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PHASE I TERRESTRIAL AND MARINE ARCHEOLOGICAL SURVEYS FOR THE POPLAR ISLAND RECLAMATION PROJECT AND PHASE II INVESTIGATIONS OF SITE 18TA237 AND SIX MARINE ANOMALIES, TALBOT COUNTY, MARYLAND

FINAL REPORT

R. Christopher Goodwin & Associates, Inc.
337 East Third Street
Frederick, Maryland 21701

PREPARED FOR:

GBA-M&N A Joint Venture
9008-0 Yellow Brick Road
Baltimore, Maryland 21237

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FINAL REPORT

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ABSTRACT

This report presents the results of Phase IB marine and terrestrial archeological surveys of the Poplar Island Reclamation Project area, and of the Phase II evaluations of Site 18TA237 on South Central Island and six marine anomalies. These investigations were carried out during November and December 1994, and July and September 1995, by R. Christopher Goodwin & Associates, Inc. under contract to The Joint Venture of Gahagan & Bryant Associates, Inc. and Moffatt & Nichol, Engineers. This project was conducted in compliance with the National Environmental Policy Act (NEPA) of 1969, with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and with Article 83B, Sections 5-617 - 618 of the Annotated Code of Maryland.

These investigations were designed to identify potential submerged archeological resources through the use of magnetometer and sub-bottom profiler surveys of the submerged portions of the 1847 Poplar Island footprint (Alternative Alignment #1) and of the access channel, and through magnetometer and side-scan sonar survey of the shallow areas near Coaches Island (Alternative Alignments #2 and #3), and to identify sites and site boundaries on the remaining terrestrial areas. The terrestrial portion of the study examined the four remaining islets of Poplar Island and the immediate shoreline of Coaches Island within proposed Alternative Alignments #2 and #3. As the result of initial Phase I investigations at Poplar Island, Site 18TA237 on South Central Island and six marine anomalies were recommended for Phase II evaluation. The U.S. Army Corps of Engineers, Baltimore District, the Maryland Port Administration, and the Joint Venture decided to proceed with this Phase II terrestrial evaluation during the Phase I investigations of Coaches Island because the site was immediately threatened by erosion. Phase II underwater investigations and sub-surface testing of the six anomalous marine targets occurred in August and September of 1995.

The Phase IB study included background research, marine survey, near-shore dredging, terrestrial survey, and laboratory analysis. The terrestrial survey examined eight previously recorded archeological sites on five islands. Seven sites were not relocated or were too disturbed to warrant additional investigation. One site (18TA237) on South Central Island was recommended for additional Phase II investigation based on its research potential. Phase II evaluation of 18TA237 involved close interval shovel testing, test unit excavation, near-shore dredging, and laboratory analysis. The site was found to be a redeposited and reworked beach deposit. No intact features were identified. No additional investigation was warranted or recommended for Site 18TA237.

The marine survey recorded 27 magnetic and acoustic anomalies. Sub-surface testing was recommended for six target areas. This testing entailed reacquisition of each initial target location, refinement of these locations using a proton magnetometer, bottom searches and probing to determine the extent of the site, and limited underwater excavation using diver-held excavation equipment to the extent necessary to determine the potential National Register eligibility of each site. No intact features were identified. No additional investigations are warranted for any of the six underwater targets.

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CHAPTER I

INTRODUCTION

Project Location and Description

This report presents the results of the Phase IB marine and terrestrial archeological surveys of the Poplar Island Reclamation Project area, and the Phase II evaluation of Site 18TA237 on South Central Island. These investigations were carried out during November and December, 1994, and July and September, 1995, by R. Christopher Goodwin & Associates, Inc. under contract to The Joint Venture of Gahagan & Bryant Associates, Inc. and Moffatt & Nichol, Engineers. This project was conducted in compliance with the National Environmental Policy Act (NEPA) of 1969; with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended; and with Article 83B, Sections 5-617 - 618 of the Annotated Code of Maryland.

The Poplar Island project area is composed of a group of naturally formed islands situated in the mid-shore region of the Chesapeake Bay, within the Atlantic Coastal Plain Physiographic Province; it lies within Maryland Archeological Research Unit Number 5 (Figure 1). Historically, the Poplar Island group comprised two islands: Poplar and Jefferson. During the nineteenth century, Coaches Island split off from Poplar Island. Over the last 60 years, Poplar Island has suffered shoreline erosion, resulting in the large- scale reduction of the original 1,000-ac island into a string of four small, marshy islands (Figure 2).

These investigations were conducted in support of plans to reclaim Poplar Island and restore its shoreline by constructing a series of dikes to facilitate backfilling of the island area. Initial plans involved restoring only Poplar Island to its approximate 1847 shoreline, a configuration that left Coaches Island unaffected (Alternative Alignment #1) (Figure 3). During the course of project plan development, alternative alignments were proposed that included the south and west shorelines of Coaches Island within the dike system (Alternative Alignments #2 and #3). The latter alternative alignments ultimately were incorporated into the Phase I archeological investigations through a shoreline survey of Coaches Island.

Once the diked areas have been backfilled, the island will be revegetated to create both intertidal wetlands and upland habitat. The project area included within these investigations was defined as the area encompassed within the proposed Poplar Island dike system and an access channel no more than 400 ft wide and 3,000 ft long that will be dredged between the operations/staging area and the ship channel. Definition of the Area of Potential Effects (APE) reflects the participation of the U.S. Army Corps of Engineers, and represented a formal Section 106 compliance "trigger."

Objectives

These investigations were designed to identify potential submerged archeological resources through the use of magnetometer and sub-bottom profiler survey of the submerged portions of the 1847 Poplar Island footprint (Alternative Alignment #1) and of the access channel, and through magnetometer and side-scan sonar survey of the shallow areas near Coaches Island (Alternative Alignments #2 and #3); and to identify sites and site boundaries on the remaining terrestrial areas. The terrestrial portion of the study examined the four remaining islets of Poplar

Island and the immediate shoreline of Coaches Island within proposed Alternative Alignments #2 and #3.

As the result of initial Phase I investigations at Poplar Island, Site 18TA237 on South Central Island and six marine anomalies were recommended for Phase II evaluation. The U.S. Army Corps of Engineers, Baltimore District; the Maryland Port Administration; and the Joint Venture decided to proceed with the terrestrial portion of these Phase II evaluations during the Phase I investigations of Coaches Island because the site was immediately threatened by erosion. The Phase IB study included background research, marine survey, near-shore dredging, terrestrial survey, and laboratory analysis. Phase II evaluation of 18TA237 involved archival research, close-interval shovel testing, auger testing, test unit excavation, near-shore dredging, and laboratory analysis. Phase II investigations of the six marine anomalies located during the Phase I remote sensing marine survey entailed the reaquistion of the locations of individual targets using a combination of DGPS positioning, refined magnetometer survey, and diving inspections. Target areas were surveyed systematically and mapped by divers using an underwater azimuth device, hand-held probes, and metal detection equipment. Dredge testing also was conducted to expose, and collect samples from anomaly 30-1151.

Organization of the Report

Chapter I provides a description of the project's location, its legislative and statutory mandates and its objectives. The natural and cultural setting, including the results of the Phase IB and Phase II archival investigations, are presented in Chapter II. Chapter III presents the research objectives and methods of the project. The results of the Phase I terrestrial and near-shore investigations and of the Phase I marine survey are presented in Chapter IV; Chapter V contains the results of the Phase II investigations of Site 18TA237; and results from the Phase II evaluations of the six anomalies are included in Chapter VI. The summary and recommendations are presented in Chapter VII. Appendix I presents the text of a 1700 deed that describes much of the chain of title for Poplar Island. A chronology of maps pertaining to the project area is contained in Appendix II. Maryland site forms are presented in Appendix III. Appendix IV contains resumes of key project personnel, Appendix V contains the artifact inventories, and the results from the analyses of mollusk shell samples.

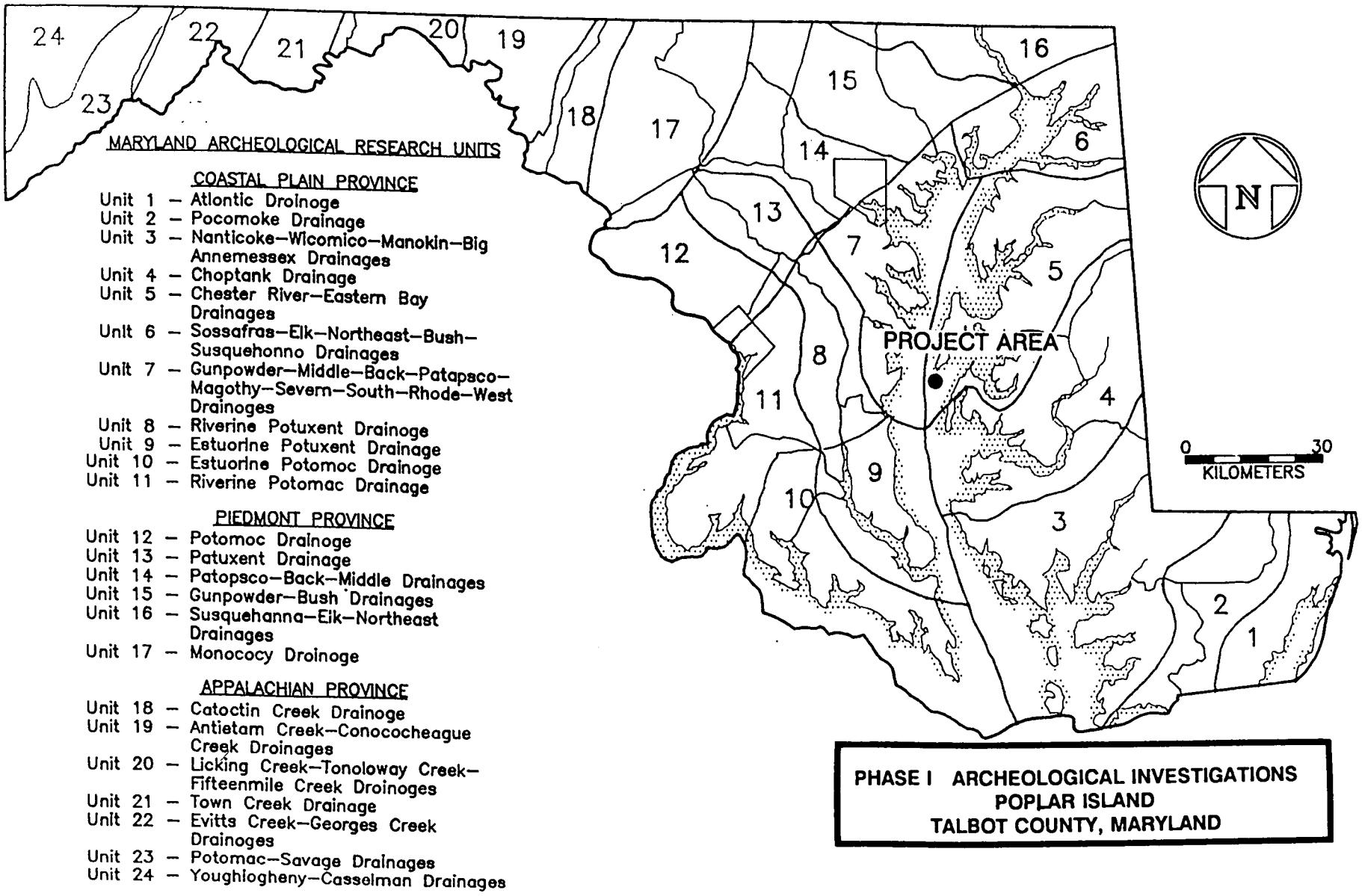
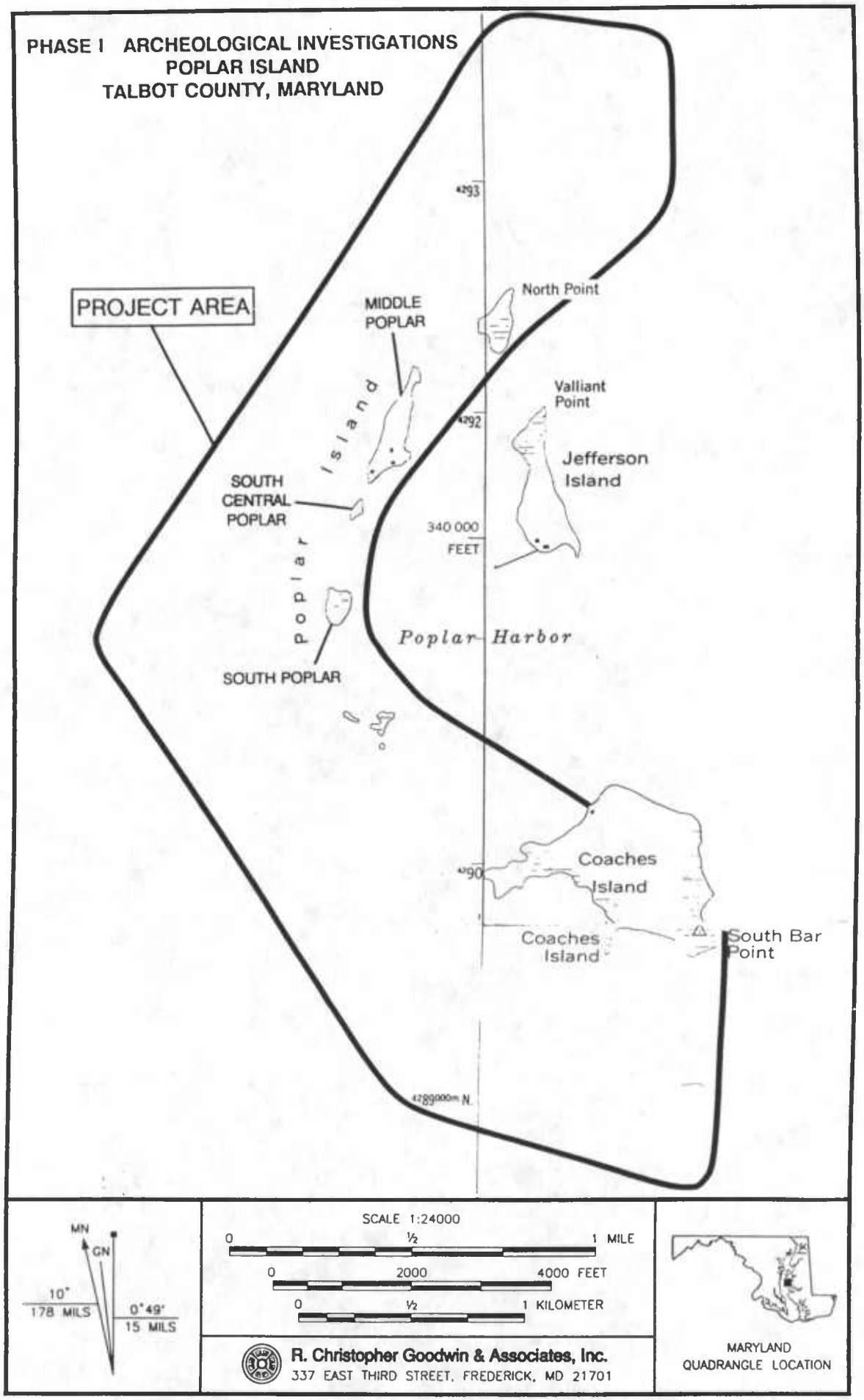


Figure 1. Location of the Poplar Island Reclamation Project Area, Talbot County,



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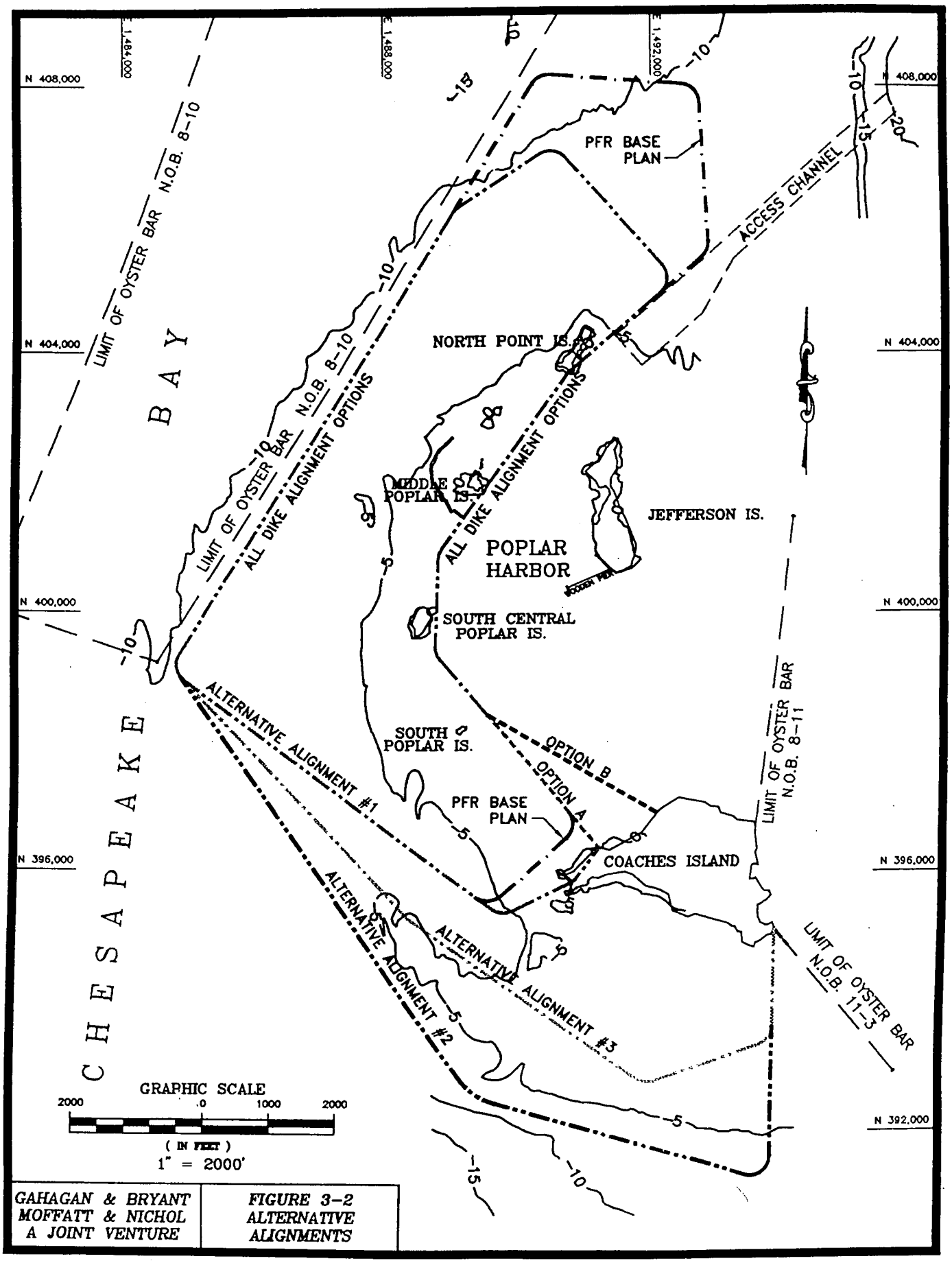


Figure 3. Map of alternative project alignments (Gahagan & Bryant Associates, Inc. and Moffatt & Nichol, Engineers - A Joint Venture 1995:3-6)

CHAPTER II

NATURAL AND CULTURAL SETTING

This chapter presents the natural and cultural setting of the Poplar Island project area. The text is drawn from the report of the Phase IA investigations completed by R. Christopher Goodwin & Associates, Inc. in 1994, but it also integrates this data with the results of the Phase IB and Phase II archival investigations.

Natural Setting

The Poplar Island project area comprises a group of naturally formed islands resting at the entrance of the East Bay Portion of the Chesapeake Bay. The area under investigation is located approximately 2.3 nautical miles (4,400 yards) west of Lowes Point; it is part of Talbot County, Maryland (Figures 1 and 2). The Council for Maryland Archeology places the Poplar Island Group within Maryland Archeological Research Unit Number 4, the Choptank River Drainage (Figure 1).

Poplar Island has been exposed to the strong open waters of the Chesapeake and gradually has eroded away, so that today this once substantial 1,000 ac landform has been reduced to a roughly crescent-shaped group of four small marshy islets. The four islet remnants of Poplar Island are known as North Point, Middle Poplar Island, South Central Poplar Island, and South Poplar Island. Coaches Island has been more protected and retains a substantial portion of its acreage.

Although Poplar Island was inhabited during both prehistoric and historic times, no standing structures have survived to the present day. The islands currently serve as isolated conservation land for use by wildlife. Snowy egrets, double-crested cormorants, green heron, great blue heron, black ducks, osprey and diamond-back terrapin all utilize these islands as nesting grounds.

The topography throughout the Poplar Islands is generally level; gently rolling residual uplands are present only on Middle Poplar Island and Coaches Island. Elevations throughout the project area range from 0 - 2.4 m (0 - 8 ft) above mean sea level (amsl). An estimated 90 per cent of the land surface of the four remnant islets of Poplar Island is subject to frequent inundation at high tide and during inclement weather. North Point, South Central Poplar, and South Poplar Islands are composed exclusively of marshlands, and a deep, saturated vegetative root mat blankets their surface. Slopes range from 0 - 2 per cent.

Talbot County has a humid, continental climate with well-defined seasons. Climatic conditions within the county, and for the Poplar Island project area in particular, are modified by proximity to the extensive estuarine environment of the Chesapeake Bay and its tributaries, and to the Atlantic Ocean.

In the vicinity of the project area, the general atmospheric flow is from west to east; alternating high and low pressure systems dominate the climate during the colder months of the year. The average annual temperature in Talbot County is 56° F, with the warmest period of the year occurring in late July, when maximum afternoon temperatures average 89° F, and the coldest

time of year coming in late January, when minimum morning temperatures average 25° F. The average annual precipitation in Talbot County is 11,341 mm (44.65 in); rainfall distribution is fairly uniform throughout the year. Relative humidities remain high throughout the year due to the insular setting. The average growing season established for central Talbot County is 198 days; the first winter frosts occur in late October.

Geomorphology of the Chesapeake Bay

The Chesapeake Bay was formed by the inundation of the lower Susquehanna River Valley during the recession of the continental ice sheets at the close of the Pleistocene epoch. Prior to that time, the mouth of the Susquehanna River was located on what now is the continental shelf, between the Virginia Capes (Middleton 1953). The Chesapeake Bay has a surface area of approximately 8,386 square km (3,225 square miles), and a shoreline of 7,441 km (4,650 miles), including its estuaries up to the fall line (Middleton 1953:39). The Bay is fed by 150 rivers and streams, of which the James, York, and Rappahannock Rivers in Virginia, and the Potomac and Susquehanna Rivers in Maryland, are the largest. Other smaller but important tributaries in Maryland include the Patuxent and Severn Rivers on the Western Shore, and the Choptank, Chester, Sassafras, and Elk Rivers on the Eastern Shore.

Numerous natural hazards confront vessels navigating the Chesapeake Bay and its estuaries. Wind and wave conditions often are nearly identical to those encountered in the open ocean. Furthermore, much of the Bay is very shallow, with the deepest water confined to inundated river valleys. Depths in the main shipping channel generally range from a minimum dredged depth of 10.5 m (35 ft), to a natural maximum depth of about 42 m (140 ft), in the area west of Brickhouse Bar near Kent Island. Outside of the channel, depths vary from 15 m (50 ft) to just a few feet in shoal areas. Minimum depths reported in the vicinity of the project area are approximately 2.4 m (8 ft).

The numerous shoals, winter storms, frequent summer thunderstorms, occasional hurricanes, and gales historically have posed severe threats both to vessels and to the small barrier islands on the Chesapeake Bay. These conditions have combined to cause an unusually high incidence of marine disasters in the vicinity of Poplar Island, west of Tilghmans Island; at Sandy Point, on the Western Shore just north of Annapolis; at Kent Island; at Seven Foot Knoll, located near the approaches to Baltimore Harbor; at Thomas Point, and at Pooles Island in the middle of the upper Bay.

Geology

The nearshore areas of the Eastern Shore reflect the general morphology of the Coastal Plain physiographic province. Basal geology south of the Elk River consists of two Quaternary terraces: the Talbot Formation, which is younger and found around landform margins and shorelines; and the Wicomico Formation, which is found at elevations of 12 m and is separated from the Talbot Formation by a low scarp (Wesler et al. 1981a:509). Stream cutting occasionally exposes older deposits containing shell beds, locally-formed sandstones, and gravel and cobble beds. An important factor for the interpretation of archeological site data from the Eastern Shore is the reported deposits of loess; these Holocene aeolian deposits are relatively thin in the center of the peninsula, but may be several feet thick along the Bay (Foss et al. 1978). Complete explications of the geomorphological transformation of the Eastern Shore have been developed in Wilke and Thompson (1977a; 1977b), and in Custer (1983).

Evolution of Poplar Island

Poplar Island was created by the inundation of the Chesapeake Bay during the post-Pleistocene era, and by the subsequent impact of waves and wind on the lands that surround the bay. Since its creation, the configuration of the bay has been shaped by shoreline erosion, by longshore transport and deposition of eroded soils; by the submergence of surrounding land areas and marshes; and by the accretion of sediments in some areas. Erosional forces continue to affect the coastal and bayshore counties on Maryland's Delmarva Peninsula more seriously than any other counties within the state; a 1991 Corps of Engineers' study of Shoreline Erosion in the Chesapeake Bay showed that, on average, Talbot County suffered the highest rate of shoreline loss (1.5 ft/yr) in the state (Maryland Historical Trust 1986:42).

According to some studies, Poplar Island, which has lost approximately 90 per cent of its 1847 acreage during the past one and one-half centuries, will be inundated completely within the next two decades. Because the islands of the Poplar Group are composed primarily of silt and clay sediments, with a sand content of only approximately 15 per cent (Wray 1992), the basic sediments of the island are easily suspended and carried away by longshore currents. Moreover, particularly on the western shore of Poplar Island, there is almost no sandy beach to create a buffer against constant small-wave erosion (Wray 1992). Most of the erosion and coastal recession at Poplar Island has resulted from such consistent wave attack, and it has occurred primarily on its western shoreline. Coaches Island has been protected from such wave action primarily by the presence of the Poplar group.

Figure 4 shows a series of historic maps (USGS 1904; Coast and Geodetic Survey 1913; Coast and Geodetic Survey 1926; and USGS 1942) with the approximate 1994 island configuration superimposed over them. Perhaps the most striking aspect of these maps is how little the eastern shoreline appears to have changed, in contrast to the dramatic alterations of the western shoreline. Figure 5 demonstrates this as well. The Phase IA geomorphological investigation attributed this greater erosion to "the more vigorous attack by waves from the north and west that has resulted from a combination of predominant wind directions and of the wide expanse of water in those directions" (Goodwin et al. 1994: Appendix I). The continuing and increased rate of land loss is illustrated in Figure 6, which overlays the 1974 USGS Claiborne quadrangle with the locations of previously identified archeological sites, and the approximate current island configuration. The previously recorded terrestrial sites are, for the most part, now submerged and/or destroyed sites.

Soils

At the time of the most recent soil survey of Talbot County (Reybold 1970), Poplar Island was considerably larger than it is today. Constant weathering and subjection to changing sea levels (Solecki 1970) has substantially altered the topography and soil morphology of the Poplar Islands.

Most of the islands in the Chesapeake Bay appear to be composed of clayey deposits that often are exposed at higher elevations, but which are covered under organic debris in lower marshy areas (Wray 1992). These clayey deposits are known as the Kent Island Formation, whose sediments are thought to have been deposited during a Pleistocene interglacial period under conditions indicative of an estuarine environment, an estuary ancestral to the Chesapeake Bay (Owens and Denney 1979).

Poplar Island itself is comprised primarily of silty clay sediments that contain approximately 15 per cent very-fine-grained to fine-grained sand (Wray 1992). These fine sediments erode easily; moreover, their soil particles are transported more readily by longshore currents than are heavier

soil components such as sands. Suspended fine sediments are deposited farther away from the shore than are the heavy sands. At Poplar Island, there are no sandy beaches to buffer the effects of small-wave erosion on the exposed sediments of the Kent Formation; therefore, much of Poplar Island's former landmass, particularly on its western shoreline, has been lost.

The predominant soil association present on the Poplar Island complex and on Coaches Island, as mapped in 1970 (Reybold 1970), was the Sassafras-Woodstown Association. Soil types mapped for interior areas of Poplar island were Matapeake and Mattapex soils; shoreline areas and low-lying portions of the Poplar Group were characterized by Tidal Marsh soils. Today, highly organic Tidal Marsh soils, which are characteristic of land areas that are inundated by brackish or salt water on each flood tide (Reybold 1970:30), dominate the project area. Only portions of Middle Poplar Island reflect the original soil morphology of the area; limited areas of Mattapeake silt loam (0-2 per cent slope) and Mattapex silt loam (0-2 per cent slope) remain. These soils are eroding rapidly, due to their exposed position on the western flank of the island. Coaches Island was mapped as containing Woodstown fine sandy loam, Sassafras fine sandy loam, and Othello fine sandy loam. This island has retained much of its land surface. The low lying shores of Coaches Island consist of tidal marsh.

The surficial layers of Tidal Marsh soils are composed of very fine sands or silts that contain large amounts of decomposing organic matter. Underlying the organically-rich surface horizon is a second deep organic silt horizon striated with lenses of sand which extends to a depth of up to 10 m. This second deep silt horizon generally is underlain by firm sand or clay beds (Reybold 1970:30). During the 1994 archeological survey of the Poplar Island group, submerged hard clay platforms were observed at depths of approximately 1 m; these visible clay basement outcrops may represent the underlying clay beds of the Kent Island Formation described by Reybold. Subsurface test borings taken from the southwestern perimeter of the original shorelines of Poplar and Coaches Islands also revealed the presence of the exposed Kent Island Formation clays, which were found to be between 7.5 and 9 ft thick (Earth Engineering & Sciences, Inc. 1993)(Appendix II).

Landscape Ecology

The applicability of landscape ecology to a comprehensive research design in archeology is based upon the assumption that many alterations of the landscape are related to human activities, and that these activities will leave their "signatures" in the subsequent plant community (Watts 1975). Appraisal of a site's natural setting helps to target high probability areas for archeological testing, and it strengthens the archeological research design by providing an environmental context from which to work.

In the case of the Poplar Island Group, however, documentation of vegetational succession is only peripherally helpful in ascertaining the history of cultural activities in the project area. The extensive and irreversible impact of shoreline erosion and island submersion throughout the Poplar Group undoubtedly has affected the extant vegetation as well as the few remnant historic plant communities at the site. Low elevations throughout the project area (0-2.4 m [0-8 ft] amsl) have transformed much of the island group landmass into marshland, and have prohibited the continued growth of the numerous plant taxa that once flourished here.

The following discussion presents the inventory of plants that was identified during pedestrian survey of the Poplar Island Group and of Coaches Island, and discusses their community development, documented history and cultural significance. Vegetation on North Point Island consists exclusively of homogenous marshland species. The island is ravaged by northwest

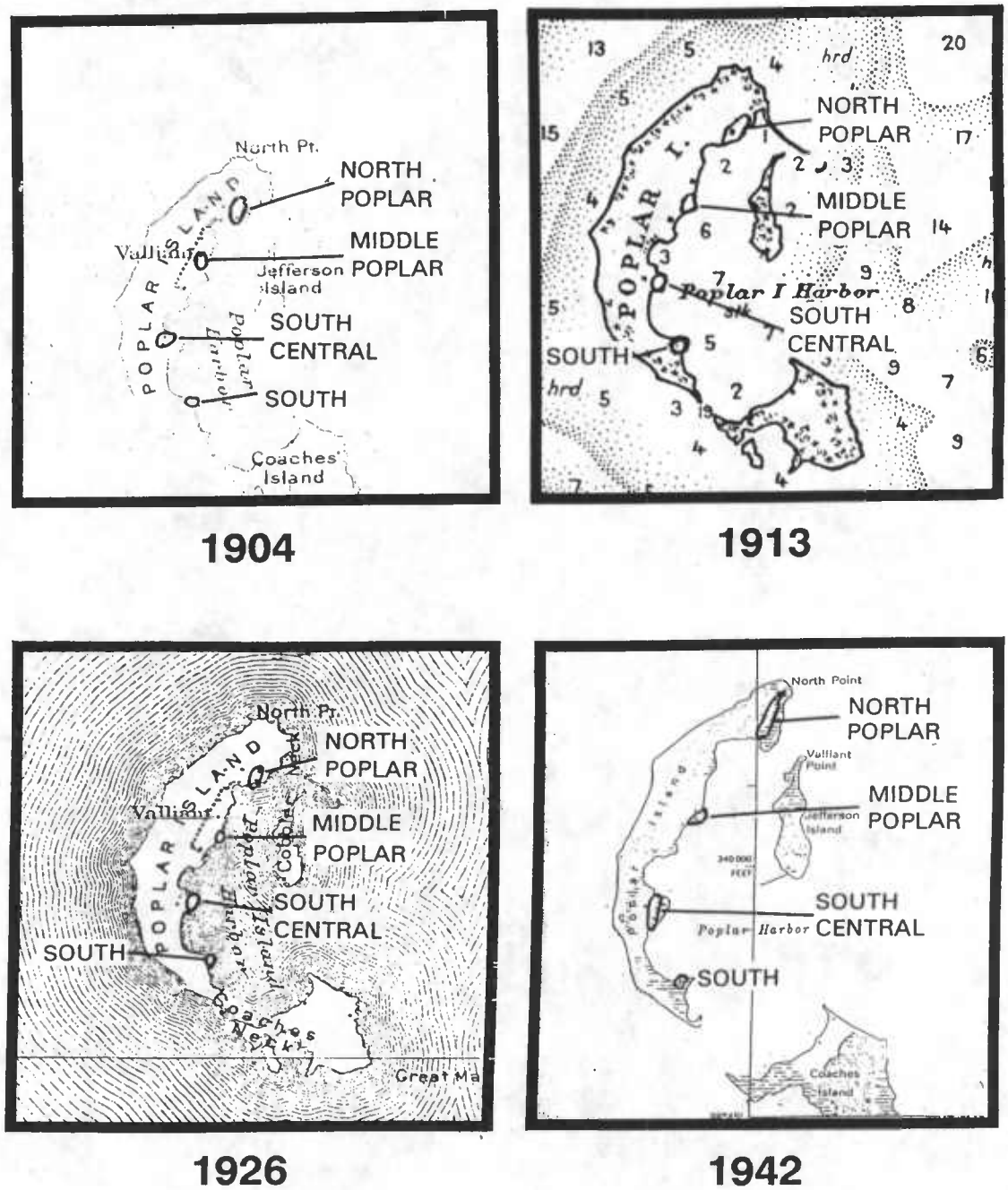


Figure 4. Excerpts from 1904 USGS; 1913 Coast and Geodetic Survey; 1926 Coast and Geodetic Survey; and 1942 USGS maps of Poplar Island, with overlays of the approximate configuration of the Poplar Island Group in 1994

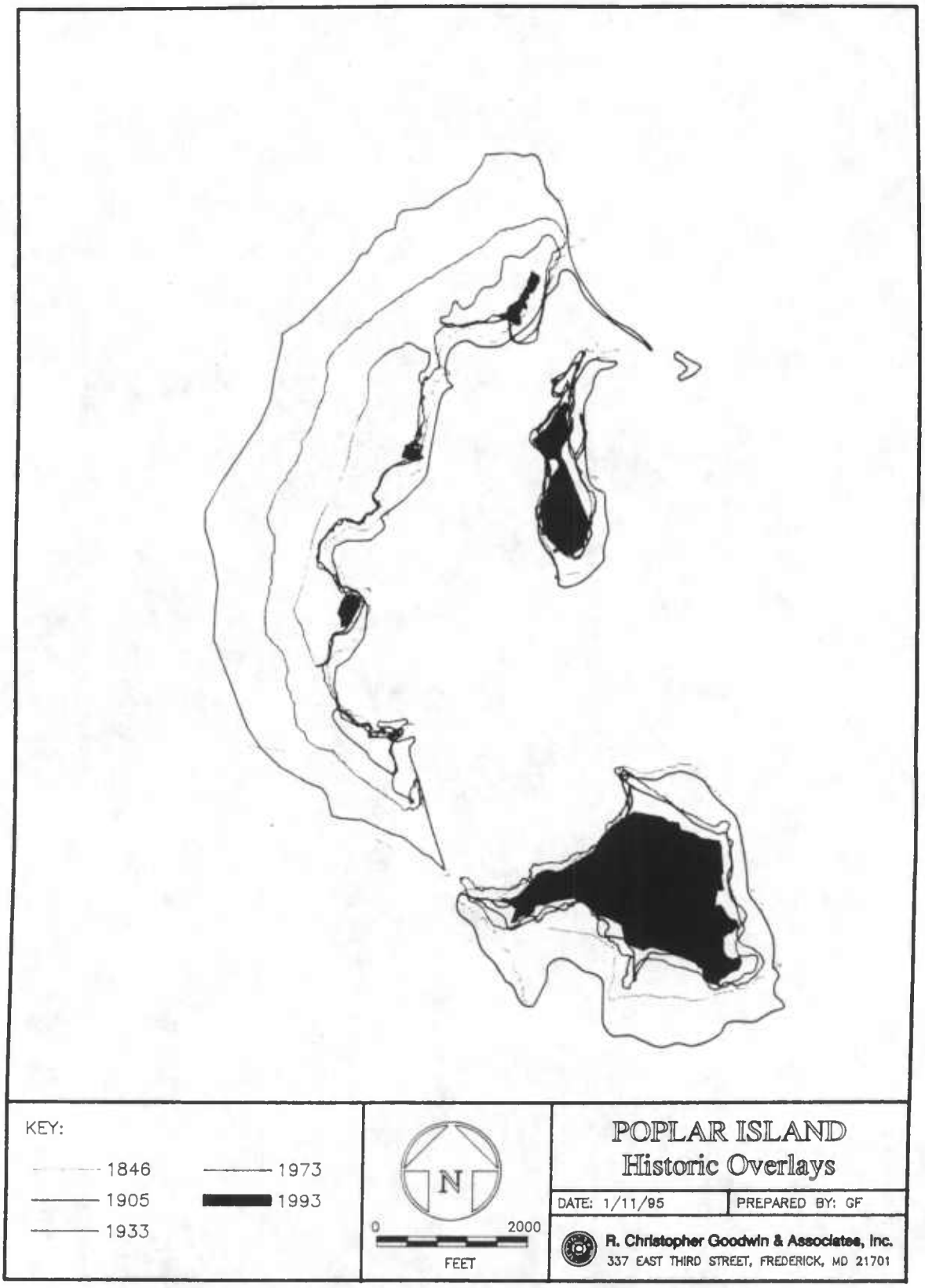


Figure 5. Changes in the shoreline of the Poplar Island Group 1846/47; 1905; 1933; 1973; 1993. (U.S. Coast Survey 1846-1847; Coast and Geodetic Survey 1913; U.S. Coast and Geodetic Survey 1933; Coast and Geodetic Survey 1973)

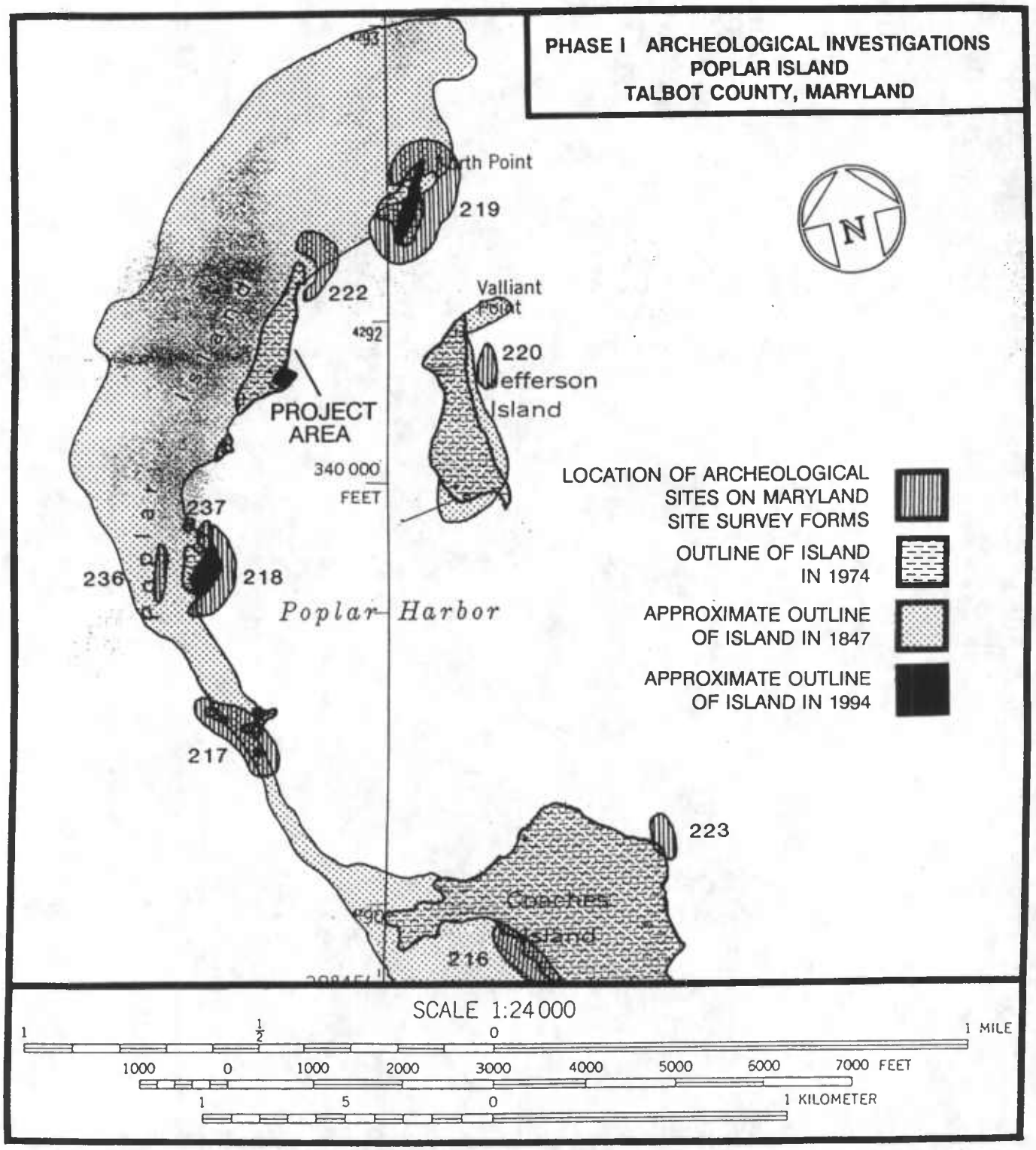


Figure 6. Excerpt from 1974 USGS 7.5' Claiborne Quadrangle, showing location of archeological sites on Maryland site survey forms; outline of the islands in 1974; approximate 1847 outline of the island; and approximate 1944 outline of the islands

winds and frequently is inundated completely. Interior areas of the island are extremely low and are impassable on foot. Aerial photographs from the 1970s show several areas occupied by a standing forest community (Reybold 1970), but the vegetation cover on North Point shows a marked absence of woody taxa, either living or dead. Plant species represented throughout the island include saltmarsh cordgrass (*Spartina alterniflora*), salt grass (*Distichlis spicata*), saltwort (*Salicornia virginiana*), glasswort (*Salicornia bigelovii*) and water dock (*Rumex verticillatus*). Shoreline erosion, brackish water infiltration and receding ground level over the past decades account for the dramatic change in vegetative cover on this Poplar Island remnant. The extant vegetation of North Point Island reflects little of the historic environment of the island.

Middle Poplar Island is the largest and most physically intact of the Poplar Island remnants. Although some of Middle Poplar Island's historic topographic relief, soils, and standing arboreal vegetation survives, Middle Poplar also continues to suffer severe erosion, as evidenced by dramatic shoreline cutting along its northern and western shores. This island currently is used as a sea and shore bird rookery, and several dozen nests occupy dead trees and the ground surface. The highest (1.2-2.4 m [4-8 ft] amsl) elevations at Middle Poplar Island are located on the northern, central and western portions of the island.

Vegetation on Middle Poplar Island consists primarily of a deceased mixed deciduous forest. Species represented within these areas include red maple (*Acer rubrum*), black locust (*Robinia pseudoacacia*) and persimmon (*Diospyros virginiana*). Due to the concentrated use of this recently wooded area by roosting ocean birds, all understory species have been eliminated as a result of continuous occupation and the nitrogen overload from cormorant droppings. The southern and eastern limits of the island are dominated by low-lying and support marshlands that are inundated regularly. In these areas, marsh grasses dominate the landscape; phragmites (*Phragmites sp.*), saltmeadow hay (*Spartina patens*), camphor weed (*Pluchea purpurascens*), and saltmarsh cordgrass (*Spartina alterniflora*) are the principal species present.

The fragmentary remnants of Middle Poplar Island permit only a glimpse of the historic vegetation of the area. The diameters at breast height (dbh) of the standing dead trees range from 8 to 20 cm, a measurement which corresponds to their ages (Neumann and Sanford 1987a). These species relate not to the occupation and/or use of the Poplar Islands, but to the evolution of remnant forest species that reforested the fragmentary land mass after its abandonment. The trees identified on Middle Poplar Island obviously were incapable of tolerating the increased exposure to wind and brackish water over the past decade.

South Central Poplar Island is a nearly level marshy hummock that is subject to frequent flooding by tidewater and wave action. Vegetation on this island remnant is composed of mixed herbaceous and woody marsh plants, including marsh elder (*Iva frutescens*), groundsel tree (*Baccharis halimifolia*), goldenrod (*Solidago sempervivens*), phragmites (*Phragmites sp.*), spartina (*Spartina sp.*) saltmarsh fleabane (*Pluchea purpurascens*), and salt grass (*Distichlis spicata*). As was the case with North Point Island, little information relevant to historic land use at this location can be deduced from the extant vegetation on South Central Poplar Island.

South Poplar Island, the southernmost island remnant of the Poplar Group, also is a level, low-lying marshy hummock of land that constantly is saturated by bay water. Vegetation over this parcel is typical of exposed brackish marsh ecosystems. Species represented include marsh elder (*Iva frutescens*), groundseltree (*Baccharis halimifolia*) and saltmarsh cordgrass (*Spartina alterniflora*). The extant vegetation of South Poplar Island reflects the physical changes of the island environment that have resulted from massive erosion and settling, rather than historic cultural management practices.

Coaches Island is relatively protected from the strong tidal and weather systems have affected the Poplar Island Group so dramatically. In fact, Poplar Island has provided this protection by virtue of its position between Coaches and Jefferson Islands and the open waters of the Chesapeake Bay. As a result, Coaches Island supports numerous vegetative zones: brackish marshlands on lowlying shoreline areas; interior freshwater pond systems; and mature stands of mixed hardwoods on the more elevated northern and central portions of the island.

The species composition of the tidal marshes and brackish wetlands of Coaches Island are consistent with those documented for the Poplar Island remnants. Phragmites (*Phragmites sp.*), saltmarsh cordgrass (*Spartina alterniflora*), marsh elder (*Iva frutescens*), groundseltree (*Baccharis halimifolia*), saltmarsh fleabane (*Pluchea purpurascens*) and salt meadow hay (*Spartina patens*) all were identified. Interior wetland areas, associated with man-made ponds, support narrow leaf cattail (*Typha angustifolia*), smartweed (*Polygonum sp.*) and button bush (*Cephalanthus occidentalis*). Forest cover in the wooded areas of Coaches Island is dominated by black gum (*Nyssa sylvatica*), persimmon (*Diospyros virginiana*), sassafras (*Sassafras albidum*), black cherry (*Prunus serotina*), red maple (*Acer rubrum*), white oak (*Quercus alba*), Southern red oak (*Quercus falcata*), holly (*Ilex opaca*), sweet gum (*Liquidambar styraciflua*), black locust (*Robinia pseudoacacia*), tulip poplar (*Liriodendron tulipifera*) and loblolly pine (*Pinus taeda*). A large herd of white-tailed deer (*Odocoileus virginianus*) was sighted within this forest zone. Their presence reflects the suitability of the island for browsing, the presence of available fresh water, and the proximity of the island to mainland ecosystems.

The present vegetative landscape of the Poplar Island Group is neither characteristic nor representative of the landscape that would have been present during periods of previous human occupation on the islands. The extreme effects of natural weathering have altered the vegetative community of the island during the past sixty years. Without the effects of these natural forces, the plant communities on the Poplar Island group would have resembled those still present on neighboring Coaches Island. The forest composition of the islets could have served as a cultural artifact that reflected the area's previous land use. The present inundated marshlands and sparse remains of woody plants on these barrier islets severely limits an accurate assessment of historic land use based upon analysis of vegetation communities.

Cultural Setting

Prehistoric Setting

Previous Investigations. Research into prehistoric human occupation of the Chesapeake Bay region was initiated by talented avocational archeologists (e. g., Stearns 1943). Their survey and excavation efforts often were directed towards clearly visible prehistoric resources, such as shell middens. The 1970s and 1980s witnessed several major academic and professional research efforts in the region. For the current study, the most relevant of these investigations involved the survey of extensive shoreline areas both along the Bay and in large interior settings on the Eastern Shore (Wilke and Thompson 1977a-c). Wilke and Thompson's surveys, designed to measure the horizontal distribution of prehistoric sites in order to discern and identify prehistoric patterns of land use, resulted in the recordation of over 1,000 archeological sites between the Susquehanna River and the Potomac River. The results of these surveys were summarized in three reports (1977a-c) and in two bound appendices (1978; 1979) which presented the technical data.

Unfortunately, Wilke and Thompson's data are applicable to current research problems only in the broadest sense, because their efforts focused only upon site identification and location rather than detailed studies of individual sites. As a result, their data are most useful in providing

guidance regarding the distribution and location of sites; their data are less useful as a basis for making management decisions regarding individual properties.

In the early 1980s, Jay Custer undertook a reanalysis of Wilke and Thompson's data (Custer and Doms 1983). The synthesis of Custer's data with earlier studies permitted the preparation of a cultural resource management plan for the Upper Delmarva portion of Maryland (Custer 1983). The resulting document presents a synthesis of the currently available archeological data, and it also establishes parameters for assessing resources from the State's historic contexts and themes. More recently, Custer (1989) has summarized and expanded these earlier works to generate an overview of the prehistoric resources of the Delmarva Peninsula.

A third major regional archeological research effort was undertaken by the Maryland Geological Survey on behalf of the Maryland Department of Transportation (Wesler et al. 1981:a-c). The so-called M-DOT survey examined several hundred "transects" along state road rights-of-way to amass baseline data on the distribution of various classes of archeological sites and architectural resources throughout the state. The research results and assessments of the documented resources were presented in separate volumes on the Eastern Shore (1981a), the Western Shore (1981b), and the Piedmont (1981c). In addition, these results were synthesized in a companion volume that attempted to formulate a predictive model for the distribution of unrecorded archeological resources based upon environmental and historical factors (Luckenbach and Clark 1981).

Recent research in the vicinity of the Poplar Island project area has focused on an assessment of Paleo-Indian through Late Woodland prehistoric sites within the Lower Bay Hundred District of Talbot County (Lowery 1989, 1990, 1992). These studies sought to establish the relationship of site function to geological setting and settlement patterns.

A significant investigation of potential submerged cultural resources was undertaken at Kent Island in neighboring Queen Anne County by Shomette (1991). Kent Island is subject to many of the same erosional forces in much the same pattern as Poplar Island (Shomette 1991). Shomette's study included interviews with local clam and oyster dredgers; based upon these interviews, he reported that

> "clam dredging off Thomas Point near the mouth of the Severn, in the Chester River off Spanish Point, and off Kent Island in the Chesapeake and in Eastern Bay, has resulted in the recovery by Bay watermen of substantial collections of lithics, pottery, and human remains ranging from the Early to Late Woodland periods" (Shomette 1991:5).

Several smaller projects have been undertaken on the Poplar Island group itself (Lowery 1992); these surveys have recorded a total of nine archeological sites, seven of which are prehistoric, in the project vicinity. Lowery (1992) recorded four prehistoric sites on Poplar Island (18TA217, 18TA218, 18TA219, and 18TA222), two prehistoric sites on Coaches Island (18TA216 and 18TA223), and one prehistoric site (18TA220) on Jefferson Island. Diagnostic artifacts recovered from these prehistoric sites indicate occupations beginning with the Early Archaic and extending through the Late Woodland.

Cultural Sequence. As noted above, the general prehistoric background for the Chesapeake Bay region has been synthesized by various authors, including Custer (1983; 1989), Wesler et al. (1981a-c), and Steponaitis (1983). The following review of the prehistoric background of the Chesapeake Bay region attempts to place the cultural and social dynamics of the region into a broader perspective. Examples of coastal and nearshore adaptations from outside the region reveal that the prehistoric cultures around the Chesapeake were not unique, isolated

communities. Instead, they utilized adaptive strategies that are similar to those adopted by prehistoric peoples from New England to the Gulf Coast.

Paleo-Indian/Early Archaic (ca. 11,000 - 6,500 B.C.). The environmental setting for this period was conditioned by the Late Pleistocene/Holocene transition. Climatic episodes defined by Carbone (1976) for the Shenandoah Valley are broadly applicable to the study area (Steponaitis 1983). Episodes pertinent to the Paleo-Indian period are the Late Glacial (ca. 15,000 B.C. - 8,500 B.C.) and the Pre-Boreal/Boreal (8,500 B.C. - 6,700 B.C.) (Custer 1984; Kavanagh 1982; Steponaitis 1983).

The Late Glacial represents the terminal Pleistocene and the "last effects of the glaciers upon climate in the Middle Atlantic area" (Custer 1984:44). Pollen records suggest that tundra conditions existed as far south as central Pennsylvania at about 9,300 B.C. (Kavanagh 1982:8). Farther south, fossil pollen and faunal data indicate a "mosaic" pattern of vegetation (Custer 1984:44). Steponaitis (1983:39) suggested that the Late Glacial vegetational assemblage along the Patuxent River drainage on Maryland's Western Shore "may have included spruce and pine as the dominant woody taxa, with stands of deciduous trees occurring in the more protected areas." It is probable that the faunal assemblage included Pleistocene megafauna, although the extent of human reliance on these animals is debated (Custer 1984; Gardner 1980; Kavanagh 1982).

The Pre-Boreal/Boreal climatic episode was a period of transition from the late Pleistocene into the full Holocene. Climatic change involved warmer summer temperatures, with continued wet winters. Vegetation shifted in response, and, for the Shenandoah Valley, Carbone (1976:186) suggested "the expansion of coniferous and deciduous elements and a reduction in open habitats." Subarctic woodland probably covered the high elevations, with coniferous forests on the slopes and a mixed coniferous-deciduous forest on the valley floors and footlands (Carbone 1976:186). The faunal assemblage may have included moose, bear, elk, deer, and smaller game animals (Johnson 1986; Kavanagh 1982). Traditionally, Paleo-Indians have been considered big game hunters; however, this view of late Pleistocene subsistence has begun to give way to an image that incorporates the exploitation of local resources by boreal-forest dwelling hunting-gathering bands. For example, data obtained from the Shawnee-Minisink site (Kauffman and Dent 1982) suggested that fishing and collection of berries were used to supplement the Paleo-Indian diet.

The exploitation of local resources also has been well documented farther south. Data from sites along the Gulf Coast suggest that coastal shellfish collecting occurred (Daniel and Wisenbaker 1987:169); Warren (1964, 1970) obtained evidence for submerged Early Archaic oyster shell middens. The only environmental change known to have occurred in the area for the period in question was a rise in sea level; all available evidence indicates that the terrestrial ecological community stayed the same (e.g., Watts 1975; Watts and Stuiver 1980). Thus, it would not be unreasonable to argue that Early Archaic adaptations were similar to those found for Paleo-Indians. This view has potential applicability for the Chesapeake Bay, although it is equally possible that the estuarine waters of the Mid-Atlantic region may have been too cold to support some of these aquatic resources.

Paleo-Indian technology consisted of five elements, including a flaked lithic industry that was characterized by the production of a limited number of carefully crafted bifacial tools, and a series of retouched flake tools (Gramly 1990); the use of bolas (Dunbar et al. 1988; Milanich and Fairbanks 1980); and the presence of hunting sticks or throwing sticks (Clausen et al. 1979).

Generally accepted diagnostic artifacts for the Paleo-Indian period consist of Clovis points and, potentially, Cumberland points; the latter are known from Duchess Quarry Cave in southern

New York (Funk et al. 1969), and probably were available regionally. Other diagnostics include Mid-Paleo and Dalton projectile point styles; some researchers also include the side-notched and corner-notched projectile points traditionally assigned to the Early Archaic. Evidence from the Garman Site (18AN486) on Maryland's Western Shore (Neumann and Polglase 1992) and from Early Archaic sites in Florida (Bullen and Bielman 1973) suggests that a bipolar industry based on microliths also had been developed.

The Early Archaic period differed technologically from the Paleo-Indian period in that the Early Archaic tool kit apparently included a greater variety of projectile point types and fewer flake tools. Early Archaic points generally are considered crude in comparison to Paleo-Indian points. Diagnostics for the latter part of the Paleo-Indian/Early Archaic period include Palmer, Kirk, and Warren points (Coe 1964:120-122; Custer 1984:43; Gardner 1980:3).

The rationale for including the traditional Early Archaic within the Paleo-Indian period is that settlement and subsistence patterns seem not to have changed substantially. This notion is supported by evidence of continuity in lifeways from a number of areas in the Middle Atlantic, including Delaware (Custer 1984), the Shenandoah Valley (Gardner 1980), the Great Valley of Maryland and Pennsylvania (Stewart 1980), the southern Appalachians (Chapman 1985), and Coastal and Piedmont Virginia (Boyd 1989; Turner 1989). By the Kirk Phase, elements of the settlement/subsistence regime had begun to incorporate a more diversified resource base, which perhaps can be viewed as transitional to the Archaic (Coe 1964). For example, Stewart (1980:6) maintained that the use of rhyolite in the Great Valley during this phase was indicative of expansion into new environmental zones as the hunting-based economy refocused on more diversified food sources. In Northern Virginia, Johnson (1986:2-11) noted larger numbers of sites and projectile point finds from the Kirk Phase, a trend which he also interpreted as a response to the diversifying subsistence base.

Gardner (1979, 1983) identified six site types in the Shenandoah Valley Paleo-Indian settlement system; Custer (1984) subsequently maintained that these six site types also could be applicable within the wider Middle Atlantic region. They include: (1) quarry sites; (2) quarry reduction stations; (3) quarry-related base camps; (4) base camp maintenance stations; (5) outlying hunting stations; and, (6) isolated point finds. High-quality lithics were the focal point for the settlement system, and hunting was the subsistence base (Custer 1983, 1984; Gardner 1979; Stewart 1980).

Gardner's model reflected his belief that Paleo-Indian settlement patterns were driven primarily by access to raw materials. However, data from numerous researchers (e. g. Wesler et al. 1981a-c; Eisenberg 1978; Dunbar 1988; Anderson et al. 1990) argue against the indiscriminate regional application of models such as Gardner's. For example, Wesler et al. (1981a:421) emphasized that, because of the inundation of marine and riverine sites, the entire Paleo-Indian settlement system is not represented in the current sample.

One of the most important environmental factors for understanding the past and present distribution of Paleo-Indian/Early Archaic sites is post-Pleistocene sea level rise. Numerous studies have documented sea level change on the Atlantic coast (e.g., Kraft 1974; Newman and Rusnak 1965; Solecki 1970; Stuiver and Daddario 1963). Many Paleo-Indian site locations probably lie submerged in the Chesapeake Bay. During the late Pleistocene and Early Holocene, the floor of the bay would have been a broad river valley, and the present bay shorelines would have been the crests of upland ridges. If settlement patterns defined for later prehistoric groups hold for Paleo-Indian peoples as well, then major Paleo-Indian sites would have clustered within 200 m of streams or rivers that subsequently were inundated by rising sea levels. Thus, only the interior, upland, warm-season expression of the Paleo-Indian/Early Archaic settlement system

would be found on what is now dry land. Such sites are representative of only one part of the seasonal round.

Custer (1983:32) documented three major clusters of Paleo-Indian sites in the northern Delmarva Peninsula: (1) northeastern Cecil County/northwestern New Castle County; (2) near the mouths of the Choptank and Nanticoke rivers; and, (3) along the Delmarva Peninsula drainage divide. All of these sites are related by Custer (1983) to the lithic source model developed by Gardner. In the vicinity of the Poplar Island, Lowery (1992) cites data which suggest an Early Archaic hunting/procurement focus on the then poorly drained interior wetlands of Poplar Harbor.

Middle Archaic (6,500 - 3,000 B.C.). The date of 6,500 B.C. marks the emergence of the full Holocene environment and corresponds to the beginning of the Atlantic climatic episode. This episode involved a warm and humid period that continued to about 5,000 B.C., followed by a cooling trend (Custer 1984:62-63). Gardner has summarized human adaptation in response to the Holocene environment:

> By 6,500 B.C., the Post-Pleistocene conditions had changed so dramatically that the adaptations of the long-lived Paleo-Indian-Early Archaic system could no longer function in a viable manner. The hunting emphasis was thus abandoned and general foraging rose to pre-eminence. This resulted in a major settlement shift away from primary focus on sources of cryptocrystalline stone and the distribution of generalized, but seasonally available set of resources [Gardner 1978:47].

Subsistence across the eastern United States became focused regionally during the Middle Archaic, in response to the stabilizing Holocene forest communities. Coastal groups increasingly exploited shellfish, while inland groups began the adaptation to forest resources that Caldwell (1958) called *primary forest efficiency*. During the Middle Archaic, the spruce-dominated forests of the eastern seaboard gave way to pine and, later, to oak-dominated forests (Delcourt and Delcourt 1981). This required a cultural shift from an adaptation commensurate with life in a boreal forest, to one suited to a kind of northern hardwoods/mixed mesophytic community. Ford (1974) noted that little is known about the Middle Atlantic Seaboard Archaic. Few sites dated before 3,000 B.C. are known, and those that do exist show contact with the Southeast.

Diagnostic Middle Archaic artifacts in the upper Chesapeake Bay area include the St. Albans, LeCroy, and Kanawha bifurcated forms; the Stanly/Neville, Morrow Mountain, and Stark stemmed forms; and the Guilford lanceolate form (Custer 1984; Stewart 1980). The remaining technology is consistent with the model of hunting-gathering peoples living in a forested coastal environment: axes, adzes, gouges, and other assorted groundstone artifacts (Custer 1983:42). This technology probably included the cobble-based, microlithic compound tool industry known in Maryland for the Early Archaic, and for all prehistoric cultures after the Middle Archaic (Neumann and Polglase 1992). Custer (1983:42) noted that the Middle Archaic on the Delmarva Peninsula was characterized by a shift to quartz, quartzite, and rhyolite, but also that "in many cases these materials...seem to have been derived from secondary cobble sources."

Few archeological sites containing Middle Archaic artifacts have been studied (Wesler et al. 1981a). To some extent, this probably is due to the continuing inundation of estuaries caused by sea level rise during the Middle Holocene (Solecki 1970). Sites should have included littoral fishing stations, shellfish harvesting stations, winter camps, and warm season inland camps. Custer (1983:43, 44) proposed that three types of sites existed: seasonally-occupied macro-band base camps, which contain a wide variety of tool classes and evidence of tool manufacturing and maintenance; micro-band camps, which represent the encampments of individual families and

contain a wide range of tool types but less debris than macro-band camps; and procurement sites, characterized by a limited number of tool types and a light scatter of debris, reflecting limited extraction activities. Macro-band camps represent the gathering together of various family units during one part of the year; micro-band camps represent seasonal dispersal of families as individual economic units.

For the Eastern Shore, Wesler et al. (1981a:431) suggested a "pattern of transient hunting camps in the upland and perhaps base camps on the river terraces, correlated with a generalized foraging economy." They also pointed out that only the upland portion of the settlement system is likely to be preserved. Custer (1983:43, 45) argued that macro-band camps would be located in places where food resources were likely to be abundant, probably in a setting with access to a number of different habitats, such as the edges of interior swamps. Micro-band camps were harder to place on the landscape; Custer (1983:46) suggested locations along smaller streams, or adjacent to the Chesapeake Bay. Procurement sites, suggested Custer (1983:47), would be found in good hunting locations where lithic raw materials also were available.

Late Archaic (3,000 - 1,000 B.C.). The Late Archaic period began during the Atlantic/Sub-Boreal Transition (ca. 2,800 B.C.) and continued throughout the Sub-Boreal climatic minimum. The Atlantic climatic episode was a warm, dry period during which average temperatures were 2°C warmer than today (Kavanagh 1982:9). In the Middle Atlantic region, open grasslands reappeared, and the oak-hickory forests expanded on the valley floors and the hillsides. The final "modern" Holocene forests in the eastern United States were established during this period (Delcourt and Delcourt 1981). The eastern Late Archaic was characterized by population growth, regional differentiation, and increased technological specialization. The period is best known for a heavy use of forest resources; however, Late Archaic food sources near the coast undoubtedly would have included shellfish and fish.

Diagnostic projectile points for the Late Archaic include Piscataway, Vernon, Holmes, Susquehanna Broadspear, Dry Brook, Otter Creek, Brewerton, Bare Island, and Lackawaxen. Cook (1976), Dunn (1984), and Custer (1984:79) all have argued that these points, particularly the broadspears, probably also were utilized as knives. Steatite vessels, carved into flat-bottomed and tetrapodal bowls and large, platter-like vessels, also were used extensively.

The Late Archaic applications industry included microlithic compound tools; small bipolar cores derived from river and creek cobbles; anvil stones; an assortment of larger flake knives and scrapers; a groundstone tool kit that consisted of grooved axes, adzes, and atlatl weights. Bone harpoons and stone netsinkers document the importance of fishing (Kraft 1974:13). Late Archaic sites are numerous enough and, perhaps, recent enough that organic artifacts such as bone awls, bone and shell fish hooks occasionally are preserved.

The Late Archaic settlement patterns and subsistence strategies appear to be a continuation of the Middle Archaic utilization of dissimilar environmental zones, probably due to the expansion of oak-dominated forests. Scattered Late Archaic campsites tended to cluster along rivers and drainages (Wesler et al 1981a:181; Custer 1988), perhaps indicative of greater exploitation of anadromous fish resources (Custer 1988; Mouer 1991:7-8). The greatest dispersal of sites seems to have occurred during the early Late Archaic; by the Terminal Archaic, the settlement pattern in many areas of the Middle Atlantic had assumed an even more pronounced riverine bias (Kinsey 1972:346, 354; Gardner 1987; Wesler et al. 1981b:142). The number of recorded sites with Late Archaic components increased, a trend that has been interpreted as a reflection of an increased prehistoric population and a more sedentary settlement pattern (Turner 1978).

For Maryland's Eastern Shore, Wesler et al. (1981a:434) argued that:

> The best model for the Late Archaic on the Eastern Shore would seem to be a generalized foraging subsistence pattern with growing emphasis on estuarine resources. Large camps often associated with shell middens would be expected along the shorelines and lower drainages, with small hunting camps along the uplands.... A rise in the density of sites might be expected as populations are 'crowded' together due to rising water on both sides of the peninsula.

However, it is important to point out that Wesler et al.'s (1981a) model has not been tested. Chronologically, it is at variance with recorded sea levels, which actually were higher than present day sea levels as early as 5,000 B.C. (e.g., Holmes and Trickey 1974). It is possible that the inferred population increase, based on the observed increase in ascribable Late Archaic sites, was due in part to an increase in the human reproductive rate that may have accompanied the increasingly efficient food collection strategies employed by Late Archaic peoples in an expanding oak forest (Frisch 1975, 1978).

Winters (1969) provided the first image of Late Archaic site types for eastern North America. He identified three types of Late Archaic sites: settlements (large sites used during the winter); base camps (somewhat smaller sites used during the summer); and, transient camps (limited activity or specialized resource extraction sites used throughout the year). Winters' triumvirate appears to be an elaboration of the Early and Middle Archaic triad of macro-band and micro-band base camps, and resource procurement sites. Gardner (1980, 1987, 1989) later applied the same pattern to broader areas of the Middle Atlantic. Both macro-band and micro-band base camps of the Late Archaic period should contain hearths, structural remains, heavy woodworking tools, and the remains of the normal lithics applications industry. Evidence of fishing, represented by netsinkers, should be common. Procurement camps should contain points and microliths, as well as bipolar cores, anvil stones, and spent microliths from the compound tools. Shell middens with Late Archaic temporal associations also commonly are found near large embayments and estuaries.

Early Woodland (1,000 - 500 B.C.). In general, the Early Woodland corresponds to the early part of the Sub-Atlantic climatic episode (ca. 700 B.C. - A.D. 200/300). While it has been customary in the Middle Atlantic region to characterize the environment after approximately 1000 B.C. as approximating modern conditions, many researchers (e.g., Baerreis and Bryson 1965; Bergthorsson 1969; Bryson 1977; Bryson and Murray 1977; Parry 1978; Webb and Bryson 1972; Wedel 1978) have noted that climatic changes of considerable intensities actually took place during this period . In essence, the episodic nature of climatic change that Carbone (1976, 1982) documented for the Shenandoah Valley appears to have continued throughout the Holocene.

Counting the Sub-Atlantic, seven climatic episodes have been recorded for the late Holocene period in North America: Sub-Atlantic climatic optimum (700 B.C. - A.D. 200/300); Scandic climatic minimum (A.D. 200/300 - A.D. 900); Neo-Atlantic climatic optimum (A.D. 900 - 1200/1300); Pacific I climatic minimum (A.D. 1200/1300 - 1450); Pacific II climatic maximum (A.D. 1450 - 1550); Neo-Boreal climatic minimum (A.D. 1550 - 1850/1917); and Recent climatic optimum (A.D. 1850/1917 - 1975). These climatic minima and maxima have been viewed by Middle Atlantic archeologists as times of environmental stress, during which culture change may have occurred (Carbone 1976).

Wendland and Bryson (1974:10), by analyzing pollen record discontinuities and cultural continuities worldwide, demonstrated that potential climatic stress periods were characterized by parallel botanic and cultural discontinuities on a global level. On the regional level,

correspondences between climatic and environmental patterns and cultural sequences during the Woodland period have been noted for the Shenandoah Valley (Fehr 1983) and for the Middle Atlantic as a whole (Carbone 1982).

Originally, the Woodland as a cultural historical unit was defined by archeologists by the emergence of ceramics; by the inferred presence of cultigens, particularly maize; and by evidence of sedentary villages. However, more recent research has suggested that maize was not incorporated in the subsistence strategy at this time, and that there were few sustained year-round villages during the Early Woodland period. The Deptford Culture sites along the Gulf and southern Atlantic coasts provide the only exception.

Early Woodland subsistence strategies probably were similar to those of the Late Archaic, and focused upon increasingly efficient exploitation of forest resources. Early Woodland peoples also continued heavy utilization of coastal resources.

Early Woodland technology included two sets of diagnostics: fishtail and contracting stemmed projectile points, interpreted by some researchers (e.g., Custer 1984, Neumann 1988) as knives, and ceramics. Characteristic Early Woodland ceramics in the Middle Atlantic include steatite-tempered Marcey Creek and Seldon Island wares, and sand-tempered Accokeek wares. Wesler et al. (1981a-c) also include Popes Creek Net-Impressed ceramics in the Early Woodland, although this type usually is viewed more as a marker of the Middle Woodland (Gardner 1982). Although Marcey Creek Plain is the earliest ceramic type known in the Middle Atlantic, it has not been found in lower Delmarva region, and it is rare on the Eastern Shore (Davidson 1981). In the lower Delmarva, Wolfe Neck and blackstone-tempered Dames Quarter wares are the diagnostic ceramics for the Early Woodland (Custer 1984:84; Davidson 1981:18; Mouer 1991:37). The Early Woodland applications industry also included the kinds of tools needed by peoples using aquatic and terrestrial resources, including groundstone axes, adzes, and various large flake and microlithic tools. A well-developed bone, fish scale, antler, and shell industry also probably existed (Painter 1988).

Across the eastern United States, the Early Woodland presents the first dramatic, regional differences in site types and contents. Gardner (1982:58-60) has proposed two settlement pattern models for the Late Archaic to Early Woodland on the Inner Coastal Plain. The "fusion-fission" model suggests that macro-social population units fused seasonally along both fresh water and salt water estuaries to exploit fish runs, and that populations dispersed seasonally to form micro-social unit camps involved in exploiting other resources. The "seasonal shift" model suggested that the same population formed macro- and micro-social unit camps in both freshwater and salt water zones, and moved laterally between these zones on a seasonal basis (Gardner 1982:59).

Early Woodland settlement patterns are less well understood on the Eastern Shore. Gardner (1982:56) postulated that base camps were located at the junctions of freshwater streams and estuaries, while transient camps were located upstream. Shellfish were a major focus of the base camp subsistence regime. In other areas, coastal peoples appear to have restricted themselves to shellfish collecting hamlets, rarely venturing inland. This is characteristic of Deptford coastal adaptations along the Gulf and south Atlantic coasts, and it is a logical continuation of the Late Archaic, Albemarle Sound data reported by Painter (1988). Inland peoples also continued their mobile lifestyle, occupying semi-permanent base camps during the winter. Limited activity resource extraction sites also continued, with little change from previous millennia.

The Early Woodland period also saw the development of major ceremonial sites in the eastern United States, particularly those associated with the Adena culture. Custer (1984) argued that Adena manifestations are present on the Delmarva peninsula. An influx of exotic traits is associated with the Delmarva Adena complex (Custer 1984; Gardner 1982), of which the best-

known site the St. Jones River Site near Dover (Thomas 1976). Similar sites have been dated to ca. 800 - 300 B.C; all contain cemeteries. Custer (1983:71) argued that Adena-related sites represented the presence of ranked societies on the upper Delmarva Peninsula, due to the presence of status burials and evidence for participation in the Adena trade network. However, the relationship of these Delmarva Adena characteristics to other Woodland period cultures never has been established satisfactorily (Stewart 1992:2).

Early Woodland site locations follow the same criteria as those for the Late Archaic: most are found within 200 m of water on slopes less than 15 per cent. Macro-band base camps are located on larger, higher flow streams and on rivers; micro-band base camps are located on upper terraces near freshwater sources and tidal marshes (Custer 1983:79). The transient procurement camps are located along tidal marshes or low order tributaries (Custer 1983:79). Elsewhere in the eastern United States, Early Woodland ceremonial sites usually are located at the confluence of streams. Mortuary sites seem to have been centralized relative to the travel needs of several micro-band base camps (Custer 1983:79).

Middle Woodland (500 B.C. - A.D. 900). The Eastern Middle Woodland Period appears to consist of two subperiods: the early Middle Woodland, representing a time of increasing social, cultural and political complexity that was influenced by the Ohio-based Hopewell cultures; and the late Middle Woodland, ca. A.D. 200/300-900, apparently a time of decreased sociopolitical and material complexity which occurred during the Scandic climatic minimum. Across North America, all prehistoric cultures experienced a similar diminution in artifact quality and variety.

