

# BUILDING STORIES

SHIMUL JAVERI KADRI IS ADEPT AT BREATHING LIFE INTO BUILT SPACES, TELLING TALES OF NATURE'S BEAUTY THROUGH THE MATERIALS SHE CHOOSES

BY MARIA LOUIS



## MATERIAL WHIRL

"Rammed earth as a building material can be ecologically friendly when used in the correct context. It is also honest and beautiful. The carbon footprint of RCC, steel and fired bricks is high, and earth-based materials are gentler and use the resources of the land and the sun appropriately. We are currently using CSE blocks with the help of Hunnarshala, a Kutch-based NGO. I love the use of hinges and hardware — neat, clean hardware that allows you to open and close a built space with ease. Large, undivided doors that bring the inside out and vice versa. Laminated glass is another technology that has made grills redundant and large spans of glass safer from breakage and theft." - SJK

She is a raconteur par excellence, as anyone who interacts with Shimul Javeri Kadri at close quarters would know. Her stories are recounted as much with words peppered by gestures and facial expressions as they are with stone, wood and other building materials that she handpicks with care and concern for the context. Sunsets, colours of the earth, long walks amidst nature, sunlight, rain; pure whole foods and clothing that is plant-based... these are a few of her favourite things. Ask the ecologically-sensitive soul about her enduring source of inspiration — and the answer is trees! "I think of trees each time I need ideas, inspiration or simply joy. They delight me, each with its varied morphology and adaptation to its conditions," exclaims the architect who is best described as a child of the earth. "I believe in universal connectedness and love people and honesty. I have little tolerance or aptitude for anything false, including false ceilings — we consider them an excuse not to think."

While architecture was her first choice, Shimul entered the field in the 1980s, at a time when it was considered second choice for those who did not get into medicine or engineering. "I was very keen on architecture for its combination of science and the arts — but I had to please my parents by attending a chemical engineering college and a medical college for a month, before I could settle down to architecture at the Academy of Architecture in Mumbai," she recalls. For her, the days in college were all about idealism and getting acquainted with the Masters — Louis Kahn and Corbusier,

followed by BV Doshi and Charles Correa; 'vernacularism' as practiced by Laurie Baker and Hassan Fathy; and plain, simple drafting with a T-square and a drawing board.

After graduating, she went to the USA to do her Master's in Architecture and realised she had enough architecture under her belt. About the early days, Shimul says, "I loved the flexibility and opportunity to study politics, sociology, economics through a Master's in Urban Planning, and discover 'grounding' and meaning in design. So, in many ways, I put the cart before the horse and studied liberal arts after architecture."

Armed with her Master's degree in Urban Planning, the idealistic young architect considered working in policy and planning — so that she could impact the housing sector in a city where 67% of people live in slums. "I was daunted by the lack of private sector institutions working in the area, and couldn't see myself working in the public sector. I also needed to make a living — buy an office, etc; and I realised my most marketable skill was still architecture. I started by helping friends with the odd interior project, and was given my first break: to design the interiors of an office for a garment exporter at Nariman Point in Mumbai."

Shimul maintains that this first interior project taught her innumerable skills. "I still recall the pounding heart with which I approached the site of work. To watch one's imagination being translated into reality, in short quick bursts for an interior project, is indeed magical. I learnt about communicating with the client, cost effectiveness, material detailing. It was one of the steepest learning curves of my life."

## SJK ARCHITECTS: SHIMUL JAVERI KADRI'S SUCCESSFUL TEAM BUILDING EXERCISE



Shimul Javeri Kadri with her associates Vaishali Shankar and Sarika Shetty (seated on either side of her), backed by the rest of the SJK Architects team.

Shimul Javeri Kadri started SJK Architects in 1990 in Mumbai, after studying architecture at the Academy of Architecture in Mumbai, and Urban Planning at the University of Michigan, Ann Arbor, USA. The nature of the practice has been to use the sun and the wind to their advantage to create inside-out environments that are ecologically sound and naturally beautiful. They have worked across India in the areas of education, hospitality, corporate offices and cultural buildings, developing unique

identities based on the historical legacy of the area as well as the climatic situation. This translates to buildings that sit naturally in their environments rather than mechanised boxes that alienate people and their culture.

The firm has always been fairly small — between only 15-20 people, and pivots around associate architects Sarika Shetty and Vaishali Shankar (who, together, head and run the architecture projects) and Roshni Kshirsagar (who heads interior design for the firm).

Their use of contemporary innovations that draw from Indian traditions has won them the World Architecture Festival prize in 2012, the Futurarc Green Leadership award (Singapore), the E+D C&Tucker awards (USA), the ArcVision award (Italy), Prix Versailles award (for Architecture & Interiors) in 2016, and several national awards from the Indian Institute of Architects (IIA), as well the Institute of Indian Interior Designers (IIID).



PHOTOGRAPH: BAJIRAO PANVAR

The project led to a series of assignments to design interiors of commercial spaces and residences. But after a couple of residential projects, Shimul decided not to accept these commissions. "They were not professional enough, and I did not want to be stereotyped as a woman working out of her home, designing interiors of homes. As my clients grew in their needs, I was able to design factories, office buildings and bungalows for them and begin a practice in architecture. Mainstream architecture has been quite unlike academics. It has been about understanding, touching and feeling materials, modes of construction, client relationships and, most importantly, the art of Aikido – of using every obstacle to improve and enhance design."

The next milestone in her journey was a small building for two Ayurvedic doctors in Kandivali, Mumbai. "It was a very tight urban site, and I learnt to use every square inch of FSI, to work closely with climatic directions and create a building that was intensely 'Indian' in character, perhaps too literally!" she suggests. Then there was an office in a burnt-down warehouse in Kalachowki, Mumbai – which Shimul describes as "a delightful project that demanded careful detailing and services integration." It was the beginning of a love affair with industrial roofs and the honesty with which one expresses materials and details – to play with volume

and light. She then designed a factory in Karur, Tamil Nadu, for the same client. "This was truly a watershed project for our office, using low-cost local technologies and optimising climate to create a naturally-lit and ventilated building."

Shimul has a deep appreciation for buildings that celebrate life, light and honesty of materials. Her favourite projects are the step wells of Hindu architecture, Fatehpur Sikri from the Mughal times, the fort at Orcha, the IIM in Bengaluru by Dr.BV Doshi, and several contemporary firms and projects like Raas in Jodhpur by Lotus, Mathew & Ghosh's work in Bengaluru, and Matharoo in Ahmedabad. Like all examples of good architecture, her work often borders on art. Shimul believes, however, that architecture cannot escape its utilitarian purpose. "The utilitarian value of architecture is what makes it a living, evolving science; and its ability to create intense emotion is what validates it as an art form."

"Art is a form of self-expression. It reflects the concerns of a society and has a highly emotional quotient to it," she continues. "So, whereas architecture embodies the arts, it is not strictly art – since it has a scientific and logical aspect to it. I think Louis Kahn's work went well beyond the programme for the Indian Institute of Management (IIM) in Ahmedabad and translated the aspirations of an entire society into a beautiful and meaningful environment."

SJK Architects was founded in 1990, around the time when the then PM Narasimha Rao opened the Indian economy to the forces of liberalisation and globalisation. Since then, the architect notes that she has seen the joys of greater open-mindedness and better technologies as well as the ravages of material misuse and an aping of the worst of global culture. "We are going through a form of cultural colonisation, where we believe that our late entry into globalisation warrants a speedy inclusion of the symbols of global success – glass and aluminium; steel and concrete," she observes.

While she finds the current trend [of permitting market forces to determine the streetscape and how we live and work] alarming, Shimul believes that advocacy and planning will reverse the spate of developer-driven architecture – but adds that it's anybody's guess whether this will happen with the next generation of architects or later.

She maintains that architecture is both a symptom as well as an influence on the society it exists within. "I have no doubt in my mind that an environment is hugely influential on thought, emotion and general well-being," she declares. "However, humans have immense resilience and adaptation – and, therefore, the ability to ignore and desensitise themselves from their environment. That is another form of alienation that capitalised globalised economies have created."

