

CRL Report 15: The Conservation of the 18-Pounder Carronades from USS *Shark*

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Having deemed the majority of naval ships unfit for pirate hunting due to their great draft of water, U.S. Congress, by act of May 15, 1820, appropriated \$60,000 for the building of five schooners. The *Shark* was built in Washington D.C. in 1821 and intended for use in suppressing piracy and slavery in the West Indies. It was first commanded by Lieutenant Matthew Perry, who captured and assisted in the capture of several pirate vessels from 1822 to 1823. The *Shark* would be re-assigned to the Navy's Mediterranean Squadron in 1833 and later, the Pacific Squadron in 1839, where it would make history, becoming the first U.S. war vessel to pass through the Straits of Magellan from east to west. In 1846, under the commander of Lieutenant Neil M. Howison, the *Shark* was dispatched to the Columbia River in Oregon to rally the American settlers with a display of the flag, survey the Oregon territory and speak with both the British and American homesteaders living there.

On September 10, 1846, in an effort to leave the mouth of the Columbia River, the *Shark* struck an uncharted shoal and was swept into the breakers by a swift tide. The ship was a total loss but her entire crew was saved. Shortly after the wreck, Howison received word from Native Americans that part of the hull had washed ashore twenty or thirty miles down the coast. Midshipman T.J. Simes was dispatched to visit the spot. The wreckage was found near the mouth of Shark Creek in present day Arch Cape. He reported that three carronades were adhered to a portion of the wreckage. He was able to move one of the carronades above what he thought was the high water mark, but the other two could not be salvaged due to the surf. In 1898, one of these carronades was discovered embedded in a creek on the beach, which would later become known as Cannon Beach. Over one hundred years later, in February of 2008, two more pieces of ordinance were discovered in Cape Arch, believed to have been the two carronades Simes' left behind.

The Oregon Parks and Recreation Department removed the carronades, maintaining their waterlogged condition for shipment to Texas A&M University's Conservation Research Laboratory.



ACC Oregon Carronade A prior to conservation.
The concretion underwent a 3-dimensional scan using a Konica-Minolta VIVID 910 Non-contact 3D Digitizer.





Texas A&M graduate students use ball-peen hammers, chisels and air scribes to carefully remove the concretion, exposing the iron carronade and wooden carriage beneath.



The 18 on the trunnion of the carriage designates the caliber of the gun.

The English broad arrow indicates that this gun passed proof and went into service with the Royal British Navy.





The weight of the gun is 10 hundred weight, 0 quarters and 4 pounds; roughly 1,124 pounds total.

The maker's mark and serial number provides evidence for the dating of the gun.



The carronade was removed from its carriage using a reciprocating saw to cut through the lug bolt.



After carefully removing the wood tompion, an intact ball of cordage was discovered inside the bore of the gun. Both the cordage and tompion are being dehydrated in a series of ethanol and acetone-based baths.



Transom ring with attached bracket, currently in electrolytic reduction.

The leather casing from the carriage's transom ring will be treated with silicone oil.



ACC Oregon Carronade B upon arrival to CRL.



During the de-concretion process, it was revealed that the Carronade B was of a different make, possibly either American or British.



The iron i-bolt and wedge might have been used in the original salvage efforts by the *Shark's* crew.



This delicate chain link was conserved using a sodium sulfite treatment before several coats of tannic acid were applied.

A copper bolt engraved with the initials "U.N.Y." or United Navy Yard, where the *Shark* underwent repairs in 1825.



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