

# BRICKS, BEADS AND BONES

## THE HARAPPAN CIVILISATION

### 1. SUBSISTENCE STRATEGIES

- > The Harappans ate a wide range of plant and animal products, including fish.
- > Archaeologists have been able to reconstruct dietary practices from finds of charred grains and seeds.
- > These are studied by **archaeo-botanists**, who are specialists in ancient plant remains. Grains found at Harappan sites include wheat, barley, lentil, chickpea and sesame.
- > **Animal bones** found at Harappan sites include those of cattle, sheep, goat, buffalo and pig fish and fowl. Studies done by archaeo-zoologists indicate that these animals were domesticated.
- > We do not know “whether the Harappans hunted these animals themselves or obtained meat from other hunting communities”.

### 2.1 Agricultural technologies

- > While the **prevalence** of agriculture is indicated by finds of **grain**, representations on **seals and terracotta sculpture** indicate that the **bull** was known, and archaeologists extrapolate from this that oxen were used for ploughing.
- **Terracotta models of the plough** have been found at sites in Cholistan and at Banawali.
- The field had two sets of furrows at right angles to each other, suggesting that two different crops were grown together. Archaeologists have also tried to identify the tools used for harvesting.
- Irrigation was probably required for agriculture. Traces of canals have been found at the Harappan site, but not in Punjab or Sind.
- It is also likely that **water drawn from wells** was used for irrigation. Besides, **water reservoirs found in Dholavira** may have been used to store water for agriculture.

### 3. MOHENJODARO

#### A PLANNED URBAN CENTRE

- The most unique feature of the Harappan civilisation was planned urban centres. Let us look at one such centre, Mohenjodaro.
- Mohenjodaro is the most well-known site, the first site to be discovered was Harappa. The settlement is divided into two sections, one smaller but higher and the other much larger but lower.
- Archaeologists designate these as the **Citadel and the Lower Town** respectively. The Citadel owes its height to the fact that buildings were **constructed on mud brick platforms**. It was **walled**, it was **physically separated from the Lower Town**.
- The Lower Town was also **walled**. Several buildings were **built on platforms, which served as foundations**.
- **Once the platforms were in place**, all building activity was restricted to a fixed area on the platforms. So the settlement was **first planned** and then implemented accordingly.
- Other signs of planning include **bricks, which, whether sun-dried or baked, were of a standardised ratio**. Such bricks were used at all Harappan settlements.

#### LAYING OUT DRAINS:

- One of the most distinctive features of Harappan cities was the carefully planned drainage system. The plan of the Lower Town you will notice that roads and streets were laid out along an approximate **“grid” pattern, intersecting at right angles**.
- It seems that streets with drains were laid out first and then houses built along them.
- If domestic waste water had to flow into the street drains, every house needed to have at least one wall along a street.

#### 3.2 Domestic architecture

- Many buildings were centred on a courtyard, with rooms on all sides. The courtyard was probably the centre of activities such

as cooking and weaving, particularly during hot and dry weather.

- What is also interesting is there are no windows in the walls along the ground level.
- The main entrance does not give a direct view of the interior. Every house had its own bathroom paved with bricks, with drains connected through the wall to the street drains.
- Some houses have remains of staircases to reach a second storey or the roof.
- Many houses had wells, Scholars have estimated that the total number of wells in Mohenjodaro was about 700.

### 3.3 The Citadel

- It is on the Citadel that we find evidence of structures that were probably used for special public purposes. These include the warehouse and the Great Bath.
- The Great Bath was a large rectangular tank in a courtyard surrounded by a corridor on all four sides. There were two flights of steps on the north and south leading into the tank, which was made watertight by setting bricks on edge and using a mortar of gypsum. There were rooms on three sides, in one of which was a large well.
- Water from the tank flowed into a huge drain. Across a lane to the north lay a smaller building with eight bathrooms, four on each side of a corridor, with drains from each bathroom connecting to a drain that ran along the corridor.
- The uniqueness of the structure, as well as the *context* in which it was found (the Citadel, with several distinctive buildings), has led scholars to suggest that it was meant for some kind of a special ritual bath.

### Tracking Social Differences 4.1 Burials

- Archaeologists generally use **certain strategies** to find out whether there were social or economic differences amongst

people living within a particular culture. These include **studying burials**.

- Like Pyramids of Egypt, many of Harappan pyramids were **royal burials**, where **enormous quantities of wealth** was buried. At burials in Harappan sites the dead were generally laid in pits.
- Some graves contain **pottery and ornaments**, these could be used in the afterlife. **Jewellery** has been found in burials of both men and women.
- Excavations at the Harappa an ornament consisting of **three shell rings, a jasper bead and hundreds of micro beads** was found near the skull of a male.
- In some instances the dead were buried with **copper mirrors**.

