A drowned ship with a million artifacts: La Salle never fully unloaded La Belle's hold
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When La Salle realized that Matagorda Bay was not the mouth of the Mississippi, he set off on several eastward expeditions overland to find the great river. According to Donny Hamilton, head of Texas A&M's nautical archeology program and its Conservation Research Laboratory, which is conserving the vessel, that continuing quest is one reason why the explorer never fully unloaded his ship La Belle. It was while La Salle was away on one of these overland trips that a storm sank the ship, a three-masted barque longue with a 54-foot deck. The crew salvaged some goods, including a number of La Salle's personal effects, but high waves caused the hull to settle deep into the sands of the bay. The loss of La Belle stranded the French colonists, with dire consequences for the settlement.

Archeologists from the Texas Historical Commission (THC) had since 1978 been searching the bay for the ship using a magnetometer, which detects magnetic anomalies. It was not until 1995 that they found evidence of the ship beneath the bay's muddy bottom. The discovery of an elaborate bronze cannon bearing the inscription "Le Comte de Vermandois" and the mark of Louis XIV, confirmed the ship's identity. Vermandois was Louis' illegitimate son and the child admiral of the French navy at the time of La Salle's expedition.

Fortunately for today's archeologists, the mud prevented oxygen and underwater organisms such as teredo worms from eating away about one-third of the vessel and its contents, although the keel and some of the timbers show some evidence of teredo worm damage. In the hold, archeologists have found roughly one million artifacts, including some 750,000 glass trading beads, barrels of axe heads (you could always hew your own handles in the New World), pewter dishes, pairs of copper falconry bells used for trading, unique grenade/fire-pot weapons for ship-to-ship warfare, halberds and other pole-arm weapons and the skeleton of a crew member. Says Jim Bruseth of the THC: "He is quite probably one of the individuals who died of thirst before the ship was wrecked in the storm." Also among the objects were crucibles, underlining one of the goal's of La Salle's mission: to raid silver-rich areas held by Spain.

The THC asked Peter Waddell from Parks Canada in Ottawa to assist in the recovery of the vessel because of his expertise in disassembling the wooden timbers of sunken ships. "We did the Machault, which was a 500-tonne 1760 French supply ship in the Restigouche and the Basque whaling boats in Labrador," says Waddell. One helpful feature of the La Belle hull was that the French shipyard had marked each rib or "frame" of the ship with Roman numerals. "It was a pre-fabricated ship ready to be assembled either in France or in the New World," says Hamilton.

Because the bay bottom was murky, the archeologists commissioned the construction of a massive cofferdam around the ship. This double-walled, doughnut-shaped structure was built 46 feet into the floor of the bay and rose six feet above the water's surface, enabling the crew to pump out the seawater around La Belle and delicately remove the ship's contents from the dry bed. This extraordinary engineering feat attracted heavy tourist boat traffic. "About 25,000 people took the boat ride out to visit us," says Bruseth.

Now Hamilton and his team are cleaning and conserving the ship and its contents. This painstaking work involves keeping the timbers wet throughout the reassembly and conservation process. Exposing it to the air for more than 10 minutes without sprinklers could lead to irreparable cracking and disintegration. The temporarily reassembled hull is now sitting in a huge outdoor vat visible to planes and helicopters flying overhead. The reassembly team is pioneering a unique support system designed to enable future museum-goers to view the voluputuous curve of the ship's hull with minimal obstructions. The system involves crafting a thin but rigid layer of carbon fibre between the outer edge of the ship's frames (ribs) and the outer planking. Once the ship is fully reinforced and permanently reassembled, it will take three to five years to preserve it in a bath of polyethylene glycol.

Conserving the artifacts after 300 years under water involves drilling away the concretions that form around metals. Some items, such as iron knives, swords, chisels and scisscors, had completely corroded, so the team is casting molds into the gaps eaten out of the metal. Helen Dewolf, a Canadian research associate on the project, has laboured on some of the most interesting objects: a leather shoe, a rake and the fire pots. She and her colleagues say they are thrilled to be working on the oldest sunken French ship ever excavated from the New World, containing the only existing French colony kit nearly intact from the late 17th century.
Eventually, curators will display the ship in a new museum of Texas history in Austin. Many of the artifacts from the ship and Fort St. Louis are already on view at the Public Archaeology Laboratory in Victoria, Tex.