James W. Embrey. A SEARCH TO IDENTIFY THE Seventeenth century SHORELINE OF ST. MARY'S CITY, MARYLAND. (Under the direction of Dr. Lawrence E. Babits) Department of History, December, 1998.

Using previous research in conjunction with new methods, a map of the seventeenth century St. Mary's River shoreline bordering the historic city to its north and southwest aids archaeologists in investigating the old town's port area. Terrestrial archaeology at St. Mary's City, Maryland, benefits from a delineation of the seventeenth century shoreline of the St. Mary's River by better defining the early city's layout. Maritime archaeology benefits from this significant step in determining the locations of colonial maritime activity related to this important Maryland site.

A SEARCH TO IDENTIFY THE Seventeenth century SHORELINE OF ST. MARY'S CITY, MARYLAND

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A SEARCH TO IDENTIFY THE Seventeenth century SHORELINE OF ST. MARY'S CITY, MARYLAND

A Thesis

Presented to

the Faculty of the Department of History

East Carolina University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts in History

by

James W. Embrey

December 1998

This thesis is dedicated to my father, James William Embrey, for teaching me to take a chance and pursue my dreams. Special thanks goes to my sister Evelyn and her husband Frank for their constant support, my three sons Bill, Mark, Joe, and their families for their understanding and help, and my wife Mary who had to put up with everything.

ACKNOWLEDGMENTS

This project would not have been possible without the support and help of Historic St. Mary's City and its personnel. Dr. Henry M. Miller, Director of Research, a staunch supporter of this project, was there whenever a need arose. Silas D. Hurry, Archaeological Laboratory Director, helped with technical support information, laboratory space and the use of his personal boat. Dr. Timothy B. Riordan, Chief Archaeologist, not only gave me the benefit of his expertise, but also provided a labor force from the 1997 St. Mary's archaeological field school he directed. I offer my appreciation and thanks to those students for their enthusiasm and help.

Walter Prause, Fleet Coordinator, St. Mary's College of Maryland, was gracious in loaning me boats whenever the need arose. Robert Hurry of the Calvert Marine Museum, Solomons, Maryland, provided assistance in researching historic documents and maps. Assistance and support was furnished with a smile by Dr. Susan Langley and Bruce Thompson from the Maryland State Underwater Archaeology Program.

Bill Faxon was always invaluable to me as diver, assistant, equipment specialist, and friend. Don Winter

helped not only as an archaeologist, but also with the computer imaging needed for this thesis. There were other friends, Manny Madison, Rich Edwards and Tim Jeffas, President of the Southern Maryland Chapter of the Maritime Archaeological and Historical Society, who volunteered their time and energy repeatedly. Several members of the Southern Maryland Chapter of the Maritime Archaeological and Historical Society contributed time and energy to this project.

Dr. Lawrence Babits and my fellow graduate students gave up their free time during the 1997 summer ECU field school. Jeff Enright and Jenna Watts helped with core samples while working on another project in the late summer 1998. East Carolina University provided much of the equipment and training needed in this project. Equipment loans were facilitated by Frank Cantelas and the Dive Safety unit headed by Steve Sellers.

Geologic expertise was provided by Dr. Gerald H. Johnson, Professor at the College of William and Mary, who used his physical and mental talents to collect data. Randy Kehrins at the Maryland Geological Survey kindly loaned me a vibracore and the associated equipment needed to take core samples. Vibracoring was made easier through the use of the

Dove's work platform courtesy of Will Gates, Master of the *Dove*.

A very special thanks to my family. My sons, Bill and Mark, who spent time in numerous capacities working with me on this project. Bill adapted a Navy Seal method of hydrographic survey to archaeological use, and Mark assisted him. My wife, Mary, assisted me throughout this project, including preparing food with the help of my daughters-in-law, Victoria and Chrissy, for all the volunteers on several weekends. My son Joe and his wife Stephanie supplied their editing talents. My grandson, Erik, worked as a stadia man for a long, hot, and humid day.

Time, energy, and support from a variety of people and organizations went into the research for this thesis, and a simple thank you seems very inadequate. If, in reviewing my notes and memory, I have forgotten anyone who aided me in this endeavor, you have my sincere apologies and thanks.

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INTRODUCTION

St. Mary's City was the site of Maryland's first legal settlement, its colonial capital, and the first county seat of St Mary's County. Maryland's first settlers arrived by ship, and for over 300 years water transport was the primary means by which people and goods entered and left the area. Only in the last fifty years, have modern roads and vehicles made St. Mary's City accessible to the increased population of the surrounding areas.

The inaccessibility and rural nature of Southern Maryland kept St. Mary's City's remains intact for archaeologists to rediscover and interpret. St. Mary's City and the surrounding parts of southern Maryland have been subjected to numerous studies due to perceived similarities to other colonies and unique differences. While some of St. Mary's City's history and archaeology has been investigated and exposed, little field work has dealt with the river front or maritime activities. The river provided the major contacts with the outside world but very little systematic investigation has concentrated on the waterfront.

The site of St. Mary's City, Maryland, was first subjected to archaeological investigation in the 1930s. A continuing archaeological research program began in late

1960s. The remains of the town center of Maryland's seventeenth century capital rest along the eastern shore of the St. Mary's River, bounded to the south by Key Swamp, and to the northwest by Church Point, and St. John's Pond (Mill Creek) on the east.

Maryland's first colonists purchased and occupied a late woodland Indian village that occupied what became St. Mary's City. The Maryland colonists never had the devastating encounters with Native Americans that Virginia experienced. Although there were problems between Maryland colonists and Native Americans, Catholic Maryland and Protestant Virginia experienced more troubles between themselves concerning religion. The Catholic heritage of St. Mary's City was, in part, responsible for its demise when Maryland became a royal colony in the 1690s. In 1694, the royal governor moved the capitol from St. Mary's City to Annapolis, and in 1708 the county seat was changed from St. Mary's City to Leonardtown.

St. Mary's City ceased to exist by the early 1720s; the land it occupied became part of three different plantations, Deacon, Hicks, and Mackall, until the late eighteenth century, when all but a few small tracts came under the control of Dr. John Brome. Though the city no longer

existed, farmers and plantation owners still relied on ship traffic to market their products and to receive goods.

The St. Mary's Seminary for Women was established in 1839. The school was located along the north shore east of Trinity Episcopal Church that had been at Church Point since the early eighteenth century. The remainder of St. Mary's City was still owned by the Brome family, and Brome, in cooperation with the seminary, built a wharf south of Church Point in the 1840s. The seminary developed into St. Mary's College of Maryland, and in the process of the school's development, much of the northern shoreline was altered. The southern shoreline was part of the Brome-Howard plantation/farm. Since the late eighteenth century, it has experienced some man-made changes.

The St. Mary's City landscape, especially its shoreline, was altered after English colonists settled there. Natural altering factors include sea level rise, erosion and deposition from ground water flow, weather, and the tidal affects of the St. Mary's River. Man-made factors played a larger part in changing the landscape, either enhancing natural processes or directly altering portions of the shoreline for different reasons.

A large part of the northern shoreline was filled in

after 1800. Terrestrial archaeologists explored land along the northern shoreline, except areas that are underwater. Some surveys were conducted along the southern shoreline, but these were limited, and related to specific projects. Given the large expanse of former land now underwater, little can be said about the original seventeenth century shoreline.

Locating the seventeenth century shore will expand knowledge and understanding of the maritime activities that occurred from the seventeenth through the twentieth centuries. Historic documents, archaeological discoveries, and field research conducted for this project illuminated the seventeenth century shoreline of St. Mary's City. Archaeological finds during this project related to the seventeenth and nineteenth centuries. The information discovered and interpreted for this project is a beginning for future research. Maritime archaeologists will benefit from shoreline delineation in the search for possible early maritime activities connected with the Maryland colony, and similar more recent activities in the St. Mary's City area.

CHAPTER I

SITE HISTORY

Geographic and Geologic

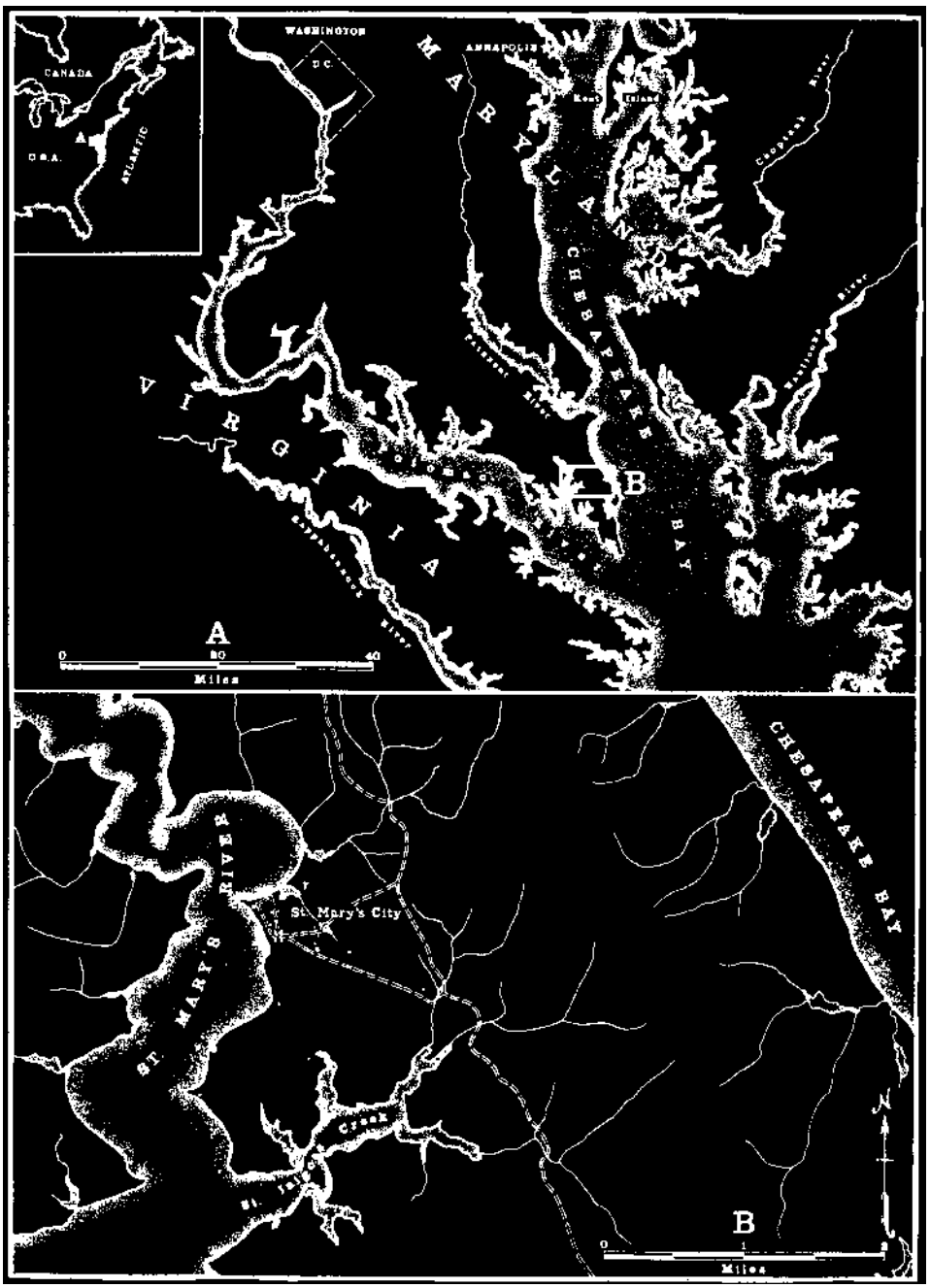
Historic St. Mary's City is located approximately 60 miles south of Washington, D.C., in southern Maryland (Map 1). It lies on the eastern side of the St. Mary's River approximately 6 miles above its junction with the Potomac River. The land occupied by the original capital of Maryland is now owned by the Trinity Episcopal Church, St. Mary's College of Maryland and the Historic St. Mary's City Commission.

The St. Mary's City area lies totally within the geologic Atlantic Coastal Plain. The Wicomico and Talbot formations of the Pleistocene epoch overlay the St. Mary's formation of the Tertiary period.[1] The Historic St. Mary's City area is in the Matapeake-Mattapex-Sassafras soil association that contains moderate to well drained and level to strongly sloped soils.[2] The soil is generally silty to

[1]John C. Kraft and Grace S. Brush, "A Geological-Paleoenvironmental Analysis of the Sediments in St. John's Pond and the Nearshore Zone Near Howard's Wharf at St. Mary's City, Maryland" (Manuscript on file, Historic St. Mary's City, Maryland, 1981), 1.

[2]Joseph W. Gibson, *Soil Survey of St. Mary's County, Maryland* (United States Department of Agriculture, Soil

Conservation Series, 1978), 7-9.


CANADA
U.S.A.
ATLANTIC
WASHINGTON
D.C.
ANNAPOLIS
MARYLAND
CHESAPEAKE BAY
Kent Island
Choptank River
Patuxent River
Patuxent River
VIRGINIA
POTOMAC
Rappahannock River
A
B
0
80
40
Miles
CHESAPEAKE BAY
ST. MARY'S RIVER
St. Mary's City
Creek
B
0
1
Miles

Map 1 - Location of St. Mary's City. (Courtesy of Henry M. Miller, *Discovering Mary's First City: A Summary Report on the 1981-1984 Archaeological Excavations in St. Mary's City, Maryland*, 1986, 2.)

sandy clay loam with a sandy clay subsoil. Underlying the subsoil are beds of sand, gravel and marine clays of the coastal plain.[3]

Prehistory

The prehistoric occupation of the project area ranges from the Paleo-Indian Period to the Late Woodland Period. The Paleo-Indian Period, which is broken down into the Early, Middle and Late Phases, is estimated to be between 13,000 to 7500 bce. It is only very slightly represented in the known archaeology of St. Mary's County. The Paleo-Indian occupation is represented by a few projectile points from late in this period, although possible sites may now be underwater due to sea level rise since 9000 bce.[4]

[3] *Ibid.*

[4] Laurie Cameron Steponaitis, "Prehistoric Settlement Patterns in the Lower Patuxent Drainage, Maryland" (Ph.D. diss, State University of New York at Binghamton, 1986), 5-12.

The Archaic Period, consisting of the Early Archaic Period from 7500 to 6000 bce, the Middle Archaic Period from 6000 to 4000 bce, and the Late Archaic Period from 4000 to 1000 bce, is better represented in the archaeological record at St. Mary's City.[5] There are some possible Archaic Period sites where stone weapons and tools, plus fragments of carved steatite, were recovered.

The Woodland Period is divided into three major parts: Early Woodland from 1000 to 400 bce, Middle Woodland from 400 bce to 800 ce, and Late Woodland from 800 ce until European contact in the early 1600s.[6] All three Woodland Periods occur in the archaeological record of St. Mary's City. The Late Woodland Period is of particular importance because the first English colonists to Maryland bought an existing village from the local Yoacomaco Indians and moved into it before they built new dwellings.

Seventeenth century

[5] *Ibid*, 13-15.

[6] *Ibid*, 15-17.

Captain John Smith mapped Southern Maryland during his 1608 exploratory voyage. George Calvert had an early interest in colonization. He was a member of the second Virginia Company in 1609 and one of the council members who managed Virginia after its charter was revoked in 1624.[7] Calvert was also "one of the eighteen councilors of the New England Company in 1622." In 1623, he was granted a palatinate, a type of charter that granted almost royal authority to the proprietor and his heirs. This grant was for the southeastern peninsula of Labrador.[8] George Calvert, Lord Baltimore, named his grant Avalon and visited it in 1627 and again in 1628.[9] Those two visits caused Calvert to realize the weather in Labrador was too severe to sustain much more than a fishing station. He sailed to the Chesapeake to look for a more favorable place for a colony.[10]

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[7]William Hand Browne, *George Calvert and Cecilius Calvert Barons Baltimore of Baltimore* (New York: Dodd, Mead, and Co., 1890), 15.

[8]*Ibid*, 17.

[9]*Ibid*, 17-19.

[10]*Ibid*, 24-25.

Lord Baltimore was not well received in Jamestown. The colonists perceived him as a threat because they knew he was looking for land and, even worse, he was a Catholic.[11] Lord Baltimore was already being accused by his enemies back in England of favoring Catholics in his Avalon colony, but England's King Charles I favored George Calvert as much as his predecessor.[12] George Calvert, the first Lord Baltimore, initiated the founding of Maryland, but his son, Cecilius, the second Lord Baltimore, brought the colony into existence. George Calvert requested and received, a charter for land south of the James River from Charles. Encompassing what is now southern Virginia and the northern half of North Carolina, Calvert relinquished the grant after strong opposition from Virginia interests.[13]

After hearing concerns about Dutch settlements in the Delaware region from some of the king's advisors, Calvert agreed to a charter for land north of the Potomac River,

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[11]Matthew Page Andrews, *The Founding of Maryland* (Baltimore: William and Wilkins, 1933), 30. Land, *Colonial Maryland*, 5.

[12]Browne, *George Calvert and Cecilius Calvert*, 30-31. Land, *Colonial Maryland*, 5-6.

[13]*Ibid*.

northward to the Dutch colony in the Delaware Bay area.[12] George Calvert died on April 15, 1632 before King Charles I signed his grant.[13] The king granted the proprietorship to his heir, Cecilius Calvert on June 20, 1632, for two Indian arrows per year to be presented at Windsor Castle.[14]

[12]*Ibid.*

[13]*Ibid.*

[14]Browne, *George Calvert and Cecilius Calvert*, 35. Andrews, *The Founding of Maryland*, 41. John Leeds Bozman, *The History of Maryland: Settlement to Restoration* (1837; reprint Spartanburg, South Carolina, 1968), II, 9-12.

Calvert wanted the colony not only for its potential economic benefits to his family, but also as a refuge where fellow Catholics could practice their religion unmolested.[15] Realizing that anti-Catholic sentiments in England and its North American colonies precluded establishment of a dominant Catholic colony, Cecilius Calvert's new colony operated with tolerance for any Christian religion. The Maryland colony was unique because it was the only Catholic colony in Protestant English America.

In late 1633, the first colonists, led by Maryland's first governor, Leonard Calvert, younger brother of Lord Baltimore, and a small number of Catholic gentry left England aboard the *Ark* and the *Dove*.[16] The colonists departed with written instructions from Lord Baltimore for their government during the voyage and after their arrival in America.[17] The history of St. Mary's City began with the arrival of approximately 150 English colonists in 1634.

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[15]Browne, *George Calvert and Cecilius Calvert*, 25-28, 36-39.

[16]Clayton Colman Hall, ed., *Narratives of Early Maryland 1633-1684* (New York: Charles Scribner's Sons, 1910) 16. Bozman, *History of Maryland*, 26-27.

[17]*Ibid*.

The colonists reached Point Comfort, Virginia, on February 24, 1634, and left there on March 3, 1634, sailing on the Chesapeake Bay northward for the Potomac River.[18] The colonists sailed the Potomac to an island that they named St. Clements. On March 25, 1634, the colonists landed, erected a large wooden cross, and took possession of the land in the name of God and King Charles I of England.[19] Governor Calvert left the majority of the colonists at St. Clements Island while he took a party of men to explore. During his exploration of the Potomac, Calvert and his men met and retained the services of Captain Henry Fleet, a Virginia trader.[20] Captain Fleet took them to meet the emperor (werowance in the native's language) of the Piscattaway, the largest and dominant tribe in a loose confederation of Algonquins located on Maryland's western and eastern shores.[21] The Piscattaway emperor had no

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[18]Hall, ed., *Narratives of Early Maryland 1633-1684*, 71-73. Browne, *George Calvert and Cecilius Calvert*, 58-60. Forman, *Jamestown and St. Mary's*, 178-180. Bozman, *History of Maryland*, 27-29.

[19]*Ibid.*

[20]*Ibid.*

[21]*Ibid.*

objection to settling in his domain if they wanted.[22] Captain Fleet agreed to show them a site up a small river near the mouth of the Potomac River that he thought would meet their requirements.[23] Governor Calvert rejoined his colonists. They followed Captain Fleet to a river off the northern side of the Potomac that they named the St. Georges but later changed to the St. Mary's River.[24]

[22] *Ibid.*

[23] *Ibid.*

[24] *Ibid.*

Captain Fleet brought the colonists up the St. Mary's River to a point of land with two good harbors. It was occupied by a Yoacomaco Indian village, but the Yoacomaco king sold the colonists about thirty square miles of land, including the village then moved to the western side of the river.[25] As part of the agreement, the colonists also got the Indians' houses or wigwams. Wigwams were oval shaped, twenty feet long, about nine feet in height, with a square hole in the middle of the roof to allow in light and let out smoke.[26] In addition, the colonists received one half of the Yoacomaco's existing crops. Some Indians remained, teaching and assisting the colonists, until the crops were harvested.[27]

St. Mary's City was settled by the original colonists because it met their needs and criteria prescribed by Lord Baltimore for the seat of his new government. The first colonists selected a site for their settlement on a bluff above the St. Mary's River that was defensible, with good

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[25]Browne, *George Calvert and Cecilius Calvert*, 60. Hall, ed., *Narratives of Early Maryland*, 42. Andrews, *The Founding of Maryland*, 62.

[26]Hall, ed., *Narratives of Maryland*, 43-44.

[27]Browne, *George Calvert and Cecilius Calvert*, 60. Bozman, *History of Maryland*, 29-30.

harbors and fresh water springs. The town was the seat of government for the new colony and land patents for the colonists were issued in and around its boundaries. Lord Baltimore wanted the town to grow into a city where all business and trade, into and out of the colony, would transpire under government control.

The first order of business for the colonists after getting set up in the Indian village was to build a fort to protect the colonists and their provisions. The fort, a palisade 120 yards square with a bastion at each corner, was constructed about one-half mile from the river and armed with a cannon and six murderers. Governor Calvert felt it was sufficient defense against any anticipated enemies.[28] The fort was started, but not immediately completed, because the colonists began work on their own gardens and houses, until rumors of Indian hostilities caused them to devote all their attention to the completing the fort.[29] The site of the fort at St. Mary's City remains a mystery as no maps survived, and archaeologists have been unable to find its

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[28]Henry Stockbridge, *et als.*,"The Calvert Papers," III (Maryland Historical Society, 1889), 21.

[29]Hall, ed., *Narratives of Early Maryland*, 76.

location. Some time after the fort was completed a dam and grist mill were built on Mill Creek, a small creek on the northeast side of the town.[30] Although part of the mill dam survives, archaeologists have not located the remains of the grist mill.

[30] *Ibid.*

In 1635, a confrontation between the Maryland government and William Clayborne over his claim to Kent Island came to a head.[31] Clayborne claimed Kent Island under a Virginia grant even though it lay inside Maryland's territory in the northern end of the Chesapeake Bay.[32] When Clayborne's trading ship, the *Longtail*, commanded by Thomas Smith, was seized at St. Mary's, Clayborne sent an armed ship, the *Cockatrice*, to retrieve it.[33] Governor Calvert dispatched two armed ships, the *Saint Helen* and the *Saint Margaret*, under Captain Thomas Cornwallis, to intercept Clayborne's ship. The ensuing battle was the first recorded ship to ship action on the Chesapeake, and men on both sides were killed. St. Mary's forces won the engagement, but in a second fight a week later, the reverse occurred.[34]

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[31]Browne, *George Calvert and Cecilius Calvert*, 65-74. Hall, ed., *Narratives of Early Maryland*, 147-156. Andrews, *The Founding of Maryland*, 101-109.

[32]*Ibid.*

[33]*Ibid.*

[34]*Ibid.*

In 1638, Lord Baltimore received from the Lord Commissioners of Plantations a ruling that gave him control over Kent Island.[35] An armed force from St. Mary's, led by Captain Thomas Cornwallis, captured Kent Island.[36] Captain Thomas Smith was captured on Kent Island. Smith, and Clayborne in absentia, were tried and convicted of piracy and murder in St. Mary's City.[37] Smith was found guilty and sentenced to hang.[38] Clayborne was found guilty and forfeited his property to Lord Baltimore.[39] Maryland wanted Virginia to extradite Clayborne, but that did not happen. Clayborne was secretary of the Virginia colony and well liked by Virginians.[40] Maryland won Kent Island, but William Clayborne was not finished with St. Mary's or Maryland.

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[35] *Ibid.*

[36] *Ibid,*

[37] *Ibid.*

[38] *Ibid.*

[39] *Ibid.*

[40] *Ibid.*

St. Mary's was the capitol of Maryland, but it grew slowly as the colonists took advantage of the available land outside the town.[41] The Maryland colonists began building new structures and by 1638 several large structures. The first houses the colonists built to replace the wigwams were post in the ground structures, typically one room, with a loft covered by clapboard.[42] Exceptions, the Calvert House and St. John's, were also wooden structures, but they were built on stone foundations and had large cellars. Calvert House was built in 1635 by Governor Leonard Calvert as instructed for Lord Baltimore. St. John's was built in 1638 by John Lewger, one of the wealthiest men in early St. Mary's City.[43] A wooden Catholic chapel was also built in 1638.[44]

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[41]Henry M. Miller, *Discovering Maryland's First City: A Summary Report on the 1981-1984 Archaeological Excavations in St. Mary's City, Maryland* (St. Mary's City Archaeological Series #2, St. Mary's City Commission, 1886), 213.

[42]Henry M. Miller, *A Search for "Citty of Saint Maries," Report on the 1981 Excavations in St. Mary's city, Maryland* (St Mary's City Archaeological Series #1, St. Mary's City Commission, 1983), 171-173.

[43]Miller, *Discovering Maryland's First City*, 13-20.

[44]Timothy B, Riordan, "Short History of the Mill Field," (MS, Research Department, Historic St. Mary's City, MD, 1990), 1.

In 1641, Leonard Calvert patented land identified as the Governor's Field that contained the Calvert House and the fort. Governor's Field was 100 acres enclosed to the north and west by the St. Mary's River, on the east by Mill Creek and south by the Chapel Land. The Chapel Land was approximately thirty acres controlled by the Jesuits, who built a Catholic chapel there.[45]

[45]Miller, *A Search for the "Citty of Saint Maries"*, 49. Miller, *Discovering Maryland's First City*, 13-20. Timothy B. Riordan, "Short History of the Mill Field," MS, 1.