Although there are cultural differences between early Middle Woodland and late Middle Woodland, there is no evidence that the subsistence bases differed significantly. Inland peoples continued to rely on forest resources. Harvest of anadromous fish continued, as did the littoral collection of shellfish. No definite evidence for horticulture has been found in the region for this period.

Diagnostic artifacts for the Middle Woodland period in the Mid-Atlantic region include the Fox Creek and Selby Bay series of projectile points. Some of these may have been employed as arrow points, as the bow is thought to have been introduced around A.D. 500. Diagnostic ceramics of the Middle Woodland for the Outer Coastal Plain include sand- and grit-tempered Mockley wares (Blanton 1992:75); these wares, in fact, were so widespread that McLearen (1992:41) has included them as markers of a Middle Woodland "pan-Chesapeake phenomenon" that characterized Bay areas north of the James River estuary. On the lower Delmarva Peninsula, Wolfe Neck, Coulbourne, and Mockley wares sometimes are found together on Middle Woodland sites; Davidson (1981:16) also recognizes a Hells Island Ware that appears to be transitional to the Late Woodland period. The remaining technology typically recovered from sites of this period consists of the same suite of tools that prehistoric peoples would have needed to survive along a coast that is backed by a temperate deciduous forest. Woodworking tools are known, as are flake tools like backed knives and scrapers.

The triad of basic site types previously identified for the Late Archaic and Early Woodland periods appears to have continued into the Middle Woodland period (Custer 1983): (1) macro-band base camps; (2) micro-band base camps; and, (3) procurement camps. As encampments where both sexes and all age groups were present, base camps generally are recognized by a wide variety of features, including structural remains, storage pits, and hearths, as well as an assortment of artifacts. Seasonal procurement camps can be characterized by their light artifact densities, lack of structural remains, and relatively few subsurface features aside from possible hearths.

An estuarine focus again is suggested for larger Middle Woodland sites, with camps in the middle reaches of larger drainages (Gardner 1982; Wesler et al. 1981a-c). Site location generally is associated with the presence of aquatic resources. Custer (1983:76) suggested that base camps would be located at evenly spaced intervals along the bay shore, and would be associated with shell middens. Procurement sites would be located along small streams leading down to the shore.

Late Woodland (A.D. 900 - 1638). The Late Woodland in the Middle Atlantic generally is associated with the introduction of maize horticulture. Like the Middle Woodland, the Late Woodland also breaks conveniently into two subperiods that reflect dominant climatic episodes. The early Late Woodland is recognized by the introduction and quick acceptance of the maize-beans-squash horticultural system during the Neo-Atlantic climatic optimum (A.D. 900 - 1200/1300). To date there is no evidence to suggest that Early Late Woodland sites were fortified; sites tended to be located on or near prime agriculture land (Hay et al. 1987).

Early Late Woodland peoples had a cultural heritage that represented values and lifeways developed by late Middle Woodland peoples as survival strategies during the preceding Scandic climatic minimum. The concurrent introduction of maize horticulture and the onset of a climatic optimum may have resulted in a surge of population growth (Frisch 1975, 1978), as reflected in the relatively large and dispersed number of early Late Woodland sites. During the late Woodland, which corresponds to the Pacific I climatic minimum, the number of sites decreased, village populations nucleated, and villages were fortified.

For the Western Shore of the Chesapeake Bay, Wesler et al. (1981b:109) summarized general Late Woodland settlement and subsistence patterns as marked by staple agriculture and large villages in floodplain settings; smaller upland/inland campsites for hunting and foraging; and estuarine shell middens. However, the Delmarva Peninsula appears to represent a regional variation. Custer and Griffith (1986) identify a continuation of earlier prehistoric settlement patterns and site types in the coastal regions of the upper Delmarva Peninsula. The three predominant site types continue to be base camps, micro-band camps, and procurement sites. Generally, base camps were located in interior or middle drainage areas, while seasonal camps or procurement sites were located both along the coast and farther inland. Stewart et al. (1986:61) noted that many Late Woodland macro-band base camps in the lower Delaware were located adjacent to salt marshes. Evidence of orientation towards the large interior swamps also has been found in the upper Delmarva south of Wilmington. Less is known about micro-band camps (Stewart et al. 1986:62); the few known sites appear to have been associated with river cobble beds, and had a possible freshwater/brackish water interface. Overall, there appears to have been little change from the preceding Late Archaic - Middle Woodland micro-band camp locations. Procurement sites were located in poorly drained woodland areas or in the uplands near the headwaters of small streams (Stewart et al. 1986:63). These sites generally contain the light scatter of points and debitage common for earlier periods.

Agriculture seems to have been somewhat less important for peoples of the middle and upper Delmarva peninsula. Geier (1992:290) points out that

> "As one moves north along the peninsula, both ethnohistoric and archaeological data identify communities of decreasing social complexity. In the southern part, where there is some evidence of the use of corn agriculture, large villages occur, as do ossuary burials. In the northern part of the peninsula, Late Woodland groups lack these features."

Diagnostics of the Late Woodland period again are related to specific styles in projectile points and ceramics. Custer and Griffith (1986:29) suggested that the Late Woodland of the Eastern Shore should be included in the Slaughter Creek complex, defined by "Townsend ceramics, triangular projectile points, and large semipermanent or permanent base camps with a number of associated storage, refuse, and processing features." On the Coastal Plain, shell-tempered Townsend ceramics were dominant after A.D. 900 (Clark 1980:18). The crushed rock tempered Potomac Creek ware, generally associated with the Piscataway Indians, appeared somewhat later and was prevalent in the Inner Coastal Plain/Fall Line areas (Clark 1980:8; Egloff and Potter 1982:112). Triangular projectile points also are diagnostic of the Woodland period; they persisted until European contact. Unlike most of the preceding "projectile points," these small triangular points frequently show edge angles, breakage characteristics, and absence of use-wear consistent with their use as arrow tips. High magnification use-wear analysis of prehistoric Onondaga Iroquois points showed that only about 10 per cent of the points were used in a fashion consistent with that of a knife (Neumann and Sanford 1987b).

European Contact. The first major impact of European contact in the Chesapeake Bay occurred during the early seventeenth century. Early ethnohistoric accounts of Native American settlements document a large number of local villages, each with a headman (Acrelius 1756:47). Such sources suggest that during the early seventeenth century, much of the tidewater region of Maryland and Virginia were characterized by cultural dynamism and diversity. The Pocomoke, Assateague, Nanticoke, and Choptank tribal divisions were the principal occupants of the Delmarva Peninsula during the seventeenth century (Davidson 1981:17). Prior to European contact these groups may have come under pressure from the Susquehannocks, an Iroquoian group from south-central Pennsylvania. By 1634, the Susquehannocks had settled along the western shores of the Chesapeake Bay, and it is possible that some Susquehannock influence was exerted over tribal groups on the Delmarva Peninsula area.

Sustained European contact in the Chesapeake Bay region began between 1608 and 1612, as John Smith and others made their historic exploratory voyages around its shores. These early explorers named and described some of the various groups that inhabited the Eastern Shore region. According to these narratives, the primary tribes in what is now Talbot County, were members of the Delaware, Algonquian, and Susquehannock nations (Tilghman 1915:28). Smith also noted that the populations that he met in the more northern sections of the bay spoke a different language than the native populations further south, that they used birchbark rather than log canoes, and that they smoked from long tobacco-filled ceremonial pipes (Preston 1983:5).

Historic Setting

Only a decade ago, no archeological sites with seventeenth century occupational components had been documented for the Chesapeake Bay area of Talbot County; in fact, only four had been recorded for all of the lower Delmarva Peninsula in Maryland (Smolek et al. 1984:Table 23). To some degree, this bias appears to reflect the direction of survey efforts to that time; the predominance of seventeenth century sites within the state had been recorded in St. Mary's County. However, it also seemed to reflect the tacit assumption that the severe erosion and inundation of large portions of Maryland's Eastern Shore shorelines precluded the recovery of intact early historical cultural material.

That the archeological components of historic period occupations can survive, even within actively eroding and/or inundated marine environments such as that characterized by Poplar Island, has been demonstrated repeatedly by the discovery and investigation of numerous near-shore sites in the Chesapeake Bay. Shomette (1991:4-5,9) cites as analogous examples such sites

as Kent Island, Londontown, Maryland; Point Lookout, Maryland; and the Church Neck Wells site in Northampton County, Virginia.

Shomette's experiences at Kent Island (discussed below), a landmass that is subjected to the same erosional forces as those that currently affect the current project area, suggest that historic period resources also may survive both in near-shore and in off-shore environments at Poplar Island. The island's archeological remains potentially could include all of the domestic, agricultural, and commercial and maritime structures that would have been associated with all periods of the island's development. In addition, other previous investigations at Poplar Island itself have demonstrated that the Island complex has the potential to contain archeological resources that could add significantly to our knowledge about the lifestyle of both the Native American cultures of the Delmarva Peninsula and those of the successive generations of Anglo-Americans who lived and worked on this constantly diminishing pinpoint of land in the Chesapeake Bay.

Previous Marine Investigations. A variety of Phase I archeological surveys have been conducted in deep water areas of the Chesapeake Bay in Maryland, as well as in areas peripheral to the Bay, mainly in tributary rivers, or in the near-shore areas. Although several Phase II archeological investigations have been conducted in Maryland waters of the Chesapeake, only one Phase III study has been undertaken.

A Phase I remote sensing study, using both side-scan sonar and a proton magnetometer, conducted by the Karell Institute in conjunction with the Baltimore Harbor and Channels 42' Project, located 15 targets in the area of the Brewerton Channel Extension, 11 targets in the area of Tolchester Channel, and 4 targets in the area of Swan Point Channel (Koski-Karell 1979). Of the 30 targets identified in these project areas, all but one were judged to be buoys, wrecks of recent origin, or items severely damaged by previous dredging. Only target B in Tolchester Channel was determined to be potentially significant (Koski-Karell 1979). However, Phase II investigations of target B conducted by the Karell Institute found Target B to be a concentration of modern (post - ca. 1960) scrap steel plate and angle iron. No evidence was found of an associated wreck, and no additional archeological investigations were recommended (Koski-Karell 1980).

Another Phase I survey was conducted in ten areas of potential disturbance from dredging and disposal associated with the Baltimore Harbor and Channels 50' Project: the Dam Neck Disposal area on the ocean side of Cape Henry; Cape Henry Channel; York Spit Channel; Cape Charles Disposal Area; Wolf Trap Disposal Area; Rappahannock Shoal Channel; Disposal Site No. 4; Tangier Island; Smith Island; and, the Baltimore Harbor Approach Channels. Two of the project subareas lay within Maryland waters. A side-scan sonar remote sensing survey was conducted as part of a geophysical background study for the 50 ft channel project (Mueser et al. 1978). Koski-Karell (1979) combined the results of side-scan sonar testing and archival research to make recommendations on the likelihood of discovering significant sites in the ten areas. One site was identified by Koski-Karell's (1979) review of the side-scan sonar data; it was a large object in the York Spit Channel area, near Cape Charles, Virginia. This object had been investigated previously by Navy divers, who identified it as a large iron mushroom anchor.

As the final part of that study, Murphy Archeological Research Services conducted a proton magnetometer survey of six of the 10 survey areas, and a side-scan sonar investigation of the Wolf Trap area in 1980. The six areas subjected to proton magnetometer survey were: Craighill Channel (one of the Baltimore approach channels); Rappahannock Shoal Channel; Cape Henry Channel; Wolf Trap Shoal Channel; York Spit Channel; and Tangier Island Shoreline Nourishment area. Craighill Channel is the only one of these six survey areas located in Maryland.

No targets were identified in this channel during the side-scan sonar survey (Koski-Karell 1979; Mueser 1978) or during the proton magnetometer survey.

An intensive survey of the Patuxent River was conducted by Shomette in 1979a and b (Shomette 1979a and b). The study included extensive historical background investigations, remote sensing, and diving investigations. Ninety-six shipwreck sites and seven potential drowned terrestrial sites were considered, including a ca. 1680-1720 boat, an 1833 bugeye, a War of 1812 gunboat, an unidentified wreck dating to ca. 1750, a partially eroded Woodland period prehistoric site, two ferry landings, a drowned trash pit, a wharf, and the colonial port of Mount Calvert. Although the Patuxent River is far removed from the Poplar Island project area, Shomette's results are important in demonstrating the variety of resources that may lie within a single, unexceptional tributary of the Chesapeake.

In 1990 and 1991, R. Christopher Goodwin & Associates, Inc. conducted a Phase IA cultural resource reconnaissance and sensitivity study of portions of the Chesapeake Bay and the Delaware River for the C&D Canal Feasibility Study (Goodwin et al. 1992). This investigation entailed a review of terrestrial and underwater archeological data and architectural reconnaissance survey data in support of planning efforts to improve traffic through the Chesapeake and Delaware (C&D) Canal. Archeological data from five counties in Maryland, from the portions of the Chesapeake north of Plum Point, and for the Delaware River in the vicinity of Reedy Point, were collected and synthesized in order to define areas of low, moderate, and high potential for significant terrestrial and underwater sites. In addition, a reconnaissance survey was conducted for architectural resources located on nearly 12,000 acres of potential dredge disposal sites. The data were Integrated into a comprehensive planning tool that identified areas of potential project impact and presented management recommendations. A comprehensive archeological model of the nature, causes, and distribution of shipwreck sites in the upper Chesapeake Bay also was developed as part of the report.

During the Spring of 1994, R. Christopher Goodwin & Associates, Inc. performed a controlled hydrographic Phase I survey on behalf of the Maryland Port Administration along the northern approach channels of the Chesapeake Bay through the C&D Canal to the Delaware River, utilizing a proton precession magnetometer, a side-scan sonar, a sub-bottom profiler, a survey fathometer, DGPS, and hydrographic computer software to survey more than 2,355 acres of seabed. A total of 74 magnetic anomalies and 40 acoustic anomalies was recorded during the survey. Of these, 19 magnetic anomalies forming seven distinct targets and one bathymetric and acoustic anomaly were recommended for further testing to determine their potential eligibility for inclusion in the National Register of Historic Places (Irion, et al. 1995).

A Phase I remote sensing survey of 297.7 acres of submerged bottom lands within Baltimore Harbor was conducted by Goodwin & Associates, Inc. during the summer of 1994, utilizing a proton precession magnetometer, side-scan sonar, DGPS, and hydrographic computer software to document the presence or absence of cultural resources in the proposed Baltimore Harbor and Anchorages Project area. The study was conducted on behalf of the U.S. Army Corps of Engineers, Baltimore District, in preparation for the widening and deepening of anchorages and channels within Baltimore Harbor to accommodate larger vessels. A total of 47 anomalies were detected within the bounds of the project area (Irion and Hirrell 1994). Seven anomalies clustered together in the Anchorage 3 project area were subjected to further investigations using a sub-bottom profiler; however, none of the targets appeared to represent historically significant cultural properties as defined in the National Register of Historic Places criteria for evaluation (36 CFR 60.4).

In 1990, combined Phase I and II remote sensing surveys of the Deep Trough Disposal Area were conducted by GAI Consultants, Inc., on behalf of the Maryland Port Administration. The

magnetometer survey identified 42 targets in a 1,750 acre area near Kent Island, Maryland. Fifteen of the targets were thought to possess a moderate likelihood of association with significant cultural resources. However, it was judged that since they were buried deeply (evidenced by a lack of any acoustic return during the side-scan sonar survey), they would not be affected adversely through further burial by dredge spoils. Irion (1990) judged that another ten targets were more likely to be associated with significant cultural resources, but these also were buried and spoil was likely to have little impact on most of them. Three of the targets produced acoustical signatures that demonstrated clearly the presence of historical shipwrecks exposed on the bottom. On-site inspection was recommended for one of these targets; based on the side-scan images, the other two were thought to be eligible for the National Register of Historic Places, leading to a recommendation of avoidance for these sites. These sites are believed to be the wrecks of the four-masted schooner *Herbert D. Maxwell* (18QU241) and of an unidentified three masted schooner (18QU242). In spite of looting, both sites exhibit remarkable preservation (Irion 1990).

During additional Phase II investigations of the study, two more wrecks were located near the mouth of the Potomac River. One of the wrecks (Site 18ST625) was identified as the historically significant steamship *Columbus*. Built in 1828 and destroyed by fire in 1850, *Columbus* was among the first Chesapeake Bay steamers to be used in regular commercial service. In 1992, Goodwin & Associates, Inc. undertook the first Phase III data recovery study to be completed on the Bay. This investigation of *Columbus* was designed to confirm the vessel's identity and to mitigate adverse affects to the site from the proposed Baltimore Harbor and Channels 50' Project. Principal among the study's research objectives was HABS/HAER Level I documentation of the vessel *in situ*, followed by the recovery, recordation, and conservation of *Columbus*' primitive power plant, which is the earliest surviving example of a marine steam engine used commercially (Irion and Beard 1995).

A number of other underwater sites have been reported in Maryland by historians and local avocational underwater archaeologists (Hopkins 1984, 1991; Pohuski 1991; Shomette 1979a, 1979b, 1986). The results of one privately sponsored project, the Claiborne Project, were presented as a series of papers at the 1991 Society for Historical Archaeology Conference in Richmond, Virginia (Hopkins 1991, McNamara 1991, Pohuski 1991, Shomette 1991). The purpose of that study was to locate the site of William Claiborne's seventeenth century settlement on Kent Island, the first European settlement in Maryland (Hopkins 1991). Prior to the Poplar Island study, this project was the only significant survey specifically designed to locate inundated terrestrial sites in the Chesapeake Bay region. Study methodology included extensive interviews with local watermen and examinations of their artifact collections. Controlled searches were conducted along the shore and in near shore areas. At one site, the investigators succeeded in locating four partially intact box and barrel wells, in areas that normally are submerged. Excavations in three of these wells revealed excellent wood preservation, as well as many artifacts that dated from the seventeenth and eighteenth centuries. Although the relationship between these wells and the Claiborne settlement is not clear, the findings were significant. The Claiborne Project is important to the present study because it demonstrates that various components of terrestrial sites can survive the inundation process. Once submerged, such sites can stabilize, possibly offering significant research potential.

Most recently, the University of Maryland College Park (UMCP) conducted archival and non-disturbance archeological investigations of the waters adjacent to the shoreline surrounding the U.S. Naval Academy in 1995. Under the direction of Goodwin & Associates, Inc.'s Dr. John L. Seidel, a reconnaissance level remote sensing survey was conducted using a proton precession magnetometer, fathometer, DGPS, and hydrographic navigational computer software in an area that extended 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 property that lies parallel to the Dorsey Creek Bridge on King George Street, and around the shoreline of the Naval Hospital to the

old Severn River Bridge (Seidel and Aiello 1995). The anomalies identified during the survey were then inspected by divers to determine their source, extent, and historical significance. In support of the archeological investigation, archival and cartographic research also were conducted to provide historic background information regarding the properties adjacent to the shoreline, and to predict the locations of areas with a high potential for the presence of submerged cultural remains. During the remote sensing portion of the survey, a total of 65 anomalies were recorded within the project area. Subsequent diver investigations successfully identified some of the anomalies, which included anchors, anchor chains, and iron pipe of varying dimensions. However, a majority of the anomalies are believed to lie deeply buried under heavy accumulations of silt and sediments, and could not be located without conducting underwater excavations. Because the greatest concentration of unidentifiable targets lay in the College Creek area, it was recommended that these and other buried anomalies be investigated further prior to the undertaking of any potentially destructive activities in the future.

The State of Maryland supports the protection and management of submerged cultural resources through the office of the State Underwater Archeologist in the Maryland Historical Trust. The Maryland Maritime Archaeology Program (MMAP), run out of that office, has begun systematic surveys of various rivers on the Eastern and Western Shores of the Chesapeake. Reports on those surveys are in preparation. MMAP also worked with the Archaeological Society of Maryland and the University of Maryland in an underwater and terrestrial investigation of an eighteenth century shipyard (the Galloway-Steward Yard [18AN817]) in 1993 (Thompson and Seidel 1993; Seidel 1993a). The office of underwater archeology has been active in its role as caretaker of Maryland's submerged cultural resources in other ways. In November of 1994, Maryland's first historic shipwreck preserve was opened at the wreck site of the German U-Boat *U-1105* , in a cooperative effort of the United States Navy and MMAP. In 1995, MMAP completed a Phase I remote sensing survey for archeological resources on St. Mary's River, conducted a reconnaissance level study of the wreck of the Civil War steamship USS *Tulip*, and supported a research campaign initiated by the state's sport diving community to survey shipwrecks located in Maryland waters on the Atlantic coast.

Previous Terrestrial Investigations. Prior to Goodwin & Associates, Inc.'s initial investigations, two historic period archeological sites (18TA236 and 18TA237) previously had been recorded on Poplar Island. The Maryland site form described Site 18TA236 as a possible eighteenth to nineteenth century site located on the western side of South Central Island. At the time of its recordation in 1987, the site was represented by the remains of a wooden structure, and a scatter of Buckley ware ceramics. During a Phase IA reconnaissance in the fall of 1993, the presence of two submerged post holes in the general location of 18TA236 was noted; however, the wooden structure had disappeared (Goodwin et al. 1994).

Site 18TA237 was described as a seventeenth and eighteenth century historic site on the north end of South Central Island. The site was represented by a brick floor and "unspecified" seventeenth and eighteenth century artifacts. The site form indicates that a clam dredge had brought up large quantities of Sgrafitto ware from a location northwest of the site. The brick floor was not visible during the 1993 Phase IA reconnaissance, but a variety of historic period artifacts were noted in the vicinity of the site.

Between 1987 and 1988, a preliminary underwater and terrestrial reconnaissance of Poplar Island and its surrounding shallow waters was conducted on behalf of the Maryland Historical Trust (MHT). The study found several late nineteenth and early twentieth century historic archeological features in the shallow areas of Poplar Harbor. Several pit or post-hole like depressions that reportedly contained eighteenth and nineteenth century artifacts were observed on the submerged shoals off the western eroded shoreline of the islets. On the largest of the remnant islets, several shallow depressions were observed, one of which reportedly retained a

complex of unidentified wooden framing features. In addition to the on-site reconnaissance, the 1987 MHT survey also incorporated interviews with local watermen, who reportedly had dredged up brickbats and fragments of Sgraffito wares and Bellarmine jugs north of North Point Island (Beard 1993 personal communication).

R. Christopher Goodwin & Associates, Inc. completed a Phase IA investigation of the project area in the fall of 1993. Archival research, geomorphological investigation, and archeological field reconnaissance were conducted (Goodwin et al. 1994). The Phase IA reconnaissance documented that the previously recorded historic period sites had been impacted by severe erosion or submersion. Several features, including a newly identified oyster shell midden feature and artifacts associated with the reported locations of the historic period sites, were identified. One previously unrecorded historic site, Field Site MP.1 (18TA304), was recorded on the south/southeast portion of Middle Poplar Island. Site MP.1 was represented by an eroding well shaft and hand pump, submerged brick architectural elements, and six semi-buried brick foundation piers. Historic period artifacts, a charcoal lens, a concentration of crushed brick, and an eroding brick floor were noted in the vicinity of the site.

Historic Context.

Contact and Settlement (1570-1750)

General Historical Context. The Chesapeake Bay region was the site of some of the earliest voyages of exploration that investigated eastern North America. The earliest European reconnaissance of the Bay may have been undertaken by the Venetian-born explorer John Cabot and his son, Sebastian, who sailed south along the Atlantic seaboard from Newfoundland in 1498. Few details of the Cabots' discoveries exist, aside from secondary accounts by Sir Walter Raleigh and Richard Hakluyt, a chronicler of New World explorations (Clark 1950:5). Giovanni da Verrazano, an Italian sailing under the flag of France for King Francis I, made the first recorded European exploration of the Chesapeake area in 1524. Sailing northward from the Carolinas, he reportedly anchored in a small bay that he accessed through an opening in a barrier island. Later, his party explored some of the mainland and the Chesapeake Bay (Covington 1915:204-209). The earliest known map of the Chesapeake area was created by Juan Vespucci, a Spaniard, in 1526. This chart depicted the North American coast from Florida to Cape Henlopen, and it identified the Chesapeake Bay as the *Bahia de Santa Maria*. However, Vespucci's chart lacks sufficient detail to show any of the many islands that occupy the bay. In 1588, Vincente Gonzales became the first European to traverse the entire length of the Chesapeake estuary (Shomette 1991:1).

In 1608 John Smith embarked from Jamestown, Virginia, to explore the northern reaches of the bay. He found four of the rivers which feed the northern bay: the Susquehanna, North East, Elk, and Sassafras, and he encountered the Susquehannock nation. Smith spent twelve weeks exploring the upper bay area. The map he later drew indicates that he did not explore inland enough to find the Chester, Wye, Miles, Tred Avon, or Choptank rivers, nor did he identify the peninsulas which reach out toward Kent and Tilghman islands. In a later map Smith called the area of Talbot County *Brooks Forest*, and he collectively called the three islands of Kent, Poplar, and Sharp's the "Winstone Isles" (Figure 7).

In 1621 Captain William Claiborne arrived in Virginia. Claiborne had been appointed as the colony's surveyor, and he proceeded to patent the best land claims for himself and friends (Preston 1983:9). During his 1626-1627 explorations of the northern Chesapeake Bay, Claiborne formulated plans for establishing a fur-trading empire with the Indians. He based his operations on Kent Island, which he named after his native home of Kent County, England. He also named and utilized other islands in the area, including Palmer's Island near the Susquehanna; Claiborne's Island, which would become Sharp's Island; and Popeley's (later Poplar) Island, which he named

after his friend, Lieutenant Richard Popeley. Sharp's and Popeley Islands were the first two parts of what is now Talbot County to acquire definite place names (Preston 1983:9).

By October, 1631, three years before the colonists of Lord Baltimore's grand experiment left England, Claiborne's settlement on Kent Island was established and thriving. The settlement reportedly was a large, permanent community with a stockaded fort, a church, a store, and docks; it was surrounded by plantations. The fur-trading enterprise also proved profitable, as beaver pelts became high-status items in England and Europe. Claiborne continued to conduct a large trading operation with the Indians, sometimes to the detriment of both the natural environment and the local tribes. By the early 1700s several explorers noticed the beaver population had diminished significantly in the bay and its tributaries. They also noted that in order to get muskets, knives, shirts, and alcohol, the local tribes had become less conservative and more ambitious in their hunting (Zimmerman 1974:61). Many tribes gave up farming and became hunters, while other groups, pressed from the north by the Dutch and from the south by the English, simply vacated the area. This caused some larger coalitions to expand their boundaries and disrupt smaller tribal areas (Zimmerman 1974:68).

While Claiborne was expanding his trade empire, Cecil Calvert, the second Lord Baltimore, and his followers established the Maryland colony on the banks of the Potomac River in 1634. As the Maryland settlers expanded their holdings, they became embroiled in a land dispute with Claiborne and his followers. Unwilling to abandon his gains, Claiborne appealed to the English crown, but in 1638 the British Committee of Trade and Plantations ruled in favor of Lord Baltimore and granted him unchallenged proprietorship of the colony (Tilghman 1915:1). This claim included the land mass of Popeley's Island, now sometimes called Poplar Island.

To create an administrative infrastructure, Lord Baltimore divided the Maryland colony into "hundreds," an ancient, Anglo-Saxon administrative unit that varied in size from 8,000 to 12,000 acres (Tilghman 1915:5; Lantz 1929:276). What is now Talbot County embraced portions of three such units: Third Haven, Bolingbroke, and Tuckahoe (Skirven 1923:165).

Although some land grants had been issued in Talbot County by 1649 (Weeks 1984:6), the area's population increased significantly only after a 1652 treaty with the Susquehannock Indians opened the Eastern Shore for unimpeded settlement (Wesler et al. 1981a:207). By 1660, 20,000 acres in Talbot County had been surveyed for 35 patentees (Bast 1950:944; Tilghman 1915:11-13). Indentured servants comprised the primary labor force on these large tracts (Bast 1950:943). The area's population grew rapidly, and Talbot County became an independent political entity in 1660-1661 (Gambrill 1910:236).

Initially, seventeenth century Eastern Shore plantations resembled closely the smaller agricultural complexes that the settlers had left in England. Averaging approximately 250 ac in size, such farmsteads were farmed by a nuclear family assisted by one or more indentured servants. Large portions of the landholding remained uncleared in timber. Corn, tobacco, and livestock were the principal commodities that provided both marketable products and provisions for the family. As the seventeenth century progressed, a small percentage of farmers managed to amass considerable amounts of property. Even so, their property holdings frequently were represented by a number of smaller plantation holdings, rather than one or two massive ones, thus perpetuating the small farm model typical of the earlier period (Clemens 1980:81-84). Control of property generally was obtained through marriage and/or inheritance, and kinship became an important factor in land distribution. Eastern shore planters followed the practice of partible inheritance rather than primogeniture; property was divided among all the heirs, both male and female. Widows in particular could wield an enormous amount of power over property (Clemens 1980:96-98). Consolidation of land ownership through exercise of kinship and marital connections

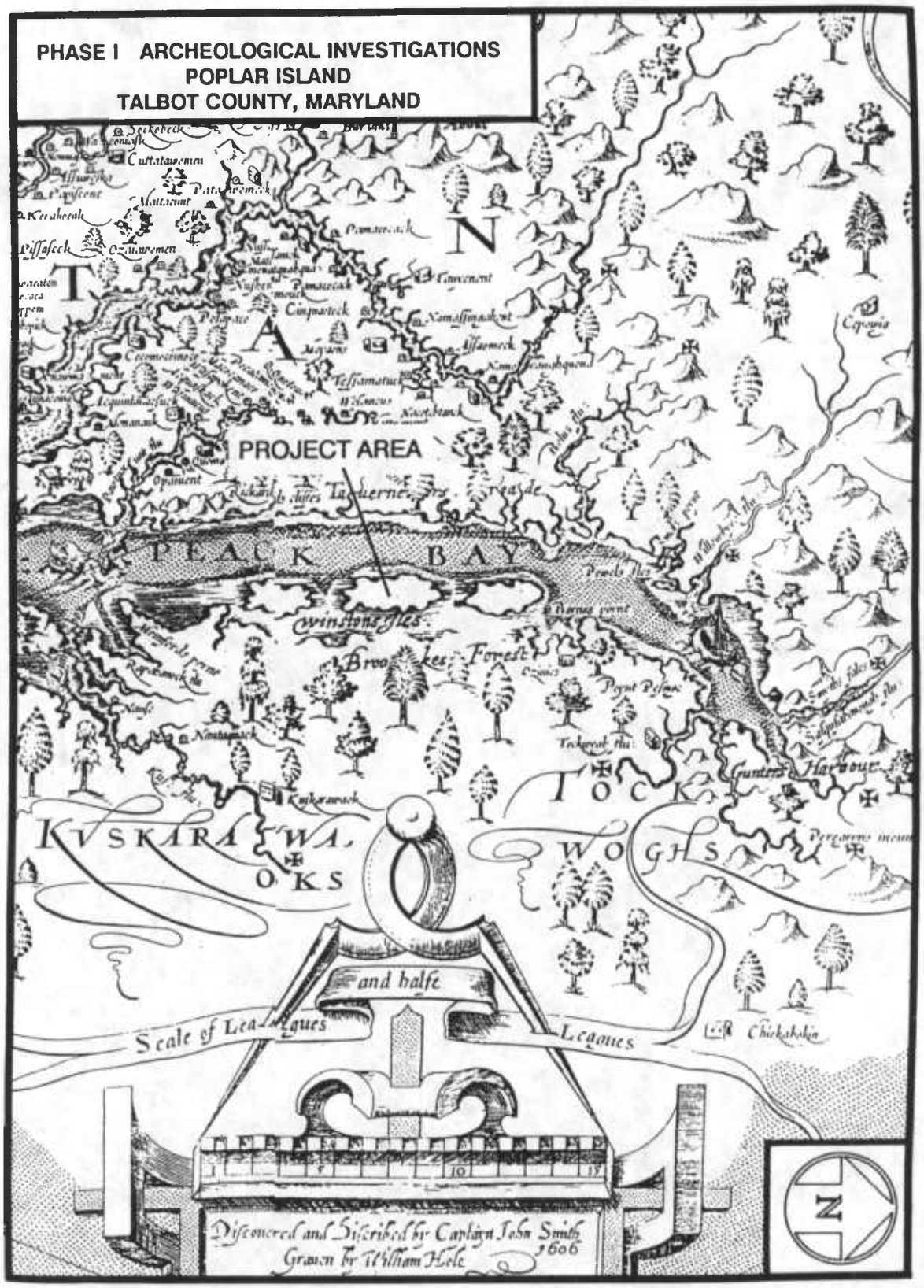


Figure 7. Portion of John Smith's 1608 *Map of Virginia*, identifying the vicinity of Poplar Island as "Winston's Isles"

produced, by the end of the century, a tightly knit rather closed society of planters on the Eastern Shore, one that only affluent newcomers could access (Clemens 1980:105-108).

Although tobacco was Talbot County's major export during this period, its residents' dependence on waterways for transportation and trade, and the locally abundant timber resources, led to the eventual development of small manufacturing establishments. By the close of the seventeenth century, shipbuilding had become a substantial industry on the Eastern Shore: Talbot County produced more vessels in 1697 than any other Maryland county (Clark 1950:292). Continued growth of the tobacco trade also encouraged small artisans, especially coopers and carpenters, to establish small businesses within the county (Wesler et al. 1981a:317).

The history of land ownership and management for Poplar Island during the seventeenth century illustrates many of the concepts discussed above. The Foster and D'Hynnlossa periods show the influence of family upon land inheritance, while the acquisition of the island by Charles Carroll ("The Barrister") of Annapolis in 1700 provides an example of outside acquisition by an outsider of rank, wealth and power.

Maritime Context. Because the Bay and its extensive tributary system served transportation needs so well, road construction was limited to connecting plantations located a few miles from navigable waters to piers accessible by seagoing ships. In fact, cross-country travel by road was hindered by the numerous rivers and streams, which made for frequent river crossings (Middleton 1953:70); along much of their length, the estuarine tributaries were too deep to be forded and too wide to be bridged, necessitating the use of ferries. In 1658 and 1666, Maryland passed laws which required each county to maintain ferries for making "...rivers, creeks, branches and swamps passable for horse and foote" (Warner 1976:63). Despite the insistence upon ferry maintenance, the passage of a road law in 1666 and of a series of town acts intended to establish small urban centers (Wesler et al. 1981a:80), settlement remained dispersed during this period, and settlers relied heavily upon water transportation. This clearly would have been even more important on the many Eastern Shore islands which attracted settlement, such as Poplar, Kent, and Smith Islands.

John Smith noted abundant natural resources in the Bay region in 1607, but the European colonists made little attempt to exploit them during the early years of settlement. Although Smith observed that the natives on the Chesapeake ate oysters in great numbers, Maryland colonists considered oysters to be "hardship food," and gathered them only in times of crisis (Wennersten 1981:6). Likewise, shipbuilding was not pursued extensively in either of the Chesapeake colonies during the early years, despite enormous reserves of timber suitable for ship construction, and an ample shoreline, ideal for the location of launching ways. Governor Charles Calvert wrote in 1678 that no ships were being built in Maryland (Goldenberg 1976:26), although there was some activity in constructing shallops and canoes for local needs during this period. The lack of shipbuilding activity was due largely to the wealth readily obtainable through cultivation of that "vicious ruinous plant Tobacco...", which encouraged planters to "neglect all other accessions to wealth," as Virginia's Governor Berkeley stated in 1663 (Goldenberg 1976: 25). It is doubtful that the neglect of shipbuilding was due to the Chesapeake Bay colonists' desire to obey the English Navigation Laws, as the governor later claimed in 1670 (Goldenberg 1976:25). Colonists of the early Chesapeake were content to rely on ships built and owned by outsiders, from England, New England, and Holland, to carry their annual export of tobacco to market and concentrate their own efforts upon the production of the lucrative, staple crop.

An exception to the tendency of neglecting local resources lay with fishing. While avoiding shellfish, colonists relied heavily upon salted herring and in later years took advantage of the seasonal availability of anadromous fish such as shad (Chowning 1995:11-12,19; Beverley 1705). In Virginia, in fact, perhaps the earliest conservation law in the Chesapeake was passed by

Middlesex County in 1678. The law sought to curb the use of lights and "gigs," or spears, for night fishing, a practice which was believed to wound many more fish than were caught and negatively affect normal fishing with hooks and line (Chowning 1995:3).

The small craft used by colonists in these maritime pursuits undoubtedly included shallops and other vessels of European origin and design. The remains of one such vessel were investigated by Neyland (1990) in Lyons Creek, a minor tributary of Patuxent River, in Calvert County. Fragments of outer hull planking, frames, the gunwale, a stringer, the clamp, and a possible keel, suggested a clinker-built, small sloop or shallop, constructed in the Northern European tradition, either in colonial America or in Europe. From the collection of predominantly Rhenish ceramic sherds which were associated with the wreck, Neyland placed it within the period 1690-1740 (Shomette [1979] dated the vessel to 1680-1720).

Other colonial craft departed from European custom and followed local traditions. The use of dugout log canoes by native Americans first was observed by English explorers in 1585 on Roanoke Island, North Carolina, and later was recorded again by Captain John Smith during his travels on the Chesapeake (Brewington 1963:1). This native boat form was adopted widely by European settlers, few of whom possessed the specialized skills or tools necessary to build more complex craft. Using crude tools made from iron and steel, rather than stone, the settlers modified the traditional single log design into a two-log configuration. The two logs that formed the hull were joined along their longitudinal axes with treenails and mortise-and-tenon joints.

By the late 1600s, most Chesapeake colonists owned and used log canoes for transportation, hunting, and fishing, and valued them highly, much in the same way that their inland peers regarded horses; use of a canoe without the permission of the owner was a felony in Virginia (Burgess 1975:2). Dugout log canoes were employed in the commercial harvesting of oysters from the early 1730s to the late 1800s, a longevity which emphasizes their enormous utility.

Chain of title. Although John Smith had mapped the islands of Maryland's Eastern Shore as early as 1608, occupation of Poplar Island did not begin until 1631, when William Claiborne of the Jamestown colony established trading outposts on Kent, Popeley's and Palmer's islands. Popeley's Island was named for Lt. Richard Popeley of Elizabeth City, Virginia, who was one of the first freemen to join Claiborne's settlement on Kent Island (Hale 1951:163). Popeley served as Claiborne's overseer for the Kent and Poplar Island settlements. Poplar Island apparently was utilized at this time for pasturing hogs. Daniel Cugley, reportedly a tempestuous sort who also furnished "sacke and hott waters" and rented boats to Claiborne, was the hogmaster for Poplar Island; as such, he must have been the first permanent resident on the island. However, Claiborne never gained clear title to the island; once the Maryland proprietary was established, Claiborne's claim, which had emanated from Virginia authorities, became a point of contention between the Calverts in Maryland and the colony of Virginia.

The chain of title for Poplar Island for the last sixty years of the seventeenth century is well established, due in large part to the survival of a 1700 deed of sale for the property from Charles Blake to Charles Carroll of Anne Arundel County. This document, partially reproduced in Appendix I of this report, reviewed the entire history of land transfers for the island from 1640 on.

Although one source maintains that Poplar Island was part of a 1632 grant known as "Bobing Manor," issued to Maryland Governor Thomas Greene (Cronin 1985:24), the island's first documented owner of record was Richard Thompson, who acquired his patent for the tract directly from Cecil Calvert Lord Baltimore in 1640 (Maryland State Archives 1700; Shehan 1931). That Thompson should have received this grant from the Calvert proprietors is somewhat puzzling, for Richard Thompson was Claiborne's cousin, and thus had a questionable reputation for loyalty to the Maryland proprietors (Hale 1951:165). Nonetheless, by 1634, Thompson had occupied the

island and had cleared it for cultivation of corn and tobacco. He lived there permanently with his wife, one child, and seven servants in a house and one or more outbuildings (Preston 1983:10).

During the 1640s, the island was deeded to Thomas Hawkins, a resident of Westmoreland County, Virginia. In about 1644, Hawkins sold "two quarters of my land on Poplar Island" to Seth Foster (Maryland State Archives 1700; Shehan 1931). Judging from his estate inventory, Hawkins was a relatively wealthy man whose Poplar Island property included a house and outbuildings, farm equipment, several servants (slaves?), a small boat, livestock, and such luxuries as paintings, a library and a Turkish carpet; all told, his holdings were said to be worth 28,000 pounds of tobacco (Cronin 1985:24). At his death in 1669, Hawkins divided his remaining property between his son Thomas and his wife, Elizabeth, who promptly married Seth Foster (Shehan 1931). Foster subsequently obtained from the Calverts a grant confirming his control of the entire island (Maryland State Archives 1700).

In 1669, Seth and Elizabeth Foster sold the entire island to Alexander D'Hyniossa for £300. D'Hyniossa was a Dutch citizen who had been an official with the Netherlands colonies on the Delaware River. When the English took control of the Dutch settlements, D'Hyniossa moved to Talbot County and bought Poplar Island. Two years later, he petitioned successfully for naturalization for himself, his wife, and his six children. The family later moved to Anne Arundel County, and finally to Prince Georges. However, his two sons, Alexander and Johannes, inherited Poplar Island in 1687. By 1696, both sons had sold their interests in the Island to Col. Peter Sayer, one of Talbot County's more prominent citizens and large landowners, who served for a time as Sheriff of Talbot County (Tilghman 1915:66, 535; Shehan 1931; Clemens 1980:122). At Sayer's death, his estate executor, Charles Blake, arranged for the sale of the property to Charles Carroll, a prominent resident of Annapolis, for the sum of £200 and 20,000 pounds of tobacco (Shehan 1931; Maryland State Archives 1700).

Rural Agrarian Intensification (1700 - 1815).

General Historical Context. By 1700, Talbot County had developed a thriving agrarian economy; perhaps because of depletion of locally available resources and the breakdown of the Native American procurement system, the formerly profitable fur trade moved further west. Tobacco remained the primary crop, supplemented by potatoes, peas, and various fruits. While ship-building and maritime enterprises continued to exist, the shallow shoal waters that surrounded most of Talbot's shore line made it difficult to utilize deep-draft, ocean-going vessels. Tilghman (1915:165) noted that Talbot County lagged behind other Chesapeake Bay communities in ship building and marine-oriented commerce. However, while the shallow waters hindered shipping, they were ideal milieux for fishing and oyster harvesting.

In 1707 the establishment of Queen Anne's County gave Talbot County its final shape. Although Kent Island had been made part of Queen Anne, Poplar Island stayed under Talbot jurisdiction. The county commissioners decided to select a permanent site and build a court house in the geographical center of the county. The brick court house, completed in 1712 at a location then known as Talbot Town (now Easton), was to be the meeting place for all county business. When the court house was complete, the court ordered the construction of roads, bridges, and ferry to enable the population to reach the court house (Tilghman 1915:98).

The tobacco trade reached its peak during the early years of the eighteenth century, and then began to decline in importance, due in large part to fluctuations in tobacco prices and the changing demands of foreign markets. As a result, many Eastern Shore planters shifted away from reliance on tobacco and began to produce grain and livestock for the intercolonial and international markets (Clemens 1980:193), as well as other products such as hemp, iron, furs, and lumber (Bast 1950:950; Clark 1950:295). Shipbuilding continued as an important local enterprise,

and Talbot County boat builders sold to both British merchants and local entrepreneurs. By the time of the American Revolution, milling also had become important; large quantities of wheat and corn were exported to the West Indies (Clark 1950:295; Bast 1950:950).

As Talbot County's agriculture changed during the eighteenth century, so did the nature of the county's population and the patterns of landuse and ownership. The region's agricultural complexes were dominated by middling planters; over half of the population farmed tracts of less than 200 ac. Tenancy became more frequent; as larger landholders consolidated their holdings, they frequently rented to otherwise landless operators. Of the core group of 800 farmers in Talbot County in the mid-eighteenth century, over half were tenants (Clemens 1980:146-148).

The spatial organization and built environment on Talbot County farms and plantations varied with the affluence of the individual. Small tenant farmers generally occupied clapboard dwellings with dirt floors, and their complexes included a tobacco barn and one or two additional outbuildings. Larger tenants and farmers could afford comfortable brick homes with separate kitchens that conformed more closely to the mental image of the "typical" eighteenth century Tidewater plantation (Clemens 1980:146,148). Tax assessment records for dwellings on Poplar Island at the end of the eighteenth century suggest that both types of complexes may have been present.

The late eighteenth century improvement of the county's internal transportation system caused a reorientation of Talbot County's economy towards the east, away from Poplar Island and the bay shore, particularly after roads were built from thriving towns like Oxford to the growing city of Philadelphia and to several communities in Delaware. The importance of provincial towns in the colony also declined, as Baltimore rapidly became the dominant urban center of the state (Bast 1950:951).

During the early years of the Revolution, Loyalist privateers raided the farms and plantations along the estuaries and tributaries of the Chesapeake Bay. Their activities appear to have been foraging raids designed to support British General Howe as he moved up the Chesapeake Bay to land at Elkton, Maryland, prior to his occupation of Philadelphia. The situation was considered sufficiently threatening that in July of 1776, the Talbot County Council of Safety ordered all livestock removed from Tilghman's, Sharpe's, and the Poplar Islands, beyond the reach of the enemy (Tilghman 1915:101). The raids also caused the Talbot County commissioners to outfit a number of small boats to act as a defensive navy for the East Bay and surrounding waterways (Tilghman 1915:125). In 1781 this small navy engaged a Tory raiding party and captured a barge and two small boats. This clash marked the high water mark of Talbot County's involvement in the naval wars of the Revolution (Tilghman 1915:101).

The War of 1812 also affected Talbot County. Between the wars Talbot County had organized a militia artillery company. When the threat of British naval activity on Chesapeake waters again became apparent, Talbot County again formed a navy, this time composed of a single oar-propelled barge equipped with a single gun from the Talbot Volunteer Artillery Company mounted on the bow (Tilghman 1915:152). However, the barge proved to be too slow and clumsy to find or engage the British.

In contrast to their response to Britain's Revolutionary War incursions into Talbot County, county officials did not see the need to evacuate the farms of people and livestock during the War of 1812. However, in April, 1813, British Admirals Warren and Cockburn sailed up the Chesapeake Bay and again occupied Tilghman, Sharpe, Kent, and Poplar Islands. This action caused a great deal of panic, because Easton, the county seat, had made no preparations for defense. The residents of the outlying islands of Talbot County suffered substantial losses as a result of these incursions, and tried to get compensation for these losses after the end of the war.

Maritime Context. One factor that continued to retard the growth of population and commercial centers during this period was the small size of ocean going vessels. However, because of their relatively diminutive size, these vessels were able to navigate the Bay's shallow tributaries easily, and thus could provide direct service to the region's agricultural and marine producers of tobacco, vegetables, and eventually, oysters.

Development of the Chesapeake's commercial centers increased after population expansion pushed colonial frontiers west of the fall line during the middle of the eighteenth century. At this time, settlements located at the heads of navigation of many Chesapeake Bay tributaries began to serve as shipping centers connecting inland frontiers with world markets. Georgetown, Bladensburg, and Baltimore were port cities that developed near the heads of river navigation on the Western Shore of Maryland. The ports of Cambridge and Chester developed on the Eastern Shore. Annapolis, as the capital of the colony, became another important center of commerce, as well as a center of political life.

For the first time in Maryland, large concentrations of warehouses were built in response to commercial demands. Port towns such as Talbot County's Oxford were the logical location for such facilities, and Oxford had seventeen large warehouses in the early eighteenth century (Weeks 1984:49). Later in the century, Baltimore became a transhipment point for inland producers, as the grain farmers of western Maryland and southern Pennsylvania began to produce surplus for export. Commodities were brought into Baltimore from outlying areas, to be traded in the West Indies for such luxury items as sugar, rum, and slaves. This city was well-established as a commercial center by the third quarter of the eighteenth century.

During the last few years of the seventeenth century, Maryland shipbuilding and shipping experienced a period of remarkable growth, particularly in Talbot and Kent Counties on the Eastern Shore. In 1698, there were 13 ships, 9 "vessels," 6 pinks, 12 brigantines, 70 sloops, and 51 shallops owned or built in the colony (Middleton 1953:250). Shipbuilding activity continued to increase during the first decade of the eighteenth century, particularly in Talbot County. This building spree, financed by English capital in response to Queen Anne's War (1702-1713), had little lasting effect for Maryland; overall, that war was detrimental to Maryland shipping. Over a dozen large vessels were built during the first ten years of the eighteenth century, including two ships of 400 tons, yet by 1720 the Maryland owned merchant fleet had decreased to only two small brigantines and 20 sloops. There were a number of shipwrights in the colony at the time, but their work appears mainly to have been repair work rather than new construction (Goldenberg 1976:52).

Shipbuilding activity on the Chesapeake rose again after 1730, when the number of shipwrights in the colony grew with the expansion of the Bay's commercial centers and increased the need for transportation of locally produced goods. As a consequence of the rise in shipbuilding activities, the number of ancillary maritime businesses in the colony, including ropewalks, sail lofts, and ships chandleries, also grew. By 1747, there was a ropewalk operating in Londontown on the South River; by 1748, there also were ropewalks in Annapolis and Chestertown. A sail maker was active in Annapolis by 1753 (Middleton 1953 254-255).

Tobacco was the major crop on both shores of the Chesapeake through the early colonial period. The structure of markets and the nature of the crop, its nurture, its harvest, and its labor requirements had a profound influence on Tidewater society. The land requirements helped to keep land holdings large and settlement sparse, although this was never as true in Maryland as it was in much of Virginia. Tobacco also helped shape life and labor in other ways, some of which are only now being understood. Broad stands of oak in areas such as southern Anne Arundel County and Talbot County combined with the need for cargo vessels to stimulate shipbuilding (Seidel 1993a:80). Merchants-planters such as Samuel Galloway found it lucrative to build and use their own vessels for shipping tobacco to England. This ensured transportation when the crop

was ready and also added to income (Middleton 1953). By the 1750s, for example, Galloway had his own vessels constructed and sailing out of Anne Arundel County's West River. He developed a business relationship with shipbuilder Stephen Steward which continued through the Revolutionary War (Seidel 1993a). In addition to Galloway, other planters such as Thomas Ringgold (of Chestertown), Charles Carroll (the barrister), and William Allason (Virginia) got into the business (Middleton 1953).

The enterprises of these men, with their demand for timber, must have formed an intricate relationship with tobacco culture, a relationship which has been minimally explored (Seidel 1993a:80). Just as the final products of the two activities, ships and tobacco, were tied together in distribution, so too were their developmental stages. Land had to be cleared before tobacco could be planted, and the timber could be put to good use. At least part of the labor force of the plantation, which was seasonally inactive, could be used during periods of inactivity in the labor intensive aspects of shipbuilding. It seems likely that a network of labor, enslaved, indentured, and free, grew up around these activities and linked much of the population of Tidewater Maryland (Seidel 1993a).

With so much riding on safe and timely shipment of the tobacco crop to England, many planters found it advantageous to own their own vessels, or at least to hold an interest in shipping. When cargo space was scarce, owners of vessels still could be sure of shipping their harvest to market (Middleton 1953:282). In Maryland, families such as the Carrolls, Dulanys, Taskers, Chews, and Ridgelys owned their own vessels, as did the Virginia families of Washington, Carter, Custis, Byrd, and Braxton. Many owned several vessels. Samuel Galloway, for example, owned two ships, plus a snow, a schooner, and a sloop at the same time, while Patrick Creagh of Annapolis owned fourteen vessels between 1734 and 1749 (Middleton 1953:282-283).

Although tobacco remained a major crop on Maryland's Western Shore into the nineteenth century, the Eastern Shore followed a different path to prosperity. By the mid-1700s, many planters on the east side of the Bay were shifting to grain as a cash crop. Grain prices were more stable than those of tobacco, and exports to the West Indies and southern Europe flourished. By the century's end, tobacco cultivation was negligible on the Eastern Shore (Clemens 1980; Ridout 1982:7). The renewed shipbuilding activity in Maryland at mid-century also was a response to this increase in the grain trade during the 50 years preceding the American Revolution. The vessels used in this trade generally were smaller than the vessels used to carry tobacco. They also required a smaller initial investment, a fact which may have lead to increased local ownership of vessels. Approximately 75 per cent of the ship tonnage built in Maryland between 1748 and 1759 remained under Maryland ownership (Goldenberg 1976:118). Although many of these vessels were lost during King George's War (1740-1748), the profit to be made in the grain trade in war time, combined with the relatively low cost of the grain ships, actually served to spur ship construction further, rather than diminish it (Middleton 1953:260).

The demand for new vessels remained high following the onset of the French and Indian War and the percentage of the ship tonnage built in Maryland that remained in Maryland hands continued to increase. Eighty per cent of the Maryland built vessels were Maryland owned between 1760 and 1771; 95 per cent of the vessels built in Maryland went to Maryland owners between 1772 and 1775 (Goldenberg 1976:119). Nevertheless, between 1746 and 1775, the proportion of the overall traffic through Maryland ports conducted by Maryland built or Maryland registered vessels consistently was less than half the number built and registered in other colonies, or in England. For example, only 65 of the 144 colonial vessels to appear in the Annapolis Port records were built in Maryland during the period between 1768 and 1771 (Goldenberg 1976). Shipping traffic clearly was rapidly growing and a signal of greater economic activity.

A fairly large number of Maryland shipyards are known to have existed, but they must have been joined by many additional yards which were less formal, part-time concerns. By 1810, for example, there were at least nine shipyards in St. Michaels and more throughout the rest of Talbot County. Some of Talbot County's master shipwrights worked near home as well as in the larger yards of Baltimore. The yards employed a large number of craftsmen and less skilled workers, who crowded in and around St. Michaels and gave it a rowdy and undisciplined flavor (Wennersten 1992:155-156).

In addition to the construction of vessels, periodic maintenance was required on hulls and rigging. Some of this maintenance was done in shipyards, while other activities could take place without large facilities. Maintaining the integrity of wooden hulls was a perennial problem for ship owners and masters (Lavery 1987:56-65; Middleton 1953). The foremost problem was "the worm," *Teredo navalis*. Ship worms infested wood hulls below the water line, boring into the hull planking and, if not checked, eventually destroying the bottom like termites on land. Robert Beverley (1705:5-6) described several ways of avoiding the damage. The simplest was to take vessels upstream to fresh water during the worst periods of worm infestation (thought to be June and July). The worms thrived in saltier water, and the upper reaches of rivers such as the Choptank provided relief, as did streams farther up the Bay, such as the Sassafras. Mechanical techniques also could preserve a ship from the worm. Vessels often were careened immediately after the infestation period and the bottoms were scorched, to burn off the attacking worms. Another approach was to shield the hull from attack, either by coating with substances such as pitch and tallow or by applying sacrificial wood sheathing.

Burning off the worm and applying (or renewing) bottom coats or sheathing required vessels to be periodically careened. Careening, or heaving down, a vessel was a cheap substitute to dry dock, with a vessel being pulled close in shore, preferably at high tide, and then heeled over with block and tackle to expose one side of the hull bottom. Once that side had been worked on, the process was carried out on the other side. This also gave shipwrights a chance to deal with accumulations of barnacles or weed. Careening also was required to recaulk hull seams or to replace planks. Although shipyards at ports such as Annapolis, Baltimore, Chestertown, and Norfolk were most active in such repairs or refits (Middleton 1953:258), especially for larger vessels, many small yards on both shores of the Bay did the same.

The clear commercial orientation of planters, merchants, and shipwrights towards the water had a counterpart in water oriented subsistence activities. During the early part of this period, shellfish continued to be considered crisis food by colonists on the Bay. Francis Makemie tried to encourage the harvest of the Bay's bounty in 1705, and even developed an elaborate plan to export pickled oysters (Wennersten 1981:6). Nonetheless, there are no records of any shipments of seafood out of Maryland between 1696 and 1715 (Middleton 1953:224). By the second quarter of the eighteenth century, however, shellfishing became an important subsistence activity among the poor and was considered an important food source for slaves on large plantations. At the same time, the unpredictable pricing of tobacco, combined with rapid increases in land prices before the Revolution, drove many poor whites to water-oriented trades. They sought employment in the shipyards of Chestertown, Oxford, and other locales, or they went into the herring or oyster fisheries. Exports of those latter two resources to Jamaica and London had become increasingly important by mid-century (Wennersten 1981:6-7).

Herring typically ran in the Bay from the first of April to mid-May, and were fished primarily with haul seines. Contemporary records sometimes describe the nets, with George Washington, for example, ordering from London a 75 fathom seine measuring 10 ft deep in the middle and 8 ft at the ends, with the mesh a size appropriate to herring (Chowning 1990:10-14). "Virginia-cured herring" was a popular food in the late eighteenth century, and fishing rights along the shoreline of Bay properties were often sold or leased (Chowning 1990:12,14). Haul seines also were used

for taking croakers and spot in the late 1770s, and were the tool of choice for the annual shad runs until gill nets were introduced in 1838 (Chowning 1990:9,30).

By the end of the eighteenth century, the appetite for shellfish had increased substantially in the new republic. Advertisements from Maryland oyster dealers could be found over a wide area on the east coast (Wennersten 1981:7). The commercialization of the fisheries was still hampered, however, by the perishability of their products, and those who were most successful in the seafood industry lived and worked close to the larger population centers.

Some of Maryland's water-based activities were less visible to the casual observer. The dissection of Maryland's coastline by numerous inlets and tributaries made it particularly vulnerable to certain forms of illicit trade. Although piracy was largely eradicated by 1700, smuggling was common, especially in the grain and sugar trade with the West Indies (Middleton 1953:207-209). Sugar and molasses were much cheaper in non-British ports, such as Guadeloupe, Martinique and Santo Domingo, although colonial vessels were prohibited from picking up cargoes in those ports. The West Indies nevertheless served as a lucrative outlet for colonial grain surpluses, and returning vessels could profit from taking on cargoes of cheap sugar, provided customs officials could be avoided in the Chesapeake (Middleton 1953). Another important maritime activity was privateering. Private vessels from the Bay frequently were armed and served as surrogate naval vessels during the many Anglo-French wars of the eighteenth century. Privateering understandably increased during the American Revolution. Watermen from the lower Eastern Shore, in particular, pursued rebel shipping with barges and row galleys, while professing loyalty to the Crown. Some of this activity was a reflection of social friction, emphasizing the distance between watermen and the gentry and slaveholders (Wennersten 1981), and some of it was simply opportunistic.

Chain of title. Poplar Island remained under the control of the Carroll family for the 150 years following 1700. During that time, the island was leased, presumably to a number of tenants.

The most accurate and fully documented picture of how Poplar Island was utilized and what such a leasehold involved can be obtained by examining the lease of William Sears, who in 1783 rented "all that Island in the Bay of Chesapeake called and known by the name of Poplar Island," plus the services of fifteen slaves, from Charles Carroll of Carrollton. For the privilege of farming the land, Sears paid Carroll an annual rent of £160 "current money of Maryland", payable in Spanish milled dollars, a scarce commodity in the post-Revolutionary colonies. He also promised to conform to a variety of rather strict terms, violation of which was punishable by fine and/or forfeiture of the lease.

The terms of the lease definitely were fixed to protect Carroll's interests and investments. Sears was directed not to clear or cultivate more land than already had been cleared. He also was not to cut down "any Timber or Wood except what may be necessary for fuel, erecting of Buildings and making fences or the repairs thereof," nor sell or give away any timber. He specifically was ordered to "manure plentifully," in rotating sequence, a ten-acre portion of the property each year during the term of the lease, and to maintain the orchard of "grafted apple trees." He was obligated to pay all taxes on the property. Finally, he was required to provide clothing, adequate bedding, food, and medical care for the slaves. Carroll reserved the right to send an agent once a year to inspect the health of the slaves; if they were found to have been mistreated, the lease was immediately null and void (Maryland State Archives 1783).

Sears apparently profited from this arrangement, for he renewed the lease. In 1798, the 799-ac complex on Poplar Island contained 3 dwellings and 7 outbuildings. Sears and his 38 rented slaves, 20 of whom were between 12 and 50 years of age, shared the property with two other tenants: Thomas Wood, perhaps an overseer, and Dorothy Larrimore, whose role is

unknown. The total value of the land and buildings on the island was $4,885 (Direct Census 1798:30, 66). Sears' lease on the island continued through the War of 1812, for he claimed damages as a result of a British raid on the island during which he lost large numbers of cattle, sheep, pigs, and poultry (Tilghman 1915:45ff.,176; Cronin 1985:25).

Agricultural Transition and Economic Instability (1815-1970).

General Historical Context. By 1805, interest in new farming technology had led to formation in Talbot County of the first agricultural society in Maryland (Bast 1950:963). The transition from tobacco to grain production, coupled with the introduction of improved farm machinery and artificial fertilizers, increased crop yields in Talbot County. During the first two decades of the nineteenth century, Talbot County enjoyed a time of relative prosperity; commercial ventures increased, industries were established, and shipbuilding remained an important enterprise (Clark 1950:493).

However, the panic of 1819 and the twenty-year agricultural depression that followed hampered the recovery of Talbot County's economy (Bast 1950:959; Preston 1983:173). The shipbuilding industry, already threatened by the over-exploitation of timber resources, declined precipitously (Preston 1983:173-174). Farmers abandoned tobacco production completely. Many county residents turned to the Chesapeake Bay for their livelihoods, while many others left the area and moved to cities like Baltimore, Philadelphia, and Wilmington to find work.

This period of economic decline was only temporary. Industrial development surged ahead in the county seat of Easton. The community of St. Michaels began commercial harvesting of oysters, and the first packing company was established there (Bast 1950:967). Sheep raising became so widespread that by 1860, Talbot County was the leading wool producing area on the Eastern Shore. Although corn and wheat remained staple crops, the late antebellum period also saw an increase in the sale of garden and orchard produce to markets in Baltimore (Clark 1950:499-504).

However, the economic resurgence of the 1840s had little effect on Poplar Island. Changes in the county's infrastructure rarely affected Poplar Island, although they helped the county grow substantially. Some attempts were made to create an economic boom in the poorer areas of the Eastern Shore. In 1833 the Maryland General Assembly voted to build the Eastern Shore railroad, but the area was not yet able to support such an ambitious plan. By 1817 steamships were operating between Easton and Baltimore. The railroad, planned in the 1830s, finally was constructed in 1855. However, the completion of the Chesapeake and Delaware Canal in 1829 had the greatest effect on the county's economic vigor, as it facilitated Talbot County's commerce with markets in Philadelphia and New York (Bast 1950:967).

The Civil War bypassed Talbot County and Poplar Island with little effect. However, while military operations did not change the area, the loss of slave labor did. During the late eighteenth and early nineteenth centuries, the slave population in Talbot County had risen, from 38 per cent in 1782 to 48 percent in 1820 (Wesler et al. 1981a:322). The end of slavery brought about by the Civil War required many more farmers to adopt mechanical and scientific agricultural methods. While the era of the large plantation had begun to decline even before the Civil War, the war and the changes it brought saw the end of the large plantations. By the 1860s the average farm in Talbot County was only 183 ac (Wesler et al. 1981a:325; Clark 1950:505).

In the immediate post-war years, Talbot County continued to grow. By 1869 the railroad had branched out to connect Easton and Clayton (Bast 1950:968). The county's population clustered along the railroads, especially at the intersection of railroads and county roads. The county, excluding Poplar Island, also benefitted by the expansion of the Enterprise Steamship

Company, which began extensive commercial operations on the Miles, Choptank, and Tred Avon rivers in 1867.

The earliest map to show clearly the configuration of the Poplar Island group is the U.S. Coast Survey 1846-1847 *Map of the Eastern Shore of Maryland, from Wade's Point to Low's Point, including Poplar and Sharps Island*. This map (Figure 8) shows that Poplar Island was separated from what would become Coaches Island by a thin neck of land, and that Jefferson Island already was separate, although it is not labeled on the map. The primary locus of settlement appears to be in the area of what is now South Central Island, with additional structures on Coaches and Jefferson islands. Fields were laid out on all of the islands, but much of the non-agricultural portion appears to have been forested. In fact, Frederick Douglass, who was raised on the nearby Talbot County mainland, reportedly referred in his autobiography to the "thick black pine forest" of Poplar Island (Meyer 1986:43).

Figure 8 shows the approximate current (1994) island configuration superimposed over the historic map. The only current island remnant clearly in an area of habitation on the 1847 map is South Central Island. Both North Poplar and South Poplar Islands were located in forested areas; Middle Poplar probably was farm field at that time. The map and census data suggest that two primary farms comprised the population of Poplar Island at the beginning of the second half of the nineteenth century. Interestingly, the Sherwood farm may have been located in one of the few land areas to have survived to the present. Figure 8 Indicates that the location of one of the 1864 settlement locl was on or near the current South Central Island. The occupation in the area of what is now South Central Island probably is the Sherwood family farm; the sites located here (18TA236 and 18TA237) undoubtedly were components of that complex.

Maritime Context. In the years following the War of 1812, Baltimore was the greatest growth center on Maryland's portion of the Bay, and industrial expansion was the focus of city's economy. Residential areas adjacent to the waterfront were transformed into concentrations of warehouses and industry. Row houses were constructed away from the city's mercantile core to accommodate the rapidly growing population. Sugar refineries, fertilizer plants, and cotton plants provided products for export, and the shipyards which had characterized the earlier waterfront were replaced by coal yards, lumberyards, and oyster and vegetable canneries. These trends continued throughout the nineteenth and into the twentieth centuries. The needs and products of these enterprises generated increased commercial water traffic on the Bay and its tributaries and linked areas such as Poplar Island and the rest of Talbot County to the growth centers of the state.

A factor which contributed to the growth of a few, rather than many, port cities was the continuing tendency of shipyards to construct ever-larger oceangoing vessels. These vessels required relatively deep channels for navigation. At the same time, many of the Bay's smaller estuaries were silting up as a result of the extensive clearing of agricultural land; this effectively decreased the number of harbors that could serve as viable seaports. In fact, by the early nineteenth century, the dispersed settlement pattern that had developed during the colonial period had become a liability. By this time, large oceangoing vessels effectively were excluded from many of the smaller local landings. This was detrimental to tidewater farmers because it increased the time and the cost of transporting their crops to market. Before the wide spread of steam power, farmers living on Bay tributaries found it necessary to transport tobacco a long distance overland, or on small, relatively slow-moving Bay sailing craft, in order to reach market.

Finding one's way on these water highways, around shoals and shallows, was not easy for an outsider. It is a truism that there is no one who has sailed in the Bay who has not at one time or another gone aground. In small craft, touching bottom may not necessarily be a serious matter, but for larger vessels with deeper draft, however, the shoals of the Bay were more of a

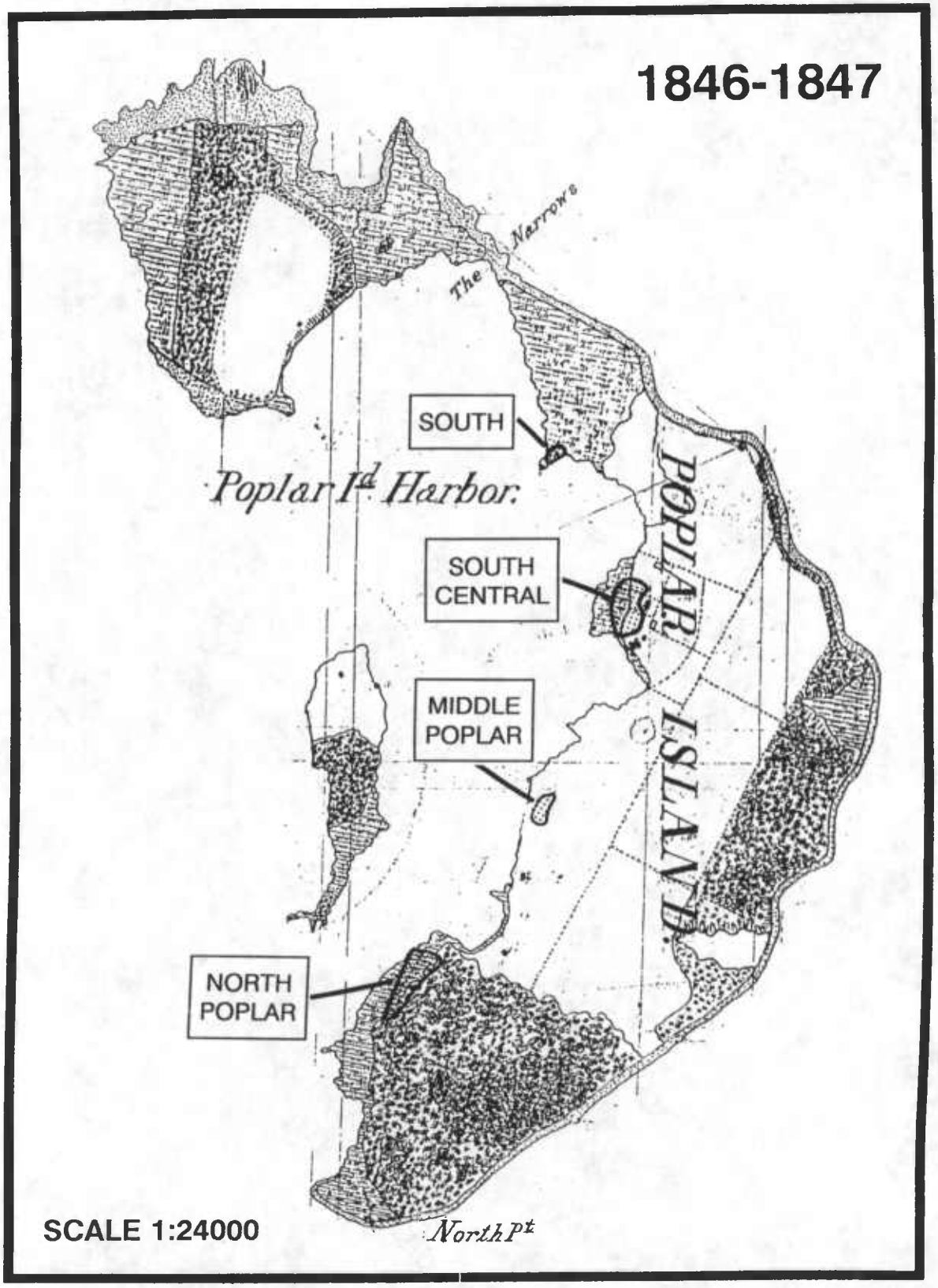


Figure 8. Excerpt from U.S. Coast Survey 1846-1847 *Map of the Eastern Shore of Maryland, from Wade's Point to Low's Point, including Poplar and Sharps Island*, with an overlay of the approximate configuration of the Poplar Island group in 1994 (original map is oriented north to bottom)

hazard. Even the main stem of the Bay, for which charts and soundings were readily available, was not without its hazards. Sailing ships regularly went aground, and local pilots often were retained in an attempt to avoid such a disaster (*Maryland Gazette*, 12 March 1752; 9 April 1752; 29 May 1757, for example). Navigation on individual rivers, however, or around shoals such as those of Poplar Island, was even trickier, and the inadequacies of charts did not help matters (Seidel 1993b).

On the Bay's tributaries and in the shoal waters of Talbot County, most of the everyday traffic was, of course, local small craft. Local watermen came to know their own waters intimately, and could move through them without navigational aids. Where shallows might present a particular problem, sticks or other markers could be placed as references. Most captains also had in their minds a series of shoreline ranges and references points, and by lining these up they could stay in navigable channels. Many of these references either were learned by experience or handed down in the same way as oral history. Local landmarks and navigation patterns seldom were written down. Only occasionally did they find their way on to charts. Most watermen had a store of such sailing directions, which changed as the rivers changed and range marks appeared and disappeared on shore (Seidel 1993b:71-72).

For outsiders, of course, such ranges were not much help. Unless one learned of them by trial and error or had an informant, entry into the area must have been a cautious affair. The U.S. Coast Survey charts of the 1840s and later certainly improved this situation. Even before any buoys or other marks were placed, these charts provided a wealth of soundings and information on what the adjacent shoreline looked like. This was the primary reason for the detail shown on the land in these navigational charts. Mariners could use these landmarks in conjunction with soundings to pick their own way through new waters. Notes on bottom texture and color were an additional aid (Seidel 1993b:72).

Freight and passenger steamboat service first became available during the early 1800s, although initially it was restricted to a relatively few routes between major ports. Easton, in Talbot County, had its own steamboat line as early as 1817 (Weeks 1984:90). As steam service grew during the nineteenth century, the entire Chesapeake region was brought within a day's travel of major urban centers. Steam-powered service significantly expanded markets for the tidewater region's fresh produce, while at the same time opening up the tidewater market for urban products.

Growth of the region's transportation infrastructure, including improved access to the Chesapeake Bay, was critical to the development of the various urban centers in the region, as evidenced by Baltimore's evolution into a major transshipment center during the nineteenth century. When the city of New York first began to tap the lucrative trans-Appalachian west through the Erie Canal in 1828, a group of Baltimore entrepreneurs chartered the Baltimore and Ohio Railroad. Establishment of this transportation link increased Baltimore's accessibility to producers in Western Maryland and Ohio. This improved its position as a commercial seaport even further, by making it a transfer point between the inland west and overseas markets. Baltimore soon became the most important commercial center in the southern Middle-Atlantic region. Also, with the opening of the Chesapeake and Delaware Canal between the Elk River at the head of the Bay and the Delaware River, Baltimore's trade links with Philadelphia, and Baltimore's links with the northeastern Pennsylvania anthracite coal fields, improved significantly. The Canal cut the water distance between Baltimore and Philadelphia by about three quarters, from over 400 miles to just over 100 miles. More importantly, by obviating the outside passage along the exposed Atlantic coast, the risks inherent in sending merchandise between the two ports by water were diminished greatly.

Changes also occurred in water-based subsistence on the Bay, with the increasing commercialization of fisheries. The shad fishery became more productive with the introduction in the 1830s of the gill net. Watermen fished these nets as floating or drift nets, or they were anchored on stakes. In the 1860s, Bay watermen began to fish commercially for menhaden *(Brevoortia tyrannus,* also called bunker, alewife, pogy, etc.). Fish oil was produced by boiling menhaden, and by the 1870s there were at least two menhaden plants on Tangier Island, and perhaps thirteen more scattered around the Bay (Chowning 1990:30-66). Striped bass, locally known as rock fish, enjoyed a local and commercial favor which continues to this day.

