

CULTURAL SUSTAINABILITY  
IN CONTEMPORARY ARCHITECTURE

A Thesis

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By

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Oxford, Ohio

2018

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Reader \_\_\_\_\_  
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# CULTURAL SUSTAINABILITY IN CONTEMPORARY ARCHITECTURE

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# I N D E X

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## Cultural Sustainability ?

It is a systematic and strategic intervention to develop the embedded Culture to address the current issues without compromising the future development.

THESIS PHASE

# Cultural Sustainability in Contemporary Architecture

MUKIMUL KHAN  
Miami University

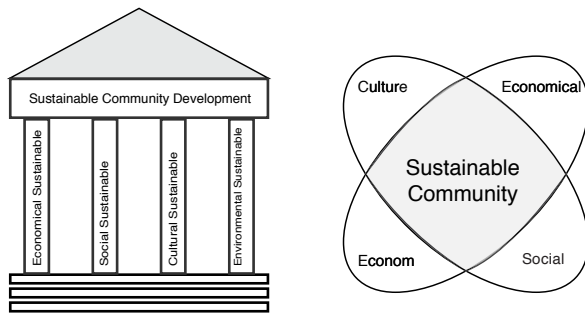
## ABSTRACT

Globalization contests traditional and contextual architecture, and sustainable development has become one of the major challenges to cultural and regional development. Introducing technology and passive design strategies in building has become a common practice to address sustainable development. However, is the same principle inappropriate to sustainable development for every region? If so, could an approach in contemporary architecture be needed to promote and develop localized design, materials, and construction to advance sustainable development? The fundamental objective of this paper is to address the local pattern of people through the cultural and traditional architecture as another layer of sustainable development. This paper explores the local pattern of living, and design aspects of traditional architecture of Dhaka, Bangladesh that has more than four hundred years of history. The primary focus is to incorporate contemporary design practice that address and supports local design and building construction. As such, idea of critical regionalism and architecture are discussed with respect of Dhaka. Unlike imposing exogenous solutions, the paper argues with the approach of transforming indigenous design solutions through contemporary techniques and applications. The paper offers sustainable design strategies of old Dhaka to develop the synthesis between the

local and contemporary architecture as the continuation of memory, diversity, and culture towards a futuristic sustainable development of Dhaka city.

## INTRODUCTION

The essence of the word culture, and the relationship to the built environment has a significant role in architecture. The word "Culture" derives from a French term, which in turn, derives from the Latin "Colere," which means to tend to the earth and grow, or cultivation and nurture. Architecture has been developing and evolving differently around the world to accommodate different regional and cultural needs. Global impact contests regional architecture, and modern approach has become unsustainable to different region, as the same principle has applied to every region. The generic principle cannot be the solution to every place. Therefore, architecture should derive from its cultural background and should be responsive to its people. The definition of cultural sustainability associates with a systematic and strategic intervention to develop the local pattern of living, and the embedded culture without compromising the future need of developments.



**Figure 1** Concept of four pillars of sustainability.  
 Sources:<http://rosia-montana-cultural-foundation.com/sustainable-development/> and <https://carmelcacopardo.wordpress.com/tag/biodiversity/>

Cultural Sustainability is considered as the 4th dimension of sustainable development (Figure-1). Dhaka, the capital of Bangladesh has been growing extremely fast and has been facing tremendous challenges to accommodate the vast population within its limited land. As a dense and populated city Dhaka, has been adopting multiple solutions around the world to find the better solutions for living. However Dhaka has 400 years of history and culture. Therefore there it is necessity to rethink contemporary design strategies before implementation to achieve sustainable development for the future. A mere gigantic high-rise modern complex cannot be a sustainable solution for Dhaka. On the other hand also by reviving or conserving the old city culture will not work for the future demands of development. Therefore the city needs a sustainable development that recognizes the traditional, cultural continuity, and also contemporary aspects. The paper fundamentally deals with the process of sustainable development through culture or tradition, and current design solutions, and how to develop strategies for sustainable development by considering both traditional and contemporary architecture? The goal of the paper is to analyze the local pattern and global impact in traditional architecture in

terms of developing sustainable architecture. The paper researches and reviews the necessity and consideration of traditional essence. Finally based on the analysis the paper develops design criteria to incorporate traditional essence to contemporary architecture. Modern knowledge of technology and construction would be the bridge of local and contemporary architecture.

The primary intention of the paper is to explore multicultural design concept of Dhaka in order to find design criteria to incorporate with the emerging contemporary architecture for a sustainable approach to development and building. The projects chosen for the exploration are traditional and historical multi-cultural buildings and the growth pattern of Dhaka city. The projects are selected based on traditional pattern and its implementation to understand the city growth. The study covers how the original style transformed and re-organized into contextual design in Dhaka over the time. Therefore, the study can consider other cultures from global perspectives.

A thorough analysis of critical regionalism, an approach to design introduced by architectural critic Alexander Tzonis and Historian Liane with an added along with Kenneth Frampton in the 1980's, and extracting the essence of regional aspects of old Dhaka, to apply in futuristic approach of built environment of the region is conducted. The method of analysis also goes through the stages of critical regionalism, and critical history of contemporary architecture, to understand the notion of implementing cultural elements into contemporary architecture. Pattern language by Christopher Alexander has also analyzed thoroughly to regenerate the idea of city growth, and planning.

In order to generate design criteria, a set of case study and design pattern extracted from traditional built-form will be shown and in implementation section, there will be few



attempts to intricate the new idea to contemporary architecture to find the degree of adaptability and transformation. The paper covers interview of local builders, craftsman, and architects to understand the local architecture and building techniques. Based on the findings the paper develops design criteria to incorporate culture and traditional essence to the design phase of projects.

**CULTURAL BACKGROUND**

Dhaka, Bangladesh, has developed with a rich cultural background, and it reference the living pattern of people’s life-style and spirit. Bengali Architecture has developed over the countless changes over the centuries influenced by a combination of cultural diversity, and mostly, by the Hinduism, and Muslim. However Buddhism and Christianity have also influences over the development of Bengali architecture. For examples, during ancient Neolithic-Chalcolithic Bengal architecture massive wall and burnt brick has developed. A number of significant Buddhist architecture took place during this period. Indo- Islamic Characteristics has been found in during the medieval period that is actually an amalgamation of Hindu- Buddhist featured of local origin with Muslim element. During colonial period, the Native Islamic & Indian have Combined with Gothic revival that in known as Indo- Saracenic Style.



**COLONIAL PERIOD**



Indo-Saracenic

Native Islamic & Indian

Gothic Revival

**MODERN PERIOD**



National Assembly Building  
“LOUIS- I KAHN”

Introducing Concrete,

Modern Form.

British adopted the climatic consideration to suit in this region. Traditional arches and curved decoration reflects a synthesis of Muslim and Hindu architecture. Red brick and decorative handcrafting ornamentation in building features are the most homogenous identity of Bengal architecture. The juxtaposition of different cultural structures in Bengali architecture is the clear indication of continuation of memory, diversity, and traditional motifs of this region. However, contemporary architecture has been altering drastically by Global impact and imposing exogenous design solution without considering any regional consequences. The conflict interest of people and the build environment has become a question of sustainable development for future Dhaka city. Dhaka is an over populated and rapid growing city. Vertical growth of both commercial and residential building has become the common solution to accommodate the vast population. Technology and universal method of design has been imposing on it’s traditional design in such a rate that the development is often unacceptable to people also in terms of sustainable development and cultural values of this region. To develop more sustainable architecture for Dhaka, it is necessary to develop design criteria based on its regional characteristics that coincide with the modern design solutions.

The idea of critical regionalism refers architecture to the evolution of local culture. It explores the modern strategies in consideration of regionalism, and also

responsive to ecology. According to Alexander Tzonis & Liane Lefaivere. "All architects have the skill for defamiliarization (Identifying, decomposing, recomposing), and that regionalism does not limit architects to work in their own regions". Therefore, contemporary solution can be achieved through analyzing traditional identity, and reinterpret the nature of traditional architecture towards more advanced, and sustainable solutions.

Guy and Farmer (2) describe sustainable architecture through six divisions of method, where they mentioned, "Eco-culture" as a part of sustainable development. In this division, the importance of traditional elements archetypes, and culture has been highlighted for the preservation and conservation of memory, history and culture as a part of sustainable development. According to their statement the idea of developing cultural sustainability is actually the idea of reusing local material, construction technique, and regional pattern of architecture.

### **IMPACT ON ARCHITECTURE**

Frampton states the idea of critical regionalism that describes the notion of addressing the local and global impact of architecture. In his essay "The six points for Architecture of resistance" he explains the idea of engaging cultural essence to develop sustainable architecture. According to him architecture is not just a method or technique that solves certain problems but as a cultural paradigm (2). He describes that modern design of buildings are now highly controlled by technology that restrict the possibilities of regional urban forms. Therefore recent practice of architecture should understand the optimum use of modern technology as it hinders the connection between people culture and built forms. To sustain recent architecture recent practice of architecture it has to understand the excessive use of technology as well not to recreation of past forms. He suggested to the architecture where the context, region,

and traditions are critically analyzed coincide with modern solutions to derive the design criteria.

To understand the implementation of cultural concern as a continuity of regional characteristics a number of approaches can be seen. Post-colonial theories of architecture emphasize the culture or regional elements to architecture to connect people and their surrounding built forms. The architects who practice critical regionalism have been trying different method to achieve traditional influences in contemporary architecture.



Figure 2 (Source Internet, Owen Jones architect)

However postcolonial theory stated to learn from the other regional architecture. For example, Owen Jones's *The Grammar of Ornament* (1856), in this book, he showed (figure-2) few illustrations of ornament from different parts of the world. He indicated that Islamic ornamentation was also a "rational, geometrical ordering of surfaces," and that its use of color was also "scientific," Jones claimed to have found the universal law of ornament based on nature (figure 2).

### **INFLUENCE OF CULTURE ON ARCHITECTURE**

Nouvel's, Arab Culture (figure-3) in France that was expected to represent "Arab culture" in France, and Nouvel has shown an alternative way of thinking of traditional essence. The building expresses the orientalism through environmental, and



Figure 3 (Source Internet, AD Classics: Institut du Monde Arabe / Enrique Jan + Jean Nouvel + Architecture-Studio)

aesthetic consideration to revive the Arab cultural motifs. According to Nouvel "Context is just not only the site, it is above

all historical context, a cultural context, each building should continue its history". The

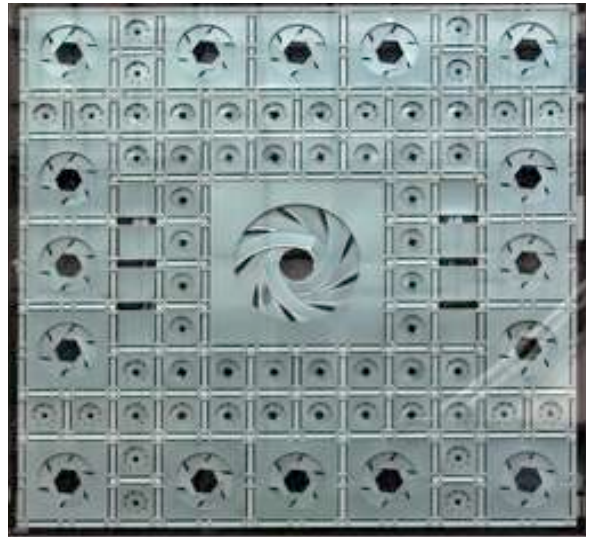


Figure 3 (Source Internet, AD Classics: Institut du Monde Arabe / Enrique Jan + Jean Nouvel + Architecture-Studio)

building screen was generated from the Islamic geometry and pattern and also responsive to solar radiation (fig-3). The building represents an amalgamation of east and western architecture. The building is clearly a reflection of both eastern, and western architecture that argues the typical regional architecture.

Charles Correa's "Jawahar Kala" project in India expresses its identity through cultural and traditional artwork on the building interior. The architect expresses the importance of the cultural sustainability by representing the traditional elements through modern way not actual representation of traditional elements. He showed an alternative way of rethinking traditional interpretation, and avoiding cultural colonization.





Figure 4 (Interior Art, Jawahar Kala, Charles Correa. [architexturez.net](http://architexturez.net))

Opera Village in Burkina Faso design by Francis Kere, is another representation of traditional and cultural identity. The aim was to help to reshape and enhance the cultural identity within the community as an approach for positive development. The project was to develop a community of residential, educational, and recreational amenities. In order to arrange this wide range of function and use, an adaptable structural module was developed with integrated passive ventilation, solar energy use, and water collection and management. Made with local clay, wood, and laterite stone, these modules minimize ecological and cost impact by maximizing the use of materials widely available on site. As a traditional essence, Burkinabe fabrics are used as seat rows and interior walls. According to Kere, people reject old traditional materials and forms, but love the essence of the past. He promotes local material, but in a way so that is new to people, and innovative.

The concern of cultural sustainability as integration of people, region, and built form. Architect Hassan Fathy and Laurie Baker's work can be seen as an approach of both traditional and modern architecture. Fathy's new Gourna Village is an example to interpretation of both tradition and modern



Figure 5 (Source Internet, Opera Village, [www.designboom.com](http://www.designboom.com))

architecture. He believes that architecture is a bridge between older and new techniques of architecture. Older techniques are sustainable and responsive to the environment; by applying only the modern techniques has negative consequences on people's culture and environment. He applied vernacular technique as well as modern strategies. He kept the traditional form and used mud brick as indigenous material. He used the mud brick in such a way that keeps the building cooler during the day and warmer at night. Laurie Baker's architecture has the same intention of including the essence of culture, and tradition, but the interpretation of them in practice is different than Fathy. Fathy and Baker also tried to involve their works



to the clients to promote the change in attitude towards sustainability.



Figure 6 (Source Internet, Gourni Village. <http://whc.unesco.org/>)

The pushed the boundary of traditional architecture to accumulate the contemporary needs instead of adopting foreign solution in Dhaka, architecture needs to understand from a progressive perspective that can be more acceptable and viable for the this region. Indigenous nature of architecture reflects the different morphologies in built environment that involves the comfort and sustainable life style over built environment. To develop design strategies for Dhaka could be achieved through understanding of both regional and universal approaches. Regional design refers the consideration of topography, climate, local materials existing life style of inhabitants and the other way universal approaches involves technology, and materials. In sum, use of cultural elements of Dhaka in a modern way can be understood as the gap between the older and recent development. The paper will contribute to develop a set of criteria to understand the relation between people culture and built environment as a whole sustainable development. It provides the key ideas of applying traditional essence with modern approaches throughout the world. The Current practice of generic architecture is sometimes over imposing and dominating. Therefore it often loses the acceptance of people and inefficient to environment. Culture is constantly evolving over times as well as the needs and interest of people. Therefore, architectural designers and builders need to consider the contextual

and regional essence critically to promote a more sustainable development.

### **QUESTIONS BASED ON THE DESIGN CRITERIA**

1. What are the unique or particular characteristics of old Dhaka city?
2. How were the engineering skills of old Dhaka people evident?
3. What was the style of architecture of old Dhaka?
4. What is the existing structures of old Dhaka and their method of construction?
5. What are the local and global materials are available?
6. What type of cultural and traditional motifs is there in old Dhaka?
7. What are means of connectivity, transportation, and services?
8. What is the climatic, and ecological condition?
9. How to develop new methods of implementing cultural essence to new construction?
10. How to incorporate the modern design strategies according to indigenous solutions?

### **DESIGN STRATEGIES**

According to the discussion, cultural sustainability is the manifesto of space, people, material, and time. For Dhaka city culture creates the phenomenal relation of people and built form that can change the way people live in. Cultural sustainability is the connection to locality, and it should transform the situation to better way especially for Dhaka. Therefore through cultural sustainability, architecture should be able to resolve the current necessity, and offer better opportunity for future.

According to Steven Holl "The site culture is the metaphysical link or poetic link to a

building can be. It is the organic connection of concept and form". He thinks the shape and the idea generates from the nature of the site culture not from the program of the building. He explains that the idea drives the design of a building. However the experience is the phenomena of the building. The taste of architecture starts from the site culture and experience, moving through space, the overlapping perspective, and the incomplete perception, how building can draw you through, the quality of material, the smells and the sound, the quality of light. These things interact to each other that he termed as the "enmeshed" experience. "Enmeshed" experience is something that needs to be felt with the body moving through space. He believes that, remaining idealistic is most important to an architect, and he should make the most extend of the site culture to make better architecture.

For the urban scale of Dhaka, the strategies need to re-wright the program according to site culture and experiences. The recent practices of architecture lacks the concern of authentic program in terms of culture and experience. I also believe that the recent situation of architecture in Dhaka needs to encourage the greenness architecture as much as possible. Architecture has responsibilities to develop energy efficient building or green building but it is more like subjective and poetic aspects that hold the essence of the culture and tradition. Imagining the local experience of site would be the key idea of approaching to Dhaka, and by transforming the existing culture to develop the experience of the building would offer more opportunities. Another aspect of material derives from the experiments on every possibility of materials, and built environment to develop indigenous materials. While implementing sustainable design strategies in any site-context architecture should investigate the nature of the site and culture. Architects cannot rely on already proven solution as every site has different issues and demands.

Dialogues of people local artist, and critics over architecture also allow possibilities of different directions of the work. Therefore I think for cultural sustainability in Dhaka, architecture should engage local people's experience and concern to explore the possibilities.

#### **DISCUSSION AND CONCLUSION:**

Cultural Sustainability provides the possible attempts to develop the criteria based on different site context, and demonstrate some ways of considering people living pattern. Architects need to engage in multi-layered cultural dimension of the site and surroundings while approaching different culture. As a culturally rich city like Dhaka, it is necessary to utilize the strength of site-context to maximize the connection to people and the traditions. The concept of Cultural Sustainability has been significantly moving towards people way of living, and it is changing the pattern of future living. Therefore it is necessary to develop site and context responsive architecture with the amalgam of cultural aspects to develop a sustainable built environment. Recent trend of global architecture offers a vast opportunity of design solutions that have been incorporating to the future development of Dhaka, however they lack the connections of people and region. Therefore, developing the futuristic development for Dhaka city, the site culture provides great source of possibilities to create the sustainable development. In the end the paper expresses the notion of adding the aspects of culture to create the site specific experience as a another layer of sustainability. Sustainable architecture is broad and covers many aspect of architecture. The paper highlights a portion of concern of cultural sustainability that connects the architects people and built environment as a continuous part of sustainable architecture.

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[10] AD Interview of Steven Holl, Architectural Practice in Global Context, 10-12min

<https://www.youtube.com/watch?v=8U0YPuIhQU4>

The interview focuses on understanding of modern architecture and traditional aspects of building orientation, The Social and Cultural impact on modern and traditional materials of built environment.

# Addendum

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## **WRITTEN THESIS TO DESIGN TRANSITION**

Through the written portion of the thesis I tried to focus to develop the criteria of Cultural Sustainability in contemporary practice. The thesis attempted to analysis in mainly two different aspects; one is to create the connection of local life style and the continuation of local pattern of development. The second one is to incorporate the modern design solution according to the future needs without compromising sustainable aspects. The thesis is focused on the city Dhaka, Bangladesh. Dhaka is an old but historically and culturally rich city. The site is the portion of old Dhaka that has the local, organic growth pattern of development. However the recent needs of accumulating the vast number of population, the site losing the traditional and cultural connection in tall high-rises. I explored the site and the local pattern of living to extract the criteria to develop cultural sustainability to the future development, and sustainable design solution. The design criteria would offer a new sight of sustainable practice in Dhaka city, and also to develop a sustainable community through built environment.

## **DESIGN REVIEW REFLECTION**

A number of critical topics and comments were brought up during my thesis review that is really relevant to the thesis outcome. Some of the comments described with the cultural use of difference spaces. The use of cultural impacts from single families to multi- families is really important to develop the clusters. I only applied one strategy to

develop the cluster, However there should be more strategies to develop different clusters based on the users.

Another concern was to develop the policy and the system of the community. The modification of local rules of development is another important aspects. Cultural sustainability is a continuous, and slow process. Therefore infrastructure needs to develop according to the cultural and future demands to support the future development. One reviewer suggested me to propose a statistic of future development that is sustainable for future of Dhaka city. The next step would be to work on more in detail portion of the thesis. The impacts of different users based on their cultural aspects. More sectional drawings would be helpful to understand the layers of cultural activities.

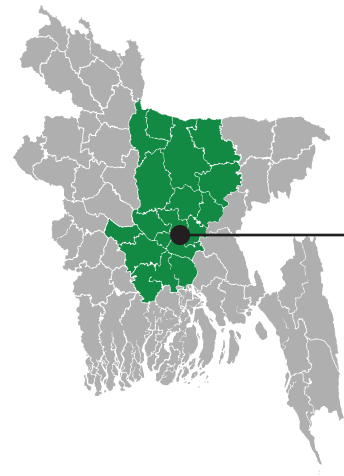
The overall review went well. They appreciated my efforts to deal with the complex issues, and graphical presentation. The model and animation also helped to present the issues. If I would have prepared my speech in a better way I would have started from the site back-ground and importance of cultural sustainability. I think it is important to explain the thesis very efficiently to the reviewer. It needs preparation and documentation. I had a good audience and I got appreciation from the instructors, faculties for dealing with the complex issue of cultural sustainability.



## **CONCLUSION**

I have received very good comments from the reviewer, and I think it helps me to think in a different way. I felt like I have started to look at my thesis more critically. I have also understood that a thesis is a continuous project, and it is a life-long project. The overall process allowed me to explore different scales of architecture. I have gained knowledge in every layer of the process. It also helped me to deal with complex issues and how to develop possible solutions to the critical issues.

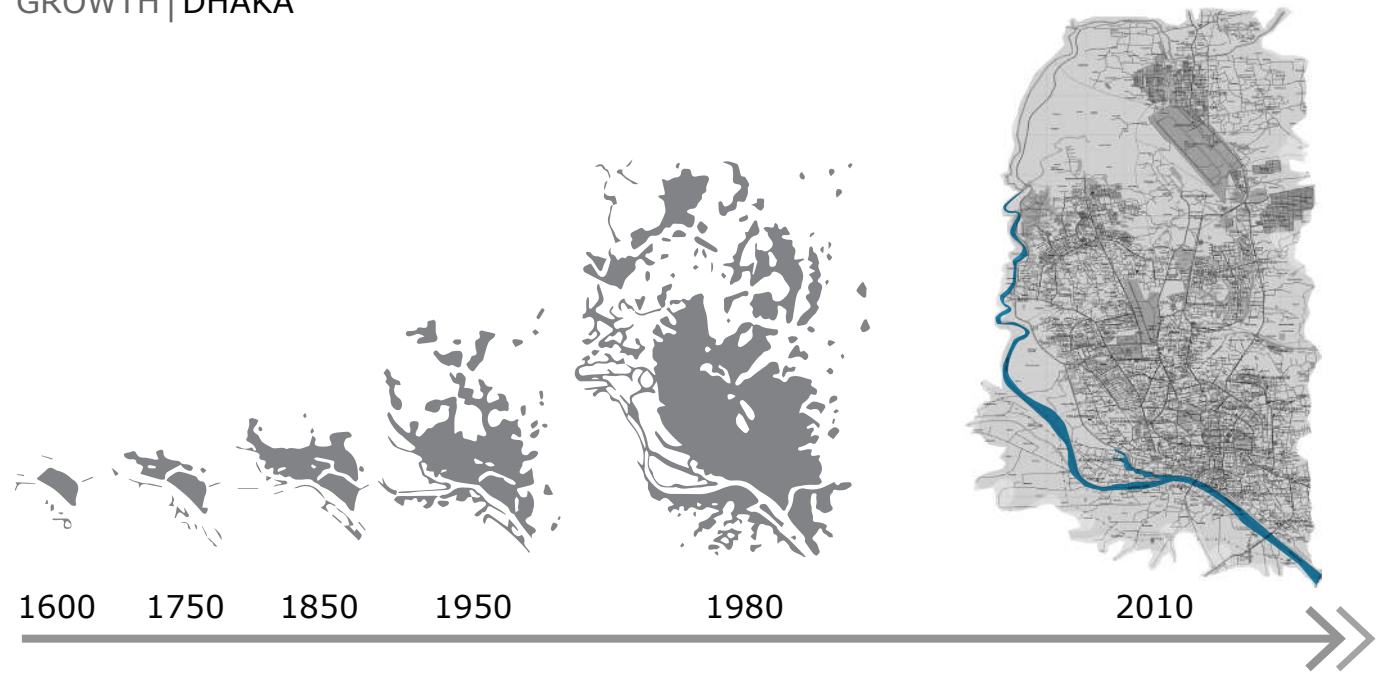
In sum, I feel like to work on my thesis even more to the next level. I am much more comfortable with the practical issues of architecture and I am more willing to push my vision to a better future in Architecture.

