

SWARNNIMA MITTAL  
architecture portfolio

selected works 2015-2020

# C / V



## SWARNNIMA MITTAL

Date of Birth : 25th May 1996  
Address : 69, Sharnam County,  
South Bopal  
Ahmedabad-380058  
Nationality : Indian  
Phone : +91 9773025456  
Languages : English, Hindi  
e-mail : mittal.swarnnima@gmail.com

### EDUCATION

2015-2020  
**Bachelors in Architecture (7.67 GPA)**  
School Of Planning And Architecture,  
Bhopal, India

2014  
**Senior Secondary Education**  
Tulip International School,  
Ahmedabad, India

### OTHER COURSEWORKS

2020 (Ongoing)  
**Circular Economy - Sustainable  
Materials Management**  
Lund University, Sweden  
Online Course

2017  
**International Centre for Culture &  
Education (ICCE) - Green Revolution  
Certificate Program - A Grade**

2016  
**Autodesk Revit- Certificate Program**  
**Autodesk AutoCAD- Certificate Program**

### SOFTWARES

**DRAFTING**  
Autodesk AutoCAD

**3D MODELLING**  
Trimble sketchUp  
Archicad

**BIM**  
Revit Architecture

**RENDERING**  
V-Ray for Revit and SketchUp  
Enscape for Revit and SketchUp

**PRESENTATION & GRAPHICS**  
Adobe Fresco  
Adobe Photoshop  
Adobe Illustrator  
Adobe Indesign

### SKILLS

Concept Development, Conceptual  
Sketching, Visualisation, Documentation,  
Architectural Model Making, Technical  
Drawing, Graphic Design, Presentation.

### ACADEMIC PROJECTS

2020 / Sem 10 / Graduate Thesis  
Baanskhedi Crafts Village : Livelihood  
centric Social Housing for Skilled  
Migrants' Community

2019 / Sem 9 / Urban Design  
Study & Proposal for Historic Urban  
District of Motia Talab, Bhopal

2018 / Sem 7 / Housing Design  
Housing for Smart City, Bhopal

2018 / Sem 6 / Hospitality Design  
Five Star hotel Design, Ganpatipule

2017 / Sem 5 / Museum Design  
Air India Aviation Museum, Mumbai

2017 / Sem 4 / Insignia Based Design  
Public Art Gallery Design, Bhopal

2016 / Sem 3 / Vernacular Design  
Community Center Design, Chanderi  
Vernacular Documentation, Tangkhul  
Naga, Manipur, India

2016 / Semester 2 / Residence Design  
125 m<sup>2</sup> Dream House

2015 / Semester 1 / Basics  
Product Redesign (Paper Cutter)

### ACADEMIC RESEARCH

2019 / Role of Psychological Ownership  
in the Fate of Social Housing

2020 / Live-Work-Play Paradigm as a  
Means of Establishing Psychological  
Ownership in Social Housing

### WORK EXPERIENCE

July 2020- Present **Freelance Architect**  
Project : VaanPrastha Commune for Elderly seeking  
Maksha, Ahmedabad / Area : 9 Acres  
Role : Ideation and Concept Development,  
Presentation Drawings, Cost Estimate

January - July 2019 **Architectural Trainee, De Boes Architects,  
Brussels, Belgium**  
16 Months  
Projects Typology: Facade Design, Retail space  
Design, Residential Redevelopment, Landscape  
Role: Technical Drawings, Detailing, Model  
Making, Presentation, Design and Concept.

June 2017 **Summer intern, Grey Parek Architects,  
Ahmedabad**  
Projects: Residence Design  
Role: Modeling, Technical Drawings, Material  
Research, Presentation

May 2017 **Volunteer, Dharmalaya Institute of  
Compassionate living, Himachal Pradesh**  
Hands on work for Earthen Construction

### COMPETITIONS

2018 **Museum of language, London (Archasm  
Competition)**  
**(WORLD TOP 50)**

2018 **Hand in Glove, Communication Room,  
(120 Hours Competition)**

2017 **Art Bridge, Amsterdam, Netherlands**  
Archasm Competition

2017, 2016 **Nari Gandhi Trophy, NASA**  
Cost Consciousness- Shiram School, Mawana,  
Culture & Architecture- Sarod Ghar, Gwalior

### WORKSHOPS

2017 **CSEB (Compressed Stabilized Earth Blocks**  
Masorry, Auroville Earth Institute

2016 **Human Form and Interactive Space**  
Harimohan Pilla, ARCHIESTUDIO

2016 **Integral Studio (Railway Station ReDesign )**



- 01 BAANSKHEDI CRAFTS VILLAGE, BHOPAL**  
Academic 2020 / Undergraduate Thesis Project
- 02 HOTEL SEA-LID**  
Academic 2018 / Hospitality Design
- 03 LOST IN TRANSLATION- HISTORIC URBAN  
PRECINCT OF MOTIA TALAB**  
Academic 2019 / Urban Design Studio
- 04 RESIDENCE TER POORTE**  
Professional 2019 / De Baes Architects
- 05 THE CURIOUS CASE OF COST**  
Competition 2017 / Documentation and Analysis
- 06 [POD]IUM OF LANGUAGE**  
Competition 2018 / Museum Design
- 07 OTHER WORKS**  
Hands-on Work  
Volunteer work at Dharmalaya  
CSEB Workshop at Auroville Earth Institute  
Photography



01

## BAANSKHEDI CRAFTS VILLAGE, BHOPAL

LIVELIHOOD CENTRIC SOCIAL HOUSING FOR  
MIGRANT BAMBOO CRAFTS COMMUNITY

Project Type : Social Housing Design (UG Thesis Project)  
Program : Rehabilitation Proposal for Migrant Bamboo  
Crafts community  
Location : Bhopal, Madhya Pradesh, India

One of the main difficulties for a developing nation like India is urban migration, which is additionally exacerbated by cost constraints to fulfil increasing housing needs. Social Housing allotment provides slum dwellers the chance to move into better housing on the city's fringe. However, no adjustment in tenure security, family income, or human capital, caste systems, safety etc. cause around 34 per cent of the individuals to never really take up the allotted housing.

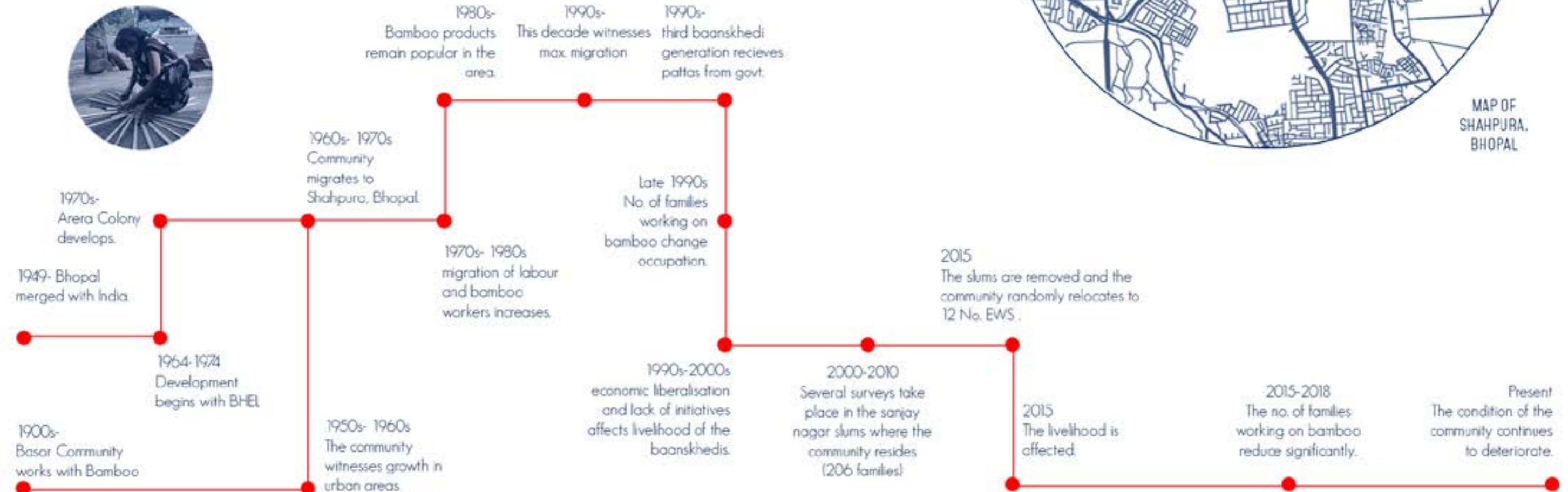
It is important to understand that migrant communities cannot function in isolation without their social network. Social network is what gives them a sense of familiarity in cities that seem to reject them. The following thesis proposes familiarity on all fronts- living, working and sociability- for the baanskhedis, in order to revive the community and their bamboo crafts in the city.

## WHO ARE THE BAANSKHEDIS ?

Baanskhedi Community is a bamboo crafts community comprising of about 206 families in Bhopal, Madhya Pradesh. The families belong to Basor community, a hindu caste and originally migrated from Tikamgarh.

The Basor are marginal farmers and sharecroppers. Their traditional occupation was basket making and animal husbandry. Like other artisan castes, they have seen in their traditional occupation, with a concurrent rise in the number of daily wage labourers. Traditionally, they used to work as a labourers and bamboo works. They also act as village musicians especially during processions, marriages and other socio-religious ceremonies.

## TIMELINE OF THE BAANKHEDIS



### THEIR LIVELIHOOD



Presently, about a hundred families work with bamboo crafts while others work as daily wage labourers and domestic help in the area. Many artisan families switched their livelihood due to decreasing popularity of bamboo products and difficulty in sustaining life in urban areas.



Wedding celebrations require bamboo products and logs, thus contributing the maximum to the earning of baanskhedi people.



Tall Ravana figures are made for Dussehra, made entirely from bamboo. Maximum skills of the community are put to use during this season.



Baanskhedis also earn their living by supplying bamboo products needed during cremation.

The craftsmen earn the least during the rainy season, due to lack of shelter for bamboo works.



## THE RURAL LIFE



1. Bason weaving bamboo baskets in a 1915 book.

2,3. Junctions become public places for social gatherings and courtyards become semi public spaces for working in Bason Villages



SAN



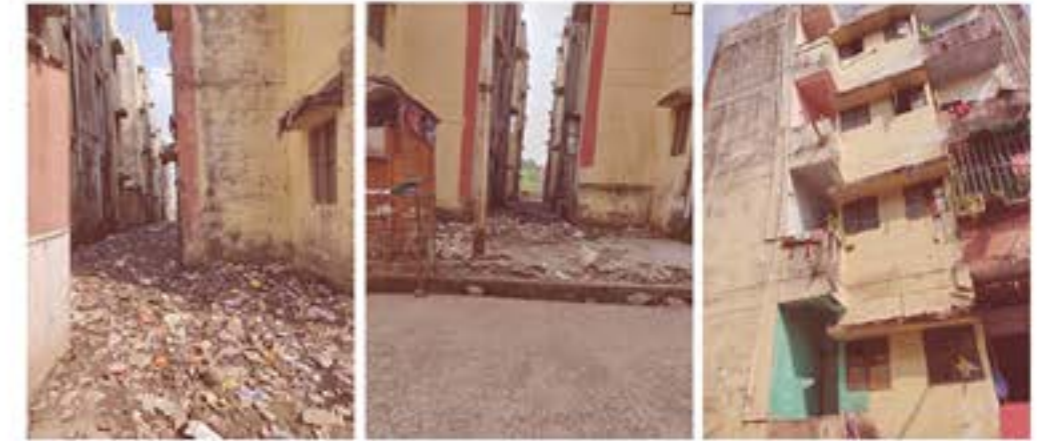
4. The Basons are a close knit community, their dwellings are arranged around a central courtyard that they use to store bamboos and interact.

5. Most of the community is unaware of the initiatives taken by State Bamboo Mission. Hence their source of income remains limited and even in the village, their lives aren't any simpler.

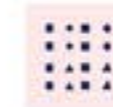


## THE PRESENT HOUSING

12 No. EWS Housing accomodates families from 5-6 slum rehabilitation projects. A random allotment has broken communities, ruined livelihoods, wrecked mental health of several people. The dilapidated blocks show the insensitivity of the government towards economically weaker sections of the society and lack of attachment of the latter with their homes.



## FEATURES OF THE PRESENT HOUSING



### ONE FITS ALL APPROACH

No consideration for spatial requirements or culture or routine.



### CHANGE IN OCCUPATION

Many baanskhedis have left their skilled crafts to work as labour and house help for hand-to-mouth living.



### NO COMMUNAL SPACES

There are no open spaces to interact, or play other than for the roads.



### RANDOM ALLOCATION OF HOUSES

This has left families stranded and broken from their community.



### SUDDEN TRANSITION FROM INFORMALITY

The families now have to pay up electricity, gas bills with no increase in income.



### POOR LIVING CONDITIONS

With wall plaster falling off with one firm fist, leaking ceilings and damp walls, people live in inhumane conditions.



### EXCLUSION OF LIVELIHOOD IN HOME

What once used be work-cum-live environment is no barely liveable.

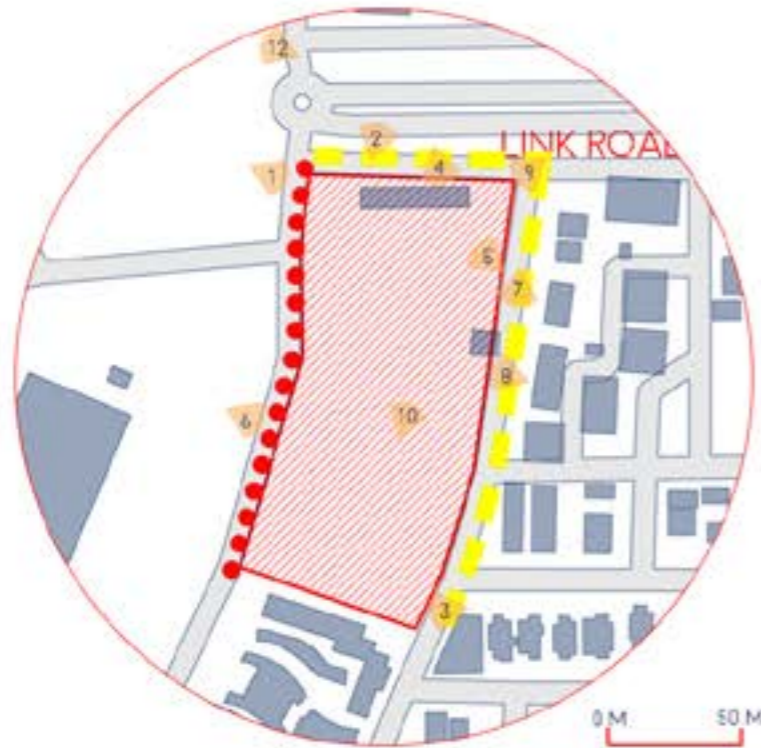


### DESIGN FOR NUCLEAR FAMILIES

The design does not include that not all families are nuclear, so when a big family is divided in, their expenses become triple.



With little possibility for appropriation, residents still colour their walls for a sense of belongingness. Residents that painted their homes have mostly acquired tenure rights.



▲ SITE PLAN  
▼ SITE VIEWS



1. The community currently occupies the footpath of ravan mandi during the day for selling bamboo crafts



2. A dense green belt divides the link road and service road



3. Vegetation  
4. Abandoned school on site



5. Abandoned structure on the site



6. Baanskhedhi Bus stop on the main road adjoining the site



7. Views of the site from east arterial road



8. Unused water tank on the site periphery

## SITE PROPOSAL

The proposed site is the land previously occupied by Sanjay Nagar slums. The baanskhedhis lived there for six long generations before moving to 12 no. EWS Housing. Even now, the residential land remains vacant with no plans for the future. Thus, the proposal intends to use the land for benefit of a skilled crafts community.

Bhopal is the capital city of the Indian state of Madhya Pradesh and the administrative headquarters of both Bhopal district and Bhopal division. Bhopal is known as the City of Lakes for its various natural and artificial lakes and is also one of the greenest cities in India. Bhopal is a city of royal lineage that emits the charm of days bygone through its colour, flavour and character.



BHOPAL MASTER PLAN LAND USE

RESIDENTIAL	RECREATIONAL LAKE FRONT
PROPOSED RESIDENTIAL	CITY FOREST
CENTRAL EXHIBITION GROUND	PROPOSED COMMERCIAL
EDUCATION	CITY CENTRE



EXISTING LAND USE MAP

RESIDENTIAL	RECREATIONAL LAKE FRONT
COMMERCIAL	CITY FOREST
EDUCATION	PROPOSED COMMERCIAL

## SITE ANALYSIS FOR DESIGN

### NATURAL FEATURES:

The site lies in the catchment area of Shahpura lake with a maximum slope of 16%, making all the land permissible for construction. The vicinity is abundantly green, thus site planning should take vegetation and surface run off into consideration.



### BUILDING BYE-LAWS:

The building bye-laws allow for 30% ground coverage for residential areas with 15 m MOS at frontage and 6 m MOS on other sides. These areas should be used for livelihood centric activities of the Baanskhedhi community.



### CLIMATE STUDY:

Bhopal has a humid subtropical climate, with cool dry winters, a hot summer and a humid monsoon season. For such a climate, it is important to consider the comfort within and outside during both day and night.





## THE LIVE-WORK-PLAY PARADIGM

Mixed use development has been around for as long as mankind. Our rural areas are a live-work-play model if we look closely enough. People work on their porches, in their rooms, courtyards and even socialise in these places. The same areas are then used for sleeping and cooking at night. If we look deeper, even the slums in our cities follow a similar model. However, a successful vernacular model like this is rarely seen in slum rehabilitation. Livelihoods are often ignored, communal spaces are absent in order to increase occupant density, and dwellings are based on "one-fits-all" approach. Therefore, in order for the housing to be accepted and appreciated by the community, LWP model is indicated in the design fulfilling needs of a rural household in an urban setting.