The work done by SJK Architects stands for values – for the environment, for cultural honesty and for people-centric living and building. While there have been plenty of wonderful projects – some houses, several retail identities, some office projects, all leading to growth, exploration and some wonderful relationships – Shimul considers the most significant building block in her practice to be the creation of a team. "My associates are two highly-motivated, like-minded individuals who have been able to take charge of projects. This has enhanced our ability to improve our systems, research, document our details and do far better work as we mature and grow," she declares with justifiable pride.

Egalitarian democratic societies, a deep respect for nature and living with it, and a fundamental belief in people and their connectedness are what drive Shimul's world view. This translates into buildings that sit comfortably and naturally in their environments – shorn of a certain egotistic individu-

1. Shimul Javeri Kadri on her favourite seat in the SJK Architects office.

alistic character – buildings that embrace natural materials, the sun and the wind. “Our projects are extremely diverse in character and location, but address aspects of land, people and materials. This, in a country as diverse as India, leads to a celebration of its cultural richness,” she points out.

The architect is very specific about what she would like to be remembered for – and we are quite sure she is already making an impact by doing what she yearns to: creating a studio that works democratically and encourages thought and independent responsibility; raising children that have a fire in their belly and a responsibility to the world they live in; being honest and doing the best she knows for her clients’ needs; enjoying beauty and creating it; designing holistic buildings that speak of nature and joy and humanity; reviving the craft of building – that is indigenous to various parts of India.

For Shimul, a dream project is defined by her relationship with the client. “An encouraging, understanding client leads to dream projects – whether they are small and challenging, in the middle of the city or large and sprawling rural environments,” she insists. “As a student, I wanted to work in

low-cost housing. Over time, I recognised that the solutions necessary were not design-based – but land/policy-based.” While all their work has aspects of significance in their minds and in the growth of their practice, over the past two and a half decades, certain projects have been landmarks for SJK Architects, as they entailed a paradigm shift in thought, concept, detail and execution. Among them, the principal architect lists Ayushakti, Karur, Nirvana, Leaf House, Mahindra (Automobile Design Studio), the training centre at Latur and the museum for Jain heritage.

Apart from playing mentor to the architects that pass through her office and friends’ kids who take a shine to the profession, Shimul makes it a point to give talks at colleges whenever she is invited; and encourages the public and individual discussions that follow. “I would love to teach – which I did before I had my children, but I find it difficult now with practice as well as my commitments to Save the Children India (which works in the field of education and women’s issues).” Despite all her commitments, she writes when she can, lectures when possible, and hopes that her work will speak louder... and larger... than her words. We think it does..

## KEY PROJECTS BY SJK ARCHITECTS



### AYUSHAKTI - AYURVEDIC HEALTH CENTRE

This five storey building, housing an Ayurvedic resort, is located in a crowded, polluted suburb of Mumbai, on a narrow 600sq-m plot of land, hemmed in on all sides by residential buildings. Within the little building resides a world of Ayurveda – a restaurant, boutique, OPD with waiting for 100 people, treatment rooms, beauty parlour, health club, nursing rooms and a basement auditorium. The challenge was to build within the regulations of Mumbai’s DC Rules, utilising the available FSI of 1.33 and the narrow 16m width and, yet, infuse it with light, air, space and – above all – joy and peace.

With just 4m open space on both sides, the building could afford to be only a rectangular box. The design depended on the articulation of this box through varied openings, balconies, setbacks and other architectural devices, including the traditional Indian *jharokha* or suspended balcony. The representation of Ayurveda as a contemporary science rooted in Indian tradition is the message the building attempts to portray. SJK Architects attempted to build with nature – both architecturally as well as the palette of materials chosen: natural stone, terrazzo seating, colour, light and texture.

Since the Mumbai monsoon is from the south-west, the east façade opens with balconies and traditional sloping *chajjas* (roofs) with restrained opening on the west façade. Thus, the east with its balcony seats and carved woodwork remains protected and utilised for public living. The west, being more susceptible to the harsh afternoon sun and the south-west monsoon, is given a second skin, through which the number of ser-



## PROJECT DETAILS

**Project:** Ayurvedic Health Centre

**Location:** Kandivali, Mumbai

**Client:** Dr Pankaj & Dr Smita Naram

**Total area:** 13,000sq-ft

**Project cost:** Rs.3.2crore

**Duration of project:** Superstructure - February 1995 to September 1996; Civil works, Interiors - April 1998 to September 1999

**Structural consultant:** Rajani & Associates

**Electrical consultant:** Kishor Barai

**Project management:** Nitin Sheth

**Civil and carpentry contractor:** Zigma Constructions

**Electrical contractor:** Suraj Electricals

**Plumbing contractor:** Shah Sanitation

vices of the building run. The building stands testimony to the fact that this quality and living is possible within the constraints of urban life – we can build in harmony with the elements, and bring in the outside even when there is practically none!

