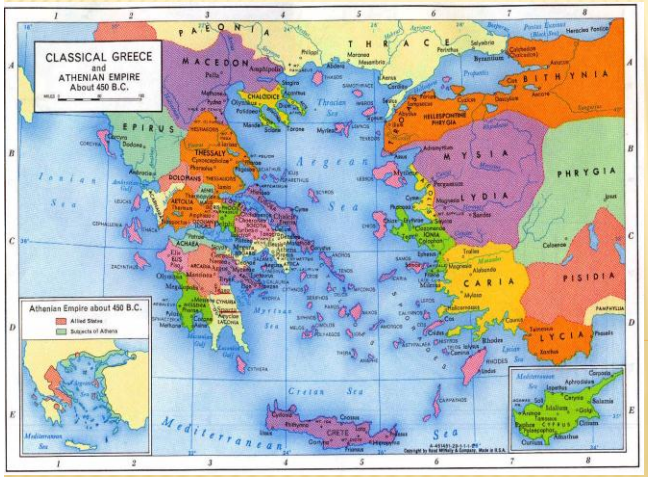
ANCIENT GREEK GEOGRAPHY AND GEOGRAPHERS



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GENERAL OUTLINE

- Greek Geographic Thought in Context
  -Greece's Physical Setting
- Focus on Greek Geographers:
- Eratosthenes
- Strabo
- Ptolemy
- Greek Contributions to Modern Geographic Practices

Geographical Tour: A Tour of Empire

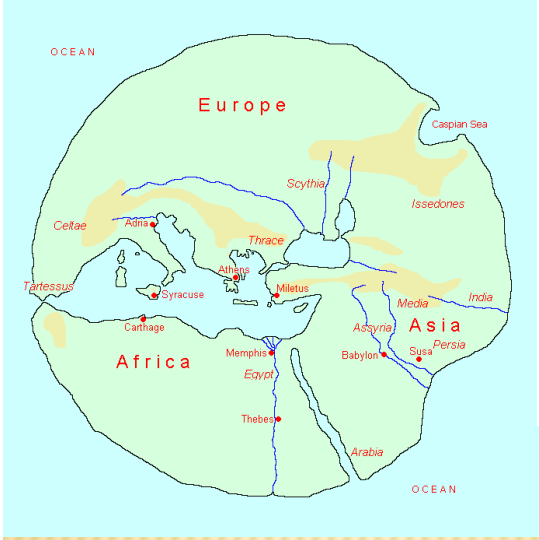
Aswan (Syene)

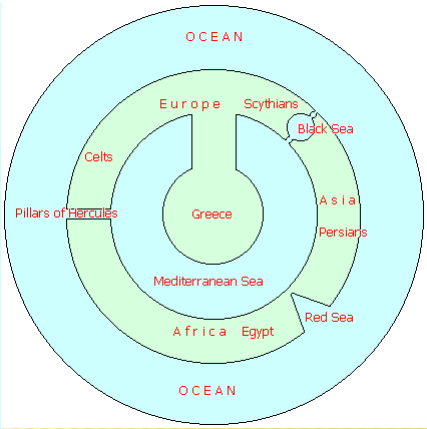
BACKGROUND

- Greeks were generally "universal scholars" (polymaths): at once philosophers, historians, physicists, political scientists, mathematicians, biologists, geographers, etc.
- Lack of disciplinary boundary lines
- Geo/graphia: to write about/describe the Earth
- Geography is a "synthesizing" field. Greeks were also great synthesizers of past/contemporary knowledge

GREEK GEOGRAPHIC THOUGHT IN CONTEXT

- Originally believed the Earth was flat, yet round (until Pythagoras discovered Earth's sphericity)
- Ethnocentric worldview: Greece was center of the universe (Greeks vs. Barbarians)
- Homer's "Odyssey": a geographic account of the fringes of the known world (8th century B.C.E.)





World Map of Hecataeus of Miletus (5th century B.C.E.)