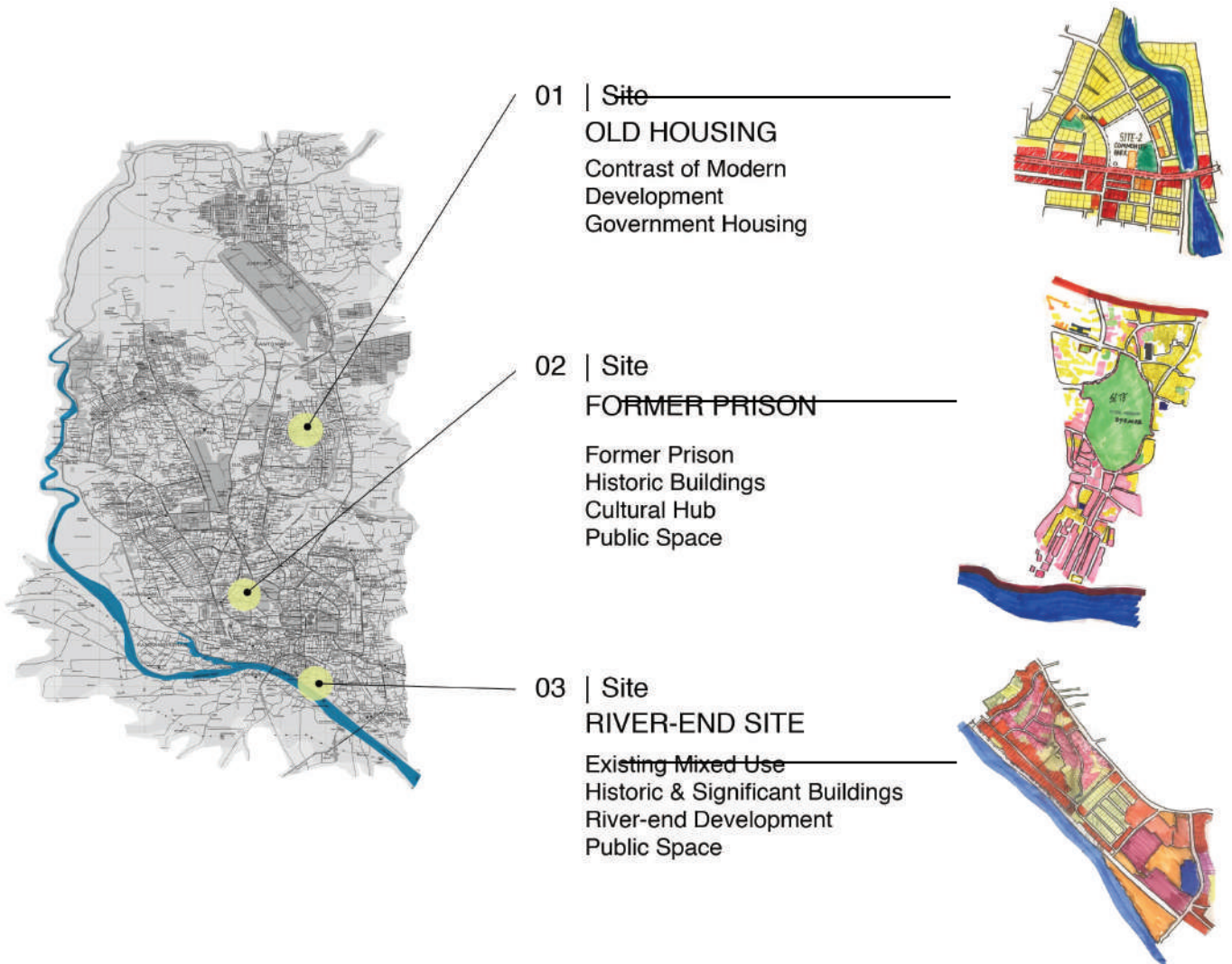
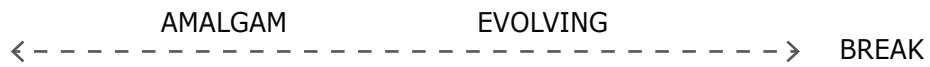
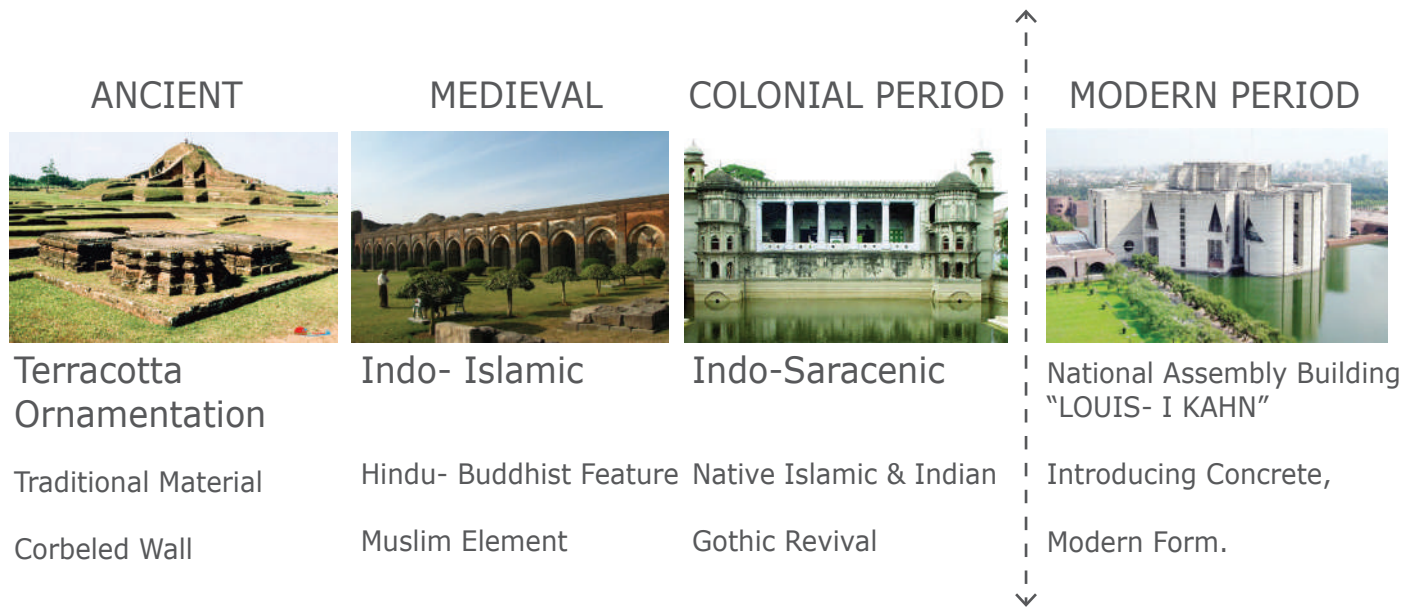


DHAKA | DISTRICT  
CAPITAL OF BANGLADESH

BANGLADESH- 56,977 Mi<sup>2</sup>  
DHAKA CITY- 565 Mi<sup>2</sup>  
POPULATION- 8.9 million

### GROWTH | DHAKA







PART B  
POSTER & SOIRRE

Why Cultural Sustainability for Dhaka?

CULTURE

The City is Losing it's Soul !

The City is Losing Memory

Its All About Vertical

The City is Losing Identity !

High-rise

Tradition





HISTORY

CULTURAL DIVERSITY



Bengal Renaissance | Islamic | Hinduism | Buddhism  
Christianity | Regional & Geographic | Global



ANCIENT 7600 BC-600 CE  
CLASSICAL 240 -1250 CE  
MEDIEVAL 1204-1717 CE  
MODERN 1717 CE- PRESENT

DHAKA - A STORY OF 400 YEARS



Kantajew Temple



Lalbag Fort



Jamidar Bari

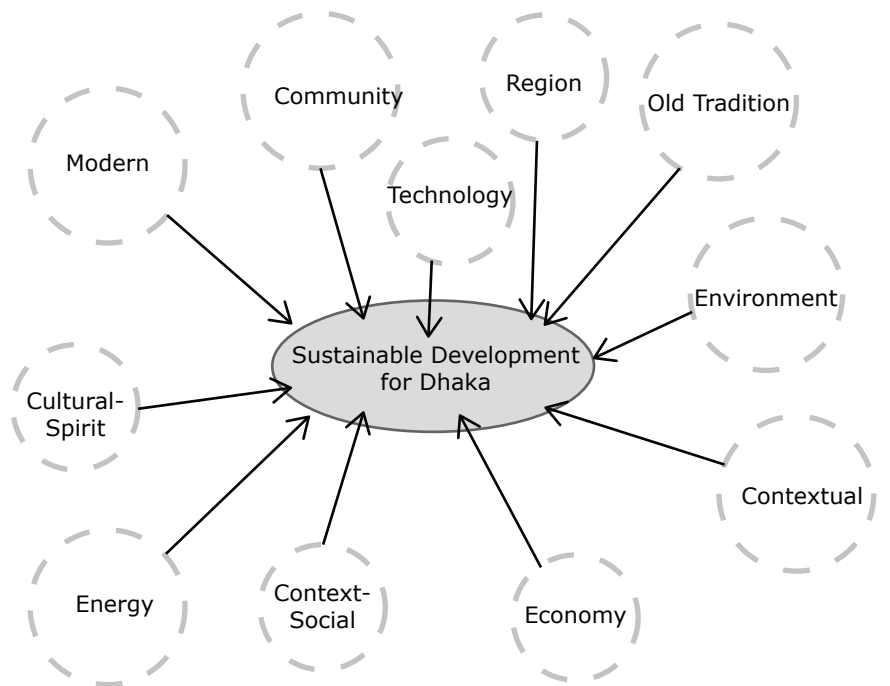


National Assembly Building

# Design Criteria for Cultural Sustainability ?



Present Issue  
Future Issue



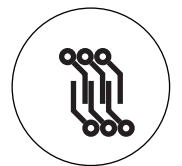
## CHRISTOPHER ALEXANDER:

It is a process through which the **ORDER** of a **BUILDING** or a **TOWN** grows out directly from the **INNER NATURE** of the people, and the animals, plants, and matter which are in it.



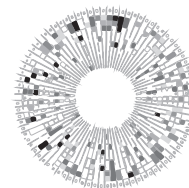
## ALEXANDER TZONIS & LIANE: (DEFAMILIARIZATION)

Identification | Decomposing | Recomposing



## KENNETH FRAMPTON's Critical regionalism:

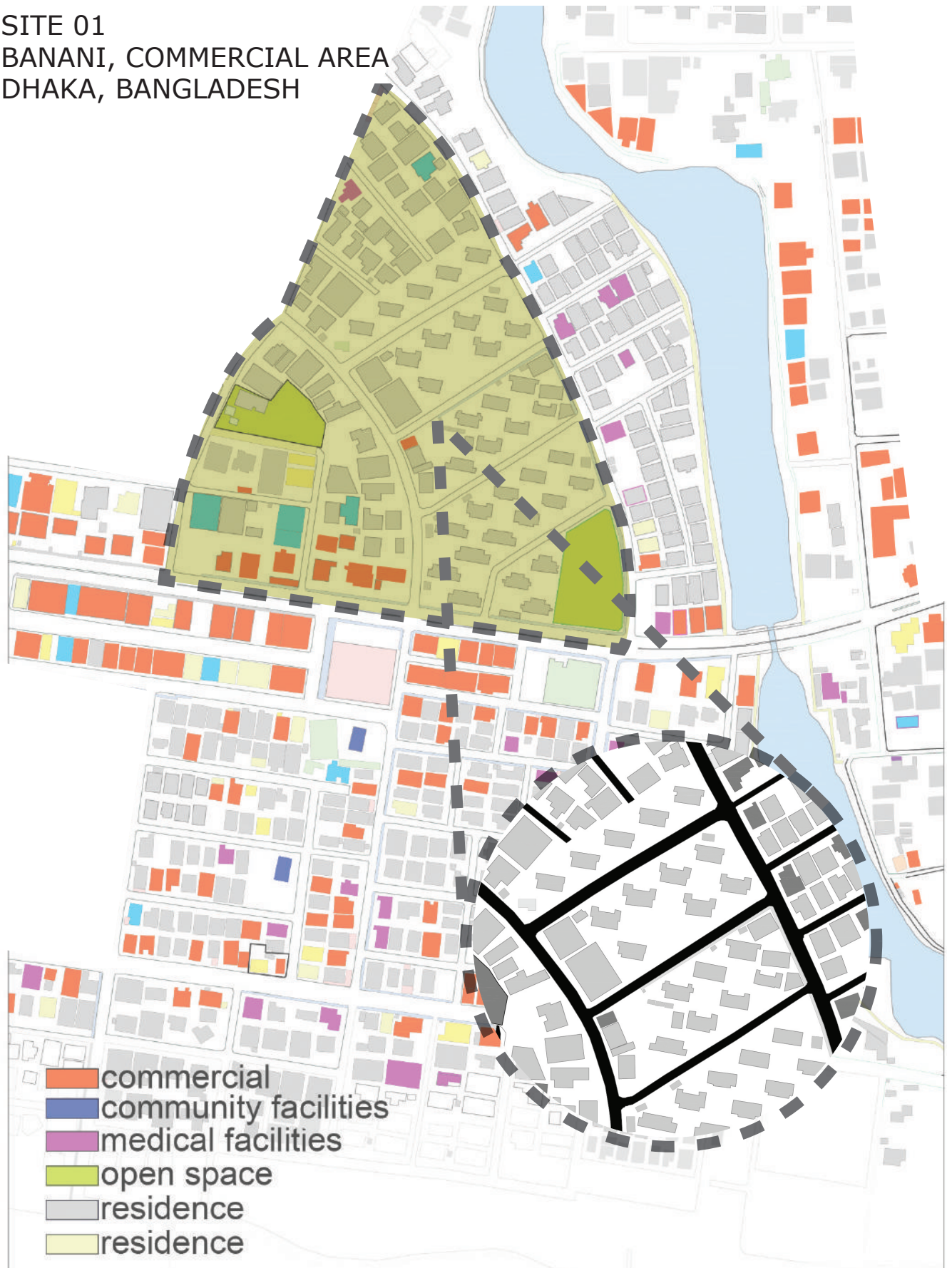
- MEDIATE the impact of **UNIVERSAL CIVILIZATION**.
- ELEMENTS, Derived indirectly from the **PECULIARITIES** of the place.

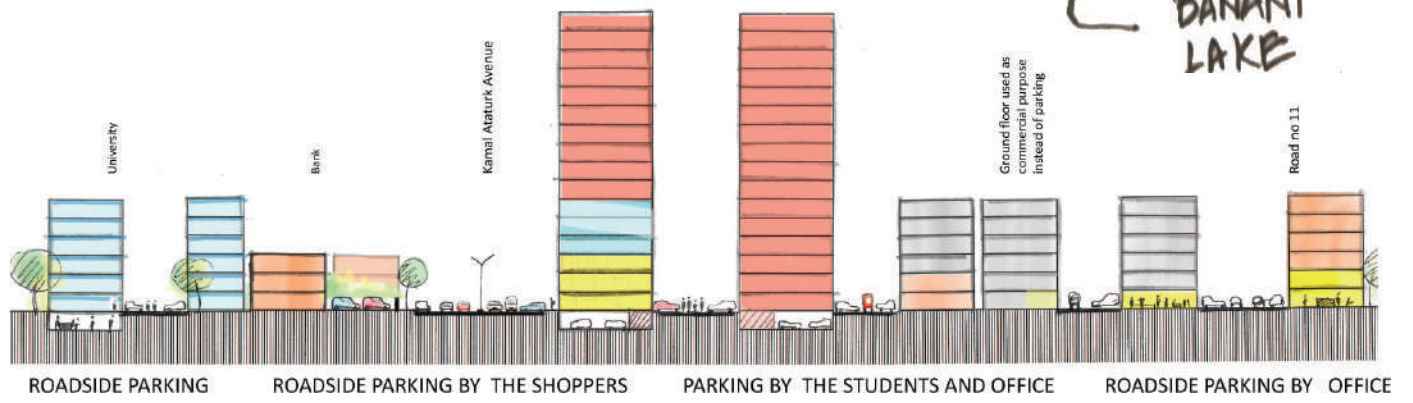


It is not historic preservation, it is not imposing a new culture.



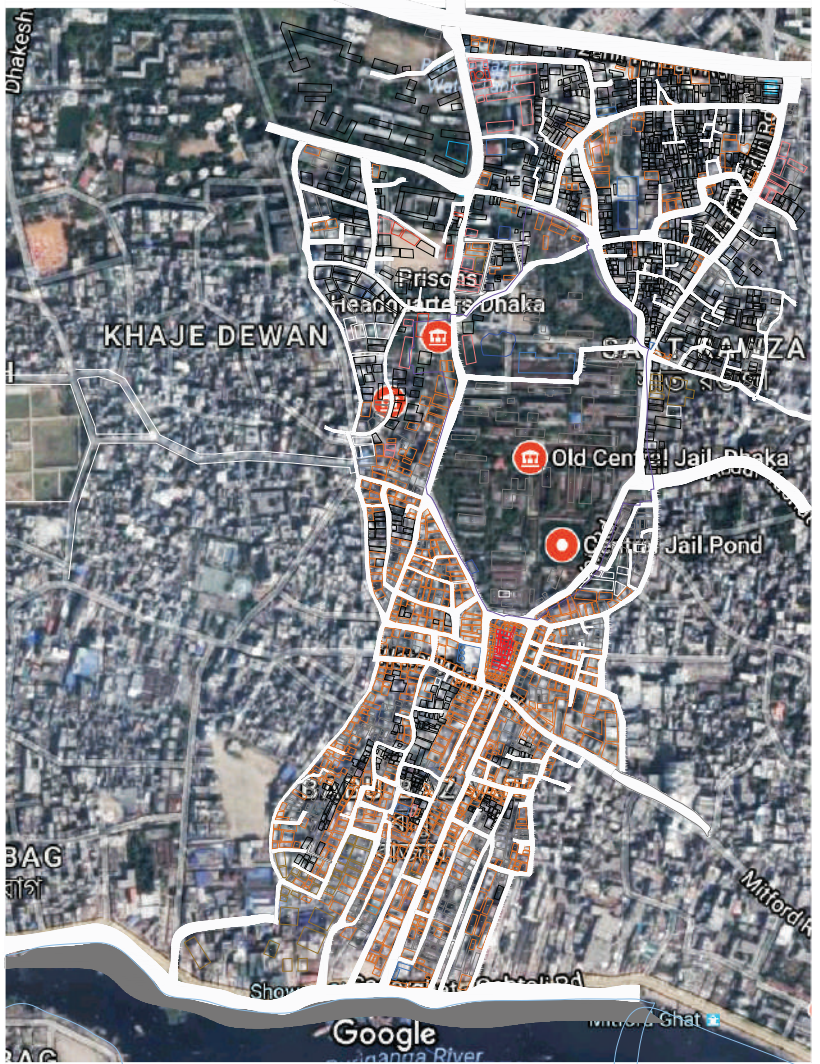
SITE 01  
BANANI, COMMERCIAL AREA  
DHAKA, BANGLADESH



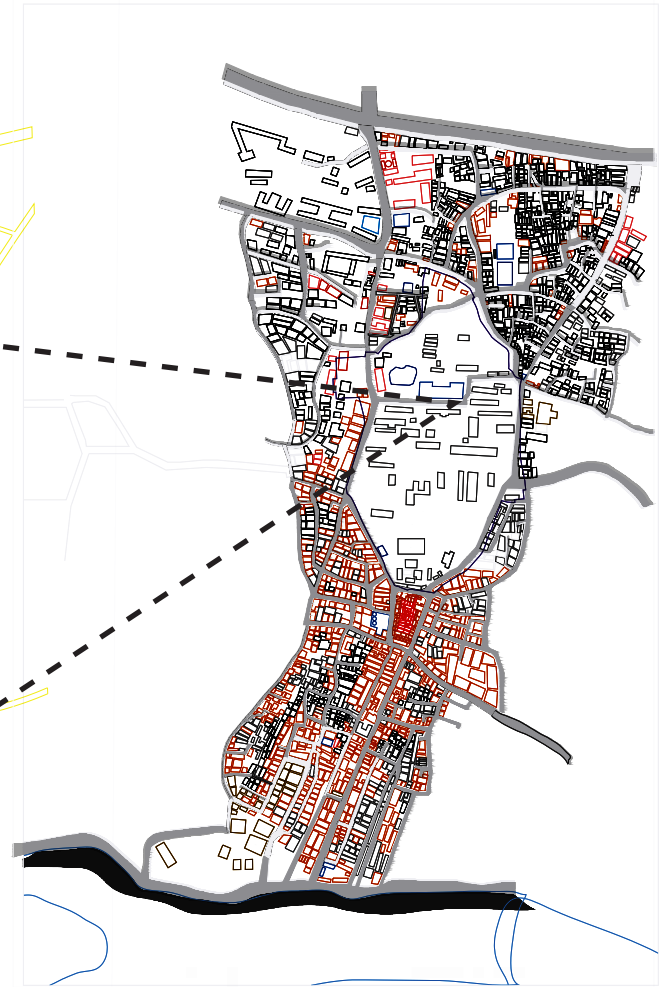




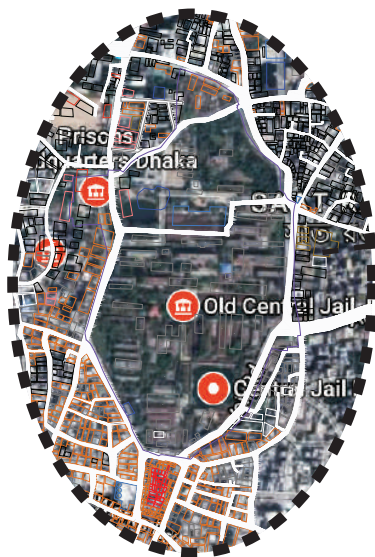
SITE 02  
FORMER PRISON  
DHAKA, BANGLADESH







