

# India's Earliest Smart City

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## Urban legend

The eerie spectacle of a full moon rising over the silent ruins of Dholavira is an unforgettable experience — silent, but as though pregnant with the mystery of their long-forgotten memories. Some 4,500 years ago, its massive fortifications resonated with the hustle and bustle of rulers, traders, administrators, engineers, craftspeople, public ceremonies and noisy markets.

On July 27, Unesco inscribed this Harappan city in its World Heritage List, making it India's 32nd cultural site and 40th overall site on the list. Located on Khadir Island in Gujarat's Great Rann of Kachchh, near the sleepy village of Dholavira, its ruins are locally known as 'Kotada' (walled city). The site was discovered by Jagat Pati Joshi in 1968 and excavated by R S Bisht, both from the Archaeological Survey of India (ASI), for 13 field seasons from 1989 to 2005.

Well-preserved owing to its extensive use of stone, Dholavira is one of the six largest Harappan cities of the 3rd millennium BCE, along with Mohenjo-daro, Lakhajjo-daro, Harappa, Ganweriwala (all four in Pakistan) and Rakhigarhi (in Haryana). Dholavira witnessed a long occupation between 3000 BCE and 1500 BCE, expanding to a full-blown city in about 2600 BCE. By 1900 BCE, like many other Harappan cities, it had started declining — it was briefly deserted, shrank in size, survived for a couple of centuries and, after a longer desertion, was finally reoccupied by fully deurbanised people.

ASI's findings transformed our understanding of the Harappan, or Indus, civilisation, revealing a meticulous planning with strict ratios and proportions, multipartite fortified occupational units (the so-called Castle, Bailey, Middle and Lower Towns), a sophisticated water management system consisting of series of reservoirs on the south and east of the Castle, whose imposing gates displayed exquisitely polished pillar members, quarried 3 km away.

These pillar members were also exported to distant Mohenjo-daro and Harappa, probably through a navigable Rann and upstream the Indus River. A highly secured Ceremonial Ground to the north of Castle and Bailey must have witnessed markets, craft activities, festivals and melas. Craftspeople worked stone, shell, copper, gold, silver and lead into bangles, beads, inlay pieces and other ornaments, ladles, weights and metal implements, thus contributing to the city's vibrant economic life.

## 4,500 Years Young

Evidence for trade contacts with West Asia is present in the form of a specific type of ceramics known as 'black-slipped jar,' often 1.5 m in height and with a pointed base to be

fitted in a ship, agate-carnelian beads, often decorated with white patterns, and circular Indus seals, among others.

Thus, Dholavira was strategically located to harness Gujarat's mineral resources (copper, limestones, steatite, agate-carnelian, several types of jasper, amazonite and shell from Kachchh's coast), controlling a huge hinterland engaged in commercial activities, which included important Harappan settlements such as Bagasra, Shikarpur, Surkotada, Nagwada, Kanmer and Lothal. The city was a manufacturing hub, procuring and redistributing both raw and finished materials. But let us not forget that it developed

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The Dholavirans, if we may call them so, followed distinct funerary traditions, mostly erecting memorial burials using locally available stone slabs. But, probably to commemorate members of their elites, they also created earthen tumuli, the largest of them reaching 30 m in diameter and rising to a height of 2 m.

ASI and IIT Gandhinagar's Archaeological Sciences Centre have researched several aspects of this bygone city. R S Bisht submitted a preliminary report on the excavations as early as in 2008. A more elaborate one in 2015 documenting all the important findings was prepared with the assistance of this article's first author. A revised version of the 2015 report was submitted in 2017, adding scientific studies on ceramics and other materials. Post-excavation research is a continuous process and more projects are under way, or on the anvil.

Dholavira has been on Unesco's Tentative List since 2014. In January 2020, ASI submitted its nomination dossier. The nomination process for final inclusion in World Heritage List follows the submission of a detailed dossier by the 'State Party', justifying either cultural or natural criteria, and scrutinised by the International Council on Monuments and Sites (Icomos) for cultural properties, or the International Union for Conservation of Nature (IUCN) for natural properties, besides onsite evaluation and desk reviews.

Eventually, Unesco granted the inscription on the basis of two of its listed 10 selection criteria: the third, 'a unique, or at least exceptional, testimony to a cultural tradition or to a civilisation which is living or which has disappeared'; and the fourth, 'an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history'.

Do You Dig Me?

The status of World Heritage List comes with some obligations — international principles of conservation, preservation and management strategies are to be followed, a buffer zone must be maintained around the inscribed property to safeguard it from future threats, and developmental activities should be regulated and in consonance with ancient remains.

Ultimately, it is up to ASI and all stakeholders to make the best of this opportunity and ensure that this precious piece of Indian heritage is properly highlighted and carefully conserved for posterity.