# *Math 1010: Introduction to Mathematics*

- Geometry of our Earth and Universe
- Personal Finance
- Consumer Statistics
- What is Mathematics?

- what mathematics is
- what it has to offer and why it is useful
- diverse ways that people succeed in and impact it
- truth & consequences (and unintended consequences)
- diverse perspectives & disciplines, including local to global
- critical and creative inquiry
- full gened Quantitative Literacy (QL) credit

# *Grading and Policies*

- Participation 10%
  attendance ($>$ 6 days=F), hw, class activities, office hours, ASULearn
- 4 Projects 30%
- 3 Tests 45%
- Final Research Presentation 15%

No late work, but lowest problem set and lowest test is dropped and accommodations for emergencies with documentation.

- Work due start of class (can send it with another student)
- under my office door sometime before I leave for class
- or even turn in on ASULearn if need be, but I prefer printed

# *Where to Get Help*

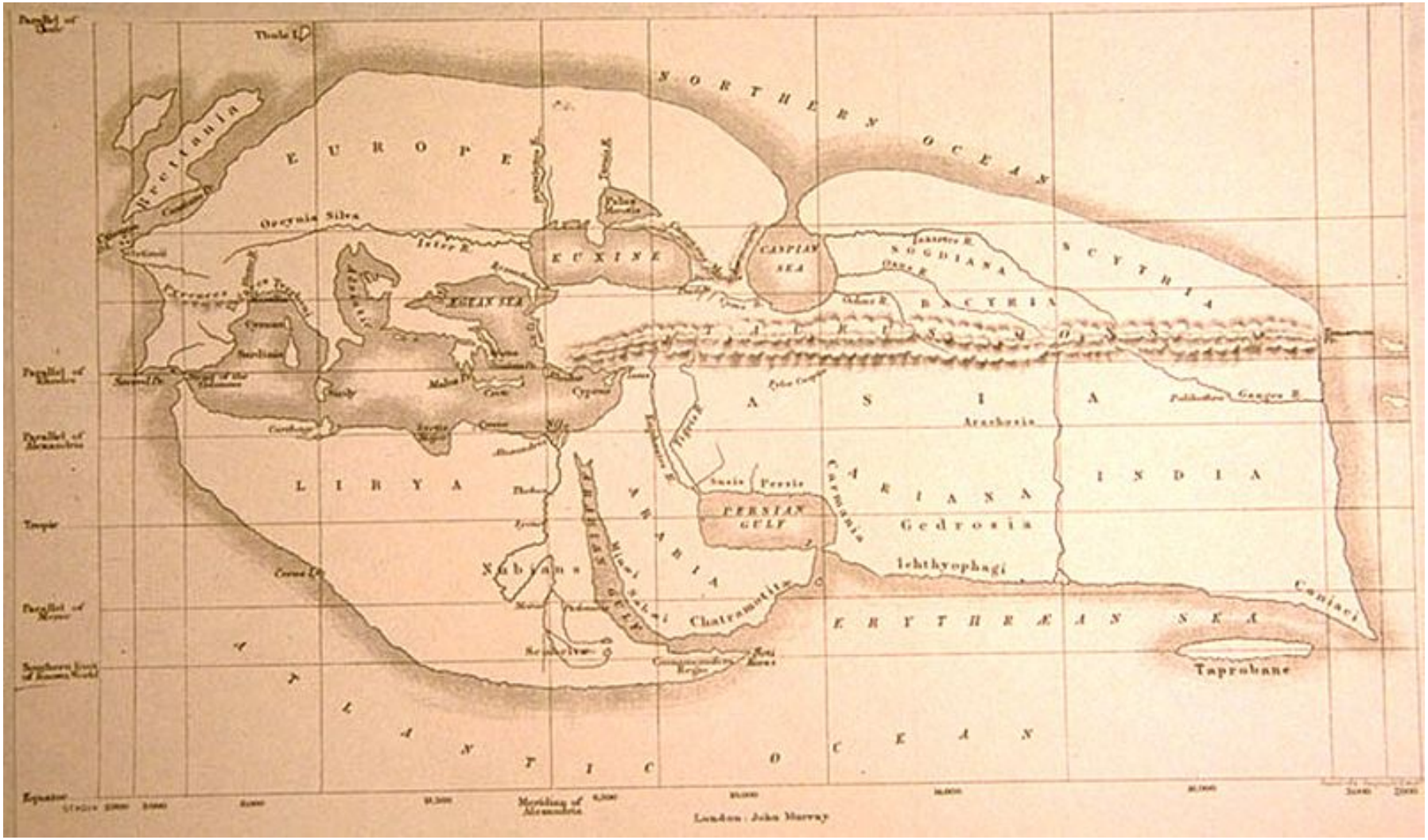
- Class
- Office hours
- Math lab
- Google *Dr. Sarah* for course calendar
- ASULearn (Discussion Forums)

