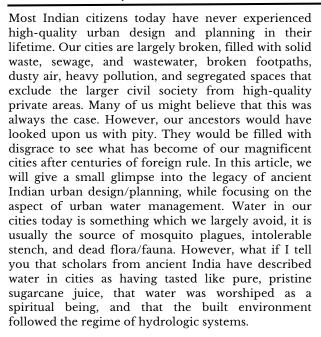
Ancient Indian Urbanism: Cities of Water and **Purity**

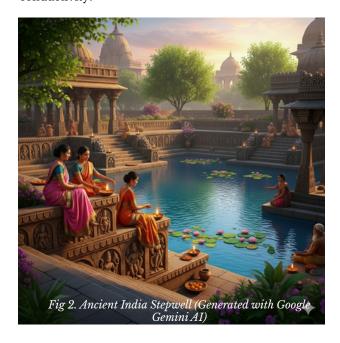
KID: 20250304 | Mr Sudarshan Sarayanan, Dr Shiya Ji



- 1. Hydrology-based site planning
- 2. Diverse water infrastructure
- 3. Sacred Urban Landscape

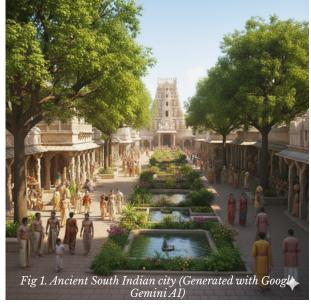
The Mahabharata describes a scene where Bhisma advises Yudhithar to establish sufficient water resources for all animals and the biosphere, before the construction of the city of Indraprastha. The Vastu Shastra advises urban planners not to build on soil which were on a wetland.

Furthermore, if trees are to be cut during the construction process, they are to be compensated in other locations. The Manasara recommends building on soil only if the soil has a low water hydraulic conductivity.









This is to avoid the urban systems sinking or getting damaged by the water percolating force. After a site is chosen, all urban surface infrastructure should be integrated with a natural slope for drainage and be built with limestone. Drainage engineering was a specific expertise, and the Manasara prescribed water gates or drains, called "Jaladvara' in Sanskrit for water outflow.

The text goes on outlining four types of water bodies: a "Kupa", a vertical well, a "Vapi", a stepped well with architectural access, a "Tadaga", a large artificial tank, and a "Kunda", a large artificial constructed pond. Varāhamihira's Brhat Samhitā states that ponds should be located in a specific direction to be auspicious and avoid being connected with strong wind flows. It also recommends planting thick vegetation on river embankments for flood protection, which can be interpreted as modern-day nature-based solutions or sustainable development. Telugu scriptures such as Kathinīya Kāraņa Citralu and Manasollāsa talk about the maintenance of water bodies, who is responsible, and when maintenance should be undertaken. Tamil scriptures devise different types of water bodies for different water usages and water purification, such as Kuṭṭam, Āppu, Eris, Kulam, and Āppāṇai. In all of this, the most unique aspect of Indian hydrologic urban practices is the spirituality linked to water bodies. Water has the power to elevate the consciousness of humans, and this is stressed in the Rigveda, Bhagavata Purana, and Upanishad. This is what differentiates Indian knowledge systems from modern urban science.

[1] Mr Sudarshan Saravanan

PhD Scholar, Department of Climate Change

[2] Dr Shiva Ji

Associate Professor,

Department of Design and Climate Change