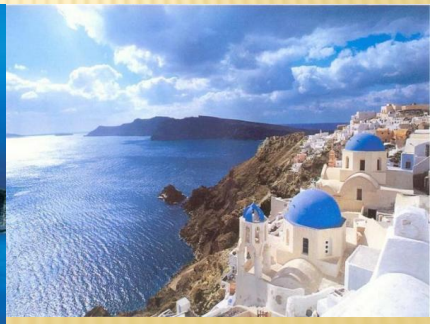
-River Ocean running clockwise on Earth's perimeter

-Mediterranean Sea: split the world in half

Tower of the Winds (Athens): Indicating the 8 wind directions
-Also served as a clock tower (with sundial)
-Examples-Boreas: north wind-strong, cool, clear skies
-Zephyrus: west wind-balmy, gale force

GREECE'S CORE PHYSICAL SETTING

- Balkan Peninsula-mountains/island-groups
- Fragmented Geography-limestone soils
- Maritime-oriented societies

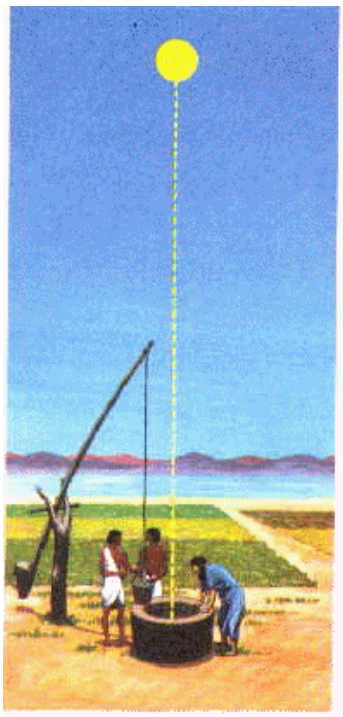


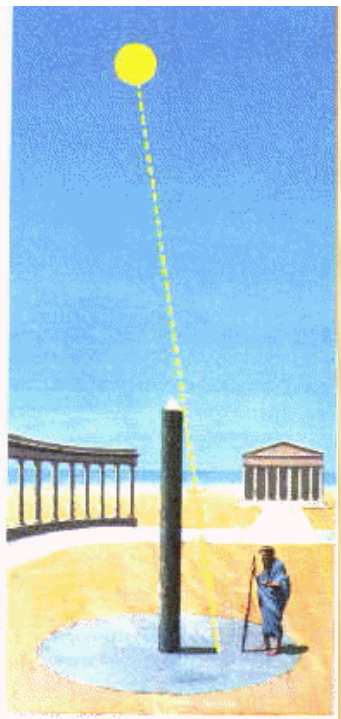
ERATOSTHENES (276-196 B.C.E.)-CYRENE

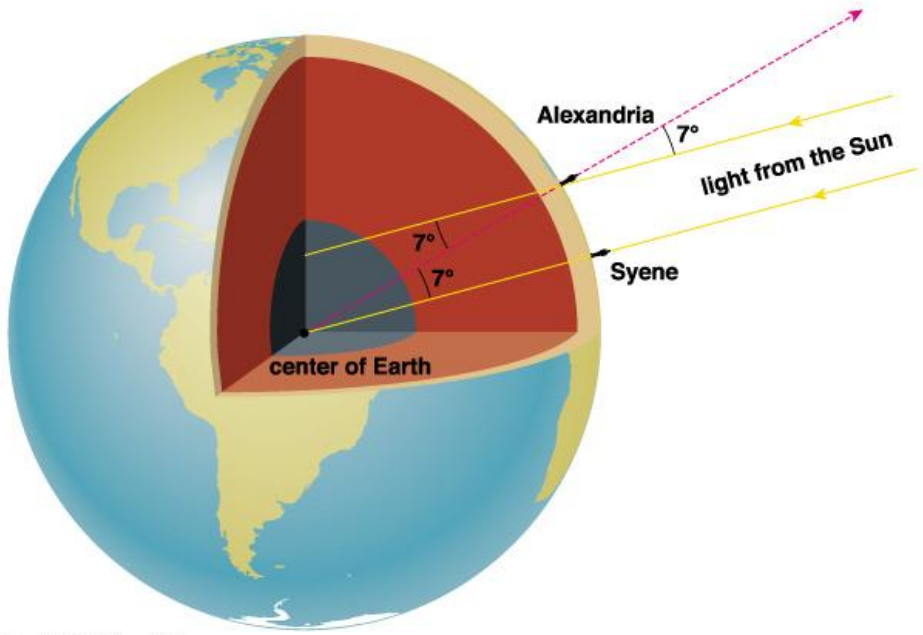
- The "Father of Geography":credited with coining the term
- Served as chief librarian in Alexandria museum
- Accurate calculation of Earth's circumference

