Medieval Byzantine Shipwrecks in the Eastern Adriatic

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Abstract – Between 2006 and 2009, the archaeologists of the Croatian Conservation Institute came across two archaeological sites containing medieval Byzantine amphorae. The first site is located in the vicinity of Cape Stoba, island of Mljet, and could be dated to the late 10th or 11th century. The site contains the remains of a sunken merchant vessel with materials of eastern Mediterranean origin. Most of the finds belong to several types of medieval Byzantine amphorae and glassware produced in east Mediterranean. Another shipwreck is located in the vicinity of the islet of Merara in central Dalmatia and could be dated to the 12th or 13th century. Most of the finds belong to the medieval Byzantine type of amphora which is characterized by a ribbed cylindrical body and thick handles that protrude over the rimless neck. No complete amphora has yet been found at Merara, nevertheless a similar amphora can be seen in the underwater archaeological collection of the Franciscan monastery on the island of Krapanj.


Introduction

Between 2006 and 2009, the Department for Underwater Archaeology of the Croatian Conservation Institute was engaged in a seabed survey off the shore of central and south Dalmatia. During the time of the exploration, the archaeologists came across two archaeological sites containing early medieval Byzantine amphorae. The first site is located near the island of Mljet in southern Adriatic, and could be dated to the late 10th or 11th century, while the other site is located near the islet of Merara in central Dalmatia and could be dated to the 12th or 13th century. It should be emphasized that so far, apart from some sporadic finds, these are two of only three presently known Byzantine shipwreck cargos in the waters along the eastern Adriatic coast (Fig.1). The third site was discovered in 1966 north of the bay of Nin and contains iron tools, Byzantine amphorae, ceramic fragments and many tegulae and imbrices (i.e. two types of roof tiles) originating from the 12th century and later (Brusić 1972, 245-246).

The 10th/11th century wreck off Cape Stoba, Mljet Island

The first site is located in the vicinity of Cape Stoba on the island of Mljet (Fig.1). The site contains the remains of a sunken merchant vessel with materials of eastern Mediterranean origin. It was discovered by local divers in the early sixties and should from some sporadic finds, these are two of only three presently known Byzantine shipwreck cargos in the waters along the eastern Adriatic coast (Fig.1). The third site was discovered in 1966 north of the bay of Nin and contains iron tools, Byzantine amphorae, ceramic fragments and many tegulae and imbrices (i.e. two types of roof tiles) originating from the 12th century and later (Brusić 1972, 245-246).
ments of the Republic of Croatia. The only remains of that shipwreck were pottery and glass fragments scattered over a rocky slope (Brusić 1976, 37). Since more than thirty amphorae had previously been removed from the site and most of the remaining material was in fragments, it was concluded that the site had almost completely been devastated. Nevertheless, based on the archaeological material recovered on this occasion, photos and measures of the amphorae previously removed from the site and the data of other known amphorae from the same period, Z. Brusić classified the Byzantine amphorae found in eastern Adriatic into five groups (Brusić 1976, 37-49).

In 2009, the Department for Underwater Archaeology decided to re-examine the condition of this site once again (Fig. 2). This expedition resulted in an important discovery – among the remains of the ship’s cargo such as the fragments of amphorae, pottery and glassware the team found a complete amphora sealed with a wooden stopper (Fig. 3). That valuable find indicated that the site still had an intact layer containing well-preserved material (Zmaić 2009). The shape of this vessel is characteristic of Byzantine tradition with the typical ribbed body. Its wide body which is 40 cm high gradually narrows after the point of maximum diameter (30 cm) to the flat base with a concave centre. It has a wide mouth and its rim is well-defined. The inside of the rim and neck is shaped in a form that allows space for the wooden stopper. The handles are wide and oval in section, joined to the neck below the rim and extending to the lower neck. There is a graffito on the shoulder which clearly was incised after the firing process and it consists of the letter M, some other marks joined to the letter’s left leg and another mark left of this ligature (Fig. 4.1). This type of amphora belongs to group 1 of the Byzantine amphorae according to the typology devised by Z. Brusić (1976, 38). The most similar examples of this type of amphorae were discovered in the part of Istanbul called Mangala. They were used as building material at the time of Basil I (867-886) and date from the 9th century (Brusić 1976, 38). An identical example preserved only in the upper part was found at the Agora in Athens in stratum XIV and originates from the 9th and 10th centuries (Robinson 1959, 120 Pls. 34, 58). Six amphorae quite similar to this type were found in the Serçe Liman shipwreck. They were first dated to the 11th century, but it was later discovered that the amphorae were reused as transport jars for a long time and were therefore much older than the wreck itself, so they could be dated earlier. The graffiti on the Serçe Liman amphorae also give evidence that the merchants and many of their amphorae came from a locale with a Byzantine-Slavic population, presumably in the Sea of Marmara region (Doorninck 2002, 903). Our conclusion is that there is a high probability that the Cape Stoba amphorae also originate from this area.

