

# Egypt

Ec 365

January 28, 2026

Geography: “caged society”

The Nile

irrigation

History

Herodotes

Timeline

Hydraulic civilizations and despotism (theory of Wittfogel)

Intermediary periods

Inte

# Geography: Now (and then)

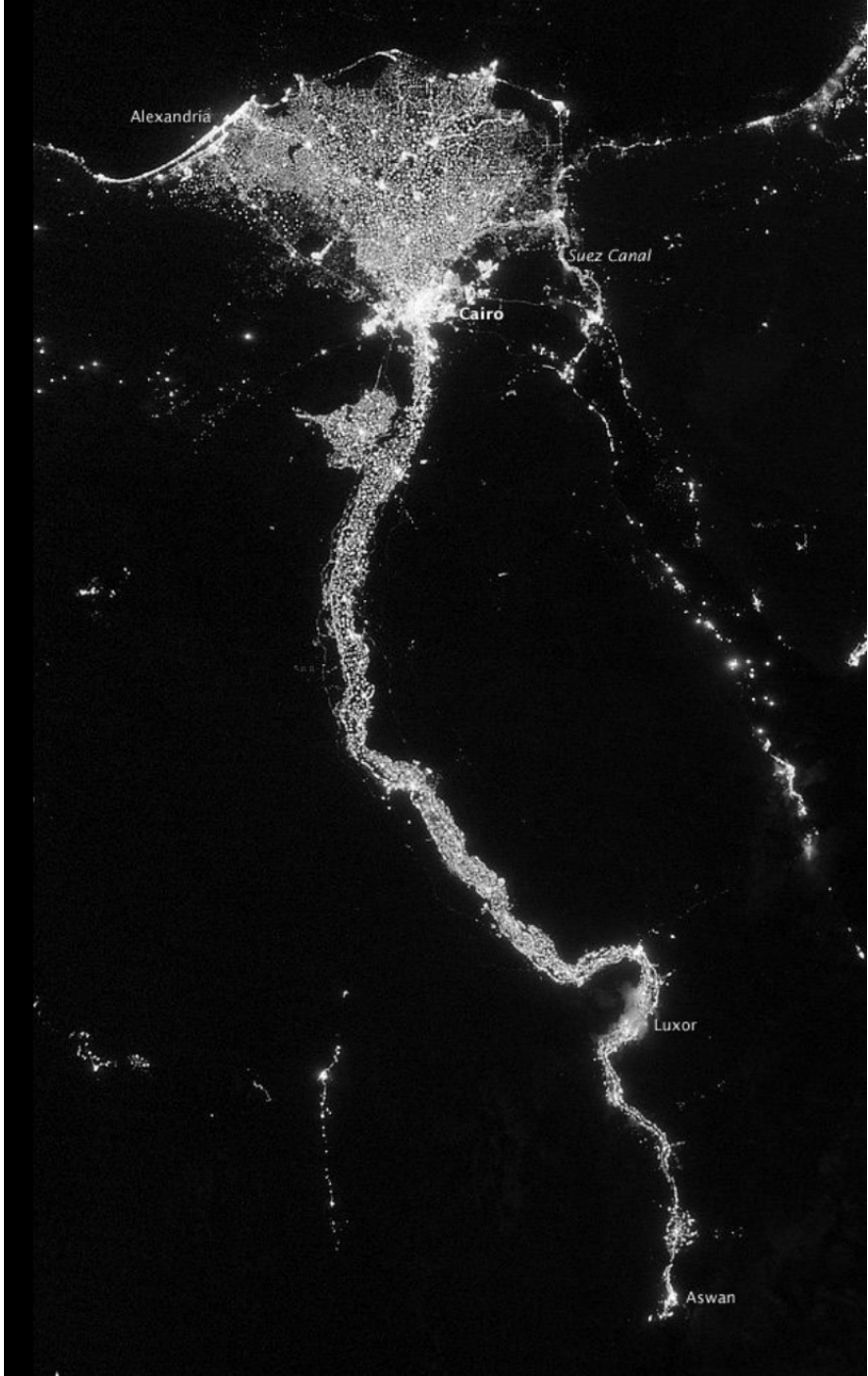
- Same as 5000 years ago,
  - except for the lake Nasser south of the Aswan dam.
- Valley encased in the desert
  - No escape
  - Restricted ports of entry for trade
- Any land is close to the Nile
  - Monitoring
  - Travel



# Geography matters

- Egypt provides a unique physical, archaeological, and historical record of environment, technology, land use, settlement, and economic history. In effect, the Nile constitutes an oasis corridor through a thinly inhabited desert, providing a test tube case for a society circumscribed by its environment and relatively isolated from external turmoil.