### OBJECTIVES

**PROFITABLE MICRO-ECONOMIC ACTIVITY FOR BOTH SOCIETY AND INDIVIDUAL**

- Accommodation for livelihood in social housing.
- Provide skill exposure and learning opportunities.
- Scope for appropriation

**SCOPE FOR STEADY TRANSITION FROM INFORMALITY TO FORMALITY.**

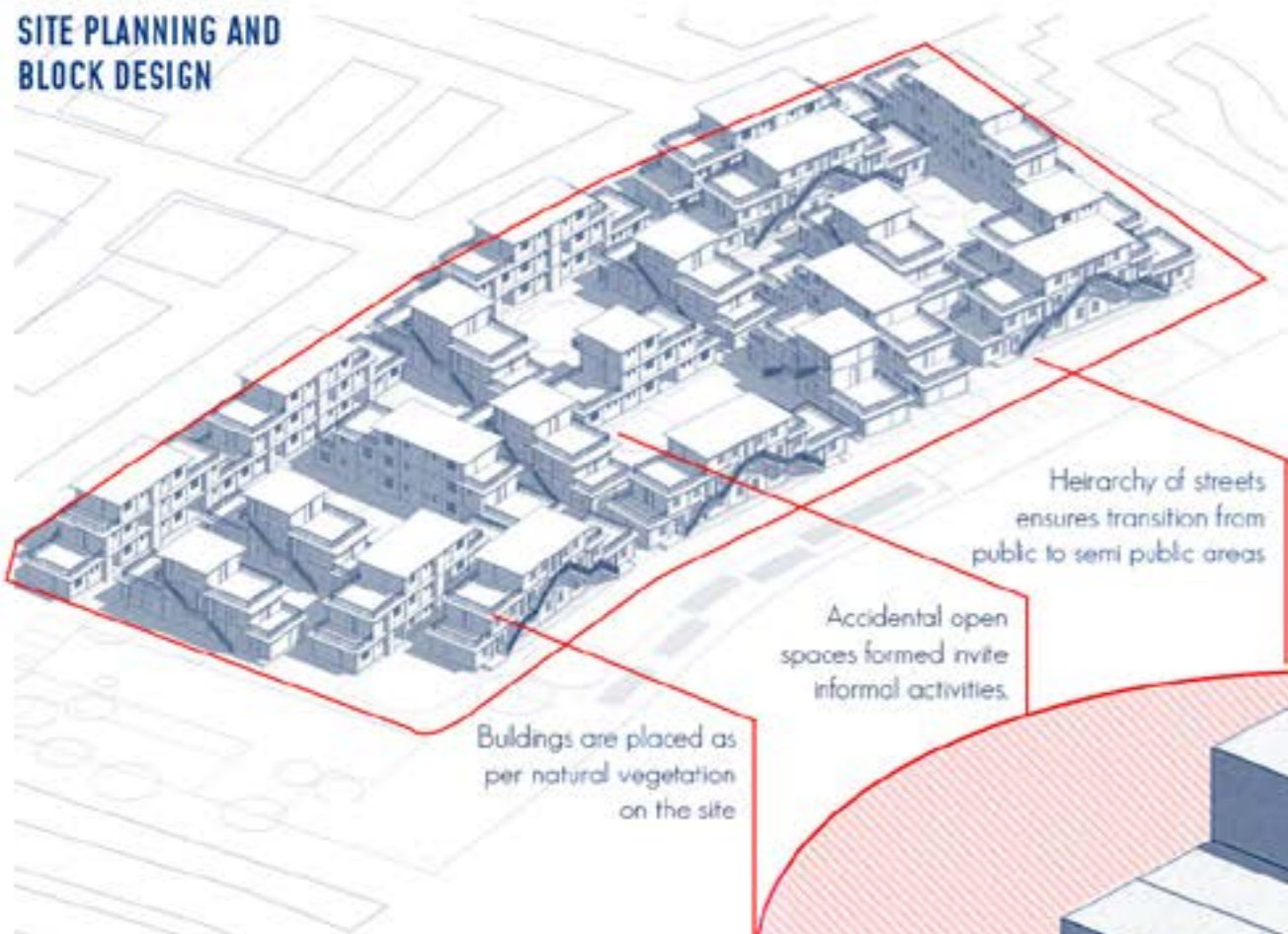
- One only fits one approach while considering spatial requirements.
- Minimum societal dependence dignifies communities.
- Scope for informal activities.

**SOCIAL, CULTURAL AND ECONOMIC VISIBILITY OF EWS HOUSING.**

- Establishment of psychological ownership amongst residents.
- societal, social and individual upliftment.
- Improvement in safety and security.

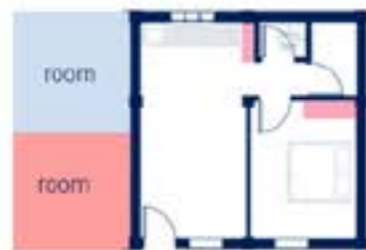


## SITE PLANNING AND BLOCK DESIGN



## POSSIBILITIES OF EXPANSION

Additional Built-Up for future expansion ensures residents' future needs are accommodated.



## STRUCTURE & MATERIALS

Rigid Frame structural system ensures savings in construction cost.

Cast iron staircase acts an aesthetic element for building elevation, as well as removes the need for service core in the building.

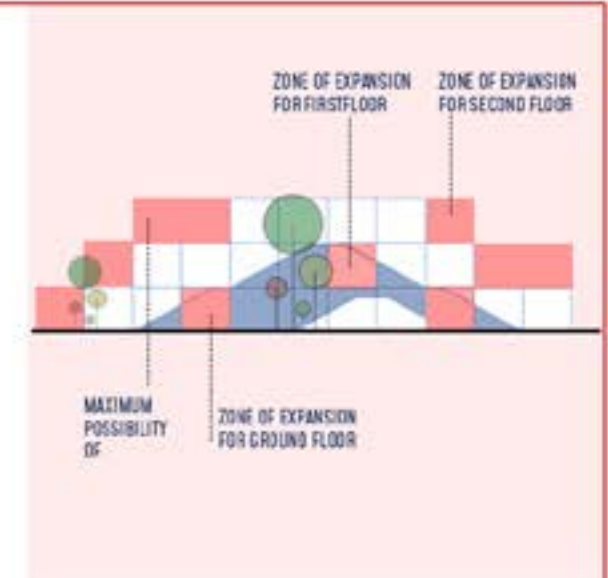
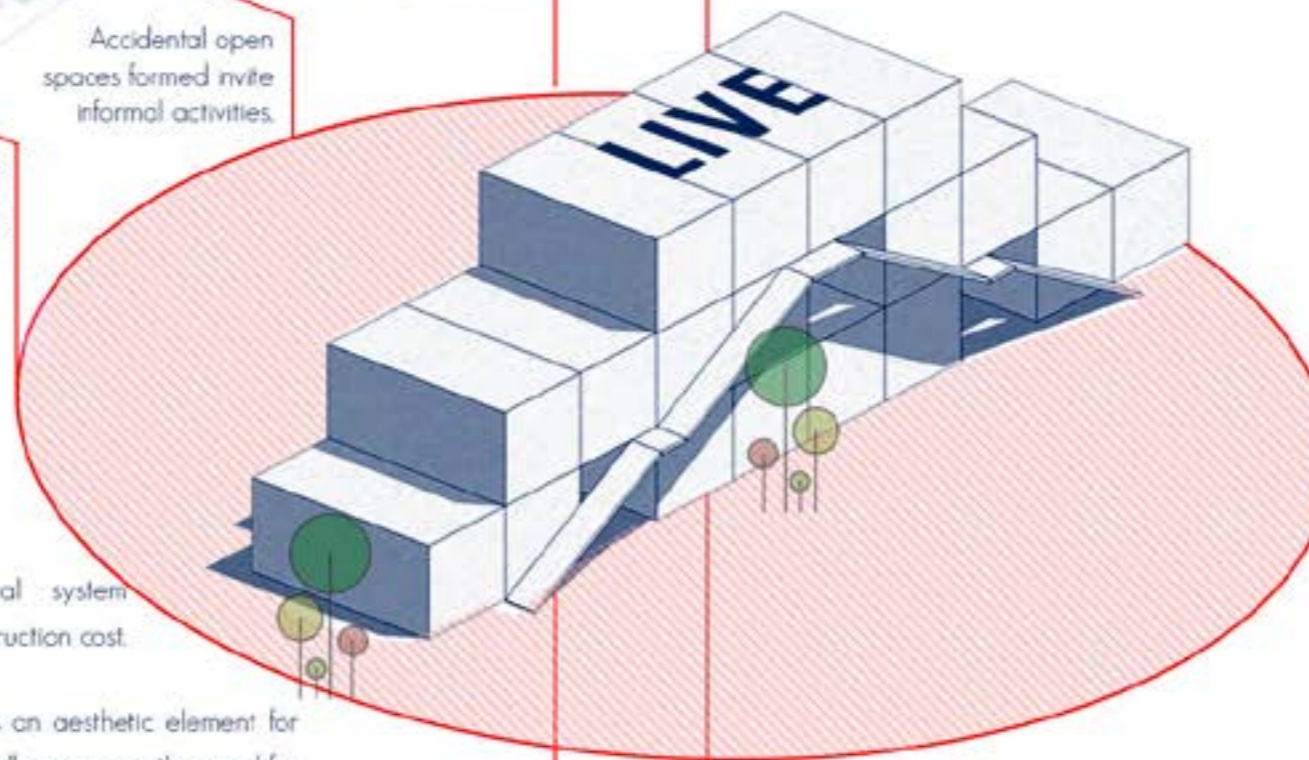
Brick walls with cement plaster give opportunity for appropriation by residents.



Lateral expansion discourages moving further away from built in services, thus encouraging people to keep open spaces

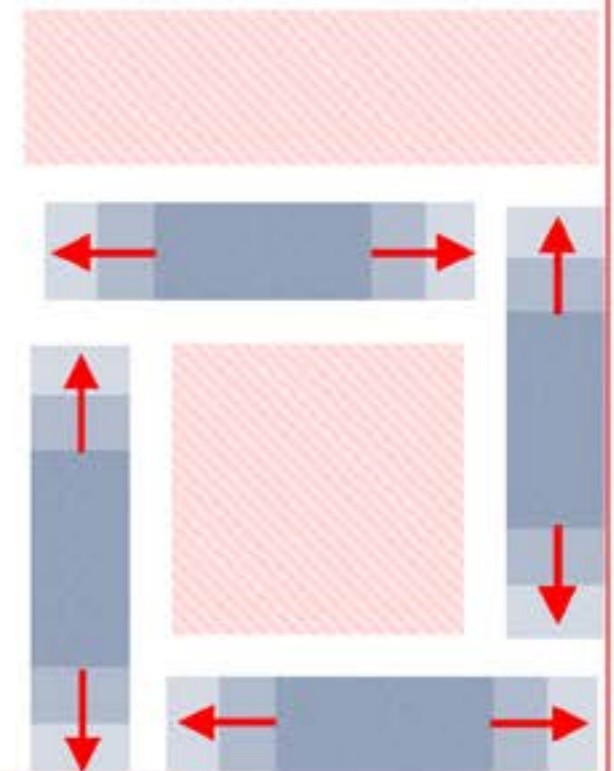
## ARCHITECTURAL LANGUAGE UNAFFECTED BY INCREMENTALITY

Even though Baarskhedi Crafts Village will witness effects of societal changes, condensation and layering over the years, stepped design of the units would ensure that the architectural language is maintained. This also makes expansion of household independent of the ones above or below it.



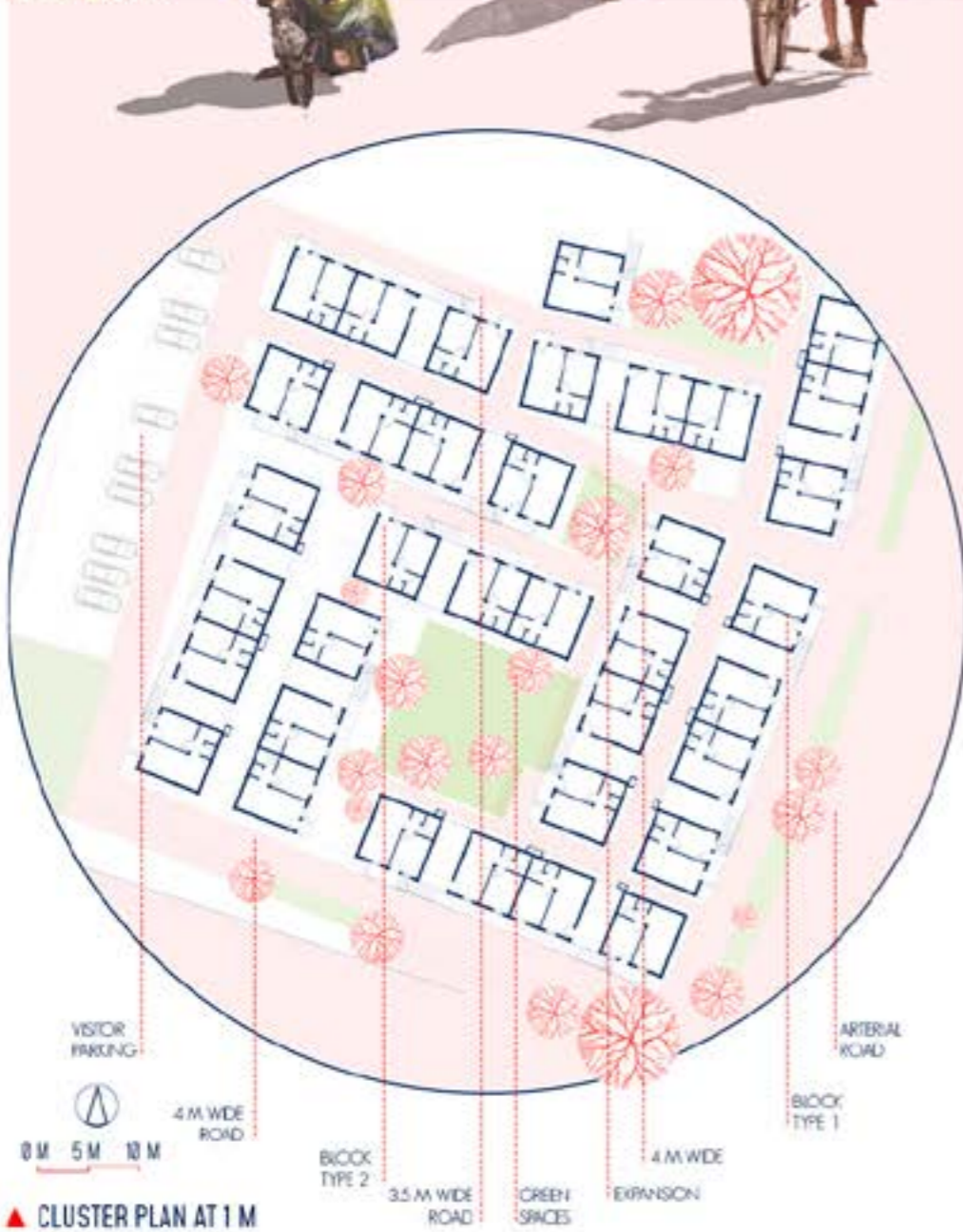
## LATERAL GROWTH INSTEAD OF INWARD/OUTWARD GROWTH

Inventive appropriation of the basic building can only happen along the sides of the units, keeping the ground cover constant throughout the process of condensation and layering over the years.



## SAME CARPET AREA WITH VARIATION IN BUILT UP FOR DIFFERENT FAMILY SIZES

Each dwelling gets a carpet area of 30 m<sup>2</sup> with built-up area varying from 37 m<sup>2</sup> to 72 m<sup>2</sup>. This ensures that ever household has the convenience of appropriating the basic building as per their family size and affordability.

