PHASE I ARCHEOLOGICAL SURVEY FOR THE VIRTS PROPERTY WETLANDS CREATION AREA, ST. MARY'S COUNTY, MARYLAND

FINAL REPORT

CHRISTOPHER R. POLGLASE, M.A., ABD
PRINCIPAL INVESTIGATOR

BY

MICHAEL B. HORNUM, PH.D., BRIAN A. STONE, M.A., AND BRIAN CLEVEN, M.S.

R. CHRISTOPHER GOODWIN & ASSOCIATES, INC.
241 EAST FOURTH STREET, SUITE 100
FREDERICK, MARYLAND 21701

MAY 2002

FOR

ENTRIX, INC.
10 CORPORATE CIRCLE, SUITE 100
NEW CASTLE, DELAWARE 19720

ABSTRACT

This report presents the results of Phase I archeological survey undertaken during March 2002 at a 7-ac (2.8-ha) parcel on the Virts property, St. Mary's County, Maryland. The report was prepared by R. Christopher Goodwin & Associates, Inc., under subcontract to ENTRIX, Inc., on behalf of the NOAA Office of Habitat Conservation, pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended.

The archeological survey included intensive surface collection of the recently plowed and disked agricultural field. After the weekend rains of March 2 and 3, 2002, the field was collected at a 3 m (9.8 ft) lane interval. A total of 30 shovel tests were excavated at a 10 m (32.8 ft) interval in areas where artifacts were recovered.

A total of 34 artifacts were recovered from the surface collection, and two additional artifacts were recovered from shovel tests. The artifact assemblage included 27 prehistoric artifacts and 9 historic artifacts. Two prehistoric sites were identified. Virts Site 1 (18ST767) produced 11 artifacts, and appears to represent an Early Woodland resource procurement and processing area, featuring hearth-related activities, lithic reduction, and perishable resource processing. Virts Site 2 (18ST768) yielded 16 artifacts, and appears to reflect a diffuse scatter of prehistoric activity, featuring perishable resource processing, lithic reduction, and hearth-related activities. The historic materials were widely scattered, and appear to reflect nothing more than twentieth century casual discard.

Virts Site 1 (18ST767) produced no sub-surface artifacts, and the absence of definitive oyster shell concentrations on the surface suggests that no midden or pit features remain intact below the plowzone. The impact of historic plowing probably has eliminated the site's integrity, thereby reducing its research potential significantly. As a result, no further archeological work is recommended. Virts Site 2 (18ST768) contains an extremely low density of artifacts and the absence of temporally diagnostic items. Therefore, the site retains little potential to identify discrete prehistoric activity areas or to place those activities within a distinct temporal framework. As a result, the site appears to lack significant research potential, and no further work is recommended. No further work appears warranted or is recommended for any other portions of the project area because the remaining artifacts represent causal discard.

TABLE OF CONTENTS

ABSTRACT iii

LIST OF FIGURES vii

LIST OF TABLES ix

I. INTRODUCTION 1
Project Location and Characteristics 1
Research Objectives and Design 1
Organization of the Report 1

II. NATURAL AND CULTURAL SETTING 3
Natural Setting 3
Topography and Vegetation 3
Geomorphology and Pedology 3
Climate 4
Prehistoric Cultural Setting 4
Previous Investigations 4
Cultural Sequence 9
Paleo-Indian/Early Archaic Period 9
The Archaic Period 11
The Woodland Period 12
Contact Period 13
Historic Cultural Setting 14
Previous Investigations 14
Cultural Sequence 14
Contact and Settlement Period (1570 - 1750) 14
Rural Agrarian Intensification and Agricultural - Industrial Transition (1680 - 1870) 16
Industrial/Urban Dominance (1870 - 1930) 19
Modern Period (1930 - Present) 20

III. RESEARCH METHODS 23
Archival Investigations 23
Field Investigations 23
General Laboratory Methods 23
Historic Artifacts: Analytical Methods 24
Prehistoric Artifacts: Analytical Methods 25
Prehistoric Ceramic Analysis 25
Prehistoric Lithic Analysis 26
Bifaces 26
Cores 26
Debitage 27

Fire-Cracked Rock 28
Retouched Flakes 28
Raw Material Classes 28
Records and Curation 29

IV. RESULTS OF PHASE I SURVEY 31
Archival Results 31
Results of Archeological Investigations 31

V. SUMMARY AND RECOMMENDATIONS 41
Summary 41
Recommendations 41

REFERENCES CITED 43

ACKNOWLEDGMENTS 51

ARTIFACT INVENTORY ..... Appendix I

RESUMES OF KEY PROJECT PERSONNEL ..... Appendix II

LIST OF FIGURES

Figure 1. Map of Maryland showing the general location of the project area in St. Mary's County 5

Figure 2. Portion of the 1987 USGS 7.5 Minute Mechanicsville, Maryland quadrangle showing the location of the project area 7

Figure 3. Portion of Augustine Herrman's 1673 *Virginia and Maryland* showing the general vicinity of the project area 13

Figure 4. Portion of the 1901 Mechanicsville USGS quadrangle showing the vicinity of the project area 21

Figure 5. Plan of Phase I testing 33

Figure 6. Photograph of prehistoric projectile points/knives from Site 18ST768 (FS #21) and Site 18ST767 (FS #22) 35

Figure 7. Site 18ST767, photograph of four prehistoric ceramic sherds (FS #10) 37

Figure 8. Photograph of selected historic artifacts: from left to right, amber machine-made bottle (FS #3), domestic stoneware (FS #26), and clear machine-made bottle base (FS #8) 39

LIST OF TABLES

Table 1. Previously Identified Archeological Sites Located Within 3.2 km (2 mi) of the Project Area 9

Table 2. Previously Surveyed Architectural Sites Located Within 3.2 km (2 mi) of the Project Area 14

CHAPTER I

INTRODUCTION

This report presents the results of Phase I archeological survey undertaken during March 2002 at a 7-ac (2.8-ha) parcel on the Virts property, St. Mary's County, Maryland. The report was prepared by R. Christopher Goodwin & Associates, Inc., under subcontract to ENTRIX, Inc., on behalf of the NOAA Office of Habitat Conservation, pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended. All work was completed following standards promulgated in *Standards and Guidelines for Archeological Investigations in Maryland* (Shaffer and Cole 1994), and in accordance with the Secretary of Interior's *Standards and Guidelines* (48FR 47716-42), and with the Advisory Council on Historic Preservation's Handbook entitled *Treatment of Archeological Properties*, and with 36 CFR Part 800.

Project Location and Characteristics

The project area was located near Trent Hall, within the Atlantic Coastal Plain physiographic province. The area measured approximately 7.0 ac (2.8 ha), and was located along Washington Creek. The proposed project will involve the creation of a wetland to assist in the mitigation of environmental impacts resulting from an oil spill at a nearby Potomac Electric (PEPCO) facility.

Research Objectives and Design

The objective of the Phase I archeological survey was to identify and provide preliminary assessments of archeological resources located within the project corridor. This was achieved through a combination of archival background research; archeological field investigations, including pedestrian reconnaissance and systematic excavation of shovel tests; and laboratory analysis of recovered cultural remains.

The survey was completed during March 2002. Christopher R. Polglase, M.A., ABD, served as Principal Investigator and supervised all aspects of the study; Michael B. Hornum, Ph.D., served as Project Manager. Dr. Hornum, and Brian Stone, M.A. directed field investigations. They were assisted by Ashley Watson, B.A., and Nate Workman, B.A. Darlene Hassler, B.A., and K.D. Tyree, M.A., conducted the laboratory analyses. Brian Cleven, M.S., conducted the archival research.

Organization of the Report

Chapter I contains a description of the nature and objectives of the project. The natural and cultural settings of the project area are described in Chapter II, which also includes a review of previous archeological research conducted in the vicinity of the project area. Chapter III provides a

research design and describes the methods applied during this study. Chapter IV presents the results of the archeological investigations, and Chapter V summarizes the report and presents management recommendations. Appendix I presents an inventory of the artifacts recovered from the site; Appendix II contains resumes of key project personnel.

CHAPTER II

NATURAL AND CULTURAL SETTING

Natural Setting

The project area is situated in northern St. Mary's County, Maryland, within Maryland Archeological Unit No. 9 (Estuarine Patuxent Drainage) (Figure 1). The project area is a lowland flat along the eastern side of Washington Creek. The site is bordered by Washington Creek to the west and south, by an unnamed drainage to the east, and by the limits of recent plowing to the north. The project area lies approximately 0.5 mi (0.8 km) southwest of Trent Hall (Figure 2).

The proposed project area lies within the Atlantic Coastal Plain physiographic region. The Atlantic Coastal Plain is composed of marine deposits of sand, silt, clay, and gravel that often are present as thick and unconsolidated beds. The topography of St. Mary's County is characterized as a moderately to severely eroded or dissected upland plateau defined by the broad, low terraces of the Potomac River and the Patuxent River-Chesapeake Bay drainages (Gibson 1978).

Topography and Vegetation

The topography of the project area is best characterized as a lowland flat. The project area elevation is approximately 5 ft (1.5 m). There was no vegetation in the project area because it consisted of a recently plowed and disked agricultural field.

Geomorphology and Pedology

Soils in the project area are mapped as belonging to the Mattapeake-Mattapex-Sassafras association, which consists of well drained and moderately well drained, nearly level to strongly sloping, silty and loamy soils generally underlain by a sandy substratum (Gibson 1978). Two soil types are mapped in the project area vicinity, Evesboro loamy sand and Sassafras sandy loam. The representative profile from the Evesboro series consists of a 5 cm (2 in) thick A1 horizon of dark gray (10YR 4/1) loamy sand, underlain by 58 cm (23 in) of yellowish brown (2.5Y 6/4) loamy sand B2 horizon soils, 36 cm (14 in) of pale yellow (2.5Y 7/4) loamy coarse sand B3 horizon soils, 35.6 cm (14 in) of yellowish brown (10YR 5/6) sandy loam IIC1 horizon soils, and 53 cm (21 in) of pale yellow (2.5Y 7/4) loamy sand C horizon soils (Gibson 1978:23-24). The representative profile from the Sassafras series consists of a 23 cm (9 in) thick Ap horizon of brown (10YR 5/3) sandy loam, underlain by 30 cm (12 in) of yellowish brown (10YR 5/4) loam B1 horizon soils, 28 cm (11 in) of brown (7.5YR 5/4) sandy clay loam B2t horizon soils, 20 cm (8 in) of strong brown (7.5YR 5/6) sandy loam B3 horizon soils, 30 cm (12 in) of strong brown (7.5YR 5/6) gravelly sandy loam C1 horizon soils, and 46 cm (18 in) of brownish yellow (10YR 6/8) loamy sand IIC2 horizon soils (Gibson 1978:38).

Climate

St. Mary's County experiences well-defined seasons that are slightly moderated by the region's proximity to the Chesapeake Bay, and Patuxent and Potomac River drainage systems. Annual precipitation in the county averages 104.27 cm (41.05 in), with June or July being the wettest months and January or October the driest. Thunderstorms are common from May through August and occur on an average of 32 days per year. Droughts are typically experienced in the summer, but may occur in any month or season. The latter half of July is typically the warmest season, with the average maximum temperature reaching 89° F. The maximum daily temperature exceeds 89° F on an average of 38 days per year and drops below 33° F an average of 100 days per year. The coldest daily temperatures typically occur from early December through late January when morning temperatures average 23° F. The growing season in St. Mary's County ranges between 180 and 200 days. A range of 169 to 200 days has been recorded for the growing season in the Leonardtown area (Gibson 1978).

Prehistoric Cultural Setting

Previous Investigations

Although many archeological projects have focused on colonial period sites in St. Mary's County, few extensive or systematic studies have documented the region's prehistoric resources (Wilke and Thompson 1979:110). Only sparse results have been obtained during investigations of interior areas, suggesting that the prehistoric occupants of the region utilized inland environments only sporadically, primarily during the Late Archaic and Early Woodland periods.

Two major studies have attempted to synthesize a baseline for prehistoric occupation in Southern Maryland. Steponaitis (1986) studied prehistoric site patterns on the eastern bank of the lower Patuxent drainage in Calvert County. In 1989, Reeve et al. established a framework for prehistoric occupation on the Patuxent River's western shore with their survey of the archeological resources of Myrtle Point, located approximately 20.2 km (12.5 mi) downriver from the current project area. Elements of these studies have been incorporated into the prehistoric cultural framework that follows.

One large-scale archeological study along the eastern shore of the Patuxent River documented two sites with prehistoric components within 3.2 km (2 mi) of the project area (Steponaitis 1983). A smaller survey identified one prehistoric site in the vicinity of the project area (Gibb 1992). This site was tested further (Greenhorne & O'Mara 1992)

The 18 prehistoric sites officially recorded within the site files at the Maryland Historical Trust (MHT) (Table 1) generally represent two functional categories: shell middens and generalized lithic scatters. The temporal framework of 13 sites could not be determined. The remaining sites demonstrate that prehistoric occupation around the project area spanned the following periods and phases: Archaic; Early Woodland; Middle Woodland; and Late Woodland. Two sites (18ST72; 18CV115) contained components representing more than one period.