By 1641, the fort was no longer in use because the Piscattaway Indian nation remained friendly to the Maryland colonists. In 1645, Captain Richard Ingle with a large crew and a heavily armed ship, the *Reformation* captured St. Mary's City.[46] Ingle held St. Mary's City, pillaging and terrorizing its citizens and destroying property. Governor Calvert, leading a force from Virginia, recaptured the city in late 1646.[47] History referred to that time as "Ingle's Rebellion" but Marylanders called it the "Plundering Times".[48] In the early 1980s, archaeologists discovered that during the period of "Ingle's Rebellion" a fortification was erected around the Calvert House by Nathaniel Pope who occupied the site until Governor Calvert returned in December, 1646.[49]

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[46]Andrews, *The founding of Maryland*, 114-120. Browne, *George Calvert and Cecilius Calvert*, 128-131.

[47]*Ibid*.

[48]Lois Green Carr, Russell R. Menard, and Lorena S. Walsh, *Robert Cole's World, Agriculture and Society in Early Maryland* (Chapel Hill: University of North Carolina Press, 1991), 12.

[49]Miller, *Discovering Maryland's First City*, 47-58.

When Governor Leonard Calvert died in 1647, Lord Baltimore appointed a Protestant, William Stone, governor in 1648.[50] The Maryland colony had three times as many Protestants as Catholics in a total population estimated to be only 350 people.[51] In 1649, when Virginia's government expelled all Puritans, they were welcomed to Maryland by Governor Stone.[52] About 300 Puritans settled in "Providence" near present day Annapolis.[53] Discontent grew in the Puritan community, over the fact that they gave an oath of fidelity to Lord Baltimore, a Catholic.[54]

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[50]*Ibid*, 135.

[51]Land, *Colonial Maryland*, 58.

[52]Hall, ed., *Narratives of Early Maryland*, 235-236. Browne, *George Calvert and Cecilius Calvert*, 137-140.

[53]*Ibid*.

[54]*Ibid*.

In 1649, Charles I was executed in England, and Parliament declared England a commonwealth. Charles II led an army in opposition to Parliament, but his army was defeated in 1651. Parliament passed an act in 1651 to deal with those colonies, including Maryland and Virginia, that supported of Charles II by sending a commission to reduce those colonies into submission.[55] Two of the commissioners were Richard Bennett and Captain William Clayborne, both Puritans and Virginians.[56] In 1654, Bennett and Clayborne established a commission of ten Protestants to rule Maryland.[57] The Protestant commission eliminated Lord Baltimore's grant claims and rescinded the long standing law that outlawed William Clayborne from Maryland.[58]

In late 1655, Lord Baltimore made a formal complaint to Oliver Cromwell, the Lord Protector of England, concerning matters in Maryland.[59] Lord Baltimore appointed Josiah

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[55]Browne, *George Calvert and Cecilius Calvert*, 142-154. Land, *Colonial*, 50-53. Hall, ed., *Narratives of Early Maryland*, 235-246.

[56]*Ibid*.

[57]*Ibid.*

[58]*Ibid*.

[59]Browne, *George Calvert and Cecilius Calvert*, 155-158. Land, *Colonial Maryland*, 53-54.

Fendall as governor of Maryland in 1656.[60] The southern part of Maryland was governed by Governor Fendall from St. Mary's City. The northern part was governed by the Puritan committee led by Captain William Fuller.[61] The Lords of Trade fostered an agreement between all parties in 1658 and restored to Lord Baltimore all of his proprietary rights in Maryland.[62] The restoration of Charles II as king of England confirmed Lord Baltimore's hold on Maryland.[63]

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[60] *Ibid.*

[61] *Ibid.*

[62] Browne, *George Calvert and Cecilius Calvert*, 158.

[63] Lois green Carr and Edward C. Papenfuse, "Philip Calvert (1626-1682)" (manuscript on file Historic St. Mary's City, Maryland, n.d.), 2.

Lord Baltimore appointed his brother, Philip, governor in 1660.[64] Philip took over a colony with a population of approximately 2500 people.[65] Philip Calvert was replaced as governor in late 1661 by his nephew, Charles Calvert, Lord Baltimore's son.[66] In the period of Charles Calvert's governorship, the population of Maryland grew to over 20,000 people, and the colony was divided into ten counties.[67] Each county had its own local government and militia, and sent elected Assemblymen to the legislature at St. Mary's City.[68]

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[64] *Ibid.*

[65] Land, *Colonial Maryland A History*, 58.

[66] Lois Green Carr, "Philip Calvert (1626-1682)," MS, 2.

[67] Land, *Colonial Maryland A History*, 61-67.

[68] *Ibid.*

St. Mary's City grew and developed as the colonial capital. The colony's government purchased Calvert House in 1662. It was renamed the Country's House serving as an ordinary and the statehouse until 1676.[69] In 1667, a large brick chapel was constructed in the Chapel Field near the site of the wooden one destroyed by Ingle in 1645.[70] Due to the nature of tobacco agriculture in the Chesapeake, the abundance of land, and a geographic setting that put navigable water close to all early settlers, St. Mary's City grew but not to the size or with the speed envisioned by Lord Baltimore.

Lord Baltimore incorporated St. Mary's City in 1667 within an area that basically covered the Governor's Field.[71] He also granted one acre lots to anyone who built a house or would build within a year.[72] William Smith was granted a lease for three acres of land south of the Country's House to build an ordinary and a dwelling house known as the

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[69]Miller, *Discovering Maryland's First City*, 13-14.

[70]Archaeologists uncovered the remains of the brick chapel's foundation. It was three feet wide and five feet deep, laid out in the form of a roman cross.

[71]Miller, *Discovering Maryland's First City*, 125-126. Forman, *Jamestown and St. Mary's*, 205-206.

[72]*Ibid.*

Lawyer's House about 1669.[73] In 1675, Mark Cordea built a house on a one acre lot east of the Country's House, catercorner to Smith's Ordinary, and opposite the Lawyer's House.[74]

[73]Miller, *Discovering Maryland's First City*, 67-68.

[74]*Ibid*, 105-106.

In 1676, the colonial government built a two and one-half story brick Statehouse near Church Point, the far northwest end of the Governor's Field. Also in 1676, the colonial government had a brick prison constructed north of the Statehouse near the landing on St. Mary's Bay.[75] In the 1670s and 1680s, several ordinaries and other residences were built in St. Mary's City including a brick house near the mill dam (Map 2).

There were six named roads in St. Mary's City. This study is most concerned with Aldermanbury Street which ran from the Statehouse to the town center along the bluff above the St. Mary's River. Archaeologists now suggest that St. Mary's City was laid out as an Italian-style baroque city based on measurements determined between archaeological sites (Map 3).[76] Measurement of distances between the Country's House, Smith's Ordinary, Lawyer's House and Cordea's House were equal-distant. The four roads meeting between them showed the area to be the town center.[77] Other

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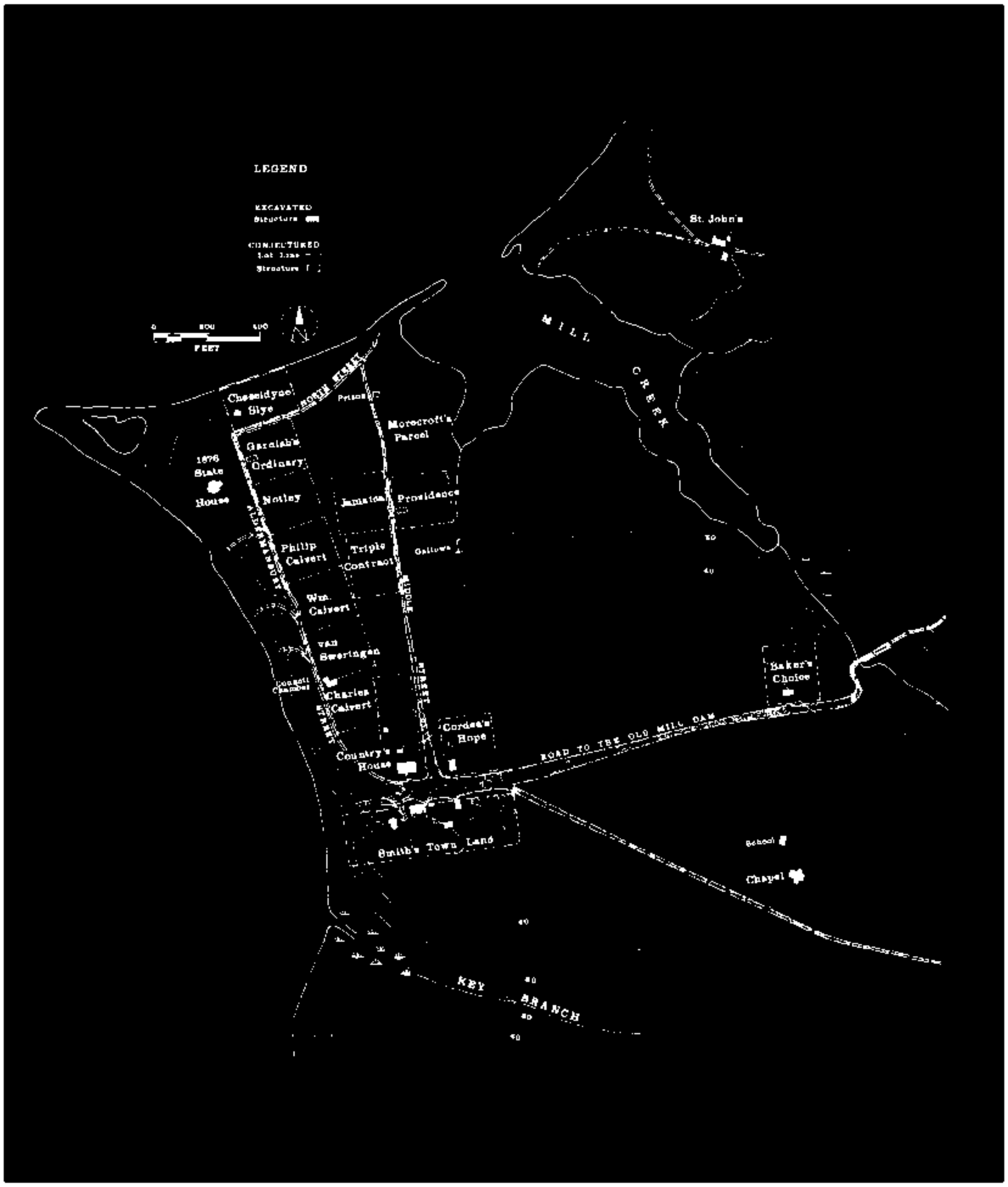
[75]Henry M. Miller, "A Field Report on Rescue Archaeology at 18ST1-132, Kent Hall St. Mary's City, Maryland," MS.,4, Research Department, Historic St. Mary's City, Maryland.

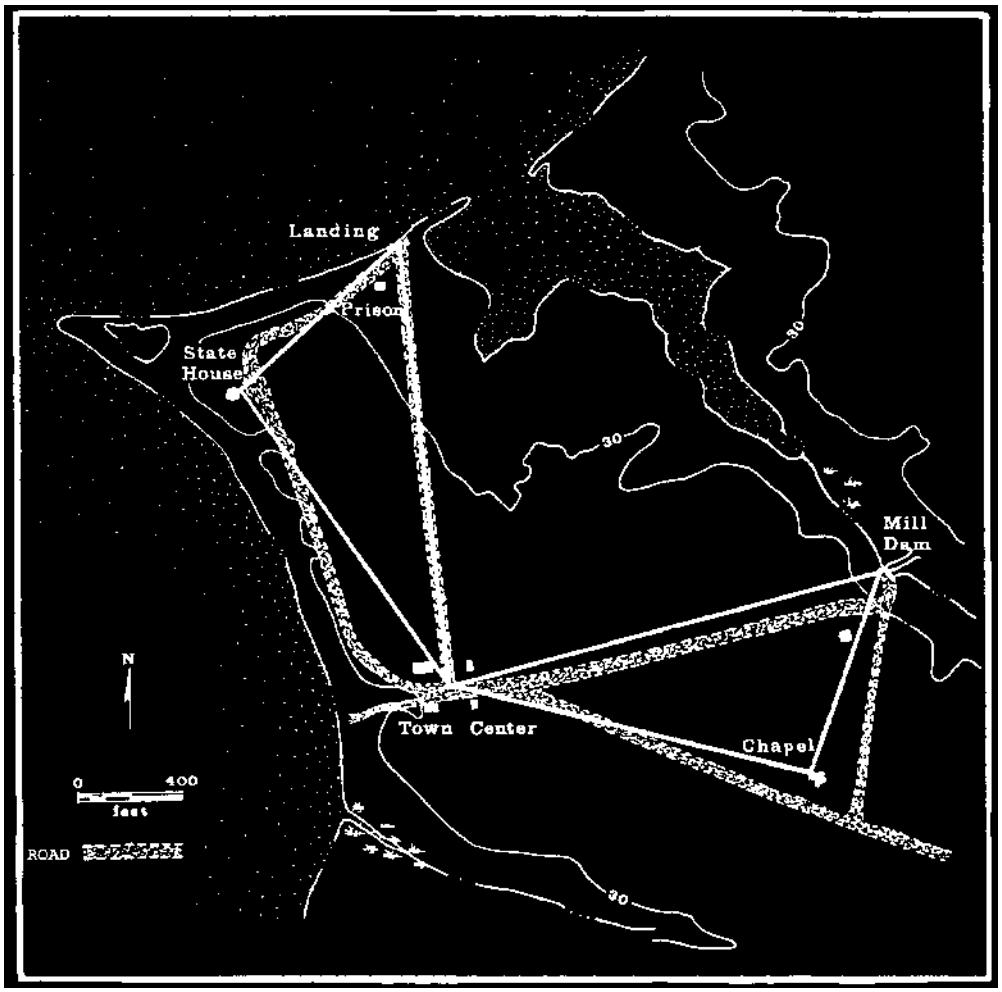
[76]*Ibid*, 136-138.

[77]*Ibid*, 123-125.

alignments indicated a city laid out as opposing triangles with a brick structure at each angle, and the two biggest structures, the Statehouse and the Brick Chapel, in the 90


LEGEND
EXCAVATED
Structure
CONJECTURED
Lot Line
Structure
FEET
St. John's
MILL CREEK
Chesseldyne's Slye
Prison
Morecroft's Parcel
Garnish's Ordinary
1676 State House
Notley
Jamaica
Providence
Phillip Calvert
Triple Contract
Gallows
Wm. Calvert
van Swearingen
Charles Calvert
Baker's Choice
Cordea's Hope
Country's House
ROAD TO THE OLD MILL DAM
Smith's Town Land
School
Chapel
KEY BRANCH

Map 2: Map of St. Mary’s City about 1676 with known features.(Courtesy of Henry M. Miller, Discovering Maryland's First City; A Summary Report on the 1981-1984 Archaeological Excavations in St. Mary's City, Maryland, 1986, 127.)


Landing
Prison
State House
30
30
Mill Dam
N
Town Center
Chapel
0
400
feet
ROAD
30

Map 3: View of the Baroque town plan superimposed over archaeological interpretation of seventeenth century roads. (Courtesy of Henry M. Miller, Discovering Maryland's First City; A Summary Report on the 1981-1984 Archaeological Excavations in St. Mary's City, Maryland, 1986,135.)

degree angle of each triangle.[78] These alignments suggest a concerted effort to make St. Mary's City a showplace for Lord Baltimore's government.

Charles Calvert became Lord Baltimore when Cecilius died in 1675.[79] He remained in Maryland running the colony until he returned to England in 1684.[80] Beginning in 1678, Lord Baltimore was confronted by growing Protestant dissatisfaction led by former Governor Fendall and John Coode.[81] When James II came to the throne with a Catholic wife and a Catholic heir, William Joseph, a Royalist, was appointed governor of Maryland in 1688.[82]

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[78] *Ibid*, 136-138.

[79] Land, *Colonial Maryland A History*, 82.

[80] *Ibid*.

[81] *Ibid*, 79-80.

[82] *Ibid*, 86-87.

The "Glorious Revolution" in England sent James II into exile and installed Protestants William and Mary on the English throne in 1688.[83] Maryland Protestants formed an Association in response to offensive treatment by Governor Joseph.[84] The Protestant Association, led by John Coode, took over the Maryland government in 1689 and petitioned King William to take over the colony.[85]

Maryland became a royal colony in 1691 and Sir Lionel Copley became the first royal governor. He received a warm welcome from the General Assembly, controlled by the Protestant Association. At a special meeting of the Assembly, several laws were passed: the Anglican church was established and supported by the Maryland government through special taxes; Catholics were severely restricted in the practice of their religion, and several revenue acts were adopted.[86] When Governor Copley died in late 1693, he was replaced by Francis Nicholson.

Nicholson arrived at St. Mary's City in 1694 and moved

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[83]*Ibid.*

[84]*Ibid.*

[85]*Ibid*, 87-91.

[86]*Ibid.*

the capital from St. Mary's City to Annapolis the next year.[87] The reasons for the move were St. Mary's Catholic influence, Annapolis' more central location, and a lack of accommodations in St. Mary's City.[88] St. Mary's City began to decline.

Eighteenth century

[87] *Ibid*, 94-95.

[88] *Ibid.*

The early eighteenth century witnessed the end of the colonial town of St. Mary's City, and the formation of large slave oriented plantations. Shortly after 1705, Governor John Seymour forbade the holding of mass at the Brick Chapel in St. Mary's City, and ordered the sheriff of St. Mary's County to lock its doors. The brick chapel was dismantled shortly thereafter, and its building materials were taken to St. Inigoes. In 1708, the St. Mary's County government was moved to Leonardtown, twenty miles away.[89] When the government moved and the church closed, the activities that drew the people to live in St. Mary' City were gone and the town itself ceased to exist by 1720.[90]

[89]Regina Combs Hammett, *History of St. Mary's County, Maryland* (Ridge, MD: Regina Combs Hammett, 1977), 41.

[90]*Ibid.*

The first twenty years of the eighteenth century saw the end of the colonial town and the land became agricultural. Plantations continued to produce tobacco and corn, but wheat became an important crop.[91] Wheat, unlike the other crops, required plowed fields and that exposed more land to erosion. One parcel, just above Church Point and surrounding the 1676 statehouse, was sold to William and Mary Parish of the Anglican Church in 1720.[92] The old statehouse belonged to Trinity Episcopal Church until it was torn down and a new church built in 1829.[93]

[91]Timothy B. Riordan, "Short History of the Mill Field," 15.

[92]Hammett, *History of St. Mary's County, Maryland*, 39-41.

[93]Forman, *Jamestown and St. Mary's*, 291-292.

William Deacon, Customs Collector for the northern Potomac, became one of the wealthiest men in St. Mary's County between his arrival in 1720 and his death in 1759.[94] His wealth came from custom fees, agricultural production, a mill, smithy, lumbering and ship repairs.[95] Deacon owned 28 slaves at his death, and several of them were skilled artisans including a smith.[96] He owned Governor's Field, a large portion of Chapel Field and the mill dam by 1727.[97] In 1754, Deacon sold Governor's Field to William Hicks.[98]

Captain John Hicks, an English merchant who owned his own ship, moved to St. Mary's City in 1723 and became a wealthy man by the time of his death in 1750.[99] Hicks, besides running his plantation, operated a store and an

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[94]Lois Green Carr, J. Glenn Little, and Steve Israel, "A Preliminary Archaeological and Historical Study of the Residents of the Post Capital Era of St Mary's City, Maryland" (manuscript on file Historic St. Mary's City, Maryland, 1971), 26.

[95]*Ibid.*

[96]*Ibid,* 27. Slavery had been introduced early and continued to expand in the labor intensive agriculture economy of St. Mary's and the rest of Southern Maryland (Riordan, "Short History of the Mill Field," 15.

[97]Riordan, "Short History of the Mill Field," 15.

[98]*Ibid.*

[99]Carr, Little, and Israel, "A Preliminary

import/export business that his son William continued until 1770.[100] William Hicks acquired most of St. Mary's City before returning to England and selling his Maryland holdings.[101]

By 1774, most land that had been St. Mary's City was under control of Captain John Mackall.[102] Dr. John Mackall Brome came to own all the land that was once St. Mary's City. The Bromes and their descendants, the Howard family, held continual ownership of most of St. Mary's City land into the twentieth-century. Some of their holdings were sold.

Archaeological and Historical Study," 11-14.

[100]*Ibid.*

[101]*Ibid*, 25.

[102]St. Mary's County, Maryland Chancery Court proceedings, PL between ff. 353-354.

The people in St. Mary's City suffered along with the rest of Southern Maryland during the Revolutionary War. The British raided towns and plantations. British warships along the coastline brought the economy of the region to a stand still.[103] The century finished quietly for the people of St. Mary's City and County.

Nineteenth century

The nineteenth century began quietly in southern Maryland, but the War of 1812 soon affected the entire region. British warships renewed their raids and pillaged towns and plantations in St. Mary's County.[104] The British captured St. George's Island, at the mouth of the St. Mary's River in 1813, and devastated it by cutting all large trees and burning the island from end to end.[105] The economy of St. Mary's County was in ruins after the War of 1812 and the British warships did not leave the county's waters until late January, 1815.[106]

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[103]Hammett, *History of St. Mary's County, Maryland*, 74.

[104]Pogue, *Yesterday in Old St. Mary's County*, 155-159. Hammett, *History of St. Mary's County, Maryland*, 94-99.

[105]*Ibid.*

[106]*Ibid.*

St. Mary's County slowly recovered and grew peacefully for the next forty years. In 1839, the Maryland legislature passed a law entitled "An act to authorize the drawing of a Lottery to establish a Female Seminary in St. Mary's County, on the site of the ancient City of St. Mary's."[107] Commissioners were appointed, conducted the lottery and established the seminary by 1844.[108] The commissioners purchased a six acre tract adjoining Trinity Church from the Vestry of William and Mary Parish in August, 1844.[109] The main building, Calvert Hall, and several outbuildings were completed in October, 1845, when the state legislature incorporated the school.[110] Dr. Brome built a wharf and extended the road that ran past the seminary and Trinity Church sometime before 1845 with monetary input from the seminary.[111] The seminary grew slowly and was

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[107]*Laws of Maryland,* 1839, Chapter 190.

[108]Hammett, *History of St. Mary's County, Maryland,* 304.

[109]St. Mary's County Land Records, JH No. 13, f. 381.

[110]Hammett, *History of St. Mary's County, Maryland,* 304-305.

[111]St. Mary's Female Seminary, minutes from the Board of Trustees, 1845-1854, 35.

reorganized in 1858 due to financial problems. In 1868 the state legislature's annual support for the seminary secured its future.[112]

The Civil War caused new problems because most local citizens supported the Confederacy.[113] Many county men went to Virginia and joined the Confederate Army, but only four enlisted in the Union Army.[114] Union troops were stationed throughout St. Mary's County due both to its Confederate sympathies, and its proximity to the prisoner of war camp at Point Lookout.[115] Some were stationed at the Brome plantation. The Union Navy's Potomac River Squadron was based about two miles down river from St. Mary's City at St. Indigos.[116]

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[112] *Ibid*, 306-307.

[113] Pogue, *Yesterday in Old St. Mary's County,* 162-171. Hammett, *History of St. Mary's County, Maryland,* 106-120.

[114] *Ibid.*

[115] *Ibid.*

[116] *Ibid.*

The end of the Civil War allowed St. Mary's to return to its quiet farming and maritime activities. Although slavery was abolished, the Brome's continued farming their land at old St. Mary's City. Brome's wharf was destroyed during the war, and was not rebuilt until 1874 when he also built a warehouse on the wharf for freight storage.[117] The new wharf was a stop on the Baltimore to Washington steamboat route; serviced by the steamers *Georgeanna, Columbia,* and *Express.*[118] Regular steamboat service on the Potomac River began as early as 1828. By 1855, steamboats made weekly stops in the St. Mary's River.[119] Steamboat service along the Potomac River and its tributaries was restricted from 1861 through 1865.[120] Brome's Wharf was a stop on the steamboat routes into the next century.

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[117]...*Leonardtown (Maryland) St. Mary's Beacon*, 21 May 1874, V18:16, p. 2, col. 3.

[118]Hammett, *History of St. Mary's County, Maryland*, 216-217.

[119]Hammett, *History of St. Mary's County, Maryland*, 216.

[120]*Ibid.*

In 1869, John M. Brome sold a strip of his land to the Southern Maryland Railroad Company to lay track across his property.[121] Brome sold an additional strip of Chapel Field land bordering the north side of Key Branch/Key Swamp and including waterfront on the St. Mary's River, to the Southern Maryland Railroad.[122] The railroad went out of business in 1888 without completing its railroad spur to St. Mary's harbor. Although no track was laid, the rail bed was finished and a wharf completed on the St. Mary's River.[123]

In 1886, John Brome agreed to sell most of his 3000 acre farm to William Wile. The sale did not include the 100 acres around Governors and Chapel Fields.[124] When John H. Brome died in 1888, his son, J. Thomas, completed the transaction to settle his father's debts under the direction of the Orphans Court.[125]

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[121]St. Mary's County Land Records, 1869 JAC No. 6, 229.

[122]St. Mary's County Land Records, 1877 JFF No. 3, 453-454.

[123]Hammett, *History of St. Mary's County, Maryland*, 236-237.

