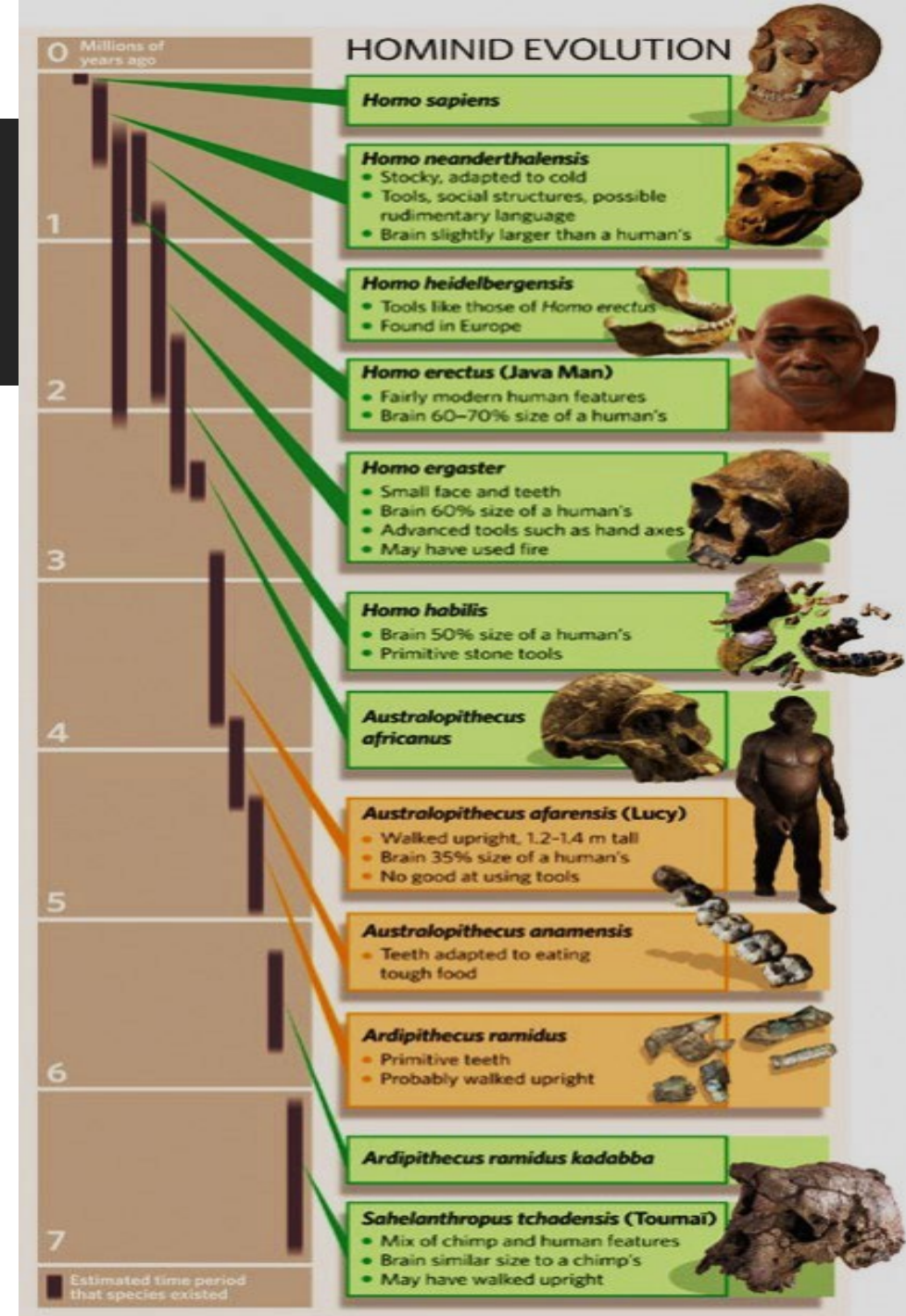


# Ancient Egypt to Rome

SWOT (Strengths, Weaknesses, Opportunities, Threats)

# Geoarchaeology

- Earth history combined with human evolution...
- Study of natural resources as a basis for the interpretation of landscape evolution, climate change and the human modifications.

