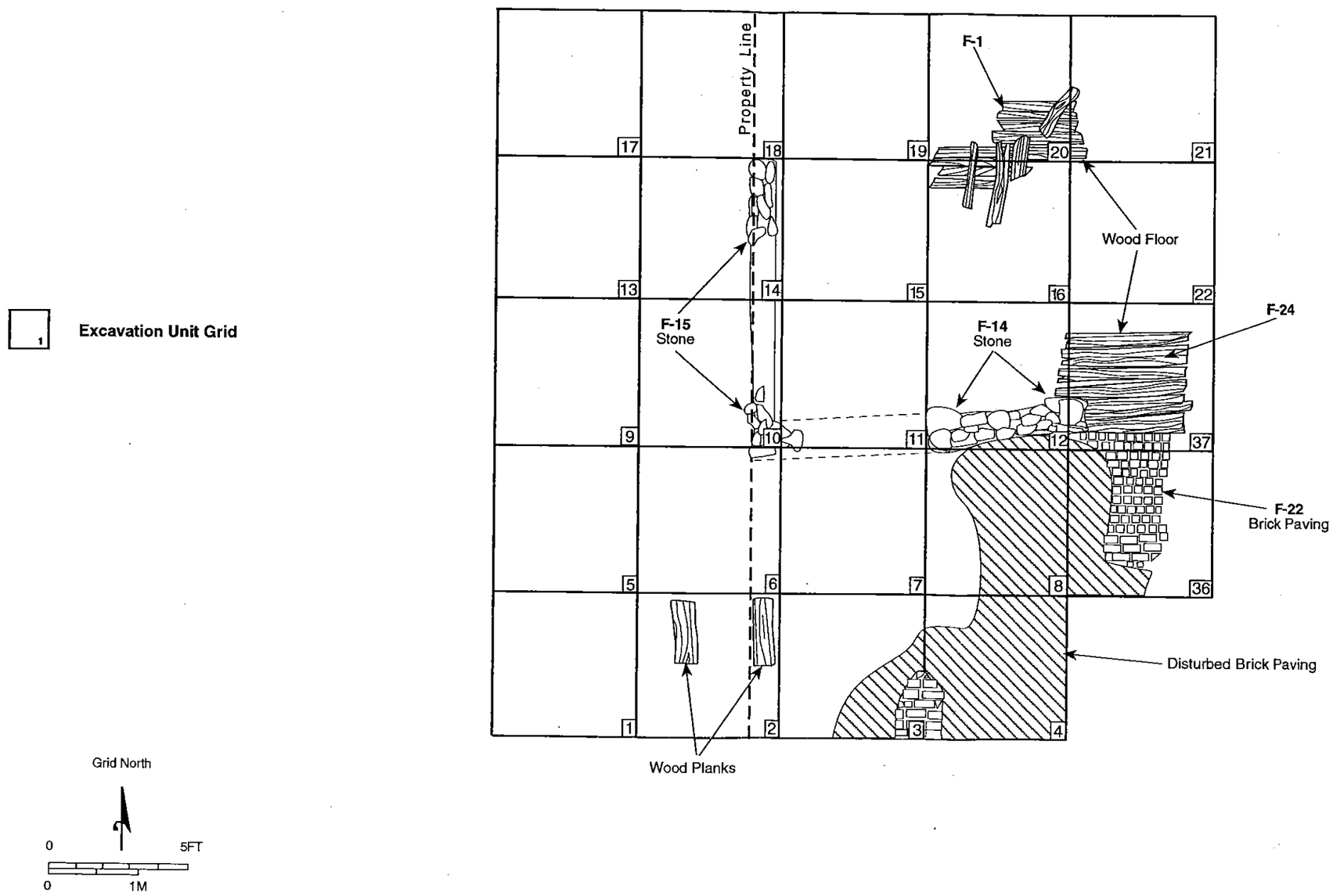


Figure V-24 - Paddy's Alley, Phase V composite plan view.

Figure V-26 - Plan view of excavation units 12, 36, and 37, showing interface of wall (feature 15), brick paving (feature 22), and wood floor (feature 24), facing southwest.

Figure V-27 - Plan view of excavation units 12, 36, and 37, showing interface of wall (feature 15) and wood floor (feature 24), facing northwest.

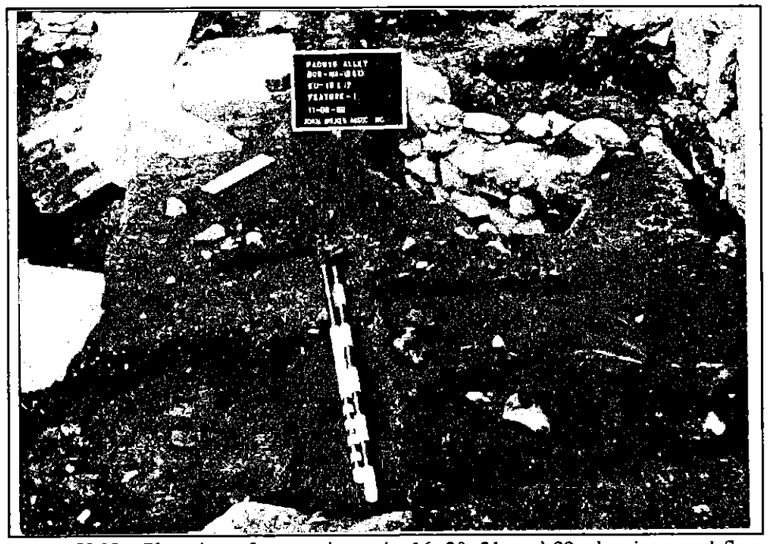


Figure V-28 - Plan view of excavation units 16, 20, 21, and 22, showing wood floor (feature 1), facing northwest.

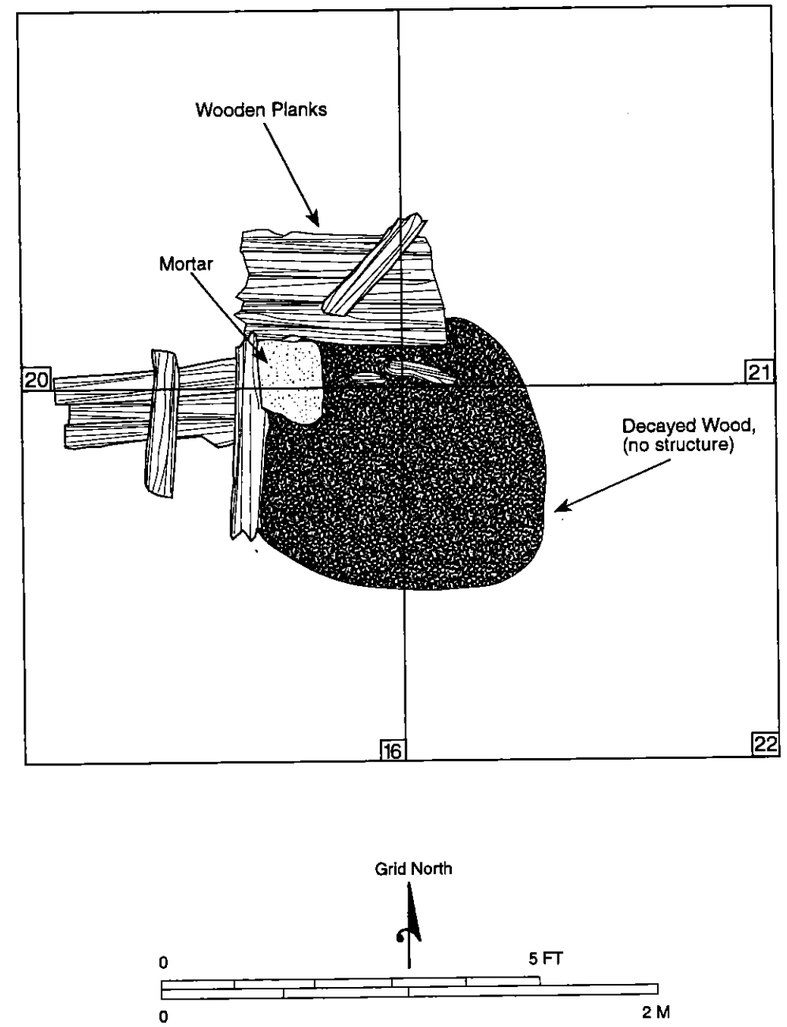


Figure V-29 - Paddy's Alley, feature 1, wood floor, plan view.

8. *Phase VI: Ca. 1730 Use of the Structure*

Phase VI represented the use of the building constructed in Phase V (Fig. V-30). Excavators encountered only one matrix (HN 69) that could be assigned to the period of use of the building, and that was limited to Units 12 and 37. The matrix was approximately 0.40 ft. (12 cm.) thick and lay directly on top of the wood floor. The deposits above the wood floor in Units 16, 20, and 21 were disturbed and consequently assigned to a later phase. The limited extent of the matrix associated with the use of the building precluded any extensive examination of associated activities. The historic research indicated that at the time of John Carnes's death, the building functioned as a warehouse.

In addition to its warehouse functions, other types of activities were probably undertaken within the building. The building may have served for a time as Carnes' metalworking shop. According to Timelines' laboratory director, Leith Smith (personal communication 1993), a number of items recovered from this area had small pewter nodules fused to them, suggesting metal-working activities in the vicinity. Furthermore, artifacts recovered from the Carnes midden deposit (Phase IV-3) indicated that metalworking activities occurred on the property during the Carnes occupation. The function of the building may have changed as Carnes grew older and reduced his workload .

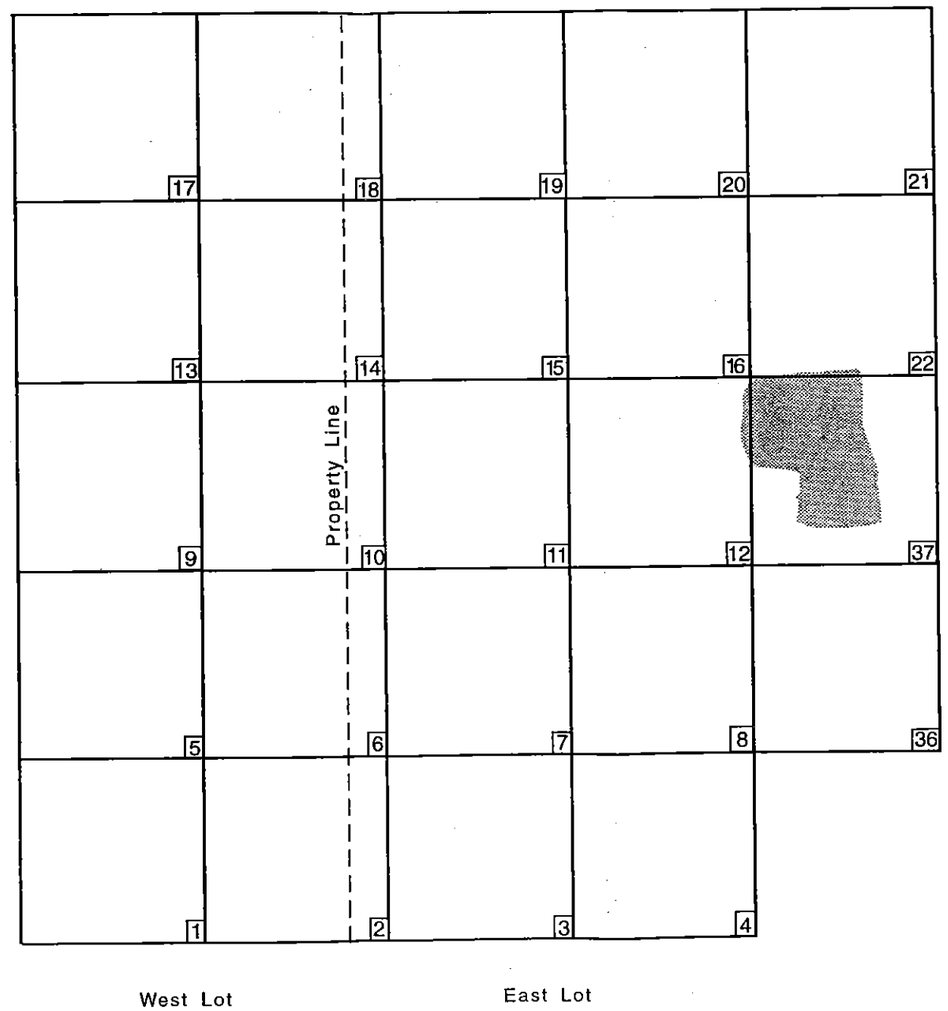
9. *Phase VII: Ca. 1760-1790 Occupation*

Phase VII was the period beginning with the demolition of the building on the east lot (Fig. V-31). In the late eighteenth century, the structure was demolished and fill was added to the site. When the neighborhood was razed in the 1950s, in preparation for the construction of the existing Central Artery, any surviving deposits above this phase were removed. In addition, destruction debris was mixed into the matrices of this phase. The amount of disturbance varied across the site.

This phase was represented in the east lot by the destruction of the building and the deposition of matrices associated with its demolition. These included eight matrices (HNs 29, 55, 57, 61, 62, 63, 68, and 74). It is not known when the building was demolished.

One feature (Feature 11) was present in the east lot in this phase. The feature was identified during the 1989 site examination (CU 9) and associated with the nineteenth-century warehouse (Elia et al. 1989:36). It consisted of two rows of bricks set on a foundation of cobbles (HA 61), a builder's-trench (HA 62), and builder's-trench fill (HA 63). It is reassigned to this phase rather than to another phase because the feature was not aligned with any of the architectural elements associated with the nineteenth-century building or the Carnes warehouse (Phase V) and it postdated Phase VI deposits. Artifacts recovered from the builder's trench provided an MCD of 1716 and a TPQ of 1700. These dates reflected residual artifacts and did not accurately date the feature. However, the builder's trench for the feature was overlain by a matrix (HN 57) assigned to this phase.

In the west lot, the pattern of gardening or open space established in Phase I continued as the portion of the property contained within the site remained a lawn (HA 2, 3, 4, 24, and 25).



Extent of Phase VI Deposits

Excavation Unit Grid

Grid North

0 5FT

0 1M

Figure V-30 - Paddy's Alley, Phase VI composite plan view.

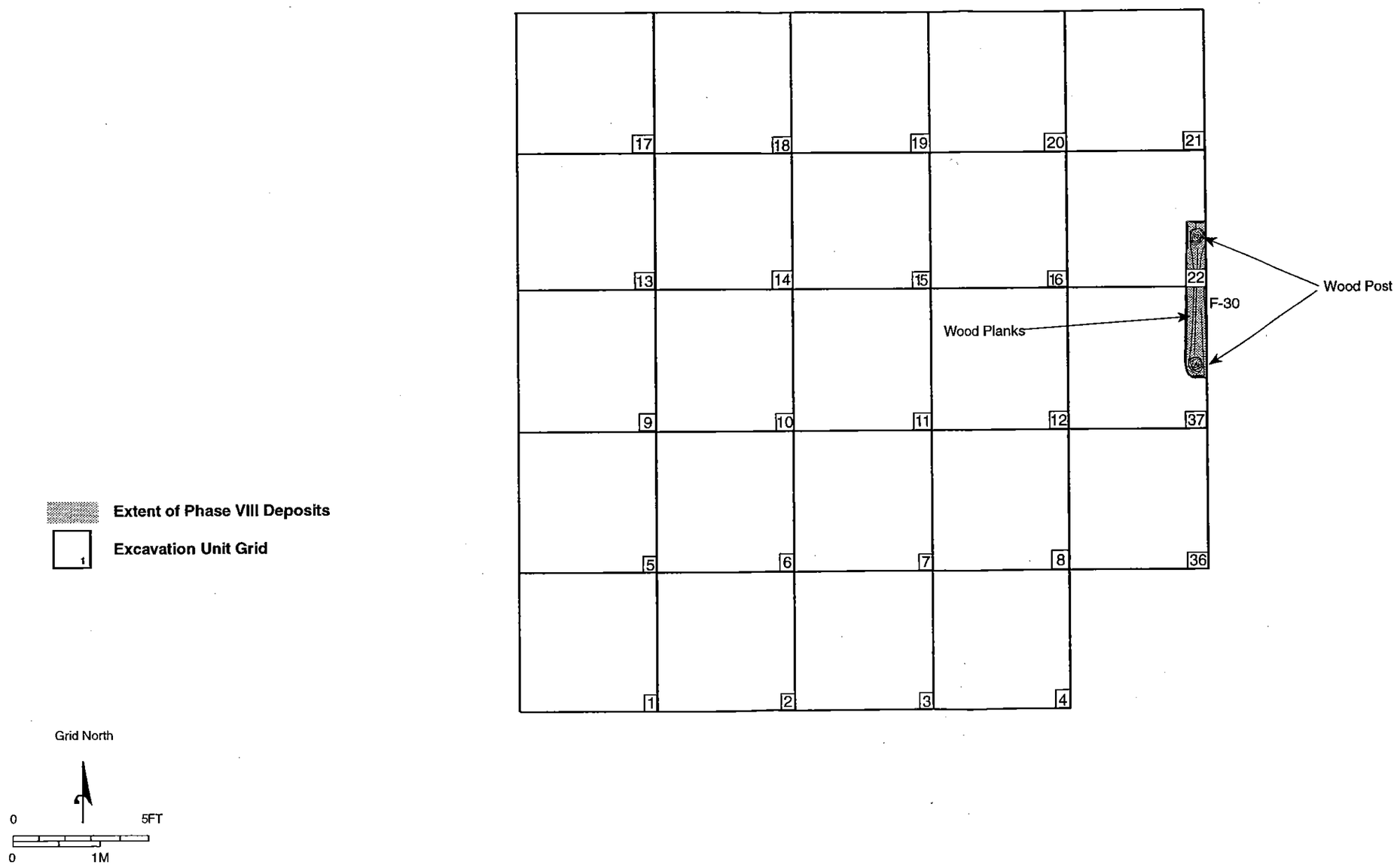


Figure V-32 - Paddy's Alley, Phase VIII composite plan view.

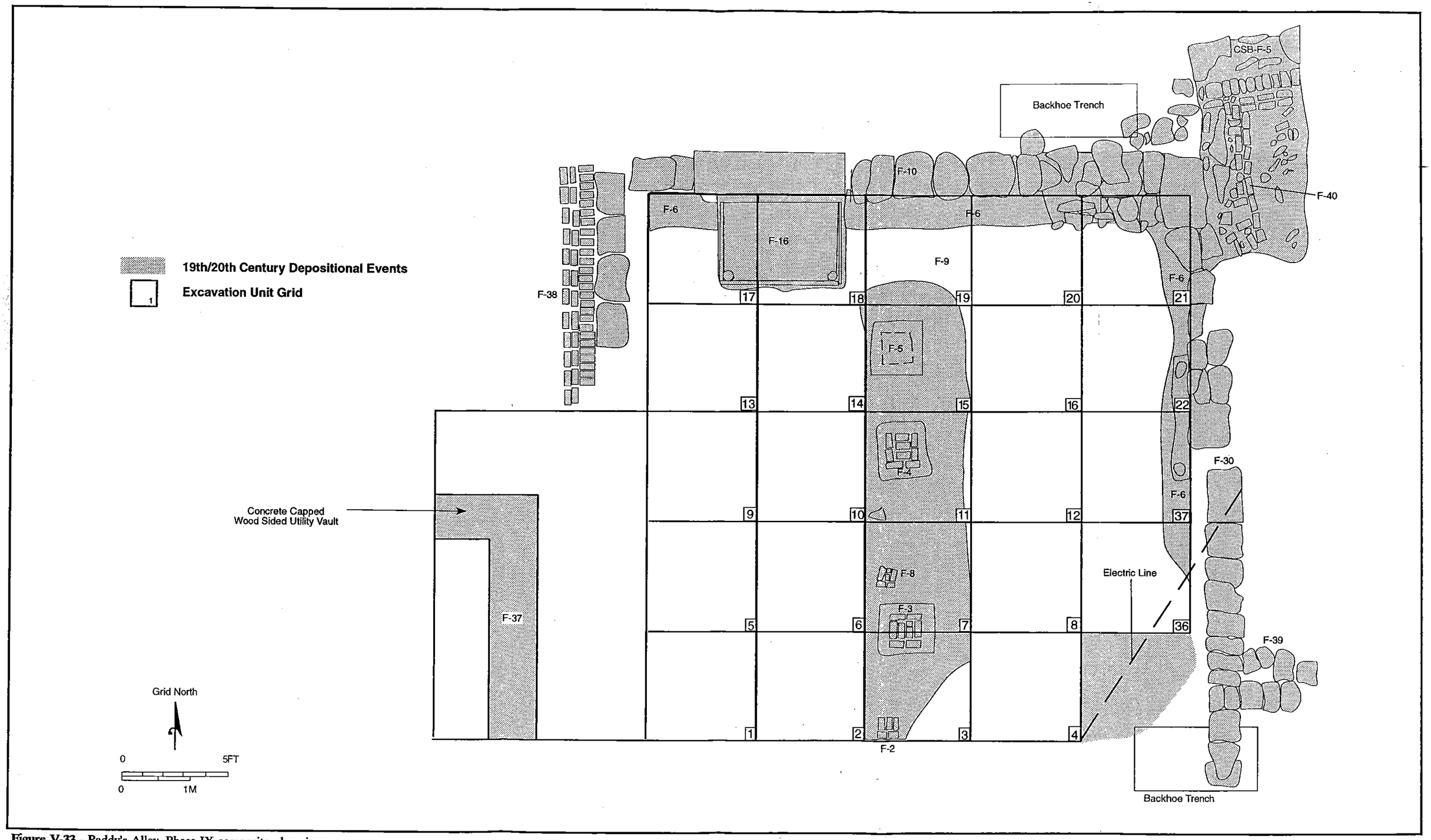


Figure V-33 - Paddy's Alley, Phase IX composite plan view.

Two small brick footings (Features 2 and 8) were encountered in Units 3 and 7. The function of these features is unknown. It is possible that they were original architectural elements of the warehouse. The features were both 1-ft. squares, made of brick and mortar, and 17 courses tall. The footings rested directly on subsoil and were placed in the same builder's trench.

The three identical footings (Features 3, 4, and 5) were made of brick and concrete. This set of footings probably reflected late nineteenth- through early twentieth-century modifications to the warehouse. Each footing consisted of a column of mortared bricks resting on a 2.5-ft.-by-2.5-ft.-sq. (76-cm.-by-76-cm.) poured-concrete pad. The wood forms used in the construction of Feature 3 were still in place. The construction of these features involved the excavation of large (approximately 5-ft.-wide) builder's trenches that destroyed any significant deposits in five units (Units 3, 7, 11, 15, and 19). The extent of this disturbance was not identified during the 1989 site examination. Consequently, a portion of the data recovery field time was spent redefining and removing these deposits to clarify the stratigraphic relationships. In addition, the disturbance created a stratigraphic break in the eighteenth-century deposits so that the stratigraphic relationships between the east and west sides of the site were difficult to assess.

Feature 16 was a large box privy that abutted the north foundation wall of the nineteenth-century building. Excavations were limited to determining the date of the feature. Once it was determined that the feature did not date to the period of significance, as defined by the 1989 site examination, the basic information was recorded, as time permitted. The privy box measured 4 ft. by 5.75 ft. (1.2 m. by 1.75 m.). The privy was judged to postdate the construction of the foundation wall, because the privy cut through the builder's trench for the wall. Construction of the privy was within a builder's trench that was slightly larger than the privy structure. On three sides, the privy was constructed of wood planks either set against the foundation or nailed into interior corner posts. The fourth side (next to the foundation) was interesting because the building foundation (Feature 6) appeared to have been modified. The foundation was removed, creating an opening covered by a 7-ft.-by-1.25-ft. (2.13-m.-by-38-cm.) cut-granite lintel. Privy deposits filled the opening and extend on both sides of the foundation. The privy structure was probably within the building, so that the opening either allowed settling and cleaning or connected the interior privy to an exterior removal system. No excavations were undertaken on the other side of the wall because this feature did not date to the period of significance. The base of the privy rested on subsoil and was unlined. The stratigraphic sequence of privy fill was clear: upon closure, the privy fill (night soil) was sealed by a matrix of clay, followed by a thick layer of debris, mortar, and bricks. Furthermore, at the subsoil interface there was evidence that a deposit of gravel had been laid down to facilitate percolation.

In summary, archaeological deposits dating to the nineteenth century were encountered during the data recovery investigations. Although, the 1989 site examination determined that these deposits were not significant, limited excavations were undertaken to record the extent of the deposits, resolve stratigraphic questions, and determine the contents of features.

C. Cross Street Back Lot (BOS-HA-13) Field Results

Data-recovery investigations were undertaken at BOS-HA-13 in 1992 and 1994. These investigations resulted in the creation of a Harris matrix (Fig. V-34) assembled from information gathered during the excavation of 13 units and a large privy feature (Figs. V-35 to V-37). Significant deposits dated to the Colonial (1675-1775) and Early Republic (1775-1830) periods. Non-significant deposits dating to the Late Industrial (1870-1915), Early Modern (1915-1940), and Modern (1940-present) periods were present in the form of deposits reflecting construction and destruction

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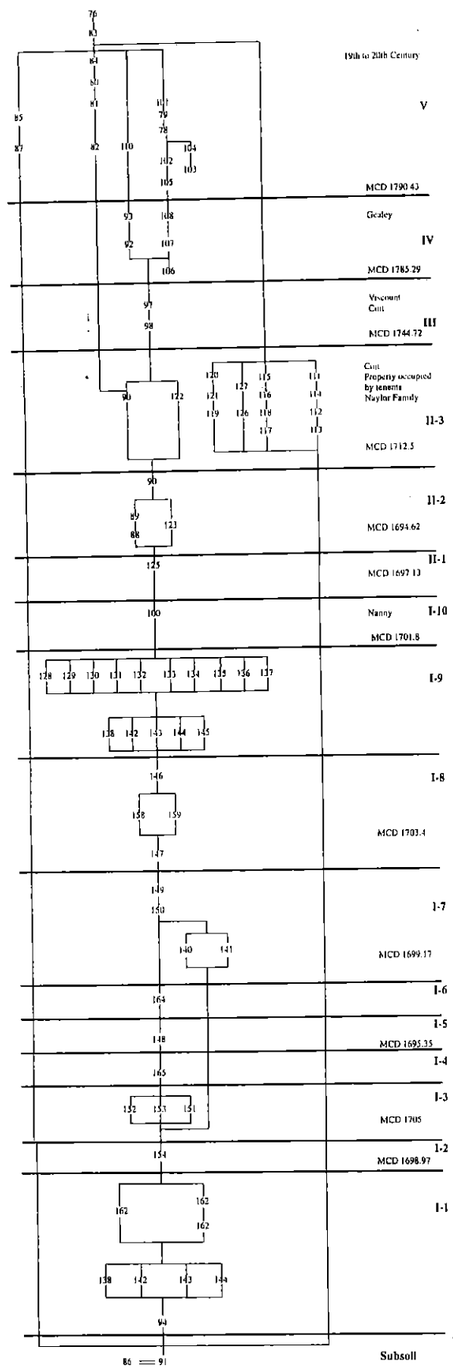

Figure V-34 - Cross Street Back Lot (BOS-HA-13), Harris matrix.

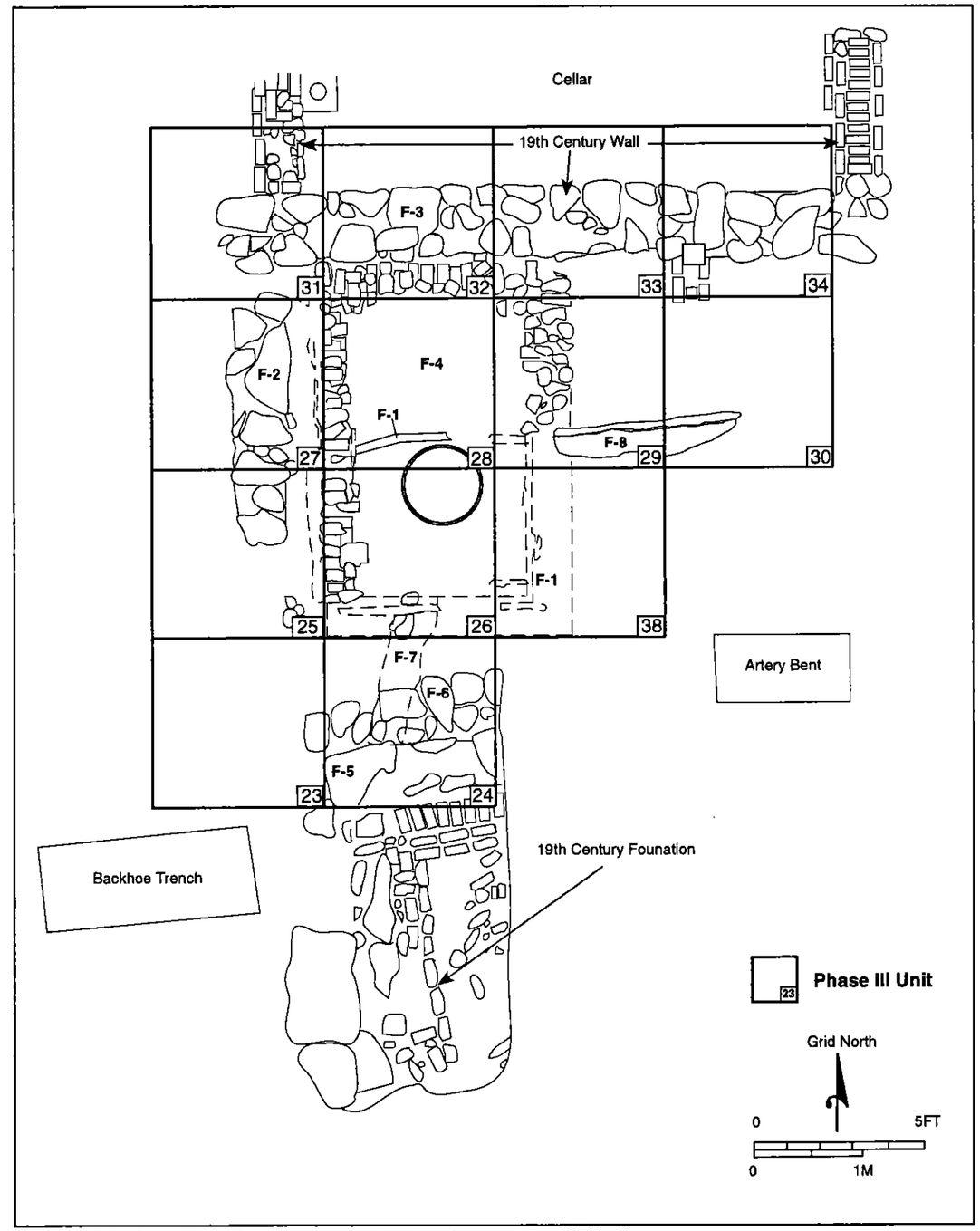

Figure V-35 - Cross Street Back Lot, composite plan view.

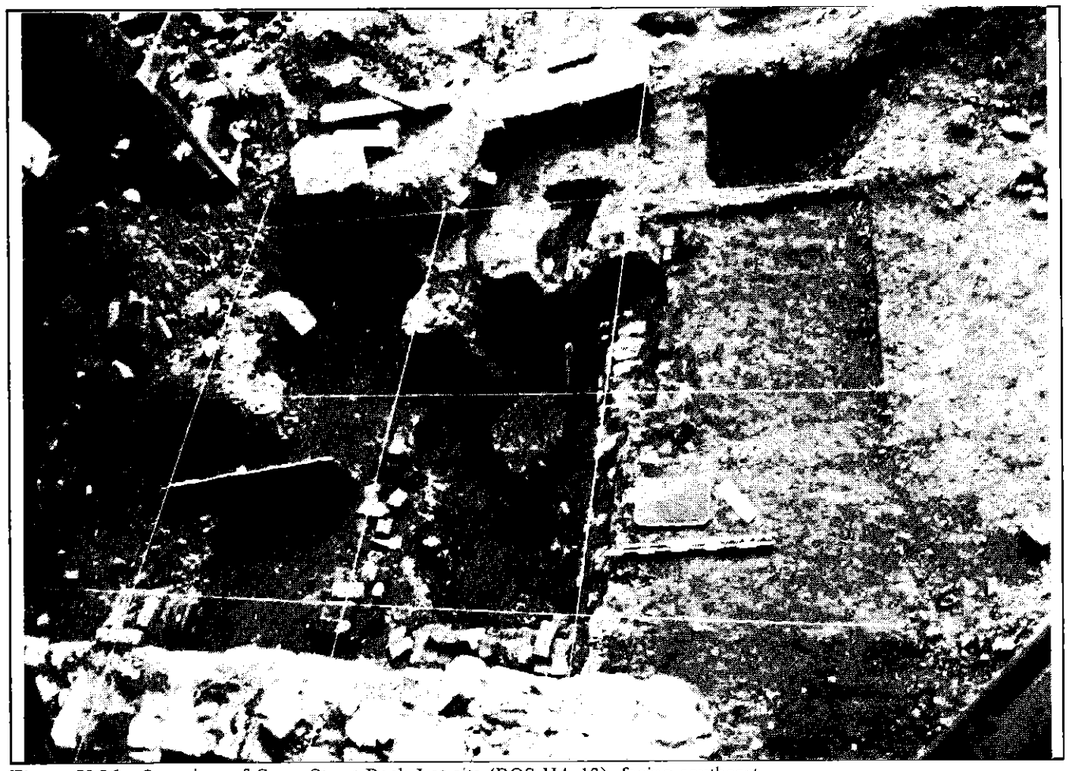

Figure V-36 - Overview of Cross Street Back Lot site (BOS-HA-13), facing southeast.

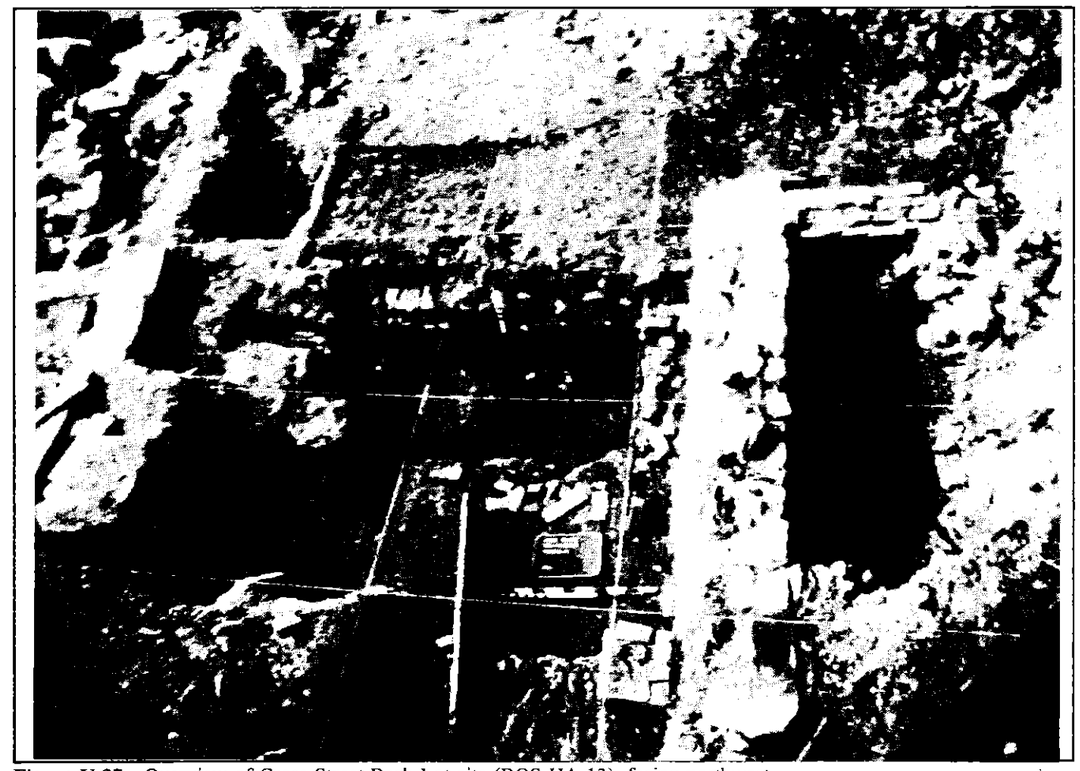

Figure V-37 - Overview of Cross Street Back Lot site (BOS-HA-13), facing northwest.

events. The total area containing the significant deposits was small (Fig. V-35). The 1989 site examination and 1992 data-recovery investigations determined that only a small section of the property had not been built upon. Located at the rear of the property, this small section had remained open space from the Colonial through the Modern periods. Significant deposits were bounded to the north by the rear foundation and cellar associated with a nineteenth-through-twentieth-century building that fronted on Cross Street. To the south, significant deposits had been destroyed or were bounded by deposits associated with construction of a bent for the elevated roadway in the 1950s and by nineteenth-century foundations. To the east and west, significant deposits were bounded by disturbances associated with the construction of nineteenth-century buildings. In addition, activities associated with construction of the Central Artery in the 1950s resulted in the mixing of uppermost deposits on the site. This construction included the removal of an undetermined amount of material from the top portion of the site, thereby lowering the surface elevation. In fact, Colonial and Early Republic period deposits were exposed directly beneath mixed deposits associated with modern construction. Excavations were terminated in 1992 upon the unexpected discovery of a large, intact late seventeenth-century privy (Feature 4), prompting a modification to the research design. Data recovery resumed in the fall of 1994 with the excavation of the feature.

The data-recovery investigations at the Cross Street Back Lot site identified and recorded a stratigraphic sequence from the seventeenth through twentieth centuries that represents the initial development of the property through twentieth-century occupations. Excavations recorded over 120 stratigraphic matrices, representing several phases and events. The preserved significant deposits dated to the late seventeenth through early nineteenth centuries. The stratigraphic sequence recorded at the Cross Street Back Lot site reflected the intensive, specialized use of the rear of the property during a period of approximately 150 years. In general, this specialized use reflected activities associated with the disposal of human waste, i.e. fecal deposition. This is unlike the yard areas at the Paddy's Alley and Mill Pond sites, where deposits reflecting several different uses were identified. Evidently, the specialized use of this portion of the property was sustained throughout the period of significance. Examination of the spacial organization of the historic property provided insight to the use of this portion of the property. The Cross Street Back Lot site, even after property realignment, remained at the rear of the historic property and in proximity to a property boundary. Presumably, other activities would have occurred at different locations within the yard.

Stratigraphic analysis provided information on six main phases and 13 subphases of activity at the site: Phase I, initial occupation of the property, including construction and use of the privy (ca. 1660-1700); Phase II, early eighteenth-century adaptive reuse of the privy (ca. 1710); Phase III, feature closure and abandonment (ca. 1720-1740s); Phase IV, occupation (ca. 1750-1800); Phase V, late eighteenth- through early nineteenth-century occupation (ca. 1780-1810); Phase VI, nineteenth- through twentieth-century occupation. Discussion of the site is from earliest to latest.

The 1994 excavation of Feature 4 identified evidence for at least three episodes of use associated with the feature; initial use as a privy (Phases I-2 through I-10); adaptive reuse as a drainage feature (Phase II); and, finally, privy closure and abandonment (Phase III). Phase I is divided into 10 subphases, reflecting construction, use, and maintenance of a privy (Feature 4). Phase II is separated into three subphases, reflecting the functional change of the privy to a drainage feature. Furthermore, within these general episodes, several events representing primary functional deposits can be identified through the examination of different matrices and stratigraphic interfaces. Table V-1 presents the stratigraphic sequence for the privy construction and for the interior privy fills. The activity column in Table V-1 presents categories that relate to specific activities (i.e. construction, deposition, cleaning), that could be isolated within the stratigraphic context. The functions are inferred and undoubtedly a fill deposit could and did

contain fecal debris (Appendix G, parasite report by L. Driscoll). Primary deposition refers to matrices that are interpreted as resulting from the direct use of the privy as a repository for fecal material. It should be noted that although household refuse found its way into the privy and presumably would reflect secondary disposal, the quantities of these materials suggest that the privy was primarily reserved for use as a latrine and deposition of household refuse was a secondary activity. Thus, the matrices interpreted as reflecting the use of the feature as a latrine are considered primary deposits rather than secondary household refuse. The discussion of the privy contents is organized by event within episodes beginning at the initial use but, first, the excavation methods employed in 1994 need to be clarified .

The 1994 investigations were designed to recover appropriate samples of data to address the research questions developed for Feature 4. Machine excavation was employed to remove the asphalt parking surface and 1992 clean fill. In order to protect the feature, the 1992 site closure included applying a layer of plastic sheeting to all exposed surfaces and hand filling Feature 4 with clean sand. Once the feature was filled additional sand was spread over the site to bring the surface up to the modern grade. Guided by information from the 1992 data recovery, excavators first exposed the feature and surrounding units. The horizontal grid was restored, and vertical control was reestablished. A transit was used for all elevations. Standard field methods, as presented in the permit application, were used throughout the field investigations. Excavation of the feature matrices was by unit of stratification. If, however, a unit of stratification was thicker than 0.30 ft. (10 cm.), excavation of the strata was by arbitrary 0.30-ft. (10-cm.) levels, until an underlying unit of stratification was encountered or the privy was emptied.

The overall stratigraphic recording system used to excavate the privy was a continuation of the Harris system used throughout the excavations of the Paddy's Alley and Cross Street Back Lot sites, with the following modifications. The area to be excavated within the privy was divided into four quadrants and matrices were excavated accordingly. However, if a matrix was restricted in extent, it was removed stratigraphically. For example, if a matrix occurred in limited portions of two quadrants, the entire matrix was removed and not split.

The various proposed contextual studies (flotation, pollen, insect, and parasitological) required the taking of several individual soil samples. The sample collection strategy involved the collecting of up to eight individual soil samples from each matrix or arbitrary level. In general, if a matrix extended across the entire interior, two sets of column samples (northeast and southwest), each containing four individual soil samples, were collected. Thus, if a soil matrix or arbitrary level extended across the entire privy, two complete sets of soil samples were collected from opposite sides of the feature, resulting in the creation of two column samples extending through the privy. For matrices that did not extend throughout the interior or were not present in both corners, only one set of samples was obtained. Soil samples were collected prior to the excavation of the rest of the matrix or arbitrary level.

All excavated matrix was water-screened through quarter-in. (0.625-cm.) mesh. The methods used to water-screen the privy contents relied on direct agitation. Two one-hundred gallon tanks were used during the water-screening process (Fig. V-38). Excavated soil matrix was placed in a screen and then submerged in a tank of water. The screen was then agitated until sediments separated from the artifacts. Any botanicals that floated were skimmed from the surface and retained (Fig. V-39). To the greatest extent possible, contamination between HNs was kept to a minimum. Either the water was changed after every HN or arbitrary provenience or an effort was made to remove any botanicals that were floating and suspended in the water.

Figure V-38 - Water-screening tanks used during 1994 field work.

Figure V-39 - Overview of water-screening and seed recovery technique employed during the 1994 Feature 4 excavations.

TABLE V-1

Stratigraphic Sequence within Feature 4, from Construction to Abandonment.

PHASE	HN(S)[1]	ACTIVITY	DATE RANGE			COMMENTS
			MCD[2]	TPQ[3]	PSBD[4]	
I-1		Construction				Rear yard stripped of topsoil
I-1	94	Construction				Foundation hole excavated
I-1	155, 156, 157, 95	Construction				Walls constructed
I-2	154	Deposition	1698.97	1650	1664.03	Earliest fecal deposition
I-3	151, 152, 153	Fill	1705	1630		Cap over HN 154
I-4	165	Cleaning				Topography indicates that an unknown portion of contents were removed
I-5	148	Deposition	1695.35	1670	1657.65	Fecal deposition
I-6	164	Cleaning				An unknown volume of contents were removed prior to Phase I-7 construction event
I-7	140, 141, 150	Construction				Vertical planks (HNs 140 and 141) driven into privy along east and west walls and braced by cross-piece (HN 150), (Vertical planks may date earlier)
I-7	149	Fill	1699.17	1650	1664.03	Fill added and compacted around cross-piece brace
I-8	146	Deposition	1703.4	1670	1672.23	Fecal deposition, mixed fill, and wood debris
I-9	128-138, 142-145	Construction				Possible floor of the privy
I-10	100	Deposition	1701.8	1670	1678.24	Fecal deposition
II-1	125	Fill	1697.13	1670	1723.92	Possible percolation fill
II-2	88, 89, 123	Construction				Installation of drainage feature, i.e. tub and trough
II-2	99	Fill	1694.62	1700	1691.63	Clay fill packed around tub, trough, and surface south of the privy.
II-3	122	Deposition	1712.5	1670	1697.51	Matrix within tub
III	98	Fill	1745.23	1840	1708.16	Drainage feature closure and abandonment

1 Harris Number
2 Mean ceramic date
3 *Terminus post quem*
4 Pipestem bore date

Water was obtained by hose from a fire hydrant in the vicinity the intersection of Ann and Cross streets, to the northeast of the site and was discharged on site into an excavated hole, dug at a sufficient distance from the feature to prevent discharged water from seeping back into it. It was anticipated that the discharge water would filter into the surrounding ground and that the discharge hole would not fill. This, however, did not prove to be the case, as the discharge hole was excavated into the compacted clay fill used to back-fill the Paddy's Alley site and into impermeable subsoil. Consequently, the size of the discharge hole was increased twice and finally the discharged water was removed by truck.

All recovered materials were separated by artifact type (i.e., ceramics and glass, bone, seeds, shell, wood, etc.) in the field, bagged with the appropriate provenience information, and carried to the project lab in Charlestown (Fig. V-40). Field and laboratory procedures followed the guidelines established in the curation and collections-management plan (Timelines 1992b). Soil samples were bagged by provenience. Finally, all bags were assigned a number and entered into a Field Specimen Log, commencing with the next number in the sequence used for the original Cross Street Back Lot excavation.

Throughout the field work, ground water seepage, averaging approximately 70 gallons per day, hampered excavation and made the recognition of interfaces difficult. In order to combat the water seepage problem, a 5-gal. wet/dry vacuum cleaner was employed (Fig. V-41). The use of this vacuum allowed for the removal of the water with a negligible impact to saturated matrices. This type of precision water removal enabled the excavators to expose stratigraphic details which would not have been evident if the water seepage could not have been controlled.

1. Phase I-1: Initial Occupation of the Property (ca. 1660-1700)

a. Phase I-1: Brick Vault Construction

This phase represented the initial occupation of the site area (Fig. V-42). The focus of activity within this portion of the property was the construction (Phase I-1) of a large brick privy (Feature 4), containing deposits that may have dated as early as the 1660s. Excavations recorded the dimensions, materials, and methods used in the construction of the privy vault. The date of construction is not clear, as no deposits containing time-sensitive artifacts were identified that could be associated with the construction event itself. However, the historic record provides information on the likely period of construction of the privy vault. The Feature 4 vault itself may date as early as the 1650s. By the mid seventeenth century, the increasing urbanization of Boston had created a garbage problem. Apparently, the problem was large enough, i.e. odoriferous enough, that it became a political issue and several ordinances were passed on the disposal of refuse (Bridenbaugh 1955:85-86). Bridenbaugh (1955:86) relates that, "After 1652 no inhabitant of Boston was allowed to build or maintain a 'house of office' within twelve feet of a street or house, 'unless it be vaulted 6 foot deep.'" By the beginning of the eighteenth century, the population of the neighborhood is likely to have been of sufficient density that refuse disposal would have been a concern. The 1722 Bonner map (Fig. IV-2) depicts buildings on the properties fronting on Ann and Cross streets in proximity to the site. However, the relationship of Feature 4 to any of the houses on or next to the Cross Street property is unknown. The dimensions of the feature provide additional support for the supposition that it was constructed as a response to the 1652 ordinance. The depth of the surviving walls of the vault is approximately 5. 6 ft. (1.7 m.), close to the 6 ft. (1.8 m.) specification in the ordinance. Matrices within the privy cannot be used to accurately date the construction of the vault as depositional events include evidence of periodic cleaning of the interior, then continued filling. Thus, while the dimensions of the privy appear to reflect compliance with the 1652 ordinance, it is not clear when in the latter half of the seventeenth century the vault was actually constructed.