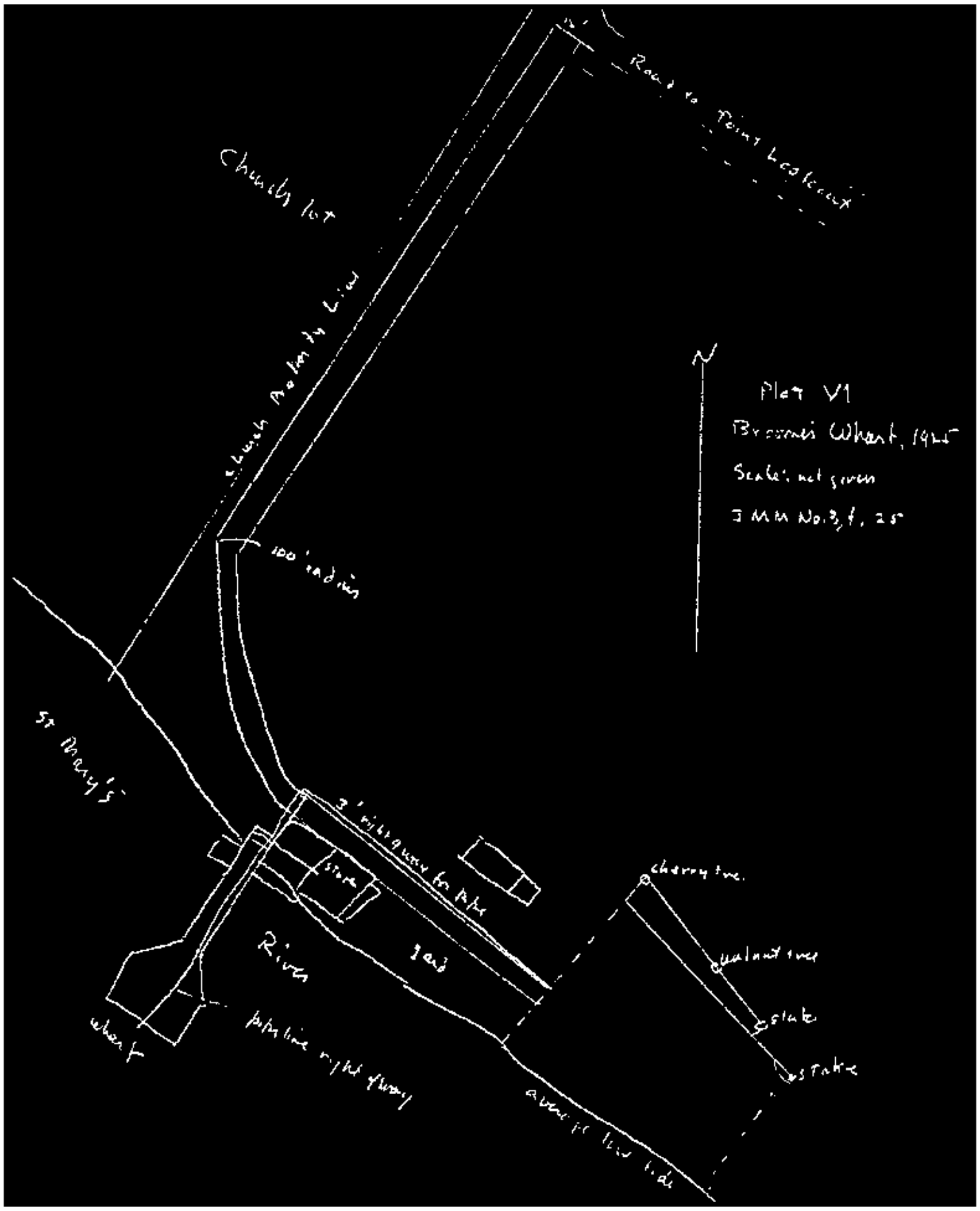
[124]St. Mary's County Land Records, 1886, JFF No. 9, 408.

[125]St. Mary's County Orphans Court, Real Estate Record JTMR No. 1, f. 428 (CH).

Twentieth-century

Brome's wharf continued serving the area residents transportation needs as a stop on the bay steamship route. The steamboats were also the way young ladies arrived and departed to attend St. Mary's Seminary for Women. Steamboats continued to stop at Brome's wharf until service became unprofitable and the major companies went out of business in 1932 (Map 4).[126] Independent companies attempted

[126]Hammett, *History of St. Mary's County, Maryland*, 223.


Church lot
Road to Point Lookout
N
Plat VI
Scale: not given
100' radius
St Mary's
River
Store
Sand
cherry tree
walnut tree
stake
wharf

Map 4: View of the Broome's Wharf area about 1925. (Author unknown, Courtesy of Historic St. Mary's City, Maryland).

to continue service, but a 1933 storm destroyed so many wharves steamboat service ended by 1935.[127] Brome's wharf, one of the few wharves to survive the storm, continued commercial operation as a fuel depot and a shipping point for pulp wood into the 1960s.[128]

Brome sold five and one-half acres at the mouth of Key Branch (the same area sold to the railroad) to St. Mary's Gravel Company for a quarry started in 1906.[129] When the company failed after removing substantial amounts of gravel in 1909, Brome reacquired the land.[130]

When the Maryland Tricentennial Celebration was held in St. Mary's City in 1934, a reconstruction of the 1676 statehouse was completed for the celebration. In 1966, the state of Maryland established the St. Mary's City Commission to protect and study the remains of Maryland's original capital. By 1980, the Commission acquired most lands once occupied by the first capital, and the site has been dedicated as an archaeological, historical and

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[127] *Ibid*, 223-224.

[128] *Ibid.*

[129] St Mary's County Land Records, 1906: 138-140, 1908: 158.

[130] *Ibid.*

interpretative site.

CHAPTER II

PREVIOUS ARCHAEOLOGICAL RESEARCH

Henry Chandlee Forman, an architectural historian, began the first archaeological work on St. Mary's in the mid-1930s.[131] Foreman searched for historically significant structures and continued his work into the 1960s. The creation of the St. Mary's City Commission provided protection for the city's archaeological sites and a systematic ongoing plan for archaeological investigations.

The St. Mary's City Commission began archaeological investigation in the river surrounding the site shortly after it began terrestrial excavations. The first recorded underwater investigation in the river around St. Mary's City occurred in 1969. Dr. Melvin Jackson of the Smithsonian Institution tried to locate possible traces of wharves, piers, and ship anchorages related to the original settlement.[132]

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[131]Forman, *Jamestown and St. Mary's*, ix.

[132]Melvin H. Jackson, "Report on St. Mary's City Underwater Exploration" (manuscript on file, Historic St. Mary's City, Maryland, 1969), 1.

General Robert E. Hogaboom, U.S.M.C. (ret.), Chairman of the St. Mary's City Commission, gave his full support to that first survey. General Hogaboom obtained support from St. Mary's College of Maryland and the commander of nearby Patuxent River Naval Air Station. The college provided a work boat while the naval base furnished refills for scuba tanks, an air compressor modified for use as a air lift, and two volunteer divers.[133]

Five scuba divers under the supervision of Alan Albright, Underwater Archaeology Section of the Smithsonian Institution, excavated three, five to eight foot deep test pits at predetermined sites in the St. Mary's River bottom.[134] Unfortunately, the report did not explain how those test pit locations were chosen or the exact dimensions of the test pits other than depth.

[133] *Ibid.*

[134] Ibid.

The excavations were 250 ft. and 900 ft. out from the entrance to Key Branch in 12 ft. and 21 ft. of water respectively, and 150 ft. from the entrance to Mill Creek in 12 ft. of water.[135] The dive team also conducted exploratory sweeps off the end of the Brome's wharf.[136] Dr. Jackson noted a six to 12 inch layer of powdery silt overlaying a clay that became more compacted with increased depth.[137] The report also noted a 100 feet wide oyster bed contoured the shoreline 1000 feet offshore, and that dense marine vegetation close inshore prevented or hampered examining those areas.[138] The preliminary survey found no artifacts and no features.[139] Jackson proposed another site visit for the fall of 1969 when underwater visibility was expected to be better.[140]

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[135] *Ibid*, 1-2.

[136] *Ibid*, 2.

[137] *Ibid.*

[138] *Ibid.*

[139] *Ibid*, 2-3.

[140] *Ibid*, 3.

In July 1969, Dr. Bruce D. Martin requested research funding from the National Geographic Society to recover and preserve artifacts believed contained in the St. Mary's River.[141] The importance of that request to this project was that it noted the belief that the shoreline of the historic city had eroded at least 150 feet since 1634.[142] This request is the earliest recorded information about accepted shoreline loss since the seventeenth century at St. Mary's City.

In 1976, Robert V. Riordan prepared a report for the Maryland Historical Trust about underwater archaeological sites and artifacts in Maryland waters.[143] This report expressed concerns about generating an inventory of shipwrecks and drowned terrestrial sites, protection of sites and ownership of any archaeological artifacts discovered in Maryland waters.[144] The report specifically mentioned discovery of a cannon by a sports diver as an

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[141]Bruce D. Martin, Ph.D., to Dr. Leonard Carmichael, 29 July 1969, on file Historic St. Mary's City.

[142]*Ibid.*

[143]Robert V. Riordan, "Underwater Survey"(Maryland Historical Trust, on file Historic St. Mary's City, 13 August 1976).

[144]*Ibid.*

incident showing the lack of any legislation covering artifacts in Maryland waters.[145]

[145] *Ibid.*

It was not until 1988 that Maryland passed its Submerged Archaeological Historic Property Act to protect underwater cultural resources. The state also established a Maritime Archaeological Program headed by an underwater archaeologist.[146] Although the act passed in 1988, the legislation did not implement it until January, 1993.[147]

In the late 1970s, Historic St. Mary's City wanted a new pier for the reconstructed seventeenth century ship, the *Dove*, as it was using the old Howard wharf. The St. Mary's City Commission contracted for an underwater archaeological evaluation before the new dock's construction.

Donald Shomette of Nautical Archaeological Associates served as principal investigator on a one day preliminary underwater reconnaissance around the Howard wharf (Map 5). He noted bottom conditions, visibility of three to five feet, and modern debris.[148] Shomette did a more complete Brome's wharf survey in November 1978. His survey located

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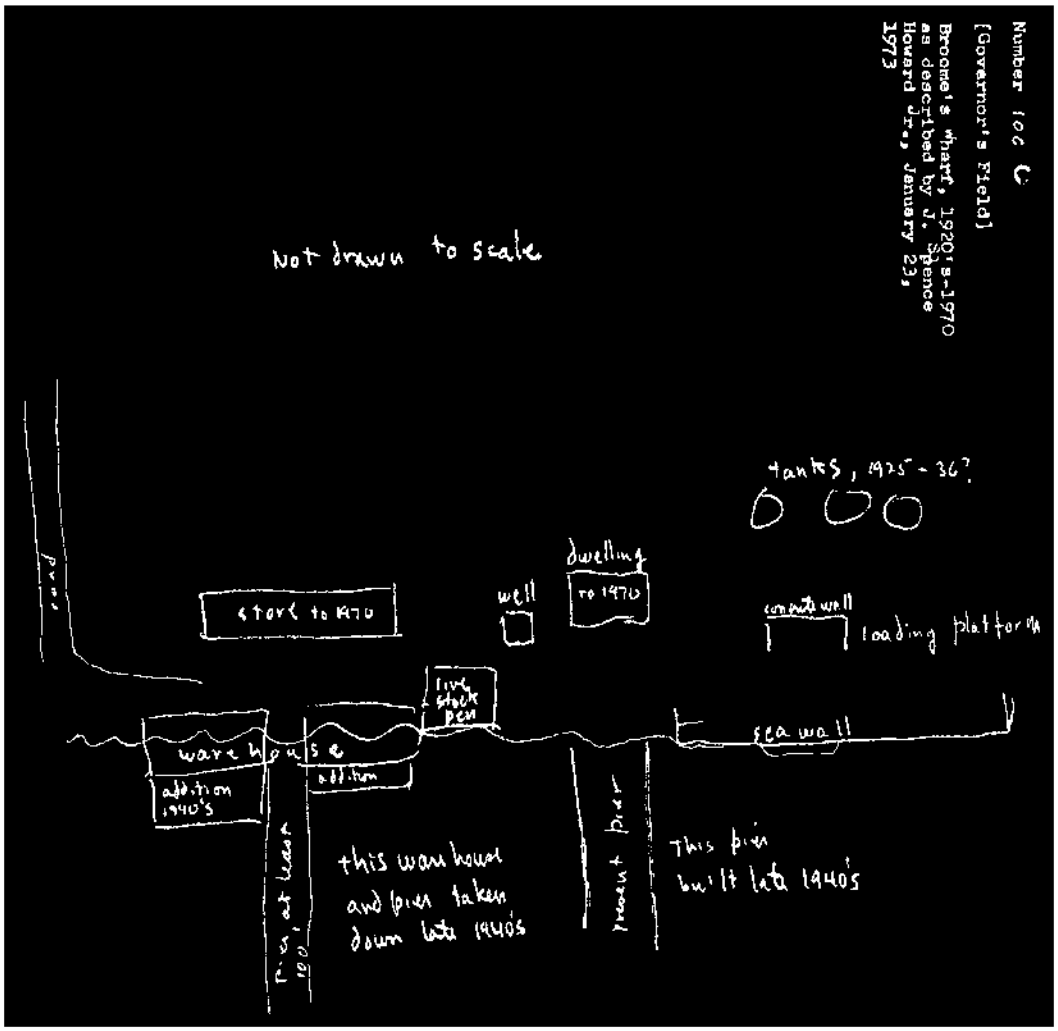
[146]Maryland Submerged Archaeological Historic Property Act, Annotated Code of Maryland, Article 83B, subsec. 5-601, 5-611.1, 5-620, 5-621, 5-630.

[147]Maryland Annotated Code 41, Title 05, subtitle 08, chapter 03.

[148]Donald G. Shomette to Gerry Wheeler Stone, 2 October 1978, on file Historic St. Mary's City.

the remains of a previously unknown wharf and a possible



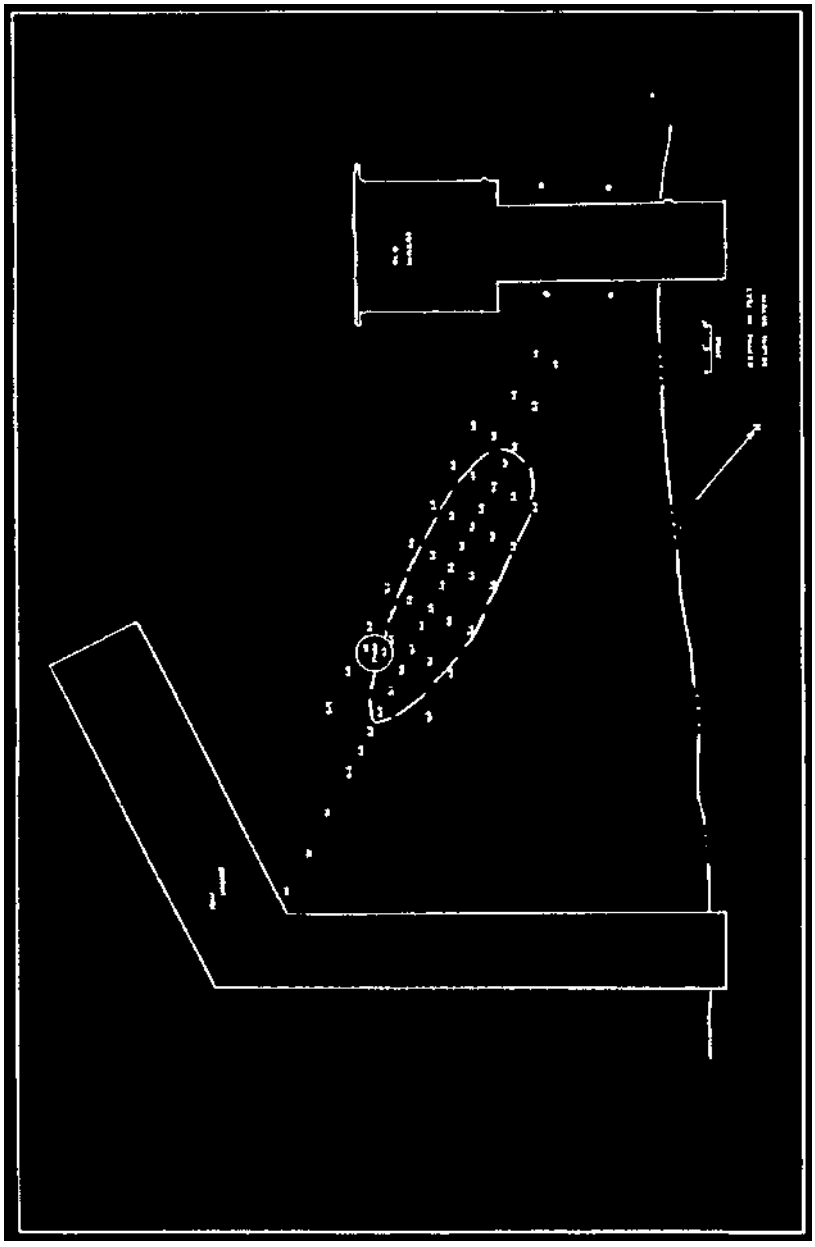
wooden vessel (Map 6).[149]

Gerry Wheeler Stone, St. Mary's City archaeologist, needed more information about geologic change along the St. Mary's City shoreline, especially in the area of the

[149] *Ibid.*

proposed new dock. He arranged for a geological and palynological study to be made between Howard wharf and the

Map 5: View of the Brome's (Howard's) Wharf area in 1920-1970. (Drawn by J. Spence Howard in 1973 (Courtesy of Historic St. Mary's City, Maryland).



Map 6: Location of the sunken vessel (18ST1-118) and wharves (Courtesy of Historic St. Mary's City, Maryland and Daniel Koski-Karell, "Investigation of a Sunken Vessel in the St. Mary's River, Maryland," 3).

the new dock as well as St. John's Pond in 1981. This study centered on four geological core samples, two taken from St. John's Pond and two taken from the wharf/dock area (Map 7).[150]

John C. Kraft and Grace S. Brush produced geological cross sections of St. John's Pond (Figure 1) and Howard wharf areas (Figure 2).[151] Approximately one meter of silt has accumulated since 1634 in St. John's Pond.[152] Kraft and Brush said that artifacts should be found in St. John's Pond because seventeenth century construction of the mill dam restricted water flow in Mill Creek. Later, in the early nineteenth century, narrowing of Mill Creek's mouth to a shallow channel created St. John's Pond.[153]

Mill Creek was about six feet deep in the seventeenth century because three feet of sediment accumulated under the present water depth of three feet.[154] Mill Creek was probably accessible to shallow draft vessels until the

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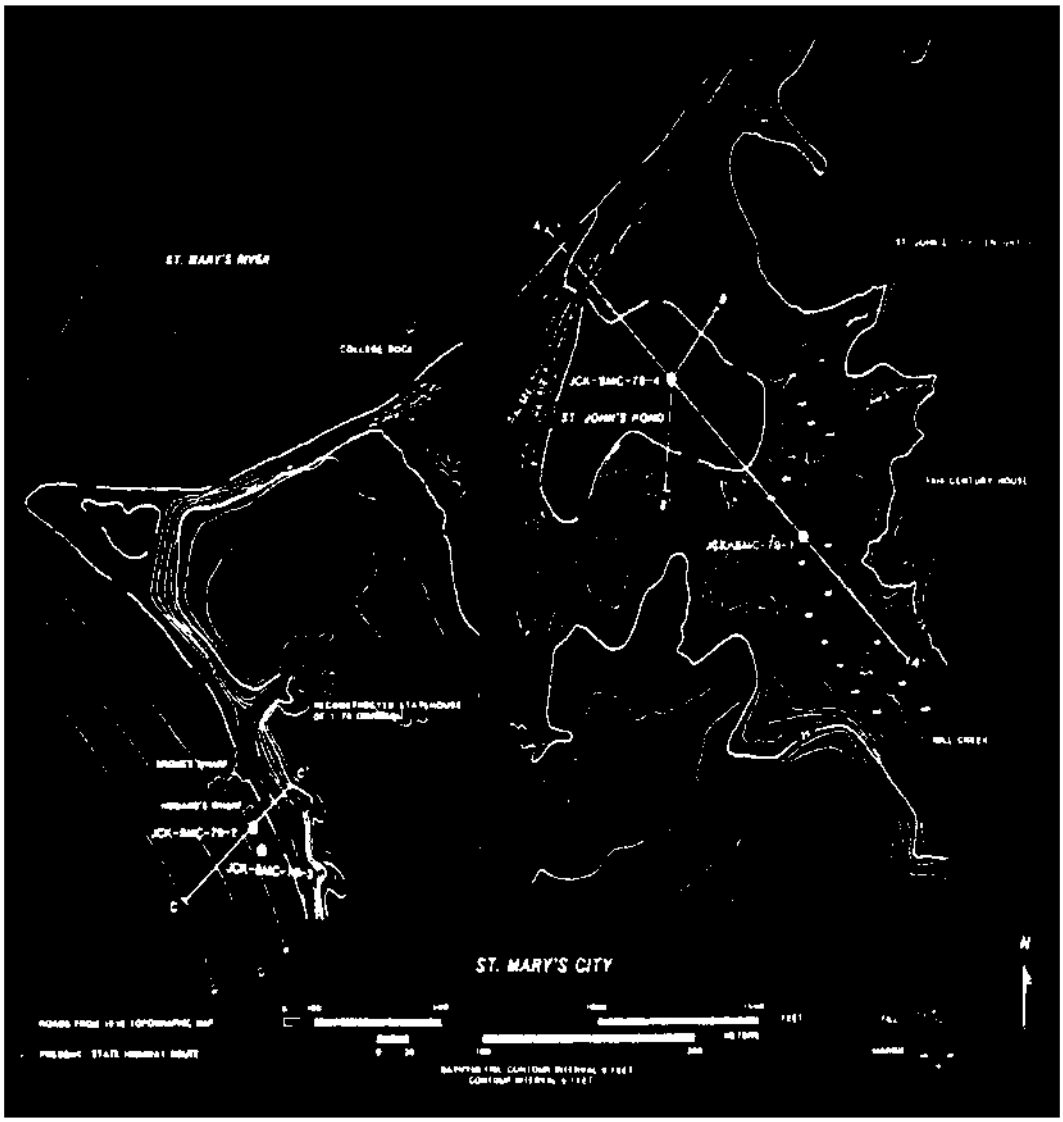
[150]Kraft and Brush, "A Geological-Paleoenvironmental Analysis at St. Mary's City, Maryland," 1.

[151]*Ibid*, 26, 30.

[152]*Ibid.*

[153]*Ibid*, 16-18.

[154]*Ibid.*


ST. MARY'S RIVER
ST. JOHN'S POND
ST. MARY'S CITY
N

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Map 7: Locations of geological core samples (Courtesy of Historic St. Mary's City, Maryland, John C. Kraft, and Grace S. Brush from "A Geological-Paleoenvironmental Analysis of the Sediments in St. John's Pond and the Nearshore Zone Near Howard's Wharf at St. Mary's City, Maryland," 24).

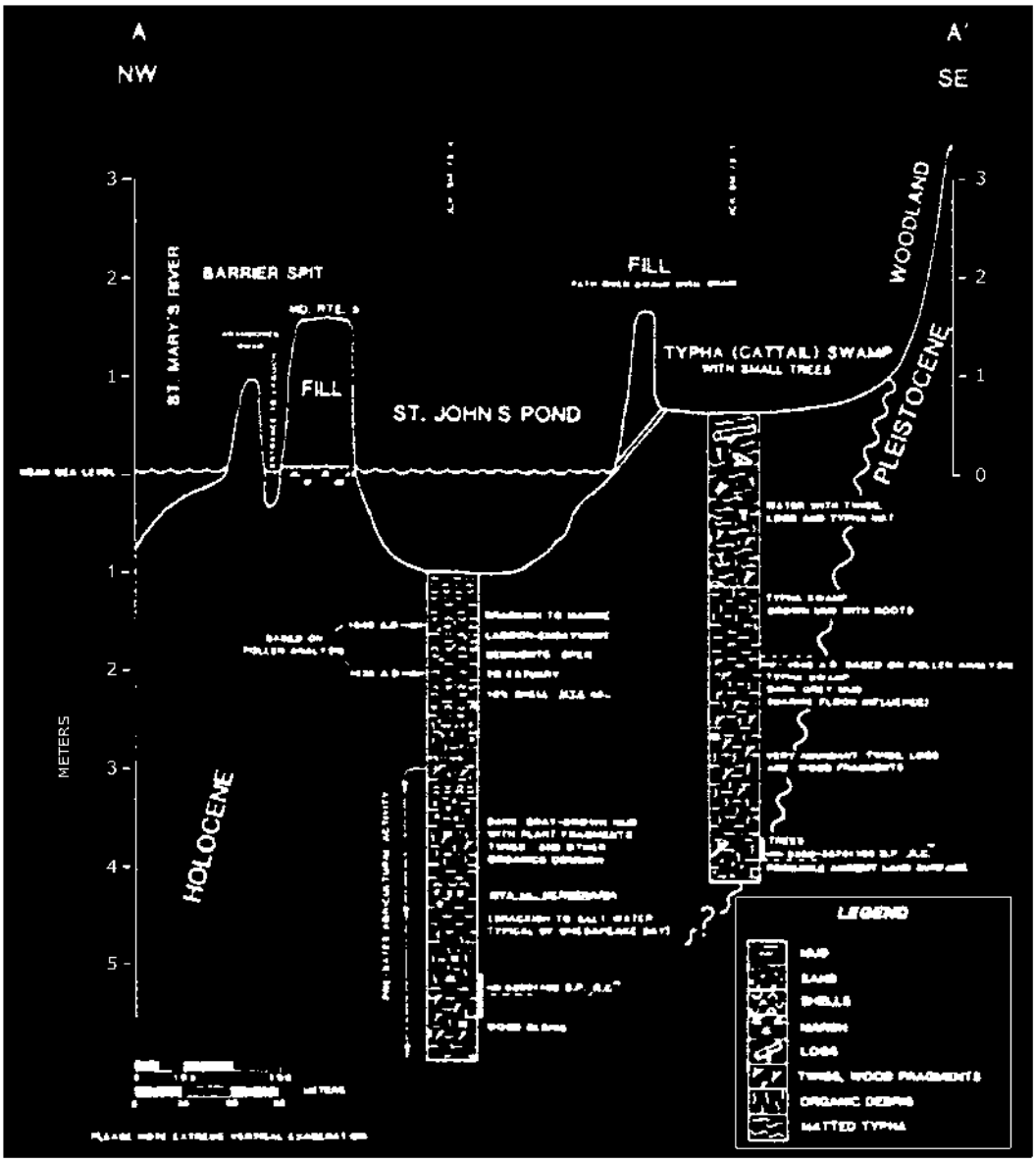
A
NW
A'
SE
ST. MARY'S RIVER
BARRIER SPIT
FILL
FILL
ST. JOHN'S POND
TYPHA (CATTAIL) SWAMP
WITH SMALL TREES
WOODLAND
PLEISTOCENE
HOLOCENE
METERS
LEGEND
MUD
SAND
SHELLS
MARSH
LOAM
TWIGS, WOOD FRAGMENTS
ORGANIC DEBRIS
MATTED TYPHA

Figure 1: The geological profile of St. John's Pond (Courtesy of Historic St. Mary's City, Maryland, John C. Kraft, and Grace S. Brush, from "A Geological-Paleo environmental Analysis of the Sediments in St. John's Pond and the Nearshore Zone Near Howard's Wharf at St. Mary's City, Maryland," 26).

