

Archival Research



Archaeologists reconstruct and study past human activity through the material remains left behind.



Historians reconstruct and study past human activity through documents left behind.



Old documents are sometimes kept in private libraries, and sometimes kept in public libraries.



Old documents help us understand the past, although we must keep in mind that **NOTHING** is ever written without a purpose, and we must analyze old texts carefully before extracting conclusions.



Iraq



Tolstoy reminded us that it is very difficult to tell the truth

Every event can be reconstructed in many different ways.



"This crusade, this war on terrorism is going to take a while."

TOP SECRET//HCS//COMINT-GAMMA// [REDACTED]

*Secretary of Defense
Worldwide Intelligence Update*

*Open the gates that the righteous nation may enter,
The nation that keeps faith.*

Isaiah 26:2

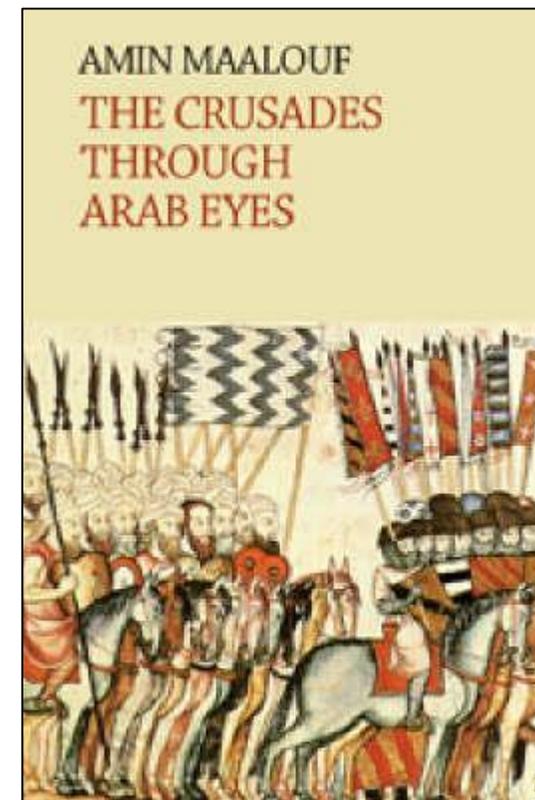
**CLICK TO SEE
GQ SLIDESHOW**

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The overall classification of this briefing is:
TOP SECRET//HCS//COMINT-GAMMA// [REDACTED]

Handle via HUMINT//COMINT Channels Jointly

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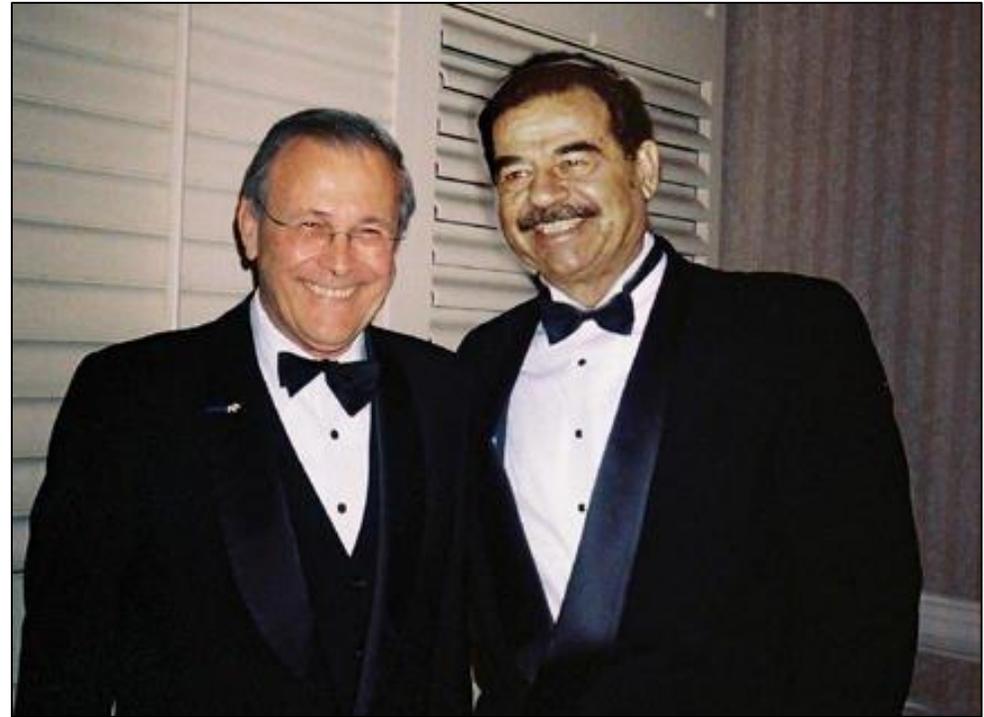
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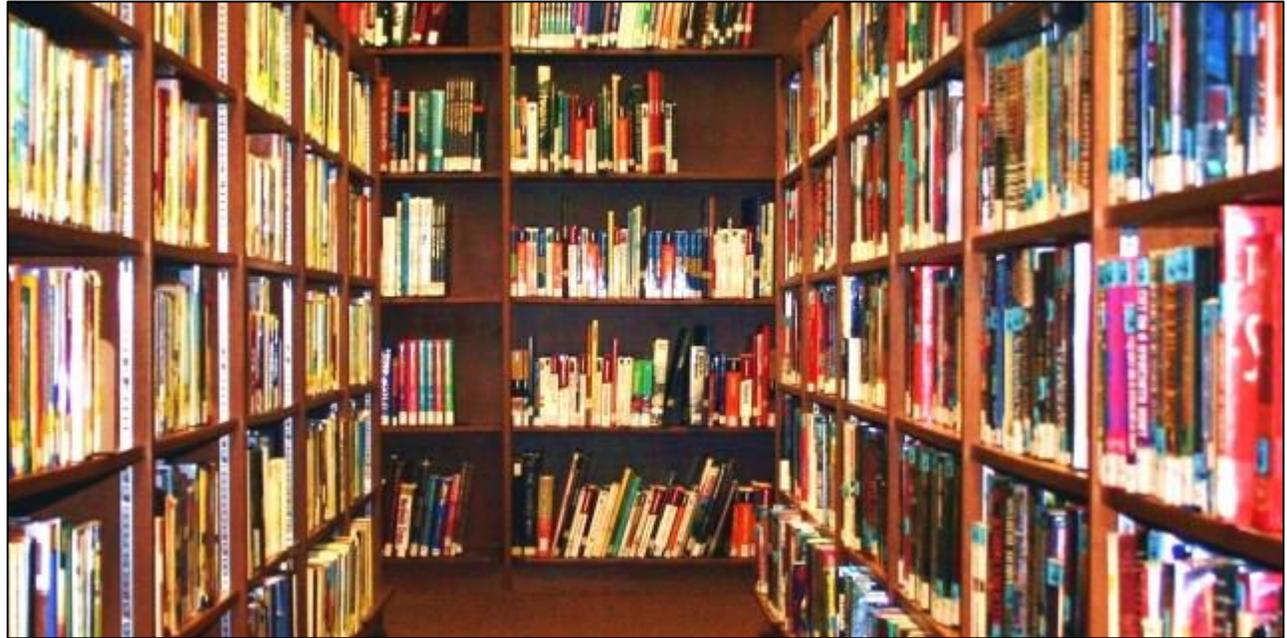
Facts and opinions are sometimes difficult to separate.



Spanish writer Gonzalo Torrente Ballester said that he would love to always side with the “good guys,” but it is so difficult to tell which ones they are....



Therefore, the **first** important thing to keep in mind when we plan to start an archival investigation is to research the historical frame where events took place.



The **second** step is to gather secondary sources: a bibliography, published old maps, and iconography.



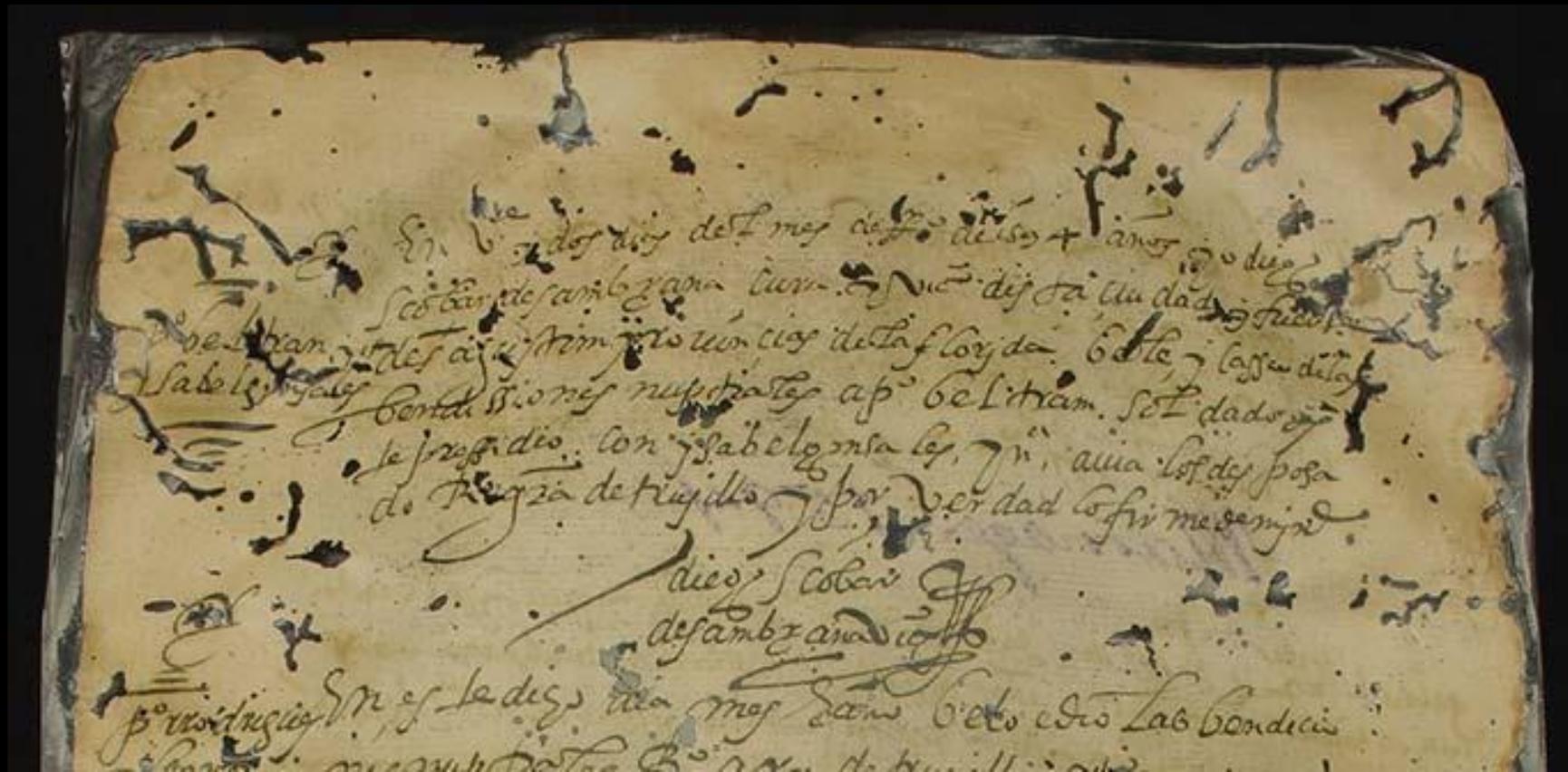
Only then the researcher starts selecting the archives she/he intends to research.



Most archives are unique and research will often require travelling: airplanes, hotels, restaurants, photocopies, microfilms...



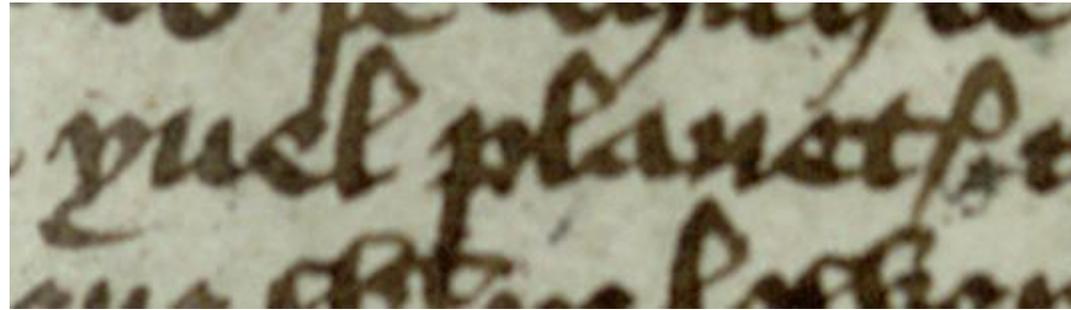
It is paramount that the researcher has competent language skills and is acquainted with the contemporary forms of a language or dialect, and understands colloquial expressions, as well as the coeval geography and culture.



Paleographic skills may be acquired as the researcher progresses through the archives.

