

SOME CONSIDERATIONS CONCERNING WRECKS LYING IN SHALLOW WATER

It is the type of seabed and the cargo transported rather than the manner of their sinking that are generally considered to be the chief causes of the more or less good state of preservation of sea-borne craft and boats, when, for one of the various reasons which can lead to the sinking of a ship, they become wrecks¹. It is for these reasons that we are now accustomed to hearing and repeating that it is almost solely cargo boats that are the best preserved when they sink fully laden and finish up on soft bottoms so that the weight of their cargo pushes them down into the sediments at a speed greater than the rate of attack of destructive underwater agents (mechanical and/or animal and vegetable).

As for warships and cargo boats which are either unladen or carrying light, perishable cargoes, we are led to believe that they are only preserved owing to exceptional causes (abnormal quantities of fluvial matter, the sudden formation of a sand bar, etc.).

Some recent finds demonstrate that these exceptions, which, above all, often lead to the preservation of parts of the hull which are not normally present in "normal" wrecks (the sides, extremities, parts of the superstructure), are much more frequent than had previously been supposed. Examples of the sinking of a ship from our age can be of help in understanding the nature of the mechanics by which ancient wrecks could sink into soft bottoms and remain perfectly preserved up to the present day.

Recently, in April 1987, the motor tanker Mont Blanc, of TSL 487.36 and 50 metres in length, was moored and ballasted to the extent of touching the harbour bed of Vado Ligure whilst awaiting demolition. As a result of a sudden south-easterly storm she broke her moorings and went down turning sideways on to the beach, and on account of her weight she dug a trench 8 metres deep in the muddy bottom in only six hours.

At this point the sea bottom is only three to three and a half metres deep so the result was that when the seas calmed, the prow and a good part of the ship was below the surface of the sea bed. Since just one more spell of heavy seas would have sufficed to fill the bow section and cover it completely with mud, and thereby make it extremely difficult if not actually impossible to float her again, salvage operations were immediately effected and completed in 10 days.

Notwithstanding the violent nature of the movements she was subjected to for hours during the heavy seas, at the end of the salvaging the bows were intact. Not even the paintwork had been worn away.

A very similar event must have occurred at Alghero in Sardinia in the case of the wreck "Del Camping La Mariposa" which was partly investigated in 1988 by the Centro Ricerche Ascheosub Sassari-Alghero on behalf of the Soprintendenza Archeologica of Sassari and Nuoro. She is a cargo ship of about 17 metres with a radiocarbon dating from 1440 to 1620 and she lies parallel to the beach at a depth of only 70 centimetres below the surface.

She is laden with small barrels of preserved fish (probably sardines) and organic materials of many kinds (baskets, ropes of vegetable fibre, fishing nets, nautical equipment). Her hull is perfectly preserved from prow to poop along the entire left side and bottom.

The presence and wonderful state of preservation of so many materials in a wreck lying in such a shallow depth is almost certainly due to the fact that the craft went down in exceptional weather conditions and that she ran aground on the sandy sea bottom creating vortices that pushed her under the sediment and filled her with *posidonia* and sand. And so, when it became possible just after the sinking to reach her to salvage what could be salvaged, the points excavated and researched in 1988 were no longer accessible.

This is also borne out by the fact that, even though one might concede that a perishable cargo such as preserved fish might not be an object of interest, it would be unthinkable that costly equipment such as for example pulleys and new pulley wheels would be left behind.

The stratigraphy inside the hull is as follows: free moving sand about 70 centimeters; pebbles and sandy mud of a yellowish colour, from 3 to 5 centimeters; a layer of from 2 to 4 centimeters of dead posidonia leaves; from 20 to 30 centimeters of mud, carrying balls of posidonia fibre and stems; a very fine layer of mud; and finally a layer of dead posidonia leaf of felt-like consistency having a sealant effect, and it is probably the latter that brought about the preservation of the Barrels. The stratigraphic survey stopped at the level on which the barrels lay and should mean that there are at least another 60 to 80 centimetres before reaching the inside face of the left side.

Not as yet ascertained however, is the cause of the sinking of a beaked ship, probably a warship, of frame construction, and therefore of medieval or later date, lying at a depth of 2 metres near Marsala, in Sicily, north of Isola Lunga not far from the more famous Punic ship.

The splendid state of preservation of some of the parts is due to the fact that the wreck even if relatively light (it is certain there was no cargo and it has not yet been possible to calculate the amount of shingle and pebble ballast) went down in a mixed sediment of sand and dead posidonia leaves, a sediment which was therefore very soft and penetrable initially, and that only acquired consistency in the course of time as the progressive decay of the posidonia gave way to sand². This permitted the preservation of the whole of the lower part of the boat and of a good part of the right side from the ram to the sternpost.

We may therefore affirm that what makes us recognise almost solely round ships depends perhaps on the observer's eye being more easily attracted by the cargo than by the hull, and not on the actual number of well-preserved wrecks.

Closer attention to the movements of beaches which today are so violently disturbed by acts of human intervention can help us discover unsuspected treasures even if these are often only perishable cultural treasures that need immediate action to be taken for their preservation at the moment of excavation: and sometimes the professional ethics of the archaeologist prevents him from pursuing this work because of the lack or scarcity of facilities for dealing with organic materials.

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NOTES

1. Factors which can cause wrecking are: war, bad weather, stupidity and piracy.
2. For a fuller treatment of this point please see: Honor Frost, *Atti della Accademia Nazionale dei Lincei, serie ottava*, vol. XXX, pages 14-15.