Harappan Architecture

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First recorded in 18\textsuperscript{th} century CE, when a British army personnel James Lewis noticed the mounded ruins in Harappa.

Alexander Cunningham visited this site in 1853 and 1856, he did some small excavations and reported some discoveries of pottery, stone tools and a seal.

By 1872, the site experienced heavy brick robbing and virtually its upper layer were destroyed.

A proper excavation was started in 1920-21 by Pandit Daya Ram Sahni, under the general supervision of John Marshall, then D.G. In 1922 another site Mohenjo-Daro was excavated by Rakhaldas Banerjee.

The formal announcement of this great discovery was first time published in “Illustrated London News” on 20 September 1924 in form of a article published by John Marshall.
BUILT MORE THAN 2000 YEARS AGO, BUT COVERING TWO STRATA OF EARLIER REMAINS: THE SECOND-CENTURY BUDDHIST STUPA AT MOHENJO-DARO, ON AN ISLAND IN THE DRY RIVER-BED.
Harappan Culture is also named as Indus Valley Civilization, Indus-Saraswati Civilization, Harappan Civilization etc.

- Spread in western part of Indian subcontinent, presently falls in India, Pakistan and Afghanistan
- Covered an area of about 1.5 million sq. km and considered as the largest civilization of the world
- About 2000 Harappan sites are discovered in which more that 100 have been excavated
- The four major urban centres were – Harappa, Mohenjadaro, Dholavira and Rakhigarhi
The other major contemporary Civilizations in World were

- Civilization of Egypt
- Civilization of Mesopotamia
- Chinese Civilization

The Harappan Civilization was at least twice as big as either Egypt or Mesopotamia
The first urban culture of India developed gradually from earlier Neolithic village Cultures.

The better technologies to exploit the fertile plains probably have resulted in surplus agricultural production which was responsible for different artisan classes.

It also helped in promotion of exchange/trading contacts with other regions.

The long and complex cultural process of Harappan Culture consists three phases – Early Harappan, Mature Harappan and Late Harappan.

The Early Harappan phase was formative or proto urban phase; the Mature Harappan phase was full fledged urban phase and Late Harappan was post urban phase.

Broad chronology based on C-14 dates:

• Early Harappans – 3200 to 2600 BCE
• Mature Harappans – 2600 to 1900 BCE
• Late Harappans – 1900 to 1300 BCE
Distribution of Sites

Principal Mature Harappan Sites

- TURKMENISTAN
- TAJIKISTAN
- CHINA
- AFGHANISTAN
- PAKISTAN
- IRAN
- ARABIAN SEA

Map showing sites in the region with different symbols for different categories of sites.
Early Harappan Phase

Indus Valley Civilization
Early Harappan Phase
(3300-2600 BCE)

- Town or village
- River
- Early Harappan sub-region
- Other archaeological culture, Natural feature

Map showing the Indus Valley Civilization, focusing on the Early Harappan Phase (3300-2600 BCE), with marked locations such as Harappa, Mehrgarh, and other archaeological sites related to the Harappan civilization.
Early Harappans

- It immediately preceded Mature Harappan and consists many of the diagnostic features of Mature Harappan culture
- Transitional phase between rural to urban
- It has been variously referred to as Kotdijian, Pre-Harappan (Kalibangan, Banawali), Hakra ware culture
- Important sites are Sothi, Kalibangan, Banawali, Rakhigarhi, Bhirrana, Dholavira in India and Kotdiji, Amri, Rahman Dheri, Jalilpur, Harappa, Mohenjodaro are Pakistani counterpart

Settlement & Architecture
- Marked by rudimentary form of grid pattern for town planning mostly with houses of sun dried mud bricks (3:2:1)
- Almost all the sites were surrounded by fortification wall
- Houses were around courtyards
- Presence of wide streets running in the core area of the settlement
- Many of the settlements had kilns indicating a sharp increase in specialized crafts
- A sort of contacts with other group of peoples
- Initial stage but high level of specialized arts and crafts
- Emergence of writing
Mature Harappan Phase

Indus Valley Civilization
Mature Harappan Phase
(2600-1900 BCE)

- Major city
- Town or village
- Extent of Mature Harappan phase
- Other archaeological cultures, Natural feature

- Culture
- River
About 1100 Mature Harappan Sites have been discovered in which 400 are located in Pakistan and remaining are in India.

Among these about 100 sites are excavated; Pakistan – 42, India – 55

The remains show the evidence of first Urban settlement in Indian subcontinent which gradually grow from the village settlement in same area.

The settlement can be divided into three categories –

❖ Village of Hamlets – Occupying the area up to 10 hectares
❖ Towns – Occupying the area between 10 to 50 hectares
❖ Cities – Occupying the area more than 50 hectares (1 hectare = 10000 sq.m)

Maximum number of site are represented by village or hamlets

All major sites are located in diverse environmental and geographical settings which resulted slight variation in planning of settlements

Architecture of Mature Harappan
Major Harappan sites have brought to light excellent evidence of specific planning and lay out of habitation area.

Except Dholavira, the Harappan town planning is usually based on duality – acropolis /upper town and lower town. But at Dholavira three parts-acropolis, middle town and lower town.

Acropolis or citadel invariably fortified and mostly located to the west while lower town located towards east and occasionally fortified.

All major centres were built entirely of bricks and chiselled stone block with specific ratio of 4:2:1.

The city layout was in grid pattern. Streets and lanes cutting across one another almost at right angle and dividing city in blocks.

The most remarkable features were the regularity and consideration given to the civic amenities.
Fig. 10. Plan of houses and streets, Mohenjo-daro.
Mohenjo-Daro had straight streets and large public buildings and meeting places. Its two-story houses were built of baked bricks, and many included rooms for bathing.
The streets were straight and oriented towards cardinal direction.

They divide the settlement in several rectangular blocks.

Both narrow and broad streets were found, varying from 4 feet to 30 feet.

Streets have rounded corners, which shown the basic principle of traffic.
Harappan Civilization had efficient sanitary and drainage system.

Before Roman, no civilization had such drainage system.

Each and every house had a connection of main drain.

The drains were run below the streets/lanes and had inspection holes.

The covered drains were connected with larger sewerage outlets.

Sometimes the main drains were more than five feet deep.
Corbelled Drain Arch, Harappa
The basic unit of Town Planning was the individual houses in which smaller unit usually consists 2-3 rooms

- The houses in lower town were functional rather than decorative
- Thickness of wall and remnants of staircases indicates that houses were usually double storeyed
- Built on plinth rises above street level
- Each house built around courtyard
- The roofs were made of reed matting and covered with thick mud coat
Harappan Settlement
Important public buildings are Great Bath, Granary, Assembly Hall etc.

- Great Bath (12x7x2.4m) of Mohenjodaro is earliest public water tank in the world

- Situated almost in the centre of mound

- It was provided with two wide staircases from north and south

- Floor was water tight with gypsum plaster, bitumen was also used to water tightening

- A series of rooms located along eastern row
The so-called ‘granary’ of Harappa consists of 2 rows of 6 rooms, each measuring 15x6 m.

The rooms are arranged along a central passageway (7m wide).

Each room has three sleeper walls with air space.

Many scholars disagree with the granary concept and suggest it might be a public building for religious purposes.
Types/Nature of Settlement

➢ Metropolitan Sites – Harappa, Mohenjodaro, Rakhigarhi, Ganeriwala, Dholavira: these sites spread in more than 50 h area
➢ City Sites – Kalibangan, Surkotda, Bhirrana, Mitathal, Naushero, Chanhudaro etc.
➢ Special purpose sites
  ▪ Lothal – Trading centre, bead making centre
  ▪ Kuntasi – Bead making centre, seal making
  ▪ Nageshwar – Shell working centre
  ▪ Sutkagendor – River side trading post
  ▪ Rahman dheri – Harappan terracotta cakes site
  ▪ Shortgui – To control the mining of lapiz lazuli and other semi precious materials in this area
Late Harappan Stage

➢ This stage is also known as Jhukar Culture in Sindh, and Cemetery H Culture in Punjab (Pakistan).

➢ It represents an assemblage showing some sort of cultural continuity with the Mature Harappans.

➢ On the basis of pottery, it has been suggested that there was a reciprocal contacts between Jhukar culture of Sindh and Late Harappan Culture of Lothal and Rangpur.

➢ It is significant that on the one hand there was severe reduction in population in Sindh and Cholistan, but on the other hand the number of settlements increased in Punjab, Haryana and Gujarat.

➢ It suggests eastward and southward shift of people.
Late Harappan Settlement Patterns

- There was a general decline in civic standard in comparison of Mature Harappan
- Planned houses were replaced by inferior structures, which were small in size and generally made of wattle and daub
- No mud brick houses, drains and public buildings are noticed
- The Late Harappans settlement in Haryana are usually away from the perennial rivers and located outside the flood plains
Summary

- First Urban Civilization of South Asia
- It had high level of standardization evident in size of bricks, weight measures, seals etc.
- Cultural homogeneity as well as diversity within the vast area has been noticed
- The Mature/Urban phase of Harappan Culture emerged from the local village cultures
- This civilization did not come to sudden end