

LEGACY PROJECT #1741

ARCHAEOLOGICAL SURVEY OF THE UNITED STATES
NAVAL ACADEMY SHORELINE

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FINAL REPORT

Prepared For
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Naval Facilities Engineering Command
United States Naval Academy

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October 30, 1996

ABSTRACT

The University of Maryland, College Park (UMCP) and Engineering Field Activity Chesapeake engaged in a cooperative agreement for the purpose of conducting a survey of the Naval Academy's shoreline. This survey was to include historical research and remote sensing investigations. The project location included the area from the Academy's Spa Creek boundary near City Dock, around the core of the property, up College Creek to the bridge on the Naval Academy which parallels the Dorsey Creek Bridge on King George Street, and around the shoreline of the Naval Medical Clinic to the old Severn River Bridge.

Archival research produced information regarding land reclamation and acquisition by the Naval Academy since its establishment on Windmill Point, as well as the history of land use prior to the Academy's existence. The Naval Academy, established in 1845 on the grounds of Fort Severn, has had a significant effect upon the shoreline over the years. Lands along the waterfront have been used for a variety of purposes including defensive works, basins, docks and wharfage, and training exercises. Prior to 1845, the shoreline areas were used by civilians for such things as ferryboat landings, shipbuilding operations and docks. Past industrial activities include the existence of lumber yards and oyster packing plants. It is probable that traces of many of these resources exist beneath the "reclaimed" lands of the Academy and the water immediately fronting its shoreline. This investigation was undertaken to determine the extent of this possibility.

Archival research yielded records of filling and dredging operations around the Academy. Cartographic research and the digitized map overlays revealed the location of earlier shorelines and shore installations, making it possible to highlight areas of potential archaeological sensitivity beneath the landfill. Further evidence of such buried resources came from other sources. Photographs were located at the Academy's Department of Public Works which show well-preserved "old sea walls" being uncovered during "new building" construction in 1919 on the grounds of the Academy.

While documentary research concentrated on buried shorelines which are now inland, concealed beneath fill, other investigations concentrated upon the current waterline and river bottom adjacent to the Academy. Remote sensing operations detected 65 anomalies located in the waters of the Severn River, College Creek and the Annapolis Harbor off the Academy's shoreline. These anomalies were investigated by divers from the University of Maryland, College Park, with the assistance of volunteers. Anomalies were located using a Systematic Differential Global Positioning System and investigated by the dive team. Anomalies identified by the divers included anchors, anchor chain, and iron pipes of various sizes. The majority of the anomalies, however, are buried beneath the silt and sediment of the river; they could not be located without disturbance of bottom sediments.

ACKNOWLEDGEMENTS

As is the case with any research endeavor, this project could not have taken place without the assistance and cooperation of many individuals. During the archival research stage of this project, Mr. Brian Fors and Ms. Beverly Lyall of the Naval Academy's Nimitz Library Archives provided a great deal of guidance and assistance. The staff at the map vault in the Academy's Department of Public Works also deserves recognition for friendly and informed assistance. As usual, staff members at the Maryland State Archives were quick to respond to any of our research questions.

Coordination of the field operations required the cooperation of a number of organizations and individuals. Those deserving of a special "thank you" include Mr. Domokos Hajdo, Captain Julian Sabbatini, and Ms. Marie Price of the Navy's Department of Public Works; Mr. Lawrence Earle (EFA CHES); Dr. Marie Cotrell, former staff archaeologist for the Navy (LANTDIV); Mr. Larry Murphy and Ms. Fran Day of the National Park Service's Submerged Cultural Research Unit (SCRU) in Santa Fe, New Mexico; Lieutenant Christopher Campbell (USNA) in charge of YP training; the United States Coast Guard; the Department of Natural Resources; and the staff at C & C Boat Charters. The effective interaction of all of these individuals helped make the survey week a success.

The SCUBA diving check of the anomalies located with remote sensing could not have taken place without the support of the above mentioned individuals. Nor could it have occurred without the assistance of volunteers. First and foremost deserving of our gratitude is Mr. David Howe, a member of the Maritime Archaeological and Historical Society (MAHS). Mr. Howe was kind enough to extend to us the use of his vessel, *Top Knot*. Volunteer divers Mr. Gary Melancon (UMCP Field School), Mr. Bill Rutkowski (MAHS), Mr. Mark Little (MAHS), and Mr. Robert Brandt were invaluable to the diving investigations. University of Maryland Field School student, Mr. Les Graves, acted as a hand on deck on the final day of the project.

One final "thank you" goes to Captain Kenny Keyworth, of the *Harbor Queen* sightseeing boat. Captain Kenny not only did an excellent job of avoiding the divers during the week, but also "tossed" a most welcome box of provisions to the crew on a hot afternoon.

Funding for this project was provided by the Department of Defense Legacy Resources Management Program, managed by the Navy Legacy Cultural Resource Office.

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INTRODUCTION

Archaeological investigations of the Naval Academy shoreline were funded through the Department of Defense Legacy Resources Management Program, managed by the Navy Legacy Cultural Resource Office. The Legacy Program project number is 1741. The State Agency Identifier Number for the Academy shoreline project is MD 940811-8124-360201.

Investigations were initiated for the Naval Academy Shoreline/Bulkhead Project in October of 1994. One of the first tasks completed was the preparation of a *Plan of Work* for submission to the Naval Academy and EFA CHES. This plan outlined the stages of work involved in the study, logistical requirements, and a schedule of events. The plan was submitted, as per the original proposal, on 30 November 1994. A meeting was then scheduled with representatives of the Academy and EFA CHES to discuss the project, the plan of work, and the logistical concerns. This meeting was held at the USNA Department of Public Works on 19 December 1994.

As outlined in the *Plan of Work* (30 November 1994), this archaeological survey was undertaken in four stages.

- * Stage One - historical research/cartographic analysis
- * Stage Two - remote sensing survey
- * Stage Three - field check/SCUBA
- * Stage Four - final report (management recommendations)

The Archaeological Survey of the U.S. Naval Academy Shoreline/Bulkhead Project did not include excavation. It instead involved a comprehensive survey of the water around the Academy using magnetometry. The project also called for intensive archival investigations of general histories of the Academy, Navy reports, and official correspondence. Map analysis was a crucial factor in the evaluation of the shoreline areas. Careful review of historical maps and AutoCAD generated overlays was a necessary step in determining changes to and usage of the waterfront throughout the years. This historical research stage of the project was completed as of the 28th day of March 1995. A status report was submitted to the U.S. Naval Academy and EFA CHES on the following day (status report is included as Appendix A). An overview of the steps taken to meet the goals of "Stage One" of the project are presented in the Status Report.

This report will present an in-depth review of the historical research material analyzed during Stage One of this project. Also, presented here are the results of Stage Two - remote sensing survey and Stage Three - field check of anomalies. Individuals wishing to immediately learn of the results of the survey should refer to the section of this report entitled "Conclusions and Recommendations." Stage Four of the project is submission of the report itself in its final form.

Project Location and Description

The United States Naval Academy is located on a point of land bounded on the west by the Severn River, on the east by Spa Creek (the Annapolis City harbor), and on the south by the town of Annapolis itself. The project area begins at the Academy's Spa Creek boundary near City Dock, continues around the core of the property, up into College Creek, and then follows around the shoreline of the Naval Medical Clinic to the old Severn River bridge (Figure 1). The project area is defined in Maryland Archaeological Research Units as the western shore of the Coastal Plain Province within Research Unit 7. This research area is identified as the Gunpowder-Middle-Back-Patapsco-Magothy-Severn-Rhode-West Drainages (Figure 2). The topography of the province is characterized as gently rolling uplands.

The soils in the Chesapeake region are formed from unconsolidated deposits of sand, silt, clay and gravel which overlie crystalline bedrock. Although the topographic variation in the region is not substantial, the sediment deposits vary greatly in depth, texture and degree of permeability (Brush et. 1977:7). The soils which are naturally occurring in the area are of the Monmouth Series, a sandy loam with a 0-2% gradient. It is formed from unconsolidated beds of finely textured sediments. It is deep, strongly acidic, well drained, olive colored and tends to be highly erodible. The soil profile is generally made up of 40-70% glauconite (green sand) (Kirby and Matthews 1973).

The climate of Annapolis and Anne Arundel County is temperate. Rainfall is moderate, but the city's location and the surrounding bodies of water (the Chesapeake Bay and its tributaries) provide humidity. Snowfall in the region is also moderate. The vegetation in the county includes oak, chestnut and hickory forests in the upland areas of the coastal plain and evergreen forests in the lowland coastal plain (Braun 1967:245). Faunal species dominant in the area include deer, small mammals such as rabbit, squirrel and fox and birds such as turkey and water fowl (Shelford 1963).

Cultural History

Annapolis's abundant base of historical information can be found in a variety of sources, both primary and secondary. The following sections present a synopsis of the prehistoric and historic backgrounds specific to the area.

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Prehistoric Background (adapted from Bodor et al. 1993)

The varied environs of Maryland were occupied by a diversity of aboriginal cultures during the prehistoric period. Studies have produced a chronology of these occupations for the Chesapeake region, and identified diagnostic tool forms for the groups within the Middle Atlantic coastal zone (Stephenson and Ferguson 1963; Wright 1973; Steponaitis 1980; Hughes 1980; Custer 1983; Frye 1986). Changes in sea level have been found to have had a profound effect on the patterns of site settlement of these groups.

Paleo-Indian Period (ca. 13,000-7500 B.C.)

The Paleo-Indian Stage is not well represented in Annapolis nor in the surrounding Anne Arundel County area. Most occurrences of Paleo-Indian components within the county are represented by fluted points found out of context, on the surface of multi-component sites (Brown 1979). The scarcity of Paleo-Indian sites within Anne Arundel county, as well as in the entire Coastal Plain Province, is the result of environmental changes which occurred in the Chesapeake Bay region during the retreat of the Wisconsin ice sheet. Retreat of this ice sheet resulted in global sea level rise and eventual formation of the Chesapeake Bay through the drowning of the ancient bed of the Susquehanna River and the lower reaches of her tributaries, thus covering Paleo-Indian sites located there (Kraft 1971).

Human occupation of Anne Arundel County may have begun as early as 13,000 B.C. (Steponaitis 1980:12). Although occupation of areas north of the Middle Atlantic region was probably prior to 12,000 B.C. due to the presence of glacial ice (Funk 1978:16). Traditionally, Paleo-Indian subsistence was believed to have depended primarily on the hunting of Pleistocene megafauna (Willey 1966; Griffin 1977). However, recent evidence suggests that Paleo-Indian populations of the Eastern Woodland probably focused on hunting white tailed deer (Gardner 1980:19-20). Ritchie (1957:7) suggests that subsistence strategies possibly included foraging for plants, fishing, and hunting for small mammals. The tool kit of the Paleo-Indians was adapted primarily to a hunting economy and included scrapers, graters, burins, denticulates, hammerstones, utilized flakes, and knives, as well as fluted points. (Kinsey 1972:327-330; Funk 1972:17-21; Gardner 1974:5; Custer 1984).

Paleo-Indian populations were mobile, changing location throughout the year in order to utilize available resources. Based on work at the Flint Run Complex in Virginia (Gardner 1974:19-23, 42-44; 1977; 1979) several types of Paleo-Indian sites have been identified. The largest of these sites is base camps, the main loci of habitation, which are identified by the variety within the artifact assemblages present at the site, non-random lithic distribution indicating discrete activity areas, and occasional pits and post molds. Base camps may have been occupied seasonally by aggregate bands. Examples of base camps include the Thunderbird site in the Flint Run Complex, Virginia and the Shoop site in Pennsylvania (Gardner 1974; Witthoft 1952). Smaller Paleo-Indian sites may represent special purpose sites occupied by smaller groups for shorter periods of time. These sites include quarry sites, quarry reduction stations, base camp maintenance stations, and outlying hunting sites. Steponaitis notes that

Paleo-Indian base camps identified by diverse artifact assemblages, non-random distribution of lithic debris, activity areas, and post holes and molds, are found in riverine environments. Further, quarry sites were identified by a lack of tools, and the presence of large amounts of debitage and a crypto-crystalline rock source (Steponaitis 1980:66). This indicates that eastern Paleo-Indians were not following migrating animals but were occupying sites on a seasonal basis.

Archaic Period (7500-1000 B.C.)

The end of the Pleistocene was marked by environmental changes, including the inundation of some riverine environments, a change from mixed coniferous forests to northern hardwoods, and a more temperate climate (Whitehead 1972:308-310; Carbone 1976:121). Gradual changes in the flora and fauna, begun during the Paleo-Indian Stage were continued through the Early Archaic Period, resulting in modern temperate flora and fauna populations through most of the Middle Atlantic region (Guilday 1967:232). The Archaic Stage is one of cultural adaptation to these changes, it is further divided into the Early, Middle and Late Archaic Periods.

The Early Archaic Period (7500-6000 B.C.) is characterized by the appearance of two artifact traditions, the Corner Notched tradition (7500 - 6800 B.C.) and the Bifurcate tradition (6800 - 6000 B.C.). The Corner Notched tradition was marked by a change from fluted points to corner notched points, reflecting different hafting techniques and utilization. The general artifact assemblages of Paleo and Archaic peoples were very similar, the differences between the two peoples was in what they hunted (Steponaitis 1980:69-70). The Bifurcate tradition involved the scheduled use of a number of seasonal available resources. In general, the settlement pattern for this period is similar to that of the Paleo-Indian Stage (Gardner 1974; 1977; and 1979).

The Middle Archaic Period (6000-4000 B.C.) was marked by the replacement of northern Boreal forests by oak-hickory forests (Whitehead 1972:308-310). The climate gradually became warmer with increased precipitation from the Early Archaic Period to the Middle Archaic Period. Subsistence strategies and settlement patterns of the Middle Archaic Period were similar to Early Archaic Period patterns. Mobile bands utilized seasonally available plants and animals. Tool kits used during the Middle Archaic Period were similar to Paleo-Indian and Early Archaic Period tool kits. New additions to the tool kit included stone mortars and polished stone atlatl weights, used to balance atlatl spear throwers, recovered at the Hardaway and Doerschuk sites, North Carolina. (Coe 1964:51-55, 80-81).

Some researchers have postulated an abandonment of coastal areas in favor of the Piedmont during the Middle Archaic (Kavanagh 1982:50). However, the continued rise of sea level during this period has probably submerged coastal sites associated with the Middle Archaic Period (Steponaitis 1983:177).

Gardner (1978) and Custer (1984), have identified three types of sites associated with the Middle Archaic Period which reflect the social organization of the period. (See also Gardner

and Custer 1978). The macroband base camp (Custer 1984:67) was occupied by numerous family units. Artifact assemblages recovered indicate fairly long term occupation with a wide variety of activities at these locations. Microband base camps were occupied by smaller family units, probably individual family groups. These base camps tended to be located in environmental settings that could not support the larger populations associated with macroband base camps. Both the macroband and microband base camps were associated with procurement sites. Fewer tool types are associated with these sites and they tend to be related to a limited number of activities. Site location was dependent on the type of resource being utilized (i.e. quarry sites, interior hunting sites, etc.).

The Late Archaic Period (4000-1000 B.C.) was marked by a warm and dry climate and dominant oak-hickory forests. Four traditions flourished during the Late Archaic Period. The Piedmont tradition (4000-2000 B.C.) was an *in situ* development in the Middle Atlantic Region (Kinsey 1972:337; McNett and Gardner 1975). Contemporaneous and co-existing with the Piedmont tradition was the Laurentian tradition (4000-2000 B.C.) which was centered in the St. Lawrence River drainage of Ontario, New England, and New York (Ritchie 1969:29) but also extended south into Maryland. Custer suggests that the third tradition, the BROADSPEAR tradition (2000-1500 B.C.), developed out of the Piedmont tradition as an adaptive response to changing environmental conditions (Custer 1978:3). The final tradition, the Fishtail tradition (1500-750 B.C.), developed during the terminal Late Archaic Period and extended into the Early Woodland Period (Steponaitis 1980:28).

Subsistence and settlement patterns throughout the Piedmont and Laurentian traditions remained similar to the patterns of the Middle Archaic, suggesting a social and political organization similar to the Paleo-Indian and Early and Middle Archaic populations. Bands were probably egalitarian in nature. A seasonal fusion/fission organization is postulated for population movement in which individual families spent a part of the year at microband base camps following seasonally available resources. During another part of the year several bands, probably connected through a kinship network, fused together at macroband base camps. (Custer 1984:67-68). After 3000 B.C. major environmental changes occurred in the coastal plain province which changed the subsistence and settlement patterns of the local population. The BROADSPEAR tradition developed between 2000 and 1000 B.C.; several researchers have suggested that the BROADSPEAR tradition is a development out of the local Piedmont Tradition, with a primary focus on riverine environments (Kinsey 1972:347; Turner 1978:69; Moyer, et. al. 1980:5; and Steponaitis 1980:26). However, Turnbaugh (1975:54, 56) believes that this tradition represents more intensive exploitation of shellfish and estuarine resources in the south, while riverine resources were exploited in the north. Gardner (1982:60) suggests that Late Archaic coastal plain sites utilized estuarine resources and that these sites may have supported semi-sedentary populations. BROADSPEAR knives and woodworking tools recovered from Late Archaic Coastal Plain sites could indicate that specialized tools such as fish traps, nets, and canoes, were being manufactured (Custer 1984:97). Stone and ceramic containers for cooking and storage as well as storage pits appear. The ability to store food resources at the macro and microband base camps allowed groups to remain sedentary for longer periods of time and to

support higher population densities. Turner (1978) notes a marked population growth in the Virginia Coastal Plain during the terminal Archaic and Early Woodland Periods.

Woodland Period (1000 B.C.-1600 A.D.)

The transition from Archaic to Woodland is marked by the appearance of woodworking tools, such as axes celts, and cordage-impressed ceramics. Both types of artifacts reflect a more sedentary lifeway.

This developmental stage is divided into three periods: Early, Middle and Late Woodland. In the middle Atlantic region, settlement and subsistence patterns established during the Archaic Stage continued until European contact. Custer (1984:96) and Wright (1973:20) both postulate a settlement pattern which includes large macroband base camps whose populations periodically separated and moved to smaller microband base camps. Gardner (1982:66) suggests that the macroband base camps were occupied as semi-sedentary sites.

The Popes Creek phase of the Middle Woodland Period is seen as a continuation of and an intensification of the subsistence patterns established during the Early Woodland. Large semi-permanent macroband base camps were located along estuarine or riverine zones of river drainages, and were surrounded by extraction or procurement camps. Settlement patterns indicate that a variety of environmental zones were being utilized (Steponaitis 1980; Handsman and McNett 1974; Wright 1973).

The Late Woodland Period on the western shore of the Maryland coastal plain is divided into two phases, the Little Round Bay phase (A.D. 800-1250) and the Sullivans Cove phase (A.D. 1250-1650). Custer (1984:146) suggests that vast changes occurred in the settlement and subsistence patterns of prehistoric Native Americans during the Late Woodland Period. Prior to 1000 A.D., settlement and subsistence patterns centered around intensive hunting and gathering with some reliance on cultigens. Groups continued the seasonal round of movement from base camp to base camp with occasional forays to procurement sites. Sometime after 1000 A.D. agriculture appeared in the Middle Atlantic Region. Domesticated plants probably appeared prior to A.D. 1000 but, as Flannery (1968) points out, it is difficult to clearly differentiate between intensive horticulture and the actual practice of agriculture in the archaeological record. The process of change from intensive gathering and horticulture to agriculture was gradual. Even with the appearance of agriculture, hunting and gathering still continued. Moeller (1975), Arminger (1975), and Kinsey and Custer (1982) report the recovery of a variety of wild plant remains in association with domestic plants at sites in Pennsylvania.

After A.D. 1000 Native American groups in Anne Arundel County became more sedentary than any previous group had been, as they intensified their practice of agriculture as an economic base. The surplus which agriculture supplied allowed a sedentary life style to develop which included villages. These villages were larger than any previous macroband base camp had been and contained storage facilities such as large pits and more permanent house structures. Large villages were probably surrounded by smaller hamlets or the farmsteads of

individual family groups. When European explorers and colonists arrived in the Chesapeake Bay Region, Native American populations were living in large villages, relying on an intensified and integrated utilization of natural and cultivated resources.

Historic Background (adapted from Aiello and Seidel 1995)

Settlement Period (1634-1750)

Maryland was established as a proprietary colony in 1629 and officially settled in 1634 when St. Mary's City was founded as the colony's capital. The initial settlement of Maryland and the Chesapeake resulted in a high mortality rate among the first European inhabitants. Therefore, the regional European population did not begin to increase substantially until the late seventeenth century.

From 1634 to the 1680s, almost the entire population farmed tobacco for export. This has been argued to have generated very little urban development in an agrarian community for about 50 years (Carr 1974). Most of the tobacco farmers in the colony were generally subsistence based or produced a rather nominal profit. These farmers relied upon larger plantation owners to process and ship the tobacco. Economically, Maryland became a part of an early export based economy.

By the late seventeenth century, enslaved African labor was relied upon by the Chesapeake's tobacco economy. Initially, the labor force was indentured laborers who would work for a specific length of time and in return, would receive passage to the colony.

The importation of Africans increased significantly as more and more indentureds began to survive their labor periods required land grants and freedom dues. (Breen 1980). Utilizing an enslaved African work force ensured consistent tobacco production. Many racist discourses were legally codified in the region at the turn of the century (Epperson 1990, Higginbotham 1986). Maryland was then becoming a central player in the slave trade and the city dock in Annapolis was one of many sites for the sale of enslaved Africans (Brugger 1988:46).

Although Annapolis was settled in 1649, it stayed a small port town throughout the seventeenth century. When the town became an official port of entry for the tobacco trade in 1683, it became known as Arundelton. During that same year, the town's Commissioners were authorized to purchase one hundred acres from current land owners. Richard Beard surveyed the city and staked it into one hundred, one acre lots, with streets, alleys and open spaces for a church, chapel, market and other public buildings (Riley 1901:38).

As a result of William and Mary's Glorious Revolution in 1689, Maryland became a royal colony. The capital of Maryland was moved from the predominately Catholic St. Mary's City to Annapolis in 1694, under the direction of the second royal governor, Sir Francis Nicholson. He is credited with redesigning the city's plan and manipulating optical perspective by using long lines of sight to two prominent, central circles - one which was occupied by the Statehouse and the other encircling the church. The two circles served as a reminder of the

stability and influence of the Crown and Church due to their increased visibility on the highest points in the city.

Annapolis received its city charter in 1708 (Riley 1901:39). Papenfuse (1975) has argued that based upon the city's economic development, eighteenth century Annapolis can be analyzed in three successive periods. The initial period was actually a time of uncertainty which took place as the new town became established in the economy of the region. When Nicholson decided to relocate the capital to Arundelton, he ensured the town's survival, but not necessarily its growth. Baker (1983, 1986) has identified two phases of land development in Annapolis during this phase of uncertainty. Between 1695 and 1705, a small planter/merchant class purchased most of the lots within the city but, quickly sold them. The second phase from 1705 to 1720, was characterized by resident merchants, such as Amos Garrett, Charles Carroll the Settler, William Bladen, Thomas Bordley and Daniel Larkin, purchasing large blocks of city property. Land speculation linked the affluence of these men and their family's social influence.

Papenfuse (1975:10) suggested that after 1715, Annapolis became more economically stable due to renewed governmental involvement and development of local industry. He characterized this second phase, 1715 to 1763, as a time of "Industrial Expansion and Bureaucratic Growth". This was because after 1720, commercial production developed gradually in the town and mercantile influence expanded (Baker 1986; Leone and Shackel 1986:7-8). For instance, since the seventeenth century, ship building had been carried out in the Acton's Cove and Dorsey Creek areas. During this period was also when luxury crafts became more prevalent. Goldsmiths, watchmakers, musicians and hatters began to appear after about 1720 (Baker 1986:201).

Rural Agrarian Intensification and Town Development (1750-1815)

By the middle of the century, the port of Annapolis was becoming increasingly busy and recorded annual growth in shipping during the decade before the American Revolution (Middleton 1953; Brugger 1988:107). A large portion of this shipping involved tobacco; Maryland's exports increased from about thirty million pounds in the 1720s to one hundred million pounds by the 1770s. Agricultural diversification, increased shipments of wheat (Brugger 1988:64) and a growing trade in indentured servants and slaves (Brugger 1988: 45-46), combined with tobacco profits, to encourage the development of a merchant class. Annapolis grew apace. Fourteen major townhouses were constructed in the town between 1764 and 1774, accompanying gardens increased in number, and construction on a new State House was begun in 1772 (Papenfuse 1975:16; Ridgley 1841:144-146).

Between 1745 and 1754, free white males began to find employment in the colony's growing civil service bureaucracy (Baker 1986:204). People were practicing their original craft, while at the same time expanding into other businesses such as dry goods importing (Papenfuse 1975:15; Baker 1986:202). All of this led to an increase in the city's economic vitality. There was, however, a brief decline of the economy in Annapolis from 1754 through 1763 when this period of growth was interrupted by the French and Indian War. The diversion of resources to

the war effort, combined with stresses on mercantile networks through privateering and naval warfare, dampened the economy during that period.

After that decline, Annapolis became one of the cultural centers of the colonies. The period between 1763 and 1774 is referred to as Annapolis' "Golden Age". This period was characterized by a decline in small industry, such as tanning and shipbuilding. At the same time, however, obvious consumption among wealthy Annapolitans increased, turning Annapolis into one of the centers of elite style in colonial America (Papenfuse 1975:6).

Agricultural-Industrial Transition and Economic Adaptation (1815-1870)

Annapolis suffered its share of hardships at the end of the eighteenth century. A depression had a serious effect on the town's fortunes in 1785-1786, and this was followed by a collapse in the tobacco market in 1793 (Papenfuse 1975). With the emergence of Baltimore as the preeminent port in this part of the Chesapeake, Annapolis' sole strength seemed to lie in its role as the state capital. As the town's fortunes declined, so too did the number of landed gentry and merchants within the city. Government officials, tradesmen, shopkeepers and professionals made up the bulk of the city's population, along with a large African-American population which comprised 41 percent of the population (Goodwin 1993:14).

After 28 years of pushing for itself as the best home for the Naval Academy, the city achieved that aim in 1845 when the Naval School opened in Annapolis (Riley 1987:254,264-265). The Academy quickly became one of the city's largest and most stable employers. Before and after the Civil War, positions as housekeepers, cooks and barbers at the Academy were the domain of free African-Americans. Many of these positions continued to be held by African-American Annapolitans after Emancipation.

Annapolis and southern Maryland were dominated by tobacco production and slave labor until the moment of Emancipation. Consequently, Annapolis, as well as southern Maryland, was sympathetic to the Confederate cause. The high percentage of free African-Americans in Maryland was, however, unique among southern states. There were nearly as many free African-Americans living in Maryland by the start of the Civil War as were enslaved (Fields 1985:2). By 1810, Maryland had the largest population of free African-Americans of any of the slave holding states. By 1850, 43 percent of the state's African-American population (nearly 75,000 individuals) were free (Fields 1985:1-2).

The ambiguous loyalty of Maryland to the Union, combined with its geographic proximity to the Confederacy, resulted in a virtual occupation by Union Troops for most of the war. In Annapolis, the Naval Academy was moved to Rhode Island and the Severn facility was transformed into a hospital and troop center. Many Annapolitan merchants benefitted from the Civil War by selling supplies to the troops quartered in the city (Riley 1887:320). There was, however, a short economic decline after the war. After the Civil War, commerce depended upon the spending of government officials. The abolition of slavery diminished trade with these consumers.

Industrial/Urban Dominance (1870-1930)

Annapolis began a revival in the late 1870s and building increased. New houses and shops were built along Maryland Avenue, Market, Conduit, Prince George and King George Streets on large residential lots which had formerly been held by single owners (Baker 1986:197). The state government and the Naval Academy, however, remained the city's major industries.

With the late nineteenth century came the growth of water-based industry. The coming of steam and the construction of adequate wharves had an important impact on Annapolis. The speed and dependability of steam power made it possible to transport perishable goods more readily than with sail. Oystering and other water-based pursuits were important. A large number of oyster houses appeared along local rivers. The Bay was the major transportation route for important everyday goods. Tobacco was still shipped out, along with fruits, vegetables, wheat and corn, fish, crabs, oysters, and even poultry and cattle.

The Modern Period (1930-Present)

Despite efforts by the city fathers to pull Annapolis out of its provincial character, the economic downturn of the 1920s and '30s prevented much significant growth, commercial or otherwise. A chronology of city growth by Warren (1990:xxi-xxiii) provides some instructive figures for the period. Census statistics for 1930 shows a population of 12,531. Six hundred and twenty-seven men and women were employed at the time in 220 retail stores. Seventy-four food-oriented stores include 40 groceries, nine meat markets and a large number of bakeries. Twenty-eight automobile-related businesses are scattered through the city, including five garages, seven gas stations, and ten dealers. Outside of hotels, boarding houses and drug stores, there are 15 eating establishments, employing 59 people. Of these 14 establishments, only one is a restaurant; the remainder are listed as lunch rooms.

A 1938 Housing Authority study summarized by Warren (1990:xxii) lists a city population of 9,354, exclusive of the Naval Academy. She notes that the city held:

...1,759 white, 938 black, and 15 Filipino or Chinese families. Sub-standard housing comprises 38.4 percent of available shelter, occupied by 1,042 families. Of these families, 812 are black, 217 white, 13 Filipino or Chinese. Structures with no electric lights comprise 13 percent of all housing, 27 percent have no indoor flush toilets, 28.9 percent no bath or shower. Typical "slum" house rents for \$15.00-\$17.50 per month, with an additional eight or nine dollars for utilities.

The constrained economy of the depression eventually gave way to shifts associated with World War II and the post-war period. Training programs were intensified at the Naval

Academy during the war, and both its population of students and resident employees grew (Sweetman 1979). Some portions of Annapolis suffered severe dislocations; residents of the Hell Point area, between Prince George and King George Streets, for example, had their homes appropriated by the Naval Academy for eventual expansion.

The post-war boom and increased mobility of the population resulted in heavy suburban growth in outlying areas such as Parole. The shifts of population and the growth of shopping areas and malls had an inevitable impact upon the social and economic structure of older communities within the city. This was compounded in areas west of Church Circle by land appropriations similar to the Navy's acquisition of Hell Point. In 1964, the Arundel Center, a complex of county offices, replaced buildings around the site of the old jail at the corner of Calvert and Northwest Streets. Gott's Court was also demolished around this time (Warren 1990; Goodwin 1993), and similar trends may be seen around the Courthouse.

Like many American cities during the 1950s, the downtown commercial area suffered an economic decline. Fortunately, under the influence of historic preservationists, Annapolis escaped wholesale urban renewal. Instead, many of the city's remaining early buildings were restored and preserved. Annapolis' image as a quiet colonial town has become a profitable advantage, attracting a large number of tourists. Many of the surviving eighteenth and nineteenth century buildings are today used as museums and stores which cater to the successful tourist trade in Annapolis.

Previous Archaeology

Prior to this shoreline survey, a multi-faceted project was conducted by Archaeology in Annapolis, an on-going research venture between Historic Annapolis Foundation and the University of Maryland, College Park. The project, sponsored by the United States Department of Defense, was the Cultural Resource Survey at the United States Naval Academy in Annapolis, Maryland. It was conducted as part of the Legacy Resource Management Program as it relates to the Naval Academy. The project consisted of 1) a limited archaeological survey of the historic core of the Academy to determine the presence or absence of archaeological remains; 2) a deed search on properties acquired by the Academy during its expansion; 3) a series of oral history interviews with former residents of the Hell Point neighborhood, and 4) an exploration of the use of the AutoCAD computer mapping program to assist with planning the archaeological survey and to generate a predictive model for cultural resources.

The results of all four phases of the project were assembled into a final report and a three volume document which highlight the significance of the existing cultural resources. The archaeological investigations conducted on the grounds of the Academy resulted in the recommendation for further testing to be done in some areas. The southern half of the Ellipse (18AP67) included intact eighteenth and nineteenth century remains, as did the western half of Porter Road (18AP68). The visitor's parking lot (18AP69) adjacent to Halsey Field House included intact twentieth century remains. Late nineteenth and early twentieth century remains

were found throughout the entire survey area and related to the history of the Academy's early development.

Prior to the above survey project, no other excavations had been conducted in the core of the Naval Academy. However, between 1969 and 1987, four areas on lands owned or operated by the U.S. Naval Academy were subjected to limited investigations and found to contain both prehistoric and historic deposits. The Cady Cove site (18AN152 or 18AP7), located on the south side of the head of Shady Lake along the Severn River, was recorded in 1969. The Meadow Point site (18AN239 or 18AP19) is located east of the Route 50 bridge on the shore of the Severn River and was recorded in 1972. No other information was obtainable for either of these prehistoric sites.

A late Woodland site, Arundel Estates (18AN342) was investigated in 1974. Finally, in 1987, investigation occurred at the College Creek/Woodland Shore site (18AP46) which is located on a point of land north of Rowe Boulevard between the Rowe Boulevard bridge and the bridge on King George Street.

Numerous historic sites have been identified within the Historic District of Annapolis. The high concentration of known historic sites adjacent to the project area strongly argues for substantial remains on the Naval Academy itself. The expectation of such remains was enhanced by further work funded by Legacy and carried out by Archaeology in Annapolis in 1994 (see Bodor, et al 1994). A comprehensive series of historic maps of the Academy were digitized and overlaid onto the current base map in that project. This showed both the evolution of the grounds currently held by the Academy and areas in which cultural resources are most likely to exist below ground. Based on this research and previous archaeology, sensitivity areas were delineated and recommendations made for the handling of these resources.

The Current Project

The current project was initially proposed by Dr. Marie Cotrell, then staff archaeologist for the Navy (LANTDIV). Dr. Cotrell realized that activity around the Academy's shoreline, such as dredging, cable placement or bulkhead repair, might require Section 106 compliance. An initial survey of these underwater areas would provide much needed information for planning in advance of such activities. In addition, it was realized that much of the historic shoreline and its attendant features are now buried beneath landfill on the Academy. Although remote sensing and test excavations over filled areas would be prohibitively expensive, historical research and cartographic analysis might provide highly useful information on filled areas. This research could pinpoint old wharves, landings and shoreline installations, thus helping to target and streamline any future compliance activity.

ARCHIVAL INVESTIGATIONS

Research Goals and Methods of Archival Research (Stage One)

Archival research is conducted to provide an historical context for the archaeological field work and artifact recovery and analysis. It serves to identify areas of potential interest by locating structures and recovering patterns of land use. By documenting both the socioeconomic character of the site's residents, including such variables as wealth, race, age and occupation of residents, and the nature of the site's physical development - whether residential or the varieties of commercial use - this research provides a context within which to assess the meaning and significance of cultural resources and allows comparison with other sites.

The research design implemented for Stage One of the Archaeological Survey of U.S. Naval Academy Shoreline/Bulkhead Project is one that has been used to provide similar contexts for other Annapolis archaeological projects. The starting point for the work is the deeds transferring legal ownership of properties located on the block. Deeds are abstracted for relevant information: metes and bounds, references to human or natural features, purchase price, occupation and residence of grantors and grantees, and prior history. If a "being clause" is included in the contract, the information is used to locate the previous deed. The "being" clause is a standard line found in most deeds referring to the previous transaction recorded for the property. For example, "...being the same parcel of land recorded in Anne Arundel County Land Records in Liber JS Folio 69." If no clause was included, grantor-grantee indices, chancery court records, wills and similar records were searched for references that continued the title. Such references are not always available and it is for that reason that some chains of title are incomplete or contain gaps.

Tax assessments, which provide land, leaseholder, owner's names, lot dimensions, a list of personal taxable belongings and the value of the land, improvements and personal items, are then consulted. One of the most useful pieces of information gleaned from tax assessments is the description of building improvements which usually provides the number of stories and construction material used (ie. brick, stone, frame). Tax records are available from the early nineteenth century. Also available are Federal tax records from 1798.

Census records are examined for information such as age, race, household composition, occupation, wealth and nativity. These records do not list place of residence until 1870. Assessment records similarly do not list individual properties until mid-nineteenth century and did not begin consistently to use street addresses until even later. House numbers do not stabilize until the early twentieth century, so it is not always possible to link firmly residents listed in early city directories or tax assessment descriptions with specific houses.

City directories are also reviewed. These directories provide information on a dwelling which may include the occupant's name, address, occupation and, on occasion, place of employment. City directories are extremely useful for cross-referencing material. They include

specific sections for businesses and some contain listings called "coloreds." Unfortunately, as with tax records, gaps do exist.

General histories of the Naval Academy, Annapolis and the surrounding area were also consulted. This type of secondary source helps to provide information on life in Annapolis in the eighteenth, nineteenth and twentieth centuries. Occasionally, site-specific references are located. Information is also gathered pertaining to local prominent citizens associated with the project area. Plat and maps of course are vital to archival research in order to document the changing urban landscape.

Utilizing information from the deeds, data from census records, tax assessment records, and city directories, an historical outline of the project area can be constructed (Historical Overview below). Historical documents provide a premise from which hypotheses can be fashioned. A list of deeds referenced within this text can be found in Appendix V of Cultural Resource Survey at the United States Naval Academy, Vol.II (Bodor et al. 1993).

A portion of this research had been previously conducted, at least in part, during the first two Legacy projects for the U.S. Navy. However, many research "leads" were in need of completion. Documents pertaining to Naval Academy proceedings and land acquisition, reclamation and use were examined. Also, other previously unacquired historic maps were located and digitized. All cartographic materials were analyzed in detail for the survey project. A summary of the specific methodology employed for this stage of research, along with a list of digitized maps, can be found in the Status Report (pages 4-6) included as Appendix A of this report.

A "Bibliographic Essay" section has been included in this report. This section was designed to provide a more detailed description of the sources consulted during this project at various repositories.

In association with the previous Legacy reports produced by Archaeology in Annapolis, archaeologists had conducted a series of oral history interviews with former residents of the Hell Point area. The objective of the interviews was to gather details about the lives of the former residents of the area. Information regarding these interviews can be found in Legacy Resource Management Program Archaeological Reconnaissance Survey Vol. III (Seidel et al. 1996).

Historical Overview

Stage One of the Naval Academy shoreline study (historical research and cartographic analysis) commenced in October of 1994 with the procurement, digitizing, and analysis of maps and the initiation of archival research for the project area. This section uses those findings to present a look at the events and actions that have been responsible for the changes in appearance and usage to the waterfront lands surrounding the United States Naval Academy.

