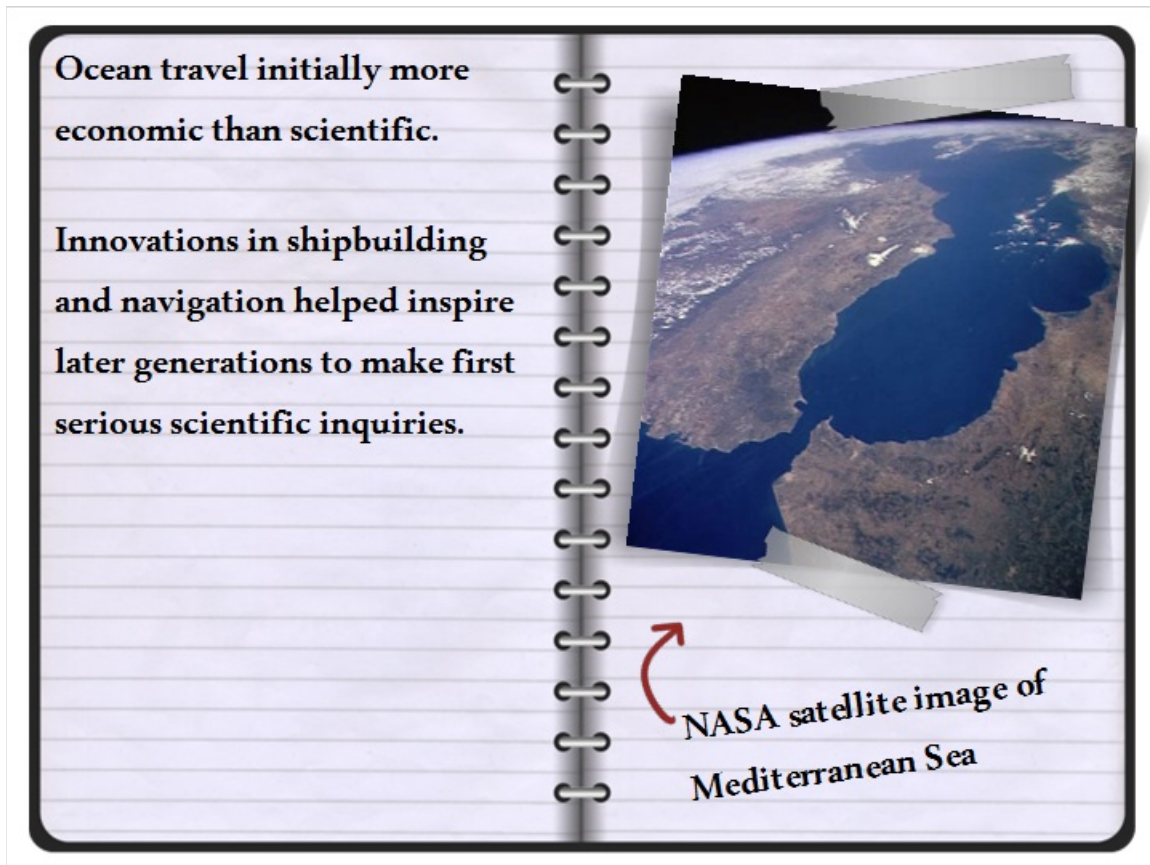


Module 2: The History of Oceanography

Topic 1 Content: Ancient Voyages Notes



As societies grew they needed reliable ways to travel and trade with other cities. The oceans provided a convenient means of transportation. Although ancient people's reasons to travel on the oceans were more economic than scientific at the time, their early travels paved the way for innovations in shipbuilding and navigation. These innovations helped extend travel on the oceans and seas, and as people ventured farther from home, their curiosity inspired later generations to make the first serious scientific inquiries.

Image Credit: NASA

Module 2: The History of Oceanography

Topic 1 Content: Ancient Voyages Notes

Ancient people took to the seas about 5000 BC.

How do they know?

Archeologists discovered spears, simple fishing equipment, and related artifacts dated to around the same period.



