

Figure 2.2-8 Deir el-Bahri, Egypt. Plan of the funeral complex of Mentuhotep I, ca. 2010 BCE. The progression moves west from planted forecourt to colonnaded terrace to rock-cut mortuary temple: (1) Mentuhotep I's tomb set in a tunnel within the cliff; (2) shrine to the god Montu-Ra; (3) square platform surrounded by colonnades; (4) porticoes with false tomb; (5) entry garden planted with tamarisk trees.

2.3 THE INDUS VALLEY

Cities without Monuments



The ancient Harappan culture of the Indus–Saraswati River system came to maturity during the third millennium BCE at the same time as the city-states of Sumeria and the pyramids of Old Kingdom Egypt. Unlike the other two cultures, however, the Harappans appear to have been the first urban society to intentionally avoid building monuments. The erratic behavior of monsoons, flooding rivers, and periodic droughts forced them to concentrate

on hydrological projects rather than monuments. The archaeological evidence in hundreds of settlements shows extraordinary underground drains, lined with baked bricks, and formidable urban walls meant to resist floods. The only special buildings served as sites for ritual bathing and granaries. Harappan culture seems to have been governed by an austere moral agenda that would reappear among later peoples such as the ancient Spartans, seventeenth-century European Protestants, and twentieth-century socialists. These ancient cities without monuments offered the intriguing alternative that human resources might be better spent on utilitarian, rather than symbolic, projects.

The Indus–Saraswati River System: The Basis of a Hydraulic Civilization

The name of the Harappan culture comes from a town in northern Pakistan, literally translated “mound of the dead,”

where archaeologists explored the first ruins. While the Indus valley peoples surpassed Southwestern Asian cultures in terms of infrastructure, making towns with straight streets and supplying them with brick-lined drains, they were less attentive about keeping records. So few texts of the Harappan period survive that the language has yet to be decoded. One can only guess about the mentality of the people. As with many lost cultures, the Harappans are mostly understood through the traces of their architecture. The evidence suggests the existence of an urban culture that encouraged a fairly equitable distribution of wealth. Unlike the Mesopotamians and Egyptians, the Harappans left a complete absence of religious and dynastic monuments.

Mehrgarh, the earliest known settlement in the region, dates from as early as 6500 BCE. A system of linked agricultural towns between modern Lahore and Karachi took shape during the fourth millennium BCE. The Bronze-Age Harappans built settlements as far away as Oman and during the third millennium traded with Ur and other Mesopotamian cities. The ancient name of the Harappan territory may have been “Meluhha,” since there is reference in Akkadian texts from the time of Sargon, during the twenty-third century BCE, to traders from an eastern place of this name who brought products typical of the Indus region. Harappan glass beads have been found in the Ur tombs. The most prized commodity from the Indus valley was cotton cloth, a fabric the Harappan people invented.

The two best-excavated sites, Harappa in the north and Mohenjo-daro 600 km (373 miles) to its south (Fig. 2.3-1a), are comparable in size to the Mesopotamian city-states. Population estimates range from 20,000 to 30,000. There were many other large cities between them as well, including Kalibangan, Dholavira, and Chanhudaro. Over 1,000 other settlements from this period have been identified. The port city of Lothal, destroyed by a flood ca. 1900 BCE and preserved under a layer of loam, offers some of the richest evidence of this civilization, while some of the largest Harappan cities, such as Gammeriwala and Lakhmirwala, have yet to be excavated. As an urban system, the Harappan culture covered more territory—most of modern Pakistan and the Indian state of Punjab—and was probably more populous than either Mesopotamia or Egypt.

