

Ec 565

A brief review

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Beginnings

September 5, 2023



Geography

Water, Chicago, New York



Erie Canal: 1817-1825



The canal was faster than carts pulled by draft animals and cut transport costs by about 95%.

- gave New York City's port an incomparable advantage over all other U.S. port cities.
- ushered the state's 19th century political and cultural ascendancy.
- fostered a population surge in western New York and opened regions farther west to settlement.

(Wikipedia. **Read the article**)

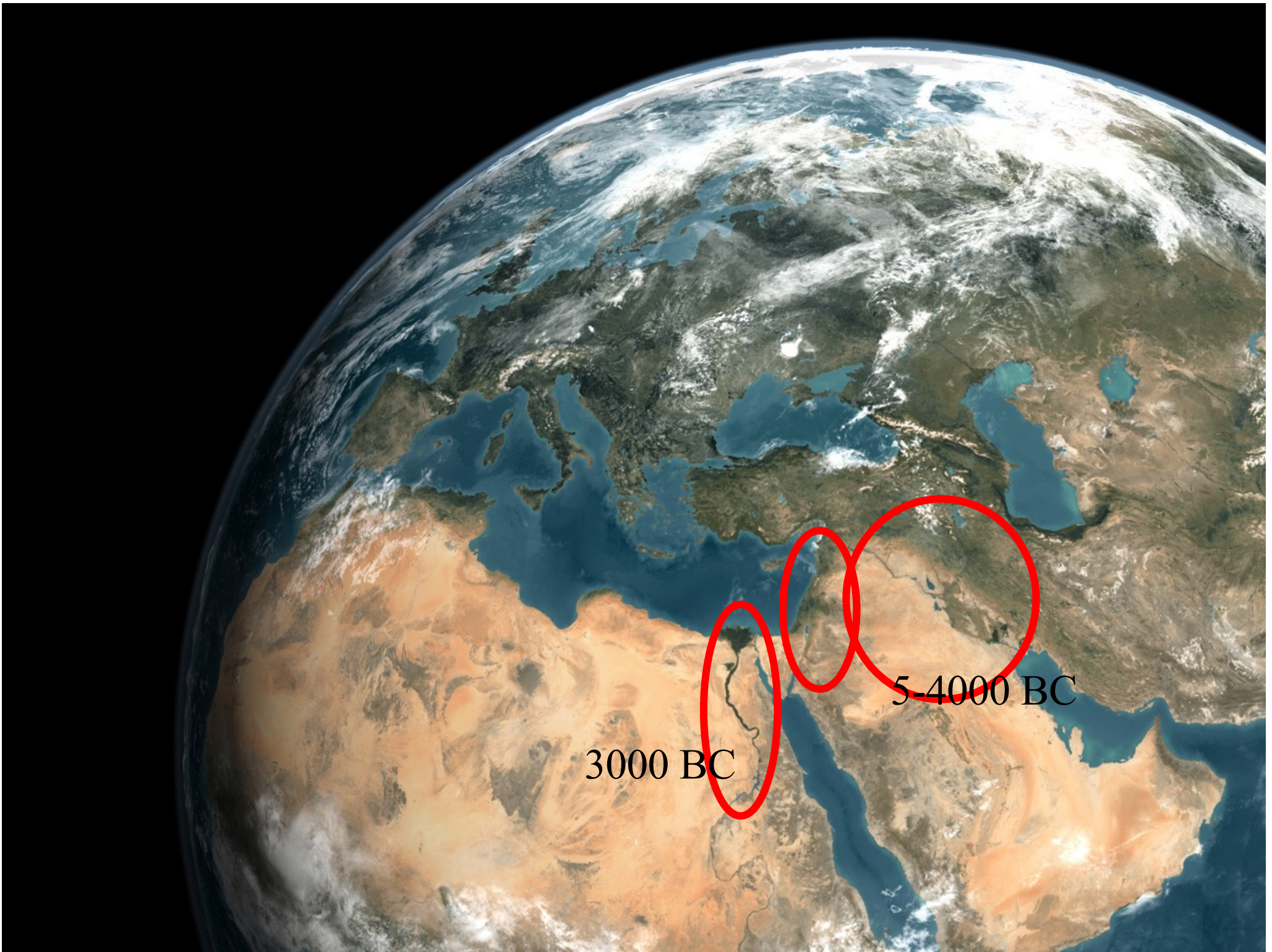


Questions

- When did economic “growth” and social organization start?
- Where? Why? How?
- Importance of water
 - Example in the 19th century US
- Beginning 10,000 years ago
 - Agriculture
 - Cities
 - State
 - Private and public property
- Imperfect knowledge, tentative account
- Methods of investigation

The “Antique Economy”

- Two views
 - Antiquity is different for economics (Moses Finley)
 - Antiquity is **not** different: prices, markets, contracts
- In this course, no difference:
 - Incentives (private and collective) dominate.
 - Institutions are essential; their evolution is shaped by external factors and by their own history.