The U.S. Naval Academy (originally called the Naval School - the name wasn't changed to the United States Naval Academy until 1850) was established on Windmill Point in Annapolis, Maryland in 1845. Since that time, the Academy and its grounds have undergone substantial changes. Throughout the years, the institution's physical size has increased dramatically. Initial enrollment of midshipmen at the Naval School was 58 - today the number is closer to 4,000. The Academy property has been enlarged due to the acquisition of ground from both the State and private land owners. The original grounds were less than 10 acres and today total approximately 338 acres. Between 1847 and 1969, the Academy purchased more than 170 acres of land in Annapolis. Another means of growth was reclamation of land from the Annapolis Harbor and the Severn River surrounding the Academy. More than 100 acres of land have been added to the grounds of the Naval Academy through the creation of "fast-lands."

The shoreline enveloping the Academy property today is quite different from that of 1845. With these alterations to the property came changes in the usage of the waterfront by the Academy, as well as by civilians prior to 1845. In order to study these modifications to the appearance and function of the shoreline/bulkhead areas of the Academy, it seems best to address them chronologically. Therefore, the usage of the shoreline and waterfront areas prior to the establishment of the Academy in 1845 must be initially reviewed.

However, before discussing the actions of early inhabitants of the area, one other issue should be brought to light; that is that time and tide have also had an impact on the land. Erosion, for example, is likely to have had an important impact on the configuration of the shoreline. In an article which appeared in the June 1929 United States Naval Institute Proceedings, a former Secretary of the Naval Academy, P. H. Magruder, noted that it had been passed on to him that many years ago the Annapolis Harbor was almost landlocked. Greenbury Point and Horn Point projected into the Severn River so as to make a direct view of the entrance into the harbor impossible from a distance. In colonial times, sailing vessels occasionally had to wait for days for a favorable wind to carry them into the Annapolis harbor. Magruder recalled that as a young child he could see a small corn field in front of the lighthouse which once stood on Greenbury Point (northeast of the project area). However, around 1926 he saw the brick and stone remains of the old lighthouse at low tide "...over two hundred feet to the eastward of the point" (Magruder 1929). This same type of impact might be expected on Windmill Point.

It was hoped for during the remote sensing survey, that time would permit examination of the waters off Greenbury Point. Unfortunately, the erosion that has occurred over the years has left very shallow depths in the area. These depths, as low as one and two feet in some places, would have made it impossible to pull the magnetometer through the water without constant "snags" on debris occurring. This problem had been encountered during the survey week when attempting to conduct the remote sensing in College Creek near the foot bridge. Therefore, no remote sensing was undertaken around Greenbury Point.

Project Area Prior to 1845

One goal of Stage One of the project was to provide an historical background for the waterfront of the Naval Academy property. This included information on both land and water usages. Stage Two of the project, the remote sensing, obviously focused on locating cultural resources in the waters of the Severn River, College Creek and Spa Creek. The reality is that many of the subjects discussed in this Historical Overview, such as previously existing structures like Fort Severn or the Dulany house, are resources which themselves are located inland. A number of these structures had wharves or piers which did extend into the Severn. However, due to land reclamation around the Academy, any existing remains of these features are now located beneath land fill (and in some cases, beneath structures) on the Academy grounds. The anomalies located during the remote sensing investigations (Stage Two) could very well be associated with the houses, wharves, piers, individuals, or events mentioned in the following section.

Shipyards, Wharves and Ferry Landings

Early on, as now, Annapolis presented agreeable locations for shipbuilding, water-borne commerce, fisheries, and pleasure craft. The precise locations of many of the earliest facilities are hard to pinpoint, but the point of land later acquired for the Academy, as well as the adjacent shoreline, would have been attractive spots. In the middle of the seventeenth century, around 1651, Thomas Todd established a shipyard somewhere at the nexus of the Severn River and Spa Creek. A large shipyard was also located on College Creek at the intersection of Northwest and Calvert Streets. This area is now quite some distance from the water as the shoreline has been reclaimed. The project's research limits do not extend that far into College Creek. Through the 1700s, shipyards, ship chandlers, ropewalks, and docks increasingly appeared along the waterfront in Annapolis (Schaun 1977).

Land travel was difficult in the Tidewater, as the landscape was heavily dissected by rivers and streams. The straightest line of travel between two points most often crossed the water, making ferry service across rivers an essential element of transportation in the Chesapeake. In 1695, it was voted by the Assembly that "...a publique ferry be kept upon Severn river at Annapolis, for the accommodation of the publique..." (Riley 1887). Mr. Allen Robinett was designated to the "keeper of the ferry" and was provided with 9,000 pounds of tobacco a year for his services. Ferry service was maintained in one form or another by the County until 1887 when a bridge was built across the Severn. In later years the ferry left from the foot of the road which was an extension of Northeast Street (Maryland Avenue today - the name was changed when the road became part of the Naval School). It may well be that the earlier ferries left from the same area.

Beginning in early colonial times, ferry service of some kind was available between Annapolis and Kent Island. George Washington and other notables such as Tench Tilghman and Thomas Jefferson, chose to shorten travel time by using the standard "short-cut" of the day, a sailing-packet ferry between Annapolis and the Eastern Shore. In March of 1791, Washington

spent a stormy winter night aboard a vessel crossing the Chesapeake Bay as it was grounded first on Greenbury Point and then again on the opposite bank at the mouth of the Severn off Horn Point (Baldrige 1928).

Washington probably departed Annapolis from the landing where the old Severn Ferry was located. The 1846 U.S.C. & G. Survey map done by Bache and Gerdes (Figure 3) indicates the location of this ferry landing. Washington lodged occasionally with his friend, Daniel Wolstenholme, a wealthy bachelor who was a merchant in the West Indian trade. Wolstenholme's large two-story dwelling was near the old ferry landing. A gleaning from the *Maryland Gazette* in 1761 mentioned that Wolstenholme was appointed to contract for building a wharf at the end of Northeast Street - the location of the Severn Ferry.

Wolstenholme also owned property with Walter Dulany on Windmill Point (later the location of Fort Severn and the original Academy buildings), which contained a windmill, a stable, a bakehouse, a granary, and other outbuildings - including warehouses on the banks of the Severn River. Wolstenholme sold his property in 1772. Nine years later, the 1781 Captaine Map shows one road (eventually Maryland Avenue) leading to the Severn River (Figure 4). It also indicates a large structure near the water's edge. This may represent what was once Wolstenholme's large dwelling.

The wharf and landing at the end of Maryland Avenue was later called Phlox Wharf. It was home to the side-wheel steam tender *Phlox*. The tender made weekly trips to Baltimore and was also used to tow the Academy's practice ships to and from Annapolis Roads. Phlox Wharf contained the original boathouse where the Navy's first racing shells were stored until 1895 when they were moved to a location across the creek.

Due to the growth of the Academy grounds, the ferry landing was eventually moved to the foot of Tabernacle Street (today's College Avenue). As the Naval Academy continued to grow and acquire more property, the ferry landing was again shifted to the west, to the foot of Wagner Street. The remains of all of these ferry landings were likely encapsulated in fill as the Naval Academy expanded into the Severn River. Research also shows that the position of the old Severn Ferry landing, the foot of Maryland Avenue, was also the location of shipbuilding activities. In 1840, Benjamin Linthicum built the large schooner, the *Severn*, for a local merchant, John S. Selby. But by this time, shipbuilding had gradually declined in Annapolis. From around 1850 to 1860, Linthicum owned a small shipyard near the northeast side of the dock which built baycraft. Launching ways, remains of pilings from rigging wharves and waste and debris from shipbuilding may all be reasonably expected to have been preserved under later additions of fill.

From approximately 1850 until the 1930s, steamboats were the major form of bay and river transportation. Some vessels were strictly for pleasure purposes while others, such as the *Phlox*, provided a regularly scheduled service for passengers or freight. The *Emma Giles*, which operated between Annapolis, Baltimore, and the West River, actually did both. Owned by the Tolchester Company, she was beautifully adorned with an ornate paddle box. The *Emma Giles*

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made one-day excursions from Baltimore to Annapolis and back. She also made somewhat longer journeys which included a stop on the Eastern Shore. *Emma Giles* normally docked at the Tolchester Line's wharf at the foot of Prince George Street.

Between 1919 and 1927 several steamboats, which had been altered to accommodate automobiles, operated between the "Hell Point" area at the foot of King George Street in Annapolis to Claiborne on the Eastern Shore. This, the Claiborne Ferry, was named for William Claiborne who settled Kent Island in 1639. The run between Annapolis and Claiborne was 21 miles one way and took 1 1/2 hours to complete. The ferryboats were equipped with dining rooms which allowed passengers to pull up a chair and enjoy of meal of soft crabs, chicken or beef for about 75 cents.

The Chesapeake Bay Ferry System operated a scheduled steam ferry run from the early nineteenth century until 1944. In that year, the western shore point was moved from Annapolis at the end of King George Street to a new location at Sandy Point.

Other references to early wharves and ferries in the area can be found in the general histories published about Annapolis. Historian Elihu Riley reported that in 1747, Nicholas Clouds kept "...boats on hand at Broad Creek, on Kent Island, to cross the Bay to Annapolis with gentlemen and their horses, and likewise from Annapolis to Kent Island." Riley also included in his 1887 work, The Ancient City, an excerpt from the Annapolis Council Proceedings of 10 May 1788 concerning a local merchant, Absalom Ridgley.

Mr. Ridgley proposed "...to fill the public wharf at the end of Prince George Street, as far as the logs that are now down" (Riley 1887). And, at his own expense, "...will deepen the water in front as much as possible by throwing the mud at low tides within the logs" (Riley 1887). His proposal was accepted by the Corporation. This is one of the earliest recorded accounts of "reclaiming" land from the Severn River to extend the shoreline within the project area. Riley, referring to Holland Street and the property adjacent to the oyster houses between Prince George Street and Hanover Street, commented that "...made ground grows very fast under an impetus of business or improvement" (Riley 1887). As will be demonstrated in the following section, the truth of this statement has been proven time after time around the shoreline of the Naval Academy.

The Dulany House

In addition to commercial ventures, the land under the current Academy was also used for residential purposes during earlier years. Located within the project area was the Dulany house (Figures 5 and 6). The large dwelling that was later occupied by the commandant of Fort Severn and, after 1845, by the Superintendent of the Navy, was originally owned and occupied by Simon Duff. Duff was an architect who settled in the colony some time around 1728. The exact construction date of the house is not known. However, based upon the following advertisement which appeared in the *Maryland Gazette*, the house was probably built considerably earlier than 1751.

The subscriber, intending to break up housekeeping, will either rent or sell his dwell-house in town, which is sixty-five feet in length and twenty-one feet in breadth, to which is a good cellar, garden and all necessary out-houses; delightfully situated, near a good landing, so that no vessel can pass up or down the bay but may be fairly viewed from the lower story; and is well finished and in good repair, outside and inside, and would suit any gentleman either in a public or private way of business. Any person inclining to purchase or rent the said house may apply to

Simon Duff.
(*Maryland Gazette* 1751)

Duff did not sell the property until June of 1753 when Walter Dulany purchased the land and dwelling for the sum of L250 (Liber EJ9 Folio 370). The house was a large colonial style mansion with gardens which extended nearly to the water. The location of the dwelling on a point which separated the Severn River from the Annapolis Harbor gave a clear view of the Chesapeake Bay and Kent Island.

At the time of Walter Dulany's transaction with Duff in 1753, the parcel of land included was only a half-acre. In 1754, Dulany purchased an adjoining half-acre lot. Other acquisitions were made until the Dulanys owned nearly the entire of Windmill Point. Although the property was confiscated in 1781 due to Walter Dulany's loyalty to the British, the Dulany family occupied the residence from 1753 until 1808 when the government purchased the property to erect Fort Severn. The dwelling was the home of the Superintendent of the Naval Academy from 1845 until 1883, when it was razed to construct the new superintendent's house, built on the exact same site.

The Governor's Mansion

Similar to the Dulany house, and close in proximity, was the old Governor's Mansion on Governor Street (today's Buchanan Road) (Figures 7 and 8). Erected sometime prior to the middle of the eighteenth century, the house was built by Edmund Jennings, of Lincoln's Inn, Middlesex, England, secretary of the province of Maryland and judge of the land office. A few years after it was built, Jennings rented the property to Governor Horatio Sharpe. In 1769, he deeded the property to the new Governor, Robert Eden:

All that messuage or capital mansion-house, with the garden, yards, coach-houses, stable, and outhouses thereunto belonging...as the same now is or was late in the tenure or occupation of his excellency Horatio Sharpe, as tenant to the said Edmund Jennings (Liber DD4 Folio 582).

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William Eddis described the appearance of the house and grounds in October of 1769:

The governor's house is most beautifully situated, and when the necessary alterations are completed it will be a regular, convenient, and elegant building. The garden is not extensive, but it is disposed to the utmost advantage; the centre walk is terminated by a small green mount, close to which the Severn approaches. This elevation commands an extensive view of the bay and the adjacent country. The same objects appear to equal advantage from the saloon and many apartments in the house; and perhaps I may be justified in asserting that there are but few mansions in the most rich and cultivated parts of England which are adorned with such splendid and romantic scenery (in Magruder 1935).

After purchasing the property, Eden added a wing onto each side of the central building. The garden that extended down to the Severn River more than likely led to a wharf or a dock at the water's edge. At Eden's elegant mansion, George Washington dined and lodged when visiting Annapolis in April, May and September of 1773, according to entries in his diary (Duvall 1933).

At the start of the Revolution, Governor Eden took the Tory side. In 1776, he sailed for England from Annapolis and his house and property were confiscated and became the possession of the State. The house was then assigned to the first Governor under the new constitution, Thomas Sim Lee. An inventory of the house was conducted in May of 1781 and enumerated the contents of the 22 rooms - clearly indicating its elegance and grandeur.

The house was occupied by almost all of Lee's successors until 1869. In that year, the house and grounds were deeded to the United States (the property was actually to be conveyed in 1866 but there was some delay about the cession of the house). When the transaction finally occurred, the extensive wings and outbuildings were removed and the building was made the Academy Library. Although original plans called for the preservation of the building, in 1901, just prior to major rebuilding at the Academy, wings and additions were again removed. The main structure remained for about another year but was then condemned and torn down. Archaeological investigations conducted in 1993 revealed a portion of the foundation.

The Nicholson, O'Hara and Buchanan Houses

Three other distinctive dwellings located within the project area were the Nicholson, O'Hara and Buchanan houses. The locations of these prominent properties and the notoriety of their owners lead one to believe that, like the Dulany house and the "old Governor's Mansion," these dwellings also must have boasted wharves and docks for sailing vessels. All three houses were located on Scott Street. Figure 5, an 1850 plan of the Academy grounds, shows only the

Buchanan and Nicholson homes. However, research has indicated that the O'Hara house was located between Nicholson's and Buchanan's homes (Magruder 1932).

The Nicholson house was situated on a handsome plot of ground with what was described as the an English type of garden which extended from Scott Street to the Severn River. It was originally one-half of a two-acre lot occupied by the middle of the eighteenth century. A 1764 document describes four tenants on the land - John Thompson; Margaret Mangeant; negro Hannah; and Margaret Moore (Liber BB3 Folio 264). These tenants probably occupied small, frame dwellings which eventually would have been razed.

The deed which noted the tenants recorded the transfer of the property from Anne Chapman (widow of William Chapman) to John Campbell, a tailor in Anne Arundel County. The deed also noted that the two-acre property had belonged to William Cummings as of May of 1748, although no other reference could be found which would have indicated how he acquired the property. In 1767, Campbell sold the parcel (now one-acre) to Jason and Anna Reith. Reith probably constructed the large, brick dwelling on the acre-sized parcel. Reith was known as a mariner and an innholder. Since a public ferry landing was at the foot of Northeast Street, the brick dwelling may have been operating as an inn for travelers. In any case, the house eventually became the property of Rebecca Nicholson in 1825 (prior to that transaction, however, Reith sold the house and lot to a local merchant, James Williams). The 1840 census listed Rebecca Nicholson as the head of household with 12 members - six white, one free black, and five slaves.

The Buchanan house, referred to as such since Captain Franklin Buchanan was the last owner of the property, was described in an 1847 deed which transferred the property to the Naval School, "...lot on the ne side of Scott Street running to the Severn with 2-story brick dwelling and other buildings under enclosure" (Liber JHN2 Folio 513).

The 1840 census listed Franklin Buchanan as head of household with nine members - five white, one free black, and three slaves. From 1845, when the navy took possession, to 1853 the school's professor of modern languages, A.N. Girault, occupied the residence.

The house between Nicholson's and Buchanan's was purchased (but the deed was not recorded) in 1819 by William O'Hara from Henry Duvall. The earliest recorded deed for the lot was executed two years earlier, when Duvall bought the property from the sheriff, Robert Welch. Welch had been ordered to sell the lot for John White in order to pay off White's debts. That deed referred to the "house and lot on Scott Street and Severn River between Thomas Franklin and James Williams" (Liber WSG5 Folio 363). Franklin and Williams were early owners of the Nicholson and Buchanan houses, respectively.

Duvall then sold the property to William O'Hara but unfortunately, O'Hara never received a deed even though he paid the purchase price. Duvall died in 1822 and left the property to his son, Grafton. Duvall's will referred to the house and lot at the Severn Ferry (at the foot of Maryland Avenue) and even mentioned the inclusion of a ferry boat. Since O'Hara

did not have a deed to prove ownership, a case in Chancery Court ensued in 1847 between William O'Hara and the heirs of Duvall and the heirs of those to whom the Duvall heirs later sold the property. Testimony taken during the court case indicates that tenants had occupied the house during Duvall's ownership. According to the deposition of a Mr. Thomas Gardiner, Robert Wilson was in possession of the house thirty years earlier (circa 1817) as a tenant, after which James Jacobs had rented the property. When Jacobs left, Elizabeth Robinson took possession. The 1880 census listed Robinson as head of a household with eight members - seven whites and one free black. Duvall himself actually lived in the house next door - the one that eventually became known as the Nicholson house. The Chancery case resulted in the appointment of a trustee, Alexander Randall. It was Randall who sold the property to the United States in December of 1847.

The Nicholson, O'Hara and Buchanan properties were taken into the Naval Academy in 1847. The Nicholson house was then used as quarters for the commandant of midshipmen. The O'Hara dwelling, a brick structure next to it, was quarters for Professor W. F. Hopkins; and the Buchanan home housed a Professor Karney.

Future Academy acquisitions in 1853 caused these properties to be located in the middle of the grounds, making them an inconvenience. It was therefore decided to raze the dwellings and use the materials for building new quarters nearer to the outer wall. During the 1993 archaeological investigations, eighteenth and nineteenth century materials associated with these properties were recovered.

The Peggy Stewart

The landings and wharves which extended into the Severn from properties on Windmill Point were indispensable to water traffic moving to and from plantations, dwellings, and businesses. Occasionally the craft which comprised this traffic ran aground or foundered in the shallow waters of the river. One such loss, albeit an intentional one, was the *Peggy Stewart*, a 65 foot brig built in Maryland in 1771. On 14 October 1774, the brig, named for owner Anthony Stewart's daughter, returned from London with 2,320 pounds of tea. In June of that year, a resolution had been passed prohibiting the importation of East India tea. Angry patriots, enraged by Stewart's actions, assembled and threatened the lives of Stewart and his family. The crowd went as far as to erect a gallows in front of Stewart's home. In order to appease the towns people, who were already angered by the tax being forced upon them under protest, Stewart was persuaded to destroy his vessel and its cargo by setting it ablaze.

The following description of the event was given by E.S. Riley in 1887 in The Ancient City - A History of Annapolis in Maryland 1649-1887:

Her sails were set, and with her colors flying, she was run aground on the shore between the Gas-House and the northwestern wall of the Naval Academy. It was brought up to this point that

Mrs. Stewart, the invalid wife of the owner of the vessel could see the conflagration from the window of her residence...Mr. Stewart applied the match to the vessel and, as an offering and atonement to the offended people and an open defiance to the Crown, the *Peggy Stewart* and the obnoxious tea chests were, in a few hours, reduced to ashes.

Supposedly knowing the exact location of the *Peggy Stewart*, Riley was said to have watched dredging of the area for many days in 1903. He reported that at the presumed location of the infamous vessel, large pieces of the charred remains of a ship of the construction of that period were indeed brought to the surface, along with partly burned oak with wooden treenails.

It is, of course, impossible to know whether these were indeed the remains of the *Peggy Stewart* or those of some other unfortunate or derelict vessel. With a lapse of over one hundred years it seems unlikely that the precise location of the *Peggy Stewart* would have been remembered, and the shoreline must have seen significant changes due first to erosion and then to landfilling operations carried out prior to 1903 (see below for details of these filling episodes). Whatever the remains were, they must have been dredged up from the bottom of the Severn and used to reclaim land along the northern and eastern sea walls of the Academy between 1902 and 1906. If the *Peggy Stewart* was run aground close to or on the point, then it is likely that her remains were simply filled over in later expansions of the Academy. In this case, unburned segments of the vessel (at or below the water line during the conflagration) may remain intact beneath. If she was burned farther out into the Severn, segments may have been treated in the same fashion or were perhaps dredged between 1902 and 1906 or during the reclamation which formed Dewey Field in 1959. The area west of Santee Basin is the most likely locale for vessel remains. No indications were found during diving (see later sections of this report), but the possibility that they remain intact beneath fill in this area must not be discounted.

Fort Severn

The 9 3/4 acres of land on which the Naval School was established in 1845 was home to the army post, Fort Severn (Figures 9 and 5). In 1776, just prior to the American Revolution, fortifications were erected on Horn Point, Greenbury Point, Beaman's Hill, and Windmill Point for the purpose of preventing men-of-war from advancing toward the harbor. Some of these fortifications, including those on Windmill Point (the future Naval Academy) are shown on the Captaine map of 1781 (Figure 4). No attack was made upon Annapolis during the war, however, the need for continuing defenses around the city was recognized after the war. As a result, the War Department retained the services of a French engineer, John Vermonnet, to design and oversee the construction of works which would defend the port.

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It turned out, however, that the young French engineer was not as capable as first thought. In 1796, the Secretary of War reported to Congress that although some progress had indeed been made in the construction of a fort and battery at Annapolis and that a barrack had been erected, examination of the works by a newly employed engineer "...produced an unfavorable report of the plan of the works; and, under actual circumstances, induced a relinquishment of them." (Duvall 1933)

It was not until 1808 that anything further was done towards completing the defenses. In March of that year, bids were requested for brick, foundation stone, and shell lime to be used in the fortification of Annapolis. It was in that year that the United States Government purchased approximately 9 acres of land from Walter Dulany (Liber NH14 Folio 540) and erected a battery, Fort Severn. At that time, the point of land contained a stone windmill which had been erected in 1760. Riley reported in 1887 that it "...was reckoned to be the strongest and best built mill in the country. It ground, with a middling wind, 12 bushels in an hour" (Riley 1887). The windmill was destroyed when Fort Severn was built, but by that time, it had already provided the name of "Windmill Point" to the land.

Fort Severn was circular in design and consisted of a stone wall fourteen feet high and 100 feet in diameter. Within was a platform approximately three feet lower than the parapet, and on this were mounted eight guns with their muzzles exposed above the top of the wall. The center of the fort contained a brick magazine, and outside of the enclosure, towards the shoreline, was a furnace for heating shot.

Fort Severn and its surrounding 9 acres of land were granted to the Navy on 15 August, 1845. At that time, there were seven other structures on the property: a barracks, a hospital, a bakery, a row of officers' quarters, married officers' quarters, the quartermaster's office, and the commandant's quarters (the Dulany house) (Figure 5).

The Sprigg Country Seat (Strawberry Hill)

Around 1765, Richard Sprigg built a two-story frame dwelling with two-storied wings as his family's county home. The house was situated high on a hill (Strawberry Hill) overlooking the Severn River (Figure 4). Richard Sprigg was a member of the committee named in Anne Arundel County to enforce the resolutions and ordinances enacted by the Continental Congress. His large dwelling was encompassed by beautiful lawns and gardens.

In 1795, Henri Stier, a wealthy Belgian immigrant, and his family rented the house from Sprigg. Stier's daughter, Rosalie, described the house in a letter to her brother.

Our new house is so enormously big, four rooms below, three large and two small ones on the second floor besides the staircases, and the finest garden in Annapolis in which there is a spring, a cold bath house well fitted up and a running stream! (Duvall 1945)

The property had several different owners in the early nineteenth century. In 1803, it was sold to the Trustees of the Poor and for many years, used as the Alms House of Anne Arundel County. The Trustees sold the property in 1823. One inheritance and three land sales later, Charles and Susan Reese sold the parcel to the United States for use by the Naval Academy. It is likely that this house too had its landings or water access, but no recorded details have been recovered.

Post 1845 - The United States Naval Academy

The transfer of Fort Severn to the Department of the Navy occurred in August of 1845. The Naval School was officially opened on October tenth of that year. The initial parcel of land on which the school was established consisted of approximately 9 3/4 acres of land and was purchased for \$1,801.00 (Figure 10).

As noted earlier, most of Windmill Point was eventually owned by the Dulany family toward the end of the eighteenth century. In addition, it was noted that Daniel Wolstenholme co-owned several acres with Walter Dulany, on which were located structures such as a granary, a cooper's shop and stables. Other buildings, as mentioned in the *Maryland Gazette* in 1785 indicate the existence of "two warehouses on a dock" on Wolstenholme's land, indicating early usage of the shoreline in this area. It is unknown whether some of these outbuildings were reused when the point was acquired for the construction of Fort Severn. When the Navy purchased this 9 3/4 acre parcel, which consisted of approximately 1,771 feet of waterfront, it contained Fort Severn (see above) and seven other structures.

An anonymous article in the *Maryland Republican* noted that these buildings had been "repaired and surprisingly improved" in a short amount of time. The article also commented on the organization and "methodical arrangement" of the school. It noted one of the benefits to the city of having the school located in Annapolis - "About forty young gentlemen have already reported themselves, whose handsome appearance and gentlemanly deportment give a cheerful aspect to the streets of our quiet city." It was obvious that the perseverance of the City in vying to get the school located in Annapolis was worth all its effort.

1847 Acquisitions

The establishment of the Naval Academy coincided with a period of renewed expansionism, an expansion in which the Navy played a key role. The successful conclusion of the war with Mexico in 1848 brought the United States possession of the Pacific Coast and the need for greater maritime access throughout the Caribbean and into the Pacific (Love 1992: 193, 212-213). The Navy was a logical vehicle with which to accomplish this expansion. This role, along with public approval of the Navy for its successes during the war, brought greater visibility to and emphasis on the service. The Academy benefitted from these developments, and expansion seemed inevitable.

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The initial addition of property to the Naval School grounds took place in 1847. The purchase included an area to the west of the school and situated between Scott Street and the Severn River (Figure 10). The land extended west to Northeast Street (Maryland Avenue) and consisted of three parcels totalling approximately six acres. Frontage along the shoreline was approximately 686 feet. Topographic maps from circa 1850 reveal that the land leading down to the Severn River was gently sloping. Although little documentation exists, this waterfront was most likely used extensively for travel, subsistence and recreation.

The parcels, acquired by deed, included in this tract were the Nicholson, O'Hara and Buchanan properties mentioned earlier. Deeds indicate that at the time of transfer, several outbuildings were situated on these properties along with the dwellings. The purchase of this six acre parcel occurred in three separate transactions which occurred at different times during the year and amounted to a total purchase price of \$14,105.00.

Any existing cultural remains which may have been associated with shoreline features in this locale potentially could be found in the area reclaimed in 1853 along the northern sea wall. Today, part of this earlier shoreline might be found beneath the area on the Academy grounds known as the "Ellipse." Photographs located during Stage One of the project demonstrate the fact that older features (such as sea walls) still can remain well preserved beneath undisturbed areas on the Academy grounds (Plate 1).

1853 Acquisitions and Reclamation

Just six years later, in 1853, the Academy grounds were again increased through property acquisitions, as well as through land-filling activities. The property acquired during the year was "L" shaped and consisted of 14 parcels (acquired by deed) which totalled approximately 11 acres and was purchased at a price of \$24,212.21 (Figure 10). This addition of land, however, can be divided into two separate areas of acquisition. The first addition was situated between Northeast Street (Maryland Avenue), Hanover Street, Governor Street, and Scott Street. Although deed research was conducted for this area, detailed discussion of the transactions will be omitted since this "landlocked" property was not a part of the shoreline of the Academy grounds. This block contained ten lots - half of the New Town lots that were surveyed in 1718 by Stoddert as an addition to the original plan of the city. The half-acre lots were "...for the better encouragement of poor Tradesmen to come and inhabit within the said city..." (Riley 1887). According to Riley, these lots were laid off at "Powder House Hill."

The other block of land added to the Academy during 1853 was comprised of the approximately 433 feet of land along the Severn River between Northeast Street (Maryland Avenue), and Tabernacle Street (College Avenue). The southern boundary was an extension of Hanover Street. This tract consisted of two large lots which at one time were probably used as pasture or arable land.

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The western half of the tract was sold to the Navy by Thomas Alexander. He and Alexander Randall had acquired the land in 1843 from Robert Welch. Welch had purchased the property from Henry Hall Harwood, who had in turn bought it from Edward Calvert in 1816. Calvert had inherited the property from his father, Benedict Calvert, who had acquired the land through marriage to his cousin, Elizabeth. Her father, Governor Charles Calvert, had bought a five acre tract in 1729 from Thomas Larkin.

Deed information, though sketchy, was located for the eastern half of the tract - a parcel, approximately three acres in size, which fronted on both the Severn River and Northeast Street. The earliest deed located which pertained to this land was from Thomas Larkin to a local merchant, James Donaldson. This transaction, which occurred in October of 1725, was for Larkin's "unnamed land in Annapolis" (Liber SY1 Folio 183). The metes and bounds, given in perches, described the lot as bounding on the river and Northeast Street. In 1759, the following advertisement for the property appeared in the Maryland Gazette:

...there will be exposed to public sale, to the highest bidder, on Tuesday the 31st day of July next, a lot or parcel of ground containing about three acres, lying on Severn River, and contiguous to North East St, in the New-Town of Annapolis, on which said lot or parcel of ground are the following improvements, viz. a large brick brew-house, a brick dwelling house one story high, with two rooms and a passage on the lower floor, a small frame house, all now in the possession of Mr. Patrick Creagh, and also a small brick house now made use of by the Province as a magazine for powder, taken in execution as the lands and tenements of James Donaldson for the use of the Commissioners or trustees for Emitting Bills of Credit, established by Act of Assembly. This sale to be made on the premises, at four o'clock in the afternoon.

Upton Scott, Sheriff of
Anne Arundel County

A 1770 deed also referred to the improvements on the property in the same fashion.

...said lots and half lot formerly belonged to Patrick Creagh of said City and are distinguished and commonly known by the names of the Brewhouse and Powder House lots...(Liber DD5 Folio 165)

Sixteen years later, in a lease recorded for the use of the property, the following description was given.

"...house and wharf and tenement at or near Severn Ferry lately and hereto occupied as a distillery with as much ground on the back thereof for the length of 100' and of the breadth of said house and wharf covers on the front of the street leading to the said ferry (Liber NH2 Folio 463).

The parcel eventually was inherited by Mary Markoe in 1849 through the death of her father, John Galloway. It was she who sold the land to the United States in June of 1853. When the Navy purchased this tract of land, it contained a high hill (Soley 1876). This was most likely Powder House Hill. The mound was cut away, the entire area graded, and the soil was used to help fill in a low area behind the northern sea wall along the Severn River. The 1962 Property Acquisitions Map (Figure 10) shows the first land reclamation around the Academy property as having occurred between 1880 and 1902. However, it seems that this filling-in behind the sea wall in 1853 was the real beginning of the land reclamation that would continue to be done sporadically into the last quarter of the twentieth century.

Excerpts from the Report of the Board of Visitors provided information concerning the problematic situation along the northern shoreline.

The northern waterfront of the academy grounds is at present in a very exposed state, and is much in need of a strong wall to protect it from washing. ...they deem it an improvement essential to the security of the foundations of the recitation and mess halls, the chapel and dormitories, erected along the bank of the Severn. (Board of Visitors 1854)

By 1856, the majority of the work necessary to secure the area had been accomplished.

The sea-wall and filling in the low grounds along the northern waterfront of the academy has been completed to the point first contemplated, and is a most valuable improvement. ...suitable positions for necessary out-buildings have been provided; a large addition to the available space for the field battery and infantry exercises has been made; and, above all, a better security is given for the health of the place, by preventing the escape of insalubrious odors arising from the frequent recession of the tide. (Board of Visitors 1856)

"Necessary out-buildings" may mean many things, but in the vernacular of the day, it probably refers to privies or out-houses. Somewhat earlier privies may be seen in a pencil sketch of the recitation hall and the midshipmen's quarters done in 1853 (published in Todorich (1984:94)). These were constructed on the shoreline and were presumably flushed out each day by tides in the Severn. The Board of Visitors passage suggests that the same technique was used along the new seawall. It also suggests that this was not accomplished immediately, yielding

the possibility that the old privies continued in use and are now buried beneath fill. Privies provide a wealth of archaeological data when recovered intact, and the old shorelines of the Academy therefore assume additional archaeological potential.

By 1857, details such as new wharves were nearly complete:

The sea-wall, the docks, and the buildings designed for the quarters of the surgeon and assistant professors are well advanced towards completion. (Board of Visitors 1857)

Figure 11 is a copy of a map first drawn in 1857. It was, however, modified five years later in 1862. A notation at the bottom of the map indicated that old buildings which had since been taken down had been omitted from the new version (the original 1857 map was not located). This figure shows the grounds and buildings of the Academy after the filling-in and stabilizing of the northern shoreline. As can be seen in the figure, the Academy's acquisition of this tract of land forced the ferry landing (city wharf) to be moved to the foot of Tabernacle Street (College Avenue). The foot of Maryland Avenue (east of Tabernacle) has two piers and a boathouse on its west side and another pier on its east side. Portions of these features may exist beneath the fill in the area between today's Maury and Michelson Halls. A section of the 1857 (1862) shoreline still may be preserved under the fill between Michelson and Chauvenet Halls.

An 1882 plan (Figure 12) indicates that this same area was again filled and new structures appeared - a boat shed, wharf, physical laboratory, and the Steam Engineering Department. Remnants of these structures may also exist beneath fill.

Figure 12 also demonstrates that land reclamation occurred at the eastern shoreline along the Annapolis Harbor. The area was filled and a wharf and boat house were constructed at the foot of Scott Street. Another wharf, at the tip of land where the Gas House is located, is found extending approximately 125 feet into the Severn. Any remains of this wharf would now be located beneath Luce Hall and were likely obliterated during construction.

In 1853, one other addition occurred that is worth mentioning, as it relates to the ferry landing at the foot of Tabernacle. The City of Annapolis relinquished Scott Street and Northeast Street (between Hanover Street and the Severn) to the Academy. The only condition of the arrangement was that the Academy must pave and curb one side of the bordering streets and extend Hanover Street. The extension of Hanover was accomplished by the procurement of a strip of land in 1853. A deed dated 29 June 1853 between the City of Annapolis and the United States of America described the "proviso" and the strip of land as follows:

US Government to open and extend Hanover Street to Tabernacle Street and to open and extend Tabernacle to the Severn River and to widen, curb, and pave Hanover from Governor's to Tabernacle Street and to curb and pave Tabernacle from Hanover to the River

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Fig 12

& to build a suitable and substantial wharf for the public the width of Tabernacle the terminus thereof for the ferry landing; streets and wharf to be the property of the city.

...that part of Scott Street which lies between the northwest side of Governor's Street and the northwest side of Northeast Street and all of Northeast Street between the northeast side of Hanover and the River Severn (Liber NHG2 Folio 516).

Eight years after this procurement, the Academy again expanded its territory.

1861 - 1865

In April of 1861, due to the Civil War, the Naval Academy was moved to Newport, Rhode Island. The buildings and grounds were turned over to the War Department to be used as an army post and hospital. Little is known of the uses to which shoreline areas were put, although troop movements in and out of Annapolis in the first months of the war took place across its wharves. Additional batteries were placed to defend Annapolis and the Academy (Warren and Warren 1981: 20) and may have left traces. Other changes, such as laying of track into the Academy and the growth of a military hospital, are less likely to have an impact upon the project area.

The war did mean that the grounds of the Academy underwent a serious and unpleasant transformation in other ways. Trees were eaten by horses, lawns were ruined by wagon ruts, flower gardens and beds had become barren earth, shacks constructed to serve as beer rooms had been built on the parade grounds, and the superintendent's house was converted into a saloon for billiards (Magruder 1932). This meant the returning Academy staff had their work cut out for them upon the end of the war.

1866 - 1869 Renovations and Acquisitions

Rear Admiral David Porter took over as superintendent of the Academy in 1865 and embarked on a major effort to both renovate and expand the grounds (Sweetman 1979:83-84). He added an ornamental garden in the area behind Stribling Row, which had been filled in 1853. Meandering paths ran around trees and other plantings, while a footbridge crossed a pond, all situated nicely along the edge of the Severn. This stretch of shoreline, from the Gas House to Phlox Wharf, appears to have functioned primarily as a place of leisure in the late 1860s (for photographs of the area, see Warren and Warren 1981:27, 32-33).

To pursue the main business of the Academy, however, that of training larger groups of future officers in an institution which would rival West Point, Porter felt that more than landscaping was needed (Sweetman 1979: 84). Significant additions of space would be needed

for new barracks and other facilities. The purchase of approximately four acres of land at a price of \$25,000.00 occurred in 1866. Figure 10, the Property Acquisitions Map, indicates that this parcel was five acres in size - although other research refers to a "four-acre" tract of land. This parcel, which was acquired by deed from the State of Maryland, contained the "old Governor's Mansion" and gardens (see above - Project Area Prior to 1845). Approximately 424 feet of the property fronted the water. The first floor of the mansion was turned into the Academy Library and the second floor was used as the superintendent's offices. A row of officer's quarters and a guest house for the Board of Visitors were built between the house and the Severn River. The Navy filled in the lower part of the garden and extended the sea wall across its width. As noted earlier, the wings were removed after the Academy acquired the house. The central portion of the structure remained basically unchanged until 1880 when a single-story wing was added to the back of the building to enlarge the library. A two-story "T" shaped addition was added to this wing a few years later. Just after 1901, the "old Governor's House" was condemned and razed.

The next annexation of property transpired in the following year. Until this time, the physical expansion of the Academy was accomplished largely through the acquisition of tracts adjoining the property. In 1867, \$6,000.00 was spent to acquire a ten-acre, wedge-shaped tract of land which belonged to Saint John's College between the college yard and Graveyard Creek (previously Robert's Creek, later Dorsey Creek and now College Creek). This tract contained approximately 1,052 feet of waterfront land. Most of the original shoreline of this tract has not been impacted by construction of any sort and has remained relatively undisturbed. The area was added to, however, by reclamation from College Creek between 1880 and 1902 and again in 1942 - likely preserving any cultural remains which once lay at the water's edge.