#### 4.2 Looking for “luxuries”

- Another strategy to identify social differences is to **study artefacts**, which archaeologists broadly classify as **utilitarian and luxuries**.
- The first category includes objects of daily use made fairly easily out of **ordinary materials such as stone or clay**. These include querns, pottery, needles, flesh-rubbers.
- Archaeologists assume objects were **luxuries if they are rare or made from costly, non-local materials**. Ex. little pots of faience were probably considered precious because they were difficult to make.
- If we study the distribution of such artefacts, we find that rare objects made of **valuable materials** are generally concentrated in **large settlements** like Mohenjodaro and Harappa and are rarely found in the smaller settlements.
- For ex. **pots of faience**, perhaps used as perfume bottles, are found mostly in Mohenjodaro and Harappa. **Gold** too was rare,

and as at present, probably precious – all the gold jewellery found at Harappan sites was recovered from hoards.

### **Find OUT ABOUT CRAFT PRODUCTION**

- The variety of materials used to make beads is remarkable: stones like carnelian, jasper, crystal, quartz and steatite; metals like copper, bronze and gold; and shell, faience and terracotta or burnt clay.
- Some beads were made of two or more stones, cemented together, some of stone with gold caps. The shapes were numerous – discshaped, cylindrical, spherical, barrel-shaped, segmented. Some were decorated by painting, and some had designs.
- Techniques for making beads differed according to the material. Steatite, a very soft stone, was easily worked. Some beads were moulded out of a paste made with steatite powder.
- Grinding, polishing and drilling completed the process. Specialised drills have been found at Chanhudaro, Lothal and more recently at Dholavira.
- If you notice that Nageshwar and Balakot both are near the coast. These were specialised centres for making shell objects – including bangles, ladles and inlay – which were taken to other settlements.

### **Identifying centres of production**

- In order to identify centres of craft production, archaeologists usually look for the following: **raw material such as stone nodules, whole shells, copper ore; tools; unfinished objects; rejects and waste material.**
- In fact, waste is one of the best indicators of craft work. For instance, if shell or stone is cut to make objects, then pieces of these materials will be discarded as waste at the place of production.

### **STRATEGIES FOR PROCURING MATERIALS**

- A variety of materials was used for craft production. While some such as clay were **locally available**, many such as stone, timber and metal had to be procured from outside the alluvial plain.
- **Terracotta toy models of bullock carts** suggest that this was one important means of transporting goods and people across **land routes**. **Riverine routes** along the Indus and its tributaries, as well as coastal routes were also probably used.

### **Material from subcontinent and beyond**

- The Harappans procured materials for craft production in various ways. For instance, they established settlements such as Nageshwar and Balakot in areas where shell was available.
- Other such sites were **Shortughai**, near the best source of lapis lazuli, a blue stone that was apparently very highly valued, and **Lothal** (GUJARAT) which was near sources of carnelian, steatite and metal (Rajasthan).
- Another strategy for procuring raw materials may have been to send expeditions to areas such as the **Khetri** region of Rajasthan (for copper) and **south India** (for gold).

### **Contact with distant lands**

- Recent archaeological finds suggest that copper was also probably brought from **Oman**. Chemical analyses have shown that both the Omani copper and Harappan artefacts have traces of nickel, suggesting a common origin.
- There are other traces of contact as well. A distinctive type of **vessel**, a large Harappan jar coated with a **thick layer of black clay** has been found at Omani sites. Such thick coatings prevent the percolation of liquids.
- **Mesopotamian texts** datable to the third millennium BCE refer to copper coming from a region called **Magan**, perhaps a name for Oman, and interestingly enough copper found at Mesopotamian sites also contains traces of nickel.
- Mesopotamian texts mention contact with regions named Dilmun, Magan and Meluhha, possibly the Harappan region.

They mention the products from Meluhha: carnelian, lapis lazuli, copper, gold, and varieties of wood.

- Other archaeological finds suggestive of long distance contacts include Harappan **seals, weights, dice and beads**.

## **SEALS, SCRIPT, WEIGHTS**

### **1 Seals and sealings**

- Seals and sealings were used to facilitate long distance communication.
- Bags mouth was tied with rope and on the knot was affixed some wet clay on which one or more seals were pressed, leaving an impression.
- If the bag reached with its sealing intact, it had not been tampered. The sealing also conveyed the identity of the sender.

### **➤ 7.2 An enigmatic script**

- Harappan **seals** usually have a line of writing, probably containing the name and title of the owner.
- Most inscriptions are short, the longest containing about 26 signs. Although the script remains undeciphered to date, it was evidently not alphabetical as it has just too many signs – somewhere between 375 and 400.
- It is apparent that the script was written from right to left. The variety of objects on which writing has been found: seals, copper tools, rims of jars, copper, terracotta tablets, etc.

### **7.3 Weights**

- Exchanges were regulated by a precise **system of weights**, usually made of a stone and generally cubical with no markings.
- The lower denominations of weights were **binary**, while the higher denominations followed the decimal system. The smaller weights were probably used for weighing jewellery and beads. Metal scale-pans have also been found.

