2nd seminar:

The Street

SEMINAR BY: SAKAR YOUSIF ABDULLAH

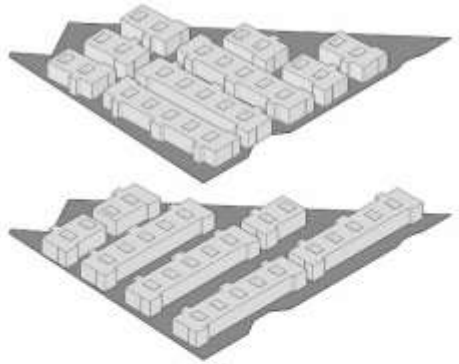
2022-2023

- **HOUSING, MATHURA, INDIA**
- **Architects: Sanjay Puri Architects**
- **Area : 211000 ft²**
- **Year : 2017**
- This Modern Student Housing Complex Embodies an Ancient Indian City's Past

The concept

- Taking a cue from the **old city streets** of Mathura city in India where this project is located, this 800 room students' hostel creates **organic spaces**.
- Sanjay Puri explains, "Most Indian cities have an old area that was the original city,"
- "These parts of the city generally grew in an organic manner without geometric layouts. When one walks through such streets, there are interesting spaces at each corner, the focal point constantly changes, **and these aspects allow one to experience different perceptions while moving through as opposed to grid planning, [which] forms most of the newer parts of a city.** The organic nature of these streets in any old city is inspiring due to this nature, of not knowing what one will experience or see next, of each part getting a unique identity."

CONCEPT & DESIGN PROCESS



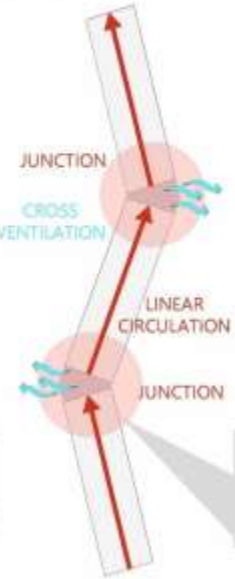
POSSIBLE LAYOUTS (BASED UPON THE EARLIER EXISTING HOSTEL BUILDINGS).

DEVIATING FROM THE GENERIC EXISTING LAYOUTS ON EITHER SIDE WHICH CREATE OVERLOOKING, DO NOT RESPOND TO THE SUN DIRECTION & DO NOT CREATE OPEN SPACES AND ARE REPETATIVE IN CHARACTER.

INDIAN ORGANIC STREETS

LINEAR LOW-RISE HOSTELS TWIST GRADUALLY ACROSS A WEDGE SHAPED SITE CREATING AN ORGANIC LAYOUT OF BUILT FORM AND LANDSCAPED SPACES. IN RESPONSE TO THE HOT ARID CLIMATE OF THE LOCATION WITH TEMPERATURES IN EXCESS OF 35 DEGREES CELCIUS FOR 8 MONTHS OF THE YEAR, THE BUILDINGS CREATE A LAYOUT WITH NORTH FACING GARDENS. IN ADDITION TO THAT, EACH OF THE 800 HOSTEL ROOMS HAVE ANGLED WINDOWS FACING THE NORTH. THE TWO LARGE CAFETARIAS WITH GAMES ROOMS FORM THE FOCAL POINTS WITHIN THE LAYOUT.

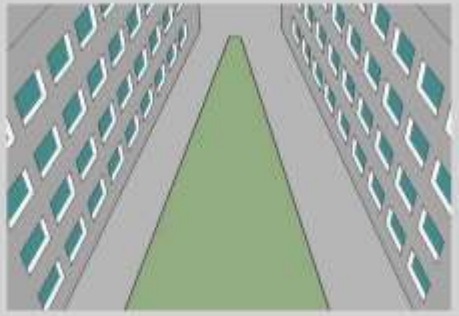
SCHEMATIC WING BLOCK



THE JUNCTION ACTS LIKE SERVICE CORE AREA FOR THE BUILDING & CREATES A CROSS VENTILATED SPACE FOR RECREATION.

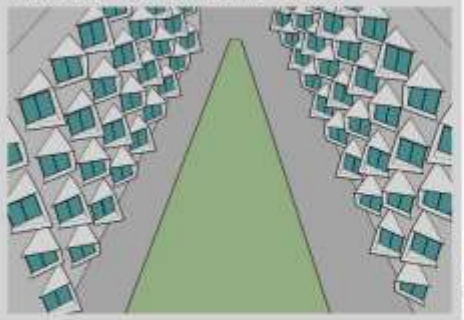
BASIC WINDOWS

STANDARD WINDOW PLACEMENT GIVING NO PRIVACY.



