



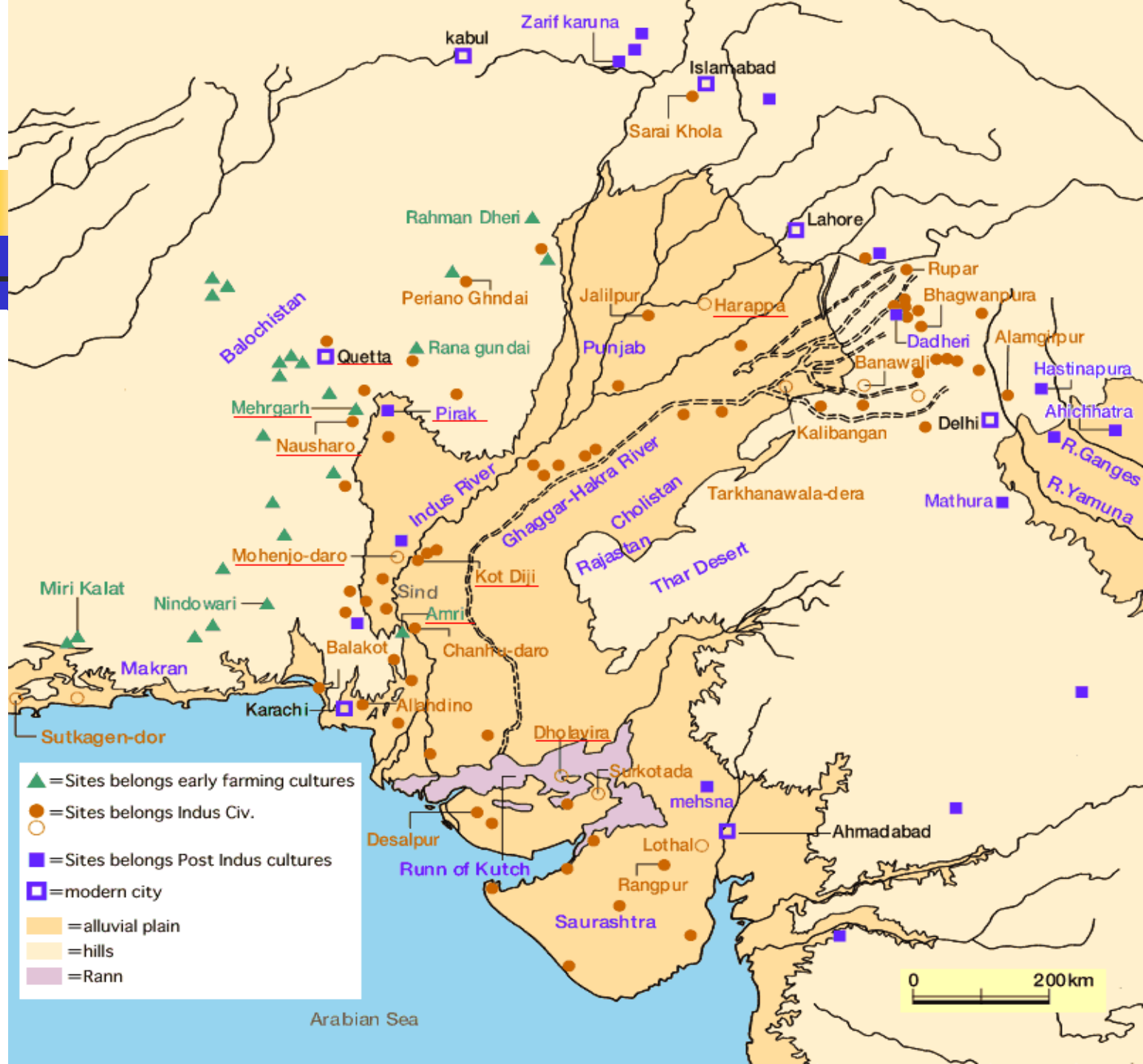
Indus Valley Civilization

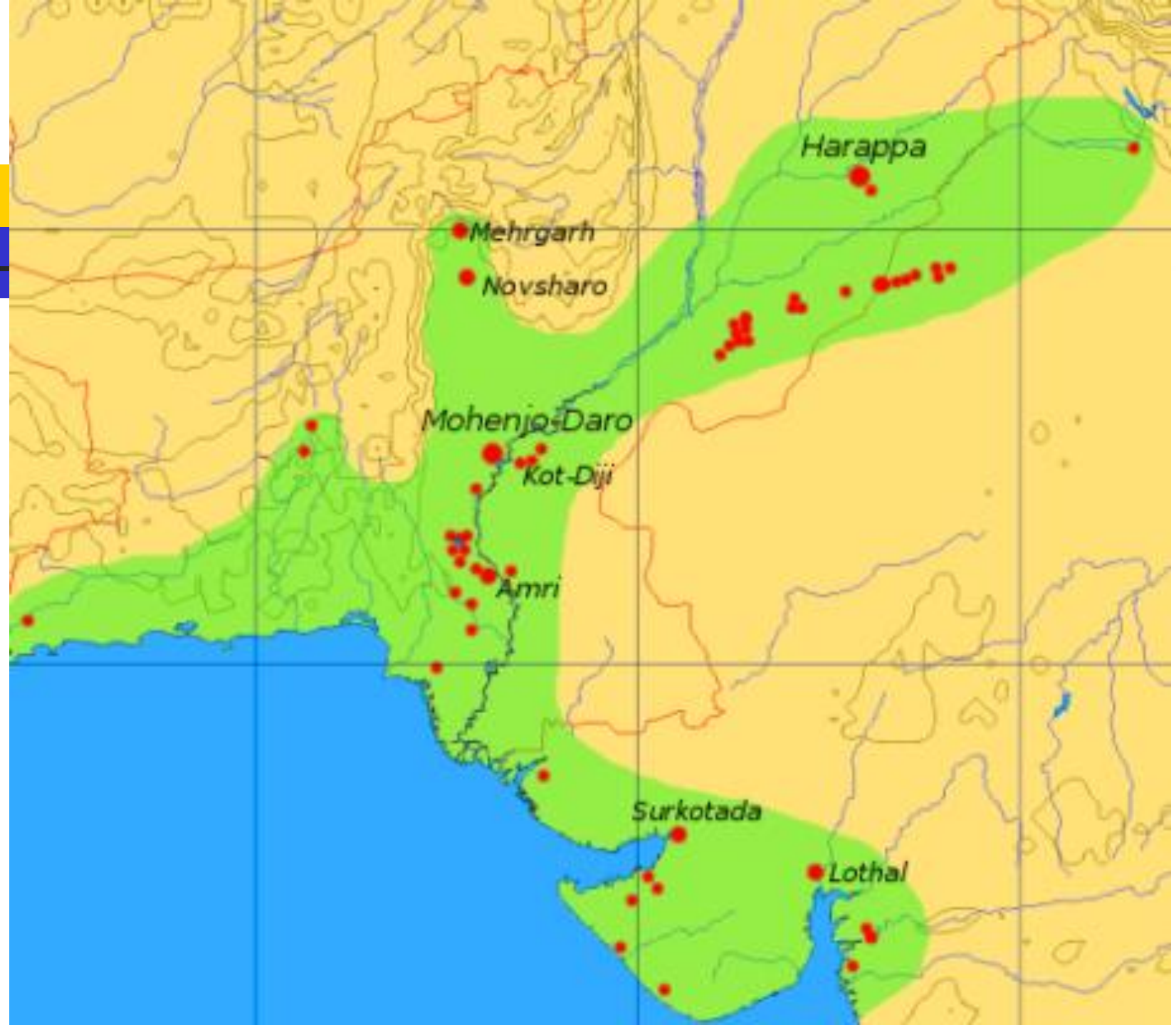
Harappan Civilization

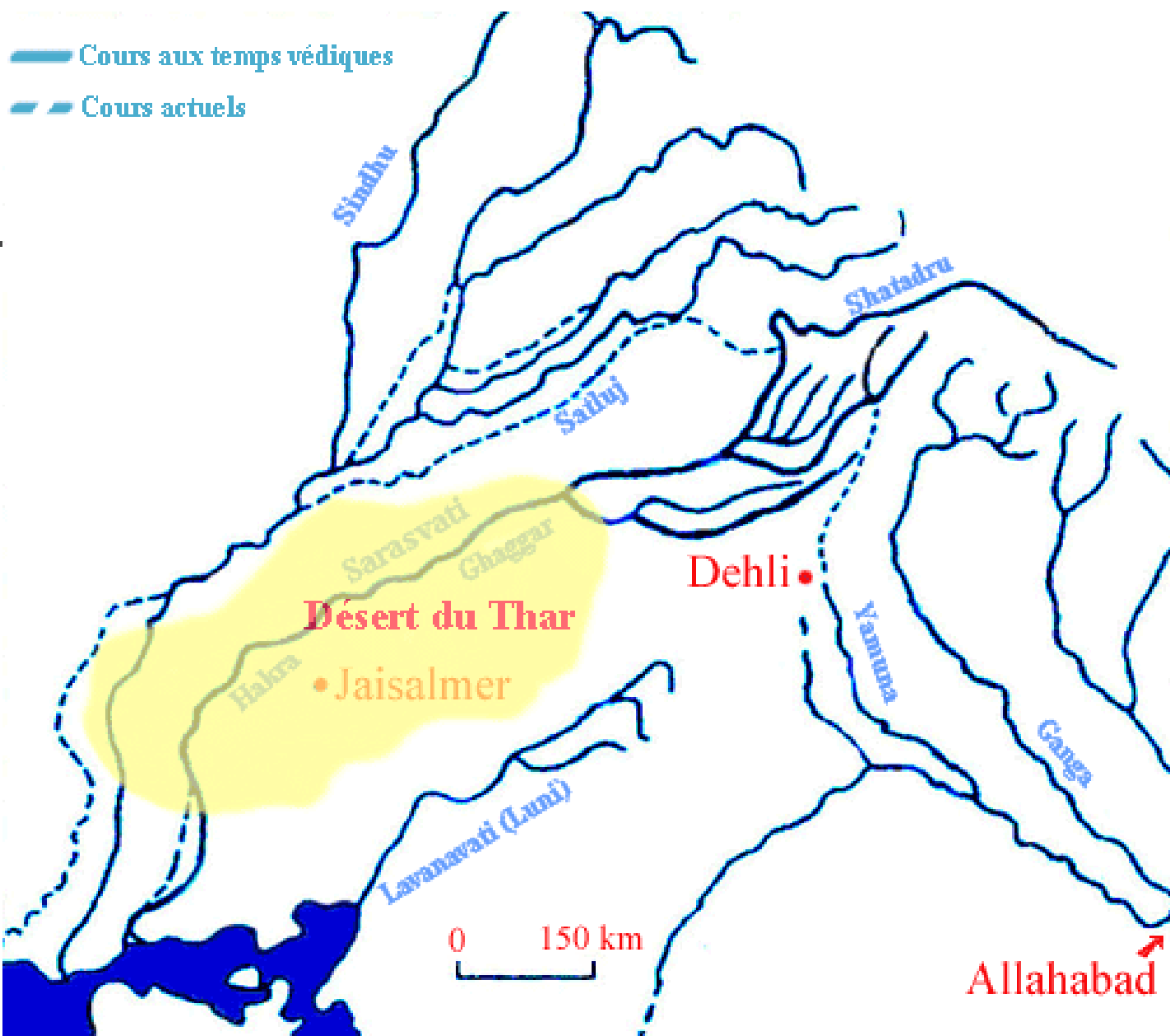


Introduction to The Civilization

- The Indus civilization was predated by the first farming cultures in south Asia, which emerged in the hills of what is now called Balochistan, to the west of the Indus Valley.
- By the middle of the 3rd millennium BC, a uniform culture had developed at settlements spread across nearly 500,000 square miles, including parts of Punjab, Uttar Pradesh, Gujarat, Baluchistan, Sind and the Makran coast, Iran and Afghanistan.
- The **Indus Valley Civilization (IVC)** was a Bronze Age civilization started around 3500 BC.
- Mature period is called Harappan Civilization (2600–1900 BCE) centered mostly in the western part of the Indian Subcontinent.
- It flourished around the Indus river basin Primarily centered along the Indus and the Punjab region. The civilization extended into the Ghaggar-Hakra River valley and the Ganges-Yamuna Doab.









Introduction to The Civilization

- It is best known for its spectacular city planning and surpassed all other contemporary civilizations.
- These early farmers domesticated wheat and a variety of animals, including cattle.
- Pottery was in use by around 5500 BCE.
- Excavation of IVC sites have been ongoing since 1920 and continued as recently as 1999.