## **ANCIENT AUTHORITY**

- There are indications of complex decisions being taken and implemented in Harappan society. Take for instance, the extraordinary uniformity of Harappan artefacts as evident in pottery, seals, weights and bricks.

- Notably, **bricks** were not produced in any single centre, were of a **uniform ratio** throughout the region, from Jammu to Gujarat.
- We have also seen that settlements were strategically set up in specific locations for various reasons.

## 8.1 Palaces and kings

- A large building found at Mohenjodaro was labelled as a palace by archaeologists but no specific finds were associated with it.
- A stone statue was labelled and continues to be known as the “priest-king”.
- Some archaeologists are of the opinion that Harappan society had **no rulers**, and that everybody enjoyed equal status.
- Others feel there was no single ruler but several, that Mohenjodaro had a separate ruler, Harappa another, and so.
- Yet others argue that there was a **single state**, given the **similarity in artefacts**, the **evidence for planned settlements**, the **standardised ratio of brick size**, and the **establishment of settlements** near sources of raw materials.

## ➤ THE END OF THE CIVILIZATION

- There is evidence that by c. 1800 BCE most of the Mature Harappan sites in regions such as Cholistan had been abandoned. After 1900 BCE there appears to have been a transformation of material culture, marked by the **disappearance** of the distinctive artefacts of the civilization
- Writing, long-distance trade, and craft specialisation also **disappeared**. In general, far fewer materials were used to make far fewer things. House construction techniques deteriorated and large public structures were no longer produced.
- Several causes have been put forward by historians for decline of Harappan civilization. These range from “**climatic change, deforestation, excessive floods, the shifting and/or drying up of rivers, to overuse of the landscape**”.



## 10. DISCOVERING THE HARAPPAN CIVILISATION

- We have examined facets of the Harappan civilisation in the context of how archaeologists have used evidence from material remains to piece together parts of a fascinating history.
- There is another story as well – about how archaeologists “discovered” the civilisation. When men and women did not know what to make of the strange artefacts that occasionally surfaced, washed by floods or exposed by soil erosion, or turned up while ploughing a field, or digging for treasure.

### 10.1 Cunningham's confusion

- When Cunningham, the first Director-General of the ASI, began archaeological excavations in the mid 19<sup>th</sup> c., archaeologists preferred to use the written texts and inscriptions as a guide to investigations.
- In fact, Cunningham's main interest was in the archaeology of the Early Historic (c. 6<sup>th</sup> BCE-c4<sup>th</sup> CE) and later periods. He **used the accounts left by Chinese Buddhist pilgrims.**
- Cunningham also collected, documented and translated inscriptions found during his surveys. When he excavated sites he tended to recover artefacts that he thought had cultural value.
- Harappan artefacts were found fairly often during the 19<sup>th</sup> c. and some of these reached Cunningham, he did not realise how old these were. A Harappan seal was given to Cunningham by an Englishman. He noted the object, but unsuccessfully tried to place it within the time-frame with which he was familiar.
- This was because he, like many others, thought that Indian history began with the first cities in the Ganga valley

### 10.2 A new old civilisation

- Subsequently, seals were discovered at Harappa by archaeologists such as Daya Ram Sahni in the early decades of the 20<sup>th</sup> c., in layers that were definitely much older than Early Historic levels.

- Another archaeologist, Rakhal Das Banerji found similar seals at Mohenjodaro, leading to the conjecture that these sites were part of a single archaeological culture.
- Based on these finds, in 1924, John Marshall, Director-General of the ASI, announced the discovery of a new civilisation in the Indus valley to the world. “As S.N. Roy noted in *The Story of Indian Archaeology*, “Marshall left India three thousand years older than he had found her.”
- John Marshall’s stint as Director-General of the ASI marked a major change in Indian archaeology. He was the first professional archaeologist to work in India.
- Marshall tended to excavate along regular horizontal units, measured uniformly throughout the mound, ignoring the stratigraphy of the site.
- This meant that all the artefacts recovered from the same unit were grouped together, even if they were found at different stratigraphic layers. As a result, valuable information about the context of these finds was irretrievably lost.

### 10.3 New techniques and questions

- It was R.E.M. Wheeler, after he took over as Director- General of the ASI in 1944, who rectified this problem. Wheeler recognised that it was necessary to follow the stratigraphy of the mound rather than dig mechanically along uniform horizontal lines.
- The partition of the subcontinent and the creation of Pakistan, the major sites are now in Pakistani territory. This has spurred Indian archaeologists to try and locate sites in India
- An extensive survey in Kutch has revealed a number of Harappan settlements and explorations in Punjab and Haryana have added to the list of Harappan sites. While Kalibangan, Lothal, Rakhi Garhi and most recently Dholavira have been discovered.
- Since the 1980s, there has also been growing international interest in Harappan archaeology. They are using modern scientific techniques including surface exploration to recover traces of clay, stone, metal and plant and animal remains as well as to minutely analyse every scrap of available evidence.