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# SHIPS & GUNS

*The sea ordnance in Venice and Europe  
between the 15th and the 17th centuries*

edited by

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# Introduction

## Ships, Guns and Historical Archaeology

*Sauro Gelichi and Mauro Librenti*

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Maritime archaeology within post-Medieval contexts is a relatively recent development, probably in part due to advances within the discipline of the history of archaeology (Hall, Silliman 2006; Hicks, Beaudry 2006). Such approaches are also now being developed in Italy (Gelichi, Librenti 2007). However, it should be stressed that this phenomenon, as exemplified by a few important case studies, is limited by the relatively small size of the data-set and cannot therefore be used to present a complete history.

As the evidence below demonstrates, the attention given to the sites from this period cannot overcome the limited nature of the finds. However, the results which have emerged from this research do pull together a small number of key points: the structures of the ships or the armament and the categorisation of a few classes of well represented materials including pottery and glass, which were generally studied with a view to refining the chronologies of specific typologies.

At the Summer School on Underwater Archaeology which took place in Pontignano (Siena) in 1996, despite the fact that the audience were essentially aware of the main issues, the research presented on the circulation and economic value of underwater evidence stopped short at the Late Antique period (Volpe, ed. 1998). More recently, published maps of the Apulian shipwrecks also stopped in this Late Antique period (Auriemma 2004). This is a result of the priority, within historical and archaeological debates, given to issues relating to the dynamics of trade at the end of the Roman Empire and the fundamental characteristics of the economy in those transitional centuries (Volpe 1998).

Early medieval shipwrecks are known in the Mediterranean however: such references are clearly stated in Parker's 1992 volume (Parker 1992) which covers shipwrecks up to the 15th century (McCormick has also been working on this topic recently, though the work remains unpublished, and he directs his attention towards the examination of the early medieval shipwrecks).

Several recent papers have also stressed the problem of mapping Italian post-medieval shipwrecks, particularly in comparison to more active research in other countries, although despite this, the situation remains unresolved

(Galasso 1998; 1999). An important element, which merits further discussion, is an examination of the full potential of maritime archaeology. That is to say, not simply theoretical, methodological and technical issues, but also contextual aspects related to the specific environment of underwater investigations.

Some papers looking at the characteristics of underwater investigations highlight the fact that there is not enough differentiation between maritime archaeology and archaeology carried out in other environments. Gianfrotta and Pomey (1981, 10–11), for example, state that 'aims, methods and fundamental principles' also 'define archaeology as a historical discipline' (or if you prefer as an anthropological-historical one). It makes sense therefore to consider all these aspects together when considering the identity of maritime archaeology.

Let us turn to the intrinsic qualities and informative value of underwater contexts, which are the only ways to open up new and original perspectives on this specific type of archaeology. Some important points deserve reflection first of all. The initial point relates to the characteristics of the environment within which the investigation is undertaken, but not the issues linked to the excavation itself. The very nature of this research, linked as it is to the presence of water, produces a slightly unstable framework compared to the more solid characteristics of the actual evidence. To expand this point, the potentialities of these sites are not always clear, especially in the Mediterranean, as the recording systems are inevitably complex, and not the same as for a traditional archaeological survey. Galasso for example, who in 1998 set out a framework for the study of post Medieval underwater archaeology (Galasso 1998), stressed the disparity of the information available for these centuries, and the lack of attention given in general to the majority of these shipwrecks in Italy.

The evidence from these anaerobic contexts can potentially throw light on material culture from the post-Medieval period, but archaeologists seem to find it difficult to place this evidence within the known contexts from other excavations. For the modern age, comparisons between large groups of objects frequently end up being auto-referential, and are sometimes usable

only through reference to iconographic and encyclopedic sources. However, the information potential is still very rich when compared to some contemporary situations from different types of archaeological contexts, and it highlights the fundamental importance of shipwreck evidence beyond simply providing chronological markers. Some specific characteristics exist within this discipline, such as lakes, lagoons, rivers, seas, port archaeology and even the archaeology of humid environments, which is largely characterized by the same basic denominators as underwater archaeology, such as the well preserved nature of perishable materials. Each of these characteristics needs to be considered independently according to the environment where they were deposited. Another issue, perhaps more significant, is represented by the historical value of the evidence. The nature of the underwater contexts of shipwrecks means they lack complex formation processes, but instead they have a special historical value which is frequently assessed through a combination of research instruments (archives, historical and archaeological sources) that take advantage of the well-known historical environments within which many important shipwrecks are placed. However, historical archaeology has investigated planes and recent war wrecks (such as the seaplane shot down in the first phases of the Pearl Harbor battle: see Rodgers, Coble, Van Tilburg 1998). In other words, the evidence from a documentary point of view often aids the analysis of the archaeological material gathered from shipwrecks.

The specific characteristics of underwater contexts, beyond the methods used for their analysis, are of course peculiar to the discipline and include rapidly formed stratigraphy, spoliation trenches only in specific cases, relatively closed contexts or at least those formed within a very brief span of time with very specific sets of characteristics informed by unique social, economic, military or technological considerations.

