

# EL NUEVO CONSTANTE

A.D. 1766

*El Nuevo Constanste carried some valuable cargo. In order to protect this cargo, the ship was armed with 22 iron cannons.*

*El Nuevo Constanste* is the name of a Spanish ship that wrecked near the Louisiana coast in 1766. In September of that year, a hurricane struck a fleet of Spanish merchant ships as they sailed from Mexico to Spain. One of the ships, *El Nuevo Constanste*, nearly made it to shore before it sank in shallow water. The wreck of *El Nuevo Constanste* lay submerged for 213 years. Then, in 1979, a shrimper caught some large copper [ingots](#) from the wreck in his nets. The ingots led to archaeological study of the shipwreck.



## Time and Place

The wreck of *El Nuevo Constanste* lies off the coast of Cameron Parish, Louisiana, in the Gulf of Mexico. The site is only a mile from the coast, in less than 20 feet of water. Nearby are lakes and bayous with the name “Constance,” the English form of *Constante*. These place names confirmed the name of the ship

In the first week of September 1766, a hurricane blew the Spanish ship aground. It was in a group of ships that was sailing from Veracruz, Mexico, to Cadiz, Spain. *El Nuevo Constanste* was a merchant ship that carried a load of products from Mexico. All of the people on the ship made it safely to land, but the cargo had to be rescued. The Spanish government in Louisiana began immediate salvage of the ship. This work to save and move cargo lasted for two months, but the effort was unable to recover everything from the wreck.

More than 200 years later, Curtis Blume found the ship when he caught several large **ingots** of copper in his shrimp nets. He and associates later dug on the wreck with a **dredge**. They removed ballast stones and many other artifacts. However, they soon realized the importance of the ship and contacted the state.



*(Left) Some ballast stones from El Nuevo Constanste. Thousands of ballast stones were often used to weigh down the bottom of a ship. Weight at the bottom helped prevent ships from tipping over during big storms.*



*El Nuevo Constante* lay in Louisiana waters near the southwestern coast of Louisiana. The state developed an agreement with Mr. Blume and his associates. This contract provided for historical and archaeological study of the wreck. The archaeologists and finders worked together to record all of the wreck and its artifacts.

The lower part of *El Nuevo Constante* was nearly complete when archaeological research began in the early 1980s. Still at the site were pieces of cargo, weapons, food, and belongings of the crew or passengers. Tides had carried away parts of the ship and cargo. Mud and sand had buried the rest.

Through careful research, historians learned about the ship and the events leading to its loss. Underwater archaeologists excavated well-preserved artifacts, many of which are unique. These tell about the ship's construction, its cargo, and life on board an 18th-century merchant vessel.



*Artifacts from the ship, like the anchor and the Mexican pottery, gave information about the ship's fittings and cargo.*



## Ship's History

In 1764, a Spanish merchant family bought the ship for the New World trade. Before that, a British trading firm owned it and called it the *Duke of York*. Documents of March 1764 say *El Nuevo Constanste* could carry 470 tons of cargo. It was 121 feet long, 30 feet wide, 19 feet deep, and had three masts. Records show the ship had four pumps and four large and two small anchors. It was armed with 18 eight-pounder and four four-pounder cannons. It also carried 36 muskets, 18 pairs of pistols, 24 war axes and ammunition. *El Nuevo Constanste*, originally the *Duke of York*, probably was of British construction and carried British weapons.

The ship was one of several ships in the New Spain fleet. This was one of two main Spanish fleets that carried goods to and from the Americas. The New Spain fleet left for Spain from Veracruz, Mexico, on May 25, 1766. However, a lack of wind kept the ships from going very far. More delays put off the departure. At last, six merchant ships and a royal warship left for Spain on August 21, 1766. This was well into the dangerous hurricane season. At least 11 passengers and 60 crew members were aboard *El Nuevo Constanste* when it finally left Veracruz. The ship was under the command of Don Julián Antonio de Urcullu.

*(Top right) North America, and the West Indies; a new map, wherein the British Empire and its limits, according to the definitive treaty of peace, in 1763, are accurately described, and the domain possessed by the Spaniards, the French, & other European States. The whole compiled from all the new surveys, and authentic memoirs that have hitherto appeared. Courtesy of the Library of Congress, LC-74694268.*

*(Bottom right) Detail from map above showing the route of the New Spain fleet (called "galeons" here) from Veracruz to Havana on its way to Spain.*





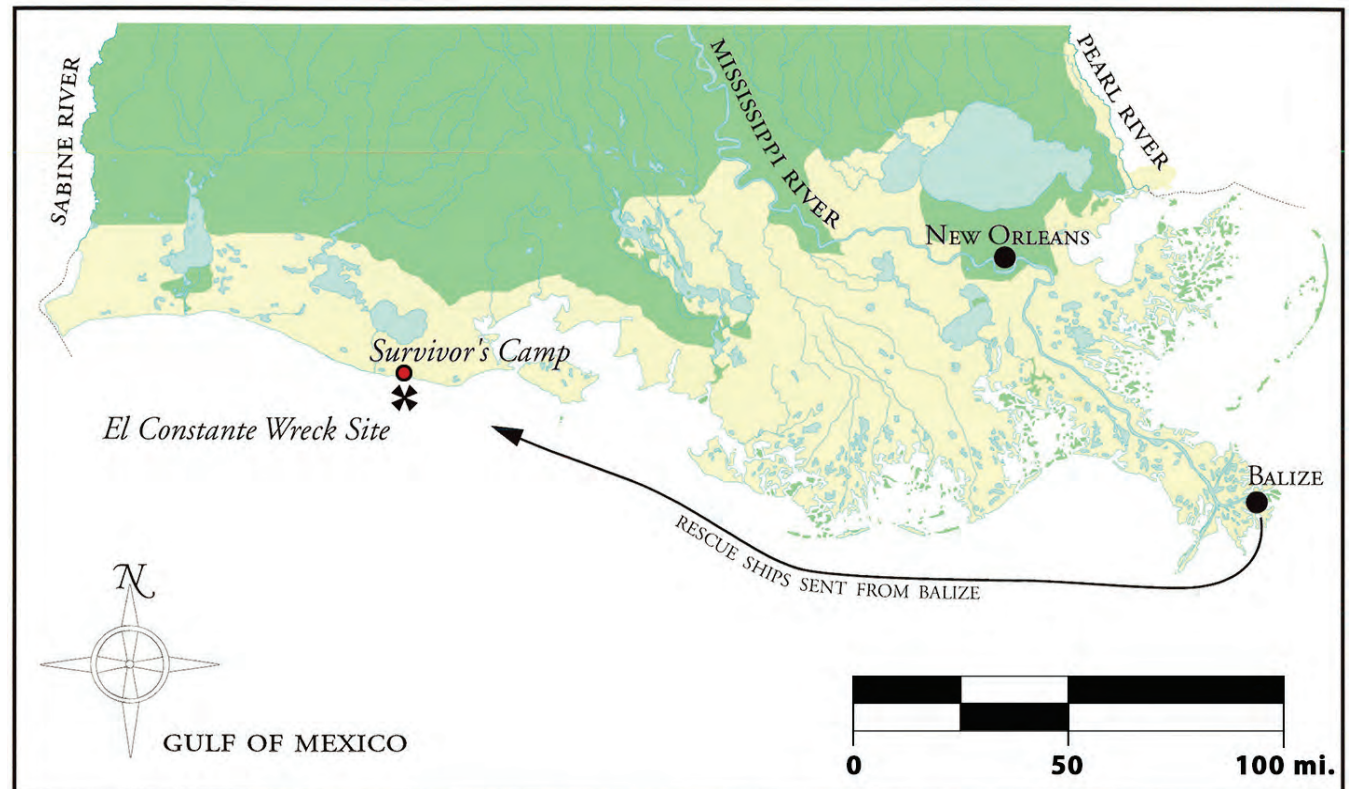
On September 1, a storm scattered the fleet. The ships regrouped but spread apart again on September 4. The storm damaged six of the ships; however, all except two made it safely to harbor. One of those ships, *El Corazón de Jesús y Santa Bárbara*, wrecked somewhere off the coast of Texas. The other ship, *El Nuevo Constante*, sprang leaks and began taking on water. Afterward, the crew concluded that the pounding seas had worked the caulking out of the seams, or possibly had knocked knots from the planking.

Realizing that *El Nuevo Constante* was sinking, the officers decided to head for the nearest land. The ship struck the bottom on September 5, coming to rest in 10 feet of water and roughly 1,600 feet from shore. The force of the storm worked *El Nuevo Constante* into the muddy sea bottom.

Fortunately, no one on board died during the hurricane. Two days later, the seas calmed enough for the crew members to go to shore, where they built a temporary camp. Over the next few days, they saved as much cargo as they could from the stranded ship. The captain picked a few men to go by boat to report the wreck to the Spanish authorities. They made the journey to Balize, about 180 miles to the east, at the entrance to the Mississippi River.

Spain's new Governor of Louisiana, Antonio de Ulloa, then sent six ships to help transport the cargo and people from *El Nuevo Constante*. The last of the ships left the camp in November 1766. It carried some cargo, as well as the captain and a few passengers and crew. Eventually, the goods arrived in Cadiz, Spain. The final value of the recovered cargo was only 11 percent of what it was originally in Veracruz.