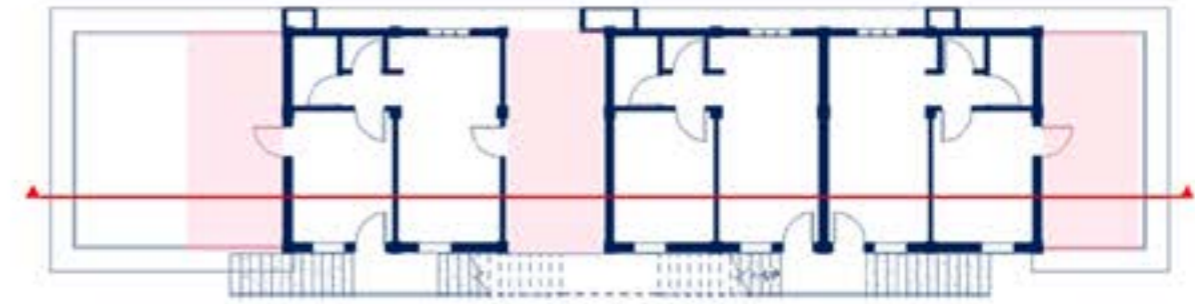


**GROUND FLOOR PLAN**

NO. OF DWELLINGS = 4

AREA/DU = 37 M<sup>2</sup> - 52 M<sup>2</sup>

CARPET AREA/DU = 30 M<sup>2</sup>

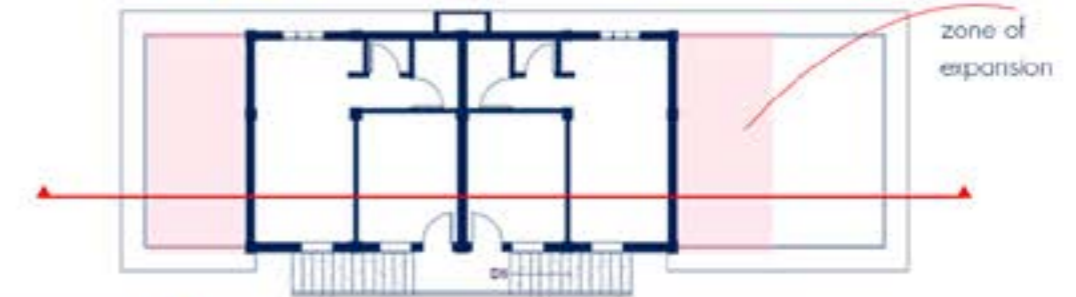


**FIRST FLOOR PLAN**

NO. OF DWELLINGS = 3

AREA/DU = 37 M<sup>2</sup> - 72 M<sup>2</sup>

CARPET AREA/DU = 30 M<sup>2</sup>



**SECOND FLOOR PLAN**

NO. OF DWELLINGS = 2

AREA/DU = 52 M<sup>2</sup> - 72 M<sup>2</sup>

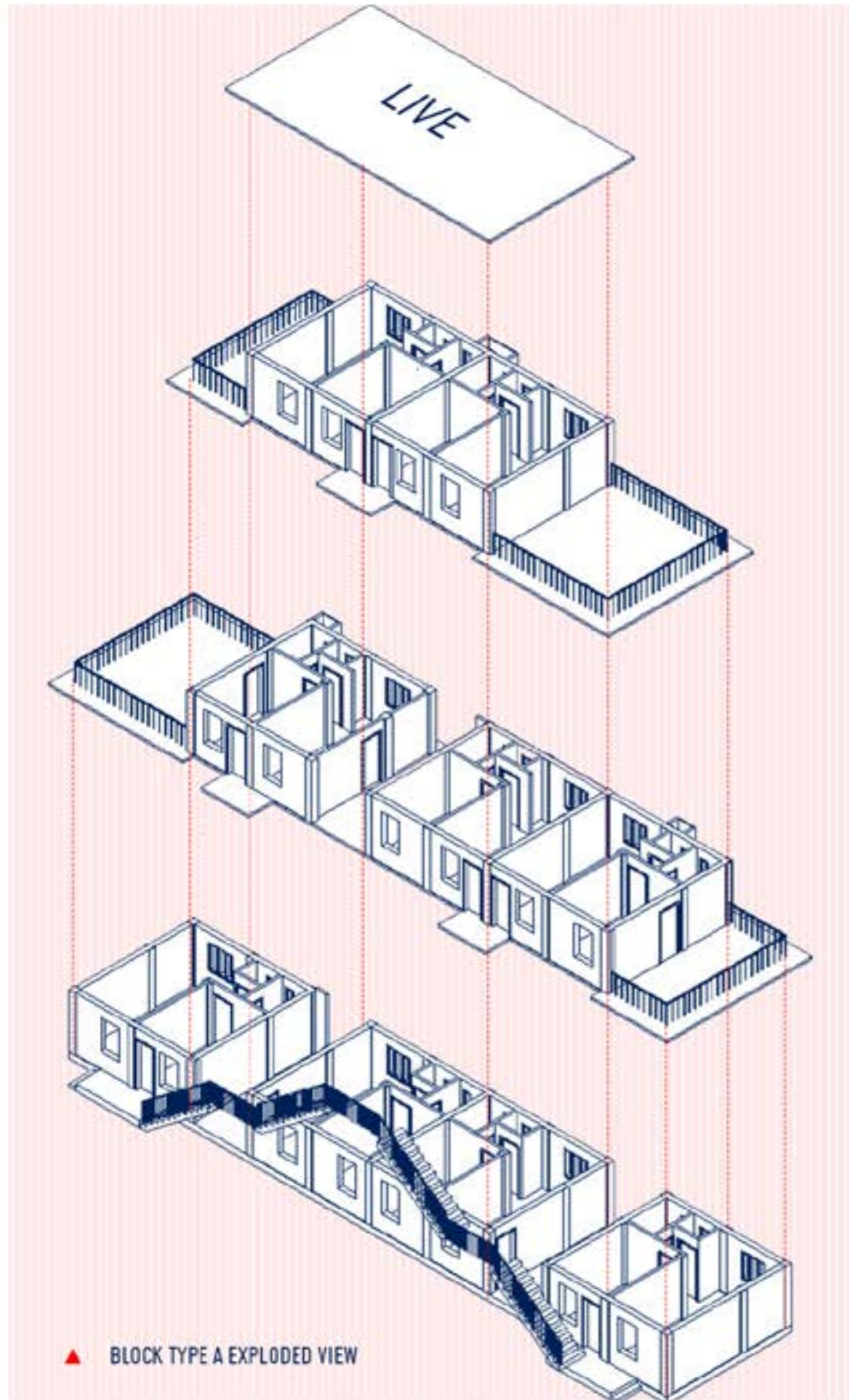
CARPET AREA/DU = 30 M<sup>2</sup>

▲ BLOCK TYPE A FLOOR PLANS

▼ BLOCK TYPE A SECTION

0 M 5 M

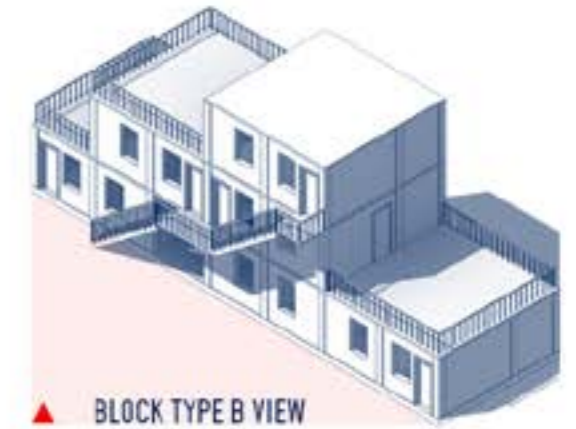




▲ BLOCK TYPE A EXPLODED VIEW

## STEPPED TERRACES

Streets and open spaces are important sociable spaces for every community. Considering land and construction costs, most of the social housing projects go beyond 2 floors. The moment this happens, the cuboidal blocks placed in a grid become isolated. The streets that were meant for interaction become lines of disconnect. In Baanskhedh Crafts Village, the block footprint guided by the natural features of the site, when combined with stepped terraces creates perfect opportunity for interaction on all levels.



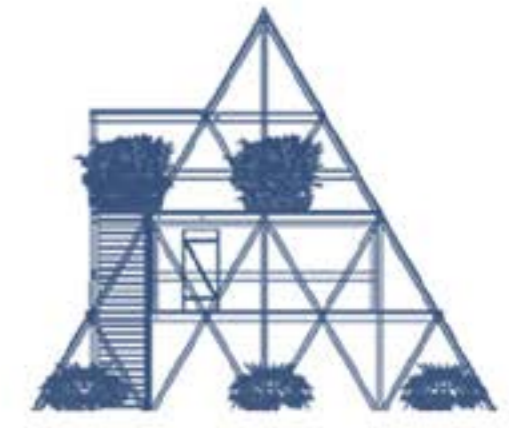
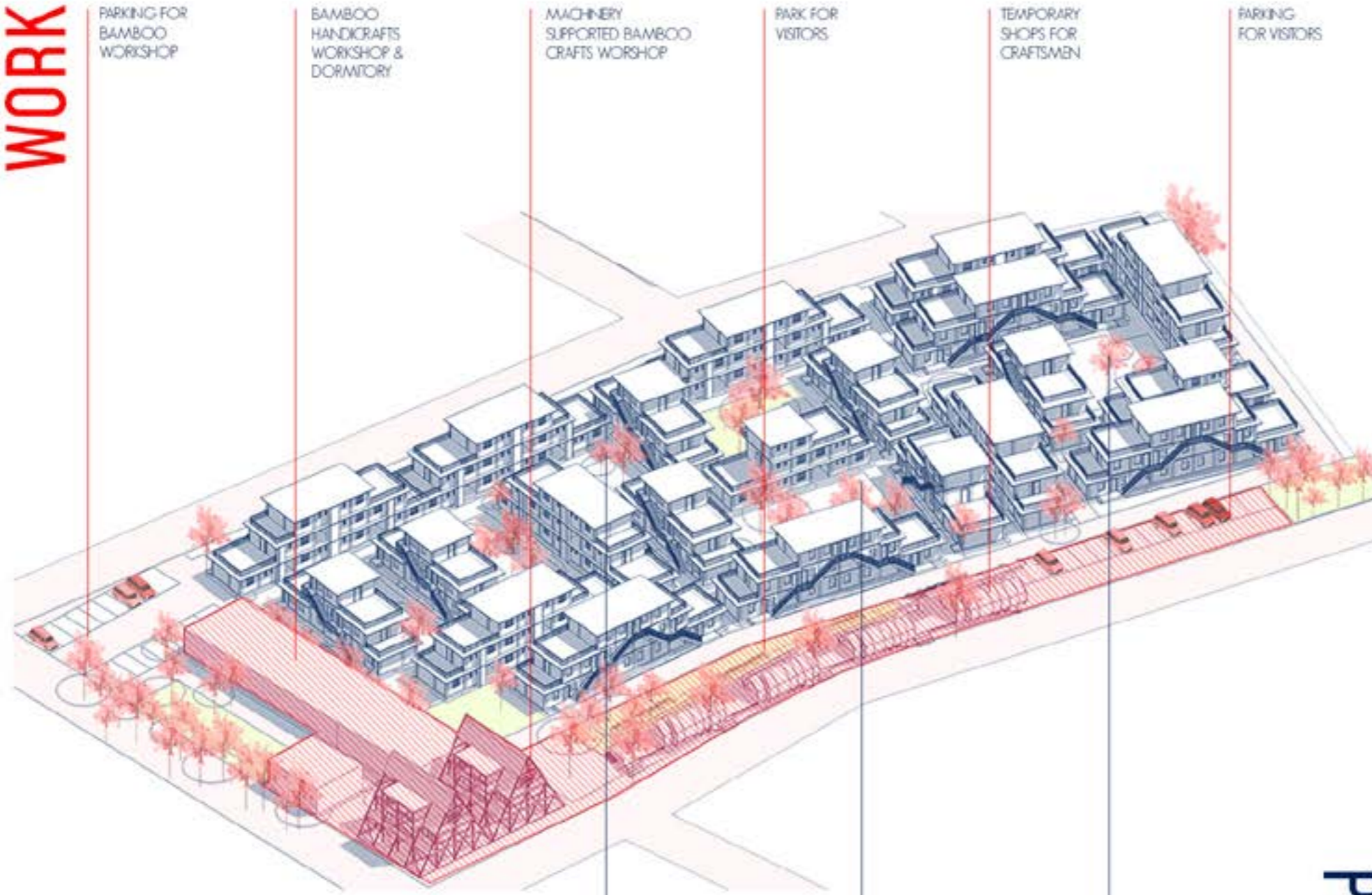
▲ BLOCK TYPE B VIEW



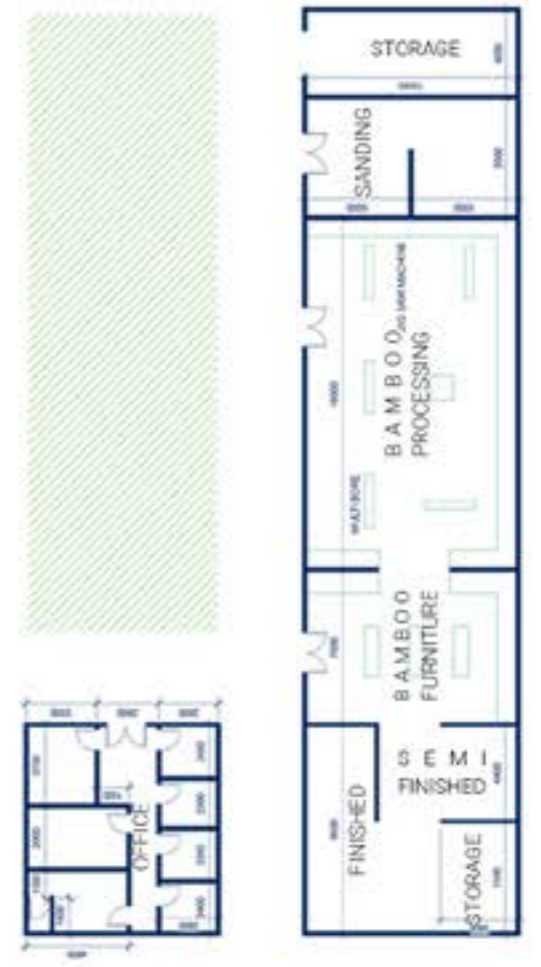
▲ BLOCK TYPE A ELEVATION  
▼ VIEW OF INNER COURTYARD



# WORK



▲ HANDCRAFT WORKSHOP ELEVATION  
▼ MACHINE SUPPORTED CRAFTS WORKSHOP PLAN



▲ BAANSKHEDI CRAFTS VILLAGE VIEW  
▼ RESIDENTIAL AREA FRONT ELEVATION

ACCIDENTAL OPEN SPACES FOR LOCAL COMMERCE  
COMMUNAL AREAS FOR WORSHIP  
AREAS FOR PLAYING

# PLAY





02

## HOTEL SEA-LID

5 STAR HOTEL ON ARABIAN SEA COAST

Project Type : Hospitality Design (Academic 2018)

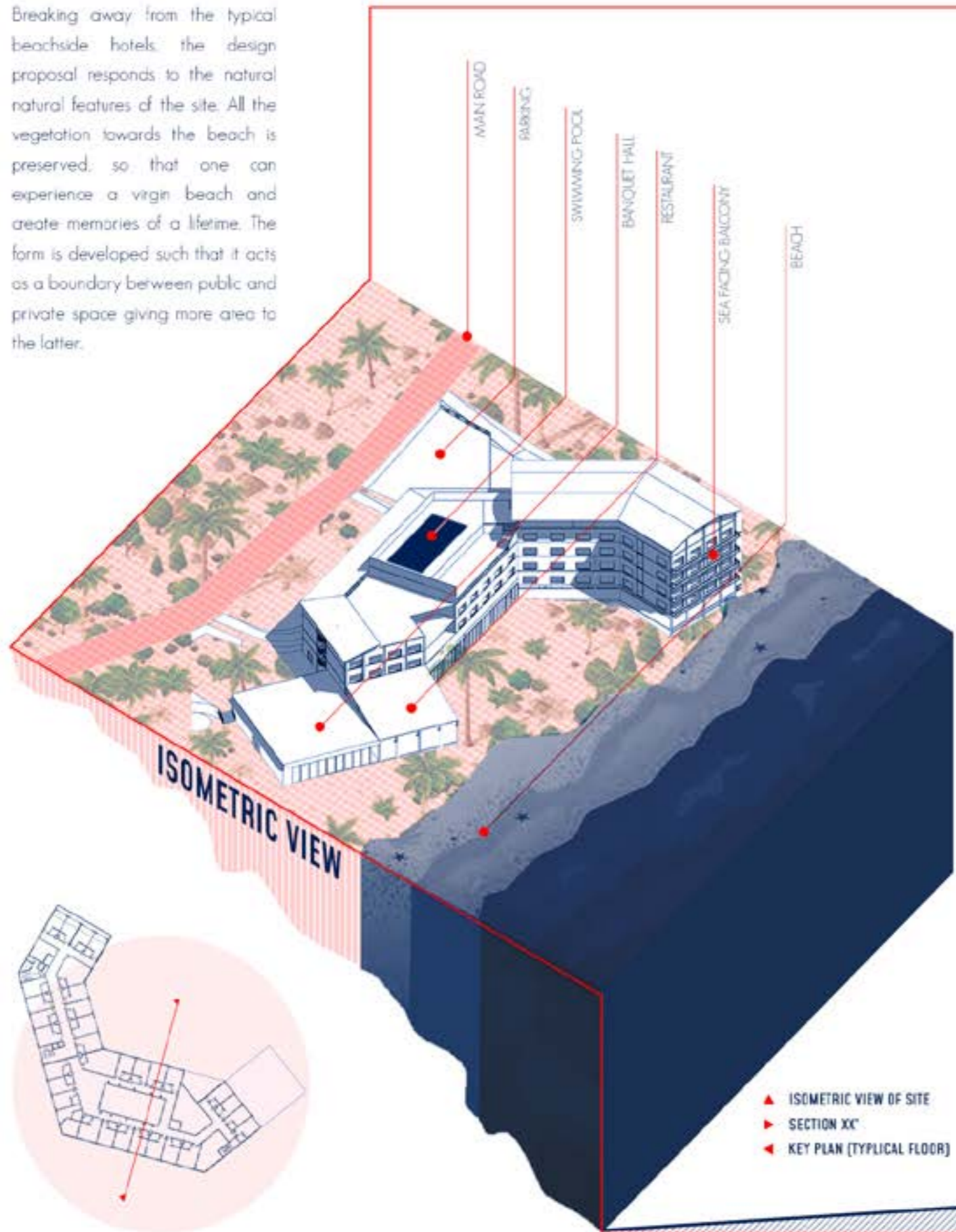
Program : 100 Key Five Star Hotel

Location : Ganpatipule, Maharashtra, India

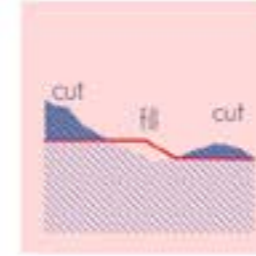
Ganpatipule is a small town located 25 kms north of the city of Ratnagiri in Ratnagiri district on the Konkan coast of Maharashtra in the sub-continent of India. It attracts many tourists throughout the year and offers one of the cleanest beaches in India. With the development of tourism, a number of resorts and hotels have opened in this small town.

The brief requires a 100 key Five Star Hotel design proposal for the site of Ganpatipule, Maharashtra. The coastal site is developed to enhance local eco-tourism and create a memory that lasts long after the experience is over.

Breaking away from the typical beachside hotels, the design proposal responds to the natural natural features of the site. All the vegetation towards the beach is preserved, so that one can experience a virgin beach and create memories of a lifetime. The form is developed such that it acts as a boundary between public and private space giving more area to the latter.

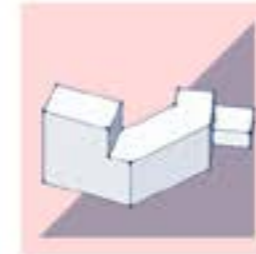


## DESIGN FEATURES



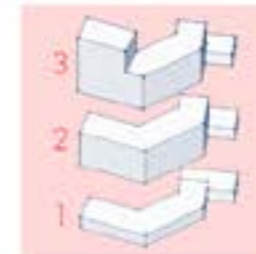
### SITE DEVELOPMENT

3 different levels of base floor plate ensure that there is minimum cut and fill. This makes site development easier and faster. The orientation of the building pods is such that they are mostly linear with the contours to ease the work of leveling.



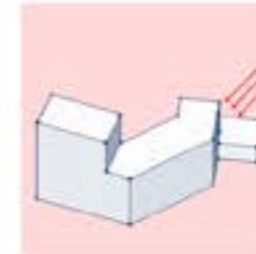
### TRANSITION IN SPACES FROM PUBLIC TO SEMI PUBLIC

The form is developed in a manner that it acts as a boundary between public and private space giving more area to the latter.



### FORM DEVELOPMENT

The height variation ensures that the shadows block harsh sun for comfort in outdoor leisure activities.



### ORIENTATION AND NATURAL LIGHT

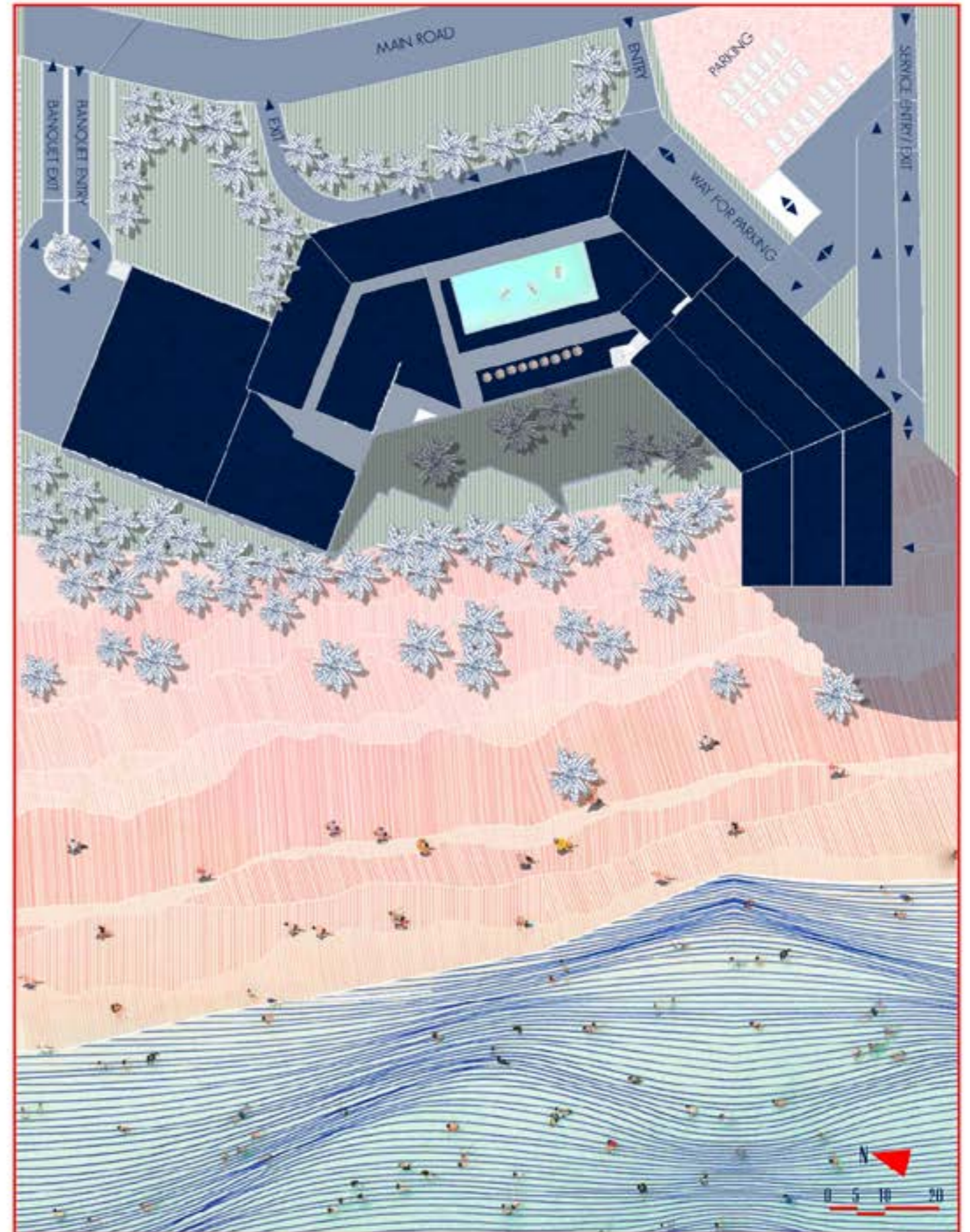
Areas like banquets that need more exposure to daylight have been oriented to the north such that there is ambient lighting throughout the day without any heat gain. The form offers majority of the rooms facing the beach for better revenue generation.

