HISTORY OF ANCIENT INDIA

Civil Services Examination
# Contents

## History of Ancient India

### Unit – I: Different Shades of Civilization

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2.1 Introduction

The middle of the third millennium BCE saw the rise of an urban civilization, which came to be called the Indus or Harappan Civilization (circa 2500-1900 BCE). It is called Harappan because this civilization was discovered first in 1921 at the modern site of Harappa situated in the West Punjab provinces in Pakistan.

2.2 Geographical Extent

The epicenter of the civilization was in present day Pakistan and North-Western India. From that, the civilization grew in all the directions. Historians generally believe that Harappa, Ghaggar, Mohenjo-Daro axis represents the main region of the civilization as most of the settlements are in this region and show a lot of similarities. The area formed a triangle and accounted for about 1.299,600 square kilometers.

Surkotda and Sutkagen-Dor on the Makran coast, in the hilly region of Baluchistan formed the Western frontiers of the Civilization. Bargaon, Manpur and Alamgirpur located in the Ganga-Yamuna doab of Uttar Pradesh formed the eastern frontiers of the Indus Valley Civilization. In India northern frontiers of the civilization were in the cities of Manda in Jammu and Ropar in Punjab. The Southern frontiers of the civilization were in the cities Daimabad in Maharashtra and Bhagat Ray in Gujarat. In Gujarat the Harappan settlements were fragmented over the areas of Kutch and Kathiawar.

Remains of Harappa
2.3 Phases of Indus Valley Civilization

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<td>Settlements like Mehrgarh and Kili Ghul Muhammad came up in Baluchistan and the Indus plains. Cattle rearing was main occupation with limited cultivation. This led to the seasonal occupation of the villages. Permanent villages emerged after some time with production surplus. There is evidence of mud houses, pottery and craft production.</td>
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2.4 Discovery

In 1826, Charles Masson stood on the mounds of Harappa, a village in Sahiwal district of Punjab. He mistook it as a place where Alexander had defeated king Porus in battle in the 4th century CE. Alexander Burnes visited Harappa but was unsure of its significance. In the 1850s Alexander Cunningham visited Harappa only to return in 1872 to find stone tools and ancient pottery but this did not intrigue him too much.

It was by the efforts of Indian archeologists Daya Ram Sahni and Rakhaldas Banerji, the cities of Harappa (on Ravi) and Mohenjo-Daro or ‘Mound of the Dead’ (on Indus) were discovered in 1921 and 1922 respectively. In 1924 John Marshall sensed the significance of the archeological findings. The sites were eventually excavated revealing a fragment of India’s past. It brought to light an Indian civilization that could have been as old as the civilizations of Mesopotamia and Egypt.

2.5 Features

V. Gordon Childe was one of the earliest to make attempts to define a city in Harappa and Mohenjodaro. He described them as a symbol of a revolution that marked a new economic stage in the evolution of society. According to him this “Urban Revolution” was neither sudden nor violent. It was a gradual socio-economic change.

The Indus civilization, while sharing many general features with the contemporary Bronze Age cultures such as the Sumerian civilization of Mesopotamia and Old Kingdom Egypt, had its own distinct identity. For one thing, with a geographical spread of more than a million square kilometres, this was the largest urban culture of its time.
Unlike Mesopotamia and Egypt, there were no grand religious shrines nor were magnificent palaces and funerary complexes constructed for the rulers. Instead, its hallmark was a system of civic amenities for its citizens rarely seen in other parts of the then civilized world – roomy houses with bathrooms, a network of serviceable roads and lanes, an elaborate system of drainage and a unique water supply system. Dholavira’s network of dams, water reservoirs and underground drains and Mohenjodaro’s cylindrical wells, one for every third house, epitomize the degree of comfort that towns people enjoyed in relation to contemporary Mesopotamians and Egyptians who had to make do with fetching water, bucket by bucket, from the nearby rivers.

Administration

Political Organisation

The size and architectural intricacy of all Indus Valley Civilization structures like the Great Bath, Granaries, the elaborate road planning, the flawless large-scale drainage system is believed to have been possible due to presence of a strong centralized polity.

In many places raised habitations at the center of the city are found which has led historians to assume that some important people like headmen and his council would have lived there. The specialized economic organization and socio-cultural unity in such early civilizations has taken historians by surprise. The sophistication in the craftsmanship could only have been achieved under the patronage of leaders. This all could have been only possible because of a strong centralized authority in the Harappan cities.

In sharp contrast to Egypt and Mesopotamia, no temples have been found at any Harappan site. It seems Harappan rulers were more concerned with commerce than with conquests, and could have possibly been ruled by a class of merchants. Moreover, Harappans also lacked in owing or making weapons.

