

Developments of Geography

Early Origins to Modern Map Making

Basic Descriptions

- Geography
 - Literally means “Earth Study”, the science of the Earth’s land and peoples
- Cartography
 - The study and maps and the science of making maps



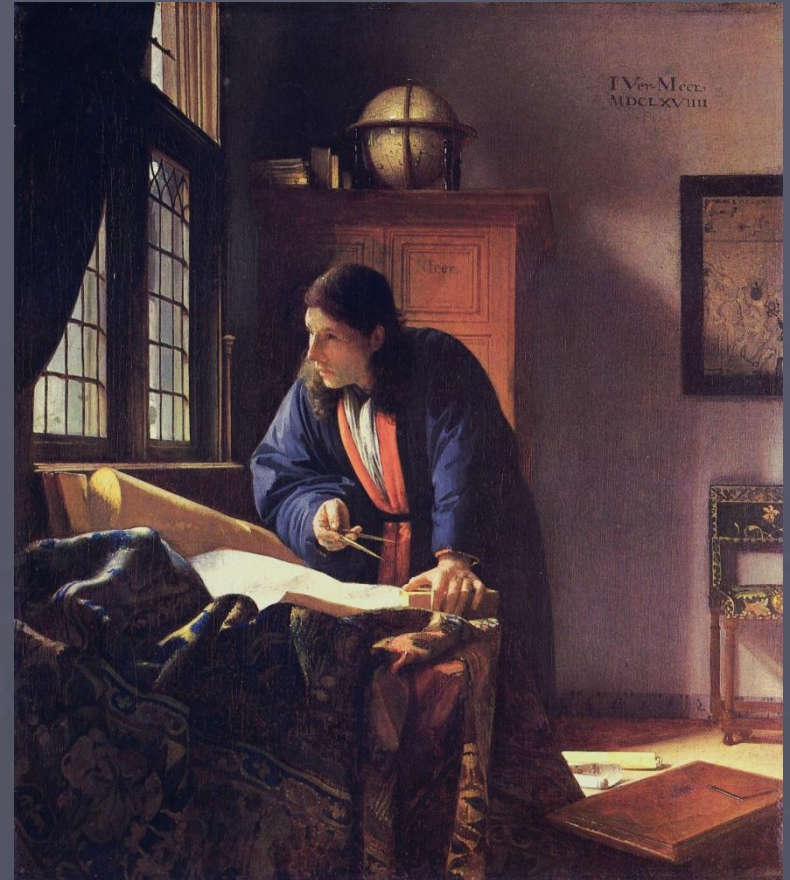
Patterns

- Geographers use different maps and models to look for **patterns**
 - Series of similarities or differences



Uses of Maps

- Maps are representations of the Earth's features or other geographic data
- Two reasons to use maps:
 - As a location reference guide
 - To find location of different places and objects
 - As a communications tool
 - To display and explain information