Prior to the beginning of the nineteenth century, the oyster fishery had been conducted exclusively from small, open dugout canoes, using tongs to scoop up the shellfish from the shallows. At about that time, however, New England schooners began to appear in the Bay in great numbers, using large boats equipped with mechanical oyster dredges (Warner 1976:68). They moved Into the Chesapeake after decimating the oyster beds from Cape Cod through Long Island Sound and the Delaware Bay. In an effort to protect the local fishery, the Maryland General Assembly outlawed dredges, and in 1820 the transport of oysters in vessels registered out-of-state was forbidden. Although these laws had some effect in preserving the fisheries for Maryland residents, they did not prevent the continued use of the dredge. Having learned to use the mechanized approach, which was both easier on the arms and more productive, few Maryland watermen were inclined to return to tonging. In the season of 1869-1870, 563 licensed dredging vessels were working Maryland's oyster harvest, and many of these actually were owned by out-of-state residents who simply registered their vessels in Maryland under false bills of sale (Wennersten 1981:27).

The increased productivity of oyster fishermen, in combination with the growing popularity of oysters nationwide and the improved preservation introduced by the canning industry, led to an unprecedented boom in the Maryland fishery. This is demonstrated by the remarkable spread of the canning industry. The first cannery in the state was opened in Baltimore by New York businessman Thomas Kensett in 1849 (Burton 1986). Within a year, five canneries had been established in the area; by 1860, there were nearly 60 packing houses along Baltimore's city wharf alone (Wennersten 1981:14). The B&O Railroad was by this time carrying over 3,000 pounds of oysters a year out of Baltimore (Wennersten 1981:14). In the 1870s, the use of steam pressure cookers speeded up the canning process and combined with the new transportation routes to fuel a continued growth in the Chesapeake Bay fishery, as well as in the truck farming industry. Because of the ability to preserve fish and vegetable foods for wide distribution, the produce of the Tidewater region could reach a much wider market. The Chesapeake's shellfish resources, and the cheap transportation the Bay provided between the farmers, watermen, and Baltimore's deepwater port, situated Maryland perfectly to capitalize on the new worldwide demand for canned foods.

To meet the watermen's need for vessels, smaller scale boat building was wide-spread outside of major ports such as Baltimore, even if large-scale operations were a thing of the past. The sloops constructed in some of these yards were among the oldest of all European vessel types on the Bay, arriving to the Chesapeake by 1646 (Brewington 1966:2). Although originally more commonly employed as deep sea traders, sloops became numerous on Bay after the introduction of the centerboard, ca. 1820 on the Bay, which improved their sailing qualities and allowed for a shallower draft. Sloops were one-masted vessels, with a fore and aft rig. Most measured between 25-50 ft in length, and were built plank-on-frame, with rounded bottoms, sharp bows, and square sterns.

Like the Bay sloops, the number of schooners on the Chesapeake increased after the centerboard was introduced; eventually they became the most prevalent ship type on the Bay. The schooner rig, which also is of European origin, was adopted in America and on the Bay ca.

1700. The term schooner originally was applied to two-masted vessels which used a fore and aft rig for the principal sails. Schooners might also carry square topsails or top-gallant sails on the foremast. Towards the end of the nineteenth century, American schooners increased in size, with many carrying from three to six masts. The hull form of the Chesapeake schooners was similar to the Bay sloops, although schooners tended to be slighter larger vessels, measuring 30-80 ft long. As compared to the sloops, the Chesapeake schooners also had shorter sail plans, with heavier, less raking spars, and only a main topmast. An exception to the rule was the Baltimore Clipper schooner, a widely adopted vessel type, and one of the best known American ship designs. Despite a large base of literature on the subject, the origin of the Baltimore Clipper schooner remains a subject of some debate, with credit for its design variously attributed to the Scandinavians, French, and English (Cederland 1992; Chapelle 1930; Davis 1929; and Hulan 1993). The fast sailing Baltimore Clippers saw a great deal of use in the illicit trade in Chinese opium, and also in the African slave trade to Cuba. Because of their speed, the American Navy also employed them frequently as patrol boats and pirate chasers (Davis 1929:37).

The Baltimore Clipper was a long, low, rakish craft with comparatively little freeboard. The schooners' stern post typically raked from 15-25 degrees; the stem from 25-45 degrees. Keel drag was excessive, with the hull nearly twice as deep at the stern as it was forward. The midships section was placed a quarter of the hull's entire length from bow. In their length-to-breadth ratio, they were proportionately narrower than other schooners, which increased their speed. The Baltimore Clipper schooner's bow raked under and was very sharp to form an easy entrance that crowded the water down as much as it spread it apart. Master shipwrights from Talbot County were widely respected as builders of clippers and were actively involved both locally and in the larger shipyards of Baltimore (Preston 1983; Wennersten 1992).

A direct descendant of the Baltimore Clipper schooner, the Bay pungy shared many of its sleek ancestor's characteristics, including a moderately sharp, flaring bow with a curved and strongly raking stem, a long head, sharp floor, long run, raking stern post, flush deck, a lograil (except aft of main rigging where there is an open quarter rail), and a schooner rig. Like the Baltimore Clipper schooner, pungies had a reputation as fast sailers (Chapelle 1930:148-9). At 30-80 ft, the average length of the pungies was similar to the Bay schooners. The principle differences between pungies and schooners were that the former had much greater drag (deeper at stern than at the bow), more deadrise, and an amidships section that was placed further forward. The pungies also had more strongly raking ends, a log rail rather than bulwarks, a transom hewn from a solid timber rather than planked over frames, and a taller sail plan, with lighter and more raking spars. Variations on the Bay pungy included the "she-pungy" and the "square sterned bugeye," both of which maintained all the attributes that were characteristic of the pungy rig, but were shoal drafted and had centerboards. The versatile pungies were used in a wide range trades on the Chesapeake, including oystering, for which they were particularly well suited because of their shallow draft and superior hull strength. Their expanded rig gave them ample power for towing oyster dredges (Brewington 1963 and 1966).

Edward Riley and Robert Lambdin were two of the builders who put together small craft such as pungies and schooners in St. Michaels, and the Bartlett-Dixon family operated a yard on the Tred Avon (Wennersten 1992:196-198). The larger shipbuilders again were tied into a wider economic system. Talbot County's William R. Hughlett, Jr., for example, built a house in Trappe, but was both a shipyard owner and a director of the Easton National Bank. He also farmed and owned interests in the lumber business (Weeks 1984:87). Hughlett employed a master shipwright, Nathaniel Leonard, who built several schooners, as well as one of the last brigs built on the Bay, the *Argyll*, launched in 1856 (Wennersten 1992:1198).

Log canoes also underwent an evolution during the nineteenth century. During the mid-1800s, Chesapeake Bay fishermen could either sell their small catches for less than wholesale

price to "buy boats" on the Bay, who would then transport bulk oyster shipments to the large urban ports of Baltimore, Norfolk, and Washington, or they could make greater profits by transporting the oysters themselves directly to these markets. Longer voyages, however, necessitated larger, more weatherly vessels with better accommodations for crew. To meet the new demands of the industry, the design of the oysterman's canoe was changed considerably, which resulted in the appearance of a new variety of craft called the "coasting canoe" during the 1820s. Used extensively until the mid-1850s, coasting canoes were nothing more than an enlarged version of the earlier log canoe, fitted with a tiny "hunting cabin", which contained two bunks and a small wood stove, in the bow. The sail plan of the coasting canoe was the same as that of contemporary canoes; leg-of-mutton foresails and mainsails with no jib, and the foremast was fixed. The mainmast was removable for shortening sail.

Out of these forms, the bugeye was created some time in the late 1860s to meet the demands of the Bay's expanded oyster harvest, especially those imposed by dredging. Sloops, schooners, and pungies were among the first watercraft to employ dredges, because they were the only vessels capable of hauling them across the seabed; however, none of them were particularly well-adapted for the task, and most drew too much water to operate in shoal waters over the shallower oyster beds. The height of the bulwarks on sloops and schooners made handling the dredge difficult, and the pungies were too deeply drafted to work in the shallower waters. Furthermore, oyster dredging proved particularly detrimental to these frame-built vessels. Framed hulls worked heavily with the repeated dumping of oysters into the holds, were quickly abraded on the interior by the sharp shells of the cargo, and were damaged more easily on the outside of the hull by scrapes across shallow oyster beds. Log canoes did not suffer this disadvantage, but they lacked adequate carrying capacity, and their open boat design made them less than weatherly. Furthermore, their rig was inadequate to pull the oyster dredge or "scrape".

The larger, more heavily rigged bugeye proved perfectly suited to the task. Bugeyes evolved from the brogan design. Brogans were coasting canoes with an exaggerated length to breadth ratio and a different interior arrangement. What set bugeyes apart was their greatly increased working space and carrying capacity. They were modified to include several extra wing logs, side planking, frames, and a full deck, but like brogans they were modeled after the log canoe design. They therefore required relatively little boat building skill to construct, were easy to repair, and had thick and resilient bottoms. The shallow drafted bugeye hull was well suited for both the shoal waters over the oyster beds, and for making landings at waterside farms, where the vessels were loaded with shipments of produce during the off-seasons when oystering was prohibited.

The bugeye's ingenious design was based on a durable log bottom that was longer than that of most canoes. The log bottom was surmounted by a framed and planked topside, placed onto the sheer log of the canoe with a slight overhang. On average, most bugeyes measured approximately 60 ft long. Due to difficulties in procuring the necessary timber, the bugeye's stout log bottom construction eventually gave way to conventional frame construction, with all framing set square to the centerline, with no cant frames (Grimwood 1942).

Chain of Title. Over a century and a half of Carroll family control of Poplar Island ended in 1857, when Charles Carroll of Doughregan Manor in Howard County, the grandson of Charles Carroll of Annapolis, sold the southern half of the island north of Coaches Neck to Thomas Sherwood for $2,507.50. Sherwood's 250-ac tract contained approximately 178 ac of cleared land, 36+ ac of marsh, and 36+ ac of woodland, and it was separated from Capt. Howeth's property to the north by a road that bisected the island (Talbot County Deeds Liber STH67:513-514; Dilworth 1858). Samuel Chamberlain surveyed the property in 1852 for Charles Carroll; unfortunately, the plat was not among those recorded in the extant Talbot County Plat books.

The language of the deed transferring title from Carroll to Sherwood also provides insights into the environmental and economic changes that were taking place on Poplar Island during the period. The use of Coaches' Neck as a property boundary suggests that, by the mid-nineteenth century, the separation of Coaches' from Poplar Island had advanced to the point that the two portions of the island were in effect two separate entities. Similar forces detached Poplar Island's northern section as well; Dilworth's 1858 map shows that Coaches' Island was occupied by J. Young, while Charles Carroll maintained ownership of Cobbler's Neck (now Jefferson Island)(Meyer 1986:43).

1860 census records reveal much about who Sherwood was and how he utilized his portion of Poplar Island. The household of the 59-year old farmer included his wife Mary; Ann Sherwood, 90, probably his mother; Harriett Sherwood, aged 62, perhaps a sister; and Sally Wills, a 13-year-old white female whose relationship to the Sherwood family is unknown. Given their relatively advanced ages, it is unlikely that the members of this household were capable of operating the farm by themselves. The members of two immediately adjacent African-American families headed by Paca Pouner and Lucinda Adams probably provided the necessary labor (United States Census Bureau, Population Schedule 1860:221). Sherwood's property was valued at $9,000, and he practiced the diversified agriculture typical of the mid-nineteenth century. He kept horses, cattle, swine, and sheep, and on his land he produced wheat, corn, wool, butter, and Irish and sweet potatoes (United States Census Bureau, Agricultural Schedule 1860:39).

Industrial/Urban Dominance (1870 - 1930).

General Historical Context. Talbot County reached its agricultural, industrial, and population peak by 1910. While agricultural advances aided in increased crop production, the biggest aid was the introduction of the refrigerated railroad car that enabled county farmers to transport perishable goods to growing Northern markets (Bast 1950:965). The commercial seafood industry also benefitted from improved transportation facilities (Wesler et al. 1981:325).

While industry and agriculture thrived on the mainland portion of Talbot County, its island and coastal populations made a good living by harvesting oysters. The oyster had gone from being what colonists called a "hardship food" to a major international multi-million dollar business (Wennersten 1981:6). The massive profit that could be realized from exploitation of the Chesapeake's oyster beds led to more violence on the upper bay than the Civil War had. By 1890, the Maryland Oyster Police had grown from one ship and a few amateur sailors to a reasonable patrol fleet. This fleet patrolled the bay seeking out boats that violated the harvesting laws. By 1893 the oyster had been so over-exploited that one scientist predicted the oyster would disappear, and the bay area would go bankrupt (Wennersten 1981:88). Attempted enforcement of the oyster laws led to active gunfights and high-speed water chases that would last until 1959, when a Virginia man was shot by the Maryland oyster police for taking oysters (Wennersten 1981:124).

The First World War had little effect on Talbot County other than causing various shortages of goods. However, in 1918 wartime shortages forced the closing of many poorly attended rural schools in the county (Preston 1983:293).

By 1870 Poplar Island was suffering serious effects from the erosion that continuously diminished the island's landmass. The northern section of the island had broken away and formed Jefferson Island, while the section of land that connected Poplar Island to present day Coaches Island was becoming smaller every year.

The primary data available from census and land records suggest that life on Poplar Island underwent a considerable transformation in the half century after the Civil War. In 1877, four

families (Howeth, Sherwood, Jones, and Carroll) still shared ownership of the components of the once-intact island. However, as the nineteenth century drew to a close, large landholdings were subdivided, and smaller farms became the rule. Much of the population made its living by farming and oystering (Easton *Star-Democrat* n.d.); commodities produced included tobacco, tomatoes, poultry, and timber, most of it sold to local markets (Swaine n.d.:1). .

Poplar Island was inhabited by about 20 families between the 1880s and the 1920's. On Main Poplar, there was a school/church building, a lumber mill, and six farms; several families also resided on Coaches' Island (Meyer 1986:43). The 1894 U.S. Coast and Geodetic Survey map shows that the intact interior sections of the island still were under active cultivation, and that large areas of forest still covered at the island's northern and southern points.

By the First World War, the progressively worsening erosion had reducing the habitability of Poplar Island even further. Harrison's 1970 sketch map of Poplar Island in 1914 (Figure 9) show details of settlement at that time. Harrison recalled that there were nine separate residences and assorted outbuildings; a saw mill; a school; a graveyard; an oyster ground; and an area where "Indian Darts and Hatchets" commonly were found. The small village of Valliant on Jefferson Island had its own store, a post office, and a school. However, war-time economies forced the closing of the school. The harsh living conditions and dwindling amount of arable land area forced the last permanent resident from the island in 1929.

Maritime Context. During the post-Civil War period, steam propulsion came into its own on the Bay. Profitability made for competition, and several steamboat lines served Talbot County. The Maryland Steamboat Company was the first of these, joined later by companies such as the Wheeler Line. The first steam routes into the county from Baltimore all ran into the north, through the Miles River. In the 1860s, however, routes began to come in from the south, up the Tred Avon and into Easton Point (Weeks 1984:115). Steamboat lines were augmented by connections to railroads, forming a far more extensive and comprehensive transportation network than had existed in earlier periods. The Eastern Shore Railroad was linked to rail lines into Baltimore by steam ferry service from Claiborne, west of St. Michael's in Talbot County, to Bay Ridge, at the mouth of the Severn River. The *Tockwah* was the first ferry to ply this route, and in later years the ferry boat *Thames* was added to carry freight, up to ten railroad cars, in cooperation with the Baltimore & Ohio Railroad (Weeks 1984:117-118).

The explosion in steam service coincides with other changes in coastal areas. In many parts of Maryland, coastal maps of the 1840s show relatively little development or concentration of settlement (Seidel 1993b). By the 1860s and 1870s, however, settlements had mushroomed on many of the Bay's inlets and tributaries. The coincidental timing of village growth and the advent of steam must surely be significant.

As the profitability of tobacco faded on parts of the Western Shore, many farmers found it advantageous to shift to truck farming. Although some of this produce could be moved by sail, more perishable items required the prompt shipment made possible by steam power. The shift towards truck farming was, in many places, accompanied by the enormous boom in the oyster fishery. By 1879, 17,000,000 bushels of oysters were being taken out of the Bay on annual basis, more than double the current U.S. consumption (Warner 1976:70). An 1880 census found that 6,856 sailing canoes and other small craft were working the Bay's fishery, along with 2,000 larger vessels occupied with dredging (Warner 1976:71). Oystering moved into deeper waters in the 1890s, with the spread of patent tongs which extended the watermen's reach beyond that of hand-held tongs. Charles Marsh of Solomons took out the first patent in 1887, followed a Bristow and Dixon of Virginia, in April of 1890 (Chowning 1990:111).

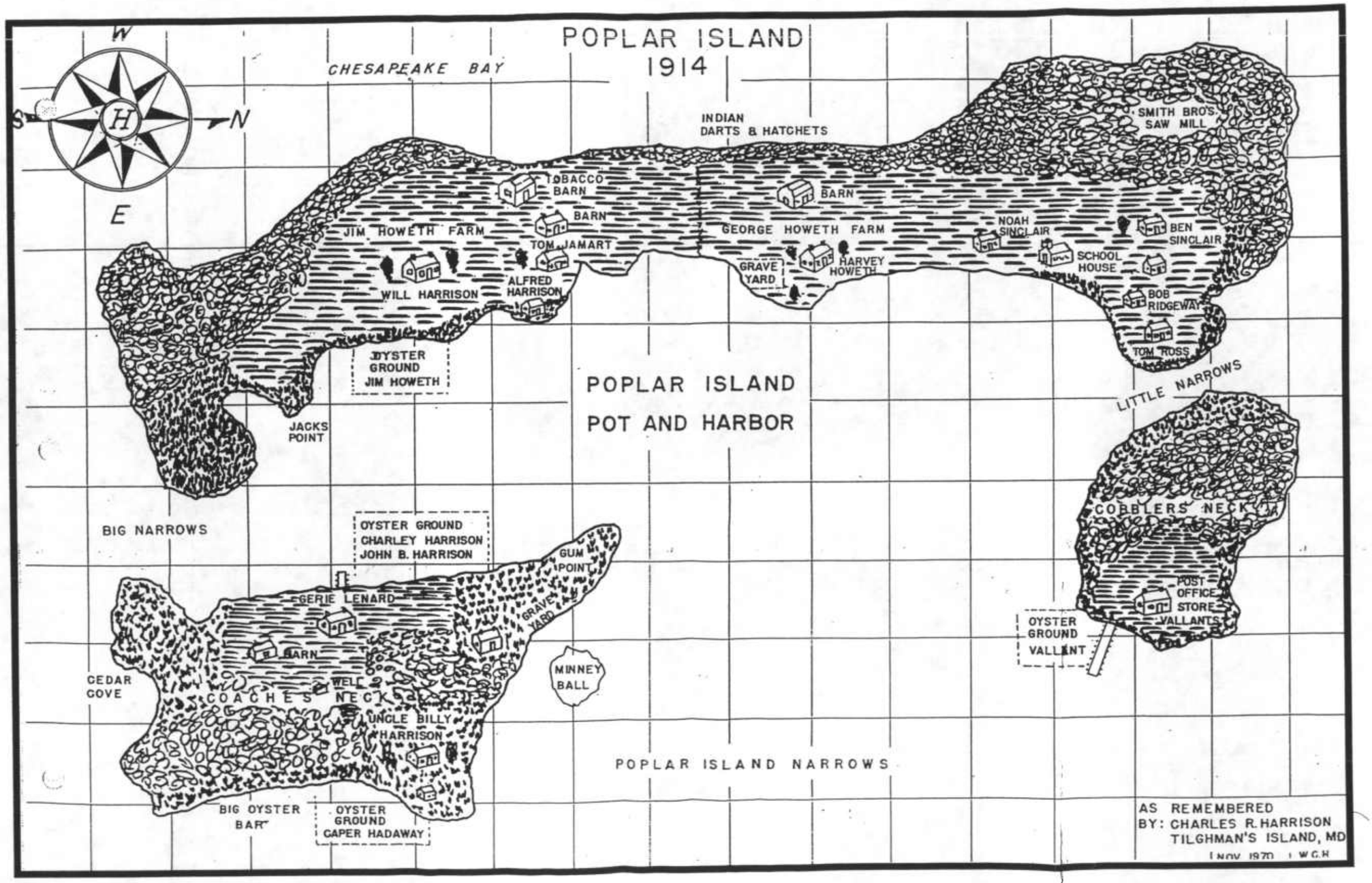


Figure 9. Charles R. Harrison's 1970 Sketch Map of Poplar Island in 1914. *Eastern Star Democrat*, April 5, 1972

Packing houses continued to multiply, often accompanied by housing close by for watermen and the packing house workers. During this period, the canning industry in Maryland changed. Due to a variety of circumstances, many businessmen found it desirable to build new canneries along the bay, rather than concentrating them in Baltimore where the industry began. By 1882, there were 300 canneries in the state. Many of these were in Baltimore, but the vast majority were distributed up and down the Chesapeake shoreline (Burton 1986:28).

As steamboat lines built wharves in these farther reaches of the Chesapeake, the landings became the focal points of waterside communities. They provided access to the markets of Annapolis and Baltimore, and allowed local residents to quickly make trips to urban areas. Transporting passengers, of course, worked in both directions. It was also much easier for city residents to get to the country, and the excursion trade became an important source of income for some rural areas, as well as for the steamboat lines (Holly 1987; Seidel 1993b:84).

In addition to the locals and excursionists plying the waters, the Bay was still the major transportation route for everyday goods. Agricultural produce such as tobacco, wheat, and corn were shipped, as well as fruit, vegetables, fish, crabs, oysters, and even poultry and cattle. Unloaded in their place were canned goods, cloth, furniture, machinery, tools and a variety of other finished goods (Holly 1987). It was not until just before World War II that this trade began to subside and water transport was replaced by land-bound trucks.

These developments help to make the nineteenth and early twentieth century improvements in navigation understandable, and the intra-regional trade on the Chesapeake probably reached its highest level during the period 1870-1930. One huge fleet of shallow draft fishing vessels worked the waters in the winter months, gathering oysters and delivering their catch to the local canneries. Many of the same vessels then were used in the spring and summer to transport fresh vegetables to the canneries. At the same time, another fleet of vessels, many of them slightly larger schooners and sloops, carried empty cans from Baltimore to the canneries, and full cans back to Baltimore for transhipment on the railroads and coastal vessels to the wider market. A third fleet of schooners carried lumber from the Eastern Shore to Baltimore to supply the demands of the building industry. This lumber also was transhipped to Maine where construction of "Downeasters" demanded the excellent shipbuilding properties of the southern Loblolly pine. During this period, nearly 50 steamboats connected the eastern and western shores with Baltimore, Annapolis, Washington D.C., Richmond, and the ports at Hampton Roads, Virginia, on regularly scheduled trips (Holly 1987:9). The steamboats sustained themselves by carrying passengers, express cargo, and fresh fruits, vegetables, and fish to urban markets.

The importance of the new transportation links and of new food preservation technologies can also be seen in the emergence of a commercially viable crabbing industry. Throughout earlier periods, crabbing and crab consumption was a local activity of no great commercial importance. Crab meat was simply too perishable to survive shipment over any distance. By the 1860s, however, commercially manufactured ice and "iceboxes" made preservation less risky. Also, in 1866 a railroad spur was completed to Annemessex on the Eastern Shore, and by the mid-1870s, cooled shipments of crab were reaching markets in Philadelphia and Baltimore by rail on a regular basis (Warner 1976:77-78). So successful was this rail line, established by John Crisfield and his partners as the Eastern Shore Railroad, that the town of Crisfield blossomed at its Annemessex River terminus (Wennersten 1981:16-17). Their success generated interest elsewhere in the Bay, and in 1880 the first crabmeat cannery opened in Norfolk (Warner 1976:79).

At the same time that these developments were taking place, some Maryland watermen were making headway in the marketing of soft crabs, another local delicacy. They were gradually reaching success in impounding "peelers," crabs which had not yet molted and turned soft, and waiting for them to reach the proper stage for marketing and consumption. Harvesting soft crabs

was made easier in 1870 by the development of the "crab scrape," which made it possible to take soft crabs and peelers in the bottom grass that they sought as refuge (Warner 1976:81). Shallow draft vessels were needed to exploit the grass beds with scrapes, and the need was met by sail-powered vessels with a draft of less that 18 inches. Called "crab scrape boats" on Smith island, and "barcats" on Virginia's Tangier Island, these boats had low sides and dead rise hulls with a distinctive look (Chowning 1990:222). In 1904, the Bureau of Fisheries reported that Maryland's Eastern Shore town of Crisfield was the region's major port for shipping crabs. Soft crabs with a market value of $2,000,000 were being shipped out of Crisfield and neighboring Deal Island each year (Warner 1976:84). While watermen in both Virginia and Maryland took hard crabs for picking and canning, soft crabbing never was successful outside of Maryland.

The crab pots that are so familiar to today's crab devotees were not introduced until 1928. Prior to that, trotlines were the most common method for catching crabs. Relatively light weight lines running up to three quarters of a mile or more were anchored at both ends, with wood casks or stakes marking each end. A six inch drop line, or "snood," was attached to the trot line every two feet or so, each snood holding at its end a piece of bait. Yet another method of crabbing involved true dredging, as opposed to the crab-scraping done in shallow water with light weight rigs. Crab dredging equipment was little different from that used in oyster "drudgin'," and it was used primarily in the winter months. Much of the Bay's female crab population moves down to the mouth of the Bay and burrows into the bottom for the cold weather; Virginia watermen began to exploit them with dredges in 1904 (Chowning 1990:229).

The menhaden fishery grew in importance in the 1870s and became a significant source of income for many watermen. Pound nets, introduced from New Jersey in 1870, quickly replaced gill nets as the favorite harvesting tool (Chowning 1990:31). Pound netters required a stable and roomy platform from which to place and work their nets, and they found that a specially adapted bateau worked well. Many of these bateaux had a removable rudder and tiller, along with a prop shaft attached to a universal joint. The bateaux were hauled ashore when not in use, and the rudder could be dismounted and the prop shaft raised to avoid damage to the shaft and screw (Chowning 1995: 65-67). Although pound nets continued to be popular with many watermen, by the turn of the century purse nets were more frequently used (Chowning 1990:67). A variety of vessel types were used for purse netting, such as pungies, and many of the smaller, independently owned vessels were referred to collectively as "snapper rigs" (Chowning 1995:75).

Whether they took menhaden, oysters, or crabs, watermen again had a number of options available for selling their catch. If close to a large market, they could try to sell their take directly in the market, although that was not possible for more than a small number of watermen. Those that lived and worked farther from population centers generally took their catch to a middleman or packing house, unloading their catch there and letting the middleman process and market it. Another alternative was to sell to one of the many "buy boats" which roamed the fishing grounds. These "runners," as they were often called, gave a lower price, but saved the watermen a long trip to the market or packing house, and might extend their time on productive fishing grounds. In 1880, more than 200 runners were at work on the Bay. These frequently were schooners with an average of eight men in each crew, and they primarily serviced the oyster and menhaden fisheries. As internal combustion engines became available, many of the schooners were converted from sail, allowing the buy boats to move with greater regularity and dispatch. These conversions typically had a high deck (to maximize hold space), with a wheel house aft and a robust mast and boom for loading and unloading (Chowning 1990:122-123).

The size of the local boat building industry was at its highest level ever during this period, although the primary emphasis was upon small, vernacular craft. The emphasis of the larger shipbuilding industry, on the other hand, continued to shift towards the urban centers. The specialized construction techniques and increasingly high levels of initial capital needed to outfit

a shipyard capable of building steamboats and ever-larger deepwater ships, as well as the increased size and specialization of the labor needed to operate such yards, were such that only large port cities could supply the prerequisites for the industry. Local construction of large vessels concentrated along the Patapsco River and in Wilmington. The Maryland Steel Company, which opened at Sparrows Point near Baltimore in 1887, was an important builder.

Construction in the smaller, more traditional yards up and down the Bay was limited to relatively small, vernacular craft conducting the fisheries and carrying regional bulk cargo. Some of these smaller yards were nevertheless important to the local economy. On the Eastern Shore, five yards operated in Somerset County, while Talbot County's boatbuilding activities were centered in the towns of St. Michael's, Oxford, and Tilghman. In Dorchester County, yards were concentrated at Cambridge, Madison and Taylor's Island. On the other side of the Bay, Solomon's Island was another center for the construction of vernacular craft such as bugeyes, while some local builders, such as M. M. Davis, were known over a large area for yacht construction (Brewington 1963:71-74). In Talbot County, the emphasis at mid-century appears to have been on log canoes which were built both for work and for racing. At least forty-five documented canoes were built between 1856 and 1954. Later in the century, bugeyes predominated, with thirty-nine known vessels from the county (Wennersten 1992:243).

Some other types of vernacular craft also emerged during this period. Throughout the second half of the nineteenth century, V-bottomed boats became increasingly popular on the Bay. These vessels combined straight floors with deadrise and straight sides to form an angular bilge or chine. V-bottomed boats were the subject of intense experimentation in Maryland's southern Eastern Shore. Vessels ranged in size from skiffs to sloops of 60 ft or more, and some fourteen different types of V-bottom boats were produced on the Chesapeake between 1890 and 1920 (Chapelle 1951). Perhaps the best known of these vessels is the skipjack. The origin of the skipjack is poorly documented, but the type appears around 1890. A possible precursor to the skipjack was the "Hampton flattie," a craft favored by African American watermen from the 1880s on (Chapelle 1951:309-313). The forward segments of these vessels were flat-bottomed, but from amidships aft to the transom, they were V-bottomed. The early versions of the sloop-rigged flattie were planked fore and aft, but later models had herring bone or cross-planked hulls (Chapelle 1951). Skipjacks had the same simple hull shape as the flattie, but with a long cutwater. Chine-built, the skipjacks had a shallow draft, and a balance between draft and handling under sail was achieved with the adoption of a centerboard. The framing of such hard-chined boats, combined with their adaptability to cross-planking, made them simpler and cheaper to construct than craft such as bugeyes, yet they were fast sailers and roomy enough to satisfy the oyster dredger (Grimwood 1942). They therefore became the mainstay of the Chesapeake dredging fleet past the mid-twentieth century.

Chain of Title. The general trends on the Poplar Island complex are illustrated by references to specific land transactions relating to the specific project areas. By 1880 Benjamin Sherwood and his wife, their six children, an African-American farm laborer named Richard Hopkins, and a black servant, Mary Gibson, occupied the farm formerly occupied by Thomas Sherwood (U.S. Bureau of the Census, Population Schedule for 1880:32). The farm's acreage had declined to 238 ac, of which only 66 were under cultivation; 170 ac were listed as unimproved timberland. Like Thomas Sherwood, Benjamin raised livestock and poultry, including sheep, as well as corn, wheat, and potatoes. There also was a 2-ac apple orchard, perhaps a remnant of the orchard present on the island during the Carroll ownership (U.S. Bureau of the Census Agricultural Schedule 1880).

The 1880 census also began to show occupation of portions of the island group by families who were indicated by Bailey (1991) as 1913 residents in the vicinity of Site 18TA237, including the Howeths and Jamarts. The 1880 Population schedule indicates that Lloyd Jamart,

a 22 year-old sailor, lived near Levi and James Howeth (U.S. Bureau of the Census, Population Schedule 1880). Deed records also indicate that members of the Covington family resided on Coaches' Neck (Covington and Jenkins n.d.); the Covingtons intermarried with the Howeths.

During the post-Civil War period, the waters of Poplar Island Harbor began to be leased in five-ac parcels to specific individuals for the purpose of establishing seed oyster beds. The shoreline boundaries of these beds typically were marked by stones, while stakes were utilized to outline the perimeters of the subsurface portions of the lease areas. Leasing of these oyster beds began in approximately 1868, but really accelerated during the mid-1890s. Most of the twentieth century residents of the Poplar Island group had such leases: George Howeth's 1891 lease was immediately east of his property on the main Poplar Island; Richard Mason leased an area on the northwest side of Coaches' Neck, offshore of his residence; and Valliant's grounds were located west of Cobbler's (now Jefferson) Island (Talbot County Plats from Land Records 1868-1900:53, 271, 303, 341).

The Modern Period (1930 - Present)

General Context. As late as the 1930s, most residents of Talbot County still were firmly committed to commercial agriculture. Mechanization had revolutionized agricultural production. Vegetables, fruits, dairy products, and grains were transported to northern cities via the railroads. Livestock also became an important commodity in the regional economy. More recent twentieth century trends towards urbanization, combined with an increase in tourism in the region, have changed only slightly Talbot County's historic reliance on the land, the forest, and the Chesapeake Bay to provide a livelihood for its citizens.

Maritime Context. Today, the Chesapeake Bay continues to be a critical economic asset for Maryland. The deep water port at Baltimore still carries the bulk of overseas traffic through the region. The Bay also continues as an important source of shellfish and other seafood, although oyster production has decreased considerably since 1967, in response to the stresses of prolonged over fishing, pollution, and disease. Today, the Federal Navigation Project provides for minimum depths of 50 ft from the Virginia Capes to Baltimore Harbor, with main channels of 800 ft to 1,000 ft in width. Branch channels are maintained to depths ranging between 15 ft and 50 ft, and widths between 200 and 600 ft. The approach channels for the C&D Canal are dredged to 35 ft and maintained to a width of 400 ft.

During the twentieth century, Baltimore has handled the majority of the state's ship borne commerce. Despite the fact that Maryland has 64 ports, Baltimore was carrying 84 per cent of the tonnage in 1948. Most of the rest of the tonnage (another 13 per cent) was comprised of goods passing through the C&D Canal. Only two other ports in the state handled more than 100,000 tons of freight: the Choptank and Nanticoke Rivers (Maryland State Planning Commission 1954). A similar situation exists today.

Today, Baltimore has 45 miles of developed waterfront, which encompasses 1,600 acres of sheltered water. Major waterfront facilities include Dundalk, Locust Point, Hawkins Point, Clinton Marine Terminal, and the Port Covington Terminal. Major cargos handled through these terminals consist of containerized and conventional general cargo, and dry and liquid bulk cargos. Bulk cargos handled in the port include coal, iron ore, gypsum, petroleum products, grain, chemicals, sugar, automobiles, and heavy equipment.

Although many of the Bay's commercial fisheries have declined, crabbing continues as a mainstay. The traditional dead-rise Chesapeake crabbing boats have automobile engines mounted on the deck, covered by an engine box, with a wheel house forward. Most of these vessels were built to a length of 40 to 42 ft. This made planking easier, as stock planking over

42 ft was difficult to obtain, and 42 ft vessels were adaptable to both patent tonging for oysters and for crab potting. Vessels from the southern part of the Bay tended to have fairly high stems, because of the rougher water in the wide expanses nearer the mouth of the Bay, and the classic Bay deadrise had a box stern. In recent years, however, new crabbing techniques have been added to the old tactics, and vessels have changed accordingly. Commercial crab pots are now banned from many of Maryland's rivers and streams, so many crabbers have begun to focus on somewhat deeper waters. For these watermen, shoal draft is less important, and they can use vessels with a 4 to 4.5 ft draft. As a result, deep draft boats similar to lobster boats have been brought in from New England, allowing deep water potters more room for pots, bait, and catch. In addition, the deeper V-hulls allow faster and more economical running to and from crabbing areas (Chowning 1995:170-184).

Currently, recreational use of the Bay also is very important to the state. During the summer months, thousands of recreational boaters and swimmers converge on the Bay each day. Some of these boaters simply seek refuge from stress, while others are involved in sport fishing for rock fish, flounder, spot, or blue fish. Talbot County has been an important focus of this activity. With the crash of rock fish populations in the 1970s and 1980s, for example, the first chapter of the Maryland Saltwater Sportfisherman's Association, a strong proponent of conservation measures, was established in Talbot County (Walters 1990:91). The fiberglass recreational vessels used by most of these anglers and boaters, whether sail or power, are more homogeneous in build and appearance. Constructed as they are for a nation-wide market, they have helped to reinforce a severe decline in local building activity and the once prevalent vernacular craft of the Bay.

Poplar Island Context. Poplar Island suffered its last invasion in 1929. After the onset of Prohibition, the movement of illegal alcohol to big cities such as Baltimore and Philadelphia became a profitable business. Bootleg whiskey was made on a remote area on Poplar Island and sent on fast boats across the bay. Federal Prohibition Agents eventually launched a raid on the Poplar Island operation, and captured five men, a yacht, and a 1000-gallon capacity still. The agents also destroyed 21,500 gallons of mash and large quantities rye whiskey (Preston 1983:295).

In 1933 the hurricane that destroyed much of the east coast forever altered the face of Poplar Island; the tides from the storm surge severed Poplar Island from Coaches Island, and increased the distance between Poplar and Jefferson islands. The destructive effects of the hurricane brought an end to full-time human occupation of Poplar Island. The island group (Poplar, Coaches, and Jefferson) became home to several small hunting shacks.

During the late 1930s the Democratic Party built the Jefferson Island Club, which became a vacation home for Presidents Roosevelt and Truman. For nearly ten years, the elite of the Democratic Party golfed, hunted, fished, and relaxed in the privacy of Jefferson Island (Preston 1983:293). In 1946 the clubhouse burned down and was never rebuilt. Like Poplar Island, Jefferson Island became home to several small temporary concerns.

A 1952 aerial photograph indicates that Poplar Island had been reduced to 115 ac. Within twelve years the land mass of Poplar had been further reduced to three small islands as well as Jefferson and Coaches. A 1993 aerial photograph reveals that Poplar Island, once estimated to be over 1,000 ac in 1640, gradually had been reduced to an archipelago of six small islands.

Maritime History of the Poplar Island Vicinity. Maritime traffic in and around the Poplar Island vicinity potentially was at its height during the first two centuries of the island's development as a trading post and a major plantation. The owners of seventeenth and eighteenth century agricultural complexes commonly maintained direct communication with their factors and agents in Europe. Maintenance of such communication would have entailed direct shipment of plantation

commodities to European or West Indian markets, thereby necessitating not only the regular arrival and departure of moderate-sized vessels in the vicinity of the island, but also the construction and maintenance of wharf structures designed to facilitate on and off-loading of cargoes.

During the later nineteenth and twentieth centuries, as the agricultural productivity of the island decreased, its residents turned to other pursuits such as oyster and clam dredging. The oyster beds claimed by various families off Poplar Island provide good evidence for such a trend. The smaller vessels required for such pursuits and for the maintenance of communication links with the mainland across Poplar Island Narrows would have necessitated the construction of small wharves or piers in the shallower reaches of Poplar Harbor. The archeological signatures of these structures still may be extant.

Moreover, historically, the western shoreline of Poplar Island lies reasonably close to potential shipping channels in the Chesapeake Bay; U.S. Coast and Geodetic Survey charts for 1894 show that the distance from the extant northwestern shoreline of the island to deep water was less than two nautical miles. Therefore, deep-draft vessels came relatively close to the island. The Eastern Shore lagged behind the rest of the Bay in terms of navigational aids such as buoys and light houses. An 1814 chart of the Chesapeake, for example, shows the location of 17 lights on the Bay, only two of which were on the Eastern Shore (DeMayne 1814).

Nautical charts for Poplar Island Indicate that shallow shoals always have surrounded the island. While shallow draft vessels such as barges could have run aground on these shoals, the shallows would have prevented deep-draft vessels from wrecking immediately against the island. However, because of the prevailing southern movement of tidal currents, it is conceivable that parts of vessels wrecked north of Poplar Island may have drifted toward, or near the project area. The propensity of the area around parts of the island for rough water was well known. With certain combinations of wind and tide, the seas coming out of the Eastern Bay can be ferocious, piling up dangerously in the shallows. Any anchorage between Bloody Point Light and Poplar Island may be perilous in such conditions (Shomette 1982:221).

United States Coast Guard records of vessel losses indicate that at least nine vessels have been lost in the vicinity of Poplar Island (Table 1). Shipping losses in the Chesapeake Bay were not well documented until the second half of the nineteenth century; before then, many vessel losses were unrecorded, or their position of loss was inaccurate (Goodwin et al. 1992).

TABLE 1. RECORDED SHIPWRECKS WITHIN A ONE-MILE RADIUS OF POPLAR ISLAND

Name	Vessel Type	Date	Comments
Speedwell	ship	8/23/1751	stranded
Wilson Small	Sidewheel steamer	9/8/1867	collision
Mary Ellen	schooner	12/16/1890	foundered
C. B. Russell	barge	8/24/1906	foundered
Nettie A. Ruark	gas screw	5/20/1911	burned
Ellen S. Jennings	barge	2/22/1912	collision
Caroline	barge	2/22/1912	collision
William Schmink	schooner	3/16/1920	stranded
Mary Ella	screw ship	3/14/1939	burned

CHAPTER III

RESEARCH OBJECTIVES AND METHODS

The Phase IB investigations at Poplar and Coaches islands were designed to identify potential submerged archeological resources through the use of magnetometer and sub-bottom profiler survey of the submerged portions of the 1847 Poplar Island footprint (Alternative Alignment #1) and of the access channel, and through magnetometer and side-scan sonar survey of the shallow areas near Coaches Island (Alternative Alignments #2 and #3); and to identify sites and site boundaries on the remaining terrestrial areas. The terrestrial portion of the study examined the four remaining islets of Poplar Island and the immediate shoreline of Coaches Island within proposed Alternative Alignments #2 and #3. The Phase IB study included background research, marine survey, near-shore dredging, terrestrial survey, and laboratory analysis.

As the result of initial Phase I investigations, Site 18TA237 on South Central Island, and six marine anomalies were recommended for Phase II evaluation. The U.S. Army Corps of Engineers, Baltimore District; the Maryland Port Administration; and the Joint Venture decided to proceed with the terrestrial portion of the Phase II evaluations during the Phase I investigations of Coaches Island, because the site was immediately threatened by erosion. The objectives of the Phase II evaluation were to define the boundaries and integrity of the site, to establish its temporal and function associations, to evaluate the potential eligibility of the site for listing in the National Register of Historic Places, and to assess the potential project impacts and need for additional archeological investigations. These objectives were met through a combination of additional archival research and archeological excavations, including close interval shovel testing, test unit excavation, near-shore dredging, and laboratory analysis. For the Phase II underwater archeological investigations, the objectives were to reaquire the precise position of individual targets, identify the source of each anomaly using diver survey and sub-surfacing testing techniques, delimit the extent of each site, and determine each site's potential for National Register of Historic Places eligibility. To meet these objectives, each target was relocated using a Differential Global Positioning. Magnetic anomalies were resurveyed with a magnetometer using a 25 ft wide lane spacing to obtain a more accurate position for these targets. All of the targets were subjected to systematic diver inspection, during which an underwater azimuth device, an 8 ft long hand-held probe, a diver-held White P-3000/Pulse Diver 950 underwater metal detection instrument, and a hand-held venturi dredge.

Background Research

This task involved conducting additional historical research to supplement data provided in the Phase IA study (Goodwin et al. 1994). Efforts focused on establishing a complete historic cartographic sequence for the project area, and on establishing a chain-of-title and land use history for Poplar Island focused on the area of site 18TA237 (South Central Island). Maps were collected from the Geography and Maps Division of the Library of Congress and the Cartographic and Architectural Branch of the National Archives. Additional archival research was conducted at the Maryland Room of the Talbot County Public Library in Easton, Maryland, and at the Maryland Hall of Records in Annapolis.

Field Investigations

Phase IB Investigations

Phase IB field investigations included marine and terrestrial survey. The marine survey involved three separate tasks: (1) magnetometer and sub-bottom profiler (SBP) survey of the submerged portions of the original 1847 configuration of Poplar Island (Alternative Alignment #1); (2) remote sensing (magnetometer and side-scan sonar) survey of the proposed dike alignment encompassing Coaches Island (Alternative Alignments #2 and #3); and (3) magnetometer and side-scan sonar survey of the access channel.

Survey of the submerged island was conducted in order to locate submerged terrestrial prehistoric and historic properties. Marine survey was conducted over predetermined track lines using real-time Differential Global Positioning System (DGPS) positioning interfaced with a DOS-based 486 computer, applying hydrographic survey software for data collection and helmsman guidance. Original plans called for survey lane spacing to be varied according to the probability for locating archeological properties. Low probability areas were to have a lane spacing of 150 ft; higher probability areas were to be tested at 50-ft lane spacing, and intermediate areas at 100 ft spacing. Conditions encountered in the field dictated a slightly different approach. The discovery of potential prehistoric resources in what had been designated as the "low probability" area, and the inability of the sub-bottom profiler to function in much of the shallow "high probability" area, suggested a need to alter this approach. As a result, 100 ft lane spacing was extended over the entire area where water depth was sufficient to allow survey to be performed. Magnetic data were stored real-time on magnetic disk, for machine contouring. All remote sensing records were annotated with their line number and event marks at 150-ft intervals along each line.

Survey of the Coaches Island Area (Alignment #2 and #3) comprised remote sensing survey at a lane spacing of 100 ft. The remote sensing array consisted of a Geometrics G-866 proton magnetometer and a Klein 531T side scan sonar with EPC 1086 thermal recorder. Navigation was controlled by means of a DGPS consisting of a Northstar 941XD DGPS linked to a 486-PC running *Hypack* hydrographic survey software. Positioning data were output in Maryland State Plane coordinates (NAD83). All machine records were annotated with line number and event marks at 250-ft intervals. Some portions of the project area near Coaches Island were found to be too shallow to permit operation of the survey boat and deployment of the towed sensor array.

Access channel survey involved remote sensing investigation at a 75-ft trackline spacing of the proposed 400-ft by 3,000-ft access channel. The remote sensing array consisted of a proton magnetometer, a side-scan sonar, and a recording fathometer. Positioning control was maintained using a differentially corrected GPS. All machine records were annotated with event marks at 150-ft intervals.

Terrestrial survey involved investigation of exposed islets along the eastern side of the project area and of the immediate shoreline of southern and western Coaches Island. Field methods consisted of pedestrian reconnaissance, recordation of surface cultural features, and systematic subsurface investigation of the four remaining islets: North Point (1.8 ac); Middle Poplar (0.8 ac); South Central Poplar (1.7 ac); and South Poplar (0.12 ac), and of the shoreline of Coaches Island encompassed within Alternative Alignment #2: Option B. Subsurface testing included excavation of shovel and auger tests at 50 ft (15 m) intervals along transects spaced 50 ft (15 m) apart. Measurements were made in ft to be consistent with the marine survey and pre-existing engineering plans that were based on the Maryland State Plane NAD 1983 (U.S. Survey feet).

Shovel tests measured a minimum of 30 cm (11.81 in) in diameter and were excavated to at least 40 cm (15.75 in), or 10 cm (3.94 in) into subsoil. Soils were removed by natural strata and sifted through 0.635 c, (.25 in) hardware cloth. A shovel test record form was filled out for each shovel test unit, indicating its position within the sampling pattern, the depths of soil strata within the unit, and the presence or absence of cultural remains. The nature of each soil stratum was recorded in the field, as were soil color, texture, and composition. Recovered artifacts were placed in bags labeled with vertical and horizontal provenience. Auger tests were excavated with a 170 cm (69.9 in) dutch auger; recordation methods were the same as those used for shovel tests.

The use of limited hand-held induction dredge samples was planned for shallow-water areas, such as along relict channels, that were shown by the remote sensing array to possess a high probability to contain intact, significant archeological deposits. The dredge testing proved not to be suitable for this purpose because the remote sensing data were recovered from water too deep to allow dredge testing without the use of scuba equipment, and many of the finds of the remote sensing array were buried under several meters of sediment. Therefore, the hand held dredge testing was used to extend the terrestrial survey into waters less than three and one half feet deep. Since limited time was allotted for the dredge testing, its use was restricted to testing locations of previously recorded archeological sites.

Phase II Evaluation of Site 18TA237

Based on the initial results of the Phase I investigation of Site 18TA237 on South Central Island, the Army Corps of Engineers, Baltimore District; the Maryland Port Administration; and the Joint Venture authorized Phase II evaluation of that site. This decision was made because the Phase I investigation indicated that the site potentially had significant research potential, and because it was rapidly eroding into the bay. It was feared that a delay in undertaking these investigations would result in loss of the site.

Phase II investigations involved close interval (15 ft) shovel testing in the site area, excavation of two 5 x 5 ft terrestrial test units and one 5 x 5 ft submerged test unit, and feature documentation. Shovel tests measured approximately 35 cm in diameter and were excavated to a depth of 40 cm, or 10 cm into sterile subsoil, whichever was reached first. Auger tests supplemented the shovel tests to identify deep deposits and replaced shovel tests in wetland portions of the site. The auger tests were excavated with a 69.9 in (170 cm) dutch auger. Soils were screened through 0.25 in (0.635 cm) hardware cloth.

Dredge tests were utilized during testing of the tidal and near-shore areas of the site. The dredge tests were excavated with a 6 in (15 cm) dredge head and measured approximately 35 cm in diameter. They were excavated to a depth of 60 cm, or 10 cm into sterile subsoil, whichever was reached first. Soils were screened through a 0.25 in (0.635 cm) mesh bag. Test data were recorded on standard survey forms that included location and setting, soils, features or disturbances, and the presence and absence of cultural materials.

Test units measured 5 x 5 ft (152.4 x 152.4 cm) and were excavated in 4 in (10 cm) levels within the natural strata. Soils were screened through 0.25 in (o.635 cm) hardware cloth. An excavation level form was completed for each level or stratum; data recorded included datum location and elevation, excavation method, artifact content and density, the presence or absence of features, and soil types. Representative wall profiles from each test unit were photographed and drawn. Brick and oyster shell were recorded and discarded. All other artifacts were recorded, placed in paper bags, and labeled with appropriate provenience data.

Test trenches were utilized to uncover one of the features and record a long profile of its stratigraphic setting. Soils from these trenches were not screened, A wall profile from each trench was photographed and drawn.

Phase II Evaluation of Marine Anomalies

Phase I remote sensing marine surveys conducted by Goodwin & Associates, Inc., of the aquatic portions of the Poplar Island Land Reclamation Project area, indicated the presence of 27 discrete magnetic and acoustic anomalies. From this group of anomalies, six target areas were recommended for sub-surface testing to identify the source of each anomaly, delimit the extent of each site, and determine each site's potential for National Register of Historic Places eligibility. These targets included:

Anomaly 10-727. A narrow, very hard, vertically-oriented sub-bottom profiler target extending deep into the sub-strata. in addendum]), with an accompanying 16 gammas/6 sec. magnetic signature. Based on the sub-bottom profiler data, this anomaly was hypothesized to be a man-made well.

Anomaly 10-755. A small, unidentifiable surface-mound with a 32 gammas/12 sec. magnetic anomaly.

Anomaly 30-1151. A sub-bottom profiler target showing a hard, reflective surface curving downward from 0- to approximately 3 ft below the surface of the seabed. This anomaly was hypothesized to be an anthropogenic shell midden.

Anomaly 40-655. An unidentifiable 60 gammas/19 sec. bipolar magnetic anomaly without an accompanying acoustic signature. The absence of an acoustic signature may be attributed to an off track-line position of the anomaly.

Anomaly 48-819. A "U-shaped" anomaly that appeared on both the sub-bottom profiler and fathometer records, with an accompanying multi-component 29 gammas/34 sec. magnetic signature. The target was hypothesized to be a modern small watercraft, because of its "boat-like" U-shaped acoustic signature and its location near the center of Poplar Island's 1847 footprint.

Anomalies 58-1477, 60-579, 62-1508. A cluster of both acoustic and magnetic targets. Anomaly 58-1477 consisted of a small, rectangular, acoustic surface feature extending 3 ft above the surface of the Bay's floor. Anomaly 60-579 appeared on the acoustic data records as an "open-topped box" with straight vertical sides and flat "floor", and had an accompanying magnetic signature of 46 gammas/10 sec. Anomaly 62-1508, which appeared on sub-bottom profiler data as an acoustic surface feature surrounding anomaly 60-579, is a large area of disturbed seabed surface with a hard reflective surface lying approximately 3 ft below the Bay floor.

Initial Target Location Reaquistion. The first step in the Phase II sub-surface testing of the six anomalous targets was reacquisition of each target's initial position using a real-time Differential Global Positioning System (DGPS), consisting of a Northstar 941XD DGPS. Utilizing the DGPS target locations acquired during the Phase IB Marine Survey, the research vessel steered to the exact position of the initial targets. Anchored buoys were deployed at each target to provide a visual reference point for conducting both the magnetometer and underwater surveys.

Refinement of Initial Target Locations. Diver and magnetometer surveys were conducted to refine the initial target locations of individual anomalies. Targets that the Phase IB remote-sensing data indicated were located on or above the seabed, and occupied relatively large surface

areas, were investigated first by divers. Magnetic anomalies extending above the seabed, but that divers were unable to locate, or that were poorly defined or buried, were re-surveyed with a Geometrics G-866X recording proton precession magnetometer, using 25 ft track-line spacing. A 22,500 sq ft area (150 ft x 150 ft) was surveyed around the initial target of each magnetic anomaly. Magnetometer records were annotated with the anomaly's identification number, the survey track-line's approximate distance from the initial target buoy, the direction and heading of the boat on a given track-line, and ten-second event marks. Once a magnetic anomaly resembling the original anomaly was detected by the magnetometer, its precise location on the DGPS was recorded in the field notes, and a buoy marking the anomaly's more accurate position was deployed. Interestingly, all of the anomalies relocated with the magnetometer were found less than 100 ft away from the initial targets as marked.

Diver surveys were conducted at each of the anomalies by two-person dive teams, utilizing standard SCUBA equipment, an 8-ft long hand-held probe, a diver-held White P-3000/Pulse Diver 950 metal detection instrument, a 100-ft tape measure, and an azimuthal device. The simple azimuthal device proved to be an effective tool for mapping the survey areas underwater. The device consisted of a 4 ft x 3/4 in copper pipe, over which was passed a circular, plastic compass card with an attached underwater diver's compass. The pipe, oriented vertically, was pressed into the seabed, next to the target buoy's anchor. Prior to starting the survey, the 0° point on the compass card was aligned with magnetic north on the attached compass, and a tape measure was secured to a brass clip and ring around the pipe and extended 10 ft out from the datum and kept taut by the diver. A second, stationary diver, who was positioned at the azimuthal device, recorded the starting azimuth (a compass bearing), stratigraphy, vegetation, and the locations, sizes, and orientations of exposed surface features onto an underwater slate, as this information was reported to him or her by the swimming diver at the other end of the tape measure. After the swimming diver completed a 360° sweep, probing or metal detecting along the way, he or she was signalled to stop by the stationary diver, swim the tape out another 10 ft from the datum, and begin the next circle search. This process was continued at 10 ft increments a maximum of 50 to 70 ft from the datum, providing survey coverage that ranged from 7,854 to 15,394 sq ft at each anomaly. In several instances, multiple, overlapping circle searches were necessary to locate the anomaly, or to conclusively determine its absence. Buried objects detected with the probe or with the diver-held metal detector, all were uncovered and identified, and their exact positions noted (i.e.: "10 ft out from the datum @ 120° - brick fragment"). Shell, stone, and soil samples from each anomalous area were recovered as necessary, inventoried, and brought to R. Christopher Goodwin & Associates, Inc.'s laboratory for further analyses (Appendix VII). Information recorded on underwater slates during dives was transcribed onto R. Christopher Goodwin & Associates, Inc.'s standard Survey Area Forms, and the project's progress was documented on Daily Field Note Forms.

Laboratory Methods

Upon completion of fieldwork, artifacts, mollusk shells, and soil samples were transported to the laboratory of R. Christopher Goodwin & Associates, Inc. in Frederick, Maryland, for cleaning, cataloging, and analysis. Artifacts were rinsed in fresh water for two weeks to remove soluble chlorides, cleaned, and sealed in clean plastic bags. Artifacts were identified and classified by material, type, and by distinguishing attributes, and a computerized inventory was generated (Appendix V). Upon completion of the project, the artifacts will be turned over to the Maryland Historical Trust for curation. Analysis of the mollusk shell samples was conducted by Goodwin & Associates, Inc.'s Adjunct Research Associate and paleoethnobiologist S. Justine Woodard, to determine the shells species, age, manner of disposition, and possible cultural affiliation (see Appendix VI).

CHAPTER IV

RESULTS OF INVESTIGATIONS: PHASE I TERRESTRIAL AND NEAR-SHORE INVESTIGATIONS AND PHASE I MARINE SURVEY

North Point Island

North Point Island is the northernmost island remnant of Poplar Island. This small marshy hummock has been ravaged by the prevailing northwestern winds of the Chesapeake and frequently is inundated by tidal activity. In late 1993, Goodwin & Associates, Inc. performed a Phase IA field reconnaissance of North Point. At that time the island measured 2.5 ac in size. During the current survey, the island consisted of 1.8 ac, a landmass loss of 0.7 ac in less than one year. Currently the island is long and thin with an irregular shoreline (Figure 10).

Previous Investigations

One previously recorded archeological site (18TA219) had been identified for North Point Island. Site 18TA219 is thought to date from the Early Archaic through the Late Woodland period. Diagnostic artifacts recovered from the site included LeCroy, Guilford, Brewerton, Susquehanna Broadspear, Selby Bay, and Levanna projectile points. Lowery (1992:27) reported that 378 projectile points or point fragments were found at the site over a 13 year period. Lowery indicated that North Poplar (North Point) Island was 70 m (229 ft) long by 20 m (65 ft) wide. This is much smaller than the size of the island today (630 ft x 100 ft). The Phase IA pedestrian reconnaissance (Goodwin et al. 1994) failed to produce any evidence for the site. Figure 6 illustrates the mapped location of Site 18TA219, the land mass on the 1974 USGS quadrangle, and the current island configuration. There clearly has been significant loss of land mass; and the previously recorded site may be offshore, if it has survived at all.

Vegetation and Natural Setting

North Point Island contained two distinct vegetation zones at the time of the current investigation. The northern two-thirds of the islet was characterized by sparse grass and low brush growing in dry, shifting sands. The sands appeared to have been deposited recently and contained modern debris up to 40 cm below surface. There also was modern debris (plastic, styrofoam) over most of the islet, including in the upper branches of the brush. The southern third of the island was marsh, characterized by tall thick marsh grass in a dense peat matrix. The irregular surface was dotted with small ponds and depressions. The shoreline of the islet showed evidence of active erosion. The western shore was exposed directly to the bay tides and currents; it was irregular and abrupt. In some areas, sections of peat recently had dropped into the water. In other areas, the exposed soft soils were pitted and the tide and waves flowed through small tunnels toward the interior of the islet.

Soils

Two types of soil profiles were observed during the subsurface testing; these were coincident with the vegetation zones. On the northern portion of the island, a mixed brown (10YR 4/4) and yellow brown (10YR 5/6) sand was located in the upper 15 to 40 cm. This modern

alluvium or aeolian matrix was underlain by deep peat in a dark brown (10YR 3/3) silt. When testing reached the bottom of the peat, a light gray clay was encountered at between 40 and 80 cm. On the southern portion of the island, no sand overburden was encountered. A 10 to 20 cm dark yellow brown (10YR 3/4) silt loam overlay 40 cm of peat in a dark brown (10YR 3/3) silt, over a light gray clay.

The off-shore dredging revealed hard clay at surface around most of the island, with redeposited sands overlying the clay at the southern end of the island and along the eastern shore. The hard clays probably represent the Pleistocene Kent Island Formation that underlies most Islands in the Chesapeake (Segovia 1994: I-2). This formation should be devoid of cultural material, as it predates the Holocene (Segovia 1994:I-7). The offshore sands may represent redeposited material from the original island landmass. On the island remnant, the hard clays directly underlay the organic marsh deposit.

Results

A baseline was established at a bearing of 40/220° down the north-south spine of the island. Transects were placed at 50 ft (15 m) intervals along the base line. Shovel, auger, and dredge tests were excavated at 50 ft (15 m) intervals along the transects. A total of 37 subsurface tests were completed. This including 15 shovel tests, 8 auger tests, and 14 dredge tests (Figure 10).

Historic period artifacts were recovered from two shovel tests and three dredge tests (Appendix V). These were entirely modern or non-diagnostic. No material was recovered from the auger tests. An additional 162 artifacts were collected from the surface, primarily along the eastern and western shorelines (Appendix V). The 175 artifacts recovered from the surface and subsurface tests included 103 pieces of glass; 21 brick fragments; 45 ceramic sherds; 3 unidentified metal objects; a metal axe head with a portion of a wooden handle; a large round iron frame; and 1 prehistoric quartz flake. Diagnostic ceramics included 9 sherds of undecorated domestic gray salt-glazed stoneware (1750-1900); 4 sherds of Albany slip on gray domestic gray stoneware (1800-1900); 5 sherds of gray salt glaze with blue frond decoration domestic gray stoneware (1790-1900); 1 sherd of gray undecorated ironstone (1813-1900+); 2 sherds of ironstone chamberpot (1813-present); 1 ironstone molded pitcher handle (1813-present); 7 undecorated whiteware sherds (1820-present); 2 shell-edged whiteware sherds (1820-1860); 1 willow transfer-printed whiteware cup (1820-present); 1 sherd of Rockingham/Bennington yellow ware (1830-1900); 1 sherd of dipped/annular yellow ware (1840-1930s); 1 sherd of plain yellow ware (1830-1930s); and 1 white and blue annular yellow ware chamber pot (1830-1930s). Diagnostic glass included 58 pieces of modern glass; 3 Davis lip fragments (post-1880s); 1 light green cup bottom mold (1850-present); and 1 embossed panel bottle (post-1867). As a group, the diagnostic ceramics and glass have a remarkably consistent late nineteenth century date range; however they were found primarily eroding along the shoreline and were mixed with modern materials.

Five features were identified along the shoreline of North Point Island (Figure 10). Feature 1 was a group of wooden post/piers located in a small inlet on the north portion of the western shore. Eight posts were identified: six vertical and two horizontal. The posts were exposed only at low tide. The posts were mapped in detail and photographed. They may represent a dock or pier remnant; if so they are recent since this western side of the islet has only been exposed to open water since about the 1970s (Figures 4 and 5).

Feature 2 was marked by three unarticulated heavy square-cut timbers protruding from the shore. The shore profile included a dark gray brown silt with peat containing tree fragments

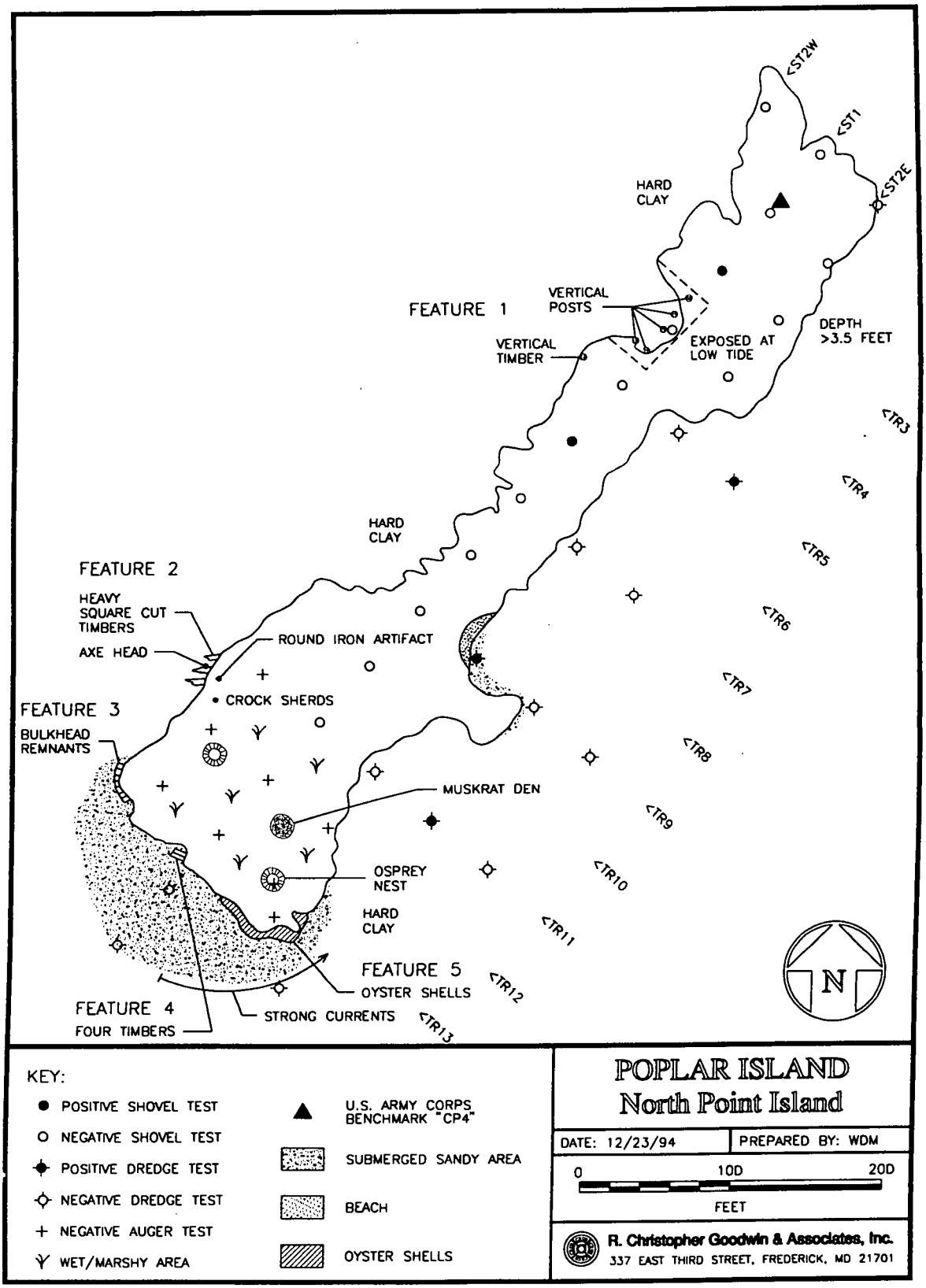


Figure 10. North Point Island, showing configuration of the island in 1994 and location of Phase I shovel tests, auger tests, and dredge tests

and pine cones at about two ft below surface. This horizon was exposed alongthe shore. Dead trees also were protruding from the shore in this location. A metal axe head and a round iron artifact were located near the timbers. Five fragments of a large crock (domestic gray stoneware [1790-1900]) also were found near this feature (Appendix V: West Shoreline Between Transects 11 & 12). Auger tests placed across the islet in this vicinity revealed that the organic, peat horizon continued across the island. No subsurface artifacts were recovered. The function of the heavy timbers is unknown.

Feature 3 appeared to be the remains of bulkheading located along the southwestern edge of the island. A series of planks and posts were visible in the eroded bank of the island (Figure 10). Submerged at high tide, the remains are badly deteriorated and embedded in deep peat. The location of the feature was plotted on the project map; profile and plan view drawings were produced; and the feature was photographed.

Feature 4 was a dislocated section of bulkheading on the southern shore of the islet. The feature consisted of four timbers joined by tongue and groove; a piece of plywood was nailed with wire nails to one end of the timbers. The bulkhead's construction was documented with detailed drawings and plotted on the project map. This feature may represent a disarticulated extension of Feature 3; the entire southern end of the islet may have been bulkheaded.

Feature 5 was a small oyster shell concentration located on the southeastern shore of the island. The shells were not bedded in the soil. No prehistoric material was recovered in this area. The feature probably represented an historic shell dumping episode.

Miscellaneous Findings

During a brief stop at North Point Island on the first day of the Phase II marine survey, two very water-worn, diagnostic projectile points were recovered from the surf zone on the island's northeastern shoreline, and brought to Goodwin & Associates, Inc.'s Frederick, Maryland archeological laboratory for processing (Appendix V). One of the points is a Selby Bay-type, and the other is a Clagett-type, both of which date from the Early-Middle Woodland Period (ca. B.C. 1,000 - 500). These identifications correspond closely with other diagnostic lithic artifacts recovered from previously recorded sites in the Poplar Island Group (Fehr et al 1995:6-17).

Middle Poplar Island

Middle Poplar Island was not the largest of the four Poplar Island remnants, but it was the most substantial. The islet currently measures 180 x 230 ft at its widest points, or approximately 0.8 acres in area (Figure 11). While the steep shoreline banks and partially submerged offshore trees provide ample evidence of severe erosion, the process has been slowed somewhat by the semi-circular breaker of scuttled barges that protect the island's western flank. Nonetheless, erosion has been extensive in the year since the Phase IA survey was performed (Goodwin et al. 1994). At that time, a hand pump was beginning to erode out of the south bank of the island. During the current survey, the hand pump was located on the beach and protruded four feet above the ground surface.

Previous Investigations

One prehistoric archeological site (18TA222) has been recorded for Middle Poplar Island. Lowery reported collecting 1 Early Archaic stemmed point, 1 bifurcated based point, 11 Late

Archaic stemmed points, 3 broadspears, and 2 Middle Woodland Fox Creek points from the island. He also reported a small shell midden at the site (Lowery 1992:27). The Phase IA field reconnaissance noted a shell midden on the northern shore of the island, and an historic period site ("MP.1") on the extreme southern shore (Goodwin et al. 1994). The historic period site was represented by an eroding well shaft and hand pump; submerged brick features; and six brick foundation piers. Other features noted included "a 5-10 cm thick by 90 cm in length charcoal lens, a 5 cm thick stratum of crushed brick, and an eroding brick floor" (Goodwin et al. 1994:53).

Vegetation and Natural Setting

Two vegetation zones were present on the island during the current survey. The southern third of the island was elevated and dry; it contained a small grove of dead persimmon trees. This section has been used as a nesting area for birds. To the north and east, the ground sloped down into a marsh. The vegetation here was characterized by marsh grasses and reeds growing in thick peat. The low marsh areas along the eastern shore showed evidence of periodic inundation. There was driftwood and trash lodged in the reeds, as well as small tunnels and channels cut by storm surge. The higher ground along the western shore showed no evidence of submersion, although the bank was being actively cut by wave action.

Soils

Two soil types were identified on Middle Poplar Island; these corresponded with the above-noted vegetation zones. The high ground in the south and west contained the only original soil structure in the project area. A typical soil profile in this area included 0 to 12 cm brown (10YR 4/3) silt; 12 to 38 cm yellow brown (10YR 5/4) silt; and 38 to 84 cm brownish yellow (10YR 6/6) loamy clay.

The marsh soils identified on Middle Poplar Island were consistent with those on the other island remnants. A 15 to 20 cm stratum of alluvial sand overlay a 20 cm thick layer of peat in dark brown (10YR 3/3) silt. This was underlain by 80 to 100 cm of light olive brown (2.5Y 5/3) clay.

Results

A baseline was established along the western shore at a bearing of 41/221°. Seven transects were established at 50 ft (15 m) intervals; three of these transects were off the northern shore (Figure 11). A total of 18 subsurface tests were completed during the investigation of Middle Poplar Island: four shovel tests, nine auger tests, and five offshore dredge tests. The dredge tests were placed off the northern shore in the direction of the previously recorded prehistoric archeological site. No cultural material was recovered from the auger or shovel tests; oyster shell was encountered in the dredge tests.

Four features were identified in the field. Three of these features (2, 3, and 4) appear to comprise historic site "MP.1," identified during the Phase IA survey (Goodwin et al. 1994). Feature 2 was a loose concentration of brick and oyster shell located on the western beach. The unarticulated collection of bricks consisted of mostly large, irregular, hand made bricks. Feature 3 was a small charcoal and burned earth stain located in the bank on the southwestern shore of the island (Figure 11). The stain was visible beginning below the uppermost soil strata (10YR 4/3 brown silt) and was comprised of a 2.5Y 4/2 dark grayish brown silt. The upper portion of the feature contained small flecks of charcoal; the lower portion contained clumps of burned earth. The feature was cleaned off and profiled; no artifacts were recovered. Feature 4 was identified as

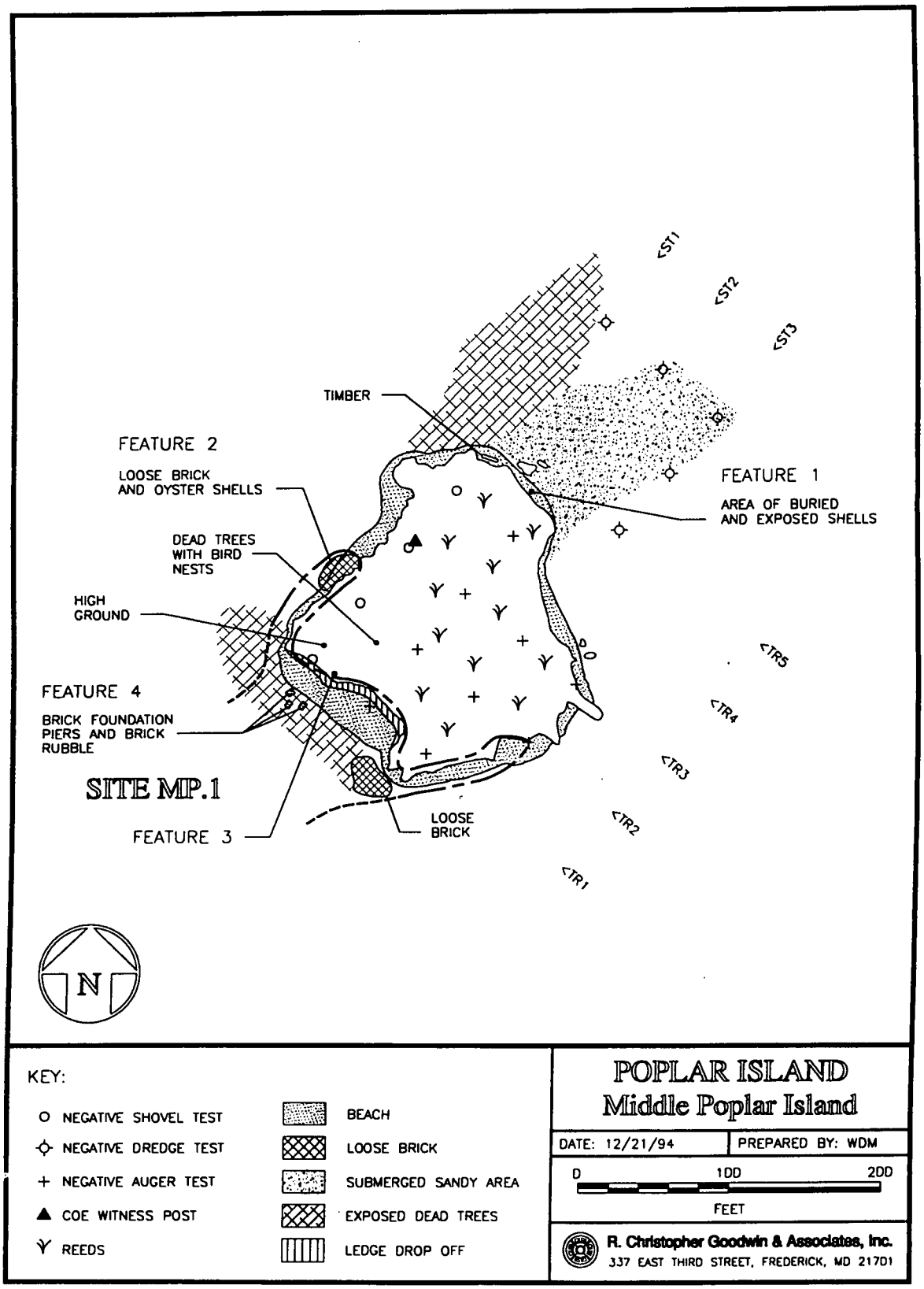


Figure 11. Middle Poplar Island, showing configuration of the island in 1994 and location of Phase I shovel tests, auger tests, and dredge tests

the remains of an historic structure. Three brick piers were noted just offshore. A large scatter of loose bricks was located over most of the south shore. A well hand pump stood erect on the beach about 10 ft north of the brick piers. The earth around the pump had eroded away, leaving the pump head exposed four feet above the ground surface.

