

Roosevelt
Inlet

yaal Schipwreck

Roosevelt
Inlet

Roosevelt



The Ship's Cargo

The Roosevelt Inlet Shipwreck was probably a merchant vessel loaded with raw materials and manufactured goods, bound for Philadelphia around the last part of the 18th century. It is likely that some of the cargo was salvaged after the ship went down. However, the archaeological investigations of what remains give some clues as to the types of goods that were aboard.

The beach investigations and the underwater archaeological excavations of the site recovered up to 80,000 artifacts. Some artifacts may have been personal belongings of the ship's captain and crew. These include carved dominoes, a pewter plate warmer, leather shoe fragments, and navigational equipment such as a spy glass lens and dividers and points for map charting. Other artifacts, due to the sheer quantity recovered, appear to be merchants' cargo intended for sale.



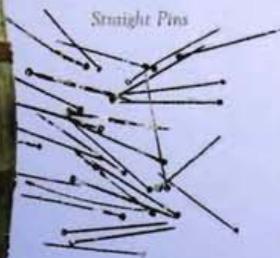
"Setlers" Mineral Water Bottle

Raw materials recovered from the site include grinding or millstone blanks, as well as ingots of antimony, which was an ingredient in pewter, paint, and some medicines. There were also some building materials, such as window glass, slate roof tile, ceramic tile, nails, and bricks. The bricks, however, could also be ship's ballast and/or part of the galley. Despite the wealth of artifacts, only a few remnants of the vessel itself were found.

Manufactured personal and household items and consumable goods make up the majority of the collection. The artifacts range from common, everyday items to some apparently very specialized objects. Here is a partial list of different artifact types recovered.



Faceted Glass
Gemstones



Straight Pins



Antimony Ingots



Lead Ingots



Personal items: buttons made of bone and different metals - some are plain but others have etched and impressed designs, or have glass insets; some are linked (cuff links); sewing items, such as hooks and eyes, straight pins, pin and/or needle cases, thimbles and possible thimble cases, and beads; eyeglass lenses; pocketknives; tobacco pipes; paste gemstones; shoe and knee buckles; faux watches but also watch keys, crystals, and other watch parts, suggesting that working watches were also on the ship.

Shoe Buckle

Kitchen and dining wares: pewter tea pots; copper alloy kettles; copper and lead cooking pots; stoneware bottles and crocks; glass stemware, tumblers and mugs, dessert dishes and decanters; plates, bowls, cups, saucers, mugs, and pitchers made of various ceramic materials, including porcelain, creamware, white salt-glazed and blue-gray stoneware, tin-glazed earthenware, and lead-glazed red earthenware. "Frankfurter ware" (a yellow or green lead-glazed coarse earthenware), not commonly found on Delaware archaeological sites, was also recovered.



Bone Dominos

Consumable goods: mineral water (bottled by the "Selters" company which is still in business today) shipped in trademarked stoneware bottles; and wine, spirits, condiments and medicine in glass bottles. "CON STANTIA WYN" seals have been recovered, indicating that some of the wine destined for the Philadelphia market was from South Africa.

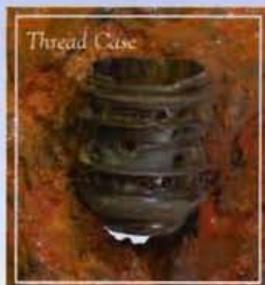
Housewares: curtain tiebacks and rings; candlesticks; sconces; inkwells; upholstery tacks; linen smoothers made of glass; and an iron.

Specialized items: copper alloy stirrups, spurs, harness parts; stone mortars and pestles; and pewter miniatures in a variety of shapes, including ships, soldiers, urns and pitchers, plates, baskets, bowls, and utensils.



Button

Iron



Thread Case



Cuff Links

This wide array of goods suggests the cargo was intended for a variety of consumers in the North American colonies. The cargo appears to be typical of the kinds of goods coming in to the Philadelphia market in the latter part of the 18th century.

Putting the Pieces Together

Unfortunately, the vessel's port of origin remains uncertain. The artifacts indicate that the vessel most likely departed from a northern European port, but do not clearly point to - or rule out - one specific country. The artifacts came mainly from European countries, including Great Britain, the German states, the Netherlands, and perhaps France. However, these countries - particularly Great Britain at this time - had vast trading networks, and imported goods for resale in the colonies. Some artifacts represent goods that came from as far away as South Africa and China. Further research and additional analysis of the artifacts may help narrow down the ship's origin and identity.

