The Lion of the Sea: Ahmad Ibn Mājid

Bridgette Byrd O'Connor

Being a great sailor requires a lot of knowledge, and the greatest among them relied heavily on the collective learning that made crossing the vast Indian Ocean possible.

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Have you ever wondered about the early explorers? How did they manage to travel across thousands of miles of ocean? How were they able to trade with people they had just met? Two things helped make successful voyages possible. The first was the spread of a common belief system. The second was collective learning, or the sharing of information over generations. To better understand these explanations, let's take a close look at the life of one fifteenth-century sailor who traveled the Indian Ocean. His name was Ahmad Ibn Mājid.
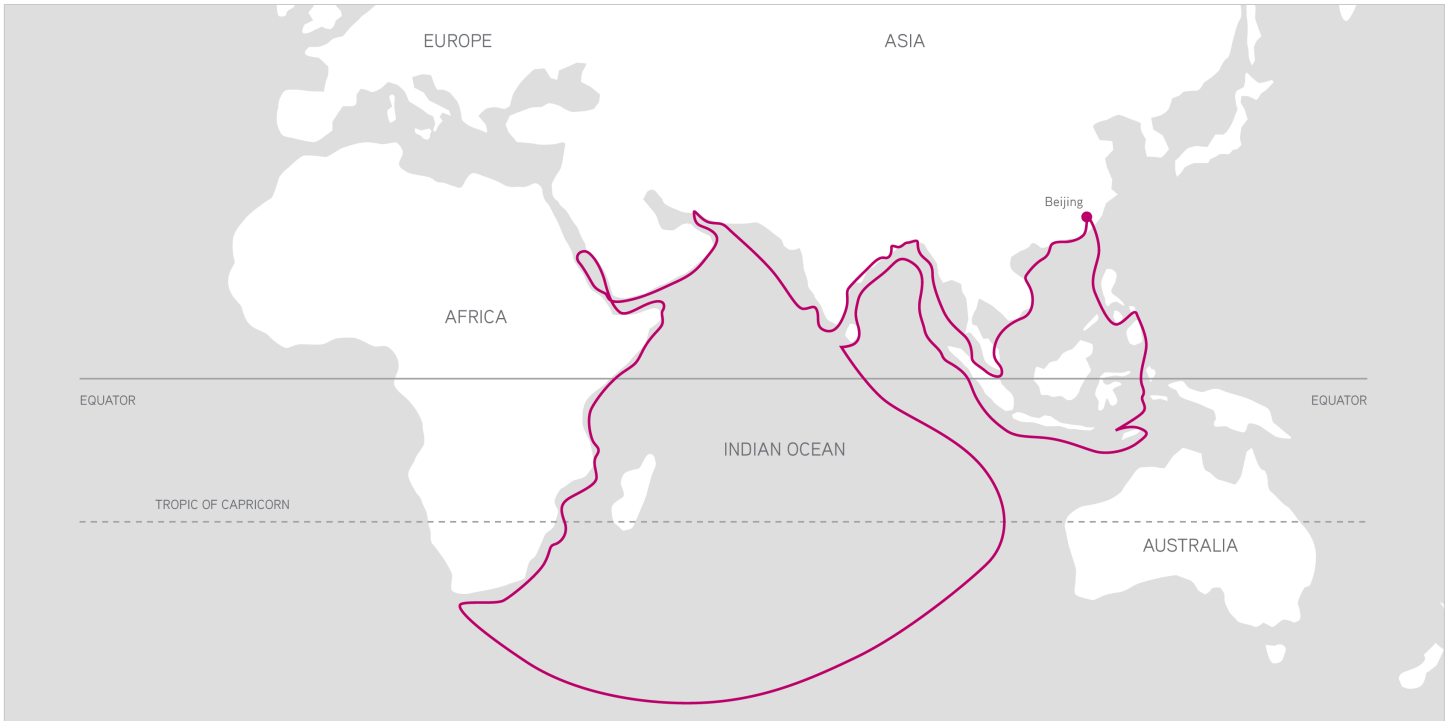

Map of the Indian Ocean showing the route of the fifteenth-century Chinese explorer Zheng He. We don't know specific routes taken by Ahmad Ibn Mājid but we do know that he carefully described tides, monsoon winds, and currents near various port cities such as Muscatand Hormuz in the Indian Ocean and others on the coast of East Africa and Indonesia. By BHP, CC BY-NC 4.0.