Town Planning and Structures

The Harappan towns had a remarkable unity of conception according to archeologists Mortimer Wheeler and Stuart Piggot. The Indus Valley cities were found in the primitive times but they lacked sophistication in no way. There was elaborate town planning following the grid Systems. The streets and houses of Harappan cities were laid on a grid-pattern oriented north–south and east–west.

The unity that is seen in the houses, temples, granaries and streets themselves was significantly remarkable. Each city was divided into two parts: the raised citadel and lower town. The settlements at Harappa, Mohenjodaro and Kalibangan were divided into a citadel on the west side and a lower town on the eastern side of the settlement. The citadel contained large structures which might have functioned as administrative or ritual centers. The citadel was built on a high podium of mud brick. The citadel was surrounded by brick wall in Harappa and Mohenjodaro. The lower city part contained residential areas.

Lothal in Gujarat, however, was a rectangular settlement surrounded by a brick wall and had no internal division into citadel and lower city. Baked bricks were used for buildings in Harappa and Mohenjodaro whereas in Kalibangan mud bricks were used. The Bricks had standard sizes, cubical shape and were sun dried.
The most important public place of Mohenjodaro seems to be the Great Bath, comprising the tank which is situated in the citadel mound. Flights of steps at either end lead to the surface. There are side rooms for changing clothes. The floor of the bath was made of burnt bricks.

In Mohenjodaro the largest building is the Granary. But in Harappa six Granaries have been found. To the south of the granaries at Harappa lay working floors consisting of the rows of circular brick platforms. These were evidently made for threshing grain because wheat and barley have been found. Harappa shows two-roomed barracks which possibly accommodated labourers.

Harappa: Granaries

The drainage system of Mohenjodaro was very impressive. In almost all cities every big or small house had its own courtyard and bathroom. In Kalibangan many houses had their own wells. The street drains were equipped with manholes. No other Bronze age civilisation gave so much importance to health and cleanliness as the Harappa did.

**Economic Life**

A stable system of agriculture, supplemented by animal husbandry, hunting and plant gathering, provided economic sustenance to urban networks. Trade and commerce was a significant part of their economy. Various items like gold, silver, and diamonds were imported and finished jewelry, handicrafts and toys were exported. The Indus Valley Civilization people were the pioneers in cotton cultivation. Greeks called Indus Valley Civilization as ‘Sender’ or land of cotton.

**Domestication of Animals**

Although Harappan people were mainly agriculturists but animals were also reared on large scale by them. Ox, buffalos, camels, asses, goats, boars, sheep, dogs and cats were some of the animals domesticated by the Harappan people.

Ox, buffalos, camels and asses were the beasts of burden used in transportation and agriculture. Goats, boars and sheep were used for culinary purposes. Bones of these animals have been found from many settlements.

Dogs and cats were used as pets and this can be proven by both feet signs noticed in the settlements. Humped bull were favoured by the Harappans. Bones of rhinoceros and elephant have been found from many settlements and showing that they might have been hunted and eaten by the Indus Valley Civilization people.

Horse remains are largely absent from the civilization, however, remains of horse have been found in the port city of Surkotda and doubtful terracotta figurine of horse from Lothal. In any case Harappan culture was not Horse centered. Harappan people in Gujarat produced rice and domesticated elephants, which was not the case with the people of Mesopotamian cities.

**Agriculture**

In the earlier times the Indus region was full of vegetation and attracted lot of rainfall. This led to the prospering of agriculture in the region. The fertility of the region was replenished by the annual inundation of the Indus River.

The people in the Indus Valley region sowed seeds in November. When the water in Indus subsided then barley and wheat were harvested from the region. The Harappan people knew about plough share and stone sickles were used for harvesting. The irrigation was primarily rain fed but other measures of irrigation may have been known.
Two varieties of wheat are frequently found in Harappan sites. Dates, mustard, sesame and varieties of leguminous plants such as peas were grown.

Granaries were made to store food grains in cities like Harappa and Mohenjodaro. Probably cereals were received as taxes from peasants and stored in granaries for the payment of wages. The Indus people were the earliest to produce cotton.

**Trade and Commerce**

Most of the Harappan cities did not possess raw materials for the final products they produced. There was no concept of currency and trade was done by the barter system. The Harappan people exchanged finished goods for raw materials.

The Harappan people had trade contacts with other world civilizations like Mesopotamia and Egypt as well as the local communities.

The Harappans had commercial links with settlements in Rajasthan and Karnataka and also with Afghanistan and Iran. They had set up a trading colony in northern Afghanistan which evidently facilitated trade with Central Asia.

The Harappans carried on long distance trade in lapis lazuli.

Shell-work, bangle-making and bead making factories existed in Kalibangan, Chanhu-daro and Lothal. These were main items of export by the Harappans.

The Mesopotamian records from about 2350 B.C. onwards refer to trade relations with Meluha, the ancient name of the Indus region. Harappan seals and other material have been found in Mesopotamia. There were also instances of trade with Sumeria, Babylon and Egypt.