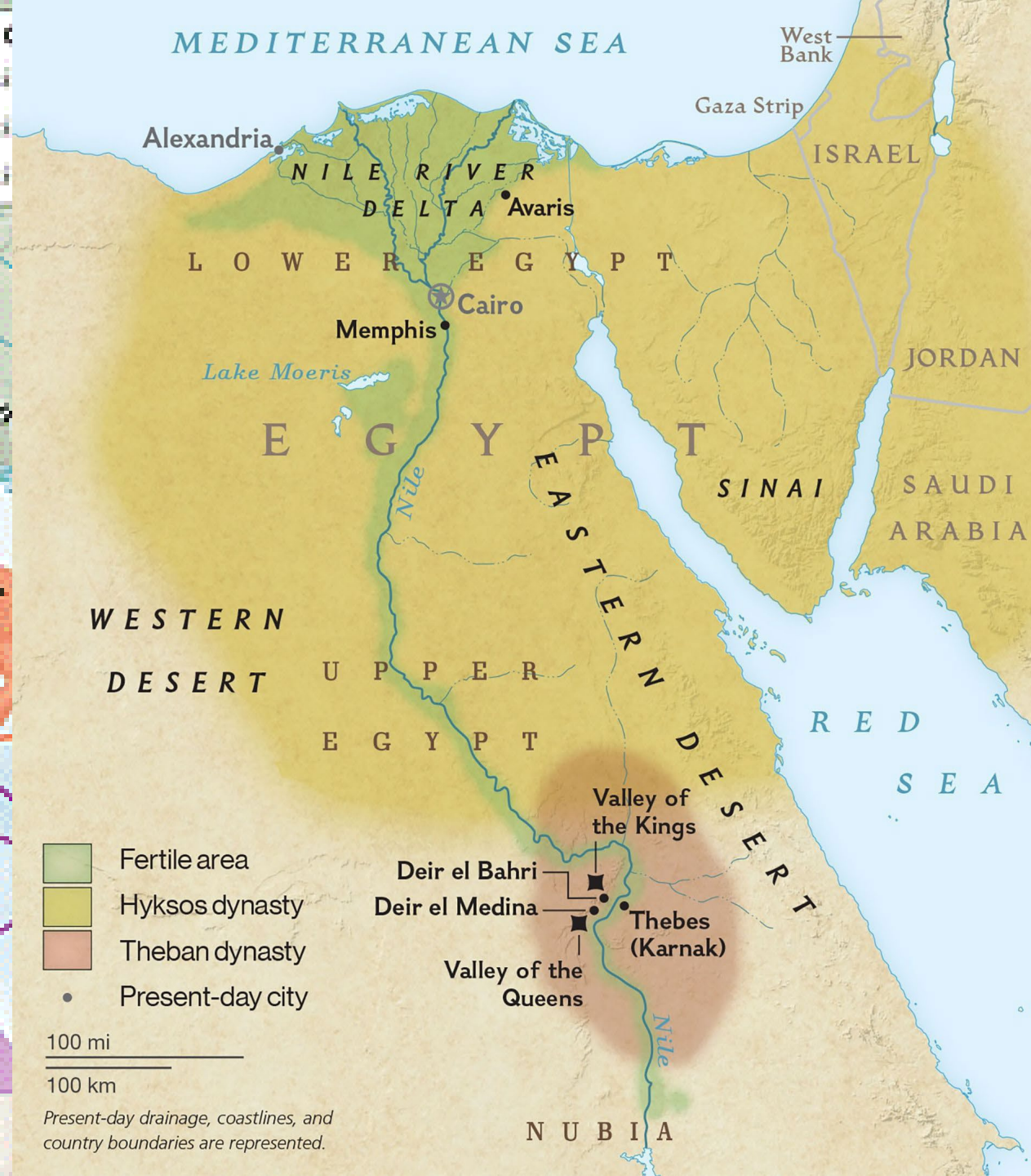
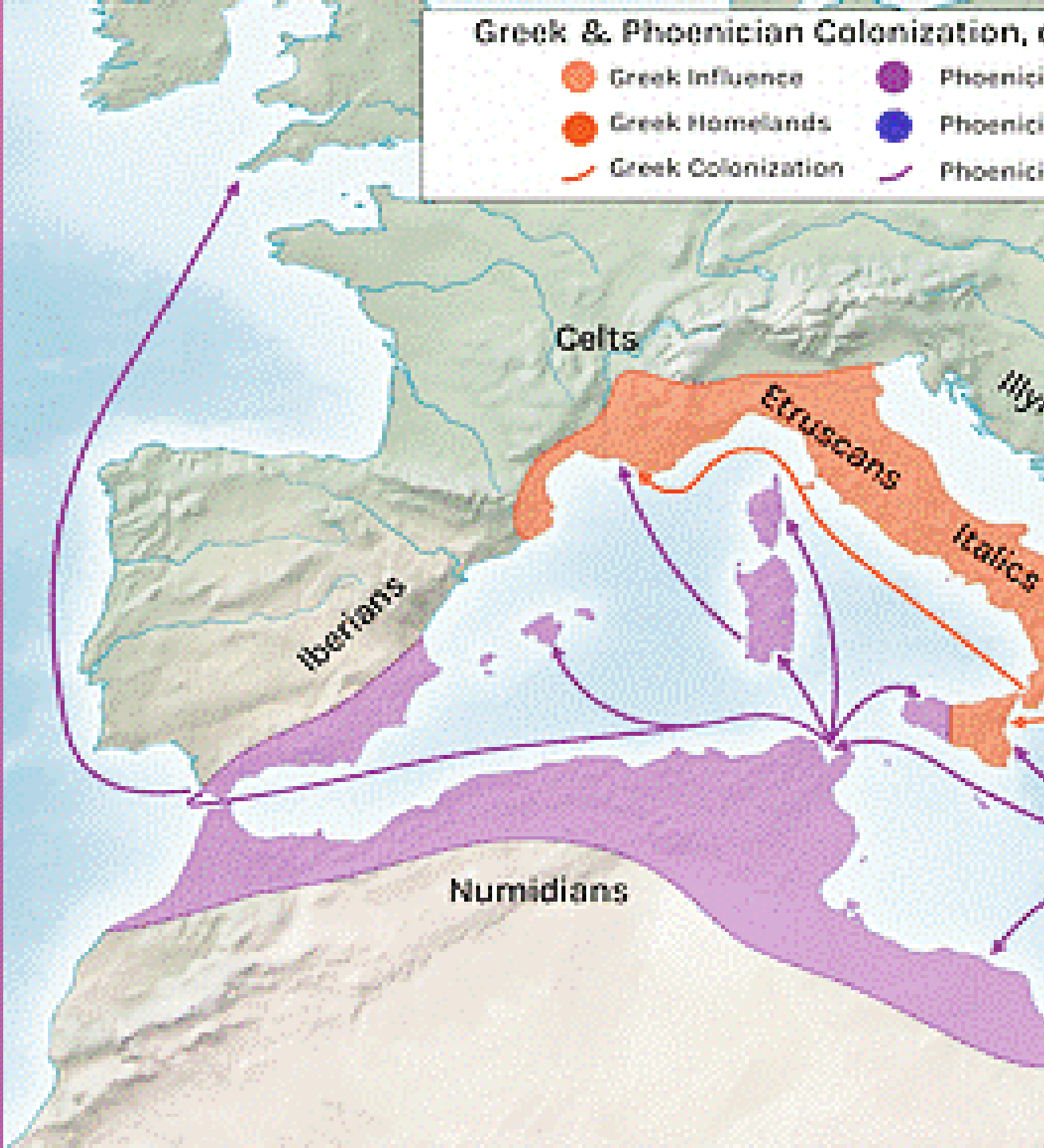