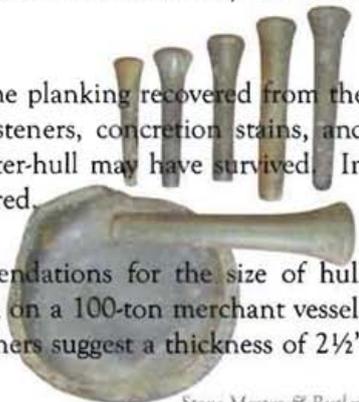
White Salt Glazed Stoneware

The ship itself may also hold clues to its identity, even though very little remains. It is likely parts of the ship were salvaged, leaving the majority of the lower hull exposed to natural elements. Over time, portions of the lower hull may have simply broken off and drifted away. Variable water temperature and exposure of the wreck to marine wood borers, such as the Teredo Worm (*Teredo navalis*), may also have contributed to the ultimate deterioration of the hull of the Roosevelt Inlet Shipwreck. However, large concretions of shell fragments and minerals, millstones, brick, and other artifacts found onsite apparently protected the small remaining amount of the hull structure. Historical documents and other shipwrecks can be compared with these remains to suggest the type and size of vessel represented at the site.

A long timber runs the entire length of the remains and begins to taper on the southern end, but does not have the key features of a ship's keel. Instead, this may be a part of the hull known as a hold stringer. The main function of this timber was to add longitudinal strength to the vessel. Hold stringers of a similar shape and size were documented on the Spanish merchant vessel *El Nuevo Constante*. That vessel first appeared in Spanish records in 1764 but was previously known as the *Duke of York*, a British-built merchant vessel of 475 tons. The size of the stringer on the Roosevelt Inlet Shipwreck suggests a larger ocean-going trading vessel similar to the *Duke of York*. However, other comparative data indicate the vessel may have been much smaller.

Planking can also give some clues about the size of a ship. Some planking recovered from the wreck (2½ - 3" thick), coupled with the presence of iron fasteners, concretion stains, and treenails [wooden peg fasteners], suggests that parts of the outer-hull may have survived. In addition, some inner-ceiling planking (1½ - 2" thick) was recovered.

Contemporary shipbuilding guides provide different recommendations for the size of hull planking. One source suggests hull planking should be 3" thick on a 100-ton merchant vessel, 3½" on a 200-ton merchant vessel and 4" on larger vessels. Others suggest a thickness of 2½" for a 250-ton vessel.



Stone Mortar & Pestles

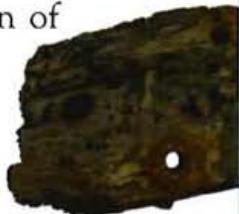
Contemporaneous ships and shipwrecks, 18th-century guidebooks, and early maritime dictionaries all provide comparative data for the analysis of the Roosevelt Inlet Shipwreck remains. As the critical architectural components of the wreck are missing, actual dimensions and tonnage of the vessel can only be estimated. Unfortunately, given the incomplete nature of the evidence and the contradictions of the historical sources, no solid reconstruction of the vessel size can be made at this time.



Sheathing



Ship Planking



Hull planking on the 475-ton *El Nuevo Constanste* measured 4" thick and 13" wide, while measurements on the *Ronson* ship, a 260-ton 18th-century British merchant vessel, measured 2 - 2¼" thick. However, using planking thickness measurements from shipwrecks can also be misleading; thickness can vary on the same ship depending on where the plank is located.

Treenail (or wooden peg) diameter can also be used to estimate vessel size. Treenails from the wreck measure 1 - 1¼" in diameter. William Falconer, writing in the 18th century, noted that treenails "have usually one inch in thickness to 100 feet in the vessel's length, so that the treenails of a ship 100 feet long, are one inch in diameter, and one inch and a half for a ship of 150 feet." This suggests that the Roosevelt Inlet Shipwreck could have varied from 100-125 feet in length.

Copper sheathing or fasteners were first experimented by the Royal Navy in the early 18th century, however it would not be until the period of the American Revolution that it was adopted by Great Britain's many warships. The use of alloy fastenings slowly trickled into the merchant fleet after that date. The lack of copper-alloy metal bolts or pins on the remains of the Roosevelt Inlet Shipwreck supports the notion that the vessel was built prior to the last quarter of the 18th century.

Wood analysis indicates that the ship's remains are of white oak (*Quercus spp.*), which was a common shipbuilding timber in North America and throughout Europe. The use of white oak is consistent with British and British colonial shipbuilding traditions. White oak is generally hard, heavy, stiff, and strong, and is particularly resistant to water and decay. The lack of New World woods like live oak or southern yellow pine on the shipwreck provides an indication that the vessel was not built in the southern colonies but was more likely built in the Old World or the northern colonies.

