



**Urban Design portfolio - selected works**

2018-2023

Charan Vijayan.

ACTIVE VACANCY : URBAN ASSEMBLIES **THE SHAMIYANA**

STUDIO - 10 | SPRING 23'

| 01

NEGOTIATING LAND WATER MEDIATION **REVITALIZING LANDSCAPE**

STUDIO - 9 | MONSOON 22'

| 02

WATER URBANISM **JALA PUSHPA**

STUDIO - 7 | MONSOON 21'

| 03

FROMUTOPIAS TO HETEROPIA **MIGRANT HOUSING**

STUDIO - 5 | MONSOON 20'

| 04

URBAN INSERTS **CHATHRI**

STUDIO - 4 | SPRING 20'

| 05

INTERNSHIP AT URBAN DESIGN COLLECTIVE **THE IDEAL CITY**

INTERNSHIP WORK | SPRING 22'

| 06

LAND BUILT RELATIONSHIP **LEARNING CENTRE**

STUDIO - 1 | MONSOON 19'

| 07

INFOGRAPHICS AND STEPS TO REAL WORLD **HANDS-ON**

MISCELLANEOUS | 2022 - 2023

| 08



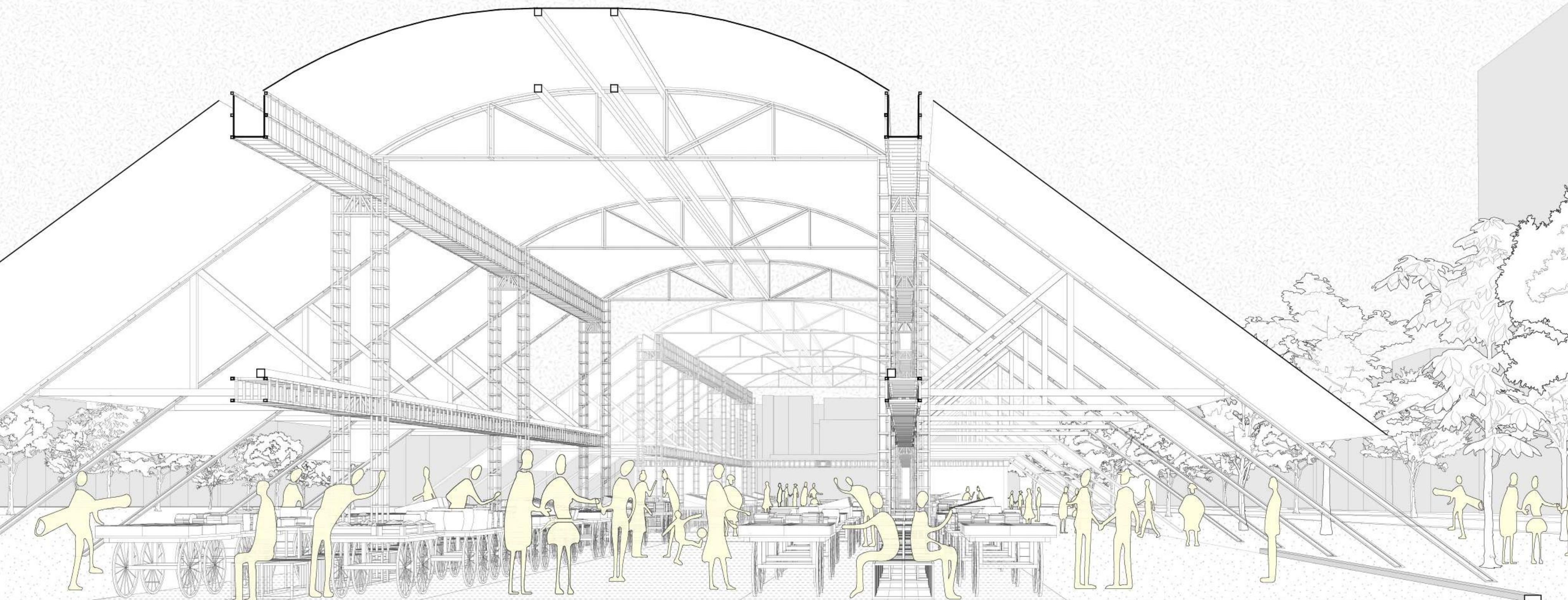
Note - This icon represents that the drawings were part of group work.

# THE SHAMIYANA

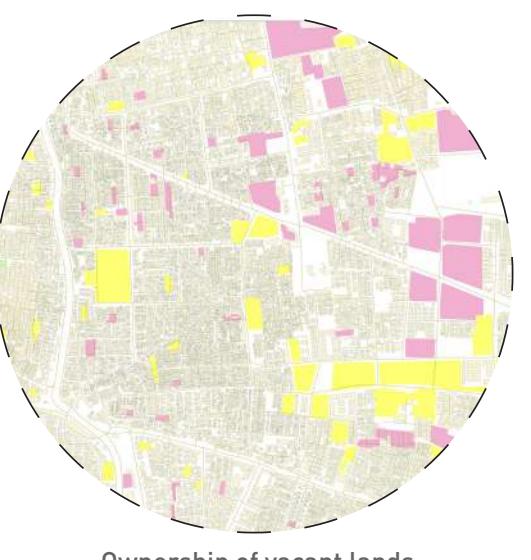
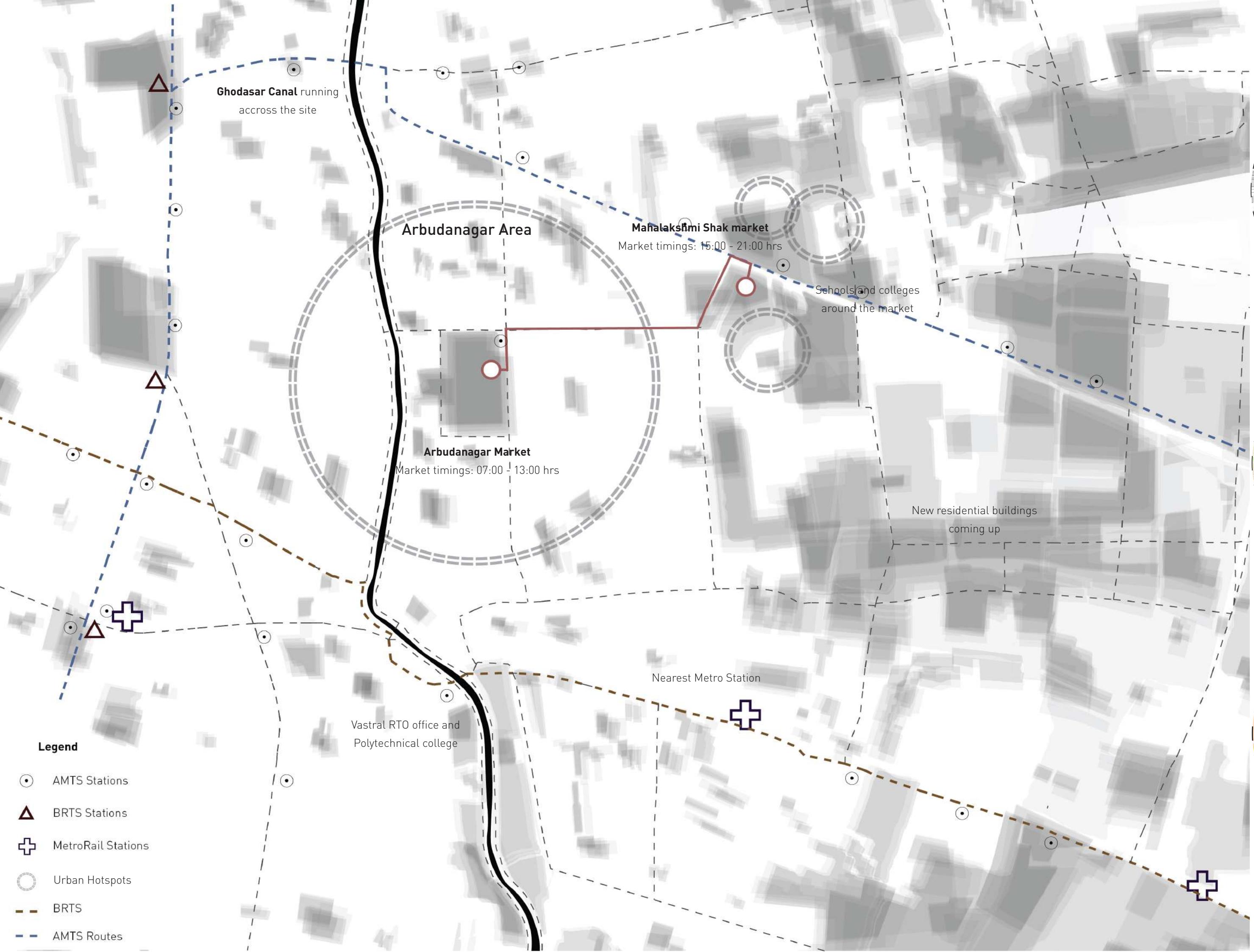
## PORTABLE URBAN ARMATURE

ACTIVE VACANCY : URBAN ASSEMBLIES | SPRING 23'

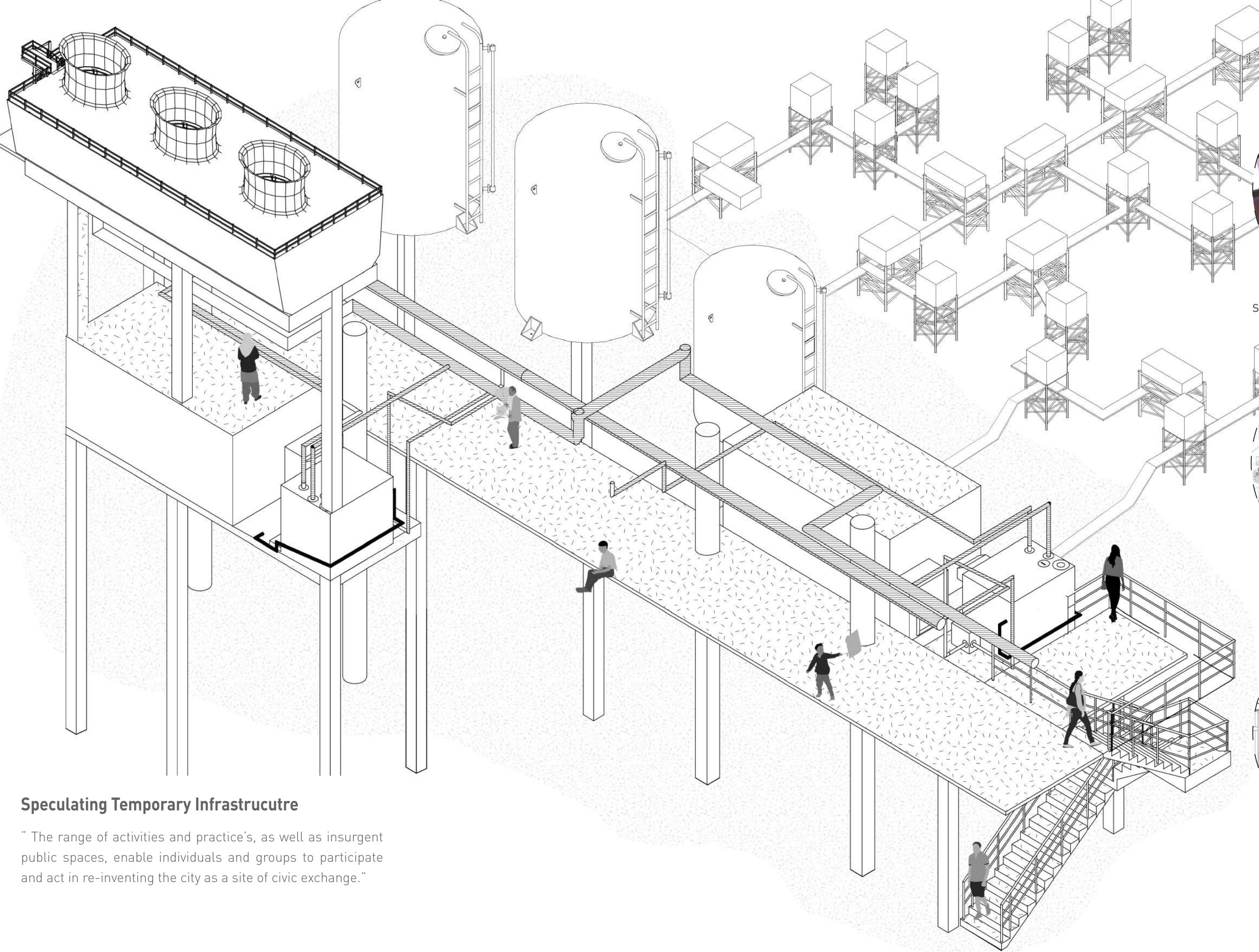
India's urban areas are in constant change due to rapid urbanization. This not only shapes the cityscape but also leads to vast vacant lands, awaiting monetization. These spaces, resulting from urban development, offer room for creative use, often transformed into informal social and cultural hubs, compensating for the lack of public commons. This trend continues, triggered by industry closures, regulations, and evolving priorities. Mapping this over time reveals a potential for reimagining collective urban spaces, observed in a studio's 20-year analysis.



## site analysis.



speculation.



### Speculating Temporary Infrastructure

"The range of activities and practice's, as well as insurgent public spaces, enable individuals and groups to participate and act in re-inventing the city as a site of civic exchange."

Speculating design as multifunctional platform.

Exploring plug-in and out system with multiple modules.

Exploring scales of the units.

Speculating design as a of temporal infrastructure.

Exploring plug-in and out system within a single module

Exploring seating space and transition spaces

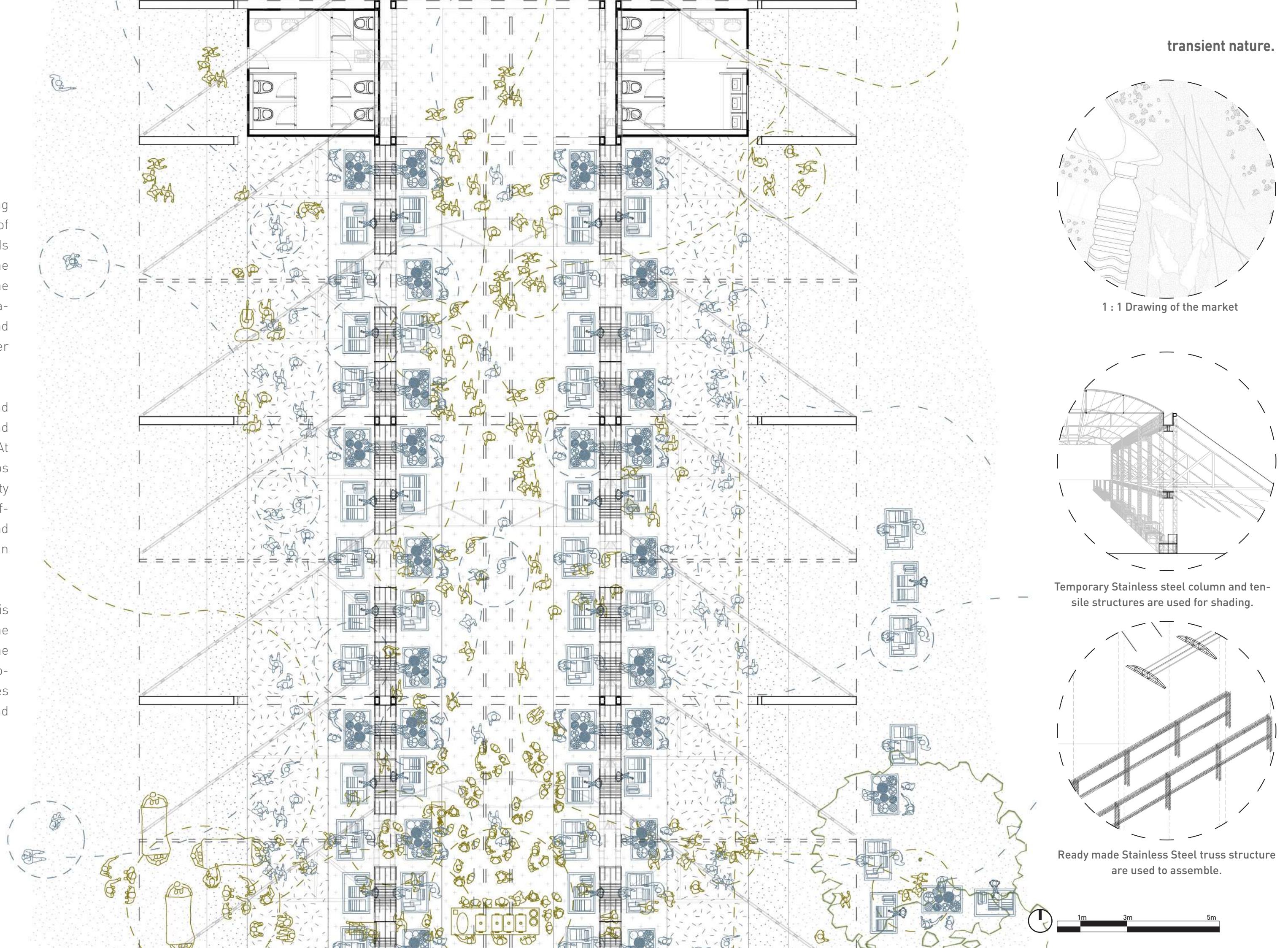
transient nature.

### Portable Urban Armature.

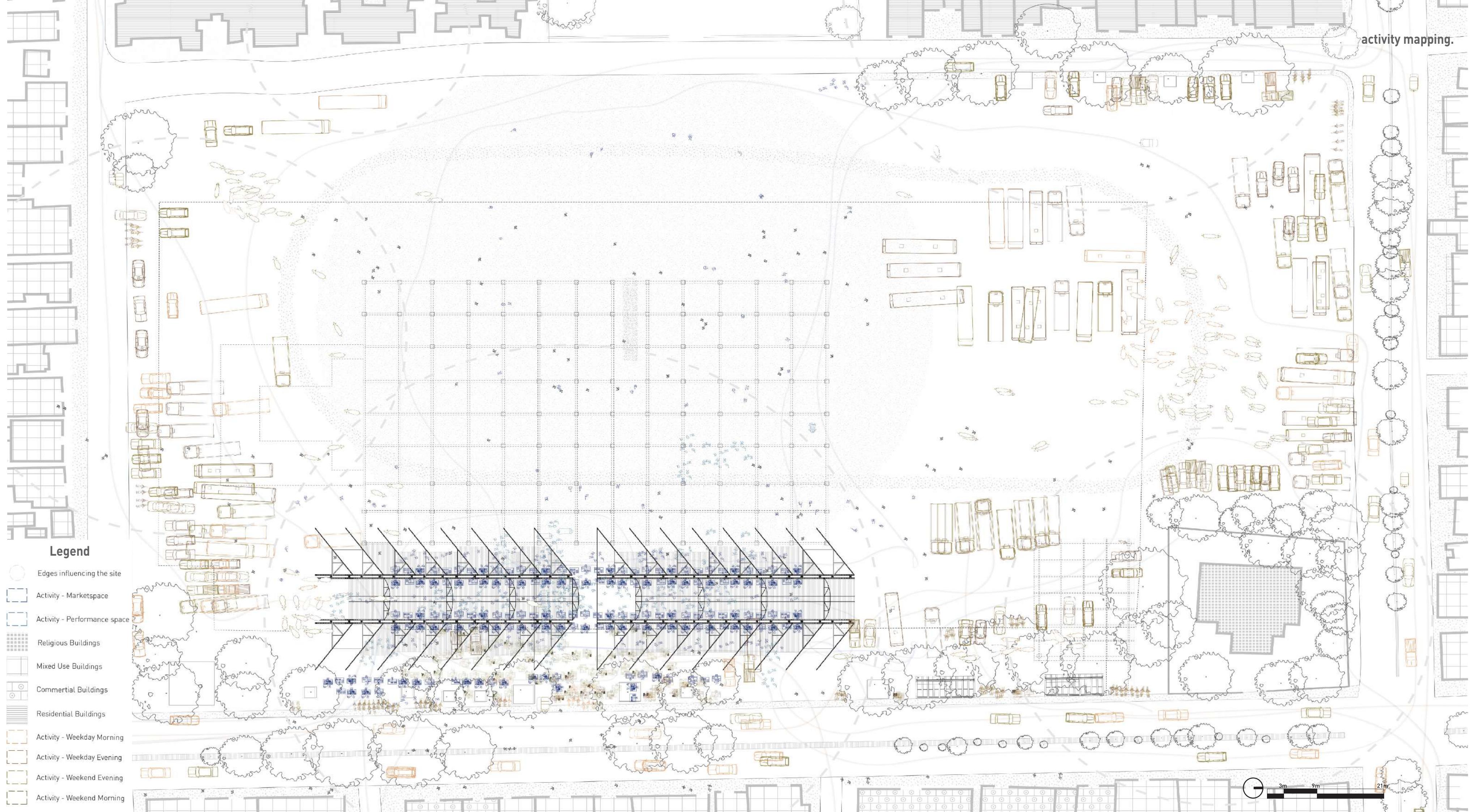
In Ahmedabad, the vacant lands are federating and dissipating components of the neighborhood/city. People use the space because of its anonymous nature and its accessibility. The vacant land demands a system that brings the user group together and lets them use the space in their own unique function and also should be addressing the city scale issues at the same time. So, the placement of Modular Infrastructure, which is transient, will address city-scale matters and stand out as a system itself. At the neighborhood level, it educates the user group on what method works behind the city.