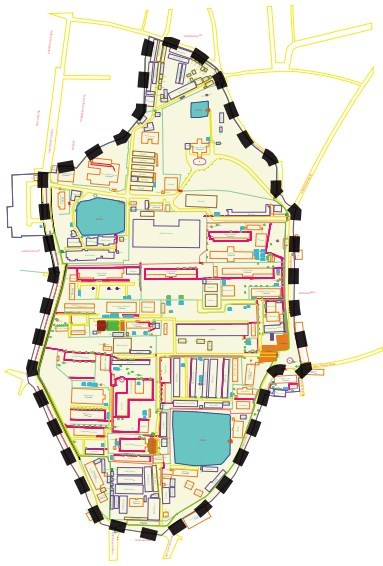
GROUND ZONING



- PRIMARY ROAD
- RESIDENTIAL AREA
- MIXED USE
- AMENITIES
- WATER

SPACE ARTICULATION





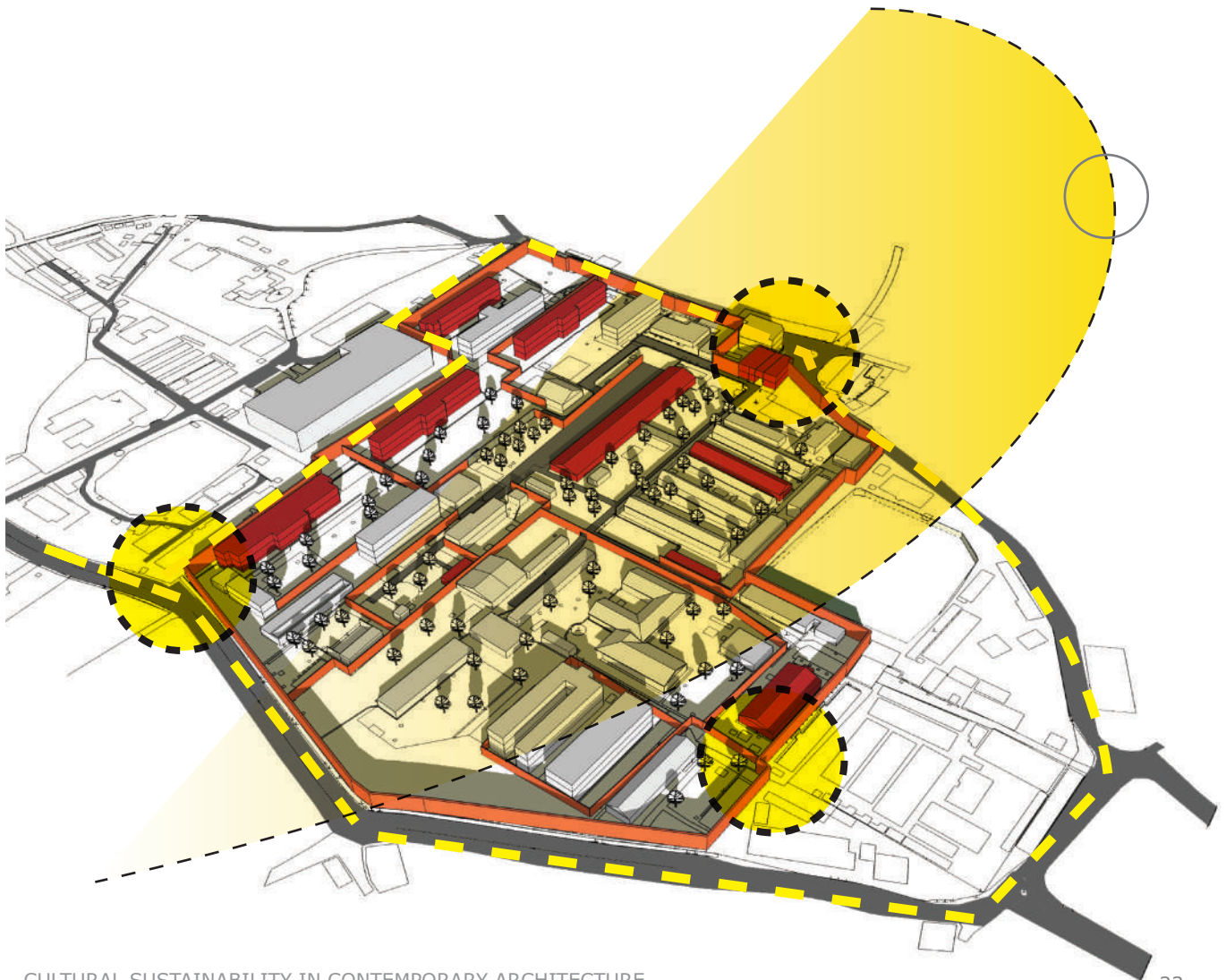
SPACE DEVELOPMENT



NETWORK

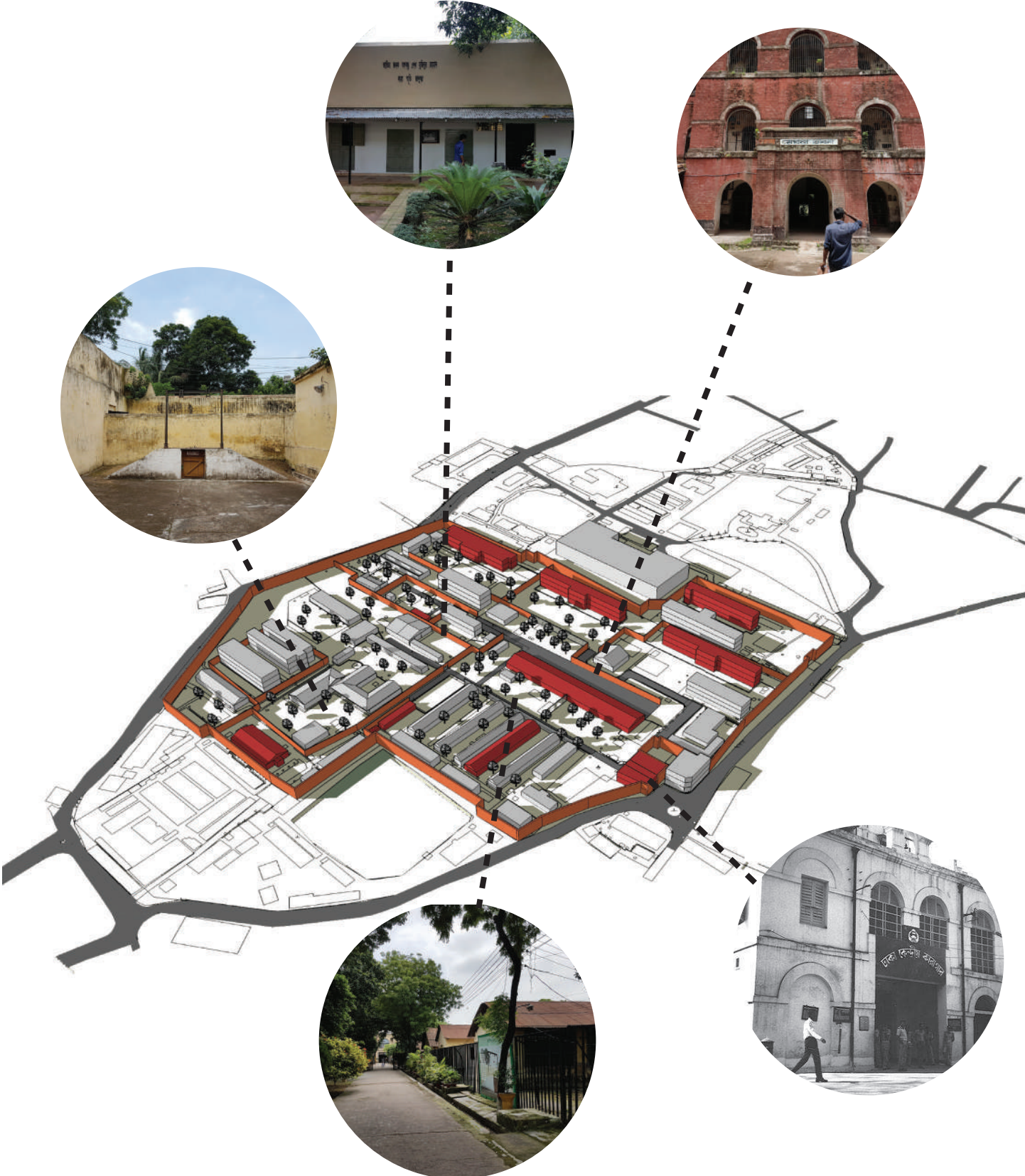


SITE FORCE





# SITE SURROUNDING





# SITE 03 DHAKA FARIDABAD

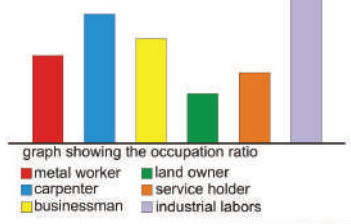
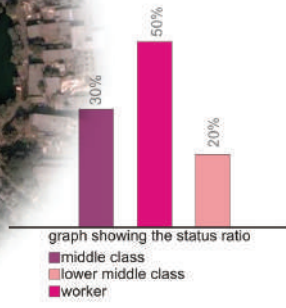
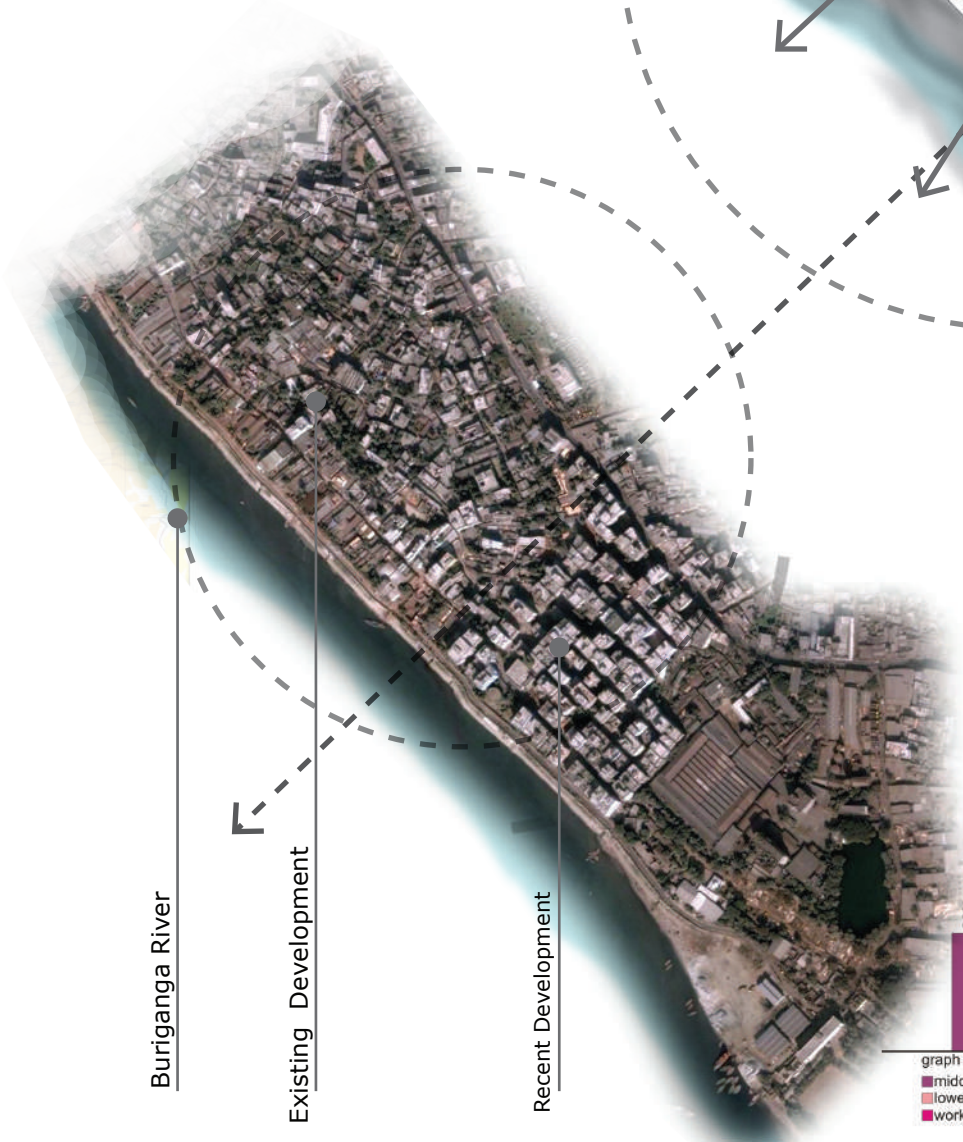
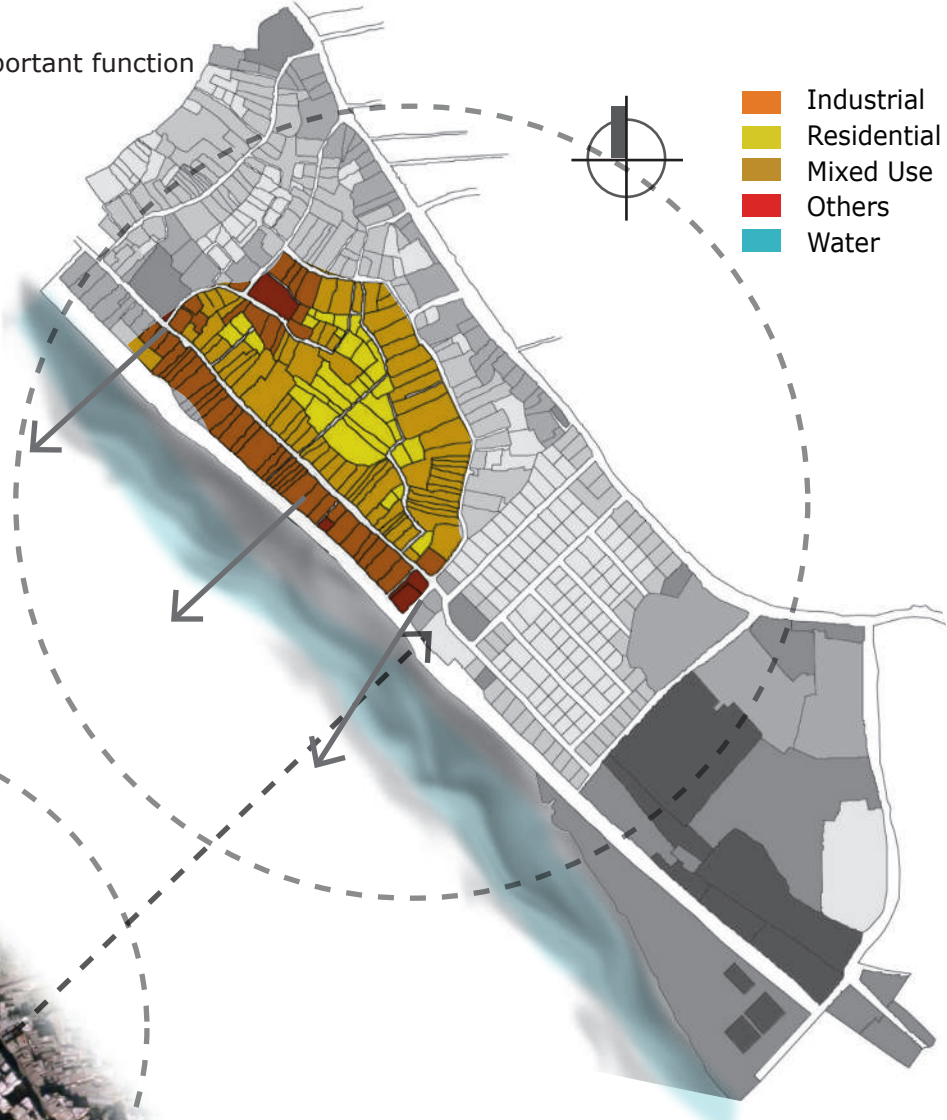
The Site is divided Based in Few important function

- Status
- Middle Class
  - Lower Middle Class
  - Worker

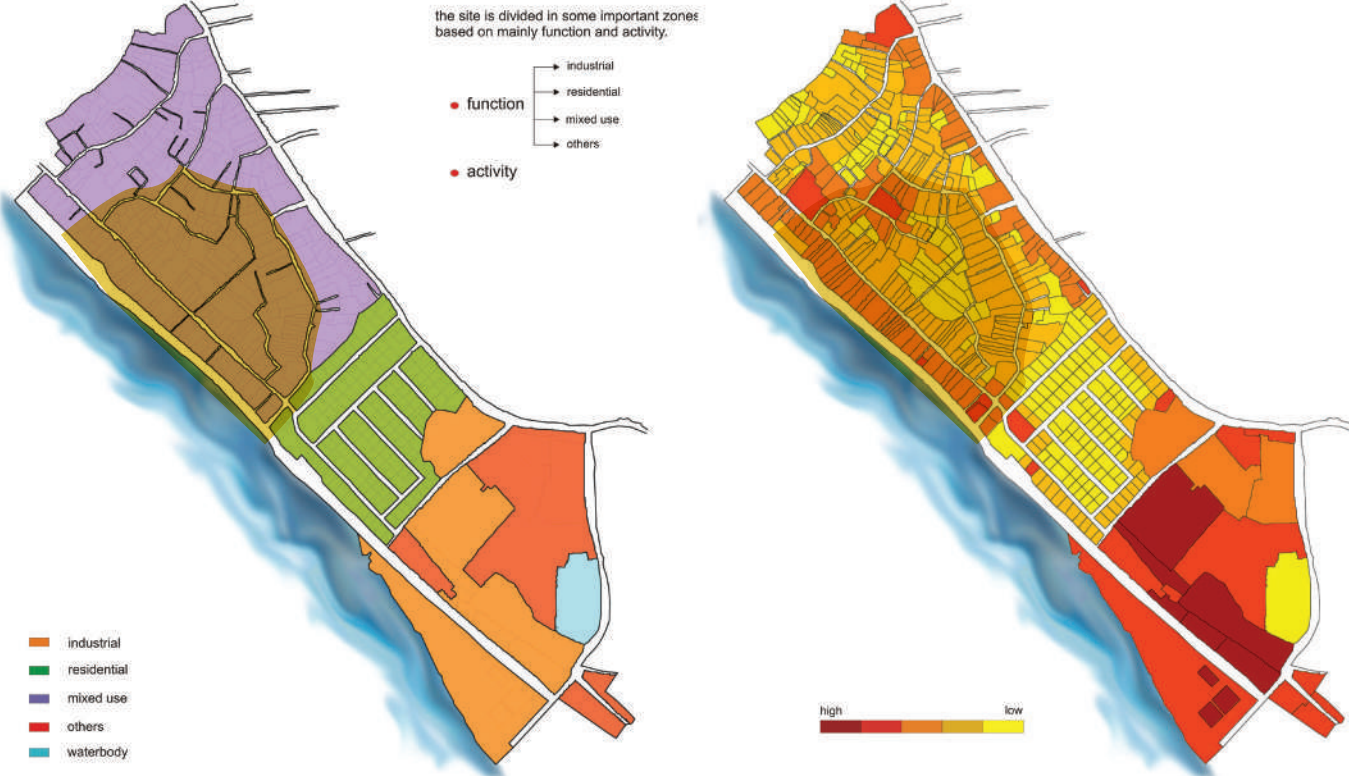
- Function
- Industrial
  - Residential
  - Industrial
  - Others

- Occupation
- Metal Worker
  - Carpenter
  - Businessman
  - Land Owner
  - Service Holder
  - Industrial

- Industrial
- Residential
- Mixed Use
- Others
- Water



# SITE SURROUNDING



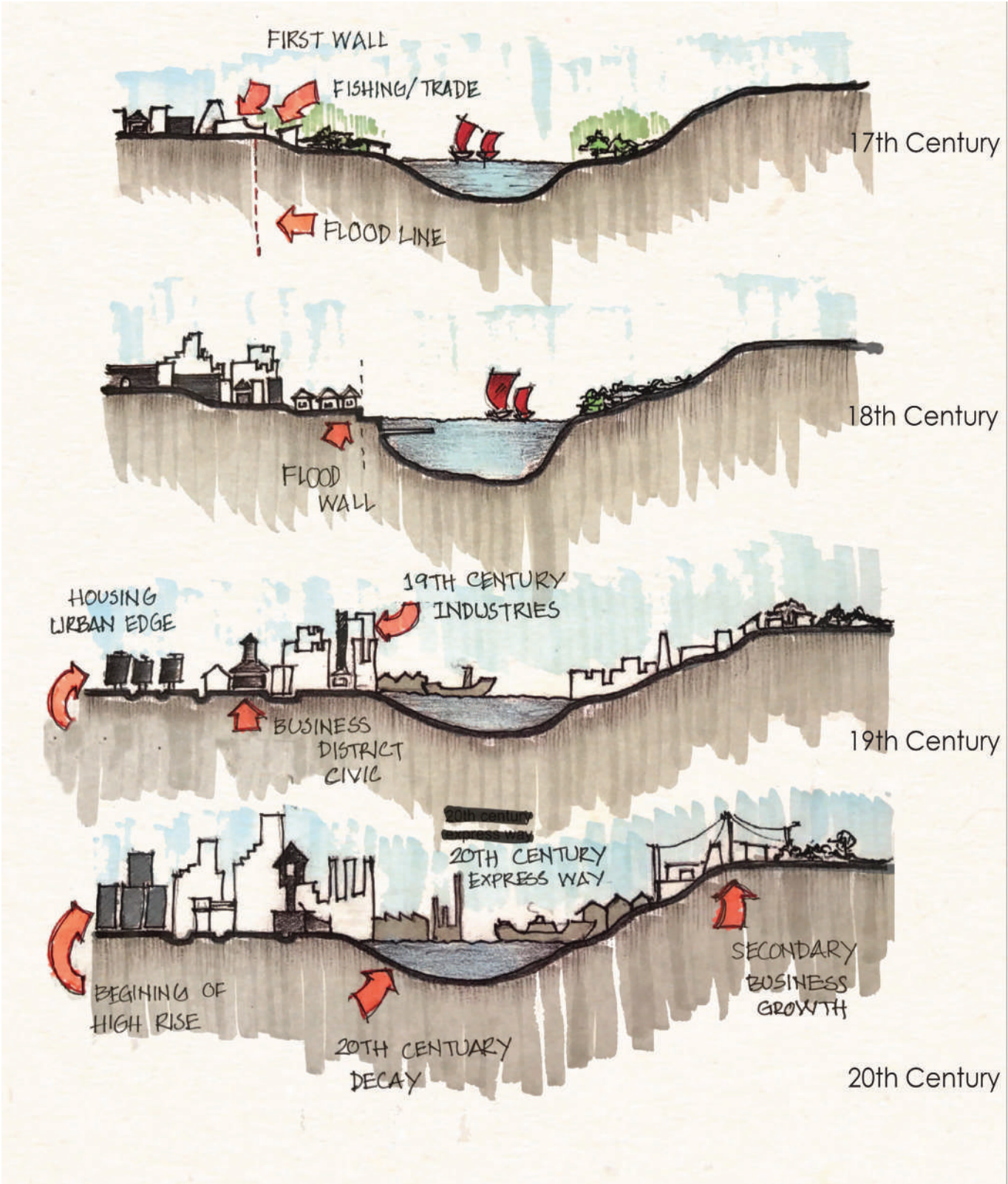




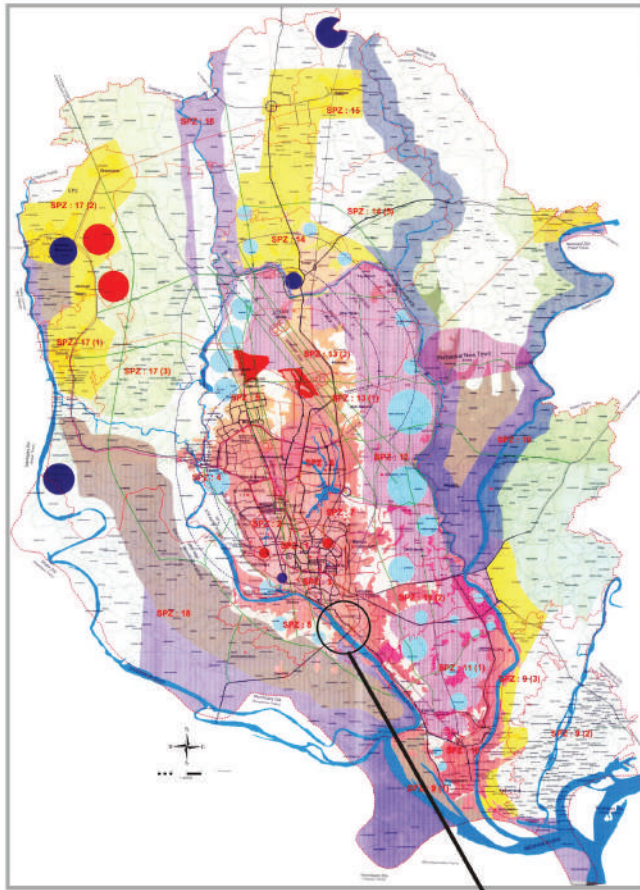
## STREET CULTURE ACTIVITY



# RIVER EDGE DEVELOPMENT







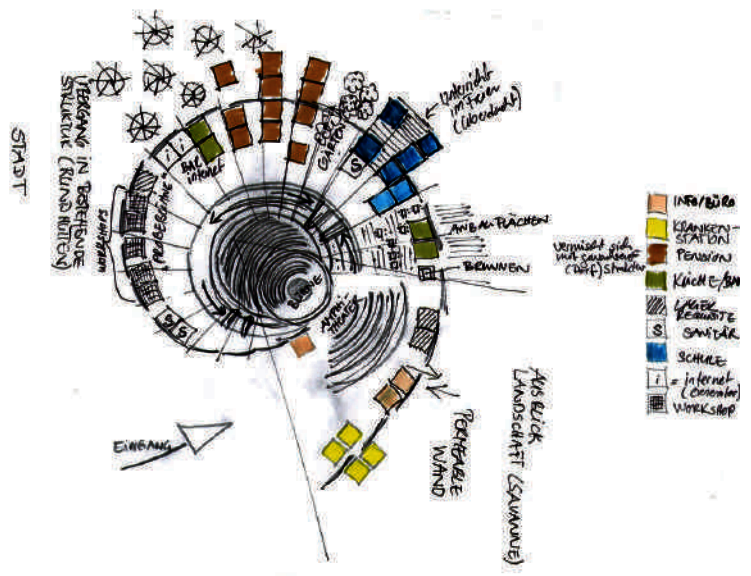
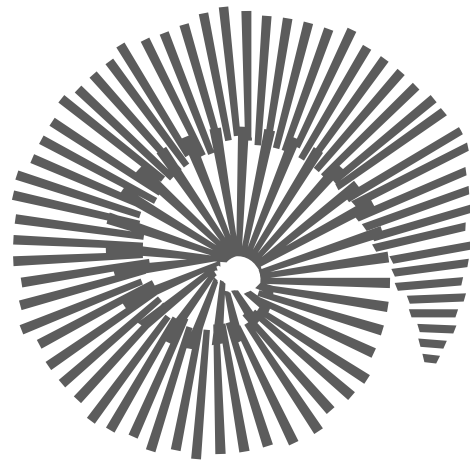
- main flood flow zone
- sub flood flow zone
- established urban area
- new urban land development area (proposed)
- peripheral urban development (enablement)





Opera Village, Africa  
 Site: Laongo / Burkina Faso  
 Architect: Francis Kéré

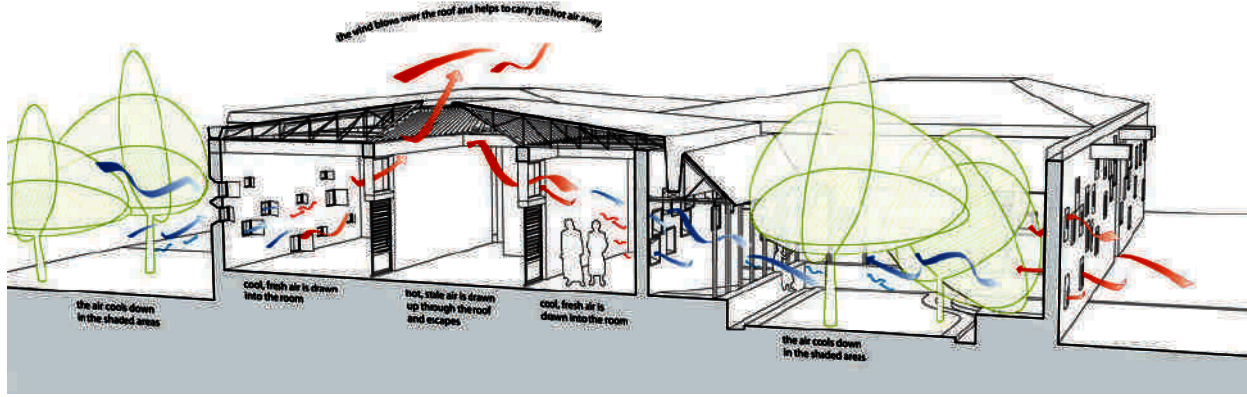
The Opera Village is being constructed on a 12-hectare site on a little rise in Laongo, and includes a festival theater, workshops, medical center, guest houses and a school for up to 500 children and teenagers with music and film classes. Basic installations like a well and solar panels are also foreseen. Central to the project is the festival hall with the theater inside. This stage and auditorium were designed and constructed for a play in Germany and not used again afterwards. The support construction of the stand and the rotating stage will be maintained. The seat rows and interior walls will be covered with Burkinabé fabrics. The theater will be totally enclosed by a 15-meter-high covering to shelter it from the outside conditions. Simple basic modules, which vary in quality and function depending on the equipment they house, comprise the entire village. Most of these modules will be self-constructed.