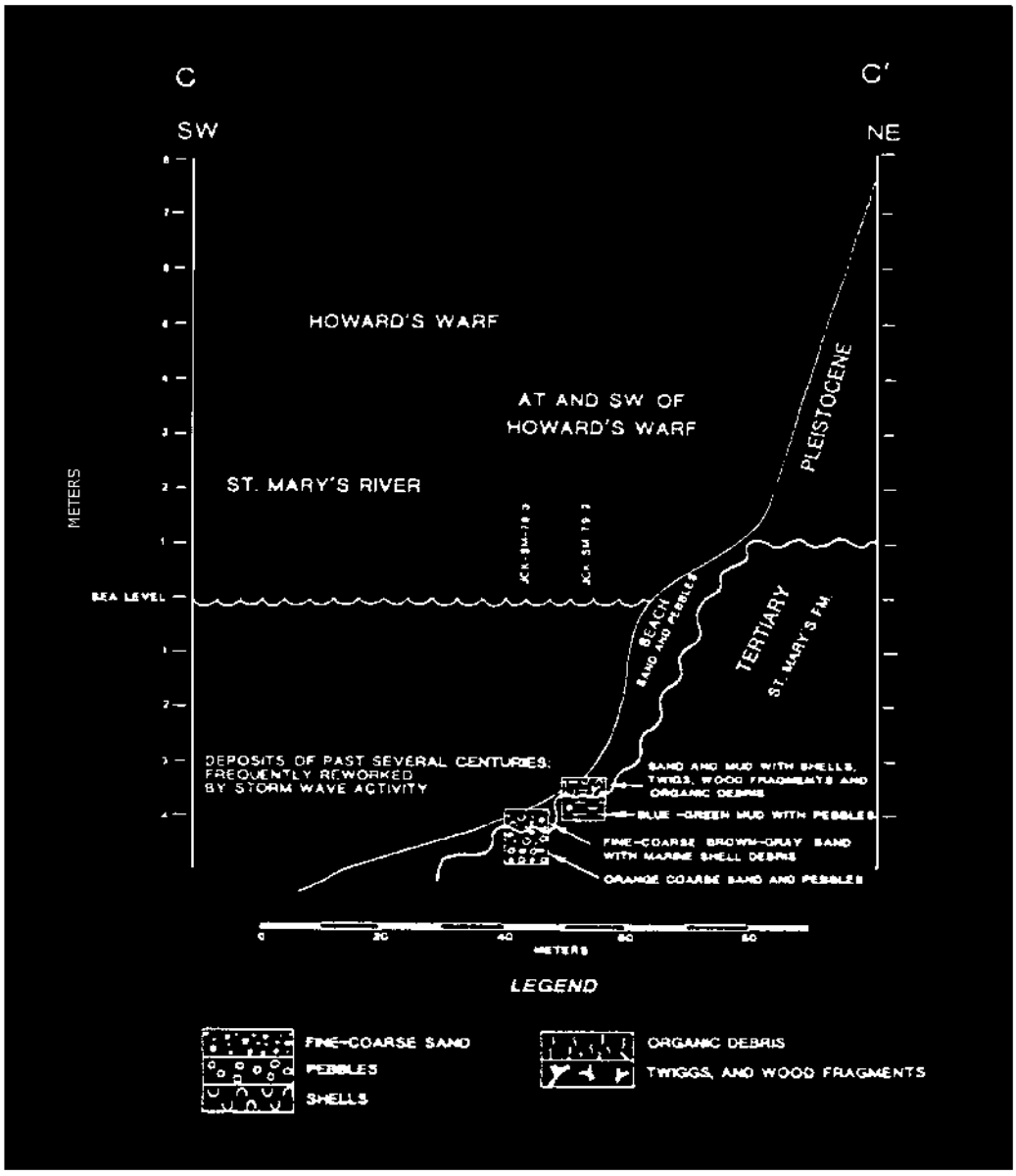
C
SW
C'
NE
METERS
HOWARD'S WARF
AT AND SW OF
HOWARD'S WARF
ST. MARY'S RIVER
PLEISTOCENE
TERTIARY
ST. MARY'S FM.
BEACH
SAND AND PEBBLES
SEA LEVEL
DEPOSITS OF PAST SEVERAL CENTURIES;
FREQUENTLY REWORKED
BY STORM WAVE ACTIVITY
SAND AND MUD WITH SHELLS,
TWIGS, WOOD FRAGMENTS AND
ORGANIC DEBRIS
BLUE-GREEN MUD WITH PEBBLES
FINE-COARSE BROWN-GRAY SAND
WITH MARINE SHELL DEBRIS
ORANGE COARSE SAND AND PEBBLES
0
20
40
60
80
METERS
LEGEND
FINE-COARSE SAND
PEBBLES
SHELLS
ORGANIC DEBRIS
TWIGGS, AND WOOD FRAGMENTS

Figure 2: The geological profile of the area near Howard's (Broome's) Wharf (Courtesy of Historic St. Mary's City, Maryland, John C. Kraft, and Grace S. Brush, from "A Geological-Paleo environmental Analysis of the Sediments in St. John's Pond and the Nearshore Zone Near Howard's Wharf at St. Mary's City, Maryland," 25).

latter part of the eighteenth century, when filling almost closed off the pond.[155] Filling at the mouth of Mill Creek increased with the growth and expansion of St. Mary's

[155] *Ibid.*

College in the twentieth century.[156]

Cores taken in the area of Howard's wharf showed approximately one foot of modern sediment that might contain artifacts. Any artifacts in that sediment would not be in context due to deposit thinness and storm waves disturbance to the bottom.[157] Kraft and Brush doubted any major artifacts such as boats would be found in that area.[158] Core samples were taken about 50 feet off shore next to Howard's wharf and 45 feet southeast.[159]

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[156] *Ibid.*

[157] *Ibid,* 14.

[158] *Ibid.*

[159] *Ibid.*

In their discussion of sea level rise since 1634, Kraft and Brush preferred an estimate of twenty inches.[160] They based their estimate on a five inch rise in sea level per century until about 1950 and a 14 inch rise since then.[161] In their conclusions, Kraft and Brush suggested that the present St. Mary's City shoreline had moved slightly landward since the seventeenth century, except for Church Point and the mouth of Mill Creek.[162]

In 1983, Karell Archaeological Services conducted an archaeological investigation of the wooden vessel (18ST1-118).[163] The vessel was barely visible when initially discovered, but its location resulted in changing the new pier's location.[164] When 1983 investigation began, the vessel remains were at the edge of a drop off to deeper water with its offshore side partially exposed and inshore

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[160]*Ibid, 17.*

[161]*Ibid,* 12.

[162]*Ibid,* 17.

[163]Daniel Koski-Karell, "Investigation of a Sunken Vessel in the St. Mary's River, Maryland 18 ST 118" (Manuscript on file, Historic St. Mary's City, 1983), 2.

[164]*Ibid.*

remains buried in sediment.[165]

[165] *Ibid*, 4.

The investigation identified the vessel as an 80 to 120 year-old sailing ship with one or two masts, although no evidence of mast steps was found.[166] The ship was approximately 63 feet in length and 18 feet in beam with a centerboard well.[167] It was lying broadside to the shore with the bow facing south, or down river.[168] Koski-Karell suggested the vessel location indicated that it was purposely brought close to shore.[169] There were also four pilings located at the southwestern end at the vessel's bow (Map 5).[170] No artifacts were found associated with the wreck, and the report concluded that the ship had been pulled into the shallows and abandoned.[171]

In 1991, a brief, visual inspection was conducted along a 700 meter section of beach south of the *Dove* dock in shallow water within 35 feet of the shore by the Maryland Maritime Archaeology Program (MMAP). Twentieth-century

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[166] *Ibid*, 14.

[167] *Ibid*.

[168] *Ibid*, 3.

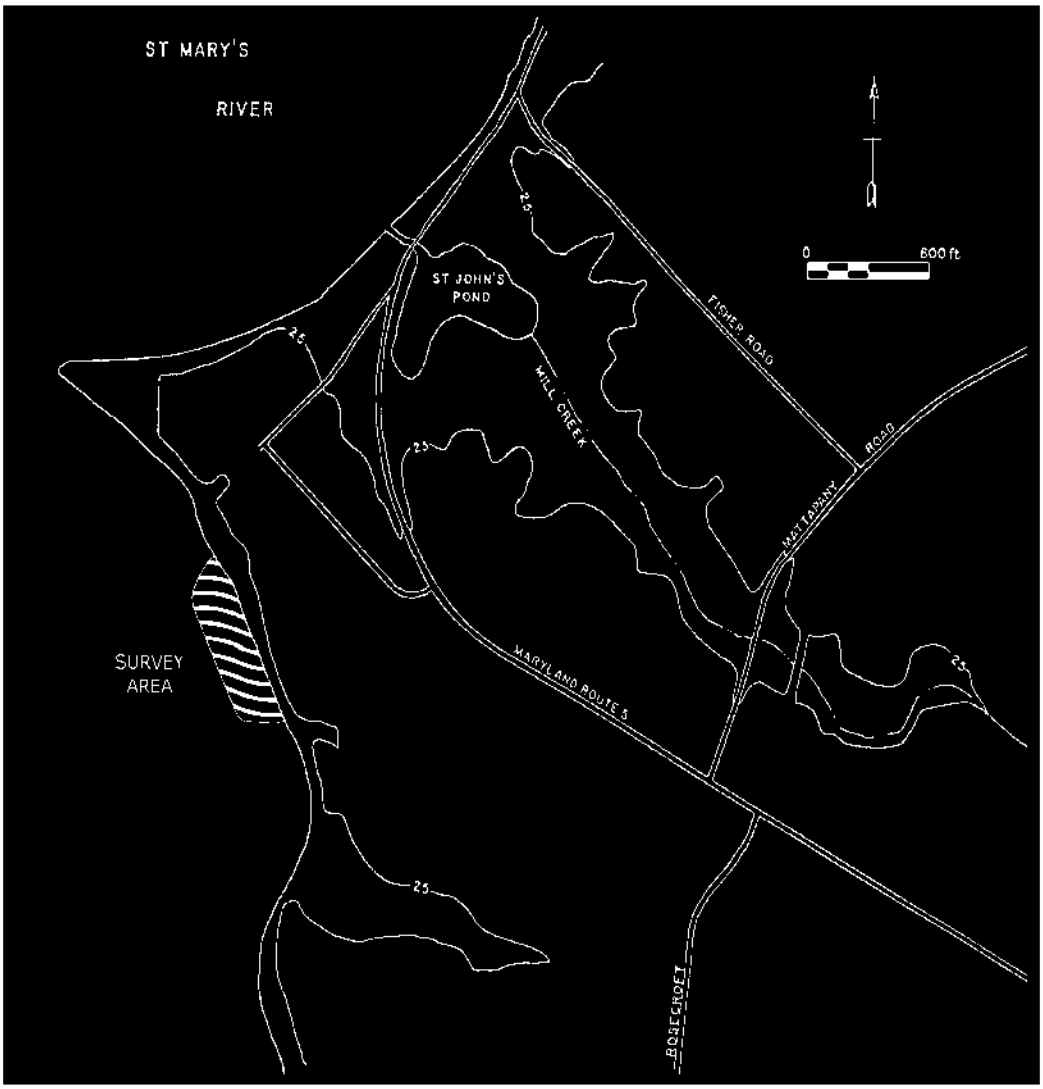
[169] *Ibid*, 4.

[170] *Ibid*, 8.

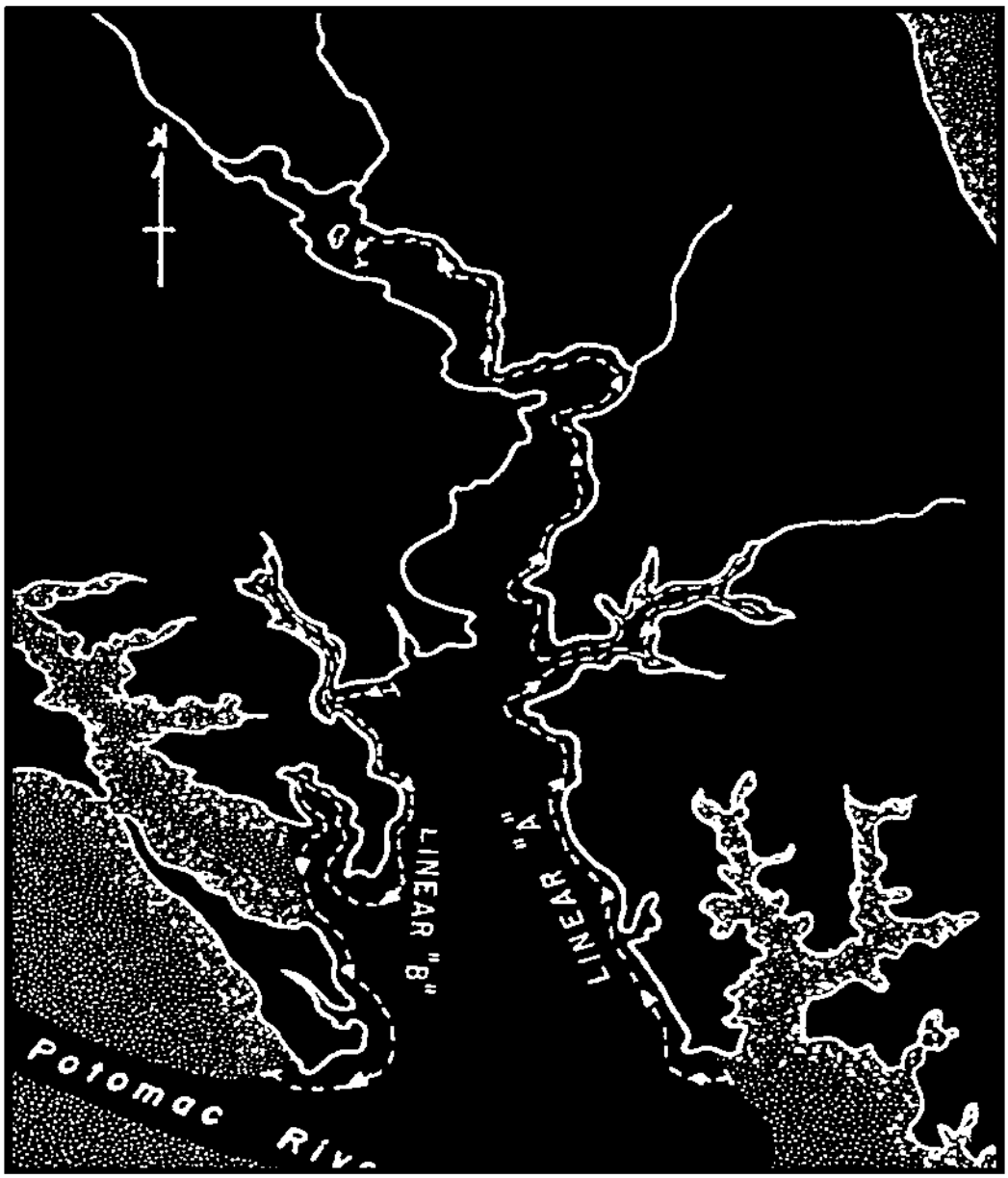
[171] *Ibid*, 13.

ceramics, glass, and other modern debris were found (Map 8). A metal detector transect 100 meters long, 55 to 65 feet offshore, was also run. Several targets which proved to be wrought-iron square shanked nails, were found.

In 1994, MMAP conducted a side-scan sonar survey of the St. Mary's River (Map 9). At the southern end of the St.


ST MARY'S
RIVER
ST JOHN'S
POND
MILL CREEK
FISHER ROAD
WEST TAPPANY
ROAD
MARYLAND ROUTE 5
SURVEY
AREA
BOSLEY ROAD
25
0
800 ft

Map 8: View of 1991 survey area.


LINEAR "B"
LINEAR "A"
Potomac Riv

Map 9: Route of the side-scan sonar survey of the St. Mary's River (Courtesy of Bruce F Thompson from *A Phase I Survey for Submerged Archaeological Resources on the St. Mary's River, St. Mary's County, Maryland,* 19).

Mary's City shoreline divers investigated and recorded a linear abnormality. The abnormality proved to be a pile of ballast stones (18ST1-647). The stones, almost parallel to the shore, were approximately 110 feet off shore, in six to ten feet of water. A one meter square test pit was excavated to a depth of one-half meter. This produced 58 stones and three Dutch "red sugar" bricks. A white clay pipe stem with an 8/64th bore was found near the ballast pile but not in the pile itself. A pedestrian survey of the beach from Key Swamp to Church Point and around St. John's Pond was also conducted at this time. Some seventeenth century artifacts were found around St. John's Pond (Map 10).

Previous shoreline and underwater archaeological investigations conducted at St. Mary’s City were project specific and limited in scope except for the 1994 side-scan sonar survey completed by MMAP. Information gathered by earlier investigations provided the starting point and baseline for this project’s work on St. Mary’s City shoreline.


St. John's Pond
St. Mary's Shoreline
Carthagena
Creek
Potomac Riv

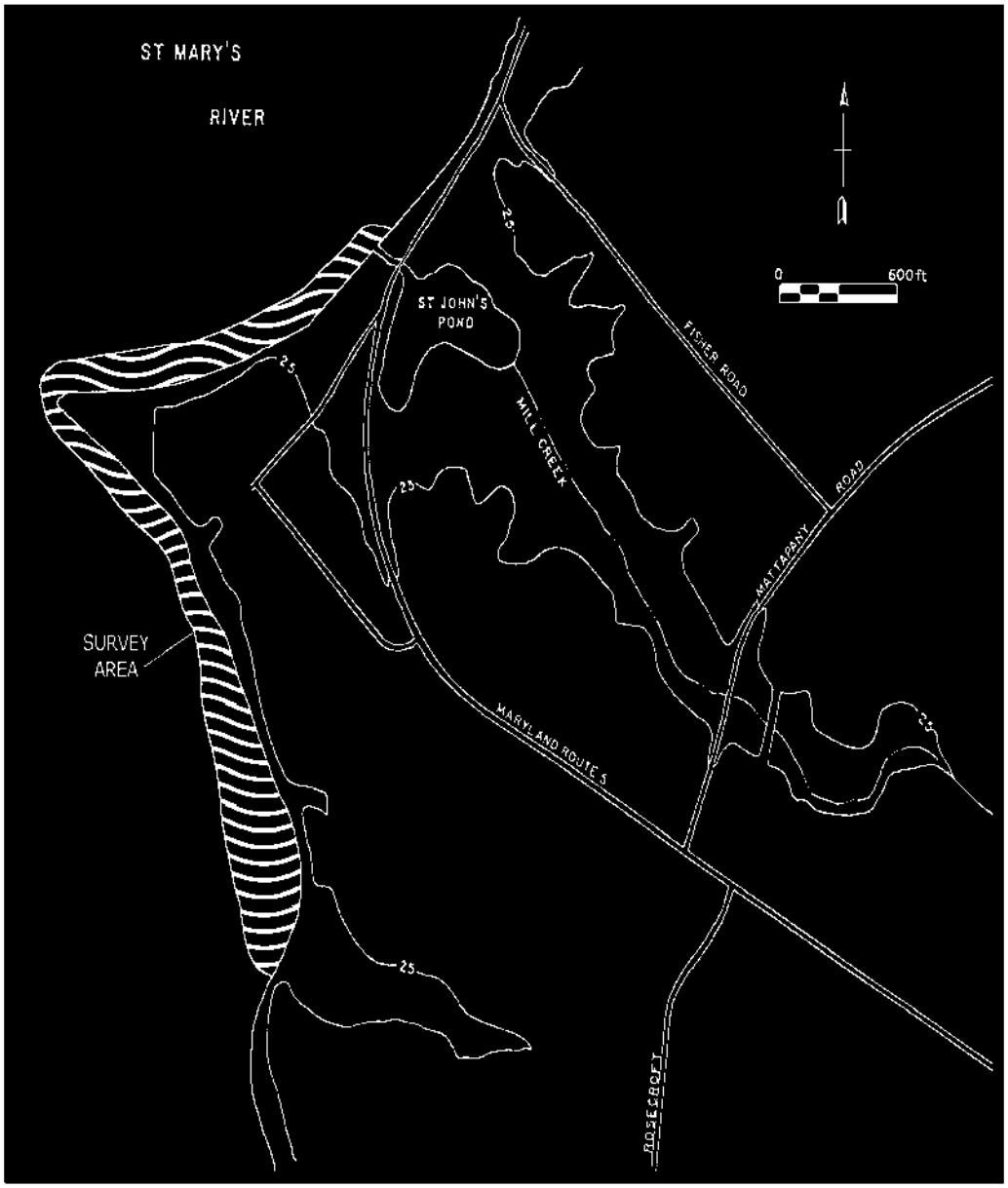
Map 10: Area of the 1994 survey of the shoreline (Courtesy of Bruce F Thompson from *A Phase I Survey for Submerged Archaeological Resources on the St. Mary's River, St. Mary's County, Maryland*, 18).

CHAPTER III

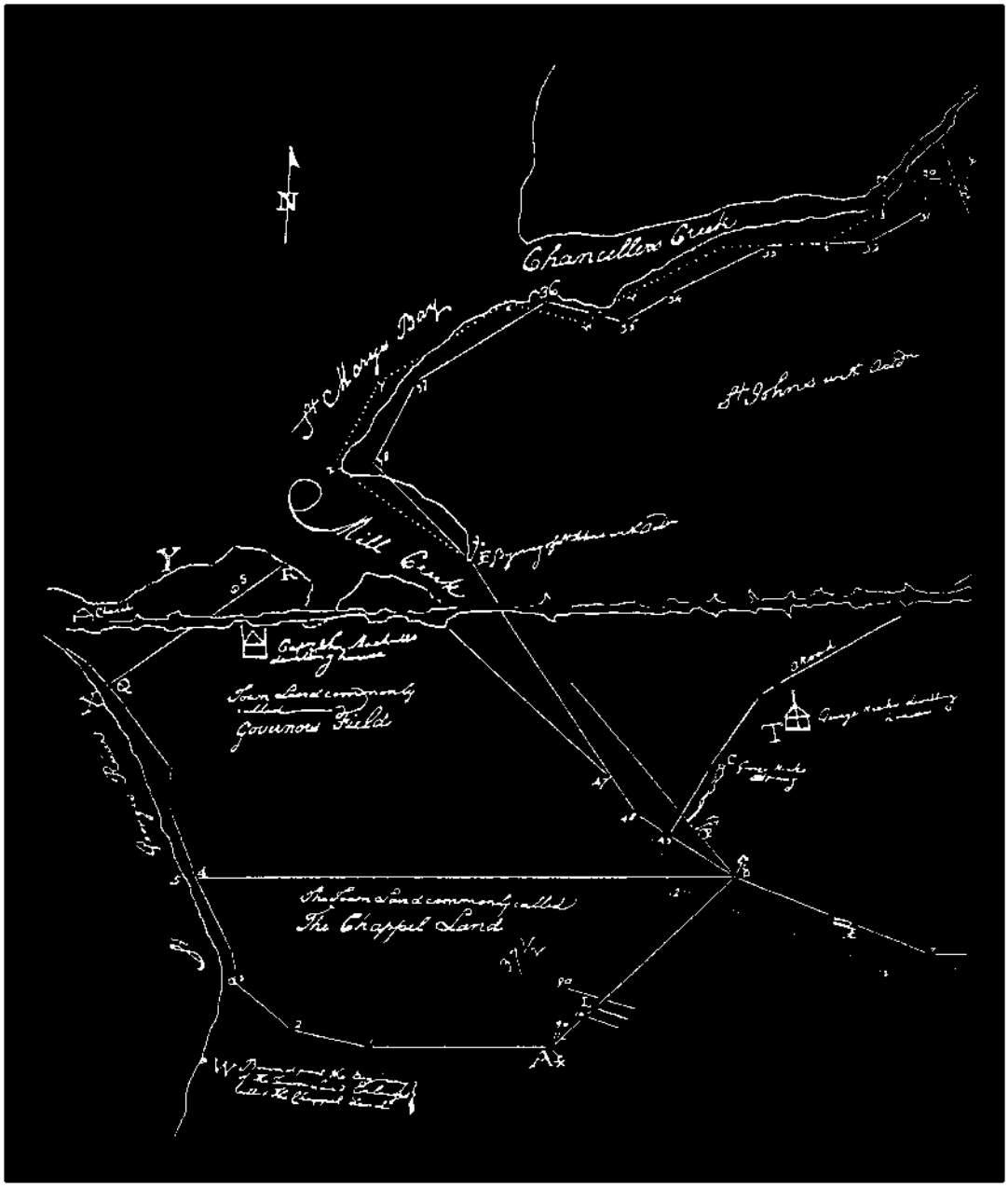
METHODOLOGY

The investigation reported here involved a multiple approach beginning with a search of historic documents and maps. No detailed hydrographic map of the shore surrounding the historic city existed; therefore, a detailed map of the river bottom from approximately eight feet depth to the present shoreline was produced. A physical reconnaissance and a magnetometer survey of the area were also conducted. The concluding element of this investigation involved taking geologic core samples from areas where such data could enhance interpretations. This project included an examination of archaeological discoveries and a reexamination of known archaeological sites within the project area (Map 11).