At the neighborhood level, it should be designed to create a rich and diverse environment that breaks the taboo of the Infrastructure and communicates the needs and desires of the people who inhabit it. At the city level, it should address the issues with the system that helps people who live away from other neighborhoods and away from the city are also getting benefitted. It should generate revenue to be self-sufficient. The design should also allow a wide range of activities around it, and it will be a place that allows users to influence their own urban fabric by plugging into it.

The idea of continuity of streets and life can also be achieved with this design should reflect the neighborhood's diversity and vibrancy. The adjacent vacant spaces should also aid and emphasize the design. The design must reflect the needs, desires, values and lifestyles of the people who will live in the buildings. These designs must have techniques that offer a flexible and low-cost alternative to the standardized and often expensive materials used in modern construction.



## activity mapping.

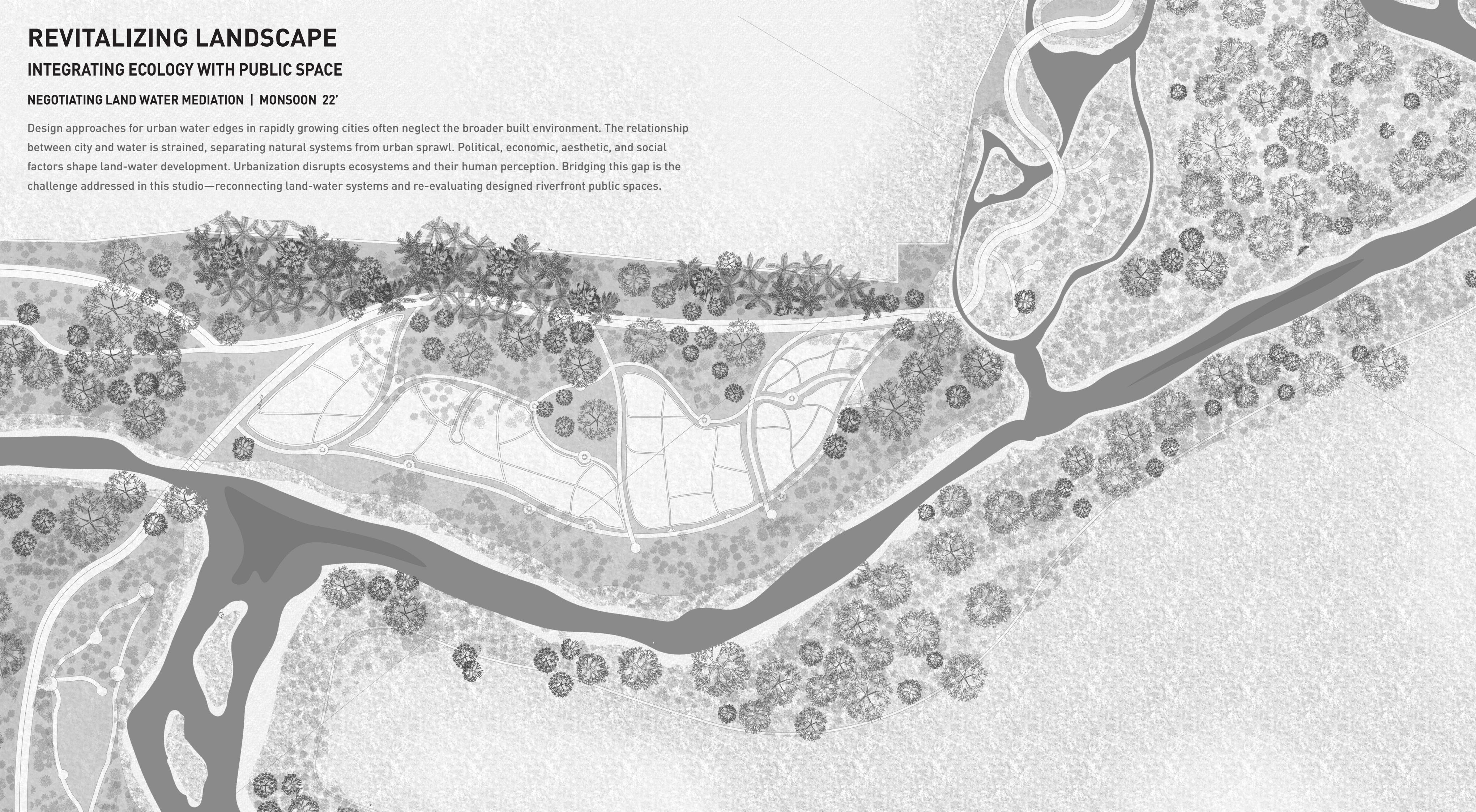


# REVITALIZING LANDSCAPE

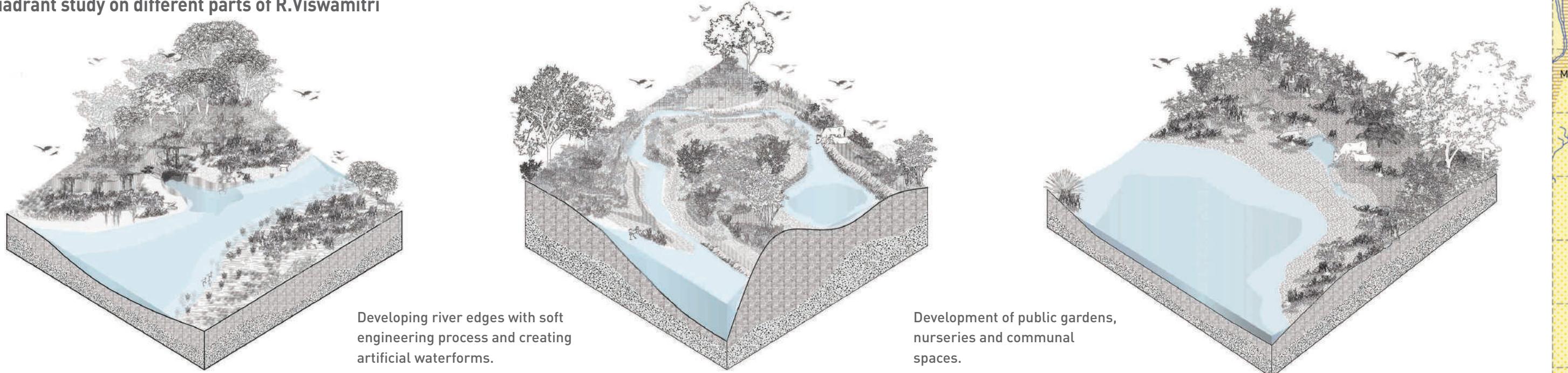
## INTEGRATING ECOLOGY WITH PUBLIC SPACE

### NEGOTIATING LAND WATER MEDIATION | MONSOON 22'

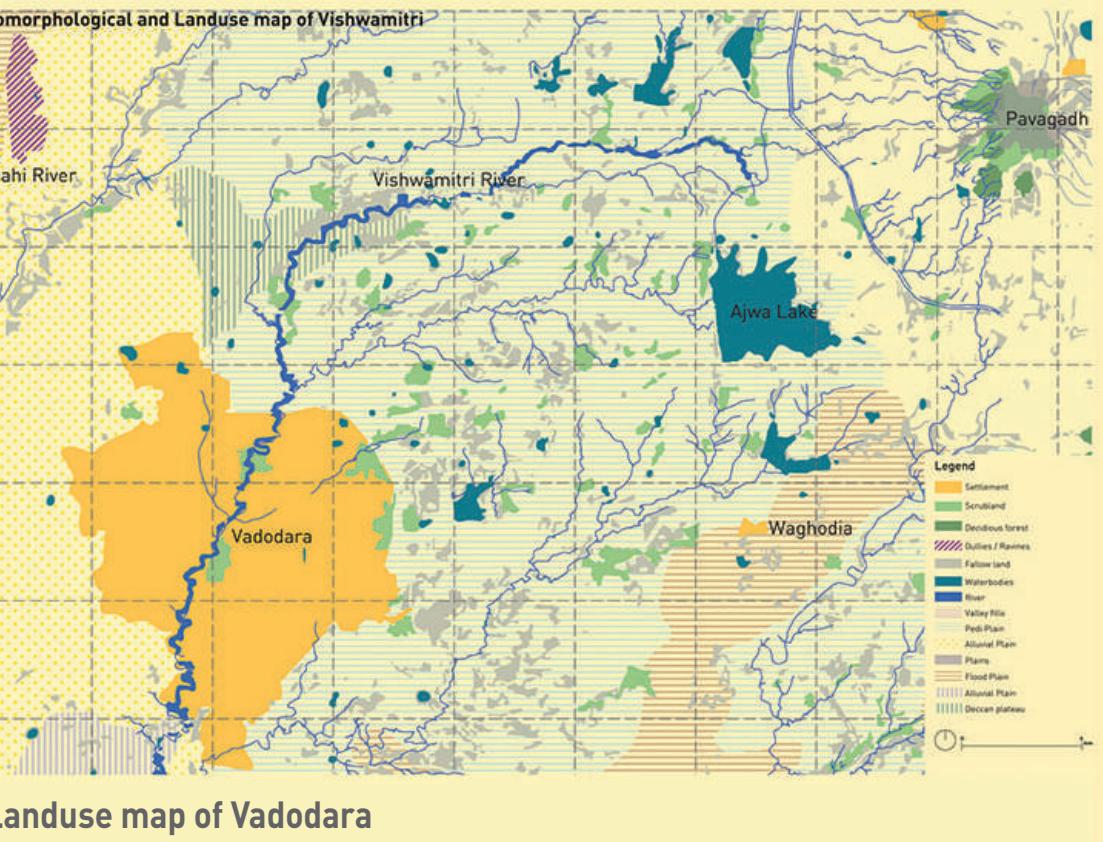
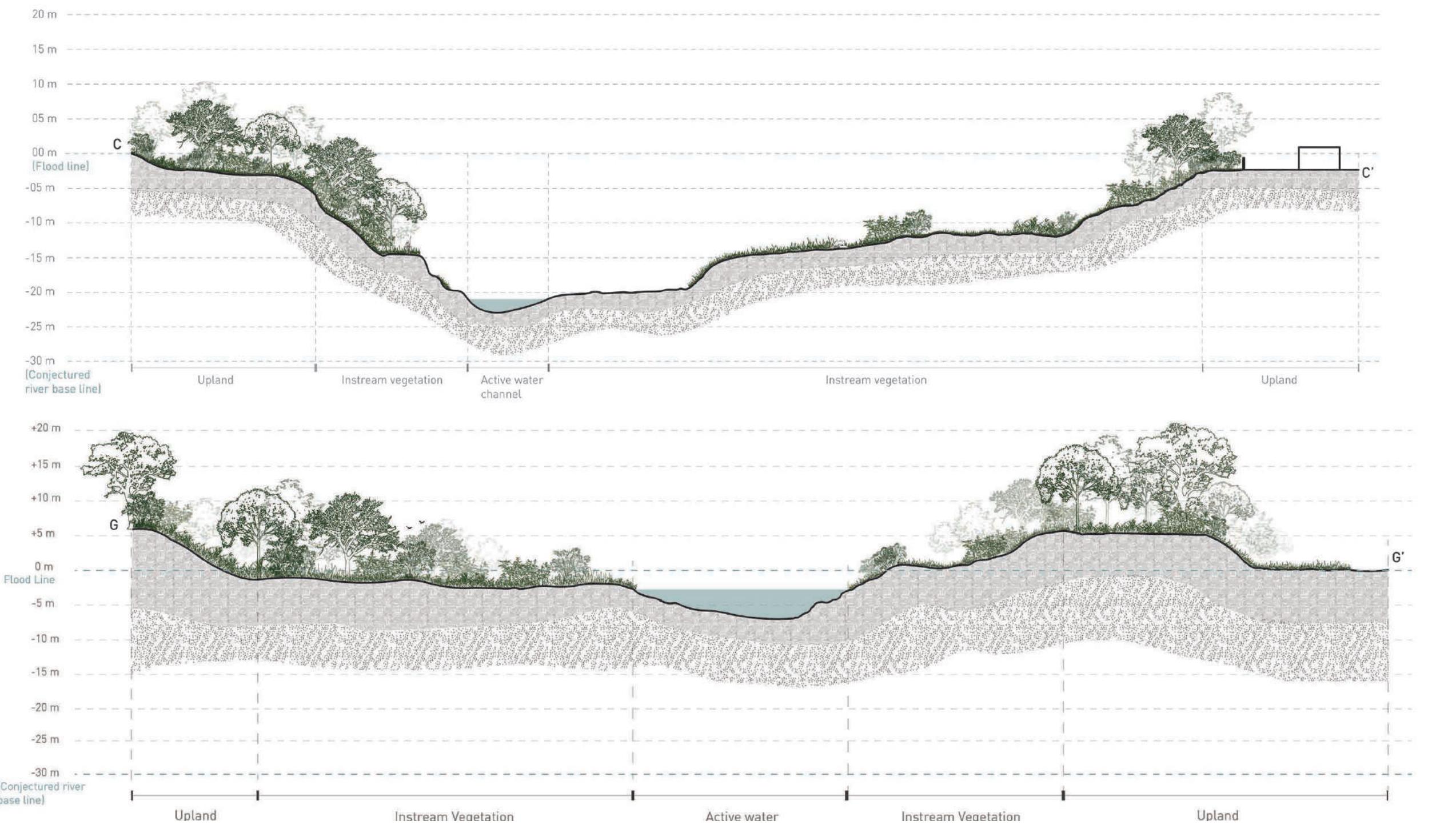
Design approaches for urban water edges in rapidly growing cities often neglect the broader built environment. The relationship between city and water is strained, separating natural systems from urban sprawl. Political, economic, aesthetic, and social factors shape land-water development. Urbanization disrupts ecosystems and their human perception. Bridging this gap is the challenge addressed in this studio—reconnecting land-water systems and re-evaluating designed riverfront public spaces.



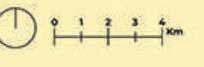
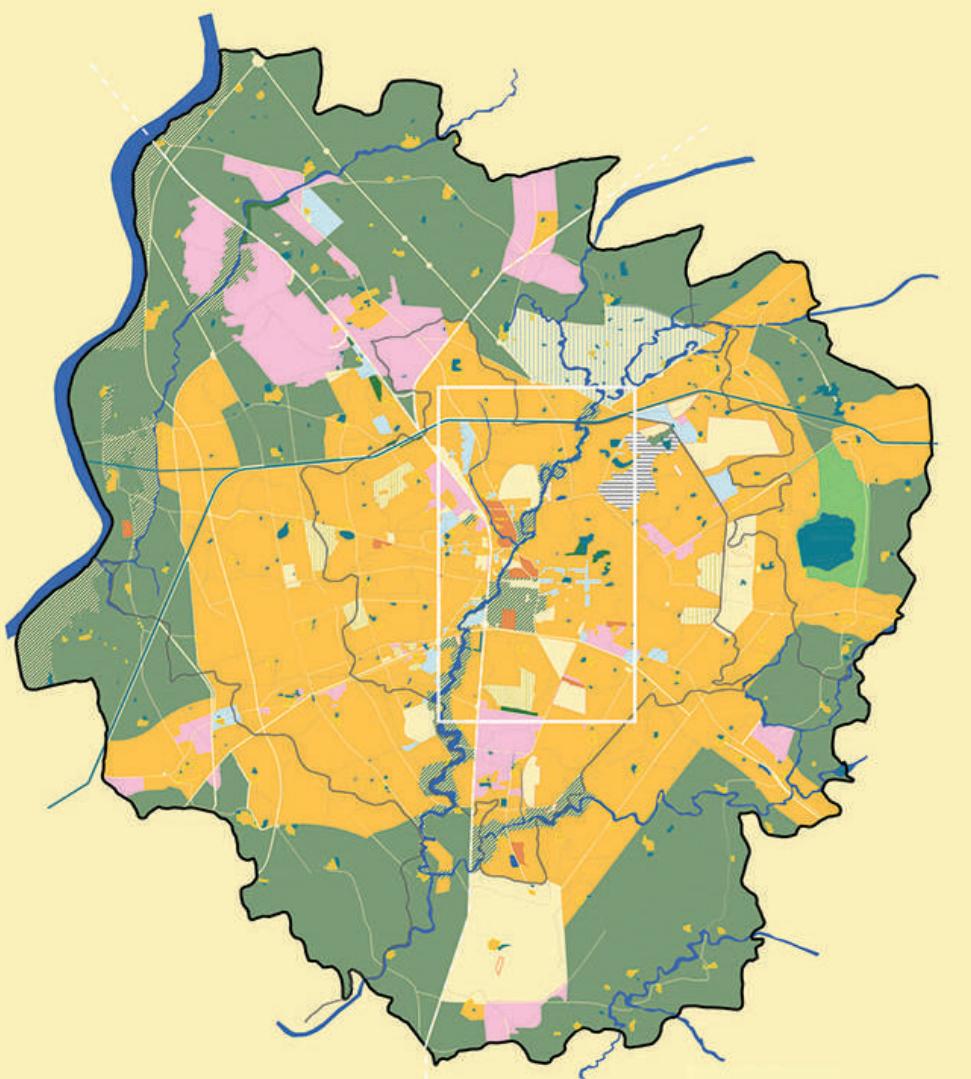
## Quadrant study on different parts of R.Viswamitri



## Sections across different parts of R.Viswamitri



Landuse map of Vadodara



speculation.