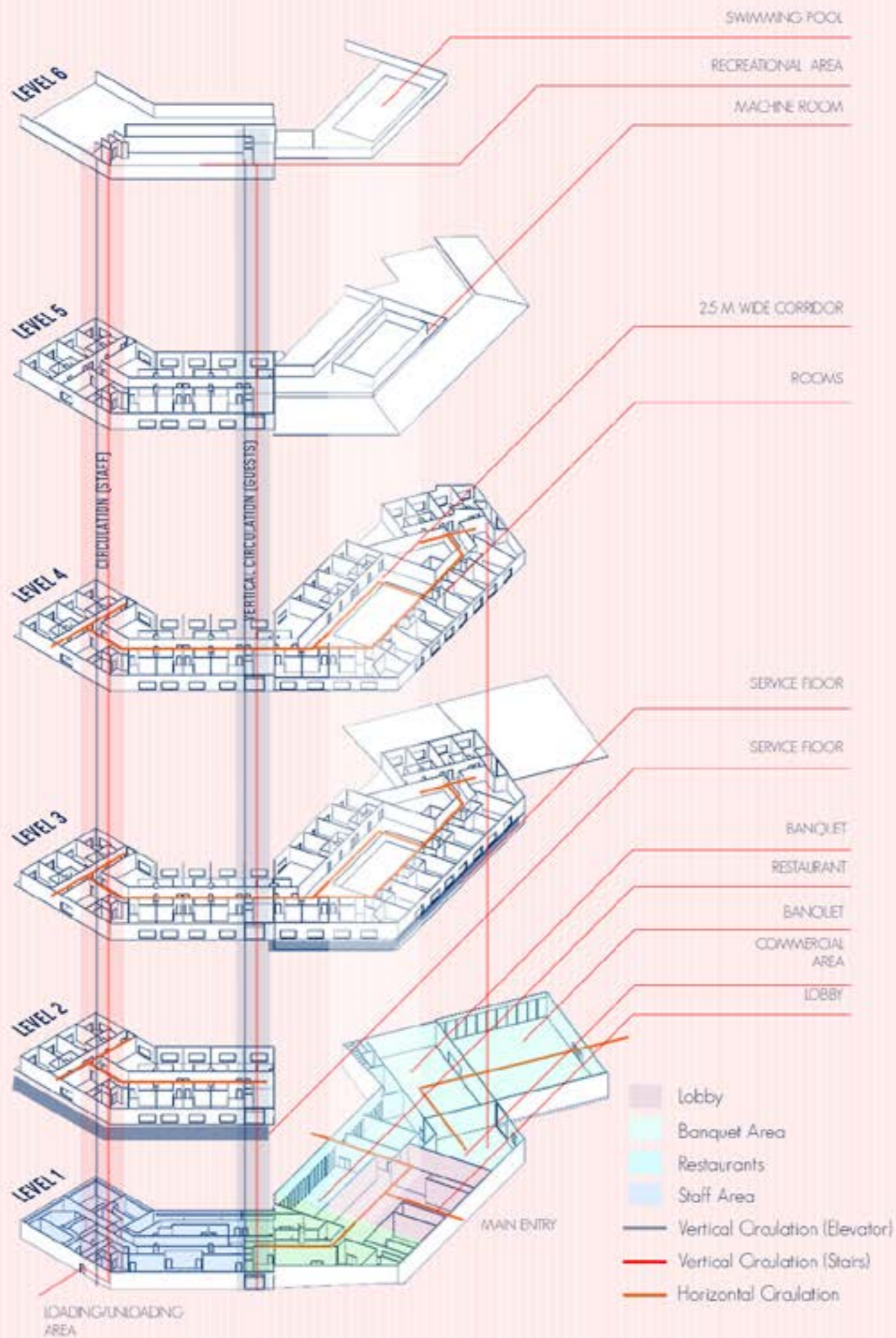




- ▲ A VIEW OF THE ATRIUM WITH OVERHEAD SWIMMING POOL
- ▶ SITE PLAN

'SEA-LID' The hotel does not separate the experience of water from the built environment. A feeling of proximity with the depth of the unbound oceans is provided through the swimming pool on the atrium roof. One can see the sky through the water of the pool, experience a world through water while still being a part of the bound.





The zones in the hotel block have been divided such that there is segregation between public, semi public and private spaces. The zoning takes into consideration that the movement of the guests goes parallel with that of the staff without hindering each other's activities.



- ▲ INTERIOR VIEW OF SUITE
- ▲ FURNITURE LAYOUT
- ▲ EXPLODED VIEW





# 03

## LOST IN TRANSLATION

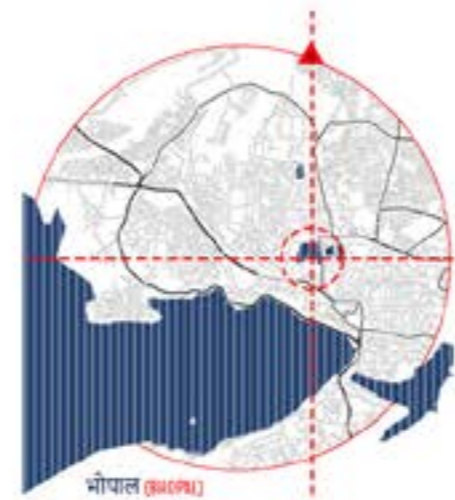
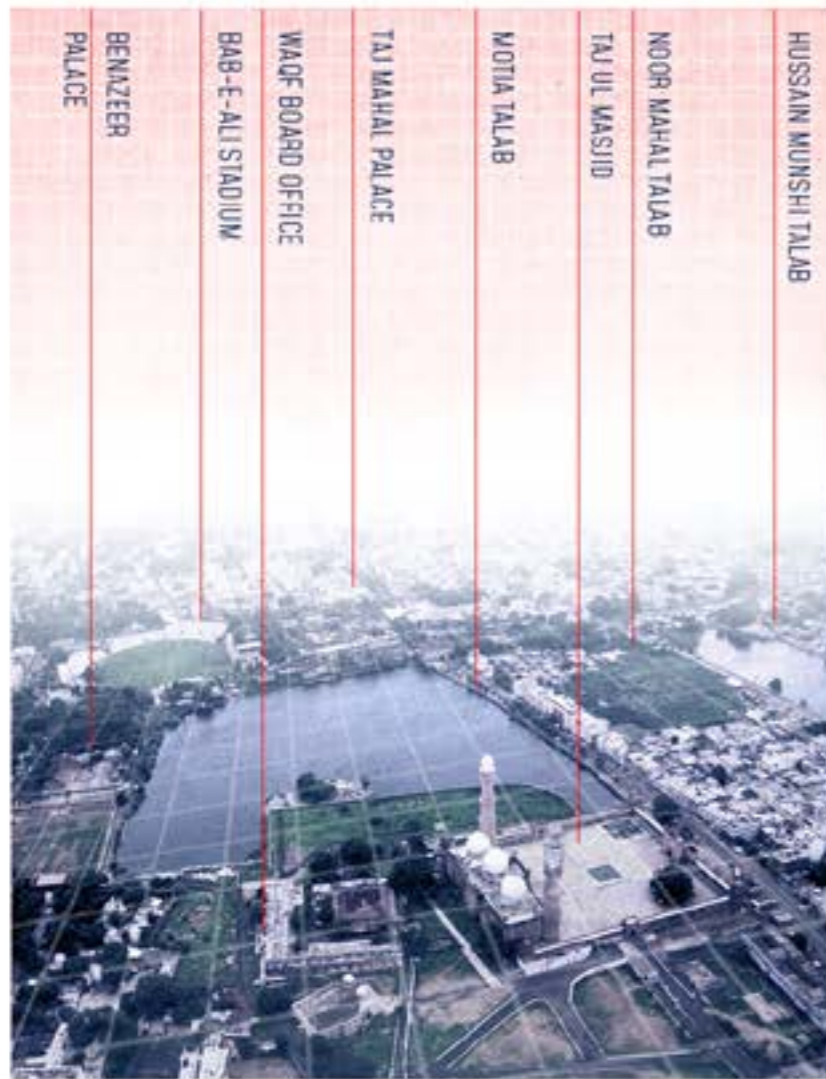
### STUDY AND TRANSFORMATION OF THE HISTORIC URBAN PRECINCT OF MOTIA TALAB

Project Type : Urban Design ( Academic 2019)  
Program : Adaptive Re-Use of de-funct. structures and  
Redevelopment of Historic Urban Precinct  
Location : Bhopal, Madhya Pradesh, India

Historic urban areas are part of the history and memory of a city, and history would be discontinuous without them. They are representatives of the style of a city. Any lone building in these areas is not qualified for special protection and thus it is often ignored. However, when buildings are seen together, they constitute a landscape that displays the typical scene of a city in a certain historical period, giving them a higher value.

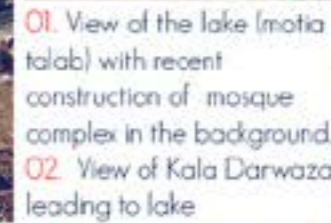
one such area is the walled city of Shahjahanabad in Bhopal. The ambitious development of Shahjahanabad was started under Shahjehan Begum in 1870. It was complete with 'bazaars' (Hindi for markets), 'galla mandies' (Hindi for grain markets), store houses, 'serais', residential quarters and institutions. Three terraced lakes were created in this area with water from one cascading into the next. however, there is no dialogue between the past and present anymore. The precinct has lost its magnificence over time.

The following study focuses on the principles, methods, and current problems of the historical motia talab precinct. Finally, some effective measures to protect the precinct are suggested.



### ABOUT BHOPAL

Bhopal is the capital city of the Indian state of Madhya Pradesh and the administrative headquarters of both Bhopal district and Bhopal division. It is known as the City of Lakes for its various natural and artificial lakes and for being one of the greenest cities in India. Founded in 1707, the city was the capital of the former Bhopal State, a princely state of the British ruled by the Nawabs of Bhopal.



01 View of the lake (motia talab) with recent construction of mosque complex in the background.  
02 View of Kala Darwaza leading to lake  
05 Open land in Taj-ul complex is used as winter market. The local market opens in december.  
06 Physical model of the precinct



03 Govt. offices on the western edge of motia talab.  
04 southern edge of motia talab leading towards Benazir Palace.



### MOTIA TALAB PRECINCT

Shah Jahan Begum, like her famous Mughal namesake, was interested in architecture and laid the foundations of Shahjahanabad and the Taj ul Masjid, or crown of mosques. A plethora of beautiful structures like the Noor Mahal, Barah Mahal, Ali Manzil and Nawab Manzil were her gifts to the city as were three lakes called the Noor Mahal Lake, Mushi Hussan Khan Talab and Talab Taj Mahal.

The historic precinct however, failed to keep up with the present. Most of the structures are in ruins and the cultural landscape of cascading lake system is almost gone. Insensitive use of natural resources, lack of traffic management, no walkability etc are major issues of the precinct. But the spirit of the place is still seen in its serene evenings by the lake, where certain edges still remain oblivious to the chaos around them.



07 Ruins of Taj Mahal palace in the background.



08 The local medical infrastructure marks the eastern edge of motia talab. Although the land is under conflict, the hospitals seem to be staying in the future.

## THE ORIGINAL LANGUAGE HISTORY OF MOTIA TALAB PRECINCT

The ambitious development of Shahjehanabad was started under Shahjehan Begum in 1670. Shahjehanabad was a suburb towards the north of Bhopal. It was complete with 'bazaars' (Hindi for markets), 'galla mandies' (Hindi for grain markets), store houses, 'serais', residential quarters and institutions. An Id-gah (Hindi for mosque) was located at the highest point in the landscape and Shahjehanabad was enveloped by a city wall. Three terraced lakes were created in this area with water from one cascading into the next.



### VISUAL CONNECTIVITY AND PLANNING AXES



### VISUAL CONNECTIVITY AND PLANNING AXES

Motia talab acts as a courtyard of the palatial complex. The palaces and mosque were visually connected with the lake.

### GENDER SPECIFIC AREAS- PARI BAZAR

Pari Bazaar was established by Shahjehan Begum exclusively for the women. Women came in colorful attire adding to the fervour of the place, hence the name Pari Bazaar.

### SUMMER PALACE- BENAZEER PALACE

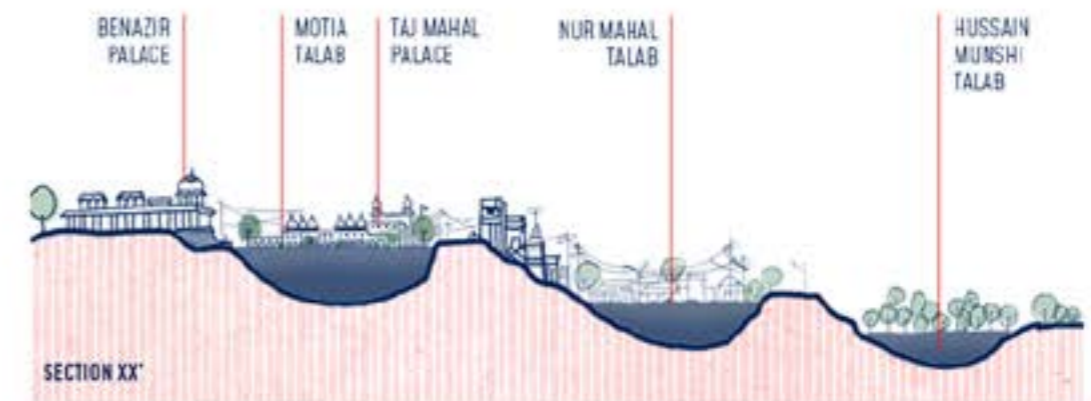
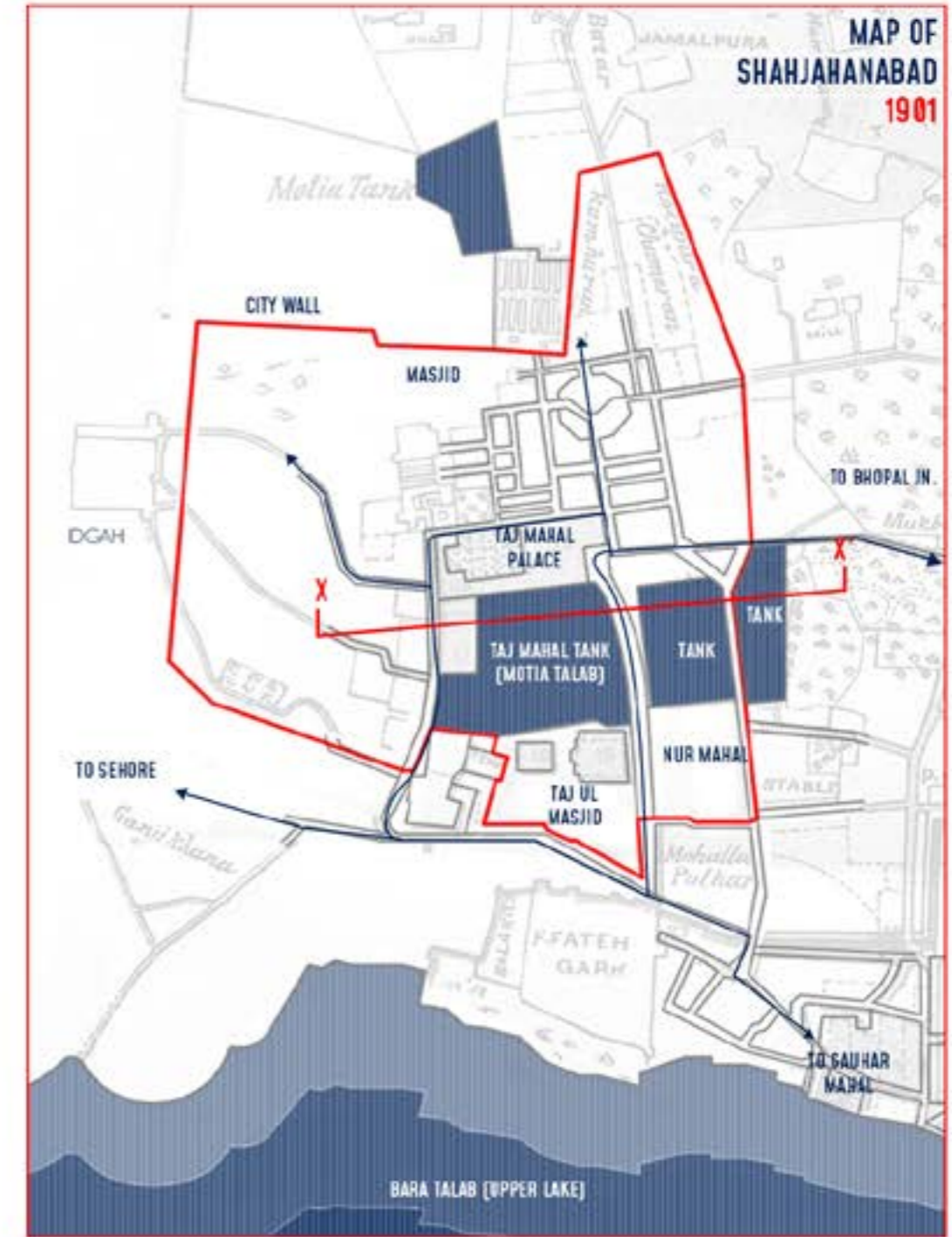
constructed in 1675, it is an 'H' shaped building with enclosed terraced gardens. Built with steel columns and carved louvered wooden partitions, it has extensive carvings on the walls on it hammam.