# Ancient Egypt & Natural Resources









# Hieroglyphs



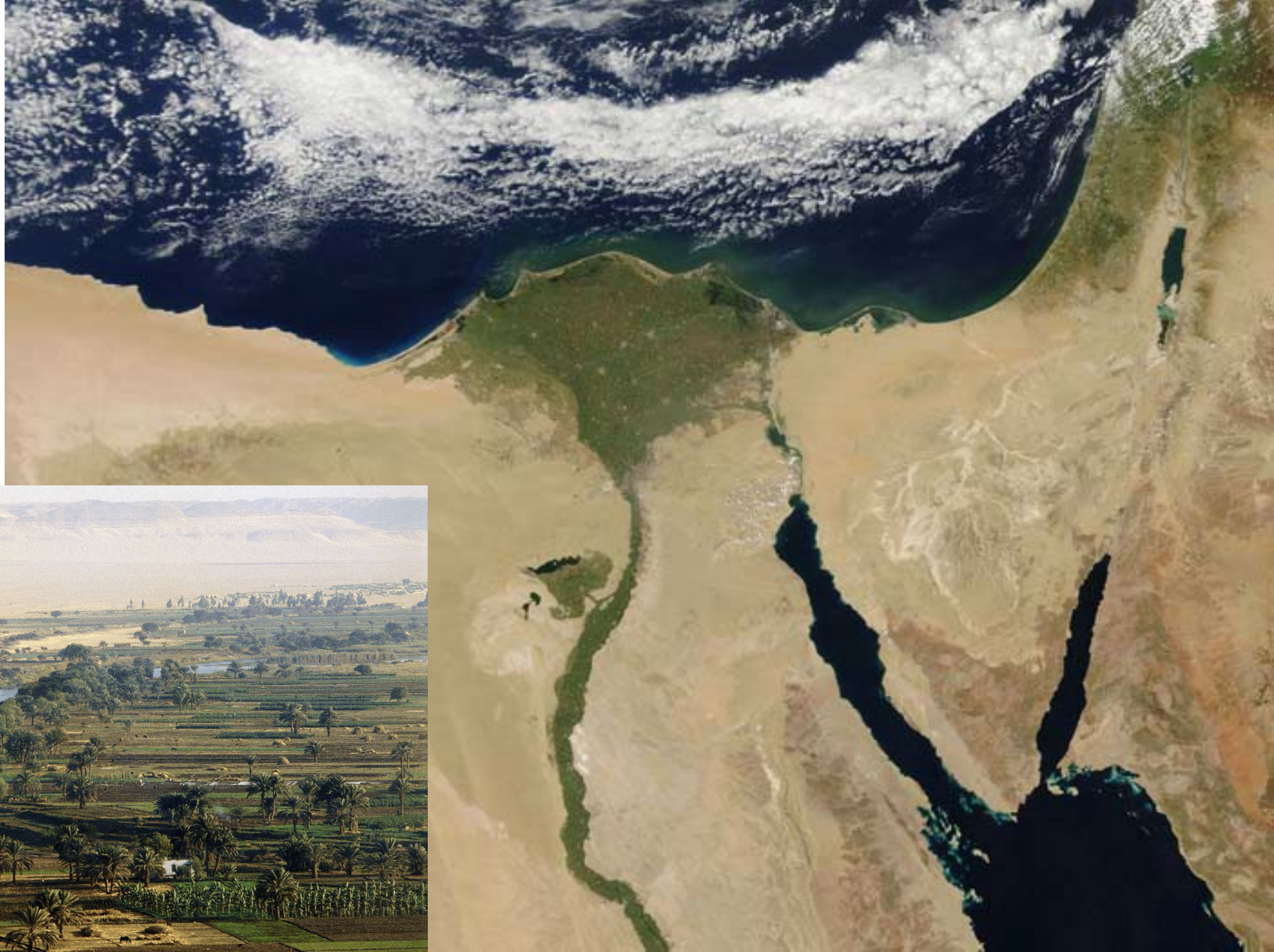


# Narmer Platte





# The Nile River





# Nilometer



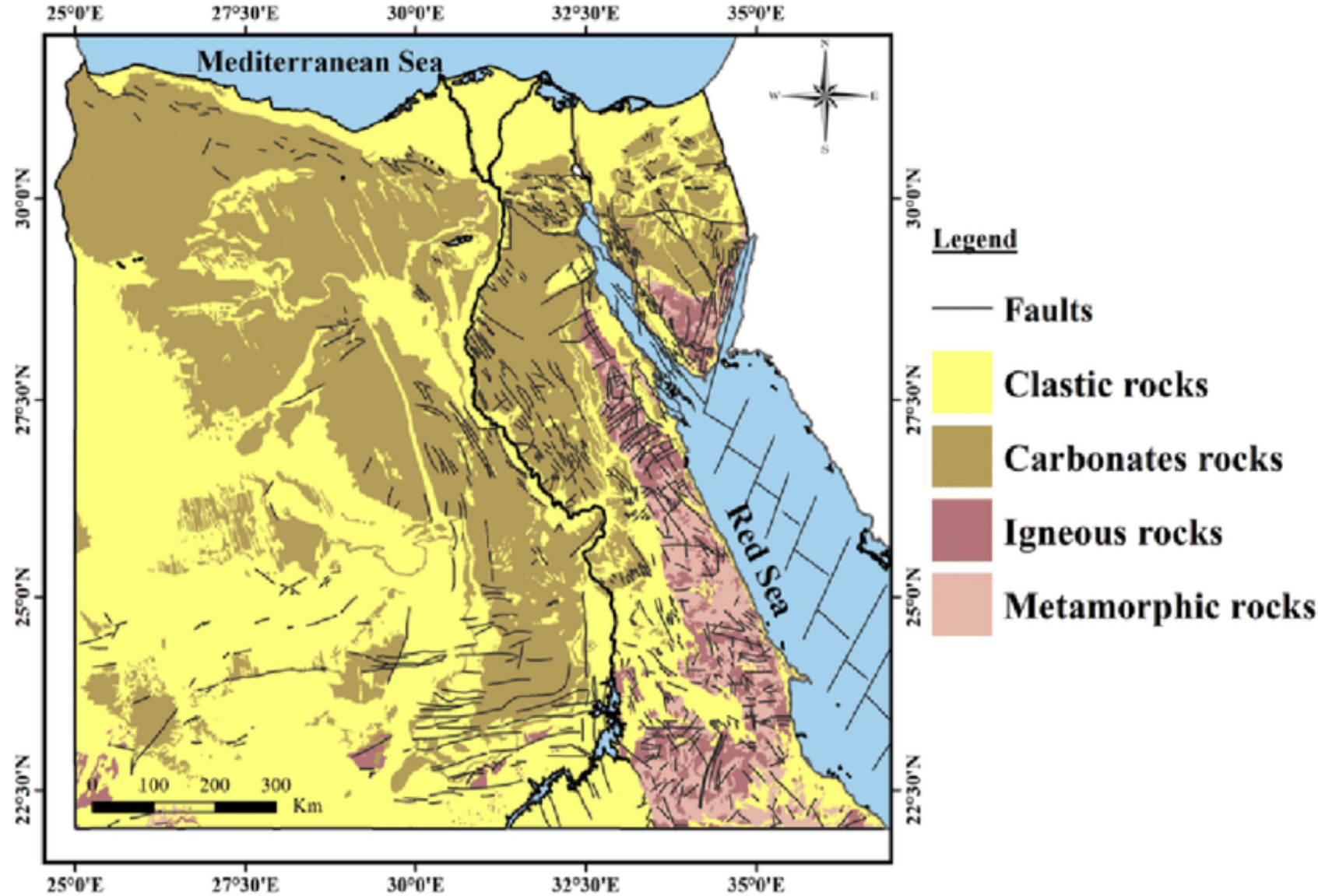