*The map to the right shows the location of the wrecked ship (marked with an X), the survivor's camp and Balize, from which rescue ships were sent to recover crew and cargo.*



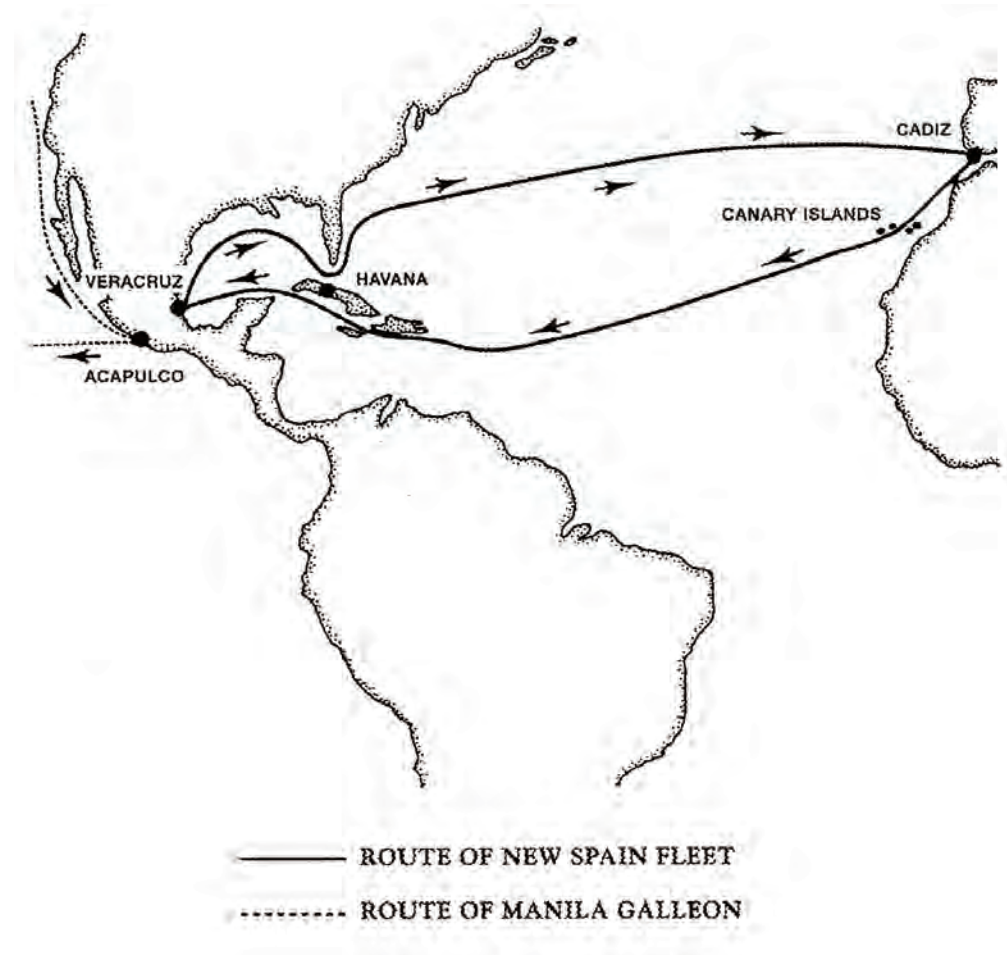


## Trade and Travel

During the colonial period, Spanish merchant ships sailed in groups as they carried goods to and from the Americas. One, known as the New Spain fleet, went between Cadiz, Spain, and Veracruz, Mexico. *El Nuevo Constante* was in that fleet. It began its final voyage from Spain on December 7, 1765. The main cargo was mercury, which was used in Mexico to remove silver from ore. The ship carried 1,334 boxes of mercury, and each one weighed 150 pounds. Also on board were wine, liquor, iron, nails, plow points, vinegar, and a “box of relics from the holy places in Jerusalem,” all bound for Mexico.

For the trip from Mexico, 47 individuals and the government of Spain shipped cargo on *El Nuevo Constante*. The ship carried almost the full range of goods exported from New Spain during this period. The cargo included cowhides, medicinal plants, ceramics, dyes, copper and silver. Archaeologists found many of these on the wreck. A shipping list is available for *El Nuevo Constante*’s voyage from Mexico. It notes the cargo, the person shipping it and the person receiving it in Spain. Sometimes, it describes in detail how the goods were packed.

At first, *El Nuevo Constante* was loaded with a large amount of precious metals. The cargo included gold and silver coins, silver bars and copper [ingots](#). However, the gold coins, silver bars, and some of the silver coins and copper [ingots](#) were shifted to other ships between May and August. When it finally left Veracruz, *El Nuevo Constante* carried 22,000 pesos in silver coins for the crew’s salaries. These coins were the most valuable cargo on board. Records state that the Spanish recovered all of the silver coins after the shipwreck.



*The map shows the route of the New Spain fleet and also shows part of the route of the Manila galleon, which traveled between Acapulco, Mexico, and Manila, Philippines. Some of the cargo from Asia was bound for Spain. It was carried by pack animals across Mexico and loaded on ships in Veracruz.*



Register of what was being carried to Spain by the ship *El Nuevo Constante*, one of those which sailed with the fleet commanded by Don Augustin de Idiaquez.

|                                  |                         |
|----------------------------------|-------------------------|
| <b>Silver coin</b>               | 23,750 pesos            |
| <b>Gold coin</b>                 | 2,600 pesos             |
| <b>Silver bar</b>                | 79 marks                |
| <b>Cochineal</b>                 | 425 arrobas 2 libras    |
| <b>Indigo</b>                    | 115 arrobas 21 libras   |
| <b>Vanilla beans</b>             | 220,000                 |
| <b>Cacao from Soconusco</b>      | 97 arrobas 14 libras    |
| <b>Cacao from Caracas</b>        | 8 arrobas 20 libras     |
| <b>Ipomea purga</b>              | 2,419 arrobas 17 libras |
| <b>Annatto</b>                   | 217 arrobas 15 libras   |
| <b>Balsam</b>                    | 7 arrobas 17 libras     |
| <b>Powder of Oaxaca (snuff?)</b> | 2 arrobas               |
| <b>Zebadilla</b>                 | 268 arrobas 9 libras    |
| <b>Gifts</b>                     | 17 boxes                |
| <b>Copper ingots</b>             | 12,471 libras           |
| <b>Tanned hides</b>              | 2,375                   |
| <b>Goat skins</b>                | 25                      |
| <b>Ceramic bowls</b>             | 29 boxes                |
| <b>Pictures</b>                  | 6 boxes                 |
| <b>Chocolate</b>                 | 1 box                   |
| <b>Copal</b>                     | 5 arrobas               |

English translation of original cargo list shown on right.  
1 arroba= 25 pounds, 1 libra= 1 pound.

*Nota de lo que conducia para España el navio  
Nuevo Constante, uno de los de la conserva de la flota a  
mando de D. Augustin de Idiaquez*

N.º 1.º

|                          |               |
|--------------------------|---------------|
| Plata acunada            | 23750e        |
| Oro acunado              | 2600e         |
| Plata labrada            | 79 m.º        |
| Pelo de grana y granilla | 425 @ 2 l.º   |
| Arñil                    | 115 @ 21 l.º  |
| vainilla                 | 220000.       |
| Cacao Soconusco          | 97 @ 14 l.º   |
| Oro de caracas           | 8 @ 20 l.º    |
| Purga de Taiapa          | 2419 @ 17 l.º |
| Achiote                  | 217 @ 15 l.º  |
| Edahamo                  | 7 @ 17 l.º    |
| Polvillo de Oaxaca       | 2 @           |
| Zebadilla                | 268 @ 9 l.º   |
| Regalos                  | 17 cajas      |
| Cobre de larvor          | 12499.71 l.º  |
| Queros curados           | 2375          |
| Piel de chivo            | 25            |
| Bucaros                  | 29 cajas      |
| Piniazas                 | 6 cajas       |
| Chocolate                | 1 caja        |
| Copal                    | 5 @           |

Partial list of cargo initially loaded on *El Nuevo Constante*.  
Image courtesy of España, Ministerio de Educación, Cultura y Deporte.  
Archivo General de Indias, AGI, Contratación, 2071.



The ship also carried flat, disk-shaped **ingots** of copper. In Spain, the copper would have been used to make cannons, bells and other items. At first, the ship was loaded with 2,058 **ingots** of copper. Then, before sailing, the 1,915 **ingots** for the royal treasury were moved to another ship. This left 143 **ingots** of copper weighing 12,471 pounds. There is no record of the Spanish retrieving these after the storm, and many were found at the wreck.

*El Nuevo Constante* transported a large quantity of New World plant and insect dyes. They included cochineal, annatto, indigo and dyewood. Archaeologists found pieces of all these, except cochineal.

Cochineal is a red dye made from the dried bodies of the female cochineal insects. They live only on the prickly pear cactus. The insects were both collected in the wild and grown on plantations. These insects also were native to the Old World, but the type in Mexico gave deeper and better color. People in Europe highly prized this dye. Through much of the colonial period, high-quality cochineal was one of Mexico's most valuable export products. The Spanish salvaged some of the cochineal after the wreck, and the rest must have dissolved in the sea water.

The ship was loaded with 5,415 pounds of annatto. Annatto is an orange dye made from the seeds of a shrub. The annatto was packed in boxes and small barrels for shipment.

*El Nuevo Constante* also carried 2,896 pounds of indigo, which made a blue dye. The indigo on *El Nuevo Constante* was in pouches that each weighed 200 pounds. Archaeologists found only one small piece of indigo on the wreck.



*Merchants sometimes shipped blocks of dye in fabric sacks. The imprint of fabric can be seen on the block of annatto here. Annatto was first used by the native peoples of Latin America and the Caribbean as a dye and for flavoring their food. Today, annatto is used as a dye and seasoning around the world.*

Logwood was another source of blue dye, and also of red. The wood provides a blue color when treated with alkali and an impermanent red when treated with acid. This blue is more violet, and more likely to fade, than indigo. Logwood comes from a hard, compact tree grown in Central and South America.



*El Nuevo Constante* carried 1,032 short logs of logwood, weighing 40,000 pounds. The complete shipment was for the *Casa de Contratación*, the House of Trade. This was the Spanish government body that regulated trade with the New World.

The manifest listed 2,659 pounds of cacao (chocolate beans) on the ship. It also noted one box of processed chocolate. Impressions and molds of cacao beans are in **concretions** from the wreck. Also in the cargo were 253,600 vanilla beans, which were used to flavor chocolate. These vanilla beans weighed about 4,900 pounds. Because of the large amount, the vanilla beans were the second most valuable cargo item on board, next to the silver coins. The Spanish salvaged most of these after the hurricane. Archaeologists did not find any vanilla beans on the wreck.

