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## World History Encyclopedia, Era 2: Early Civilizations, 4000-1000 BCE

By: Kevin M. McGeough, Editor

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### Mohenjo-Daro's Sewers

Muhammad Aurang Zeb Mughal

Almost all historians today regard the sewage system of Mohenjo-daro as the largest and best-built sanitation system among contemporary urban centers. It is easily comparable with present-day drainage systems of South Asian countries such as Pakistan, India, and Bangladesh. Even today in most of Pakistan and India the same model of drainage is followed what was used in Mohenjo-daro. This indicates the advanced engineering and urban planning of the Indus Valley civilization.

The sewage system of Mohenjo-daro was comprised of ducts covered with bricks and draining pipes running the length of the usually unpaved streets connected by small chutes with most of the houses. These ducts, U-shaped in cross-section, opened into the main collecting channel of the avenue wherefrom the waste was disposed of into either a landfill or a lake. The main collecting channel was covered with bricks, and access to the channel was gained by manhole covers when cleaning was required. Historians have different opinions about the land used for the disposal. Some conclude that sewage was simply dumped, while others argue that this waste was disposed of in a way to increase soil fertility. The latter opinion is more likely, as the permanent standing water would produce an unpleasant odor throughout the city.

This complex drainage system also supports the view that all or at least most of the houses in Mohenjo-daro had indoor water facilities. Evidence tends to confirm the presence of wells for their daily household water consumption. Usually, each house had a private bathroom with a shallow basin made by the arrangement of bricks in it as well as a sophisticated toilet with brick seats. Archaeological excavations from Mohenjo-daro also prove the presence of a great bath that served as a public bathroom connected with the draining system in the same manner as private bathrooms.

Although it is logical to say that there might have been a public sanitation department in Mohenjo-daro with specialized workers who were responsible for the maintenance and repair of such a large and complex sewer system, no clear-cut evidence has been found to prove this.

### > THE GREAT BATH OF MOHENJO-DARO



*Great Bath at Mohenjo-daro, (J, M. Kenoyer, Courtesy Dept. of Archaeology and Museums, Government of Pakistan)*

A large bathing platform covering 18,298 square feet (1,700 square meters) named the Great Bath of Mohenjo-daro was excavated in the northern sector of the Acropolis in 1925. This Great Bath was thought to be a place for ablutions by priests and others. There were a series of eight bathing compartments in two rows on either side of the Great Bath. The Great Bath had a huge well and lots of structures in it; fresh water was obtained for use here. The concept of deliberate extravagance in the use of water can be seen through the Great Bath.—*Muhammad Aurang Zeb Mughal*

It seems most likely that some formal agency was responsible for monitoring the system. Such a well-engineered drainage system represents not only the engineering skills of the people of the Indus Valley civilization but also the importance that sanitation and cleanliness played within their culture.

#### **Bibliography**

Jansen, M. *Mohenjo-daro: City of Wells and Drains, Water Splendour 4500 Years Ago*. Bergisch Glad-bach, Germany: Frontinus Society Publications, 1993.

Jansen, M. "Water Supply and Sewage Disposal at Mohenjo-Daro." *World Archaeology* 21(2) (1989): 177–192.

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Kenoyer, J. M. *Ancient Cities of the Indus Valley Civilization*. Karachi: Oxford University Press and American Institute of Pakistan Studies, 1998.

Wheeler, Mortimer. *The Indus Civilization*. Cambridge: Cambridge University Press, 1962.

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