3000 BC

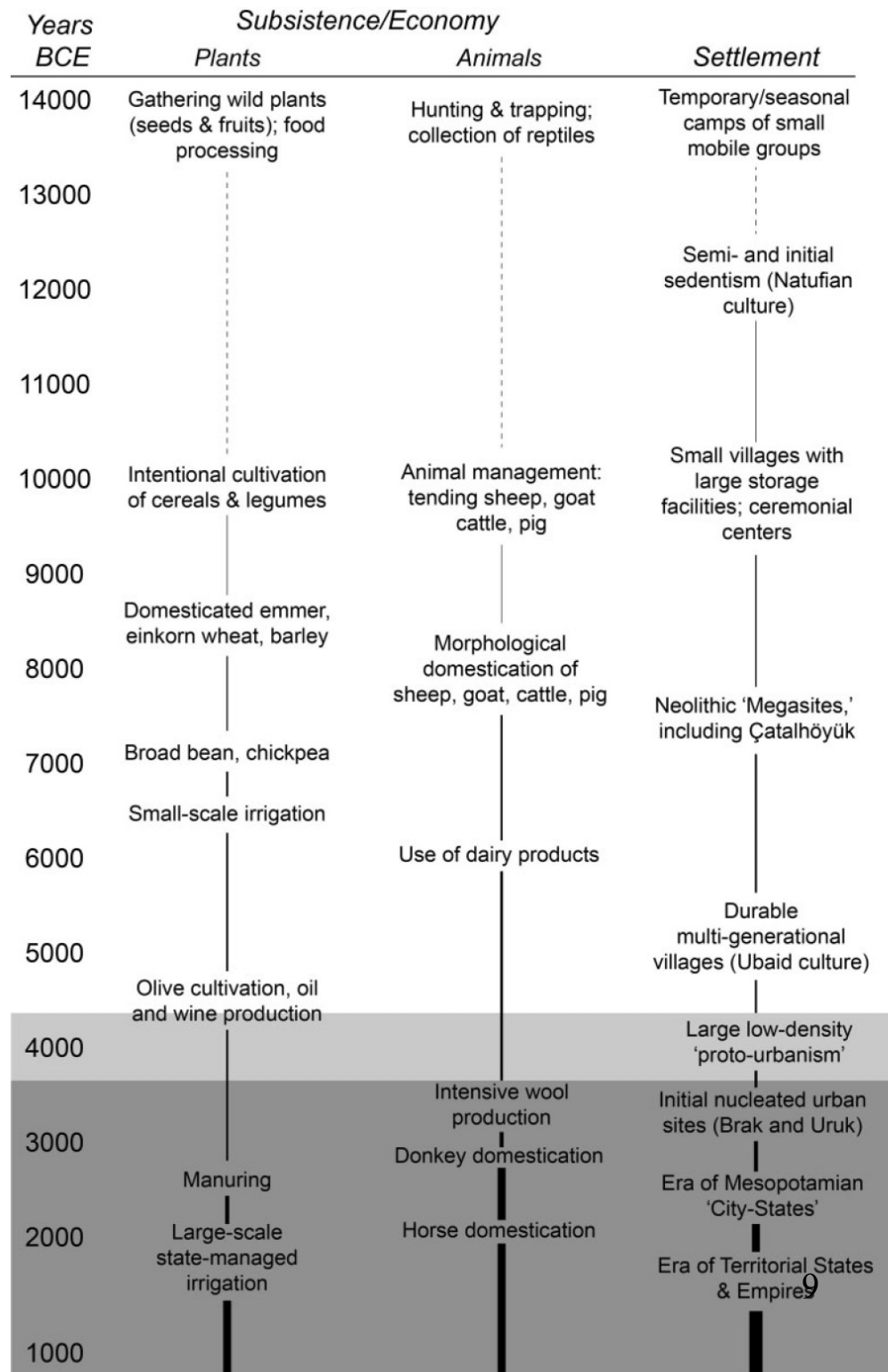
5-4000 BC

Hydraulic civilizations

All early civilizations developed in river basins:

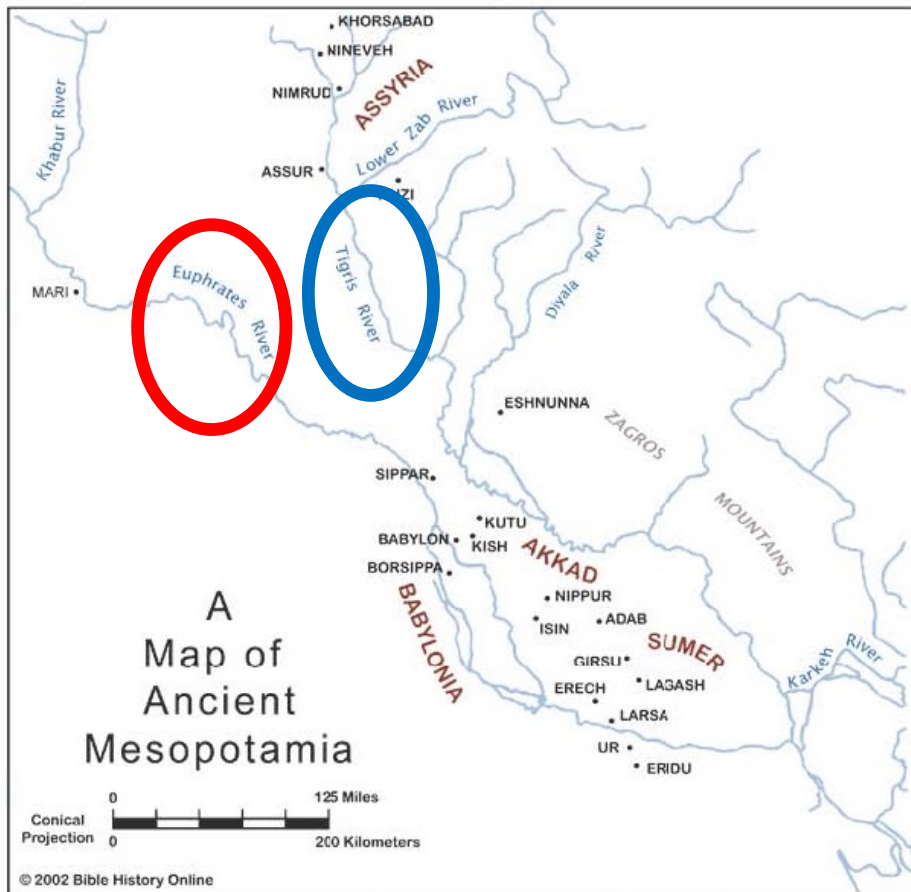
- Mesopotamia from 5-4000 BC
- around the Nile from 3000 BC
- around the Indus from 2500 BC
- Yellow River Basin from 1800 BC

Time line (near East)



Then

Now



Mesopotamia

Basin with two rivers

Euphrates: main use

700 km from the sea:
elevation 50 m.

Tigris: more volume but more dangerous

Basin is relatively wide

cities can develop an area of supply

evidence of returns to scale (pottery)



