
UNIT 6 MATERIAL CHARACTERISTICS

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6.0 OBJECTIVES

This Unit deals with the geographical extent and the material features of the Harappan Civilization. It describes the main sites of Harappan Civilization as well as the material remains which characterised these sites. After reading this Unit you should be able to :

- understand that there was continuity of population and material traditions between the Early Harappan and Harappan Civilization.
- know about the geographical and climatic aspects of the settlement pattern of Harappan Civilization.
- describe the specific geographical, climatic and subsistence related characteristics of the important centres of Harappan Civilization.
- learn about the material features of the important Harappan sites and specially the uniformities in the material features of these sites.

6.1 INTRODUCTION

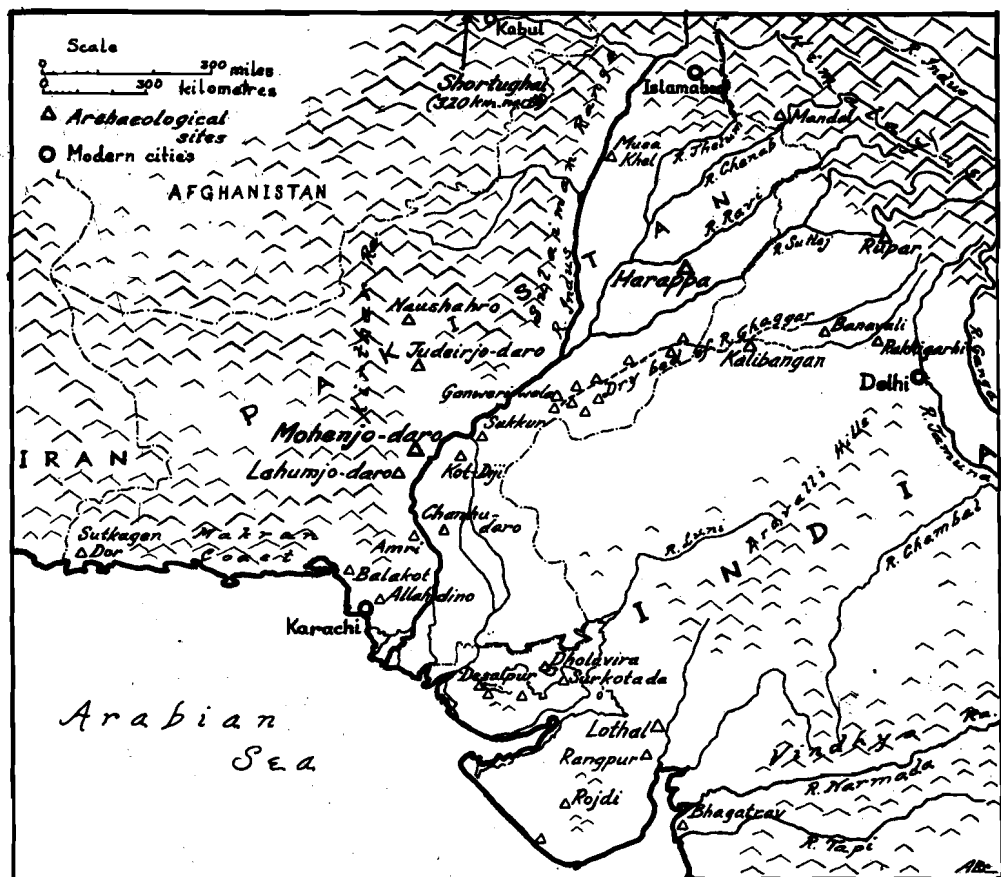
In this Unit we discuss the geographical spread and material characteristics of the Harappan Civilization which arose on the foundation of pastoral and agricultural communities and small townships. It refers to the continuity of the population and material traditions between Early Harappan and Harappan Civilization. The geographical spread of Harappan Civilization with special reference to some important centres has been highlighted. It attempts to familiarise you with the town planning, important structures, arts and crafts, housing patterns, pottery, tools and implements subsistence patterns and script of Harappan Civilization. Finally this unit also brings out the uniformities in the material characteristics of the Harappan sites.

6.2 FROM VILLAGES TO TOWNS AND CITIES

In Unit 5 we have seen how pastoral nomadic and agricultural communities established themselves in the Indus plain and how some small townships, having contacts with far away lands, had also come into existence. On the foundation of these agricultural communities and small townships emerged the 'Harappan Civilization'. By the term 'Harappan Civilization' we mean that the Harappan society was characterised by the presence and domination of large cities in this phase of its history. This would also mean the presence of specialised craftsmen, long distance trade, the existence of rich and poor people and the presence of kings. Apart from these general features common to all the Civilizations, there were some particular features of the Harappan Civilization. In the geographical space where the remains of the Harappan Civilization have been found, the communities were using the same written script. A Harappan community whether it was staying in Rajasthan or Punjab or Sind would be using the same sets of weights and measures. The copper-bronze tools used by them were also uniform in design, shape and size, the bricks they used had a proportion 4:2:1. Some of their towns were also characterised by uniformities in the planning of the buildings, citadels etc. The seals, shell (shankh) bangles, carnelian beads and the disc beads of steatite were also uniformly designed in the entire geographical space covered by the cities of the Harappan Civilization. Most of the time a Harappan site is identified by the use of a pinkish pottery with bright red slip. This pottery had standard representations of trees, animals, birds and geometric motifs in black. These uniformities in the material features of the Harappan sites were the characteristic traits of Harappan Civilization.