*El Nuevo Constante* carried 60,520 pounds of *Ipomea purga*, a plant used as medicine. This was the largest amount of any cargo item. Also on board were 6,959 pounds of *zebadilla*, a plant from Central and South America. It had many uses in Europe. It was a laxative, an insecticide, a treatment for arthritic rheumatism, and snuff. No remains of either of these plants were found at the site of the wreck. The Spanish salvaged a small portion of them, and the rest probably decayed.

Four olive jars of balsam, which weighed a total of 192 pounds, were on *El Nuevo Constante*. Balsam was a tree resin used in medicines and perfumes. Copal, also a tree resin, was an ingredient of varnish and incense. One box of copal, weighing 125 pounds, was on the ship. The Spanish saved the copal, which had one-quarter of its original value when it finally reached Cadiz, Spain. Neither the Spanish nor the archaeologists recovered any of the balsam.

**(lower right) Archaeologists did not find any actual chocolate beans in the wreck. Instead, they found the imprints of these beans in **concretions**, like the one to the right.**



**(Above) Logwood.**



**Credit: Coastal Environments, Inc.**





Credit: Coastal Environments, Inc.

*Miniature ceramic jar and lid.*



Credit: Coastal Environments, Inc.

*Miniature ceramic vase, measuring about 1.5 inches wide.*

*El Nuevo Constante* carried ceramics made in Mexico for export. The cargo list called these Guadalajara wares. There were two boxes of ceramic gift items, 10 boxes of small bowls or pots, and seven boxes of large vases or bowls. They all may have been from the village of Tonalá, near Guadalajara. People in that town had been making pottery for export since at least the early 1700s. Many of the fragile pieces of ceramics survived the wreck and more than 200 years under water.

Other cargo items were two pictures on canvas and two kimonos. The kimonos probably came from Asia on ships that traveled regularly between Mexico and the Philippines. Spanish records say that the two kimonos were recovered from the wreck, but not the two pictures. *El Nuevo Constante* also carried 900 pounds of gunpowder and 60 bundles of flour for troops posted in Havana, Cuba. These were not preserved on the wreck.

The ship carried four boxes of turtle shell for a merchant named Juan Antonio Gonzales Nandín. In Europe, artisans would have crafted the shell into snuff boxes, combs and other items. The Spanish rescued about half of the shipment, and archaeologists found other pieces.

## Food

Historical documents said that the ship carried a cook for the crew, a first cook, a second cook, a pastry cook, a pastry cook's boy and a bread cook. A "captain of chickens" and a butcher also were on the ship. This group of people must have been on board to prepare food for important passengers as well as the crew. Among these important passengers were Father Joseph Buenaventura Moraleda and Dr. Diego Sanchez Pareja, both of whom were prominent members of the clergy.

Archaeologists found animal bones on *El Nuevo Constante* that provided some idea of what people ate on the ship. Bones included those of cow, pig, sheep, fish, turtle and chicken. The bones of domesticated animals show that live animals were on board, as well as dried or preserved cuts of meat. Spanish ships of the period commonly carried live pigs, cows, sheep and hens on trips to and from the New World. The animals supplied fresh meat and eggs for the long trans-Atlantic voyage.



*Goat or sheep horns and chicken bones.*

Pieces of hand grinding stones found on the wreck suggest that the ship carried corn or other grain. An olive pit found in a [concretion](#) shows that olives, familiar to Spanish sailors and citizens, were on board.

Records note that wine was a regular item on a sailor's daily menu. Archaeologists found several fragments of wine bottles scattered throughout the ship. Some artifacts reveal how sailors stored food on the long trips to and from the New World. Broken wooden barrel fragments and pieces of iron barrel hoops came from the wreck. Divers also found more than 100 olive jar fragments. These large, ceramic, storage jars could have held olive oil, water, wine, honey, olives, beans, spices or lard.



Credit: Coastal Environments, Inc.

*Olive jar fragments. Olive jars varied in size and shape. Unbroken, the globular form seen here would have measured nearly 10 inches across.*

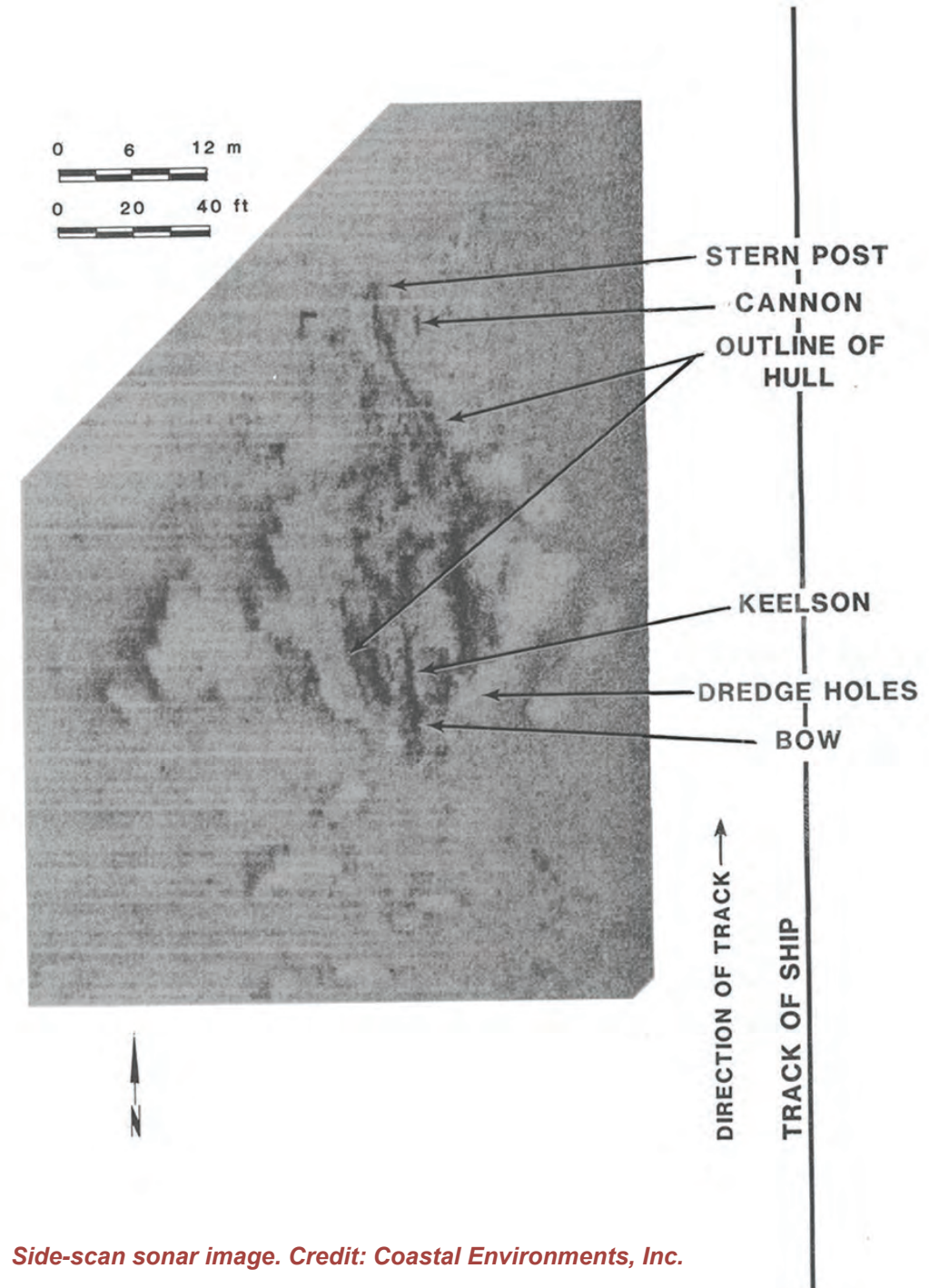


## Underwater Archaeology

In September 1980, the archaeologists began work. A remote sensing survey was the first research on the wreck site. Its purpose was to find out all that they could about the ship before the excavation began. Archaeologists used a magnetometer, side-scan sonar and subbottom profiler. The side-scan sonar gave the most useful information. It produced a clear picture of the sea floor using sound rather than light. This image showed the ship's outline, a cannon, and the holes where the finders used a dredge to dig at the site.

The side-scan record served as a map for planning excavations. Archaeologists marked a line down the center of the ship, and then laid 10-foot squares off this line. Spikes marked the corners of the squares. Two underwater archaeologists directed the excavation, and trained divers worked with them. They mapped and excavated what they found within these square units.

*El Nuevo Constante* lay in about 18 feet of water. However, divers could not see the wreck because of mud. The liquid mud formed a thick soup extending 2 or 3 feet above the sea bottom. As a result, the archaeologists excavated and mapped by touch. Divers used surface-supplied air and had radio contact with the diving boat.

