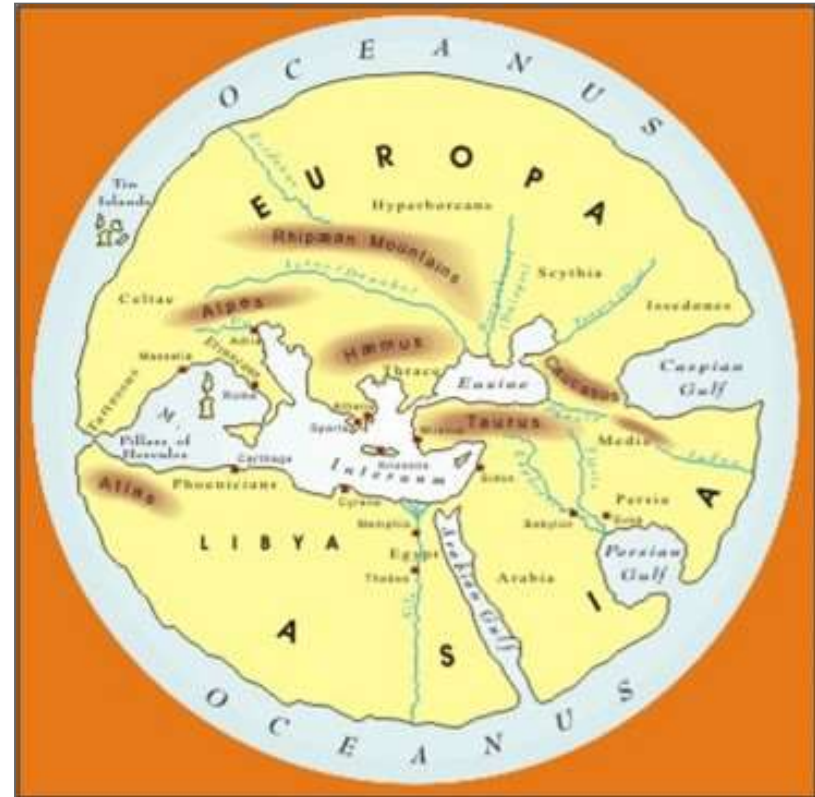


# EXPLORATION SPURRED THE CARTOGRAPHIC ADVANCES

Trade and travel expanded conceptualizations of what the world was.

-Greeks built on knowledge of the Egyptians & Mesopotamians



# PTOLEMY'S GEOGRAPHIA – 1850 BP.

**First Atlas:** an 8 Volume GIS prototype with an index of place names

-Projected world map accounting for earth's curvature, but it earths underestimated size



# CHINESE EXPLORATION

Advances in Maritime Technology

-Compass

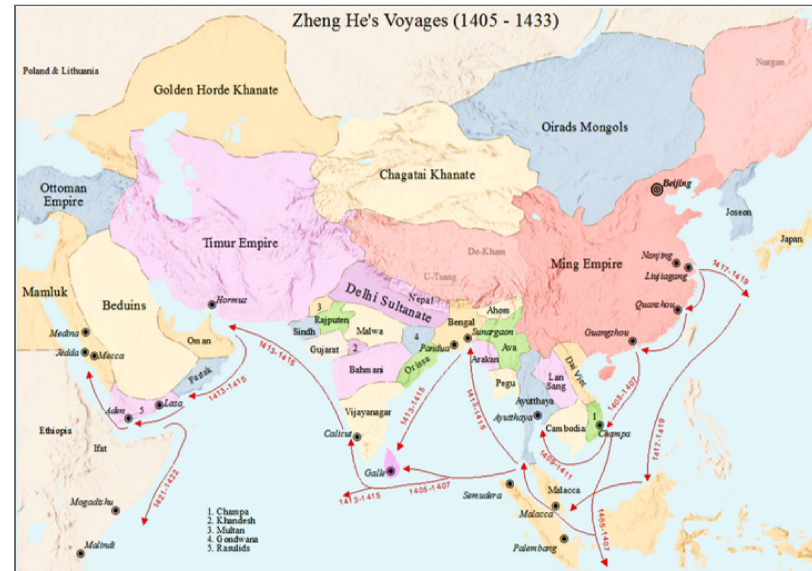
-Ship Design

Culminated in the Ming Dynasty  
Treasure Voyages



# CHINESE EXPLORATION

By 600 BP, the Chinese had mapped most of South & East Asia, East Africa, Indonesia & Australia. They may have even visited the west coast of North America!



## SPREAD OF INFORMATION

Chinese and Islamic mariners brought technology and cartographic understanding westward.

-By 550 BP. Europeans had the compass



**Fra Mauro Map**

# "AGE OF DISCOVERY"

Portuguese and Spanish expansion

-First verifiable global circumnavigations

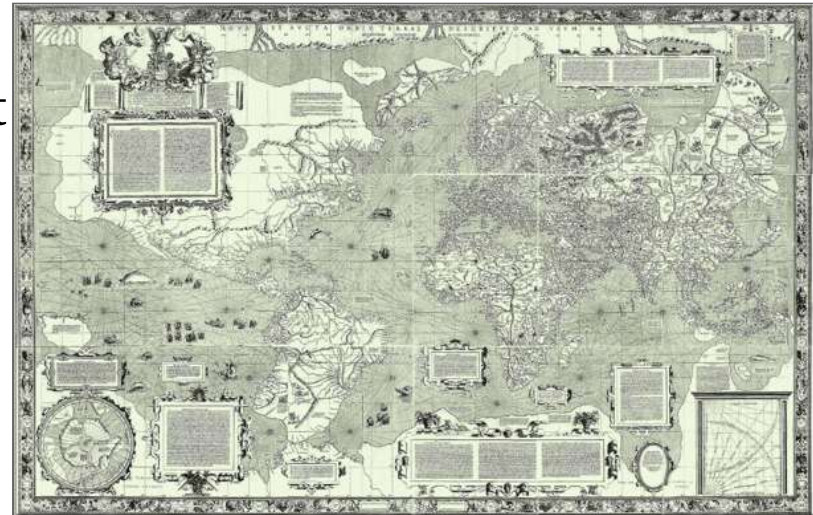
-European perspectives came to dominate the cartographic world





# THE MERCATOR PROJECTION

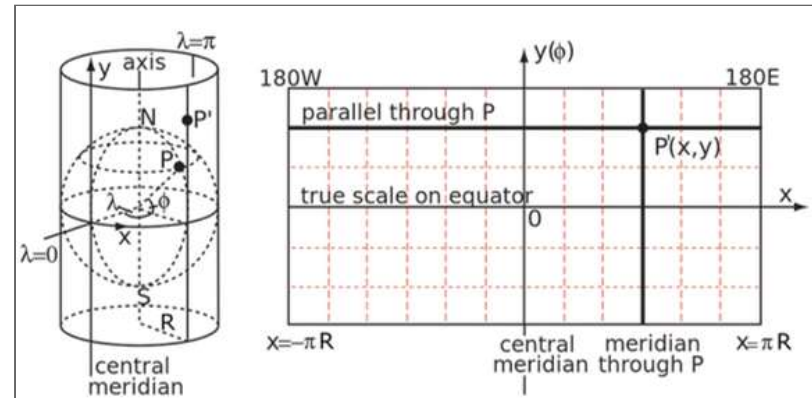
Revolutionized mapping and navigation. You can follow constant bearing and reach any location on earth



# THE MERCATOR PROJECTION

Cylindrical map projection, still used today in many applications

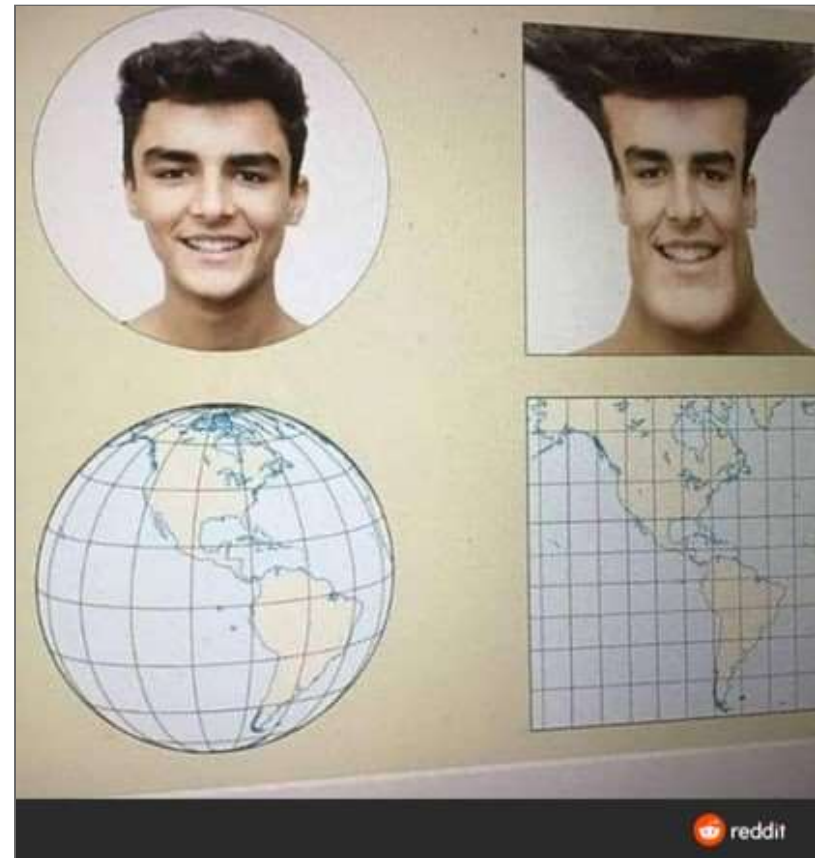
-Google Maps





# THE MERCATOR PROJECTION

Mercator projection is still widely used today. This projection **severely distorts the true size of some regions.**



# SPATIAL ANALYSIS

As our representation of space became more accurate and precise, humans could navigate more effectively.

Our ability to make spatial inferences expanded as well.