The mystery of why the Harappans disappeared remains unsolved, but like other cultures that created a great

civilization and then vanished, such as the Maya in Mexico (see Section 7.3), there was likely no single reason for their disappearance. Harappan cities probably underwent a combination of internal political dissension, environmental mismanagement, ecological disasters, famine, and plagues. The actual disappearance can in the long run be attributed to migration. The ruins show no signs of damage caused by invasion, nor is there forensic evidence of violence to the people. Environmental factors, then as now, were the bottom line of subsistence. The Harappans built their brick cities by clearing wetlands and deforesting the hills. The two rivers of the region, the Indus and the Saraswati (now called Ghaggar), underwent immense alterations. While the Indus seems to have subjected the area to intolerable floods, the Saraswati dried up as a result of the changing course of its Himalayan tributaries to become part of the Thar Desert east of the Indus. The same climate change toward the end of the third millennium BCE that influenced the decline of Ur and Old Kingdom Egypt, bringing colder weather and drought, affected the Indus valley as well. Extreme environmental calamities ultimately reduced the viability of a society based on agricultural surplus. Food shortages forced people to move away from the region.

Harappan culture built modest structures in baked bricks and mud (Fig. 2.3-1b). The Harappans' infrastructure appeared more interesting than their architecture. Instead of great stepped temples or massive pyramids, one finds unusually thick city walls, well-planned reservoirs, and sophisticated systems of brick-lined drains that kept the sewage away from the drinking water. They left no traces of grand palaces, temples, or mausoleums. Unlike the Mesopotamians, the Harappans used baked brick for the foundations of their buildings and for their elaborate drainage systems. Most of the houses in their cities were connected to the conduits, providing a level of sanitation unknown to other cultures until the time of the Romans, two millennia later (see Section 5.1).

The cities of the Indus valley followed a high degree of orthogonal order, indicating a sophisticated social organization and advanced engineering knowledge based on geometry and probably astronomy. Considering the greater sophistication of the geometric plans of the Harappans compared to the Mesopotamians, one can assume that the transmission to other cultures of design based on the right angle came from this eastern source.