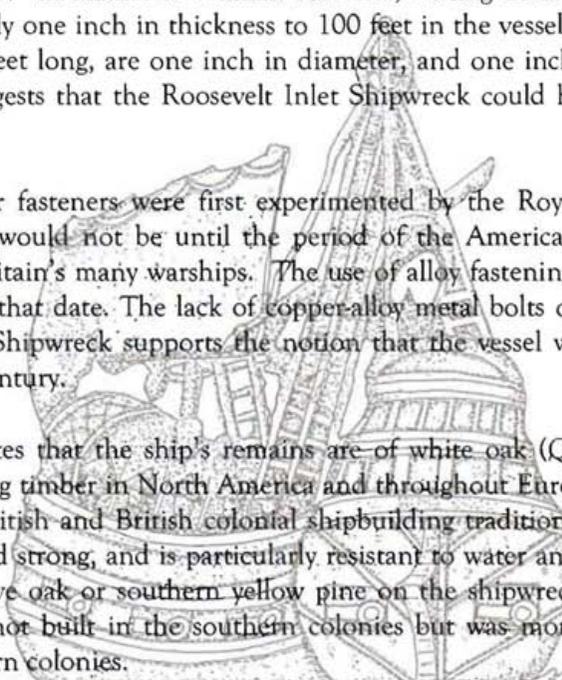


Illustration of Pewter Miniature Ship



Millstone



Ornate Shoe Buckle
Illustration & Photograph



Bone Dominus



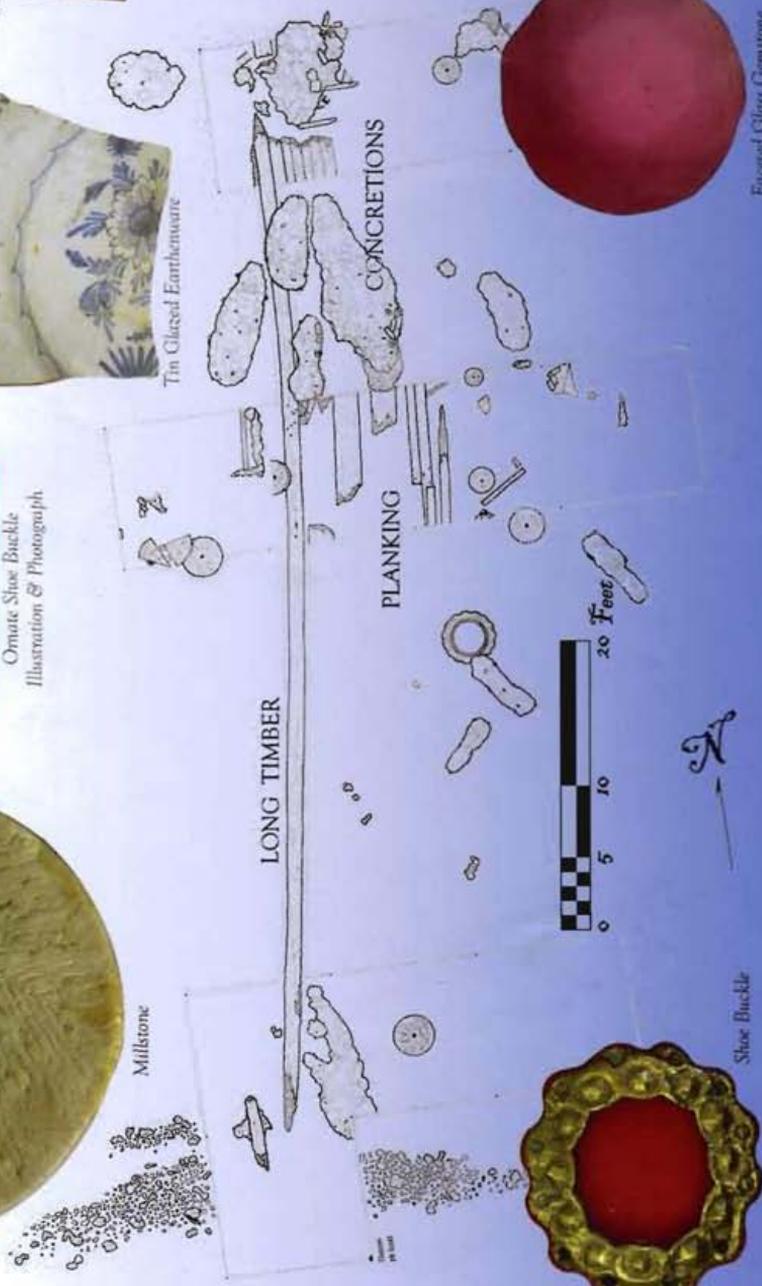
Tin Glazed Earthenware



Case Bottle



Faceted Glass Gemstone



Shoe Buckle



In the fall of 2004

The Roosevelt Inlet Shipwreck, a merchant vessel from the late 1700s, was rediscovered. While mining sand to renew the beach, a dredge crossed the wreck. It sucked up and scattered thousands of artifacts along the beach in Lewes, Delaware. Local residents told archaeologists with the Delaware Department of State, Division of Historical and Cultural Affairs about the artifacts. Archaeologists from the Division, with the help of the volunteers of the Archaeological Society of Delaware and the public who donated their finds to the State, recovered about 40,000 items from the beach. Then they began to look for the source...

The U.S. Army Corps of Engineers, part of the beach project, hired Dolan Research, Inc., to look for that source. Their archaeologists confirmed the presence of an eighteenth-century shipwreck in 2005, with most of the site still intact. The Division nominated it to the National Register of Historic Places, leading to the listing of this nationally significant wreck site on November 16, 2006.

