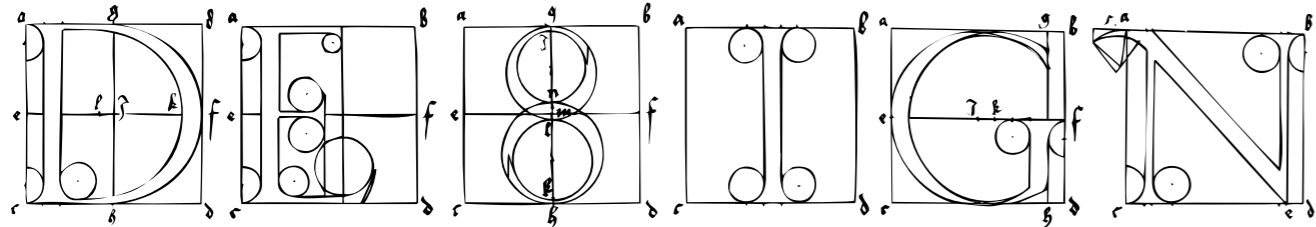


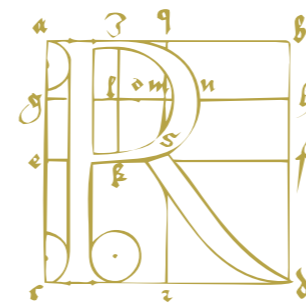
SUSTAINABLE



TAKING CUES FROM RAJASTHAN'S ARCHITECTURAL HERITAGE

The palaces, forts and havelis of Rajasthan are known as architectural marvels of India and are emblematic of the relationship between history and culture. However, they are often considered symbols of the past—regal but irrelevant to the present. In a first-person column for **MARWAR**, renowned architect **Manit Rastogi** provides rare insight on sustainable styles of architecture and how the structures of Rajasthan have influenced his own design sensibility.

A graduate from the School of Planning and Architecture, New Delhi, and the Architectural Association, London, (with honours and distinction in energy and environmental studies), Manit Rastogi is the founder and managing partner of Morphogenesis. A leading, award-winning architecture and urban design practice in India, his company has been ranked among the top 100 architectural design firms worldwide by *Building Design* magazine, UK, again this year. As a member of the Technical Advisory Committee to the Ministry of New and Renewable Energy and an integral part of the Indian Green Building Council, Rastogi has been influential in supporting urban cultural research given his association with the community as well as urban policymakers. Spearheading initiatives with an emphasis on social welfare and environmental sensibility, his internationally recognised design for the Pearl Academy of Fashion, Jaipur, has been inspired by the traditional architecture of Rajasthan.



AJASTHAN has a wealth of vernacular architecture, being a melting pot of Rajput, Mughal and several

other cultures. Despite being one of the most arid places in South Asia, it was this adaptive architecture that made this region the most densely populated desert in the world. Traditional Rajasthani architecture underpins the ethos of sustainable Indian architecture and is widely taught across all architecture schools in India, which is where I was first exposed to it. The architecture of this region has always been green—not as much to save the planet, but as a response to not having access to abundant resources of water and energy. It is from this resource crunch that climate-appropriate and sustainable architecture evolved through the centuries.

Accordingly, buildings were closely packed, shading the narrow lanes between them. Their surfaces were richly carved, which served a dual purpose: one, they created shadows that lessened heat absorption from sunlight; and two, the greater surface area allowed better dissipation of the absorbed heat after dark. *Jaalis* or perforated screens provided a second skin which acted as a thermal buffer between a building and its surroundings. The haveli typology epitomises the idea of the building as a device for environment control, where the solid-void balance (the relationship

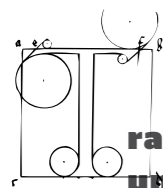
A view of the award-winning Pearl Academy of Fashion, an example of sustainable architecture by Morphogenesis



IMAGE: EDMUND SUMNER

between built and purposefully unbuilt spaces) is calibrated for maximum daylight penetration, minimum heat ingress and the accommodation of multiple functions. For instance, the Chand Baori in Abhaneri is an awe-inspiring piece of Rajasthani architecture. Such stepwells or *baolis* not only collected rainwater for use in the drier months but also created a microclimate through evaporative cooling, making them cool retreats during harsh summer months.