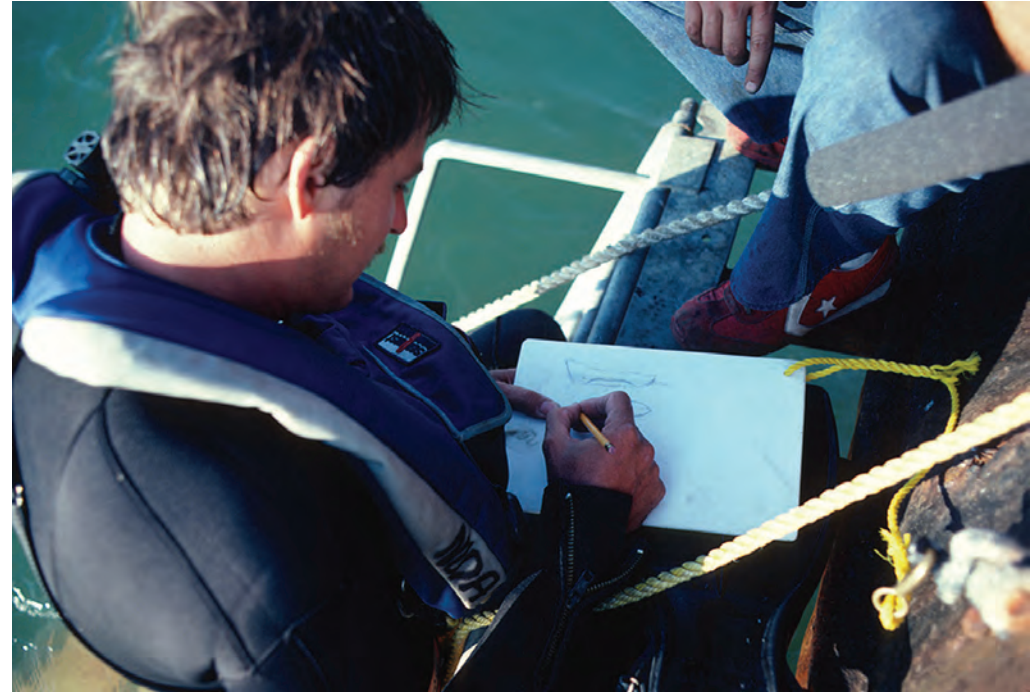


Side-scan sonar image. Credit: Coastal Environments, Inc.

Mud covering the wreck had kept oxygen from reaching it. This reduced organic decay, helping preserve the ship and its contents. Oyster and barnacle growth and shipworm damage occurred only on the upper portions of the wreck, above the thick, liquid mud covering the sea floor.

After divers mapped and removed artifacts that they found by touch in each square, they used a hydraulic water lift. This piece of equipment sent a large volume of pressurized water through a pipe down to the bottom. It forced the water and bottom material through a pipe back up to the diving boat at the surface. On the boat, the material was collected in a wire basket. Archaeologists cataloged all artifacts according to their square. They left large artifacts in place until they mapped them near the end of the excavation. Excavations concluded on February 15, 1981.

Archaeologists also searched the shore for the shipwreck survivors' camp. They found only a few historic artifacts. One of these, a small clay bowl, was identical to several from *El Nuevo Constante*. It appeared, however, that waves had washed it on shore. No other evidence of the survivors' camp was found. Maps show that the shoreline in this area had eroded about 4,600 feet since 1766. It is likely that erosion destroyed the site of the camp.



*(Top) Recording information about the wreck.*

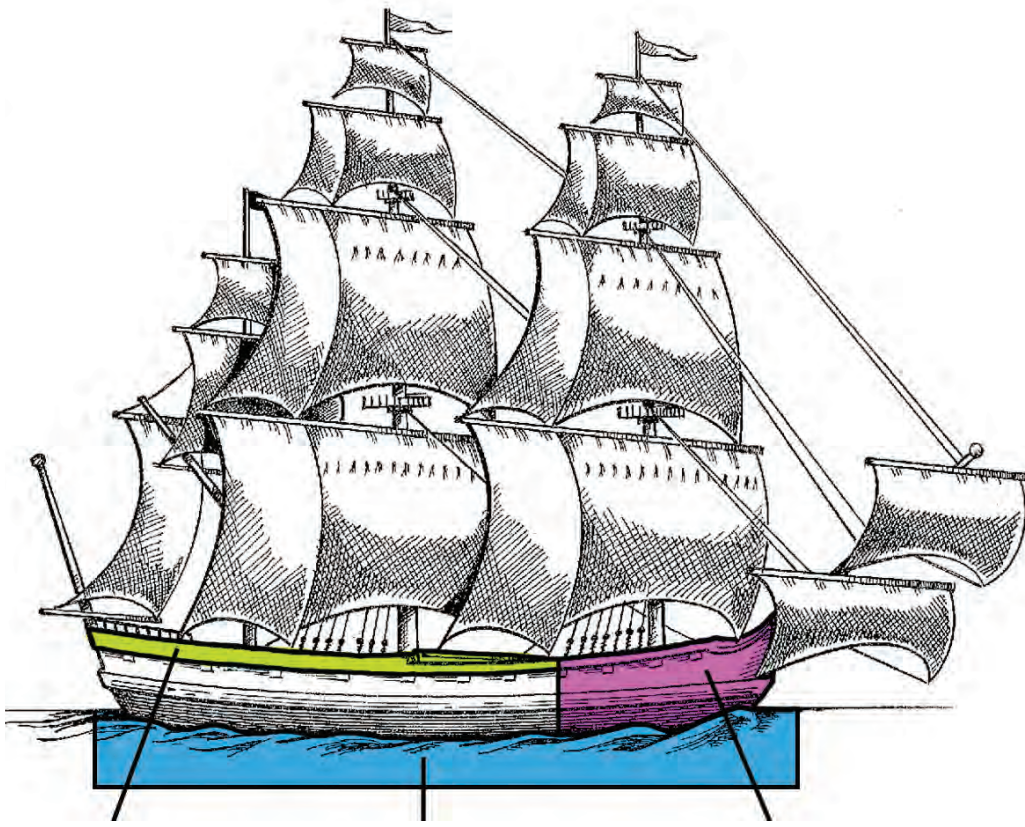
*(Bottom) Silver disks recovered from El Nuevo Constante.*



# Explore the Site

The image below is an artist's interpretation of what *El Nuevo Constanste* may have looked like.

*Image credit (Bottom left): Stan Dark © 1997.*



Upper Deck

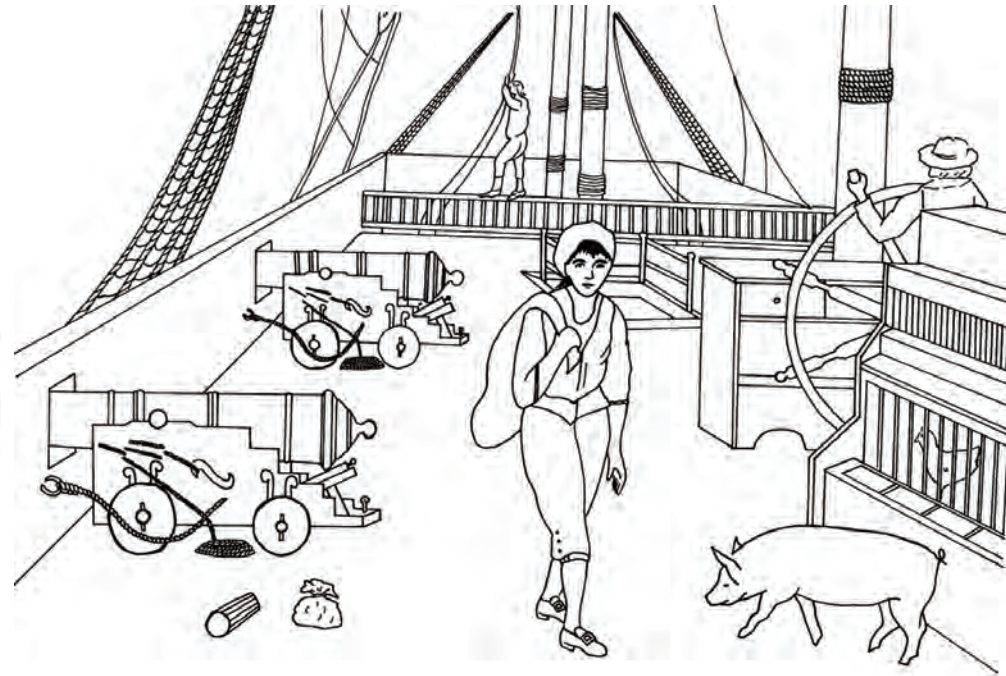
Lower Hull

Below Deck

## Upper Deck

Based on the historical records and the excavation, archaeologists have a good idea of what was on the upper deck of the ship. In this area were the 22 cannons. The cannonballs were probably stored nearby.

The live animals likely were kept in pens on the upper deck as well. Chickens provided eggs and other animals were a source of fresh meat on the long voyage.





