

Research and reconstruction of Wooden Ships



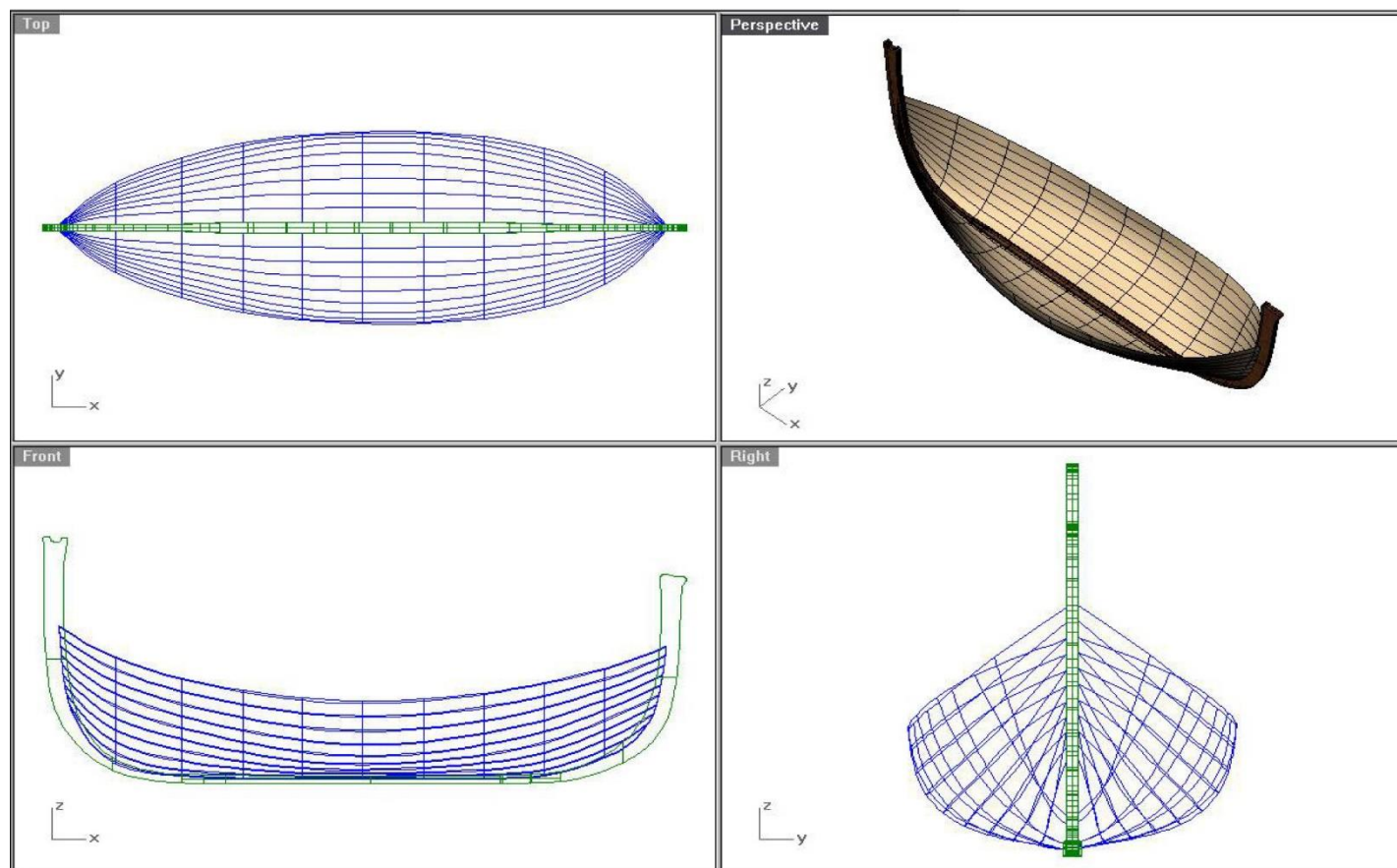
03.02 Sterns

Filipe Castro
Last edited: June 2020

Stern Configurations

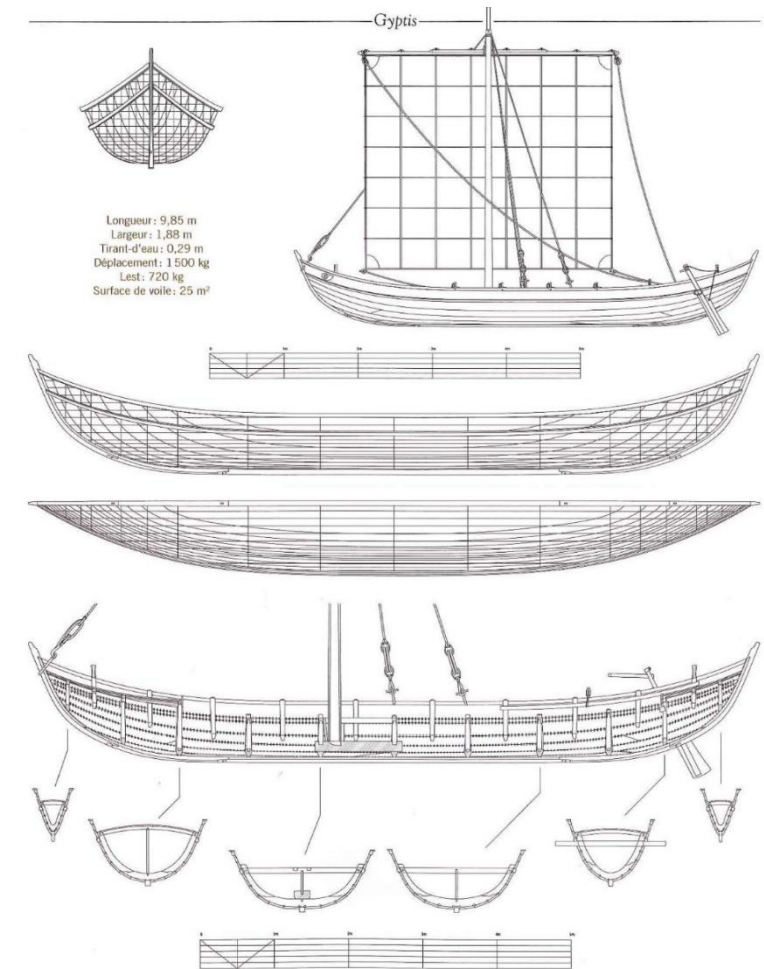


Antiquity



Uluburun, c. 1300 BCE

Gyptis, c. 510 BCE



Stern Configurations

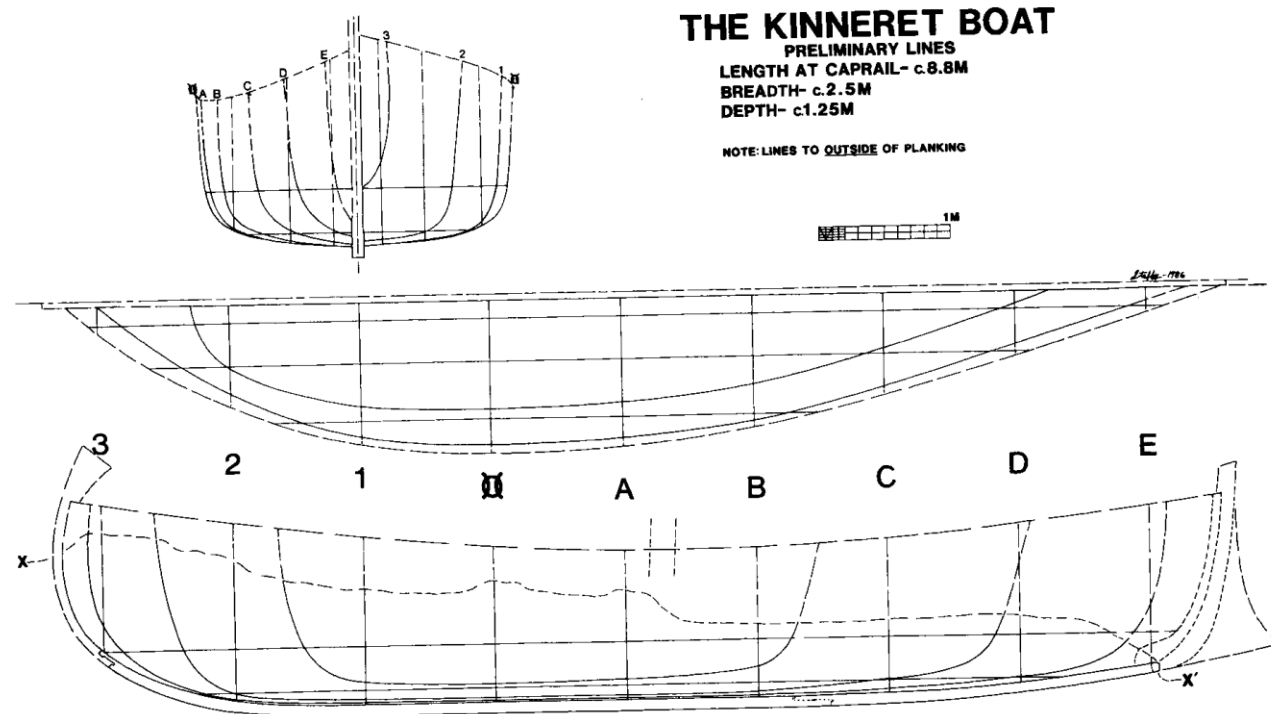
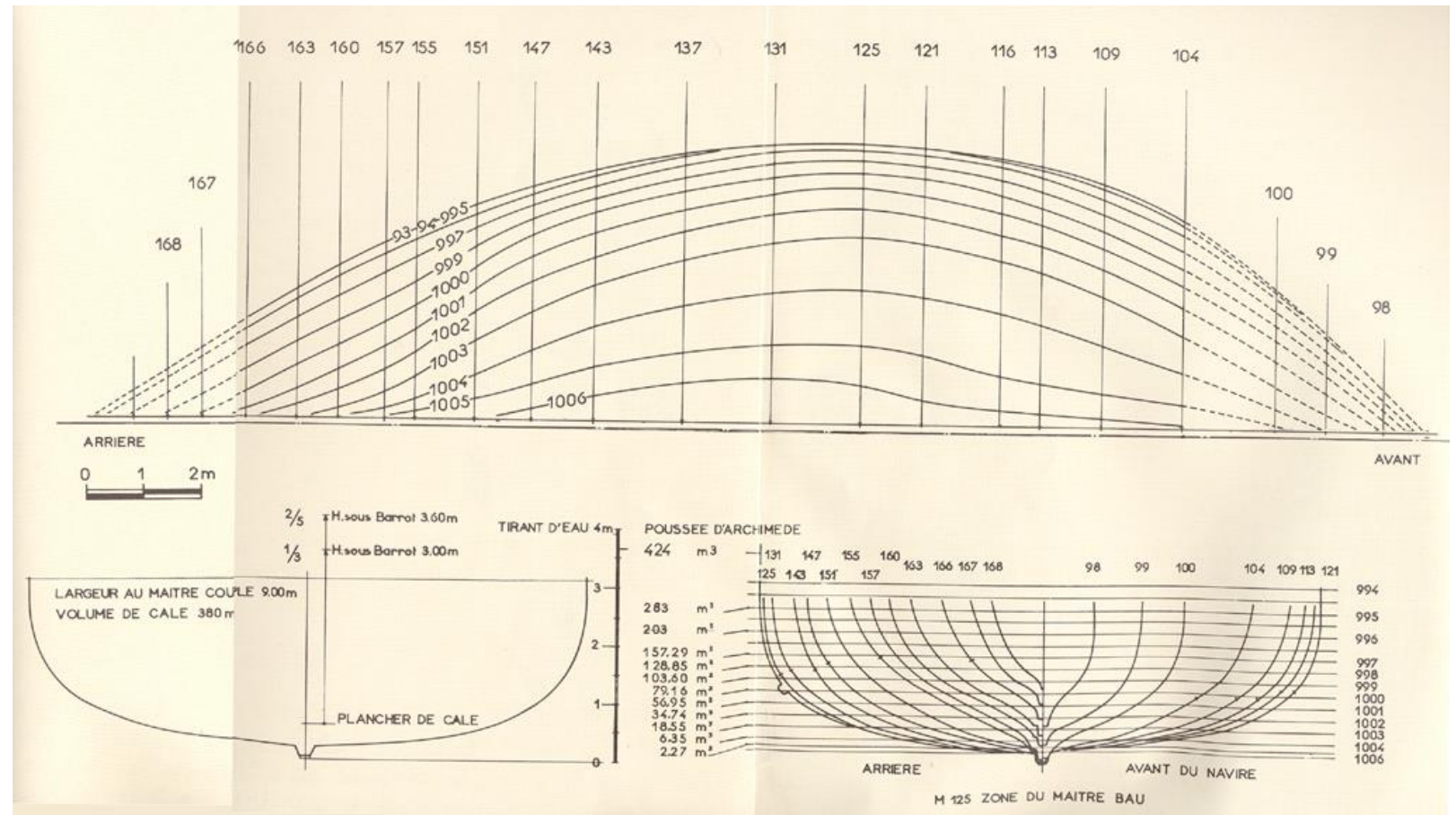


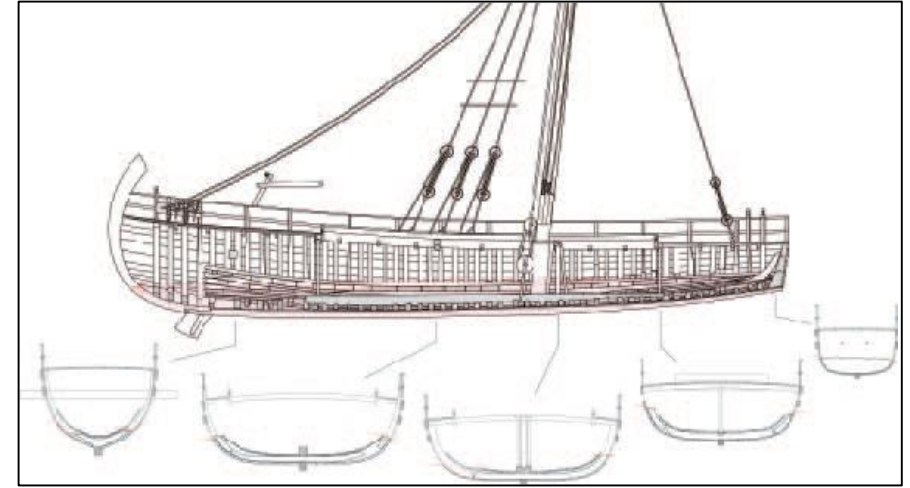
FIG. 3-52. The lines of the Kinneret boat, showing two possible stern configurations.

