



## STEPWELLS OF AHMEDABAD

Online Exhibition | Irwin S. Chanin School of Architecture | 2020

### Preservation, Inhabitation, and Disintegration

Stepwells and other traditional water harvesting systems faced decline or substantial degradation during the early 19<sup>th</sup> century, a trend reinforced by a range of colonial actions such as the imposition of ruinous land tax rates, land commodification, and the dismantling of community control over natural resources.<sup>1</sup> These policies hastened the destruction of the institutions that managed and maintained, through community participation, a series of traditional water harvesting structures including stepwells.<sup>2</sup> In the early 20<sup>th</sup> century, the use of mechanized pumps was encouraged by the colonial state to expand irrigation in Gujarat. Gradually, these monolithic and centralized forms of water provision rendered wells and stepwells obsolete. In the 1960s and 70s, Gujarat suffered multiple droughts,<sup>3</sup> and the post-colonial government upheld centralized, technological solutions for water security as a matter of great urgency.<sup>4</sup> Large river dam projects were built and tube wells became ubiquitous,<sup>5</sup> resulting in drained water tables and dry wells. The decline of stepwells was further catalysed by a plethora of waterborne diseases—in a drastic move, the Indian government walled off stepwells in the 1980s and 90s to check the spread of Guinea worm disease.<sup>6</sup>

The importance of stepwells as a source of water dwindled after they were severed from their ecological cycles. Out of the 17 stepwells documented in this exhibition, only three—*Rudabai vaav*, *Jethabhai vaav*, and *Ambe maata vaav*—still access groundwater seasonally. The current condition of Ahmedabad's stepwells, as documented in this exhibition, vary greatly and can be broadly divided into three categories: those preserved by governmental agencies; stepwells that have been socially integrated into neighbourhoods as places of worship enshrining local goddesses (*maata*); and neglected, physically degraded stepwells. The site and context of some of these structures are elucidated below and documented in the drawings and photographs in this gallery.

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<sup>1</sup> David Hardiman, "Well Irrigation in Gujarat: Systems of Use, Hierarchies of Control," *Economic and Political Weekly*, June 20, 1998.

<sup>2</sup> *ibid*

<sup>3</sup> Bela Bhatia, "Lush Fields and Parched Throats: The Political Economy of Groundwater in Gujarat," 1992, 143.

<sup>4</sup> Kathleen D Morrison, "Dharmic Projects, Imperial Reservoirs, and New Temples of India: An Historical Perspective on Dams in India," *Conservation and Society* 8, no. 3 (2010): 182, <https://doi.org/10.4103/0972-4923.73807>.

<sup>5</sup> Anthony Acciavatti, *Chapter Title: Reimagining the Indian Underground: A Biography of the Tubewell* (Hong Kong University Press, 2017).

<sup>6</sup> Morna Livingston, *Steps to Water: The Ancient Stepwells of India*, 1st ed (New York: Princeton Architectural Press, 2002).

Stepwells with grand, ornate structures have received attention from heritage and tourism organizations and are now maintained through institutionalized processes that restore and preserve their physical structure. For example, the *Rudabai vaav* has been declared a protected heritage site by the Archaeological Survey of India (ASI), and its surroundings have been altered to accommodate manicured gardens, parking facilities, and visitor amenities. Although some interventions are arguably contrived, *Rudabai vaav* has attracted many local and international visitors to Adalaj. Similarly, the exquisite *Bai Harir vaav*, also popular among visitors, is part of a larger ASI complex that includes a mosque and the tomb of its patroness. Another example of a well-preserved stepwell, albeit relatively compact and sparsely ornamented, is *Amritavarshini vaav*. Located within the walled city and notable for its L-shaped plan, this stepwell was declared a protected monument under the Gujarat Ancient Monuments and Archaeological Site and Remains Act, passed in 1965.

Initiatives by local groups to celebrate the legacy and heritage of stepwells are gaining traction in Ahmedabad. New ways of engaging with these structures are emerging, as exemplified by the yearly musical concert held at *Rudabai vaav* during World Heritage Week, and a site-specific art installation at *Ambapur vaav* in early 2020. These initiatives, along with preservation efforts by national and state agencies, have successfully garnered tourist interest. However, they have also contributed to the decontextualized museification of stepwells, rather than reviving their ecological and social dimensions.