The "detached" location of this parcel from the rest of the Academy grounds made it of no value unless the intervening lands were acquired. This acquisition was followed almost immediately with the purchase of another outlying tract in the next year.

In 1868, 67 acres were acquired on the opposite side of Dorsey Creek for a price of \$19,000.00. This property was known as Strawberry Hill and was part of the tract called "Dorsey Enlarged". The area was atop a bluff, the sides of which contained no foliage, only red clay irregularly eroded by rain.

Previously situated on this tract of land was the dwelling house erected in around 1765 by Richard Sprigg as the country seat for his family (see above - The Sprigg County Seat). This large parcel had frontage on both the Severn River and College Creek. Some of the shoreline along College Creek has experienced very little disturbance over the years and therefore holds archaeological potential.

The Academy had been considering purchase of this property since at least 1866 when the Report of the Board of Visitors published the following:

There is a farm to the northwest of "graveyard creek," [sic] containing about two hundred acres, which could be purchased for about \$30,000. Those grounds are well adapted for recreation, and can be added to the academy by means of a...bridge thrown across "Graveyard creek." On the north, east, and south sides this farm is bounded by water, and will only require a light board fence on the west to complete the naval boundary. (Board of Visitors 1866)

The report continued to give reasons as to why this parcel would be a valuable addition to the Academy. It stated that the Midshipmen's "comfort and happiness" and health would be greatly improved since there would be increased facilities for outdoor exercise. Another good use of the tract would be to build the new hospital on the grounds. Other suggested uses for the ground came later - a cemetery, an enlarged parade and playground, a kitchen garden for the commissary's department, and other similar uses.

When the Navy purchased the land in 1868, a portion of the tract, the lush bluff overlooking the Academy, was laid off to be used as the Naval Academy Cemetery. The Academy's new hospital, a large Victorian structure, was erected on the site - fatefully close to the cemetery. This new acquisition was connected to the wedge-shaped lot on the other side of the creek by a wooden bridge "thrown" across the creek. However, by 1883, The Report of the Board of Visitors noted the completion of a new bridge and other progress in the area.

A substantial bridge has been built across College Creek on the road leading to the Naval Cemetery, the farm, and the Naval Hospital. Many desirable improvements have been made on that portion of the Government's grounds. The orchards have been trimmed, the underbrush cleared away...(Board of Visitors 1883)

Similar entries were found for the next few years which give further information concerning improvements and changes along the waterfront in that area.

Many improvements have been made to the Government farm adjoining the Academy; a sea-wall (and drive) has been nearly completed along the entire shorefront thereof, the lands graded and adorned with trees, shrubberies,...and terraces made about the portion of the farm known as the Government Cemetery. (Board of Visitors 1885)

By 1907 however, a new bridge was being requested.

A new bridge across Dorsey Creek,...is badly needed. The bridge is about 400 feet long, and the existing structure is old and dilapidated. It is very expensive to maintain in its present

condition, and requires six to eight men to operate the draw. A steel bridge, with draw, on concrete piles, can be constructed for \$40,000, and an appropriation for that purpose is strongly recommended. (Board of Visitors 1907)

The 67 acre parcel known as Strawberry Hill was adjacent to another parcel owned by Charles and Susan Reese. This 46 acre tract was known as Prospect Hill and was sold to the United States in 1869 for \$15,218.75. A portion of this property fronts along College Creek and originally was included in the project area for this archaeological survey. However, due to water depths and the low clearing height of Hill Bridge on Decatur Road (which crosses the creek), the survey vessel was unable to reach the area. Therefore, that portion of the shoreline was eliminated from the project area.

1873 - 1874 Acquisitions (Lockwoodville)

During 1873 and 1874, the Academy finally purchased four acres of land which they had long desired. This property was located along the Severn River between Tabernacle Street (College Avenue), Hanover Street, and Wagner Street (Figure 10). This tract of land, of which approximately 361 feet fronted the Severn, was known as Lockwoodville and was purchased for \$41,946.83. It was an area which for many years had been known as Prospect Hill and was sold to the Academy. The descriptions of the neighborhood found in general histories of the Academy and even in the Report of the Board of Visitors journals lend a less than flattering image to this community. Professor James Solely described it in 1876 as "...variously owned, and filled with cheap dwelling-houses and tenements, in very close proximity to the cadets' quarters."

Plate 2 shows the waterfront of a section of the Lockwoodville neighborhood in 1869. The houses in the foreground of the photograph are located at the foot of Wagner Street (also known as Severn Street). The same area, 12 years later, can be seen in Plate 3. In this 1881 photograph, Academy's buildings (the Armory and the Swimming Tank) are present on the "Lockwoodville" tract which was purchased in 1873-74. Also, at least six new structures are visible on Wagner Street which has now been extended by reclaiming a substantial amount of land from College Creek. Plate 3 also shows that at the foot of this new addition to Wagner Street is a public ferry landing with two vessels docked alongside. Although somewhat difficult to decipher from the photograph, one of the boats appears to have "Redsew Ferry" printed on her starboard side. The 1878 Hopkins Atlas (Figure 13) shows this ferry landing at the foot of Severn Street (Wagner). The Hopkins map also indicates that an oyster house was present to the left of the landing. This oyster house may be the long, low building seen next to the ferry landing in Plate 3, the 1881 photograph. According to the Hopkins map, the oyster plant was owned by "Southgate." (Hopkins also shows Southgate owning property and another oyster house at the foot of Hanover Street.)

For some time, Naval officials had wanted to purchase these lots, as well as the 12 acres to the west, to expand the existing grounds of the Academy and to eliminate this undesirable area from the proximity of such a prestigious establishment. As early as 1851, the Report of

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insert PLATEZ

f13

discarded -
insert Fig. 13

discard -
insert PLATE 3

the Board of Visitors mentioned the Navy's wish of acquiring the property. It was clear that the Navy felt it was truly urgent that they obtain the lots at almost any cost. Rear-Admiral David D. Porter, on 26 May 1866, submitted to the Board an article outlining his concerns and desires. Porter reported that an appropriation of \$25,000.00 had been made and he suggested purchasing the grounds northwest of the Academy up to the creek.

This will give us the whole waterfront and right of way to the above-named creek, placing within the grounds a fine creek for skating, an amusement in which the mid-shipmen take great pleasure. (Board of Visitors 1866)

Porter continued:

It has become a necessity that the government should get possession, without delay, of all the land to the northwest of the academy grounds as far as "Graveyard creek," not only for sanitary purposes, but to protect the morals of the midshipmen.

...a town naturally quiet and moral under ordinary circumstances, has...to submit to the immoral spectacle of houses of ill fame going up in its midst.

...the land to which I refer, property is of little value, and cannot be depreciated by such people living there, and being the purlieu of the city, the existence there of this pest is scarcely known, except to the frequenters.

I am now trying my best...to break up and drive from the town all people of the class referred to; but the board will easily understand how difficult that will be when the houses for the purpose I have indicated can be obtained right under the walls of the academy. (Board of Visitors 1866)

The Navy felt so strongly about the importance of the acquisition of this land that they were prepared to take whatever action was necessary to ensure its procurement. As Rear-Admiral Porter pointed out in his letter to the Board:

The only way to effect a remedy from this evil its to buy without delay...and if the owners refuse to sell, either to have a law of Congress passed taking it by appraisement, or else move the Naval Academy from Annapolis and place it in an isolated position, where it will be removed from contact with such abodes of immorality. (Board of Visitors 1866)

Two years later, the 1868 Report of the Board of Visitors was still impressing the urgency of purchasing this tract of land containing such an "undesirable" neighborhood.

The grounds of the academy are still very contracted, the recent purchase of land upon Graveyard creek not being contiguous to those now occupied. It is absolutely necessary that the intervening piece of land should be secured and the houses removed. Independent of reasons bearing on the morals of the academy...a number of the officers reside at present in the town of Annapolis for want of quarters within the government grounds. (Board of Visitors 1866)

As late as 1873, the Report of the Board of Visitors was still including descriptions of the area and rationales for its acquisition.

...propose purchase of additional aground...an undesirable neighborhood will thereby be removed from immediate proximity to the Academy, the water-front will be considerably extended, and room will be secured for marine barracks...(Board of Visitors 1873)

Finally, during 1873 and 1874, the Academy succeeded in procuring the adjoining four acres to the west of the present grounds. Sixteens parcels were acquired by Order of the Court and by deeds. As can be seen on Figure 14, there were five lots which had shoreline frontage on the Severn within this tract of land. The 1873 Duvall Survey (Figure 14) provides more than just an excellent cartographic representation of the Lockwoodville area. The lower portion of the map contains a listing of all lot numbers, the owners' names, Liber and Folio references for title to the properties, and a brief description of any existing structures located on the lot (Figure 15).

Lot 15, on the west side of Tabernacle Street, had a small part of its boundary along the waterfront. The Navy acquired the property, which contained a two-story frame dwelling, from Mrs. Mary Hayden in January of 1874 for \$3,950.00 (Liber SH8 Folio 304). Hayden had owned the property for at least the last 14 years; for the tax records of 1860 listed "George Hayden heirs" as having this house (valued at \$1,000.00) and lot (valued at \$700.00) on Tabernacle.

Lot 16, adjacent to the above lot, had much more shoreline frontage on the Severn River. In November of 1874, the U.S. Navy purchased this lot from the Annapolis and Elk Ridge Railroad for \$2,000.00. The railroad had previously acquired the parcel from Oliver Miller (a trustee) and Joshua and Harriet Brown in 1863 (Liber NHG12 Folio 477). At that time, the property was known as "lots 4 and 5 on Severn River" and were purchased at a price of \$800.00. The deed made reference to a wharf on the property. This wharf was still in existence

f14

ditto
fig. 14

f15

ditto
Fig 15

when the Navy obtained the lot. The Duvall survey of 1874 listed a "pile and log wharf" as the improvement on Lot 16. The wharf also can be seen on a plan of the Academy grounds (and intervening property) done in 1874 (Figure 16). This wharf was the landing for a public ferry. Each time the Academy's waterfront on the Severn expanded to the west, the public ferry landing was shifted to the foot of the next street.

Lot 17 also had a rather substantial boarder along the Severn River. This property was owned in 1860 by Alexander Randall and T. S. Alexander and contained no improvements at that time. In 1864, it was leased to James P. Kennedy for 99 years. He transferred the lease to John Mullavel in 1865. Neither lease mentioned any improvements on the lot. It isn't until the 1873 Duvall Survey that the two, two-story frame buildings are noted. By the time the Navy acquired the parcel in 1874 for \$2,000.00, the owners were the executors for Thomas Alexander and J. Wirt Randall. Randall had stepped into the picture in 1871 as a trustee.

Lot 18 was small in comparison to the parcels on either side of it. It was added to the Academy grounds in February of 1874 when the United States purchased the parcel from Nicholas and Mary Stephen, and Charles and Virginia Stephen (Liber SH8 Folio 372). The property had been willed to Nicholas and Charles Stephen by their uncle, Thomas J. Brice. According to the listing at the bottom of the 1873 Duvall Survey, the lot was improved by a small frame dwelling. A deed from 1868, as well as one from 1853, mentioned the existence of a drain and a privy on the property - "...beginning on Severn at northeast corner of lot along east side to within four feet of privy built on drain which empties a shallow pond into river...crossing drain at right angle...down drain to river...with river to beginning." (Liber SH2 Folio 242 and Liber NHG3 Folio 56). The pond mentioned in this description can be seen on the 1874 plan (Figure 16).

This lot (18) had been sold in 1852 by Alexander and Catherine Randall, Thomas and Priscilla Alexander, and Thomas and Sarah Lowman to Professor Henry Lockwood (Liber NHG1 Folio 229). From there it passed to Elizabeth Holland in 1853 and then onto Thomas Brice in 1868, whose heirs sold it to the Academy.

The final lot which had a boundary on the Severn River within this four acre tract of land was Lot 19 (Figure 14). Although Lot 19 was one of the large parcels on the block, its waterfront was not much larger than the neighboring small lot, number 18. Not much is known about this parcel. In January of 1874, this lot and two others on the block (6 and 7) were owned by John Mullavel and were condemned at a valued of \$6,900.00. The 1873 Duvall Survey indicates that a small frame dwelling was present on the lot. As with Lot 18, this property was once owned by Professor Henry Lockwood who sold it to Mullavel in August of 1865.

This tract of land and the next 12 acre parcel purchased 17 years later was referred to as Lockwoodville. It seems that this name was in reference to the Naval Academy's Professor Henry Hayes Lockwood who owned several parcels of land in the area. Lockwood became a mathematics professor in the Navy in 1841. Prior to the founding of the Naval School in 1845, he was assigned to the Naval Asylum School to assist Professor Chauvenet in teaching

f16

ditto
Fig. 16

mathematics and navigation. He also assisted in teaching gunnery. He was transferred in 1845 to aid in the establishing of the Naval School in Annapolis.

Professor Lockwood headed the Department of Natural Philosophy from 1845 to 1850. He was in charge of the Department of Gunnery from 1848 to 1850. From 1850 to 1855 Lockwood was head of the Department of Gunnery and Infantry Tactics, and of Field Artillery and Infantry Tactics from 1856 until 1861. He was also assigned to teach astronomy and mathematics in 1846.

1891 Acquisitions (Lockwoodville)

The next expansion of Academy grounds continued with the remaining parcels which comprised Lockwoodville (Figure 10). Condemnation of the area began in 1889 and in 1891, approximately 12 acres of land were purchased by the Navy for \$84,464.33. Approximately 705 feet of waterfront were included in this property. The background of Plates 2 and 3 show the undulating landscape along the waterfront of this tract in 1869 and 1881, respectively (also observed in Figure 16). Interestingly, Plate 4 shows roughly the same area in circa 1920. Boat sheds are now present along the shoreline and Worden Field (previously the uneven terrain of Lockwoodville) can be seen in the background.

This portion of the old neighborhood had been desired by the Academy for as long as the last acquisitions in 1873/74. As can be seen on the 1889 Plan of Lockwoodville by E.K. Moore (Figure 17), the area was divided by Hanover Street and created a small triangular shaped lot. References to the parcels can be found by again turning to the Report of the Board of Visitors:

...advise that immediate steps be taken to acquire the premises comprised in the small triangle lying between Hanover Street and the government property on Grave-Yard Creek, with the removal of the gas-works, the slaughterhouse, and the objectionable neighborhood of filthy shanties and cabins, with the surface drainage incident to such localities...(Board of Visitors 1877)

Six years later:

We also recommend the purchase of so much of the ground as lies between the west wall of the academy limits and the gas-works of the City of Annapolis...where epidemic diseases are most likely to

prevail, and will remove a very unhealthy district from contiguity to the present grounds...(Board of Visitors 1883-1884)

Also in 1884:

There is a small tongue of land owned by private individuals which divided the grounds of the Academy on the shore. It has become an unsightly nuisance. This insignificant piece of land is in the way of all general improvement in a connected and practical plan of reform which should be established for future sanitary purposes. (Board of Visitors 1884)

In 1887, part of the 12 acres was again mentioned in the report.

There is a small tract, consisting of about 5 acres, fronting on the river and bounded on three sides by the academy grounds. This tract belongs to private individuals; it should become the property of the Government; it is a necessity to the Academy, not only in order that all of the property lie continuously together, but also it is the proper place upon which would be the gas-works for the use of the Academy. (Board of Visitors 1887)

References such as these can be found for several years in the pages of the Report of the Board of Visitors. The Academy's desire to own the land came to fruition in 1891 with the purchase of the approximately 12 acres that remained of the neighborhood of "Lockwoodville." The Navy acquired the land, consisting of 20 parcels, through condemnation (Records of Judgements and Decrees, U.S. Court No. 3).

The 1889 Moore Survey (Figure 17) shows that of this 12 acre parcel, only two lots fronted the Severn River. One of these lots was the property on which the Gas Works for the City of Annapolis stood. The other lot, at the time of the Navy's acquisition, belonged to a Mr. Popham. No other information pertaining to "Mr. Popham" or his property could be located. It seems that this section of land contained only a few dilapidated shacks and was considered a barren waste on which the gas works was located (Magruder 1932).


The old neighborhood of Lockwoodville, comprised of both the 1873-74 and 1891 acquisitions, holds much potential for containing intact cultural resources. Most, but not all, of the shoreline between Tabernacle and Wagner Streets (1873-74 acquisitions) is today located beneath Alumni Hall. The tract to the west, purchased in 1891, is now the location of Worden Field. Therefore, it is possible that remains of some of the Lockwoodville dwellings may exist in the area. Shoreline features associated with Popham's property or the Annapolis Gas Works land may also be encountered. For example, Figure 16, a map of the Academy grounds in 1873-74 indicates a wharf was present near the mouth of College Creek. A CAD generated overlay demonstrates that this wharf extended beyond the reach of the current shoreline. Cultural resources may well be preserved below ground in this area. Remnants of the wharf once located at the foot of Wagner Street perhaps could be found beneath the fill near the southwest corner of Alumni Hall.

p4

ditto
PLATE 4

f17

diff
fig. 17



1880 - 1902 Land Reclamation

The United States Navy underwent a period of substantial growth from about 1883 through the first decade of the twentieth century. The early stages of this growth were marked by the shipbuilding programs of 1883 to 1888 (Alden 1989). This was followed by the Spanish-American War and the subsequent need for a greater presence in both the Caribbean and the Pacific, where the Philippines and other territories were acquired. It became clear that two fleets would be required, one for each side of the continent, and under Roosevelt's administration, the Navy was seen as a major international power (Fee 1989).

The emergence of the U.S. Navy as a world class service was thought by many to require a similarly potent training institution. As Congress came to accept this new role for the service, funding became more readily available; taking advantage of this climate, the Navy put forward a plan for the complete renovation of the Academy (Sweetman 1979: 141-143). The demolition of old buildings would provide some space for new construction, but it was clear to many observers that the existing Academy grounds were not large enough to accomodate an expansion of a size consistent with the new vision of the Navy. Existing space was simply insufficient; it was time to turn to the Severn River for expansion purposes.

According to the Naval Academy Property Acquisitions Map of 1962 (Figure 10), a large portion of land was reclaimed from the Severn River during the period between 1880 and 1902. It was mentioned earlier in this report that one of the first attempts at "filling-in" to create more land took place in 1853 when a hill was graded away from the recently purchased parcel of land between today's College and Maryland Avenues north of Hanover Street. The soil was used to aid in filling-in the area along the northern and eastern shorelines.

Part of this initially filled area probably extended west from the eastern point of land to as far as Tabernacle Street (College Avenue), thus covering all of the Academy's northern shoreline. This fill would now contain any existing remains of features once located along the original shoreline. That is, of course, providing that later construction on the Academy grounds did not destroy them. For instance, the wharf that was once at the foot of Scott (Figure 11) would have been covered by the fill activities in 1853. However, early twentieth century construction of Dahlgren Hall in all likelihood obliterated any evidence of its existence. On the other hand, remnants of the old Severn Ferry landing at the foot of Northeast Street Extended (Maryland Avenue) may exist beneath the fill soils in the area. The landing was moved one street to the west, to the foot of Tabernacle Street (College Avenue) when the Navy grounds expanded. Later, that location was again shifted to the west, to the foot of Wagner Street. Therefore, any existing cultural remains related to the landing at the base of Tabernacle would be encountered beneath this 1853 fill episode.

This process of reclaiming soils from the Severn River was done several times between 1880 and 1902. Unfortunately, it is not possible to break down this land reclamation into a sequence of episodes. However, by examining historic maps chronologically it is possible to

gain insight. For example, sometime between 1857 (1862) and 1882 (Figures 11 and 12) some filling occurred around Windmill Point. Land was reclaimed around the Gas House and a new and longer wharf (Santee Wharf - named for the vessel discussed later in this text) replaced the one shown on the 1857 map.

References, such as the ones below, provide some insight to the Academy's piecemeal growth along the Severn River:

One of the most beautiful and practically useful parts of the Academy grounds, and now the most healthy, has been reclaimed from the shore of the river, having been filled by debris taken from the higher lands of the Academy. (Board of Visitors 1884)

More work was suggested in 1896:

...it would be well to do at least the following work this year: Extend the sea wall to take in all of the low land of the northerly side, filling same. Extend the sea wall on the easterly side to take in all exposed at low water, filling same. Your committee believes that the additional land provided in this way will be sufficient for the present needs of the Academy. (Board of Visitors 1896)

A few maps exist from the period between 1880 and 1902 which show the changes to the shoreline by land reclamation. Maps from 1889, 1893 and 1895-96 (Figures 17, 18 and 19) all indicate additions along the northern boundary of the Academy. Boat sheds, a stable, a carpenter's shop, and a new Phlox Wharf are all new additions at the foot of Maryland Avenue. At Windmill Point, where the old Fort Severn (gymnasium) was located, a boat house and Santee Wharf can be seen. Plate 5 shows the large boat house in 1897. To the left of the photograph is the gymnasium. To the right is a small portion of Santee Wharf.

According to the 1962 Property Acquisitions Map (Figure 10), land reclamation activities between 1880 and 1902 appended an additional 16 acres (more or less) to the original shoreline of the Naval Academy. Cultural remains, such as remnants of the wharf at the foot of Hanover Street, may exist beneath this early episode of expansion through land reclamation.

As quoted above, this initial land reclamation was suitable for the institution's "present needs." However, the Academy continued to grow; and with this growth came a necessity for continued expansion.

f18

ditto
Fry. 18

f19

fig. 19

PLATE 5

1902 - 1906 Land Reclamation

Land reclamation continued to be a major source of expansion at the Naval Academy in the early twentieth century. Between 1902 and 1906, the grounds were increased by roughly another 26 acres - 9 along the northern boundary and 17 along the eastern (Figure 10). This was part of a revamping, known as the Flagg reconstruction, the entire Academy was to receive.

In 1895, the Board of Visitors reported strongly and unfavorably about the physical condition of Naval Academy. The Board condemned existing structures and urged a "reconstruction of the buildings, grounds, and sanitation." Subsequently, a New York architect, Ernest Flagg, was hired to create a new topographical and architectural design for the institution.

Work on Flagg's plan began in 1899. One of the major topographical modifications called for in Flagg's master plan was the use of large landfills to expand the Academy grounds along both the northern and eastern shores. During this phase of reclamation from the Severn (1902-1906), Dewey Basin was created on the northern edge of the grounds. The eastern shoreline, along the Annapolis Harbor, now had a supplementary 17 acres known as Farragut Field. Also, the shoreline along Holland Avenue between Hanover and King George Streets was filled - an area totalling about two acres.

Flagg's design included construction of a new power plant on the filled land to the west of the newly created Dewey Basin. The Report of the Board of Visitors from 1912 provided some insight concerning the condition and construction one of the sea walls along parts of this fill. The wall around the power plant was contracted in 1899 as part of the Flagg's master plan. Parts of the wall began to settle and fail prior to its completion. The wall was supposed to have a granite cap, but 85 percent of the pilings could not stand the weight of such a treatment. The contractors claimed that they had been misinformed about the character of the ground on which the wall was to be built. The contract was eventually annulled and legal difficulties ensued. The wall continued to settle as much as five feet in some places and the fill around the power plant was exposed to wave action during storms and high tides. In order to correct this serious situation, it was necessary to drive a new line of piles outside of this wall, top them with rubble and stone, and then fill the inside in order to prevent further motion of the sea wall.

Also in 1912, the wood capped sea wall, which was extended from the above mentioned wall around the power plant to the end of the boundary wall at the county bridge (on King George Street), was also in need of repair. This wall had been in place for 20 years by this time and was showing signs of movement due to natural deterioration and the undermining action of the flow of water. The Board of Visitors saw the solution as follows:

To complete the 2,390 feet of this sea wall between the site of the new power house and the county bridge, it is contemplated that a 15-foot wall on piling [sic] to solid strata to permit, if desired, dredging to 9 feet of water alongside the wall, with the capping 5

feet above mean low water datum, will be necessary. (Board of Visitors 1912)

Photographs were located at the Nimitz Archives from Public Works and show that this sea wall was finally replaced in 1918/19. Remains of part of these sea walls may be present beneath the last addition of reclaimed land at the Academy which occurred in 1977. This reclamation project was undertaken in the vicinity of the power plant and along College Creek.

1902 and 1941 Acquisitions

The government acquired more than ten acres between Hanover and King George Streets in 1902. The parcel, whose purchase price was in excess of \$176,000.00, ran from almost halfway between Maryland Avenue and Governor Street along King George Street (actually from 193 King George) to the Annapolis Harbor (Figure 10). The Governor's Pond occupied most of the space between Hanover and King George Streets (Figure 5). It was filled in around the middle of the nineteenth century. Although a canal was dug through the area which once contained the pond (see below), part of it may exist today beneath the buildings along Porter Road.

Once the pond was filled in, the area then became known as Harwood's Venture or Governor's Pond (the owner was Thomas Harwood). As can be seen in Figure 10, the property was divided into three separate lots - 10A, 10B, and 10C. Lot 10C contained approximately 875 feet of waterfront. In all, 82 parcels were acquired through deeds and condemnation (Record of Judgements and Decrees, pp. 1-146 U.S. Circuit Court No. 3).

Part of the master plan for the Flagg reconstruction was the building of a new chapel. The location of the chapel was on the north side of Hanover Street, aligned with the center of the new basin (Dewey) on the northern sea wall. In order to more easily get supplies and building materials to the site, a canal was dug from Spa Creek. This canal was dredged from Spa Creek, just below Dahlgren Hall (where Hanover Street once was), through part of the area that once contained the Governor's Pond (lot 10B). Plate 6 shows that the canal was dredged between the armory and the existing buildings.

In 1941, the Navy made its final purchase of land - the waterfront neighborhood of Hell Point just south of the parcels secured in 1902 (see Legacy Resource Management Program Archaeological Reconnaissance Survey Vol. III - Map Analysis and Oral Histories for information on the Hell Point Neighborhood). This \$402,783.00 addition to the Academy grounds totalled over seven acres and contained approximately 447 feet of waterfront on Spa Creek. Sixty-two parcels were acquired by the Navy through Civil Action (#1401 10/10/41) and the neighborhood was demolished (Plates 7 and 8) and cleared (Plate 9). The size of this area had been enlarged considerably by 1941. The Stoddert map, made in 1718 but redrawn in 1783 by Callahan, shows the location as being much smaller (Figure 20).

According to Stoddert's map, the original waterfront consisted of lots 98 and 99 which were surveyed for Amos Garrett and Charles Carroll (Figure 20). Patrick Creagh purchased the lots in 1731. Creagh's daughter married Richard Maccubbin and inherited the property in 1747. The Maccubbin's sold the lots to William Wilkins in 1761 and repurchased them to clear the title. The transfer included buildings, quays, and wharves. The lots fronted the City Dock and the Severn River and had already been developed to take advantage of their commercial possibilities. The sale by Maccubbin in 1761 had been for the benefit of Creagh's creditors; Maccubbin repurchased the lots in 1763. Maccubbin leased the property in 1774 to James Higginson and William Whetcroft. The description of the property given in that lease included references to Maccubbin's brick dwelling house, yard, garden and stable.

Although the 1902 and 1941 acquisitions occurred 39 years apart, their proximity makes it convenient to discuss their more recent histories together. Prior to their annexation into the Academy, the blocks had been used for both commercial and residential purposes - with the commercial uses focused along the shoreline.

Mid-nineteenth century maps, the 1846 Bache map (Figure 3), the 1858 Sachse print (Figure 8) and the 1860 Martenet map (Figure 21), all show a steamboat landing at the foot of Prince George Street. The 1878 Hopkins Atlas shows the commercial development taking place along the waterfront. The public steamboat landing had been taken over by eight wharves and oyster packing houses.

The corresponding section of the 1885 Sanborn Insurance Map (Figure 22) shows the residential dwellings located along the south side of Hanover Street and both sides of King George Street, as well on Water Street between the two, and along Prince George Street. One of the Academy's wharves is seen at the foot of Hanover Street. A variety of commercial or industrial activities can be seen along the waterfront of the harbor. The long wharf used by DuBois & Company Oyster Packers is adjacent to a lumber yard owned by Jonathan Kealy. Further south there are four other piers (Long Wharf) containing oyster packing plants - Thurston & Russel; J. Russel & Company; Wells & Johnson; and Medford & Company. Another plant was located just outside of the project area along city dock. Other commercial activities along the shore at this time included blacksmithing, manufacturing of winders and dredges, boat building and storing, and shoe making. The steamboat landing is shown at the foot of Prince George Street. There was a single waterfront dwelling, 7017 Holland Avenue, located somewhat at the foot of King George Street.

The 1891 Sanborn map looks very similar to that of 1885, with a few noteworthy differences (Figure 23). There was the addition of an irregularly shaped "projection" of land south of Kealy's Lumber Wharf which held a structure used for oyster shucking. Also, outside of the project area, a pier or wharf was built to accommodate yet another oyster packing plant.

p6

Page 6

p7

Plate 1

p8

Plate 8

Plate 9

f20

figure 20

The area looked roughly the same two years later when E.L. Chinn produced a map from a survey he conducted in August of 1893 (Figure 24). An 1896 survey map for the waterfront area just south of Prince George Street shows that the intent of the property owners was to continue to wharf and fill the water into the Annapolis Harbor (Figure 25).

The harbor waterfront between King George and Prince George Streets in 1903, according to the Sanborn map, had increased in residential and commercial activities. A boarding house, a steam laundry, a restaurant, a livery stable, and a net making shop were new commercial additions. More than two dozen new dwellings, most of them two-stories, were now in the area east of Holland Street. Three oyster packing plants were still located along the shoreline, however, two of them were marked "closed."

The 1903 map also shows the area north of King George Street as "Ground Recently Acquired by the U.S. Government and Razed Now being graded for Improvement." This, of course, refers to the lots purchased in 1902. Also pertaining to that parcel is the text along the water's edge - "Proposed Wharf Line (Dredgers Now At Work)" - indicating the creation of the "first" Farragut Field by 17 acres of land reclamation between 1902 and 1906.

The Sanborn map of 1913 shows that the steamboat dock still existed and what was the H.B. Meyers Lumber Yard had become the Farinholt Meredith Company (planing mill, joiner shop and lumber yard). By 1921, Farinholt Meredith had become the Meredith-Kealy Lumber Company. The Annapolis-Claiborne Ferry Company wharf and two oyster packing plants were present on the waterfront east of their facility. The Tolchester Company operated out of the steamboat wharf at the foot of Prince George Street. In 1930, the two steamboat companies continued in operation, but the J.F. Johnson Lumber Company had taken over both of the former lumber yards and the oyster houses as the seafood industry had already reached its peak in Annapolis.

Once the Navy purchased the Hell Point area in 1941, the Bureau of Yards and Docks produced a map entitled "Demolition in Holland St. Area" (Figure 26). Several piers, bulkheads, ramps and landings can be seen between King George and Prince George Streets. The map also shows a vessel docked at the landing at the foot of Prince George Street and indicates what buildings were to be removed during the demolition - "All Buildings, Structures, Walks, Roads, Piers, Wharfs, Bulkheads, and Services in this Area to be Removed." Remains of any features that were not removed and which may have been preserved beneath the fill along the shoreline between King George and Prince George Streets would now be in part located under the Academy's recently constructed Visitor's Center at the east end of Halsey Field House. Extremities of some of the wharves extended beyond the fill and potentially may be found in Spa Creek. Although Figure 26 indicates that the contract called for "all...piers, wharfs bulkheads and services in this area to be removed," remains associated with these piers may exist. Some of the pier pilings and what was the steamboat landing can be seen in the background of Plates 7 and 9. Plates 10 and 11 do provide some evidence, however, that most of the old pilings were probably removed and a new seawall constructed.

f21

figure 21

f22

fig. 22

f23

fig 23

fig 24

f25

fig. 25

North of King George Street, the remains of structures such as Kealy's Lumber Yard or DuBois and Company Oyster Packers (the end of which lies beneath Ricketts Hall), still may exist in the spaces which have not been impacted by twentieth century construction.

There is one final note of interest pertaining to the land acquired by the Academy in 1902. The 1896 Report of the Board of Visitors revealed some concerns about the purchase of property in the area. The Board was requested to examine and report to the Secretary of the Navy and to Congress the "availability and desirability of acquiring...the property...as is situate between the north side of Hanover street, the east side of Governor street, the north side of King George street, and the west side of Holland street, and the probable cost thereof by purchase or by condemnation for public use." Reference to maps of the area reveal that this included no waterfront property. The Board reviewed the property in question, however, and on 5 June 1896 reported favorably on the proposal. Captain P.H. Cooper, Superintendent of the Navy, independently submitted a letter, dated 4 June 1896, stating that in his opinion the property mentioned should not be purchased by the Academy.

Cooper's concern was that:

"...the purchase of the blocks of land in question does not include the water front without which the land would be of no value to the Naval Academy, and, moreover, it would be a positive detriment. The grounds would then be in the position where the city of Annapolis would project into the Naval Academy at various points- at the water line and also between Governor street and Wagner street, including much valuable property.

Were it possible for the Government to possess itself of all the land which would be included in an extension of the Naval Academy wall on King George street to the water line of the harbor, there would be ample space for the erection of such buildings as are needed..." (Board of Visitors 1896)

Cooper's concerns seem to have been accepted, and the final purchase of land included more than had originally been advised by the Board.

1929 Land Reclamation

In 1929, the Academy's smallest land reclamation project occurred across College Creek. Mid-way between King George Street bridge and the bridge on Decatur Road, a modest 0.62 acre area was reclaimed from the Severn (Figure 10). Not much can be said about this relatively minor reclamation.

f26

figura 24

p10

PLATE
10

p11

PLATE 11

1941 Land Reclamation

Twelve years later, however, the northeast shoreline of the land known as Strawberry Hill, acquired in 1869, was increased by taking more land from the Severn River. More than 22 acres were added to the waterfront along the Naval Medical Clinic and Cemetery Point. Plate 12 shows an aerial view of this land to the northwest of College Creek in 1939, prior to the reclamation project. The 22 acre addition can be seen in Plate 13, an aerial view from 1954. Any existing remains of the docks or wharves associated with the circa 1765 Sprigg house (discussed earlier) or other eighteenth or nineteenth century shoreline features would be encapsulated beneath this fill - today's Sherman Field.

1942 Land Reclamation

In 1942, another small land reclamation project was undertaken. One and a quarter acres was filled in along the shore of College Creek (Figure 10). This small area of made land, located roughly at the foot of College Avenue, adjoined the shoreline created during the 1902-1906 land reclamation project.

1959 Land Reclamation

The last major land reclamation to be done at the Naval Academy occurred in 1959. This "made-land" was constructed in order to expand the Academy's extensive physical training program. Construction of a field house was to take place on the land that was once known as Hell Point. The area had been used for outdoor recreation since the demolition of the neighborhood. By building Halsey Field House, more space would be necessary for outdoor physical activities.

Along the northern shoreline, more than 25 acres were reclaimed by hydraulic fill from the Severn River, creating Dewey Field. The development of Dewey Field was accomplished by filling in the yacht basin (Dewey Basin) that had been established along the northern sea wall during the 1902 - 1906 reclamation venture (the filled basin is now referred to as Ingram Field) (Plate 14). The filling of the basin was done simultaneously with the construction of the Halsey Field House (although the field house was completed first). That area was then extended north into the river until the boundary was even with Santee Basin to the east. Plate 15 shows an aerial view of the reclamation work in progress. Santee Basin is on the right side in the photograph and most of Farragut Field is filled.

The area referred to as Santee Basin may contain important cultural remains. According to the CAD generated overlays produced for this project, the old Santee Wharf once extended through the eastern half of the basin (Figure 27). The pier headed predominantly to the northeast and then jogged to the east. The end of the wharf would have been in the area of the mouth of the basin today. Although the remote sensing activities could not be conducted within the basin, the area north of the basin's entrance revealed at least 15 anomalies in the area.

p12

PLATE 12

These features may be related to more recent action near the basin, but perhaps they are associated with earlier activities associated with the vessels moored at Santee Wharf. It seems likely, however, that any remains within the basin itself would have been disturbed by dredging.

Along with the northern addition, the 1959 reclamation extended the eastern shoreline of the Academy. Along the shoreline of Farragut Field (created 1902-1906), land was reclaimed from the Severn at the mouth of Spa Creek. Over 29 acres were added to the 17 acres of Farragut Field (Plate 15). This extension continued along the shore south to below King George Street and into the area that once was the Hell Point neighborhood (Figure 10). Thus the remains of some of the wharves and docks of the oyster packing plants and lumber yards that existed on the waterfront in this area may be located beneath the extreme southern end of Farragut Field.

Recently acquired maps reveal that this land reclamation was done primarily by dredging soils from both the Severn River and Spa Creek. These maps illustrate the extent of the "borrow pits" - almost to the eroded location of Fort Horn on the opposite side of Spa Creek.

1977 Land Reclamation

Another small section of land was reclaimed from College Creek in 1977. Approximately two and a half acres were created at the site of the 1942 project near the foot of College Avenue. This new fill extended northeast and southwest following the shoreline of the creek. This 1977 addition of ground is the most recent reclamation of land by the Academy. It does not appear on the Property Acquisitions map due to the fact that the acquisitions map was compiled in 1962.

The foregoing sections of this report have dealt primarily with installations along the Academy's shoreline and the potential they might have for yielding cultural resources. For much of the Academy's history, however, activity also took place on the water, on ships moored at her docks and wharves. Vessels such as the *U.S.S. Santee* were an integral part of life at the Academy, and activities on board certainly left some remains behind on the river bottom.

Naval Academy Practice Ships and School Ships

In June 1845, just after Annapolis was officially recommended as the location of the naval school, the board submitted a list of recommendations to Secretary of the Navy George Bancroft. Included in these recommendations was the suggestion that during their time at the school, midshipmen should spend a year on a practice frigate. The following year, Commander Buchanan recommended that a brig be stationed at the school for use as a practice ship. In 1850, the promise of such a ship, a sloop of war, was made to the school. The ship was to be used for summer cruises and gunnery practice. Second class midshipmen in good standing would be able to enjoy leave during the summer cruise of the vessel. The use of a practice ship would provide many of the midshipmen their first real taste of the sea.

p13

Plate 13

p14

Plate 14

f27

Figure 27

p15

Plate 15

In 1851, the Academy finally received the ship it had been asking for since its inception. Midshipmen were allowed to take a coastal cruise in the government steamer *John Hancock* and were then transferred to the third-class sailing sloop of war, the *Preble*, which was officially assigned to the Academy. The *Preble* made the Academy's first foreign cruise to the West Indies and Madeira in 1852. It also made all cruises (except one) from 1853 to 1859.

