Water Collective
Multifunctional public space, Thecho, Nepal

Main authors
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Project data
Project group: Architecture, building and civil engineering
Client: Thecho Mahila Jagaran Women’s Saving & Credit Co-operative
Project background: Research project
Planned start: February 2017

Summary and appraisal of the project by the jury
This project replaces an existing dilapidated guesthouse with a new multifunctional building. The new structure restores and enhances a historic Paati – a type of covered public space – that was damaged in the 2015 earthquake. Wrapped around the Paati with its carefully restored 100-year-old carved wooden columns and insets is a plinth design with a water tank at the center. The tank is used to collect and store water to enhance disaster preparedness. Above the tank is an open room for community use. When needed, the seismically sound structure can also be used as an emergency shelter. The roof collects rainwater, which is distributed to exterior taps for washing and laundry. For drinking water, a bio-sand filtration systeminside the complex purifies water for a second set of taps. Through this system, the building provides safe water to the community – something the municipal system lacks.

The jury considered the design to be highly commendable in providing a space equally suitable for everyday life and times of crisis. Out of the need to provide basic infrastructure, it produces social space, drawing on the traditional role of water collection as a social activity. Its social sustainability is further strengthened by its operators: a local women’s cooperative, whose control over the water will have an empowering effect. In a region struggling to provide access to clean water, the social and infrastructural solution is also highly transferable.

Statements on the sustainability of the project by the author
Historic preservation (Place – contextual and aesthetic impact)
Paatis are reminders of a benevolent society who built these small rest houses across the Kathmandu Valley for weary travelers. Today, these urban architectural archetypes remain an essential focal point for their communities, in use as resting, public meeting, and religious celebration spaces. Since the earthquake in 2015, many are in desperate need of repair and revitalization. This project carefully restores the 100-year-old carved wooden columns and religious insets of the central Paati in Thecho, while enveloping it in a new life. The new building pays tribute to traditional Newari architecture through its angles and rhythms of the structure and wood detailing, while imprinting the concrete water infrastructure as a modern sculpture carved for protocols for different uses.

Women’s empowerment (People – ethical standards and social inclusion)
In Thecho, women often spend more than 4 hours a day looking for clean drinking water. The municipal system only runs 20 mins in the morning and 30 mins in the evening, and never at a scheduled time. With the need for clean water, a bottled water based small business enterprise would be highly transferable.

Sustainable Water Use and Disaster Preparedness (Planet – resource and environmental performance)
Through the architecture of the new building, this project is able to collect rainwater, well water, and contaminated municipal water and filter it through a customized bio-sand filtration system. The water system is the literal foundation of the new structure, while different water uses pull from different heights, pushing and carving the walls of the main tank. The tank is sculpted so that if there is an earthquake, the drinking water is prioritized through the height of the water level. The plinth ensures that wastewater is recharged back into the ground. By integrating multiple sources of water, and by especially focusing on rainwater harvesting through the shape of the roof, this project becomes a scalable pilot for a region that is struggling for access to clean water every day.

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