Karl Butzer



# Cities today

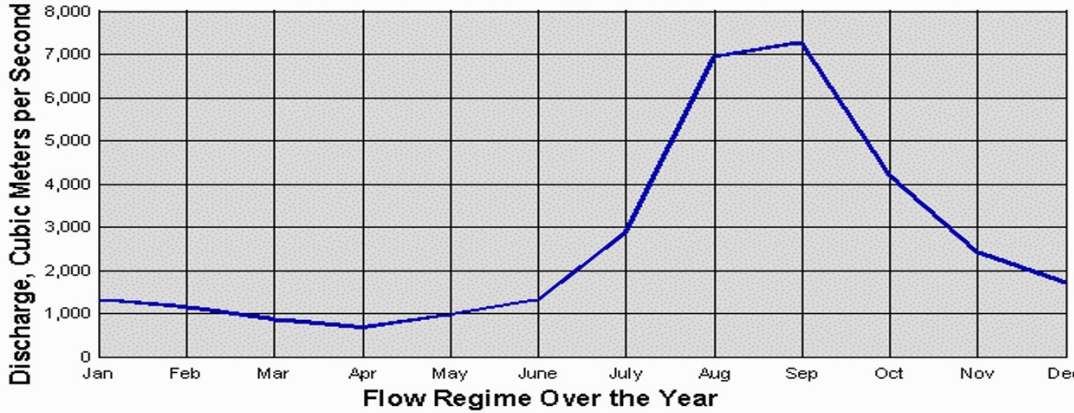
- Greater Cairo : 23-25
- Alexandria: 6
- Port Said: 0.75
- Suez: 0.8
- Mansoura, Tanta :0.6
- **Asyut, Al Minya: 0.6**
- Ismailia: 0.4
- Fayum: 0.4

