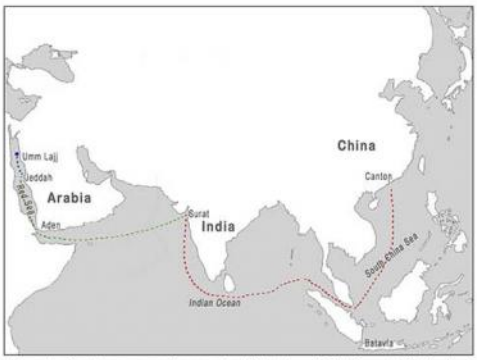
24th Conference of the European Association of South Asian Archaeology and Art
Naples, 2nd to 6th July 2018

AN EIGHTEENTH-CENTURY SHIPWRECK AND ITS PORCELAIN CARGO IN THE ARABIAN RED SEA

Chiara Zazzaro, Romolo Loreto and Chiara Visconti - Università di Napoli "L'Orientale"

Among the best preserved ancient shipwreck sites in the Red Sea, three date to the 18th century. One of these, the Umm Lajj shipwreck (Saudi Arabia), is the object of our research, the other two have been investigated near Sharm el Sheik (Egypt) in 1969 and near the island of Sadana (Egypt) in the 90s. They were most likely those merchantmen mentioned in the Ottoman documents, that shuttled up and down the Red Sea from Jeddah to Suez.

Map of the Red Sea showing the wreckage locations of the three 18th century merchantmen.



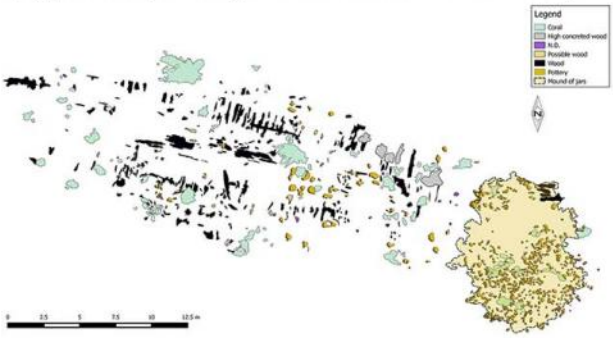
Map showing the presumed sea route of the Umm Lajj shipwreck (in blue) and that of the porcelain cargo (in green and in red).

In 2015 a team of the University of Naples "L'Orientale" was invited by the Saudi Commission for Tourism and National Heritage (SCTH) to survey - underwater - a portion of the Red Sea Saudi coast.
20 miles to the north of Umm Lajj, circa 250 years ago, a merchant boat probably found a shelter from the north-west winds prevailing all year in this sector of the Red Sea, and subsequently wrecked, perhaps while at anchor. We can only speculate about the reason why the ship wrecked: perhaps a fire on board, an accidental impact to the reef, changing of weather conditions or technical problems.

The Umm Lajj shipwreck lies some 20-23 metres to the east of an isolated reef.

The site extends for over 40 m in length and 16 m in width. Remains of the hull are visible, particularly parts of frames and large longitudinal planks.

During the first two field seasons the team produced 3D models of the survey area using photography. The images were processed using the structure-from-motion (SfM) method for the 3D processing. The 3D final product was georeferenced and a digital elevation model (DEM) was also produced for the reconstruction of the bathymetry. The resulting 3D model was the starting point for extrapolating an orthorectified image to be used as a topographic base map for drawing plan views and sections of the wreck and its cargo.



The orthorectified image extrapolated from the 3D model, *used as "base map" for a GIS.*

In the central area the team noticed a prevalent concentration of large storage jars of the type called *zyla*.

The stern area is characterised by a mound of a thousand jars called *qulal, a type of jar widespread in Egypt and Arabia and used for liquids.*

The Chinese porcelain cargo, found on the port side of the ship, has provided the insight for dating the shipwreck in the half of the 18th century.

As far as we can judge from the evidence discovered so far, almost all the fragments belong to small bowls and cups for serving tea and coffee and to the decorative typology known as 'blue-and-white'. In some cases the decoration was finished with polychrome enamels applied in a second firing, since lost due to the corrosive action of the salt water. Various fragments found in the Umm Lajj wreck have close stylistic and iconographic matches in the cargo of the Geldermalsen, a ship of the Dutch East India Company (VOC) that sank off the coast of Singapore in 1752. Our hypothesis is that the porcelain may have been bought in the market of Jeddah, brought there by Indian ships which bought it from the Dutch East India Company.

Chinese porcelain photographed on the team's boat

Bowl with underglazed cobalt-blue decoration, China, c. 1750

More difficult is the identification and the understanding of the provenance of the rest of the cargo until excavations and paleo-botanical analysis are conducted.
Concerning the construction of the Umm Lajj shipwreck, very little can be said, like the Sharm el Sheīkh and the Sadana, they seem to be made adopting a mixed and still little known tradition of construction, apparently with no parallels and continuity with present-day traditional Arab boats.

The authors wish to thank HRH Prince Sultān bin Salmān bin Abdulazīz al-Sa'ūd, President of SCTH, Dr Alī Ibrahim al- Ghabbān, Dr Hussein Abu al-Hassān, Dr Abdullah al-Sa'ūd, and Dr Abdullah al-Zahrani. The 2015 and 2016 field seasons were funded by the Giovani Ricercatori 'Rita Levi Montalcini' programme of the Italian Ministry of University and Research (MIUR), the Università di Napoli 'L'Orientale', and the generous contribution of the SCTH.