

Pearl Academy of Fashion, Jaipur morphogenesis.

an illustrated monograph with detailed drawings
photography: andre j fanthome | edmund sumner

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“Architectural gems can be discovered in the most unlikely places. On a normal day on the national highway from New Delhi, one would zip past the Kukas industrial area, which lies about 20 kilometers before the famous walled city of Jaipur. Even the imposing Kukas – a kitschy rendition of Rajasthani classicism – does little to inspire confidence that there is worthwhile architecture nearby. But one is suitably rewarded if driven inside by curiosity or tipped off by an informer. In an expanse of nondescript factories and institutional buildings – a strange mix by any standard – one finds a building that is enigmatically beautiful, a simply symmetrical cuboid, its dappled façade breaking the harsh sun and its whiteness reflecting like marble. In a time when most buildings tend to be self-conscious elaborations of affected intent, the Pearl Academy of Fashion employs an unusual economy of means to restore the gravitas and monumentality befitting an educational institution.”

- Jagan Shah, *Domus (Italy)*, April 2009

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Foreword: Michael Webb

Around the world, architects are challenged to infuse new forms with the legacy of the past and the spirit of a place. That has become a crucial issue in emerging nations, many of which have uncritically embraced generic modernism and eccentric novelty. Sudden wealth can destroy the heritage of many centuries, disrupt the social order, and develop a flurry of wasteful extravagance as has happened in China, Russia and oil-rich Arab states.

India has changed at a slower pace, and the Pearl Academy of Fashion, located in an office park east of Jaipur, is a brilliant demonstration on how to marry the past and present, the local vernacular and contemporary building techniques. It employs passive strategies to achieve sustainability, and provides an inspiring work environment for up to 700 students and faculty at a cost of about 220 euros a sq. m.

The college is a recent work of Morphogenesis, one of the most productive and creative architectural firms in Delhi. "We view our practice as a laboratory, looking to expand the boundaries of architectural and environmental design", declare the partners in their mission statement. At Morphogenesis architects, designers, urbanists and environmentalists collaborate on research projects that feed into a diversity of built work. Sleek offices dominate their portfolio, but they are constantly seeking fresh challenges.

In Jaipur, the goal was to build a low-cost, environmentally sensitive campus that would serve as a model for other institutions. In the desert state of Rajasthan, summer temperatures can climb to 47°C, and the shortage of water has been exacerbated by the exponential growth of Jaipur, which now sprawls 25 km out from the historic core and has a population of five million. The architects researched passive cooling strategies that are traditional to the region, especially the use of *jaalis* (fretted screens), shady courtyards and step wells.

Each is an integral part of the architectural vocabulary and social life of the region. One of the finest of Jaipur's 18th-century buildings is the Hawa Mahal, a tapered block with finely screened windows that provide shade and admit cool air. However, the primary purpose of these grilles was to

allow women of the court to observe life in the street without exposing themselves to view. Step wells resemble deeply depressed courtyards and are often enriched with stone carvings. They serve as neighborhood gathering places and accommodate the heavy monsoon rains after summer without flooding, while providing access to the water table during the months of drought.

Morphogenesis reinterpreted these features to create a long low block that is rooted in the land yet seems to float. They excavated the site to a depth of four metres and raised two storeys of classrooms, studios and offices on pilotis above this void. The second storey juts out above the first and both are clad in an irregular checkerboard of fretted panels attached to a metal frame that is set 1.25 m out from the facade on all four sides. The grain of the *jaali* and the placement of the horizontal panels were calibrated to provide optimum protection from direct sun. The space between *jaali* and wall acts as a thermal barrier and drip channels running along the inner face of the screen allow for passive downdraft evaporative cooling. That can reduce the interior temperature by as much as 20°C with a minimal use of air conditioning. The original plan was to build a storey of student rooms over the classrooms to provide daytime insulation but that construction has been delayed. As an interim measure the architects have employed a traditional Indian technique of deflecting the heat of the sun. Earthen pots (*mutkas*) about 35 cm in diameter are placed on flat roof, 2.5 cm apart, and the spaces between are filled with sand and broken bricks and covered with a thin layer of concrete. The fill and the air within the pots provide insulation.