Mysteries of Indus Valley Civilization

- The Indus civilization is still poorly understood.
- Its very existence was forgotten until the 20th century.
- Its writing system remains undeciphered.
- Its means of subsistence are still hidden.
- The causes for its sudden disappearance beginning around 1900 BC are unknown.
- What language the people spoke.
- We do not know what they called themselves.
- All of these facts stand in stark contrast to what is known about its contemporaries, Mesopotamia and ancient Egypt.

Writing style of Harappan Civilization





Cities of Indus Valley Civilization

- Almost **1400** cities and settlements in the general region of the Hakra-Ghaggar river and its tributaries.
- Among the settlements were the major urban centers of Harappa and **Mohenjo-daro**, **Mehrgarh** (Pakistan), as well as **Lothal**, **Roper**, **Dholavira**, **Ganweriwala**, **Kalibangan**, and **Rakhigarhi** (India).
- Estimate of peak population of Indus valley is 5 million and for Mohenjodaro and Harappa are 35000 to 41000.



Afghanistan

Kabul

اسلام آباد Islamabad

Xizang (Tibet)

harrapa

mehargarh

kalibangan

New Delhi

moenjodaro

Nepal

Kathmandu

Thimpu Bhutan

Bangladesh

Lothal Archaeological Museum

lothal

India

Arabian Sea

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27°28'23.55" N 73°53'01.67" E elev 699 ft

Eye alt 1659.67 mi



City Planning Practices

- A sophisticated and technologically advanced urban culture is evident in the Indus Valley civilization.
- The quality of **municipal town planning** suggests knowledge of urban planning and efficient municipal governments which placed a high priority on **hygiene**.
- Cities show **regular orientation**. Harappa, Mohenjodaro and Kalibangan has citadel mound in west built on a high mound and residential area was almost square.
- The streets of major cities such as Mohenjo-daro or Harappa were laid out in a **perfect grid pattern**, comparable to that of present day New York.
- The citadel certainly and lower town probably were **fortified**.



City Planning Practices

- Harappan cities did not develop slowly, which suggests that whoever built these cities learned to do so in another place.
- As the Indus flooded, **cities were rebuilt on top of each other.**
- Archaeologists have discovered several different cities, one built over the other, each built a little less skillfully.
- Still, each city is a marvel, and each greatly advanced for its time.
- These people were **incredible builders.** Scientists have found what they think are giant reservoirs for fresh water.
- They have also found that even the smallest house at the edge of each town was linked to that town's **central drainage system.**



City Planning Practices

- World's **first urban sanitation systems** have found there.
- The ancient Indus systems of sewerage and drainage that were developed and used in cities throughout the Indus Empire were far more advanced than any found in contemporary urban sites in the Middle East and even more efficient than those in some areas of modern Pakistan and India today.
- Drainage channels (24"x18") were laid in every main street and (12"x9") in every minor street along with manholes and these were provided with **detachable covers** for cleaning purpose
- The advanced architecture of the Harappans is shown by their impressive dockyards, granaries, warehouses, brick platforms, and protective walls.
- The massive citadels of Indus cities that protected the Harappans from floods and attackers were larger than most Mesopotamian ziggurats.



City Planning Practices

- The cities were mainly divided into **two parts**.
- The general population probably lived in the blocks in the **lower town**, while on or beside the **citadel** mound were buildings of a civic, religious or administrative status including perhaps granaries.
- There appears a **general coordination of measurement** of the streets as the largest being the twice the width of the smaller and three or four times that of the side lanes.
- In Lothal city the area was divided into different blocks with streets of 4 to 6 meters wide and narrow lanes of 2 to 3 meters and main street run from north to south.



City Planning Practices

- The purpose of the "Citadel" remains debated, they were fortified and had square towers and bastions.
- In sharp contrast to this civilization's contemporaries, Mesopotamia and ancient Egypt, **no large monumental structures** were built.
- There is no conclusive evidence of palaces or temples or, indeed, of kings, armies, or priests.
- Found at one city is an enormous **well-built bath**, which may have been a public bath.



Dwelling Patterns

- Houses were one or two stories high, made of baked brick, with flat roofs, and were just about identical.
- Each was built around a courtyard, with windows overlooking the courtyard. The outside walls had no windows.
- Each home had its own private drinking well and its own private bathroom in some cases at the first floor.
- Clay pipes led from the bathrooms to sewers located under the streets. These sewers probably drained into nearly rivers and streams.
- The houses were protected from noise, odors, and thieves. .
- Hearths are commonly found in the rooms and one gets the impression of a vast middle-class society.



Structural Crafts

- Standardization of brick size, the predominant brick size was **28x14x7** cm.
- **Skills of bricklayers** are evident by regularity of the plain undecorated brick work of the acres.
- **Wedge shaped bricks** were used to make wells
- Plaster of brick dust and lime
- **Timber used as beams**



Indus Valley Trade

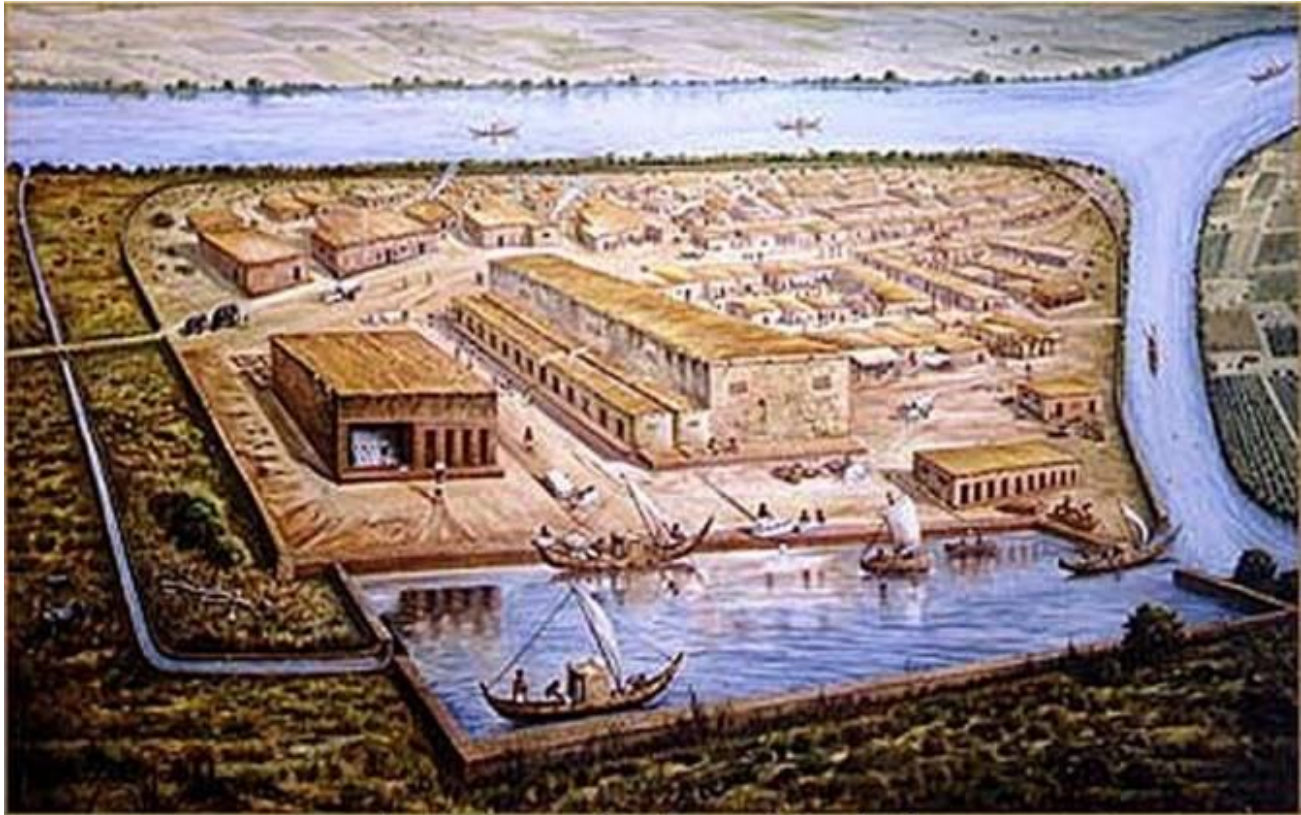
- Most city dwellers appear to have been traders or artisans, who lived with others pursuing the same occupation in well-defined neighborhoods.
- Materials from distant regions were used in the cities for constructing seals, beads, and other objects.
- Among the artifacts made were beautiful beads of glazed stone and seals.
- The seals have images of animals, gods, etc., and inscriptions. Similar seals were found in Mesopotamia, which seems to indicate possible trade between these two civilizations.
- Some of the seals were used to stamp clay on trade goods, but they probably had other uses.



Indus Valley Trade

- The Indus civilization's economy appears to have depended significantly on trade with Afghanistan, Persia, Central India and Mesopotamia.
- Their advances included wooden wheeled bullock-driven carts, camels, elephants as well as boats.
- Most of these boats were probably small, flat-bottomed craft, perhaps driven by sail, similar to those one can see on the Indus River today; however, there is secondary evidence of sea-going craft probably used to sail around the Arabian Sea.
- Archaeologists have discovered a massive, dredged canal and docking facility at the coastal city of Lothal.
- In Lothal city traces of shops of copper and goldsmiths and bead factory are found

Lothal City



Artists rendering of Lothal



Social Life in Indus Valley Region

- Dinner might have been warm wheat bread, barley or rice.
- It appears that they were very good farmers.
- They grew barley, peas, melons, wheat, and dates. Farms raised cotton and kept herds of sheep, zebus (a kind of cow), and buffalo.
- Fish were caught in the river with fish hooks!
- Each town had a large central storage building for grain. Crops were grown, and the harvest stored centrally, for all in the town to enjoy.

Social living at Indus Valley Region



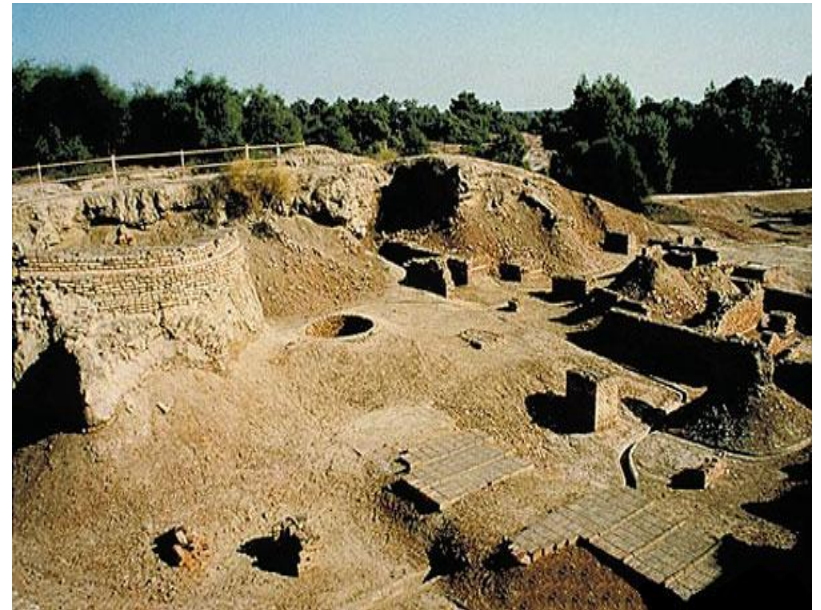
Social living at Indus Valley Region



Indus Valley Civilization Remains

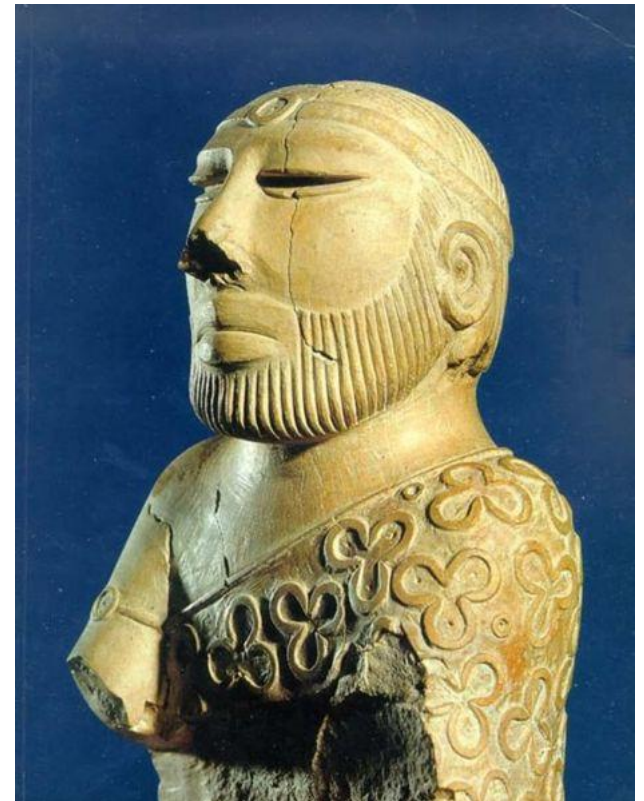


Mehrgarh



Harappa

Indus Valley Civilization Remains



Indus Valley Artifacts





Social living at Indus Valley Region

- Clothing was made from resources found in each region. Cotton and wool were the most abundant, since silk was not introduced from China until around the 1st century B.C.