6.3 HARAPPAN CIVILIZATION : SOURCES

The information about the Harappan Civilization comes from the reports of excavations at places like Harappa and Mohenjodaro. The excavations at Harappa began in 1921. Very many Harappan settlements have been located and excavated since then. Famed archaeologists like Sir John Marshall and Sir Mortimer Wheeler have conducted excavations at Harappan settlements. These scholars by carefully studying the material remains have made the relics of the past speak. Since we cannot read the written words we have to draw conclusions on the basis of the study of the artefacts used by the Harappan people. By now more than 1000 settlements bearing Harappan material have been discovered. However, most of these settlements have not been excavated. According to one estimate only 3% of the reported Harappan settlements have been excavated. Even at sites where excavation work has been carried out not more than one fifth area has been excavated. Some sites like Ganweriwala in the Hakra Valley and Furukslan in Punjab which are reported to be nearly as large as Mohenjodaro have not even been touched by excavators. This is because excavation involves a very large investment of money and manpower. At present the Governments of India or Pakistan do not have sufficient money to fund these excavations. However, one thing is clear. It is that when we are making generalisations about the Harappan Civilization we have to be extremely cautious. Any new discovery or excavation report can substantially modify our views about the Harappans. For example, scholars like Mortimer Wheeler who wrote nearly twenty years ago believed that the Harappan Civilization appeared fully developed in the Indus Valley and it had little in common with the people who lived in these areas in the preceding period. However, a careful analysis of the available materials and new excavation reports have convinced archaeologists that the Harappan Civilization developed over a long period of time in and around the Indus Valley region itself. We have studied the developments in the 'Early Harappan' period in the preceding unit, We find that there was a continuity of population and technical skill between the 'Early Harappan' and Harappan periods. A process of evolution was evident in the agricultural settlements, and basic crafts and the distinct Indus style itself were probably carried over from earlier regional traditions. Since the study of the Harappan Civilization remains in many respects incomplete therefore it is one of the most challenging fields of study for students of ancient Indian history.



Map 2 : Sites of the Harappan Civilization

6.4 GEOGRAPHICAL SPREAD

Scholars generally believe that the Harappa, Ghaggar, Mohenjodaro axis represents the heartland of the Harappan Civilization. Most of the Harappan settlements are located in this region. This area is characterised by certain uniformities. The entire zone is a flat stretch of land having similar subsistence pattern. Snowmelt from the Himalayas and the monsoon rains define its flooding pattern. This would create similar kinds of possibilities for agriculture and pastoralism. The Kachhi plains to the west of the Indus system is in the transitional zone of the Iranian borderlands. It is a flat alluvial outwash located at the foot of the Bolan pass and the lake Manchar. It is an inhospitable country and except for its periphery is completely dry. Sites like Nowsharo, Judeirjodaro and Ali-Murad have been reported from this area. The settlements of Sutka-koh and Sutkagen-Dor on the Makran coast represent the driest part of the hilly Baluchistan region. They are the known western boundaries of the Harappans. The Harappan settlements at Shortughai in north-eastern Afghanistan seem to have been isolated colonies of the Harappans.

The eastern borderlands of the Harappan Civilization are represented by such settlements as Bargaon, Manpur and Alamgirpur in U.P. The subsistence system of these sites located in the Ganga-Yamuna doab was in conformity to their geographical location. This area had higher rainfall and denser forests. It falls outside the zone of pastoral nomadism and falls in the wheat producing area. Therefore, it would pose different kinds of problems of settlement. This is why some scholars believe that this area represents an independent cultural province receiving stimulus from the Harappans. Manda in Jammu and Ropar in Punjab represent the northern extremities of the Harappans in India. The settlements of Daimabad in Maharashtra and Bhagatrav in Gujarat might have formed the southern frontier of the Harappans.

In Gujarat, too, the settlement pattern was not uniform. There were small dissected plateaus and scraplands in Kutch and Kathiawad. On the other hand this area had a large seacoast in the Gulf of Cambay and the Rann of Kutch. The Harappans in Gujarat were familiar with rice and millet.