A total of 37 artifacts were collected from the shoreline associated with this site (Appendix V). These included 12 glass fragments; 7 ceramic sherds; 8 metal objects; 2 brick fragments; 6 pieces of coal; 1 possible prehistoric hammerstone; and 1 possible English flint flake. Six of the ceramic sherds were diagnostic: 2 undecorated whiteware (1820-present); 2 gray undecorated ironstone (1813-1900); and 2 gray salt-glazed domestic gray stoneware (1750-1900). Diagnostic glass included 8 modern; 1 nineteenth century pharmaceutical bottle (1850-1906); 1 embossed panel bottle (post-1867, and 1 light green cup bottom mold (1850-present). Other diagnostic material included one wire nail (post 1890), and one handwrought rosehead nail (1600-1815). Taken together, the diagnostic artifacts suggest a nineteenth century date for the site. However, erosional activity that has removed most of the soils in this area indicates a lack of physical integrity for these archeological materials.

Feature 1, a large shell concentration located on the northern end of the island, may be the remnant of a shell midden associated with prehistoric site 18TA222. The shell was contained within a dark gray (10YR 4/1) clay matrix that underlay the two upper strata identified in the upland portion of the island. This midden remnant was 5 to 20 cm thick. Shell was exposed along the shore and extended at least 100 ft (30 m) offshore. The midden did not extend inland. Five dredge tests were placed in the submerged portion of the shell concentration; no cultural materials were recovered. Several possible black chert flakes were observed offshore, but could not be collected while the equipment was being carried offshore. A modern glass bottle and a glass fragment were collected from the surface near Feature 1 (Appendix V: NE End of Island between Transect 04 and Shore).

South Central Island

South Central Island is a nearly level, marshy hummock that is subject to flooding by tidal and wave action. It comprised approximately 1.7 ac at the time of this field investigation, and measured about 200 x 420 ft (Figure 12). Vegetation in the interior portion of the island was characterized by tall reeds and grasses growing in peat marsh. Small ponds and depressions dotted the landscape and portions of the island became inundated during high tide.

Previous Investigations

Three previously recorded sites were located on South Central Island. One prehistoric site, 18TA218, was recorded by Lowery (1992) in the northwestern corner of the island. Lowery indicated that the site probably was a short-term resource procurement site dating from the Late Archaic and Middle Woodland periods. Diagnostic projectile points reported from the island included Koens-Crispin, Selby Bay, and Levanna types.

Two historic period sites also were reported for South Central Island. Site 18TA236 was described as a possible eighteenth to nineteenth century site located on the western side of the island. As recorded in 1987, the site was represented by the remains of a wooden structure; Buckley ware ceramics were collected from the site. During the Phase IA reconnaissance in 1994, two submerged post holes in the general location of 18TA236 were noted (Goodwin et al. 1994).

Site 18TA237 was described as an historic site on the north end of the island dating from the seventeenth and eighteenth centuries. The site was represented by a brick floor and "unspecified" seventeenth and eighteenth century artifacts. The site form indicates that a clam dredge had brought up a large quantity of Sgrafitto ware from a location northwest of the site. The brick floor was not visible during the Phase IA reconnaissance, but a variety of historic artifacts were noted.

Vegetation and Natural Setting

The islet was characterized by grasses and scrub brush as the sole vegetation. The eastern shoreline of South Central Island was a relatively stable appearing beach at the time of the current survey. The western bank dropped steeply into water several feet deep. This western bank was eroding quickly; peat was observed dropping into the water and tidal surge could be seen tunneling under the bank. The presence of modern debris strewn throughout the marsh and in the upper reaches of the vegetation suggest that the island is inundated at least occasionally.

Soils

Two soil types were identified on the island. The interior of the island contained peat in a dark brown (10YR 3/3) silt to a depth of approximately 40 cm, over a loose, wet reddish brown silt to 170 cm below surface. The eastern beaches exhibited the same profile, but an overburden of 25 to 40 cm of sand also was present.

Results

A baseline was established just off the eastern shore of South Central Island at a bearing of 282/102°. The hand-held induction dredge was used in offshore testing on the northern and eastern sides of the island. Because the land dropped off quickly to the east, it was possible to test only fairly close to shore (Figure 12). The water was too deep off the western shore to use the dredge. Shovel and auger tests were placed on land. A total of 31 subsurface tests were completed, including 11 dredge tests, 11 auger tests, and 9 shovel tests (Figure 12). Cultural materials were recovered from six dredge tests and two shovel tests. A controlled surface collection also was made along the eastern shore (Appendix V).

Five prehistoric artifacts were recovered during this survey: 3 quartzite flakes, 1 quartz flake, and 1 chert flake. These did not represent a concentration of artifacts and were found with historic period materials. It does not appear that previously recorded Site 18TA218 has survived the ravages of erosion on the island.

Three features and the artifact concentration along the eastern shore probably are related to previously recorded Site 18TA237. Features 1, 2, and 3 were a series of adjacent brick features along the northern and eastern shores. Feature 1 was a concentration of brick rubble and artifacts located in the tidal zone on the northeast shore of the island (Figure 13). Feature 2 was comprised of submerged bricks eroding from the shoreline at the north end of the island. Some of the brick still was embedded in peat and may retain integrity (Figure 13). Feature 3 was a small brick concentration embedded in the peat on the northwest corner of the island. Again, this brick feature may retain integrity under the peat overburden.

Artifacts were recovered from two auger tests and two shovel tests in the vicinity of these brick features. Additional artifacts were collected from the surface and directly offshore at

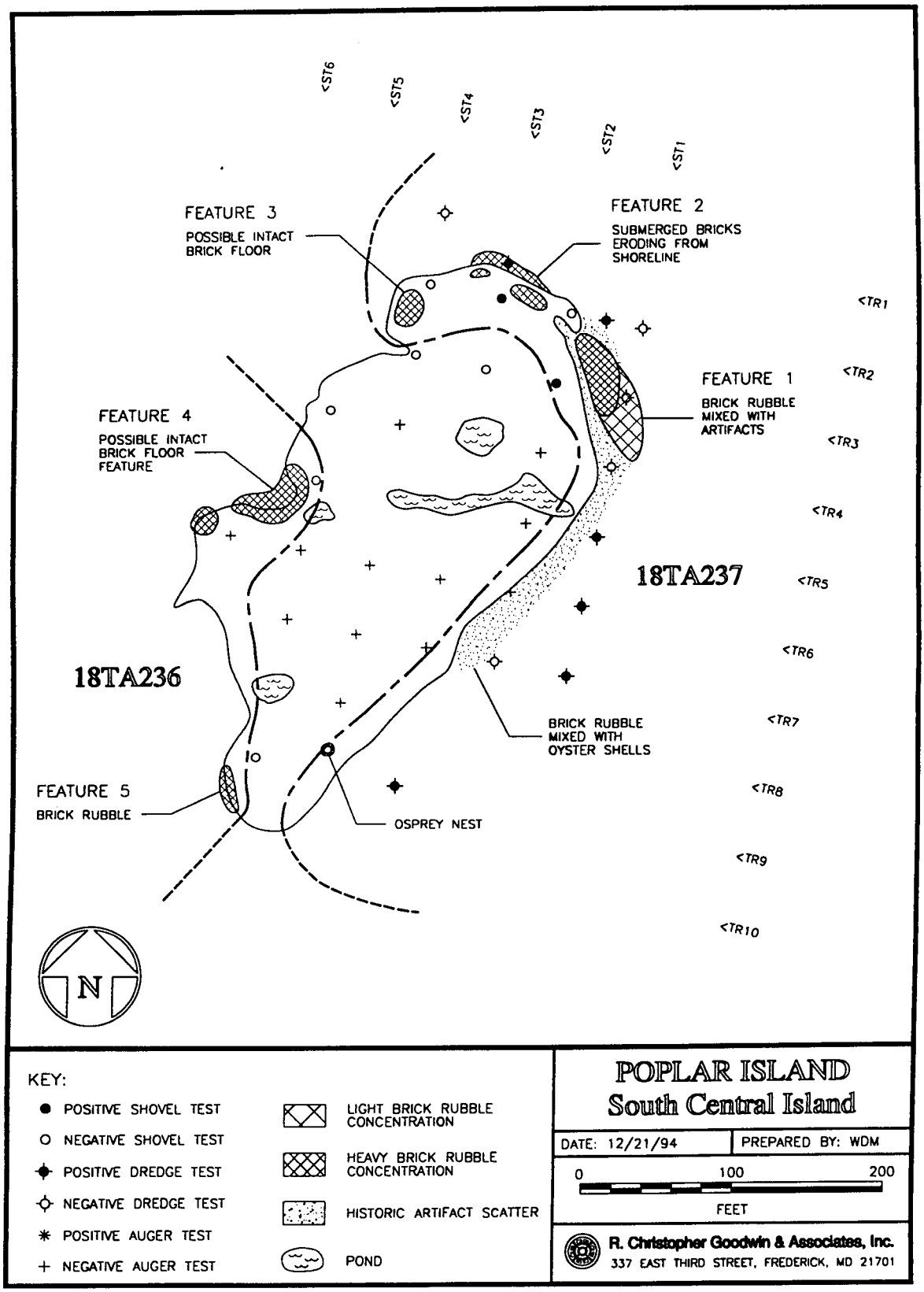


Figure 12. South Central Poplar Island, showing configuration of the island in 1994 and location of Phase I shovel tests, auger tests, and dredge tests

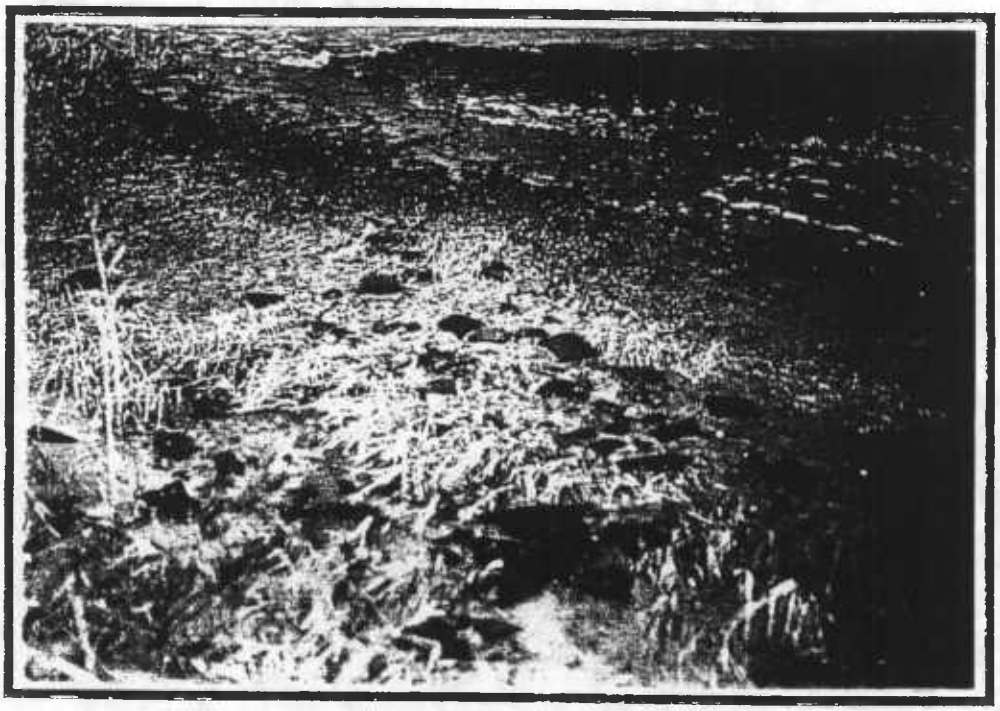


Figure 13. South Central Poplar Island, Site 18TA237, Photograph of Feature 1 (top) and Feature 2 (bottom)

Transects 1, 2, 3, and 4. A total of 57 artifacts were recovered from the surface collection north of Transect 4 and the subsurface tests associated with Features 1, 2, and 3. Diagnostic artifacts from these tests and the surface collection included a lead glazed redware crock rim (ca. 1700-ca 1900) (Figure 14), a tin-enamelled earthenware fragment (1620-1800) (Figure 15), gray undecorated ironstone (1813-1900), British brown stoneware (1690-1775) (Figure 15), plain yellow ware (1830-1930s), undecorated domestic gray stoneware (1750-1900), blue decorated domestic gray stoneware (1790-1900), whiteware (1820-present), gray undecorated ironstone (1813-1900) gray bodied (ginger beer) industrial stoneware (1840-1900+), pearlware (1792-1840), Rickett's Type 3 piece mold glass (1821-ca.1913), and nineteenth century pharmaceutical bottle glass (ca. 1850-1906) (Appendix V). Eight kaolin pipestems and two stoneware reed-stem pipe bowls also were recovered (Figures 16 and 17). Generally, these materials suggest a nineteenth century date range for the site; only one sherd of British brown stoneware (Figure 15) does not overlap the nineteenth century in date range. Modern glass also was recovered.

Artifacts recovered from the surface collection and dredge tests south of Transect 4 probably also are related to Site 18TA237. Currents run south along this side of the island and it seems likely that this material has washed south along the shore. A total of 417 artifacts were recovered from 4 dredge tests and the surface collection along the eastern shore south of Transect 4; 245 artifacts were recovered from a single dredge test. The date ranges for diagnostics recovered from this area also generally fall within the nineteenth century, with some earlier ceramics noted. This overall similarity in dates between artifacts recovered directly associated with the features and those collected south along the east shore supports the notion that the artifact scatters represent a single site.

Table 2 presents all of the diagnostic ceramics from the Phase I investigations of Site 18TA237. A total of 150 ceramic sherds and vessel parts were recovered from the surface collection along the eastern shore and from all subsurface tests. Ceramics with date ranges that do not overlap the nineteenth century include one sherd of Westerwald and five sherds of British Brown imported stoneware. The Mean Ceramic Date (MCD) for the total collection is 1860.75. All of the diagnostic glass has date ranges that begin post-1850. Functionally, the collection is overwhelmingly kitchen-related.

Previously recorded Site 18TA236 was represented by two features located along the western shore of South Central Island. Feature 4 was a small, possibly intact brick feature eroding out of the western shoreline; Feature 5 was a concentration of disarticulated brick rubble on the southwestern corner of the island. Because of the deeper water on the northern shore, no surface collection was possible, nor was this area subjected to dredging. However, no artifacts were located in any of the subsurface tests on the western side of the island. A single glass tipped pontil (1700's-ca. 1870) was recovered from the surface near Feature 4.

Of the three previously recorded sites on South Central Island, only Site 18TA237 appears to retain some integrity. Prehistoric site 18TA218 was represented by five flakes. It does not appear that this site has survived. Historic period site 18TA236 is represented by two brick features on the western shore of the island. The nature of erosion here appears to have removed the original ground surface, and no artifacts were recovered from the terrestrial tests. Although the offshore area could not be investigated; it seems doubtful that the wave and wind action on the western side of the island would have permitted preservation of features associated with the site.

Site 18TA237 also has been subjected to severe erosion. However, the more protected location of the site along the islet's northern and eastern shoreline may have allowed preservation of some features either on the small terrestrial portion of the site that remains, or immediately

TABLE 2. SOUTH CENTRAL POPLAR ISLAND 18TA237 DIAGNOSTIC CERAMICS

Type	Number	Manufacture Date Range
Creamware	1	1762-1820
Early Porcelain		
Underglaze blue Chinese	2	1660-1800
Tin Enamelled Earthenware		
Polychrome	2	1620-1800
Imported Gray Stoneware		
Westerwald stamped blue	1	1650-1775
Imported Brown Stoneware		
British Brown	5	1690-1775
Pearlware		
Undecorated	2	1779-1830
Underglaze blue handpainted	1	1779-1820
Other transfer printed	3	1792-1840
Green shell edged	2	1780-1830
Annular	2	1790-1820
Ironstone		
Gray undecorated	21	1813-1900+
Molded	3	1813-present
Yellow ware		
Plain	2	1830-1930s
Rockingham/Bennington	1	1830-1900
Domestic Gray Stoneware		
Gray body/brown glaze	2	1750-1900
Gray salt-graze w/blue	4	1790-1900
Gray salt-glaze, undecorated	17	1750-1900
Domestic Brown Stoneware		
Brown salt-glaze, undecorated	9	1750-1900
Industrial Stoneware		
Gray bodied	3	1840-1900
Whiteware		
Undecorated	61	1820-present
Transfer printed	2	1820-present
Annular	1	1820-1860
Flow blue	2	1820-1870
Embossed	1	1820-present
Total = 150		

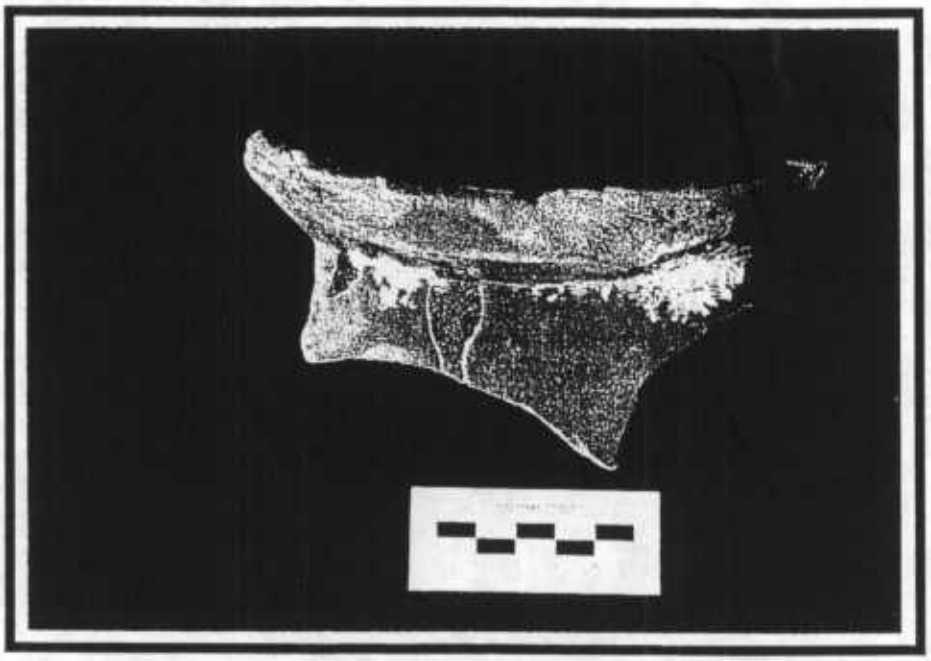


Figure 14. South Central Poplar Island, Site 18TA237: lead glazed redware crock rim (c.1700-c. 1900)

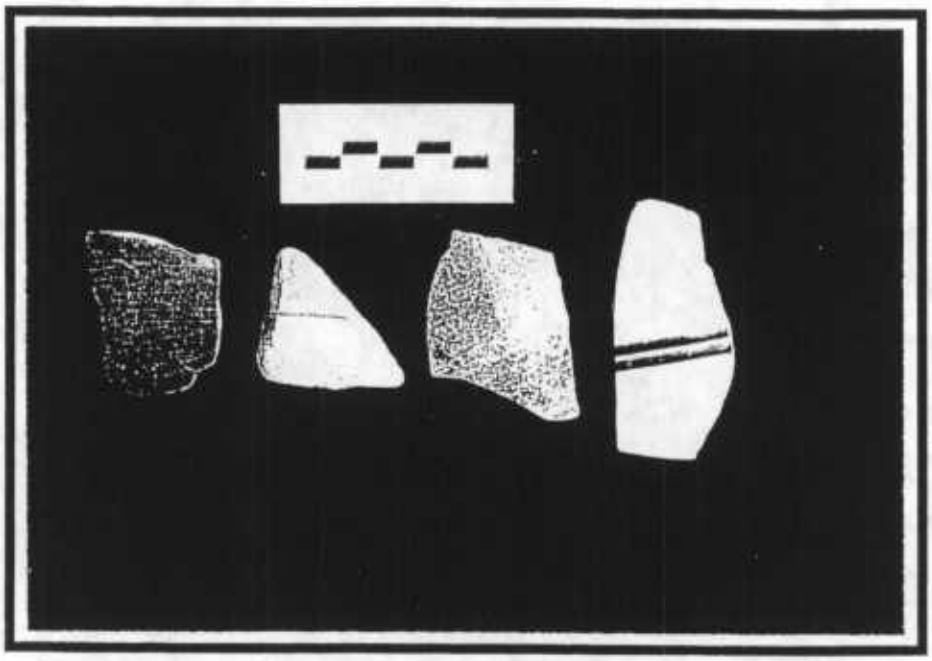


Figure 15. South Central Poplar Island, Site 18TA237: annular yellowware (1840-1930s), British brown stoneware (1690-1775), polychrome tin-glazed earthenware (1620-1800), lead glazed redware (c.1700-c.1900)

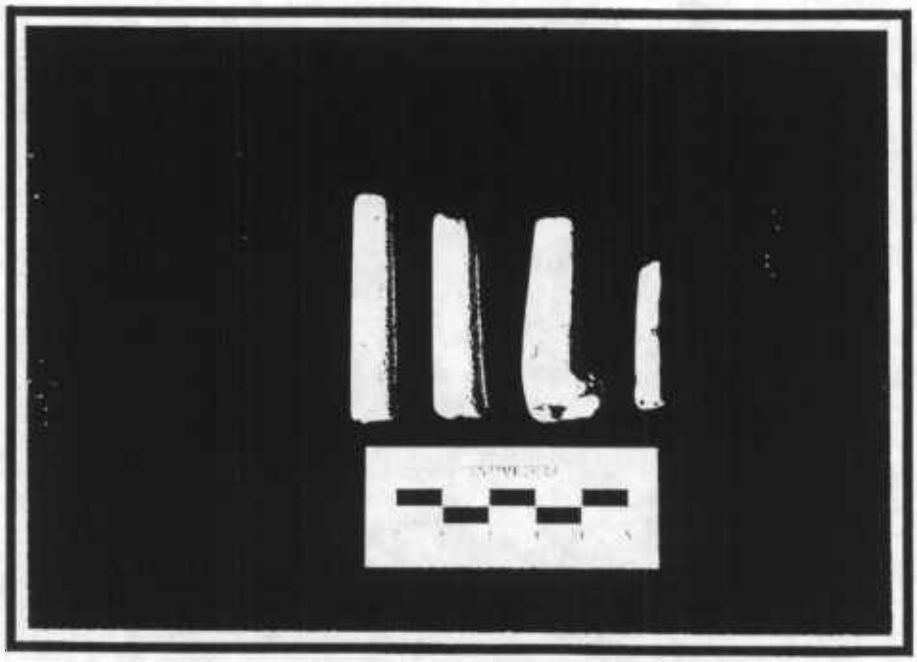


Figure 16. South Central Poplar Island, Site 18TA237: assorted kaolin pipe stems

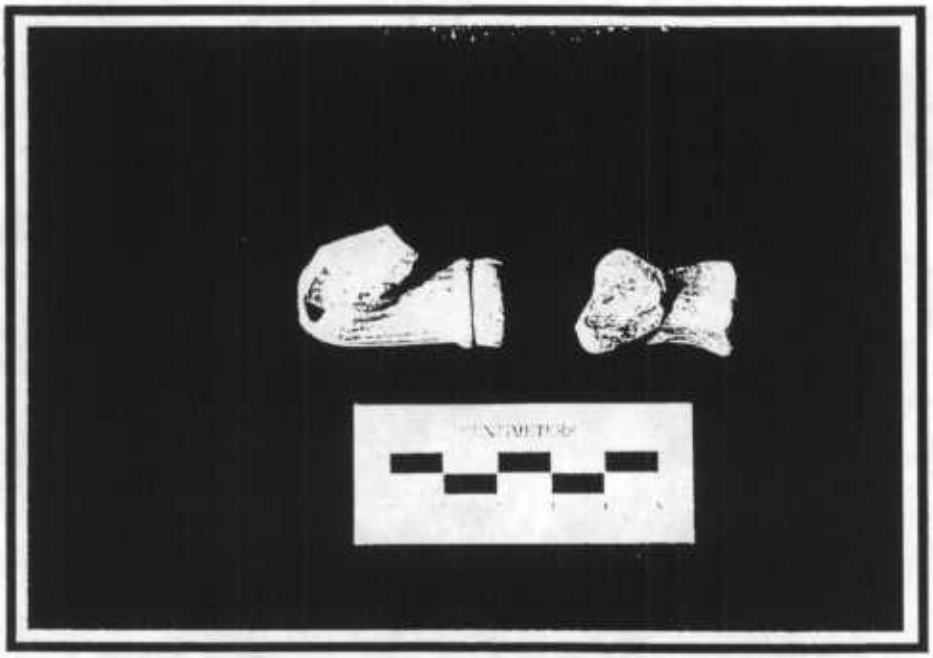


Figure 17. South Central Poplar Island, Site 18TA237: stoneware reed-stem pipe bowls

offshore. The possibly intact brick architectural elements of Features 2 and 3, along with the large number of artifacts recovered, suggested that this site may have research potential.

South Poplar Island

South Poplar Island was the southernmost remnant of the Poplar group. The islet comprised 0.12 acres and measured approximately 56 x 145 ft at the time of the present investigation.

Previous Investigations

Prehistoric site 18TA217 was previously recorded for this location. Lowery (1992:28) reported that South Poplar Island consisted of three small islands that had separated recently. On the basis of several diagnostic projectile points collected from the island(s) over a 13-year period, the site was thought to represent a short term procurement site dating from the Archaic through the Woodland periods (Lowery 1992:28). By the time of the current survey, South Poplar consisted of only one small land remnant; no trace of Site 18TA217 was identified.

Vegetation and Natural Setting

South Poplar was low and wet with a small inlet on the western end (Figure 18). A submerged sandy area surrounded the southern side of the islet. Vegetation consisted of marsh grasses and reeds growing in a dense peat.

Soils

Soils were consistent with marsh soils found elsewhere on the Poplar group. A 15 to 20 cm sand overburden overlay a 20 cm layer dark brown (10YR 3/3) silt in a peat matrix. This was underlain by 80 to 100 cm of light olive brown (2.5Y 5/3) clay.

Results

Three shovel tests and three offshore dredge tests were excavated on South Poplar. Modern machine made bottle glass was recovered from the central shovel test only (Figure 18). A small amount of cultural material was recovered from the surface. This was primarily modern glass (Appendix V). One sherd of domestic gray stoneware (1750-1900) was recovered from the surface along the western shoreline.

Coaches Island

Coaches Island has remained relatively protected from the strong tidal and weather systems that have affected the Poplar Island group so dramatically. By at least the 1850s, Coaches Island was separated from Poplar Island by a narrow strip of tidally inundated land called Coaches Neck; by the early twentieth century Coaches was a completely separate island. Coaches was the largest of the islands in the project area. At the time of this investigation the island included approximately 70.3 ac (28.45 ha). The Phase I investigations were confined to the

approximately 4,650 ft of shoreline that would be enclosed by proposed Alternative Alignment #2 and/or #3 (Option B) (Figure 3).

Previous Investigations

Two previously recorded prehistoric sites had been identified on Coaches Island. Site 18TA216 was previously recorded as a multi-component, Archaic through Late Woodland prehistoric site located on the southwestern shore of Coaches Island. Lowery (1992:28) reported that the site was located along the "exposed marsh shoreline" and included an eroding shell midden. The site form reported that 125 projectile points were collected from the site, ranging in date from Early Archaic through Late Woodland, but excluding Early Woodland. The site file map depicted the site as extending along most of the southern coast of the island. Lowery suggested that the site functioned as a procurement site during the Early to Middle Archaic, as a micro-band camp during the Late Archaic, and as a procurement site during the Middle to Late Woodland. The shell midden appeared to be associated with the Woodland occupations (Lowery 1992:28).

Site 18TA223 was recorded on the northeastern end of Coaches Island. LeCroy, Guilford, Bare Island, and Adena-like projectile points were recovered from this site, suggesting that it may have been a short-term resource procurement site visited repeatedly during the Archaic and Woodland periods (Lowery 1992). This site was outside of the current project area.

Vegetation and Natural Setting

Three distinct vegetation zones were identified on Coaches Island. Tidal marsh was located on the peninsulas on the eastern and western extremes of the project area, and in small patches near the center of the shoreline. Wetland vegetation consisted of cordgrass and reedgrass growing in a deep, dense, peat deposit. The ground surface was irregular and was partially inundated during high tide. The central interior portions of the island were characterized by mature forest growth. The mixed coniferous and deciduous forest grew on a low, level terrace. The third vegetation zone was a beach strand that consisted of tall grass and reeds growing just inland of the tidal zone. This beach strand was interspersed with the saltwater marsh along the entire southern coastline.

Soils

Soils identified during the survey generally were consistent with the soils mapped for the project area (Reybold 1970). The coastline of the island has fluctuated since the 1970 mapping, but its general configuration has remained constant. The two primary soil associations mapped for the area corresponded to the primary vegetation zones noted.

The inland, wooded portion of the island was mapped as Woodstown fine sandy loam. This series is moderately sloped and moderately well drained and forms in sandy marine sediment. A typical soil profile contains a very dark brown (10YR 2/2) sandy loam A1 horizon from 0-3 in (0-8 cm), over an A2 of pale brown (10YR 6/3) sandy loam mottled with strong brown (7.5YR 5/8) sandy loam from 3-4 in (8-10 cm), over a thick A3 of light olive brown (2.5YR 5/4) heavy sandy loam from 4-14 in (10-36 cm). These strata were underlain by a B21t of yellowish brown (10YR 4/8) sandy clay loam to 24 in (60 cm) below surface (Reybold 1970).

Subsurface excavation in this wooded area during the Phase I survey indicated the presence of a plow zone that obscured the separation between the three A horizons. A typical

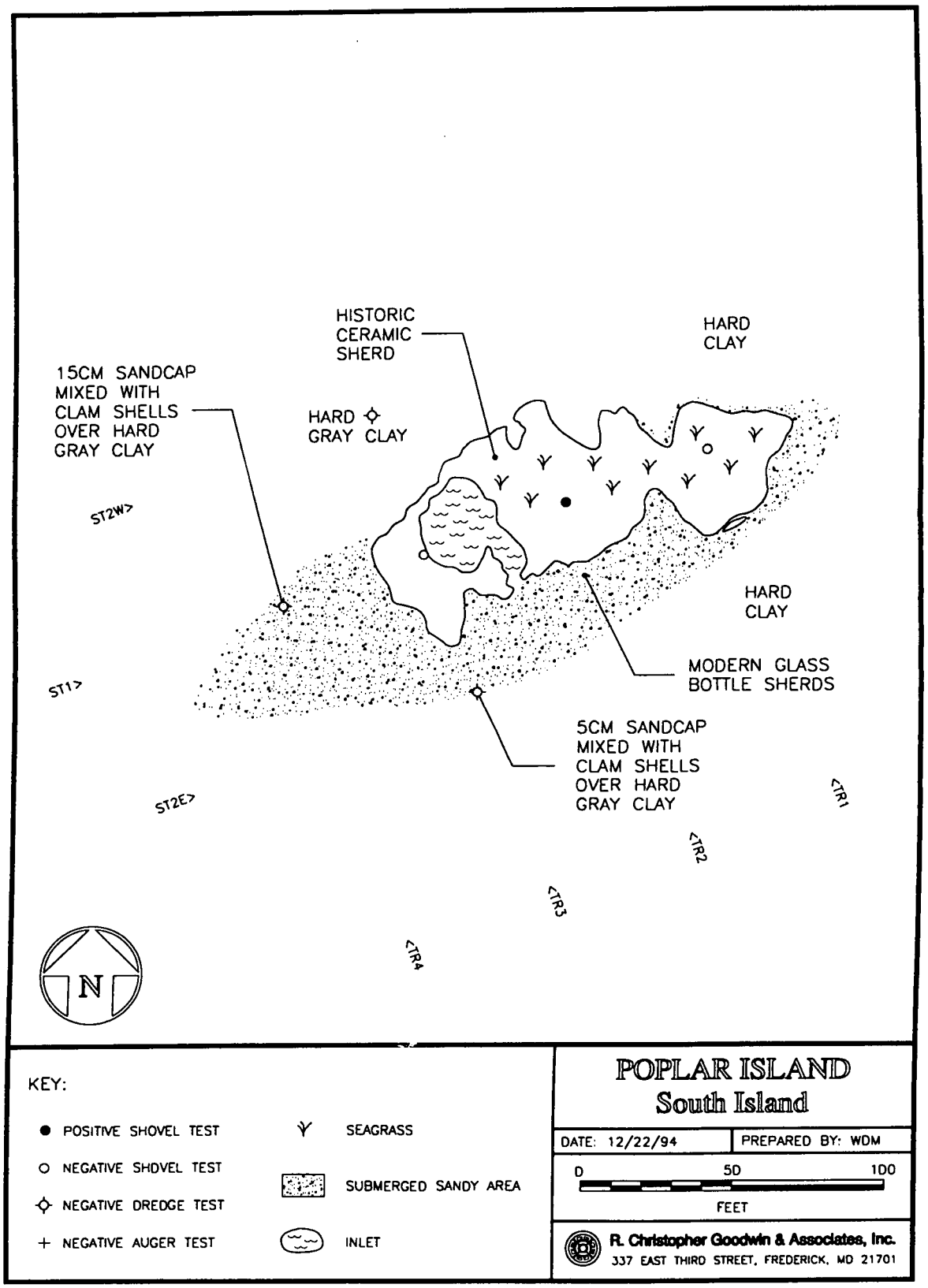


Figure 18. South Poplar Island, showing configuration of the island in 1994 and location of Phase I shovel tests, auger tests, and dredge tests

shovel test profile consisted of a dark brown (10YR 3/2) sandy loam from 0-14 in (0-35 cm) below surface, underlain by a yellowish brown (10YR 5/6) sandy clay loam to 24 in (60 cm) below surface.

A small area in the southeastern portion of the island is mapped as Othello silt loam (Reybold 1970). The Othello soil series often is located on peninsulas in tidewater regions. A typical profile recorded for this soil exhibits a 5 in (12 cm) layer of partially decomposed leaf mold over a 3 in (8 cm) A1 of very dark grayish brown (10YR 3/2) silt loam over an 8-12 in (20-30 cm) A2g horizon of grayish brown (2.5Y 5.2) silt loam, with a few, medium, distinct mottles of yellowish red (5YR 4/8). This was underlain by a 10-14 in (25-36 cm) B21tg of light brownish gray (2.5YR 6/2) horizon of light silty clay loam, with many coarse, prominent mottles of yellowish red (5YR 4/8) (Reybold 1970). No evidence of this soil was identified during the survey.

The tidal marsh stratigraphy matched the tidal soil series mapped for the survey area. Below a silt or fine sandy organic surface layer, the tidal marsh contains organic silts that can extend more than 30 ft (9.15 m) deep. The organic silts may have intermittent sand lenses, and often are underlain by sand or beds of clay (Reybold 1970).

The typical soil profile identified in the marsh areas of Coaches Island contained a very dark brown (10YR 2/2) organic silt with up to 90 per cent peat moss fiber from 0 to approximately 3.5 ft (107 cm) below surface. In some cases the base of the silt/peat extended below the sampling ability of the equipment (5.5 ft or 170 cm). When a base was encountered, it consisted of a light gray (2.5Y 6/0) silty clay.

The beach strand exhibited a soil profile similar to that of the marsh. The primary difference was a mixed sand deposit on top of the organic silts. The thickness of the sand layer probably was dependent on tidal currents and storm deposits, and varied from 2 to 120 cm.

Results

Since the proposed project will affect only the immediate shoreline area through the placement of dredged material, initial subsurface testing on Coaches Island consisted of the excavation of a single line of shovel tests spaced 50 ft (15 m) apart, placed just inland from the beach running parallel with the shoreline (Figure 19). An additional shovel test transect was placed along the marsh and beach in an area where artifacts were discovered. Auger tests supplemented the shovel tests to identify deep deposits, and replaced shovel tests in marshy areas. Near-shore dredge tests were placed in the area of archeological material identified during terrestrial testing, and in an area reported by artifact collectors as containing artifacts. A total of 129 subsurface tests were excavated on Coaches Island, including 54 auger tests, 50 shovel tests, and 25 near-shore dredge tests.

A limited amount of lithic material was recovered from a 250 ft area along the beach (Appendix V). One shovel test contained a quartz flake. One chert flake, one chert biface fragment, and one jasper projectile point were located on the surface of the beach. The projectile point was large and corner-notched with a rounded, slightly convex base, and it has a broken tip that is not an impact break. One edge is thicker, making the point slightly asymmetrical and suggesting possible use as a knife. Although the base is less rounded and it is not stemmed, it resembles an Adena point and probably dates from the Early to Middle Woodland.

Fifteen additional shovel tests and 11 offshore dredge tests were placed in the vicinity of the surface finds and the positive shovel test. No additional artifacts were recovered. The entire shoreline was walked; no evidence for a midden eroding out of the shoreline was found. Loose

shell was submerged offshore in the area of the artifacts. An artifact collector was observed collecting the shoreline during these investigations. He allowed the Goodwin & Associates, Inc. staff to photograph a collection of 30 projectile points that he reportedly had collected from Coaches Island recently. He was vague about where the collection was made. If these numbers of artifacts still are being found on the beach of the island, there must be an offshore site from which they are being washed on to the shore. The nature and degree of erosion on islands of the Poplar Island group make it unlikely that such a site retains sufficient integrity to have preserved intrasite spatial layout, vertical stratigraphy, or horizontal differentiation. The dredge tests indicated that the nearshore area consists of shifting sands over Pleistocene clays. It is unlikely that site integrity could have been maintained as the site washed into the bay.

Marine Survey

Magnetic and acoustic sub-bottom survey conducted in the aquatic portions of the survey area recorded 27 magnetic and acoustic anomalies (Table 3 and Figure 20). Eleven magnetic anomalies that had no accompanying acoustic expression were recorded; five of these showed some associated sub-bottom disturbance. A total of eleven acoustic targets were found to have no accompanying magnetic perturbation and are therefore composed of non-ferrous substances. The following discussion describes the recorded remote sensing targets, and, in some cases, posits an identification.

Anomaly 10-727

The Sub-bottom Profile (SBP) record of anomaly 10-727 showed a narrow, very hard, vertical target extending deep into the substrata. The magnetometer registered a 16 gamma magnetic anomaly in the same location. It is possible that this target represents a submerged well.

Anomaly 10-755

A small surface mound accompanied by a 32-gamma magnetic anomaly was recorded by the remote sensing array. No other identification can be made at present other than to state that the presence of ferrous metal suggests a anthropogenic origin.

Anomalies 22-1009, 24-427, 26-1011

These three acoustic anomalies were located adjacent to one another on parallel tracklines in the north end of the project area. An extremely hard surface reflected the acoustic signal, preventing penetration over a broad area. This target area is likely to be produced by a relic oyster reef buried approximately 1 m below the surface. Its size argues that it is likely to be the result of natural biogenic processes rather than anthropogenic accumulation.

Anomalies 28-442 and 28-444

These two hard, reflective targets were located near one another on the same trackline on the bay floor. No magnetic signature accompanied the targets, suggesting that they are composed of natural rather than man-made materials. It is possible that they represent small shell middens that may have resulted from human agency.

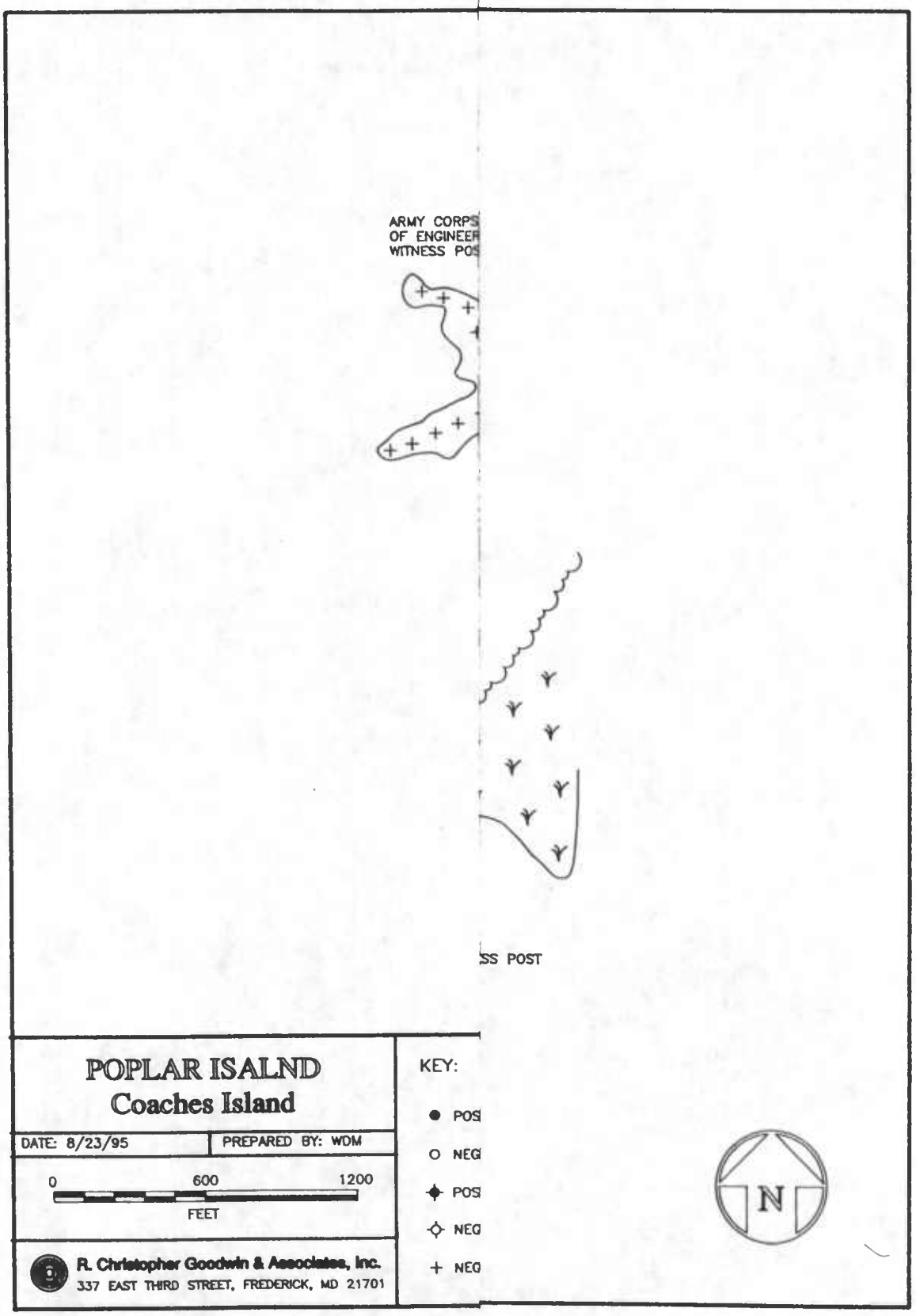


Figure 19. Coaches Island, showing configuratio
location of Phase I shovel tests, auge

TABLE 3. MAGNETIC AND ACOUSTIC ANOMALIES WITHIN THE POPLAR ISLAND PROJECT AREA

Anomaly No.	Maryland State Plane (NAD 1983)		Magnetic Readings			Sub-bottom Profiler Target Characteristics
	X	Y	Gammas	Duration	Signature Type	
10-727	1,489,600	406,683	16	6 sec.	Bipolar	Possible well.
10-755	1,487,426	403,168	32	12 sec.	Bipolar	Small surface mound.
22-991	1,489,914	405,991	84	6 sec.	Bipolar	None.
22-1009	1,491,197	408,182				Possible shell reef 1 m below surface.
24-437	1,491,265	408,052				Possible shell reef 1 m below surface.
26-1011	1,491,375	408,010				Possible shell reef 1 m below surface.
28-442	1,491,267	407,676				Hard reflective surface.
28-444	1,491,106	407,427				Hard reflective surface.
30-1151	1,490,925	407,005				Possible shell midden from surface to 1 m below surface.
34-1163	1,491,599	407,660				Possible shell reef 1 m below surface.
36-585	1,491,776	407,765				Possible shell reef 1 m below surface.
40-661	1,486,508	398,895	44	7 sec.	Bipolar	None.
40-665	1,486,916	399,407	60	19 sec.	Bipolar	None.
46-1318	1,490,472	404,657				Small surface feature extending into water column.
48-819	1,487,862	400,205	29	34 sec.	Multicomponent	U-shaped surface feature. Small boat?
50-1417	1,490,625	404,616				Surface feature 1 m high.
58-1477	1,491,642	405,344				Hard refelctive surface (shell midden?) 1 m below surface.
60-579	1,491,677	405,310	46	10 sec.	Bipolar	Partially buried rectilinear feature. Acoustic penetration refusal. Possible house.
62-1508	1,491,758	405,251	17	3 sec.	Bipolar	Surface disturbance.

Anomaly No.	Maryland State Plane (NAD 1983)		Magnetic Readings			Sub-bottom Profiler Target Characteristics
	X	Y	Gammas	Duration	Signature Type	
II/12-118	1,490,632	393,322	32	14 sec.	Negative	
II/18-274	1,491,820	393,393	89	10 sec.	Bipolar	
II/21-396	1,491,427	394,027	865	5 sec.	Bipolar	
II/22-208	1,493,790	393,463	19	12 sec.	Bipolar	
II/26-165	1,494,629	393,613	27	8 sec.	Bipolar	
II/26-181	1,490,450	394,842	51	6 sec.	Bipolar	
II/30-128	1,493,442	394,325	43	10 sec.	Bipolar	
II/30-138	1,491,052	395,106	233	10 sec.	Bipolar	

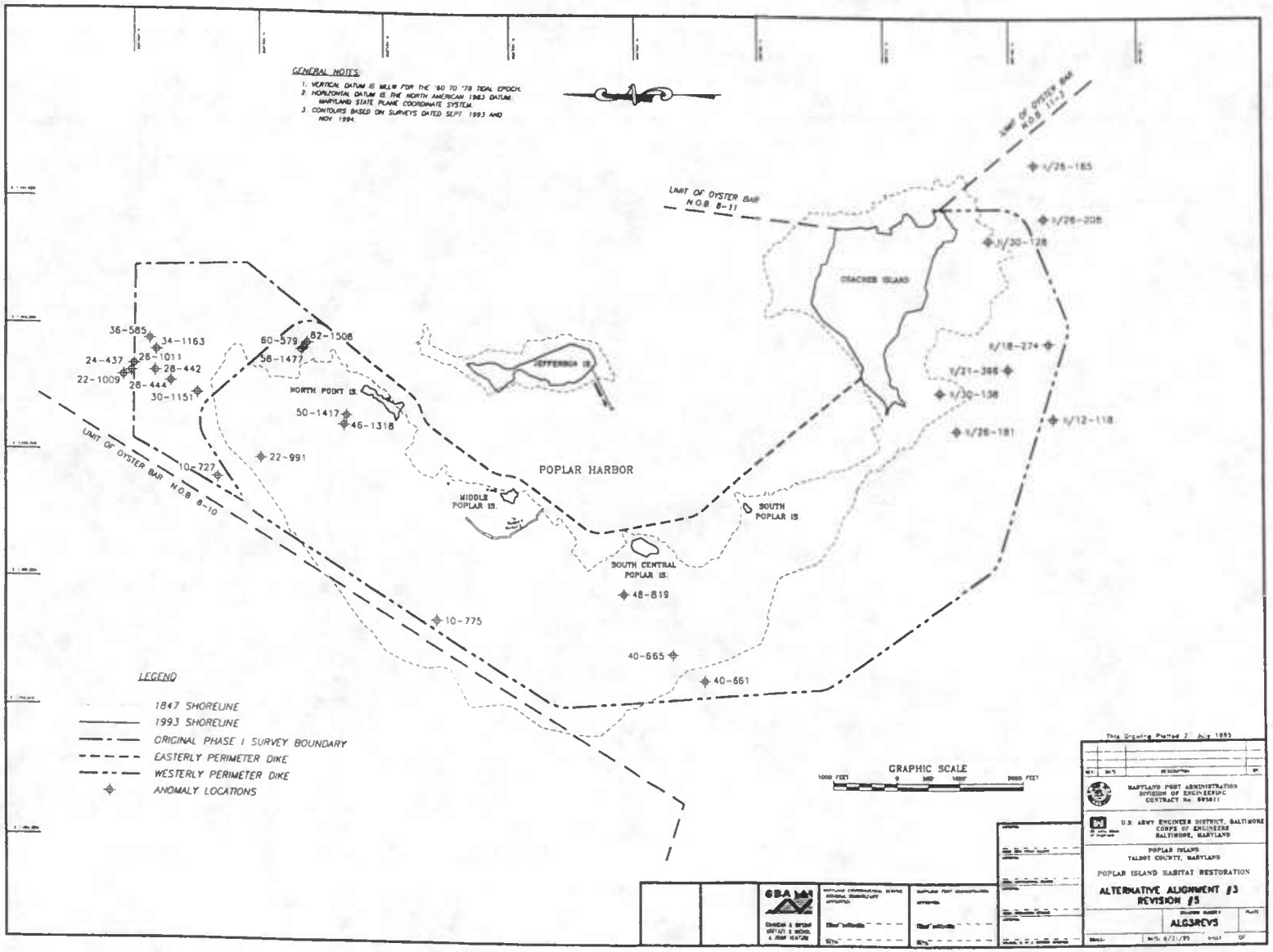


Figure 20. Map showing the location of magnetic and acoustic anomalies in the Poplar Island reclamation project area

Anomaly 30-1151

This interesting SBP target showed a hard, reflective surface curving downward from the surface of the bay floor to about 1 m below surface. It is felt that this target represents a shell midden, possibly formed by human agency.

Anomalies 34-1163 and 36-585

These two adjacent acoustic anomalies represented a hard reflective surface preventing acoustic penetration, possibly a shell reef.

Anomalies 40-661 and 40-665

Both of these anomalies represented magnetic targets without accompanying acoustic signatures. Since the SBP only "looks" directly beneath the tow vehicle, it is likely that the source for these anomalies lies off to either side of the track of the vessel. Both targets were of moderately strong amplitude and duration.

Anomaly 46-1318

This target comprised an amorphous "lump" projecting into the water column. It was not accompanied by a magnetic perturbation and is likely to be nothing more than a tree stump, of which there are many in the project area.

Anomaly 48-819

Anomaly 48-819 appeared as a U-shaped target on both the SBP and fathometer records. The magnetic record displayed a moderately strong anomaly of significantly long duration and a multicomponent signature, which generally is indicative of a complex object composed of many ferrous parts. The U-shaped acoustic signature commonly is associated with sunken vessels. This target may relate to a small watercraft, probably modern in origin given its location near the center of the island's 1847 footprint. Further assessment will be required to ascertain the target's true identification.

Anomaly 50-1477

A surface feature protruding approximately 1 m into the water column comprised this target. It was not accompanied by a magnetic signature and probably is natural.

Anomalies 58-1477, 60-579, 62-1508

This cluster of acoustic and magnetic targets suggested a strong potential for a significant cultural resource. The acoustic signature at 60-579 had the appearance of a cross-section of an open topped box with straight vertical sides and a flat "floor." Surrounding this possible structure was a large area of disturbed surface and a hard reflective layer approximately 1 m below surface. The size of this target suggests the potential for a buried structure. If this identification is correct, it may pre-date 1847 as it appears to lie outside the island's footprint from that period.

Anomalies II/12-118, II/18-274, II/21-396, II/22-208, II/26-165, II/26-181, II/30-128, II/30-138

Eight magnetic anomalies were recorded in the expanded work area near Coaches Island and are identified by the prefix "II" in Table 3. None of these anomalies were accompanied by a clearly identifiable acoustic image, although most probably result from the numerous steel crab traps that litter the area. With two exceptions, Anomaly II/21-396 and Anomaly II/30-138, magnetic disturbances in the expanded work area produced relatively weak perturbations of brief duration and were limited to detection along a single survey track. Even the two stronger anomalies were detected only for a brief time and only on a single line. Because of the tight survey interval of 100 ft, this would seem to indicate that all the anomalies detected in this area resulted from single, isolated objects.

CHAPTER V

RESULTS OF INVESTIGATIONS: PHASE II EVALUATION OF 18TA237

Introduction

Phase I investigations of Site 18TA237 on South Central Island indicated that this site potentially had significant research value. A total of 474 artifacts were attributed to this site; the ceramic collection indicated a nineteenth century date (MCD 1860.75), although seventeenth and eighteenth century ceramics also were present. Three features were associated with the site, including two brick features that appeared to retain integrity under the peat deposit. The possibly intact brick features, along with the large numbers of artifacts recovered, suggested that this site may have retained sufficient integrity to provide data about the historic occupation of Poplar Island. The artifacts were primarily kitchen related, suggesting that the site represented a domestic occupation most likely dating from the nineteenth century. It was suggested that, depending upon the ultimate dating of the site, additional work might address issues relating to the historic contexts of Contact and Settlement (1570-1750); Rural Agrarian Intensification (1700-1815); and/or Agricultural Industrial Transition (1815-1870).

Based on the initial results of the Phase I investigations, the Army Corps of Engineers, Baltimore District; the Maryland Port Administration; and the Joint Venture authorized Phase II evaluation of 18TA237. This decision was made because the site was eroding rapidly into the bay. It was feared that a delay in undertaking these investigations would result in loss of the site. The Phase II evaluation took place in July 1995.

The objectives of this Phase II evaluation were to define the boundaries and integrity of the site, to establish its temporal and function associations, to evaluate the potential eligibility of the site for listing in the National Register of Historic Places, and to assess the potential project impacts and need for additional archeological investigations. These objectives were met through a combination of additional archival research and archeological excavations.

Archival Results

Archival research conducted during the Phase II investigations focused on establishing a chain-of-title and land use history for Poplar Island focused on the area of 18TA237. Additional archival research was conducted at the Maryland Room of the Talbot County Public Library in Easton, Maryland, and at the Maryland Hall of Records in Annapolis. These results have been combined with the results of archival investigations undertaken for the Phase IA and Phase I studies and are described in detail in Chapter II of this report; a summary is presented here.

Cartographic evidence indicates that South Central Poplar Island was part of the original eastern shoreline of Poplar Island. This is apparent in Figure 5, which depicts changes in the shoreline of Poplar Island beginning in 1846/47. Figure 8 shows the approximate location of current South Central Island on the 1846/47 Poplar Island; South Central coincides with one of the major occupational areas of that period. Figure 4 overlays the approximate configurations of the Poplar Island remnants on a series of twentieth century maps. Interestingly, settlement as judged from the location of structures appears to have shifted away from the immediate shoreline beginning after 1904, perhaps in response to the rising level of the bay and the increase in

marshland along the shore. This may help to explain the primarily nineteenth century artifact collection noted in the Phase I investigations for 18TA237.

Seventeenth and eighteenth century deeds demonstrate that Poplar Island, which at that time included Coaches Island as part of its land mass, was a locus of early settlement. However, since the land always was transferred as an entity, it is not possible to pin-point the exact locations of such settlement. By the early nineteenth century, Poplar Island was separated from Coaches Island by a narrow neck of land called Coaches Neck. It is also during this period that map evidence begins to supplement archival sources and allow the loci of occupation to be identified.

In 1857, Charles Carroll of Doughregan Manor in Howard County sold the southern half of Poplar Island north of Coaches Neck to Thomas Sherwood for $2,507.50. An 1858 Dilworth map shows the residence of "T.I. Sherwood" in the location of current South Central Island. Sherwood had a 250-ac tract that contained approximately 178 ac of cleared land, 36+ ac of marsh, and 36+ ac of woodland; it was separated from Capt. Howeth's property to the north by a road that bisected the island (Talbot County Deeds Liber STH67:513-514). The complex that became Sherwood's farm can be seen on the 1846/47 U.S. Coast Survey map (Figure 8).

The 1860 census reveals much about Sherwood. The household of the 59 year old farmer included his wife Mary; Ann Sherwood, 90, probably his mother; Harriett Sherwood, aged 62, perhaps a sister; and Sally Wills, a 13-year old white female whose relationship to the Sherwood family is unknown. Given their relatively advanced ages, it is unlikely that the members of this household were capable of operating the farm by themselves. The members of two immediately adjacent African-American families headed by Paca Pouner and Lucinda Adams probably provided the necessary labor (United States Census Bureau, Population Schedule 1860:221). Sherwood's property was valued at $9,000, and he practiced the diversified agriculture typical of the mid-nineteenth century.

By 1880, Benjamin Sherwood and his wife, their six children, an African-American farm laborer named Richard Hopkins, and a black servant, Mary Gibson, occupied the farm formerly occupied by Thomas Sherwood (U.S. Bureau of the Census Population Schedule for 1880:32). The farm's acreage had declined to 238 ac, of which only 66 were under cultivation; 170 ac were listed as unimproved timberland. Like Thomas Sherwood, Benjamin raised livestock and poultry, as well as corn, wheat, and potatoes. There also was a 2 ac apple orchard (U.S. Bureau of the Census Agricultural Schedule 1880).

These cartographic and census data suggest that Site 18TA237 represents at least in part the remains of the nineteenth century Sherwood farm. This notion is supported by the overwhelmingly nineteenth century date of the artifact assemblage recovered during the Phase I investigations. The map data further suggests the occupation moved somewhat inland from the immediate shore by the early twentieth century (Figure 4), helping to explain the general lack of later artifacts.

Archeological Results

The Phase II archeological field investigations of Site 18TA237 utilized a combination of sampling and recordation techniques. The entire island was subjected to a pedestrian reconnaissance survey. The locations of previously identified features were inspected, mapped, photographed, and described. A new map of the site area was created (Figure 21). A 15 ft (4.57 m) grid was established across the northeastern portion of the island (Figure 21) with the datum located at grid N1000/E1000. Subsurface test designations were based upon their grid coordinates; test units were labeled with their southwest corner coordinates. The beach and

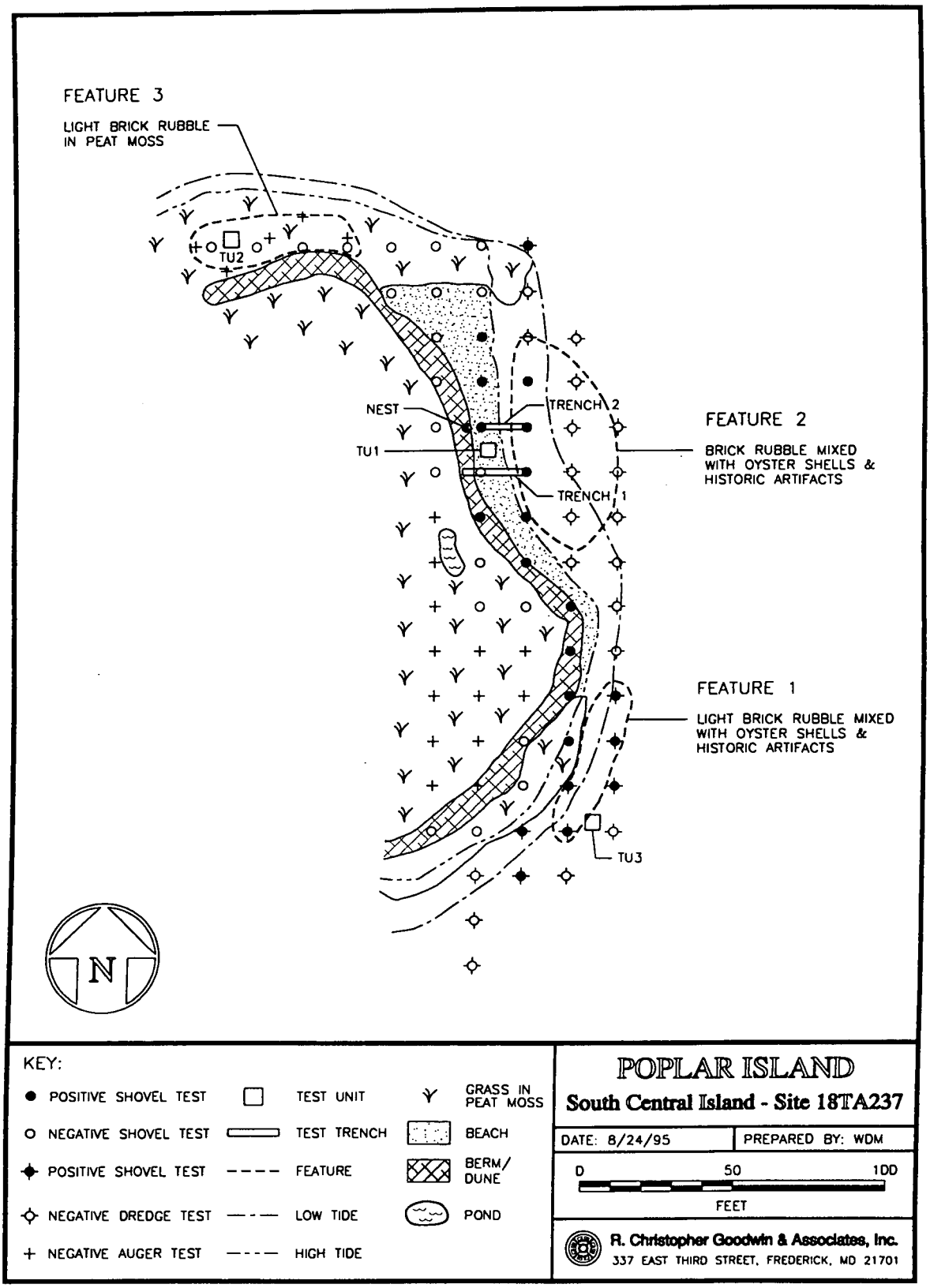


Figure 21. South Central Poplar Island showing the Phase II excavations at Site 18TA237

shoreline portions of the site were shovel tested at 15 ft intervals; auger tests supplemented the shovel tests in wetland portions of the site. Near-shore dredge tests were used to extend the testing offshore. Three 5 x 5 ft (152.4 x 152.4 cm) test units were excavated; each was located at one of the three features identified during the Phase I investigations. Finally, two test trenches were excavated on the beach adjacent to Feature 2 to investigate the stratigraphy and expose the feature.

A total of 85 subsurface tests were excavated during the Phase II investigations, including 35 shovel tests, 27 dredge tests, 18 auger tests, 3 test units, and 2 test trenches. Cultural material was retained from 13 shovel tests, 11 dredge tests and the 3 test units. No material was retained from the auger tests.

Stratigraphy

South Central Island can be characterized as a remnant tidal marsh containing fibrous peat deposits to depths varying from 40 cm (15.75 in) in the center of the island to nearly 1.83 m (6 ft) along the shore. These peat deposits overly a mucky reddish brown silt in the island interior and a gray sandy clay offshore. In places, a deposit of sand overlies the peat.

Profiles of test units and trenches excavated during the Phase II investigations support a characterization of the shoreline as an active, reworked beach deposit. Test Unit 1 was located along the shoreline in the area of Feature 2. The soils in this unit consisted of yellow brown, brown, and dark gray sands mixed with brick and oyster shell fragments to a depth of 35.56 cm (14 in) below surface, overlying fibrous peat moss that extended to 1.83 m (6 ft) below surface (Figure 22). Cultural materials in the sand layers included modern artifacts, indicating that the sands were recently deposited or reworked.

Test Unit 2 was located along the shore in the area of Feature 3. Soils in this unit consisted of a 10YR 3/4 dark yellowish brown sand with oyster and brick fragments to a depth of 3 in (7.62 cm), underlain by a 10YR 3/1 very dark grayish brown silty sand with 30 per cent peat fibers, followed by a 10YR 3/2 very dark brown silt layer with 60 - 90 per cent peat fibers (Figure 23). Cultural materials were recovered from the two upper strata; modern materials were present in both levels.

Test Unit 3 was excavated off the shore in the area of Feature 1. The soils in this unit consisted of yellow brown and very dark brown sands to a depth of 16 in (40.64 cm) overlying brown silt in a 90 per cent peat matrix to a depth of 37 in (93.98 cm) (Figure 24). Cultural materials were recovered from the sand layers; modern materials were present in all levels.

The profile of Trench 2, which was located along the shore in the area of Feature 2, again illustrates the stratigraphic relationship of the remnant marsh/peat deposit, brick and oyster shell rubble, and recent sand deposits (Figure 25). This sort of profile is typical of an archeological deposit that has been reworked by erosion and wave action. For example, Gagliano described the erosion of a coastal midden on the Gulf Coast as follows:

> Beach deposits can be defined as reworked lag left after erosion of a coastal midden. When the midden is destroyed, the finer-grained material of the matrix is winnowed out by waves and currents. Integrity of the site from the standpoint of stratigraphy and geometry is destroyed, and only a mixed jumble of the coarsest components may be left. Lag deposits typically include wave-rounded shell and artifacts. Beach deposits are often thrown back on marshy shores where they form a thin veneer of shell and other site debris (Gagliano 1984:28).

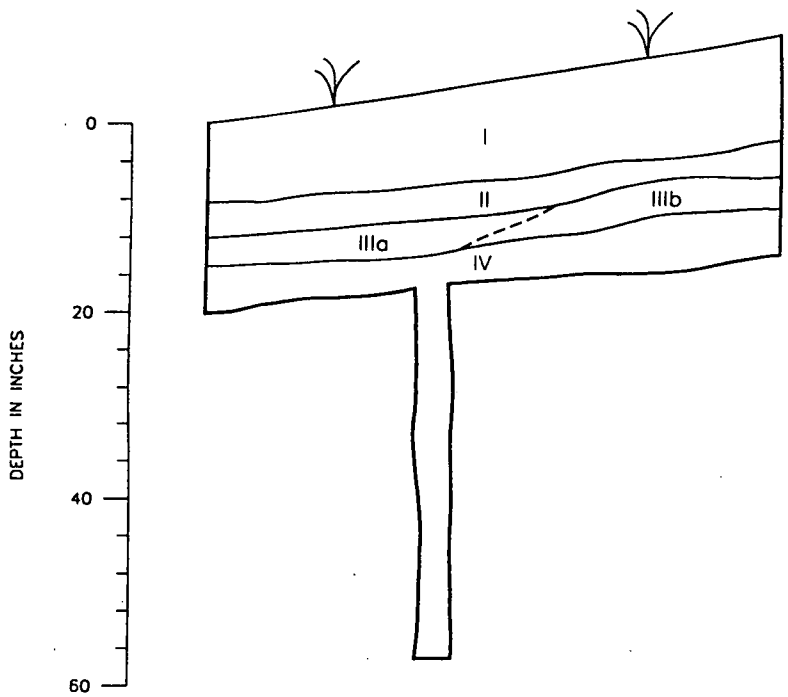
A similar sequence of site destruction and redeposition is occurring on the remnant Poplar islands including South Central Island. Gagliano goes on to say that such reworked and displaced materials can have scientific value and can be a source of information about the site's age, activities, and character (Gagliano 1984:30).

Features

The Phase I investigations identified 3 features associated with 18TA237. Feature 1 originally was identified as a scatter of brick rubble and artifacts (Figure 12). Phase II testing included shovel and dredge testing and excavation of Test Unit 3 in the nearshore area of the feature (Figure 21). Eight dredge tests and 6 shovel tests were excavated in the feature area. A total of 211 artifacts were recovered from these tests; 197 (93.36 per cent) came from the near-shore dredge tests. For that reason, Test Unit 3 was placed offshore in the submerged portion of the feature. As discussed above, soils in Test Unit 3 consisted of a yellow brown and very dark brown sands to a depth of 16 in (40.64 cm) overlying a brown silt in a 90 per cent peat matrix to a depth of 37 in (93.98 cm) (Figure 24). Artifacts were recovered from the sand layers; these dated primarily from the nineteenth century, but modern materials were discovered in both layers. A rubber work glove was recovered from level 2 of the unit, along with North Devon Sgraffito ware, and modern machine made bottle glass (Appendix V). Feature 1 represents redeposited brick fragments and artifacts. There was no evidence for intact deposits or original soils. The artifacts associated with the feature range in date from the seventeenth century to the present, although most overlap the nineteenth century. This material may have been redeposited from a feature formerly intact in this location, or it may represent redeposition from the area of Feature 2. Offshore currents flow south along the island shore; this may account for the large numbers of artifacts located offshore in these areas.

Feature 2 was identified originally as submerged brick eroding from the shoreline (Figure 13). Phase II testing of this feature included excavation of 7 near-shore dredge tests, 12 shovel tests, and Test Unit 1. Two trenches also were excavated to expose the feature profile; no artifacts were retained from these trenches. A total of 334 artifacts were recovered from the excavations associated with Feature 2 including: 6 from two offshore dredge tests, 28 from the shovel tests, and 300 from Test Unit 1 (Appendix V). The soils in Test Unit 1 consisted of three sand layers mixed with brick and oyster shell fragments to a depth of 35.56 cm (14 in) below surface, overlying fibrous peat moss that extended to 1.83 m (6 ft) below surface (Figure 22). Cultural materials were recovered from the three sand layers; diagnostics had date ranges from the seventeenth century to the present. Modern machine made bottle glass and styrofoam were present in the deepest level suggesting that the sands had been reworked or recently deposited.

The brick concentration that defined Feature 2 measured 31 x 35 ft (9.45 x 10.67 m). It contained many whole bricks and large fragments along with oyster shell and historic period artifacts. The dense rubble may represent the remains of a brick wall or floor. However, there was no evidence of intact structural remains; once they were exposed, it was apparent that none of the bricks were articulated. The excavation profiles revealed a shallow deposit of loose brick and artifacts underlain by deep peat. The trench excavation showed that the feature did extend under the beach sands, terminating at the berm that separated the beach from the marsh (Figure 25). The buried portion of the deposit was thinner; it may represent redeposited material that subsequently was buried by beach sand. The large brick fragments and whole bricks present in Feature 2 suggest that this material has been subjected to less redeposition and wave action than the other features. Nonetheless, the feature did not retain structural integrity and its original function could not be identified. It also is possible that the Feature 2 deposit is the source of the artifacts and brick rubble identified as Feature 1.



