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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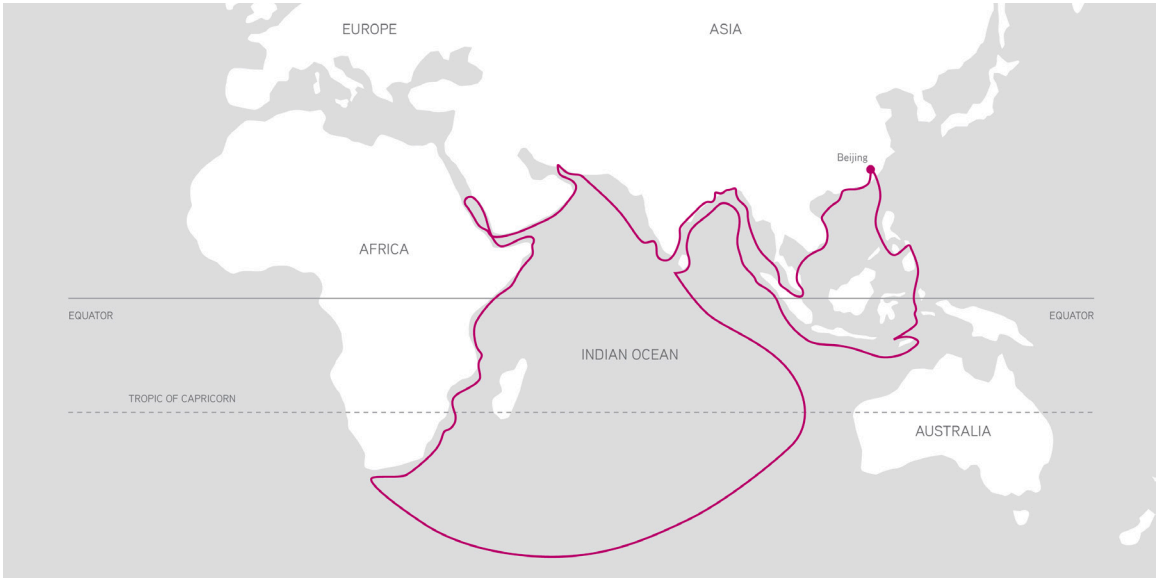
Have you ever wondered how early explorers managed to travel across thousands of miles of ocean? Have you ever wondered how they were able to trade with people they had just met? Two factors helped make these things possible. The first was the spread of a common belief system. The second was collective 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.

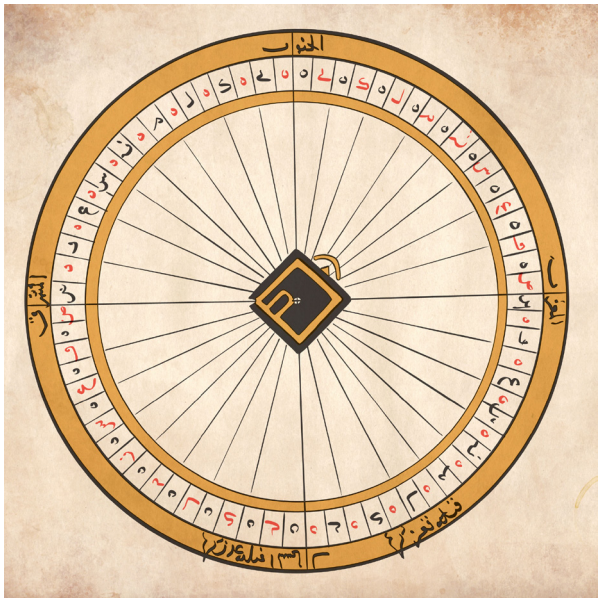


Map of the Indian Ocean showing the route of the fifteenth-century Chinese explorer Zheng He. We don't know specific routes taken by Ahmad Ibn Mājid but we do know that he carefully described tides, monsoon winds, and currents near various port cities such as Muscatand Hormuz in the Indian Ocean and 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. Knowing the Qur'an by heart was a requirement for all educated Muslims. Ibn Mājid's studies also included geography, mathematics, astronomy, languages — and of course, 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 a limited number of navigational instruments. Sailors and traders in the Indian Ocean 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 to cities thousands of miles away.