Background: A sailor's education

Ahmad Ibn Mājid was born around 1432 CE in Julfar, a port city of the Omani Empire. His father and grandfather were skilled sailors. Together, they owned several merchant ships. But before Ibn Mājid could journey out to sea, he had to complete his religious studies. This included memorizing the Qur'an, the holy book of Islam. Ibn Mājid's studies also included geography, mathematics, astronomy, and languages. And, of course, he had to study sailing. It's obvious why anyone wanting to be a sailor had to study sailing. But why all those other subjects?

Fifteenth-century sailors had only a few navigational instruments. They usually had a compass. But compasses could be difficult to use at sea. Therefore, geography was an essential subject for anyone wishing to sail across the Indian Ocean.
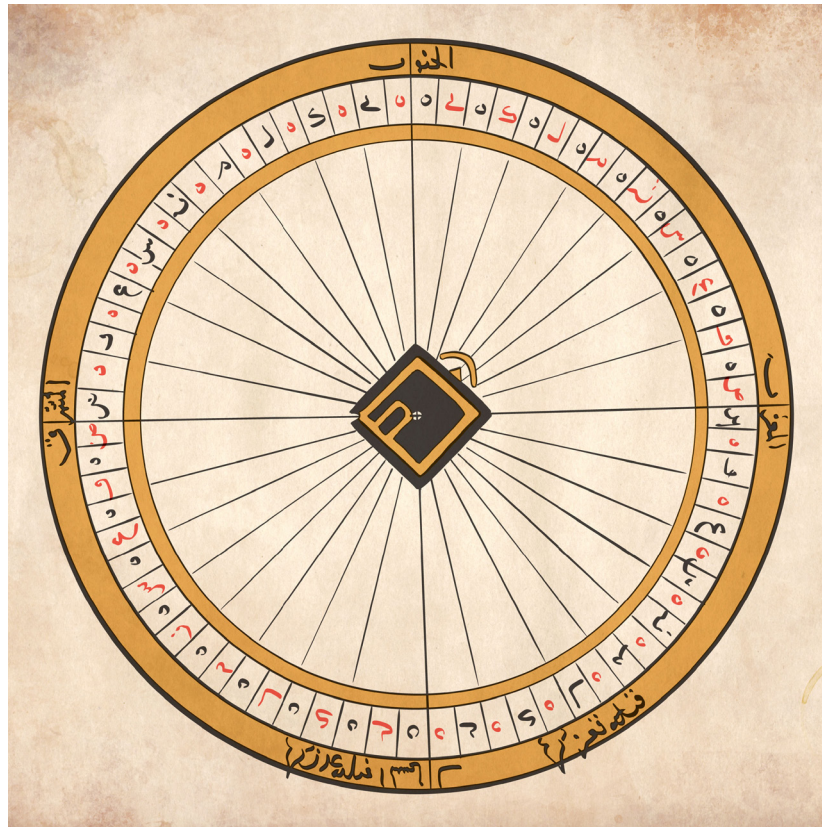
Sidereal or compass rose shows the directions of north, south, east, and west including points in between, which was used to help sailors navigate to different locations. By BHP and Peter Quatch, CC BY-NC 4.0.