## Integrating ecology with public space.

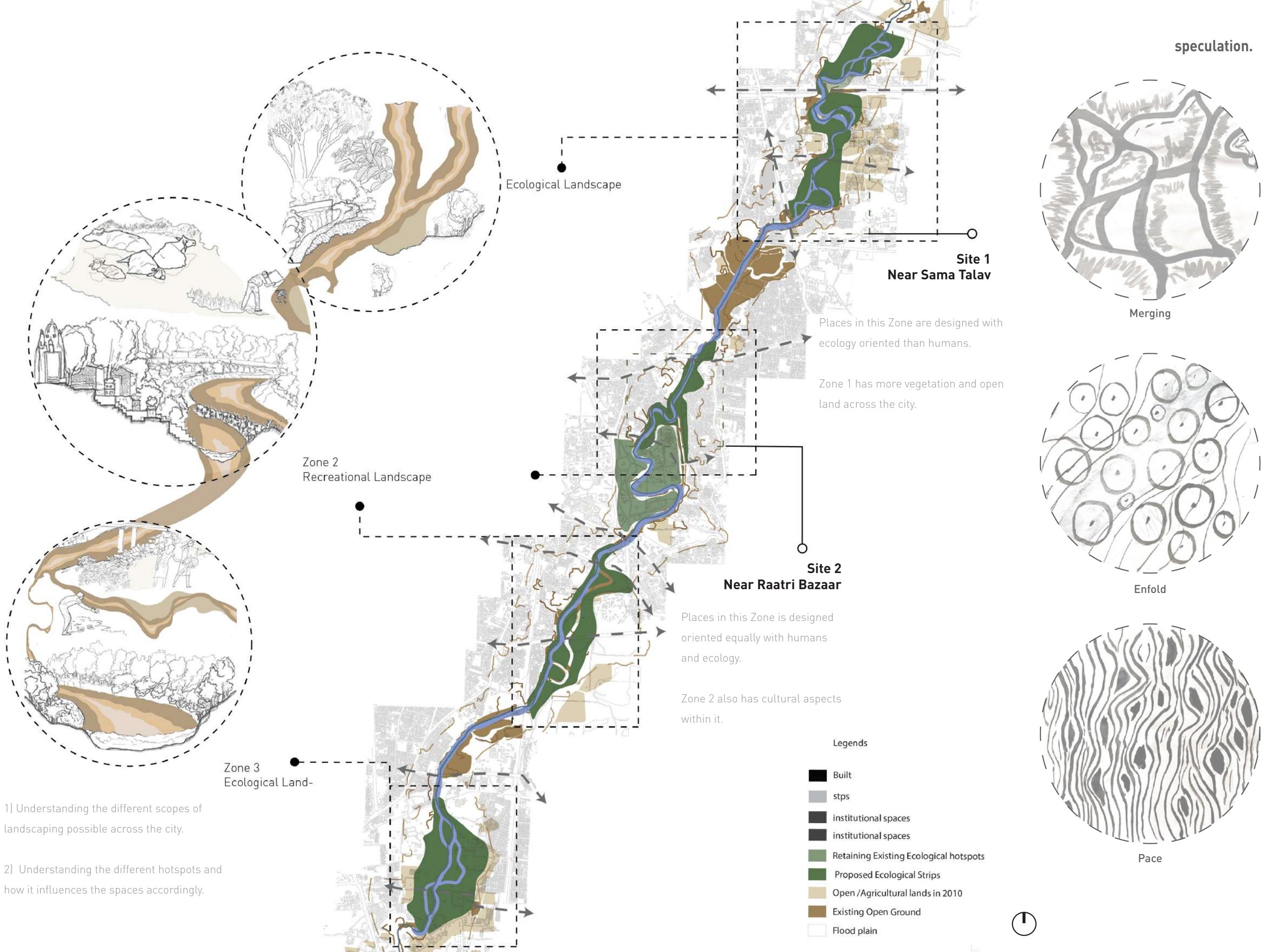
R.Vishwamitri itself is an ecological hotspot which runs across the city of Baroda. The river is not well acknowledged by the stakeholders, so it is being polluted and used as a sewage. Although its presence is neglected, there are numerous land uses and cultural activities that take place and people do converge around different spots and edges of the river. The river continues to integrate itself and maintain its existence as a shelter for a variety of flora and fauna.

**Design approach :** The project intends to revitalize the ecological realm and improve human interaction along the river's edge. The aim is to enhance Sociocultural activities on the river edge for human interaction, which will help it restore its character.

**Design decisions :** River Vishwamitri will be revitalized by design decision, which includes creating Artificial fluvial landforms, recreating the riparian edges and designing in such a way that ecosystem of living beings in R. Vishwamitri is not affected. Segregating the places which will be retained, enhanced or modified. The Riverfront will have few areas of interaction along the river and create a pockets of intervention / infrastructure along the river edges with different functions which will be open to interpretation.

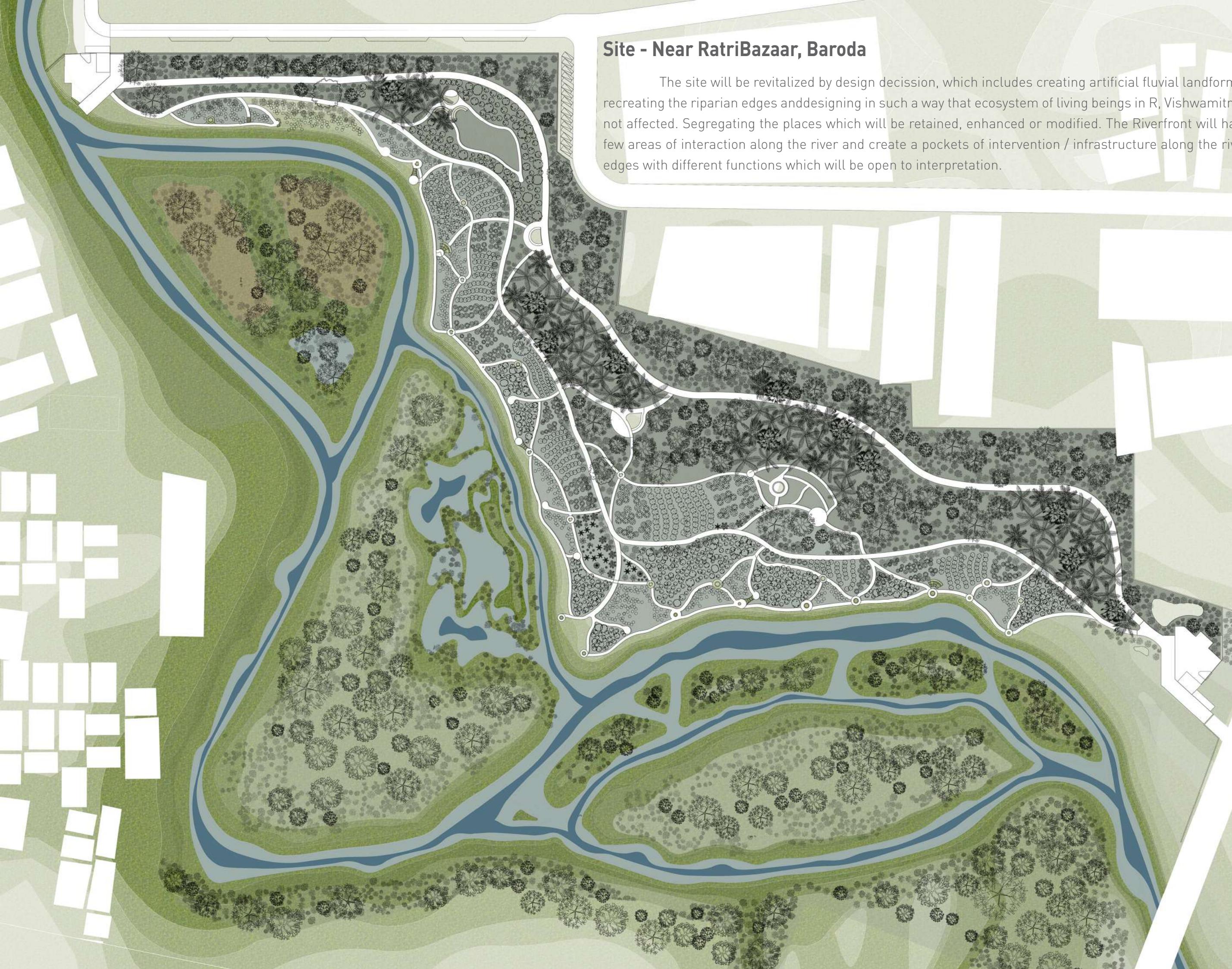
**Enhancement :** To insert smaller interventions/infrastructure on the river edge in order to enhance the connection. To provide R.Vishwamitri with ecological inserts which would help to enrich itself.

**Modify :** To create new artificial fluvial landforms and riparian edges. Providing safe access points to the design.

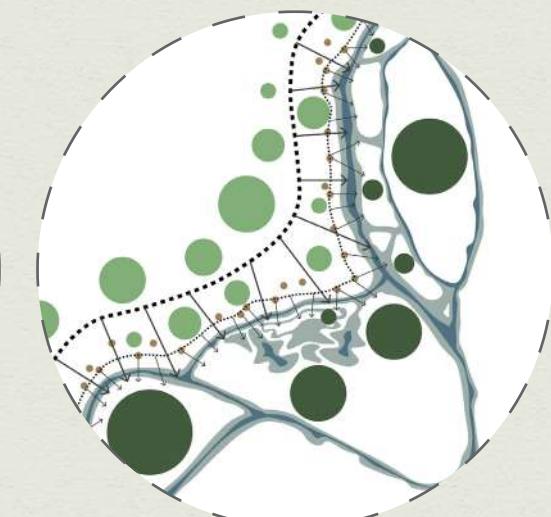


## Site - Near RatriBazaar, Baroda

The site will be revitalized by design decision, which includes creating artificial fluvial landforms, recreating the riparian edges and designing in such a way that ecosystem of living beings in R. Vishwamitri is not affected. Segregating the places which will be retained, enhanced or modified. The Riverfront will have few areas of interaction along the river and create a pockets of intervention / infrastructure along the river edges with different functions which will be open to interpretation.



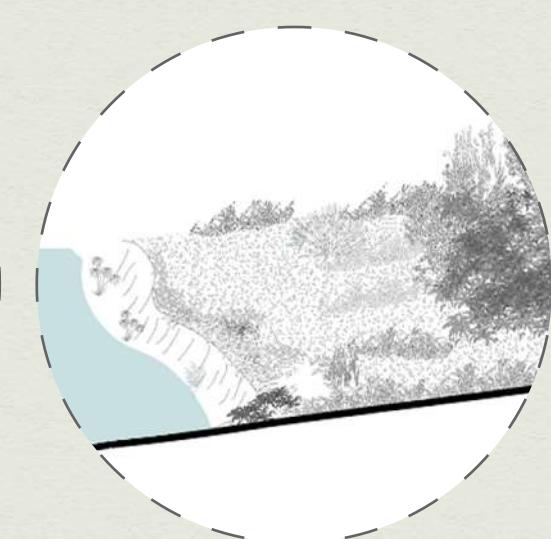
The points of interaction are facing towards the vegetation and fluvial landforms.



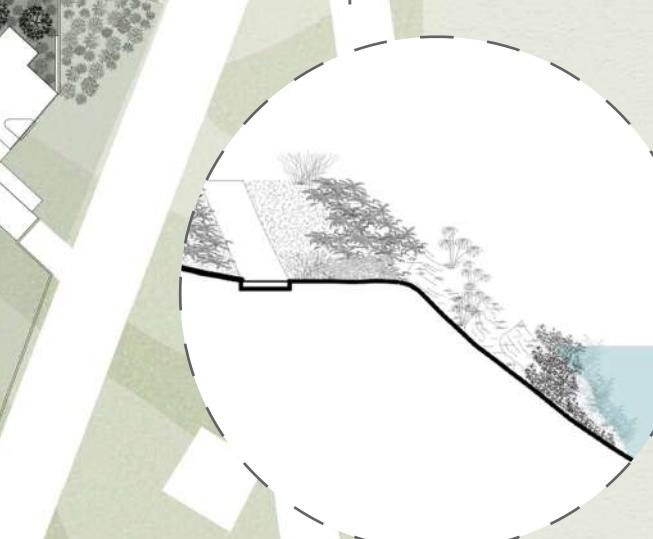
Designing braided river form for the river within the floodlines.



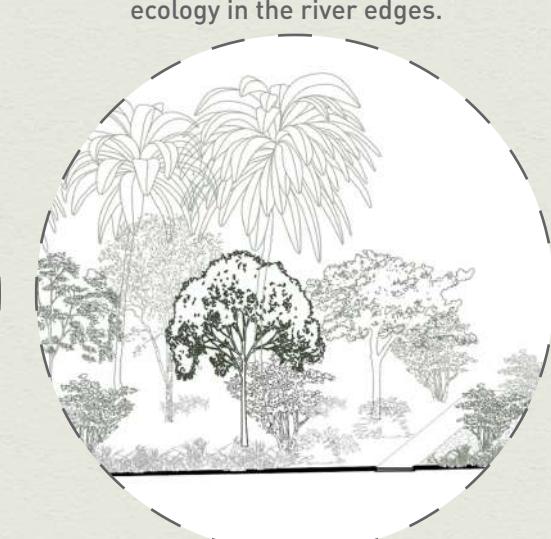
Height of shrubs and trees which does not interrupt the visual access.



Submergent and emergent plants are phytoremedic, which helps in reviving the ecology in the river edges.



Points of interaction in the pathway kept open for interpretation.



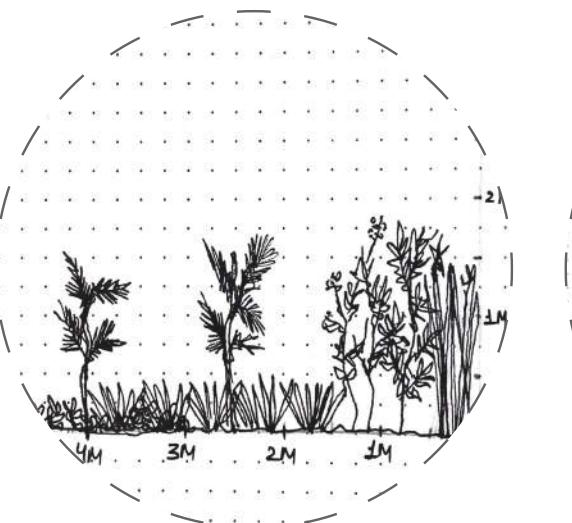
Native trees are used on emergent and canopy layer of the vegetation.

## Need for Revitalizing R.Vishwamitri.

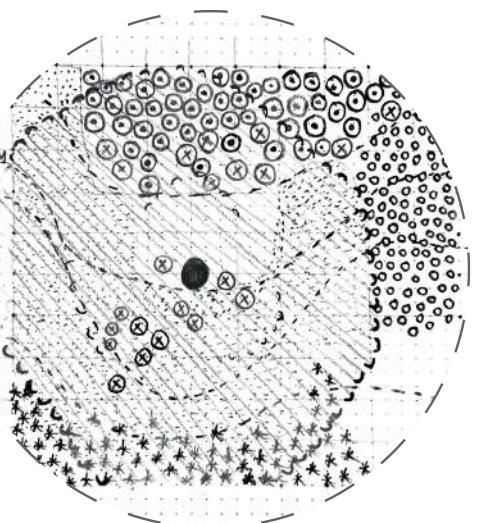
The urgency to rejuvenate R. Vishwamitri in Baroda stems from the river's neglected state and its critical ecological significance. Overlooked by stakeholders, the river has fallen victim to pollution and misuse, primarily as a dumping ground for sewage. This disregard has threatened the delicate balance of its ecosystem, causing harm to both the aquatic life and the surrounding environment.

Revitalizing R. Vishwamitri is imperative to restore its ecological health and ensure its role as a vibrant natural corridor. As a once-thriving ecological hotspot, the river holds intrinsic value in preserving biodiversity, supporting aquatic organisms, and maintaining a balanced local ecosystem. Its banks once teemed with various flora and fauna, contributing to the area's environmental and cultural richness.

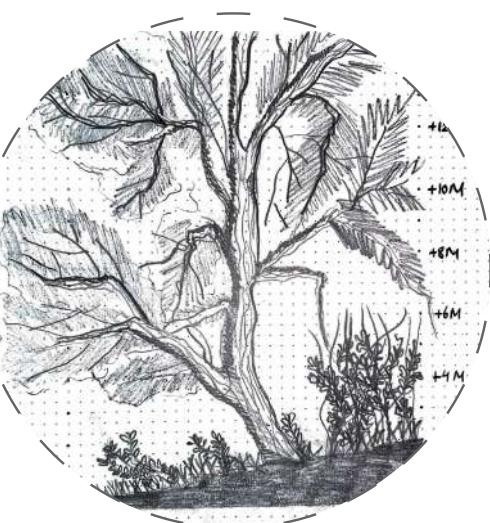
Furthermore, R. Vishwamitri's revival aligns with the broader goal of sustainable urban development. By restoring the river's health, the city can benefit from improved water quality, enhanced biodiversity, and increased green spaces. This revitalization would not only safeguard the environment but also provide the local community with recreational spaces, a sense of connection to nature, and improved overall well-being.



