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**ARCHITECTURE
OF LEARNING**
Schools and Communities



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Singapore SGD15

Thailand THB290

Vietnam 190,000

DPS KINDERGARTEN SCHOOL

The architects were assigned to design a franchise for a popular North Indian school chain, the Delhi Public School (DPS). With the intention to replicate the design across several schools in South India, a simple and cost-effective prototype was necessary for easy adaption to variations in site conditions and programmes.

The kindergarten is the first of four blocks constructed in the master plan. It will be followed by the construction of junior, middle and senior school blocks that will eventually cater to 4,000 students. The current kindergarten facility houses 25 classrooms, accommodating a total of 1,000 students.

Tasked to complete the 3,252-square metre kindergarten block within a six-month time span at an efficient cost, the architects had to balance the need for design efficiency and rapid construction with their determination to create a warm, playful and welcoming environment filled with natural light and ventilation for young children.

This goal was achieved by constructing an efficient modular system that could be used as building blocks for the kindergarten. The architects looked to a basic module of a 65-square metre classroom that could be repeated horizontally, or stacked atop one another. The classrooms on either side flank a 2.5-metre wide, single-loaded corridor that leads to a central open-to-sky courtyard.



2 A single skewed staircase painted red breaks the linearity of the court 3 Exterior view 4 Site plan 5 The open-to-sky central courtyard with masonry seatings and planters