Egypt is not a civilization of cities

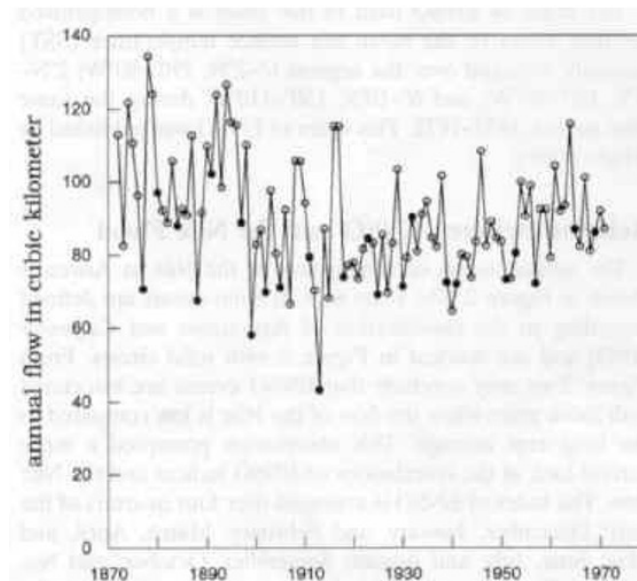
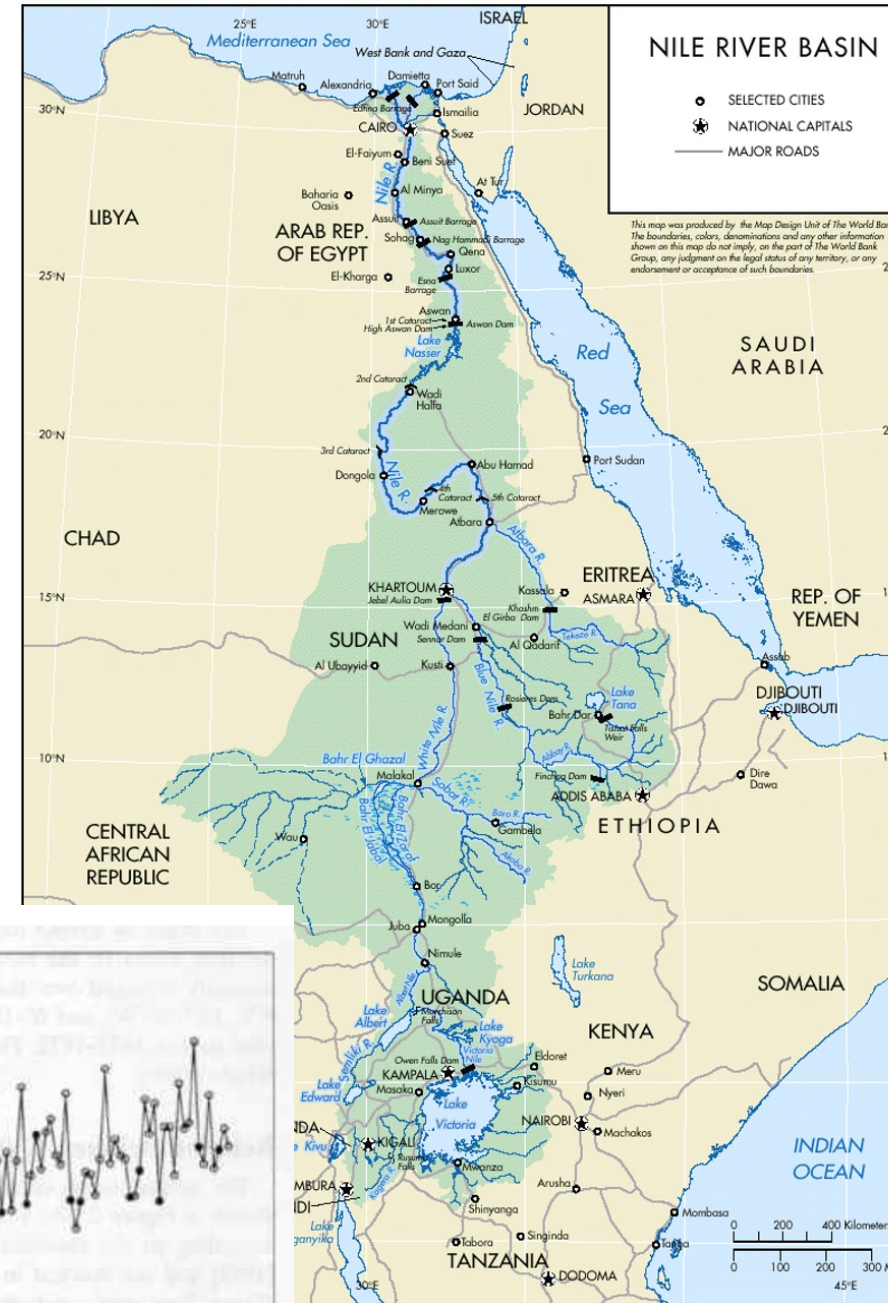


# The Nile

**Discharge of the Nile River at Aswan  
(Before the Building of the High Dam)**



- The longest in the world
- Cause not known in Antiquity
  - speculations of Herodotus (484-425 BC)
- Blue and White Nile
  - Blue Nile (Ethiopia)
    - Flood: 80-90%
    - Ebb: 20-40%
- Dependent on Indian Monsoon
  - To this extent, Egypt belongs to the sphere of India.

