

INDUS VALLEY CIVILIZATIONS

Geography and time-frame

In 1856, British colonial officials in India were busy monitoring the construction of a railway connecting the cities of Lahore and Karachi in modern-day Pakistan along the Indus River valley.

As they continued to work, some of the laborers discovered many fire-baked bricks lodged in the dry terrain. There were hundreds of thousands of fairly uniform bricks, which seemed to be quite old. Nonetheless, the workers used some of them to construct the road bed, unaware that they were using ancient artifacts. They soon found among the bricks stone artifacts made of soapstone, featuring intricate artistic markings.

Though they did not know it then, and though the first major excavations did not take place until the 1920s, these railway workers had happened upon the remnants of the Indus Valley Civilization, also known as the **Harappan Civilization**, after Harappa, the first of its sites to be excavated, in what was then the Punjab province of British India and is now in Pakistan. Initially, many archaeologists thought they had found ruins of the ancient Maurya Empire, a large empire which dominated ancient India between c. 322 and 185 BCE.

Before the excavation of these Harappan cities, scholars thought that Indian civilization had begun in the Ganges valley as Aryan immigrants from Persia and central Asia populated the region around 1250 BCE. The discovery of ancient Harappan cities unsettled that conception and moved the timeline back another 1500 years, situating the Indus Valley Civilization in an entirely different environmental context.

Scholars are still piecing together information about this mysterious civilization, but they have learned a great deal about it since its rediscovery. Its origins seem to lie in a settlement

named **Mehrgarh** in the foothills of a mountain pass in modern-day Balochistan in western Pakistan. There is evidence of settlement in this area as early as 7000 BCE.

The Indus Valley Civilization is often separated into three phases: the **Early Harappan Phase** from 3300 to 2600 BCE, the **Mature Harappan Phase** from 2600 to 1900 BCE, and the **Late Harappan Phase** from 1900 to 1300 BCE.

At its peak, the Indus Valley Civilization may have had a population of over five million people. The Indus cities are noted for their **urban planning**, a technical and political process concerned with the use of land and design of the urban environment. They are also noted for their baked brick houses, elaborate drainage systems, water supply systems, and clusters of large, nonresidential buildings.

The Indus Valley Civilization began to decline around 1800 BCE. Archaeological evidence indicates that trade with Mesopotamia, located largely in modern Iraq, seemed to have ended. The advanced drainage systems and baths of the great cities were built over or blocked. Writing began to disappear, and the standardized weights and measures used for trade and taxation fell out of use.

Indus Valley Civilization Important Sites

- In India: Kalibangan (Rajasthan), Lothal, Dholavira, Rangpur, Surkotda (Gujarat), Banawali (Haryana), Ropar (Punjab). In Pakistan: Harappa (on river Ravi), Mohenjodaro (on Indus River in Sindh), Chanhudaro (in Sindh).
- The civilization was first discovered during an excavation campaign under Sir John Hubert Marshall in 1921–22 at Harappa following the discovery of seals by J Fleet.
- Harappan ruins were discovered by Marshall, Rai Bahadur Daya Ram Sahni and Madho Sarup Vats.
- Mohenjodaro ruins were excavated for the first time by R.D. Banerjee, E. J. H. MacKay and Marshall.
- The Indus Valley cities show a level of sophistication and advancement not seen in other contemporary civilizations.
- Most cities had similar patterns. There were two parts: a citadel and the lower town.
- Most cities had a Great Bath.

- There were also granaries, 2-storied houses made of burnt bricks, closed drainage lines, excellent stormwater, and wastewater management system, weights for measurements, toys, pots, etc.
- A large number of seals have been discovered.
- Agriculture was the most important occupation. The first civilization to cultivate cotton.
- Animals were domesticated like sheep, goats, and pigs.
- Crops were wheat, barley, cotton, ragi, dates, and peas.
- Trade was conducted with the Sumerians.
- Metal products were produced including those with copper, bronze, tin, and lead. Gold and silver were also known. Iron was not known to them.
- No structures like temples or palaces have been found.
- The people worshipped male and female deities. A seal which was named 'Pashupati Seal' has been excavated and it shows an image of a three-eyed figure. Marshall believed this to be an early form of Lord Shiva.
- Excellent pieces of red pottery designed in black have been excavated. Faience was used to make beads, bangles, earrings, and vessels.
- Civilization also was advanced in making artworks. A statuette named 'Dancing Girl' has been found from Mohenjodaro and is believed to be 4000 years old. A figure of a bearded Priest-King has also been found from Mohenjodaro.
- Lothal was a dockyard.
- Disposal of the dead was by burial in wooden coffins. Later on, in the H Symmetry culture, bodies were cremated in urns.
- The Indus Valley script has not yet been deciphered.

Innovation and exchange

The people of the Indus River Valley Civilization achieved many notable advances in technology, including great accuracy in their systems and tools for measuring length and mass. Fire-baked bricks—which were uniform in size and moisture-resistant—were important in building baths and sewage structures and are evidence that Harappans were among the first to develop a system of **standardized weights and measures**. The consistency of brick size across cities also suggests unity across the various urban areas, which is evidence of a broader civilization.

