

# Indus Valley Civilization (IVC)

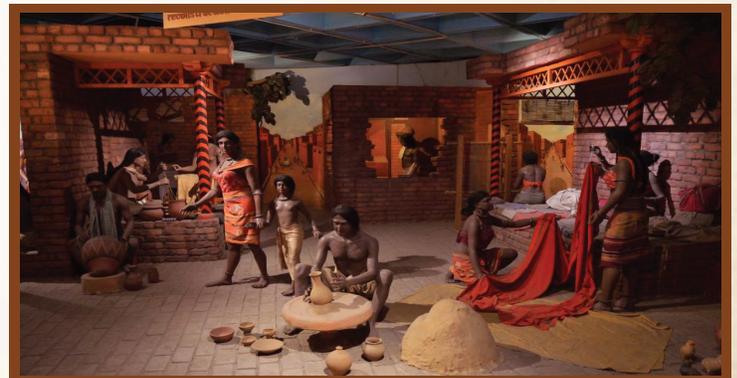


## Science and Technology

Harappans excelled in urban planning, advanced water management system, metallurgy, pottery, textiles, and advanced craftsmanship, showcasing remarkable technological advancements.

### Metallurgy

- ◆ The Harappans were advanced in metallurgy, particularly in creating bronze sculptures, such as the famous **Dancing Girl** statue.
- ◆ Copper was sourced from the Khetri copper mines in Rajasthan, while tin was obtained from Afghanistan, indicating trade networks for raw materials.



## Advanced Water Systems

- ◆ The Harappans were pioneers in water management, constructing wells in public and private spaces and building large reservoirs for water storage.
- ◆ Notable examples include the water reservoir at Dholavira and the Great Bath at Mohenjodaro.

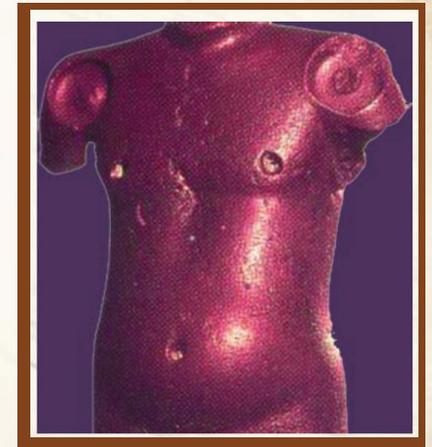
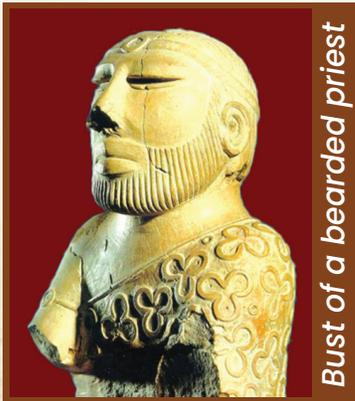


## Craftsmanship

Harappans excelled in various crafts, including:

### Stone Statues

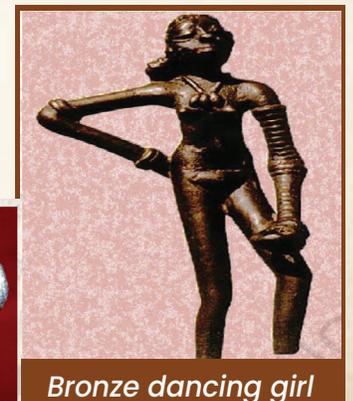
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### Bronze Casting

- ◆ Bronze statues were crafted using the **lost-wax technique**.
  - Dancing Girl: A prominent bronze statue.
  - Animal Figures: Bronze buffalo, goat, and bull statues found in major Harappan sites like Mohenjodaro, Lothal, and Kalibangan.



- The tradition of metal casting continued in later periods at sites like Daimabad.

## Terracotta Art

- ◆ Terracotta figures were more simplistic and crude compared to stone or bronze.
  - **Mother Goddess figures:** Most common terracotta representations.
  - **Other Figures:** Bearded males, horned deities, toy carts, whistles, birds, and animals.
  - Terracotta masks of deities were also found.



## Seals



- ◆ Thousands of seals made from **steatite, agate, chert, copper, and terracotta**.
  - Depicted animals like unicorns, tigers, elephants, and bulls, often with intricate designs.
  - **Pashupati Seal:** Depicts a seated human figure with surrounding animals, identified by some scholars as a male deity.
  - **Copper Tablets:** Square or rectangular, with animals or human figures, possibly used as amulets.

## Pottery

- ◆ Harappan pottery includes fine wheel-made ware, with minimal hand-made items.
  - **Plain Pottery:** Red clay with or without a fine slip.
  - **Painted Ware:** Geometric and animal motifs in **black** paint.
  - **Polychrome Pottery:** Rare, often decorated with red, black, green, and occasionally white/yellow.
  - **Perforated Pottery:** Likely used for straining beverages.



## Beads and Ornaments

◆ Harappan people decorated themselves with various ornaments.

■ Materials used: **Gold, semi-precious stones, copper, faience,** bone, and baked clay.

■ **Necklaces, bracelets, earrings:** Found at **Mohenjodaro and Lothal.**

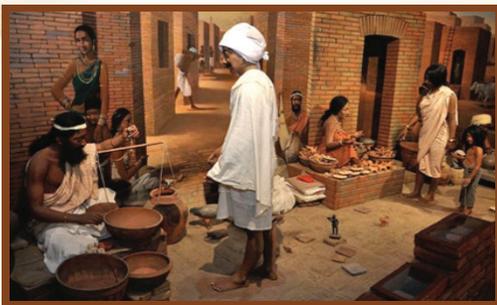
■ **Bead Industry:** Well-developed, with factories at **Chanhudaro and Lothal.**

■ **Beads:** Made from carnelian, lapis lazuli, turquoise, and more. They came in various shapes and sizes, often intricately designed.



Beadwork and jewellery items

## Textiles



◆ Evidence of spinning with **spindles and spindle whorls** found at Harappan sites.

■ **Clothing:** Two-piece attire similar to **dhoti and shawl.**

## Conclusion

The Harappan Civilization showcases remarkable advances in social organization, religious practices, science, and technology. Despite the limited evidence due to the undeciphered script, the archaeological findings reveal a complex society with diverse cultural and religious beliefs, advanced craftsmanship, and intricate social structures.