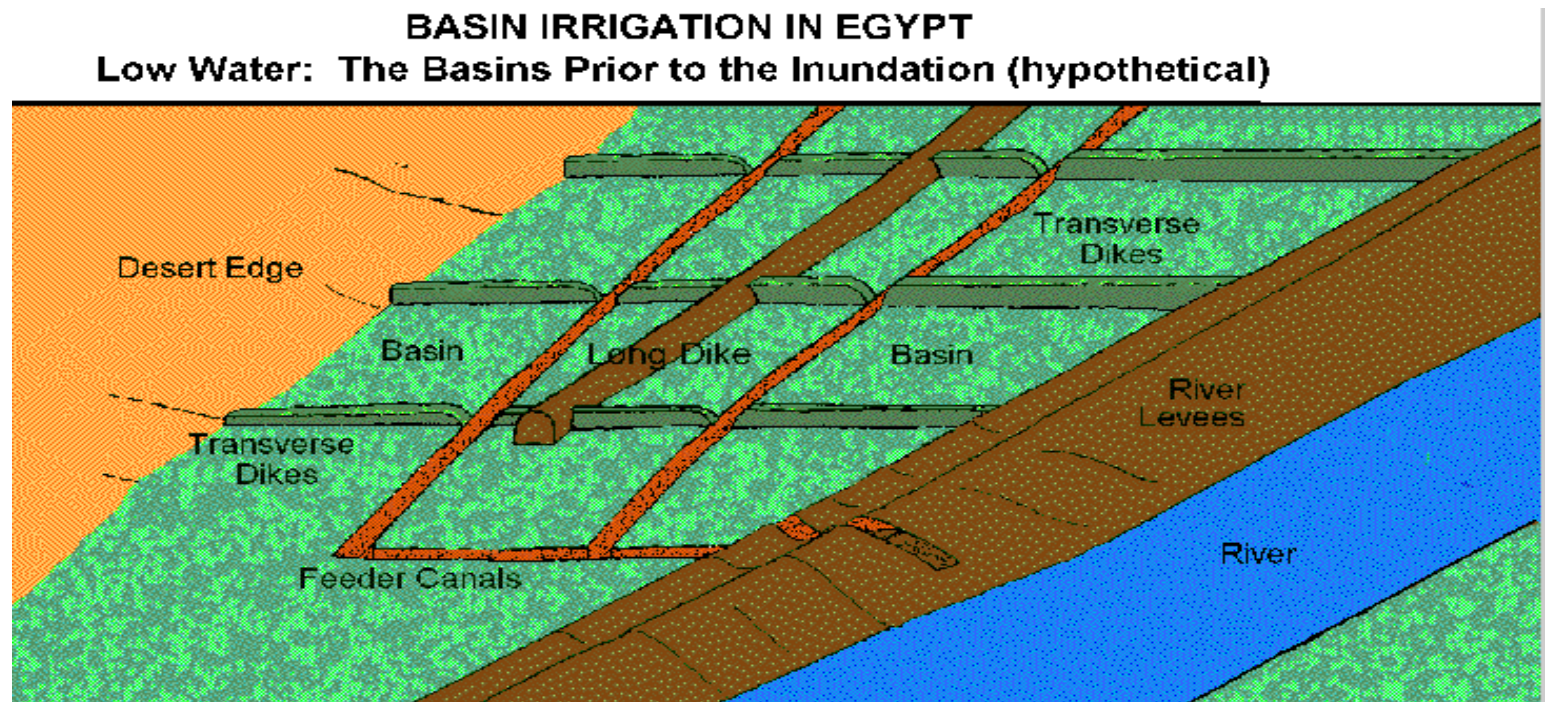


# The river provided

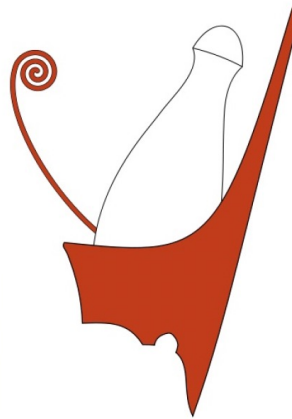
- Water from the flood surge beginning each June overflowed the river banks and spread water and rich alluvial soils into basins in which grain crops were grown.
- Fish.
- A superb “communication corridor,”
- a rhythm to life, a unity of landscape and people, a sense of stability and fertility used to great effect by the rulers and their unique visual cultural expression of political ideology.

# Irrigation

- Very powerful river
  - Water capture has no impact downstream
- No need for coordination of the state
  - **Local** coordination and advice
  - Prediction of the flood, suitable crops and taxation



# Summary of history



General view of the pyramid complex of Djoser in Saqqara built by the famous architect Imhotep



**Old Kingdom (2700-2150)**  
pyramids

First intermediary period (2150-2050):  
disorders

**Middle Kingdom (2050-1650)**

**2100**

Second IP (1650-1550): disorders **1600**

**New Kingdom (1550-1050): Tut, Ramses**

Third IP (1050-700): disorders **1000**

**Late period (700-332) Persian domination**

**Macedonian, then Ptolemaic period (332-30 )**

Extraction...

# Time line

Assume we are in the reign of Tutankhamun (actual 1330 BC)

Assume it is now in year ~ 2026

NOW



Great pyramid

Tut.

Julius Caesar

Moon landing

700

2026

3500

5500



# Herodotes (around 450 BCE) book 2

For anyone who sees Egypt must perceive that the Egypt to which the Greeks go in their ships is an acquired country, the gift of the river.