TIME LINE

▼ ca. 2600 BCE

Mohenjo-daro, largest of 1,000 cities in the Indus River valley

The Great Bath at Mohenjo-daro

▲ ca. 2500 BCE



▼ ca. 1900 BCE

Decline of Harappan culture

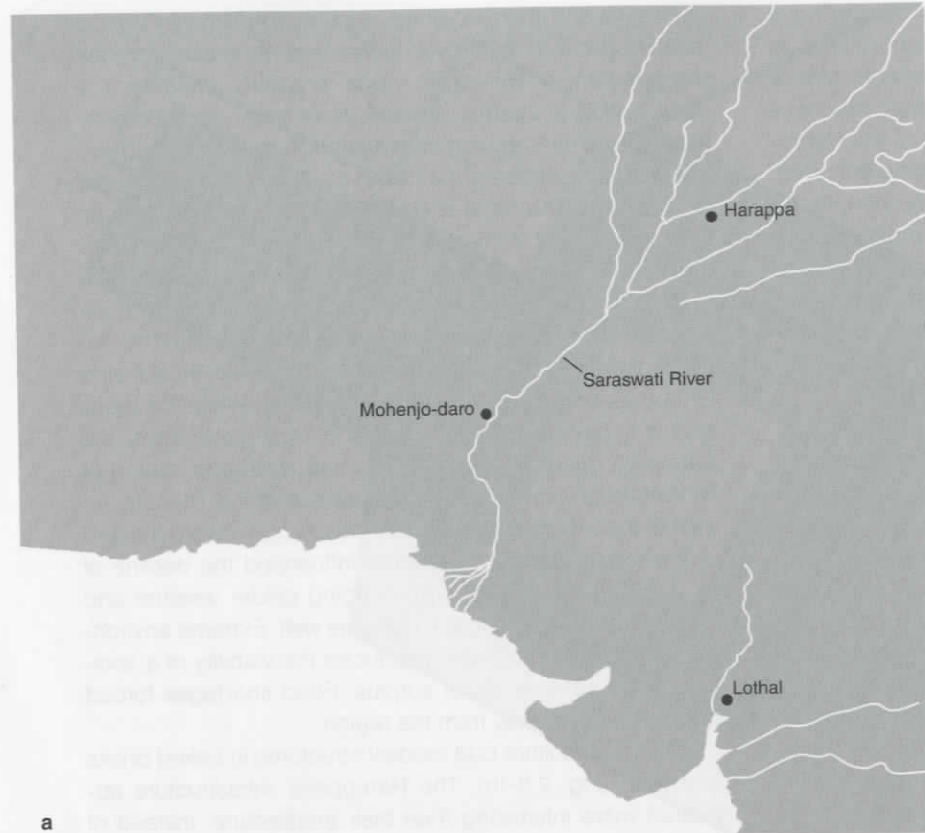


Figure 2.3-1 (a) The Indus valley region. The Saraswati (now Ghaggar) River changed course in the second millennium. Harappa can be seen in the north, Mohenjo-daro in the south, and Lothal on the southern coast at the Gulf of Cambay. (b) Mohenjo-daro. Detail of brickwork and drainage at the Great Bath, ca. 2500 BCE.

The conspicuous lack of monuments in Harappan cities proves as interesting as the importance of monuments in others. The absence of large structures for high priests,

monarchs, or powerful rulers implies a relatively horizontal society run by assemblies. The similarity in the plans of Mohenjo-daro and Harappa, more distant from each other than Ur from Mari, suggests a unified regional government. A considerable amount of physical coordination went into the creation of Harappan street grids, walls, canals, and drains, requiring the services of specialized occupations, but the cities apparently prospered without a social or political hierarchy.

Water and Harappan Urbanism

While the Harappan cities appear to have been united into a federation, there is no sign that this was the result of empire building. Throughout the region one finds the same standard burnt-brick unit, with proportions of 4:2:1, and evidence of a universal decimal system for weights and measures that reinforces the suspicion that the cities were politically unified. Each town had impressive walls, but these seem to have been used to defend more against natural calamities than against human invasions. The walls, canals, and reservoirs became components of a system of water management that sought to control the periodic monsoon floods. Nowhere does Harappan culture express the celebration of military might and heroes, leading one to suspect these people of pacifism.

The cities of the Indus valley, such as Mohenjo-daro, usually included an elevated **citadel** area in the west and one or two lower districts, implying some sort of social hierarchy. As Mohenjo-daro was built mostly in fired brick, the large areas that have been excavated give a good idea of its urban fabric. The streets were wide and orderly compared to those of Ur, some of them 8 m (26 ft) across (Fig. 2.3-2). The ruins reveal vaulted drains and courtyard houses with shops in the front and stairways to upper floors. The only prominent monumental presence, a Buddhist stupa on the western mound, was built more than 2,000 years after the Harappan period. The small citadel of Mohenjo-daro followed a linear spine and possessed the most specialized buildings in the city. The Great Bath (Figs. 2.3-1b, 2.3-3) stood on a tapered platform adjacent to the largest building in the city, which was either a reception hall or a



Figure 2.3-2 Mohenjo-daro, Indus valley. Typical street in lower city, which is unusually wide compared to those of the cities of Mesopotamia, ca. 2500 BCE. Note the covered drain on the right side of the street.



Figure 2.3-3 Mohenjo-daro, Indus valley. The Great Bath, ca. 2500 BCE.

granary, or perhaps both. Below it a hypostyle hall made with rectangular pillars may have served as a site for popular assemblies. The lower town stretched over an extensive set of rolling mounds to the east. The bulk of the population lived and worked in this 4 km² (2.6 mile²) area. Two major cross streets on the cardinal coordinates, similar to the system used by the Romans two millennia later, divided this area into quarters. The houses adhered to a grid plan (Fig. 2.3-4), and the drainage system beneath connected them to a citywide system of public sanitation.