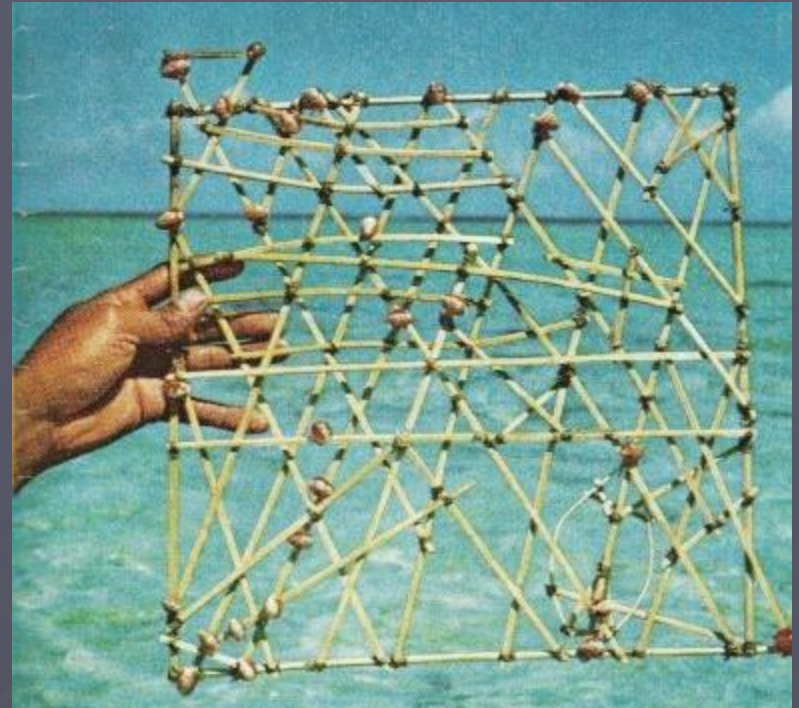
Connections to Astronomy

- Early geographers had to rely on measurements using the stars to measure distance and angles
 - Developed to the point of being able to get fairly accurate calculations
 - Developed tools like sextant and star charts to track courses



Earliest Map Representations

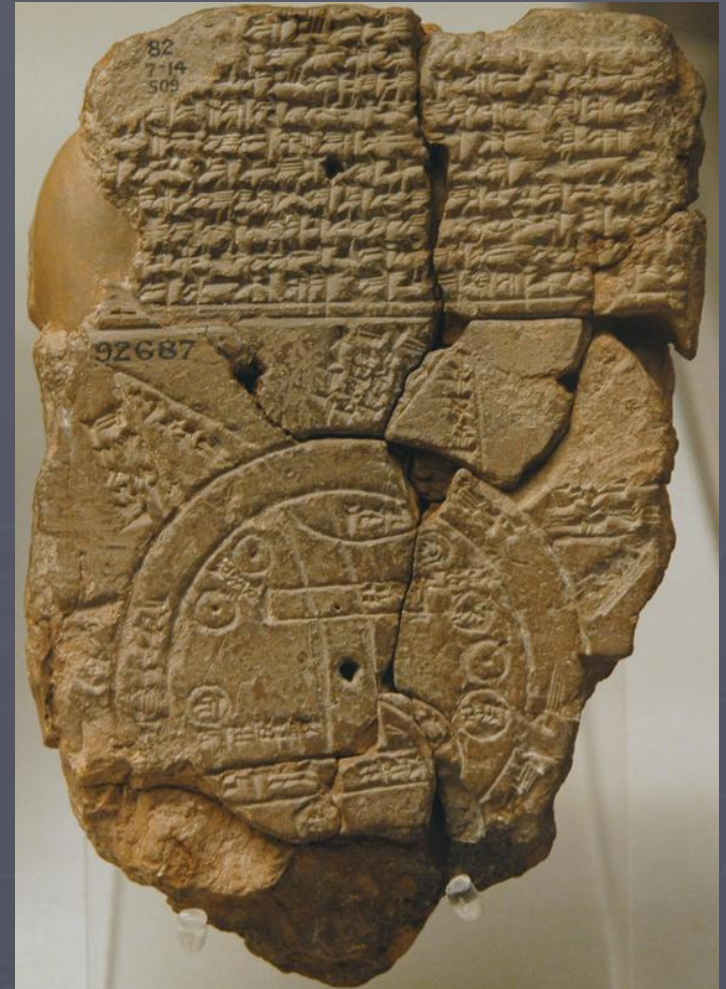
- Earliest maps date back thousands of years
 - Represent the location of major land forms, and hunting grounds
 - Maps have been evolving and changing based off the needs and resources of people
 - Example – Babylonian maps on clay tablets, Polynesians used interwoven sticks, and Greeks used paper



