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INDESIGN

INTERIORS ARCHITECTURE DESIGN

FORMWERKZ ARCHITECTS' NEW EXPRESSION FOR TRADITION

ARDMORE RESIDENCE BY UNSTUDIO | RT+Q ARCHITECTS | DPS KINDERGARTEN BY KHOSLA ASSOCIATES
JALAN MAT JAMBOL HOUSE BY ZARCH COLLABORATIVES | LATTICE OFFICE BY FDAT ARCHITECTS



STRONG POETRY

KHOSLA ASSOCIATES CREATES AN
UPLIFTING PIECE OF ARCHITECTURE ON
A TIGHT BUDGET IN THE DELHI PUBLIC
SCHOOL KINDERGARTEN IN BANGALORE.



Spaces are kept bright and well ventilated through the use of terracotta walls as screens



‘THERE ARE TIMES WHEN A particular set of constraints in a project creates an unexpected result, when the simplest of interventions provide the most rewarding solutions.’ Speaking of his experience in designing a franchise for a Delhi Public School (DPS) in Bangalore, Principal Architect Sandeep Khosla of Khosla Associates presents a fitting example of how constraints can become opportunities instead of mere items to resolve.

Khosla Associates was established in 1995 by Sandeep Khosla, who studied architecture at Pratt Institute, New York and previously worked as an associate with Charles Correa in Mumbai. Sandeep was joined by associate Amaresh Anand in 2000 and their team of about 15 has since won numerous awards, the most recent one being the World Architecture Festival in Singapore 2013 for their DPS project. The office’s area of specialisation has largely been in residential single family houses and villas as well as several hospitality projects, but when an old friend and client (for whom they had previously designed a house) approached them in December 2012 to design a franchise for the popular North Indian school chain they gladly took up the challenge.

DPS has about 200 schools across India, the Far East and the Middle East and is reputedly one of the largest school chains in the world. Their model is to create high volume schools and, with the economies of scale, provide the best facilities and education to children from all sectors of society. As Khosla Associates was to provide a model that could potentially be replicated across several schools in South India, they were asked to focus on creating a simple and cost effective typology that could be adapted easily to different site conditions and slightly varying programmes.

Located in Bangalore, South India, the site lies on the outskirts of the city facing paddy fields, greenery and villages. Coupled with the pleasant location, the high altitude of Bangalore also results in moderate temperatures that range between 14 to 33 degrees Celsius throughout the year.

Khosla Associates thus began designing an entire master plan comprising a kindergarten, junior, middle and senior school block that will eventually cater to 4000 children. Sitting on 111,483sqm of land, the current completed building is the kindergarten facility (of 3,251sqm) that has 25 classrooms, and a total

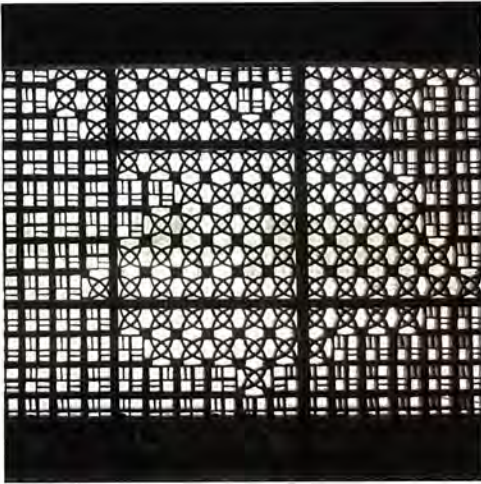
Left: The skewed main staircase breaks the mainly rectilinear character of the building

Right: All corridors face the courtyard meant to facilitate learning outside the classroom



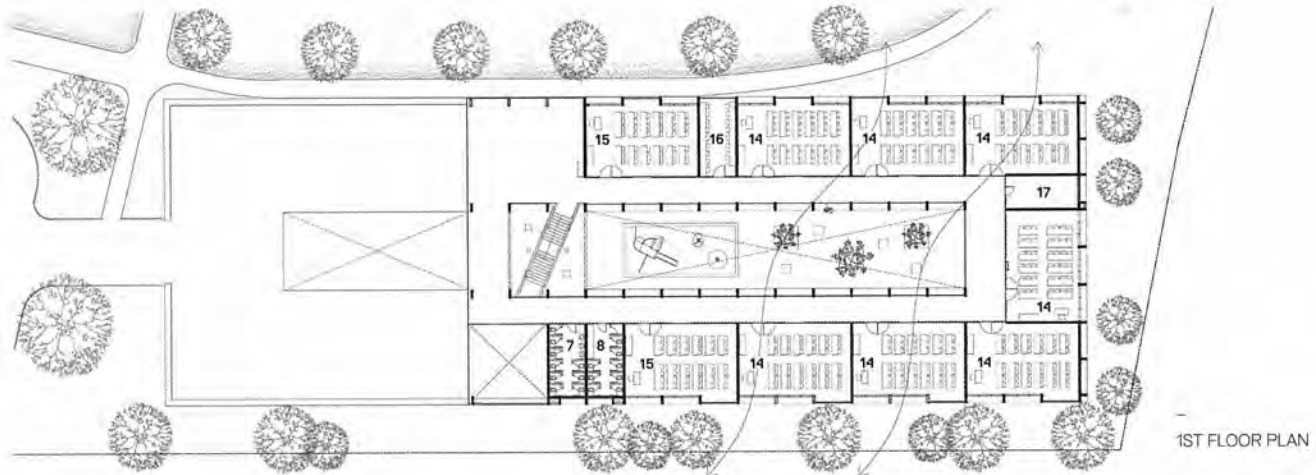
“WE ENJOY CREATING WORK...THAT HAS A HINT OF NOSTALGIA WHILE BEING WHOLLY CONTEMPORARY AND INNOVATIVE.”