Figure V-40 - Artifact sorting during the 1994 Feature 4 excavations.

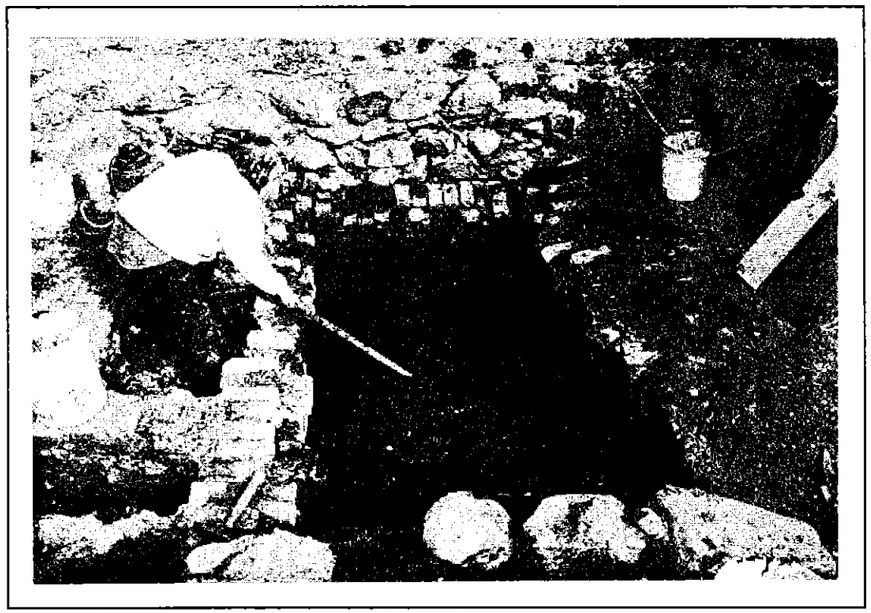

Figure V-41 - Excess water being removed from privy.

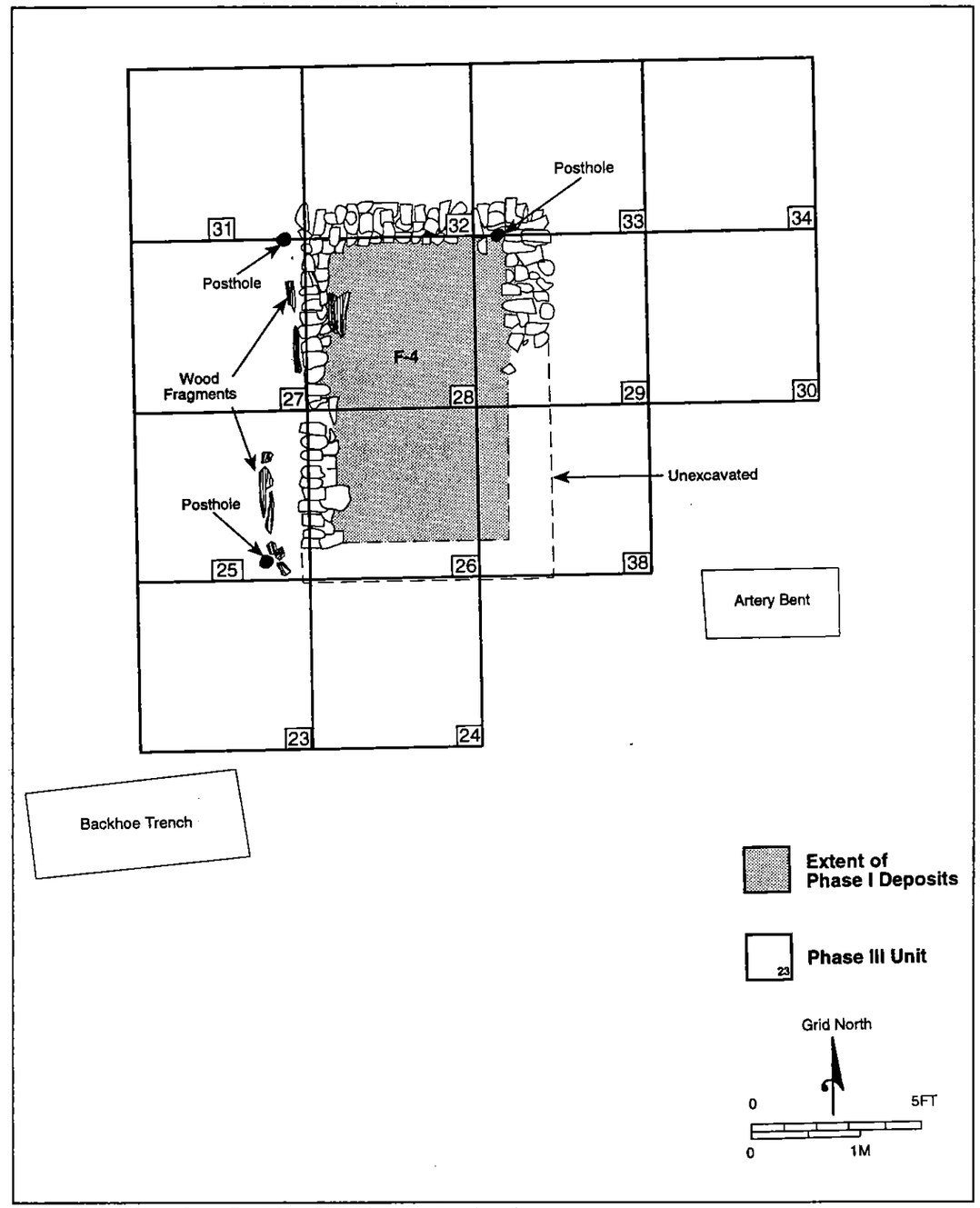

Figure V-42 - Cross Street Back Lot, Phase I composite plan view.

The privy was located at the southwest corner of the historic lot along the west property line. It was also near the south property line. The privy was constructed during the time the property was in the possession of Katherine Nanny, from the 1660s to 1715/16. Examination of the Bowditch records and maps indicates that when the privy was constructed, it stood at the rear of a lot that fronted on Ann Street. However, by the time the privy, then in use as a drainage feature, had been abandoned, the property lines had changed and the property fronted on Cross Street.

The privy was excavated into sterile subsoil. The immediate area adjacent to the privy was most probably stripped of topsoil prior to construction. This interpretation is supported by the absence of any perceptible natural topsoil deposits adjacent to the privy. Alternatively, this portion of the property may have seen little use in the first half of the seventeenth century and soil development may have been slight. Although the property was owned in the first half of the seventeenth century, it is not clear if it was occupied or how it was used, as no structures are mentioned on the property at this time. The top elevation of the brick privy wall corresponds to the top elevation of a Phase II (ca. 1710) drain on the Paddy's Alley site. Both of the features represent the earliest construction activities on their respective lots. No direct stratigraphic connection could be made between the Cross Street Back Lot and Paddy's Alley sites, as a nineteenth-century foundation was erected along the property line, thereby destroying the earlier property line and any stratigraphic connection.

However, the relationship of the drain and privy may provide insight into the location of the east/west property line between the two sites. It is likely that Feature 4 was receiving deposits when the Phase II drain was constructed. The orientation of the drain suggests that it ran along the north property boundary of Paddy's Alley, at the approximate location of the north foundation wall of a nineteenth-century building. If this nineteenth-century foundation is located on the property line, then Feature 4 was positioned approximately 10 ft. (3 m.) north of the property line. In addition, measurements based on the inferred property boundary between Paddy's Alley East and West place Feature 4 within Lot D of Bowditch's Title Records (Fig. IV-10).

The Feature 4 vault was constructed without a builder's trench. After a suitably large hole was dug into subsoil, the walls of the feature were constructed against the walls of the hole. This type of construction made any filling on the exterior side of the wall unnecessary. The brick vault is a rectangle, oriented approximately north/south and parallel to Ann Street. The surviving interior measurements of the east and west walls are 8.4 ft. (2.56 m.) wide, approximately 5.6 ft. tall (1.7 m.), and approximately 1.1 ft. (33 cm.) thick. The surviving interior measurements of the north and south walls are 5 ft. (1.5 m.) wide, approximately 5.4 ft. (1.65 m.) high, and approximately 1.1 ft. (33 cm.) thick. The masonry construction included a variation on the brick-laying method known as English common bond (McKee 1973:48-51). English common bond consists of alternating horizontal and vertical rows of stretchers and headers. The Feature 4 brick work varies from English common bond because some of the horizontal rows, exposed in the southwest corner, did not alternate between stretchers and headers. Clay, presumably originating on-site, was used as mortar.

The bricks used in the construction differed considerably in quality, varying from well made to deformed waster bricks. The term "stock bricks" refers to bricks molded in a form (Gurcke 1987:36). All the bricks were vitrified, i.e. well-fired, indicating that the builders selected against bricks that were poorly-fired. The deformed waster bricks varied in size and appeared to have been damaged during the manufacturing process. The intense heat within the kiln will cause bricks in proximity to the fire-box to become burnt or deformed, and these bricks are called "arch" and "clinker" bricks (Gurcke 1987:38). The presence of "arch" and "clinker" bricks along with "stock" bricks indicates that the builders were not concerned with the appearance of, or possible structural defects in, the brick.

The variation in brick size and quality may reflect the fact that the builders purchased an entire kiln's worth of brick. The bricks were probably fired in a temporary kiln constructed from the unfired bricks. This type of kiln is known as a clamp or scove kiln and the exterior is covered with fired-bricks and a layer of clay (McKee 1973:43; Gurcke 1987:28-32). The interior of the kiln is arched, thereby forming a fire-box and left open at the top during much of the firing process. The result is a up-draft kiln in which heat is not circulated efficiently. As a result, depending on where they are in the kiln, the bricks vitrify at different times or are burnt from direct exposure to the kiln fire (Gurcke 1987:28-38). Apparently, the builders of Feature 4 were concerned enough about structural integrity not to use poorly-fired bricks but were willing to use "arch" and "clinker" bricks because these bricks were well-fired. Although comprising a lower percentage of the bricks used, deformed bricks were used in sufficient numbers to suggest that they were not selected against. In other words, the builders did not care much about the dimensions of the individual bricks as long as a suitable vault could be constructed.

It is likely that the bricks were locally made. By the end of the seventeenth century, there was an increasing percentage of brick houses in Boston (Bridenbaugh 1955:146), indicating that a brick-making industry must have developed locally to met the demand for brick. Alternatively, the bricks could have been transported to Boston as ship's ballast. However, the likelihood that deformed brick being included as ballast is remote because these bricks were worth less and potentially could not be stacked as regularly as "stock" bricks.

Examination of the top of the vault walls revealed remnants of the superstructure. In fact, several deposits consisting of clay, wood, and boulders were exposed on separate walls and not in stratigraphic context with each other. Therefore, it is difficult to reconstruct events related to the building's superstructure. In addition, preliminary excavations in 1992 suggested that a series of postholes to the west of the privy was related to the privy. Subsequent excavations determined that these features were later and may reflect the occupation of the property immediately west of Cross Street Back Lot. Along the top of the west, north. and east walls were remains of a clay cap that at one time covered the wall. The west wall displayed a remnant of a wood ground sill. On the top of the south wall were boulders but no clay. It is not clear what association, if any, the clay, ground sill, and boulders had with one another.

Prior to the review of the internal stratigraphy of Feature 4, a brief discussion of the general characteristics of the feature is in order. In general, privies provide a wealth of archeological materials which are usually not well represented on open-air sites. Such was the case with Feature 4, where parasites, textiles, faunal remains, floral remains, pollen, and coleopteran remains were recovered along with artifacts.

Privies, like wells, trash pits and purposely filled cellar holes, are the products of deliberate disposal and burying of refuse by humans. But, unlike these other features, while privies deposits can reflect single-event discard or dumping of large amounts of trash, the activities associated with privies can reflect accretional use as latrines, repositories of refuse, or a combination of both. Matrices within these types of features are less likely to be exposed to weather, thereby extending the preservation of highly perishable materials. In the case of Feature 4, the location of the privy vault in the dense clay subsoil and the purposeful capping of the privy with clay created an anaerobic condition within the feature. Furthermore, and perhaps more important, matrices and artifacts within the privy remained saturated. The near impermeability of the subsoil acted to retain water in the privy, where the water table was already relatively high. These conditions interacted to create a microenvironment favorable for preservation of materials that usually do not survive in archeological contexts.

While several environmental factors influence artifact preservation, it is primarily human activities that account for the matrices within the privy vault. This human deposition goes beyond the obvious use as a excremental repository to include the discard of other refuse as well privy maintenance. Unless one were to propound some exotic dietary practices for early Bostonians, not to mention all the accompanying intestinal problems, it is self-evident that the ceramic, glass, bone, etc. must reflect some other type of discard activity. LeeDecker (1991 and 1994:354) has identified six behaviors that reflect how materials enter into a privy: fecal deposition, loss, gradual accumulation of household refuse, rapid deposition of household refuse, redeposition, and the use of dense artifact layers to aid privy percolation. Two other depositional methods, one environmental and the other behavioral, should be included, since both have the potential of contributing or altering matrices within a privy feature. These additional factors are deposition by animals and activities associated with sanitation practices. Faunal turbation (i.e., disturbance by animals) can profoundly distort a soil profile as well as the context of the artifacts contained within it (Wood and Johnson: 1978). Sanitation practices (in addition to cleaning, which probably should be viewed more as a maintenance activity than sanitation) at times include the introduction of fills to seal a privy deposit. The unpleasant odor emanating from privies was presumably as repugnant to humans in the past was as it is today.

The 1994 excavation of Feature 4 identified evidence for at least three episodes of use associated with the feature; initial use as a privy (Phases I-2 through I-10); adaptive reuse as a drainage feature (Phases II-1 through II-3; and finally privy closure and abandonment (Phase III). Figures V-43 through V-45 present the stratigraphic profile. Furthermore, within these general episodes, several events representing deposits can be identified through the examination of different matrices and stratigraphic interfaces. Table V-1 presents the stratigraphic sequence for the privy construction and for the interior privy fills. The Events column in Table V-1 presents categories that relate to specific activities (i.e. construction, deposition, or cleaning), that could be isolated within the stratigraphic context. The filling of the privy included both primary and secondary deposition. Primary deposition refers to matrices that are interpreted as resulting from the direct use of the privy as a repository for fecal material and for the gradual discard of household objects. The kitchen refuse recovered appears to represent secondary deposition. In general, the privy did not contain a large amount of artifacts. The kitchen refuse recovered consisted primarily of floral and faunal materials. Glass, ceramics, and other artifacts made up a small portion of the recovered material. Out of the 172 ceramic vessels identified, only two were complete. Furthermore, over 88% of the vessels identified were based on recovery of less than 25% of the vessel. This indicates that the kitchen materials represent the redeposition of refuse from other locations and that much of the original kitchen refuse material was not placed in the privy. Presumably, refuse was discarded into the yard in a heap, and, once this heap reached the limit of tolerance, it was cleaned up and some of the materials deposited into the privy. The absence of large amounts of household refuse, as well as the absence of complete vessels, indicates that deposition in the privy did not include evidence for major house-cleaning events. Alternatively, the depositional processes for kitchen artifacts may be more complex. The floral and faunal materials may have been separated and deposited directly into the privy, thus representing primary deposition. Floral and faunal refuse are generated more often than other kitchen refuse. These materials may have entered the privy directly and frequently.

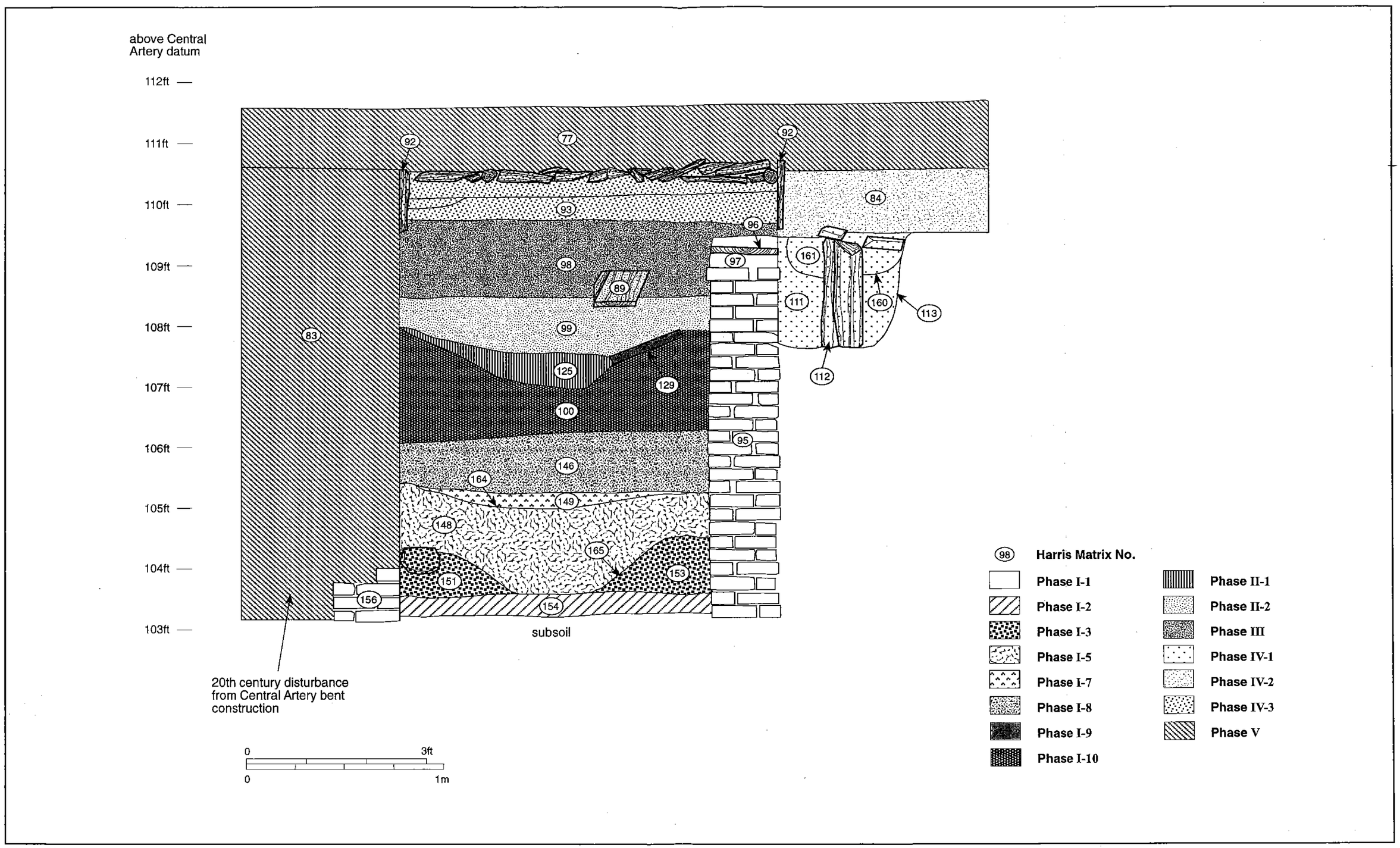

Figure V-43 - Cross Street Back Lot, Feature 4, privy, south cross section profile.

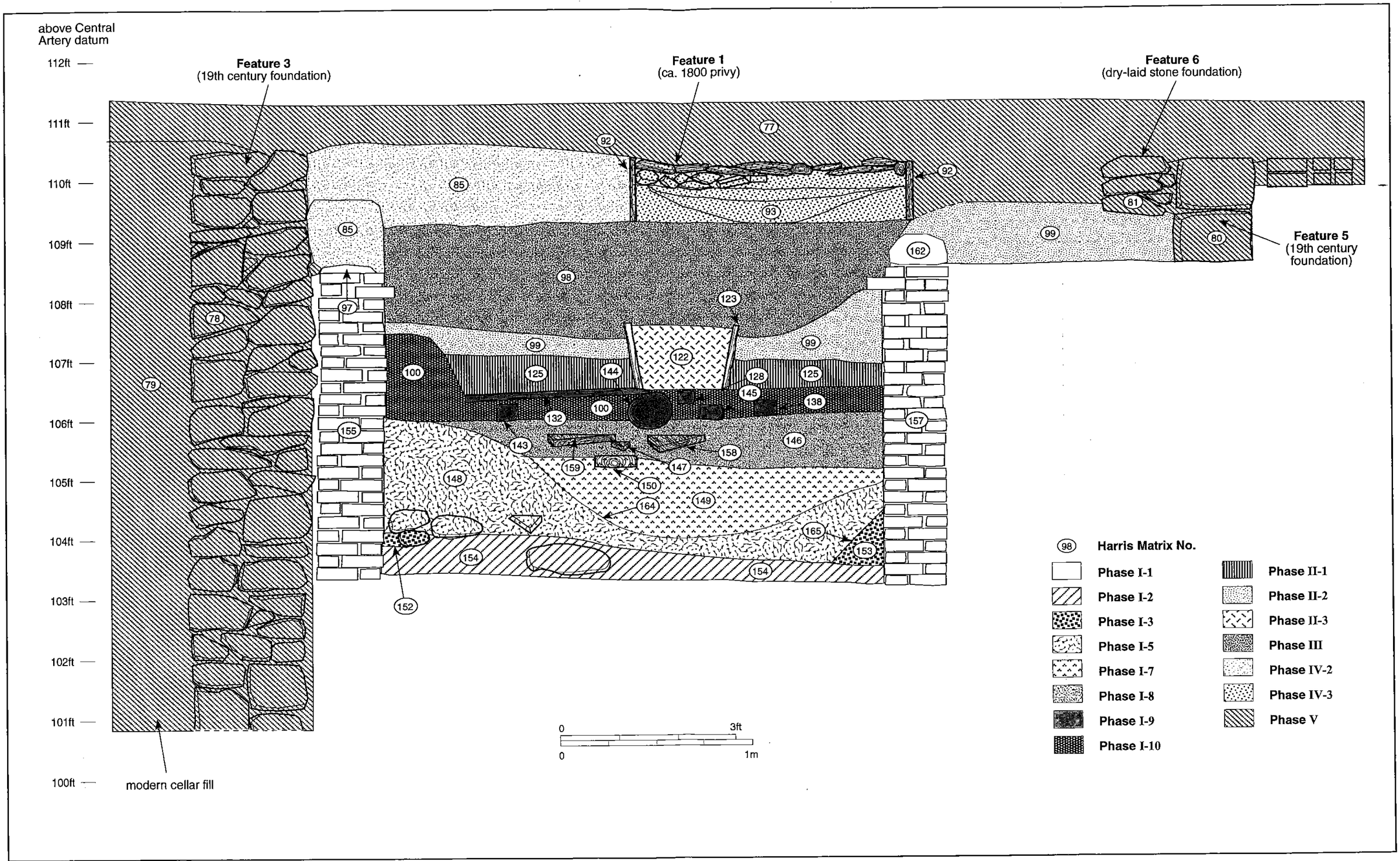

Figure V-44 - Cross Street Back Lot, Feature 4, privy, east cross section profile at approximately privy mid-section.

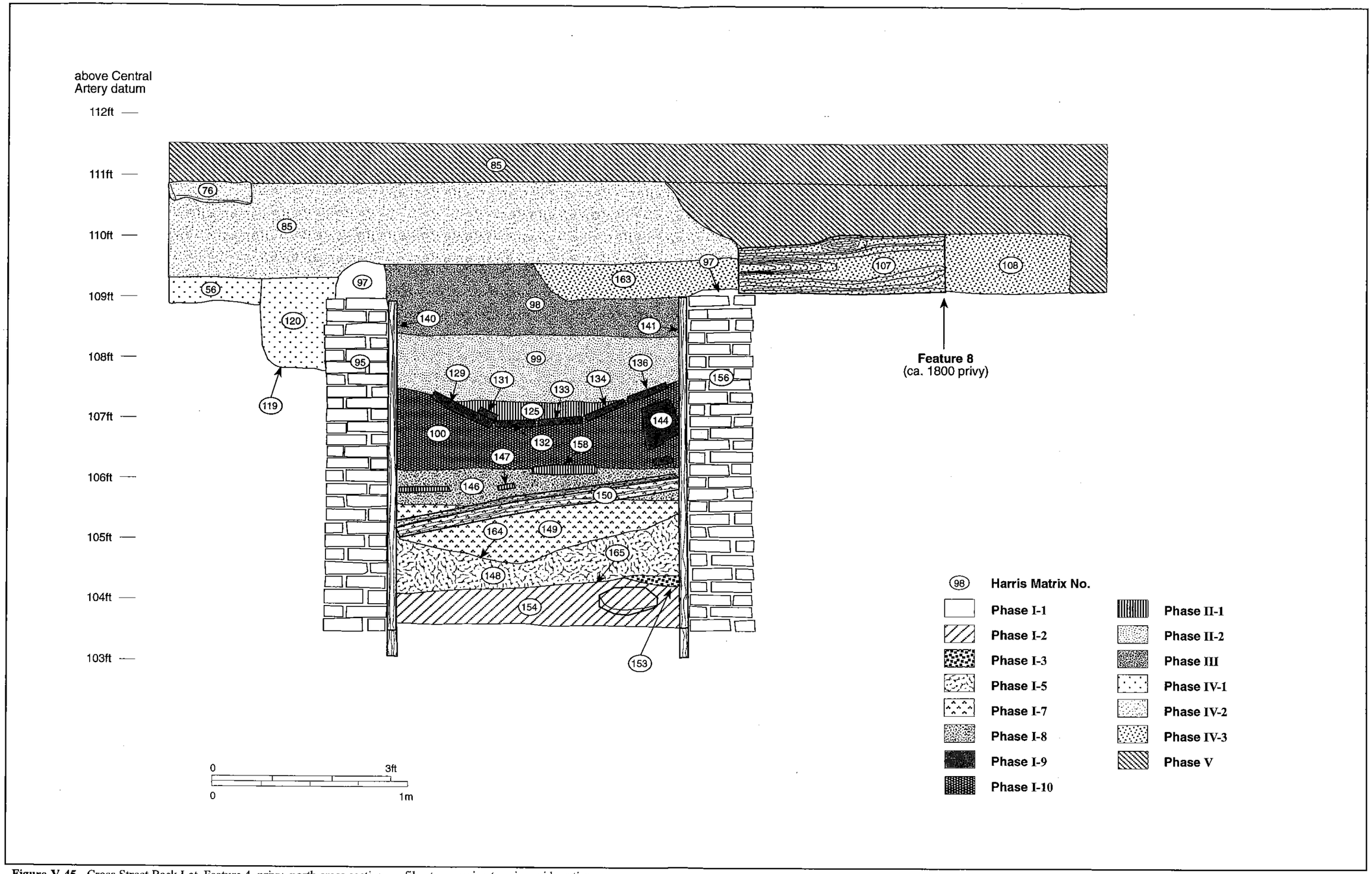

Figure V-45 - Cross Street Back Lot, Feature 4, privy, north cross section profile at approximate privy mid-section.

In summary, the depositional processes represented in the privy strata and artifacts could be quite complex. The fecal deposits represented primary deposition into a structure designed as a privy. Artifacts representing kitchen refuse and household activities were more problematic to interpret. Ceramic and glass artifacts were very fragmentary, indicating that an intervening event took place between breakage and deposition in the privy. The intervening event may have been deposition in a trash heap in the yard, although at least one whole vessel was deposited directly into the privy. Other kitchen refuse, the floral and faunal material, may have either been deposited directly into the privy or redeposited from another place. If materials were redeposited from surface refuse heaps, then redeposition occurred rather quickly, before organics deteriorated. The discussion of the privy contents is organized by event within episodes beginning at the initial use.

b. Phase I-2: Earliest Evidence of Privy Deposition

Located at the base of the privy walls and resting on subsoil was a matrix (HN 154) which most probably represents the first depositional event in the privy (Figs. V-43-45). Apparently, once the privy structure had been completed, fecal deposition and discard of various kinds of household waste began. During this phase, between 0.3 and 0.8 ft. (9 and 24 cm.) of material accumulated. The various contextual studies indicate that HN 154 consisted primarily of fecal material. Floral and faunal material was present, as were artifacts suggesting household refuse was also discarded into the privy. Coleopteran remains, representing some of the earliest New World examples of non-native insect species, were also recovered.

Artifacts recovered from this matrix included a delft tile fragment. The fragment was of interest because it was a corner fragment displaying a datable corner motif (Fig. V-46). The corner device was the Wan Li lattice, which dates to the first half of the seventeenth century (Noël Hume 1969:290-293). Ceramic sherds provided an MCD of 1699 and TPQ of 1650. The date obtained from the pipestem bore dating method was 1664. The four recovered pipe bowls exhibited characteristics of pipes manufactured between 1645 and 1680 (Fig. V-47). The MCD was most probably skewed because of the relatively long span of manufacture for tin-glazed ceramics. The TPQ was based on Rhenish stoneware. Also recovered from this matrix were a small, square tin-glazed earthenware vessel with blue-on white decoration (Fig. V-48) and a tankard lid (Fig. V-49). The tankard lid was unusual as it was of ferrous metal with pewter plate.

One cowry shell and several common northern moon snail shell were recovered from I-2 (Fig. V-50). Cowry shells are non-local, the northern extent of cowry's range being North Carolina (Rehder 1981:478-481). The presence of the cowry shell suggests a connection to the Caribbean. It should be noted that both of Katherine Nanny Naylor's husbands, Edward Naylor and Robert Nanny, had business ties to the Caribbean. The range of the common northern moon snail includes Massachusetts, and the shells are very common in the area (Rehder 1981:487).

Also of note was the recovery of a complete juvenile pig skeleton. Evidently, after the animal died, the carcass was discarded in the privy. It appears to have been discarded whole and there were no signs of any trauma. Thus, the animal probably died from disease, could not be used, and was disposed of in the privy in an effort to contain the spread of the disease. After this animal was deposited within the feature, a fill event (Phase Ib) represented by several matrices, was laid down over HN 154, in effect sealing it.

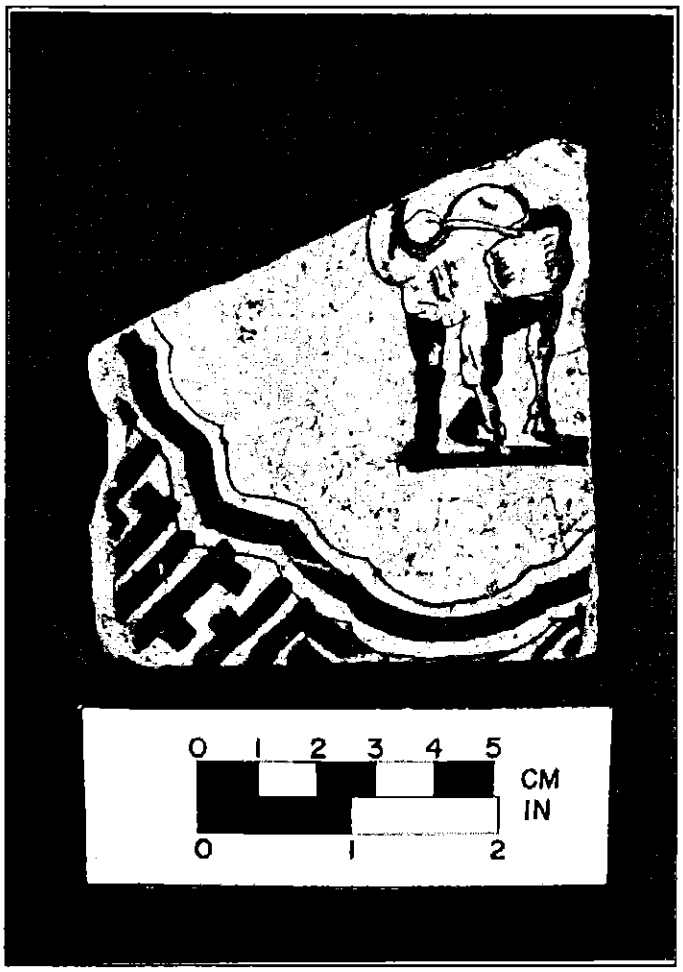

Figure V-46 - Delft tile fragment from Phase I-2: 36434.

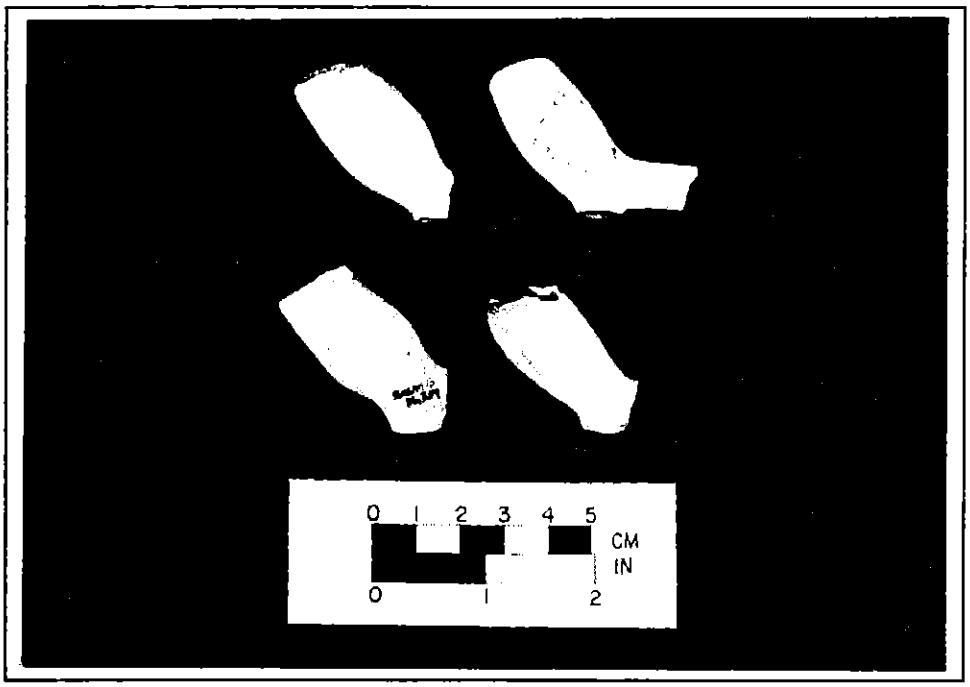

Figure V-47 - Tobacco pipes from Phase I-2: (a) 36319 [1650-1680], (b) 36357 [1650-1680], (c) 36359 [1645-1665], (d) 36358 [1645-1665].

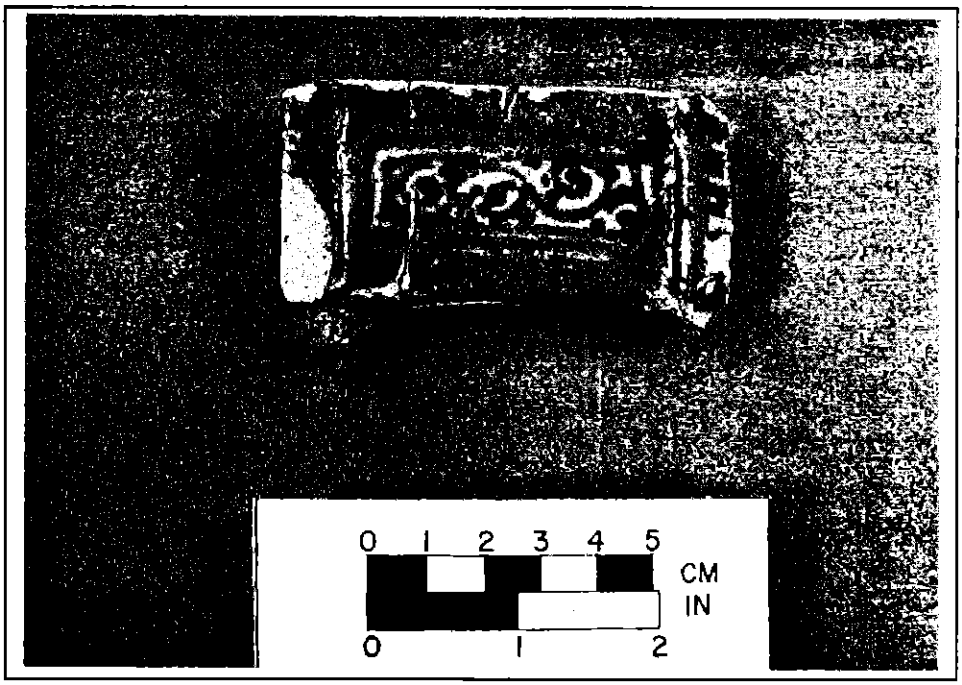

Figure V-48 - Tin-glazed blue-on-white decorated, square earthenware container from Phase I-2: Vessel No. 3001.

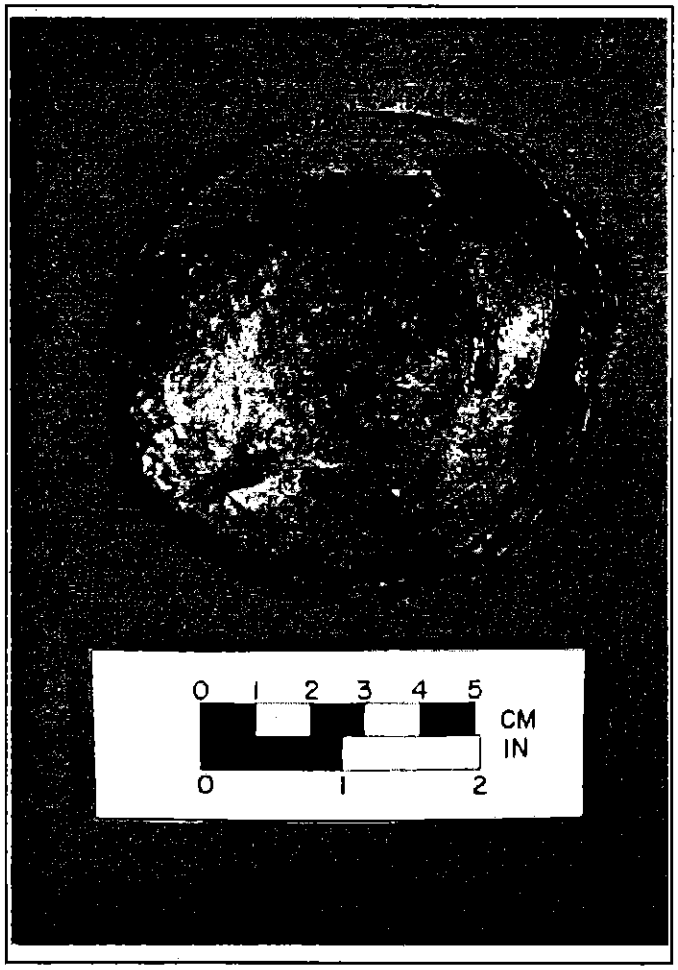

Figure V-49 - Pewter-plated tankard lid from Phase I-2: 38036.

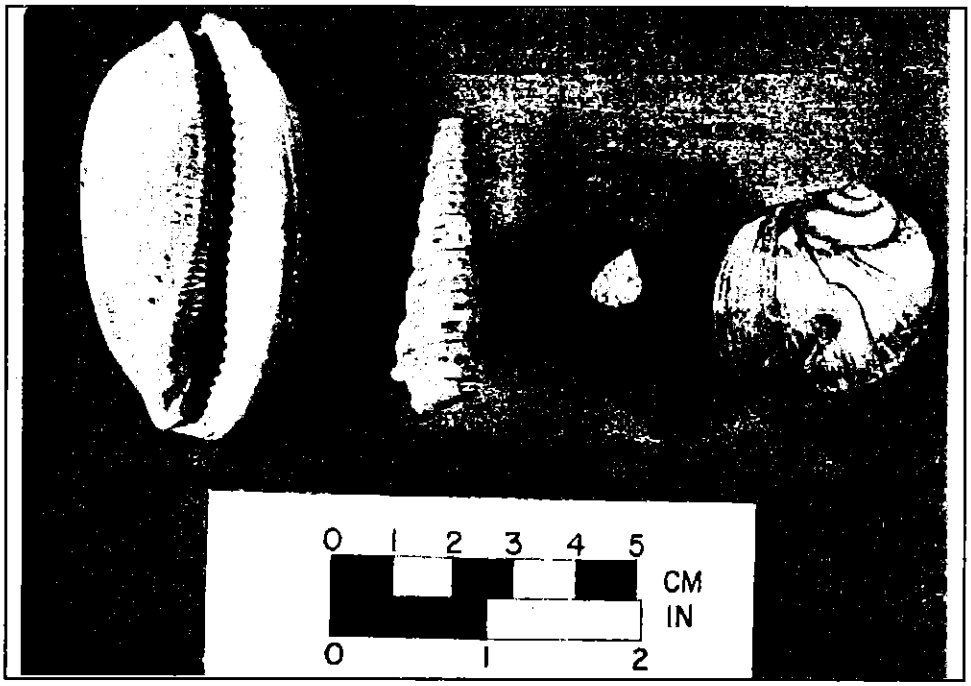

Figure V-50 - Shells recovered from Feature 4: (a) Cowry shell; Phase I-2, (b) turret shell; Phase I-8, (c) chestnut turban; Phase I-5, (d) moon snail; Phase I-2.

c. Phase I-3: Deposition Event

The intentional sealing of HN 154 is represented by three fills, HNs 151, 152, and 153 (Figs. V-43-45). These matrices were partially removed by a cleaning event and have only survived in the corners and along the sides of the privy. Evidently, HN 154 was sealed beneath these fills only after a limited amount of material was deposited within the feature. Either the intent was to seal the pig carcass, as suggested above, or there was some type of privy maintenance being undertaken. In the latter case, an effort was made on the part of the residents of the property to improve the sanitation conditions of the lot by periodically sealing fecal deposits beneath fill and therefore reducing the miasma emanating from the privy vault. Artifacts provided an MCD of 1705 and a TPQ of 1630. It should be noted that the fill deposits contained few artifacts upon which to calculate or determine the date of the fills.

d. Phase I-4: Cleaning Event

Matrices associated with Phases I-2 and I-3 were removed during a cleaning (Phase I-4) of the privy. The cleaning included the removal of an unknown number of privy matrices and occurred between deposits associated with Phases I-3 and I-5. The topography of the interface between matrices clearly indicated that this cleaning event took place (Fig. V-43). It is not clear when this cleaning event occurred or how much of the privy contents were removed. The earlier matrices may have represented remnants of a depositional sequence that filled the entire privy while Phase I-4 represents removal of a large volume of material.

e. Phase I-5: Deposition Event

One matrix, HN 148, was associated with this Phase. Once the privy had been cleaned, a new episode of fecal deposition took place (Figs. V-43-45). At a minimum, HN 148 was 2 ft. (61 cm.) thick, although there was evidence that the upper portion of this matrix was removed by a later cleaning event (Phase I-6). Consequently, HN 148 was a remnant of a much larger deposit, the volume of which is unknown. Artifacts reflecting fecal disposal included a redware chamber pot (Fig. V-51).

Artifact dating of the HN 148 assemblage provided an MCD of 1695, a TPQ of 1670, and a 1657 pipe stem bore date. The TPQ was based on Staffordshire earthenwares. Eight datable pipe bowls were recovered; the majority of which dated solely to the late seventeenth century (Fig. V-52). Six of the pipes were typical of pipes manufactured between 1650 and 1700. The form of the other two pipes displayed characteristics of pipes made between 1680 and 1710. One sherd of Italian red marbleized slip earthenware, was recovered (Fig. V-53). This ceramic type dates from 1600 to 1660 (Bradley et al. 1984:50). The interior of the sherd had a marbleized slip decoration and the exterior had a clear glaze.

Notable among the finds was an English-made latten spoon (Fig. V-54). The spoon carried distinctive end detailing. Noël Hume (1969:181) suggests that this style of spoon dates to prior to 1670, but notes that he has seen specimens dating to 1699. A similar spoon was recovered at Jamestown and dated to ca. 1600-1650 (Hudson 1980:13; Cotter 1994:189). Further, a similar spoon was recovered from the seventeenth-century Wampanoag burial ground in Warren, Rhode Island (Beaudry 1980:73 and 136). A maker's mark at the base of the Feature 4 spoon's bowl shows three spoons, denoting the English spoon makers' guild. The mark could not be traced to a specific manufacturer.

Several wooden objects were recovered, including a wooden shoe last (Fig. V-55). This and the recovery of shoes from the privy suggest that either shoemaking or shoe repair was being undertaken by individuals on the property. The presence of coral indicates that I-5 contains some fill that was at one time ship's ballast (Fig. V-56).

f. Phase I-6: Cleaning Event

This phase represents the removal of an unknown quantity of privy deposits. The interface between HN 148 and the matrices that overlay it indicated that an unknown portion of HN 148 was removed. Evidence for this removal consisted of the contour of the interface (HN 164). The topography of this interface suggested that much of the southern half of HN 148 had been removed (Fig. V-44). This cleaning activity (Phase I-6) was probably undertaken in preparation for Phase I-7 construction activities.

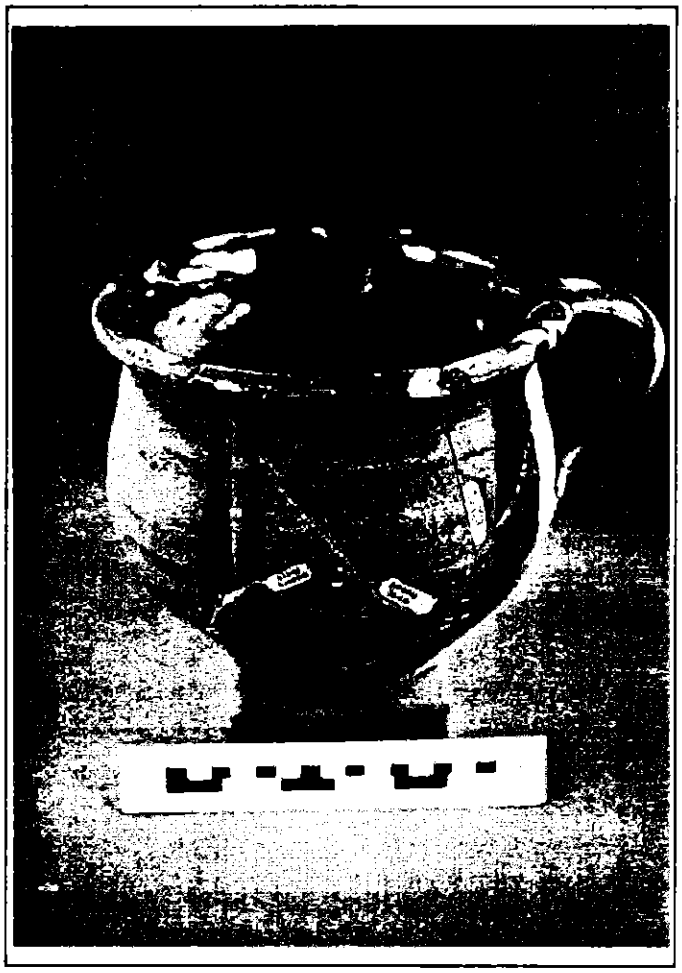

Figure 51 - Redware chamber pot from Phase I-5: Vessel No. 1964.