**Weights and Measures**

Due to constant trade exchanges the need for uniform Weights and measures arose. The Weights and Measures were made uniform by the Harappans during the Mature Harappan Phase.

The weight system was mostly based on the multiples of 16, i.e. 16, 64, 160, 320, 640. The Harappan metric system had a base of 16.

Harappans knew the art of measurement. This was done by the help of sticks. Many such sticks have been excavated.

**Transportation**

With a lot of trade exchanges a need for easy and quick transportation of goods arose. The development of the wheel with the domestication of Oxen and bulls the mode of transport changed from foot to carts and chariots. The transport of the goods was also done on camels and asses that were the beasts of burden. For long distance trade through seas boats would have been used.
Social Life

The social life of Indus valley civilizations can be gazed by the lens of archeological finds like sculpture figurines and seals. It is clear that their society was divided into two, the people who lived in the Citadels and those who lived in the cities.

Nature of Society

The people of Indus Valley worshipped both male and female deities. The seal of male deity Pashupati or Shiva, as well as, the figurine of Mother Goddess have been found in the excavation of Mohenjo-Daro. Unlike the Egyptian civilization where the daughter succeeded the queen no such succession knowledge has been found for Indus valley regions. Hence the society may be patriarchal or matriarchal and the nature of the society remains inconclusive.

It was an egalitarian society as the figurines show the prominence of both male and female forms. In some figurines bearded men are shown wearing feminine costumes. There is also a possibility of a society had equal status for men and women.

Food Habits

Not much can be inferred from the excavations about the food habits of Indus Valley civilization people as there is no deciphered proof present. We can infer very little about their food habits only on the basis of what remains have been found in the places excavated.

The food choices were region specific. For the Harappans in Punjab and Sind wheat and barley was the staple food. The Harappans of Gujarat preferred millets and those of Rajasthan preferred barley.

They got their supply of fat and oil from sesame seeds, mustard and domesticated animals like buffalo, camels, sheep and goats. The preference for fruits can be inferred in the seeds of jujube and dates found in excavations.

Burial Practices

The burials have been important religious activity in human groups. The Harappa buried their dead in north south orientation laying them on their back.

It is believed that the Harappans believed in an afterlife and so a lot of pots have been kept with the dead. The articles were placed in the burial site depending upon the status of the dead.

In general, the burials in Harappan period were all in brick or stone lined rectangular or oval pits. The body was usually interred clothed shrouded or in a wooden coffin. Along with pots as mentioned above the bodies were buried with their jewelry which consisted of bangles made from shell, steatite beads etc. and the men usually wore earings. Copper mirrors have been found only amongst the bodies of the females which show a specificity of grave by gender.

The burial places of Indus Valley Civilization were not as grand as the Egyptian Civilization burials or Mesopotamian civilizations.

There some differences in the burial practices of the Harappan people. In Kalibangan, small circular pits containing large urns without the skeletal remains of the dead and accompanied by pottery have been found. This shows that the dead might be burned in
Kalibangan. In Lothal some burials have a male and a female buried together.

In Ropar a man was found buried with a dog. In Odji two infants were found buried beneath the floor of a house. In Lothal three multiple burials have been found. The burial practices in Harappan Civilization have shown a wide variation ranging from extended inhumation, to couple burials and pot burials. It is even seen that there can be different kinds of burials in the same city showing the complex nature of the society. This infers that the urban centers may have been formed by the political and economic integration of varied social groups.

**Script**

The Harappans had a written script which has not yet been deciphered. Attempts have been made to connect the Harappan script with the Sanskrit, Dravidian languages like Tamil and Sumerian language but no conclusive results have been produced so far.

The Harappans invented the art of writing like the people of ancient Mesopotamians. The Harappans did not write long inscriptions unlike the Egyptians or Mesopotamians who used to write long inscriptions. Most inscriptions were recorded on seals and contain only a few words.

Their script was ‘Boustrophedon’ which means having alternate lines written in opposite directions.

The script comprises only of pictographs and about 250 to 400 of these symbols have been discovered.

It would not be wrong to say that the Indus Valley script was indigenous to Indus Valley civilization and had no connection to outer world civilizations.

**Religious Practices**

Without the much written history it is difficult to concretely determine the religion, beliefs and practices of Indus Valley Civilization people. Whatever proof we have in Indus Valley script is not decipherable till now which supplements the above problem. The only knowledge that has been gained till now is from the excavated figurines, seals and fire alters present in Harappan Civilization.

**Rituals**

Scholars have believed that some of the structures like the Great Bath may have a ritualistic significance. The Great Bath is a humongous structure with elaborate bathing arrangements. It is adjacent to another large structure believed to be a residence of the college of priests or the main priest. This attaches some significant ritualistic significance to The Great Bath structure. This helps to presume that there may be some ritual performances that may have taken place in the large temple like structure.