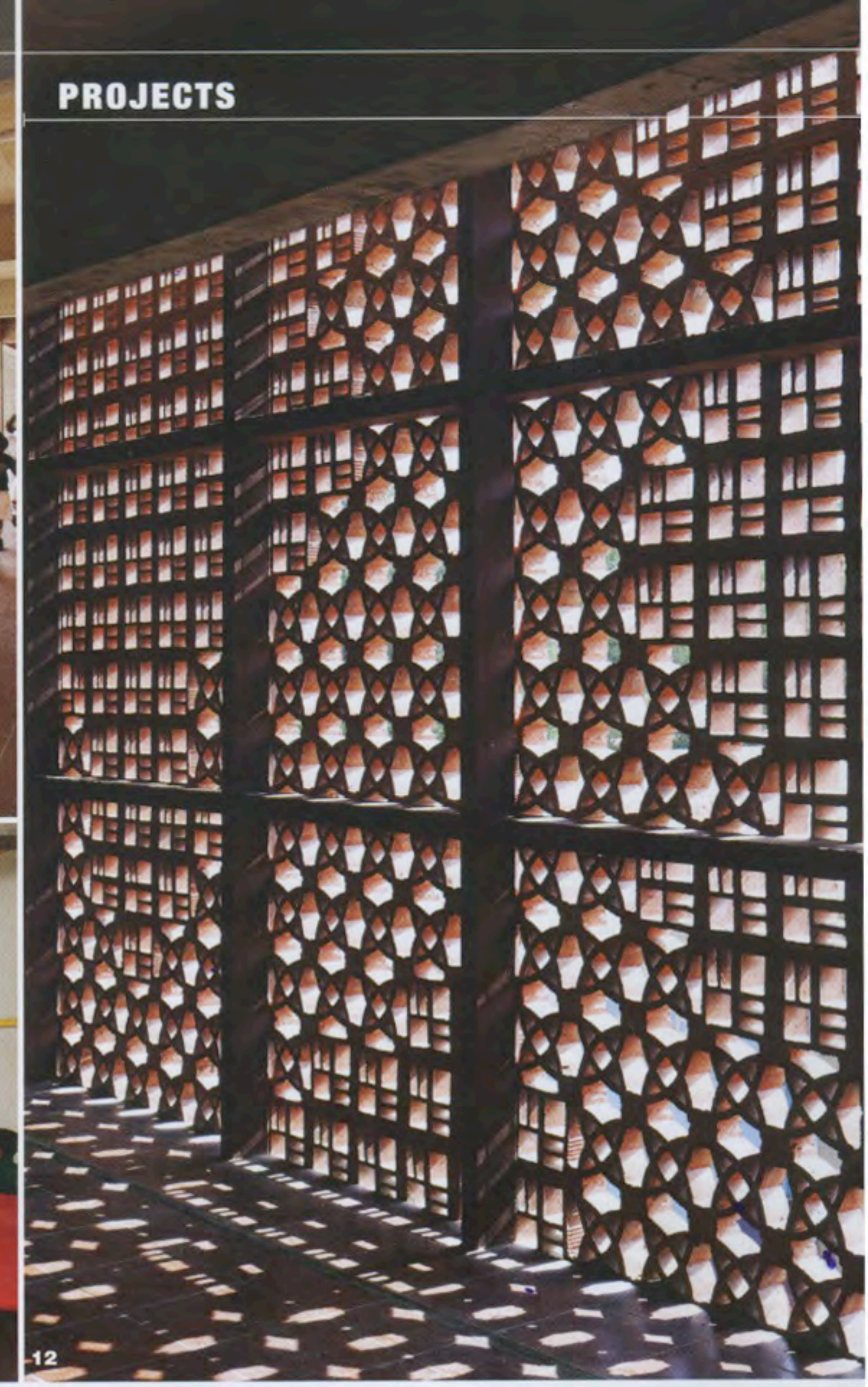
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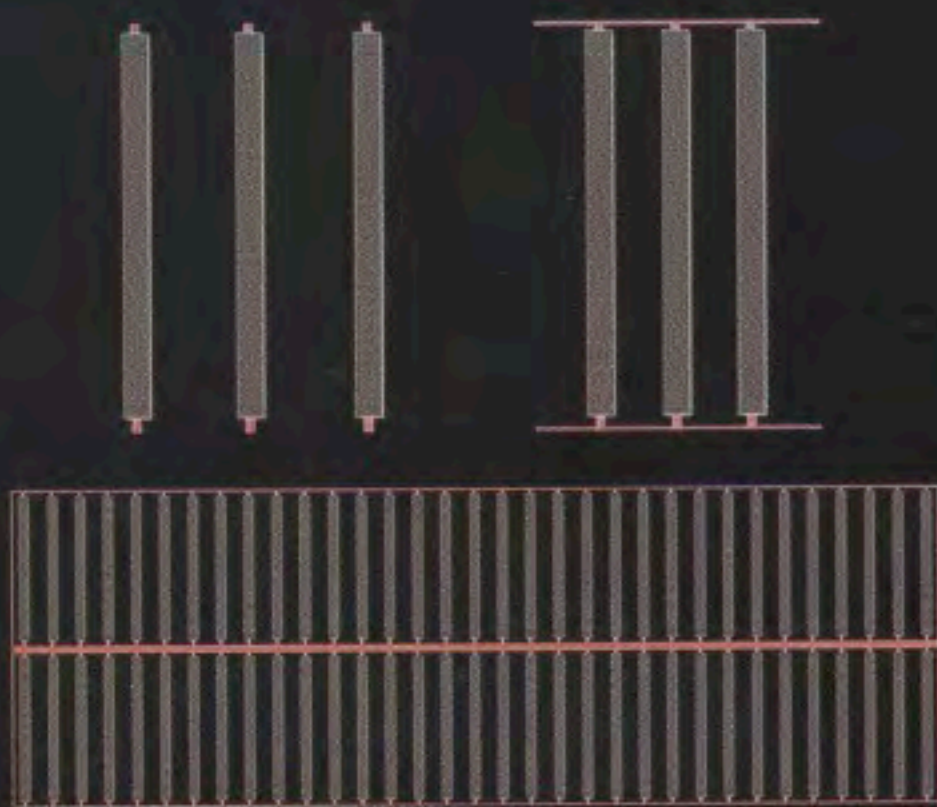