The Harappan Civilization seems to have covered a very large area. Its area was larger than those of the contemporary Civilizations of Mesopotamia and Egypt. In Mesopotamia settlements were spread out all across the riverine plains in dense clusters. However, except in the Ghaggar-Hakra region the Harappan settlements were very thinly spread out. Sites in Rajasthan and Gujarat could be divided by hundreds of kilometers of deserts and marshes. The nearest Harappan neighbour of Shortughai would be about 300 km. away. These vacant spaces might have been inhabited by primitive communities who were still surviving by hunting-gathering or by pastoral nomadism. Similarly, we get some idea of the size of population that lived in any of the Harappan cities from the studies conducted in this field. Scholars believe that the largest Harappan city i.e. Mohenjodaro had a population of about 35,000. The smallest towns of modern India would have a larger population than the biggest towns of the Harappans. We have to remember that in the Harappan period the fastest means of transport was bullock-cart, iron was unknown and the use of plough was considered a revolutionary discovery. With such primitive technology, a civilization which managed to bring together far flung areas in a complex web of socio-economic relationship was a stunning achievement in those days.

6.5 IMPORTANT CENTRES

One might ask why the Harappans tried to occupy such faraway places as Shortughai in Afghanistan or Surkotada in Gujarat. We may find the answer to this question if we try to examine the details of the location and characteristics of some important sites.

6.5.1 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 the Ravi in Western Punjab. In terms of its size and the variety of objects discovered, it ranks as the premier city of the Harappan Civilization. The ruins of the city cover a circuit of about 3 miles. What is intriguing however is the fact that there are no clusters of sites around Harappa. In Harappa a substantial section of the population was engaged in activities other than food production. These activities could relate to administration, trade, craft work or religion. Since these people were not producing food for themselves someone else would have to do it for them. Productivity was low and transportation was quite difficult. Thus, for maintaining these non-food producers the community would have to mobilise a very large number of people for procuring and transporting food from the food producing areas. However, these areas would not have been very far from the city because transportation of grains was done by bullock carts and boats. Some scholars have suggested that the surrounding villages might have been engaged in shifting cultivation in the meander flood plains of the rivers. Villages had to keep shifting according to the changes in the flood plains of the rivers. The location of Harappa in isolation can be explained by the fact that it was located in the midst of some important trade routes which are still in use. These routes connected Harappa with Central Asia, Afghanistan and Jammu. Harappa's pre-eminent position was linked to its ability to procure exotic items from faraway lands.

6.5.2 Mohenjodaro

Mohenjodaro, located in the Larkana district of Sind on the bank of the river Indus is the largest site of the Harappan Civilization. Most of the information regarding the town planning, housing, seals and sealings of this Civilization comes from Mohenjodaro. Excavations began at this site in 1922, with R.D. Banerjee and Sir John Marshall taking up the work. Later on Mackay and George Dales also conducted

excavations. Small scale excavations and plotting of the site have continued into the eighties.

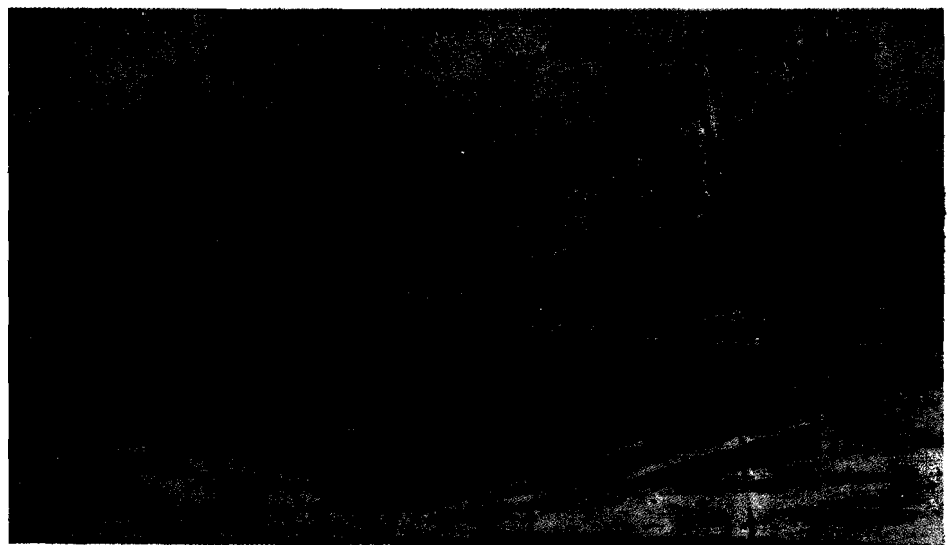
Excavations show that people lived here for a very long time and went on building and rebuilding houses at the same location. As a result of this the height of the remains of the building and the debris is about seventy five feet. Ever since the time of occupation there were regular floods at Mohenjodaro. These floods caused deposition of alluvial soil. The continuous deposition of silt over the centuries has raised the level of the land around Mohenjodaro by about thirty feet. The ground water table has risen correspondingly. Thus, the oldest buildings in Mohenjodaro have been found to be about 39 feet below the level of the modern level at the plain. Archaeologists have not been able to excavate these levels because of the rise in the water table.

