

# Chapter 5

## A Ship Graveyard at City Point, Virginia

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**Abstract** The James River region of Virginia has one of the longest recorded histories in the United States. The area near City Point was colonized in 1613 and is still used as an industrial center. This rich history, coupled with the number of exposed wrecks, led to a side scan sonar and photographic survey that was conducted east of City Point. The goal of the City Point Shipwreck Survey was limited in scope: determine the number of wrecks within the survey area and identify vessel types and dates, if possible. The results of the survey identified 42 wrecks that have been divided into five classifications: rectangular barges or ferries, a tugboat, combination barges, ocean-going vessels, and vessels of unknown type. Historical research indicates that some of these wrecks were likely abandoned after two specific events: the Civil War and the First World War. The number and diversity of wrecks and their methods of abandonment provide a unique resource for archaeologists, while the survey provides a starting point for future archival and archaeological research. These ships represent important elements of trade and transportation from a variety of periods in the history of City Point, Virginia, and the United States.

### Introduction

As a waterway with one of the richest histories in North America, the James River has long been considered an area of high archaeological and historical importance. The project area was inhabited by Europeans as early as 1613 and is still used as an industrial center. Centuries of human habitation have left an abundant archaeological record, both above and below the water. While this project is in its initial stages, ongoing historical research provides a context for the types of archaeological resources present in the area and is used to interpret the modest fieldwork that has been conducted thus far. Environmental, political, and economic events in the history of the United States have contributed to the levels and patterns of ship abandonment in the James River. Those historical incidents have a direct impact on the trends

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of commercial activity in the river, which, in turn, have placed their mark in the archaeological record in the form of higher proportions of vessel abandonments and shipwrecks. Natural disasters sank ships in this region while the Civil War and First World War both had direct impacts on City Point and its maritime commerce. This research has identified a number of specific vessels wrecked or abandoned in the project area, and an increase in maritime activity over the course of four centuries increases the likelihood of vessels from certain time periods being deposited in the vicinity of City Point. The historical record provides a solid foundation for the continuing archaeological field activities at City Point and provides the primary avenue for vessel identification.

Submerged archaeological sites in the vicinity continue to be jeopardized by human activities. Both looting and regular dredging of the ship channel present dangers to the preservation of the shipwrecks in the river (Foster 1992, p. 58). Among a list of threatened James River sites, Kevin Foster includes the sites of the CSS *Florida* and USS *Cumberland* at Hampton Roads; the Civil War-era shipwrecks, obstructions, and fortifications at Drewry's Bluff; and the City Point docks and anchorage. Aerial photographs show a variety of shipwrecks exposed at low tide. Foster describes “[s]idewheel ferries, three-mast schooners, and at least one large wooden ship or bark” in the area (Foster 1992, p. 66). He also identified pilings surrounding one group of wrecks, a type of placement assurance strategy used to keep the vessels from drifting (see Richards 2002, pp. 366, 367; 2008 p. 23, pp. 170–172).

Due to the extensive history of the area and the number of wrecks visible above the water surface, a remote-sensing and photographic survey was conducted on the tidal flats east of City Point. The goal of this survey was limited in scope: determine the number of wrecks in the survey area and identify vessel types and dates in conjunction with the historical record. The number and diversity of wrecks and their methods of abandonment provide a unique resource for archaeologists and the Commonwealth of Virginia, and this survey provides a starting point for future archival and archaeological research. This chapter will present both a history of City Point and the results of a two day remote-sensing survey which lay the groundwork for future research activities.

## Historical Background

Following the establishment of Jamestown in 1606, the area at the confluence of the James and Appomattox Rivers was colonized by the English in 1613 when Sir Thomas Dale established the settlement of Bermuda Hundred (Hagemann 1988, p. 21; Horning 2004, pp. 34–35; Tyler 1900, pp. 130–131). The settlement, located on the James River immediately north of the Appomattox River, was named as a testament to the time Dale spent on the Bermuda Islands after being shipwrecked while on the English ship *Sea Venture* (Tyler 1900, pp. 130, 131).

Colonists began to settle in the area to the south of the Appomattox River shortly after the establishment of Bermuda Hundred. This settlement was called Bermuda City (Tyler 1900, p. 130). Bermuda City was soon renamed Charles City in honor of Prince Charles (later Charles I) and was designated as one of four principal cities when the colony was divided into four corporations. The location was selected for several key reasons including a defensible promontory, fertile soil, and a deep anchorage in the James River—a quality which made City Point an important entrepôt throughout its history. The initial settlers experienced numerous difficulties. They received little food and clothing from the Virginia Company, leading to such a sad state of affairs that by 1619 the settlement was reduced to only six decaying houses (Horning 2004, p. 36). Both settlements were destroyed in the 1622 Powhatan Uprising.