### PLACE OF WORSHIP- TAJ-UL MASJID

Taj Ul has a pink facade topped by two 18-storey high octagonal minarets with marble domes, an impressive main hallway with attractive pillars and marble flooring resembling Mughal architecture

### TAJ MAHAL PALACE

Built by Sultan Shah Jahan, Begum of Bhopal, it is located beside the Taj-ul-Masajid in Bhopal, India. The Taj Mahal at Bhopal was built as the Begum's residence. The architecture of Taj Mahal has British, French, Mughal, Arabic and Hindu influences. The main entrance is a seven-storied structure. The palace has been built in the Indo-Saracenic style and is kept cool by the winds blowing in from the lakes. After the partition of India in 1947, Nawab Hamidullah Khan allowed Sindh refugees to stay in the palace.



# THE TRANSLATION

## PRESENT MOTIA TALAB PRECINCT

Shahjahanabad now lies in the old city of Bhopal, where it suffers from the fate of most historic urban precincts that are not recognized. The precinct experienced reckless uninspired construction in the past 2 decades.



Rampant construction in Taj ul complex has affected the imageability of the mosque minarets.



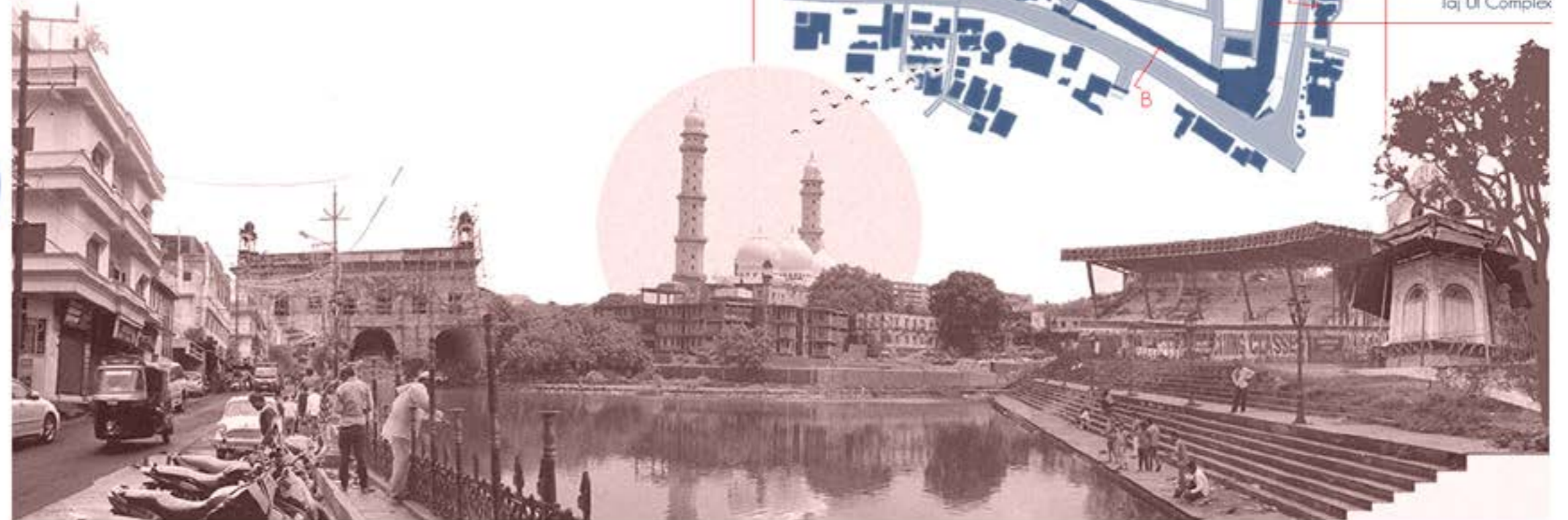
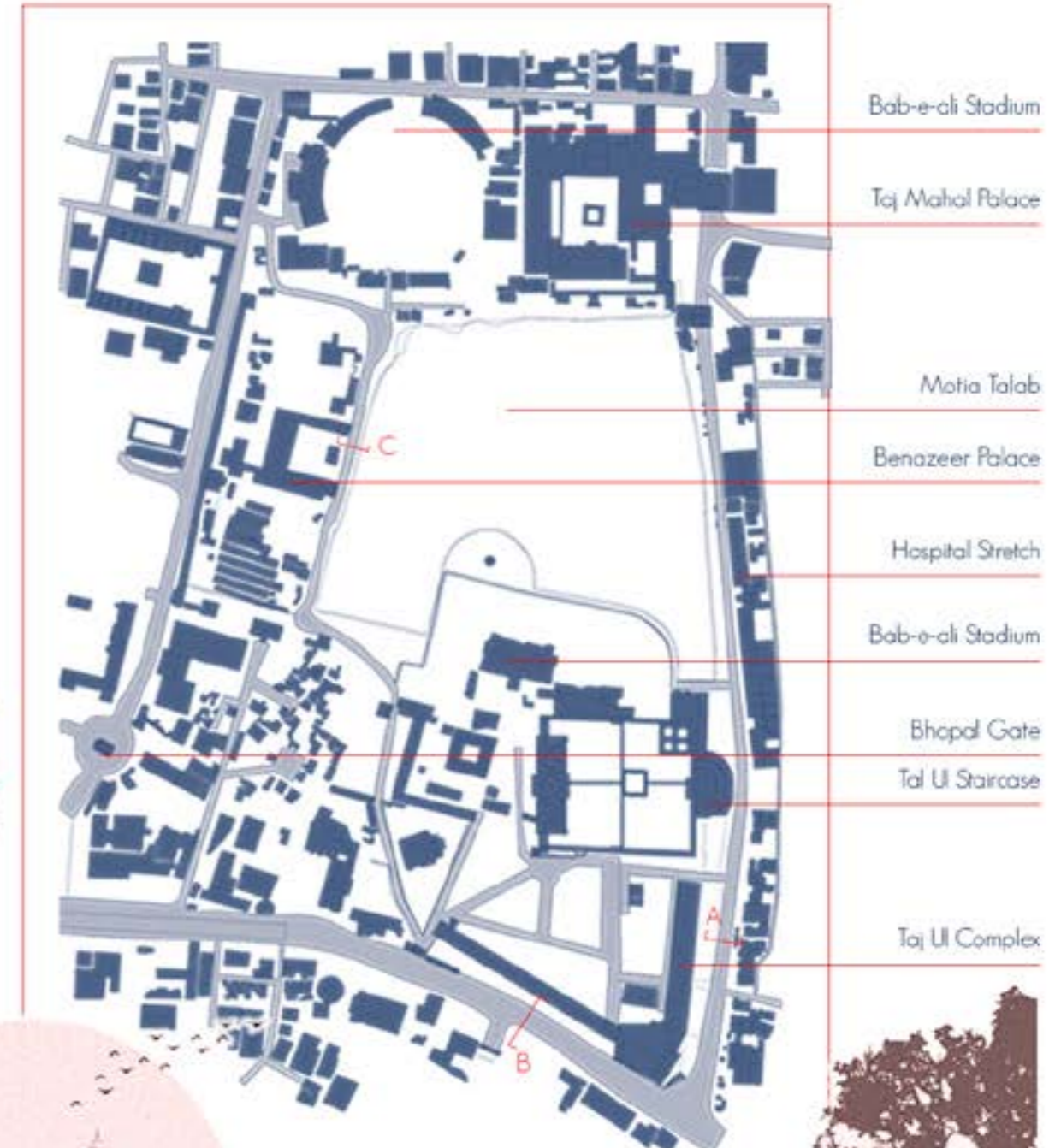
In early 2000, the palatial grounds were converted to Bab-e-Ali stadium to uplift the local youth.



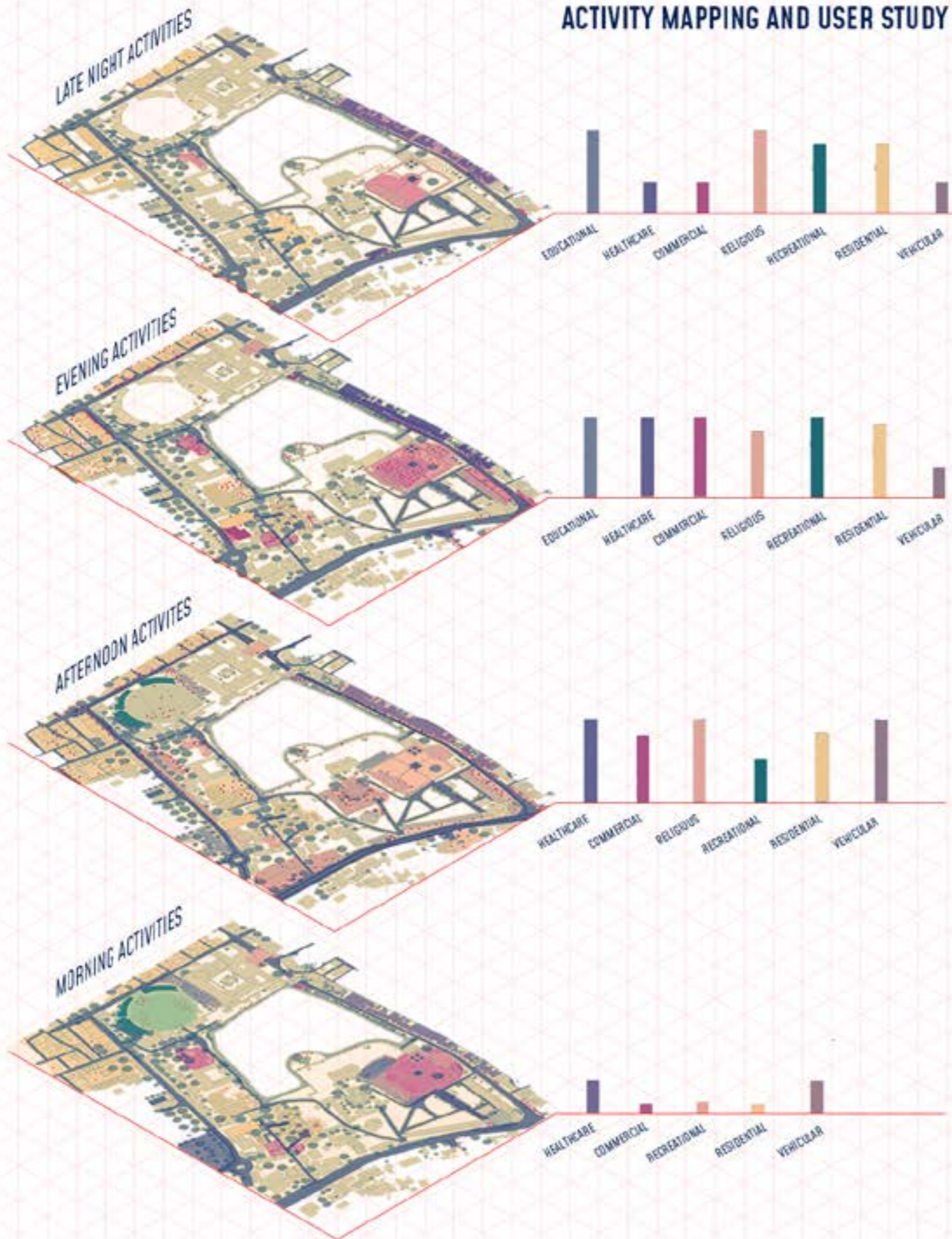
Pari bazaar was converted to government quarters post independence.



The street sections show stark contrast between different edges of Motia Talab. While one edge is devoid of any traffic and noise, the other faces congestion and parking issues. What is common in all the edges is that they lack pause points.

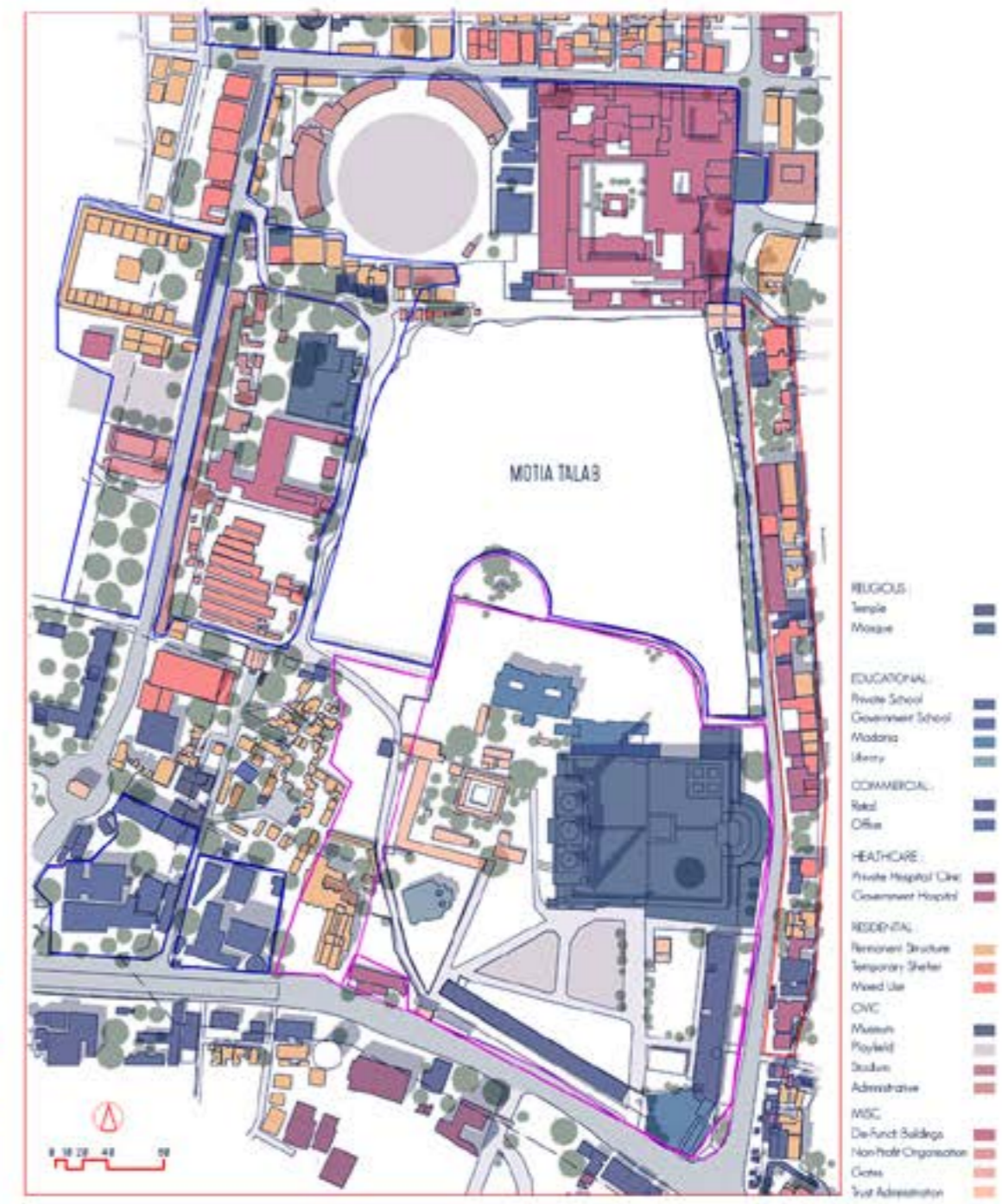


## ACTIVITY MAPPING AND USER STUDY



Disputed Land  
Trust owned Land  
Government owned Land

**BUILDING USE MAP**



**PATIENTS AND VISITORS**  
Patients and visitors are the major users along southern and eastern sides of site due to presence of state healthcare

**THE DEVOTEES**  
Devotees make up for second highest users of the precinct because of number of mosques and temples.



**INFORMAL COMMERCE**  
Informal commerce due to healthcare infrastructure and masjid invites all users alike.

**RESIDENTS**  
Residents in the precinct are mostly those who settled after the partition. Their areas are isolated from healthcare activities

## THE TRANSLATION INFERENCES



### FRAGMENTED DEVELOPMENT

Some parts of the precinct kept up with the present while some became ruins. Contrast in footfall is evident on different edges.



### LINEAR ECONOMY

New economy generators function independently of the natural features of the precinct. Thus, the deterioration of landscape.



### VISUAL CONNECTIVITY

While visual connectivity with the lake remains, majority of the structures along the lake remain de-funct.



### HISTORIC CHARACTER

While Taj-Ul complex still tries to retain the historic character in their recent construction, most of the architectural language is gone.



### UNDER-UTILIZED LAND

With Taj mahal Palace and Benazeer Palace being abandoned, their surrounding landscape also remains under utilized.



### ISOLATED FUNCTIONS

Even though the functions compliment each other, they remain isolated instead of benefiting from each other.

Motia Talab is envisaged as a precinct where the built and unbuilt are knit into one visual entity.