  -His calculation: 25,000 miles in circumference

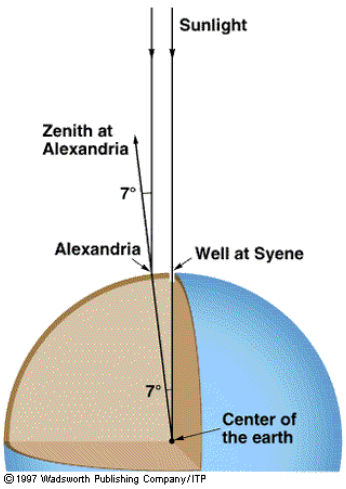
  -Actual circumference: 24,860 miles



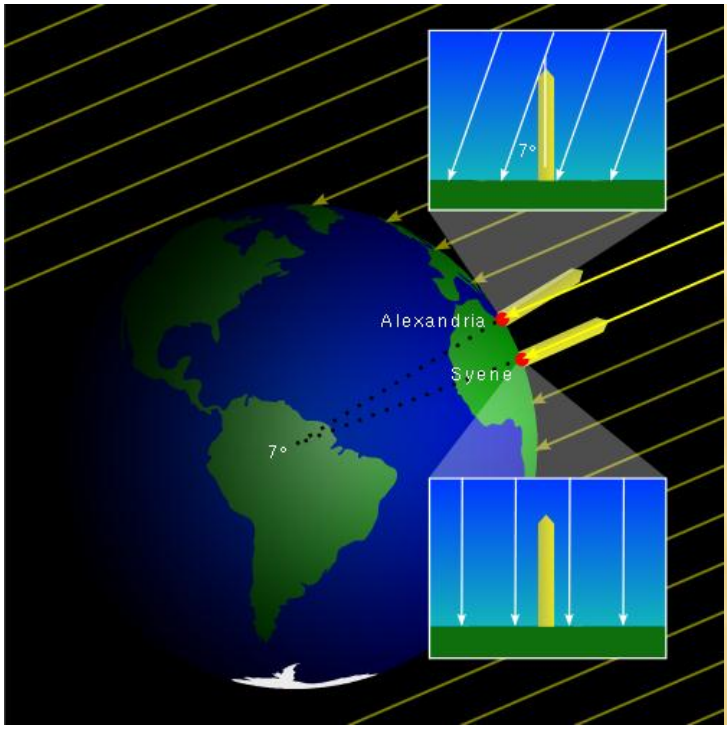


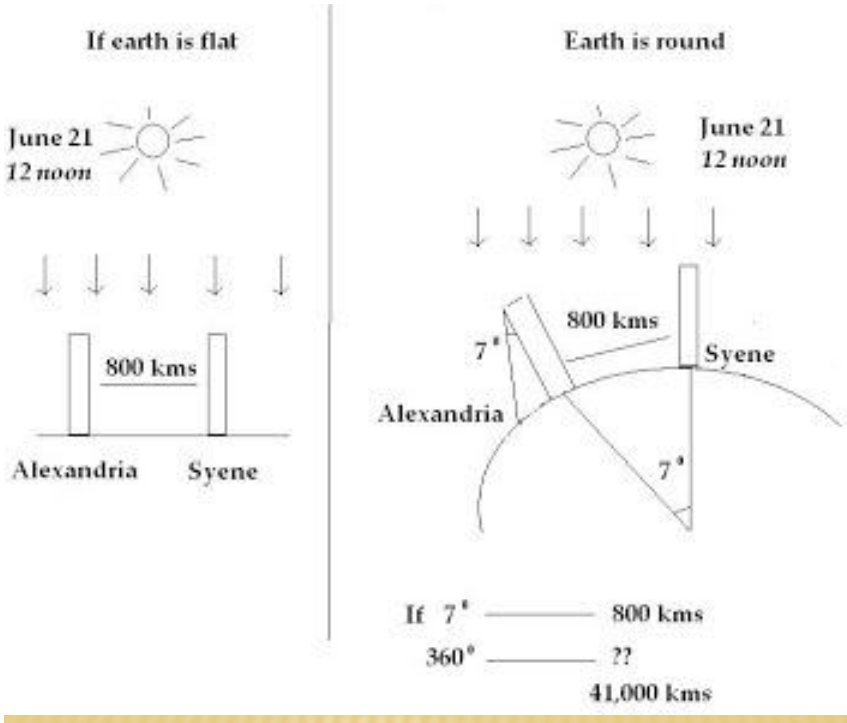


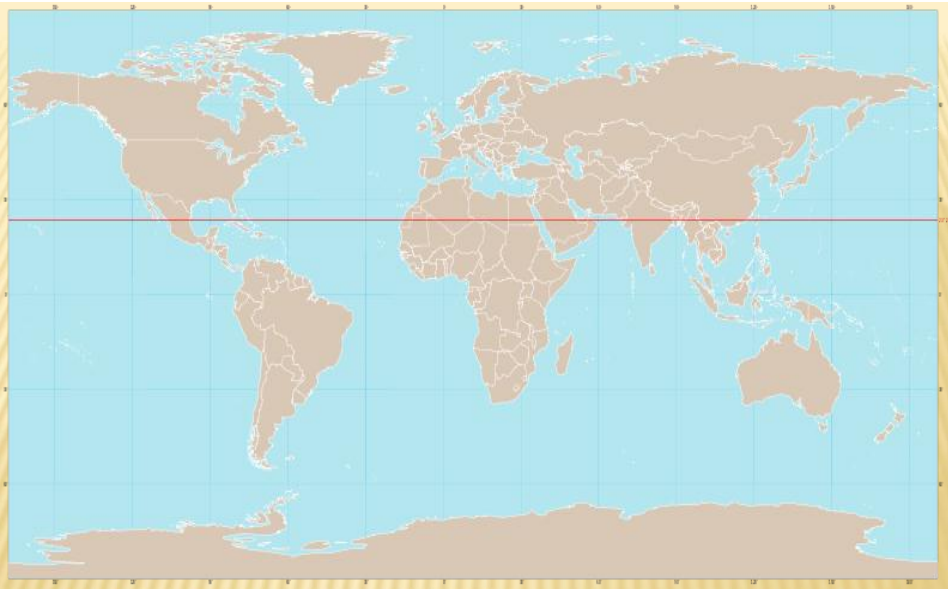
Earth's Circumference Calculated in 200 BC



Caption: On the day of the summer solstice, sunlight fell to the bottom of a well at Syene, but the sun was about one–fiftieth of a circle (7 degrees) south of the zenith at Alexandria. This told Eratosthenes that the distance from Syene to Alexandria was one–fiftieth of the circumference of the earth. Thus, he was able to calculate the radius of the earth.


7°
Alexandria
Syene
7°


If earth is flat
June 21
12 noon
800 kms
Alexandria
Syene
Earth is round
June 21
12 noon
800 kms
7°
Syene
Alexandria
7°
If 7° ——— 800 kms
360° ——— ??
41,000 kms



Tropic of Cancer: @23.5 degrees N. Latitude

ERATOSTHENES (CONT.)

- Prepared a world map using lines of Latitude and Longitude (his “prime meridian” ran through Alexandria)
- Extended the “ecumene” (oikoumenē): the habitable portion of earth