- People also enjoyed lavish embroidery and embellishments.
- Gold being the preferred, though there was also an abundance of silver and precious gems.
- Harappan people probably worshipped a Mother goddess. Some Indus valley seals show signs of Indian religions such as Hinduism.
- At Lothal and Kalibangan some remains of cemeteries are explored but such evidences are not clear about other cities.
- Dead were buried with pottery and ornaments and from Lothal cemetery pairs of skeletons found in one grave which points towards the custom of sati.

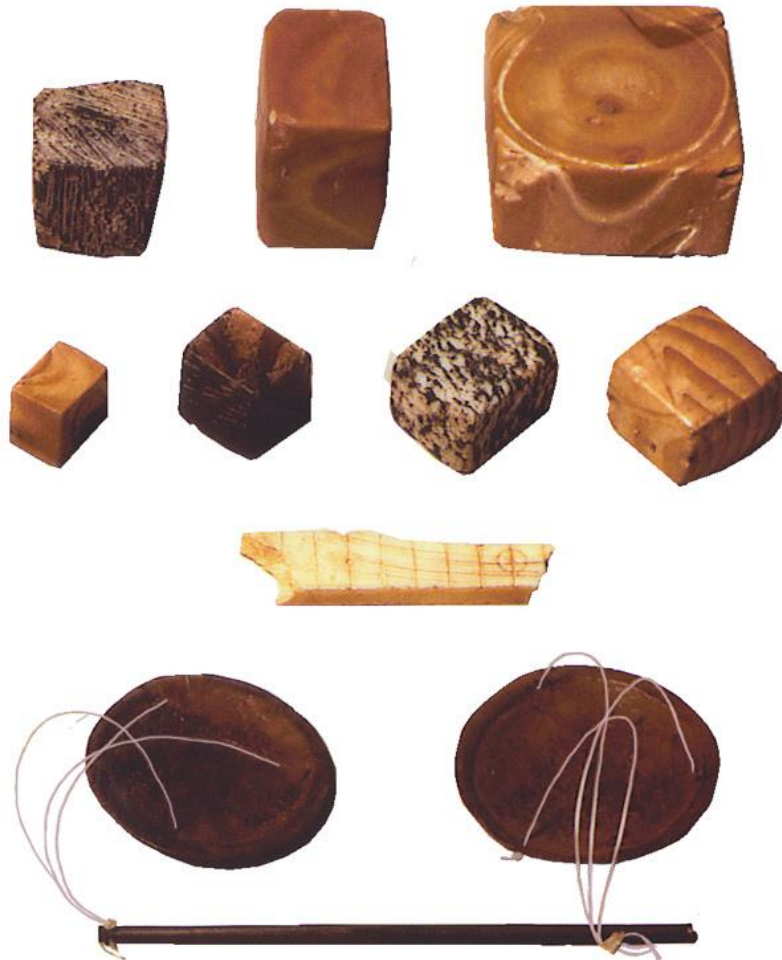


Science and Technology

- The people of the Indus Civilization achieved great accuracy in measuring length, mass, and time.
- They were among the first to develop a system of **uniform weights and measures**. Their measurements are said to be extremely precise.
- Their smallest division, which is marked on an ivory scale found in Lothal, was approximately **1.704 mm**, the smallest division ever recorded on a scale of the Bronze Age.
- Harappan engineers followed the **decimal division**.
- Harappans evolved some new techniques in metallurgy and produced **copper, bronze, lead and tin**.
- People of the Indus Valley Civilization, from the early Harappan periods, had knowledge of **proto-dentistry**, evidence for the drilling of human teeth was found in Mehrgarh.



Science and Technology





Decline of Indus Valley Civilization

Around 1700 BC Harappan culture was on the verge of decline.

Causes of decline are not certain, these might be

- Ecological changes (deforestation, soil depletion)
- Earthquakes
- Changes in agriculture
- Increase in population
- Changes in the river flow pattern
- The invasion of the Arians.

City of Dholavira