6.5.3 Kalibangan

The settlement of Kalibangan is located in Rajasthan along the dried up bed of the river Ghaggar. As pointed out earlier this area had the largest concentration of the Harappan settlements. Kalibangan was excavated in the 1960s under the guidance of B.K. Thapar. This place has yielded evidence for the existence of Pre-Harappan and Harappan habitations. It shows significant variation from Harappan in the sphere of religious beliefs. Some scholars have suggested that Kalibangan might have been part of the 'Eastern Domain' of the Harappan Civilization. In the areas of present day Haryana, East Punjab and Western U.P. Harappan sites like Bara, Siswal and Alamgirpur have been discovered. They give evidence of the presence of distinct local traditions in pottery along with the Harappan pottery. Kalibangan might have been a mediator between the Harappan cultural zone and the eastern provinces.

6.5.4 Lothal

In Gujarat settlements such as Rangapur, Surkotada and Lothal have been discovered. Lothal is located in the coastal flats of the Gulf of Cambay. This place seems to have been an outpost for sea-trade with contemporary West Asian societies. Its excavator S.R. Rao claims to have discovered a dockyard here.



4. Dockyard (Lothal)

6.5.5 Sutkagen-Dor

Sutkagen-Dor is located near the Makran coast which is close to the Pakistan-Iran border. At present the settlement is land-locked in dry inhospitable plains. The town had a citadel surrounded by a stone wall built for defence. Its location in an inhospitable area can only be explained by the need of sea-port for trading.

Check Your Progress 1

1 Discuss the geographical location of the important centres of Harappan Civilization.

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2 Match the following sites with their present day geographical location.

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|-----------------|--|
| 1) Harappa | a) Rajasthan |
| 2) Kalibangan | b) Sind (Pakistan) |
| 3) Mohenjodaro | c) Makran coast (Pakistan-Iran Border) |
| 4) Sutkagen-Dor | d) West Punjab (Pakistan) |

3 Mark right (✓) or wrong (×) against the following statements:

- i) Harappa, located in West Punjab, is the largest site of Harappan Civilization.
- ii) Mohenjodaro was the first Harappan site to be excavated.
- iii) Excavations at Harappa were first conducted by R.D. Banerjee and John Marshall.
- iv) Scholars believe that the Harappa, Ghaggar and Mohenjodaro axis represents the heartland of Harappan Civilization.

6.6 MATERIAL CHARACTERISTICS

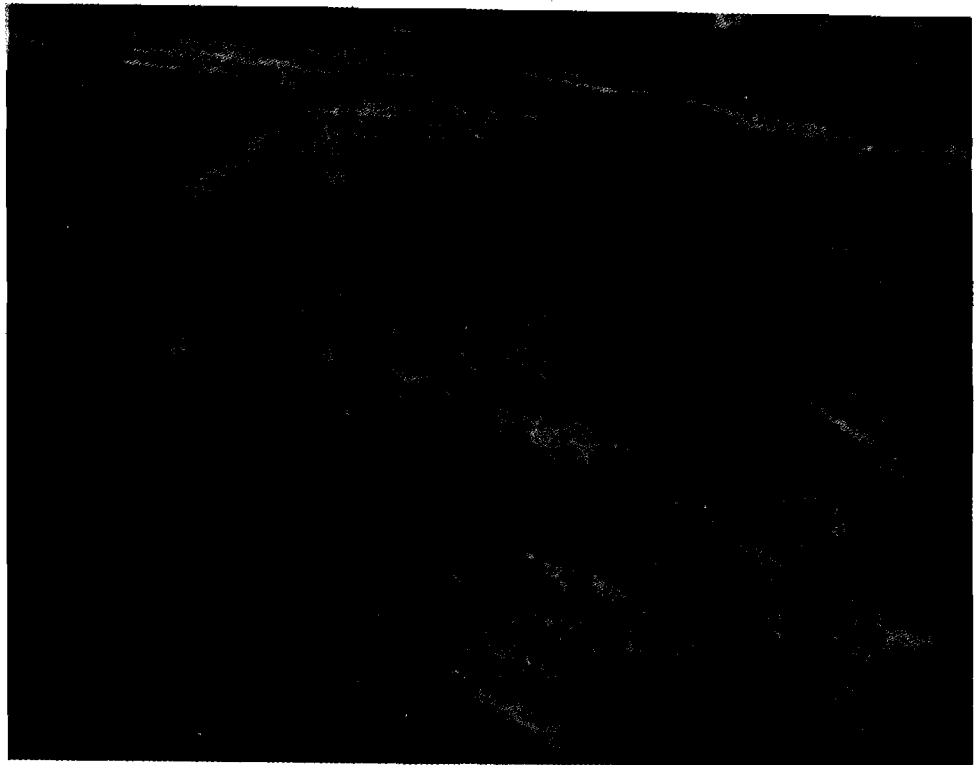
In this section we discuss the material characteristics of Harappan Civilization. We take into account the town planning, pottery, tools and implements, arts and crafts, scripts and subsistence pattern of Harappan Civilization.

