

Indus/Harappan civilization

- In 1826, an Englishman Charles Masson visited a village named Harappa in western Punjab (now in Pakistan).
- In 1872 a famous archaeologist, Sir Alexander Cunningham, came to this place.
- Cunningham collected some archaeological objects from this site, but he could not determine to which period of history they really belonged.
- In 1920 **Dayaram Sahni excavated** Harappa and in 1921 **RD Banerjee** started excavating Mohenjodaro.
- The formal announcement of the discovery of Indus or Harappan civilization was made by **John Marshall in 1924.**
-

5500- 3500 BCE	Neolithic	<ul style="list-style-type: none"> ● In the Baluchistan and Indus plan, settlements like Mehrgarh and Kili Gul Mohammed came up. ● Beginning of pastoralism with limited cultivation and seasonal occupation of villages. Permanent villages emerged. ● Knowledge of wheat Barley, dates, cotton and sheep, goat and cattle. ● Evidences of mud houses, pottery and craft production found
3500-2600 BCE	Early Harappan period	<ul style="list-style-type: none"> ● Many more settlements were established in hills and plains. Largest number of villages occur in this period. ● Use of copper, wheel and plough. ● Extraordinary range of pottery forms showing the beginning of many regional traditions. ● Evidence of granary, defensive walls and long distance trade. ● Emergence of uniformities in pottery tradition throughout the Indus valley. Also origin of such motifs as pipal, humped bull, cobras, horned deity etc.

2600-1800 BCE	Mature Harappan period	<ul style="list-style-type: none"> • Emergence of large cities uniform type of bricks, weights, seals, beads and pottery. • Planned township and long distance trade.
1800 BCE onwards	Late Harappan period	<ul style="list-style-type: none"> • Many Harappan sites were abandoned. • Inter regional exchange declines. • Writing and city life abandoned. • Continuation of Harappan craft and pottery tradition. • The villages culture of Punjab, satluj-Yamuna divided and Gujarat imbibe Harappan craft and pottery tradition.

Origin of Harappan civilization

- Various theories of origin of Indus valley civilization

Diffusionist Explanation

- **M.Wheeler** - elements of urbanism would have migrated from Mesopotamia.
- **E.J.H Mackay**- Migration of people from Sumer may have led to Harappan civilization.
- **D.H Gordon, S.N Kramer and Mortime Wheeler** - migration of ideas of civilization from West Asia during the third millennium BCE.
- **H.D Sankalia**- tried to find out similarities between mounds like structures in Balochistan with ziggurats in Mesopotamia.

Criticism of above mentioned theories.

Town planning	Mesopotamia. In a haphazard manner.	Indus valley civilization Chess board like structure streets cutting at 90 degree angle.
Bricks	Dried bricks.	Burnt Bricks have been used on a large scale.
Seals	Cylindrical Different script	Square rectangular. Pictographic script.

	Cuneiforms. Use of weapon or advanced weapon like mid rip.	No evidence of weapon.
Religion	Clear evidence of temple. Large scale canal system.	No evidence.

Theory of Dravidian origin.

In favor argument

- Majority of Mediterranean race in Harappan civilization because Dravidian people belonged to Mediterranean race.
- Similarity between Indus people and Dravidian people in religious perceptions. The cult of mother Goddess and lord Shiva.

Against

- Indus valley civilization was urban and Dravidian civilization was rural in nature.

Theory of gradual origin or cultural evolution

- Origin of Indus valley civilization can be traced to the emergence of settled farming communities in Balochistan in 7th millennium BCE.
- A Ghosh, M.R Mughal and Fairservis supported the theory of gradual origin.
- More immediate prelude was the cultural phase known as pre Harappan or early Harappan phase.
- Amlananda Ghosh was the first archaeologist to identify similarities between pre Harappan culture and mature Harappan. He asserted similarities between Sothi pottery and pottery of Harappa. He said Sothi culture should be described as proto Harappan.
 - Limitations- his hypothesis was totally based on pottery and did not consider other materials.
 - Ignored many difference between Sothi and Harappan culture.

Limitations of theory of gradual origin.

- There are several mature Harappan sites where no early Harappan level has been found. For example Lothal, Desalpur, Chanhudaro, Mitathal, Alamgirpur and Ropar.
- Several early Harappan sites in potwar plateau which do not have mature Harappan levels.

- Some sites have both early and mature Harappan phases but transition from one to another is not always smooth. For example at Kot Diji and Gumla burnt deposits between two suggest a major fire. Evidence of burning was also found at Amri and Nausharo. Break in Kalibangan occupation due to earthquake.

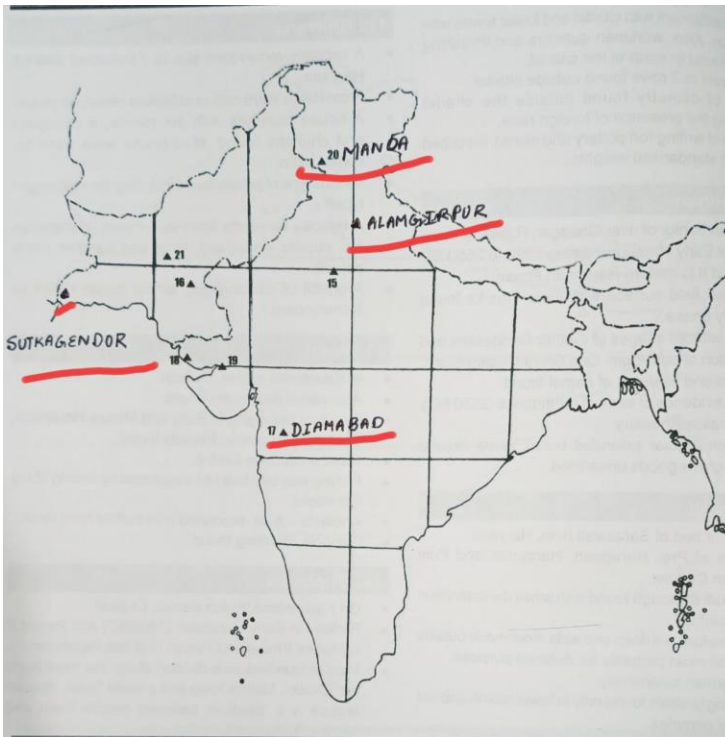
Theory of gradual origin is the most accepted theory for the origin of Harappan culture.

Aryan Theory

- S.R Roy, T.R Ramachandran and K.V Shastri supported the Aryan theory of Harappan settlement.
- According to this theory Harappans were Aryans.
- This theory did not get much support because there is a great difference between Indus valley civilization and Vedic culture.

Extent of Harappan civilization

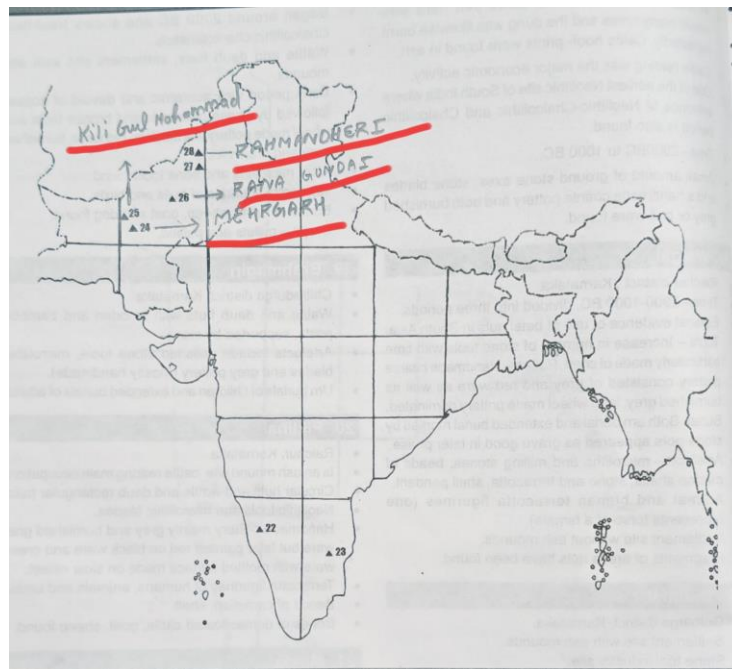
- Geographical spread of Indus valley civilization was Quadrilateral /triangular in shape and covered a vast area.
- The civilization extends from Jammu in North to Narmada in South, and from the Makran coast of Baluchistan in the west to Meerut in the North East.



- Northernmost site is **Manda** in Jammu district of Jammu and Kashmir, the southernmost site is **Diamabad** in Maharashtra, westernmost site is **Sutkagendor**

on Makaran coast of Pakistan and easternmost is **Alamgirpur** in Saharanpur district of Uttar Pradesh.

- When we use the term “Harappan Civilization” we are referring to a large number of cities, towns and villages which flourished in c. 3rd millennium BCE. These cities and villages had formed a network of interaction over a large geographical space which would roughly cover the areas of modern-day Rajasthan, Punjab, Gujarat, Pakistan and some of the surrounding areas.
- The Harappan civilization represents the culmination of a long period of evolution of agricultural and semi-nomadic communities.
- The areas of present day Pakistan and north-western India formed the core region of the Harappan civilization. These areas are characterized by dry weather and scanty rainfall.
- We can not fix a precised date for the beginning of the civilization but roughly it can be associated with the village cultures of Balochistan.
- The earliest evidence of the emergence of agricultural communities comes from a place called **Mehrgarh** near the Bolan pass in the Baluchistan province of Pakistan (as we have seen in the previous Unit). Beginning as a seasonal camp, the place turned into a settled village in c. 5th millennium BCE. People at this place were growing wheat, barley, cotton and dates and tending sheep, goat and cattle.
- Mehrgarh is located at the place where the alluvial plains of the Indus join the uneven hilly plateau of the Indo-Iranian borderland. People of Mehrgarh lived in mud houses which could sometimes have five to six rooms.



- By the middle of 3rd millennium BCE many small and large villages had sprung up around the Indus, Baluchistan and Afghanistan area. The better known

settlements among them are Kili Ghul Muhammad in Baluchistan and Mundigak in Afghanistan.

- In the Indus flood plains villages like Jalilpur near Harappa had come into existence.
- Once these agriculturists learnt to exploit the highly fertile flood-plains of the Indus there was a sudden expansion in size and numbers of villages.
- These agriculturists gradually learnt to exploit the Indus plains and control the flooding of Indus. Richer Returns per acre resulted in larger surpluses. This led to an increase in the number of settlements in Sindh, Rajasthan, Baluchistan and other areas.
- They also managed to exploit stone-quarries and mines useful to them. There are indications of the existence of pastoral nomadic communities in this period in the form of seasonal settlements.
- The Interactions with these groups seem to have helped agriculturists exploit resources from other regions, as the pastoral nomads are known to engage in trading activities over the areas they covered during their travels.
- All this led to the development of small towns. The period of this new development is called 'the Early Harappan Period' because of certain uniformities found all over Indus.