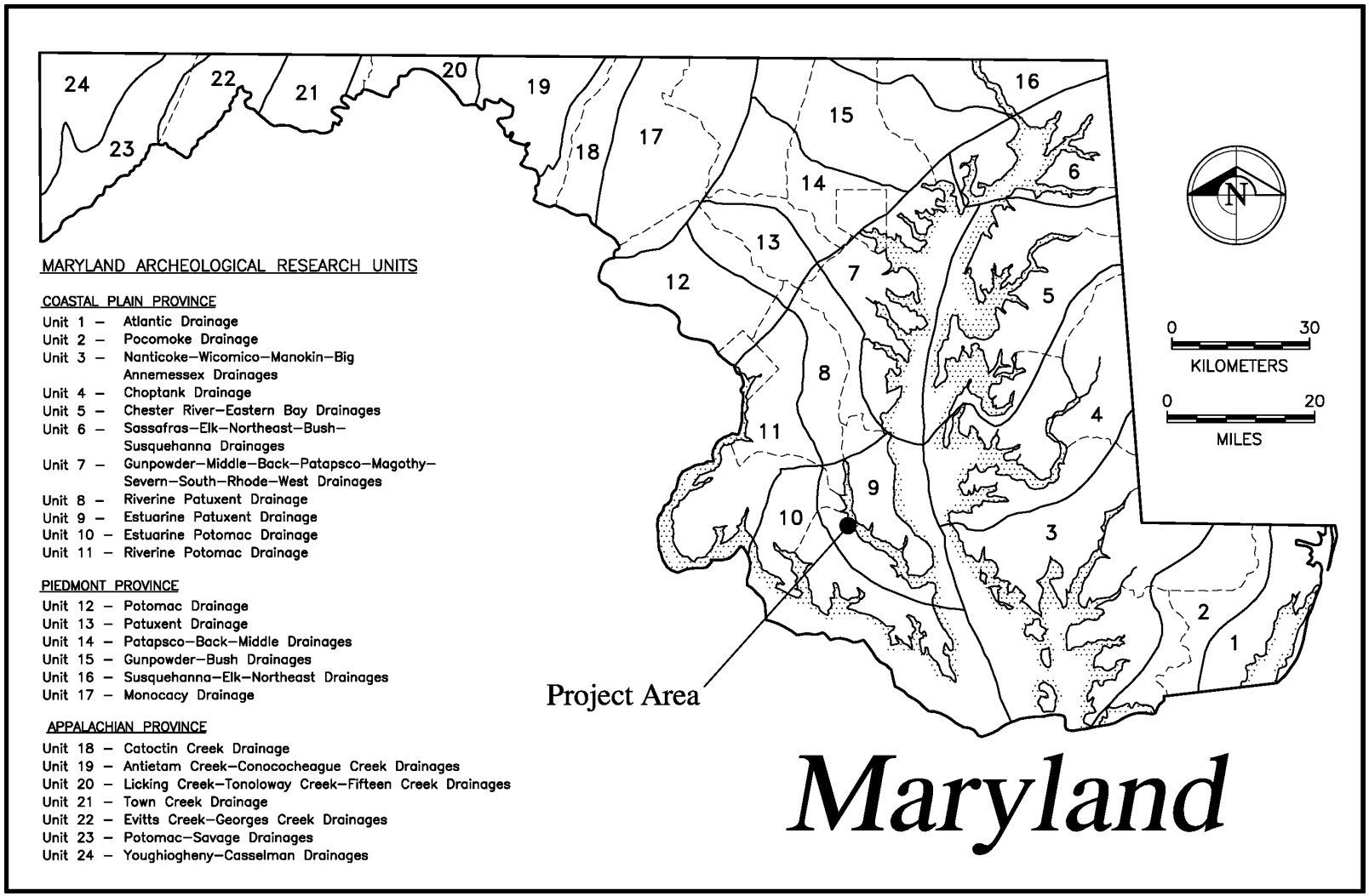

Figure 1. Map of Maryland showing the general location of the project area in St. Mary's County

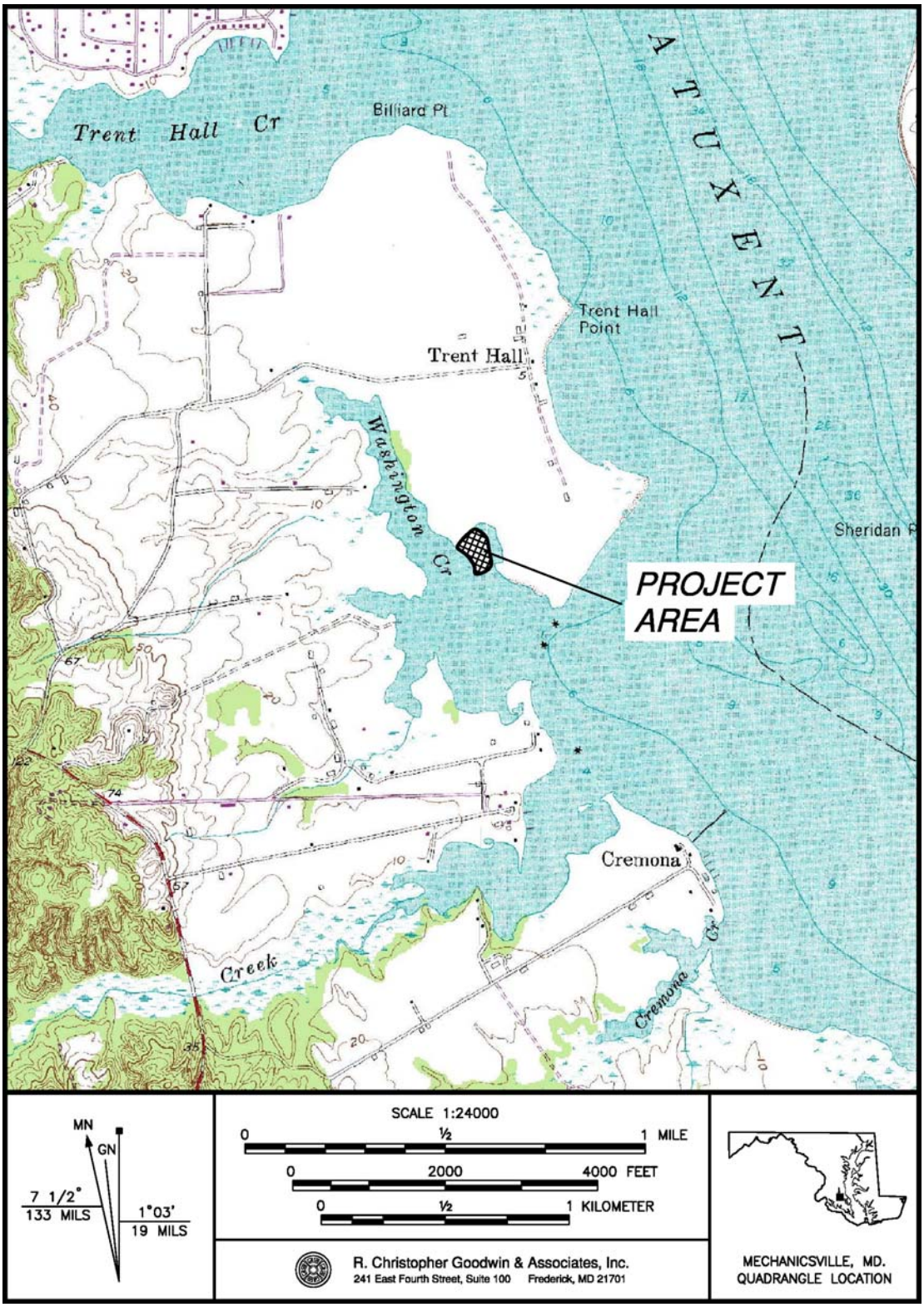

Figure 2. Portion of the 1987 USGS 7.5 Minute Mechanicsville, Maryland quadrangle showing the location of the project area

Table 1: Previously Identified Archeological Sites Located Within 3.2 km (2 mi) of the Project Area

Site Number/ Name	Chronology/Site Type	Topography	Size	NR Eligibility
18 CV 2 Lusby/Gibson	Prehistoric/ shell midden		N/A	N/A
18 CV 25 Duke's Place East	Prehistoric/ shell midden		N/A	N/A
18 CV 26 Duke's Place West	Prehistoric/ shell midden		N/A	N/A
18 CV 27 Sheridan Point	Prehistoric/ shell midden		N/A	N/A
18 CV 28 Marshall Creek	Prehistoric/ shell midden		several acres	N/A
18 CV 29 Buzzard's Island Creek	Prehistoric/ shell midden		N/A	N/A
18 CV 30 Hallowing Point South	Prehistoric/ village/shell midden	low terrace	N/A	N/A
18 CV 114 Judge Bowen I	Prob. Late Woodland/ lithic scatter		0.27 ha	MR/NR eligible
18 CV 115 Judge Bowen II	Middle-Late Woodland/ shell midden		0.1 ha	N/A
18 CV 242 Sheridan Point Farm	Early 18th C/ field scatter		50' dia.	N/A
18 CV 320 Waterside Farms	Prehistoric/ Shell & lithic scatter	terrace/low terrace	600'x200'	insufficient data
18 CV 401 Dukes Wharf	1820-1930/ steamboat landing	river beach	N/A	N/A
18 ST 7 Persimmon Creek North	Colonial /field scatter		N/A	N/A
18 ST 8 Persimmon Creek Northwest	Prehistoric/ lithic scatter		N/A	N/A
18 ST 9 Persimmon Creek	Prehistoric/ shell midden	shoreline	N/A	N/A
19 ST 10 White Point	N/A / shell midden	slight rise	N/A	N/A
18 ST 11 Billard Point	N/A / shell midden	relatively high	N/A	N/A
18 ST 72 Cremona Farm	Archaic-Early Woodland/ lithic scatter		2 acres	N/A
18 ST 80 Indian Creek	Prehistoric/ shell midden		N/A	N/A
18 ST 566 The Plains	18th-20th C/ domestic		N/A	N/A
18 ST 567 Sothoron Cemetery	1729-1836/ cemetery	level plain	N/A	N/A
18 ST 568 Plains Slave Cemetery	18th-19th C/ cemetery		N/A	N/A
18 ST 652 Cremona #1 (Toup site)	Late Woodland/ lithic/shell midden	upland flat	157x89m & 86x84m	insufficient data
18 ST 653 Cremona #2 (Spring Lake River House)	Late Woodland/ lithic quarry/shell midden	upland flat	97x40m	insufficient data

Cultural Sequence

Paleo-Indian/Early Archaic Period. The Paleo-Indian/Early Archaic period is defined as the period between approximately 12,000 B.C. and 6,500 B.C. Investigations at the Flint Run Paleo-Indian Complex in the Shenandoah Valley have suggested continuity of adaptive patterns throughout this period (Gardner 1979, 1983). Diagnostics of the early phases of the period include Clovis, Mid-Paleo, and Dalton projectile points; Palmer, Kirk, Warren, and other side-notched and corner-notched projectile points traditionally assigned to the Early Archaic represent the later stages of the period (Custer 1984:43; Gardner 1980:3). Most of these point types have been found in Southern Maryland.

Treatment of the traditional Paleo-Indian and Early Archaic periods as a cultural continuum, rather than as a series of discrete cultural phases linked to specific lithic technologies, diverges from the

temporal approach established in the Southern Maryland Archaeological Resource Management Plan. However, the authors of that plan have pointed out that "these designated time periods associated with particular phases and projectile point styles are somewhat arbitrary in their beginning and ending dates," and that the above-cited plan was intended only to "suggest a general time frame within which change may be discussed" (Pogue and Smolek 1985:41).

The environmental setting for the Paleo-Indian/Early Archaic period was conditioned by the Late Pleistocene/Holocene transition. The climatic episodes defined by Carbone (1976) for the Shenandoah Valley are thought to be broadly applicable to the study area (Steponaitis 1983). Episodes pertinent to the Paleo-Indian period are the Late Glacial (ca. 15,000 - 8,500 B.C.) and the Pre-Boreal/Boreal (8,500 - 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). Steponaitis (1983:39) has suggested that the Late Glacial vegetational assemblage along the upper Patuxent River drainage "may have included spruce and pine as the dominant woody taxa, with stands of deciduous trees occurring in the more protected areas." Although it is possible that the faunal assemblage included extinct megafauna, the extent to which humans relied upon such animals has been a topic of some debate (Custer 1984; Gardner 1980; Kavanagh 1982).

During the Pre-Boreal/Boreal climatic episode, the climate gradually moderated, with warmer summer temperatures and continued wet winters. Vegetation shifted in response to these climatic changes. Carbone (1976:186) suggested that "coniferous and deciduous elements" expanded, and "open habitats" grew smaller. A mixed coniferous-deciduous forest probably prevailed on the valley floors and foothills (Carbone 1976:186); the faunal assemblage may have included moose, bear, elk, deer, and smaller game animals (Kavanagh 1982; Johnson 1986).

Six site types generally are recognized for the Mid-Atlantic Paleo-Indian settlement system, and (Gardner 1979, 1983; Custer 1984): (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. Traditional views of prehistoric survival strategies suggest that high-quality lithics were the focal point for the settlement system, and that hunting formed a large component of the subsistence strategy (Custer 1984; Gardner 1979; Stewart 1980); however, generalized foraging also provided a substantial portion of the diet.

Although excavations at the Higgins Site (18AN489) have documented Paleo-Indian occupation in Anne Arundel County, where two quartz fluted point bases and three unifacial chert scrapers were recovered from undisturbed deposits (Ebright 1992), similar types of Paleo-Indian components are almost unknown within Southern Maryland. The largest concentrations of Paleo-Indian bifaces have been identified in the upper riverine areas of the Patuxent watershed, "beyond the contemporary tidal front along the Patuxent, and from Zekiah Swamp in adjacent Charles County," a pattern that suggests that Paleo-Indian and Early Archaic sites may represent "an early focus on fluvial headwater environments" (Reeve et al. 1991:32).

Pogue and Smolek (1985:38) attribute the relative scarcity of Paleo-Indian sites in the region to sea level rise that inundated sites located along the lower reaches of rivers during the period. Based on current understanding of this phenomenon, it is estimated that 12,000 years ago, sea levels were approximately 33.53 m (110 ft) lower than today (Pogue 1983:9), and that, as recently as 5,000 B.P., sea levels within the Chesapeake estuaries were 9.14 m (30 ft) lower than they are today. Today's numerous rivers, including the Patuxent estuary, would not have existed in their present form at that time, and present day shoreline areas would have comprised interior uplands. Hence, it is not

surprising that no Paleo-Indian sites had been recorded within the three counties in the Southern Maryland region at the time of Pogue and Smolek's study (1985:17-18, 21).

During the traditionally defined Early Archaic period, settlement and subsistence patterns seem not to have differed substantially from those of the Paleo-Indian period, and evidence for this continuity in lifeways has been recovered from a number of areas in the Middle Atlantic (Custer 1984; Gardner 1980; Stewart 1980). The regional settlement/subsistence regime seems to have begun to incorporate a more diversified resource base by the Kirk Phase, which perhaps can be viewed as transitional to the Archaic. In Southern Maryland, Reeve et al. (1991:32) observed an increase in the numbers of Early Archaic sites, and they suggested that prehistoric populations grew rapidly during this period.

The Archaic Period. The Archaic Period extended from 6,500 B.C. to 1,000 B.C., and included the traditionally defined Middle Archaic (6,500 - 3,000 B.C.) and Late Archaic (3,000 - 1,000 B.C.). Middle Archaic diagnostics include bifurcated St. Albans, LeCroy, and Kanawha projectile points, as well as stemmed and lanceolate forms such as Stanly, Morrow Mountain, Guilford, and Neville (Custer 1984; Stewart 1980). From the beginning of this period until about 5,000 B.P., the climate moderated and became more humid; it then cooled slightly (Custer 1984:62-63). As Gardner (1978:47) has observed:

> By 6,500 B.C., [the] Post-Pleistocene conditions had changed so dramatically that the adaptations of the long-lived Paleoindian-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.

Relatively few archeological sites containing Middle Archaic artifacts have been examined on the Western Shore or in Southern Maryland (Wesler et al. 1981). To some extent, the paucity of sites from this period probably is due, once again, to inundation of the lower river areas caused by sea level rise during the Middle Holocene. Wilke and Thompson (1979:40) have argued that Archaic populations probably were small, dispersed, and mobile; that their movements were dictated by seasonal access to resources; and that remains of Archaic period occupations would be widely scattered. Middle Archaic occupation in Southern Maryland appears to have focused on swamps at the headwaters of major stream drainages (Pogue and Smolek 1985:44). Several Archaic period sites have been identified in the Zekiah Swamp along the headwaters of the Wicomico River in nearby Charles County (Reeve et al. 1991:33; Polglase et al. 1990:7), although these have not been studied in detail.

The Late Archaic period (ca. 3,000 - 700 B.C.) "culminated in the xerothermic or 'climatic optimum' around 2,350 B.C., when it was drier and 2^{o} C warmer than modern conditions" (Kavanagh 1982:9). Open grasslands reappeared, and oak-hickory forests covered the valley floors and hillsides. Diagnostics of the Late Archaic identified on the Western Shore include Piscataway, Vernon, Holmes, Susquehanna Broadspear, Brewerton, and Dry Brook projectile point types, and steatite vessels (Pogue and Smolek 1985:44; Reeve et al. 1991:35). The true meaning of this regional cultural assemblage has been the subject of some debate. Steponaitis (1986) contended that these finds illustrate an amalgamation of three cultural traditions in Southern Maryland at this time: the Piedmont, the Laurentian, and the Southeast (Reeve et al. 1991:35). Custer (1984:79), however, does not accept the broadspear and fishtail styles as cultural markers, but interprets them as "a distinctive set of tools and knives that are in no way connected with special groups of people." He feels that such points are cutting tools, and he postulates that the Bare Island/Lackawaxen (locally, Holmes) point continued as the associated diagnostic projectile point type through the Late Archaic.