6.6.1 Town-Planning

Archaeologists like Mortimer Wheeler and Stuart Piggot believed that the Harappan towns had a remarkable unity of conception. This was suggested by the division of each town into two parts. In one part was a raised citadel where the rulers were staying, in the other part of the town lived the ruled and the poor. This unity of planning would also mean that if you were walking on the streets of Harappa—the houses, the temples, the granaries and the streets themselves will be almost identical to those of Mohenjodaro or any other Harappan town for that matter. The entire idea of unity of conception was derived from the notion of a community of foreigners suddenly conquering the Indus Valley and building new towns. Such towns were designed to separate the natives from the rulers. Thus, the rulers built citadels which kept them in glorious isolation. Such ideas of the sudden emergence of the Harappan towns and the unity of planning are being increasingly rejected by new scholars. The Harappan towns were located on the flood-plains of rivers, on fringes of deserts or on sea coast. This meant that people living in these different regions faced different kinds of challenges from nature. Their adaptation to environment would introduce diversity in their town-planning and life style too. Also many large and seemingly

important buildings were located in the lower city. Let us review the planning of some of the important settlements.

The settlements of Harappa, Mohenjodaro and Kalibangan show certain uniformities in their planning. These cities were divided into a citadel on the west side and a lower town on the eastern side of the settlement. The citadel was built on a high podium of mud brick. The citadel 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. Obviously, this kind of alignment of streets and houses represents conscious town planning. However, the resources of the town planners in those days would be very limited. This assumption is based on the finds from Mohenjodaro and Kalibangan where the streets stagger from block to block and the alignments of streets and buildings in one part of Mohenjodaro (Moneer area) is quite different from the rest of the areas. Mohenjodaro was not constructed in homogeneous horizontal units. In fact it was built in different times. In Harappa and Mohenjodaro baked bricks were used for buildings. In Kalibangan mud bricks were used. In settlements like Kot Diji and Amri in Sind 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. Along the eastern side of the town was found a brick basin which has been identified as a dockyard by its excavator. The site of Surkotada in Cutch was divided into two equal parts and the building materials were basically mud bricks and lumps of mud.



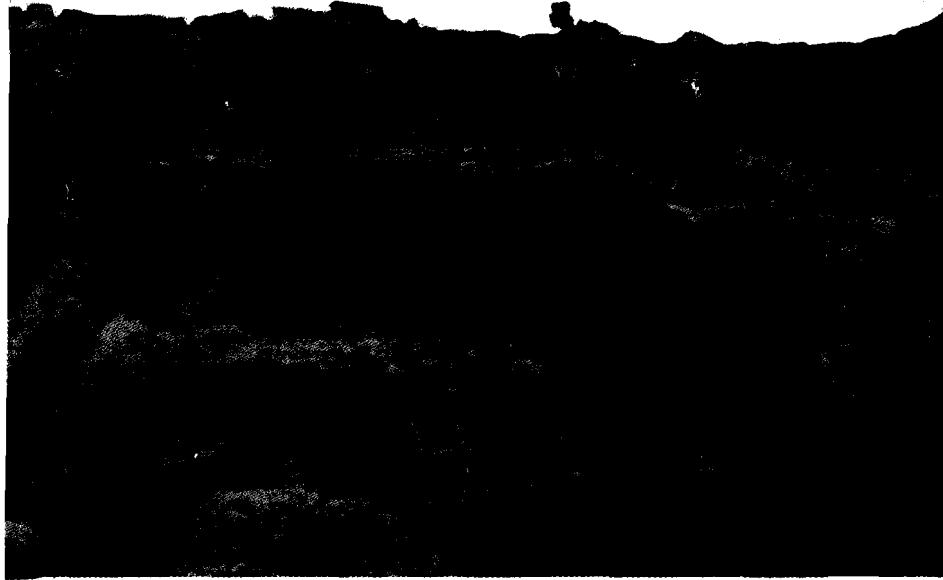
5. Mud-brick wall (Kalibangan)

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 organised on a large scale. Similarly, cities like Mohenjodaro showed excellent arrangements for sanitation. The waste water from houses would pass through chutes connected with public drains aligned to the margin of the streets. This again indicates the presence of a civic administration which would take decisions for the sanitary requirements of all the townsmen.

Some Large Structures

In Harappa, Mohenjodaro and Kalibangan, the citadel areas contained monumental structures which must have had special functions. This is clear from the fact that they

stood on a high mud brick platform. Among these structures is the famous 'Great Bath' of Mohenjodaro. This brick built structure measures 12 m. by 7 m. and is about 3 m. deep. It is approached at either end by flights of steps. The bed of the bath was made water tight by the use of bitumen. Water was supplied by a large well in an adjacent room. There was corbelled drain for disgorging water too. The bath was surrounded by porticoes and sets of rooms. Scholars generally believe that the place was used for ritual bathing of kings, or priests.