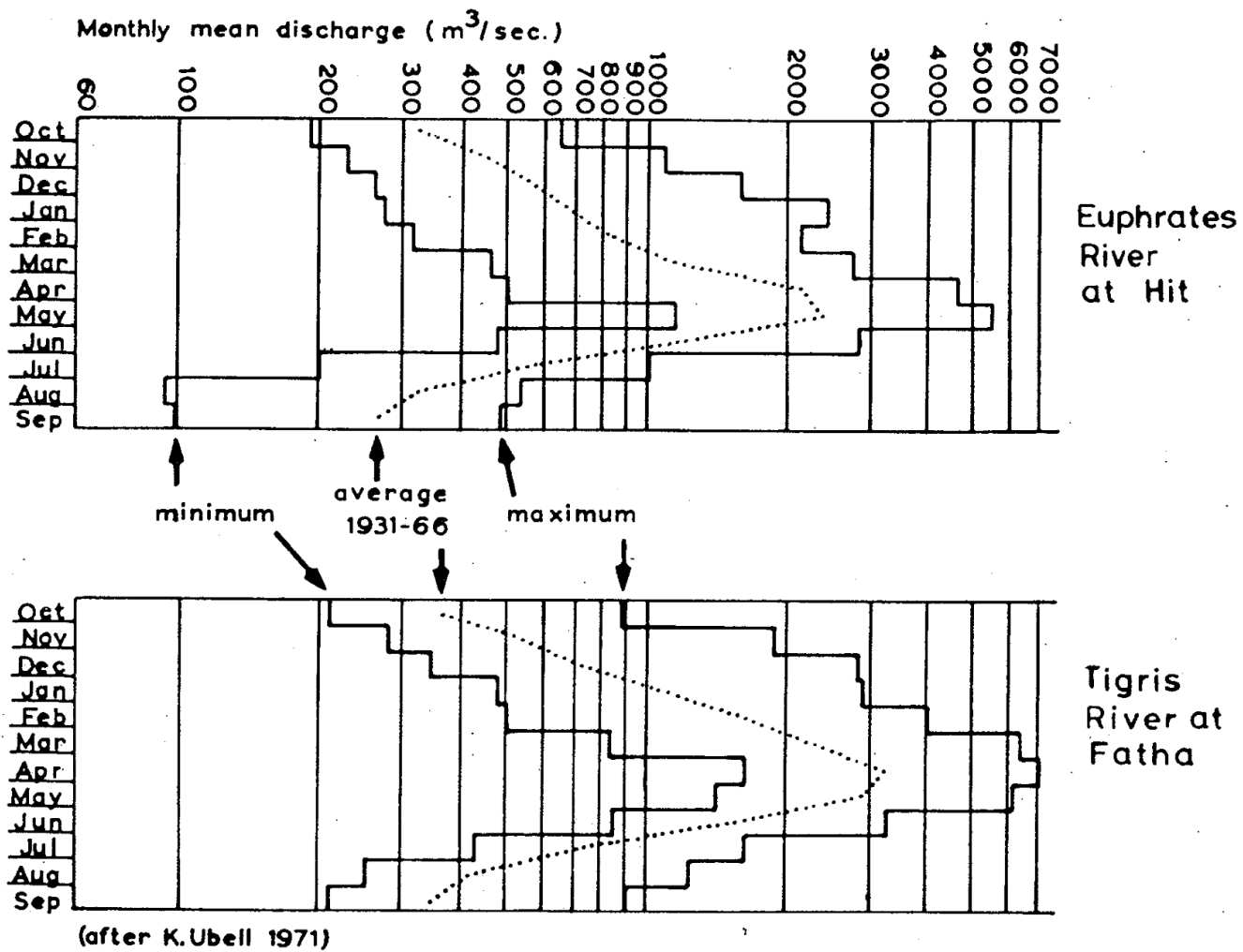
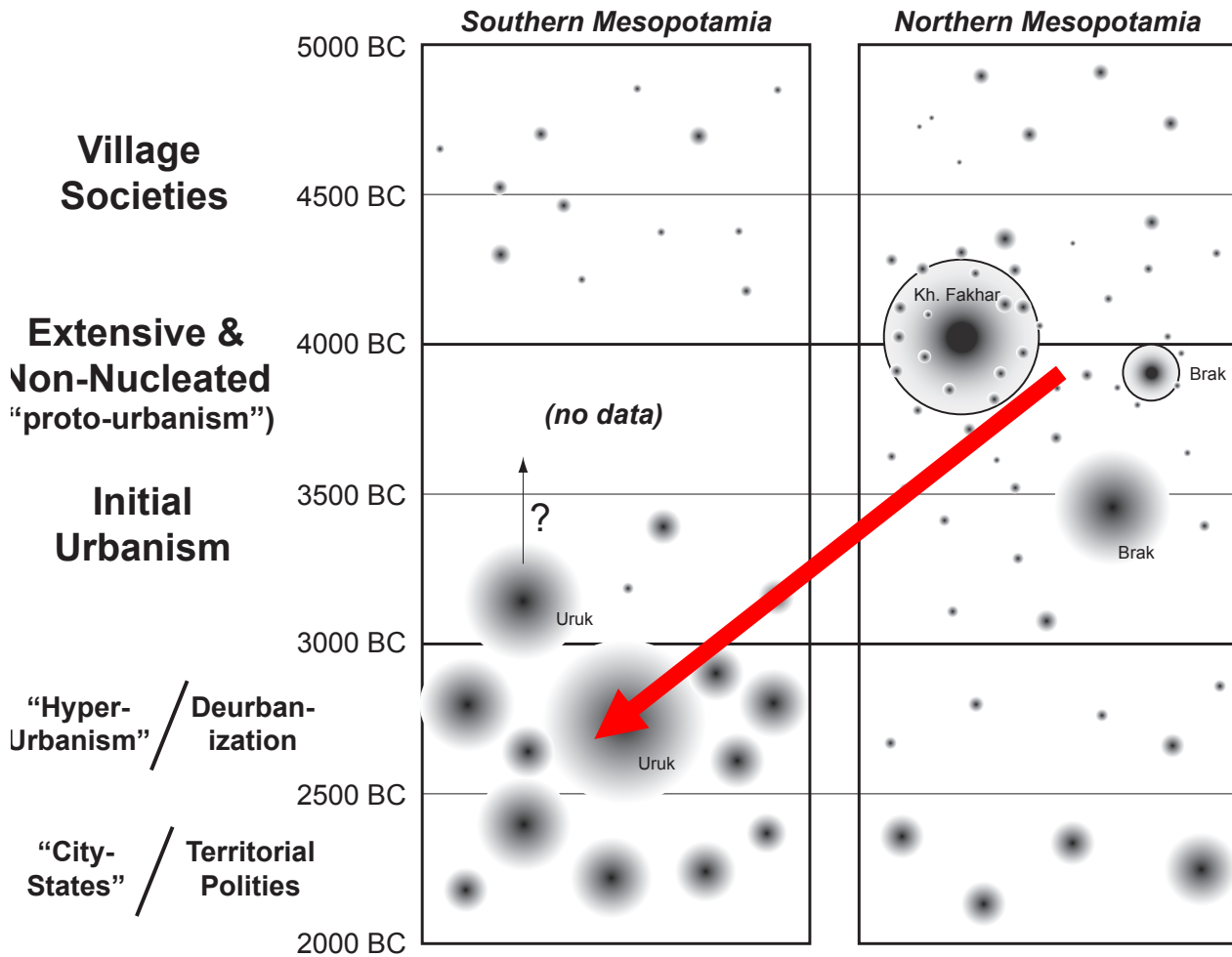


Fig. 1. Variations in Euphrates and Tigris River discharge.