I. YELLOWISH BROWN AND BROWN MIXED COURSE LOOSE SAND

II. BROWN MOIST SAND MOTTLED WITH VERY DARK GRAYISH BROWN SAND (20%) WITH 15% OYSTER SHELL AND BRICK FRAGMENTS

IIIa. YELLOWISH BROWN AND BROWN MIXED COURSE LOOSE SAND

IIIb. VERY DARK GRAYISH BROWN SILTY SAND WITH 20% OYSTER SHELL AND BRICK

IV. PEAT MOSS

0 20
INCHES

Figure 22. South Central Island, Site 18TA237: Test Unit 1, south wall profile

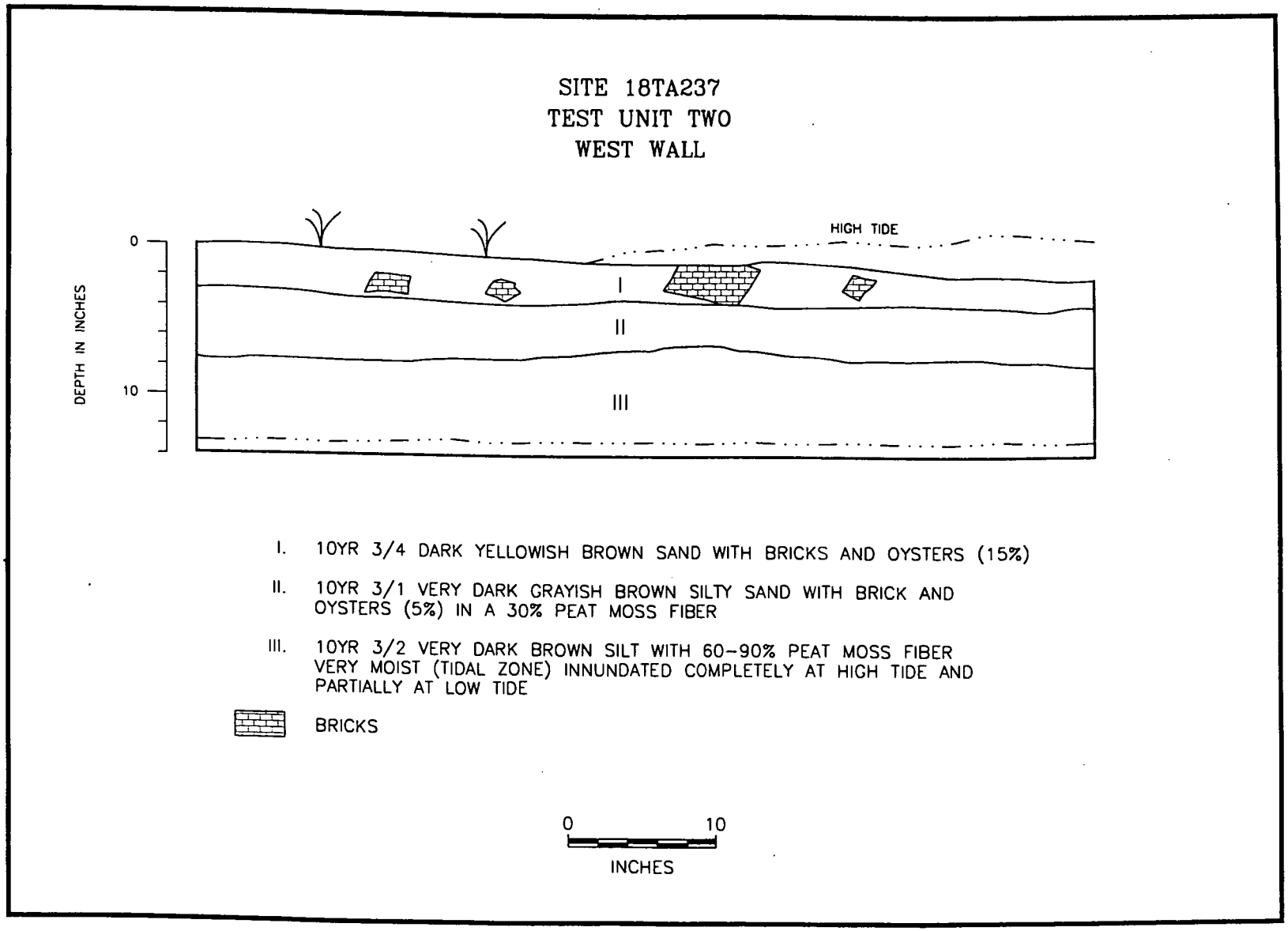


Figure 23. South Central Island, Site 18TA237: Test Unit 2, west wall profile

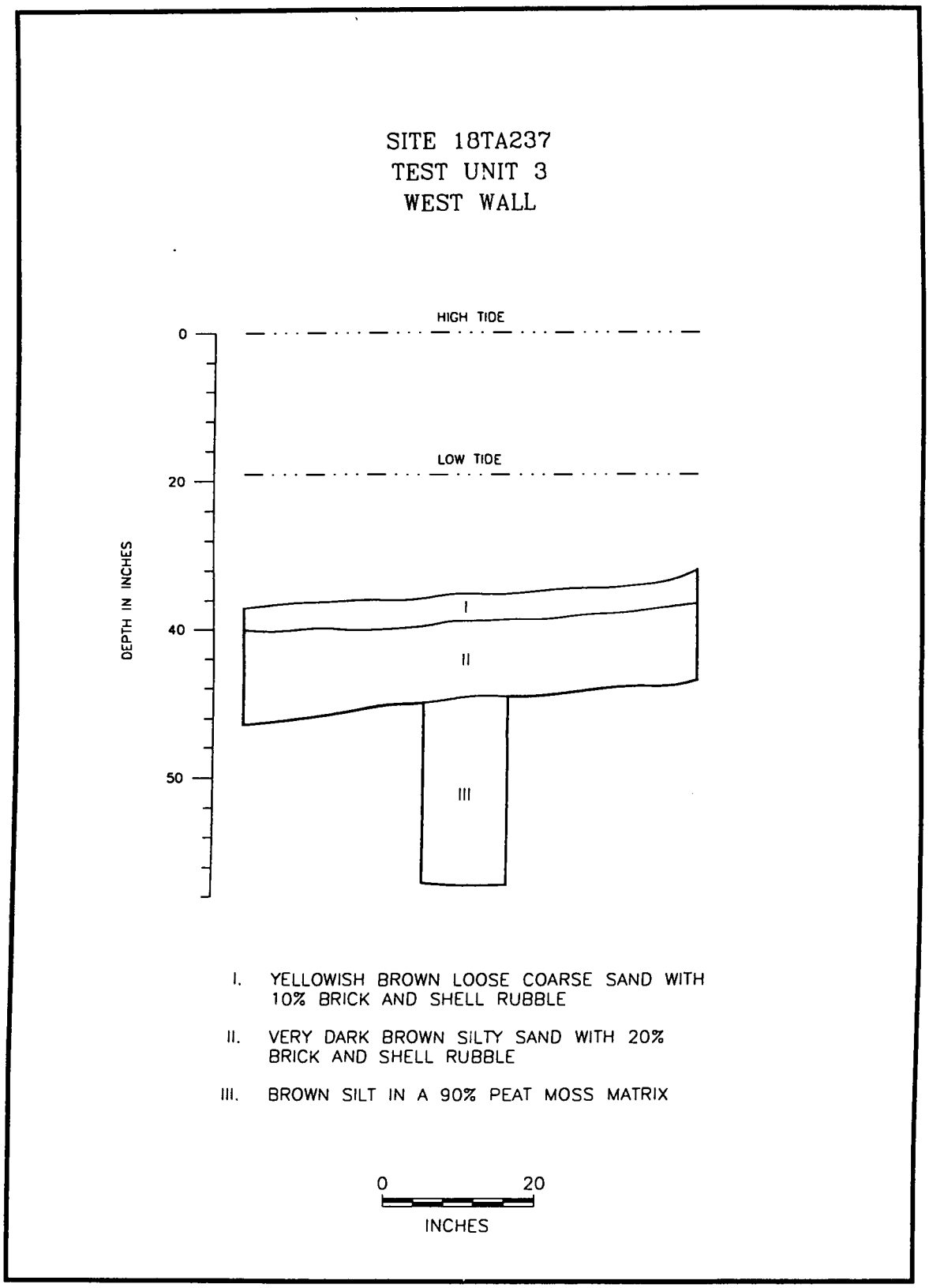


Figure 24. South Central Island, Site 18TA237: Test Unit 3, west wall profile

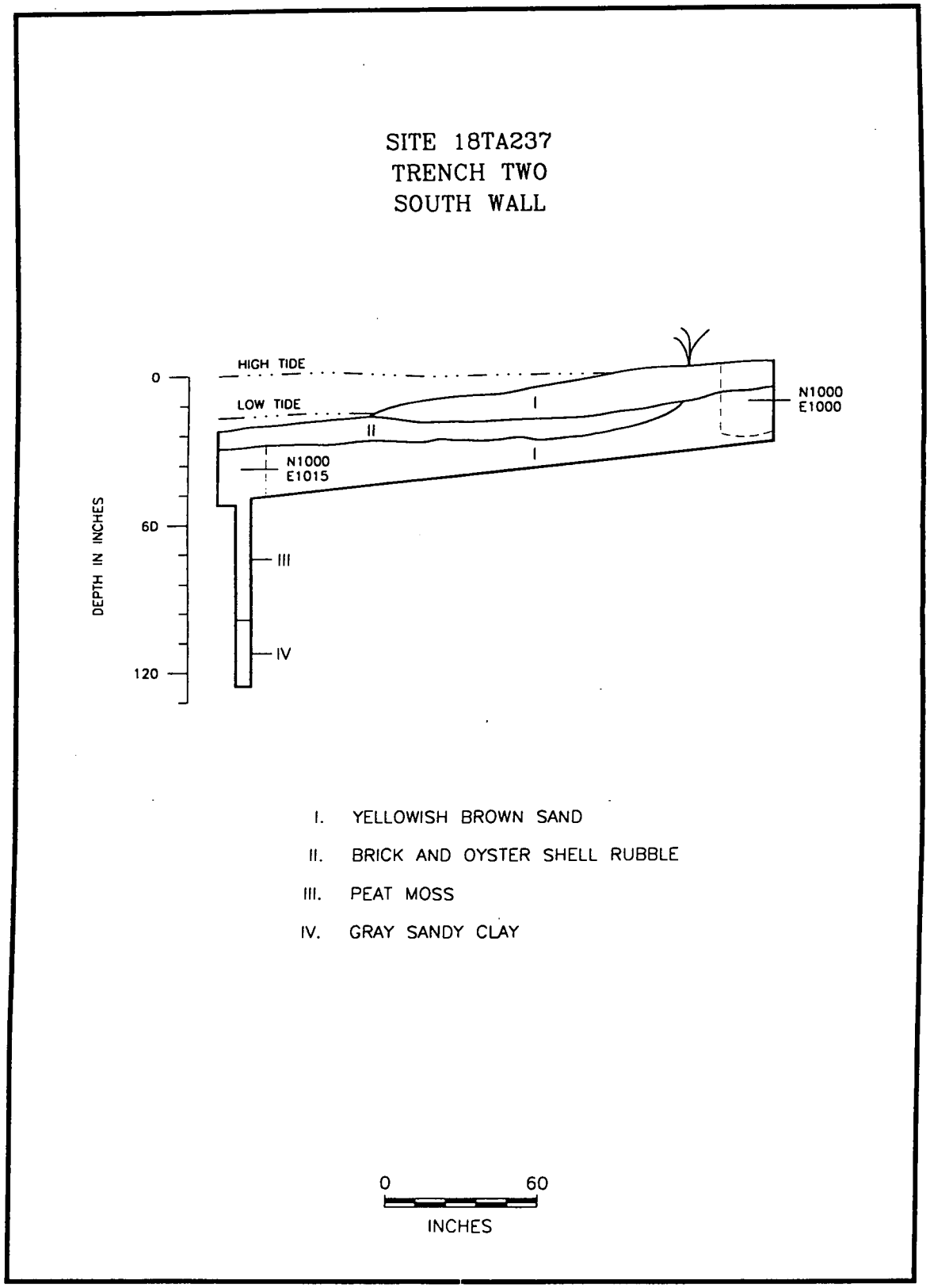


Figure 25. South Central Island, Site 18TA237: Trench 2, south wall profile

Feature 3 originally was identified as a small brick concentration embedded in the peat. Phase II investigation of this location included excavation of 6 shovel tests and Test Unit 2. A total of 162 artifacts were recovered from these excavations: 149 from Test Unit 2 and 13 from the shovel tests. Soils in this unit consisted of two sand layers to a depth of 16 in (40.64 cm) overlying a peat deposit to a depth of 37 in (93.98 crn) (Figure 23). Artifacts were recovered from the sand layers; modern artifacts were located in both levels.

The brick deposit measured 54 x 16 ft (16.46 x 4.88 m). The density of brick made it appear that some integrity was retained. However, the excavations revealed that Feature 3 was comprised of unarticulated brick rubble. Most of the brick was fragmentary and water worn.

Artifacts

A total of 1,138 artifacts were retained from the Phase II investigations of 18TA237 including: 218 ceramic sherds, 737 glass fragments, 27 tobacco pipe parts, 52 shell fragments, 8 bones, 2 teeth, 1 doll part, 10 debitage, 1 projectile point, 2 possible gun flints, 61 brick fragments, 16 metal objects, 1 rubber fragment, 1 piece of styrofoam, and 1 rubber glove (Appendix V).

Table 4 presents all of the ceramic sherds from the Phase II investigations of 18TA237. A total of 218 ceramic sherds and vessel parts were recovered. The ceramics tended to be earlier than those recovered during the Phase I investigations, although a nineteenth century date still is supported. Ceramics with date ranges that do not overlap the nineteenth century include 4 coarse earthenware sherds and 1 sherd of British brown imported stoneware. The Mean Ceramic Date (MCD) for the Phase II assemblage was 1805.57. When these ceramics were combined with those from the Phase I investigations, a MCD of 1833.07 was obtained.

Of the 737 glass fragments, 350 were modern machine made glass and 31 additional fragments were diagnostic. The latter fragments ranged in age from post-1850 to the mid-twentieth century, but were primarily from the late nineteenth century.

Seventeen pipe stems had measurable bores: 7 measured 4/64 (1750-1800+), 9 measured 5/64 (1710-1750+), and 1 measured 6/64 (1680-1710+) (Noel Hume 1969). Of course, ceramic pipes continued to be made throughout the nineteenth century and the 4/64 bore diameter could fall within this span.

A total of 1,126 historic period artifacts were classified by functional group (Table 5). These were primarily kitchen related (75.84 per cent), but activities (1.24 per cent), architecture (18.74 per cent), arms (0.62 per cent), clothing (0.18 per cent), personal (2.39 per cent), and miscellaneous (0.98 per cent) groups also were represented. These proportions of functional groups are typical for a domestic occupation where the amount of material related to kitchen activities has not been overwhelmed by material related to construction or destruction of buildings. The percentage of personal group items is unusually high, and results from the 27 tobacco pipe parts retained from the site. The architectural group is also somewhat high for a domestic occupation. This is the result of the 144 glass fragments, 141 of which were window glass fragments. This high proportion of window glass is typical of late nineteenth century sites.

A small collection of prehistoric artifacts was retained; this sub-assemblage included 3 chert flakes, one of which was utilized, 1 chert side-notched projectile point base, 3 quartz flakes, 1 piece of quartz block shatter, 3 quartzite flakes, and 1 silicified sandstone flake. Three flakes and the point were retained from Test Unit 2; 2 flakes, including the utilized chert flake, were

TABLE 4. SOUTH CENTRAL POPLAR ISLAND, SITE 18TA237: CERAMIC SHERDS FROM THE PHASE II EVALUATION

TYPE	NUMBER	MANUFACTURE DATE RANGE
Coarse Earthenware		
North Devon Gravel Tempered	1	1650-1775
North Devon Scraffito	3	1650-1775
Creamware		
Lighter Yellow	4	1762-1820
Domestic Brown Stoneware		
Albany Slip on Buff	1	1800-1900
Brown Salt-Glaze, Undecorated	6	1750-1900
Unidentified	1	----------
Domestic Gray Stoneware		
Gray Body w/ Brown Glaze	6	1750-1900
Gray Salt-Glaze w/ Blue Decoration	7	1790-1900
Gray Salt-Glaze, Undecorated	20	1750-1900
Early Porcelain Type		
Undecorated Porcelain	1	----------
Underglaze Blue Chinese	2	1660-1800
Early White Stoneware		
White Slat-Glaze, Plain	2	1720-1805
Imported Brown Stoneware		
British Brown	1	1690-1775
Unidentified	2	----------
Industrial Stoneware		
Late White Stoneware	18	----------
Gray Bodied (Ginger Beer)	1	1840-1900+
Ironstone		
Gray Undecorated	16	1813-1900+
Later Porcelain Type		
Undecorated Porcelain, Hard	5	----------
Pearlware		
Annular	1	1790-1820
Green Shell-Edged	1	1790-1830
Other-Transfer Printed	2	1792-1840
Undecorated	3	1779-1830
Redware		
Black Glaze, Fine	1	----------
Black Glaze, Thick	12	----------
Brown Glaze	5	
Dark Brown/Black Glaze	9	----------
Unglazed	3	----------
Unidentified	1	----------
Slipware		
Combed w/ Clear Glaze	3	----------
Plain w/ Clear Glaze	5	----------

TYPE	NUMBER	MANUFACTURE DATE RANGE
Tin Enamelled Earthenware		
Blue & White	1	1620-1800
Unidentified		
Burned Stoneware	1	----------
Burned White Body	2	----------
Whiteware		
Annular	3	1820-1860
Colored Glaze	2	----------
Cream-Colored Earthenware	3	1820-present
Finger-Painted	1	1820-1860
Shell-Edged	2	1820-1860s
Sponged	2	1830-1870+
Transfer-Printed, Blue/Black/Brown	5	1820-present
Undecorated	47	1820-present
Yellow Ware		
Dipped/Annular	3	1840-1930s
Rockingham/Bennington	3	1830-1900
Total	**218**	

TABLE 5. SOUTH CENTRAL POPLAR ISLAND, SITE 18TA237: FUNCTIONAL GROUPS FOR HISTORIC PERIOD ARTIFACTS RECOVERED DURING THE PHASE II INVESTIGATIONS

	Class								
Functional Group	Biological	Ceramic	Glass	Manufactured	Metal	Stone	Synthetic	Total	Percent
Activities	0	1	11	0	2	0	0	14	1.24
Architec-ture	0	0	144	61	6	0	0	211	18.74
Arms	0	0	0	0	5	2	0	7	0.62
Clothing	0	0	0	0	1	0	1	2	0.18
Kitchen	62	218	573	0	0	0	1	854	75.84
Miscell.	0	0	9	0	2	0	0	11	0.98
Personal	0	27	0	0	0	0	0	27	2.39
Grand Total	62	246	737	61	16	2	2	1126	99.99

recovered from Test Unit 2. However, these artifacts were mixed with the historic materials described above; no coherent site was indicated.

Mean Ceramic Dates were calculated for the individual test units in an effort to determine whether there was any horizontal stratification. The results were as follows:

Test Unit 1

L.1	MCD 1907.5 (n=1)
L.2	MCD 1882.6 (n=25)
L.3	MCD 1837.5 (n=4)

Test Unit 2

L.1	MCD 1823.33 (n=3)
L.2	MCD 1813.12 (n=4)

Test Unit 3

L.1	MCD 1871.94 (n=47)
L.2	MCD 1829.59 (n=11)

Although based on often small samples, all three units show evidence of some ceramic type stratification. This apparent integrity must be tempered with the fact that other artifacts within these levels demonstrate heavy temporal mixing. For example, level 1 in Test Unit 3 contained prehistoric artifacts, glass that dated from post-1880, modern machine-made bottle glass, and ceramic tobacco pipes that dated from the eighteenth century. Level 2 in this unit contained a rubber work glove, machine made-bottle glass, and ceramic tobacco pipes. The same sort of mixing was evident in all three units. Still, the fact that remnants of temporal stratification exist at all is interesting in this setting and suggests that disturbance of the deposit has been incremental and has not completely destroyed the original depositional sequence. The primary site deposit may have been a stratified sheet midden that has been eroded in much the way Gagliano describes for the Gulf Coast shell midden discussed above. The matrix of the midden has been removed by wave and tidal activity and the midden contents have been reworked and redeposited leaving a "mixed jumble of the coarsest components" to be redeposited on the marshy shore (Gagliano 1984:28).

CHAPTER VI

RESULTS OF PHASE II EVALUATIONS OF SIX MARINE ANOMALIES

Introduction

As a result of the Phase I Marine Survey at Poplar Island, six (6) anomalous target areas were identified as having potentially significant research value and were recommended for additional archeological investigation (Figure 26), including delimitation, sub-surface testing, and evaluation of National Register eligibility. Intensive archeological field investigations were conducted by R. Christopher Goodwin & Associates, Inc. from August 25 - September 1, 1995, and were concluded on September 7, 1995. These investigations entailed: the reacquisition of initial target locations using Differential Global Positioning System (DGPS) positioning; the refinement of these positions with a proton precession magnetometer and diver surveys; identification and delimitation of the anomalous sites; and evaluation of National Register eligibility for each target. For the magnetic anomalies, magnetometer surveys were conducted over a 22,500 sq ft area around their initial target locations, using a 25 ft track-line spacing. Diver investigations also were completed at every target, with an average of 11,852 sq ft of seabed surveyed per anomaly. Identification and delimitation of the extent of each anomaly, and its potential for National Register eligibility, was accomplished using diver-held metal-detection equipment, sub-surface probing, and limited underwater excavation. Shell and soil samples also were collected and analyzed to determine the date and origin of mollusk shell beds and to identify soil types.

During the course of the Phase II investigations, a total of 135,000 sq ft of the Bay floor was resurveyed with the magnetometer, and 130,378 sq ft of seabed was mapped by divers. Of the six anomalous targets that were investigated, the sources of four of the anomalies were located and identified. These anomalies consisted of: (1) biogenic concentration of mixed species mollusk shell; (2) discrete geological deposits; and (1) a concentration of modern (twentieth century) refuse.

Anomalies that were not located during the Phase II investigations are likely to have been too small to be considered historically significant; are buried deeply beneath sand overburden, and are unlikely to be adversely affected by the deposition of additional sediments above them; or were moved or destroyed by the powerful forces of wind, waves, and strong tidal currents that prevail in the waters surrounding the Poplar Island group. Because no National Register-eligible cultural features were discovered during the Phase II underwater investigations, **R. Christopher Goodwin & Associates, Inc. recommends no further archeological investigations of any of the six targets: 10-727, 10-755, 30-1151, 40-665, 48-819, and the cluster formed by anomalies 58-1477, 60-579, 62-1508.**

Archeological Results

Anomaly 10-727

Magnetometer and diver surveys of anomaly 10-727, tentatively identified during the Phase IB study as a well (Figure 27), were conducted over a two day period. On the first day, the initial location of the anomaly was reacquired with the DGPS, refined with the proton magnetometer and

marked with a buoy. Divers then surveyed two overlapping 120 and 140 ft diameter circular areas, but were unable to locate a possible source for the magnetic disturbance. Divers reported that the seabed within both survey areas was flat and featureless hard packed sand. Sub-surface probing conducted in the first area produced negative results. In the second area, divers using the underwater metal detector located a short section of a steel concrete-reinforcement bar, or "re-bar", a pair of modern barbecue tongs, and a 6 in x 1 ft x 1 ft 6 in keystone-shaped rock. The existence of the keystone-shaped rock in the same approximate vicinity as the hypothetical well afforded anomaly 10-727 an additional day of underwater investigation.

During the second day of investigations, a 22,500 sq ft area surrounding the initial target was resurveyed a second time with the proton magnetometer, while employing a modified surveying technique. To obtain a more precise location for this discrete and probably deeply buried anomaly, track-lines spaced 25 ft apart were surveyed on both "X" and "Y" axes to provide cross-grid coverage of the target area. During the magnetometer survey, a magnetic anomaly of 34 gammas/5 sec. was detected, and its position noted and marked with a buoy (Figure 28). Using both the probe and the metal detector, divers surveyed a 11,310 sq ft area around the refined target location; but, were unable to locate the source of the anomaly and any evidence of a well.

The extremely discrete nature of anomaly 10-727, and the likelihood that the feature lies deeply buried beneath sand overburden, suggests that this anomaly has little potential to be eligible for listing in the National Register of Historic Places, or adversely affected by the deposition of additional soils above it. Therefore, **no further work is recommended for anomaly 10-727.**

Anomaly 10-755

Anomaly 10-755 was described as a small, unidentifiable surface mound, accompanied by a 32 gammas/12 sec. magnetic anomaly. Refinement of the anomaly's initial target location was accomplished using the magnetometer, which detected a 115 gammas/10 sec. anomaly 25 ft west of the initial target marker buoy. An 11,310 sq ft area around the initial target location was surveyed by divers, and the source of the magnetic anomaly was identified as a naturally deposited, discrete concentration of bog iron, scattered on an otherwise flat, featureless, sandy seabed in 8 to 10 ft of water. Measuring approximately 33 ft long x 7 ft wide, the longitudinal axis of the deposit is oriented on a 35° degree angle from magnetic north. Four (4) smaller deposits of bog iron, buried beneath 6 in to 1 ft of sand, lie 40 to 60 ft away from the main concentration (Figure 29). Removal of sand overburden from around the mass by hand-fanning produced no evidence of artifacts typically found in large quantities on shipwrecks (i.e.: ceramic sherds, hull fastenings, and other small items).

Bog iron deposits are common to the soils of Chesapeake Bay, and generally are found in areas with fluctuating water tables, and sandy soils containing high concentrations of iron. Bog iron forms when iron precipitate percolates through the sandy soils until encountering large rocks or a dense substrate, such as clay, where it then collects and solidifies, bonding with the surrounding soil. The geological conditions at Poplar Island, and this deposit's close proximity to an area once occupied by a low-lying lands with sandy soils that overlay a hard clay sub-strate provide the ideal conditions for the formation of such a deposit.

Anomaly 10-755 warrants no further investigations, and no additional work is recommended.

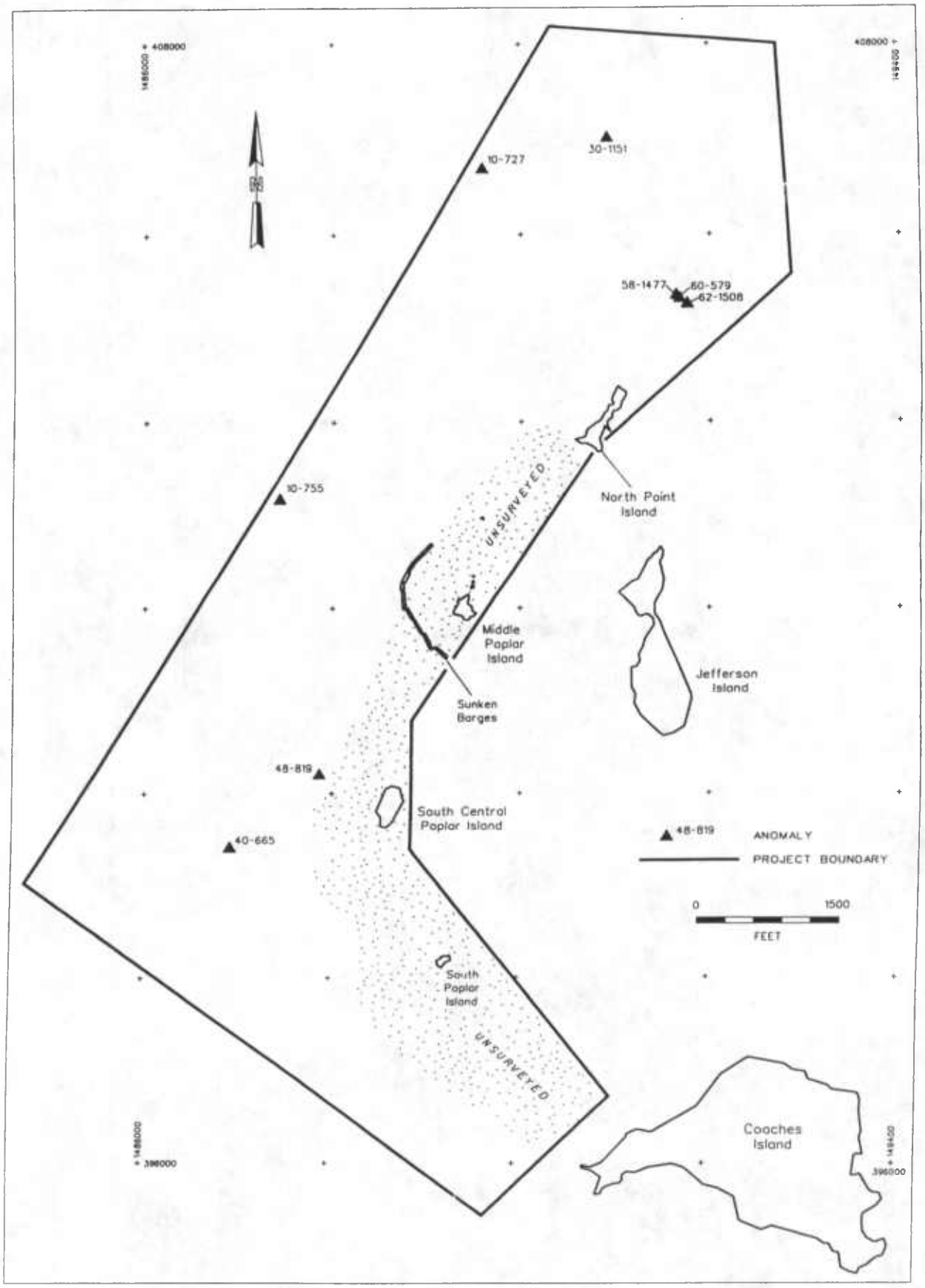


Figure 26. Location of six target areas recommended for sub-surface investigations

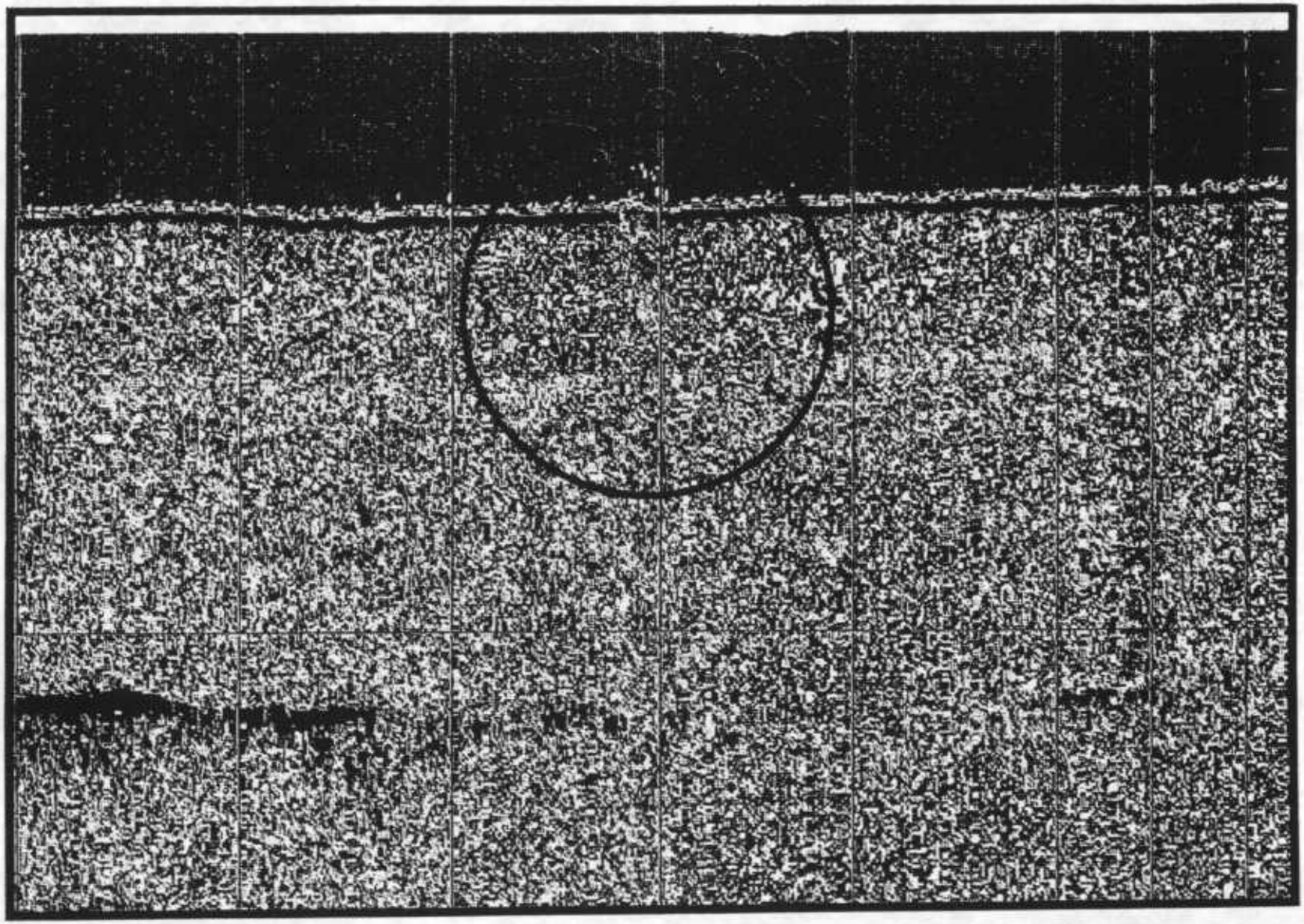


Figure 27. Sub-bottom image of anomaly 10-727, possible well

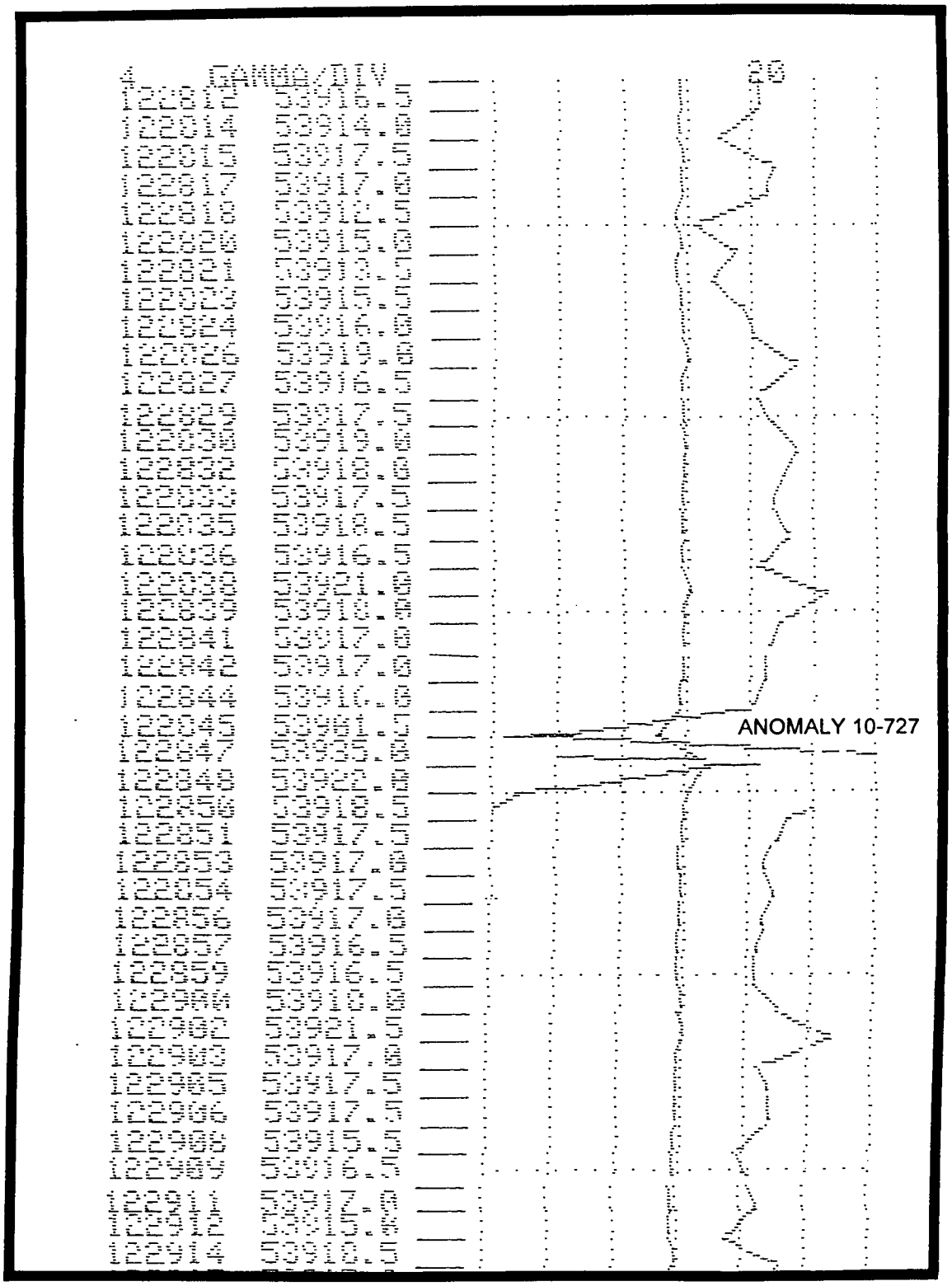
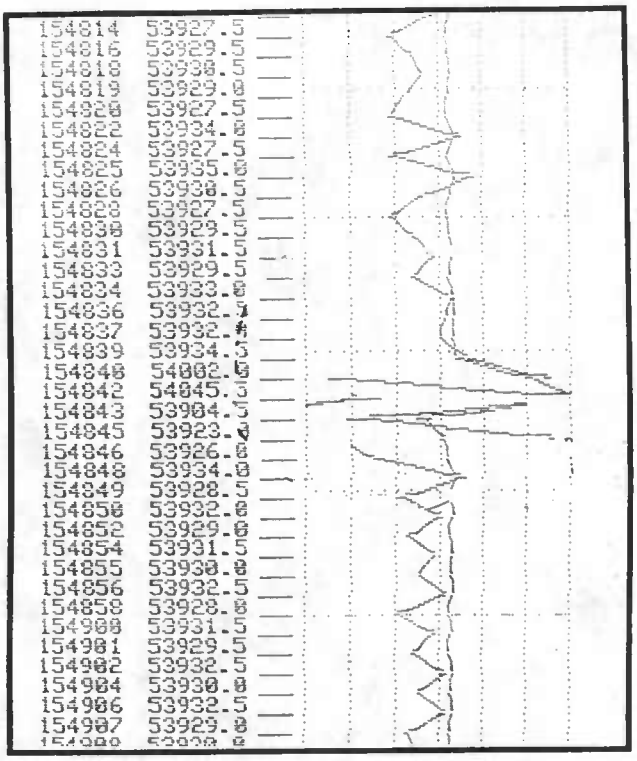


Figure 28. Magnetometer record showing magnetic anomaly 10-727



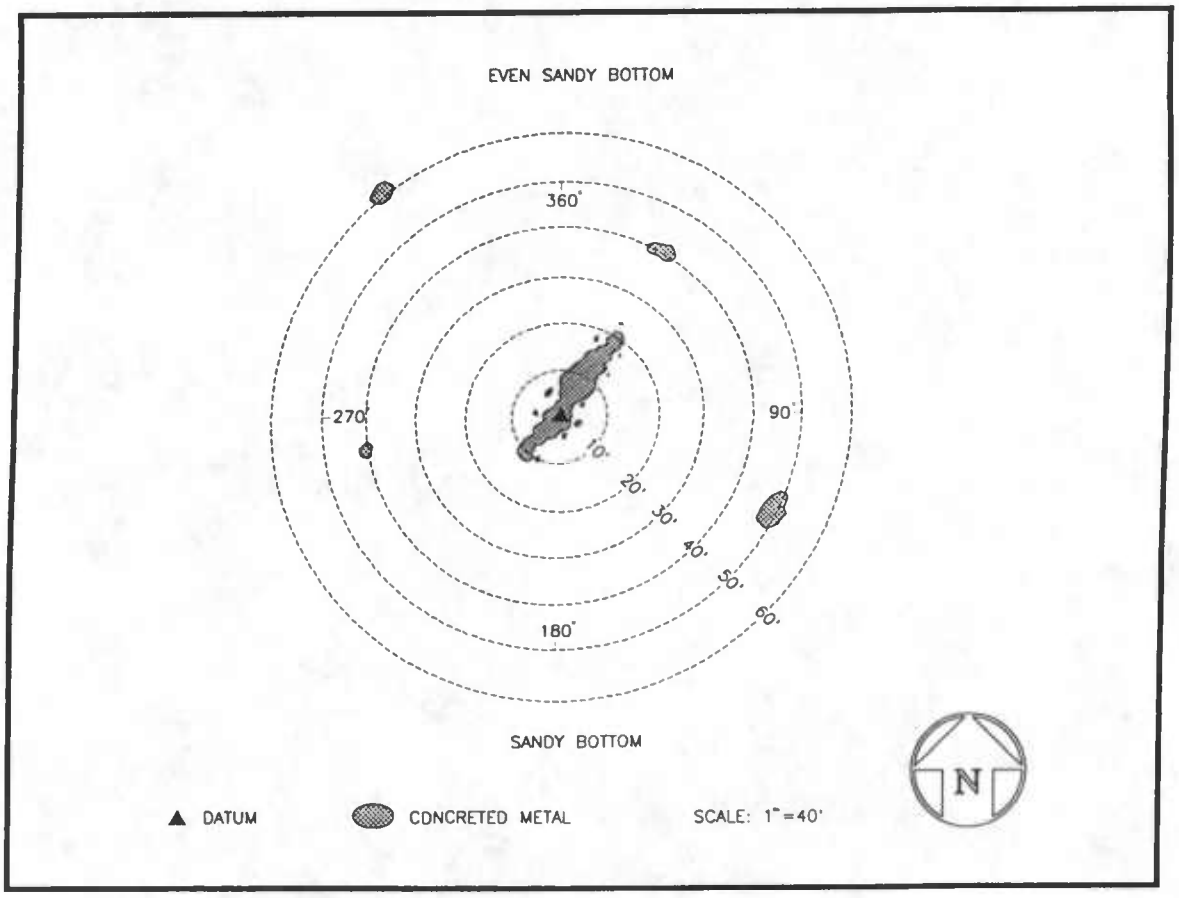


Figure 29. Anomaly 10-755, underwater survey area map accompanying magnetometer record

Anomaly 30-1151

Identified during the Phase IB survey as a possible mollusk shell midden, anomaly 30-1151 appeared on the sub-bottom profiler data as a hard, reflective surface curving downward from the surface of the bay floor to about 3 ft below surface (Figure 30). Because it lacked a magnetic signature and occupied a relatively large surface area, anomaly 30-1151 was selected as the first target in the project area to be investigated by divers. Over the course of a two-day period, divers surveyed, mapped, and probed a 7,854 sq ft area around the initial target, and excavated five (5) test units using the venturi dredge (Figure 31). Sub-surface probing and hand-excavation within the survey area revealed several, separate, 1 to 2 ft thick deposits of mixed-species mollusk shells at, or immediately below, the surface of the bay floor. The five dredge test units were excavated to a maximum depth-below-surface of 3 ft in order to determine the thickness of the shell lens, and to collect samples of the shells for analysis to determine whether or not they were of anthropogenic or biogenic origin. The excavated contents from each dredge test unit were screened through 3/16-in nylon mesh, and lithic and shell materials recovered during screening were transported to R. Christopher Goodwin & Associates, Inc.'s archeological laboratory in Frederick, Maryland for processing. Analysis of the mollusk shell samples was conducted by Goodwin & Associates, Inc. Adjunct Research Associate and paleoethnobiologist S. Justine Woodard, to determine the shells' species, age, manner of deposition, and possible cultural affiliation (Appendix VI). From the shell samples, Ms. Woodard identified five (5) distinct species of mollusks:

1) American oyster (*Crassostrea virginica*);
2) soft shelled clam (*Mya arenaria*);
3) stout razor clam (*Tagelus plebeius*);
4) hooked mussel (*Ischadium recuvum*); and
5) little surf clam (*Mulina lateralis*).

All of these mollusks are endemic to the Chesapeake Bay, and each specimen appears to have grown and died in the immediate vicinity of the Poplar Island group. The presence of partially intact periostracumand hinge material, which Ms. Woodard describes as a "soft, papery tissue" that decompose "shortly after the mollusk dies, and are quickly eroded from the persistent shell," indicates that the shells are of modern origin (Appendix VI). This fact, in combination with the mixed composition, random internment, and the absence of any butchering marks on the shells, "point to their recent deposition by natural means, and not through any cultural connection either prehistoric, historic, or recent". Ms. Woodard concludes, "that the recovered mollusk remains were of modern origin, and have no bearing on the archeology of Poplar Island" (Appendix VI).

Based upon the results of Ms. Woodard's study, and the virtual absence of any cultural material found in association within the shell deposit (a single chipped rock was tentatively identified by Goodwin & Associates, Inc. as a hammer stone (Appendix V), **no additional archeological investigation of Anomaly 30-1151 is recommended.**

Anomaly 40-665

From the Phase IB remote-sensing data, target 40-665 was identified as a magnetic anomaly of 60 gammas/19 sec. that lacked an accompanying acoustic signature. The target's initial location was relocated using the DGPS and then marked with a buoy. Refinement of the target's location was completed using the magnetometer to survey a 150 ft x 150 ft square (22,500 sq ft) around the marker buoy, where a 63 gammas/19 sec. magnetic anomaly was detected, and its location was noted and buoyed. Divers then surveyed, probed, and mapped a 7,854 sq ft area around the refined target location. The seabed at anomaly 40-665 was relatively flat and

featureless, except for twenty-four (24) widely scattered, non-articulating, quartzite and sedimentary stone cobbles, ranging in diameter from 6 in to 2 ft 6 in, and a single, 4 ft long section of steel re-bar (Figure 32). Bottom composition within the survey area consisted of a 1 to 2 ft thick silty-sand and mollusk shell matrix cap overlying a hard clay substrate.

No cultural materials or any obvious source for the magnetic anomaly was identified during the course of the diver survey; however, the presence of bog iron deposits, and magnetic disturbances caused by littoral deposits of ferrous minerals in the Bay floor are well documented on the Chesapeake Bay, and are likely to be the source of this anomaly (Irion, et al 1991, and 1995). **No further work is recommended for Anomaly 40-665.**

Anomaly 48-819

This "U-shaped" target, extending above the surface of the Bay floor, appeared on both the sub-bottom profiler (Figure 33) and fathometer records, and produced a multi-component magnetic signature of 29 gammas/34 sec. Based on this data, anomaly 48-819 was hypothesized to be the remains of a small watercraft (Fehr et al 1995:19). The initial target location was reacquired using DGPS, and marked with a buoy. Diver survey of a 15,394 sq ft area around the initial target marker buoy produced negative results; only a tree stump was found protruding above the flat, featureless clay seabed. Resurvey of the initial target area using the magnetometer successfully located a multi-component anomaly, similar in duration to the originally recorded magnetic anomaly (29 gammas/34 sec.), but possessing a far great maximum magnetic perturbation of 1,923 gammas/30 sec (Figure 34). The refined anomaly location was noted and marked with a buoy. During the second diver survey, the source for the acoustic and magnetic anomaly was located and identified as two, widely-spaced, discrete deposits of modern (twentieth century) cultural debris, surrounded by sand, but otherwise exposed on a flat, featureless hard clay seabed (Figure 34). The "U-shaped" anomaly, originally hypothesized to be a small watercraft, actually was a partially-buried tree, surrounded by 6 in to 1 ft of sand, several wooden plank fragments, a brick fragment, and a short length of thin rope attached to a 1 ft 6 in length of iron pipe (Figure 35). The second deposit of refuse consisted of a single, 3 ft x 7 ft, rectilinear iron object, which, after a thorough examination underwater, was determined to be a coal- or wood-powered furnace, typical of those used during the earlier twentieth-century for heating small buildings or homes (Figure 35).

Investigation of the remaining survey area produced no additional features or deposits of sand. The nature of the debris, and its location near the center of Poplar Island's 1847 footprint, where several houses and barns are depicted on historical maps dating to the early twentieth century, suggests that these items are isolated remnants of terrestrial occupation, and are not associated with a small watercraft. Because of the debris' disturbed provenience, relatively modern age, and the lack of any additional nearby cultural features, **no additional work is recommended for Anomaly 48-819.**

Anomaly Cluster 58-1477, 60-579, 62-1508

Anomalies 58-1477, 60-579, and 62-1508 formed a cluster of targets consisting of:

1) a hard reflective surface 3 ft below the seabed, without a magnetic signature (58-1477);

2) an unidentifiable, partially buried rectilinear structure with a 46 gammas/10 sec. duration magnetic signature (60-579); and

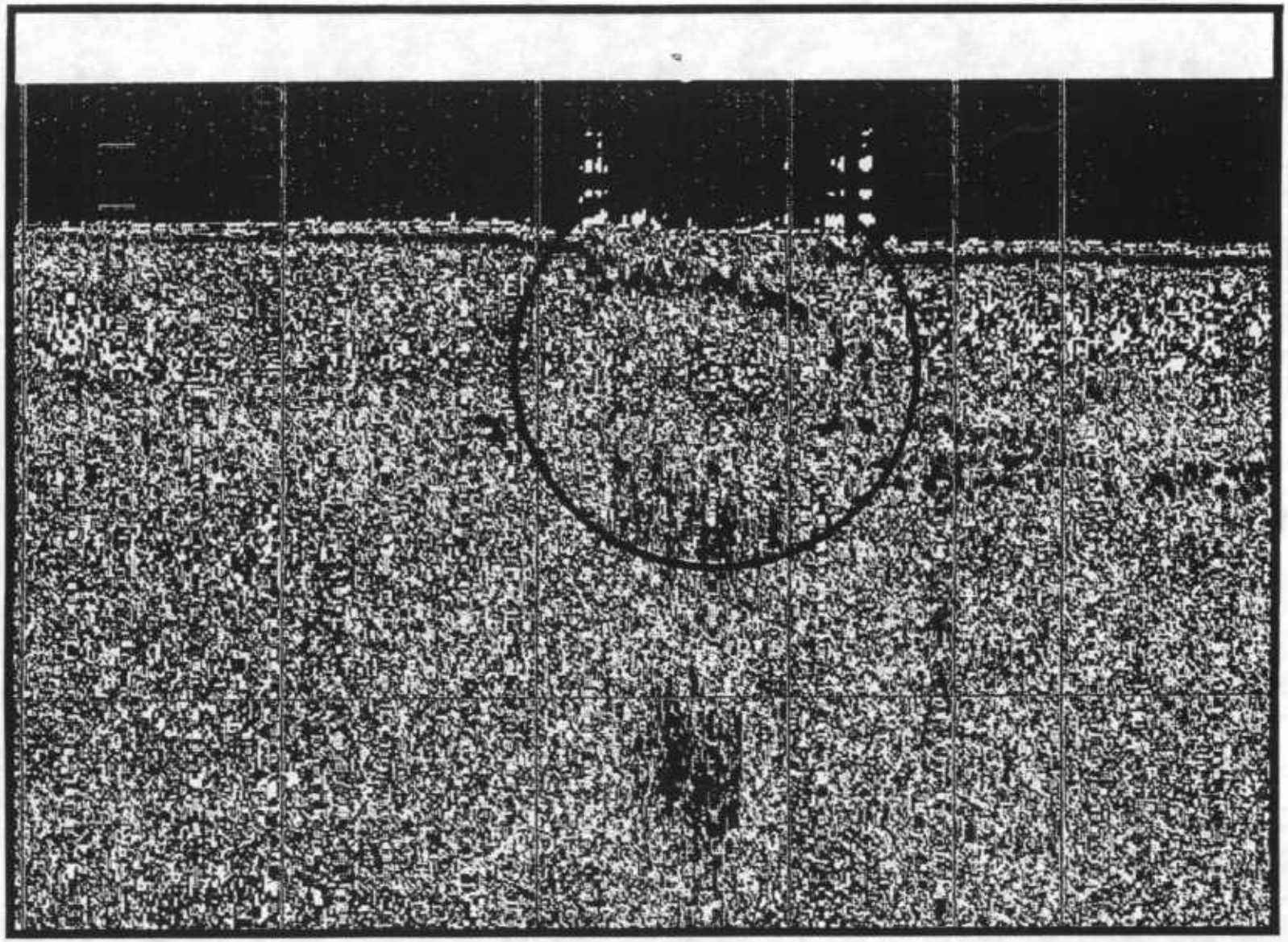


Figure 30. Sub-bottom image of anomaly 30-1151, possible shell midden

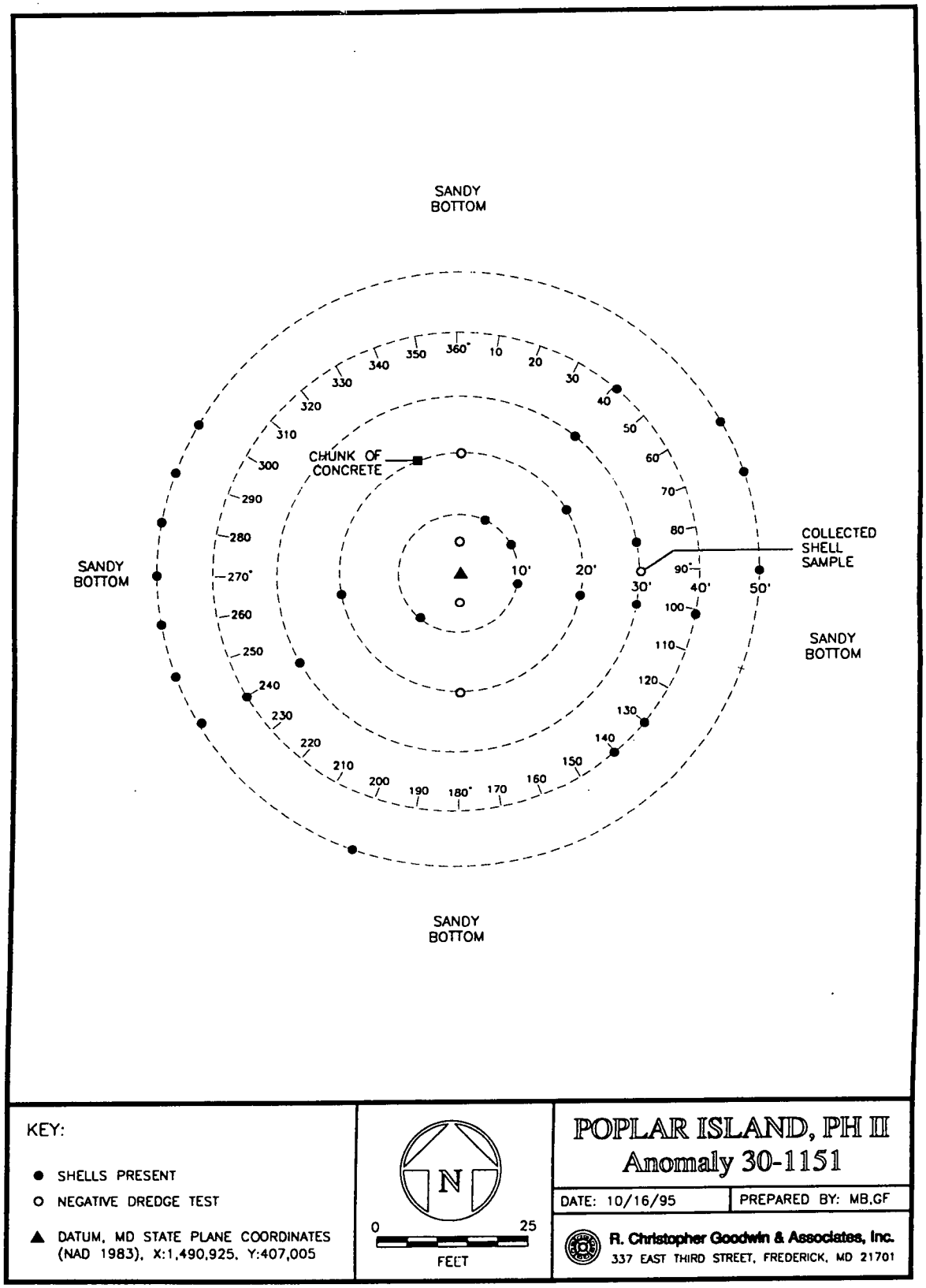
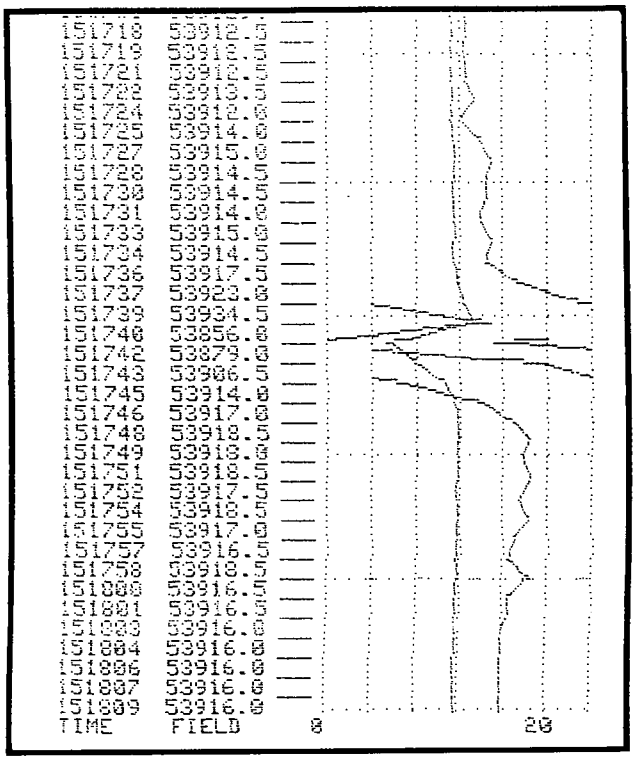


Figure 31. Anomaly 30-1151, underwater survey area map



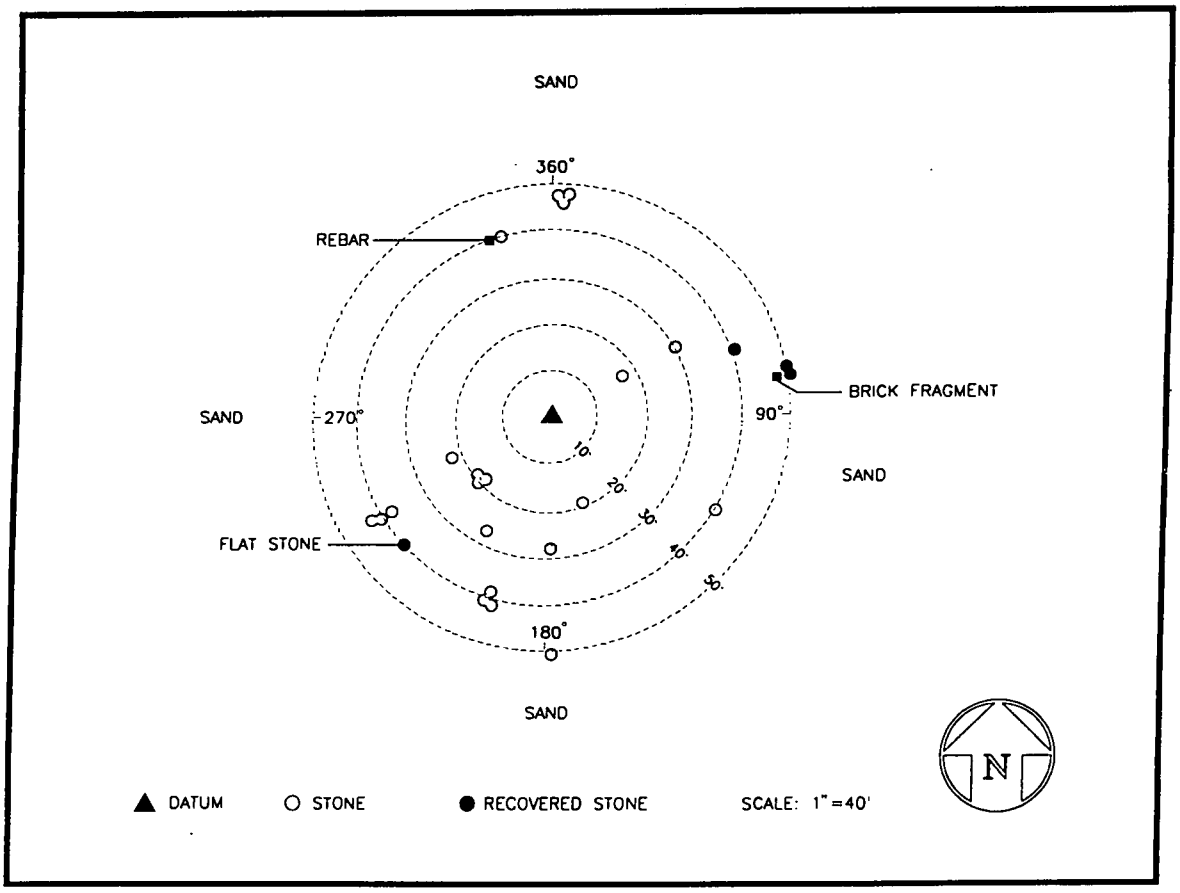


Figure 32. Anomaly 40-665, underwater survey area map with accompanying magnetometer record

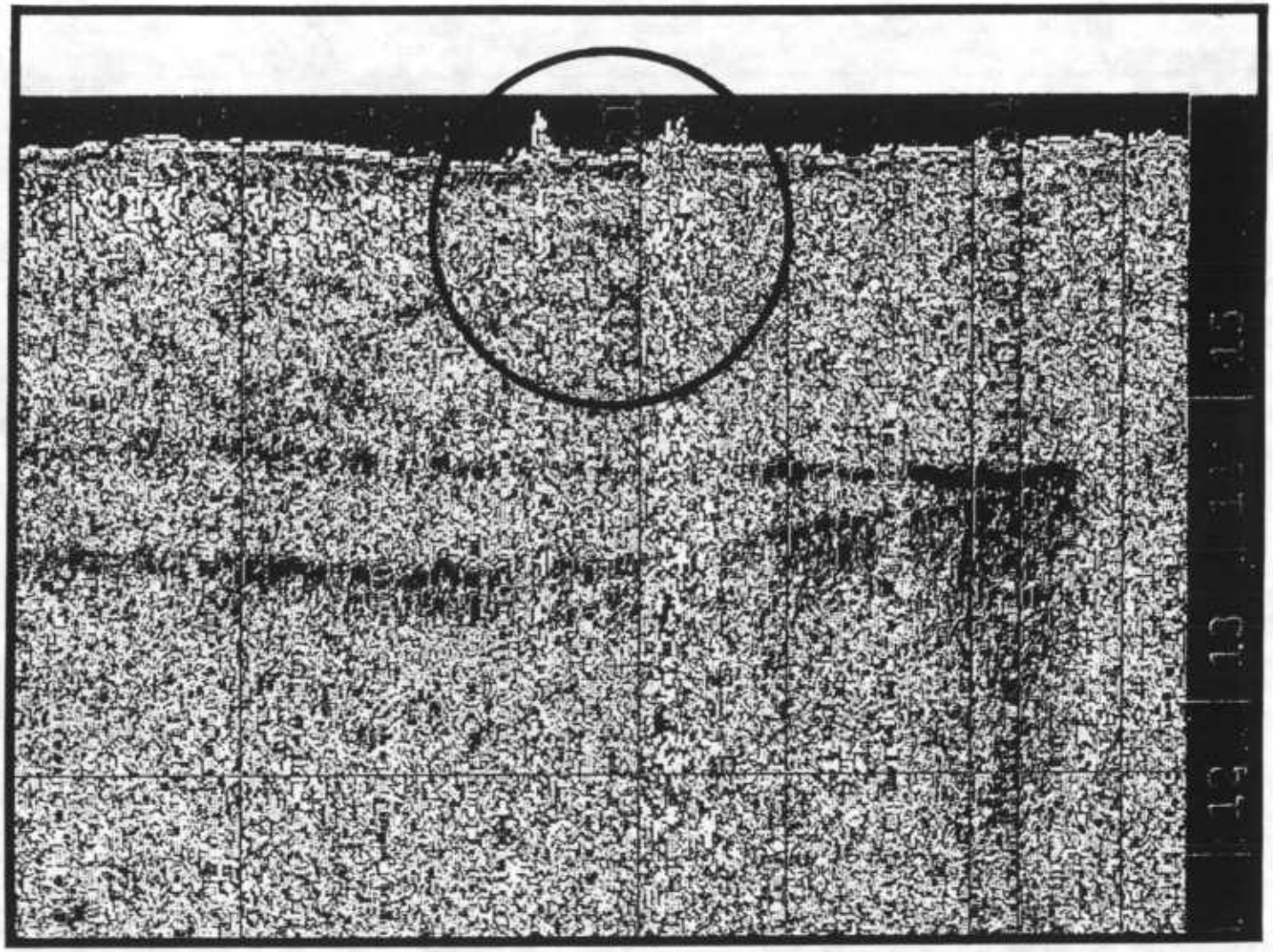
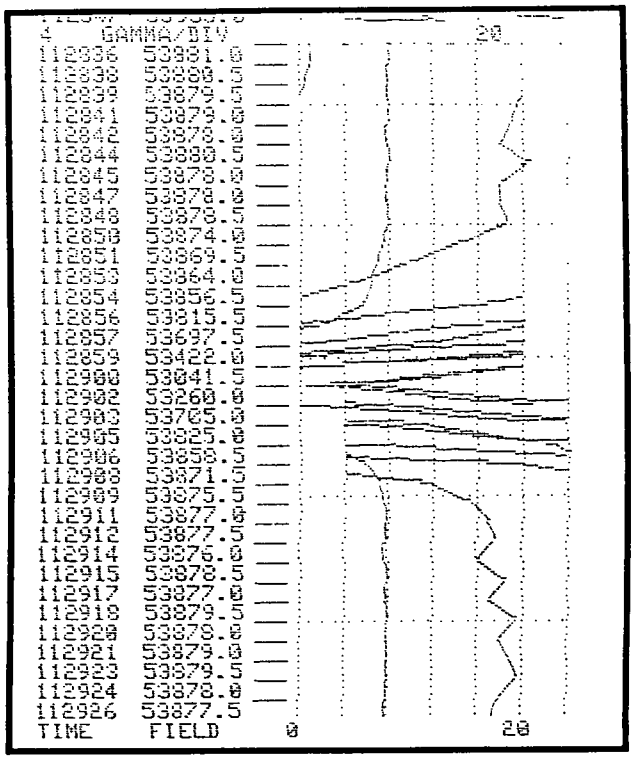


Figure 33. Sub-bottom image of anomaly 48-819, possible small watercraft



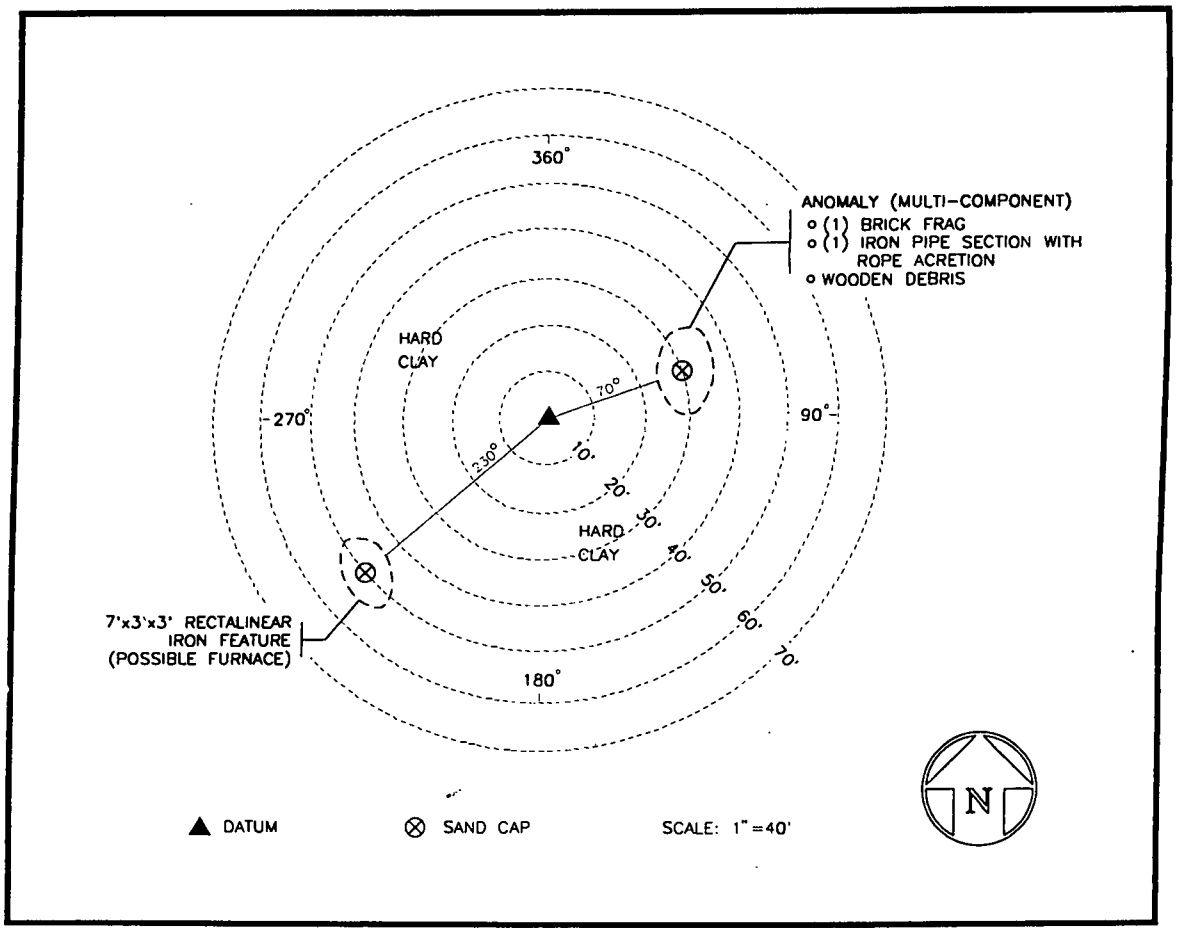
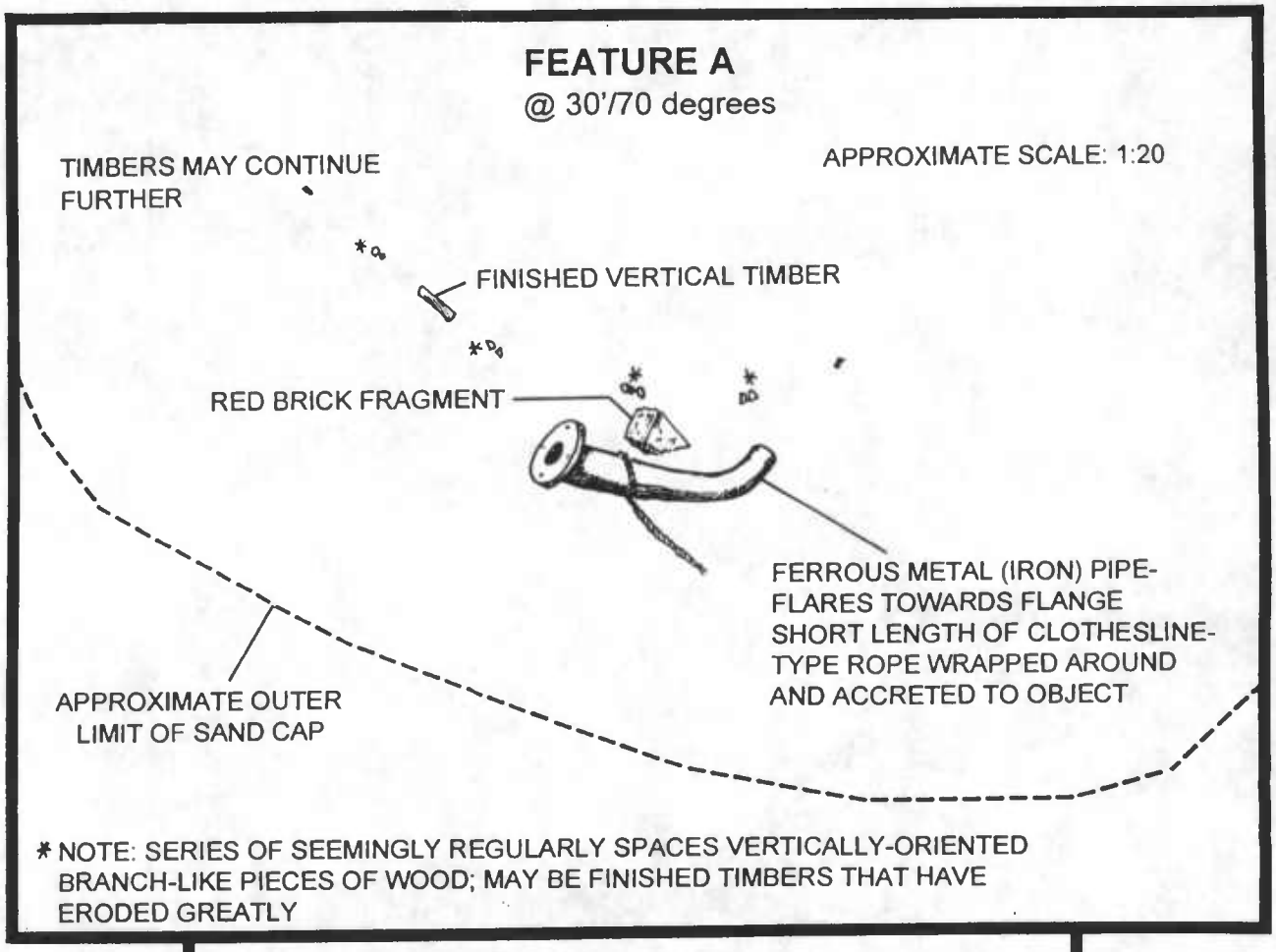


Figure 34. Anomaly 48-819, underwater survey area map with accompanying magnetometer record



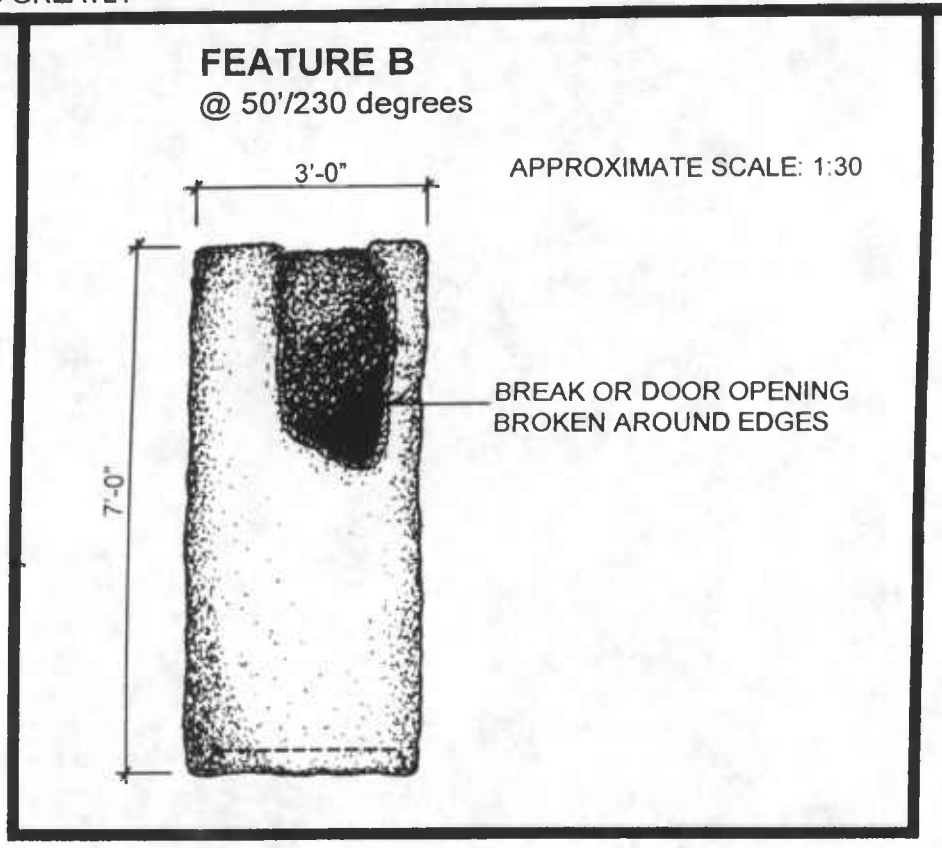
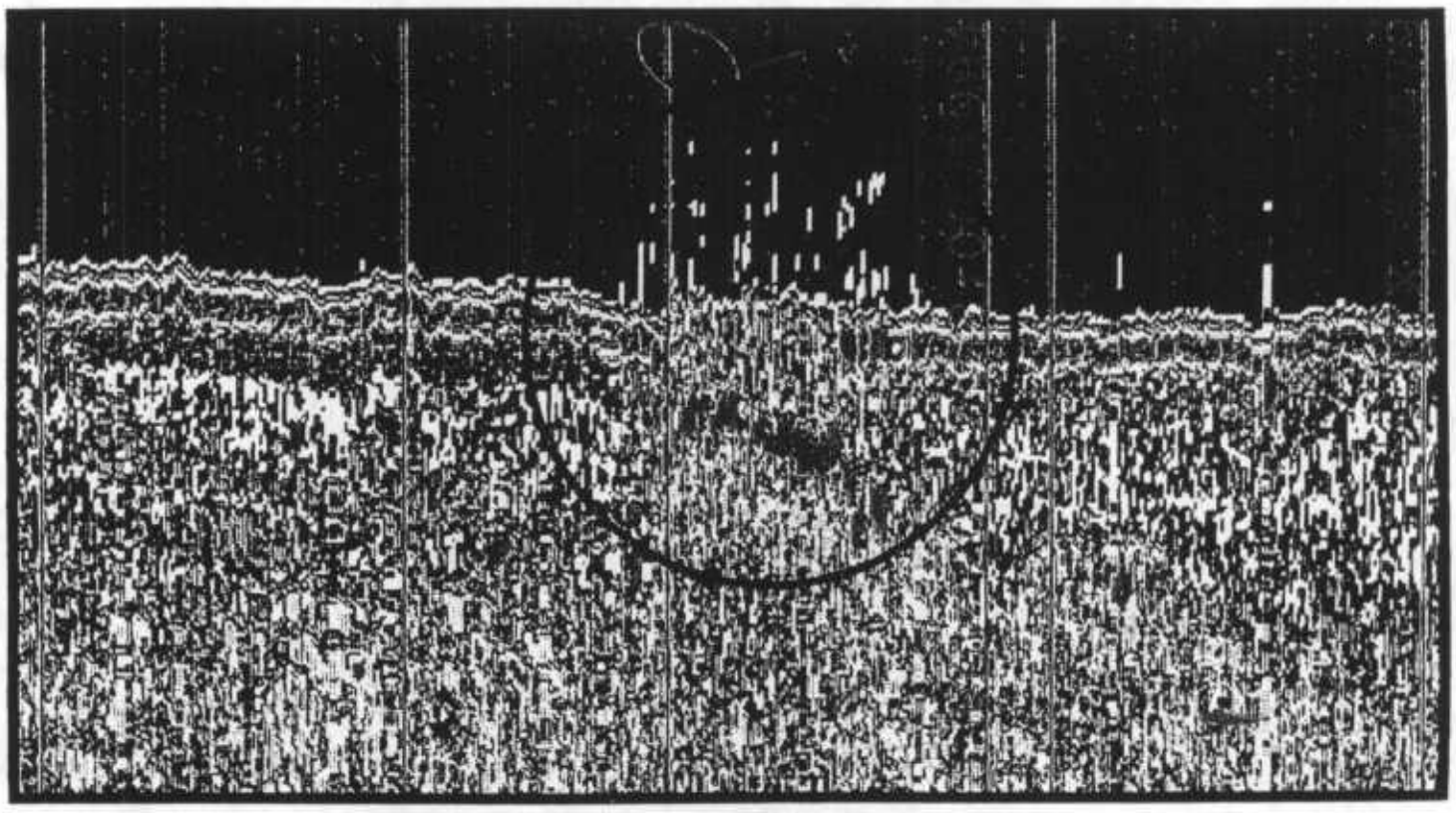


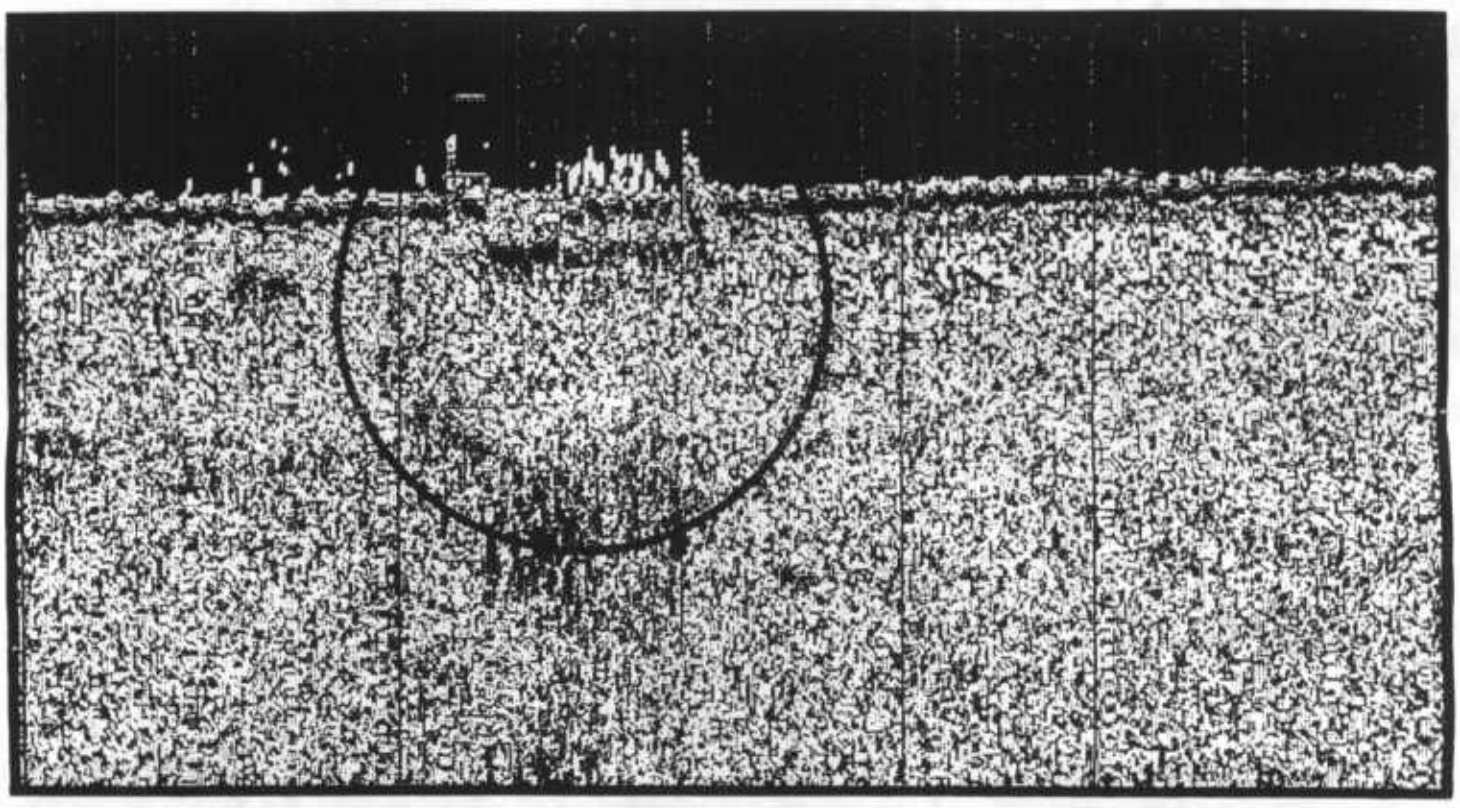
Figure 35. Illustrations of modern debris found at anomaly 48-819

3) a large area of disturbed seabed surface with a 17 gammas/3 sec. duration magnetic signature (62-1508) (Figure 36).