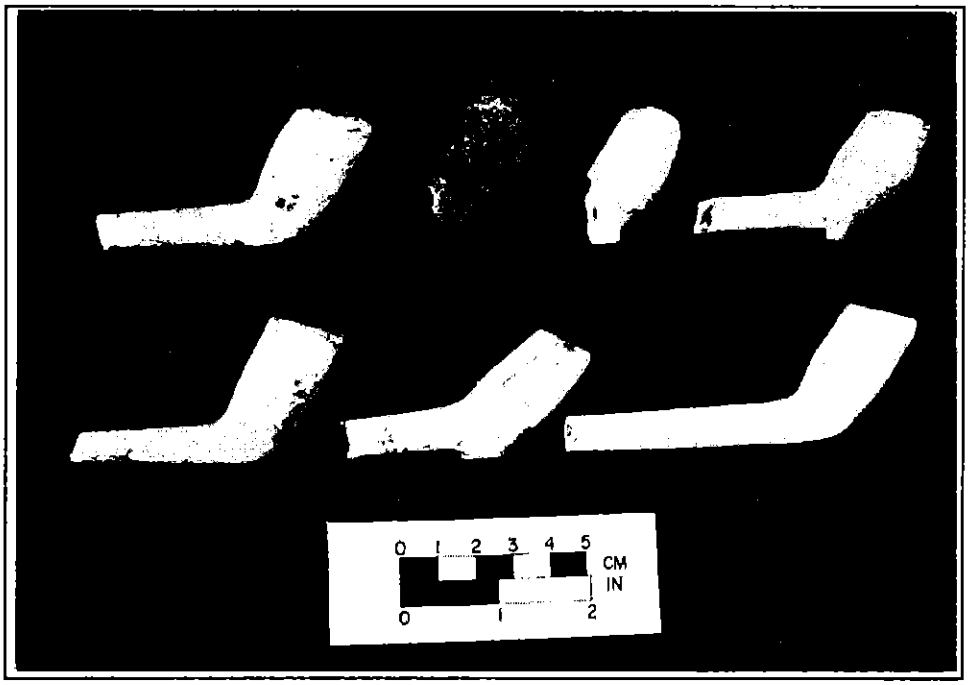

Figure V-52 - Tobacco pipes from Phase I-5: (a) 36295 [1680-1710], (b) 36488 [1650-1680], (c) 36484 [1650-1680], (d) 36343 [1650-1680], (e) 36972 [1650-1680], (f) 36699 [1661-1686], (g) 36355 [1680-1710].

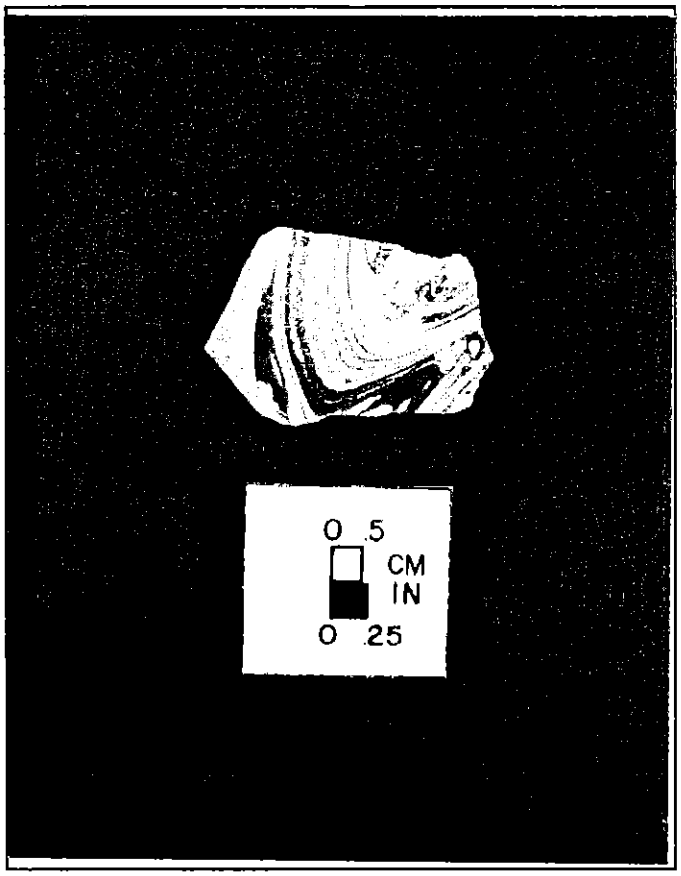

Figure V-53 - Italian red marbleized slip earthenware from Phase I-5: Vessel No. 1942.

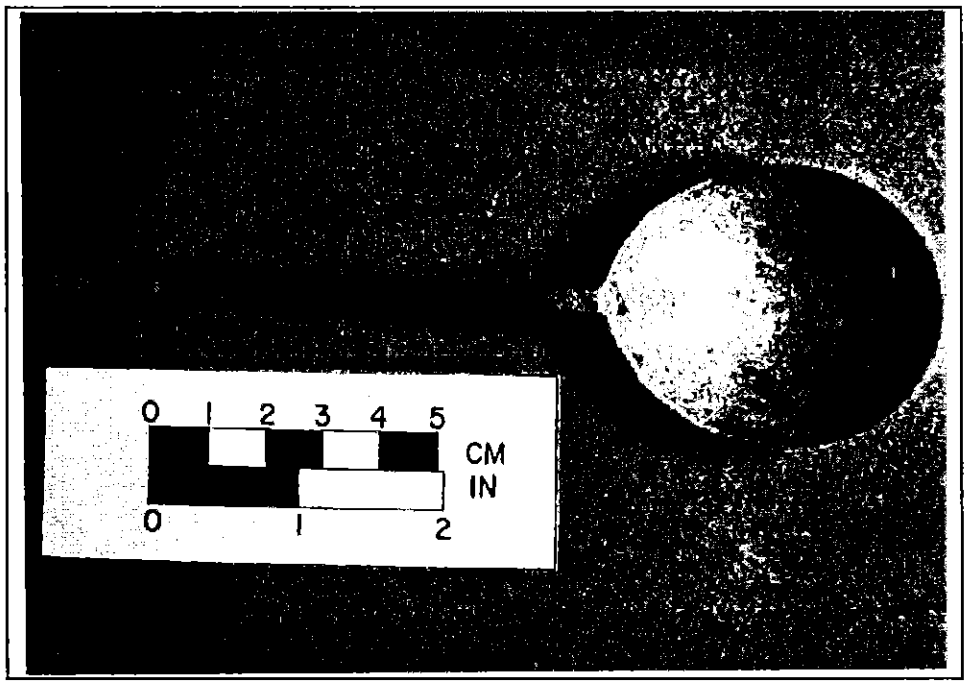

Figure V-54 - English made baluster-handle latten spoon from Phase I-5: 35953.

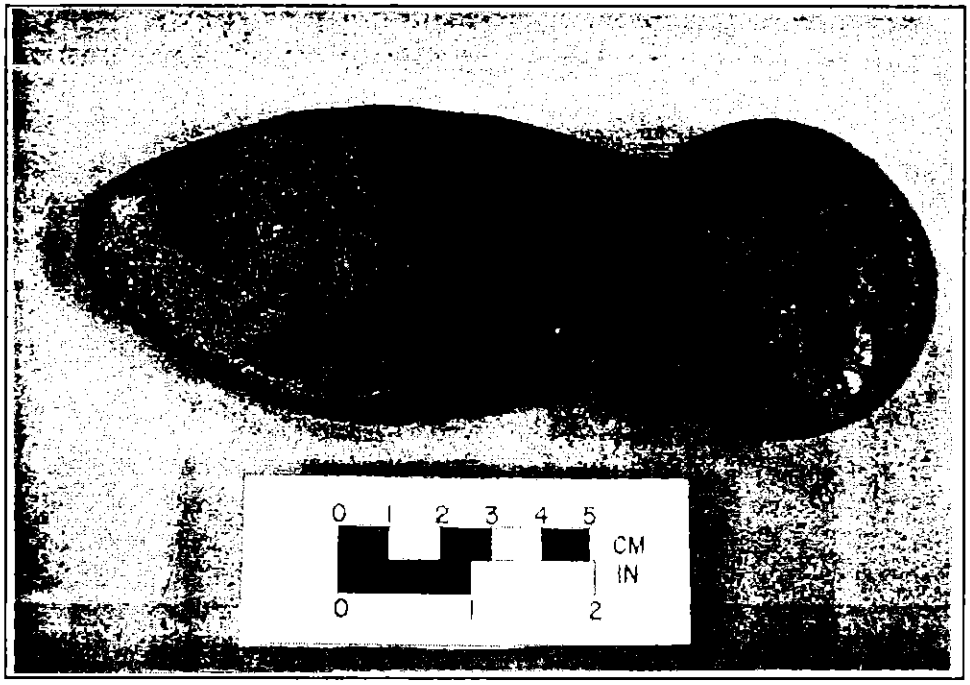

Figure V-55 - Shoe last from Phase I-5: 35876.

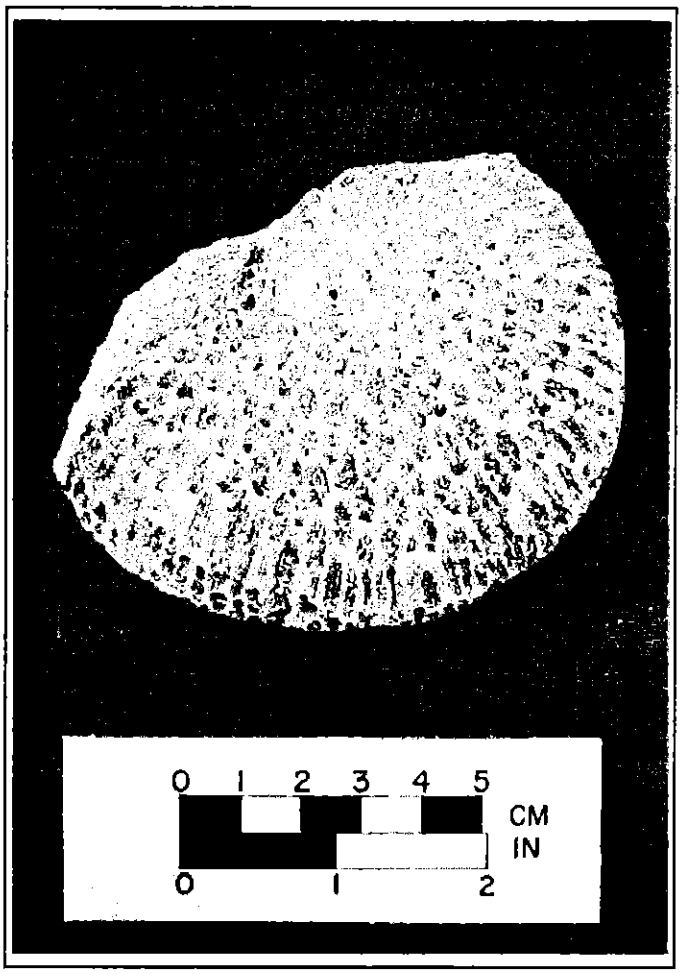

Figure V-56 - Coral from Phase I-5.

g. Phase I-7: Construction Event

This phase represents activities associated with either the repair of the privy superstructure or alternatively with the construction of a new privy superstructure. Specifically, during this phase a portion of HN 148 was removed in order to install a plank brace (HN 150), which in turn supported two vertical planks (HNs 140 and 141). However, it is not clear whether the internal structural elements (HNs 140 and 141) supported by this brace were installed concurrently or if the brace was a replacement of a previous brace.

The vertical planks (HNs 140 and 141) were located against the west and east walls, at the approximate midline of the walls (Fig. V-57). Both planks were pine, measuring 6-by-1-by-.15 ft. (1.83-by-.15-by-.05 m.) long, and were beveled along one long axis. (The type of wood was identified in the field using a standard reference guide [White 1980]). The base of each plank was angled to allow for easier penetration into the ground. The planks were driven approximately 0.5 ft. (15 cm.) into subsoil (HN 91). An examination of the planks and the thin layer of matrix between the planks and the interior walls did not provide any insight into the timing of the planks' installation. However, it is likely that the planks were pounded down through the earlier privy deposits, because these matrices were found around the bases of both planks in the subsoil. It is unlikely that HN 154 would have seeped down along the interface of the planks and the subsoil because the subsoil is impermeable. For example, if matrices were able to seep along such interfaces, then there should have been evidence that HN 154 was seeping between the base of the walls and the subsoil, but this was not the case. In any event, although evidence is not conclusive, it is likely that the vertical planks (HNs 140 and 141) were installed during Phase I-7, rather than at some earlier point in time. However, it is probable that these planks could have been architectural features of the original Phase I-1 privy superstructure.

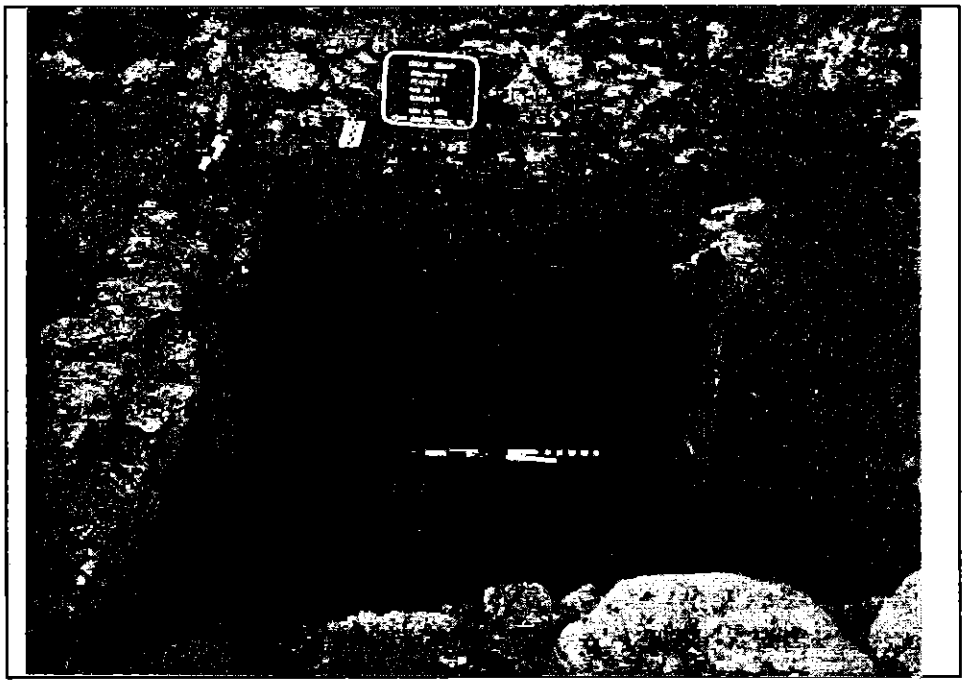

Figure V-57 - View of vertical wood planks (HNs 140 and 141) exposed within the privy, facing north.

It is not known what function these planks had; but apparently the builders of the superstructure needed to be assured that they would not buckle. Therefore, the brace was positioned between the two vertical planks (Fig. V-45). The brace was made of pine and measured 4-by-.6-by-.2 ft (1.22-by-.18-by-.06 m.). It was not attached to the vertical planks in any way, but was simply wedged into place.

The southern half of the privy was cleaned out in order to install the wood brace. Once the brace was installed, a compact matrix (HN 149) was deposited. The addition of a compact fill would have served to support the brace, as well as seal off the lower deposits. Because HN 149 contained human parasites, it is possible that the materials removed from the privy during construction were redeposited.

Artifact dating of the HN 149 assemblage provided an MCD of 1699, a TPQ of 1650, and a 1664 pipe stem bore date. The TPQ was based on Rhenish stoneware. Only one datable pipe bowl, exhibiting a range of manufacture between 1690 to 1710, was recovered from HN 149.

h. Phase I-8: Deposition

Directly above the Phase I-7 activity, Phase I-8 consisted of one soil matrix (HN 146), which contained several large planks (HNs 147, 158, and 159). It is not clear whether this phase represents the use of the feature for refuse disposal or, more likely, a combination of fecal deposition and disposal of construction debris. In any case, the inclusion of large pieces of wood indicates that this phase predates the construction of the privy floor (Phase I-9). This in turn suggests that Phase I-8 represents a short-term depositional activity between the Phase I-7 and Phase I-9. As such, Phase I-8 may represent the disposal of construction materials related to Phase I-7 as well as continued use of the feature as a privy.

Artifact dating of the HN 146 assemblage provided an MCD of 1703, a TPQ of 1670, and a 1672 pipe stem bore date. The TPQ was based on Staffordshire earthenware. Seven datable pipe bowls were recovered. The predominant range of manufacture was between 1690 and 1710 (Fig. V-58). Four of the pipe-bowl manufacturing dates were restricted to this time span and an additional two were of types that were made earlier but continued into this time span. A lone example dated to 1650-1680. These pipe bowls displayed a trend that began in Phase I-2 and continued throughout Phase V. The general progression of pipe- bowl dates from early to late conformed well to the progression of the stratigraphic record.

A small hammered sheet-brass miniature bucket was recovered from this phase (Fig. V-59). The bucket was 5.8 cm. high and 4.2 cm. wide, and was constructed in three pieces: body, base, and handle. There was surface decoration consisting of a raised dot pattern in two bands, connected with diagonals and a middle band of large dots forming a pattern of two triangles with a large dot in each. This artifact may be a toy, a tinker's sample, or a special-purpose object. Other artifacts recovered from I-8 included several shoes (Figs. V-60 and V-61) and a wooden spool for thread (Fig. V-62).

A non-local eastern turret shell and a unidentified piece of coral was recovered from this matrix (Fig. V-50). The northern extent of the eastern turret shell's range is North Carolina, where its habitat is sand in moderately shallow water. Although sometimes found on beaches, it is more usually recovered through dredging (Rehder 1981:424). The shell may represent a souvenir or, alternatively, reflect ballast dredged from the ocean floor in the Caribbean.

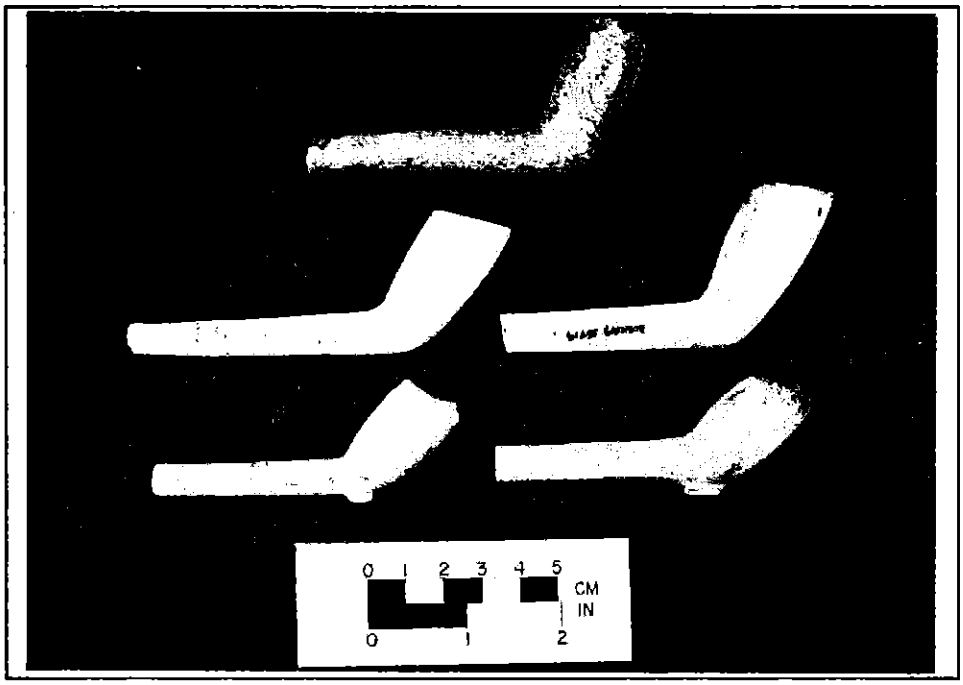

Figure V-58 - Tobacco pipes from Phase I-8: (a) 36467 [1690-1710], (b) 36718 [1690-1710], (c) 36719 [1690-1710], (d) 36351 [1680-1710], (e) 37582 [1650-1680].

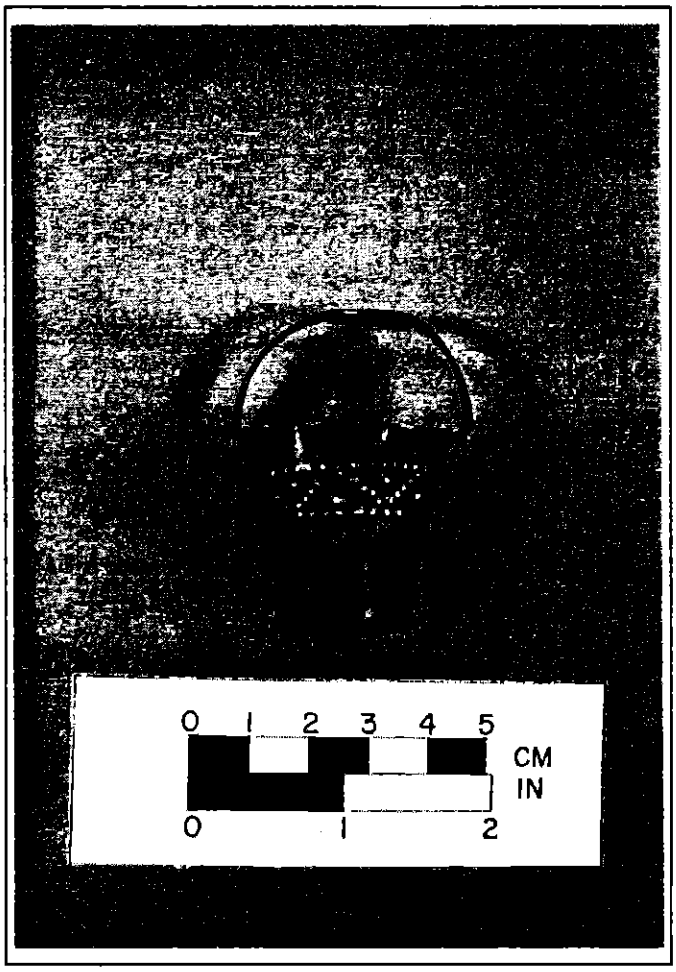

Figure V-59 - Miniature sheet-brass bucket from Phase I-8: 36188.

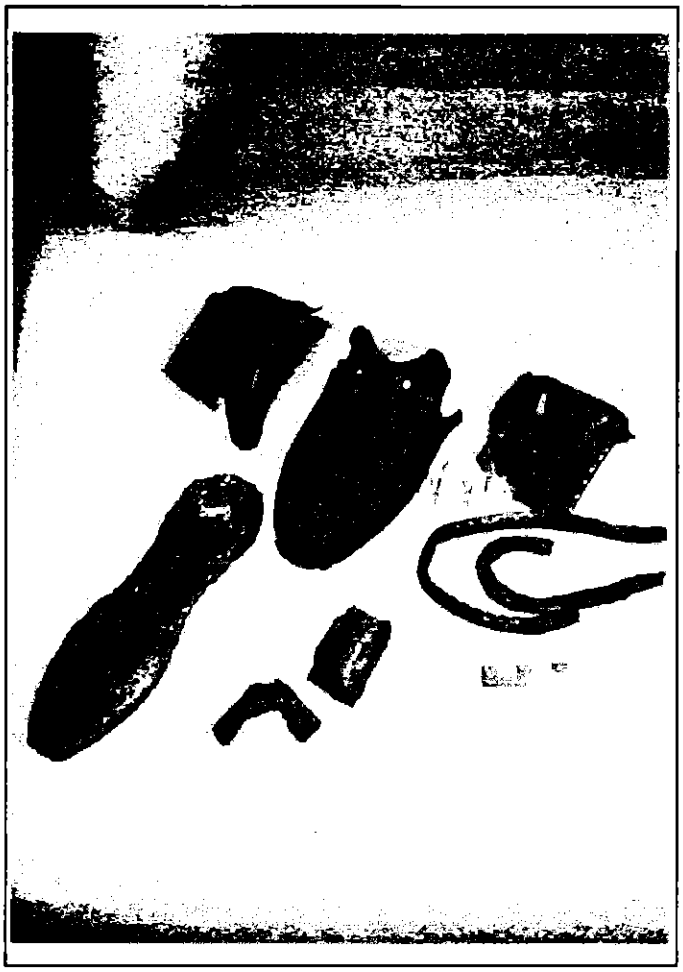

Figure V-60 - Reconstructible shoe from Phase I-8: 36017.

Figure V-61 - Shoe from Phase I-8, disassembled for conservation: 36078.

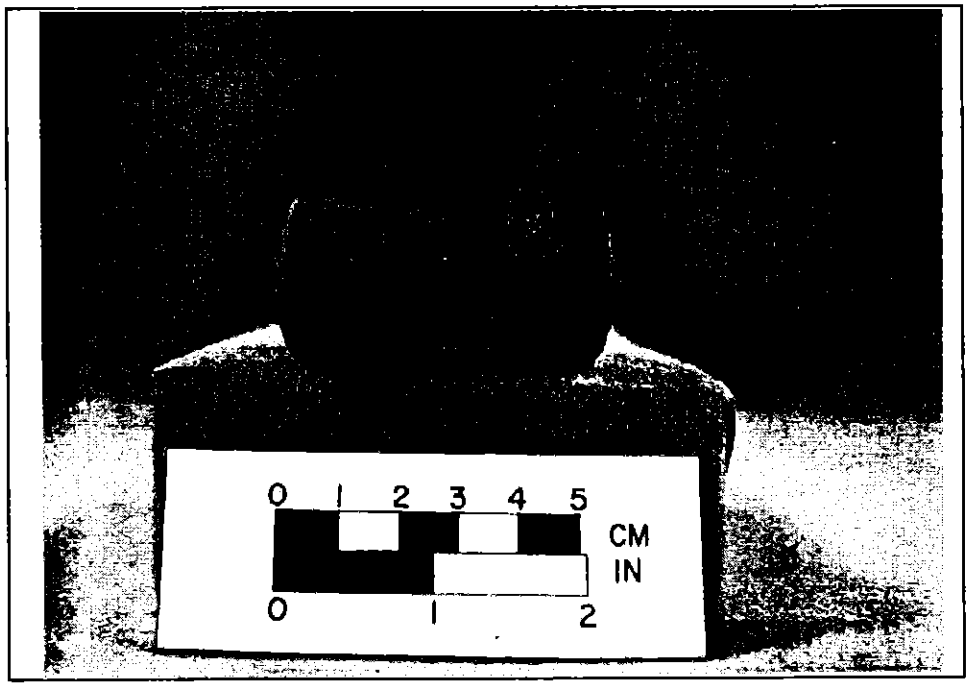

Figure V-62 - Wooden thread spool from Phase I-8: 35824.

i. Phase I-9: Construction of Privy Floor

Phase I-9 represents the construction of the floor of the privy superstructure (Figs. V-63 and V-64). The floor was composed of a series of eight planks (HNs 129-136) resting on six joists (HNs 128, 138, 142-145). At some point, the floor had collapsed into the privy. The destruction was apparently deliberate because the floor collapsed along its long axis (Fig. V-65). The simplest interpretation of these planks and joists is that they represent the privy floor. Alternatively, the wood could represent destruction debris discarded into the privy. However, while it is possible that the wood is destruction debris, it is not likely, since if it were debris, it would have had to be cut to fit into the privy. It does not seem plausible that this type of effort would have been undertaken merely to dispose of some wood.

The floor planks were pine and extended along the long axis of the privy. Activities associated with the installation of a later drainage feature in the south half of the privy destroyed all evidence of the floor at that location except for two planks, only one of which was intact. The intact plank (HN 129) measured 6.3-by-1.1-by .1 ft (1.83-by-.33-by-.03 m.). Beneath the planks was a series of six joists, which were set perpendicular to the long axis of the privy (Fig. V-65). The joists were made from roughly hewn oak and pine logs that were minimally altered after the bark was removed. Spacing between the joists appeared to have been approximately 1 ft. (31 cm.) although the collapse of the floor altered the original context of the joists. No evidence of where the joists met the walls of the superstructure was identified. The ends of the joists did not appear to have been modified beyond the initial rough hewing. Although no fasteners (nails, etc.) were recovered from the floor, evidence for nails was observed in the form of rust. Presumably, conditions favorable for their preservation were absent.

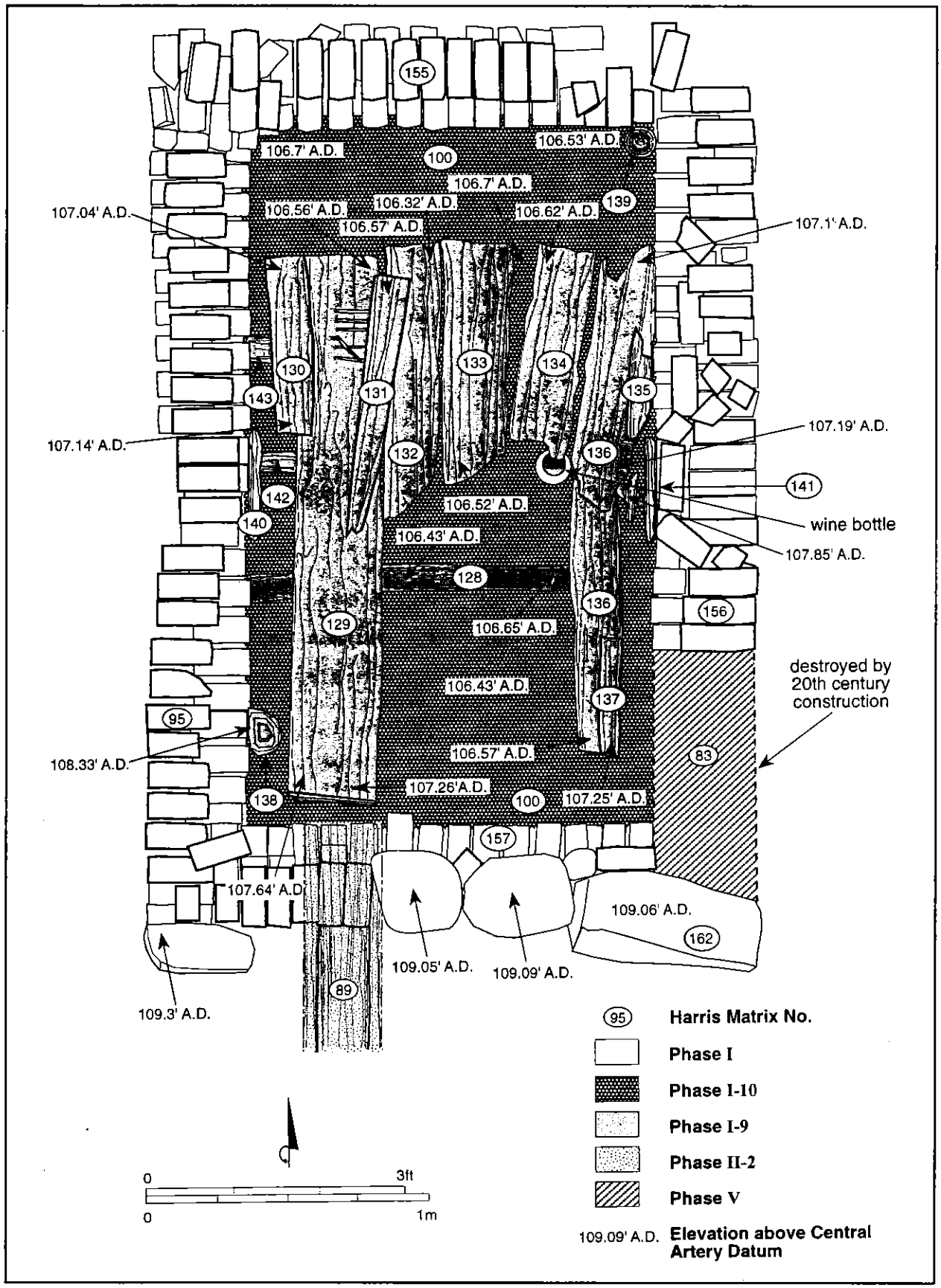

Figure V-63 - Plan view of collapsed privy floor, Phase I-9.

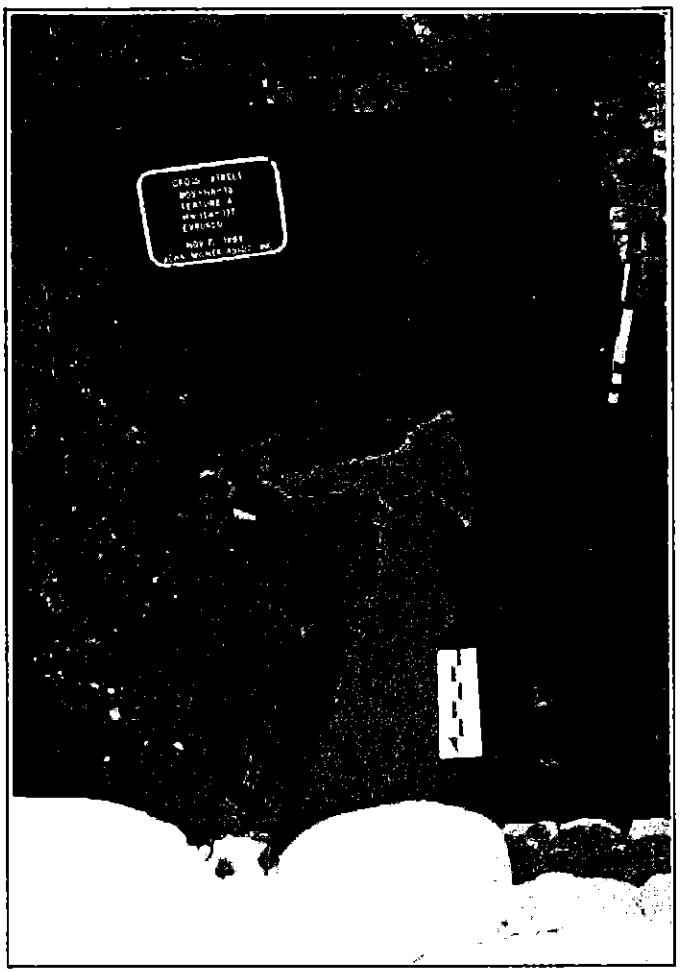

Figure V-64 - Feature 4, showing collapsed privy floor, facing south.

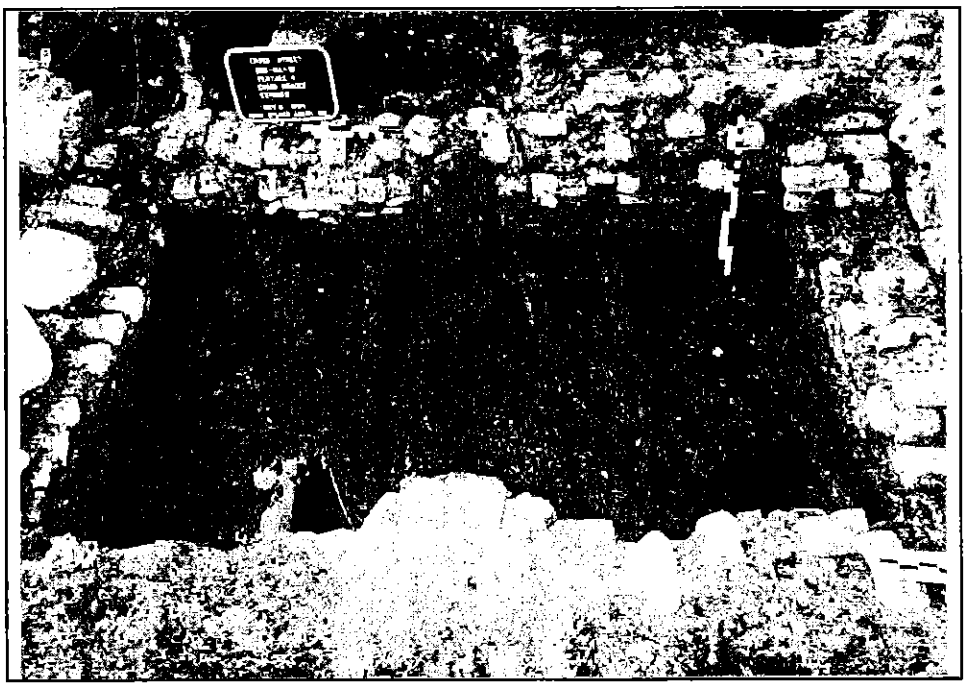

Figure V-65 - Feature 4, showing collapsed privy floor joists, facing west.

Originally, the floor would have covered the entire privy vault except for an approximate 1.5-by-5 ft. (.46-by-1.5 m.) opening along the north wall. All the floor planks were evenly cut along the north side of the floor, indicating that this represented an end, unlike the southern edge of the floor, which shows evidence of disturbance. It is interesting that the privy floor would have had only one opening into the vault, although this opening was wide enough to accommodate between two and three latrine seats. The size of the vault suggests that the privy could have had an opening at either end, which in turn could have served numerous individuals or several households. However, this was not the case. Evidently, while the vault reflected a response to citywide restrictions, the number of seats and the dimensions of the superstructure reflected the individual needs of the household.

The matrix (Phase I-10) beneath the floor should reflect a restricted deposition of materials through the opening along the north wall. In the absence of other deposit-altering variables, deposits should accumulate higher along the north wall and slope toward the south. There is evidence that this type of deposition was taking place; however, the collapse of the floor altered the topographic surface of the matrix (HN 100) directly beneath the floor. Be that as it may, Figure (V-44) shows that HN 100 was significantly thicker along the north wall than in the rest of the privy. However, should also be noted that the collapsed floor was pressed into HN 100 and that there was no concurrent north-to-south slope to the collapsed floor, as would be expected. Although the fluidity characteristics of HN 100 at the time of its deposition are unknown, it is likely that the ordure and other refuse was saturated with water and would have tended to level off away from the north wall.

It is not known how long the floor was functional. At some point, however, this floor was collapsed into the privy. While this appears to have been an intentional event, it is not clear whether the floor was collapsed in preparation for the next construction event or if the privy was abandoned after the floor was collapsed.

Finally, upon removal of overlying matrices and cleaning, a series of markings, resembling Roman numerals, were identified on one of the floor planks. Carved into the surface of one plank (HN 129) were the marks 'IX III' (Figs. V-63 and V-66). The marks were made in the plank using a gouge which produced a concave impression. In cross-section the marks had a half-moon shape. The markings suggested the Roman numerals for 9 (IX) and 3 (III) for their menaing is not clear. The numbers could refer to the date 1693; this is an interesting speculation, considering the date of this deposit is ca. 1690s. Although an entertaining prospect, it is doubtful that the numbers refer to the date 1693 because the Roman numeral syntax (displayed IXIII) is wrong. The correct syntax for 1693 is MDCXCIII. However, Roman numeral syntax was not standardized in the past. According to *Webster's Third New International Dictionary*, two equivalent ways, one based on addition and the other subtraction, of displaying Roman numbers were common. For example, 9 could be denoted either as IX or VIIII. The common usage today is based on subtraction. Varying methods of denoting Roman numerals may not have been uncommon. Excavations at the Mill Pond site (BOS-HA-14) also recovered one such usage variant (a Spanish coin portraying King Carlos the IIII[IV]). A second example showing IIII comes from a seventeenth century timber-frame building and is illustrated by Cummings (1979: Fig. 56). Consequently, the marks may reflect a shorthand method of representing the date, much as people today would say '96' for 1996.

Another possible explanation for the marks is that they represent a carpentry guide (i.e., raising numbers). Raising numbers were used to mark prefabricated framing timbers, where the marks denoted a joint and the specific lumber pieces to be used in the creation of the joint. During this building process, the framing members were cut, not necessarily on site, and marks were carved into various building elements to facilitate erection of the building. The practice of using Roman numeral raising numbers was standard in seventeenth century New England (Cummings

Figure V-66 - Detail of floor plank marked 'IX III'.

1979:60). Smedley (1977:19 and Plate I) describes an East Anglian building tradition of prefabricated timber-frame structures bearing Roman numerals as indexing marks (raising numbers) that were roughly gouged out. The marks may reflect the perpetuation of this East Anglian building tradition. However, the practice was widespread within the timber-frame building tradition. It is likely that the privy superstructure was timber framed, so the possibility exists that the marks reflect this construction. The plank may also have been reused and therefore the marks would have no relation to the privy.

The presence of raising numbers on a plank presents an interpretive dilemma, as all examples of such numbers were for timber beam joints (Cummings 1979:60; Smedley 1977:Plate I). Since the plank exhibited no evidence that it served as an element in a structural joint, this interpretation is questionable. We do not know whether carpenters used raising numbers during other building tasks, such as the construction of floors, walls, etc. In addition, it is possible that the characters are lumber marks used to identify different bundles of lumber. While the most plausible explanations include marks denoting a date or marks used in construciton (i.e., raising numbers or a mark indicating a bundle of lumber), it should also be kept in mind that they may also have had no structural meaning (i.e., they were doodles).

j. Phase I-10: Fecal Deposition

Directly beneath the privy floor (Phase I-9) and along the interior of the north wall of the feature was a stratum representing the final use of the feature as a latrine (Figs. V-43-45). Although it was stratigraphically beneath the floor in the soil profile, it dated to a time after the floor was constructed, thus presenting an interesting interpretive problem. The topography of this stratum may indicate that the seat or seats of the privy were along the north wall.

Artifact dating of the HN 100 assemblage provided an MCD of 1701, a TPQ of 1670, and a 1678 pipe stem bore date. The TPQ was based on Rhenish stoneware. There were five pipe bowls, providing a combined span of manufacture beginning in 1661 and continuing until 1710 (Fig. V-67). However, four of the bowls were restricted to ca. 1690-1710.

In addition to fecal material, kitchen refuse was also deposited in the privy during this phase. A large lead-glazed redware jar was recovered and mended (Fig. V-68). This vessel and a chamber pot from Phase I-5 were the only complete vessels deposited in the privy., suggesting that this jar was intentionally dropped into the privy. It is possible that the jar may have been used to prepare cherry preserves or brandied cherries. The interior of the jar bears the markings of cherry pits, which were presumably made from a chemical reaction between the glaze and the acidic fruits that were in the jar (Fig. V-69). Although it is possible that these marks may be a post-deposition phenomena, no similar marks were present on the top interior of the jar, the jar's exterior, or on any other ceramic sherds from the privy. Other ceramics from I-10 included a deteriorated-Bellarmine bottle (Fig. V-70).

Several wooden artifacts were also recovered. One object may be a lawn bowling ball (Fig. V-71). It is approximately 12 cm in diameter and flat on two sides. The flattened sides are carved with a series of concentric rings. This suggests that both sides were intended to be visible and that the object did not rest on anything. A hole approximately 2-cm. in diameter is located at the center of one of the sides. The hole does not go all the way through the object and is not threaded. If this object is a bowling ball, the hole may have held a weight, allowing more play in the ball. Alternatively, this object may be a furniture or architectural decoration. Other wooden artifacts included two pegs or latches (Fig. V-72) and a bowl or trencher fragment (Fig. V-73). Leather objects were also preserved, including a reconstructible shoe (Fig. V-74).

2. Phase II: Early Eighteenth-Century Use of Feature 4 (ca. 1716)

This phase is made up of deposits associated with the apparent change of function of Feature 4 (Fig. V-75). By ca. 1710 (Phase II), the use of the feature changed to that of a drain or sump. Units of stratification associated with this function include percolation fill (HN 125), a small wooden tub (HN 123), a wood trough (HN 88-90), a clay seal (HN 99), and a sediment in the tub (HN 122). Pollen analysis indicated the pollen recovered from the matrices associated with this phase reflect kitchen activities, not privy use (Kelso 1995). Further coleopteran analysis suggest a cessation in the deposition of human feces (Bain 1995). The stratigraphic analysis divided this phase into three sub-phases. Sub-phase II-1 represents construction preparation with the percolation fill (HN 125) laid down over the collapsed floor of the privy. Sub-Phase II-2 represent construction of the drainage system. Finally, II-3 is the accumulation of sediment and debris in the tub (Fig. V-44).

The intent of the builders was to create an impermeable layer that surrounded the tub, into which the trough was set. The original boundaries of the impermeable clay matrix could not be determined because of activities related to post-eighteenth-century site habitation. Since the impermeable clay matrix extended to the south outside the privy, it is likely that the tub, trough, and clay functioned in conjunction with other features to carry water away from that locality. It should be noted that any pre-nineteenth-century deposits in the area south of the Cross Street Back Lot site and east of the Paddy's Alley site were destroyed when a building was constructed at this location in the mid nineteenth century. Consequently, not enough evidence has survived to determine what structure or yard configuration the feature was draining.

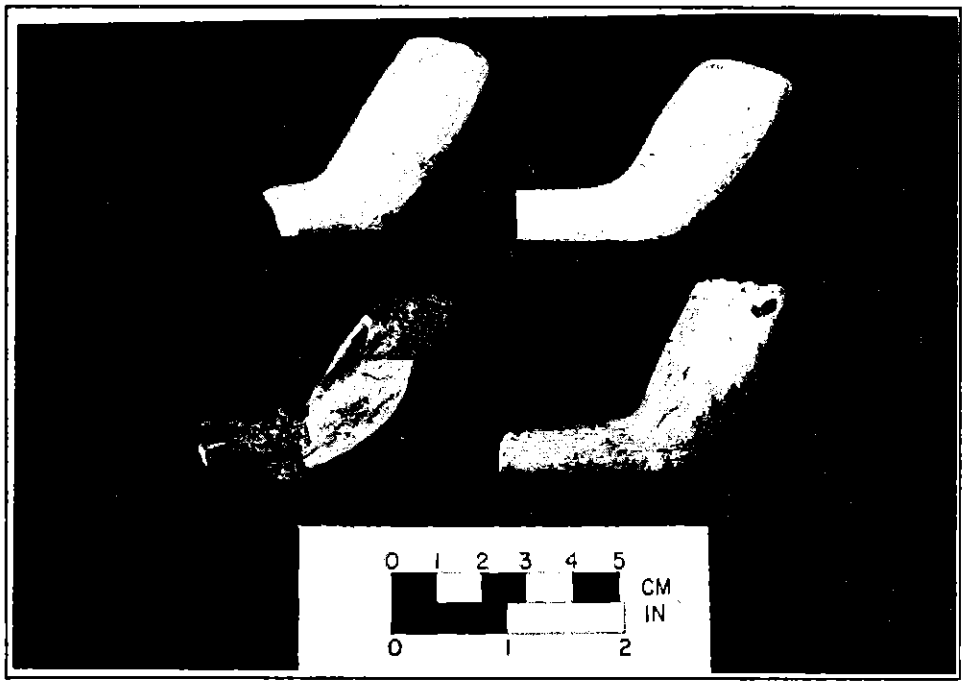

Figure V-67 - Tobacco pipes from Phase I-10: (a) 36211 [1690-1710], (b) 36212 [1690-1710], (c) 36378 [1680-1710], (d) 36377 [1661-1686].

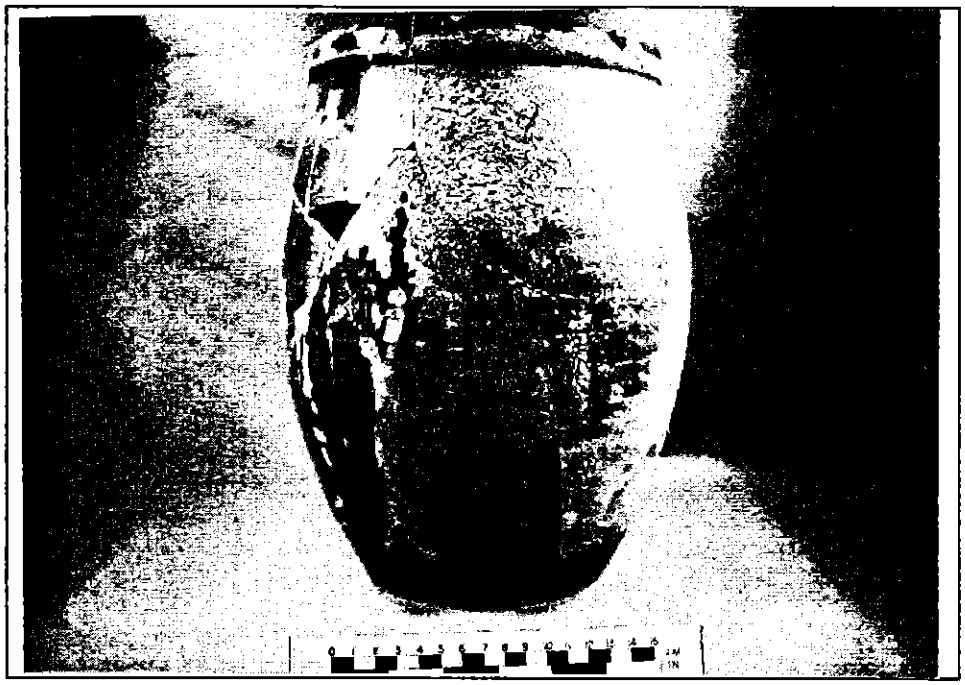

Figure V-68 - Redware lead-glazed jar from Phase I-10: Vessel No. 1963.