Ancient Egyptian Fishery

When did ancient people begin voyaging on the oceans? Many historians theorize that ancient people took to the seas about 5000 BC. Historians suggest that ancient people first exploited the seas as a tremendous source of food based on discoveries of spears, simple fishing equipment, and related artifacts all dated to around the same period.

Image Credit: Public Domain

Module 2: The History of Oceanography

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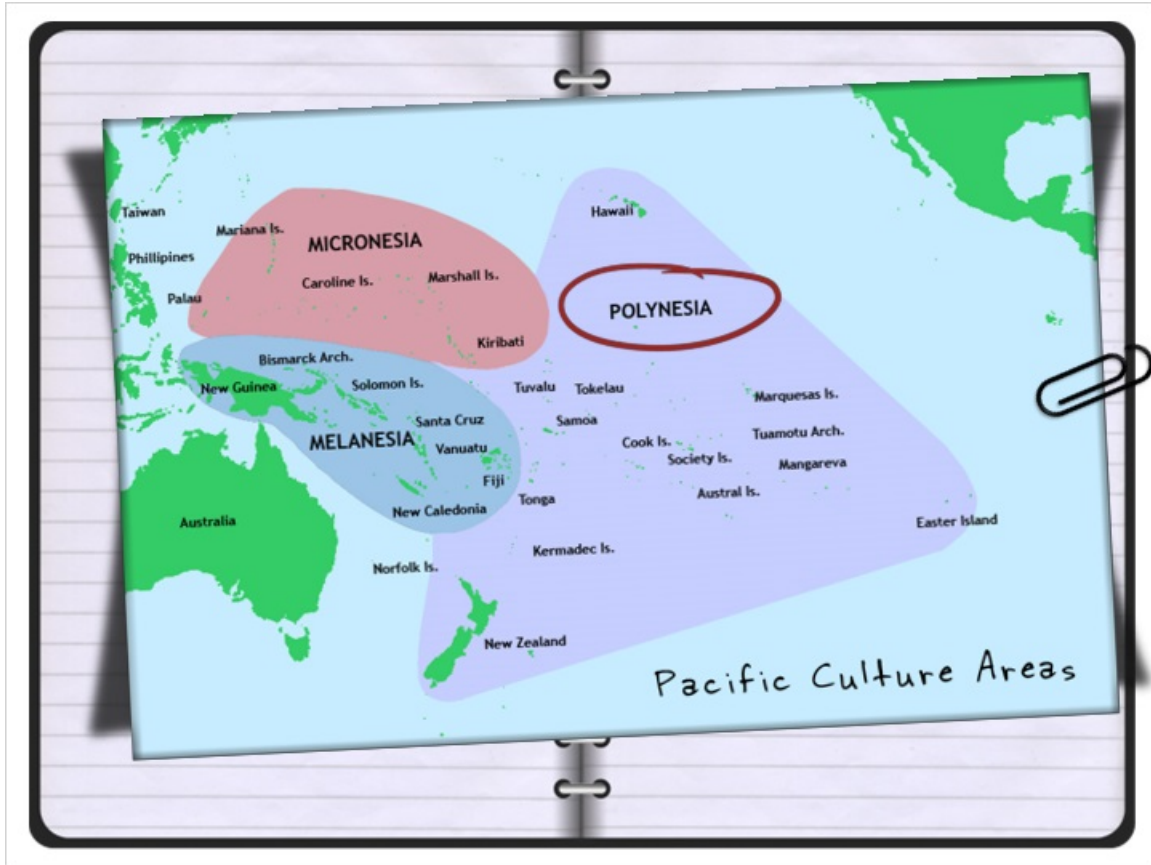
Based on archeological records, it appears that the Egyptians made their first voyages around 3200 BC during the reign of Pharaoh Snefru. According to historians, at least four ships travelled to Egypt from Phoenicia. Hieroglyphics also suggest a voyage took place around 2750 BC. This expedition led Egyptians around the Arabian Peninsula and into the Red Sea.