The Late Archaic settlement pattern in Southern Maryland has been defined by scattered campsites focused on major rivers (Reeve et al. 1991:35; Wesler et al. 1981:181). A subsistence pattern of intensive foraging within somewhat constricted localized areas probably characterized the adaptive strategy of Late Archaic populations (Pogue 1983:12; Pogue and Smolek 1985:44). Steponaitis (1986) has suggested that Late Archaic settlements were distributed uniformly within all environmental zones in Southern Maryland, and that settlements of this time frame tended to be small (Steponaitis 1986:285). One site with Archaic diagnostic materials (18ST72) has been identified in the vicinity of the project area.

The Woodland Period. The Woodland Period extends roughly from 1,000 B.C. to A.D. 1600. While it has been customary to characterize the environment after at least 3,000 B.P. as approximating modern conditions, it is also apparent that climatic changes of varying intensities continued to take place during this period (Carbone 1976, 1982; Bryson and Wendland 1967:281). These short-term climatic variations may have generated periods of environmental stress during transitions between climatic episodes (Carbone 1976; Custer 1980). In the Mid-Atlantic region, correspondences between climatic/environmental patterns and cultural sequences during the Woodland period have been noted for the Middle Atlantic as a whole (Carbone 1982) and for the Shenandoah Valley (Fehr 1983).

The Early Woodland subperiod can be dated from about 1,000 to 500 B.C. (Gardner 1982). Regionally diagnostic ceramics of the period include steatite-tempered Marcey Creek and sand-tempered Accokeek wares. Wesler et al. (1981) also include Popes Creek Net-Impressed ceramics in the Early Woodland, although some researchers have argued that Popes Creek ceramics are associated more closely with Middle Woodland occupations (Gardner 1982; Stewart 1981). Reeve et al. (1991:36), noting that Popes Creek ceramics rarely have been recovered from sites in the lower Patuxent region, have hypothesized that the presence or absence of this ceramic type may be indicative of a prehistoric cultural boundary.

Two settlement pattern models have been proposed for the Late Archaic - Early Woodland Periods on the Inner Coastal Plain (Gardner 1982:58-60). In areas near the interface of brackish tidal areas and freshwater zones along the Potomac and Patuxent River estuaries provided a wide variety of flora and fauna for exploitation. The "fusion-fission" model suggests that macro-social population units came together seasonally along both freshwater and salt water estuaries to exploit fish runs, and then dispersed seasonally to form micro-social unit camps to exploit other resources. The "seasonal shift" model suggests that the same population formed both macro- and micro-social unit camps in both fresh water and salt water zones, and moved laterally between these zones on a seasonal basis.

The relative abundance of shell midden sites located along the tidewater estuaries and creeks (Wilke and Thompson 1979) may represent a sedentary winter phase of this seasonally-based settlement pattern. Eighteen oyster shell middens have been identified in the vicinity of the project area. One site with Early Woodland diagnostic material (18ST72) has been documented in the vicinity of the project area.

Diagnostics of the Middle Woodland (ca. 500 B.C. - A.D.1000) in the Coastal Plain include Popes Creek Net-Impressed and Mockley ceramics and Fox Creek and Selby Bay projectile points. In Southern Maryland, non-local lithic materials also frequently are found in Middle Woodland artifact assemblages, and Steponaitis (1986:287) has argued that their presence may signify the development of inter-regional exchange networks. Based upon the occupations revealed at the Patterson and Otter II sites in Calvert County, Reeve et al. (1991:37-38) have postulated that extended families may have occupied residential sites along the brackish estuaries during the winter months. These family units joined others in upriver or Piedmont zones during milder seasons in order to exploit a variety of lithic and other resources (Reeve et al. 1991:37-38).

Middle Woodland subsistence is thought to have depended heavily on riverine and estuarine resources, and no definite evidence for horticulture has been found in the region for this period. Preference in site location shifted dramatically toward the coastal zones during this period, and large special-purpose sites appeared for the first time. Populations appear to have become considerably less mobile (Steponaitis 1986:286-287). One site (18CV115) with a Middle Woodland period component have been identified in the vicinity of the project area.

On the outer Coastal Plain, shell tempered Townsend ceramics dominated during the Late Woodland period after A.D. 900 (Clark 1980:18); crushed-rock tempered Potomac Creek ware, often associated with the historically known Piscataway Indians, appeared somewhat later and was prevalent in the Inner Coastal Plain/Fall Line areas (Clark 1980:8; Egloff and Potter 1982:112). Both ceramic types have been identified on the Western Shore. Triangular projectile points also are diagnostic for the Woodland period, and they persisted until European contact. Wesler et al. (1981:109) have summarized the general Late Woodland settlement pattern on Maryland's Western Shore as one in which :

> [t]he basic subsistence pattern was one of staple agriculture supporting large agricultural villages, usually in floodplain settings. Hunting and gathering were not neglected, however, as upland campsites and estuarine shell middens are well known.

Wilke and Thompson (1979:43) have noted that Late Woodland midden sites are less numerous and have suggested that this relative scarcity may be due to a diminished reliance on seasonal resources and to the contamination of the estuarine environment by soil run-off produced by the adoption of full-blown horticulture. Alternatively, Steponaitis (1986:288) has hypothesized that the enlargement of prehistoric populations encouraged by intense agricultural production may have limited more traditional hunting and gathering activity. However, data from the Stearns site (18CV17) in Calvert County indicate that locally available floral and faunal resources, including oysters, white perch, blue crab, hickory, oak, and black walnut, were used to supplement the food resources obtained from intensified agricultural production (Reeve et al. 1991:44). In the vicinity of the present project area, in fact, Late Woodland occupation, documented by four sites (18CV114, 18CV115, 18ST652, and 18ST653), represents an apparent increase in prehistoric utilization of the area.

Contact Period. During the early seventeenth century, the Western Shore and much of the tidewater region of Maryland and Virginia were characterized by cultural dynamism and diversity. Two Algonquian groups, the Nanticoke and the Piscataway, had occupied the region for several centuries (Stephenson et al. 1963:1). However, prior to European contact, these tribes were pressured by the Susquehannocks, an Iroquoian group based in Pennsylvania, who settled along the shores of the Chesapeake Bay during the early seventeenth century. While these conflicts seem not to have disturbed the Piscataway in St. Mary's County proper, they reportedly constructed a fortification in Zekiah Swamp (Hobbs 1961:76-77). According to seventeenth century European accounts, Susquehannock incursions also played a role in persuading the Yeocomico tribe to accept an alliance with the English (Steponaitis 1986:25-26).

European contact produced numerous changes in the lifestyle of the Maryland's native population. Although it provided access to European trade goods (Ferguson and Stewart 1940), especially the firearms that gradually replaced traditional projectile systems, there also was a negative aspect to this new relationship. Europeans introduced diseases that decimated the native peoples; during the contact period, it is estimated that the native population of neighboring Calvert County dropped to 850 individuals (Steponaitis 1986:35).

Table 2. Previously Surveyed Architectural Sites Located Within 3.2 km (2 mi) of the Project Area

Site Number	Site Name	Property Type	Date Range	NR Eligibility
CT 37	Sheridan Point Farm, site	site	late 18th C	N/A
CT 545	Elizebeth C. O'Ferral House	residence	late 19th C	N/A
CT 554	Lynn E. Reichhardt Cross Gable	residence	late 19th C	N/A
CT 559	Maurice W. Hutchins Farmhouse	residence	N/A	N/A
CT 1114	Wesley Hall Tobacco Barn A	tobacco barn	early 18th C; c. 1860	N/A
CT 1196	Dukes Wharf (Sheridan Point Wharf)	site	1822-1928	N/A
SM 90	The Plains, site (Orphan's Gift)	site; cemetery	18th-19th C	N/A
SM 91	Trent Hall, site	site; cemetery	1789	N/A
SM 93	Cremora (West Ashcombe, Marsh Neck, Hardship)	residence	1658; 1819; 1930s	N/A
SM 93A	Sam's Cabin at Cremona	residence	c. 1825-1850	N/A
SM 95	Cellar Hill	residence	c. 1942	N/A
SM 402	Morgan Brothers Tobacco Barn	tobacco barn	c. 1875-1890	N/A
SM 516	Bridge, Md Rt 6 over Persimmon Creek	bridge	N/A	N/A

In Saint Mary's County, relationships between the first settlers and the native Piscataways, Patuxents, and Yeocomicos initially were cordial (Scharf 1879:95). By mutual agreement with the indigenous Native American population, the first European settlement at Saint Mary's City was established on the site of the Piscataway Indian village of Yeocomico (Smolek and Pogue 1985:47; Wesler et al. 1981:152).

Historic Cultural Setting

Previous Investigations

No archeological surveys in the vicinity of the project area have turned up evidence of historic period occupations. Temporally, the recorded archeological sites closest to the present project area (Table 1) include two field scatters, two cemeteries, and a steamboat landing. The historic architectural resources within two miles (3.2 km) of the project area (Table 2) include nearby Trent Hall (built in 1789), which has a cemetery going back to the seventeenth century. The remaining structures include nine residential complexes (including one more with a cemetery), two tobacco barns, and one bridge.

Cultural Sequence

Contact and Settlement Period (1570 - 1750). Permanent English colonization of North America began in 1607 with the establishment of the Jamestown colony in Virginia. The success of tobacco cultivation in the Virginia colony and Virginia's lucrative beaver trade along the Potomac and the upper Chesapeake Bay promised similar financial rewards for further colonization (Fausz 1984:8). The Maryland colony was established in 1634, when 150 English colonists settled at St. Mary's City along the lower Potomac River. Cecilius Calvert, second Lord Baltimore and proprietor of the colony, had inherited the charter for the region from his father, George Calvert, in 1632 (Wilstach 1932:35); the elder Calvert had secured the proprietary grant from Charles I. Calvert had both economic and religious motives for acquiring the Maryland grant; he wished to establish a secure haven for Catholics;

the resulting religious toleration available in the colony attracted large numbers of immigrants. To encourage further settlement, Calvert established a manorial system for distributing proprietary lands. Under this system, large grants for thousands of acres were made to those who transported settlers to the colony. The lord of a manor not only derived a financial profit from his grant; he also had special privileges and duties, particularly in judicial matters. By 1642, 16 manors, organized into five local administrative units called "hundreds," had been established in St. Mary's County (Wesler et al. 1981:153). The area around the project area was included in Resurrection Hundred.

Calvert tried to transplant English social and cultural systems to Maryland, but he failed to achieve this goal. The profitability of tobacco, the amount of land available for settlement, and the slow growth of the population due to the male-dominated sexual ratio (Wesler et al. 1981:77; Pogue 1983:25) combined to undermine plans for a rigid social structure. Deteriorating relationships with the Indians, the strange diseases that decimated European populations, and the intensive labor required to clear heavily forested land all placed pressures on the colony. Mortality rates were high (Pogue 1983:27). Such conditions forced modifications in English traditions (Wesler 1982:78). A class of small planters replaced the baronial system envisioned by the colony's founder (Pogue 1990:4; Wesler et al. 1981:154).

St. Mary's County's characteristic social and economic patterns were established during the first ten years of the Maryland colony's existence. Settlement clustered along the shorelines of the many rivers, bays, and islands, and only rudimentary interior transportation systems developed. The county's population grew slowly. By 1645, there were only between 350 and 390 residents in all of St. Mary's County (Wesler et al 1981:153).

Most county residents occupied very modest accommodations; Stone (1982:204) has described their dwellings as "mean and little." Initially, the most common dwelling was a two-room post-in-ground house, approximately 25 – 30 ft (7.6 – 9.1 m) long, which accommodated a kitchen and a chamber room. Small sheds frequently augmented the main house, as at the King's Reach site in Calvert County (Pogue 1990:13); chimneys probably were of wood and mud (Stone 1982: 212, 221). Various dependencies also were required; at King's Reach, a slave or servants' quarter, measuring 20 x 10 ft (6.1 x 3.05 m), was enclosed within the fenced homelot (Pogue 1990:13, 15). Neiman's (1977) investigations at the seventeenth century Clifts Plantation, in Westmoreland County, Virginia, recorded a more typical range of dependencies, including a kitchen, a dairy, a storage barn, a henhouse, servants' quarters, and tobacco barns (Chittenden et al. 1988:PIII-H2-3).

Early farm complexes generally were situated on small "necks" of land, close to sources of potable water, near navigable waterways, and in areas of good tobacco soil; the colonists avoided poorly drained areas (Smolek 1984; Lukezic 1990:2-3, 15; Polglase et al. 1990:11). Augustine Herrman's 1673 map shows a farmstead in vicinity of the current Trent Hall, near the project area (Figure 3). Tobacco quickly became Maryland's principal crop, and St. Mary's farmers exported 100,000 pounds of it in 1639. Corn and cattle were secondary agricultural items. A mill was the only manufacturing establishment (Wesler et al. 1981:154).

The ensuing 35-year period was one of great instability in Southern Maryland. The population climbed rapidly; an estimated 6,535 people lived on the Western Shore of the Chesapeake Bay by 1667. Settlement was scattered along the riverbanks, despite the passage of a road law in 1666 and of a series of town acts intended to establish small urban hamlets (Wesler et al. 1981:80). The rapidly increasing population and the difficulty of internal communication undermined the development of unity within the community. The hierarchical society envisioned by the Calverts was eroded further by a wave of immigration composed of indentured servants, freemen, and families. A class of smaller planters and freed indentured servants developed.

Three socially disruptive political upheavals occurred during the proprietary period. Ingles' Rebellion was an anti-Catholic, anti-Royalist uprising that profoundly affected the county. Ingles apparently plundered the homes of local residents and Jesuit missions; local Jesuit clergy and Catholic lay leaders were taken prisoner, and many fled to Virginia (Beitzell 1960:7). Ingles eventually was captured, accused of treason, and jailed. County historians view this episode as a continuation of the English Civil Wars, and Ingles himself has been characterized as a "follower of Cromwell" (Hammett 1977:31-32; Wesler et al. 1981:155). The second major political upheaval included the 1655 Battle of the Severn. In 1648 the second Lord Baltimore (Cecil Calvert) named William Stone governor of Maryland. Stone allowed Virginia puritans to settle at the mouth of the Severn River in 1649. In the context of the establishment of Oliver Cromwell's Commonwealth in England, the Puritans succeeded in gaining temporary control of Maryland. In 1655, they successfully defeated Stone at the Battle of the Severn. Lord Baltimore regained full control of the province in 1657 (Brugger 1988:20-22). The third political upheaval occurred in 1689, when a Protestant uprising under John Coode toppled the Proprietary government (Brugger 1988:39).

By 1680, an elite group of Maryland-born planters, rather than transplanted Englishmen, had emerged. A hierarchy based upon wealth soon developed (Wesler et al. 1981:83). Slaves began to constitute a small, but important segment of Maryland society; by 1712, about 12.5 per cent of the county's population was black (Wesler et al. 1981:156). Indentured servants, unable to find inexpensive land, frequently became tenant farmers. More sustained attempts to establish towns and roads led to the founding of Chaptico, Leonardtown, and St. Clements between 1680 and 1710. Despite these efforts, population remained clustered around estuaries, with expansion taking place up the stream valleys (Wesler et al. 1981:85-87).