In 1856, the *Plymouth*, a larger sloop, was used for the cruise. In 1859, she was converted into a school ship for the fourth class when the new midshipmen outnumbered accommodation on Stribling Row. Gas and steam lines were run out to her from shore. The men were housed on her berth deck and all but four guns were taken from her main deck - which was enclosed and turned into a recitation room and study for the midshipmen. So successful was the use of the *Plymouth* as a school ship that the following year she was replaced with a larger vessel with more historical ties - the *Constitution*. She was remodeled and became home to more than 100 midshipmen. The *Constitution* was attached to the Academy until 1871 when she was replaced by the frigate the *Constellation*. The *Constellation* remained there until 1894 and was used for every summer cruise during that time.

Over the years, numerous vessels were used for the summer cruises and as practice ships. In 1862, the sloops of war, *John Adams* and the *Marion*, exercised in coastal waters. In 1863, three vessels were used for the summer cruise - the *Marion*, the schooner yacht the *America* (removed in 1873), and the sloop of war the *Macedonia*. In 1864, another practice ship, the *Marblehead*, sailed as part of the squadron. Of course, during these years the Academy was located at Newport, Rhode Island, due to the outbreak of the Civil War. In 1865, when the Academy returned to Annapolis, another vessel, the *Santee*, began her career as a school ship (see below). The *Santee* became one of the most well known and talked about school ships ever used at the Academy.

In 1899, the U.S.S. *Chesapeake* was built for the sole purpose of training the midshipmen. She was a steel-hulled, square rigged vessel which served the Academy as a cruise ship until 1907. The last sailing vessel to be used for summer cruises was the *Hartford*. Her final cruise took place in 1909.

The U.S.S. *Santee*

The *Santee*, named after the Santee River of South Carolina (Alden 1913), was a sailing frigate first launched in 1855 (Plate 16). Construction of the vessel had actually begun in 1820 at Portsmouth, New Hampshire but 35 years elapsed before she was completed. Once the vessel was launched, she remained somewhat inactive until the beginning of the Civil War. On 8 June 1861 she was put into commission and began the first phase of her career. The second phase of the vessel's calling was with the Naval Academy in Annapolis. Throughout her history, the *Santee* was a source of both ridicule and inspiration. Many a song and poem was written by cadets and glorified the vessel as well as told of her bleak and desolate side.

The *Santee's* first years with the Navy were war related. In 1862, however, that changed. The use of steam power made her type of vessel obsolete. A flaw in her construction (concerning the arrangement of the gunports) prevented her from being one of the few sailing ships reserved for active duty (Alden 1913).

In fall of 1862, the *Santee* began her career with the Naval Academy which at this time was located at Newport, Rhode Island due to the war. There the *Santee*, along with the *Constitution*, was used as temporary schoolrooms and quarters for the Academy. For fifty years, she continued to serve the Naval Academy - moving to Annapolis at the close of the war (Alden 1913).

This new calling for the *Santee* was not the first time a vessel had been used in this fashion. The *Plymouth* was the first vessel to be used as a school ship in 1849 and later was used as a practice and exercise ship. The Report of the Board of Visitors of 1860 revealed that the Academy felt that a larger vessel was necessary.

The plan of keeping a ship permanently attached to the Academy as a home for the fourth class is a new feature...it is important that a larger ship than the *Plymouth* should be employed in the service.
(Board of Visitors 1860)

It was thought that a "home on the ship" during the first year of a young midshipman's academic life should be provided and maintained as a permanent point in the institution. Careful inspection of the accommodations and sanitary regulations and arrangements on board the *Santee* and the *Constitution* were made in 1863 according to the Board of Visitors. It was reported that "in no way can the health of the young officers be better secured and protected." This was to change over the years, however, as the ship deteriorated and the quarters became over crowded with midshipmen.

On 2 August 1865, the *Santee* moved to Annapolis and was moored near Fort Severn. The wharf at which she was docked became known as Santee Wharf. The vessel also lent her name to the basin that was constructed after the land reclamation of 1902-1906. For the next four years she and the *Constitution* were used for classrooms and housing midshipmen. The conditions on board were said to be quite depressing. Midshipmen slept in hammocks on the vessel. Park Benjamin commented that "nothing could have been more desolate than the outlook to the Plebe whose first experience brought him on these schoolships" (Alden 1913). Meals were eaten in the darkness of the berth deck by the light of several foul smelling oil lamps. With conditions such as these, it is not surprising to learn that midshipmen in need of "disciplinary action" were placed in confinement on board the vessel. She was sometimes referred to as the "prison ship" (Alden 1913).

In 1866, a new use was found for the *Santee*. At this time, she was no longer referred to in the records as the school ship but instead was called the "Gunnery Ship *Santee*." She was

p16

PLATE 16

PLATE 17

moored at her wharf with her starboard side facing Greenbury Point, and although she never left the dock, the midshipmen were given target practice on her.

After the completion of new officer's quarters in 1869, the *Constitution* was moved from Annapolis and the *Santee* was used as the station ship; gun drills continued, and at almost all times during the year, recalcitrant midshipmen were sent aboard.

During the late 1870s and early 1880s, the *Santee* was a common subject for the cadets (as they were now called) to write about. Poems and songs revealed the history of the frigate from her early days in the war to her dismal use as quarters and a "prison ship." In 1882, she was condemned by an act of Congress and her name was taken off of the Navy Register. She continued, however, as the post ship at the Naval Academy and about this time was stripped of her spars and roofed over (Plate 17). Cadets still used her for gun drills but her guns were no longer actually fired. She continued to be used as quarters for some of the classes.

In 1905, the *Santee* was described as being unsanitary. Her use as a prison ship was officially ended. Until 1912, however, the officer in charge of ships at the station continued to make the vessel home for himself and his family. Certain modifications had been made for that purpose. A fireplace had been put in the captain's cabin. There was a large sun parlor, filled with flowers and ferns, built above. The *Santee* was said to have had a certain charm in her final years that was never before apparent.

During the last years of the life of the *Santee*, the water began to prevail over her. In a period of 24 hours, she would take on about 30 inches of water in her hold and needed to be pumped out morning and night. On 2 April 1912, at four o'clock in the morning, the ship began to settle and she sank in 10 to 12 feet of water. An attempt was made later to float her but proved unsuccessful. On 2 August of that year, the frigate was sold to Joseph G. Hitner, of Philadelphia, for \$3610.00. On 8 May 1913, the *Santee* was raised and towed to Boston where she was beached and burned for the copper and brass in her hull.

A synopsis of the *Santee's* background is provided below:

The U.S.S. *Santee* (from Alden 1913)

Acquisition: Hull built by government at Portsmouth Navy Yard, launched 16 February 1855
(Her keel was first laid at Portsmouth in 1821)

Cost: \$229,022.43

Crew: 480 Men

Battery: 20 May 1861: 2-64 pounders, 106 cwt.; 10 VIII-inch, 63 cwt.; 20-32 pounders, 57 cwt.; 16-32 pounders, 33 cwt.; 2 heavy 12 pounders.
25 August 1862: 2-64 pounders, 10-VIII inch, 34-32 pounders, 1-30

pounder Parrott rifle;

4 October 1862: 1-XI in Dahlgren Smooth bore; 1-100 pounder Parrott Rifle; 10-32 pounders.

History:

During the Civil War period, 1861-2, on blockade duty off Galveston, a part of West Gulf Blockading Squadron. On 27 October 1861, captured blockade-runner *Delta*; on 30 December the Confederate Schooner *Garonne*. Most notable action in her career was on 7 November 1861 when the Schooner *Royal Yacht* was taken and set afire. The capture was made under the command of Lieutenant James E. Jouett. A number of men were killed on both sides in this action. Other captures were made while off the coast of Texas. In the summer of 1862 she was ordered North. She set sail 1 August 1862 and reached Boston, August 23. In October 1862 she left Boston for Newport, where she was used as a schoolship for the Naval Academy.

Practice Ships and Potential Cultural Resources

The use of ships as homes for midshipmen, as prisons and as quarters for other personnel give an indication of the kinds of activities which took place on board. Although in many instances trash disposal and sanitation may have been mandated, it is likely that much detritus found its way over the sides of these vessels. Everything from food to clothing, bottles to tools, and broken equipment may have ended up on the bottom. These kinds of remains may have a somewhat ambiguous status, but could potentially yield a good bit of useful information on ship-board life at the Academy.

Most of these vessels appear to have been moored to a series of wharves which extended from Windmill Point out into the Severn. The earliest of these wharves (pre-1882) lie beneath the landfill south of the current Santee Basin. These areas should at least be monitored carefully during any disturbance which might penetrate to the old river bottom. A better approach would be test some of these areas through excavation prior to any ground disturbance.

The last of the wharves, which shows up on an 1882 map of the Academy (Figure 12), lay at the mouth of Santee Basin. It is in this location that the *Santee* came to rest when she sank. This area could not be surveyed magnetically because of the close proximity of iron-reinforced concrete in the seawalls. No records of dredging in this area were uncovered, so it may be that materials still lie on the bottom in this vicinity.

FIELD INVESTIGATIONS

Research Goals and Methods of Remote Sensing Survey (Stage Two)

The bulk of the preceding sections deal with features which are now buried beneath landfill. The use of historical documents, including maps, can suggest where the remains of earlier features may lie, but test excavations or extensive remote sensing (such as ground penetrating radar) would be required to verify their presence or absence. There are other features which may have extended from the shore into areas which are still covered with water today (such as the end of the post-1882 Santee Wharf). In addition, both naval and civilian vessels anchored in the waters off the Academy; they may have deposited garbage or lost equipment overboard. In tributaries such as College Creek, vessels were sometimes abandoned. Losses such as these are seldom recorded, but may nevertheless result in significant cultural resources. Some type of survey of the waters immediately adjacent to the Academy was therefore required.

During the week of 10 April 1995, a magnetic survey was conducted to locate any historical submerged cultural resources in the waters surrounding the Academy. Personnel included Dr. John L. Seidel, University of Maryland College Park (UMCP) as Principal Investigator; Mr. Larry Murphy, Survey Director and Mr. Matthew Russell, Archeological Surveyor, both from the National Park Service (NPS), Submerged Cultural Resources Unit (SCRU); Ms. Elizabeth A. Aiello and Ms. C. Jane Cox, UMCP Project Archaeologists; and Dr. Steven Schope, Sandia Research Associates (SRA).

A comprehensive survey and evaluation system (developed by the National Park Service SCRUI team) was used. The survey design called for a Systematic Differential Global Position System (DGPS)-controlled electronic survey with proton-precession magnetometer to be deployed in the 0.8 sq. km area designated in the University of Maryland Legacy Grant proposal (Seidel 1995). Computer pre-plotted survey transects throughout the area were used for helm navigation to ensure complete coverage at the specified survey interval. Real-time instrument and navigation data was stored by an on-board computer, post-plotted and provided to University of Maryland in a digital format.

National Park Service practice has demonstrated effectiveness of 30 meter lane spacing for historical cultural resource magnetic survey (Murphy 1984, 1993; Murphy and Saltus 1990). Lane spacing was reduced to 20 meters for this survey to detect ferrous material with smaller mass than the 450 kg target mass utilized for NPS shipwreck location. The Naval Academy survey area had a high probability of shore-based and anchorage-related deposition.

Survey blocks with pre-plotted lanes were designed in Coastal Oceanographics, Inc. "Hypack" hydrographic survey software, which was also utilized for vessel navigation, data collection, collation and storage during the survey.

A Trimble Navigation "Accutime" GPS receiver and "Navbeacon XL" were coupled to provide real-time DGPS positioning for survey navigation and data positioning. Differential corrections were received from the U.S. Coast Guard Cape Henlopen GPS Radio Beacon, located at North American Datum (NAD) 1983 coordinates 38d 46.60678' N, 75d 05.26108' W, broadcasting at a transmission frequency of 298 KHZ and 100-bits-per-second transmission rate. Data collection (shot points) were collected every 1.5 seconds, with positioning accuracy less than 3m throughout the survey area.

A Geometrics G-876 proton-precession magnetometer collected magnetic data. Magnetic data resolution was 1/2 gamma (nanotesla) in a field of 60,000, with a noise level typically less than 1 gamma. This instrument generates a sensor depth and height over bottom and displays these data during the survey. Instrument height did not exceed 15 feet during the survey.

The survey vessel used for the remote sensing project was a 27-foot, twin screw, fiberglass vessel leased for the project. Pre-plotted lanes were navigated throughout the main survey area. In areas that were too shallow for navigation and pre-plotted lanes to be followed, the area was surveyed in a systematic manner with position and magnetometer data collected as in the other survey areas. An anchorage is marked by numerous mooring buoys northeast of the City Dock area. These buoys were individually positioned by DGPS. It was thought that the anomalies in this area may represent mooring tackle.

Post-Processing

Survey data files were post-plotted in "Hypack," which produces an "xyz ASCII" file, with z representing the full-field magnetic data. The magnetic data were further reduced by performing a running two-point subtraction to isolate the change between each point, producing a z value of magnetic gradients. This xy (position) z (gradient value) file was imported into the "Quicksurf" module of "AutoCAD" and contoured. The contours were then imported into the digitized survey area base map and examined at various scales and contour intervals. Magnetic anomalies, which are represented on the chart by colored isogamma lines, were separately examined, and a point representing the most likely position of the ferrous mass was selected and consecutively numbered. Only anomalies clearly related to shore structures, surface vessels or navigation aids were eliminated from further consideration.

Results and Conclusions of Remote Sensing

The survey located 65 positions identified as magnetic anomalies, which represent submerged ferrous material of unknown age and significance. These 65 anomaly positions are identified on Figure 28. Several anomalies were the result of navigational aids or other vessels (Navy YP boats) passing near the magnetometer sensor during the survey; these are labelled appropriately. Some linear anomalies close to concrete sea walls were eliminated from the data because they were produced by reinforcing bar within the concrete structures. The 65 anomaly areas had to be visually examined by archaeologists to determine their origin and significance. This examination was conducted as Stage Three of the Naval Academy Shoreline project, a field

figure 28

check of anomalies. Some of these anomalies were thought to be buried; an additional project phase to test excavate anomaly areas would help determine anomaly nature and historical significance. This was not part of the current project as it was impossible to predict the number of anomalies which would fall into this category prior to the survey. In addition, disturbance of bottom sediments would have significantly increased project costs (necessitating the use of a dredge and increased surface support) and would require permits from the Maryland Historical Trust. In cases where features were buried and not visible to divers, the areas around the anomaly should be avoided during all bottom disturbance activities within the survey area or tested through excavation prior to disturbance.

Research Goals and Methods of Field Check of Anomalies (Stage Three)

Once the data from the magnetic survey had been collected and processed, anomalies could be targeted for investigation by divers on SCUBA. On 26 June 1995, this field check of the 65 anomalies was initiated. A team of volunteer divers, lead by Dr. John L. Seidel and Ms. Elizabeth A. Aiello (UMCP) and assisted by Mr. Gary Melancon (UMCP Field School in Archaeology) examined 46 of these anomalies using SCUBA. The use of a 25 foot Shamrock was donated to the project by Mr. David Howe. All diving activities were conducted from this vessel, *Top Knot*. Nineteen anomalies were not dived on for various reasons which will be addressed in the following anomaly descriptions.

The anomalies were not investigated in numerical order (1 through 65). Instead, issues such as boat traffic (Naval Academy YP boat maneuvering training, sightseeing tour boats) and weather dictated the order in which areas were examined. Also, clusters of anomalies were dived on first. This allowed several markers to be set at one time and expedited diving activities.

Anomaly latitude and longitude positions were programmed into the GPS prior to the beginning the project. Once the dive boat was placed over the position of the anomaly, a weighted buoy was set, marking its site. On occasion, the anchor line itself was used to mark the anomaly. A team of two to four divers descended the buoy or anchor line with a 20 foot section of line marked in three foot intervals. The line was then fastened to the weighted buoy and extended to its full length. A counter-clockwise search was then performed, covering a circular area within a 20 foot radius of the marker. Although visibility was extremely limited, through a series of agreed upon "tugs" on the line divers were able to communicate with one another. When features were located, the search was temporarily halted while a small marking buoy was set. The circle search then resumed until 360 degrees was covered. Divers then ascended and discussed their findings. In several instances, a second or third dive was required in order to further investigate a marked feature and/or to take measurements for a scaled drawing.

Artifacts were not collected during the investigation. However, on occasion items were brought to the surface for identification purposes (visibility at the bottom ranged from 0 to

several inches at best). These artifacts were recorded and drawn and then returned to the bottom, as close to their original position as possible, given the limited visibility.

The following section describes the findings at each of the 65 anomalies located by the magnetometer. Each anomaly number is located and labelled on the project area map presented as Figure 28. The four thick red lines visible on the map, three in College Creek and one across the Severn River near Santee Basin, indicate cable crossings. Coordinates of all 65 anomalies can be found in Table 1 at the end of this section.

Results of SCUBA Diving Check of Anomalies

Anomalies 1 Through 11

The first 11 anomalies were located in the Annapolis Harbor. This area contains a number of mooring buoys maintained by the Annapolis Harbor Master for visiting vessels. Each of these mooring buoys is secured to a 400 pound anchor. During the remote sensing survey in April of this year, the positions of the buoys within the project area were obtained using the GPS. They appear on Figure 28 as small green squares; anomalies are depicted in yellow. Of these 11 anomalies, eight were believed to be attributed to the large mooring anchors.

Anomalies 1, 6, and 11 were located far enough from the buoy anchors that a check on SCUBA was deemed necessary. Because of the active boat traffic in the harbor area, investigation of these three anomalies was left until the end of the project. Several times during the project the GPS receiver was unable to secure a "lock" on the transmissions from the Cape Henlopen GPS Radio Station. When this occurred, there was no way of accurately locating the position of an anomaly since differential corrections were not available. Without these corrections, the suspected position of an anomaly could be off by as much as 300 feet. This lapse in transmission was severe during the end of the field project, when investigation of Anomalies 1, 6, and 11 was attempted. After numerous attempts to regain the differential signal and a great deal of lost time, investigation of these anomalies was abandoned. The loss of Anomalies 6 and 11 was not deemed serious in view of the project's aims and their great distance from the Academy shore. Anomaly 1, which was closer to the shore, may have been a more serious loss. However the lack of differential signal, combined with safety considerations (this anomaly was in a highly active traffic area) dictated that it be foregone. It was, in any case, on the outer limit of the project area.

Anomaly 12

Anomaly 12 was located off Farragut Field in about 16 feet of water. Divers located an iron pipe which extended vertically from the floor of the river.

Anomaly 13

Also located off of Farragut Field in 18 feet of water was Anomaly 13. No specific feature was located at this position indicating that the anomaly was buried and out of reach of the divers. A brown, salt-glazed stoneware bottle (nineteenth or early twentieth century) was recorded, however.

Anomaly 14

This anomaly, located off Farragut Field in approximately 16 feet of water, was buried and could not be located by the dive team.

Anomaly 15

Again, off of Farragut Field in 16 feet of water was Anomaly 15. Although trash such as aluminum cans was found in the area, no anomaly was found above the silt bottom.

Anomaly 16

Located in 19 feet of water off of Farragut Field, Anomaly 16 was found to be a small, twentieth century boat anchor (Danforth). A possible wooden "truck" was recovered at this position (Figure 29). A truck is a small bead of wood which is one of two parts of a "parrel" in a sailing vessel's rigging (the other part is the rib). The parrel allows a yard or spar to be held to a mast in such a way that it may pivot freely to be hoisted or lowered (Lavery 1984).

Anomaly 17

As was the case with the previous anomaly, Anomaly 17 was a small, twentieth century Danforth boat anchor.

Anomaly 18

Divers could not locate the anomaly (buried). The search did reveal however, much concrete rubble and slag. Several twentieth century bottles were recovered including a milk bottle marked "Annapolis Dairy Products" and a Mennen cologne bottle.

Anomaly 19

This anomaly was located in about 15 feet of water. Divers recovered a bronze windlass handle and several yard long sections of iron rebar. Concrete rubble was also present.

f29

fig 29

Anomaly 20

No apparent source for the anomaly was found at this position by the dive team. Several brick fragments, including a large, handmade brick, and a bottle marked "Joseph C. Carroll, Baltimore, MD" were found in 19 feet of water. The presence of bricks is intriguing; Todorich (1984:87) notes that a favorite antic of midshipmen in the mid-nineteenth century was to load bricks into a battery, "which, when fired, spread debris throughout the harbor and threatened small boats near the seawall."

Anomaly 21

This anomaly was found in 22 feet of water. Divers located a pile of iron stud-link chain and two sections of two inch wide pipe approximately four feet in length each. Other artifacts included a section of an ironstone bowl marked:

1862
Greenwood China
Trenton, N.J.

The bowl was decorated with a green floral scrolled design on the interior. It was approximately 1 5/8 inches in height, 3 inches in diameter at the base, and 6 inches in diameter at the rim.

A 6 1/4 inch wooden dead-eye with three, 1 1/4 inch grooved holes was recorded (Figure 29), along with a one gallon, clear glass jug was recovered.

Anomaly 22

At Anomaly 22 a partially submerged sheet of metal, two feet by three feet in size was found. Also located was a modern block of wood approximately four inches by four inches by three feet.

Anomaly 23

A total of three dives was conducted on Anomaly 23 which was located off the northeast corner of the Academy grounds. The first dive made it clear that several features were present at this site. The team descended again and marked the features with buoys. An anchor chain and anchor were located (an anchor chain was also located at A-21 northwest of this anomaly). Two divers returned to the bottom for a third time in an attempt to take measurements and draw the anomaly (Figure 30). Visibility was less than six inches. The anchor chain headed towards the anchor but the connection of the two was buried. Thirty-two exposed links could be counted. Each link was approximately 1.0 feet in length with a circumference of approximately 0.2 feet. The exposed portion of the anchor (see Figure 30) was approximately 3.8 feet long. Personal communication with Larry Murphy of the National Park Service (SCRU) identified the

figure 30

anomaly as the stock of a sliding stock anchor - possibly a stream or kedge anchor, but mostly likely a stream anchor due to its positioning. This identification dates the anchor to the nineteenth or possibly twentieth century.

Anomaly 24

Anomaly must be buried. Divers encountered concrete rubble and a large amount of oyster shells. Modern screw-top bottles were recovered.

Anomaly 25

Divers found nothing in association with this site off the north wall of the Academy. Anomaly must be buried.

Anomaly 26

The team encountered nothing on their search. Anomaly must be buried.

Anomaly 27

Divers found only coal ash and cinder. Anomaly must be buried.

Anomaly 28

Located in approximately 30 feet of water, Anomaly 28 was found to be attributed to a section of four inch iron pipe which divers found lying horizontally on the bottom beneath the silt.

Anomaly 29

Located off the north wall of the Academy near Santee Basin, this anomaly site revealed only coal ash and cinder. Again, the anomaly must be buried.

Anomaly 30

Divers encountered construction rubble at this site - concrete, glass, etc. Anomaly must be buried.

Anomaly 31

Similar to Anomaly 30, divers found concrete and rubble. No anomaly could be found.

Anomaly 32

Divers encountered much oyster shell, rope, twentieth century bottles, electrical wire, and plate glass. A two inch diameter iron pipe with fittings on it and electrical cable running through it was found. It was approximately 20 feet in length and ran out of the search circle beneath the silt. Two bottles were brought to the surface for examination and then returned. One was marked "Monumental Brewing Co. Baltimore, Maryland" and the other read "Baltimore Glassworks" and contained an anchor and chain relief on the front. The back relief was of an eagle and read "RESURGAM" (Figure 31).

Anomaly 33

Located in approximately 25 feet of water, Anomaly 33 proved to be two ferrous pipes three inches in diameter. The pipes were located about six feet apart and ran in an east-west direction through the entire search circle. Other artifacts recovered included modern screw-top bottles.

Anomaly 34

The anomaly at this location was buried. Artifacts recorded included modern bottles and plastic battens for sails. Battens are used to reinforce or support the sails of a vessel.

Anomaly 35

Divers located several items at the site of Anomaly 35. A sailboat rudder with metal fittings, a metal pipe (elbow joint), and wood were noted. All were of recent origin.

Anomaly 36

Diving on this anomaly revealed a section of an iron pipe, four inches in diameter, and various pieces of non-descriptive iron. Other items recorded included rope and modern bottles.

Anomaly 37

Again, the anomaly was buried and out of reach of the divers. A sail batten and a piece of plexiglass were encountered.

Anomaly 38

Divers located nothing when investigating this anomaly at the mouth of Santee Basin. The source of the anomaly must be buried in the bottom sediments.

f31

figure 31

Anomaly 39

A four inch diameter iron pipe, similar to others previously located, was found at this position.

Anomaly 40

Anomaly 40 revealed only modern sailboat parts - cleats and fiberglass fragments.

Anomaly 41

Divers located nothing at this site. Anomaly source must be buried.

Anomaly 42

No anomaly was located at this position - must be buried.

Anomaly 43

The team located a four inch diameter iron pipe which ran through the entire width of the circle search. Divers were able to follow the pipe for at least 40 feet. Orientation of the pipe was 330 - 150 degrees.

Anomaly 44

This small anomaly was located on line with a cable crossing which runs across the Severn River. Due to its location, boat traffic and time constraints, this anomaly was not dived on.

Anomaly 45

Divers found only bone, aluminum cans and glass on this anomaly.

Anomaly 46

No anomaly was located at this site just off Dewey Field. Divers recovered miscellaneous artifacts such as small iron fragments, modern bottles, wood, an ironstone plate (no markings), and a baseball.

Anomaly 47

Divers located nothing at this position.

Anomaly 48

No anomaly was located.

Anomaly 49

Once again, the anomaly must be buried. Nothing was located.

Anomaly 50

A large section of iron bar was found by divers at this site. The section was approximately 15 feet in length, 1 1/2 inches in width, and 1/4 inch in thickness. It was not identifiable.

Anomaly 51

Divers were unable to locate an anomaly at this site.

Anomaly 52

Another section of pipe was found by the divers. The pipe was approximately three feet in length and had a diameter of roughly six inches.

Anomaly 53

The site of this anomaly, which was located at the mouth of College Creek, contained a very uneven bottom surface. Some areas revealed gravel while others consisted of oyster shell. No ferrous anomaly was located.

Anomaly 54

The bottom surface in the vicinity of Anomaly 54 was similar to that of the Anomaly 53, which was located in close proximity. A section of iron, five feet in length, was found by divers. The iron was "trough-shaped" and approximately four inches wide and 1/4" thick.

Beginning with the next anomaly (Anomaly 55), the remaining ten magnetic hits were all located in College Creek. The bottom surface had an undulating topography and consisted of a much finer, softer silt than that encountered in the river. The bottom sediments were soft enough that divers could push their arms into the silt beyond their elbows without meeting resistance. Due to this extremely soft bottom, it was concluded that the anomalies in the creek must all be buried beneath the silt. After conducting full searches on four of the anomalies and finding nothing, it was decided to send divers down to check the bottom sediments on the

remaining sites. It was then determined that investigations should not be continued in the area and that the dive team should move to a more promising location.

Anomalies 55 Through 58

Each of these anomalies was dived on. The bottom sediments were the same. Nothing was encountered.

Anomalies 59 Through 62

These anomalies were omitted from the investigation after a check of surrounding conditions was conducted.

Anomaly 63

This anomaly was dived on as a check of area conditions. The soft, muddy silt indicated that nothing would be found on the bottom surface.

Anomaly 64

This was the second of the two anomalies dived on as a check of conditions. Similar unfavorable bottom conditions were encountered.

Anomaly 65

This anomaly was also omitted from the survey due to the condition of the bottom surface as well as the fact that it was located directly on a known cable crossing.

Table 1. Anomaly Latitude/Longitude Positions.

<u>A-#</u>	<u>Lat/Long</u>	<u>A-#</u>	<u>Lat/Long</u>
01	38d58'35.34"/76d29'00.33"	34	38d59'04.79"/76d28'37.62"
02	38d58'34.46"/76d28'58.07"	35	38d59'04.20"/76d28'39.42"
03	38d58'33.84"/76d28'56.60"	36	38d59'03.84"/76d28'40.40"
04	38d58'33.48"/76d28'55.56"	37	38d59'02.86"/76d28'41.09"
05	38d58'32.87"/76d28'53.61"	38	38d59'01.84"/76d28'42.09"
06	38d58'32.25"/76d28'57.81"	39	38d59'01.80"/76d28'43.22"
07	38d58'35.38"/76d28'57.02"	40	38d59'02.68"/76d28'43.36"
08	38d58'34.83"/76d28'55.09"	41	38d59'03.74"/76d28'43.49"
09	38d58'35.53"/76d28'53.06"	42	38d59'04.48"/76d28'45.66"
10	38d58'33.90"/76d28'51.48"	43	38d59'05.87"/76d28'47.28"
11	38d58'34.33"/76d28'50.11"	44	38d59'06.25"/76d28'44.15"
12	38d58'40.30"/76d28'46.45"	45	38d59'07.12"/76d28'41.82"
13	38d58'40.16"/76d28'42.97"	46	38d59'10.00"/76d28'54.24"
14	38d58'41.11"/76d28'43.81"	47	38d59'13.15"/76d28'58.49"
15	38d58'41.89"/76d28'43.41"	48	38d59'16.69"/76d28'58.34"
16	38d58'41.24"/76d28'40.18"	49	38d59'16.51"/76d29'01.21"
17	38d58'44.82"/76d28'38.73"	50	38d59'17.57"/76d29'00.63"
18	38d58'44.34"/76d28'33.92"	51	38d59'20.17"/76d28'58.11"
19	38d58'45.48"/76d28'31.33"	52	38d59'20.69"/76d28'58.80"
20	38d58'47.49"/76d28'24.04"	53	38d59'10.48"/76d29'09.88"
21	38d58'49.68"/76d28'27.87"	54	38d59'10.75"/76d29'11.13"
22	38d58'50.21"/76d28'34.98"	55	38d59'08.19"/76d29'17.88"
23	38d58'53.20"/76d28'31.41"	56	38d59'07.66"/76d29'20.55"
24	38d58'53.91"/76d28'31.01"	57	38d59'09.51"/76d29'21.08"
25	38d58'55.70"/76d28'34.41"	58	38d59'09.32"/76d29'21.87"
26	38d58'57.58"/76d28'34.41"	59	38d59'09.05"/76d29'22.28"
27	38d58'58.92"/76d28'38.37"	60	38d59'09.13"/76d29'22.77"
28	38d59'01.36"/76d28'33.89"	61	38d59'09.86"/76d29'23.47"
29	38d59'00.14"/76d28'39.79"	62	38d59'09.76"/76d29'24.60"
30	38d59'01.83"/76d28'36.47"	63	38d59'10.28"/76d29'25.59"
31	38d59'02.28"/76d28'37.72"	64	38d59'09.98"/76d29'27.85"
32	38d59'02.42"/76d28'38.10"	65	38d59'11.68"/76d29'28.11"
33	38d59'01.64"/76d28'39.56"		

Table 2. Results of Anomaly Check on SCUBA.

<u>Anchor/ Chain</u>	<u>Ferrous Pipe</u>	<u>Misc.</u>	<u>Buried</u>	<u>Tested</u>	<u>Omitted</u>
A-16	A-12	A-19	A-13 A-38	A-63	A-1
A-17	A-28	A-22	A-14 A-41	A-64	A-2
A-21	A-32	A-35	A-15 A-42		A-3
A-23	A-33	A-40	A-18 A-45		A-4
	A-36	A-50	A-20 A-46		A-5
	A-39	A-54	A-24 A-47		A-6
	A-43		A-25 A-48		A-7
	A-52		A-26 A-49		A-8
			A-27 A-51		A-9
			A-29 A-52		A-10
			A-30 A-55		A-11
			A-31 A-56		A-44
			A-34 A-57		A-59
			A-37 A-58		A-60
					A-61
					A-62
					A-65

Summary of Anomaly Investigations

During a four day period, the dive team investigated on SCUBA nearly 50 anomalous "hits" detected by the remote sensing survey conducted in April 1995. Sixty-five hits were located during that survey. Water depths at the anomaly sites ranged from 14 feet to 30 feet.

Circumstances such as equipment problems, boat traffic, and bottom conditions resulted in the exclusion of several anomalies from the investigations, but these were almost certainly either from mooring anchors (as in Annapolis Harbor/Spa Creek) or from sources buried well below the bottom (as in College Creek). Eleven of these anomalies in the Annapolis Harbor were not examined. One anomaly in the Severn River and five in College Creek were omitted due to such unfavorable conditions.

Eight of the investigated hits were determined to be attributed to ferrous pipes of various lengths and thickness. This accounted for 17 percent of all anomalies.

Four anomalies (9 percent) were found to be caused by anchors and/or anchor chain. Two small, modern anchors were located and one large anchor with stud link chain (1.0 feet by 0.2 feet).

The remaining six anomalies were attributed to miscellaneous items such as rebar, a bronze windlass, a rudder, and sections of metal and iron. These amounted to 13 percent of the total investigated hits.

Of the 46 anomalies dived on, 28 were buried too far beneath the bottom surface to be located by the dive team. The magnetometer which originally located the hits during the remote sensing survey is capable of detecting ferrous anomalies well beneath the river bottom. The depth to which these anomalies can be detected is highly dependent upon their mass. The team of divers conducted their search by using their hands to feel through the first several inches of sediment. No excavation was attempted by the divers. This resulted in 61 percent of the investigated anomalies being recorded as "buried."

As mentioned earlier, excavation may assist and perhaps be the only way to determine the nature and significance of the buried anomalies. As excavation was not possible and a final determination of significance could not be made, these areas should be avoided during any bottom disturbance activities within the project area.

Additional Dives

Although the intent of the diving activities was to investigate the detected magnetic anomalies, several other areas with the potential to contain cultural resources were examined. The water off the shoreline in front of the Academy's Halsey Field House (in Annapolis Harbor)

and an area in College Creek were dived in search of the remains of wharves and piers that once existed there.

Annapolis Harbor

Diving was conducted in this area in hopes of locating remains of several piers that, according to the Sanborn Insurance Maps, extended into the harbor around 1885. Also, remnants of a steamboat landing at the foot of Prince George Street potentially could exist in the area. This landing appeared as early as 1846 on the Bache map (Figure 3). The background of Plates 7 and 9 show some of the pilings and the landing in 1942 when the neighborhood of Hell Point was demolished and cleared. Plate 10 indicates that at least some of these pilings were removed. The possibility remained, however, that remnants existed or that features and/or artifacts associated with the piers would be located.

Four dives were conducted along the bulkhead area in front of the Academy's new Visitor Center, between Prince George and King George Streets. The locations of these dives is shown on Figure 32 in the area marked with a double circle. At each site, the anchor line was used by the divers to descend. A 20 foot line was attached at the bottom and a circle search pattern initiated.

Dive 1

Divers located a variety of debris at this site. Bricks (at least 20) were widely scattered along with other building materials and plate glass. A partially exposed iron pipe, two inches in diameter, was found running in an East/West direction across the circle. Divers also found an approximately four inch by four inch wooden beam, eight feet in length, with protruding iron spikes. This may well have been part of an earlier wharf, but was not in situ or connected to any other features.

Dive 2

Divers again found a scattering of bricks, glass and modern bottles. One piece of iron was located. This 1 1/2 inch section extended from the bottom for approximately 1 1/2 feet and then turn back down into the mud. No remains of pilings or other structures were encountered.

Dive 3

Results of this dive were similar to those of the first two dives, with building debris and bottles. The third dive also revealed a large stone which, although abnormal for the area, did not appear to be related to any other features or structure.

f32

fig. 32

Dive 4

The fourth and final dive in this area revealed only a small amount of debris and no structure.

College Creek

Additional diving was done in College Creek in order to investigate the possibility of existing remains associated with a wharf located near the mouth of the creek. This wharf is shown on Figure 16, a map of the Academy grounds in 1873-74 after the acquisition of Lockwoodville. This area was not investigated with a magnetometer because of the shallow depths and low overhead clearance of Hill Bridge immediately downstream.

According to an AutoCAD generated overlay of the 1873-74 map and a current conditions map, this wharf would be located just south of Hill Bridge on Decatur Road. The dive vessel was anchored to the north of the bridge and divers swam to the approximate location of the pier. Using a weighted float, the team again descended and conducted a search over a circular area with a forty foot diameter.

Dive 1 (College Creek)

During this investigation divers located a large wooden beam approximately 30 feet away from the existing bulkhead. Dimensions of the beam were approximately 18 inches by 12 inches with an unknown total length. The remainder of the beam was submerged beneath the mud at least three feet. Also located were several pieces of thin iron plate, angle iron and broken pieces of asphalt. Wood and iron may well represent debris from the old wharf, although much of it is disturbed and mixed with recent material (asphalt). The large wood beam, however, suggests that some structure may remain intact, especially beneath the soft silt bottom. This area should be more closely examined prior to any activity which might disturb the bottom.

Results of Additional Dives

The diving that was conducted in the Annapolis Harbor and College Creek on areas other than the detected anomalies produced little intact cultural remains of the piers once located there. Divers found miscellaneous building debris and modern bottles. No further investigations are deemed necessary in the Annapolis Harbor area. As noted above, more detailed investigations should be carried out in the College Creek area if any bottom disturbance is contemplated. Probing and limited excavation would yield a better picture in this area.

CONCLUSIONS AND RECOMMENDATIONS

The results of Stage One (the historic research) of the Naval Academy Shoreline Survey indicate that the potential for existing cultural remains on the grounds of the Naval Academy is very strong. Although renovations and new construction over the years have had an impact at various locations on the grounds, areas of historic significance that have not been entirely destroyed by the Academy's continued growth do exist. It is therefore recommended that archaeological testing be undertaken should activities occur in the future that would impact any historically sensitive areas.

On land, various shoreline features and wharves may lie partially or substantially intact beneath areas of landfill. These features include landings associated with eighteenth century dwellings that would be encompassed by the Academy's grounds (Dulany, Nicholson, Buchanan houses, for example), warehouse foundations along the water's edge, the various Severn Ferry landings, one of which may date to the seventeenth century, steam boat wharves (Phlox Wharf, for example), old Academy wharves and boat facilities, and privies. In addition, documentary research has suggested the presence of commercial enterprises such as a brewery and slaughter house at the mouth of College Creek (east side).