**Deities**

In the excavations of Harappa there have been a number of terracotta figurines and seals found that suggest in the Harappan society. The main deities that occur in most of the figurines and seals were proto Shiva and Mother Goddess.

**Proto Shiva**
A deity, wearing a buffalo-horned head gear, is shown sitting in a yogic posture in many seals in the Harappan excavations. In the seals the deity has goat, elephant, tiger and antelope surrounding him. He has a sprouting plant emerging between his horns in some seals. Sir John Marshall identifies him as Pashupati (Lord of Beast) or the Proto Shiva.

The male deity is represented on a seal. The goddess has three horned heads. He is represented in the sitting posture of a Yogi, placing one foot on the other. The goddess is surrounded by an elephant, a tiger, a rhinoceros, and has a buffalo below his throne. At his feet appear two deer.

In another seal the deity is standing nude between the branches of a Pipal tree. Snakes are shown accompanying the Yogic figure in a seal. In some of the Harappan settlements the phallic emblem of Shiva (Lingam) has been found.

Scholars believe that such depiction may be related to Harappans treating the figurine as mother goddess. It is a possibility that mother goddess represented earth and was worshipped as fertility goddess.

**Tree Worship**

Several seals have been excavated from Harappa that depicts figurine looking through branches of Pipal tree. Scholars believe them to be the tree spirits worshipped by the Harappans. In many seals this spirit is shown being worshipped by others. In some seals some animal is shown in front of the tree. In one seal seven figures are standing in front of the Pipal tree along with a horned figure. According to the scholars the horned figure may be proto Shiva and the seven figures may be seven great sages or seven mothers of the Indian mythology.

**Animal Worship**

A large number of animals like bull, tiger, rhinoceros, goats, elephants and antelope were worshipped during the Harappan Civilization. This is shown in many terracotta figurines and seals that were excavated.

Many composite animal and human seals have been discovered. These might depict the worshipping of the animals. There have been animal representations of creatures with the parts of humans. Narasimha an Indian mythological figure which has foreparts of humans and the hind-quarters of tigers is represented in one of the seals. The most important of them is the one horned animal unicorn which maybe identified with rhinoceros. Next in importance was the humped bull.

Many figures have been found where composite creatures combining various portions of rams, bulls and elephants are depicted on seals. Harappan seals have a creature resembling the unicorn. A unicorn is a horse-like beast with a horn issuing from the middle of its head.

Amulets have been found in large numbers. Probably the Harappans believed that ghosts and evil forces were capable of harming them and therefore used amulets against them.

**Fire Altars**

The Harappans at Kalibangan seem to have followed different religious practices. In the citadel, a series of brick-lined pits have been found over
raised brick platforms. They contain ash and animal bones. These were classified as fire alters by some scholars. This part of the citadel was some kind of ritual centre where fire rituals and animal sacrifice were performed. Many of the houses also have these fire alters.

Some of these fire alters have also been found in Lothal.

Science and Technology

The Harappan Civilization was way ahead of its time which proves that they had made giant strides in the field of science and technology. The art of loommg and weaving, metallurgy, lost-wax technique of making sculptures and making of ornaments all of these activities depicted their gained acumen in the field of science and technology.

Metallurgy

The Harappan people knew about the science and technology behind metallurgy and were able to make bronze perfectly. The dancing girl is well-regarded cultural artifact and masterpiece in bronze statues. Except for a necklace she is naked.

We get a few pieces of Harappan stone sculptures. One steatite statue wears an ornamented robe over the left shoulder under the right arm, and its short locks at the back of the head are kept tidy by a woven fillet.

Raw materials to make bronze was not available readily to Harappans. They obtained copper from Khetri copper mines in Rajasthan and tin from Afghanistan. Bronzesmiths constituted an important group of artisans in the Harappan society.

This shows that the Harappans knew metal blending, casting and other sophisticated methods for making bronze sculptures.

Other Crafts

Several other important crafts flourished in the Harappan towns. A piece of woven cloth has been recovered from Mohenjodaro and textile impression found on several objects. Spindle whorls were used for spinning.

Huge brick structures suggest that brick-laying was an important craft. The Harappans also practiced boat making.

Seal making and terracotta manufacture were also important crafts.

Pottery

The Harappans were masters of the potter’s wheel and produced remarkable pottery.

The pottery made by them was painted in various colours. The pottery had beautiful designs of nature like tress, birds, fishes and animal, images of men and geometrical shapes like circle and lines.

The pottery had been in many shapes like the pedestal, goblets, cylindrical vessels perforated all over and various kinds of bowls and dishes.