» SANDEEP KHOSLA

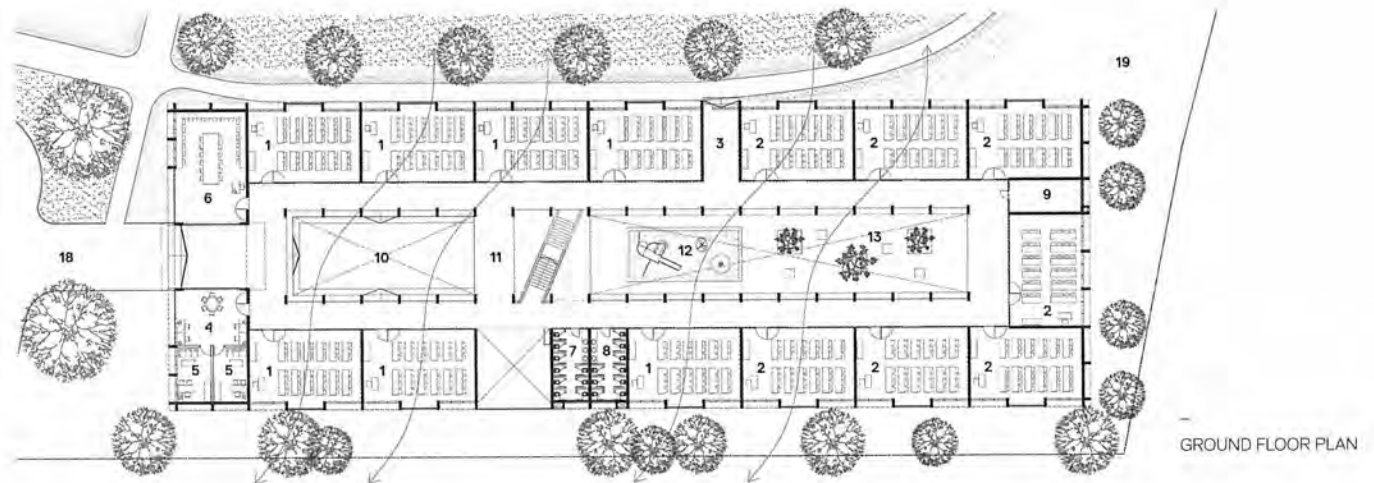


LEGEND

1 Nursery | 2 LKG (Junior Kindergarten) | 3 Fire Exit | 4 Administration | 5 Office | 6 Computer Lab | 7 Boys Toilet | 8 Girls Toilet | 9 Electrical Room | 10 Assembly Area | 11 Stage | 12 Sandpit | 13 Courtyard | 14 UKG (Senior Kindergarten) | 15 Class Room | 16 Laboratory | 17 Staff Room | 18 To Driveway and Junior, Middle, Senior Blocks | 19 To Playground



1ST FLOOR PLAN



GROUND FLOOR PLAN

Top: The facade screen pattern is eye-catching but not over designed

Bottom: The plans show the building orientated to harness the prevailing winds

strength of 1,000 children aged between 3 and 5 years.

Working within a tight time frame of six months and an extremely streamlined budget of about Rs. 1200/sqft (USD 20/sqft) for the kindergarten block, Sandeep shares that one of the biggest challenges was that the “efficiencies of designing and constructing a building so rapidly had to be balanced with what we believed in; creating a warm, playful and welcoming environment for these young children that would be filled with natural light and ventilation.”

As such, the massing of the kindergarten block is kept simple and rectangular (read: highly constructible). Sandeep elaborates that the “low budget and strict timelines did not allow us the luxury of separate budgets for the architecture and interior design, so the visual impact and comfort of the interior spaces are a direct result of the basic, stripped down materials used architecturally, and the play of light through them.” The architects thus focused on using materials like concrete and terracotta that could be left unfinished without looking too bare.