Early Harappan period

- First comprehensive analysis of evidence from pre Harappan sites and in the greater Indus valley and North Balochistan was made by M R Mughal.
- Pre Harappan face showed large fortified settlements, high level of expertise in specialized crafts such as stone working, metal crafting, bead making, use of wheel transport etc.
- The raw material used by Harappan and pre Harappan is more or less same except jade which was absent in early Harappan period.
- Two things which were missing in early Harappan period was large cities and increase level of craft specialization.
- Early Harappan Period have been found at number of sites and few are discussed below. The dates vary from site to site but the general range of early Harappan period is from **3200 BCE to 2600 BCE**.

Southern Afghanistan

- In southern Afghanistan there is a place called **Mundigak**. It seems to have been located on a trade route. That is why in the early Indus period the inhabitants of this place were using artifacts which show affinities with some Iranian towns on the one hand and some Baluchistan towns on the other. Making a humble beginning as a camping site of some nomadic groups, the place grew into a township of impressive proportions.

- There is evidence of a defensive wall with square bastions of sun-dried bricks. A large building with rows of pillars has been identified as a palace. Another large structure looks like a temple. A variety of potteries have also been discovered at this place. They were using naturalistic decorations showing birds, ibex, bull and Pipal trees. Terracotta female figurines similar to those found at contemporary sites in Baluchistan have also been found. They were also using bronze shaft-hole axes and adzes. Such semi-precious stones as lapis-lazuli and steatite show their contacts with Iran and central Asia, since these stones are not available locally.

Quetta Valley

- To the south-east of Mundigak is Quetta valley. Here, in a place called **Damb Sadaat**, large houses having brick walls belonging to the beginning of 3rd millennium BCE have been discovered. Varieties of painted potteries similar to those of Mundigak have also been found.
- These people were using clay seals and copper objects also. These Discoveries indicate the presence of a prosperous community which had solved its food problem and established trading contacts with regions faraway.
- Similarly, from the surrounding areas there are reports of distinct art and pottery traditions. In a place called **Rana Ghundai**, people were using finely made painted pottery with friezes of humped-bulls in black. The pottery showed distinct parallels with those of Quetta valley. Another excavated site **Periano Ghundai** has yielded female figurines of a distinctive type.

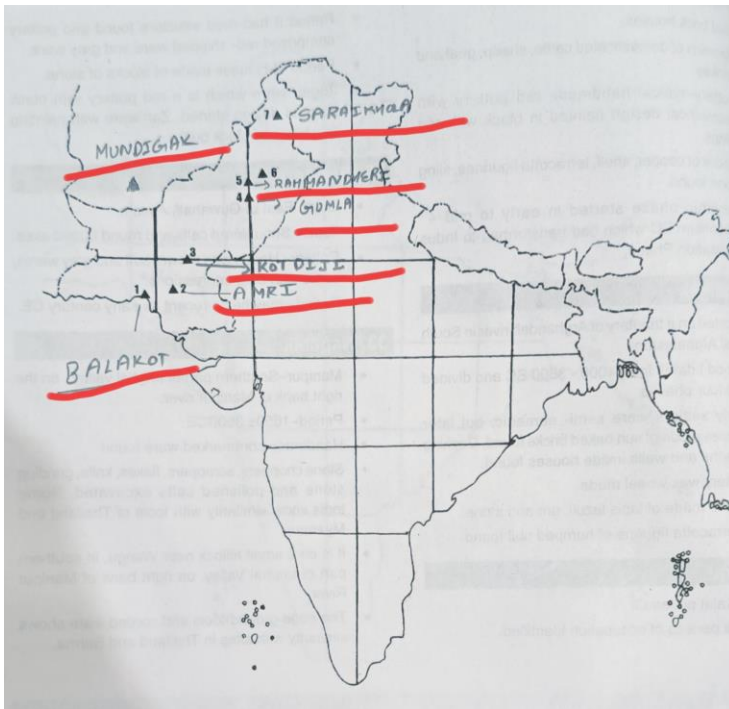
Central and Southern Baluchistan

- In central and southern Baluchistan, sites like Anjira, Togau, Nindowari and Balakot give us some idea of early Harappan societies.
- These small villages and townships seem to fan out in conformity with the valley systems. At Balakot remains of large buildings have been discovered. Many of the sites in this area show evidences of contact with the Persian Gulf. In Balakot the people who first inhabited the place were using potteries similar to those used in other contemporary villages in Baluchistan. However, in course of time they started using potteries similar to the ones used in the Indus alluvial plain. What is important to us is that people of the entire Baluchistan province were using similar kinds of pottery. They show distinct influences from Persian Gulf towns, on the one hand, and from Indus valley towns, on the other. They were using motifs on their pottery like the humped-bull and Pipal which continued into the mature Harappan phase.

The Indus Area

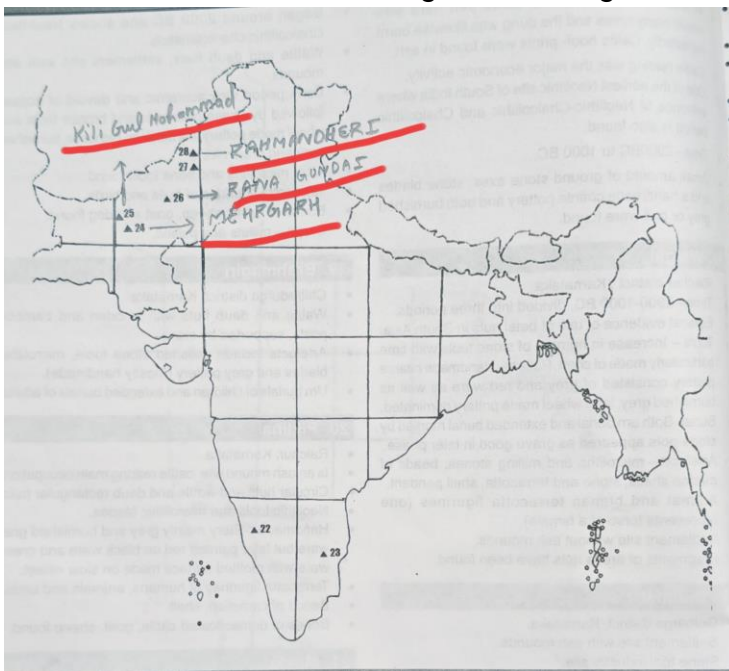
- By the middle of the 4th millennium BCE the Indus alluvial plains became the focal point of change. Many small and large settlements came into existence on

the banks of the Indus and Ghaggar-Hakra. This area became the core region of Harappan civilization.

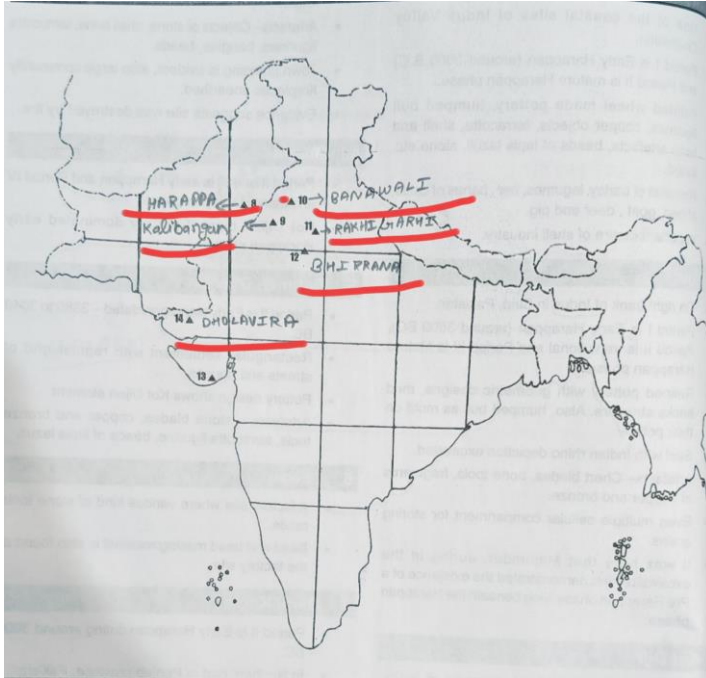


- **Amri** The Sindh province on the right Bank of Indus (Early and mature Harappan period) At the site of Amri the habitations show people living in houses of stone and mud brick. They had constructed some kind of a granary also. They painted such animal motifs as the humped Indian bulls on their pottery. This motif was very popular during the mature Harappan phase. They were using wheel-made pottery. Similar finds have been reported at places like **Tharro** and **Kohtras Buthi**. They had fortified their settlements before the coming of the Harappan civilization.
- **Kot Diji** Opposite Mohenjodaro on the left bank of the Indus is the site of Kot Diji. (Early and mature Harappan period with a burnt deposit in between) The people living here in the early Harappan period had a massive defensive wall built around their settlement. The most interesting finds are their pottery.
- They were using a wheel-thrown pottery having decorations of plain bands of dark brownish paint. This kind of pottery has been reported from pre-Harappan habitations in far flung places like Kalibangan in Rajasthan and Mehrgarh in Baluchistan.
- The Kot Diji variety of pottery has been found along the entire stretch of Indus where settlements belonging to pre-urban and urban phase of Harappan civilization have been reported. This movement towards similar methods of decorating pottery indicates greater communication among the people of Indus plains. It also anticipates the process of the convergence of cultures seen in the Harappan civilization.

- Many of the designs on pottery were carried over to the urban phase. At the same time certain other earthen vessels showed similarity with those of Mundigak. This shows enlarged interaction sphere of the early Harappan sites. In Mohenjodaro itself archaeologists have discovered occupation deposits to a depth of 39 feet below the modern level of the plain. Similarly, at the site of Chanhu-daro, early Harappan habitation has been reported. At Mohenjodaro the early levels could not be excavated, but many archaeologists believe that these occupation levels represented an early Harappan culture, probably similar to that of Kot Diji.
- **Mehrgarh** In the period preceding Harappan Urbanization, the people of Mehrgarh had established a prosperous township. They used to make various kinds of beads of stone. Lapis-lazuli, one of the precious stones used by them is found only in the Badakshan region of central Asia. Many seals and sealings have been reported. Seals are used as a mark of authority in situations of interpersonal exchange. Mehrgarh seals were probably used by merchants for guaranteeing the quality of goods that were being sent to faraway lands. Similarities in designs of potteries, terracotta figurines and objects of copper and stone indicate that these people were in close contact with neighbouring towns of Iran. However, most of the pottery used by the people of Mehrgarh was similar to the ones used in the neighbouring settlements of Damb Sadaat and the Quetta valley. Similarly, a large number of female terracotta figurines are also found which are very similar to the ones found in Zhob valley. These parallels indicate a close interaction among surrounding communities



- **Rahman Dheri** At a place Rahman Dheri an early Indus township has been excavated. Oblong in shape with houses, streets and lanes laid out in a planned fashion, it is protected by a massive wall. Here too, beads of turquoise and lapis-lazuli have been found. This shows their contact with central Asia. A large number of graffiti found on pot-sherds could be the forerunners of the Harappan script. The independent pottery tradition in this area was gradually modified and supplemented by a pottery similar to that of Kot Diji. Seals, tools made of stone, copper and bronze have also been found.
- **Tarkai Qila** Archaeologists have discovered large samples of grains which included many varieties of wheat and barley, lentils and field pea. Tools for harvesting have also been found. In the same area, at a site called **Levan**, a huge factory site for making stone tools was discovered. The Harappans and their predecessors did not know about iron and copper was rare. So, most of the people used tools made of stone. That is why in some places where good quality stone was available tools would be made on a large scale and then sent to distant town and villages. The people in Levan were making ground stone axes, hammers, querns etc. for which they were importing suitable rocks from the surrounding areas too. The presence of lapis-lazuli and terracotta figurines indicates links with central Asia. At the site of **Sarai Khola** which is located on the northern tip of western Punjab another early Harappan settlement has been discovered. Here too the people were using the pottery of the Kot Diji type.
- **Punjab and Bahawalpur In western Punjab**, The pottery found here seems to have similarities with Kot Diji type ware. Scholars believe that these habitations represent the early Harappan phase at Harappa. In the Bahawalpur region about 40 sites of the early Harappan period are located in the dry bed of the Hakra river. Here too, the early Harappan phase is characterized by Kot Diji type of pottery. A comparative analysis of settlement pattern of these sites shows that in the early Harappan period itself a variety of habitations had come up. Whereas most of the sites were simple villages, some of them were carrying out specialized industrial activities. That is why we find most of the sites averaged about five to six hectares in size. However, **Gamanwala** spreads over an area of 27.3 hectares. This means that Gamanwala was larger than the Harappan township of Kalibangan. These larger townships must have carried administrative and industrial activities apart from agricultural activities.



- **Kalibangan** The site of Kalibangan in north Rajasthan has also yielded evidence of the early Harappan Period. People lived in houses of mud bricks of standard sizes. They also had a rampart around the settlement. The pottery used by them was different in shape and design from that of other areas. However, some of the pottery was similar to that of Kot Diji. A few varieties of potteries like the 'offering stand' continued to be used during the urban phase. A remarkable find was that of a ploughed field surface. This proves that even at this stage the cultivators already knew about the plough. In more primitive situations the farmers either simply broadcast the seeds or used hoes for digging the fields.
- In the dry bed of Ghaggar several early Harappan settlements have been found. They seem to line the now extinct water ways of the region. Sites like **Sothi Bara** and **Siswal** have reported ceramic styles similar to those of Kalibangan. The exploitation of Khetri copper mines in Rajasthan might have begun in the early Harappan period itself. We have stressed on the similarities found in cultural traditions of diverse agricultural communities living in and around the Indus regions in the early Harappan period. Beginning with small agricultural settlements the areas of Baluchistan, Sindh, Punjab and Rajasthan saw the emergence of distinct regional traditions. However, the use of similar kinds of potteries, representations of a horned deity and finds of terracotta mother goddesses show the way to the emergence of a unifying tradition.
- The people of Baluchistan had already established trading relations with the towns of Persian Gulf and central Asia. Thus, the early Harappan phase anticipates many of the achievements of the Harappan civilization. Cultivators colonized the alluvial plains of the Indus during this period. These communities

were using tools of copper, bronze and stone. They were using plough and wheeled transport for greater productivity of labour. Also, unlike in Iran where sheep and goat rearing was prevalent, the Indus people reared cattle. This gave them better possibilities of harnessing animal power for transportation and, possibly, cultivation. At the same time a gradual unification too took place in the pottery tradition. In the early Harappan Period a particular kind of pottery, first identified at Kot Diji, spread over almost the entire area of Baluchistan, Punjab and Rajasthan. Terracotta mother goddesses or the motif of horned-deity could be seen at Kot Diji or Kalibangan. Some of the communities surrounded themselves with defensive walls. We do not know the purpose behind the construction of these walls. It could be defense against other communities or it could be, simply, a bund against flooding. All these developments were taking place in the context of a much larger network of relationships with the contemporary sites of Persian Gulf and Mesopotamia.

Mature Harappan period

2600-1800 BCE

- Some historians suggest that the transition was due to surplus production based on organised irrigation system and specialization in crafts.
- Craft specialization may have been instigated especially by the development of copper metallurgy in Rajasthan.
- There are several mature Harappan sites where there are no early Harappan levels example Lothal, Desalpur, Chanhudaro, Mitathal, Alamgirpur and Ropar. There are many Harappan sites where we don't have mature Harappan levels.
- By the term 'Harappan Civilization' we mean that the Harappan society was characterized by the presence and domination of large cities in this phase of history. This would also mean the presence of specialized craftsmen, long-distance trade, existence of rich and poor people and presence of kings.
- **General features of mature Harappan settlement-**
- Urban rural interaction
- Size of the sites were varied for example largest settlements include Mohenjodaro, Harappa, Ganweriwala, Rakhigarhi and Dholavira.
- Smaller sites such as Amri, Lothal, Chanhudaro and Rojdi. 5-10 hectare range
- 1-5 Hectare of range - Allahdino, Kot Diji, Ropar, Balakot, Surkotada, Nageshwar, Nausharo and Ghazi Shah.
- Planned settlements- but there was no relation between the size of settlement and the planning. For example Lothal shows much higher level of planning than Kalibangan which is twice its size.
- Lothal and Surkotada the citadel complex is not separate it is located within the main settlement.

- Dholavira consisted of three parts the citadel, the middle town and the lower town.
- Major difference between large cities and small towns or villages are in cities the buildings are mostly made up of sun-dried bricks or burnt bricks but in villages mostly they used mud bricks or stones.
- some particular features of the Harappan civilization. - In the geographical space where the remains of the civilization have been found communities were using the same written script.
- same sets of weights and measures.
- The copper-bronze tools used by them were also uniform in design, shape and size
- The seals, shell (shankha) bangles, carnelian beads and disc beads of steatite were also uniformly designed in the entire geographical space covered by the cities of the civilization.
- Bricks were of uniform size 7x14x28cm for house 10x20x40 cm for city walls.
- Various styles of laying bricks were used including the "English bond style"
- People lived in houses of different sizes.
- Doorways and windows face the side lanes and did not open on the main street.
- The doors and windows of the houses were made of wood and mature.
- There is evidence of frequent renovation activity.
- Many houses had separate bathing areas and toilets.
- At Harappa and Mohenjo Daro Terracotta drain pipes directed waste water into open street drains.
- The main drains were covered by corbelled arches made of bricks or stone slabs. There were rectangular soak pits for collecting solid waste at regular intervals.
- The source of water was rivers, wells and reservoirs.
- In Mohenjodaro we found large number of wells but in Harappa few wells are found.

Some Harappan cities towns and villages

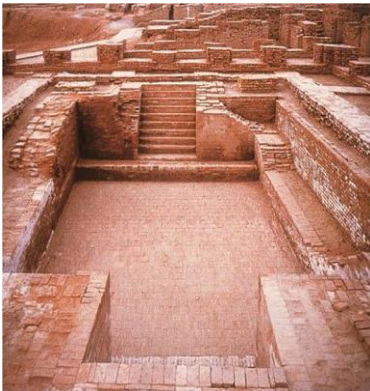
1. Harappa

- Harappa was the first site to be excavated. From the 1920s onwards archaeologists like Dayaram Sahni, M.S. Vats and Mortimer Wheeler carried out excavations at Harappa.
- It is located on the bank of Ravi in western Punjab.
- Higher citadel mound lies to the west, with lower but larger lower town to the southeast.
- The citadel at Harappa was shaped like a parallelogram. surrounded by mud brick walls with massive towers and gateways
- South of citadel cemetery was found.
- A substantial section of the population here was engaged in activities other than food production.

- One walled complex had at least 15 units each consisting of a Courtyard in front and a room at the back arranged in two rows with the lane in between. This has been interpreted as workmen's quarter.
- 18 circular platforms have been found , and husked Barley and straw were found here so so it is believed to be a threshing platform for grains.
- The granary was located to the north of these platforms it consisted 12 units of 6 rooms arranged in two rows divided by a central passage.

Mohenjodaro

- Mohenjodaro, located in the Larkana district of Sindh on the bank of Indus, is the largest site of Harappan civilization.
- Most of the information regarding town planning, housing, seals and sealings of this civilization comes from this site. Excavations began here in 1922, with Rakhal Das Banerjee and Sir John Marshall taking up the work. Later on, Mackay and George Dales also conducted excavations .
- Raised height due to continuous inhabitation and later continuous floods. Flooded more than 7 times.
- Western Mound citadel was higher and circled by 6 m thick mudbrick retaining wall.
- The buildings on the citadel are Great bath, the granary and college of the priests.
- 14.5 x 7m depth 2.4 m. A wide staircase leads down into the tank from North and South.
- The floor and walls of the tank were made water tight by finely fitted bricks with gypsum mortar.
- Bitumen was laid for waterproofing .

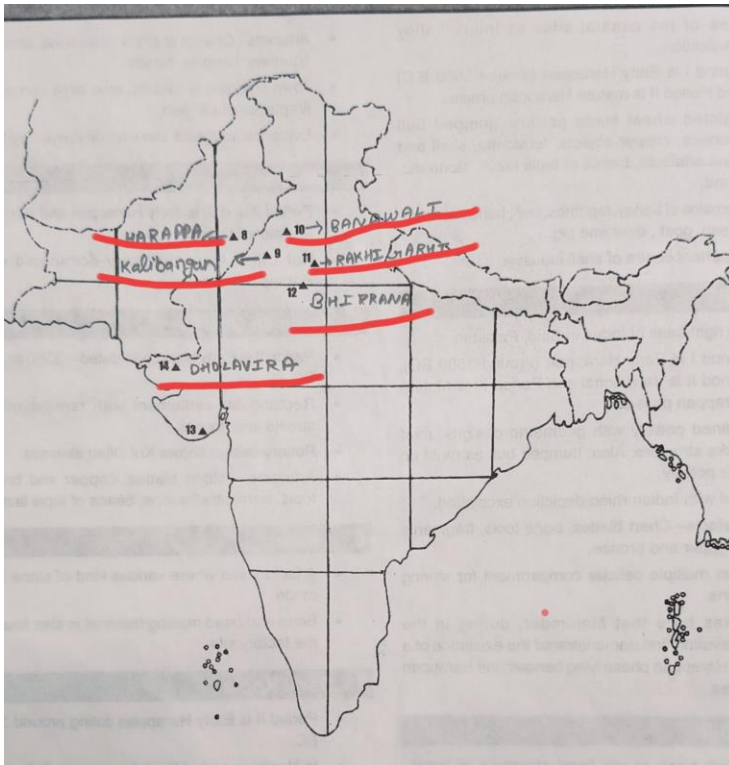


- Near the great bath and imposing building consisting of many rooms and courtyard three varandas ,staircases to reach upper storeys. Because of its proximity with great bath it was identified as college of priests.
- Great granary.
- Variety of copper tools, arrow heads ,axes etc are found.
- Piece of woven cloth recovered and textile impression found on several objects.

- Half a dozen human skeletons belonging to later period at Mohenjodaro indicate that the city was probably invaded. Skeleton of women lying on the steps of well suggest that inhabitants were put to death by invaders.
- Other findings -Bronze dancing girl statue and seal of mother goddess.
- Steatite statue of a man with a beard to be sacrificed.
- Unicorn seals and Pashupati seals.
- Shell scale, 3 cylindrical seals and seal from Iran.

Chanhudaro

- Located in **Sindh Pakistan on left bank of Indus** nearly 130 km south of Mohenjodaro.
- Excavated by **N.G Majumdar 1931 and E.Mackay 1935.**
- Single Mound site.
- Chanhudaro was an important center of craft activity some of the houses yielded raw materials such as carnelian,agate,amethyst and crystal as well as finished and unfinished beads and drills. Bead factory,seal making,shell working and making of stone weights seem to have been other important crafts practiced here.
- Only city without a citadel. Inkpot, lipstick,bead making factories have been found.



Kalibangan

- Located in Hanumangarh district of **Rajasthan on the bank of dried Ghagar river.**

- A thick Cluster of black bangles lying all over the surface is found on this mound that's why it is known as Kalibangan (Black bangles). These were made of terracotta, steatite and shell etc. It shows that bangle making would have been important craft there.
- Kalibangan was excavated in 1953 under Amlanand Ghosh and in the 1960s under the guidance of **B.B Lal and B. K. Thapar**.
- Kalibangan shows both early and mature Harappan phase.
- Both citadel and lower town were fortified and a small third Mound was also found which only has large number of fire altars. Fire altars were sacrificial pits in which offerings were made into the fire. Apart from regular extended burials, there were some circular pits with grave goods but no human remains.
- The lower town was a rough parallelogram in plan enclosed by mud brick wall. Corbelled drains were found on citadel mound but not in lower town.
- Large no of bangles, ivory comb ,a copper buffalo or bull , **ploughed field**, Granary, Floor made of decorative tiles bearing geometrical designs.
- No presence of baked bricks.

Banawali

- Located in Hissar district of Haryana near the dry bed of the **Rangoi River**.
- Excavated by **R.S Bisht (1973-74)**
- Evidences of early,mature and late Harappan phases.
- Main finds - a Higher citadel and Lower town.
- Citadel was semi elliptical in plan and had it's own mud brick fortification, surrounded by a moat.
- A Ramp led from citadel in to the lower town.
- Houses were made of mud bricks and they had a raised platform outside. Baked bricks were used only for Wells,bathing pavements and drains.
- A multi-roomed house with a kitchen and a toilet also had many seals and weights, it would have been belong to a wealthy merchant.
- In another big house large number of beads of gold,lapis lazuli and carnelian, tiny weights have been found this would have been a jeweller's house.
- Seals were only found in lower town and not in citadel.
- Lots of stone weight has been found and a **Terracotta model of plough** .
- There were also evidences of **fire altars**,barley etc.

Rakhigarhi

- Located in Hisar district of **Haryana**.
- 5 mounds have been found. 2 mounds have been found in January 2014 which made rakhigarhi the largest Indus Valley civilization site in India.
- The citadel Mound is surrounded by mudbrick fortification wall had platforms ,a brick Wells ,fire Altars and drains of various size.

- A lapidary workshop was identified with remains of many unfinished beads and roughly cut pieces of stones mostly carnelian, chalcedony, agate, and Jasper.
- Bones, antlers, ivory pieces, finished and unfinished bone points, combs, needles gave evidence of bone and ivory working.
- 8 burial sites have been found which shows brick lined pits but in one case wooden coffin is found.

Bhirrana

- Located in [Haryana](#)
- Evidences of early and mature Harappan period
- 3 multi roomed houses were found.
- Terracotta cakes mixed with Ash and clay were found on the floors in one of the house.
- A circular tandoor chullah was found in one of the Courtyard of one house another chullah was discovered in kitchen.
- Charred bones and skull of a bovine animal was found next to one of the chullah.
- Sturdy Red ware with an incised female figure, whose pose is reminiscent of that of bronze Mohenjodaro dancing girl.

Lothal

- Located on the confluence of Sabarmati and [Bhogavo river](#) Saurashtra in Gujarat.
- It is modest size settlement and rectangular in plan.
- It was surrounded by mud bricks earlier and later by burnt bricks with entrance on the south.
- Excavated by [SR Rao 1957](#).
- The citadel was roughly trapezoidal in plan.
- Few houses were quite large and had fire altars, small pits with terracotta cakes or round lump of clay and ash.
- Other findings are- 65 Terracotta sealings with impression of reed, woven fiber, matting and twisted cord
- Remains of rice husk, seal from Mesopotamia found here,
- Painting on a jar resembling the story of cunning fox in Panchatantra.
- Double burial (male and female together)
- Ivory scale, Terracotta model of ship, a bronze rod with measure mark, seal with a ship engraved on it, Terracotta model of ship.
- Houses had entrance at the main street.
- Most distinctive feature of Lothal is the dockyard which lies on the eastern edge of the site.
- The dockyard had provisions for maintaining a regular level of water by means of sluice gate and spill channel. A mud brick platform along the Western embankment may have been the place where goods were loaded and unloaded.

Dholavira

- Located on Kadir island in the Rann of Kutch in Gujarat.
- Second largest site of Harappan civilization in India after Rakhigarhi.
- Excavated by JP Joshi (1990-91) and RS Bisht.
- Use of sandstone and mud bricks for the buildings
- Dholavira consist of three parts Citadel, lower town and middle town.
- It gives us evidences of a reservoir which was 7 m in depth and 79 m long.
- Dholavira is known for advanced water management system.
- Remains of limestone pillar bases and pillar fragments with the highly polished surface were found in Dholavira.
- An inscription had been made with white gypsum paste inlaid into a wooden board.
- Unique and impressive Water harvesting and management system.
- The area receive less than 160 cm of rain every year and is prone to drought therefore several large deep water cistern and reservoirs located in the Citadel and lower town preserved rainwater.
- The site is flanked by two streams the Manhar and the Mandisar.
- Dams were built to channelise their water into reservoirs.

Allahdino

- Small fortified village side of Harappan civilization.
- A large multi-roomed building on a large mud brick platform is found.
- The Wells at Allahdino had very small diameter and their mouth ranged from 60 cm to 90 cm.
- Other findings are - large number of copper items, seals, Terracotta toy carts and triangular Terracotta cakes.
- A small Terracotta jar containing a profusion of gold, silver, bronze, agate and carnelian ornaments.
- The discovery of ornaments of precious metal and stone at a village site shows that at least sum of the inhabitants of this Harappan village were very rich.

Material characteristics of Harappan civilization

Subsistence Pattern

- The source of information on the subsistence pattern of Harappan consists of plant remains, animal bones, artefact, motifs on seals and pottery and analogies with modern practices.
- Indus Valley civilization covered a large area hence there were regional variations in the plants grown by farmers.
- Mohenjodaro - wheat and barley
- Harappa - Wheat, barley, sesamum, watermelon seeds, Peas, dates, rice, millets.

- Rice - Harappa, Kalibangan, Lothal and Rangpur.
- At Lothal and Rangapur, rice husk was found embedded in clay and pottery.
- Millets - Harappa, Surkotda and Shortughai.
- Grapes, cotton, henna were also known to Harappans.
- At Mohenjodaro was found a fragment of cotton cloth. This indicates that the Harappans had already mastered the art of growing and wearing clothes.
- Harappan subsistence system was based on the exploitation of a fairly wide range of crops, domesticated animals and wild animals.
- They were probably already growing two crops annually. They also grew two or more kind of crops simultaneously.
- Evidences of ploughed field at Kalibangan(early Harappan period) Terracotta model of plough at Bhawalpur and Banawali give further evidence of the use of this implement. No actual plough found may be the plough was plough up of wood.
- Farmers must have built bunds of mud or stone to divert river water as they do today as well in Balochistan area.
- During various excavations a large volume of information has emerged about the dietary habits of Harappans. Apart from sheep and goat, humped cattle seem to have been domesticated. Bones of boars, buffaloes, elephants and camels have also been found from many settlements. We do not know as yet whether these animals had been domesticated or hunted wild. However, a representation of a caparisoned elephant on some seals indicates that this animal had been domesticated. Bones of fowls have also been found. Possibly, they had been domesticated. Bones of a large number of the following wild animals have been found: deer, sheep, tortoise etc.
- Rabbits, peacock, ducks, monkeys, wild fowl are represented in figurines and paintings on pottery.
- Rhinoceros' bones have been found only from **Amri**.
- Horse seems to have been unknown to the Harappans.
- The discovery of catfish bones at Harappa suggest that coastal communities may have traded dried fish in inland cities.

- Cattle and buffalo were the most important domesticated animals other domesticated animals were goat ,sheep,dog.

Harappan crafts and Techniques

Town-Planning

- division of each town into two parts. In one part was a raised citadel where the rulers were staying, in the other part of town lived the ruled and poor.
- The settlements of Harappa, Mohenjodaro and Kalibangan show certain uniformity in their planning. These cities were divided into a citadel on the west side and a lowertown on the eastern side of the settlement.
- The citadel was built on a high podium of mud brick. It seems to have contained large structures which might have functioned as administrative or ritual centres. The lower city contained residential areas. In Mohenjodaro and Harappa, the citadel was surrounded by a brick wall. At Kalibangan,both the citadel and the lower city were surrounded by a wall; streets ran from north to south in the lower city and cut at right angles.
- Shows uniform town planning.
- At Harappa and Mohenjodaro,baked bricks were used for buildings. At Kalibangan mud bricks were used. In Settlements like Kot Diji and Amri in Sindh there was no fortification of the city.
- The site of Lothal in Gujarat also shows a very different layout. It was a rectangular settlement surrounded by a brick wall. It did not have any internal division into citadel and lower city.
- Harappans were using baked and unbaked bricks of standard size. This shows that it was not the individual house owners who made their own bricks, but that brick-making was organized on a large scale.
- Excellent drainage systems also suggest the presence of civics administration.

Housing Pattern

- There were variations in the sizes of houses.
- It could be single room tenements, There were other houses complete with courtyards and having up to 12 rooms. The bigger

houses were provided with private wells and toilets. These houses had much the same plan – a square courtyard around which were a number of rooms. The entrances to the houses were from the narrow lanes which cut the streets at right angles.

- No windows faced the street.
- The houses in the lower city also contained a large number of workshops. Potters kilns, dyers vats and shops of metal workers, shell-ornament makers and bead makers have been recognized.

Pottery

- Among the remains discovered at Harappan settlements, pottery forms an important category.
- Harappan pottery reflects efficient mass production.
- There is a great variety of pottery including Black on Red, grey, buff and black and red wares.
- The typical Harappan pottery is a fine, wheel made ware with a bright red slip decorated with painted Black design.
- The painted decorations consist of horizontal lines of varied thickness, leaf patterns, scales, chequers, lattice work, palm and Pipal trees. Birds, fishes and animals are also shown. Among notable shapes found in the Harappan pottery are pedestal, dishes, goblets, cylindrical vessels perforated all over, and various kinds of bowls.
- The uniformity in forms and paintings on pottery is difficult to explain. Normally, the explanation of this uniformity is the fact that local potters made the pottery.
- Along with this there are figurines of animals such as bulls, buffalo, monkeys and dogs.
- Terracotta mask have been found at Mohenjodaro and Harappa.
- Harappans made Faience(paste made out of crushed quartz and coloured with various minerals) bangles, rings, pendants, miniature vessels etc.

Tools and implements

- They were using tools made of copper, bronze, and stone.
- The basic tools types were flat axe, chisels, knives, spear heads arrowheads for copper and bronze implements.

- In the later stages of the civilization they were also using daggers, knives, and flat tongs. They were familiar with the techniques of casting bronze and copper.
- The number of pure copper artefacts was far greater than alloyed bronze ones.
- Stone tools were also in common use. They were produced on a large scale at factory sites like **Sukkur** in Sindh and then sent to various urban centres. Only this could explain the uniformity in tool types
- Unlike the early Harappan' period when there were various tool making traditions, the 'mature Harappans' concentrated on making long regular blades. They indicate a high level of competence and specialization with little or no concern for beauty and innovation.

Arts and Crafts

- Works of art give us an insight into how society relates itself to its surroundings.
- The most famous art piece from Harappan civilization is the bronze dancing nude figure discovered at Mohenjodaro.



- With head drawn backwards, drooping eyes, right arm on hip and the left arm hanging down, the figure is in a dancing stance. She is wearing a large number of bangles, and her hair is plaited in an elaborate fashion. It is considered a masterpiece of Harappan art.
- The bronze figurines of a buffalo and ram have beautifully caught the stance of animals. The two little toy-carts of bronze are also fairly well known objects. Although one was discovered at Harappa and the other at Chanhudaro, a distance of over 650 km., they are identical in design.
- The stone sculpture of a bearded head found at Mohenjodaro is another well known piece of Harappan art.
- Face is bearded with the upper lip shaved. The half closed eyes might indicate a state of meditation. Across the left shoulder is a cloak carved in relief with trefoil pattern. Some scholars believe that it is the bust of a priest.



- The two small male torsos discovered at Harappa.
- **Jewellery making**

- Jewellery made of gold and silver was found at Harappa.
- A hoard of jewellery made of gold silver and semi precious stones was found at a small village side of Allahdino.
- Lead was also used .
- **Seal making**
- Most of the seals are square or rectangular but some circular seals are also found.
- Most of the seals are made up of steatite but there are few silver ,faience and calcite one also.
- Two seals with unicorn motif has been discovered from Mohenjodaro and some copper and soapstone seals are discovered from Lothal.
- The animal motifs used are Indian bison, Brahmanibull, rhinoceros, tiger, and elephant.
- A series of composite animals are also shown. One such recurrent representation is that of a face of a man with trunk and tusks of an elephant, horns of bull, fore-part of a ram and hind-quarters of a tiger. These kinds of seals might have been used for religious purpose.
- Seals could have also been used for exchange of goods between distant cities.
- Most of the seals have a short inscription.

Bead making

- The Harappans used remarkably beautiful beads made of such precious and semi-precious stones such as agate, turquoise, carnelian, and steatite, gold,silver etc.
- The processes of making these beads are clear from the finds of workshop at Chanhudaro and Lothal
- In these processes the stone was first sawn into an oblong bar, then flaked into a cylindrical shape and polished. Finally, it was bored either with chert drills or with bronze tubular drills.



- Chanhudaro and Balakot were important centres of shell work.
- Evidence of Bangle making and Shell work also comes from Kuntashi, Dholavira, Rangpur, Lothal and Bagasra.
- Bone working was another specialized craft. beads, pins were made of bone.
- **Textile making**
- Harappans made cotton and woolen textiles.
- The Terracotta figurines wearing clothes reflect the kind of clothes people were.
- The traces of cotton cloth were found at Mohenjodaro .
- At Harappa cotton threads were found wrapped around the handle of a small copper mirror in a burial and also around the handle of a curved copper razor.
- Evidence of woven textile impression on the inside of faience vessel is also found from Harappa.
- **Weights and measures**

- Cubical weights made of chert, chalcedony, black stone have been found at all excavated site.
- The system is binary in small weights and decimal in higher weight.
- The largest weight found at Mohenjodaro weighs 10.865 grams.
- A shell scale was found at Mohenjodaro and an ivory scale at Lothal.

ESTABLISHMENT OF TRADING NETWORKS

- In urban centres a significant part of population is engaged in non-food producing activities.
- What is important for us is the fact that the relationship between the city and village was unequal. By developing as centres of administration or religion the cities attracted wealth of the entire country.
- This wealth was siphoned off from the hinterland in the form of taxes, tributes, gifts or purchases of goods. In the Harappan society this wealth was controlled by the most powerful section of urban society. At the same time, the rich and well-off sections in the city led a luxurious life. Their social superiority was reflected in the buildings constructed by them and the acquisition of luxury items which were not locally available. This indicates that a major reason for the cities to establish contacts with faraway lands was to cater to the needs of the rich and powerful people.

Cities

- We could begin with the evidence of the existence of granaries at Harappa and Mohenjodaro. These large structures were meant for storing grains. As pointed out earlier, urban centres depend on villages for their foods. The presence of granaries indicates the attempt of the rulers to possess an assured source of food supply.
- It would be difficult to haul up large quantities of food over a great distance. That is why it has been found that the towns were usually located in the most fertile areas that were available in region, and probably grains were collected from surrounding villages. For example, Mohenjodaro was located in the Larkana district of Sindh. Even in modern times this is the most fertile area of Sindh. However, some other settlements sprang upon important trade routes or industrial sites. In such cases, the location was determined not so

much by the presence of fertile agricultural tracts as by the possibilities of trade and exchange.

- That is why, when scholars analyze the causes for the location of large cities they look for:
- the potentialities of the place for food-production,
- and its proximity to trade routes and mineral sources
- Harappa is very well located
- Some Scholars are of the opinion that Harappa was located at a point which separated the zone of agricultural settlements to its south and a zone of pastoral nomads to its north-west. This way Harappa could exploit the resources of both the neighbouring communities. It has also been suggested that although Harappa did not have any advantage in terms of food production, it grew into a large city because of its strategic location as a trading settlement.
- Harappa had a very advantageous location:
- i) Harappans would have access to the Hindukush and north-west frontier. Harappans Had access to such precious stones as turquoise and lapis lazuli which were brought through these routes.
- They could get mineral salt from the salt range.
- Tin and copper were accessible to them from Rajasthan.
- Probably, they could also exploit the sources of amethyst and gold in Kashmir.
- This 300 km. circle would give them access to the point where all five rivers of Punjab joined into a single stream. This means that the Harappans could control the river transport of all the five rivers of Punjab.
- This could provide them access to timber from the mountains zones of Kashmir.
- religious nature of large structures at Mohenjodaro might indicate that it was a ritual centre.
- Whether it was a ritual centre or not, the rich people here were using gold, silver and all kinds of precious articles which were not locally available. Mohenjodaro was closer to the sea compared to Harappa. This would give it easier access to the Persian Gulf and Mesopotamia which were, probably, the chief suppliers of silver.

Similarly, Lothal was drawing resources from southern Rajasthan and Deccan. The people of Lothal probably helped Harappans Procure gold from Karnataka where contemporary Neolithic sites have been discovered near gold mines.

Villages

- The villages supplied essential food grains and other raw materials to towns.
- People in almost all Harappan towns and villages were using parallel-sided stone blades. These blades were made out of very good quality stone not found everywhere. It has been found that such stone was brought from sites like Sukkur in Sindh.
- Another example is copper and bronze tools.
- This indicates that their production and distribution must have been handled by centralized decision making bodies who could be the merchants or the administrators residing in towns.
- That the location of villages could, primarily, be determined by the availability of fertile soil and irrigation facilities.
- The location of towns will be determined by such additional factors as their proximity to mining districts or trade routes. Sometimes, the factor of trade became so important that towns were established in inhospitable plains where agricultural yields were very poor. For example, Sutkagen-Dor on the Makran coast, It is located in an inhospitable area and its prime activity was a trading post between the Harappans and Mesopotamians.
- Balakot on the coast of Baluchistan and Chanhu-daro in Sindh were centres for shell-working and bangle making. Lothal and Chanhu-daro were producing beads of carnelian, agate etc.
- Some unfinished beads of lapis lazuli found at Chanhu-daro might indicate that the Harappans imported precious stones from faraway places and then worked them before selling them.
- Mohenjodaro has yielded evidence for the presence of a large number of craft specialists like, stone-workers, potters, copper and bronze-workers, brick-makers, seal-cutters and bead-makers etc.

SOURCE OF RAW MATERIALS

- The variety of objects found on various sites indicates that they were using many kinds of metals and precious stones, or resources which would not be uniformly available in every region.
- It would have been bought or supplied through trade networks.
- **copper** from Khetri mines of Rajasthan, Baluchistan
- **Gold** was, most probably, obtained from Kolar gold fields of Karnataka and Kashmir.
- **Silver** It might have been imported from Afghanistan and Iran.
- **Tin** - Afghanistan and Iran
- **Lead** may have come from Kashmir or Rajasthan.
- **Lapis-lazuli** -Badakshan in north-east Afghanistan.
- **Turquoise and Jade** Central Asia.
- **Agate, chalcedony and carnelian** were from Saurashtra and Bharuch in Gujarat.
- At Shortughai large quantity of lapis lazuli was discovered in association with Harappan Remains. This indicates that the Harappans were colonizing far-flung areas for the exploitation of mineral resources. This also indicates that trading and procurement of exotic materials was an important concern for Harappans.
- Trading seems to have been more an administrative activity .

EXCHANGE SYSTEM

- **Among Harappan towns** -Uniform system of weights and measures indicates an attempt by the central authorities to regulate exchange among the Harappans themselves and, possibly, with non-Harappans too.
- Many of the sealings bear impressions of cords and matting behind them. This indicates that the sealings bearing these impressions, were originally stuck to bales of merchandise. At Lothal many sealings were discovered lying among the ashes in the ventilation shafts of warehouses. They must have been discarded and thrown away after the imported goods has been unpacked. The seals carried intaglio designs of various animals and writing which has not been deciphered as yet.

Trade with Persian gulf and Mesopotamia

- Mesopotamia was located thousands of miles away from the Harappan , Yet These two civilizations had some kind of trade links.
- Archaeological Evidence of Contacts-
- About two dozen seals, either Harappan or made in imitation of Harappan seals, have been found at the Mesopotamian cities like **Susa, Ur** etc.
- Recently, some of the Persian Gulf ancient sites like **Failaka** and **Behrain** have also yielded Harappan seals.
- In the Mesopotamian city of **Nippur** a seal has been found with Harappan script and a unicorn shown on it. Similarly, two square Indus seals with unicorn and Indus script were reported from the Mesopotamian city of **Kish**. In another city called **Ummawas** found a sealing from Indus valley, implying that some goods had been received here from Indus valley.
- **Tell Asmar** were found certain Harappan ceramics, etched carnelian beads and kidney shaped bone inlay. All of these indicate trade linkages between Mesopotamia and Harappans.
- A distinctive type of **terracotta figurines** generally found in the Indus valley has been found at Nippur in Mesopotamia. These figurines depicting a male nude with obese stomach, animal like faces, stubby tails and shoulder holes for the attachment of movable arms are common at Harappan sites. The finds of three similar figurines at **Nippur** are indicative of some Harappan influence.
- Again, it has been found that the Indus dice types (1/2, 3/6, 4/5) were found at the Mesopotamian cities of **Ur, Nippur and Tell Asmar**. Apart from these, beads having distinctive designs have been found in Mesopotamia and they seem to have been brought from the Indus valley.
- Beads from Chanhudaro closely resemble some beads discovered at Kish in Mesopotamia. Harappan weights have been found in Persian Gulf and Mesopotamian sites.
- At Mohenjodaro three cylinder seals of the Mesopotamian type have been found. However, no surity. Some metal objects might have been derived from Mesopotamia. At the settlement of Lothal was found a circular button seal. This seal has been found in large numbers in the

excavations at the port at **Behrain**. These seals seem to have originated in the Persian Gulf ports. Also, bun-shaped copper ingots have been found at Lothal. These are similar to the ones found in the Persian Gulf islands and Susa. Given the scarcity of material objects which could show contacts between the Harappans and Mesopotamians, some scholars have questioned the notion of direct trade exchange between these civilizations. It is believed that the Harappans might have taken their wares to the settlements in the Persian Gulf. Some of these were further transported to Mesopotamian towns by the merchants of Persian Gulf ports like Behrain.

- **Literary Evidence**

- The famous king Sargon of Akkad (c.2350BCE) in Mesopotamia boasts that the ships of Dilmun, Magan and Meluhha were moored at his capital. Scholars have generally identified Meluhha with the coastal towns of Harappans.
- Early Mesopotamian literature also refers to a community of merchants from Meluhha living in Mesopotamia. In another instance, written documents from Mesopotamia refer to an official interpreter of the Meluhhan language.
- The absence of Mesopotamian goods in Harappa can be explained by the fact that traditionally, the Mesopotamians exported items like: garments, wool, perfumed oil, and leather products. All these items are perishable and as such, they have not left any trace. Silver might have been one of the items of export. Silver was not available at any known Harappan source.

MODE OF TRANSPORT

- At Lothal was found a terracotta model of a ship with a stick impressed socket for mast and eye holes for fixing rigging.
- Dockyard also been found.
- Harappan sites like Sutkagen-Dor and Sutkakoh, In the monsoon months they could function as outlets for the Harappans.
- The inland transport was done with bullock-carts. Many terracotta models of bullock-carts have been found at Harappan settlements. At Harappa was found a bronze model of a cart with a seated driver and

also models of little carts which are very similar to the modern Ikka used in Punjab.

- For longer journey through wooded country, caravans of pack-oxen would be the chief means of transport. In historical times a large number of goods were transported by pastoral nomadic communities. Possibly, the Harappans also engaged in similar practices. However, in those times river systems would have been the channels of transportation because they were cheaper and safer.

Society

- **Language and Script**
- What language did they speak and what did they read and write is, not clear to us. We have discovered the written script of Harappans. But, not deciphered it as yet. Some scholars believe that the language written there is ancestral to the Dravidian group of languages like Tamil. Some other writers like to think that it was ancestral to an Aryan language like Sanskrit.
- However, one noticeable thing about their script is that it did not change all through the life of the civilization.
- Perhaps, a very small section of privileged scribes had a monopoly over the written word.
- Most of the writing appears on **seals and sealings** and some on copper tablets.
- About 50% of inscribed objects have been found at Mohenjodaro and the two sites of Mohenjodaro and Harappa together account nearly 87% of inscribed material.
- Most of the **inscriptions are very short** with an average of 5 signs the longest one has 26 signs.
- Script is **logo-syllabic** - means each symbol stood for a word for a syllable.
- It was generally meant to be read from **right to left**.
- Longer inscription which have more than one line were sometime written in **boustrophedon style** with consecutive lines starting in opposite direction.

- Writing appears mostly on seals. Sealings would have been used by merchants for Trade. More seals are found than sealings which shows that seals would have multiple purposes.
- Writing also appears on miniature tablets, rectangular copper tablets with writing and animal motifs were found at Mohenjodaro and few tablets were found at Harappa.
- Some evidences of writing on pottery, sometimes the letters were inscribed before firing the pottery and sometime after firing the pots (Graffiti).
- Sometimes the bangles, jewellery or bone pins also have inscriptions. A copper vessel found at Mohenjodaro contained a large number of gold objects and these ornaments had tiny inscriptions. All are written by the same hand it would have been the name of the owner.
- Dholavira sign board indicate a civic use of writing.
- But the script disappeared around 1700 BC which shows that writing would have been limited to the cities, or to some people.

Dressing styles

- There are two ways to know about it one is studying the **Terracotta figurines and stone sculptures** from that period.
- Another is studying The skeleton remains.
- The study of skeletal types shows that the Harappans looked like the present day North Indians. Their faces, complexion and height were more or less similar to the present-day people living in those areas.
- Harappan women short skirts made of cotton. Regarding hairstyle they made braids, once at the back or side of the head, rapped around the head like a turban or left loose.
- Men would have wore dhoti like garment and an upper garment like a shawl which was worn over one shoulder.
- To sum to increase men and women both had common hairstyle or wore common jewellery.
- Like both men and women we are bangles necklaces.
- Growing beard was fashionable, but they would shave their moustaches. Women seem to have used ornaments on their waist. They wore a large number of necklaces. Bangles, too, were in fashion and of course, there was no end to the number of ways in

which hair was arranged. Men and women, alike, had long hair they used cotton clothes,

- Many miniature Terracotta cooking vessels have been found.
- Tiny Terracotta figurines of a small children have been found at most sites.
- There are figurines of children playing with toys.
- Lots of Terracotta figurines of dogs have been found at Harappan sites some with collars.
- In Harappa in one burial site a woman and a baby is found , maybe showing a case of death in childbirth.

Main crafts

- However, quite a few Harappan townsmen were engaged in various other kinds of activities. Bead-making was one of the favourite activities of the Harappans. At settlements like Mohenjodaro, Chanhu-daro and Lothal a fairly large number of Harappans were engaged in this work. Since a variety of stones like carnelian, lapis lazuli, agate and jasper were used for making beads it is likely that there were specialized bead-makers for each type of stone. Some other Harappans specialized in making stone tools. Apart from them, groups of potters, copper and bronze workers, stone workers, builders of houses, brick-makers and seal-cutters must have lived in Harappan towns.

Food Habits

- The Harappans of Sindh and Punjab ate wheat and barley as their staple food. Those who stayed in towns of Rajasthan had to be content with barley only. The Harappans of Gujarat in places like Rangpur and Surkotada preferred rice and millet.
- They got their supply of fat and oil from sesame seeds, mustard and possibly, ghee. We do not know whether they were familiar with sugarcane to supply them sugar. They might have used honey to sweeten their food.
- Seeds of jujube and dates found at Harappan sites indicate their preference for these fruits. It is likely that they also ate bananas, pomegranates, melons, lemons, figs and of course, mangoes.

- They seem to have consumed a whole range of wild nuts and fruits but it is difficult to identify them. They were eating peas too. Apart from this, the Harappans also ate non-vegetarian food. Bones of deer, bears, sheep and goats have been frequently found at Harappan settlements. Fish, milk and curd, too, would have been known to them.
- The recent excavation from Harappa include scientific analysis of bone remains, which provide us information about their health and nutrition.
- **Cemetery R-37** is located in southern part of Harappa.
- The analysis of bones on this site shows that there were no traces of nutritional inadequacy.
- The most common ailment suffered by the people buried in this cemetery was arthritis.

Warfare

- Did they fight? Let's see
- One important indicator, of course, is that at the time of the emergence of Harappan civilization many early Harappan sites like Kot Diji and Kalibangan were burnt down. However, an accidental fire could destroy large towns, but it is more likely that some of the settlements were burnt down by victorious human.
- Then, there is the evidence of some skeletons lying scattered on the streets of Mohenjodaro.
- The presence of citadels and fortification around many Harappan towns also indicates a need for protection against outsiders.
- Some of the protection walls might have been bunds for protection against floods. But, given the opulence of Harappan townships in contrast to the surrounding rural communities it is likely that the Harappans wanted to protect their wealth and life by fortifying their settlements. Many copper and bronze weapons have also been reported at sites.

Who Ruled them?

- We do not know who the rulers of the Harappans were. They may have been kings, priests or traders. However, we know that in many pre-modern societies economic, religious and administrative spheres

were not clearly demarcated. This means that the same person could be the head-priest, king and the wealthiest merchant.

- The earliest hypothesis about Harappan political structure was presented by **Stuart Piggot**-
- He said that Harappan state was highly centralized, which shows that it would have been ruled by a **Priest-king** and it would have two capitals Harappa and Mohenjodaro .
- His hypothesis is based on the following evidences-
- Uniformity in script ,uniformity in weights and measures, urban planning, mobilization of labour, monuments and buildings, green trees at Mohenjodaro and Harappa, lack of war related evidences between two cities.
- **A. Fairervis** says that there were no evidences of Empire or state, priest King ,standing army, officials.
- He says that Mohenjodaro would have been a ceremonial centre not administrative centre.
- And religion , tradition,culture and interdependence would have played a important role in controlling the society.
- **S.C. Malik** he says that Mohenjodaro was not a state or a Kingdom. It would have been in a transition phase from kingship society and civil state society. It would have been chiefdom ruled by chiefs.
- He says that there is lack of great monuments and at the same time there is lack of centralised religious institutions so it shows that there was no strong centralised authority.
- **Jim Shaffer** - he says that the development which occur in Harappa may be due to internal trade.
- His hypothesis is based on the arguments like- lack of palaces, lack of tombs as it is found in Mesopotamia and Egyptian civilization and lack of marked social difference. At the same time artefacts has been found from villages as well as from cities-so it's suggest that villagers as well as city dwellers had access to wealth. So there would not have been a highly centralized strong authority.
- **Possehl** Harappa good have been ruled by a council rather than by a king.

- Kenoyer- Harappa would have been ruled by different clans, his hypothesis is based on the evidences produced in form of seals. Different motifs on seal would have represented different clans. Unicorn motif seals has been found in majority of the Harappan cities it means it would have been a major clan having important executive power in government.
- Elaborate drainage system, uniformity in tools , uniformity in art and craft, presence of large building such as granaries, variety of products used by Harappan such as precious stones, production and distribution of objects over a vast area, large cities, buildings, fortification of cities, monumental structures in Citadel -all these evidences show the presence of centralized authority but what form of authority it was, it is not clear.

Religious beliefs of Harappan people

Places of Worship

- A number of large buildings in the citadel and lower town at Mohenjodaro are believed to have been temples of gods. This view is supported by the fact that most of the large stone sculptures were found in these buildings.
- Great bath in Mohenjodaro
- Near the Great Bath was found another large structure (230 × 78 feet) which has been identified as the residence of some high priest or college of priests. Similarly, an oblong assembly hall has also been reported from the citadel area. To the west of this structure was found a complex of rooms in one of which was discovered a seated male statue. This, too, has been identified as part of some religious structure.
- **The Mother Goddess**
- The Harappan settlements have yielded a very large number of terracotta female figurines.

The worship of female goddess associated with fertility would have been major feature of Harappan civilization because-

- Agriculture societies are closely linked with fertility
- Cross cultural parallels with other ancient civilization
- Importance of goddess worship in later Hinduism

- Discovery of large number of female figurines

Harappa - A seal has been found showing a nude women, head downwards, with her legs apart and a plant issuing from her vagina is generally interpreted as a proto type of shakumbhari the Earth Mother.

- All the female figurines cannot be assigned religious or cultic significance. Some of them may have been used for household rituals ,some of them would have been toys or decorative items.



- The attributes of figureines like in which condition they are found and from where they are found it helps us to assign them a religious or cultic significance.
- The figure which is given above this type of figures has been interpreted as religious figurines.
- Some more figurines have been found which has Cup like attachment and flowers on either side of head and this Cup like attachment have traces of black residues, which may have been used to burn oil or some sort of essence. These figures would have been religious figurines.

- Some metronly, pot- bellied female figurines have also been found along with slim type of female figurines.
- The female figurines mostly found in large number at cities like Mohenjodaro, Harappa, Banawali but not in sites like Kalibangan ,Lothal, Surkotda.
- Most of the Terracotta figurines were found broken and discarded in secondary location.
- Because many of the figurines have been found broken so it seems that they would have been used for particular ritual cycle for a short period of time or on specific occasion.

Objects of Worship

- The evidence of the objects of worship comes from the study of Harappan seals and terracotta figurines. Amongst evidences that come from the seals, the most famous is a deity who has been identified as proto-Shiva. On a series of seals a deity wearing a buffalo-horned head-dress is shown sitting in a yogic posture.
- This scene has been found from Harappa and Marshall referred to it as Pashupati -Seal.
- This seal shows a a male figure wearing buffalo-horn head dress and sitting in a yogi posture. He is surrounded by 4 animals elephant, rhinoceros, water buffalo and tiger.
- Beneath the dice are two antelopes or ibexes.

Worship of creative Energies

- Meaning of the stones have been found by John Marshal which represents the worship of male and female creative energy in form of stone icons of lingas and yonis.
- But some historians have rejected this theory because they believe that these stones would have been used for other purpose like architecture or for guiding the masons for measuring the angles.
- However a Terracotta peice which closely resembles like a Linga with a Yoni-Pitha has recently been discovered from Kalibangan.

Tree worship

- The Harappans also seem to have worshiped tree spirits. Several seals depict the Pipal tree. In many cases a figure is shown looking

through the branches. Scholars Believe that this represents the tree-spirit.

- In many cases the worshippers are shown standing in front of the tree. In many other cases a tiger or some other animal is shown in front of the tree.
- In one case(From Mohenjodaro)seven human figures are shown standing in front of it,with a horned-figure standing in it. As discussed earlier, the horned figure, probably, is Shiva.
- Pipal tree has been worshiped in India for ages and in many cases, the Pipal tree and Shiva are worshipped together. The seven figures have sometimes been identified with the seven great sages or seven mothers of the Indian mythology (sapta-matrikas).

Some Mythical Heroes

- Some other human figures which seem to have a religious significance are those found on seals and amulets. Human figures with horns on head and long tails are frequently shown on seals. Sometimes, they have hoofs of cattle and hind legs.
- Some other seals remind us of Mesopotamian mythology. For example, a man grappling with a pair of tigers immediately brings to mind a brave warrior called Gilgamesh who is said to have killed two tigers.

Animal Worship

- A large number of animals also seem to have been worshipped. Again, our information comes from their representation on seals and sealings and in terracotta. A seal has been reported from [Chanhudaro](#) depicting a bull-bison with erect penis, fecundating a supine human figure.
- A plant is sprouting from the head of the human figure. This, obviously, is indicative of some fertility cult. The Brahmani bull with its heavy dewlap is frequently represented on seals. It is possible that the present day reverence for bulls and cows had its beginnings in the Harappan civilization.
- A [Terracotta Bull](#) has been found from [Mohenjodaro](#) . Some of the Terracotta,shell, faience and metal tablets may have been amulets .

The more tips such as svastika may have been used for protective function or auspiciousness.

- Terracotta masks and puppets found at Mohenjodhar and Harappa.

Mythical Beasts

- Many composite animals are depicted on seals. There are animal representations of creatures with the four parts of humans and the hind-quarters of tigers. Similarly, composite creatures combining various portions of rams, bulls and elephants are a frequent occurrence. They, obviously, represent objects of worship. The conception of composite creatures like Narasimha was very much part of the mythology of later Indian tradition.
- One important animal frequently represented on the Harappan seals is the **unicorn**.
- The Harappans at Kalibangan and Lothal seem to have followed different religious practices. At Kalibangan in the citadel were found a series of raised brick platforms crowned with fire altars, i.e. a series of brick-lined pits containing ash and animal bones.
- This area also had a well and bathing places. This complex seems to have represented some kind of ritual centre where animal sacrifice, ritual ablution and some sort of fire rituals were performed.
- At Lothal, too, fire altars have been found. These evidences are very important because: a) they show that the Harappans staying in different geographical areas followed different religious practices, and b) the fire ritual was central to the Vedic religion.
- A **triangular Terracotta cake** has also been found from Kalibangan which has a carving of horned deity on one side and an animal being dragged by a rope by a human on the other side. This would have been an example of animal sacrifice.
- At Kalibangan cylinder seal shows a woman flanked by two men who hold her with one hand and raise swords over her head with the other. This might have been the emblem of human sacrifice.

Burial of the Dead

- Harappan cemeteries have been located at sites such as Harappa, Kalibangan, Lothal, Rakhigarhi and Surkotda.

- Dead bodies were generally placed in north-south orientation. Bodies were laid on their back. A large number of earthen pots were placed in the grave. In some cases the dead were buried with ornaments like shell bangles, necklace, and ear ring. In some cases copper mirrors, mother of pearl shells, antimony sticks etc. were kept in the grave. A number of graves were constructed with bricks.
- A coffin burial has been found at Harappa.
- At Kalibangan some other kinds of burial practices were encountered. Small circular pits containing large urns and accompanied by pottery have been found. But they did not have any skeletal remains.
- From Lothal some pairs of skeletons with male and female in each case buried together have been found.
- Fractional burial evidences has been found from Mohenjodaro and Harappa.
- These two sites also provide evidences of ur burial.
- A study of various kinds of objects found in excavations shows that different regions of the Harappan civilization followed different kinds of religious practices. Fire worship was prevalent in Kalibangan and Lothal but unknown in Harappa and Mohenjodaro. Ritual bathing evidenced at Mohenjodaro might have been absent in Harappa. The Burial practices show wide variation ranging from extended inhumation to double-burials and pot-burials. Finds at Kalibangan also show that different kinds of burial practices were being followed in the same settlement. This kind of diversity of religious beliefs and practices, even in the same settlement, reflects the complex nature of urban centres.
- The urban centres were characterized by the presence of people following different kinds of religious practices. This apparently means that the urban centres were formed by political and economic integration of varied social groups. Also, an urban centre means the presence of traders from different regions with their own religious practices. These groups retained their social mores and customs but lost their political and economic independence.

Decline of Harappan civilization

- Cities like Harappa, Mohenjodaro and Kalibangan experienced gradual decline in urban planning and construction.
- Mohenjodaro showed a distinct reduction in the number of sculptures, figurines, beads, bangles and inlay works. Towards the end, the city of Mohenjodaro shrank to a small settlement of three hectares from the original 85 hectares.
- Processes of decline were in evidence also in places like Kalibangan and Chanhu-daro. We find that buildings associated with power and ideology were decaying and goods related to displays of prestige and splendour were becoming increasingly scarce. Later on, cities like Harappa and Mohenjodaro were abandoned altogether.
- the settlements in the core region of the Harappan civilization were declining. The population seems to have either perished or moved away to other areas. Whereas the number of sites in the triangle of Harappa, Bahawalpur and Mohenjodaro declined, the number of settlements in the outlying areas of Gujarat, east Punjab, Haryana and upper Doab increased. This indicates a phenomenal increase in the number of people in these areas.
- But life had changed for them. Some of the important features associated with Harappan civilization – writing, uniform weights, Harappan Pottery and architectural style – had disappeared. The abandonment of the cities of the Indus is roughly dated to about 1800 BCE. This date is supported by the fact that Mesopotamian literature stops referring to Meluhha By the end of 1900 BCE.