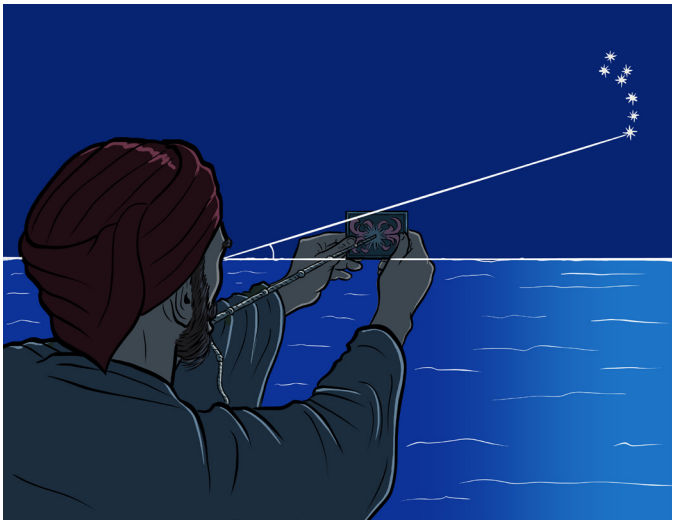
Sidereal or compass rose shows the directions of north, south, east, and west including points in between, which was used to help sailors navigate to different locations. By BHP and Peter Quatch, CC BY-NC 4.0.

Astronomy was also important for sailors, because the stars and planets were useful markers for finding your way. Arab sailors relied on a tool called an *astrolabe*. The astrolabe could determine the altitudes of stars and planets. It was first used by Ancient Greeks. However, Arab sailors made improvements to it. Their improved astrolabe could also figure out a ship's *latitude* (a way of describing location in terms of north and south). Sailors did this 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 or string with a series of knots in it. Sailors used a kamal to measure latitude using the polestar, or the brightest star nearest to Earth at a given time. Understanding how to determine latitude required knowledge of both mathematics and astronomy.

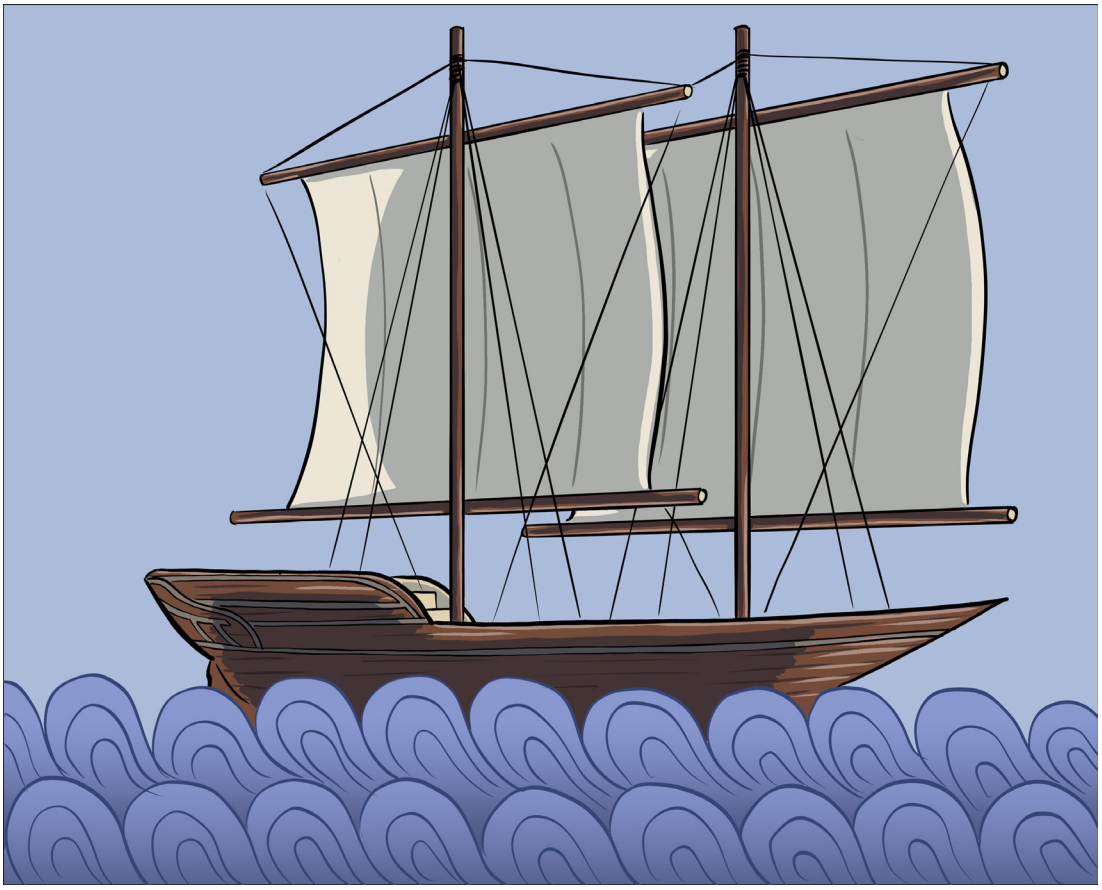
But to be a successful merchant and sailor in the Indian Ocean, you needed more than math and astronomy. You also needed knowledge of languages and cultures. If you wanted to trade with the many peoples around the region, knowing their beliefs and speaking their languages were key skills. Fortunately, lots of people in the region shared a language, Arabic. They also shared a faith: Islam. Having a language and religion in common helped unite far-flung communities stretching from Africa to India.

