

# Kutch Stone Shrine Community Project in Gujarat/ India

**Nishant Lall**

-NilaA Architecture & Urban Design, New Delhi  
 -Professor of Urban Design, SPA New Delhi  
 -Advisor, Disaster Risk Management, World Bank, Delhi

## Abstract

Kutch Stone Shrine is a community courtyard space with a shrine for a local community (sindhi community) that was dispersed after the cultural disarray that followed India-Pakistan partition in 1947. Located on a unique geographical promontory that acts as the western most tip to India, the site has huge constraints with respect to heavy earthquake zone, saline water and rocky desert soil. Local stone structures with masonry dated 200 years in the area were found most suited for the project. The project also aims to revive stone techniques and develop customized masonry for the wall, shrine structural system and spire. Local stone varieties were sampled and tested for strength and further stone brick sizes were optimized by local stone artisans. Finally, two stones from Andhav and Dhanedra region was

chosen for foundation and superstructure. Three wall systems were developed and designed incorporating confined masonry, quetta wall systems for corridor and modified shear wall system for the main shrine. The use of cladding is minimized as they eventually fall off during an earthquake. The main shrine is a bell shaped plan with confined masonry and modified corbelled-shear wall is created to highlight angularity and denote the shrine to water deity. The Corridor system encloses a courtyard to reduce direct heat gain and provides shade to the visitors in the harsh desert climate. This includes an outer corridor with a stone screen wall and an inner corridor with wooden panels to aid cross ventilation.



Figure 1. Working with Stone/ Source. Nishant Lall



Figure 2. Preliminary Design in 2017 / Source. Kanwaljeet Kaur

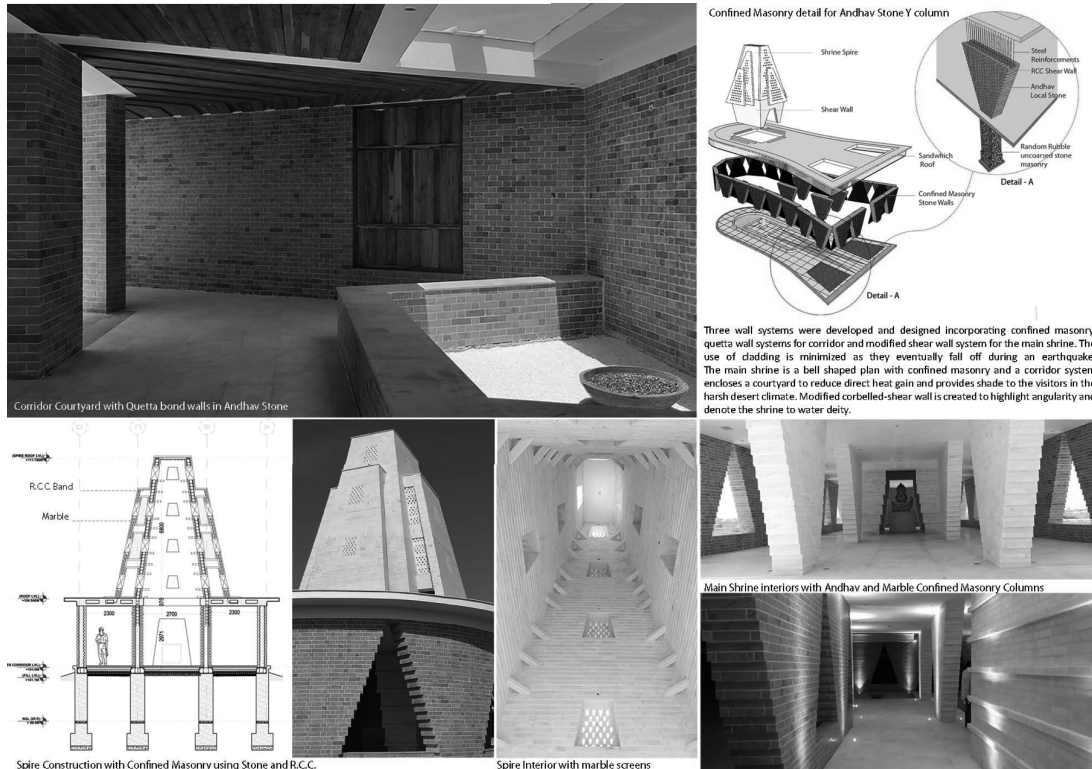


Figure 3. Stone Brick Masonry and Earthquake Mitigation / Source. Nishant Lall