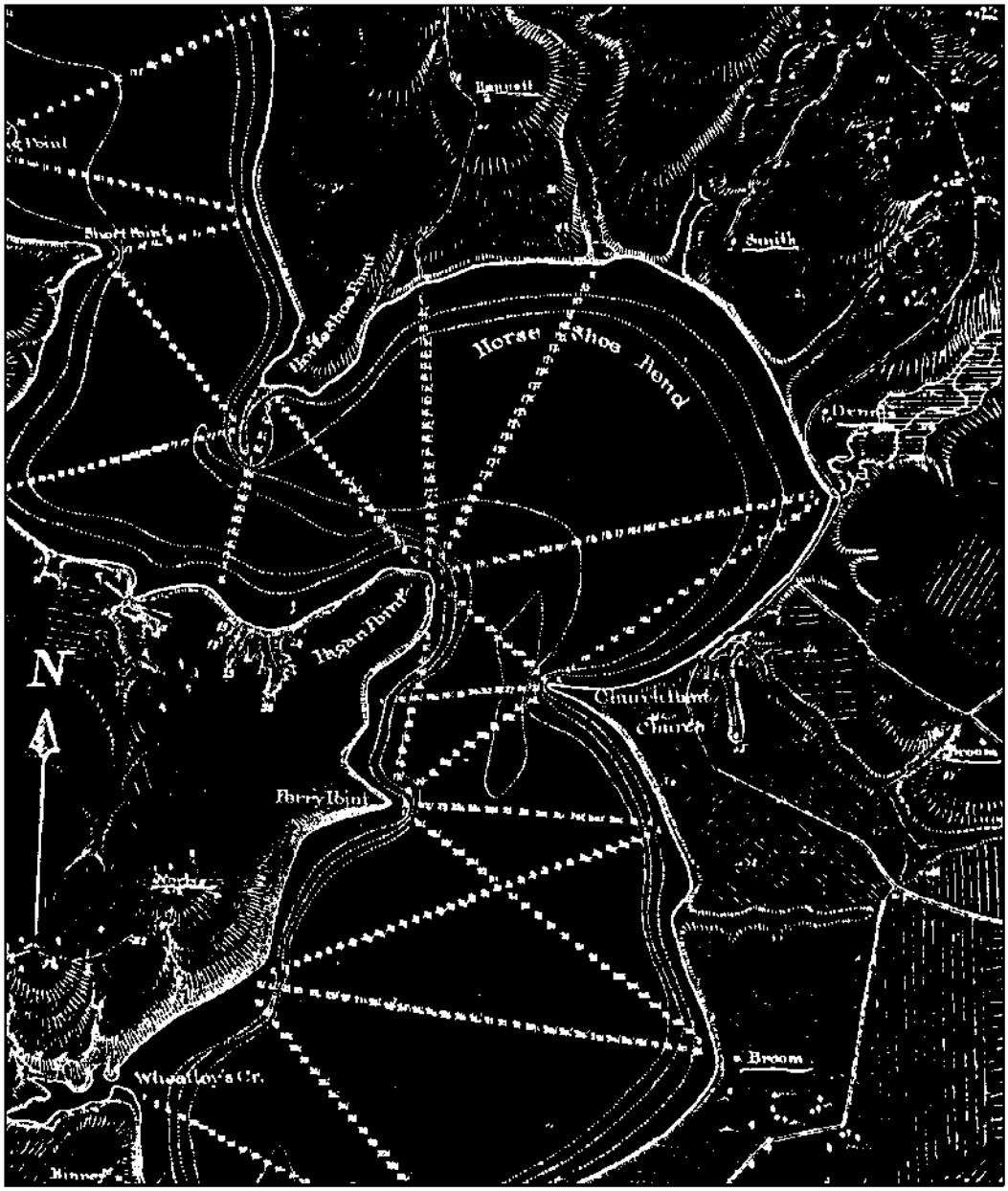
Preliminary discussions with St. Mary's research staff took place prior to beginning research. Documentary research began in Historic St. Mary's City's library. There are only two well known maps of the early St. Mary's shoreline, the 1787 Jesse Locke plat (Map 12) and the 1824 Major James Kearney naval survey map (Map 13). Additional documentary research included the Calvert Marine Museum library, the Maryland State Archives, the United States


ST MARY'S
RIVER
ST JOHN'S
POND
MILL CREEK
FISHER ROAD
MATTAPANY
ROAD
SURVEY
AREA
MARYLAND ROUTE 5
ROSECROFT
25
25
25
25
0
600ft

Map 11: Survey area for this project.


N
Chancellors Creek
St Johns not laid
Mill Creek
Town Land commonly called Governors Field
Town Land commonly called The Chappel Land

Map 12: The 1787 Jesse Locke plat (Courtesy of the Maryland State Archives, Chancery Court (Chancery Papers) Mackall v. Hicks, MSA S 512-5886, MdHR 17898-5783).


Horse Shoe Pond
Smith
Broom
N

Map 13: The St. Mary's City Area of the St. Mary's River from the 1824 Major James Kearney Naval Survey Map (Courtesy of United States Archives, College Park, Maryland).

Archives and the Maryland Geological Survey library.

The hydrographic survey utilized a technique for surveying underwater terrain used by United States Navy Seals but adapted to a scale effective for this project. The particular method used in this survey is called a "perpendicular reconnaissance."[172] I was fortunate that my son, Bill, a former Seal modified the method and supervised the actual field work.

Seals use the "perpendicular reconnaissance" to map a shoreline to depths over 20 feet.[173] The survey used a line of swimmers, at a 90 degree angle from the beach, spaced at preset intervals.[174] The swimmers moved on command and took depth measurements at predetermined points while looking for subsurface features.[175] The "perpendicular reconnaissance" provided a fast, accurate and inexpensive method of hydrographic survey especially suitable for conditions encountered in the St. Mary's River.[176]

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[172]James W. (Bill) Embrey, personal conversations, 1 January 1996 through 8 July 1997.

[173]*Ibid.*

[174]*Ibid.*

[175]*Ibid.*

[176]*Ibid.*

The area surveyed was approximately one linear mile, extending from Key Swamp to Church Point, excluding the former Brome/Howard wharves and *Dove* dock. It then ran from Church Point to the entrance to St. John's Pond excluding the area of St. Mary's College boat dock. Dock and wharf areas were excluded because anomalies were reported in previous investigations. Stakes were set at 30 foot intervals along the beach in the survey area. The survey started at Key Swamp and moved northward around Church Point to the entrance of St. John's Pond.

The hydrographic survey required three persons on the beach and twelve people in the water. Equipment needed for the survey included: a 120 feet of floating rope marked at ten foot intervals, two range markers, two compasses, twelve slates with Mylar paper and a pencil attached, twelve 15 foot lead lines marked a one foot intervals, face masks and swim fins for those in five or more feet of water, and protective clothing for those in the water due to stinging jellyfish. The supervisor of the survey, part of the shore party, was responsible for the shore end of the rope, taking a compass bearing at each stake, aligning range poles and the overall survey operation.

The swimmers, although over half of them could stand on the bottom, positioned themselves at marked ten foot intervals on the rope facing the shore with the swimmer at the end of the rope, in charge (Figure 3). The end swimmer aligned himself with the range poles, pulled the rope taunt, and signaled the shore when ready. The rear range pole was waved as a signal for the swimmers to measure and record the depth on their slates. Each swimmer raised a hand when their own recording was complete. When all swimmers were finished, the shore supervisor signaled everyone to move to the next point. Swimmers walked or swam parallel to shore after each reading, ensuring that any abnormality between the marked points would be noted.

The entire survey required less than a day. Data sheets from each swimmer and the supervisor's notes were collected and checked at the end of day. Collected data were later put into a data base that was used to produce a hydrographic map.

A physical reconnaissance of the project area was conducted using divers with snorkels in shallow water and scuba equipment in water up to ten feet deep. Divers noted brick or rock debris. Divers were to recover any artifacts and mark their location, but none were found.

Figure 3: Hydrographic survey in progress, photo by author.

A portable magnetometer towed behind a small shallow draft boat was also used for the survey. The magnetometer crew ran three lanes 40 feet apart to cover the same zone mapped by the hydrographic survey. Personnel in the magnetometer boat carried weighted floats that were cast overboard to mark any anomalies noted during the survey. A boat carrying a safety officer and two divers followed the magnetometer boat. The divers immediately dove on the floats to identify any objects that could be located. A total of 18 anomalies were located in the river and five additional ones in the pond. All anomalies, except two in the pond, were modern debris. The two unidentified objects

in the pond were buried too deep in the sediment for identification.

A team of divers reexamined the nineteenth century vessel remains located inshore of the *Dove* dock. The team made an inspection and sketched visible remains. Another dive team tried to examine and record the ballast pile located about 150 feet north of Key Swamp but was unable to locate it. The ballast pile was relocated later under approximately one-half foot of silt. Two other archaeological discoveries requiring investigation were located offshore near Key Swamp. The discovery of piling remains and the remnants of a small boat buried at the waterline were examined and recorded by this project.

Money, equipment, and time restricted the number of geological core samples taken for investigation. A five horsepower vibracore drove the three inch diameter aluminum pipe used to take core samples used for analysis. Locations were selected on the probability of providing answers to landscape and erosion questions. The geological aspects of this project were completed with the help and direction of Dr. Gerald Johnson, a geologist.

The research methods utilized in this project are commonly used in various types of archaeological projects

except the hydrographic survey. The hydrographic survey, used archaeologically for the first time in this project, was inexpensive and fast while providing much data and the method should be of value in other projects. Data retrieved through this project were analyzed and interpreted to add to the historical and archaeological knowledge of Historic St. Mary's City and the completion of this thesis.

CHAPTER IV

RESEARCH FINDINGS

A major problem in reconstructing the seventeenth century shoreline of St. Mary's City is the lack of detailed early maps. There are several existing maps of the Chesapeake Bay and its tributaries including the St. Mary's River such as the 1608 John Smith map, but these are basically navigational and do not reflect a detailed shoreline.[177] The earliest useful early maps of the St. Mary's City shoreline were drawn in 1787 and 1824(Maps 11 and 12).

An 1857 map of the Patuxent and St. Mary's rivers made by Majors J. J. Abert and James Kearney (Map 14) appears to be an enhancement of Kearney's 1824 Naval Survey map. The shape of Church Point appears the same in both the Kearney maps but different in the Coast Survey map of 1859. Both of these maps show Mill Creek as only a stream and neither show Key Branch.

In 1859, the Coast Survey Office, forerunner of the United States Geological Survey, produced a hydrographic

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[177]Edward c. Papenfuse and Joseph M. Coale III, *The Hammond-Harwood House Atlas of Historic Maps of Maryland, 1608-1908* (Baltimore: Johns Hopkins University Press, 1982), 2.


Wallace
Store
Shop
Bruce
Wise
W. Sams
Dr. Mason
Buchanan
Store
Anderson
Taylor
Holmes
Pork Hall
Brady
Combs
Pork Hall Pt
Mrs. Milburn
Bennett
Clocker
Smith
Horse Shoe Pt
Church
Broom
Perry Pt
Norris
Marion
Torleton
Harrington
Broom
Ebb
Clocker
Taylor
Porto Bello Pt
Cooper
Bean
Johnson
Wise
Norris
Priests Pt
Carthagena
Food

Map 14: Portion of Patuxent and St. Mary's River by Majors J. J. Abert and James Kearney in 1857 (Courtesy of the Calvert Marine Museum).

quadrangle map of the St. Mary's River, Cornfield Harbor, and Point Lookout (Map 15).[178] Fisher Creek, Mill Creek/St. John's Pond, and Key Branch/Key Swamp are not indicated on that map, but Trinity Church, Brome's house, and some roads are shown. The road ending at Brome's wharf appears, and the map shows a bulge of land extending into the river where the wharf was located.

Two earlier maps of the St. Mary's City area shoreline exist. One was dated to 1800 and the other to 1818.[179] The 1800 map shows only the St. Mary's River, and its surrounding land from Carthagena Creek on the western side and St. Inigoes Creek on the eastern side northward to Horseshoe Point (Map 16). The 1818 map shows the entire navigable area of the St. Mary's River (Map 17). These maps are significant because they show that Mill Creek was virtually closed off by 1800, and the shoreline, where the Brome's wharf road was built, indented at a natural ravine.

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[178]Coast Survey Office, Survey of the Coast of the United States St. Mary's River, Cornfield Harbor and Point Lookout Map, 1859 (United States Geological Survey).

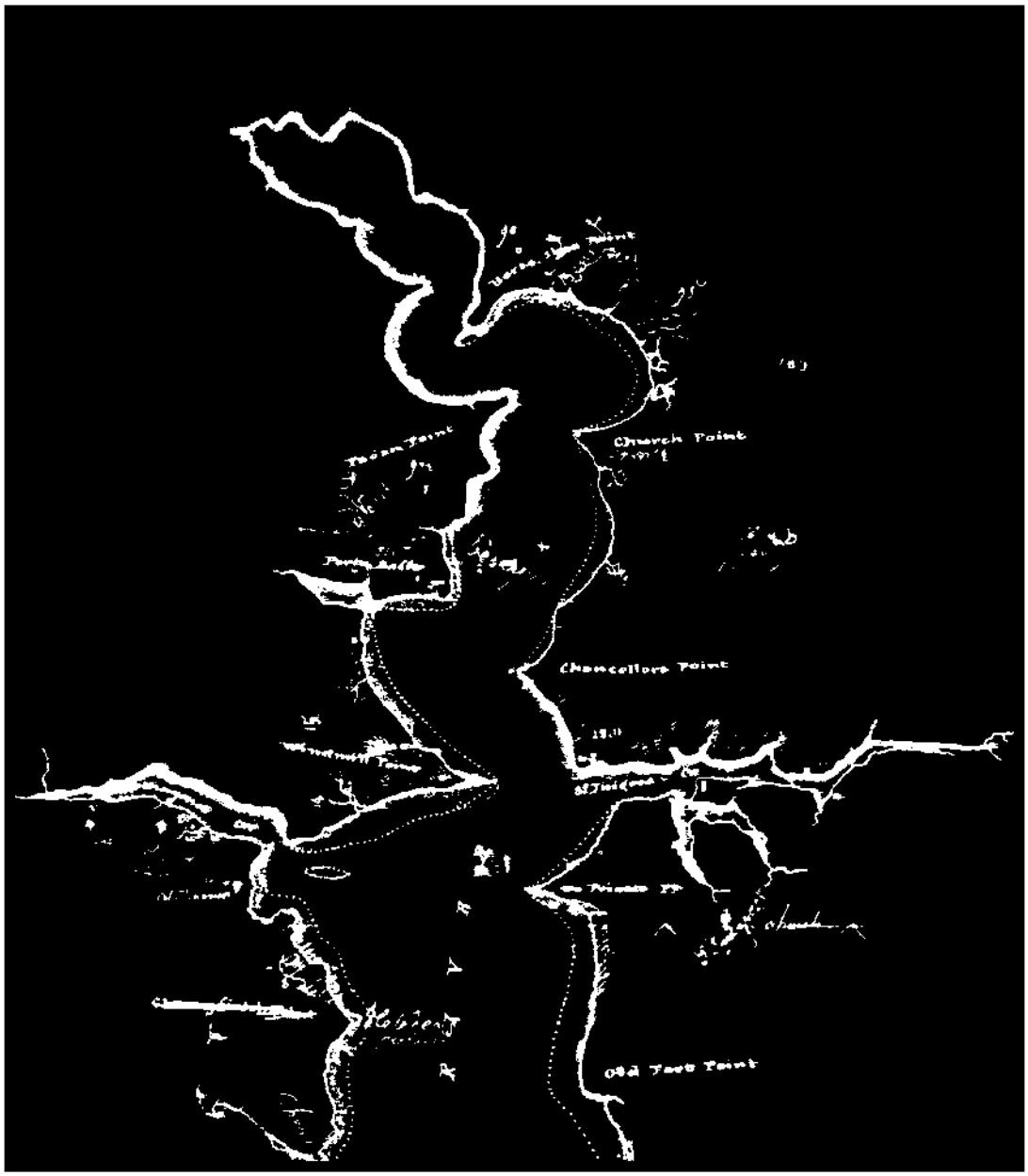
[179]United States Archives, St Mary's River, St. Inigoes Creek and Carthagena Creek, Maryland Map of 1800 (RG 77 F21) and St. Mary's River and the waters of the Potomac River and Chesapeake Bay, which connect it with the Patuxent River by Major H. Bache in 1818 (RG77 F10).

The Brome’s wharf road constructed in that natural ravine

Map 15: Portion of St. Mary's River, Cornfield Harbor, and Point Lookout Map by the Coast Survey Office in 1859 (Courtesy of the United States Geological Survey).

Map 16: Portion of the Map of the St. Mary's River, Carthagena Creek, and St. Inigoes Creek about 1800 by an unknown author (Courtesy of the

United States Archives, College Park, Maryland).


Church Point
Chancellors Point
Old Town Point

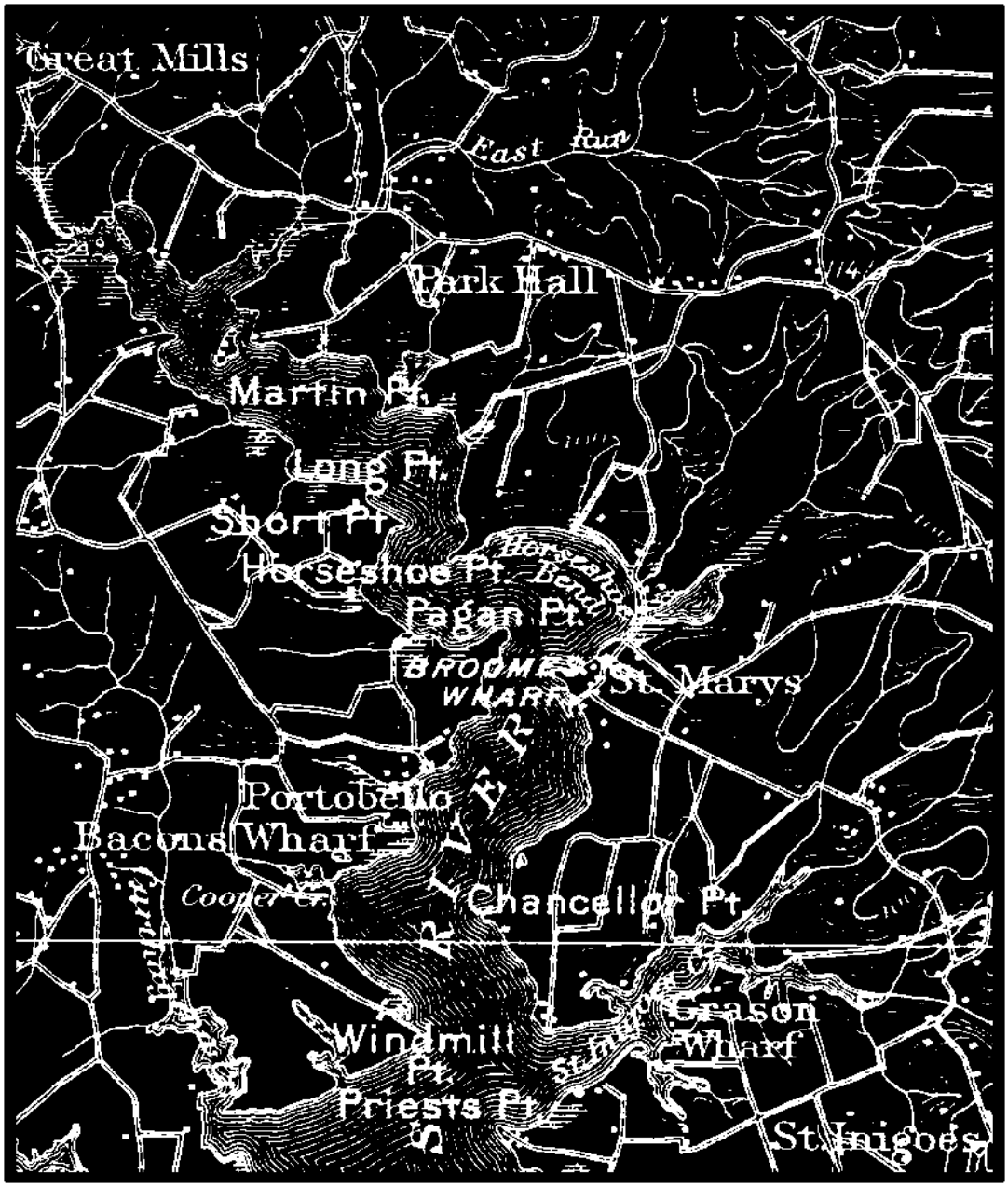
Map 17: Portion of St. Mary's River and the waters of the Potomac River and Chesapeake Bay, which connect it with the Patuxent River by Major H. Bache in 1818 (Courtesy of the United States Archives, College Park, Maryland).

leading to the shore where Brome built his wharf. Key Branch/Key Swamp also appears on also appears on both maps.

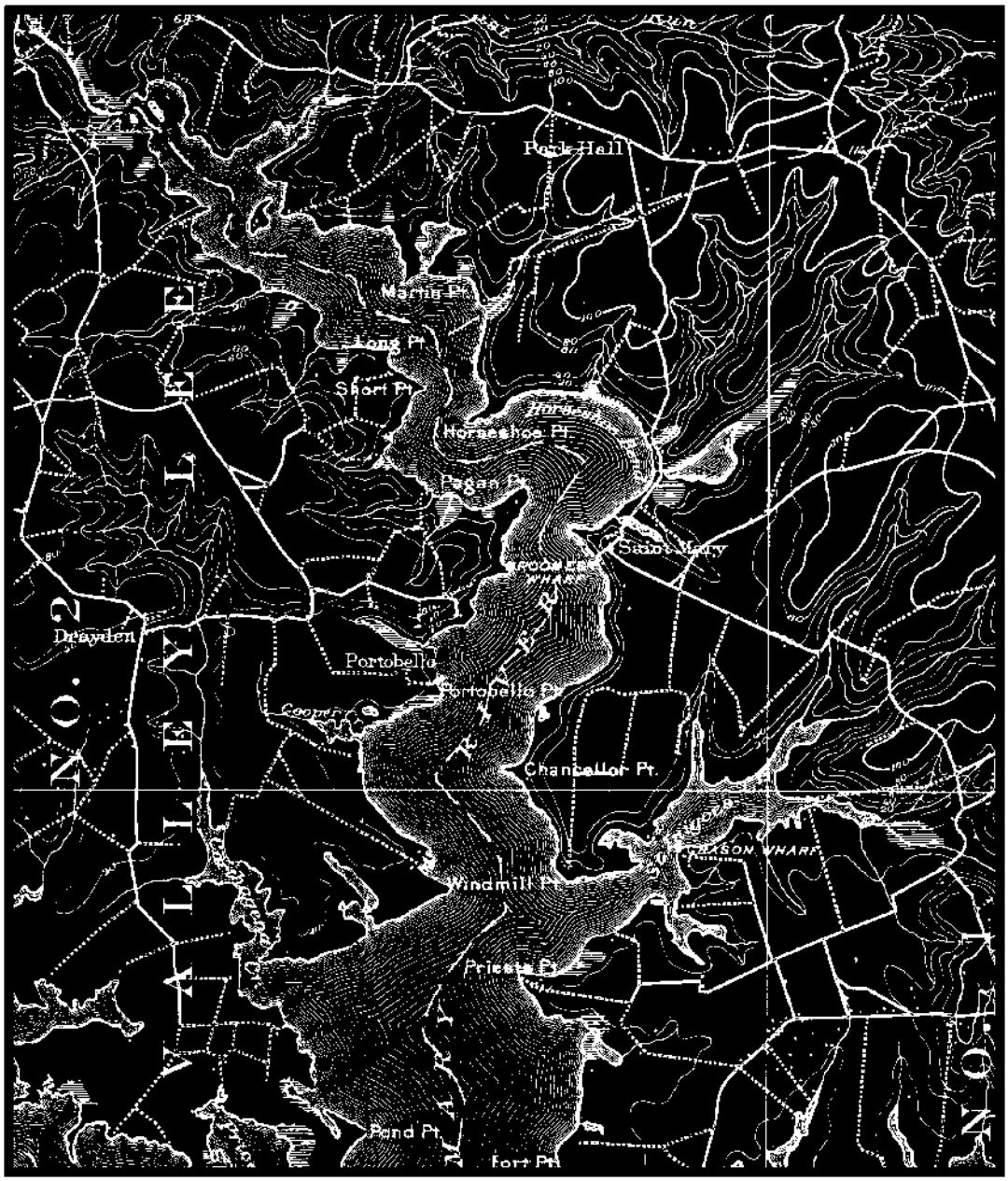
Shoreline details were sparse on United States Geological Survey maps until the middle of the twentieth century. The 1906 St. Mary's Folio map (Map 18) and the 1912 Point Lookout Quadrangle map (Map 19) both show Fisher Creek, Mill Creek/St John's Pond, and Brome's Wharf, but neither shows Key Branch/Key Swamp. Key Branch/Key Swamp is shown on United States Geological Survey maps made from 1944 through 1987 (Map 20).

The ravine through which a road descends to Brome's wharf is not shown on any quadrangle maps including the latest one. The quadrangle maps do show changes to Maryland Route Five. The changes are where the Route Five crossed St. John's Pond and curved south of the pond, bypassing the entrance to Trinity Church and St. Mary's College.