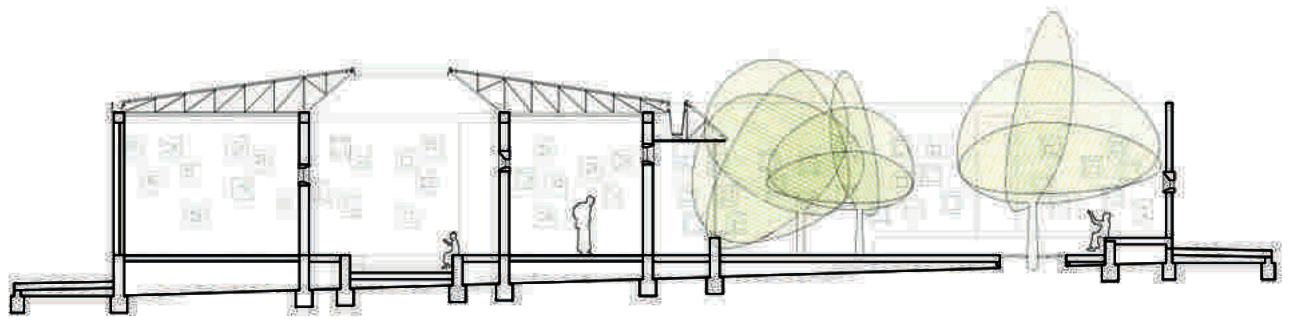
Design & Innovation



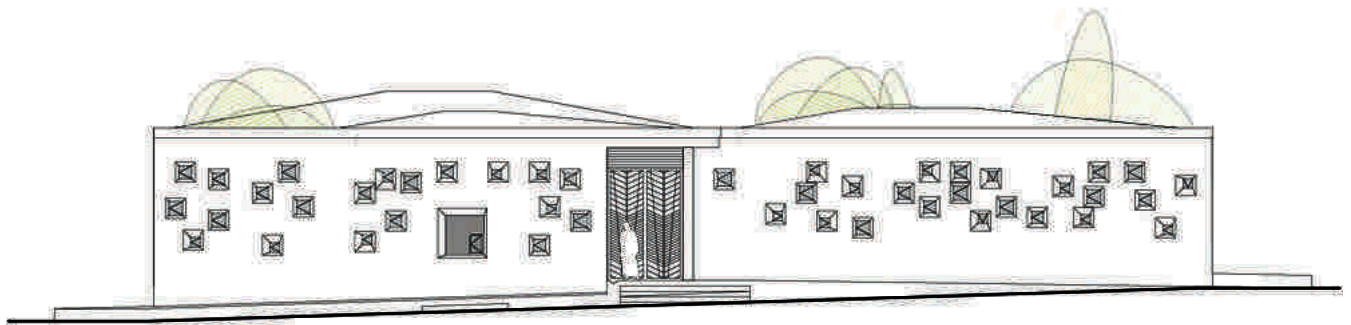




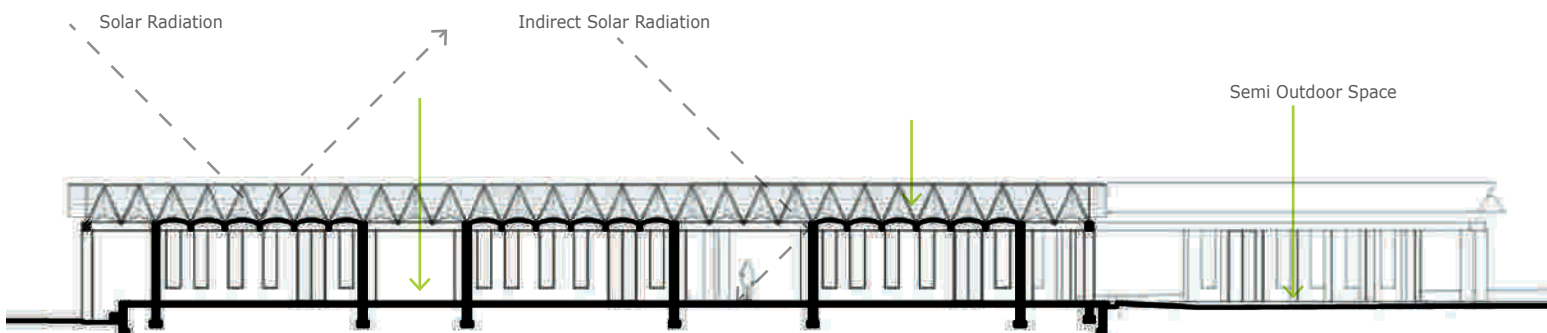
Passive Building Strategy



Structural Section



Elevation

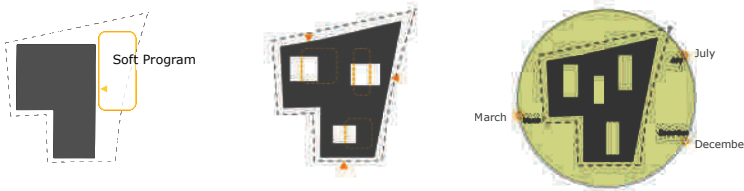


Section Detail

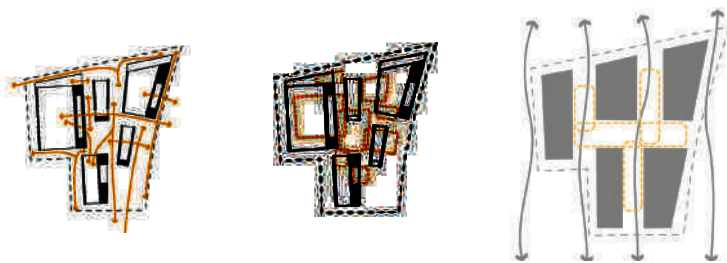


Charles Hostler Center / VJAA  
 Architects: VJAA  
 Location: Beirut, Lebanon

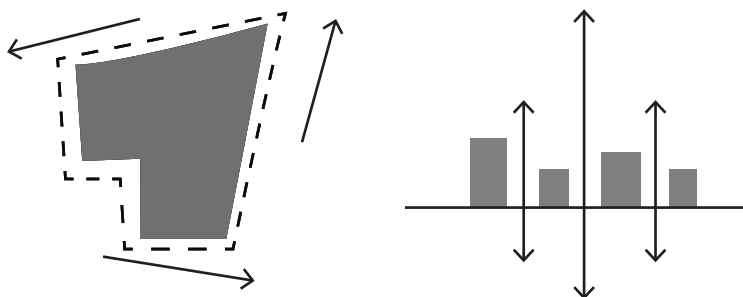
Design & Innovation



Regional/Community



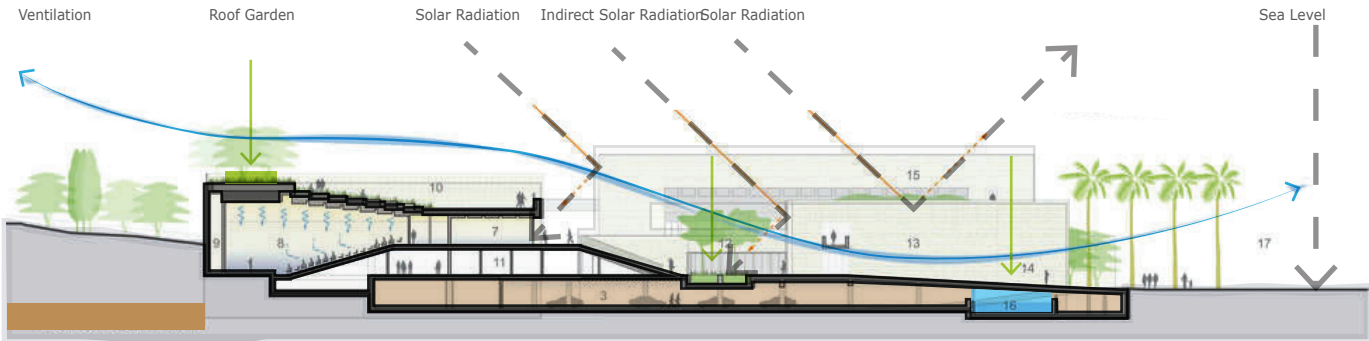
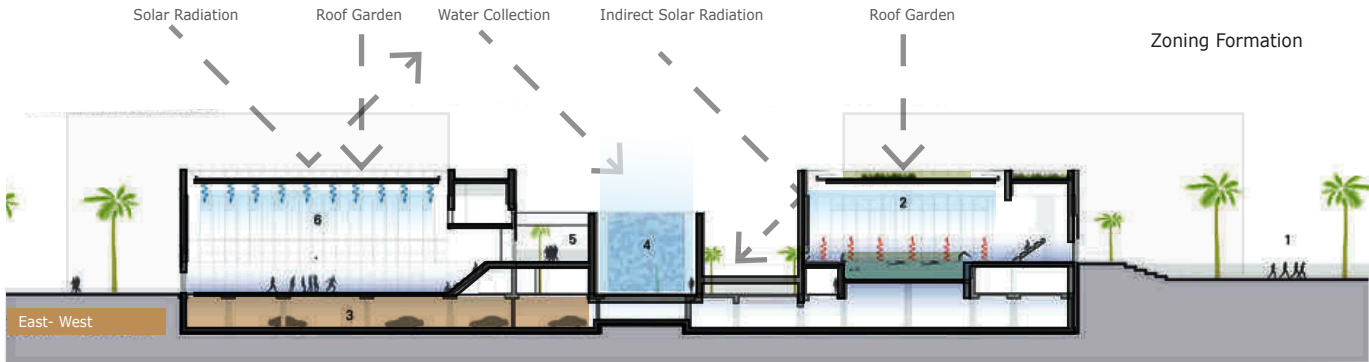
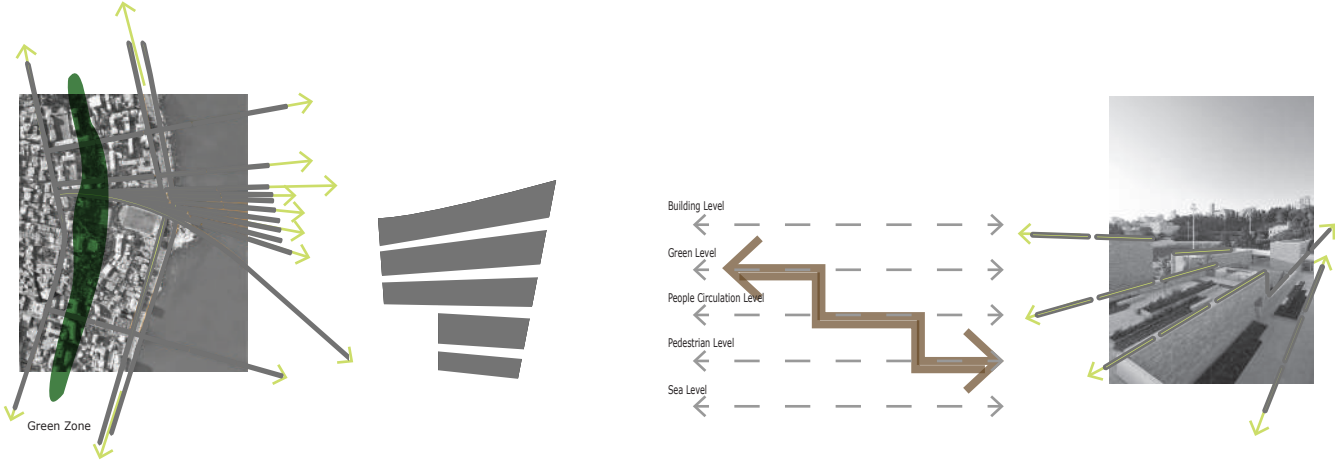
Interpretation



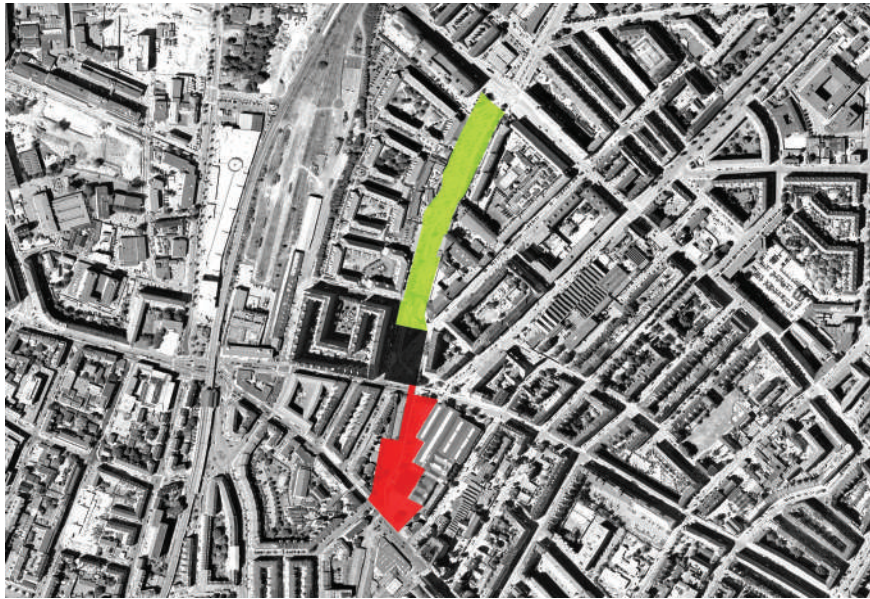
The Hostler Center design responded to its unique social and environmental context. Situated on Beirut's seafront and main public thoroughfare, the new 204,000 square foot facility includes competitive and recreational athletic facilities for swimming, basketball, handball, volleyball, squash, exercise and weight training. The program also includes an auditorium with associated meeting rooms, cafeteria with study space, and underground parking for 200 cars. Responding to the scale of buildings and outdoor spaces of the existing campus, the University's original plan for a single large scale building and similarly scaled open plaza was challenged. Instead, multiple building volumes were proposed that interconnected a continuous field of habitable space with gardens on multiple levels.



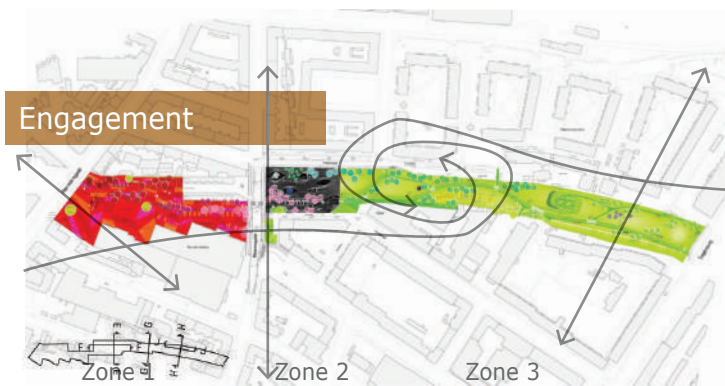
# CONCEPT DEVELOPMENT







Superkilen  
 Site: Copenhagen, Denmark  
 Firm: BIG - Bjarke Ingels Group



Project Summary: Superkilen is a 355,000 square foot urban park in Copenhagen. It was designed through an intense public participation process with the surrounding community, representing the voices of more than 60 nationalities in one of the most ethnically and economically diverse neighborhoods in Denmark. The project includes a variety of features to support physical activity and community gathering, including swings, monkey bars, a boxing ring, slides, punching bags, skateboard ramps, and a bicycle lane that runs through the entire site. Superkilen encourages adults and kids alike to be more active while celebrating the diversity of the neighborhood. This project was awarded the 2013 AIA National Award for Regional & Urban Design.





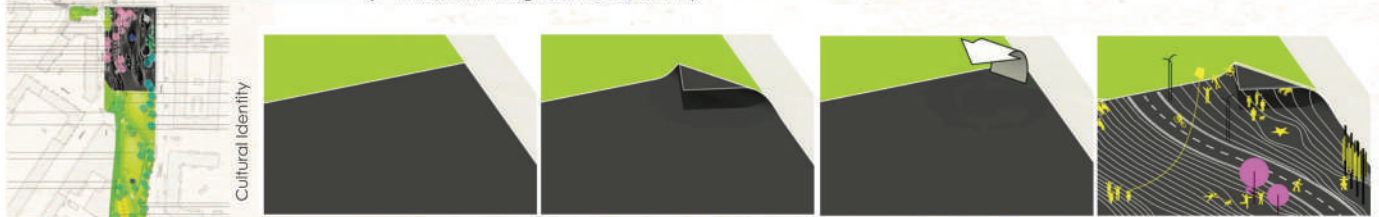


Interaction Through Sports and Games



Design & Innovation

Interaction Through Culture and Identity



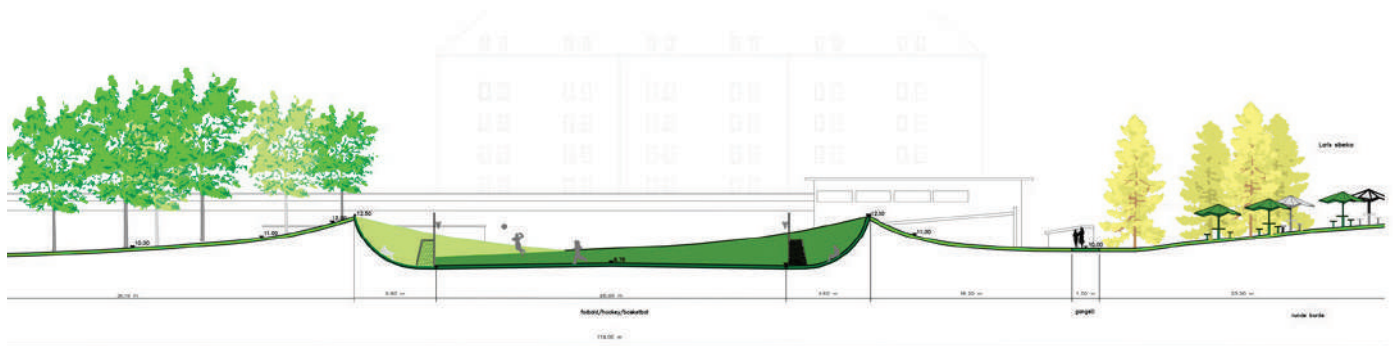
Cultural Identity

Interaction Through Engagement and Community Activities



Regional/Community

## CONCEPT DEVELOPMENT

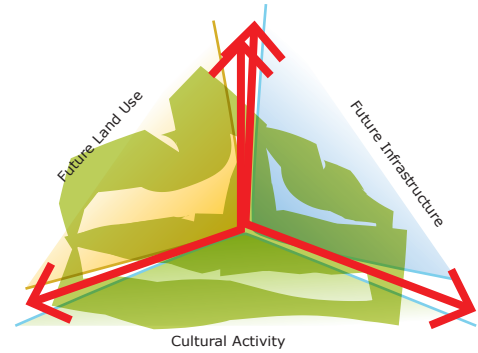


# Basic/ Functional Program

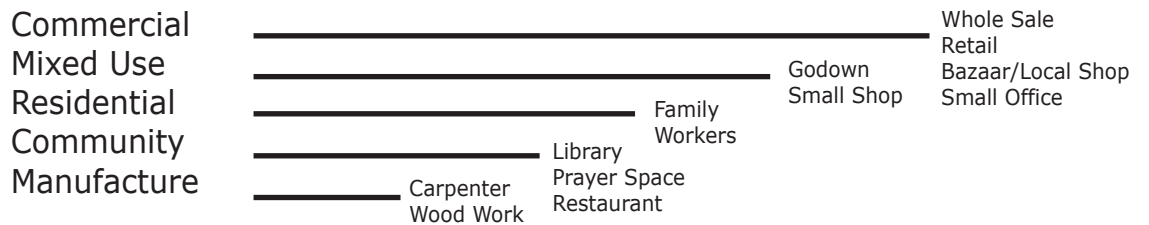
Site Area: 21acre (914760 sft)



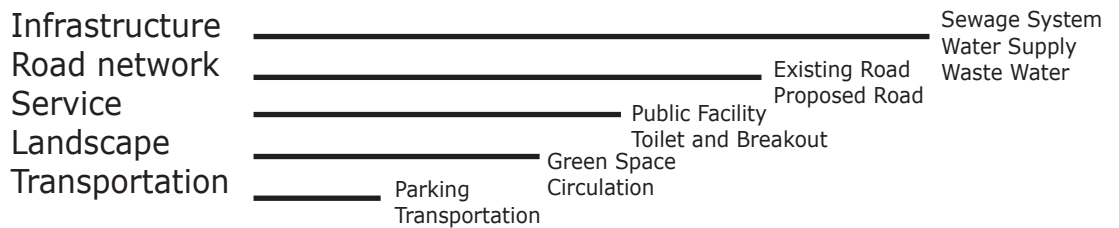
- Residence 52%
- Commercial: 18%
- Industrial: 27%
- Recreational: 1.5%
- Service: 1.5%



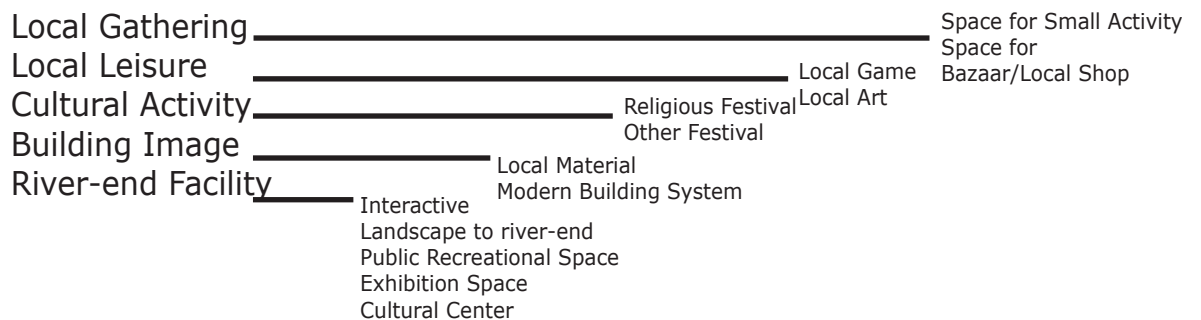
## Land Use



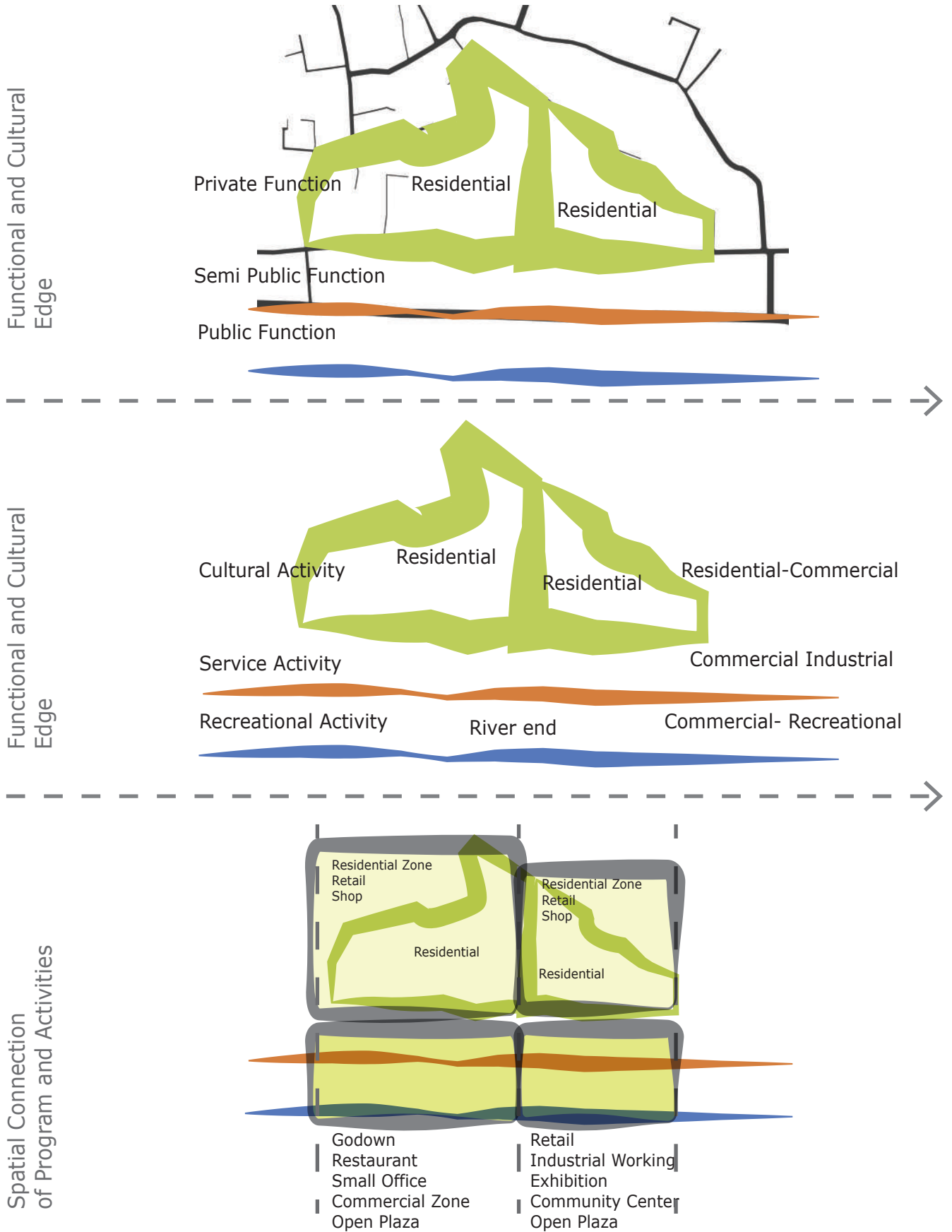
## Masterplan



## Cultural



# Solid-Void , Privacy Level





# Solid-Void , Privacy Level



Existing Building Mass



Solid Portion



Void to Solid Portion



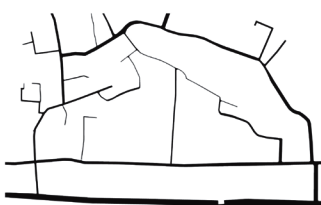
Existing Open Space



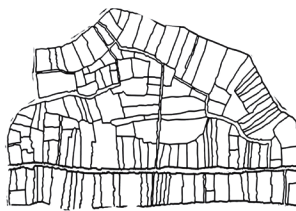
Void Portion



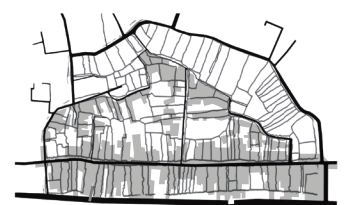
Solid to Void Portion



Existing Road Network



Existing Plot Layout



Plot Layout to Landscape

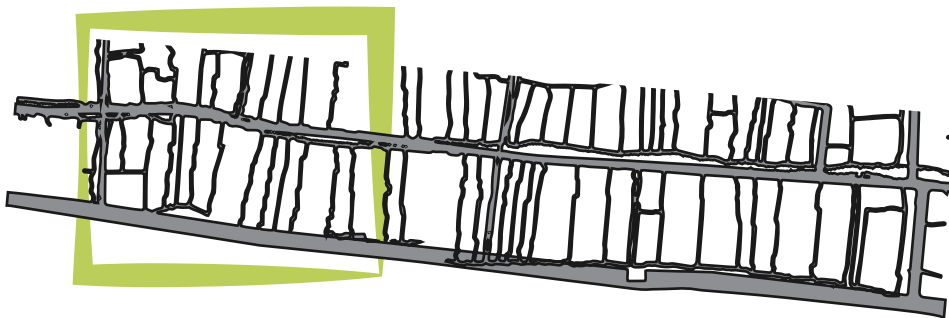




Residential Pattern



Commercial Pattern



Recreational Pattern



---

## Cultural Sustainability ?

It is a systematic and strategic intervention to develop the embedded Culture to address the current issues without compromising the future development.