## OBJECTIVES

- 01 Revival of the cascading lake system where Motia Talab regains its role as catchment area for a healthier ecosystem.
- 02 structured Growth of Healthcare infrastructure
- 03 Re-establishment of the lost visual connection between edges of Motia Talab
- 04 Introduce new functions for Taj Mahal Palace and Benazeer Palace such that the built serves as a revenue generator and the unbuilt uplifts the community

- HIGH OPPORTUNITY
- LOW OPPORTUNITY
- POTENTIAL NODE
- COMMERCIAL SPACES
- HEALTHCARE SPACES
- RECREATIONAL SPACES
- HEALTHCARE INFRASTRUCTURE
- EDUCATIONAL INFRASTRUCTURE

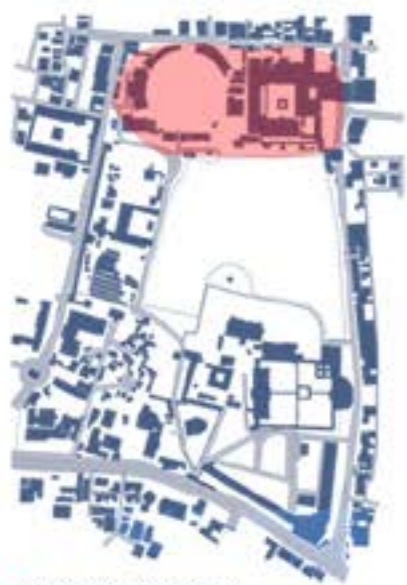
- ▲ STRUCTURE PLAN
- ▼ SECTION THROUGH MOTIA TALAB



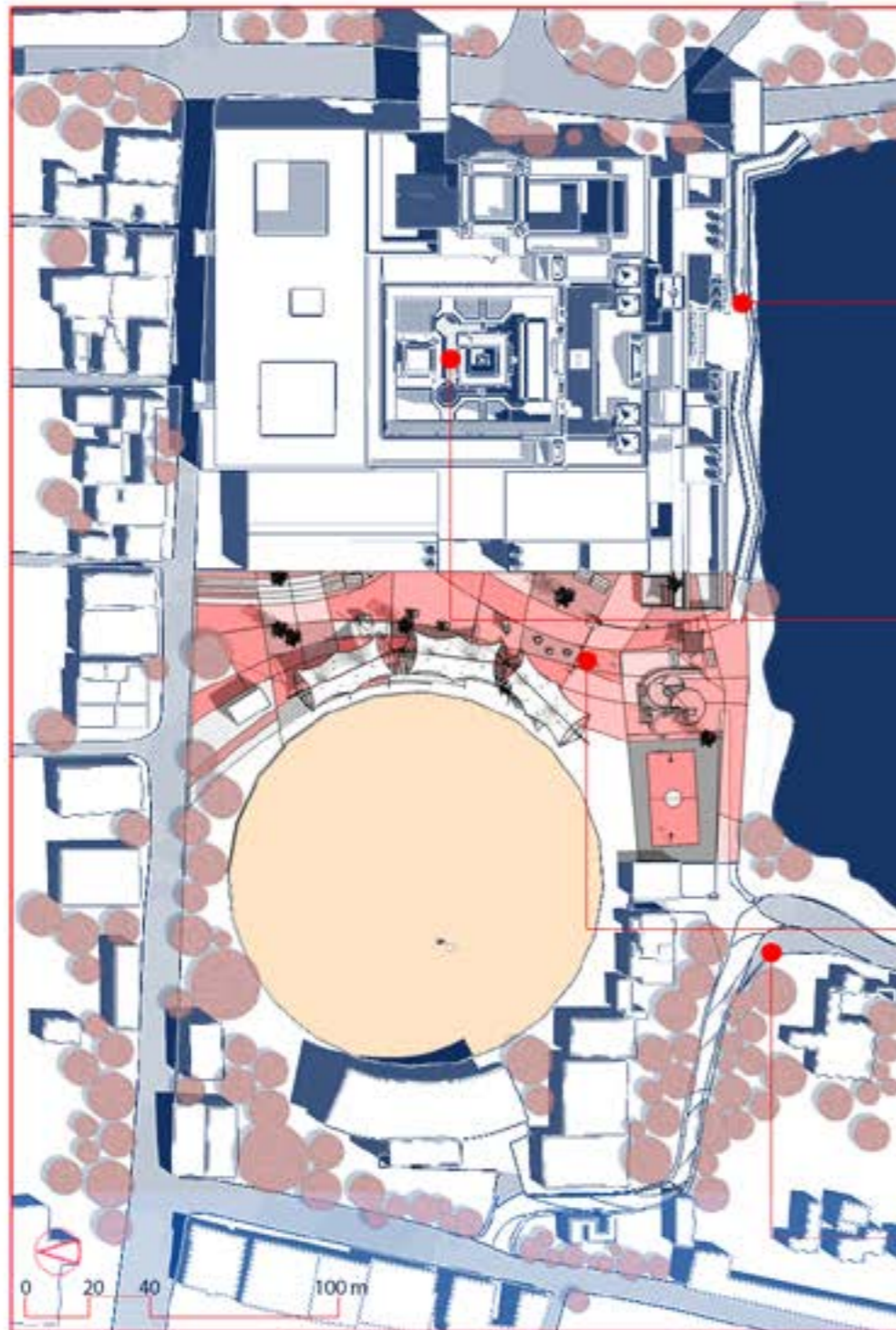
# THE NEW INTERPRETATION

## ZONE TAJ MAHAL PALACE

The original language gives way for new interpretation such that it becomes more meaningful for the present. The intervention seeks to remove boundaries between the residents and their surrounding landscape. If it becomes more accessible visually, local initiatives to conserve the cultural landscape will increase. The community which was distant from its past would be able to interact with it.



- ▲ ZONE OF INTERVENTION
- ▶ INTERVENTION PLAN
- ▼ SECTION



### REUSE OF LAKE EDGES

With the land that has already been reclaimed from the lake, physical connectivity becomes easier to establish through walkways.



### CONNECTIVITY OF THE UNBUILT

While the Taj Mahal Palace is under renovation, its courtyards can be connected with the surrounding landscape.



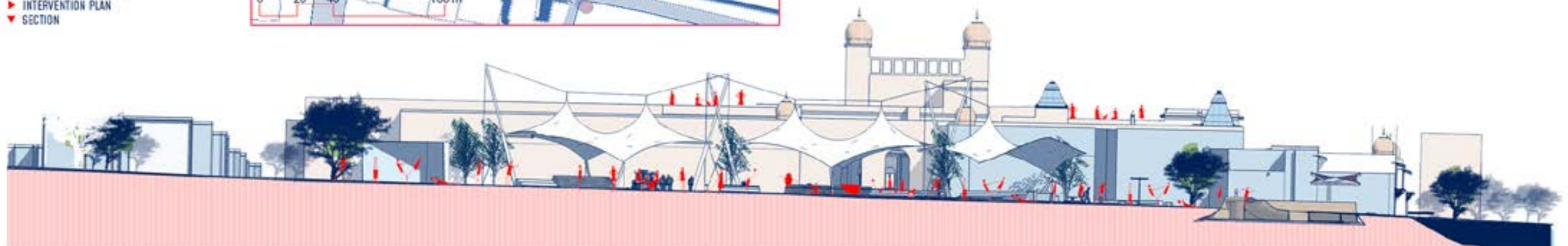
### EXTENSION OF SPORTS COMPLEX TO RECREATIONAL AREA

Limited use of Bab-e-Ali stadium can be changed by making the outdoor spaces accessible.



### REMOVAL OF PHYSICAL BOUNDARIES

Removal of physical boundaries makes the lakelfront approachable for locals and vegetal buffer keeps the noise away.





04

## RESIDENCE TER POORTE

REDEVELOPMENT OF POST WWII CONSTRUCTION

Project Type : Professional (DE BAES ARCHITECTS, BELGIUM)

Program : Structure & Landscape Redevelopment of  
Housing Complex

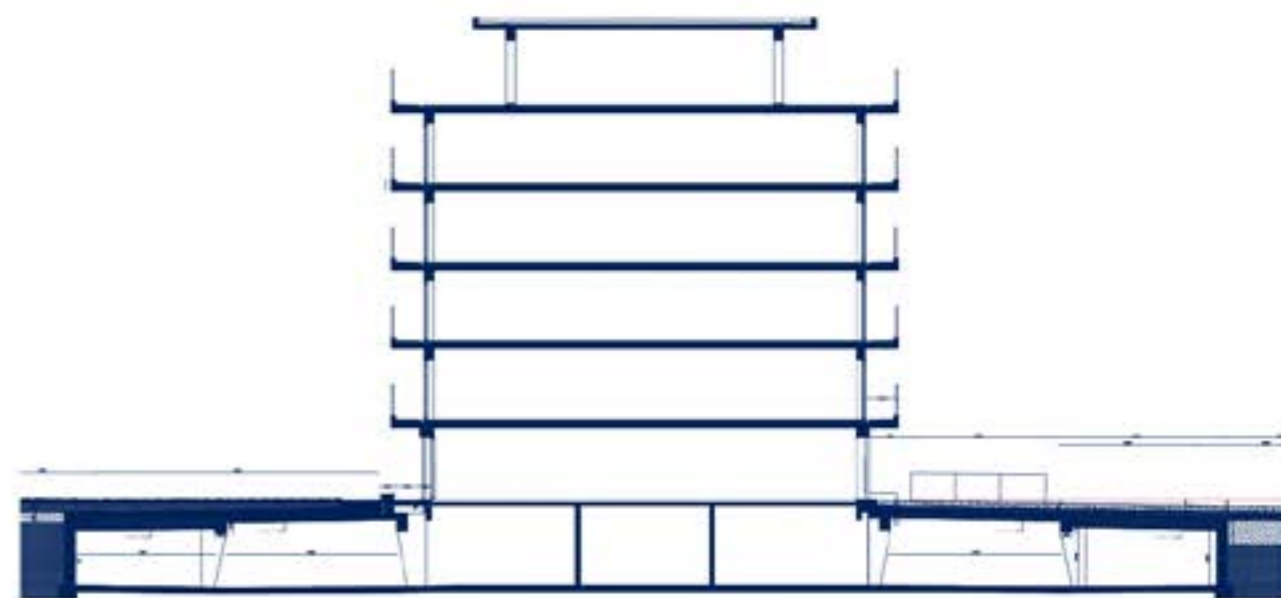
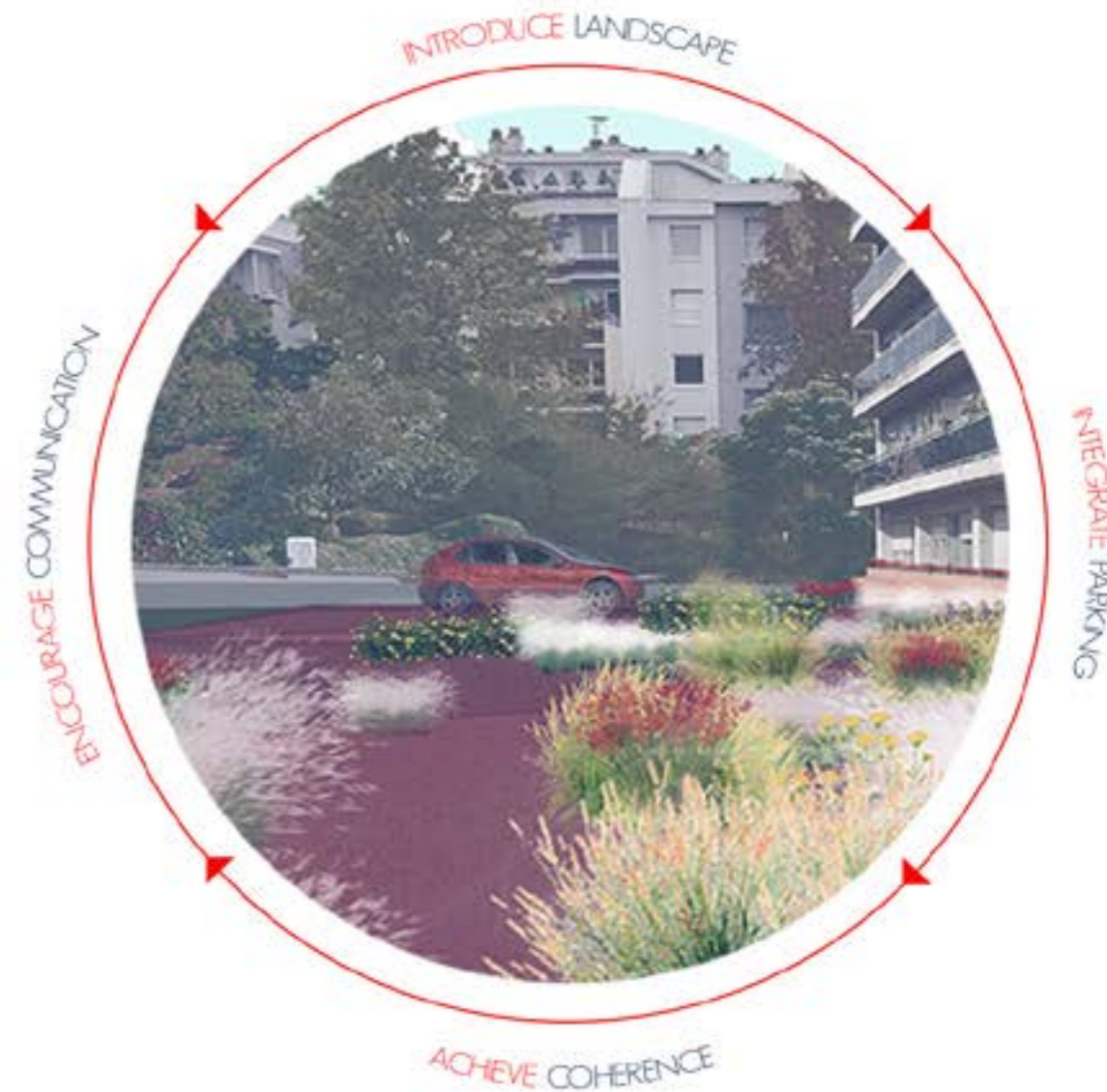
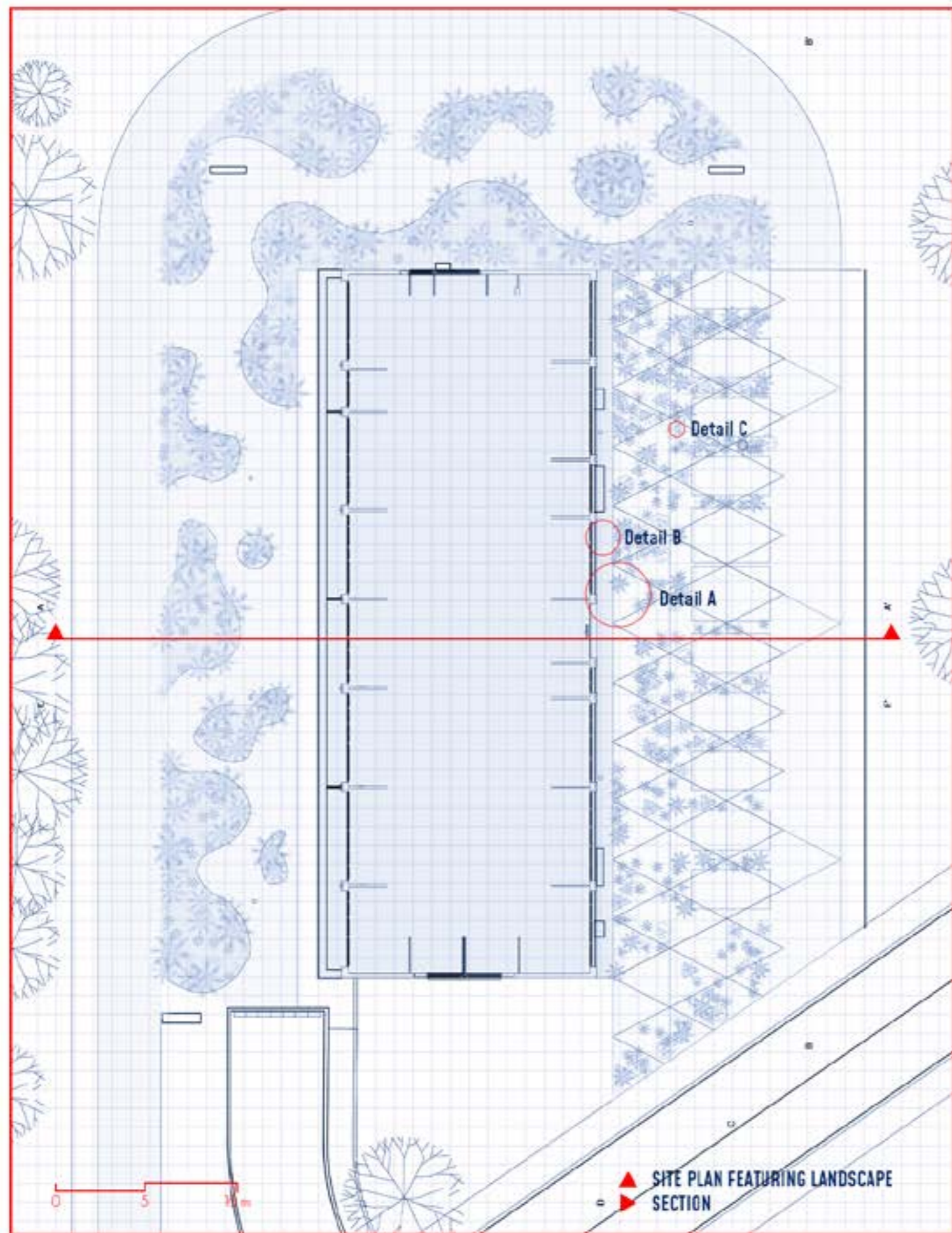
Location : Bruges, Belgium

The renovation has been urged by deteriorating state of the underground garage where degradation has started to compromise the stability of structure. Moreover, the building is falling behind in terms of fire safety regulations and lacks the required access road for emergency vehicles.

after the renovation, the next phase will focus on redesigning the building's direct context, upgrading its landscaping, its wheelchair accessibility and its outdoor parking area. The open parking design redefines the entrance zone to the building, creating a seamless transition between the public domain and the surrounding landscape. Integration of landscape in a random manner invites playfulness. When every person can choose a different path to lead them home, they would want to do it differently every time.



# IDEATION







# 05

## THE CURIOUS CASE OF COST

DOCUMENTATION AND ANALYSIS OF SRIRAM SCHOOL  
IN TERMS OF COST AND VALUE

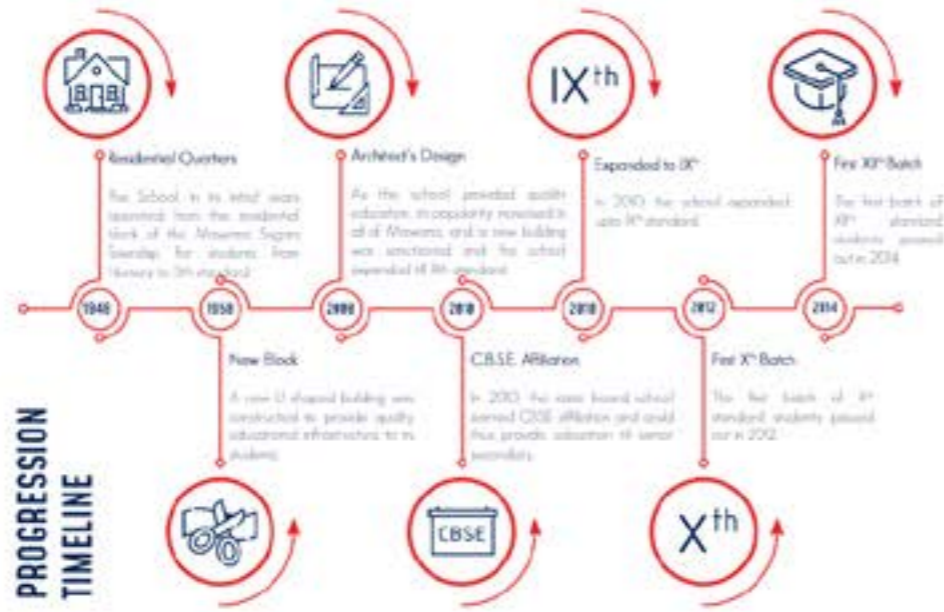
**Project Type** : Nari Gandhi Trophy 2017 (Groupwork)  
**Program** : Documentation and analysis of Built Project  
**Location** : Mawana, Uttar Pradesh, India

The brief asks an important question- is cost merely a reflection of money spent on construction or does it connote deeper meanings? As a determinant of design, what diverse roles does cost play? The theme intends to explore cost related matters. One has to choose a project completed after 2000 A.D. where cost has played a decisive role in the design and execution of the project. It could be located anywhere in India belonging to any building type with any built up area.