Time line of “urban” development



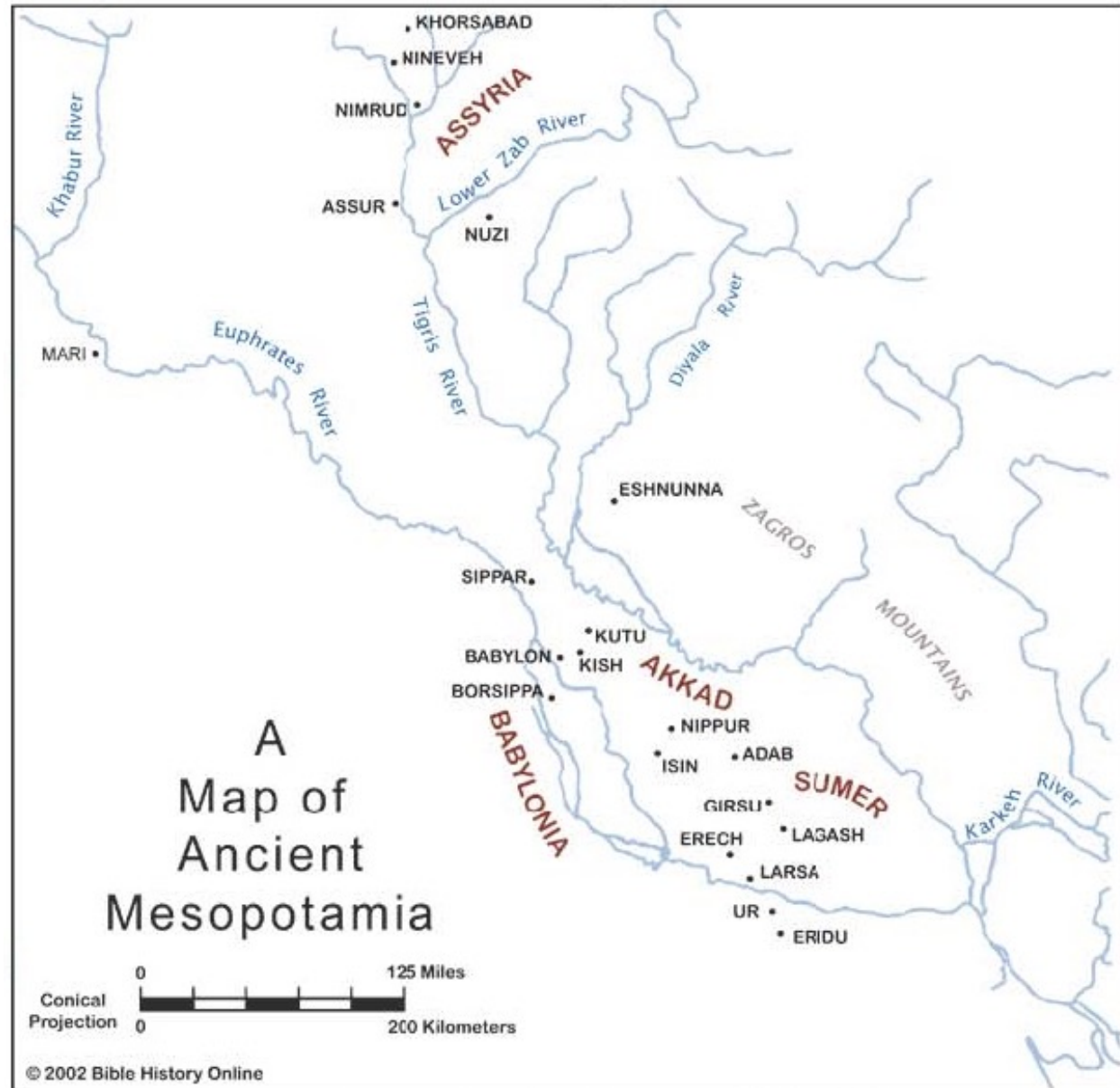
- Villages

- Cities

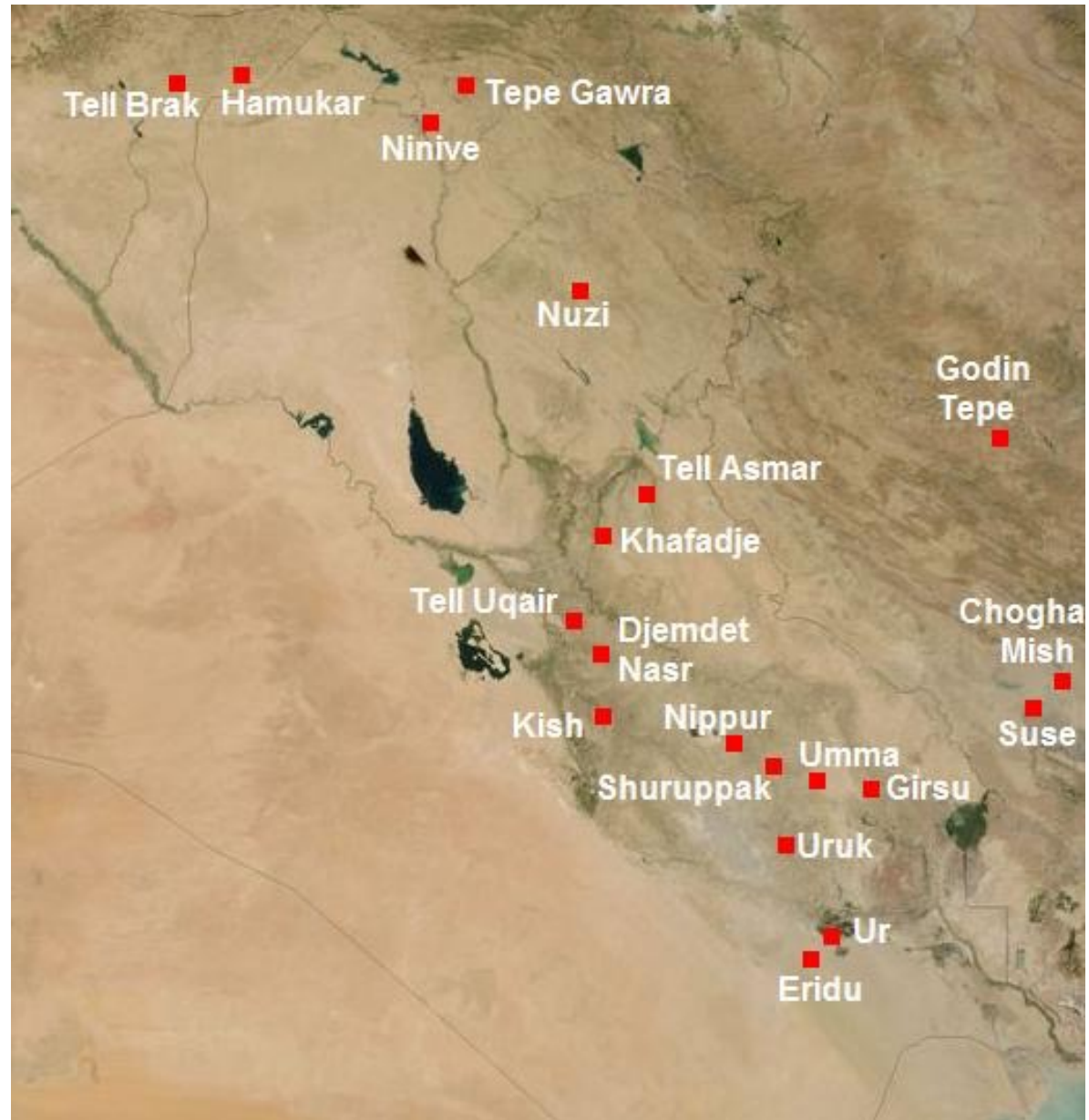
- Empire

Source: Ur (2010), Fig. 2.

