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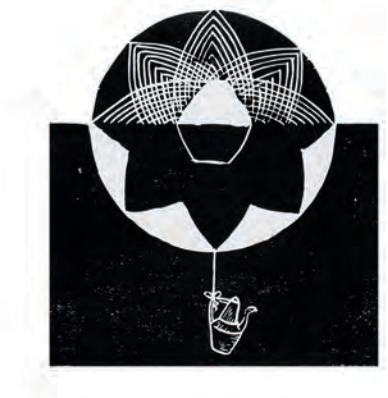
ARCH 402 Architectural Design Studio VI
Thesis Projects

Start: 1:00 PM

11.05.21

Bilkent University | Sections 2&3



In the memory of our one year and a half..

ID. Bilkent University Department of Architecture
Arch 402, 2021 Spring, Sections 2 & 3

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ACKNOWLEDGEMENTS

The spring semester of 2021 just like the rest of the communities of architecture all around the world, we learned how to operate under unprecedented conditions imposed by the global pandemic. This spring we had the chance to conduct our studios mainly in a face-to-face model, occasionally relying on online education tools whenever necessary.

The graduation studio continued the production of thesis projects to encourage the fourth year students to further specialize and get ready for the career path that they are willing to pursue.

On the other hand the on-line education had its benefits as well. We had the chance to host many guests around Turkey and from other countries. The contribution of our guests is extremely valuable since Arch 402, being the graduation studio, is also a form of initiation into the discipline. Discussing the works publicly with established proffessionals is invaluable to equip our students with a pluralistic understanding of the discipline.

We would like to thank to our contributors once again, for their support in this loaded semester. In alphabetical order;

Ali Sinan, Alp Giray Köse, Ayşe Henry, Başak Güçyeter, Bülent Batuman, Deniz Üçer, Duygu Tüntaş, Ensar Temizel, Eren Başak, Glenn T. Kukkola, Hatice Karaca, Heves Beşeli, Melek Kaynar, Müge Kruşa, Neris Parlak, Nesli Naz Aksu, Nihan Hacıömeroğlu, Orçun Sena, Özgün Özçakır and Selin Çavdar.

We'd like to thank our colleagues for their valuable contributions.

Ezgi İşbilen, Yiğit Acar,
Course Instructors.

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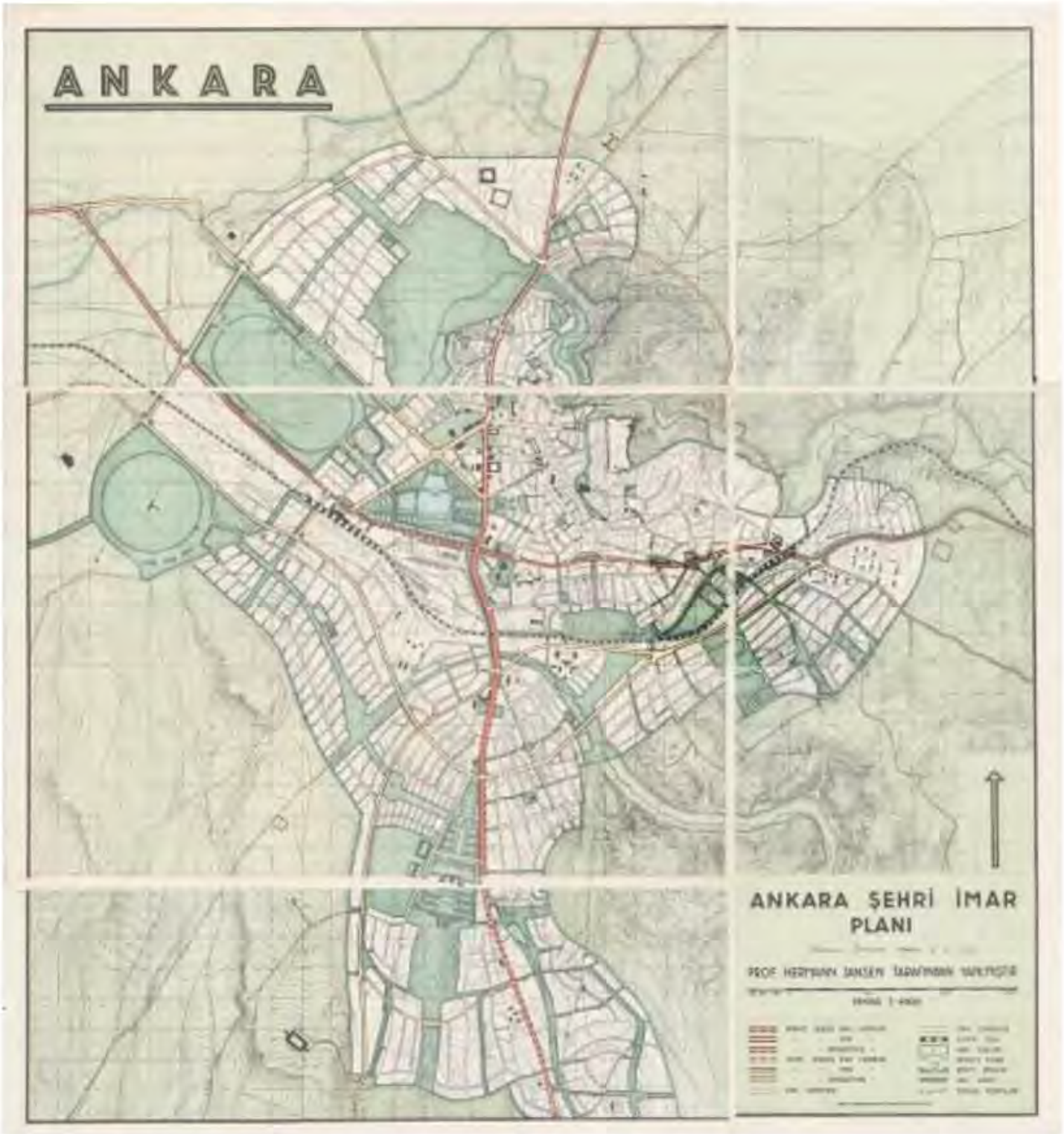
NEIGHBORING THE STADIUM

Revitalizing a Lost Identity | Cebeci Stadium

Abdulkadir Kayalı

Cebeci İnönü Stadium preserved its place since Jansen's Ankara Urban Design plans. The area, previously named as Cebeci Meadow, used for sports activities, later was expanded in Jansen's plans and became a whole sports complex. Unfortunately, due to the differences in planning and implementation, today the area around the stadium is surrounded by residential apartments. Due to the residences the stadium cannot be used in its original function. This project seeks answers to possible solutions that can be proposed in the ongoing process by illuminating the current problems. In the city scale, the proposed project might become a model for this type of problematic stadiums and its surroundings.



Jansen emphasizes designing the settlement layout, streets andbuildings according to sunlight.

By proposing gardens for houses and locating the industry zoneaccording to the dominant winds, Jansen aims for a propersettlement design to provide clean air.

The 1928 plan sets up a green structure composed of naturaland artificial water bodies, green strips and different sizes ofsports fields and allotment gardens.

On the left handside It is clear that Jansen left the whole block for sports facilities. The site used to be known as Cebeci Çayırı which is used for again sports activities.

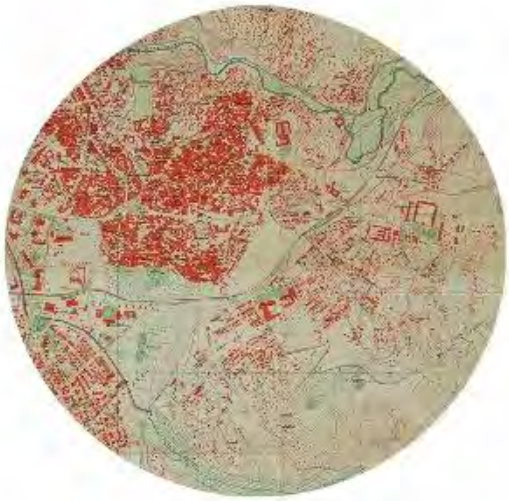
Cebeci District

1924

1953

1934

1959



1944

1971

The Site and Surroundings

Cebeci İnönü Stadium is geographically located in the physical center of the city. It acts as the last portion of the monumental buildings that Jansen suggested in his plans. After the Stadium Kurtuluş and Cebeci districts were reserved for housing. Between Kurtuluş and Cebeci, there is the universities quarter where the Faculty of Political Sciences and the Faculty of Communication of Ankara University is located today.

The site is close to most of the touristic locations of Ankara. However ,unfortunately, it has no visitors other than the neighborhood residents. around 5-6 people a day visits the stadium from the neighborhood to make sports in the middle land of the stadium. Currently, the stadium is semiactive. Only some sports activities like archery, and teenager soccer teams are using the site. Both are not using the stadium as a stadium but rather an empty land in the middle of a crowded building development.

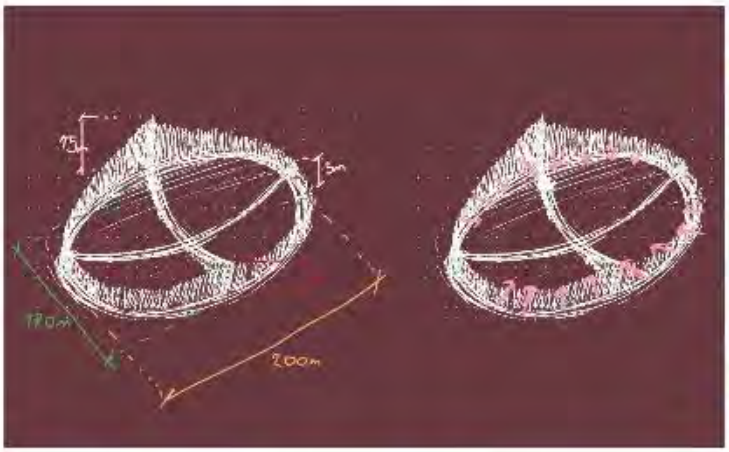
The Staidum is close to metro, bus and train stations but because of its function is not accessible from 90% of the surrounding. The stadium is only accessible from certain doors which makes it a perceptional view barrier for the neighborhood rather than an open land to use.

Dumlupınar Street around the site is a planned road in the early plans of Ankara. However in the application it is left as a secondary road and currently has over traffic.

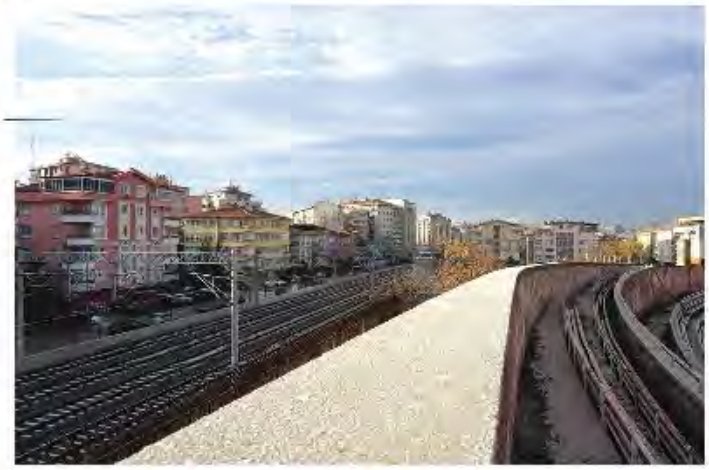
Here are some of the significant locations round the site:

-Kurtuluş Park
-Hacıbayram Mosque ve Augustus Temple
-Samanpazarı
-Gençlik parkı
-Anatolian Civilization Museum
-Hamamönü/arkası
-Suluhan
-Hal
-Ankara Palas
-Eski TBMM
-Ulus Square
Ulucanlar Cezaevi Museum
-Etnografya Museum
-Cumhurbaşkanlığı Senfoni Orkestrası
-Cermodern
-Cebeci Public Library
-Mamak Cultural Center
-Opera Building
-Bruno Taut, Dil Tarih Coğrafya Building
-Resim Heykel Mseum
-Ankara Arena
-TCDD
-Mimar Sinani, Cenabı Ahmet Paşa Mosque
-Roma Hamamı
-Anıtkabir
-...

Stadium's Relation with Surrounding



Apartments on the otherside of the stadium provides a view towards the center of the stadium



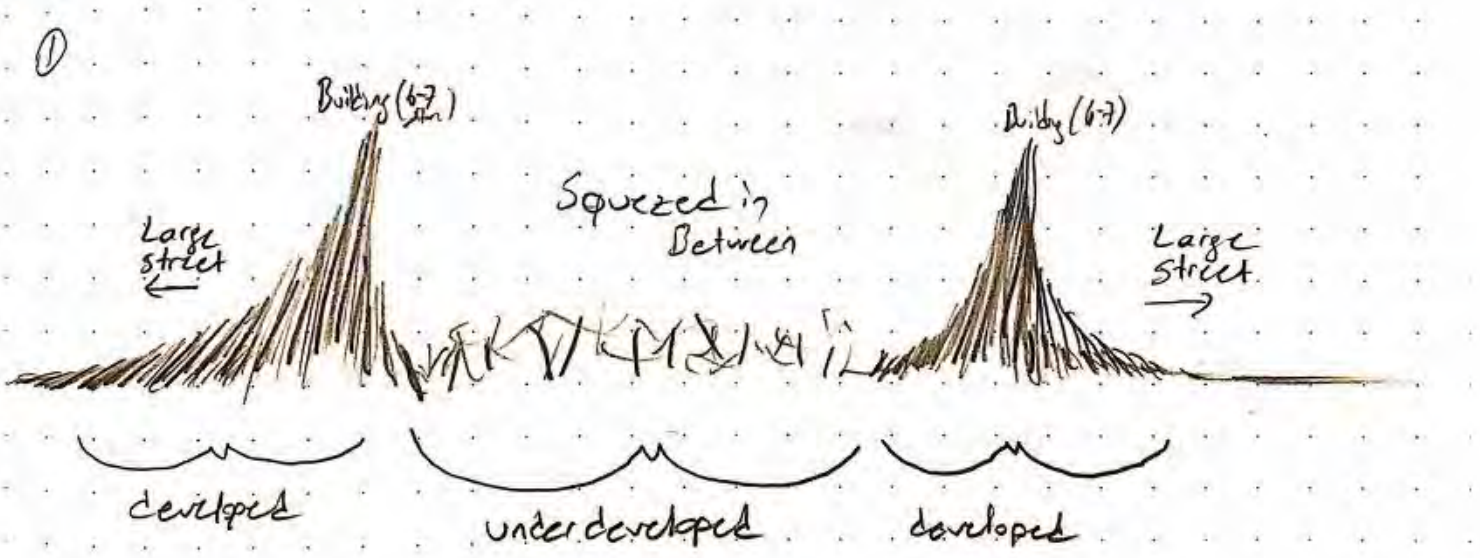
From the tribune of the stadium one can easiy see the railway and the train.

The bazaar area near the site

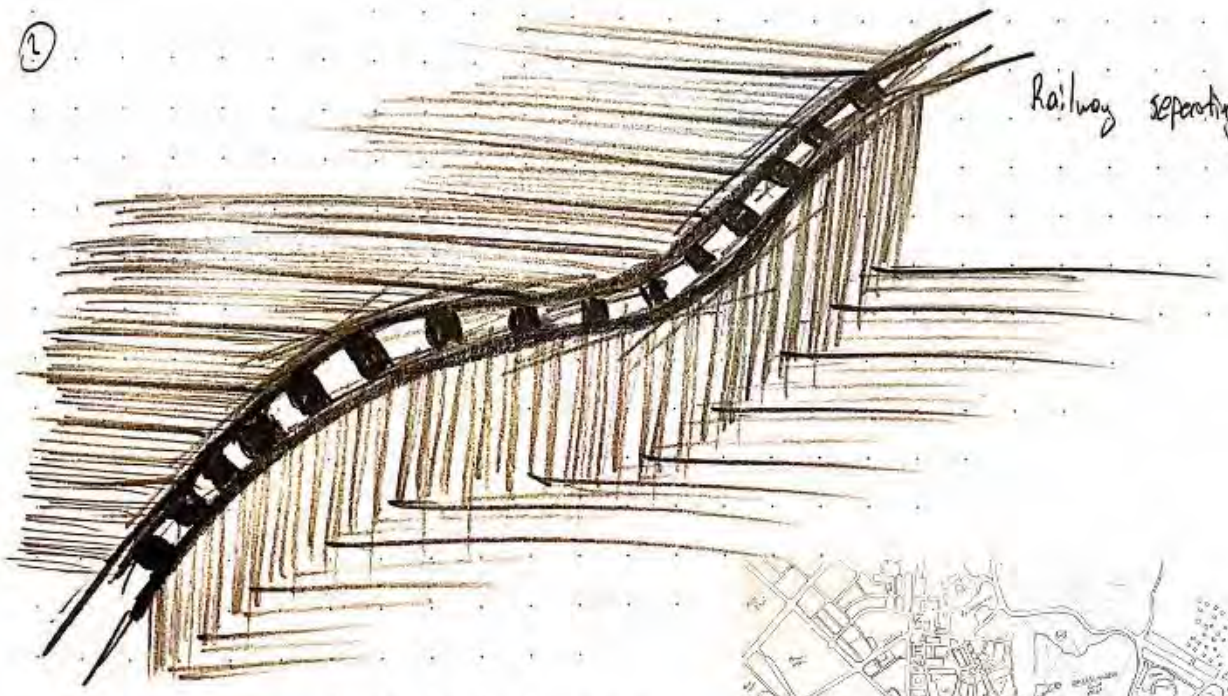
Apartments on the north west of the site and the castle.