In 1635, the lands at City Point were granted to Captain Francis Eppes. Although no primary documentation exists, tradition suggests he arrived with his brother, Peter, in 1622 in the ship *Hopewell*. Francis Eppes acquired 34 headrights by financing passage for himself, his three sons, and thirty servants to Virginia, in return receiving a patent incorporating 1,700 acres. In 1653, he claimed an additional 280 acres and by his death in 1674, owned 1,980 acres on the south side of the James River and 572 acres on what is still known as Eppes Island (Horning 2004, pp. 44, 45).

In 1691, an act was passed “appointing certain limited ports, Wharfes, keys, and places for laying on shoar and loading on board all goods, tobacco and other merchandises, to be exported out of, and imported into, this their majesties dominion of Virginia” (Hening 1823, p. 54). The official port for Charles City [sic] County was Flower de Hundred (Flowerdew Hundred), downstream from City Point. This Act for Ports, &c. was suspended in 1693, but reinstated in 1705, again naming Flower de Hundred an official port on the James River, suggesting that City Point had not reached the prominence it would attain in the mid-nineteenth century (Hening 1823, p. 415).

## The Eighteenth Century

In 1702, Charles City County was split with those lands south of the James River becoming Prince George County. That same year, three ferries were established in Prince George County: one upstream from City Point on the Appomattox River and two downstream from City Point on the James River. In 1731, Bermuda Hundred was established as an official tobacco inspection station (Watts 1998, p. 21). The following year, another ferry was established from “City Point to Shirley Hundred at the Ship Landing.” The act establishing the ferry was repealed in 1770 when Richard Eppes, the owner of a large plantation at City Point, complained that the ferry was not convenient to the public and was long disused (Kennedy 1906, p. 6). These abandoned ferries could be in the collection of shipwrecks in the tidal flats in the survey area. City Point continued to serve as a port and important landmark, and in 1755 “An Act for establishing Pilots, and regulating their fees” established a pilot rate of 7 shillings per feet of water drawn by a vessel’s hull (Hening 1819, p. 492).

Commerce through this area eventually came from further up the river. As the population of Virginia increased in the eighteenth century, planters began to move westward above the fall line of the James River. Part of this movement was the establishment of the town of Stockoe, later Richmond (Watts 1998, pp. 21, 22). The General Assembly provided for a tobacco inspection warehouse at the falls of the James River as part of the Tobacco Inspection Act of 1730. William Byrd, who owned the property on which the warehouse was established, laid the foundations for Richmond on the east side of the river in 1733. Richmond quickly grew as a transshipment site for both tobacco and flour. These goods were shipped on shallow draft vessels designed to navigate the river, eventually leading to the development of a vernacular watercraft style known as the *bateau*. Once the goods arrived at Richmond, they were transferred to ocean-going vessels for shipment both downstream and overseas.

Maritime commerce at City Point in the latter half of the eighteenth century is documented by several newspaper articles and advertisements. An August 21, 1756 announcement stated that a servant man by the name of Michael Discoll “[ran] away from on Board the *Carlisle*, lying at City-Point, on James-River” (Virginia Gazette [VG] 1756). A newspaper from May 30, 1771 detailed a great flood that swept the James River, reporting that at Richmond the river rose at a rate of two inches an hour (VG 1771). Large trees were carried down the river in the swift current, endangering ships. Vessels at Shirley Plantation were swept over to City Point, and those at City Point were driven down to Jordan Point. At least one vessel went ashore at City Point, another lost three anchors, and a third “was driven so far on Shore that it is feared she will not be got off again” (VG 1771). Another advertisement from the April 2, 1772 issue of the *Virginia Gazette* states that the ship *Industry*, bound for London, was lying at City Point and was taking tobacco on consignment and provided accommodations for passengers (Lowes 1772). A year later, the ship *Jenny* arrived at City Point from Limerick, Ireland, with 70 indentured servants who would be redeemed upon the payment of their passage (VG 1773).

The Revolutionary War touched City Point only briefly. During the Virginia Campaign of 1781, British forces under the command of Brigadier General Benedict Arnold twice sailed up the James River in an effort to control strategic locations in Virginia. In January, when Arnold led a mission from Westover to Richmond, militia led by Colonel John Banister forced British ships following the expedition to retreat from the Appomattox River (Horning 2004, p. 85). When the British passed City Point, American forces fired on the vessels. Accounts from an ordnance officer indicate that 60 pieces of shot were fired in the engagement (Watts et al. 2010, p. 16).

On April 24, 1781, British forces used City Point as a landing for both supplies and men (Arnold 1932, p. 187). After destroying thousands of hogsheads of tobacco, a ship, and a number of vessels on the stocks at Petersburg, General William Phillips and General Arnold divided forces. Phillips raided Chesterfield Courthouse and Arnold marched to Osborn’s landing, up the Appomattox River from City Point. There, Arnold engaged a fleet of ships. British forces captured two ships, three brigantines, five sloops, and two schooners. In addition, four ships, five brigantines, and a number of other vessels were burnt and sunk (Arnold 1932, p. 188).