# Below Deck

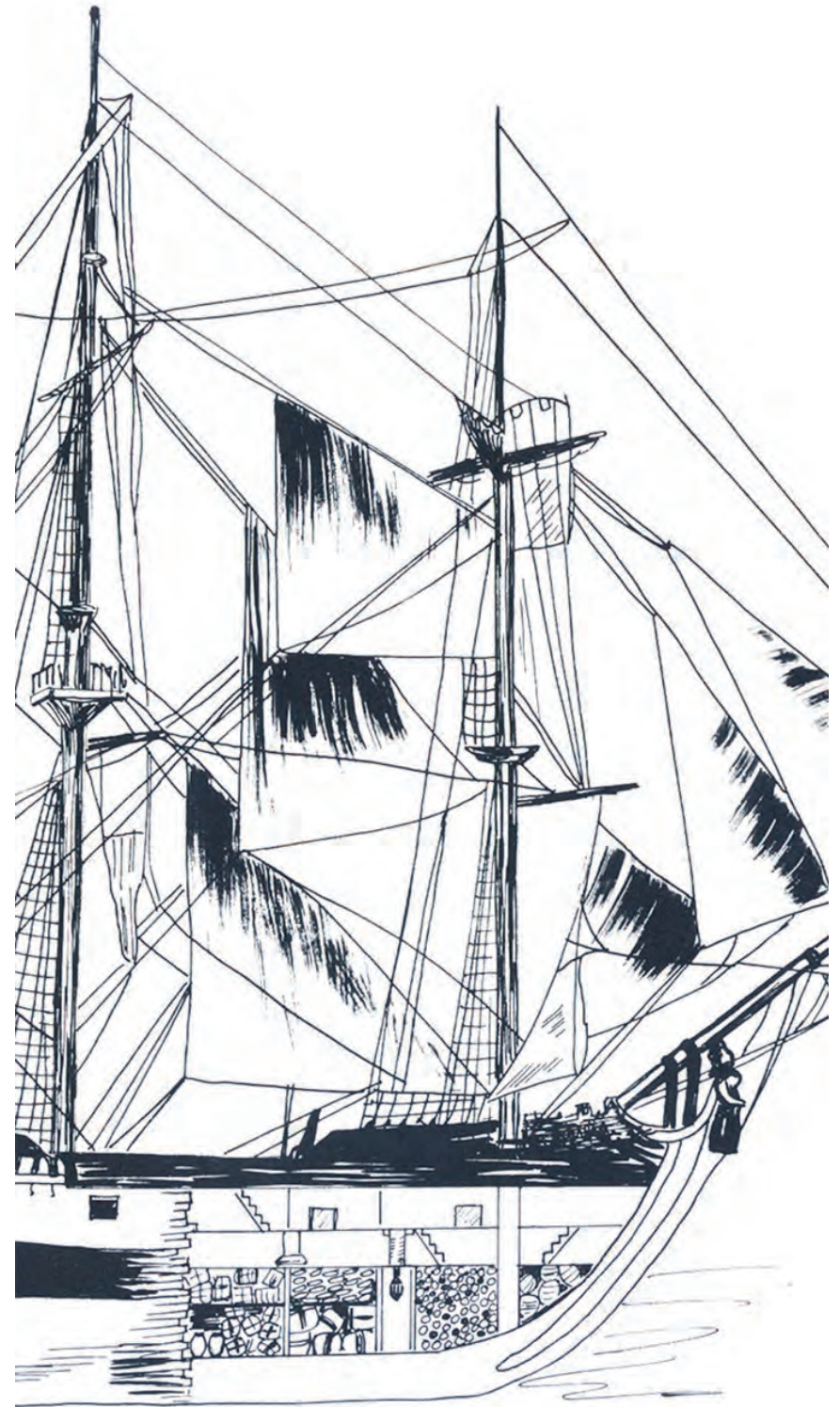
The ship had more than one level, as the illustration shows. The lowest one was carefully loaded with rocks and heavy cargo. This material, called ballast, helped keep the ship stable and upright. On *El Nuevo Constante*, the copper ingots provided some of the ballast. To supplement this cargo, the ship also carried ballast stones. These smooth, rounded river cobbles were on board just to stabilize the ship. After the wreck, the people recovering the cargo may not have been able to reach the lowest levels, so the things stored there were left on the ship. Much of the cargo, however, was lightweight, and it was stored in a higher level.

*(Right) Cutaway view of ship showing where cargo and ballast were stored.*

*(Below) Piles of ballast stones recovered from the ship.*



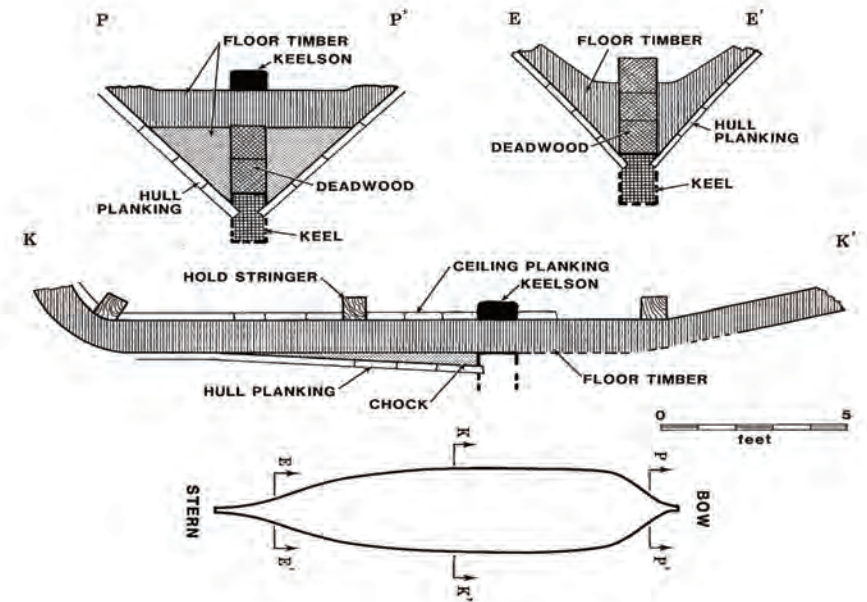
Credit: Coastal Environments, Inc.





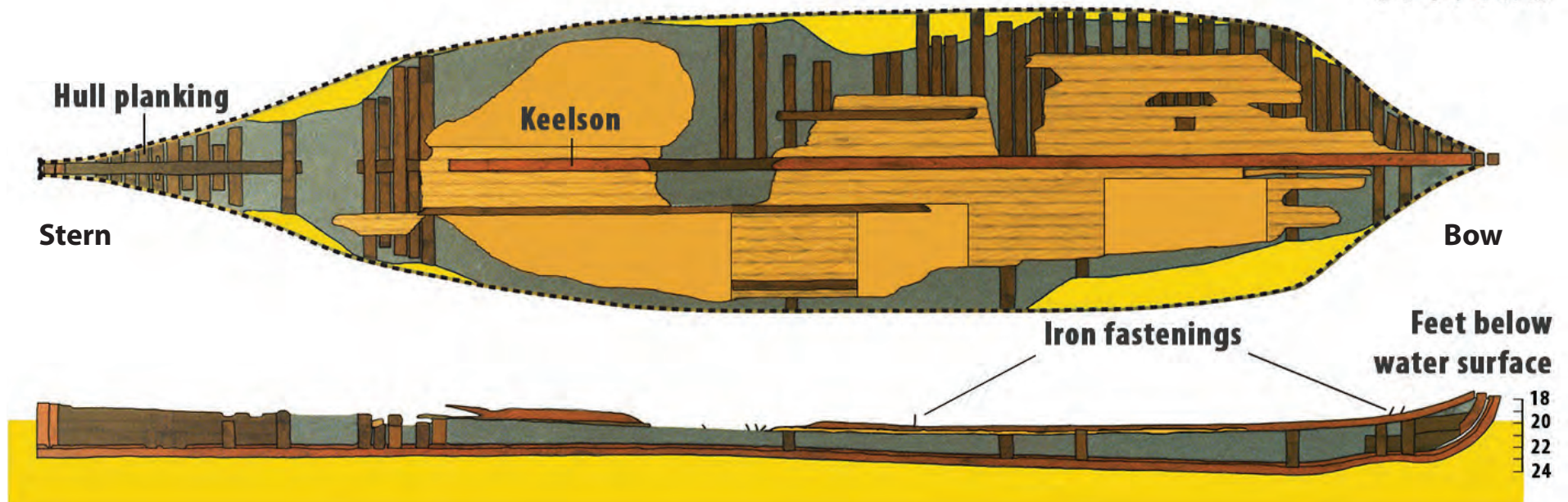
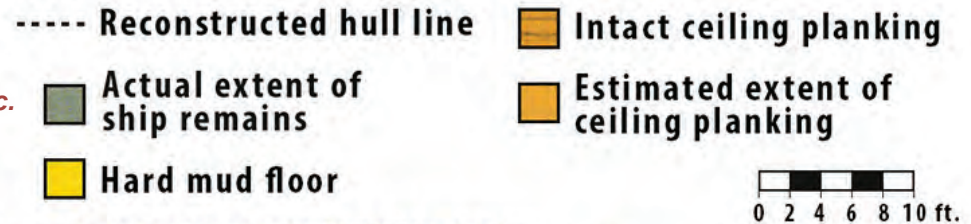
# Lower Hull

The largest object recorded in the excavation was the lower 3 to 4 feet of the ship's wooden hull. It was 127.5 feet long and 26 feet at its widest point. The hull gave a lot of information about shipbuilding in the 1700s. Frame timbers averaged 11 to 13 inches in width. These were the large pieces that curve upward to form the ribs of the ship. Analysis showed that the frame timbers were oak. The large central timber, known as the keelson, was intact down much of the length of the vessel. One-inch diameter iron bolts attached it to the keel and other pieces. A large portion of the interior decking, or "ceiling" planking, also was still in place. Researchers identified samples of this ceiling planking as pine.



(Top right) Three cross sections show floor frame shapes required to achieve the curve of the hull. Credit: Coastal Environments, Inc.

(Below) Schematic of the ship's lower hull. Credit: Coastal Environments, Inc.



Wooden planks covered the outside of the ship. These planks were 4 inches thick and up to 13 inches wide. Wooden pegs, called trunnels, and iron bolts attached the hull planks to frames. The pegs were approximately 1.75 inches in diameter. Analysis showed the hull planks and pegs to be made of white oak.

Another layer of wood was often used to reduce worm damage to the hull. Shipbuilders spread tar, often mixed with animal hair, on the hull and then covered it with the wood sheathing. Sheathing made from 1-inch-thick spruce boards was found attached to *El Nuevo Constante*'s hull. Most of the lower hull probably once had this sheathing, though it remained in only a few places.

Several hundred metal and wooden artifacts came from *El Nuevo Constante*. Most relate to the structure and outfitting of the ship.

Divers recovered two bases of wooden bilge pumps from the middle part of the ship. They were found on either side of the keelson. This was the typical location for pumps on ships of this size. The pieces are the bottoms of the long pump shafts that extended from the low, inner part of the hull to an upper deck. The outside shape of each shaft is hexagonal, and the central, circular hole is 3.5 inches in diameter. They are made of elm. Each specimen has a lead screen nailed to the base.

**(Top) Lead strainers like the one seen above were used to strain debris that could clog the ship's bilge pumps. Bilge pumps were used to pump water out of the ship.**

**(Bottom) The lead screen can be seen on the base of one bilge pump (left) and the circular hole can be seen in the center of the other (right).**



Credit: Coastal Environments, Inc.



Credit: Coastal Environment, Inc.