Stern Configurations

Bourse de Marseilles, c. AD 100



Stern Configurations



Napoli C



Stern Configurations



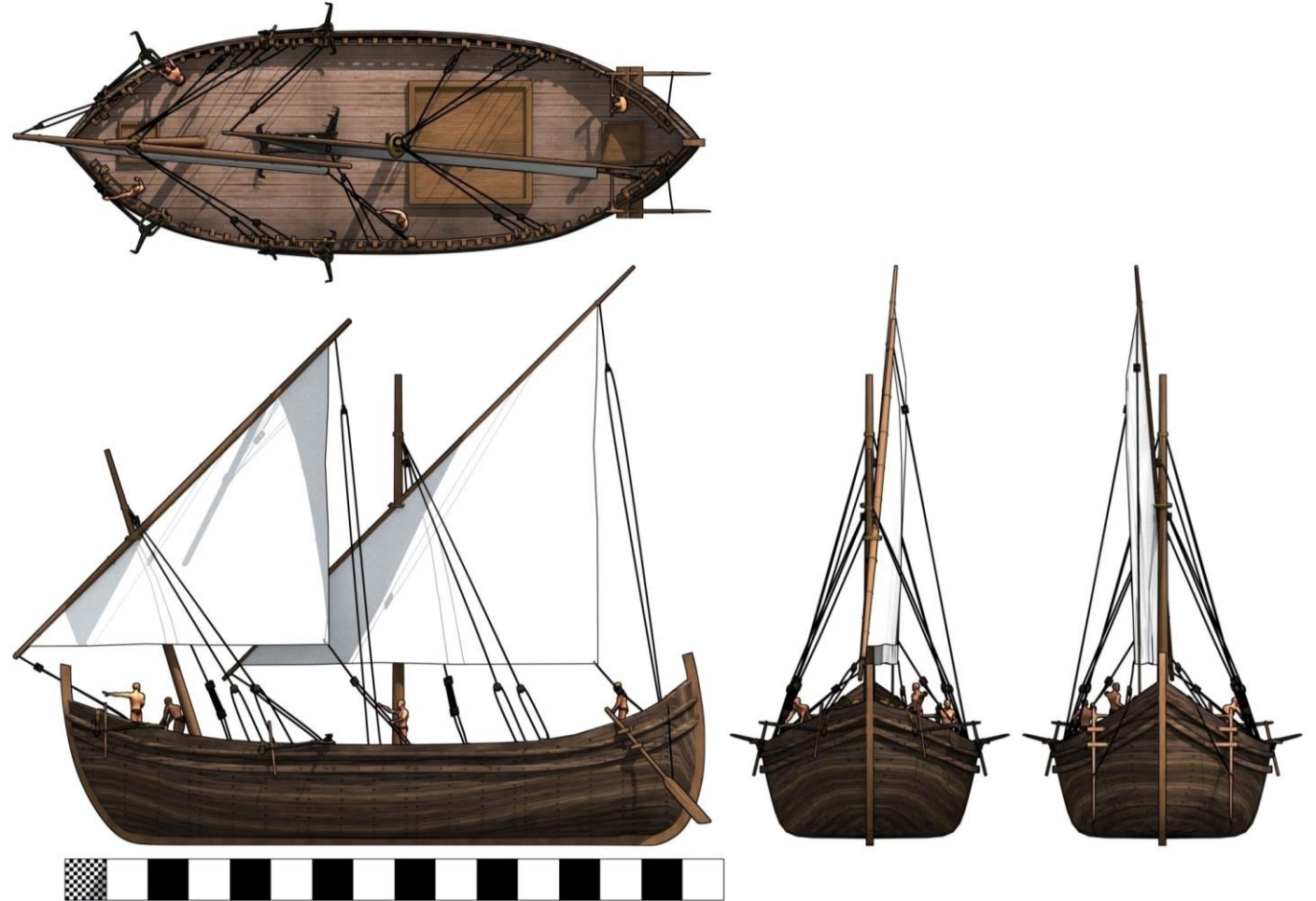
Jewel of Muscat 9th century
Indian Ocean



Stern Configurations

1100s – Mediterranean Sea

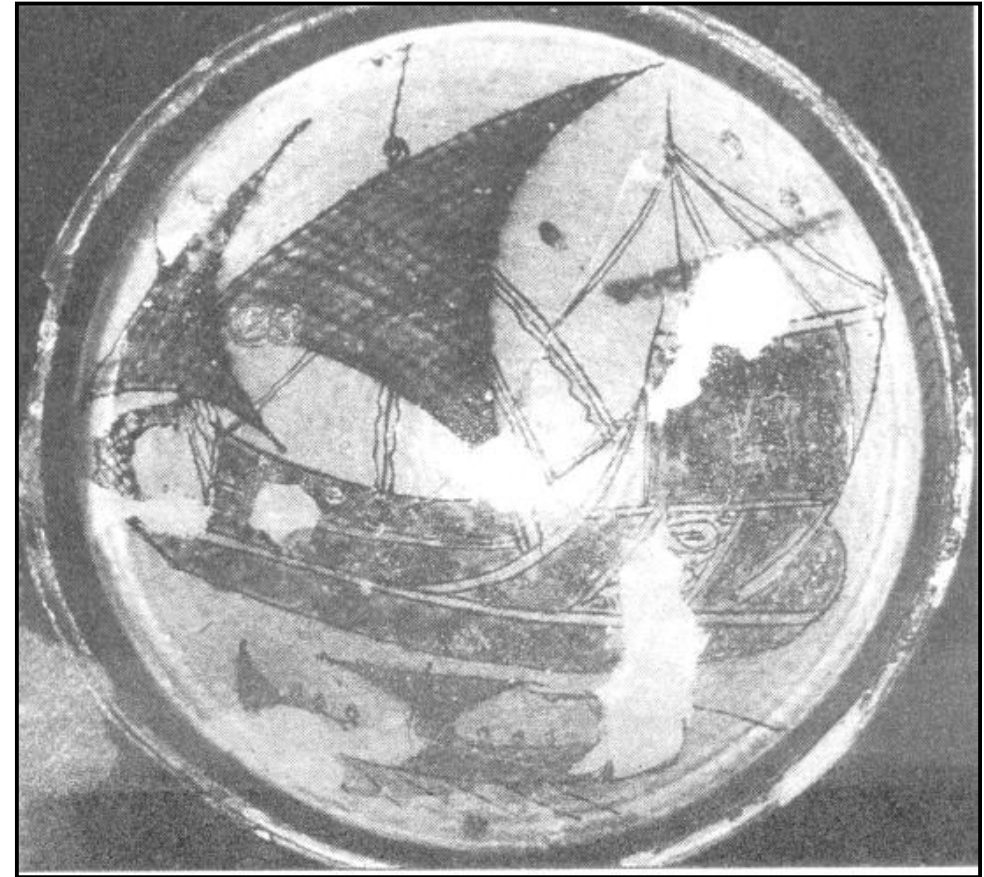
The typical Mediterranean ship was a one- or two-masted lateener, like the Serçe Limanı, c. 1025.



1200s – Mediterranean Sea

The typical Mediterranean ship was a one- or two-masted lateener, although there may have been larger vessels.

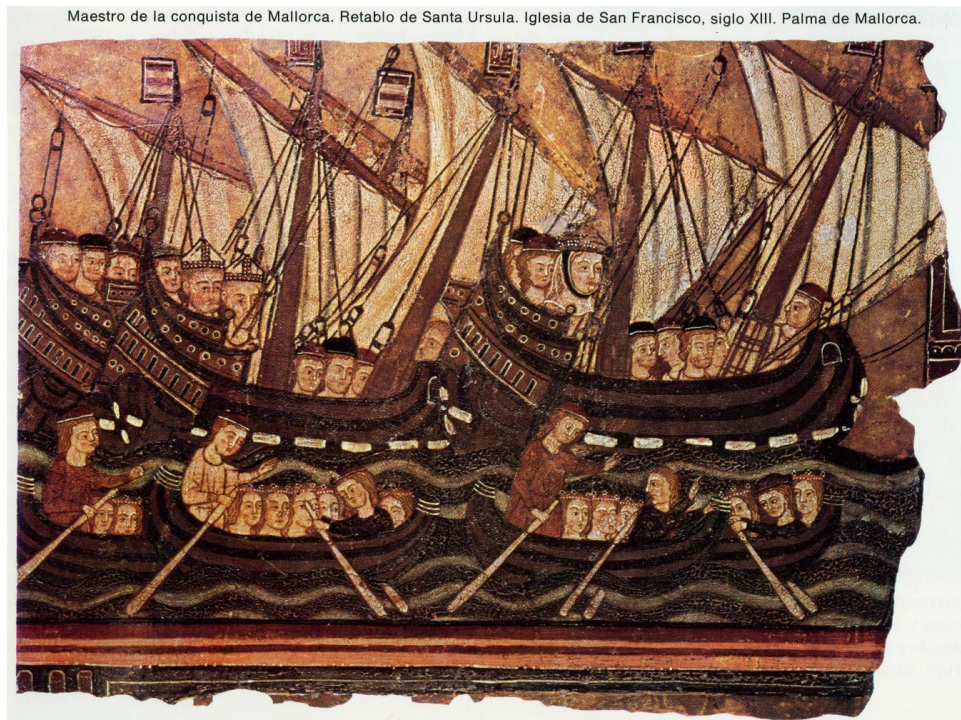
Image of a three-masted ship from an 11th century (?) Islamic plate.



Stern Configurations

1200s – Mediterranean Sea

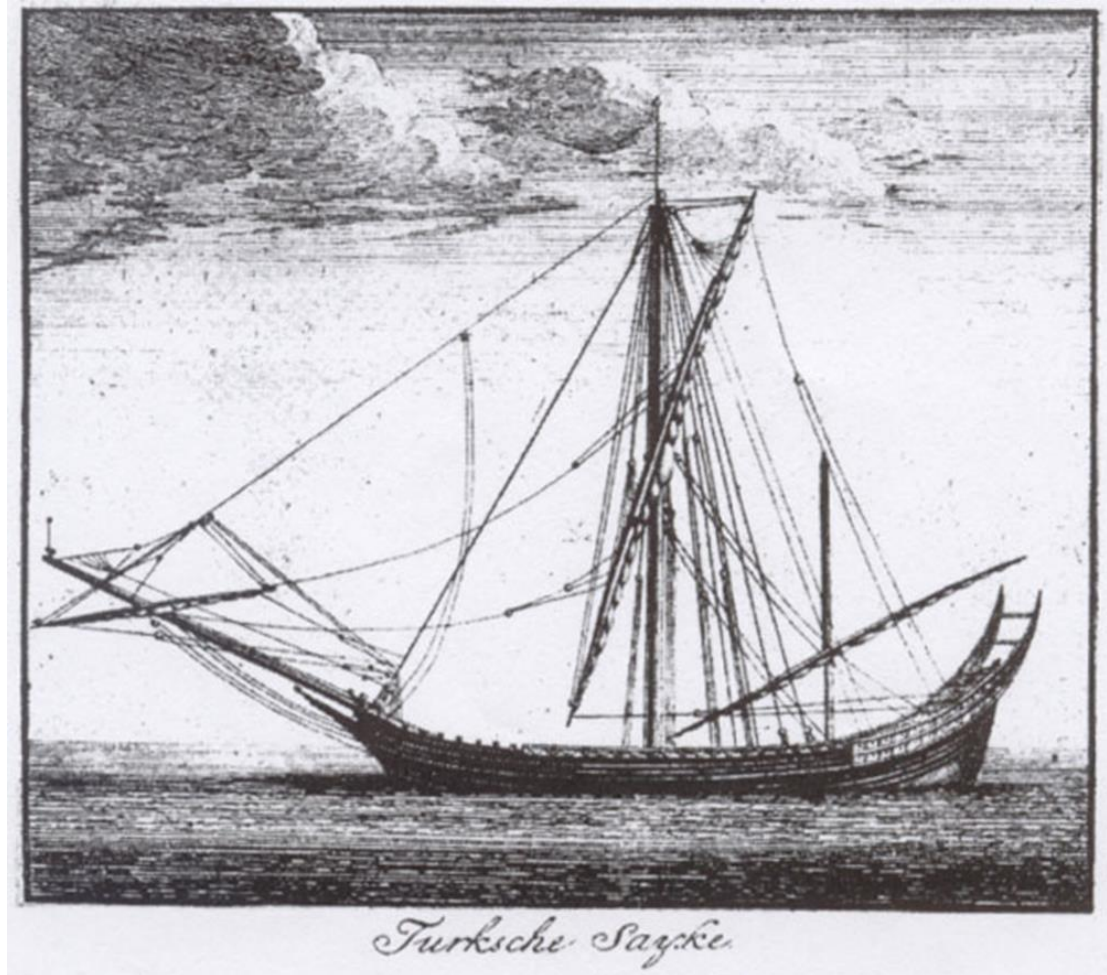
The larger Mediterranean ships have a platform in the stern.