Mattang Stick Map from Polynesia

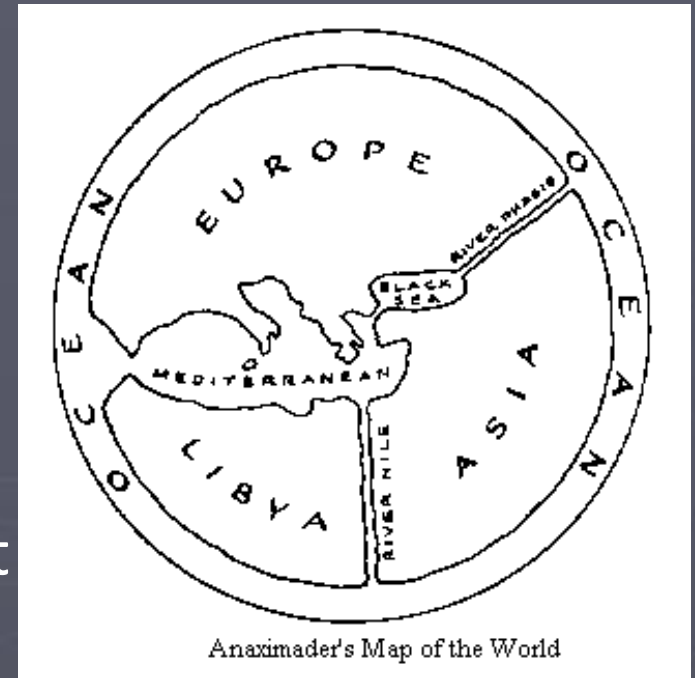
Babylonian Cartographers

- Babylonians were skilled surveyors, making maps of their empire
 - Surveyors take measurements and make maps of boundaries
 - Helpful for construction, map making, and defining property lines



Greek Geographers

- Made major contributions to cartography and development of geography
 - Anaximander considered to be first true cartographer
 - Made first map of the world around 550 B.C.E.
 - Eratosthenes (276–194 B.C.E) first one to use the word Geography
- Almost always drew Greece as center of the world



Ptolemy

- Greek Philosopher (est. 90-170 C.E.) who lived in Alexandria and wrote 8 volume book on geography
 - Came up with idea of Longitude and Latitude, Map Grids, and compiled maps into an Atlas
 - Influenced Roman and early Modern European Map makers
 - Came up with idea of a Southern Continent

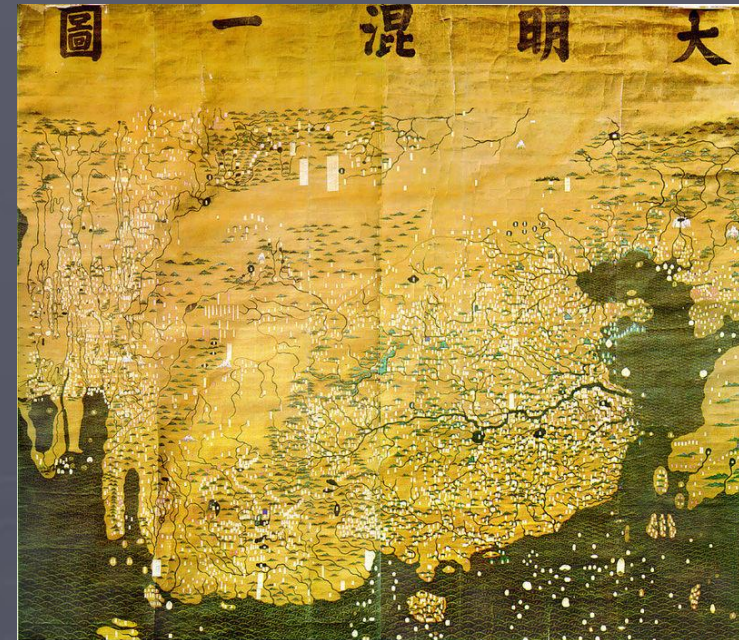


Ptolemy's World Map



Chinese Geographers

- Cartography began around the 5th century B.C.E
 - Maps made on wood, stone, and silk
 - Developed over centuries
 - Grew in accuracy after invention of compass in 11th century C.E.
 - Reached its peak around 15th century C.E.
- China was source of most geographic information in East Asia until 20th century



Da Ming Hun Yi Tu from 1389 C.E.