How do we know the Egyptians undertook sailing expeditions? Well, the answer lays literally within the Pyramid of Khufu. Here, the Egyptians entombed an entire ship. This was a reed ship that used a single sail and oars for propulsion.

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Module 2: The History of Oceanography

Topic 1 Content: Ancient Voyages Notes



Polynesia includes more than 1,000 islands throughout the central Pacific Ocean. In fact, you likely know some Polynesian Islands already, such as Hawaii and New Zealand. Others, such as Samoa and Tonga may not be as familiar to you.

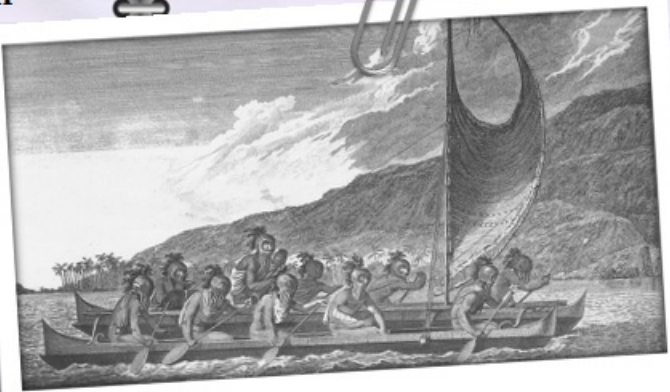
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Topic 1 Content: Ancient Voyages Notes

Polynesians credited with discovering and settling almost every habitable island in the Pacific.

Polynesian culture and travels dated from 2000 BC-500 BC (although some historians believe they're much older).



Polynesian Priests

The Polynesians traveled in the open ocean without sight of land for very long distances. They were explorers who continually traveled by boat, and are given credit by most historians for discovering and settling almost every habitable island in the Pacific.

Although some historians disagree about the when the Polynesians originated, evidence of their culture and travels exists from between 2000 B.C. until about 500 B.C., with other records suggesting their culture is much older.


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Historians believe Polynesians were master craftsmen of lightweight and fast boats.

Simple yet buoyant, bound with fiber rope, and sealed with tree sap. Outrigger added stability.



Polynesian Canoe Replica

Long distance boat with deck, shelter, and sails!

How were the Polynesians able to settle islands such great distances apart? Historians believe that the Polynesians were master craftsmen of lightweight and fast ocean going boats. These boats could travel hundreds, even thousands of miles!

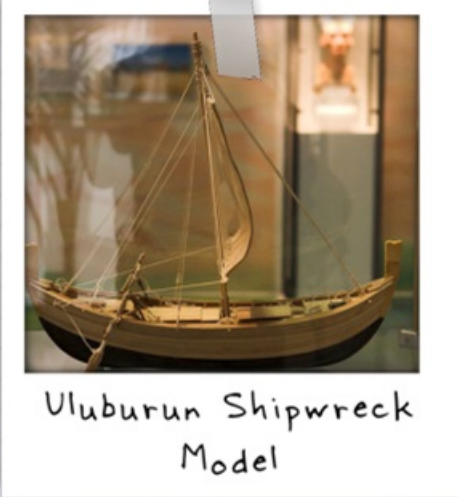
Imagine for a moment the labor and initiative necessary to find a Balsa, or other lightweight tree, cut it down, hollow it out, and then set off for a trip to another island over 2,000 miles away! Of course, this is exactly what the Polynesians did thousands of years ago – and without any navigational tools.

Unlike the complex boats made by the European cultures, Polynesian boats were simple yet extremely buoyant, bound with fiber rope, and sealed with tree sap. They added a structure called an outrigger to add greater stability in the rough ocean waters. Long distance boats contained two canoes bound together with fiber rope and a deck built between them with a small shelter and sails. If there was no wind, the boat's lightweight structure made it easy for the Polynesian sailors to paddle until the winds picked up again.

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Phoenicia was located in the Northern Arabian Desert on the Mediterranean Sea, between where Syria and Libya are today.

Earliest ship found off coast of Turkey, and dated to around 1200 BC.

