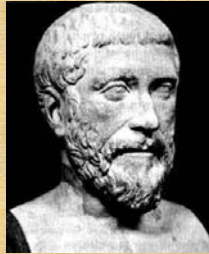




Pyramids to Pythagoras

**SURVEYING FROM
EGYPT TO GREECE**

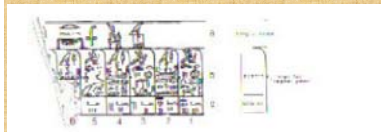
3000 B.C. TO 100 A.D.



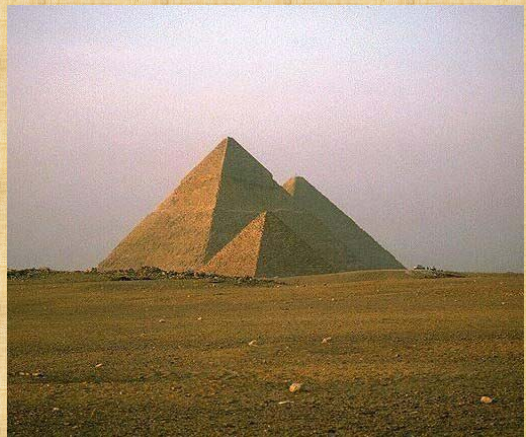
Pompeii 79 A.D.



PALERMO



STONE



2. THE COUNCIL AND OVERSEER OF BUCHAMELL, SETY, AND HIS WIFE
From *Lebanon*, about 1700 B.C., *Monks*, 21, 12 and 13 in.

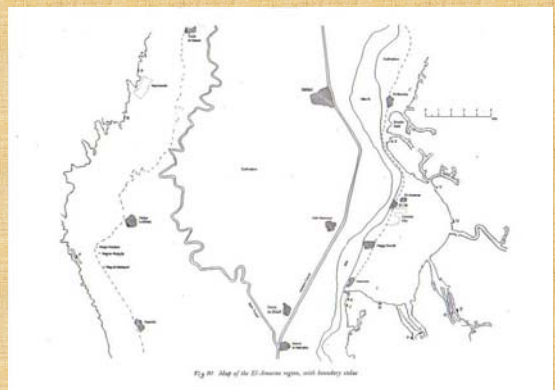




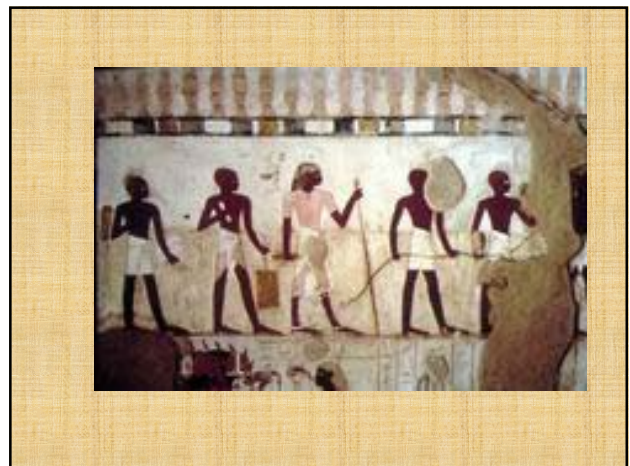
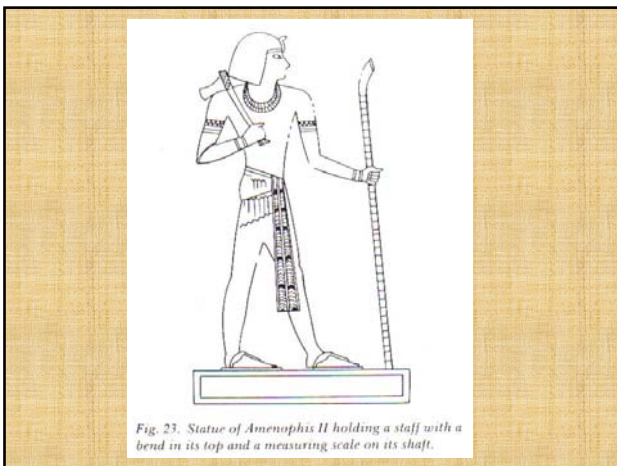
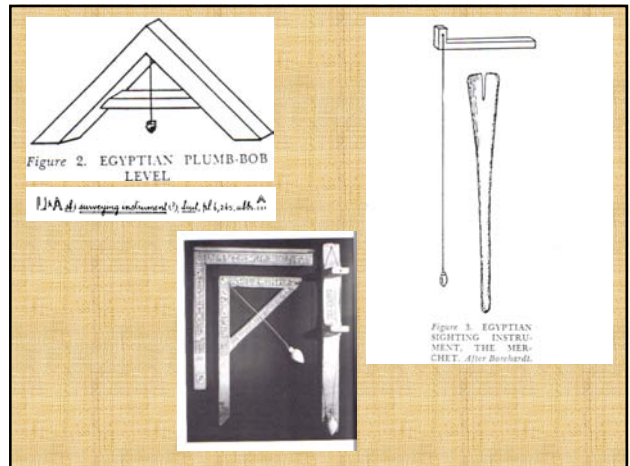
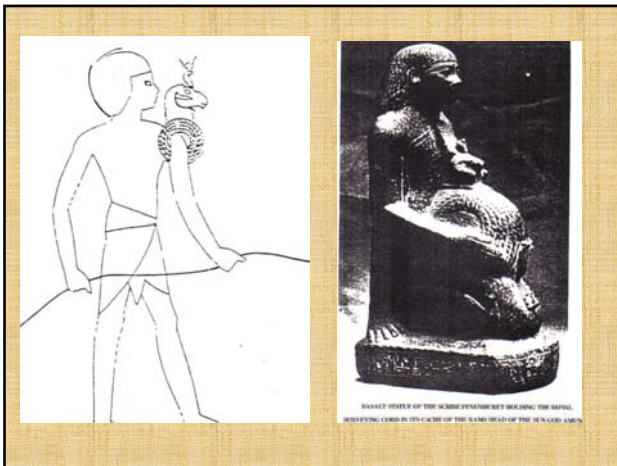
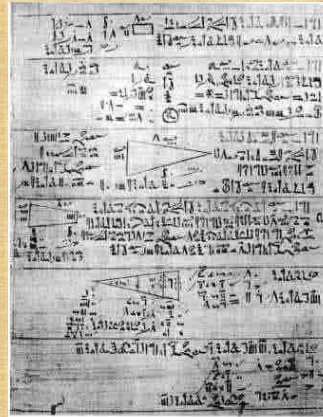


