

Mardi Gras Shipwreck Project:

Stern Encrustation

The Mardi Gras Shipwreck site contained a large stern encrustation, which was recovered from the site and transported to the Conservation Research Laboratory at Texas A&M; University. The encrustation is currently undergoing detailed recording, excavation, and conservation. A final analysis of the artifacts associated with the encrustation is not yet complete, but some artifacts, such as a brush, lead sounding weight and wicker basket, have been identified within the concretion.

Recovery of the Stern Encrustation

Due to the depth of the site, at over 4000 feet, the Mardi Gras shipwreck was investigated and many artifacts were retrieved with a Remote Operated Vehicle, or ROV.

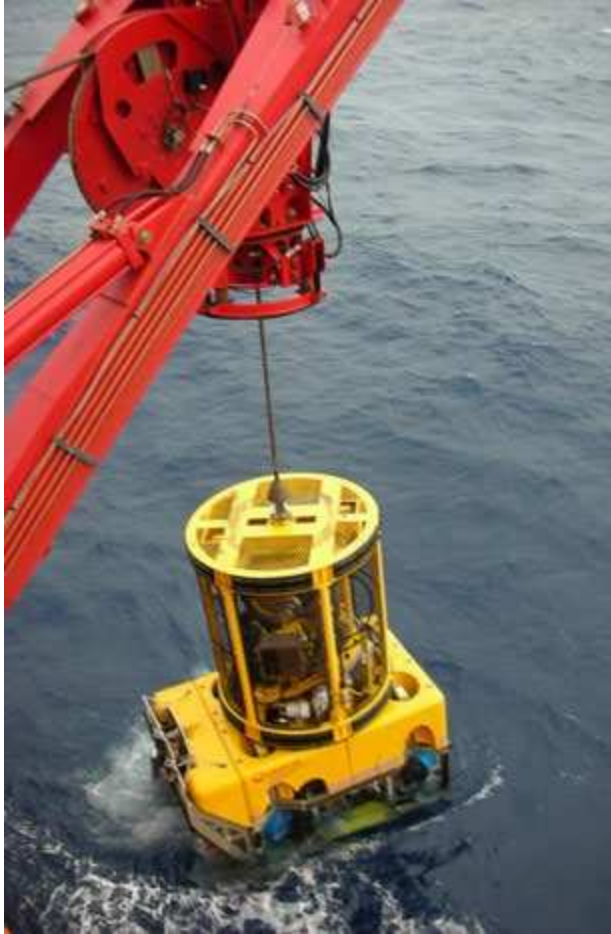
In addition to the ROV, Large Artifact Retrieval Tools, or LARTs, were used to raise large artifacts from the ocean floor.



The stern encrustation was recovered from the extreme southeastern end of the site. At left, the encrustation is seen in situ with other adjacent artifacts.



The ROV which was used to investigate the shipwreck site, a Perry Triton XLS-17 provided by Veolia Environmental, is seen at right. The primary tools for artifact recovery were suction pickers, commonly called "sticky feet." Also visible in the picture is a bag of styrofoam cups, which were crushed by the water pressure at the deep site.



Large Artifact Retrieval Tools, or LARTs were used to recover the stern encrustation and to backfill the site. The LARTs were specially designed for use at the Mardi Gras site by Perry Slingsby Engineering in Houston, Texas and were manufactured under the direction of Veolia Environmental Marine Services.



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Transport to the Laboratory

The stern encrustation was transported to the Conservation Research Laboratory at Texas A&M University inside a LART. Once removed from the LART, the encrustation was placed in a specially constructed vat where it will undergo conservation treatment.



Above, the stern encrustation is seen within the LART that was used to transport the encrustation to the Conservation Research Laboratory at Texas A&M; University.



A crane was used to place the large encrustation on the premises of the laboratory, where it could be moved into a specially constructed vat for desalination and conservation.



Here, the open LART reveals its "clamshell" construction, and a forklift is maneuvered into place behind the encrustation. To prevent the



On its way to the desalination vat, the encrustation is exposed only briefly. Lead shot are visible in the middle of this image, and the large dome-like feature at the top of the encrustation can be seen. This was thought to be a kettle, but further work has revealed that

encrustation from drying out, it has been wrapped in wet towels and plastic bags.

it is a wicker basket which has been preserved by the various iron artifacts it contained.

Conservation Treatment

Conservation of the stern encrustation begins with deslination. A series of static water baths will lower the salt levels within the encrustation and allow conservators to work with the various artifacts contained within the encrustation. In addition to the concretion, mud which was removed from the ocean floor was sifted for smaller artifacts as well.



The size of the encrustation can be seen here, as well as two different caliber shot. Both lead and iron round shot have been identified within the encrustation, as well as bar shot.



When the encrustation was retrieved from the ocean floor, mud was also brought up from the bottom inside the LART. As this mud may have contained valuable artifacts, it was sifted and examined as well.



The mud is sifted with the aid of a spray of water, and artifacts are retrieved from a mesh screen. .



The stern encrustation is seen from above here, as it is prepared to be lowered into the vat where it will undergo desalination and further treatment.



Once inside the vat, the encrustation is covered with tap water to begin the desalination process.

Ongoing Work

All artifacts recovered from the Mardi Gras Shipwreck were transported to the Conservation Research Laboratory (CRL) at Texas A&M University in College Station, TX. CRL is one of several laboratories of the Center for Maritime Archaeology and Conservation (CMAC). CRL Conservators have been working with the artifacts and stern encrustation since their arrival at the lab in May, 2007. This page is designed to present the most current conservation work performed on the artifacts.

Conservation Treatment of the Stern Encrustation

During conservation treatment, the stern encrustation is housed within a specially-constructed tank filled with water. Static baths will help decrease the salinity of the encrustation and the artifacts within. Periodically, the encrustation is lifted from the vat for further work. While work is performed, the encrustation must be kept wet to prevent the artifacts from drying out.



Above, the stern encrustation is lifted from the vat by a conservator at the Conservation Research Laboratory



To prevent the encrustation and the associated artifacts from drying out while conservation work is performed, the encrustation must be covered. Here, fabric which has been soaked is used to cover areas of the encrustation which are not currently being investigated.



Above: Pneumatic air scribes are used to excavate areas of the encrustation. In the photo at left, a conservator works on the encrustation while another air scribe is visible in the foreground.

Right: X-rays of the encrustation give conservators an idea of the types of artifacts contained within. Here, two conservators work on different areas of the encrustation.



Results of Encrustation Excavation

As excavation is carried out on the encrustation, artifacts become visible from underneath the associated layers of concretion. X-rays and pneumatic tools are used to chisel out the artifacts, which are documented and photographed.



A close-up of the round shot shows their placement within the encrustation. The area surrounding the artifacts has been carefully excavated, but the shot will remain in place, pending further investigation.

At right, a conservator works in an area containing two round shot, or cannonballs.
The locations of all artifacts must be documented as excavation continues.



This information was originally posted to the CRL website in 2008 (<http://nautarch.tamu.edu/mardigras/encrustation/index.html> and <http://nautarch.tamu.edu/mardigras/Ongoing Work/index.html>). It was converted to PDF in 2025.