After 1689, when the Calvert family lost control of the colony, St. Mary's former pre-eminence declined. In 1695, the colonial capital moved from St. Mary's City to Annapolis, and in 1708, Leonardtown became the St. Mary's county seat. Even the colonial post road established during this period by-passed much of the county (Wesler et al. 1981:156-157). By 1700, the influence of St. Mary's County had waned.

Rural Agrarian Intensification and Agricultural-Industrial Transition (1750 - 1870). From 1720 until the middle of the nineteenth century, the economy of the region remained essentially static. Tobacco continued to underpin the local economy; however, by the end of the eighteenth century, corn and wheat also had become important crops (King 1990:289; Marks 1979:6; Reeve et al. 1991:81). Maritime and mercantile enterprises also became more significant elements in the county's economic base. The establishment of steamboat lines down the Potomac River and through the Chesapeake Bay linked St. Mary's to Baltimore, which served as the primary market for the county's agricultural products; Trent Hall Landing, just upriver from the present project area, served as a steamboat landing from the 1820s and into the first quarter of the twentieth century (Hammett 1994; Holly 1991).

Continued reliance on tobacco produced significant social changes. The slaves needed to produce the labor-intensive tobacco crop constituted an increasing percentage of the population. By 1840, blacks made up almost 47 per cent of the county's population (Wesler et al. 1981:158). A planter oligarchy held the reins of local power, while small independent farmers, tenant farmers, and slaves farmed the remnants of the old proprietary manors. Large estates were broken into smaller parcels; the number of farms proliferated and land prices rose out of the reach of many county residents. The result was a major post-Revolutionary War exodus of county residents, to destinations as far away as Kentucky (Wesler et al. 1981:159) and Fayette County, Pennsylvania (Hammett 1977:83-84).

St. Mary's geographic position made the county particularly vulnerable to attack by sea. County residents suffered acutely during the two major Anglo-American conflicts. During the

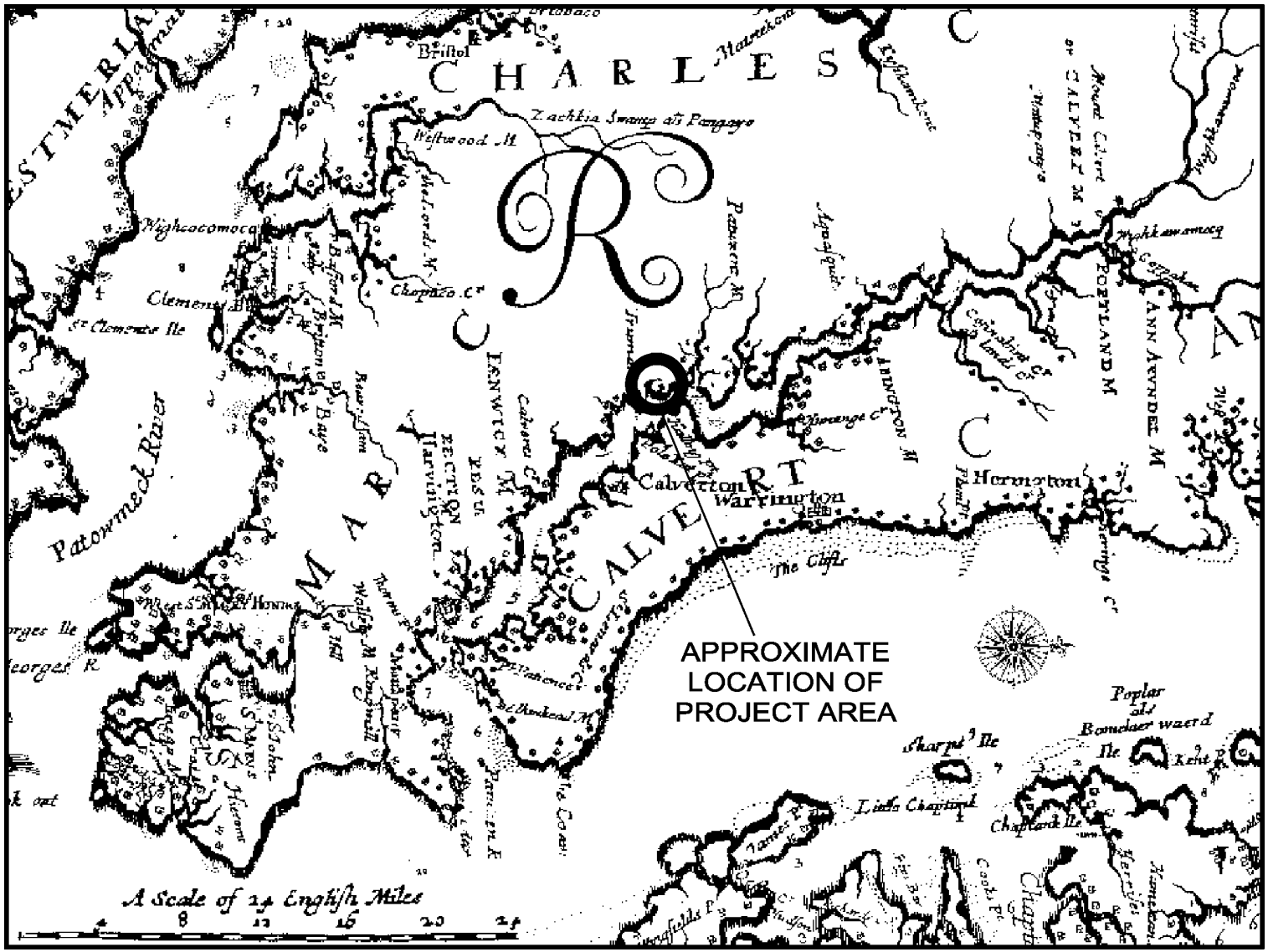

Figure 3. Portion of Augustine Herrman's 1673 *Virginia and Maryland* showing the general vicinity of the project area

American Revolution, British marine units repeatedly plundered and harassed county citizens, many of whom saw service with the Maryland militia and in the Battalion of the Flying Camp. At the end of the Revolution, county residents filed for damages in the amount of £3,600 (Hammett 1977:70-78).

During the War of 1812, the British landed between 2,000 and 3,000 troops at Point Lookout, and they burned St. George's Island. They also stole boats, felled timber, burned tobacco warehouses, desecrated churches and cemeteries, and stole slaves (Hammett 1977:98). One major naval engagement, the Battle of Cedar Point, occurred on June 1, 1814. This confrontation pitted American Commodore Joshua Barney's Patuxent River fleet, composed of 16 lateen-rigged row galleys and 9 sloops and schooners, against British Captain Robert Barrie's fleet that included the 74-gun *HMS Dragon*, the armed schooner *St. Lawrence* (13 guns), the schooner *Calchup*, and seven barges. Faced with superior British fire-power, Barney withdrew his out-gunned American fleet into the Patuxent River, leaving the British to plunder Patuxent River plantations (Shomette 1981:36-41). In his report to the Secretary of War, Barney later commented that "[T]obacco, slaves, farm stock of all kinds, and household furniture, became objects of their daily enterprises. . .what they could not conveniently carry away, they destroyed by burning" (quoted in Marine 1965:64). A second round of plundering in the area came in September, 1814, when the British fleet, in retreat after their unsuccessful assault on Fort McHenry, anchored in the mouth of the Patuxent River to take on water, livestock, and flour (Shomette 1981:196).

The Civil War impoverished the county even further. Citizens of the region were staunchly pro-Southern; they voted unanimously for secession even before the Maryland General Assembly debated a secession ordinance (Hammett 1977:108). As early as 1859, county residents had organized military units to support the Southern cause (Hammett 1977:109). Able-bodied county residents crossed the Potomac to Virginia to join Confederate forces or to escape the Union occupation, while others supplied and transported materials to the Confederate forces in Virginia (Hammett 1977:110-113). In contrast, 558 freed slaves from Saint Mary's joined the 9th Infantry Regiment, U.S. Colored Troops; 125 of them died during the conflict (Hammett 1977:120).

Because of its strategic location, St. Mary's County was occupied by Union forces throughout the war. Political arrests for treason were common, and citizens operated under Union-imposed curfews. There were four Federal installations in the county during the Civil War: the hospital and the notorious prison camp at Point Lookout, which housed as many as 10,000 Confederate prisoners; a large and comprehensive coaling station at St. Inigoes; and, a supply depot at Bushwood (formerly Plowden's) Wharf on the Wicomico River (Hammett 1977:110-121).

Industrial/Urban Dominance (1870 - 1930). After a period of readjustment at the end of the war, St. Mary's County returned to its former social and economic patterns. As the 1901 USGS *Mechanicsville* quadrangle (Figure 4) indicates, the region remained primarily agrarian, with few roads or major transportation links to urban areas. As in previous periods, the population was dispersed along interior roads and along water front properties (Pogue 1968:413-414). Communities were small and oriented toward providing services to surrounding farms. Tobacco regained its position of economic importance, while corn remained the major subsistence crop (Wesler et al. 1981:160). Tenant farming and sharecropping were established. Industrialization during the late nineteenth century was limited to the establishment of small seafood processing and vegetable canning plants (Hammett 1977:150, 232, 410). An incipient recreational/resort industry also developed in the county; Leonardtown Wharf boasted a floating theater, while Piney Point, which had featured a dance pavilion and a hotel in the mid-nineteenth century, developed as a full-blown resort by 1905 (Hammett 1977:172, 231).

Modern Period (1930 - present). Lack of adequate transportation systems hampered the county's development during much of the twentieth century. Repeated attempts by county citizens to bring a railroad into the county were only marginally successful. Until the 1940s, the citizen-owned Washington and Point Lookout (later called the Washington, Potomac, and Chesapeake) Railroad (Gibb 1990:15) extended only as far as Mechanicsville in the northeastern section of the county (Hammett 1977:238-239). The first macadamized road in the county was constructed in 1911; it brought both tourists and new business opportunities, but it extended only as far as Leonardtown. Many county roads remained unpaved until well into the 1940s (Hammett 1977:247-252).

The racial and ethnic character and social structure of the county also remained essentially static through this period; white landowners formed the upper class, while tenant farmers and black and white sharecroppers constituted the bulk of the population. Immigration altered the composition of the population only during the twentieth century. A few Jewish immigrants came to the area in the early twentieth century; and, between 1911 and 1914, the National Slavonic Society established the Slavic Farmer's Association near St. Mary's City, to engage in farming, commerce, and manufacturing. Its shareholders were ex-coal miners and industrial workers from Pennsylvania and New Jersey, who were viewed by local residents as communists and dangerous radicals. Although this cooperative failed within ten years, many of its members remained as county residents (Hammett 1977:297). During the 1940s, Amish and Mennonites from Lancaster, Pennsylvania, also moved into the northern region of St. Mary's (Hammett 1977:400-403).

World War II had the greatest impact on the economic fortunes of St. Mary's County. The establishment of the Naval Air Station Patuxent River at Lexington Park displaced former residents and attracted 3,300 workers into the area (Hammett 1977:411). The Navy also took over the railroad, and extended it from Mechanicsville to the Naval Air Station (Gibb 1990:15; Hammett 1977:239). Today, although tourism and recreation have become important sources of revenue for county residents, "many of the attributes of rural life evident in the mid-nineteenth century [have] persisted," and are "embedded in the County's rural character" today (King 1990:299).

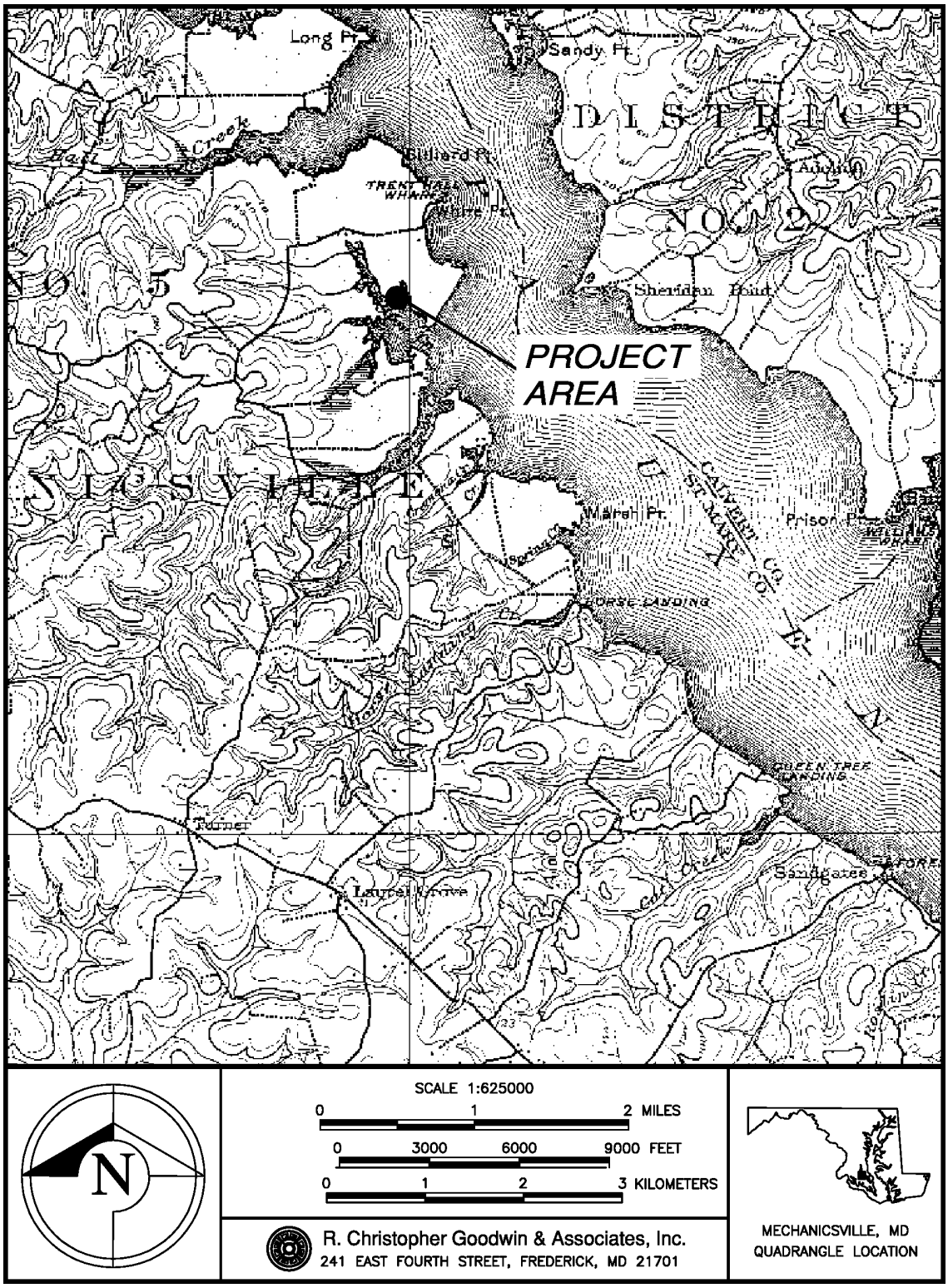

Figure 4. Portion of the 1901 Mechanicsville USGS quadrangle showing the vicinity of the project area

CHAPTER III

RESEARCH METHODS

Archival Investigations

Archival research focused on identifying previously recorded prehistoric and historic sites within the vicinity of the project area. The Maryland Historical Trust was visited for archeological site files and standing structures listed on the Maryland Inventory of Historic Properties, and for archeological reports not available elsewhere.