Analysing how native species present in a habitat

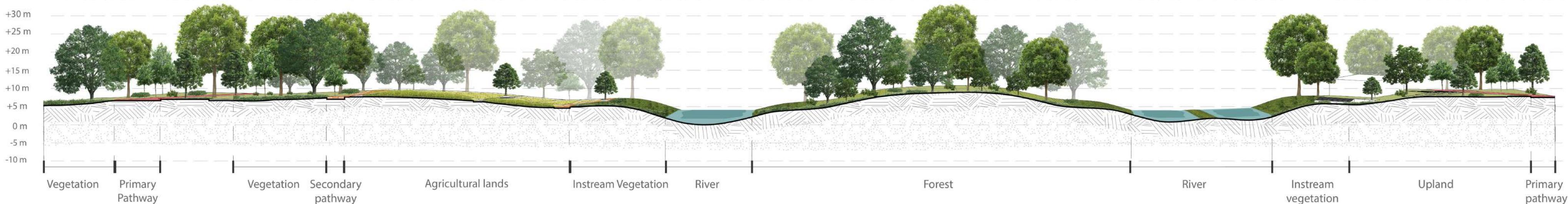


Measuring of variety and abundance of species in a habitat

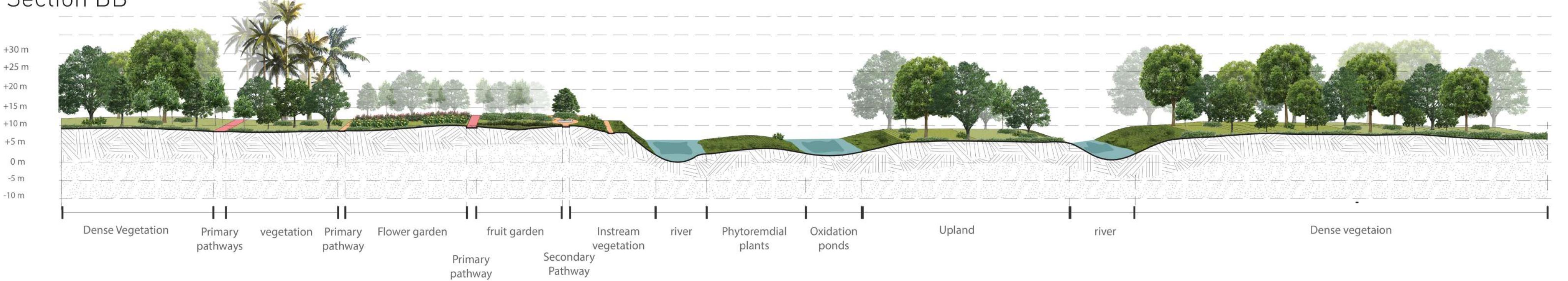


Arranging species spatially in a habitat

## Section AA'



## Section BB'



# JALA PUSHPA

## DESIGNING A UNIVERSITY TOWN

### WATER URBANISM | MONSOON 21'

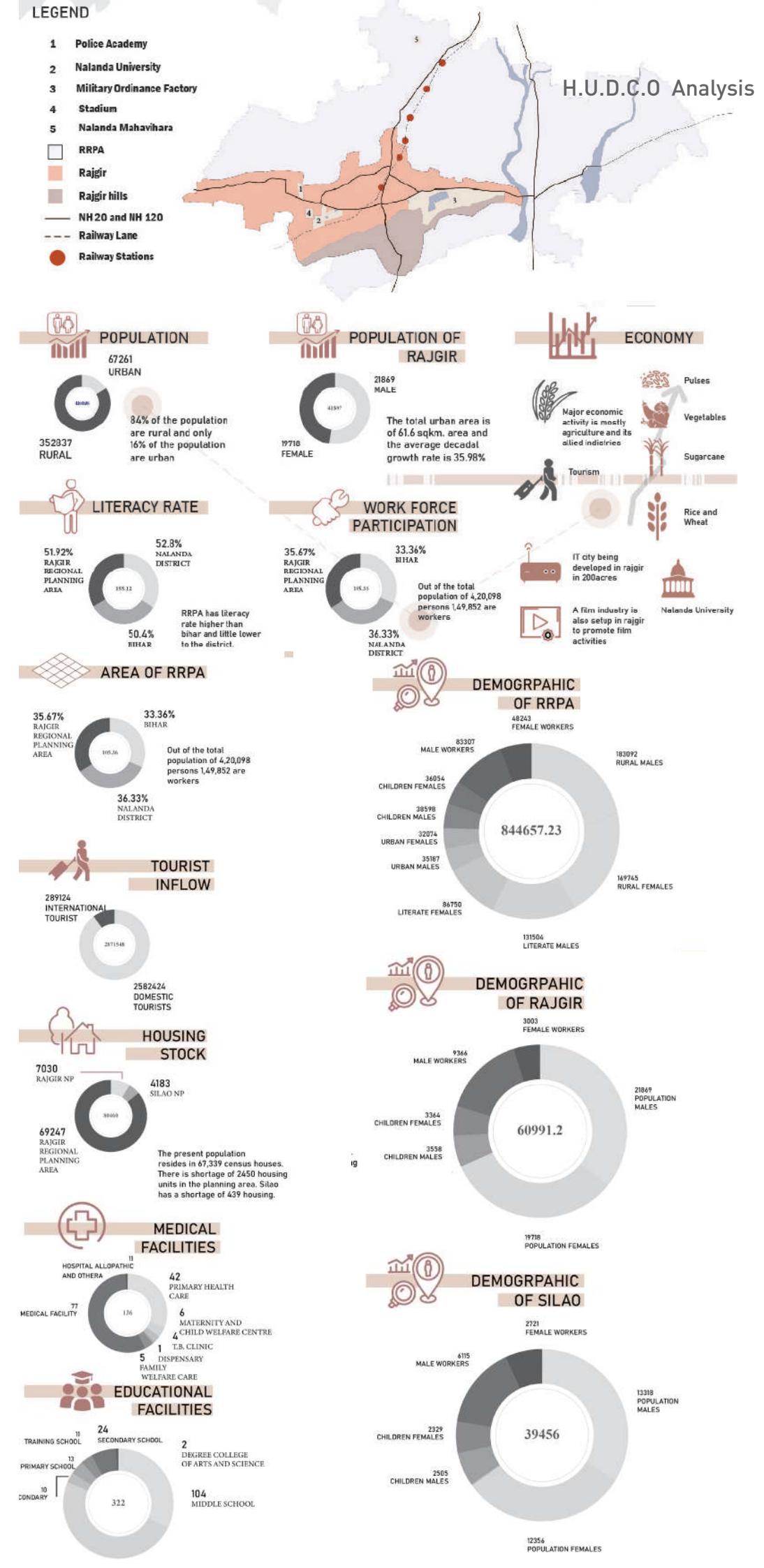
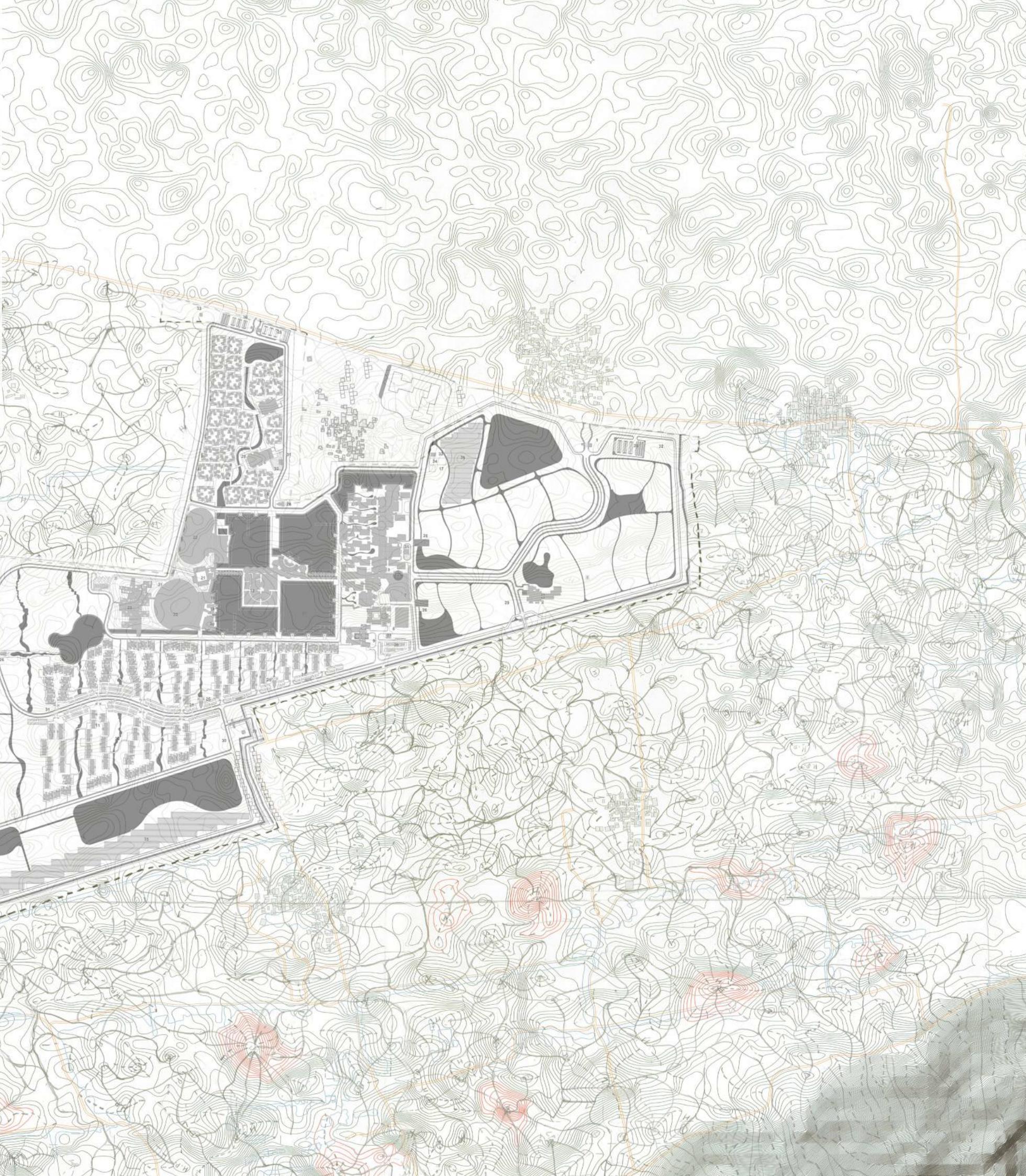
"Water is constantly in motion, changing states, crossing borders, nourishing (and destroying) life. How can water and urbanism be considered together as a generative frame for urban design practice, social life, and ecological regeneration?" - Kate Orff.

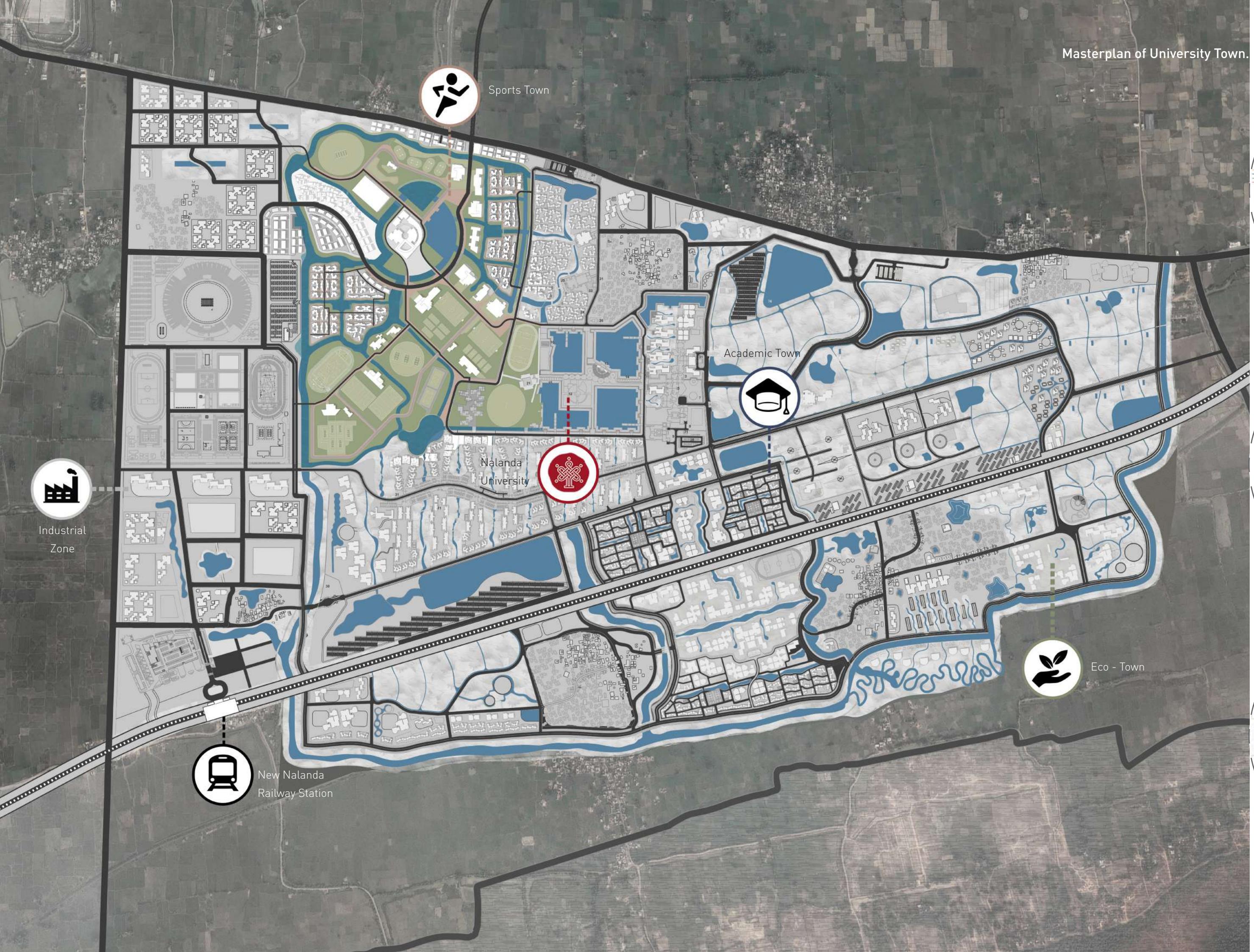
Water initiated early civilizations and settlement patterns. How settlements interacted with water bodies shaped their forms. While rivers traditionally define cities, other water elements like drainage, lakes, stepwells, and wastewater systems are overlooked.

Modern cities aim to revitalize waterfronts for economic, political, and aesthetic reasons. This studio advocates viewing water and cities as part of a comprehensive constructed ecosystem.

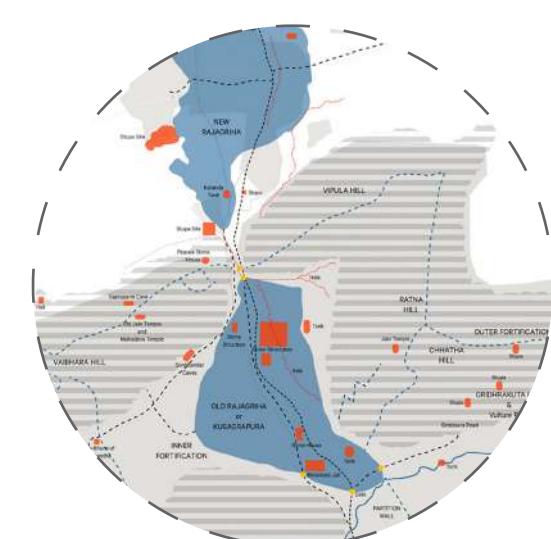
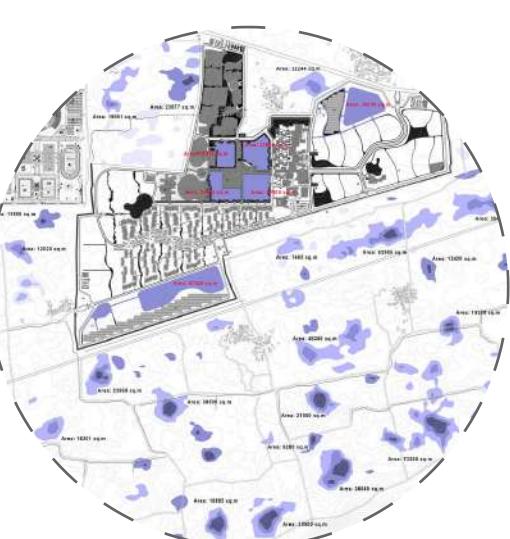
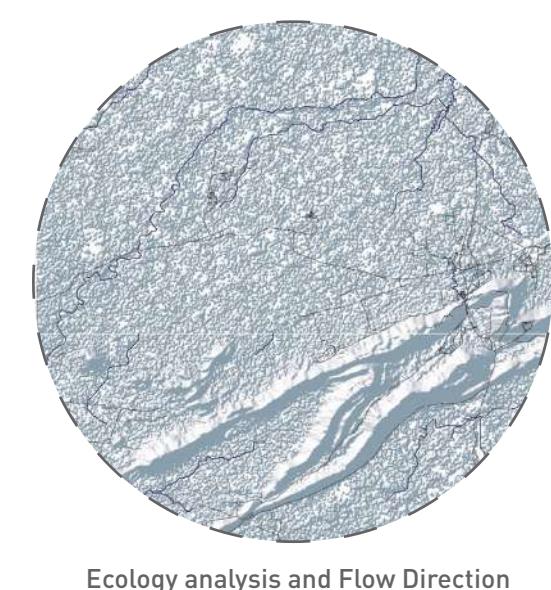
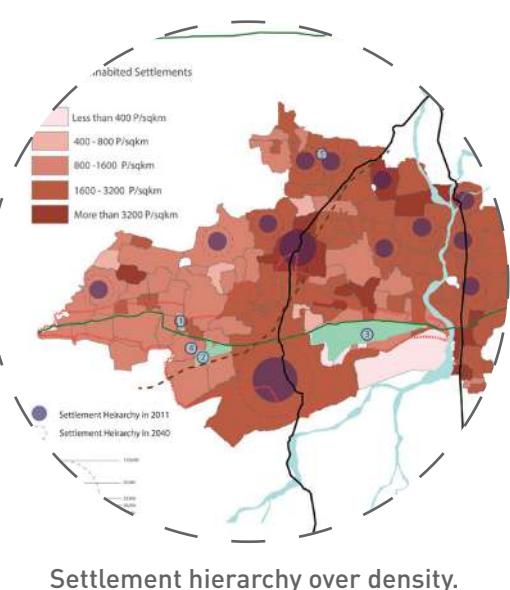
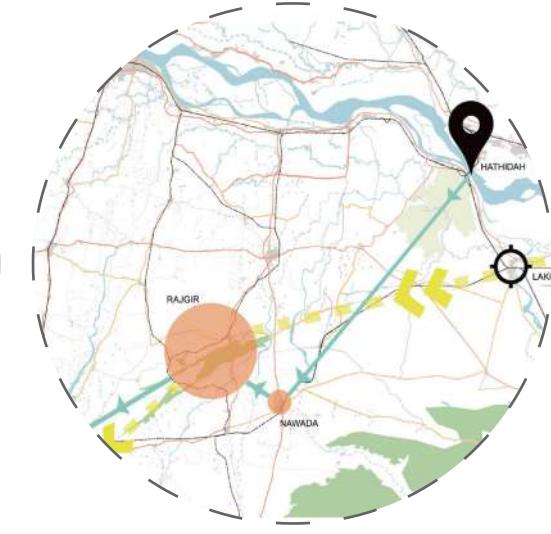
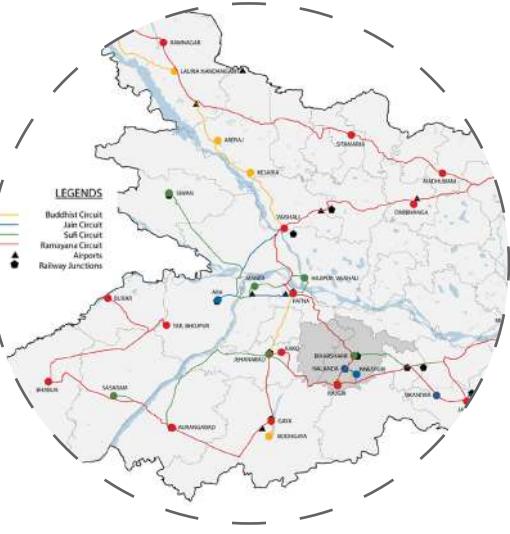


New Nalanda University and its environs have undergone significant developments and infrastructure improvements. The university has expanded its academic facilities, fostering cutting-edge research centers, state-of-the-art classrooms, and enhanced student accommodations. Rajgir, the adjoining town, has witnessed upgraded transportation connectivity, modernized road networks, and improved hospitality services to accommodate the growing academic and tourist influx. The preservation of historical and cultural sites around Rajgir has been prioritized, enriching the region's heritage appeal. These combined efforts synergize to create a thriving educational hub, fostering learning, research, and tourism while ensuring sustainable growth for both the university and the local community.