Several fragments of the upper and bottom parts of amphorae were found in the surface layer. Some of them have wide bodies tapering towards slightly flattened and concave bases, with short necks and vertical rims (Fig. 4.2). Another type
Fig. 4: Cape Stoba – Types of amphorae found at the site during reconnaissance in 2009.
of amphorae discovered has a similar upper part while the body tapers into a conical shape. Similar examples of these types of amphorae were discovered on numerous sites around the Sea of Marmara and the Pontus area, in Ukraine, Romania and Bulgaria dating from the 9th, 10th and 11th centuries. Several pyriform amphorae with a round base, short neck and thick handles which protrude slightly over the rim were also found (Fig. 4.3). They had various shapes – some were rather small while some were quite wide with a considerably larger volume. It should be emphasized that these types of amphorae seem to have had high durability and were quite numerous in the period between the 10th and 12th centuries and later. Similar examples of this type of amphorae were found at the site of the previously mentioned Byzantine shipwreck near Nin (Brusić 1972, 247, T. IX.1). Sporadic samples of this same type were also found during the reconnaissance in the harbor of Trogir (Fig. 5) and close to the Ostrica Peninsula which is situated between Primošten and Šibenik (Brusić 1976, 42).

A greater part of the cargo consisted of glassware produced in the eastern Mediterranean. The discovered fragments of bowls, beakers, bottles, cups, Byzantine lamps, curved plates on an annular foot and plates had a great variety of colours and patterns. The most common combination of colours is of light green and yellow glass in the top part and cobalt blue in the lower part (Fig. 6), while the most frequently appearing motif is an eye imprinted on the hot glass surface (Figs. 6, 7). Many samples also have decorations of undulating or horizontal applications of coloured glass (Fig. 7). While such shapes were common in the mediaeval glass industry of the eastern Mediterranean, two-coloured glass decorations were quite rare. On the other hand, these types of decorations were common in Egypt, Armenia and some sites in the Caucasus during the 9th and 10th centuries. The eye motif is characteristic of the Islamic world and along the eastern borders of the Byzantine Empire (in Syria, Egypt, Tunis, Mesopotamia and Armenia), whence Byzantine 9th- and 10th-century glass blowers took over this technique of making and decorating glass. One of the glass fragments found on the site carried an inscription engraved in a script typically used by certain Christian communities in Syria and Mesopotamia. The inscription might be the clue to the origin of this glassware and so far the evidence is telling us that it probably came from Byzantium, but that it was produced in the workshops of Syrian and Egyptian glassmakers (Kisić 1988, 162).

The 12th or 13th century wreck off the islet of Merara, central Dalmatia

The other shipwreck is located in the vicinity of the islet of Merara in central Dalmatia (Fig.1). Amphorae fragments were discovered to the south-west of the isthmus which connects the islet to the mainland, at a depth from 8 to 10 m. Due to the great number of amphorae and typical medieval kitchenware fragments, it can be concluded that the site is indeed the location of a shipwreck. Most of the finds that cover the area of 80 square meters can be classified as medieval Byzantine amphorae having a ribbed cylin-

Fig. 5: Amphora found near Trogir.

Fig. 6: Cape Stoba, glassware found at the site in 1975 (Maritime Museum in Dubrovnik).

Fig. 7: Cape Stoba, glassware found at the site in 1975 (Maritime Museum in Dubrovnik).
Fig. 8: 1. Amphorae fragments found at the Merara site; 2. Amphora exposed in the underwater archaeological collection on the island of Krapanj; 3. Fragments of medieval kitchen ware.
drical body and thick handles which protrude over the rimless neck (Fig. 8.1). No complete amphora has yet been found at the Merara site; nevertheless a similar example can be seen as part of the archaeological collection of the Franciscan monastery on the island of Krapanj. This sample was found by the sponge divers at an unknown site in the east Adriatic (Fig. 8.2). The upper parts of the amphorae from Krapanj and Merara are identical in size and shape, and the amphora from Krapanj is almost fully preserved in its entirety (a small part of the bottom is missing). Due to the overall similarity between the two amphorae, we may presume that the height of the amphora from Krapanj, which is between 40 and 43 cm, can be ascribed to the amphora from Merara as well (Zmaiæ 2010, 238). Moreover, it is quite possible that the amphora from Krapanj was removed from the Merara site. This shape of amphorae is characteristic of the middle Byzantine period of the 12th and 13th centuries, or later. According to the typology of Z. Brusiæ, these amphorae belong to group 5b (Brusiæ 1976, 42). Numerous similar vessels were found in Ukraine, Romania and in Bulgaria, including a similar example found at the underwater site Torre dell'Orso in the south of Apulia. Some analyses of the clay fabric suggest that these amphorae were produced in this very area, so they are therefore known as Later Puglian amphorae. Sporadic finds along the Adriatic coast that resemble this type of amphorae have been discovered on the island of Vela Arta close to Murter. Apart from amphorae fragments, this site also yielded fragments of medieval kitchenware: pitchers, jugs, cups, plates, large jars and smaller pithoi (Fig. 8.3).

Further underwater research on the above-mentioned archaeological sites in the Adriatic Sea will surely provide archaeologists with new insights and enrich our knowledge concerning trade and cultural interactions on the Adriatic during the Byzantine period.

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