# Artifacts

In spite of the Spanish efforts to rescue the cargo, many items were left on the wreck. The crew must have been unable to find or to transport many objects. Perhaps they thought some of them were not important enough to save. Hundreds of artifacts came from the wreck of *El Nuevo Constante*. They are unusual because of their variety and their good preservation. Examples include all types of metal and wooden ship fittings and structural parts. Other artifacts are weapons, possessions of the crew and passengers, and cargo.



## Annatto Dye

Divers found 19.1 pounds of annatto at the shipwreck. It was in small, dark red blocks. A few were almost brick size, but most were smaller. Marks of straps or bands were on several pieces. Cloth impressions were on some. These marks suggest that the blocks may have been wrapped for transport. No preserved annatto seeds or pods were in the material from *El Nuevo Constante*. However, the impression and molds of many seeds were in several [concretions](#).



Credit: Coastal Environments, Inc.

# Buckle

Only a few artifacts were found that came from clothes or personal belongings. This fact suggests that the passengers and crew removed most of their possessions after the ship grounded. Among the few items found is this pewter shoe buckle. During the 1700s, shoe buckles reached their peak in popularity. Their style and quality showed the wealth of the wearer. This buckle is simple in design, so it is possible that a crew member owned it. The buckle is just over 1.5 inches wide.



# Cannons, Cannon Balls and Cannon Shot

Three iron cannons and an assortment of ammunition were found at the wreck. The cannons are all about the same size. Cannons of this type usually are called nine-pounders, but the Spanish documents refer to them as eight-pounders. They are 8 feet long and have a muzzle bore diameter of about 4.25 inches. They fired cannon balls weighing about 9 pounds.

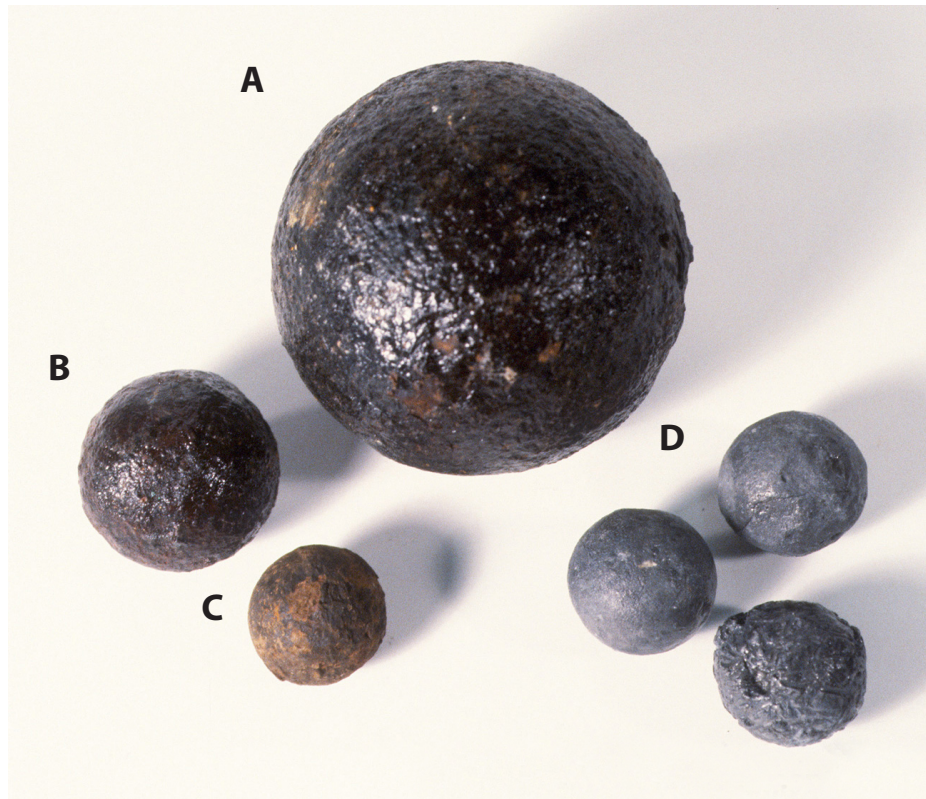


Credit: Coastal Environments, Inc.



Ammunition includes several types of shot. The largest of these are three cast iron cannon balls (A). They weigh from 8 to 10 pounds apiece and measure about 4.1 inches in diameter. These were the solid shot used in the eight-pounder cannons. Six smaller-sized balls (B) may have been shot for four-pounder cannons. They are about 2 inches in diameter.

Small iron (C) and lead (D) balls that are 1 to 1.5 inches in diameter came from the ship. They probably were used as grape or canister shot. Grape shot is a cluster of several small balls tied or wrapped with canvas in a bundle. Canister shot refers to small shot enclosed in a wooden or metal canister that burst open upon firing. Generally, lead was used for canister shot while iron was used for grape shot. The cannons recovered from the wreck could have fired both canister and grape shot.



## Cowhide

Cowhide is one kind of organic item that survived. Although most of the pieces are tattered, one cowhide is complete, and several others are nearly whole. The complete hide had been folded and stitched around its edges to form a large bag. Stitching holes are about .25 inch apart. The threads have not survived, but their lashing marks are still evident.



Credit: Coastal Environments, Inc.



# Ingots

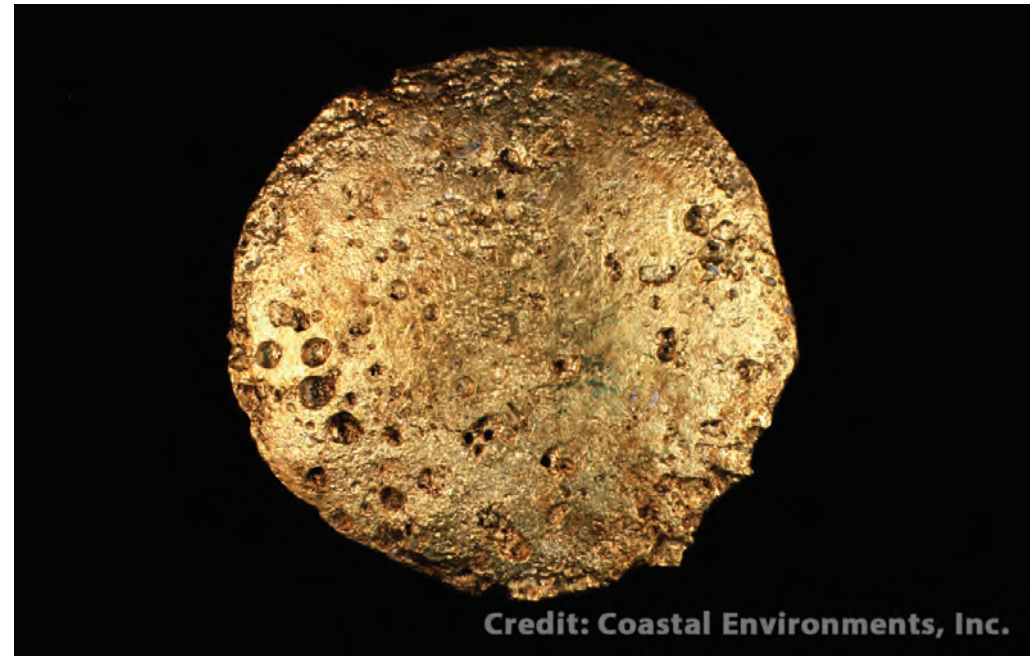
## Gold Ingots

Ten pieces of gold from the wreck weigh a total of 50.4 pounds. Most are disk-shaped, and one is an irregularly shaped piece. The disk-shaped ingots were cast by pouring melted gold into shallow circular holes in the ground. Two disks bear the stamps of Roman numerals V and VII. These numbers probably are owner's marks, not related to weight or gold content. Three small, crescent-shaped indentations also are on the flat sides of two of the ingots. The ingots range in diameter from 2.5 inches to 6.1 inches.

Spanish officials had strict control of precious metals leaving the New World. They normally marked ingots with many insignia, tallies and stamps. The absence of such marks on the gold pieces from *El Nuevo Constante* means that they were not shipped legally. Also, since no gold ingots are on the cargo list, they probably were smuggled on board.



Credit: Coastal Environments, Inc.



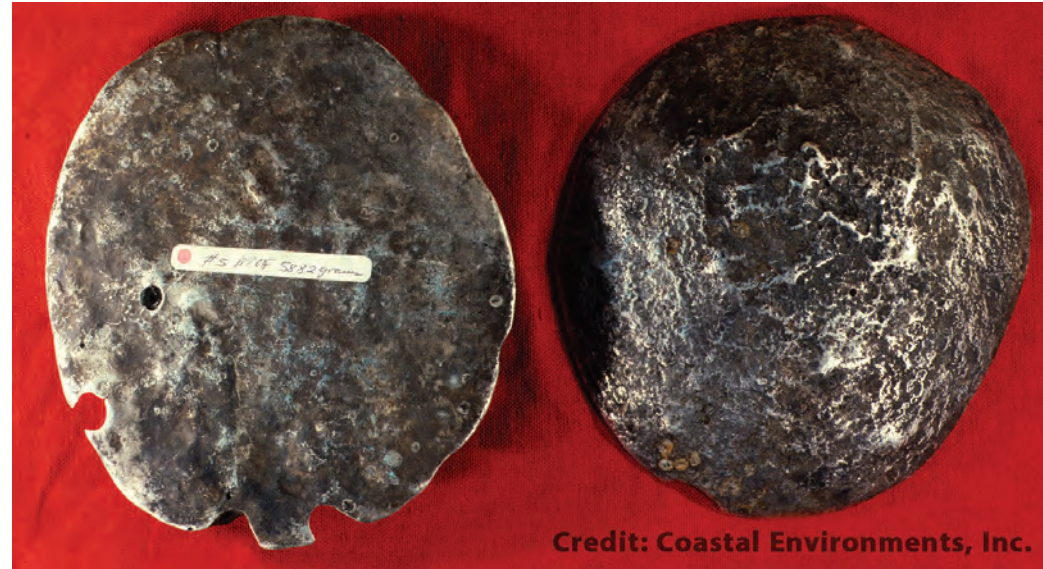
Credit: Coastal Environments, Inc.