The building is made up of modular classroom units lined up along the perimeter, encasing two separate courtyards within. This, explains Sandeep, harks back to the ancient Indian *Gurukul* tradition where students imbibed wisdom sitting at the feet of their Guru under the largest tree in the village, usually in a large courtyard surrounded by huts. In their own design, the courtyard “is the soul of the school and facilitates various activities and learning outside the classroom. The temperate climate of Bangalore allows for open-to-sky discussion on benches surrounding the courtyard frangipani trees or on the steps of the corridors. All community activities take place in the courtyard.” Displaying a keen example of how the office was able to balance the



low budget with what they believed in, Sandeep adds that there tends to be “a certain romanticism to our work...and we enjoy creating work which references the old; that has a hint of nostalgia while being wholly contemporary and innovative.”

The spaces are strong and simple with minimal decorations; instead, practical elements like perforated sun screens (*Jaalis*) are infused with thoughtful detail to prevent the building from looking too grim. These perforated terracotta blocks, traditionally made of red and yellow sandstone, wrap around a large extent of the building and act as an external skin that promotes cross-ventilation. The team used two varieties of the perforated blocks (a star and a rectilinear shape) that come in 8 x 8-inch modules and combined them in different ways, creating patterns on the sun screens that are interesting yet not too ornamental. The main staircase leading to the second floor is the only skewed element in the building, and is further articulated with its painted red finish. More discreet touches include the slight setting back of the second level, giving the first entrance courtyard a more pronounced atmosphere. Such moves transform the building



Top: The red staircase injects life into the kindergarten

Bottom: Brightly coloured corrugated sheets keep the corridors cheery



from what could otherwise appear very rudimentary into something so effortlessly natural that it almost belies the challenges that came with its conception.

To combat the heat in the day, a stack effect is induced where cooler air is drawn into the courtyard by the windows and screens on the external classroom walls, through the inner walls and into the low pressure area of the courtyard. Eight-foot deep colonnades shade the internal walls of the classrooms against direct sun and rain, while also creating a dramatic rhythm along the corridors. Cross-ventilation played a large factor in the design and Sandeep proudly states that there are no air-conditioned spaces in the building. This was achieved by strategic angling of the building massing to effectively harness the cross breezes.

Staying close to their design philosophy that “architecture should be rooted in one’s environment and to a particular site”, Sandeep emphasises that while the office ‘works with an international style, we draw inspiration from traditional concepts, craft, as well as local materials. We have a strong focus on the experiential aspects of architecture and strive to modulate our designs to create beautiful, peaceful or dramatic spaces.’ This is especially relevant in a period where we are still holding debates on what constitutes vernacular architecture and the extent to which ‘Western ideas’ can be taken reference from.

Such poetic, strong spaces definitely help in suspending the belief that good architecture always comes with a high price tag. Instead, what Khosla Associates have created is an extremely simple (yet not simplistic), rational building with rich, uplifting spaces. To modify Rudy Ricciotti’s description of his museum in Marseilles, it has all the bones and sinew of an Ethiopian athlete, and the quiet grace of a Greek muse. «

Top: Deep corridors protected from sun and rain provide for comfortable transition spaces

Bottom: The facade is a well-regulated interplay of *jaalis* screens and glass windows



DPS KINDERGARTEN SCHOOL

ARCHITECTURE FIRM Khosla Associates
PROJECT TEAM Sandeep Khosla, Amaresh Anand (Principal Designers), Bijeta Baschaspati
STRUCTURAL ENGINEER S&S Associates
CIVIL ENGINEER Gomini Constructions Pvt. Ltd.
PROJECT MANAGER Kris Cooper Project Consultants Pvt. Ltd.
LANDSCAPE CONTRACTOR Garden World Pvt. Ltd.
TIME TO COMPLETE 5 months
TOTAL FLOOR AREA 3,251sqm

KHOSLA ASSOCIATES
 (91) 80 2527 8186 khoslaassociates.com

FINISHES
 Exterior Building Skin and Breakout Area is Perforated Terracotta *Jhaali* Blocks from Terra Tiles, Corrugated Puff Insulated Metal Sheets for School Corridors from Lloyd Metals, Polished Vitrified Tiles in Classrooms from Regent Tiles.

Lloyd Metals lloyds.in Regent Tiles (91) 080 3293 1009
 regentgranito.com Terra Tiles (91) 80 551 1048 terratiles.com



Top: Contemporary appropriations add a breath of fresh air to utilitarian materials

Bottom: Bright ruby-coloured paint complements the dusty red of the *jaalis*