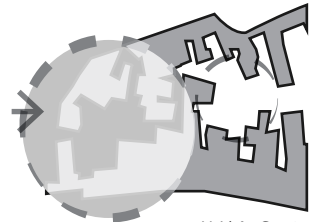
DESIGN PHASE



Spatial Connection  
Residential Cluster Pattern

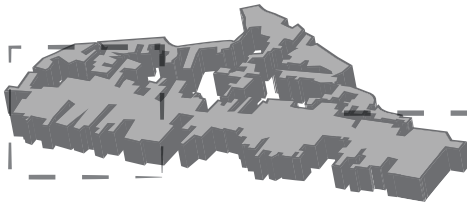


Residential Pattern

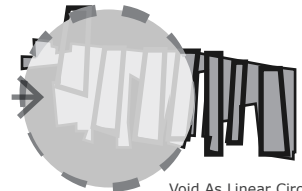


Void As Courtyard

Spatial Connection  
River Site Pattern

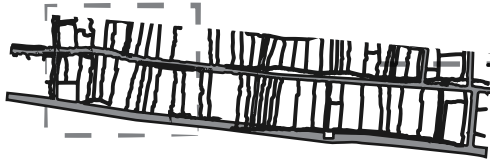


Commercial Pattern

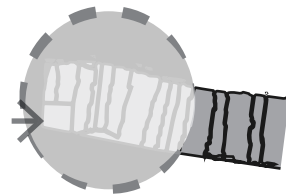


Void As Linear Circulation

Spatial Connection  
Organic Plot Pattern

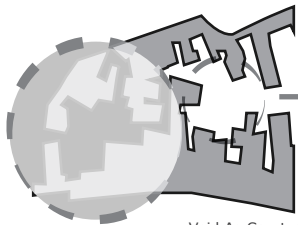


Recreational Pattern

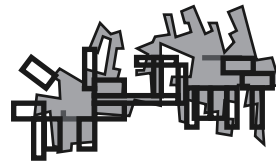


Plot Layout

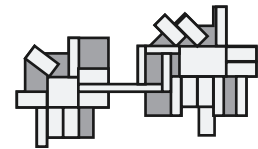
Spatial Connection  
Residential Cluster Pattern



Void As Courtyard

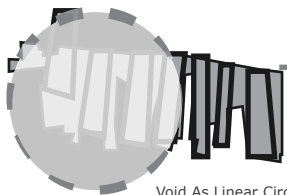


Understanding of Geometry

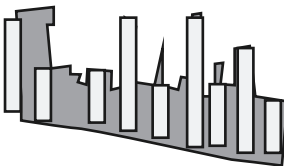


Pattern Type

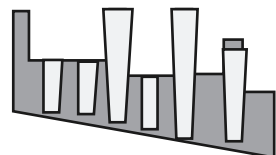
Spatial Connection  
River Site Pattern



Void As Linear Circulation

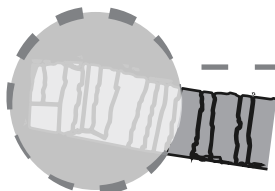


Understanding of Mass

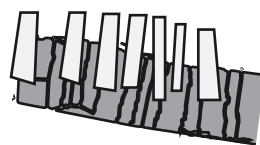


Pattern Type

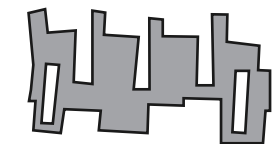
Spatial Connection  
Organic Plot Pattern



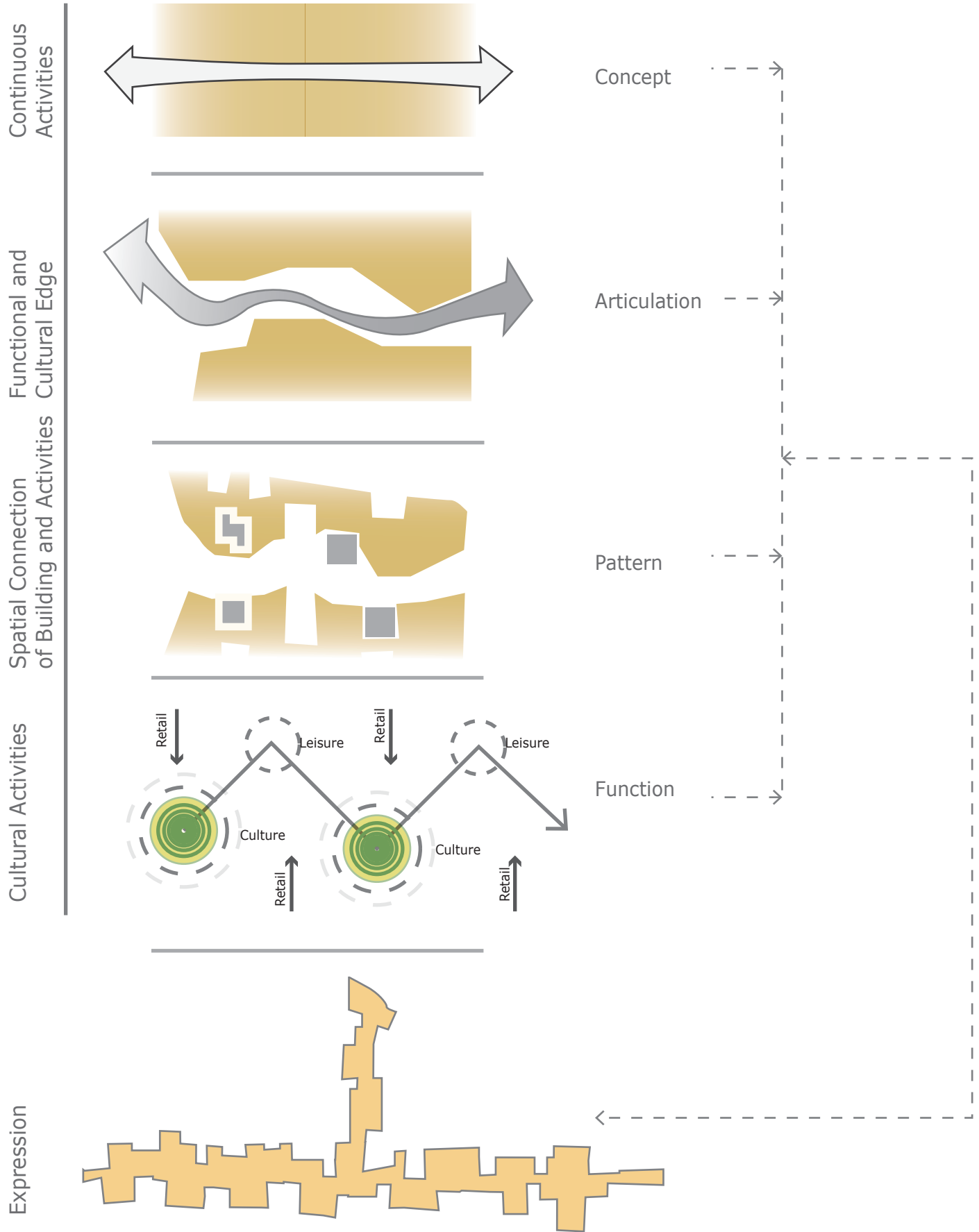
Plot Layout

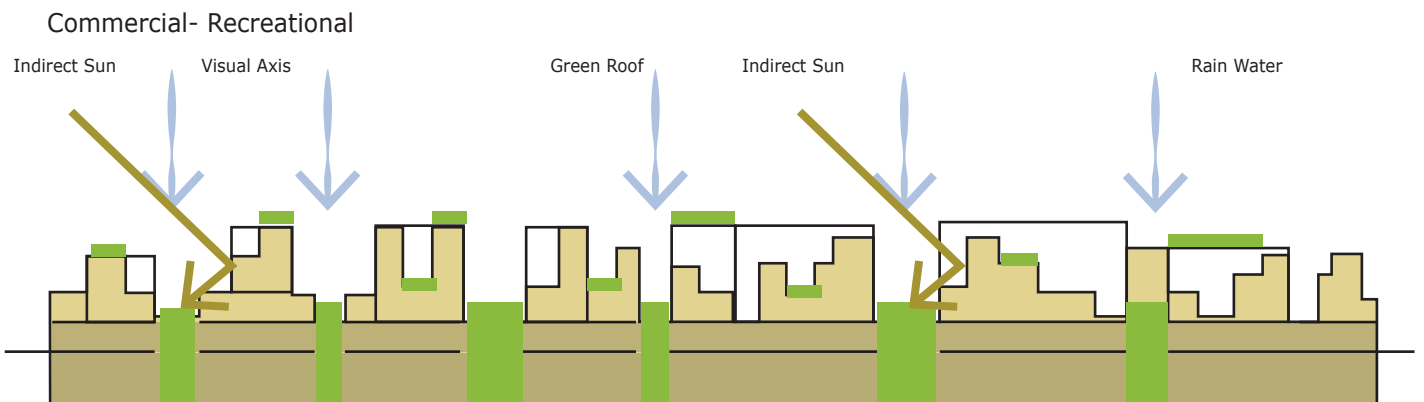
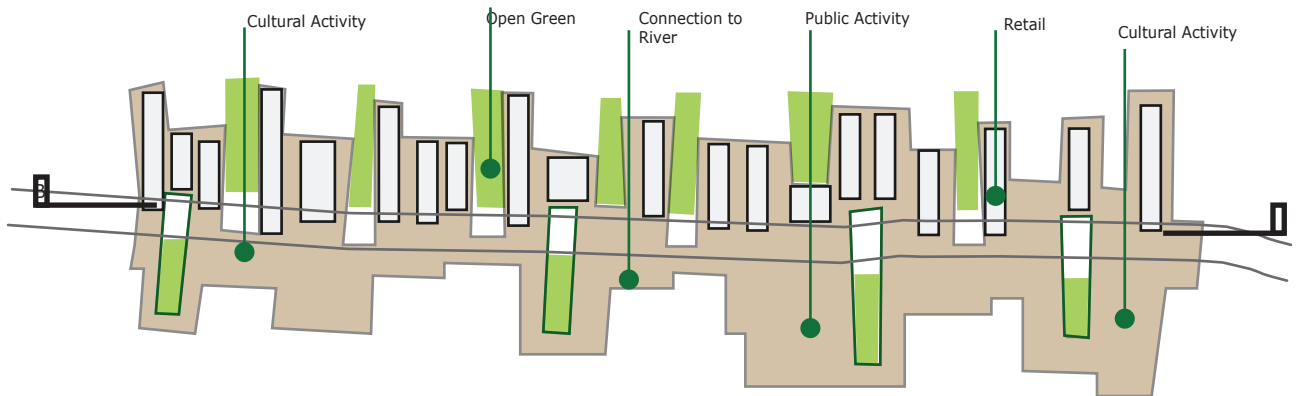
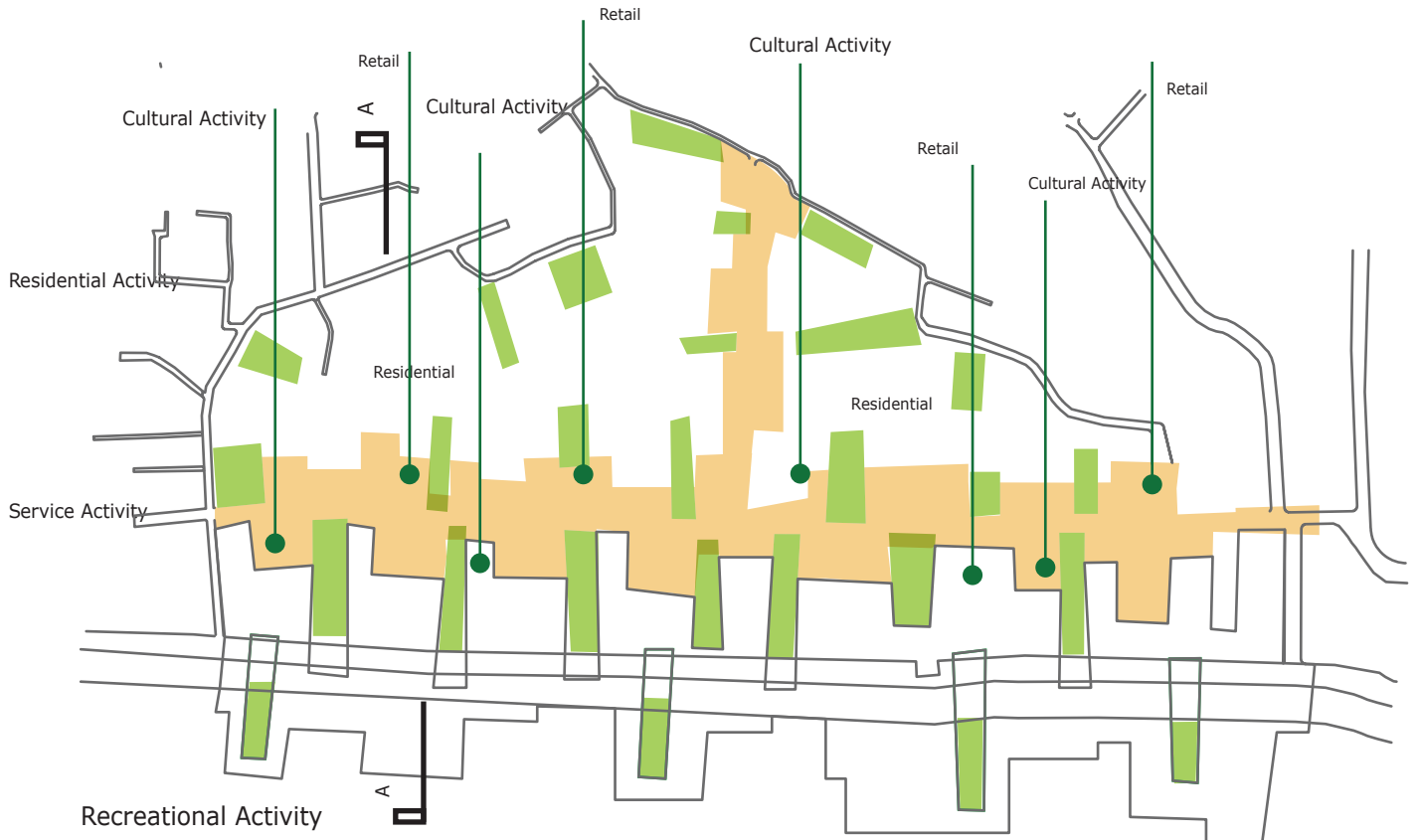


Landscape and Connection



Connection to River









Water Collection  
Reuse Water



Sun & Wind Energy



Section A

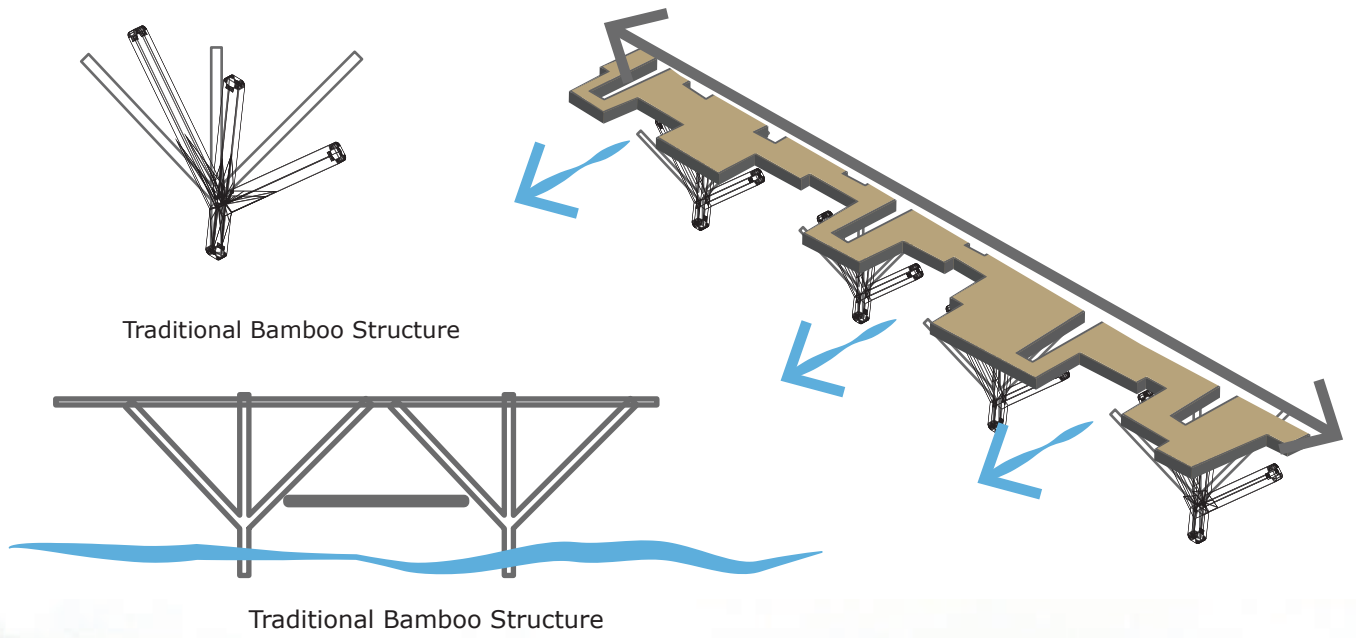


Sewage

Re-Use Energy

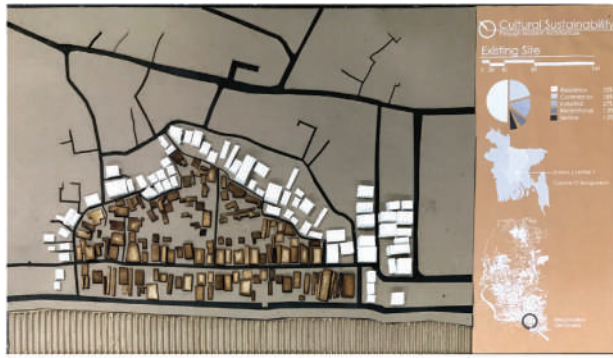
Net Zero

Building Material:  
Local Brick , Traditional Terracotta, Building Screen and Mashrabiya

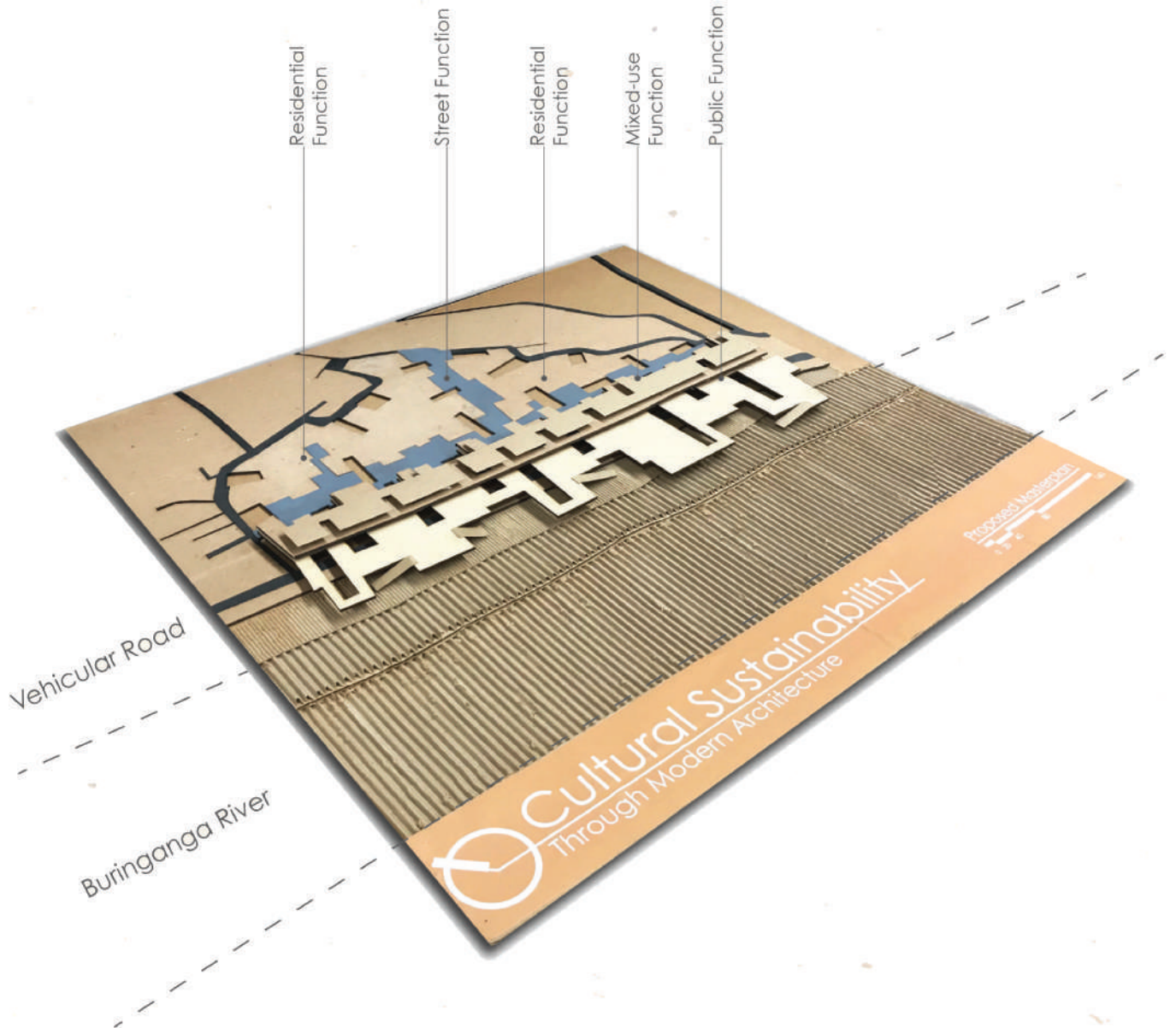
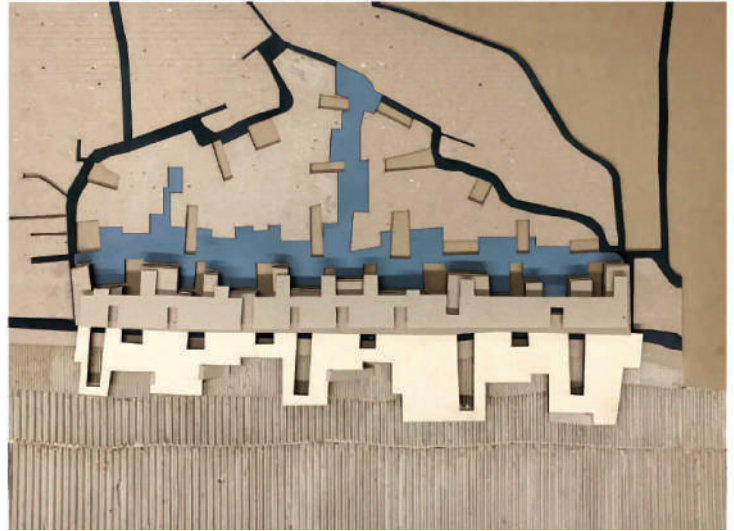




Existing Site Condition



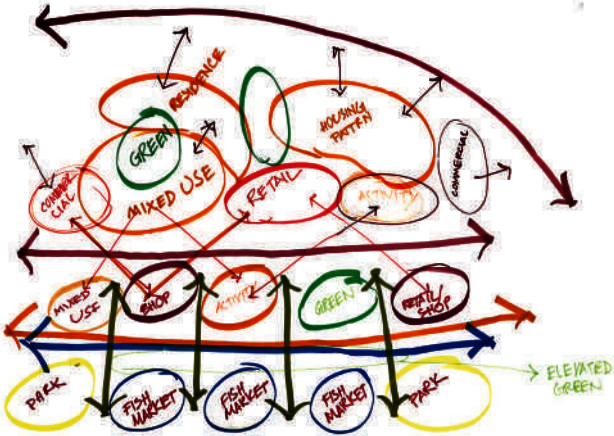
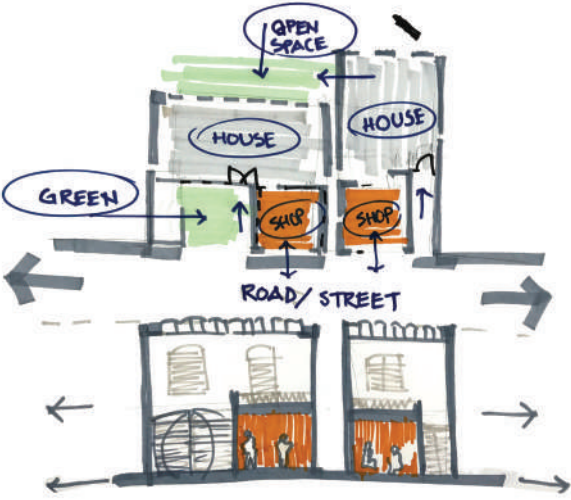
Proposed Masterplan





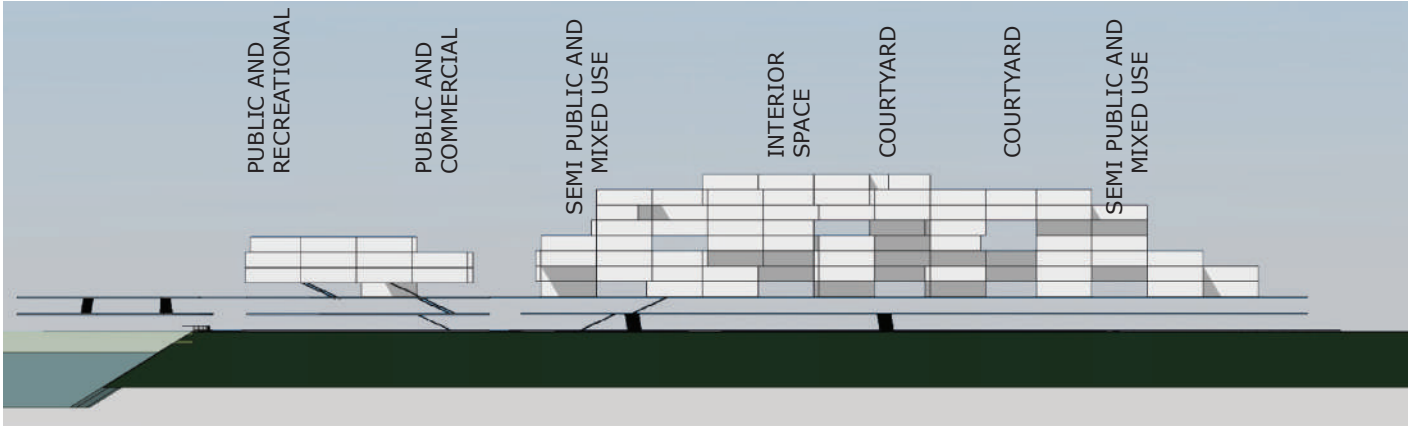
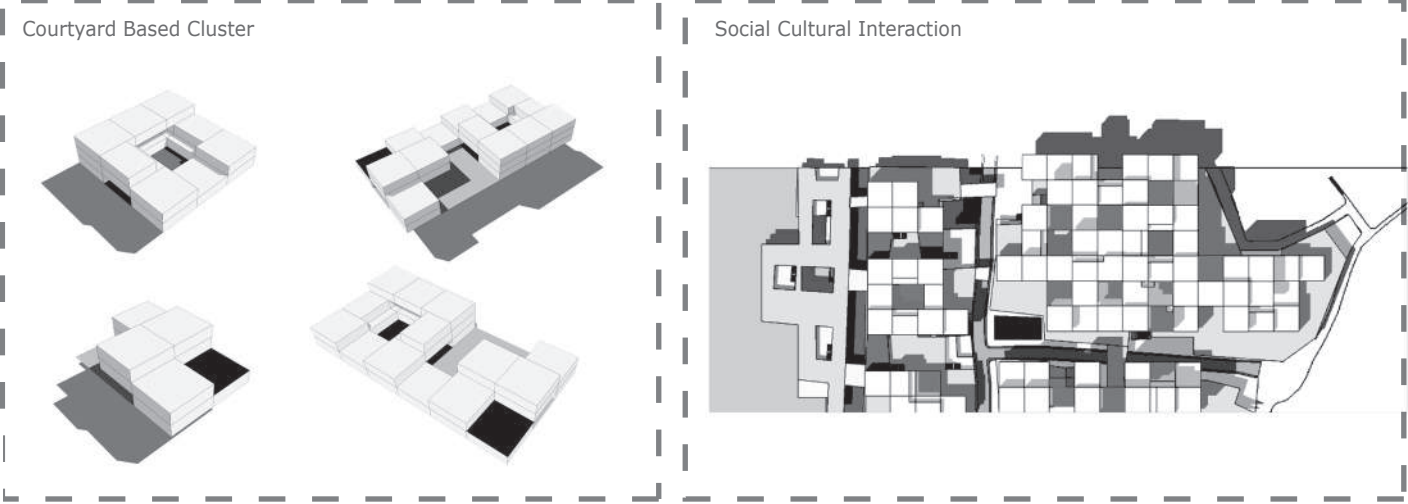
Cultural & Cluster