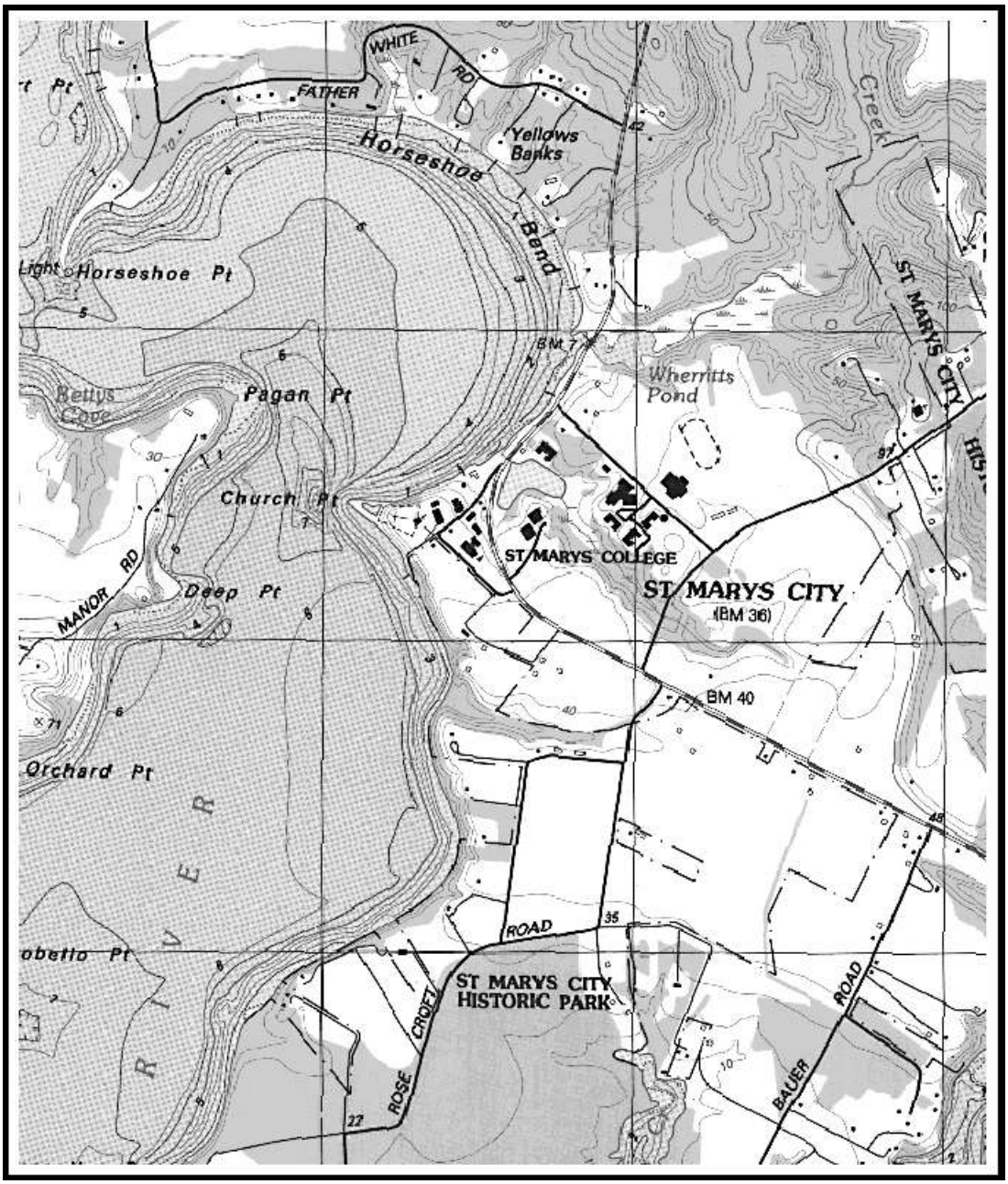
The Maryland Shell Fish Commission, in cooperation with other state and federal agencies, produced a series of Natural Oyster Bars charts from 1905 through 1912. Chart 24 shows the St. Mary's River, area roads, Brome's wharf and the six and 18 feet depth lines in the river (Map 21). The six foot depth line maintains a fairly constant distance from shore except at Brome's wharf. The areas off Church


Great Mills
East Run
Park Hall
Martin Pt.
Long Pt.
Short Pt.
Horseshoe Pt.
Horseshoe Bend
Pagan Pt.
BROOMES WHARF
St. Marys
Portobello
Bacons Wharf
Cooper Cr.
Chancellor Pt.
Bailey Cr.
Windmill Pt.
Priests Pt.
Greason Wharf
St. Inigoes

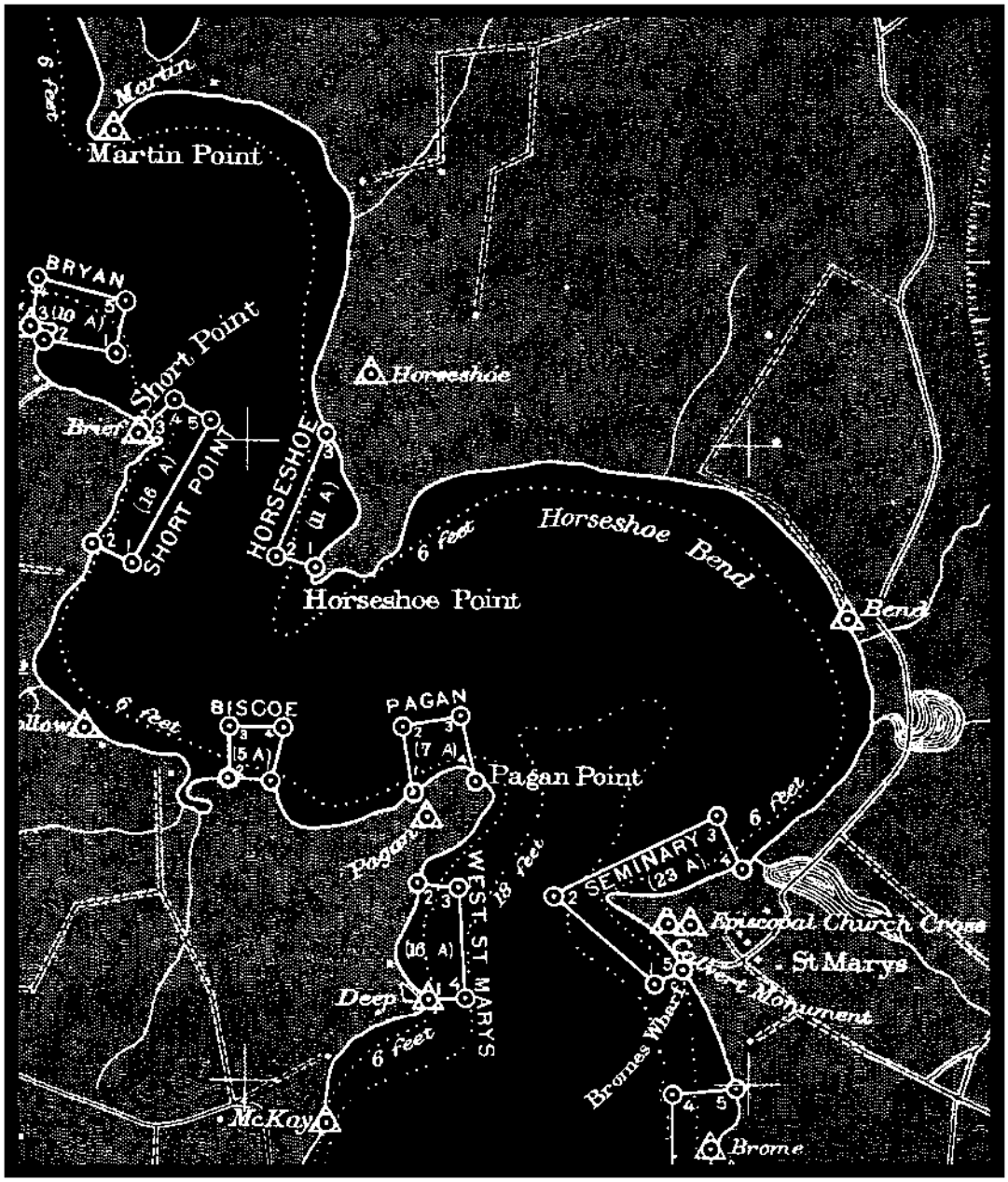
Map 18: Portion of the St. Mary's Folio from the Geologic Atlas of the United States, 1906 (Courtesy of the United States Geological Survey).


Park Hall
Marsh Pt.
Long Pt.
Short Pt.
Horseshoe Pt.
Pagan Pt.
Saint Mary
Drayden
Portobello
Portobello Pt.
Chancellor Pt.
Windmill Pt.
Priest Pt.
Pond Pt.
Fort Pt.
NO. 2 VALLEY

Map 19: Portion of the Point Lookout Quadrangle map of 1912 (Courtesy of the United States Geological Survey).


WHITE
RD
FATHER
Yellows
Banks
Horseshoe
Bend
Horseshoe Pt
Light
BM 7
Wherritts
Pond
ST MARYS CITY
Pagan Pt
Church Pt
ST MARYS COLLEGE
ST MARYS CITY
(BM 36)
MANOR RD
Deep Pt
BM 40
Orchard Pt
ROAD
ST MARYS CITY
HISTORIC PARK
ROSE CROFT
BAUER ROAD

Map 20: Portion of the St, Mary's Quadrangle map of 1987 (Courtesy of the United States Geological Survey).


6 feet
Martin
Martin Point
BRYAN
(10 A)
Short Point
Brief
Horseshoe
SHORT POINT
(16 A)
HORSESHOE
(11 A)
6 feet
Horseshoe Bend
Horseshoe Point
Bend
BISCOE
(5 A)
PAGAN
(7 A)
Pagan Point
6 feet
Pagan
18 feet
WEST ST MARYS
(16 A)
Deep
6 feet
McKay
SEMINARY
(23 A)
6 feet
Episcopal Church Crosses
St Marys
Monument
Bromes Wharf
Brome

Map 21: Portion of the Natural Oyster Bar map, chart 24 of 1908 (Courtesy of the Maryland Geological Survey).

Point and Key Branch were the sites of large oyster bars. There is little to indicate an oyster bar around Church Point now, but there are major oyster shell remains off Key Branch in water over ten feet deep.

Large sections of the St. Mary's City shoreline have been protected in recent years by riprap. The northern shore, beginning just west of the college boat house and pier, had 200 feet of riprap installed in the early 1970s. Adjacent to it, an additional 280 feet of riprap was placed in the river along a shore area bulkheaded in 1946. There is a 100 foot break in riprap protection before riprap begins again extending 200 feet westward to the beginning of Church Point's shoreline. This 200 feet was added in 1993 after a soil slump occurred at the top of cliff.[180]

Church Point is unprotected, but riprap begins again at the beginning of the southern shoreline. In 1995, 400 feet of riprap was installed because Trinity Church's leaders were concerned about possible cliff slides. Riprap runs from southern edge of Church Point to the end of the church's property where the Brome's wharf road enters the

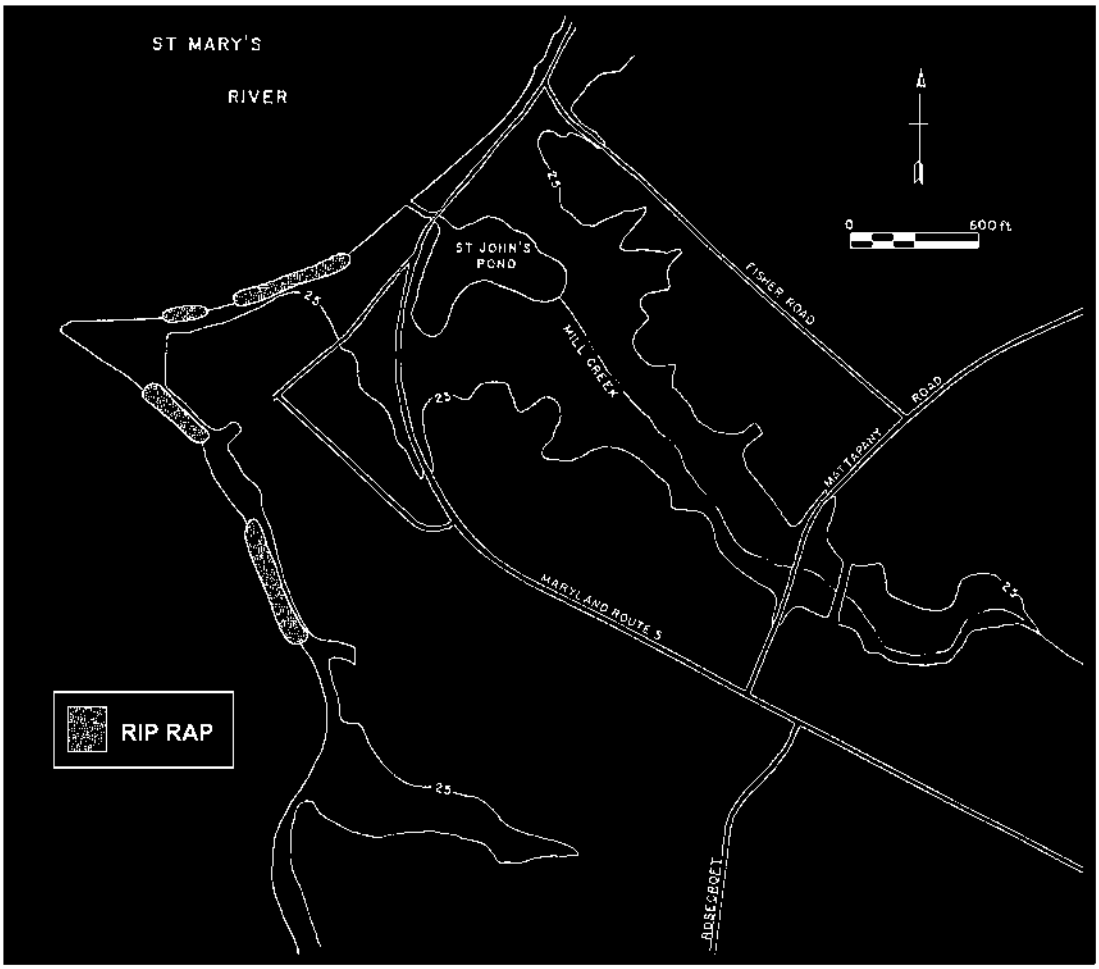
[180]Henry M. Miller, "Report on Bank Collapse at Trinity Church, Church Point," manuscript on file Historic St. Mary's City, 1990.

beach. Although there is no riprap from the wharf road to south of the *Dove* dock, there are partially buried large rocks and/or concrete debris. This area was the location of Brome and Howard wharves and warehouses removed before the mid-1980s. One more stretch, approximately 600 feet of riprap was installed in 1992 south of the *Dove* dock. It extends south to a valley descending from the old town center to the shore.

Riprap and bulkheads are, and have been, used to protect shorelines from erosion caused by wave, storm, tide, sea level rise, and boat wakes. What are the effects of these man made barriers to the offshore river bottom and adjacent unprotected areas (Map 22)? The hydrographic survey, visual inspections, and core samples provide some answers.

Key Branch, located at the extreme southern end of the city's southern shoreline, no longer has enough water flow to keep a channel cut through the beach to the river. Key Branch flows across the beach only during wet periods. The branch runs with a constant trickle, but the water filters through the sand to enter the river. Sixty feet north of Key Branch at the low water line, I discovered two parallel pilings in 1995.

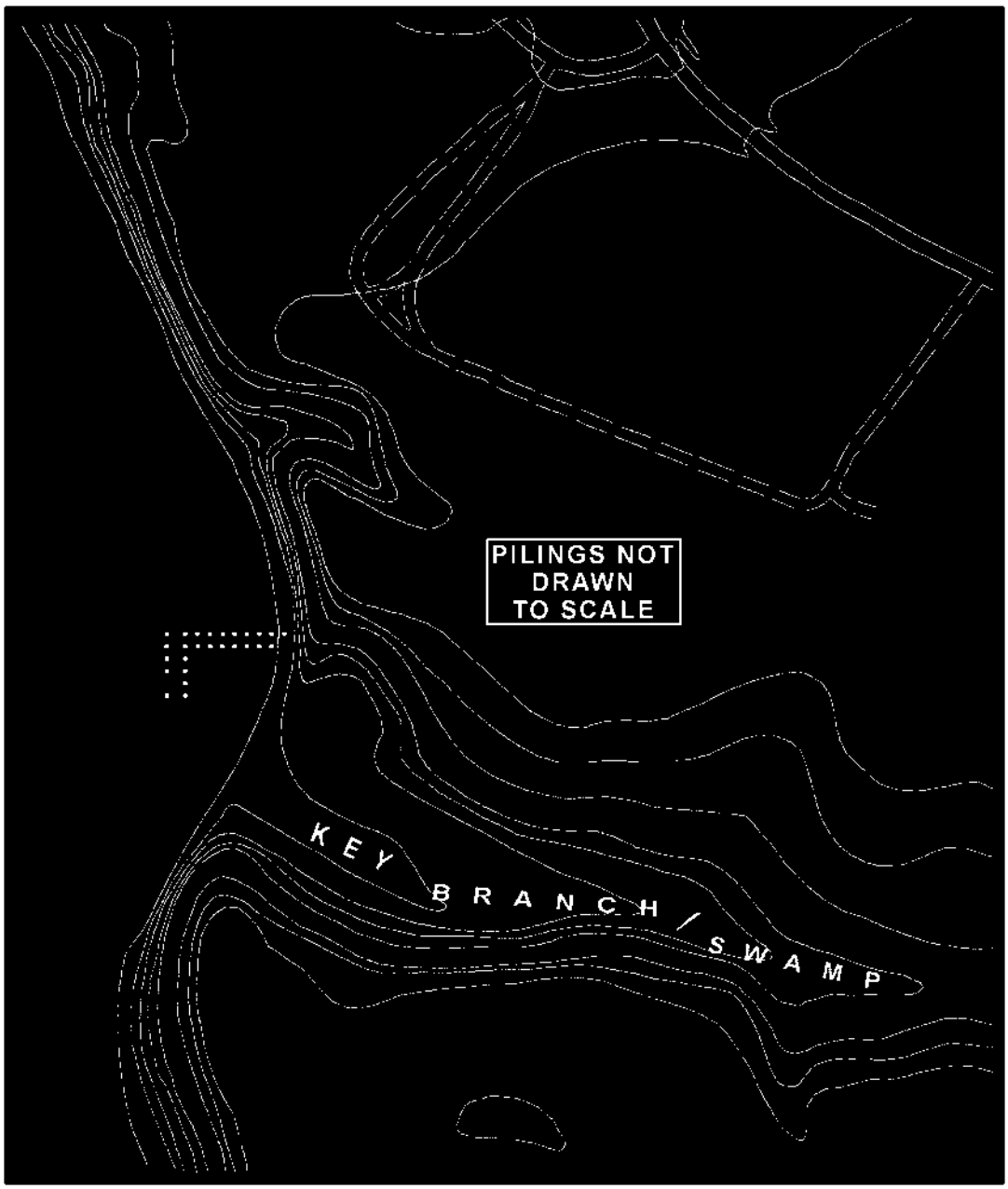
The pilings tops were seven feet apart. Seven feet


ST MARY'S
RIVER
ST JOHN'S
POND
MILL CREEK
FISHER ROAD
MATTAPANY
ROAD
MARYLAND ROUTE 5
ABSECROFT
0
600 ft
RIP RAP
25
25
25
25

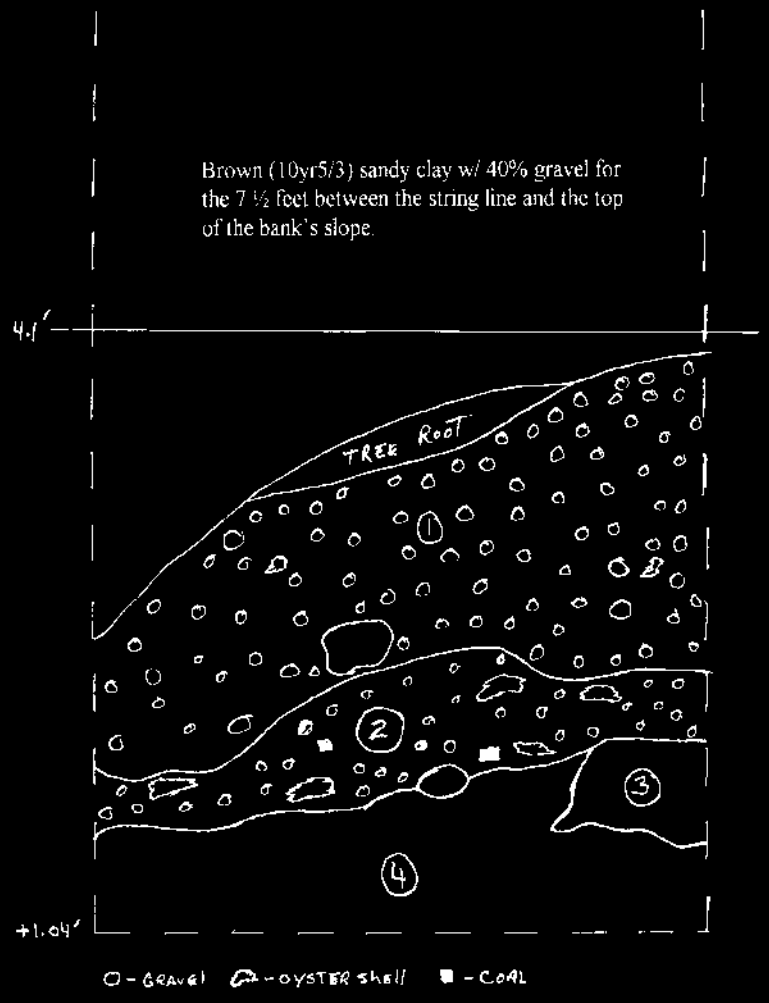
Map 22: Riprap areas on the St. Mary's City shoreline.

inshore of the eastern-most piling was another piling. During the weekend of July 13, 1997, a team of six people probed the area with iron rods searching for additional pilings. Using the seven foot interval between pilings as a guide, additional pilings were found. The piling locations were marked and recorded indicating the remains of a "L" shaped pier (Map 23). The only reference to a pier or wharf in this area was the Southern Maryland Railroad in 1887. The wharf's location posed two dilemmas. The shore end is at a twelve foot high bank, and the water depth at the river end is only four feet deep at low tide.

Discussion with Dr. Henry Miller about the bank height in relation to the pier prompted closer inspection of the bank's stratigraphy. In what initially appeared to be typical sand and gravel was an old topsoil layer near the bank's base. Later a stratigraphic profile was made of the bank's lower four feet (Figure 4). The old topsoil layer is a little over two feet above sea level; contained in that layer were oyster shells and anthracite coal debris. The ten feet of sand and gravel above the old topsoil layer are tailings, or spoil, a by-product of gravel mining operations from 1905 to 1909. It is unfortunate that the total effect of gravel mining operations on the landscape and river


PILINGS NOT
DRAWN
TO SCALE
KEY BRANCH / SWAMP

Map 23: Map of 1887 piling remains.



1- Brown (10yr5/3) sandy clay w/ 40% gravel and <1% oyster shell [gravel mine tailings].

2- Dark Brown (10yr3/3) sandy loam w/ 25% gravel, 1% oyster shell, and <1% coal { old top soil}

3-Strong brown (7.5yr5/8) sandy clay mottled w/ 10% brownish yellow (10yr6/6) sand.

4- Light greenish gray (2 Gley7/1BR) clay mottled w/ 50% brownish yellow (10yr5/8) clay { subsoil }

Figure 4: Soil Profile of bank behind 1887 pier remains.

bottom will probably never be known.

A large metal object was detected near the outer-most eastern piling of the railroad wharf. The large metal object was examined and found to be a stripped four cylinder engine block (engines are still used as anchors by many southern Maryland watermen). After digging around the engine block, a bottle with a broken neck was recovered below the engine block. The bottle's molded label indicated a Fred Bauernschmidt beer bottle used from 1905 to 1912, the same period sand and gravel were mined. [181]

The four foot water depth at the river end of the pier is deep enough for shallow draft barges and vessels, but would a wharf built at the end of a railroad spur only be equipped to service shallow draft vessels? There are no records indicating the 1880s water depth or whether any dredging occurred near the wharf.

A geological core sample was taken from the bottom at the end of the old wharf. The eight foot core sample revealed a soil profile not associated with natural accumulation indicating periodic filling. The core data

[181]Everett J. and Janice E. Ford, *Pre-Prohibition Beer Bottles and Breweries of Baltimore, Maryland* (Baltimore: E. J. Ford, 1974), 19.

suggest water depth off the wharf's river end was once at least eleven feet. The depth was probably caused by one of two possibilities either an ancestral ravine cut by Key Branch or dredging in connection with the railroad.

In 1996, I discovered a small boat buried under the sand at the low water line about 50 feet south of this wharf. The small boat measured ten feet seven inches, but the bow was missing, making its estimated length eleven feet three inches (Figure 5). The boat had no keel and its bottom planks were nailed directly to the sides and transom. The boat was fastened with machine cut nails identified by their holes as no metal remained. The boat's bottom slanted upwards at a 20 degree angle approximately two feet from the stern to the transom. The boat was eight inches deep.

The ballast pile (18 ST 647) found and examined in 1994 was reexamined and mapped during this project. Mapping was complicated by six to 12 inches of sediment over most of the pile (Figure 6). The ballast pile began in about six feet of water and extended in a southerly direction at least 41 feet to a ten foot depth. Heavy oyster shell prevented further examination of the deeper end. The ballast pile varied in width from three to 12 feet. The ballast pile was surveyed by a diver equipped with a metal detector and no

metal was found. The 1994 examination of the ballast

Figure 5: Small skiff buried at low tide level near Key Swamp, photo by author.

