Step back in time

A millennium ago, stepwells were fundamental to life in the driest parts of India. These unique structures, hewn from stone, provided year-round access to groundwater, and were a focal point for the community. Although many have been neglected down the centuries, recent restoration efforts have returned them to their former glory. Richard Cox travelled to northwestern India to document these spectacular monuments from a bygone era. Additional reporting by Marc Grainger
Previous page: Panna Meena ka Kund, Amer, Rajasthan. Located in Amer, the previous capital of Rajasthan, this 16th-century stepwell has been renovated at a cost of around 400 million rupees (£5 million). About eight metres of muck and silt had to be removed from the tank.

Above: Chand Baori, Abhaneri, Rajasthan. Built in around 850 AD, Chand Baori is one of the largest and most impressive stepwells in India.
since time immemorial, the hot, and climate of northwestern India has been abruptly punctuated by the monsoon from July to September, when the rains arrived to quench the land’s thirst. But this respite was fleeting, and water remained at a premium for the rest of the year, particularly in the Thar Desert, a barren region that covers large parts of the modern-day states of Gujarat and Rajasthan.

During the sixth and seventh centuries, the inhabitants developed a method of gaining access to clean, fresh groundwater during the dry season for drinking, bathing, watering animals and irrigation. However, the significance of this invention – the stepwell – goes beyond its utilitarian application. Unique to the subcontinent, stepwells are often architecturally complex and vary widely in size and shape. During their heyday, they were places of gathering, of leisure, of relaxation and of worship for villagers of all but the lowest castes. Men gained respite from the heat in the covered pavilions, while the women had a rare chance to chat among themselves while drawing water for their families.

Most stepwells are found dotted around the desert areas of Gujarat (where they are called vav) and Rajasthan (where they are known as baori), while a few also survive in Delhi. Some were located in or near villages as public spaces for the community; others were positioned beside roads as resting places for travelers. And while the wells largely fell into disuse in the days of the British Raj, they remain prime examples of medieval Indian architecture.

Deep Spaces

As its name suggests, stepwells comprise a series of steps descending from ground level to the water source (normally an underground aquifer) as it recedes following the rains. When the water level was high, the user needed only to descend a few steps to reach it; when it was low, several levels would have to be negotiated.

Some wells are vast, open craters with hundreds of steps plying each sloping side, often in tiers. Others are more elaborate, with long stepped passages leading to the water via several storeys built from stone and supported by pillars, creating covered pavilions that sheltered visitors from the relentless heat. But perhaps the most impressive features are the intricate decorative sculptures that embellish many stepwells: deities, mythical beings, royalty and creatures are depicted in all manner of activities, from fighting and dancing to everyday acts such as women combing their hair and churning butter; some even portray erotic acts.

Religious beliefs were intrinsic in the design of the wells. The water itself was considered to have innate life-giving properties, and the wells were believed to be dwellings for water-borne deities who should be worshipped in order to guarantee health, prosperity and fertility. Many wells were connected to temples, while others would contain a number of shrines.

Most wells were built by the regions’ rulers as acts of benevolence for the community. The earlier wells, constructed under Hindu rule, were planned by Brahmin (high-caste) architects and built by Sompara engineers and labourers. By the 14th century, many Hindu kingdoms had fallen under Muslim rule, but stepwells continued to be built – albeit with slightly different intentions. Their access tended to be restricted to the aristocracy rather than the general public, their religious significance was lessened and their designs revealed Islamic influences. Muslim princes would sometimes employ Hindu craftsmen to work on them, while using many of the Hindu methods, helping to keep alive their religious traditions.

Down the centuries, thousands of wells were constructed throughout northwestern India, but the majority have now fallen into disuse; many are derelict and dry, as groundwater has been diverted for industrial use and the wells no longer reach the water table. Their condition hasn’t been helped by recent dry spells: southern Rajasthan suffered an eight-year drought between 1996 and 2004.