Social & Cultural Interaction



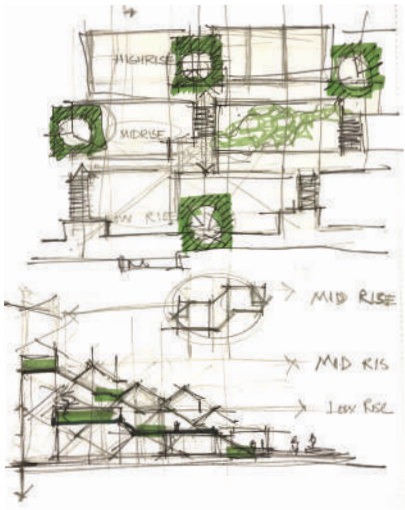
Courtyard Based Cluster

Social Cultural Interaction

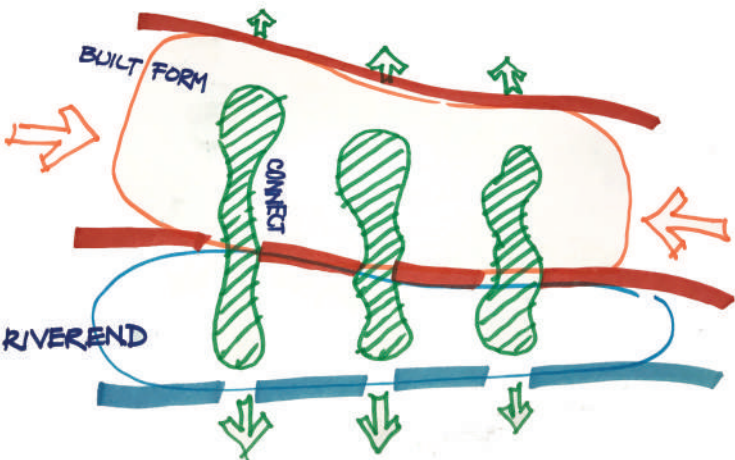


# Cluster Development

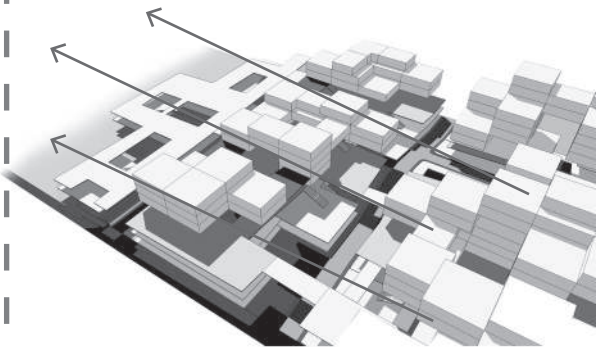
## Transparency & Formation



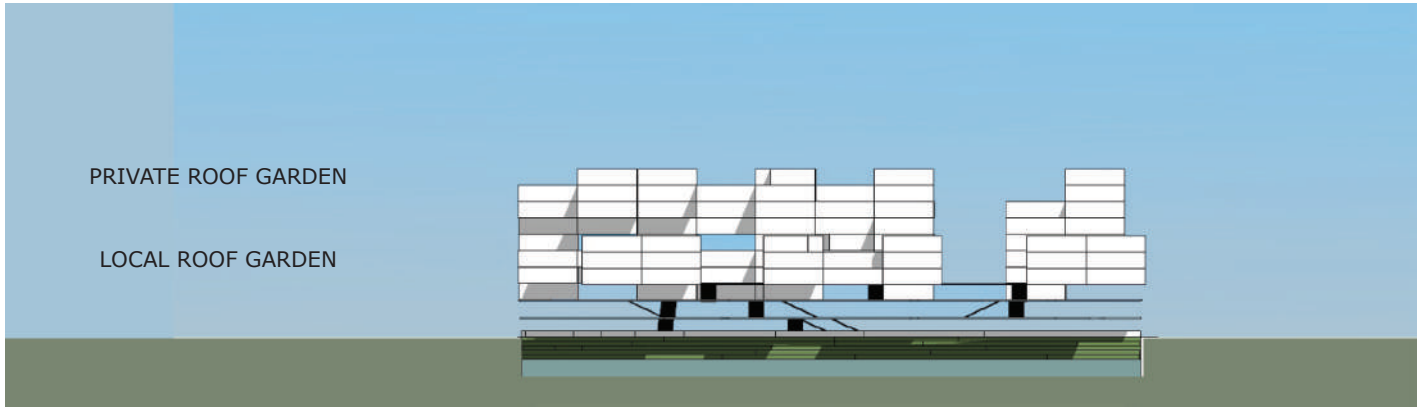
## Experience & Transition



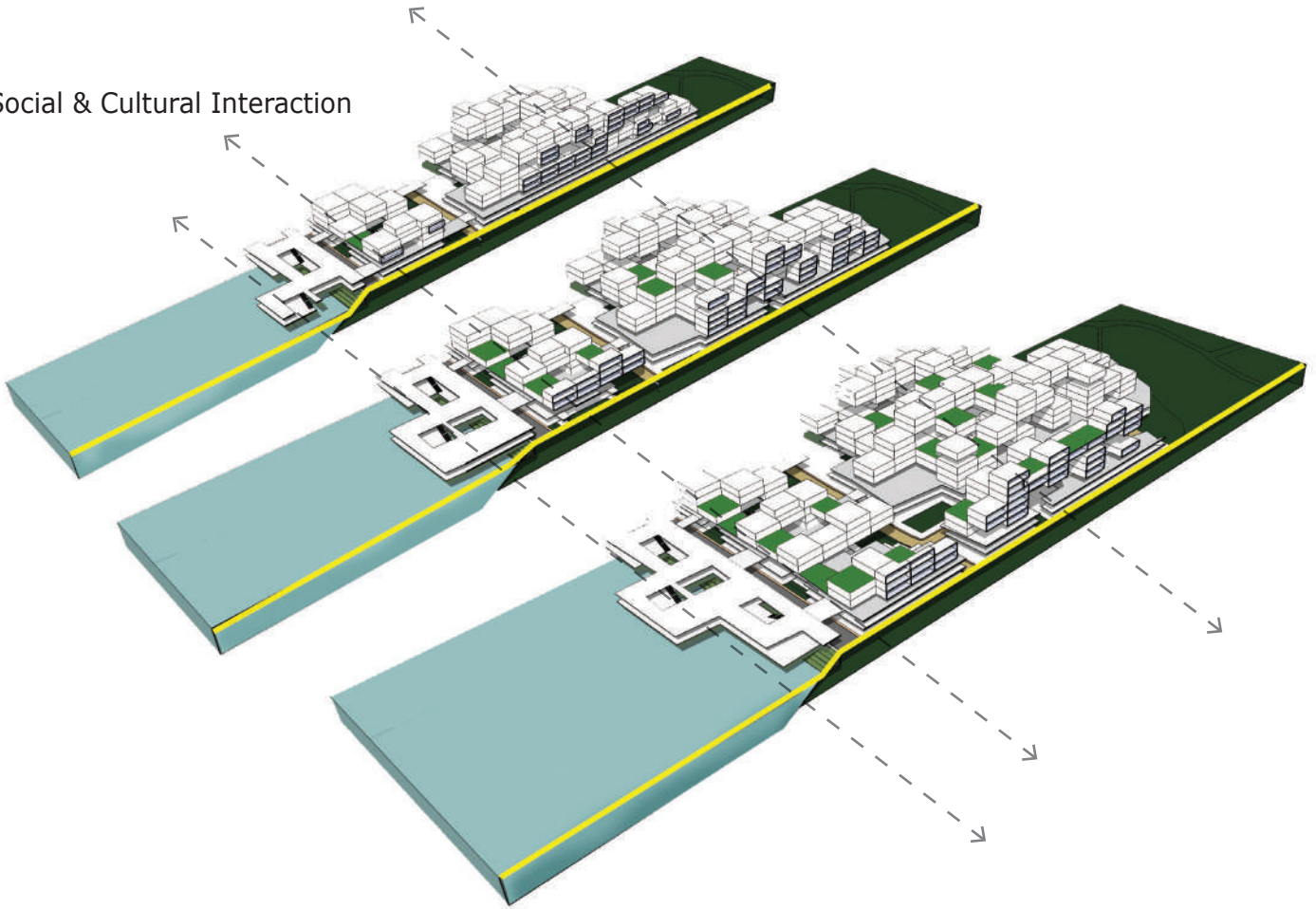
Transparency



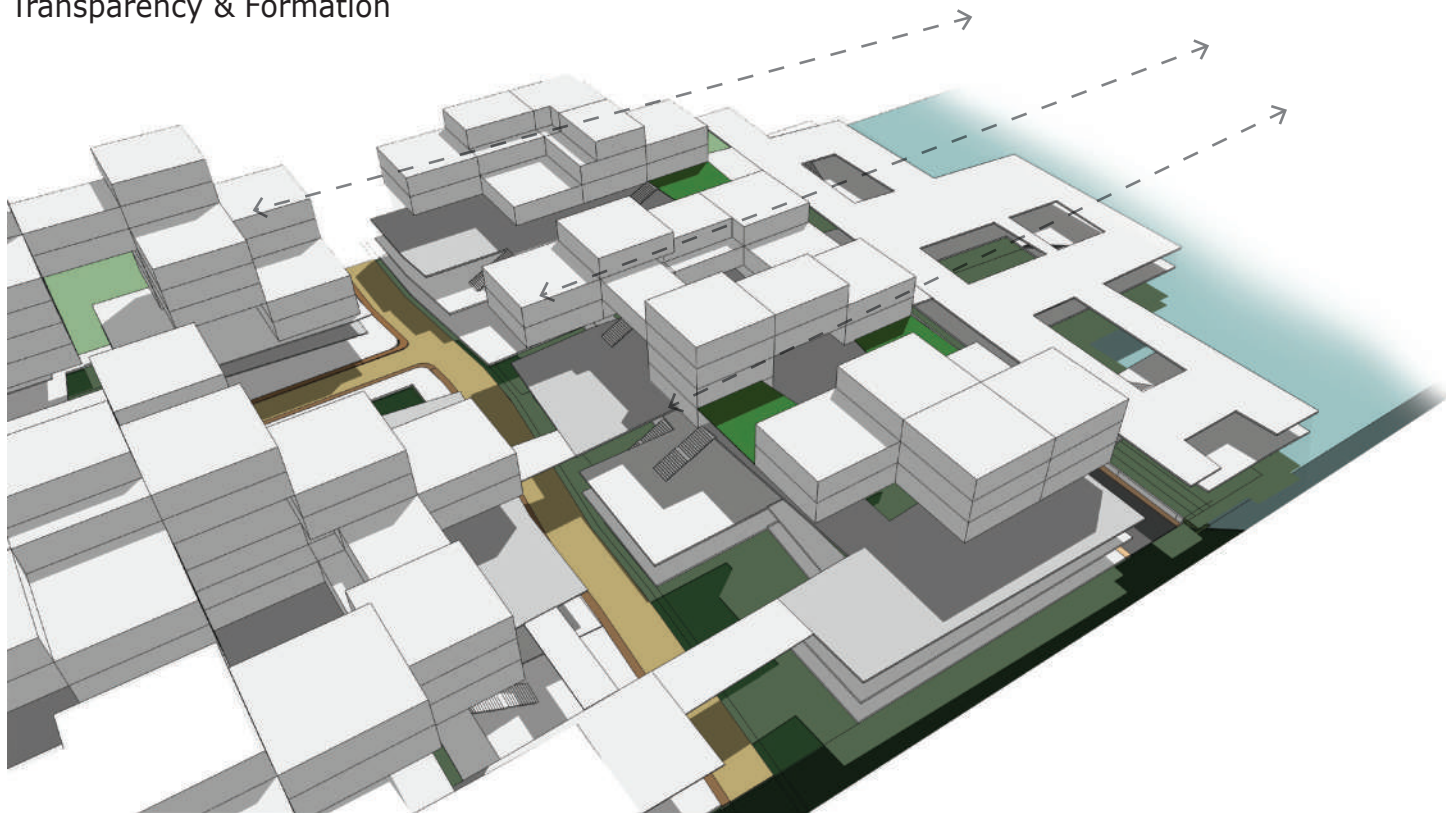
Transition



Social & Cultural Interaction



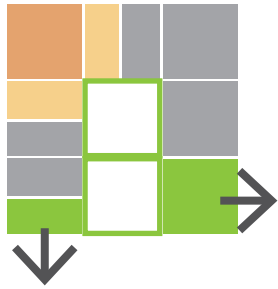
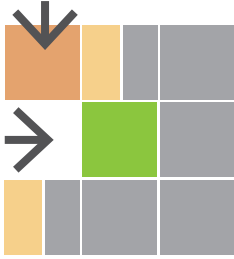
Transparency & Formation



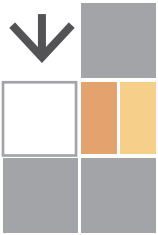


Cultural & Cluster

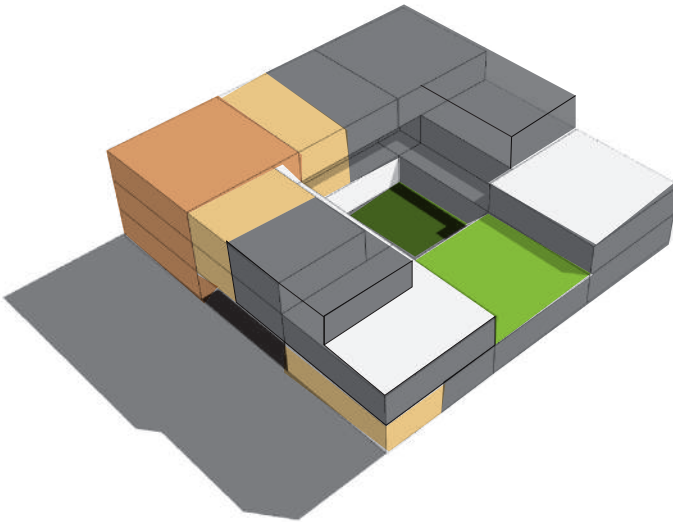
- Public Space
- Semi-Public Space
- Private Space



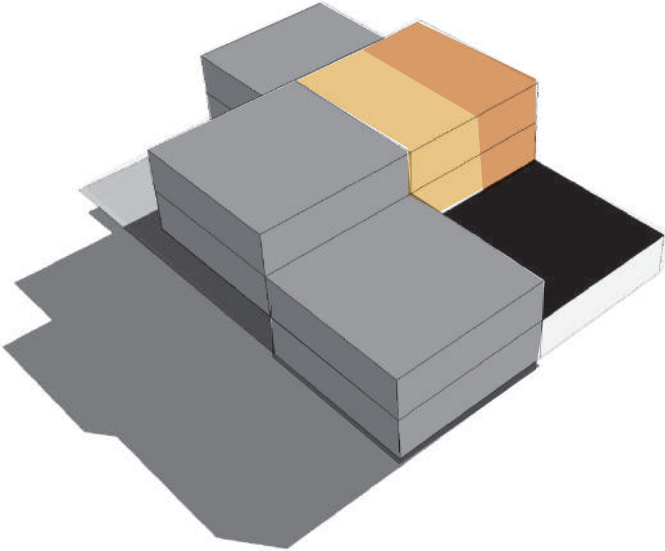
- Public Space
- Semi-Public Space
- Private Space



Transparency & Formation

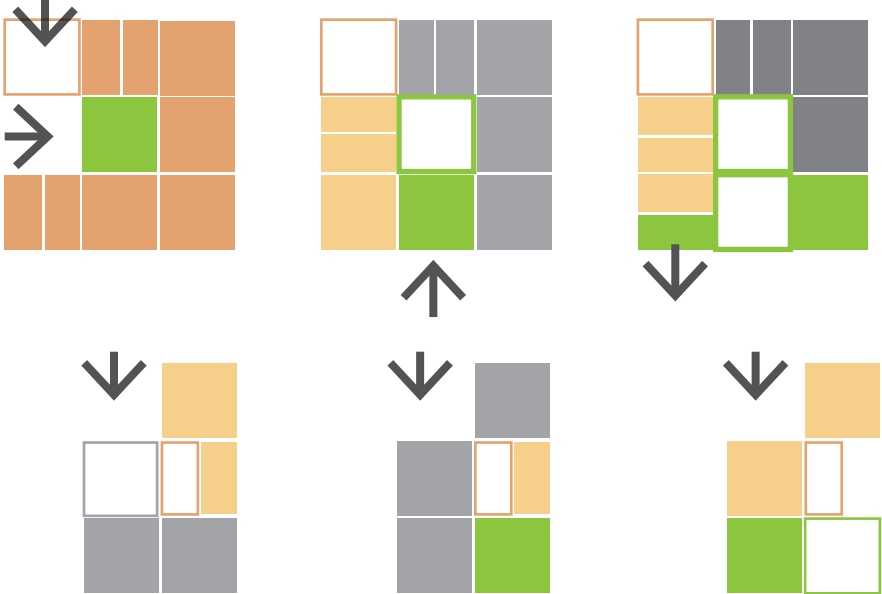


Experience & Transition

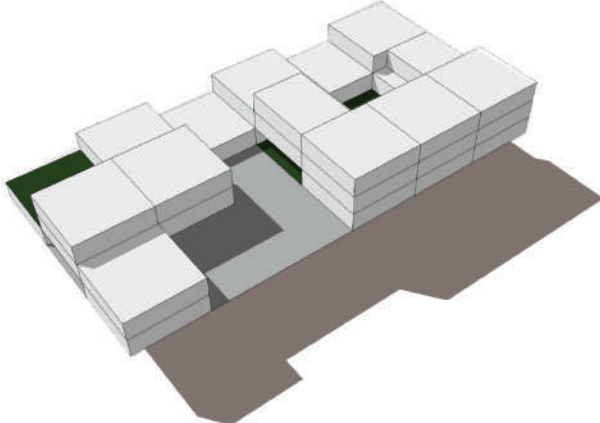
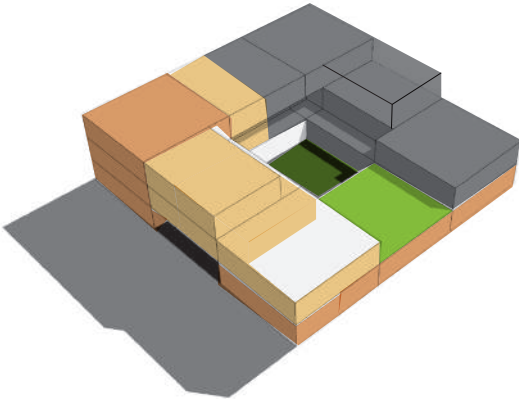


Cultural & Cluster

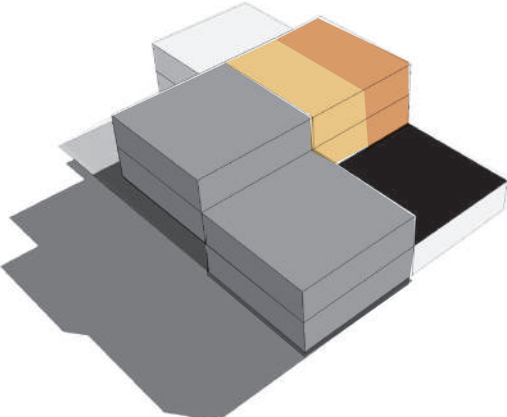
- Multi-Family
- Nuclear Family
- Basic Family



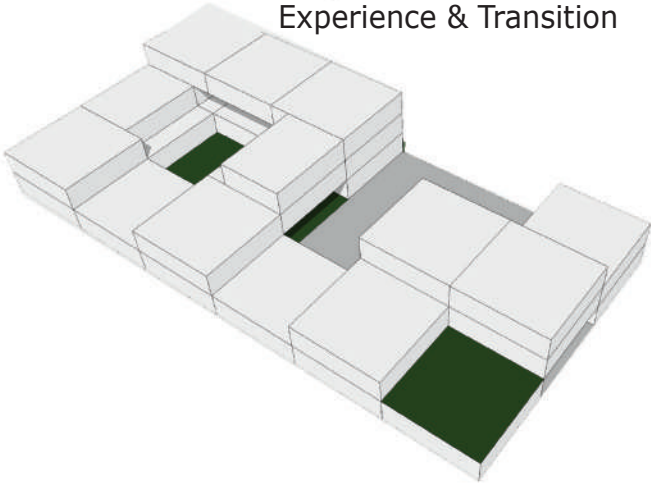
- Multi-Family
- Nuclear Family
- Basic Family

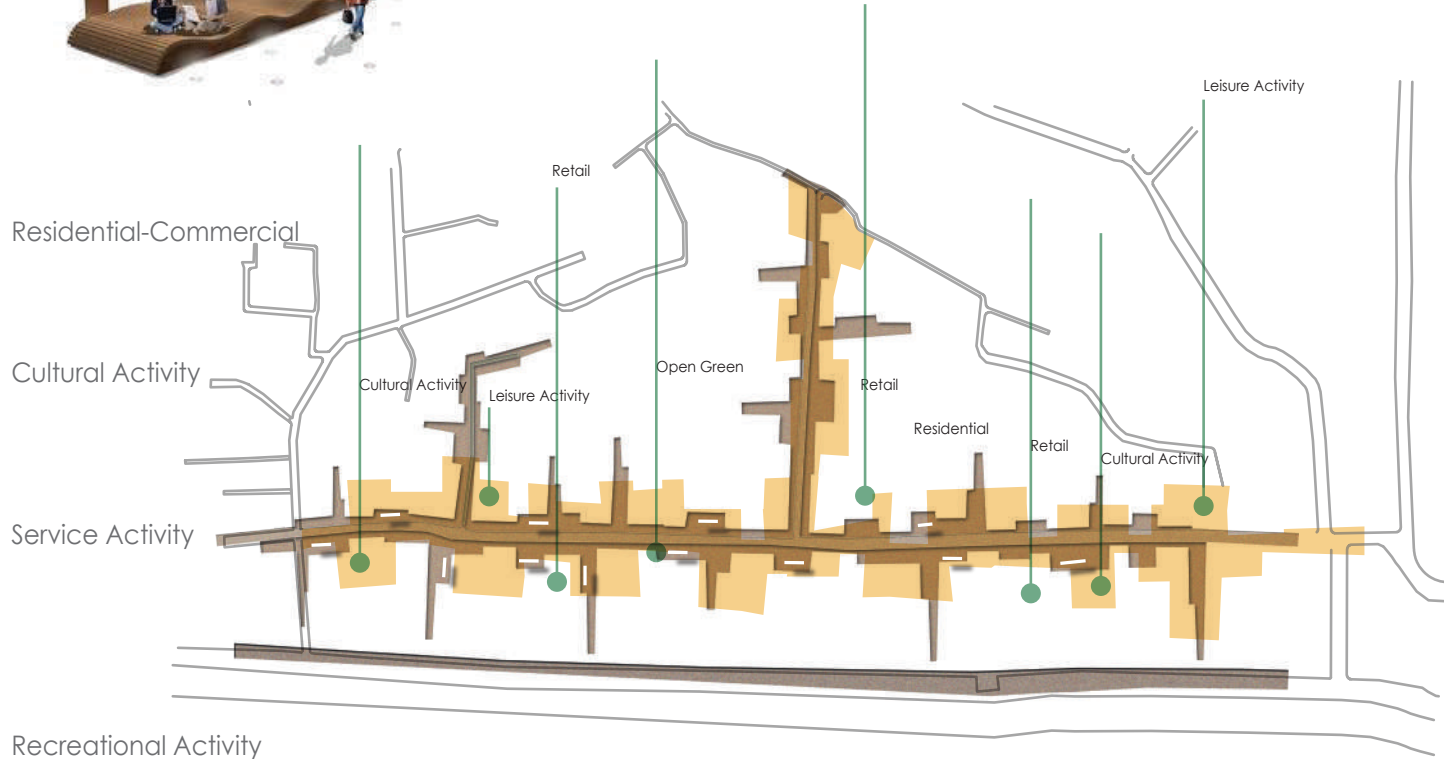


Transparency & Formation



Experience & Transition



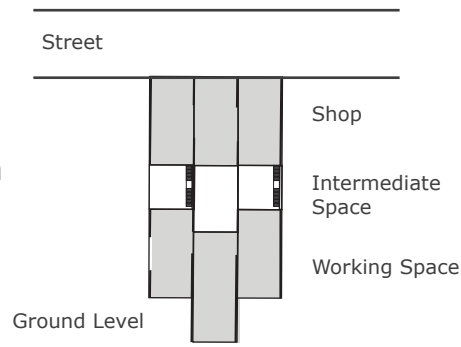


Zoning Development

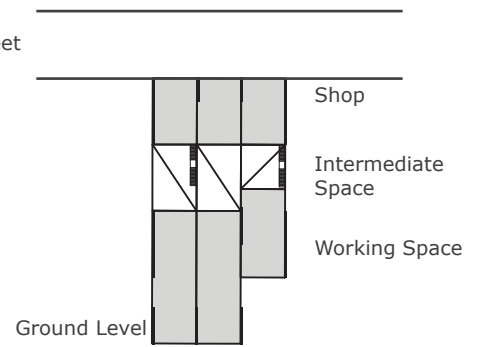




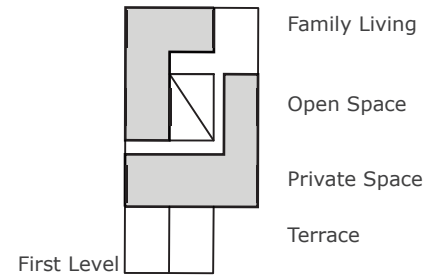
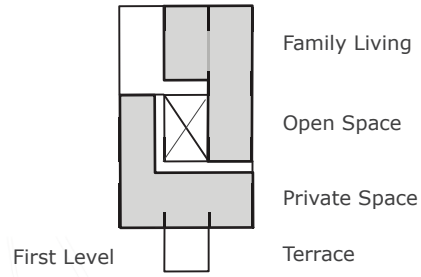
Local Shop Formation