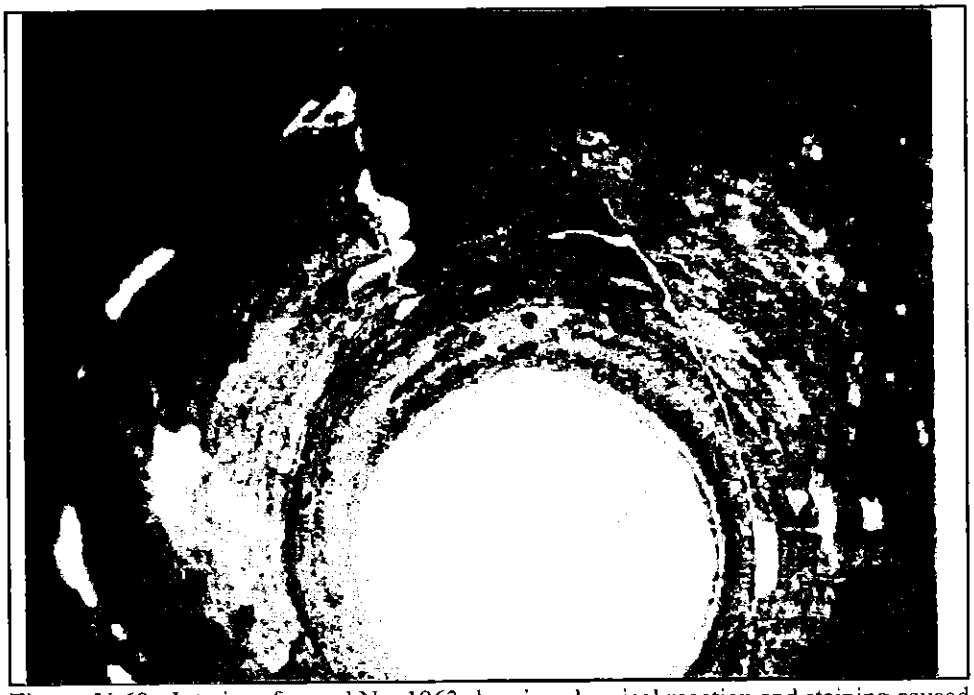

Figure V-69 - Interior of vessel No. 1963 showing chemical reaction and staining caused by cherries.

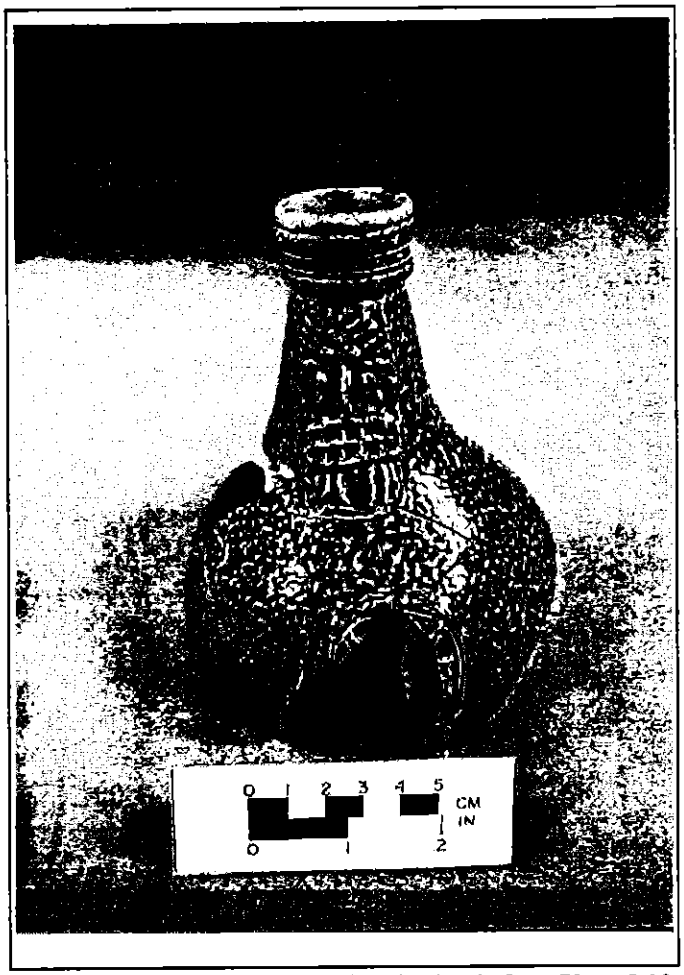

Figure V-70 - Deteriorated-Bellarmine bottle from Phase I-10: Vessel No. 1195.

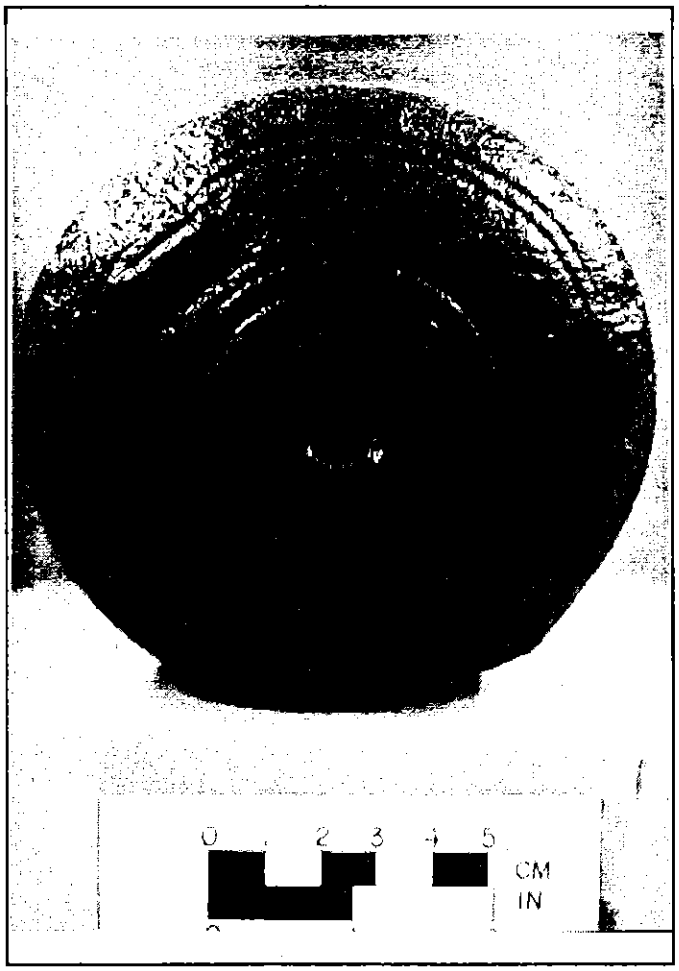

Figure V-71 - Wooden object, possible lawn bowling ball or furniture decoration: 35795.

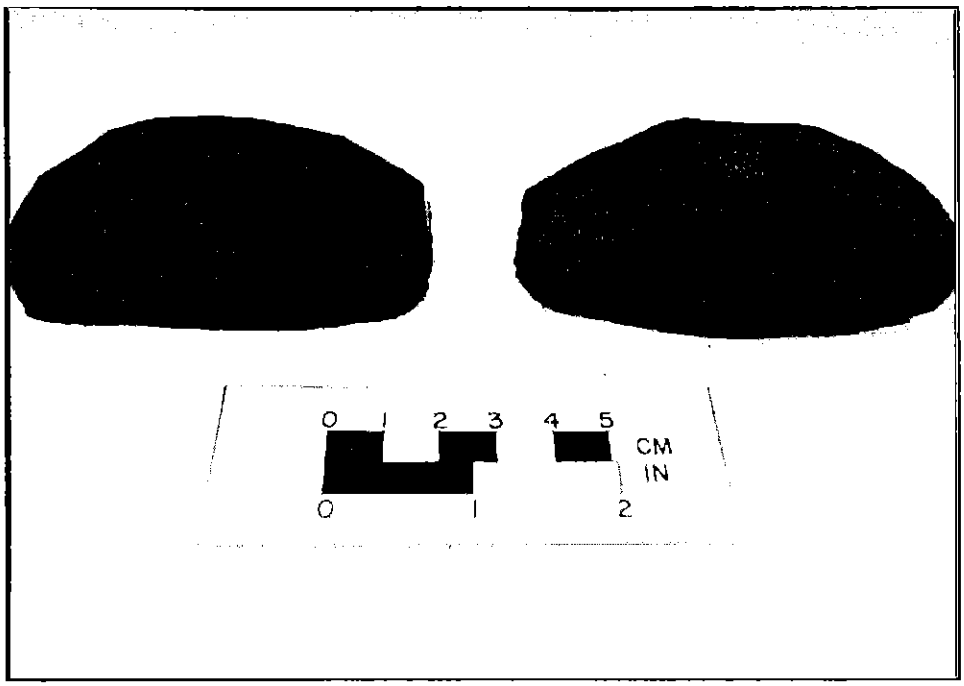

Figure V-72 - Wooden pegs or latches from Phase I-10: 35811.

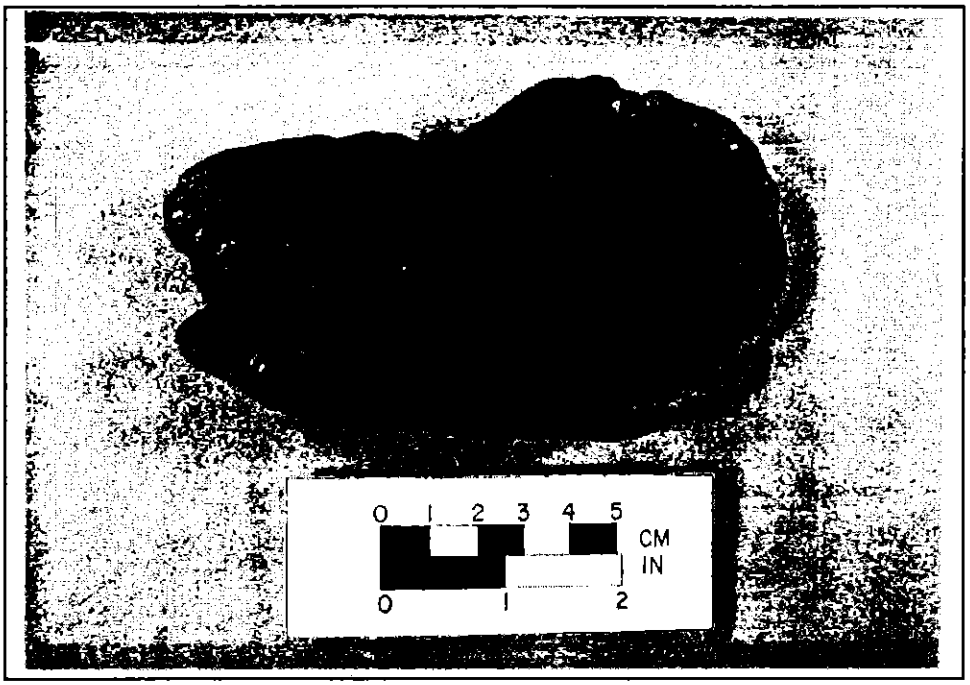

Figure V-73 - Wooden trencher fragment from Phase I-10: 26041.

Figure V-74 - Reconstructible shoe from Phase I-10: 35985.

During this phase, the property was still owned by the Naylor family, but was occupied by tenants. However, in 1716, ownership of the property shifted to Job Coit. The changes in Feature 4's function may be associated with the initial occupation of the property by Job Coit and his family.

a. Phase II-1: Fill

Directly over the collapsed floor of the privy, a matrix of loose fill (HN 125) was encountered. This matrix may represent an effort to aid percolation of water entering the feature from the drainage system. The matrix was not compact and contained large artifact fragments. Artifacts recovered from this deposit provided an MCD of 1697, a TPQ of 1670, and a 1723 pipestem bore date. Of the seven pipe bowls displaying datable attributes, six dated to between 1680 and 1710. The lone exception had a span of manufacture between 1645 and 1665.

b. Phase II-2: Construction of Drainage System

During this phase, a drainage system composed of a tub, a trench and associated fills was installed over the privy vault. The tub functioned as a sump where water was channeled for eventual dissipation through the abandoned privy. Feature 7, a wood-lined trough (HN 88, 89, and 90), entered Feature 4 from the south, where the trough ran under a cut-stone foundation wall of unknown date (Feature 6) and was truncated by a foundation for a nineteenth-century building (Feature 5); consequently, the origin point of the trough is unknown. The orientation of the trough suggests that it functioned to facilitate drainage from a building located on an adjacent property. However, because the southern terminus of the trough had been destroyed, it is not known what the trough drained. The wooden trough, which appeared to have been set into subsoil, was approximately 1.0 ft (30 cm.) wide and 1.0 ft (30 cm.) deep throughout the surviving segment. The stones (HN 162) on top of the south wall of the privy vault had been disturbed by the installation of the trough. Planks formed one side wall of the trough. There was no wood along the other side; either it had not survived or it never existed. The base of the trough was unlined and, where exposed on the exterior of Feature 4, it was set into subsoil. Portions of the trough appeared to have been excavated during the 1989 site examination, whose soil designation CU 51 corresponds to the matrix removed from the feature (Elia et al. 1989:45).

In the south end of the privy, portions of several earlier floor boards (Phase I-9) were removed, allowing for the installation of a tub. The base of the tub had been removed, leaving only a ring of staves. Once the tub was in place, an impermeable deposit of clay (HN 99) was packed around it and across most of the privy interior, sealing the matrices beneath. Into this clay was sunk the wooden trough, which flowed from the south, entering the privy along the south wall adjacent to the southwest corner. The trough flowed into the tub but was not fastened to it. The clay (HN 99) continued to the south outside the privy, in association with the course of the trough. This matrix acted to divert water into the trough and tub and sealed the earlier deposits.

Artifacts recovered from HN 99 provided an MCD of 1694, a TPQ of 1700, and a 1691 pipestem bore date. The TPQ was based on Westerwald stoneware. It is noteworthy that Westerwald did not appear within the earlier contexts of Feature 4, thereby lending credence to the early date presented for the privy matrices. The four pipe bowls recovered from this phase displayed a combined range of manufacture between 1640 and 1770. The latest specimen dated from 1700 to 1770. Also recovered was a bone vial or container (Fig. V-76). This artifact may be a pin case. The body is decorated in carved bands and the top is threaded for a cap.

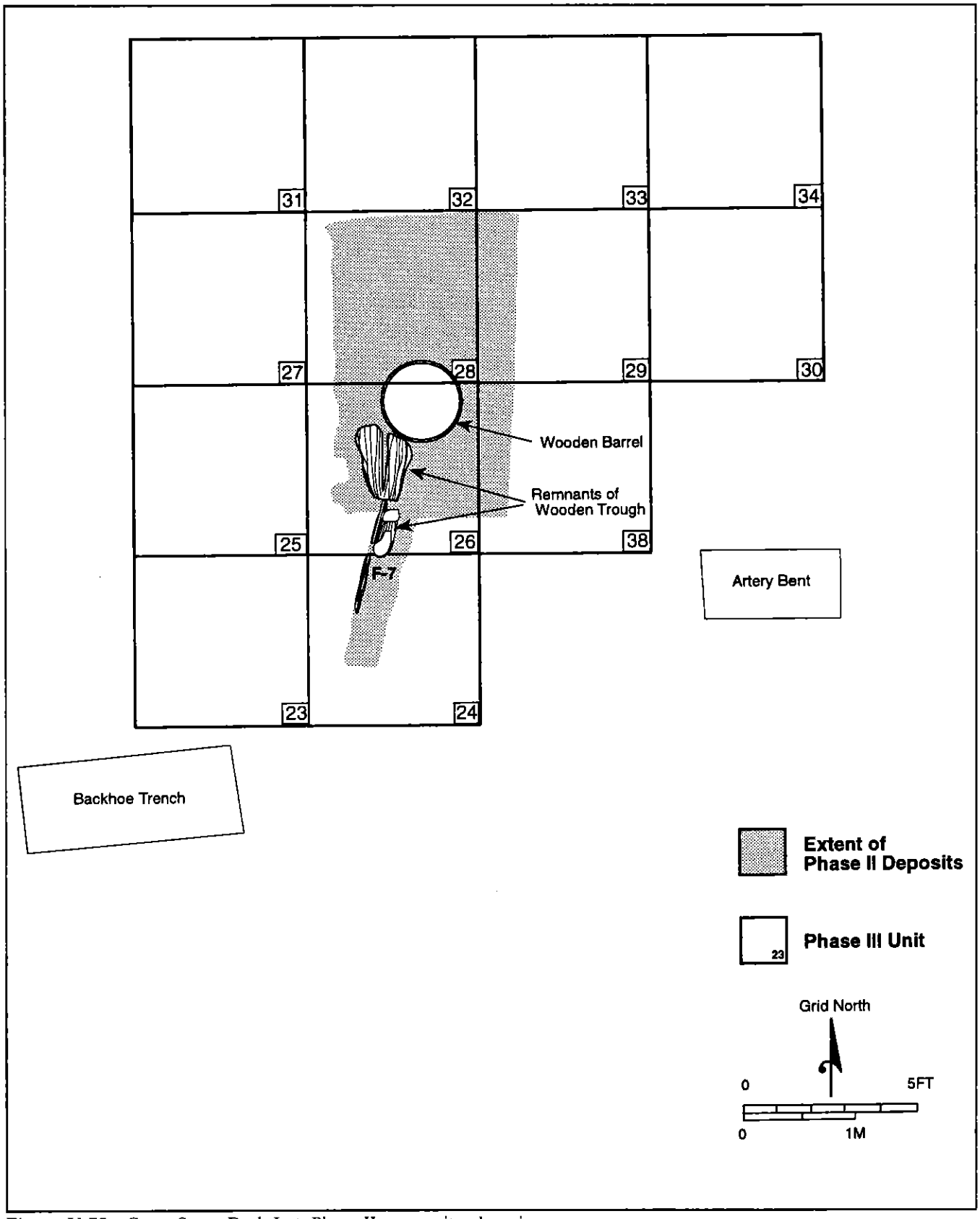

Figure V-75 - Cross Street Back Lot, Phase II composite plan view.

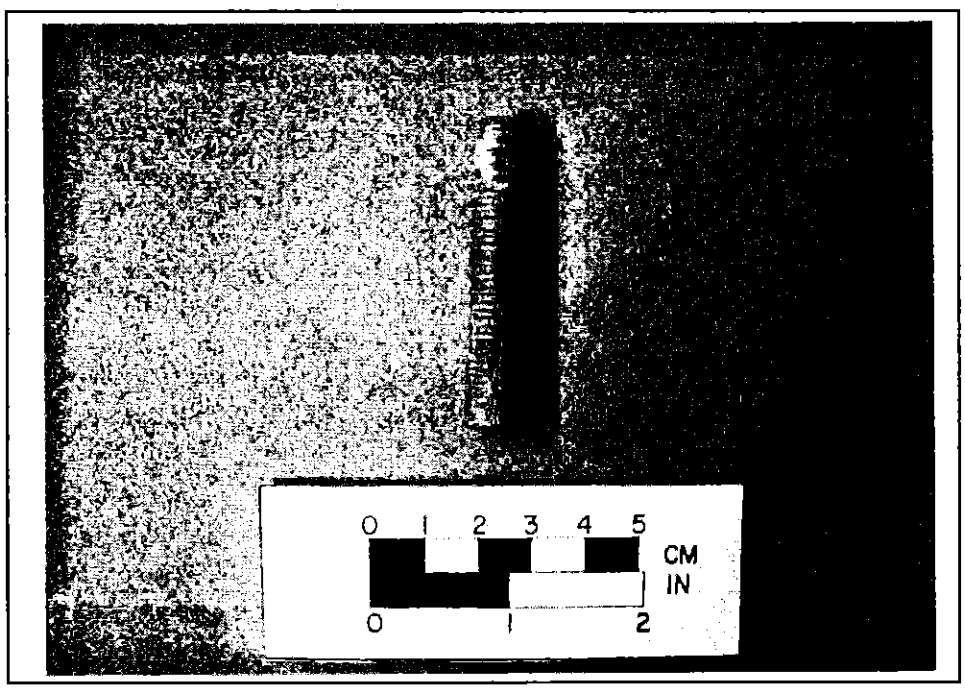

Figure V-76 - Bone vial from Phase II-2: 36251.

c. Phase II-3 Deposition in Tub

The tub was approximately 2.0 ft. (60 cm.) in diameter and had no bottom. The base of the tub rested on the collapsed privy floor (Phase I-9). Within the tub was a matrix that represented accumulated debris deposited during the time this feature was in use. Artifacts provided an MCD of 1712, a TPQ of 1670, and a 1697 pipestem bore date.

3. Phase III: Privy Closure and Abandonment (ca. 1720-1740s)

This phase marks the filling and abandonment of the transformed privy (Fig. V-77). The drainage system feature was abandoned and fill was added to seal it and grade this portion of the property. The abandonment event most probably occurred between ca. 1720 and 1740. When the privy was abandoned, approximately 1.5 ft. (46 cm.) of clay fill was deposited in the feature and over the walls of the privy vault.

4. Phase IV: Late Eighteenth-Through Early Nineteenth-Century Occupation (ca. 1780 -1810)

During the Early Republic period (1775-1830), privies (Figs. V-35 and V-78) continued to be located at the rear of the site, which was oriented toward Cross Street by this time. This phase represented the construction, use, and abandonment of these privies. Features 1 and 8 were privies dating to ca. 1795 and ca. 1800, respectively (Fig. V-78). Feature 1 was intact, but Feature 8 had been largely destroyed by construction of a bent for the elevated highway. During the period when these privies were constructed, utilized, and abandoned, the property was owned by Samuel White, Daniel Gealy (1784-1804), and Jason Wilson (1804-1834).

Feature 1 was located at the extreme southwest corner of the property (Fig. V-79). The privy dated to ca. 1800 and contained a large amount of cultural material. The 1989 site examination identified this feature and designated it CU 52 and 56 (Elia et al. 1989:45). During the 1989 investigation, the privy was tested in order to recover a sample of artifacts only.

The remaining section of the Feature 1 privy foundation consisted of a square box, constructed from four planks set horizontally on edge, creating a 6-ft.-by-6-ft. (1.8-m-by-1.8 m.) enclosure (HN 93). The box was approximately 1 ft. (30 cm.) deep and was excavated into the fill (Phase III) that sealed Feature 4. The volume of the privy box was thus approximately 36 cu ft. (1,019 cu. l.). It is probable that a fieldstone walk (Feature 2) represented a walkway to the privy, assuming that the entrance to the privy was on the west side of the feature. No evidence of related superstructure elements, such as posts, was identified in the area immediately adjacent to the privy.

Excavators did not encounter any evidence for a clay cap, which would indicate the privy was formally closed. Grading for construction of the Central Artery may have removed the deposits that overlay the privy. Data-recovery excavations uncovered the privy directly beneath the bedding material and asphalt replaced after the 1989 site examination. Upon removal of the bedding material, the privy and a deposit of decayed wood were uncovered. The latter was probably associated with the privy's abandonment.

The matrix (HN 92) on the interior of the Feature 1 privy, which was approximately 1.0 ft. thick (30 cm.), consisted primarily of silty clay, although several pockets of clay and silty sand were observed. Included within the matrix was a dense deposit of leather scraps, including numerous shoes. Most of the artifacts were recovered from the center of the privy box, suggesting that the privy hole was in the center of the superstructure platform. The small volume of the privy box must have necessitated the frequent emptying of the privy. The parasitological analysis of the privy contents did not indicate appreciable evidence of fecal material. This suggests that the material within the privy was secondary deposition, reflecting its filling and abandonment.

Located approximately 2 ft. (60 cm.) east of Feature 1 was another privy dating to approximately the same period (Fig. V-78). Feature 8 consisted of a remnant of a privy box and its contents, but intact deposits associated with this feature were not extensive. A modern builder's trench associated with the construction of a bent for the elevated roadway had destroyed most of this feature. The remnant that has survived (HN 107 and 108) consisted of approximately 5.5 ft. (1.68 m.) of the north side of the privy box. Although the overall dimensions of the privy could not be ascertained, it is likely that this privy was constructed in a similar fashion to Feature 1 (Figs. V-80 and V-81). The matrix representing the remnant of the privy fill (HN 108) consisted of a strip approximately 1 ft. (30 cm.) wide and 1 ft. (30 cm.) deep. The privy was laid into the fill that covered Feature 4.

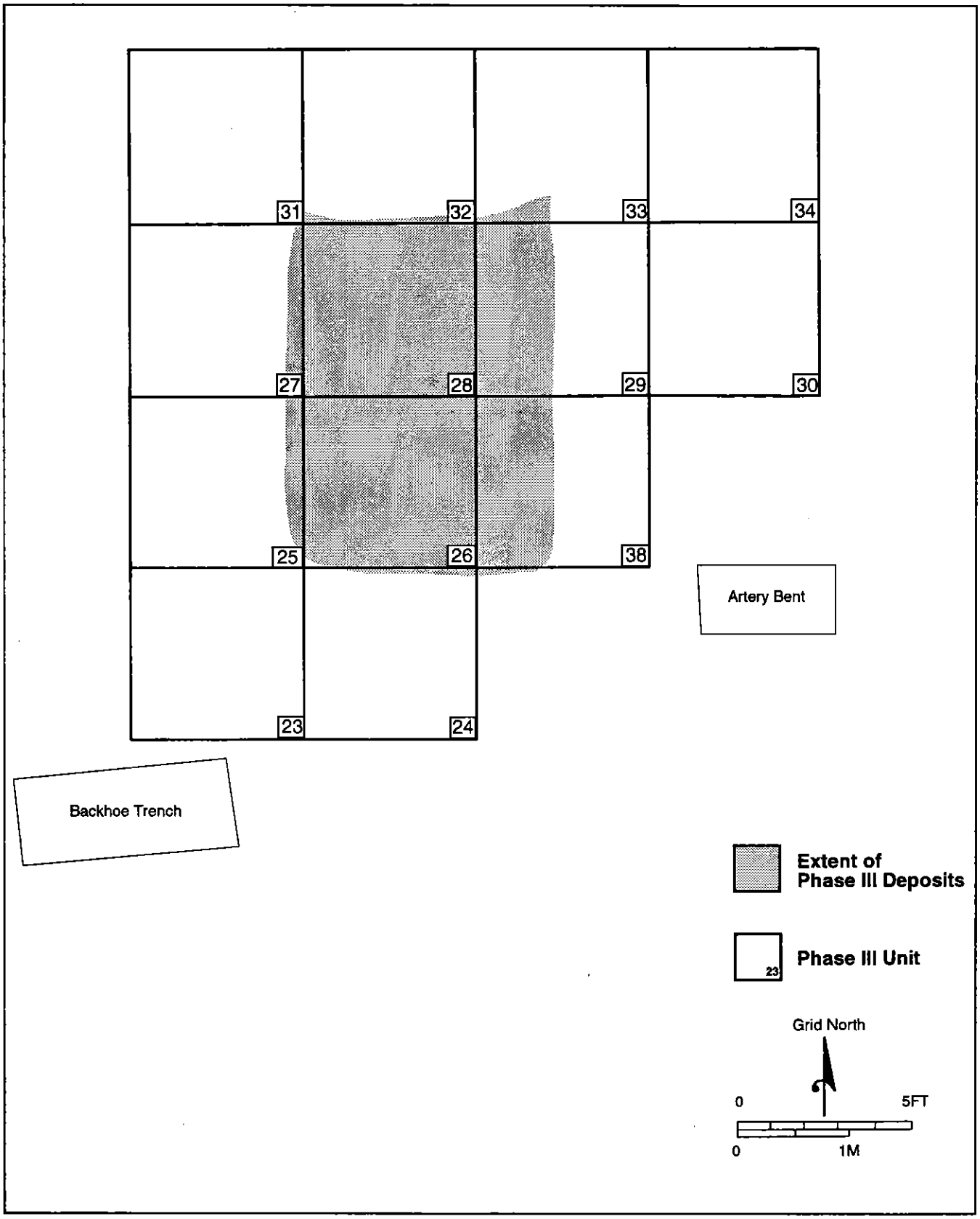

Figure V-77 - Cross Street Back Lot, Phase III composite plan view.

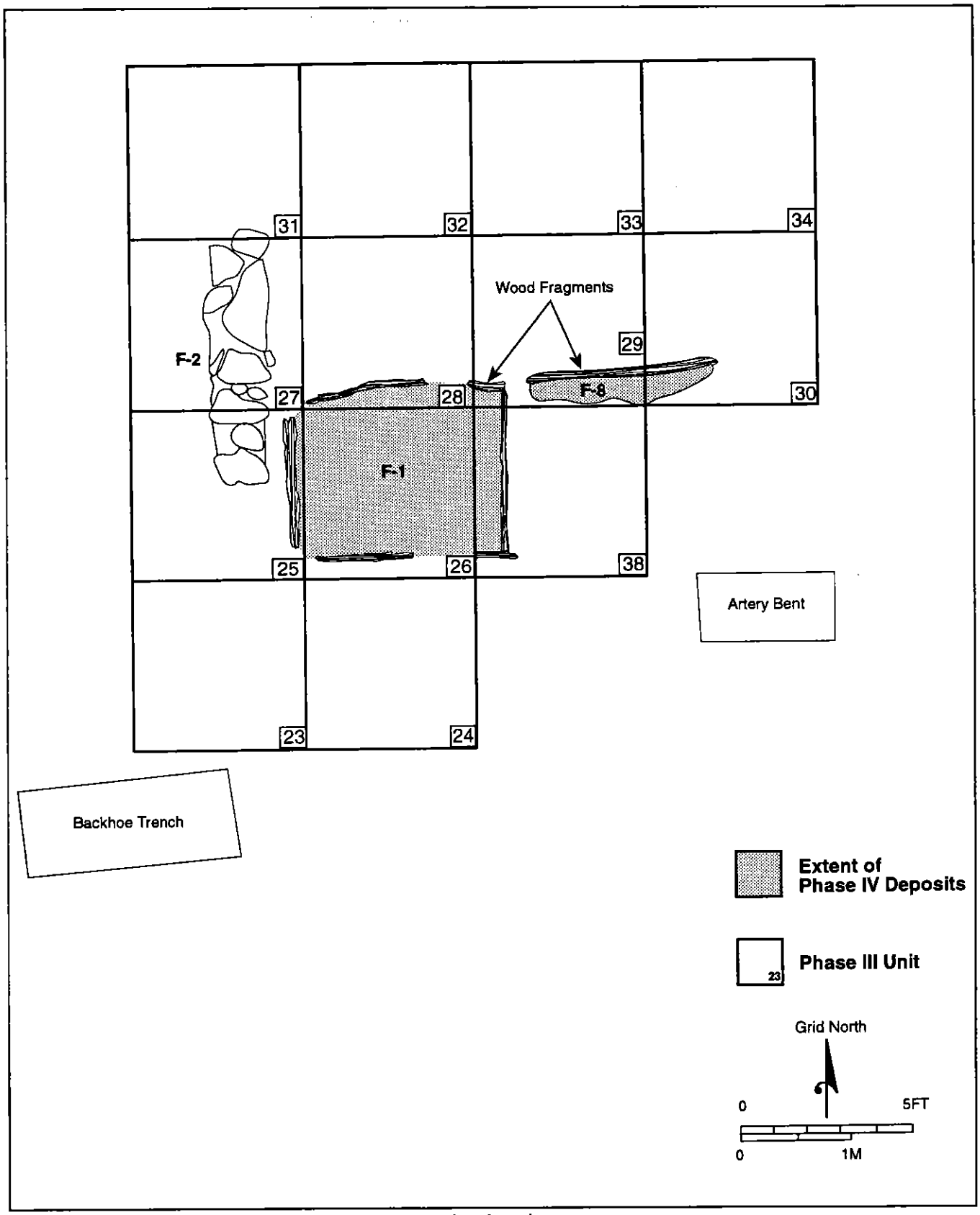

Figure V-78 - Cross Street Back Lot, Phase IV composite plan view.

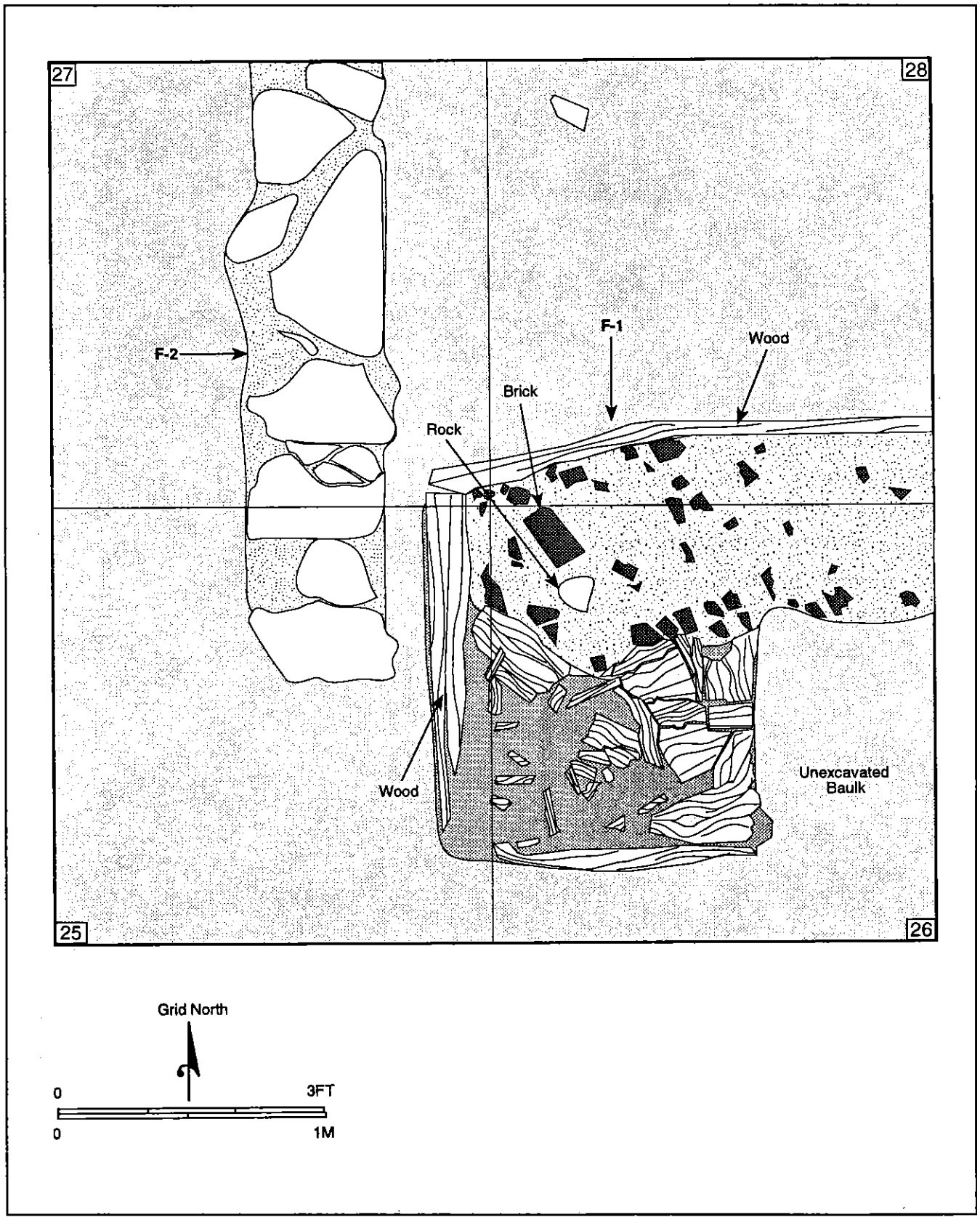

Figure V-79 - Cross Street Back Lot, Features 1 and 2, plan view.

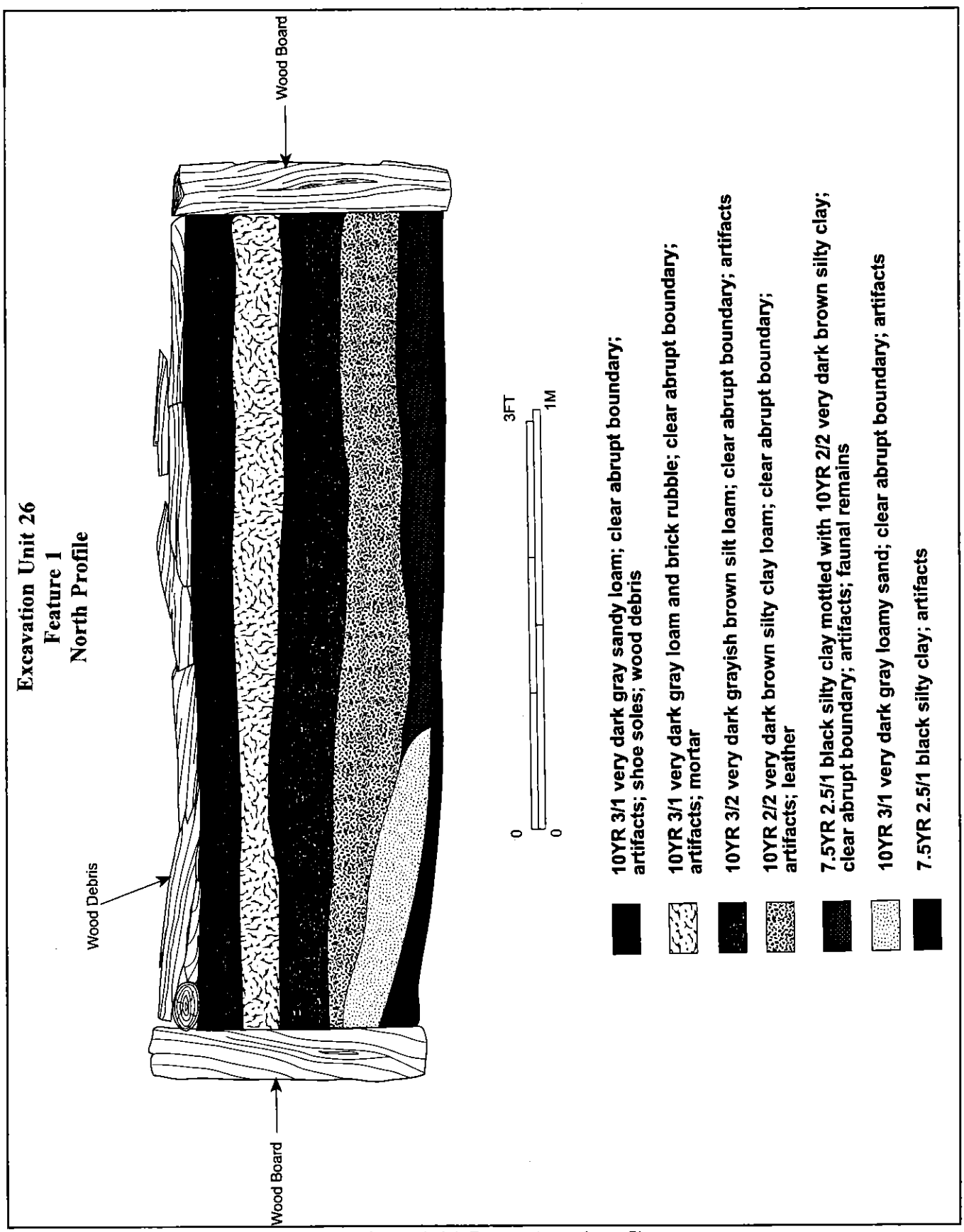

Figure V-80 - Cross Street Back Lot, Excavation Unit 26, Feature 1, north profile.

Figure V-81 - Plan view of Excavation Unit 26, showing privy (Phase IV, Feature 1) excavated, facing north.

5. Phase V: Ca. 1750-1800 Occupation

Excavators identified additional matrices that were related to occupation of the site between ca. 1750 and 1800, but the deposits are considered remnants (Fig. V-82). For the most part, these matrices were discontinuous and limited. Demolition activities in the 1950s, associated with the construction of the existing Central Artery, presumably removed most of the deposits postdating the Early Republic period. The late eighteenth-century remnant deposits, directly below the modern fill, bedding, and asphalt, represented remnants of deposits that were altered by construction of the Central Artery. On the basis of these matrices, it is not possible to reconstruct a detailed stratigraphic sequence reflecting the types of activities that took place at this location. Therefore, these matrices have been combined.

6. Phase VI: Nineteenth- Through Twentieth-Century Occupation

Investigations at the Cross Street Back Lot site also encountered several architectural features associated with the nineteenth-century occupation of the site (Fig. V-83). These features were cursorily examined and recorded in order to refine the placement of the site on historic maps.

In the nineteenth century, a building was constructed on the property. The rear foundation of the building (Feature 3) formed the north boundary of significant deposits at the site. The interior of the foundation was tested to determine whether significant deposits extended beneath the building or whether the building contained a cellar. Back-hoe excavations within the foundation revealed that the building contained a basement, the bottom of which was below the depth of significant deposits. The basement was filled with twentieth-century refuse and destruction debris associated with the removal of the building.

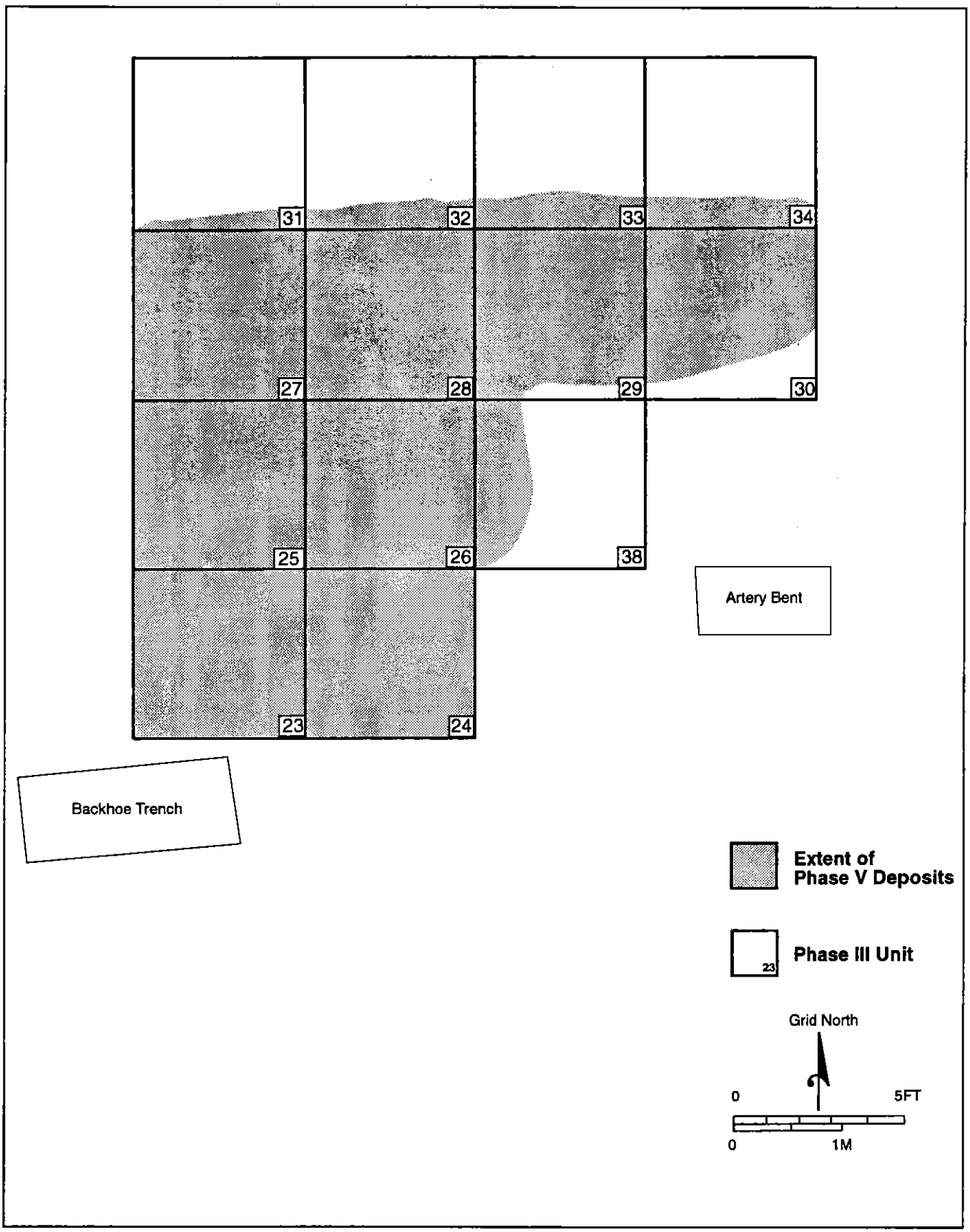

Figure V-82 - Cross Street Back Lot, Phase V composite plan view.

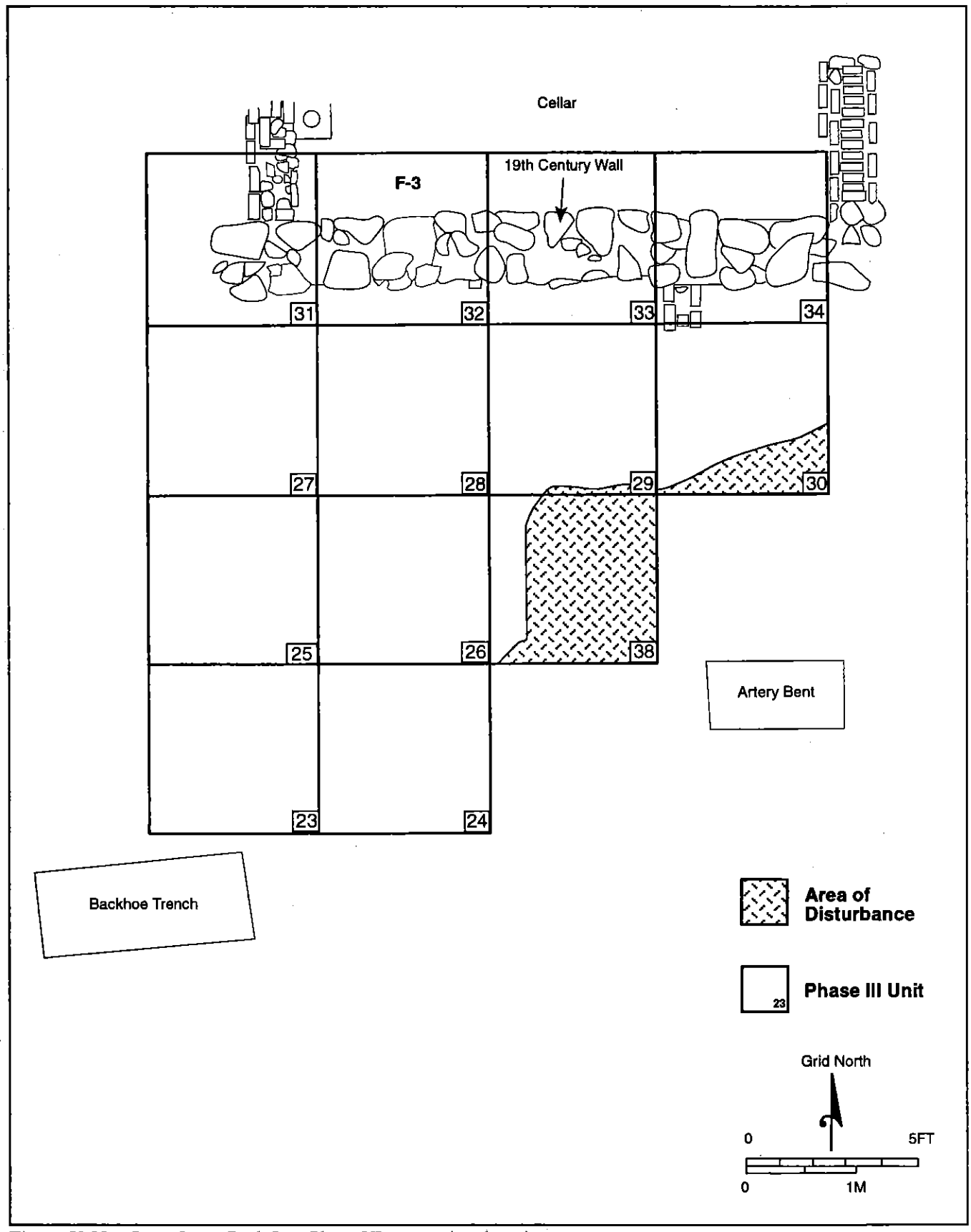

Figure V-83 - Cross Street Back Lot, Phase VI composite plan view.