2. A milestone in Shimul Javeri Kadri’s architectural journey, Ayushakti is a study in contextual architecture within a small footprint.

3. The traditional Indian ‘jharokha’ or suspended balcony is placed strategically in the east wing of Ayushakti.



#### AUTOMOBILE DESIGN STUDIO

Mahindra and Mahindra (M&M) has been a market leader in farm and utility vehicles in India for several decades, and a household name since they launched into commercial vehicles recently. From the Willys Jeep to the Scorpio and the more recent XUV500, they have delivered popular vehicles that have given the brand a reputation for being robust, rugged, masculine, dependable, and – in the recent few years – stylish as well.

M&M approached SJK to create a cutting-edge design studio, where they would style their newest vehicles. The studio would be the designer's domain, holding special status and pride of place in the company, and frequented by the company's top management as well as by their international collaborators. The brief described the need for the studio to have an 'overwhelming sense of design', an 'emotive' quality that could 'energise and inspire thoughts', 'evolve' with time and feel 'true to its origins'.

The site identified for the design studio was within their 64-acre M&M factory campus in Kandivili, with its low-lying sheds and lush greenery – an oasis, reminiscent of Mumbai (Bombay) of the bygone decades, amidst the concrete jungle surrounding it. It is perhaps the last of the industrial campuses that occupied land on the highway of what was previously the outskirts of a fast-growing city.

The site consisted of five existing sheds, totally 25,000sq-ft in size, nestled amongst other similar-looking contiguous sheds. The character of the site was distinctly industrial; the buildings were not the latest, spit and polish, prefabricated steel types – but their older counterparts, made with hand-held tools using standard rolled steel sections that were fabricated, welded and bolted at site to create the buildings, identical for most part – but with the anomalies and imperfections that arise out of being handmade.

SJK assimilated the influences of site, context and brand identity to conceptualise a rugged, raw space that uses natural light, celebrates its industrial and metallic context and complements it with a neutral concrete backdrop. Neutrality was important, since the car and its styling are the ultimate protagonist in the space – as the studio has to be the backdrop and not the competition. The use of metal sheets for doors, screens, etc, was inspired by the extensive use of the material in the automobile industry and further impelled by Mumbai's rich tradition of metal works.

As work started on site, the buildings were stripped down to bare the structural system which was retained with all its imperfections, and only strengthened. As new walls and other elements of design were added, the design team consciously allowed the structural system to be celebrated, leaving it



#### PROJECT DETAILS

**Project:** Automobile Design Studio

**Location:** Kandivali, Mumbai

**Client:** Mahindra & Mahindra Limited

**Architect:** SJK Architects

**Design team:** Shimul Javeri Kadri, Vaishali Shankar, Roshni Kshirsagar, Nidhi Shah, Riddhi Shah, Amal Roowala, Vrinda Khaitan

**Site area:** 29,500sq-ft

**Project area:** 25,000sq-ft

**Structural engineer:** Shilp Consulting Engineers

**Lighting consultant:** Lighting Ergonomics

**PMC:** Sterling Lomax Project Services India Private Limited

**Model maker:** Vijay Sakpal (SJK Architects)

**Initiation of project:** Commencement of design - December 2012, commencement of execution on site - May 2013

**Completion of project:** December 2014

visible and ensuring that the new design adapts to it; each played its own honest role – the existing structural system grounding the space to its origins, and the new design layers belonging to the 'now'.

As SJK stitched the old and new together, the need for the studio to 'evolve' and 'be true to its origins' influenced the treatment given to material and detail of the project. There was an attempt to use new materials, concrete and plaster for walls and metals in the 'raw' form – in an honest, exposed and bare format. This proved to be challenging; every step had to be planned and rehearsed, for every scratch, dent or unsightly weld would be visible for all to see. Each metal used – corten steel, mild steel, stainless steel and galvalume, in its raw state, holds its own and contributes to the story like an orchestra.