NORTH FACING WINDOWS

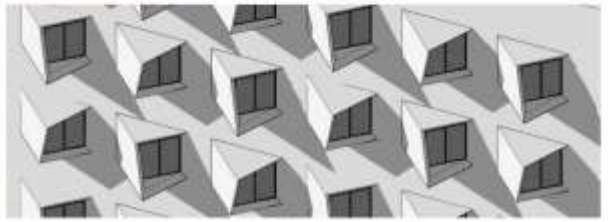
ADDITION OF SILL & NORTH ORIENTATION GIVES MORE PRIVACY AND ALSO ACCESS TO NORTH LIGHT ALL DAY LONG.



DETAIL @ JUNCTIONS

LEGEND: 1.ENTRANCE FOR HOSTEL WINGS; 2.WAITING LOBBY; 3.STAIRCASE; 4.DUCT; 5.HOSTEL ROOMS; 6.TOILET 7.CORRIDOR

TYPICAL NORTH FACING WINDOWS

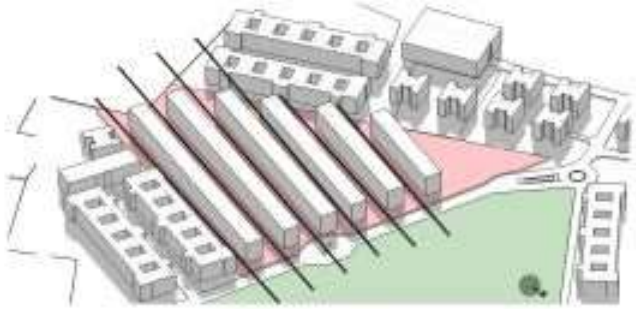


The Street | The Concept

The site is located in **Mathura**, the layout of Mathura city like most old Indian cities is **organic** with an interesting character.

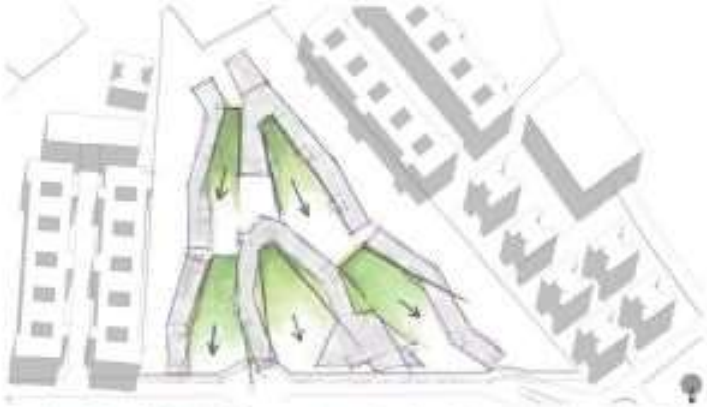
Site Area: 6Acres
Built Up Area: 2,11,000 Sq.ft.

The layout evokes the organic nature of the old Indian cities with garden spaces increasing and decreasing in width. The hostel circulation spines being angled along their length.



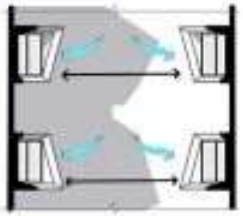
The site is wedge shaped with buildings of **repetitive character** on both sides. The client requirements necessitated a large floor plate which could be done with a repetative character using typical hostel room blocks.

Taking a cue from the old city streets of mathura, linear low-rise hostels were twisted gradually across the site creating an **organic layout of built form and landscaped spaces**. This creates individual spaces within a discernible identity in each part of the layout.

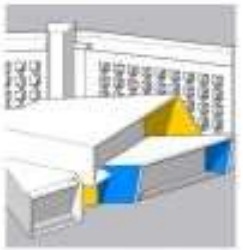


The orientation of all the buildings are done with a view of generating large north facing garden areas overlooking a vast playground towards the north.

Each hostel room is punctuated with a wedge shaped **window oriented towards the north** and the playground providing privacy and view.



Varied **shapes** create identity to each area within , while the colours further accentuate each space. The two large cafetarias with games rooms form the focal points within the layout.