VI: MANAGING THE ENVIRONMENT

Though all ill savours do not breed infection,
Yet sure infection commeth most by smelling,
Who smelleth still perfumed, his complexion
Is not perfum'd by Poet Martials telling
Yet for your lodging roomes give this direction,
In houses where you mind to make your dwelling,
That neere the same there be no evill sents
Of puddle-waters, or of excrements,
Let aire be cleere and light, and free from faults,
That come of secret passages and vaults
(from *The School of Salernum*, Anonymous, tr. by Harington, 1920)

Data-recovery excavations at BOS-HA-12 and BOS-HA-13 provide an opportunity to examine refuse, sanitation, drainage, and health issues during the Plantation (1620-1675), Colonial (1675-1775), and Federal (1775-1830) periods. These issues are not unique to Boston; every community must respond to them. However, the characteristics of the response vary and at any point in time are influenced by the particular cultural systems of the society, as well as by local conditions. Responses to these issues influence the community as a whole and, in effect, have a role in the success or failure of the system. Bostonian attitudes and responses to health, refuse, sanitation, and drainage contributed to the emergence and endurance of the city as a regional core with world-wide economic connections. This chapter examines refuse, sanitation, drainage, and health together, as these issues are interrelated. Attitudes and responses toward refuse, sanitation, and drainage affect the health of the community as a whole.

The medical practices and beliefs prevalent during the seventeenth and eighteenth centuries are relevant to the understanding of the health and sanitation practices followed by Colonial Bostonians. The common miasmatic theory of disease held that disease originated from foul smells, or corruptions of the air, such as those discharged from rotting vegetable and animal matter. In addition, celestial bodies and vapors emanating from the earth's interior were thought to corrupt the air (Blake 1959:11). Although it appears that the miasmatic theory was widely held in the Colonies, European medicine was beginning to understand that "contagions" were causing epidemic diseases like smallpox (Blake 1959:9-14). Seventeenth-century medical practices consisted mainly of bloodletting and use of dubious drugs, which were ineffectual or harmful (Blake 1959:9). Blake (1959:23-36) attributes the changes in health practices beginning in the 1690s not to new medical developments but to changes in Massachusetts society. Toward the end of the seventeenth century, the clergyman-doctors who had dominated medical practice were being replaced by physicians with medical degrees. The transition in medical practitioners brought about a transformation in public-health practices which manifested itself in a new emphasis on public health and sanitation.

Urbanization, set in motion by changes in the economic and social fabric of the community, coupled with population increase and spatial compaction, manifests itself on both an individual and a community level. Within a roughly two-hundred-year time span, Bostonians formulated responses to a variety of problems brought on by the rapid urbanization of the town. During this period, Boston grew from a rural farming community of several hundred to an urban port city with tens of thousands of residents. Throughout the seventeenth century, the religious views held by the Puritans inhibited public responses to health problems (Blake 1959:21). It was not until Puritan power waned that the community could address these issues. The development of responses and changing attitudes is exhibited by a variety of archaeological features (privies, drains, and trash deposits).

Throughout the time span represented by the archaeological deposits at both sites, a dichotomy existed between the official sanitation polices of the populus (exhibited through town bylaws and ordinances) and individual sanitation practices (exhibited through human waste and refuse disposal patterns). Blake (1959:115-116) says that it was not until cultural and political mechanisms were in place and accepted that the general health of the community improved.

> Besides saving lives, these administrative practices implicitly expressed certain principles relative to the role of government in protecting the public health, the amount of interference with private rights and activities which the community was ready to support, and the responsibility of the individual for the health of others. By such provincial and town sanitary regulations as those governing slaughterhouses and privies, the people of Massachusetts declared that a person did not have the right to use his own property in such a way as to cause a nuisance dangerous to the health of others. By controlling noxious trades and by enforcing quarantine both by land and sea, the government interfered in the liberty of the individual to carry on his own business, subjecting him to the overruling consideration of guarding the public health. The government also appropriated property, both buildings and goods, to isolate and care for those sick persons who might otherwise have threatened the community with disease, and it even possessed the authority to impress men to serve as guards on infected houses. Merely on the warrant of two Justices of the Peace the government summarily subjected individuals who had committed no crime to imprisonment in pest houses. The government held itself responsible for the health of the community when the citizens were deemed unable to protect themselves, not only by such practices as quarantine, but also, from 1764 on, by providing inoculation. The government required individuals to attend to their own responsibility for the public health by prohibiting them, except under certain conditions, from using a practice-inoculation -- which was for them the best protection available against a deadly disease. To all these measures the people gave wholehearted support. (Blake 1959:115-116).

Boston's political apparatus did not actively address sanitary concerns until the 1650s. Prior to this, individuals built and maintained their own wells, privies, and drains and disposed of refuse unencumbered by city regulation. The only sanitary regulation was a 1634 ordinance forbidding the disposal of fish and garbage from near the Town Dock (Bridenbaugh 1955:85; Blake 1959:13). Naturally, as the population grew, sanitary conditions deteriorated in absence of any community standards and compliance. By 1652, the unwanted byproducts of human occupation (human waste and garbage) were a sufficient nuisance to the citizenry that specific steps were taken to improve sanitary conditions and assure public compliance. However, the citizens of Boston were more concerned with the threat of epidemic disease (specifically, smallpox and yellow fever, which would cause unusual mortality) than with that of endemic diseases (e.g., dysentery and tuberculosis, which were continually present within the population). These acute infectious respiratory and intestinal diseases were the causes of most deaths. However, because these diseases were constantly present, the deaths caused by them were not initially viewed as out of the ordinary when compared to epidemic diseases.

While the general population may have accepted the government's role in public health and sanitation (principally quarantine and inoculation against smallpox) when epidemic diseases were involved, matters of human waste and refuse disposal continued to be a nuisance.

Social class appears to have played a role in the formulation of health and sanitation practices. Clearly, the different classes within Boston society viewed health and sanitation issues differently.

> The wealthy merchants and their allies among the professions, who ordinarily dominated Boston politics, showed little concern for the public health unless it touched themselves. They supported improved street draining, paving, and cleaning in part, no doubt, for reasons of health, but also because the highways were vital to the commercial prosperity of the town. Quite able to provide for keeping their own surroundings as pleasant as contemporary sanitary sensitivity required, they cared little what went on behind the front wall of the common citizens' houses. The Latter, in turn, less affected by medical opinions and health literature, and no doubt finding it difficult to believe that filth with which they had lived all their lives might cause disease, showed only sporadic support for sanitary improvements. Though smallpox affected rich and poor alike, a similar class division nevertheless appeared. While the well-to-do, interested in self protection, generally favored inoculation hospitals by the 1760's, the ordinary people, for the same motive, tended to oppose these institutions and support stronger preventive measures. Even in the General Court the House usually initiated public health legislation, which the Council weakened or refused to pass (Blake 1959:108).

In comparison to other Colonial cities, Boston at least initiated measures that were aimed at confining the spread of diseases (mainly smallpox) through regulating public activities. Principally, these actions reflect the city's Puritan origins relating to politics and liberty (Fischer 1989:196-205). Further, the absence of residential segregation along social class lines, caused by environmental constraints limiting settlement options, fostered and perpetuated policies that included the whole population. As discussed in sections VII.B and VIII.C, below, residential segregation was not environmentally possible until Boston was enlarged through extensive land filling. The wealthy and the poor alike were concerned with health problems, but each group approached the issue in a different way. The variation in perspectives on health and sanitation displayed by social groups appears to be primarily an economic function and, to a lesser extent, an educational one, rather than the result of differing residential patterns.

A. Refuse

People produce garbage. The disposal of the byproducts of human habitation (trash) has been and continues to be a focal point of social organization and culture. The problems associated with the disposal of garbage grow concomitantly with increased urbanization. The methods communities employ to alleviate refuse-disposal problems bear on the health and success of the community.

Boston' s first prohibition on refuse disposal was in 1634 when the town prohibited the disposal of refuse near Town Dock (Bridenbaugh 1960:85). This ordinance was the first of many dealing with where garbage could be dumped around the city. Many of these ordinances referred to keeping streets clean, especially after many of the streets were paved. Periodically, the town employed scavengers or street cleaners, or mandated residents to clean in front of their houses. Primarily, town government was concerned with nuisances to public byways and those caused by certain trades (i.e. tanners, butchers, fishermen) rather than individual residences. The Mill Pond, just west of the sites, was a convenient place to dispose of refuse, as well as a constant nuisance for the town's populace (see below).

At both the Paddy's Alley and Cross Street Back Lot sites, trash was discarded in the yards throughout the entire period of occupation. The amount of garbage pitched onto the properties varied, presumably reflecting the physical organization of the lot and inclination of the occupants. Trash middens developed on the Paddy's Alley East property during the Henchman (Phase IV-1) and Carnes (Phase IV-3) occupancies. In contrast, no such middens developed on the Paddy's Alley West property. The Colonial use of Paddy's Alley West property as a garden indicates that the occupants heaped most of their trash elsewhere. However, a good deal of trash entered the garden as night soil for fertilizer.

Surviving evidence for refuse disposal at the Cross Street Back Lot site differs from that found at Paddy's Alley, primarily because the excavated portion of the Cross Street Back Lot site was the location of the property's privies, at various times, from the late seventeenth through early nineteenth centuries. Trash was discarded into the privies as well as littering the open spaces in the rear yards. Presumably, the rear yard was covered by a sheet midden containing refuse, but this was difficult to recover archaeologically as the upper portions of the site stratigraphy had been mixed by later occupation.

Privies provided convenient and out-of-sight places to dump trash. The deposits contained within the late-seventeenth century privy (Feature 4) consisted of fecal material and household refuse. Analysis of ceramic vessels, Coleopteran remains, and pollen provided insight into how and why the household refuse came to be deposited into the privy.

Ceramic vessels recovered from the privy were very fragmentary, the majority of vessels being far from complete. Out of the 172 ceramic vessels identified from the privy, only two were complete vessels. Further, over 88% of the vessels identified were based on recovery of less than 25% of the vessel. This indicated that the kitchen materials represented the redeposition of refuse from other locations and that much of the original kitchen refuse material did not enter into the privy. Presumably, refuse was discarded into the yard in a heap and, once this heap reached the limit of tolerance, it was cleaned up and some of the materials deposited into the privy. Coleopteran analysis complemented this interpretation, as certain beetle species (*Stenelophus comma, Chlaenius sericeus sericeus,* and *Aphodius granarius*) that would not have lived in the privy were recovered from matrices within it.

Both Coleopteran and pollen analysis of privy material indicated that grain spoilage was a significant problem and that amounts of spoiled grain were being deposited into the privy. Coleopteran analysis recovered pea weevil remains representing an infestation of this pest. Pollen analysis identified large quantities of cereal and maize pollen, suggesting that food spoilage, resulting in discard, must have been a common occurrence. It is clear that large amounts of peas, cereals, and corn were stored on the property and spoiled. Finally, Coleopteran analysis indicated that by throwing refuse into the privy, the inhabits were perpetuating insect infestation of foodstuffs, not eliminating it, because of the life-cycles of the insects and the favorable over-wintering conditions the privy environment afforded the insects.

The matrices within the privies dating to ca. 1800 on the property represented a different type of disposal. Parasitological analysis indicated an absence of fecal material from privy matrices (Driscoll 1993). This suggested that the privies had been cleaned prior to abandonment. The refuse deposits appeared to reflect cleaning episodes within the households, as artifacts were abundant. Thus, the privy box was used solely as a repository for trash when it was closed. Out of the 92 ceramic vessels identified 73% were less than 25% complete. This percentage indicated that refuse-disposal patterns involved more than just depositing household refuse directly into the privies. The fragmentary condition displayed by the ceramic vessels suggested trash was discarded elsewhere before final burial within the privies.

In general, although Boston developed a series of regulations throughout the seventeenth and eighteenth centuries governing refuse disposal, primarily street cleaning, and nuisance removal (Blake 1959:13, 15-16, 30, 105, 147-148 168, 237; Bridenbaugh 1955: 85-86, 322), the populus followed these regulations either reluctantly or not at all. Presumably, lack of compliance reflects minimal enforcement, cultural beliefs about health, and a lack of any more suitable method of trash disposal (Blake 1959:157-158). As evidenced by the amount of archaeological material recovered, Bostonians tried to address their refuse-disposal problems by discarding trash on their own properties. This practice had serious consequences in regard to health and sanitation by perpetuating conditions under which chronic endemic diseases flourished.

B. Human Waste Disposal

Disposal of human waste is a continual problem in any habitation, a problem that is only exacerbated by increased urbanization. The most obvious archaeological deposits reflecting fecal disposal are privies. The location, construction, and use of privies allows insight into community standards and potential exposure to health problems caused by unsanitary conditions. Excavations at both sites provide a sample of seven privies. At the Cross Street Back Lot site, three privies were encountered. At the Paddy's Alley site, the remnants of four privies were found. One privy (BOS-HA-13: Feature 4) dated to the late seventeenth through early eighteenth century. Two privies (BOS-HA-12: Features 20 and 32) were associated with early seventeenth-century occupation on the Paddy's Alley West property. Three privies (BOS-HA-12: Feature 30 and BOS-HA-13: Features 1 and 8) dated to a ca. 1800. Finally, the excavations encountered one mid nineteenth-century privy (BOS-HA-12: Feature 16) associated with a commercial building. These privies provided a starting point to examine fecal disposal within Boston.

Initially, the first inhabitants of Boston would not have been under pressure to address sanitation. Population density in relation to the physical environment was low, hence disposal of human waste was not a nuisance to the community and had a lesser impact on health. In other words, there was enough physical space between citizens that human waste disposal did not offend the citizens or was not considered a significant health risk. Apparently, as the population grew and spatial density compacted living space, this changed. By the mid seventeenth century the problem of disposing of human waste was affecting the community to a degree that the society as a whole began to address the issue through the development of ordinances prohibiting certain activities, while mandating others.

In Boston, the issue of human waste disposal was not addressed formally by the community until a March 1652 Selectman's bylaw on privies (Blake 1959:14 and Bridenbaugh 1955:86). This bylaw formed the basic rule on privy construction until at least 1701 but may have continued, albeit with modification, through most of the eighteenth century (Bridenbaugh 1955:239; Blake 1959:105, 146). No citizen was to construct a "house of office" within 12 ft. of a neighboring house or street unless it was vaulted and 6 ft. deep (Bridenbaugh 1955:86). Violators were to be penalized 20 shillings. It is not clear how widespread acceptance of this bylaw was or if and how it was enforced. A privy that conforms to the 1652 standards was encountered at the Cross Street Back Lot site (Feature 4).

Feature 4 dated to the latter half of the seventeenth century. The depth of the surviving walls of its vault was approximately 5.6 ft. (1.7 m.), close to the 6 ft. (1.8 m.) specification in the ordinance. Matrices within the privy could not be used to accurately date the construction of the vault, as deposition events included evidence of periodic cleaning of the interior, then continued use. Thus, while the dimensions of the privy reflected compliance with the 1652 town bylaw, it was not clear when in the latter half of the seventeenth century the vault was actually

constructed. In addition, the relationship of the privy to neighboring residences and streets could not be established. Clearly, the occupants, either Robert Nanny or Katherine Nanny Naylor, had an incentive to comply with the bylaws. It appears that Robert Nanny did not maintain the Cross Street property to community standards. As discussed in section IV.D, Nanny was charged a fine relating to property-maintenance issues that had become a public nuisance. Assuming that Nanny was not inclined to maintain a state of cleanliness or repair, the privy may have been constructed sometime after his death in 1663. It does not appear that his wife Katherine or her second husband, Robert Naylor, were cited for any sanitary infractions.

Of note is the articulated pig skeleton recovered from the lowest levels of the privy. The inclusion of this animal within the privy may have resulted from a May 1652 bylaw that required dead animals to be buried.

> "[N]oe person inhabiting within this Town shall throow forth or lay any intralls of beast or fowles or garbidg or Carion or dead dogs or Catts or any other dead beast or stinkeing thing, in any hie way or dich or Common within this neck of land of Boston, but ar injoynened to bury all such things that soe they may prevent all anoyanc unto any. Further it is ordered that noe person shall throw forth dust or dung or shreds of Cloth or lether or any tobacko stalks or any such things into the streats" (Boston Record Commissioners Report, Vol II:110-111, quoted in Blake 1959:15).

Since 1634, pigs had been forbidden to roam free through the streets but were to be kept in yards (Bridenbaugh 1955:19). The apparent intentional disposal of the pig carcass suggests that at least some sort of yard cleanliness was being undertaken in the late seventeenth century. Cleaning the property of would have created a healthier setting. Further evidence from the privy deposits suggests that the yard was cleaned at least once in awhile, if not regularly. Recovery of Coleopteran species (beetles that did not live in moist environments) and ceramic analysis (a low percentage of vessel completeness) indicated that household waste was redeposited into the privy.

In the 1720s, two privies (Features 20 and 32) were located along the west boundary line of the Paddy's Alley West property. Feature 20 apparently predated Feature 32. Both privies were small and apparently only functioned for a short time before they were abandoned. It is not clear why the privy boxes would have been so small, since they would have had to be emptied frequently. The location of the privies, next to a garden plot, and their small size suggested that one of the functions of the features was to provide night soil for the garden. Parasitological analysis of fill from each feature indicated that fecal material was present only in Feature 20. Just to the north, a second, similar privy was identified. Evidence for this privy (Feature 32) consisted only of the privy box; the fill did not contain fecal material.

The two privies may reflect changing attitudes toward waste disposal. It is not clear why the privies do not conform to the 1652 bylaws, as these statutes remained in effect in the seventeenth century and were reaffirmed in 1701. The privies most probably reflect a disregard for the law because the inhabitants did not view them as health hazards and there was little enforcement of the bylaws. It is interesting and possibly coincidental that the abandonment of the Cross Street Back Lot privy occurred just prior to the construction of the two privies at the Paddy's Alley site.

The rear of the Cross Street Back Lot property continued to be the location for privies until the early nineteenth century. Two privies (Cross Street Back Lot Features 1 and 8) consisting of shallow wood-lined boxes and containing deposits dating to ca. 1800 were found bordering the rear property line. Parasitological analysis of feature fill indicated that no fecal material remained in the privies. Presumably, upon abandonment, the privies were emptied

of fecal deposits and then fill and refuse were used to close the privy pits. Feature 30 is a privy remnant encountered on the Paddy's Alley East property. Construction of this privy was more massive than the two ca. 1800 privies at the Cross Street Back Lot site, as the privy pit was larger and deeper. The bottom portion of the privy (Feature 30) survived beneath a mid nineteenth-century wall, but surviving structural elements indicate that the privy was constructed of wood planks held in place by posts at the corners. Like the Cross Street Back Lot privies, this privy appeared to have been cleared of fecal material prior to abandonment.

By ca. 1800, privies were coming under more scrutiny and regulation. In 1799, privies could no longer be legally opened without a permit and the contents could not be within 18 in. of the ground surface (Blake 1959:168). The abandonment of the ca. 1800 privies on the Cross Street Back Lot site may have been a response to these regulations. These privies were shallow and would have not met the 18-in. requirement. On the other hand, Feature 30, at the Paddy's Alley site, may reflect post-1799 regulation construction. Thus, through the construction and abandonment of privies, changes in regulation and compliance can be traced.

In addition to increased regulation, the town employed scavengers to collect refuse. However, scavengers were to collect refuse and manure only between May and October, as it was believed that filth would not contribute to disease in cold weather (Blake 1959:209). Although regulations increased, the sanitary conditions continued to be quite unhealthy. By the early nineteenth century, overcrowding in the North End had resulted in horrendous sanitation problems, with privies overflowing and seeping into neighboring residences (Blake 1959:225-228).

The mid nineteenth-century privy (Feature 16) was tested and its construction methods recorded. Construction methods consisted of a plank box supported by wooden posts. Privy construction modified the warehouse foundation, allowing the box to be emptied from the building's exterior. This privy and a privy excavated at the Mill Pond site (BOS-HA-14) indicated that privies continued to be used into the latter half of the nineteenth century in this section of Boston.

C. Drainage

Waste water was viewed as a problem, and stagnant water and wet ground were recognized as contributing to poor health (Blake 1959:17-18). Bostonians expended a good deal of effort in the construction an maintenance of drains. Initially, drains were made of wood, were built by individuals, and led to the nearest shoreline (Bridenbaugh 1955:159; Blake 1959:28). One such wooden drain was identified at the Mill Pond Site. The drain presumably led from a structure on the property to a discharge point on the Mill Pond shoreline. Drains continued to be built in this fashion throughout the seventeenth century.

By the 1690s, the streets in Boston were being paved and indiscriminate excavations within the streets by individuals laying drains were an increasing problem. In 1709, new regulations were developed regarding various aspects of drainage, including ownership, permitting, compensation, and the physical characteristics of the drains themselves (Blake 1959:28). Drains were to be constructed from brick or stone and digging up of streets was prohibited without the consent of town officials. Further, an individual could build a common drain and was then entitled to receive payment from anyone who used it. The response to these regulations was a drain-building boom. The new construction resulted in Boston's having a better subsurface drainage network than any other American or English city (Bridenbaugh 1955:160).

A drain was encountered on the Paddy's Alley East property that reflected the increased drain construction of the first decades of the eighteenth century. Early in the development of the lot, ca. 1710, a large drain (Feature 28) was installed along the west side of this property. The drain extended 25 ft. across the site from north to south. Neither the origin nor the terminus of the drain fell within the limits of the excavation. Drain flow (inferred from elevations taken on the interior of the drain) was toward the historic Mill Creek (beneath modern Blackstone Street), south of the site. Although the drain ran north to south across the excavated area, it turned at both the north and south ends of the section exposed, making a projection of the drain's course impossible.

The drain was made of field stones and partially dressed granite blocks set into subsoil. The top of the drain was formed by large, irregular, flat fieldstones. The base of the drain cavity was exposed subsoil, and there was no evidence that the drain had been lined. The interior drainage cavity was approximately 1.4 ft. wide and 1.3 ft. deep. Covering the entire drain was a clay cap of varying thickness, which sealed the drain. The cap over the drain was made with impermeable clay, indicating that the drain was not intended to drain the site area and that its function was to move water through the site. The gradient of the drain was not steep; therefore, water movement could not have been swift.

Stratigraphic and artifact analysis indicated the drain was installed on the property ca. 1710 during the period when the property was owned by Samuel Wentworth. Historic research indicated that in 1713 Wentworth obtained permission to dig up Ann Street to install a drain for his cellar. Ann Street was east of the site and the drain (Feature 28) drained away from this direction. Thus Feature 28 did not represent the drain referred to in historic documents, because the house was situated between the drain and Ann Street. Feature 28 appeared to be a communal drain that functioned to drain neighboring residences and not necessarily Wentworth's residence, although it may have drained some part of his property.

It is interesting to note that Wentworth was the Mill Bridge Ward's "scavenger," in which capacity he was a sort of "health officer" responsible for ensuring the cleanliness of the streets (Roberts 1895,I:301). It is conceivable that his presence, in effect, induced his immediate neighbors to improve their sanitation standards and maintain their properties. It is interesting and possibly coincidental that the abandonment of the Cross Street Back Lot privy (Feature 4) occurred during the time span when a "health officer" was living on a neighboring property. By this time, the function of the privy had changed to that of a drain or sump. Further, the construction of the two privies on the Paddy's Alley West property occurred just after Wentworth moved off the property.

D. Health

It is clear that the health of a community is tied to the issues discussed above. Throughout the occupation periods encountered at both sites, some Bostonians viewed refuse, human waste, and drainage as health problems and formulated responses and policies to deal with these issues. However, Bostonians tolerated what are considered by modern standards to be poor sanitation and health conditions. It was not until well into the nineteenth century that refuse, human waste and drainage problems were adequately addressed so that diseases caused by poor sanitation were reduced. In order to examine health and sanitation, it is important to place Bostonian views on health in perspective. During the seventeenth through eighteenth centuries, the emphasis was on stopping epidemic diseases while endemic diseases, many caused by poor sanitation, were not viewed as other than ordinary contributors to the mortality rate. Mortality statistics of Boston have been tabulated by Blake (1959:Appendix II). These figures for the eighteenth century indicate an average death rate of approximately 37 per 1,000. The annual death rate, unless

it was an epidemic year, ranged from a low of 21 to a high of 52. At least 10 major smallpox epidemics ravaged Boston in the eighteenth century. The mortality rate during epidemic years ranged from 35 to 103 deaths per 1,000 (averaging 62 deaths per 1,000). The low value (35) for mortality reflects the success of Boston's inoculation program in the eighteenth century. The mortality rate in smallpox years was far greater than that in normal years, and it is understandable why Bostonians emphasized this disease in formulating health policies of the eighteenth century and cared less for chronic diseases that, in reality, caused more deaths.

Although the general state of health can be inferred from responses to sanitation, refuse, drainage, and human waste disposal, these issues cannot directly address the health of the occupants of both sites. However, the parasitological analysis of the Cross Street Back Lot site privy (Feature 4) matrices has provided a more personal view of health (Driscoll 1995). This analysis indicated that the Naylor family and others who contributed to the privy were infested with intestinal parasites (whipworm and roundworm). These parasites are spread by unsanitary conditions and as such reflect the poor sanitary condition of the property. It should be noted that parasitological analysis cannot tell the degree of infestation or the health problems caused by worms. The number of eggs released varies greatly and there is no way to estimate the number of human hosts represented by the deposits. Mild infestations of either worm were primarily asymptomatic. Severe whipworm infestation in an individual may have caused mild anemia, abdominal pain and tenderness, nausea and vomiting, and bloody diarrhea. Further, the human host could experience weight loss, cachexia (i.e. malnutrition and physical decline), and rectal prolapse. Heavy roundworm infestation could cause children to become nutritionally deficient and obstruct the biliary and intestinal tracts. Finally, the roundworm life-cycle included a migration of immature worms from the intestinal tract to the lungs and then back into the intestinal tract by way of the bronchial tree and trachea to the pharynx. Driscoll (1995) points out that the worms are indicators of poor general sanitation, which would have been conducive to a myriad of other diseases caused by bacteria, viruses, and other parasites, such as amoebae.

The floral analysis from the privy may contain evidence for a response to the worm infestation. Peach pits (*Prunus persica*) were recovered from all contexts containing fecal material (Kaplan and King 1995). Peaches are a known worm expellant and their presence in the privy may possibly reflect medicinal use (Driscoll 1995). A species of chenopodium (*Chenopodium ambrosoides*) was also used to treat worms (Cummings and Puseman 1994:5.12; Driscoll 1995). Seeds belonging to the genus *Chenopodium* were recovered from all privy contexts, but only lamb's quarters (*Chenopodium album*) was identified at the species level. The range of *Chenopodium ambrosoides* includes the Northeast, so the plant was probably available.

Analysis of the floral material recovered from the Naylor privy included the recovery of several other plants that were used for medicinal purposes. Many of these plants were weed species or had other uses; consequently, their presence does not necessarily indicate they were used for medicine. However, their presence alone does indicate that someone possessing a herbalist's knowledge of plants at least had access to several species of medicinal plants. Bostonians did practice some level of folk medicine. The incident involving Mary Read's alleged attempt to poison Katherine Naylor's beer with henbane exemplifies this knowledge, if only on its dark side.

In addition to peach and Chenopodium, plants that could have been used for medicinal purposes included cherry, hawthorn, pepper, dock, pokeweed, and mustard. Cherries are a known diuretic, the stalks have been used as an astringent and diuretic, and the bark is a febrifuge (fever reducer) (Toussaint-Samat 1992:651-652). Hawthorn berries and flowers can be brewed into a mild heart tonic. Hawthorn has the effect of either stimulating or depressing the heart, depending on need, as well as reducing blood pressure (Cummings and Puseman 1994:5.8). Pepper

(*Capsicum)* can be used to treat a variety of aliments like colds, chicken pox, and sore throats, as well as to stop bleeding (Cummings and Puseman 1994:5.7; Toussaint-Samat 1992:518). Dock (*Rumex acetocella*) was used as an astringent, a hemorrhoid relief, a laxative, an antiprurient (relief from itching), and a treatment for various skin conditions (Holt 1991:Appendix IV). Pokeweed was used as an emetic and to treat a variety of afflictions including fevers and skin conditions (Cummings and Puseman 1994:5.10; Holt 1991:Appendix IV). Finally, mustard had a large number of medicinal uses. Oils, tinctures, poultices, and plasters were made from this plant in order to treat a variety of ailments which included headache, fever, whooping-cough, liver and stomach problems and respiratory problems such as pneumonia and bronchitis (Holt 1991:Appendix IV).

Pollen analysis also identified several other medicinal plants in the macrofloral remains, including dock, mustard, and goosefoot (i.e. lamb's quarters). In addition, pollens from several additional purportedly medicinal plants (dandelion, currents and red clover) were recovered from the privy.

The floral remains and pollen from the privy suggest that the people had plants available to them that were diuretics, fever reducers, worm medicines, headache remedies and, as appropriate in a privy, laxatives and hemorrhoid treatments. What is unknown is whether or not any of the residents had a knowledge of medicinal plants and if they were in fact used to treat various aliments. Although these plants are suggestive that some sort of medicinal practices were being followed, a good deal of ethnobotanical research into Colonial period medicine and its English antecedents is needed before a clear picture of medicinal plant use can be developed.

The belief that miasma caused and spread disease suggests that the Mill Pond was viewed as a significant contributor to health problems. Originally, the Mill Pond was a marshy cove within the Charles River estuary. Located at the mouth of the Mill Pond was a long island that separated the Mill Pond from the river. Based on the representation of this natural feature, after it was modified into a dam, the island was probably the remnant of a river levee or sand bar. This topographic feature may have been utilized by Native American groups as a path at low tide (Whitehill 1968:11-12). The topography and hydrology of the Mill Pond can only be inferred from the historic record. Initially, it is likely that the pond was either a tidal marsh cut by permanent stream drainages or a shallow cove. The transition from the pond to the shore would have been marshy along most of its length, punctuated by beach in areas were the dry land sloped to permanent water. In the mid 1600s, the Mill Pond was transformed by filling, dredging, and excavation in order to create a system of tidal mills. The result was a large, shallow pond, with inflows and outflows at Mill Creek and at either end of the Mill Pond dam. Man-made Mill Creek bisected the isthmus, allowing water to either enter or exit the Mill Pond, depending upon the tides. Mill Creek (present-day Blackstone Street) is just south of the Paddy's Alley site.

The Mill Pond soon became a convenient location for discarding trash as well as a basin for sewer and water run-off and continued to serve this function through the eighteenth century. In the 1790s, it was said of the Mill Pond: "The inhabitants contiguous to the pond, and others, throw dead dogs, cats, putrid meat, fish, and rotten vegetables into it; and drown many small animals there: the filth of the streets flow into it in every direction, and it is the receiver of the vaults surrounding the pond" (Samuel Brown's *An Account of the Pestilential Disease Which Prevailed in Boston in the Summer and Autumn of 1798,* quoted in Blake 1959:163). The drain-building boom in the early eighteenth century included the construction of drains that discharged into the Mill Pond. One drain carried run-off from a large section of the North End (Blake 1959:29). The pond was never very deep and by the late eighteenth century siltation must have been a severe problem. At the end of the eighteenth century, the Mill Pond proprietors were forbidden in the summer months from drawing water from the pond and exposing the bottom because the odors

emanating from the pond were perceived as unhealthy (Blake 1959:207). The condition of the Mill Pond deteriorated throughout the seventeenth and eighteenth centuries until, finally, in the early nineteenth century, the pond was filled to create usable land.

The isthmus upon which the sites are located was flanked by the Mill Pond to the west, Mill Creek to the south, and numerous wharves to the east. Pathogens that spread endemic diseases would have found these environments favorable and, coupled with poor human waste and trash disposal, may have made the neighborhood unhealthy.

In conclusion, data recovery at both BOS-HA-12 and BOS-HA-13 allowed for the examination of health and sanitation in Boston from the mid seventeenth century through the early nineteenth century. This examination has looked at the community and the occupants of the sites. The archaeological deposits, viewed within the context of urban and regulatory development in Boston, provide insight into commonly held beliefs about disease, response to municipal authority, changing attitudes toward sanitation, and community standards. Sanitation and health were important issues of the day and the community responded when threatened. Epidemic diseases, such as smallpox and yellow fever, stimulated a response in the populus that led to social regulation. Unfortunately, no matter how successful, the responses (quarantine and inoculation plans) tended to be specifically geared to epidemic diseases and sanitation regulations governing the disposal of refuse which would have reduced endemic diseases, in reality a larger health problem, were not enforced or developed. Chronic diseases were not considered abnormal contributors to the mortality rate, wherefore sanitation measures that would have reduced these diseases were not formulated.

VII. LAND USE AND SPATIAL PATTERNING

A. Archaeology and the House Lot

> All cities are geological; you cannot take three steps without encountering ghosts bearing all the prestige of their legends. We move within a *closed* landscape whose landmarks constantly draw us toward the past. Certain *shifting* angles, certain *receding* perspectives, allow us to glimpse original conceptions of space, but this vision remains fragmentary (Chtcheglov 1953:1, emphasis in original).

The documentary and archaeological record of spatial organization at the Paddy's Alley and Cross Street Back Lot sites is fragmentary indeed. Much of the detailed analysis projected in Section II.B.2, above, proved impractical, because of the nature of the excavated remains. To begin with, it became clear as analysis proceeded that for much of its history, the Paddy's Alley site had actually consisted of two lots, with separate ownership and occupation, rather than the single lot that was expected. Second, the machine-assisted stripping that was intended to reveal broad areas of the Paddy's Alley site soon indicated that those areas were not intact, but had been destroyed by subsequent building construction. Finally, the construction of warehouses during the nineteenth century had led to the installation of load-bearing piers in a series of holes and trenches that cross-cut and further fragmented the earlier deposits. Despite these problems, there were still important aspects of house lot structure that emerged from the documentary and archaeological evidence.

1. Documentary Evidence

Several types of maps were examined during the project. Most proved to be of limited utility in understanding house lot structure. Early small-scale maps, such as Bonner's 1722 Map of Boston (see Fig. IV-2), show what appear to be house-lot boundaries, but these are inaccurate, and were probably intended as stylized and schematic representations of yard space, rather than as accurate representations of existing conditions in the city (Seasholes 1988:98). While later maps, dating to the mid nineteenth century and later, are more "accurate" in that they show the locations of structures with a higher degree of specificity, they tend to show only the larger outbuildings, and in any event, portray conditions after the period with which this project is concerned. Relevant maps of the site area are contained in the Phase I (Elia and Seasholes 1989) and Phase II reports (Elia et al. 1989).

Several sorts of large-scale maps were consulted during the course of the project. The most common types encountered were manuscript property boundary maps in the papers of Nathaniel Bowditch, a nineteenth-century conveyancer who traced the titles of many of the properties in the city, including those within the project area (Bowditch Papers). These maps, some of which are presented above in the historic background section (see Figs. IV-3, IV-4, IV-5, IV-10, and IV-11), accurately portray the configuration and relative positions of transferred pieces of property, but seldom give any indication of the internal structure of those lots (and, in fact, were not intended to do so). But what emerges from these maps is the importance of abstract, legal, "Euclidean" space to Bowditch and his contemporaries. Bowditch's maps, though they are reconstructions that focus on that measured space, also bring in a temporal dimension. The ownership and configuration of the spaces portrayed is continually changing, especially at the margins; Bowditch makes it clear that he is interpreting those changes, and it is clear that time, as much as space, lies behind his maps.

One map that proved to be extremely useful in house-lot reconstruction, because it shows the internal structuring of space, was encountered in the County Court Records on file at the Massachusetts State Archives. In 1728, the heirs of John Jepson, Jr., petitioned the court to divide their share of his property among them. The court determined that this could not be done without dividing the house lot, which included the Paddy's Alley West site, among the heirs. Because the division of the house lot entailed division of several structures as well, the court ordered a map of the property prepared. That map, reproduced as Figure IV-1, gives detailed information about the location and use of structures and activity areas on the property.

Access to the Jepson Property was via Paddy's Alley, which ran diagonally across the western portion of the lot. The alley separated the house lot proper from an undesignated area that terminated in a wharf along Mill Creek. Fronting on the east side of Paddy's Alley were the end of a barn, and the gable end of the house. Between the house and barn and the alley there was an undesignated triangular open area. Immediately to the south of the house was a fenced area, described as a "yard," apparently a space for domestic and maintenance activities. From the rear corner of the house where it joined the yard, a narrow, fenced access way extended back into a large area described as a "garden," and apparently used for food production. The nature of any economic activities that may have occurred on the site at the time is unclear, although the wharf would seem to indicate that materials or goods could have been moved into or out of the property. The documents accompanying the division do not clarify whether the site was occupied by tenants or by one or more of the heirs at the time of the division.

Taken together, the maps depict aspects of the urban house lot. The small-scale maps show house lots within blocks as interior, private spaces, set apart from the streets by buildings, which blocked visual and casual pedestrian access. The lots within are separated from each other by lines that are apparently intended to represent fences or boundaries between properties.

The Bowditch property maps show the house lot as property through time, and space as commodity. These maps portray something vastly different from the "social spaces" that were experienced as realities structured by social life, while at the same time providing a framework within which social life continued to unfold (Lefebvre 1991:1-4,72-73).

This social aspect of space as it was used is approached in the division map of the Jepson estate. Although there is an important current of Euclidean space in the map (it is after all a legal document that must purport to represent a real space at a consistent scale), the ways in which the property was used, and its internal divisions and boundaries, were important enough for a fair division that they were shown by the surveyor.

2. *Archaeological Evidence*

The archaeological record distorts social space in different ways than the documentary record. Places that were moved through by people become truncated and buried, trees die, landscapes become unrecognizable. A few years can change an extant landscape so that it is unrecognizable to people who lived there (Brown 1978:279). In the transition of spaces that have been lived in for centuries to deposits that may occupy only several vertical feet, much that is vital is lost. More is lost as later uses move and disturb those deposits. The social world becomes a truly geological space, in Chtcheglov's sense. The lost social/spatial dimension is recoverable, to some extent, through the process of archaeological interpretation.

Rather than list here all of the features that assisted us in this process, and detail their contributions, we refer the reader back to Section V, where the results of the testing program are reviewed in detail. Some aspects of spatial use, and certain categories of features and deposits through which they are visible, will bear brief discussion here, particularly those related to structures and those related to boundaries.

3. Structure and Function

Remains of several different types of structures were recovered at the sites. The most prevalent type was the privy with post-in-ground superstructure, several examples of which were encountered. Their individual construction is detailed above, in Section V. What is important here is their placement. The Alexandria model for the urban house lot, devised for later cities with regularly shaped lots in square blocks arranged in a grid pattern, as discussed above in Section II.B.2, stresses the tendency of privies to be located along rear lot lines. Paddy's Alley West had two privies along its boundary with Paddy's Alley East, neither of them along the rear property line of Paddy's Alley West. This suggests that the Alexandria model might best be modified to account for the placement of features along side boundaries of lots where there is sufficient space around or behind structures. Only a small portion of the social space represented on the division map, its northeast corner, was available for archaeological investigation, as part of Paddy's Alley West. The remainder of the property lies under an on-ramp to the south, or has been disturbed by a twentieth-century utility chase. The remains indicate that there were privies present that are not shown on the map, perhaps because their use was not in contention and they were not being parceled out among Jepson's heirs.

At Cross Street Back Lot, surviving features, such as privies, were clustered at the rear of the property. Three such features (Feature 1, Feature 4, and Feature 8) spanned a 135-year range between ca. 1675 and ca. 1810, indicating that there could be considerable continuity in the location of privies, even when the overall configuration (and street frontage orientation) had changed considerably.

A structure was present in the northwest corner of the Paddy's Alley East property, in Phase V. Documents associated with the probate of the estate of John Carnes in 1761 indicated that this structure measured approximately 20 ft., east to west, and was described as a "wooden warehouse" (Suffolk Probate No. 12299). Archaeological evidence for the structure consisted of discontinuous portions of a stone foundation (Features 14 and 15), several sections of wooden flooring (Features 1 and 24), and a brick paving (Feature 22) south of, and apparently associated with the foundation. Some Phase IV deposits, including several layers with considerable numbers of artifacts, were almost certainly leveling fills associated with the pavement. It would appear that the construction of the warehouse was accompanied by the construction of a semipermanent, paved surface. The full extent and function of that surface is unclear, but it may have been intended as a dry walkway through that portion of the yard. The structure's location in a corner of the yard attests to its builders' attempts to keep as much open space as possible in the yard, while incorporating working structures.

The discontinuous nature of the warehouse remains attests to the intensity of post-depositional processes at the site, which have included several episodes of installation of load-bearing piers to support nineteenth-century commercial structures. Those structures apparently covered the excavated portion of the Paddy's Alley Site, converting what had been exterior yard space to an interior crawlspace. The support piers were set in a trench that crossed the site and affected the integrity of portions of the earlier ca. 1760 warehouse and the associated brick paving.

4. *Boundary Features*

Very little in the way of boundary features was recovered. A post hole (Feature 35) was recovered at the boundary between Paddy's Alley East and Paddy's Alley West, and is probably a remnant of a fence between the two properties. The post hole was associated with Phase I, the initial occupation of the property, ca. 1700. There were almost certainly many more such features, but they were probably disturbed by the installation of nineteenth-century foundations. Those foundations, which extended along the north and east sides of the Paddy's Alley Site, and along the south and west sides of Cross Street Back Lot, were themselves useful indicators of the location of historic property lines. The historical continuity of at least some boundaries led to the replacement and destruction of fences and other early boundary features.

5. *Discussion*

The interpretation of documentary sources and the archaeological record, in conjunction with one another, makes it possible to view the urban house lots at the Paddy's Alley and Cross Street Back Lot Sites from several complementary perspectives. These include the house lot as an ideal, conceptual space within the framework of the city, the house lot as a legal entity in Euclidean geometric space, and to a more limited extent, the house lot as a social space, the locus of activities. Each of these perspectives is an important aspect of the complex phenomenon of spatial organization. In combination, they make it possible to go beyond the "fragmentary vision" that would emerge from either data source alone.

B. Neighborhood Reconstruction

Neighborhood reconstructions of the sort outlined above in Section II.B.1, depend upon the presence of several sorts of documentary information. Documents used should be broadly inclusive; that is, they should provide information on a wide range individuals, or at least households. In addition, they should provide information on a range of social and physical characteristics of the neighborhood and its residents. Further, they should be focused spatially and temporally. The latter is easier to achieve than the former, but is extremely important because of the often high residential turnover in neighborhoods, sometimes over short periods of time.

Tax valuation records are ideal in this respect, as they meet the criteria above. Another sort of tax record, which lists only the tax demanded (or paid) is not as useful, because it does not always indicate what was being taxed. This section uses three different sets of tax records to examine characteristics of the neighborhood: the Boston Tax List of 1687, the Provincial Tax Valuation Schedule of 1771, and the United States Direct Tax Schedules of 1798. The search for residents of the neighborhood around the sites was guided by the preliminary title chains in the Phase IA report (Gorman et al. 1983). Unfortunately, no detailed tax valuation records covering the period between 1700 and 1771 were located during the survey, and an examination of secondary historical literature indicates that no such records may exist; social historians have instead attempted to fill that gap with analyses of probate records, property transactions, and other types of records (e.g., Nash 1976; Pencak 1979; Warden 1976a). An intriguing 1707 document, described as a "Census of Boston," lists property owners, occupants, landlords, and identifies the annual rents for each property (Boston, Record Commissioners 1886:114-126). Unfortunately, none of the documented property owners at the PA/CSBL sites are listed. The list is missing its third and fourth pages and those were probably the ones covering the third and fourth divisions, or wards, which contained the neighborhood under discussion.

In concluding the section, several observations are made about the variety of institutions and factors that bound neighbors to one another in the course of daily life. These factors contributed to whatever sense of neighborhood residents may have had.

1. Physical Factors

As a perceived environment, the neighborhood of the site was probably much like any urban neighborhood, which is to say loud, active, and crowded, at least by comparison to contemporary rural environments. The vicinity of the sites occupied a particular position in the geography of Boston. Market and governmental nodes were located to the west, across Mill Creek, while a substantial portion of the waterfront, the North End of the city, and the ferry to Charlestown and points north were located east and north of the site. The bridges across the Creek limited access to the North End. Ann (later North) Street to the east, and Middle (later Hanover) Street to the west carried all of the traffic to and from the North End, except that arriving by water (Whitehill 1968). This resulted in the early development of those streets as transportation arteries. In the meantime, Coney's Lane, which had been laid out through John Coney's land, connected the two streets and provided wharf access at its south end. By the early eighteenth century, this street had become known as Cross Street. In the meantime, several small alleys crossed or led into the neighborhood. The larger of these, Paddy's Alley, began as a separate access way to properties in the center of the block, which were united early in the eighteenth century. Later this alley was widened and became Centre Street, or North Centre Street, to distinguish it from another street of the same name elsewhere in the city (Thwing 1920). A second small alley, known as Elbow Alley (Fig. IV-2), ran west from Ann Street, and then turned to the north to enter Cross Street. This alley (which was located northeast of the sites) eventually passed out of existence, though part of it continued as access to the rear of properties along Cross Street into this century.

Proximity to the waterfront, and exposure to a high volume of foot traffic had several effects on the character of the neighborhood. First, proximity to warehouses made the area attractive to merchants. During the seventeenth century, most of the Ann Street properties extended across the street onto wharves, so a merchant could purchase both a home and a business location in one transaction. As discussed below in Section VIII.C, an important aspect of being a successful merchant was the ability to monitor and control activities in one's warehouse, and this was most easily done if one lived nearby. For similar reasons, the neighborhood was popular with mariners of all ranks, and craftsmen, such as shipbuilders, coopers and block-makers, all of whom served the maritime trades. Other artisans, who depended to some degree on retail sales from shops or workshops on their premises, evidently liked the exposure to foot traffic offered particularly by Ann Street, although at various times artisans occupied premises on Centre and Cross Streets as well. The result was a socially heterogeneous neighborhood.