## Silver Ingots

Thirty pieces of silver were found on *El Nuevo Constante*. Together, these weigh more than 80 pounds. The silver is mainly in two shapes: flat disks (upper left) and cupcakes (lower left). There are also several irregularly shaped pieces. The Spanish called the disk-shaped ingots “*planchas*.” They were cast in simple, circular molds or in shallow holes in the ground. The six disks of silver weigh more than 62 pounds. Thirteen pieces shaped like cupcakes weigh a total of about 11 pounds. Most of these have rounded or pointed tops, but one has a flat top. The other ingots had irregular shapes. The disk-shaped ingots range in diameter from 4.2 to 8.2 inches, and the cupcake-shaped ingots range from 1.9 to 2.8 inches in diameter.

None of the silver has tax stamps or owners’ marks. Furthermore, the historical records did not list silver ingots as cargo on *El Nuevo Constante*. Therefore, it is likely that all of the silver ingots found at the wreck were smuggled out of Mexico. These items probably were hidden in the lower part of the ship. After the wreck, the Spanish could not reach them, and their owners could not safely retrieve them. Spectrometric tests on one piece show it is 91.5 percent silver and 6.4 percent iron, mixed with small amounts of lead and copper.



Credit: Coastal Environments, Inc.

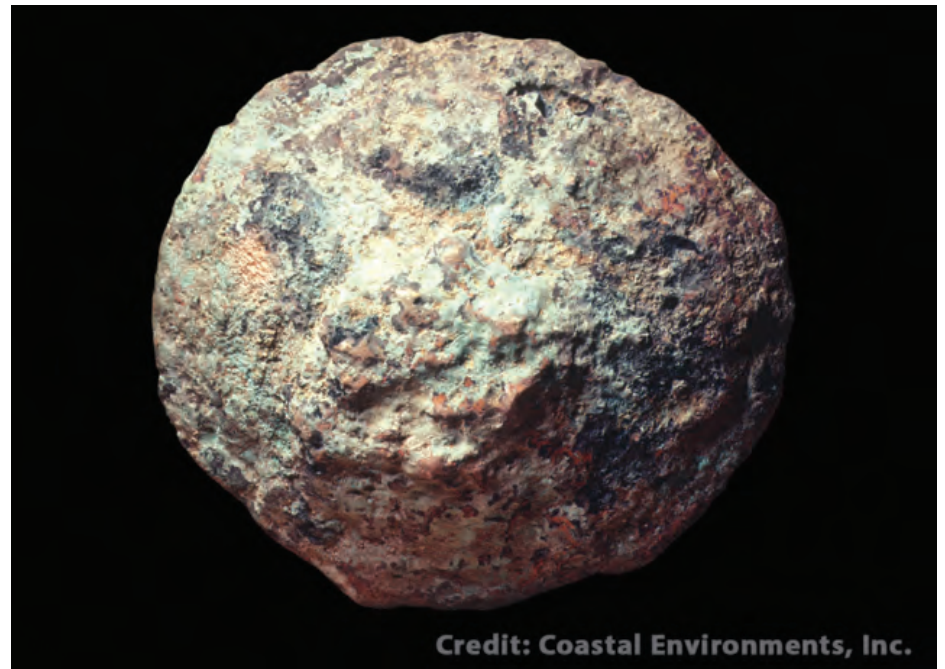
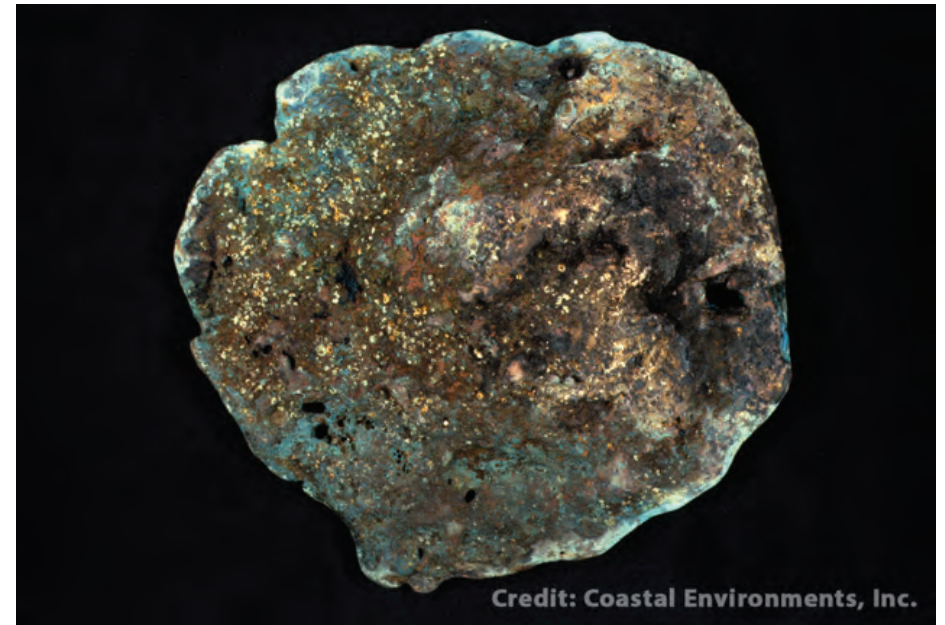
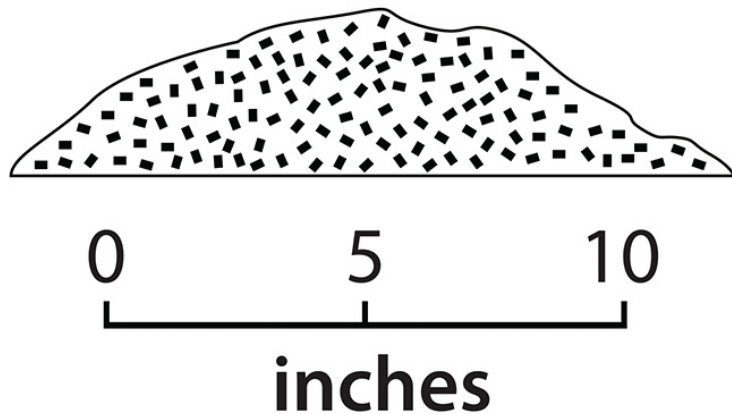


Credit: Coastal Environments, Inc.

## Copper Ingots

At the wreck, 103 of the original 143 copper ingots were found. They weigh more than 7,000 pounds. These ingots are disks, flat on one side and slightly convex on the other (below). Recovered pieces vary in diameter from 12 to 24 inches. They range in weight from about 24 pounds up to 145 pounds.

The ingots were cast in a process that allowed the molten copper to cool in depressions scooped out of the ground. The upper, flat surfaces show swirls and bubbles formed during pouring and cooling. Many ingots contain small pieces of charred wood from the fire used in processing the copper. Much of the copper probably was stored deep in the holds of the ship, where it served as ballast. Once the vessel grounded, the holds flooded, preventing recovery of the copper.





# Logwood Dye

In total, 76 pieces of logwood came from the shipwreck. They average 50 inches long and 5 inches in diameter. Several of the larger logs have small holes cut in one end, to help with lifting. The logwood was well preserved and still able to produce a dark blue dye, even after being under water for more than 200 years.

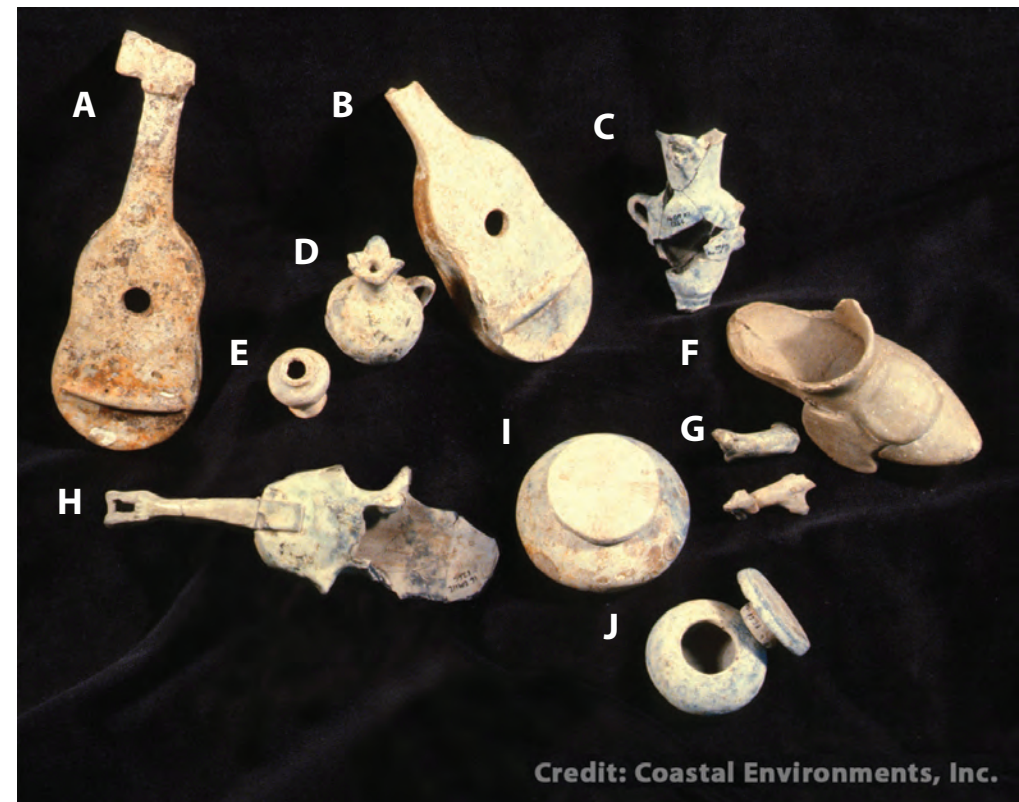


# Small Ceramic Objects

Hundreds of fragments of decorative ceramic items and several whole pieces were recovered. The shapes include guitars (A and B), vases (C, D and E), miniature shoes (F), animals (G) and a violin or cello (H). These unusual forms are probably the gift items in the cargo list.