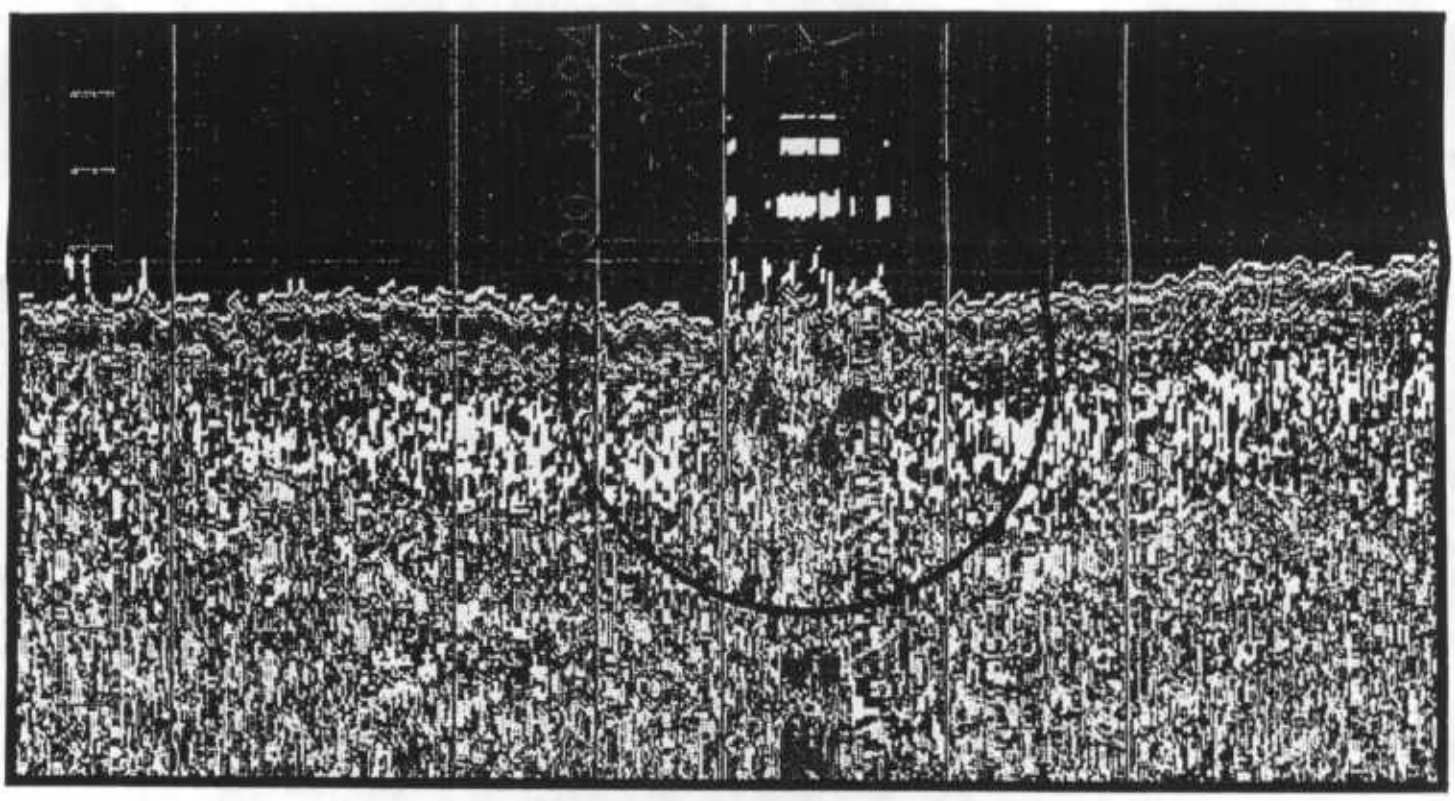
Over a two day period, a combined total of 45,000 sq ft was surveyed with the magnetometer around the initial targets for anomalies 60-579 and 62-1508; 34,558 sq ft of seabed was mapped and probed in the area of the anomaly cluster. Initial target locations were reacquired using the DGPS, and their positions' were marked with buoys. Refinement of each targets' initial location was attempted first through diver survey, because the Phase IB remote sensing data indicated that all of the targets comprising the cluster extended well above, or lay near, the surface of the seabed. At all three target areas, divers reported encountering strong tidal currents, in which they had difficulty working, particularly on outgoing tides, and described the Bay's floor as flat and featureless hard gray clay, covered in places with 1 to 2 in of sandy-silt. No features, changes in soils, rocks, or debris of any kind were found during the underwater surveys of any of the three target areas. To ensure that the magnetic anomalies were not overlooked during the diver surveys, 150 ft x 150 ft (22,500 sq ft) areas around both anomalies 60-579 and 62-1508 were resurveyed using the magnetometer. During these refined magnetometer surveys, no magnetic anomaly was detected at target 60-579, and only a single, very discrete (17 gammas/2 sec.) magnetic signature was noted at the initial target location of anomaly 62-1508 (Figure 37). Due to the overwhelming absence of magnetic and visual evidence of anomalies 59-1477 and 60-579, and the extremely small magnitude and duration of anomaly 62-1508's magnetic signature (compare to the magnetic signatures for crab pots located within the project area which consistently registered approximately 23 gammas/3 sec. [Figure 37]), and after consulting with Maryland State Underwater Archeologist, Dr. Susan Langley, it was determined that **anomaly 62-1508, and anomalies 59-1477 and 60-579 warrant no further archeological investigation** (Langley 1995).



ANOMALY 58-1477



ANOMALY 60-579



ANOMALY 62-1508

Figure 36. Sub-bottom images of anomalies in cluster (58-1477; 60-579; 62-1508)

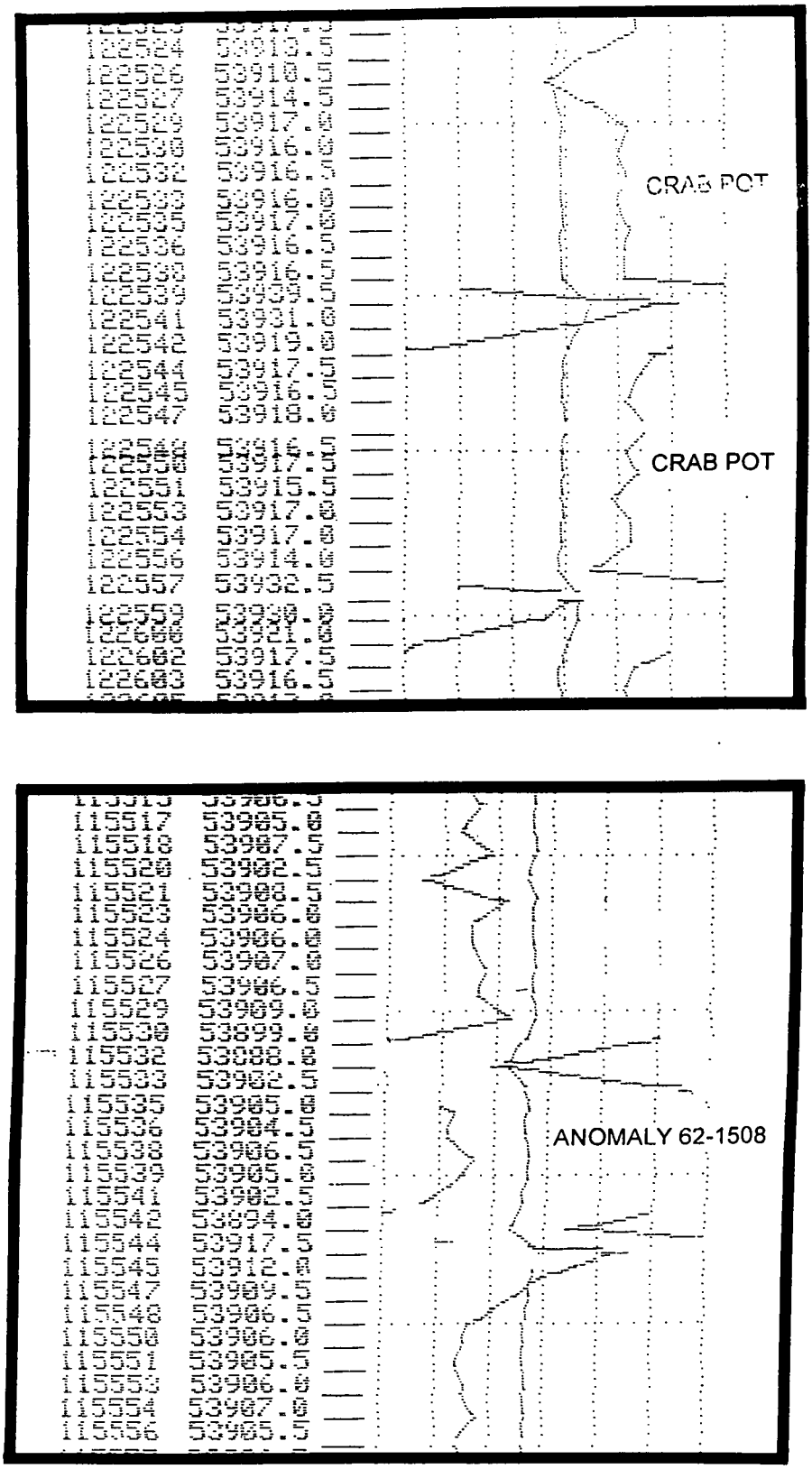


Figure 37. Magnetometer records for anomaly 62-1508, and for crab pots

CHAPTER VII

SUMMARY AND RECOMMENDATIONS

Terrestrial and Near-Shore Investigations

The cartographic and archeological investigations conducted as part of this Phase IB survey generally have verified the severe impact of erosion and subsequent loss of land mass on the archeological resources of the Poplar Island group. A comparison of data noted during the Phase IA reconnaissance one year ago to that collected during these investigations indicates both the rapid progress of erosion and the nature of the land mass loss. In particular, it is possible to see that land loss on portions of the island group has been both extensive and massively destructive to potential archeological resources. For example, it was observed that erosion on Middle Poplar Island has removed at least four feet of sediment from the original ground elevation. On South Central Island, the archeological team observed the elevated western bank dropping into the bay during field investigations. Thus, not only is the loss of land taking place horizontally; it also is operating on a vertical plane, removing the ground surface to some depth. In such areas, the context of any archeological deposits would be destroyed; only deeply buried cultural deposits would have a chance to retain integrity in the offshore environment.

North Point Island

One previously recorded prehistoric site (18TA219) was identified for North Point Island. Reportedly, 378 projectile points or fragments were recovered from this islet over a 13 year period (Lowery 1992:27). During this survey, a single quartz flake was recovered. There was no evidence for the continued terrestrial or near-shore survival of Site 18TA219. **No further work is recommended for Site 18TA219.**

The artifacts and features identified on North Point Island no longer represent a coherent site. Features 1, 3, and 4 appear to be water-related structural remnants with little research value beyond their recordation here. Feature 2 is composed of timbers of an unknown function. Feature 5 probably represents an historic oyster shell dumping episode. Although the non-modern diagnostic ceramics and glass from this island have a fairly tight date range clustering in the late nineteenth century, they were found eroding along the shoreline and mixed with modern material. The stratigraphy noted in subsurface tests suggests that all of the original land surface has been eroded from North Point Island. The remaining islet is composed of organic marsh, sometimes overlain by recent alluvial sand, that rests directly on Pleistocene clays. **No additional investigation is warranted nor recommended for North Point Island.**

Middle Poplar Island

One prehistoric site (18TA222) was recorded previously on Middle Poplar Island. Lowery reported diagnostics from the Archaic through the Woodland periods, and a small shell midden (1992:27). During this survey, a shell midden remnant possibly associated with 18TA222 was recorded along the northern shore. This midden has lost its integrity. It does not appear to extend inland from the shore; in fact most of the shell now is submerged off the northern shore. No artifacts were recovered from the dredge tests in the submerged portions of the feature and

the organic matrix was absent, suggesting that the site has been deflated. **No additional investigation is recommended for Site 18TA222.**

The western 0.17 ac of Middle Poplar Island represents the last portion of "upland" remaining in the Poplar Island group. Historic site "MP.1" (18TA304) is rapidly eroding out of the bluff and has lost most of its integrity. The rapid progress of the erosion can be seen over the one year period between the Phase IA reconnaissance and the current survey. No trace remains of the brick floor or submerged brick features noted last year; the brick piers now are submerged; and the hand pump is four feet above the ground surface. These structural remains probably represent part of the small village that existed in this area during the nineteenth and first quarter of the twentieth century (Figures 8 and 4). It does not appear that the site retains sufficient integrity to warrant additional investigation. The position of the hand pump suggests that at least four feet of ground surface has been lost here and no cultural material was recovered during the subsurface testing. **No further work is recommended for historic site "MP.1."**

South Central Island

Three previously recorded sites were located on South Central Island. One prehistoric site, 18TA218, was recorded by Lowery (1992) as a short-term resource procurement site dating from the Late Archaic and Middle Woodland periods. Only five prehistoric lithic flakes were recovered during the present survey. These did not represent a concentration of artifacts and were found in context with historic period material. It does not appear that prehistoric Site 18TA218 has survived. **No additional work is recommended for 18TA218.**

Site 18TA236 previously was recorded as a possible eighteenth to nineteenth century site located on the western side of the island. Two brick features found during the current survey were attributed to this site. However, the nature of erosion on the western side of the island appears to have removed the original ground surface. No artifacts were recovered from terrestrial tests in this area and it seems doubtful that offshore archeological deposits have survived the wind and wave action. **No further work is recommended for Site 18TA236.**

Site 18TA237 also has been subjected to erosion. However, the more protected location of the site along the northern and eastern shorelines may have allowed preservation of some features and intact deposits. A total of 474 artifacts were recovered during the Phase I survey of this site. The ceramic collection suggested a primarily nineteenth century occupation span for the site (MCD 1860.75), although seventeenth and eighteenth century ceramics also were present. Three features were associated with the site, including two brick features that may retain integrity under the peat deposit. The possibly intact brick features, along with the large number of artifacts recovered, suggested that this site could retain sufficient integrity to provide data about the historic occupation of Poplar Island. The nature of the artifacts, which were primarily kitchen-related, suggested that the site represented a domestic occupation most likely dating from the nineteenth century. However, depending upon the ultimate dating of the site, it was felt that additional work might address issues relating to the historic contexts of Contact and Settlement (1570-1750); Rural Agrarian Intensification (1700-1815); and/or Agricultural Transition and Economic Instability (1815-1870). Site 18TA237 appeared to be the last archeological remnant of the historic occupation of the Poplar group; additional research could address questions concerning the nature of domestic occupation. **Additional Phase II investigation was recommended at Site 18TA237.** This Phase II investigation was carried out as part of this project.

The Phase II investigations of 18TA237 included archival research, pedestrian survey, and excavation of shovel tests, auger tests, test units, test trenches, and near shore dredge tests. A total of 85 subsurface tests were excavated. Cultural materials were retained from 13 shovel tests,

11 dredge tests, and the 3 test units. South Central Island can be characterized as a remnant tidal marsh containing fibrous peat deposits to depths varying from 40 cm (15.75 in) to 1.83 m (6 ft). Profiles of excavation units support a characterization of the shoreline as an active, reworked beach deposit.

The three features identified during the Phase I investigations were re-examined. None of the features was intact; they represented redeposited brick and shell rubble. A total of 1,138 artifacts was retained from the Phase II investigations. The function group classification was dominated by the kitchen group (75.84 per cent). Proportions of the functional groups were typical of a domestic occupation.

Diagnostic artifacts generally supported a late eighteenth to early nineteenth century date for the deposit; the MCD for the assemblage was 1805.57. When the ceramic sherds were combined with those from the Phase I investigations, a MCD of 1833.07 was obtained. There were a small number of ceramic sherds (n=5) with manufacture dates that did not overlap the nineteenth century (Table 4). Together with the early pipe stems, these sherds hint at a seventeenth to early eighteenth century occupation. However, this earlier material was mixed with that from the later periods.

Mean Ceramic Dates also were calculated for individual test units; these revealed that there was remnant ceramic type stratification despite the obvious disturbance to the deposit from wave action and erosion. However, the other artifacts in these levels revealed heavy temporal mixing; modern artifacts, prehistoric artifacts, and historic period artifacts occurred together throughout. Still, the remnants of temporal stratification suggest that the disturbance of the deposit has been incremental and has not completely destroyed the original depositional sequence. The primary site deposit may have been a stratified sheet midden that has been eroded and redeposited. The matrix of the midden has been removed and the midden contents have been reworked and redeposited along the marsh.

Gagliano (1984) suggests that such a site retains scientific value for its ability to characterize the former site. This is true for 18TA237 to the extent that it was possible to identify the location of the former site and to assign it a probable temporal affiliation, site type and function. However, the site clearly has lost the degree of integrity that is required for sites eligible for listing in the National Register of Historic Places. As Gagliano (1984:28) points out, the stratigraphy and geometry of such a site has been destroyed. **No further archeological investigation is warranted or recommended for Site 18TA237.**

South Poplar Island

One prehistoric site, 18TA217, was previously recorded for this island. Lowery (1992) reported that the site represented a short term procurement site dating from the Archaic through the Woodland periods. No prehistoric artifacts were recovered during these investigations. South Poplar Island has been reduced to a small, frequently inundated spit of land. **No additional archeological investigation is recommended for Site 18TA217 or for South Poplar Island.**

Coaches Island

One prehistoric site, 18TA216, previously was recorded on Coaches Island within the project area. This site was identified as a multi-component Archaic through Late Woodland occupation located along the "exposed marsh shoreline" (Lowery 1992:28). One prehistoric artifact was recovered from the 129 subsurface tests placed on Coaches Island; an additional 3

artifacts were recovered from the surface on the beach. Although artifacts continue to be collected from the beach of Coaches Island by artifact collectors, these are being redeposited on the beach from an offshore source. The nature and degree of erosion on the islands of the Poplar group render it unlikely that such a site retains sufficient integrity to have preserved intrasite spatial layout, vertical stratigraphy, or horizontal differentiation. The dredge tests indicated that the soils in the nearshore area consist of shifting sands over Pleistocene clays. It does not seem likely that site integrity was maintained as the site washed into the bay. **No additional archeological investigation is warranted or recommended for Coaches Island.**

Marine Investigations

The Phase I marine survey resulted in the identification of six (6) anomalous target areas for which subsurface testing, entailing reacquisition of the target location, probing, limited excavation, recovery and analysis of shell sampling, site delimitation and mapping, and evaluation of National Register eligibility, was recommended. Anomalies recommended for further testing included 10-727, 10-755, 30-1151, 40-665, 48-819, and a cluster of formed by anomalies 58-1477, 60-579, and 62-1508. During the course of the Phase II marine investigations, Goodwin & Associates, Inc. surveyed and mapped more than 130,000 sq ft of seabed, and located and identified four of the six anomalies recommended for additional investigation. These anomalies consisted of biogenic mixed-species mollusk beds; discrete geological deposits; and small concentrations of modern refuse, all of which were determined ineligible for inclusion in the National Register of Historic Places. Anomalies not located during the course of these investigations are likely to be too small to be historically significant; are buried deeply beneath sand overburden, and are unlikely to be affected adversely by the planned project; or were moved or destroyed by the prevailing strong winds and tidal currents present at the Poplar Island group. **Based on the results from these investigations, targets 10-727, 10-755, 30-1151, 40-665, 48-819, and the cluster formed by anomalies 58-1477, 60-579, 62-1508 do not warrant additional archeological investigation, and therefore, none are recommended.**

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APPENDIX I

1700 DEED

EXTRACT FROM DEED: CHARLES AND HENRIETTA MARIAH BLAKE TO CHARLES CARROLL FOR POPLAR ISLAND: OCTOBER 26, 1700

Thls indenture made te six and twentyeth day of October in the Year of our Lord one thousand seven hundred between Charles Blake of Talbot County Gent. Att at law and Executor of the last will and Testament of Peter Sayer late of the said County dec'd and Henrietta Mariah his wife of the one part and Charles Carrol of Annarundell County Gent. of the other part. whereas the right honorable Cecilius late absolute Lord and Proprietor of the privinces of Maryland and Avalon, Lord Baron of Baltamore- - -of noble memory by his Letters Patents and or his- - -of this Province bearing date the fifth day of December one thousand six hundred and forty did grant unto Richard Thompson and his heirs all that Island called and known by the name of Poplar Island which afterwards came to be the right and inheritance of Thomas Hawkins of Nominy in the county of Westmorland in the Colony of Virginia who by his last will and testament in writing - - -one halfe of the said Island to Seth Foster and his heirs one fourth part thereof to Thomas his son and the remaining fourth part to Elizabeth his daughter the wife of the said Seth which Seth afterwards did upon the fourteenth day of November one thousand six hundred sixty-nine obtain a grant from the said Cecilius under the Great Seal of this Province for three fourth parts of the said Island and the said Thomas his son for the remaining fourth part. And whereas. . .the whole Island afterwards came to be the right of the said Seth and Elizabeth his wife they by an instrument under their hand and sealed dated the fourth day of March one thousand six hundred sixty nine(?). . . conveyed all their right and interest of and unto the land unto Alexander Dohynossa of Bonsell in Guildland- - - who by his last will and testament devised the land to Johannes and Alexander his sons and his daughter- - -by an instrument dated the two and twentyeth day of June one thousand six hndred eighty seven under their hands and seals as under the hands and seals of their husbands released all their right thereunto unto Alexander their brother which said Alexander by his deed - - - bearing date the fourth day of April one thousand six hundred eighty - - -conveyed one moiety of the said Island to Col. Peter Sayer and hls helrs and the sald Johannes by his deed duly acknowledged and recorded bearing date the two and twentyeth day of May one thousand six hundred eighty six(?) conveyed and made over the other moiety of the said Island to the said Col. Peter Sayer and his heires. Now this Patent witnesseth that the said Charles Blake and Henrietta Mariah his wife for and in consideration of the - - -o - - - pounds of tobacco and the full and just sum of £200 sterling to them in hand paid or secured to be paid - - -before the ensealing and delivery of these presents the receipt whereof they do hereby acknowledge and thereof - - -parts and parcell thereof they the said Charles and Henrietta Mariah his wife do hereby fully clearly and absolutely -- -acquit- - -the said Charles Carroll his heires and asslgnes for Ever Have given granted bargained sold and enfeofed and confirmed as by these presents they the said Charles and Henrietta Mariah his wife do hereby for them and their Heires Give Grant Bargain sell and enfeof and confirm unto him the said Charles Carroll and his heires all that island called Poplar Island lying to the South of the Isle of Kent in the Bay of Chesapeak containing by - - -one thousand acres more or less....

APPENDIX II

CHRONOLOGY OF POPLAR ISLAND MAPS

CHRONOLOGY OF POPLAR ISLAND MAPS

Griffith, Dennis
1794 Map of the State of Maryland. Dennis Griffith, Philadelphia, Pennsylvania. Map on file, Geography and Maps Division, Library of Congress, Washington, D.C.

DeMayne, Antony
1814 A Survey of the Chesapeake. Map on file, Geography and Maps Division, Library of Congress, Washington, D.C.

U.S. Coast Survey
1846-1847 Map of the Eastern Shore of Maryland, from Wade's Point to Low's Point, including Poplar and Sharps Island. Map on file, Cartographic and Architectural Branch, National Archives, College Park, Maryland

Hassler, F.R. and A.D. Bache
1857 Map of Chesapeake Bay. Map on file, Geography and Maps Division, Library of Congress, Washington, D.C.

Hassler, F.R. and A.D. Bache
1872 Coast Chart No. 135, Chesapeake Bay, from Choptank River to Magothy River. Map on file, Cartographic and Architectural Branch, National Archives, College Park, Maryland

Lake, Griffing and Stevenson
1877 An Illustrated Atlas of Talbot and Dorchester Counties, Maryland. Map on file, Geography and Maps Division, Library of Congress, Washington, D.C.

Nickerson, George F.
1878 Talbot County, Maryland. Map on file, Geography and Maps Division, Library of Congress, Washington, D.C.

Hassler, F.R. and A.D. Bache
1884 Coast Charts Nos. 34, 35, 36. Chesapeake Bay from its Head to Potomac River. Map on file, Cartographic and Architectural Branch, National Archives, College Park, Maryland

Hassler, F.R. and A.D. Bache
1894 Coast Chart No. 135, Chesapeake Bay, from Choptank River to Magothy River. Map on file, Cartographic and Architectural Branch, National Archives, College Park, Maryland

Hassler, F.R. and A.D. Bache
1895 Coast Chart No. 135, Chesapeake Bay, from Choptank River to Magothy River. Map on file, Geography and Maps Division, Library of Congress, Washington, D.C.

United States Geologic Survey
1904 Maryland Annapolis Quadrangle. Map on file, Geography and Maps Division, Library of Congress, Washington, D.C.

Hassler, F.R. and A.D. Bache
1905 Coast Chart No. 135, Chesapeake Bay, from Choptank River to Magothy River. Map on file, Geography and Maps Division, Library of Congress, Washington, D.C.

Coast and Geodetic Survey
1908 Chesapeake Bay, Choptank River to Sandy Point. Coast and Geodetic Survey, Washington, D.C. Map on file, Geography and Maps Division, Library of Congress, Washington, D.C.

Coast and Geodetic Survey
1913 Chesapeake Bay, Cove Point to Sand Point. Coast and Geodetic Survey, Washington, D.C. Map on file, Geography and Maps Division, Library of Congress, Washington, D.C.

Maryland Department of Geology, Mines and Water Resources
1926 Map of Talbot County showing the Topography and Election Districts. Map on file, Geography and Maps Division, Library of Congress, Washington, D.C.

United States Coast and Geodetlc Survey
1933 Hydrographic Survey No. 5327, Knapps Narrows to Bloody Point Bar Light, Chesapeake Bay, Maryland

United States Coast and Geodetic Survey
1935 Chesapeake Bay, Cove Point to Sandy Point, U.S. Coast and Geodetic Survey, Washington, D.C. Map on file, Geography and Maps Division, Library of Congress, Washington, D.C.

United States Geologic Survey
1942 Claiborne Quadrangle, Maryland. Map on file, Geography and Maps Division, Library of Congress, Washington, D.C.

Maryland Department of Geology, Mines and Water Resources
1950 Map of Talbot County showing the Topography and Election Districts. Map on file, Geography and Maps Division, Library of Congress, Washington, D.C.

Maryland State Roads Commission, Bureau of Traffic
1960 General Highway Map, Talbot County, Maryland. Map on file, Geography and Maps Division, Library of Congress, Washington, D.C.

Coast and Geodetic Survey
1973 Chesapeake Bay, Eastern Bay and South River. 13th Edition. Map on file, Cartographic and Architectural Branch, National Archives, College Park, Maryland

APPENDIX III

SITE FORMS

MARYLAND ARCHEOLOGICAL SITE SURVEY: BASIC DATA FORM

Maryland Department of Natural Resources
Division of Archeology

Maryland Geological Survey
2300 St. Paul Street
Baltimore, Maryland 21218

Site Number 18TA304

haded areas are for Division of Archeology use only)

A. Designation

1. County: Talbot

2. Site Number: 18TA304

3. Site Name: "MP.1"/Middle Poplar Island

4. Site Type (check all applicable):
   - ____ Prehistoric
   - X Historic
   - ____ Unknown

5. Maryland Archeological Research Unit Number: 4

Location

6. USGS 7.5' Quad-rangle(s): Claiborne, Maryland 1942 (Photo revised 1986)
   (Photocopy section of quad(s) on page 4 and mark site location)

7. UTM Coordinates at Center of Site Zone: ____

8. Easting: ____

9. Northing: ____

10. Physiographic Province (check one):
    - ____ Allegheny Plateau
    - ____ Ridge and Valley
    - ____ Great Valley
    - ____ Blue Ridge
    - ____ Lancaster/Frederick Lowland
    - ____ Eastern Piedmont
    - ____ Western Shore Coastal Plain
    - X Eastern Shore Coastal Plain

11. Nearest Water Source: Chesapeake Bay ____ Order

12. 2nd Nearest Water Source: ____ ____ Order

13. 3rd Nearest Water Source: ____ ____ Order

14. 4th Nearest Water Source: ____ ____ Order

C. Environmental Data

15. Closest Surface Water Type (check all applicable):

____ Ocean	____ Freshwater Stream/River
X Estuarine Bay/ Tidal River	____ Freshwater Swamp
____ Tidal or Marsh	____ Lake or Pond
	____ Spring

16. Distance from closest surface water: 0 meters (or____ feet)

17. SCS Typology:

18. Topographic Settings (check all applicable):

____ Floodplain	____ Hilltop/Bluff
____ Interior Flat	____ Upland Flat
____ Terrace	____ Ridgetop
____ Low Terrace	____ Rockshelter/Cave
____ High Terrace	____ Unknown
____ Hillslope	X Other: Beach

19. Slope:

20. Elevation: 0 meters (or____ feet) above sea level

21. Land use at site when last field checked: D
(check all applicable)

____ Plowed/Tilled	____ Extractive
____ No-Till	____ Military
____ Wooded/Forested	X Recreational
____ Logging/Logged	____ Residential
____ Underbrush/Overgrown	____ Ruin
____ Pasture	____ Standing Structure
____ Cemetery	____ Transportation
____ Commercial	____ Unknown
____ Educational	____ Other:

22. Condition of Site (check all applicable): D

____ UNDISTURBED

DISTURBED
____ Plowed
____ Eroded
____ Graded/Contoured
____ Collected
____ Vandalized
____ Dredged
____ Other:

DESTROYED
____ minor (0-10%)
____ moderate (10-60%)
X major (60-99%)
____ total (100%)
____ % unknown

____ UNKNOW

23. Additional Comments on Environment:
Site located on badly eroded beach - mostly eroded away. At least 4 feet (vertical) of ground surface eroded away in 1 year period.

. Description

24. Site Type A (check all applicable):

PREHISTORIC
_____ Lithics
_____ Ceramics
_____ Shell Midden
_____ Unknown
_____ Other:
_____

HISTORIC
_____ Cemetery
Domestic:
_____ urban
__X__ rural
_____ Educational
Industrial:
_____ urban
_____ rural
_____ Military
_____ Religious
_____ Water Transportation
_____ Unknown
_____ Other:
_____

_____ UNKNOW

25. Site Type B (check one):

_____ Terrestrial
_____ Underwater
__X__ Bo

26. Cultural Affiliation (check all applicable):

PREHISTORIC
_____ Unknown

_____ Paleoindian
_____ Archaic
_____ Early Archaic
_____ Middle Archaic
_____ Late Archaic
_____ Woodland
_____ Early Woodland
_____ Middle Woodland
_____ Late Woodland

_____ CONTACT

HISTORIC
_____ Unknown

17th century
_____ 1630-1675
_____ 1675-1720
18th century
_____ 1720-1780
_____ 1780-1820
19th century
_____ 1820-1860
__X__ 1860-1900
20th century
_____ 1900-1930
__X__ post 1930

_____ UNKNOW

27. State Plan Themes: _____

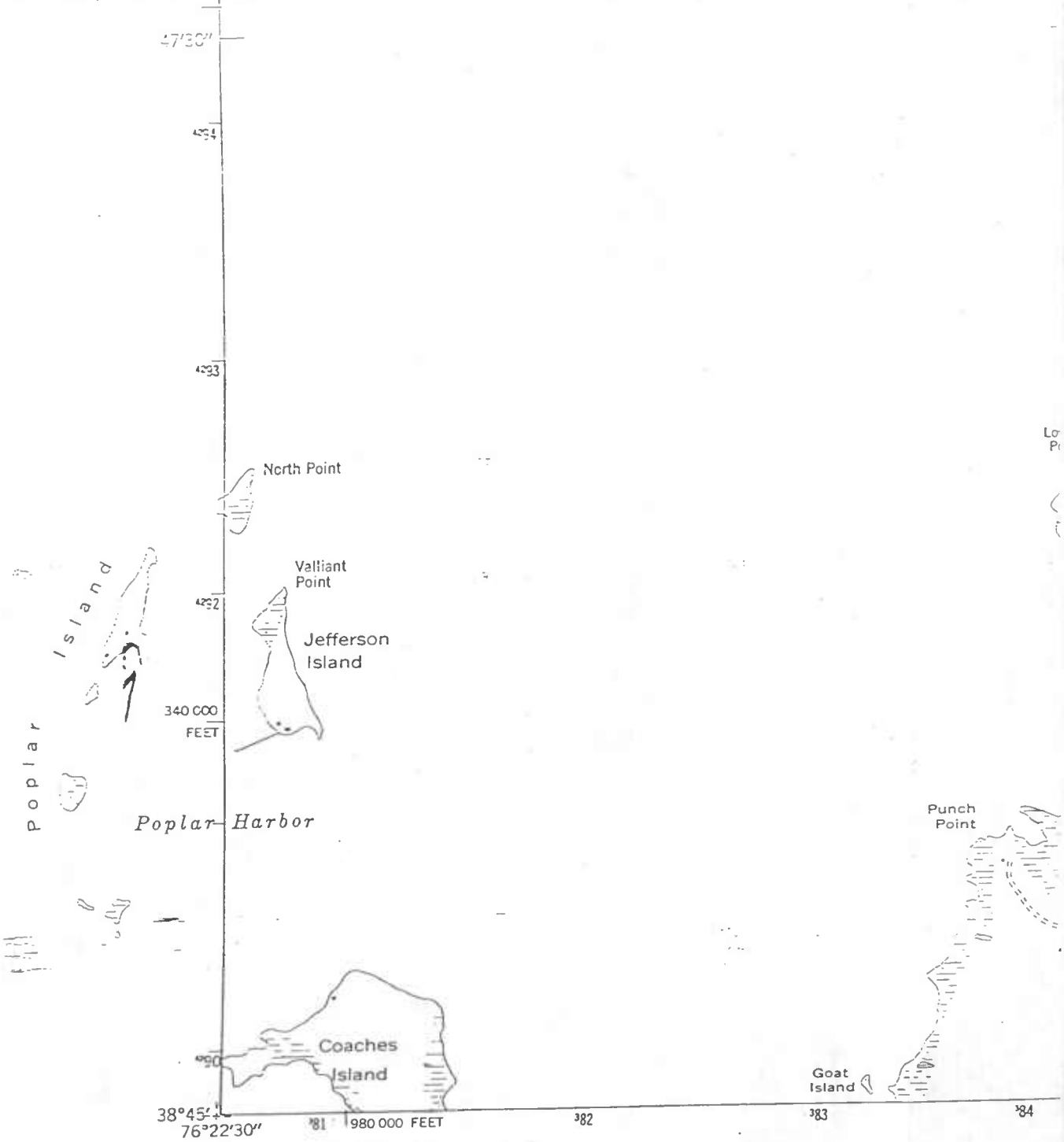
28. Site length: _____ meters (or __?__ feet)

29. Site width: _____ meters (or 150 feet)

30. Is site confined to plowzone?
_____ Yes
_____ No
_____ Unknown

31. Does site have subsurface integrity?
_____ Yes
__X__ No
_____ Unknown

Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow.

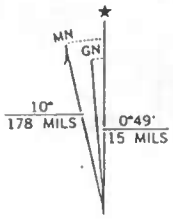


Mapped by the Army Map Service
Edited and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1942 and planetable surveys 1942

Polyconic projection. 10,000-foot grid ticks based on Maryland coordinate system
1000-meter Universal Transverse Mercator grid ticks, zone 18, shown in blue
1927 North American Datum
To place on the predicted North American Datum 1983 move the projection lines 8 meters south and 28 meters west as shown by dashed corner ticks



UTM GRID AND 1986 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

:. Support Data (Use additional sheets if needed)

32. Accompanying Data Form(s):

_____ Prehistoric
_X_ Historic
_____ Submerged
_____ Shipwreck

33. Ownership:

_____ Private
_X_ Public
_____ Unknown

34. Owner: _____
Address: _____
Phone: _____ Date: _____

35. Tenant: _____
Address: _____
Phone: _____ Date: _____

36. Known Investigations: R. Christopher Goodwin & Associates, Inc., 1994

37. Reports (Author & year): R. Christopher Goodwin & Associates, Inc., 1994

38. Other Records?
_X_ Yes
_____ No
_____ Unknown

39. If YES, type and location: field records to be turned over to Maryland Historical Trust

40. Collections?
_X_ Yes
_____ No
_____ Unknown

41. If YES, give owner and location: to be turned over to Maryland Historical Trust

42. Artifact Conservation?
_____ Yes
_X_ Partial
_____ No
_____ Unknown

43. Maryland Register Status:

_____ Listed on register
_____ Nomination pending
_____ Determined eligible (formal)
_____ Considered eligible (consensus)
_____ Not eligible
_____ Insufficient data

44. National Register Status:

_____ Listed on register
_____ Nomination pending
_____ Determined eligible (formal)
_____ Considered eligible (consensus)
_____ Not eligible
_____ Insufficient data

45. Informant: _____
Address: _____
Phone: _____ Date: _____

46. Site visited by: R. Christopher Goodwin & Associates, Inc.
Address: 337 East Third Street, Frederick, Maryland 21701
Phone: 301-694-0428 Date: Dec. 6, 1994

47. Form filled out by: April Fehr, R. Christopher Goodwin & Associates, Inc.
Address: 337 East Third Street, Frederick, Maryland 21701
Phone: 301-694-0428 Date: March 1, 1994

48. Additional Comments:

F. For Division of Archeology Use Only

49. Form transcribed by: _____ 50. Date: _____
51. Form checked by: _____
52. Entered on computer by: _____ 53. Date: _____
54. Form updated by: _____ 55. Date: _____

Site Number 18_____

(Shaded areas are for Division of Archeology use only)

1. Site Class (check all applicable, check at least one from each group):

a.
- X domestic
- ____ industrial
- ____ transportation
- ____ military
- ____ sepulchre
- ____ unknown

b.
- ____ urban
- X rural
- ____ unknown

c. standing structure:
- ____ yes
- X no
- ____ unknown

d. above-grade/visible ruin:
- X yes
- ____ no
- ____ unknown

2. Site Type (check all applicable):
- X artifact concentration
- X possible structure
- ____ post-in-ground structure
- ____ frame structure
- ____ masonry structure
- ____ farmstead
- ____ plantation
- ____ townsite
- ____ mill (specify:_____)
- ____ raceway
- ____ quarry
- ____ furnace/forge
- ____ other industrial (specify): _____
- ____ road/railroad
- ____ wharf/landing
- ____ bridge
- ____ ford
- ____ battlefield
- ____ military fortification
- ____ military encampment
- ____ cemetery
- ____ unknown
- X other: 3 partially submerged brick piers; exposed hand pump

3. Ethnic Association:
- ____ Native American
- ____ Afroamerican
- ____ Angloamerican
- ____ other Euroamerican (specify): _____
- ____ Hispanic
- ____ Asian-American
- X unknown
- ____ other: _____

4. Categories of material remains present (check all applicable):
- X ceramics
- X bottle/table glass
- ____ other kitchen artifacts
- X architecture
- ____ furniture
- X arms
- ____ clothing
- ____ personal items
- ____ tobacco pipes
- ____ activity items
- ____ human skeletal remains
- ____ faunal remains
- ____ floral remains
- ____ organic remains
- ____ unknown
- ____ other: _____

5. Diagnostics (choose from manual and give number recorded or observed):

Whiteware 2
gray undecorated ironstone 2
domestic gray stoneware 2
19C. pharmaceutical bottle 1
embossed panel bottle 1
lt. green cup bottom mold 1
handwrought rosehead nail 1
wire nail 1

HISTORIC DATA FORM

6. Features present:
   - X yes
   - ___ no
   - ___ unknown

7. Types of features present:
   - X construction feature
   - ___ foundation
   - ___ cellar hole/storage cellar
   - ___ hearth/chimney base
   - ___ posthole/postmold
   - ___ paling ditch/fence
   - ___ privy
   - ___ well/cistern
   - ___ trash pit/dump
   - ___ sheet midden
   - ___ planting feature
   - ___ road/drive/walkway
   - ___ depression/mound
   - ___ burial
   - ___ railroad bed
   - ___ earthworks
   - ___ raceway
   - ___ wheel pit
   - ___ unknown
   - X other: hand pump

8. Method of sampling (check all applicable):
   - ___ non-systematic surface search
   - X systematic surface collection
   - ___ non-systematic shovel test pits
   - ___ excavation units
   - ___ mechanical excavation

   extent/nature of excavation: shovel/auger tests at 15m intervals

9. Flotation samples collected:
   - ___ yes
   - ___ no
   - ___ unknown

   analyzed:
   - ___ yes, by ___
   - ___ no
   - ___ unknown

10. Soil samples collected:
    - X yes
    - ___ no
    - ___ unknown

    analyzed: water screened -
    - X yes, by Goodwin & Associates,
    - ___ no
    - ___ unknown

11. Other analyses (specify): ___

12. Additional Comments:

13. Form filled out by: April Fehr, R. Christopher Goodwin & Associates, Inc.
    Address/Affiliation: 337 East Third Street, Frederick, Maryland 21701
    Date: January 12, 1995

For Division of Archeology Use Only

14. Form transcribed by: ___ 15. Date: ___
16. Form checked by: ___
17. Entered on computer by: ___ 18. Date: ___
19. Form updated by: ___ 20. Date: ___

MARYLAND ARCHAEOLOGICAL SITE SURVEY: BASIC DATA FORM

Maryland Department of Natural Resources
Division of Archeology

Maryland Geological Survey
2300 St. Paul Street
Baltimore, Maryland 21218

Site Number 18 TA236 - update

(shaded areas are for Division of Archeology use only)

A. Designation

1. County: Talbot

2. Site Number: 18TA236

3. Site Name: South Central Island

4. Site Type (check all applicable):
   - ____ Prehistoric
   - X Historic
   - ____ Unknown

5. Maryland Archeological Research Unit Number: 4

Location

6. USGS 7.5' Quadrangle(s): Claiborne, Maryland 1942 (photo revised 1986)
   (Photocopy section of quad(s) on page 4 and mark site location)

7. UTM Coordinates at Center of Site Zone: ____

8. Easting: ____

9. Northing: ____

10. Physiographic Province (check one):
    - ____ Allegheny Plateau
    - ____ Ridge and Valley
    - ____ Great Valley
    - ____ Blue Ridge
    - ____ Lancaster/Frederick Lowland
    - ____ Eastern Piedmont
    - ____ Western Shore Coastal Plain
    - X Eastern Shore Coastal Plain

11. Nearest Water Source: Chesapeake Bay ____ Order

12. 2nd Nearest Water Source: ____ ____ Order

13. 3rd Nearest Water Source: ____ ____ Order

14. 4th Nearest Water Source: ____ ____ Order

C. Environmental Data

15. Closest Surface Water Type (check all applicable):

____ Ocean	____ Freshwater Stream/River
X Estuarine Bay/ Tidal River	____ Freshwater Swamp
____ Tidal or Marsh	____ Lake or Pond
	____ Spring

16. Distance from closest surface water: 0 meters (or____ feet)

17. SCS Typology:

18. Topographic Settings (check all applicable):

____ Floodplain	____ Hilltop/Bluff
____ Interior Flat	____ Upland Flat
____ Terrace	____ Ridgetop
____ Low Terrace	____ Rockshelter/Cave
____ High Terrace	____ Unknown
____ Hillslope	X Other: marsh islet

19. Slope:

20. Elevation: ____ meters (or____ feet) above sea level

21. Land use at site when last field checked: ____ D

(check all applicable)

____ Plowed/Tilled	____ Extractive
____ No-Till	____ Military
____ Wooded/Forested	X Recreational
____ Logging/Logged	____ Residential
____ Underbrush/Overgrown	____ Ruin
____ Pasture	____ Standing Structure
____ Cemetery	____ Transportation
____ Commercial	____ Unknown
____ Educational	____ Other:

22. Condition of Site (check all applicable): ____ Da

____ UNDISTURBED

DISTURBED

____ Plowed
____ Eroded
____ Graded/Contoured
____ Collected
____ Vandalized
____ Dredged
____ Other:

DESTROYED

____ minor (0-10%)
____ moderate (10-60%)
X major (60-99%)
____ total (100%)
____ % unknown

____ UNKNOW

23. Additional Comments on Environment:

. Description

24. Site Type A (check all applicable):

PREHISTORIC
_____ Lithics
_____ Ceramics
_____ Shell Midden
_____ Unknown
_____ Other:
_____

HISTORIC
_____ Cemetery
Domestic:
_____ urban
__X__ rural
_____ Educational
Industrial:
_____ urban
_____ rural
_____ Military
_____ Religious
_____ Water Transportation
_____ Unknown
_____ Other:
_____

_____ UNKNOW

25. Site Type B (check one):

_____ Terrestrial
_____ Underwater
__X__ Bot

26. Cultural Affiliation (check all applicable):

PREHISTORIC
_____ Unknown

_____ Paleoindian
_____ Archaic
_____ Early Archaic
_____ Middle Archaic
_____ Late Archaic
_____ Woodland
_____ Early Woodland
_____ Middle Woodland
_____ Late Woodland

_____ CONTACT

HISTORIC
__X__ Unknown

17th century
_____ 1630-1675
_____ 1675-1720
18th century
_____ 1720-1780
_____ 1780-1820
19th century
_____ 1820-1860
_____ 1860-1900
20th century
_____ 1900-1930
_____ post 1930

_____ UNKNOWI

27. State Plan Themes: _____

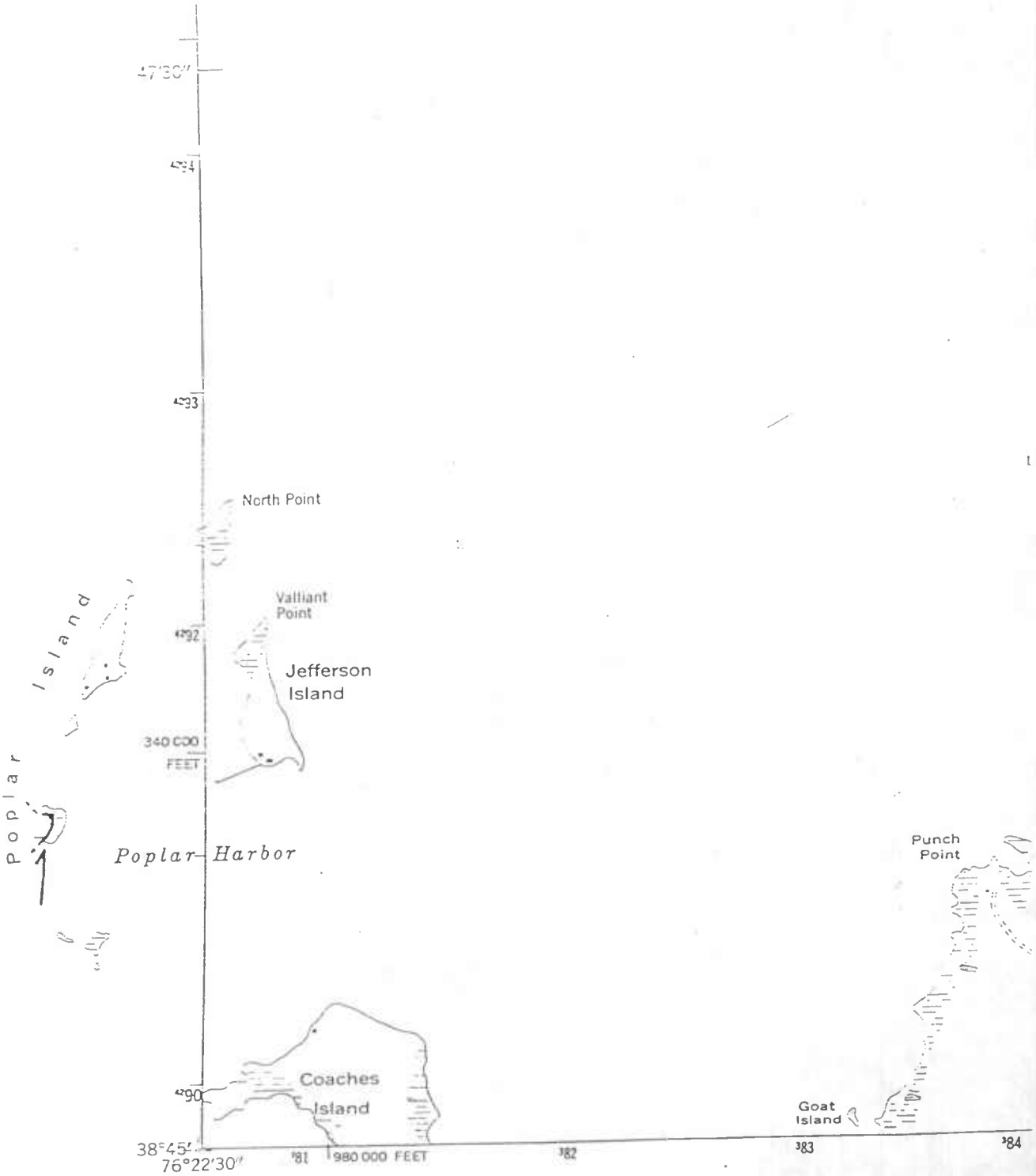
28. Site length: _____ meters (or 250 feet)

29. Site width: _____ meters (or ? feet)

30. Is site confined to plowzone?
_____ Yes
_____ No
_____ Unknown

31. Does site have subsurface integrity?
_____ Yes
__X__ No
_____ Unknown

Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow.

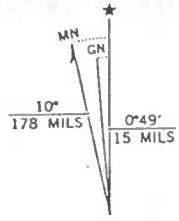


Mapped by the Army Map Service
Edited and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1942 and planetable surveys 1942

Polyconic projection. 10,000-foot grid ticks based on Maryland coordinate system
1000-meter Universal Transverse Mercator grid ticks, zone 18, shown in blue
1927 North American Datum
To place on the predicted North American Datum 1983



UTM GRID AND 1986 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

E. Support Data (Use additional sheets if needed)

32. Accompanying Data Form(s):

____ Prehistoric
X Historic
____ Submerged
____ Shipwreck

33. Ownership:

____ Private
X Public
____ Unknown

34. Owner:
Address:
Phone: Date:

35. Tenant:
Address:
Phone: Date:

36. Known Investigations: R. Christopher Goodwin & Associates, Inc. 1993/1994

37. Reports (Author & year): R. Christopher Goodwin & Associates, Inc. 1994

38. Other Records?

X Yes
____ No
____ Unknown

39. If YES, type and location: field records: R. Christopher Goodwin & Assoicates, Inc. (to be turned over to Maryland Historical Trust)

40. Collections?

X Yes
____ No
____ Unknown

41. If YES, give owner and location: R. Christopher Goodwin & Associates, Inc. (to be turned over to Maryland Historical Trust)

42. Artifact Conservation?

____ Yes
X Partial
____ No
____ Unknown

43. Maryland Register Status:

_____ Listed on register
_____ Nomination pending
_____ Determined eligible (formal)
_____ Considered eligible (consensus)
_____ Not eligible
_____ Insufficient data

44. National Register Status:

_____ Listed on register
_____ Nomination pending
_____ Determined eligible (formal)
_____ Considered eligible (consensus)
_____ Not eligible
_____ Insufficient data

45. Informant: _____
Address: _____
Phone: _____ Date: _____

46. Site visited by: R. Christopher Goodwin & Associates, Inc.
Address: 337 East Third Street Frederick, Maryland 21701
Phone: 301-694-0428 Date: Nov/Dec 1994

47. Form filled out by: April Fehr; R. Christopher Goodwin & Assoicates, Inc.
Address: 337 East Third Street, Frederick, Maryland 21701
Phone: 301-694-0428 Date: March 3, 1995

48. Additional Comments:

F. For Division of Archeology Use Only

49. Form transcribed by: _____ 50. Date: _____
51. Form checked by: _____
52. Entered on computer by: _____ 53. Date: _____
54. Form updated by: _____ 55. Date: _____

Site Number 18 TA236

(Shaded areas are for Division of Archeology use only)

1. Site Class (check all applicable, check at least one from each group):

a.
- X domestic
- ___ industrial
- ___ transportation
- ___ military
- ___ sepulchre
- ___ unknown

b.
- ___ urban
- X rural
- ___ unknown

c. standing structure:
- ___ yes
- X no
- ___ unknown

d. above-grade/visible ruin:
- X yes
- ___ no
- ___ unknown

2. Site Type (check all applicable):
- ___ artifact concentration
- X possible structure
- ___ post-in-ground structure
- ___ frame structure
- ___ masonry structure
- ___ farmstead
- ___ plantation
- ___ townsite
- ___ mill (specify: ___)
- ___ raceway
- ___ quarry
- ___ furnace/forge
- ___ other industrial (specify): ___
- ___ road/railroad
- ___ wharf/landing
- ___ bridge
- ___ ford
- ___ battlefield
- ___ military fortification
- ___ military encampment
- ___ cemetery
- ___ unknown
- ___ other: ___

3. Ethnic Association:
- ___ Native American
- ___ Afroamerican
- ___ Angloamerican
- ___ other Euroamerican (specify): ___
- ___ Hispanic
- ___ Asian-American
- X unknown
- ___ other: ___

4. Categories of material remains present (check all applicable):
- ___ ceramics
- X bottle/table glass
- ___ other kitchen artifacts
- ___ architecture
- ___ furniture
- ___ arms
- ___ clothing
- ___ personal items
- ___ tobacco pipes
- ___ activity items
- ___ human skeletal remains
- ___ faunal remains
- ___ floral remains
- ___ organic remains
- ___ unknown
- ___ other: ___

5. Diagnostics (choose from manual and give number recorded or observed):

1 glass tipped pontil (1700's-ca 1870)

HISTORIC DATA FORM

6. Features present:
   - X yes
   - ____ no
   - ____ unknown

7. Types of features present:
   - X construction feature
   - ____ foundation
   - ____ cellar hole/storage cellar
   - ____ hearth/chimney base
   - ____ posthole/postmold
   - ____ paling ditch/fence
   - ____ privy
   - ____ well/cistern
   - ____ trash pit/dump
   - ____ sheet midden
   - ____ planting feature
   - ____ road/drive/walkway
   - ____ depression/mound
   - ____ burial
   - ____ railroad bed
   - ____ earthworks
   - ____ raceway
   - ____ wheel pit
   - ____ unknown
   - ____ other: ____

8. Method of sampling (check all applicable):
   - ____ non-systematic surface search
   - X systematic surface collection
   - ____ non-systematic shovel test pits
   - ____ excavation units
   - ____ mechanical excavation

   extent/nature of excavation: 11 near shore dredge tests; 11 auger tests; 9 shovel tests on islet

9. Flotation samples collected:
   - ____ yes
   - X no
   - ____ unknown

   analyzed:
   - ____ yes, by ____
   - ____ no
   - ____ unknown

10. Soil samples collected:
    - ____ yes
    - X no
    - ____ unknown

    analyzed:
    - ____ yes, by ____
    - ____ no
    - ____ unknown

11. Other analyses (specify): ____

12. Additional Comments: Single artifact recovered from surface. Brick features eroding from back; one disarticulated.

13. Form filled out by: April Fehr; R. Christopher Goodwin & Assoicates, Inc.
    Address/Affiliation: 337 East Third Street, Frederick, Maryland 21701
    Date: March 3, 1995

For Division of Archeology Use Only

14. Form transcribed by: ____ 15. Date: ____
16. Form checked by: ____
17. Entered on computer by: ____ 18. Date: ____
19. Form updated by: ____ 20. Date: ____

MARYLAND ARCHEOLOGICAL SITE SURVEY: BASIC DATA FORM

Maryland Department of Natural Resources
Division of Archeology

Maryland Geological Survey
2300 St. Paul Street
Baltimore, Maryland 21218

Site Number 18 TA222 - update

(haded areas are for Division of Archeology use only)

A. Designation

1. County: Talbot

2. Site Number: 18TA222

3. Site Name: Middle Poplar Island

4. Site Type (check all applicable):
   - X Prehistoric
   - ____ Historic
   - ____ Unknown

5. Maryland Archeological Research Unit Number: 4

Location

6. USGS 7.5' Quad-rangle(s): Claiborne, Maryland 1942 (photo revised 1986)
   (Photocopy section of quad(s) on page 4 and mark site location)

7. UTM Coordinates at Center of Site Zone: ____

8. Easting: ____

9. Northing: ____

10. Physiographic Province (check one):
    - ____ Allegheny Plateau
    - ____ Ridge and Valley
    - ____ Great Valley
    - ____ Blue Ridge
    - ____ Lancaster/Frederick Lowland
    - ____ Eastern Piedmont
    - ____ Western Shore Coastal Plain
    - X Eastern Shore Coastal Plain

11. Nearest Water Source: Chesapeake Bay ____ Order

12. 2nd Nearest Water Source: ____ ____ Order

13. 3rd Nearest Water Source: ____ ____ Order

14. 4th Nearest Water Source: ____ ____ Order

C. Environmental Data

15. Closest Surface Water Type (check all applicable):

____ Ocean	____ Freshwater Stream/River
X Estuarine Bay/ Tidal River	____ Freshwater Swamp
____ Tidal or Marsh	____ Lake or Pond
	____ Spring

16. Distance from closest surface water: 0 meters (or____ feet)

17. SCS Typology:

18. Topographic Settings (check all applicable):

____ Floodplain	____ Hilltop/Bluff
____ Interior Flat	____ Upland Flat
____ Terrace	____ Ridgetop
____ Low Terrace	____ Rockshelter/Cave
____ High Terrace	____ Unknown
____ Hillslope	X Other: Submerged/Destroyed

19. Slope:

20. Elevation: 0 meters (or____ feet) above sea level

21. Land use at site when last field checked: _____ D

(check all applicable)

____ Plowed/Tilled	____ Extractive
____ No-Till	____ Military
____ Wooded/Forested	X Recreational
____ Logging/Logged	____ Residential
____ Underbrush/Overgrown	____ Ruin
____ Pasture	____ Standing Structure
____ Cemetery	____ Transportation
____ Commercial	____ Unknown
____ Educational	____ Other:

22. Condition of Site (check all applicable): _____ D

____ UNDISTURBED	DESTROYED	____ UNKNOW
	____ minor (0-10%)	
DISTURBED	____ moderate (10-60%)	
____ Plowed	X major (60-99%)	
____ Eroded	____ total (100%)	
____ Graded/Contoured	____ % unknown	
____ Collected		
____ Vandalized		
____ Dredged		
____ Other:		

23. Additional Comments on Environment:

I. Description

24. Site Type A (check all applicable):

PREHISTORIC
_____ Lithics
_____ Ceramics
__x__ Shell Midden
_____ Unknown
_____ Other:
_____

HISTORIC
_____ Cemetery
Domestic:
_____ urban
_____ rural
_____ Educational
Industrial:
_____ urban
_____ rural
_____ Military
_____ Religious
_____ Water Transportation
_____ Unknown
_____ Other:
_____

_____ UNKNOW

25. Site Type B (check one):

_____ Terrestrial
_____ Underwater
__x__ Bo

26. Cultural Affiliation (check all applicable):

PREHISTORIC
__x__ Unknown

_____ Paleoindian
_____ Archaic
_____ Early Archaic
_____ Middle Archaic
_____ Late Archaic
_____ Woodland
_____ Early Woodland
_____ Middle Woodland
_____ Late Woodland

_____ CONTACT

HISTORIC
_____ Unknown

17th century
_____ 1630-1675
_____ 1675-1720
18th century
_____ 1720-1780
_____ 1780-1820
19th century
_____ 1820-1860
_____ 1860-1900
20th century
_____ 1900-1930
_____ post 1930

_____ UNKNOW

27. State Plan Themes: _____

28. Site length: _____ meters (or 100 feet)

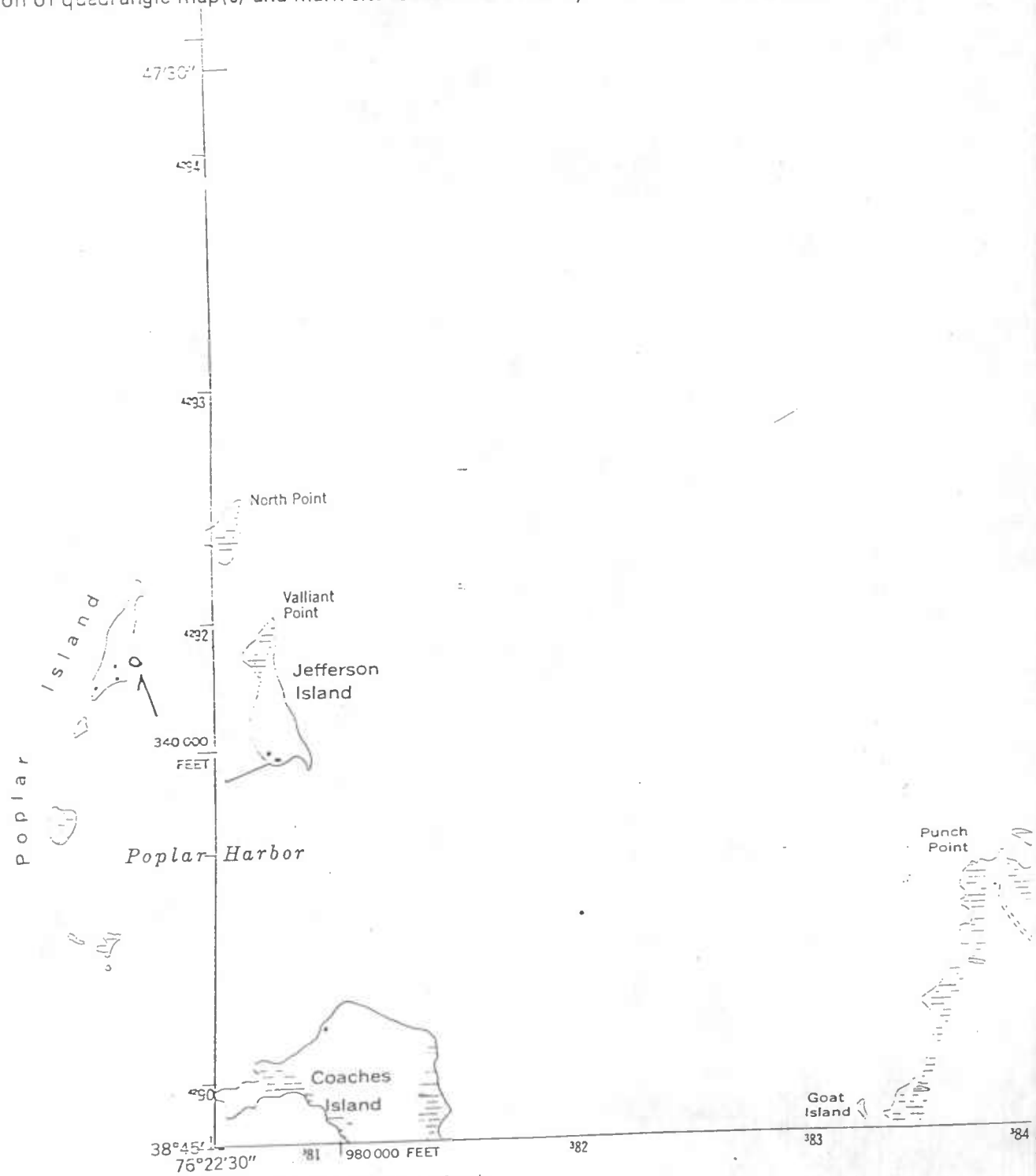
29. Site width: _____ meters (or 75 feet)

30. Is site confined to plowzone?
_____ Yes
_____ No
_____ Unknown

31. Does site have subsurface integrity?
_____ Yes
__X__ No
_____ Unknown

BASIC DATA FORM

Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow.



Mapped by the Army Map Service
Edited and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1942 and planetable surveys 1942

Polyconic projection. 10,000-foot grid ticks based on Maryland coordinate system
1000-meter Universal Transverse Mercator grid ticks, zone 18, shown in blue
1927 North American Datum
To place on the predicted North American Datum 1983 move the projection lines 8 meters south and 28 meters west as shown by dashed corner ticks

UTM GRID AND 1986 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

. Support Data (Use additional sheets if needed)

32. Accompanying Data Form(s):

__X__ Prehistoric
_____ Historic
_____ Submerged
_____ Shipwreck

33. Ownership:

_____ Private
__X__ Public
_____ Unknown

34. Owner: _____
Address: _____
Phone: _____ Date: _____

35. Tenant: _____
Address: _____
Phone: _____ Date: _____

36. Known Investigations: Lowery 1992
R. Christopher Goodwin & Associates, Inc., 1993/94

37. Reports (Author & year): Lowery 1992
R. Christopher Goodwin & Associates, Inc., 1994

38. Other Records?

__X__ Yes
_____ No
_____ Unknown

39. If YES, type and location: Field records; R. Christopher Goodwin & Associates, Inc.
(to be turned over to Maryland Historical Trust)

40. Collections?

__X__ Yes
_____ No
_____ Unknown

41. If YES, give owner and location: Lowery 1992

42. Artifact Conservation?

_____ Yes
_____ Partial
__X__ No
_____ Unknown

43. Maryland Register Status:

_____ Listed on register
_____ Nomination pending
_____ Determined eligible (formal)
_____ Considered eligible (consensus)
_____ Not eligible
_____ Insufficient data

44. National Register Status:

_____ Listed on register
_____ Nomination pending
_____ Determined eligible (formal)
_____ Considered eligible (consensus)
_____ Not eligible
_____ Insufficient data

45. Informant: _____
Address: _____
Phone: _____ Date: _____

46. Site visited by: R. Christopher Goodwin & Associates, Inc.
Address: 337 East Third Street, Frederick, Maryland 21701
Phone: 301-694-0428 Date: Nov./Dec. 199

47. Form filled out by: April Fehr, R. Christopher Goodwin & Associates, Inc.
Address: 337 East Third Street, Frederick, Maryland 21701
Phone: 301-694-0428 Date: March 2, 199

48. Additional Comments:

F. For Division of Archeology Use Only

49. Form transcribed by: _____ 50. Date: _____
51. Form checked by: _____
52. Entered on computer by: _____ 53. Date: _____
54. Form updated by: _____ 55. Date: _____

MARYLAND ARCHAEOLOGICAL SITE SURVEY: PREHISTORIC DATA FORM

Site Number 18 _____

(Shaded areas are for Division of Archeology use only)

1. Site type (check all applicable):

____	village	____	earthen mound
____	hamlet	____	shell midden
____	base camp	____	fish weir
____	short-term resource procurement	____	submerged prehistoric
____	lithic quarry/extraction	____	lithic scatter
____	rockshelter/cave	X	unknown
____	cairn	____	other: _____

2. Categories of aboriginal material or remains present at site (check all applicable):

X	flaked stone	____	human skeletal remains
____	ground stone	____	faunal implements/ornaments
____	stone bowls	____	faunal material
____	fire-cracked rock	____	oyster shell
____	other lithics	____	floral material
____	ceramics (vessels)	____	unknown
____	other fired clay	____	other: _____

3. Lithic materials (check all applicable):

____	jasper	____	steatite
X	chert	____	sandstone
____	rhyolite	____	silicified sandstone
____	quartz	____	ferruginous quartzite
____	quartzite	____	European flint
____	chalcedony	____	basalt
____	ironstone	____	unknown
____	argillite	____	other: _____

4. Diagnostics (choose from manual <u>and give number</u> recovered or observed):

_____ _____
_____ _____
_____ _____
_____ _____

5. Features present:

X yes
____ no
____ unknown

6. Types of features identified (check all applicable):

X	midden		
____	postmolds	____	refuse/storage pits
____	house patterns	____	burials
____	palisade	____	ossuaries
____	hearths	____	unknown
____	chipping clusters	____	other: _____

PREHISTORIC DATA FORM

7. Method of sampling (check all applicable):

____ non-systematic surface search
_X_ systematic surface collection
____ non-systematic shovel test pits
_X_ systematic shovel test pits
____ excavation units
____ mechanical excavation
_X_ other: auger; nearshore hand held induction dredge

extent/nature of excavation: 4 shovel test, 9 auger tests, 5 offshore dredge tests

8. Flotation samples collected:

____ yes
_X_ no
____ unknown

analyzed:

____ yes, by ____
____ no
____ unknown

9. Samples for radiocarbon dating collected:

____ yes
_X_ no
____ unknown

Dates and Lab Reference Nos. ____

10. Soil samples collected:

____ yes
_X_ no
____ unknown

analyzed:

____ yes, by ____
____ no
____ unknown

11. Other analyses (specify): ____

12. Additional comments:

Most of shell "midden" is submerged offshore. Organic matrix absent offshore suggesting deflation.