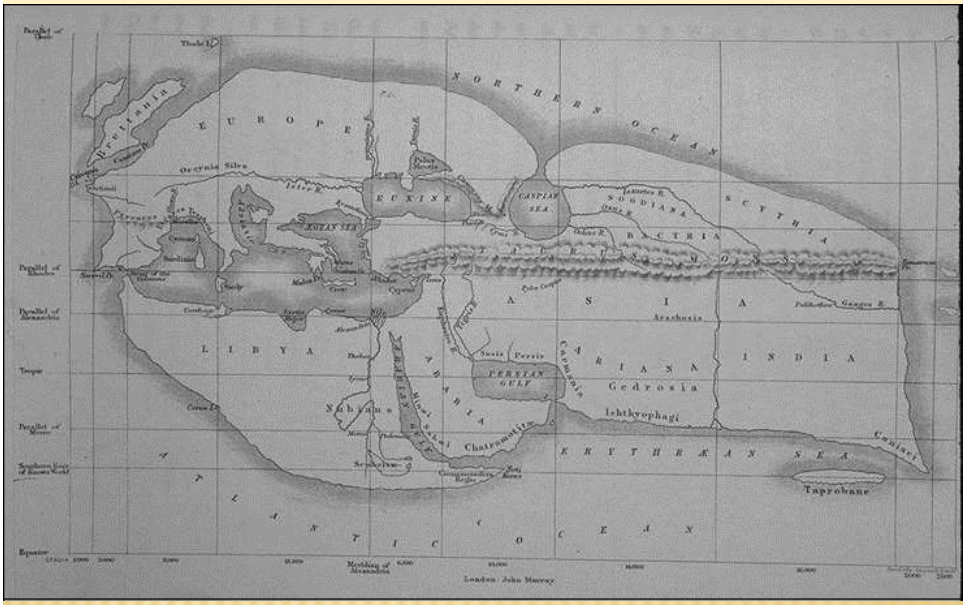
  -He identified 5 zones of “habitability”: torrid (tropics), two temperate & two frigid

  -Meaning of oikoumenē has changed over time

Strabo (63 B.C.E.-21 C.E.)- Amasya (Pontus)

STRABO

- Geographer, Historian, Philosopher
- His principal work entitled, “The Geography” (17 volumes)-8 books devoted to Europe, 6 to Asia and 1 to Africa
- Compiler of earlier Greek geographic work
- Much of his work is descriptive in nature
- Geographical determinism: culture groups ascribed characteristics based on locational “attributes”



Strabo's World Map ca. 18 A.D.

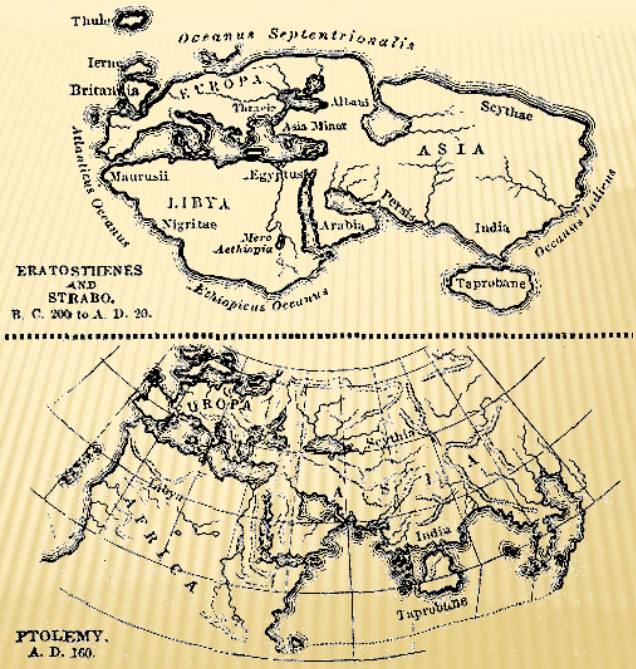
PTOLEMY (83-161 A.D.)-ALEXANDRIA

- Astronomer, mathematician, geographer, physicist
- Also worked at library of Alexandria
- Ptolemy was the "bookend" of ancient geographic thought

PTOLEMY

- "Guide to Drawing Maps of the World" (Geography)-8 volume work

  -the world's first comprehensive "Gazetteer" (geographical directory/dictionary)
- Assigned coordinates to all included places
- Used a line through the Canary Islands as his prime meridian and equator at 0 degrees Lat.



GREEK IMPACTS ON MODERN GEOGRAPHY

- Great influence in the cartographic arena: study & practice of map making
- Map Projections: the need to compensate for 3D on a flat surface
- Mathematical Location: Concepts of Latitude & Longitude
- Historical Geography: drawn from descriptions of Strabo and others

ENVIRONMENTAL AWARENESS

- Traces on the Rhodian Shore: Clarence Glacken

  -Greeks made reference to climate change due to human agency:

  Theophrastus: draining of a large marsh led to disappearance of olive trees due to colder local temps

  Eratosthenes: noted the negative impact of timber clear cutting on Cyprus for fuel and agricultural expansion

Temple of Hera (Sicily)