Zone Distributions

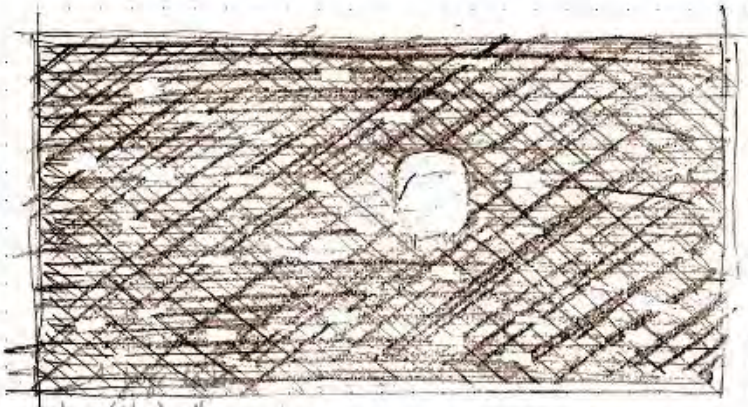
- Universities
- Public Buildings
- Healthcare
- Industrial Zones
- Religious Buildings
- Underdeveloped Residential Areas
- Commercial
- Castle
- Governmental Buildings
- Water
- Residential
- Recreational Areas



After the change of Capital city from Istanbul to Turkey there was a rapid urbanization in the city. Mistakes in the population increase estimation was not the only reason of the slum areas creation, but also governments policy of aproving buildings regulations according to road dimensions are another reason. As the buildings near large streets were getting higher and higher the buildings in between those high buildings are getting squezed. At the end, currently Ankara has underdeveloped, slum, area problems in the center of the city. These areas are "forgatten" since they are also "far" from eye sight.



The Railway is one of the significant features of Ankara. However it is not used as a design element. Even, the railway works more like a seperator to the city. If there is no Road crossing the railway like the Atatürk Boulevard did, the city did not developed across the road. In the Cebeci case after the railway it suddenly converts to residential areas without a transition.



The land is extremely valuable in the site due to its lack. A site this big would be very efficient to use in the right program format both to add more quality to neighborhood and to make use of a land that is very large

The usable large land in the middle of the site is not percieved because it is not accessible with any sense of human perception. The stadium is creating a barrier for the human. it is similar to large fences of military forces that you need to keep away. However in reality this large land could bring alotof comfort to the neighborhood.

Topography of the Site

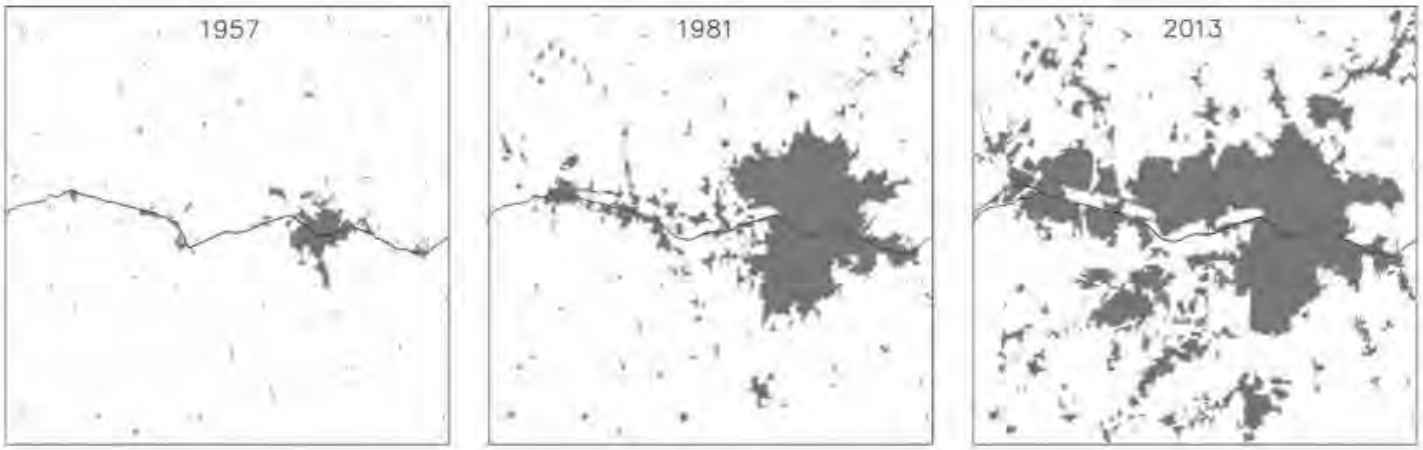
In Jansen's Plan the topography played a huge role. He named the site as Cebeci Slopes. Jansens intention was to place monumental buildings to the location to provide a view from and to the castle. His intention is somewhat visible in the Stadiums case. From the center of the stadium the Ankara Castle is visible

Plan View Topography Each Countur 1 is Meter
Section View Topography Each Cuuntur 5 is Meter

Section from the long axis of stadium

Section from the Short axis of stadium

R a i l w a y o f t h e S i t e



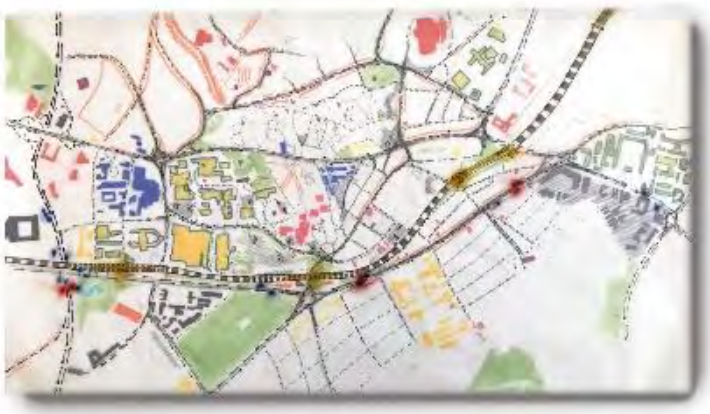
Linearscapes

The term 'linearscape' refers both to spontaneous greens and to designed parks that are currently wedged between the commuter line and its surrounding context. Linearscapes typically act as interstices. Although the former unity of the landscape fabric was mostly destroyed after the 1950s, there is still a continuity of landscape along the commuter line. Perpetuating continuity, linearscapes carry the potential for uninterrupted landscape fabric along the line, especially when the expanded meaning of the term 'scape' is considered. Unlike its common connotation,'scape' implies not only a scene, but also indicates 'something like an organization or system'(Jackson, 1984, p. 7). Therefore, linearscapes, due to their characteristics still suggesting spatialand systematic continuity along the commuter line, have the potential to formulate a flowscape system in the urban landscape of Ankara.

Clearly, the bold linearity of the railway inherently generates linearscapes, which may be narrowor wide, stuck to or detached from the line. Compared to the past, today the Sincan-Kayaş commuterline is dissociated from its environment rather than melding with it. The line is in many areas approached on one or both sides by the built fabric, yet continuity prevails due to legal setback distances. The fenced rail track produces narrow strips which operate as intermediary milieus between the commuter line and its near environs. Such uncertain intermediary landscapes mightbe identified as the remains of infrastructural terrain. Since the expanded built fabric on infrastructural terrain has allocated an interstitial area between the commuter line and itself, unintentional/spontaneous greens have been formed along the railway.

Funda Baş Bütüner , Selin Çavdar Sert & Ela Alanyalı Aral (2020) Decodinginfrastructural terrain: the landscape fabric along the Sincan-Kayaş commuter line in Ankara,Landscape Research, 45:6, 724-741, DOI:10.1080/01426397.2020.1740663

Analysis



- Hospitals
- Universities
- Dormitories
- Recreational Areas
- Public Buildings
- Governmentai Buildings
- Religious Buildings

Master Planning Ideas

1. Using Haettepe Parkı Slopes as Terracing & Creating a Beginning for the Greenway
2. Creating and Using the Space Under Train Road as Commercials
3. Moving Dumlupınar Street Pedestrian Circulation to South in Between Buildings (this also creates a visual connection with the stadium and pedestrians
3.1 Using the Space in Between Buildings and Creating Active Courtyards for Students

4 Starting a Green Way Between Buildings and Railroad that Will Later Connect with the Stadium

5 Creating an Underpass for Pedestrians which will later connect to Ankara University and 50. Yıl Park

6 Creaing a New Underpass from Yeni Ankara Street.

7 Continuing the Konservatuar Park to the Empty Place and Later Connecting it to the Stadium

7.1 Connecting Konservatuar Park with Mamak Cultural Center

8 Conecting the Stadium with the Cenabı Ahmet Paşa Mosque with Green Passages

9 Making Use of the Empty Land in Between Ankara University and 50. Yıl Park to Create a Physical Connection Between Them.

M a s t e r P l a n

Master Plan On Google Earth Image

To be able to use stadium more effectively the right aproach was to alter the surrounding first. If the aproach to the stadium was not well defined enough than the stadium would never be in its potential uses. Proposing new ways to aproach the stadium was the first idea.

The very first way was the new street for pedestrians next to Dumlupınar street. This street is especially intended for students from the west of the site that includes students of Hacettepe Ankara, Ibnisina, Numune and Ted University.

The second intervention was the greenway that is near the railroad. It is especially designed for the people who uses Başkentray. The greenway connects to the stadium both from South and East of the structure.

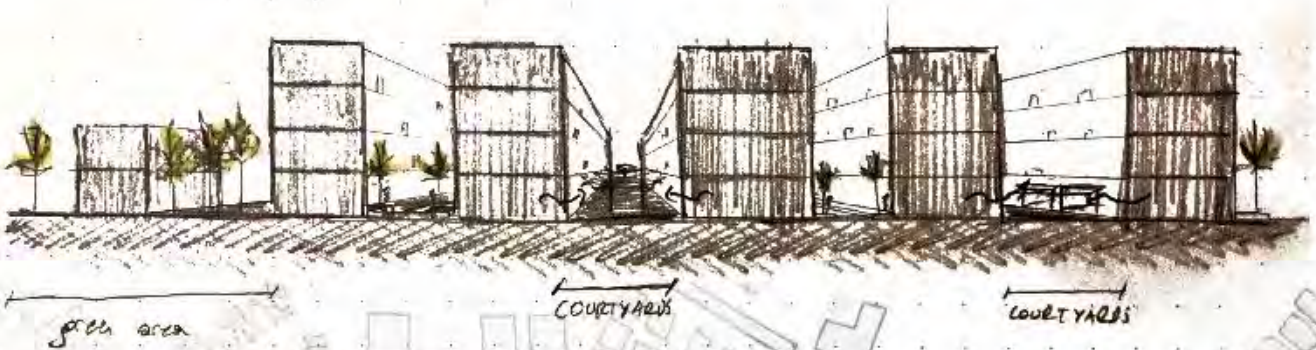
On the east of the stadium the existing konservatuar park which is across Mamak Cultural Center is alongated to connect to the stadium. On the road to connect to the stadium there are small pavillions. Also There is another underpass where there used to be Yeni Ankara Street. It later connects to Cebeci Camii.

On the North, using the epty lands and already exisiting green another aproach is created to the stadium from Cenabı Ahmet Paşa Camii, Ulucanlar Cezaevi Museum, and Sanat Sokağı.

With the aproaches created the stadium was more accessible. However because of its original function the access points to the stadium was very limited and it required some interventions as well.

Section DD

Building Program



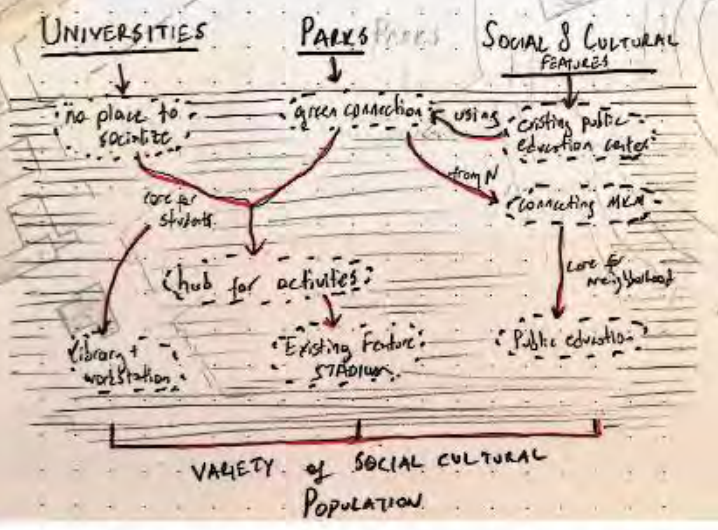
Section CC

Program

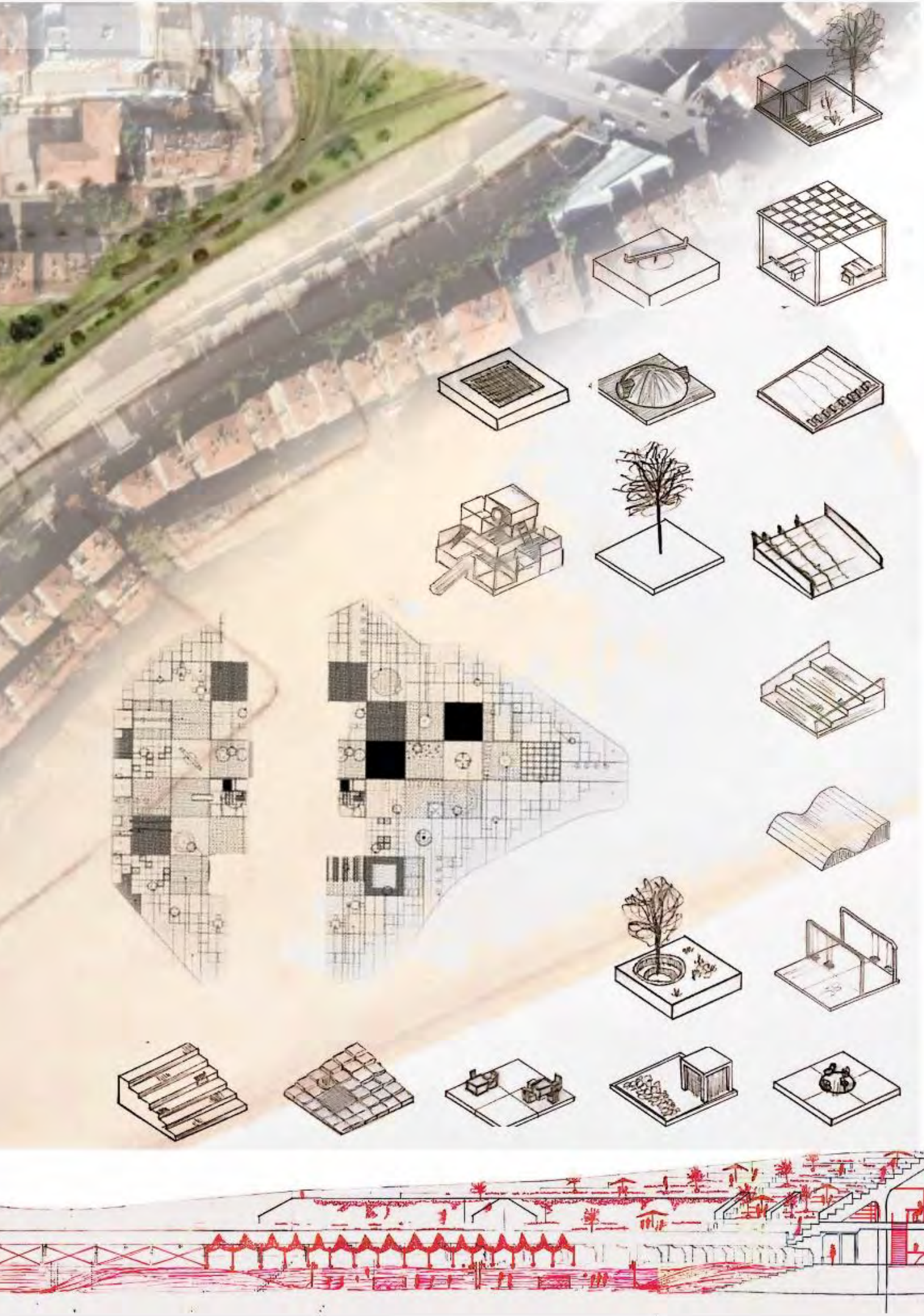
Library - Stadium Public Education Center

Section AA

Section BB



Plans & Section & Stadium Details



Plans & Elevation

Second Floor Plan
Library

Second Floor Plan
Public Education Center

East Elevation

On the plan the stadium is opened from both north and south. On the north the green on the exterior is exposed to emphasize the green inside. Moving to the East and West it slowly converts to the separated, staggered, lines to give a transformation from orthogonal city to the elliptical stadium.

The West side is for the library and work stations. In the library section, there are three service cores and two restrooms. The expanding parts are left for book stacks and study areas. From the center service core, there is an underpass to access to the green space in the middle. On the left and right side of the core, there are group work rooms. There is also ramps and elevators added in between the two floor to make the building accessible for everyone. On the the upper floor, where existing shape of the stadium is kept, there are linear book stacks that creates a corridor and workstations that are allowing views towards exterior. Additionally, a mezenine floor is added to the second floor to make use of the existing 10 meter ceiling height. From the upper floor there is access to the terraces of the stadium, where students can get fresh air and socialize in the existing tribunes watching the green in the middle.

The tribunes are equipped with shading and sitting elements to provide comfort for the users. From the tribunes people can access.

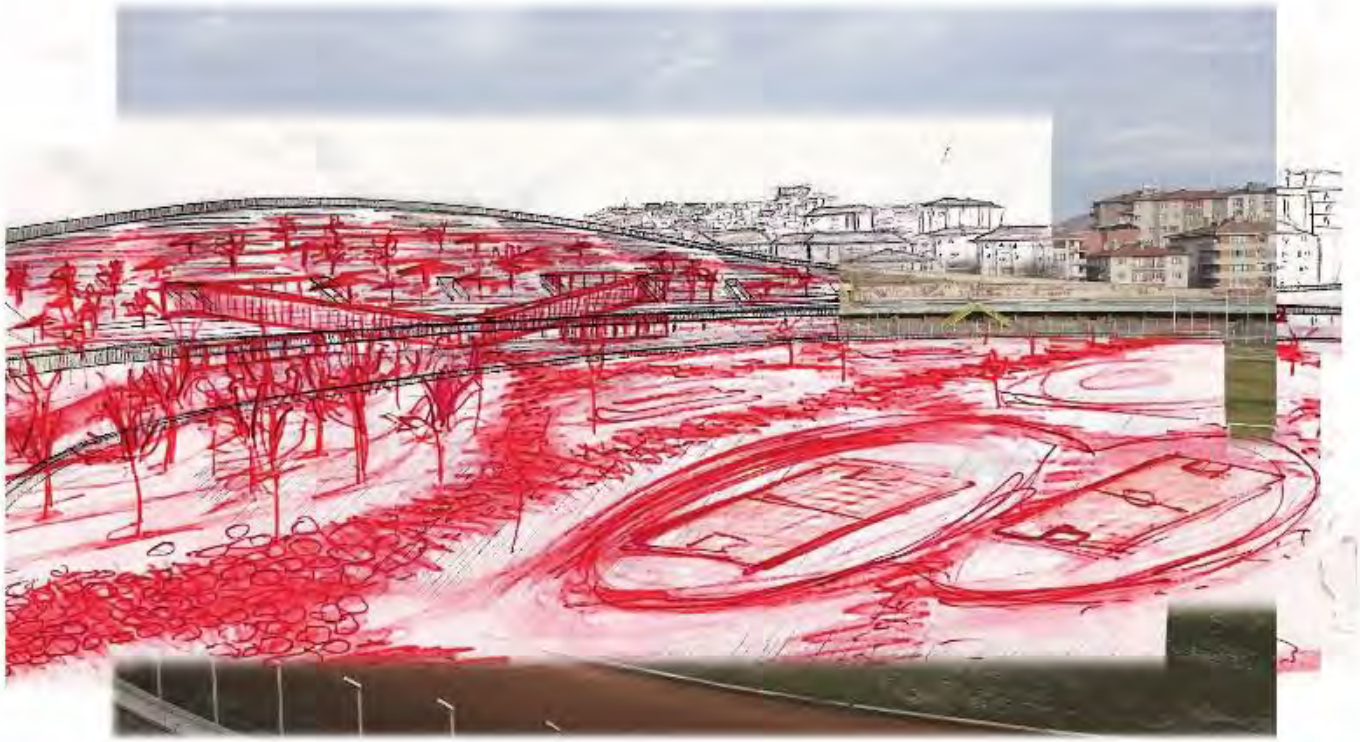
On the East side the program converts to public eduaciton center. This program is an extension of Mamak Cultural Center which is on the East of the stadium.

Similar to the west side the typology of the form is transforming from orthagonal to eliptical as aproached to the stadium side. The orthagonal part is on the city side and the existing curvelinear part is on the stadium side. On the plan there are two vertical service cores and two restrooms. The restrooms are at the edges of the building on North and South. After the enterence to the North there is a large exhibition area which can also be used as an atelier, or conference hall. When moved to the South part there is classrooms dividing a large area. These classrooms can be united in different scales according to necessities.

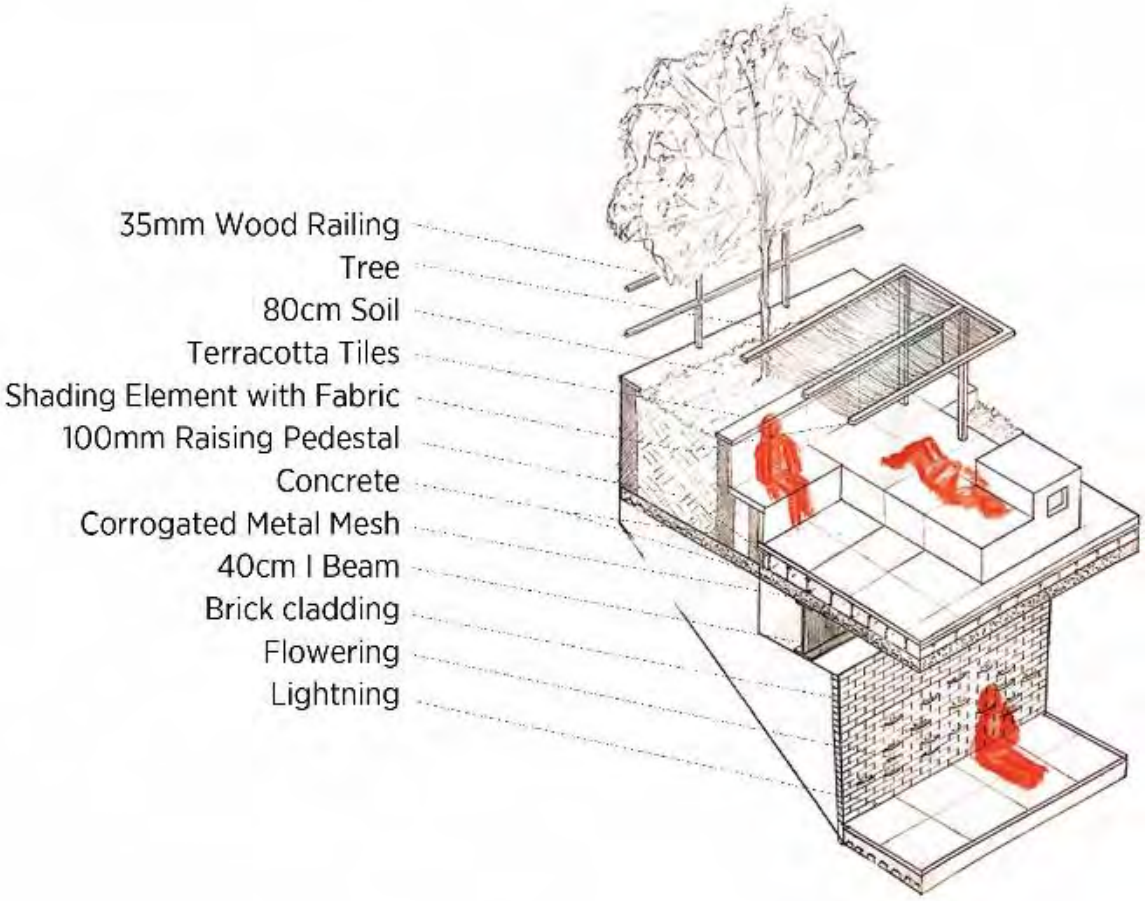
On the second floor, again, the existing shape of the stadium is kept. There are classrooms, restrooms and office area. Also, similar to Westside, there are exits to the tribunes of the stadium for users to socialize in the open air. However on the East side there is no mezenine floor since the stadium has varying ceiling height.

The middle part of the stadium is converted to a large park in which there are comperatively smaller fields, children playgrounds, cafes, trees, walking ways, and shading pavillions,.

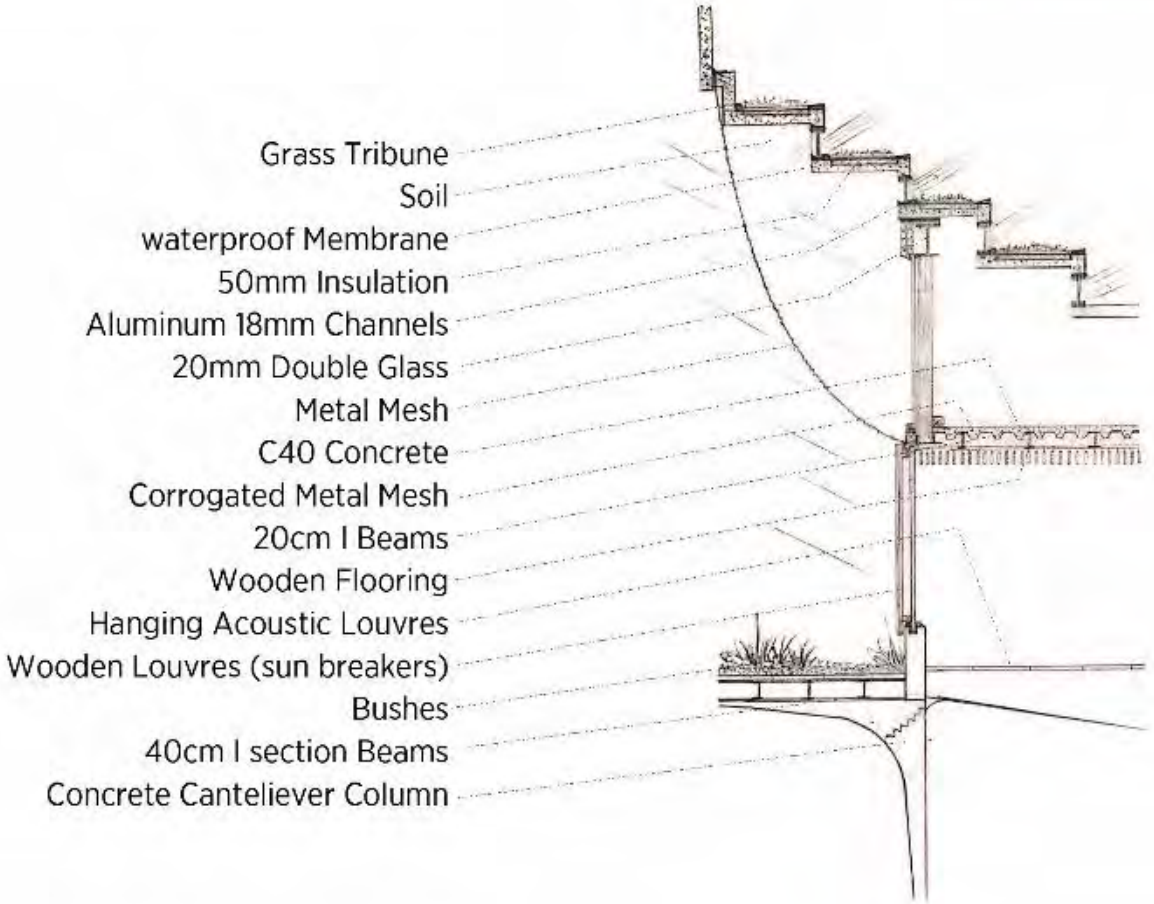
Views & Details



Courtyard & Library Side View



2nd floor Library Interior View



GÖLYAZI : A VILLAGE THAT EMBRACES TIME, MAN AND NATURE

CANSU TÜRKER

GÖLYAZI : A VILLAGE THAT EMBRACES TIME, MAN AND NATURE

CANSU TÜRKER

"Gölyazı Village" consists of an island and a peninsula with two nodals near the Uluabat Lake in Bursa, Turkey.

Complex and indigenous context of Gölyazı embraces the multi-layered cultural heritages, ongoing authentic lifestyle and unique interaction of man and nature in this fishing village. Uluabat Lake has formed the physical and geographical aspects of both the peninsula and island, also has shaped the characteristics of Gölyazı throughout the layers of history: natural lifecycle, layered settlements, daily social life, indigenous local activities, resources of production, seasonally changing water level, flora, fauna, specific demographic features, dynamic relationships and socio-cultural relationships.

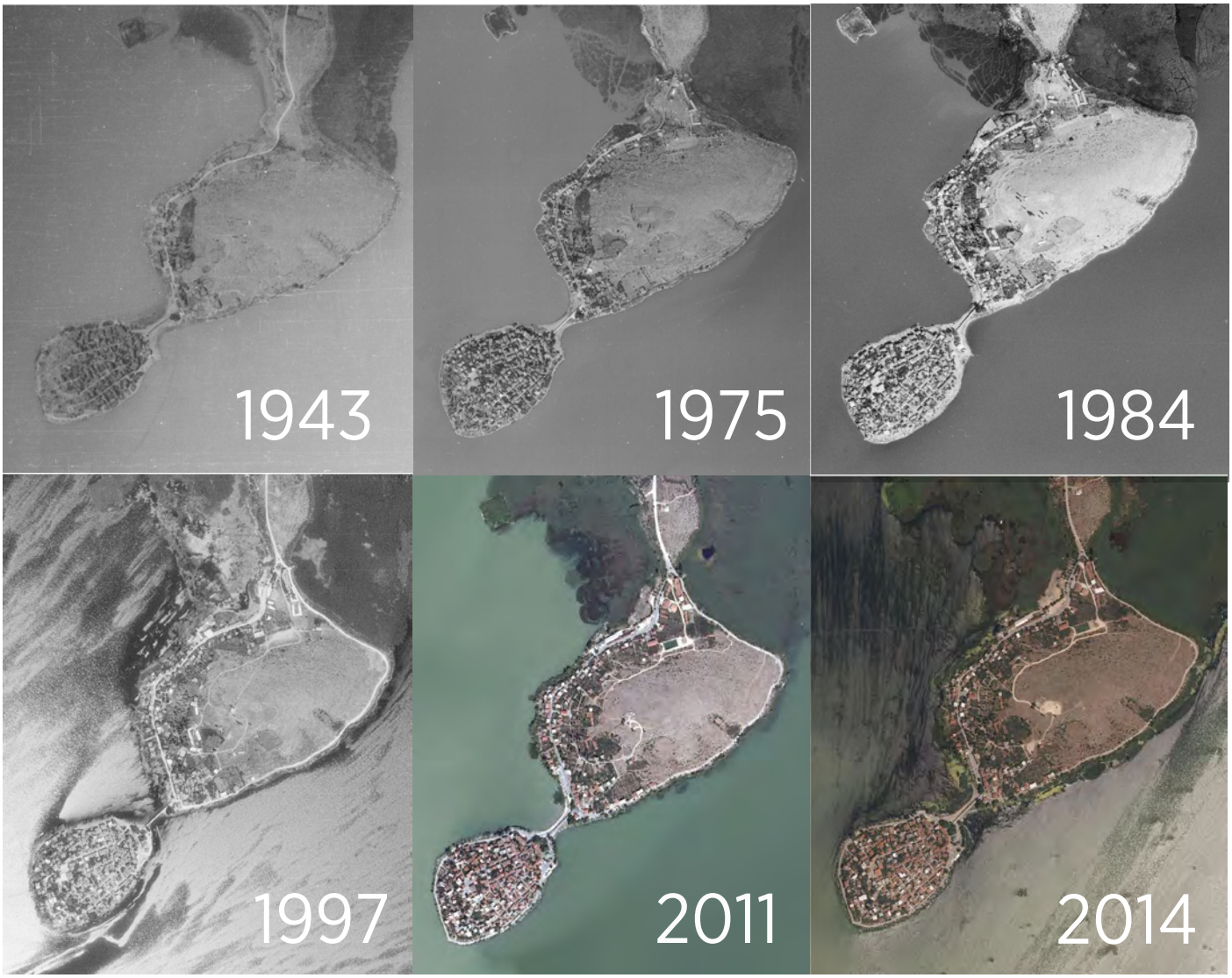
HISTORY OF GÖLYAZI : A MULTI-LAYERED CULTURAL LANDSCAPE

Gölyazı village is a multi-layered cultural landscape that has been habited since 5th century BC.

There are indications of the fact that the island was used as a health center among the earliest settlements. 4th century BC was the beginning of Hellenistic settlement and the area was named as "Apollonia ad Rhyndacum" which means Apollonia at the Rhyndacum River. Between 218-188 BC the city was under the rule of Pergamon, then it became a city of Roman Empire and had the status of "civilas libera" (free city) until 4th AD. Temple of Apollo, stadion, amphitheatre, Necropolis, Sanctuary site of Demeter, city castles and city walls, ruins of ancient settlements, numismatic evidences and written historical documents indicate that Gölyazı - it was called as "Apollonia" at that time - had become a noticeable important city with critical commercial relationships.

Between 4th century and 11th century, Apollonia was under Byzantine rule. In this period, Prusia city (Bursa) had become an important settlement for Christians, therefore St. Constantin Church and many chapels were built in Apollonia in this period. In 7th century, the city was mentioned as "bishopric center" and became a city with religious importance. In 11th century, Apollonia came under rule of Seljukids and strategic importance of the city and Uluabat Lake had continued.

In 14th century, Ottoman Empire took the management of Bursa city and "Apolyont" became a "feudal landford". Evliya Çelebi, desrcribed the "Abalyanot" city as "place of paradise" in his itinerary. During Ottoman period, most part of the population was Roums and the city had great churches, Roum and Turkish bazaars, vineyards and gardens of the inhabitants. Ottoman traditional houses were built on previous texture such as Podium House. The main economic livelihood was based on fishing, crayfish trade, silkworm breeding and olive cultivation and agriculture.



TOWARDS TODAY

In 1923, the Republic of Turkey was founded by Atatürk and population exchange which happened in the area has changed the demographic and socio-cultural aspects of Gölyazı.

In 1925, after population exchange, new school and community houses (halk evi) were built. After the change of social structure, new functions were needed and significant physical transformations took place especially between 1940s-1950s. After 1960, industrialization and rapid urbanization have affected the settlement. In 1972, new center and concrete bridge, new mosque and new filling areas took place. In 1994, many ancient city walls and gates were destroyed, new streets such as Cumhuriyet Street has been formed.

In 1998, new approaches towards conservation were held and Urban Archaeology Site Conservation Master Plan was prepared by Emel Göksu. After 2000, upper scale policies and transformation processes were accelerated. New constructions and annexes near buildings were built. In 2005, Zambaktepe Peninsula was declared as 3rd degree archaeological site. In 2010, first archaeological survey have been done and in 2012, first formal archaeological excavations in Zambaktepe Peninsula and Kız Island have begun by Serdar Aybek and Ali Kazım Öz.

Today, 1/3 of the population of Gölyazı live in peninsula part (Bayır Neighbourhood) and 2/3 live in island part (Merkez Neighbourhood). On the southern part of the island, smaller parcels, more empty areas, public spaces and organic settlement can be seen. However, intense gridal urban texture took place on the northern part.

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-Aybek, Serdar and Öz, Ali K. (2004) Preliminary Report of the Archaeological Survey at Apollonia ad Rhyndacum in Mysia. Anatolia.

GENERAL DIAGRAM OF ZAMBAKTEPE PENINSULA AND GÖLYAZI ISLAND (SITE VISIT)

NATURAL ASPECTS

Gölyazı was declared as Ramsar Site in 1998 due to its valued indigenous natural features. The area has Turkey's largest water lily habitat and located on the migration way of many bird species, therefore Stork Festivals have been celebrated in Gölyazı village since 2005. Monumental cypress and plane trees, olive groves, wide reed fields along the lake shore consist the main vegetation of Gölyazı.

ARCHAEOLOGICAL ASPECTS

There are sandal tours organized by local people to the ruins of Apollon Temple in Kız Island, surrounded by water lilies. Roman amphitheatre and Sanctuary Site of Demeter are located on the south slope of Zambaktepe. Stadion and Necropolis are located on north part of Zambaktepe. Today, ancient remains, historical buildings and existing houses have formed cumulative values and authentic texture together.

HISTORICAL ASPECTS

Indigenous and characteristic relationships with man and nature in Gölyazı have formed a multi-layered cultural landscape throughout centuries. New settlements were developed on the old texture with using the same materials.

SOCIO-CULTURAL ASPECTS

Today, hospitable and cheerful inhabitants are welcoming many tourists in Gölyazı Island. There are people in every age group but the majority consist of over-middle aged people subsist on agriculture or fishing and the elders. Senior citizens told their immigration stories to young generation and visitors. Many photographers, researchers, architecture students and tourists visit Gölyazı today. Local people are very used to this crowd and welcomes every visitor.

PROCESS OF CONSERVATION IN GÖLYAZI

Conservation process of Gölyazı has started in 1980s by declaring the archaeological sites. In 1988, island and peninsula have become 1st degree archaeological site. Between 1991-1998, Hagios Panteleimon Church, city walls, ancient ruins, bath, mosque, religious primary school, windmill have been declared as historical monuments. 87 houses on the island were listed as "examples of civil architecture" while 17 plane and cypress trees were declared as natural monuments.

In 2002 , Uluabat Lake Wetland Management Plan was prepared to protect the site from pollution and enrich the wildlife. In 2006, conservation Master Plan has been revised to answer emerging modern problems in island settlement. In 2011, Gölyazı settlement was declared as "Urban Archaeological Site" and eco-tourism projects near Uluabat Lake has been planned such as Mysia Cultural Route on the ancient Roman road providing access to Gölyazı Island.

Today, conservation of ecological formations, plant textures, natural features, landscape characteristics, wetland and bird habitation areas, archaeological sites and urban tissue integrated with nature are under the Conservation Master Plan of 1st and 2nd degree archaeological sites.

References

-Okumuş, Gökhan. (2019) Principles and Strategies for Conservation and Management of Complex Multi-Layered Cultural Landscapes: The Case of Gölyazı (Apolyont) / Bursa. Graduate Shcool of Natural and Applied Sciences of METU.

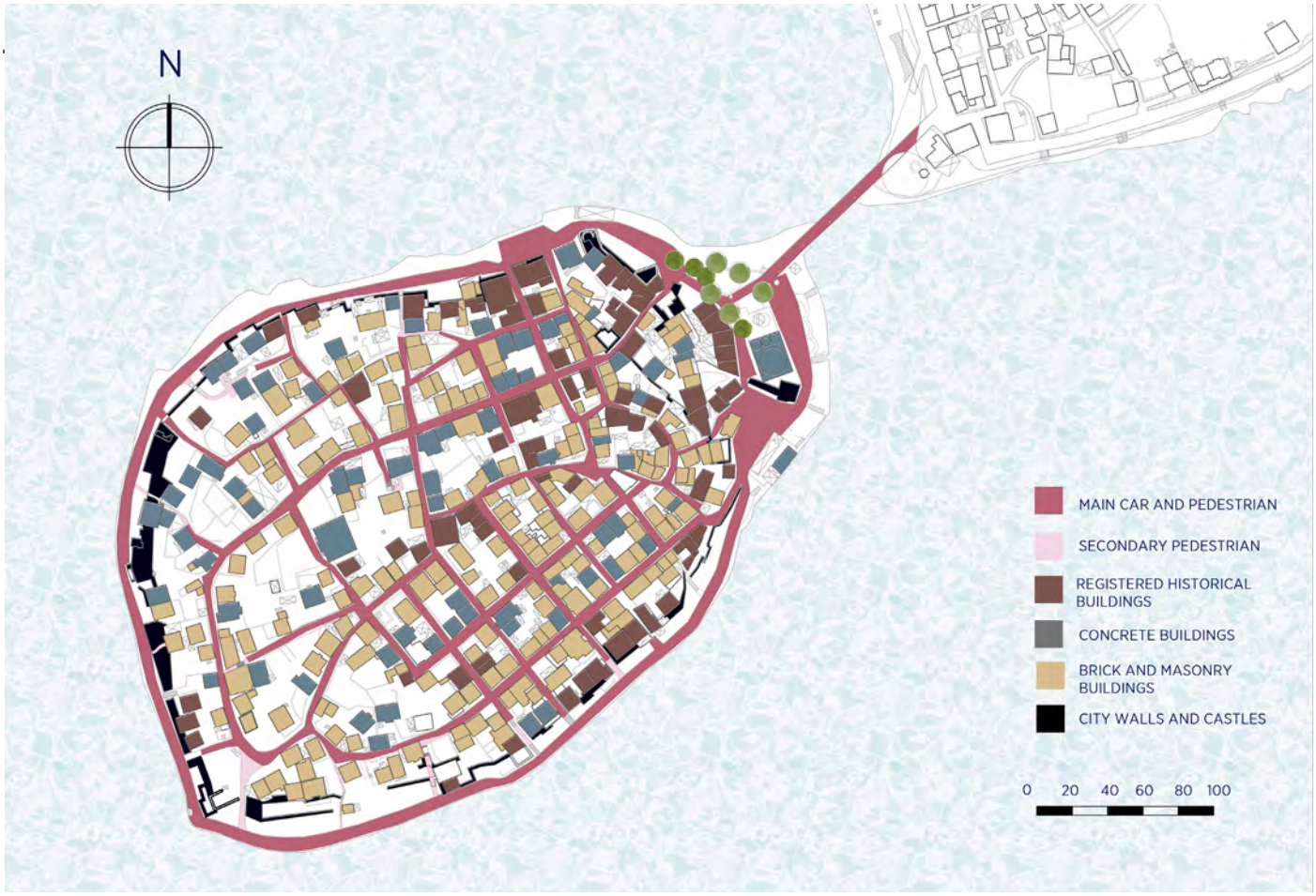
OBSERVED PROBLEMS

- *No relationships with historical or archaeological areas*
Due to lack of proper and holistic regulations and for multi-cultural areas, renewals and transformations have taken place and threaten the characteristic texture.

- *Lack of open areas in island settlement*
Due to the cumulative and intense housing in island, circulation and privacy becomes problematic

- *Urbanization and industrialization process in Bursa*
Especially after 1980s, rapid urbanizations, new industrial areas near Uluabat and new concrete settlements in Gölyazı threaten natural, sociocultural, physical multi-layered cultural landscape and damage conservation processes, local identity, current lifecycle.

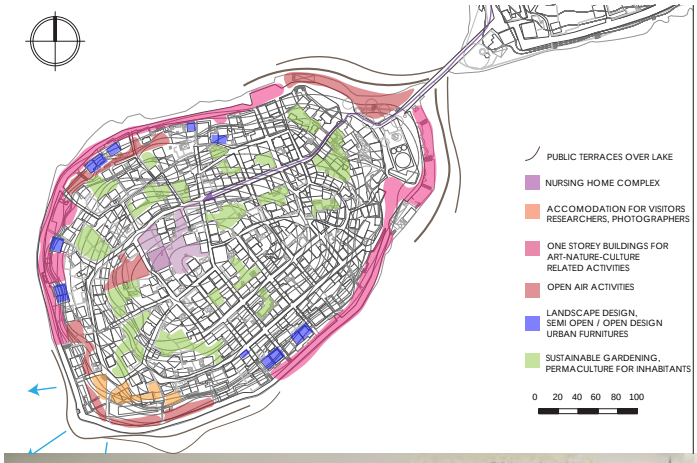
- *Tourism oriented economic pressures*
Due to upper scale policies, inhabitants of island are forced into tourism as a main economic activity and they are moving away from their local activities.



POSSIBLE SOLUTIONS

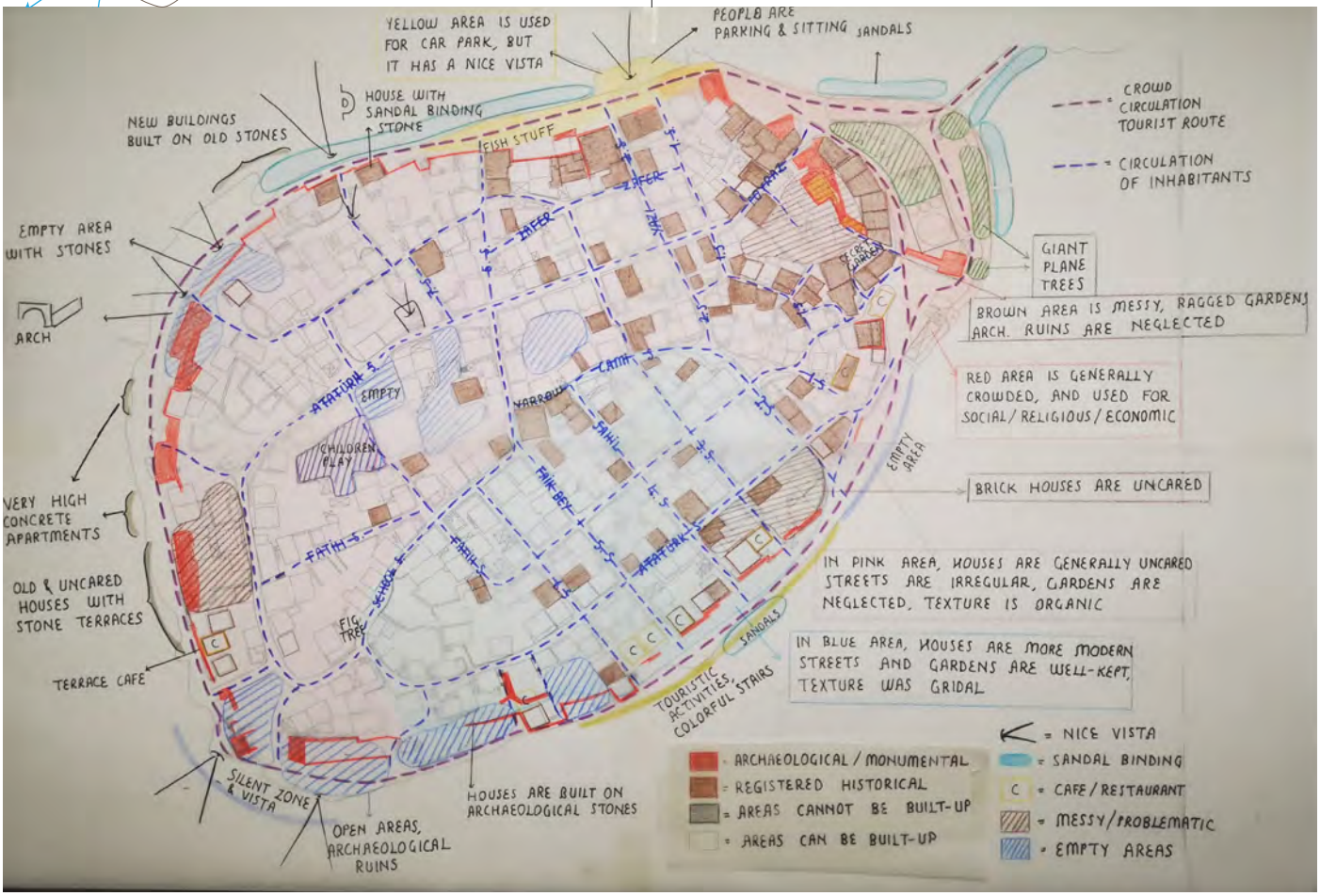
Removing apartment blocks which do not contribute the values of Gölyazı, creating open areas, guiding circulation with related contexts, communicating with historical and natural features, creating sustainable tourism approaches rather than mass tourism (which do not harm historical, socio-cultural, natural aspects, do not force inhabitants, related to culture, nature, health, education, art, archaeology, social...), relating the programs that contributes to the natural, historical, socio-cultural values, preventing transformation would be the solutions.

Conserving and enriching the relationship between man, nature and time, strenghten the existing historical and cultural values, existing life style and providing sustainable economic activities, preserving biodiversity and human health for the future would be the main focus of this 402 project.

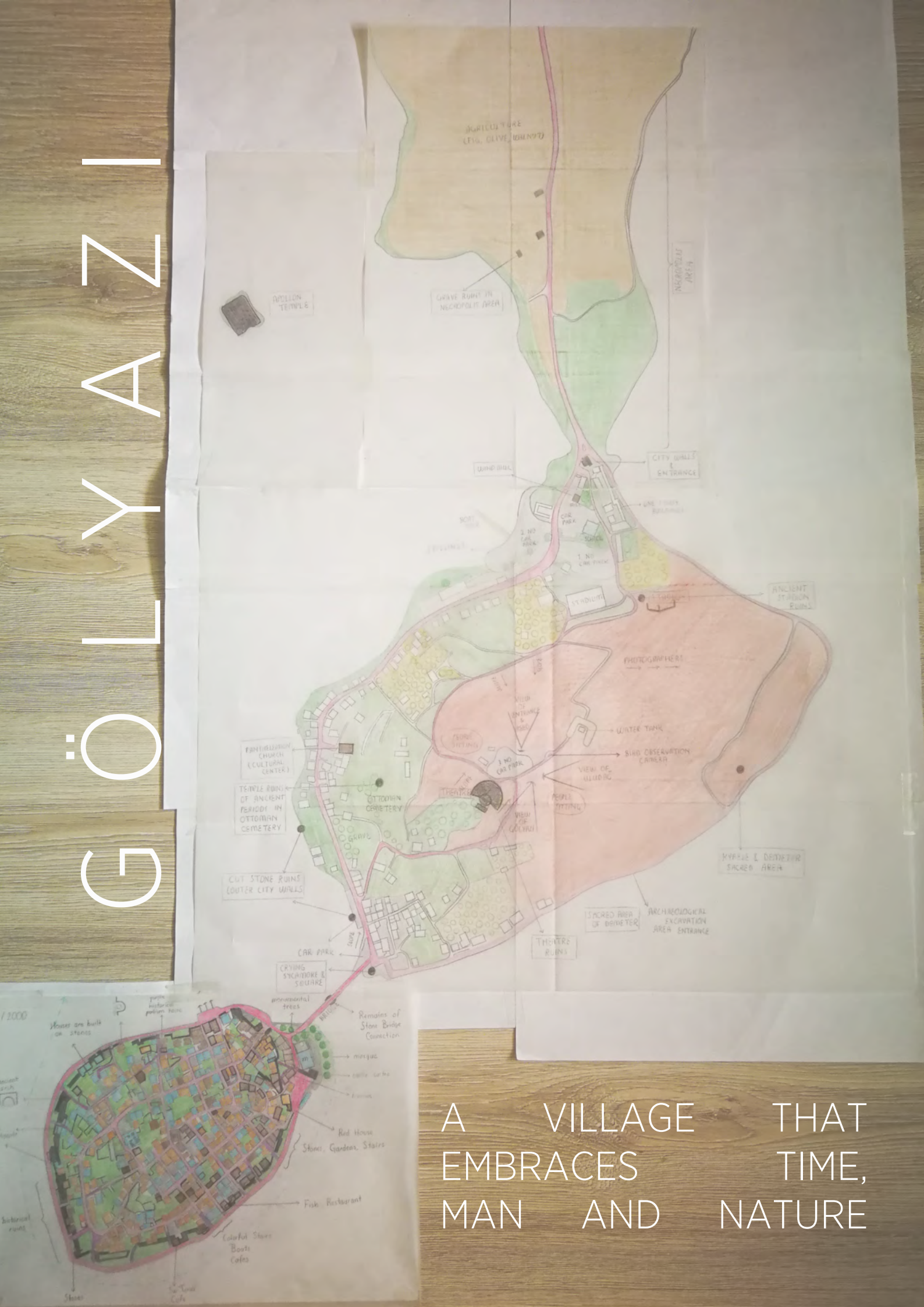


PROGRAM IDEA

1 - sustainable residential area and permaculture gardens
2 - nursing home (for the aged) & health center
3 - conservation and restoration studies, archaeological research center
4 - animal shelter for endemic species
5 - activities for art & archaeology & nature lovers
6 - psychiatric consultation & research center
7 - accommodation for rehabilitation
8 - accommodation for researchers and photographers

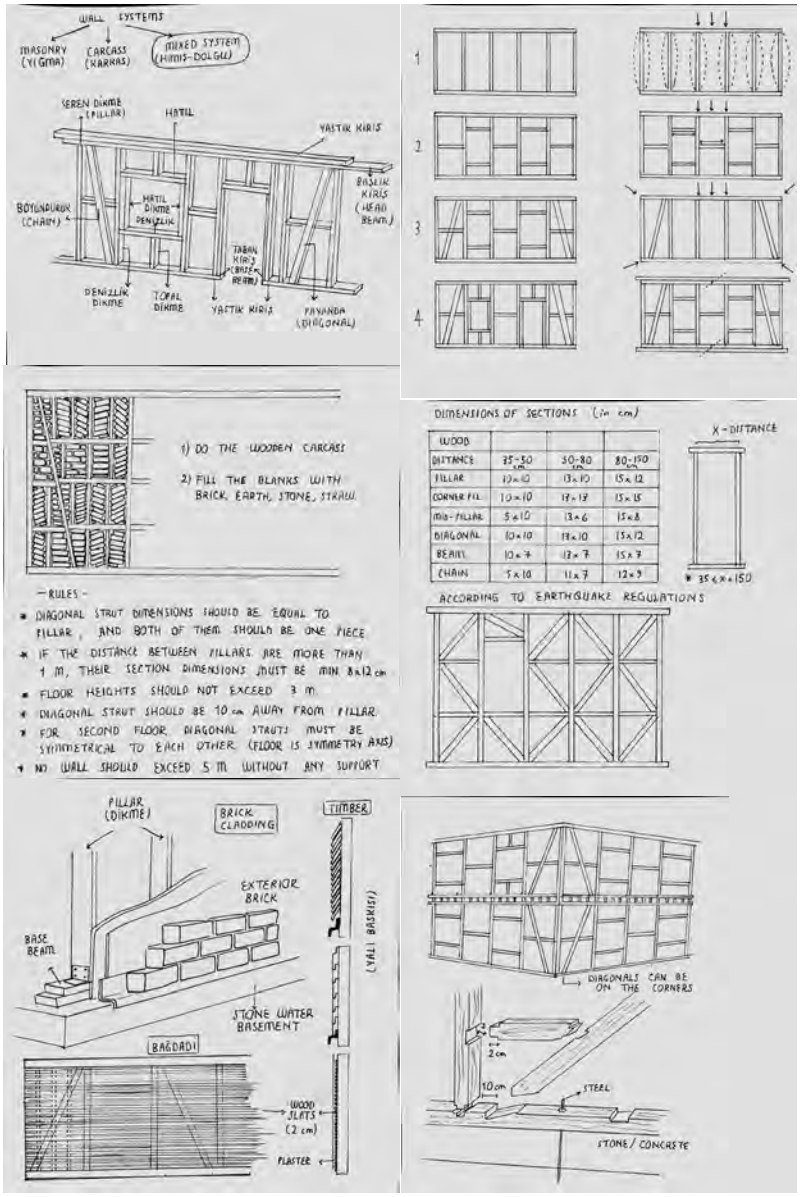


GÖLYAZI



A VILLAGE THAT EMBRACES TIME, MAN AND NATURE

VILLAGE FOLLOWS ANCIENT GRIDPLAN

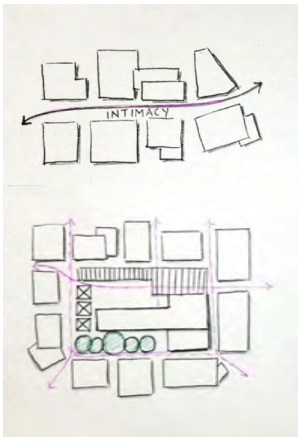


DESIGN REFERENCES

In master plan scale, relationships with peninsula and island , multi-layered cultural heritage, archaeological areas, ancient city walls and castles, Byzantine settlements would be the main references. In architectural building scale, ancient remains historical buildings and their architectonics, material selection and specific dynamic and characteristics of urban texture would be the inspiring items for design. In program selection, daily social life, ongoing authentic activities, lifestyle and lifecycle, demographic and socio-cultural background, natural features, resources of production, sustainable tourism activities would be helpful for determination.

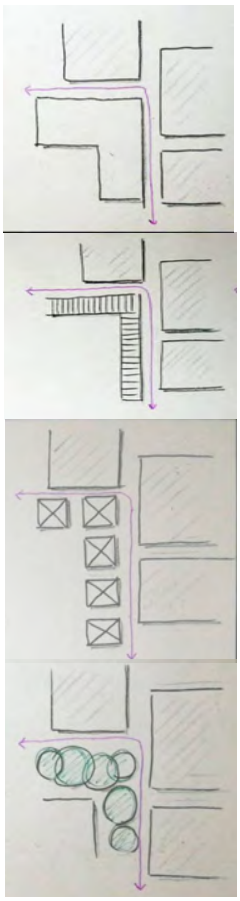
- Reference: Aşanlı, Melih. (2016) Traditional Building Techniques - Natural and Ecological Guide. Yeniinsan Press, İstanbul.

MASTER PLAN INSPIRATION: EMBRACING PATTERNS ON OLIVE AND FIG TREES

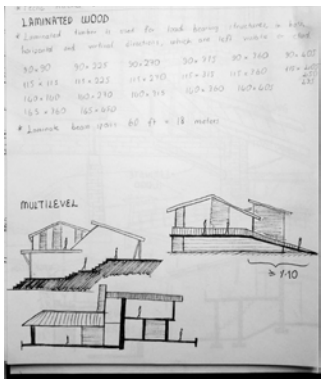


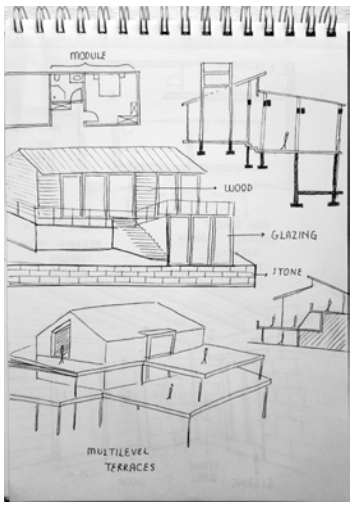
OLIVE & FIG TREE
IMMORTALITY
ABUNDANCE
MYTOLOGY
HEALTH
PEACE

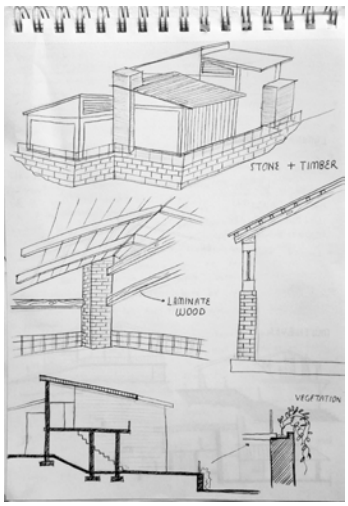
FEELING OF INTIMACY IN THE STREET

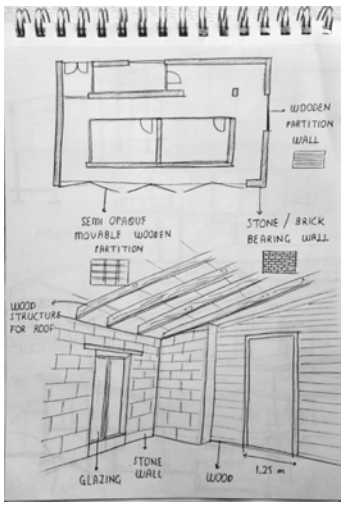


INITIAL SKETCHES TO EXPLORE SPATIAL FEATURES










EXISTING


DESIGNED

DEMOLISHED
BUILDINGS
(CONCRETE OR
NOT HISTORICAL)


MAIN CIRCULATION
MAIN ACCESS TO
NURSING HOME
FOCUSED ROUTE
THAT SURROUNDS
INTERVENTION AREA
MAIN CIRCULATION
IN NURSING COMPLEX
SECONDARY ACCESS


N
D E S I G N E D
ARCHAEOLOGICAL RUINS / CASTLE WALLS
REED FIELDS
EXISTING BUILDINGS
REGISTERED HISTORICAL BUILDINGS
DESIGNED BUILDINGS
FOCUSED AND DETAILED BUILDINGS
(NURSING HOME COMPLEX)
WOODEN PLATFORMS
0 20 40 60 80 100 m

GROUND FLOOR PLAN

SOCIAL AREAS

PRIVATE AREAS

WASHROOMS

WOODEN FLOORS

HARDSCAPE

SEMI OPEN SPACES
PERGOLAS

VISTA
TOWARDS LAKE

EXISTING
BUILDINGS

REGISTERED
HISTORICAL H.

DESIGNED
STREETS

EXISTING
STREETS

CONSIDERATIONS

Annex B-2

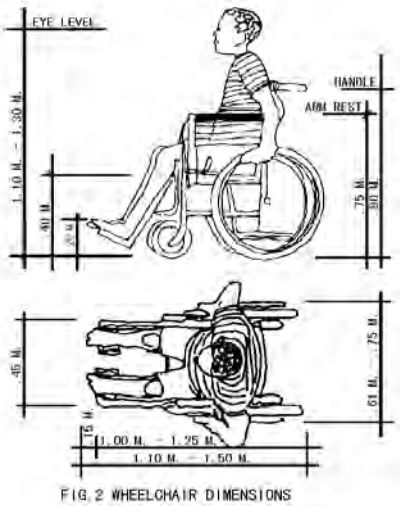
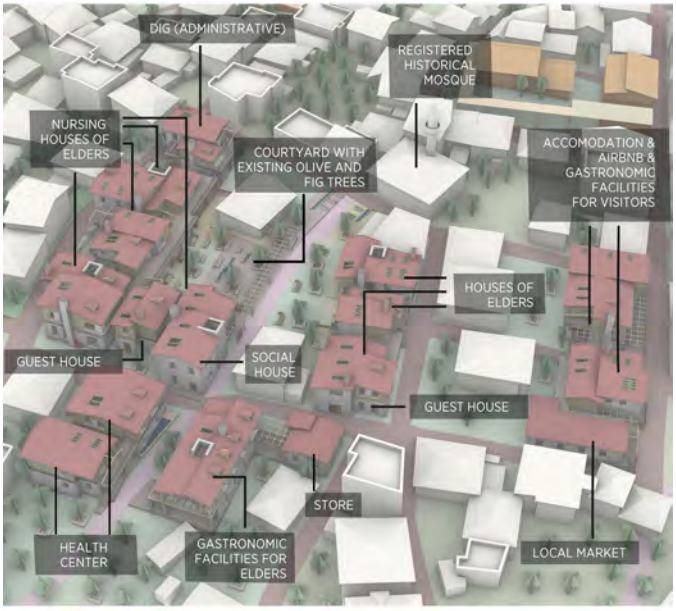


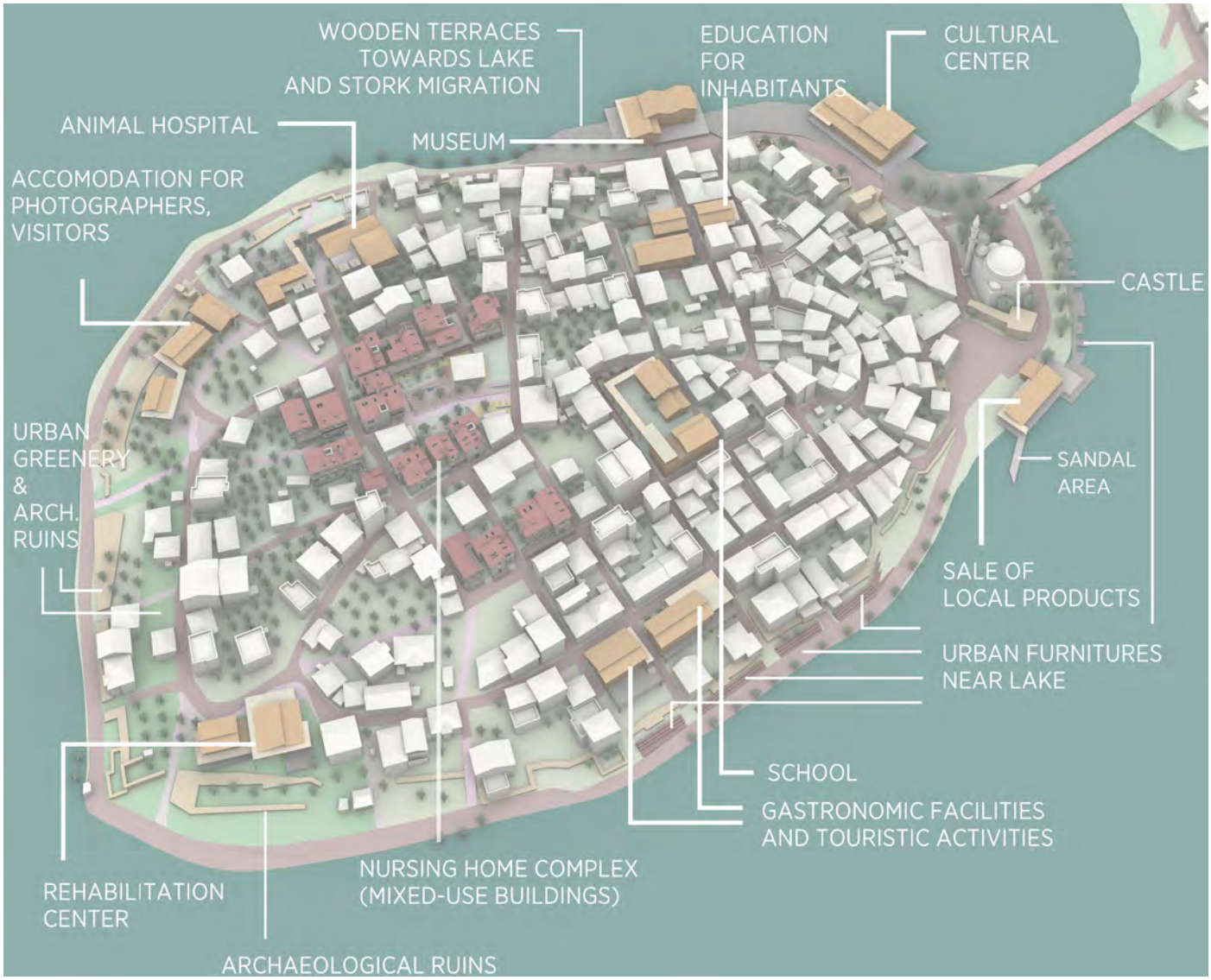
FIG. 2 WHEELCHAIR DIMENSIONS



"ENCLOSURE OR THE OUTDOOR ROOM IS, PERHAPS, THE MOST POWERFUL, THE MOST OBVIOUS, OF ALL THE DEVICES TO INSTIL THIS SENSE OF POSITION, OF IDENTITY WITH THE SURROUNDINGS. IT EMBODIES THE IDEA OF HERENESS."
(CULLEN, 1961: 29)

- Cullen, G. (1961). The Concise Townscape. New York: Routledge, Architectural Press.

FUNCTION DIAGRAM



- Cullen, G. (1961). The Concise Townscape. New York: Routledge, Architectural Press.

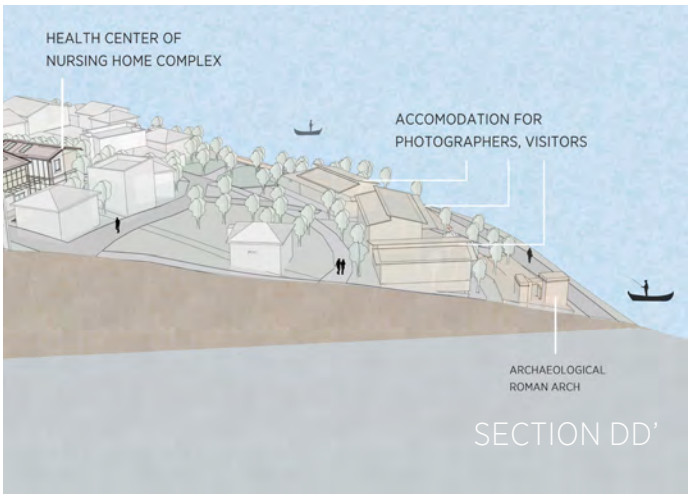
SECTIONS

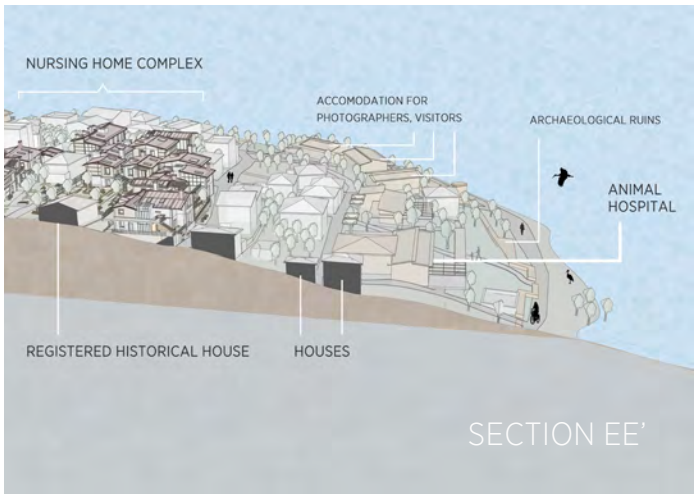
SECTION AA'

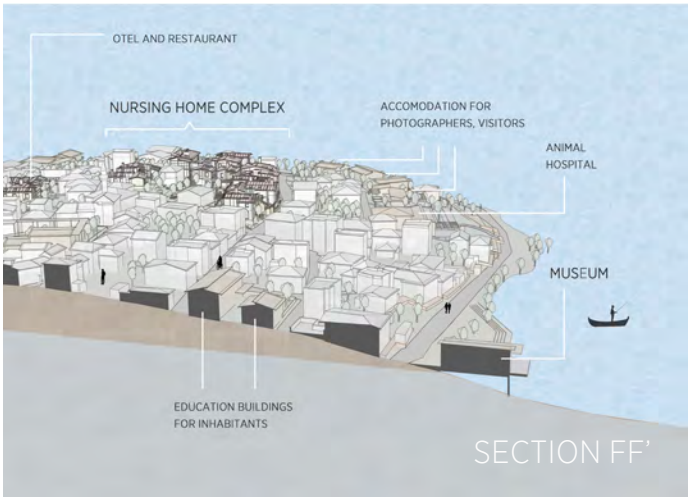
SECTION BB'

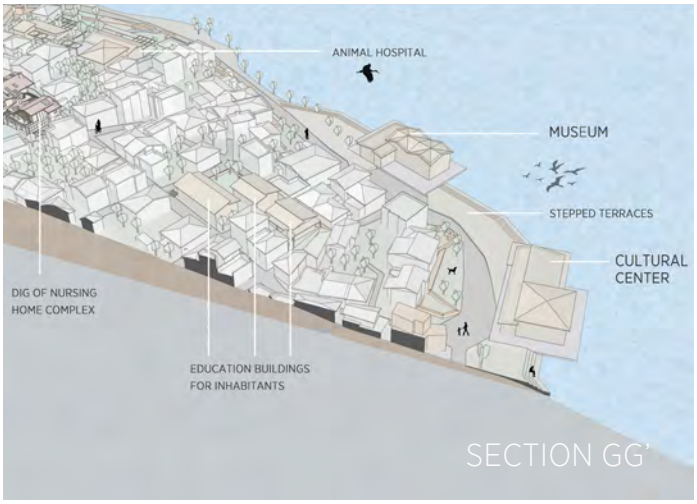
SECTION CC'

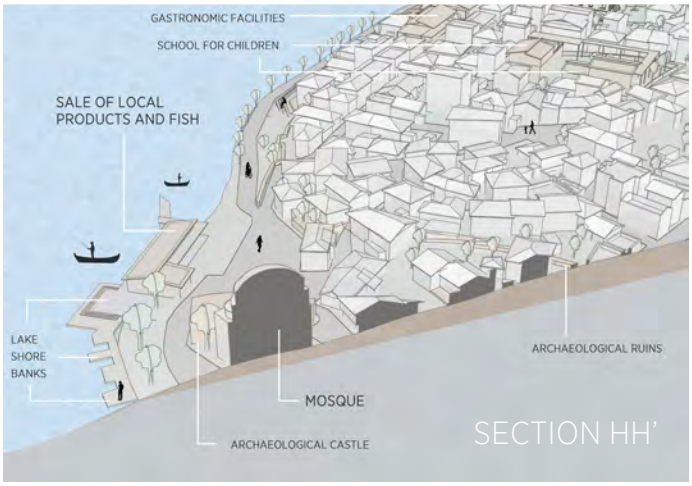
AERIAL SECTIONS

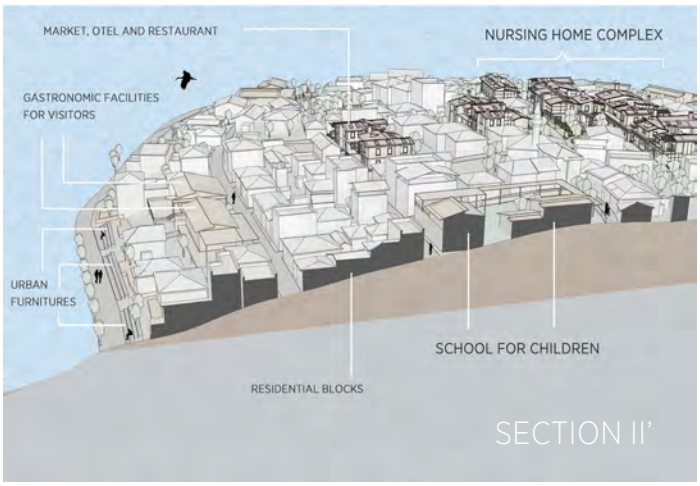


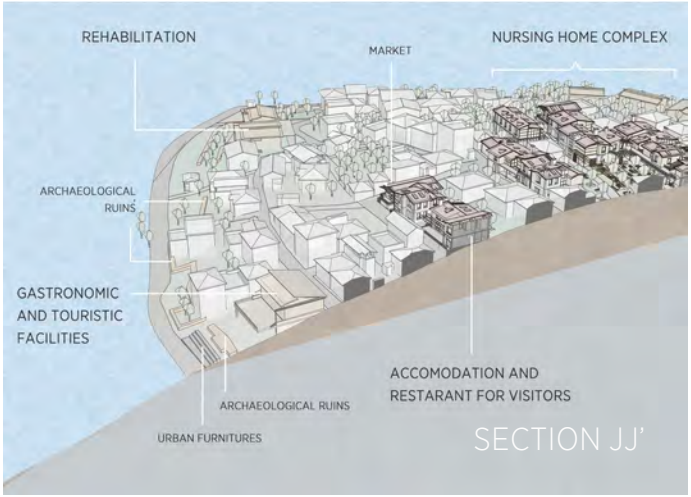


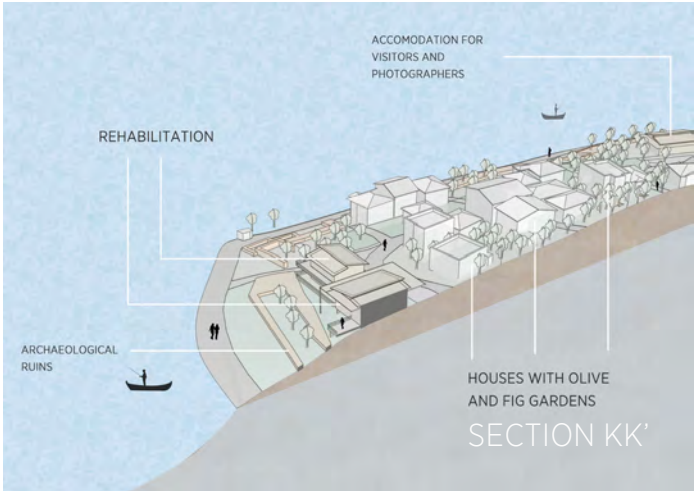


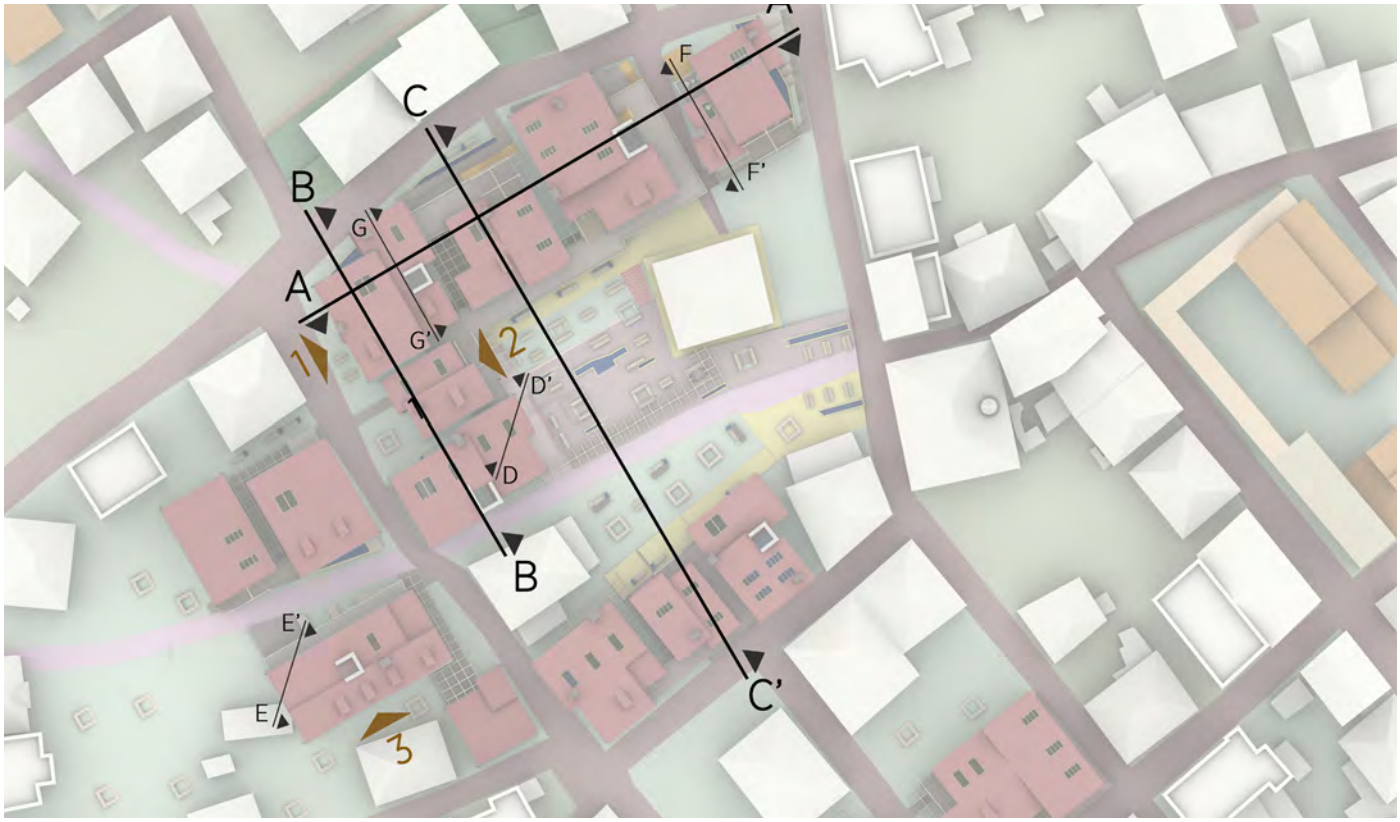












CLOSER SECTIONS

DIAGRAMS

DETAIL SECTIONS

DETAIL SECTION DD’

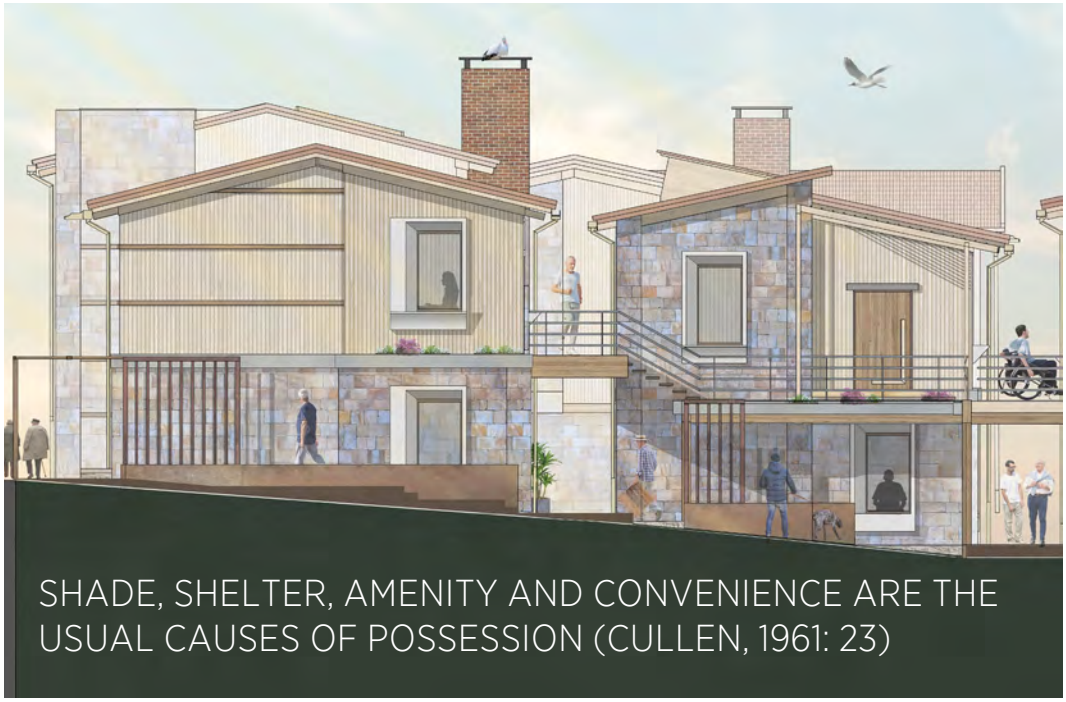
DETAIL SECTION EE’

DETAIL SECTION FF’

DETAIL SECTION GG’

ELEVATIONS

WE CAN MANIPULATE THE NUANCES OF SCALE AND STYLE, OF TEXTURE AND COLOUR AND OF CHARACTER AND INDIVIDUALITY, JUXTAPOSING THEM IN ORDER TO CREATE COLLECTIVE BENEFITS. (CULLEN, 1961: 10)

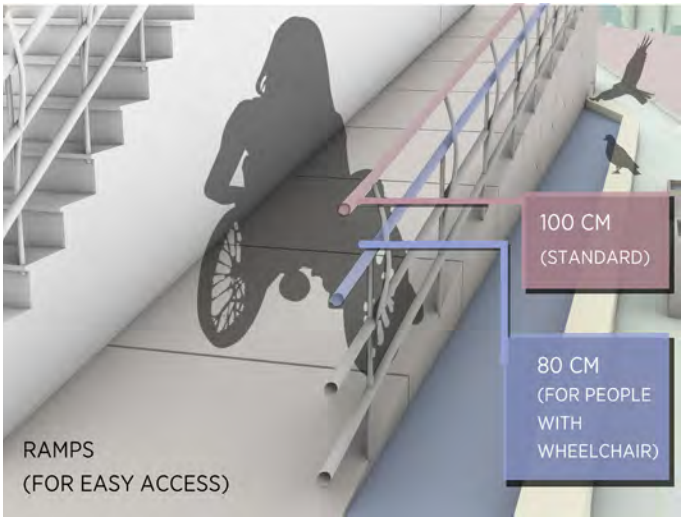


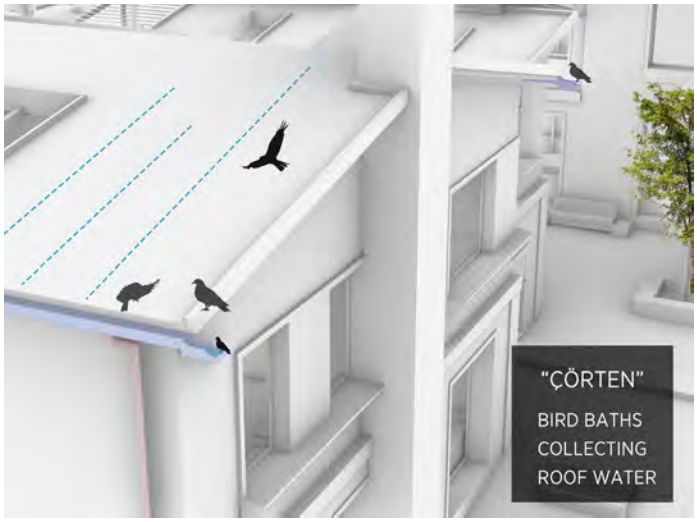
SHADE, SHELTER, AMENITY AND CONVENIENCE ARE THE USUAL CAUSES OF POSSESSION (CULLEN, 1961: 23)

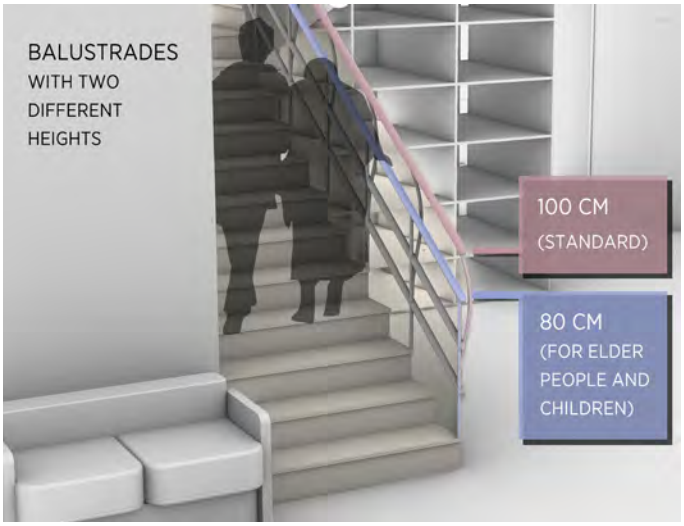
DESIGN DETAILS FOR FEELING OF EMBRACEMENT AND BELONGING

THE STORY OF

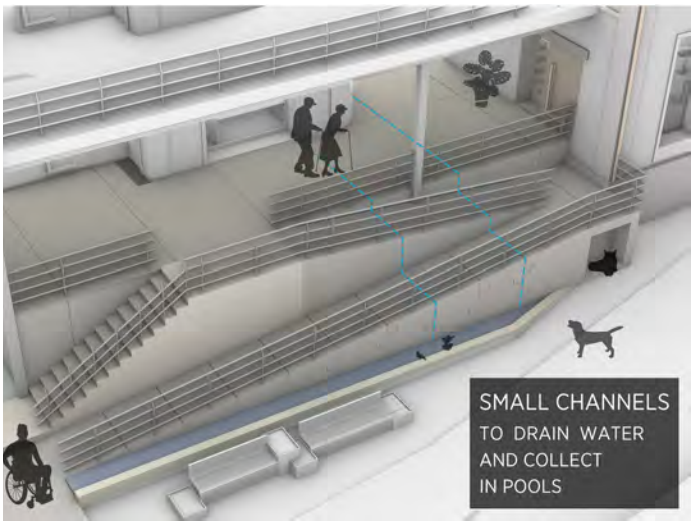
ADEM & YAREN



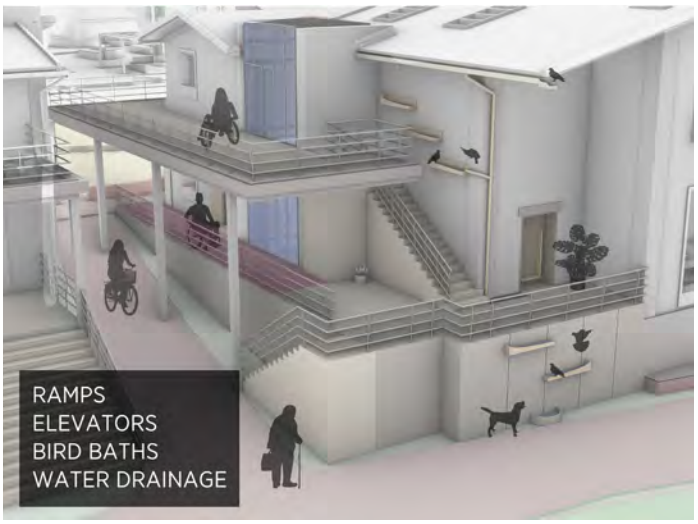





SKYLIGHTS
PLATFORMS
PERGOLAS


SMALL CHANNELS
TO DRAIN WATER
AND COLLECT
IN POOLS

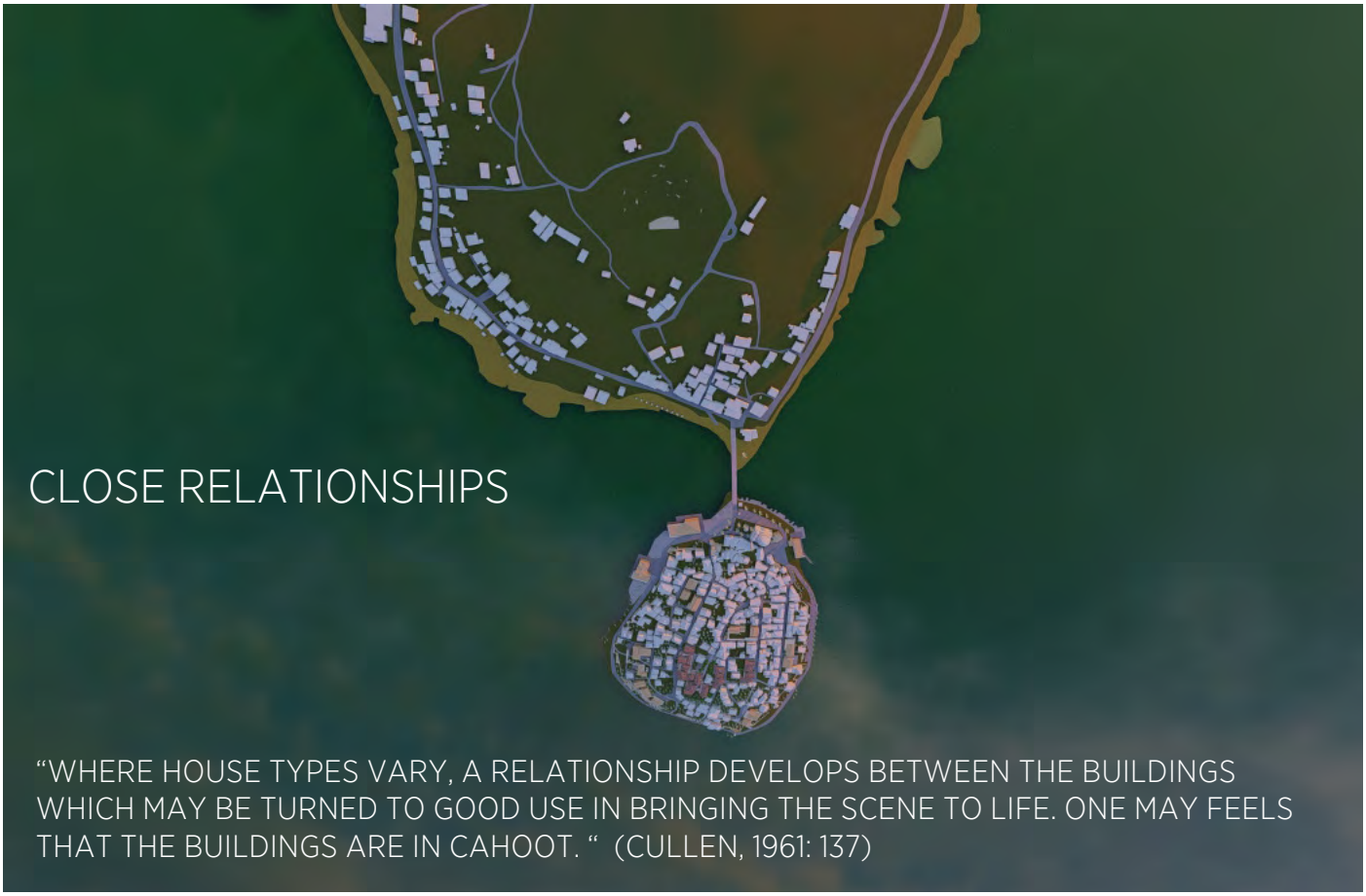

VIEW TOWARDS LAKE


RAMPS
ELEVATORS
BIRD BATHS
WATER DRAINAGE

MEZZANINES - VIEWS

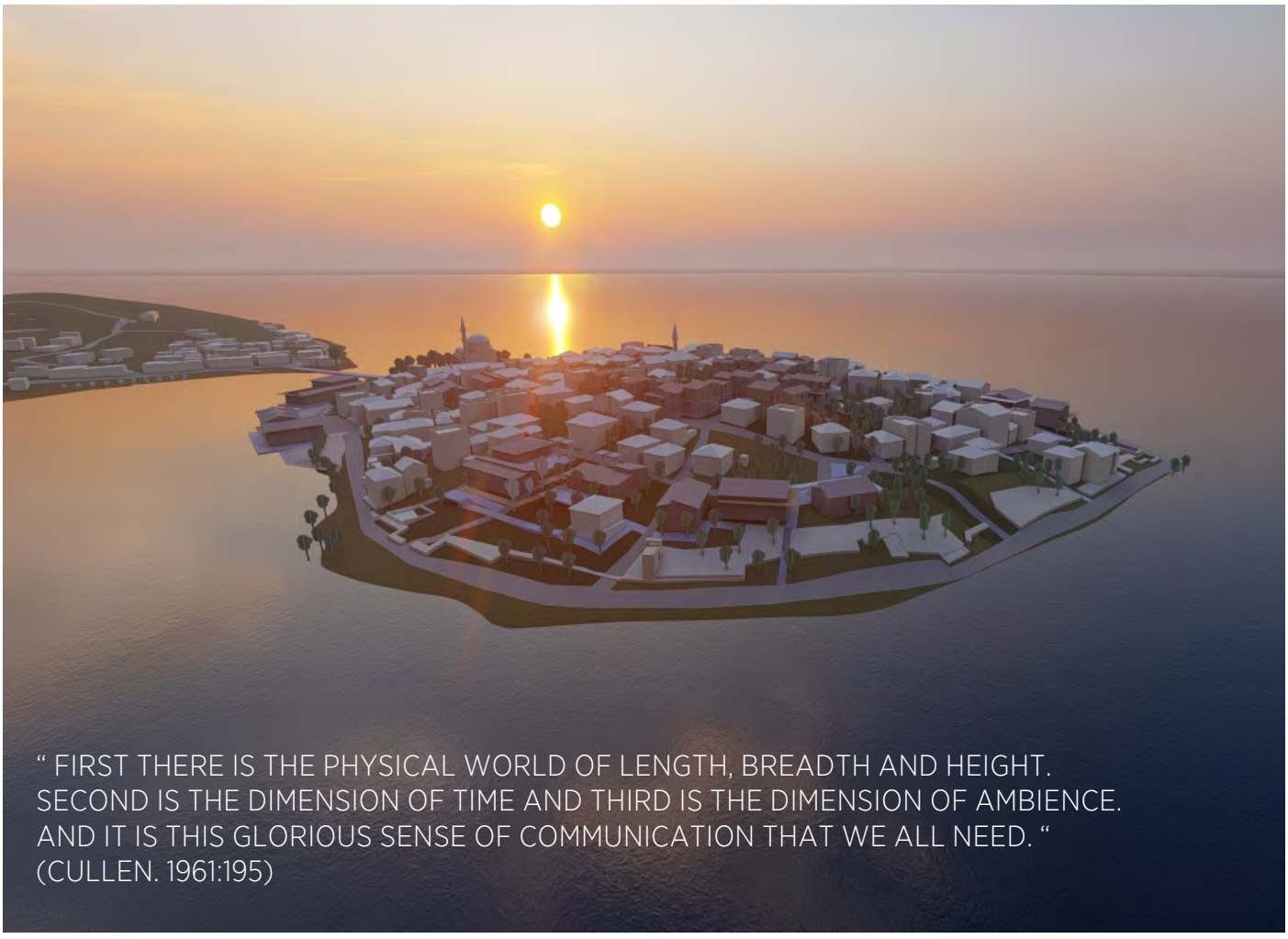
ACCESSIBILITY - ELEVATORS

FEELING OF INTIMACY - EMBRACING



CLOSE RELATIONSHIPS

"WHERE HOUSE TYPES VARY, A RELATIONSHIP DEVELOPS BETWEEN THE BUILDINGS WHICH MAY BE TURNED TO GOOD USE IN BRINGING THE SCENE TO LIFE. ONE MAY FEELS THAT THE BUILDINGS ARE IN CAHOOT. " (CULLEN, 1961: 137)



" FIRST THERE IS THE PHYSICAL WORLD OF LENGTH, BREADTH AND HEIGHT. SECOND IS THE DIMENSION OF TIME AND THIRD IS THE DIMENSION OF AMBIENCE. AND IT IS THIS GLORIOUS SENSE OF COMMUNICATION THAT WE ALL NEED. " (CULLEN. 1961:195)

- *Cullen, G. (1961). The Concise Townscape. New York: Routledge, Architectural Press.*

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REVITALIZING NAZILLI SUMERBANK: THE SOCIAL FACTORY

Ezgi Çırpanlı

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REVITALIZING NAZILLI SUMERBANK: THE SOCIAL FACTORY

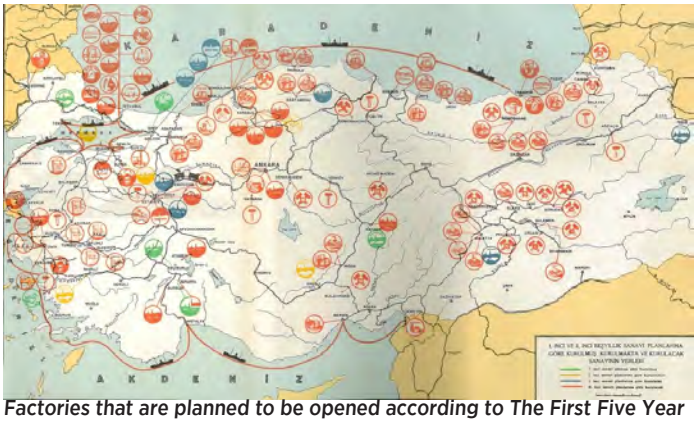
EZGI CIRPANLI

This project is based on the idea of "social factory" which was the concept behind Nazilli Sümerbank Textile Factory., Nazilli Sümerbank Textile Factory is the first "basma" factory and only the second Sümerbank Factory in Turkey. As part of both the "economic development" and "social development" movements its significance for early republican Turkey extends beyond the borders of Nazilli. Like other Sumerbank campuses its site is practically divided by strategic land allocation practices. About half of it is given to Adnan Menderes University as a faculty and MYO; the rest of the area neither completely demolished or destroyed.

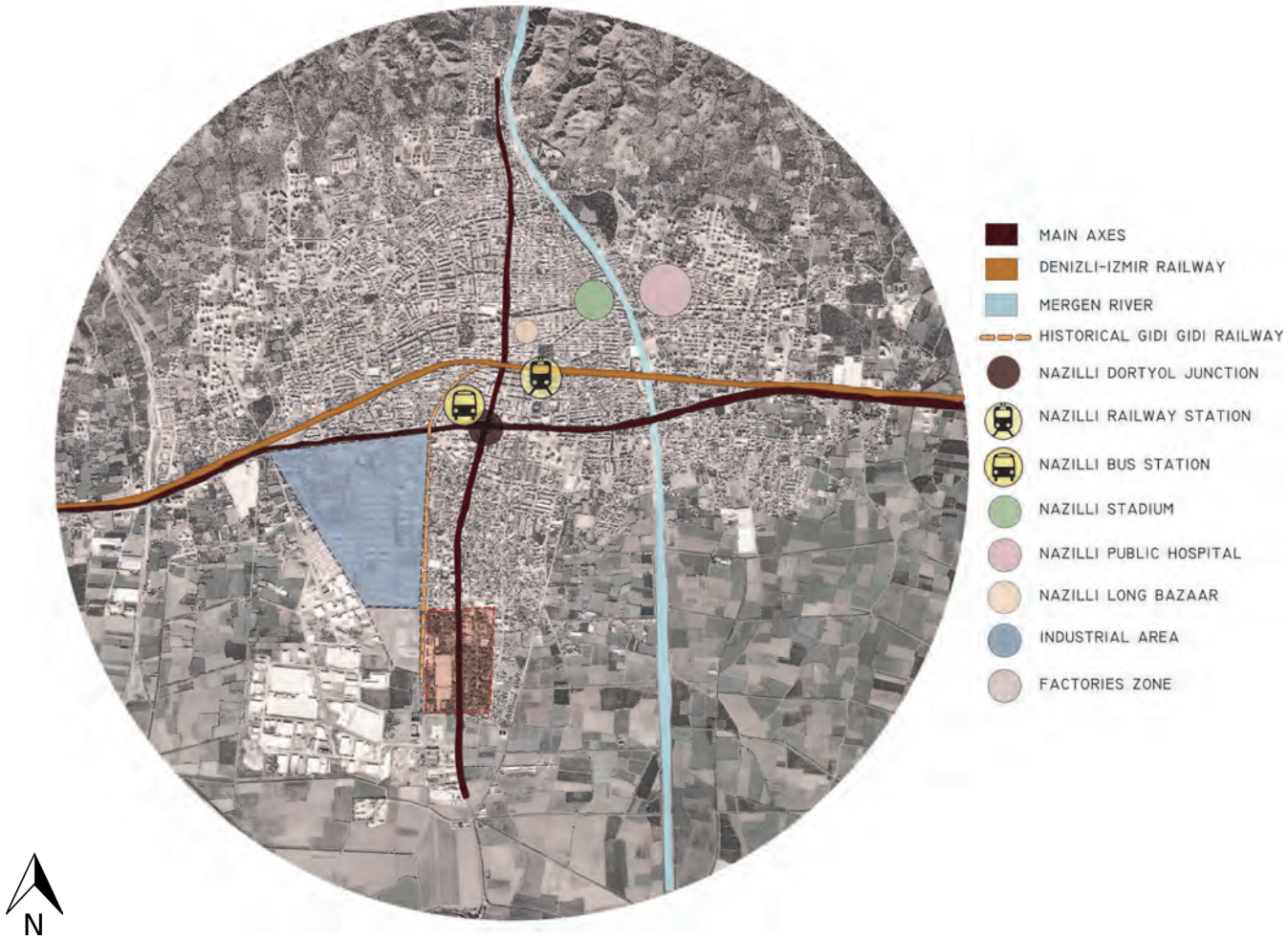
This project focuses on the revitalization of the Nazilli Sümerbank Factory campus and development of a vision for the main factory building with a contemporary public use.

THE SUMERBANK FACTORIES

Sümerbank Factories are based on Atatürk's principle of statism. During Early Republican Era, there was need for quick developments, especially in economical context. Atatürk stated that "There is no national independence unless there is economic independence" and this statement highlights the need for economic development. The First Five Year Development Plan was organized for this purpose. Coincidentally, there was an ongoing process about social developments and equality which are built up the Atatürk's populism principle. It can be said that the idea of Sümerbank was also built upon the populism principle.When all these principles and processes are taken into account, it can be understood that Sümerbank Factories are not just factories but they are "social factories". They were not just stone blocks, buthuman-centered enterprises,. Because of that Sümerbank Factories not just helped developing the economy but also developed a new society.

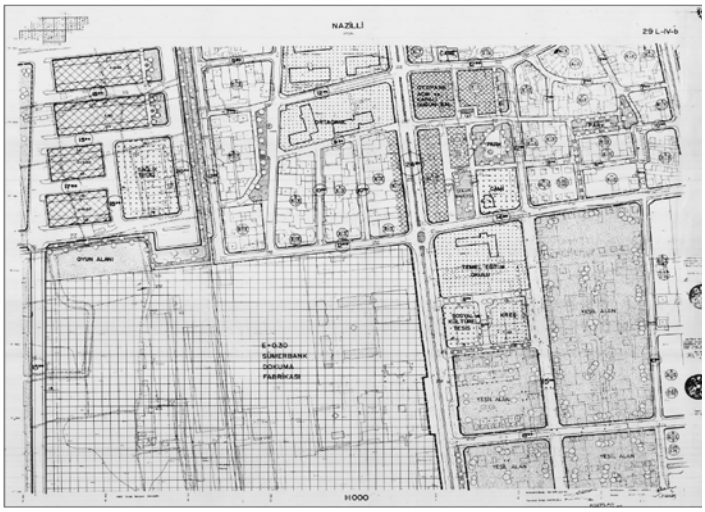


Factories that are planned to be opened according to The First Five Year Development Plan



NAZILLI: GENERAL INFORMATION

Nazilli is one of the biggest counties in Aydın, located in close proximity to the Meander River (Büyük Menderes) and the Aydın (Denizli-Izmir) railway. In addition to the intercity railway, which is still in use, there is also a regional one called the "Gıdı Gıdı" Train, which was the Sümerbank factory train and became the symbol of Nazilli. It is no longer in use. The extension of the Meander River called Mergen River runs through the Nazilli. Nazilli is organized around two main axes that connects center, edge and outside of Nazilli. One of them is on Hürriyet Street, also known as Bozdoğan Road, and it divides Nazilli in south-north axis. The other main axis is known as Aydın-Denizli Road.
There is a distinctive zone of industrial area, which was originally developed in relation with the Sumerbank Factory, and is still active, but not in socially optimal position.



Sumerbank and Close Environment, 1950

1930

1933

COTTON RECLAMATION STATION AND PRODUCTION FARM ESTABLISHED

To control cotton related works, establishing a cotton station decided. The station and production farm established according to The Cotton Production Law No. 2903 and Article 2 of the Law No. 2582 on the breeding of Merino sheep and the production of improved cotton seeds.

From construction of Factory

AUGUST 23, 1935

MAKING THE GROUNDBREAKING CEREMONY OF THE FACTORY

SEPTEMBER 22, 1932 — **LOCATIONS OF FIRST FACTORIES DECIDED**

According to the analysis of proposed locations, Kayseri and Nazilli were decided to be first Sumerbank Factories

1934 — **AGREEMENT WITH SOVIET UNION SIGNED**

According to this agreement for the factories to be opened, the Soviet Union would provide credit facilities and necessary material assistance in the factory.

1937

OCTOBER 9, 1937

OPENING OF NAZILLI SÜMERBANK FACTORY UNDER THE LEADERSHIP OF ATATÜRK

This social factory, which emerged from the marshes in a period of two years, was opened on October 9, 1937, under the leadership of Atatürk, with İsmet İnönü, Celal Bayar, Fevzi Çakmak and Afet İnan.


ULUS

İlk basma fabrikan

NAZILLI BAYRAM YAPIYOR

Atatürk altın anahtarla fabrikayı bizzat açtılar

1937

BALLS, CELEBRATIONS AND EVENTS

Until the end of 1930s women and men would not attend events together. After factory complex opened, women and men attend all events together.

1940

1941 — **FIGHTING MALARIA**

Factory built in a "swamp" area and the main aim was "dry the swamp" and trying to overcome malaria. However, malaria was still a problem. During 1941, by the help of health care facilities of Sumerbank, successfully combated malaria.