Double ended
with a rudder
platform.



Stern Configurations

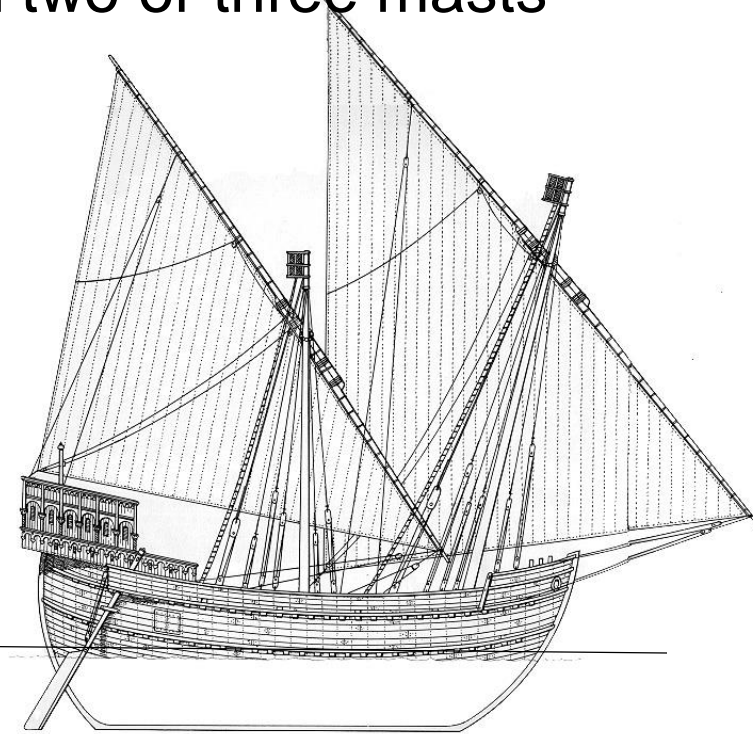
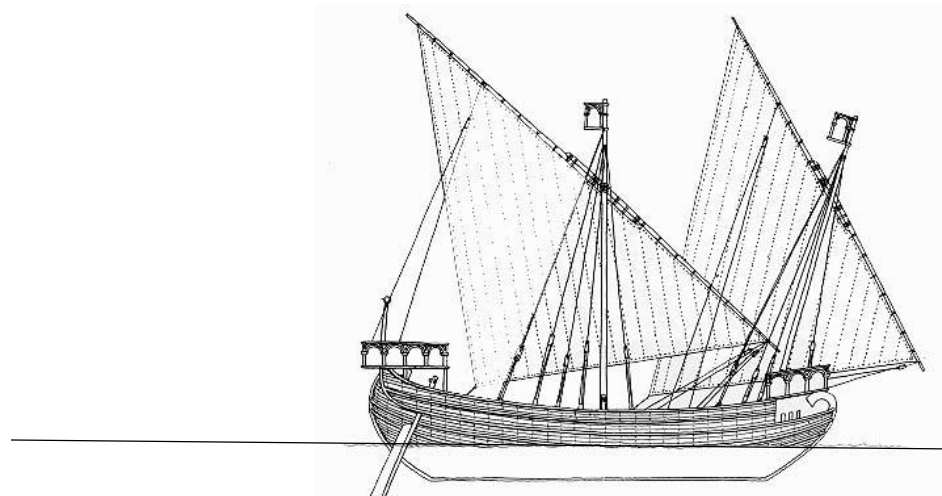


Stern Configurations

1200s – Mediterranean Sea

Sizes varied. Although most ships were relatively small, in 1268 the Venetians offered Louis IX of France a large ship (a *nave* or *buss*) to take part in his crusade to Tunis: the *Roccaforte* which was 500 tonner and mounted two or three masts with lateen sails.

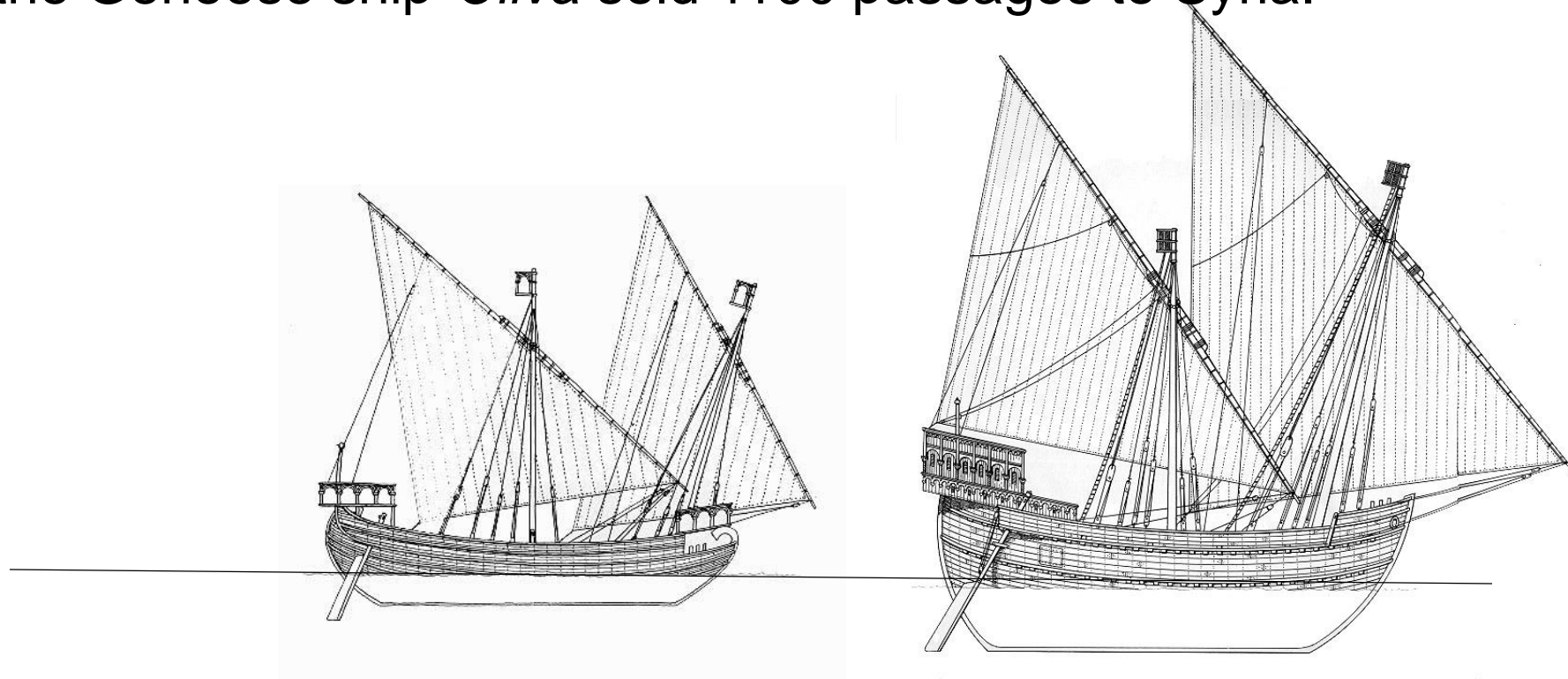
Always double-ended,
with a platform.



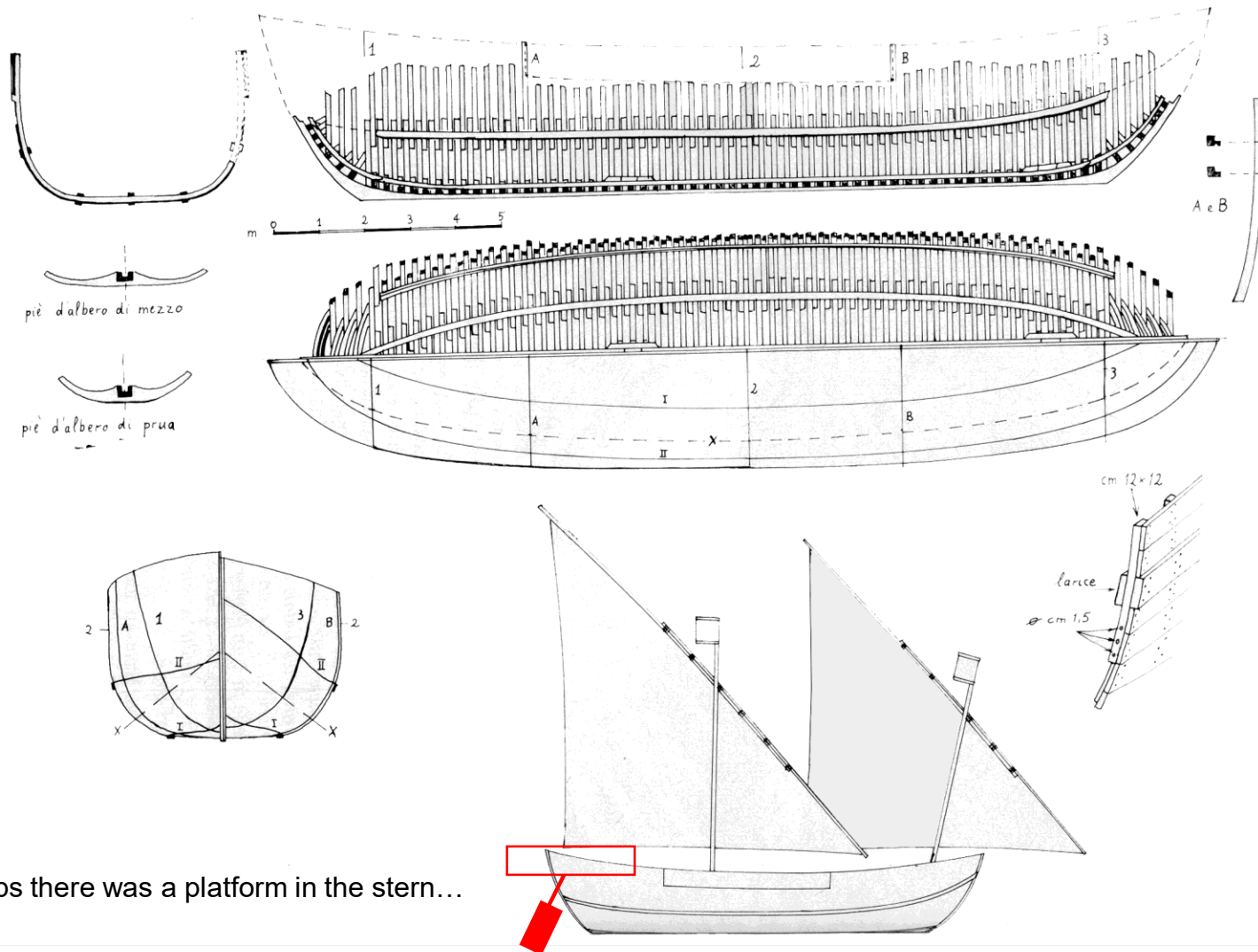
Stern Configurations

This was exceptionally large for its time. The other large Venetian ships that took part in the crusade were c. 190 tons. The largest Genoese vessel that took part in the crusades was the *Paradisus Magnus*, 25 m long, could carry 600 tons and had a crew of 100. In 1248 the Genoese ship *Oliva* sold 1100 passages to Syria.

Always double-ended,
with a platform.



Stern Configurations



Perhaps there was a platform in the stern...

Contarina 1, c. 1300 (or later)

Found in 1898 at Contarina, near Rovigo, north-east Italy. It is similar but slightly smaller than the vessel described in the Venetian manuscript known as *Libro di marineria*, or *Fabrica di galere*, (Michael of Rhodes, 1436).