# Minerals, rocks and sediments

Building

Ornamental

Gems





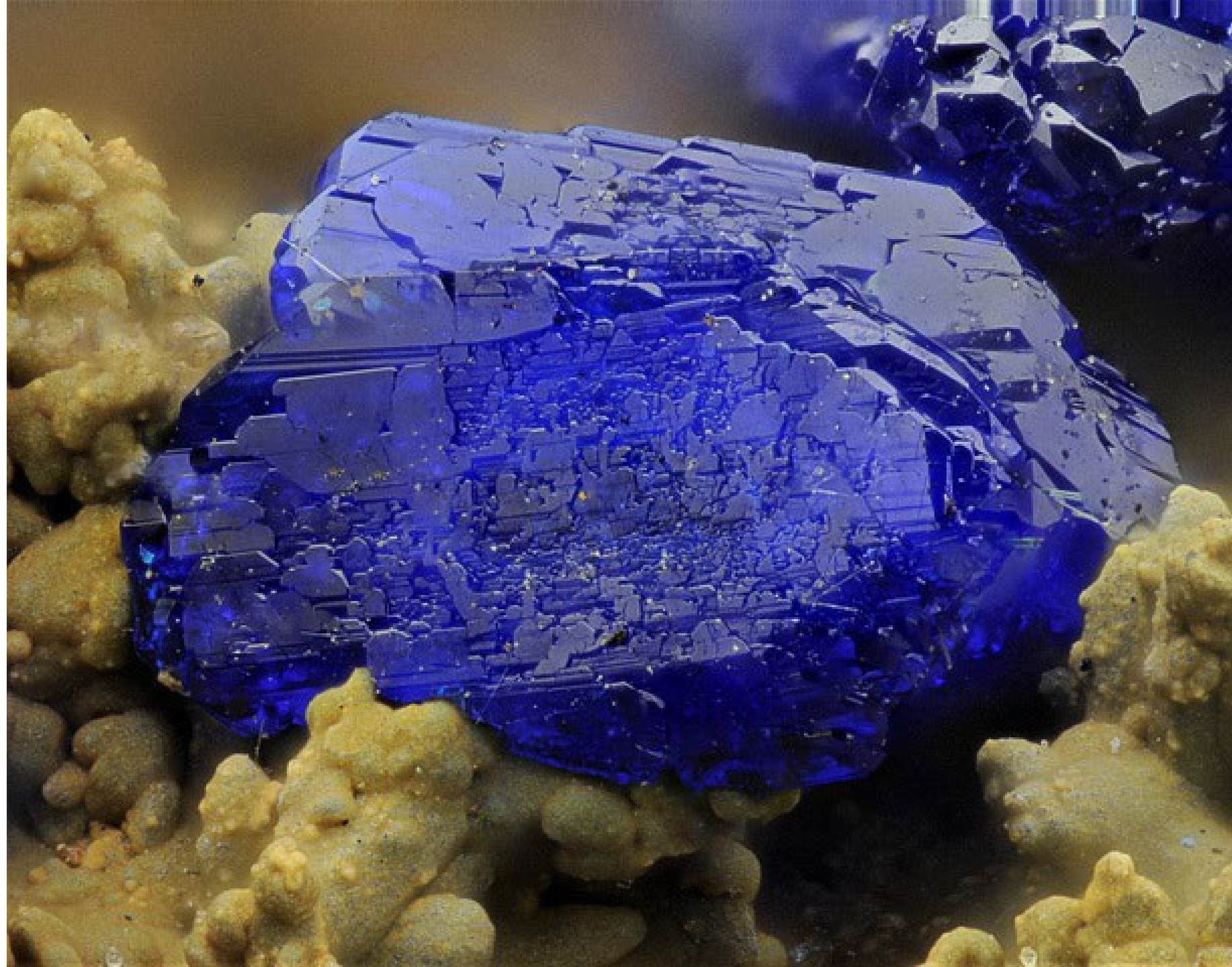




Galena



Azurite





Orpiment





# Realgar







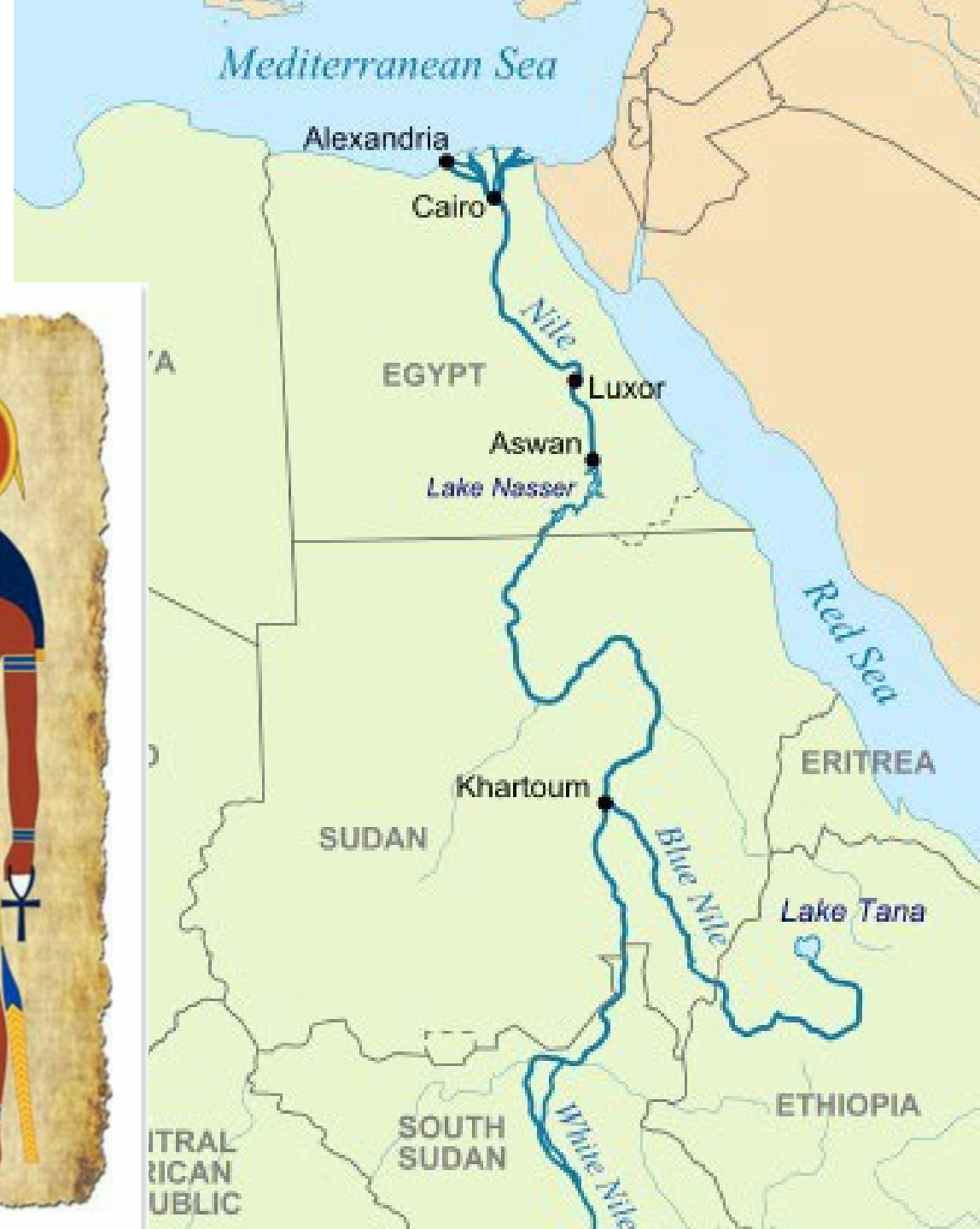
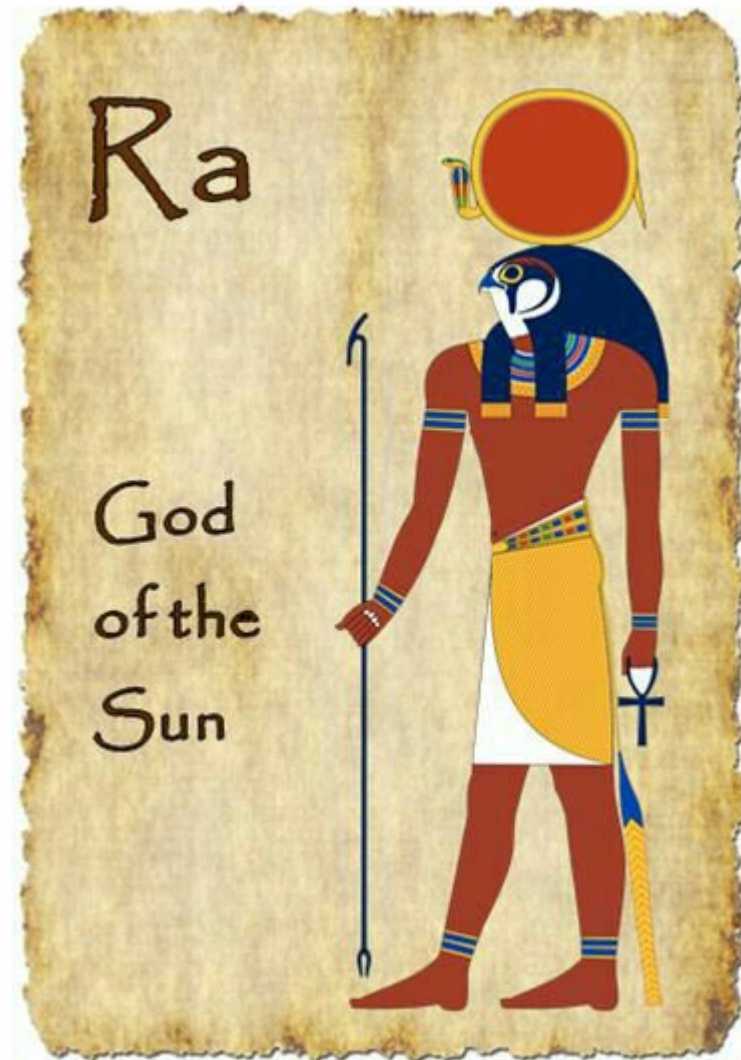