SJK adapted mundane sheds into a cutting-edge design studio. The endeavour, which was a challenge in adaptive reuse, was to keep history alive while evolving a 'today' that is contemporary, comfortable and poetic.

4. The Automobile Design Studio celebrates its industrial context with a touch of refinement.

5. The design elements adapt to the existing shed structure that has been visibly retained.

6. New materials such as concrete and metal were used in their raw form.



### WEEKEND HOUSE AT ALIBAUG

Across the harbour from the chaos of Mumbai lies the coastal area of Alibaug – a 45-minute boat ride away from crowds, 22 million people and the lowest open space ratio in the world. The project: to create a family home of 650sq-m on a 1.3-acre plot of land at the base of the hills, but far removed from the sea. Land lush with the native coconut, mango and neem trees, peers up at the sunrise on the eastern hills above.

It was a beautiful property, and SJK wanted to include the hills, the trees and the gentle winds – so the leaves strewn over the earth became the perfect cue. The form of the leaf, gentle but sloping, was evocative, and the very first sight of the plot yielded a site plan made of dried leaves. The client enjoyed the idea of pods – overlapping but distinct, to house each part of the home; and the journey between pods, to be sculpted open space encompassing native trees.

The clump of neem, bhend and coconut became the centre – an unstructured but designed courtyard, and each pod was created with an eye to the sun and the wind. The ‘leaf’ roofs open and rise to the north and the east, and protect lower and deeper on the south and the west – the southwest monsoon being a formidable factor, as is the sun on these faces.

The critical design of the leaf – structurally, climatically and then ergonomically, entailed innovation at every step. The first structural plan involved the use of dense concrete and a steel web, to generate beamless leaf-shells, supported over steel columns filled with concrete. Retaining the natural colour and texture of every material – such as concrete and steel – to endure the tropical rain and sun, required research into clear chemical coatings that would endure and embellish.

The roofs were 3D modelled extensively to ensure that sun, rain and overlapping heights worked seamlessly. And then the ergonomics to allow doors, windows and cupboards that still adhered to orthogonal principles to sit cosily in the unorthodox leaf. The palette of materials – concrete, steel, linseed oil polished wood, and natural limestone – was kept subdued to focus on the light, the form and the enthralling nature encompassing the structure. The simplicity of every other element, to ensure the pure experience of space from light and nature, was a deliberate pursuit.

The design team enjoyed creating the form, but never allowed it to play dictator. Each pod played with different rules, depending on need and circumstance. The lack of symmetry allows for walls to move as needed, open as needed and break into skylights or movable walls when required. This allowed for sun and wind to enter the pod in the right quantity, so that the quality of indoor light and air is dramatic and comfortable.



### PROJECT DETAILS

**Project:** Weekend House

**Location:** Alibaug

**Project area:** 6,500sq-ft

**Design team:** Shimul Javeri Kadri, Vaishali Shankar, Roshni Kshirsagar, Sonali Bhargava, Priya Dedhia and Foram Parekh

**Project completion:** April 2012

**Structural engineer:** S&S Associates

**Civil and carpentry contractor:** Akash Constructions

**Interior contractor:** Impex Engineers

**Photo credits:** Rajesh Vora

The landscape for the house was carefully designed to augment the existing natural flora and fauna. Local plant varieties were used – and nothing exotic was even considered, lest it compete for attention or resources with the existing mango, coconut and neem. Lemongrass was used extensively to counter mosquitoes and retain the simplicity of language. Rainwater harvesting was important on this land, where the borewells ran dry most of the year. SJK have gathered all rain water run-off into underground trenches and canals, and fed the borewells to very good results.

The house began as an exploration of natural forms, built and designed to sit in nature. It encountered the manmade constructs of doors, windows as well as domestic gizmos – the orthogonal products of an industrial economy. Navigating and refining this encounter into a serene and natural environment for a family to live in complete comfort, embedded in nature, was the challenge of this project – and it was met in a remarkable and thoughtful manner.

