



DRAWING WATER FROM THE DESERT

The walls of Birkha Bawari resemble vaulted roofs and are supported by trabeated structures

Inspired by traditional designs and the ancient practice of harvesting rainwater in the parched desert, the Gandhis of Ess Gee Group have modernised heritage construction to build a unique stepwell that forms the centre of a self-sustaining 120-acre township in Jodhpur. **MARWAR** talks to Suresh and Gaurav Gandhi about culture and architecture.

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S FATHER-SON DUO SURESH and Gaurav Gandhi passionately described their most formidable project till date, it was difficult for me to remember that this conversation was taking place in a conference room in Mumbai and not at the foothills of the resplendent Umaid Bhawan in Jodhpur—the site of Umaid Heritage. This sprawling township primarily caters to local industrialists, professionals, NRIs and families that trace their roots to Jodhpur. Yet every element here comes together as a modern-day ode to the Blue City. The stone used as building material has been locally sourced and names of localities such as Ghoda Chowk

and Manak Chowk have been borrowed from the old city to name sections of the township. Above everything else, Umaid Heritage is home to Birkha Bawari—'birkha' meaning 'rain' and 'bawari' meaning 'baoli' or 'stepwell'—an architectural marvel that was awarded the first place at the All India Stone Architectural Awards 2009.

Contemporising traditional architecture

The Gandhis' ode to tradition and inclination towards green construction are perhaps explained by their roots, which trace back to Jodhpur. Although they head the Ess Gee Group—a real



Fact file

- The baoli has a daunting length of 735 ft and width of 40 ft with a maximum water depth of 60 ft.
- It was inspired by natural caves and tunnels as well as ancient man-made vaults.
- Most of the material used in building the walls and columns was sourced from within the site of the township and the rest from local quarries.

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estate company specialising in developing townships in Mumbai—with Suresh Gandhi as chairman and Gaurav as director, they both feel an intuitive affinity with Jodhpur. It was only fitting then that they were chosen as the firm to build the township when H H The Maharaja Gaj Singh II of Marwar-Jodhpur decided to plan a one-of-a-kind real estate project in the city.

Designed by Jodhpur native and National Award-winning architect Anu Mridul, Birkha Bawari is a rainwater harvesting system—stand-alone in terms of its make and design. If I were to deconstruct its layout, I would describe the stepwell as a series of symmetrical facing walls, held together by a central, trabeated support structure. The arched walls, only 0.7 m thick, mimic the form of a vaulted roof. Water is collected within the structure as a whole—there is fluid movement from one well to the other, with enclosures only

at extreme ends. The baoli is connected to all the houses in the township through underground channels, a system that helps streamline the water collected from various rooftops.

The thinness of the walls, the linear, symmetrical progression of the wells and the cautious use of beams to transfer thrust on opposite sides (instead of load to the ground) ensures that the stepwell can collect the maximum volume of water. The baoli is designed in a way that minimises any wastage of water and serves the dual purpose of storing water as well as irrigating the green areas in the vicinity. Indeed, the gardens need heavy upkeep. If walking in one direction, one can walk up to 2.5 km at a stretch! Complementing the gardens and the baoli is a courtyard. Locally known as the ghat, it leads to the baoli and is open to all the residents of the township, making it an extremely inviting area for evening chat and stroll, mimicking the social culture of such constructions of the days gone by.

Paving the path to the future

Baolis and ghats are common in Rajasthan. In fact, two historic baolis lie near Jaipur—Chand Baori at Abhaneri



IMAGE: GIREESH SHARMA
LOCATION: COURTESY: PING PONG, BANDRA, KURLA COMPLEX, MUMBAI

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and Raniji ki Baori at Bundi, built in the 9th and the 17th centuries respectively. Though these are no longer in use today, the surrounding area has seen massive development since. In developing Umaid Heritage in Jodhpur, the Gandhis have paved the way for sustainable development in another city of Rajasthan. “The baoli is a unique concept, especially relevant today when there is tremendous shortage of water in arid regions like Jodhpur. It is an apt example of sustainable, green architecture, and we expect it to save hundreds of litres of water every year,” explains Gaurav Gandhi.

Jodhpur, being the second largest city of the state, comes with a great mix of industrial and tourist activity. A borewell, located close to the site of the development, simplified the process of sourcing water for building and cementing purposes. Solar panels and parks are being developed here as well, making this area an apt location for a project of this nature. With Umaid Heritage, the Gandhis have not only transformed Jodhpur into a real estate hub, but have also proved that tradition and modernity can walk hand in hand. An added feather in the Gandhis’ cap is

the bestowal of the ‘Best Environmental Safety Award’ from CNBC AWAAZ-CRISIL & CREDAI at the Real Estate Awards 2010. They hope that the township can serve as a model for future sustainable projects in Rajasthan.

Bathed in hues of red (because of the sandstone used in the construction of the villas and three- and four-bedroom flats), the township resembles the various buildings in the old city, while retaining its own character. A two-storeyed shopping arcade and a clubhouse give residents world-class facilities, though no skyscrapers or malls will be seen here. Understanding the sensibilities of its people and the essence of the city’s culture, Suresh and Gaurav Gandhi could have created 20-storeyed towers but chose not to. Suresh Gandhi aptly sums it up: “We have underutilised the land as far as its saleability is concerned, but in this way, we have retained the city’s charm.”*

Clockwise from above: The ghat or courtyard of the baoli is used as an informal meeting place by the township’s residents; A view from within the baoli; Views of the township; Suresh Gandhi and Gaurav Gandhi