Small, rounded jars with fitted lids (I and J) also were on the wreck. The jars range from 1.7 to 2.7 inches in diameter and from 1 to 1.5 inches tall. These jars may have been the small bowls or pots on the list of cargo. Most of these pieces are gray in color, although some were once hand painted. The faded paint shows that many floral and geometric designs were used.

All these items were called Guadalajara ware, and they probably were made in the village of Tonalá. For scale, the ceramic guitar in the far left corner stands about 5.1 inches tall.



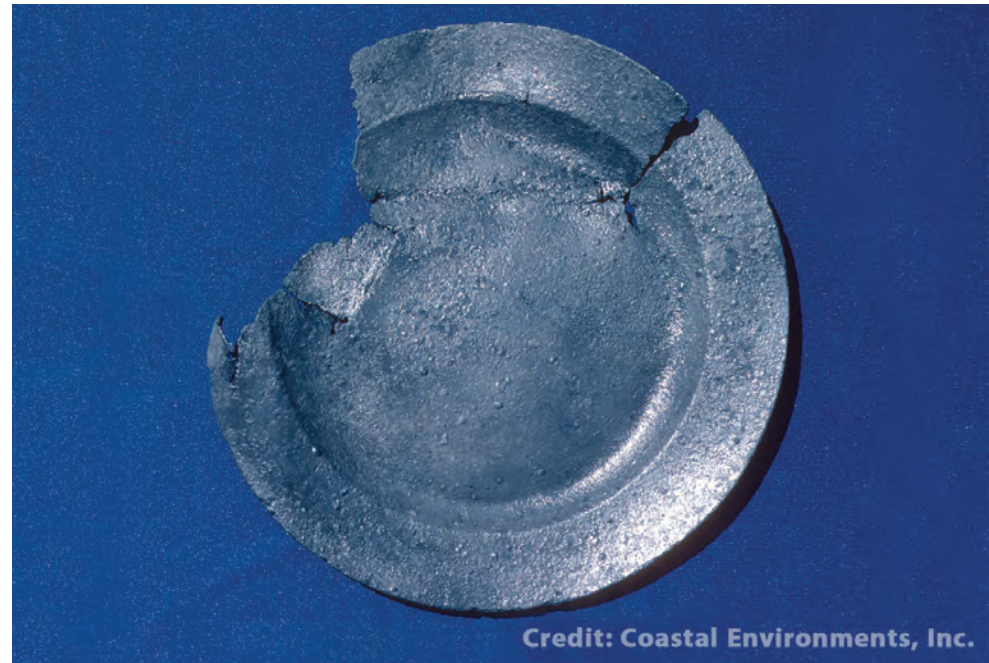


# Tableware

Tableware from the wreck includes a pewter plate (top right), pieces of wine glasses, and fragments of several other drinking glasses (bottom right). They are all styles that were popular in Europe by 1750.

# Turtle Shell

Excavators recovered 11.3 pounds of Hawksbill turtle shell (below) on the wreck. Cut edges are visible on many pieces, some of which are thin enough to see through. The shell would have been used to make items like snuff boxes, hair combs and frames for eye glasses.



Credit: Coastal Environments, Inc.



Credit: Coastal Environments, Inc.



Credit: Coastal Environments, Inc.

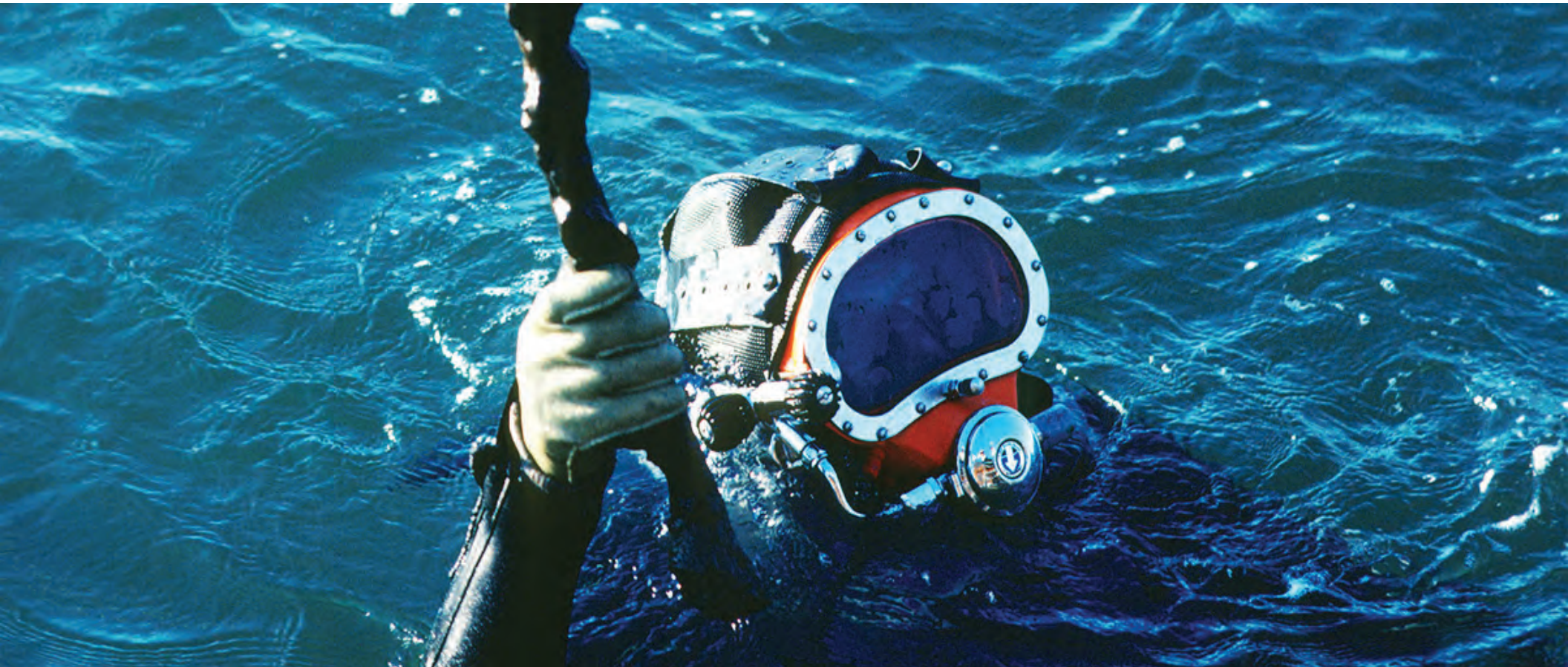


# Learn More

You can learn more about *El Nuevo Constante* by checking out the book listed below. Have more questions? Be sure to visit the **Top Site FAQs** section!

- Pearson, Charles E., and Paul E. Hoffman. *The Last Voyage of El Nuevo Constante: The Wreck and Recovery of an Eighteenth-Century Spanish Ship off the Louisiana Coast*. Baton Rouge: LSU Press, 1995.

*Photograph of diver. Credit: Coastal Environments, Inc.*



# Glossary

**Concretion:** An artifact that is made of several smaller artifacts cemented together by broken shells, rust and sand.

**Dredge:** A machine used to dig out material under water.

**Ingot:** A solid piece of metal that was formed for convenient handling and transport. All of the ingots from *El Nuevo Constante* were circular. Most were disk-shaped, with one side that curved out and the other side that was flat. These were called *planchas*, and they appear to have been made by pouring molten metal into shallow holes in the ground. A few of the ingots were shaped like cupcakes.



# Top Site FAQs (Frequently Asked Questions)

## **Q1. Did the person who found the wreck get to keep anything?**

Yes, the state entered into an agreement with the finder and his associates. They worked with the archaeologists and provided much of the equipment, divers and financial support for the excavation. They received 75 percent of the value of the artifacts. All of the artifacts that were turned over to the finders at the end of the project were thoroughly documented first.

## **Q2. Where is the state's share of gold and silver that came off the ship?**

It is in a bank vault in Baton Rouge.

## **Q3. How pure were the gold ingots from the ship?**

Analysis showed that the gold content was 63.9 percent to 91.5 percent. The gold ingots contain 6.4 percent to 35.9 percent silver, as well as traces of copper and lead.

## **Q4. What should people do if they find a shipwreck?**

They should contact the state archaeologist who can help determine who legally owns the wreck. A person needs a permit to excavate a shipwreck in state or federal waters.

## **Q5. Did anybody die in the wreck of *El Nuevo Constante*?**

No; everybody made it safely off the ship.

## **Q6. What happened to the wreck of the other ship in the fleet that sunk in the hurricane?**

The wreck of the *Corazón de Jesús y Santa Bárbara* has not been positively identified yet.

### **Q7. Was *El Nuevo Constante* a treasure ship?**

It was a treasure to archaeologists who learned details about a merchant ship. *El Nuevo Constante* did not carry a large amount of gold and silver cargo, so it is not called a treasure ship.

### **Q8. Were pirates a threat to *El Nuevo Constante*?**

At that time, most of Europe's gold and silver arrived on Spanish ships from the New World. Pirates, who worked for themselves, and privateers, who worked for other governments, sometimes tried to steal from these ships. Therefore, Spanish ships traveled in groups for safety. Two warships sailed with the New Spain fleet. Those ships had soldiers and officers on board and usually carried the government's gold and silver. Private merchants were responsible for most of the cargo on the other ships, and they paid taxes to cover the cost of this protection.



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***Cannons being secured for removal to a storage facility.  
Credit: Coastal Environments, Inc.***

## This online exhibit is an adaptation of:

Pearson, Charles E., and Paul E. Hoffman. *El Nuevo Constante: Investigation of an Eighteenth-Century Spanish Shipwreck off the Louisiana Coast*. 2nd ed.

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