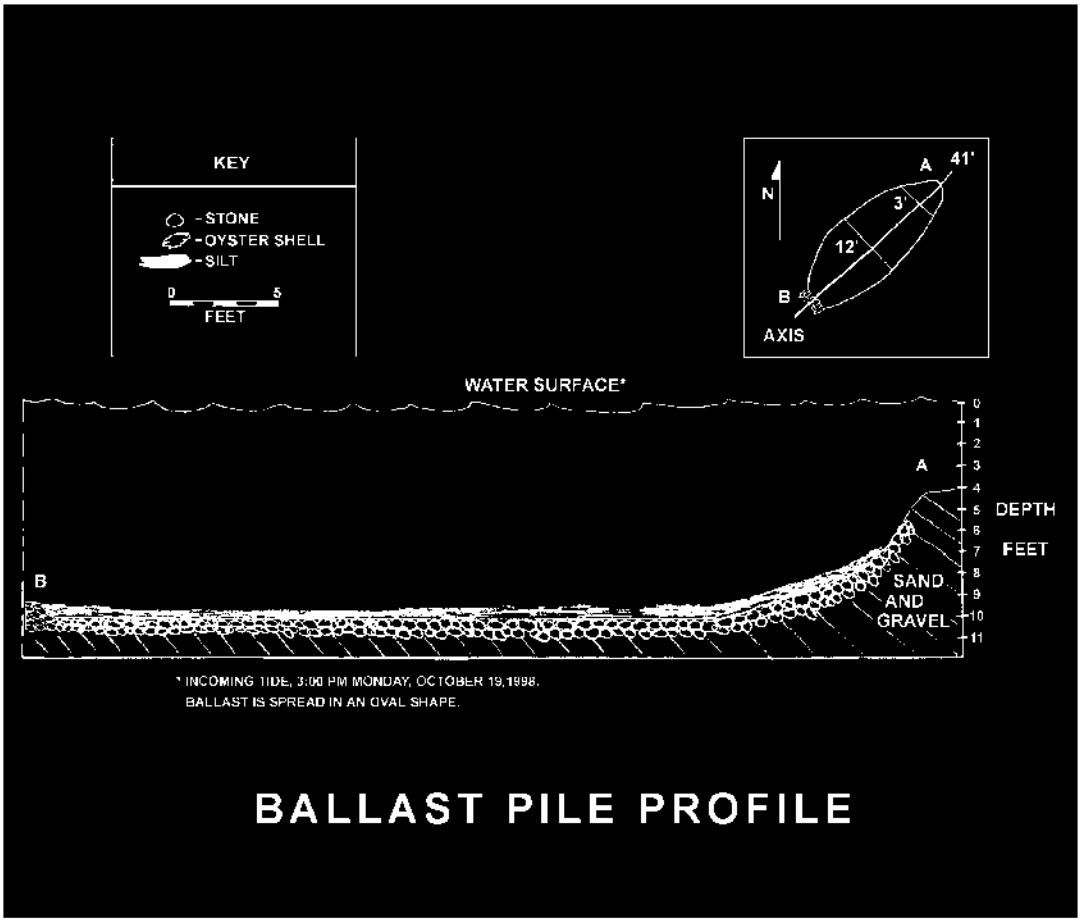

KEY
- STONE
- OYSTER SHELL
- SILT
0
5
FEET
N
A
41'
3'
12'
B
AXIS
WATER SURFACE*
A
B
DEPTH
FEET
SAND
AND
GRAVEL
0
1
2
3
4
5
6
7
8
9
10
11
* INCOMING TIDE, 3:00 PM MONDAY, OCTOBER 19,1998.
BALLAST IS SPREAD IN AN OVAL SHAPE.
BALLAST PILE PROFILE

Figure 6: Profile of the ballast pile (18 ST 647).

pile recovered three Dutch, red sugar bricks. These bricks were imported into St. Mary's City in the seventeenth century; although most imported Dutch bricks were yellow and used to line fireplaces. Samples of ballast stones were recovered and identified as European in origin.[182]

[182]Gerald Johnson identified stone samples at a meeting with the author on 29 August 1998.

The ballast pile suggests two possibilities either a ship off loading ballast and replacing it with cargo or the pile is all that remains of a ship abandoned in the seventeenth century. Ballast dumping concerned the early Maryland government. A 1664 act was passed forbidding ballast dumping in the water and providing fines for violators.[183] An abandoned vessel ballast pile has some validity. In 1668 Captain William Smith's probate inventory listed an old sloop with two old sets of sails, rigging, two grapnells and an anchor, and two old small boats.[184] Smith's inventory included the hull of an old sloop run up on shore at the cliffs.[185] Smith's town land, as explained in chapter one, was located on top of the bluff below which the ballast pile now rests.

The location of Smith's town land is important for understanding the layout of the old town center and the boundary between the Governors and Chapel fields. The south boundary of Smith's town land and part of the fields

[183]Maryland Archives, Liber W H and L, 28, Assembly Proceedings, September 1664

[184]Maryland Archives, TP 3, f, 127-59, ID No. 00156, probate inventory of the estate of Captain William Smith, 11 August 1668.

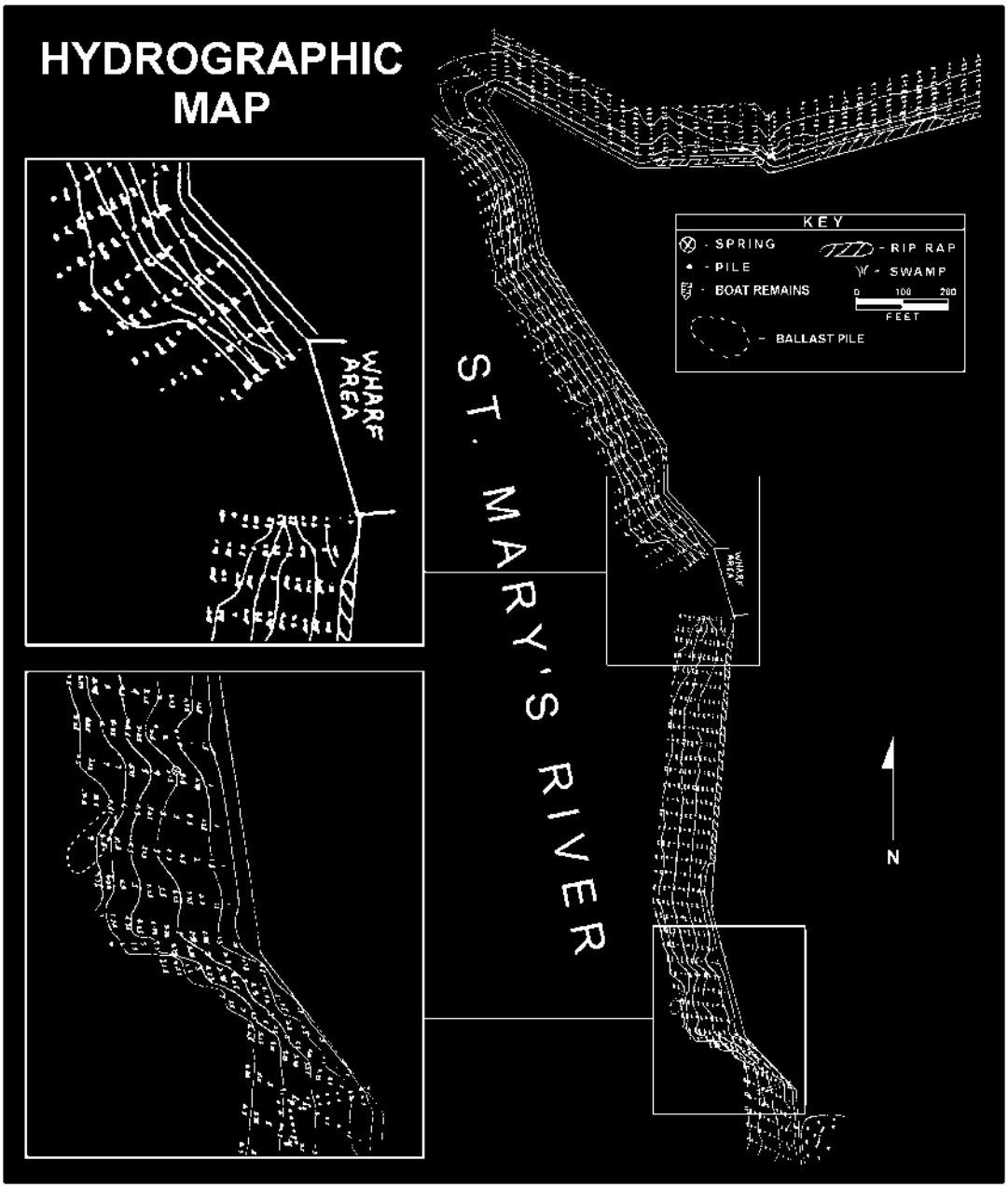
[185]*Ibid.*

boundary were the same. A marker used to identify the southwest corner of Smith's property was a spring on the shore of the St. Mary's River.[186] In the late 1980s, archaeologists and historians at St. Mary's speculated that spring might be one rumored to lie offshore.[187] Presently, there is a spring about 54 feet offshore at the head of a ravine that ends in nine feet of water about 100 feet offshore. The spring continues to flow and can be felt as noticeably cooler water. This spring and its accompanying ravine suggest it was the same one marking the boundary of Smith's town land. The direction and shape of the ravine can be seen on the hydrographic map produced during this project (Map 24).

The nineteenth century ship remains described in

[186]Archives of Maryland, Patents 10: 350-51, Lessor: Proprietor, Lessee: William Smith, September 25, 1666.

[187]Lois Green Carr, "Smith's Town Land History," manuscript on file Historic St. Mary's City, 1988, 10.


HYDROGRAPHIC MAP
WHARF AREA
KEY
- SPRING
- PILE
- BOAT REMAINS
- RIP RAP
- SWAMP
0 100 200
FEET
- BALLAST PILE
ST. MARY'S RIVER
N

Map 24: Hydrographic map of the St. Mary's City shoreline produced by the 1997 hydrographic survey.

chapter three were reexamined during this project. When Karell Archaeological Services investigated site (18ST 1-118), it was partially exposed and home to a variety of marine life.[188] Most of the vessel was covered with only the offshore side partially exposed.[189] The timbers were uncovered only to identify and map the site as a sunken vessel (Figure 7).[190] The site was recovered after inspection was completed to preserve it.[191]

In 1994, except for the absence of marine life, the site was largely as described by Koski-Karell. The wreck was occasionally visible at low tide from the deck of the *Dove*. In late 1995, Will Gates, Master of the *Dove,* noted that the wreck appeared visible at low tide, and more timbers were uncovered.

In 1997, the ship was reexamined but no excavations were conducted. A sketch map of the visible remains was made (Figure 8). The most noticeable change was the loss of vessel structure around the centerboard well and a sharp

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[188]Koski-Karell, "Investigation of a Sunken Vessel," 4.

[189]*Ibid.*

[190]*Ibid,* 6-9.

[191]*Ibid.*

drop from the keelson to the river bottom on the offshore

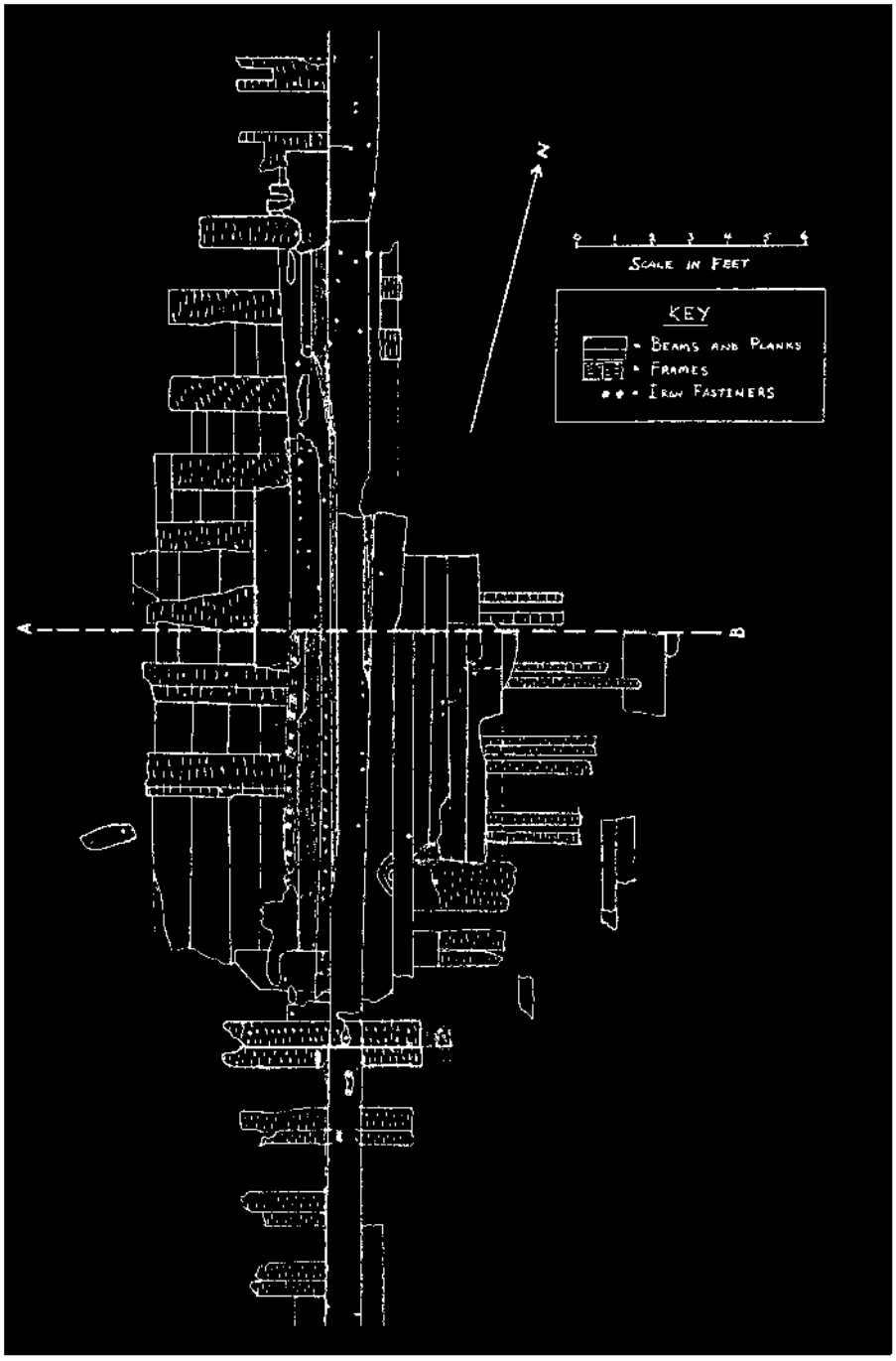

N
0 1 2 3 4 5 6
SCALE IN FEET
KEY
= BEAMS AND PLANKS
= FRAMES
= IRON FASTENERS
A
B

Figure 7: Planview of the nineteenth century shipwreck completed in 1983 (Courtesy of Daniel Koski-Karell and Historic St. Mary's City).

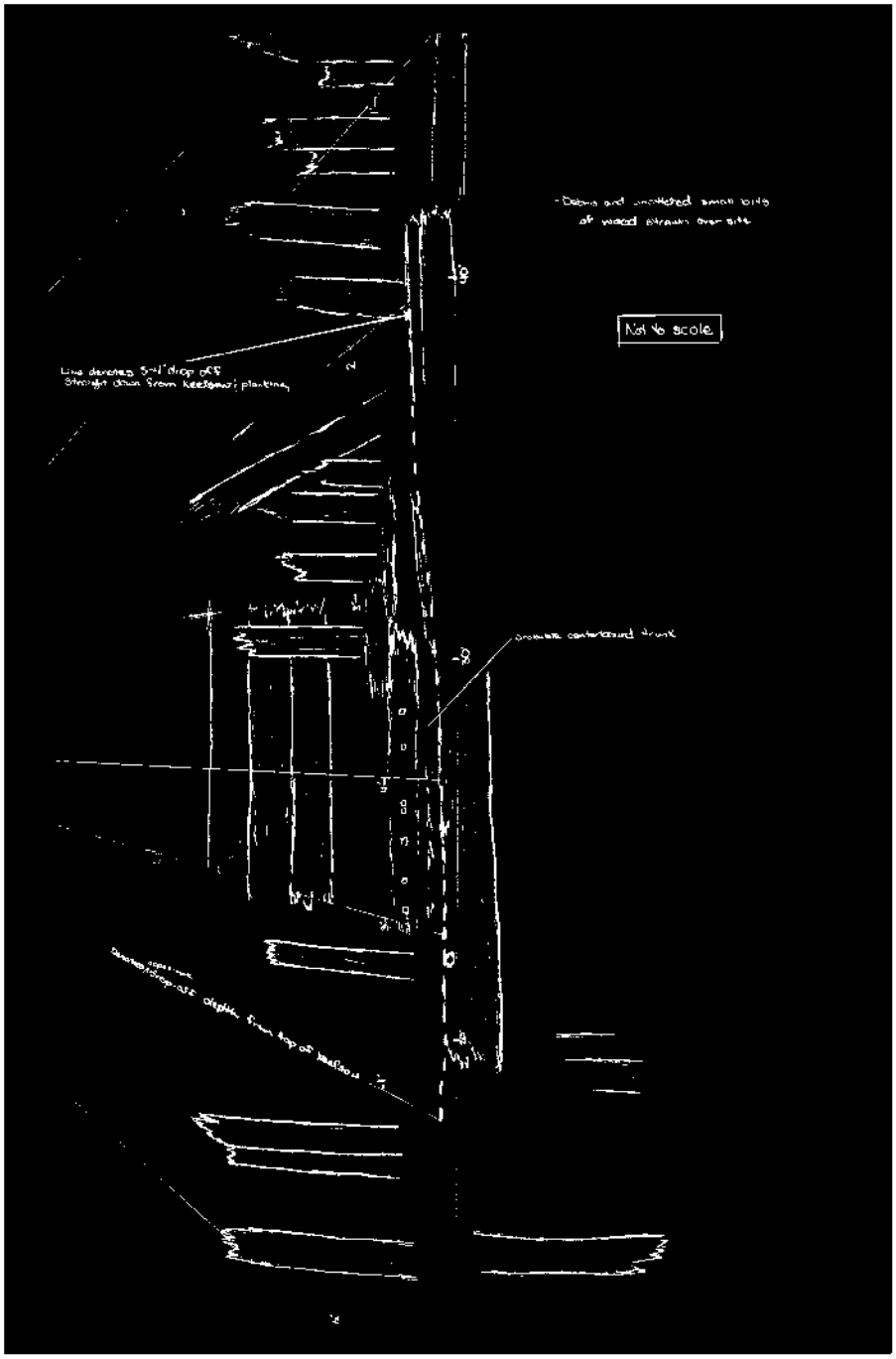

Not to scale

Figure 8: Planview sketch of nineteenth century shipwreck done in 1997 by Rod Linder and Cathy Fach (not to scale).

side. There was a three to four foot loss of sediment on the offshore side of the wreck.

Exposure and changes to the wreck and adjacent areas are probably due to changes in long-shore drift. After being stable for so long, what caused this change that is now exposing the vessel's remains? There was only one new feature on this area of St. Mary's shoreline since 1994. In 1995 riprap was installed to stabilize the shoreline south of Church Point below the Trinity Church cemetery.

The positive effects of riprap placement in a river environment such as the St. Mary's cannot be understated. Shoreline erosion was reduced and the immediate offshore bottom accumulated and held sediments making the near shore water level more shallow. The hydrographic survey showed that water depth was constant offshore of the riprap to a distance of 30 feet. Areas not covered by riprap had a half foot or more depth at 20 and 30 feet off shore. The core samples show about a half foot more sand and gravel sediment at 20 feet offshore of the riprap than unprotected beach areas.

Another change to the river bottom occurred less than 100 feet south of the wreck site. In the 1980s, the bottom south of the *Dove* dock was scoured about 30 feet off-shore

by a cruise ship with bow thrusters. The scour hole was over 15 feet deep and 25 feet across in 1994, but is now only about 11 feet deep.

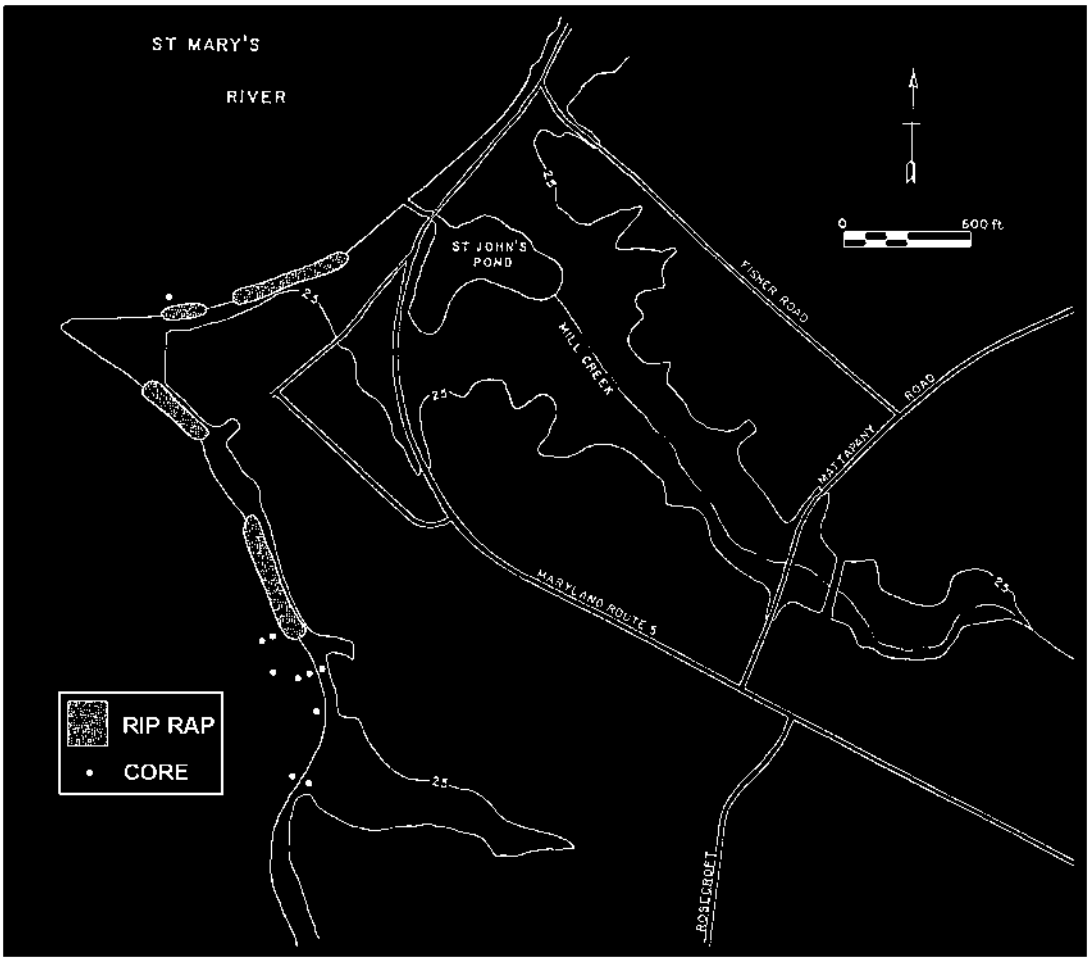
A total of ten geologic core samples were taken from the river bottom (Map 24). Sample locations were based on potential information that might be gained about bottom geology and sediment accumulations. Four core samples were taken about 20 and 60 feet off the south shore from an open beach area and off a riprap area to examine the sediment differences. Another sample was taken 20 feet off a riprap area on the north shore for comparison. Samples taken from 20 feet offshore in riprap areas, on both the north and the south sides, showed similar sediments and thickness. The sample taken off the unprotected shore had a sediment thickness about six inches less than the riprapped shoreline. Samples taken 60 feet offshore of both protected and unprotected shore showed similar sediments and thickness. Sample data reinforced information provided by the St. Mary's Soil Conservation District. The bottom off riprapped shoreline increases in thickness out to 30 feet, but shows no effect beyond 40 feet offshore.[192]

[192]Bruce Young, St. Mary's Soil Conservation District, telephone conservation with author, 14 October 1998.

A core sample taken from unprotected beach below the cliffs of Smith's Town land was intended to obtain a measurement of sand and gravel overlaying the marine clays of the St. Mary's formation. This information was needed so that sediment loss offshore could be estimated. A sample taken about 150 feet offshore from the beach sample was to provide information about the sediments in water twelve feet deep beyond a natural ridge.

Two core samples, one inside the beach perimeter and one 30 feet offshore, were taken south of Key Branch/Key Swamp. The density of the peat inside the beach and the lack of power in the vibracore allowed only a four foot core that did not reach the subsurface stratum. The offshore sample was over eleven feet thick. Sixteen inches of sand and gravel overlaid a five foot thick layer of peat, ten inches of coarse sand and gravel and a piece of wood. Another ten inches of sand and gravel under the wood rested on the St. Mary's formation.

The tenth core sample was taken from the end of the railroad wharf. The purpose of this core sample was to determine if water depth had been greater at some time in the past. The core sample was about eight feet long and showed a stratigraphy indicating that the water had been


ST MARY'S
RIVER
ST JOHN'S
POND
MILL CREEK
FISHER ROAD
MATTAPANY
ROAD
MARYLAND ROUTE 5
ROSECROFT
0
600 ft
RIP RAP
CORE
25

Map 25: Locations where the 1998 geological core samples were taken.

deeper but filled in incrementally.

Although limited in number and scope, the core samples proved valuable in studying the offshore areas of St. Mary's City. Archaeological and historical evidence combined with geological data were critical in determining St. Mary's City's seventeenth century shoreline. The core samples reinforced the effects of man on the environment both in the past and the present.

St. Mary's City's seventeenth century shoreline looked similar to its present one, only more of it. The exceptions were the mouth of Mill Creek, Key Swamp, and Brome/Howard wharf, *Dove* dock area. Nature, erosion, weather, and sea level rise, and man, through agriculture, construction, and mining caused the changes. Church Point is a sand spit changing over time and its precise shape in the seventeenth century remains unknown.

