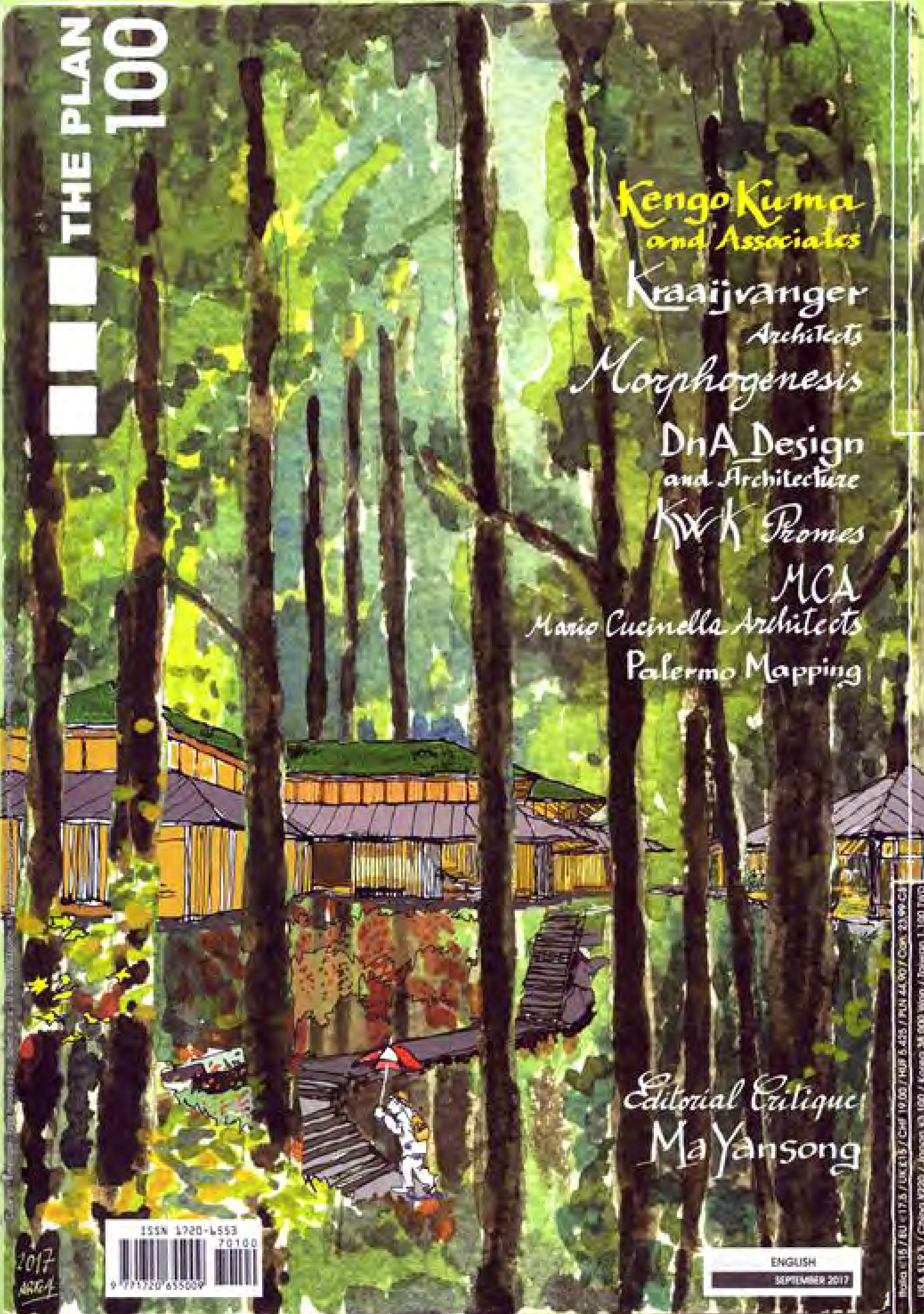

THE PLAN 100

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2017 NATGA

THE BRITISH SCHOOL

AN INTERNATIONAL EDUCATION WITH AN INDIAN SOUL

NEW DELHI, INDIA

ARCHITECTURE

Morphogenesis

© Randhir Singh

The new British School in central New Delhi gives physical form to the concept of "an international education with an Indian soul". In setting itself this rigorous cultural framework, architecture practice Morphogenesis has produced a program that couples international with contemporary Indian architecture.