◀ In a hypothetical world, if cost and value were to be personified, how would they communicate? Words won't be able to connect them since they don't speak the same language. To find a common ground they'd have to settle on a tongue as binary as them.

## THE SHRIRAM SCHOOL A MODEL OF COST CONSCIOUSNESS

is an initiative by the Mawana Sugars, built for the welfare and education of its employee's kids. It is a day school that currently provides education to 1200 kids from primary to high school. The school design is an amalgamation of eco sensitivity and resource management. It tends to the schooling needs of children and gifts value to their life while being an optimal model of Cost Conscious Architecture.



## PROJECT DETAILS



Completion: 2008  
Built up Area: 25,000 sq ft  
Plot Area: 90,000 sq ft  
Cost: ₹806/sqft  
Architect: Deependra Prashad  
Contractor: Sonu Builders, Delhi

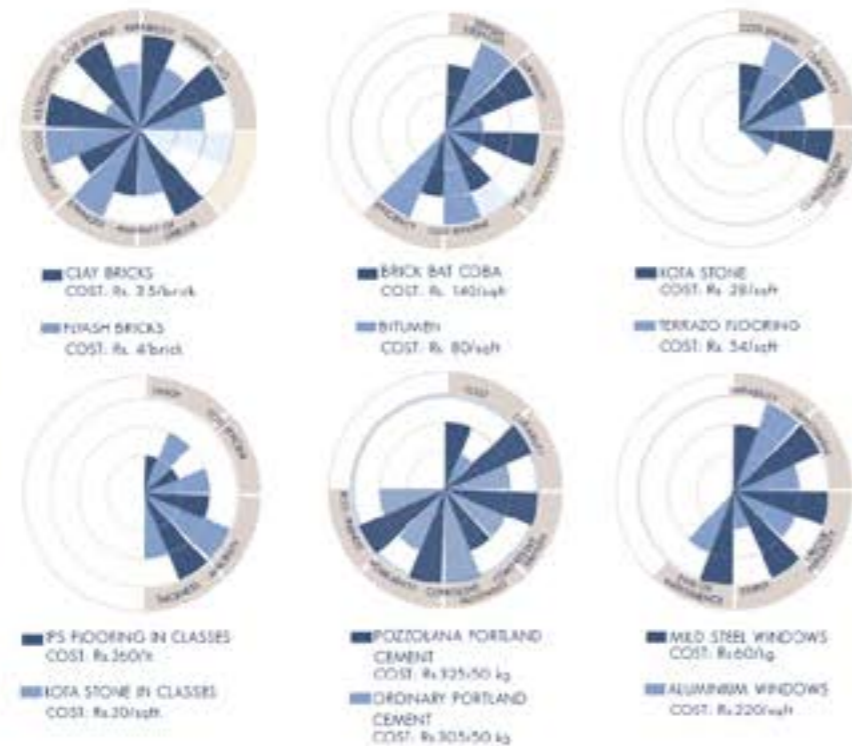
The addition of the New block has provided a much needed break in the predominantly industrial environment in the township, while also creating a safe and jovial space for the children to live and learn.

■ Material used  
■ Alternate material

## MATERIAL ANALYSIS

The Windrose diagrams portray comparison between the material used and the possible alternatives that could have been used. The alternate material chosen for the analysis was selected in accordance to its viability based on the following parameters:

1. Availability
2. Maintenance
3. Labour
4. Cost Efficiency



## MATERIALS USED IN SCHOOL



Kota Stone Flooring in corridors



Brick Bat Coba is used as waterproofing



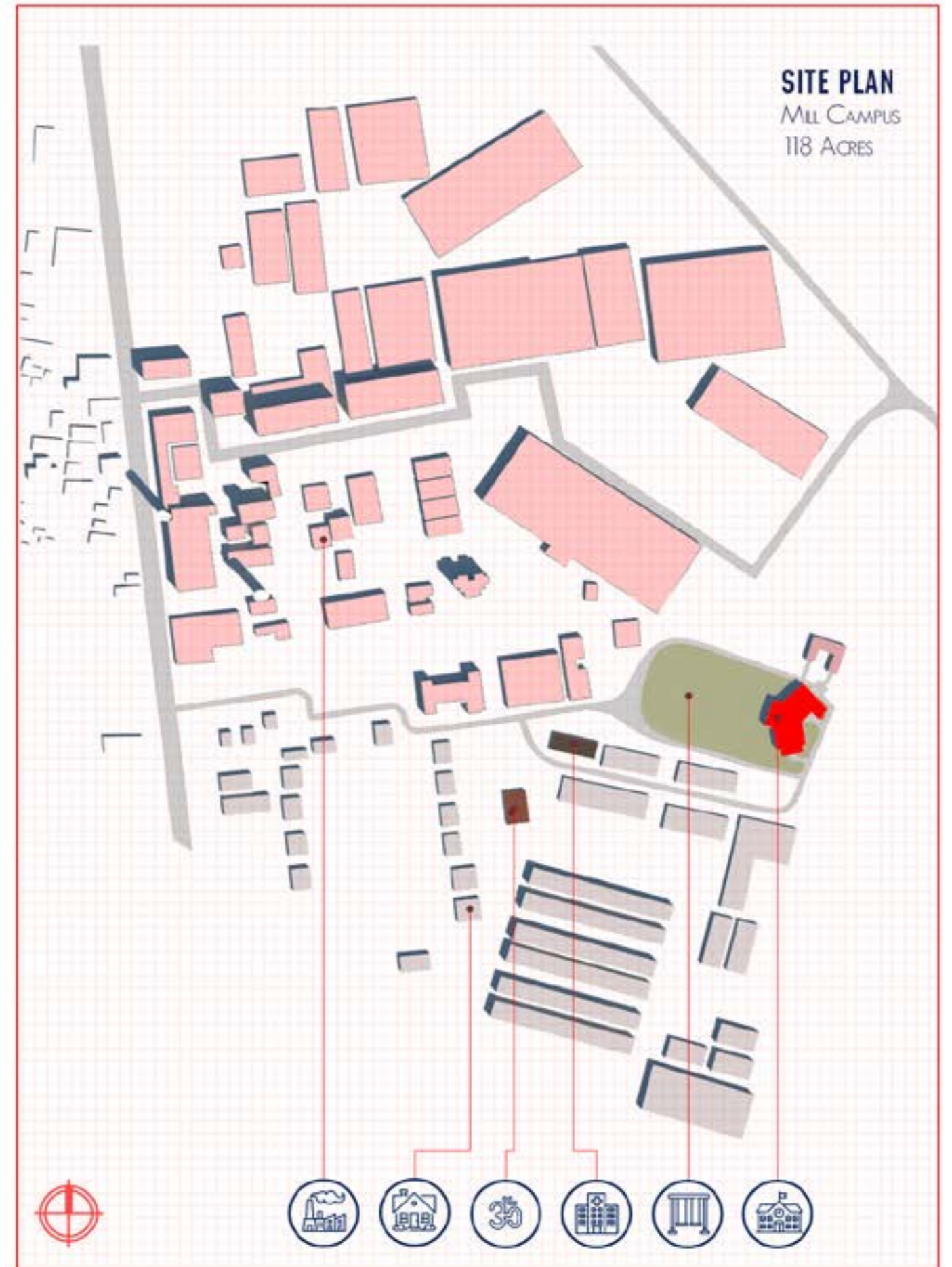
Exposed brickwork



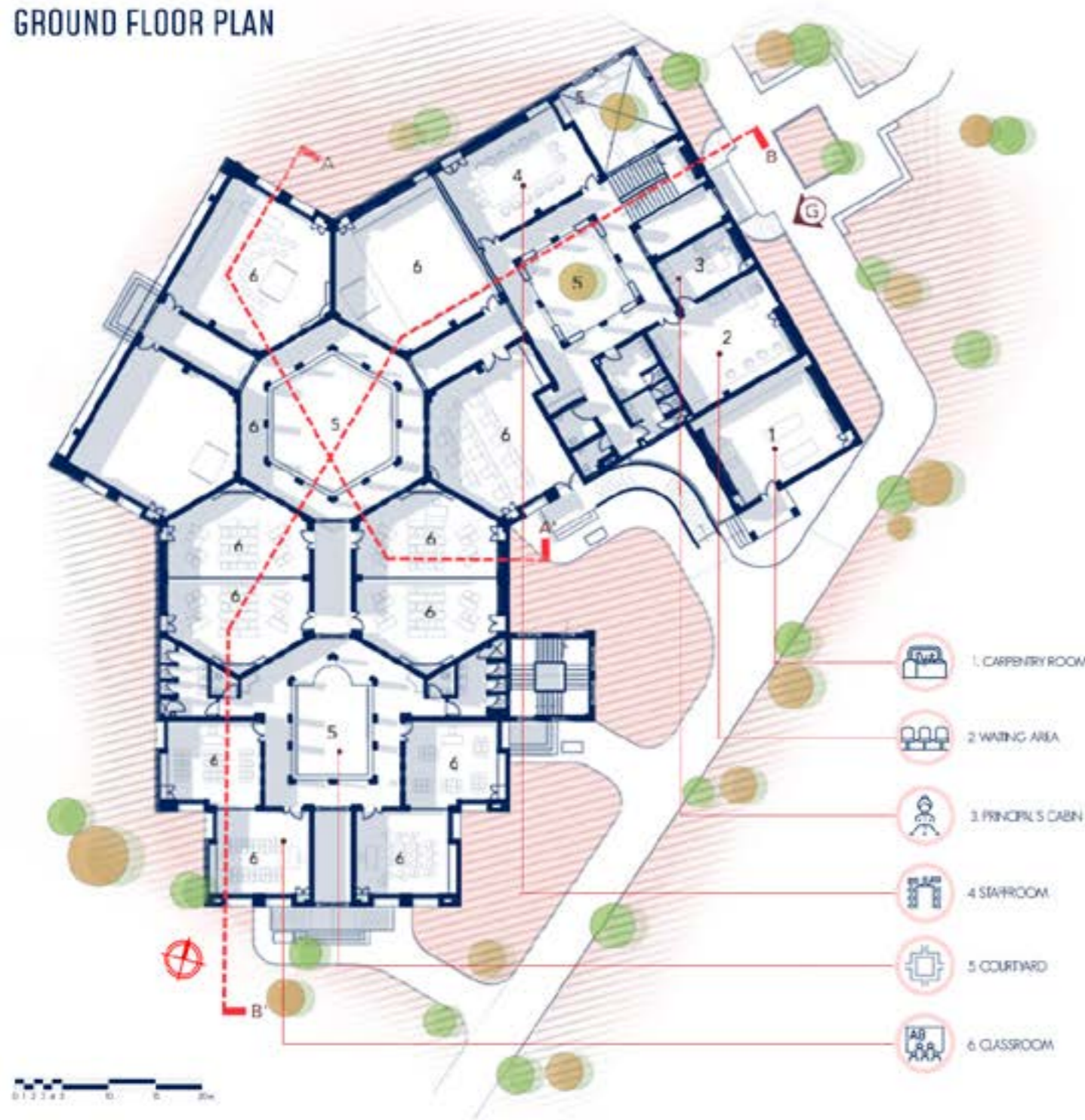
Metalic windows are used everywhere



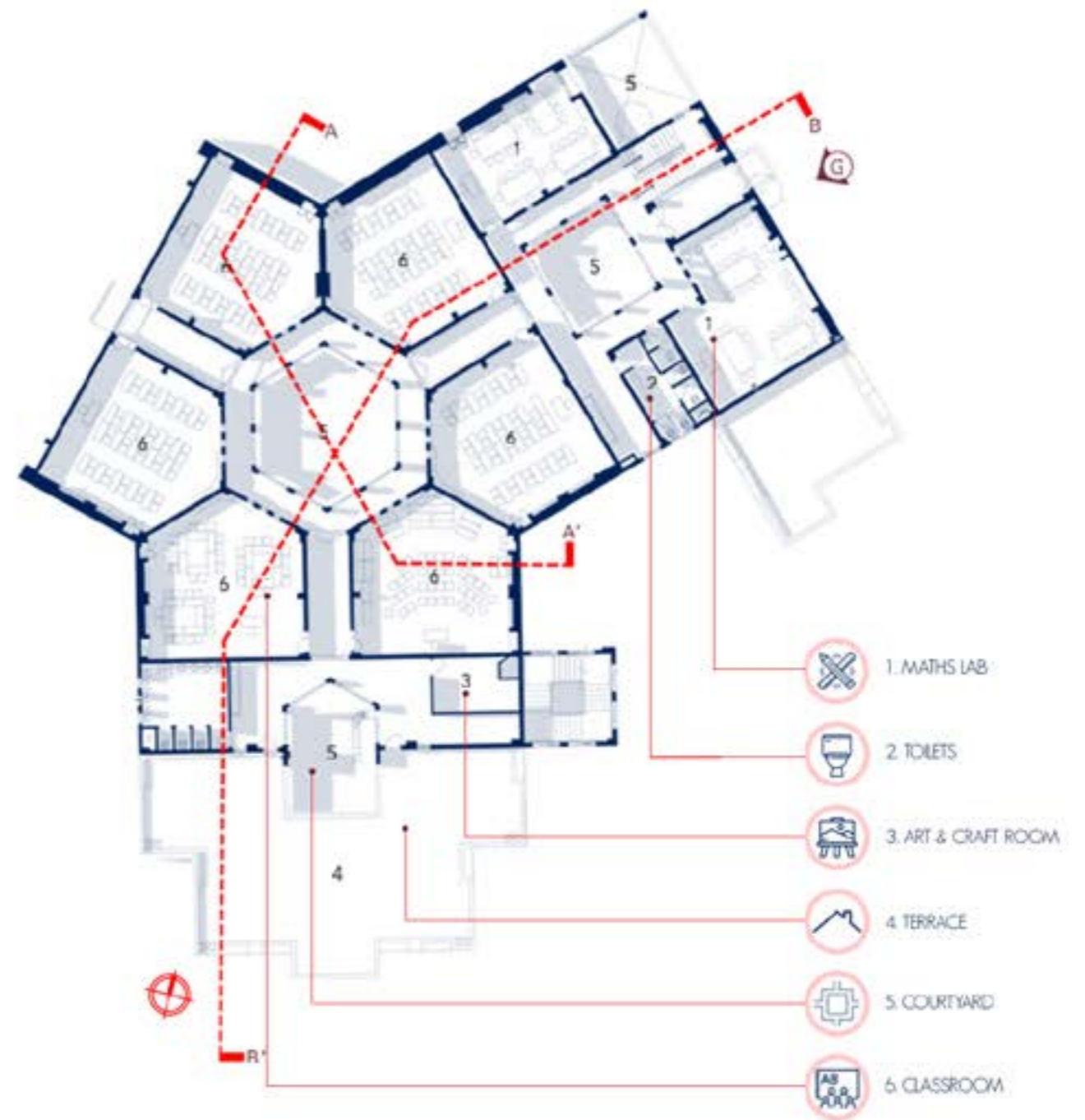
PS flooring is used in classrooms and courtyards



## GROUND FLOOR PLAN



## FIRST FLOOR PLAN



## DESIGN CONCEPTS

### CURRENT SPATIAL ARRANGEMENT

Even though the school was designed for 600 students, the utilitarian value of its design and the generous space standards permits the current strength of 1220 students. The spaces have been rearranged to accommodate the increased number of students.



**Derivation of Hypothesis:**

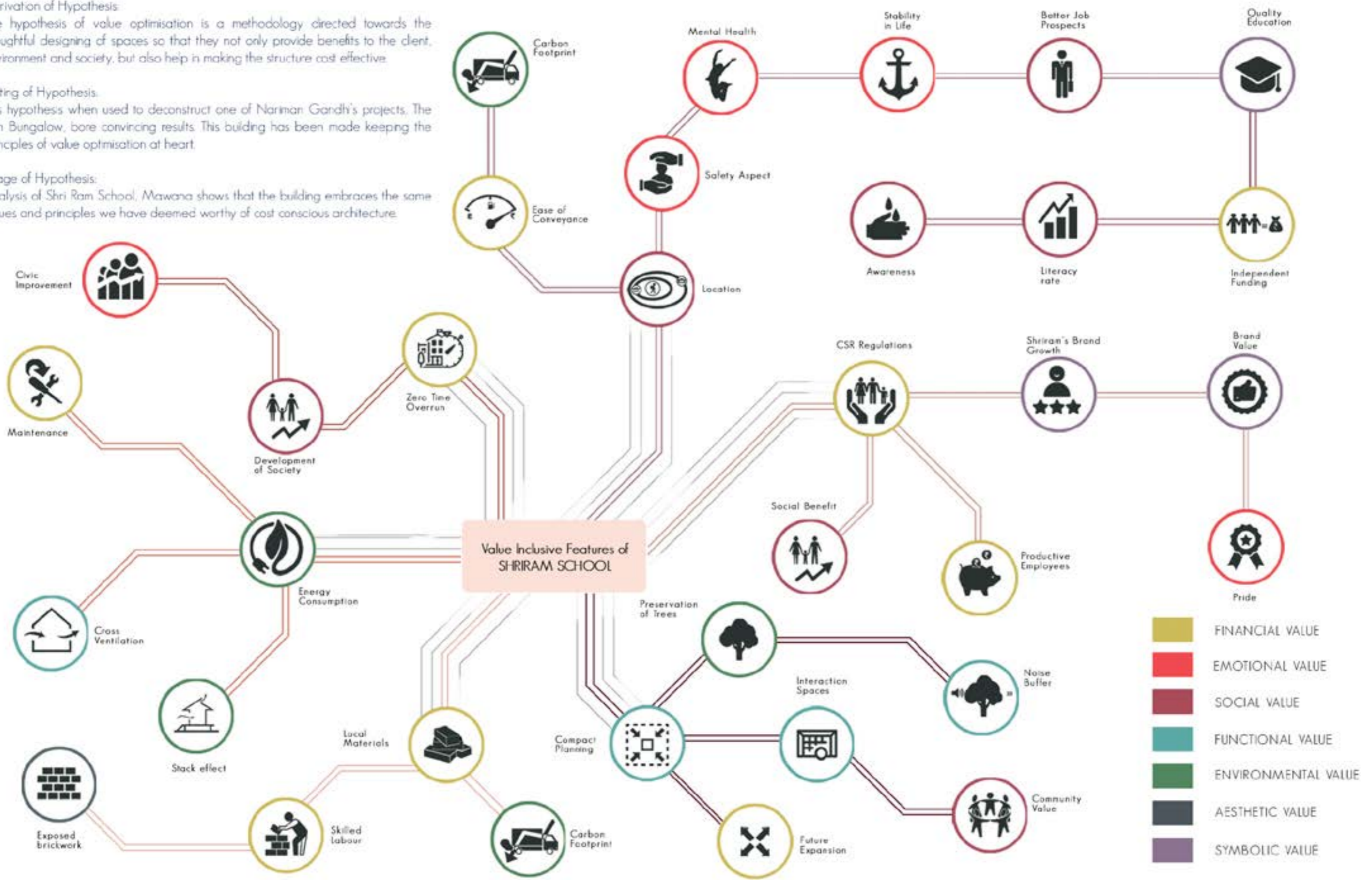
The hypothesis of value optimisation is a methodology directed towards the thoughtful designing of spaces so that they not only provide benefits to the client, environment and society, but also help in making the structure cost effective.