The neighborhood's motley character, remarked upon by later writers, was encouraged by a factor familiar to anyone researching the city's landscapes; the lack of room to expand, prior to the commencement of large-scale land filling and hill-leveling around the turn of the nineteenth century (Whitehill 1968; Seasholes 1994). Without an expensive or exclusive district to draw wealthy landowners (such as a Beacon Hill, a South End, or a Back Bay), the wealthy were by and large stuck where they were during most of the eighteenth century. This was a problem not faced by the residents of most other cities during this period. Where Blumin (1989) and others find a rough homogeneity at the level of the street face in Philadelphia and other cities, the evidence from Boston during the period with which we are most concerned simply does not demonstrate this. There are indications that several of the area's wealthier property owners may have owned corner lots, but this was by no means a universal tendency. This pattern of social heterogeneity was by no means unique to the North End. In looking at records of losses from the Great Fire of 1760

for the area just south of the town's center, Pencak found that residential segregation "was still incomplete," with rich and poor intermingled to some degree (Pencak 1979:269). In lieu of residential segregation, other means of accommodating differences in status were employed, as will be discussed below.

2. *The 1687 Tax List*

The 1687 Tax List consists of a list of residents of the city, divided by wards or divisions, containing information about the number of "heads" (polls, or eligible voters) in each household, the number of acres of land owned, the value of housing and wharves owned, the number of horses and cows owned, the value of "trades," and the total amount of tax assessed (Boston Record Commissioners 1876:91-127). Some comment on these categories is in order. First, it appears that the category of "lands, acres" owned may have counted only pasture lands or other property in outlying portions of the city, such as Pullin Point, Rumney Marsh, or Muddy River. None of the property owners in the neighborhood was taxed for any land in this category. The value of both "housing and wharves," and "trades," is apparently the amount of the tax demanded for them in pence, probably based on a formula calculated from a percentage of the value or the reported annual income of the property or business. The highest value in the former category was 30, and 40 was the highest value in the latter. Still, there is some potential for comparative analysis of the range of variation between properties. Horses were apparently taxed at five pence (d.) each, cows at three pence.

The only concentration of people identified in the Phase IA Report (Gorman et al. 1983) is located on Sheet No. 3 of the tax list, and people identified as neighbors occur throughout that list (Boston Record Commissioners 1876:101-105). Accordingly, the values for the entire third sheet were examined. Of the 140 households on the sheet, 20 (or 14%) had multiple heads, indicating either multifamily dwellings or multiple generations of the same family under the same roof. Sixteen households (11%) were headed by widows.

The average tax levied for "housing and wharves" was just under 6d. Twenty households (14%) were not taxed in this category. Fully 75% of the households were assessed at less than 6d., while 90% were taxed less than one shilling. The average assessment for "trades" was less than 5d., and 69% of the residents were assessed at or below 5d., while the highest assessment in this category was for 40d. Neighborhood residents ranged from Widow Newcombe, who paid only 4d. in tax, up to John Somes, who would later take a mortgage from Katherine Nanny Naylor, who paid 10s., 3d., more than 30 times as much.

Owners of the sites at this time appear to have been on the modest side, in terms of economic status. The widowed Mary Lake (Paddy's Alley East) was taxed 6d. each for "housing and wharves" and "trade," and so stood close to the average on both counts. John Jepson, Jr. (Paddy's Alley West) was taxed 4d., below the average, for housing, though a cow added 3d. to his tax. His mother, Emm Gepson, the widow of John Jepson, Sr., occupied an adjoining property and was taxed 3d. for housing and trades each, both below average. Samuel Nanny, who was given as the head of Katherine Nanny's household (Cross Street Back Lot) was taxed 6d. for housing, which was about average, but was not taxed at all for trades, perhaps indicating that he had not yet entered the Caribbean trade, in which he would be involved at his death in 1691 (Boston Record Commissioners 1876:101, 103, 104).

One intriguing aspect of this tax list is the number of widows (10 of 16, or 63%) who were taxed under trades. Although this category may include estates left by their husbands, some of these women may have been actively involved in continuing their spouses' trades, as Ulrich (1980) discusses, while others may have taken up commercial endeavors in order to survive.

3. *The 1771 Provincial Tax Schedules*

These schedules contain 31 separate categories of information, designed to produce data on a variety of commercial, industrial, and agricultural activities, as well as the ownership of "servants for life" (African-American slaves; see Section VIII.D, below). The annual worth of property is given, and multiple households on the same property are bracketed, making it possible to determine who was living on each property, and who owned it. The 1771 valuations are available at the Massachusetts Archives (Boston Tax Schedules, 1771 Provincial Tax), and have also been edited and published (Pruitt 1978).

Most of the men listed in the tax schedules who also were determined from the Phase IA report to have owned property in the area appear on the lists for Ward 4 and Ward 5, though several appear elsewhere in the city, and some were not residents of Boston. The present analysis focuses on 36 households, which were determined to have resided on the block containing the sites, or adjacent blocks. These households collectively occupied 22 properties. Twenty-one households, or 58% of the total, shared a property with at least one other household, and nine of the properties (33%) had multiple households on them. Assuming, as Warden (1976a:588) does, that the annual worth is approximately one twelfth of the market value of a property, the 22 property owners for whom values are listed owned in excess of £6,200, or an average of more than £282 each, and the values are distributed unevenly around that average; 14 of the owners (64%) are valued at less than that amount, and 8 (36%) at more. The values range between £72 for a store owned by Benjamin Waine, to £720 for property owned by Jonathan Williams, Esquire, who owned Paddy's Alley East at the time, as well as two slaves, a warehouse with £1,000 of stock, a horse and a cow. Paddy's Alley West, by contrast, though owned by William Simpkins, a goldsmith, was worth less than £200, though it had a dwelling and a store.

Three neighborhood residents owned portions of vessels, ranging in value from £20 owned by Benjamin Hosmer (Homer), a merchant who would later own Cross Street Back Lot, to £60 owned by John Pullen, the only wharf owner listed for the neighborhood, with 2,176 superficial ft. of wharves, a warehouse, and £200 of stock. Four neighborhood residents either owed money or had money lent at interest. The highest amount involved was £2,000 on the part of Ezekiel Goldthwaite, Esquire, whose property holdings, at more than £550, were second only to those of Jonathan Williams. Amid this sort of opulence, 36% of the households owned no real estate, and 53% had no stock-in-trade. This would seem to indicate that while some personal fortunes were rising, increasing numbers of neighborhood residents were poorer.

4. *The 1798 Federal Direct Tax*

In 1798, the Federal Government levied a direct tax on real property and slaves. Because the enabling legislation indicated that varying tax rates would be assessed, based on the size of the property and the value of housing (Boston Record Commissioners 1910:vi-vii), the schedules go into some detail on property and structures. The schedules for Boston have been reprinted (Boston Record Commissioners 1910:1-442); because they name abutters, it is possible to locate properties quite closely. They also distinguish between owners and occupants and, because city directories were being published at this time, it is possible to determine the occupations of many owners and tenants.

Reconstruction of property boundaries has been attempted by Clough (n.d.). That work is most solid for the block within which the sites fall, and the opposing street faces on Paddy's Alley and Cross Street. Accordingly, schedule entries for the four faces of the block, the east side of Cross Street, and the west side of Paddy's Alley (known by this time as Centre Street) were examined and abstracted. For each street face, the average property size, the average

structure size, the material of structures, the number of owner-occupied, tenant-occupied, and owner/tenant-occupied properties, the average property value, the assessed cost per square foot, and the range of occupations of tenants were recorded. In addition, the same was done for corner properties alone. These results may be found in Table VII-1.

Briefly, the highest average valuations appeared to be along Ann Street, the west side of Center Street, and along Middle (or Hanover) Street. When adjusted for lot size, the highest costs per square foot were on the west side of Cross Street ($0.90), the east side of Centre Street ($0.87), and along Middle Street ($0.86). The lowest cost was along Ann Street ($0.72).

There were differences in occupations and businesses found along different street faces. Centre Street was dominated by artisans (coopers, a furniture maker, a mason, a tallow chandler, a cordwainer), several shopkeepers with businesses elsewhere, several boarding houses, a widow and a ship's pilot. Most properties were owner-occupied. The south side of Middle Street was slightly tonier, with several merchants (one specializing in West India goods) an attorney, a wealthy artisan described as a "card maker," a turner of furniture, a widow and a shopkeeper. Most of these properties were owner-occupied as well, and half of them supported brick houses. By contrast, most of the properties along Cross Street were occupied by tenants, including one merchant, a victualler, an innholder, and a boot and shoe dealer, all renting, but with business premises elsewhere. There were also clothing manufacturers (a cordwainer, a hatter, and a mantua-maker), a laborer/truckman, a barber, and a housewright. Other artisans were associated with maritime endeavors, including a cooper, a shipwright, and a boat-builder. There were a stevedore along the street, three lightermen (who would have plied between anchored ships and the wharves), a fisherman, and two sea captains. Most of the structures on these properties were built of wood, although there was one stone house. Nearly half of the structures along Ann Street were brick, but the commercial face of this side of the block differed considerably from the other street faces. The six properties included three "slop shops," which sold cheap goods to the maritime community, two boarding houses, a tailor, a grocer and dealer in West India goods, and a resident innholder with a business elsewhere in town. Most of the premises were rented.

Houses on corner lots tended to be slightly larger than others, and tended to be rented out by landlords, to tenants with businesses elsewhere, ranging from shopkeepers to merchants to retailers, from cordwainers to housewrights, from lightermen to boarding-house owners, as if belying the fact that the corner lots were valued collectively at $1.68 per square foot, considerably more than any of the street faces.

Table VII-1: Summary Statistics from the 1798 Direct Tax Schedules[1]

Street Face	No. of Props.	No. of Houses	Brick/ Wood[2]	Owner/ Tenant/ Both	Mean Lot Size[3]	Mean House Size[3]	Mean Value	$ Per Square Foot	Occupations
W. Side Centre St.	8	8	6/5	5/1/1	2,523	843	$2,050	$0.81	Shopkeeper, widow, mason, ship's pilot, indigo store keeper, boarding-house keeper
E. Side Centre St.	8	8	2/7	5/3/1	1,466	547	$1,251	$0.87	Retailer, cooper, furniture maker, tallow chandler, cordwainer, boarding-house keeper
W. Side Cross St.	11	11	2/9	1/10/0	1,562	719	$1,400	$0.90	West India goods merchant, lighterman, victualler, innholder, boot/shoe dealer, laborer/ truckman, cooper, shipwright, boat-builder, barber, stevedore, shopkeeper
E. Side Cross St.	9	9	2/9[4]	3/5/01	1,912	904	$1,456	$0.76	Lighterman (2), housewright, cordwainer, sea captain (2), hatter, mantua-maker, boarding house, fisherman
S. Side Middle St.	8	10	5/5	6/2/0	1,507	647	$1,755	$0.86	Retailer, furniture turner, attorney, widow, card maker, West India goods merchant
N. Side Ann St.	6	10	4/5	1/4/1	4,486	829	$3,216	$0.72	Grocer, West India goods merchant, innholder, slop shop keepers (3), tailor, boarding-house keeper
Corner Lots	8	8	3/6	2/5/1	1,672	861	$2,812	$1.68	Shopkeeper (2), lighterman, retailer, housewright, cordwainer, West India merchant, West India goods merchant, boarding-house keeper

[1] Abstracted from Boston Record Commissioners (1910:1-442).
[2] Structures of both materials are counted under each category.
[3] Dimensions are in square feet.
[4] Includes 1 stone house, 1 brick house, 2 wood and rough-cast houses.

5. *Summary*

Tax records have been used to examine the social and physical appearance and character of the neighborhood through time. As the level of detail in the records improves, and as they are joined by other types of records, such as city directories, their usefulness increases dramatically.

One aspect of changes in the neighborhood that is apparent in the differences between the 1687 tax list and the 1771 valuation is the increase in the number of propertyless residents, which went from 14% to 36%, and had reached approximately 50% by 1798. There was also a shift under way from the heterogeneity of the North End of the Colonial period to a neighborhood of less prosperous working men and women, mariners, and the shopkeepers and artisans who served them. These would be the people who were displaced by the arrival of immigrants in the early decades of the next century, and whose dwellings would be replaced by warehouses at mid-century.

A neighborhood is more than bricks and mortar, more than who pays how much in taxes, or who owns and who does not own their domicile. It involves the people who live in it with each other, principally through face-to-face interaction in the course of daily life, to a higher degree than most of us are accustomed to today. Neighborhood residents did their marketing together, and were in and out of one another's houses for a variety of reasons commercial and personal. Neighbors visited in the evenings. Servants could purchase various herbs from neighborhood women. Merchants and shopkeepers would spend time in each other's company, gossiping and exchanging information on trade. Men would meet at muster, or in the Masonic lodge, and all who were eligible would meet several times a year to choose town officers and decide town business. Families would gather in Sunday Meeting, and sometimes at other times of the week as well. Once a year, on November 5, "Pope Day," North End youths would do battle with South End youths, a larger version of the routine fights of Thursday and Saturday afternoons (Whitehill 1968:29). These are the sorts of things that tax assessors did not record, but that we must keep in mind if we are to make sense of the more-or-less consistent records that they made as they moved, in a more-or-less organized fashion, through the ward.

VIII. URBAN LIFEWAYS

A. Foodways

> In all societies, both simple and complex, eating is the primary way of initiating and maintaining human relationships (Farb and Armelagos 1980:4).

Few aspects of culture to which archaeologists have access are as resilient as foodways. The procurement, preparation, and consumption of food vary widely among cultural and subcultural groups, and across class -- more, it sometimes seems, than they vary over time. The result is a series of traditional cultural practices that tend to be maintained, even as language, dress, and other expressions change.

Archaeological approaches to foodways have two components; the first consists of "contextual" studies (zooarchaeology, palynology, ethnobotany, parasitology, and entomology), which provide considerable direct evidence on foodways; the second component is the archaeological analysis of ceramics and other material items for the information that they embody about food preparation and the social rituals that surround foodways. This section summarizes the results of the contextual analyses (for details of which readers are referred to the appendices) and briefly discusses the ceramic evidence.

1. Fauna

Zooarchaeological analysis was conducted by Dr. Joanne Bowen and Gregory J. Brown of Colonial Williamsburg. Their report, reproduced here as Appendix C, provides considerable evidence on consumption of animals at the sites, as well as information on foodways and provisioning in Colonial Boston that supplements previous research (e.g., Friedman 1973; Landon 1991).

New England's colonists favored a diet that resembled that of England at the time of immigration: rich in fat, low in spices, with an emphasis on beef. Cattle were the most popular species utilized at the sites, followed by caprines (sheep and goats), and swine. Contexts dating before the 1720s and 1730s indicate that some households may have kept animals, or that butchering of some species took place in the household or nearby. As Boston's population increased, city government increasingly centralized, restricted, and regulated provisioning systems, and this is reflected over time by some increase in the proportion of body parts, as opposed to waste parts such as heads and feet, suggesting purchase of smaller, individualized portions. In addition, increasing commercial complexity made more products available locally through more retail outlets by the beginning of the eighteenth century. The rise of "forestallers," who siphoned off much of the country meat supply for export or to provision the British military, also had an effect on Boston's foodways by the 1740s.

Late seventeenth-century and early eighteenth-century contexts up to the 1720s contained both body and waste parts of adult cattle, indicating nearby butchering. Remains from later contexts indicate an increasing tendency towards the purchase of beef in cuts, and by the nineteenth century, there is documentary evidence that waste parts were being utilized for purposes other than human consumption, such as glue boiling. As early as the 1760s, market leases required butchers "to bring in the Hydes of the Creteers offered by them for Sale to the Inhabitants," indicating that butchering was done out of town, and in 1767, three butchers lost their leases for refusing to bring in hides (Boston Record Commissioners 1889:110-111). Calves were increasingly relied on in the diet. Veal at the sites was most

often purchased in cuts, indicating that calves were usually butchered elsewhere. The increasing proportion of veal in the diet is probably related to the intensification of specialized agriculture in the form of dairying. In addition to milk and cheese, dairying produces calves, whose birth stimulates milk production in cows. Dairy farmers could supplement their income by selling veal, and the result of increased dairying was greater availability of veal.

Caprines tended to be butchered elsewhere, and purchased by site residents in the form of meat cuts. Kill-off patterns indicate that until 1740 older animals predominate, a pattern associated with sheep raising centered on wool production, the animals being slaughtered when they are no longer able to provide good-quality wool. By the 1760s, assemblages contain a much higher proportion of younger animals. This pattern is characteristic of sheep husbandry focused on meat production.

Swine distributions approach the normal frequencies with which the bones occur in the skeletons, indicating butchering on-site or in the vicinity. Household swine husbandry, butchering and production may have been sufficient throughout the period to prevent the rise of a commercial market for pork.

Fish are present throughout the sites' occupation. Increasing reliance on haddock, and an increase in fish heads suggest a growing use of fresh, as opposed to salted, fish after ca. 1720. Fish species present include cod, herring, alewife, haddock, striped bass, and shark. The single crustacean species present is lobster.

Bird species include chicken, domesticated ducks and geese, turkey, and passenger pigeons. The latter, now extinct, were plentiful in the wild until the nineteenth century. Wild species utilization at the sites was rare, with only a single white-tailed deer present in the Katherine Nanny Naylor deposit. A single snapping turtle shell fragment was recovered from an eighteenth-century context. Commensal species, those that habitually coexist with people, included rats, domestic cats, and dogs.

Faunal remains have been used to approach class and status issues (e.g., Reitz 1987; Singer 1987). In the case of the Paddy's Alley and Cross Street Back Lot material, however, because analysis focused on the nature of the provisioning system, and because of limited funds, class and status issues were not addressed in the faunal analysis.

Parasitological analysis, conducted by Leslie Driscoll of the University of Massachusetts, Boston, and reproduced here as Appendix G, produced only tangential evidence bearing on the presence of animals on the sites. Recovered ova were not identifiable at a level that would indicate whether they were deposited in human or animal feces. (The latter would tend to indicate that animals were present on the site). Ova of related species that infest humans and swine are often similar in appearance.

2. Flora

Ethnobotanical analysis, conducted by Dr. Lawrence Kaplan and Marie Mansfield King of the University of Massachusetts, Boston and reproduced here as Appendix D, revealed considerable evidence of plant use at the sites. This was particularly significant in regard to Feature 4 at Cross Street Back Lot.

In all, 32 types of seeds were identified from Feature 4. Species recovered included fruit remains, such as plum, cherry, and *Rubus* (raspberries and blackberries), strawberry, blueberry, huckleberry, peach, cucurbit (squash/pumpkin), grape, olive, pear/apple, hawthorn, and elderberry; spices such as coriander, and possibly caraway

and pepper; and nuts, including chestnut and English walnut. Weed species included *Polygonum, Chenopodium,* pokeweed, ground cherry, mustard, foxtail grass, wild carrot, buttercup, black nightshade, sedge and rush, and possibly catchfly and buckthorn.

The preponderance of pits from larger fruits implies that these were produced as a byproduct of the preparation of pies or steeped fruit drinks, such as cherry bounce. The olives were definitely imported from the Mediterranean area; Boston had considerable documented trade with the Iberian peninsula during the seventeenth century (see Section VIII.C), and the presence of Iberian olive jars in Feature 4 suggests how the olives themselves arrived in Boston. Spices such as pepper and coriander, which entered European cookery in the late Middle Ages from the Orient (Schivelbusch 1993) were also exotic. Interestingly, no seed remains from corn (maize) or grains were recovered.

Nevertheless, palynological analysis conducted by Dr. Gerald Kelso and reproduced here as Appendix H, provided strong circumstantial evidence for the presence of maize and European cereal grains at the sites. Maize pollen was recovered from Feature 4, Phases I and II, and pollen from European cereals, such as wheat , barley, oats, and rye, was present in Feature 4 at concentrations that imply that grain or grain products, such as flour, were being deposited directly in the privy vault, as was cornmeal.

Analysis of coleopteran (beetle) remains from Feature 4, conducted by Allison Bain and reproduced here as Appendix F, provided considerable evidence on the range of foodstuffs and their condition within the privy. Beetles and other insects are often highly specialized, feeding on specific materials, and this enables us to know with a fair degree of certainty what sorts of material were within and near Feature 4. In short, Feature 4, Phase I contained species that feed on dry meats, dry fruit, fermenting fruit, rotting fruit, decaying plants, vegetables, stored grains such as wheat, oats, barley, maize, and rye, or hardened flour ground from those grains. Species that subsist on animal dung were also present, implying that dung may have been dumped in the privy, or that animals were kept nearby. The presence of rice weevils implies the presence of rice, although none was recovered in the ethnobotanical analysis. Pea weevils are also present, indicating deposition of peas or other legumes, which were also not recovered. It is possible that site residents sifted these products, particularly the rice, to remove the insects, disposing of the insects in the privy, rather than discarding the entire batch of infested food.

Overall, the coleopteran evidence indicates that site residents were troubled by infestation from a number of insect pests, to which they responded by dumping at least a portion of the infested material into the privy. Ironically, this may have facilitated reinfestation, as the privy environment may have allowed some species to over-winter, regenerate, and reinfest foodstuffs in nearby households.

3. Ceramics

The analysis of ceramic assemblages is another way to approach foodways. As the utensils upon which food is served and from which it is eaten, ceramics partake in foodways systems, and convey information about how foodways are conceived by their practitioners. Differences in ceramic assemblages point to differences in foodways.

Working on Colonial sites in the Plymouth Colony, James Deetz (1973, 1977:51-60) delineated three broad periods, based on different ceramic assemblages, different foodways, and different "successive cultural systems" (Deetz 1973:23). The first of the periods lasted from initial settlement until about 1660, the second from the mid seventeenth century until about 1775, and the third from the Revolution into the nineteenth century.

Changes in ceramic assemblages among the three periods were considerable. The first period assemblages included few ceramics, generally of rough, utilitarian wares. Vessel forms emphasized storage and utility vessels, pans, and jars, as well as communal vessel forms such as large bowls and multi-handled drinking vessels. The second period assemblages contained more individualized tableware, mugs, cups and other hollowware forms initially, with an increasing reliance on plates in later contexts Much of this consisted of imported ware types, including German stonewares and various British and Dutch tin-glazed earthenwares, and British brown and white stonewares. The third period assemblages were characterized by large numbers of homogeneous refined white earthenwares of British manufacture, principally creamware and pearlware, with matched sets of dishes predominating, and Chinese porcelain entering the American market in large quantities (Deetz 1977:59).

Deetz saw these changes as at least partially reflecting shifting foodways. The predominance of storage vessels and pans in the earliest contexts reflected an emphasis on dairying in the subsistence agricultural economy. Tablewares were rare, as meals tended to be eaten from "trenchers," wooden vessels that do not survive as well as ceramics. What tablewares were present were more likely to be used communally. In the second period, there was a shift toward increasing use of ceramic tablewares, which mimicked in form and function the pewter used by wealthier New Englanders. The initial rise in the numbers of drinking vessels indicated that they were less frequently shared, as communal meals passed from fashion. Ceramic plates initially were items of display, infrequently used, and the number of plates in assemblages increased as these forms came into more common use at the table. During the third period, communal vessel forms were entirely replaced by individualized place settings, reflecting differences in the way meals were taken. The spread of tea drinking was also reflected in the presence of specific vessel forms, and the use of matched sets of tea wares.

Ultimately Deetz saw sweeping cultural changes behind the shifts in assemblages and foodways. New Englanders of the first period were essentially medieval in their outlook. The second period saw the rise of the Georgian world view, a cultural system that emphasized symmetry, both in architecture and in other forms of material culture. This symmetry came to florescence (in ceramics, at least) during the third period, when

> we see a one-to-one match, with each person probably having his own plate and chamber pot. This would certainly be an expression of a newly emergent world view characterized by order, control, and balance. A one person : one dish relationship is symmetrical, while a number of people sharing a single dish, or a single chamber pot, is definitely not (Deetz 1976:59-60).

Deetz also saw the impact of Georgianization in a shift in New England's cultural orientation. Where New England had steadily grown apart from Britain, with the third period (and, paradoxically, the Revolution) the region was "reanglicized," both in its food practices and in its ceramics, which tended increasingly to originate in Staffordshire (Deetz 1973:18, 34).

Deetz's model incorporates, though it does not emphasize, the role of class and status in foodways, by pointing out that the poor tended more often to be conservative , while wealthier groups, such as merchants, were more likely to experiment with changing fashions, and were better able to afford the specialized material culture that they required (Deetz 1973:20, 38). This is further borne out by Marley Brown's research on inventories from Plymouth Colony during roughly the same time frame (Brown 1973:59-60). Differences in social class can support considerable differences in foodways. John Otto, working on antebellum plantation sites in the southeast, found that assemblages deposited by planter households contained high percentages of plates, while assemblages associated with

overseer and slave households showed disproportionately high numbers of bowls (Otto 1977, 1984). Otto felt that these differences in ceramic assemblages reflected different foodways that were based in socioeconomic status; planter meals emphasized the consumption of meat as a main course, necessitating platters and plates, while the overseer and slave meals were based on stews, meals that were more likely to be served and consumed in bowls (Otto 1984:173-174).

The role of social class in the composition of ceramic assemblages from the present sites is examined below in Section VIII.C. There is evidence, for example, that the tea ceremony began as an elite practice, and ultimately became disseminated through all levels of society, and that porcelain also spread, initially because of its association with tea wares, though its expense limited its use to wealthier Bostonians.

4. Ceramic Assemblages

Table VIII-1 shows the frequency of ceramic (and some glass) vessel forms from five features and tightly datable depositional contexts from the Paddy's Alley and Cross Street Back Lot sites. Each of these contexts has been discussed in detail in Section V, above. The earliest four of these contexts date to Deetz's second period, and the last dates to his third period. The table divides the vessels into functional categories: 1) tablewares are used in the consumption of food and drink; 2) tea wares are used in the preparation and consumption of tea and associated foods; 3) serving vessels are communal, to the extent that food is transferred from them to tablewares in the course of meals; 4) food-preparation wares are used in the processing and cooking of food prior to meals; and 5) storage and utility vessels are used to hold foodstuffs, and other substances, such as drugs. Chamber pots, although they are at best indirectly associated with foodways, are included in this last category. Each vessel form is shown in the table as a percentage of its functional type and of the assemblage as a whole for each feature. Vessel forms follow the Potomac Typological System (Beaudry et al. 1983).

What is clear from the totals for functional categories in the table is that there are few easily distinguished trends over time. The frequency of tablewares and food-preparation vessels rises and falls several times. Serving wares rise and then fall again, from a high of 8% to a low of about 3%. Tea wares increase over time from nearly nothing to 18% by the 1740s, falling slightly to 15% in the third-period assemblage. This is to be expected as tea drinking comes into vogue during the second period. The frequency of storage and utility vessels begins high (27%) in the late seventeenth-century assemblage, falls to 5% in the smallest assemblage, which is from the 1720s, and then tends to level off at 10-13%.

Table VIII-1. Vessel forms.

	FEATURE 4 (Phase I, CSBL) 1670-1700			FEATURE 20 (Phase IV-1, PA-West) 1720'S			CARNES MIDDEN (Phase IV-3, PA-East) 1720'S			FEATURE 4 (Phase III, CSBL) 1740'S			FEATURE 1 (Phase IV, CSBL) 1790'S		
TABLEWARE	#	% CAT	% TOTAL	#	% CAT	% TOTAL	#	% CAT	% TOTAL	#	% CAT	% TOTAL	#	% CAT	% TOTAL
Plate	21	47.7	24.4	6	20.7	15.0	5	7.2	4.4	7	20.6	11.1	27	49.1	31.0
Saucer	-	-	-	1	3.4	2.5	-	-	-	1	2.9	1.6	2	3.6	2.3
Bowls	15	34.1	17.4	7	24.1	17.5	13	18.8	11.5	7	20.6	11.1	14	25.5	16.1
Mug/Tankard Cup/Posset	4	9.1	4.7	14	48.3	35.0	41	59.4	36.3	19	55.9	30.2	12	21.8	13.8
Glass Stemware	1	2.3	1.2	1	23.4	2.5	-	-	-	-	-	-	-	-	-
Indeterminate Glass	3	6.8	3.5	-	0	0	10	14.5	8.8	-	-	-	-	-	-
TOTAL	44	100.0	51.2	29	99.9	72.5	69	99.9	61.1	34	100.0	53.9	55	100.0	63.2
TEA WARE															
Teapot	1	100.0	1.2	-	-	-	2	22.2	1.8	1	9.1	1.6	2	15.4	2.3
Teapot Lid	-	-	-	-	-	-	-	-	-	1	9.1	1.6	-	-	-
Teacup	-	-	-	-	-	-	6	66.7	5.3	7	63.6	11.1	5	38.5	5.7
Tea Saucer	-	-	-	-	-	-	1	11.1	0.8	2	18.2	3.2	5	38.5	5.7
Tea Bowl	-	-	-	-	-	-	-	-	-	-	-	-	1	7.7	1.1
TOTAL	1	100.0	1.2	0	-	0.0	9	100.0	8.0	11	100.0	17.5	13	100.1	14.9

Table VIII-1. Continued

	FEATURE 4 (Phase I, CSBL) 1670-1700			FEATURE 20 (Phase IV-1, PA-West) 1720's			CARNES MIDDEN (Phase IV-3, PA-East) 1720's			FEATURE 4 (PHASE III, CSBL) 1740's			FEATURE 1 (Phase IV, CSBL) 1790's		
SERVING WARE	#	% CAT	% TOT	#	% CAT	% TOT	#	% CAT	% TOT	#	% CAT	% TOT	#	% CAT	%TOT
Jug	2	50.0	2.3	1	33.3	2.5	-	-	-	-	-	-	-	-	-
Bottle	-	-	-	2	66.7	5.0	2	22.2	1.8	1	33.3	1.6	-	-	-
Costrel	-	-	-	-	-	-	-	-	-	1	33.3	1.6	-	-	-
Bartmann Jug	-	-	-	-	-	-	-	-	-	1	33.3	1.6	-	-	-
Glass	2	50.0	2.3	-	-	-	2	22.2	1.8	-	-	-	-	-	-
Pitcher	-	-	-	-	-	-	5	55.6	4.4	-	-	-	2	66.7	2.3
Platter	-	-	-	-	-	-	-	-	-	-	-	-	1	33.3	1.1
TOTAL	4	100.0	4.7	3	100.0	7.5	9	100.0	8.0	3	99.9	4.8	3	100.0	3.4
FOOD PREP.															
Pan	8	100.0	9.3	3	75.0	7.5	7	77.8	6.2	4	57.1	6.3	3	60.0	3.4
Basin	-	-	-	1	25.0	2.5	-	-	-	-	-	-	1	20.0	1.1
Pie Plate	-	-	-	-	-	-	1	11.1	0.9	3	42.9	4.8	-	-	-
Colander	-	-	-	-	-	-	1	11.1	0.9	-	-	-	-	-	-
Cooking Pot	-	-	-	-	-	-	-	-	-	-	-	-	1	20.0	1.1
TOTAL	8	100.0	9.3	4	100.0	10.0	9	100.0	8.0	7	100	11.1	5	100.0	5.7

Table VIII-1. Continued.

	FEATURE 4 (Phase I, CSBL) 1670-1700			FEATURE 20 (Phase IV-1, PA-West) 1720's			CARNES MIDDEN (Phase IV-3, PA-East) 1720's			FEATURE 4 (Phase III, CSBL) 1740's			FEATURE 1 (Phase IV, CSBL) 1790's		
STOR/UTIL	#	% CAT	% TOT	#	% CAT	% TOT	#	% CAT	% TOT	#	% CAT	% TOT	#	% CAT	% TOT
Jar	18	78.3	20.9	1	50.0	2.5	9	64.3	8.0	2	25.0	3.2	5	55.6	5.7
Pot	2	8.7	2.3	-	-	-	2	14.3	1.8	5	62.5	7.9	1	11.1	1.1
Ointment Pot	2	8.7	2.3	1	50.0	2.5	1	7.1	0.8	-	-	-	-	-	-
Chamber Pot	1	4.3	1.2	-	-	-	1	7.1	0.8	1	12.5	1.6	2	22.2	2.3
Glass Pharm. Bottle	-	-	-	-	-	-	1	7.1	0.8	-	-	-	-	-	-
Crock	-	-	-	-	-	-	-	-	-	-	-	-	1	11.1	1.1
TOTAL	23	100.0	26.7	2	100.0	5.0	14	99.9	12.4	8	100.0	12.7	9	100.0	10.3
OTHER															
Indeterminate	5	83.3	5.8	2	100.0	5.0	2	66.7	1.8	-	-	-	2	100.0	2.3
Vessel Lid	1	16.7	1.2	-	-	-	1	33.3	0.8	-	-	-	-	-	-
TOTAL	6	100.0	7.0	2	100.0	5.0	3	100.0	2.7	0	-	0.00	2	100.0	2.3
FEATURE TOTALS	86	-	100.0	40	-	100.0	113	-	100.2	63	-	100.0	87	-	100.0

a. Tablewares

The frequency of plates as a component in assemblages varies widely from one feature to another, although when viewed as a percentage of tablewares, plates are initially high (48%) in the late seventeenth century, drop to a low of 7% in one assemblage from the 1720s, and rise to nearly half of the tablewares by the third period. The frequency of bowls follows a similar, though less pronounced, curve through time. Cups, tankards, mugs and posset cups, however, are less than 10% of the tablewares in the earliest assemblage. Table glass is present in the earlier assemblages, but not in the later ones. Not included in the tablewares was a fragmentary wooden bowl recovered from the seventeenth-century context of Feature 1, Phase I at Cross Street Back Lot (Fig. V-73).

b. Tea Wares

Aside from their general increase over time, the most noteworthy aspect of tea wares is the predominance of cups, a function of the composition of tea ware sets. Over time, tea saucers increase as a percentage of tea wares, which may represent a changing role of saucers in the tea-drinking ceremony, perhaps from dishes for holding foods served with tea to holders for teacups, as we think of them today.

c. Serving Wares

Serving vessels undergo a general shift in form over time. Initially, jugs and bottles are the most popular forms These are later replaced by pitchers and the single costrel flask from the assemblage. The one clearly identifiable Bartmann jug occurs, somewhat anachronistically, in a deposit from the 1740s, where it may represent redeposited material from earlier contexts. The only platter identified came from the third-period feature.

d. Food-Preparation Vessels

These undergo a broadening of form during the second period, as pans are joined by basins, pie plates, and a single colander by the 1720s. A single cooking pot represented an anomaly in the third-period feature assemblage. It is a colono-ware form, probably from the Caribbean, and is discussed further in Section VIII.D, below.

e. Storage Vessels

Throughout the second period, jars and pots are the most frequently encountered storage vessels. Chamber pots occur in small numbers in most of the assemblages. Delft ointment pots drop off by the 1740s, and the single crock recovered originated with the third-period privy.

The fact that patterning is not more readily visible may be because of the small size of the samples from individual features. In order for the features from Deetz's second period (ca. 1660-1775) to be more directly comparable to the single feature from his third period (post-1775), the vessel counts from Feature 4, Phase I, and Feature 4, Phase III at Cross Street Back Lot, Feature 20 at Paddy's Alley West, and Phase IV-3 (the Carnes midden) at Paddy's Alley East were combined.

The resulting comparison may be seen in Table VIII-2. In the table, combined totals for functional categories are compared, and tableware and tea-ware forms are forms are presented in detail.

In terms of functional categories, the percentage of tablewares increases slightly between the two periods. Tea wares more than double in frequency. Serving vessels, food-preparation vessels, and storage/utility vessels all drop; serving wares are nearly halved, while food-preparation and storage/utility forms each drop by a third.

Table VIII-2. Comparison of ceramic assemblages dating to Deetz's second and third periods.

Vessel Form	Second Period			Third Period		
	#	% Cat.	% Total	#	% Cat.	% Total
Plate	39	22.2	12.9	27	49.1	31.0
Saucer	2	1.1	0.7	2	3.6	2.3
Bowl	42	23.9	13.9	14	25.5	16.1
Mug/Tankard/Cup/Posset	78	44.3	25.8	12	21.8	13.8
Mugs, etc. including Teacups*	91	--	30.1	17	--	19.5
Table Glass	15	8.5	5.0	0	0.0	0.0
TOTAL TABLEWARE	176	100.0	58.3	55	100.0	63.2
Teapot	4	19.0	1.3	2	15.4	2.3
Tea Pot Lid	1	4.8	0.3	0	0.0	0.0
Tea Cup	13	61.9	4.3	5	38.5	5.7
Tea Saucer	3	14.3	1.0	5	38.5	5.7
Tea Bowl	0	0.0	0.0	1	7.7	1.1
TOTAL TEA WARE	21	100.0	7.0	13	100.1	14.9
TOTAL SERVING	19	--	6.3	3	--	3.4
TOTAL FOOD PREPARATION	28	--	9.3	5	--	5.7
TOTAL STORAGE/UTILITY	47	--	15.6	9	--	10.3
TOTAL OTHER	11	--	3.6	2	--	2.3
ASSEMBLAGE TOTALS	**302**	--	**100.1**	**87**	--	**100.0**

* This category is a composite of tableware and tea-ware forms and thus is not included in the total count.

Within the tableware category, the frequency of plates more than doubles, and saucers more than triple. The frequency of bowls increases slightly, while that of other hollowware forms, such as cups, mugs, and tankards, is more than halved. When functionally analogous teacups are added to this category, the decline, seen as a percentage of the total assemblage, is only about a third.

The tea-ware category suffers from problems of sample size for both periods. Teacups drop by about a third as a percentage of tea wares, though they increase slightly as a percentage of the total assemblage. The frequency of tea saucers rises considerably, both as a percentage of the tea-ware category, and as a percentage of the total.

5. *Discussion*

The limited patterning that is visible in the ceramic assemblages from these five contexts is clearly the result of changing foodways and, to an extent, changing cultures as well. Deetz points to the importance of dairying as a factor behind the high percentages of storage vessels and pans in his first-period (pre-1660) assemblages, and

mentions that dairying continued to be economically important, although its presence in ceramics was masked over time by the introduction of other vessel types whose functions during the first period were generally served by wooden vessels or smaller numbers of communal vessels. In an urban environment, reliance on dairying by individual households was certainly not as great as in rural areas. Certainly by the 1720s, the North End was sufficiently developed that the ability of householders to keep cattle would have been limited. The decline in storage and utility vessels is clearly seen by that date. As Bowen and Brown point out in Appendix C, legislation was passed by the Selectmen, curtailing the keeping of animals within the city during the late eighteenth century.

There may be other factors, unique to Boston (from a regional perspective), that influenced the decline in storage vessels. Storage forms are used for processing and keeping other foodstuffs, as well as dairy products. Among these are preserved meats. As discussed above (and in Appendix C), the increasing regulation of the provisioning trade drove many butchers out of the city, and the rise of entrepreneurs, known as "forestallers," who produced preserved meats, disrupted Boston's seventeenth-century foodways in the first half of the eighteenth century. By this time, preserved meat would have been available at an increasing number of retail outlets in the city, freeing many households from the need to put up their own meat (at the same time that doing so became more difficult). This would have resulted in a diminished need for storage vessels after the early eighteenth century.

Tea wares rise in frequency throughout the period during which the contexts discussed above were deposited. This is clearly the result of the rise in popularity of the tea-drinking ceremony. As discussed below in Section VIII.C, the tea ceremony was initially the prerogative of the wealthy, but soon spread throughout society. Differences in the percentages of various tea-ware forms in contexts before and after the Revolution, notably the rise in tea saucers and the decline in tea cups, may indicate changes within the tea ceremony itself, although sample size is a problem.

A related development, which may also be class-based, is the rise in plates between pre-Revolutionary and post-Revolutionary contexts. As Deetz notes, plates shifted from a role that emphasized their importance as status display items, during the seventeenth century, to a utilitarian role, as they came to be more frequently used in day-to-day food consumption in the eighteenth century (Deetz 1976:56-57). However, plates did not cease to function in class display. Rather, the form and locus of that display changed. During the seventeenth century, the status of diners within the household was likely to be indicated by their position at the table, while status display between households was accomplished through display of decorated dishes and glassware (St. George 1982:169). Increasingly during the eighteenth century, status display between households moved from display of utensils on furniture to their use in the meals themselves, which often took the form of multi-course formal dinners, with specialized accoutrements, based on dining practices that were current in England (Nylander 1993:188-192). An increasing formalism, which would reach its apogee in the Victorian era (Kasson 1987), governed the conduct of meals.

> Gentility regulated dining as it regulated the body, including the wish to keep the food clean, separated from dirt and fingers. The growing spirit of refinement placed people on chairs at tables, gave each individual utensils, and put the food on platters and in serving bowls. Bodies were placed before the food with knives and forks in hand separating the person from tactile contact with the food, and on chairs that encouraged people to sit upright in the proper erect posture. Genteel aesthetic principles thus took over the process of dining in its entirety, and refined and exalted it (Bushman 1992:76).

This shift, as with much of the "reanglicization" of America, began among wealthy urban merchants, and was class based. While the wealthy and middle classes adopted the new forms of status display, working-class households were much slower to adopt them:

> More than menu, the visitor would have seen differences in presentation going from plain to genteel houses. If the food on a gentleman's table might not be entirely different from common food, the tables themselves in gentry and plebeian houses--the dishes, platters, drinking vessels, and flatware--would never be confused. The poor in the eighteenth century continued the primitive eating modes that were standard in seventeenth-century households, and these were a far cry from the manner of genteel dining (Bushman 1992:74).

At the Paddy's Alley and Cross Street Back Lot sites, the new gentility is visible to some degree in the personalized wine bottles owned by wealthy pewterer John Carnes in the 1720s, one of which was recovered in deposits at Phase IV-3 at the Paddy's Alley site. The low value for plates (only 7.2% of the tablewares, the lowest of the assemblages analyzed) no doubt indicates that Carnes was using pewter dishes, probably ones that he made himself, none of which found their way into the archaeological record.

Ann Smart Martin, in a study of storekeepers' accounts and probate inventories in Virginia, found that pewter orders dropped off sharply between 1750 and 1790, from 73% of plates ordered to under 4%, and a similar though less precipitous decline appeared in probate inventories between 1790 and 1825 (Martin 1989:13-14). It is possible that what appears to us, and appeared to Deetz, to be a "rise" in the number of plates is not only a shift from wooden vessels to ceramics from the first to the second period, but also a shift in wealthy households from matched sets of pewter dishes to matched sets of Staffordshire earthenware between the second and third periods, rather than an absolute rise in plates as eating utensils motivated directly by new notions of gentility. The shift inspired by changing fashion may have come early in the eighteenth century, largely in pewter, which Martin calls the "missing artifact."

B. Commercial Connections and Trade Networks

> Those who were formerly forced to fetch most of the bread they eat, and beer they drink, a hundred leagues by Sea, are through the blessing of the Lord so encreased, that they have not only fed their Elder Sisters, Virginia, Barbados, and many of the Summer Islands that were prefer'd before her for fruitfulness, but also the Grandmother of us all, even the fertil Isle of Great Britain, beside Portugal hath had many a mouthful of bread and fish from us, in exchange of their Madeara liquor, and also Spain; nor could it be imagined, that this Wilderness should turn a mart for Merchants in so short a space, Holland, France, Spain and Portugal coming hither for trade . . . (Johnson 1910:247 [originally published 1653]).

Boston was a port city with a central position and a superior harbor, which had become the center of a regional core in the Plantation Period and functioned as the political, social, and economic center of the region (MHC 1982:39-40). During the seventeenth century, Boston emerged as a focal point of interregional and international trade and travel (MHC 1982:53; McManis 1975:108-110) and drew its prosperity from its position in the North Atlantic trade network. While wharf construction and land filling are important aspects of the development of infrastructure, and were prominent in the development and growth of Boston as a regional core, neither activity occurred at the Paddy's

Alley or Cross Street Back Lot sites. Property owners within the area at times owned and developed waterfront property nearby, to the south of Ann Street, an area that was a (literally) expanding waterfront. Archaeological evidence for the city's trade comes rather from artifacts -- commodities -- imported into the city and purchased, used, and discarded by the sites' occupants.

Boston's Puritan oligarchy succeeded for several decades in keeping the city's economic focus on agriculture, and away from commerce. But Boston's excellent harbor, extensive harbor frontage, and productive agrarian hinterland, were ideal for a port, and by the mid seventeenth century, Boston's commercial development was well under way (Rutman 1965). At about that time in the seventeenth century, Edward Johnson described the range of products available for export. "In a very little space, every thing in the country proved a staple commodity, wheat, rye, oats, peas, barley, beef, pork, fish, butter, cheese, mast, tar, sope, plankboard, frames of houses, clabboard, and pipestaves, iron and lead is like to be also" (Johnson 1910:247).

Fisheries provided an early catalyst for the establishment of trade connections with Britain and southern Europe. Since the early sixteenth century, Iberian vessels had fished the banks off the northeast coast. But the decline of Spain's North American fisheries in the second half of the century provided a market for British, and later New England, merchants to fill (Wallerstein 1974:281n). The salt-fish trade was clearly part of the agrarian economy envisioned by Boston's founders (Rutman 1965:177). The trade often took the form of tripartite agreements between merchants (or "factors") in London or Bristol, Boston merchants, and the captains of trading vessels, which were often based in Boston. The Boston merchant agreed to purchase a cargo of "merchantable Cod fish" from the ship's captain, who agreed to deliver it to a British merchant by a certain date. In turn, the British merchant agreed to pay the Boston merchant in goods. The Aspinwall Notarial Records (Boston Registry Department 1903) contain numerous examples of such agreements. The fish would often be loaded at fishing stations in Newfoundland, along the Maine coast, or at the Isles of Shoals, and there was always concern that the fish trade would bypass Boston entirely. Before very long, a wider range of goods, including wood products and agricultural produce, began to follow fish across the Atlantic to Britain and Spain, and later to British islands in the Caribbean. As those products had to be shipped in port, and the largest port in the Northeast was Boston, they provided more commercial security for the local economy (Rutman 1965:185).

Massachusetts shipping registers show dramatic increases in Boston-area shipbuilding around the turn of the eighteenth century. Ships built in Boston itself, or in surrounding towns, rose from 36% of those engaged in Massachusetts trade between 1674 and 1697 to 54% of those in the trade by 1714. The increase resulted from the high demand on the part of merchants for vessels to carry their goods, as well as the ease with which ship fittings and other non-local goods could be imported (Goldenberg 1976:33-34, 131-146). Most of the shipbuilding activity was clustered along Lynn Street (now Atlantic Avenue) north of the sites, although it affected the nature of land use and the character of the entire North End. Service industries devoted to supplying shipbuilders with items such as pulleys (or "blocks") arose along Ann Street near the project area, joining ship chandlers, who outfitted the ships once they were built. In the meantime, wharf construction ensured sufficient space for the lading of goods. The Long Wharf, constructed south of the sites in 1710, would grow to a length of nearly a mile by the Revolution.

The Peace of Utrecht in 1713 led to an upsurge in trade. There were several reasons for this. The peace between Britain and France permitted merchants to trade without fear of their ships' being taken by privateers, and would open French islands in the Caribbean to Boston trade (Morison 1921:18-19). Equally important, the treaty ended French-sponsored Native American attacks on New England's interior settlements. Many areas that had been abandoned

during King Philip's War in the 1670s were resettled, and surplus livestock and produce once again flowed from the interior, through Boston merchants, to overseas markets.

Prominent among those markets were the British islands in the Caribbean. New England lumber (sometimes in the form of prefabricated house frames), wheat, salted meat, and fish were traded for sugar and molasses, which was distilled into rum in Boston. Sugar and rum were traded throughout the Colonies, and they, together with New England's traditional produce, formed the basis of a coastwise trade that, in terms of tonnage, would exceed the Caribbean trade by the 1770s (Albion et al. 1972:36-38).

After the Revolution, New England traders were free to challenge the monopolies that fostered Britain's trade with the Orient. While the satellite ports of Salem and Newburyport are best noted for their trade with China during this period, Boston continued to play a major role, both in the trade itself and as a market for imports. Although this trade was not interrupted by the embargo on British goods that was instituted in 1807, like all of Boston's trade, it came to a virtual standstill during the War of 1812, with the threat of British raids and confiscation of vessels up and down the Atlantic Coast.