Harappa, Mohenjo-daro, and the recently partially-excavated Rakhigarhi demonstrate the world's first known urban sanitation systems. The ancient Indus systems of sewage and drainage

developed and used in cities throughout the Indus region were far more advanced than any found in contemporary urban sites in the Middle East and even more efficient than those in many areas of Pakistan and India today. Individual homes drew water from wells, while wastewater was directed to covered drains on the main streets. Houses opened only to inner courtyards and smaller lanes, and even the smallest homes on the city outskirts were believed to have been connected to the system, further supporting the conclusion that cleanliness was a matter of great importance.

Harappans are known for **seal carving**— the cutting of patterns into the bottom face of a **seal**, a small, carved object used for stamping. They used these distinctive seals for the identification of property and to stamp clay on trade goods. Seals—decorated with animal figures, such as elephants, tigers, and water buffalos—have been one of the most commonly discovered artifacts in Indus Valley cities.

The Indus River Valley Civilization is considered a Bronze Age society; inhabitants of the ancient Indus River Valley developed new techniques in **metallurgy**—the science of working with copper, bronze, lead, and tin. Harappans also performed intricate handicraft using products made of the semi-precious gemstone Carnelian.

Evidence shows Harappans participated in a vast maritime—sea—trade network extending from Central Asia to the Middle East. The civilization's economy appears to have depended significantly on trade, which was facilitated by major advances in transport technology. The Harappan Civilization may have been the first to use wheeled transport, in the form of ox carts that are identical to those seen throughout South Asia today. It also appears they built boats and watercraft—a claim supported by archaeological discoveries of a massive, dredged canal, and what is regarded as a docking facility at the coastal city of Lothal. Harappans also engaged in shellworking, and shells used in their crafts have origins from as far away as the coast of modern-day Oman.

Trade focused on importing raw materials to be used in Harappan city workshops, including minerals from Iran and Afghanistan, lead and copper from other parts of India, jade from China,

and cedar wood floated down rivers from the Himalayas and Kashmir. Other trade goods included terracotta pots, gold, silver, metals, beads, flints for making tools, seashells, pearls, and colored gemstones, such as lapis lazuli and turquoise.

One of the ways historians know about the maritime trade network operating between the Harappan and Mesopotamian civilizations is the discovery of Harappan seals and jewelry at archaeological sites in regions of Mesopotamia, which includes most of modern-day Iraq, Kuwait, and parts of Syria. Long-distance sea trade over bodies of water—such as the Arabian Sea, Red Sea and the Persian Gulf—may have become feasible with the development of plank watercraft that were each equipped with a single central mast supporting a sail of woven rushes or cloth.

Historians have also made inferences about networks of exchange based on similarities between artifacts across civilizations. Between 4300 and 3200 BCE—part of the **Chalcolithic period**, also known as the Copper Age—ceramics from the Indus Valley Civilization area show similarities with southern Turkmenistan and northern Iran. During the Early Harappan period—about 3200 to 2600 BCE—there are cultural similarities in pottery, seals, figurines, and ornaments that document caravan trade with Central Asia and the Iranian plateau.

Town Planning of Indus Valley Civilization

Streets

The streets were straight and cut each other at right angles. They were 13 to 34 feet wide and were well lined. The streets and roads divided the city into rectangular blocks. Archaeologists have discovered the lamp posts at intervals. This suggests the existence of street lights. Dustbins were also provided on the streets. These prove the presence of good municipal administration.

Drainage System

One of the most remarkable features of the Indus valley civilization is that the city was provided with an excellent closed drainage system. Each house had its own drainage and soak pit which was connected to the public drainage. Brick laid channels flowed through every street. They were covered and had manholes at intervals for cleaning and clearing purposes. Large brick culverts with corbelled roofs were constructed on the outskirts of the city to carry excess water.

Thus Indus people had a perfect underground drainage system. No other contemporary civilization gave so much attention to cleanliness.

The Great Bath

The most striking feature in Mohenjodaro is the Great Bath. It consists of a large quadrangle. In the centre, there is a huge swimming pool (approximately 39 ft long, 23 ft wide and 8ft deep) with the remains of galleries and rooms on all four sides. It has a flight of steps at either end and is fed by a well, situated in one of the adjoining rooms. The water was discharged by a huge drain with corbelled roof more than 6 ft in depth. The Great bath had 8 ft thick outer walls. This solid construction has successfully withstood the natural ravages for 5000 years. There were arrangements for hot water bath in some rooms.

Granaries

The largest building in Mohenjodaro is granary which is 45.71 mtrs long and 15.23 mtrs wide. In Harappa there are a series of brick platforms which formed the base for two rows of 6 granaries each. In the Southern part of Kalibangan brick platforms have also been found. These granaries safely stored the grains, which were probably collected as revenue or store houses to be used in emergencies.