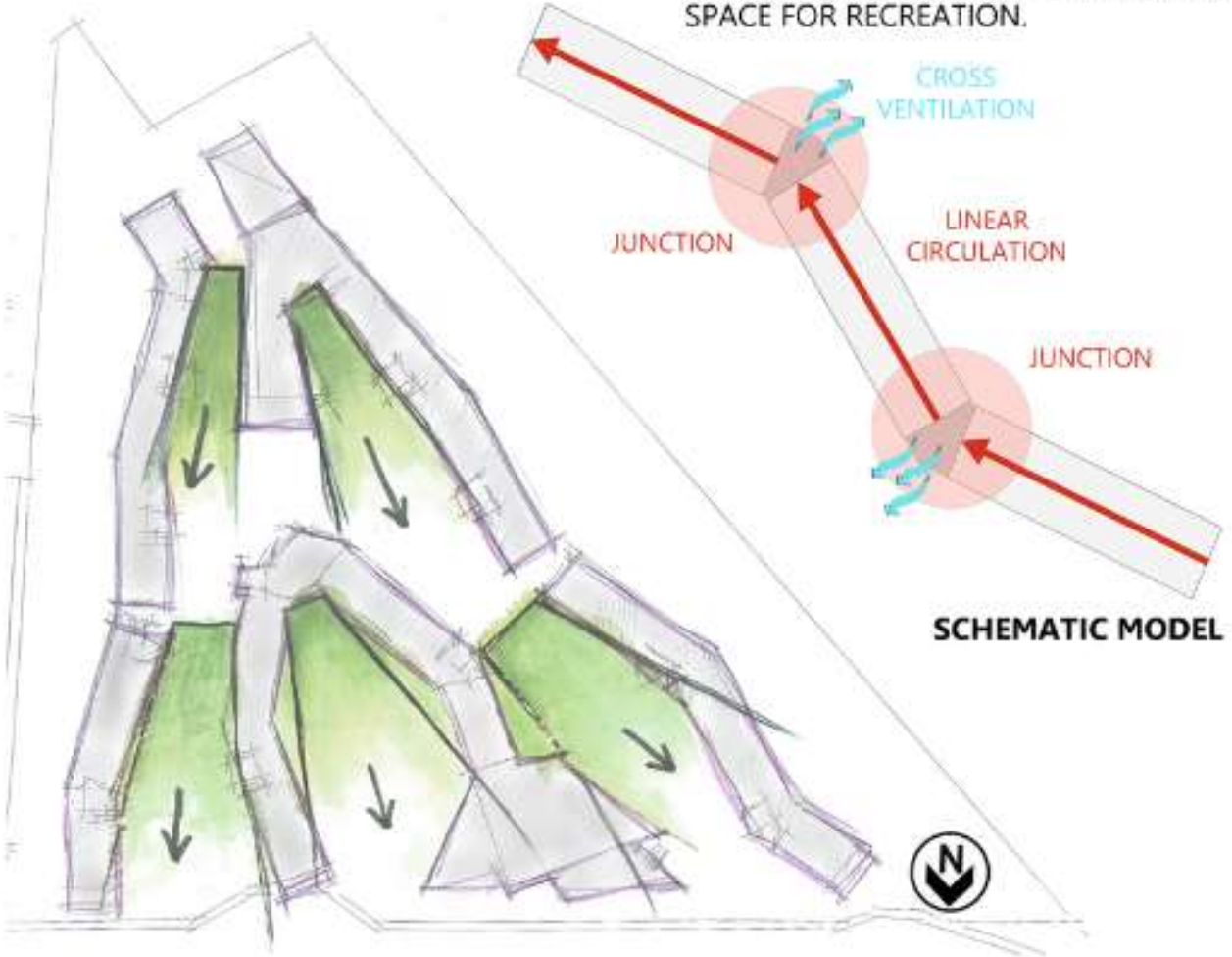


The buildings by their orientation towards the north, facilitates **natural ventilation** in all areas and window orientation create a sustainable response reducing heat gain and increasing the energy efficiency, reducing the environmental impact.

Schematic diagram of linear circulation

Plan of the hostel blocks

THE JUNCTION ACTS LIKE SERVICE CORE AREA FOR THE BUILDING & CREATES A CROSS VENTILATED SPACE FOR RECREATION.



SCHEMATIC MODEL

DETAIL @ JUNCTIONS

LEGEND: 1.ENTRANCE FOR HOSTEL WINGS; 2.WAITING LOBBY; 3.STAIRCASE; 4.DUCT; 5.HOSTEL ROOMS; 6.TOILET 7.CORRIDOR

ALL WINDOWS IN EACH BUILDING ARE NORTH ORIENTED. 35°C AVG TEMP FOR 8MONTHS IN A YEAR, WITH SUN IN THE SOUTH

DESIGN PROCESS

LINEAR LOW-RISE HOSTELS TWIST GRADUALLY ACROSS A WEDGE SHAPED SITE CREATING AN ORGANIC LAYOUT OF BUILT FORM AND LANDSCAPED SPACES. IN RESPONSE TO THE HOT ARID CLIMATE OF THE LOCATION WITH TEMPERATURES IN EXCESS OF 35 DEGREES CELCIUS FOR 8 MONTHS OF THE YEAR, THE BUILDINGS CREATE A LAYOUT WITH NORTH FACING GARDENS. IN ADDITION TO THAT, EACH OF THE 800 HOSTEL ROOMS HAVE ANGLED WINDOWS FACING THE NORTH. THE TWO LARGE CAFETARIAS WITH GAMES ROOMS FORM THE FOCAL POINTS WITHIN THE LAYOUT.