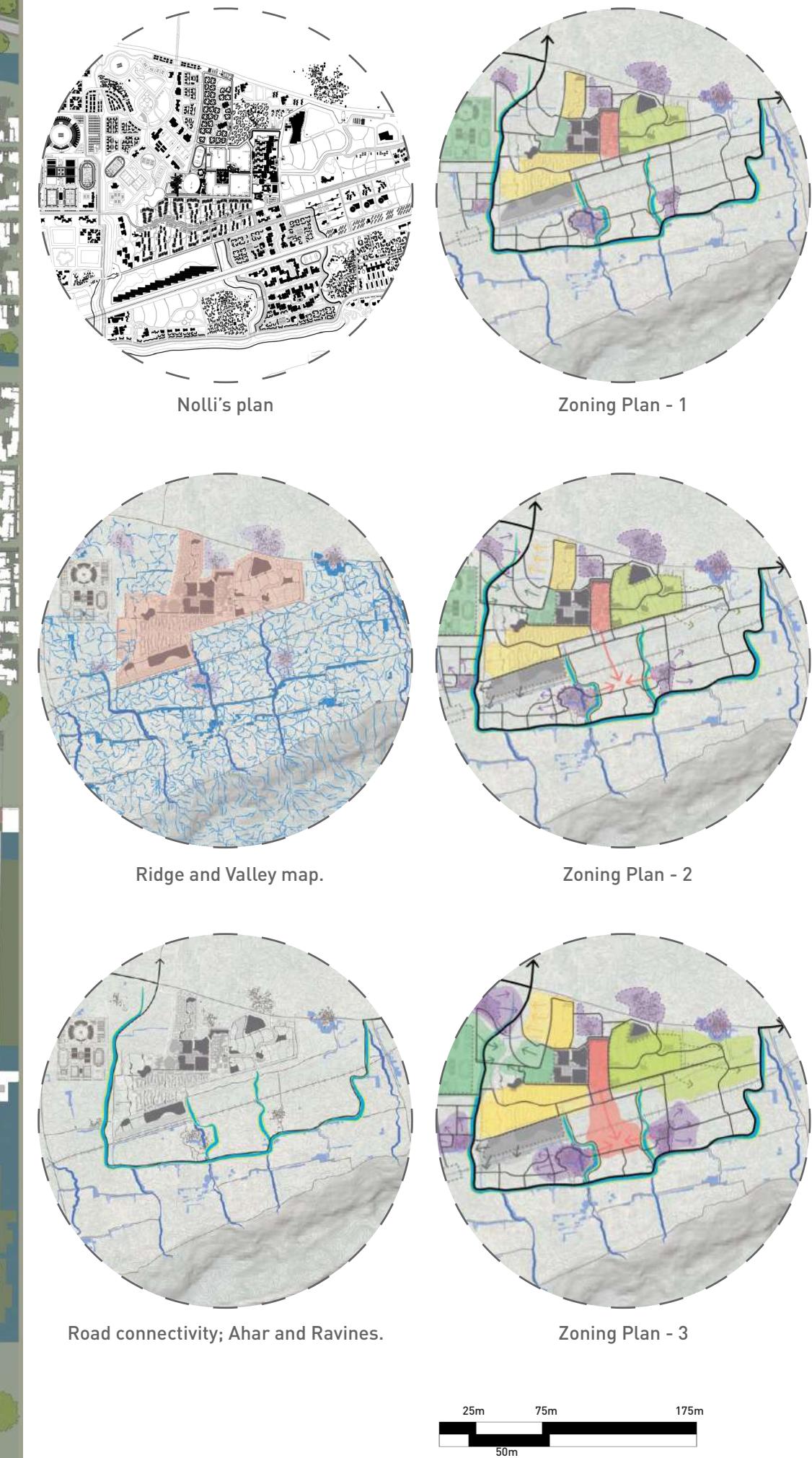
Masterplan of University Town.



## The Sports town

The objective of this project is to create a University town with a distinctive feature: when observed from a broader perspective, it presents a seamless and cohesive appearance. However, upon closer inspection, it reveals the intricate interactions and exchanges taking place within each distinct sector. This design ensures a direct and symbiotic connection between the emerging institutions and the pre-existing villages. The development of the university originates from its central point and extends outward towards these villages, effectively erasing the previous demarcations. Thus, the primary goal of the new Nalanda is to explore ways in which the university can catalyze the growth and advancement of the surrounding areas, effectively transforming it into a thriving University Town.

Establishing a sports town around Nalanda University fosters holistic development. Athletic facilities encourage physical well-being, complementing academic pursuits. Sports also cultivate teamwork, discipline, and community engagement, enriching the educational experience. This integration enhances both intellectual and physical growth, contributing to a well-rounded and vibrant University Town. A sports town fulfills the state's demand for sports development. Providing a water-based green sports complex while entering the space will change the notion of the town. Building a relationship with Nalanda university with the Stadium promotes Sports institutions and other sports-based infrastructure.



In a sports town, open spaces are often associated primarily with athletic activities, but they also hold immense potential for fostering inclusive community engagement and contributing to various urban design aspects.

Open spaces within a sports town can be optimized for a range of community activities that cater to diverse interests and age groups. Multi-purpose fields can host outdoor concerts, farmers' markets, art exhibitions, and cultural festivals, promoting social cohesion and interaction among residents. Additionally, sports facilities with adaptable designs can serve as venues for educational workshops, skill-sharing sessions, and recreational programs, ensuring year-round utility.

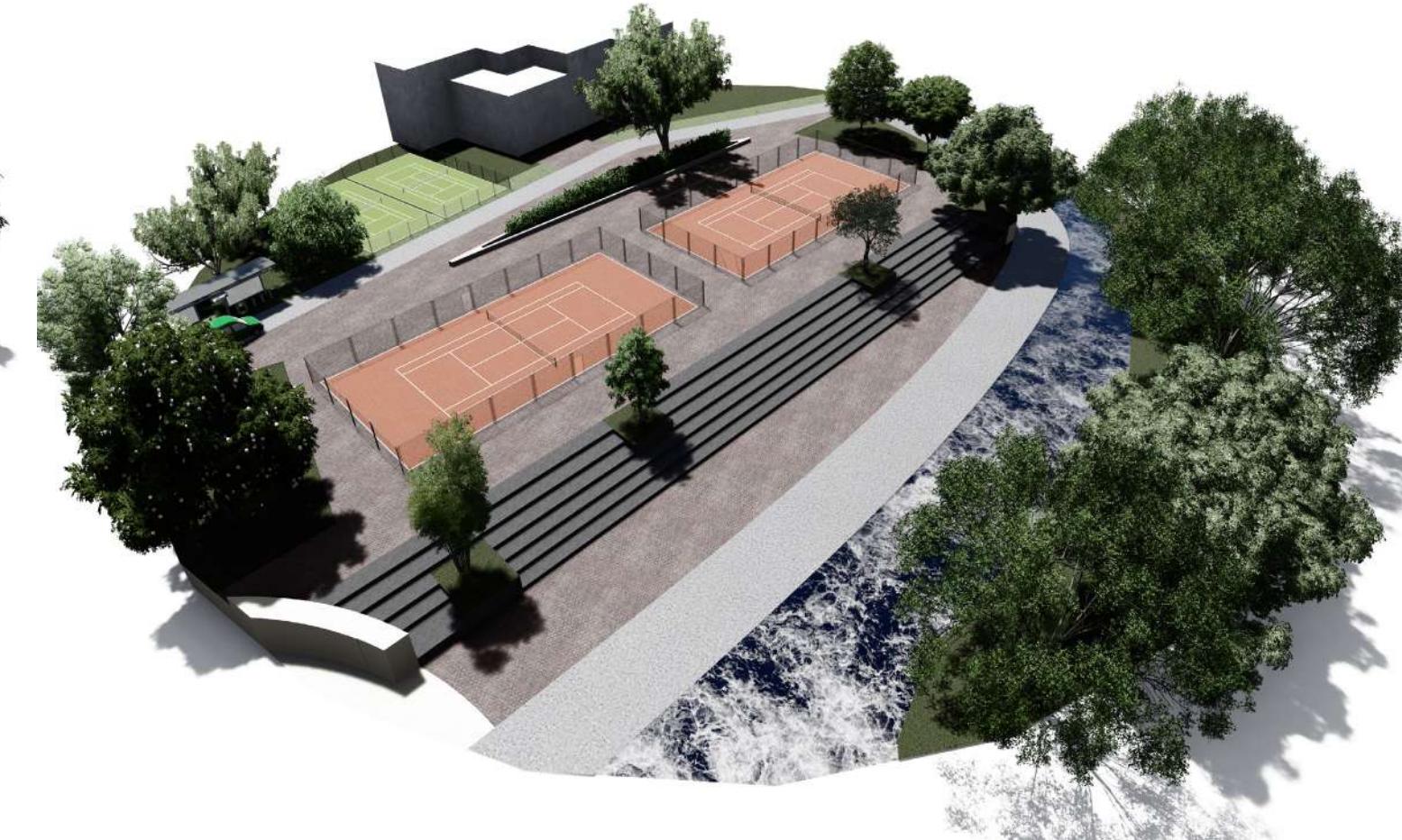
Incorporating inclusive design principles ensures these spaces are accessible to everyone, regardless of physical abilities. Accessible pathways, seating, and sensory gardens create an environment where individuals of all ages and mobility levels can participate and enjoy. Urban design around these open spaces should prioritize mixed land uses and pedestrian-friendly environments. Placing residential areas, commercial zones, and recreational hubs in close proximity encourages walkability, reducing the need for vehicular travel. Well-designed public transit connections further promote accessibility and reduce the carbon footprint.

The ecological aspect is equally crucial. Incorporating green infrastructure such as rain gardens, permeable pavements, and native vegetation not only enhances the aesthetic appeal but also contributes to sustainability and water management.

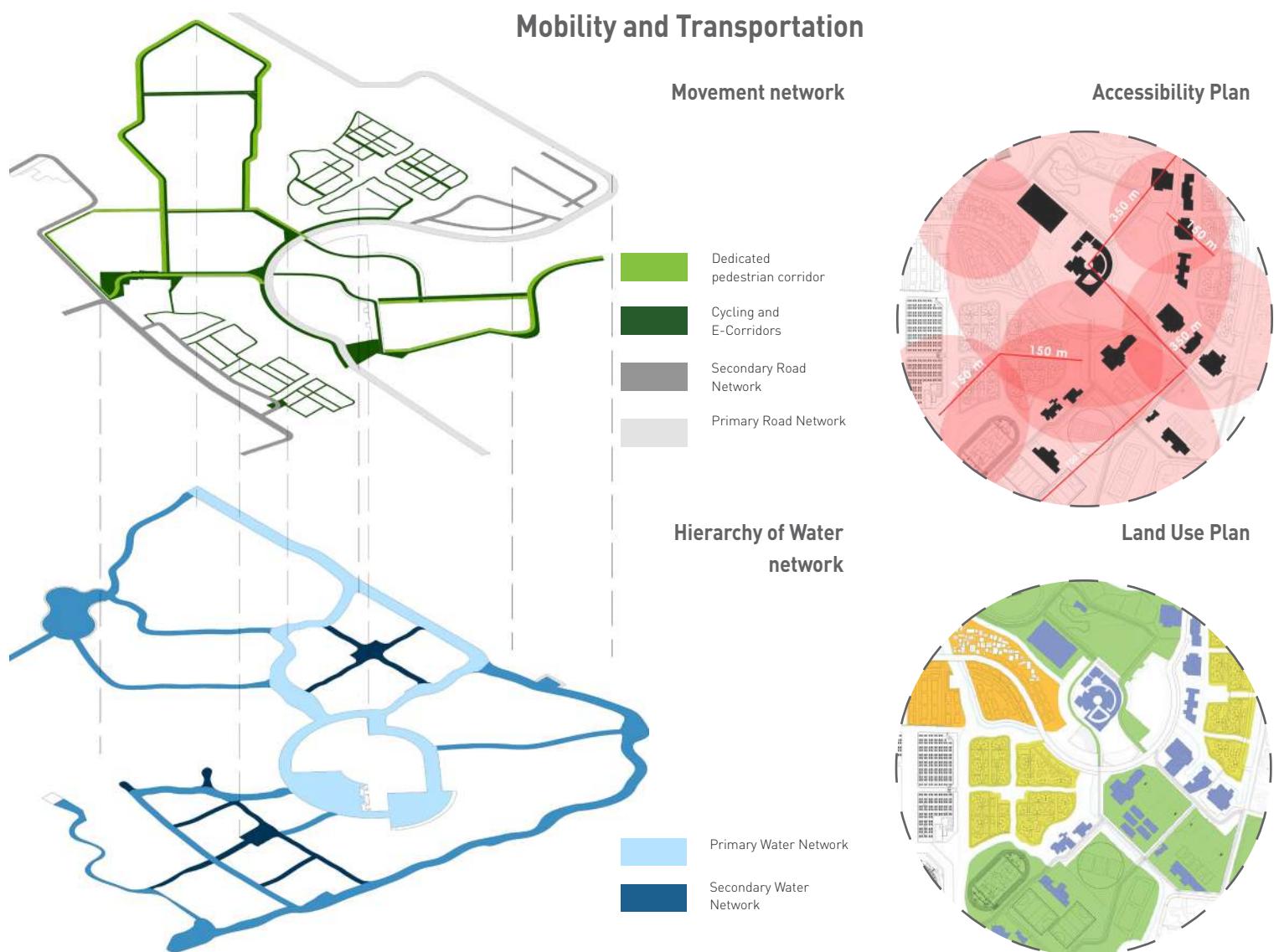
In conclusion, open spaces within a sports town have the potential to transcend their athletic focus and become vibrant centers of inclusive community activities. By incorporating inclusive design principles, considering urban connectivity, and embracing ecological sustainability, these spaces can enrich the lives of residents, foster a sense of belonging, and contribute to the overall vitality of the town.



Condition around Basket Ball academy and connectivity for it.



Condition around Tennis academy and waterfront integrated with it.



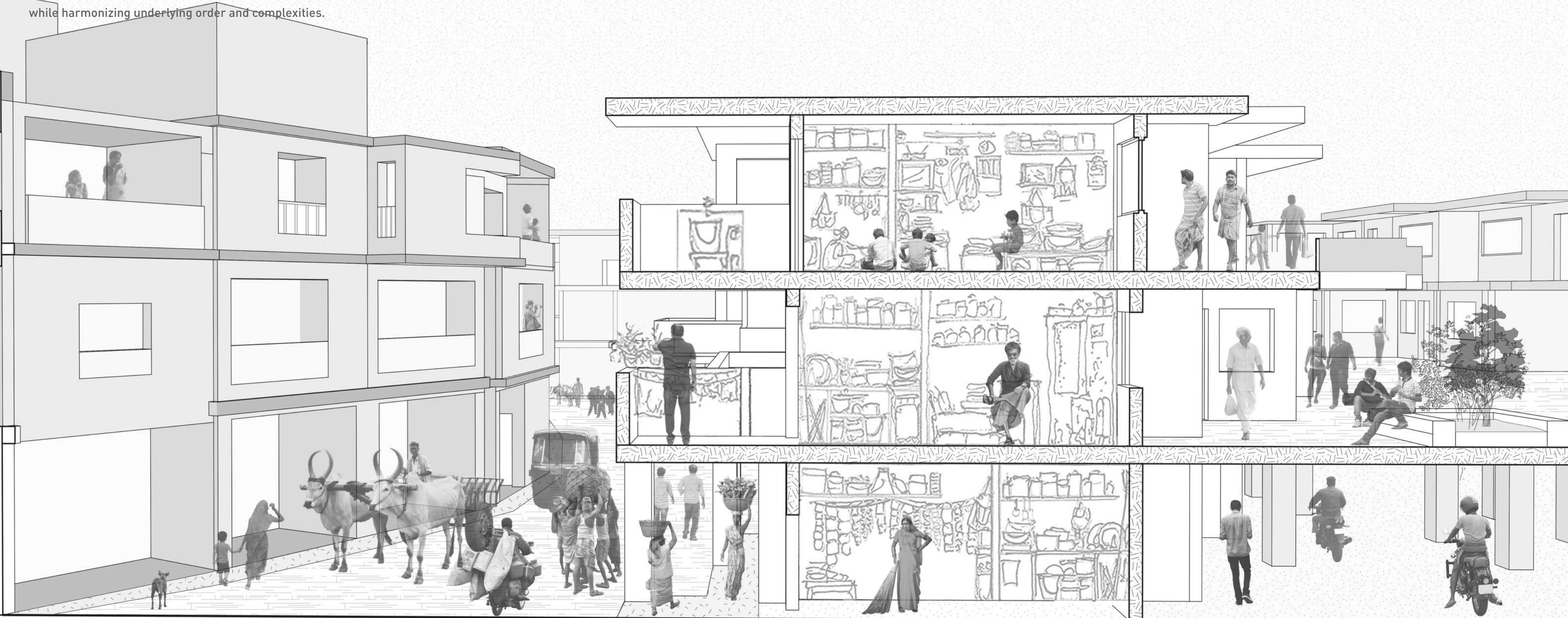
Urban fabric of the Residential area and Hostels.

# MIGRANT HOUSING

## DESIGNING A UNIVERSITY TOWN

### FROM UTOPIAS TO HETEROPIA | MONSOON 20'

The course delved into 'mass housing' concepts across time and space, examining evolving settlements through stacking and linking. It explored determinants, generations, and patterns, aiming for a balanced order-complexity dynamic. The goal was to craft adaptable homes for migrant communities in dynamic live-work settings, accommodating diverse cultures. Spaces formed unique traits, open to occupants' modifications in certain patterns, striving for equilibrium between generated order and contextual intricacies. Students analyzed modular housing's linking and stacking issues, planning ensembles amidst open spaces. They explored housing clusters while harmonizing underlying order and complexities.



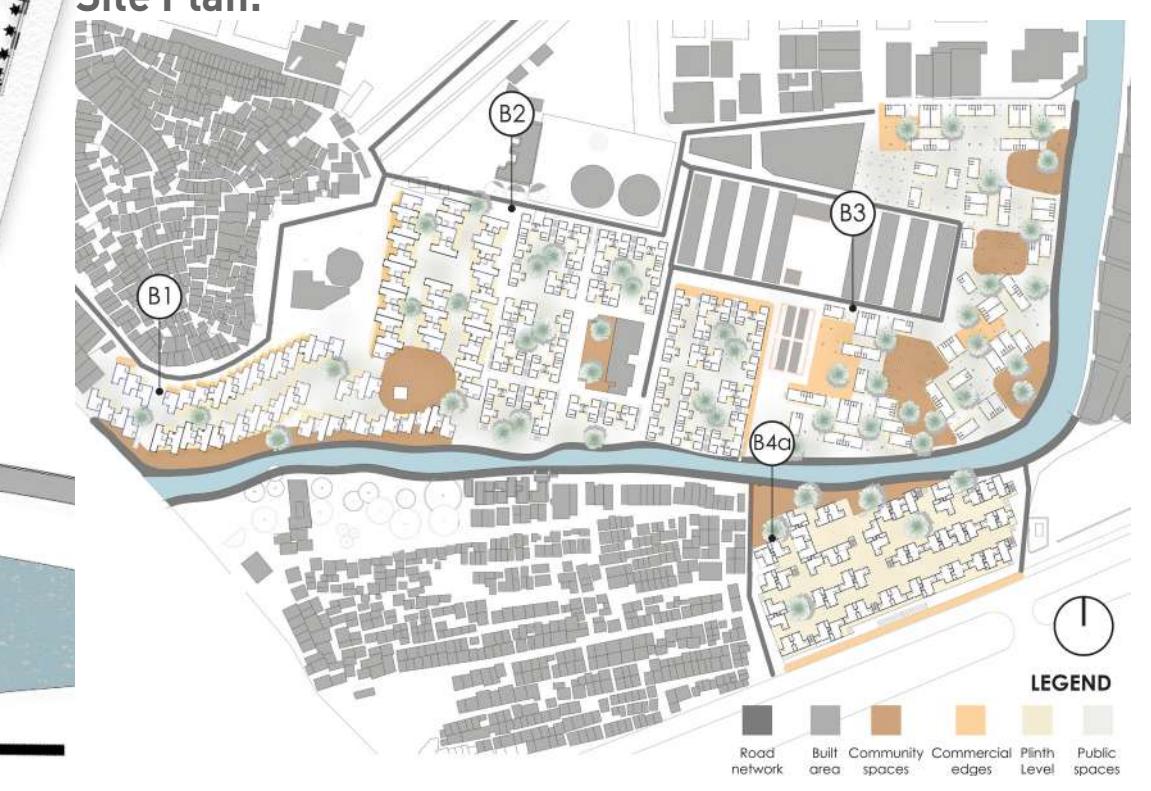


The core objective of the low-income housing endeavor revolves around the deliberate recreation of interfaces reminiscent of those found in ancient city areas. This approach is rooted in the intention to safeguard the genuine experiential essence intrinsic to India's live-work lifestyle. The projects undertaken within this initiative are strategically geared towards addressing multifaceted design challenges, primarily aimed at enhancing the housing units' responsiveness to the local climate and ameliorating the overall state of the existing site.