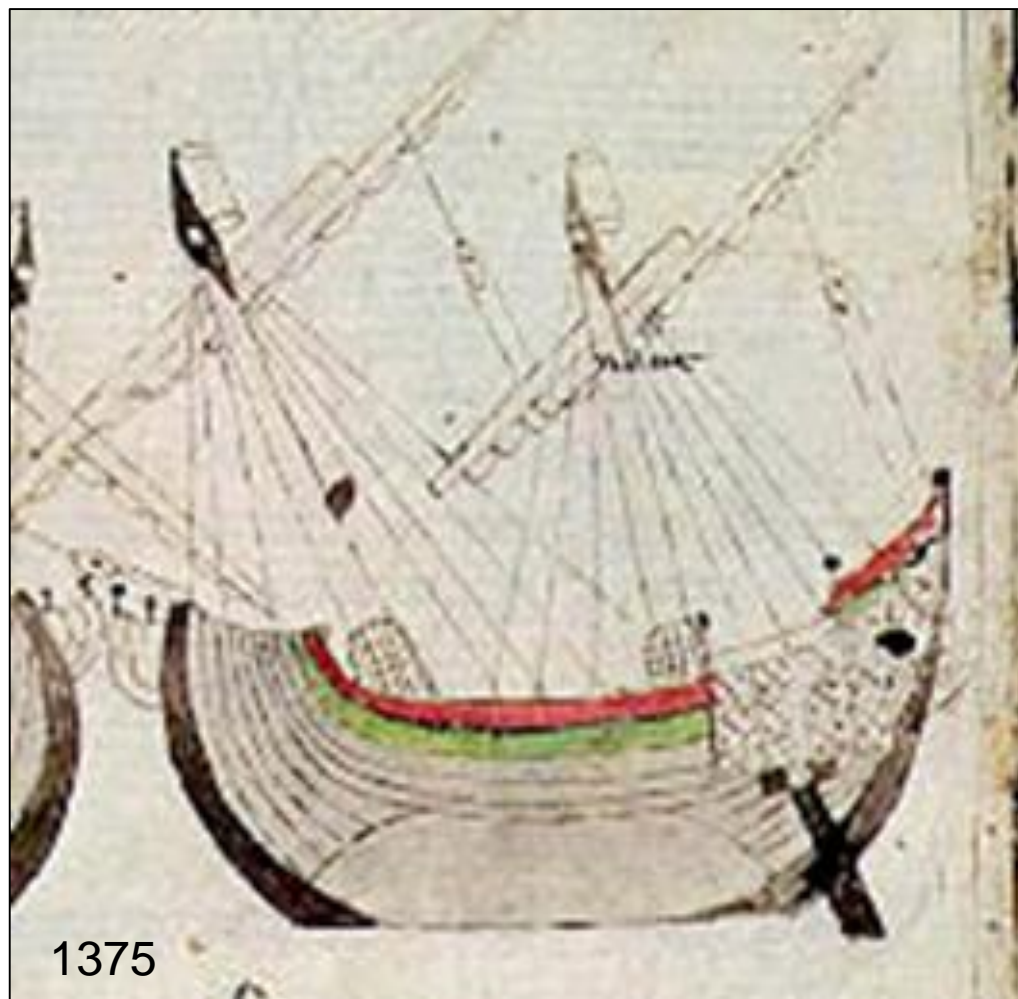
Stern Configurations

Some ship types appear in the iconographical record with what looks like “pre-round tucks.” The stern planking seems to converge to an area, rather than converging to the sternpost.



Stern Configurations

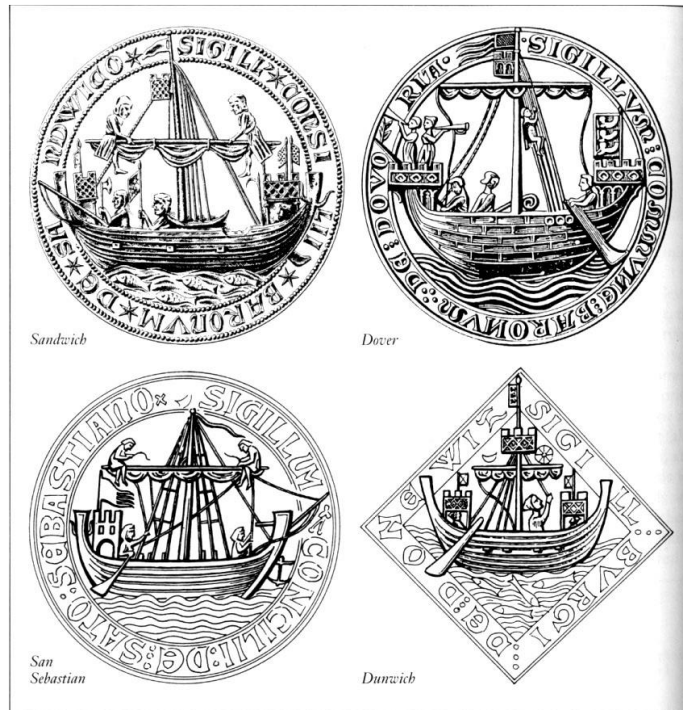
The earlier representations of this type of planking appear on the bows.



Stern Configurations

1200s – Northern Europe

In the north the cog developed (appeared in the 1150s in Denmark), with a straight stem post, flush laid bottom, and a central rudder, partially replacing the lapstrakes.



Stern Configurations



Double ended with a platform above the rudder.

Stern Configurations

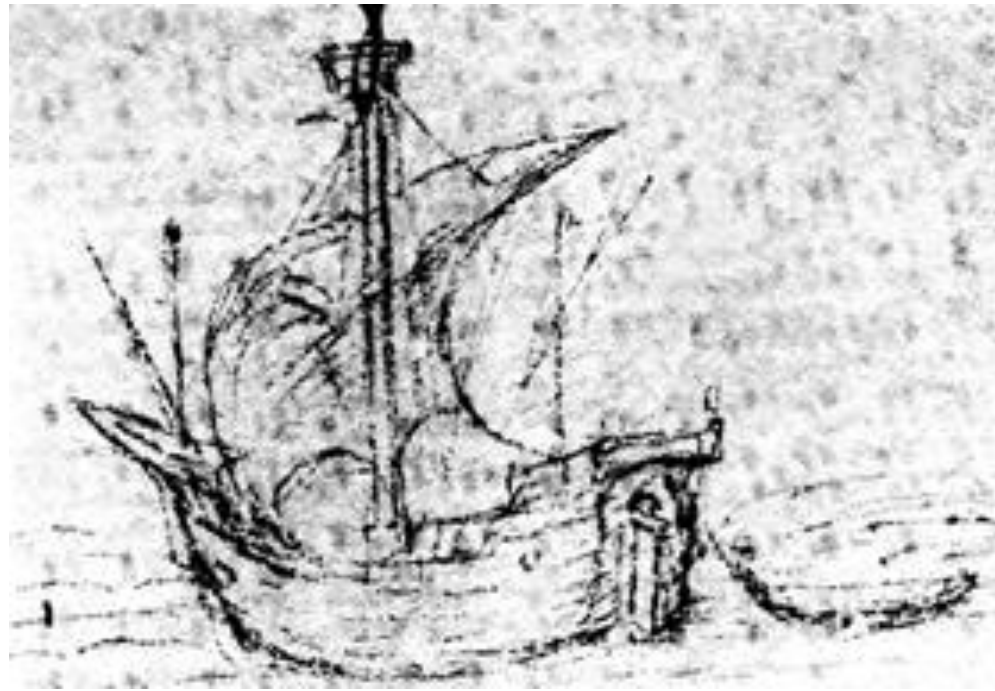


A few images seem to suggest the existence of a type of vessel with the planking running parallel to the sternpost.

It is impossible to say whether this translated only a difficulty of the artists to represent round tuck sterns.

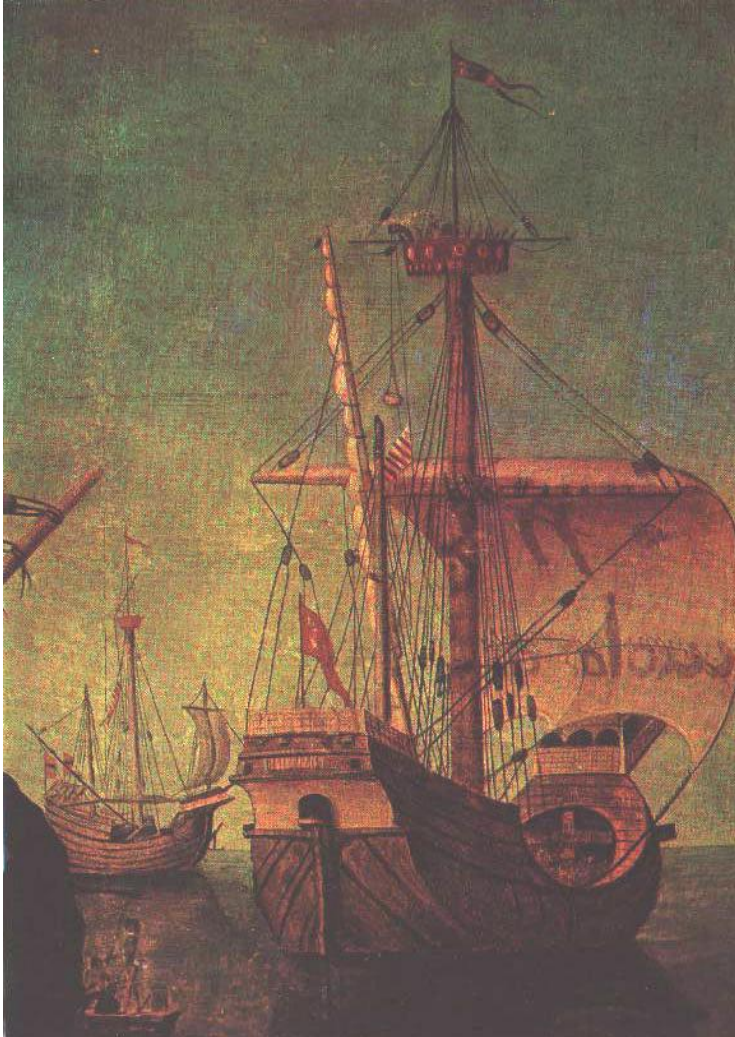
Stern Configurations

In some representations we still see images suggesting the flat bottom, with an edge, but the planking direction seems wrong...



1409 – Libro del consulat del mar

Stern Configurations



Around 1500 we can still see an edge that suggests this stern type.

Stern Configurations



This can be just an expression of poor artistic skills, as no example of such a stern type has appeared in the archaeological record yet.

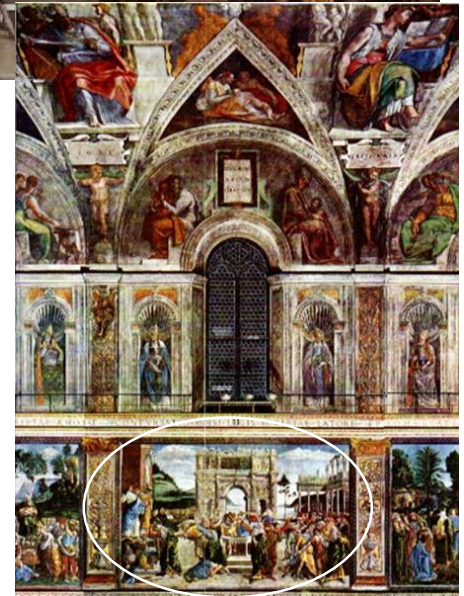
Spain 1588: Viso del Marquez.

Stern Configurations



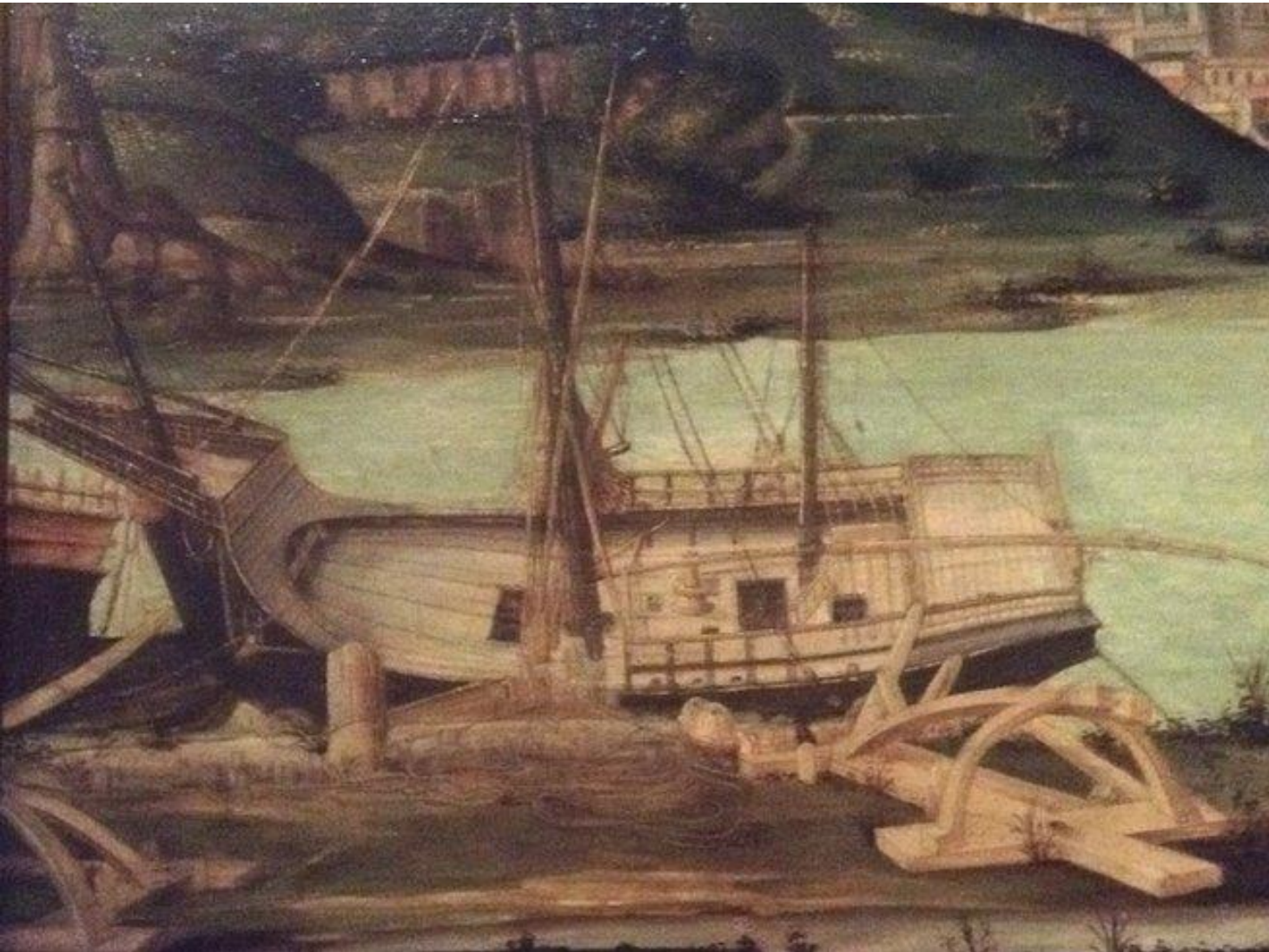
Copenhagen 1588 (Braun and Hogenberg).