Over the last two decades, the global economy has pushed architecture to standardize the way projects are designed and built. Although recognising this international yardstick, Morphogenesis' approach to contemporary Indian architecture has nonetheless Remained anchored to traditions that reflect its many different environments.

With this vast heterogeneous project, Morphogenesis combines two elements that aptly sum up the Indian contribution to global architecture: pertinence to context, i.e. buildings that are profoundly rooted in, and suited to their environment, and an ability to overcome material sourcing difficulties with natural and sustainable solutions.

In India, as in other regions where materials are scarce, contemporary architecture projects excel at finding compromise construction techniques that rely on the availability of low-cost labor. Employing local workers and craftsmen not only makes up for the lack of mechanized building capability; more importantly, it sustains the general economy and communities that make a living from their traditional know-how. In this sense, architectural projects take on a wider, more complex significance that has to do with sustaining social, cultural and time-honored ways of life. The worksite becomes a means of helping traditions and local craftsmanship survive.

This approach was very much to the fore in the building of the new British School in New Delhi. As well as a complex, participative project designed to suit its particular physical context, the new school also took on board these wider social and functional implications.

From the outside, the building presents as an imposing white block with perforated walls. Inside, four semi-enclosed courtyards are the pivotal points around which all the classrooms are arranged.

The project brief was to increase the school's intake from 650 to 1,300 pupils. The new school had to be built, however, without interrupting the ongoing school year. This constraint understandably underpinned the whole design and building strategy and demanded meticulous planning during all phases of construction. The first step was to build a perimeter block on an unencumbered area of the plot. Once built, this new construction became the center of ongoing school activities. The now vacated old school was then rebuilt to provide more classrooms, laboratories, gyms and performing arts spaces.

The shortage of resources was the second constraint. The solutions found - both environmentally viable and economical - took their cue from traditional building methods. As a result, mechanical air conditioning has been kept to a minimum thanks to careful orientation of the classrooms, which face either north or south to minimize exposure to the sun. The pattern of the perforated walls, the landings running around the courts and the recessed terraces facilitate air circulation through the building and create shaded areas for students to gather.

Outdoor spaces have also been designed to make open-air learning feasible in the New Delhi climate. As a result, students can study on the verandas or in the inner courts in the shade of ancient trees that have been carefully preserved, coming into direct contact with nature in a way that recalls the traditional *chaupal*, the hub of village community life.

Set on different levels, the staircases and platforms that articulate the courts are both aesthetically pleasing and socially functional. They also incorporate a visible rainwater harvesting system that references an ancient means of storing monsoon rains for use during the dry season.

Another constraint - turned into an opportunity - was the continuing involvement of the new school's main users: pupils, teachers and parents, who were organized in groups to analyze and discuss the ongoing project and propose changes. One of the proposals that got included in the program was the creation of breakout spaces - semi-enclosed environments scattered around the school that can be put to various uses. Placed in transition areas, these breakout spaces are a fundamental part of the school experience, facilitating exchange and social and cultural awareness among pupils of the 55 nationalities attending the school.

From ideation to user involvement during the building phase, right up to completion, the British School project was an example of open-mindedness to the different communities it caters for, and rootedness in its Indian context.