In other cases, stepwells have been appropriated by local communities for religious purposes and are now identified by the names of the local goddesses (*maata*) they enshrine. These stepwells have been altered to varying degrees to accommodate their new function. For example, *Maata Bhawani vaav* at Asarva—built in the 11<sup>th</sup> century and the oldest known stepwell of Ahmedabad—is dry, but now houses various small shrines. A recently added shrine of a local goddess, located in the rear wall of its circular well shaft, ensures regular neighborhood engagement. Families residing along the edge of the stepwell have outpaced the government’s involvement by adding over 30 small shrines of various gods, figurative images, and potted plants over the years. This stepwell is now thronged daily by pilgrims, visitors, birds, and animals alike. It is so deeply enmeshed in the life of its neighborhood that it has become the embodiment of a living well.

Another illustration is the *Ashapura maata vaav* in Bapunagar, where the stepwell’s first pavilion has been covered by bright red tiles and converted to a temple, while the rest of the structure below lies untouched. An informal settlement has grown around the stepwell, and its pavilions have been repurposed for drying clothes and grains, and accommodating small gatherings. An old man in the neighbourhood has chosen an unusual spot for his daily siesta. He mounts his *charpai* (wood frame bed) precariously atop the spiral staircase leading to the well shaft, where cool air from the depths of the well keeps the temperature pleasant.

Major spatial transformations at *Khodiyar maata vaav* and *Ambe maata vaav* have rendered the original stepwells nearly unrecognizable. Their conversion to temples, featuring walls redecorated with bright paint and mirror tiles, reflects local sensibilities. New staircases and concrete slabs block access to their lower stories, while their well shafts, though uncared for, offer a glimpse of their former structure. These temple conversions illustrate the dynamic relationship between communities and stepwells which has enabled them to thrive as exuberant, vivacious, and celebratory spaces that revere, through shrines, the feminine goddess.

At the other end of the spectrum, one can find stepwells in a ruinous state, abandoned both as water wells and as social spaces. The stepwell at the village of Bhadaj is buried under unbridled vegetation and has only been partially excavated. Its russet bricks and lush green overgrowth render a rustic charm to the site, which priests from nearby temples light with lamps on special occasions. Social apathy, however, is more apparent in the neighbourhood of Vasna, an informal settlement with a squalid stepwell. Its inconspicuous approach through a recycled furniture shop and a labyrinthine mesh of narrow streets makes the stepwell difficult to reach, and a majestic banyan tree has taken root in the walls of its abandoned shaft.

Some stepwells lie uncared for on private property. For example, the stepwell at Doshiwada ni pol within Ahmedabad's walled city has faced significant physical disintegration. In this compact brick structure, water was previously drawn from its well shaft via an adjacent courtyard. Unfortunately, the well now serves as a neighborhood dump and has been polluted and partly built over. These modest structures have been neither adopted by public agencies nor integrated into the social fabric of their neighborhoods. With no recognition or restoration in sight, they echo the cultural failures of modern urban life.

Whether museified or dilapidated, stepwells are at a risk of being forgotten as providers of the fundamental need for water. When contemplating the future of their legacy and heritage amid shifting notions of function and identity, it is important to remember the larger ecological patterns of the water harvesting structures that were unique to this region (see [Gallery 1](#)). Once deeply embedded in social and ecological rhythms, stepwells and wells were part of a decentralised system that supplied life-sustaining water for centuries. However, today's water infrastructure paradigm is informed by the planning, construction, and management of centralized schemes supporting indefinite urban expansion for a rapidly growing population. This attitude is unsuited to addressing sustainability issues, raising regionally-specific questions about water system scalability and resource management.<sup>7</sup>

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<sup>7</sup> T. H. F. Wong and R. R. Brown, "The Water Sensitive City: Principles for Practice," *Water Science and Technology* 60, no. 3 (July 1, 2009): 673–82.