Stern Configurations



Botticelli 1481
Sistine Chapel

Stern Configurations



Botticelli 1488
The Judgement of Paris

Stern Configurations: round tucks



Round tucks: some images seem to suggest that there is a **lower hull** where strakes converge to the sternpost and an **upper hull** where strakes ran parallel into a transom.

Stern Configurations



Navi are replaced in certain routes by *cocche* with one mast, one square sail and fore and stern castles.

Mediterranean *cocche* grew substantially in size in the first half of the 14th century.

Stern Configurations



Round tuck: the Mataró model, c. 1450, is a perfect example of a round tuck stern.

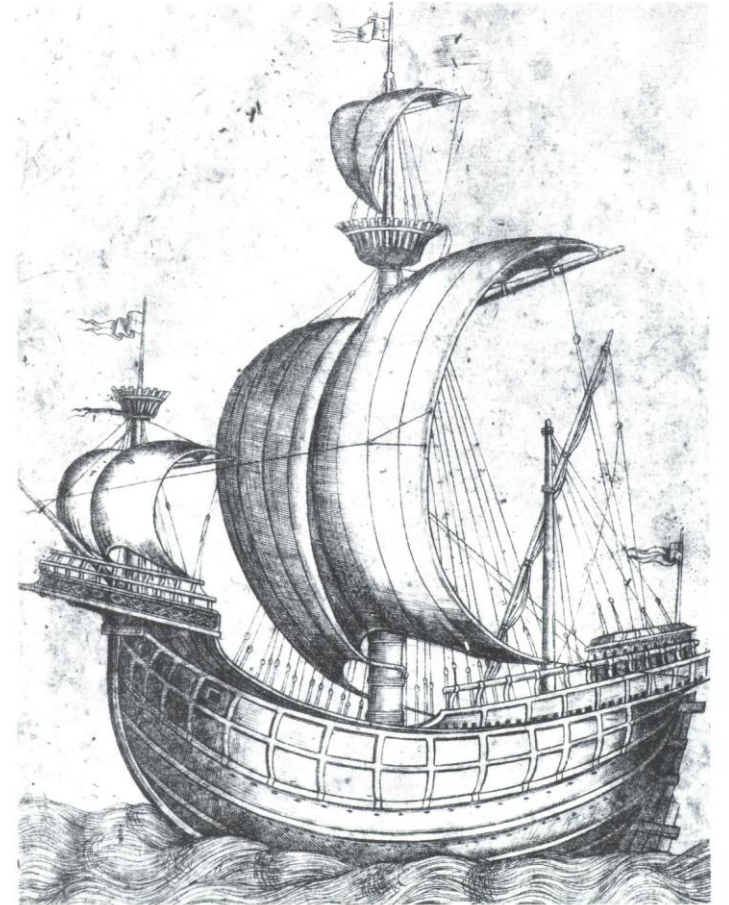
Stern Configurations



Stern Configurations

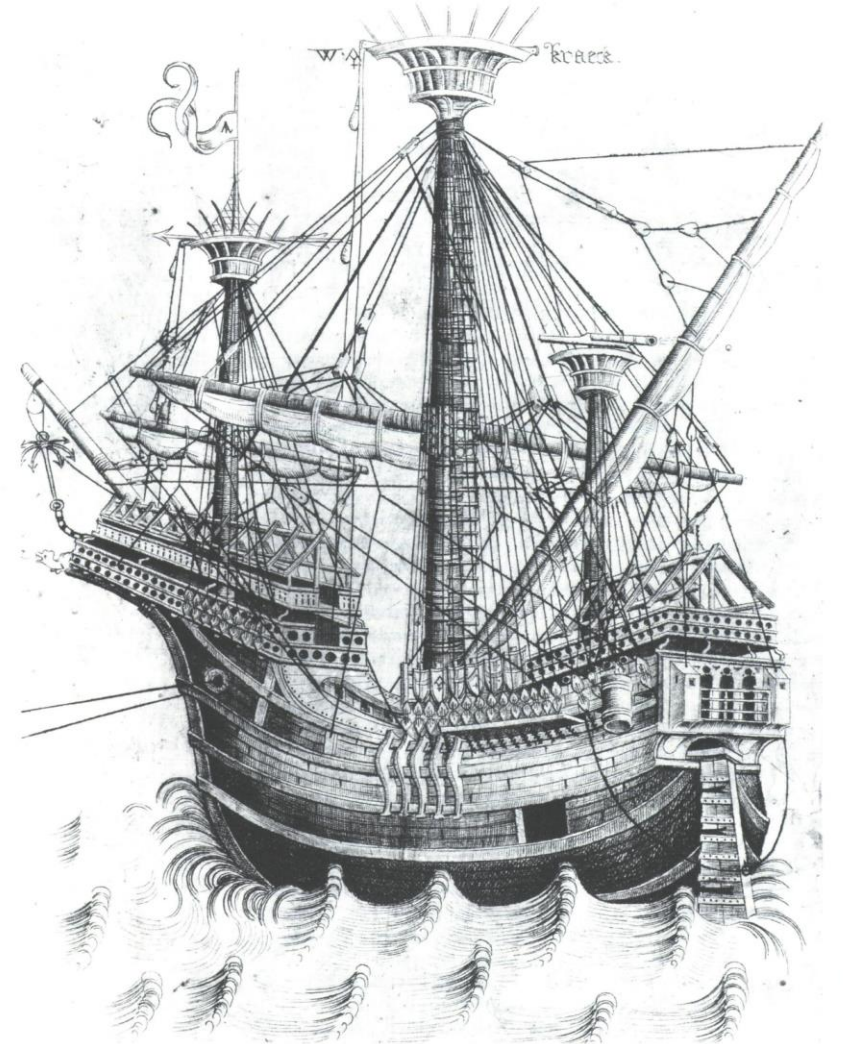
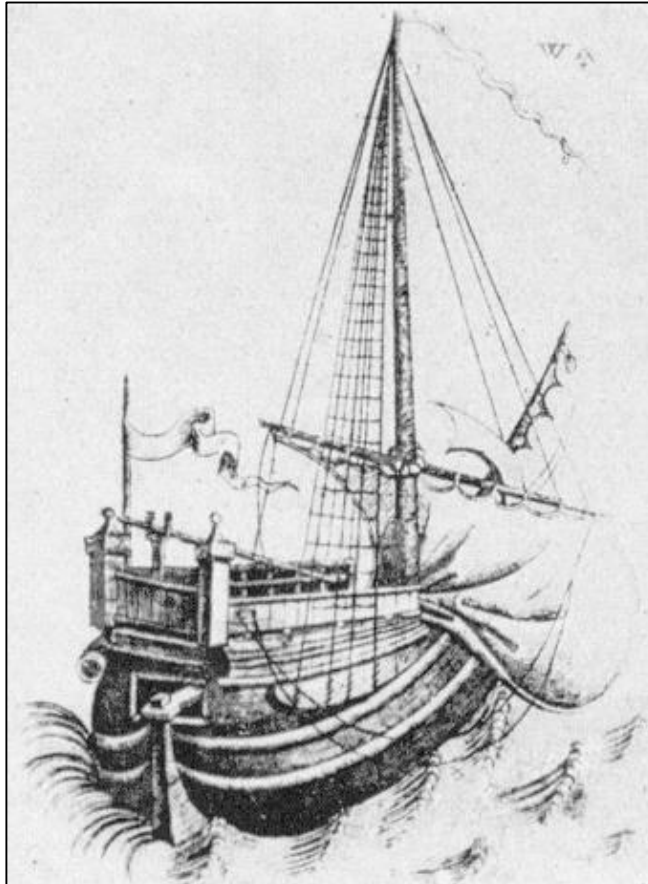
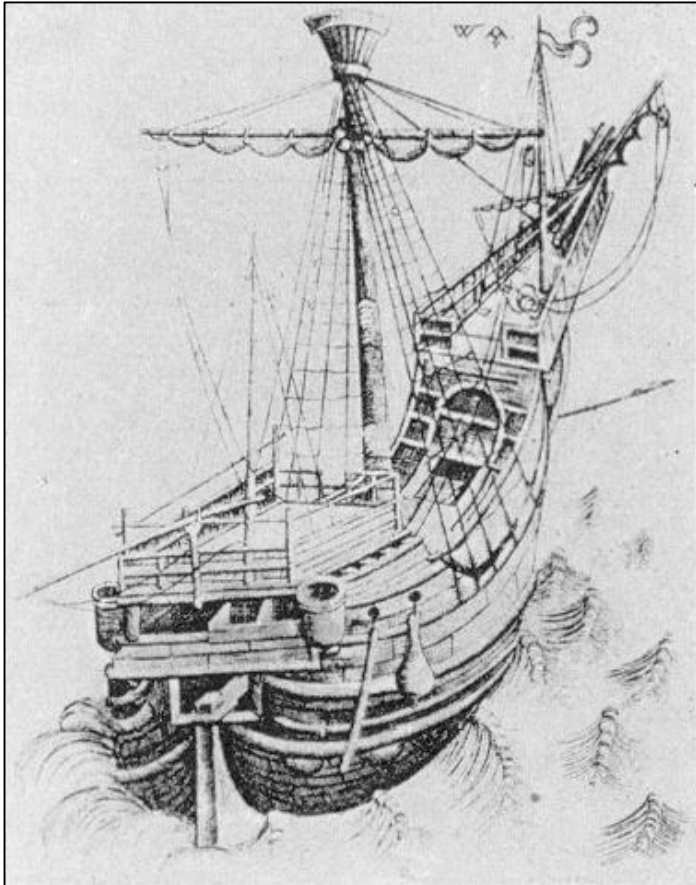


Round tuck examples:



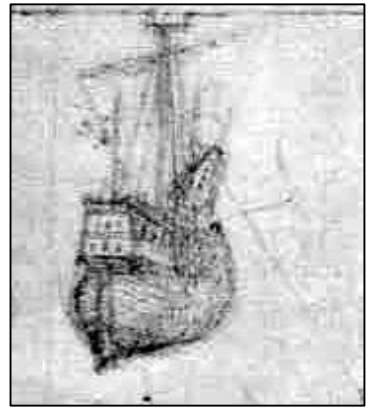
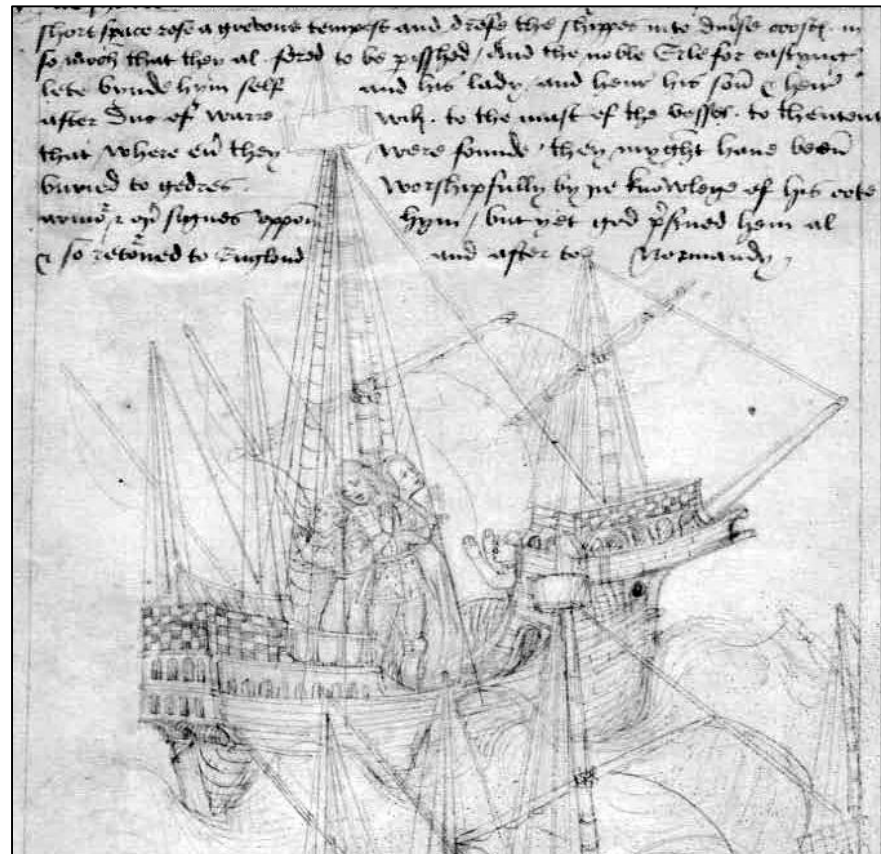
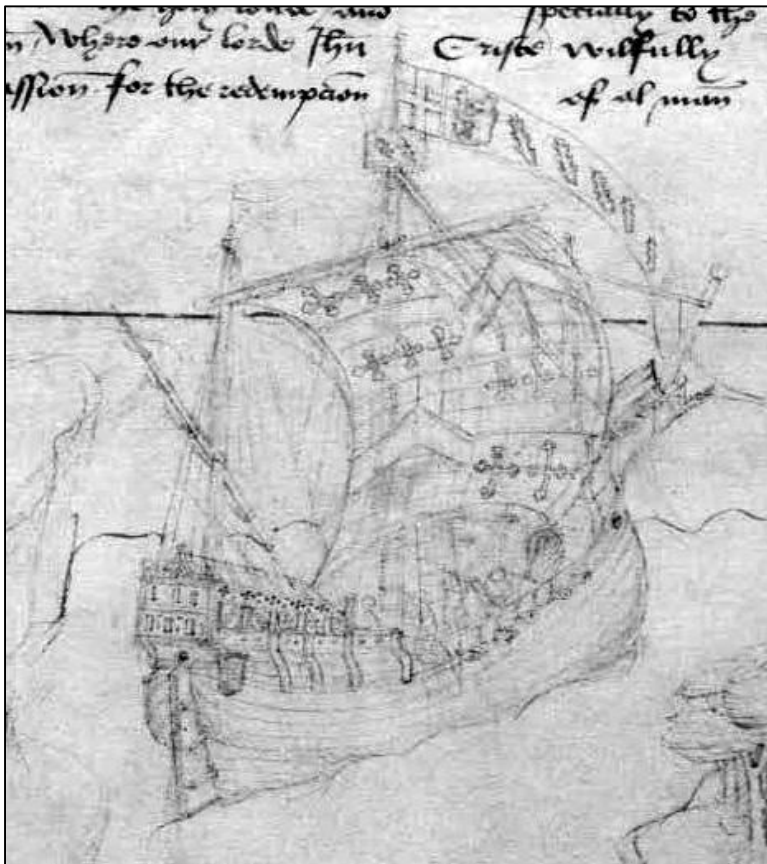
Stern Configurations