# Salt , natron





# Gold and Copper





# Egypt: S,W,O,T

## • Strengths

- Abundant resources
- Protective geography
- Predictable/stable agriculture
- Stable  
cultural/political/religious core

## • Weaknesses

- Exposure to toxins
- Average military
  - Venerable to large/skilled invaders
- Susceptible to drought
- Reliance on slave labor

*Gradually adsorbed stronger powers: Assyrians, Persians, Greeks, Romans*







# Natural Resources & Rome









# Basic dates

- Romulus, 753BCE
- The Republic, 509 – 50 BCE
- The Empire 49 BCE – 476 CE





# Tiber River







Mars



Jupiter



Quirinus



# The Roman Forum









# The Republic



**The Senate and People of Rome**

- 509 BC
- Democratic society
- Office of Tribune
- Punic Wars
- Spartacus slave revolt 71 BC
- Triumvirates
  - 1<sup>st</sup> Cesar, Pompey, Crassus 60 BC
- Julius Caesar – Declares a Dictatorship 45-44 BC







# The Empire

- Democracy ends
- 1<sup>st</sup> Augustus 27 BC
- Expansion
- Tiberious condemns Jesus to death, 30AD
- Last, Romulus Augustulus, 476 AD





# Nero 54-68 AD

- The Mad Emperor
  - Ordered the Murders of his mother, first wife and political rivals
  - Persecution of Christians
  - Great fire