Field Investigations

The archeological survey included intensive surface collection of the recently plowed and disked agricultural field. After the weekend rains of March 2 and 3, 2002, the field was collected at a 3 m (9.8 ft) lane interval. A total of 30 shovel tests were excavated at a 10 m (32.8 ft) interval in areas where artifacts were recovered. The shovel tests measured 35 cm (13.8 in) in diameter, and were excavated at least 10 cm into culturally sterile subsoil. The soils from the shovel tests were screened through 1/4 in (0.64 cm) mesh. Each shovel test was recorded in the field, noting its position within the sampling pattern, the depths of soil horizons, and the presence or absence of cultural remains. All soil characteristics, including color and texture, were recorded according to the Munsell (1998 revised) Soil Color Chart and standard soil nomenclature.

General Laboratory Methods

All artifacts recovered during this investigation were transferred to the laboratory of R. Christopher Goodwin & Associates, Inc. in Frederick, Maryland, for cleaning, cataloguing and analysis. Laboratory procedures were performed in accordance with state and federal curation guidelines. The condition of individual artifacts was assessed for degree of stability prior to carrying out any of the processing procedures. Artifacts were sorted into those that could be wet washed or dry-brushed by hand, they were air dried, and sealed in clean, archival plastic bags. Provenience data were recorded on the outside of each bag as well as on acid-free paper tags placed inside each bag.

All artifact data and field records were inventoried utilizing a Microsoft Access computer program to permit more expedient manipulation of chronological, functional, and distributional data. Each entry included the material class, artifact type, distinguishing attribute(s), functional category, and site and provenience designations.

Historic Artifacts: Analytical Methods

The coded catalogue system for historic artifacts incorporates artifact attribute data, artifact counts, comments, and manufacture date range information, in a manner that allows for more accurate and detailed analysis of parts or all of the artifact data. The hierarchically-arranged artifact classification system includes four major classification levels: the Category, the Group, the artifact Type, and the Subtype. The initial classification, the Group includes raw material types, and is composed of Biological, Ceramic, Glass, Metal, Stone, Synthetic and Manufactured. In the second category, the Class, material types are subdivided to refine further the classification. For example, ceramics are divided based on ware type (i.e. earthenwares and stonewares). In the next two classes, the Type and Sub-type classifications, the identification becomes more detailed and the artifacts are classified based on more detailed criteria, including glaze types, manufacture techniques, and decorative treatments. For example, vessel form for ceramics and glass is described in the Sub-type category. The criteria for classifying kitchen ceramics and glass in the Type and Subtype categories have been developed using a variety of current reference literature, including Miller (1980, 1991), Noël Hume (1976), Worthy (1982), and others. These main groupings are followed by more detailed classifications based on manufacture date ranges and functional classifications. When determining manufacture date ranges, standard references are used, and where possible, manufacturer's marks are used in conjunction with ceramic type and manufacture techniques to refine temporal associations.

Where applicable, South's (1977) functional classifications are used to supplement the analysis of historic period artifacts. For the purposes of analysis and interpretation, the Architectural group includes objects related to the construction or maintenance of buildings and structures, such as brick, mortar, window glass, nails, and construction hardware. Nails were categorized as hand wrought, cut, or wire, depending upon manufacturing method. The Kitchen functional group includes any objects related to the preparation, service, consumption, or storage of food, such as ceramic and glass. In addition, materials such as faunal remains, shell (oyster, clam, egg, etc.) also are represented in this category. The classification of kitchen glass is predicated on the identification of manufacturing techniques used to produce the vessel, after models established in Jones and Sullivan (1989) and others.

The Clothing group includes materials for clothing manufacture such as pins and needles, scissors, fabric, thread, as well as fasteners and decorations, such as snaps, hooks, buttons, and buckles. Material types for these sorts of artifacts include bone, shell, various types of metal, and plastic. The furniture-functional group consists of materials and objects related to household furnishings. Archeologically, this group is typically composed primarily of furniture hardware such as hinges, drawer pulls, locks, keyhole escutcheons, and tacks.

Objects classified as Personal include those products used for personal hygiene, as well as jewelry, coins, and other personal possessions. Items for hygiene include grooming products such as combs and brushes, curlers, toothbrushes, chamber pots, as well as pitchers, basins and other vessels used for personal hygiene. Objects related to the use of tobacco, such as pipes and associated equipage are also typically included in this category.

Transportation-related materials include items related to transportation, such as harness equipage and horseshoes, wagon and carriage parts. In addition, automobile parts are included in this category. The Arms group includes any objects related to arms or weapons. This includes parts of guns, ammunition, and tools for gun or weapon repair and maintenance.

The Activities group is comprised of artifacts related to non-domestic activities. These may include toys, tools, or products related to recreation, hobbies, non-architectural construction, repair

and maintenance. Activities items generally are broken down into metal, glass, stone, or other materials. Miscellaneous artifacts include non-cultural stone and various metals with unidentified function.

Prehistoric Artifacts: Analytical Methods

Cataloguing procedures included recording attributes, weights, and measurements of technological or functional groups. Weight measurements were made to 0.01g using an Acculab digital scale; dimensions were measured with calipers to 0.1 cm (0.04 in). Interpretations of utilization and raw material class used a Meiji Techno EMZ-Series zoom stereo microscope.

Procedures for measuring edge angles were based on the technique outlined by Keeley (1980). This technique uses a goniometer and defines the edges as follows: A = the distal end; C = the longest lateral margin on bifaces and the right lateral edge on flakes; and B = the shorter lateral margin on bifaces and the left lateral edge on flakes. In contrast to Keeley (1980), the proximal end was designated D only; E was reserved for dorsal ridge(s). Flakes were oriented with the proximal end nearest the analyst and with the ventral side down.

Accessioning included the compilation of artifact measurements and descriptions of artifacts in each category by provenience into a computerized database (Microsoft Access). Cultural materials were separated into historic, prehistoric lithic and prehistoric ceramic categories. Each category was separated into groups based on technological attributes and into classes based on material type. The artifact inventory contains data for all three categories under the following headings: Group, Class, Type, and Sub-Type. For prehistoric lithics, **Group** includes divisions of Core, Flake, Biface, Uniface, Groundstone, Use-modified Tool, Fire-Cracked Rock, and Other; these groups are based on technological interpretations. The **Class** category consists of raw material designations. **Type** contains reduction stage information. **Sub-Type** contains morphological designations. An attempt was made to document formal characteristics under morphology; functional interpretations could be added after usewear analysis. Prehistoric ceramics were grouped according to ware name (Group), fragment type (Class), temper (Type), and surface treatment (Sub-Type). Prehistoric organic materials are entered on the prehistoric lithic tables in order to minimize file size. Organics were grouped as organics (Group); according to material, which may include bone, nut/seed, shell, teeth, turtle shell, and wood (Class); as burnt or unburnt (Type); and as modified or unmodified (Sub-Type). Historic artifacts were grouped according to functional group (Group), material class (Class), technological or functional attributes (Type), and descriptive attribute (Sub-Type).

Prehistoric Ceramic Analysis

Ceramic artifacts were documented according to following regimen. For all sherds, the following attributes were documented: type, temper, size, condition, count, and weight. For sherd larger than very small and also of excellent or good condition, the following additional attributes were documented: temper size, vessel part, plastic technique, surface treatment, and paint technique. Size included the following increments: very small (less than 2 cm [0.8 in]), small (2 - 3 cm [0.8 - 1.2 in]), medium (3 - 6 cm [1.2 - 2.4 in]), large (6-10 cm [2.4 - 3.9 in]), and very large (10 - 15 cm [3.9 - 5.9 in]). Condition included the following values: excellent, good, and poor.

Terms used during the ceramic analysis were defined as follows. **Conoidal** was defined as synonymous with "conical." **Inclusions** are particulate matter, usually mineral in nature, present in a clay or fabric; these either occur naturally in the clay or are additives desired by the potter; often used

synonymously with **temper**; inclusions also may be voids, such as those remaining from the leaching of shell or limestone. **Paste** refers to the clay or mixture of clay used for construction; paste includes the materials added to the clay. **Segment**, in analysis of cordage, refers to one revolution of a strand in the final combination creating a cord; when the cord is held vertically and viewed from one side, a segment is one diagonal unit. **Strand**, in analysis of cordage, is a unit composing the cord, which consists of one or more sets of fibers twisted individually or together. **Temper** is the material that is added to a clay to improve its working, drying, or firing properties; temper may be mineral or organic, but is usually non-plastic. **Twist**, in analysis of cordage, is the description of the slant of segments or bars composing the cord; twist identifies whether the cord segments slope from upper right to lower left (Z) or from upper left to lower right (S). **Type** was defined as groups of ceramic artifacts that share the same surface treatment/decoration within the same ware. **Ware** was identified as a group of ceramic types that share attributes, especially with regard to temper and texture.

Prehistoric Lithic Analysis

Bifaces. The Biface group included all items exhibiting bifacial modification, with three exceptions. Exempted were flakes with bifacial platforms, flakes exhibiting a bifacial edge, and flakes exhibiting marginal (as opposed to invasive) bifacial retouch. Included are items representing early stage reduction as well as finished bifacial tools. Biface forms included finished forms such as projectile point/knife, knife, awl, and drill, as well as the following unfinished forms: flake blank, blank, and preform. Some bifaces exhibited ambiguous morphologic attributes; these items were catalogued as **Amorphous** if the biface was complete but could not be attributed to one of the other identified morphological types; as **Indeterminate** if morphology was obscured by material flaws or breaks; or as **Other** if an additional morphologic interpretation could be made. In addition, *pieces esquillees* also were included in the Biface group. Although these items may represent bipolar cores or use-modified tools, in order to avoid confusion they were catalogued as bifaces based on the presence of bifacial flake scars (Gramly 1982).

Each biface was analyzed by recording raw material class; presence of heat-treatment for each biface; weight of each item; and other relevant information when applicable. Length was measured along the longest axis parallel to the general edge orientation; width was measured from Edge B to Edge C. Edge angles for left and right lateral edges were taken for projectile point/knives; these measurements were taken following criteria established by Keeley (1980:19). Each biface was oriented "left-right" following the procedure outlined by Cook (1976), in which the longer edge, when rolled, is designated the "right edge."

Cores. Cores were defined as cobbles or pieces of raw material that exhibit one or more flake scars. Weathered surfaces, recent (shovel/plow) impacts, and fracture planes were excluded from the interpretation. If these types of damage accounted for all "modification" to the piece, the object was not included in the artifact assemblage and was discarded.

Also excluded from this group were items that exhibited a single platform/striking area with a bulb of percussion or Hertzian cone on the ventral surface (i.e. core rejuvenation/core trimming flake). The determination between core rejuvenation flake and flake core is an interpretation made by the analyst on the basis of clues to the sequence of flake removal. The flake scars on the flake core may show impact damage; the edges of the flake core may appear sinuous. In addition, many modified cobbles exhibit ambiguous evidence that could be interpreted either as a primary flake or a tested cobble. Attention to subtle differences in concavity was necessary to make the determination.

Procedures utilized during core analysis included recording raw material class; identifying the type of core; weighing each core; measuring length, width, and thickness; identifying portion if applicable; recording percentage and type of cortex; and recording other pertinent information, such as thermal alteration. Length was determined along the longest axis; width was documented along the second longest axis; and thickness was recorded along the third axis.

Bipolar cores were documented in the Reduction Method category. These cores were characterized by paired crushed platforms exhibiting relatively flat sheared Hertzian cones. Bipolar technology is frequently associated with the production of flakes from small cobbles or pebbles and the rejuvenation of exhausted cores.

Debitage. Debitage analysis sheds light on activity areas, sources of raw materials, and stages of tool manufacture. The frequency of flakes and the amount of cortex retained on them help to determine raw material access, since local materials are expected to display more body cortex. The size of the flake and the percent of cortex displayed helps to determine the stage of tool manufacture. The Debitage group included unmodified flakes and shatter.

Analytical procedures for debitage consisted of sorting by raw material class and presence of heat-treatment; classifying by reduction stage; classifying by technological attributes; and weighing. These procedures were used in an attempt to incorporate analyses of the technological attributes of individual flakes with traditional analyses by reduction stages (Bradbury and Carr 1995).

Reduction stages were defined as follows. Primary flakes were defined as flakes with 50 per cent and greater cortex remaining on the dorsal surface; secondary flakes were defined as those with less than 50 per cent cortex remaining on the dorsal surface; and non-cortex flakes were defined by the absence of cortex.

Technological attributes were ascertained and recorded under Sub-Type (Morphology); designations included biface thinning flake, biface margin flake, blade, burin spall, core rejuvenation flake, and pressure flake. A designation of biface thinning flake was assigned if the flake exhibited a bifacial, low-angled, lipped platform; high thickness to width ratio; and multiple dorsal flake scars. Biface margin flakes were identified by the wide, low-angled, bifacial platform; the platform is the widest portion of the flake. Blade flakes were defined as having a length twice its width; a prepared platform and parallel dorsal ridges may or may not be present. If these attributes also are present and the size corresponds to the limits set by Tixier (1974), the item was identified as a bladelet in Comments. Core rejuvenation flakes were identified by their large size and multiple flake scars on the dorsal surface.

Shatter is a type of debitage that does not exhibit any flake characteristics; they usually exhibit angular or shard-like forms. Shatter is a product of tool production, but only with regard to the force being applied and the raw material used. Shatter detaches from cores or worked items as flakes are intentionally detached and therefore are indirect results of decision-making processes associated with the reduction process. For this reason, reduction stage is not recorded for shatter. Shatter is identified as a distinct morphological type of debitage because it can illuminate reduction areas from which larger and/or more useful items had been retrieved.

Included in the Shatter group are heat-damaged fragments resulting from heat-treatment attempts. Evidence used for interpretations of heat-alteration included color change, luster change, potlids, and crazing. Excluded from the Shatter interpretation were lithic fragments with weathered surfaces and/or natural fracture planes and also artifacts that exhibit flake characteristics. Although these artifacts designated as flakes may not exhibit all flake characteristics (e.g., missing platforms),

they were included in the Flake group because they represent intentional flake production activity. Shatter was counted and weighed by provenience, raw material class, and presence of heat-alteration.

Fire-cracked Rock. Fire-cracked rock (FCR) was separated from other artifact classes. The FCR group included broken rock fragments that exhibited indications of heat damage, including jagged outlines and reddening. Included in this group were spalls, which might resemble primary flakes or cores. Some examples of spalls are similar to primary flakes, but they lack both impact areas that might have caused their detachment from cores and lack bulbs of percussion. The ventral surface of a spall sometimes may exhibit a slight negative bulb of percussion, but it does not show evidence of use as a core (House 1975:68).

Excluded from the FCR group were examples that exhibited evidence of previous or subsequent modification. An exhausted core might have been discarded in a hearth and may show evidence of heat damage, but such an artifact was included in the Core group with comments regarding the subsequent use. Analysis of FCR was confined to weighing fire-cracked rock by provenience and raw material class. Those showing no other modification were grouped together by provenience and weighed.