The development of a group of skilled sailors was important for faith as well as trade. Indian Ocean sailors transported more than goods across the seas. They also moved people. At least once in their lifetimes, Muslims were required to travel to the holy city of Mecca (in what is now Saudi Arabia). The voyage to Mecca is known as the *hajj*. As Islam spread throughout the region, pilgrims from Africa to Indonesia traveled across the Indian Ocean making their hajj to Mecca. The sailors' knowledge of mathematics and geography helped the pilgrims reach their destination. It 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 astrolabe that was used to determine one's position at sea. By BHP and Peter Quatch, CC BY-NC 4.0.



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. His seafaring skills were known throughout the Indian Ocean, earning him the nickname "Lion of the Sea." He 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 in the form of long poems that were memorized.

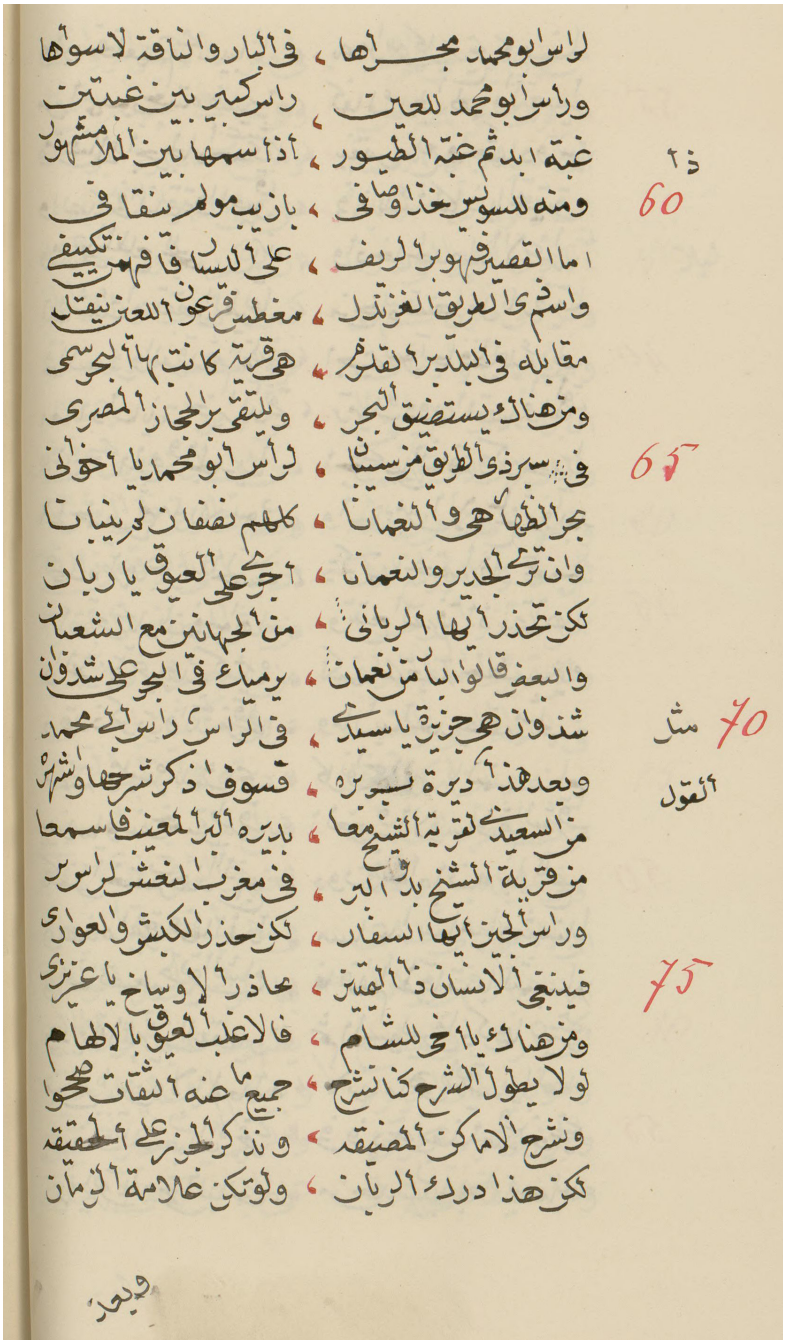
Ibn Mājid wrote several books on navigation. Some were in the form of poems. Others were more like encyclopedias. His most famous was the encyclopedia *Book of Benefits in the Principles of Navigation*. This work provided information about all aspects of sailing in the Indian Ocean and Red Sea. Topics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

In 1498, a new chapter began in the history of Indian Ocean navigation. Portuguese sailor Vasco da Gama entered the ocean after sailing 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."*

In fact, Vasco da Gama needed the help of an Indian Ocean sailor to make the journey from Kenya to India. 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 would not have succeeded without the contributions of Ibn Mājid and countless others.



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.*

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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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