6. Great Bath (Mohenjodaro)

Another important structure discovered in the citadel mound of Mohenjodaro is the granary. It consists of twenty seven blocks of brickwork criss-crossed by ventilation channels. Below the granary were the brick loading bays from which grains were raised into the citadel for storage. Though some scholars have questioned the identification of this structure with a granary but it is certain that this large structure must have had some important function.

To another side of the Great Bath is a long building (230 × 78 feet) which has been identified as the residence of a very high official. It includes an open court of 33 feet square on to which three verandas open. Another significant building was an assembly hall. It had four rows of five brick plinths upon which wooden columns were erected. In a row of rooms to the west of it was found a seated male statue. Among the well known buildings of Harappa is the Great Granary. It consisted of a series of brick platforms forming the base of two rows of six granaries. To the south of the granary were found rows of circular brick platforms. That they were used for threshing grains is clear from the fact that chaffs of wheat and barley were found in the crevices of the floors.

Kalibangan was a smaller city compared to Mohenjodaro and Harappa. The most significant discoveries here have been those of fire altars. A series of brick platforms were discovered. On one of them was found a row of seven 'fire altars' as well as a pit containing animal bones and antlers.

Housing Pattern

The average citizen seems to have lived in the blocks of houses in the lower city. Here too there were variations in the sizes of houses. It could be single room tenements meant for slaves like the ones discovered near the granary in Harappa. There were other houses complete with courtyards and having upto twelve 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. This meant that the roadward facing of the house would be like a row of brick walls.

The description of the houses and townships of the Harappan Civilization indicates that there were people who owned large houses. Some of them bathed in an exclusive swimming pool (The Great Bath). There were others who lived in barracks. One can say with certainty that those who lived in larger houses belonged to the rich class whereas those living in the barracks might have been part of a servile class of labourers.

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 recognised.

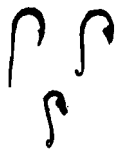
6.6.2 Pottery

Among the remains discovered in the Harappan settlements pottery forms an important category. It represents the blending of the ceramic traditions of Baluchistan and the cultures east of the Indus system. Most of Harappan pottery is plain, but a substantial part is treated with a red slip and black painted decoration.

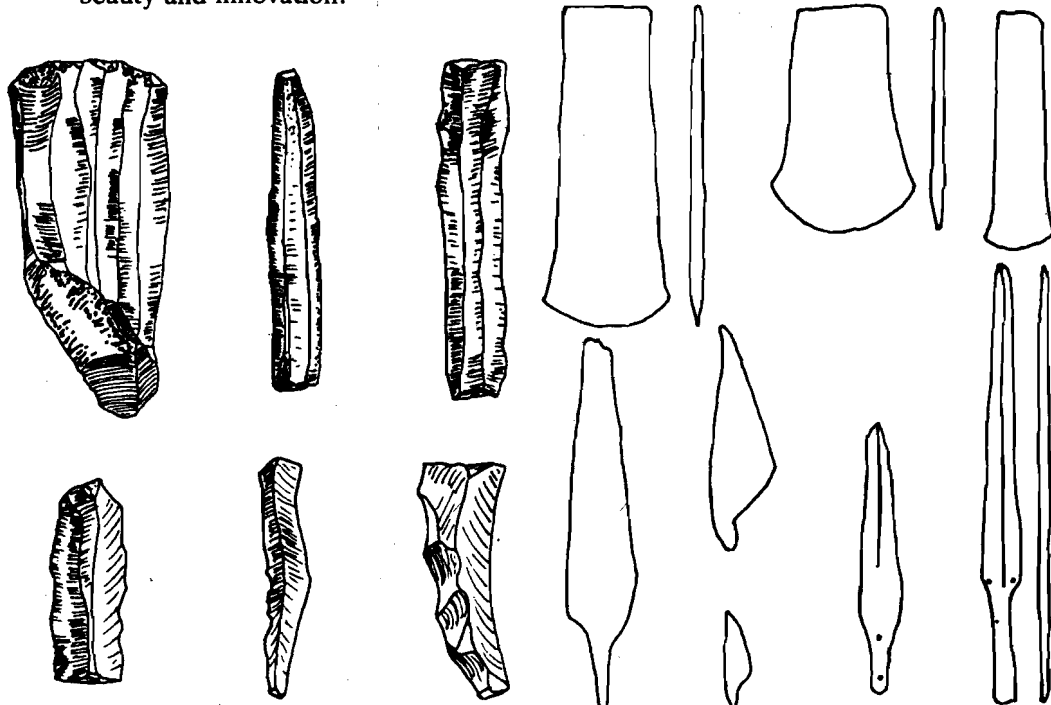
The painted decorations consist of horizontal lines of varied thickness, leaf patterns, scales, chequers, lattice work, palm and pipal trees. Birds, fishes and animals are also shown. Among the notable shapes found in the Harappan pottery are pedestal, dishes, goblets, cylindrical vessels perforated all over and various kinds of bowls. The uniformity in the forms and paintings on the pottery is difficult to explain. Normally the explanation of this uniformity is the fact that the local potters made the pottery. But in areas like Gujarat and Rajasthan a variety of other kinds of potteries continued to be produced along with the Harappan pottery. Some of the pottery has shown marks of stamp which might indicate that a few varieties of vessels were traded also. However, it is still unclear how such a large area exhibited a uniform pottery tradition.