Cities



Cities



Levees

Network of canals

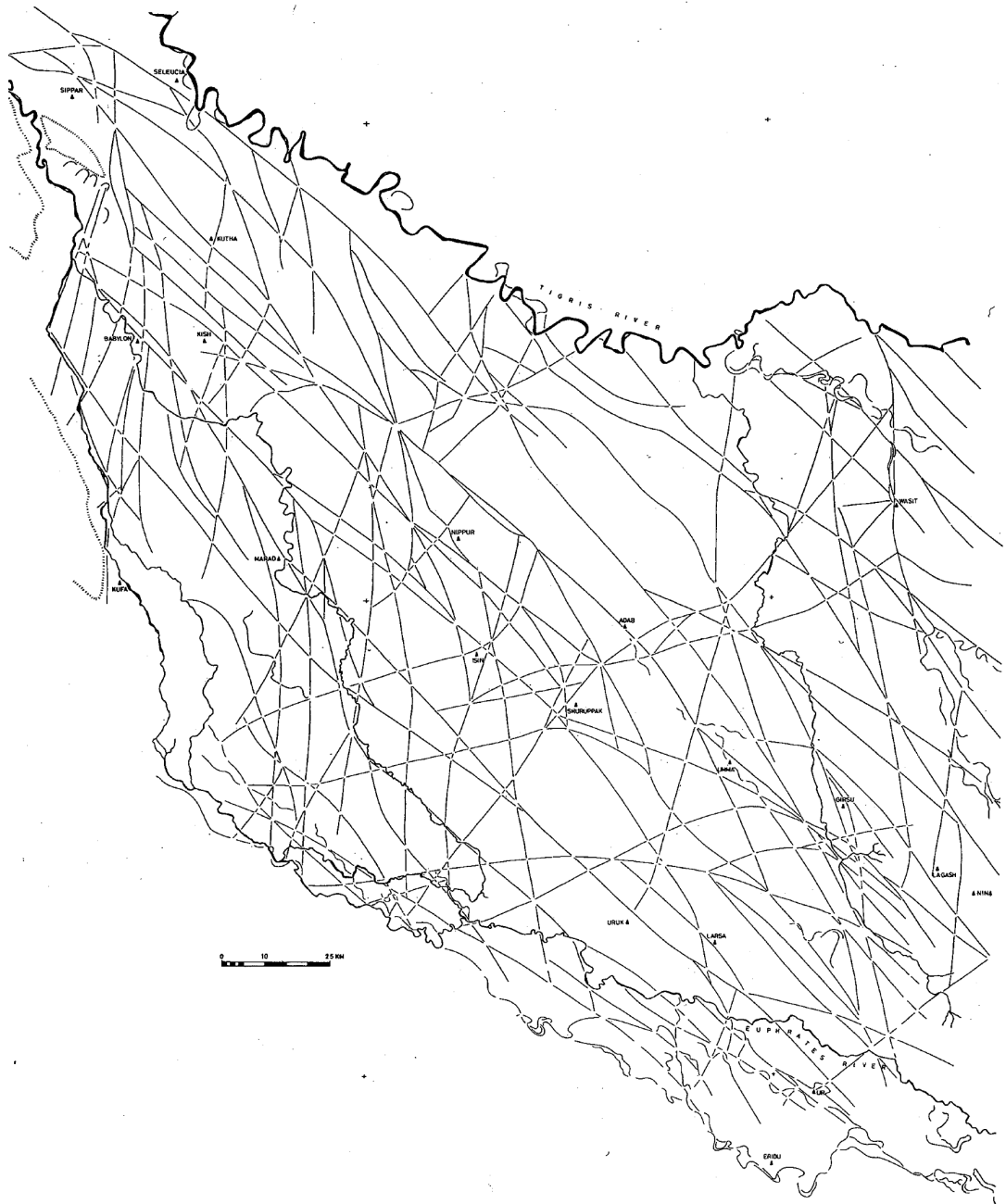
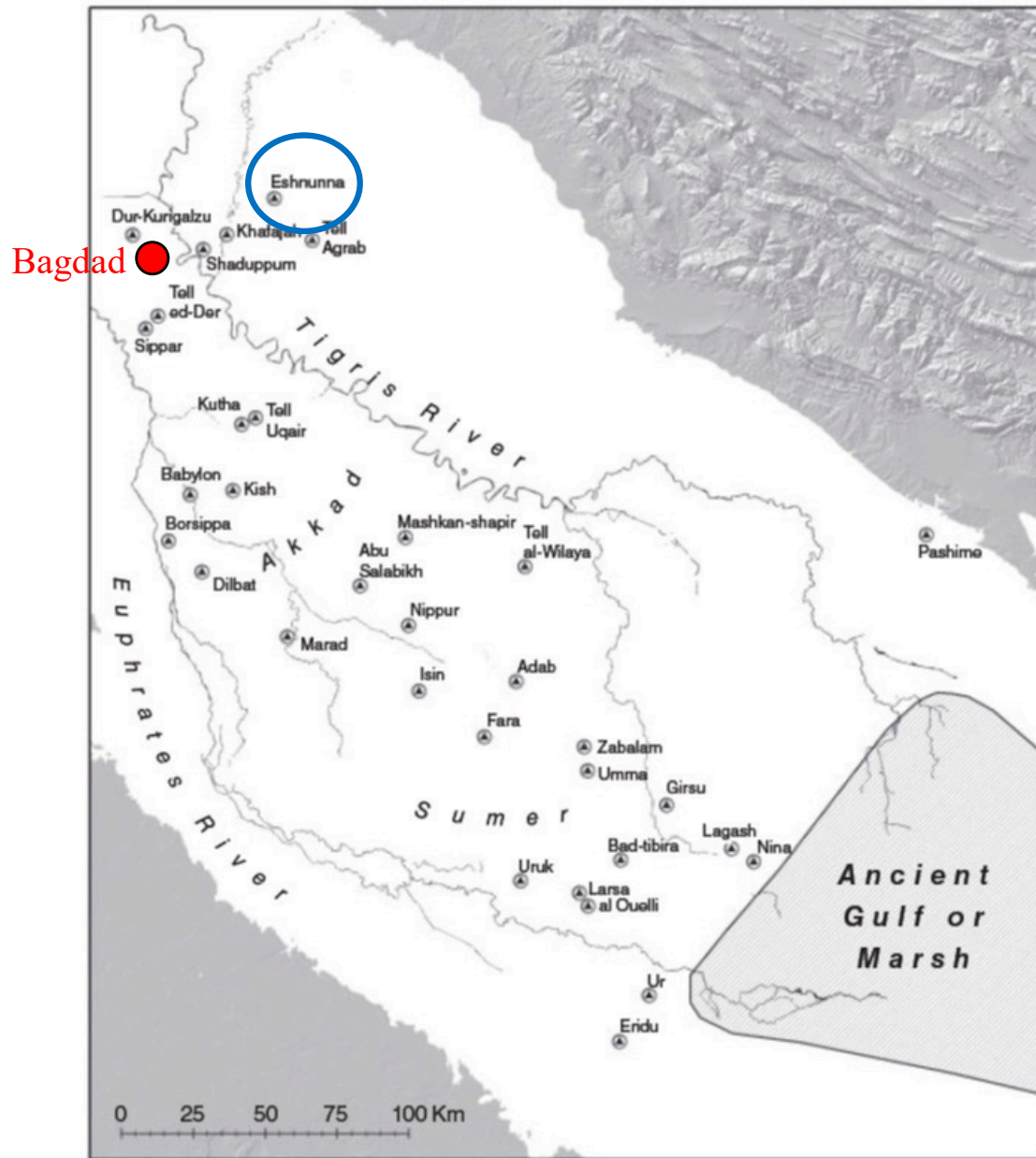


Fig. 6. Major ancient levees identifiable in LANDSAT imagery.

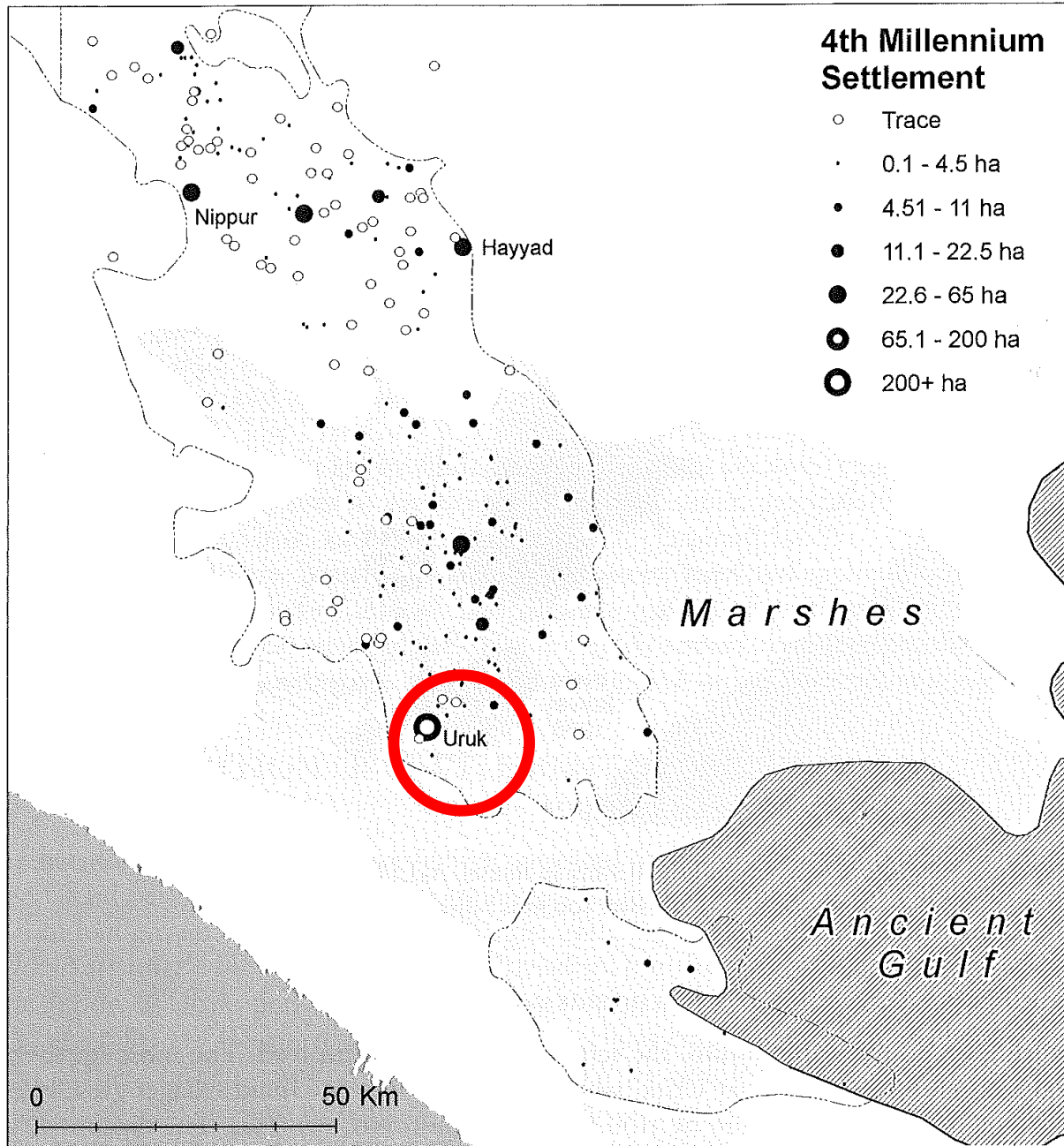
Southern Mesopotamia



Source: Ur (2013)