There were still many questions about the vessel. The State decided to sponsor more work. The Federal Highway Administration through the Delaware Department of Transportation contributed Transportation Enhancement money for the excavation and analysis of this important shipwreck. The State contracted with Southeastern Archaeological Research, Inc. (SEARCH), to explore the site with a variety of underwater archaeological methods. The work generated over 25,000 more artifacts which helped identify what was on the vessel when it sank. Research into Delaware's early history and shipwrecks in the area tried to identify the ship and why she was lost.



All that remains of the merchant vessel is the skeleton of her hull and tantalizing clues to her identity. One of the ship's main longitudinal timbers, some planking, and scattered cargo mark her grave. Millstones peek from the sand. Much of her cargo was salvaged long ago...



Poster
Toy Um

Beneath the waters near Roosevelt Inlet a piece of Delaware's history resides. Come explore what was aboard this shipwreck. Dive in with the underwater archaeologists as they investigate the shipwreck. Immerse yourself in Delaware's long history of trade and commerce.



Exploring the Wreck



During September and October 2006, SEARCH investigated the Roosevelt Inlet Shipwreck. The investigation began with a remote sensing survey and a hydro-probe survey, along with systematic surface collection of artifacts. Excavation of eleven 10-x-10-foot grid squares of sediment followed, and finally a second, post-excavation remote sensing survey of the wreck.

Side Scan Sonar and Magnetometer



The first phase of the investigation began with the remote sensing survey utilizing a magnetometer and side scan sonar. The magnetometer locates metal objects by detecting the variation in the magnetic field. In this survey, this device detected a light signature for iron or steel objects. This suggests the anchors and cannons that we expect to be present on a ship of this period were salvaged long ago. The side scanning sonar system maps out the relief of a sea floor through the variations in the acoustic signals. It clearly identified the exposed concretions of shell fragments and minerals at the north end of the site and a longitudinal timber extending north/south along the length of the site. Also, it found an area of exposed artifacts near the dredge pit

Ornate Button

Side Scan Sonar

at the southern extent of the site. These results provided critical data to our understanding the condition and extent of the shipwreck which guided the diver investigations.

Hydro-Probe



The hydro-probe is a simple device: a 5-foot piece of 1/2-inch galvanized pipe through which highly pressurized water is pumped from the deck of the dive boat. This method was used to test for the presence or absence of the ship remains in order to delineate the site. The tests were located in a grid at 10-foot intervals along a moveable baseline strung between the two east-west baselines. The moveable baseline, also tagged at 10-foot intervals, allowed absolute control of the placement of each hydro-probe test location. This method allowed the divers to determine and map the extent of buried hull remains quickly, and without damaging the deteriorating wood.

Magnetometer

Excavations

Partial excavation of the Roosevelt Inlet Shipwreck used two 10-x-10-foot grid squares, a 3-inch Venturi-style dredge, and a variety of measuring devices. In this way, the divers mapped the extant hull construction features, artifacts, and site remains, and prepared the area for controlled excavations. Close examination and mapping of the site confirmed that only a small portion of the hull remains intact. Another side-scan survey after the excavations provided a visual image of the site.

The substantial collection of artifacts recovered during the 2006 investigation helps to date the site. These artifacts are from a vessel that grounded in the shallows and became stranded sometime between 1772 and 1800. Study of the historical records identified 31 vessels wrecked at or near Lewes, Delaware around this time. The hull and artifact analysis also provided answers to questions regarding the wreck site.

The Roosevelt Inlet Shipwreck provides an intriguing look into the late-18th-century merchant trade through the broad array of artifacts recovered. The vessel appears to have been an inbound merchant vessel, loaded with cargo probably for Philadelphia. The lack of hull remains indicates that the vessel was likely extensively salvaged and has been exposed to environmental conditions which affected the vessel's survival.

◆ ◆ ◆
The phased investigation of the wreck was successful in better defining the nature and elements of the Roosevelt Inlet Shipwreck.
◆ ◆ ◆



Cuff Links

These 10-x-10-foot stainless steel grids

were specifically built for this project. They were constructed on dry land and marked at one-foot intervals. Marking the grids with tape at one-foot intervals assisted divers in mapping features accurately in a near zero-visibility work environment. Each 10-foot grid was then divided into four 5-x-5-foot quadrants using stainless steel cross members. These quadrants were used by the excavators to keep track of where the artifacts came from.



Investigating the Site

The underwater conditions were not ideal for this investigation. The water was so murky that a diver rarely could see more than six inches beyond his face. No photographs could capture an image. The strong tidal currents limited the diving times to twice a day, as fighting the current could exhaust a diver and disrupt the fine work required.

The SEARCH divers used both Self Contained Underwater Breathing Apparatus (SCUBA) and Surface Supplied Air (SSA) diving equipment during the investigation. The divers wore SCUBA during the preparation of the site including establishing baselines and moorings. The remainder of the project used SSA for the hydro-probe survey and excavation of the 11 test units. The SSA equipment included dive helmets, umbilical lines and air hoses attached to a control box. The Dive Supervisor controlled any situation by monitoring air supply and diver communication through the control box.