Throughout the day, students spill out from classes, the library and cafeteria onto the walkways and down to the shady underbelly of the building. Cooler air is drawn into this space and steps lead down to a shallow pool of water recycled from the sewage treatment plant and augmented by rain, which functions as a thermal sink. As temperature drops through the night, water dissipates the heat accumulated during the day. Even in summer, this protected courtyard is an inviting place to gather- for a performance, an exhibition, an alfresco lunch, or a casual encounter with friends.



Jaipur today - An architecture that is unsympathetic to its context.



City's traditional built fabric that developed over centuries of trial and error



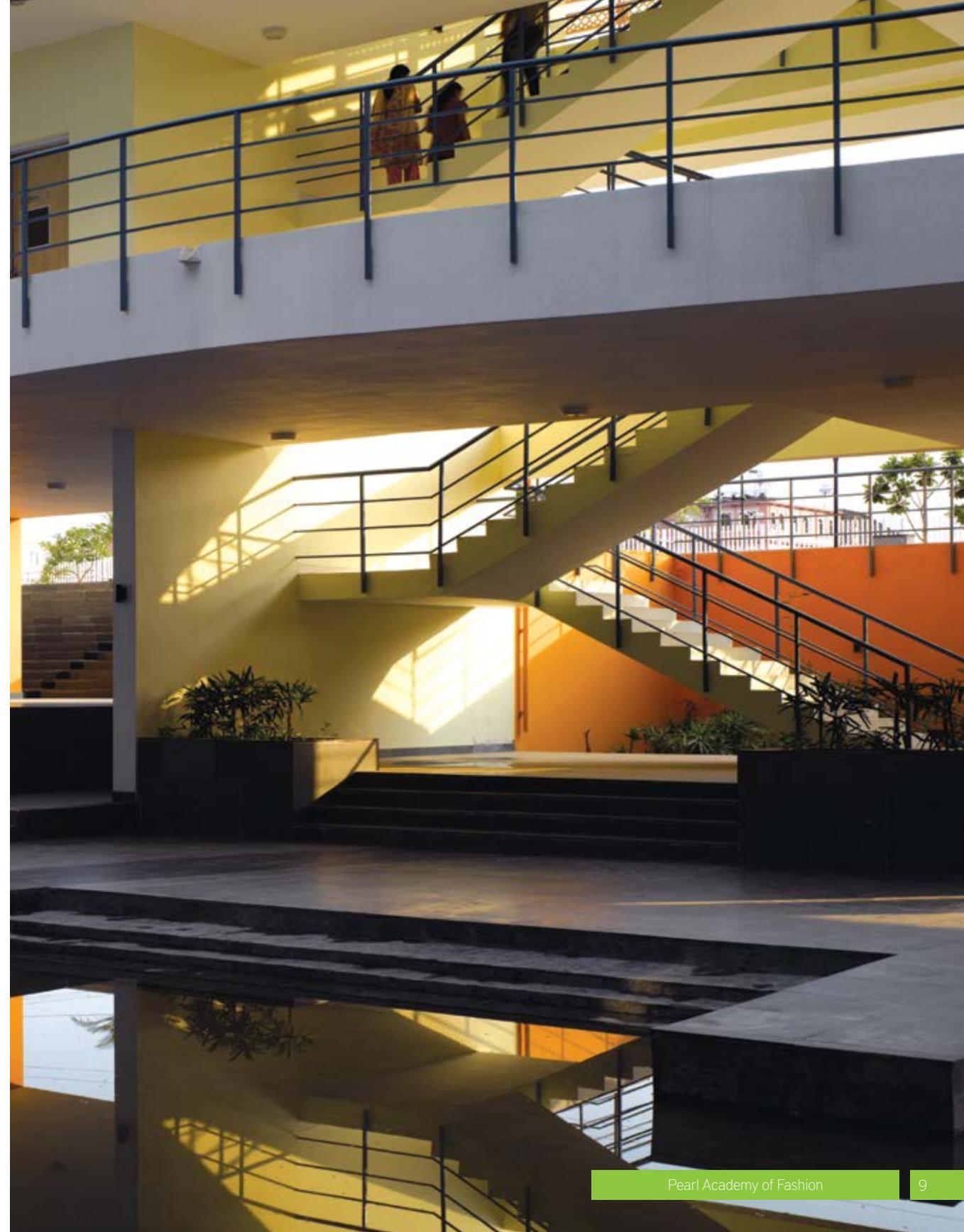
Hawa Mahal in Jaipur - Passive design integrated with architecture