ویرا لرو منور که تذکره می اوستا بنام پیرینه اجازت دیرایه قونستور مخصوص اولاد پورس و منورس و ما کولاد و منورس کور کلاک
اولاد قونستور لیکن پیرینه و کلاک اولاد اصل اولاد پورس و اولاد پورس کلاک اولاد پورس و اولاد پورس کلاک اولاد
و اولاد پورس کلاک اولاد
و اولاد پورس کلاک اولاد
خارج کلاک اولاد پورس کلاک
و چهار مفید اولاد پورس کلاک
و اولاد پورس کلاک اولاد
و غار و کلاک اولاد پورس کلاک
کو مستر کلاک مشهوره میلاد اولاد پورس کلاک اولاد پورس کلاک اولاد پورس کلاک اولاد پورس کلاک اولاد پورس کلاک

Dictionaries may be helpful, as well as paleographic books and guides.





Many archives have been catalogued and have computer search engines.

It is often important to befriend local experts and archivists. They can help you through the telephone or internet in between visits.



For the specific field of shipbuilding, a number of manuscripts have been researched and are available in digital copies or as facsimiles, and sometimes have been transcribed and translated.



Genealogy of Venetian Manuscripts

1. There is only a small number of surviving Venetian nautical manuscripts.
2. Frequently we don't know who wrote them, why, sometimes even when.
3. Some of these manuscripts are copies of previous texts.
4. Franco Rossi proposed a genealogy for the known texts.

Franco Rossi's genealogy:

A) Zibaldone da Canal;

B) Michele da Rhodi;

B1) Raxion de' marinieri;

B2) Libro di marineria;

B2a) Arte de far vasseli;

B2b) Trattato de re navali cavato dall'esemplar di Gian Battista Ramusio;

C) Algune raxion per marinieri li quali serano utile a saver;

D) Manoscrito di Zordi"trombetta" da Modone;

E) Ragioni antique dell'arte del mare et fabriche de vasselli.

Franco Rossi's genealogy:

A) Zibaldone da Canal;

Yale University. Has been published by Alfredo Stussy in 1967.

B) Michele da Rhodi;

In private hands, it will be published this year by the Diebner Institute.

B1) Raxion de' marineri;

Biblioteca Nazionale Marciana, Venezia.

B2) Libro di marineria (also known as Fabbrica di galere);

Biblioteca Nazionale Centrale, Firenze.

B2a) Arte de far vasseli;

Osterreichische Nationabibliothek, Wien.

B2b) Trattato de re navali cavato dall'esemplar di Gian Battista Ramusio (also known as Arte de fabricar navi d'autore incerto);

Biblioteca Ambrosiana, Milano.

Franco Rossi's genealogy:

C) Algune raxion per marineri li quali serano utile a saver;

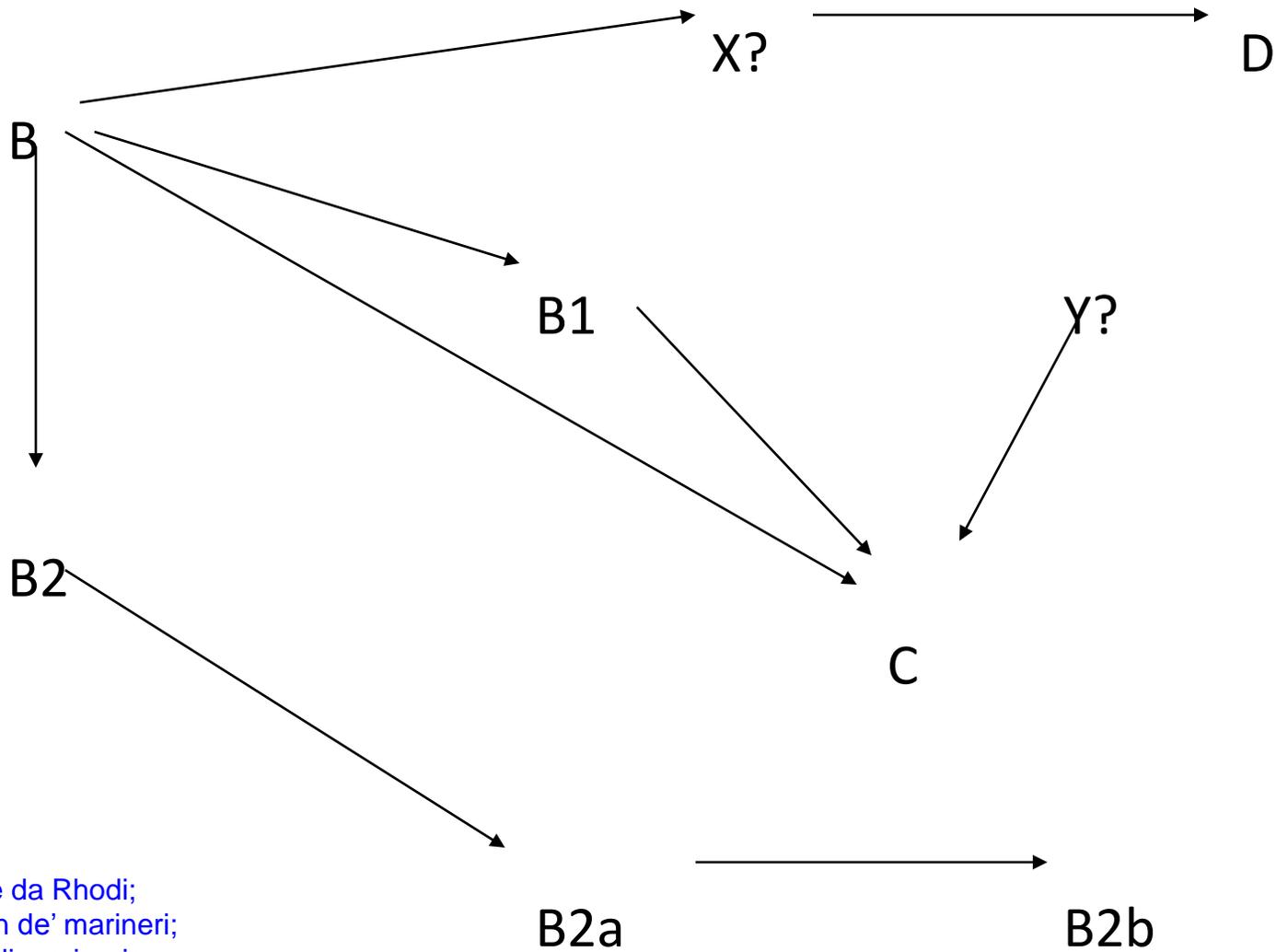
[Biblioteca Civica, Padova.](#)

D) Manoscrito di Zordi"trombetta" da Modone;

[British Museum, London.](#)

E) Ragioni antique dell'arte del mare et fabriche de vasselli.

[National Maritime Museum, Greenwich.](#)



- B) Michele da Rhodi;
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- B2) Libro di marineria;
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- D) Manoscrito di Zordi"trombetta" da Modone.

argomento	B	B ¹	C	B ²	B ^{2a}	B ^{2b}	D	E
- Aritmetica e algebra	★							
- Curriculum professionale	★							
- Calendario solare per i dodici mesi dell'anno	★	★	★					★
- <i>Amaistramento a tuor sangue per tuti li mexi del'ano</i>	★	★						
- Descrizione dei segni zodiacali	★							★
- Proprietà dei segni zodiacali dominanti le ore del giorno e i giorni della settimana	★	★	★					★

- B) Michele da Rhodi;
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- B2) Libro di marineria;
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- C) Algune raxion per marineri li quali serano utile a saver;
- D) Manoscrito di Zordi"trombetta" da Modone.

argomento	B	B ¹	C	B ²	B ^{2a}	B ^{2b}	D	E
- Elenco delle stelle e indicazione del giorno in cui sorgono	★	★	★					★
- <i>Di uziagi e zorny pericholoxi</i>	★	★	★					★
- <i>4 tempore che se die vardar</i>	★	★	★					★
- Tavola della Pasqua cristiana ed ebraica dal 1401 al 1500	★	★	★					★
- Tavola dei segni zodiacali	★	★	★					★
- <i>Raxion dela taula de Salamon ala luna zudescha</i>	★	★	★					
- <i>Amaistramento di saver quando fa la luna a raxion uxa i marineri</i>	★	★	★					
- Posizione della Luna in rapporto al Sole	★	★	★					★

- B) Michele da Rhodi;
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- B2) Libro di marineria;
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argomento	B	B ¹	C	B ²	B ^{2a}	B ^{2b}	D	E
- Calcolo dell'epatta	★	★	★					★
- <i>Amaistramento a saver quando intra el mese</i> e nomi numerici dei mesi per il calcolo sulle mani	★	★	★				★	★
- Calcolo sulle dita per trovar la Pasqua ebraica e da questa la Pasqua cristiana	★	★	★					★
- Ordini impartiti dal <i>capitano generale da mar</i> Andrea Mocenigo alle galee veneziane l'anno 1428	★	★	★					
- Entrata del porto di Venezia	★	★	★					★

- B) Michele da Rhodi;
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argomento	B	B ¹	C	B ²	B ^{2a}	B ^{2b}	D	E
- <i>Portolan fatto per Zuan Pires, pedotta del mar di Fiandria</i>	★	★	★					★
- <i>Traversse de Spagna</i>	★	★	★					★
- <i>Traversse da Ossente a Chales in chanal di Fiandres</i>	★	★	★					★
- <i>Aque e marie de Fiandria</i>	★	★	★					★
- <i>Marie e aque d'Erlanda e de Gaules e del'ixola de Ingletera</i>	★	★	★					★
- <i>Nomi dei venti in lingua spagnola</i>	★	★						
- <i>Per saver entrar in Sentuzi</i>	★							

- B) Michele da Rhodi;
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argomento	B	B ¹	C	B ²	B ^{2a}	B ^{2b}	D	E
- Per intrar al porto del'Eschioza	★							
- Per voler intrar in Sancto Ander	★							
- Sonde d'i chanalli de Fiandria	★							
- Portolan per la riviera de Poya	★	★	★					★
- Portolan per lo golfo de Salonychi	★	★	★					★

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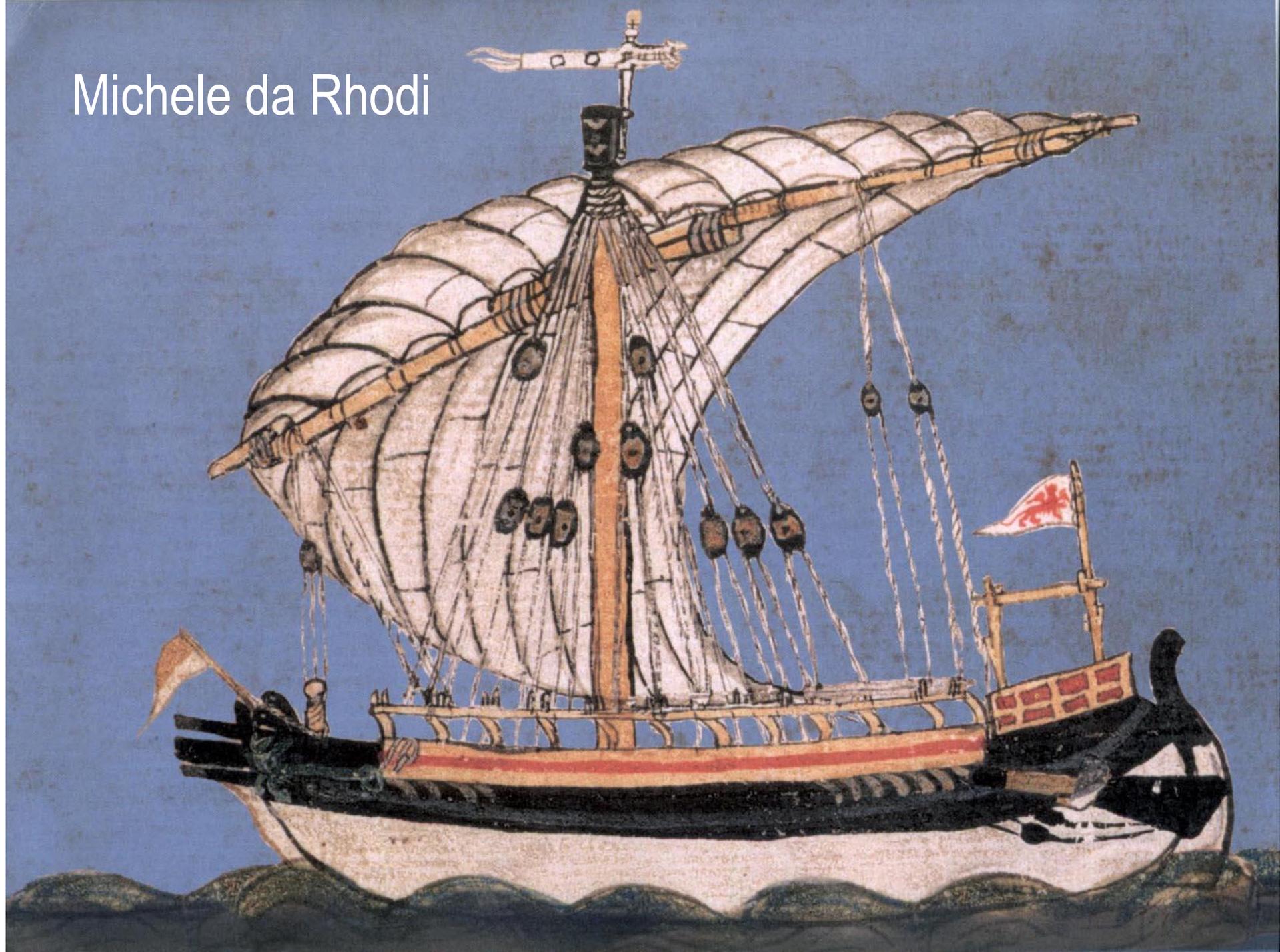
argomento	B	B ¹	C	B ²	B ^{2a}	B ^{2b}	D	E
- Istruzioni per il taglio delle vele	★	★	★	★	★	★	★	★
- <i>Raxion del martoloyo (1)</i>	★	★	★				★	★
- Galea di Fiandra	★			★	★	★		★
- Galea di Romania	★			★	★	★		★
- Galea sottile	★			★	★	★	★	★
- Nave a vela latina	★			★	★	★		
- Nave a vela quadra	★			★	★	★		

(1) A system to navigate without charts.

- B) Michele da Rhodi;
- B1) Raxion de' marineri;
- B2) Libro di marineria;
- B2a) Arte de far vasseli;
- B2b) Trattato de re navali cavato dall'esemplar di Gian Battista Ramusio;
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argomento	B	B ¹	C	B ²	B ^{2a}	B ^{2b}	D	E
- <i>Amaistramento de far albori e antene</i>	★			★	★	★	★	
- <i>Raxion de far sartia</i>	★			★	★	★	★	
- <i>Nave a velo</i> (tavola)	★			★	★	★		
- Preghiere, invocazioni, formule rituali e magiche	★							
- Insegna pseudoaraldica (tavola)	★							
- San Cristoforo (tavola)	★							

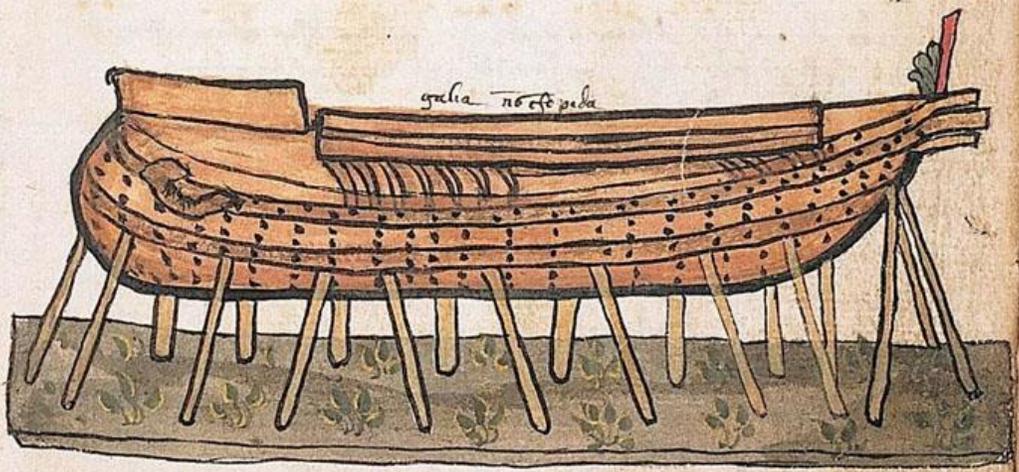
Michele da Rhodi



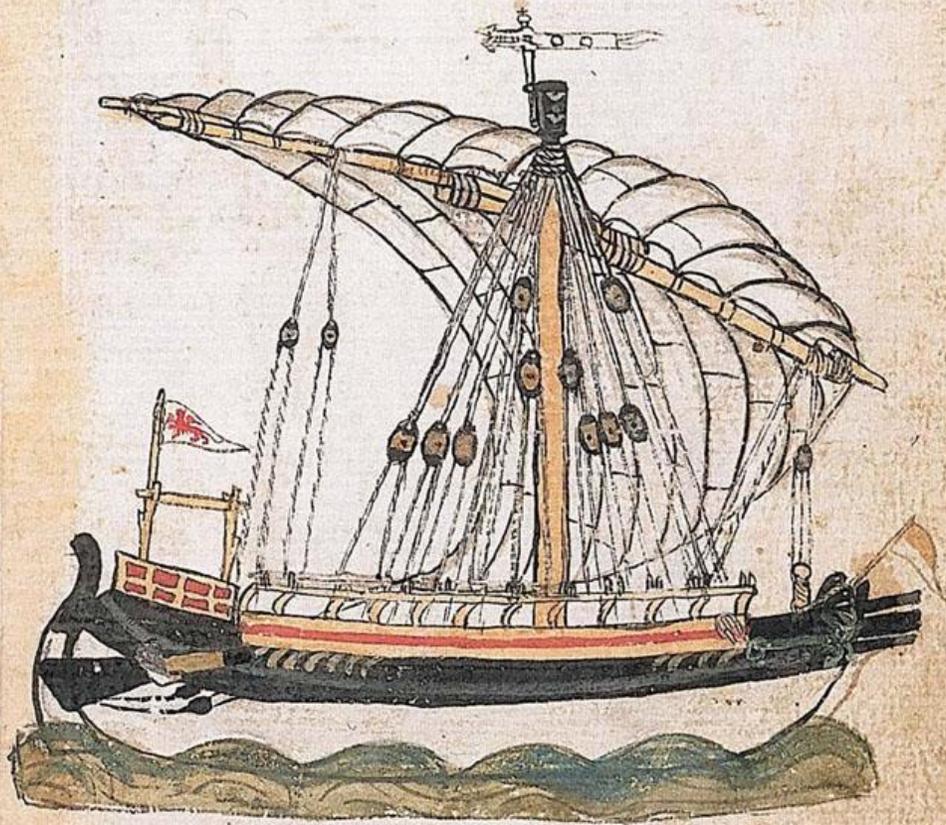


"In the name of God.
I, Michael of Rhodes,
shall write below
about the time I came
to Venice. It was on
June 5, 1401."

d'proda 1/3 d'pur regitta. Sulechany d'el zuovo d'poyr mezzo tre
 20 d'pur regitta. su. l'chany d'el latte d'mo 2/3 d'pur m
 p'curando p'mo. la banda / Cad' bolson l'aditta. galia d'm
 2/3 d'pur / Cas'curando. d'loro d'fuora d'limpo stura da
 popr l'actual d'nter d'lo. Sp'ozello d'p. pur 4. app'curando
 d'gto d'nter d'gto. Sp'ozello l'actual. al d'nter d'lapara stena
 d'p. pic. 5. app'curando. d'loro d'f'u d'al mader. d'buca l'ch
 na a basso d'curado d'alachiuola d'p. pur. 3. m mezzo trezo
 d'pur. ror longe. g'ra. Nostra galia d'frandya da lun
 post'or al'ltro d'ch'loro passa. 19. pur. 3. r'f'ico d'el l'ad
 d'ra d'zba d'proda lonzi. dal post'or dal'ltro pur. 7.
 me m'za quarta r'f'ico d'el l'ad d'ra d'zba d'p'p' lonzi dal
 post'or dal'ltro pic. 9. m. 1/2 d'pur.

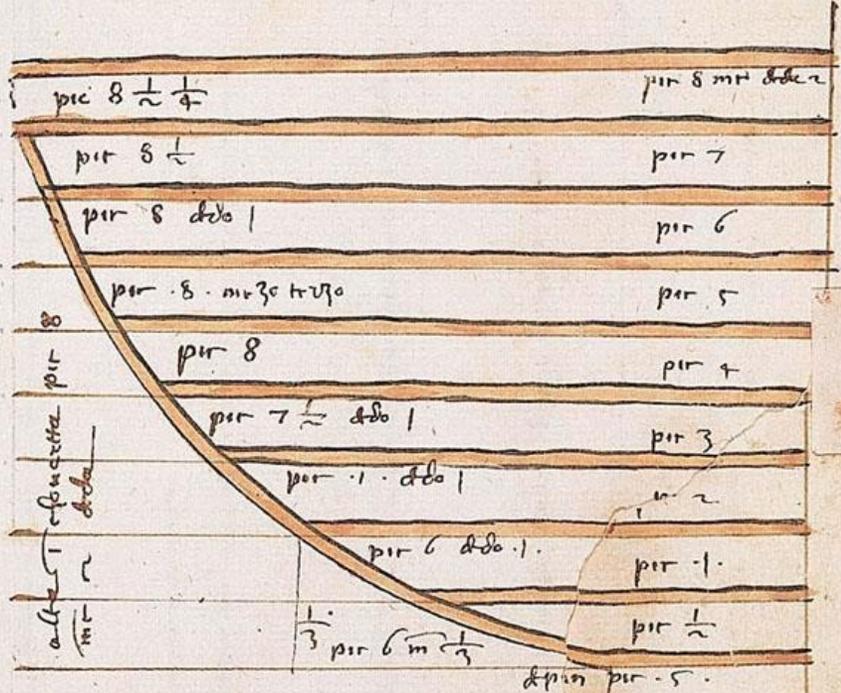


He must have been a young man when he signed himself onto a Venetian galley in 1401, as he lived another 44 years, going to sea in all but the last of them.



He began service at the bottom of the hierarchy and pay scale, as an oarsman in the navy.

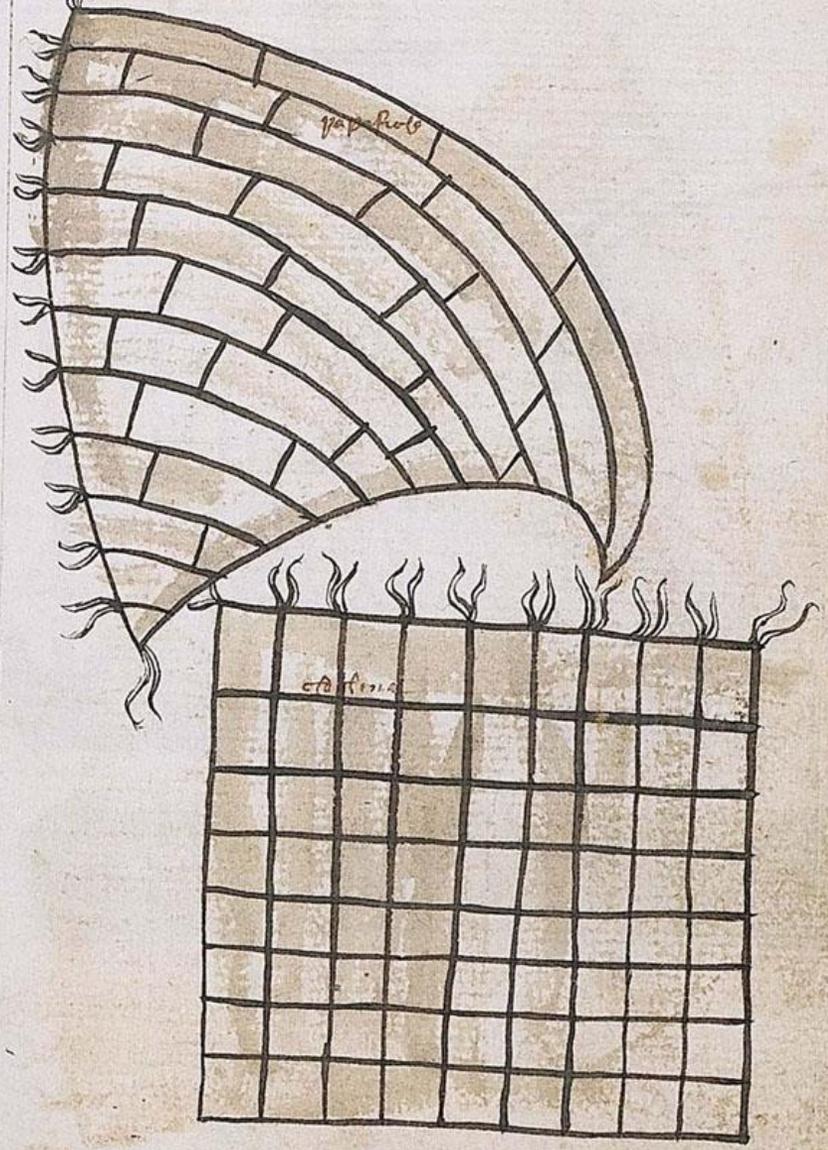
Quarta. *Ammoneta*. *duzetto*. *duo* *lire* *per*. $8 \frac{1}{4}$



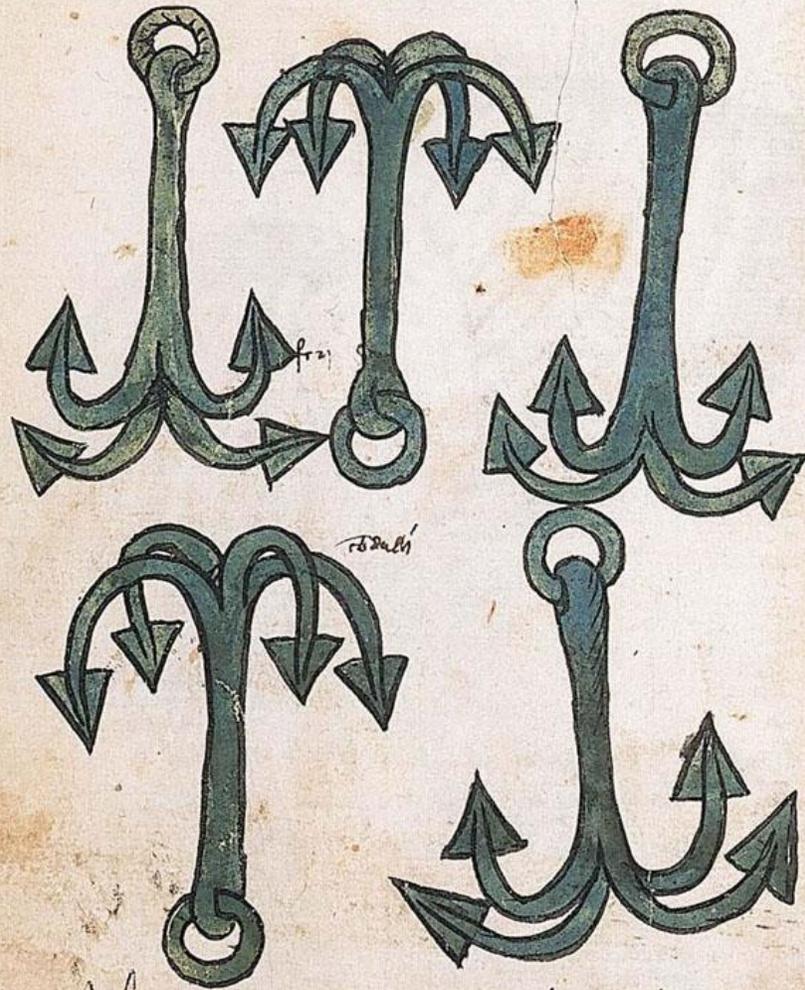
Quarta. *duo*. *pa*. *ampirza*. *regozza*. *d' murtello*

In 1404, after three years as an oarsman in the Guard Fleet, Michael of Rhodes got a position as oarsman on one of the merchant galleys of the Flanders convoy.

P papafelo dpafa . tozna h 127
 C hochina dpafa . tozna h 127 vni vofey. g d
 Polto .) p figura



In 1405, Michael was promoted to the rank of *proder* and returned to the Guard fleet;



Mag p'ndontico faruno gha No fra gati aurolo p'f' de p'p'ita

In 1407 Michael of Rhodes rose to the rank of *nohier*, and again had to return to the guard fleet for the promotion.



In 1407 the Venetian Great Council gave Michael of Rhodes citizenship.

+ firs +
 Vuol latta galia: barcha: una: longa: d'pir a'pura
 Vuol of i'colomba longa: per Vuol of i'pian
 per Vuol of rita i'fabna per Vuol of a
 urta in barcha: per

Vuol latta: d'piano: j. longo: i'colomba: per: r'logo
 i'colomba per d'omy r'et auzzo i'poca: per
 Vuol of rita per Vuol of auzto i'pian per
 d'ome fero: d' d'utto: p'figura



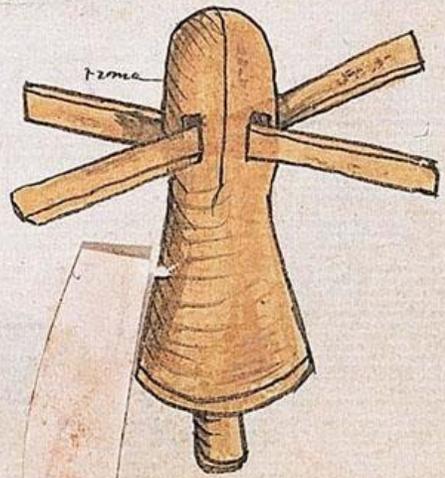
Michael left the Guard fleet for the Flanders convoy in 1410, where he served as *nochier* for three successive annual voyages.

In 1414 he was given the rank of *Paron*.

ponte p[er] l[at]to r[eg]olab[ile] vuol p[er]t[ra]tti q[ue] p[er] l[at]to d[el] p[er]
 10 / 11 / 12 1/2 / 13 a l[at]t[er]a s[ec]o[n]do 11. Na f[er]ro l[at]to
 la f[er]ro. 12. l[at]to. 13. la quarta 14

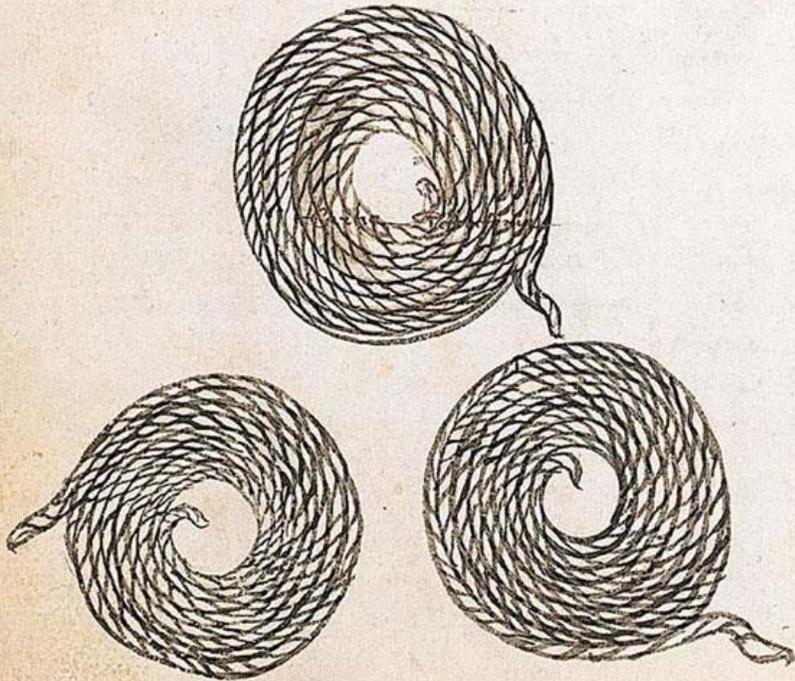
p[er]t[ra]tti p[er] p[er] r[eg]olab[ile] p[er] l[at]to d[el] p[er] 13. r[eg]olab[ile] d[el] p[er] 13 1/2 r[eg]
 t[er]zo d[el] p[er] 14. r[eg]olab[ile] d[el] p[er] 14 1/2 a l[at]t[er]a. p[er] l[at]to
 14 a l[at]t[er]a. s[ec]o[n]do 15 a l[at]t[er]a p[er] l[at]to 15 a l[at]t[er]a 15
 r[eg]olab[ile] 30 f[er]ro

Vuol l[at]to. galia. p[er] l[at]to. f[er]ro. m[er]ito p[er] l[at]to. p[er] l[at]to
 Vuol f[er]ro p[er] l[at]to Vuol p[er] l[at]to p[er] l[at]to p[er] l[at]to
 Vuol p[er] l[at]to Vuol p[er] l[at]to



Perhaps as recognition for his service in the important battle of Gallipoli, against the Ottomans under Mohammed I, Michael of Rhodes was promoted in 1417, the next year, to the position of *omo di conseio* on a galley of the Flanders fleet.

- D'Invernali. n. d'passa. 40. luna. d'provar. d'passo d. $\frac{1}{2}$
 uol. pozafuella d'passa. 15. d'passo d. 7.
 uol. ayantio. d'passa. 6. d'passo d'provar d. 9.
 uol. montanyana. una. d'passa. 13. d'passo d. 4.
 uol. aymaoz. una. d'passa. 120. d'passo d. $\frac{1}{2}$
 uol. ayastrea. d'voler. d'passa. 12. d'passo d. 1.
 uol. rixa. una. d'passa. maistra. d'passa. 8. d'passa d. 10.
 uol. d'agneta. 7. d'passa. 36. d'passo d. $\frac{1}{2}$ como vodu
 q. d'otto. p. figura.
 uol. simali. 7. d'passa. 8. luna. d'provar. d'passo d. 4.
 uol. monasij. 7. d'passa. 9. luna. d'provar. d'passo d. $\frac{1}{2}$
 uol. palomero. n. d'passa. 40. luna. d'provar. d'passo d. 4.



In 1422, Michael reached the highest shipboard rank open to a non-noble, that of *armirayo*. The *armirayo* served as the adjutant to the commander of all of the ships in a given fleet.

.C.
 Inviado quinto q p.5.
 nija mazze p. cablo p.11
 da pella bogny do borta
 erthon m. d. a. rionduy p.14
 ffacerdo a avizado del

14 10
 5
 19 10

N. V. de marzo 1470 sol

7 de feo 1470 ad 7 de octubre

ff. de la f. de franc. de la del marcan
 patron de polonio. m. a. b. 3 4875

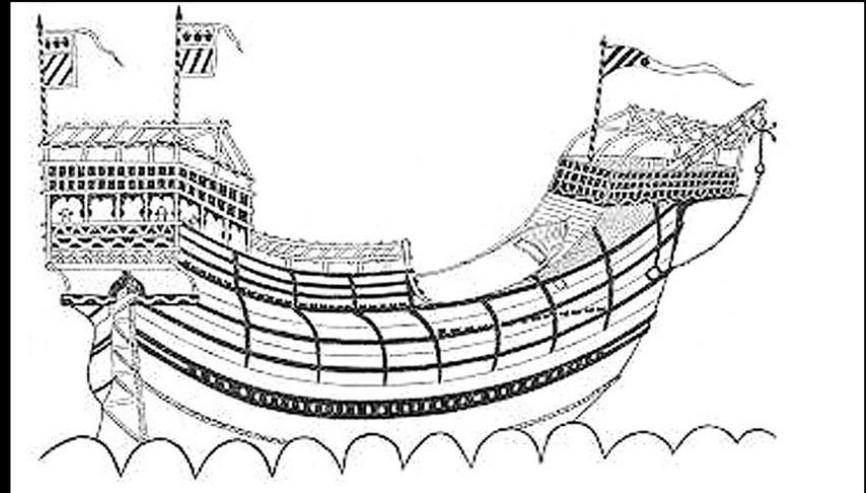
D. f. p. p.
 f. p. p. p. p.
 f. p. p. p. p.

He was given the grant of the steelyard in 1445, which was the type of boon granted by the Venetian state to sailors when they turned sixty in lieu of formal retirement pay.

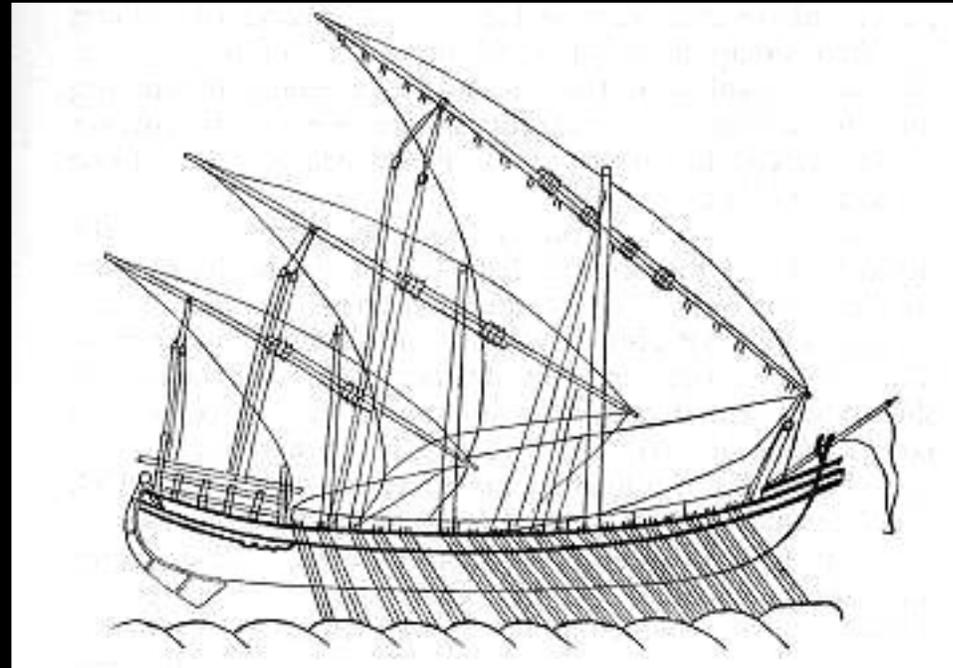
He died in that same year. His book was not with him by then.

Trombetta Manuscript, 1444-1449.

This text is in the British Museum, bound in a small volume with several manuscripts. It seems to have formed a book by itself, presenting one handwriting and one kind of paper. It consists of leaf 2 to leaf 60 of the volume in which it is bound. The author or compiler signs as Zorzi/Giorgio Trombetta da Modon, writes in an Venetian dialect, and dates the beginning of the manuscript at 1444.



The manuscript contains notes on music, medicine, astronomy, engineering, sail making, shipbuilding, arithmetic and other subjects. Despite the lack of order in which the nautical notes are presented , they can be organized in four groups: on galleys, on ships, on rigging and on sail making.



We do not know the exact date of birth and death of Zorzi Trombetta da Modon, but we do know (from a document of 1481) that his full name was Zorzi di Nicola. However, a glance at the broad outline of his long musical career (1444-1494) suggests that he was born around 1420 and died between 1495 and 1502.



It was probably in 1444 that he began to serve as a trumpeter on certain Venetian mercantile galleys (*galere da mercato*) that plied the trade routes to Flanders and the Levant.



Vittore Carpaccio

The Return of the Ambassadors, from the St. Ursula, 1494

The vessels of lesser tonnage carried two trumpets, while those of heavier tonnage had a trumpet, a drum, and two kettledrums.



He might have settled definitively in Venice soon after 1449.



Gentile Bellini, *Procession in Piazza San Marco*, 1496

He was an important—and probably central—figure in Venetian instrumental music during the second half of the fifteenth century.



He served in the ducal band of *piffari* and trombones for a considerable time, became one of its most influential members, and created, with his sons Girolamo and Alvise, a "school" that monopolized the group's brass section for about thirty years.



Contents

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12a-16a – Sails and Rigging;

16b-19b – Astronomy;

20a-23a – Letter to the Pope;

23b-25b – Accounts;

26a – Blank;

26b – Accounts;

27a – Blank;

27b-28b – Shipbuilding;

29a – Blank;

29b-36a – Engineering;

36b – Blank;

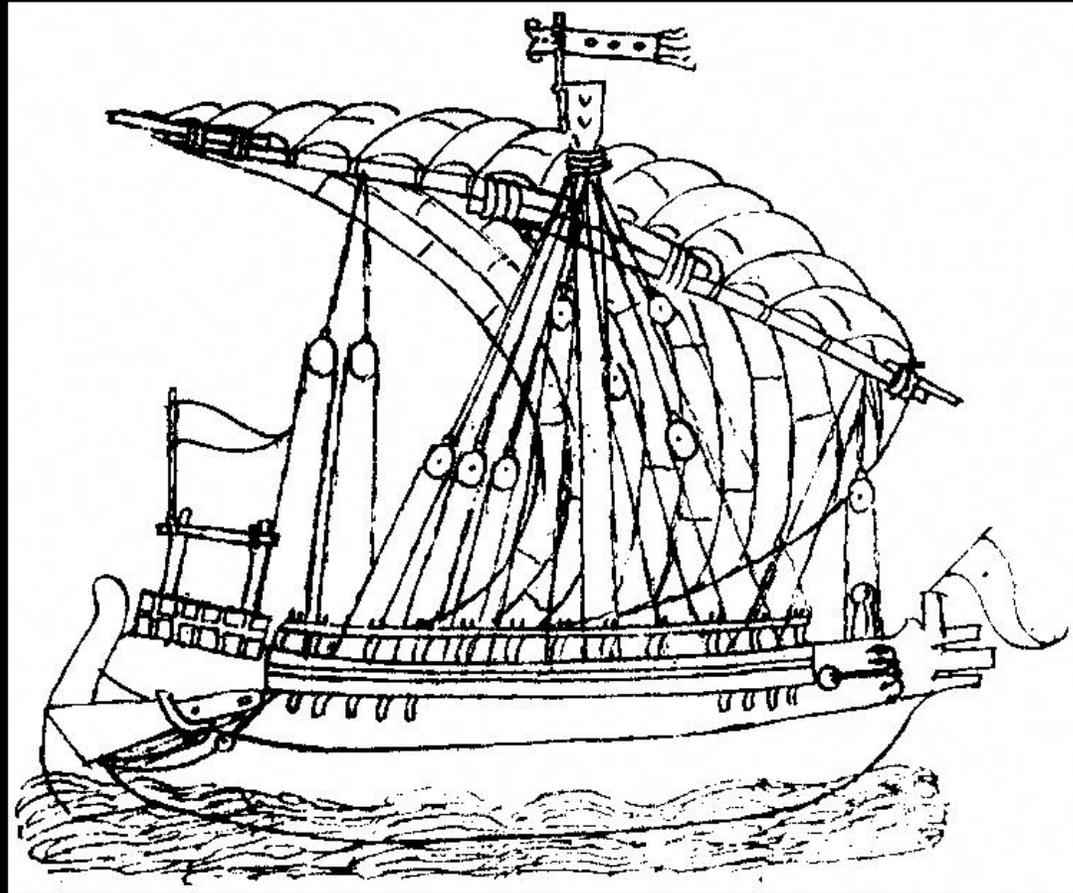
37a-60b – Shipbuilding, sail making and arithmetic.



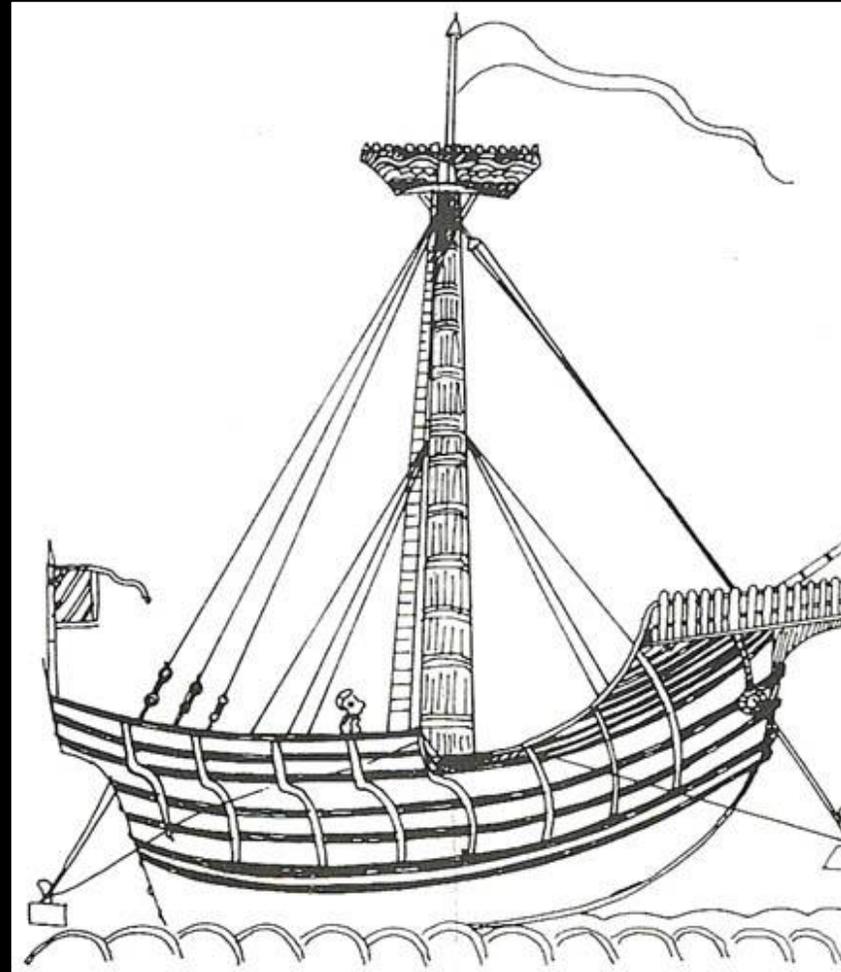
The information on galleys and other oared craft includes:

- a description of a galia sottil of 29 banks, with drawings of the offsets for the conception of the stem and sternpost and the midship section (ff. 43b & 44a) ;
- a larger galia sottil;
- a third galia sottil;
- a galia grossa, with drawings (ff. 39b & 40a);
- a drawing of a galley (ff. 48b);
- a fusta of 26 banks;
- references to a second and a third, smaller type of fusta, of 15 and 10 banks.

The third part includes diagrams (ff. 40b) and the galley's boats, with drawings (ff. 57a & 60a).



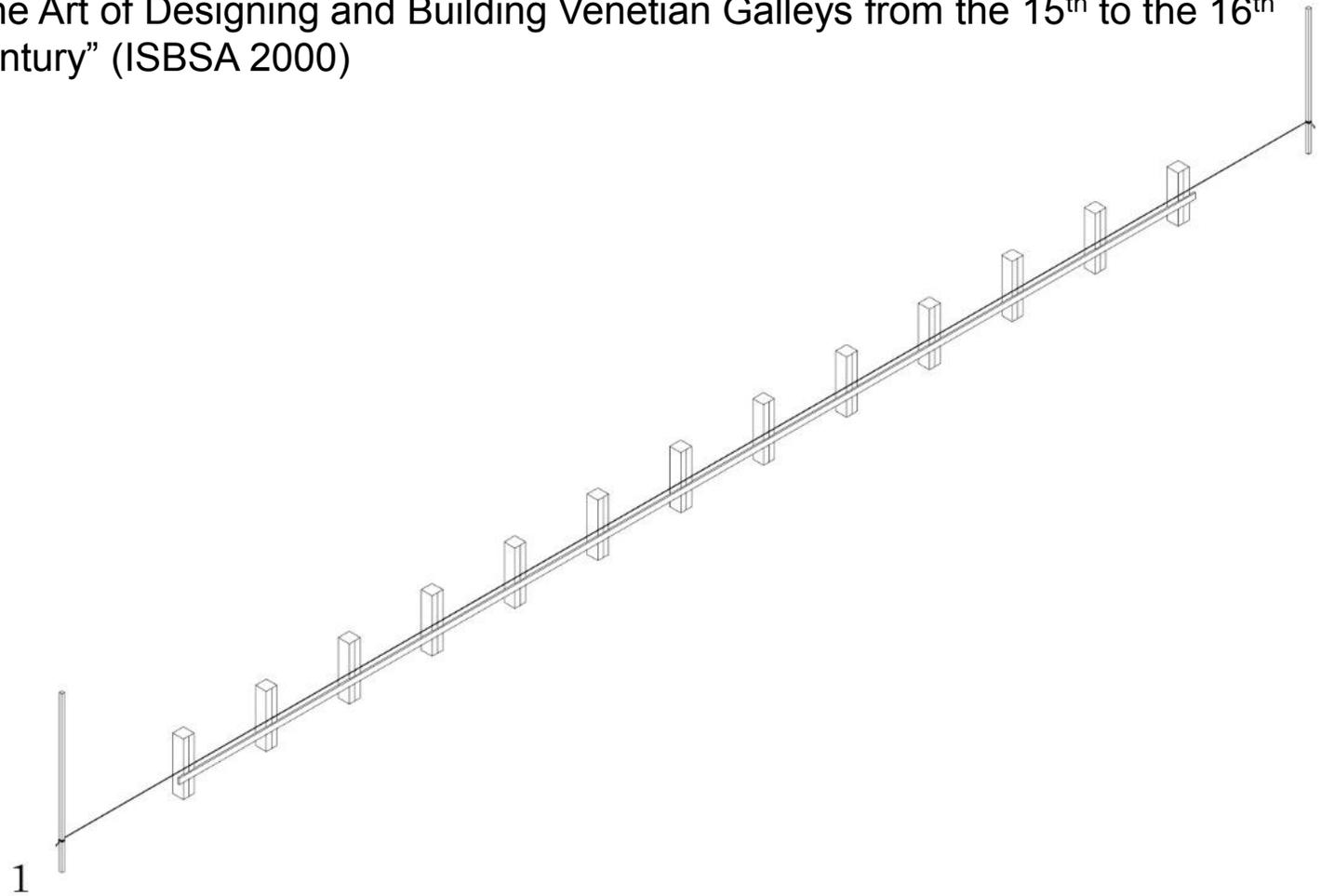
The information on ships includes the dimensions of eight different kinds of ships, from 200 to 1000 *botte* with drawings and diagrams.



The keel was laid, sometimes with a small sheer, to counteract the anticipated hogging of the hull.

Mauro Bondioli, 2003

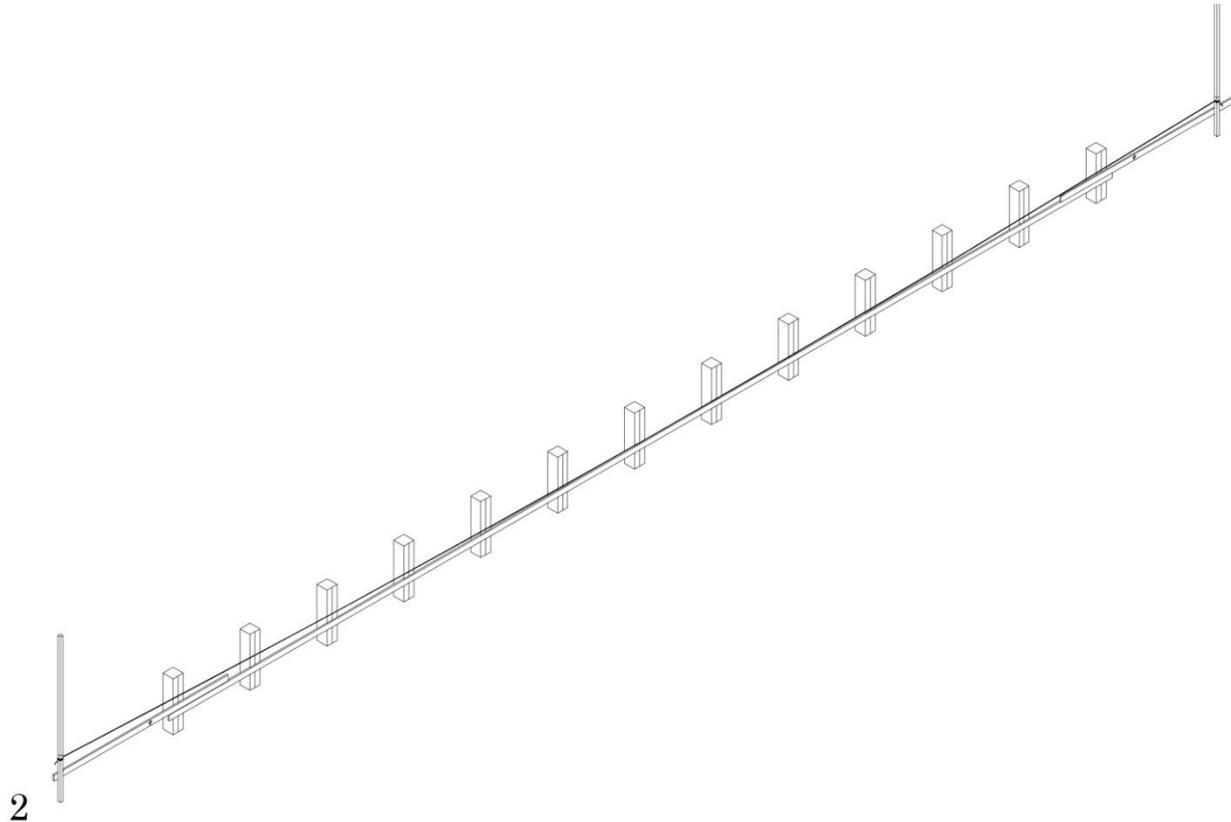
“The Art of Designing and Building Venetian Galleys from the 15th to the 16th Century” (ISBSA 2000)



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Mauro Bondioli, 2003

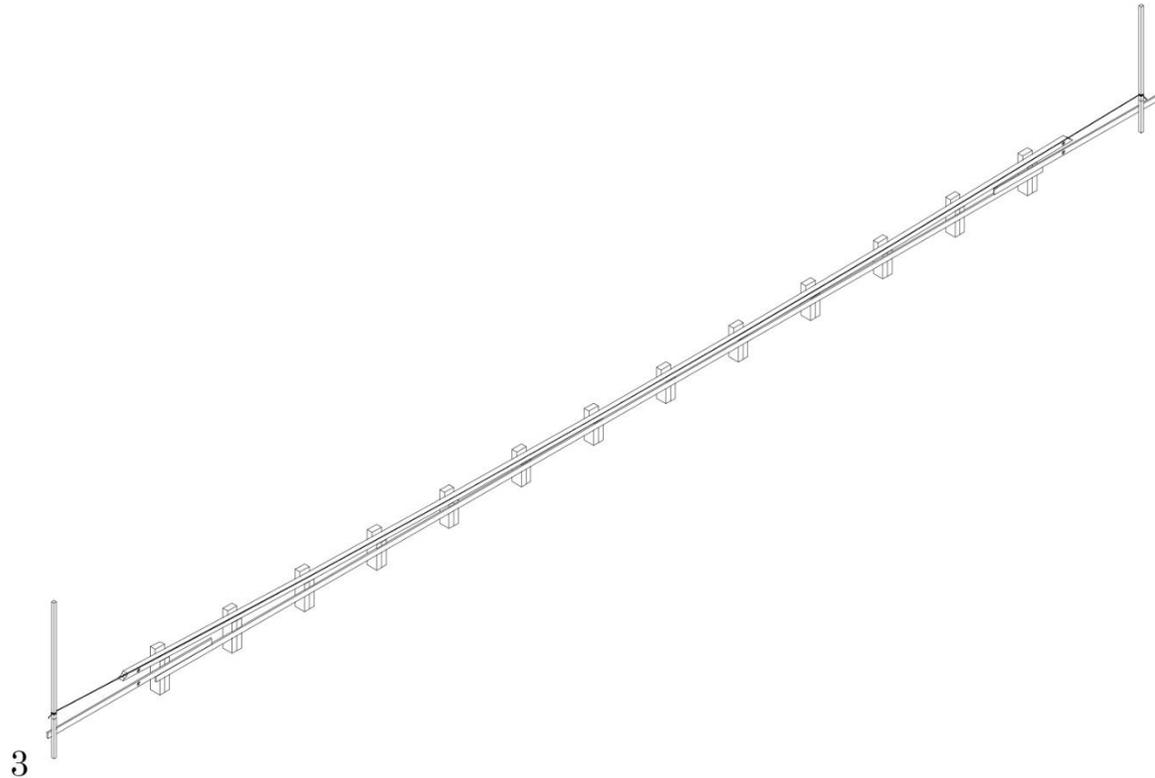
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Mauro Bondioli, 2003

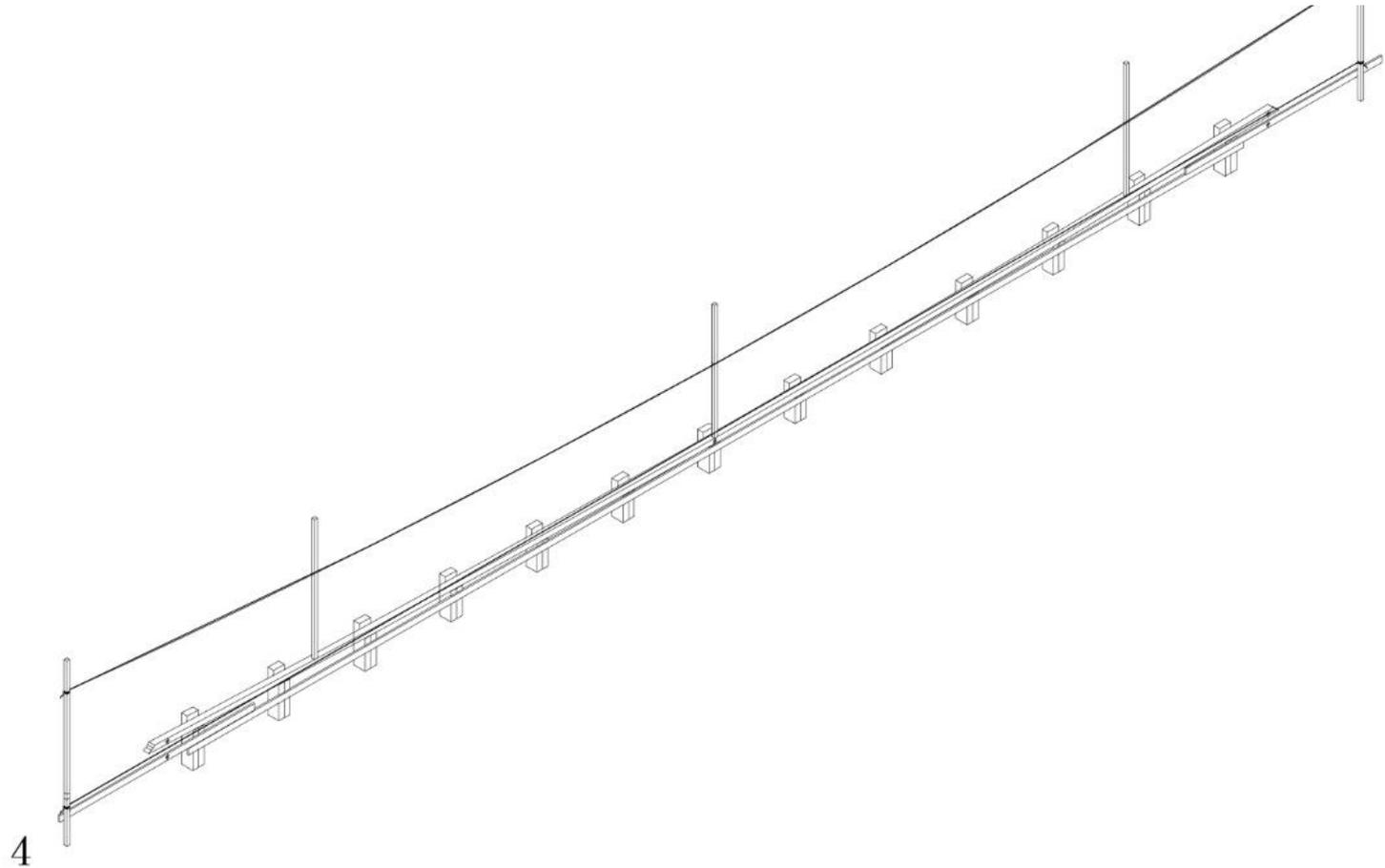
“The Art of Designing and Building Venetian Galleys from the 15th to the 16th Century” (ISBSA 2000)



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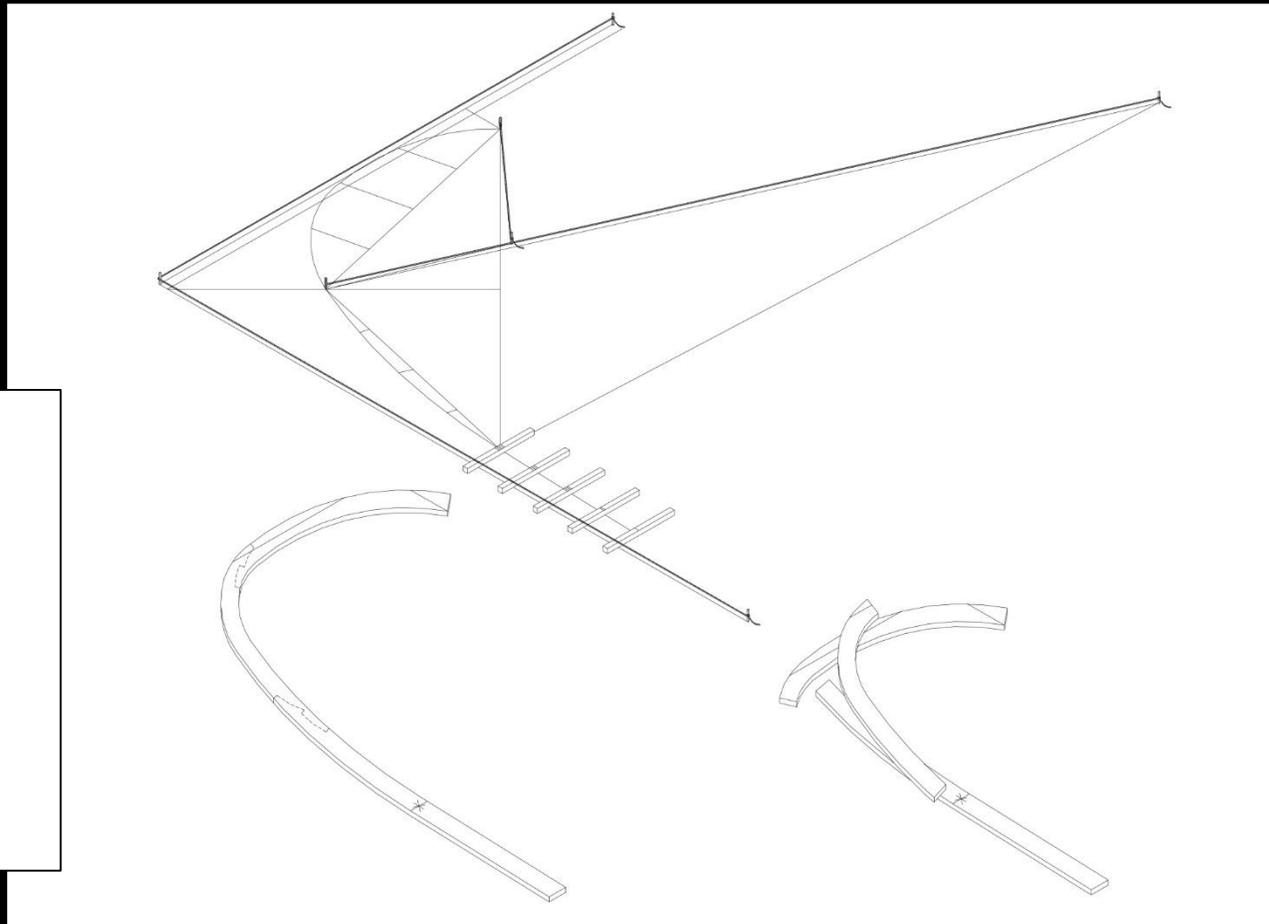
Mauro Bondioli, 2003

“The Art of Designing and Building Venetian Galleys from the 15th to the 16th Century”
(ISBSA 2000)



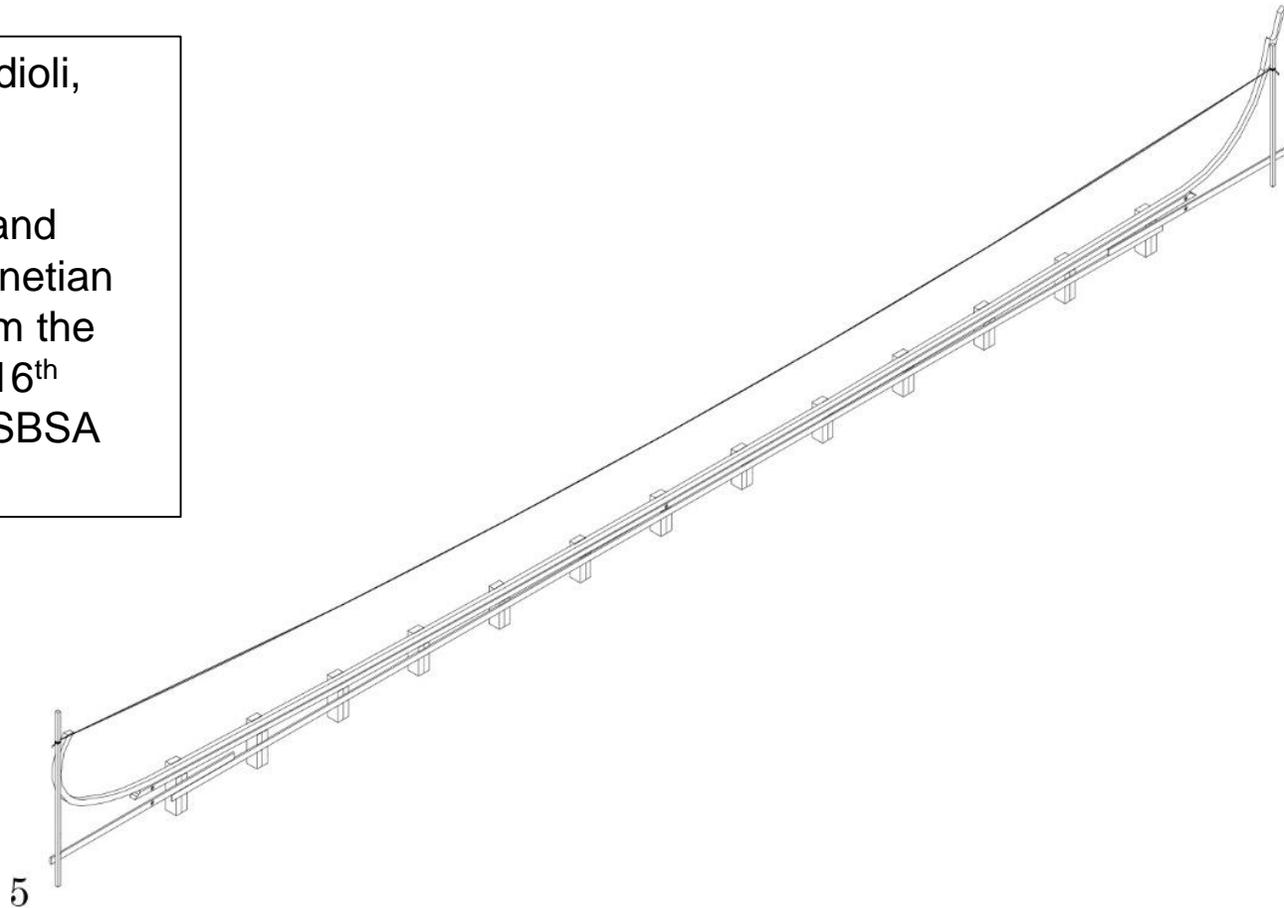
Then, the stem and sternposts were designed, based on a series of given offsets marked from the hypotenuse of triangles formed from a line uniting the scarf on the keel and the point where the deck meets the stem or sternpost.

Mauro Bondioli,
2003
“The Art of
Designing and
Building Venetian
Galleys from the
15th to the 16th
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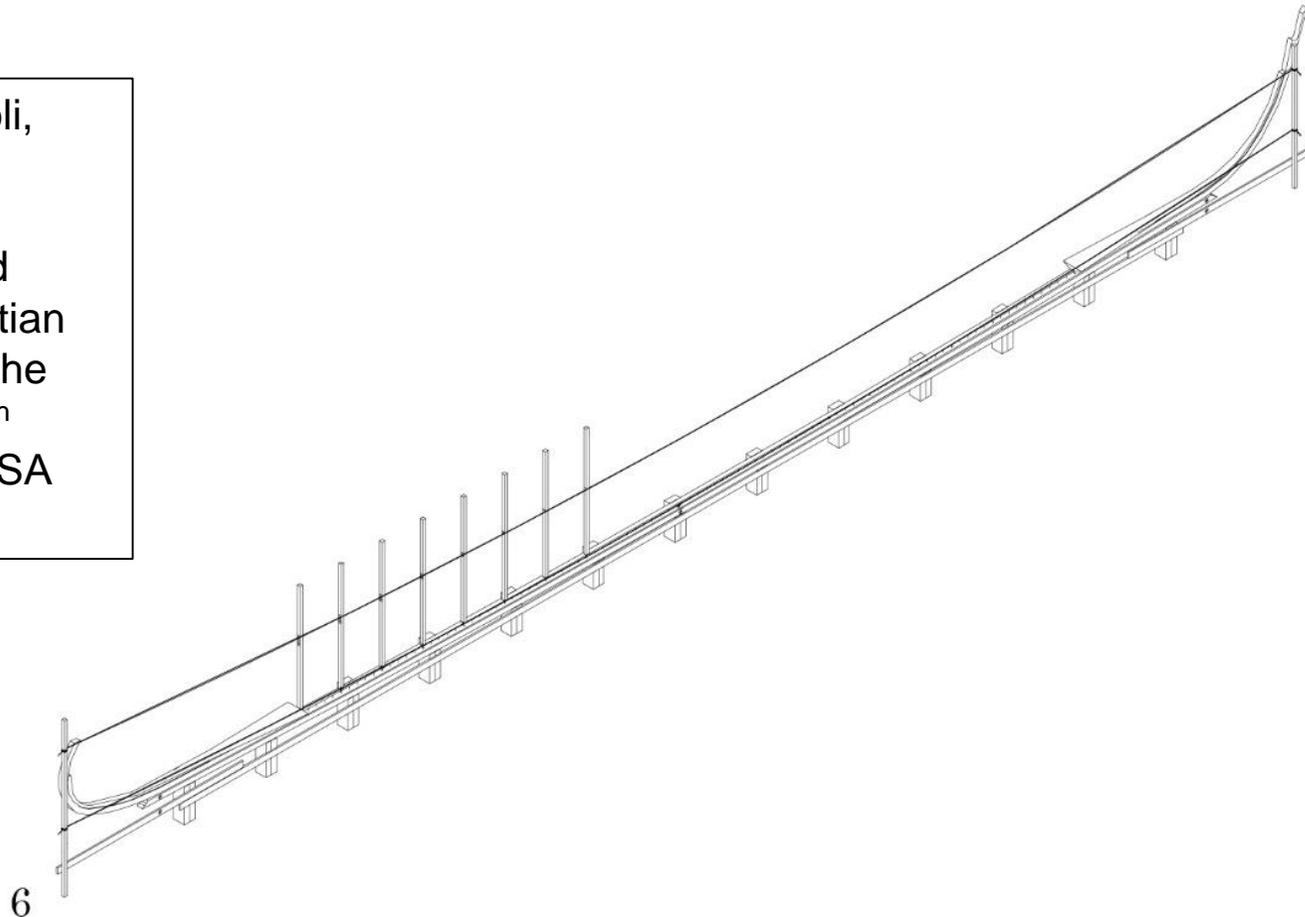
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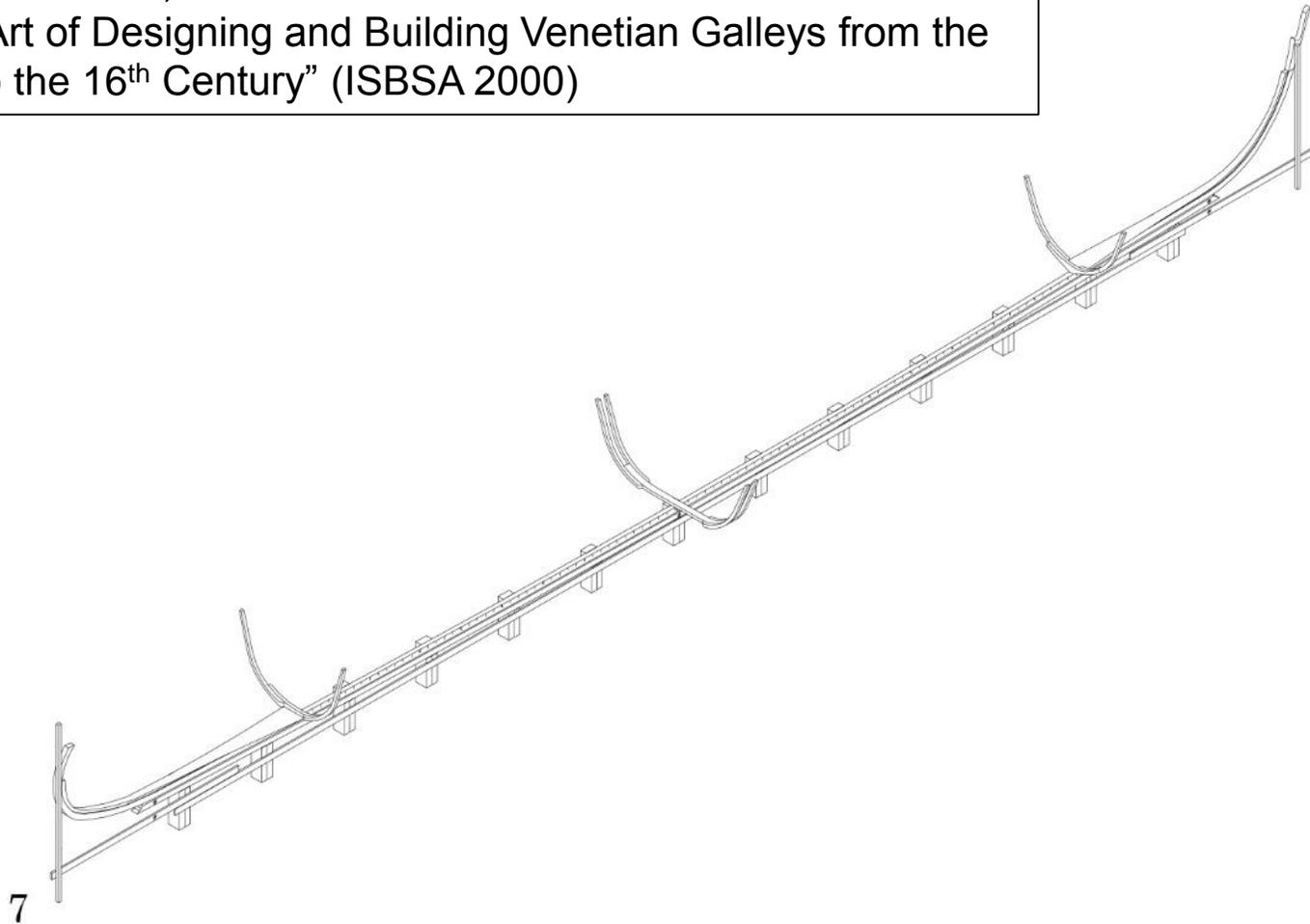
Mauro Bondioli,
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"The Art of
Designing and
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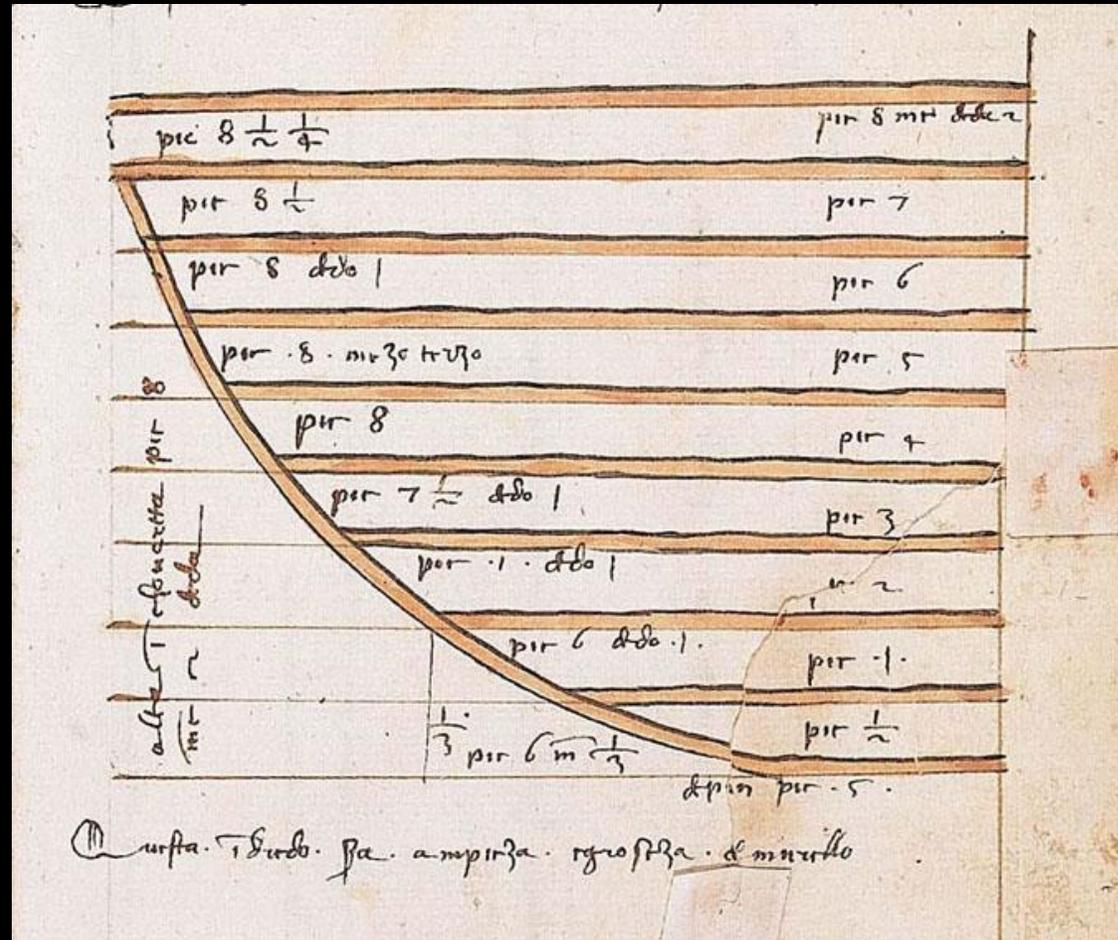
With the keel and posts in place, it was time to erect the frames which were to be placed before the planking.

Mauro Bondioli, 2003

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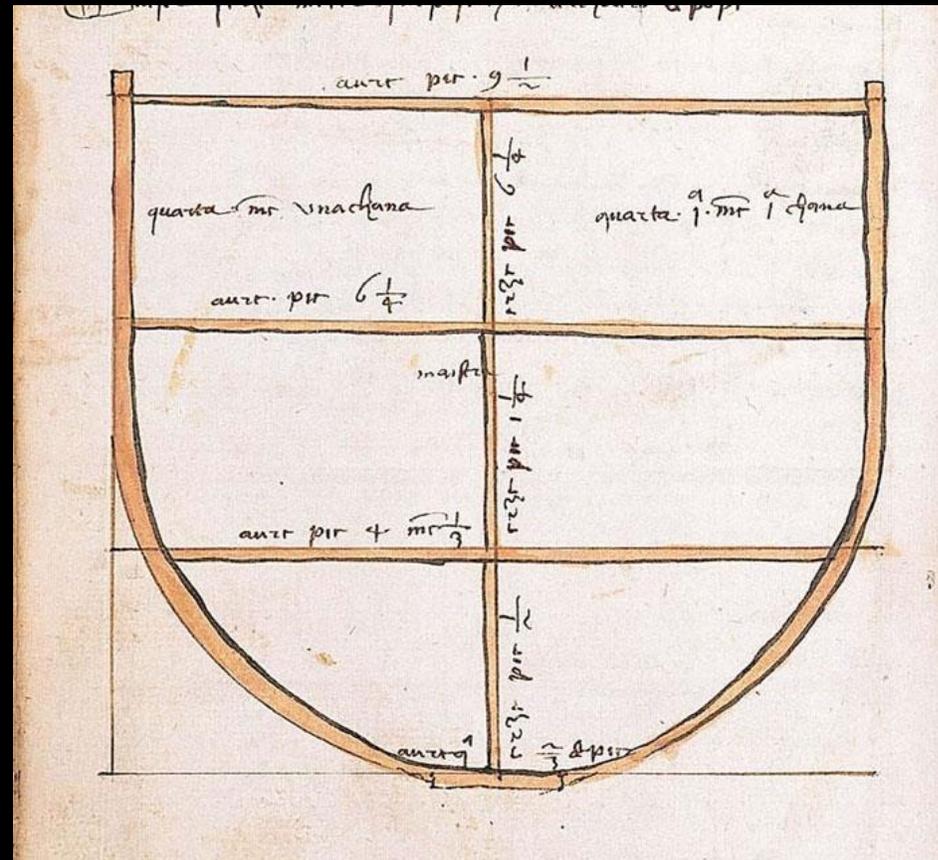


These were shaped by a series of horizontal lines determining the widths at certain heights, generally every foot or half a foot.



Michael of Rhodes

Standard molds may have been used and, for small craft, the shape of the frames may have been determined by a bent batten.

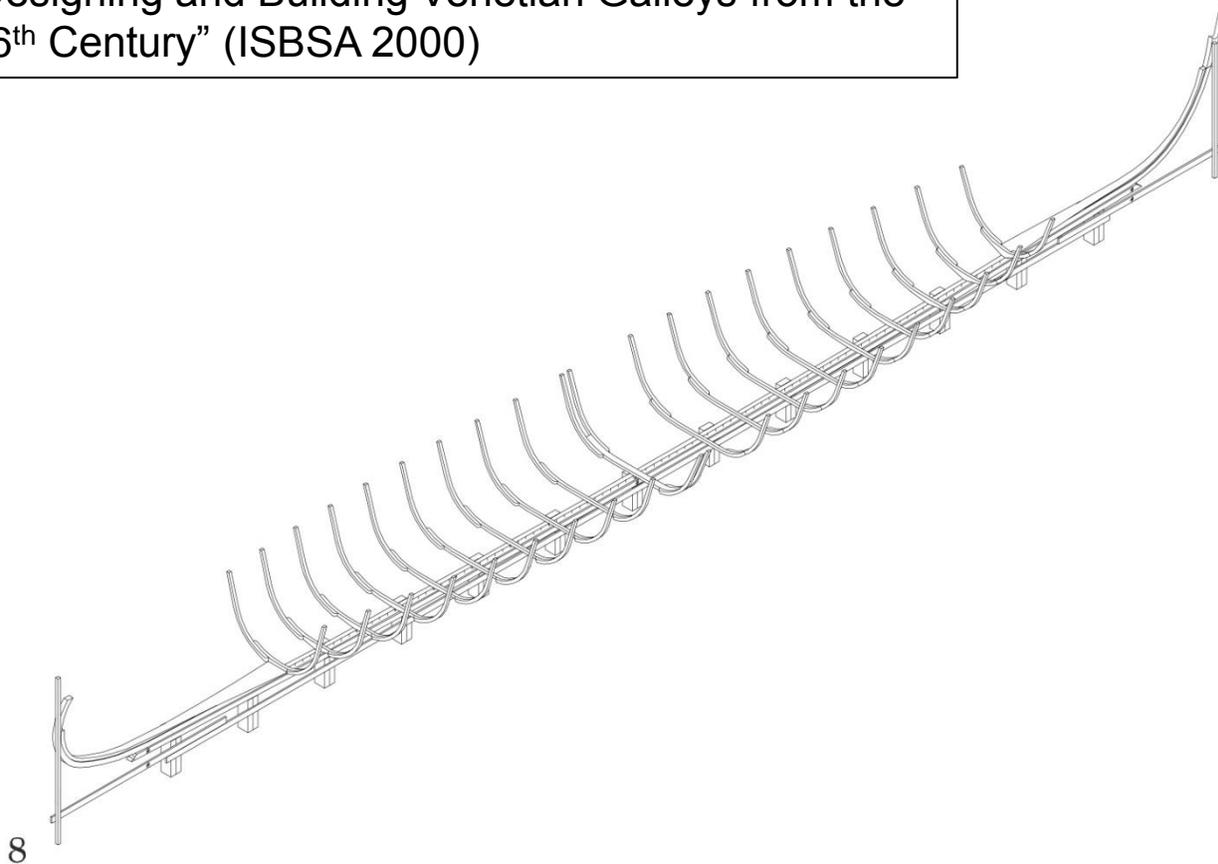


Michael of Rhodes

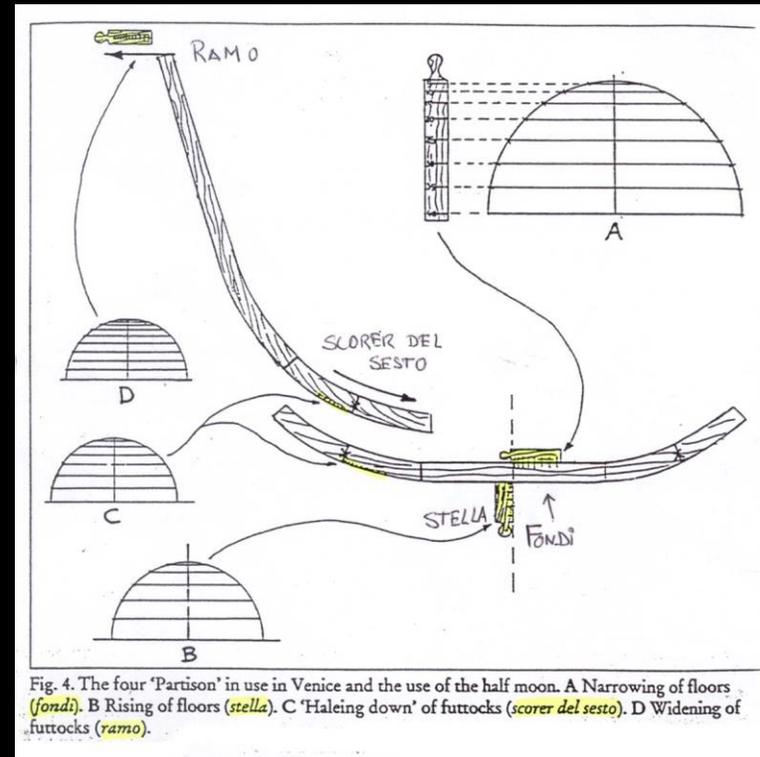
The number of pre-erected frames varied from three to five or more. In the long hulls of the galleys every fifth frame was pre-erected.

Mauro Bondioli, 2003

“The Art of Designing and Building Venetian Galleys from the 15th to the 16th Century” (ISBSA 2000)



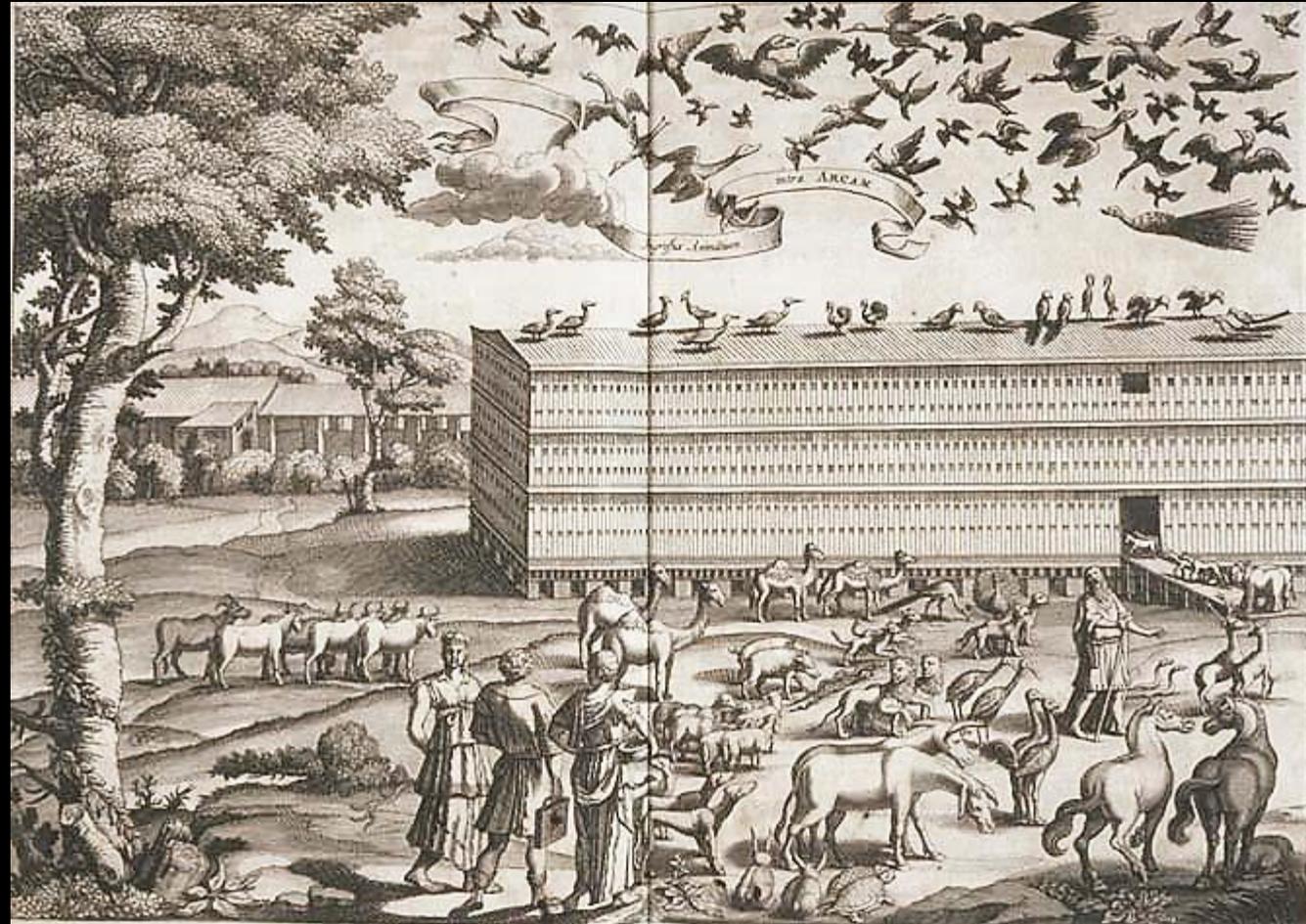
The total narrowing (and presumably the rising) of the frames was established previously, and the progressive change from frame to frame was calculated through a variety of methods of which two are indicated in the Timbotta manuscript: the *mezzaluna* and an incremental triangle.



After these frames were in place ribbands, wales or planking strakes were placed to determine the overall shape and allow for the design of the remaining frames.



Related proportions were then extended to the conception of masts, yards, rigging and sails.



Lunch Time!