These kinds of features, which were oriented to the water and along its edge, stand a good chance of being preserved because many appear to have originally stood on fairly low ground (see previous discussions of historical documents and topographic surveys of the Academy). Filling was not restricted to areas beyond the existing shoreline; it was also used to bring the low-lying shore up to a higher grade. Filling thus encapsulated archaeological remains both in the water and on the ground along the water's edge.

These old shoreline areas must be considered potentially significant and should be more closely examined prior to any ground disturbance. They are largely encompassed within the sensitive areas which were delineated in Summary Guide for Cultural Resource Management United States Naval Academy Annapolis, Maryland (Seidel and Cox 1994). One exception is the shoreline as it existed after the landfilling of 1853 and as depicted on a map from 1882 (Figure 12). The sensitivity map submitted in 1994 (Seidel and Cox 1994) has therefore been revised to include this area and is included here as Figure 33. As noted in Seidel and Cox (1994), these sensitive areas are delineated on the basis of cartographic and other documentary evidence which suggest that cultural resources may be present; the presence of these resources is not confirmed, except in areas that have been subjected to Phase I archaeological survey (see Bodor *et al.* 1993 for a review of Phase I testing).

Stages Two and Three of this survey consisted of remote sensing investigations and diving activities which were designed to survey the waters around the Academy. Of the 46 anomalies dived on, 28 (or 61 percent) were buried too far beneath the bottom sediments to

f33

fig. 33

determine their origins or significance. The greatest potential for significant resources may lie in College Creek, which has been subjected to less disturbance and where remains appear to have been covered with a deep layer of fine, anaerobic silt. The state of preservation of organic materials appears to be excellent. The wooden dead-eye and truck recovered at anomalies 16 and 21, respectively, were in remarkably good condition. Both items were found on the bottom surface, indicating some shifting of bottom sediment. In particular, the potential for preserved organic materials is high in the College Creek area. It is recommended that these and the other buried anomalies be further addressed should destructive activities (such as dredging or laying cables) occur at their locations. Probing in the vicinity might yield some indication of the anomaly source, but it is likely that in many instances archaeological excavation would be required. The simplest solution would be to simply avoid these anomalies in the future. Should that not be possible, an archaeological investigation should be initiated. These anomalies are clearly depicted on Figure 34.

Aside from the buried anomalies, the only anomaly of any real significance is the anchor and associated chain encountered as Anomaly 23. Whether its deposition was due to accidental loss or was storm related is impossible to know. A site inventory form will be prepared for this locale and submitted to the Maryland Historical Trust.

Additional information on all anomalies and survey data may be found on digital files submitted to the Department of Public Works at the Naval Academy. These include maps showing digital track lines of the survey, isogamma lines for each anomaly, and historic map overlays.

f34

figure 34

BIBLIOGRAPHIC ESSAY

This section has been designed in order to provide a more detailed description of the collections of historical documents examined at the various repositories visited during the Stage One archival investigations for this project.

Department of Public Works U.S. Naval Academy - Map Vault

The Map Vault in the Public Works Department (Halligan Hall) contains maps, plans, sketches and drawings related to the development and history of the Naval Academy. Many of the maps digitized for this project were obtained at this repository.

Enoch Pratt Free Library - Maryland Room

The Maryland Room houses an extensive collection including books/monographs, government documents, maps, newspapers and photographs related to all aspects of life in Maryland.

Maryland Historical Society

Subject Files - these general topic files were reviewed to obtain information on subjects such as ferries, steamboats, wharves and oyster packing.

Manuscripts and general histories also were reviewed at this repository.

Maryland State Archives Hall of Records

Records contained at the State Archives date from 1635 to the present.

Census Records - Includes residents' last name, first name, age, sex, race, birthplace, and county.

Chancery Papers/Equity Court Proceedings - Chancery (Equity) proceedings include cases of mortgage foreclosures, trust estates, settlements of estates, petitions involving real and personal property, contract disputes, divorce, alimony, dissolutions of businesses, injunctions, insolvencies, land sale ratification, and property title disputes.

Land Commission Papers - Proceedings for commissioners appointed by the court to sell or divide land, determine land boundaries, lay out roads, or condemn land.

Maps - The State Archives collection of maps concentrates on the cartography of Maryland. It includes numerous topographical and geological maps. Many of the maps reviewed were digitized and used with the AutoCAD program.

Patents - Certificates of survey and grants of land.

Plats - Plats and plans showing land tracts, subdivisions, lots, roads, and streets. These are especially helpful when researching land titles and land uses.

Probate Records/Wills

Tax Assessment Records - including the Tax Assessment of 1783 and the Federal Direct Tax, 1798.

Other special collections (such as newspapers) were also consulted. General histories of Annapolis and the Naval Academy were reviewed for information pertaining to the project area.

Nimitz Library U.S. Naval Academy Archives

The Archives Room at the Naval Academy's Nimitz Library houses various materials related to the history of the U.S. Naval Academy including information regarding personnel, officials, building constructions, land acquisitions, special events, etc. The Archives Room also holds an extensive photographic collection which supplied the plates for this report.

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APPENDIX A

Status Report

Archaeological Survey of the
United States Naval Academy
Shoreline/Bulkheads
Annapolis, Maryland

STATUS REPORT

March 31, 1995

Submitted by
Elizabeth A. Aiello
Department of Anthropology
University of Maryland, College Park

PROJECT NAME: Archaeological Survey of the United States Naval Academy
Shoreline/Bulkheads

PROJECT LOCATION: Severn River and College Creek Shorelines of the U.S. Naval Academy

STATE AGENCY IDENTIFIER NO.: MD 940811-8124-360201

Introduction

The University of Maryland, College Park (UMCP) and the United States Naval Academy are engaged in a cooperative agreement for the purpose of conducting a survey of the Naval Academy's shoreline. This survey will be based upon historical research and remote sensing investigations. The project location will include the area from the Academy's Spa Creek boundary near City Dock, around the core of the property, up College Creek (to the King George Street Bridge), and around the shoreline of the Naval Hospital to the old Severn River Bridge.

The Naval Academy, established at Windmill Point in 1845 on the grounds of Fort Severn, has had a significant effect upon the shoreline over the years. Lands along the waterfront have been used for a variety of purposes including defensive works, basins, docks, and wharfage (*USS Santee*), and training activities. Prior to 1845 the shoreline areas were used by civilians for such things as ferry boat landings, shipbuilding activities, and docks. Past industrial uses include the one time existence of lumber yards, fisheries and oyster packing plants. Traces of many of these resources may exist beneath the "reclaimed" lands of the Academy and the water immediately fronting its shoreline.

Submission of Plan of Work

Work began on the project in October of 1994. One of the first tasks was the preparation of a *Plan of Work* for submission to the Naval Academy and EFA CHES. This plan outlined the stages of work involved in the study, logistical requirements, and a schedule of events. The plan was submitted, as per the original proposal, on 30 November, 1994. A meeting was then scheduled with representatives of the Academy and EFA CHES to discuss the project, the plan of work, and the logistical concerns. This meeting was held at the USNA Department of Public Works on 19 December 1994.

Review of "Logistics" Meeting

Individuals present at the December 19th meeting included Dr. John L. Seidel and Dr. Mark P. Leone (UMCP), Ms. Marie Price, Mr. Domokos Hajdo, and Mr. Lawrence Earle. The intent of the meeting was to discuss the logistics in conducting the shoreline/bulkhead survey. Several matters were highlighted as issues which needed to be addressed prior to the commencement of the survey scheduled to take place April 10 - 15, 1995. These points are listed below along with the measures taken to control or eliminate any concerns.

Prior to survey initiation it is necessary to:

- 1) Advise the Coast Guard of project intentions to assist in "traffic control." On 14 March 1995, telephone conversations took place with Seaman Gerard from the Annapolis Coast Guard; Chief Singleton of the Baltimore branch of the Coast Guard; and Officer of the Day, Ensign Michael Farrell, of the Marine Safety Office branch of the U.S. Coast Guard.

According to Ensign Farrell it will not be necessary to enforce a "No Safety Zone" in the area during the week of the survey. The Coast Guard will, however, broadcast a "Notice to Mariners" as a precautionary measure informing them of the work taking place in the waters surrounding the Naval Academy.

Ensign Farrell requested that certain particulars of the project be forwarded to the Marine Safety Office. Required details included the dates and location of the survey; a description of vessel being used (length); a description of the magnetometer (including length and depth of tow); and names and phone numbers of the "contact person(s)" for the project. This information was sent to Ensign Farrell's attention on the 28th day of March 1995. A copy of this letter appears in the Appendix of this report.

- 2) Advise the Department of Natural Resources of the planned activities.

The Department of Natural Resources was contacted on 14 March 1995 and informed of the intent and purpose of the Shoreline/Bulkheads Survey. The attending dispatcher, Police Communications Officer Ives, logged and registered the details of the survey for the week of April 10th. A follow up letter of confirmation was sent to the attention of Lieutenant Hitchings at the Natural Resources Police Communications Office in Annapolis, Maryland on the 16th of March (Appendix).

- 3) Contact Lieutenant Chris Campbell at the U.S. Naval Academy regarding YP training activities along the bulkhead and in the channel of the Severn River.

After numerous attempts, contact was finally established with Lieutenant Campbell on 21 March 1995. According to the Lieutenant, YP training of Midshipmen

and Officers in Charge will be taking place during the week of the survey. Training begins at 7:55am and continues in shifts until approximately 3:30pm. Eight boats are usually involved and are sometimes docked two abreast along the Dewey or Farragut seawall. The areas of the Severn River used for YP training are limited to the waters off the Farragut seawall southeast of the Robert Crown Sailing Center, northeast of Trident Magazine, and the waters off the Dewey seawall north of the Robert Crown Sailing Center near the Hendrix Marine Laboratory. Schedules for the training sessions are made one week in advance.

At the time of the telephone conversation with Lieutenant Campbell, the survey schedule had not yet been prepared for the week of April 10th. It was agreed that the UMCP team would decide upon their schedule and relay the information to Lieutenant Campbell by the week of April 3rd. This schedule should include a breakdown of the areas to be surveyed on a daily basis throughout the week as well as the hours during which the vessel will be conducting the survey. It should be noted, however, that the survey schedule will be subject to change due to unforeseen circumstances such as problems with the equipment or inclement weather. Also, normal procedure is to use moderate lane spacing until anomalies are identified and then use closer lane spacing. The inability to predict which areas will require closer examination makes it difficult to adhere to a rigid schedule. If necessary, revisions will be supplied to Lieutenant Campbell at the close of each day or by 7:45am the following morning. It was agreed that proceeding in this fashion would help to eliminate any conflicts in schedules and avoid unnecessary complications.

Research Design

As outlined in the *Plan of Work* (30 November 1994) this archaeological survey is being undertaken in four stages.

- * Stage One - historical research/cartographic analysis
- * Stage Two - remote sensing survey
- * Stage Three - field check/scuba
- * Stage Four - final report (management recommendations)

The Archaeological Survey of the U.S. Naval Academy Shoreline/Bulkheads project will not include excavation. It will instead involve a comprehensive evaluation using magnetometry and bathymetry. The project also calls for intensive archival investigations of general histories of the Academy, Navy reports, and official correspondence. Map analysis is a crucial factor in the evaluation of the shoreline areas.

Careful review of historical maps and AutoCAD generated overlays is a necessary step in determining changes to and usage of the waterfront throughout the years. This historical research stage of the project has been completed. An overview of the steps taken to meet this goal are described below.

Historical and Cartographic Analysis to Date (Stage One)

Stage One of the project was initiated in October of 1994 with the gathering and digitizing of relevant maps and the start of archival research. Documentary investigations concentrated on the holdings of the Nimitz Library Archives at the U.S. Naval Academy and the Maryland State Archives, although the library at the Maryland Historical Society was also used as a resource.

Three base maps, which are being used for control in the study, have been digitized: existing conditions of the Naval Academy; USGS 7.5' quadrangle for the area; and NOAA Chart 12283. A vast number of maps being used for this project has been digitized for previous projects conducted by UMCP for the Naval Academy (6 for the first Legacy report and 21 for the second Legacy report). However, it was necessary and very important to carefully re-examine these maps to gain information pertinent to the goals of this particular project.

The following historical materials, digitized during the first Legacy report, were carefully studied over the past several months to gain insight on the changes to the shoreline of the Academy.

Plan of the Naval School - 1845

Drawing of the Naval School of 1845 with USNA of 1935

1885 Sanborn Fire Insurance Map

1902 Map of USNA Grounds - overlay. Revised Plan of the Naval Academy Showing Old and New Arrangement and Extension to Grounds.

Copied from the U.S. Coast and Geo. Survey Lithograph of 1896 and from the Architect's Layout. 1902 revised 1903, 1905 and 1920.

1897 Sanborn Fire Insurance Map

Property Acquisitions Map

The maps listed below were digitized during the second Legacy report. As was the case with the materials listed above, these documents were re-examined and proved to be invaluable resources for the Stage One historical research for the bulkhead project.

1718 Stoddert Plat of Annapolis

1781 Captaine Map

1846 Coastal Survey

Plan of the U.S. Naval Academy - 1850
Plan of the Grounds and Buildings of the United States Naval School at Annapolis -1857
Lots between Hanover St., Tabernacle St., Wagner St., and the Severn River 1873
Plan of the N.E. Portion of the U.S. Naval Academy Grounds including recently intervening property 1873-74
Plan of the U.S. Naval Academy; Ramsey, Superintendent -1882
Plan of Lockwoodville, Annapolis, MD Nov. 1889
Plan of the United States Naval Academy and Government Grounds at Annapolis, MD - 1895/96
USCGS Map with the Flagg Additions and the surrounding City Blocks of Annapolis included - circa. 1902
U.S. Coastal and Geodetic Survey of Annapolis, MD 1895/96
U.S. Naval Academy Plan of Lots Purchased by the Government from Port Warden Line to a point 255 feet above Governor Street - 1902
Buildings and Grounds USNA, Annapolis, MD Topographic Map Naval Academy Garden - Mar. 15, 1937
Buildings and Grounds USNA, Annapolis, MD Topographic Map of Golf Link, Naval Academy Garden, and Lawrence Field - 1938
Buildings and Grounds USNA, Annapolis, MD Demolition in Holland Street Area - Dec. 23, 1941
1885 Sanborn Fire Insurance Map (new overlay)
1891 Sanborn Fire Insurance Map
1897 Sanborn Fire Insurance Map (2 new overlays)
1903 Sanborn Fire Insurance Map

More than a dozen new maps have been gathered since the initiation of the historical research for this project last October. Of these, seven have been digitized using AutoCAD. As with previous projects, throughout the digitizing process each map was assessed for integrity and reliability. All of these maps have been scrutinized and have assisted in identifying changes to the shorelines (including "made or fast-lands" created by filling-in an area with soil). These documents also have provided information such as the names of property owners and businesses located along the waterfront.

The following list reflects the maps most recently digitized and studied.

Land Reclamation, Farragut & Dewey - Santee Fill (First Increment) Dredging Plan - Jan. 15, 1957. Revised most recently Mar. 13, 1958.
Landfill Stabilization & Site Improvements, Existing Topography & Hydrography - Sept. 25, 1975
Land Reclamation, Farragut & Dewey - Santee Fill (1st Increment) Site Plan Jan. 1958. Revised Aug. 14, 1958
Landfill Stabilization & Site Improvements Final Grading - Sept. 25, 1975

*Stake Location in Dredge Borrow Area - Aug. 29, (year not given). Revised
Nov. 1958*
Seahaven Chart - Sept. 2, 1958
NOAA Chart 12278 Annapolis Harbor - 1992

Figures 1, 2 and 3 have been included in this status report as an example of a digitized historic map and the information which can be gleaned from such cartographic records. The 1891 Sanborn Fire Insurance Map (Figure 1) shows the section of the Naval Academy property from the City Dock boundary up to Hanover Street. From this map the locations of at least 13 wharves are identified. Businesses present along the shoreline included Kealy's Lumber Wharf, DuBois & Co., Peterson & Co. Manufacturers of Winders & Dredges, a steam boat wharf, and a coal and wood yard. The 1903 Sanborn Map (Figure 2) provides even more detail on the wharves between King George Street and Prince George Street. Meyers Lumber Co., C.H. Russell & Co. Oyster Packing, DuBois & Co. Oyster Packing, and Johnson Oyster Packing are all indicated on the map. Boat building is also active along the waterfront and, in close proximity, are a boarding house, a steam laundry, and a livery stable.

The 1962 Property Acquisitions Map (compiled from various sources) (Figure 3) is a good example of how these digitized maps can provide information on the changes to the waterfront through time. The shoreline of the Academy obviously has undergone considerable change since its establishment in 1845. As can be seen from Figure 3, this has been due to the procurement of blocks of land from both the State and private land owners, and the creation of "made or fast-land" by reclaiming ground from the Severn River.

Many maps furnished names, dates, and locations which were then further researched at the Nimitz Archives and the Maryland State Archives. General histories, Naval Academy Proceedings, and Board of Visitor Reports were examined for relevant information. Deeds, plats, Chancery Court Proceedings, and business records were reviewed using clues afforded by the evaluated maps (see above). Photograph collections were also perused. Thirty-three photographs relevant to the project were reproduced for study and possible inclusion in the final report.

All of the historical documents gathered for this project were combined with the information obtained by analyzing the cartographic sources in order to identify potentially significant areas. This includes areas with resources which were along the earliest shoreline and are currently beneath landfill as well as those which may now lie off shore in the Severn River.

Underwater Remote Sensing (Stage Two)

The remote sensing for underwater resources will be conducted by archaeologists from the University of Maryland, College Park in union with specialists from the Submerged Cultural Resource Unit of the National Park Service. Dr. John L. Seidel will be leading UMCP archaeologists Elizabeth A. Aiello and C. Jane Cox during the investigations. Archaeologist Larry Murphy, from the National Park Service, will be assisted by Matt Russell and Adriane Askins. The Maryland State Archaeologist, Susan Langley (MHT) and Bob Neyland of the Naval Historical Center, have been invited to observe field activities during the week of the survey.

A comprehensive survey and evaluation system (developed by the Park Service SCRUI team) using magnetometry and bathymetry linked to a Differential Global Positioning System will be employed. The areas surveyed will reflect those investigated during Stage One - historical research (ie. present shoreline to mid-channel). UMCP has arranged for the use of a 27 foot Sea Ray boat which will be equipped with the tracking equipment, remote sensing devices and a computer. The vessel will be run along a series of lanes, spaced at approximately 10 meters, covering the project area.

While moving along these lanes, the survey vessel will tow a magnetometer which will record fluctuations in the earth's magnetic field. This includes anomalies induced by ferrous metals. The equipment used will be an EG & G Geometrics 866 or 867 proton procession full-field magnetometer. The length of the tow will be 30 to 40 meters behind the vessel at a depth of 2 to 10 meters. Data from the magnetometer will be recorded by means of the computer and position noted via DGPS. Processing of the data will yield XY coordinates in a Trimble Pathfinder file which will allow for precise mapping of anomalies onto a digital map of the project area.

The following tentative schedule has been developed for the survey. As noted earlier, it may be necessary to adjust this plan during the week. As per discussions held in the 19 December 1994 meeting, survey activity will be shifted to Greenbury Point at the end of the week, if there is sufficient time.

April 10	Monday	Pick up boat/set up equipment/mobilization
April 11-13	Tuesday Wednesday Thursday	Survey of main block*
April 14	Friday	Resolve problems/possible shift to Greenbury Point
April 15	Saturday	Greenbury Point/pack equipment

* Main block extends from new Academy bridge down to center line of harbor, from USNA bulkhead to mid-channel (c. 2 km long by 350 meters). Other two blocks run: a) up College Creek to King George Street Bridge; and b) in the harbor area in to Halsey Field House.

Following the completion of the remote sensing survey, the NPS-SCRU will return to their office in Santa Fe to process the data. A complete report, including magnetic analysis and corrections for diurnal fluctuations will be submitted to Dr. Seidel at the University of Maryland, College Park, for incorporation into the overall project report.

Travel arrangements and accommodations are currently being made for the members of the NPS-SCRU. Provisions have been made to dock the project vessel, *Rocky Knoll*, at the Pier 4 Marina at 301 4th Street in Annapolis. Fueling of the vessel will take place at the Pier 4 Marina.

Field Check of Anomalies (Stage Three)

After review of remote sensing data, anomalies targeted for further investigations will be examined by divers on SCUBA. Each anomaly will be located, described, mapped and photographed. All significant sites will be recorded on site forms provided by the Maritime Archaeology Program of the Maryland Historical Trust.

Final Report (Stage Four)

A extensive report will be generated upon completion of research and field activities (Stages 1-3). This report will cover both the historical research and the field survey and will meet or exceed the guidelines for Maryland archaeology as designated by the Maryland Historical Trust.

A draft report will be submitted on 15 August 1995 in order that comments may be received and incorporated into a final report to be submitted by 30 September 1995.

Conclusion

The Archaeological Survey of the United States Naval Academy Shoreline/Bulkheads Project is proceeding as planned and on schedule. The historical background research and cartographic analysis have been completed for the project. The logistics of conducting the survey have been addressed and the fieldwork should begin as anticipated on the 10th of April. The remaining stages of the project should continue according to the tentative schedule below.

Project Schedule

10 April - 15 April	Field Survey
17 April - 5 May	Analysis of remote sensing data by NPS-SCRU
May	SCUBA field check of remote sensing anomalies
June - 15 August	Analysis, preparation of draft report
15 August	Submission of draft report
15 August - 15 September	Comment period on draft report
30 September	Submission of final report

Elizabeth A. Aiello
University of Maryland
Anthropology Department
1111 Woods Hall
College Park, Maryland 20742

March 24, 1995

Ensign Michael Farrell
Marine Safety Office, USCG
40 S. Gay Street
Custom House
Baltimore, Maryland 21202-4022

Ensign Farrell,

As per our telephone conversation of March 14th, I am forwarding to you the requested information concerning the archaeological survey of the shoreline of the United States Naval Academy to be conducted by the University of Maryland, College Park (UMCP) in conjunction with the National Park Service. At the time of our conversation, it had not yet been determined as to whether or not a "No Safety Zone" would be necessary. I understand, however, through conversations that you had with Dr. John Seidel, that all that is needed is for the Coast Guard to issue a "Notice to Mariners."

If you require information other than what I have enclosed, please do not hesitate to contact me (301-405-1428). Thank you for your cooperation and valuable assistance in this matter.

Sincerely,



Elizabeth A. Aiello
Archaeologist, UMCP

Ensign Michael Farrell

March 24, 1995

Attachment

Project - Archaeological Survey of the United States Naval Academy
Shoreline/Bulkheads

When - April 10th through the 15th, 1995

Hours - Beginning at 8:00am and continuing until possibly as late as 8:00pm.

Where - The project location will include the area from the Academy's Spa Creek boundary near City Dock, around the core of the Academy property, up College Creek to the King George Street Bridge, and around the shoreline of the Naval Hospital to the old Severn River Bridge.

Vessel to be Used - UMCP has arranged for the use of a 27 foot (10' beam), twin screw, inboard/outboard Sea Ray (name-*Rocky Knoll*). Draft - 3 feet.

Equipment - The equipment used will be an EG & G Geometrics 866 or 867 proton procession full-field magnetometer. The length of the tow will be 30 to 40 meters behind the vessel at a depth of 2 to 10 meters.

Project Contact - Dr. John L. Seidel
University of Maryland
Anthropology Department
1111 Woods Hall
College Park, MD 20742
(301) 405-1422

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1111 Woods Hall
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Elizabeth A. Aiello
University of Maryland
Anthropology Department
1111 Woods Hall
College Park, MD 20742

March 15, 1995

Lieutenant Hitchings
Natural Resources
Police Communications
580 Taylor Avenue
Annapolis, MD 21403

Lieutenant Hitchings,

I am sending this letter to confirm my conversation with P.C.O. Ives on the 14th of March concerning the Bulkhead Survey Project. As I stated during this telephone call, the University will be working with the National Park Service from April 10th through the 14th surveying the shoreline around the Naval Academy from City Dock, around the core of the Academy, up Dorsey Creek to the King George Street bridge, then to the old Severn River bridge. P.C.O. Ives recorded the information and assured me that it would be logged and registered as of then.

If you have any questions concerning other details of the project, please do not hesitate to contact me at my office (301) 405-1428. Thank you for your assistance.

Sincerely,



Elizabeth A. Aiello
Archaeologist, UMCP

APPENDIX B

Staff Qualifications

CURRICULUM VITAE

John L. Seidel

Department of Anthropology
University of Maryland
College Park, Maryland 20742

Home telephone: (410) 267-0263
Office telephone: (301) 405-1422
Laboratory: (301) 405-1418

Current Position

Assistant Professor, Department of Anthropology, University of Maryland, College Park.

Research Interests

Historical Archaeology
Historic Preservation & Cultural Resource Management
Computer Applications in Archaeological Analysis, Interpretation & Collections Management
Maritime Archaeology

Education

BA	1976	Drew University, Madison, New Jersey.
MA	1980	Department of Anthropology, University of Pennsylvania.
MA	1981	Department of American Civilization, University of Pennsylvania.
PhD	1987	Historical Archaeology, Department of American Civilization, University of Pennsylvania.

Teaching Positions

1989 - present	<i>Assistant Professor</i> , Department of Anthropology, University of Maryland, College Park.
1994 - 1995	<i>Associate Director</i> , Field School in Public Archaeology, Archaeology in Annapolis, University of Maryland College Park.
1987-1989	<i>Assistant Professor</i> , Department of Anthropology, Rutgers University, New Brunswick, New Jersey.
1985-1987	<i>Instructor</i> , Department of Classics & Archaeology, Douglass College, Rutgers University.
1985 Spring	<i>Lecturer</i> , Department of Anthropology, Drew University.
1984-1985	<i>Lecturer</i> , Department of Classics & Archaeology, Douglass College, Rutgers University.
1984-1989	<i>Director</i> , Field School in Archaeology, The Summer Session, Rutgers University.

Courses Taught

Rutgers University

Introduction to Archaeology
Laboratory in Archaeology
Historical Archaeology
Archaeology of Colonial North America
Science & Archaeology
Quantification of Archaeological Data
Vernacular Architecture of Colonial North America

Courses Taught (cont'd)

University of Maryland

* denotes course offered for graduate credit

- Introduction to Archaeology
- Introduction to Physical Anthropology & Archaeology
- Method & Theory in Archaeology
- Chesapeake: An Archaeology of Maryland
- * Historical Archaeology
- * Analytical & Interpretive Methods in Historical Archaeology
- * Historical Archaeology of Anonymous Peoples
- * AutoCAD for Anthropologists
- * Saving Maryland's Past: Archaeology & Historic Preservation
- * Field School in Urban Archaeology
- * Independent Study and Field School in Underwater Archaeology
- * Graduate Internship Preparation
- * Graduate Internship
- * Graduate Internship Analysis

Research & Field Positions

- 1994 - present *Associate Director*, Archaeology in Annapolis. Joint project in urban archaeology between Historic Annapolis Foundation and the University of Maryland.
- 1992 - present *Principal Investigator*, Carroll Park Archaeology Program, Baltimore. Carroll Park Restoration Foundation, Inc.
- 1980 - present *Director*, Pluckemin Archaeological Project, Inc., Pluckemin, New Jersey. A not-for-profit, interdisciplinary research group investigating the 1778-1779 Cantonment of Continental Artillery, Military Stores Department.
- 1994 - 1995 *Principal Investigator*, Reconnaissance for Underwater Resources, United States Naval Academy, Annapolis Maryland (Archaeology in Annapolis). Department of Defense Legacy project for identification of submerged cultural resources and CAD cartographic analysis of shorelines.
- 1995 *Co-Principal Investigator*, HMS Fowey Stabilization Project, Biscayne National Park, Florida. Interdisciplinary project to develop and test longterm stabilization of submerged cultural resources. [Co-Principal Investigator Larry Murphy, Submerged Cultural Resource Unit, National Park Service, Santa Fe.]
- 1994 *Principal Investigator*, Annapolis Court House Project. Archaeology in Annapolis. Phase III investigation of a city block containing complex 17th-20th century remains.
- 1994 *Co-Principal Investigator*, Archaeological Investigations at the United States Naval Academy. Archaeology in Annapolis. Department of Defense Legacy grant for cultural resource database management. [Co-Principal Investigator Dr. Mark Leone.]
- 1993 *Primary Consultant*, AutoCAD & Field Survey, Archaeological Investigations at the United States Naval Academy. Archaeology in Annapolis. Department of Defense Legacy grant for Phase I cultural resource survey and database design.
- 1993 *Co-Principal Investigator*, HMS Fowey Documentation Project, Biscayne National Park. National Park Service. Documentation, mapping and stabilization of the wreck of HMS Fowey (1748), exposed by Hurricane Andrew. [Co-Principal Investigator Larry Murphy, Submerged Cultural Resource Unit, National Park Service.]
- 1993 *Co-Principal Investigator*, Steward Shipyard Site, Anne Arundel County, Maryland. Joint terrestrial and underwater investigation by the Archaeological Society of Maryland, the Maryland Historical Trust, and the University of Maryland. [Co-PI: Bruce Thompson, Maryland Historical Trust.]

Research & Field Positions (cont'd)

- 1992 - 1993 *Principal Investigator*, Computer Aided Mapping Project, West & Rhode Rivers, Anne Arundel County, Maryland. Maritime Archaeological & Historical Society.
- 1990 *Director*, Maritime Archaeological & Historical Society Field School in Underwater Archaeology.
- 1989 - 1990 *Principal Investigator*, Computer Aided Mapping & Photographic Analysis, Fort Nonsense, Morristown National Historical Park, New Jersey.
- 1989 *Co-Director*, Dry Tortugas Underwater Archaeological Survey, Fort Jefferson National Monument, Florida. (Survey of Ft. Jefferson National Monument by the Maritime Archaeological and Historical Society and the National Park Service.)
- 1989 *Principal Investigator*, Cultural Resource Review of Shoreline Stabilization Project, Beverly City, Burlington County, New Jersey. Soil Conservation Service, U.S. Department of Agriculture. (Underwater & terrestrial remains.)
- 1989 *Director*, Fort Nonsense Archaeological Survey, Morristown National Historical Park, Morristown, New Jersey. National Park Service, U.S. Department of Interior.
- 1989 *Principal Investigator*, Archaeological and Architectural Investigation of the Pettit House Site, Brick Township, Monmouth County, New Jersey. Grubb & Associates, Cranbury, NJ.
- 1987 *Principal Investigator*, Archaeological Assessment of the Grand Parade, Jockey Hollow Section, Morristown National Historical Park, Morristown, New Jersey. National Park Service, U.S. Department of Interior.
- 1987 *Principal Investigator*, Geophysical Survey of the New Jersey Brigade Encampment, Jockey Hollow Section, Morristown National Historical Park, Morristown, New Jersey. National Park Service, U.S. Department of Interior.
- 1987 *Principal Investigator*, Archaeological Survey of Section 2, Block 2, Lot 9, Town of New Windsor, Orange County, New York. Hunter Research, Trenton, NJ. Survey of portion of New Windsor Cantonment, 1782-1783.
- 1987 *Principal Investigator*, Eoff Homestead Project, Bedminster Township, Somerset County, New Jersey. Sammis Corporation.
- 1985 *Director*, Buccleuch Mansion Excavations, New Brunswick, New Jersey. Rutgers University. Anthony White House, constructed 1739.
- 1985 *Director*, Wallace House Excavations, Wallace House, Somerville, New Jersey. Washington's Headquarters, winter of 1778-1779.
- 1981-1982 *Research Assistant*, American Historical Archaeology Section, University Museum, University of Pennsylvania. Research and collections management: material from Utah, Pennsylvania, New Jersey, and Massachusetts.
- 1979 *Archaeologist*, Drew Institute for Archaeological Research, Drew University, Madison, New Jersey. Institute projects in New Jersey, Jordan, and Israel.
- 1978-1979 *Supervisory Archaeologist*, Rutgers Archaeological Survey Office, Department of Human Ecology, Rutgers University, New Brunswick, New Jersey. Cultural resource management throughout New Jersey.
- 1978 *Supervisor*, Acropolis Excavation Program, Quirigua Project, Guatemala. Field Director: Robert J. Sharer, University Museum, University of Pennsylvania.
- 1976 *Team Member*, Preliminary Underwater Harbor Survey, Caesarea Maritima, the Joint Expedition to Caesarea Maritima.

Research & Field Positions (cont'd)

- 1976 Area Supervisor, field instructor, Field School, the Joint Expedition to Caesarea Maritima, Israel. Director: Robert J. Bull

Monographs * denotes refereed or peer reviewed publication

- 1979 "Historical Archaeology", in Cultural Resource Survey & Potential National Register Resources within the Impact Area of Route I-95 sections 6C, 7A and 7E, Howell Township, Monmouth County. Joel Grossman, Principal Investigator.
- 1980 The 1778-1779 Continental Artillery Winter Cantonment, Pluckemin, New Jersey, with Robert J. Bull and Clifford Sekel, Jr. Drew University Institute for Archaeological Research, Madison, New Jersey.
- 1981-1989 Yearly preliminary reports on archaeological field work, Pluckemin Archaeological Project. Copies on file with the Pluckemin Archaeological Project, Inc., Pluckemin, New Jersey.
- 1983 "The Quirigua Project: the 1978 Season", with Robert J. Sharer et. al.. Paper No. 7 in Quirigua Reports Volume II, Papers 6-13, by Edward M. Schortman & Patricia A. Urban (eds.): pp. 39-54. The University Museum of the University of Pennsylvania, Philadelphia.
- 1989 Architectural Study of the Spann & Von Culin House/Strupp House, Block & Lot 58/9,10. Pluckemin Archaeological Project, Inc. & Township of Bedminster, Bedminster, New Jersey. 33 pp.
- * 1989 Cultural Resource Review: Shoreline Stabilization Project, Beverly City, Burlington County, New Jersey. Report to Soil Conservation Service, U.S. Dept. of Agriculture. 33 pp.
- * 1989 Interim Report on Archaeological Investigations of the Fort Nonsense Area, Morristown National Historical Park, Morristown, New Jersey. National Park Service, U. S. Department of the Interior. 43 pp.
- * 1990 Archaeological Survey of the Grand Parade Area, Morristown National Historical Park, Morristown, New Jersey. Morristown National Historical Park, Morristown, NJ, and North Atlantic Regional Office, National Park Service, U.S. Dept. of Interior, Boston. 83 pp.
- * 1990 Fort Nonsense: 1989 Archaeological Investigations. Morristown National Historical Park, Morristown, NJ, and North Atlantic Regional Office, National Park Service, U.S. Dept. of Interior, Boston. 103 pp.
- * 1993 Steward's Shipyard - Preliminary Report on 1993 Archaeological Society of Maryland Field Session at Steward's Shipyard (18AN817): The Terrestrial Investigations. Maryland Historical Trust & the Archaeological Society of Maryland, Crownsville, Maryland. 28 pp.
- * 1994 Historic Maps of the West & Rhode Rivers - A Review & Computer-based Analysis. 2 Volumes. Maritime Archaeological & Historical Society, Washington, DC. 165 pp.

Co-authored Monographs * denotes refereed or peer reviewed publication

- * 1989 Archaeological & Architectural Investigation of the Pettit House Site, Brick Township, Monmouth County, New Jersey. With Richard Grubb. Office of New Jersey Heritage, Department of Environmental Protection. [Named as best CRM report of 1989 by the Office of New Jersey Heritage.]
- * 1991 Computer Mapping at Fort Nonsense: Archaeological Analysis & Interpretation. With Carol Theobald. Morristown National Historical Park, Morristown, NJ, and North Atlantic Regional Office, National Park Service, U.S. Dept. of Interior, Boston. 146 pp.

Co-authored Monographs (cont'd)

- * 1992-1994 Review & Assessment of Archaeology at Carroll Park, Volumes I-IV. With George Logan. Carroll Park Foundation, Baltimore, Maryland.
- * 1994 Guide for Cultural Resource Management, United States Naval Academy, Legacy Resource Management Program Archaeological Reconnaissance Survey. With C. Jane Cox. Archaeology in Annapolis, University of Maryland College Park. U.S. Naval Academy, Annapolis.
- * 1994 Catalog of Historic Maps for Cultural Resource Management, United States Naval Academy, Legacy Resource Management Program Archaeological Reconnaissance Survey. With C. Jane Cox, Carey O'Reilly, Gilda Anroman. Archaeology in Annapolis, University of Maryland College Park. U.S. Naval Academy, Annapolis.
- * 1994 Map Analysis, Oral Histories and Tract Histories, Legacy Resource Management Program Archaeological Reconnaissance Survey. With C. Jane Cox, Jean Russo, Hannah Jopling, Lynn Jones, Carey O'Reilly. Archaeology in Annapolis, University of Maryland College Park. U.S. Naval Academy, Annapolis.
- * 1994 The 1984 Shovel Test Survey of Mount Clare, Carroll Park. With George C. Logan. Carroll Park Foundation, Baltimore.
- * 1995 Mount Clare's Kitchen: 1986 Archaeological Research at Carroll Park. With George C. Logan. Carroll Park Foundation, Baltimore.
- * 1995 Three Centuries in Annapolis: Archaeological Excavations at the Court House Block, Annapolis, Maryland. With Elizabeth Aiello. Archaeology in Annapolis, University of Maryland College Park.

Monographs in Preparation

- ND The HMS Fowey: Investigating the Wreck of a 1748 British War Ship. With Larry Murphy. Southwest Cultural Resources Center Professional Papers, National Park Service, Santa Fe, New Mexico.
- ND Archaeology at Stephen Steward's Shipyard: 1993 Terrestrial Investigations. Archaeological Society and the Maryland Historical Trust, Crownsville.
- ND Maritime Archaeological Resources at the United States Naval Academy, Annapolis, Maryland. Archaeology in Annapolis, University of Maryland College Park.

Journal Articles & Book Chapters

** denotes refereed or peer reviewed publication*

- * 1983 "Archaeological Research at the 1778-1779 Winter Cantonment of the Continental Artillery, Pluckemin, New Jersey", Northeast Historical Archaeology, Vol. 12: 7-14.
- * 1990 "'China Glaze' Wares on Sites from the American Revolution: Pearlware Before Wedgwood?", in Historical Archaeology Vol. 24, No. 1:82-95.
- 1992 "Fort Nonsense: Fact or Fiction?", in Proceedings of the Washington Association of New Jersey: pp. 22-47. Morristown, New Jersey.
- 1993 "The Winter of 1778-1779 at Pluckemin", in Flintlock and Powderhorn, Vol. 11, No. 1:4-11.
- * 1995 "Military Industry in the New Nation", in American Landscapes, ed. by Mark Leone & Neil Silberman. Henry Holt & Company, New York.
- * 1995 "'Class Warfare': The American Militia System", in American Landscapes, ed. by Mark Leone & Neil Silberman. Henry Holt & Company, New York.