Street



Local Shop Formation

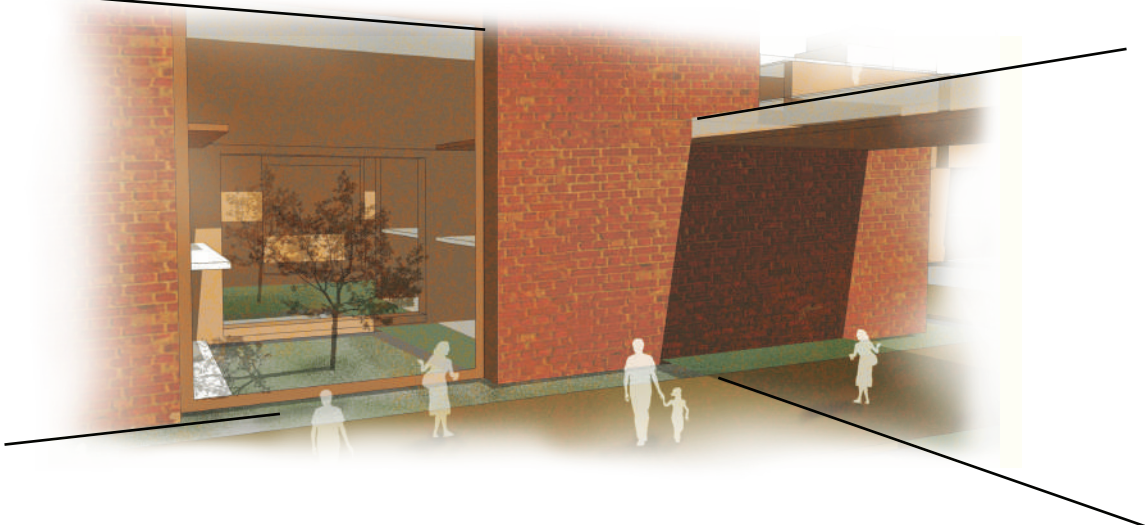


# Masterplan

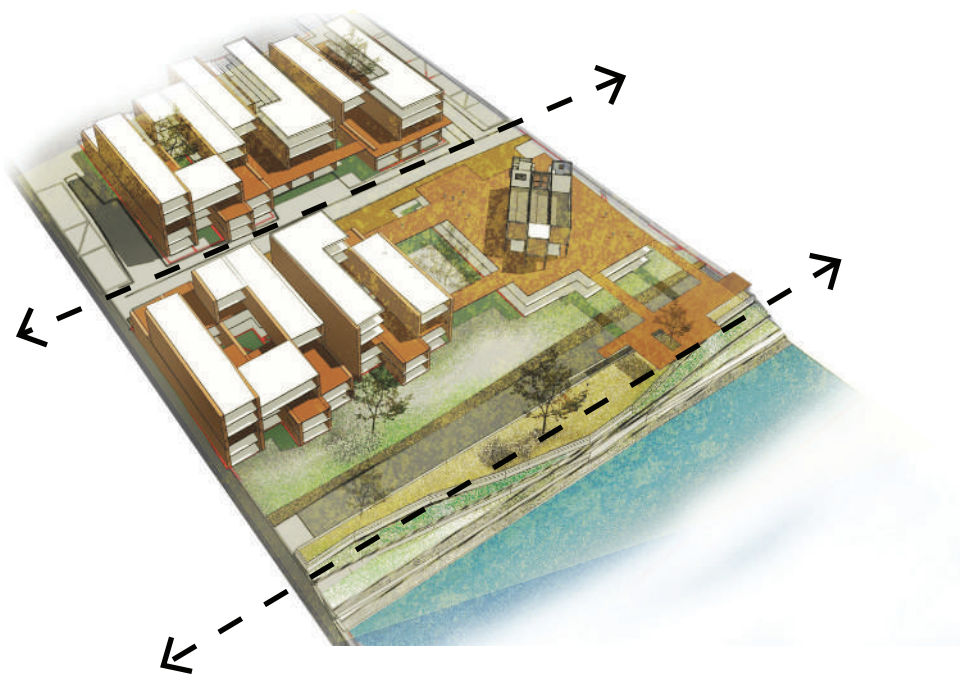
Scale 0 20 60 140 220



Courtyard Experience




Open Courtyard



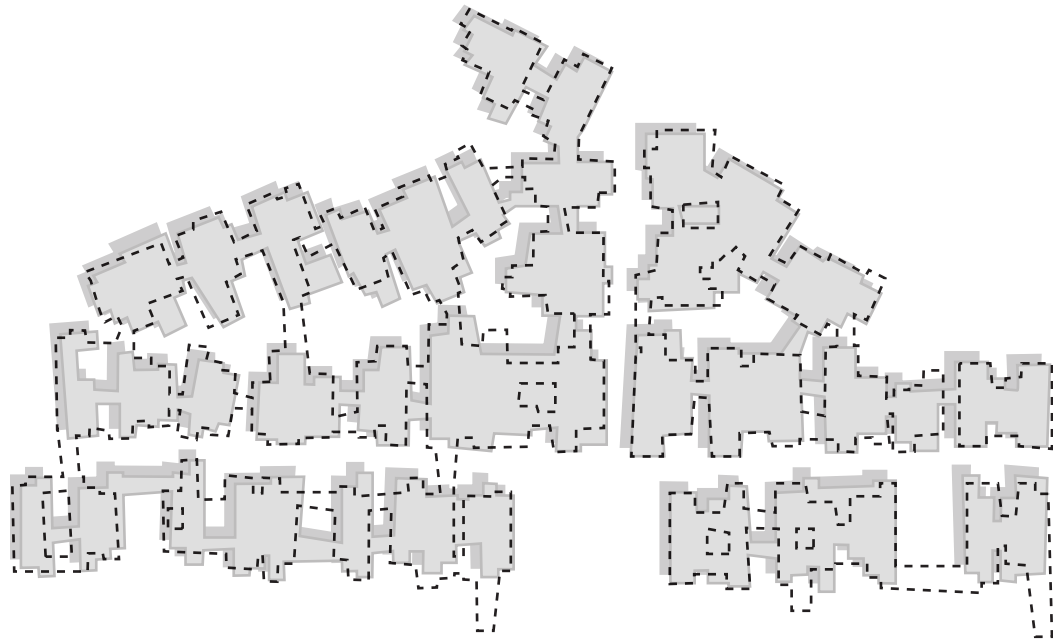




 **Masterplan**

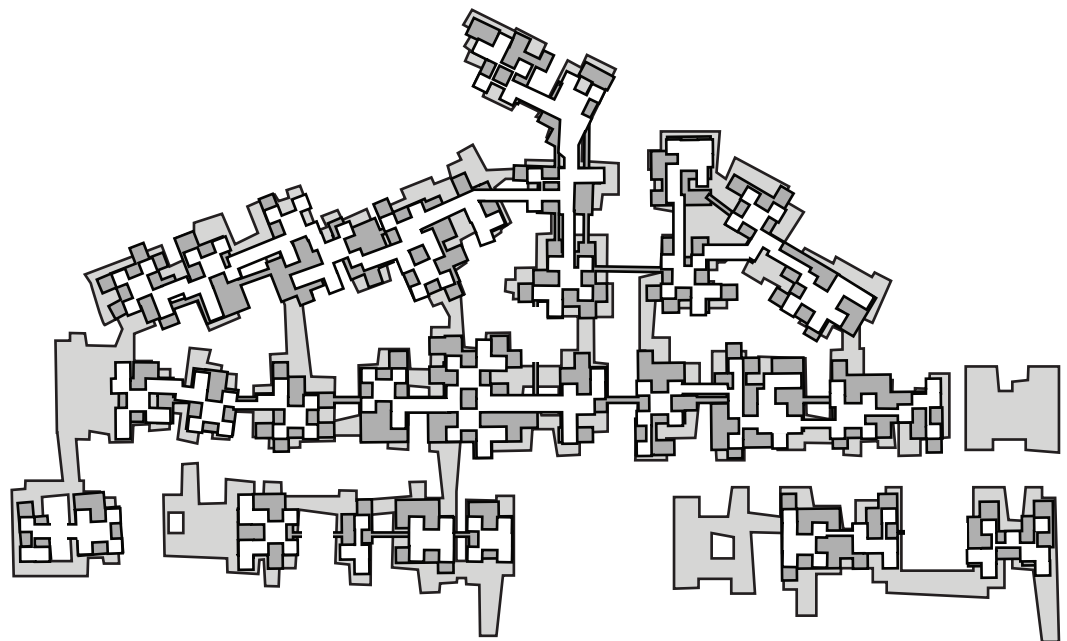
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Ground Floor Plan

Scale

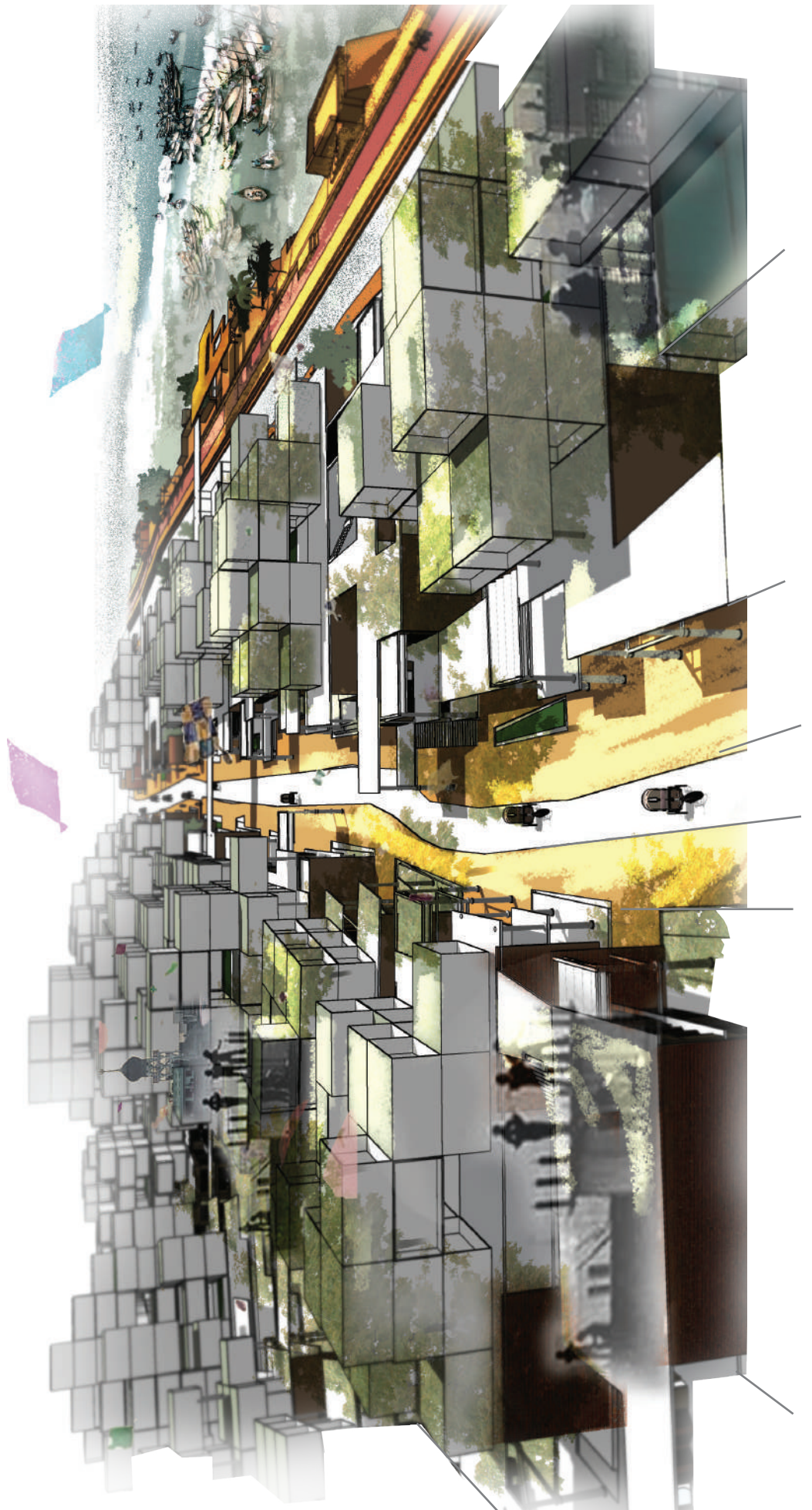


Fourth Floor Plan

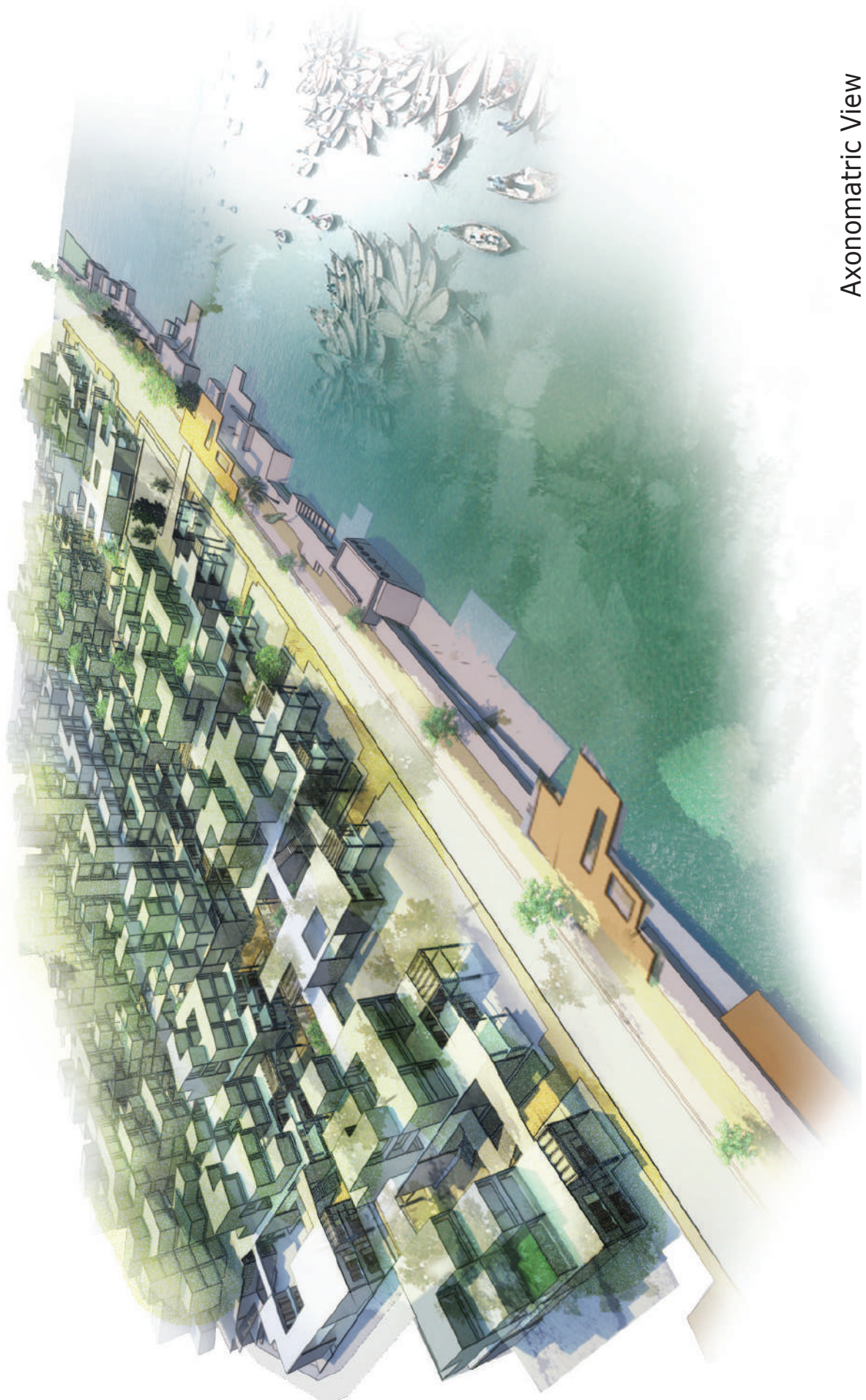
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Access View



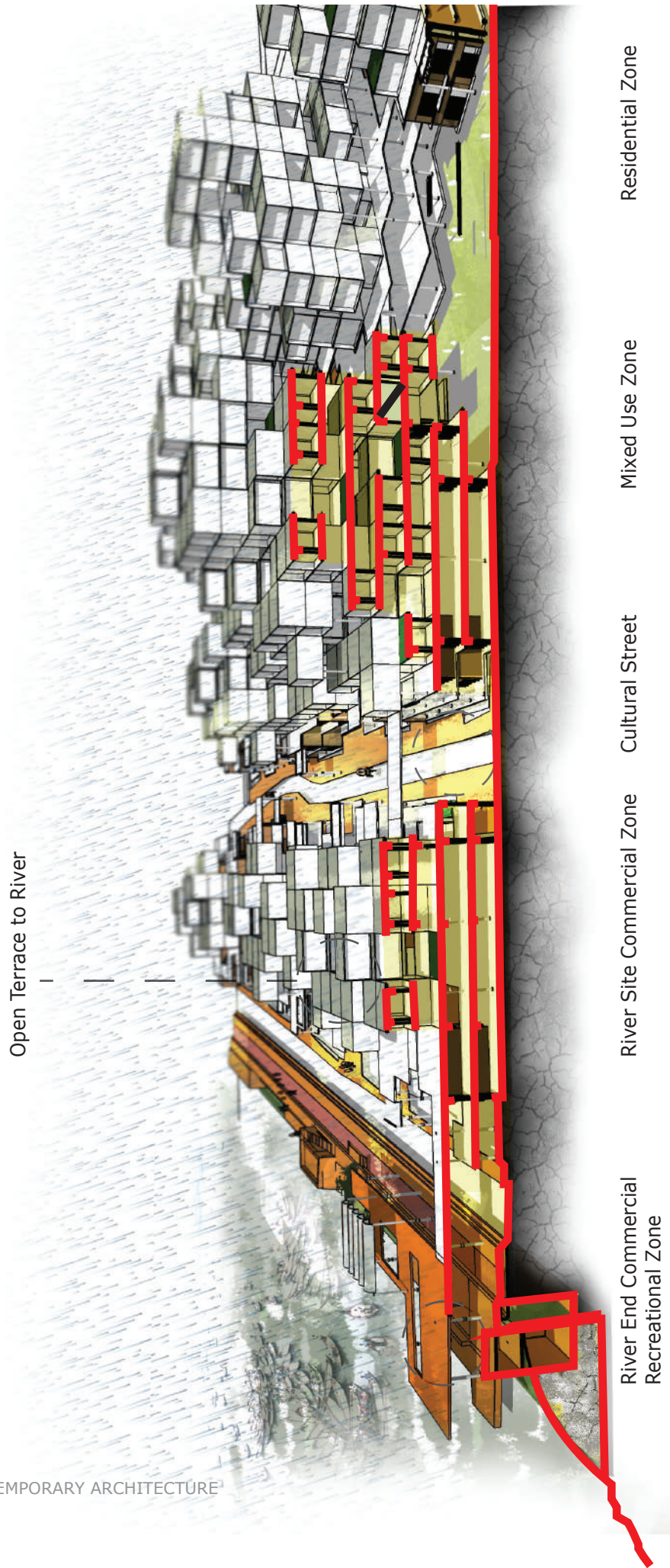




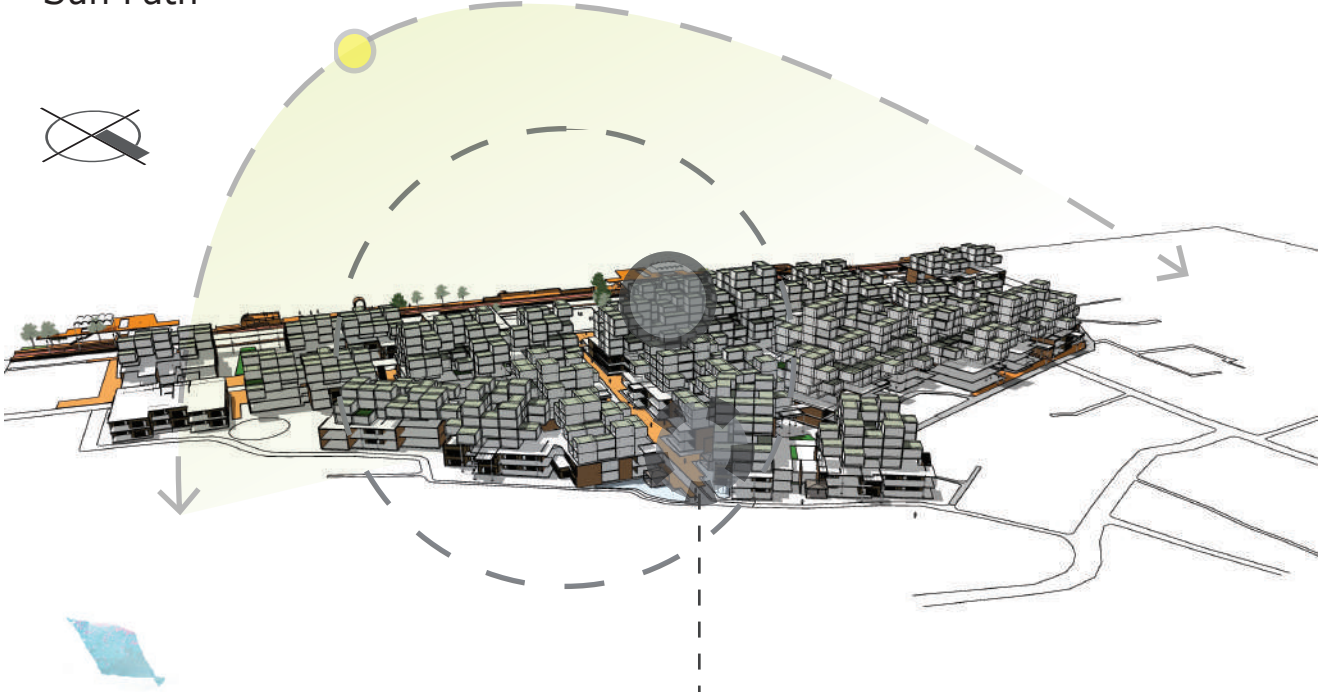
Axonometric View



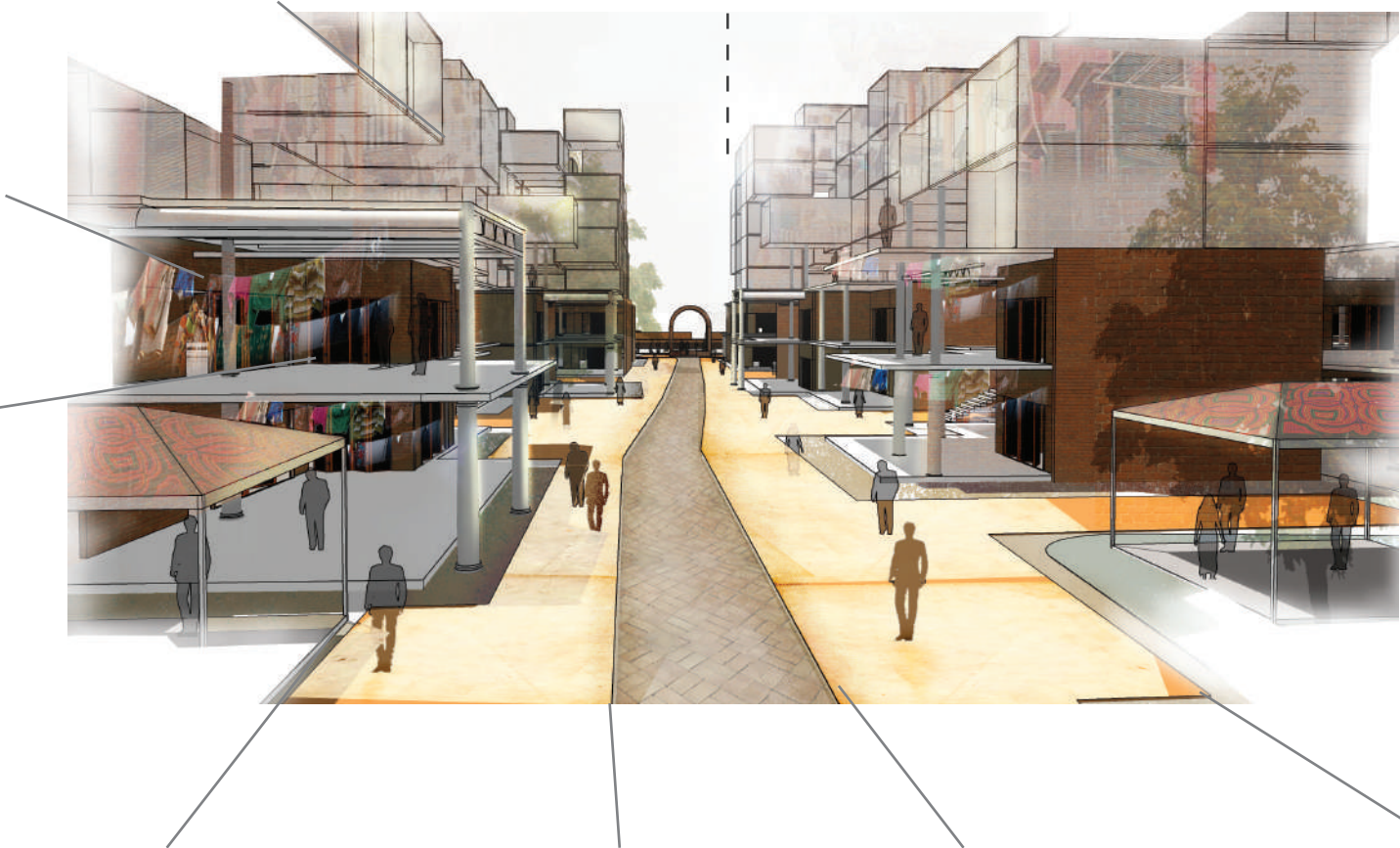
# Sectional Perspective Through N-S



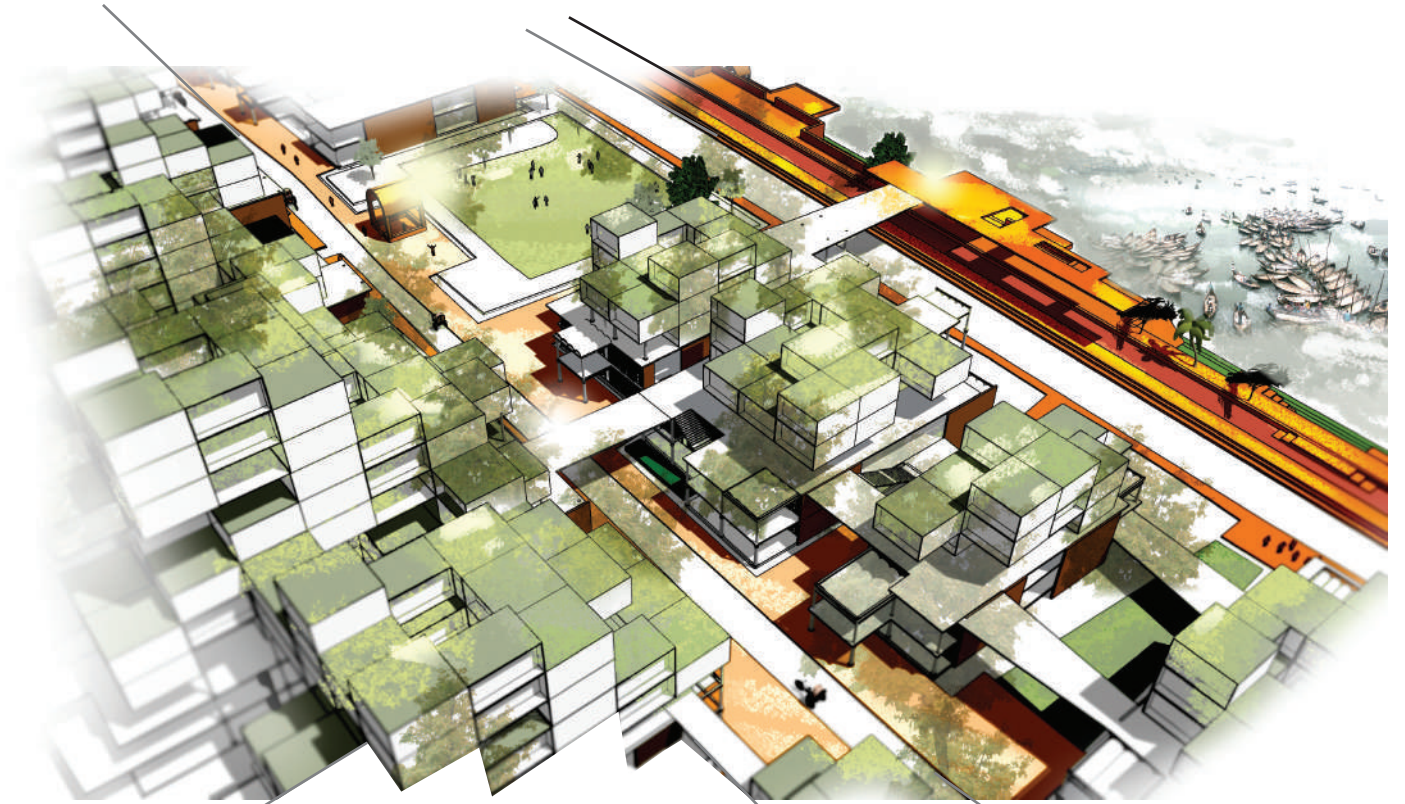
Sun Path



Entry Expression







Visual Axis From .