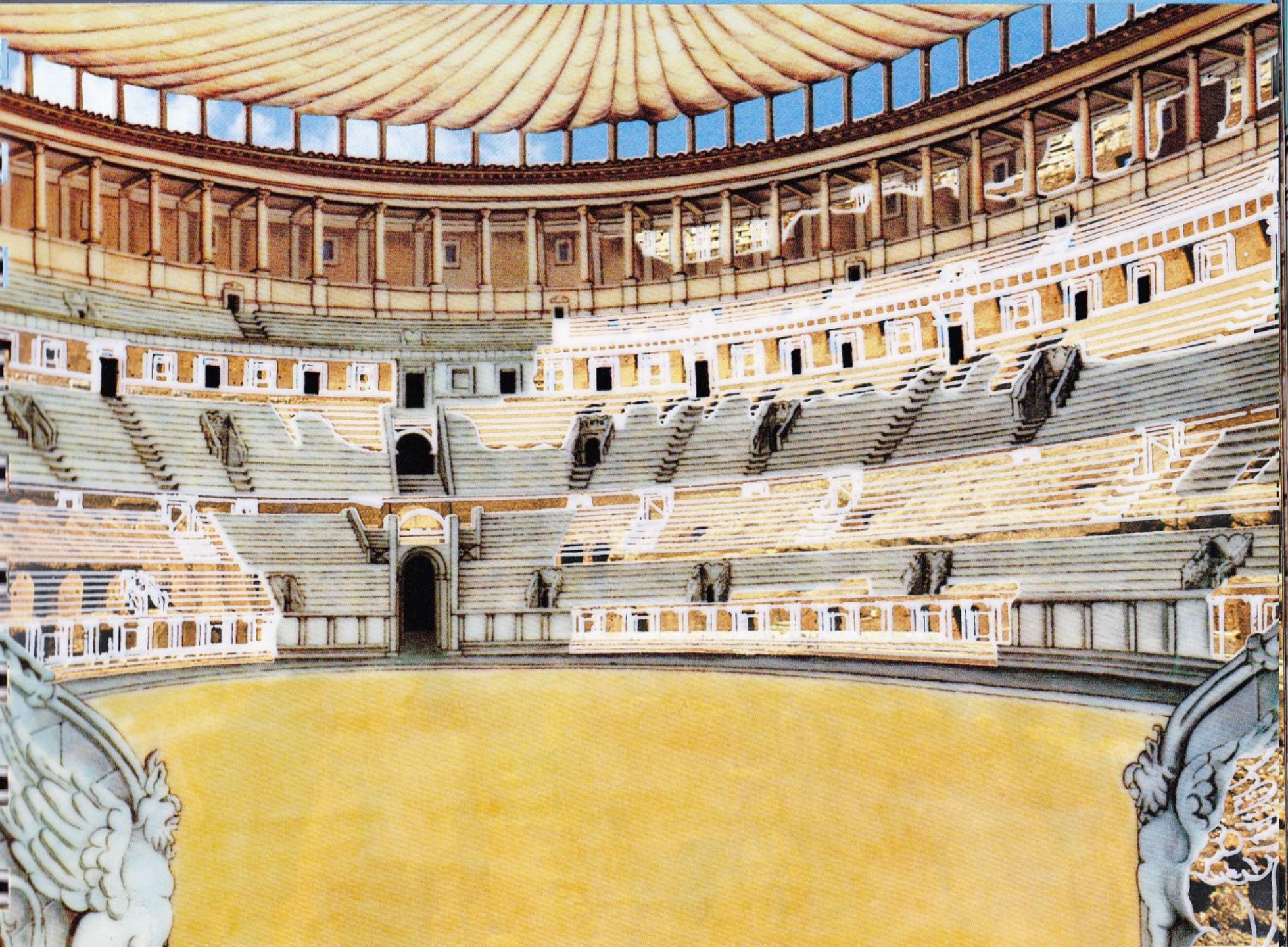




Vespasian



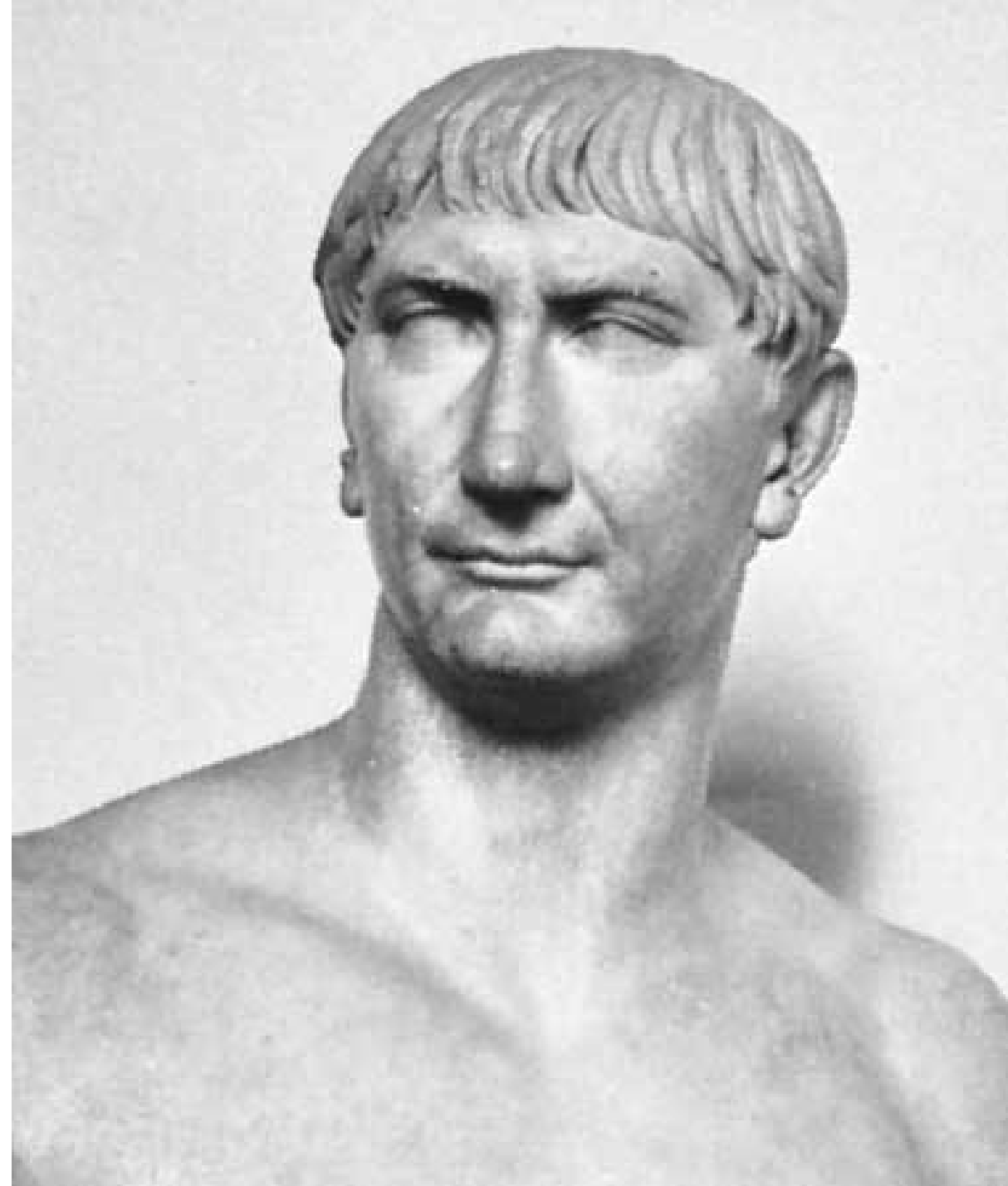






# Trajan 98-117

- Leader
- Conquered
  - Dacia/Romania
  - Jordan
- Used new wealth
  - Build infrastructure
    - New port @ Ostia
  - Helped poor





# Hadrian 117-138 AD

- Greatest Peace Time Emperor
- Wall (76 miles long, 20 ft high, 15K troops)
- Rebuilt the Pantheon
- Pedophile
- Castel St. Angelo





# Concrete

- Rubble/stone/sand/clay
- Crushed/Burnt Limestone
- Pozzolana
- Water





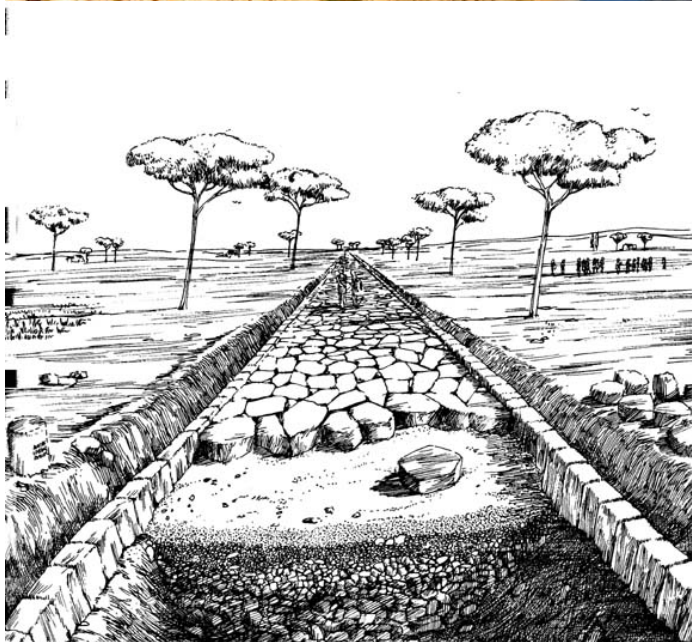
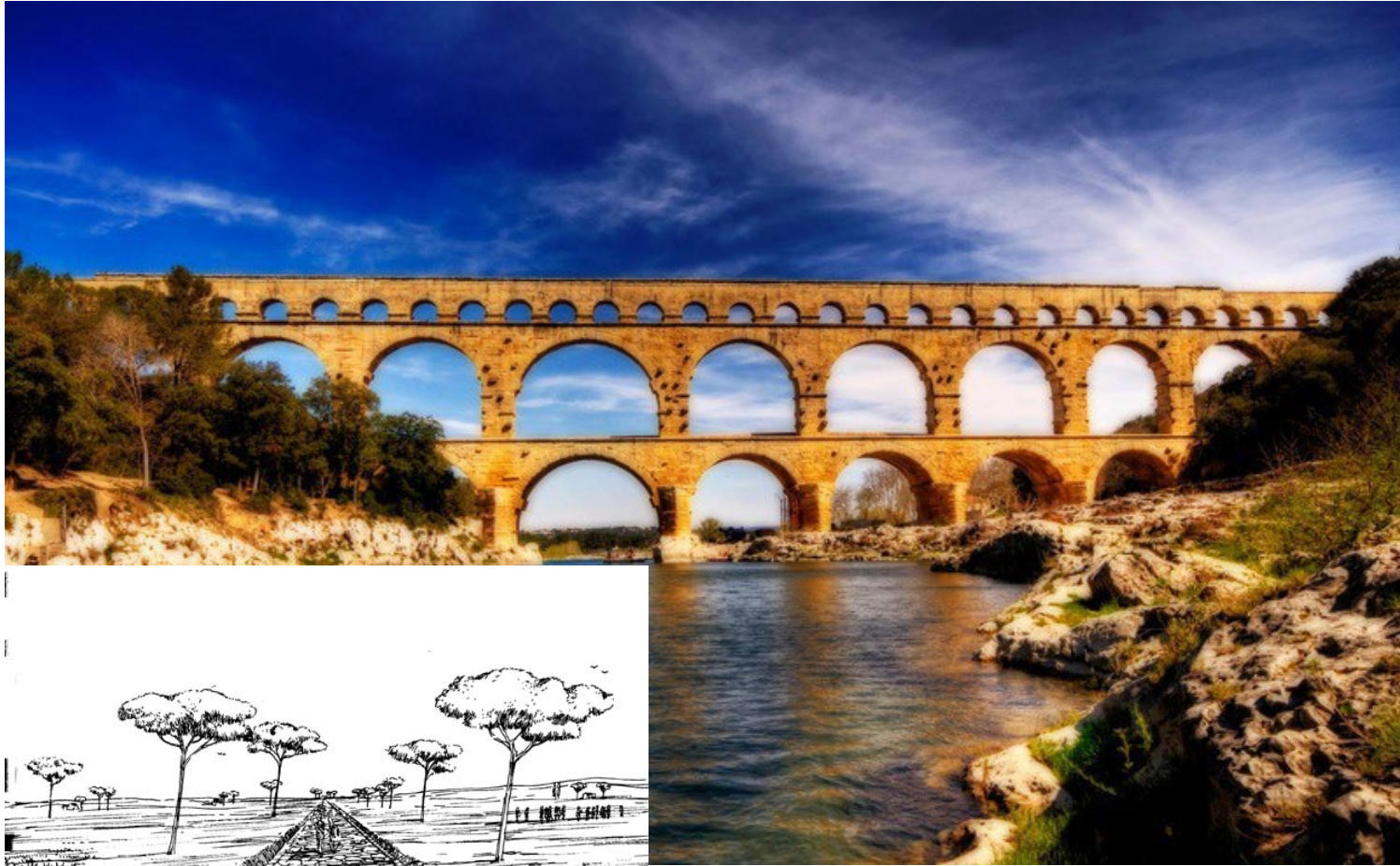
# Roads