Traditional architecture of Jaipur

Local stone and mosaic tile in the patterned pavement of the courtyard enrich the extensively glazed concrete-frame building. The exterior is painted orange to set off the *jaalis*, but the interior surfaces are white, to reduce heat absorption and create a cool backdrop for the bustle of activity and the brilliant colors of women's saris. The sensuously curved facades and balustrades draw you through the open spaces of the courtyard and avert the monotony that can occur in a repetitive grid plan. Fashion is all about adding another dimension to the human body while respecting its shape and movement, and the Pearl Academy is an expression of that artistry.

(An extract from The Plan- Architecture and Technologies in Detail, Issue 036, September 2009) Courtesy: The Plan, all rights reserved.



The architecture of almost somewhere

During the Post-Independence era of 1947 India, education was an important part of the agenda. The government devised a multi-pronged approach from secondary schools to institutions of national importance. Investment in these educational programs as inherent edifices was considered a matter of national priority and internationally celebrated architects were invited. For example, Louis Kahn (the Indian Institute of Management, Ahmedabad), Le Corbusier (Chandigarh masterplan), and the creation of the IITs. Post 1991, due to the liberalization of the Indian economy, the Government's role as a patron of education has seen a change from a full financial supporter to the financial regulator. Education is still deemed to be a charitable activity rather than a universal right, that can be provided at a maximum of €1.000 per year by private institutions. Today, higher education is available to only 7% of school leaving Indians. Thus, in terms of infrastructure, €18/sq. ft. becomes the key price to be economically sustainable for the 93% of students eagerly awaiting education.

In order to visualize a contemporary institute for India, one must understand the ideological differences between India's two greatest educationists. Through this understanding, the institute can then function as a mechanism to bridge the arguments and conflicts. Rabindranath Tagore (poet, philosopher and Nobel Laureate) propagated a bottom-up approach, where the actual building was of low priority for an emerging nation. He was convinced that the contents (the programme) should be prioritized instead of the building envelope. Jawahar Lal Nehru, the Political Architect of the Modern Indian Nation State believed in the gravitas and monumentality of the higher education Institution. He believed that the envelope is of equal importance since the emerging nation should proudly show its colours. The Morphogenesis approach to institutional design is a combination of the two visions with a positioning of architecture in its socio-cultural context. This type of regional response is an attempt to embody the 'Architecture of almost somewhere' paradigm.



2000

2012

Percentage of privately funded institutional projects*

Today, higher education is available to only 7% of school leaving Indians. Thus, €18/sq ft becomes the key price to be economically sustainable for the 93% of students awaiting education.

*Sources: UGC (University Grants Commission) reports, ICRA research

Timeline

2004



Pearl Academy of Fashion, Jaipur

2005

Jubilant R&D Centres, Noida



2006

2007



JRE Group of Institutions, Greater Noida
Museum, Gurgaon
Chettinad Health City Auditorium, Chennai

2008

2009



Delhi Art Gallery, Delhi
Ansal University, Gurgaon
Crossings Republik School, Ghaziabad
YWCA, New Delhi
The British School, New Delhi
Integrated Campus for ILM, Greater Noida
The Lalit Suri Hospitality School, Faridabad

2010



2011



The Heritage School, Faridabad

2012



Qutab Colonnade, New Delhi
Delhi Art Gallery, Mumbai
British Council Library, New Delhi

2013



Campus for Infosys Ltd, Nagpur