I care about you and your success!

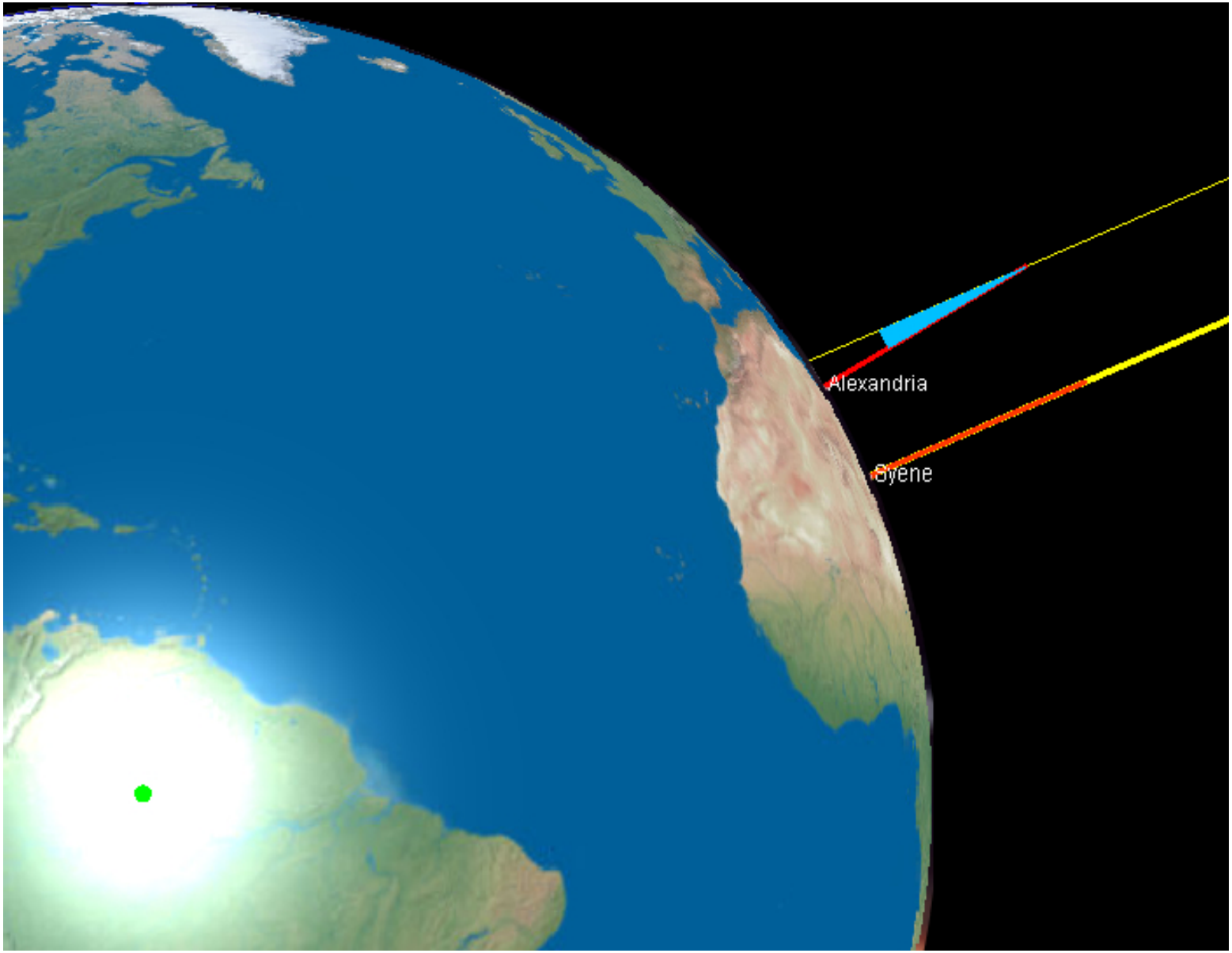
# *Discussion Question*

How could we know that the earth is round without