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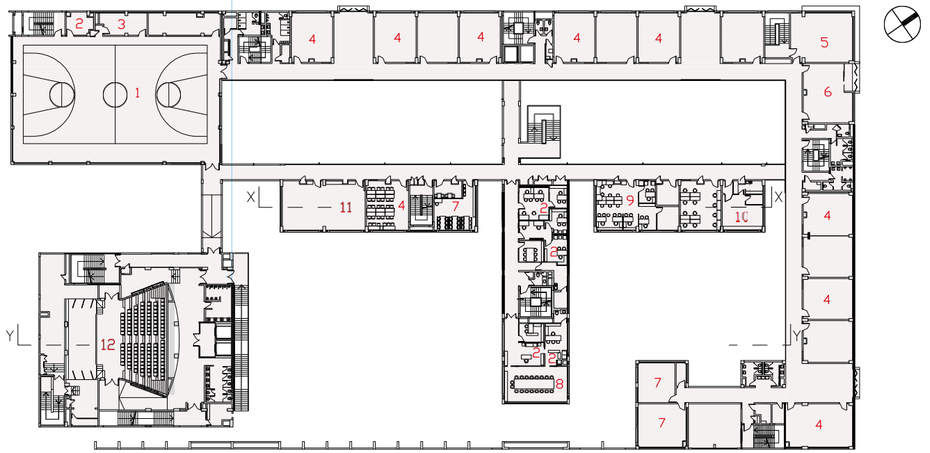

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- 2nd Floor plan
  Scale 1:800

1 Sport hall
2 Office
3 Store
4 Classroom
5 Library
6 Staff room
7 Seminar room
8 Boardroom
9 IT room
10 Darkroom
11 Dance studio
12 Auditorium

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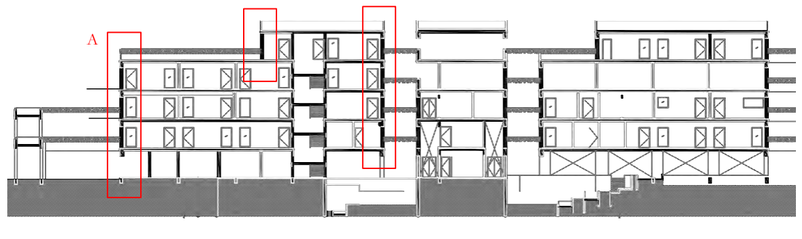
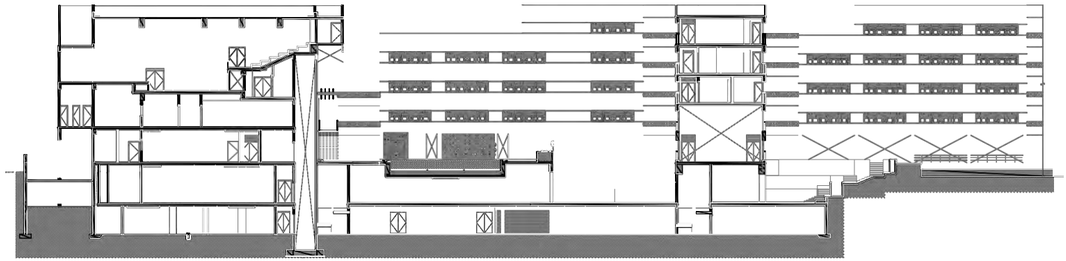