The demise of the stepwell came during the 19th century, after the subcontinent fell under the rule of the British Empire. The British Raj, believing them to be unhygienic, banned their use; instead, tanks and pipes were installed to deliver water to rural areas. The colonialists were worried about the danger of waterborne diseases and parasites, such as the guinea worm, which is often found in stepwells. But overall, this policy failed to recognise the value of these wells to the community as a social and religious focal point; a century later, the newly independent Indian government continued to endorse rural taps, sealing the wells’ fate.

Saving the Wells

However, some important sites in Gujarat have recently undergone major restoration, and the state government announced in June last year that it plans to restore the stepwells throughout the state.

In Patan, the state’s ancient capital, the stepwell of Rani Ki Vav (Queen’s Stepwell) is perhaps the finest current example. It was built by Queen Udayamati during the late 11th century, but became silted up following a flood during the 13th century. But the Archaeological Survey of India began restoring it in the 1960s, and today it’s in pristine condition. At 65 metres long, 20 metres wide and 27 metres deep, Rani Ki Vav features 500 distinct sculptures carved into niches throughout the monument, depicting gods such as Vishnu and Parvati in various incarnations. Incredibly, in January 2001, this ancient structure survived a devastating earthquake that measured 7.6 on the Richter scale and left an estimated 25,000 people dead throughout Gujarat.

Another example is the Surya Kund in Modhera, northern Gujarat, next to the Sun Temple, built by King Bhima I in 1026 to honour the sun god Surya. It’s actually a tank (kund) means reservoir or pond) rather than a well, but displays the hallmarks of stepwell architecture, including four sides of steps that descend to the bottom in a stunning geometrical formation. The terraces house 108 small, intricately carved shrines between the sets of steps.

Rajasthan also has a wealth of wells. The ancient city of Bundi, 200 kilometres south of Jaipur, is renowned for its architecture, including its stepwells. One of the larger examples is Ranji Ki Baori, which was built by the queen of the region, Nathavatji, in 1699. At 46 metres deep, 20 metres wide and 40 metres long, the intricately carved monument is one of 21 baoris commissioned in the Bundi area by Nathavatji.

In the old ruined town of Abhaneri, about 95 kilometres east of Jaipur, is Chand Baori, one of India’s oldest and deepest wells; aesthetically, it’s perhaps one of the most dramatic. Built in around 850 AD next to the temple of Harshat Mata, the baori comprises hundreds of zigzagging steps that run along three of its sides, steeply descending 11 storeys, resulting in a striking geometric pattern when seen from afar. On the fourth side, covered verandas supported by ornate pillars overlook the steps.

Still in public use is Neemrana Ki Baori, located just off the Jaipur–Delhi highway. Constructed in around 1700, it’s nine storeys deep, with the last two levels underwater. At ground level, there are 86 colonnaded openings from where the visitor descends 170 steps to the deepest water source.

Today, following years of neglect, many of these monuments to medieval engineering have been saved by the Archaeological Survey of India, which has recognised the importance of preserving them as part of the country’s rich history. Tourists flock to wells in far-flung corners of northwestern India to gaze in wonder at these architectural marvels from 1,000 years ago, which serve as a reminder of both the ingenuity and artistry of ancient civilisations and of the value of water to human existence.

Richard Cox will be touring his exhibition 'Subterranean Architecture: Stepwells in India' in 2008–09. For details, visit www.richard-cox.co.uk
Above: the water tank in the 18th-century city palace, Alwar, Rajasthan. This large tank is flanked by four pavilions on each of its two longer sides and two more at each end; Right: Gulli Ji Baori, near Bundi, Rajasthan. A great many of India's stepwells have fallen into disuse, in many cases the result of a ban on their use put in place by the British Raj; Below left: Neemrana Ki Baori, Rajasthan. This large well, built by Thakur Janak Singh in 1700, has 270 stone steps descending nine storeys and is still in use today, the water used both for human consumption and for irrigation; Below centre: Nahargarh Cistern, Rajasthan. One of two cisterns on the mountains overlooking Jaipur, Nahargarh Cistern was built in 1732, its unusual asymmetric construction taking advantage of the prevailing hilltop terrain; Below right: Dada Hari Vav, Gujarat. Located in Asarva, the Dada Hari