13. Form filled out by: ____
Address/Affiliation: ____
Date: ____

For Division of Archeology Use Only

14. Form transcribed by: ____ 15. Date: ____
16. Form checked by: ____
17. Entered on computer by: ____ 18. Date: ____
19. Form updated by: ____ 20. Date: ____

Maryland Department of Natural Resources
Division of Archeology

Maryland Geological Survey
2300 St. Paul Street
Baltimore, Maryland 21218

Site Number 18 TA218 - update

haded areas are for Division of Archeology use only)

A. Designation

1. County: Talbot

2. Site Number: 18TA218

3. Site Name: South Central Island

4. Site Type (check all applicable):
   X Prehistoric
   ____ Historic
   ____ Unknown

5. Maryland Archeological Research Unit Number: 4

Location

6. USGS 7.5' Quad-rangle(s): Claiborne, Maryland 1942 (photo revised 1986)
   (Photocopy section of quad(s) on page 4 and mark site location)

7. UTM Coordinates at Center of Site Zone: ____

8. Easting: ____

9. Northing: ____

10. Physiographic Province (check one):
   ____ Allegheny Plateau
   ____ Ridge and Valley
   ____ Great Valley
   ____ Blue Ridge
   ____ Lancaster/Frederick Lowland
   ____ Eastern Piedmont
   ____ Western Shore Coastal Plain
   X Eastern Shore Coastal Plain

11. Nearest Water Source: Chesapeake Bay ____ Order

12. 2nd Nearest Water Source: ____ ____ Order

13. 3rd Nearest Water Source: ____ ____ Order

14. 4th Nearest Water Source: ____ ____ Order

C. Environmental Data

15. Closest Surface Water Type (check all applicable):

____ Ocean	____ Freshwater Stream/River
X Estuarine Bay/ Tidal River	____ Freshwater Swamp
____ Tidal or Marsh	____ Lake or Pond
	____ Spring

16. Distance from closest surface water: ____ meters (or____ feet)

17. SCS Typology:

18. Topographic Settings (check all applicable):

____ Floodplain	____ Hilltop/Bluff
____ Interior Flat	____ Upland Flat
____ Terrace	____ Ridgetop
____ Low Terrace	____ Rockshelter/Cave
____ High Terrace	____ Unknown
____ Hillslope	X Other:
	submerged/destroyed

19. Slope:

20. Elevation: ____ meters (or____ feet) above sea level

21. Land use at site when last field checked: ____ Da
(check all applicable)

____ Plowed/Tilled	____ Extractive
____ No-Till	____ Military
____ Wooded/Forested	X Recreational
____ Logging/Logged	____ Residential
____ Underbrush/Overgrown	____ Ruin
____ Pasture	____ Standing Structure
____ Cemetery	____ Transportation
____ Commercial	____ Unknown
____ Educational	____ Other:

22. Condition of Site (check all applicable): ____ Dat

____ UNDISTURBED

DISTURBED
____ Plowed
____ Eroded
____ Graded/Contoured
____ Collected
____ Vandalized
____ Dredged
____ Other:

DESTROYED
____ minor (0-10%)
____ moderate (10-60%)
____ major (60-99%)
____ total (100%)
X % unknown

____ UNKNOW

23. Additional Comments on Environment:

Site no longer exists as terrestrial site; unknown if portion survives as submerged site.

Description

24. Site Type A (check all applicable):

PREHISTORIC
X Lithics
___ Ceramics
___ Shell Midden
___ Unknown
___ Other: _____

HISTORIC
___ Cemetery
Domestic:
___ urban
___ rural
___ Educational
Industrial:
___ urban
___ rural
___ Military
___ Religious
___ Water Transportation
___ Unknown
___ Other: _____

___ UNKNOWN

25. Site Type B (check one):

___ Terrestrial
? Underwater
___ Both

26. Cultural Affiliation (check all applicable):

PREHISTORIC
X Unknown

___ Paleoindian
___ Archaic
___ Early Archaic
___ Middle Archaic
___ Late Archaic
___ Woodland
___ Early Woodland
___ Middle Woodland
___ Late Woodland

___ CONTACT

HISTORIC
___ Unknown

17th century
___ 1630-1675
___ 1675-1720
18th century
___ 1720-1780
___ 1780-1820
19th century
___ 1820-1860
___ 1860-1900
20th century
___ 1900-1930
___ post 1930

___ UNKNOWN

27. State Plan Themes: _____

28. Site length: ___ meters (or ___ feet)

29. Site width: ___ meters (or ___ feet)

30. Is site confined to plowzone?
___ Yes
___ No
___ Unknown

31. Does site have subsurface integrity?
___ Yes
___ No
___ Unknown

Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow.

Site no longer present

c. Support Data (Use additional sheets if needed)

32. Accompanying Data Form(s):

X Prehistoric
____ Historic
____ Submerged
____ Shipwreck

33. Ownership:

____ Private
X Public
____ Unknown

34. Owner:
Address:
Phone: Date:

35. Tenant:
Address:
Phone: Date:

36. Known Investigations: Lowery 1992
R. Christopher Goodwin & Associates, Inc., 1993/1994

37. Reports (Author & year): Lowery 1992
R. Christopher Goodwin & Associates, Inc., 1994

38. Other Records?

X Yes
____ No
____ Unknown

39. If YES, type and location: field records; R. Christopher Goodwin & Associates, Inc. (to be turned over to Maryland Historical Trust)

40. Collections?

X Yes
____ No
____ Unknown

41. If YES, give owner and location: Lowery 1992
R. Christopher Goodwin & Associates, Inc. (to be turned over to Maryland Historical Trust)

42. Artifact Conservation?

____ Yes
____ Partial
X No
____ Unknown

43. Maryland Register Status:

_____ Listed on register
_____ Nomination pending
_____ Determined eligible (formal)
_____ Considered eligible (consensus)
_____ Not eligible
_____ Insufficient data

44. National Register Status:

_____ Listed on register
_____ Nomination pending
_____ Determined eligible (formal)
_____ Considered eligible (consensus)
_____ Not eligible
_____ Insufficient data

45. Informant: _____
Address: _____
Phone: _____ Date: _____

46. Site visited by: R. Christopher Goodwin & Associates, Inc.
Address: 337 East Third Street, Frederick, Maryland 21701
Phone: 301-694-0428 Date: Nov./Dec. 1994

47. Form filled out by: April Fehr, R. Christopher Goodwin & Associates, Inc.
Address: 337 East Third Street, Frederick, Maryland 21701
Phone: 301-694-0428 Date: March 3, 1995

48. Additional Comments:

F. For Division of Archeology Use Only

49. Form transcribed by: _____ 50. Date: _____
51. Form checked by: _____
52. Entered on computer by: _____ 53. Date: _____
54. Form updated by: _____ 55. Date: _____

Site Number 18TA218 - update

(Shaded areas are for Division of Archeology use only)

1. Site type (check all applicable):

____	village	____	earthen mound
____	hamlet	____	shell midden
____	base camp	____	fish weir
____	short-term resource procurement	____	submerged prehistoric
____	lithic quarry/extraction	____	lithic scatter
____	rockshelter/cave	X	unknown
____	cairn	____	other:

2. Categories of aboriginal material or remains present at site (check all applicable):

X	flaked stone	____	human skeletal remains
____	ground stone	____	faunal implements/ornaments
____	stone bowls	____	faunal material
____	fire-cracked rock	____	oyster shell
____	other lithics	____	floral material
____	ceramics (vessels)	____	unknown
____	other fired clay	____	other:

3. Lithic materials (check all applicable):

____	jasper	____	steatite
X	chert	____	sandstone
____	rhyolite	____	silicified sandstone
X	quartz	____	ferruginous quartzite
X	quartzite	____	European flint
____	chalcedony	____	basalt
____	ironstone	____	unknown
____	argillite	____	other:
		5	flakes found

4. Diagnostics (choose from manual and give number recovered or observed):

5. Features present:

____ yes
X no
____ unknown

6. Types of features identified (check all applicable):

____	midden		
____	postmolds	____	refuse/storage pits
____	house patterns	____	burials
____	palisade	____	ossuaries
____	hearths	____	unknown
____	chipping clusters	____	other:

7. Method of sampling (check all applicable):
   - ____ non-systematic surface search
   - X systematic surface collection
   - ____ non-systematic shovel test pits
   - X systematic shovel test pits
   - ____ excavation units
   - ____ mechanical excavation
   - X other: auger; nearshore hand held induction dredge

   extent/nature of excavation: 11 dredge tests; 11 auger tests; 9 shovel tests

8. Flotation samples collected:
   - ____ yes
   - X no
   - ____ unknown

   analyzed:
   - ____ yes, by ____
   - ____ no
   - ____ unknown

9. Samples for radiocarbon dating collected:
   - ____ yes
   - X no
   - ____ unknown

   Dates and Lab Reference Nos. ____

10. Soil samples collected:
    - ____ yes
    - X no
    - ____ unknown

    analyzed:
    - ____ yes, by ____
    - ____ no
    - ____ unknown

11. Other analyses (specify): ____

12. Additional comments:

    5 flakes recovered with historic period materials

13. Form filled out by: April Fehr; R. Christopher Goodwin & Associates, Inc.
    Address/Affiliation: 337 East Third Street, Frederick, Maryland 21701
    Date: March 3, 1995

For Division of Archeology Use Only

14. Form transcribed by: ____ 15. Date: ____
16. Form checked by: ____
17. Entered on computer by: ____ 18. Date: ____
19. Form updated by: ____ 20. Date: ____

MARYLAND ARCHEOLOGICAL SITE SURVEY: BASIC DATA FORM

Maryland Department of Natural Resources
Division of Archeology

Maryland Geological Survey
2300 St. Paul Street
Baltimore, Maryland 21218

Site Number 18 TA217 - Update

haded areas are for Division of Archeology use only)

A. Designation

1. County: Talbot

2. Site Number: 18TA217

3. Site Name: South Poplar Island/Lower SP (Site#9)

4. Site Type (check all applicable):
   - X Prehistoric
   - ____ Historic
   - ____ Unknown

5. Maryland Archeological Research Unit Number: 4

Location

6. USGS 7.5' Quad-rangle(s): Claiborne, Maryland 1942 (Photo revised 1986)
   (Photocopy section of quad(s) on page 4 and mark site location)

7. UTM Coordinates at Center of Site Zone: ____

8. Easting: ____

9. Northing: ____

10. Physiographic Province (check one):
    - ____ Allegheny Plateau
    - ____ Ridge and Valley
    - ____ Great Valley
    - ____ Blue Ridge
    - ____ Lancaster/Frederick Lowland
    - ____ Eastern Piedmont
    - ____ Western Shore Coastal Plain
    - X Eastern Shore Coastal Plain

11. Nearest Water Source: Chesapeake Bay ____ Order

12. 2nd Nearest Water Source: ____ ____ Order

13. 3rd Nearest Water Source: ____ ____ Order

14. 4th Nearest Water Source: ____ ____ Order

C. Environmental Data

15. Closest Surface Water Type (check all applicable):

____ Ocean	____ Freshwater Stream/River
X Estuarine Bay/ Tidal River	____ Freshwater Swamp
____ Tidal or Marsh	____ Lake or Pond
	____ Spring

16. Distance from closest surface water: 0 meters (or____ feet)

17. SCS Typology:

18. Topographic Settings (check all applicable):

____ Floodplain	____ Hilltop/Bluff
____ Interior Flat	____ Upland Flat
____ Terrace	____ Ridgetop
____ Low Terrace	____ Rockshelter/Cave
____ High Terrace	____ Unknown
____ Hillslope	X Other: submerged/destroyed

19. Slope:

20. Elevation: ____ meters (or____ feet) above sea level

21. Land use at site when last field checked: D
(check all applicable)

____ Plowed/Tilled	____ Extractive
____ No-Till	____ Military
____ Wooded/Forested	____ Recreational
____ Logging/Logged	____ Residential
____ Underbrush/Overgrown	____ Ruin
____ Pasture	____ Standing Structure
____ Cemetery	____ Transportation
____ Commercial	____ Unknown
____ Educational	X Other: submerged/destroyed

22. Condition of Site (check all applicable): D.

____ UNDISTURBED	DESTROYED	X UNKNOV
	____ minor (0-10%)	
DISTURBED	____ moderate (10-60%)	
____ Plowed	____ major (60-99%)	
____ Eroded	____ total (100%)	
____ Graded/Contoured	____ % unknown	
____ Collected		
____ Vandalized		
____ Dredged		
____ Other:		

23. Additional Comments on Environment:
Site no longer exists as terrestrial site, probably destroyed although unknown if portion survives as submerged site.

C Description

24. Site Type A (check all applicable):

PREHISTORIC
_____ Lithics
_____ Ceramics
_____ Shell Midden
_____ Unknown
_____ Other:
_____

HISTORIC
_____ Cemetery
Domestic:
_____ urban
_____ rural
_____ Educational
Industrial:
_____ urban
_____ rural
_____ Military
_____ Religious
_____ Water Transportation
_____ Unknown
_____ Other:
_____

_____ UNKNOWN

25. Site Type B (check one):

_____ Terrestrial
___?___ Underwater
_____ Both

26. Cultural Affiliation (check all applicable):

PREHISTORIC
_____ Unknown

_____ Paleoindian
_____ Archaic
_____ Early Archaic
_____ Middle Archaic
_____ Late Archaic
_____ Woodland
_____ Early Woodland
_____ Middle Woodland
_____ Late Woodland

_____ CONTACT

HISTORIC
_____ Unknown

17th century
_____ 1630-1675
_____ 1675-1720
18th century
_____ 1720-1780
_____ 1780-1820
19th century
_____ 1820-1860
_____ 1860-1900
20th century
_____ 1900-1930
_____ post 1930

_____ UNKNOWN

27. State Plan Themes: _____

28. Site length: _____ meters (or ____ feet)

29. Site width: _____ meters (or ____ feet)

30. Is site confined to plowzone?
_____ Yes
_____ No
_____ Unknown

31. Does site have subsurface integrity?
_____ Yes
_____ No
_____ Unknown

Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow.

Site no longer present

E. Support Data (Use additional sheets if needed)

32. Accompanying Data Form(s):

X Prehistoric
____ Historic
____ Submerged
____ Shipwreck

33. Ownership:

____ Private
X Public
____ Unknown

34. Owner:
Address:
Phone: Date:

35. Tenant:
Address:
Phone: Date:

36. Known Investigations: Lowery 1992
R. Christopher Goodwin & Associates, Inc. 1993/1994

37. Reports (Author & year): Lowery 1992
R. Christopher Goodwin & Associates, Inc. 1994

38. Other Records?
X Yes
____ No
____ Unknown

39. If YES, type and location: field records; R. Christopher Goodwin & Associates, Inc. (to be turned over to Maryland Historical Trust)

40. Collections?
X Yes
____ No
____ Unknown

41. If YES, give owner and location: Lowery 1992

42. Artifact Conservation?
____ Yes
____ Partial
____ No
____ Unknown

43. Maryland Register Status:

_____ Listed on register
_____ Nomination pending
_____ Determined eligible (formal)
_____ Considered eligible (consensus)
_____ Not eligible
_____ Insufficient data

44. National Register Status:

_____ Listed on register
_____ Nomination pending
_____ Determined eligible (formal)
_____ Considered eligible (consensus)
_____ Not eligible
_____ Insufficient data

45. Informant: _____
Address: _____
Phone: _____ Date: _____

46. Site visited by: R. Christopher Goodwin & Associates, Inc.
Address: 337 East Third Street, Frederick, Maryland 21701
Phone: 301-694-0428 Date: 1 & 6 Dec. 19

47. Form filled out by: April Fehr; R. Christopher Goodwin & Associates, Inc.
Address: 337 East Third Street, Frederick, Maryland 21701
Phone: 301-694-0428 Date: March 3, 199

48. Additional Comments:

F. For Division of Archeology Use Only

49. Form transcribed by: _____ 50. Date: _____
51. Form checked by: _____
52. Entered on computer by: _____ 53. Date: _____
54. Form updated by: _____ 55. Date: _____

Site Number 18 TA217 - update

(Shaded areas are for Division of Archeology use only)

1. Site type (check all applicable):

____ village	____ earthen mound
____ hamlet	____ shell midden
____ base camp	____ fish weir
____ short-term resource procurement	____ submerged prehistoric
____ lithic quarry/extraction	____ lithic scatter
____ rockshelter/cave	X unknown
____ cairn	____ other:

2. Categories of aboriginal material or remains present at site (check all applicable):

____ flaked stone	____ human skeletal remains
____ ground stone	____ faunal implements/ornaments
____ stone bowls	____ faunal material
____ fire-cracked rock	____ oyster shell
____ other lithics	____ floral material
____ ceramics (vessels)	____ unknown
____ other fired clay	X other:
	no artifacts recovered

3. Lithic materials (check all applicable):

____ jasper	____ steatite
____ chert	____ sandstone
____ rhyolite	____ silicified sandstone
____ quartz	____ ferruginous quartzite
____ quartzite	____ European flint
____ chalcedony	____ basalt
____ ironstone	____ unknown
____ argillite	____ other:

4. Diagnostics (choose from manual and give number recovered or observed):

____	____
____	____
____	____
____	____

5. Features present:

____ yes
X no
____ unknown

6. Types of features identified (check all applicable):

____ midden	
____ postmolds	____ refuse/storage pits
____ house patterns	____ burials
____ palisade	____ ossuaries
____ hearths	____ unknown
____ chipping clusters	____ other:

PREHISTORIC DATA FORM

7. Method of sampling (check all applicable):

____ non-systematic surface search
_X_ systematic surface collection
____ non-systematic shovel test pits
_X_ systematic shovel test pits
____ excavation units
____ mechanical excavation
_X_ other: auger; nearshore hand held induction dredge

extent/nature of excavation: ~~3 shovel tests; 3 dredge tests~~

8. Flotation samples collected:

____ yes
_X_ no
____ unknown

analyzed:

____ yes, by ____
____ no
____ unknown

9. Samples for radiocarbon dating collected:

____ yes
_X_ no
____ unknown

Dates and Lab Reference Nos. ____

10. Soil samples collected:

____ yes
_X_ no
____ unknown

analyzed:

____ yes, by ____
____ no
____ unknown

11. Other analyses (specify): ____

12. Additional comments:

0.12 ac marsh islet remains; no prehistoric material recovered; site destroyed/submerged.

13. Form filled out by: April Fehr, R. Christopher Goodwin & Associates, Inc.
Address/Affiliation: 337 East Third Street, Frederick, Maryland 21701
Date: March 3, 1995

For Division of Archeology Use Only

14. Form transcribed by: ____ 15. Date: ____
16. Form checked by: ____
17. Entered on computer by: ____ 18. Date: ____
19. Form updated by: ____ 20. Date: ____

MARYLAND ARCHEOLOGICAL SITE SURVEY: BASIC DATA FORM

Maryland Department of Natural Resources
Division of Archeology

Maryland Geological Survey
2300 St. Paul Street
Baltimore, Maryland 21218

Site Number 18 TA219 - update

(haded areas are for Division of Archeology use only)

A. Designation

1. County: Talbot

2. Site Number: 18TA219

3. Site Name: North Point Island

4. Site Type (check all applicable):
   - X Prehistoric
   - ____ Historic
   - ____ Unknown

5. Maryland Archeological Research Unit Number: 4

I Location

6. USGS 7.5' Quad-rangle(s): Claiborne, Maryland 1942 (Photo revised 1986)
   (Photocopy section of quad(s) on page 4 and mark site location)

7. UTM Coordinates at Center of Site Zone: ____

8. Easting: ____

9. Northing: ____

10. Physiographic Province (check one):
    - ____ Allegheny Plateau
    - ____ Ridge and Valley
    - ____ Great Valley
    - ____ Blue Ridge
    - ____ Lancaster/Frederick Lowland
    - ____ Eastern Piedmont
    - ____ Western Shore Coastal Plain
    - X Eastern Shore Coastal Plain

11. Nearest Water Source: Chesapeake Bay ____ Order

12. 2nd Nearest Water Source: ____ ____ Order

13. 3rd Nearest Water Source: ____ ____ Order

14. 4th Nearest Water Source: ____ ____ Order

C. Environmental Data

15. Closest Surface Water Type (check all applicable):

____ Ocean	____ Freshwater Stream/River
X Estuarine Bay/Tidal River	____ Freshwater Swamp
____ Tidal or Marsh	____ Lake or Pond
	____ Spring

16. Distance from closest surface water: 0 meters (or ____ feet)

17. SCS Typology:

18. Topographic Settings (check all applicable):

____ Floodplain	____ Hilltop/Bluff
____ Interior Flat	____ Upland Flat
____ Terrace	____ Ridgetop
____ Low Terrace	____ Rockshelter/Cave
____ High Terrace	____ Unknown
____ Hillslope	X Other: submerged/destroyed

19. Slope:

20. Elevation: 0 meters (or ____ feet) above sea level

21. Land use at site when last field checked: ____ D
(check all applicable)

____ Plowed/Tilled	____ Extractive
____ No-Till	____ Military
____ Wooded/Forested	____ Recreational
____ Logging/Logged	____ Residential
____ Underbrush/Overgrown	____ Ruin
____ Pasture	____ Standing Structure
____ Cemetery	____ Transportation
____ Commercial	____ Unknown
____ Educational	X Other: submerged/destroyed

22. Condition of Site (check all applicable): ____ D

____ UNDISTURBED	DESTROYED	X UNKNO
	____ minor (0-10%)	
DISTURBED	____ moderate (10-60%)	
____ Plowed	____ major (60-99%)	
____ Eroded	____ total (100%)	
____ Graded/Contoured	____ % unknown	
____ Collected		
____ Vandalized		
____ Dredged		
____ Other:		

23. Additional Comments on Environment: Site no longer exists as terrestrial site, probably destroyed although unknown if portion survives as submerged site.

I. Description

24. Site Type A (check all applicable):

PREHISTORIC
X Lithics
_____ Ceramics
_____ Shell Midden
_____ Unknown
_____ Other:
_____

HISTORIC
_____ Cemetery
Domestic:
_____ urban
_____ rural
_____ Educational
Industrial:
_____ urban
_____ rural
_____ Military
_____ Religious
_____ Water Transportation
_____ Unknown
_____ Other:
_____

_____ UNKNOW

25. Site Type B (check one):

_____ Terrestrial
? Underwater
_____ Bo

26. Cultural Affiliation (check all applicable):

PREHISTORIC
X Unknown

_____ Paleoindian
_____ Archaic
_____ Early Archaic
_____ Middle Archaic
_____ Late Archaic
_____ Woodland
_____ Early Woodland
_____ Middle Woodland
_____ Late Woodland

_____ CONTACT

HISTORIC
_____ Unknown

17th century
_____ 1630-1675
_____ 1675-1720
18th century
_____ 1720-1780
_____ 1780-1820
19th century
_____ 1820-1860
_____ 1860-1900
20th century
_____ 1900-1930
_____ post 1930

_____ UNKNOW

27. State Plan Themes: _____

28. Site length: _____ meters (or ____ feet)

29. Site width: _____ meters (or ____ feet)

30. Is site confined to plowzone?
_____ Yes
_____ No
_____ Unknown

31. Does site have subsurface integrity?
_____ Yes
_____ No
_____ Unknown

Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow.

Site no longer present

:. Support Data (Use additional sheets if needed)

32. Accompanying Data Form(s):

__X__ Prehistoric
_____ Historic
_____ Submerged
_____ Shipwreck

33. Ownership:

_____ Private
__X__ Public
_____ Unknown

34. Owner: _____
Address: _____
Phone: _____ Date: _____

35. Tenant: _____
Address: _____
Phone: _____ Date: _____

36. Known Investigations:
Lowery 1992
R. Christopher Goodwin & Associates, Inc., 1993/1994

37. Reports (Author & year):
Lowery 1992
R. Christopher Goodwin & Associates, Inc. 1994

38. Other Records?

__X__ Yes
_____ No
_____ Unknown

39. If YES, type and location:
field records; R. Christopher Goodwin & Associates, Inc. (to be turned over to Maryland Historical Trust)

40. Collections?

__X__ Yes
_____ No
_____ Unknown

41. If YES, give owner and location:
Lowery 1992

42. Artifact Conservation?

_____ Yes
_____ Partial
__X__ No
_____ Unknown

43. Maryland Register Status:

_____ Listed on register
_____ Nomination pending
_____ Determined eligible (formal)
_____ Considered eligible (consensus)
_____ Not eligible
_____ Insufficient data

44. National Register Status:

_____ Listed on register
_____ Nomination pending
_____ Determined eligible (formal)
_____ Considered eligible (consensus)
_____ Not eligible
_____ Insufficient data

45. Informant: _____
Address: _____
Phone: _____ Date: _____

46. Site visited by: R. Christopher Goodwin & Associates, Inc.
Address: 337 East Third Street, Frederick, Maryland 21701
Phone: 301-694-0428 Date: Nov./Dec. 1994

47. Form filled out by: April Fehr, R. Christopher Goodwin & Associates, Inc.
Address: 337 East Third Street, Frederick, Maryland 21701
Phone: 301-694-0428 Date: March 2, 1995

48. Additional Comments:

F. For Division of Archeology Use Only

49. Form transcribed by: _____ 50. Date: _____
51. Form checked by: _____
52. Entered on computer by: _____ 53. Date: _____
54. Form updated by: _____ 55. Date: _____

Site Number 18_____

(Shaded areas are for Division of Archeology use only)

1. Site type (check all applicable):

____	village	____	earthen mound
____	hamlet	____	shell midden
____	base camp	____	fish weir
____	short-term resource procurement	____	submerged prehistoric
____	lithic quarry/extraction	____	lithic scatter
____	rockshelter/cave	X	unknown
____	cairn	____	other:

2. Categories of aboriginal material or remains present at site (check all applicable):

X	flaked stone	____	human skeletal remains
____	ground stone	____	faunal implements/ornaments
____	stone bowls	____	faunal material
____	fire-cracked rock	____	oyster shell
____	other lithics	____	floral material
____	ceramics (vessels)	____	unknown
____	other fired clay	____	other:

3. Lithic materials (check all applicable):

____	jasper	____	steatite
____	chert	____	sandstone
____	rhyolite	____	silicified sandstone
X	quartz	____	ferruginous quartzite
____	quartzite	____	European flint
____	chalcedony	____	basalt
____	ironstone	____	unknown
____	argillite	____	other:
		1	quartz flake recovered

4. Diagnostics (choose from manual and give number recovered or observed):

5. Features present:

____ yes
X no
____ unknown

6. Types of features identified (check all applicable):

____	midden		
____	postmolds	____	refuse/storage pits
____	house patterns	____	burials
____	palisade	____	ossuaries
____	hearths	____	unknown
____	chipping clusters	____	other:

7. Method of sampling (check all applicable):
   - ____ non-systematic surface search
   - X systematic surface collection
   - ____ non-systematic shovel test pits
   - X systematic shovel test pits
   - ____ excavation units
   - ____ mechanical excavation
   - X other: auger; nearshore hand held induction dredge

   extent/nature of excavation: 15 shovel tests, 8 auger tests, 14 dredge tests

8. Flotation samples collected:
   - ____ yes
   - X no
   - ____ unknown

   analyzed:
   - ____ yes, by ____
   - ____ no
   - ____ unknown

9. Samples for radiocarbon dating collected:
   - ____ yes
   - X no
   - ____ unknown

   Dates and Lab Reference Nos. ____

10. Soil samples collected:
    - ____ yes
    - X no
    - ____ unknown

    analyzed:
    - ____ yes, by ____
    - ____ no
    - ____ unknown

11. Other analyses (specify): ____

12. Additional comments:
    1.8 ac marsh islet remains; 1 quartz flake recovered from surface; site destroyed/submerged.

13. Form filled out by: ____
    Address/Affiliation: ____
    Date: ____

For Division of Archeology Use Only

14. Form transcribed by: ____ 15. Date: ____
16. Form checked by: ____
17. Entered on computer by: ____ 18. Date: ____
19. Form updated by: ____ 20. Date: ____

MARYLAND ARCHEOLOGICAL SITE SURVEY: BASIC DATA FORM

Maryland Department of Natural Resources
Division of Archeology

Maryland Geological Survey
2300 St. Paul Street
Baltimore, Maryland 21218

Site Number 18 TA237 - UPDATE

(Shaded areas are for Division of Archeology use only)

A. Designation

1. County: Talbot

2. Site Number: 18TA237

3. Site Name: Soth Central Island

4. Site Type (check all applicable):
   - ____ Prehistoric
   - X Historic
   - ____ Unknown

5. Maryland Archeological Research Unit Number: 4

. Location

6. USGS 7.5' Quad-rangle(s): Claiborne, Maryland 1942 (Photo revised 1986)
   (Photocopy section of quad(s) on page 4 and mark site location)

7. UTM Coordinates at Center of Site Zone: ____

8. Easting: ____

9. Northing: ____

10. Physiographic Province (check one):
    - ____ Allegheny Plateau
    - ____ Ridge and Valley
    - ____ Great Valley
    - ____ Blue Ridge
    - ____ Lancaster/Frederick Lowland
    - ____ Eastern Piedmont
    - ____ Western Shore Coastal Plain
    - X Eastern Shore Coastal Plain

11. Nearest Water Source: Chesapeake Bay ____ Order

12. 2nd Nearest Water Source: ____ ____ Order

13. 3rd Nearest Water Source: ____ ____ Order

14. 4th Nearest Water Source: ____ ____ Order

C. Environmental Data

15. Closest Surface Water Type (check all applicable):

____ Ocean	____ Freshwater Stream/River
X Estuarine Bay/ Tidal River	____ Freshwater Swamp
____ Tidal or Marsh	____ Lake or Pond
	____ Spring

16. Distance from closest surface water: 0 meters (or____ feet)

17. SCS Typology:

18. Topographic Settings (check all applicable):

____ Floodplain	____ Hilltop/Bluff
____ Interior Flat	____ Upland Flat
____ Terrace	____ Ridgetop
____ Low Terrace	____ Rockshelter/Cave
____ High Terrace	____ Unknown
____ Hillslope	X Other: Marsh islet

19. Slope:

20. Elevation: ____ meters (or____ feet) above sea level

21. Land use at site when last field checked: _____ Da
(check all applicable)

____ Plowed/Tilled	____ Extractive
____ No-Till	____ Military
____ Wooded/Forested	X Recreational
____ Logging/Logged	____ Residential
____ Underbrush/Overgrown	____ Ruin
____ Pasture	____ Standing Structure
____ Cemetery	____ Transportation
____ Commercial	____ Unknown
____ Educational	____ Other:

22. Condition of Site (check all applicable): _____ Dat

____ UNDISTURBED

DISTURBED
____ Plowed
____ Eroded
____ Graded/Contoured
____ Collected
____ Vandalized
____ Dredged
____ Other:

DESTROYED
____ minor (0-10%)
X moderate (10-60%)
____ major (60-99%)
____ total (100%)
____ % unknown

____ UNKNOWN

23. Additional Comments on Environment:

Description

24. Site Type A (check all applicable):

PREHISTORIC
_____ Lithics
_____ Ceramics
_____ Shell Midden
_____ Unknown
_____ Other:
_____

HISTORIC
_____ Cemetery
Domestic:
_____ urban
__X__ rural
_____ Educational
Industrial:
_____ urban
_____ rural
_____ Military
_____ Religious
_____ Water Transportation
_____ Unknown
_____ Other:
_____

_____ UNKNOW

25. Site Type B (check one):

_____ Terrestrial
_____ Underwater
__X__ Bo

26. Cultural Affiliation (check all applicable):

PREHISTORIC
__X__ Unknown

_____ Paleoindian
_____ Archaic
_____ Early Archaic
_____ Middle Archaic
_____ Late Archaic
_____ Woodland
_____ Early Woodland
_____ Middle Woodland
_____ Late Woodland

_____ CONTACT

HISTORIC
_____ Unknown

17th century
_____ 1630-1675
__X__ 1675-1720
18th century
__X__ 1720-1780
__X__ 1780-1820
19th century
__X__ 1820-1860
__X__ 1860-1900
20th century
_____ 1900-1930
_____ post 1930

_____ UNKNOW

27. State Plan Themes: _____

28. Site length: _____ meters (or 500 feet)

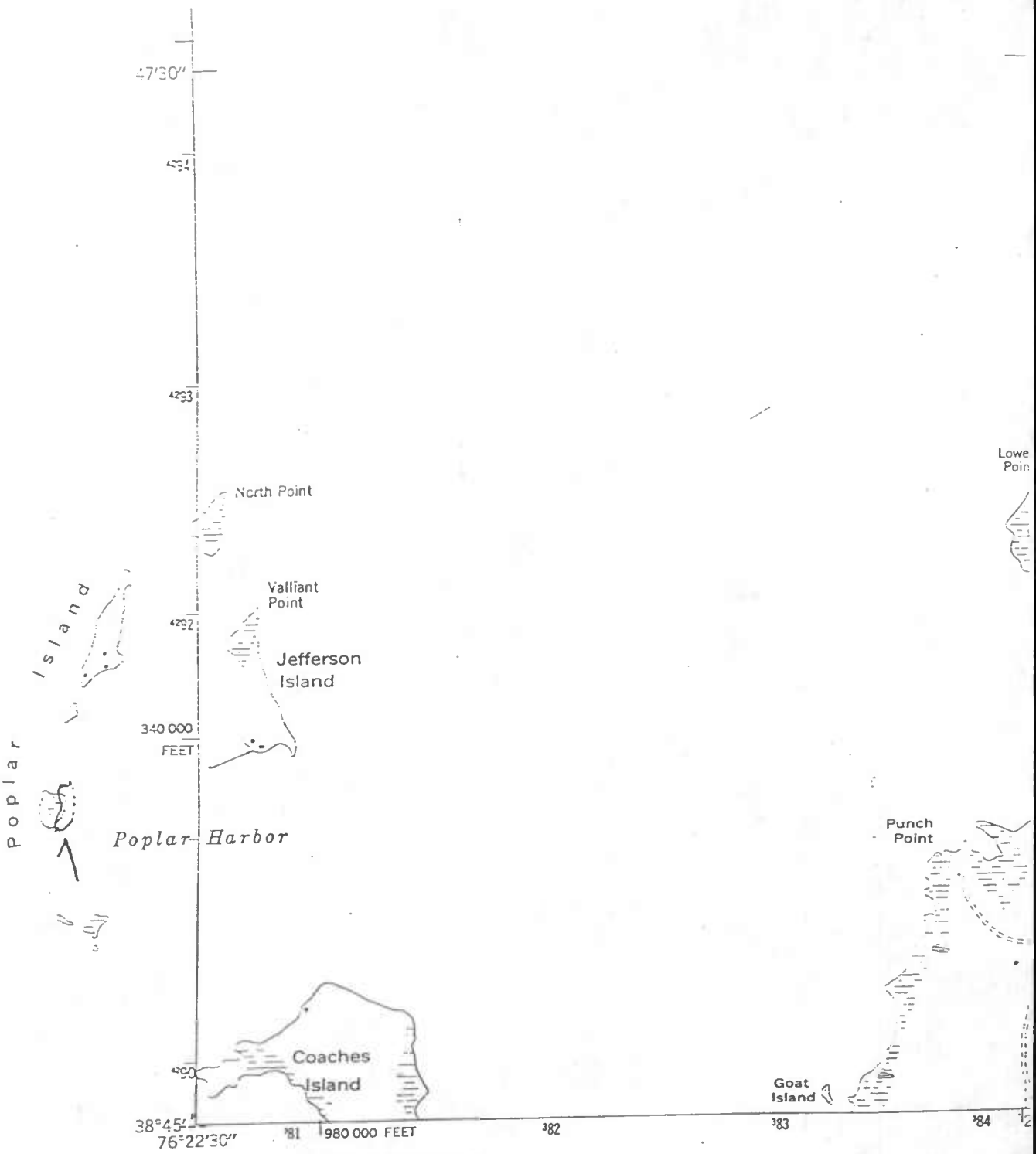
29. Site width: _____ meters (or ? feet)

30. Is site confined to plowzone?
_____ Yes
_____ No
_____ Unknown

31. Does site have subsurface integrity?
_____ Yes
__X__ No
_____ Unknown

BASIC DATA FORM

Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow.



Mapped by the Army Map Service
Edited and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1942 and planetable surveys 1942

Polyconic projection. 10,000-foot grid ticks based on Maryland coordinate system
1000-meter Universal Transverse Mercator grid ticks, zone 18, shown in blue
1927 North American Datum
To place on the predicted North American Datum 1983 move the projection lines 8 meters south and

UTM GRID AND 1986 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

:. Support Data (Use additional sheets if needed)

32. Accompanying Data Form(s):

____ Prehistoric
X Historic
____ Submerged
____ Shipwreck

33. Ownership:

____ Private
X Public
____ Unknown

34. Owner:
Address:
Phone: Date:

35. Tenant:
Address:
Phone: Date:

36. Known Investigations: R. Christopher Goodwin & Associates, Inc., 1993/1994/1995

37. Reports (Author & year): R. Christopher Goodwin & Associates, Inc., 1994;1995

38. Other Records?
X Yes
____ No
____ Unknown

39. If YES, type and location: Field records; R. Christopher Goodwin & Assoicates, Inc. (to be turned over to Maryland Historical Trust)

40. Collections?
X Yes
____ No
____ Unknown

41. If YES, give owner and location: R. Christopher Goodwin & Assoicates, Inc. (to be turned over to Maryland Historical Trust)

42. Artifact Conservation?
____ Yes
X Partial
____ No
____ Unknown

43. Maryland Register Status:

_____ Listed on register
_____ Nomination pending
_____ Determined eligible (formal)
_____ Considered eligible (consensus)
_____ Not eligible
_____ Insufficient data

44. National Register Status:

_____ Listed on register
_____ Nomination pending
_____ Determined eligible (formal)
_____ Considered eligible (consensus)
__X__ Not eligible
_____ Insufficient data

45. Informant: _____
Address: _____
Phone: _____ Date: _____

46. Site visited by: R. Christopher Goodwin & Assoicates, Inc.
Address: 337 East Third Street, Frederick, Maryland 21701
Phone: 301-694-0428 Date: Nov/Dec 1994
July 1995

47. Form filled out by: April Fehr; R. Christopher Goodwin & Associates, Inc.
Address: 337 East Third Street, Frederick, Maryland 21701
Phone: 301-694-0428 Date: August 24, 1995

48. Additional Comments:

F. For Division of Archeology Use Only

49. Form transcribed by: _____ 50. Date: _____
51. Form checked by: _____
52. Entered on computer by: _____ 53. Date: _____
54. Form updated by: _____ 55. Date: _____

MARYLAND ARCHEOLOGICAL SITE SURVEY: HISTORIC DATA FORM

Site Number 18TA237

(Shaded areas are for Division of Archeology use only)

1. Site Class (check all applicable, check at least one from each group):

a.
- X domestic
- ___ industrial
- ___ transportation
- ___ military
- ___ sepulchre
- ___ unknown

b.
- ___ urban
- X rural
- ___ unknown

c. standing structure:
- ___ yes
- X no
- ___ unknown

d. above-grade/visible ruin:
- X yes
- ___ no
- ___ unknown

2. Site Type (check all applicable):
- X artifact concentration
- ___ possible structure
- ___ post-in-ground structure
- ___ frame structure
- ___ masonry structure
- ___ farmstead
- ___ plantation
- ___ townsite
- ___ mill (specify: ___)
- ___ raceway
- ___ quarry
- ___ furnace/forge
- ___ other industrial (specify): ___
- ___ road/railroad
- ___ wharf/landing
- ___ bridge
- ___ ford
- ___ battlefield
- ___ military fortification
- ___ military encampment
- ___ cemetery
- ___ unknown
- X other: brick rubble

3. Ethnic Association:
- ___ Native American
- X Afroamerican
- X Angloamerican
- ___ other Euroamerican (specify): ___
- ___ Hispanic
- ___ Asian-American
- ___ unknown
- ___ other: ___

4. Categories of material remains present (check all applicable):
- X ceramics
- X bottle/table glass
- X other kitchen artifacts
- X architecture
- X furniture
- X arms
- X clothing
- X personal items
- X tobacco pipes
- ___ activity items
- ___ human skeletal remains
- X faunal remains
- ___ floral remains
- ___ organic remains
- ___ unknown
- ___ other: ___

5. Diagnostics (choose from manual and give number recorded or observed): Phase II

1 North Devon Gravel Tempered
3 North Devon Scrafitto
4 Creamware
7 Domestic Brown Stoneware
3 Early Porcelain type
2 Early White Stoneware
3 Imported Brown Stoneware
19 Industrial Stoneware
31 Redware
8 Slipware
1 Tin Enamelled Earthenware
65 Whiteware
6 Yellow ware
17 ceramic pipe stems (measurable bores)
350 modern machine-made glass
16 Ironstone

HISTORIC DATA FORM

6. Features present:
   - X yes
   - ____ no
   - ____ unknown

7. Types of features present:
   - X construction feature
   - ____ foundation
   - ____ cellar hole/storage cellar
   - ____ hearth/chimney base
   - ____ posthole/postmold
   - ____ paling ditch/fence
   - ____ privy
   - ____ well/cistern
   - ____ trash pit/dump
   - X sheet midden (deflated/reworked beach deposit)
   - ____ planting feature
   - ____ road/drive/walkway
   - ____ depression/mound
   - ____ burial
   - ____ railroad bed
   - ____ earthworks
   - ____ raceway
   - ____ wheel pit
   - ____ unknown
   - ____ other: ____

8. Method of sampling (check all applicable):
   - ____ non-systematic surface search
   - X systematic surface collection
   - ____ non-systematic shovel test pits
   - ____ excavation units
   - ____ mechanical excavation

   extent/nature of excavation: Phase I: 11 nearshore dredge test; 11 auger tests; 9 shovel tests Phase II: 35 shovel tests, 18 auger tests, 3 tests units, 2 trenches

9. Flotation samples collected:
   - ____ yes
   - X no
   - ____ unknown

   analyzed:
   - ____ yes, by ____
   - ____ no
   - ____ unknown

10. Soil samples collected:
    - ____ yes
    - X no
    - ____ unknown

    analyzed:
    - ____ yes, by ____
    - ____ no
    - ____ unknown

11. Other analyses (specify): ____

12. Additional Comments:

    site represents a deflated and reworked/redeposited beach deposit

13. Form filled out by: April Fehr; R. Christopher Goodwin & Associates, Inc.
    Address/Affiliation: 337 East Third Street, Frederick, MD 21701
    Date: August 24, 1995

For Division of Archeology Use Only

14. Form transcribed by: ____ 15. Date: ____
16. Form checked by: ____
17. Entered on computer by: ____ 18. Date: ____
19. Form updated by: ____ 20. Date: ____

APPENDIX IV

RESUMES OF KEY PROJECT PERSONNEL

APRIL L. FEHR, M.A.

ADMINISTRATOR/PROJECT MANAGER

Ms. April Fehr, M.A., received a Bachelor of Arts degree in history from George Mason University in 1975. She received her Master of Arts degree from The Catholic University of America in 1979. Ms. Fehr has over eleven years of archeological experience in the Mid-Atlantic region, and four years in Florida. Her research interests include ceramic technology, the Late Woodland period, and the application of archival study to archeological problems. She has teaching, supervisory, and archival experience, and she has authored numerous professional reports. Ms. Fehr has had extensive experience dealing with Woodland period sites and site analysis.

In 1983, Ms. Fehr was a director of the Thunderbird Museum and Catholic University field school, Front Royal, Virginia. In addition to teaching field school classes and undertaking administrative tasks, Fehr directed excavations at the Sours Site, an early Late Woodland upland hamlet in Warren County, Virginia. Ms. Fehr presented papers dealing with her Late Woodland research at meetings of the Archeological Society of Virginia and at a series of talks sponsored by the Thunderbird Museum and partially funded by the Virginia Foundation for the Humanities and Public Policy. Ms. Fehr has studied pedology and geomorphology for archeologists, and is trained In lithic analysis. She has worked throughout Virginia, Pennsylvania, Maryland, New Jersey, Florida, and Puerto Rico.

In addition to her work on prehistoric sites in the Mid-Atlantic region, Ms. Fehr also has extensive experience on historic sites. While at Goodwin & Associates, Inc. she directed excavations at the Baltimore Stadium project, the Greenspring East Lime Kiln, Baltimore County, Maryland, the Barbara Fritchie Tea Room Frederick, Maryland, and the Drane House, Garrett County, Maryland. She also served as project manager for a survey of the historic and prehistoric resources of Chincoteague, Back Bay, and Cape Charles Wildlife Refuges in southeastern Virginia.

Fehr was one of the first employees of Goodwin & Associates' Maryland office, acting as Project Manager from 1987 to 1988, and as Assistant Vice President from 1988 to 1990. Ms. Fehr subsequently served as the County Archeologist in Sarasota County, Florida, from January 1991 to January 1993, and Director of the Sarasota County Department of Historical Resources from February 1993 to May 1994. During her tenure with Sarasota County, Fehr applied and expanded her training in preservation legislation. She designed and wrote local preservation regulations, including changes to Zoning and Land Development regulations and to the County's Comprehensive Plan; she was responsible for shepherding these regulations through the local political process. Fehr also developed and maintained a computerized database and Geographic Information System for the County's cultural resources. She served on the Board of Directors of Timesifters, the local organization of the Florida Anthropological Society, and she currently serves on the Board of Directors of the Florida Archaeological Council. Ms. Fehr returned to Goodwin & Associates, Inc. in 1994 as Administrator. Since her return, she has directed archeological investigations in Annapolis, Maryland, Talbot County, Maryland, and Long Island, New York.

R. CHRISTOPHER GOODWIN, Ph.D.

PRESIDENT & CEO

Dr. R. Christopher Goodwin, is President and Director of Research of R. Christopher Goodwin & Associates, Inc., a preservation planning and research and compliance firm with offices in Frederick, Maryland, New Orleans, Louisiana, and Tallahassee, Florida. A native of Maryland, he is a former Yale Peabody Museum Research Associate (1976) and Smithsonian Institution (1979-1980) Research Fellow and Scholar-in-Residence. Dr. Goodwin holds degrees in Anthropology/Archeology from Tulane (B.A.), Florida State (M.S.), and Arizona State (Ph.D), Universities.

Dr. Goodwin is recognized as one of the nation's leading experts in cultural resource management. He has been a contractor to the U.S. Army Corps of Engineers (Baltimore, Memphis, New Orleans, Pittsburgh, Savannah, and Vicksburg Districts), to the Naval Facilities Engineering Command, and to the Department of Defense on numerous projects. During the past ten years, he has served as Principal Investigator for major cultural resource investigations conducted by his firm in the Mid-Atlantic, Southeastern, Western, and Caribbean Regions. These projects have included such large-scale efforts as the architectural and archeological investigation at Baltimore's Oriole Park at Camden Yards stadium site; development of Cultural Resource Master Plans for Fort Detrick, Ft. George Meade, and Aberdeen Proving Ground, Maryland; and, Phase II and III investigations of the steamship *Columbus*, in Maryland.

Dr. Goodwin's expertise also has been called upon for historic preservation planning projects, and for Industrial and governmental agency compliance with federal and state laws and regulations governing archeological and historic sites. He has served as Principal Investigator on preservation and compliance projects for the National Capital, Southeast, and Southwest regions of the National Park Service (NPS); the Department of Energy (DOE); Her Majesty's Service, U.K.; the Louisiana Division of Archaeology; major utility companies, including Allegheny Power, ENRON, Texaco, Southern Natural Gas (SONAT), Baltimore Gas and Electric Company, and Peabody Coal; the U.S. Fish and Wildlife Service, Northeast Region; the City of Annapolis; and, the Maryland Historical Trust. The geographic range of research and compliance projects completed under Goodwin's direction encompasses the Leeward Islands, Puerto Rico, the Bay Islands of Honduras, Maryland, Virginia, West Virginia, Pennsylvania, Illinois, Arkansas, Florida, Georgia, Louisiana, Mississippi, California, and Texas. Dr. Goodwin has published widely in the fields of prehistoric and historic archeology, and ethnohistory. His areas of particular expertise include preservation planning, cultural resource management, cultural ecology, prehistoric demography, field methods in archeology, human osteology, and historic archeology. He is a court-qualified expert in both historic archeology and in cultural resource management. He was a recipient of the National Trust for Historic Preservation's National Preservation Honor Award for his work at Maryland's oldest surviving historic building, the Third Haven Meeting House, and of the Anne Arundel County Trust for Historic Preservation's Achievement in Archeology Award in 1992 and 1993. In addition to numerous technical reports and monographs, Dr. Goodwin has contributed articles to numerous scholarly journals, including *American Anthropologist, American Antiquity*, the *Florida Anthropologist*, and *American Scientist*. Dr. Goodwin is listed in *Who's Who in Leading American Executives* and *Who's Who Among Outstanding Americans*.

DAVID S. ROBINSON, B.A.

ASSISTANT PROJECT MANAGER/NAUTICAL ARCHEOLOGIST/ CONSERVATOR/DIVING SAFETY OFFICER

David S. Robinson, B.A., was graduated with distinction from the University of Rhode Island in 1990 with a double-major degree in Anthropology and in Art. He presently is enrolled in the Graduate Program in Nautical Archeology at Texas A&M University's Institute of Nautical Archaeology (INA), where he will receive his Master of Arts degree in 1996. His research interests include wooden ship design and construction, nineteenth century maritime history, steamboat technology, conservation and curation of archeological resources, and scientific diving policy. Mr. Robinson has extensive formal training and experience in all phases of nautical archeology, conservation, and diving safety, and has conducted archeological and archival research in the District of Columbia, Louisiana, Maryland, Massachusetts, Michigan, New York, Pennsylvania, Ohio, Rhode Island, Texas, Vermont, and Virginia.

As a graduate student at Texas A&M University, Mr. Robinson worked with Dr. George F. Bass as an INA Graduate Research Assistant, designing and curating INA exhibits, and participated in INA's archeological studies of an eleventh century AD Byzantine shipwreck, and the thirteenth century BC wreck. He also conducted archival research on, and conserved artifacts from, the submerged seventeenth century British city of Port Royal, Jamaica and served as Dr. Kevin J. Crisman's Graduate Research Assistant and Divemaster during INA projects in Lake Champlain, Vermont, where he documented the steamboat *Champlain II*, the sailing canal boat *General Butler*, and the world's only known surviving example of a horse-powered ferry.

Before joining Goodwin & Associates, Mr. Robinson served as an archeological consultant and chief conservator for the Lake Champlain Maritime Museum at Basin Harbor, Vermont. In this capacity, Mr. Robinson managed the conservation laboratory and staff, conducted educational tours, and documented and conserved more than 900 iron, copper alloy, wooden, glass, stone, bone, vegetable fiber, lead, and leather artifacts recovered from the submerged remains of the Revolutionary War bridge at Mount Independence, Vermont. From 1991-93, Mr. Robinson also worked with the Smithsonian Institution's National Museum of American History as Assistant Field Director and Principal Ship Reconstructor on the *Indiana* Project, a three-year underwater archeological study of an early screw-propelled steamboat lost in Lake Superior. This project is the topic of Mr. Robinson's master's thesis.

Since joining Goodwin & Associates in 1993, Mr. Robinson has been involved with numerous Phase I, II, and III archeological investigations of both terrestrial and underwater sites, including remote sensing surveys of Baltimore Harbor, Chesapeake Bay, the Delaware River, Virginia Beach, and the Gulf of Mexico. He also has conducted extensive archival research at National Archives and Library of Congress, in Washington, D.C. Most recently, Mr. Robinson directed the HABS/HAER recordation of six historic vessels on Bayou DuLarge, Terrebonne Parish, Louisiana, and underwater investigations on Chesapeake Bay and the Red River, where he surveyed inundated terrestrial occupation sites at Poplar Island, Maryland, and documented the wreck of a Civil War troop-transport, lost near Shreveport, Louisiana. This year, he also completed an intensive inventory and conservation needs evaluation for a collection of artifacts from the Civil War vessels C.S.S. *Florida* and U.S.S. *Cumberland*, on behalf of the U.S. Navy, Atlantic Division, Naval Facilities Engineering Command (LANTDIV). The project's Final Report, submitted to the Hampton Roads Naval Museum, where the artifacts are housed, LANTDIV, and several other outside agencies for review, is now recognized as the standard for investigations of this nature. In addition to numerous technical reports and the *Diving Safety Manual* Mr. Robinson has written for the company, he also authored the *Lake Champlain Maritime Museum Conservation Manual*, and has published articles in the *International Journal of Nautical Archaeology and Underwater Exploration* and the *Institute of Nautical Archaeology Quarterly*.

Mr. Robinson is a certified scuba diving instructor, with extensive experience as a scientific diving operations supervisor. In 1995, he was appointed as Goodwin & Associates Diving Safety Officer, and is now responsible for overseeing all aspects of the company's scientific diving operations. Currently, Mr.

Robinson is leading an effort to establish R. Christopher Goodwin & Associates, Inc. as an Organizational Member of the American Academy of Underwater Sciences.

Mr. Robinson's professional affiliations include: the Society for Historical Archeology, the American Academy of Underwater Sciences, the Institute of Nautical Archaeology, the Divers Alert Network, and the Professional Association of Diving Instructors.

MARTHA R. WILLIAMS, M.A., M.ED.
HISTORIC SITE SPECIALIST

Ms. Martha R. Williams, a graduate of Lebanon Valley College, holds advanced degrees in Education from the University of Pennsylvania and in Applied History from George Mason University. Her extensive experience in education, cultural resource management, and historical archeology includes a field school at Colonial Williamsburg (1972); employment with the National Park Service as an archeological laboratory technician; and appointment as a field archeologist for the 1991 and 1992 excavations at Fort Raleigh, North Carolina. As co-director of the Fairfax County High School Seminars in Historical Archaeology (1973-1987), she managed 15 archeological projects, ranging from Phase I reconnaissance studies to Phase III data recovery efforts. In 1987, she co-authored the Heritage Resources Management Plan for Fairfax County, Virginia.

Since joining R. Christopher Goodwin & Associates, Inc., Ms. Williams has served as historian, project manager, and public interpretation specialist for numerous studies conducted by the firm. She has co-authored reports for projects in Anne Arundel, Baltimore, Charles, Frederick, Harford, Prince Georges, St. Mary's, Talbot, and Washington Counties, and Baltimore City in Maryland; in Arlington, Fairfax, Henrico, Halifax, Westmoreland, and Prince William Counties in Virginia; and in the District of Columbia, Pennsylvania, North Carolina, Mississippi, and Puerto Rico. As public interpretation specialist, she designed and executed successful public information activities for the company's Stadium Project in Baltimore; the Drane House project in Garrett County, Maryland; the Icehouse Square project in Gettysburg, Pennsylvania; at the Gott's Court site in Annapolis, Maryland; at Pemberton Plantation in Salisbury, Maryland; and for two public information and training projects under the Legacy Program of the Department of Defense.

Ms. Williams also is actively involved with professional preservation organizations. She has served as Vice-President of the Archeological Society of Virginia, and currently sits on the ASV Board of Directors. She has written for numerous publications, including the *Yearbook* of the Historical Society of Fairfax County, *Museum News, Interpretation* (NPS), the *Quarterly Bulletin* of the Archeological Society of Virginia, and *American Antiquity*. In 1991, she received a Distinguished Service Award from the Fairfax County History Commission for her contributions to local history and preservation. She was recognized in 1992 by the Society for Historical Archaeology for her two-year service as Chair of that organization's Committee on Public Education, a position that she currently holds. In 1994, Ms. Williams was an invited participant in the "Save the Past for the Future II" conference, sponsored by the Society for American Archeology.

JOHN L. SEIDEL, PHD

ASSISTANT VICE PRESIDENT - NAUTICAL ARCHEOLOGICAL SERVICES

Dr. John L. Seidel received his baccalaureate degree from Drew University in 1976, and his graduate degrees from the University of Pennsylvania: M.A.s in Anthropology and American Civilization in 1980 and 1981, respectively, and a Ph.D. in Historical Archaeology in 1987. At the University of Pennsylvania, Dr. Seidel served as a teaching assistant and as a research assistant in the University Museum. He supervised excavations at the Maya site of Quirigua and co-authored the report on those investigations. Dr. Seidel gained considerable experience in cultural resource management with the Rutgers Archeological Survey Office, where he served as crew chief on numerous Phase I-III projects.

Dr. Seidel has taught archaeology at both Rutgers University and the University of Maryland, College Park, including field schools in underwater and terrestrial archeology and courses in historic preservation and cultural resource management. While at Rutgers, Dr. Seidel directed interdisciplinary investigations at Henry Knox's winter cantonment of 1778-1779 and acted as Principal Investigator on many investigations of military sites for the National Park Service. As Associate Director of the University of Maryland's Archaeology in Annapolis program, Dr. Seidel directed Phase II-III investigations at the Anne Arundel County Courthouse block, designed and supervised several Department of Defense Legacy grants on the U.S. Naval Academy (including terrestrial and underwater surveys), and directed investigations at several other properties around the City of Annapolis. His most recent work includes development of a computer-based Geographic Information System (GIS) for management of the city's architectural and archeological resources. During his tenure at the University of Maryland, Dr. Seidel collaborated with the Submerged Cultural Resource Unit of the National Park Service on a survey in the Dry Tortugas and a detailed investigation of the wreck of *HMS Fowey* (1748) in Biscayne National Park. In another collaborative effort, he co-directed investigations at the Steward Shipyard for the Maryland Historical Trust and the Archaeological Society of Maryland.

Since joining R. Christopher Goodwin & Associates, Inc., in September of 1995, Dr. Seidel has managed a Phase II investigation of the wreck of the steamship *Kentucky* on the Red River, Louisiana, and designed a large remote sensing survey of three ocean dredged material disposal sites for the U.S. Army Corps of Engineers in the Gulf of Mexico.

Dr. Seidel's twelve awards for scholarship include recognition from the New Jersey Historical Commission (1984), the Achievement Award for 1992 from the Archaeological Society of New Jersey, a Lilly Teaching Fellowship at the University of Maryland (1990-1991), and the Phi Kappa Phi Distinguished Faculty Mentor Award for 1995. He is a certified Divemaster with the Professional Association of Diving Instructors (PADI) and holds additional certifications from PADI, the YMCA, and the National Association of Underwater Instructors (NAUI). Dr. Seidel also sits on the Dive Safety Board for the Maryland Historical Trust and is a member of the Trust's Advisory Committee on Maryland Archaeology. He is a member of the Society for Historical Archaeology, the American Anthropological Association, and the Society for American Archaeology. He has served on the Editorial Board and as Executive Vice-Chair of Council for Northeast Historical Archaeology, and is a past-President and Board member of the Maritime Archaeological & Historical Society.

JACK B. IRION, Ph.D.

VICE PRESIDENT - NAUTICAL ARCHEOLOGICAL SERVICES

Dr. Jack B. Irion, Ph.D., is Vice President of Nautical Archeological Services of R. Christopher Goodwin & Associates, Inc. A native of Texas, Dr. Irion holds a Masters degree in archeology and a Ph.D. in Latin American Studies from the University of Texas at Austin. He has also received training as a special student at Texas A&M University's Institute of Nautical Archaeology and participated in underwater field schools in Texas and Turkey.

Dr. Irion has specialized in submerged cultural resource management and has directed successful projects throughout the Gulf coast, the Mid-Atlantic and the Caribbean. He has been a contractor to the U.S. Army Corps of Engineers (Mobile, Savannah, Charleston, New Orleans, Philadelphia, Pittsburgh, and Vicksburg districts), and several Departments of Transportation (Maryland, Pennsylvania, and Louisiana). These projects have included the largest remote sensing survey undertaken in Maryland waters (for the Maryland Port Administration), the discovery and excavation of the Confederate harbor defenses at Mobile, data recovery on a nineteenth century sailing bark in Savannah, discovery and assessment of Civil War gunboats in Tennessee, data recovery on a nineteenth century steamship in Chesapeake Bay, and discovery of the Confederate ironclad *C.S.S. Louisiana*.

Prior to joining Goodwin & Associates, Dr. Irion served as Archaeological Manager for GAI Consultants, Inc. in Pittsburgh, Pennsylvania. In this capacity he oversaw a number of large projects for both the Maryland State Highway Administration and the Pennsylvania Department of Transportation. The latter included the HABS/HAER recordation of the Allegheny Locks of the 1830s era Pennsylvania Canal, for which he was accorded an Excellence in Highway Design Award by PennDOT.

In addition to numerous technical reports, Dr. Irion has contributed articles to scholarly journals such as the International Journal of Nautical Archaeology and Historical Archaeology and has delivered monographs at annual Conferences on Underwater Archaeology. His areas of particular expertise include cultural resource management, nineteenth century water craft (including Civil War vessels, canal boats, sailing ships, and steamboats) and coastal defense.

DONALD J. MAHER B.A.

ARCHEOLOGICAL TECHNICIAN

Mr. Donald Maher is a 1990 graduate of St. Mary's College of Maryland with a bachelors degree in Anthropology/Sociology. While attending St. Mary's College, Mr. Maher participated in the Historic St. Mary's City Commission field school in archeology. Mr. Maher has also participated in Texas A & M's field school in nautical archeology in Port Royal, Jamaica. Prior to joining R. Christopher Goodwin & Associates, Inc., Mr Maher worked as a field technician and teachers assistant during a field school for gifted and talented high school students. Mr. Maher has also worked on two Phase III archeological investigations on prehistoric sites in West Virginia and Pennsylvania.

Since joining Goodwin and Associates, Inc., Mr. Maher has worked on numerous Phase I and II archeological investigations in Maryland, Pennsylvania, Virginia, Georgia, Alabama, Florida, and Mississippi. Mr Maher also participated in the recordation and recovery in the Chesapeake Bay of the engine assembly of the Steamship Columbus.

APPENDIX V

ARTIFACT INVENTORY

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
18TA236

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
** SOUTH CENTRAL ISLAND		18TA236					
* TRANSECT 04		ST 05 +18'W	SURFACE				
	6 Kitchen	Glass	Glass Tipped Pontil	Dark Green		1	1700's-c.1870
* Subsubtotal *						1	
** Subtotal **						1	
*** Total ***						1	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
18TA237

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
** SOUTH CENTRAL ISLAND 18TA237							
* SHORELINE		BETWEEN TRANSECTS 02 & 03	SURFACE				
22	Kitchen	Glass	Machine Made Bottle	Cobalt Blue	MEDICINE BOTTLE, MODERN, DISCARDED	1	1898-PRESENT
* Subsubtotal *						1	
* SHORELINE		BETWEEN TRANSECTS 03 & 04	SURFACE				
15	Kitchen	Ceramic	Redware	Clear Glaze, Plain	CROCK RIM	1	
15	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze	HOLLOWWARE	1	
15	Kitchen	Ceramic	Slipware	Plain w/Clear Glaze	POSS. NORTH DEVON THIN (1650-1775)	1	
15	Kitchen	Ceramic	Yellow Ware	Plain	HOLLOWWARE BASE, POSS. CHAMBER POT	1	1830-1930's
15	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	HOLLOWWARE	1	
15	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900
15	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	CROCK RIM	1	1750-1900
15	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	2	1790-1900
15	Kitchen	Ceramic	Whiteware	Undecorated	PLATTER BASE	1	1820-PRESENT
15	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE	2	1820-PRESENT
15	Kitchen	Ceramic	Whiteware	Undecorated	JAR BASE	1	1820-PRESENT
15	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown	HOLLOWWARE, BLUE	1	1820-PRESENT
15	Kitchen	Ceramic	Ironstone	Gray Undecorated	HOLLOWWARE	3	1813-1900+
15	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)	W/EMBOSSING "..1.2"	1	1840-1900+
15	Kitchen	Glass	Machine Made Bottle	Embossed	"MARYLAND BREWING CO.", AMBER	1	1898-PRESENT
15	Kitchen	Glass	Post Bottom Mold	Embossed	"GALLO", OLIVE, MODERN, DISCARDED	1	1850-PRESENT
15	Kitchen	Glass	Patent and Prescription Lip	Embossed	"..HE POTT..", AQUA	1	POST 1880's
15	Kitchen	Glass	19th C. Pharmaceuticals (Plain)	Aqua		1	c.1850-1906

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
18TA237

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
15	Kitchen	Glass	Unidentifiable Bottle Glass	Light Green		1	
15	Kitchen	Glass	Machine Made Lip	Amber	MODERN, DISCARDED	1	1898-PRESENT
15	Kitchen	Glass	Non Machine Made Bottle	Dark Green		1	
15	Architecture	Manufactured	Brick	Fragment	FRAGMENT, RED & YELLOW CLAY, DISCARDED	1	
15	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	5/64	1	
15	Miscellaneous	Synthetic	Unidentified Object	Unidentified Rubber Material	POSS. HARD RUBBER GASKET, DISCARDED	1	
15	Kitchen	Ceramic	Pearlware	Other Transfer-Printed	FLAT WARE, BLUE	2	1792-1840
* Subsubtotal *						30	
* SHORELINE		BETWEEN TRANSECTS 04 & 05	SURFACE				
23	Kitchen	Ceramic	Ironstone	Gray Undecorated	HOLLOWWARE RIM	1	1813-1900+
23	Kitchen	Ceramic	Ironstone	Gray Undecorated	BASE	1	1813-1900+
* Subsubtotal *						2	
* SHORELINE		BETWEEN TRANSECTS 05 & 06	SURFACE				
10	Kitchen	Ceramic	Tin Enamelled Earthenware	Polychrome	HOLLOWWARE BASE, BLUE & RED LINES	1	1620-1800
* Subsubtotal *						1	
* SHORELINE		BETWEEN TRANSECTS 06 & 07	SURFACE				
12	Kitchen	Biological	Food Related	Bone	COW	1	
12	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	HOLLOWWARE	4	
12	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE	1	1820-PRESENT
12	Kitchen	Ceramic	Ironstone	Gray Undecorated	HOLLOWWARE	2	1813-1900+
12	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	2	1750-1900
12	Kitchen	Ceramic	Whiteware	Flow Blue	HOLLOWWARE	1	1820-1870
12	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze	HOLLOWWARE	1	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
18TA237

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
12	Kitchen	Ceramic	Redware	Unglazed		1	
12	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	4/64	1	
12	Personal	Ceramic	Tobacco Pipe	Reed Stem Bowl		1	
12	Miscellaneous	Stone	Miscellaneous Stone	Coal	DISCARDED	1	
12	Kitchen	Glass	19th C. Pharmaceuticals (Plain)	Aqua		1	c.1850-1906
12	Kitchen	Glass	Patent and Prescription Lip	Clear		2	POST 1880's
12	Kitchen	Glass	Patent and Prescription Lip	Aqua		1	POST 1880's
12	Kitchen	Glass	Tooled Lip	Aqua		1	c.1820-c.1920
12	Kitchen	Glass	Blown in Mold	Aqua		1	
12	Kitchen	Glass	Cup Bottom Mold	Aqua		1	1850-PRESENT
12	Kitchen	Glass	19th C. Pharmaceuticals (Plain)	Solarized	BASE	1	c.1850-1906
* Subsubtotal *						24	
*	SHORELINE	BETWEEN TRANSECTS 07 & 08	SURFACE				
14	Kitchen	Ceramic	Whiteware	Undecorated	FLAT WARE	2	1820-PRESENT
14	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE	2	1820-PRESENT
14	Kitchen	Ceramic	Unidentified Ceramic	Unidentified Stoneware	BASE, BUFF/WHITE BODY & GLAZE	1	
14	Kitchen	Glass	Patent and Prescription Lip	Clear		1	POST 1880's
14	Kitchen	Glass	19th C. Pharmaceuticals (Plain)	Clear		1	c.1850-1906
14	Kitchen	Glass	19th C. Pharmaceuticals (Plain)	Solarized		1	c.1850-1906
14	Kitchen	Glass	Blown in Mold	Embossed	"S../..OWDER", AQUA	1	
14	Kitchen	Glass	Cup Bottom Mold	Clear		1	1850-PRESENT
14	Kitchen	Glass	Machine Made Bottle	Light Green	SPICE-TYPE VIAL, WHOLE	1	1898-PRESENT
14	Architecture	Manufactured	Brick	Glazed	FRAGMENT, DISCARDED	1	
* Subsubtotal *						12	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
18TA237

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
* SHORELINE		BETWEEN TRANSECTS 08 & 09	SURFACE				
6	Kitchen	Glass	Non Machine Made Bottle	Dark Green		1	
6	Kitchen	Glass	Machine Made Bottle	Embossed	"..RMA..", MODERN, DISCARDED	1	1898-PRESENT
6	Kitchen	Glass	Machine Made Bottle	Embossed	"FATHER JOHN'S MEDICINE", RECTANGULAR BOTTLE, AMBER	1	1898-PRESENT
6	Kitchen	Glass	Blown in Mold	Light Green	NECK/SHOULDER	1	
6	Kitchen	Ceramic	Ironstone	Gray Undecorated	BASE	1	1813-1900+
6	Kitchen	Ceramic	Early Porcelain Type	Underglaze Blue Chinese	BOWL BASE	1	1660-1800
6	Kitchen	Ceramic	Whiteware	Flow Blue	HOLLOWWARE	1	1820-1870
6	Kitchen	Ceramic	Redware	Brown Glaze	HOLLOWWARE	1	
6	Miscellaneous	Stone	Miscellaneous Stone	Coal	DISCARDED	1	
* Subsubtotal *						9	
* TRANSECT 01.5		DREDGE TEST 03					
16	Architecture	Manufactured	Brick	Fragment	FRAGMENTS, DISCARDED	3	
16	Architecture	Manufactured	Brick	Partial	POSS. WASH/GLAZE, DISCARDED	3	
16	Architecture	Glass	Architectural Element	Window Glass		2	
16	Architecture	Metal	Unidentified	Cut/Wrought Nail		1	
16	FLAKE	QUARTZITE	UNMODIFIED	NON-CORTEX	POSS. FLAKES, DARK	2	
* Subsubtotal *						11	
* TRANSECT 02		DREDGE TEST 01.5					
17	Architecture	Manufactured	Brick	Whole	POSS. WASH/GLAZE	1	
17	Architecture	Manufactured	Brick	Fragment	FRAGMENT, DISCARDED	1	
17	Miscellaneous	Stone	Miscellaneous Stone	Coal	DISCARDED	1	
* Subsubtotal *						3	
* TRANSECT 02		ST 03	LEVEL 01 00-30CMBS				
18	Kitchen	Ceramic	Ironstone	Gray Undecorated	HOLLOWWARE	1	1813-1900+

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
18TA237

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
* Subsubtotal *						1	
* TRANSECT 02	ST 03		LEVEL 02 30-50CMBS				
19	Kitchen	Ceramic	Imported Brown Stoneware	British Brown	HOLLOWWARE	1	1690-1775
* Subsubtotal *						1	
* TRANSECT 03	BETWEEN DREDGE 01 & SHORELINE		SURFACE				
13	Kitchen	Glass	Non Machine Made Base	Dark Green		1	
13	Kitchen	Glass	Machine Made Jar/Container	Light Green	BASE, MODERN, DISCARDED	1	1881-PRESENT
13	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	CROCK BASE	1	1750-1900
13	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	JUG	2	
13	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	5/64	1	
* Subsubtotal *						6	
* TRANSECT 03	ST 01 +32'		SURFACE				
20	Kitchen	Glass	Rickett's Type 3 Piece Mold	Dark Green		3	1821-c.1913
20	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	POSS. 6/64	1	
* Subsubtotal *						4	
* TRANSECT 03	ST 02		LEVEL 02 18-27CMBS				
21	Kitchen	Glass	Unidentifiable Bottle Glass	Solarized		4	
21	Kitchen	Glass	Unidentifiable Bottle Glass	Clear		1	
21	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	2	1898-PRESENT
21	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	HOLLOWWARE	1	
21	FLAKE	QUARTZITE	UNMODIFIED	NON-CORTEX		1	
* Subsubtotal *						9	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
18TA237

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
* TRANSECT 05		DREDGE TEST 01					
25	Kitchen	Glass	Non Machine Made Base	Clear	PANEL BOTTLE	1	
25	Kitchen	Ceramic	Early Porcelain Type	Underglaze Blue Chinese	SAUCER	1	1660-1800
25	Kitchen	Ceramic	Ironstone	Gray Undecorated	BOWL RIM	1	1813-1900+
25	Kitchen	Ceramic	Whiteware	Undecorated		1	1820-PRESENT
25	Kitchen	Ceramic	Tin Enamelled Earthenware	Polychrome	MOTTLED BROWN GLAZE	1	1620-1800
25	Kitchen	Biological	Food Related	Unidentified Bone		1	
25	Miscellaneous	Stone	Miscellaneous Stone	Coal	DISCARDED	1	
25	Architecture	Manufactured	Brick	Fragment	FRAGMENTS, DISCARDED	3	
25	Architecture	Manufactured	Brick	Fragment	FRAGMENT, RED & YELLOW CLAY, DISCARDED	1	
25	Architecture	Manufactured	Brick	Glazed	FRAGMENTS, DISCARDED	2	
* Subsubtotal *						13	
* TRANSECT 06		BETWEEN DREDGE 01 & SHORELINE	SURFACE				
8	Kitchen	Ceramic	Ironstone	Molded	PLATE RIM	1	1813-PRESENT
8	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE	2	1820-PRESENT
8	Kitchen	Ceramic	Redware	Unglazed		1	
8	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze		1	
8	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900
8	Kitchen	Glass	Crown Cap	Clear		1	1892-PRESENT
* Subsubtotal *						7	
* TRANSECT 06		DREDGE TEST 01					
24	Kitchen	Ceramic	Ironstone	Gray Undecorated	FLAT WARE BASE	1	1813-1900+
24	Kitchen	Ceramic	Ironstone	Gray Undecorated	HOLLOWWARE	2	1813-1900+
24	Kitchen	Ceramic	Whiteware	Undecorated	FLAT WARE	4	1820-PRESENT
24	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE	1	1820-PRESENT
24	Kitchen	Ceramic	Unidentified Ceramic	Unidentified White Body	SPALL	1	
24	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze	HOLLOWWARE	1	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
18TA237

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
24	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Brown Glaze	HOLLOWWARE	1	1750-1900
24	Kitchen	Ceramic	Imported Gray Stoneware	Westerwald Stamped Blue	HOLLOWWARE	1	1650-1775
24	Kitchen	Glass	Machine Made Lip	Light Green	CROWN CAP, MODERN, DISCARDED	1	1898-PRESENT
24	Kitchen	Glass	Unidentifiable Bottle Glass	Light Green		7	
24	Kitchen	Glass	Blown in Mold	Embossed	"..FO..", LIGHT GREEN	1	
24	Kitchen	Glass	Blown in Mold	Light Green	PANEL BOTTLE	1	
24	Kitchen	Glass	Unidentifiable Bottle Glass	Aqua		4	
24	Kitchen	Glass	Unidentifiable Bottle Glass	Clear		7	
24	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	4	1898-PRESENT
24	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	2	1898-PRESENT
24	Kitchen	Glass	Blown in Mold	Clear		1	
24	Kitchen	Glass	Unidentifiable Bottle Glass	Dark Green		1	
24	Architecture	Glass	Architectural Element	Window Glass		5	
24	Architecture	Glass	Miscellaneous	Lightbulb Glass		1	
24	Personal	Ceramic	Tobacco Pipe	Reed Stem Bowl	BROWN GLAZE	1	
24	Kitchen	Biological	Food Related	Unidentified Bone	CALCINED	1	
24	Architecture	Metal	Machine Cut Nail, Common	Fragment		2	1815-1890
24	FLAKE	QUARTZ	UNMODIFIED	SECONDARY		1	
* Subsubtotal *						52	
* TRANSECT 07	BETWEEN DREDGE 01 & SHORELINE		SURFACE				
9	Kitchen	Glass	Machine Made Bottle	Amber	CROWN CAP, MODERN, DISCARDED	2	1898-PRESENT
9	Miscellaneous	Stone	Miscellaneous Stone	Coal	DISCARDED	1	
9	Kitchen	Glass	Machine Made Bottle	Embossed	"HALF PINT", CLEAR, MODERN, DISCARDED	1	1898-PRESENT
9	Kitchen	Ceramic	Ironstone	Gray Undecorated	BOWL BASE	1	1813-1900+
9	Kitchen	Ceramic	Ironstone	Molded	HOLLOWWARE RIM	1	1813-PRESENT
9	Kitchen	Ceramic	Pearlware	Other Transfer-Printed	FLAT WARE BASE, BLUE	1	1792-1840
9	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	HOLLOWWARE	1	
9	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900
9	Kitchen	Ceramic	Domestic Brown Stoneware	Brown Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
18TA237