When you are still a day's sail from the land, if you let down a sounding-line you will bring up mud, and find yourself in eleven fathoms' water, which shows that the soil washed down by the stream extends to that distance. Egypt has a soil that is black and crumbly, as being alluvial and formed of the deposits brought down by the river from Ethiopia.

They obtain the fruits of the field with less trouble than any other people in the world, the rest of the Egyptians included, since they have no need to break up the ground with the plough, nor to use the hoe, nor to do any of the work which the rest of mankind find necessary if they are to get a crop; but the husbandman waits till the river has of its own accord spread itself over the fields and withdrawn again to its bed, and then sows his plot of ground, and after sowing turns his swine into it- the swine tread in the corn- after which he has only to await the harvest. The swine serve him also to thrash the grain, which is then carried to the garner.

Concerning the nature of the river, I was not able to gain any information either from the priests or from others... The third explanation, which is very much more plausible than the others, is positively the furthest from the truth: that the Nile's inundation is caused by the melting of snows.

There is no country that possesses so many wonders, nor any that has such a number of works which defy description. Not only is the climate different from that of the rest of the world, and the rivers unlike any other rivers, but the people also, in most of their manners and customs, exactly reverse the common practice of mankind. The women attend the markets and trade, while the men sit at home at the loom; and here, while the rest of the world works the woof up the warp, the Egyptians work it down; the women likewise carry burthens upon their shoulders, while the men carry them upon their heads.

They are religious to excess, far beyond any other race of men, and use the following ceremonies:- They drink out of brazen cups, which they scour every day: there is no exception to this practice. They wear linen garments, which they are specially careful to have always fresh washed.

The priests bathe twice every day in cold water, and twice each night; besides which they observe, so to speak, thousands of ceremonies. They enjoy, however, not a few advantages. They consume none of their own property, and are at no expense for anything; but every day bread is baked for them of the sacred corn, and a plentiful supply of beef and of goose's flesh is assigned to each, and also a portion of wine made from the grape. Each god has the attendance of a college, at the head of which is a chief priest; when one of these dies, his son is appointed in his room.

# Environment

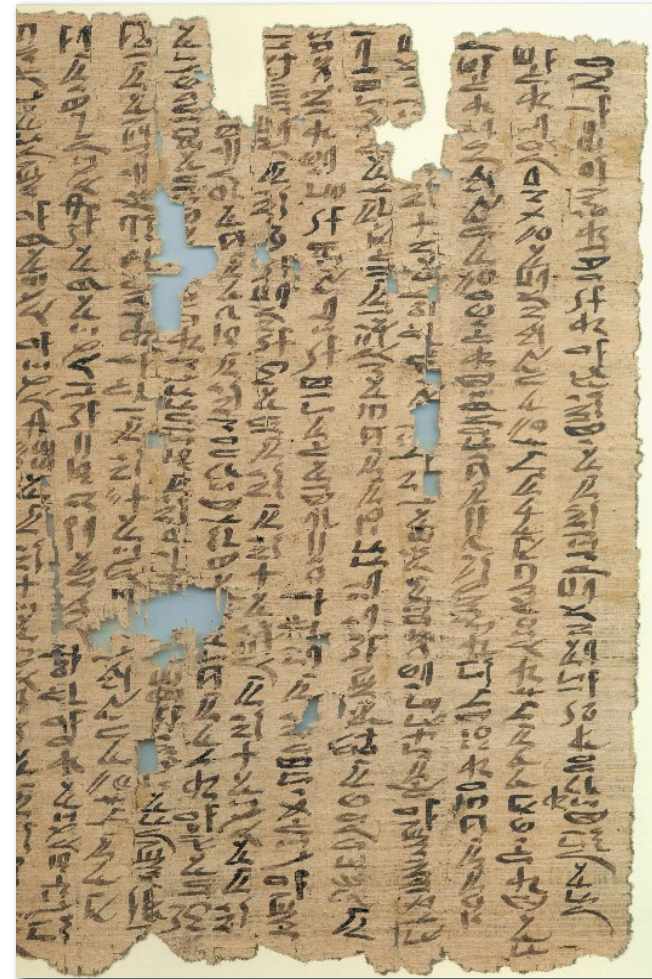
- Peasant society
- Low population compared to the agricultural output
- Yields higher than in the rest of the world
- (more than 10, twice Europe's rate in 15<sup>th</sup> century)
- Taxable surplus went more into public projects rather than military expenditures