c. 1470, Master W. A.

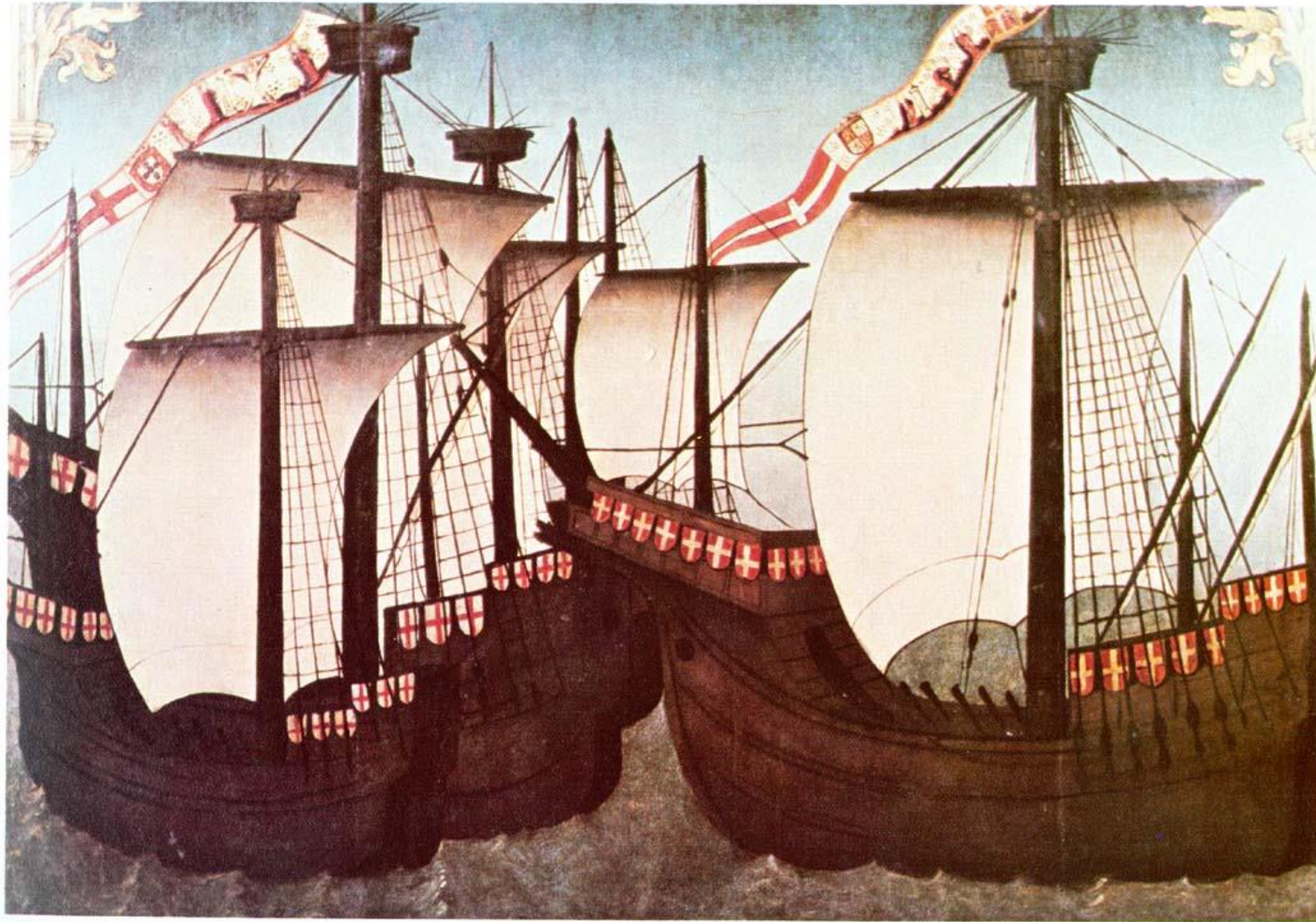


Stern Configurations

c. 1490, Pageants of Richard Beauchamp



Stern Configurations: square tuck



Naos de la iglesia de San Pedro. Zumaya.

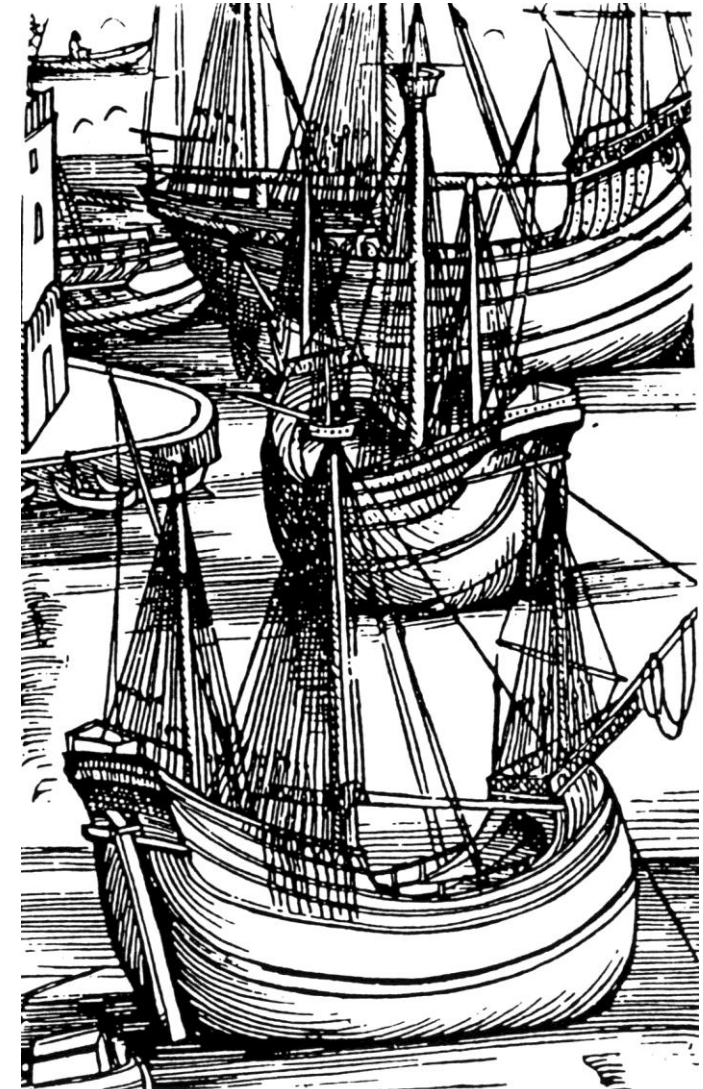
Stern panels appeared in the late 15th century. The earliest representation is a Basque painting at the Zumaya church, dated to around 1475.

Stern Configurations

1500, Jacopo Barbari's View of Venice

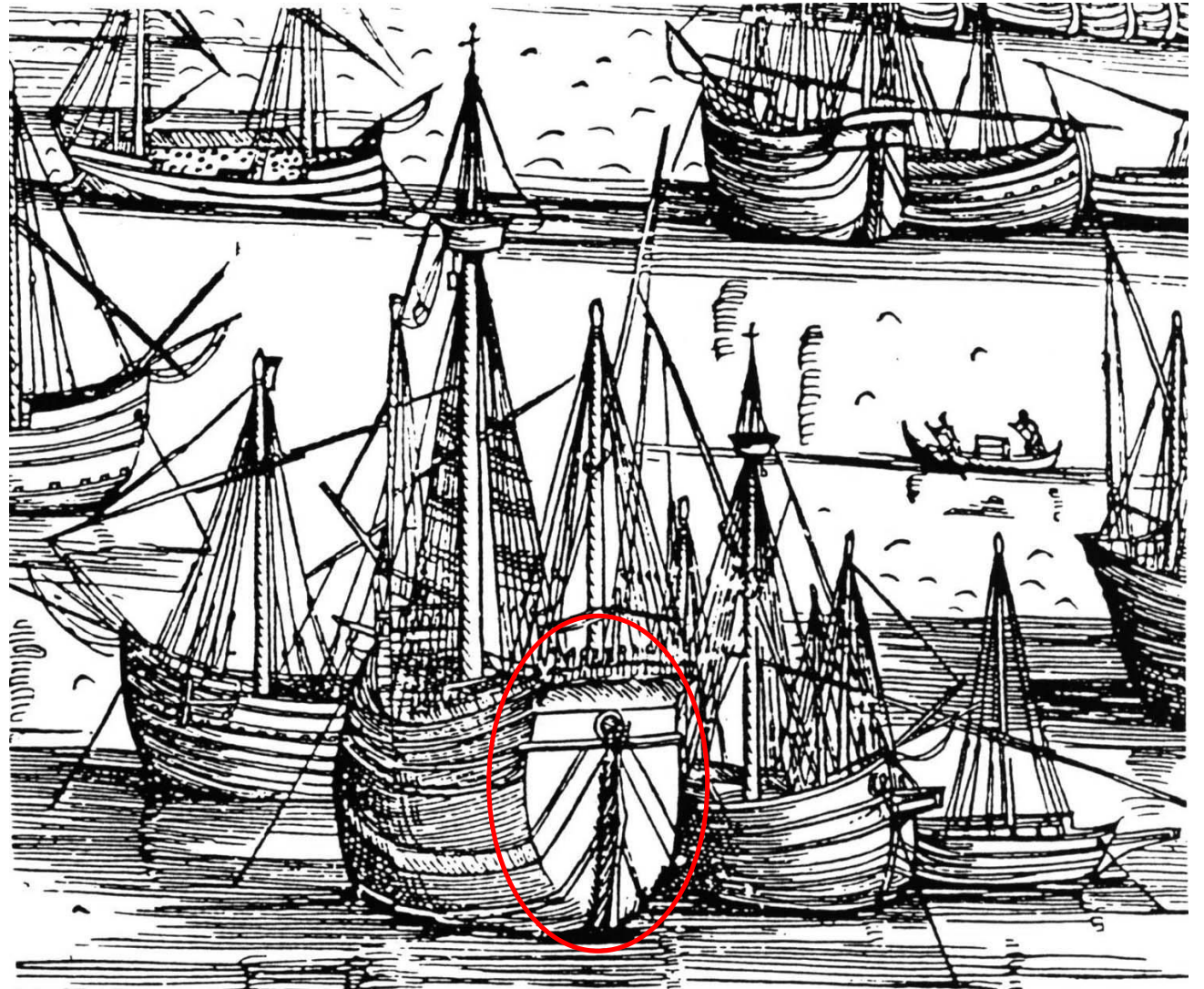


Three-masted carracks with round tuck sterns.