Buildings

People of Indus valley civilization built houses and other buildings by the side of roads. They built terraced houses of burnt bricks. Every house had two or more rooms. There were also more than one storied houses. The houses were designed around an inner courtyard and contained pillared halls, bath rooms, paved floors, kitchen, well etc. Besides residential quarters, elaborate structures have also been found. One of these buildings has got the biggest hall measuring 80 ft long and 80 ft wide. It might have been a palace, or temple or hall for holding meetings. The workmen quarters are also found. There was an excellent system of water supply. There were public wells by the side of streets. Every big house had its own well. They also built a dockyard at Lothal.

Religion, language, and culture

Little is known about Harappan religion and language. A collection of written texts on clay and stone tablets unearthed at Harappa—which have been carbon dated 3300-3200 BCE—contain trident-shaped, plant-like markings that appear to be written from right to left. There is considerable debate about whether it was an encoded language at all and whether it is related to Indo-European and South Indian language families. The Indus script remains indecipherable without any comparable symbols, and is thought to have evolved independently of the writing in

Mesopotamia and Ancient Egypt. Researchers are using technological advances in computer science in order to attempt to decipher it.

The Harappan religion also remains a topic of speculation. It has been widely suggested that the Harappans worshipped a mother goddess who symbolized fertility. In contrast to Egyptian and Mesopotamian civilizations, the Indus Valley Civilization seems to have lacked any temples or palaces that would give clear evidence of religious rites or specific deities.

Many Indus Valley seals include the forms of animals; some depict the animals being carried in processions, while others show mythological creations like unicorns, leading scholars to speculate about the role of animals in Indus Valley religions. Interpretations of these animal motifs include signification of membership in a clan, elite class, or kin structure. One seal from Mohenjo-daro shows a half-human, half-buffalo monster attacking a tiger. This may be a reference to the Sumerian myth of a monster created by Aruru—the Sumerian earth and fertility goddess—to fight Gilgamesh, the hero of an ancient Mesopotamian epic poem. This is a further suggestion of international trade in Harappan culture.

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Institutions and hierarchies

How was Harappan society organized, and what institutions functioned as centers of authority? Archaeological records provide no immediate answers regarding a center of authority or depictions of people in power in Harappan society, and there are few written records to consult. However, Harappan artifacts display an extraordinary uniformity. Pottery, seals, weights, and bricks with standardized sizes and weights, suggest some form of authority and governance, though it is not clear what that form was exactly.

Over time, various theories have developed concerning Harappan systems of rule. One theory is that there was a single state encompassing all the communities of the civilization; this theory is supported by the similarity in artifacts, the evidence of planned settlements, the standardized ratio of brick size, and the apparent establishment of settlements near sources of raw material. Another theory posits that there was no single ruler, but rather a number of leaders representing each of the urban centers, including Mohenjo-daro, Harappa, and other communities. It seems likely that there was not one centralized and all-powerful state but that various classes and centers of power were integrated into a decentralized structure.

Written records gave historians a great deal of insight into the civilizations of ancient Mesopotamia and Egypt, but very few written materials have been discovered in the Indus valley. Though seal inscriptions do seem to have written information, scholars have not been able to decipher the Indus script. As a result, they have had considerable difficulty understanding the nature of the state and religious institutions of the Indus Valley Civilization. We know relatively little about their legal codes, procedures, and systems of governance.

Historians have made educated guesses about the nature of Harappan civilization from the available artifacts and physical structures. Some experts have theorized that the Indus Valley Civilization had no rulers as we understand them, that everyone enjoyed equal status. Some evidence in support of this conclusion is that most Harappan residents seem to have enjoyed relatively equal health and that there were not many elite burials, which archaeologists have discerned through **mortuary analysis**—the study of graves and deposits containing human remains.

However, this does not conclusively prove that Harappan society lacked any social hierarchy, and it could possibly be the result of other factors, like different beliefs about the afterlife. Some scholars point to varying house sizes and varied heights of structures to suggest that different social classes occupied different levels in the cities. Others identify items such as painted pottery, bangles, beaded ornaments, and even location within cities as indicators of wealth. A considerable degree of craft specialization also suggests some degree of socio-economic stratification.

It is widely believed that the Harappan civilization was a peaceful one that did not engage in any warfare, but there is not conclusive evidence to support this belief, and some archaeologists consider it a pervasive myth. Some scholars argue that Harappans were peaceful primarily because there were no natural enemies due to the geographic location of the major cities. Weapons have been found at sites, but there is debate as to whether they were used in conflict with other groups or as defense against wild animals.

The decline of Indus Valley Civilization

- Causes of the decline of this civilization have not been firmly established. Archaeologists now believe that the civilization did not come to an abrupt end but gradually declined. People moved eastwards and cities were abandoned. Writing and trade declined.
- Mortimer Wheeler suggested that the Aryan invasion led to the decline of the Indus Valley. This theory has now been debunked.
- Robert Raikes suggests that tectonic movements and floods caused the decline.

- Other causes cited include a drying up of the rivers, deforestation, and destruction of the green cover. It is possible that some cities were destroyed by floods but not all. It is now accepted that several factors could have led to the decline of the Indus Valley civilization.
- New cities emerged only about 1400 years later.