Development at City Point in the eighteenth century appears to be minimal and its society less than desirable. Archaeological testing along the waterfront identified a warehouse structure which contained a variety of eighteenth-century material (Horning 2004, p. 85). A letter from Christopher Roane in 1787, a Searcher responsible for searching ships, describes City Point as a rough and dangerous place. While addressing his pay, he states that he expected his salary to be at least £ 40 more than the previous year, “as the trouble and fatigue is greatly increast [sic]” (Palmer 1884, p. 247). He goes on to state that once in trouble, “it will be too late to apply to a magistrate after we get our brains beate [sic] out or nock [sic] over board. I can venture to say that two-thirds of the people is [sic] as much alarm’d at a parcel of drunken sailors as they wou’d be at so many devils” (Palmer 1884, p. 247). He also describes the condition of the town itself. At the time, there were four houses and two rum shops.

As Roane was attempting to procure a raise for himself, and likely exaggerating his case for that end, he paints a picture of a bleak and rough social atmosphere and a place offering little more than scant accommodations for seamen. Despite that perception, numerous vessels offloaded their freight there in 1787. In a letter dated August 7th, Roane reports to Governor Randolph, “[a]t the port of City Point there has been about sixty-five vessels discharged their cargoes the last Quarter at that place” (Palmer 1884, p. 329).

## The Nineteenth Century

The nineteenth century marked the transition of City Point from a rough landing with minimal accommodations to a bustling port. As the nascent Federal government began to establish an infrastructure in the late-eighteenth century, City Point attracted the interest of both the postal service and customs inspection. While those two entities were initially established at Bermuda Hundred, the office of the collector of customs moved to City Point in 1797 (Watts et al. 2010, p. 16). The post office soon followed, and after it, official appointments were stationed in the community. John H. Peterson was nominated by President James Madison as surveyor for the Petersburg and Richmond Districts and the inspector of revenue for the ports. He was to reside at either City Point or Bermuda Hundred. William P. Porter was nominated for the same position in 1842 by President John Tyler and presented with the same residence options. In 1836, a Rhode Island representative in the commerce committee introduced an \$8,000 appropriation bill to construct a marine hospital at City Point, although the plan failed to materialize.

Newspaper accounts from the first decade of the nineteenth century give a testament to the number of ships arriving at City Point from English ports, including Falmouth, Liverpool, and London with items such as “dry goods” and “spring goods” for both Petersburg and Richmond. However, relations with England would soon take a turn for the worse as British warships impressed seamen from American ships. Prior to the War of 1812, an article in the *Raleigh Register* details indignities suffered at

the hands of the British by a vessel recently arrived at City Point. The brig *Mary* was fired on by the English frigate *Melampus* 6 miles from Cape Henry. When the brig came to, a British officer boarded the vessel. The newspaper was outraged: “[i]s it not disgraceful that these fellows should be suffered to hover about our shores, molesting coasting vessels, and endangering the lives of our citizens?” (Raleigh Register 1811).

City Point appears to have been spared any hostilities during the war, and by June 1816, the first regular steamboat line servicing City Point was created (Emmerson 1947, p. 12). It was during this period that City Point became an important trading station. Tobacco and other agricultural goods were collected on the town’s wharves for export, and, with the rise of steamboats, the location became one of the original stops on the Norfolk to Richmond run (Watts 1998, p. 37). In 1818, an advertisement in the *Richmond Enquirer* was published informing the public of the new steamboat *Norfolk*, the first Norfolk-built steamer, running between Norfolk and Richmond twice a week (Ritchie 1818, p. 1). *Norfolk* was to stop overnight at City Point on the trip upstream, eventually becoming the primary vessel serving the James River in the nineteenth century. In 1822, the steamboat *Petersburg* plied the Washington, DC, Norfolk, and City Point route (Daily National Intelligencer (DNI) 1822), and a year later the steamboat *Potomac* joined the same route (DNI 1823). The same year, the boilers in the steamboat *Richmond* burst while the vessel made her way from Richmond to City Point (1823, p. 2). Despite this accident, the *Daily National Intelligencer* did not report any casualties and the mishap appears to have only delayed the steamboat’s arrival at Norfolk. A number of other vessels began making runs up the James River. These include *Columbus*, *Pocahontas*, *Patrick Henry*, *Thomas Jefferson*, *Hampton*, *Old Dominion*, *Champion*, *Balloon*, *Express*, *Augusta*, *Curtis Peck*, *Mount Vernon*, *Belvidere*, *William Allison*, *Comet*, *West Point*, and *Glen Cove* (Watts 1998, p. 37).

