MARITIME TRANSPORT CONTAINERS IN THE LATE RENAISSANCE: BARRELS AND CASKS FROM THE GNALIĆ SHIPWRECK

The Gnalić shipwreck is one of the most important post-medieval underwater sites in the Mediterranean. According to archival research, the ship Gagniana grossa headed from Venice to Constantinople in late 1563, loaded with cargo of various provenance (Radic Rosl et al., 2013). The merchant goods, intended for market in the Eastern Mediterranean, were packed in a wide range of barrels, casks, boxes and baskets. Unfortunately, not long after its departure from the port of Venice, the Gagniana grossa sank along the central Adriatic coast, next to Gnalić Island. Nowadays, this site is an important source of information on the maritime transport containers in the Late Renaissance period.

The aim of this poster is to present the current state of research on the barrels and casks that have been recovered from the site. So far, research has been done on the documentation from the excavation campaigns from 1967 to 1973, and on the archaeological material recovered during underwater excavations conducted from 2012 to 2016.

THE STATE OF THE ART

In the modern period, wooden barrels have been used for the transport of liquids, food and various merchant goods. Although it is not rare to find them in the cargo of shipwrecks, there are not many barrel collections that have been studied systematically. Researching transport containers such as casks and barrels of various types can yield valuable data, such as information about maritime cooperage, technology of production, provenience and species of the wood, and – most importantly – can provide precise information to calculate ship’s tonnage. Also, analyzing the in situ position of barrels in the shipwreck can help to analyze the original disposition of the cargo. Great work has been done studying collections from the 16th-17th centuries. But there are not many barrel collections that have been extensively studied. A recent publication on the barrels and casks from the 1686 shipwreck of La Belle aims to fill this void. Meanwhile, methods of study have been developed and applied to the barrels from the 1565 shipwreck of La Belle.

The Gnalić shipwreck contains a wealth of information about maritime transport containers. Due to the limitations of the past, it was decided to focus the research on the barrels and casks which began to be recorded in the 2014 excavation campaign. In total, the database contains 60 casks and 10 barrels, which were found in the hold of the ship. When the ship sunk, it came to rest on its starboard side, along the underwater slope of the sea bed. As the ship’s hull buckled over the centuries and put pressure onto the cargo, the barrels collapsed in the part where the wood was not supported by the contents of the barrel. Therefore, in most of the cases the barrels are only partly preserved. Studying the surviving sections can help us to understand the nature of the barrels. The barrels consisted of wooden staves, held in place with wooden hoops. These wooden hoops were made of rope material, and locked into place with bindings made of unidentified vegetable material. Some of the barrel heads are marked with initials, but it is not yet clear whether these initials denote the cooperage workshop, or the colorer (wenderdeco) who filled the barrels with coloring materials from his shop. The most often appearing on the heads is a monogram with the letters S, Z and a cross (Miladin, ed., 2006). Typically found on the heads of barrels filled with lead ingots; it is not yet clear to whom this monogram belonged.

METHOD OF THE WORK

After cleaning the sediment and removing the ballast stones, the contours of the barrels became more visible. Progressive numbers were assigned to the barrels and casks. Staves and heads of the barrels that were not well-preserved were recorded in situ. Recovered barrels and casks included only those found in the surface layer, as it was necessary to remove them in order to reach the hull. More detailed measurements were taken when the barrel parts reached the laboratory. Xylography samples were taken in order to identify the wood used in cooperation production. If a particular stave had enough rings in the section of the wood, a dendrochronology sample was taken.

FUTURE PLANS

In order to complete the database, the barrels from the Local Heritage Museum of Biograd na Moru will be studied. These barrels were conserved during the 1970s, and although they are just several of them in the exhibition, they can serve as a starting point in establishing the typology of the Gnalić barrels.

Although very often neglected, barrels and casks provide valuable information on the available materials for production of transport containers, including evidence of their technology of production as well as many useful data about the transport of goods. Recent studies have shown that enhancing the method of barrel analysis will provide crucial data to scholars, bring yet another area of fruitful results from sunken ships to the surface. Finally, the goal of the author is to make this unique Gnalić collection into a reference collection, cataloging results in order to contribute to historical studies of packing and transport containers.

BIBLIOGRAPHY:


