

**AROL 235E Archaeology of Seafaring in the Indian Ocean**  
**Final Exam**

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What is the title of these men (circled) and what are they doing?

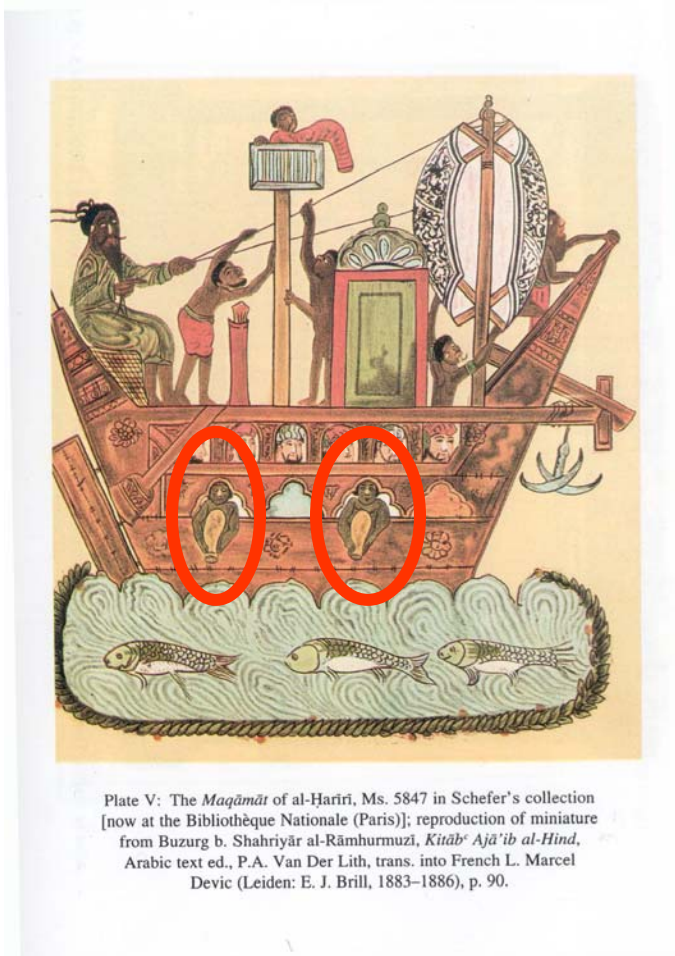


Plate V: The *Maqāmāt* of al-Ḥarīrī, Ms. 5847 in Schefer's collection [now at the Bibliothèque Nationale (Paris)]; reproduction of miniature from Buzurg b. Shahriyār al-Rāmhurmuzī, *Kitāb' Ajā'ib al-Hind*, Arabic text ed., P.A. Van Der Lith, trans. into French L. Marcel Devic (Leiden: E. J. Brill, 1883–1886), p. 90.

Abu Al Fadl 'Allami wrote which book on society, administration- including seafaring- and geography in the 16th century?

- Akbar-Nameh
- Indica
- Geographica
- The Dream Pool Essays

Ancient and Medieval mariners could not measure east-west positions accurately until the invention of what in the 18th century?

- chronometer
- kamal
- qiyas system
- the southwest monsoon
- matsya-yantra

Arabian boat launching rituals mainly involves

- the sacrifice of a goat, cutting off its head, flaying the skin, and wrapping the skin around the prow
- filling a pumpkin via a small hole with turmeric and vermilion powder and a few small coins, carrying it three times around the boat and then smashing it on the prow
- incising (carving) of eyes on the bow
- lighting a lamp, breaking a coconut, burning incense

Besides the North Star, Arab sailors relied on what to find their way?

(choose all that apply)

- coastal features
- the sun
- birds
- the smell of incense
- genies

Each knot on the kamal's string was placed

- in proportion to the distance of each place the ship sailed to.
- around the ears of the navigator
- at precise centimeter intervals
- none of the choices

How many examples of "RAHMANI" do we have from the days of Arab seafaring?

- none
- 3
- 121
- 5, but they are all written in a Hindu-Persian dialect

Ibn Majid said there were two basic ways of sailing:

**(Choose TWO answers)**

- sight of land
- open course using fixed bearings
- blindly
- by the light of the moon
- following the scent of cooking on Chinese Junks

In the days of Ibn Majid, the kamal consisted of

- several small boards each with a different width to correspond with different angular altitudes to the horizon.
- stale sesame seed cakes strung in a line
- the head of a fish
- none of the choices

Much of the information we have about boats and seafaring practices from the Indian Ocean in the 20th century was recorded in a book entitled Water Transport. Who wrote this important book?

- James Hornell
- James Cook
- James Kirk
- Alan Villiers
- Father Francisco Alvares

On Indian boats small ceremonies are performed in the prows of boats, which include lighting a lamp, breaking a coconut, burning incense. These ceremonies are called

- Puja
- Voodoo
- Mojo
- Apotropaions
- Canticles

Pepper is today found globally from Brazil to Asia. It originated where?