City Point’s growth during this phase of its history led to its incorporation in 1826 (Bullis 2011, p. 35). Further development of City Point was fueled, in part, by the development of a railroad, which provided an important transit point between rail and river-borne commerce. In 1838, the first train linked City Point and Petersburg (Watts et al. 2010, p. 17). Contemporary maps provide clues about the development of City Point. An 1837 map drawn by engineer John Couty not only illustrates the path of the planned track of the railroad from City Point to Petersburg but also provides a detailed depiction of City Point, outlining lots and structures such as warehouses and stores. More important to the maritime heritage of City Point, this map also shows a large railroad wharf and seven other wharves of various sizes. An 1855 chart shows at least five wharves along the waterfront in addition to the railroad wharf, which had developed into a two-part wharf complex projecting into the river. Unfortunately, these charts are devoid of shipwrecks. Only one pre-Civil War wreck was identified in searchable newspaper databases. An August 25, 1827 article in *The Times* mentions the loss of several lighters at City Point (*The Times* quoted in Watts et al. 2010, p. 17).

## *Civil War*

During the American Civil War, the James River played a vital role in both Union and Confederate strategic plans. After the secession of the southern states, President Abraham Lincoln ordered a blockade of all southern ports on April 19, 1861, with the hope of capitalizing on the South's dependence on foreign commerce and intrastate shipping by denying the Confederacy access to the sea. However, General George B. McClellan's apparent inability to take action against the Confederate Army led Lincoln to issue "President's General War Order No. 1" in January 1862, requiring Union troops to move forward on February 22 (Watts 1998, p. 45). This resulted in the Peninsula Campaign, directly involving City Point in the war. In May 1862, Union Commander John Rogers of the ironclad *Galena* led a force, including two other ironclads, *Monitor* and *Naugatuck*, along with the screw sloop of war *Wachusett*, the gunboats *Port Royal*, *Maratanza*, and *Aroostook*, and several smaller vessels, up the James River with the goal of forcing the Confederate capital of Richmond to surrender (Watts et al. 2010, pp. 21–25). After a very brief exchange of fire between the Confederates and the flotilla at City Point, Rogers continued upstream. On May 15 the fleet arrived at Drewry's Bluff, where there was a brisk exchange of fire. The Union force was repelled by a battery and infantry in rifle pits; this exchange resulted in 12 killed and 15 wounded aboard *Galena* and the fleet returned to City Point. For the next three months, a number of small skirmishes took place at City Point. Whenever Confederates fired on Union ships, the Union ships would reply, pounding the town with various pieces of artillery. By August 17, when the Union fleet headed downstream to Fort Monroe after the failure of the Peninsula Campaign, the once-burgeoning port was left in ruins. City Point would not see Union forces for another two years.

By the spring of 1864, Union General Ulysses S. Grant devised his plan for a campaign against Confederate General Robert E. Lee and the Confederate capital of Richmond. This preparation included the return of Union gunboats to the James River, along with forces under Union General Benjamin F. Butler, with the goal of cutting the Richmond and Petersburg Railroad thereby isolating General Lee and Richmond. On May 5, 1864, General Butler occupied City Point and Bermuda Hundred. A division of African-American troops under the command of Brigadier General Edward Hunks went ashore at City Point and captured a Confederate signal station. Colonel Thomas L. Livermore witnessed some of the destruction wrought by Union forces in 1862:

Dr. Eppes' house [Appomattox Manor]... was perforated with scores of cannon-shot holes. . . . This cannonade had so effectually ventilated the house that there was but one weather-tight room in it. . . . The wharf at City Point had been burned. . . and I found only the charred piles remaining (Livermore 1920, pp. 337–338).

The following month, on June 18, 1864, General Grant established his headquarters at City Point, ordering General Rufus Ingalls to begin construction of a supply depot (Watts et al. 2010, pp. 25–27). General Ingalls, serving as Chief Quartermaster, was charged with supplying both the Army of the Potomac under the command of General George Meade and the Army of the James under General Butler. Colonel

P. P. Pitkins, General Ingalls' subordinate and depot quartermaster, was directly in charge of all water transportation and recorded all that passed through the depot. They immediately began construction of wharves and storehouses at City Point as well as repairs to the rail line to the front at Petersburg.

Within a few months, City Point was transformed from a town with only a few burned wharves and warehouses to a port supplying 125,000 troops and 65,000 animals and capable of supplying upwards of 500,000 soldiers (Horning 2004, pp. 116, 117). It quickly became the second largest city in Virginia. Eight acres of wharves with over 100,000 ft<sup>2</sup> of warehouse storage served over 280 structures including offices, barracks, housing, a bakery, jail, hospital, and an expanded railway terminal and yard (Zinnen 1991). Over 3,000 laborers were on call to unload close to 400 ships connecting City Point with the rest of the Union. General Ingalls described the depot at City Point as "one of the most convenient, commodious, economical, and perfect ever provided for the supply of armies" (United States Secretary of War 1866, p. 589). He went on to report "[t]here was an average of some 40 steamboats of all sorts including tugs, 75 sail vessels, and 100 barges daily in the James River, engaged in the transportation of supplies, and plying between that river and the Northern ports" (United States Secretary of War 1866, p. 589). In addition to mail and passenger service, these ships brought cavalry and artillery horses, mules, ammunition, clothing, subsistence, and other supplies to City Point while taking spent horses and unserviceable equipment back to Washington. An inviting target, the depot became the victim of Confederate sabotage.