Islamic Geographers

- Muslim cartographers had access to books from both East and West
 - Translated and study many Latin Maps
 - Sent out expeditions to map and study Islamic regions
 - Influential in North Africa, Southwest Asia, and East and Central Asia
- Muhammad al-Idrisi (1099-1165)
 - Worked for the king of Sicily to make an accurate description of the Earth

Al-Idrisi's Map of the Known World 1154 C.E.

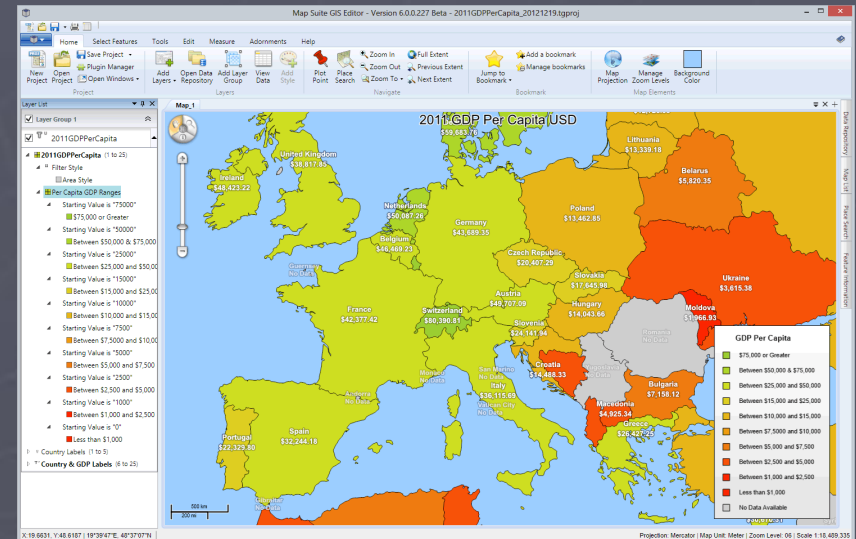
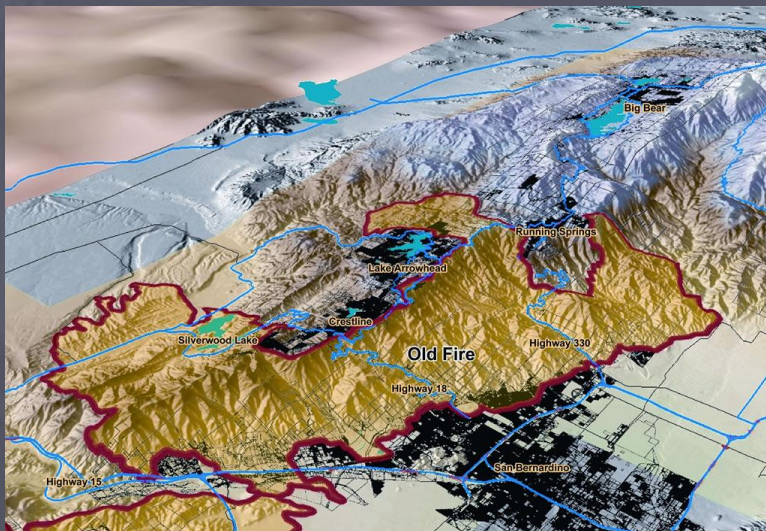