The stars and planets were useful markers for finding your way. Therefore, astronomy was also important for sailors. Arab sailors relied on a tool called an *astrolabe*. The astrolabe could determine the altitudes of stars and planets. Altitude, or height, is a distance measurement. The astrolabe was first used by Ancient Greeks. However, Arab sailors made improvements to it. Their improved astrolabe could also figure out the *latitude* of a ship. Latitude is a way of describing location in terms of north and south. Sailors determined latitude by calculating the angle of the Sun's altitude at a given time of day. Latitude at sea could also be found using a *kamal*. This was a piece of wood fastened to a cord with a series of knots in it. Sailors used a kamal to measure latitude using the polestar. A polestar is the brightest star nearest to Earth at a particular time. This way of determining latitude required knowledge of both mathematics and astronomy.
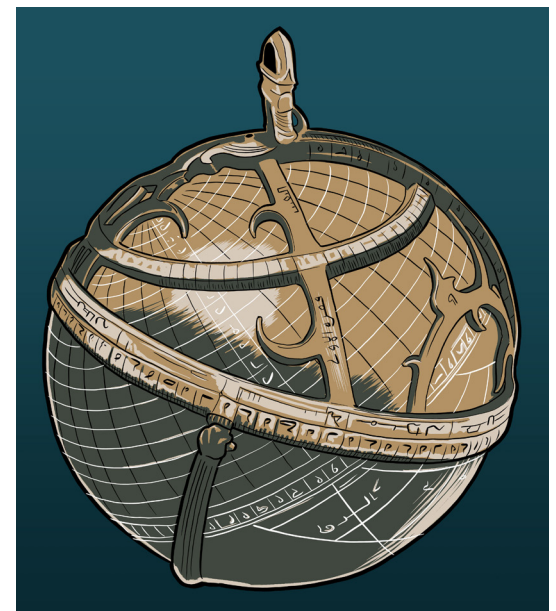

An astrolabe that was used to determine one's position at sea. By BHP and Peter Quatch, CC BY-NC 4.0.

But to be a successful merchant and sailor in the Indian Ocean, you needed more than math and astronomy. You also needed knowledge of languages and cultures. Merchants wanted to trade with the many peoples around the region. Knowing their beliefs and speaking their languages were key skills. Fortunately, lots of people in the region shared a language, Arabic. They also shared a faith: Islam. Communities stretching from Africa to India could communicate because of their knowledge of Arabic. They were united by their belief in Islam.

Skilled sailors weren't just important for trade. They were also important for faith. At least once in their lifetimes, Muslims were required to travel to Mecca, Islam's holiest city. Mecca is in what is now Saudi Arabia. The voyage to Mecca is known as the *hajj*. Pilgrims from Africa to Indonesia traveled across the Indian Ocean to Mecca. Sailors made sure they reached their destination. They also helped pilgrims during the journey itself. Muslims were required to pray in the direction of Mecca five times a day. A good navigator was needed to point the pilgrims in the right direction.
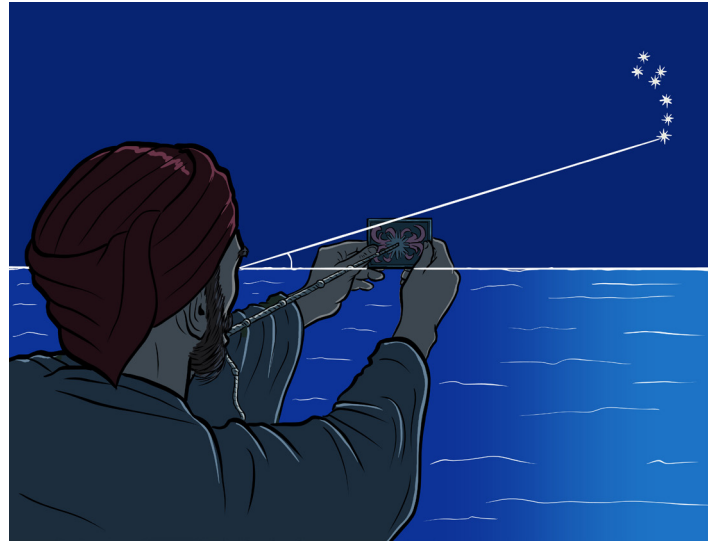
An Arab sailor using a kamal, another instrument used to determine latitude at sea. By BHP and Peter Quatch, CC BY-NC 4.0.
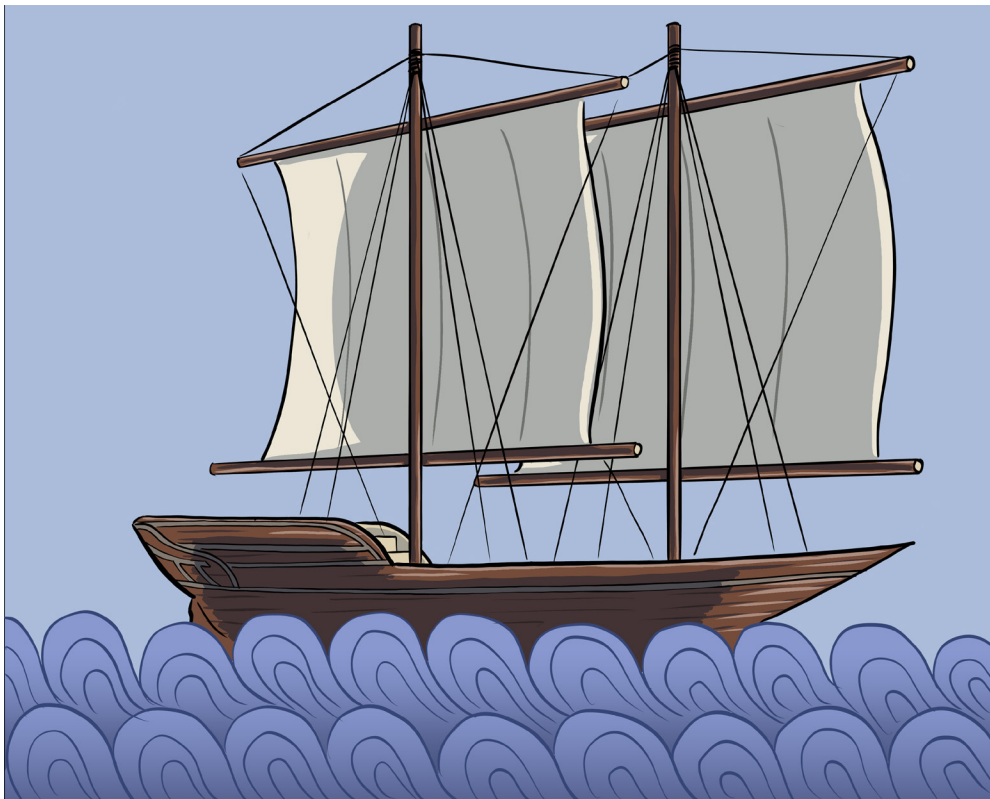
This image depicts a dhow, the dominant type of ship used in the Indian Ocean during Ibn Mājid's time. By BHP and Peter Quatch, CC BY-NC 4.0.