The methods used by the excavators allowed them to map extant hull remains, identify hull construction features, and record the provenience and recovery of artifacts.

Preparing the Site for Excavation

SEARCH established three baselines by dropping four buoys, mapped with sub-meter accuracy, around the perimeter of the wreck site. To maintain a high degree of context control and keep comparable units, they used the original grid system established by Dolan Research, Inc. for the 2006 investigations. Following the deployment of the four buoys, divers using SCUBA proceeded to the bay floor to insert large screw anchors at these four locations to secure the color-coded baselines. Once the screw anchors were in place, the divers strung and secured two east-west baselines between associated anchor points. After completing the hydro-probe survey, divers placed the third baseline, oriented parallel to the wreck site, using similar screw anchors. Track lines, spaced 50 feet apart, 500 feet long, and oriented north-south, complemented the baselines.

High-visibility, color-coded tags marked the baselines at 10-foot intervals. These colored tags helped divers to orient themselves to the wreck site during dive operations. The use of different colored tags for the three baselines proved an efficient means for divers to navigate across the wreck in a low-to-zero visibility work environment.



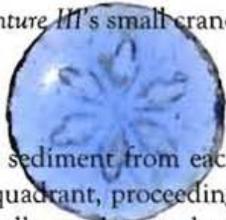
Excavation of the Roosevelt Inlet Shipwreck

Once the third semi-permanent baseline was established, These quadrants allowed archaeologists a high degree of context control, the ability to record all surviving hull architecture and fittings, and to assist in determining the distribution of cargo and shipboard functions. The two grids were partially disassembled and transported to the Roosevelt Inlet Shipwreck on the *Venture III*, a 43-foot long ship that provided the dive platform. The grids were lowered to the sea floor to a diver who reconstructed the grids. The excavators moved these grids around as new test units were ready to excavate.

Each 10-x-10-foot grid was excavated using a special dredge with a fine mesh bag secured over the exhaust end of the hose, which was held at the water surface off the stern of the stern of the *Venture III*. The divers monitored the dredge exhaust and inspected the material that was coming up to confirm that the fine mesh bag was retaining small artifacts, such as beads. The divers placed larger artifacts in other mesh bags, and sent them to the surface by way of the diver's line or the *Venture III*'s small crane.

Artifact Recovery

Archaeologists used the dredge to remove sediment from each 5-foot quadrant at 12-inch levels, always beginning in the southwest quadrant, proceeding to the northwest quadrant, then to the northeast quadrant, and finally to the southeast quadrant. Once a 5-foot quadrant was excavated to its respective 12-inch level, the excavator removed the exhaust bag and recorded its provenience. Then aboard the *Venture III*, staff archaeologists of the Division of Historical and Cultural Affairs and the volunteers of the Archaeological Society of Delaware (the "ASD") sifted the dredged sediment for artifacts among the shell fragments and debris. Sediment, shell hash, and cultural material that could not be processed on the *Venture III* went to the project laboratory in Lewes at the end of every day for ongoing screening and analysis.



Pressed Glass Inset



Overall, a total of eleven 10-x-10-foot grid squares were excavated: 3 at the northern end, 4 amidships, and 3 at the southern end. All grids were excavated in 12-inch levels until sterile sediment was reached. The diver recovered all artifacts except the large concretions, brick, and some millstones, during the excavation. Brick and brick fragments were accounted for during the excavation of each layer, but not recovered.



Once a grid square was cleared to sterile sediment, the excavator mapped all hull components, large artifacts, and any concretions not recovered on gridded mylar. In addition to mapping the excavation of the various grid squares, archaeologists mapped exposed hull remains in an effort to determine the vessel form and type. They investigated the entire length of the exposed longitudinal timber as well as all timbers uncovered within the excavated grid squares. During each test unit excavation, the excavator wrote a summary of the unit, describing general details of each quadrant. These descriptions include notes on the stratigraphy, hull construction, artifacts observed, sediment observations, and other general observations.

These artifacts represent an important collection, providing a snapshot of history at a specific point in time.



Neck Stock Clasp
Photograph & Illustration



Artifact Analysis

The Division's archaeologists and ASD volunteers sorted, marked, and cataloged the circa 25,000 artifacts at a lab in Lewes. Some fragile artifacts were sent for conservation treatment. Additional historical research was conducted, including records in London and Philadelphia, in an attempt to find the ship's identity. Extensive analysis and comparative research helped to identify some of the more unusual artifacts. This research is still ongoing.

Pewter Miniature Ship



SONAR IMAGE

0 5 10 20 30 40 50 Feet



Trade & Commerce on the

Maritime trade along the Delaware River shaped the history of Delaware. Commercial traffic that plied the Delaware River to and from the port of Philadelphia was part of the broader Atlantic World exchange system. This dynamic trade evolved as the 17th and 18th centuries progressed. European politics and economic growth, as well as the increasing prosperity of New World colonies, were the most considerable of the many forces that formed this trade.