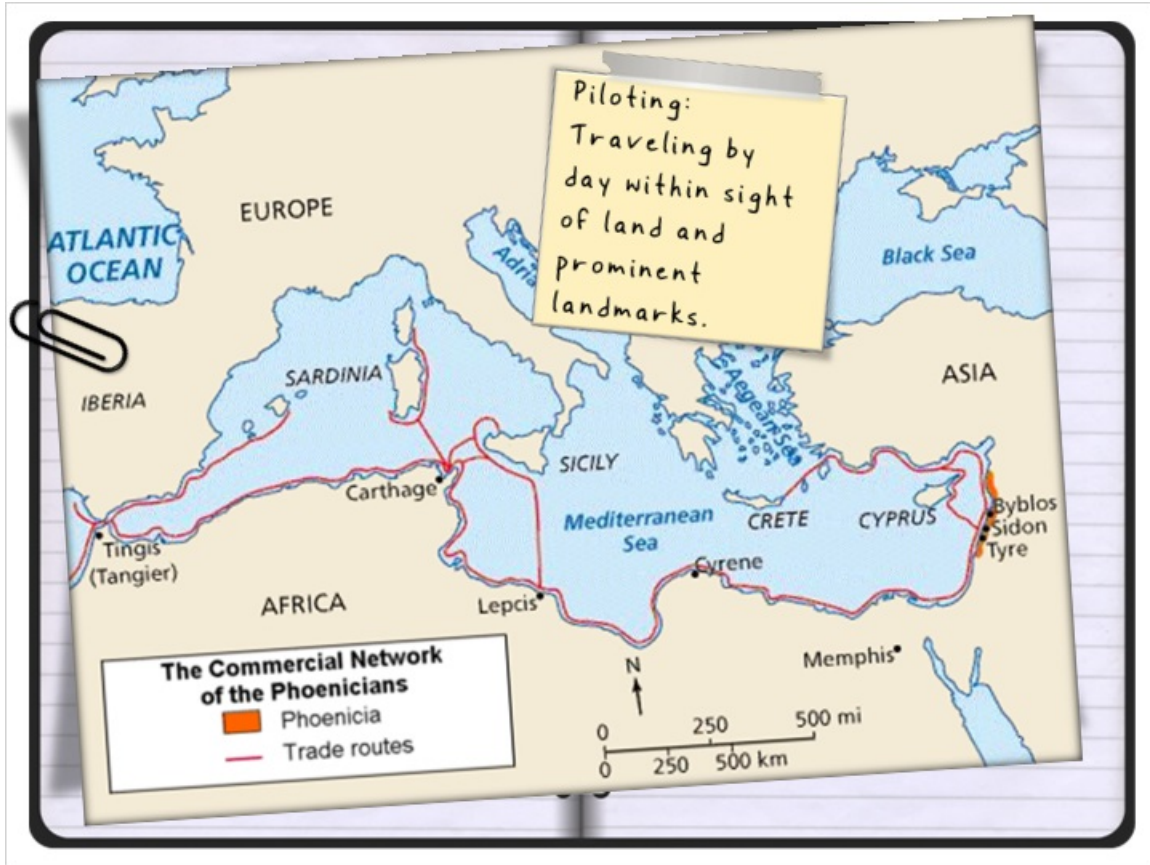
Perhaps the most important seafaring people in the Western World were the Phoenicians. At this point, you may be wondering, “Where is Phoenicia?” Well, Phoenicia no longer exists, but it was located in the Northwestern Arabian Desert on the Mediterranean Sea, between where Syria and Libya are today.

Archeologists found the earliest Phoenician ship off of the coast of Turkey, and dated to around 1200 BC. Unfortunately, Phoenician culture is very difficult to study as there remains very little recorded history.

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Module 2: The History of Oceanography

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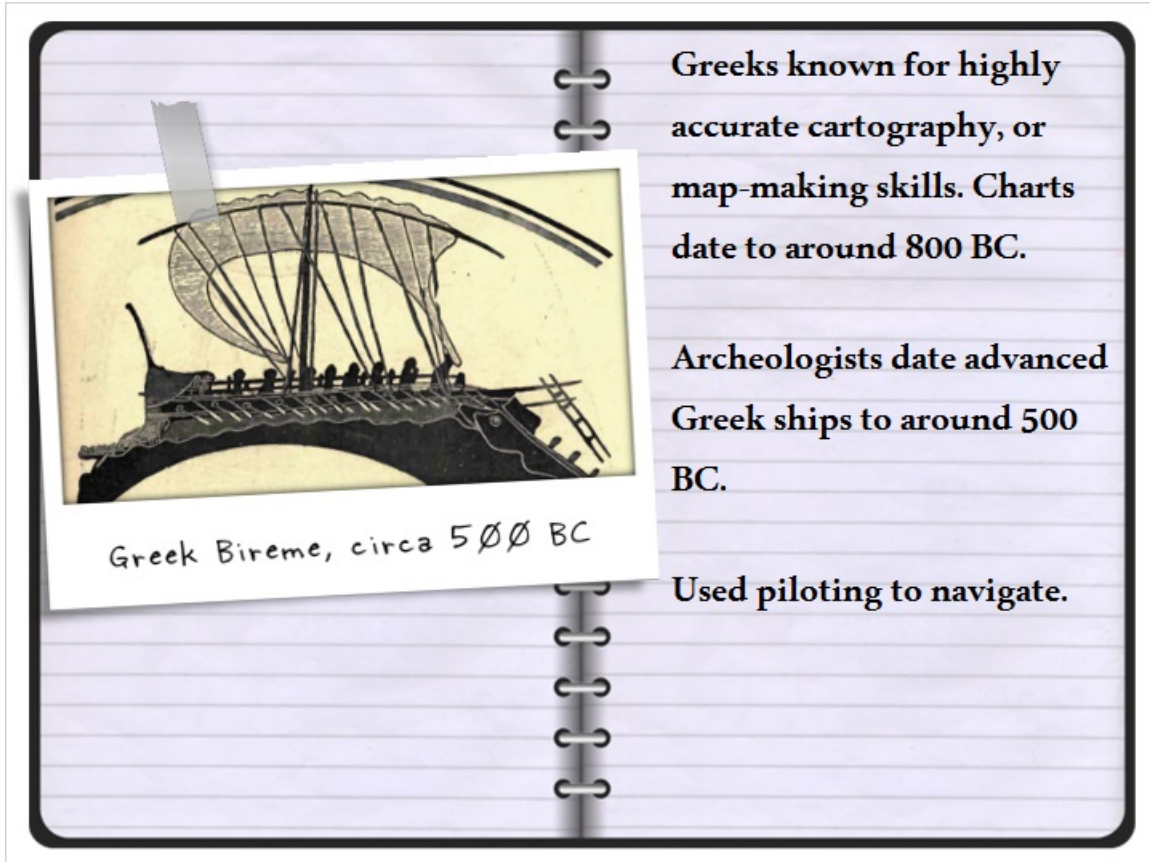
What historians do know about the Phoenicians is that they were the first Europeans to establish trade routes throughout the Mediterranean Sea. The Phoenicians became expert navigators by using a technique called piloting, or always traveling by day within sight of land and noting prominent landmarks to help find their way.

Historians believe that the Phoenicians even traveled as far north as Great Britain. To do this they would have had to sailed by night, perhaps by using the Phoenician Star to help them navigate. Today we now know this as the North Star, or Polaris.