Collective learning on the seas

Ibn Mājid became famous as a master navigator. He was given the nickname "Lion of the Sea." His seafaring skills were known throughout the Indian Ocean. Ibn Mājid gained much of his knowledge from his father and grandfather. But he also learned from centuries of oral and written tradition. Navigational information was collected and passed down across generations. It was preserved in the form of long poems that were memorized. This process is an example of what we call collective learning.

Ibn Mājid wrote several books on navigation. Some were in the form of poems. Others were more like encyclopedias. His most famous was the encyclopedia *Book of Benefits in the Principles of Navigation*. This work provided information about all aspects of sailing in the Indian Ocean. Topics included tides, winds, currents, and distances between ports. The book also covered how to determine latitude, the movement of the Sun and Moon, and much more.

Ibn Mājid made a significant contribution to the knowledge of navigation. Yet we shouldn't forget that he didn't do it alone. His writings built on centuries of collective learning.

In 1498, a new chapter began in the history of Indian Ocean navigation. Portuguese sailor Vasco da Gama entered the ocean. He had sailed around the southern tip of Africa. At the time, Portuguese sailors were not as skilled as the people who lived around the Indian Ocean. Ibn Mājid didn't write about meeting the Portuguese. However, he did document their lack of knowledge on the seas.

> *"We have. . . the measurement of stellar altitudes, but they have not. They cannot understand the way we navigate, but we can understand the way they do; we can use their system and sail in their ships. For the Indian Ocean is connected to the All-Encompassing Ocean, and we possess scientific books ... they have. . . only the compass and dead reckoning. . . We can easily sail in their ships and upon their sea, so they have great respect for us and look up to us. They admit we have a better knowledge of the sea and navigation and the wisdom of the stars."*

Page from Ahmad Ibn Mājid's encyclopedic work, Kitāb al-fawā'id fī uṣūl wa-l-qawā'id (*Arabic for* Book of Benefits in the Principles of Navigation). *By Library of Congress, public domain.*