Early Maritime Trade

European trade along the Delaware River began in the 17th century with the first Dutch trading settlements along the river in New Jersey in 1625 and near the present town of Lewes in 1631. Beginning with the fur trade, the Delaware River was the primary corridor for regional maritime trade. Access to, and control of, the Delaware River, in fact, was a key motivator in regional and European power struggles.

By 1650, Great Britain was on a mission to reclaim its trade with its colonies from that global trading powerhouse, the Netherlands. It set in place restrictive trading policies called the Navigation Acts. These effectively cut out Dutch (and other) middlemen. A 1651 order strengthened the Acts by establishing that *only* British (including British colonial) ships could carry goods to, and commodities from, its colonies. In this way, non-British goods had to pass through British ports, have duties paid on them, and be loaded on British ships before reaching the colonies. The British and the Dutch fought three wars in quick succession, sparked by the intense competition for global trade. In the 1674 treaty ending the last of these wars, the British and the Dutch traded certain colonies, with the Dutch ceding New Netherland (stretching from Delaware to Connecticut) to Great Britain. This ended the Dutch direct trade with North America. However, colonial smugglers began sailing to the Dutch West Indies to get foreign goods more cheaply.

On this frontier, British settlers joined the remaining Dutch and Swedish settlers. Settlement spread further, with new port towns such as Philadelphia and Trenton. The land provided all the raw materials for the colonists to build frame and brick buildings. Any refinements, such as glass windows and iron hardware, had to be imported. Nearly everything they used in these houses—dishes, bottles, furniture, tools, and even cloth for their clothing and bed linens—had to be imported.

Delaware River

Countless ships from ports across the Old World and the colonies passed through the Delaware Bay, emptying their hulls of consumer goods at Philadelphia and other ports, and refilling with mostly agricultural products and raw materials needed elsewhere. As the population grew, trade also grew. Of all the ships engaged in the increasingly voluminous trade of the 18th century, more sailed under the flag of Great Britain than any other, especially by the time of the American Revolution. Even with their official monopoly, Great Britain was never completely successful at keeping the American trade to itself ... smuggling was a constant problem.

Maritime Trade in the 18th Century

The shift in British trade from Europe to the transatlantic with the expansion of colonial markets characterized the mid-18th century. Population growth and increasing prosperity in Great Britain's North American colonies created new markets for European consumer goods. Also, the colonies themselves were capable of producing more of the agricultural products and raw materials that allowed them to trade on a larger scale. The English port of Bristol became an important trading partner with Philadelphia, linking it to the broader Atlantic world, through its trade with all the other British North American colonies, the West Indies, the West African slave coast, the Atlantic Wine Islands, and the Iberian peninsula.

Studies show that shuttle routes—routes leaving an Old World port for one New World port and returning—were the 18th century trading-norm for the North Atlantic ports such as Philadelphia and Bristol. Multi-lateral routes involving more than one New World port became less common as the 18th century progressed. These more circuitous routes were an attempt by merchants to make efficient use of their ships in trades where shuttle routes could not provide suitable goods to fill the returning ship's cargo space. Coordinating shipping with seasonal crops and market changes was a constant problem for merchants.

Philadelphia rose to become the most active port in North America, eclipsing New York and Boston. British textiles were the largest single category of consumer items imported into the colonies. As domestic comfort began to replace frontier conditions, colonists found increasingly diverse uses for textiles, particularly cottons. Colonial merchants also grew more established and savvy.

"WHIELDONWARE" CERAMIC KNIFE HANDLE

Certainly by the 1760s, British merchants were beginning to feel competition from their colonial counterparts. In an attempt to pay the costs of the Seven Years War, including extensive fighting in North America (and known there as the French and Indian War), political leaders in England enacted new taxes. This move unintentionally interrupted transatlantic trade and ultimately led to the revolt of the colonies.

On the Verge of Revolution

The Stamp Act, passed in 1765, taxed all written and printed material, from books to paper money, and met strong opposition in the colonies. Philadelphia merchants, along with others in the colonies, agreed not to import British goods. This highly effective strategy led to the repeal of the act in the spring of 1766. Great Britain however still needed to pay for the war and wanted to assert its control of the colonies as well. As a result, the Townshend Acts were passed in 1767 to place duties on glass, paper, tea, lead, and paint. This also elicited a negative response from many a colonist, including those in Philadelphia. In 1769, after much debate, Philadelphia merchants once more agreed to stop importing British goods except for a few specified items such as material for ballast, medicine, and manufacturing. British dry goods were a special target for non-importation. In their absence, colonists promoted home manufacturing of woolens and other boycotted items.



German Stoneware decorated with manganese

Smugglers!

