

Evolved Courtyard

Dhayari Bungalow by Pune based architectural firm Design Praxis evolves courtyard house typology and adopts Laurie Baker's innovations to befit the contemporary, yet holding on to its roots.

Text: Fatema Kabir
Photographs: courtesy the architects



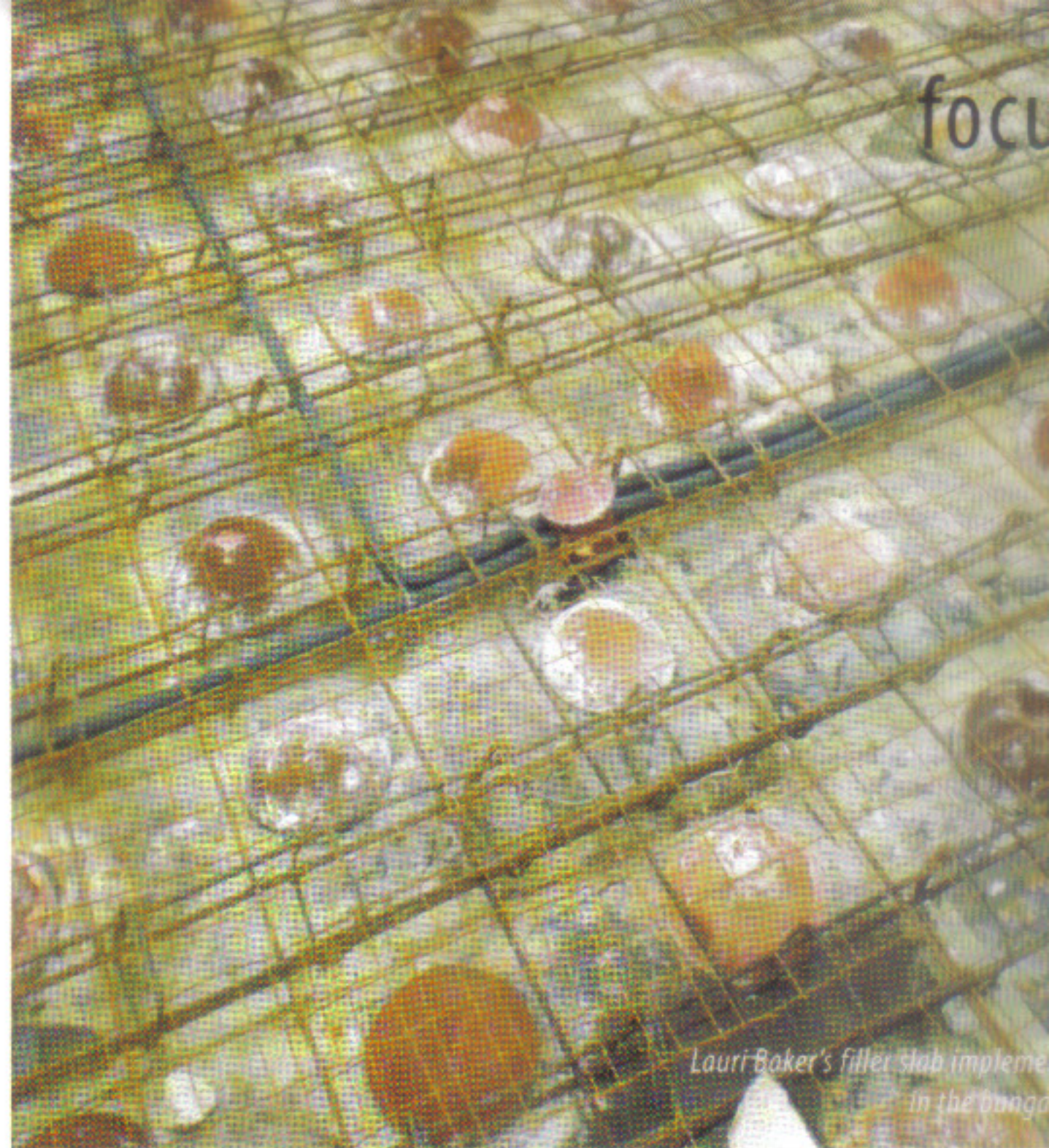
Dhayari Bungalow: Facade reflecting material efficiency.

Environment friendly designs were called rural architecture until today when in the name of sustainability, the local influences have evolved to befit the contemporary. Located in tropical climate; the Dhayari Bungalow adopts a vernacular residential house typology of a courtyard house and Laurie Baker's material innovations to evolve and befit the contemporary. Provision of photovoltaic cells from future perspective makes the design more energy efficient. The

roof sheeting is also of white colour, which reflects most of the heat. Architect Laurie Baker has been a pioneer in innovating with material that binds the culture to the contemporary even today. Use of his 'Rattrap' bond saved 75 per cent of brick in the design in comparison to a standard brick layout in the same length wall. Use of his filler slab roofing is another such example for simple economic design. Design Praxis team did not end at Laurie Baker's innovation. They



Dhayari Bungalow: louvers made from shipwreck wood



Lauri Baker's filler slab implemented in the bungalow



Interior view showing play of light.

successfully recycled timber and exploited the obtained stone to its fullest. 40mm thick plywood for music room floor was obtained from the deep freezer of the ship wrecker. White pine/chil timber beams obtained from shipping yard served as support system for the floor. Old doors were altered to fit new dimensions. The louvers, door frames and the window frames were made out of recycled wood from the strips. Traditional basalt fetched from Belgaum region of Karnataka,

was used for external wall in contrast with the white limestone and the chipped leftovers of the white stone were used for landscaping.

The architects exploited the sloping site to evolve sustainability not only with material but also in design. Owing to the immediate constraints of no municipal water supply lines on the site the design team was forced to adopt rainwater conservation as a design



Dhayari Bungalow: interior view showing use of local material and natural light

element. The runoff rainwater was captured in an underground tank of 20,000 litres capacity. Then the water was pumped to overhead tank in the loft space of the house. Solar panels located on the roof supplied energy to heat the water. Also the multiple fenestrations at lower levels and provision of louvers at upper levels allows the courtyard concept to work in a fluid manner complimented by the contoured characteristic of the site that lets the cross ventilation work between the leeward and windward sides encouraging play of natural light and ventilation.

While being energy efficient the opening also captures strategic views of the site. Strategy of juxtaposition played in capturing the views is also seen to create ambiguity in the façade. One can keep guessing the front façade, it could be any of the following; the elevation seen from the road while approaching the house, the one opposite the main gate, the one facing the side lane or the one viewed from the garden. While the front façade remains ambiguous, Design Praxis answers multiple queries on root based sustainable design. ■



The ambiguous external facade of the bungalow.

FACT FILE:

Project	:	Dhayari Bungalows
Client	:	CS Shekar
Location	:	Dhayari, Pune
Status	:	Completed
Architect	:	Design Praxis: Shivendu Jauhari, Neha Saxena and CS Shekar (owner)