- By 200 AD, 53,000 miles of road!





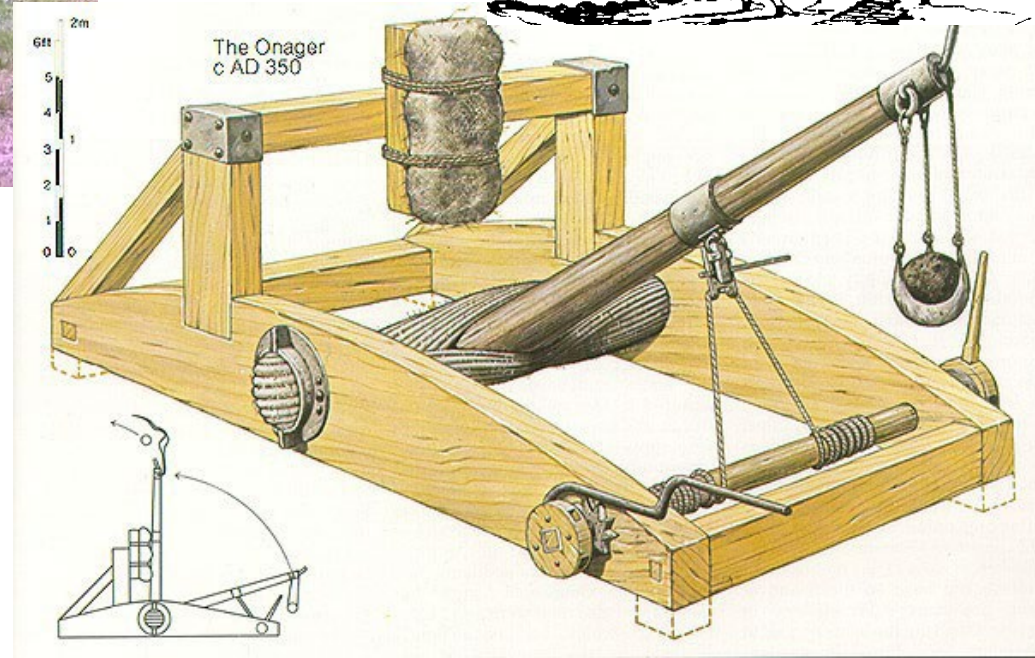
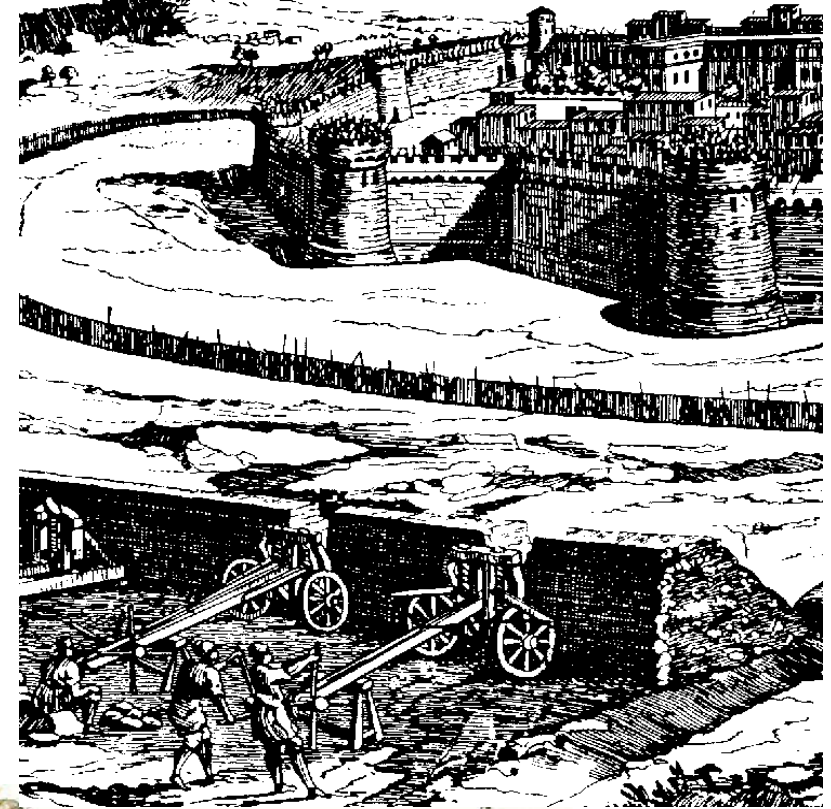
# Roman Engineering & Military