Retouched Flakes. A retouched flake was defined as one that exhibits a regular pattern of three or more consecutive scalar flake scars. Retouch implies intentional modification of the flake edge in order to steepen the edge--presumably for a particular task, or possibly in anticipation of platform preparation. Designations of retouched flakes may include examples that exhibit marginal or invasive retouch and/or bifacially or unifacially retouched flakes.

Retouched flakes first were classified according to debitage attributes, then identified as retouched under Modification (displayed on the Artifact Inventory under Sub-Type). Additional information, such as the placement of the retouch on the flake edge (unifacial versus bifacial) and edge profile (concave, convex, straight, or projection/cusp) may have been included in Comments.

Raw Material Classes

Raw material determinations primarily were based on macroscopic observations with additional information provided by a hand lens (10x) or stereomicroscope (10-30x). Raw material definitions relied on Mottana et al. (1978) and Chesterman and Lowe (1992). In addition to raw material class, the presence of heat-alteration was recorded as absent, present, or possible. Evidence for heat-alteration included color change, luster change, and heat fracture scars, such as spalls, potlids, and crazing.

Quartz designations were restricted to crystalline varieties of silica-rich rocks in which no individual grains were detectable under low magnification (10X). **Quartzite** is a siliceous arenaceous metamorphic rock primarily composed of quartz, mica, and feldspar minerals. Texture can be minute to granoblastic, but all particles in one sample are predominantly of one size. The arenaceous designation signifies particles ("clasts") of medium to fine grain (2 mm to 1/16 mm). Structure of quartzite is usually massive, but becomes shistose with an increase in mica (Chesterman and Lowe 1992; Mottana et al. 1978).

The genetic material for quartzites is usually clastic sedimentary rocks including orthoquartzite, graywacke, and arkose. Other genetic materials can include quartz-rich chemical sedimentary rocks (including siltstones and cherts) as well as igneous rocks (Chesterman and Lowe 1992; Mottana et al. 1978). In the lab, identification of quartzite was based on the predominance of

quartz and a fine-grained, homogenous, texture. The quartzite designation was restricted to metamorphosed sandstone, in which individual grains were detectable under low magnification but which lacked individual structural identity.

Rhyolite is an extrusive felsic igneous rock; since it is usually composed of quartz and feldspars, rhyolite is usually light in color. Darker examples contain biotite, magnetite, ilmenite, pyroxene, or amphibole. Identification in the lab was based on the presence of phenocrysts in a fine to very fine matrix, which may show banding or flow lines. The variation in types of rhyolites warranted separation; definition of groups was based on color, mottling, presence of veins/banding, and inclusions/phenocrysts.

Sandstone was defined as consolidated sand with individually distinguishable particles which maintain structural integrity. The designation excludes material with the silica cementation present in silicified sandstone examples. However, the designation may include materials of various textures and chemical compositions, such as graywacke or arkose.

Sandy chert was a material identified on the basis of its texture and inclusions; it was defined as a material containing rounded to sub-angular medium to coarse quartz sand grains in a cryptocrystalline matrix. The sandy chert description was adopted from LeeDecker et al. (1991:77). Consistency in nomenclature was maintained to aid further regional analysis.

Records and Curation

Following the analyses described above, artifacts were sealed in clean plastic bags; appropriate provenience data were recorded on the outside of each bag. Upon completion of the project, all artifacts, as well as the artifact inventory and technical documentation, will be turned over to the client with the recommendation that they be curated with the Maryland Historical Trust.

CHAPTER IV

RESULTS OF INVESTIGATIONS

Archival Results

The project area is historicially linked to Trent Hall. Trent Hall contained 600 acres when it was granted to Major Thomas Truman in 1658, a member of the Privy Council (Earle 1924:158). Major Thomas violated a treaty with the Native Americans in 1675 when he massacred their peace delegation and laid siege to their fort; he was subsequently dismissed from the council (Holly 1991:264). When the estate was resurveyed for his nephew, Thomas Truman Greenfield, in 1705, it had been enlarged to 2,354 acres (Earle 1924:158).

Steamboats began stopping at Trent Hall with the inauguration of service by the George Weems in 1821. His steamboat *Eagle* was the first service on the Patuxent River. The steamboat assured a one-day trip to Baltimore, a boon for the planters (Holly 1991:31-33). Trent Hall continued to serve as a steamboat landing until the early twentieth century. The landing was important enough to earn a short-lived post office named Trent Hall from February 20, 1876 through February 8, 1877. J.J. Readmond was postmaster (Hammett 1977:162). It was established along with post offices at the following landings of Patuxent steamers: Forest's Wharf, Jones' Wharf, Bond's Wharf, Aell's Wharf, and Millstone Landing (Hammett 1977:153).

St. Mary's farmers created a heavy demand for herring for their tenants and hired field laborers. During the spring run, small boat operators delivered fresh herring to Trent Hall in the months of March, April, and May (Shomette 1995:115). Trent Hall was the home of the Truman, Greenfield, Briscoe, and Thomas families for many generations. In the mid-twentieth century, Trent Hall was the home of Honorable Paul J. Bailey, State Senator from St. Mary's County 1946-54 and 1966-74 (Hammett 1977:162).

Results of Archeological Investigations

Surface collection at 3 m (9.8 ft) intervals covered the entire project area, and selective shovel testing was used to study areas of surface artifact density or potentially diagnostic artifacts. A total of 30 shovel tests were excavated (Figure 5). Shovel tests revealed that the project area soils resembled the Sassafras series that is mapped for the area north of the project area, rather than the Evesboro series that is mapped in the project area (Gibson 1978:Sheet 4). A typical profile consisted of a dark grayish brown (10YR 4/2) sand loam Ap horizon underlain at 30 cmbs (11.8 inbs) by olive yellow (2.5Y 6/6) sand loam BA horizon and at 55 cmbs (21.7 inbs) by strong brown (7.5YR 5/6) sandy clay Bt1 horizon.

A total of 34 artifacts were recovered from the surface collection, and two additional artifacts were recovered from shovel tests. The artifact assemblage included 27 prehistoric artifacts

and nine historic artifacts. The prehistoric artifacts included 9 unmodified quartz flakes, 4 unmodified quartzite flakes, 1 unmodified sandy chert flake, 1 modified rhyolite flake, 2 undiagnostic quartz bifaces (projectile points/knives) (Figure 6), 1 bipolar quartz core fragment, 3 quartzite heated cobble fragments, 1 sandstone heated cobble fragment, and 5 ceramic sherds (Figure 7). Although not collected, an extremely diffuse scatter of oyster shell was noted across the project area.

The prehistoric items comprised two archeological sites, one relatively compact site (Virts Site 1 [18ST767]) measuring approximately 35 by 65 m (115 x 213 ft) located near the southern tip of the project area, and a much more diffuse site (Virts Site 2 [18ST768]) measuring approximately 90 x 135 m (295 x 443 ft) and located towards the northern end of the project area. Virts Site 1 (18ST767) included both lithic and ceramic assemblages. The lithic component consisted of one quartz projectile point/knife (5.83 g) of indeterminate type, one primary quartzite flake (35.06 g), one primary sandy chert flake (41.94 g), one secondary quartz flake (7.41 g), one secondary quartzite flake (24.12 g), and one heated sandstone cobble fragment (38.02 g). The ceramic component included five sherds (8.28 g) with a temper consisting of hornblend, granite, quartz, and five per cent mica. Two sherds were fabric-impressed. The sherds appear to represent one of the experimental varieties that were produced during the Early Woodland period (Hornum et al. 2000). All of the artifacts were recovered from the surface.

Virts Site 1 (18ST767) appears to represent a fairly well defined Early Woodland resource procurement and processing area. Although the artifact density is light, several activities can be identified, including hearth-related activities (heated cobble), lithic reduction (flakes, point/knife), and perishable resource processing (sherds). However, no artifacts were recovered below the surface, and the absence of clear oyster shell concentrations on the surface suggests that no midden or pit features remain intact below the plowzone. The impact of historic plowing probably has eliminated the site's integrity, thereby reducing its research potential significantly. As a result, no further archeological work appears warranted.

Virts Site 2 (18ST768) yielded a lithic artifact assemblage that included one quartz projectile point/knife (3.92 g) of indeterminate type, one quartz bipolar core (16.38 g), one retouched and utilized rhyolite flake (2.48 g), eight quartz flakes (one primary, four secondary, and three non-cortical, totaling 47.01 g), two quartzite flakes (one secondary and one non-cortical, totaling 4.96 g), and three quartzite heated cobbles (103.46 g). One flake was recovered from the upper portion of the BA horizon, while the remaining artifacts were recovered from the surface.

Virts Site 2 (18ST768) appears to reflect a diffuse scatter of prehistoric activity. No temporally diagnostic artifacts were recovered. The site activities appear to have included perishable resource processing (flake tool), lithic reduction (core, flakes, point/knife), and hearth-related activities (heated cobbles). The extremely low density of artifacts and the absence of temporally diagnostic items suggest that the site retains little potential to identify discrete prehistoric activity areas or to place those activities within a distinct temporal framework. As a result, the site appears to lack significant research potential, and no further work appears warranted.

The historic artifacts included one sherd of domestic brown stoneware (1750 – 1900), three pieces of a machine-made amber bottle (1898 – present), one fragment of a post-bottom molded clear glass bottle (1850 – present), and four pieces of undiagnostic clear or amber bottle glass (Figure 8). The historic materials were widely scattered, and appear to reflect nothing more than twentieth century casual discard.

FIGURE 5

THIS PAGE INITIALLY LEFT BLANK

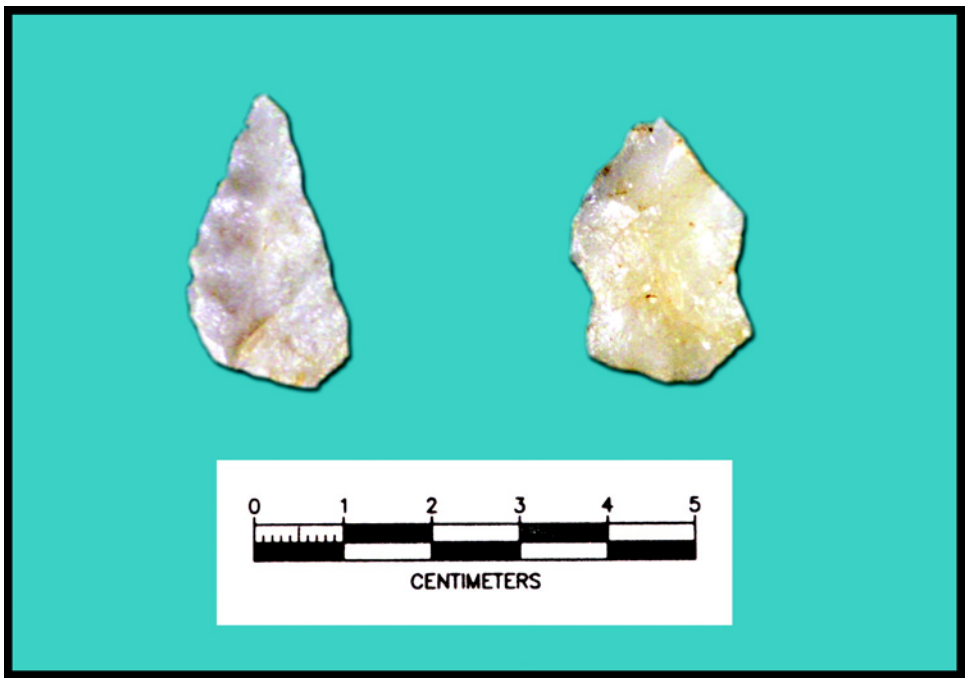

Figure 6. Photograph of prehistoric projectile points/knives from Site 18ST768 (FS #21) and Site 18ST767 (FS #22)

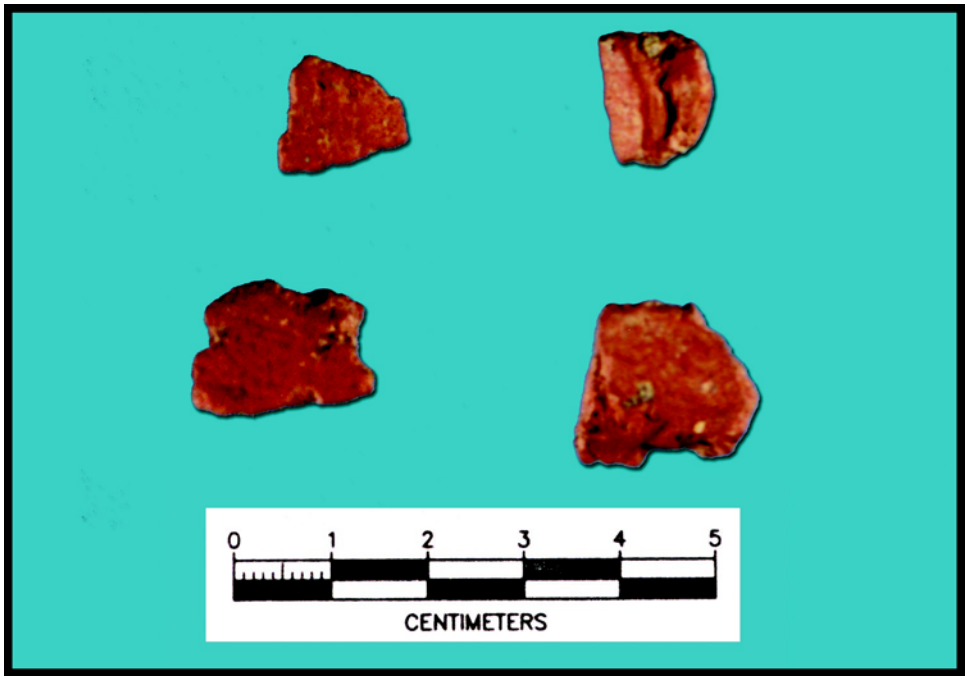

Figure 7. Site 18ST767, photograph of four prehistoric ceramic sherds (FS #10)

Figure 8. Photograph of selected historic artifacts: from left to right, amber machine-made bottle (FS #3), domestic stoneware (FS #26), and clear machine-made bottle base (FS #8)

CHAPTER V

SUMMARY AND RECOMMENDATIONS

Summary

This report presents the results of Phase I archeological survey undertaken during March 2002 at a 7-ac (2.8-ha) parcel on the Virts property in St. Mary's County, Maryland. The report was prepared by R. Christopher Goodwin & Associates, Inc., for ENTRIX, Inc. Office of Habitat Conservation, pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended. R. Christopher Goodwin & Associates, Inc. was subcontracted to ENTRIX, Inc.

The objective of the Phase I archeological survey was to identify and provide preliminary assessments of archeological resources located within the project areas. This was achieved through a combination of archival background research, archeological field investigations, and laboratory analysis of recovered cultural remains.

The archeological survey included intensive surface collection of the recently plowed and disked agricultural field. After the weekend rains of March 2 and 3, 2002, the field was collected at a 3 m (9.8 ft) lane interval. A total of 30 shovel tests were excavated at a 10 m (32.8 ft) interval in areas where artifacts were recovered.

A total of 34 artifacts were recovered from the surface collection, and two additional artifacts were recovered from shovel tests. The artifact assemblage included 27 prehistoric artifacts and 9 historic artifacts. Two prehistoric sites were identified. Virts Site 1 (18ST767) produced 11 artifacts, and appears to represent an Early Woodland resource procurement and processing area, featuring hearth-related activities, lithic reduction, and perishable resource processing. Virts Site 2 (18ST768) yielded 16 artifacts, and appears to reflect a diffuse scatter of prehistoric activity, featuring perishable resource processing, lithic reduction, and hearth-related activities. The historic materials were widely scattered, and appear to reflect nothing more than twentieth century casual discard.