On 10 August 1864, Assistant Engineer C. L. McAlpine wrote:

We had an excitement here yesterday at 11:25 a.m. . . . a Boat loaded with tons of powder, shell and fixed ammunition of all kinds was laying temporarily at the ordnance wharf, when from some unknown cause an explosion took place, five boats in the neighborhood were sunk or blown to atoms—180 feet of wharf is entire extinct—440 ft. of our large warehouse was sent up over the bluffs. The offices built for the Q.M. and all other buildings in the neighborhood are blown to atoms. A perfect shower of shells in one direction, saddles and bridles in another. Muskets in another & c & c Masses of Timber. Iron and debris of all kinds were thrown & scattered within a circuit of a mile. The loss of life has of course been heavy. The Surgeons reported last night 52 bodies found and about. . . 100 injured (Watts et al. 2010, 37–38 citing C. L. McAlpine to Wentz, letter, August 10, 1864, Record Group 92, Entry 1622, National Archives, Washington, DC).

Subsequent reports identify the barge *Col. E. E. Kendrick* as the source of the explosion. *Kendrick* reportedly contained 20,000–30,000 rounds of artillery shells as well as 75,000–100,000 rounds of small arms ammunition and exploded while being loaded with percussion shells (The New York Times 1864, p. 2). The barge *Major-Gen. Meade* was tied up between *Kendrick* and the wharf. Both *Meade* and another vessel sunk in the explosion, *J. C. Campbell*, contained cavalry equipment. The identities of two other vessels reported by McAlpine as sunk in the explosion are unknown. However, *The Sun* reported that a schooner was among those vessels destroyed in the explosion (The Sun 1864). The wharf was quickly rebuilt and the ordnance wharf relocated downstream to a more remote location.

The source of the explosion remained a mystery until the end of the war. It was assumed that carelessness or an accident had caused the explosion aboard *Kendrick*.



However, after the fall of Richmond, a report of the incident was discovered in the papers of Confederate General G. J. Rains. A Confederate agent, Captain John Maxwell and a local guide, R. K. Dillard snuck behind Union lines and delivered a 12-pound “horological torpedo” with a timer to a barge being loaded with ordnance (Schaff 1990, pp. 234–235). The torpedo, with the timer set and placed in a crate marked “Candles,” was given to a laborer and delivered onboard the barge. Maxwell and Dillard waited nearby until the bomb exploded.

Several other vessels were reported lost or sunk in the vicinity of City Point. On November 27, 1864, the USS *Greyhound* exploded a few miles below Bermuda Hundred with General Butler and Union Admiral David Porter aboard. A Confederate coal torpedo was blamed for the explosion, but this was never definitively proven (Shomette 1973, pp. 65, 66). Another vessel, the canal barge *Oliver Little*, was abandoned at City Point in August 1864, being described as “rotten and worthless” (United States Secretary of War 1868, p. 150).

## ***Reconstruction***

Following the war, the Union depot was dismantled and life in the area resumed at a slower pace. Like the rest of the South, tidewater Virginia’s economy was devastated. Steamboat service was slow to revive due to the numerous obstructions and sunken vessels in the James River. Large scale efforts to remove the navigational hazards were not made until the 1870s. Multiple steamboats were put into service on the James River. However, by 1871, *John Sylvester* was the only steamer on the river making a run as a mail packet (Watts 1998, p. 48).

As the economic recovery of Richmond strengthened, more steamboats were needed. Companies such as the Baltimore Chesapeake & Richmond Steamboat Company and the Virginia Steamboat Company plied the waters of the James River, stopping at many towns, including City Point (Stanton 1892). *Pocahontas* began a route on the James River in 1893, making a number of the same stops that were made during the antebellum period, including City Point (Brown 1942).

## **The Twentieth Century**

By 1910, the population of City Point was only 300, almost the same as it was before the Civil War (Horning 2004, p. 147; Watts et al. 2010, p. 52). Two years later, the E. I. DuPont de Nemours Company, attracted by the deep port, rail connections, and reliable water supply purchased 1,800 acres from the Eppes family on which to build a dynamite factory. With the onset of the First World War operations shifted from the production of dynamite to guncotton, an ingredient in smokeless powder.

Demand for the war prompted a massive expansion of the DuPont facilities, quickly exhausting the local labor pool. By 1916, the population had exploded to

40,000, and in the same year the General Assembly approved a charter for the City of Hopewell (Watts et al. 2010, p. 54). The City of Hopewell was named for the ship *Hopewell*, which the tradition suggests brought Francis Eppes to the New World. City Point was not annexed by Hopewell until 1923. With the rapid expansion of the town came seedier businesses. Gambling and drinking were commonplace and floating brothels called at the City Point docks (Horning 2004, p. 148).