Journal Articles & Book Chapters (cont'd)

In Press "Hell Point: Discovering a Neighborhood Beneath the United State Naval Academy." Archaeology. With Eric Adams.

Articles Submitted for Publication

- ND "Fort Nonsense Revisited: A New Analysis of a Missing Fort." To Northeast Historical Archaeology.
- ND "Understanding Military Community: Archaeology, Documents and Contemporary Ethnography." To Historical Archaeology.

Newsletter Articles, Book Reviews & Other Publications

- 1990 "Research at the Fort Jefferson National Monument", in MAHSNEWS: Newsletter of the Society for Maritime Archaeological & Historical Society, Vol. 2, No. 6.
- 1990 "Public Television and the Treasure Hunter", in MAHSNEWS: Newsletter of the Maritime Archaeological & Historical Society, Vol. 2, No. 6.
- 1990 "Francis Drake's Cannons?", in MAHSNEWS: Newsletter of the Maritime Archaeological & Historical Society, Vol. 2, No. 7.
- 1990 "The *Gallega*: Searching for Columbus' Caravel," in MAHSNEWS: Newsletter of the Maritime Archaeological & Historical Society, Vol. 2, No. 7.
- 1990 "Survey of the Chesapeake Bay's Deep Trough," in MAHSNEWS: Newsletter of the Maritime Archaeological & Historical Society, Vol. 2, No. 8.
- 1991 "The Debate Over Maryland's Regulations for Submerged Cultural Resources", in MAHSNews: Newsletter of the Maritime Archaeological & Historical Society, Vol. 3, Number 1.
- 1991 "The Maritime Archaeological & Historical Society: Support for Maritime Research & Preservation", in ASM Ink: Newsletter of the Archaeological Society of Maryland, Vol. XVII, No. 4.
- 1991 "Enforcement of Maritime Cultural Resource Protection Laws," in MAHSNews: Newsletter of the Maritime Archaeological & Historical Society, Vol. 3, Number 1.
- 1991 "Revisions to Maryland's Proposed Regulations for Submerged Sites," in MAHSNews: Newsletter of the Maritime Archaeological & Historical Society, Vol. 3, Number 2.
- 1993 "Report of the Underwater Archaeology Subcommittee", in Annual Report of the Advisory Committee on Maryland Archaeology, Maryland Historical Trust, Department of Housing & Community Development. Crownsville, Maryland.

Presented Papers

- 1983 "1981-1982 Archaeological Research at Knox's Artillery Park, Pluckemin, New Jersey." Society for Historical Archaeology, Denver. January.
- 1983 "Current Research at the 1778-1779 Winter Cantonment of the Continental Artillery, Pluckemin, New Jersey." Council of Northeast Historical Archaeology, New Windsor, NY. October.
- 1985 "New Approaches to Overhead Site Photography." Society for Historical Archaeology, Boston. January.

Presented Papers (cont'd)

- 1988 "China-Glaze Wares on Historic Sites from the American Revolution: Pearlware Before Wedgwood?" Society for Historical Archaeology, Reno, Nevada. January.
- 1989 "Making the Most of Development: Working with Developers at Artillery Park, Pluckemin, New Jersey." Society for Historical Archaeology & Joint Archaeological Congress, Baltimore. January.
- 1990 "Revisiting the Revolution: A View from Northern New Jersey." Society for Historical Archaeology, Tucson. January.
- 1990 "Site Survey & Underwater Mapping in Underwater Archaeology." Maritime Archaeological & Historical Society, Arlington. March.
- 1992 "New Jersey's Revolutionary War Sites: Retrospect & Prospect." Symposium on *New Jersey: The Invisible Middle Colony*. Society for Historical Archaeology, Kingston, Jamaica.
- 1992 "Casting a Wider Net: Regional Perspectives on Revolutionary War Archaeology." Symposium on *Regional Comparative Perspectives in the Military Archaeology of Eastern North America*. With Robin M. Seidel. Society for Historical Archaeology, Kingston Jamaica.
- 1992 "A Photographic and Computer-Aided Assessment of an Obliterated Revolutionary War Earthwork." Council for Northeast Historical Archaeology, Glenn Falls, New York. October.
- 1993 "The Steward Shipyard Site." With Bruce Thompson. Workshop in Archaeology, sponsored by the Archaeological Society of Maryland and the Maryland Historical Trust. February.
- 1993 "The 1993 Field Session of the Archaeological Society of Maryland". Archaeological Society of Maryland Spring Symposium. March.
- 1993 "Mapping the *HMS Fowey*: Underwater Archaeology at Biscayne National Park, Florida." Maritime ARchaeological & Historical Society. October.
- 1994 "Understanding Military Community by Ethnographic Analogy." Society for Historical Archaeology, Vancouver, British Columbia. January.
- 1994 "*HMS Fowey* (1748): Survey & Documentation at Biscayne National Park, Florida." First Annual Underwater Archaeology Conference, University of Maryland College Park. April.

Invited Papers & Addresses

- 1987 "Unearthing the Revolution: An Archaeological Perspective on the War." Archaeology Colloquium, Montclair State College, New Jersey. Fall.
- 1990 "Knox's Artillery Cantonment: A Case Study in Preservation Needs." Symposium on Wooded Archaeological Site Preservation, National Park Service, Department of Interior, Morristown, New Jersey. September.
- 1992 "Fort Nonsense: Fact or Fiction?" Address to the Annual Meeting of the Washington Association of New Jersey. February.
- 1992 "Methodological Approaches to Revolutionary War Archaeology: A Case Study from New Jersey". Invited lecture, Historic Sites Commission of Vermont, Mount Independence State Historic Site.
- 1992 "Archaeological Perspectives of the American Revolution". Invited lecture at the Fraunces Tavern Museum, New York. October.

Invited Papers & Addresses (cont'd)

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| 1992 | "An Archaeological Consortium from the University Perspective". Maryland Annual Preservation Conference and Commercial Revitalization Training Program (Maryland Historical Trust and Community Assistance Administration). November. |
| 1992 | The Frederick M. Stiner Memorial Lecture: "Archaeology of a Revolutionary War Artillery Camp in New Jersey". 29th Annual Meeting of the Archaeological Society of Maryland. |
| 1992 | "Capturing the Past: the Archaeological Search for Earlier Peoples." Invited lecture at the Arthur M. Sackler Gallery, Smithsonian Institution, Washington, D.C. |
| 1993 | "Digital Mapping & AutoCAD: A Tool for Research and Resource Management." Maryland Annual Preservation Conference and Commercial Revitalization Training Program (Maryland Historical Trust and Community Assistance Administration). November. |

Chaired Meetings, Sessions

Conference Chair & Organizer, Council for Northeast Historical Archaeology, 1989 Annual Meeting, Morristown, New Jersey.

Co-Chair, Symposium on "Regional Comparative Perspectives in the Military Archaeology of Eastern North America." Society for Historical Archaeology, Kingston, Jamaica. January, 1992.

Chair, Symposium on "Historical Archaeology on Military Sites." Society for Historical Archaeology, Washington, DC. Prepared for January, 1995.

Legislative Testimony

- | | | | |
|----------|------|------|---|
| Federal | | | |
| | 1991 | 7/18 | <i>Subcommittee on National Parks & Public Lands</i> , House Committee on Interior & Insular Affairs: "Hearing on Land Acquisitions, Morristown National Historical Park. |
| Maryland | | | |
| | 1992 | 2/25 | <i>House Committee on Constitutional & Administrative Law</i> : "HB 1081 - Transfer of Human Remains Held by the Maryland Historical Trust." |
| | | 3/6 | <i>House Appropriations Committee</i> : "HB 391 - Creation of a State Debt: Carroll Park Restoration." |
| | | 4/2 | <i>Senate Finance Committee</i> : "HB 1081 - Transfer of Human Remains Held by the Maryland Historical Trust." |
| | 1993 | 3/2 | <i>House Ways & Means Committee</i> : "HB 452 - Maryland Historical Trust: Archaeological Historical Property." |
| | | 3/6 | <i>House Appropriations Committee</i> : "HB 742 - Creation of a State Debt: Carroll Park Restoration." |
| | | 3/17 | <i>Senate Budget Committee</i> : "SB 484 - Creation of a State Debt: Carroll Park Restoration." |
| | | 3/30 | <i>Senate Finance Committee</i> : "HB 452 - Maryland Historical Trust". |
| | 1994 | 3/15 | <i>Senate Committee on Judicial Proceedings</i> : "SB 764 - Burial Site, Cemetery, and Graveyard Desecration." |
| | | 3/24 | <i>Joint Committee on Administrative, Executive & Legislative Review</i> : "COMAR 05.08.07 - Hearing on Regulations for the Transfer of Human Remains & Associated Funerary Objects." |

Editorial Work

- * *Editorial Advisory Committee*, Northeast Historical Archaeology, 1990 to present
- * *Editorial Advisor*, MAHSNews, Newsletter of the Maritime Archaeological & Historical Society, 1990 to present.

Review of Articles

- * Historical Archaeology, Society for Historical Archaeology
- * Northeast Historical Archaeology, Council for Northeast Historical Archaeology

Activity in Professional Societies

Council for Northeast Historical Archaeology

- * *Executive Vice Chair*, 1992 to 1994
- * *Executive Board*, 1988 to 1994
- * *Chair, Membership Committee*, 1992 to 1994
- * *Conference Chair & Organizer*, 1989 Annual Meeting, Morristown, New Jersey

Society for Historical Archaeology

- * *Government Affairs Committee*, 1990 to 1994
- * *Chair, Military Sites Roundtable*, 1990.

Maritime Archaeological & Historical Society

- * *Board of Directors*, 1992-1994.
- * *President*, 1991.
- * *Vice-President*, 1990.
- * *Chair, Education Committee*, 1992 to present.
- * *Editorial Advisory Committee*, 1990-1993.
- * *Chair, West & Rhode River Research Consortium Committee*, 1991 to present.
- * *Lectures to annual Maritime Archaeology and Field School courses*, 1990-1994.

Archaeology Society of Maryland

- * *Finance Committee*, 1993 to present.
- * *Field Session Committee*, 1993.
- * *Co-Director*, 1993 Field Session.
- * *Lectures to various Society and chapter meetings*.

Activity in State Agencies, Foundations, Public Organizations

Maryland Historical Trust (Maryland Department of Housing & Community Development)

- * *Advisory Committee on Maryland Archaeology*, 1991 to present.
- * *Dive Safety Board*, 1992 to present.
- * *Chair, Maritime Archaeology Subcommittee*, Advisory Committee on Archaeology, 1992 to present.
- * *Search Committee for State Underwater Archaeologist*, 1993-1994.

The National Aquarium in Baltimore

- * *Advisory Board*, 1991 to 1995.

Carroll Park Restoration Foundation, Inc. (Baltimore)

- * *Board of Directors*, 1990 to 1995.

The Pluckemin Archaeological Project, Inc. (Bedminster, New Jersey)

- * *Board of Directors*, 1980 to present.

Anne Arundel County Public Schools.

- * *Lectures to elementary school classes*.
- * *Archaeology exhibits, demonstrations for "Greek Day"*, Severna Park Middle School, 1994.
- * *CAD & surveying demonstrations, "Math Expo"*, Severna Park Middle School, 1994.

Activity in State Agencies, Foundations, Public Organizations (cont'd)

Other advisory assistance to:

- * Washington Association of New Jersey (Morristown, New Jersey).
- * Morristown National Historical Park (Morristown, New Jersey).
- * Township of Bedminster (Somerset County, New Jersey).
- * Sumberger Cultural Resource Unit, National Park Service (Santa Fe, New Mexico).
- * Denver Service Center, National Park Service.
- * Hunter Research (Trenton, New Jersey).
- * Historic Conservation & Interpretation, Inc. (Newton, New Jersey).
- * Monmouth Battlefield State Park (Monmouth, New Jersey).
- * Office of New Jersey Heritage (Archaeology), Department of Environmental Protection (Trenton).
- * Division for Historic Preservation (Archaeology), New York State Parks & Recreation (Waterford, NY).
- * Anne Arundel County Archaeologist, Department of Planning & Zoning (Parole, Maryland).
- * St. Mary's City Commission (Archaeology), St. Mary's City, Maryland.
- * History (Archaeology) Division, Maryland-National Capital Park & Planning Commission (Bladensburg, Maryland).

Awards

- * *Award of Recognition*, 1984. New Jersey Historical Commission, for research with the Pluckemin Archaeological Project.
- * *Heritage Award*, 1984. Raritan Valley Sons of the American Revolution. For accomplishments with the Pluckemin Archaeological Project.
- * *Service Award*, 1985. New Jersey Society of the Sons of the American Revolution. For research on the American Revolution.
- * *Achievement Award for Contributions to the History of the American Revolution*, 1988. Morgan's Rifle Company and Lamb's Artillery.
- * *Lilly Teaching Fellow*, 1990-1991. University of Maryland, College Park.
- * *Award of Recognition*, 1991. Morristown National Historical Park, National Park Service.
- * *Achievement Award*, 1992. Archaeological Society of New Jersey.
- * Nominated for *Outstanding Teacher of the Year* award by the College Park Association of Parents, University of Maryland, College Park, 1992.
- * *Teaching Excellence Award*, 1994. College of Behavioral & Social Sciences, University of Maryland, College Park.
- * *Outstanding Citizenship Award*, 1994. For distinguished achievement in both citizenship and scholarship. The National Society of the Sons of the American Revolution, John Paul Jones Chapter, Annapolis.
- * *Award for Outstanding Service to Returning Students*, 1995. University Counseling Center, University of Maryland, College Park.
- * *Phi Kappa Phi Distinguished Faculty Mentor Award*, 1995. Phi Kappa Phi Honor Society, University of Maryland System.

Research Grants

1994	\$ 35,000	Principal Investigator of Legacy Grant, Department of Defense, for Underwater Survey of the United States Naval Academy.
	\$ 50,000	Co-Principal Investigator of Legacy Grant, Department of Defense, for Archaeological Survey of Providence (17th C. Puritan settlement on Greenbury Point).
	\$ 111,874	Principal Investigator, Anne Arundel County Court House Archaeological Investigation from Anne Arundel County.
	\$ 35,000	Principal Investigator, Non-Capital Grant from the Maryland Historical Trust to Carroll Park Restoration Foundation, Inc.: \$ 15,000. Additional \$ 20,000 match raised from other sources.
	\$ 5,540	Principal Investigator, grant from City of Baltimore for archaeological survey at Carroll Park.
	\$ 2,500	Principal Investigator, Non-Capital Grant from the Maryland Historical Trust - Analysis of Materials from the Steward Shipyard.
1993	\$ 5,000	Co-Principal Investigator, <i>HMS Fowey</i> Documentation Project, National Park Service.
	\$ 300,000	Principal Investigator for Research & Development in Carroll Park, funded by bond issue from State of Maryland. Not available until fully matched from other sources.
	\$ 5,000	Principal Investigator, Non-Capital Grant from the Maryland Historical Trust - Analysis of Materials from the Steward Shipyard.
1992	\$ 35,500	Principal Investigator, Non-Capital Grant from the Maryland Historical Trust to Carroll Park Restoration Foundation, Inc.: \$ 17,500. Additional \$ 17,500 matched from various other sources.
	\$ 5,000	Principal Investigator, Survey & Planning Grant from Maryland Historical Trust to the Maritime Archaeological & Historical Society.
	\$ 5,000	Principal Investigator, Research Grant from Maritime Archaeological & Historical Society.
1990	\$ 5,000	General Research Board Grant, University of Maryland.
	\$ 11,000	Computer Enhancement Grant, College of Behavioral & Social Sciences, University of Maryland.
	\$ 5,485	Washington Association of New Jersey, research grant.
1989	\$ 600	Society of Colonial Wars, research grant, PAP.
	\$ 6,811	Washington Association of New Jersey, research grant.
1989	\$ 35,000	Hills Development Company, research grant to Pluckemin Archaeological Project (PAP).
1988	\$ 7,428	US Department of Interior, National Park Service.
	\$ 105,000	Hills Development Co., research grant, PAP.
	\$ 1,000	Johnson & Johnson Companies, research grant, PAP.
	\$ 18,800	Environmental Disposal Corp., research grant, PAP.
	\$ 600	Society of Colonial Wars, research grant, PAP.
1987	\$ 7,500	Brady Foundation, research grant.
	\$ 44,750	Hills Development Co., research grant.
	\$ 14,500	Sammis Corporation, research grant.
	\$ 600	Society of Colonial Wars, research grant.
1986	\$ 7,500	Brady Foundation, research grant.
	\$ 1,000	Ethicon, Inc., research grant.
	\$ 2,500	Forbes Foundation, research grant.
	\$ 15,000	Hills Development Co., research grant.

Research Grants (cont'd)

1980-1985	Research grants totalling \$ 159,650 from:	
	Alan Deane Corporation	Hills Development Co.
	Beneficial Corp.	Kirby Foundation
	Brady Foundation	Leland Schubert Foundation
	Geraldine R. Dodge Foundation	Lindberg Foundation
	Ethicon, Inc.	

Membership in Societies

American Anthropological Association
Society for Historical Archaeology
Society for American Archaeology
Council for Northeastern Historical Archaeology
Maritime Archaeological & Historical Society
Archaeological Society of Maryland
Council for Maryland Archaeology
Fellow, Royal Asiatic Society

SCUBA Certifications

Divemaster, Professional Association of Diving Instructors (PADI)
Rescue Diver, PADI, NAUI (National Association of Underwater Instructors)
SLAM (Scuba Lifesaving & Accident Management), YMCA
Member: Professional Association of Diving Instructors
Diver's Alert Network (DAN)

Elizabeth A. Aiello
4432 Patriot Garth
Belcamp, MD 21017
(410) 612-0969

EDUCATION

John Carroll High School, Bel Air, Maryland
1975 - 1979

Catonsville Community College, Catonsville, Maryland
Fall 1981 - Teaching Methods

The Maritime Archaeological and Historical Society, Arlington, Virginia
February 1991 to May 1991 - Underwater Archaeology

P.A.D.I. Certified: Advanced Diver
Specialty Certifications - Wreck Diver, Deep Diver, Night Diver, Boat Diver

EXPERIENCE

- 1/1995-Present Project Archaeologist, University of Maryland, College Park/United States Naval Academy - Archaeological Survey of the United States Naval Academy Shoreline. Historic background study, remote sensing survey, underwater investigations.
- 9/1994-1/1995 Assistant Site Supervisor, University of Maryland, College Park - Phase III Excavations of the Anne Arundel County Courthouse 18AP63.
- 9/1993-4/1994 Crew Chief/Laboratory Supervisor, The Baltimore City Life Museums' Center for Urban Archaeology (BCUA), 802 E. Lombard Street, Baltimore, Maryland 21202 -(410) 396-3156. The Carroll Mansion Courtyard Site 18BC6.
- 7/1993-9/1993 Laboratory Supervisor, BCUA - The Lakewood Drain Project Phase II, 18BC56.
- 6/1993-7/1993 Crew Chief/Laboratory Supervisor, BCUA - Phase II excavations of the Terminal Warehouse Building, 1609-1611 Thames Street, 18BC99.
- 4/1993-5/1993 Field Supervisor, Phase II excavations at Clover Hill Farm/Rockburn Park, Howard County, Maryland. 18HO207 Rockburn 4, 18HO208 Patrick Kyne/DeVan Farm, 18HO209 RP-1.
- 11/1992-3/1993 Project Historian, NPW Consultants, Inc. National Pike West, RD 6 Box 280, Uniontown, PA 15401. Archival investigations of "Point Patience", 18CV316, Calvert County, Maryland.
- 10/1992 Research Supervisor, BCUA - Archival investigations of the Terminal Warehouse Building, 1601-1611 Thames Street, Fells Point, Maryland.

9/1992	<u>Field Supervisor</u> , Phase I excavations at Clover Hill Farm/Rockburn Park, Howard County, Maryland. 18H0201 Rockburn Branch 3, 18H0202 Clover Hill Farm.
4/1992-6/1992	<u>Field Supervisor</u> , Edward Otter, Archaeologist, 111 West Montgomery Avenue, Rockville, MD 20850 - (301) 340-2871. Howard's Inheritance, Anne Arundel County, Maryland.
12/1991-2/1992	<u>Research Supervisor</u> , BCUA - Lot 202 Paca Street, archival investigations of 202 South Paca Street Baltimore, MD.
11/1991-12/1991	<u>Archaeologist/Volunteer Coordinator</u> , Edward Otter, Archaeologist, 111 West Montgomery Avenue, Rockville, MD 20850 - (301) 340 - 2871. Phase II Survey of portions of the Little Neck Site, 18BA36, located in Baltimore County.
9/1991-12/1991	<u>Site Operations Supervisor</u> , BCUA - Responsible for daily operations of the Center's working gallery including conducting tours, working with volunteers and interns, designing and installing exhibits, and processing artifacts.
8/1991-9/1991	<u>Research Supervisor</u> , BCUA - Archival investigations for the Federal Hill Stabilization Project.
5/1991-8/1991	<u>Research Supervisor</u> , BCUA - Archival investigations of Lots 6A & 7A located in Baltimore City.
1/1991-5/1991	<u>Research Supervisor</u> , BCUA - Archival investigations of the Bernstein Building - the site had been excavated in the spring of 1990 as an emergency salvage project.
5/1990-12/1990	<u>Project Historian</u> , BCUA - Archival investigations of Port Covington, a military fort used during the War of 1812.
2/1990-4/1990	<u>Administrative Assistant/Laboratory Technician</u> , BCUA - Mount Clare Mansion Excavation and Restoration Project, responsibilities included artifact processing and artifact data processing (Minark); word processing (WordPerfect).
12/1989-2/1990	<u>Administrative Assistant</u> , BCUA - Harrison's Pier 5 Project, responsibilities included word processing; archival research; compiling and analyzing artifact data for both the 1987 and 1988 projects.
11/1989	<u>Archaeologist</u> , BCUA - Excavations at the Bayview Asylum in Baltimore City (18BC73). Emergency salvage excavation involving three graves disturbed by modern construction.
4/1989-11/1989	<u>Archaeologist/Public Education Coordinator</u> , The National Society of the Colonial Dames of America in the State of Maryland, Mount Clare Mansion Excavation and Restoration Project (18BC10).

- 3/1989 Administrative Assistant, BCUA - Conducted archival research for and produced a Phase III Project Proposal and Budget.
- 1/1989-2/1989 Archaeologist/Laboratory Technician, BCUA - Post excavation processing of artifacts including identification, coding, cataloging and computer entry (Minark); supervision of volunteers and interns.
- 12/1988 Archaeologist, BCUA - Phase II excavations of the Baltimore City Life Gallery, 18BC6, testing of an area surrounding the garden wall associated with Carroll Mansion.
- Archaeologist, BCUA - Phase II excavations for the Columbus Plaza Development Project, 18BC67. Testing of an urban block area including a local iron foundry.
- 9/1988-11/1988 Archaeologist/Public Coordinator, BCUA - Phase III excavations of the Harrison's Pier 5 Project, 18BC62-63. Investigations of a late nineteenth century pier/wharf.
- 5/1988-9/1988 Volunteer Archaeologist, BCUA and NSCDA - Mount Clare Mansion, historic and prehistoric excavations.

PUBLICATIONS

Aiello, Elizabeth A. and John L. Seidel

In Press Three Hundred Years in Annapolis: Phase III Archaeological Investigation of the Anne Arundel County Courthouse (18AP63) Annapolis, Maryland. Archaeology in Annapolis, Department of Anthropology University of Maryland College Park.

Aiello, Elizabeth A.

1992 "Archival Investigations of Point Patience, Calvert County, Maryland." NPW Consultants, Inc., Uniontown, Pennsylvania.

Bailey, Charlene, Elizabeth A. Aiello and Louise E. Akerson

1991 An Historical Overview of the Archaeological Resources Associated with Lots 6A and 7A of the Inner Harbor West Urban Renewal Area, Baltimore, Maryland. The Baltimore Center for Urban Archaeology, Research Series Report No. 40.

Civello, Christina J. and Elizabeth A. Aiello

1991 Archival and Archaeological Investigations of the Bernstein Building (18BC75) Baltimore, Maryland. The Baltimore Center for Urban Archaeology, Research Series No. 39.

Sanphilipo, Mary A., Elizabeth A. Aiello, Stephen P. Austin and Kristen Stevens

1990 An Archival Investigation of the Archaeological Resources Associated with the Development of the Port Covington Area, Baltimore, Maryland. The Baltimore Center for Urban Archaeology, Research Series Report No. 33.

C. Jane Cox

Education

Bachelor of Arts, Anthropology, University of Maryland College Park, May 1994
Associate of Arts, General Studies, Anne Arundel Community College, 1992.

Experience

June 1995 to August 1995 - National Park Service - Submerged Cultural Resource Unit. Biscayne National Park, Florida.

January to June 1995 - Analyzed data and drafted final report for the archaeological investigations at the Jonas Green House (18AP29)

November 1993 to January 1995 - Developed a digital database of historical and predictive archaeological maps of the United States Naval Academy using AutoCAD. Legacy Resource Management Project/U.S. Naval Academy.

May to November 1994 - Excavator/AutoCAD technician for the Courthouse Site (18AP63) Annapolis, Maryland.

January to May 1994 - Developed and implemented the first annual Maryland Underwater Archaeology Conference for the Maritime Archaeological and Historical Society. Developed the program of speakers, organized publicity and logistics.

September to November 1993 - Office support staff for the Department of Anthropology, University of Maryland, College Park.

September to Present - Volunteer with the Maryland Historical Trust Underwater Archaeology Program.

July to August 1993 - National Park Service Submerged Cultural Resource Unit/University of Maryland. Biscayne National Park, Florida - 1748 shipwreck.

June to July 1993 - Field School, Archaeology in Annapolis/University of Maryland, College Park.

May 1993 - Field crew on the Steward Shipyard, West River, Maryland.

December to June 1993 - Volunteer with the Anne Arundel County Archaeology Office under the direction of Dr. Al Luckenbach.

July 1991 to July 1993 - Assistant Manager at "It's a Breeze" Annapolis, Maryland.

January to June 1991 - Barn Manager, SayBrook Farm, Red Lion, PA.

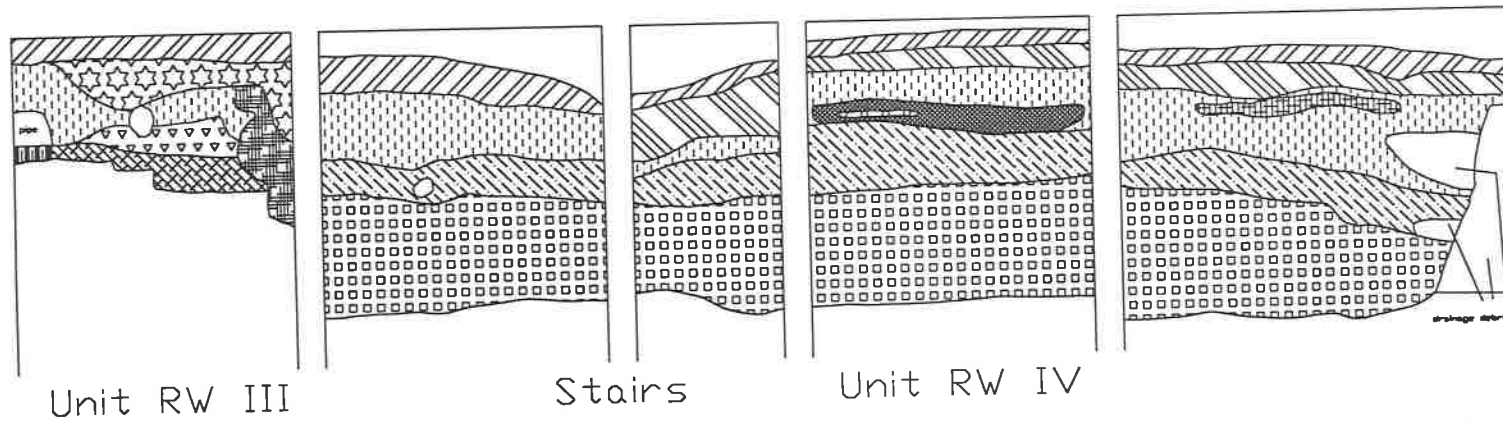
May 1988 to December 1990 - Assistant Manager at "Saddle-Up" tack shop, Millersville, MD.

September 1987 to present- Freelance horseback riding instructor.

Membership and Positions Held

- * Society for Historical Archaeology
- * Anthropology Student Association. President Sept. 1993 to May 1994.
- * Maritime Archaeological and Historical Society. Coordinator for the first annual Maryland Underwater Archaeology Conference.

Retaining Wall Profile, Unit RW III to East Wing



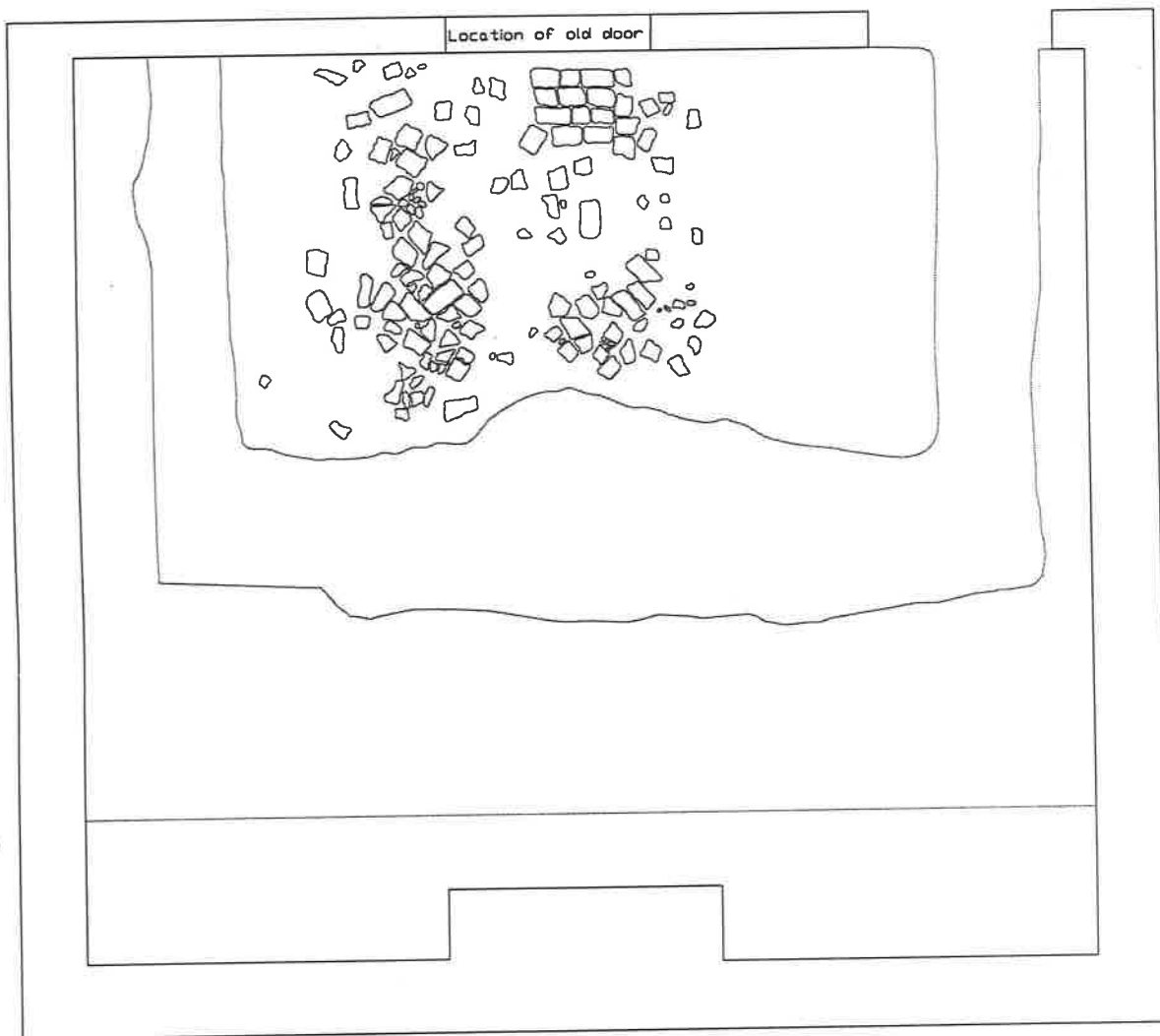
- | | | | |
|--|--|--|--|
| | 10yr 4/4 dark yellowish brown silty sand | | 10yr 4/4 dark yellowish brown sandy silt |
| | 10yr 4/6 dark yellowish brown clay loam | | |
| | 7.5yr 6/6 reddish yellow silty sand | | 10yr 3/6 to 10yr 4/4 dark yellowish brown silty sand |
| | 10yr 5/6 yellowish brown silty sand | | 10yr 5/6 yellowish brown silty fine sand |
| | 10yr 6/8 brownish yellow sandy silt | | 10yr 5/6 yellowish brown clay loam |

- | | | | |
|--|---------------------------------|--|---|
| | pocket of oyster shells | | 10yr 5/6 yellowish brown mottled with 10yr 4/3 brown silty sand |
| | Lens of 10yr 4/4 dyb silty sand | | rodent hole |
- 0 1 2 3 feet



0 1 2 feet

CAD by Colin Beaven
01/99

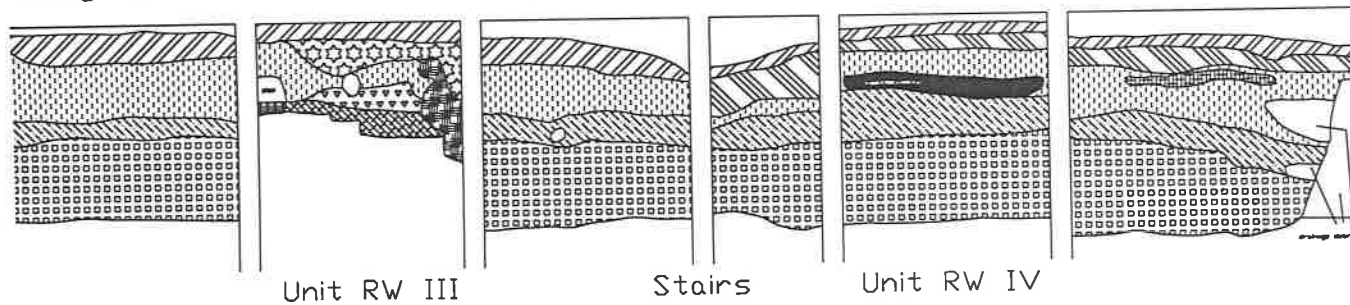


0 1 2 feet

CAD by Colin Beaven
01/99

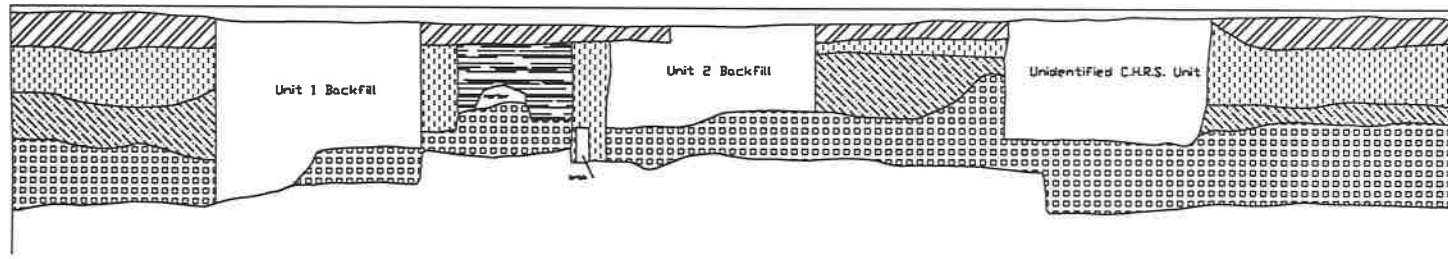
Facing North)

Retaining Wall Profile, Unit RW III to East Wing

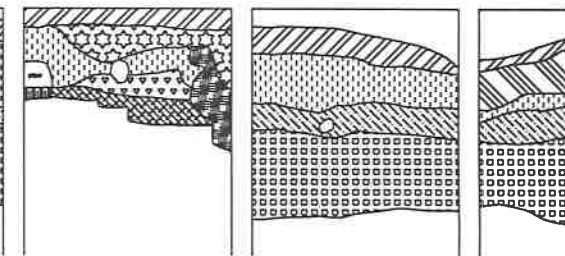


- | | | | |
|--|--|---------------------------------|---|
| 10yr 4/4 dark yellowish brown silty sand | 10yr 4/4 dark yellowish brown sandy silt | pocket of oyster shells | 10yr 5/6 yellowish brown mottled with 10yr 4/3 brown silty sand |
| 10yr 4/6 dark yellowish brown clay loam | 10yr 3/6 to 10yr 4/4 dark yellowish brown silty sand | lens of 10yr 4/4 dyb silty sand | rodent hole |
| 7.5yr 6/6 reddish yellow silty sand | 10yr 5/6 yellowish brown silty fine sand | | |
| 10yr 5/6 yellowish brown silty sand | 10yr 5/6 yellowish brown clay loam | | |
| 10yr 6/8 brownish yellow sandy silt | | | |

Retaining Wall Profile, End of Unit RW II to Beginning of Unit RW III (Facing North)



Retaining Wall Profile, U



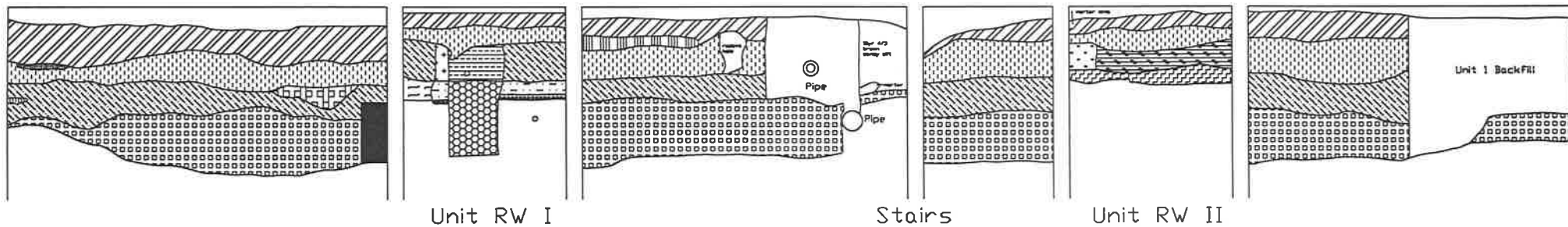
General stratigraphy:

10yr 4/4 dark yellowish brown sandy silt	10yr 4/4 dark yellowish brown sandy loam
10yr 3/6 to 10yr 4/4 dark yellowish brown silty sand	
10yr 5/6 yellowish brown silty fine sand	
10yr 5/6 yellowish brown clay loam	

10yr 4/4 dark yellowish brown silty sand	10yr 4/4 dark yellowish brown sandy silt
10yr 4/6 dark yellowish brown clay loam	
7.5yr 6/6 reddish yellow silty sand	10yr 3/6 to 10yr 4/4 dark yellowish brown silty sand
10yr 5/6 yellowish brown silty sand	10yr 5/6 yellowish brown silty fine sand
10yr 6/8 brownish yellow sandy silt	10yr 5/6 yellowish brown clay loam

Retaining Wall Profile, West Wing Through End of Unit RW II (Facing North)

Retaining Wall Profile, East Wing Through End of Unit RW II (Facing North)



General stratigraphy:

- 10yr 4/4 dark yellowish brown sandy silt
- 10yr 3/6 to 10yr 4/4 dark yellowish brown silty sand
- 10yr 5/6 yellowish brown silty fine sand
- 10yr 5/6 yellowish brown clay loam
- rodent hole

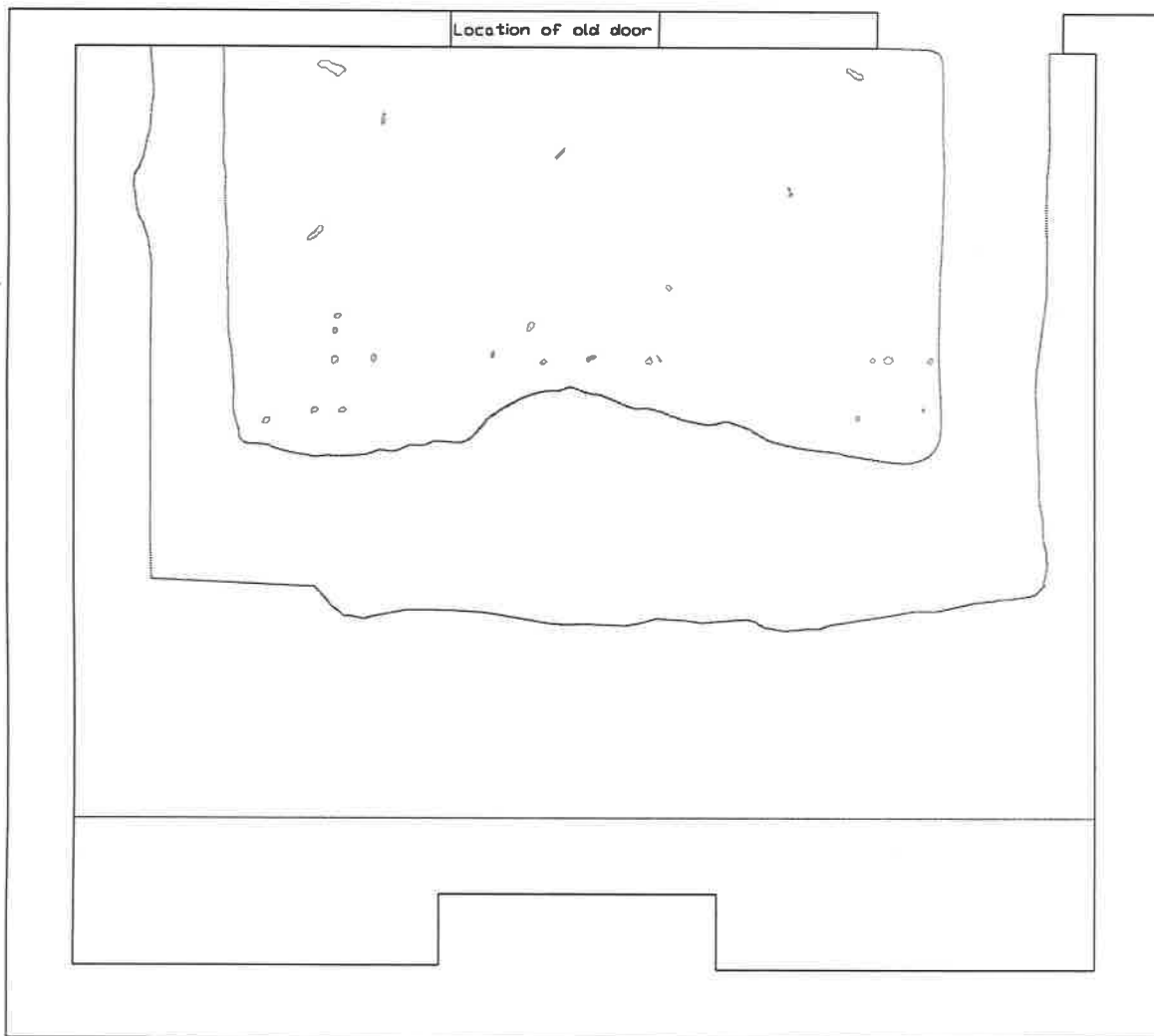
- 10yr 5/4 yellowish brown sandy silt
- 10yr 6/6 brownish yellow silty sand (pipe trench)
- 10yr 5/6 yellowish brown silty sand
- 7.5yr 5/6 strong brown fine sand
- 10yr 5/6 silty sand with bands of 10yr 4/3 brown silty sand (pipe trench)

- 10yr 4/6 dark yellowish brown sandy silt
- oyster and brick fragment lens
- oyster fragment lens
- 10yr 5/6 yellowish brown clay loam
- Mottled 10yr 4/4 and 10yr 4/6 dark yellowish brown silty loam

General stratigraphy:

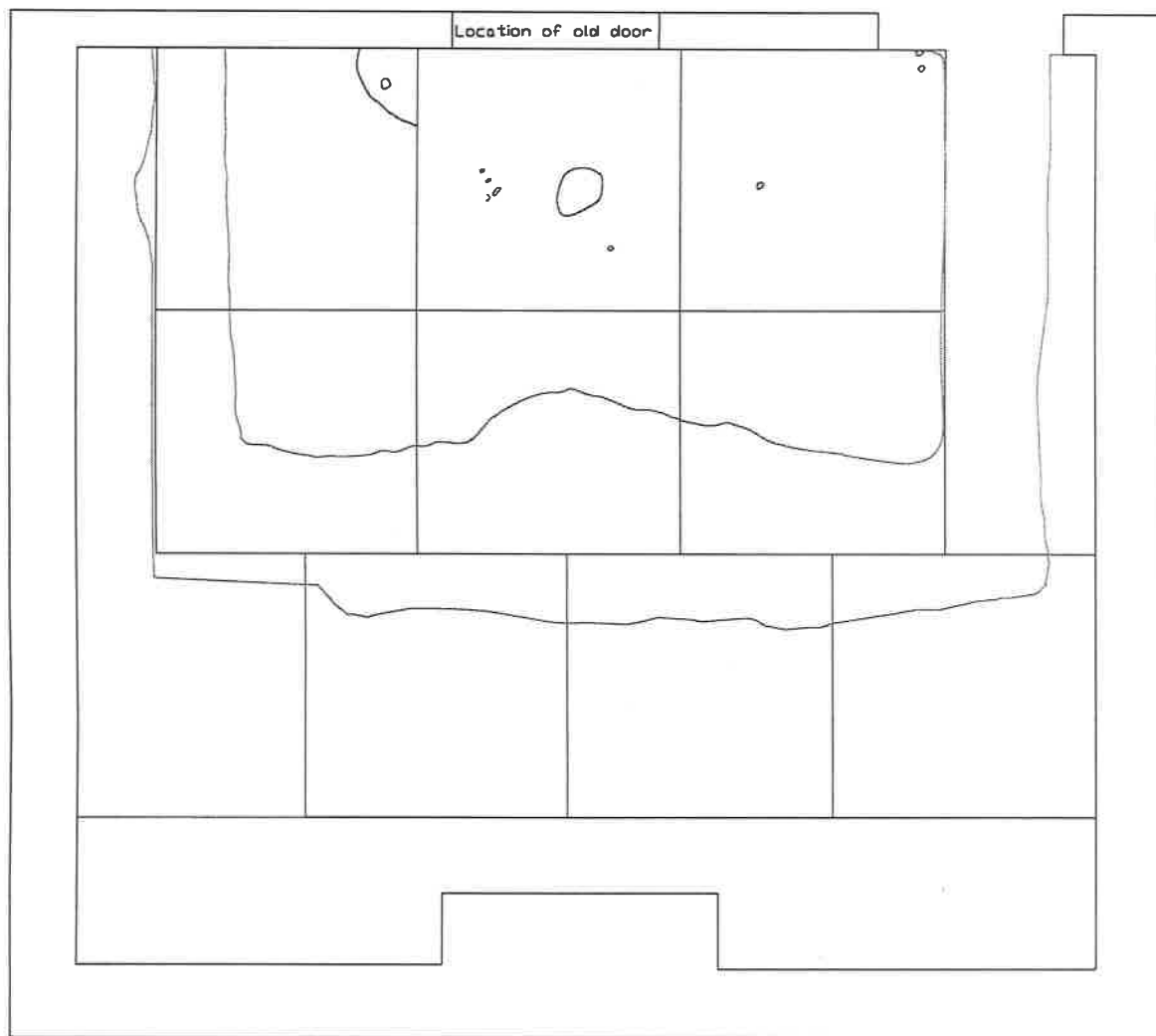
- 10yr 4/6 dark yellowish brown silty sand
- 10yr 4/4 dark yellowish brown sandy silt
- 10yr 4/6 dark yellowish brown clay loam

- 10yr 4/4 dark yellowish brown sandy silt
- 10yr 3/6 to 10yr 4/4 dark yellowish brown silty sand
- 10yr 5/6 yellowish brown silty fine sand
- 10yr 5/6 yellowish brown clay loam



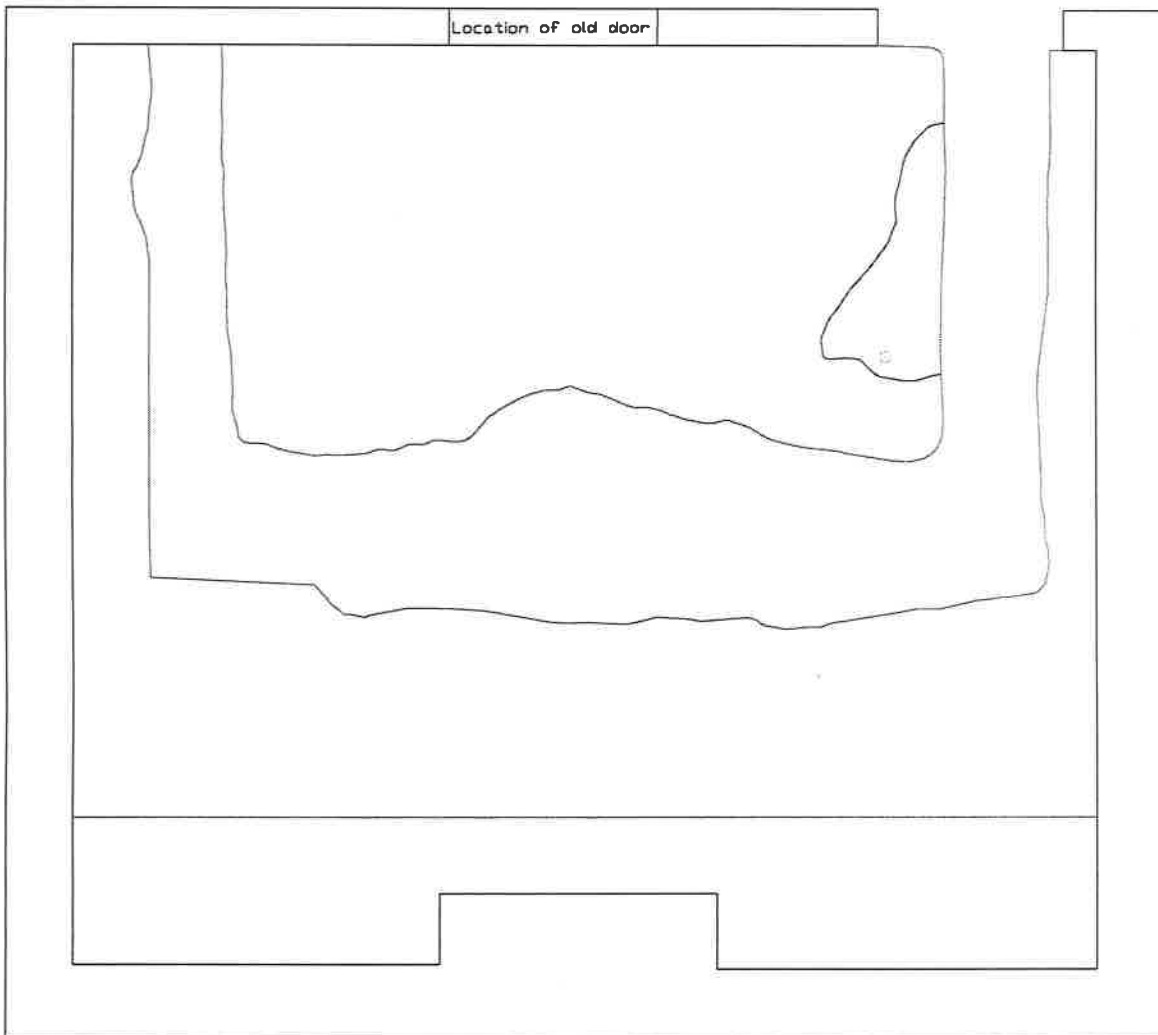
0 1 2 feet

CAD by Colin Beaven
01/99



0 1 2 feet

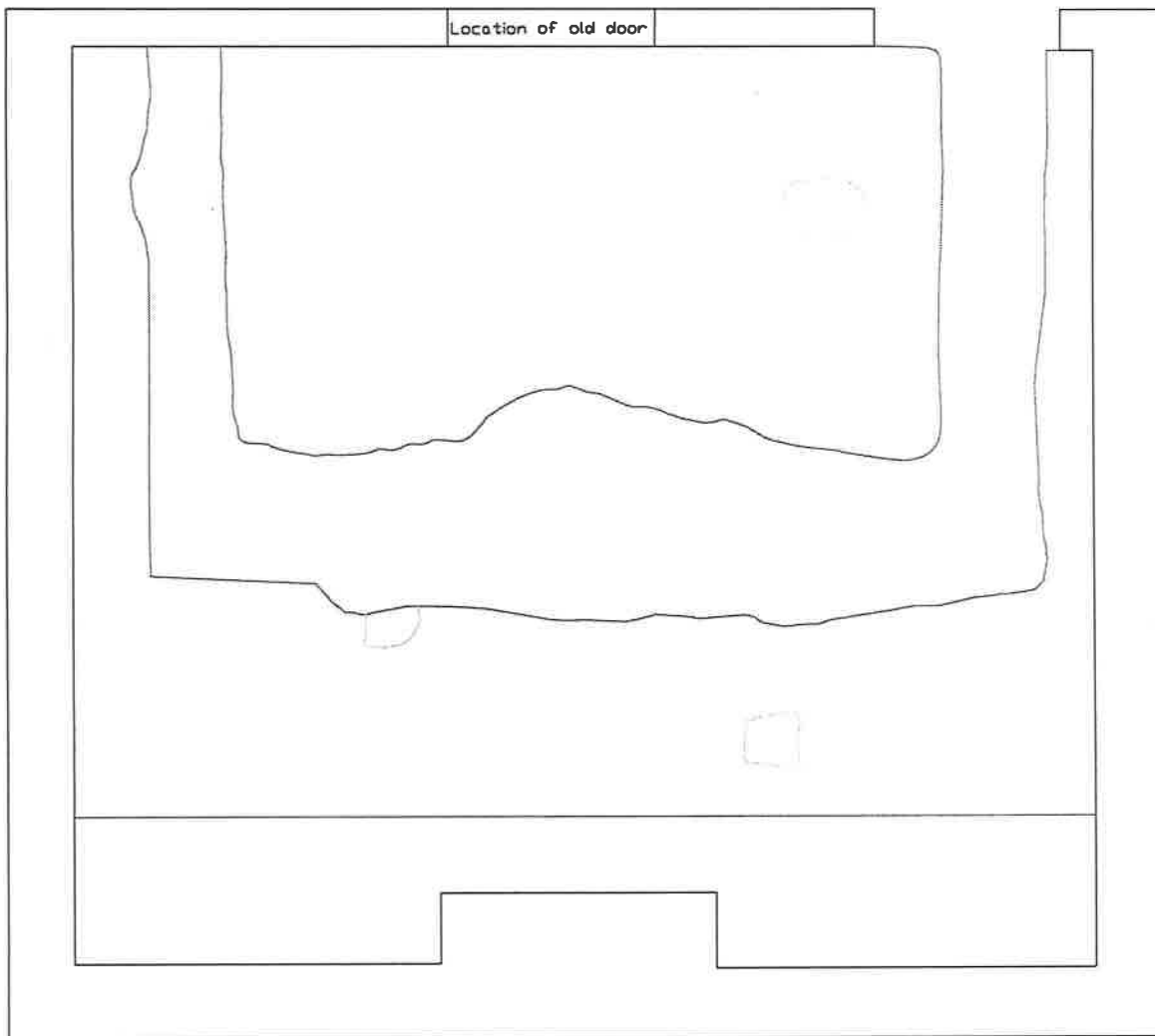
CAD by Colin Beaven
01/99



0 1 2 feet

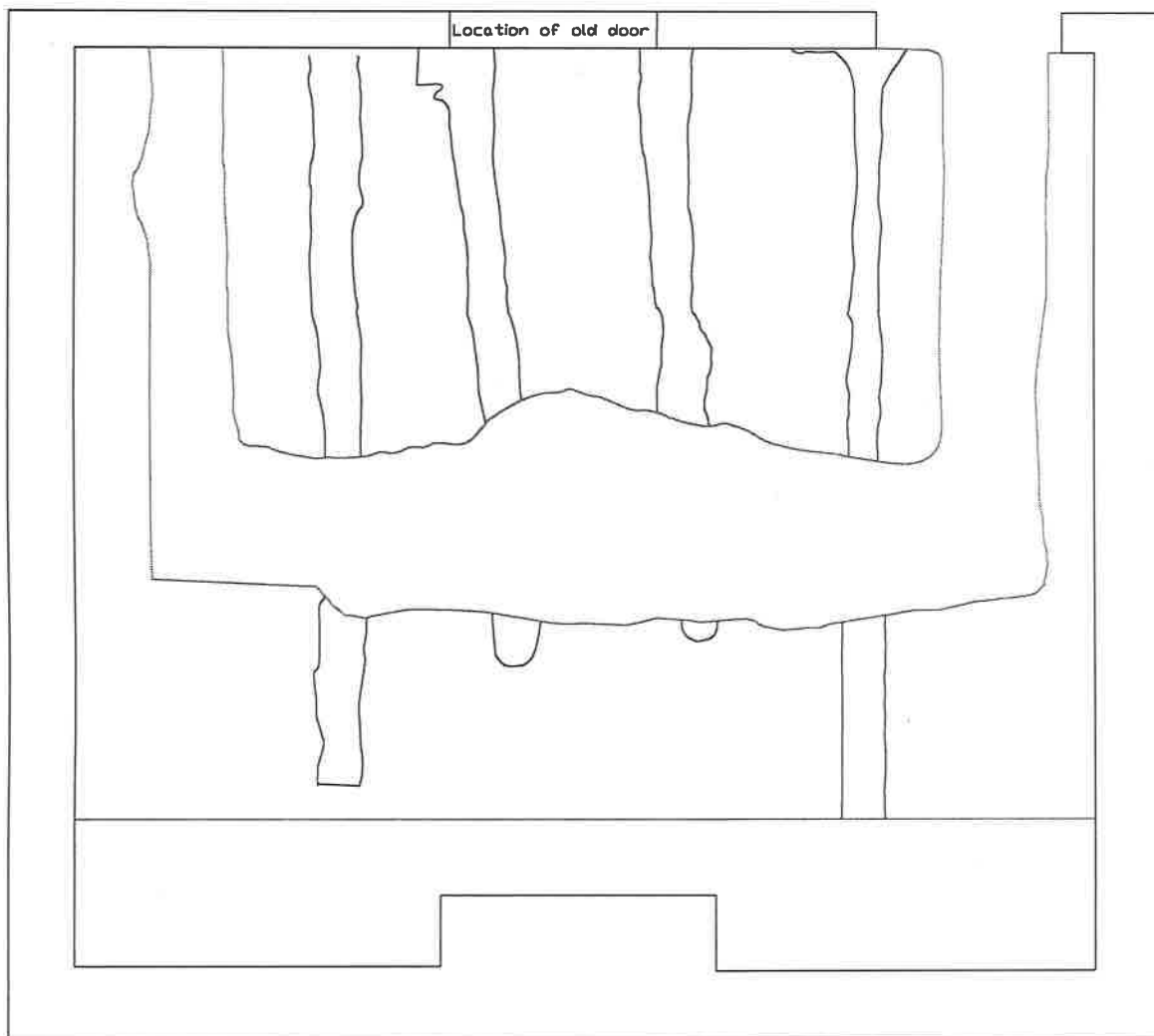
CAD by Colin Beaven
01/99

○ Prehistoric Point

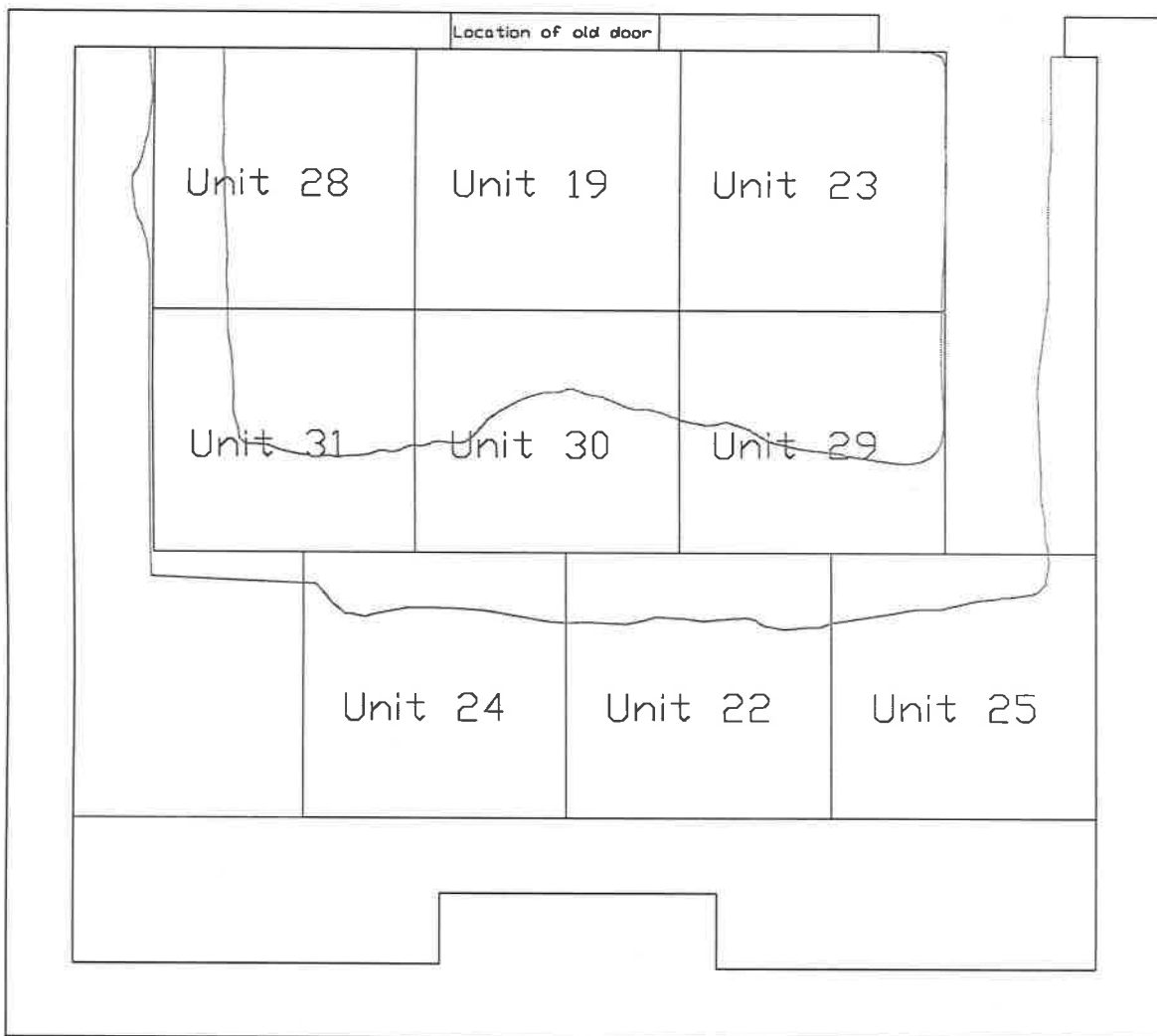


0 1 2 feet

CAD by Colin Beaven
01/99



CAD by Colin Beaven
01/99



0 1 2 feet

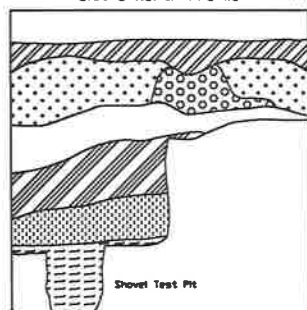
CAD by Colin Beaven
01/99








1987-88 Clowd Creek Area 1987 Excavation

W 79725
E 8824

Unit 8 North Profile

W 79725
E 8819



-  Stratum 2 - 10yr 3/3 dark brown silty loam
-  Stratum 3 - 10yr 4/6 dark yellowish brown sandy loam
-  Feature 14 - shed within Stratum 2
-  Stratum 4 - 10yr 4/6 dark yellowish brown sandy loam with pebble gravel
-  Stratum 5 - 10yr 4/2 dark grayish brown silty clay loam
-  Stratum 6 - 10yr 3/2 very dark grayish brown silty clay loam
-  Stratum 7 - 10yr 3/2 very dark grayish brown mottled with 10yr 3/3 yellowish brown clay

LAD by CFB 12/99
File - 480000

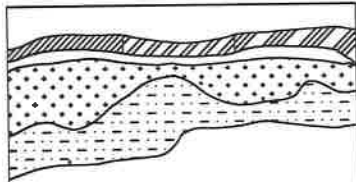
0 .5 1 foot







185T54 (Slave Cabin Area)
1997 Excavation

Unit 5 North Profile

N 7972.5 E 0029

N 7972.5 E 0034



-  Stratum 2 - 10yr 2/2
very dark brown silt loam
-  Stratum 3 - 10yr 2/1 black silty clay loam
-  Stratum 4 - 10yr 3/4 to 3/6 dark
yellowish brown sandy clay loam
-  Stratum 5 - 10yr 4/1 dark gray
sandy clay loam
-  Stratum 6 - 10yr 4/4 dark yellowish brown
sandy clay with quartz gravel
-  Stratum 7 - mottled 50% 10yr 5/3 brown
and 50% 10yr 6/2 sandy loam (possible
buried A horizon)

• nails in situ

0 .3 1 foot

drawing by LB
CAD by CFB
File - u5np.dwg

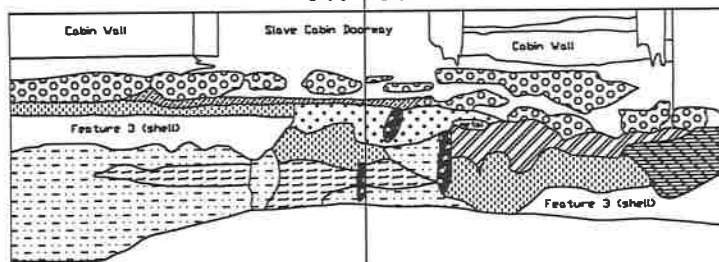
185T34 (Slave Cabin Area)
1997 Excavation

Units 3 & 4 East Profile

N 7995
E 8015

Unit 3 Unit 4

N 7985
E 8015



Stratum 2 - 10yr 3/6 dark yellowish brown
silt clay (door runoff)

Stratum 3 - 10yr 2/1 black silt loam
(modern buried flower bed)

Stratum 7 - 10yr 4/3 to 10yr 3/3 sandy
clay matrix surrounding Feature 26

Stratum 8 - mottled 10yr 4/4 clay, 10yr 3/2
clay silt, 10yr 3/3 silt (Feature 3 matrix)

Stratum 9 - mottled 10yr 4/3 and 10yr 3/1
clay loam with gravel (fill)

Stratum 10 - 7.5yr 5/8 sandy clay subsoil

Feature 24 (same as stratum 10)
(post hole)

Sandstone / Shell Foundation

Feature 26 (Wood)

CAD by CFJ 03/99
file - u3u4ep.dwg

0 5 1 foot

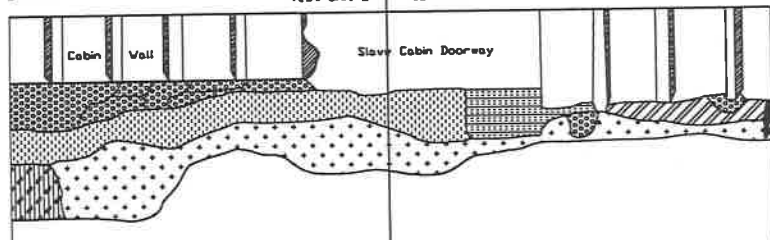
18S154 (Slave Cabin Area)
1997 Excavation









Units 1 & 2 West Profile

N 7985
E 8031.5

N 7995
E 8031.5

Test Unit 2 Test Unit 1

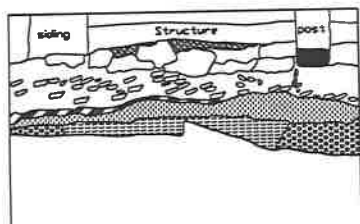


- | | |
|---|---|
|  Stratum 1 - 10yr 2/1 black silt loam |  Stratum 6 & Feature 16 - 10yr 3/1 very dark grayish brown with pebble gravel (posthole) |
|  Stratum 2 - 10yr 4/4 dark yellowish brown clay mottled with 10yr 5/8 yellowish brown clay |  Sandstone / Shell foundation |
|  Stratum 3 - 10yr 3/2 very dark grayish brown silt clay |  Concrete |
|  Stratum 5 - 10yr 5/6 yellowish brown clay mottled with 10yr 4/3 brown clay |  |
- 0 5 1 foot

drawing by AL, CAD by CFJ
03/99 file - ulu2wp.dwg

185154 (Slave Cabin Area)
1995 Excavation

N7995 E8015 East Profile



Topsoil / root mat

Stratum with oyster shells

Clay lens

Stratum 4

Gravel lens

Subsoil

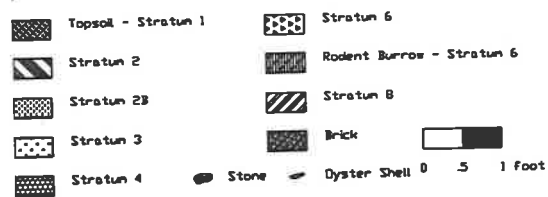
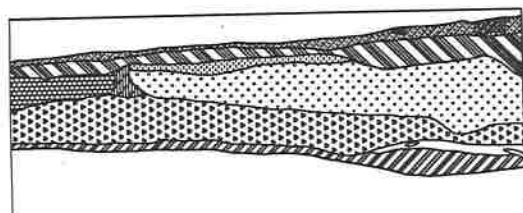
Rotted Post

0 .5 1 Foot

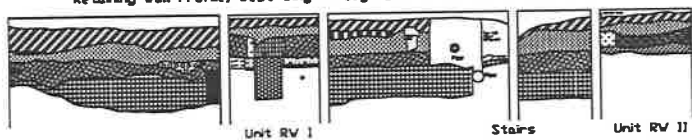
drawing by JLN 10/95
CAD by CFB 03/99

18S154 (Slave Cabin Area)
1995 Excavation

N7980, E8035 & E8030 South Profile

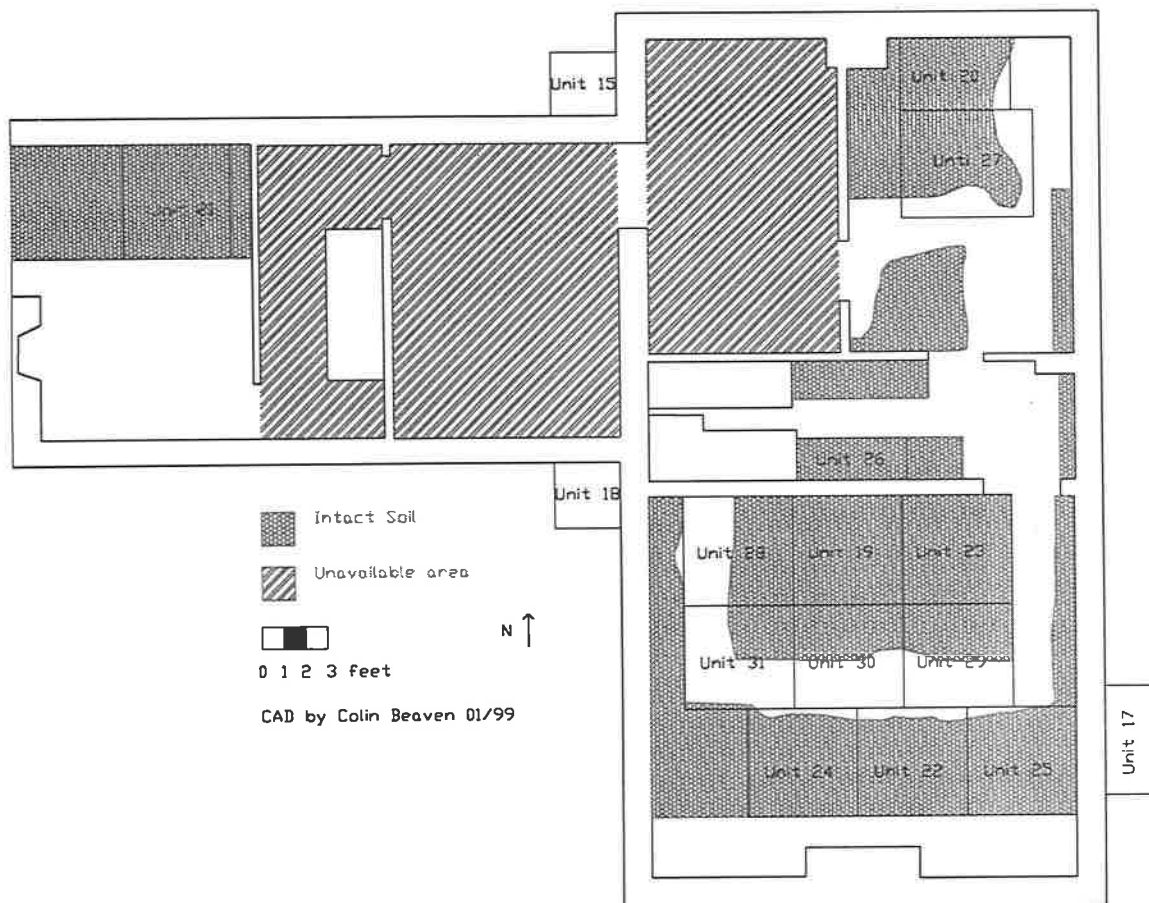


Retaining Wall Profile, West Wing Through End of Unit RW II (Facing North)

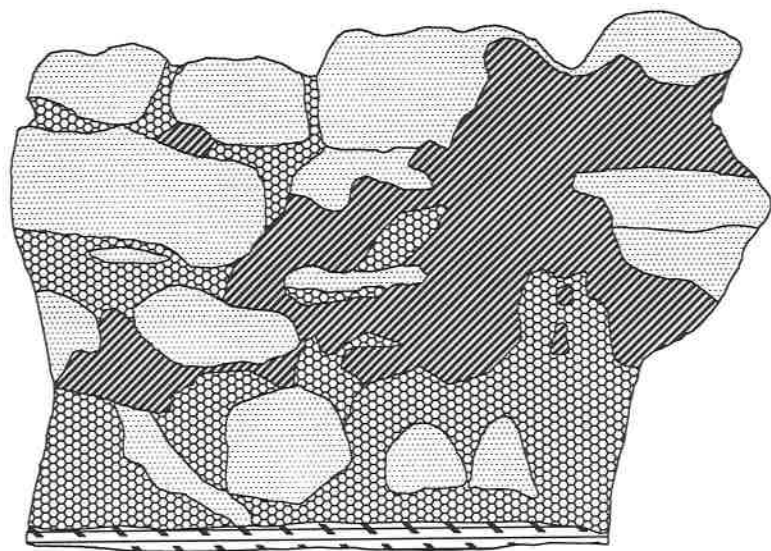


General stratigraphy:

- | | | | | | |
|--|--|--|--|--|---|
| | The 4th dark polka-dot brazen ally icon | | The 4th polka-dot brazen ally icon | | The 4th dark polka-dot brazen ally icon |
| | The 4th to the 4th dark polka-dot brazen ally icon | | The 4th brazen ally icon | | The 4th dark polka-dot brazen ally icon |
| | The 4th polka-dot brazen ally icon | | The 4th polka-dot brazen ally icon | | The 4th dark polka-dot brazen ally icon |
| | The 4th polka-dot brazen ally icon | | The 4th polka-dot brazen ally icon | | The 4th dark polka-dot brazen ally icon |
| | The 4th ally icon with the 4th ally icon | | The 4th ally icon with the 4th ally icon | | The 4th dark polka-dot brazen ally icon |