6.6.3 Tools and Implements

The tools and implements used by the Harappans also show a striking degree of uniformity in designs and in technique of production. They were using tools made of copper, bronze and stone. The basic tools types were flat axe, chisels, knives, spear heads and arrowheads for the copper and bronze implements. In the later stages of the Civilization they were also using daggers, knives and flat tangs. They were familiar with the techniques of casting bronze and copper. Stone tools were also in common use. They were produced on a large scale in factory sites like Sukkur in Sind and then sent to various urban centres. Only this could explain the uniformity in the 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 specialisation with little or no concern for beauty and innovation.



7. Hooks for Fishing



8. Stone-blade tools (Mohenjodaro)

9. Copper and Bronze tools used by the Harappans.

6.6.4 Arts and Crafts

Works of art give us an insight into how the society relates itself to its surroundings. They also give us an idea of how it views nature, human beings and divinity. In pre-modern societies it is difficult to separate arts and crafts. That is why we shall study them together.

Probably, the most famous art piece from the Harappan Civilization is the bronze dancing nude figure discovered in Mohenjodaro. With head drawn backwards, drooping eyes and the right arm on the 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 the Harappan art. The bronze figurines of a buffalo and a ram have beautifully caught the stance of the animals. The two little toy carts of bronze are also fairly well known objects. Although, one was discovered in 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 in Mohenjodaro is another well known piece of art. The 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.



10. Bronze dancing girl (Mohenjodaro)



11. Bearded man (Mohenjodaro)

Two small male torsos discovered in Harappa are sometimes believed to have belonged to later periods. The refined and wonderfully realistic modelling of the fleshy parts is extraordinary. However, the Harappans do not seem to have used stone or bronze for their artistic creations on a large scale. The findings of such works are rare.

Terracotta figurines have been found in large numbers from the Harappan settlements. They were used as toys or cult figures. A variety of birds and monkeys, dogs, sheep and cattle are represented in these forms along with humped and humpless bulls. A large number of male and female figurines have also been found. Various models of terracotta carts are remarkable for the vivacity of modelling. These models show that the bullock carts used in those times are ancestors of the actual bullock carts used in modern times.

The Harappans used remarkably beautiful beads made of such precious and semi-precious stones such as agate, turquoise, carnelian and steatite. The processes

of making these beads are clear from the finds of a workshop in Chanhudaro. 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. Gold and silver beads have also been found. The commonest material used for making beads was steatite.

The barrel shaped beads with trefoil pattern are typically associated with the Harappan culture. Carnelian beads are also quite common. In Mohenjodaro was also discovered a hoard of jewellery consisting of gold beads, fillets and other ornaments. Small dishes of silver too, have been found.

More than 2000 seals have been found from the Harappan settlements. They are considered 'the outstanding contribution of the Indus Civilization' to ancient craftsmanship. They were generally square in shape and made of steatite but some round seals have also been found. The designs on the seals include a wide range of animals associated with groups of signs in a semi-pictographic script. Some seals have only scripts carved on them and some others bear human and semi-human forms. Some seals show the use of various kinds of geometric patterns. The animal motifs used are the Indian bison, the Brahmani bull, 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, the horns of bull, the fore-part of a ram and the 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. The seal of a horned deity sitting in a yoga posture and surrounded by animals has been identified with the god Pashupati.

The artworks of the Harappans leave us a little disappointed on two counts; i) The finds are very limited in number and ii) they do not seem to have the variety of expression seen in the contemporary Civilizations of Egypt and Mesopotamia.

Stone sculptures was rare and undeveloped compared to those fashioned by the Egyptians. The terracotta pieces also cannot compare with those of Mesopotamia in quality. It is possible that the Harappans were using less durable medium like textile designs and paintings for their artistic expression, which have not survived.

6.6.5 The Indus Script

The seals used by the Harappans carried some form of writing. This script is still a mystery to us because we cannot read it. So far the other forgotten scripts like those of ancient Egypt could be read again because scholars found some inscriptions written in the forgotten script followed by some of its forms in a known script. We have not discovered any bilingual inscription in Harappa so far. Thus, we do not know what language the Harappans spoke and what they wrote. Unfortunately, the inscriptions discovered so far are short, usually engraved on seals. This makes the task of decipherment all the more difficult. All we know is that they used ideograms and wrote from right to left. However, scholars are still struggling to unveil the mystery of the script. Once this is done it might reveal much more about the civilization.