Its size and position in distribution networks would ensure Boston a role as an entrepôt, even after the construction of rail networks later in the century. The city is the largest port in New England to this day.

One result of the Boston's status as a port was that the city's residents had fairly easy access to the wide range of commodities and manufactured goods that were traded throughout the North Atlantic World. The results of this are visible to some extent archaeologically, in the form of manufactured goods recovered from the Paddy's Alley and Cross Street Back Lot features and contexts.

It is of course impossible to read the volume of trade directly from such limited evidence. The commodities that are most readily identifiable as to their source are not necessarily those that were traded in the greatest volume. In other cases, containers and contents may have originated in different parts of the world. The transshipment of items may take them on indirect routes to avoid political difficulties or wars. All of this being said, the range of products recovered from the sites gives a sense of the reach of the commercial system in place in the North Atlantic world during the seventeenth and eighteenth centuries, and reminds us that Bostonians throughout the period were participants, to one degree or another, in what has been described as a world system.

The predominance of British ceramics in all of the assemblages reflects extensive trade between the mother country and her colony. This is, of course, hardly a surprise, as that trade is more than amply documented in the written record. Ceramics industries in Britain tended to be situated in proximity to the supply of raw materials -- clay and fuel -- rather than trade networks. Although there are some exceptions, this fact, combined with distribution of their products throughout the home country, precludes using archaeological evidence to determine which ports in Britain the ceramics were likely to have been traded from.

One of the exception to this may be North Devon wares, which occur most prominently on sites in areas that had documented trade connections with Barnstaple and Bideford, the Devon ports through which it was most likely to have been shipped. Vessels of North Devon sgraffito-decorated earthenware of which vessel 1953 is a fair example (Fig. VIII-1) and smaller quantities of North Devon gravel-tempered ware were recovered from the lower layers of Feature 4, which date to the late seventeenth century. Large shipments of these wares from Barnstaple and Biddeford to Boston are documented during the 1680s (Grant 1983:125).

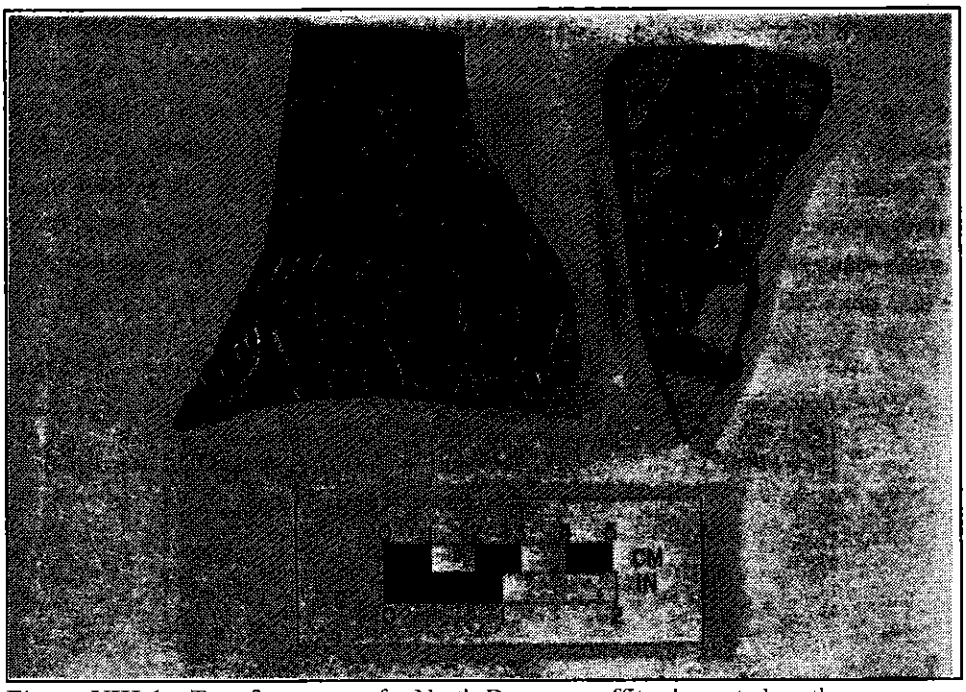

Figure VIII-1 - Two fragments of a North Devon sgraffito-decorated earthenware pan, Feature 4, Phase I-5, Cross Street Back Lot: Vessel No. 1953.

Archaeological evidence has been used elsewhere to infer trade between Boston and the British West Country port of Bristol. Dallal (1992) has suggested that the trade between the two ports may have been limited, based on the near-absence of Bristol-made clay pipes in the collection from excavations at Faneuil Hall, which was built on filled land near the Town Dock early in the eighteenth century. A number of marked pipes that were apparently made in Bristol in both the seventeenth and eighteenth centuries were recovered from the Paddy's Alley and Cross Street Back Lot sites. Initial marks that may relate to Bristol makers of the seventeenth century, including William Evans (1660-1697; artifact no. 18,690), Llewellin Evans (1661-ca. 1689; artifact nos. 22,484, 21,795 and 18,692), and Joane Tippet, (active ca 1680-1696, and probably into the early eighteenth century; artifact no. 18,250) (Walker 1977:1131-1136, 1429, 1433, 1493). Pipes bearing the marks of Robert Tippet (several makers, 1660-1720; artifact nos. 19,061 and 19,247) were recovered from Phase IV-3 at Paddy's Alley East, a context dating to the 1720s (Walker 1977:1316-1318). Other eighteenth-century Bristol makers whose initial marks may be present in the collection include Thomas Owen I (active 1698-ca. 1725, with several subsequent generations active as late as 1739; artifact no. 12,180); George Eberry (worked 1721-1774, perhaps later; artifact no. 15,188); and, more speculatively, George Viner (active 1747-1757, and possibly as late as 1774; artifact no. 20,911) whose initials were present on the heel of a TD pipe recovered from Feature 1 at Cross Street Back Lot, a context that dates to ca. 1790-1810 (Walker 1977:1119-1120, 1327, 1417). The presence of these pipes suggests that trade ties between the two cities did exist well into the eighteenth century, although the volume and nature of the trade no doubt fluctuated over time. London apparently lost much of its "market share" to Bristol and other West Country ports during the first half of the eighteenth century (Rediker 1987:41-42).

Other imported ceramics also inform us about transatlantic trade. Large quantities of Rhenish stoneware, including Raeren, Siegburg and Westerwald varieties are present in the collection (Fig. VIII-2), implying at least indirect commercial connections with the Rhineland in the seventeenth and eighteenth centuries, probably through London, which traded extensively with the region, and possibly through the Netherlands as well (Wilcoxen 1987:73-77). The Netherlands were almost certainly within the Anglo-New England trading sphere, and it is likely that at least some of the large quantities of tin-enamelled earthenware recovered from Paddy's Alley and Cross Street Back Lot contexts of the late seventeenth century through the mid eighteenth century (Figs. VIII-3 and VIII-4) originated there, although such wares were also produced in quantity in London, Liverpool, Bristol, and other British cities.

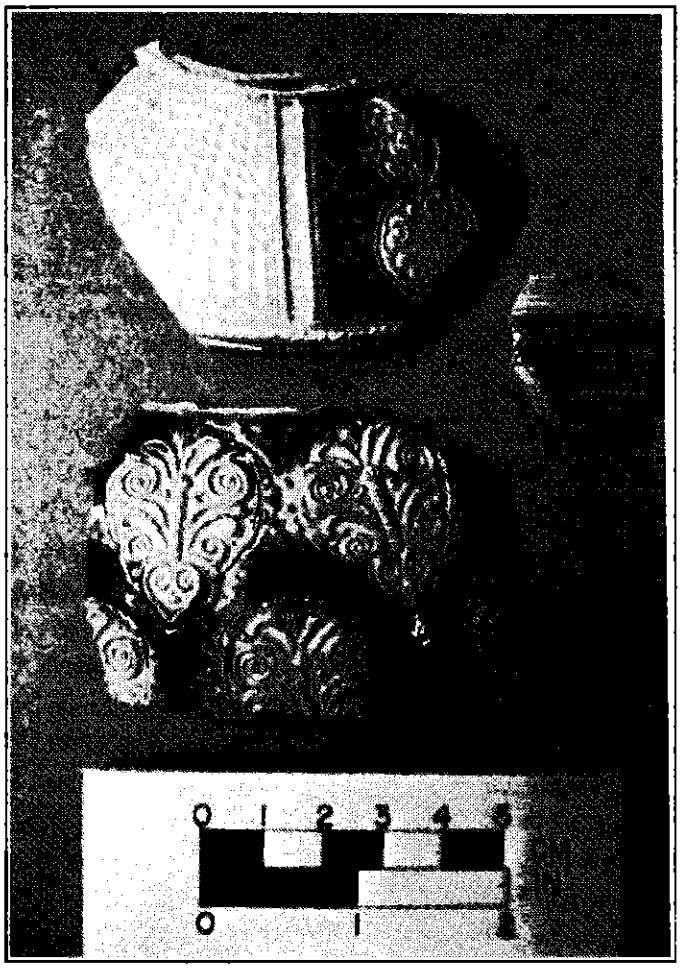

Figure VIII.2 - Rhenish stoneware vessel fragments, Feature 4, Phase I, Cross Street Back Lot (late seventeenth century): (a) cobalt blue /incised design, Phase I-2: vessel no. 1941; (b) tankard/mug, exterior manganese ribbing, Phase I-8: vessel no. 1932; (c) globular mug, cobalt background with sprigged gray floral decoration, Phase I-7: vessel no. 1938.

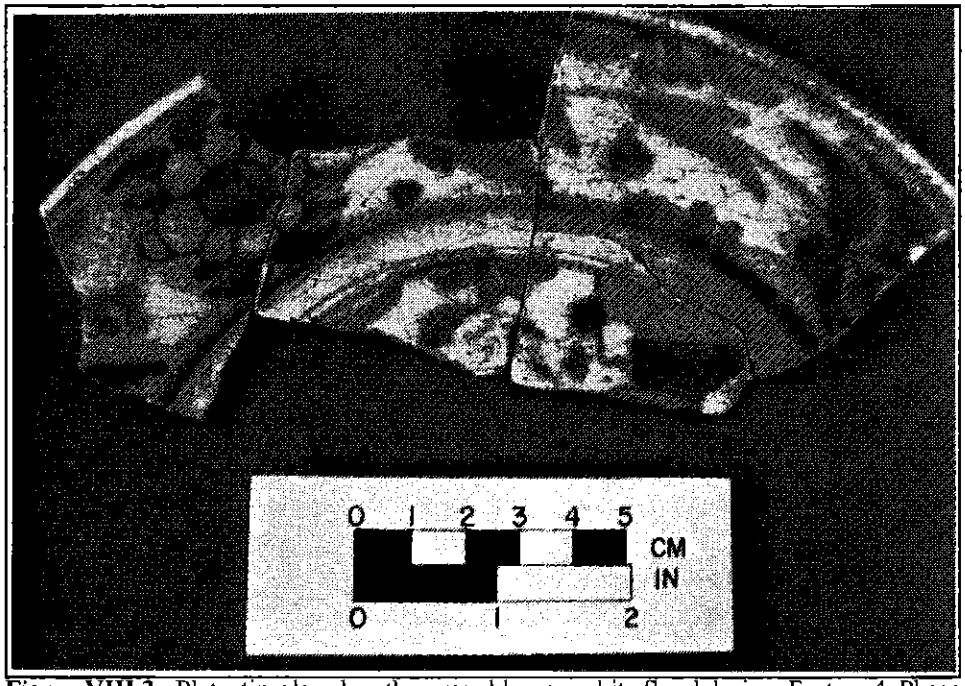

Figure VIII.3 - Plate, tin-glazed earthenware blue-on-white floral design, Feature 4, Phase I-5, Cross Street Back Lot (late seventeenth century): vessel no. 3005.

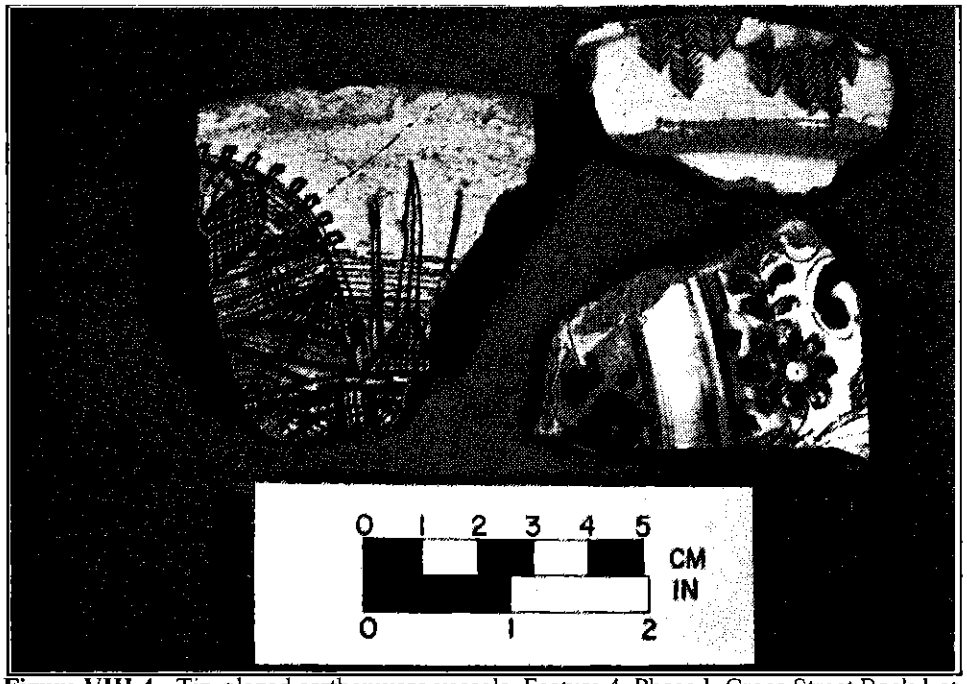

Figure VIII.4 - Tin-glazed earthenware vessels, Feature 4, Phase I, Cross Street Back Lot (late seventeenth century): (a) shallow bowl, hand-painted manganese decoration, landscape, Phase I-3: vessel no. 3003; (b) pot/Jar, blue-on-white tree motif, Phase I-8: vessel no. 3020; (c) shallow bowl, blue-on-white line decoration, Phase I-8: vessel no. 3016.

Several late seventeenth-century Iberian storage vessels were recovered from Feature 4, Phase I (Fig. VIII-5). These vessels would originally have contained olives, probably packed in brine or oil, but there was a documented trade in wine and dried fruit with the Iberian peninsula as well. Note that this context also contained olive pits (see Appendix D). Iberian storage-jar fragments were recovered in all phases from Cross Street Back Lot (where the later material is certainly not in primary depositional contexts). At Paddy's Alley East, they were recovered from Phases III, IV-1, IV-3, and V, dating between ca. 1715 and ca. 1760. At Paddy's Alley West, they were recovered from Phase IV-3, dating to the 1730s.

A final ceramic type that deserves discussion is Chinese export porcelain. As discussed below in Section VIII.D, porcelain first begins to appear in features dating from the 1720s, and increases in quantity throughout the eighteenth century. Porcelain vessels recovered from the "Carnes midden," Phase IV-3 at Paddy's Alley East, were all tea wares (Fig. VIII-6), and in fact, porcelain and tea were closely associated. Trade in both commodities was monopolized at the eastern end by the British East India Company throughout the seventeenth and eighteenth centuries, although their prices could not be exorbitant. British merchants were free to purchase Asian goods from the Portuguese or Dutch, and later from the French and the Danes (Curtin 1984:156). After the Revolution, as discussed above, New England merchants entered the China trade in force. The result may be seen in the porcelain tea wares that were recovered from Feature 1 at Cross Street Back Lot, deposited between 1790 and 1810. That they constitute only about 7% of the total ceramic vessels is due to the popular and comparatively inexpensive Staffordshire-made creamware and pearlware tea wares and tablewares, with which the British won back the ceramic market (Fig. VIII-7).

Among the glassware pieces recovered were several pieces that may have originated in Venice, or at least were executed in the style of Venice. Among the glass from Feature 4 (Figs. VIII-8 and VIII-9) were two possible Venetian pieces (vessels 3041 and 3042). One of these, a molded body fragment with marvered white and blue glass within clear metal, is illustrated (Fig. VIII-8b). Other examples of possibly Venetian (or Venetian style) glass were recovered, including a blue-on-white bonded glass vessel base from Phase II at Paddy's Alley East, and an embossed, line-decorated vessel body sherd from Phase IV-3 at Paddy's Alley West. Venetian glass was traded to Britain, along with silk and spices, from at least as early as the twelfth century, in exchange for wool and woolen cloth (Charleston 1975:205-210); Platt et al. 1975:20-21). The interruption of this trade by the Ottoman Empire in the sixteenth century merely shifted the source of supply; by this time, *façon de Venise* glassware, executed "in the style of Venice," was being manufactured in Britain, as well as in the Netherlands, France, Germany, and Spain (Savage 1965:4; West 1994:26-27). Some of the pieces represented in the collection may have been traded from one or more of those countries, as Boston at various times traded with all of them. The sixteenth-century British industry was started by Jacopo Verzelini, an emigrant from Venice whose work may often have been mistakenly attributed to Venetian glass makers (Ross 1967:15). An example of glass in the collection that is likely to have been imported from northern Europe is a body or stem sherd bearing a "raspberry" prunt, or applied disk (Savage 1965:56) (Fig. VIII-9) recovered from a seventeenth-century context in Feature 4, Phase I-10. Similar vessels are illustrated in the still lifes of Dutch Genre painter Peter Claesz (1597-1660), and were almost certainly made in the Netherlands (See Wilcoxen 1987:Fig. 26), as well as in Germany (Savage 1965:Figs. 76 and 77), and in England from the mid seventeenth century to as late as 1750 (Crompton 1967:Figs. 34, 37, 56).

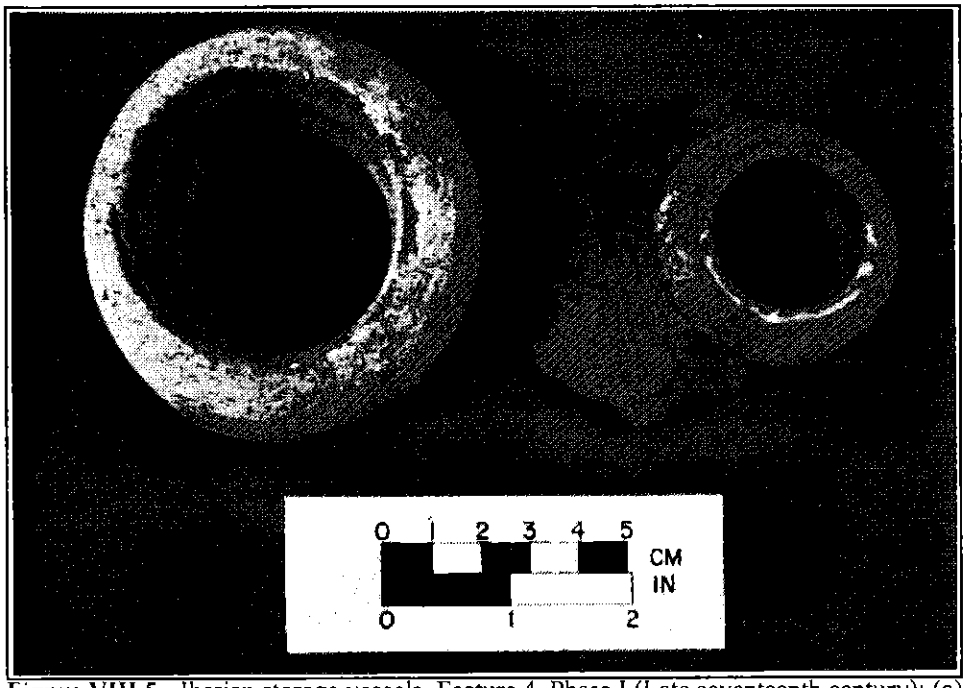

Figure VIII.5 - Iberian storage vessels, Feature 4, Phase I (Late seventeenth century): (a) jar, white wash on interior and exterior, Phase I-8; vessel no. 1947, (b) "olive Jar," white wash on rim and exterior, Phase I-10: vessel no. 1956.

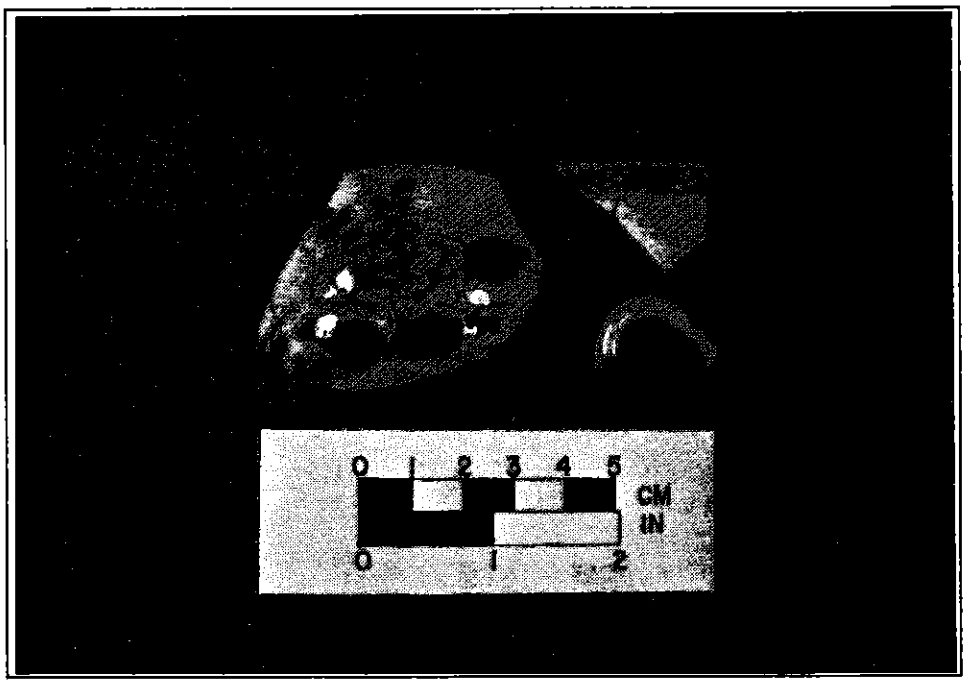

Figure VIII.6 - Chinese export porcelain teacup, "Carnes midden," Phase IV-3, Paddy's Alley East (1720s): vessel no. 1570.

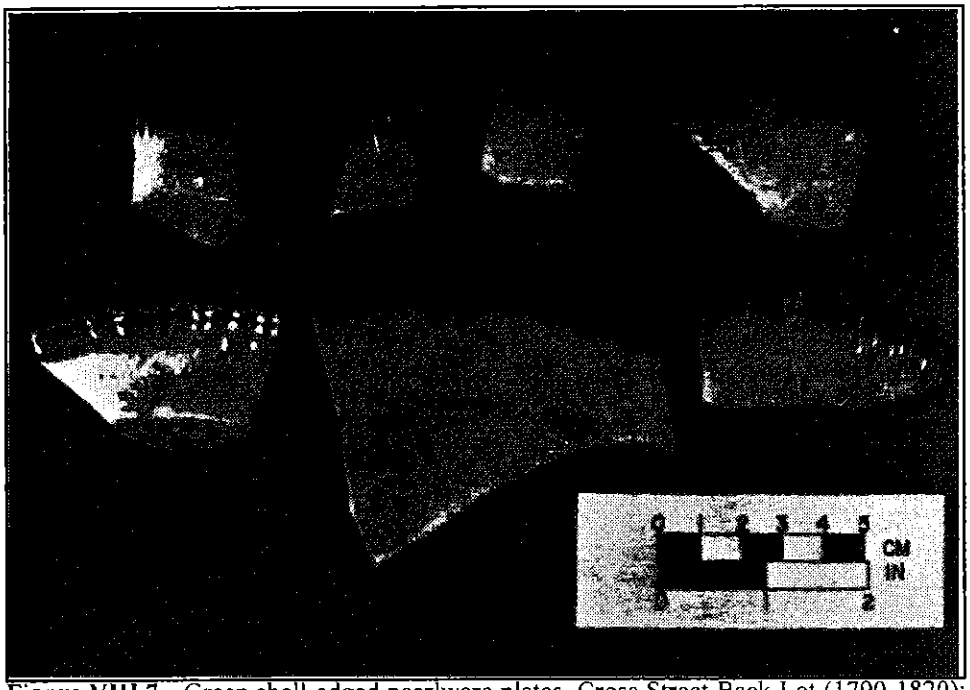

Figure VIII.7 - Green shell-edged pearlware plates, Cross Street Back Lot (1790-1820): (a) Feature 1: vessel no. 1650; (b) Phase V (from redeposited 20th-century deposit): vessel no. 1654; (c) Feature 1: vessel no. 1651; (d) Feature 1: vessel no. 1652; (e) Feature 1: vessel no. 1659; (f) Feature 1: vessel no. 1653; (g) Feature 1: vessel no. 1642.

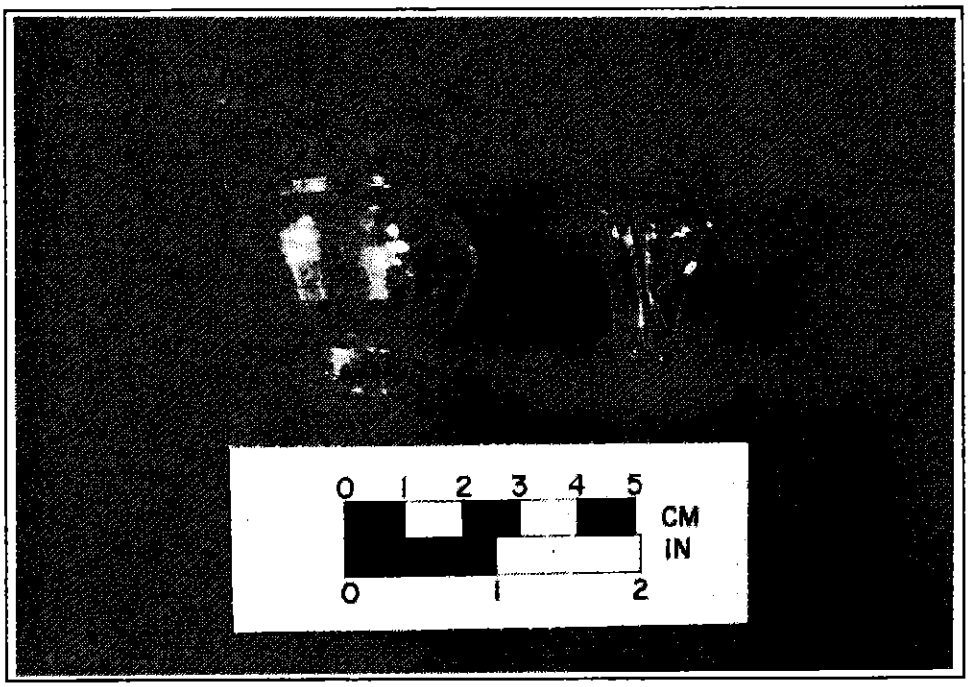

Figure VIII.8 - Table glass recovered from Feature 4, Phase I-10, Cross Street Back Lot (late seventeenth century): (a) plain free-blown table glass vessel fragment: vessel no. 3047; (b) polygonal molded tableglass vessel fragment, with reddish-purple and yellow decoration marvered into the surface; possibly Venetian: vessel no. 3041.

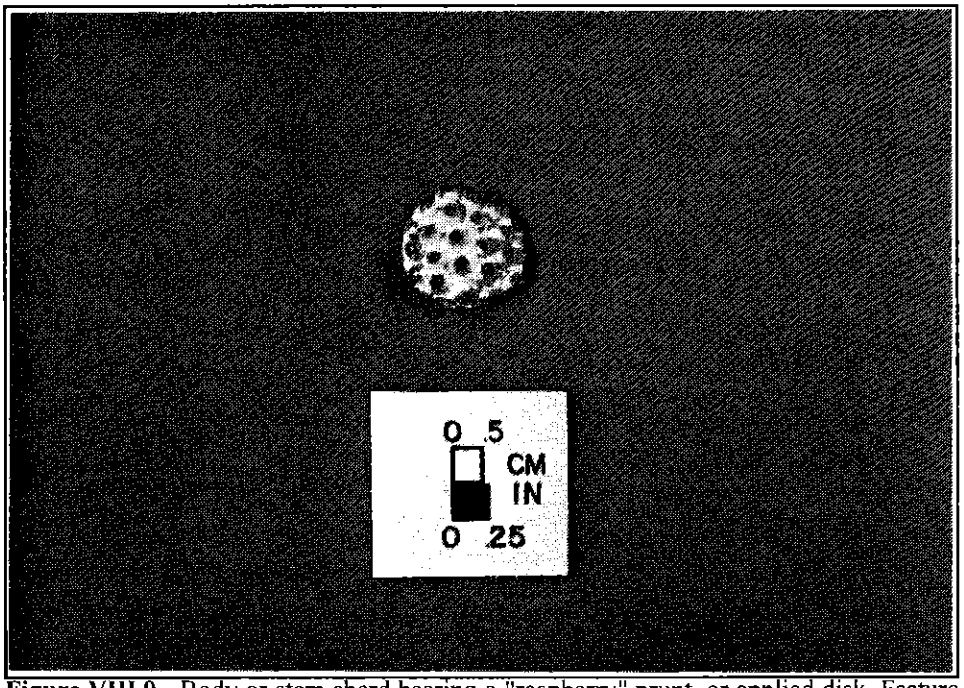

Figure VIII.9 - Body or stem sherd bearing a "raspberry" prunt, or applied disk, Feature 4, Phase I-10 (late seventeenth century): 36,379.

Historians tend to emphasize the novel nature of the trades that arose between Europe and New World throughout the Early Modern period -- the "new" commodities (gold, sugar, naval stores, fish) that flowed eastward or (in the case of African people) westward. Archaeologists, on the other hand concern themselves with the manufactured goods that flowed back to finish up in yards, wells and privies. What should be clear from these examples is that Boston's merchants tapped into streams of trade that were already flowing, and in some cases had been in place for centuries. This is not to say that trade did not change considerably as fish, wood, rum, and salt pork began to be carried from New England to Europe and the Caribbean, but it is worth reminding ourselves that these developments may be seen over the long run as a continuation of preexisting patterns.

C. Social Class and Status

> . . . The notion of class entails the notion of historical relationship. Like any other relationship, it is a fluency which evades analysis if we attempt to stop it dead at any given moment and anatomize its structure. The finest-meshed sociological net cannot give us a pure specimen of class, any more than it can give us one of deference or of love. The relationship must always be embodied in real people and in a real context . . . . And class happens when some men, as a result of common experiences (inherited or shared) feel and articulate the identity of their interests as between themselves, and as against other men whose interests are different from (and usually opposed to) theirs (E. Thompson 1983:114-115).

As discussed above in Section II.C.2, class and status are distinct concepts, and must be maintained as distinct in order to interpret either individually. We have tried to avoid the tendency in past research to focus exclusively on unilinear, quantitative measures of "status" in lieu of exploring what class and status are and how they function. The

assumption in much research has been that material culture is a passive reflection of status (see Spencer-Wood 1987). Rather, we approach material culture as an active component in the expression of class and status.

The principal research questions defined at the outset of the project were:

1) To what extent did people express social class and economic status through material culture in seventeenth- and eighteenth-century Boston?

2) What were the specific meanings of particular items in terms of class and status? and

3) How were these meanings interrelated with the meanings of other items, and with other expressions, such as those of ethnicity and gender?

Social classes are not the unvarying result of economics or history. Classes, and the class identities of the individuals who make them up, are made by people as they participate in daily activities and interactions. Although many of these activities are not directly centered on class issues, class is reinforced through behavior, dress, speech, and other subtle (and sometimes, not so subtle) cues. Participants are quite aware of their class positions and that of those with whom they are interacting, as well as of class implications of their actions and their positions.

Classes appear to most participants to take the form of *communities*, that is, bounded groups with common traits and interests. In anthropological terms these groups constitute *subcultures*, recognizable and distinct, yet clearly part of the culture as a whole. Where, in the practice of daily life, are class-based actions and interactions visible, and how do these areas apply to the PA/CSBL sites? This section will examine several areas of material life and discuss their implications for class and status. Examples that have been treated more extensively elsewhere in the report or its appendices are summarized, rather than being treated in detail.

1. Class, Status, and Material Life in Colonial Boston

There were differences in the social and economic status of Bostonians from the founding of the settlement. By 1650, merchants had begun to dominate the local economy (Rutman 1965). In 1676, Edward Randolph told Britain's Lords of Trade that there were about thirty merchants in Boston who were worth between £10,000 and £20,000 (Dow 1935:107). At what point did differences in economic status give rise to class consciousness among Bostonians? Historian James Henretta saw class formation in Colonial Boston as a function of increasing separation of rich and poor, which was well under way by 1740 (Henretta 1984:278-279). The Puritan ethic did not look favorably on ostentation and display, and it has been suggested that the Puritan elite may have intentionally discouraged the flaunting of material signs of class difference in order to minimize social tensions (Beaudry 1984c). As Boston grew, the spiritual grip of Congregationalism weakened early in the eighteenth century, and it is hardly surprising that increasingly visible class differentiation should follow.

Material culture can assist us in looking at the rise of class consciousness. As a means by which class membership and strategies are communicated, material culture is sensitive to class, and changes in the way that material culture is consumed should signal class formation. A key approach to social differentiation through material culture is represented in the work of Steven Pendery (1987). Pendery examined the presence of various categories of material culture in inventories, such as land and structures, hard coinage, chairs, tables, feather beds, pictures, clocks, books,

weapons, silk clothing, gold buttons and jewelry, and canes, as well as the ownership of slaves, as they related to the amount of wealth held by decedents in Charlestown, Massachusetts between the 1660s and the 1750s (Pendery 1987:82-106). Pendery's use of time-sensitive documents enabled him to demonstrate the movement of certain types of goods through society, or at least through society as divided into groups based on inventory values. Ownership of real estate, slaves, most types of household furniture, pictures, clocks, brass, pewter, and silver vessels and utensils, tended to be the prerogative of wealthier Charlestown residents (Pendery 1987:Tables 4.1, 4.4, 4.5, 4.6, 4.14). Other items, such as silk clothing, gold buttons, and jewelry (precisely those items that would have figured in status display outside of the home) became increasingly popular with less wealthy residents. Looking at the percentage of expenditures on consumer goods over time, Pendery (1987:Table 4.16) noted a dramatic rise in spending on consumer goods in the upper two of his five income groups between the 1690s and the 1720s -- from 12.4% to 50.3% among the highest, and from 17.5% to 59.4% in the upper middle group. Spending on consumer goods among these wealthier Charlestown residents more than tripled over 30 years, while other income groups posted less impressive gains, and in one case an impressive decline.

> The decade following the Treaty of Utrecht [1713] corresponds with increasing prosperity among upper wealth groups and the adoption of Georgian architectural forms by upper middle class Bostonians. Their expensive clothing, acquisition of slaves, coaches and lavish domestic spending incurred the wrath of conservative elements of Boston Society (Pendery 1987:114).

The wealthy may have chosen to spend their income in this way in order to maintain class cohesion and class boundaries. The investment of the less fortunate in more portable symbols of wealth and achievement is almost certainly a function of economics, but it also signals the importance to them of public display. The locus of class for the wealthy was much more likely to be the home, while for the working classes, the negotiation of class would appear to have occurred outside of the home, in the arena of public display, which is discussed further, below.

Several cautions are in order. Pendery's analysis is limited by the nature of inventories to the economic status of the deceased, which cannot be translated into social class without detailed consideration of the occupations and status strategies of the inventoried individuals. Although Pendery's analysis is useful to the present study, direct comparison was not possible. The limited documentary research conducted for the present project did not include examination of probate inventories on the scale of Pendery's study. Instead, our focus has been much narrower, on a small number of individuals who owned the site at their deaths.

2. Residential Patterning

One of the most visible aspects of class in modern urban society is the development of residential segregation according to class. This leads to what have been described as "landscapes of inequality," within which elites and working-class live in different neighborhoods with different access to facilities, utilities, and different population densities (Mrozowski 1991). As discussed above in Section VII.B, residential segregation in the neighborhood of the sites, and indeed in Boston as a whole, may not have been possible until extensive land filling opened up new areas to elite residential development. As late as the turn of the nineteenth century, wealthy merchants in the Cross Street neighborhood lived side by side with sailors, shopkeepers and stevedores. Differences in the social composition of street faces were apparently the result of differences in traffic and proximity to the waterfront. Corner properties were more valuable than others, but this fact was more likely to be represented in the occupational status of the owners than the tenants.

An intriguing residential pattern did emerge from the documentary evidence. The 1798 direct tax identified a cluster of tenanted houses along the south side of Cross Street, north and west of the sites. These dwellings were occupied by shopkeepers or businessmen who had stores or businesses elsewhere in the city: a West India goods dealer, a victualler, an innholder, and a boot and shoe dealer. This pattern of living separately from business premises, was noted by Diana Wall (1994:19-20) as a middle- and upper-class movement, beginning in the latter decades of the eighteenth century, although she notes disagreement among scholars as to when this movement began and how long it took to develop. As it appears in Cross Street in 1798, this residential pattern is limited to a small part of the area, and includes several individuals, the boot and shoe seller and the victualler, who may only recently have entered the middle class.

3. Clothing

> . . . For rayment, our cloth hath not been cut short, but of late years the traders that way have increased o such a number, that their shops have continued full all the year long, all one [as in] England . . . Assuredly the plenty of cloathing hath caused much excess of late among those people, who hath clambered with excess in wages for their work (Johnson 1910:211).

Thus Edward Johnson characterized the abundance of clothing, and what he considered to be the excesses of wage workers in Massachusetts in the early 1650s. Clothing and personal adornment are among the means by which people signal their social status or class membership to those around them (Ryan 1966:63-68). Along with spatial segregation, "appearential ordering (the judgment of others by their dress and adornment)" provided a basis for city dwellers to "read" the class and status of strangers with whom they interacted (Lofland 1973:22). Clothing and other possessions, along with behavior, functioned as signs in semiotic relationships, communicating perceptions of status and class membership. The same sign might be read differently by members of different social classes, but in the process of maintaining class boundaries, middle- and upper-class urbanites defined not only others on the basis of appearance, but themselves as well, adjusting their behavior to accord with their notion of what was "proper" (Cook 1989:209-211). The resulting style, in the sense of an ideologically laden "way of doing" (Hodder 1990:44-45), was both created by its practitioners and served to structure their actions.

In the Massachusetts Bay Colony, the gulf between people's self-conceptions and the perceptions of others was maintained, in the area of clothing at least, through "sumptuary laws." These formal regulations barred people below a certain social and economic level (an estate worth £200, higher education, or a "decayed" estate) from wearing certain types of clothing. They codified the semiotics of clothing and provide an important window on the ways in which people read the appearance of others. Clothing items identified within Massachusetts sumptuary laws at various times between 1634 and the 1670s include gold and silver lace and buttons, "points," or ties at the knees, "great boots," silk hoods and scarves, bone lace, and "superfluous ribbons" (Trautman 1989:52-53).

Feature 4 at Cross Street Back Lot, a privy that originated with the Katherine Nanny Naylor household, contained a number of excellently preserved clothing fragments. These were analyzed by Margaret T. Ordoñez and Linda Welters, whose report is presented in Appendix I. Of the 99 fragments of textiles from Feature 4, 82 were made of silk or silk blends. These included 22 fragments of silk ribbons, silk lace, and a piece of silk yarn with a gold thread in it. Other textiles included 13 wool fragments, four cotton fragments, and two fragments made of a bast fiber, such as jute or hemp. While wool was in general use in Colonial New England, cotton was extremely rare and the cotton fragments, taken with the silk lace and the predominance of silk, would tend to indicate the Naylor

household was of high status. This is borne out in the documentary record. As discussed above in Section IV.D, Katherine Nanny Naylor occupied a property that had been placed in trust for her and her children by Robert Nanny, who had died in 1663. Nanny's estate also included land in Maine, and at some point late in the 1690s, Katherine apparently sold the valuable waterfront portion of the Ann Street property. The indications are that Katherine and her family were economically well off.

Silk clothing may not be a universally reliable indicator of economic status, however, and should be used with caution in the absence of supporting documentation. Pendery's examination of inventories in nearby Charlestown indicated that silk clothing tended to be distributed across the economic spectrum, and was found in the personal effects of the very poorest Charlestown decedents, as well as in the middle and upper middle ranks (Pendery 1987:104). Trautman (1989: 63) also found that silk textiles, and other clothing items reserved by law for the wealthy were owned by a broader base of the population. This broad level of participation, although it limits our ability to use clothing as a predictor of social class or status on the level of individual contexts, nevertheless points to the operation of a status-based clothing system in seventeenth-century greater Boston.

4. Wig Curlers

Another category of items connected with appearance that it was hoped would reveal information on class and status was wig curlers. These were roughly cylindrical ceramic objects with bulbous ends, that were used to style men's wigs (Fig. VIII-10). Wigs began to be worn in Boston by 1700, and during the eighteenth century, a variety of styles were available to middle- and upper-class men as fashions changed (Payne 1965:392-393). The specific class and status implications of wigs in Colonial Boston are unclear, however, pending inventory and other documentary studies.

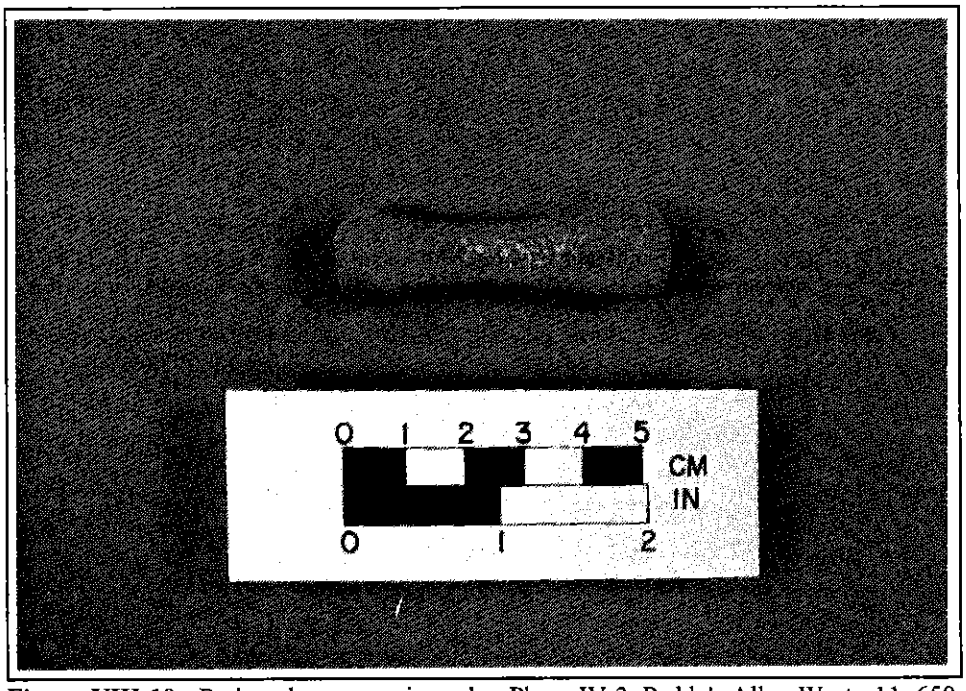

Figure VIII-10 - Red earthenware wig curler, Phase IV-3, Paddy's Alley West: 11, 650.

Five wig curlers were recovered from the Paddy's Alley Site and none from the Cross Street Back Lot site. One of the curlers was recovered from Phase III deposits at Paddy's Alley East and dates to the occupation of the property by merchants Samuel Wentworth and Nathaniel Henchman, which is to say, between about 1710 and 1720. Samuel Sewall, it was noted above in Section IV, commented on Henchman's wearing a "flaxen wigg" in 1708.

A second wig curler was recovered from Phase IV-3 at Paddy's Alley East, deposits associated with the early occupation of the site by John Carnes (between 1726 and about 1730). Carnes, discussed in more detail below, was a wealthy pewterer. A portrait reproduced above as Fig. IV-7 shows Carnes wearing a wig.

The remaining three curlers were recovered from yard deposits in Phase IV-3 at Paddy's Alley West. During this time, the property was owned by a succession of people, including a tailor, a mariner, a trader, and an absentee merchant. Who actually occupied the property at this time is unclear. The wig curlers may have originated with the occupants, although it is also possible that they were redeposited items from contexts in Phases IV-1 and IV-2, during which time the property was owned by Benjamin Jepson, who was a barber and wig maker (Superior Court of Suffolk County 184:90).

The available evidence, although far from conclusive, suggests that wig curlers may be associated with deposits that originated with households headed by merchants and wealthier artisans. We anticipate that, as documentary studies in Boston are broadened to include wigs, the class implications of wig curlers will emerge with greater clarity.

5. Bottle Seals

Several seals from the necks of wine bottles or decanters, bearing the name John Carnes, were recovered from the Paddy's Alley Site (Fig. VIII-11). One of these was found in Phase IV-3, the "Carnes midden," a refuse deposit beneath a brick pavement associated with a workshop or storage building in the yard behind Carnes' house and shop, which is associated with Carnes' early occupation of the property. The other was found in a disturbed context dating to the nineteenth century in Phase IX at Paddy's Alley East.

Bottle seals first appear in the mid seventeenth century, when they were limited to use by gentlemen and tavern-keepers, the latter of whom were probably anxious to deter the theft of bottles. By the end of the seventeenth century, the use of seals had spread to other sectors of society, and continued into the nineteenth century (Nöel Hume 1970:61). Most bottle seals that have been recovered are marked only with the initials of their owners, sometimes in a cipher with the first initials of the husband and wife and the initial of their surname. There are other examples with the full name of the owner from museum collections and the archaeological record. The typefaces on these seals are slightly different in size, indicating that each of these was made using a separate metal die, which was impressed in a blob of molten glass. These seals were not a one-time expenditure for Carnes.

As discussed above in Section IV.C.3, John Carnes was the son of a career British naval officer posted to Boston in the late seventeenth century. Carnes became a pewterer. He used to boast that his son's tuition at Harvard consisted of a set of spoons. His business was successful, and deservedly so. Several examples of his work are in the collections at Winterthur, where they represent some of the finest provincial period New England craftsmanship. When Carnes died in 1760, his estate was worth more than £1,800, and he was among the wealthiest men in Boston.