In fact, Vasco da Gama was not capable of reaching India on his own. He needed the help of an Indian Ocean sailor. Some historians claim that sailor was Ibn Mājid. Most likely that isn't true. But da Gama certainly wouldn't have reached his destination without the collective learning that took place in the Indian Ocean. He relied on the contributions of Ibn Mājid and countless others.
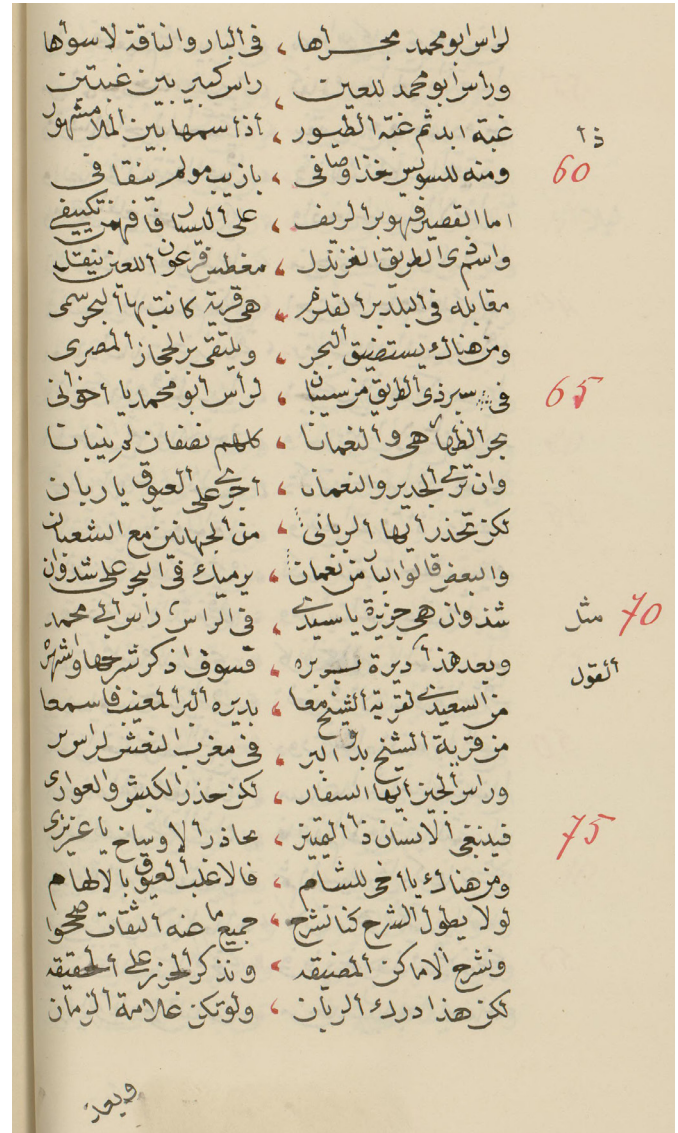
Sources

Agius, Dionisius A. *Classic Ships of Islam: From Mesopotamia to the Indian Ocean. Handbook of Oriental Studies. Section 1 The Near and Middle East, Volume 92*. Leiden: Brill, 2008.

Clark, Alfred. "Medieval Arab navigation on the Indian Ocean: Latitude Determinations." *Journal of the American Oriental Society* 113, no. 3 (1993): 360–373.

Facey, William. "Sailing the Red Sea." In *The Principles of Arab Navigation*, edited by William Facey and Anthony R. Constable, 97–114. London: Arabian Publishing Ltd., 2013.

Lunde, Paul. "The Navigator Ahmad Ibn Majid." *Saudi Aramco World* 56, no. 4 (July/August 2005): 45–48.

Seland, Eivind Heldaas. "The Indian ships at Moscha and the Indo-Arabian trading circuit." *Proceedings of the Seminar for Arabian Studies* 38 (2008): 283-287.

Tibbetts, G.R. "Arab Navigation in the Red Sea." *The Geographical Journal* 127, no. 3 (Sep., 1961): 322 334.

Tolmacheva, Marina. "On the Arab System of Nautical Orientation." *Arabica* 27, no. 2 (1980): 180–192.

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Bridgette Byrd O'Connor holds a DPhil in history from the University of Oxford and has taught Big History, world history, and AP US government and politics for the past 10 years at the high school level. In addition, Bridgette has been a freelance writer and editor for the Big History Project and the Crash Course world history and US history curricula.

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