Fig. 40. Map of the Nile River region, with boundary lines.



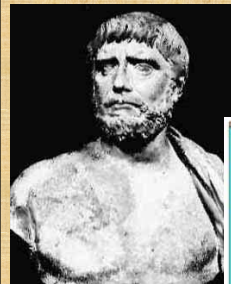

 mh cubit, varr. , , , *fr. 5266, 2.*





THE RHIND PAPYRUS

| | |
|-----|-------|
| 1 | 89 |
| 2 | 178 |
| *4 | 356* |
| 8 | 712 |
| *16 | 1424* |
| *32 | 2848* |



OF MILETUS

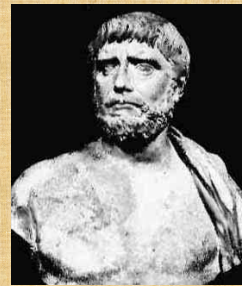
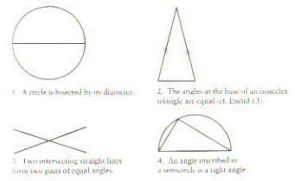


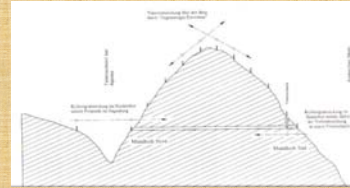
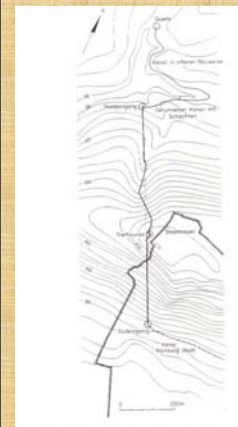
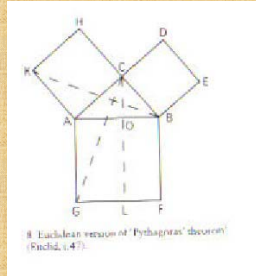
THALES

PYTHAGORAS



OF SAMOS





The Tunnel of Eupalinos - 540 B.C.