Seals

Harappan Seals
The greatest artistic creations of the Harappan culture are the seals. About 2000 seals have been found and of these a great majority carries short inscriptions with pictures of one-horned bull, the buffalo, the tiger, the rhinoceros, the goat and the elephant.

**Terracotta Figurines**

We get many figurines made of fire-baked earthen clay, commonly called terracotta. These were either used as toys or objects of worship. They represented birds, dogs, sheep, cattle and monkeys.

Men and women also found place. The seals and images were manufactured with great skills but the terracotta pieces represent unsophisticated artistic works.

### 2.6 Harappa vs. Contemporary Cultures

- Harapan culture planned its towns with their chess-board system, streets, drainage pipes and cess pits. On the other hand Mesopotamian cities show a haphazard growth.
- Rectangular houses with brick-lined bathrooms and wells together with their stairways are found in all Harappan sites. Such town planning is not found in the west Asian cities.
- No other civilization in antiquity had built such excellent drainage system except perhaps those of Crete in Knossos, nor did the people of Western Asia show such skills in the use of burnt bricks as the Harappans show.
- The Harappans produce their own characteristic pottery and seals; the later represented the local animal world.
- Although the Harappan culture was a Bronze Age culture, they used bronze on a limited scale, and largely continued to use stone implements.
- Finally no contemporary culture was spread over such a wide area as the Harappan culture did.

### 2.7 Important Sites

**Harappa**

In 1920s Harappa was the first site to be excavated by archaeologists like Daya Ram Sahni, M.S. Vats and Mortimer Wheeler. It is located on the bank of the Ravi in Montgomery district of Western Punjab (undivided British India). The mounds of Harappa cover an extensive area of about 150 hectares.

The citadel mound lies to the west, with a lower but larger lower town to its south-east. The citadel was surrounded by a mud-brick wall with massive towers and gateways. The citadel has raised structure on platforms. Excavations have shown that the lower part of the town had various workshops where shell, agate, and copper artifacts were made. The lower part had houses, drains, bathing platforms, and perhaps a well.

Harappa is known as the city of granaries as it had 12 of them. Scholars believe that the presence of so many granaries points out to the seasonal or low productivity of grains or a large population or changing of the flood plain of river Indus. There are no clusters of sites around Harappa. It is an intriguing fact.

There has been evidence of coffin burial found in Harappa city in H pattern showing they may have been attacked in H pattern by invaders. Harappa city has been identified with Haryuplya city in the Rig-Veda.

The Harappa city has evidence of direct trade and interaction with Mesopotamia in the form of seals.

**Mohenjo-Daro**

Mohenjo-Daro or the “Mound of the dead” lies in Larkana district of Sind (Pakistan) lies about 5 km away from the Indus. It is the largest site of the Harappan Civilization. It was discovered by archaeologists Rakhaldas Banerji and Sir John Marshall.
Mohenjo-Daro’s excavations revealed findings like The Great Bath, Great Granary, a large assembly hall, temple-like structure, the seal of Pashupati and a bust of a bearded man.

Mohenjo-Daro is the most glaring example of town planning in the Harappan civilization. The city is divided into citadel and lower city. The citadel has been elevated not for defensive purposes but as a part of a civic design to create an elevated symbolic landscape. According to some scholars, the defensive nature, however, cannot be ruled out.

In the southern part of the citadel mound, there is a large building roughly square in shape. This is divided into five aisles by rows of rectangular brick piers. This is believed to be an assembly hall.

In the lower part of the city, outside the fortified citadel, a number of shops and workshops associated with copper working, bead making, dyeing, pottery making, and shell working were identified during excavations.

Horizontal and vertical excavations show that people went on building and rebuilding houses at the same location for a long time. Scholars believe that this might be due to regular floods at Mohenjo-Daro.

**Great Bath**

The Great Bath is an example of great engineering marvel. It is 14.5 × 7 m × 2.4 m in size with a staircase leading down into the tank. The orientation of the staircase is north to south.

The floor and walls of the tank were water tight. This was done by the help of a thick layer of bitumen on the edges and finely fitted bricks on the floor. This is believed to be one of the earliest examples of waterproofing in the world. The floor has slopes towards the southwest corner with outlets to large drain for draining out water from the bath.

There are a series of rooms along the eastern edge of the building in which a well is present to supply water to the Great Bath.

**Kalibangan**

Kalibangan or the city of black bangles lies on the banks of the dry bed of the Ghaggar river, in the Hanumangarh district of Rajasthan. This city got its name after thick clusters of black bangles lying all over the surface of its mounds. It has evidence of early and mature Harappan phases.

Kalibangan city is divided into citadel and lower town and both the citadel and the lower town are fortified.

Another significant find in Kalibangan is large number of fire altars. The fire altars were the sacrificial pits in which ritualistic sacrificial offerings were made into the fire. Scholars are of the view that this area seems to have been associated with community rituals.