One of the greatest mysteries of Harappan cities remains their lack of religious buildings. Is it possible that an ancient culture devoted so little attention to the supernatural? This is especially hard to believe when one considers the high degree of religiosity in later Indian cultures. It is more likely that the Harappans pursued an experience-based religion without permanent shrines. Many primitive religions, including the Hebraic, specifically rejected architectural or iconographic solutions to the great questions of life, preferring the commitment of bodies in space as the principal form of devotion.

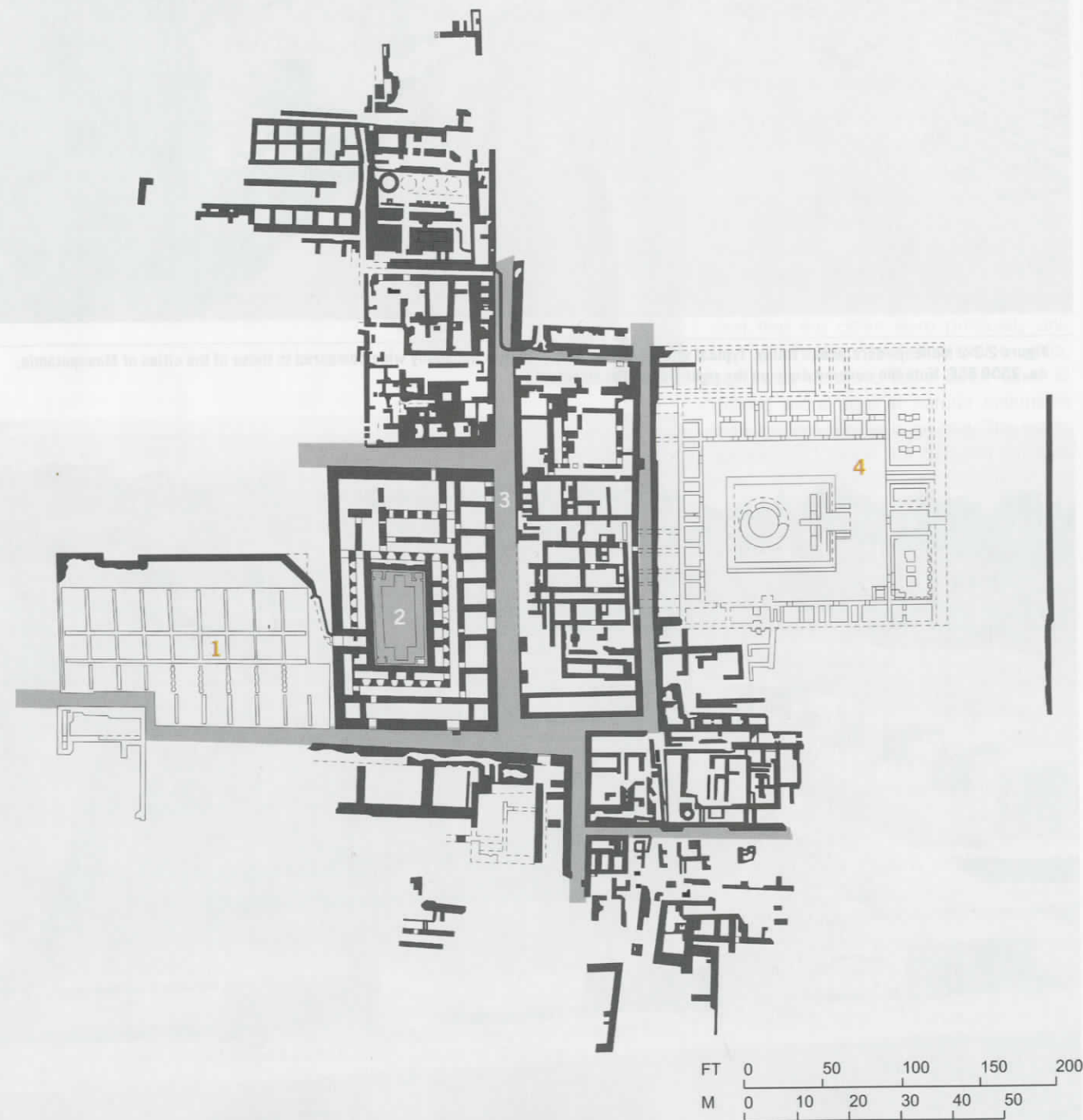


Figure 2.3-4 Mohenjo-daro, Indus valley. Plan of lower town, showing regular orthogonal alignments and broad streets, ca. 2500 BCE: (1) granary; (2) baths; (3) central paved street with subterranean drain; (4) Buddhist stupa, added ca. 400 CE.