Terrain above 100m is shaded

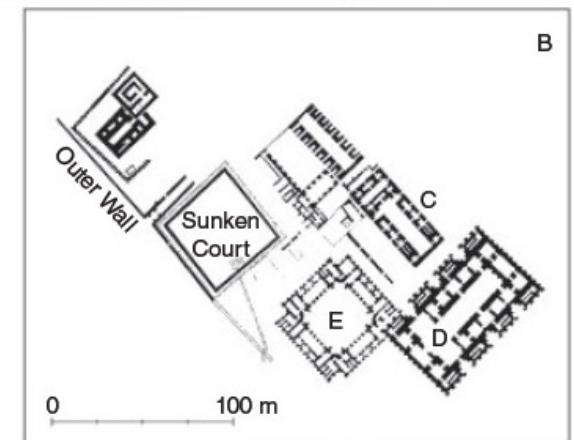
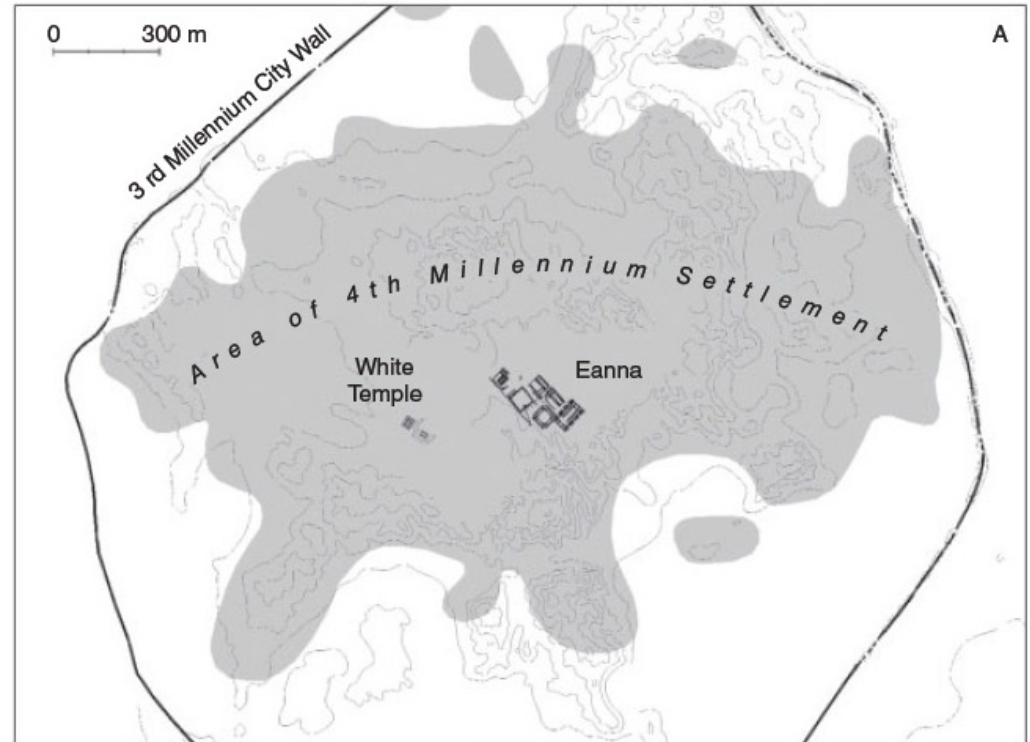
4th Millennium Settlement



Cities

Uruk c. 3100 BC

- Definition?
- Buildings for common function
 - Burial
 - Palace
 - Temple

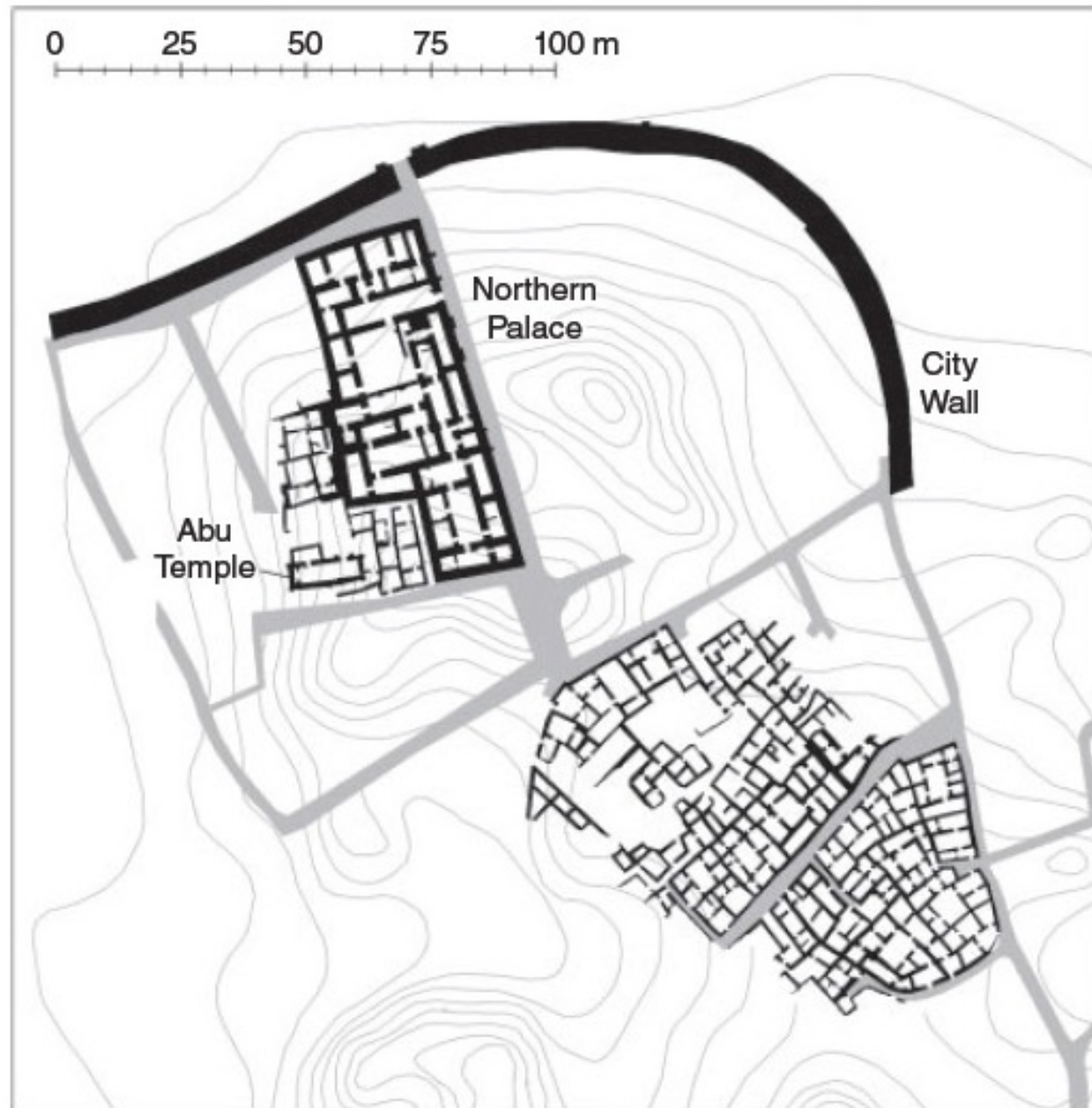


Uruk

“Unfortunately, almost all objects found in the great structures at Uruk were in a secondary context and cannot be tied directly to them. These include the world’s first written documents, clay tablets (the so-called Archaic Texts) with a pictographic script (Englund 1998). The 5,400 tablets recovered are primarily concerned with economic matters and record great quantities of sheep, agricultural products, beer, and land. They are often assumed to be the economic records of temples, but this assumption is complicated by their secondary archaeological context”