Another important feature is the burial ground in the south-west of the citadel. There are some circular pits with grave goods (pottery, bronze mirrors, etc.) but no human remains. This was a deviation from the burial pattern of the Harappan Civilization. Scholars often relate this practice to the burning of the corpses and the pits signify the belief of Harappan people in the afterlife. A large number of bangles of terracotta, shell, alabaster, steatite, and faience have been found at the Kalibangan site. This indicates that Bangle making was an important craft at this site.

Maps Showing Major Sites of Indus Valley Civilization
Indus Valley Civilization

Kot-Diji

Kot-Diji is situated on the left bank of the Indus River opposite to Mohenjo-Daro. This site was excavated by F.A. Khan.

Kot-Diji is considered to be the forerunner of the Indus Civilization. Evidence suggests that this area had pre and mature Harappan phase.

Kot-Diji consists of two parts namely the citadel area on high ground and a lower area. There was a fortification around the citadel.

The houses and fortifications were made from unbaked mud-bricks and stones.

At the Kot-Diji site terracotta bulls, five figurines of the Mother Goddess and large cooking brick-lined ovens were excavated.

There are obvious signs of massive burning off over the entire site i.e. in the citadel area on the high ground and a lower area.

Lothal

Lothal is located between the Sabarmati river and the Bhogavo river in Saurashtra in Gujarat. The city was excavated by excavator S. R. Rao.

Lothal had a rectangular plan with brick wall surrounding whole of the city. It was divided into citadel and a lower city.

A difference in the size of the houses can be prominently seen with some of the house being so large that they had a main residential area with four to six rooms, bathrooms, a large courtyard, and verandah. Some of the houses had fire alters with lumps of clay, ash and terracotta cakes.

Lothal was an important trading point. Sixty-five terracotta seals with impressions of reed, woven fiber, matting, and twisted cords on one side and impressions of Harappan seals on the other were found here. According to the scholars, these seem to be records of sale of some kind.

Lothal was the one of the first Harappan towns to cultivate rice.

Lothal dockyard is the most distinctive feature in Lothal. It is situated on the eastern side of Lothal. This was enclosed by walls of burnt bricks. There is a mud brick platform on the western embankment here which may have been used as a platform for loading and unloading of goods.

Surkotda

Surkotda is located in Rapar Taluka of Kutch district, Gujarat, India. It was excavated by J.P. Joshi.

Surkotda city is divided into citadel and lower town. The citadel and lower town had been fortified. The fortification was done by a burnt bricks.

A grave has been found in association with a big rock as was done in megalithic burials. In the last phase of this site, bones of horses have been discovered. These were rare findings in the Harappan civilization.

Sutkagen-Dor

Sutkagen-Dor is located near the Makran coast which is close to the Pakistan-Iran border. The settlement is land-locked in dry inhospitable plains and its existence can only be explained as a trading sea port.

Sutkagen-Dor city is divided into citadel and lower town. The citadel had been fortified. The fortification
was done by a stone wall. In addition to mud-bricks, stone rubble was liberally used for construction.

Scholars believe that Sutkagen-Dor was cut off from the sea due to coastal uplift.

**Ropar**

Ropar is situated on the left bank of the Satluj in the Indian state of Punjab. This site had remains of pre-Harappan and Harappan cultures. Ropar has the distinction of being the site where the remains of the Harappa civilization were excavated for the first time in post-partition India.

The site of Ropar has a fortified citadel and a lower part of the city. The buildings at Ropar were made mainly of stone and mud bricks.

In Ropar excavations there were finds of beads and bangles of faience triangular terracotta cakes and chart weights.

In Ropar there is an evidence of burying a dog below the human burial. The head is placed usually in the north-west direction and burials contain pots and personal ornaments, such as bangles of faience or shell, beads of faience and semiprecious stones and ring of copper.

**Alamgirpur**

Alamgirpur situated on the banks of Yamuna river in Meerut district in Uttar Pradesh. This site was also called Parasaram-ka-khara.

The site of Alamgirpur has a fortified citadel and a lower part of the city. The buildings at Alamgirpur were made mainly of burnt bricks.

**Amri**

Amri is situated in Sind province of Pakistan. The site is located south of Mohenjo-Daro. This site has signs of both pre Harappan and mature Harappan phases. This site lacks the fortification that was prominently seen in the Harappan civilization. At Amri the actual remains of rhinoceros have been excavated.

**Chanhu-daro**

Chanhu-daro is located about 130 km south of Mohenjo-Daro. Chanhu-daro was first excavated by N.G. Majumdar in March, 1930. This is a site has no fortifications and no distinction between citadel and lower city.

Excavations at Chanhu-daro have revealed three different cultural layers from top to the bottom being the Jhangar culture, the Jhukar culture and the Harappan culture.