104r30 Unit 4 Interior wall




 Stone

 Mortar

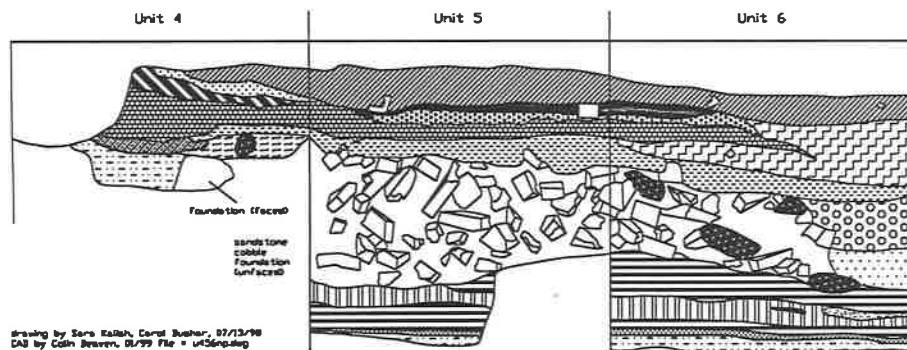
 Plaster

 10yr 4/6 clay subsoil

 0 .5 1 foot

file = u4iw.dwg
by cfb

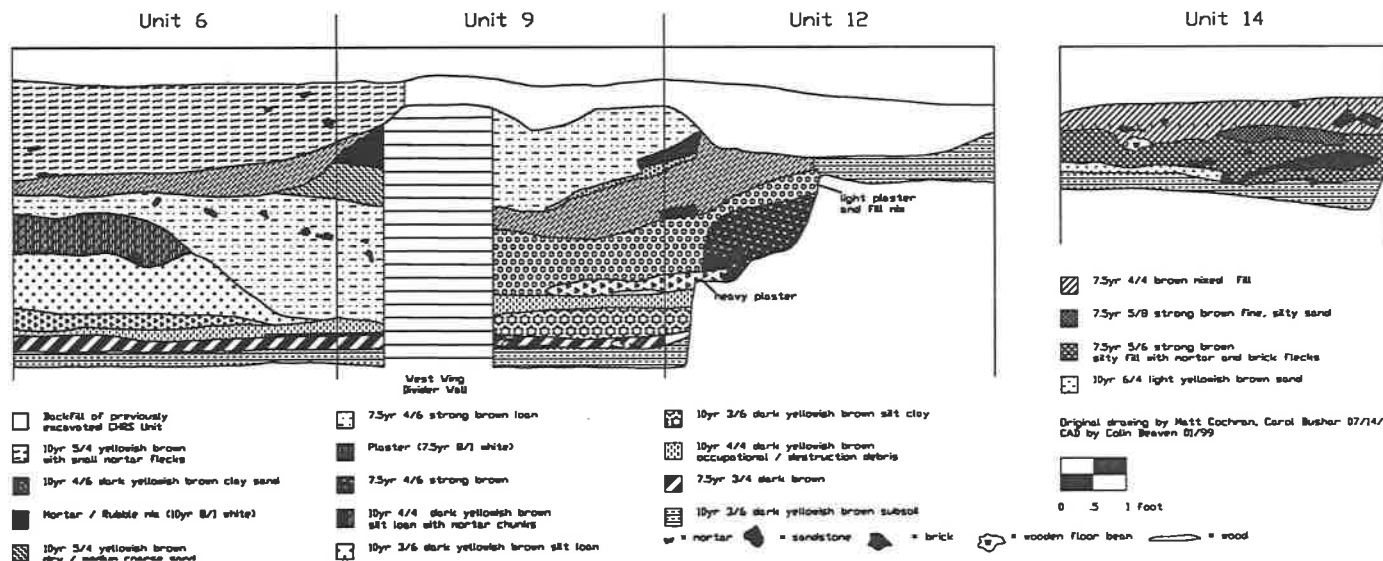
18AP38 Brice House Units 4, 5 & 6 North Profile

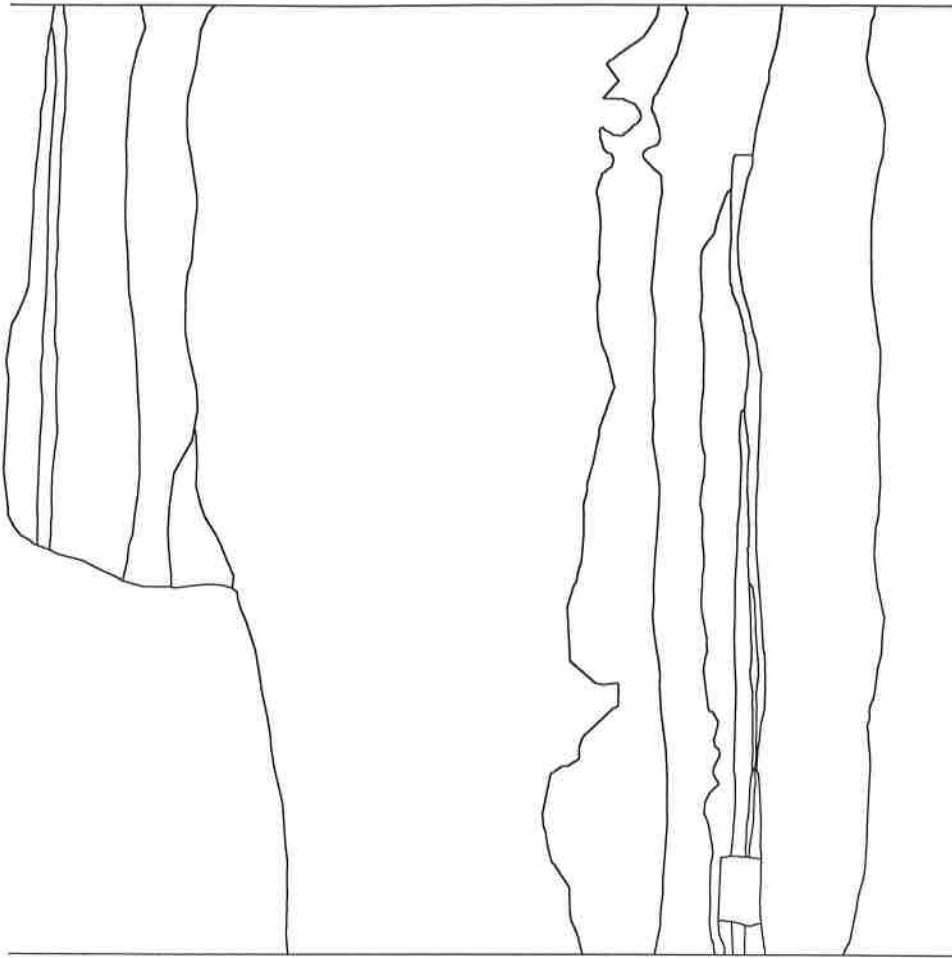


drawing by Sara Kallish, Carol Bushner, 07/13/98
CAB by Colin Brown, 01/99 File = u136ap.dwg

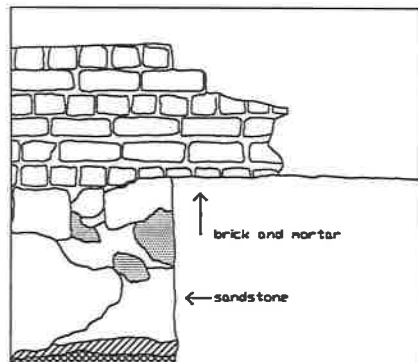
- | | | |
|---|--|---|
| <ul style="list-style-type: none"> 10yr 3/4 yellowish brown with large mortar chunks 10yr 3/6 yellowish brown sand mortar (10yr 8/1 white) 7.5yr 3/6 strong brown loam 10yr 6/6 brownish yellow sandy loam 7.5yr 4/6 strong brown sandy loam 10yr 3/4 yellowish brown with small mortar flecks 7.5 yr 4/6 strong brown loam | <ul style="list-style-type: none"> 10yr 3/4 dark yellowish brown with mortar and brick flecks 10yr 3/4 yellowish brown with small mortar flecks 10yr 3/4 yellowish brown fine gravel 10yr 3/4 yellowish brown loam 10yr 3/6 dark yellowish brown clay loam (subsoil) 10yr 4/4 dark yellowish brown silt loam with large mortar chunks 10yr 3/6 dark yellowish brown silt loam | <ul style="list-style-type: none"> Plaster (7.5yr 8/1 white) 10yr 4/4 dark yellowish brown occupational / destruction debris 2.5 y 6/3 light yellowish brown sand 10yr 3/3 dark brown silt loam (ancient earth floor) 10yr 3/6 yellowish brown sand loam brick sandstone |
|---|--|---|





18AP38 Brice House Units 6, 9, 12 & 14 East Profile



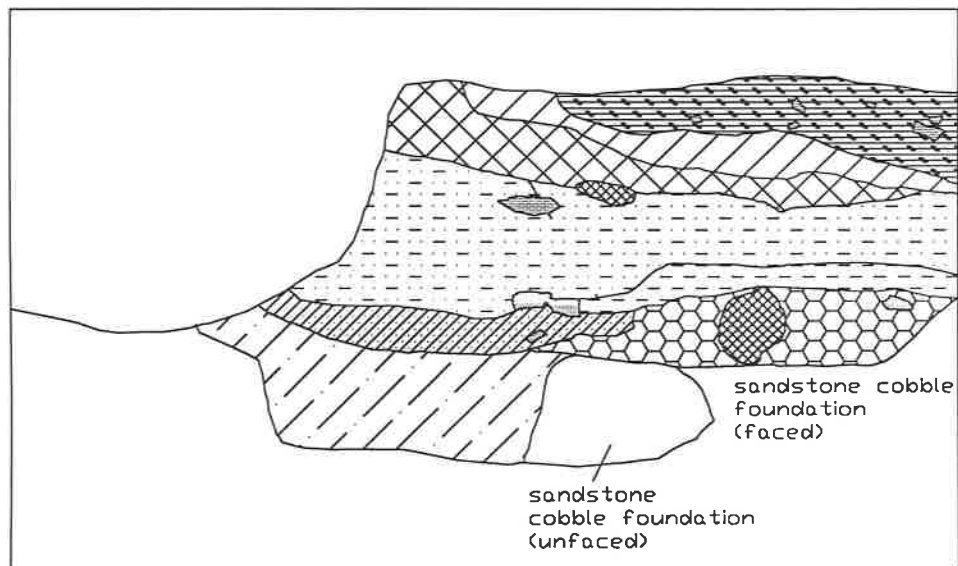


18AP38 Unit 4 South Profile

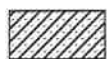


-  75 yr 4/6 sandy clay
-  10yr 4/6 sandy clay subsoil
-  Plaster "wash"
-  0 5 1 foot

file: u4sp.dwg
CAD by CFJ



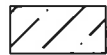
10yr 5/4 yellowish brown
(large mortar chunks)



10yr 5/4 yellowish brown
fine gravel



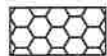
10yr 5/6 yellowish brown
sand



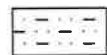
10yr 5/6 yellowish brown
subsoil



10yr 5/4 yellowish brown
(small mortar flecks)



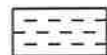
10yr 5/4 yellowish brown
chunky dirt



7.5yr 4/6 strong brown
loam mix



mortar

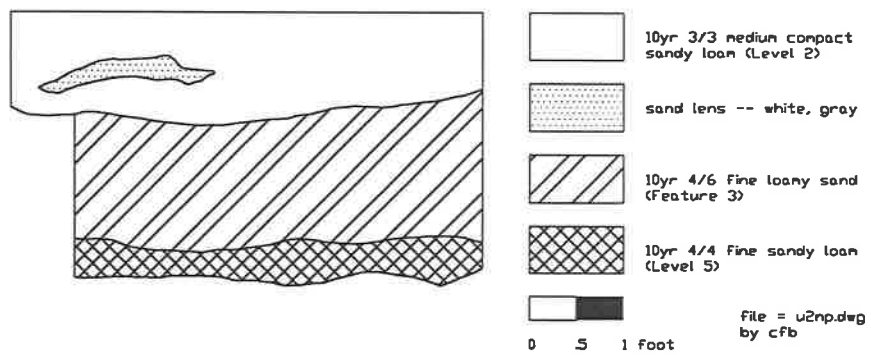


10yr 6/2 light brownish
gray (Feature 1)

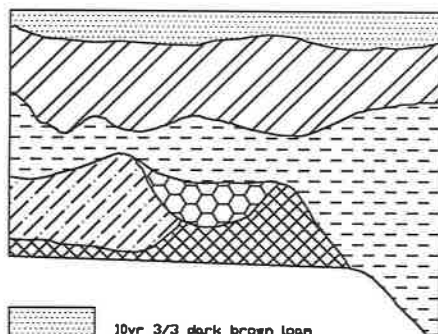








sandstone

18AP38 Unit 2 North Profile



18AP38 Unit 2 East Profile

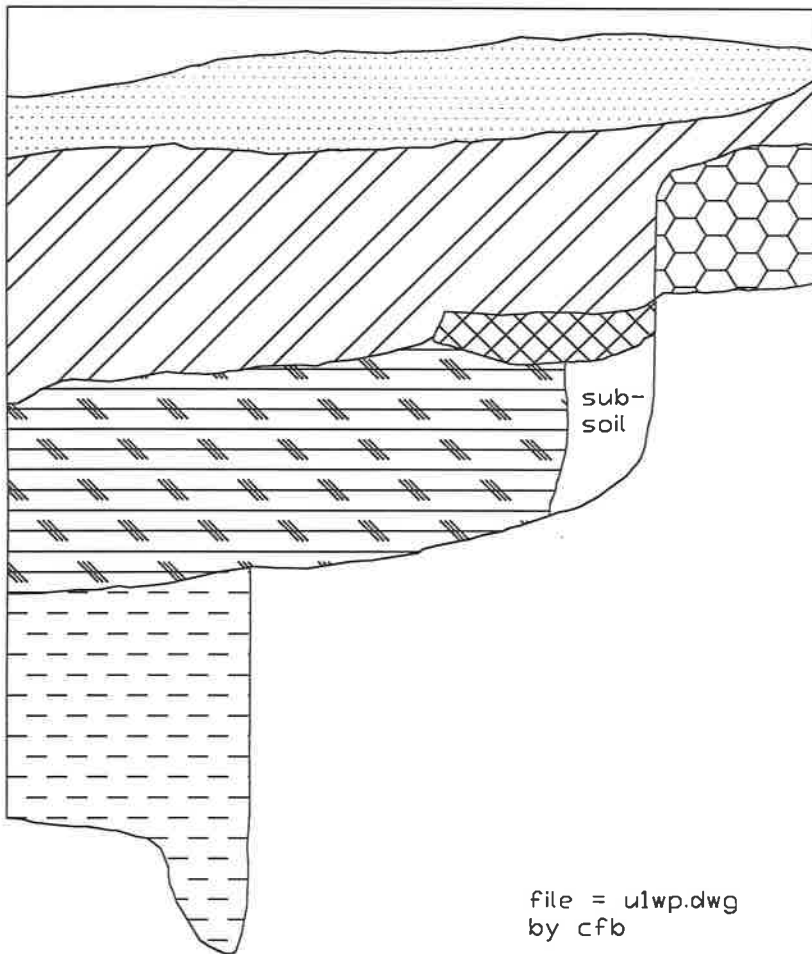


-  10yr 3/3 dark brown loam (Level 1)
-  10yr 3/3 dark brown sandy loam (Level 2)
-  10yr 3/6 dark yellowish brown sandy loam (Level 4)
-  10yr 4/6 dark yellowish brown loamy sand (Feature 3)
-  10yr 3/6 dark yellowish brown sandy loam (Feature 4)
-  10yr 4/4 dark yellowish brown sandy loam (Level 5)

0 .5 1 foot

file = u2ep.dwg
by cfb

1041 30 UNIT 1 WEST PROFILE



file = ulwp.dwg
by cfb



0 .5 1 foot



10yr 3/3 dark brown loam
(Topsoil)



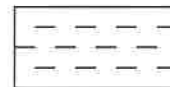
10yr 4/6 dark yellowish brown



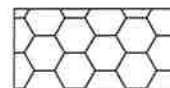
10yr 3/2 very dark grayish brown
(Feature 1)



10yr 4/4 dark yellowish brown
(Feature 3)

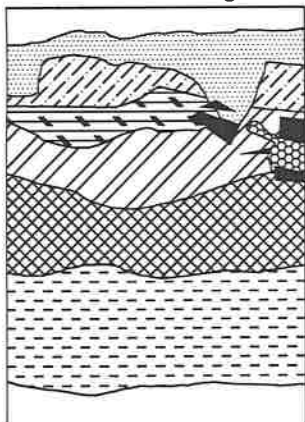


10 yr 3/6 dark yellowish brown
(Feature 4)



10yr 3/2 very dark grayish brown
(Feature 1)

18AP38 West Wing Trench North Profile



Brick

10yr 4/2 dark grayish brown
silty sand

10yr 4/3 brown sandy silt

10yr 4/4 dark yellowish brown
silty sand

10yr 4/3 brown silty sand

Mortar

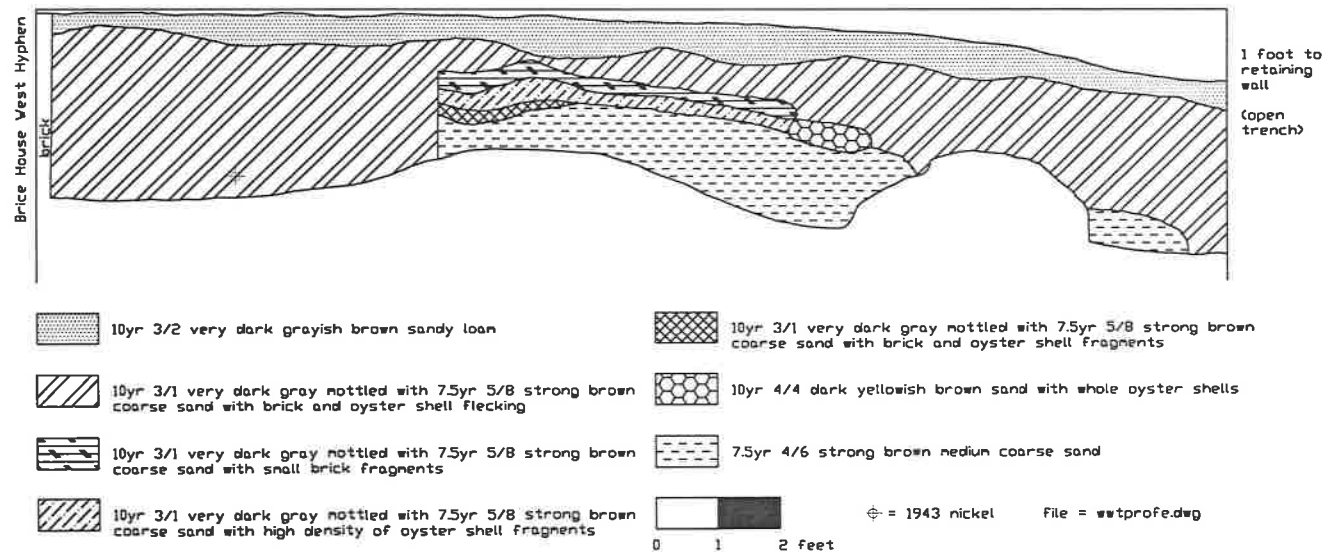
10yr 4/4 dark yellowish brown
clay loam with rubble

10yr 4/4 dark yellowish brown
clay loam

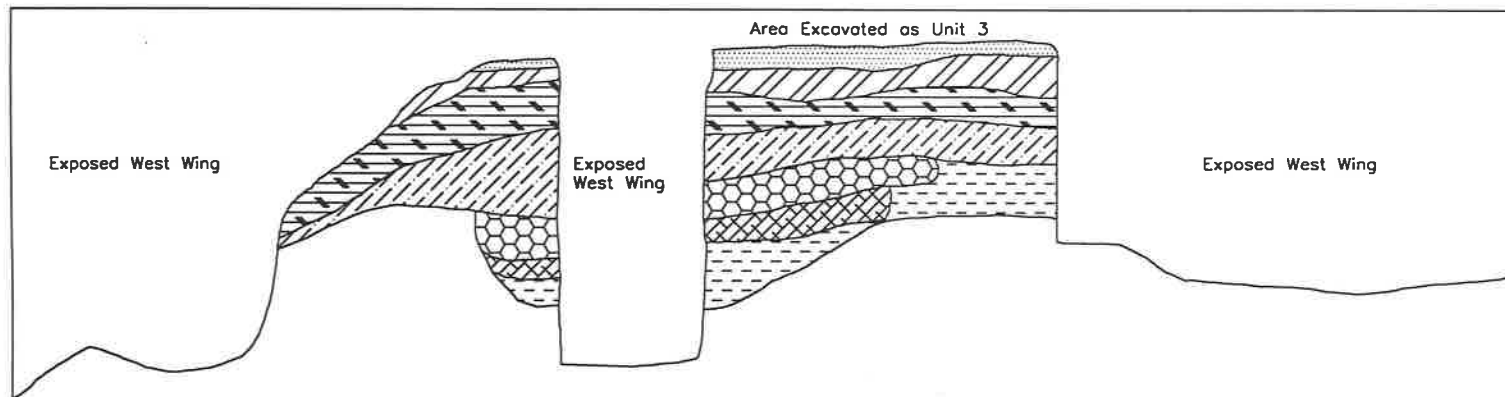
0 .5 1 foot

file = westprofn
by cfb


West Wing Trench Profile Facing East




West Wing Trench Profile Facing West





 10yr 3/2 very dark grayish brown sandy loam


 7.5yr 5/8 strong brown coarse sand

 10yr 3/2 very dark grayish brown sand

 10yr 3/4 dark yellowish brown sand with brick fragments

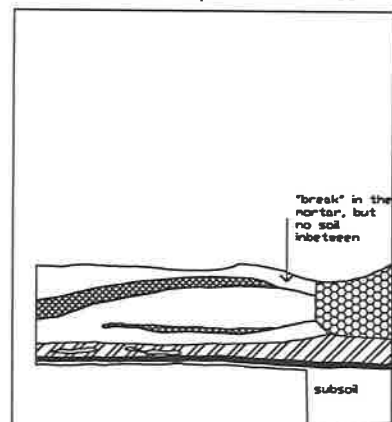
 10yr 4/4 dark yellowish brown sand with whole oyster shells






 10yr 4/4 dark yellowish brown sand with brick and mortar fragments

 7.5yr 4/6 strong brown medium coarse sand

 0 1 2 feet

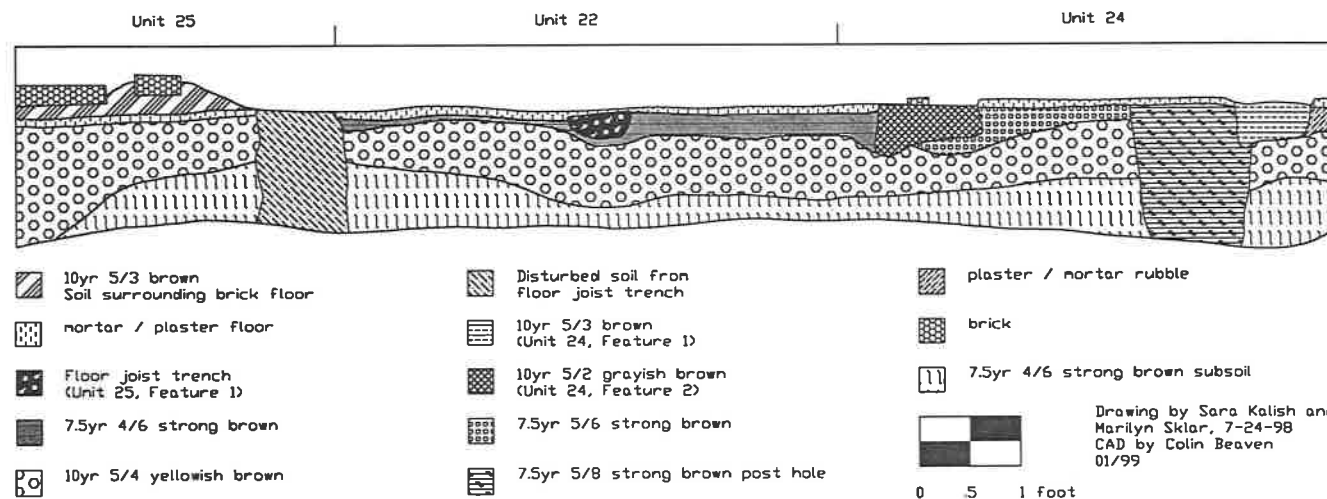
18AP38 Unit 5 East Wall Portion of
In Situ Plaster Deposits and Floor

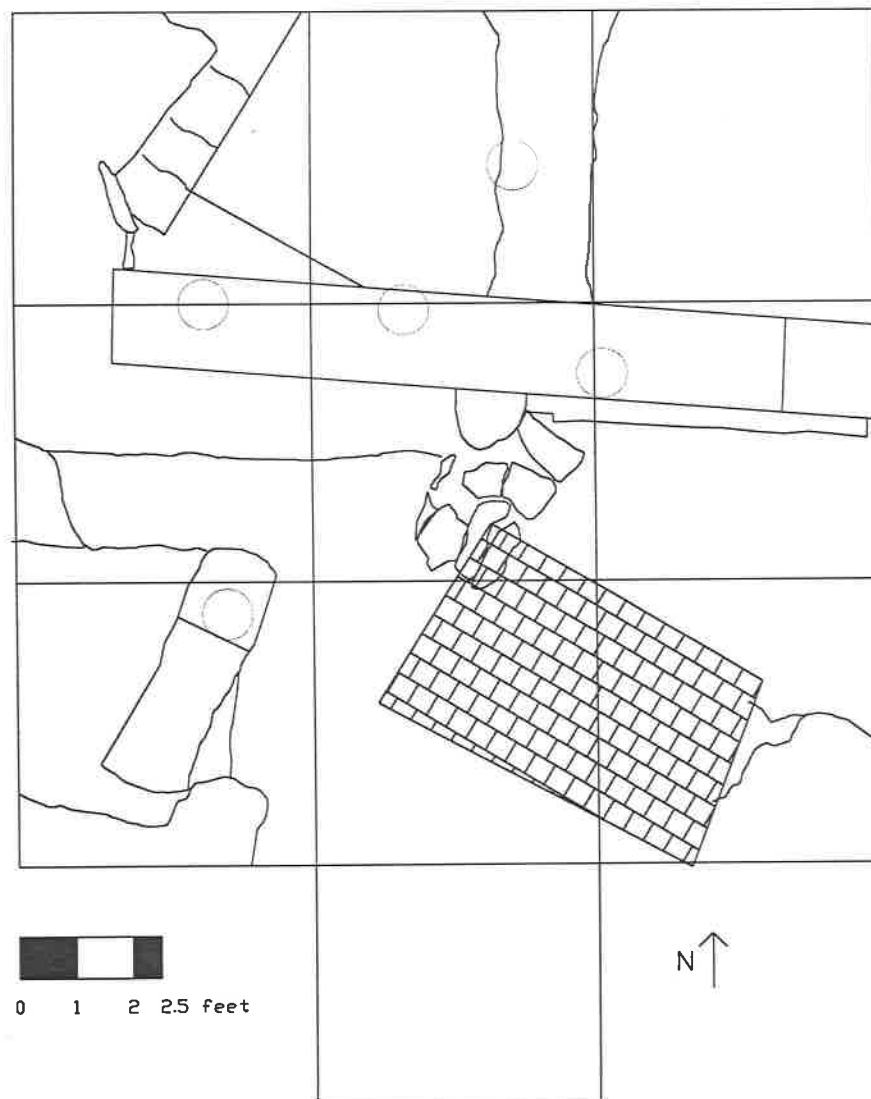
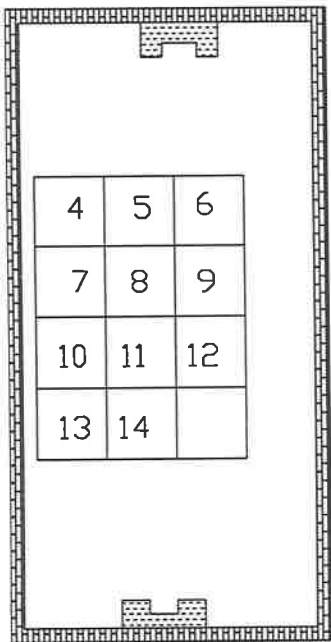


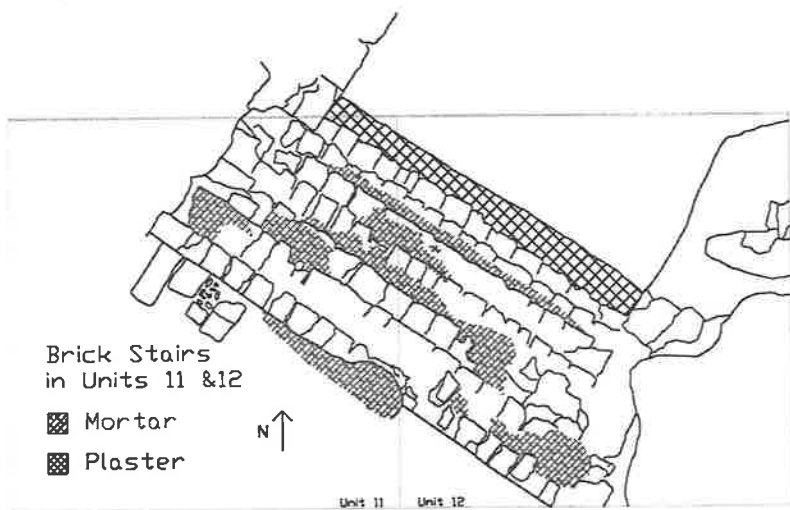
-  shell tempered mortar
-  10yr 4/4 dark yellowish brown coarse sand, loose (Level 7 soil)
-  10yr 5/4 coarse sand with brick and mortar inclusions (Level 6)
-  10yr 5/4 coarse sand, loose (Level 8)
-  10yr 4/2 dark grayish brown silty sand (Level 9 -- compressed earthen floor)

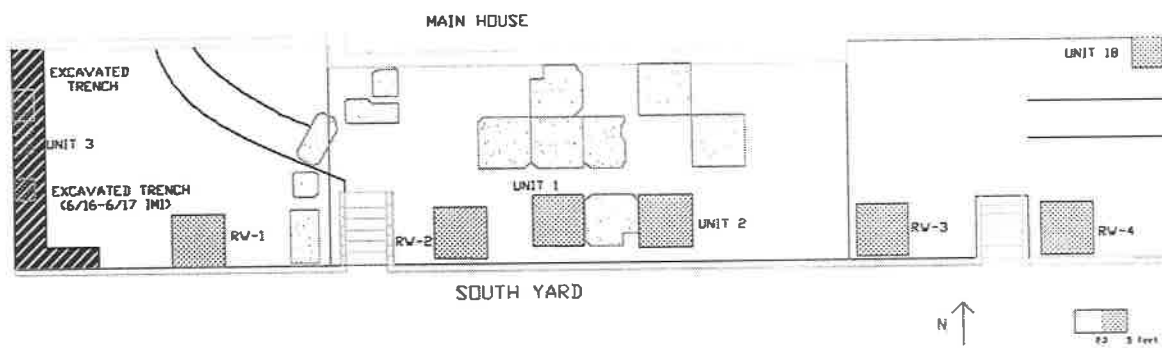
0 5 1 foot
File: u3eepf.dwg
CAD by CFB

18AP38 Brice House Northern Edge of Units 25, 22, 24
Profile Revealed by Pipe Trench (Facing South)

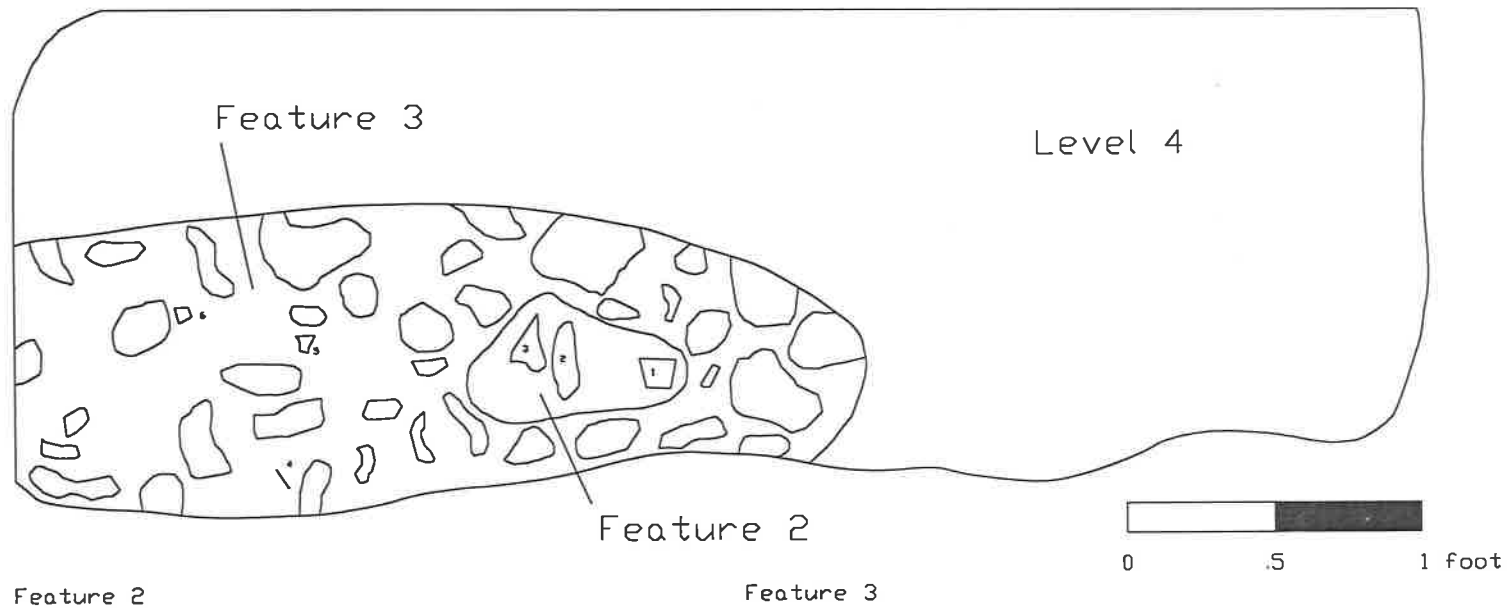








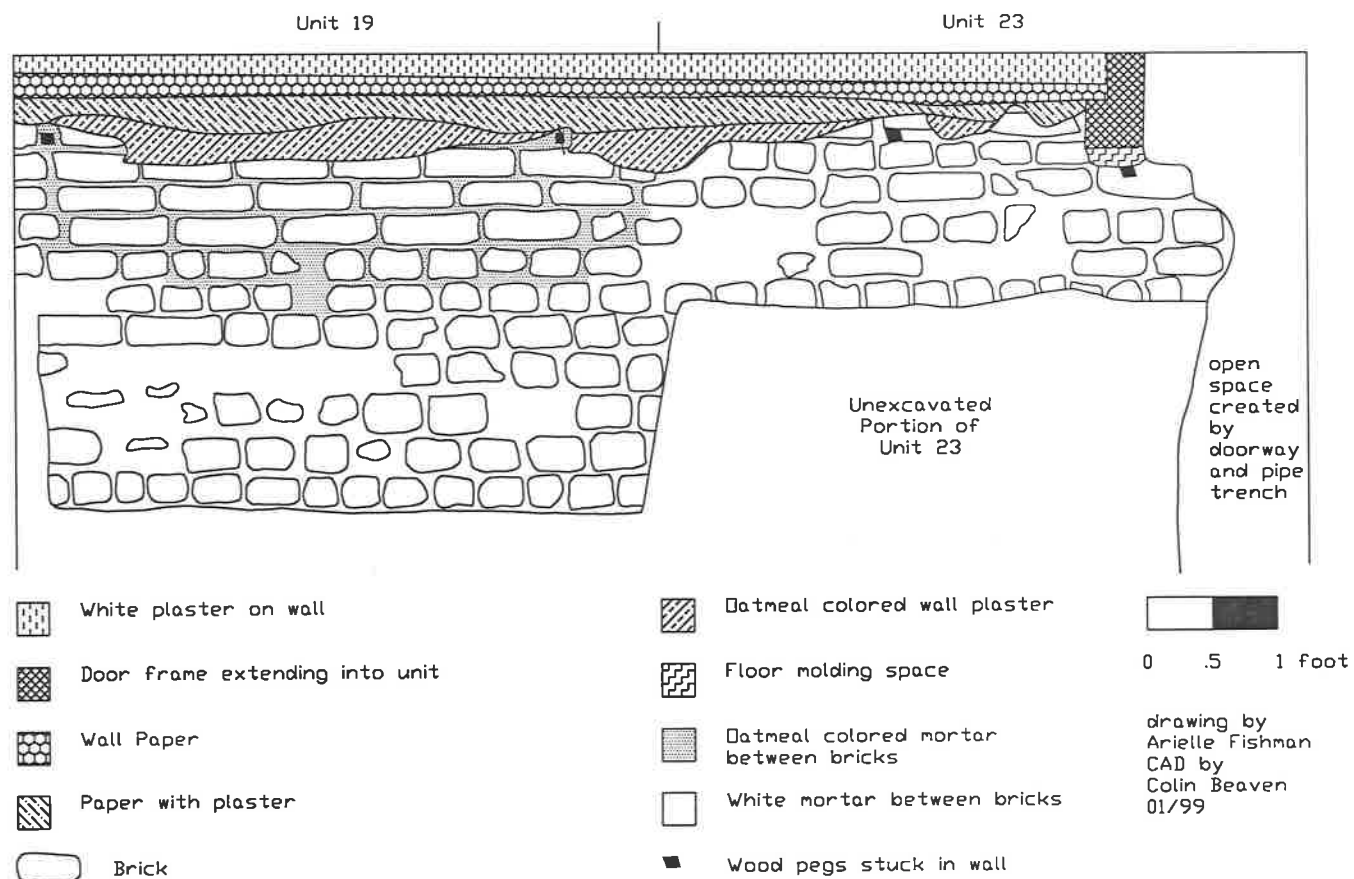
Unit 3, Features 2 & 3



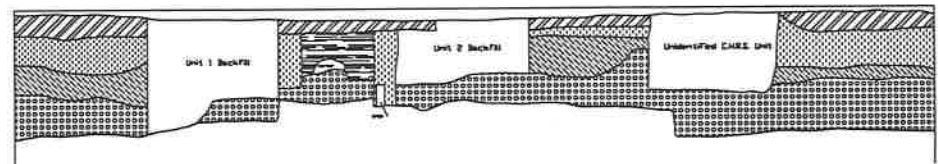
- 1) Stoneware
 - 2) Corroded nail with pin
 - 3) Glass (corroded)
- Also, 3 pins directly underneath #2

- 4) Pin
- 5) Tortoise carapice scute
- 6) Possible carved bone

Units 19 & 23 North Wall, North Wall of Room



Retaining Wall Profile, End of Unit RW II to Beginning of Unit RW III (Facing North)



General stratigraphy:

