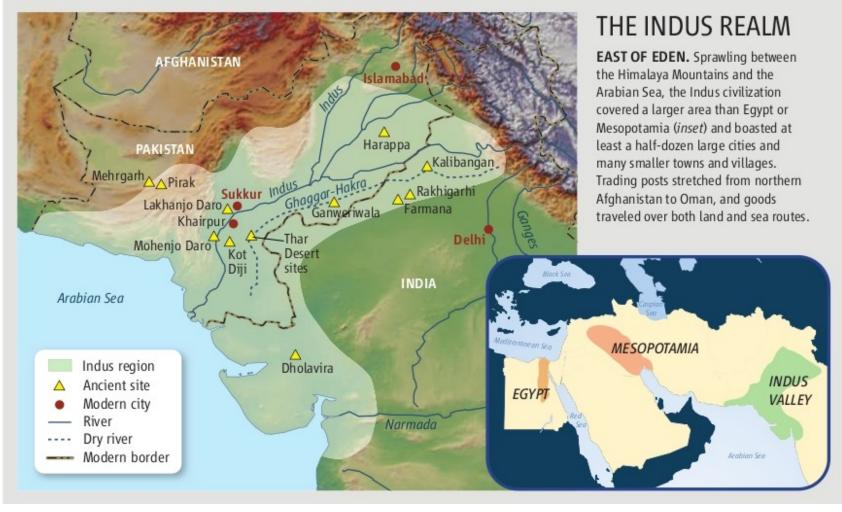


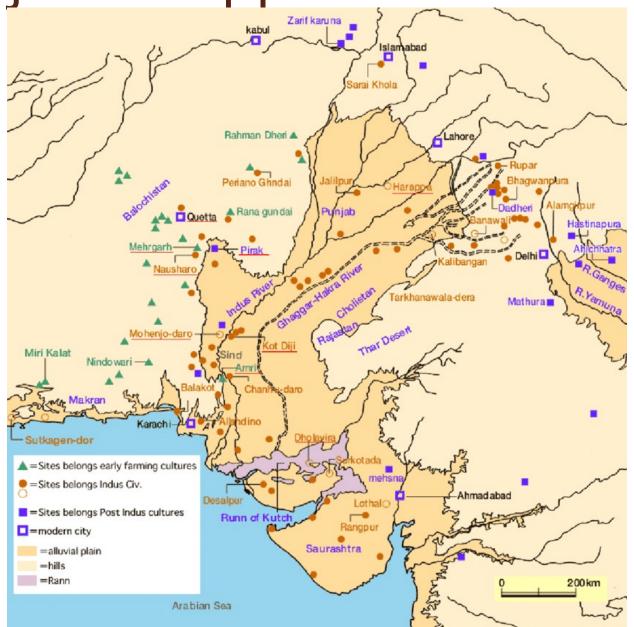


- The Rise and Fall of Indus Valley / Harappan Civilization
- Salient Features of IVC
- Indus Script
- Possible Languages linked to the Indus Script
- Current Research

Indus Valley(Harappan) Civilization



Major Harappan Sites



Indus Valley Civilization – Stages of Development

Stage	Description	Period
One	Beginnings of village farming communities and pastoral camps	7000-4300 BCE
Two	Developed village farming communities and pastoral societies	4300-3200 BCE
Three	Early Harappan	3200-2600 BCE
Four	Early Harappan - Mature Harappan transition	2600-2500 BCE
Five	Mature Harappan	2500-1900 BCE
Six	Post-urban Harappan	1900-1000 BCE

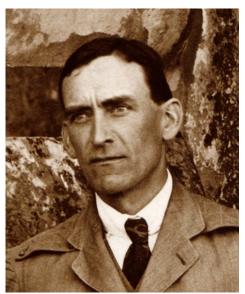


- George Masson's visit to Harappa in 1820s and publication of his accounts in 1842
- Alexander Burns visits Harappa ~1831
- Annexation of Punjab in 1848-49
- British rule of India and the formation of ASI
 - Alexander Cunningham as the first DG
- John Marshall heading ASI (1902?-1928)
- RD Banerji and D.Sahni heading efforts in Mohenjodaro and Harappa, respectively
- Announcement in 1924

Indus Valley Civilization – Discovery



R.D. Banerji

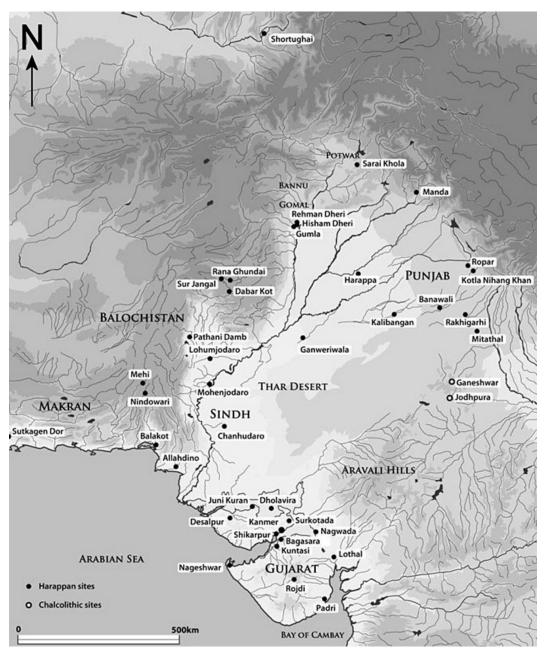


John Marshall



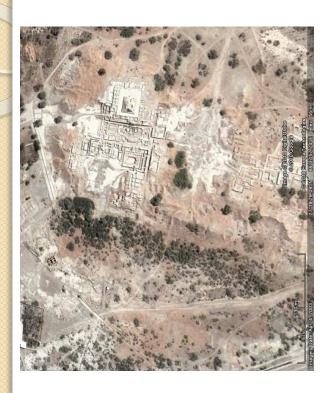
Daya Ram Shani

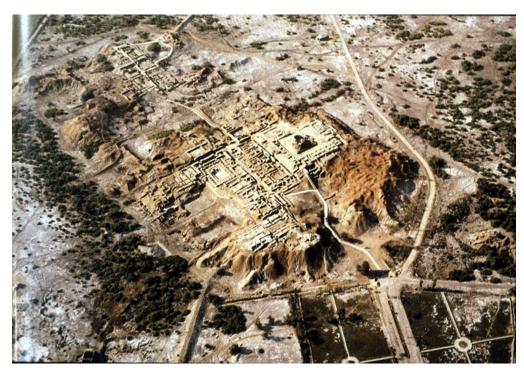
Urbanization



Major Urban Centres

Mohenjo-daro





Area ca. 225 ha or 2.25 sq.km

Major Urban Centres Harappa



Area ca. 100 ha or 1.0 sq.km

Major Urban Centres

Dholavira

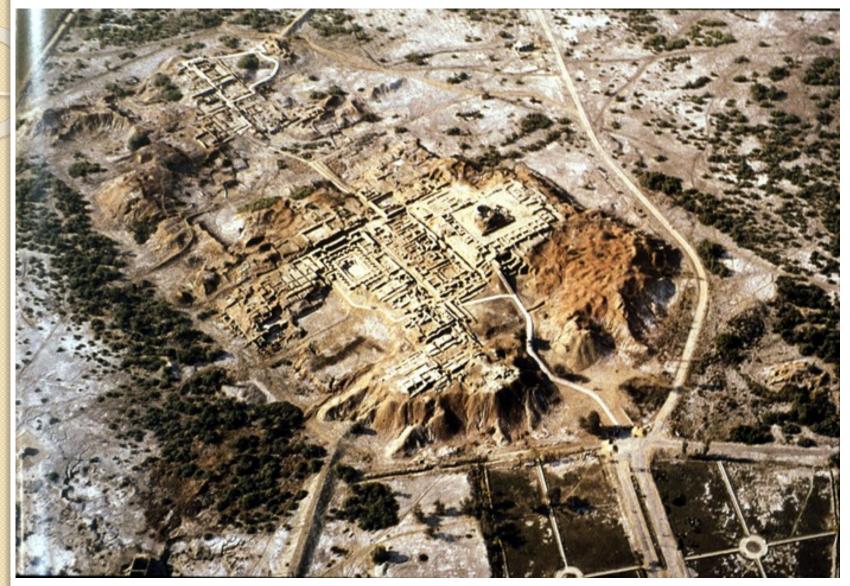


Area ca. 100 ha or 1.0 sq.km

Urban Planning: Modern – Neyveli, Tamil Nadu

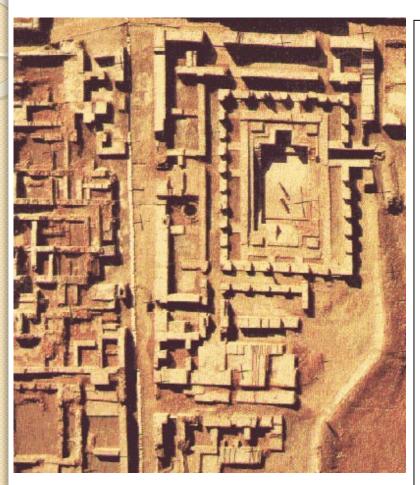


Urban Planning: Citadel Mound – Mohenjodaro



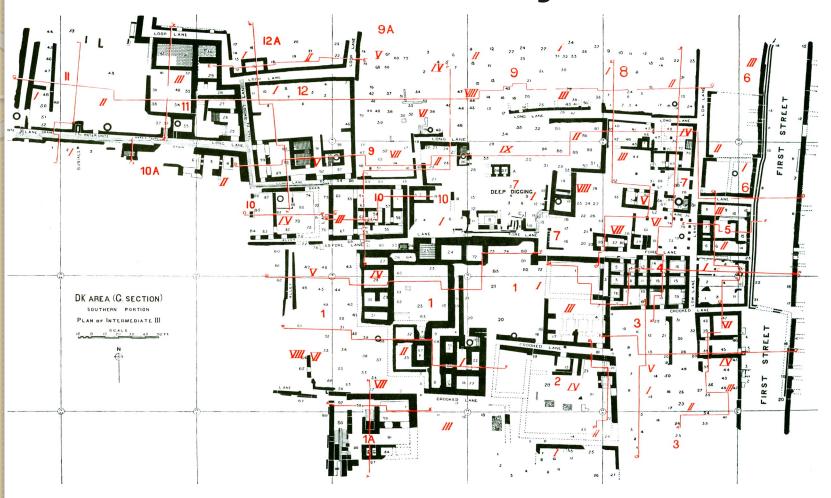
Aerial View

Urban Planning

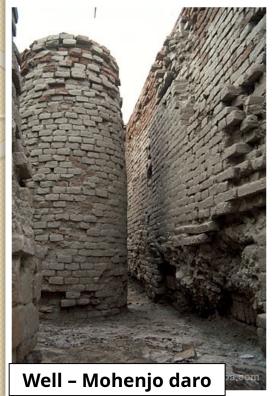


- Properly designed drainage system
- Separation of fresh water (e.g. well) from drainage water
- Lined, covered drainage Canals
- Bath/shower areas in many houses

Planned Cities – Mohenjodaro Plan



Wells





- Private and public wells
- Mostly circular, with some oval shaped
- Many lined with wedge shaped bricks



Drainage





Drainage - Harappa

- Harappans cities had covered drainage channels
- The drains were built in such a way that sewerage water was directed away from fresh water sources
- Many houses also had bathing areas and sump pits



Drainage - Lothal



Drainage - Dholavira



Covered drainage – Mohenjo daro

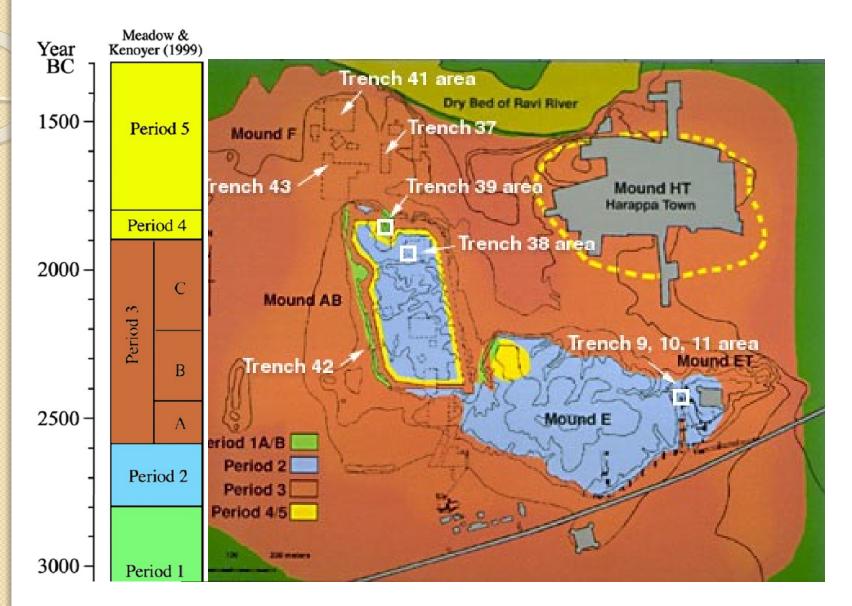
Architecture

- Based primarily on fired bricks, which were standardized across IVC during the Mature Harappan phase
- Use of unburnt bricks also found in earlier and later phases. Mud bricks, along with certain locally available stone (e.g., Dholavira) use in some cases, or for specific uses (fortification)





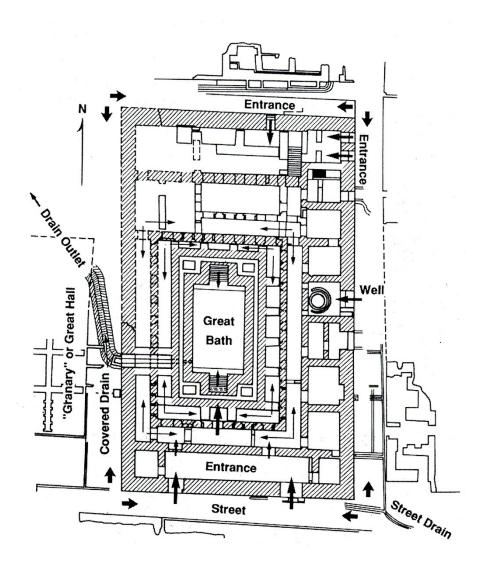
Architecture



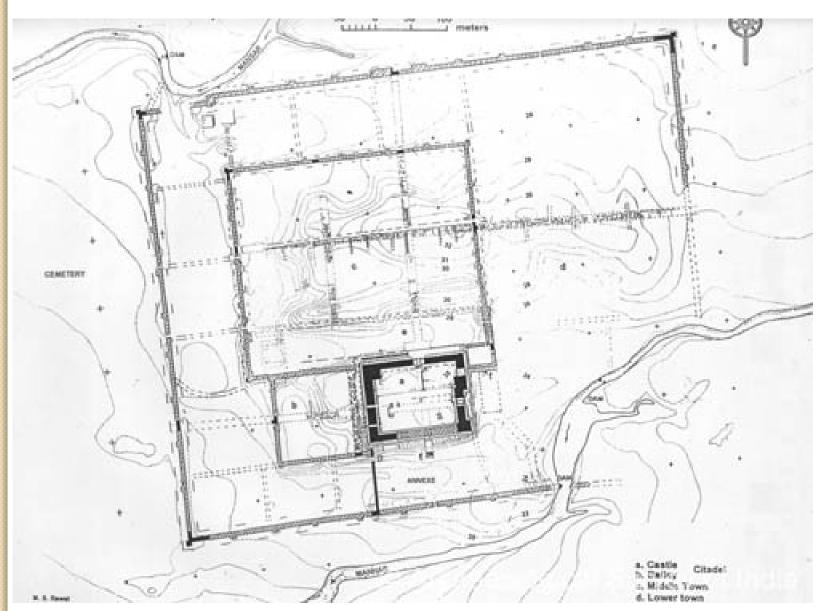
Architecture: Mohenjo daro's Great Bath



Architecture: Mohenjo daro's Great Bath



Dholavira – Schematic Plan



Architecture: Dholavira









Harappan Art – Kot Diji Phase



Terracotta Bangles



Button Seal





Kiln

Images courtesy: Jonathan Mark Kenoyer



Terracotta Figurines



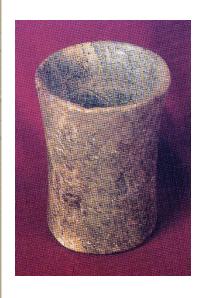
Water buffalo figurine

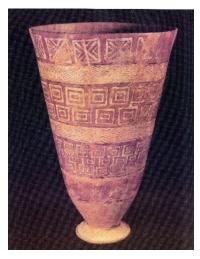


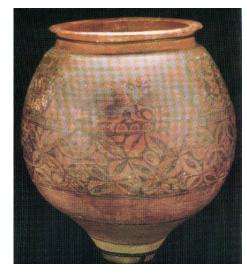
Zebu figurines



Ox/buffalo drawn cart













Harappans wore jewellery made from gold and semi-precious stones. Using pyrotechnical Expertise, Harappans were able to create semi-precious stones that they were able to export.

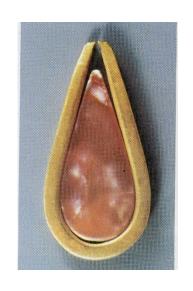








Many crafts "such as shell working, ceramics, and agate and glazed steatite bead making" were used in the making of necklaces, bangles, and other ornaments from all phases of Harappan sites and some of these crafts are still practiced in the subcontinent today.









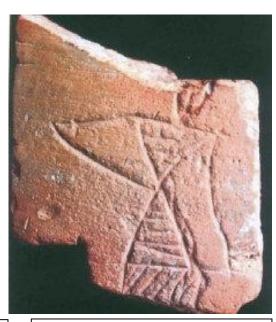








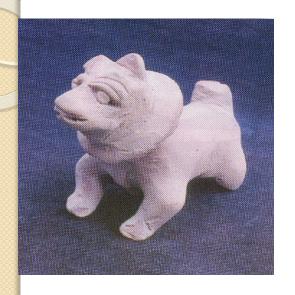




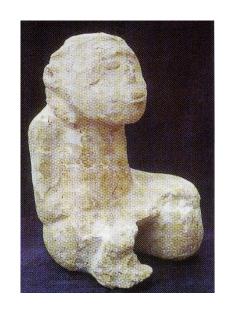
The famous "dancing girl" bronze figurine of Mohenjo daro cast using "lost wax" process

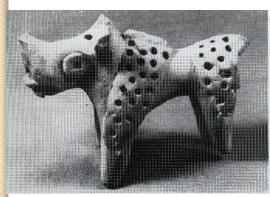
Woman striking a similar Pose on a potsherd engraving

A number of gold, terra-cotta and stone figurines of girls in dancing poses reveal the presence of some dance form.



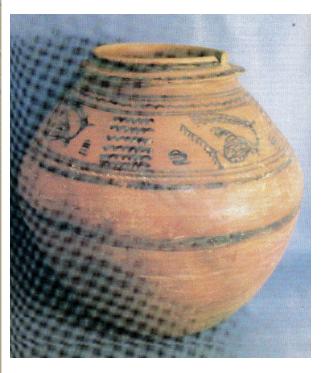












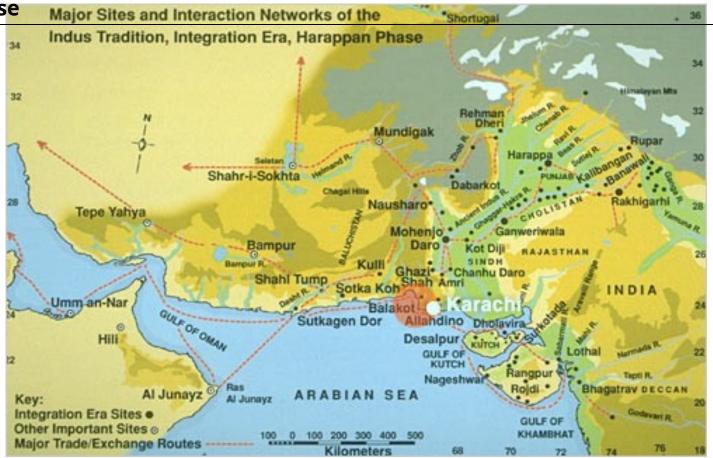


Even during the late Harappan period (e.g. Cemetery H culture) pottery with exquisite paintings were made. However, the Indus script is notably absent from the pottery of this period.

Economy and Commerce

Judging from the dispersal of Indus civilisation artifacts, the trade networks, economically, integrated a huge area, including portions of Afghanistan, the coastal regions of Persia, northern and western India, and Mesopotamia.

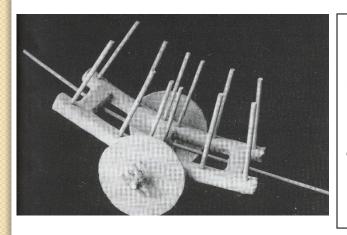
There was an extensive maritime trade network operating between the Harappan and Mesopotamian civilizations as early as the middle Harappan Phase



Economy and Commerce



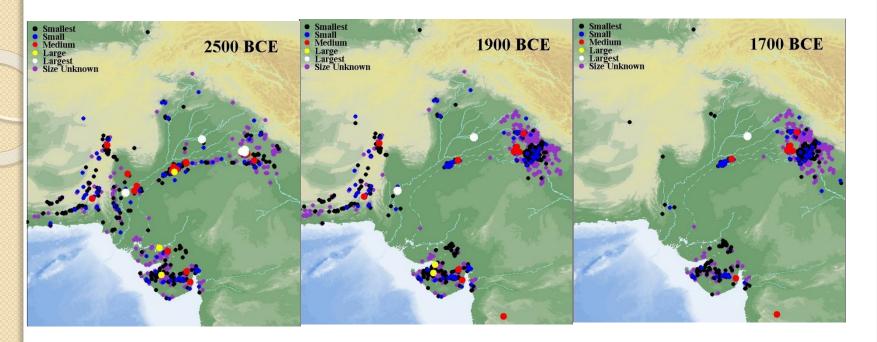




Much commerce being handled by "middlemen merchants from Dilmun" (modern Bahrain and Failaka located in the Persian Gulf).

The land "Meluhha" found in Sumerian literature is widely believed to be the Harappan cities.

Decline and Fall

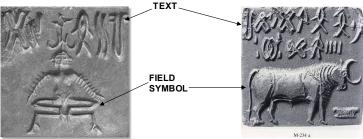


- A possible reason for the IVC's decline is connected with climate change that also affected the neighboring areas of the Middle East (e.g. 4.2 KYBP event).
- Another reason could disappearance of substantial portions of the Ghaggar Hakra river system, possibly due to a tectonic event / or decreased rainfall
- Implosion of the Harappan society due to social upheaval
- Arrival of a different linguistic group with access to superior technology

Images courtesy: Kavita Gangal and Ronojoy Adhikari

Harappan Inscribed Objects





Incised Copper Tablet

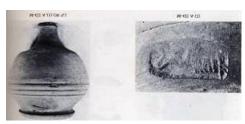








Tablets







Other Copper Tools









Seal and seal impression

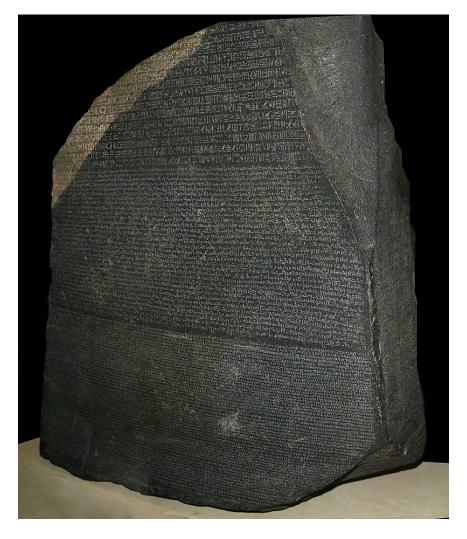
Nature of the Indus Script

- Generally written from right to left
- Some examples of left-to-right and boustrophedon writing is also seen
- Most found on steatite seals (of about 2.5 x 2.5 cm), terracotta tablets, and seal impressions
- Also found on copper objects and pottery

Why is the Indus Script not Deciphered Yet?

- Absence of bi-lingual texts
- Relatively short texts (average text is about 4.5 signs long)
- Number of texts available is relatively few (~4000)
- Underlying language not known (with certainty)

Bilingual Texts that Helped other Scripts – Rosetta Stone



Egyptian Hieroglyphic, Demotic, and Ancient Greek inscriptions found at Rosetta/Rashid, Egypt, in 1798

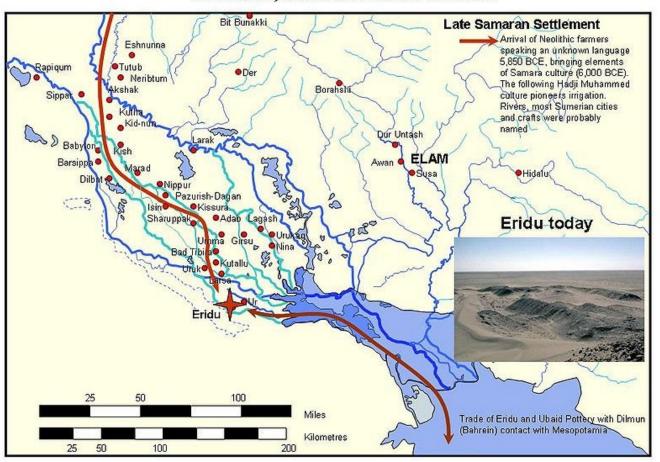
Bilingual Texts that Helped other Scripts - Behistun Inscription



Akkadian, Elamite and Old Persian at Mount Behistun, Kermanshah, Iran

Proto-Sumerian Language

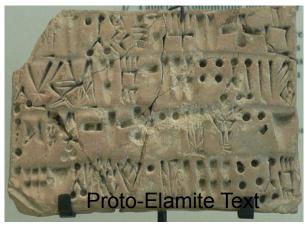
SUMER, AKKAD AND ELAM



D. R. Hunter, compared the Indus script to contemporaneous scripts such as Sumerian and found common features.

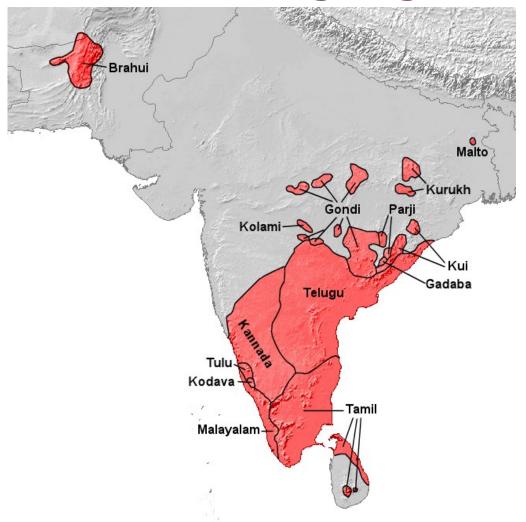
Proto-Elamite Language





David McAlpin suggested that the Indus script evolved from a proto-Elamo-Dravidian language. This hypothesis is being questioned now

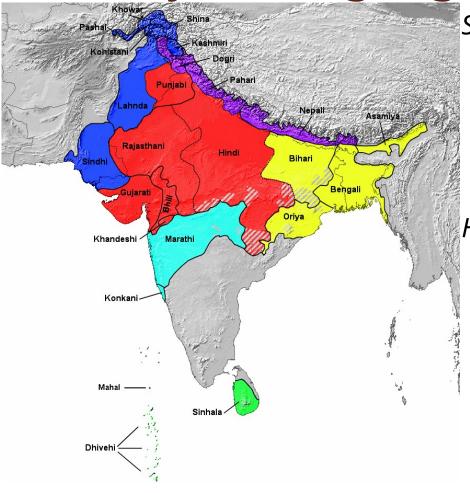
Dravidian Languages



Dravidian languages are mainly spoken in southern India and parts of eastern and central India as well as in northeastern Sri Lanka.

Epigraphically the
Dravidian languages
have been attested
since the 6th century
BC. Only one
Dravidian Language,
the Brahui language,
is exclusively spoken
outside India.

Indo-Aryan Languages

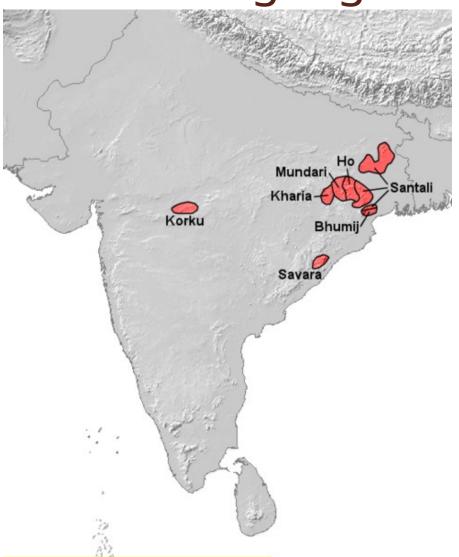


Some scholars believe that Sanskrit is indigenous to India, and this was the language spoken by the Harappans.

However, the earliest date for the Rg Ved is around 1500 BCE, much later than the decline of the Harappan civilization.

Central zone 🔃 Northern zone 🔃 Northwestern zone 🔃 Eastern zone 🔃 Southern zone 🔃 Insular (Southern)

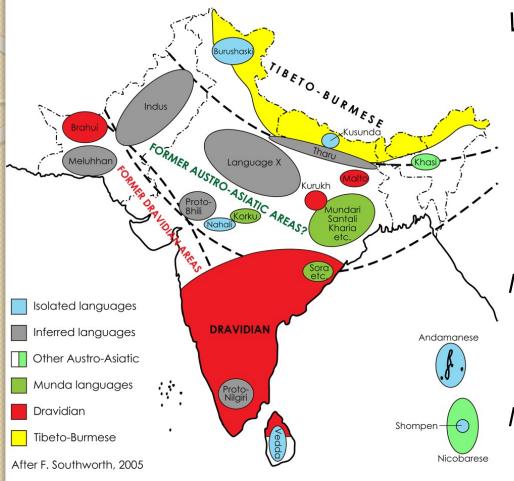
Munda Languages



The Munda languages belong to the Austroasiatic language family and are spoken in central and eastern India and Bangladesh

The origins of the Munda languages are not known, though it is generally thought that they are autochthonous (indigenous) languages of eastern India.

Language X



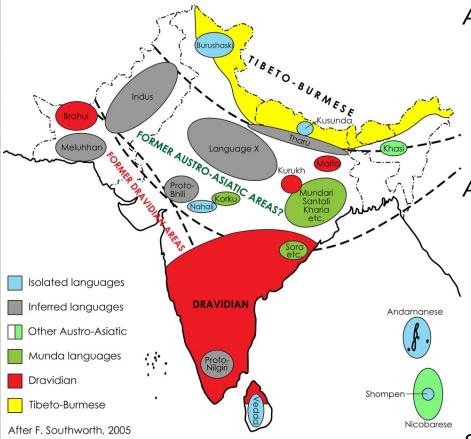
While analyzing agricultural terms used in the Gangetic plains, Colin Massica found that more than 25% of the terms could not be traced back to either Dravidian or Indo-Aryan languages

Massica believes that a now extinct language was

Massica believes that a now extinct language was spoken at the time of Indus Valley Civilization.

Massica calls it "Language X".

Multiple Languages



According to this theory, the peoples of the Harappan civilization spoke multiple languages, including Dravidian, Munda, Language X and others.

According to this theory, as the Indus civilization started to weaken, the peoples of the civilization migrated to various other parts of the country along with their languages. Some languages, such as Language X, simply vanished.

Some scholars, however, maintain that the uniformity of the Indus script found at the various excavation sites preclude the use of multiple languages.

Questions?

Thank You