Chanhu-Daro was an important centre of craft activity. During the excavations, the houses in Chanhu-Daro have yielded raw material such as carnelian, agate, amethyst, and crystal as well as finished and unfinished beads and drills which were used in bead and ornament making. A bead factory has been discovered in Chanhu-Daro. Other craft that may have flourished in the region are Seal making, shell working, and the making of stone weights.

This site to be nicknamed the "Sheffield of Ancient India" by Earnest Mackay on account of the discovery of tools, spears, axes, copper knives, razors, vessels and dishes were found.

**Banawali**

Banawali is situated close to the dry bed of the Rangoli river in Hisar district of Haryana. This site has evidence for all the three phase of Harappan Civilization- early, mature, and late.

Banawali was divided into the citadel and a lower town. The whole structure was fortified. There was
a wall between the citadel and a lower town. Baked bricks were used for wells, bathing pavements, and drains rest everything was made from mud bricks.

There was a house that had multiple rooms, kitchen, toilet and a jar that is believed to be a wash basin found during excavation. This house had many seals and weights suggesting that the house may have belonged to a merchant.

Remains of Banawali

A terracotta model of a plough and lots of stone weights in small denominations were found at the Banawali site. This all suggests that Banawali was primarily a trading center.

Banawali has presence of fire alters in some houses. There has been an apsidal structure with fire alters suggesting community sacrificial rituals functions. High quality barley has been found in Banawali excavations.

Rakhigarhi

Rakhigarhi is situated in Hissar district of Haryana. Rakhigarhi was divided into the citadel and a lower town. The Citadel was fortified had platforms, a brick well, fire alters and drains of various sizes.

Remains of Rakhigarhi

A lapidary workshop was identified during the excavations at Rakhigarhi with unfinished beads and roughly cut pieces of stone, mostly carnelian, chalcedony, agate, and jasper; bead polishers for smoothening the beads; and a hearth for heating the stones. In Rakhigarhi there is an evidence of bone and ivory working in a site where finished and unfinished bone points and engravers are found.

A wooden coffin was found in Rakhigarhi which is peculiar to Harappan Civilizations burial site.

Rangpur

Rangpur is located near Vanala on Saurashtra peninsula in Gujarat, western India. It is situated in the north-west of Lothal lying on the tip of Gulf of Khambhat and Gulf of Kutch. This site was excavated in 1935 by Madho Swarup Vats.

Rangpur was divided into the citadel and a lower town. The Citadel was fortified. It was a trading port Harappan city. Evidence of rice cultivation has emerged at Rangpur during excavations.

Remains of Rangpur

Dholavira

Dholavira is located on Kadir island in the Rann of Kutch in Gujarat.

Dholavira is divided into three parts the citadel, ‘bailey’ area to its west and large middle town in the north. A substantial evidence of habitation outside the fortification wall was seen during the excavations. In Dholavira sandstone was used with mud-bricks for making buildings. The citadel had a large well, an elaborate drainage system and large buildings.

Dholavira must have been an important stopping point on busy maritime trade routes. In the middle town various types of craft activities such as bead making, shell working, and pottery making were carried out.

Dholavira had an excellent rain water harvesting system which was a feature not present in other Harappan Civilization sites. Dams were built across these to channelize their water into reservoirs.
2.8 End of Civilization Theories

According to the archeological evidence it can be shown that Harappan civilization experienced gradual decline in urban planning and construction. The architectural magnificence of the Harappan buildings was transformed into bedraggled and shoddy constructions. The cities which were planned to the core started to be transformed into slums.

The structures like Great Bath and Great Granary were of no use as archeological evidence show their entries being blocked. Archeological evidence find that buildings associated with power were decaying and goods related to displays of prestige and splendor become increasingly scarce.

The features like uniform weights, pottery, sculpture, jewelry making, writing, architecture that were associated with the Harappan civilization gradually disappeared.

Around 1800 BCE the desertion of the Harappan cities started which is evident from the fact that Mesopotamians had stopped writing about Meluhha by the end of 1900 BCE.

The population of Harappa, Bahawalpur and Mohenjo-Daro seems to have either perished or moved away to other areas. The number of settlements along the banks of the Hakra River came down from 174 to 50 in the Late Harappan period. The order of the decline of Harappan cities, however, is still undeterminable.

Theories of Decline

Scholars have looked upon the theory of decline of the Indus valley civilization looking for evidence that may point out to natural calamities or sudden invasions. These were some of the causes thought by the scholars for the sudden decline of Indus Valley civilization.