**Testing of Hypothesis:**

This hypothesis when used to deconstruct one of Nariman Gandhi's projects, The Jain Bungalow, bore convincing results. This building has been made keeping the principles of value optimisation at heart.

**Usage of Hypothesis:**

Analysis of Shri Ram School, Mawana shows that the building embraces the same values and principles we have deemed worthy of cost conscious architecture.



- FINANCIAL VALUE
- EMOTIONAL VALUE
- SOCIAL VALUE
- FUNCTIONAL VALUE
- ENVIRONMENTAL VALUE
- AESTHETIC VALUE
- SYMBOLIC VALUE



06

## MUSEUM OF LANGUAGE

PRESERVATION OF LANGUAGE THROUGH THE CREATION OF A  
DEDICATED LANGUAGE BANK

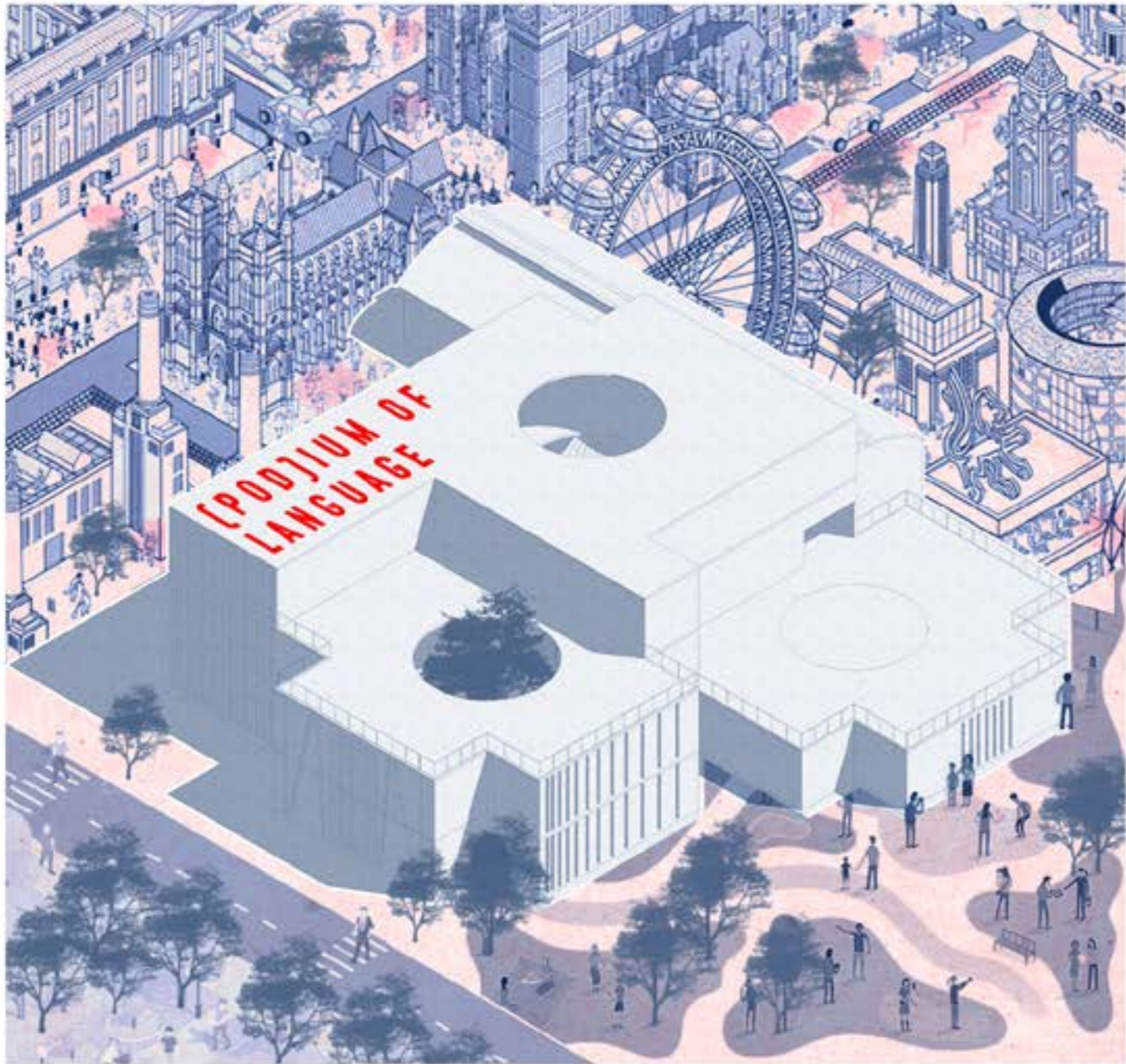
**Project Type** : Museum Design Competition (Team of 2)

**Program** : Creation of a dedicated learning platform  
that for detailed research and innovation in the  
past, present and future world languages.

**Location** : London, United Kingdom

When a language dies out, future generations lose a vital part of the culture that is necessary to completely understand it. This makes language a vulnerable aspect of cultural heritage, and it becomes especially important to preserve it.

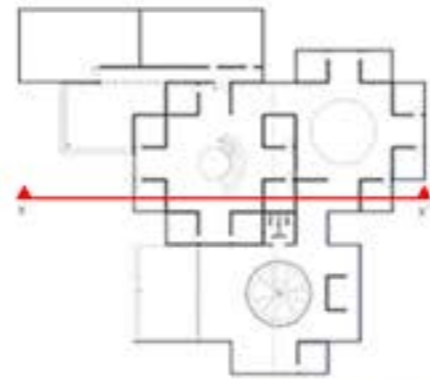
Language has largely been neglected as a museological domain worldwide, apart from some certain sections in major museums devoted to individual linguistic contributions. The aim of the competition is to design an iconic museum of language in the heart of London that will deconstruct the science of linguistics into various aspects of- speech, script and sense.



Language is not just a tool for communication, it is a living intangible memoir, denoting the evolution of a culture. It is a reflection of the lifestyle of its people, their knowledge systems, their beliefs, myths etc. Therefore, a language exhibit must involve its visitors with the language rather than treating it as an artifact on display. The underlying theme of human communication is our universal understanding of non-verbal communication. Every human possesses innate ability to grasp these cues.

## ( P O D )

The exhibits at the museum are unique. Each exhibit or pod has a circular hologram unit that narrates myths and narratives of a particular language. The entire experience is holistic, catering to all senses. A total of 20 pods are there in the museum. In addition to the pods, there are exhibition galleries to facilitate the learning.



KEY PLAN

The building is intertwined around three circles, each denoting aspects of life for which language and communication are vital.



Circle 3-  
Circulation

The first circle houses a tree. It is open to the sky, symbolic of the fact that our lives have forever revolved around nature.



Circle 2-  
Pool

The next circle has a transparent pool on the roof, it is exposed to nature adapting to all the hardship.



Circle 1-  
Tree

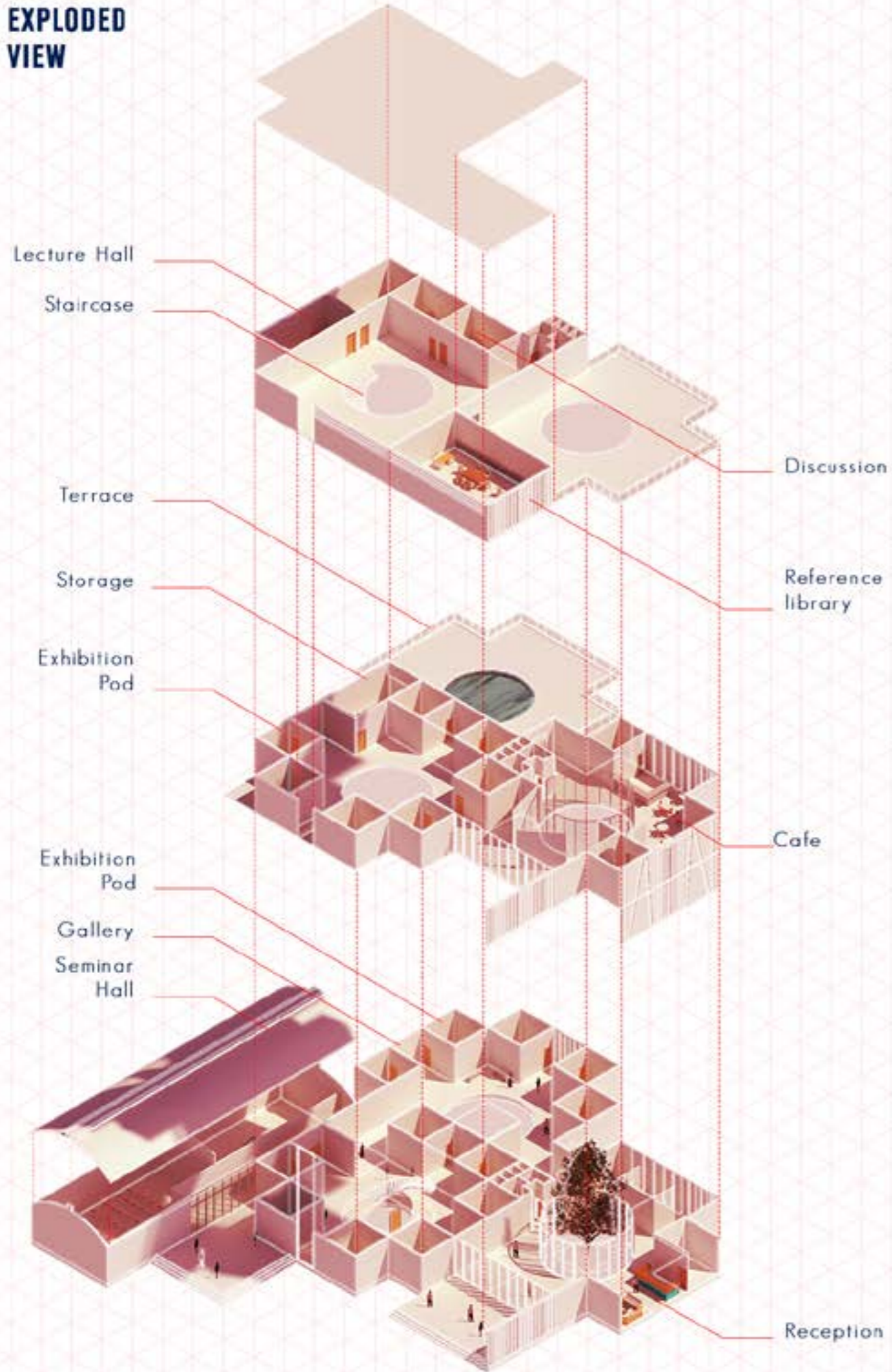
The last circle in the building houses its vertical circulation, denoting growth after one has successfully mastered the art of effective communication: with nature, with fellow beings and with oneself.



SECTIONAL PERSPECTIVE XX'



# EXPLODED VIEW



VIEW OF GALLERY



CIRCLE OF GROWTH



CIRCLE OF TRANSFORMATION





07

## OTHER WORKS

Hands-On Work:

- Earthen Building at Dharmalaya (Volunteer work)
- CSEB Masonry at Auroville Earth Institute (Workshop)

Architectural Photography

## VOLUNTEER WORK AT DHARMALAYA

Dharmalaya is an Indian charitable organisation devoted to education and empowerment for compassionate living, with a practical focus on sustainable village development, preservation and adaptation of traditional wisdom. I volunteered for earthen Building work during monsoons of 2017. Monsoons are the best time to volunteer since one gets to learn time management in construction. We built a ferrocrete underground water tank that increased dharmalya's water storage by nearly 10 times. It is a place that functions as an opportunity for learning a sustainable lifestyle by practicing it. Although it is a campus still in the making, it already lives and grows, true to its fundamentals. One cannot drift through and remain untouched by the pristine hills and humble lifestyle at Dharmalaya.



Clockwise from Top left- Library cum Meditation Room, Evenings at Dharmalaya, Landing Site at Upper Bir, Main Block of Dharmalaya, Ferrocrete tank cage under construction,



Clockwise from Top Left  
Promenade Beach, Testing  
Soil Properties, CSEB  
Construction in Earth  
Institute, Making of CSEB  
Blocks, Vaults at Auroville  
Earth Institute

## CSEB WORKSHOP AT AUROVILLE EARTH INSTITUTE

The Auroville Earth Institute researches, develops, promotes and transfers earth-based building technologies. For 28 years, the Institute has educated and empowered people to build their own dwellings using earthen techniques. I attended their CSEB Masonry workshop in September, 2017. The CSEB Masonry course is a practical, hands-on training course for masonry with Compressed Stabilised Earth Blocks (CSEB) and other stabilised earth techniques which have been developed and mastered by the Earth Institute. The course was predominantly hands-on, with demonstrations and work on Stabilised earth technologies, Tests for mortar - Mortar quality, Bond patterns for walls, Stabilised rammed earth foundations, Building a basement etc.

MUSLIM WAX, MAR 2019



WYSIURI PALACE, DEC 2017



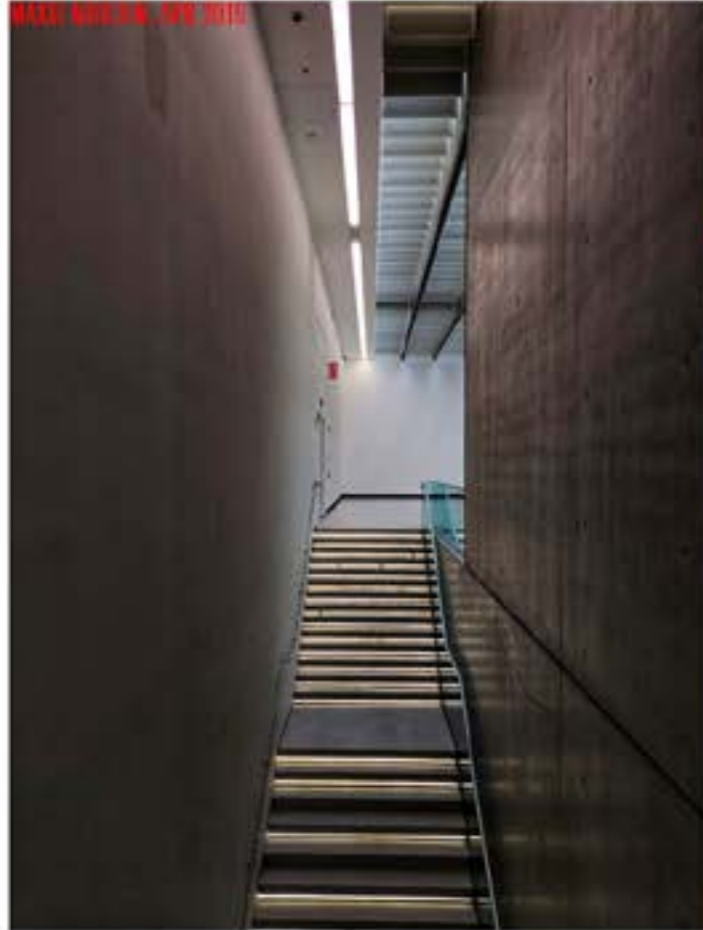
TRIVITI BOUNTY, APR 2019



SPITI VALLEY, MAY 2018



MADEIRA, APR 2019



SALE, MAY 2019



ROYAL GREENHOUSE OF LAKEIN, MAY 2019



1<sup>st</sup> October 2020

To Whom It May Concern

Dear Sir / Madam,

**Letter of Recommendation – Swarnnima Mittal**

I hereby certify that Swarnnima Mittal interned in our firm during the period of 25<sup>th</sup> January to 24<sup>th</sup> June 2019.

*de baes architect* is a young and dynamic architecture office based in Brussels. Founded in 2009, our practice is organized as a lab fostering collaboration with architects from around the world. Our focus is transformative architecture, in other words, to provide forward-thinking solutions in today's fast-changing context. Our newly-established practice, *redevelop belgium*, specializes in renovation of modernist buildings in Belgium.

During the internship, Swarnnima was invited to participate in a broad range of assignments, including: BASTA drawings and 3D models, TPA landscape plan and details, DICE office interior ideation and concept, WSK Technical Drawings, PSK roof extension; social media handle of our office and entry for Dezeen Awards.

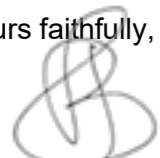
We are very satisfied with Swarnnima's work performance. She was driven, enthusiastic and very dedicated to her tasks. She was creative and often came up with good ideas. She was also attention to detail, which is an essential quality for being a good architect.

Swarnnima has proven to be able to work independently or as part of the team. On a team level, she was without doubt a complementary member who brought added value. She always took the initiative at work and injected positive energy into the team. She has a pleasant personality, which made it a joy to work with her.

All in all, we are grateful for the contributions made by Swarnnima, and we are pleased to endorse her to work in your firm.

Should you have any questions, please do not hesitate to contact me directly at [joris@debaes.eu](mailto:joris@debaes.eu).

Yours faithfully,



**Joris De Baes**  
Principal Architect

GRAY PARIKH ARCHITECTS

Date: 29<sup>th</sup> June 2017

To,  
School of planning and  
Architecture, Bhopal  
MP

**SUBJECT: Certificate of Training**

This is to certify that Ms. Swarnnima Mittal, daughter of Mr. Anil Mittal is a trainee in our firm since 28<sup>th</sup> May 2017 to 29<sup>th</sup> June 2017.

As a trainee, she was a part of a team comprising of three members. She was assigned the task of making AutoCAD Drawings which were completed successfully. She also visited sites and established coordination with consultants during the process of construction, which helped her gain practical knowledge.

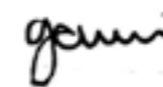
During the internship she understood the process of working and systems that exist in an office. She also gained good knowledge of processes of estimation, from architectural detailing to project handling in office as well as on sites as she was actively working on number of projects simultaneously.

She is a quick learner and is passionate about pursuing her career in Architecture. She is also sincere and hard working and we wish her the very best for his future endeavors.

**PROJECTS**

- Anjney Corporate house
- Tej Eye Centre, Gandhinagar
- Gujarat Credo, Mundra
- Jaldhara Apartment

Regards,



Gauri Parikh, RIBA, COA  
CA/2011/53930  
For and on Behalf of  
Gray Parikh Architects

GRAY PARIKH ARCHITECTS  
31, 3<sup>rd</sup> Floor, White House, Panchvati, C G Road Ahmedabad 380006

T: F/ +91 79 26404187  
Email: info@grayparikh.com  
Web: www.grayparikh.com

thank you

**SWARNNIMA MITTAL**

+91-9773025456  
mittal.swarnnima@gmail.com