THEORIES OF SUDDEN DECLINE

- **it was destroyed by massive floods**
- This theory is supported by [S.R Rao, Mackay](#).
- [M.R Sahni, Robert R.Lakes and George F. Dales](#) argued that flood at Mohenjodaro were the results of tectonic movement.
- It appears from the records of the principal excavators that in Mohenjodaro various periods of occupation were separated by evidences of deep flooding. This can be inferred from the fact that the houses and streets of Mohenjodaro were covered with silty clay and collapsed building materials many times in its long history. This silty clay seems to have been left by the flood-waters which had

submerged the streets and houses. The people of Mohenjodaro again built up houses and streets on top of the debris of previous buildings, after the floods had receded. This kind of catastrophic flooding and rebuilding on top of the debris seems to have happened at least thrice.

- Thick silt deposits have been noticed at points as high as 80 feet above the present-day groundlevel. Thus, many scholars believe that the evidences are indicative of abnormal floods in Mohenjodaro. These floods led to temporary desertion and reoccupation of the city throughout its history.
- Hydrologist **R.L. Raikes** argued that such flooding, which could drown buildings 30 feet above the ground-level of the settlement, could not be the result of normal flooding in the Indus. He believes that Harappan civilization declined because of catastrophic flooding causing prolonged submergence of cities located on the bank of the Indus.
- He has shown that geomorphologically speaking, the Indus area is a disturbed seismic zone. Earthquakes might have raised the level of flood plains of the lower Indus.
- A lake was formed in the area where cities of the Indus had once flourished. And, thus, the rising water levels of the river swallowed up the cities like Mohenjodaro.
- It has been pointed out that sites like Sutkagedor and Sutka-koh on the Makran coast and Balakot near Karachi were seaports of the Harappans. However, at present, they are located far away from sea-coast. This has happened because of the upliftment of the land on sea-coast possibly caused by violent tectonic uplifts which, some scholars believe, took place somewhere in the 2nd millennium BCE. These violent earthquakes, damming rivers and burning the towns destroyed the Harappan civilization. This led to the disruption of commercial life based on river and coastal communication.

Criticism

- This grand theory of the catastrophic fall of the Harappan civilization is not accepted by many scholars.
- H.T. Lambrick points out that -

- Even if an earthquake artificially raised a bund down-stream, the large volume of water from the Indus would easily breach it. In recent times, in Sindh a swell of ground raised by the earthquake of 1819 was breached by the first flood it faced from one of the smaller streams of the Indus called Nara.
- ii) Silt deposition would parallel the rising surface of water in the hypothetical lake. It would take place along the bottom of the former course of the river. Thus, the silt of Mohenjodaro might not be the deposition of a flood.
- Another criticism of this theory is that it fails to explain the decline of settlements outside the Indus system.

The Shifting away of the Indus

- **H.T Lambrick** believes that changes in the course of the Indus could be the cause of the destruction of Mohenjodaro. The Indus is an unstable river system which keeps shifting its bed. Apparently, it shifted about 30 miles away from Mohenjodaro.
- The people of the city and the surrounding food production villages deserted the area because they were starved of water. This kind of thing happened many times in the history of Mohenjodaro.
- This theory, too, can not explain the decline of the Harappan civilization in totality. At best, it can explain the desertion of Mohenjodaro. And, if the people of Mohenjodaro were familiar with those kinds of shifts in the river-course why could not they themselves shift to some new settlement and establish another city like Mohenjodaro? Obviously, it appears that some other factors were at work.

Increased Aridity and Dying up of Ghaggar

- **D .P. Agarwal and Sood** have introduced a new theory for the decline of the Harappan civilization. They believe that the Harappan civilization declined because of increasing aridity in this area and the drying up of the Ghaggar-Hakra.
- They have shown that there was an increase in arid conditions by the middle of the 2nd millennium BCE. In Semi-arid regions like those of Harappa, even a minor reduction in moisture and water availability

could spell disaster. It would affect agricultural production which, in turn, would put the city economies under stress.

- Ghaggar-Hakra area represented one of the core regions of the Harappan civilization. The Ghaggar was a mighty stream flowing through Punjab, Rajasthan and the Rann of Kutch.
- The Sutlej and the Yamuna used to be its tributaries. Because of some tectonic disturbances, the Sutlej stream was captured by Indus and the Yamuna shifted east to join the Ganges. This kind of change in the river regime, which left the Ghaggar waterless, would have catastrophic implication for the towns located in this area. Apparently, the ecological disturbances brought by increased aridity and shift in drainage pattern led to the decline of the Harappan civilization.
- **Criticism** The theory about the onset of arid conditions has not been fully worked out and one needs more information. Similarly, the drying up of the Ghaggar has not been dated properly as yet.

Barbarian Invasions

- **Mortimer Wheeler** believed that the Harappan civilization was destroyed by the Aryan invaders.
- It has been pointed out that in the late phases of occupation at Mohenjodaro, there are evidences of a massacre. Human skeletons have been found lying on streets. The Rig Veda time and again refers to the fortresses of the Dasas and the Dasyus.
- The Vedic god Indra is called Purandara meaning 'destroyer of forts'. The geographical area of the habitation of the Rig Vedic Aryans included Punjab and the Ghaggar-Hakra region. Since there are no remains of other cultural groups having forts in this area in this historical phase, Wheeler believed that it was the Harappan cities that were being described in the Rig Veda.
- In fact, the Rig Veda mentions a place called Hariyupiya. This place was located on the bank of Ravi. The Aryans fought a battle here. The name of the place sounds very similar to that of Harappa. These evidences led Wheeler to conclude that it was the Aryan invaders who destroyed the cities of Harappa.
- **Criticism -**

- They point out that the provisional date for the decline of the Harappan civilization is believed to be c.1800 BCE. The Aryans, on the other hand, are believed to have arrived here not earlier than a period around 1500 BCE. At the present state of knowledge, it is difficult to revise either of these dates and so, the Harappans and the Aryans are unlikely to have met each other.
- Also, neither Mohenjodaro nor Harappa yield any other evidence of a military assault. The evidence of human bodies lying exposed in streets is important. This, however, could have been caused by raids by bandits from the surrounding hilly tracts. In any case, the big cities were already in a state of decay. This cannot be explained by the invasion hypothesis.

ECOLOGICAL IMBALANCE: THEORY OF GRADUAL DECLINE

- Scholars like Fairervis tried to explain the decay of Harappan civilization in terms of problems of ecology.
- Fairservice suggest that growing population of people and cattle could not be supported from the resources which were produced within Harappan cultural zone.
- With the forests and the grass cover gradually disappearing, there were more floods and droughts. This depletion of the subsistence-base caused strain on the entire economy of the civilization. There seems to have been a gradual movement away to areas which offered better subsistence possibilities. That is why the Harappan communities moved towards Gujarat and eastern areas, away from the Indus.
- Of all the theories discussed so far, Fairervis's theory seems to be the most plausible one. Probably, the gradual deterioration in town-planning and living standards was a reflection of depleting subsistence base of the Harappans.
- This process of decline was completed by raids and attacks from the surrounding communities.
- **Criticism**
- The enduring fertility of the soils of the Indian sub-continent over subsequent millennia disproves the hypothesis of soil exhaustion in this area.

- Also, the computation of the needs of the Harappan population is based on scanty information and a lot more information would be needed to make a calculation of the subsistence needs of the Harappans.

Significance of late Harappan phase

- It was towards the end of 60s that scholars like Malik and Possehl focused their attention on various aspects of the continuity of the Harappan tradition.
- The activities associated with city-centered economies were given up. Thus, the changes that came about simply indicated the end of the urban phase. Small villages and towns continued to exist and the archaeological finds from these sites show many elements of Harappan tradition.
- There are 5 geographical zones of late Harappan phase- Sindh, West Punjab and Ghaggar-Hakra valley, eastern Punjab and Haryana, Ganga Yamuna doab, and Kutch and Saurashtra.
- In **Sindh**, i.e. at the Harappan towns Amri, Chanhu-daro, Jhukar etc., people continued to live as of old.
- In Sindh late Harappan face is represented by Jukar culture.
- They were still staying in brick houses but they gave up the planned layout. They were using a slightly different pottery called Jhukar pottery. It was a buff-ware with red slip with paintings in black.
- At Jhukar certain distinctive metal objects have been found which might be indicative of trade links with Iran or what is more likely – the influx of a migrant population having Iranian or central Asian influences. A shaft-hole, axes and copper pins with looped or decorated heads have parallels in Iranian settlements. Circular stamp seals of stone or faience and a bronze cosmetic jar are also indicative of contacts with cultures to the west of Indus.
- **West Punjab and the Ghaggar-Hakra Valley**
- Let Harappan phase here is represented by cemetery H culture.
- There was decline in number of settlements ,174 in mature Harappan phase to 50 in late Harappan phase.
- **East Punjab, Haryana and North Rajasthan-**

- The late Harappan settlement here were small as compared to mature Harappan settlement.
- Harappan influences on the pottery tradition gradually declined and the local pottery traditions which were always present along with Harappan pottery gradually replaced the Harappan pottery altogether. Thus, the decline of urbanism was reflected in the reassertion of regional traditions in these areas.
- **Ganga Yamuna doab**
- In the upper Gangetic valley, 139 late Harappan settlements were established is compared to 31 mature Harappan site. They show remote late Harappan influences. This area became the heartland of the subsequent phase of the Indian civilization
- The settlements were small made up of wattle and daub but agriculture base was very diverse.
- **Kutch and Saurashtra**
- In mature Harappan phase there were 18 settlements which increased to 120 in early late Harappan phase.
- In Kutch and Saurashtra, the end of urban phase is clearly documented in places like Rangapur and Somnath. Even during the urban phase, they had a local ceramic tradition co-existing with Harappan pottery. This tradition continued in later phases.
- Some sites like Rangapur seem to have become more prosperous in the succeeding period. They were using potteries called Lustrous Red Ware. However, the people stopped using Indus weights, script and tools imported from distant areas. Now they were using stone tools made of locally available stones.
- There is a distinct possibility that people inhabiting these new settlements came from other areas.

General features of Late Harappan Phase

- The slip of late Harappan pottery is less bright as compared to mature Harappan pottery.
- The pots tend to be thicker and sturdier.
- Various elements of Harappan urbanism such as the cities, script, seals, specialised crafts and long distance trade declined in the late Harappan phase but did not completely disappear.

- Important feature was diversification of agriculture, double cropping.
- Different type of crops like rice, wheat ,millets, pulses were grown.
- In general there was breakdown of urban network and expansion of rural networks.
- There is an overlap between late Harappan and Painted Grey Ware(PGW) culture at sites such as Bhagwanpura and Dadheri in Haryana, and Katpalon and Nagar in Punjab.