7. Scattered leaves on site became a key reference point while designing the form of the house.

8. The simplicity in design ensures the pure experience of space, drawn from light and nature.



### A BOX OUT OF THE BOX

Nirvana is an office space for an ad film production company that thinks out of the box. Their workspace is based on the thought that the connection of synapses creates ideas – not privacy or isolation. The ‘box’ for Nirvana emerged, as with all urban buildings, out of a small corner plot in the heart of the busy neighbourhood of Indiranagar in Bengaluru. Optimising space, site setbacks, allowable FSI for a commercial project, are a given in gaining 8,000sq-ft of built-up area on a site of just 3,000sq-ft.

The resulting urban typology overturns all norms – using almost no electricity – for light or ventilation. The core of this box is the N-S connector staircase that slices through the building with a huge skylight above, suffusing it with

### PROJECT DETAILS

**Project:** Office for an Advertising Film Production Company

**Location:** Bengaluru

**Design team:** Shimul Javeri Kadri, Sarika Shetty, Roshni Kshirsagar and Poonam Sachdev, Bengaluru

**Area:** 8,000sq-ft

**Project completion:** 2011

**Materials used:** Exposed concrete, wood, 100% acrylic solid sheet shutters and glass

**Structural consultant:** S&S Associates, Bengaluru

**Service consultant:** MECA Project Engineers Private Limited

**Contractor:** Disha Engineering, Bengaluru (civil, carpentry, façade, plumbing and electrical)

**Fabricators:** Stone Arts, Mumbai (for acrylic solid sheet façade shutters)

**Photo credits:** Rajesh Vora & Shimul Javeri Kadri

sunlight and natural ventilation – much like a courtyard would in another typology. The façade further facilitates the connections to the outside with the solid glass and openable acrylic louvers. The window is solid, the wall transparent and open. The louvers, built of 100% acrylic solid surface sheets, were customised and used as an exterior element for the first time in India.

In sum, this is a contemporary building that ignores any ‘isms’ and stands for innovation, sustainability and pluralism (all stylistic features co-exist – including classical chairs, kitschy graphics and old-world windows).

### THE CRAFTED WORKSPACE

This little town in Tamil Nadu gained repute as the hub of the export-oriented home textile industry. The factory plays a transitional role between the local and the global. Despite the hot, dry climate and deeply historic and religious character of this town, Karur’s factories represent a ‘me too’ attitude with glass façade and Doric columns.

The building is linked with courtyards, small and big, and passive-energy-saving building technologies. The little town had an interesting history of gable walls, a local stone quarry and many other traditions of country-wood joinery for doors, an entire village that specialises in metal hardware for locks and hinges, etc. Even the flooring, the terracotta cement tiles, came from the local Chettinad area, as did the wonderful carved wooden main door.

The entire building has been cocooned in 18” thick random rubble masonry walls – which, being a good insulator of heat,



helped in cordoning off excessive heat and had the added advantage of not requiring any plaster or paint over the exterior surface. SJK chose to go with a vaulted roof over clerestories that allow shaded north-south light.

The roof was built using hollow terracotta blocks fitted within a grid of precast RCC ribs, which were spanned between semi-circular beams of steel. A thin cement screed with a china mosaic finish over it completed the roof construction, making it economical, light-weight, and cutting out several degrees of heat gain. A number of small and large courtyards on the west reduce afternoon heat gain by providing a vegetation buffer. The west also brings in the winds, which are filtered by the plants and trees of the courtyard.

The attempt was to build locally for a global context, using local materials, labour and technology to create a building that is very much part of a global market – functionally and aesthetically. However, the ultimate payback was the end user’s response, wherein “the production has risen two-fold!”