■ XX Section - Scale 1:600



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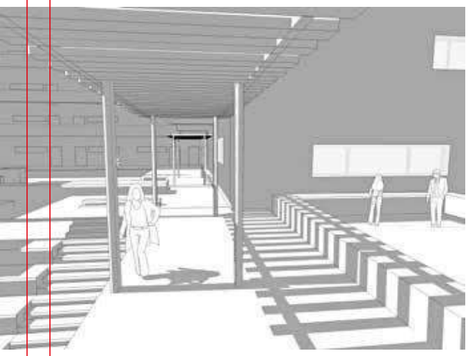
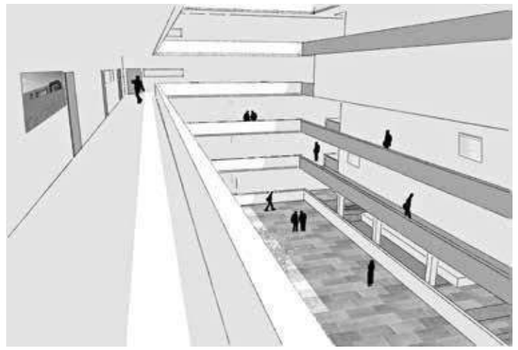
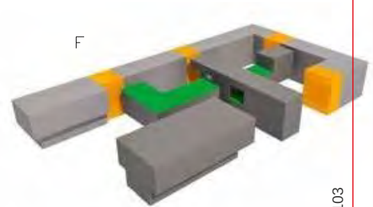