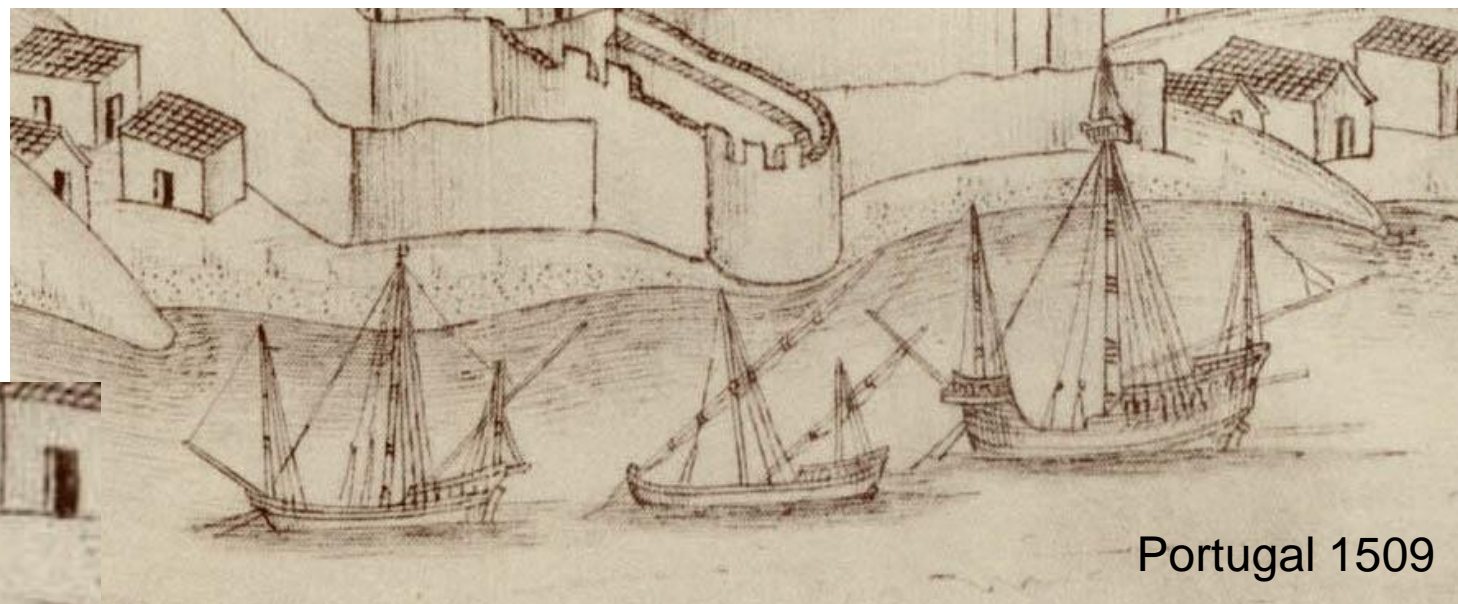
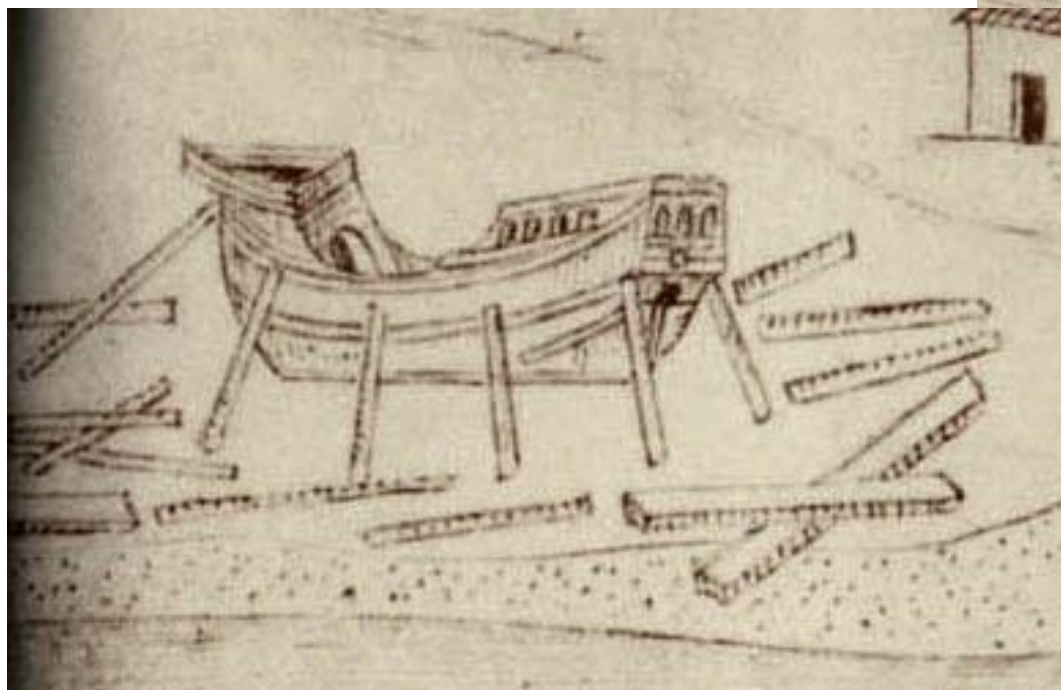
Stern Configurations

Ship with a stern panel.



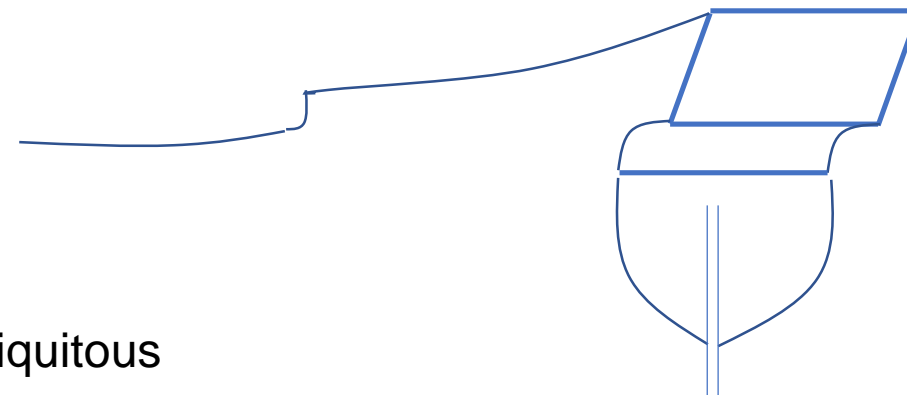
Stern Configurations

Livro das Fortalezas de
Duarte d'Armas
c. 1509



Portugal 1509

Stern panels are ubiquitous



Stern Configurations

Livro de Lisuarte de Abreu
c. 1563



Stern Configurations

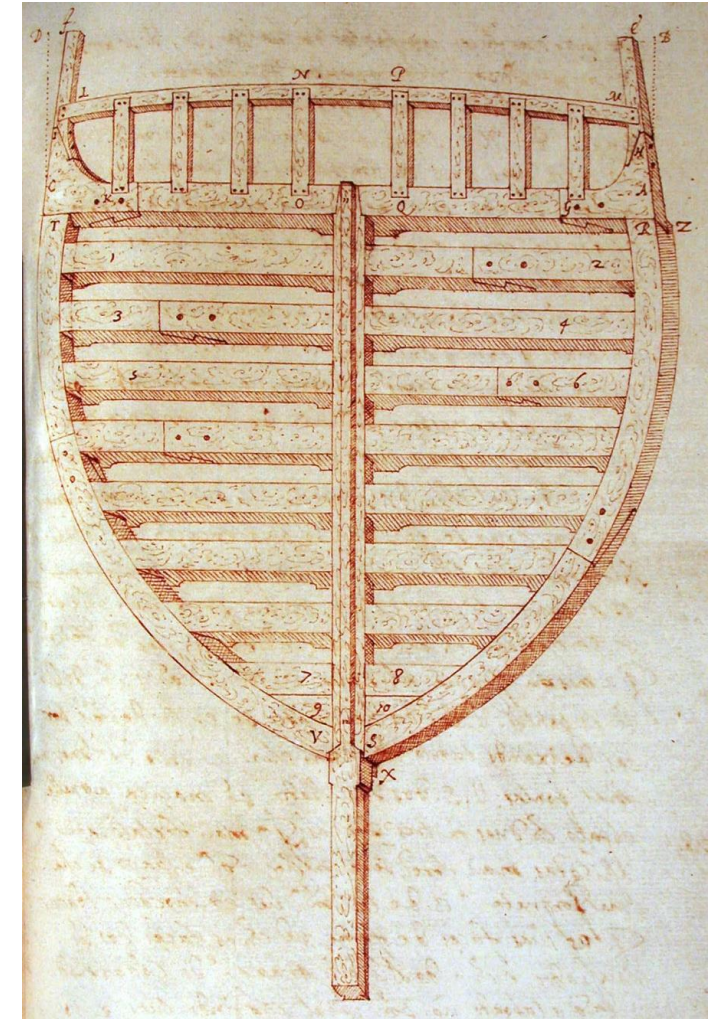
Memória das Armadas
c. 1566



Stern Configurations

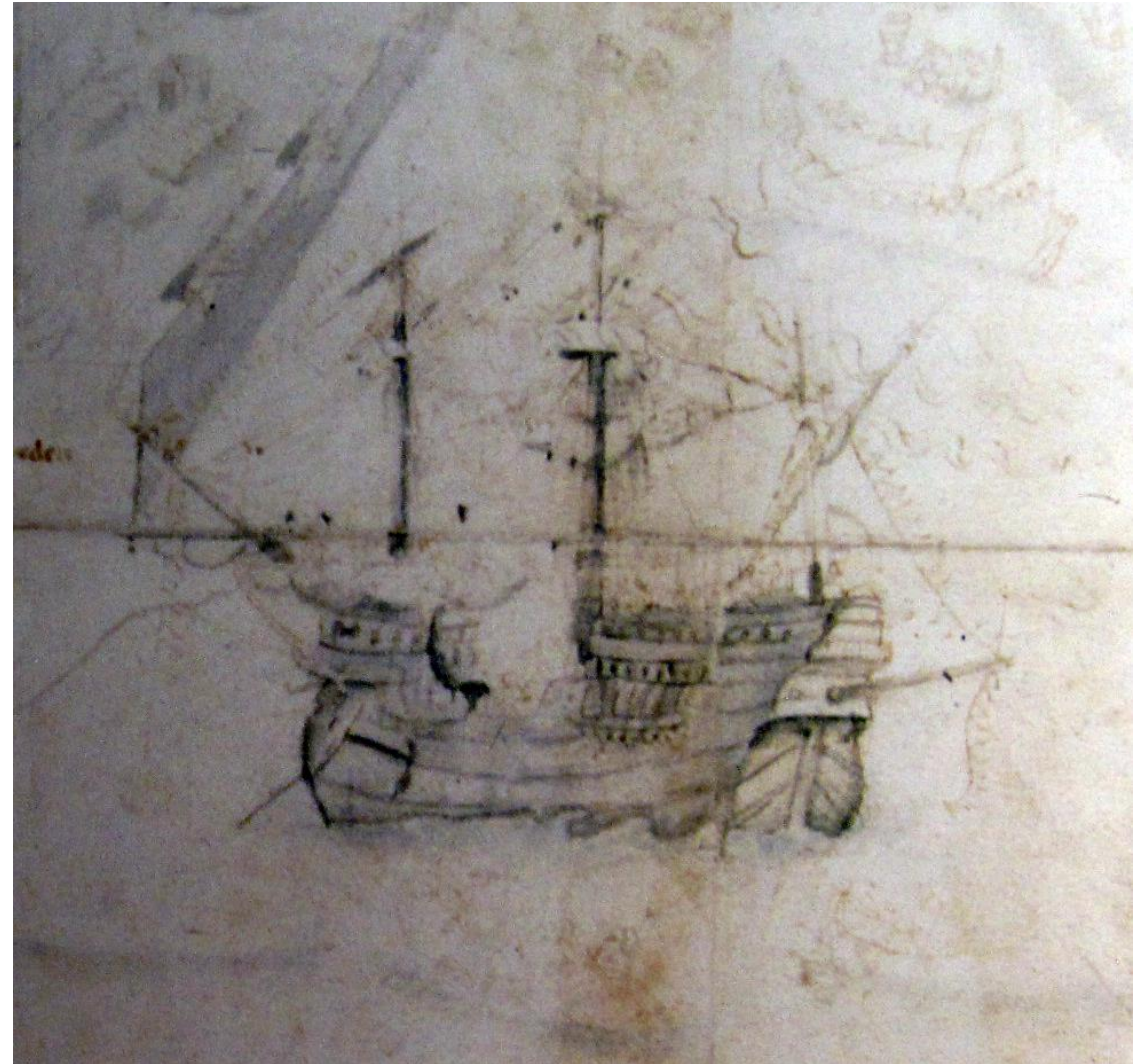


1600, *Livro Primeiro de Architectura Naval*
João Baptista Lavanha



Stern Configurations

c. 1550, View of Lisbon (Leiden)