Ballista



Onager







# Domes

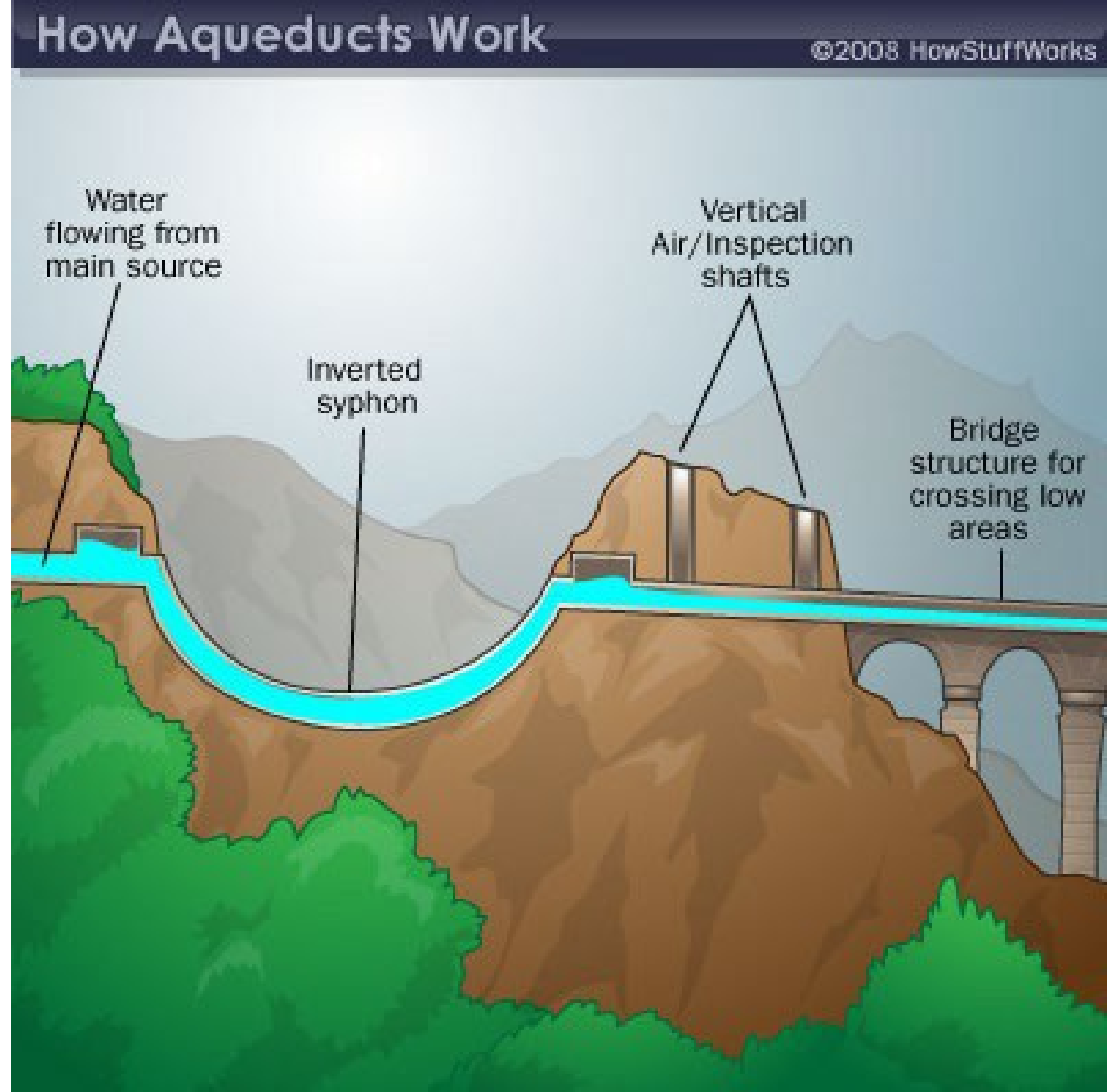








- 1<sup>st</sup> aqueduct, 300 BC, was 11 miles long
- By 300 AD, Rome was supplied by eleven aqueducts, totaling more than 250 miles in length!





## Helena & Constantina





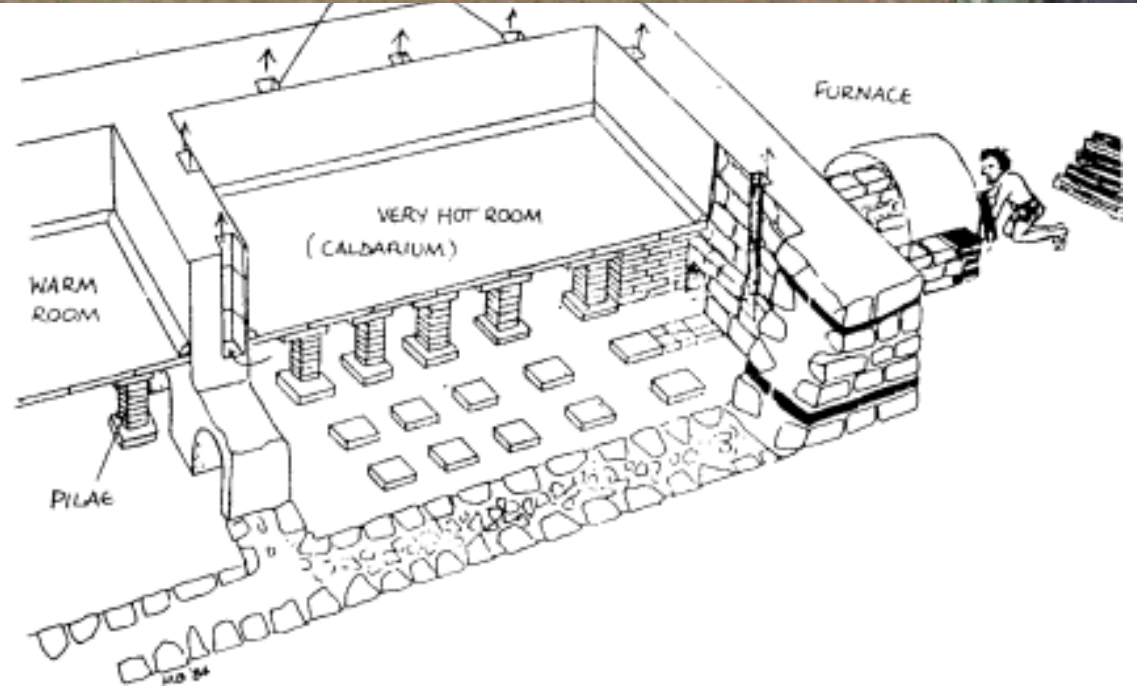








# Baths





# Cloaca Maxima







**xylospongium**



# Nero and Taxes





# Rome SWOT

## • Strengths

- Abundant resources
- Excellent engineering/technology
- Superior/disciplined military

## • Weakness

- Susceptible geography – worsened by expansion and time
- Fragile economy: over dependent on conquest, slavery, trade
- Socially fragile: civil wars, power struggles, corruption, religious changes

***Collapsed under external invasions, economic troubles and internal sociopolitical strife***