Smugglers of British goods often were harassed. While the boycotts certainly diminished British trade with the colonies until the repeal of the Townshend Acts in 1770, there were negative consequences for colonial merchants that were unbearable for some. Without imports to sell, many merchants faced closure. Some diehard colonial merchants vowed to stick with non-importation. However, by the fall of 1770, the consensus was to end non-importation with the notable exception of tea. Philadelphia only received tea that the Dutch smuggled into the colony. Seeking to put an end to this smuggling, Britain passed the Tea Act in May of 1773. The act made the only legal tea in America that imported by England's own East India Company. When the *Polly*, a British vessel, approached Philadelphia in December 1773 with a full cargo of tea, the ship was intercepted and the captain brought into the city. A public meeting protested bringing the ship to port. The Philadelphia protest on December 27th was peaceful, unlike the one in Boston several weeks before which resulted in the Boston Tea Party. The Philadelphia Tea Party, though relatively sedate, was one of the critical events leading to the convening of the Continental Congress.





War!

The American War of Independence severely disrupted the pattern of trade between Great Britain and the revolting American colonies. With the loss of Britain as a primary trade partner, the colonies sought to create or improve diplomatic and commercial relationships with other powers. From the start of the war, shortages in munitions and weapons as well as salt, shoes, woolens, and linens were present. In 1775, the Continental Congress had authorized trade with the West Indies and in the spring of 1776, trade with foreign countries was allowed. The British blockade of colonial ports was effective at obstructing shipments from 1776 onward, and disrupted the American economy throughout the war.

Philadelphia's port provides an example of trading conditions during the Revolutionary War. With the British Army's occupation of Philadelphia in the fall of 1777, many of the leading merchants of the city retreated inland, leaving their shops deserted. Initially, British ships from New York delivered supplies and provisions to occupied Philadelphia, but by the winter of 1777, commerce with Europe was open and profitable. Items such as crockery, textiles, loaf sugar, medicine, and wine were among the many items sold to civilians as well as British soldiers, and often at a high price, but it was dry goods that overwhelmed the markets. In June of 1778, the British Army evacuated the city to return to New York City, signaling the return of the refugee merchants.



The Roosevelt Inlet Shipwreck provides a glimpse into 18th century America's place within a global trading system during the waning days of mercantilism.



At the war's end, the newborn United States became an important player on the scene of transatlantic trade. American merchants reestablished old trading networks free of the fetters of Great Britain. After suffering a post-war reduction, breadstuffs (wheat and flour) came to dominate the exports of the port of Philadelphia in the late 1780s and into the 1790s. Likewise, American trade with France and its West Indian possessions grew in the 1780s.



U.S. Department of Transportation
Federal Highway Administration

Which could be the Roosevelt Inset Shipwreck?

Her Demise

Ship

<i>Severn</i>	On shore in Delaware Bay, 1774
<i>Hotham</i>	Lost, "Cast Away" type vessel, 1779
<i>General Green</i>	Lost, Pirate or privateer, 1780
<i>Mentor</i>	Driven ashore, a war loss, 1783
<i>Success</i>	Lost, 1783
<i>Count de Ducat</i>	Lost, 1783
<i>Patriot de Roum</i>	Lost, 1783
<i>Sophia</i>	Lost, 1783
-Unidentified-	Lost, 1783
<i>Alexander</i>	Stranded on the bar, 1784
<i>Maria Johanna</i>	Stranded, 1784
<i>Brilliant</i>	Stranded, 1784
-Unidentified-	Foundered, 1785
<i>Santa Rosalea</i>	Stranded, a Spanish vessel, 1788
<i>Pomona</i>	Lost, 1789
<i>John</i>	Wrecked, an English merchantman, 1790
-Unidentified-	Stranded, 1790
<i>Betsy</i>	Stranded, 1792
<i>Industry</i>	Foundered, a merchantman, 1793
<i>Peggy</i>	Lost, 1794
<i>St. Joseph</i>	Foundered, 1794
<i>Harmony</i>	Abandoned, 1794
-Unidentified-	Stranded, 1795
<i>Lively</i>	Lost, 1795
<i>Favourite</i>	Foundered, a merchantman, 1796
<i>Minerva</i>	Lost, 1796
<i>Henry and Charles</i>	Stranded, 1796
<i>John</i>	Wrecked, 1797
<i>New Jersey</i>	Stranded or lost, 1798
<i>Admiral Parish</i>	Stranded, 1800
<i>Susannah</i>	Wrecked, 1800



1772 Cast Alloy Pattern

These pieces of slate are
from the Roosevelt

With numerous vessels lost in the vicinity of the Roosevelt Inlet Shipwreck, there are many possibilities for this ship's identity. A search of primary and secondary historical sources found at least 228 vessels recorded as lost near Lewes, Delaware Bay, Cape Henlopen, Delaware Capes, Hen and Chickens Shoals, etc., between 1632 and 1850. How can this list be narrowed down?