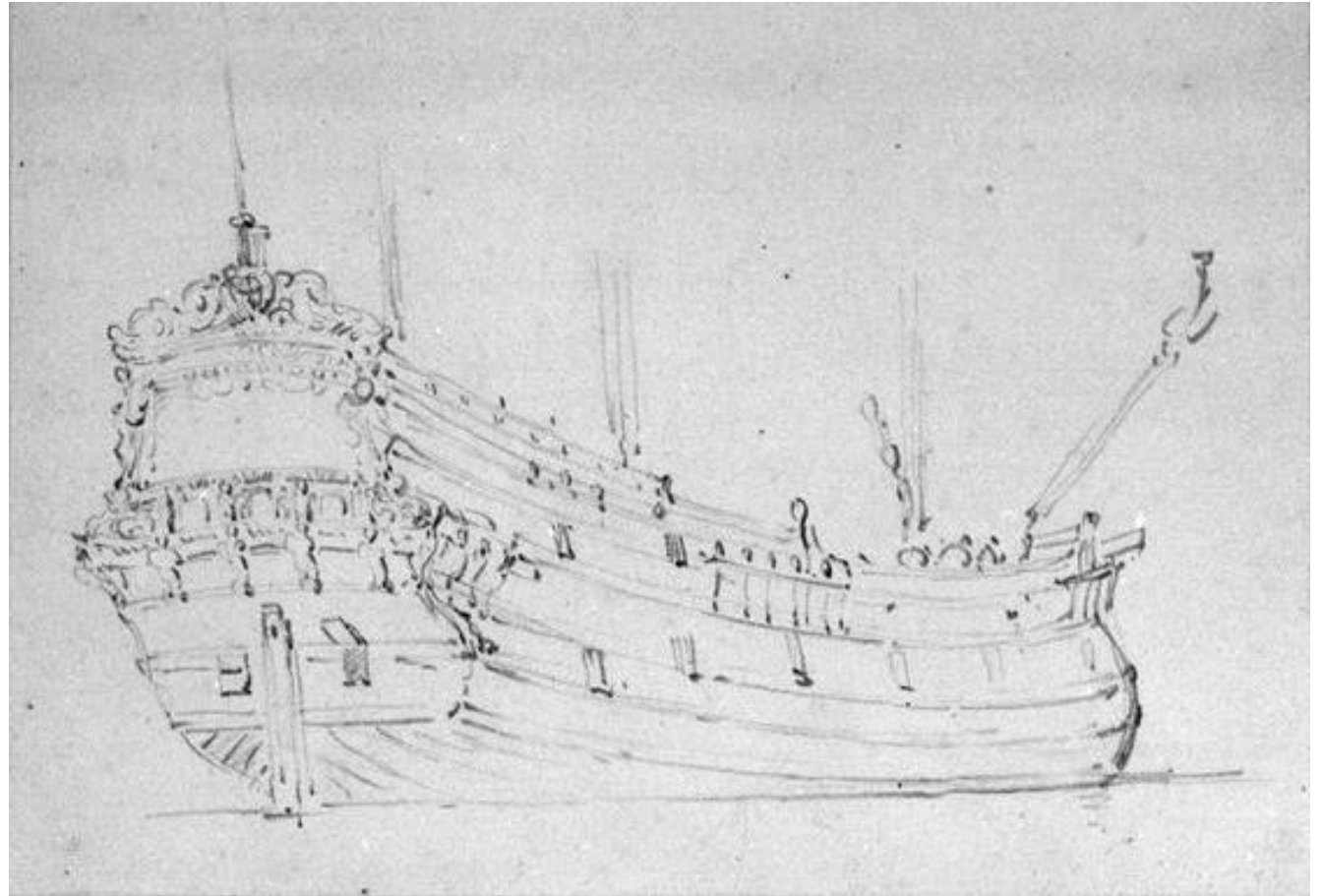
Stern Configurations

17th Century



Stern Configurations

Willem van de Velde I (1611-1693)



Stern Configurations

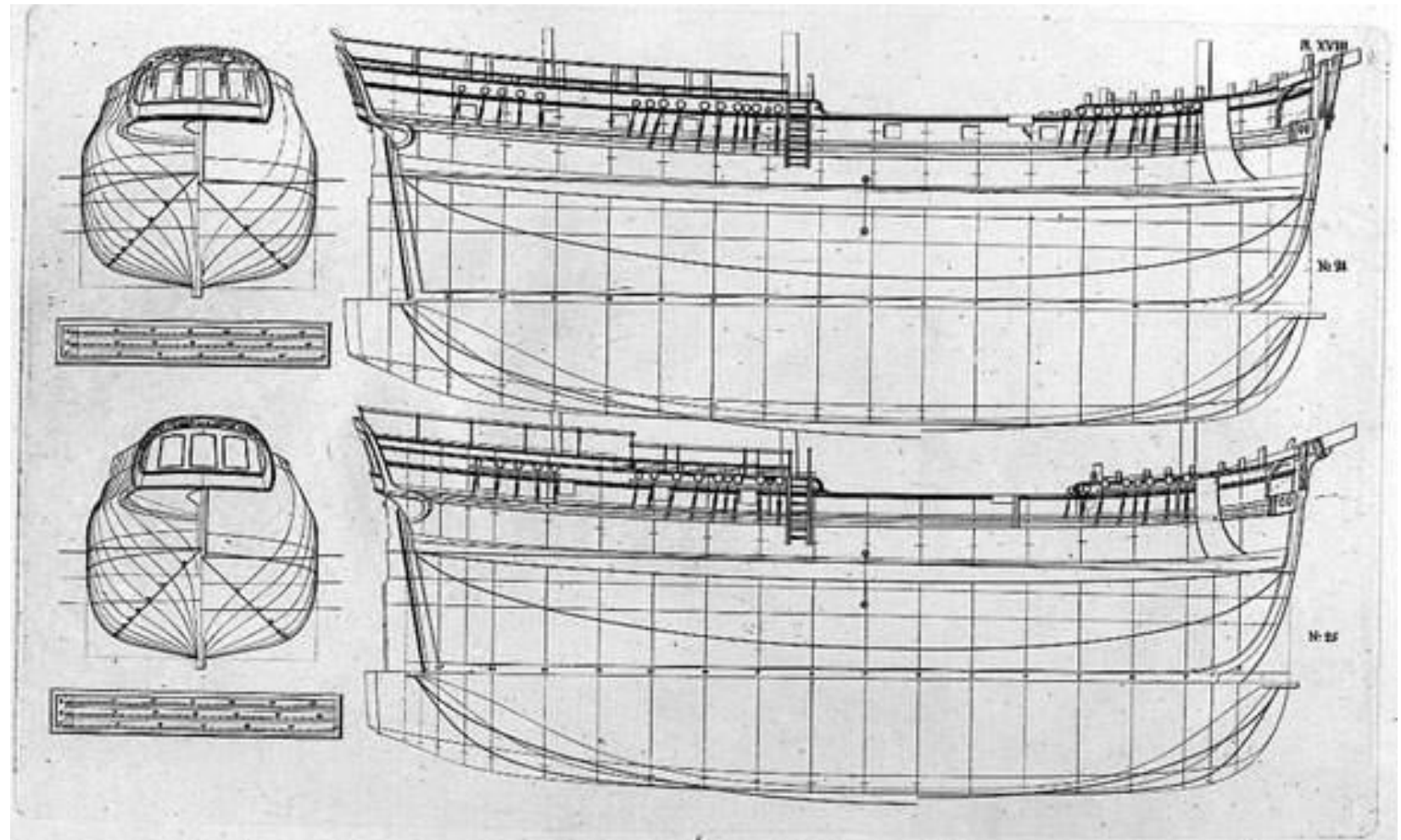


Stern Configurations



Stern Configurations

1768 Chapman



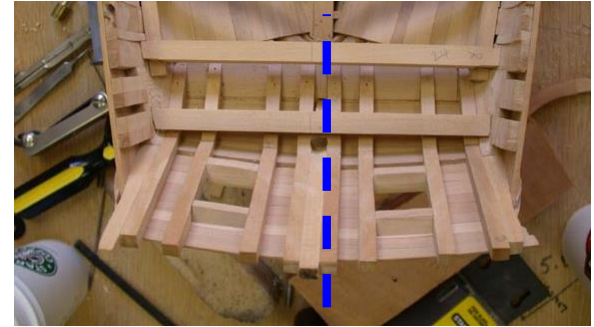
Stern Configurations



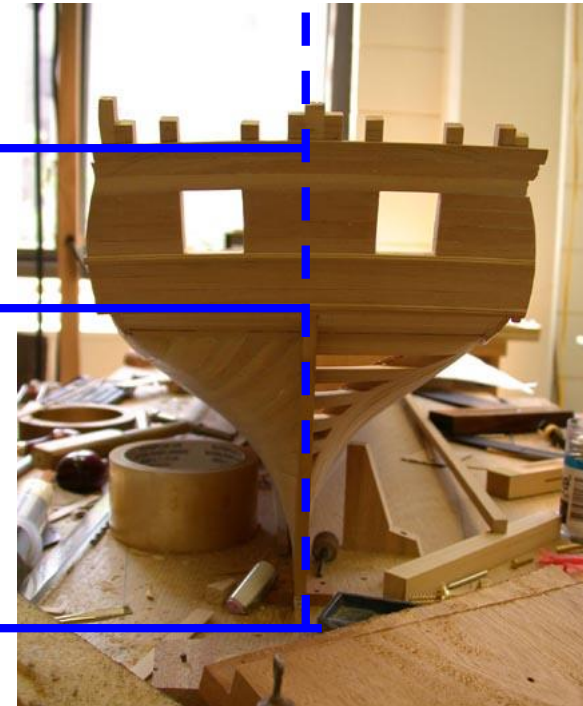
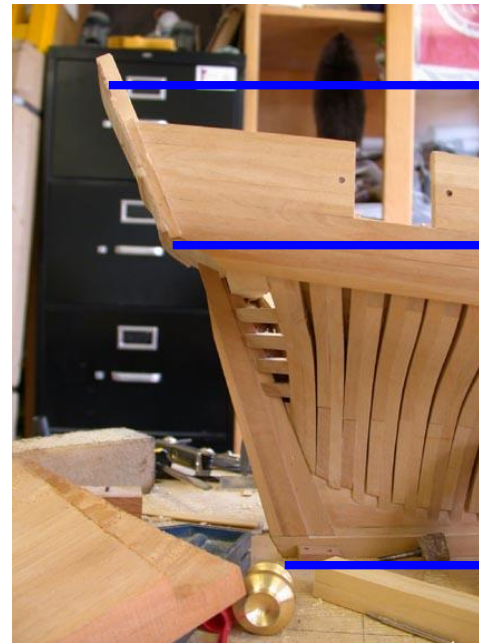
19th century: brig *Jefferson*.



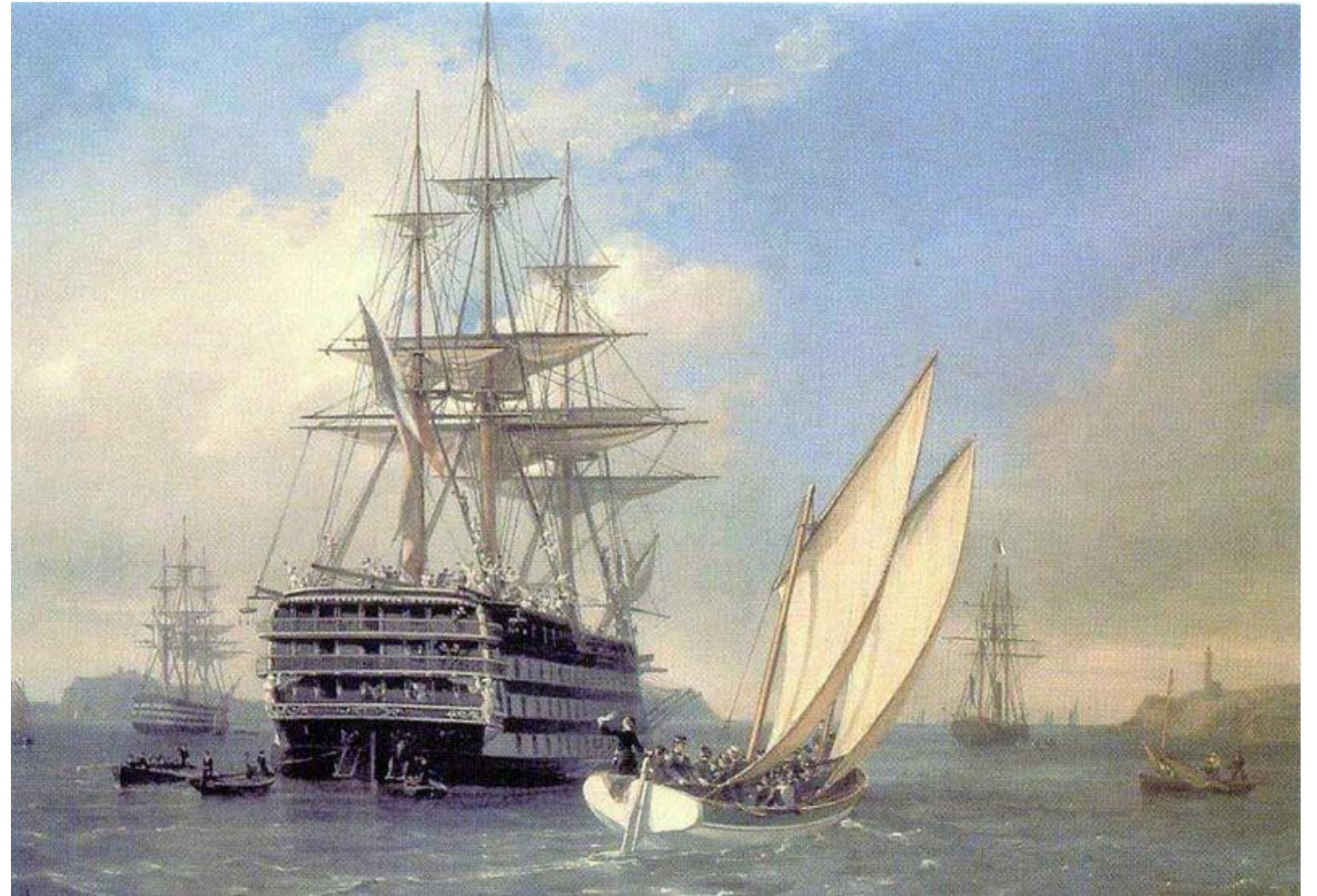
Stern Configurations



19th century: *Jefferson*.



Stern Configurations



Stern Configurations



Stern Configurations

Project No. 2 should have a square tuck, or something more complicated.