Recommendations

Virts Site 1 (18ST767) produced no sub-surface artifacts, and the absence of definitive oyster shell concentrations on the surface suggests that no midden or pit features remain intact below the plowzone. The impact of historic plowing probably has eliminated the site's integrity, thereby reducing its research potential significantly. Therefore, the site does not appear to be National Register eligible, and no additional archeological investigation is recommended. Virts Site 2 (18ST768) contains an extremely low density of artifacts and the absence of temporally diagnostic items. Thus, the site retains little potential to identify discrete prehistoric activity areas or to place those activities within a distinct temporal framework. As a result, the site appears to lack significant

research potential, and the site does not appear to be National Register eligible and no additional archeological investigation is recommended. No further work appears warranted or is recommended for any other portions of the project area because the remaining artifacts represent diffuse historic to modern causal discard.

REFERENCES CITED

Beitzell, Edwin W.
1960 *The Jesuit Missions of St. Mary's County, Maryland.* Privately printed.

Bradbury, Andrew P. and Philip J. Carr
1995 Flake Typologies and Alternative Approaches: An Experimental Assessment. *Lithic Technology*. 20(2):100-115.

Brugger, Robert J.
1988 *Maryland: A Middle Temperment, 1634-1980*. The John Hopkins University Press, in association with the Maryland Historical Society, Baltimore.

Bryson, Reid A. W. M. Wendland
1967 Tentative Climatic Patterns for Some Late Glacial and Post-Glacial Episodes in Central North America. In *Life, Land, and Water*, edited by W.J. Mayer-Oakes, pp. 271-298. University of Manitoba Press, Winnipeg.

Carbone, Victor A.
1976 *Environment and Prehistory in the Shenandoah Valley*. Unpublished Ph.D. dissertation, The Catholic University of America. University Microfilms, Ann Arbor.

1982 Environment and Society in Archaic and Woodland Times. In *Practicing Environmental Archaeology: Methods and Interpretations*, edited by R. W. Moeller, pp. 39-52. American Indian Archaeological Institute Occasional Paper Number 3.

Chesterman, Charles W. and Kurt E. Lowe
1992 *The Audubon Society Field Guide to North American Rocks and Minerals*. Alfred A. Knopf. New York.

Chittenden, Betsy, Elizabeth S. David, Susan L. Henry, Michael F. Johnson, and Martha R. Williams
1988 *Fairfax County Heritage Resource Management Plan*. Heritage Resources Branch, Office of Comprehensive Planning, 1988.

Clark, Wayne E.
1980 The Origins of the Piscataway and Related Indian Cultures. *Maryland Historical Magazine* 75 (1):8-22.

Clifford, Laura
1998 *Phase I Cultural Resources Report for the Cedar Point Golf Course (Tees and Greens) Renovation at Patuxent River NAS, St. Mary's County, Maryland* (Preliminary Draft Report). Prepared for General Physics, Columbia, Md. (Contract N62477-95-D-3086, Task 008). Environment and Archaeology LLC, Verona, KY.

Cook, Thomas G.
1976 Broadpoint: culture, phase, tradition, or knife? *Journal of Anthropological Research* 32:337-357.

Custer, Jay F.
1980 Human Response to Holocene Climatic Episodes in the Northern Middle Atlantic. Paper presented at the 79th Annual Meeting of the American Anthropological Association, Washington, D.C.

1984 *Delaware Prehistoric Archaeology*. University of Delaware Press, Newark.

Earle, Swepson
1924 *The Chesapeake Bay Country*. Thomsen-Ellis Company, Baltimore.

Ebright, Carol A.
1992 *Early Native American Prehistory on the Maryland Western Shore: Archeological Investigations at the Higgins Site.* Maryland State Highway Administration Archeological Report No. 1. Prepared for the Maryland State Railroad Administration.

Egloff, Keith T. and Stephen R. Potter
1982 Indian Ceramics from Coastal Plain Virginia. *Archaeology of Eastern North America* 10:95-117.

Fausz J. Patrick
1984 *Merging and Emerging Worlds: the Interplay of Anglo-Indian Interest Groups in the Early Chesapeake, 1620-1660*. Paper presented at the Third Hall of records Conference on Maryland History, St. Mary's City, Maryland.

Fehr, April M.
1983 *Riverine Adaptive Phases and Environmental Stress during the Woodland Period in the Northern Shenandoah Valley*. Paper presented at the Meeting of the Archeological Society of Virginia, Manassas, Virginia.

Fenwick, Charles
1977 Mill Memories in St. Mary's County, Maryland. *Chronicles of St. Mary's* 18 (11):483-491.

Ferguson, Alice L. L. and T. Dale Stewart
1940 An Ossuary near Piscataway Creek. *American Antiquity* 6:4-18.

Gardner, William M.
1978 *Comparison of Ridge and Valley, Blue Ridge, Piedmont, and Coastal Plain Archaic Period Site Distribution: An Idealized Transect (Preliminary Model)*. Unpublished manuscript.

1979 *Paleoindian Settlement Patterns and Site Distribution in the Middle Atlantic (Preliminary Version)*. Unpublished manuscript.

1980 The Archaic. Paper presented at the 10th Middle Atlantic Archaeology Conference, Dover, Delaware.

1982 Early and Middle Woodland in the Middle Atlantic: An Overview. In *Practicing Environmental Archaeology: Methods and Interpretations*, edited by Roger W. Moeller, pp. 53-86. American Indian Archaeological Institute Occasional Paper Number 3.

1983 Get Me to the Quarry on Time: The Flint Run Paleoindian Model Revisited (Again). Paper presented at the 48th Annual Meeting of the Society for American Archaeology, Pittsburgh, Pennsylvania.

Gibb, James G.

1990 *A Phase I Archeological Survey and Phase II Site Examination (18ST619) for the Hickory Hills Development Project, California, Maryland*. Prepared for Hickory Hills Limited Partnership, Lexington, Maryland.

1992 *A Phase I Archaeological Survey of Waterside Farms near Hallowing Point, Calvert County, Maryland*. Prepared for Joseph A. and Darlene E. Kupke Richardson, Texas.

Gibson, Joseph W.

1978 *Soil Survey of St. Mary's County, Maryland.* United States Department of Agriculture, Soil Conservation Service.

Gramly, Richard Michael

1982 *The Vail Site: A Paleo-Indian Encampment in Maine*. Bulletin of the Buffalo Society of Natural Sciences Volume 30. Buffalo Society of Natural Sciences. Buffalo, NY.

Greenhorne & Omara, Inc.

1992 *Phase II Archeological Investigation of the Waterrside Farm Site, 18CV320*. Prepared for Joseph A. and Darlene E. Kupke Richardson, Texas.

Hammett, Regina C.

1977 *History of St. Mary's County, Maryland*. Privately Printed. Ridge, Maryland.

Herrman, Augustine

1673 *Virginia and Maryland*. London (1670).

Hobbs, Horace

1961 *Pioneers of the Potomac*. Privately printed.

Holly, David C.

1991 *Tidewater by Steamboat: A Saga of the Chesapeake*. The John Hopkins Universite Press, Baltimore.

House, John H.

1975 A Functional Typology for Cache Project Surface Collections, in *The Cache River Archeological Project: An Experiment in Current Archeology,* Michael B. Schiffer and John H. House, eds. Arkansas Archeological Survey, Research Series No.8.

Hume, Ivor Noël

1969 *A Guide to Artifacts of Colonial America*. Alfred A. Knopf, New York.

Johnson, Michael
1986 The Prehistory of Fairfax County: An Overview. Ms. on file. Heritage Resources Branch, Office of Comprehensive Planning, Fairfax, Virginia.

Jones, Olive and Catherine Sullivan
1989 *Glass Glossary for the Description of Containers, Tableware, Flat Glass, and Closures*. National Historic Parks and Sites, The Parks Canada.

Kavanagh, Maureen
1982 *Archeological Resources of the Monocacy River Region, Frederick and Carroll Counties, Maryland*. Submitted to the Maryland Historical Trust, Frederick County Planning Commission, Carroll County Planning and Zoning Commission.

Keeley, Lawrence H.
1980 *Experimental Determination of Stone Tool Uses: A Microwear Analysis*. The University of Chicago Press, Chicago.

King, Julia A.
1990 Rural Life in Mid-19th Century St. Mary's County: The Susquehanna Farm at Cedar Point. *Chronicles of St. Mary's* (38)1:289-300.

Klapthor, Margaret B . and Paul D. Brown
1958 *The History of Charles County in Maryland*. Charles County Tercentenary, Inc., La Plata, MD.

LeeDecker, Charles H. and Brad Koldehoff
1991 *Excavation of the Indian Creek V Site (18PR94) Prince George's County, Maryland*. Prepared for Wallace Roberts & Todd, Philadelphia, Pennsylvania and Washington Metropolitan Area Transit Authority, Washington D.C.

Lukezic, Craig
1990 Soils and settlement location in eighteenth century colonial Tidewater Virginia. *Historical Archaeology* 24:1-17.

Marks, Bayly E.
1979 Economics and Society in a Staple Plantation System: St. Mary's County, Maryland 1790-1840. Ph.D. dissertation, Department of Philosophy, University of Maryland, College Park.

Miller, George L.
1980 Classification and Economic Scaling of 19th Century Ceramics. *Historical Archaeology* 14:1-40.

1991 A Revised Set of CC Index Values for Classification and Economic Scaling of English Ceramics from 1787 to 1880. *Historical Archaeology* 25(1):1-25.

Mottana, Annibale, Rodolfo Crespi, and Giuseppe Liborio
1978 *Guide to Rocks and Minerals*. Simon & Schuster Inc. New York.

Neiman, Fraser
1986 Domestic Architecture at the Clifts Plantation: The Social Context of Early Virginia Building. In *Common Places: Readings in American Vernacular Architecture*, edited by Dell Upton and John Michael Vlach, pp. 292-314. University of Georgia Press, Athens.

Pogue, Dennis J.
1983 *Patuxent River Naval Air Station Cultural Resources Survey. Volume I: History and Archaeology*. Public Works Department, Naval Air Station, Patuxent River, Md.

1990 *King's Reach and seventeenth Century Plantation Life.* Jefferson Patterson Park & Museum Studies in Archaeology:1. Maryland Historical Trust, Annapolis, Maryland.

Pogue, Dennis J. and M.A. Smolek
1985 *An Archeological Resource Management Plan for Southern Maryland*. Maryland Historical Trust, Manuscript Series No. 30.

Pogue, Robert E. T.
1968 *Yesterday in Old St. Mary's County*. Privately printed. Bushwood, Md.

Polglase, Christopher R., Thomas W. Neumann, Michelle T. Moran, and Martha R. Williams
1990 *Phase II Archeological Testing of Sites 18CH334, 18CH335, and 18CH336, Charles County Landfill No. 2, Waldorf, Maryland.* Prepared for Interstate General Company, LP, St. Charles, Maryland. R. Christopher Goodwin & Associates, Inc., Frederick, MD.

Reeve, Stuart A., Jean B. Russo, Dennis J. Pogue, and Joseph M. Herbert
1991 *Myrtle Point: The Changing Land and People of a Lower Patuxent River Community*. Jefferson Patterson Park and Museum Occasional Paper No. 3. Maryland Historical and Cultural Publiscations, Crownsville.

Scharf, J. Thomas
1879 *A History of Maryland from the Earliest Period to the Present Day*. Reprinted 1967. Tradition Press, Hatboro, Pennsylvania.

Secretary of the Interior
1993 Archeology and Historic Preservation; Secretary of the Interior's Standards and Guidelines.

Shaffer, G. and Cole, E.
1994 Standards and Guidelines for Archeological Investigations in Maryland.

Shomette, Donald
1981 *Flotilla: The Battle for the Patuxent*. Calvert Marine Museum Press, Solomons, Md.

1995 *Tidewater Time Capsules: History Beneath the Patuxent*. Tidewater Publishers, Centerville, Maryland.

Smolek, Michael
1984 "Soyle light, Well-Watered and On the River:" Settlement Patterning of Maryland's Frontier Plantations. Paper presented at the Third Hall of Records Conference on Maryland History, St. Mary's City, Maryland.

South, Stanley
1977 Evolution and Horizon as Revealed in Ceramic Analysis in *Historcal Archaeology: A Guide to Substantive and Theoretical Contributions*, edited by Robert Schuyler. Baywood Publishing Co., Farmingdale, N.Y.

Stephenson, Robert L., Alice L. Ferguson, and Henry J. Ferguson
1963 *The Accokeek Creek Site: A Middle Atlantic Seaboard Culture Sequence*. University of Michigan Museum of Anthropology Anthropological Press No. 20

Steponaitis, Laurie Cameron
1983 *An Archeological Study of the Patuxent River Drainage, Volume I.* Maryland Historical Trust Manuscript Series No. 24. Prepared by the Maryland Historic Trust and the Tidewater Adminstration, Annapolis, Maryland.

1986 *Prehistoric Settlement Patterns in the Lower Patuxent Drainage, Maryland*. Ph.D. Dissertation, SUNY Binghamton.

Stewart, R. Michael
1980 Environmental Settlement Pattern and Prehistoric Use of Rhyolite in the Great Valley of Maryland and Pennsylvania. Paper presented at the 10th Middle Atlantic Archaeology Conference, Dover, Delaware.

1981 Prehistoric Ceramics of the Great Valley of Maryland. Unpublished manuscript on file with author.

Stone, Gary Wheeler
1982 *Society, Housing, and Architecture in Early Maryland.* Ph.D Dissertation. University of Pennsylvania. University Microfilms, Ann Arbor, Michigan.

Tixier, J.
1974 *Glossary for the Description of Stone Tools with Special Reference to the Epipalaeolithic of the Maghreb*. Newsletter of Lithic Technology: Special Publication Number 1. Translation by M. H. Newcomer.

United States Department of the Interior
1982 *National Register Bulletin 15: Guidelines for Applying the National Register Criteria for Evaluation*. U.S. Government Printing Office, Washington, D.C.

Wesler, Kit W.
1982 *Towards a Synthetic Approach to the Chesapeake Tidewater: Historic Site Patterning in Temporal Perspective.* Ph.D. Dissertation. University of North Carolina at Chapel Hill. University Microfilms, Inc., Ann Arbor, Michigan.

Wesler, Kit W., Gordon J. Fine, Dennis J. Pogue, Patricia A. Sternheimer, Aileen F. Button, E. Glyn Furgurson, and Alvin H. Luckenbach
1981 *The Maryland Department of Transportation Archaeological Resources Survey, Volume II: Western Shore*. Maryland Historical Trust Manuscript Series 6.

Wilke, Steve, and Gail Thompson
1979 *Prehistoric Archeological Resources in the Maryland Coastal Zone: a Management Overview.* Report for the Maryland Department of Natural Resources, Annapolis.

Wilstach, Paul
1932 *Potomac Landings.* Bobbs-Merrill, Indianapolis.

Worthy, Linda H.
1982 Classification and Interpretation of Late Nineteenth and Early Twentieth Century Ceramics. In *Archaeology of Urban America: The Search for Pattern and Process*. Edited by Roy S. Dickens, Jr., Academic Press, New York.