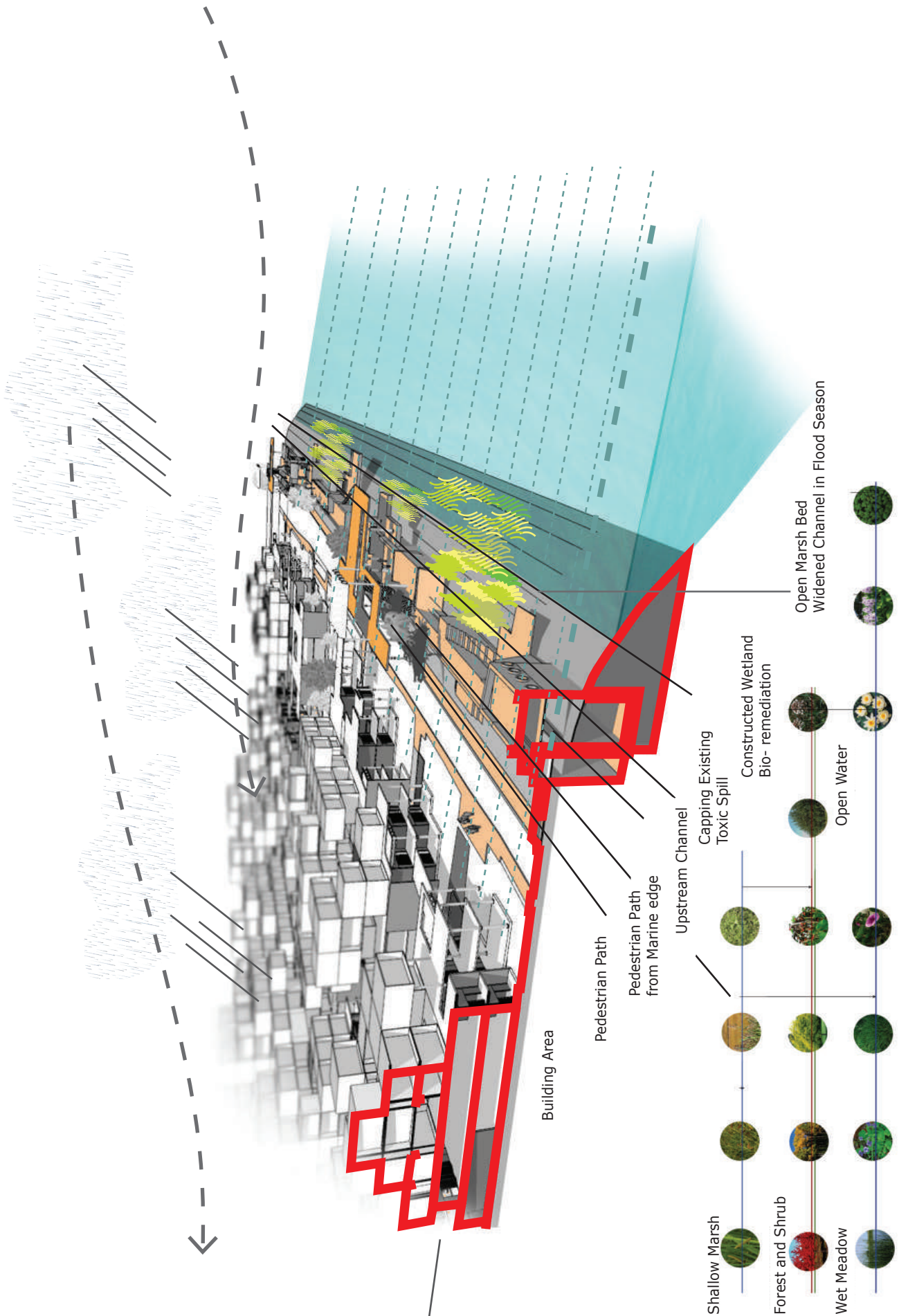


Connection From Building to River



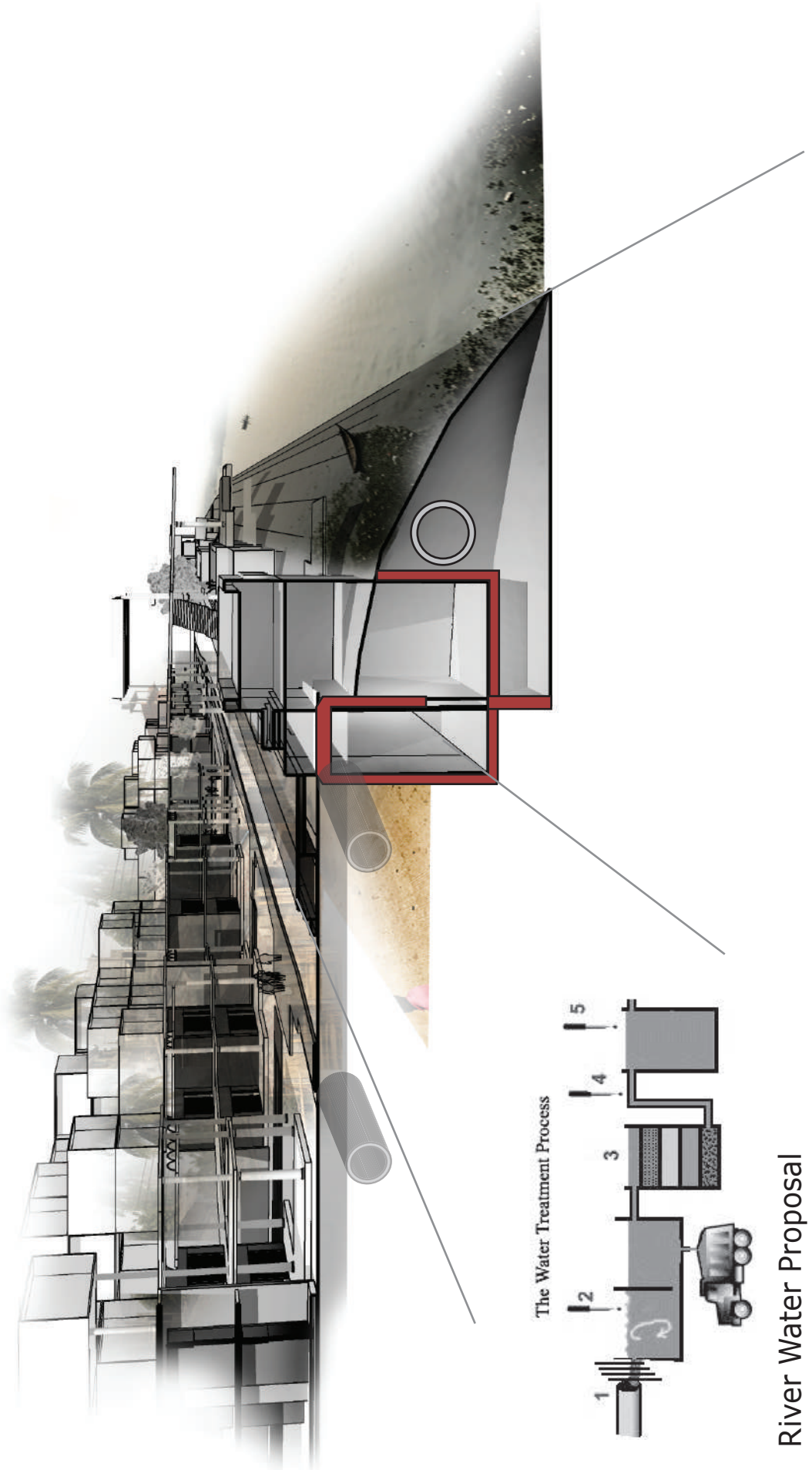


Celebration of Bengali New Year, Central Open Space

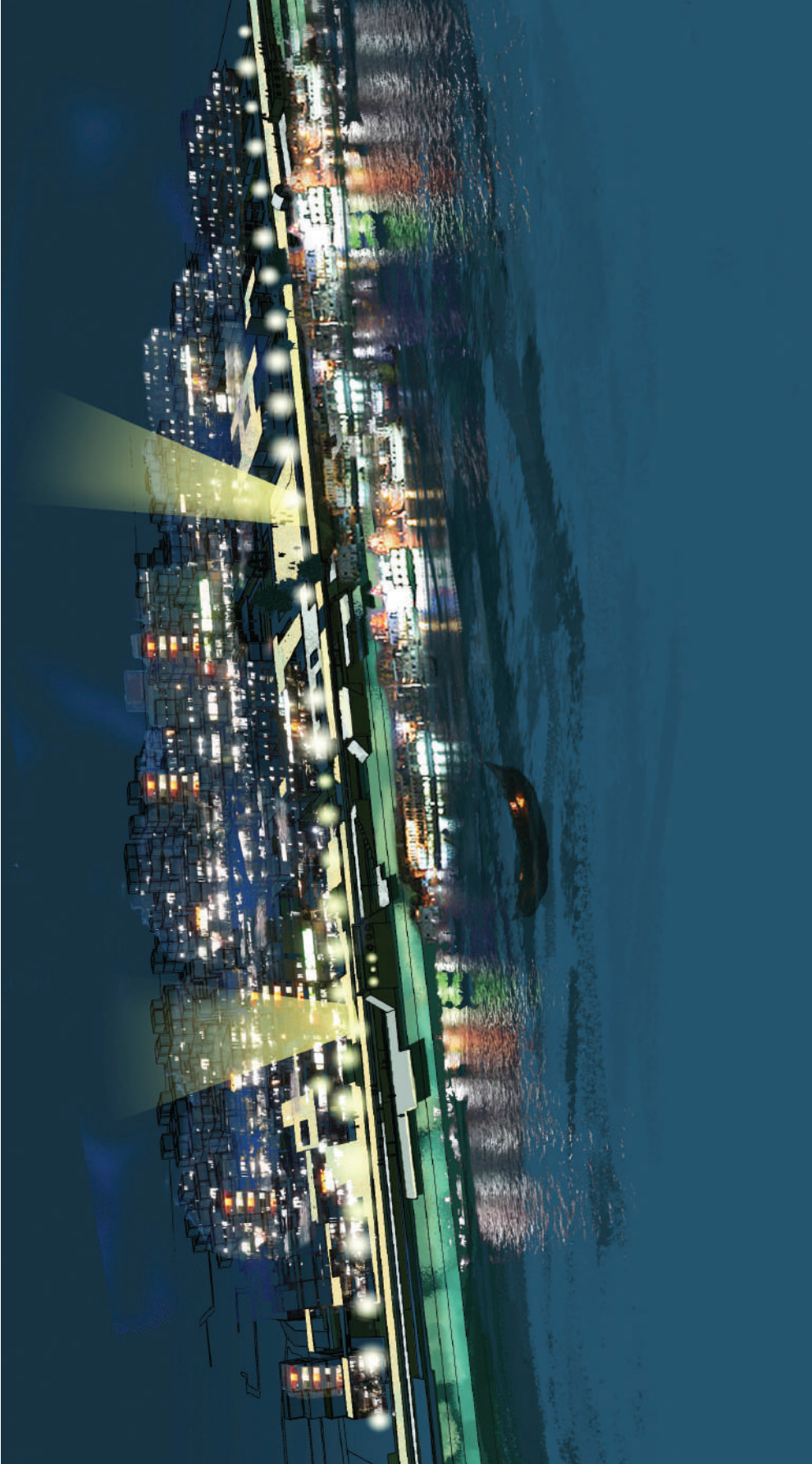


### Wetland Proposal











Existing & Proposed  
Circulation (Combination of Horizontal & Vertical )

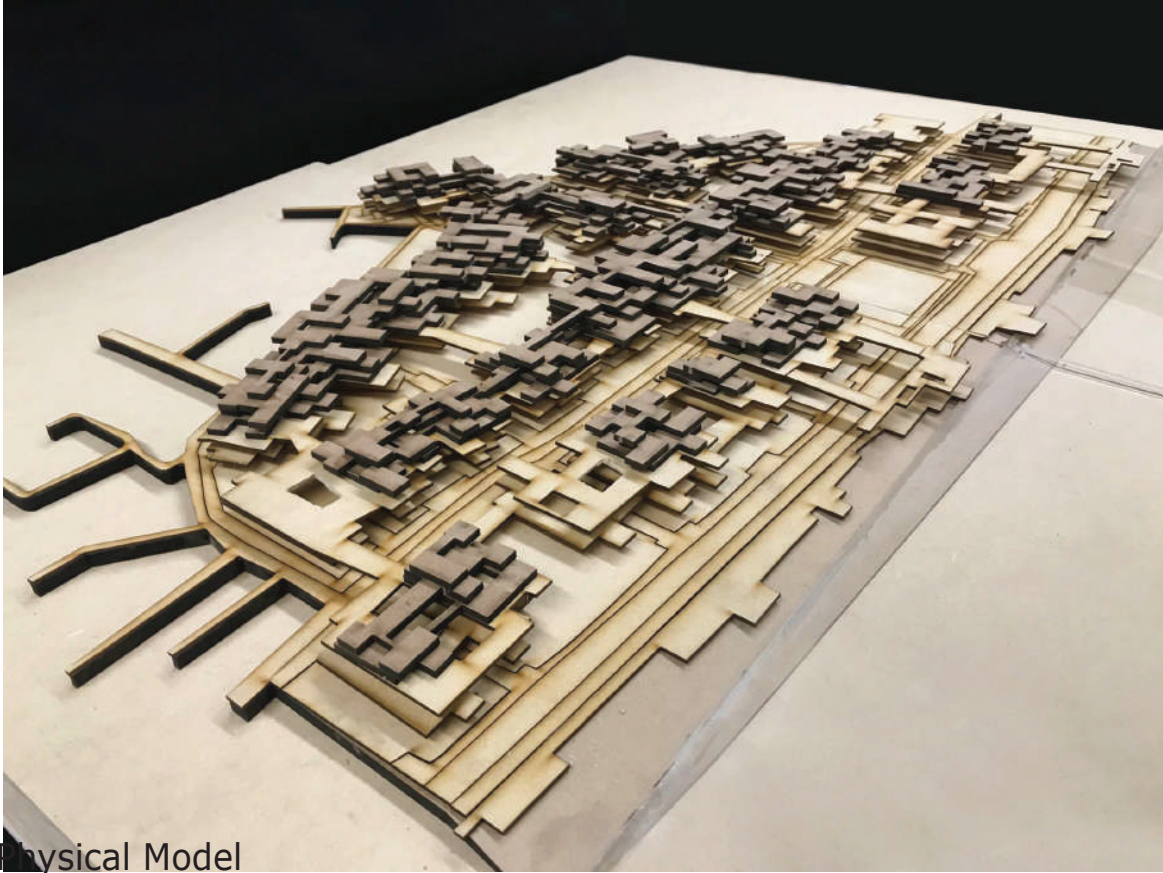




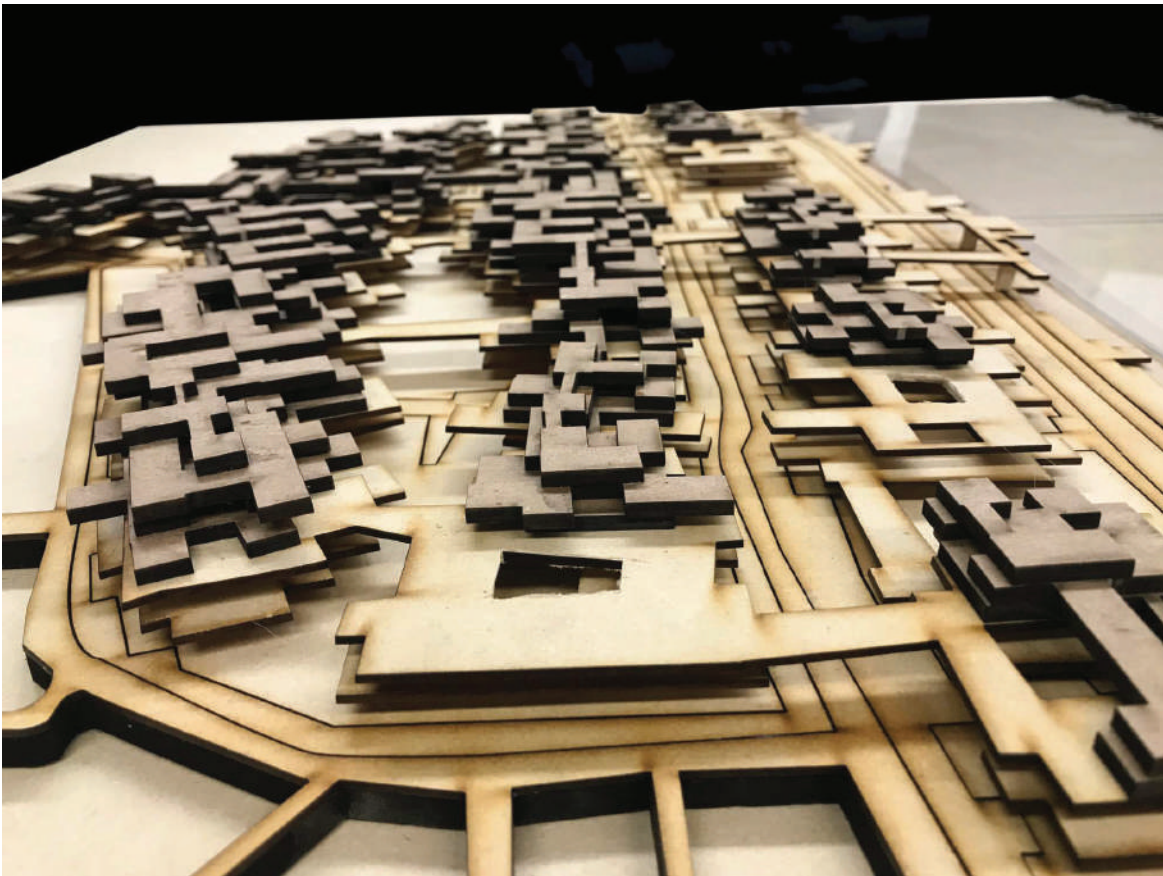
Local Expression of Temporary Market



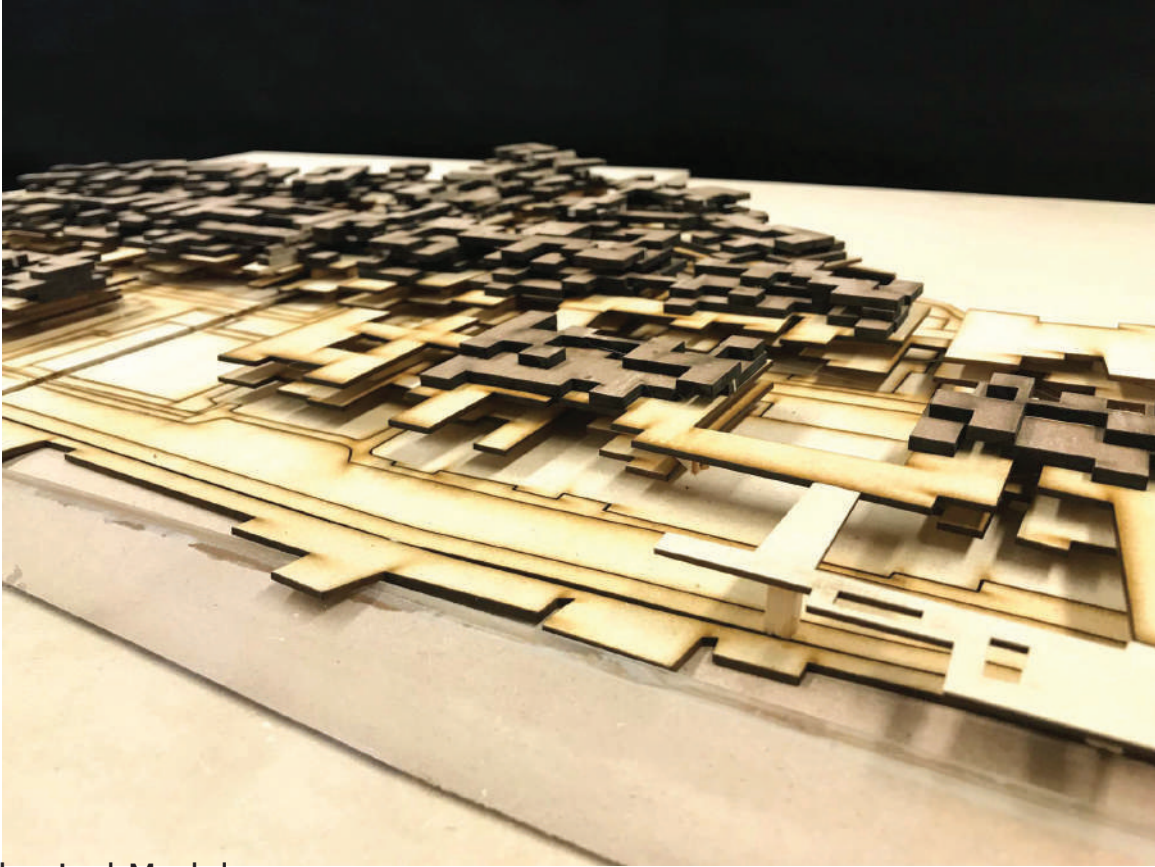




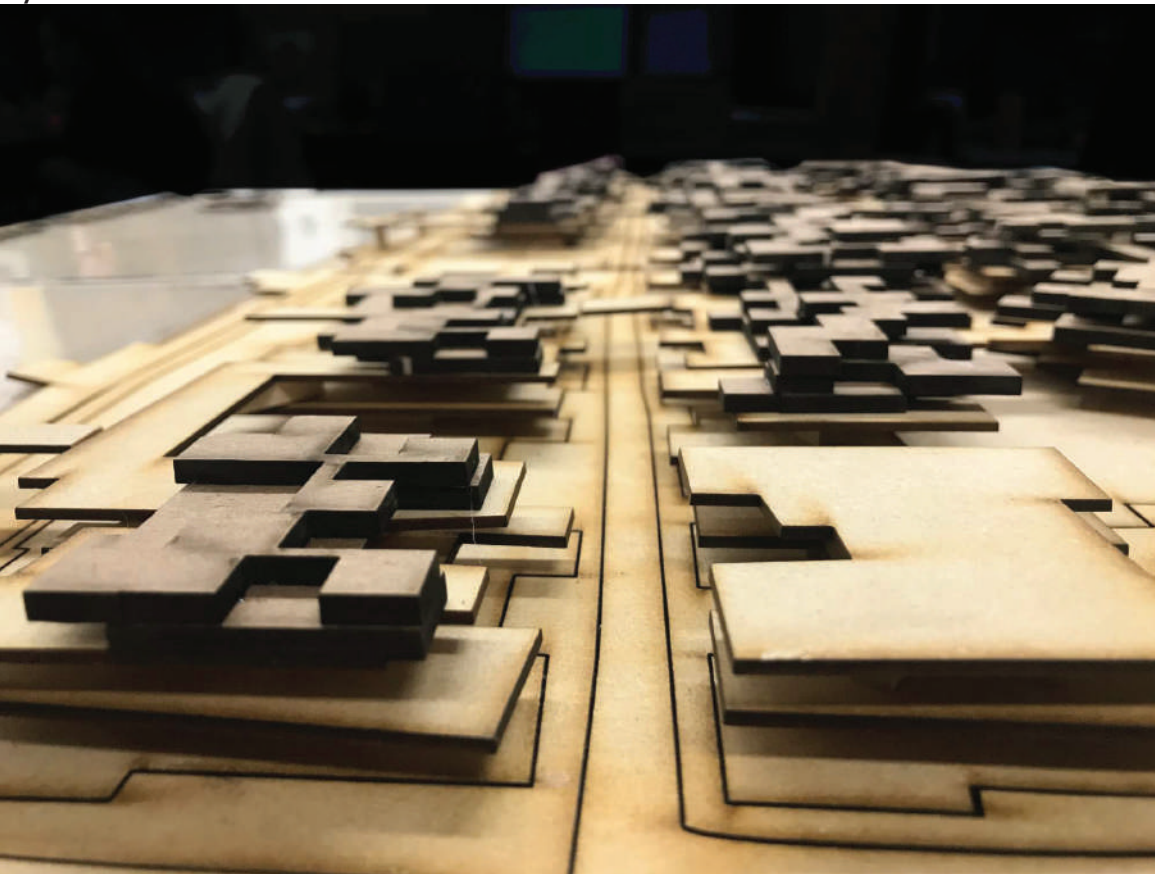
Physical Model







Physical Model







# **My Journey And A Note of Thanks to Everyone Who Has Helped Me Along the Way**

MUKIMUL KHAN  
Miami University

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Thank You