Embedded within the portfolio is an extensive account of the journey undertaken to tackle the intricate issues associated with housing improvement. The portfolio serves as a testament to the endeavors made and methodologies embraced throughout this process. Central to this effort is the aspiration to seamlessly blend cultural heritage with contemporary solutions, ensuring that the resultant housing solutions resonate with the needs of the population while concurrently establishing a sustainable and contextually attuned built environment.

By focusing on both the preservation of cultural identity and the implementation of practical design solutions, the low-income housing project strives to create a harmonious amalgamation that not only enriches the lived experience but also fosters an inclusive and adaptive habitat for the community.

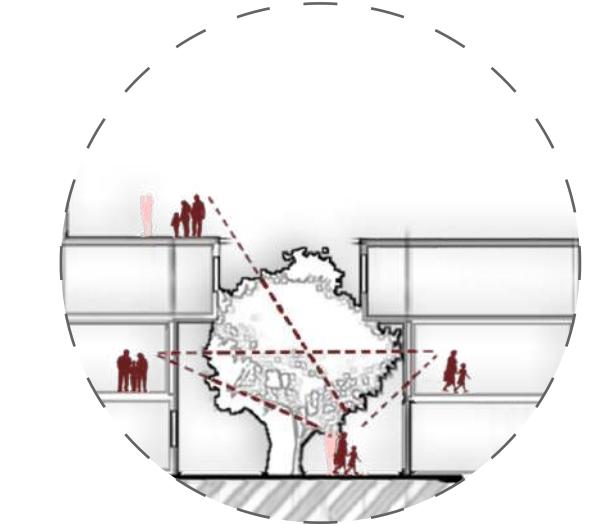
### Site Plan:



## Designing a cost efficient housing for migrants in NehruNagar, Surat.

As the result of vertical expansion, the upper floor, projections of balconies are extruded outside most of the houses. It usually has fenestrations which allows good ventilation. The shaded spaces created on the ground floor allows shade for otlas. These projections are considered as spill out and transition spaces by the people living in the society. The spaces created from circulatory elements like the space under the staircase and the stair flight landing are great for generating interfaces and allow optimization of space. Vertical circulation is adopted by using staircases and ladders while horizontal through streets and pathways. Drawings show how people improve and extend their houses. Extension in open spaces. Creating their own semi-open spaces.

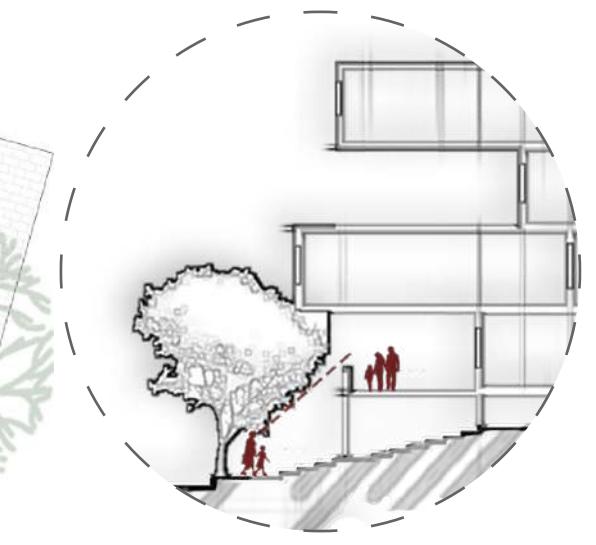
live and work condition.



Exploring the horizontal and vertical connectivity.



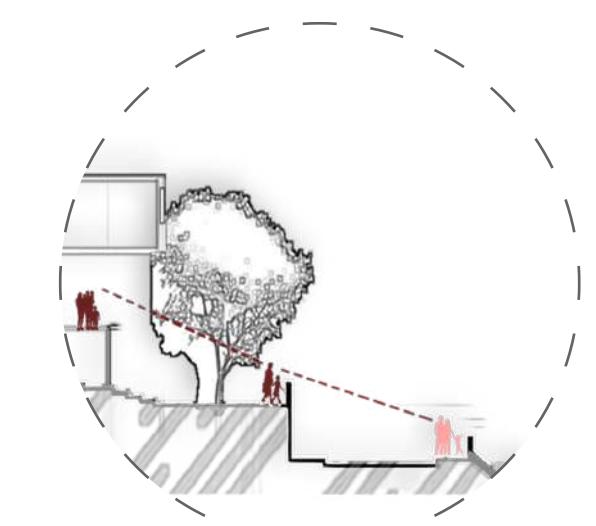
Exploring communal and retaining mosque.



Creating the communal and a live-work spine.



Trying to connect different platform in first floor.



Designing proper connectivity around the housings



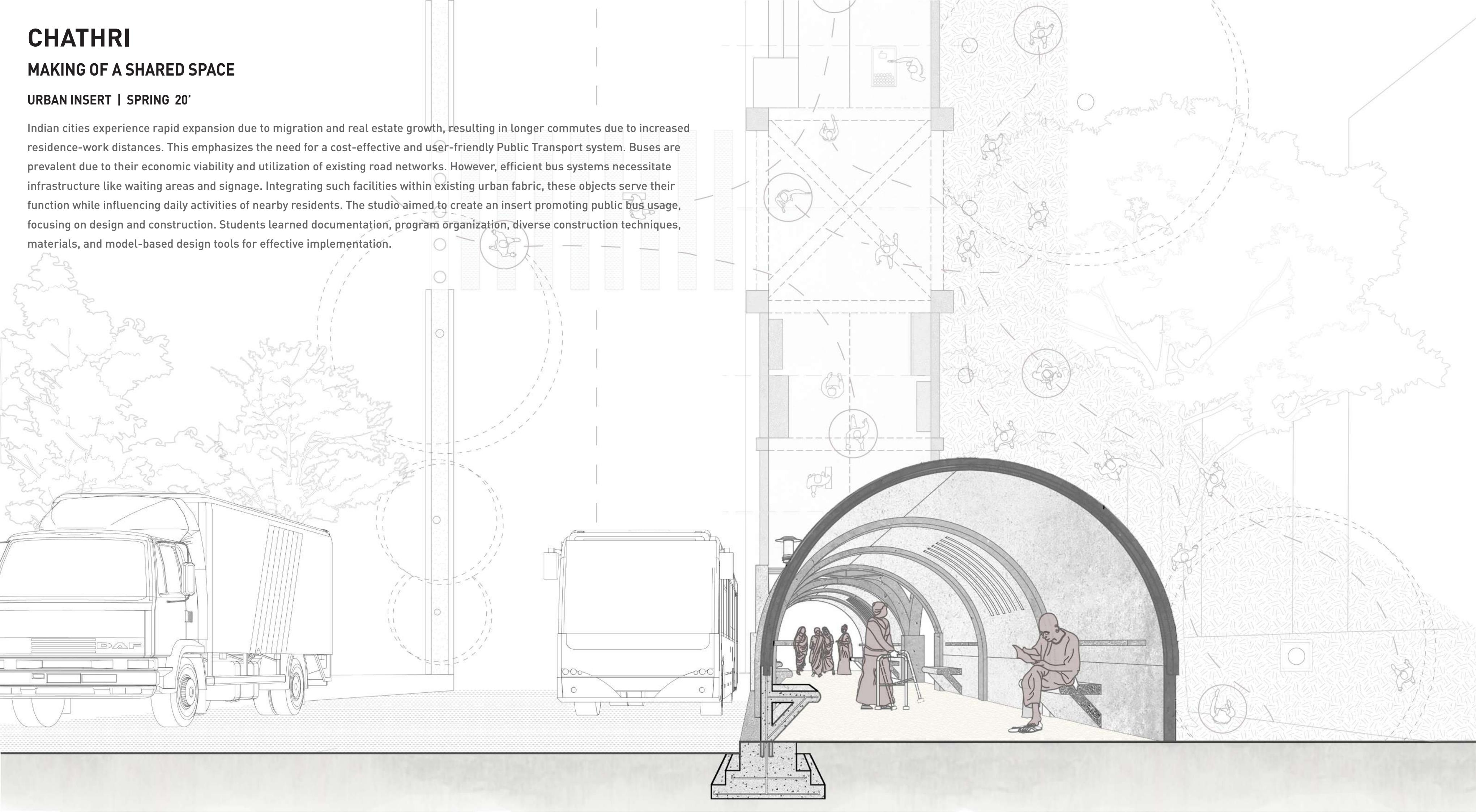
Creating open transition spaces towards green spaces

# CHATHRI

## MAKING OF A SHARED SPACE

URBAN INSERT | SPRING 20'

Indian cities experience rapid expansion due to migration and real estate growth, resulting in longer commutes due to increased residence-work distances. This emphasizes the need for a cost-effective and user-friendly Public Transport system. Buses are prevalent due to their economic viability and utilization of existing road networks. However, efficient bus systems necessitate infrastructure like waiting areas and signage. Integrating such facilities within existing urban fabric, these objects serve their function while influencing daily activities of nearby residents. The studio aimed to create an insert promoting public bus usage, focusing on design and construction. Students learned documentation, program organization, diverse construction techniques, materials, and model-based design tools for effective implementation.



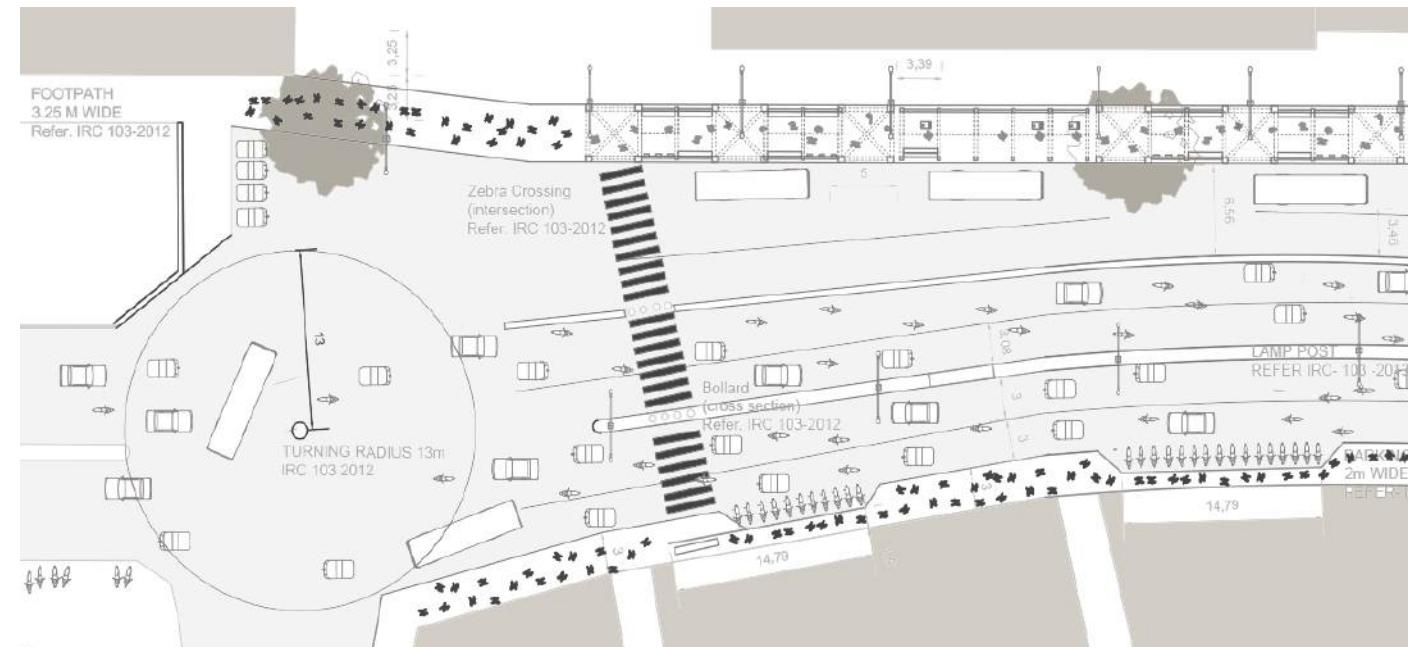
# Urban insert for Commuters.

The project's objective is to create functional inserts that address people's needs and activities while enhancing site functionality. Each site incorporates modules of varying lengths and functions, tailored to specific conditions. Street design and module construction are driven by considerations of people's activities, accessibility, and comfort. The structure's wave-like aesthetics serve to underscore the perpetual movement of individuals, imparting visual allure to the densely populated yet monotonous regions of Anand.

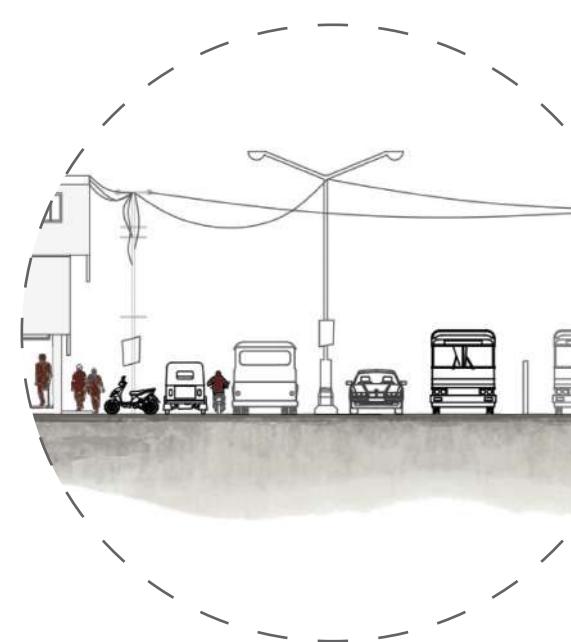
By carefully integrating these functional elements into the urban fabric, the project seeks to not only fulfill specific purposes but also contribute to the daily lives of the local community. The modules act as responsive solutions that harmonize with the surrounding environment, enriching the quality of urban experiences. This initiative embodies a balance between aesthetics and utility, reflecting the dynamic nature of urban spaces and the evolving needs of their inhabitants.

The project aligns with a holistic approach to urban design, where architectural interventions are not isolated entities but interactive components that play a role in shaping the urban narrative. Through this endeavor, the project aspires to foster a renewed sense of identity and engagement among the residents while reinvigorating the urban landscape with innovation and functional vibrancy.

Railway station Area - Anand



## Section



## Analysis

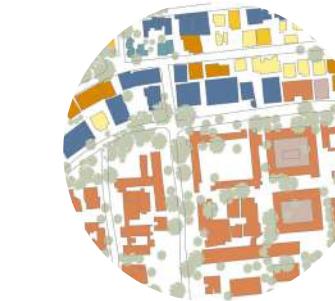


Anand railway station is one of the crowded places in Anand. The street design and the insert provides ease to the commuters. The design proposal reduces over crowding.

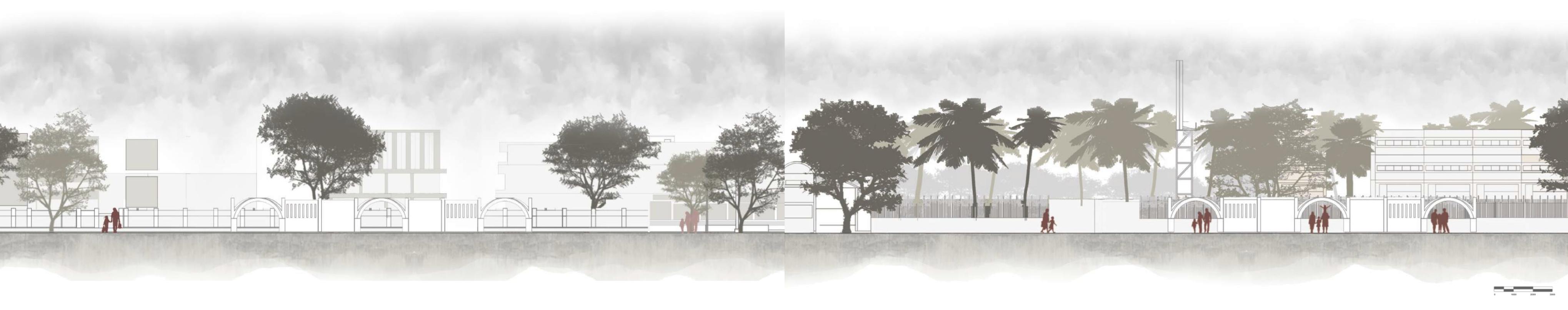
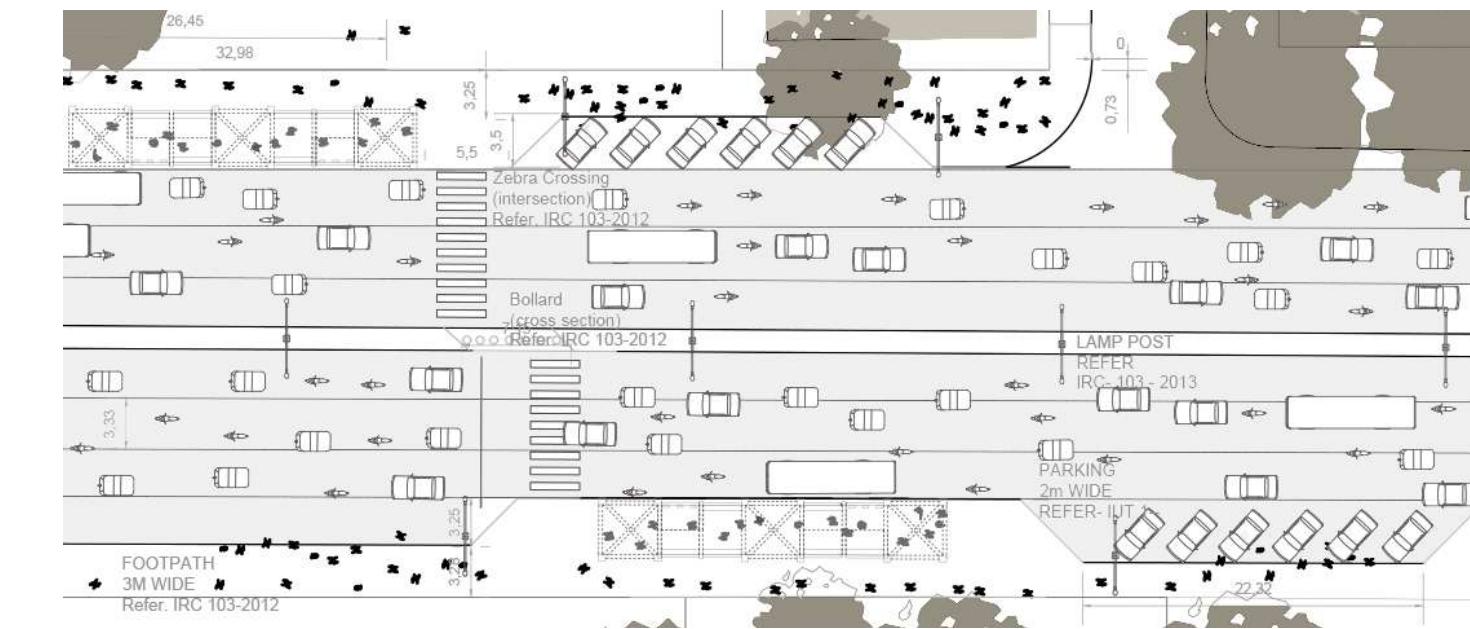
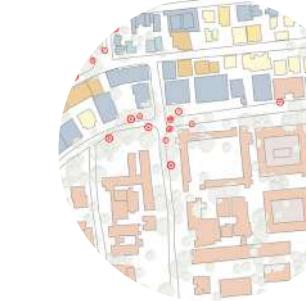
Amul Dairy Area

Office buildings, retail shops, and residential areas are around Amul dairy. This neighborhood demands a crucial bus stop because it is one of the important junctions which is used by the works from the Amul Dairy.