### ***Post-First World War***

With the cessation of hostilities in Europe in 1918, the DuPont Company quickly closed its doors. Workers were laid off and many left Hopewell. Unlike the period following the Civil War, however, Hopewell continued to attract various businesses with its river, rail, and road connections. This diversity of industry made Hopewell less vulnerable to the whims of industrial demand. Operations at the Tubize Artificial Silk Company and Allied Chemical continued through the Great Depression (Watts et al. 2010, p. 54). The Second World War stimulated growth in the area. Camp Lee, established during the First World War and named for Confederate General Robert E. Lee, was reactivated and added thousands of military personnel to the area. By 1942, the camp housed 45,000 military personnel (Horning 2004, p. 149). Following the Second World War, Camp Lee was converted to a permanent military installation and renamed Fort Lee.

The chemical industry at Hopewell did not come without a price. On July 24, 1975, Life Sciences Products Company voluntarily closed its doors after a number of their employees were hospitalized with symptoms indicating high exposure to the chemical Kepone (Kiernan 1975, p. B1). Kepone, an insecticide, was developed in the 1950s and patented in 1968 by the Allied Chemical Company. Subsequent investigation proved the chemical was illegally dumped into the James River. Results of EPA testing detected Kepone in the air 16 miles away from the Hopewell plant, in the river 40 miles away, and in shellfish up to 64 miles away (The Washington Post 1975, p. 106). The toxic spill destroyed the James River's commercial fishing and oyster industry. In 1988, a fishing ban was lifted, although a fish consumption advisory is still in effect due to the levels of Kepone and PCBs in river sediments (Huggett 1989, p. 417; Virginia Department of Health 2012). In spite of this setback, the economy of Hopewell and City Point continues to be supported by an active military presence and chemical industry.

### **Survey and Analysis**

The survey of the James River near City Point was conducted in two parts: a side scan sonar and a photographic survey. Using a Klein 3900 digital side scan sonar, the remote-sensing survey was conducted at high tide the first day. As parts of the vessels

were exposed at low tide and shallow water prohibited additional sonar acquisition, the next morning was spent photographing the wrecks to provide supplemental details. Project personnel consisted of Dr. Gordon Watts, Dr. John Broadwater, and the author.

Analysis of the side scan sonar data identified 42 wrecks near City Point that have been divided into five classifications: rectangular barges or ferries, a tugboat, combination barges, ocean-going vessels, and vessels of unknown type. Seven of these are rectangular wooden barges or ferries, one is a tugboat, and three could not be categorized based on the sonar data. Fifteen are classified as combination barges and sixteen as ocean-going vessels.

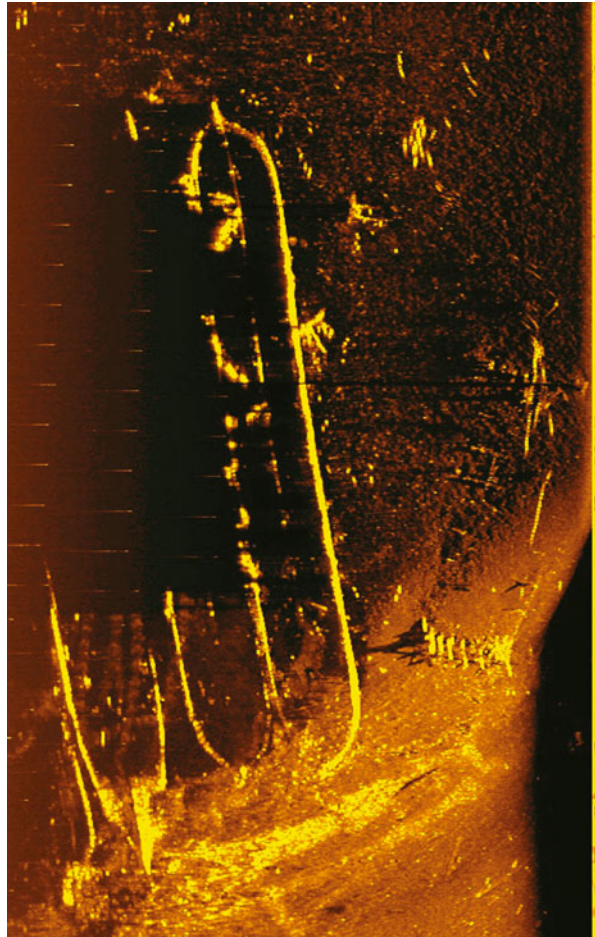
### *Combination Barges*

While canal barges supplied the Union army during the Civil War, the size of the vessels located in this survey suggest they were used after the war in the late-nineteenth- and early-twentieth century for bulk transport. Similar combination barges were identified by North Carolina archaeologists Richard Lawrence and Mark Wilde-Ramsing in a ship graveyard near Elizabeth City, North Carolina. An investigation of the site revealed that these barges ranged in length from 197 to 206 ft with beams from 20 to 22 ft (Smith 2010). The combination barges at City Point exhibit similar measurements and construction features to those at Elizabeth City (Figs. 5.1–5.2). A 1916 report to the U.S. House of Representatives states that this type of barge was called a “combination seagoing and inland barge,” because it was capable of handling the work of both inland and seagoing barges (U.S. House of Representatives 1916, p. 20). These vessels could run along the coast, but they could also operate in canals due to their light draft and narrow beam. The report described these barges as “about 200 ft long, 24 ft beam, and have from 12 to 16 ft sides and no masts or motive power of their own. They can carry about 500,000 ft of lumber or 900 tons of dead weight on a 9 ft draft, but considerably more when fully loaded to a 10 or 11 ft draft” (U.S. House of Representatives 1916, p. 20). They provided a cheap means of transportation, were built at a lower cost, could carry more on a lighter draft, were cheaper to operate compared to other open-water vessels, and could run in both open waters and smaller creeks and rivers.