The most detailed building in Mohenjo-daro, the Great Bath, may have had religious functions as a structure for ritual bathing, a custom that has remained central to Indian religions. Small rooms and a portico made of brick piers surrounded the pool's courtyard. The pool measured 12 × 7 m (39 × 23 ft) and was 2.4 m (7.5 ft) deep. It was carefully constructed of sawn bricks set in bitumen mortar and sealed with gypsum-based plaster. Two stairways led down to a ledge around the pool for circumambulating the water's edge. In a society so concerned with managing hydraulics, this celebration of water suggests religious connections. The ablutions used in later Hindu and Muslim rituals continued as one type of religious use of water. Considering the region's cycles of droughts and floods, water was a volatile resource, yielding either too much or too little and thus requiring religious respect.

The question of both conserving water and protecting the city from floodwaters led to the construction of immense city walls, the most prominent examples of Harappan buildings. The walls of Dholavira, for instance, were 11 m (35 ft) thick, set in a parallelogram pattern around 1 km² (0.4 mile²) of city fabric. While such thick walls may have been useful for defense, they were much more helpful for flood control. Special elevated areas were put aside for the city's granaries. The walls doubled as reservoirs for water, since the city had no reliable freshwater supply and drought remained even more severe a problem than flooding. As at Mohenjo-daro, the citadel stood in the west, overlooking the rectangular district of the middle town, with its wide north-south axis, and below this the lower town, structured on a more informal grid.

The northern city of Harappa, which is partly occupied by a modern town, also had a citadel in the west, a grid of city streets, and the best-preserved drains of the region. Some of its sewers were covered with corbelled vaults, tall enough to walk through. There was also a large building apparently set aside as a formal granary. Judging from its foundations, it was quite large, reaching 45 × 45 m (148 × 148 ft). The granary was organized bilaterally into two rows of narrow rooms served by a broad corridor. In Mesopotamia and

Egypt the priests and temples usually controlled the public granaries, but in Harappa neither iconography nor written traces suggest the presence of a supervising priesthood. Harappan houses had blank facades on the street side and were usually arranged around inner courtyards and built in two stories, with as many as a dozen rooms around the open space. Each house had its own well, a paved bathing place, and a drain leading to the civic sewers.

The Harappans appear to have been remarkably peaceful, equitable, and productive. But as there is no written evidence, one can only make conjectures about their political and religious life. What is obvious is that, unlike the Mesopotamians and Egyptians, they did not need to translate their surplus into great architectural statements. Instead, they seem to have invested in the greater civic concern for defense against the elements, grain storage, and public assemblies. Their cities grew to be large and remarkably well-organized, arranged in grids with wide streets, and their inhabitants enjoyed the sort of plumbing of which other cultures until recent times had never dreamed. The Harappan level of hygiene was much higher than that of many settlements in the same region today. The cities of the Indus valley offered the provocative possibility that humanity could live in relative harmony for over a millennium without recourse to religious or political monuments.

Further Reading

- Kenoyer, Jonathon M. *Ancient Cities of the Indus Valley*. New York: Oxford University Press, 1998.
- McIntosh, Jane. *A Peaceful Realm: The Rise and Fall of the Indus Civilization*. Boulder, CO: Westview Press, 2001.
- Possehl, Gregory. *The Indus Civilization: A Contemporary Perspective*. Walnut Creek, CA: AltaMira Press, 2002.

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