TYPICAL NORTH FACING WINDOWS

- Designed in 4 level high, 5 linear blocks, the built spaces snake across a wedge shaped site twisting and turning along their length. Sitting adjacent to repetitive hostel blocks on the east and west these new hostels within a large university campus create individual spaces within a discernible identity in each part of the layout.

- The orientation of all the buildings are done with a view of generating large north facing garden areas overlooking a vast playground towards the north. In addition, each hostel room is punctuated with a wedge shaped bay window oriented towards the north and the playground.

- Each hostel room has ventilation openings in the internal corridor facilitating cross ventilation. The linear buildings create small break out spaces at each bending point allowing natural light into the internal circulation spaces.
- These factors create an energy efficient building minimizing heat gain in response to the climate which has average temperature in excess of 30^0 c for 8 months of the year when the sun is in the Southern Hemisphere. During the winter months when the sun is in the Northern Hemisphere, direct sunlight is facilitated to prevent the rooms from becoming cold.

- The organic layout of the buildings characterizes each space within the site. Color accentuates different blocks and facilitates within. Each block is differently colored along with the internal face of the bay windows of the hostel in bright colors to create an identity.
- Rain water harvesting and water recycling and usage of solar panels additionally make the project more energy efficient along with the orientation and facilitation of natural ventilation.

- The Street is contextual to the climate and the orientation of the site thus creating varied experiences and changing perceptions of space in each part of the 6acre site.

GROUND FLOOR PLAN

LEGEND 1.HOSTEL WING-01 ENTRY; 2.HOSTEL WING-02 ENTRY; 3.DORMITORY ENTRY; 4.CAFETERIA & GAMES ROOMS; 5.HOSTEL WING-05 ENTRY; 6.HOSTEL WING-04 ENTRY; 7.HOSTEL WING-03 ENTRY; 9.EARTH BERM; 10.GREEN OPEN SPACE WITH 3.6M WIDE PATHWAY

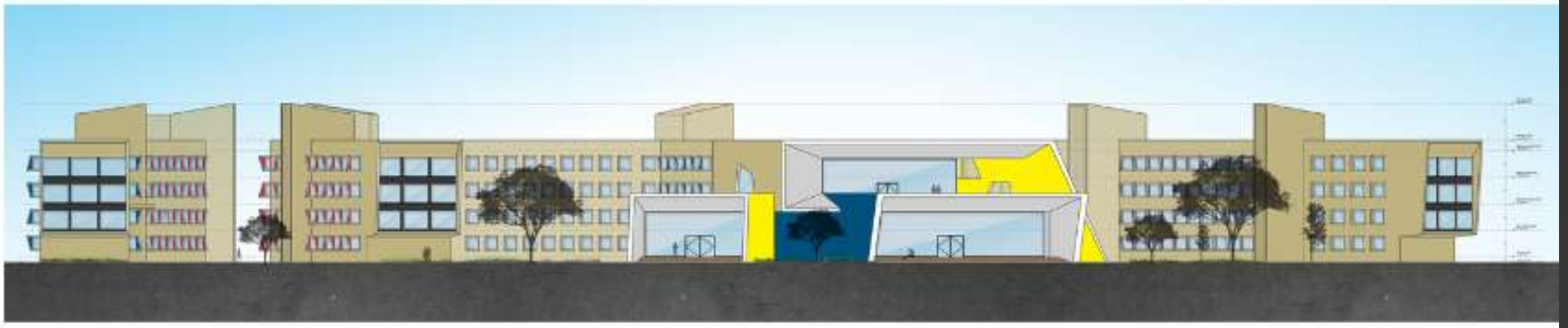
TYPICAL FLOOR PLAN

LEGEND 1.HOSTEL WING-01 ENTRY; 2.HOSTEL WING-02 ENTRY; 3.DORMITORY ENTRY; 4.CAFETERIA & GAMES ROOMS; 5.HOSTEL WING-05 ENTRY; 6.HOSTEL WING-04 ENTRY; 7.HOSTEL WING-03 ENTRY; 9.EARTH BERM; 10.GREEN OPEN SPACE WITH 3.6M WIDE PATHWAY

TYPICAL HOSTEL WING SECTION

TERRACE FLOOR PLAN

LEGEND 1.HOSTEL WING-01 ENTRY; 2.HOSTEL WING-02 ENTRY; 3.DORMITORY ENTRY; 4.CAFETERIA & GAMES ROOMS; 5.HOSTEL WING-05 ENTRY; 6.HOSTEL WING-04 ENTRY; 7.HOSTEL WING-03 ENTRY; 9.EARTH BERM; 10.GREEN OPEN SPACE WITH 3.6M WIDE PATHWAY



SITE ELEVATION

LONGITUDINAL SITE SECTION

LATITUDINAL SITE SECTION