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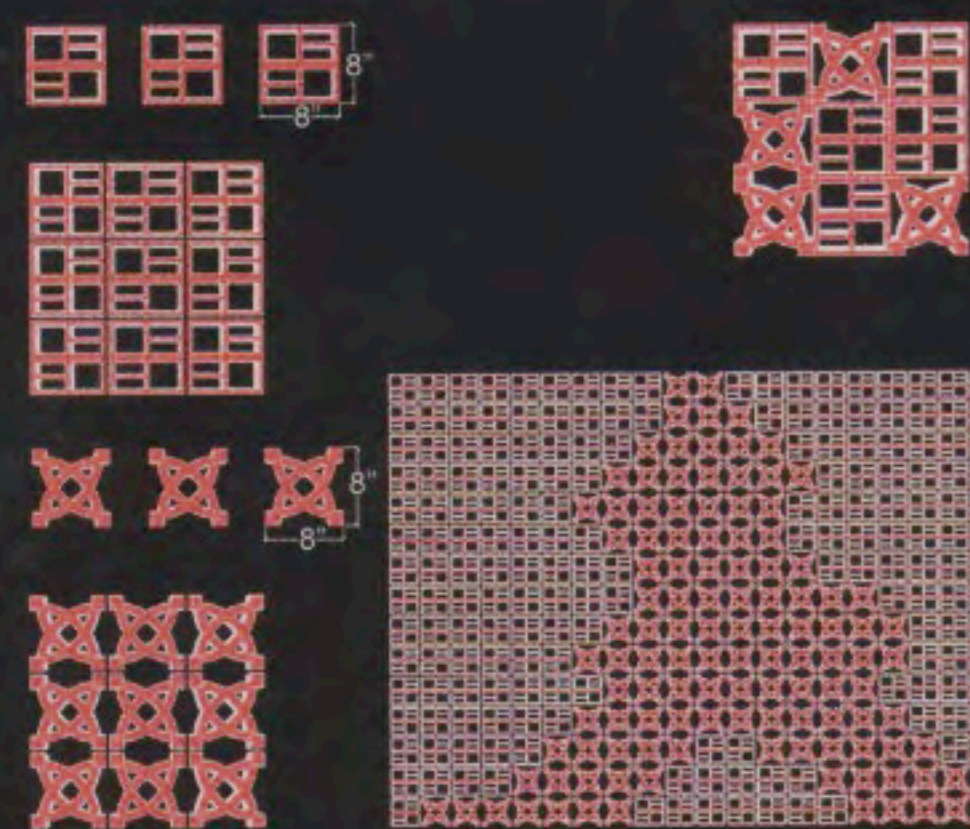


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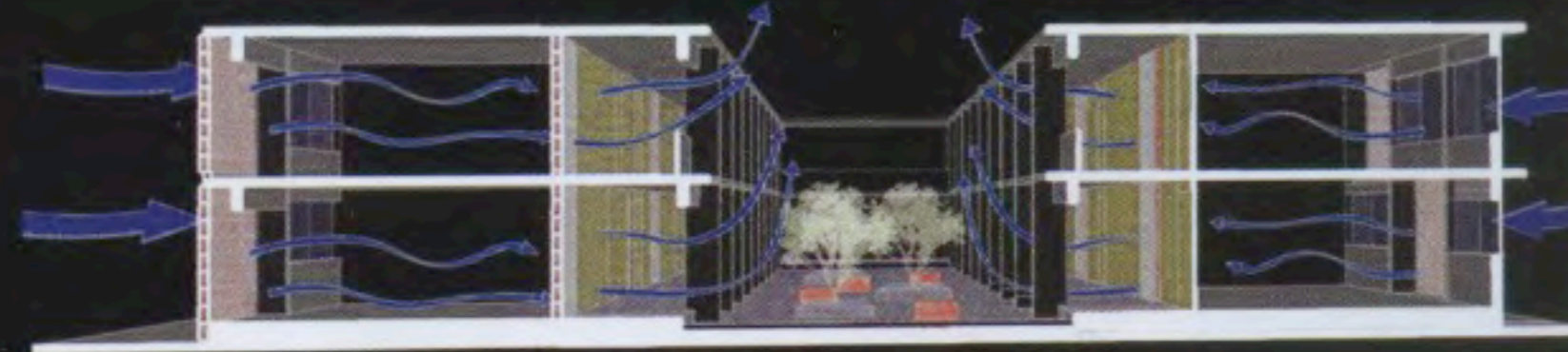
PROJECTS



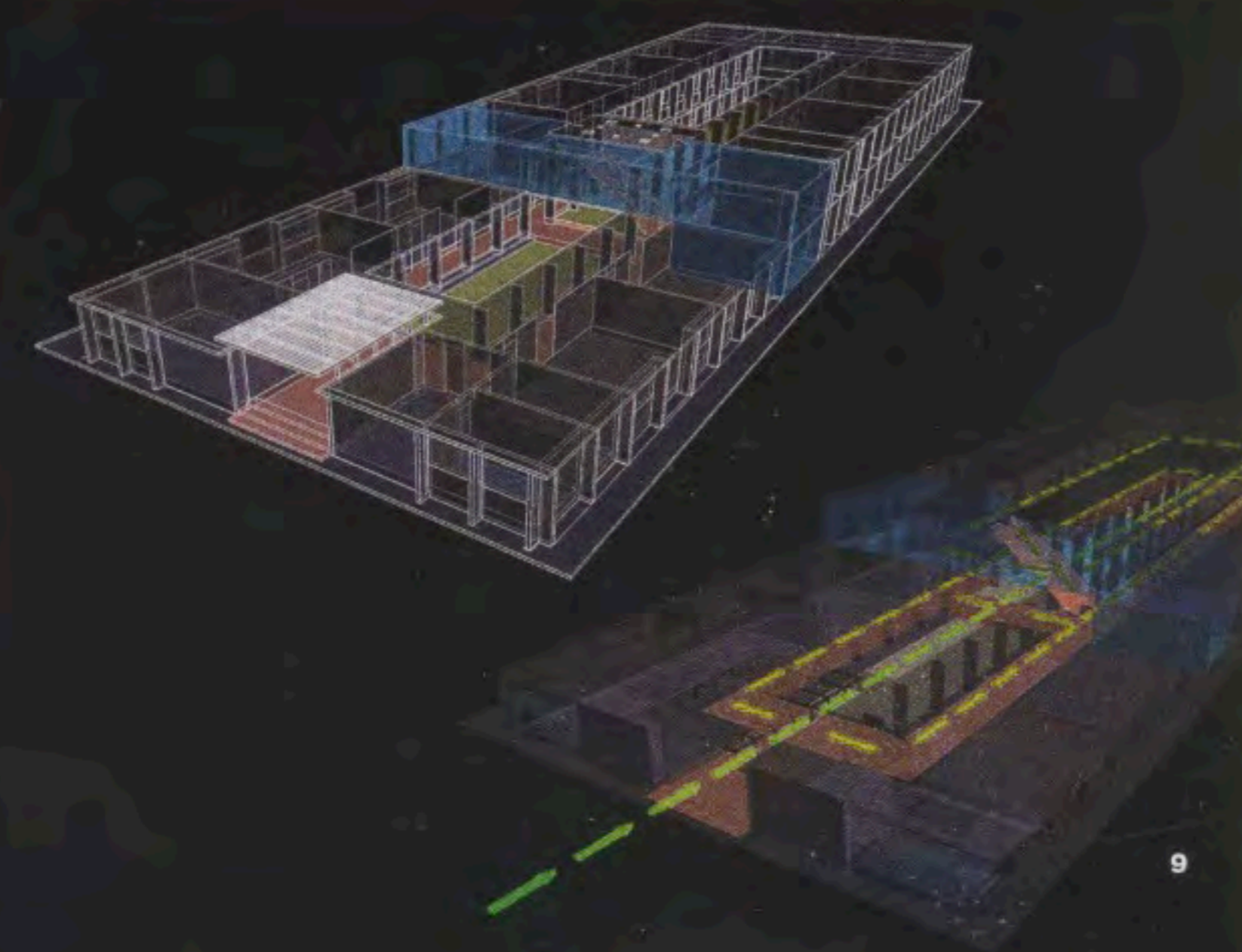
Horizontal pergola and screen wall module



Jaali module



8



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MATERIALS

The simple exposed concrete structure eventually dictated the design outcome, where flexible layers were later added on to it. A corrugated metal wall was added on all corridors, serving the dual purposes of facilitating construction speed and also withstanding the wear-and-tear school corridors usually acquire after a period of time. The corrugated sheets provided the added opportunity to play with patterns and tropical colours typical of the architecture of the region, many of which reflect local traditions.

Terracotta *jaalis*—shading and ventilation screens used traditionally in India—are also contextual references to vernacular architecture. Wrapped around parts of the building, they are included on both sides of each classroom to aid adequate cross ventilation from northeast to southwest. The use of *jaalis* in breakout areas cuts down solar glare, particularly on the western face of the kindergarten.

A number of devices were incorporated after taking sun directions into consideration: horizontal and vertical pergolas and a combination of two different designs of *jaali* on the exterior, creating interesting patterns on the building at different times of the day.

COURTYARD

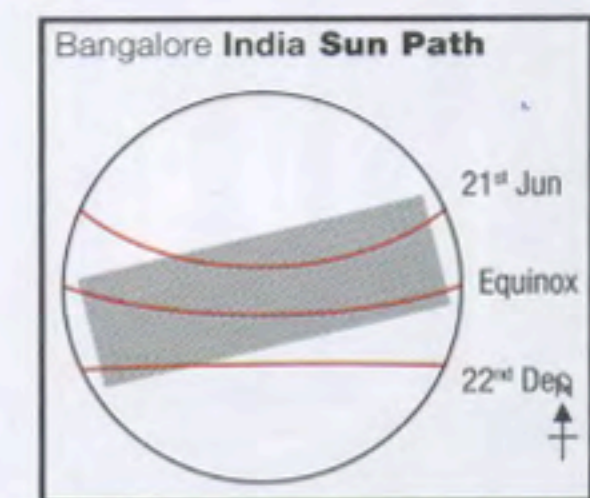
The soul of the school is the central linear open-to-sky courtyard that runs the entire length of the building, facilitating learning outside the classroom. The temperate climate of Bangalore allows for open-air discussions on benches surrounding the courtyard trees or on the steps of corridors. In an age where air-conditioned schools are becoming increasingly popular, an energy-efficient and

cost-effective approach that minimises electrical load by harnessing breezes and natural light during the day helps to ensure a Greener way of living and learning.

The DPS Kindergarten School was the winner of the "Education" category in the "INSIDE" awards at the World Architecture Festival 2013. — Edited by Ho Pei Ying

PROJECT DATA

- Project Name**
DPS Kindergarten School
- Location**
Bangalore, India
- Completion Date**
May 2013
- Site Area**
4,085 square metres
- Architecture Firm**
Khosla Associates
- Principal Designers**
Sandeep Khosla; Amaresh Anand
- Other Designer**
Bijeta Bachaspati
- Project Manager**
Kris Cooper Pvt Ltd
- Landscape Architect**
Garden World Pvt Ltd
- Civil and Structural Engineers**
S&S Associates; Gomini Constructions Pvt Ltd
- Images/Photos**
Shamanth Patil J.; Khosla Associates



6 View of staircase from the top
7 Detail of terracotta *jaalis*
8 Section showing ventilation
9 Circulation diagram 10 The staircase leading to the upper level
11 Classroom interior with cross ventilation via the *jaalis* on both sides 12 A combination of two different patterns of terracotta *jaalis* on the exterior skin casts patterns on the floor