Primary Documents

Maryland Historical Trust
Archaeological Site Files
Maryland Inventory of Historic Structures Inventory Forms
National Register of Historic Places Nomination Forms

ACKNOWLEDGEMENTS

This report was prepared with the assistance and support of many individuals, agencies and institutions. R. Christopher Goodwin & Associates, Inc. wishes to thank Dr. Gary D. Harmon of the ENTRIX, Inc., Mr. Kevin Smith of MDNR, and Mr. John Collins of NOAA for their assistance in coordinating this project. Ms. Mary Louise DeSarran, Librarian at the Maryland Historical Trust, facilitated access to site files and research reports on projects conducted within the region.

Christopher R. Polglase, M.A., ABD, served as Principal Investigator and supervised all aspects of the study; Michael B. Hornum, Ph.D., served as Project Manager. Dr. Hornum, and Brian Stone, M.A. directed field investigations. They were assisted by Ashley Watson, B.A and Nate Workman, B.A. Darlene Hassler, B.A. and K.D. Tyree, M.A. conducted the laboratory analyses. Brian Cleven, M.S. conducted the archival research. John Shuster, M.A., prepared the graphics for the report. Ms. Shanna Fuhrman produced the report.

APPENDIX I

ARTIFACT INVENTORY

APPENDIX II

RESUMES OF KEY PROJECT PERSONNEL

CHRISTOPHER R. POLGLASE, M.A., A.B.D.
VICE PRESIDENT- ARCHEOLOGICAL SERVICE

Mr. Christopher Polglase received his baccalaureate degree from William and Mary in 1980, his M.A. from SUNY Binghamton in 1985, and he currently is A.B.D. at that institution. At SUNY Binghamton, Mr. Polglase served as a teaching, research, and graduate assistant, where he edited the multi-volume report on excavations at the Utqiagvik site in Barrow, Alaska. Mr. Polglase received considerable cultural resource experience at SUNY Binghamton, where he served as crew chief on Phase I-III projects. Mr. Polglase also served as crew chief for three seasons at Fort Christanna, an early eighteenth century frontier outpost, and as field supervisor for the survey of the proposed Roanoke River Parkway. He also has participated in large projects in Alaska and throughout Italy.

At Goodwin & Associates, Inc., Mr. Polglase has worked on numerous projects in the Middle Atlantic, Southeast, Mid-West and the Caribbean. He has directed data recovery at numerous prehistoric and historic sites in the Middle Atlantic and Phase I-II studies across the Eastern United States. Two of those projects, excavations at the Russett Center and at the Garman Site, received the Excellence in Archeology Awards from the Anne Arundel County Trust for Historic Preservation in 1991 and 1992. His projects also received awards from the Maryland Historical Trust for Education Excellence (1997) and from the Harford County Historic Preservation Commission for the Preservation Project of the Year (1999).

Mr. Polglase's experience at Goodwin & Associates, Inc. has encompassed the range of preservation planning and interpretation studies. He has directed the preparation of multi-disciplinary cultural resource planning studies for the Army Corps of Engineers, NAVFACENGCOM, the Department of Energy, and the Maryland Port Administration. These projects have included numerous Cultural Resource Management Plans (ICRMP) for such diverse facilities as the U.S. Naval Academy, Aberdeen Proving Ground, and Fort Belvoir. He has overseen the design of exhibits at several DoD installations, including preparation of panels, exhibit cases, and a touch screen computer kiosk. The development of that kiosk and subsequent projects led to an interest in the digital interpretation of archeological and historical resources, including 3D modeling of archeological sites. Mr. Polglase has directed the preparation of Geographic Information System (GIS) deliverables to DoD and private sector clients in the Middle Atlantic, including: (1) complete historic and natural resource data layers for 11 U.S. Navy installations in Tidewater Virginia; and (2) archeological and historical data for 29 counties in Pennsylvania. Mr. Polglase also oversees artifact curation compliance and conservation studies for Goodwin & Associates, Inc., including NAGPRA research for the U.S. Army Corps of Engineers in 21 states.

His research interests include lithic analysis, long-distance exchange, and the development of holistic preservation planning studies. In addition to numerous technical reports, he has published papers in the *Journal of Archeological Science*, *Preistoria Alpina*, and the *Journal of Middle Atlantic Archaeology*. He has presented professional papers to the Society for American Archeology, the Middle Atlantic Archeological Conference, the Archeological Societies of Maryland and Virginia, the Eastern States Archeological Federation, the Center for Medieval and Early Renaissance Studies, and the Valle dei Cavalieri.

MICHAEL B. HORNUM, PH.D.
SENIOR PROJECT MANAGER

Michael Hornum earned a Ph.D. in Classical and Near Eastern Archeology from Bryn Mawr College. He has studied archeology at the University of Pennsylvania and Tel Aviv University (Israel). Dr. Hornum has received numerous awards and fellowships. He has taught at The George Washington University, Drexel University, and Bryn Mawr College. Dr. Hornum has served as field supervisor or project manager on over three dozen projects for a variety of private, county, state, and federal clients. He has directed or managed projects in Maryland, Virginia, West Virginia, Pennsylvania, Florida, and North Carolina. His experience cuts across all phases of archeological investigation, including surveys, evaluations, data recoveries, and archeological damage assessments. Since joining R. Christopher Goodwin & Associates, Inc. in 1993, Dr. Hornum's projects have included investigations at prehistoric and historic sites, ranging from the late Paleo-Indian through the Late Woodland periods, and from the late seventeenth through the early nineteenth centuries.

Dr. Hornum has extensive experience in ensuring Sections 106 and 110 compliance on Federal installations. His projects have included large Phase I surveys at Fort George G. Meade, Naval Surface Warfare Center Carderock, Naval Air Station (NAS) Oceana, Naval Auxiliary Landing Field Fentress, Naval Security Group Activity (NSGA) Northwest, Naval Radio Transmitter Facility (NRTF) Driver, Naval Weapons Station (NWS) Yorktown, and Naval Radio Station New Kent. Dr. Hornum also has managed archeological evaluations at NRTF Driver, NSGA Northwest, the USDA's Beltsville Agricultural Research Center (BARC), and Naval Air Station (NAS) Patuxent River. Dr. Hornum has guided data recovery excavations at NSGA Northwest, BARC, and NAS Patuxent River. He also has designed interpretative exhibits for Navy installations in Virginia, West Virginia, and Puerto Rico. These exhibits have included panels, artifact display cases, and in one case, an interactive computer kiosk. Dr. Hornum also has worked with NAS Oceana, NWS Yorktown, and NSGA Northwest to create Integrated Cultural Resources Management Plans (ICRMPs) for managing archeological resources at these installations.

Dr. Hornum has considerable experience in establishing archeological compliance for major pipeline projects. During the FGT Phase III expansion project, Dr. Hornum directed three archeological evaluations of prehistoric sites, and served as project manager for the data recovery of the 10,000 year old prehistoric site 8LE2105 in northern Florida. Dr. Hornum has served as project manager and Co-Principal Investigator on the Pennsylvania portion of the Independence Pipeline project. He has managed the archeological survey of over 200 miles of proposed pipeline, and the archeological evaluations of six sites.

Dr. Hornum also has worked with other private clients, and with state and local agencies to bring their projects into compliance. Among his Maryland projects were nine evaluations at Chapman's Landing in Charles County, and archeological survey at the proposed Tanyard Cove, Beech Tree, and Willow Grove developments in Anne Arundel and Prince George's counties. His Virginia and West Virginia projects include archeological surveys at several properties for Virginia Natural Gas, Inc., Eastern Associated Coal Corporation, and Norfolk and Southern Railroad. In Pennsylvania, Dr. Hornum directed archeological survey for Pennsylvania DOT's proposed Kittanning Bypass, and was instrumental in creating an Archeological Protection Plan for the City of Pittsburgh.

BRIAN A. STONE, M.A.
ARCHEOLOGIST II

Mr. Brian Stone received his Bachelor of Science degree in Anthropology and Art History from the University of Wisconsin-Madison (1990) and a Master of Arts degree in Archeology from Cornell University (1994). Mr. Stone's M.A. thesis focused on improvement of archeological illustration techniques through the implementation of computer graphics technology Mr. Stone's research interests include Mid-Atlantic prehistory, Mayan archeology, Mayan iconography, Mesoamerican and Central American ceramics, and archeological applications of computer graphics technology.

Mr. Stone has been an employee of R. Christopher Goodwin & Associates, Inc. since January 1995. During that time, he has served as an editor, writer, field supervisor, surveyor//excavator, and CADD draftsman on projects throughout Maryland, Virginia, Pennsylvania, West Virginia, Ohio, North Carolina, Alabama, Mississippi, and Puerto Rico. Working worked on contracts for the U.S. Navy, the U.S Army Corps of Engineers, SONAT, ANR, Washington Gas, and numerous private developers, Mr., Stone has participated in all stages of archeological cultural resource assessment and mitigation.

In work prior to his employment with R. Christopher Goodwin & Associates, Inc., Mr. Stone served as an intern in the Collections Management Section of the Department of Anthropology, National Museum of Natural History, Smithsonian Institution. In this position, he was primarily responsible for: processing Panamanian, North American, and Middle Eastern archeological collections; scanning department physical anthropology accession records for use in an Anthropology Department database; and converting scanned topographic maps into CADD manipulatable vector files. As an intern at the Division of Historic Preservation, Fairfax County Park Authority, Mr. Stone compiled a file of cultural resources on Park Authority property and assisted in the excavation of an 18th century historic site at Sully Plantation, Chantilly, VA.

BRIAN CLEVEN, M.S.

INDUSTRIAL ARCHEOLOGIST

Mr. Brian Cleven, Industrial Archeologist and Historian, received a Master of Science degree in Industrial Archeology in 1997 from Michigan Technological University, Houghton, Michigan. He has been professionally active in the field of industrial archeology since 1995. His project experience includes historic research, Historic American Buildings Survey (HABS) and Historic American Engineering Record (HAER) documentation, architectural surveys, National Register of Historic Places nominations, and Phase I, Phase II, and Phase III archeological investigations. He has published articles in Michigan History Magazine.

Since joining Goodwin and Associates, Inc., Mr. Cleven has served as an industrial archeologist specialist for HAER documentation of the Florida Avenue Bridge, Galvez Street Wharf, and the Keystone Lock and Dam in Louisiana, the Woodward Pumping Station in Pennsylvania, and the Rock Creek Trestle in Maryland. He has completed National Register evaluations for the lock keeper's dwelling at the Keystone Lock and Dam, Bayou Teche, for the Florida Avenue Siphon, New Orleans, and the Bayou Boeuf, Bayou Sorrel, and Berwick Locks and the Calumet and Charenton Floodgates in the Atchafalaya Basin, all in Louisiana.

He served as an industrial archeologist specialist for architectural surveys of the Wyoming Valley, the Tosten Warehouse, and the hangars at Pittsburgh International Airport in Pennsylvania; the Laurel Machine Shop, the Thomas Cannery, Broadfording Road Bridge 13/02, and Memorial Stadium in Maryland; the Ohio and Erie Canal, the Miami and Erie Canal, and the Alliance Clay Products Company in Ohio; and the Illinois and Michigan Canal in Illinois. He served as an industrial archaeologist specialist for archaeology surveys of Resolution Sugar Hacienda and sugar transfer site at Caballo 3 on Vieques, Puerto Rico. He prepared a majority of the field drawings for the HABS documentation of the Sebastian Derr House, the Pennsylvania barn on the Campbell Farmstead, and the former stable and servant's quarters at 22 South Market Street, all in Frederick, Maryland. He has undertaken architectural surveys of the Defense Supply Center Richmond in Virginia; the Naval Communication Detachment Cheltenham, along MD Rt. 26, the Sebastian Derr House, the Gordon Building, the Keller-Brewster House and 9150 Darnestown Road in Maryland; the proposed Independence Pipeline Corridor in northern Ohio. He has conducted intensive literature searches for Phase I, Phase II, and Phase III archeological surveys including the Coan River Navigation Improvement, Virginia; the African American Museum and Juvenile Justice projects in Baltimore; the Beech Tree project and Uptown Property project in Maryland; the North Ridge project in Pennsylvania; the Ravenna Army Ammunition Plant, Ohio, and the Proposed Independence Pipeline Corridor in Ohio. He has also participated in Phase I and Phase II archeological investigations on the island of Vieques, Puerto Rico, Phase I archaeological investigations for the Brookeville Bypass and Phase I and Phase II archaeological investigations for the Burkittsville intersection in Maryland, and Heritage Plantation, Huntsville, Alabama and Phase I and Phase II on the SSE pipeline in Alabama.

Maryland Department of Housing and Community Development

Division of Historical and Cultural Programs

100 Community Place
Crownsville, Maryland 21032

410-514-7600
1-800-756-0119
Fax: 410-987-4071
Maryland Relay for the Deaf:
711 or 1-800-735-2258

http://www.dhcd.state.md.us

Parris N. Glendening
Governor

Raymond A. Skinner
Secretary

Marge Wolf
Deputy Secretary

15 May 2002

Mr. John Collins
National Oceanic and Atmospheric Administration
Restoration Center
SSMC-3, (F/HC3), Rm. 15245
1315 East West Highway
Silver Spring, MD 20910

Re: Virts Restoration Project for Chalk Point Oil Spill, St. Mary's County

Dear Mr. Collins:

Thank you for sending the Maryland Historical Trust (MHT) a draft of the following report for our review: Phase I Archeological Survey for the Virts Property Wetlands Creation Area, St. Mary's County, Maryland (11 April 2002; received 8 May 2002). R. Christopher Goodwin & Associates, Inc., prepared the document for ENTRIX, Inc., and NOAA.

The report comprehensively describes the survey's goals, methods, and results. It is clearly written, well illustrated, and addresses the Standards and Guidelines for Archeological Investigations in Maryland (Shaffer and Cole 1994). In our opinion, background research and fieldwork were sufficient to identify archeological properties in the area of potential effects for the Virts wetland creation project.

Surface collection and shovel testing discovered two prehistoric archeological sites. Virts Site 1 (18ST767) appears to represent a resource procurement and processing station. It evidenced one projectile point, four lithic flakes, a heat-altered cobble, and five ceramic sherds apparently from the Early Woodland period (ca. 1000 – 500 BC). All recovered artifacts were surface finds. Virts Site 2 (18ST768) apparently served as an area of prehistoric resource processing and lithic reduction. Surveyors found one point, a bipolar core, a flake tool, 10 flakes, and three heat-altered cobbles. None of these finds, which were primarily surface collected, were temporally diagnostic. Both sites were characterized by a low density of cultural material with little important research potential. Furthermore, plowing had mixed the prehistoric artifacts with a diffuse scatter of late historical items, compromising the sites' integrity. For these reasons, MHT concurs that 18ST767 and 18ST768 are ineligible for the National Register of Historic Places and warrant no further study.

Based on the survey results, use of the Virts property for the wetland creation project is unlikely to have an effect on historic properties. We have no editorial suggestions for the well produced archeological report. MHT looks forward to receiving the final version in the normal, doubled-printed format.

We appreciate NOAA's efforts to protect Maryland's cultural heritage. If you have any questions or require further information, please contact me at 410-514-7631.

Sincerely,

Elizabeth J. Cole
Administrator
Project Review and Compliance

EJC/GDS
200201775
cc: Mr. Kevin Smith (DNR)
Mr. Christopher Polglase (Goodwin & Associates)
Mr. Ed Chaney (JPPM)
Ms. Betty Seifert (JPPM)