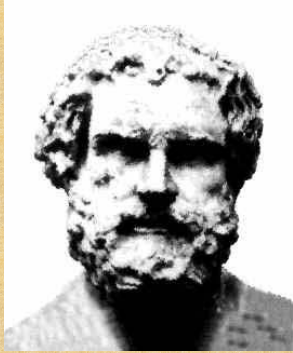
The Miletus Of Hippodamus



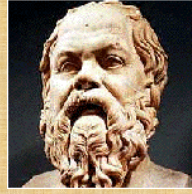
NAPLES



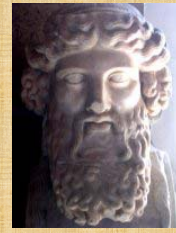

**R
O
M
E**



DEMOCRITUS



Socrates



Plato



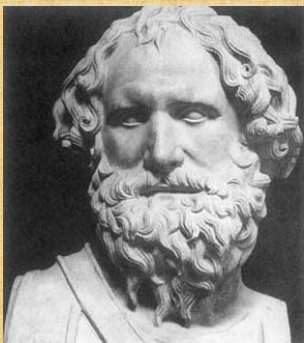
Aristotle



Alexander the Great



EUCLID



ARCHIMEDES

Apollonius





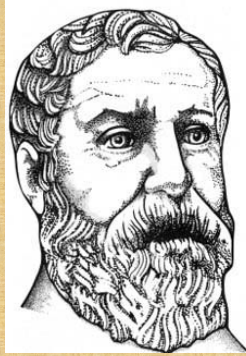
Eratosthenes

Hipparc
hus



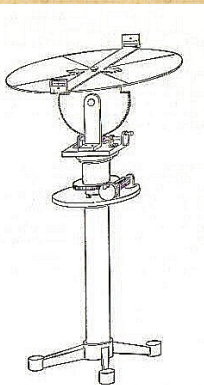
Ptolemy

HERO

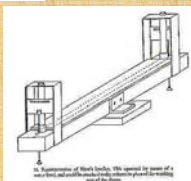
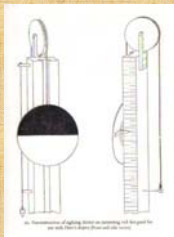


$$K = \sqrt{s(s-a)(s-b)(s-c)}$$

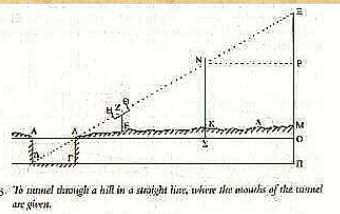
where a , b and c are the sides and s is half the sum of these sides



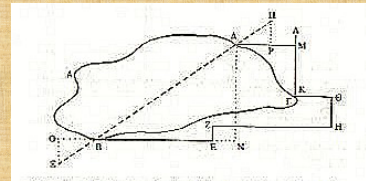
18. Reconstruction of the gnomon of Jeno of Alexandria, which could be used both for surveying and for astronomical observation.



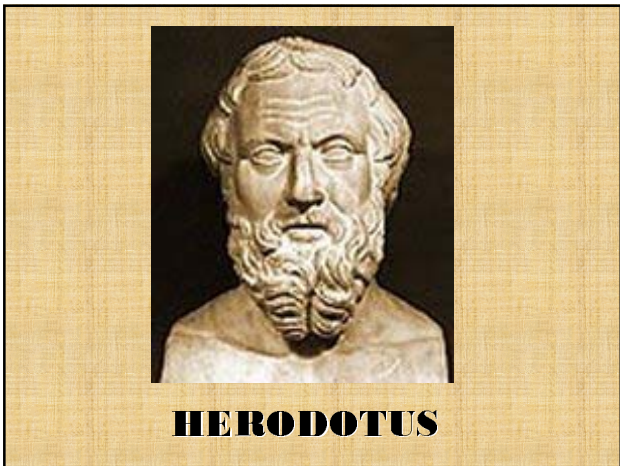
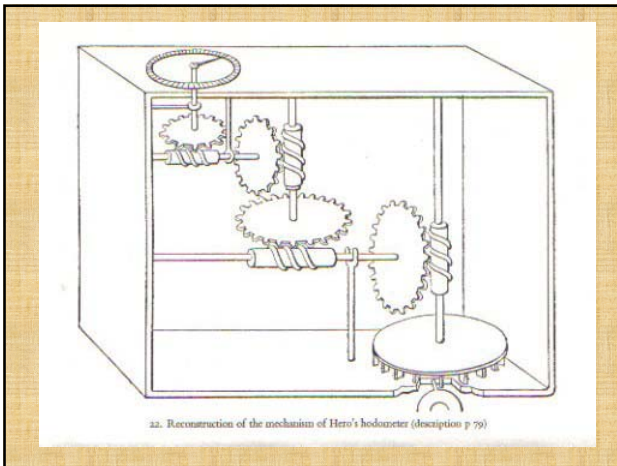
19. Representation of Hero's device. This apparatus for measuring the area of a field and the volume of a vessel is based on the principle of the Archimedes' screw.



15. To tunnel through a hill in a straight line, where the mouths of the tunnel are given.



16. To sink shafts for a tunnel under a hill, perpendicular to the tunnel.



HERODOTUS



DEDICATION

I dedicate this presentation to the people of Greece in the year that the Olympics returns to its home and to your legendary surveyors who contributed so much to your great civilisation.