Jason Ur (2012)

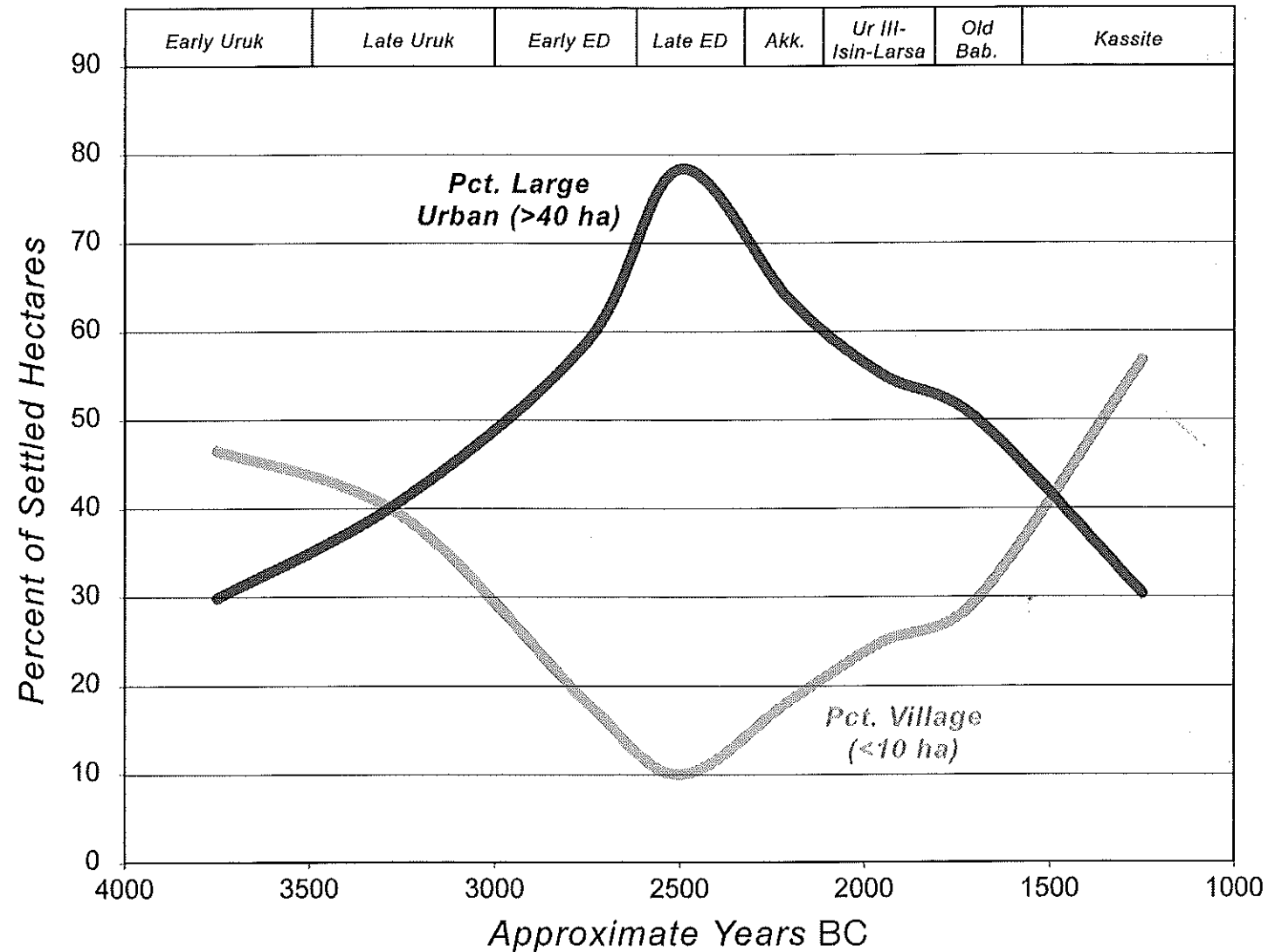
Urban fabric in Eshnunna (2200 BC)



Source: Jason Ur (2012)