## Land Usage

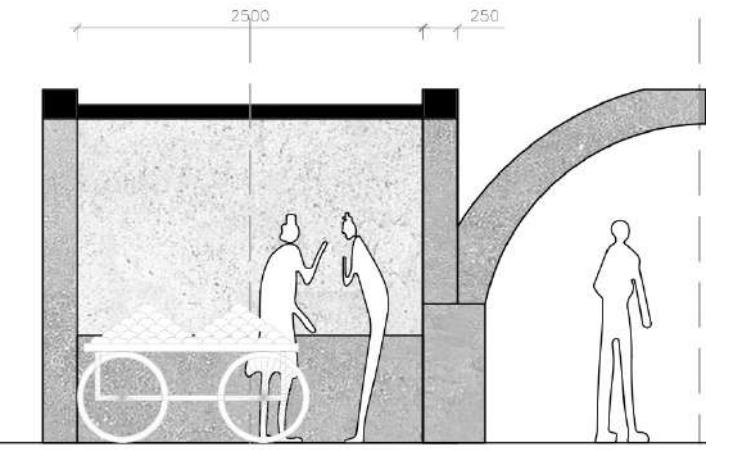
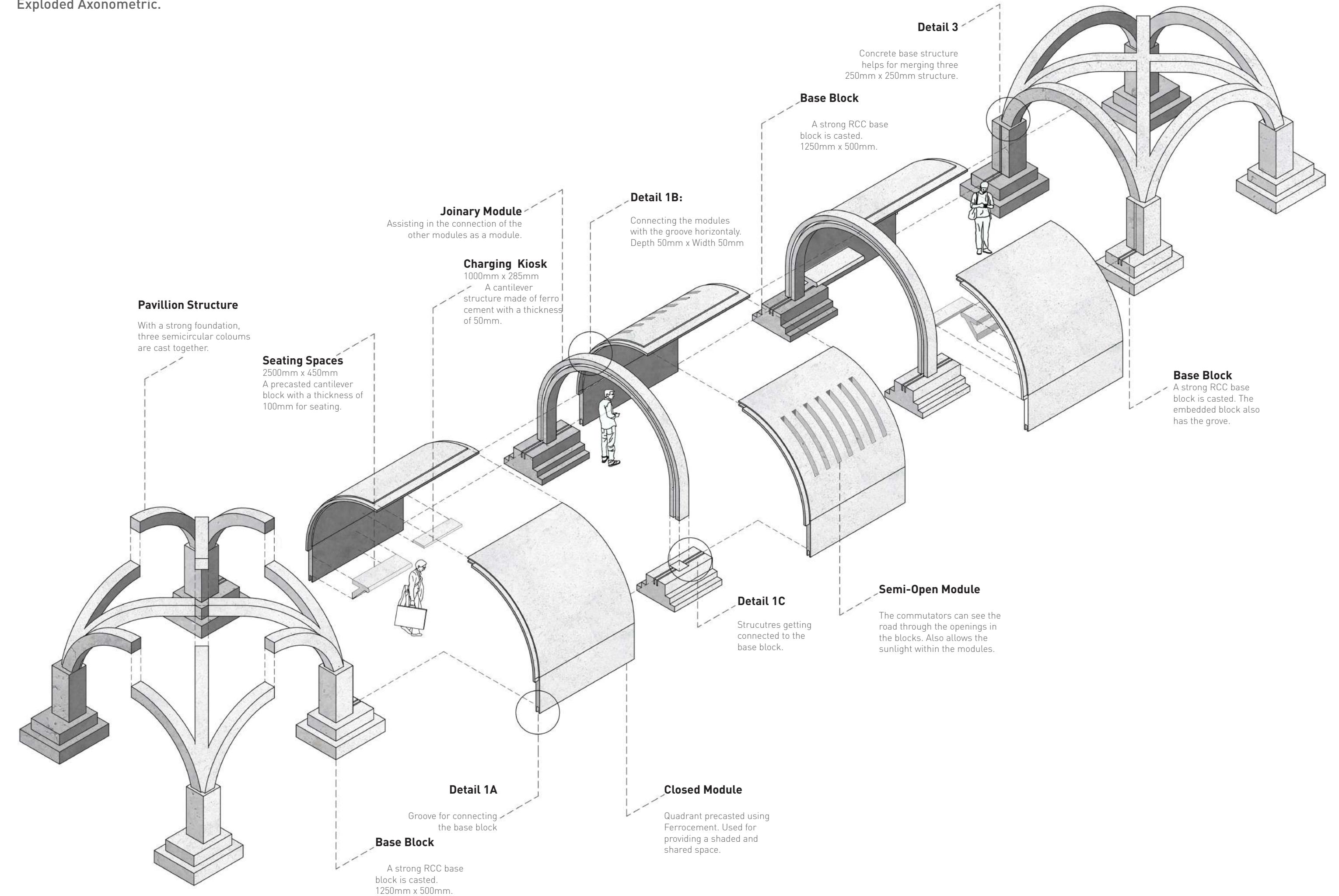


## Amenities and Services

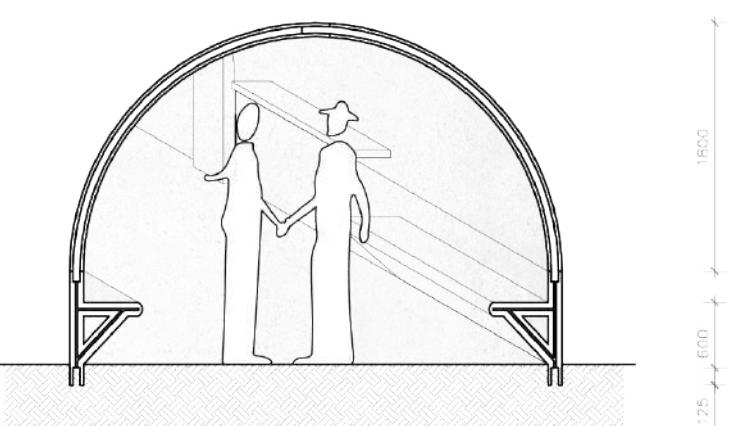


## Exploded Axonometric.

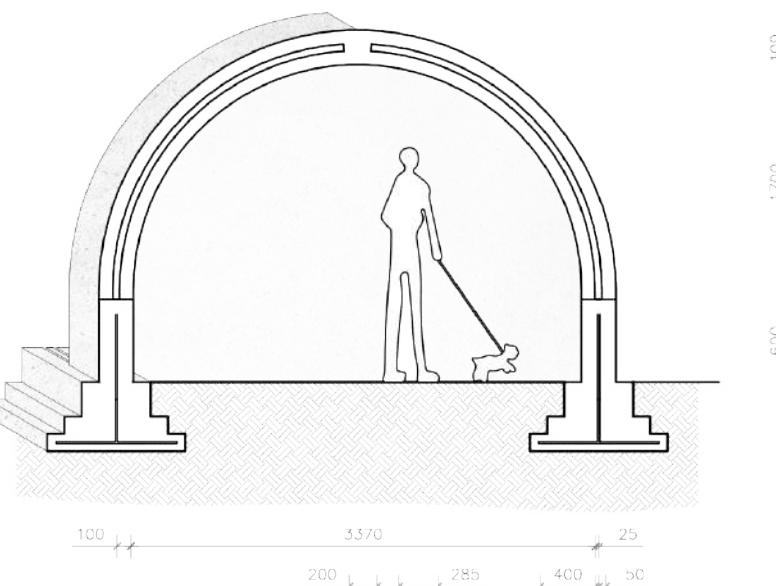
making of the unit.



Side elevation of the module



Sections of the module

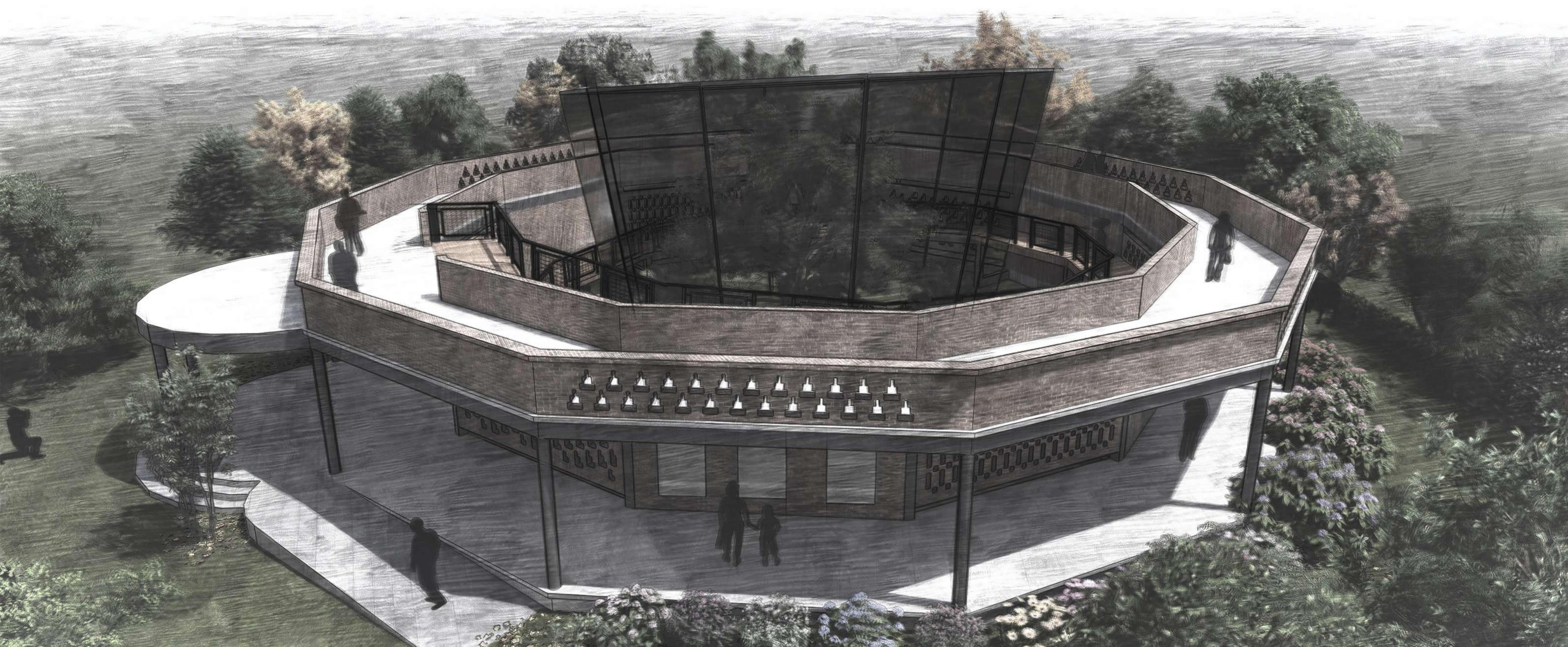


# THE IDEAL CITY

## INTERNSHIP AT URBAN DESIGN COLLECTIVE

### INTERNSHIP WORK | SPRING 22'

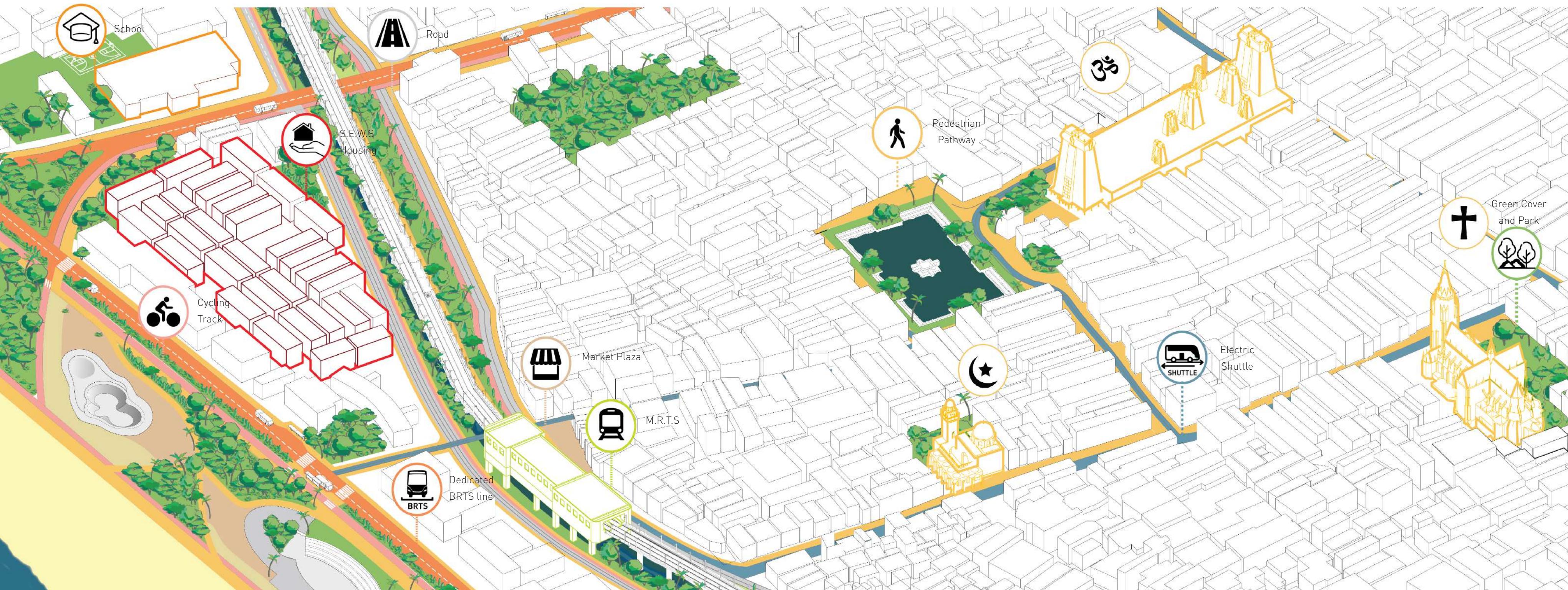
Urban Design Collective was founded in 2011 as a platform to mobilize those who want to change the way our cities are built. The UDC team is led by Vidhya Mohankumar (Urban designer, Architect). By providing an open platform for young design professionals, who otherwise as individuals are excluded in the city building process, to create and disseminate content, we give them a chance to voice themselves as change-makers for better cities.

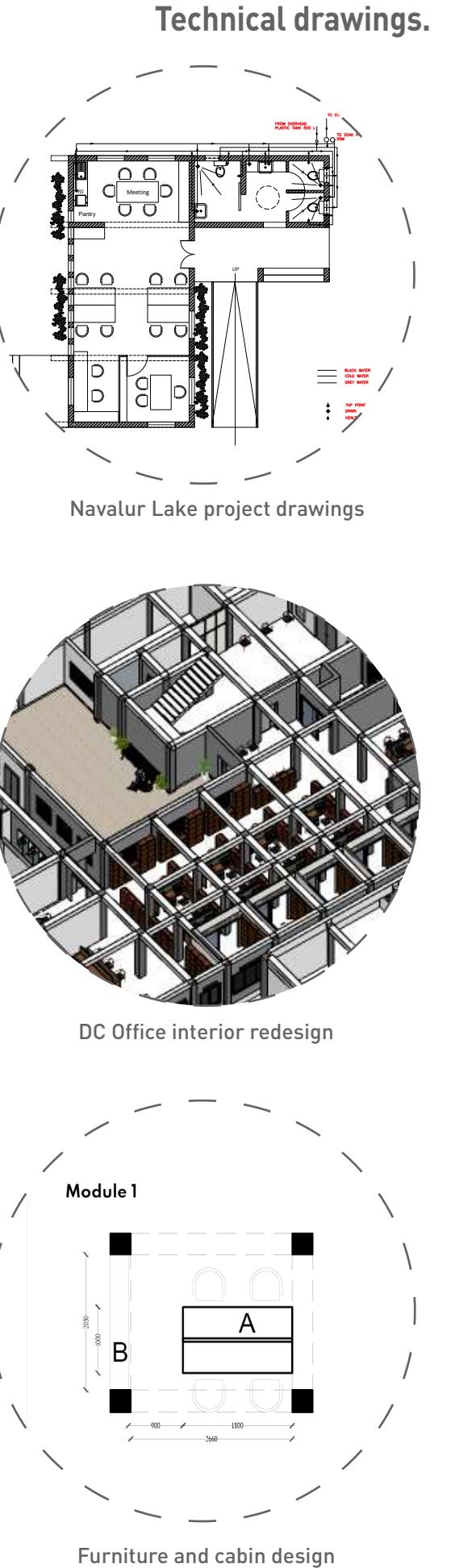
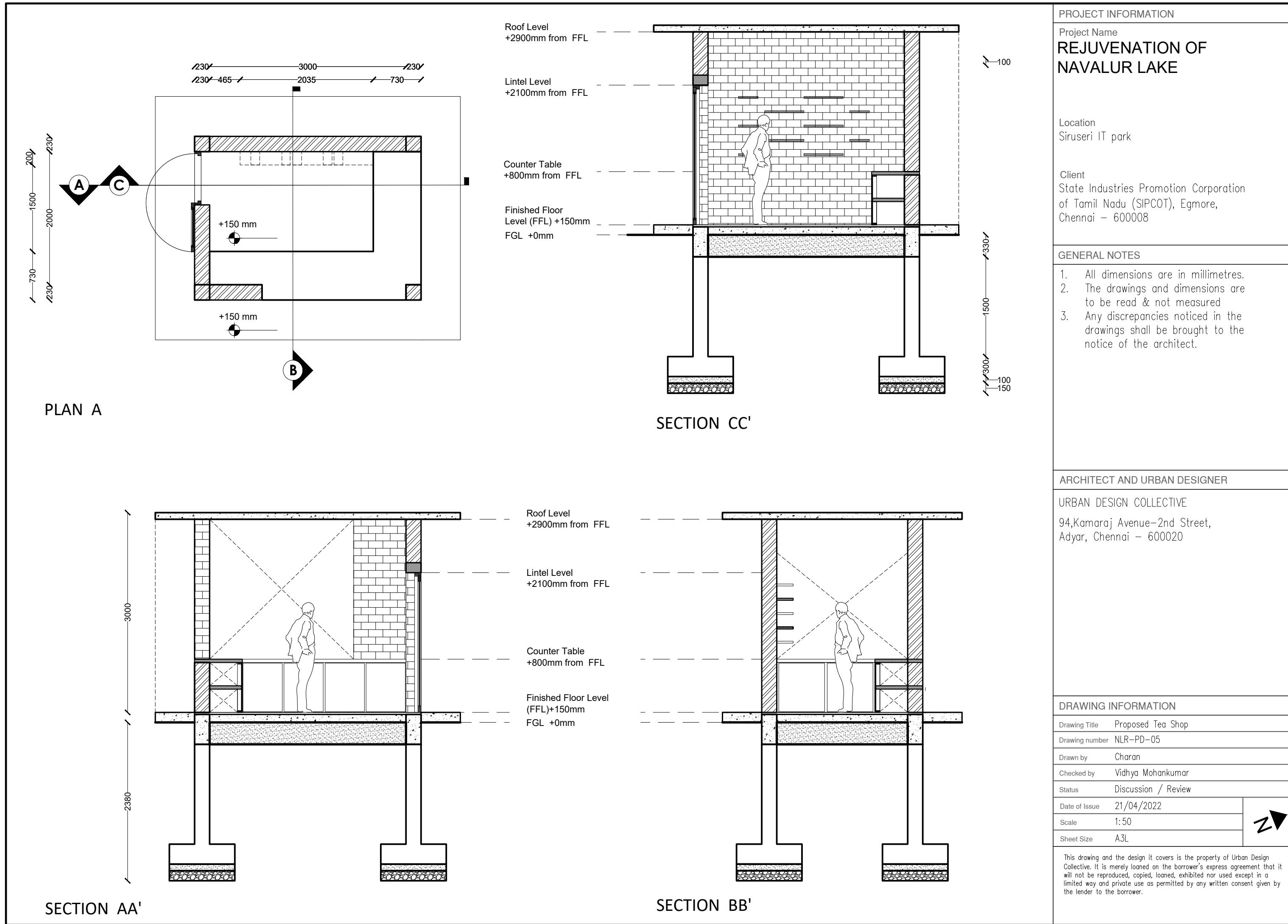