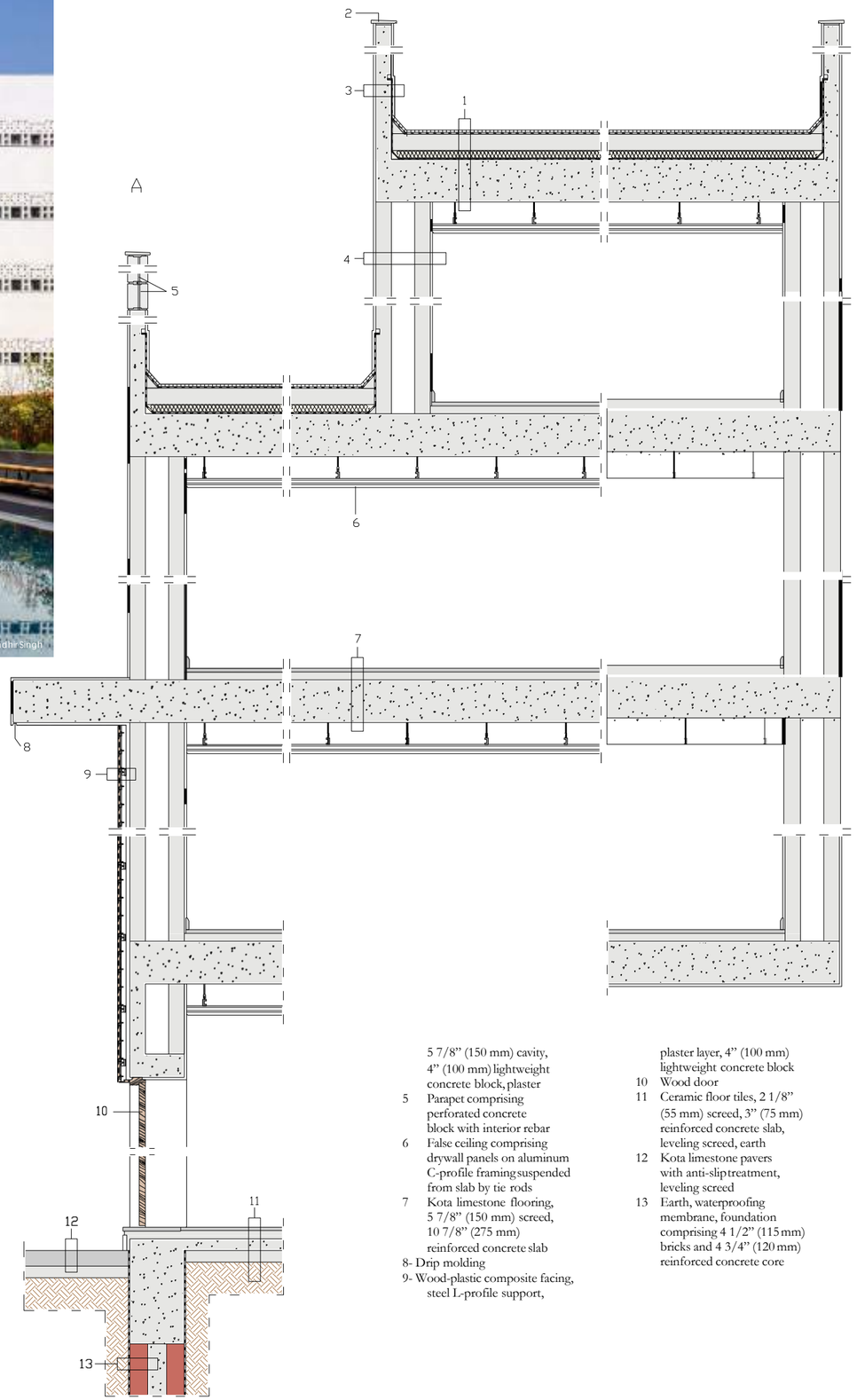


■ Rendering of the inner court design and circulation routes

■ Diagram of the different phases of the building's development

A- Existing school
B- The new perimeter block built near the existing building prior to its demolition
C- Applying the "Tetris" concept to the distribution system
D- Paring of the volumes to create the inner courtyards
E- Placing the largest volumes on the southern façade to create shady inner courts
F- Terraces and multiple-height verandas positioned throughout the building for greater permeability





Detail A: Construction system
Vertical section - Scale 1:30

1 Roof comprising mosaic, waterproofing membrane, screed forming slope, 2" (50 mm) rigid insulation, waterproofing membrane, 10 7/8" (275 mm) reinforced concrete slab
2 Stone capping
3 Parapet comprising plaster layer, 4" (100 mm) reinforced concrete structure, waterproofing membrane, plaster layer
4 Exterior wall comprising plaster layer, 4" (100 mm) lightweight concrete block, 5 7/8" (150 mm) cavity, 4" (100 mm) lightweight concrete block, plaster
5 Parapet comprising perforated concrete block with interior rebar
6 False ceiling comprising drywall panels on aluminum C-profile framing suspended from slab by tie rods
7 Kota limestone flooring, 5 7/8" (150 mm) screed, 10 7/8" (275 mm) reinforced concrete slab
8- Drip molding
9- Wood-plastic composite facing, steel L-profile support,
10 Wood door
11 Ceramic floor tiles, 2 1/8" (55 mm) screed, 3" (75 mm) reinforced concrete slab, leveling screed, earth
12 Kota limestone pavers with anti-slip treatment, leveling screed
13 Earth, waterproofing membrane, foundation comprising 4 1/2" (115 mm) bricks and 4 3/4" (120 mm) reinforced concrete core

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CREDITS

Location: New Delhi, India - **Client:** The British School Society - **Completion Date:** 2017 - **Site Area:** 21,500 m²
Architect: Morphogenesis

Consultants
Structural: Optimal Consultants - **HVAC, Plumbing, Electrical and Fire System:** Aecom - **Landscape:** Design Cell - **Façade:** Morphogenesis - **Environmental:** TERI and Green Tree - **Lighting:** I N Basu and Associates, KLM Designs - **Project Management:** RRA Project Management

Contractors
Landscape: Thomas and Co., Skyline - **Interiors:** Woodkraft India, Vadhera Builders - **Electrical:** Bharat Electricals, Distribution System and Control - **Plumbing:** Gupta Sanitation, Advance Solution - **HVAC:** Fairair - **Façade:** Windorz - **Signage:** Vision DIS - **Fire Fighting:** DS Fire and Systems

Suppliers
Aluminum, Windows, Façade: Windorz India - **Elevator:** Mitsubushi Elevator India - **Concrete Façade:** Modern Tiles & Marble - **Rain Water Harvesting Equipment:** Empire Tubewells - **Swimming Pool:** Watcon Water Specialist **Air Conditioner:** Fairair Engineers - **Sports Hall Fit Out:** Star Infra Design

Text by Caterina Testa
All images courtesy of Morphogenesis