In the seventeenth century Mill Creek was an open embayment about 800 feet wide. Farming practices in the eighteenth century began filling in the creek, but road construction in the early nineteenth century almost closed off its mouth. Continued road changes and development by St. Mary's College in the twentieth century filled the creek to a point where its mouth is only a few feet wide. Today,

the unfilled part of the creek is St. John's Pond surrounded by St. Mary's College. The shore at Brome/Howard wharf and *Dove* dock is approximately the same position as it was in the seventeenth century. This shore was developed for commercial ventures by Brome in the 1840s and filling to enhance the area is indicated by maps and offshore data.

The northern shore has lost 70 to 140 feet to sea level rise and erosion since the seventeenth century. Riprap has reclaimed 20 to 30 feet of that loss. A two foot sea level rise combined with a loss of two to three feet of sediments from tides, currents, waves, wakes, and runoff account for the loss. The southwestern shoreline from Church Point to Key Swamp lost 50 to 100 feet of land except the wharf/dock area and areas protected by riprap. The southern end of St. Mary's City shoreline near Key Branch/Key Swamp is more confusing because of the past railroad and mining activities.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

St Mary's City's shoreline landscape has been altered since the seventeenth century by direct and indirect human activities in concert with natural forces. The seventeenth century colonists were concerned about the river and its shoreline because they were dependent on shipping for their survival and prosperity. Eighteenth century citizens cleared more land for expanding agricultural endeavors, including the growing use of plowed fields for grain crops. Plowed fields and loss of ground cover meant increased erosion. The nineteenth century, with its steam powered boats, produced wakes/waves that rolled onto the beaches even on calm days. Wake affects on shoreline erosion increased with the proliferation of power boats throughout the twentieth-century.

Erosion and sea level rise reduced and changed the shoreline, but filling marsh and low areas along with wharf construction and gravel mining produced greater changes to the shoreline. Change is inevitable, but the St. Mary's City shoreline outline has remained constant since the seventeenth century with only two exceptions. The shoreline lost beach to the river over the centuries except in the

area of Mill Creek's mouth and the Brome/Howard wharves-*Dove* dock area.

The seventeenth century shoreline around the mouth of Mill Creek was examined and its boundaries determined by several earlier investigations. Today, St. John's Pond is the remnant of seventeenth century Mill Creek's mouth into the St. Mary's River. Alterations to Mill Creek began soon after the English colonists arrived when a mill dam was built across the creek.

Contemporary maps showing Mill Creek's mouth give evidence of its change to St. John's Pond before the nineteenth century. The 1787 Jesse Locke plat map of 1787 show a open embayment at the mouth of Mill Creek, but the 1800 map of the St. Mary's River and 1818 Bache map indicate only a narrow opening. These maps do not show the area road system, but the most likely reason for the narrowing of mill Creek was for the road. Maps from 1824 and the 1850s either do not show Mill Creek or illustrate it as a minor stream but all show the road across the creek's mouth.

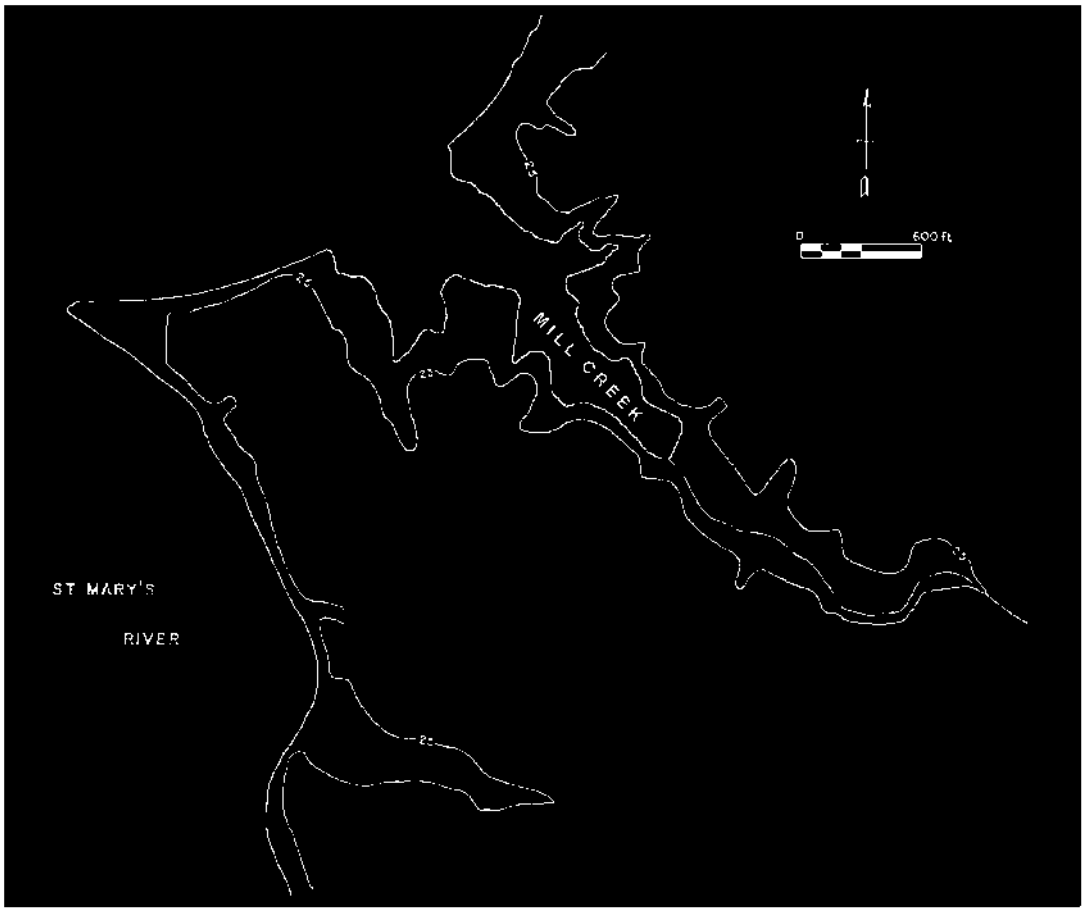
By the early 1800s, a road crossed the mouth of the Mill Creek on fill and/or a small bridge. The same road exists today as Maryland Route Five, the major north/south route through St. Mary's County. Most road changes since

1800 resulted in increased filling at the mouth of Mill Creek. The old mouth of Mill Creek, now commonly called St. John's Pond, is a stream that can be stepped over at low tide.

There have been several studies of the landscape and archaeology around St. John's Pond.[193] Expansion of St. Mary's College in the latter half of the twentieth-century account for much change. Archaeological resources, investigations of college building and landscape changes only became important at the end of the 1960s. Most archaeological investigations of Mill Creek's mouth took place since 1980.

The Kraft/Brush investigation and report from 1981 determined the boundaries of seventeenth century Mill Creek (Map 26). Archaeological research by Historic St. Mary's City supported Kraft and Brush's interpretations. The Mill Field and Gallows Green surveys, combined with monitoring of

[193]Kraft and Brush, "A Geological-Paleoenvironmental Analysis at St. Mary's City, Maryland. Edward Chaney and Henry M. Miller, "Archaeological Reconnaissance and Testing at the Gallows Green Site (18 ST1-112)" (manuscript on file Historic St. Mary's City, Maryland, 1989). Ruth Mitchell and Henry M. Miller, "A Phase I Archaeological Survey of Portions of the St. Mary's College of Maryland Campus in St. Mary's City, Maryland" (manuscript on file Historic St. Mary's City, Maryland, 1996). Thompson, *A Phase I Survey for Submerged Archaeological Resources*.


MILL CREEK
ST MARY'S
RIVER
0
600 ft

Map 26: Seventeenth century shoreline of the mouth of Mill Creek and the St. Mary's River (Courtesy of Historic St. Mary's City, Maryland, John C. Kraft, and Grace S. Brush from "A Geological-Paleoenvironmental Analysis of the Sediments in St. John's Pond and the Nearshore Zone Near Howard's Wharf at St. Mary's City, Maryland," 24).

college construction projects, elaborated on Kraft and Brush's Mill Creek shoreline projections.[194]

More recent archaeological surveys along Maryland Route Five, St. John's Pond, and the college boat house area demonstrate extensive filling. Shovel test surveys confirm filling of Mill Creek's mouth up to five feet in depth with brick debris serving as much of the fill. Heavy debris was excavated behind the college boat house. Filling rather than eroding Mill Creek's shore determined its twentieth-century appearance. In the seventeenth century Mill Creek's open embayment would have been conducive to its use as the city's northern landing. Erosion causing its depth to shallow in the eighteenth century and the demise of the town that used the landing led to its filling for a more valuable road. The shoreline had other good landing spots.

Filling, rather than erosion also explains the shoreline around the Brome/Howard's wharves and the *Dove* dock. Maps from 1800 and 1818, in particular, indicate a shoreline indentation at the ravine that became the 1840 road to Brome's wharf. Maps from the 1850s and later show a bulge in this area.

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[194]Kraft and Brush, "A Geological-Paleoenvironmental Analysis at St. Mary's City, Maryland," 17.

Kraft and Brush reported that core samples off Howard's wharf showed only one foot of modern sediment; therefore, finding any large artifacts was unlikely.[195] It was explained earlier that their core samples were about ten feet out from the nineteenth century vessel remains buried under sediment. Changes in long shore currents since 1994 uncovered the buried vessel revealing a thick sediment layer. About three to four feet of sediment was removed from the offshore side of the wreck. Sediment loss from long-shore drift usually does not affect the bottom over 40 feet offshore. The wreck's offshore side is 40 to 50 feet from shore and core samples show an expected less than two foot sediment depth. At the wreck's centerboard well, the water is about five feet deep. Depth drops to eight feet past the keelson due to scouring and is over twelve feet deep where Kraft and Brush took their core. These depth changes represent evidence of an uncommonly steep slope and an unusual sediment thickness.

[195]Kraft and Brush, "A Geological-Paleoenvironmental Analysis," 14.

Archaeological evidence, such as the wreck's location and restraining piles suggest the vessel was deliberately drawn into shallow water.[196] The long axis of the wreck and the pilings on the offshore side suggest it acted as a bulkhead or crib to inhibit erosion. Two longtime residents reported the wreck has not been seen since to 1920.[197] Koski-Karell also noted that the river bottom drops off quickly to a depth of 18 feet at the wreck's offshore side.[198] This sudden change points to a man-made alteration to the shoreline.

The slope steepness in the wharf area can be observed in the 1997 hydrographic survey. The 150 feet, south of the Dove Dock to Brome's Wharf, was not surveyed because of known bottom disturbances. Water immediately north of this unrecorded area is six feet deep about 50 feet offshore, reaching a ten feet depth at 70 feet and 14 feet at 120 feet. Slope steepness extends northward gradually changing to a more shallow near shore with only nine to ten foot

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[196]Koski-Karell, "Investigation of a Sunken Vessel," 4.

[197]David Hamett interviewed by telephone 15 October 1998, and J. Spence Howard interviewed by telephone 16 October 1998.

[198]Koski-Karell, "Investigation of a Sunken vessel," 4.

depth 120 feet offshore. One hundred and twenty feet south of the Dove Dock, the river bottom slope is quite different. The six foot depth mark is 100 or more feet offshore. At the wharf/dock area, water is twelve feet deep about 60 feet offshore suggesting an unnatural slope.

The six and 18 foot depth marks are significant when compared to the 1908 Natural Oyster Bar map. The six foot depth line around the St. Mary's City shoreline maintains a fairly uniform distance offshore except at Brome's wharf where it is deeper much closer to shore.

An additional abnormality about the wharf area is beach width. Along the St. Mary's City shoreline the beach is only ten feet wide from the cliff to the water line except where modern riprap has extended it. The beach from the wharf road *to the Dove* dock is 50 feet or more wide. Brome's wharf and its road were constructed in 1840, so it is probable that filling and/or shoreline erosion control began about that time.

No terrestrial archaeology documents filling on the wharf beach. Future test excavations along the wharf beach might help explain the wide beach. Additional testing in shallow water may also produce information about filling and, possibly, artifacts. Present indications suggest the

seventeenth century shoreline is buried under the existing beach.

Church Point is a typical sand spit which changed shape over time as a result of river movement, but its basic mass has been the same for the last several hundred years.[199] The 1994 river survey conducted by the Maryland State Archaeologist reported scattered possible ballast stones on the southern side of the point indicating possible ship-related activities.[200] Church Point is owned by Trinity Church and no archaeological surveys or investigations have been conducted here. Hopefully archaeological investigations will be done here in the future, but the offshore area around the point should be monitored as the river will continue to alter its shape.

The shoreline from the Dove Dock to Key Branch/Key Swamp offers a great deal of information. Questions about the seventeenth century shoreline here can be answered through analysis of geological core samples (stratigraphy) and the location of archaeological sites. Worldwide sea

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[199]Kraft and Brush, "A Geological-Paleoenvironmental Analysis," 17.

[200]Thompson, *Phase I Survey for Submerged Archaeological Resources*, 22.

level has been rising slowly for thousands of years, but rise varies in localized regions due to geologic

forces.[201] Estimated Chesapeake sea level rise from the seventeenth century to the end of the nineteenth century was a little more than one foot.[202] In the Chesapeake there has been a one foot sea level rise in the last century.[203] Sea level rise in the St. Mary's River since 1634 is probably a little over two feet based on a five inch rise per century until it jumped to a 14 inch rise in the last century.[204]

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[201]Stephen P. Leatherman, Ruth Chalfont, Edward C. Pendleton, Tamara L. McCandless, and Steve Funderburk, *Vanishing Lands, Sea Level, Society, and Chesapeake Bay* (Annapolis, MD: U. S. Department of the Interior, 1995), 4-9. Kraft and Brush, "A Geological-Paleoenvironmental Analysis," 11-13.

[202]*Ibid.*

[203]*Ibid.*

[204]*Ibid.*

South of the *Dove* dock, a geological feature in the river bottom, 110 feet offshore, parallels the shoreline until it disappears north of Key Branch/Key Swamp. The geological feature, a drop off, is a sudden water depth change from six feet to eight feet within 15 foot linear span. The drop off, from six to eight feet water depth that parallels the shore, relates to that time frame preceding the seventeenth century, when sea level rise and beach erosion rates are considered. At 110 feet offshore, the submerged ravine cut by Smith's Town land spring levels out on the river bottom. A spring can not erode a ravine underwater. Knowing the water depth at the spring mouth, the spring probably cut the ravine between two and three thousand years ago.[205]

The ballast pile extends at least 41 feet into ten feet depth adding to a conclusion that the drop off predates the seventeenth century. The ballast pile, whether it is the remains of a ship, or simply off-loaded ballast, marks the

[205]Sea level rise over the last 5000 years has been approximately three feet per thousand years, but there was an acceleration in the past 100 years. (Stephen P. Leatherman, Ruth Chalfont, Edward C. Pendleton, Tamara L. McCandless, and Steve Funderburk, *Vanishing Lands*, 4-9. Kraft and Brush, "A Geological-Paleoenvironmental Analysis," 11-13).

maximum extent of the seventeenth century shoreline. A seventeenth century date for the ballast pile is indicated by where the stones are located, that sample stones are European and Dutch bricks are included. Further examination of the ballast pile site is warranted so that a more definitive statement can be made as to its origin.

A core sample taken from the beach below Smith's Town land is a baseline. A comparison can be made with cores from 20, 60, and 150 feet offshore of the beach. Sand and gravel movement, as verified by the core samples, suggests that little if any heavy sediment movement occurred beyond 40 feet offshore. There has been a two to three foot sediment loss from near shore erosion. Sediment loss is based on core sample data. An accumulation of silt and oyster shells occurs at the deeper depths, beyond 60 feet offshore, because it is not readily affected by long shore-drift or surface action.

The loss of sediment, two to three feet, and rise of sea level, about two feet, indicate the seventeenth century shoreline south of the *Dove* dock was 40 to 50 feet offshore from the present shoreline. Moving south away from the dock area, the seventeenth century shoreline was 60 to 70 feet offshore, but drew in closer, about 50 feet, north of the

submerged spring ravine. South of the ravine, the seventeenth century shoreline was 70 to 80 feet offshore. Again it came in where the Key Branch ancestral valley cut through to the river.

The shoreline from Key Branch/Key Swamp eastward to the cliffs was heavily altered in the nineteenth and twentieth centuries. The northern side of Key Branch/Key Swamp was altered in the 1880s for railroad beds and construction of a wharf. The area was further changed by mining sand and gravel in the first decade of the twentieth-century. Just east of the swamp area, where the railroad wharf pilings are located, the core sample was different and indicated some type of filling. Additional core samples are needed here before any accurate explanation can be given.

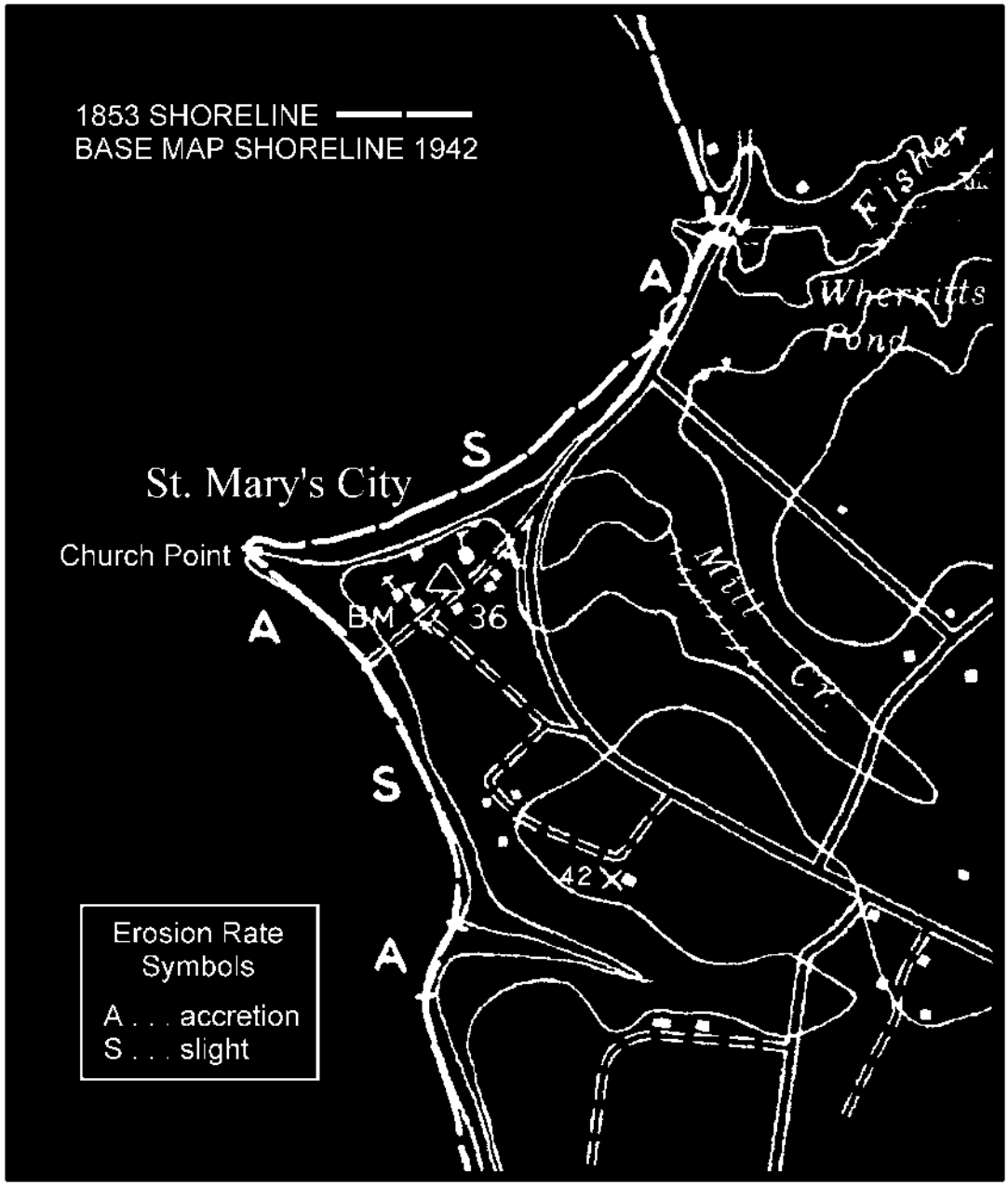
Geological core samples obtained off Key Branch/Key Swamp answered questions about the extent of the swamp in the seventeenth century. The core sample taken 30 feet offshore showed the ancestral stream valley was eight feet below the current river bottom. Only one core sample was taken here so the affects of submersion on peat in a swamp environment and its erosion factor are unknown. Based on water depth and 16 inches of sand and gravel above the peat, Key Swamp probably extended about 50 feet farther into the

river in the seventeenth century. Additional geological core samples would present a much clearer picture as would Carbon-14 dating and a pollen analysis of the peat.

The Maryland Geological Survey produced Historic Shorelines and Erosion Rate maps of the Chesapeake Bay in 1975 (Map 27). The St. Mary's Quandrangle compared the 1853 shoreline with the 1943 shoreline, illustrating a very slight loss on the southern shoreline. The northern shore suffered a more substantial loss because it was subjected to more activity from Trinity Church and St. Mary's College. Today, the northern shoreline is almost encased with riprap. Unlike the southern shore, there is no underwater drop off or archaeological site to aid in identifying the seventeenth century configuration. The 1975 Historic Shoreline map indicates less than 200 feet of loss between 1853 and 1943, but the bulkhead and riprap, installed after 1946, have reclaimed some of the loss. Water depths recorded by the hydrographic survey suggest the seventeenth century shoreline here was perhaps 90 to 100 feet off the present shoreline's western end. The shoreline loss decreases to about 50 feet to the east approaching the college pier. The college boat house and pier would have been in the mouth of Mill Creek in the seventeenth century. Shoreline

projections here are based on the two foot sea level rise and a two to three foot sediment loss. Bulkhead and ripraping reclaimed about 20 to 30 feet, so the seventeenth century shoreline was probably 100 feet offshore. A systematic core sampling would better define the northern shoreline as would discovery of archaeological features relating to the seventeenth century.

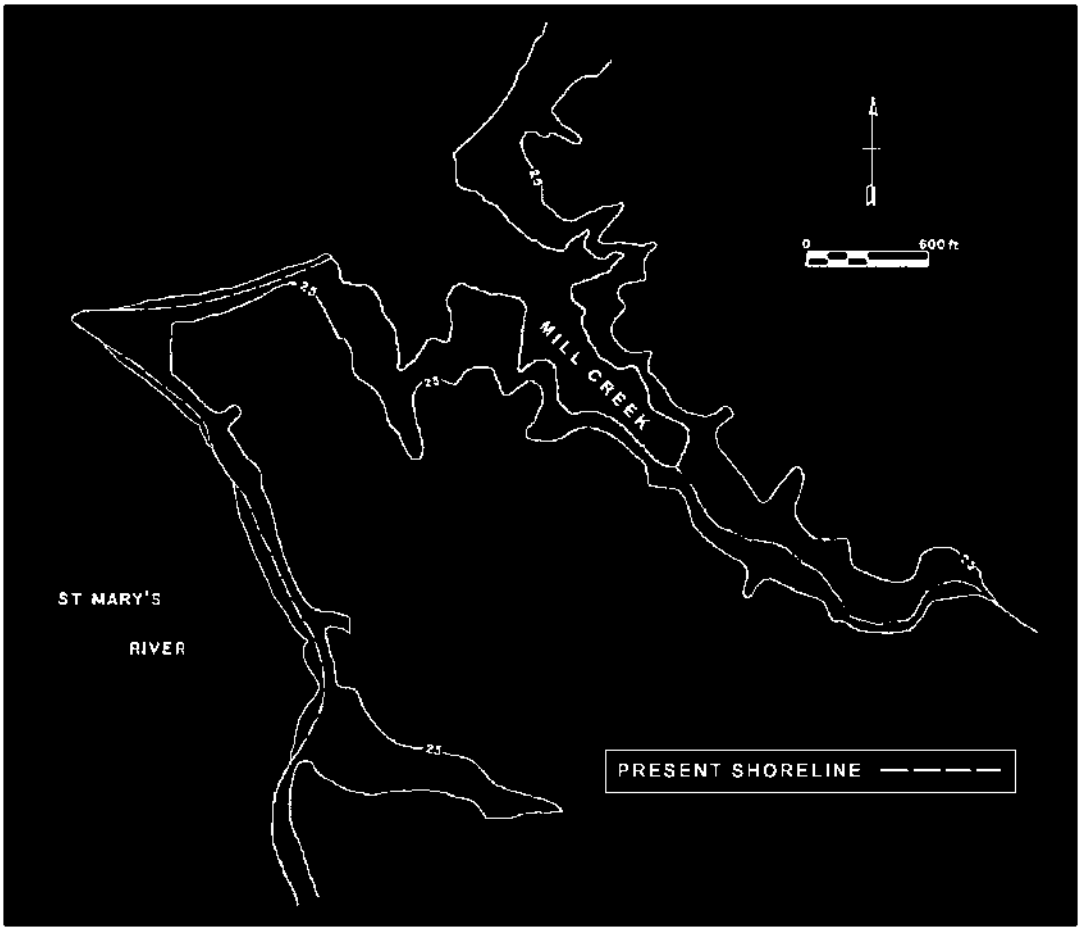
The seventeenth century shoreline of St. Mary's City looked similar to the twentieth-century, except there was


1853 SHORELINE
BASE MAP SHORELINE 1942
Fisher
Wherritts Pond
A
S
St. Mary's City
Church Point
A
BM
36
Mill Cr.
S
42
A
Erosion Rate Symbols
A . . . accretion
S . . . slight

Map 27: Portion of the Historic Shorelines and Erosion Rates map of 1975, St. Mary's Quadrangle (Courtesy of the Maryland Geological Survey).

more of it (Map 28). The seventeenth century shoreline map was produced using documentary and field research to reach conclusions based on erosion and filling episodes. A more definitive map will be produced in the future after

additional core samples, a sub-bottom profile survey and examination of features located by this project.


MILL CREEK
ST MARY'S
RIVER
0
600 ft
PRESENT SHORELINE

Map 28: Seventeenth century shoreline of St. Mary's City.

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