(a) By massive floods and earthquakes
(b) By the shifting in the course of rivers Indus river
(c) Gradual drying up of the Ghaggar-Hakra river system
(d) Aryan Invasion Theory
(e) Growing demands of the centers disturbed the ecology of the region and it crumbled under its weight

Massive Floods and Earthquakes

R.L. Raikes proposed the theory of catastrophic flooding of the Indus Valley region led to the decline of the Harappan civilization. Several layers of silt have been found at the Harappan city of Mohenjo-Daro. This gives evidence of the city being affected by repeated episodes of Indus floods. This silt left by the flood waters used to submerge streets and houses. This was a continuous process and residents at Mohenjo-Daro used to build the city again on top of the debris.

In the late Harappan period these floods may have taken a catastrophic level that they made the silt deposits to the height of 80 feet above the present ground level as evident from the excavations. These types of floods became recurring which led the people to leave the city of Mohenjo-Daro as they neither had the resources nor the will to rebuild the city.

George F. Dales suggested an occurrence of tectonic movements may have occurred at a place called Sehwan, a place in vicinity of Mohenjo-Daro which may have caused the catastrophic flood and turning the Mohenjo-Daro in a lake.

Due to violent tectonic movements there might have been upliftment of the land on the sea-coast of Sutka-koh, Sutkagen-Dor and Balakot. This has led to the destruction of seaports and the trade associated with them. As trade was must for the sustaining the Indus valley civilization without which it perished.

H.T. Lambrick refutes this theory on two basis:
1. Even if an earthquake artificially raised a bund downstream, the large volume of water from the Indus would easily breach it.
2. Silt deposition would place along the bottom of the former course of the river which is not possible in case of Mohenjo-Daro.

**Shifting in the Course of Indus River**

H.T. Lambrick believes that Indus River changed its course leading to the people of the city of Mohenjo-Daro moving towards it. According to him this process might have been repeated several times leading to the depletion of food production in the surrounding areas and creating problems for potable water. The main criticism of the theory is that this can only explain the decline of Mohenjo-Daro but not other cities.

**Increased Aridity and Drying Up of Ghaggar-Hakra River**

D.P. Agarwal and Sood introduced the theory of decline of Harappan by the increased aridity and drying up of the Ghaggar-Hakra River. Harappa was ecologically a very sensitive region and a small loss in moisture could turn this semi arid region into an arid one. This would have resulted in loss of food production and led to the desertion of the Harappan cities.

The Ghaggar-Hakra was a mighty stream flowing through Punjab, Rajasthan and the Rann of Kutch before debouching into the sea. Rivers Satluj and Yamuna are believed to be its tributaries. Due to some tectonic activity it is possible that Satluj stream was diverted to Indus and Yamuna stream to Ganges leading to the drying up of the Ghaggar-Hakra River. This might have resulted in the decline of Indus Valley region as it was mainly based on the Ghaggar-Hakra River.

This theory’s weakness lied in its proof as the onset of arid conditions have not been fully worked out for the need of information.

**Aryan Invasion Theory**

Ramprasad Chanda first put forward the idea of destruction of Harappa civilization by Aryan invaders. Mortimer Wheeler built upon this idea on the basis of references from Rig Veda. The Rig Veda has reference of destruction of forts and walled cities by lord Indra or Purandara (Fort destroyer). There is another reference from the Rig Veda of a city called Haryupiya which resembles Harappa. Wheeler also points to the skeletal remains found at Mohenjo-Daro as proof of the Aryan massacre.

Later Wheeler acknowledged floods, over exploitation of resources and the decline of trade as factors for Harappan decline but insisted that the final blow to the civilization was given by Aryan invasion.

P. V. Kane, George Dales and B. B. Lal have refuted the Aryan invasion theory by the uncertainty of time when Rig Veda was written. They have pointed out that there was no evidence of any kind of military invasion or conflict at any Harappan site. There are no skeletons found in the citadel area which was the main area of the city which is an irony because if a military invasion would have taken place it is not possible for the citadel to be devoid of skeletal remains.

**Disturbed Ecology of the Region**

Scholars like Fairservis tried to explain the decline of Harappan Valley in term of ecological imbalances due to over exploitation of resources and rising population. According to Fairservis’s calculation the delicate ecological balance of these semi-arid areas was being disturbed because the human and cattle population in these areas was fast depleting the scanty forests, food and fuel resources. The need exceeded the production capabilities of the area.

This led to depletion of forests leading to ecological imbalances resulting in frequent floods and draughts. The decreasing food production and lack of resources forced the Harappan people to move out of their cities and settle in other places.

This theory is negated by the enduring fertility of soils of the Indian sub-continent over the years and flaw in Fairservis computation as the data collected from archeology was insufficient to make such calculations.

Of all the theories proposed the most accurate seems to be Fairservis’s theory. The gradual deterioration in the town planning and the living standards was a reflection of the depleting subsistence base of the Harappans. This attacks and invasions acted as a catalyst in the decline of Indus Valley Civilization. However the archaeological evidence does not give direct reasons of the decline of the Harappan civilization but indicate as era of de-urbanization in the late Harappan period.