using modern technology from the 20th or 21st centuries?

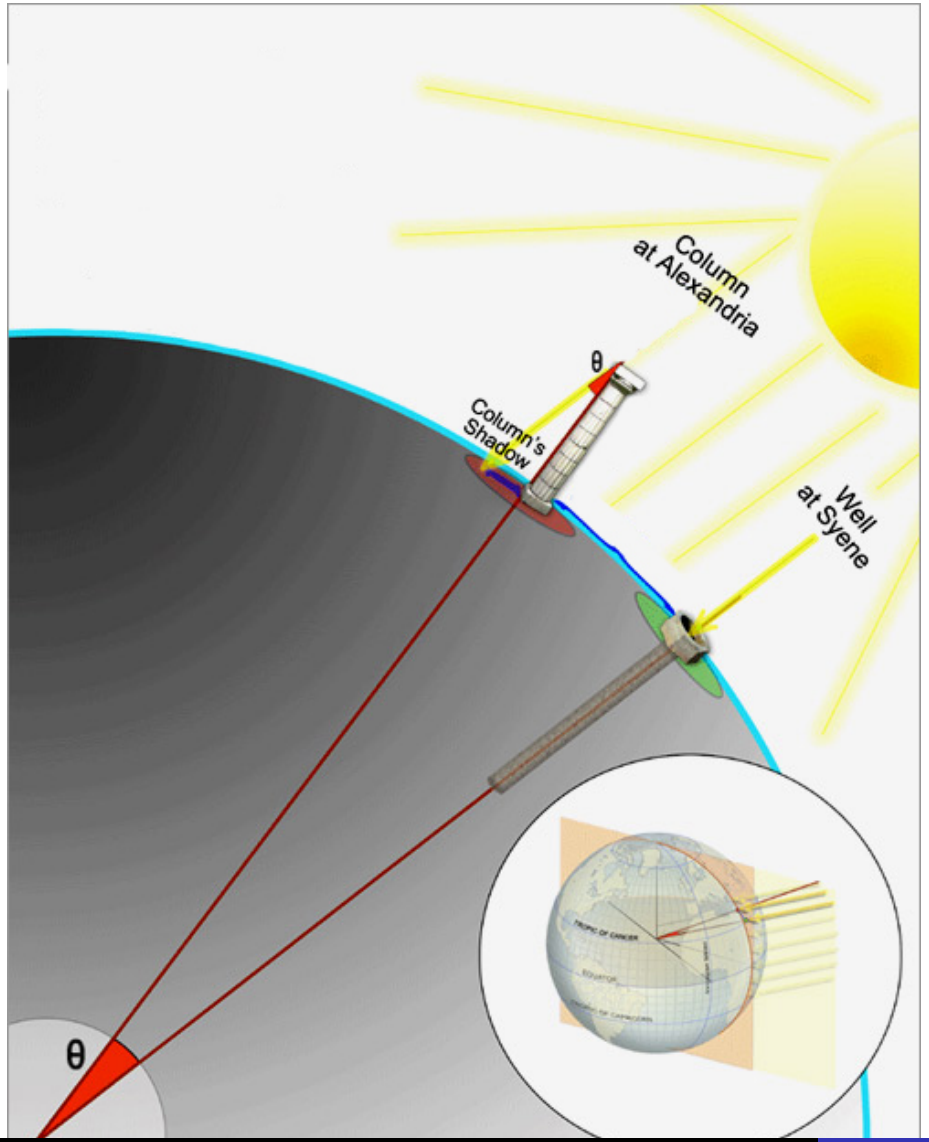
# Eratosthenes' (~276 BCE – ~195 BCE) View of the Earth