### PROJECT DETAILS

**Project:** Production Space & Garment Checking

**Location:** Karur, Tamil Nadu

**Client:** Synergy Lifestyles Private Limited

**Project area:** 30,000sq-ft

**Project cost:** Rs.2.8 crore (approx)

**Duration of project:** February 2003 - August 2004

**Structural engineer:** S&S Associates

**Electrical and plumbing consultant:** Meca Engineers

**Project management:** Karunanidhi

**Civil and carpentry contractor:** Brick Steel Enterprises

9. At Nirvana, the customised louvers were used as an exterior element for the first time in India.

10. Courtyards on the west of the Synergy Lifestyles garment factory help to reduce afternoon heat gain.



### MUSEUM FOR JAIN HERITAGE, AHMEDABAD

The SMJK Trust commissioned this museum as a repository for their existing collection of Jain artefacts collected over the years and stored within their campus in Koba, Ahmedabad. The campus, consisting of a temple, a library, hostels and dining facilities for guests, is a much-frequented stopover for Jain pilgrims. The area allocated to the museum is a two-acre parcel of land that lies between the temple and the hostel facilities. It is lush with neem trees and contains a small pathway that connects residential and religious activities.

The brief was to create an environment that showcased 10% of their extensive collection of miniatures, exquisite bronzes and rare scrolls, among other things. Optimising natural light and ventilation was critical, since the use of electricity is kept to a minimum in Jain practice.

The solution was to create a building that draws its

### PROJECT DETAILS

**Project:** Museum for Jain Heritage  
**Location:** Koba, Gujarat  
**Client:** Shree Mahavir Jain Aradhna Kendra, Koba  
**Architect:** SJK Architects  
**Design team:** Shimul Javeri Kadri, Sarika Shetty  
**Project area:** 70,000sq-ft  
**Structural engineer:** NK Shah Consulting Engineers  
**MEP consultant:** Pankaj Dharkar & Associates

plan from the Shree yantra, but lifts itself off the ground completely on stilts with a shallow water body in the centre within which the existing neem trees nestle. The building draws all its light and ventilation from this shaded and filtered courtyard, and presents a calm lime-plastered exterior with inlaid Jain graphics and glass *jarokhas*. The internal skin of the building facing the courtyard is entirely composed of vertical louvers of white marble *jali* that bring in the air and ventilation in a highly-modulated manner responding to simulated studies on sun and wind paths.

The ground level of this building becomes a free and open community space with trees, water body, sculpture and a temporary exhibition space allowing the young or old visitor to meander and relish the atmosphere. A ramp by the water leads slowly up to the exhibition gallery, which has been designed like a 'parikrama' in a Jain temple. The creation of an environment that draws from the heritage of the religion, as well as the crafts of its practice – but creates a contemporary community space, was the goal of this project.



### PROJECT DETAILS

**Project:** Administrative & Training Centre  
**Location:** Latur, Maharashtra  
**Client:** Vikas Sugar Sahakari Kharkhana  
**Architect:** SJK Architects  
**Design team:** Shimul Javeri Kadri, Vaishali Shankar, Michelle Pereira and Gautam Thakkar  
**Project area:** 1.5 lakh sq-ft  
**Structural engineer:** Engineering Creations Consultancy  
**MEP consultant:** Pankaj Dharkar & Associates  
**Status of project:** Ongoing

### ADMINISTRATION & TRAINING CENTRE, LATUR

In the parched, hot innards of Maharashtra is the town of Latur – famous for its sugar production and, more recently, infamous for drought. The clients – a sugar production facility – want to build a research and training centre for better agricultural practices, and better facilities for their staff. The project should be environmentally completely sustainable – utilising the best practices for building in these climatic and soil conditions.

Latur being hot and dry, openings are small, walls thick; small courtyards that create convection currents and stone and brick as building materials are common. The soil being largely black cotton and the cost of stone construction being too high, the first quest was for the correct building material – insulating and from the local area. SJK chose CSEB, made largely out of the waste

quarry dust from stone and aggregate mines. Hunnarshala from Kutch helped with the initial research and will make the CSE blocks.

Then came the search for a language which also evolved from the solid façades with small shaded openings. However, the historical use of the arch, the scale of shaded courtyards and streets was also researched in generating a masterplan for a set of buildings that will become the core or the magnet for the 100-acre industrial campus of the sugar factory.

The resultant design – replete with passive and active energy resources, water harvesting methods and very careful use of all resources – relies on form, light and scale to create an environment worthy of the possibilities of building in hot and arid Latur. **A&I**

11. The Museum for Jain Heritage draws light and ventilation from the shaded and filtered courtyard.

12. The historical use of arches, courtyards and streets were researched for the training centre in Latur.