6.6.6 Subsistence Pattern

The Harappans urbanism was based on agricultural production. During various excavations a large volume of information has emerged about the dietary habits of the Harappans. Apart from sheep and goat, humped cattle seems 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 caprisoned 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 wild animals have been found. Among them are the bones of deer, rhinoceros, tortoise etc. Horse seems to have been unknown to the Harappans.

Two varieties of wheat are frequently found in Harappan sites. Barley has been frequently found. Other crops include dates and varieties of leguminous plants, such as peas. Besides these mustard and sesamum were also grown. At Lothal and Rangapur rice husk was found embedded in clay and pottery. We do not as yet know whether they represented variety of wild rice or rice domesticated and regularly cultivated. India has traditionally been famous for its cotton clothes. At Mohenjodaro

was found a fragment of a cotton cloth. This indicates that the Harappans had already mastered the art of growing cotton and wearing cloth.

The evidence of a furrowed field in Kalibangan indicates that the Harappans were using some sort of wooden plough. The pattern of crossed furrows widely spaced in one direction and closely spaced in another, is still followed in this area. The modern cultivator furrows his field in this pattern for sowing horse gram or sesamum in one direction and mustard in another. This was probably true of the Harappans also.

Thus, we find that the Harappan subsistence system was based on the exploitation of a fairly wide range of crops, domesticated animals and wild animals. This variety would account for the strength of the subsistence system. They were probably already growing two crops annually. They also grew two or more kind of crops simultaneously. This provided the strength to the economy to support the large population which lived in the cities and did not produce its own food.

Check Your Progress 2

1 Discuss the material characteristics of the Harappan Civilization in about 10 lines.

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2 Mark right (✓) or wrong (×) against the following statements:

- i) Great Bath is a brick built structure excavated at Harappa.
- ii) Great Granary is an important building discovered at Mohenjodaro.
- iii) The discovery of fire altars has been made at Lothal.
- iv) The Harappans used tools made of iron.
- v) The Harappan script has not yet been deciphered.

3 Fill in the blanks with the correct answers:

- i) The bronze dancing girl discovered at (Mohenjodaro/Harappa/Kalibangan) is considered a masterpiece of Harappan art.
- ii) At Lothal (rice/wheat/barley) was found embedded in clay.
- iii) Among the animals (elephant/camel/horse) seems to have been unknown to Harappans.
- iv) The evidence for cotton comes from (Harappa/Mohenjodaro/Kalibangan).

6.7 LET US SUM UP

In this Unit you have studied about the geographical location and material characteristics of the Harappan sites. The uniformities in the geographical characteristics created similar subsistence patterns in the Harappa, Mohenjodaro and Ghaggar axis. However, there were other sites where the settlement pattern varied in accordance with the varying geographical features of these sites. The town planning of the Harappans was extremely efficient. The houses and drainage system of the

Harappan towns is indicative of the remarkable material achievements of the Harappans. Generally the Harappan pottery, tools and implements show a uniformity of tradition. The seals and beads of Harappans are beautiful works of craftsmanship but the stone sculpture and terracotta figurines cannot compete with those of contemporary Egypt and Mesopotamia in technical excellence. The subsistence system of the Harappans was based on the cultivation of a number of crops and domestication of animals. This gave strength to the economy to sustain the city population which did not produce its own food which had to be transported from nearby areas.

6.8 KEY WORDS

Artefacts : A thing made by human workmanship.

Chute : A passage for sending down dirty water.

Citadel : The fortress in the city.

Eastern Domain of the Harappans : Specifically refers to the Harappan sites in Rajasthan, Haryana, Punjab and U.P.

Excavation : The act of digging an ancient site.

Granary : The storehouse for grains.

Meander : Curve of a river, where it is flowing sluggishly with many twists and bends leading to deposition of silts.

Pictographic Script : The script which uses pictures as symbols.

Plateau : An extensive area of elevated land.

Terracotta : A composition of clay and sand used for making statues. It is baked in fire and is brownish red in colour.

6.9 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

1 Your answer should include the following:

The description of the geographical location and subsistence pattern of Harappa, the discussion of the geographical location of Mohenjodaro, Kalibangan, Lothal and Sutkagen-Dor. See Section 6.5 and Sub-secs. 6.5.1. to 6.5.5.

2 i) d ii) a iii) b iv) c

3 i) × ii) × iii) × iv) ✓

Check Your Progress 2

1 Your answer should include the following:

Discussion of town planning of Harappans, description of the pottery, tools and implements, arts and crafts, Indus script and subsistence pattern. See Section 6.6 and Sub-secs. 6.6.1 to 6.6.6.

2 i) × ii) × iii) × iv) × v) ✓

3 i) Mohenjodaro ii) rice iii) horse iv) Mohenjodaro