European Exploration

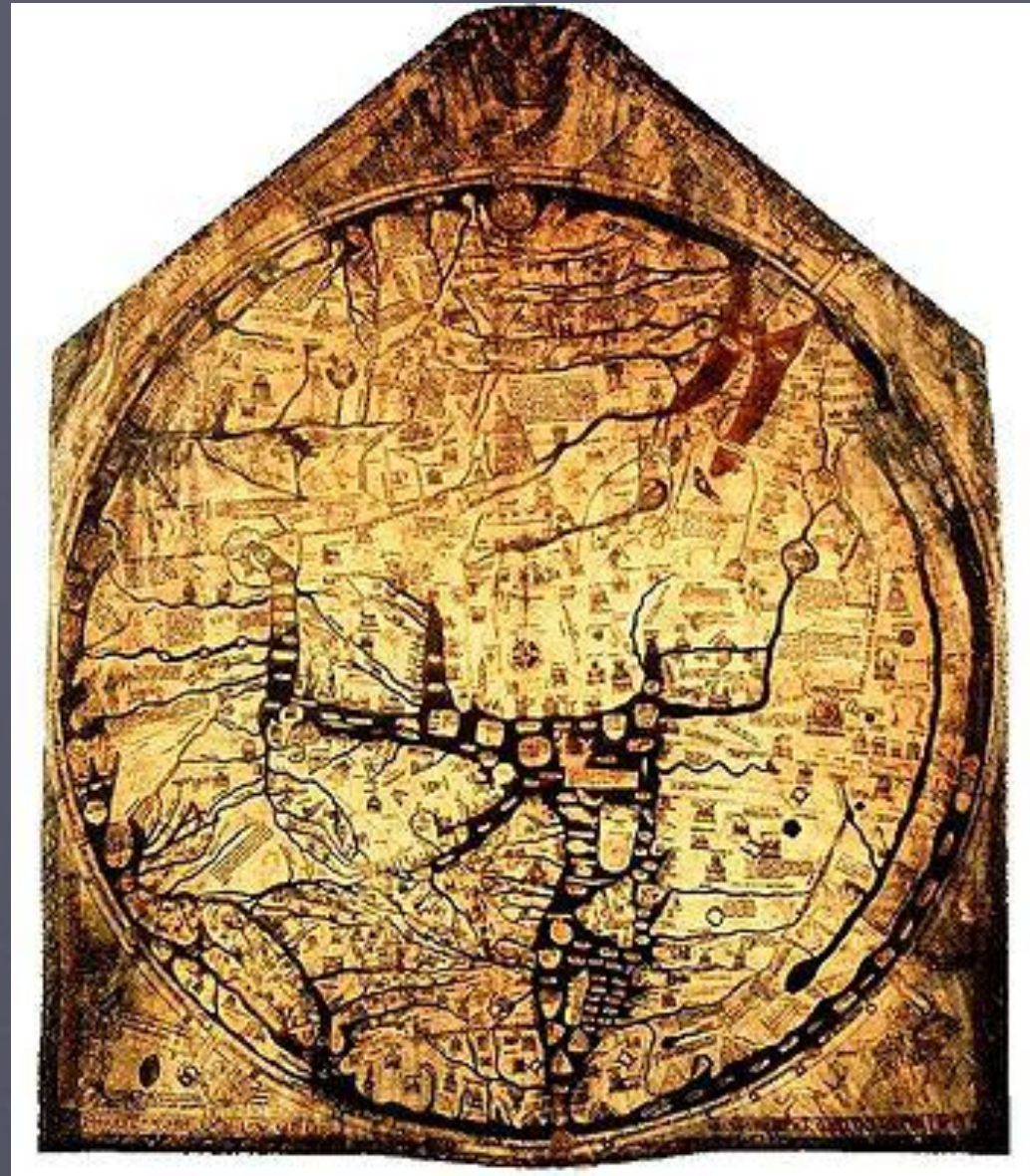
- Age of Exploration starts in 15th Century renewed European interest in the world
 - Especially interested in the Americas, Africa, and trade routes to Asia
 - Competition among empires to discover more
 - Led to expeditions to Pacific Islands, Antarctica, Interiors of continents, and Arctic

Modern Cartography

- Modern cartography uses technology like satellites and GPS to take accurate measurement
- Computers are used to quickly update and create maps that display all bits of information