For instance the shipwreck recovered near Grado (Giacobelli 1997) was filled with wasters of Roman glass (2nd century AD) and the Serçe Limani shipwreck was filled with Islamic glass (Bass 1984). These contexts provide large assemblages of material which document the trade of glass wasters, almost on an industrial level and at the same time they present us with an exceptional view of the material in use during these periods that can also be studied from an archaeometric viewpoint. Exceptional situations aside, these cargoes interest scholars beyond the discipline of maritime archaeology, and inform us about processes of commercialization in the wider sense. For instance mapping the circulation of Roman amphorae in the Mediterranean is based on the integration of data relating to shipwrecks and data recovered from land excavations (Panella 1998). Sketching out the dynamics of trade is one of the main priorities for researchers dealing with larger archaeology questions. A recent study on this issue looked at Mediterranean trade during the Lombard and Carolingian ages, using material from the excavations of the port of Comacchio (Gelichi 2008; 2009). This investigation has



Figure 0.1. Stari Bar. Pottery from Deruta (after Gelichi ed. 2005, 29).

transformed our knowledge of the economy and society of Northern Italy during a poorly studied period in Italian history. In this case the structures of the port provided invaluable insights, despite the lack of methodology in the original investigation.

Underwater archaeology was not directly used here, but the site provides a framework for research in maritime archaeology. In particular the investigation of trade demonstrates wider economic patterns which can be traced in other Mediterranean contexts, and sometimes also in other geographical maritime contexts, highlighting political and economic phases of expansion or decline and relationships between different regions.

The excavations of the Ca'Foscari University in Stari Bar (an abandoned city in Montenegro) have revealed, for example, the economic character of the place through evidence of imported goods along the commercial maritime trade routes. These imports continued from the late medieval period until the 20th century, but little material evidence exists, in general only pottery and glass (D'amico 2005; Baudo, Grandi, Bagato, Fresia 2006). The economic contexts suggest a mechanism of distribution which, in the late medieval period and in the early modern period, sees intense activity in the triangle between Venice, Ancona and Ragusa (Anselmi 1969) (Figure 0.1).

But a comparison with the late 15th- and 16th-century material recovered from several shipwrecks on the Croatian coast (Brusić 2006; Radić Rossi 2006; Gluscević 2006) and above all with that of Gnalić (Gustin, Gelichi 2006) in the sea near Biograd, reveals a series of data which tell a different story. The Gnalić shipwreck, which is now well known due to the wealth of published information, was armed and loaded with reasonably common objects such as glasses, window furniture and pottery, as well as more luxury items such as lamps, fine glassware, drapes, trinket boxes, semi-finished materials and minerals



Figure 0.2. Coils of brass wire (after *The Venetian Shipwreck at Gnalić*, 2004, 74)

(Figure 0.2). This cargo tells us a lot about the economic context. For instance the quantity of semi-worked materials and metallic objects is exceptional and they probably come from outside Venice (Figure 0.3). This ship was active during a tense political period in the Mediterranean and the Adriatic, when politico-military issues connected to the Turkish occupation and the expansion of the European continental navy affected commerce and trade (Braudel 1976, 2239). This period also belongs to a new phase of oceanic trade, which saw expansion in a few decades and the inclusion of nations such as the English. Trade was transformed through the exportation of finished goods towards Asiatic ports and the exchange of goods from these territories. At this time the Italian economy was characterized by the exportation of semi-finished goods and raw materials, and by a decrease in the trade of finished goods (Romano 1998).

In a world which increasingly invested in mercantile activity, where private commercial organizations had a powerful effect on the human economy, and European governments had new issues to deal with (Sutton 2000), a progressive economic polarization seems to occur between Italy and other states of Europe, and a sort of militarization of political and economic activities. The specific characteristics of the goods traded provide useful indicators for tracing such economic patterns.



Figure 0.3. Parts of the chandeliers (after *The Venetian Shipwreck at Gnalić*, 2004, 55).

Among the countries which develop wider commercial networks, we see the exploitation of overseas areas within a conservative framework; others develop strong internal dynamics. Great Britain, for instance, saw a reorganization of agricultural property and national manufacturing activities in a mercantile and capitalistic sense (Johnson 1990).

In 1500, in Italy, land followed a process of re-feudalization (Cazzola 1987), and subsistence-living coexisted with wage incomes. This was to the detriment of a mercantile and productive economy, which instead until the end of the Middle Ages resulted in a degree of capitalistic development in some areas (Braudel 1976, 2114–2116).

We cannot use one single shipwreck to map out the dynamics of trade on an international level (similar shipwrecks are not yet fully published), but it is still useful for archaeology in a wider geographic sense to use this example to look at economic questions, though other significant issues linked to shipwreck evidence, such as the architecture and technology of the ships should also be considered. A final important aspect is the social complexity of the cargoes, where we see the goods for trade mixed up with the daily objects used by the crew. The evidence displays many different types of objects, and it is not always possible to distinguish the crew's property from the cargo in the mix of pottery, weapons and pewter.

To conclude, it seems that underwater archaeology interacts very well with other types of archaeological evidence, and can add significantly to the debate and analysis of fundamental questions. Clearly the logistics of underwater archaeology and its unique environment make analysis a very complex and expensive exercise, and few fully excavated shipwrecks exist for comparison. However it is surely better to exploit this valuable evidence where it exists than to relegate it to discussions on purely technical issues.

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