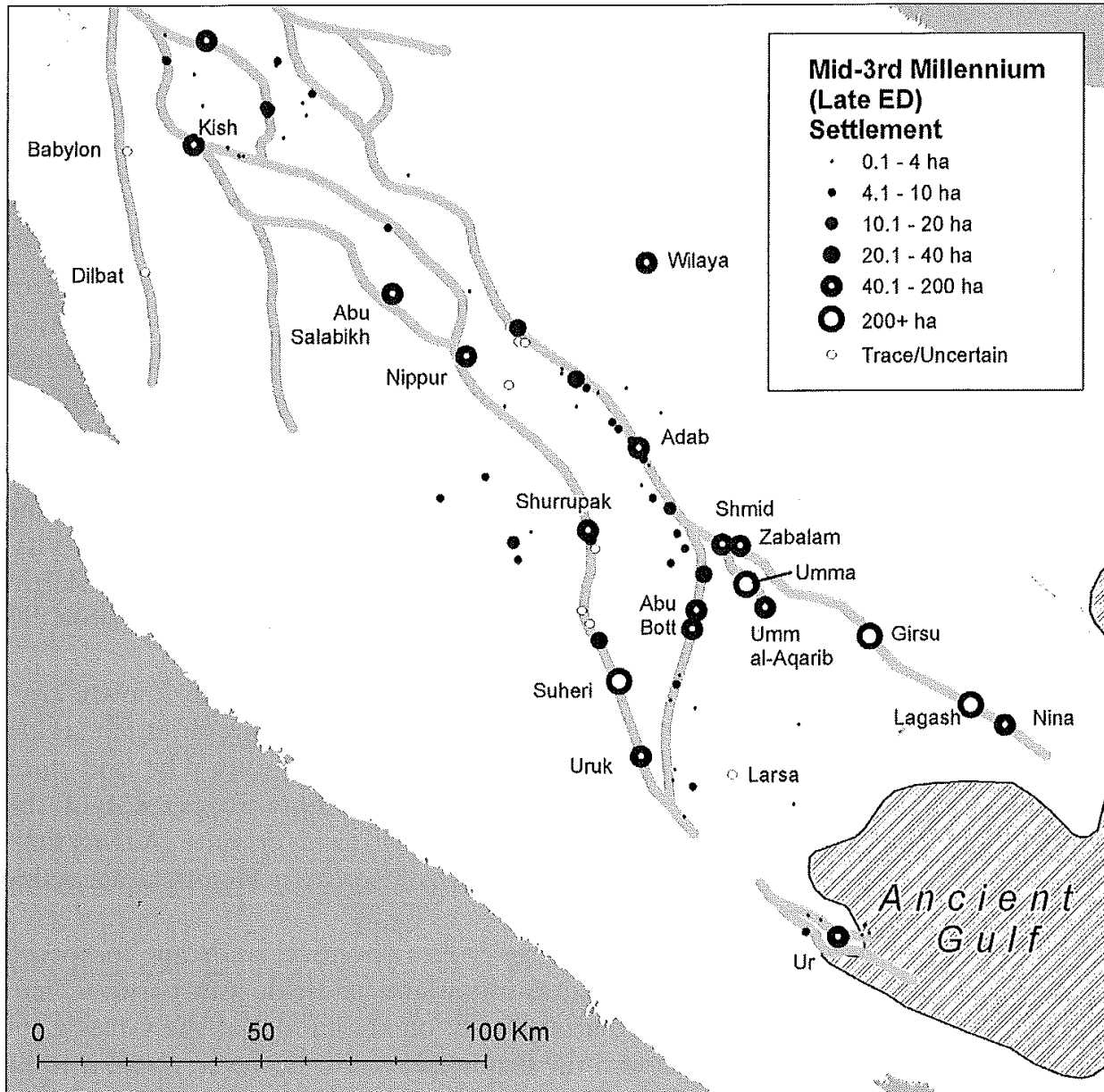
Urbanization and ruralization

Note the minimum scale for a city



Urban > 40 ha. Rural <10 ha.

Competing cities 2600-2100 BC



Invention of writing

- around 7500 BCE, tokens for accounting
- ~ 3400, bullae (clay balls) for token
- ~ 3300, pictograms on boxes
- ~ 3200, tablets with numbers and logograms

~ 3000 BCE



Money

- Coins will appear around 7th century BCE (in Anatolia, current Turkey)
- Before that, weight in gold and silver
- Even with no exchange in gold and silver, a unit weight (shekel) can be used as a unit of account.
 - One shekel 8.4 grams of silver
 - Daily wage for Babylonian workers ~ 1/4 shekel

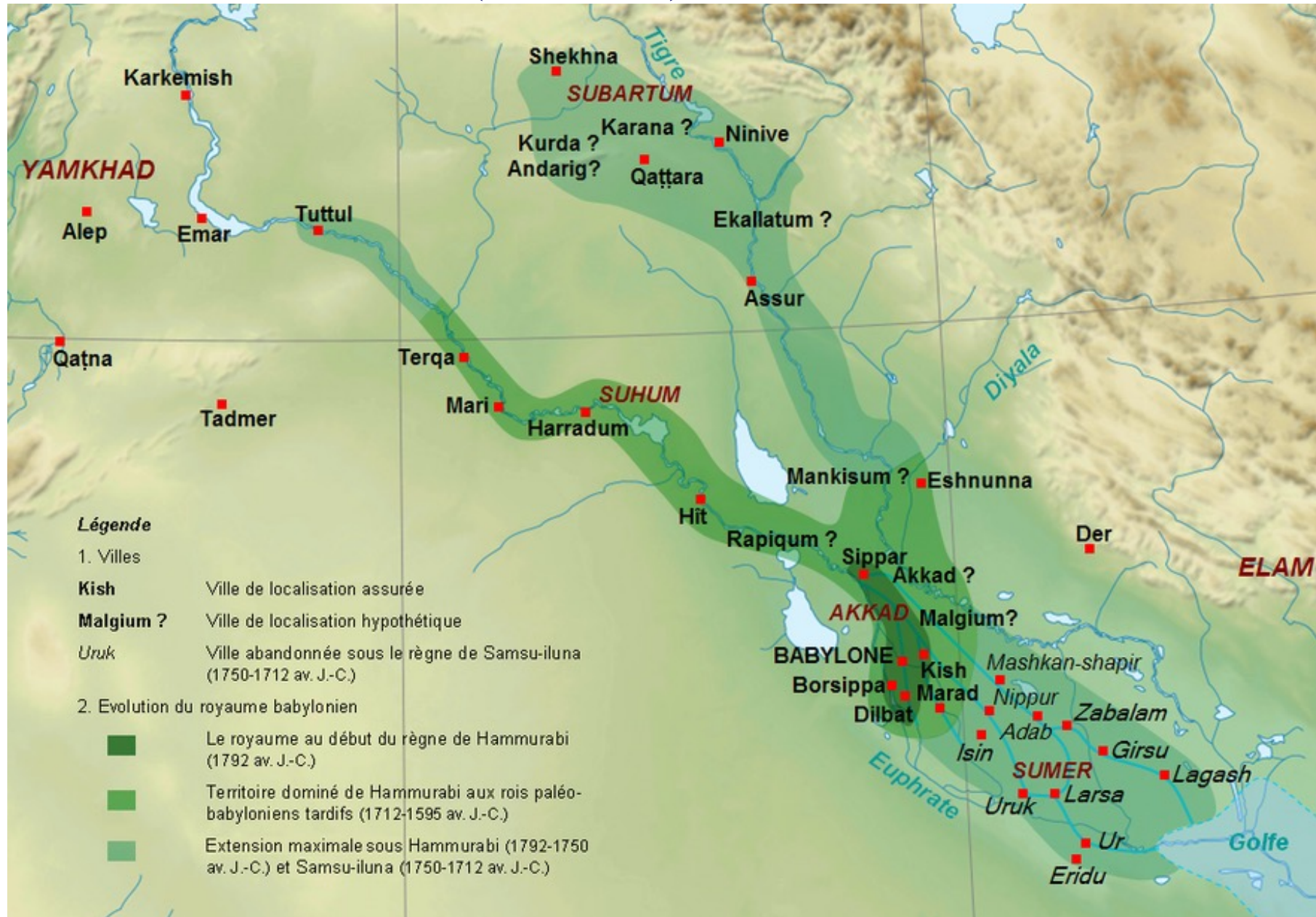
Contracts and private property

Sale of Real Estate, Sumer, around 2000 BCE

Sini-Ishtar, the son of Ilu-eribu, and Apil-Ili, his brother, have bought one third Shar of land with a house constructed, next the house of Sini-Ishtar, and next the house of Minani; one third Shar [about 400 sq ft] of arable land next the house of Sini-Ishtar, which fronts on the street; the property of Minani, the son of Migrat-Sin, from Minani, the son of Migrat-Sin. They have paid four and a half shekels of silver, the price agreed. Never shall further claim be made, on account of the house of Minani. By their king they swore. (The names of fourteen witnesses and a scribe then follow.)

Month Tebet, year of the great wall of Karra-Shamash.

Empire: Hammurabi (~ 1750)



Justice

- Code of King Ur-Nammu (2250 BC)
 - Probably, encoding of previous rules
- Code of Hammurabi (1792-1750 BC)
 - 282 cases
 - Very harsh punishments
 - “an eye for an eye, a tooth for a tooth”
- Demonstration of private property rights

Louvre museum



WHY? An economist's view

- Cities and states require a surplus (agricultural)
- They rise only when the surplus can be captured (by the elite that organizes the cities, by the “state”)
- Reference (website)
 - Mayshar Joram, Omer Moav and Zvika Neeman (2017). “Geography, Transparency, and Institutions,” *American Political Science Review*, 111 (3)
- Conditions under which the surplus can be captured depend the observability of the output, on geography and crop.
- Villages (north): rainfed agriculture, does not require organization and output cannot be captured easily. Labor, owners of land.
- Cities (south): agriculture requires irrigation (organization, intricate system of canals and dykes), and output can be observed. Labor is sharecroppers (hired labor).
- Empires: capture of the surplus for a while, but eventually lack of monitoring (distance) and fall.