- the Malabar coast of India
- the Cape of Spices in what is now Somalia
- the southern part of Arabia known to the ancients as "Arabia Felix" or "Happy Arabia"
- the area of the Strait of Malacca
- Sri Lanka

Ship eyes

- showed the presence of a supernatural entity that helped guide the ship and protected it from environmental hazards
- had a function that is poorly defined and vague
- demonstrate Chinese ingenuity and methodological trading practices
- are useful in finding the depth of the sea

The kamal is useful only for

- north-south positioning
- east-west positioning
- measuring wind speed
- finding the depth of the sea

The North Star is known by which other names?

- Polaris
- The Pole Star
- Sirius
- Saturn
- Rigel
- Mister Smiley

The transport by sea in the period of Arab seafaring of wheat, spices, horses, textiles, carpets, gold, silver, precious stones, wood, etc. demonstrates

- a continuity of the seaborne economy over thousands of years.
- Chinese ingenuity and methodological trading practices
- the discovery of ancient Greek books filled with shipbuilding knowledge
- that gun technology was a tactic newly introduced into the Indian Ocean world

What is a "Star Compass?"

- a tool that divided the directions based on the positions of stars relative to the North Star and the rising and setting of the sun from the north pole to the south pole.
- a chronometer
- a tool for measuring wind speed which the Arabs used to decide on when was the best day to sail from the east coast of India to Malacca.
- an ancient Greek book written by Cosmas Indicopleustes describing the features of the Indian Ocean lands and how to sail to them using the planets as guides.

Which duties did a Mu'allim fulfill?

**(Choose all that apply)**

- He was the Captain
- He was expert in the depth of the sea
- He was the navigator
- He was in charge of the slave rowers
- He was the cook for the passengers but not the crew
- He was responsible for signing the ship's contract

Which Indian city was the center of the Pepper Trade?

- Calicut
- Cochin
- Lothal
- Bombay
- Serendip
- Bophal
- Trivandrum

Which ritual practice of was particularly strong in Muslim areas, including the Mediterranean: Sicily, Malta, Spain, Portugal, Syria?

- wrapping a skin on the prow
- conducting a Puja ceremony
- marrying a boat to a god or goddess
- painting ships with different numbers of masts different colors
- eating no fish on board ships so as not to offend the gods of the sea

Who was in charge of provisions for an Arab ship?

A kamal can give a navigator a position at sea that is accurate to within how many kilometers?

East-West positions are known as what?



Human sacrifice, and that of animals, is symbolized in Indian launching rituals by the cracking of coconuts and what else?

In navigation the sun is particularly useful for finding what time of day?

In Sri Lanka the use of marriage gifts to a boat symbolizes what?

Instruments through which supernatural beings can be called upon and act as portals through which they can materialize are known as what?

Name *two* things black pepper was used for (besides trade) in the Middle Ages and the Age of Exploration

North-South positions are known as what?

Openly displayed protective charms that ward off harmful powers are called what?

The measurement of the North Star's altitudes was known as which system?

The shape of the shipwreck known as the Pepper Wreck as derived from archaeological study is similar to those European ships depicted on which early 16th map?

The ship *Martires* is also known as

The tool for measuring the North Star's altitudes was called what?

The type of ship used by the Portuguese in the Indian Ocean trade was called what?

There are basically two categories of religious traditions concerning boats. What are they?

To prevent anarchy aboard Arab ships it was important to have what?

We have no old Arab nautical guides because instead of being written they may have been recorded how?

What made up for shortcomings in the use of the Kamal?

What was the man in charge of the masts and rigging called on an Arab ship?

Where is the North Star **not** visible from?

Who amongst an Arab ship's crew was in charge of piloting the ship into port?

Who wrote *"The Book of Useful Information on the Principles and Rules of Navigation?"*

Why are many of the ancient cultural traditions concerning seafaring disappearing in the Indian Ocean and elsewhere?

Why is the North Star useful in navigation?

Both the Chinese and the Portuguese used a system of measuring by fingers.

- True
- False

Ships could sail east and west keeping to the same latitude without any navigational aids.

- True
- False

East-West distance was measured in 3 hour increments called *zam* based on the burning of an incense stick.

- True
- False

The mechanics and reasoning behind the operation of apotropaions varies according to their form.

- True
- False

## EXTRA CREDIT

**This is an extra credit question. You may skip it without penalty if you choose. If you answer you can earn another point.**

This is a photograph taken recently in Tyre. It is the prow of a boat under construction. As you can see there are several items attached to the prow that relate to our discussion in class on Tutelary Dieties.

Please tell me, as best you can, what each of these items means to you, particularly of their place in Lebanese culture. They include the skull, the branch, two children's shoes, and two crescent objects.