# Evidence

- Comments on the environment
- Old and Middle Kingdom: inscriptions, indirect evidence
- New Kingdom: more evidence (texts)
- Ptolemies (abundance, still to be exploited)  
papyri-Ptolemaic to Arabic-between 1 and 1.5 million
- Survival of documents skewed in multiple dimensions
- What survives? estimate .0001% of written documentation

# Private incentives: the Hekanakhte letters

- Middle Kingdom
- Economic decisions of an individual
- Household consumption/ budgets
- Household size= 18 + 1
- Owned more than 18 ha
- Crops-emmer & flax for consumption, cloth, surplus barley for purchase of other items
- 2 bad years (low Nile floods)-no income,



A message from the ka-priest Heqanakhte to Merisu. Whatever can be inundated on our land, you are the one who ploughs it. A warning to all my people, and to you! Listen, I consider you responsible for it. Put your back into ploughing, do your utmost; look after my seed corn, look after all my property. See, I consider you responsible for it; take great care with all my property!

Take great care! Hoe all my land, sieve with the sieve, hack with your noses into the work. Look, if they are diligent god will be thanked for you and I will not have to make things hard for you.

# Hydraulic civilizations

- Wittfogel theory of *Oriental Despotism*
  1. Civilizations started in basins with irrigation: “Hydraulic civilizations”
  2. Irrigation requires coordination upstream/downstream
  3. Coordination requires planning and authoritarian government
  4. Hydraulic civilizations generate authoritarian governments.  
  
‘Democracy’ could not start on the Yangtze river. (to push the argument)
- Does it apply to Egypt?
  - Apparently yes, but actually no. Why?
- To Mesopotamia?

# The “Intermediate” periods

- After the Old, Middle and New Kingdoms
- A decline of central state authority
- Important, creative periods where there clearly were responses and adjustments
- Were the intermediate periods related to flood regimes of the Nile?
  - Correlation between long term inter-annual variability of the flood of the Nile river : the decline in flood volume between Dynasties 1 and 2 (roughly estimated at -30%); Dynasty 7-8 and the First Intermediate period, Dynasty 13 and the Second Intermediate Period, and Dynasty 20 and the early Third Intermediate Period.
  - Other factors, dynastic disputes, long-lived monarchs (Pepi II at the end of Dynasty 6), institutional weakness and external threats played a role in central state collapse. But it seems clear from the flood records that the relationship between centralized phases of Egyptian political history and optimal flooding of the river was correlated, and thus that the politically fragmented periods of Egyptian history are also associated to some extent with Nile flood deficiencies.

# Public goods

- The state provides public goods.
- Unrests when output crisis
  - (studies with Nile variations)
- First public good is **law and order**

Account of a public official in Egypt around 2100 BC:

*Horus wanted me to restore order [in the nome of Edfu] since he had brought me in that nome to restore order. I found the district of Khuhu flooded as a ??, neglected by the one who had been in charge and ruined by a wretched person. I acted such that a man would embrace the murderer of his father or of his brother, with a view to reestablish order in the nome of Edfu."*

- Important: temples have large granaries
  - Storage!



- “Maat” signified concepts of “justice, order, truth”: goddess
- The king was divine, born of a god. His word was law. Thus royal decrees set the law of the land.

# Taxation under the Ptolemies

- Greek colonizers
- Main objective: capture the surplus
  - change as little as possible. Assume the role of Pharaoh (indicative)
- More documents
  - Mummy encasings in papier maché out of accounting documents
- Two types of taxes
  - Direct (state officials): cereals
  - Farmers: fruits
    - discuss farming
    - Explain the choic
- Monopolies
  - Oil mills
- Important public works:
  - irrigation projects in the Fayum (most fertile)

# Overall discussion

- Egypt
  - Quasi-perfect control by the state (geography): pure extraction
  - No cities
  - Some non-monitorable production (fruits)
  - Monopoly

Two readings.

- Northern Mesopotamia
  - Rain-fed
  - No easy monitoring (...)
  - No extractive state
- Southern Mesopotamia
  - Good **local** control
  - Cities
  - Issue of extractive vs cooperative
  - Empires are extractive, but not stable (less information)