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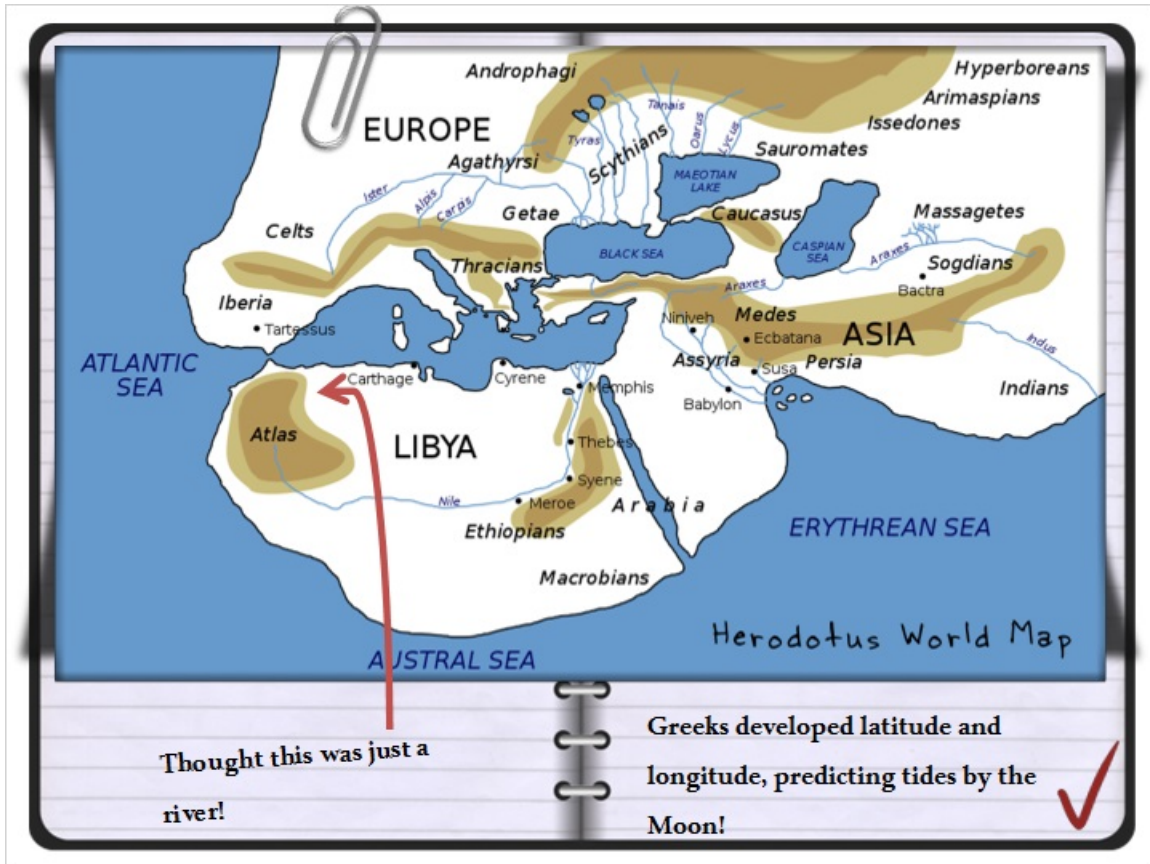
The Greeks were very well known for their highly accurate cartography, or map-making skills. They made the first navigational maps, called charts, around 800 BC. Of course, to make even more accurate maps, Greek cartographers had to voyage out into the Mediterranean Sea. This required using more advanced ships, which archeologists believe occurred around 500 BC.

Like the Phoenicians, the Greeks used piloting to navigate during their voyages, making note of prominent landmarks and observable features along the shorelines to travel and improve their maps.

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Topic 1 Content: Ancient Voyages Notes



The first full map of the Mediterranean Sea was made by the Greek, Herodotus in 450 BC. In fact, the Greeks made some major discoveries that are still in use by modern navigators! For example, Eratosthenes, Ptolemy and Hippocrahus all helped develop the first system of latitude and longitude. Their system was so useful that today we find our coordinates using the same latitude and longitude but with the help of GPS satellites! The Greek Pythias learned how to predict the tides based on the cycles of the Moon. Pythias also used the North Star, or Polaris, to determine how far north and south he was during navigation.

As diligent as the Greeks were about map-making, they made one major mistake. Unfortunately, they thought that the water flowing through the Straits of Gibraltar was merely a river; they didn't recognize that it was actually where the Mediterranean Sea met the Atlantic Ocean. They even named this river Okeanos. Does that word look similar? That's because Okeanos is today the root of our word for ocean.

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