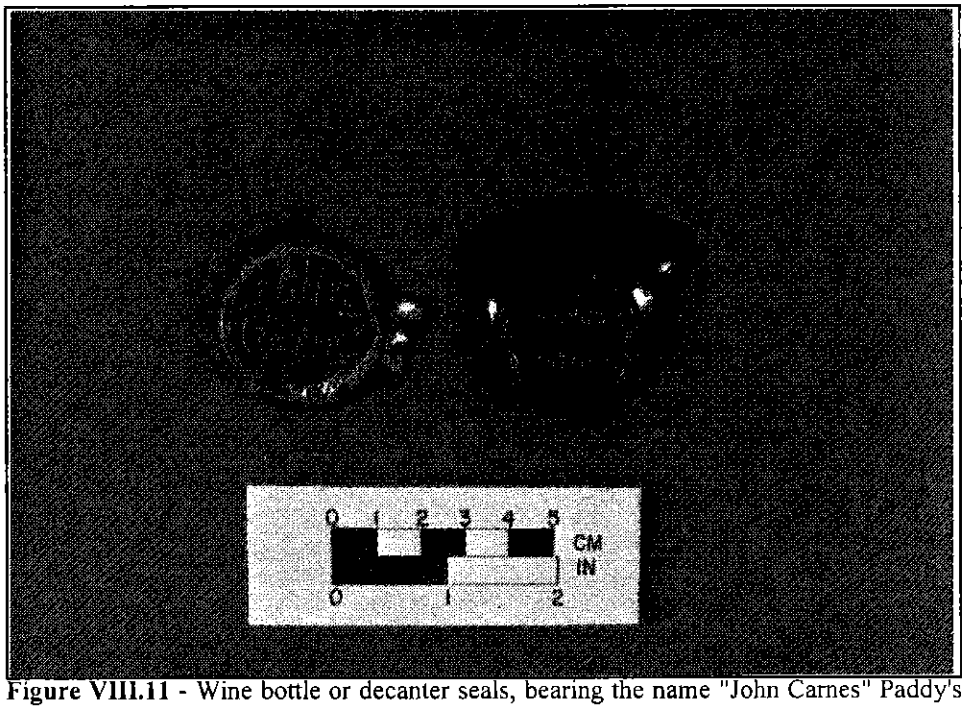

Figure VIII.11 - Wine bottle or decanter seals, bearing the name "John Carnes" Paddy's Alley East (1720-1760): (a) Phase IX (redeposited nineteenth century): 24,641; (B) "Carnes Midden," PHase IV-3 (1720s): 24,706.

To fully appreciate these seals as symbols of John Carnes' class identity, we need to look at how they would have been used. In the context of formal dinners in Carnes' house, wine or other beverages would have been decanted from them, probably by servants, into the guests' wine glasses. The fact that the decanters were personalized was presumably meant to impress the guests with their host's status. As mentioned above, most merchants and planters were content with their initials. Why did Carnes use his full name? Possibly, because Carnes was a pewterer, a metalworker, he made the dies himself, in his own shop. These seals not only told Carnes' peers that he was wealthy enough to own personalized decanters, but also reminded them that he had the skills necessary to make the dies, and that those skills, and not inherited capital, were the basis of that wealth. They tell us about more than Carnes' status, hinting at how he got there, and how he wanted others to perceive him. Historians tell us that discontent among the emergent artisan class in the mid eighteenth century was a factor in setting the stage for the American Revolution.

The more liberal urban Whigs included merchants, mariners, and traders,

> small manufacturers and craftsmen, especially those in the more remunerative trades . . . . Many of them owned property, commanded the labor of slaves, and indentured servants, and competed avidly in the world of credit, investment, and speculation. These were the men who led the opposition to England's closer regulation of American economic life, including limitations on their ability to issue paper money, attempts to eliminate American middlemen from certain sectors of international marketing, and interference with smuggling, which they viewed as a means of opening channels of free trade in the face of monopolistic regulation (Nash 1986:219).

John Carnes never lived to see the Revolution, but the sort of information encoded in these artifacts is important in understanding his fellow artisans and their behavior at that time.

6. *Ceramics: Porcelain and Tea Wares*

Ceramic assemblages have been used to examine the economic status of households from the end of the eighteenth century into the twentieth century (Miller 1991; Henry 1987). To date, limited work has been done with ceramics from the seventeenth through the mid eighteenth centuries. One way to approach the role of ceramics in the construction of class and status would be to look, as Pendery (1987:109-110) did in Charlestown inventories, at the presence of porcelain and tea wares in the assemblages.

Porcelain was initially imported from China and Japan, although by 1750, soft-paste wares were being manufactured in Britain and in Europe. Porcelain was a major component of Dutch trade with the East Indies (van der Pijl-Ketel 1982), and it is possible that very small amounts of this "kraakware" may have been traded to Boston, though its high value would have severely limited consumers' access (Wilcoxen 1987:78). Pendery found, with the exception of two "Cheyney dishes" in a 1661 inventory, that porcelain first appeared in quantity by the 1720s in the wealthiest estates, where it was universal by the 1750s, by which time it was present even in middle-rank inventories.

The "tea ceremony," the formal consumption of tea and other foods and beverages using specific utensils and vessels, began as a predominantly upper class practice, but had spread widely in America by the middle of the eighteenth century (Roth 1988:442). Pendery's data bear this out. He found explicit mention of tea and coffee wares in inventories from the 1720s, when they were found in middle- and upper-middle rank inventories; by the 1750s tea and coffee wares were found in a third of the lowest-ranked inventories, and in all of the highest-ranked estates. Social criticism in Britain was often leveled at the poor for their presumption in indulging in the tea-drinking ceremony (Pendery 1987:109).

Table VIII-3 shows the number and percentage of porcelain vessels, the number and percentage of tea-ware vessels, and the percentage of porcelain vessels that were made in tea-ware shapes for five contexts at the two sites: Feature 4, Phase I at Cross Street Back Lot (1670-1700); Feature 20 at Paddy's Alley West (1720s); the "Carnes midden," Phase IV-3 at Paddy's Alley West (1720s); Feature 4, Phase III at Cross Street Back Lot (1740s); and Feature 1 at Cross Street Back Lot (1790s).

Feature 4, Phase I at Cross Street Back Lot, deposited by a household headed by Katherine Nanny Naylor, the widow of a merchant in the late seventeenth century, had no porcelain and only 1 tea-ware vessel, a Rhenish stoneware teapot that represented only 1.2% of the assemblage. The presence of even this small amount of tea ware in the seventeenth century may indicate the high social position of the household.

Feature 20 at Paddy's Alley West was deposited in the 1720s, either by a household headed by Benjamin Jepson, a barber and wig maker, or by unidentified tenants on the property. Only one porcelain vessel, a bowl, was recovered, and no identifiable tea wares were present. At the neighboring Mill Pond site, porcelain also makes its first appearance in the 1720s, in Phase II deposits (Cheek and Balicki 1994:Table 10-1).

Table VIII-3 Porcelain and tea wares in selected contexts, Paddy's Alley/Cross Street Back Lot.

Context	No. Porcelain	% Porcelain	No. Tea Ware	% Tea Ware	% of Porcelain Tea Ware
Feature 4, Phase I, Cross Street Back Lot (1670-1700)	0	0.0	1	1.2	----
Feature 20, Paddy's Alley West (1720s)	1	2.5	0	0.0	0.0
Carnes Midden, Paddy's Alley East (1720s)	5	4.4	9	8.0	100.0
Feature 4, Phase III Cross Street Back Lot (1740s)	6	9.5	11	17.5	66.7
Feature 1, Cross Street Back Lot (1790s)	6	6.9	13	14.9	66.7

The "Carnes midden," Phase IV-3 at Paddy's Alley West, also deposited in the 1720s, but by a household headed by a pewterer, as discussed above. Although not at the height of his wealth when the contexts in question were deposited, John Carnes would die as one of the wealthiest people in the city. The assemblage contained five porcelain vessels, all of which (100.0%) were tea ware. An additional four tea-ware vessels (three white salt-glazed stoneware teacups, one of them a demitasse or a child's toy, and a domestic redware teapot) brought the tea-ware vessel total to nine, or 8% of the total ceramic assemblage.

Feature 4, Phase III at Cross Street Back Lot was deposited in the 1740s by a household headed by Job Coit, a successful cabinetmaker. The assemblage contained six porcelain vessels that accounted for 9.5% of the total. The 11 tea-ware vessels accounted for 17.5% of the total assemblage. Four of the porcelain vessels (66.7%) were in tea-ware shapes.

Feature 1 at Cross Street Back Lot was apparently deposited in the 1790s, either by the household headed of Samuel White, a boarding-house keeper, "truckman," and constable (owner until 1794), or by the household of Samuel Wild (tenant in 1798), who ran a West India goods store, or of Daniel Gealy, a "huckster" and trader (owner 1794-1802, occupant 1796-1803). This group no doubt varied in terms of economic status, but Wild and Gealy could be considered merchants, though not at the high end of their profession. White would appear to have been working-class, though his ability to buy property would put him in the upper ranks of that group. Feature 1 contained six porcelain vessels (6.9%), and 13 tea-ware vessels (14.9%). Of the former, four, or 66.7% were tea wares.

The numbers in Table VIII-3 indicate that during and after the 1720s, the percentage of both porcelain and tea wares in assemblages increased continuously until at least mid-century. These developments were linked by the high proportion of porcelains in tea-ware forms. In general, these data support Pendery's inventory research.

Status and class may account for the differences between the two assemblages from the 1720s; the Carnes household almost certainly had the economic means, and probably the class-based need, to purchase and use both porcelain and tea wares, while the household that filled Feature 20 apparently did not. This relationship must remain tentative

without closer temporal control over the assemblage, and better documentary information than exists on the residents of Paddy's Alley West. And certainly, in light of Pendery's encountering tea wares in estates across the economic spectrum by 1750, tea wares cannot be considered an economic marker, although their role in the construction of class (apparently for members of all classes) is undeniable.

7. Summary

It is clear from the archaeological and documentary evidence that the residents at the Paddy's Alley and Cross Street Back Lot sites over more than a century utilized material items that they had accumulated for the purpose of displaying social and economic status, in order to justify, or qualify for membership in specific social groupings. In each case, it is the synthesis of documentary and archaeological evidence that makes specific class strategies of site residents available for study.

It would appear that as the Puritan ethic began to wane, merchants were able to display overt signs of wealth. They were soon followed by artisans and others, less wealthy, who sought to identify themselves through the ownership and use of specific forms of material culture. Porcelain, tea wares, sealed bottles and decanters, wigs, jewelry, all of these became more than mere commodities. They were, in fact, the material from which identities, centered around social class, were constructed.

D. Ethnicity

1. Households and Ethnic Groups Present

As discussed above in Section II.C.1, ethnicity is a factor that has the potential to affect the composition and meaning of assemblages in a variety of ways. The approach taken by this project has been to combine documentary and excavated evidence to look for ways in which ethnicity is manifest in the archaeological record at the two sites.

Documentary evidence is problematic on the issue of European ethnicity within the project area. Generally, with British immigrants, the strongest evidence on origins comes from genealogical sources, and this evidence is strongest for the period of the "Great Migration" of the 1630s. The Great Migration has been the focus of ongoing research efforts by the New England Historical Genealogical Society. Information from later periods tends to be less encompassing. Information on the geographical origin of immigrants is particularly difficult to come by during the eighteenth century, when Boston was at its peak as an entrepôt. No documented Huguenot French immigrants were encountered during the background research.

Charles Cheek, examining vessel frequencies from the Paddy's Alley, Cross Street Back Lot, and Mill Pond sites, as well as information on the frequency of wild animal and domestic animal bones, and comparing that information to sites in the Mid-Atlantic and Chesapeake regions, sees distinct patterns of difference that he attributes to differing foodways based on the ethnic origins of settlers to those regions (Cheek and Balicki 1994:234-241; Cheek 1996). These differences (based on Fischer 1989) include a preference for baking in New England, inferred from the presence of certain vessel types, and relatively low reliance on wild animals in diet.

For our purposes, it is also necessary to link assemblages to persons whose origins are documented. Information was recovered on the origins of a number of individuals and families that owned the sites at different times.

Unfortunately, some were apparently absentee landowners; others seemed to live on the site, but were not clearly associated with identifiable deposits. To date, the only person whose origins are known, and who can be tied to an excavated assemblage is Katherine Nanny, who was from Bilsby, Lincolnshire within the East Anglian hearth traditionally associated with the Puritans (Heard 1930:11). Additional problems are the members of the household, including two husbands whose geographical origins are unclear and who both lived for a time in Barbados, which was developing its own regional identity at the time (Greene 1992:13-67), as well as innumerable household servants, whose origins are unknown.

No documentary evidence on the presence or absence of Native Americans on either site was encountered. There was, however, considerable evidence for the presence of at least 14 Africans or African Americans at Paddy's Alley East and West, and at Cross Street Back Lot, as members of eight households through time. The research conducted in probate records indicated that at a minimum, five resident property holders owned Africans or African-Americans at their deaths. These owners were: William Paddy (a "neager man" valued at £20, 1663), Samuel Wentworth (Cato, Tom, and Rose, valued at £100, £70, and £70), John Carnes (a "Negro Man," valued at £66:13:04, and "a Woman (old)," valued at £10, 1760), at Paddy's Alley East, and Job Coit (a "negro weoman," valued at £50, 1742) and Philip Viscount ("four negroes," 1751) at Cross Street Back Lot. Additional research in other sources revealed three more slave owners. Vital records indicated that Thomas Lake, of Paddy's Alley East had a "Negro servant" named Besse in 1656. The 1771 Provincial Tax schedule showed that Jonathan Williams, of Paddy's Alley, owned two "servants for life" (Massachusetts State Archives 132:113). A published genealogy related that Benjamin Perott Homer, the son of Benjamin Homer, who owned and occupied the Cross Street property in the 1760s and 1770s, "had a negro boy to attend to himself alone," who "attended him to school and followed him everywhere" (Dixon 1889:19). A tantalizing, if tenuous possibility is that the Jemima Bisse who testified in the Katherine Naylor divorce case that she provided henbane to Mary Read in the early 1670s is related to the "negro servant Besse" in the Lake household two decades earlier; the Lakes and the Naylors lived adjacent to one another. This would indicate at least one African-American woman was established as an authority on herbal medicines in the vicinity of the project area. If these two individuals are not the same person, they may be mother and daughter, as adoption of parental names as surnames is documented elsewhere in New England (Piersen 1988:35, 92). Unfortunately, the documentary evidence is inconclusive.

Manuscript schedules from the 1771 Provincial Tax enumerated "servants for life" between the ages of 14 and 45, who would all have been slaves. According to the tax schedule, of 38 households of either owners or renters of property in the general area of the site, 10 (26%) owned slaves, while 27 (71%) did not. Calculating from citywide totals also listed in the tax schedules, at most 15% (and probably fewer) of Boston's households owned slaves, putting the neighborhood around the two sites well above the average. The remaining household in the sample examined (which constituted 3% of the sample), was headed by "Negro Sipio," almost certainly a freedman. Of the households that owned slaves, nine had only one and one had two (Tax Schedules, 1771 Provincial Tax).

The status of slaves in seventeenth-century Massachusetts was peculiar. The Puritans justified chattel slavery, the ownership of human beings, through a curious legal device. Legally, the status of a slave was supposed to be no different than that of any other bound domestic servant. At the time, it was customary for adolescent boys and girls from less wealthy families to be bound out as servants or apprentices for a particular term of years, and indentured servants were required to work, again for a specified number of years, to pay for their passage. Time remaining in a term of service was a commodity, sometimes valued in estate inventories, and often conveyed for money. To the Puritans, the time and not the actual person was (at least legally) the commodity exchanged. In the case of "servants

for life," that time was indefinite, while the bound servant or adolescent could look forward to the end of their service, sometimes after having learned valuable trades or household management skills (R.Thompson 1986).

The key difference, and one that was not explicitly addressed by the Puritans, was that children were bound out by their parents, and indentured servants were bound out by themselves, where slaves, Africans and Native Americans, were not. Theoretically, anyone of age could bind him- or herself out for any term. People could be bound out by the state if they were either convicted of a crime or captured in war. The Puritans seem to have assumed that this was how the Africans whom they purchased came to be slaves, or at least they showed remarkably little curiosity about this aspect of slavery. Paradoxically, "man stealing" was a punishable offense, and ship captains who involved themselves too closely in taking slaves could be and were prosecuted for it. In 1646, the General Court ordered two Africans who had been kidnapped by two Boston mariners returned to Guinea (Higginbotham 1978:65). Not surprisingly, a key element in the Puritan justification of slavery was its presence in the Old Testament, which in this as well as other areas of life seems to have served them as a social blueprint (D. Hall 1982).

Early in the eighteenth century, the way that servants for life were seen by their masters began to change. From 1705, they were taxed as property, rather than as individuals; in short, they were transformed, in the eyes of slave owners, from persons to chattels (Higginbotham 1978:78).

Throughout the seventeenth and eighteenth centuries, one aspect of the legal status of African and African American slaves was that, as servants, they had the right to sue their masters, as well as considerable protection from at least overt physical abuse. Their testimony was accepted in court cases. Despite changes in the way they were conceived of by slave owners, these rights continued to be in place (Higginbotham 1978:85; L. Greene 1942:168).

Enslaved Africans developed a distinctive subculture, in spite of the indignities that came with "servitude for life" (Piersen 1988). In the anonymity of urban Boston, this subculture was most persistently visible when it was reflected in laws passed by town government to curtail it. Boston passed laws to control Africans and African-Americans in the 1720s and 1730s (Higginbotham 1978:79-82). African-American funerals, which apparently involved several African survivals such as a circuitous route through the city and shaking or tilting of the coffin, brought this subculture into public view, and were restricted. Nighttime gatherings (including funerals) were restricted, and at one point (about 1740) a curfew was placed on the city's African-Americans. The latter did not sit well with the city's free African-American population, of course. Other restrictions prevented African-Americans from owning hogs (apparently to make thefts from the white population more visible), and prevented them from carrying canes or sticks. Boston's Selectmen also passed laws regulating the young, apprentices, and servants, groups who, with African-Americans, were considered potentially troublesome. These regulations have been seen as an attempt to control the emergence of a youth subculture in the face of the deterioration of the Puritan patriarchal family (R. Thompson 1986:90-96). No doubt these restrictions were an attempt to control the activities of what were perceived as particularly boisterous subcultures, including African-Americans.

The public expression of Colonial New England's African-American community came in the form of the election and coronation of Black kings and governors. The ceremonial choosing of representatives by African-American communities was "an important celebration of Black awareness" that drew on both African and Yankee political ritual (Piersen 1988:117). Usually set on Election Day, these often loud and raucous community celebrations began in the Boston area in about 1740, and by the 1770s had spread across the region (Piersen 1988:117-118). Their underlying African elements, though blended with European elements, gave African-American communities an

important and distinct symbolic focus that contributed to their construction of identity. In addition, the acknowledgment and occasional financial support of the ritual by white New Englanders, and the limited acceptance of the king or governor as a spokesman or mediator between communities was at least a passive acknowledgment of that constructive process (Wade 1988).

2. *Archaeological Evidence*

Are African-Americans visible in the archaeological record of Colonial Boston, and if so, how are they visible? The question is complicated by several factors. The first is the urban character of the deposits, which introduce considerable "noise" to any analysis. A second complicating factor is that ethnicity, or in fact any other form of identity, seldom translates directly into material differences. Identities emerge in action and interaction, and the power of objects lies in large part in their capacity to mean different things to different people (Cook 1992).

African-Americans and whites, living and working side by side on the same sites, using the same objects, are going to contribute to assemblages in ways that are difficult to separate in analysis. This problem is bound up with great promise. One aspect of this is that because of the nature of the domestic duties of household servants in Boston during the Colonial period, it is very likely that African-Americans contributed directly to the cultural transformations associated with refuse deposition and site formation at both sites, out of proportion to their numbers in either the household or the community. Given the interest in "seeing" African-Americans in the archaeological record in recent years, it is important to point out that they, or at least their activities, have always been there, and visible. A focus on resistance to domination is useful, but we must guard against establishing cultures of resistance as somehow "truer" than cultures of accommodation. If we begin with the premise that African-Americans *only* expressed themselves through Africanisms, we construct them as Others (Bhabha 1990, M. Hall 1992:385) and move further from being able to see them at all.

That said, ways must be found to identify material culture through which African-Americans may have expressed their identities. One useful approach might be called the "index artifact" approach (Cook 1991), in which material items that appear to be associated only with a particular group are considered to be clear evidence of that group's presence, much as geologists use "index fossils," life forms with short duration in geological time, to date geological deposits. An index artifact approach is useful in identifying classes of material items that were sufficiently important to their owners to warrant ownership, categories that can be investigated in the documentary record, and to some degree "recontextualized."

In discussing the remains from the Calvert site in Baltimore, Maryland, Anne Yentsch (1994:190-194), interpreted coral beads and other similar artifacts as evidence of African presence, and as signs of African-American identity. Beads were not a common form of adornment among European women until the mid nineteenth century (Yentsch 1994:193-194), so it is possible that such beads, and others of glass, are associated with the presence of Africans on urban archaeological sites, as they are on plantation sites in the Caribbean (Armstrong 1990).

Two coral beads and a drilled snail shell, apparently intended as a pendant or necklace ornament, were among the beads and shells (Figs. VIII-12 and Fig. V-50) recovered from the two sites. One of the beads (see Fig. VIII-12b), tubular in shape, was recovered from Phase IV-3 at Paddy's Alley East, a context associated with the household of John Carnes, which is documented has having included two African-Americans, a man and an old woman, in 1760 (see above). The second coral bead was recovered from Phase VII, also at Paddy's Alley East, a context associated

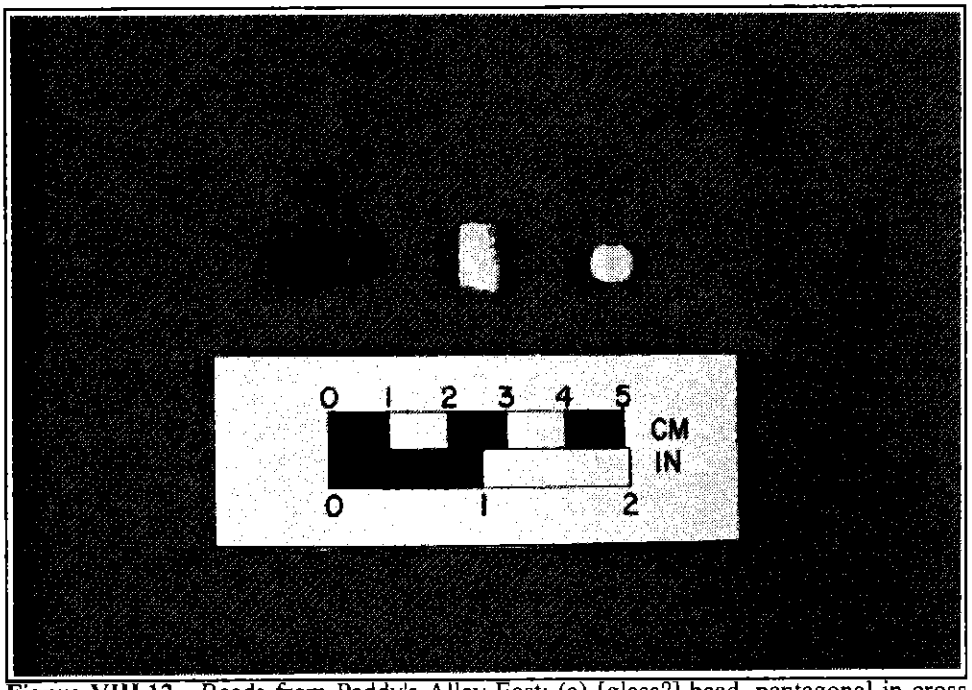

Figure VIII.12 - Beads from Paddy's Alley East: (a) [glass?] bead, pentagonal in cross section, Phase VI (1730-ca. 1760): 18,529; (b) tubular coral bead, Carnes midden, Phase IV-3 (1720s): 24,613; (c) spherical bead, Carnes midden, Phase IV-3 (1720s): 12,485.

with the occupation of the property by the household headed by Jonathan Williams between 1760 and the mid 1790s. The Williams household included at least two "servants for life" in 1771 (Tax Schedules, 1771 Provincial Tax). The third item, the snail-shell bead (not illustrated), was recovered from Phase IV-3 at Paddy's Alley West. That phase is attributable to any of five short ownerships during the 1720s and 1730s, some of which may have involved absentee landowners and occupation of the property by tenants. There is no evidence either for or against African-American presence on the site during that period, although there were probably slaves living in the Carnes household on the adjacent property during this time.

Several exotic shells were recovered form the sites (Fig. V-50). Included among them was a cowrie shell (see Fig. V-50) recovered from Phase I at Cross Street Back Lot, in a context associated with late seventeenth-century occupation of the property by Katherine Nanny Naylor, who is not documented as owning slaves. As both of Katherine's husbands and her son had commercial connections in the Caribbean, within the natural range of the cowrie, African-Americans may have had nothing to do with the shell's presence.

What these items meant to those who owned, wore, or used them is unclear. Yentsch attributes both social and ideological functions to the beads from the Calvert site. "[L]ike other forms of bodily adornment . . . jewelry conveyed information, was emblematic of cultural identity in a heterocultural society, and provided protection to its wearer" (Yentsch 1994:193). Yentsch considers cowrie shells as emblematic of wealth (Yentsch 1994:193), and cowrie shells were used in the gambling game of "paw," popular among New England's African-Americans, and among European-Americans as well by about the mid eighteenth century (Piersen 1988:103). No written descriptions of functions or motives behind the use or meaning of these specific artifacts were located during the present study; more than probably, none survive. The African-American practice of collecting beads and other items is documented

elsewhere in Massachusetts during roughly the same period. Jin Cole, abducted from her West African village at the age of twelve and sold in 1739 to Parson Jonathan Ashley of Deerfield, was reportedly clear about why she collected similar items:

> She fully expected at death, or before, to be transported back to Guinea; and all her long life she was gathering, as treasures to take back to her motherland, all kinds of odds and ends, colored rags, bits of finery, peculiar shaped stones, shell buttons, beads, anything she could string. Nothing came amiss to her store (George Sheldon, quoted in Wade 1988:179-180).

Lest this be considered merely idiosyncratic behavior, her son Cato also collected items in anticipation of a journey to Africa, and continued to do so until he died in 1825.

There is some ambiguity about the status of coral beads as symbols of identity among Boston's African-Americans. The inventory of John Coney, a goldsmith, to whom Paul Revere's father was apprenticed, contains a listing of items sold by Coney's estate after his death in 1720. Included on the list is a "coral necklace" (Suffolk County Registry of Probate 4641). Coney, like other jewelry makers had "boxes of gold and pearl beads [he] used for the jewelry he made" (Forbes 1942:10). Whether the coral beads were intended as raw material for jewelry is unclear, and the identity of the purchaser is unknown. It is possible though, that whites played some role in this form of African-American self-expression.

Several sherds of a low-fired earthenware were recovered from Feature 1 (Phase IV, ca. 1780-1810) at Cross Street Back Lot. They mended into a small round-bottomed pot with a constricted neck, which does not appear to be of European manufacture. Leith Smith, formerly of Timelines and now at Syracuse University, feels that this vessel is a type of "colono ware," the African-influenced ceramics that are common in the American South (e.g., Ferguson 1992). Smith feels that the closest affinities of the vessel are to Afro-Caribbean forms from Haiti, and we are currently awaiting results of tests on the ceramic paste to confirm this (Smith 1995).

Feature 1 dates to the period of roughly 1790 to 1810. It is unclear which of several households present on the property deposited the contents of the feature. One tenant of the property, Samuel Wild, was described in city directories as operating a West India goods store. He is not documented as owning slaves, and there is no record of an African-American presence on the site during the relevant period as far as we know. The dates are informative, however. In the aftermath of the rebellion of slaves in Haiti, which led to that country's independence at the turn of the nineteenth century, Haitian slave holders fled, many with their slaves. Some of them came to Boston (Bower 1991). Although there are many ways in which this vessel could have found its way into Feature 1 (including, of course, Samuel Wild's acquiring the vessel through his Caribbean commercial connection), it may stand as the first archaeological evidence of the baggage brought by Boston's early Haitian community.

3. Conclusion

The union of documentary and archaeological evidence from the Paddy's Alley and Cross Street Back Lot sites demonstrates vividly the presence of an African and African-American community, creating a distinctive and vibrant subculture, in the spaces around, and indeed, at the hearth of the majority culture. Further, the ties of some members of that community to both the traditional cultures of Africa and the emerging Creole cultures of the Caribbean, is suggested as well.

E. Gender

As discussed above in Section II.C.3, gender is an increasingly important framework within which to view past societies and the archaeological record. Increasing research on the part of historians (e.g. Cott 1977, Ulrich 1980) has brought forward issues and information that allow historians (and archaeologists) to situate their data in terms of gender -- to "engender" it.

Archaeologists, in attempting to engender the material record, face a particular set of difficulties. While historians most often have considerable information about the people whose behavior or attitudes are contained in the documents that they are studying, artifacts in and of themselves do not contain such information, either now or in the past. Yet at the same time artifacts were and are associated with gender at a deep level (cf. Nylander 1993).

Gender differences are not the same as sexual differences. The latter are primarily biological, while the former are principally social and cultural. Gender is so fundamental an aspect of culture that people often assume it to be biological in nature. In fact, with the exception of childbearing, there is no biological basis for what has been referred to as the "sexual division of labor." Occupational differences are thus based more on social proscriptions than on sexual disparity, although they are commonly rationalized in biological terms (e.g., "women can't lift heavy objects," etc.). This poses two closely related problems for archaeologists. The first is that there are numerous artifact types that are used (sometimes in different social or spatial contexts, sometimes not) by both men and women; pretty much *any* artifact was capable of being purchased, used, and discarded by anyone. The second problem is that we cannot assume a sort of historical "uniformitarianism," in which the relationship between gender and material culture that is predominant today also operated in the past. Culture change affects material life and material culture; we must be extremely careful to avoid interpreting the material aspects of gender within anachronistic frameworks.

The "engendering" that artifacts undergo is a cultural process, manifest in socially constituted actions. The *contexts* within which those processes operated and those actions took place in the past are not recovered in the archaeological record, and are found only in fragmentary form within documents. To be interpreted, the past must be "*re-contextualized,*" or in the present context, "re-engendered." In short we in the present, whether working with documents or artifacts, do not "engender" the past. That was accomplished (in the present tense) by the people who lived in the past. Rather, through a reconstructive process, we "re-engender" the pasts that we study. This may seem to be a mere difference in semantics, but it allows us both to focus on the need to utilize the evidence on gender in the documentary and artifactual records systematically, and to accept the responsibility that we bear for our reconstructions.

As discussed above, the research design focused consideration of gender in several areas. These were:

1) The development of detailed, site-specific historical contexts, including, where possible determining the gender of site occupants at different times. These contexts may be found above, in Section IV.

2) Consideration of evidence of the gender-based contexts of use of particular items, including the classification of ceramic vessel forms in such a way that women's traditional work, such as cooking, would be visible.

In addition, a third aspect of gender research was the examination of secondary historical sources on gender in Colonial New England. This research provided a broader framework within which gender issues could be interpreted.

1. Colonial Gender and Identity

Laurel Thatcher Ulrich (1980:7-10), in discussing the relationship between gender and identity in Colonial New England, reminds us that women's public identity was legally subordinated to the identity of others throughout the life cycle. A woman began life as the daughter of a man, and was formally identified as such. In adolescence she might be bound out as a servant to a family, and identified as the servant of the head of household, generally also a man. When she married, her identity was legally subsumed by that of her husband. According to William Blackstone, a preeminent legal authority of the seventeenth century:

> By marriage, the husband and wife are one person in law; that is, the very being or legal existence of the woman is suspended during the marriage, or at least is incorporated and consolidated into that of the husband; under whose wing, protection and cover, she performs everything (William Blackstone, quoted in Ulrich 1980:7).

After her husband's death, a woman was her husband's "relict" or widow. The Old Testament was the model for family structure, as indeed Biblical terminology and metaphors served as a common semiotic in daily life (D. Hall 1982).

This is not to say that women did not have social or legal identities. They had both. When they interacted with neighbors or testified in court cases, they did so as themselves, under their own names.

A further aspect of identity no doubt arose in the course of women's daily lives, in the work that they did. Ulrich points out that women were given considerable domestic responsibility. This entailed the management of household affairs, servants, children, and the preparation of meals. Often the servants within the household were young girls who were essentially apprentice housewives, learning skills associated with household duties and management, and with motherhood, who were expected to end their service upon marriage. This responsibility often extended beyond the household to embrace the business and financial affairs of absent husbands.

But by far the most important responsibility of married women lay in bearing and raising children. This responsibility was recognized by the community; ministers sermonized on the pains of childbirth as atoning for the original sin, not only of women themselves, but of the community as a whole. Death during or as a consequence of childbirth was not uncommon. Women with large families were regarded with considerable respect and a certain amount of awe by men and women alike. Among women, status was closely tied to their performance of reproductive and nurturing roles.

2. Gender and Archaeology

Is the gender composition of households visible in the archaeological record, and if so, in what form? The project approached these questions from several directions.

First, although considerable evidence was encountered about household composition within the project area, the records are far from complete. Where family formation took place in Boston, there is some likelihood of reconstructing households from the town's vital records. In addition, the high profile of the first several generations of settlers (such as Katherine Nanny Naylor) among genealogists assists in that task. For families that moved to the city after the 1630s, or in the eighteenth century, reconstruction was difficult. Uniform recording of household composition does not exist until the first United States Census in 1790, although there is some aggregate population data. An additional problem within the project area stems from the high numbers of absentee landlords throughout the occupation of the sites. In some cases the tenants are not known, and in other cases their surnames or full names are known but are not sufficient to link them with identifiable individuals or households in the vital records.

In some cases, linkage between the archaeological record and specific households is difficult because of the nature of particular deposits. In the case of yard deposits it is not easy to be sure that the scattered (and often sparse) materials relate to the household and not to neighbors, and in the cases of properties with multiple households, either at the same time, or in succession within the time frames defined by the archaeological phases, it is difficult to be certain which household(s) deposited which material. Rather than households, or even "housefulls," at some points where there are multiple structures on a property, "lotfulls" may be the appropriate social unit. Generally, in the case of privies and other artifact-bearing deposits such as middens, there is a higher likelihood of both a sample of meaningful size and close association with a documented household.

Generally however, background research indicated that there was some variation in the gender composition of households within the project area. It was felt that gender issues could be clarified in several ways, generally related to gender-based divisions of labor and activities in the historical past.

3. Analysis of Activities and Personal Group Artifacts

First, the functional category of activities-related artifacts was examined, and provisional assignments of gender were made for particular classes of artifact. The classifications were based on whether artifacts were likely to have been used by men, by women, or by both groups. It rapidly became clear that most of the items in the activities group for which gender could be assigned were artifacts associated with use by men. The functional category of personal items was also examined. Here, the gender assignment of artifact classes was weighted towards women. In combination, these two functional groups probably provide a useful basis for analysis of gender-based activities on the site.

The artifacts used in the analysis were as follows: the designation (A) following an artifact type indicates that it is part of the activities group, (P) indicates that it is part of the personal group. Male activities were considered to be represented by crucibles (A) , carpentry and woodworking tools (A) , files (A) , screwdrivers (A) , shovel handles (A) , slag fragments (A) , and wig curlers (P) . Female activities were represented by beads (P) , pins (P), scissors (P) , thimbles (P) , a wooden spool (P) , a bone needle-case (P) , fan struts (P) , a glass funnel (A) , and corset stays (P) . Items that were not considered gender-specific include chamber pots, unidentifiable tools, and objects that in general could not be associated with specific activities. Note that many of the "female" artifact categories relate to sewing. Sewing is, in the present and historically, both a personal and economic activity, and it is quite probably this ambiguity that leads archaeologists to place sewing items in the personal category. This may obscure an area of material culture where women's economic activities might otherwise be highly visible.

The results of the analysis may be seen in Table VIII-4. The division between activities and personal-group artifacts is maintained in the table. Chamber pots, which are not gender-specific, were counted once per vessel, rather than by sherd. Slag, which indicates male activities, varied widely in numbers of pieces from context to context, and so was not counted for the analysis. Instead, its presence or absence was indicated.

Table VIII-4 indicates the clear division between male and female activities in the activities and personal functional artifact groups, as well as the high percentage of items in both groups that are not gender-specific. Several phases stand out; Phase I at the Cross Street Back Lot Site has very high percentage of items associated with women in the personal functional group. As discussed below, this phase is associated with the lower level of Feature 4, dates to the last quarter of the seventeenth century, and was deposited by a household that consisted mostly of women. Another anomalous assemblage is represented by Phase IV at the Paddy's Alley East site, where most of the activities group is associated with male activities. This context is associated with John Carnes, a pewterer, and the four crucible fragments in the assemblage are almost certainly the result of his activities. Many of the artifacts there apparently represent secondary deposition derived from Carnes' economic activities.

The second highest peak of female-related items occurs in Phase IV at Paddy's Alley West. This context is problematic, as a number of individuals owned the property, and presumably a number of households occupied it, while these deposits accumulated. An additional complicating factor is that one of the owners, Elisha Hedges (owner 1728-1730) was a tailor, and several "female" items, including a scissors fragment and what appears to be part of a large needle, may date to his ownership (and probable occupation) of the property.

4. Ceramic Vessels

Divisions of labor in the urban household economy were such that in most households, men's work was directed towards the market and the economy at large, while women's work tended to be more directed toward "domestic economy," or management of internal household affairs. This is no doubt an oversimplification in many ways, as some women's activities, such as food production and sewing, could also have external, meaning market, implications, and because in the days before discussion of "the Woman's Sphere" became popular, women could and did play important roles in their husbands' external economic affairs (Ulrich 1980).

Nevertheless, whatever else they were doing, women never relinquished (or were relieved of) responsibilities associated with household food production and processing, and for this reason we felt that analysis of vessel form in features that could be linked to documented households might illuminate gender roles in those households. The following contexts were investigated in detail because they displayed tight temporal control and likely association with specific households. Details about the nature and structure of each context may be found above in Section V.

Table VIII-4. Distribution of activities-related and personal artifacts by gender.

	Activities			Total Activities	Personal			Total Personal	
	Male	Female	?		Male	Female	?		Slag[1]
CSBL I	--	--	17	17	--	27	5	32	A
CSBL II	--	--	6	6	--	4	3	7	P
CSBL III	--	--	2	2	--	4	20	24	A
CSBL IV	--	--	1	1	--	5	16	21	A
CSBL V	--	--	6	6	--	1	15	16	P
CSBL TOTAL	--	--	32	32	--	41	59	100	
PA/E I	--	--	1	1	--	1	--	1	A
PA/E II	--	--	3	3	--	1	--	1	A
PA/E III	--	2	3	5	1	1	8	10	A
PA/E IV	15	--	22	37	1	5	9	15	P
PA/E V	--	--	2	2	--	--	--	--	A
PA/E VI	--	--	2	2	--	1	--	1	A
PA/E VII	2	--	5	7	--	3	11	14	P
PA/E VIII	--	--	--	--	--	--	--	--	A
PA/E IX	2	1	8	11	--	3	2	5	A
PA/E TOTAL	19	3	46	68	2	15	30	47	
PA/W I	--	--	1	1	--	2	2	4	A
PA/W II	--	--	--	--	--	--	--	--	A
PA/W III	2	--	--	2	--	2	2	4	P
PA/W IV	1	--	13	14	3	8	22	33	P
PA/W V	--	--	--	--	--	--	--	--	A
PA/W VI	--	--	--	--	--	--	--	--	A
PA/W VII	--	--	8	8	1	--	4	5	P
PA/W VIII	--	--	--	--	--	--	--	--	A
PA/W IX	--	--	--	--	--	--	--	--	A
PA/W TOTAL	3	--	22	25	4	12	30	46	
OVERALL TOTAL	22	3	100	125	6	68	119	193	

[1]Presence (P) or Absence (A)

a. Proveniences Analyzed

Cross Street Back Lot, Feature 4, Phase I

This feature is a brick-lined privy vault dating to the second half of the seventeenth century, and the contexts in question consist of five layers of fill and privy contents. In the early 1670s, the household included Edward Naylor, a merchant; Katherine Nanny Naylor, his wife; their two young daughters; several servants, including at a minimum, a young maidservant and a middle-aged manservant. Katherine's son and daughter by her late husband, Robert Nanny, may also have lived within the household at times. Much of this detail comes from court depositions; in 1673, Katherine petitioned the Court of Assistants for a divorce. Naylor had absconded to New Hampshire with Mary Read, a former servant whom he had impregnated. His departure was the culmination of several years of drunkenness, physical and psychological abuse of his family, and untoward behavior towards several other servants, including one with whom he had conducted a lengthy affair, prior to his involvement with Mary Read. Mary Read was suspected of having attempted to poison her mistress by putting poisonous henbane in her beer. The court granted the divorce. During the 1680s, the eldest daughter married, and she and her husband lived with the family for an unknown period. By 1691, both of the older children were dead, and Katherine lived with her younger children and possibly servants as well. By 1698, her daughters were apparently married, as she sold some property near the project area and moved to Charlestown, renting out the site. Thus for much of the period during which the privy was probably filled, the household consisted principally of women.

Paddy's Alley West, Feature 20, Phase IV-1

This feature was a privy, apparently dating to the 1720s. At the time that the feature was deposited, Paddy's Alley West was owned by the children and heirs of John Jepson, Jr., who had died in 1721. It is unclear whether they occupied the site or rented it. In 1728, the property was divided, and the section containing Feature 20 was set off to Benjamin Jepson, a wig maker (see Section IV.B, above), who sold it almost immediately.

Paddy's Alley East, Carnes Midden, Phase IV-3

These deposits consist of artifact-rich fills laid down in the course of landscaping changes related to the construction of a building in the northwest corner of the Carnes property during the 1720s. During this period, the Carnes household consisted of the Carneses, their children, several slaves, and an unknown number of apprentices and other servants.

Cross Street Back Lot , Feature 4, Phase III

Phase II of Feature 4 consisted of deposits that overlay, and sealed, the feature fill. Those deposits were associated with the household headed by Job Coit during the 1740s, consisting of his wife Lydia, their children, and perhaps at least one apprentice.

Cross Street Back Lot, Feature 1, Phase IV

This feature was a privy filled ca. 1790-1810, in the rear corner of the Cross Street Back Lot property. At this time the property was owned and occupied by several individuals and households, including households headed by Daniel

Gealey, a "huckster," Samuel Wild, who ran a West India goods shop and later a tavern. By the end of the period the site was occupied by Jason Wilson, a "retailer," as well as three other households, including a boarding house and two families. The composition of these households is unclear, and how many of them contributed material to this feature is unknown.

b. Ceramic Vessel Analysis

Ceramic vessels were examined for each of the above contexts, and the numbers of tableware (including tea-ware) vessels, serving vessels, food-preparation vessels, storage and utility vessels, and indeterminate vessels were calculated. Further, the number of bowls was abstracted and expressed as a percentage of total vessels; the number of combined serving, food preparation, and storage/utility vessels was expressed as a percentage of the total vessels; and the number of identified table-glass vessels was expressed as a percentage of total vessels. The results of these analyses, which will be discussed in detail below, may be found in Table VIII-5.

Table VIII-5. Vessel frequencies in selected features and contexts.

	Cross Street F4 Ph I 1670-1700		Paddy's Alley F20 Ph IV-1 1720s		Cross Street F4 Ph III 1740s		Paddy's Alley Carnes Midden Ph IV-3 1740s		Cross Street F1 Ph IV ca. 1800	
	no.	%	no.	%	no.	%	no.	%	no.	%
Tableware	44	51	29	73	34	54	69	61	55	63
Tea Ware	1	1	0	0	11	17	9	8	13	15
Serving	4	5	3	8	3	5	9	8	3	3
Food Prep.	8	9	4	10	7	11	9	8	5	6
Stor./Util.	23	27	2	5	8	13	14	12	9	10
Indeterminate	6	7	2	5	0	0	3	3	2	2
TOTAL	**86**	**100**	**40**	**101**	**63**	**100**	**113**	**100**	**87**	**99**
Bowls	15	12	7	18	7	11	13	12	14	16
Serv/Prep/Stor	35	41	9	23	18	29	32	28	17	20

Note: The last two categories are composites or abstracts of the categories listed above and are not, therefore, included in the totals.

Because of the documented connection of women with the preparation and serving of food, and with household management, we expected women to be most visible in relation to vessel types used in those activities. Generally, serving vessels ranged between 3% and 8% of each assemblage, and food preparation vessels between 6% and 12% (see Table VIII-5). Storage and utility vessels ranged between 5% and 13%, with a notable exception: the large number of storage vessels in Feature 4, Phase I at Cross Street pushed the percentage to 27% in that context. Overall, when numbers of serving, food preparation, and storage/utility vessels were combined, the results ranged

from lows of 20% in Feature 1 at Cross Street (ca. 1810), and 23% from Feature 20 at Paddy's Alley (1720s), up through 28% and 29% from Paddy's Alley East Phase IV (the Carnes midden) and Cross Street Feature 4, Phase II (both deposits from the 1740s), to the high of 41% in Cross Street Feature 4, Phase I (late seventeenth-century).

As noted above, the deposits in Cross Street Feature 4, Phase I originated with a household that was almost certainly principally or entirely composed of women during the period of deposition. The analysis of activities and personal group artifacts discussed above identified this context as containing a high percentage of items related to women's activities. There may be some other unidentified factors at work in the case of the vessel analysis discussed here; much of the material may represent secondary deposition; very few of the 23 storage vessels identified in the context were more than 90% complete. But, on the basis of this analysis, it would appear that women's activities are visible in the urban archaeological record, to the extent that the one household that is both documented as a predominantly single-gender household, and that can be linked to archaeological deposits, also appears as an anomaly in the comparative analysis both of vessel types and of activities and personal artifacts.

5. *Discussion, with Closing Thoughts on Gender and Identity*

The above analyses indicate that men and women may be made "visible" in the archaeological record, if analyses are constructed in ways that are conducive to such visibility. But it is important that we remember that, as deposited, and as excavated, things themselves are neither "gender," nor are they engendered. Instead, the engendering of material culture was a process that occurred in contexts of social action. The communication of idealized roles, whether derived from the Old Testament, enlightenment philosophy, or whatever source, was realized through practices that were both socially constructed and socially constructive (Beaudry et al. 1991). It is no accident that in each of the analyses discussed above, gender became visible when artifacts were analyzed in contexts of use and of action. John Carnes emerges as a man involved in predominantly male manufacturing activities only when we look closely at the byproducts of those activities, deposited as an incidental activity designed to level the ground for a brick paving in front of a new workshop. Katherine Nanny Naylor and her daughters are seen as a household of women, but only after looking at the pins and thimbles that they wielded in constructing garments, and the storage vessels that they used and discarded. This may seem tautological at first, but given the tendency of gender and gender roles to be reified as "natural" categories, rooted in physical difference (Cook 1991), it is never amiss to point out that gender in the past was constructed, and that we in the present reconstruct it through our analyses.

Gender, with most of the other divisions that societies put forward (class, ethnicity, race, etc.) is necessarily based on identity, both as ascribed by others and as assumed by selves. Identity is the arena where these divisions leave the realm of the abstract and enter consciousness. Not surprisingly, identity is a source of conflict both between and within individuals and groups. But for all that, achieving self-consciousness can be liberating. This is nowhere more visible than in the case of Katherine Nanny Naylor, discussed in detail above.

Katherine Naylor shifted identity early in the 1670s. She went from being a woman who identified herself as the wife of Edward Naylor, to a woman who belonged to no one but her children. At some point, she realized that her interest no longer lay with her husband, and that her identity could no longer lie there either. The shift may have begun when he forced her out of bed where she was lying in after the birth of a child to visit neighbors. Lying-in was commonly a lengthy process involving the recovery of strength (Scholten 1985:27). She may have had doubts, but she went. It may have begun when she became ill after drinking a mug of beer, and suspected a servant, the lover of her husband, of poisoning her. But she kept silent. It almost certainly was encouraged by the physical

abuse that she and her children suffered from Edward. She protested verbally to him over this. The shift almost certainly had come when he tried to throw her infant daughter to the floor one evening. Snatching the child up, she ran from the house into the yard, and stood in the winter cold rather than obey his command to come back inside. Shortly afterwards, Edward ran away with a pregnant servant to New Hampshire and ultimately to Maine. His absence provided her with the opportunity she needed. Her filing suit for divorce was only the official, legal, action accompanying an internal change in identity that had already occurred.

The divorce granted, Katherine entered a world of uncertain and transitional identity. She was able to eke out a living on the proceeds of property that her first husband had placed in trust, including the house on Ann Street, a wharf and extensive property in northern New England. She did not remarry, and referred to herself as "Katherine Nanny, alias Naylor," both severing herself from, and acknowledging, her former identity. To arrive at that point, in Puritan Boston, must have required internal changes as deep and painful as the relationship with Edward Naylor.

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