Hereford Mappa
Mundi
ca. 1285



Piri Reis Map c. 1513 Ottoman Map

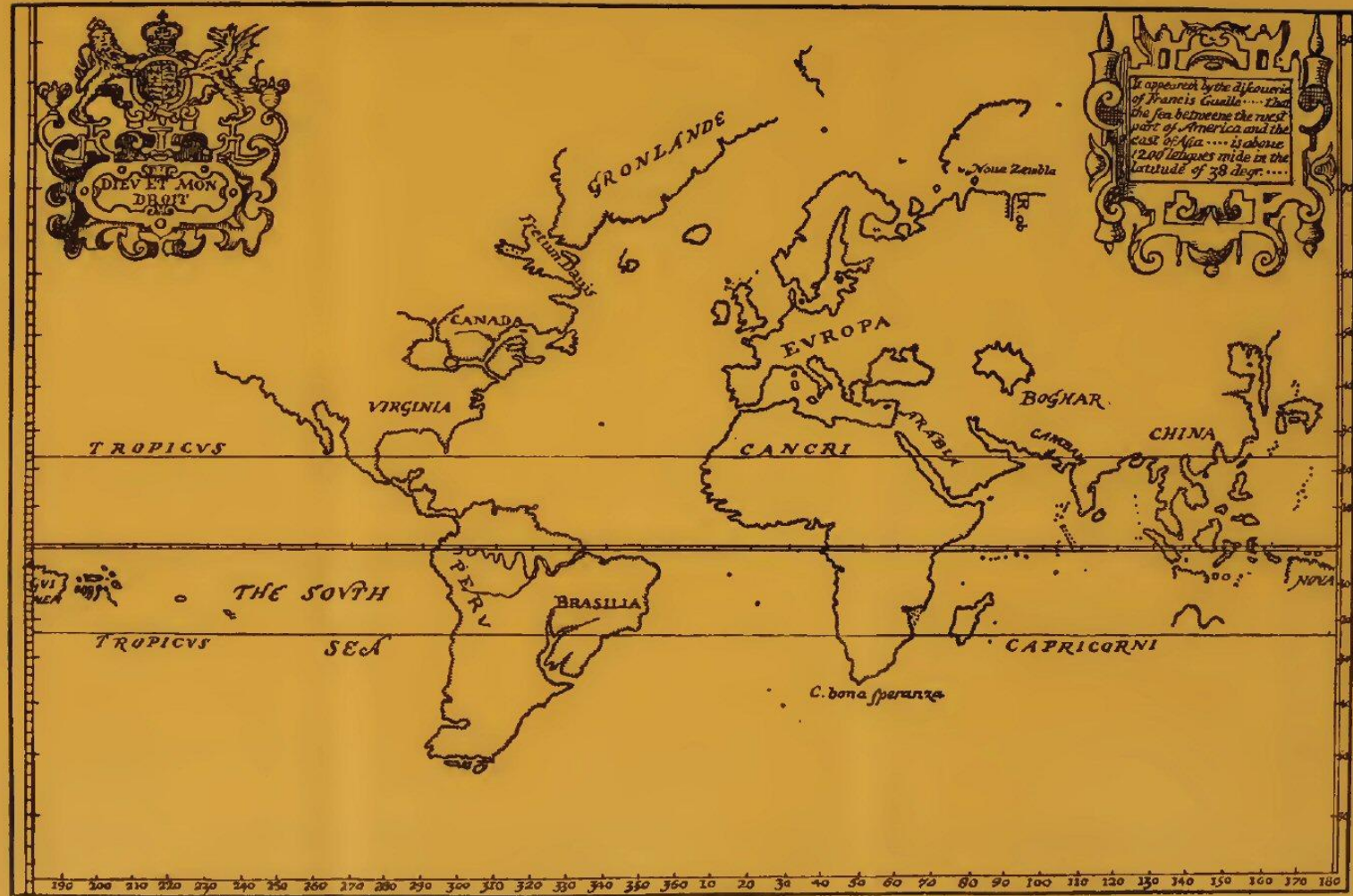


Dünya Haritası, Piri Reis
Topkapı Sarayı Müzesi Kütüphanesi, No. H. 1824
The World Map, Piri Reis
Library of Topkapı Palace Museum, No. H. 1824

Mercator Map c.1569



The Wright-Hakluyt Map of the World, 1600



The Wright-Hakluyt Map of A.D. 1600 (Outline sketch).

James Cook's Map of Eastern Coast of New South Wales 1770



Modern Gall-Peters Map