### *Ocean-Going Vessels*

The ocean-going vessels are composed of wooden watercraft and an iron or steel vessel. The ships exhibit a wide array of dimensions, from 151 to 280 ft in length and 29 to 50 ft in beam. The iron or steel vessel showed signs of partial salvage; the hull appeared to be cut down and no evidence of major machinery was visible at low tide, suggesting its possible removal (Fig. 5.3). These vessels could represent any time

**Fig. 5.1** A side scan sonar image of at least two combination barges. (Courtesy Joshua A. Daniel)



period from English colonization to the modern period. However, the dimensions and design characteristics of some of the vessels are indicative of one particular time period in United States' history. During the First World War, German U-boats were sinking Allied shipping at an incredible rate. To counteract this, the Federal government created the Emergency Fleet Corporation (EFC) to build cargo ships to replace Allied losses. These wooden vessels were initially designed by Theodore Ferris. The contracts for Ferris steamships built for the EFC outlined many specific details, including a length between perpendiculars of 268 ft, a beam of 46 ft, four water-tight wood bulkheads, and diagonal iron straps (Ferris 1917). The length and beam measurements of one of the City Point vessels exactly match those specified in the contracts (Fig. 5.4). Four bulkheads were also identified in the sonar record. Photographs taken at low tide revealed diagonal straps located between the outer hull planking and the frames (Fig. 5.5).

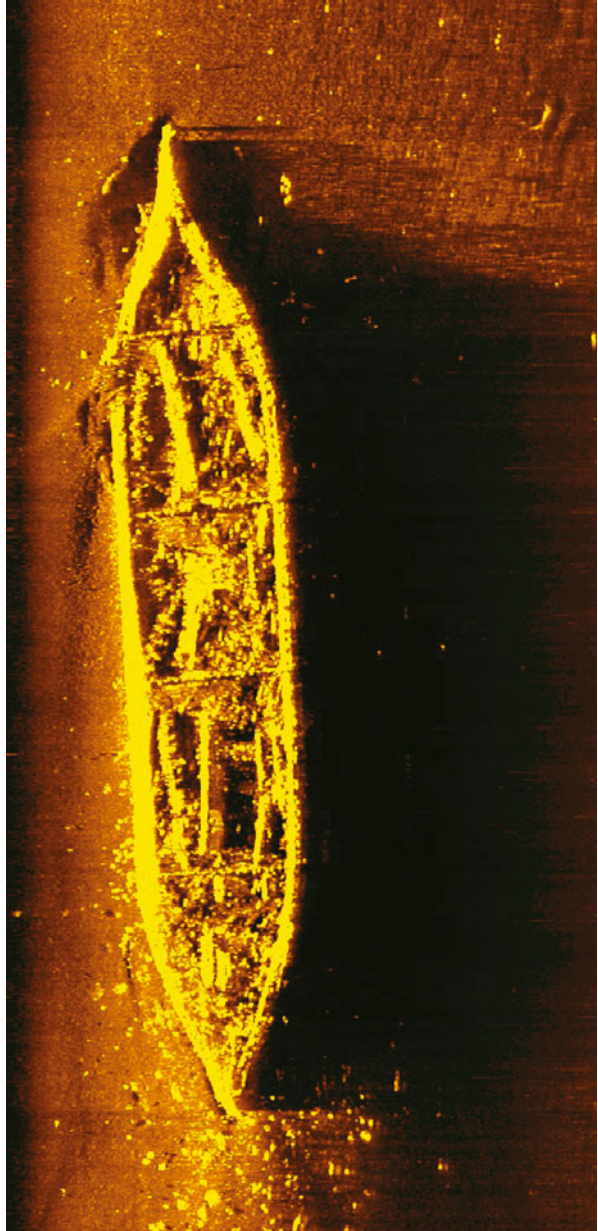


**Fig. 5.2** Construction details of a combination barge with diagonal ceiling planking. (Courtesy Joshua A. Daniel)



**Fig. 5.3** An iron or steel vessel showing signs of salvage. (Courtesy Joshua A. Daniel)

**Fig. 5.4** A potential Emergency Fleet Corporation vessel. (Courtesy Joshua A. Daniel)



Historical research indicates that after the war, most of the EFC vessels were collected on the James River at Fort Eustis, downstream from City Point. A June 1920 issue of *The American Marine Engineer* suggests that the EFC had trouble keeping their wooden ships afloat. The article notes the difficulties the Shipping Board was having taking care of its ships,



**Fig. 5.5** Construction details of a potential Emergency Fleet Corporation vessel with diagonal iron straps. (Courtesy Joshua A. Daniel)

Recently a number of these vessels were taken up the James River to City Point, Virginia, into fresh water, in order to protect the hulls from the destructive salt water borers. A number of these vessels are laid up at City Point, with merely a skeleton crew aboard to look after the property of the government (The American Marine Engineer 1920, p. 30).