Artifacts from the Roosevelt Inlet Shipwreck site can narrow the timeframe of possible ships. Some artifacts recovered from the ship have specific dates of manufacture, and one is stamped with the date "1772". This artifact – a button – indicates the ship could not have sunk before 1772, and establishes a *terminus post quem* (or "time after which"). Certain types of ceramic also provide a date range for the wreck. Tin-glazed earthenwares were recovered from the shipwreck, and this type of ceramic was no longer in general manufacture after circa 1800. To the contrary, no pearlware, or "China Glaze," was recovered from the shipwreck. This ceramic type is often found on American archaeological sites that date after the late 1770s; its absence from this site could suggest the wreck pre-dates that period. Many other artifacts, such as shoe and knee buckles, also point to an 18th century ship. These articles of dress were generally replaced by tie-on shoes and trousers during the late 18th century.

While the exact identity of the Roosevelt Inlet Shipwreck has not yet been determined, the historical research and the date ranges of artifacts have narrowed the possibilities. The piece of slate lists the most likely candidates.

Salt Glazed
Stoneware Jug

*Pencils were recovered
Inlet Shipwreck.*

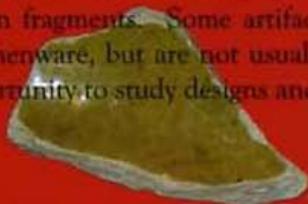
Between 1772 and 1800 there were 63 vessels lost in the vicinity of the Roosevelt Inlet Shipwreck. Although this inventory is still somewhat sizeable, by eliminating vessels on the basis of their hull type, location of reported vessel loss, and type of accident, the list can be shortened. Analysis of the extant hull remains suggests the Roosevelt Inlet Shipwreck represents the remains of a merchant vessel (i.e., brig or ship), not a smaller vessel such as a schooner. In addition, vessels clearly reported lost or wrecked outside the general area of the Roosevelt Inlet Shipwreck, and those reported as "burned as a war loss" can be discounted, as no evidence of burning is present on the hull remains. This process of elimination results in a list of 31 vessels lost between 1774 and 1800.

Interpreting the Site

Certain aspects of the Roosevelt Inlet Shipwreck site may escape our understanding. Without the remains of the hull or rigging of the vessel, we may never know the size of the vessel, or how it sailed. Without the ship's bell, or specific artifacts pointing to the identity of the ship, we may never be absolutely certain who was on board when the ship was lost. However, this shipwreck still illuminates broad patterns of history. Perhaps the most intriguing aspect is the cargo this merchant ship contained in its hold. It hauled a wide range of consumer goods from northern Europe to the markets of a colonial port, probably Philadelphia.

Testing this shipwreck gives the science of archaeology new information, raising new questions and confirming some previous observations. Some artifacts found here do not often survive on land sites, such as the wooden fragments. Some artifacts are well-known to archaeologists, such as the tin-glazed earthenware, but are not usually found in such quantities. They will provide an excellent opportunity to study designs and forms at a single point in time.

Other artifact types are still completely unknown on Delaware land sites, such as the Frankfurter ware, the Selters mineral water bottles, and the miniature figures. Have archaeologists just not recognized fragments of these for what they are? Were they only sold in Philadelphia and the upper Delaware Valley and never got to sites in Delaware? Archaeologists have to go back to their collections and look at them with new eyes in the light of these finds.



Yellow "Frankfurter Ware"



Curtain Tie Back



Tin Glazed Earthenware



Stone Gaming Piece



These artifacts were the items

that represented Old World culture in the hands of Americans at the time when revolution was in the air. When a man was contemplating the break with the mother country and what future the rebelling colonies would have, he could have been fastening his shoe with one of these pewter buckles. When a woman was worrying about the effects this conflict was having on her family, she could have been sewing with one of these thimbles. Their children may have been playing with the toy soldiers or ships, while the real instruments of war were on their doorstep. These are the items of daily life that bring the modern reader into the personal world of the historic period.



Ornate Buckle

Thimble &
Thimble CaseToy Soldier
Photograph & Illustration

Protecting the Past

The State of Delaware has a rich maritime past. Its submerged cultural resources are finite. These archaeological sites need to be protected from threats that may damage significant and fragile remains.



"Fouled Anchor" Button

Stewardship and protection of the Roosevelt Inlet Shipwreck is under the authority of the State of Delaware. Currently, the site is listed on the National Register of Historic Places. The State monitors the site regularly to ensure its continued protection from unauthorized disturbances, such as treasure hunting, fishing and trawling activities, and exposure from major storm events. This includes periodic underwater inspections to assess the condition of the site.



Square Nails

Following the 2006 investigations, another side-scan survey indicated the sediments were rapidly filling the test units. This infilling will help protect the Roosevelt Inlet Shipwreck from future environmental losses. In the fall of 2007, the divers of the Institute of Maritime History examined the shipwreck and found it to be reburied by the sediment.



Shipping Seal from a cord of fabric
Front/Back Illustrations & Photographs

For More Information



For more information on the Roosevelt Inlet Shipwreck, please contact the Delaware Division of Historical & Cultural Affairs at (302) 736-7400, or visit our website <http://history.delaware.gov/>. As of this printing, some artifacts from the site are on exhibit at the Zwaanendael Museum in Lewes, Delaware.

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