# *Eratosthenes' Data*



# *Eratosthenes Thinks Big (Globally!)*



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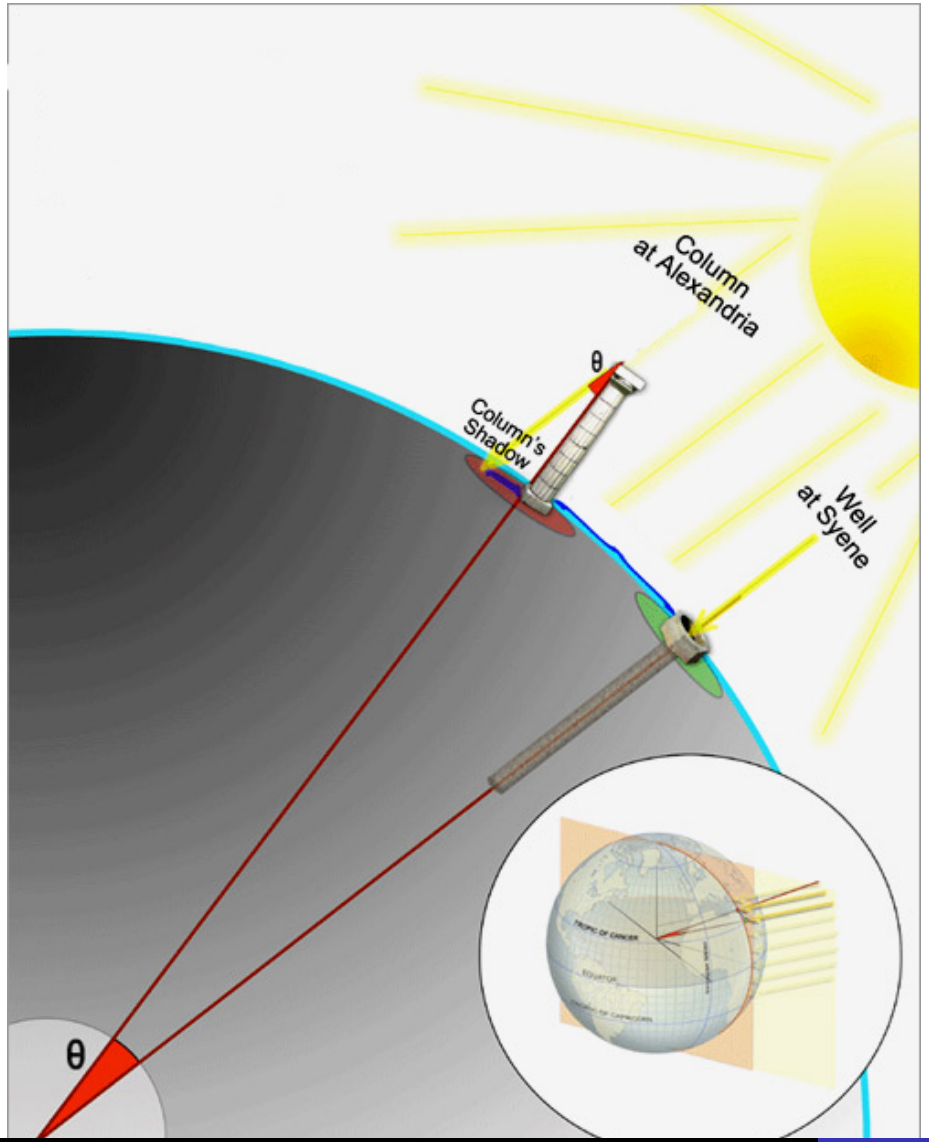


$$\frac{7.2^\circ}{360^\circ} = \frac{5000 \text{ stadia}}{\text{circumference}}$$

# *Local to Global: Multiple Perspectives*

 How could we know that the earth is round without using modern technology?

Geography
Philosophy
Physics & Astronomy
Mathematics
History
Navigation
Weather

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Not everyone is convinced: flat earth society