This is not to insinuate that all of the wrecks identified as ocean-going vessels were built under EFC contracts, but it is a possibility that some were produced for that purpose.

Seeking proof of a possible Civil War association, three vessels along the DuPont wharf on the west side of the channel were investigated by Tidewater Atlantic Research archaeologists in 2009. According to historical maps, this location was the site of the Civil War ordnance wharf. Diver reconnaissance identified rubber hose, galvanized pipe, and electrical wiring firmly associated with each wreck, suggesting an early twentieth century connection. Two proved to be the remains of steamships while the other was a tugboat. All had been salvaged of any machinery and were likely deposited after DuPont had abandoned their Hopewell operations, including the wharf. Other wrecks in the tidal flat could represent ships, brigs, brigantines, schooners, or any other type of ocean-going vessel used since this area of the James River was first settled.

## Conclusion

As part of the continuum of a rich and varied maritime heritage, this assemblage of abandoned vessels in the James River has considerable historical and archaeological value. With the potential to represent any time period from the earliest European colonization of Virginia to modern times, this ship graveyard represents a unique opportunity to study an assortment of ships from varying time periods in order to determine commercial trends and methods of abandonment in the James River. While this project is in its initial stages, the ongoing field investigations and archival research suggests that most of these vessels might have been abandoned after two specific events: the Civil War and the First World War. The end of each conflict resulted in a flood of unwanted vessels. After the Civil War, merchant shipping was devastated. The previously lucrative cotton trade had been destroyed by four years of war, and the triangle of trade that existed between the northeast United States, the south, and Europe was broken (The Congress of the United States 1984, p. 8). In addition, import duties prevented the import of iron and machinery, delaying the use of those materials to manufacture superior iron, steam-powered ships. This decline in the U.S. shipping industry, which was set in motion in the Civil War, continued until the First World War.

When war broke out in 1914, international shipping amounted to only 10% of total American shipping (The Congress of the United States 1984, pp. 10, 11). With the war, most foreign ships were withdrawn from U.S. commerce. Needing a larger commercial fleet to export American goods, the government passed the Shipping Act of 1916, creating the EFC, which would oversee the construction and maintenance of a fleet of merchant ships. Ultimately, 2,247 ships were constructed for or requisitioned by the Corporation (Hopkins 1994, p 20). After the war, a decline in commerce, a depression in shipbuilding, and technological advances made these ships useless and obsolete (Shomette 1994, p. 48). In 1920 and 1921, most of these vessels were taken to Claremont on the James River and attempts were made to auction the fleet at a fraction of their construction costs. Ultimately, some of the ships made it as far upriver as City Point.

This area of the river provided a good anchorage and disposal area. The earliest detailed nautical charts of the James River available from the Office of Coast Survey's online Historical Map and Chart Collection show a dead-end channel behind Eppes Shoal that would enable a vessel with a 10 ft draft to anchor. In addition, this location is out of the main shipping channel, providing a convenient location for beaching derelict vessels. Similar behavior was documented in the region at Mallows Bay, Maryland (Shomette 1994), the Eagles Island Ship Graveyard, North Carolina (Seeb 2007); and the Elizabeth City Ships Graveyard, North Carolina (Smith 2010). The river bottom on either side of the shipping channel shoals quickly, and abandoning vessels there could impede commercial traffic by creating hazards to navigation. However, abandoning vessels on the back side of Eppes Shoal provided a quick, easy, and cost-efficient way to discard unwanted vessels.



Cartographic evidence also provides insight into the development of the island over Eppes Shoal, and the potential relationship between the island and submerged vessels. By 1934, the shoal area was designated a dumping ground for dredge spoil. Two years later, several small islands begin to appear on nautical charts until by 1968 the island reached its approximate current extents. The 1968 chart is also the first time shipwrecks appear in the survey area. It is possible that vessels could be buried under the dredge spoil island.

The goal of the City Point Shipwreck Survey was to identify the number of ships present in the James River near City Point. The side scan sonar data revealed 42 shipwrecks. Beyond a mere inventory, the data provide a starting place for further archival and archaeological research. These vessels reflect the development of technologies created to meet particular needs and requirements while the remnants of cargoes could reveal the nature of both local and regional trade. This assemblage of abandoned vessels provides a representative pattern of trade and transportation from a range of periods in the economic, political, and environmental history of City Point, tidewater Virginia, and the United States.

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