



Courtyards feature densely planted spaces and double height ceilings | Photo source [Zero Energy Design Lab](#)

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TRADITIONAL INDIAN BRICK DESIGN COOLS SCHOOL INTERIOR BY 70 PER CENT

 ARCHITECTURE & DESIGN

Other passive cooling design elements include plants and double height ceilings, all of which add to the sustainable architectural structure

Spotted: Using a number of passive cooling design elements, a new girls hostel in Gurugram, India, has reduced its expected air conditioning demand by 40 per cent. Created by the New Delhi-based Zero Energy Design (ZED) Lab, the St. Andrews Girls Hostel is the second in a pair of buildings that are using traditional latticed brickwork to reduce the amount of heat absorbed into the interior.

Courtyards feature densely planted spaces and double height ceilings which, when combined with the double-skin façade's beautiful and purposeful brick composition, eliminate up to 70 per cent of the usual amount of heat absorption. The atrium acts as a solar chimney, allowing light in whilst drawing heat out and away from the building. As it is adjacent to a boys hostel, bamboo hedging provides the girls' school with additional privacy.

Able to house 130 students, the hostel has numerous multi-purpose spaces, with many of them connected to the staircase that links all four floors. Dorm rooms are located on all levels, and hubs and bridges between the stairs and internal recreation and study spaces encourage interaction. There is space for sports to be played outside, and the concrete and brick structure is earthquake resistant.

Bricks have such a storied history that it is particularly exciting to see the ways in which developing technologies are transforming their use. Springwise has spotted [holograms](#) and [augmented reality building techniques](#) that use brickwork in visually stunning designs that would not otherwise be possible.

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Takeaway:

Although there is no replacement for human creativity, digital innovation that improves efficiency, sustainability and various logistics of a building or project, provides new methods within which master craftworkers can showcase their skills. Moreover, while chaos throws up uncertainty, it also unleashes unusual amounts of space for experimentation. It will be interesting to see what longer term changes are wrought by the global pandemic, as creators in all industries adapt and explore.