These ancient techniques that have been in practice for hundreds of years are now in jeopardy due to globalisation. In the



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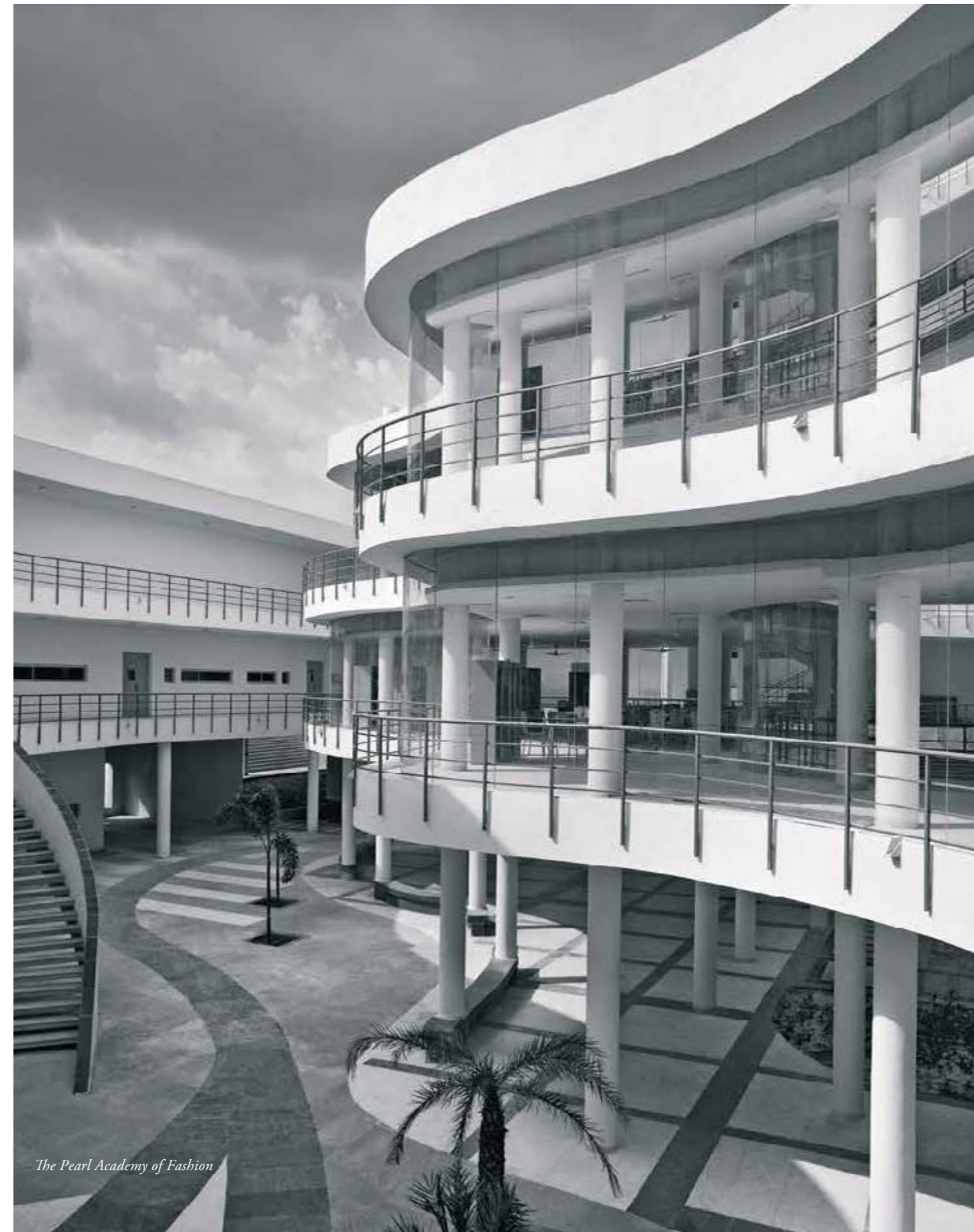
post-industrialisation era, with access to an abundance of resources, an architecture of excess emerged in the West. In our attempt to globalise, we have ruthlessly replicated this architecture—architecture divorced from the land and climate it sits in. Today, the urban environment of the region suffers from rapid development that has inadvertently taken to generic modernism and eccentric novelty. Sudden

wealth and development of cities often destroy centuries of heritage and social order, leaving behind excessive waste—a pattern that most Indian cities seem to be headed towards. I think that the real task that challenges architects today is to infuse new forms with the legacy of the past, while maintaining the spirit of the place.

The Pearl Academy of Fashion, which we have built, is one such building—a campus which, by virtue of its design, is geared towards creating an environmentally responsive, passive habitat. The institute is located in a typical hot, dry, desert-type climate on the outskirts of Jaipur, in the soulless Kukas Industrial Area, about 20 km from the famous walled city. The radical architecture of the institute emerges from a fusion of rich, traditional building knowledge and cutting-edge contemporary architecture.

The scheme relies on self-shading narrow courtyards to control the temperatures of internal spaces, while allowing for sufficient day lighting inside studios and classrooms. The entire building is raised above the ground, and a scooped-out underbelly forms a natural thermal sink which is cooled by a water body, which is fed by recycled water from

Below: An exterior and interior view of the Pearl Academy of Fashion



The Pearl Academy of Fashion



IMAGE: ANDRE-JYANTHOME