# Mega City Project, Chennai



## Street Design and Neighborhood Design:



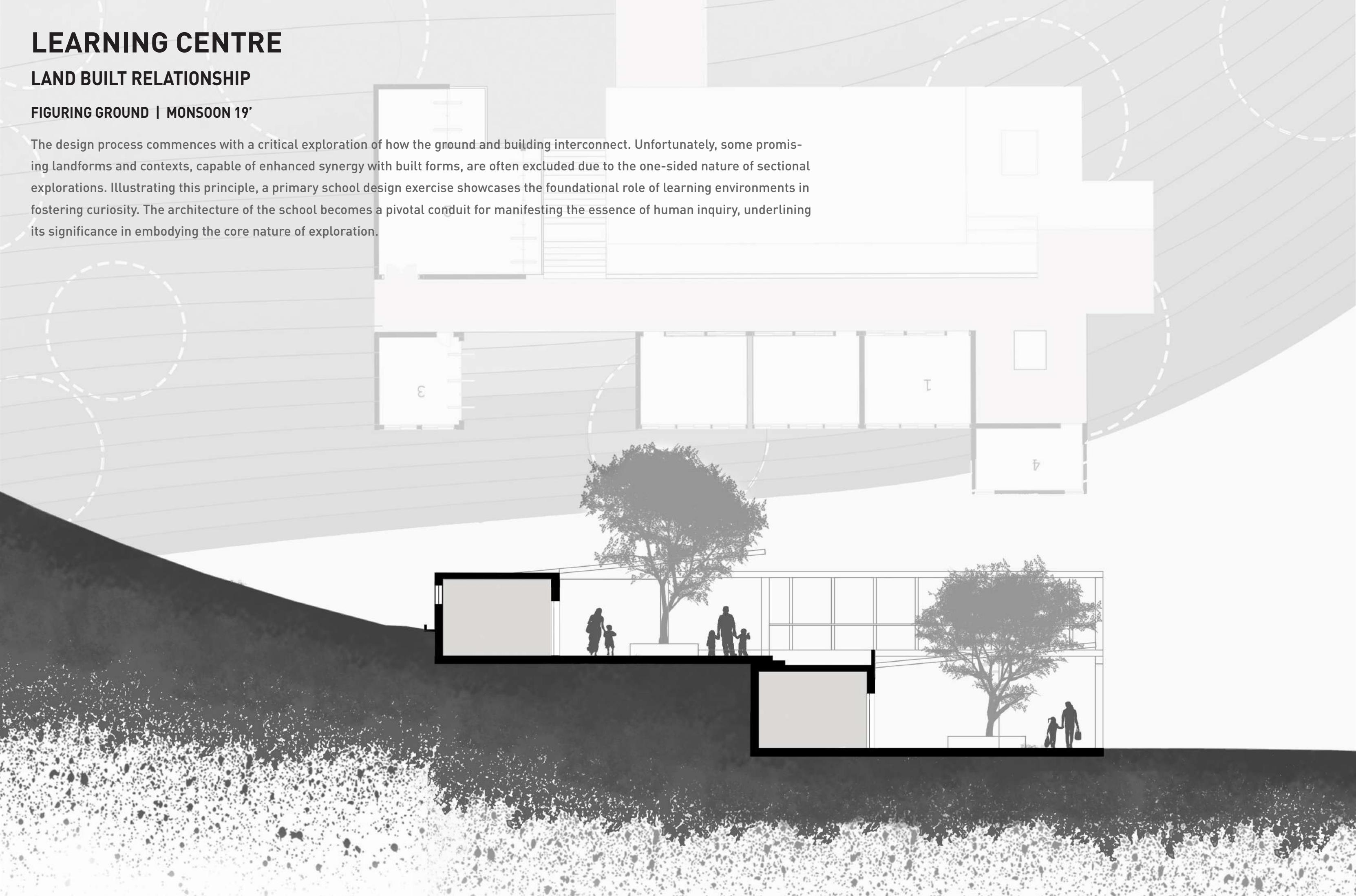


# LEARNING CENTRE

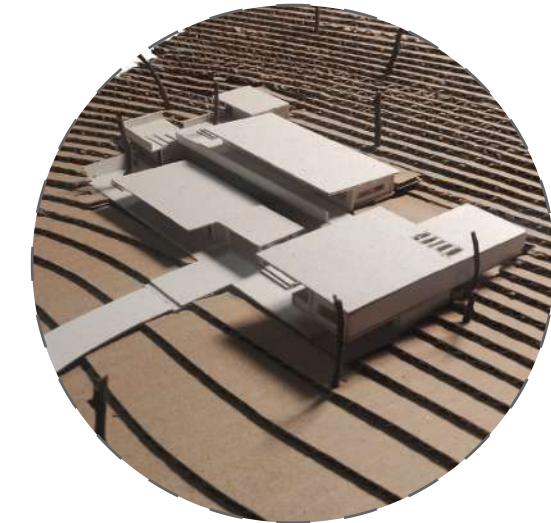
## LAND BUILT RELATIONSHIP

### FIGURING GROUND | MONSOON 19'

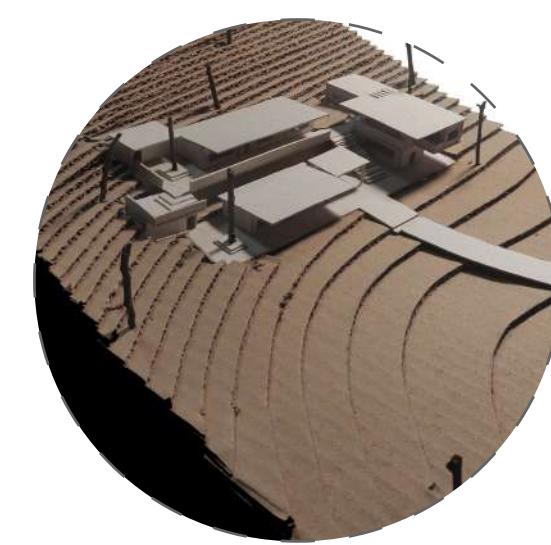
The design process commences with a critical exploration of how the ground and building interconnect. Unfortunately, some promising landforms and contexts, capable of enhanced synergy with built forms, are often excluded due to the one-sided nature of sectional explorations. Illustrating this principle, a primary school design exercise showcases the foundational role of learning environments in fostering curiosity. The architecture of the school becomes a pivotal conduit for manifesting the essence of human inquiry, underlining its significance in embodying the core nature of exploration.



physical model of the design.



1:200 Physical model for the design



The model allows to explore the stacking and design in challenging landforms



# HANDS-ON STEPS TO REAL WORLD

## MISCELLANEOUS | 22' - 23'

modelmaking.



Installation - Bamboolion



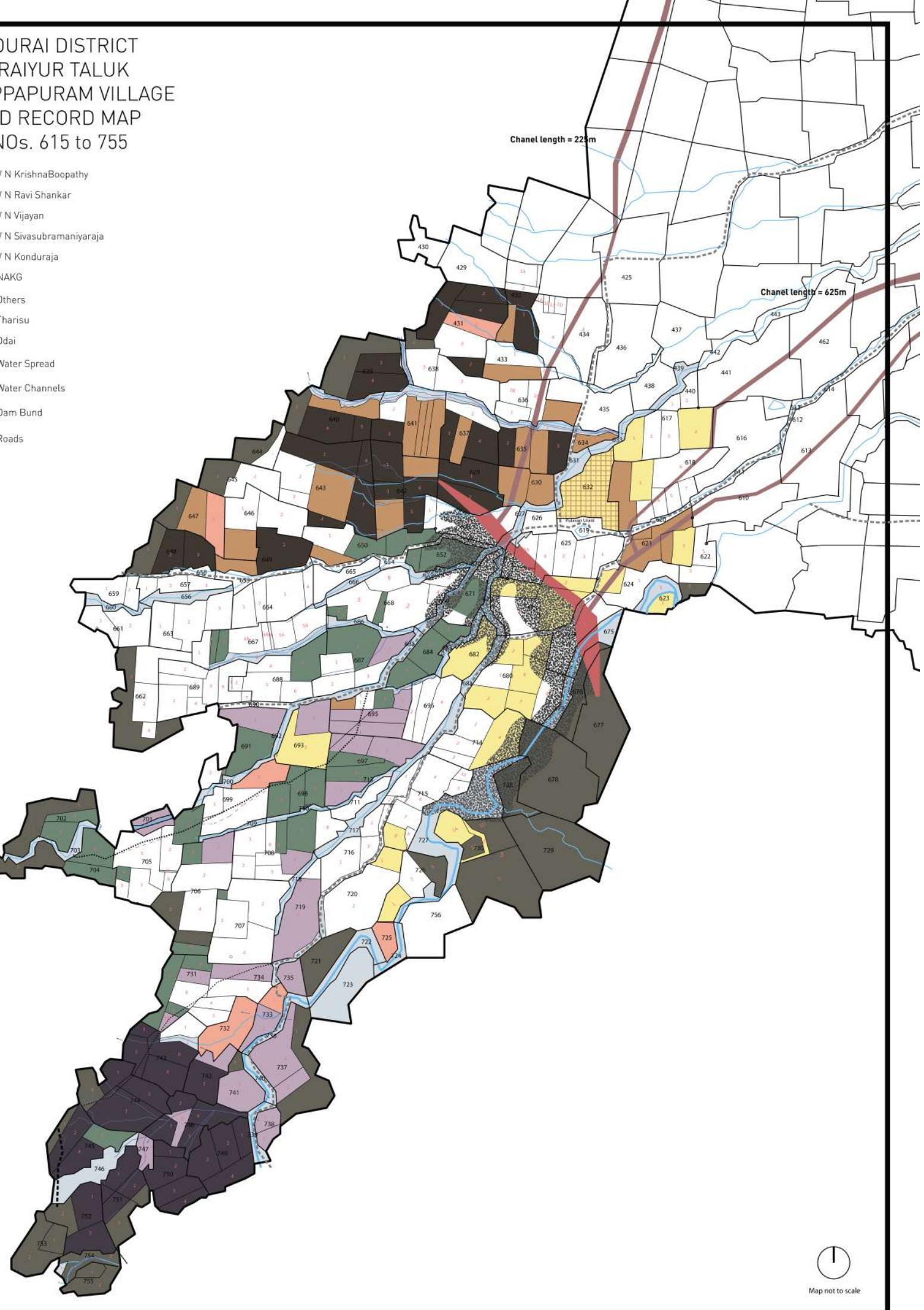
Rajgir Site model.



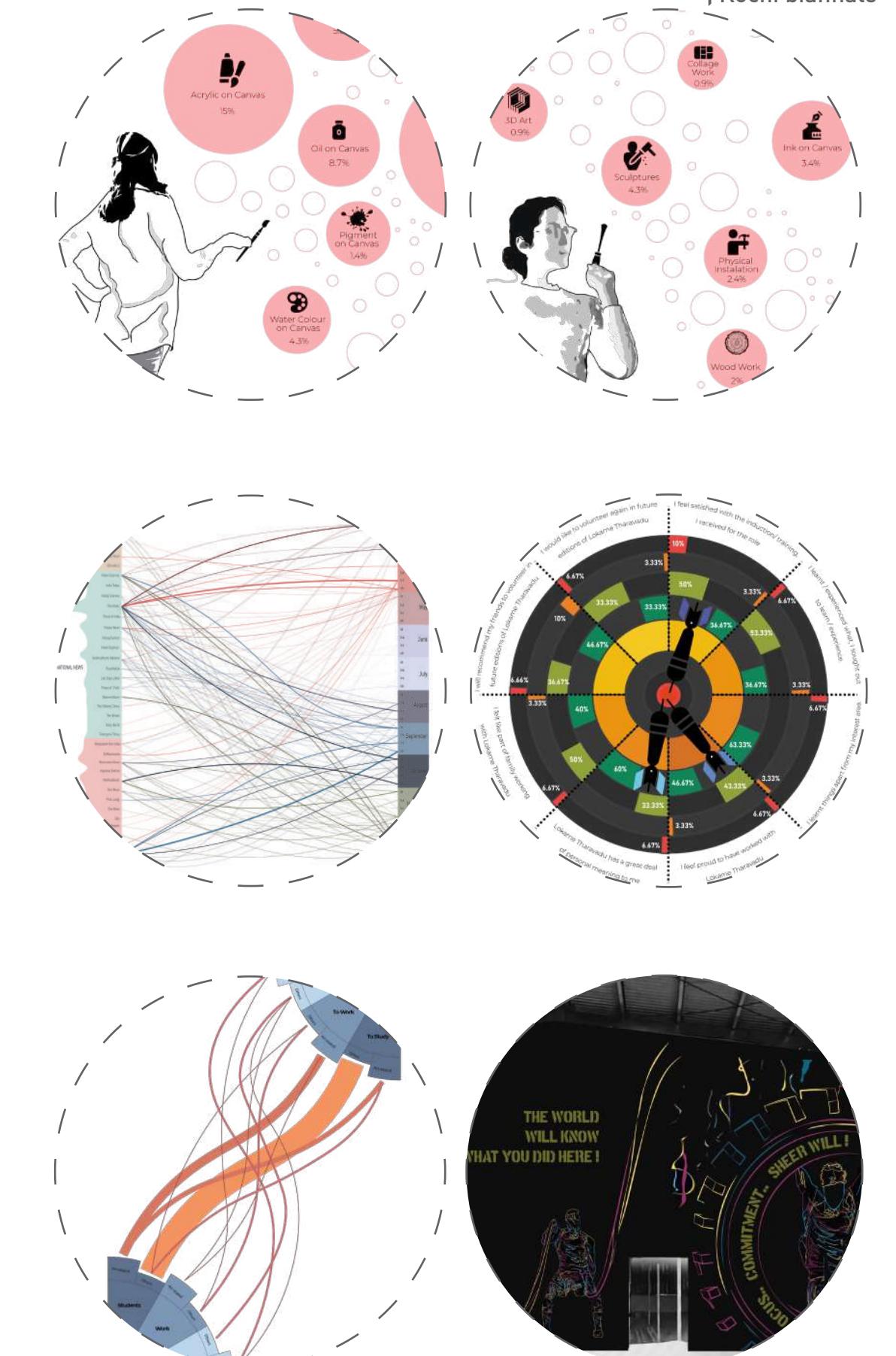
Bhunga houses.

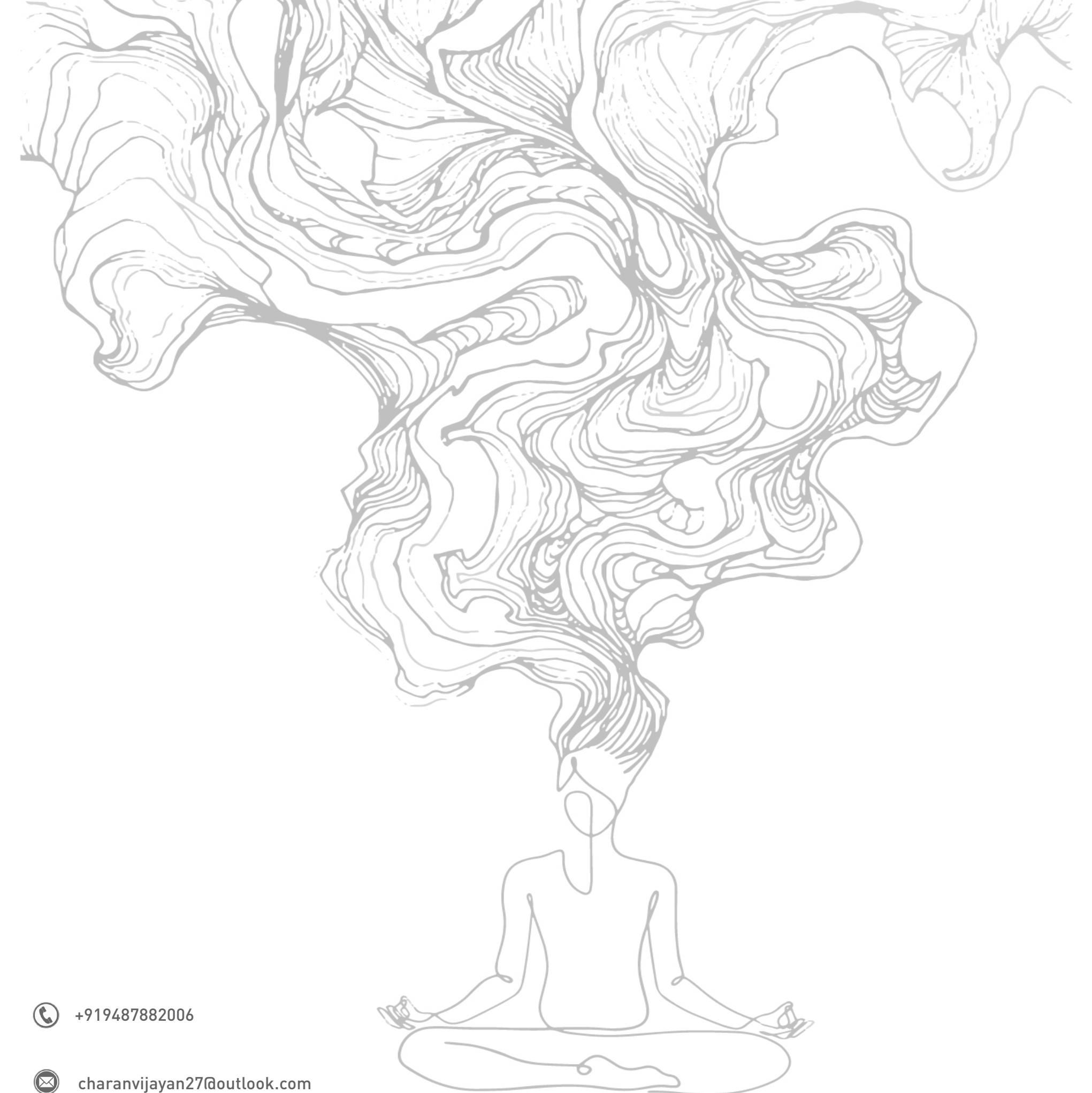
### MADURAI DISTRICT PERAIYUR TALUK MALLAPPAPURAM VILLAGE LAND RECORD MAP S.NOs. 615 to 755

- V N KrishnaBoopathy
- V N Ravi Shankar
- V N Vijayan
- V N Sivasubramaniyaraja
- V N Konduraja
- NAKG
- Others
- Tharisu
- Odai
- Water Spread
- Water Channels
- Dam Bund
- Roads



Infographics for Lokame tharavadu  
, Kochi biannale





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