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
9	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze	HOLLOWWARE	1	
9	Kitchen	Ceramic	Unidentified Ceramic	Unidentified Stoneware	HOLLOWWARE, BUFF/PINK BODY, DARK EXTERIOR GLAZE	1	
9	Kitchen	Ceramic	Yellow Ware	Rockingham/Bennington	HOLLOWWARE	1	1830-1900
9	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	4/64	1	
* Subsubtotal *						14	
* TRANSECT 07	DREDGE TEST 01						
4	Kitchen	Biological	Food Related	Bone	LARGE MAMMAL	1	
4	Architecture	Glass	Architectural Element	Window Glass		1	
4	Kitchen	Glass	Unidentifiable Bottle Glass	Clear		1	
4	Miscellaneous	Synthetic	Unidentified Object	Unidentified Rubber Material	POSS. GUTTA PERCHA CAP	1	
* Subsubtotal *						4	
* TRANSECT 08	BETWEEN DREDGE TESTS 02 & 03	SURFACE					
11	Kitchen	Ceramic	Ironstone	Gray Undecorated	HOLLOWWARE	1	1813-1900+
11	Kitchen	Ceramic	Whiteware	Undecorated	FLAT WARE, POSS. BURNED	2	1820-PRESENT
11	Kitchen	Glass	Blown in Mold	Light Green	NECK, SMALL BOTTLE	1	
11	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	4/64	1	
* Subsubtotal *						5	
* TRANSECT 09	BETWEEN DREDGE TESTS 02 & 03	SURFACE					
7	Kitchen	Glass	Non Machine Made Base	Dark Green	CASE BOTTLE BASE	1	
7	Kitchen	Glass	Machine Made Bottle	Light Green	MODERN, DISCARDED	1	1898-PRESENT
7	Kitchen	Glass	Unidentifiable Bottle Glass	Light Green		2	
7	Kitchen	Glass	Unidentifiable Bottle Glass	Amber		1	
7	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	1	1898-PRESENT
7	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze		2	
7	Kitchen	Glass	Non Machine Made Bottle	Dark Green		1	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
18TA237

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
7	Kitchen	Ceramic	Redware	Unglazed	WORN	4	
7	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze	HOLLOWWARE RIM	1	
7	Kitchen	Ceramic	Redware	Brown Glaze	MOTTLED GLAZE	1	
7	Kitchen	Ceramic	Whiteware	Undecorated	FLAT WARE	10	1820-PRESENT
7	Kitchen	Ceramic	Ironstone	Gray Undecorated		2	1813-1900+
7	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE BASE	1	1820-PRESENT
7	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown	PLATTER, BROWN	1	1820-PRESENT
7	Kitchen	Ceramic	Whiteware	Embossed Pattern	PLATE RIM, BLUE	1	1820-PRESENT
7	Kitchen	Ceramic	Pearlware	Green Shell-Edged	PLATE RIM	1	1780-1830
7	Kitchen	Ceramic	Pearlware	Annular	HOLLOWWARE, BROWN LINE	1	1790-1820
7	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	HOLLOWWARE	4	
7	Kitchen	Ceramic	Domestic Brown Stoneware	Brown Salt-Glaze, Undecorated	HOLLOWWARE	3	1750-1900
7	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900
7	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HANDLE	1	1790-1900
7	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)		1	1840-1900+
7	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	HOLLOWWARE, BLUE EXTERIOR LETTERING, MOTTLED INTERIOR	1	
7	Kitchen	Ceramic	Whiteware	Annular	LARGE BOWL BASE, BLUE LINE	1	1820-1860
7	Kitchen	Ceramic	Later Porcelain Type	Undecorated Porcelain, Hard	BASE W/MARK:"L. STRA.."	1	
7	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	4/64	1	
7	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	5/64	1	
* Subsubtotal *						47	
* TRANSECT 09		DREDGE TEST 03					
5	Kitchen	Glass	Machine Made Bottle	Embossed	"CANADIAN IMPORTED", CLEAR, MODERN, DISCARDED	1	1898-PRESENT
5	Kitchen	Glass	Post Bottom Mold	Embossed	"EDWARD WEISS FINE WINES,LIQUOR/WEST & CALVERT STS.ANNAPOLIS	1	1850-PRESENT

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
18TA237

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
5	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	22	1898-PRESENT
5	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	20	1898-PRESENT
5	Kitchen	Glass	Machine Made Bottle	Light Green	MODERN, DISCARDED	4	1898-PRESENT
5	Kitchen	Glass	Patent and Prescription Lip	Clear		1	POST 1880's
5	Kitchen	Glass	Cup Bottom Mold	Solarized		1	1850-PRESENT
5	Kitchen	Glass	Non Machine Made Bottle	Dark Green		30	
5	Kitchen	Glass	Machine Made Base	Clear	MODERN, DISCARDED	2	1898-PRESENT
5	Kitchen	Glass	Unidentifiable Bottle Glass	Clear		4	
5	Kitchen	Glass	Machine Made Bottle	Embossed	"..KING..", CLEAR, MODERN, DISCARDED	2	1898-PRESENT
5	Kitchen	Glass	Machine Made Bottle	Solarized	MODERN, DISCARDED	1	1898-PRESENT
5	Kitchen	Glass	Blown in Mold	Aqua		7	
5	Kitchen	Glass	Post Bottom Mold	Aqua		1	1850-PRESENT
5	Kitchen	Glass	Machine Made Jar/Container	Aqua	MODERN, DISCARDED	2	1881-PRESENT
5	Kitchen	Glass	Unidentifiable Bottle Glass	Aqua		2	
5	Kitchen	Glass	Blown in Mold	Clear		1	
5	Kitchen	Glass	Table Glassware	Unidentified Tableglass		5	
5	Kitchen	Glass	Unidentifiable Bottle Glass	Light Green		1	
5	Architecture	Glass	Architectural Element	Window Glass		17	
5	Kitchen	Glass	Sand Tipped Pontil	Clear		1	1700's-c.1870
5	Kitchen	Glass	Blown in Mold	Embossed	"..L..", CLEAR, THIN	1	
5	Kitchen	Glass	Blown in Mold	Embossed	"..NIA../..RAN..", CLEAR	1	
5	Kitchen	Glass	Table Glassware	Hand Blown Stemware	FOLDED FOOT	1	
5	Architecture	Manufactured	Brick	Fragment	FRAGMENTS, DISCARDED	10	
5	Architecture	Manufactured	Brick	Glazed	FRAGMENTS, DISCARDED	11	
5	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze	HOLLOWWARE	11	
5	Architecture	Manufactured	Brick	Glazed	SAMPLE KEPT	1	
5	Kitchen	Ceramic	Redware	Unglazed	WORN	6	
5	Kitchen	Ceramic	Redware	Clear Glaze, Plain	HOLLOWWARE RIM	1	
5	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	2	1790-1900
5	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	8	1750-1900

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
18TA237

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
5	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE	1	1750-1900
5	Kitchen	Ceramic	Domestic Brown Stoneware	Brown Salt-Glaze, Undecorated	HOLLOWWARE	5	1750-1900
5	Kitchen	Ceramic	Imported Brown Stoneware	British Brown	HOLLOWWARE	4	1690-1775
5	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Brown Glaze	HOLLOWWARE	1	1750-1900
5	Kitchen	Ceramic	Whiteware	Undecorated	FLAT WARE	20	1820-PRESENT
5	Kitchen	Ceramic	Whiteware	Undecorated	CUP RIM	2	1820-PRESENT
5	Kitchen	Ceramic	Whiteware	Undecorated		8	1820-PRESENT
5	Kitchen	Ceramic	Whiteware	Undecorated	JAR LIP	1	1820-PRESENT
5	Kitchen	Ceramic	Pearlware	Undecorated	FLAT WARE	2	1779-1830
5	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown	BLUE	1	1820-PRESENT
5	Kitchen	Ceramic	Ironstone	Gray Undecorated		2	1813-1900+
5	Kitchen	Ceramic	Ironstone	Molded	FLAT WARE RIM	1	1813-PRESENT
5	Kitchen	Ceramic	Later Porcelain Type	Undecorated Porcelain, Hard	HOLLOWWARE BASE	2	
5	Kitchen	Ceramic	Redware	Black Glaze, Fine	HOLLOWWARE	1	
5	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)		1	1840-1900+
5	Kitchen	Ceramic	Creamware	Other Edge Type	CUP RIM, EMBOSSED LEAVES	1	1762-1820
5	Kitchen	Ceramic	Yellow Ware	Plain		1	1830-1930's
5	Kitchen	Ceramic	Industrial Stoneware	Buff-Bodied		1	
5	Kitchen	Ceramic	Pearlware	Underglaze Blue Hand-Painted		1	1779-1820
5	Kitchen	Ceramic	Redware	Brown Glaze	HOLLOWWARE BASE	1	
5	Kitchen	Ceramic	Slipware	Buff, Marbleized w/Clear Glaze	POSS. SLIPWARE	1	
5	Kitchen	Ceramic	Later Porcelain Type	Undecorated Porcelain, Hard	TEACUP HANDLE	1	
5	Kitchen	Ceramic	Ironstone	Gray Undecorated	LARGE HANDLE	1	1813-1900+
5	Kitchen	Ceramic	Ironstone	Gray Undecorated	LARGE FRAGMENT, DECAYED	1	1813-1900+
5	Architecture	Metal	Machine Cut Nail, Common	Fragment		2	1815-1890
5	Kitchen	Metal	Miscellaneous	Other	SALT & PEPPER SHAKER LID	1	
5	Activities	Metal	Miscellaneous Hardware	Other	SMALL BRASS CAP W/TOGGLE INSIDE	1	
5	FLAKE	CHERT	UNMODIFIED	NON-CORTEX	BLACK	1	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
18TA237

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
* Subsubtotal *						245	
** Subtotal **						501	
*** Total ***						501	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
18TA304

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
** MIDDLE ISLAND		18TA304					
* EAST SHORELINE	BETWEEN TRANSECTS 01 & 02		SURFACE				
1	Kitchen	Ceramic	Whiteware	Undecorated	PLATE	2	1820-PRESENT
1	Kitchen	Ceramic	Ironstone	Gray Undecorated	HOLLOWWARE	1	1813-1900+
1	Kitchen	Glass	Machine Made Bottle	Aqua	MODERN, DISCARDED	1	1898-PRESENT
1	Kitchen	Glass	Machine Made Bottle	Clear	WHOLE, MODERN, DISCARDED	1	1898-PRESENT
1	Kitchen	Glass	19th C. Pharmaceuticals (Plain)	Clear	WHOLE	1	c.1850-1906
1	Kitchen	Glass	Embossed Panel Bottle	Embossed	"DAVIS VEG. PAIN KILLER", 1840-1891, AQUA, W/CORK	1	POST-1867
* Subsubtotal *						7	
* SE END OF ISLAND BETWEEN TRANSECT 01 & SHORE			SURFACE				
6	Kitchen	Glass	Machine Made Bottle	Clear	FLASK, MODERN, DISCARDED	2	1898-PRESENT
6	Kitchen	Glass	Cup Bottom Mold	Light Green	PANEL BOTTLE	1	1850-PRESENT
6	Kitchen	Glass	Machine Made Jar/Container	Embossed	"McCORMICK & CO/BALT.MD", EXTRACT, MODERN, DISCARDED	1	1881-PRESENT
6	Kitchen	Glass	Machine Made Bottle	Cobalt Blue	MODERN, DISCARDED	1	1898-PRESENT
6	Miscellaneous	Stone	Miscellaneous Stone	Coal	DISCARDED	5	
6	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	HOLLOWWARE, BROWN GLAZE	1	
6	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	CROCK RIM	1	1750-1900
6	Kitchen	Ceramic	Ironstone	Gray Undecorated	HOLLOWWARE	1	1813-1900+
6	Architecture	Metal	Construction Hardware	Spike	ROUNDED	1	
* Subsubtotal *						14	
* SW END OF ISLAND BETWEEN TRANSECT 01 & SHORE			SURFACE				
4	Architecture	Metal	Construction Hardware	Hinge	TRIANGULAR STRAP HINGE	1	
4	TOOL	SANDSTONE	HAMMERSTONE		POSS. ABRADER	1	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
18TA304

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
* Subsubtotal *						2	
* WEST SHORELINE	BETWEEN TRANSECTS 01 & 02		SURFACE				
9	Architecture	Manufactured	Brick	Fragment	MACHINE MADE FRAGMENTS, DISCARDED	2	
9	Kitchen	Glass	Machine Made Lip	Clear	JUG W/DOUBLE RING HANDLES, MODERN, DISCARDED	1	1898-PRESENT
9	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900
9	Miscellaneous	Stone	Miscellaneous Stone	Coal	DISCARDED	1	
9	Kitchen	Glass	Unidentifiable Bottle Glass	Dark Green	VERY DARK, BASE	1	
9	Arms	Stone	Firearm Part	English Flint Flake	POSS. BALLAST CHERT FRAGMENT	1	
9	Architecture	Metal	Construction Hardware	Hinge	TRIANGULAR STRAP HINGE	1	
* Subsubtotal *						8	
* WEST SHORELINE	BETWEEN TRANSECTS 02 & 03		SURFACE				
8	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	1	1898-PRESENT
8	Architecture	Metal	Construction Hardware	Hinge	TRIANGULAR STRAP HINGE	1	
8	Architecture	Metal	Wire Nail, Common	2-4"		1	POST 1890
8	Architecture	Metal	Unidentified	Nail		1	
8	Architecture	Metal	Handwrought Rosehead	> 4"	CLINCHED	1	1600-1815
8	Activities	Metal	Miscellaneous Hardware	Non-Electrical Wire		1	
* Subsubtotal *						6	
** Subtotal **						37	
*** Total ***						37	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
NON-SITE ARTIFACTS

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
** NORTH ISLAND		18TAX5					
* DREDGE TEST		TRANSECT 05 ST 03					
27	Kitchen	Glass	Machine Made Bottle	Light Green	MODERN, DISCARDED	1	1898-PRESENT
* Subsubtotal *						1	
* DREDGE TEST		TRANSECT 09 ST 02					
26	Kitchen	Glass	Machine Made Base	Clear	"DES. PAT. 36565", CLEAR, MODERN, DISCARDED	2	1898-PRESENT
26	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	1	1898-PRESENT
* Subsubtotal *						3	
* DREDGE TEST		TRANSECT 11 ST 03					
28	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	1	1898-PRESENT
28	Kitchen	Glass	Machine Made Bottle	Light Green	MODERN, DISCARDED	2	1898-PRESENT
* Subsubtotal *						3	
* EAST SHORELINE		BETWEEN TRANSECTS 01 & 02	SURFACE				
6	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	1	1898-PRESENT
6	Kitchen	Glass	Unidentifiable Bottle Glass	Clear		3	
6	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE, BUFF INTERIOR	1	1750-1900
6	Kitchen	Ceramic	Ironstone	Gray Undecorated	HOLLOWWARE BASE W/MARK:"..NTED"	1	1813-1900+
* Subsubtotal *						6	
* EAST SHORELINE		BETWEEN TRANSECTS 02 & 03	SURFACE				
9	Architecture	Manufactured	Brick	Fragment	HAND MADE FRAGMENTS, DISCARDED	3	
9	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	1	1898-PRESENT

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
NON-SITE ARTIFACTS

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
* Subsubtotal *						4	
* EAST SHORELINE	BETWEEN TRANSECTS 03 & 04		SURFACE				
8	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	1	1898-PRESENT
8	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	3	1898-PRESENT
8	Kitchen	Glass	Machine Made Bottle	Light Green	MODERN, DISCARDED	1	1898-PRESENT
8	Kitchen	Glass	Unidentifiable Bottle Glass	Clear		3	
8	Kitchen	Glass	Unidentifiable Bottle Glass	Aqua		1	
8	Architecture	Glass	Architectural Element	Window Glass		2	
8	Architecture	Manufactured	Brick	Fragment	HAND MADE FRAGMENT, DISCARDED	1	
8	Kitchen	Ceramic	Domestic Gray Stoneware	Albany Slip on Gray	HOLLOWWARE	1	1800-1900
* Subsubtotal *						13	
* EAST SHORELINE	BETWEEN TRANSECTS 04 & 05		SURFACE				
10	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	CROCK RIM	1	1750-1900
10	Kitchen	Ceramic	Domestic Gray Stoneware	Albany Slip on Gray	HOLLOWWARE	1	1800-1900
10	Kitchen	Glass	Machine Made Bottle	Embossed	"..FE..", AQUA, MODERN, DISCARDED	1	1898-PRESENT
* Subsubtotal *						3	
* EAST SHORELINE	BETWEEN TRANSECTS 05 & 06		SURFACE				
7	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	1	1898-PRESENT
7	Kitchen	Glass	Machine Made Bottle	Light Green	MODERN, DISCARDED	2	1898-PRESENT
* Subsubtotal *						3	
* EAST SHORELINE	BETWEEN TRANSECTS 06 & 07		SURFACE				
12	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	3	1898-PRESENT
12	Kitchen	Glass	Machine Made Bottle	Green	MODERN, DISCARDED	1	1898-PRESENT

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
NON-SITE ARTIFACTS

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
12	Kitchen	Glass	Machine Made Bottle	Dark Green	MODERN, DISCARDED	1	1898-PRESENT
12	Kitchen	Glass	Machine Made Bottle	Embossed	"FEDERAL LAW FORBIDS...", AMBER FLASK, MODERN, DISCARDED	1	1898-PRESENT
12	Architecture	Manufactured	Brick	Fragment	MACHINE MADE FRAGMENTS, DISCARDED	2	
* Subsubtotal *						8	
* EAST SHORELINE	BETWEEN TRANSECTS 07 & 08		SURFACE				
5	Architecture	Manufactured	Brick	Fragment	DISCARDED	2	
5	Kitchen	Glass	Machine Made Base	Amber	MODERN, DISCARDED	2	1898-PRESENT
5	Kitchen	Glass	Machine Made Jar/Container	Light Green	MODERN, DISCARDED	2	1881-PRESENT
5	Kitchen	Glass	Machine Made Base	Embossed	"THIS CONTAINER...", CLEAR, MODERN, DISCARDED	1	1898-PRESENT
5	Kitchen	Glass	Unidentifiable Bottle Glass	Clear		1	
5	FLAKE	QUARTZ	UNMODIFIED	SECONDARY		1	
* Subsubtotal *						9	
* EAST SHORELINE	BETWEEN TRANSECTS 08 & 09		SURFACE				
11	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	2	1898-PRESENT
11	Kitchen	Glass	Machine Made Bottle	Aqua	MODERN, DISCARDED	2	1898-PRESENT
11	Kitchen	Glass	Machine Made Bottle	Green	MODERN, DISCARDED	1	1898-PRESENT
11	Kitchen	Glass	Unidentifiable Bottle Glass	Clear		3	
11	Kitchen	Glass	Davis Lip	Aqua		1	POST 1880's
11	Kitchen	Glass	Non Machine Made Base	Aqua	SQUARE	1	
11	Architecture	Manufactured	Brick	Fragment	DISCARDED	6	
11	Kitchen	Ceramic	Whiteware	Undecorated	PLATE RIM	1	1820-PRESENT
11	Kitchen	Ceramic	Ironstone	Molded	PITCHER HANDLE	1	1813-PRESENT
* Subsubtotal *						18	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
NON-SITE ARTIFACTS

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
* EAST SHORELINE	BETWEEN TRANSECTS 09 & 10		SURFACE				
4	Architecture	Manufactured	Brick	Fragment	DISCARDED	4	
4	Kitchen	Glass	Unidentifiable Bottle Glass	Clear		1	
4	Kitchen	Glass	Applied Lip	Dark Green		1	
4	Kitchen	Glass	Davis Lip	Clear		1	POST 1880's
4	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	JUG	1	
4	Kitchen	Ceramic	Yellow Ware	Rockingham/Bennington	HOLLOWWARE	1	1830-1900
4	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze	HOLLOWWARE	2	
4	Miscellaneous	Metal	Unidentified Object	Iron/Steel	CORRODED	2	
* Subsubtotal *						13	
* SE END OF ISLAND	BETWEEN TRANSECT 13 & SHORE		SURFACE				
16	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	1	1898-PRESENT
16	Kitchen	Glass	Machine Made Base	Amber	MODERN, DISCARDED	1	1898-PRESENT
16	Kitchen	Glass	Cup Bottom Mold	Light Green		1	1850-PRESENT
16	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	CROCK W/PRINTED MARK:"J.M.PRUD.."	1	
16	Kitchen	Ceramic	Industrial Stoneware	Buff-Bodied	BASE	1	
16	Architecture	Ceramic	Miscellaneous	Ceramic Tile	6-SIDED WHITE PORCELAIN TILE	1	
16	Architecture	Manufactured	Brick	Fragment	MACHINE MADE FRAGMENT, DISCARDED	1	
16	Miscellaneous	Metal	Unidentified Object	Iron/Steel	POSS. BUCKET FRAGMENT	1	
* Subsubtotal *						8	
* SHORELINE	BETWEEN TRANSECTS 14 & 15		SURFACE				
3	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900
3	Kitchen	Ceramic	Whiteware	Undecorated	BOWL, SCALLOPED RIM	1	1820-PRESENT
3	Kitchen	Ceramic	Whiteware	Undecorated	FLAT WARE RIM	1	1820-PRESENT
3	Kitchen	Glass	Machine Made Bottle	Embossed	"..T..", AQUA, MODERN, DISCARDED	1	1898-PRESENT

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
NON-SITE ARTIFACTS

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
3	Architecture	Manufactured	Brick	Fragment	MACHINE MADE FRAGMENTS, DISCARDED	1	
3	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	1	1898-PRESENT
3	Kitchen	Glass	Unidentifiable Bottle Glass	Dark Green		1	
3	Kitchen	Glass	Embossed Panel Bottle	Embossed	"..BRAND/..ERS", AMBER	1	POST-1867
* Subsubtotal *						8	
* SW END OF ISLAND BETWEEN TRANSECT 13 & SHORE			SURFACE				
15	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900
15	Kitchen	Ceramic	Domestic Gray Stoneware	Albany Slip on Gray	HOLLOWWARE	1	1800-1900
15	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	BASE	1	
15	Kitchen	Ceramic	Whiteware	Shell-Edged	PLATE RIM, BLUE	1	1820-1860's
15	Kitchen	Ceramic	Whiteware	Willow Transfer-Printed	CUP, BLUE	1	1820-PRESENT
15	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	1	1898-PRESENT
15	Architecture	Manufactured	Brick	Fragment	MACHINE MADE FRAGMENT, RED & YELLOW CLAYS, DISCARDED	1	
* Subsubtotal *						7	
* TRANSECT 03	ST 01		LEVEL 01 00-40CMBS				
1	Kitchen	Glass	Unidentifiable Bottle Glass	Light Green		1	
* Subsubtotal *						1	
* TRANSECT 06	ST 01		LEVEL 01 00-35CMBS				
2	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	2	1898-PRESENT
2	Architecture	Glass	Architectural Element	Window Glass		2	
2	Kitchen	Glass	Unidentifiable Bottle Glass	Clear		1	
* Subsubtotal *						5	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
NON-SITE ARTIFACTS

FS# FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
* TRANSECT 13	ST 01 +05MN	SURFACE				
20 Kitchen	Ceramic	Domestic Gray Stoneware	Albany Slip on Gray	HOLLOWWARE	1	1800-1900
* Subsubtotal *					1	
* WEST SHORELINE	BETWEEN TRANSECTS 01 & 02	SURFACE				
19 Kitchen	Glass	Machine Made Bottle	Light Green	MODERN, DISCARDED	1	1898-PRESENT
* Subsubtotal *					1	
* WEST SHORELINE	BETWEEN TRANSECTS 02 & 03	SURFACE				
23 Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	1	1898-PRESENT
* Subsubtotal *					1	
* WEST SHORELINE	BETWEEN TRANSECTS 03 & 04	SURFACE				
13 Kitchen	Glass	Machine Made Bottle	Light Green	MODERN, DISCARDED	1	1898-PRESENT
13 Kitchen	Glass	Unidentifiable Bottle Glass	Clear		3	
13 Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900
13 Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE RIM	1	1820-PRESENT
13 Personal	Ceramic	Personal Use	Other	YELLOW WARE CHAMBER POT, WHITE & BLUE ANNULAR (1830-1930's)	1	
* Subsubtotal *					7	
* WEST SHORELINE	BETWEEN TRANSECTS 04 & 05	SURFACE				
25 Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	1	1898-PRESENT
25 Kitchen	Glass	Machine Made Bottle	Light Green	MODERN, DISCARDED	1	1898-PRESENT
* Subsubtotal *					2	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
NON-SITE ARTIFACTS

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
*	WEST SHORELINE	BETWEEN TRANSECTS 06 & 07	SURFACE				
	17 Personal	Ceramic	Personal Use	Other	IRONSTONE CHAMBER POT (1813-PRESENT)	2	
	17 Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	1	1898-PRESENT
* Subsubtotal *						3	
*	WEST SHORELINE	BETWEEN TRANSECTS 08 & 09	SURFACE				
	24 Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	2	1898-PRESENT
	24 Kitchen	Glass	Unidentifiable Bottle Glass	Aqua		4	
	24 Kitchen	Glass	Unidentifiable Bottle Glass	Clear		3	
	24 Kitchen	Glass	Unidentifiable Bottle Glass	Dark Green		1	
* Subsubtotal *						10	
*	WEST SHORELINE	BETWEEN TRANSECTS 09 & 10	SURFACE				
	22 Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	9	1898-PRESENT
	22 Kitchen	Glass	Davis Lip	Embossed	"DR.PIERCE'S GOLDEN MEDICAL DISCOVERY/BUFF. N.Y."(1874-1894)	1	POST 1880's
* Subsubtotal *						10	
*	WEST SHORELINE	BETWEEN TRANSECTS 10 & 11	SURFACE				
	18 Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	5	1898-PRESENT
	18 Kitchen	Ceramic	Whiteware	Undecorated		3	1820-PRESENT
	18 Kitchen	Ceramic	Whiteware	Shell-Edged	PLATE RIM, BLUE	1	1820-1860's
	18 Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	2	1750-1900
	18 Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	HOLLOWWARE	1	
* Subsubtotal *						12	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
NON-SITE ARTIFACTS

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
* WEST SHORELINE	BETWEEN TRANSECTS 11 & 12		SURFACE				
21	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	LARGE CROCK, FROND DECORATION	5	1790-1900
21	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	HOLLOWWARE	1	
21	Kitchen	Glass	Machine Made Bottle	Light Green	MODERN, DISCARDED	1	1898-PRESENT
21	Activities	Metal	Tool	Axe	W/WOODEN HANDLE	1	
21	Activities	Metal	Tool	Other	LARGE ROUND IRON FRAME	1	
* Subsubtotal *						9	
* WEST SHORELINE	BETWEEN TRANSECTS 12 & 13		SURFACE				
14	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE BASE	2	1750-1900
14	Kitchen	Ceramic	Yellow Ware	Dipped/Annular	HOLLOWWARE, BLUE BROWN & WHITE	1	1840-1930's
14	Kitchen	Ceramic	Yellow Ware	Plain	HOLLOWWARE	1	1830-1930's
14	Kitchen	Glass	Machine Made Bottle	Embossed	"BAKING..", CLEAR, MODERN, DISCARDED	1	1898-PRESENT
14	Kitchen	Glass	Machine Made Bottle	Embossed	"DAVIS OK BAKING POWDER", AQUA, MODERN, DISCARDED	1	1898-PRESENT
* Subsubtotal *						6	
** Subtotal **						175	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
NON-SITE ARTIFACTS

FS# FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
** SOUTH ISLAND	18TAX6					
* EAST SHORELINE	BETWEEN TRANSECTS 01 & 02	SURFACE				
4 Architecture	Manufactured	Brick	Fragment	DISCARDED	1	
4 Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	2	1898-PRESENT
4 Kitchen	Glass	Cup Bottom Mold	Aqua		1	1850-PRESENT
* Subsubtotal *					4	
* TRANSECT 02	ST 01	LEVEL 01 00-20CMBS				
1 Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	5	1898-PRESENT
1 Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	2	1898-PRESENT
* Subsubtotal *					7	
* WEST SHORELINE	BETWEEN TRANSECTS 01 & 02	SURFACE				
3 Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	2	1898-PRESENT
3 Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	2	1898-PRESENT
3 Kitchen	Glass	Blown in Mold	Embossed	"..R../..CRIPT..", AQUA, PANEL BOTTLE	1	
3 Architecture	Manufactured	Brick	Fragment	DISCARDED	1	
* Subsubtotal *					6	
* WEST SHORELINE	BETWEEN TRANSECTS 02 & 03	SURFACE				
2 Kitchen	Glass	Machine Made Bottle	Clear	MILK BOTTLE TOP, MODERN, DISCARDED	1	1898-PRESENT
2 Kitchen	Glass	Machine Made Base	Clear	SQUARE BOTTLE, MODERN, DISCARDED	1	1898-PRESENT
2 Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	2	1898-PRESENT
2 Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	3	1898-PRESENT
2 Kitchen	Glass	Unidentifiable Bottle Glass	Dark Green		1	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
NON-SITE ARTIFACTS

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
2	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze	HOLLOWWARE RIM	1	
2	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900
2	Architecture	Manufactured	Brick	Fragment	DISCARDED	4	
* Subsubtotal *							
** Subtotal **						14	
						31	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
NON-SITE ARTIFACTS

FS# FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
** MIDDLE ISLAND	18TAX7					
* EAST SHORELINE	BETWEEN TRANSECTS 02 & 03	SURFACE				
10 Kitchen	Glass	Machine Made Bottle	Embossed	"GORDON'S/ FEDERAL LAW FORBIDS..", CLEAR, MODERN, DISCARDED	1	1898-PRESENT
* Subsubtotal *					1	
* EAST SHORELINE	BETWEEN TRANSECTS 03 & 04	SURFACE				
3 Kitchen	Glass	Table Glassware	Machine Made Tumbler	MODERN, DISCARDED	1	
3 Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown	LID, BLUE	1	1820-PRESENT
* Subsubtotal *					2	
* NE END OF ISLAND	BETWEEN TRANSECT 04 & SHORE	SURFACE				
2 Kitchen	Glass	Machine Made Lip	Amber	LIQUOR, MODERN, DISCARDED	1	1898-PRESENT
2 Kitchen	Glass	Machine Made Bottle	Embossed	"..BIDS SALE", LIQUOR, AMBER, MODERN, DISCARDED	1	1898-PRESENT
2 Kitchen	Glass	Machine Made Bottle	Embossed	"FEDERAL LAW FORBIDS SALE", LIQUOR, CLEAR, MODERN, DISCARDED	1	1898-PRESENT
2 Kitchen	Glass	Machine Made Bottle	Embossed	"DAVIS OK BAKING POWDER", CLEAR, MODERN, DISCARDED	1	1898-PRESENT
* Subsubtotal *					4	
* TRANSECT 01	ST 01 +25'NE +10'NW	SURFACE				
5 FLAKE	CHERT	UNMODIFIED	SECONDARY	POSS. FLAKE	1	

POPLAR ISLAND
SURVEY
ARTIFACT INVENTORY
NON-SITE ARTIFACTS

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
* Subsubtotal *						1	
* WEST SHORELINE	BETWEEN TRANSECTS 03 & 04		SURFACE				
7	Kitchen	Glass	Machine Made Bottle	Clear	LIQUOR, MODERN, DISCARDED	2	1898-PRESENT
* Subsubtotal *						2	
** Subtotal **						10	
*** Total ***						216	

POPLAR ISLAND
COACHES ISLAND PHASE I
ARTIFACT INVENTORY
18TA216

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE
** COACHES ISLAND		18TA216					
* TRANSECT 10	ST 09-10		SURFACE	ON BEACH			
1 BIFACE		CHERT	AMORPHOUS		21.14g, FRAGMENT, ROUNDED	1	
* Subsubtotal *						1	
* TRANSECT 10	ST 10		SURFACE				
2 BIFACE		JASPER	POINT/KNIFE	WHOLE	49.87g, EARLY WOODLAND, LARGE	1	
* Subsubtotal *						1	
* TRANSECT 10	ST 11		SURFACE	ON BEACH			
3 FLAKE		CHERT	UNMODIFIED	NON-CORTEX	ROUNDED	1	
* Subsubtotal *						1	
* TRANSECT 10	ST 13		LEVEL 01	00-48CMBS			
4 FLAKE		QUARTZ	UNMODIFIED	NON-CORTEX		1	
* Subsubtotal *						1	
** Subtotal **						4	
*** Total ***						4	

POPLAR ISLAND II
ARTIFACT INVENTORY
18TA237
SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	REF
**	BEACH COLLECTION NE END			SURFACE				
60	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	1	1790-1900	5
60	Kitchen	Ceramic	Coarse Earthenware	North Devon Scraffito	RIM	1	1650-1710	1
60	Kitchen	Ceramic	Whiteware	Colored Glaze	DARK BLUE GLAZE, WORN	1		
60	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	JUG BASE	1		
60	Kitchen	Glass	Machine Made Bottle	Cobalt Blue	MODERN, DISCARDED	1	1898-PRESENT	14
60	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	5/64	1		
60	Activities	Ceramic	Toy	Doll Part		1		
** Subtotal **						7		
**	SHOVEL TEST	N0982 E1007		SURFACE				
50	FLAKE	QUARTZITE	UNMODIFIED	NON-CORTEX	DARK	1		
** Subtotal **						1		
** FEATURE 01	DREDGE TEST	N0850 E1015		LEVEL 01 00-45CMBS				
27	Kitchen	Ceramic	Whiteware	Undecorated		1	1820-PRESENT	1
27	Kitchen	Glass	Blown in Mold	Aqua		1		
27	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	1	1898-PRESENT	14
27	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	1	1898-PRESENT	14
27	Kitchen	Glass	Non Machine Made Bottle	Dark Green		1		
** Subtotal **						5		
** FEATURE 01	DREDGE TEST	N0850 E1030		LEVEL 01 00-15CMBS				
26	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900	5
26	Kitchen	Ceramic	Ironstone	Gray Undecorated	HOLLOWWARE BASE	1	1813-1900+	1
26	Kitchen	Ceramic	Redware	Brown Glaze	HOLLOWWARE	1		
26	Kitchen	Ceramic	Unidentified Ceramic	Burned White Body		1		

POPLAR ISLAND II
ARTIFACT INVENTORY
18TA237
SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	REF
26	Kitchen	Glass	Machine Made Bottle	Green	MODERN, DISCARDED	1	1898-PRESENT	14
26	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	3	1898-PRESENT	14
26	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	1	1898-PRESENT	14
** Subtotal **						9		
** FEATURE 01	DREDGE TEST	N0865 E1015		LEVEL 01	00-40CMBS			
29	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	HOLLOWWARE	1		
29	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	1	1898-PRESENT	14
** Subtotal **						2		
** FEATURE 01	DREDGE TEST	N0865 E1030		LEVEL 01	00-45CMBS			
28	Architecture	Glass	Architectural Element	Window Glass		1		
28	Kitchen	Ceramic	Whiteware	Undecorated	BASE	1	1820-PRESENT	1
28	Kitchen	Glass	Blown in Mold	Aqua		2		
28	Kitchen	Glass	Machine Made Bottle	Solarized	MODERN, DISCARDED	1	1898-PRESENT	14
** Subtotal **						5		
** FEATURE 01	DREDGE TEST	N0880 E1030		LEVEL 01	00-50CMBS			
31	Architecture	Glass	Architectural Element	Window Glass		6		
31	Architecture	Manufactured	Brick	Fragment	SAMPLE, DISCARDED	1		
31	Architecture	Manufactured	Brick	Glazed	FRAGMENT	1		
31	BLOCK/SHATTER	QUARTZ				1		
31	Clothing	Metal	Miscellaneous	Eyelet/Rivet	RIVET	1		
31	Kitchen	Biological	Food Related	Unidentified Bone		2		
31	Kitchen	Biological	Shell	Oyster	SAMPLE, DISCARDED	1		
31	Kitchen	Ceramic	Domestic Brown Stoneware	Albany Slip on Buff	CROCK BASE	1	1800-1900	4
31	Kitchen	Ceramic	Ironstone	Gray Undecorated	HOLLOWWARE	2	1813-1900+	1
31	Kitchen	Ceramic	Redware	Unglazed	WORN	2		

POPLAR ISLAND II
ARTIFACT INVENTORY
18TA237
SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	RE
31	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown	SAUCER, BLUE	1	1820-PRESENT	7
31	Kitchen	Ceramic	Whiteware	Colored Glaze	DARK BLUE GLAZE	1		
31	Kitchen	Ceramic	Yellow Ware	Rockingham/Bennington	HOLLOWWARE	1	1830-1900	5
31	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	CROCK W/MARK:"WINE../S.W.CO../BALTIMOR.."	1		
31	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	HOLLOWWARE	1		
31	Kitchen	Glass	Blown in Mold	Aqua		7		
31	Kitchen	Glass	Machine Made Bottle	Cobalt Blue	MODERN, DISCARDED	1	1898-PRESENT	14
31	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	13	1898-PRESENT	14
31	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	12	1898-PRESENT	14
31	Kitchen	Glass	Machine Made Bottle	Solarized	MODERN, DISCARDED	2	1898-PRESENT	14
31	Kitchen	Glass	Machine Made Bottle	Embossed	"..FORNIA..", CLEAR	1	1898-PRESENT	14
31	Kitchen	Glass	Non Machine Made Bottle	Dark Green		3		
31	Kitchen	Glass	Patent and Prescription Lip	Aqua		2	POST 1880's	14
31	Kitchen	Glass	Machine Made Base	Clear	MODERN, DISCARDED	1	1898-PRESENT	14
31	Arms	Metal	Projectile Part	Shot Gun Shell	DISCARDED	1		
31	Activities	Glass	Miscellaneous	Lamp Glass		1		
31	Activities	Metal	Miscellaneous Hardware	Other	THIN STRIP W/POSS. GASKETS	1		
** Subtotal **						68		

** FEATURE 01 DREDGE TEST N0880 E1045 LEVEL 01 00-50CMBS

30	Architecture	Glass	Architectural Element	Window Glass		6		
30	FLAKE	QUARTZ	UNMODIFIED	NON-CORTEX	FRAGMENT	1		
30	Kitchen	Ceramic	Creamware	Lighter Yellow	FLAT WARE	3	1762-1820	1
30	Kitchen	Ceramic	Pearlware	Undecorated		1	1779-1830	1
30	Kitchen	Ceramic	Pearlware	Other Transfer-Printed		1	1792-1840	2
30	Kitchen	Ceramic	Coarse Earthenware	North Devon Gravel Tempered	POSS. NORTH DEVON, WORN	1	1650-1775	1
30	Kitchen	Ceramic	Whiteware	Annular	HOLLOWWARE, BLUE	1	1820-1860	8

POPLAR ISLAND II
ARTIFACT INVENTORY
18TA237
SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	REF
30	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	HOLLOWWARE, BROWN GLAZE	1		
30	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	2	1898-PRESENT	14
30	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	1	1898-PRESENT	14
30	Kitchen	Glass	Unidentifiable Bottle Glass	Light Green		2		
30	Kitchen	Glass	Unidentifiable Fragment	Embossed	"THE GREAT../..DR...IL..", AQUA, MOLDED	1		
** Subtotal **						21		
** FEATURE 01	DREDGE TEST	N0895 E1045		LEVEL 01	00-45CMBS			
51	Architecture	Glass	Architectural Element	Window Glass		4		
51	Kitchen	Ceramic	Imported Brown Stoneware	British Brown	HOLLOWWARE	1	1690-1775	1
51	Kitchen	Ceramic	Early White Stoneware	White Salt-Glaze, Plain		1	1720-1805	1
51	Kitchen	Ceramic	Pearlware	Undecorated		1	1779-1830	1
51	Kitchen	Ceramic	Pearlware	Other Transfer-Printed		1	1792-1840	2
51	Kitchen	Ceramic	Whiteware	Undecorated		1	1820-PRESENT	1
51	Kitchen	Glass	Machine Made Bottle	Aqua	MODERN, DISCARDED	5	1898-PRESENT	14
51	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	2	1898-PRESENT	14
51	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	5	1898-PRESENT	14
51	Kitchen	Glass	Non Machine Made Bottle	Dark Green		2		
51	Kitchen	Glass	Unidentifiable Bottle Glass	Aqua		1		
51	Kitchen	Glass	Unidentifiable Bottle Glass	Clear		2		
51	Miscellaneous	Glass	Unidentified Glass	Melted	LIGHT GREEN	1		
51	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	4/64	1		
51	Activities	Glass	Miscellaneous	Lamp Glass		1		
** Subtotal **						29		
** FEATURE 01	DREDGE TEST	N0895 E1045		LEVEL 01	??-??CMBS			
32	Architecture	Glass	Architectural Element	Window Glass		4		
32	Kitchen	Ceramic	Early Porcelain Type	Undecorated Porcelain	BASE	1		

POPLAR ISLAND II
ARTIFACT INVENTORY
18TA237
SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	REF
32	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Brown Glaze	HOLLOWWARE	2	1750-1900	5
32	Kitchen	Ceramic	Redware	Black Glaze, Thick		1		
32	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze		1		
32	Kitchen	Ceramic	Redware	Unidentified	HOLLOWWARE, BUFF BODY, BROWN GLAZE	1		
32	Kitchen	Ceramic	Whiteware	Undecorated	PLATE RIM	2	1820-PRESENT	1
32	Kitchen	Ceramic	Whiteware	Undecorated	RIM	1	1820-PRESENT	1
32	Kitchen	Glass	Blown in Mold	Aqua		4		
32	Kitchen	Glass	Machine Made Bottle	Cobalt Blue	MODERN, DISCARDED	2	1898-PRESENT	14
32	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	9	1898-PRESENT	14
32	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	3	1898-PRESENT	14
32	Kitchen	Glass	Machine Made Bottle	Solarized	MODERN, DISCARDED	1	1898-PRESENT	14
32	Kitchen	Glass	Non Machine Made Bottle	Dark Green		4		
32	Miscellaneous	Glass	Unidentified Glass	Melted	SOLARIZED	1		
32	Miscellaneous	Glass	Unidentified Glass	Melted	AQUA	1		
32	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem		1		
** Subtotal **						39		

** FEATURE 01 DREDGE TEST N0910 E1030 LEVEL 01 00-60CMBS

34	Architecture	Glass	Architectural Element	Window Glass		2		
34	Kitchen	Biological	Food Related	Bone	LARGE MAMMAL	2		
34	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900	5
34	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Brown Glaze	HOLLOWWARE	1	1750-1900	5
34	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE RIM	1	1820-PRESENT	1
34	Kitchen	Glass	Blown in Mold	Aqua		2		
34	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	5	1898-PRESENT	14
34	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	1	1898-PRESENT	14
34	Kitchen	Glass	Non Machine Made Bottle	Dark Green		2		
34	Kitchen	Glass	Cup Bottom Mold	Light Green		1	1850-PRESENT	14

POPLAR ISLAND II
ARTIFACT INVENTORY
18TA237
SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	RE
** Subtotal **						18		
** FEATURE 01 DREDGE TEST N0910 E1045 LEVEL 01 00-30CMBS								
33	Architecture	Glass	Architectural Element	Window Glass		2		
33	Architecture	Manufactured	Brick	Glazed	FRAGMENT	1		
33	Kitchen	Biological	Food Related	Unidentified Bone		1		
33	Kitchen	Ceramic	Early White Stoneware	White Salt-Glaze, Plain	BASE	1	1720-1805	1
33	Kitchen	Ceramic	Creamware	Lighter Yellow	FLAT WARE	1	1762-1820	1
33	Kitchen	Ceramic	Redware	Brown Glaze		1		
33	Kitchen	Ceramic	Redware	Unglazed	SPALL	1		
33	Kitchen	Ceramic	Whiteware	Undecorated	PLATE RIM	1	1820-PRESENT	1
33	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	3	1898-PRESENT	14
33	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	5	1898-PRESENT	14
33	Kitchen	Glass	19th C. Pharmaceuticals (Plain)	Solarized		1	c.1850-1906	17
33	Kitchen	Glass	Table Glassware	Machine Made Tumbler	MODERN, DISCARDED	2		
33	Kitchen	Glass	Table Glassware	Machine Made Tumbler	SOLARIZED	1		
33	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	5/64	1		
** Subtotal **						22		
** FEATURE 01 SHOVEL TEST N0925 E1030 LEVEL 01 00-37CMBS								
35	Architecture	Glass	Architectural Element	Window Glass		3		
35	Kitchen	Ceramic	Redware	Black Glaze, Thick		1		
35	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	BASE	1		
35	Kitchen	Glass	Blown in Mold	Aqua		3		
35	Kitchen	Glass	Non Machine Made Bottle	Dark Green		1		
35	Kitchen	Glass	Table Glassware	Unidentified Tableglass	W/WHITE BUBBLE	1		

POPLAR ISLAND II
ARTIFACT INVENTORY
18TA237
SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	RE
** Subtotal **								
						10		
** FEATURE 01	SHOVEL TEST	N0940 E1030		LEVEL 01	00-25CMBS			
36	Kitchen	Glass	Blown in Mold	Aqua		1		
36	Kitchen	Glass	Non Machine Made Bottle	Dark Green		2		
36	Kitchen	Glass	Pressed Glass (Polished)	Solarized		1	POST 1850	15
** Subtotal **								
						4		
** FEATURE 01	TU 01	N0990 E1000		LEVEL 01	00-28CMBS			
52	Architecture	Glass	Architectural Element	Window Glass		10		
52	Architecture	Manufactured	Brick	Fragment	SAMPLE, DISCARDED	1		
52	Kitchen	Biological	Food Related	Tooth	COW	1		
52	Kitchen	Biological	Shell	Oyster	SAMPLE, DISCARDED	1		
52	Kitchen	Ceramic	Redware	Black Glaze, Thick		3		
52	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze		1		
52	Kitchen	Ceramic	Whiteware	Undecorated	CUP	2	1820-PRESENT	1
52	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	HOLLOWWARE	1		
52	Kitchen	Glass	Blown in Mold	Aqua		4		
52	Kitchen	Glass	Machine Made Bottle	Green	MODERN, DISCARDED	1	1898-PRESENT	14
52	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	4	1898-PRESENT	14
52	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	1	1898-PRESENT	14
52	Kitchen	Glass	Machine Made Bottle	Solarized				
52	Kitchen	Glass	Non Machine Made Bottle	Dark Green		2		
52	Activities	Glass	Miscellaneous	Lamp Glass		1		
** Subtotal **								
						34		

POPLAR ISLAND II
ARTIFACT INVENTORY
18TA237
SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	REF
** FEATURE 01 TU 01		N0990 E1000		LEVEL 02 28-38CMBS				
53	Architecture	Glass	Architectural Element	Window Glass		22		
53	Architecture	Glass	Miscellaneous	Lightbulb Glass	MODERN, DISCARDED	2		
53	Architecture	Manufactured	Brick	Fragment	SAMPLE, MACHINE MADE, DISCARDED	1		
53	Architecture	Manufactured	Brick	Fragment	SAMPLE, YELLOW, DISCARDED	1		
53	Architecture	Manufactured	Brick	Glazed	FRAGMENTS	2		
53	FLAKE	CHERT	UNMODIFIED	NON-CORTEX	POSS. GUNFLINT FLAKE, BLACK	1		
53	Kitchen	Biological	Shell	Oyster		43		
53	Kitchen	Biological	Shell	Clam		2		
53	Kitchen	Ceramic	Later Porcelain Type	Undecorated Porcelain, Hard	HOLLOWWARE	3		
53	Kitchen	Ceramic	Domestic Brown Stoneware	Brown Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900	5
53	Kitchen	Ceramic	Domestic Brown Stoneware	Brown Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900	5
53	Kitchen	Ceramic	Domestic Brown Stoneware	Unidentified	BUFF, NO GLAZE	1		
53	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	9	1750-1900	5
53	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	2	1790-1900	5
53	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Brown Glaze	HOLLOWWARE	1	1750-1900	5
53	Kitchen	Ceramic	Ironstone	Gray Undecorated	BOWL	2	1813-1900+	1
53	Kitchen	Ceramic	Slipware	Plain w/Clear Glaze		4		
53	Kitchen	Ceramic	Slipware	Combed w/Clear Glaze		3		
53	Kitchen	Ceramic	Redware	Black Glaze, Thick	HOLLOWWARE	2		
53	Kitchen	Ceramic	Redware	Brown Glaze	HOLLOWWARE	1		
53	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze	HOLLOWWARE	1		
53	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE	7	1820-PRESENT	1
53	Kitchen	Ceramic	Whiteware	Undecorated		6	1820-PRESENT	1
53	Kitchen	Ceramic	Whiteware	Cream-Colored Earthenware	FLAT WARE	3	1820-PRESENT	9
53	Kitchen	Ceramic	Whiteware	Annular	HOLLOWWARE, BROWN	1	1820-1860	8
53	Kitchen	Ceramic	Whiteware	Sponged	BLUE GLAZE	1	1830-1870+	8
53	Kitchen	Ceramic	Yellow Ware	Rockingham/Bennington	HOLLOWWARE	1	1830-1900	5
53	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	HOLLOWWARE	3		

POPLAR ISLAND II
ARTIFACT INVENTORY
18TA237
SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	REF
53	Kitchen	Ceramic	Unidentified Ceramic	Burned White Body	TEACUP HANDLE	1		
53	Kitchen	Ceramic	Unidentified Ceramic	Burned Stoneware	HOLLOWWARE	1		
53	Kitchen	Glass	Blown in Mold	Barware		26		
53	Kitchen	Glass	Blown in Mold	Embossed	"GU..", AQUA	3		
53	Kitchen	Glass	Machine Made Bottle	Green	MODERN, DISCARDED	2	1898-PRESENT	14
53	Kitchen	Glass	Machine Made Bottle	Cobalt Blue	MODERN, DISCARDED	1	1898-PRESENT	14
53	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	29	1898-PRESENT	14
53	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	14	1898-PRESENT	14
53	Kitchen	Glass	Machine Made Bottle	Solarized	MODERN, DISCARDED	3	1898-PRESENT	14
53	Kitchen	Glass	Machine Made Bottle	Embossed	"BALTIMORE..", AMBER	1	1898-PRESENT	14
53	Kitchen	Glass	Machine Made Bottle	Embossed	"..C../..NAPO..", SOLARIZED	1	1898-PRESENT	14
53	Kitchen	Glass	Machine Made Bottle	Embossed	"B.."	1	1898-PRESENT	14
53	Kitchen	Glass	Non Machine Made Bottle	Dark Green		8		
53	Kitchen	Glass	Machine Made Base	Clear	MODERN, DISCARDED	2	1898-PRESENT	14
53	Kitchen	Glass	Machine Made Base	Amber	MODERN, DISCARDED	1	1898-PRESENT	14
53	Kitchen	Glass	Lid Liner	Milk Glass		1	POST 1869	16
53	Kitchen	Glass	Pressed Glass (Polished)	Clear		1	POST 1850	15
53	Kitchen	Glass	Unidentifiable Fragment	Milk Glass		1		
53	Miscellaneous	Glass	Unidentified Glass	Melted	CLEAR	2		
53	Personal	Ceramic	Tobacco Pipe	Ball Clay Bowl		1		
53	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	4/64	1		
53	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	5/64	2		
53	Arms	Stone	Firearm Part	English Gun Flint	GRAY/TAN	2		
53	Activities	Glass	Miscellaneous	Lamp Glass		4		
53	Activities	Metal	Miscellaneous	Fishing Gear	FISHING LINE GUIDE	1		
** Subtotal **						137		

** FEATURE 01 TU 01 N0990 E1000 LEVEL 03 38-46CMBS

55	Architecture	Glass	Architectural Element	Window Glass		3		
55	Architecture	Manufactured	Brick	Fragment	SAMPLE, DISCARDED	1		

POPLAR ISLAND II
ARTIFACT INVENTORY
18TA237
SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	REF
55	Kitchen	Biological	Shell	Oyster	SAMPLE, DISCARDED	1		
55	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Brown Glaze	HOLLOWWARE, WORN	1	1750-1900	5
55	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE, WORN	2	1820-PRESENT	1
55	Kitchen	Ceramic	Tin Enamelled Earthenware	Blue & White	LID, BLUE ON ONE SIDE, WORN	1	1620-1800	1
55	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	9	1898-PRESENT	14
55	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	5	1898-PRESENT	14
55	Kitchen	Glass	Machine Made Bottle	Solarized	MODERN, DISCARDED	1	1898-PRESENT	14
55	Kitchen	Glass	Non Machine Made Bottle	Dark Green		2		
55	Kitchen	Glass	Table Glassware	Opaque Blue	RIBBED	1		
55	Kitchen	Glass	Unidentifiable Bottle Glass	Aqua		1		
55	Kitchen	Synthetic	Storage/Service Item	Styrofoam	SAMPLE, DISCARDED	1		
** Subtotal **						29		
** FEATURE 01	TU 03	N0865 E1035		LEVEL 01	00-33CMBS			
58	Architecture	Glass	Architectural Element	Window Glass		49		
58	Architecture	Glass	Miscellaneous	Lightbulb Glass	MODERN, DISCARDED	1		
58	FLAKE	QUARTZITE	UNMODIFIED	NON-CORTEX		1		
58	FLAKE	CHERT	UTILIZED	NON-CORTEX		1		
58	Kitchen	Biological	Food Related	Unidentified Bone		3		
58	Kitchen	Biological	Food Related	Tooth	PIG	1		
58	Kitchen	Biological	Shell	Oyster	SAMPLE, DISCARDED	1		
58	Kitchen	Ceramic	Early Porcelain Type	Underglaze Blue Chinese	CUP RIM	1	1660-1800	2
58	Kitchen	Ceramic	Later Porcelain Type	Undecorated Porcelain, Hard		1		
58	Kitchen	Ceramic	Imported Brown Stoneware	Unidentified	HOLLOWWARE	2		
58	Kitchen	Ceramic	Domestic Brown Stoneware	Brown Salt-Glaze, Undecorated	HOLLOWWARE	3	1750-1900	5
58	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	4	1750-1900	5
58	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK	4	1790-1900	5
58	Kitchen	Ceramic	Ironstone	Gray Undecorated	HOLLOWWARE	4	1813-1900+	1
58	Kitchen	Ceramic	Ironstone	Gray Undecorated	FLAT WARE	5	1813-1900+	1

POPLAR ISLAND II
ARTIFACT INVENTORY
18TA237
SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	REF
58	Kitchen	Ceramic	Pearlware	Green Shell-Edged	RIM	1	1780-1830	2
58	Kitchen	Ceramic	Slipware	Plain w/Clear Glaze		1		
58	Kitchen	Ceramic	Redware	Black Glaze, Fine	HOLLOWWARE	1		
58	Kitchen	Ceramic	Redware	Black Glaze, Thick	HOLLOWWARE	2		
58	Kitchen	Ceramic	Redware	Brown Glaze	HOLLOWWARE, WORN	2		
58	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze	HOLLOWWARE	4		
58	Kitchen	Ceramic	Whiteware	Undecorated		18	1820-PRESENT	1
58	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown	BROWN	2	1820-PRESENT	7
58	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown	BLUE	1	1820-PRESENT	7
58	Kitchen	Ceramic	Yellow Ware	Dipped/Annular	HOLLOWWARE, BROWN & BLUE	3	1840-1930's	12
58	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)	HOLLOWWARE, W/MARK:"..CHES W.."	1	1840-1900+	1
58	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	HOLLOWWARE	5		
58	Kitchen	Glass	Blown in Mold	Light Green		14		
58	Kitchen	Glass	Blown in Mold	Aqua		14		
58	Kitchen	Glass	Blown in Mold	Embossed	AQUA	2		
58	Kitchen	Glass	Machine Made Bottle	Green	MODERN, DISCARDED	5	1898-PRESENT	14
58	Kitchen	Glass	Machine Made Bottle	Aqua	MODERN, DISCARDED	2	1898-PRESENT	14
58	Kitchen	Glass	Machine Made Bottle	Cobalt Blue	MODERN, DISCARDED	2	1898-PRESENT	14
58	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	64	1898-PRESENT	14
58	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	43	1898-PRESENT	14
58	Kitchen	Glass	Machine Made Bottle	Embossed	"..ACHE/CAF-FEE..", AMBER, SMALL BOTTLE	1	1898-PRESENT	14
58	Kitchen	Glass	Non Machine Made Bottle	Dark Green		10		
58	Kitchen	Glass	19th C. Pharmaceuticals (Plain)	Solarized		1	c.1850-1906	17
58	Kitchen	Glass	Machine Made Lip	Aqua	MODERN, DISCARDED	1	1898-PRESENT	14
58	Kitchen	Glass	Machine Made Lip	Clear	MODERN, DISCARDED	1	1898-PRESENT	14
58	Kitchen	Glass	Tooled Lip	Dark Green		2	c.1820-c.1920	14

POPLAR ISLAND II
ARTIFACT INVENTORY
18TA237
SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	REF
58	Kitchen	Glass	Patent and Prescription Lip	Aqua		3	POST 1880's	14
58	Kitchen	Glass	Patent and Prescription Lip	Clear		1	POST 1880's	14
58	Kitchen	Glass	Patent and Prescription Lip	Embossed	"CAF-FEE-NO DRUG & ADV. CO/ BALTO, MD.", CLEAR	1	POST 1880's	14
58	Kitchen	Glass	Machine Made Base	Clear	MODERN, DISCARDED	1	1898-PRESENT	14
58	Kitchen	Glass	Machine Made Base	Amber	MODERN, DISCARDED	3	1898-PRESENT	14
58	Kitchen	Glass	Cup Bottom Mold	Aqua		1	1850-PRESENT	14
58	Kitchen	Glass	Cup Bottom Mold	Embossed	"THE POTTER CO., PARLIN", AQUA	1	1850-PRESENT	14
58	Kitchen	Glass	Table Glassware	Machine Made Tumbler	MODERN, DISCARDED	3		
58	Kitchen	Glass	Pressed Glass (Polished)	Clear		3	POST 1850	15
58	Kitchen	Glass	Pressed Glass (Polished)	Solarized		1	POST 1850	15
58	Kitchen	Glass	Unidentifiable Bottle Glass	Dark Green		4		
58	Kitchen	Glass	Unidentifiable Bottle Glass	Clear		13		
58	Kitchen	Glass	Unidentifiable Bottle Glass	Solarized		1		
58	Miscellaneous	Glass	Unidentified Glass	Melted	AQUA	4		
58	Personal	Ceramic	Tobacco Pipe	Ball Clay Bowl		5		
58	Personal	Ceramic	Tobacco Pipe	Reed Stem Bowl		2		
58	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	4/64	5		
58	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	5/64	4		
58	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	6/64	1		
58	Arms	Metal	Projectile Part	Shot Gun Shell	DISCARDED	4		
58	Activities	Glass	Miscellaneous	Lamp Glass		2		
** Subtotal **						347		

** FEATURE 02 DREDGE TEST N1060 E1015 LEVEL 01 00-20CMBS

47	Architecture	Glass	Architectural Element	Window Glass		1		
47	Architecture	Metal	Construction Hardware	Bolt and/or Bracket	BOLT FRAGMENTS	3		
47	Miscellaneous	Metal	Unidentified Object	Non-Ferrous Metal	LEAD STRIP	1		

POPLAR ISLAND II
ARTIFACT INVENTORY
18TA237
SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	RE
** Subtotal **						5		
** FEATURE 02	SHOVEL TEST	N0970 E1000		LEVEL 01 00-65CMBS				
38	Kitchen	Ceramic	Pearlware	Undecorated		1	1779-1830	1
** Subtotal **						1		
** FEATURE 02	SHOVEL TEST	N0970 E1015		LEVEL 01 &200-35CMBS				
37	Kitchen	Glass	Machine Made Bottle	Aqua	MODERN, DISCARDED	2	1898-PRESENT	14
37	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	2	1898-PRESENT	14
37	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	4	1898-PRESENT	14
** Subtotal **						8		
** FEATURE 02	SHOVEL TEST	N0985 E1000		LEVEL 02 30-40CMBS				
40	Kitchen	Ceramic	Later Porcelain Type	Undecorated Porcelain, Hard	SAUCER	1		
40	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	3	1898-PRESENT	14
40	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	1	1898-PRESENT	14
** Subtotal **						5		
** FEATURE 02	SHOVEL TEST	N0985 E1030		LEVEL 01 00-35CMBS				
39	Kitchen	Ceramic	Whiteware	Shell-Edged	PLATE RIM, BLUE	1	1820-1860's	9
** Subtotal **						1		
** FEATURE 02	SHOVEL TEST	N1000 E1000		LEVEL 02 35-48CMBS				
42	Architecture	Glass	Architectural Element	Window Glass		3		
42	Kitchen	Glass	Blown in Mold	Aqua		1		
42	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	2	1898-PRESENT	14

POPLAR ISLAND II
ARTIFACT INVENTORY
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SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	REF
42	Kitchen	Glass	Machine Made Base	Embossed	"..CO.", SOLARIZED	1	1898-PRESENT	14
42	Kitchen	Glass	Unidentifiable Bottle Glass	Dark Green		1		
** Subtotal **						8		
** FEATURE 02	SHOVEL TEST	N1000 E1015	SURFACE					
41	Kitchen	Glass	Bare Iron Pontil	Dark Green		1	1845-1880	16
** Subtotal **						1		
** FEATURE 02	SHOVEL TEST	N1015 E1015	LEVEL 01	00-16CMBS				
43	Kitchen	Glass	Blown in Mold	Aqua		1		
43	Kitchen	Glass	Non Machine Made Bottle	Dark Green		1		
** Subtotal **						2		
** FEATURE 02	SHOVEL TEST	N1030 E1000	LEVEL 01	00-20CMBS				
44	Kitchen	Ceramic	Whiteware	Shell-Edged	PLATE RIM, BLUE	1	1820-1860's	9
44	Kitchen	Ceramic	Yellow Ware	Rockingham/Bennington		1	1830-1900	5
44	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	W/MARK:"..CHANG../..WINES & LIQUORS/..ALTIMORE"	1		
** Subtotal **						3		
** FEATURE 02	SHOVEL TEST	N1030 E1000	LEVEL 02	20-30CMBS				
45	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown	BLUE	1	1820-PRESENT	7
45	Kitchen	Ceramic	Whiteware	Sponged	RED	1	1830-1870+	8
45	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	1	1898-PRESENT	14

POPLAR ISLAND II
ARTIFACT INVENTORY
18TA237
SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	RE
** Subtotal **								
						3		
** FEATURE 02	TU 03	N0865 E1035		LEVEL 02	33-41CMBS			
59	Architecture	Glass	Architectural Element	Window Glass		6		
59	Architecture	Manufactured	Brick	Fragment	SAMPLE, DISCARDED	1		
59	Clothing	Synthetic	Clothing Item	Miscellaneous Rubber Clothing	RUBBER WORK GLOVE, DISCARDED	1		
59	Kitchen	Biological	Shell	Oyster	SAMPLE, DISCARDED	1		
59	Kitchen	Ceramic	Early Porcelain Type	Underglaze Blue Chinese		1	1660-1800	2
59	Kitchen	Ceramic	Domestic Brown Stoneware	Brown Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900	5
59	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	2	1750-1900	5
59	Kitchen	Ceramic	Ironstone	Gray Undecorated	HOLLOWWARE	2	1813-1900+	1
59	Kitchen	Ceramic	Pearlware	Annular	BOWL RIM, GREEN BROWN & TAN	1	1790-1820	2
59	Kitchen	Ceramic	Coarse Earthenware	North Devon Scraffito	RIM	1	1650-1710	1
59	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze		1		
59	Kitchen	Ceramic	Whiteware	Undecorated		3	1820-PRESENT	1
59	Kitchen	Ceramic	Industrial Stoneware	Late White Stoneware	HOLLOWWARE	2		
59	Kitchen	Glass	Blown in Mold	Aqua		6		
59	Kitchen	Glass	Machine Made Bottle	Green	MODERN, DISCARDED	2	1898-PRESENT	14
59	Kitchen	Glass	Machine Made Bottle	Aqua	MODERN, DISCARDED	1	1898-PRESENT	14
59	Kitchen	Glass	Machine Made Bottle	Cobalt Blue	MODERN, DISCARDED	1	1898-PRESENT	14
59	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	3	1898-PRESENT	14
59	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	5	1898-PRESENT	14
59	Kitchen	Glass	Machine Made Bottle	Solarized	MODERN, DISCARDED	5	1898-PRESENT	14
59	Kitchen	Glass	Non Machine Made Bottle	Dark Green		2		
59	Kitchen	Glass	Patent and Prescription Lip	Aqua		1	POST 1880's	14
59	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	5/64	1		
59	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem	WORN	1		
59	Activities	Glass	Miscellaneous	Lamp Glass		1		

POPLAR ISLAND II
ARTIFACT INVENTORY
18TA237
SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	REF
** Subtotal **						52		
** FEATURE D3	SHOVEL TEST	N1D45 E094D		LEVEL D2	30-40CMBS			
46	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	1	1898-PRESENT	14
46	Kitchen	Glass	Non Machine Made Bottle	Dark Green		1		
** Subtotal **						2		
** FEATURE 03	SHOVEL TEST	N1060 E0910		LEVEL 01	00-27CMBS			
48	Architecture	Glass	Architectural Element	Window Glass		2		
48	Architecture	Metal	Unidentified	Nail		1		
48	FLAKE	CHERT	UNMODIFIED	NON-CORTEX		1		
48	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900	5
** Subtotal **						5		
** FEATURE 03	SHOVEL TEST	N1060 E0925		LEVEL 01	00-10CMBS			
49	FLAKE	QUARTZITE	UNMODIFIED	NON-CORTEX	DARK	1		
49	Kitchen	Ceramic	Redware	Black Glaze, Thick		1		
49	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	1	1898-PRESENT	14
49	Kitchen	Glass	Unidentifiable Bottle Glass	Light Green		3		
** Subtotal **						6		
** FEATURE 03	TU D2	N1060 E0914		LEVEL 01	30-35CMBD			
56	Architecture	Glass	Architectural Element	Window Glass		9		
56	Architecture	Manufactured	Brick	Fragment	SAMPLE, DISCARDED	50		
56	Architecture	Metal	Machine Cut Nail, Common	Fragment		1	1815-1890	13
56	FLAKE	QUARTZ	UNMODIFIED	SECONDARY		1		
56	FLAKE	SILICIFIED SAND	UNMODIFIED	SECONDARY		1		

POPLAR ISLAND II
ARTIFACT INVENTORY
18TA237
SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	REF
56	BIFACE	CHERT	POINT/KNIFE	BASE	5.25g, BROKEN BASE/TIP, SIDE-NOTCHED	1		
56	Kitchen	Biological	Shell	Oyster	SAMPLE, DISCARDED	1		
56	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900	5
56	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Brown Glaze	HOLLOWWARE	1	1750-1900	5
56	Kitchen	Ceramic	Whiteware	Finger-Painted	HOLLOWWARE, BROWN & BLUE	1	1820-1860	8
56	Kitchen	Glass	Machine Made Bottle	Green	MODERN, DISCARDED	2	1898-PRESENT	14
56	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	2	1898-PRESENT	14
56	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	2	1898-PRESENT	14
56	Kitchen	Glass	Non Machine Made Bottle	Dark Green		6		
56	Kitchen	Glass	Unidentifiable Bottle Glass	Aqua		4		
** Subtotal **						83		
** FEATURE 03	TU 02	N1060 E0914		LEVEL 02	35-48CMBS			
57	Architecture	Glass	Architectural Element	Window Glass		8		
57	Architecture	Manufactured	Brick	Fragment	SAMPLE, DISCARDED	1		
57	Architecture	Metal	Unidentified	Cut/Wrought Nail		1		
57	FLAKE	QUARTZ	UNMODIFIED	NON-CORTEX		1		
57	Kitchen	Biological	Shell	Oyster	SAMPLE, DISCARDED	1		
57	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE	1	1750-1900	5
57	Kitchen	Ceramic	Coarse Earthenware	North Devon Scraffito		1	1650-1710	1
57	Kitchen	Ceramic	Redware	Black Glaze, Thick		2		
57	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze		1		
57	Kitchen	Ceramic	Whiteware	Undecorated	RIM	1	1820-PRESENT	1
57	Kitchen	Ceramic	Whiteware	Annular	HOLLOWWARE, BLUE & BROWN	1	1820-1860	8
57	Kitchen	Glass	Blown in Mold	Aqua		9		
57	Kitchen	Glass	Machine Made Bottle	Cobalt Blue	MODERN, DISCARDED	1	1898-PRESENT	14
57	Kitchen	Glass	Machine Made Bottle	Clear	MODERN, DISCARDED	12	1898-PRESENT	14
57	Kitchen	Glass	Machine Made Bottle	Amber	MODERN, DISCARDED	4	1898-PRESENT	14
57	Kitchen	Glass	Machine Made Bottle	Solarized	MODERN, DISCARDED	6	1898-PRESENT	14

POPLAR ISLAND II
ARTIFACT INVENTORY
18TA237
SOUTH CENTRAL ISLAND

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE RANGE	REF
57	Kitchen	Glass	Machine Made Bottle	Embossed	"..YCERINE../..BALTO..", CLEAR	1	1898-PRESENT	14
57	Kitchen	Glass	Non Machine Made Bottle	Dark Green		10		
57	Kitchen	Glass	Cup Bottom Mold	Aqua		1	1850-PRESENT	14
57	Kitchen	Glass	Unidentifiable Fragment	Milk Glass		1		
57	Miscellaneous	Metal	Unidentified Object	Non-Ferrous Metal	KNOB END	1		
57	Activities	Glass	Miscellaneous	Lamp Glass		1		
** Subtotal **						66		
*** Total ***						1138		

POPLAR ISLAND
UNDERWATER
ARTIFACT INVENTORY

FS#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	COMMENTS	COUNT	DATE
**	NORTH ISLAND	18TAX5					
*	GENERAL						
			SURFACE				
	0 BIFACE	QUARTZ	POINT/KNIFE	WHOLE	POSS. SELBY BAY, VERY WATER WORN, 10.25g (ORIG. FS# 8)	1	
	29 BIFACE	QUARTZ	POINT/KNIFE	WHOLE	CLAGETT, VERY WATER WORN, 5.92g (ORIG. FS# 8)	1	
*	Subsubtotal *						
						2	
**	Subtotal **						
						2	
**	ANOMALY 30-1151	18TAX8					
*	05' FROM DATUM @180'						
			00-03'BS				
	4 Architecture	Metal	Wire Nail	Fragment	MODERN, DISCARDEO	3	POST 1890
*	Subsubtotal *						
						3	
*	20' FROM DATUM @180'						
			00-03'BS				
	5 TOOL	QUARTZITE	HAMMERSTONE		POSS. HAMMERSTONE, TWO IMPACT AREAS, 384.7g	1	
*	Subsubtotal *						
						1	
**	Subtotal **						
						4	
**	ANOMALY 40-665	18TAX8					
*	50' FROM DATUM @80'						
			00-03'BS				
	6 Architecture	Manufactured	Brick	Partial	MACHINE MADE, DISCARDED	1	
*	Subsubtotal *						
						1	
**	Subtotal **						
						1	
***	Total ***						
						7	

APPENDIX VI

MOLLUSK SHELL ANALYSIS

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POPLAR ISLAND

MOLLUSK SHELL ANALYSIS

During Phase II investigations at Poplar Island, analysis of a variety of mollusk shells from the project area was made in an attempt to establish the age, manner of deposition, and possible cultural association of the material. Shells were recovered from underwater contexts within Anomaly 30-1151.

Recovered mollusk remains were collected during field excavations, cataloged with other artifacts, and returned to the laboratory for processing. Shells from five field samples were selected for analysis. Five distinct species of mollusks were identified within the site sample. Table p 1 presents, for each of the samples analyzed, the field sample number, provenience, species composition, and number of valves.

Oysters, soft shell clams, razor clams, hooked mussels, and little surf clams were identified:

The American Oyster (*Crassostrea virginica*) occupies a variety of habitats, surviving in environments which differ greatly in water salinity, depth, and turbidity. Within the Chesapeake Bay and its tributaries oysters live subtidally, mostly in water depths ranging from 8 to 25 feet (Lippson and Lippson 1984). The oysters recovered from the Poplar Island assemblage were identified as Sand Oysters: Short, broad oysters which grow on beaches and bars of firm sand. Oysters of this type are generally intertidal, they frequently have well developed radial ribs and strongly colored valves caused by exposure to sunlight (Medcof 1949, Kent 1988).

The soft shelled clam (*Mya arenaria*) lives buried in sand and mud in the moderately salty to salty (salinity 10 to 30 parts per thousand) waters of the Chesapeake. The shell is generally thin, with the hinge of one valve exhibiting a projecting tooth, paried with a socket on the opposite valve.

The stout razor clam (*Tagelus plebeius*) lives intertidally to subtidally, buried in sand and sandy mud. Razor clams occupy waters of the mid to lower Chesapeake Bay.

The hooked mullsel (*Ischadium recurvum*) lives attached to shells, rocks, and other hard substrates throughout the Bay. The shell is sharply bent, with a beak at the end of the shell, and with the shell surface exhibiting strong radiating ribs.

The little surf clam, or coot clam (*Mulinia lateralis*) lives buried in sand, subtidally in the saltier regions of the Chesapeake. The shell is smooth, and slopes to a posterior ridge.

Phase II analysis of molluscan remains from Poplar Island confirms that the recovered shells grew and died in the near vicinity of the Poplar Island group. However, analysis also revealed that the recovered mollusk remains were of modern origin, and have no bearing on the Archeology of the Poplar Islands.

Throughout the assemblage, the manner of shell growth points to the development of oysters in the shallow, sandy flats around the islands; the epibiont damage in evidence on many of the valves is consistent

with organisms which live comfortably in the moderately salty waters of the Chesapeake Bay (salinity of 10-18 parts per thousand), typical of the waters around the Poplars.

On many of the recovered shells, the periostracumand hinge materials were partially intact. These soft, papery tissues decompose soon after the mollusk dies, and are quickly eroded from the persistent shell. The presence of these materials on the Poplar Island shells makes them easily identifiable as **very recently deposited, natural debris.**

No butchering marks of any kind were in evidence on any of the recovered mollusk valves.

The persistence of fleshy tissues on the shell assemblage from underwater investigations at Poplar Island, their mixed composition, their random internment, and the absence of any cultural marks on the shells point to their recent deposition by natural means, and not through any cultural connection either prehistoric, historic, or recent.

Table p1: Mollusk Shell Remains from Poplar Island

	fs#001	fs#002	fs#003	fs#004	fs#005	TOTAL
Stout Razor Clam (*Tagelus plebius*)	2	6	5	15	3	31
Soft Shell Clam (*Mya arenaria*)	10	24	18	45	26	123
Oyster (*Cassostrea virginica*)	17	19	16	14	24	90
Hooked Mussel (*Ischadium recurvum*)				2		2
Little Surf Clam (*Mulinia lateralis*)				1		1
TOTAL	29	49	39	77	53	247

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