2000

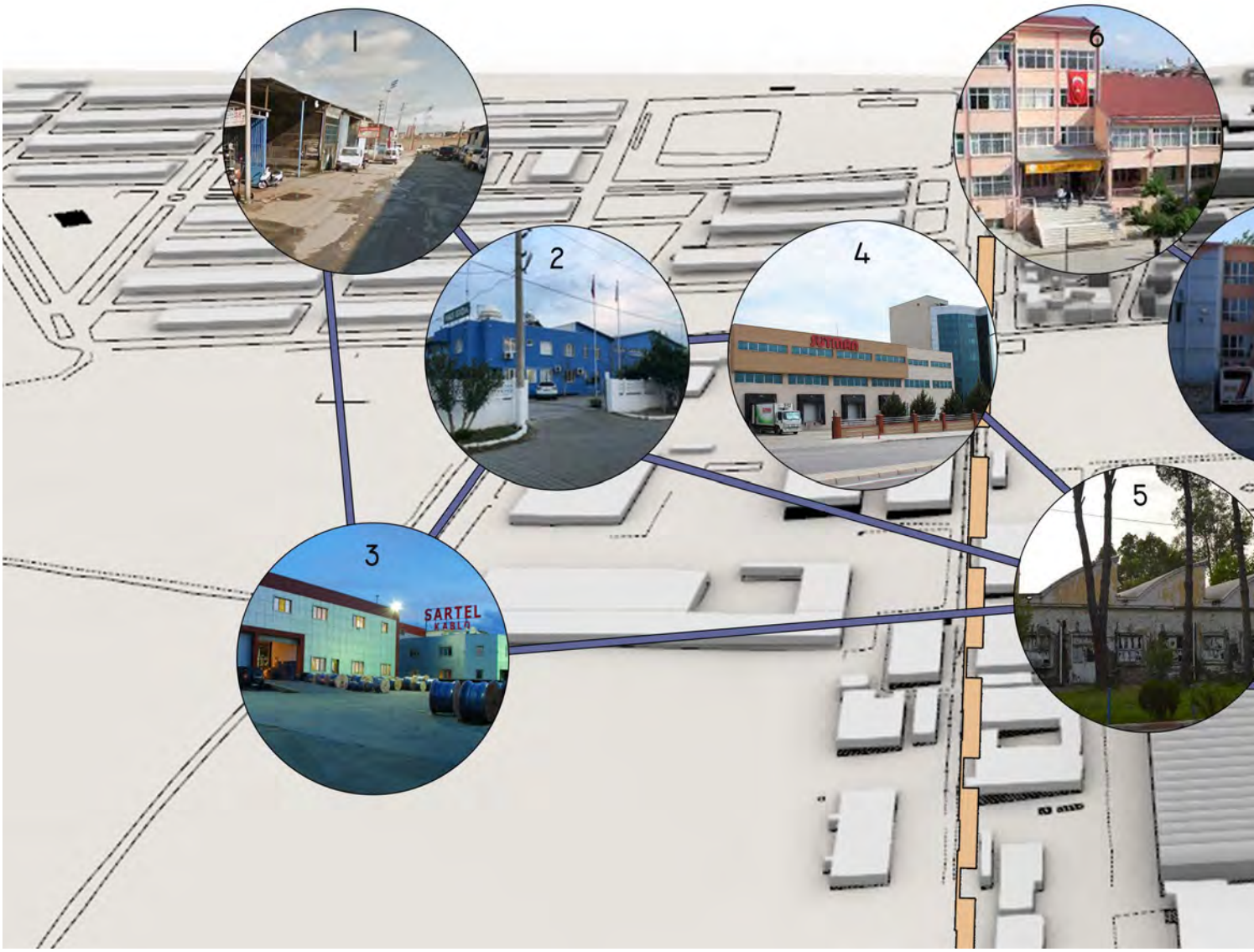
December 8, 2002

Azra Akın wore a dress produced in Nazilli Basma Factory for World Beauty Contest

November 14, 2002 — **FACTORY CLOSED**

In 2002, Factory closed and by privatization administration some part of the site was given to Adnan Menderes University. Now, there is a faculty and MYO continue to the education life. The Residential areas demolished and turned into green public space which is not in socially optimal position.

2010

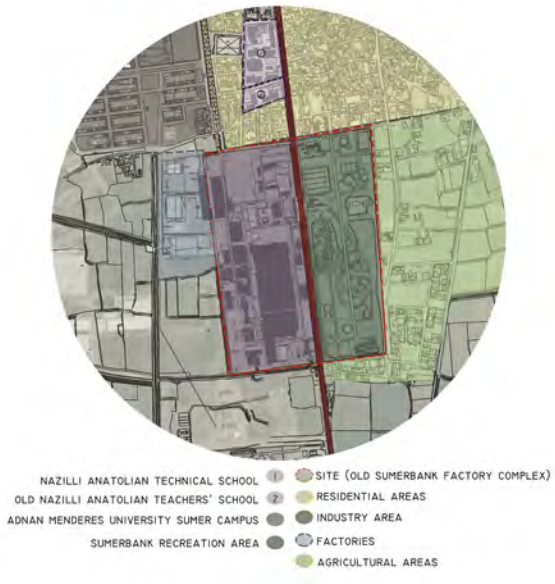


1: Industrial Area
2: Has Gıda Fig and Olive Oil Factory
3: Sartel Cable Factory
4: Sütman Dairy Products Factory
5: Historical Sümerbank Basma Factory Building
6: Nazilli Anatolian Technical Highschool
7: Nazilli Anatolian Social Sciences Highschool
8: Adnan Menderes University Sumer Campus Enterance
9: Sumerbank Recreation Park Area
10: Sumerbank Recreation Food&Beverage Area
11: Sumerbank Basma Factory Mosque
12: Agricultural Areas

Nazilli Sümer District

Sümer District is part of "Aşağı Nazilli" (Lower Nazilli) which is located in the southern part of the city . The name of "Sümer" came from "Sümerbank Textile Factory" which is established on the "outer" part of the Nazilli. Because the area is close to the extension of "Büyük Menderes" River, the ground was formerly known as a swamp ground. Currently, district composed of mostly industrial, residential and educational facilities. Buildings are low rise structures, and residential areas are under threat of unplanned and disorganized growth. social facilities and healthcare services are limited.. One of the most important axes of Nazilli called Hurriyet Street is the main axis of the district and this street connects city center and Sümer District.

General Functional Division in Sumer District



Important Axes in Sumer District

Photo Archive of "The Voice of Sümerbank (Sümerbank'ın Çığlığı)" by Dr. M. Turan Keskin

SITE: PROBLEMS AND POSSIBILITIES

Nazilli Sümerbank Factory Area is currently serving two types of uses: educational and social. the campus is divided into two by the reference of Hurriyet Street. Regarding the previous functional zoning; the area with main factory building and social facilities mostly became faculty buildings of the department of Economics and Administrative Sciences and some MYOs (Vocational Schools). Main factory building is abandoned and some buildings are completely demolished. The area with residential structures is used as "Sümerbank Recreation Area" which is not in socially optimal position.

PROBLEMS

There is a lack of social facilities, healthcare opportunities, economical facilities and proper residential areas around the site. Sümerbank Factory was "a social complex" including cinema, ballrooms, Sümerbank Sport, educational units (Sümerbank Primary School and workshop areas), arts and crafts studios, hospital, and different types of residential buildings. However, today most of those facilities are lost. The old factory building is abandoned and partly damaged over time. For the current use of the university, the old warehouse buildings were turned into classrooms. Due to need for more classrooms new buildings were built disregarding the architectural features of old warehouse buildings. However, warehouse buildings are not efficient to use for educational usage in the first place.

POSSIBILITIES

Close environment of Old Sümerbank Factory area, mainly Sümer District, has an existing domination of industrial usage. There are industrial areas and some factories. Also, there are some agricultural areas that can be used for factories or production. For that reason, revitalizing old factory for an industrial usage could be possible. Hürriyet Street is still one of the most important streets and roads in Nazilli. This streetconnects center of the Nazilli, Sumerbank area and outside of the city. Most of the Gıdı Gıdı Railway is still preserved, which means Gıdı Gıdı might be revitalized as well. Although the Sümerbank Recreation area is not in socially optimal position, the area can be redeveloped as more active social area as part of "Sümerbank Social Complex" and be reconnected to Nazilli.

Social Facilities

Gıdı Gıdı Train

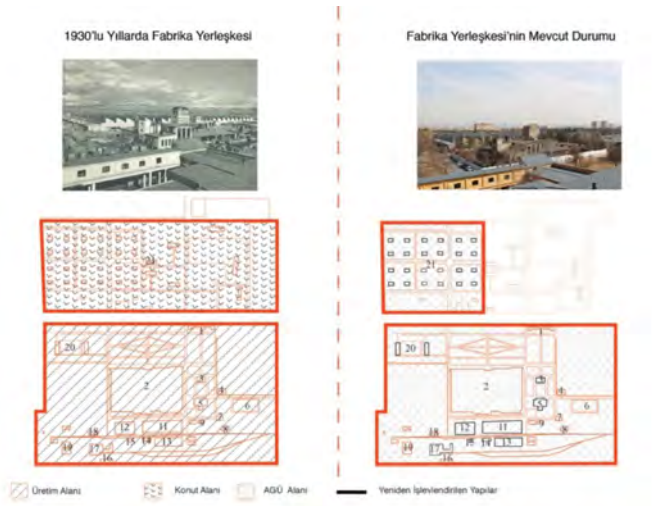
Sumerbank Recreation Area

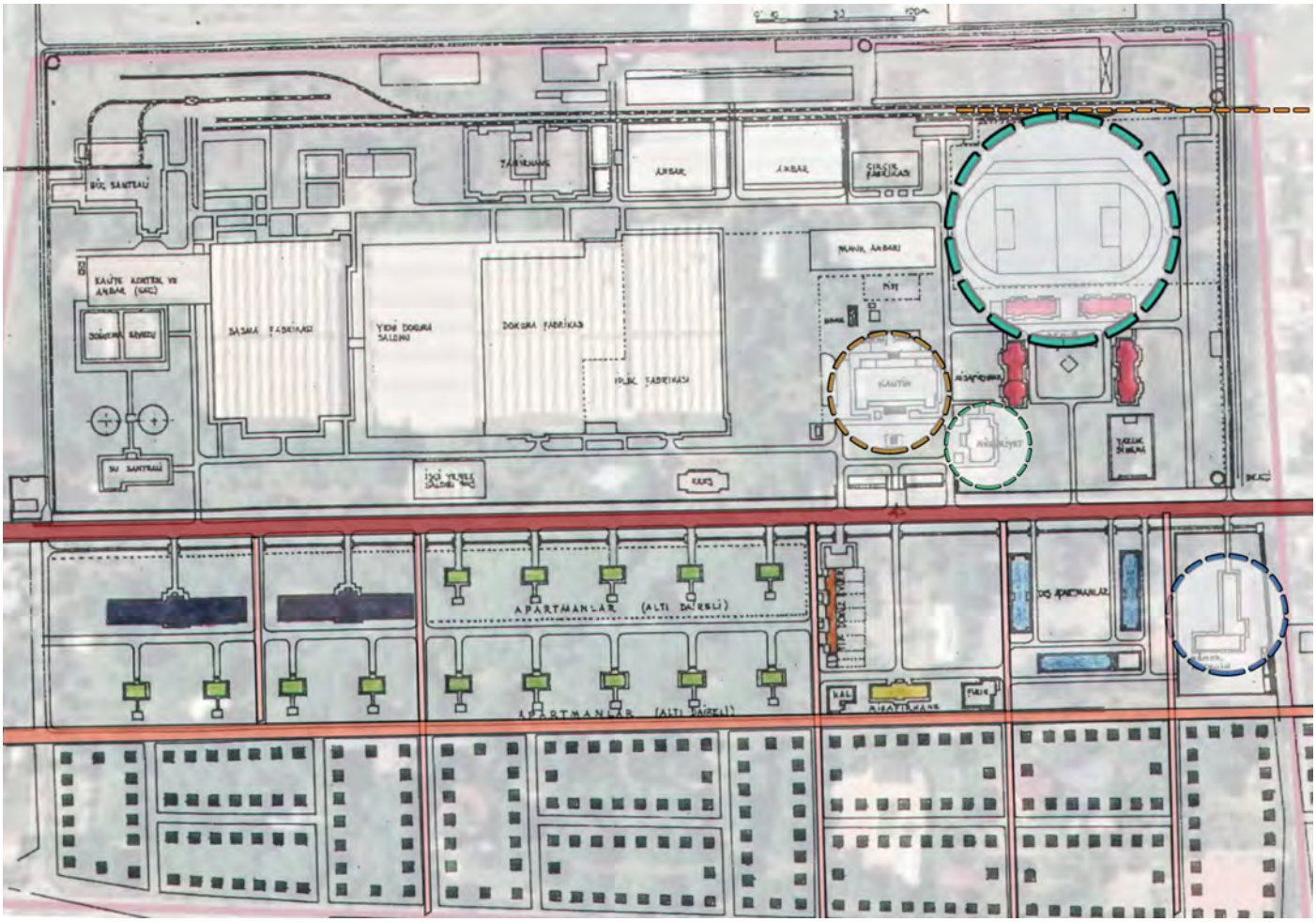
CASE STUDY:
KAYSERI SUMERBANK BEZ FACTORY

Kayseri Sümerbank Bez Factory wasopened on September 16th of 1935. It was the first Sümerbank Factory in Turkey. Factory contributed to production and economy in the 1930s andserved until 1999. On 20 April 2012, 350,000 square meters of the campus has been allocated to the Abdullah Gül University to be used in university services. Additional warehouse buildings were designed by Emre Arolat Architects (EAA) as the rectorate building. Factory building planned to be converted to an incubator and is still under construction. Residences of workers turned into the student village.

During 1930s factory made whole Kayseri fit the early Republican Era, and now, after conversion to the university campus, it made people feel a similarly enhanced atmosphere.

Refunctionalized Warehouse Buildings





COMPARISON: FACTORY ERA AND NOW

As it is stated, after the factory closed, lots of buildings and structures were destroyed or completely demolished. However, master plan of factory site still makes a strong frame of reference in comparison with the current situation in terms of physical and social context. Firstly, in the case of physical context, the axes, whether they still exist, footprints of demolished structures and existing structures are analyzed. When the two conditions that is mentioned above were layered and compared, the main axis called Hürriyet Caddesi preserves its importance and dominance in the area. The secondary axis still exists and other divisions/axes were destroyed. In the residential zone all buildings except the Sümerbank Primary School were completely demolished While massing and programming that part of the site the footprints of the demolished structures and axes can still be used as the reference for massing to not destroy the old trees.

Secondly, in terms of social context and interaction comparison, it can be said that many of the social facilities, their structures and spaces are destroyed and demolished. For the aim of regeneration of the site, those social facilities like sports areas, cinema and theatre, health center, library, ekonoma (economic commercial area, bazaar) are modernized and reintegrated to the campus in their old locations.

Also, some part of the area is used by ADU as a department and some are used by MYOs. Therefore, according to the aim of this project, for regenerating the site and preserving and improving current use the main design programming is chosen as “Open Campus” including the social facilities areas which are also open to the public.

Demolished Buildings

Present Buildings and Structures

Buildings That Are Not Used

Buildings Used by the University

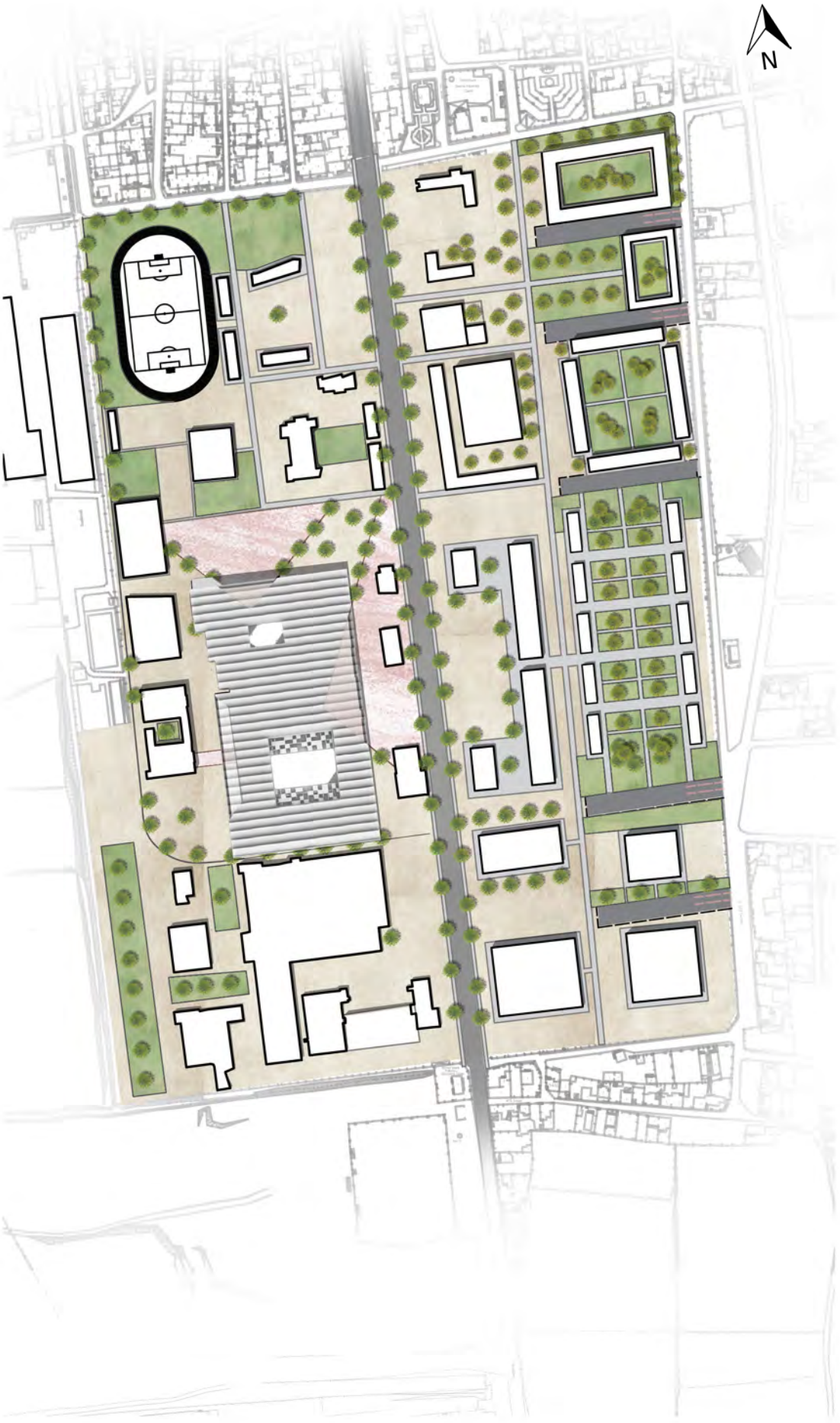
Buildings in Use with the Same Function

Axis Referances

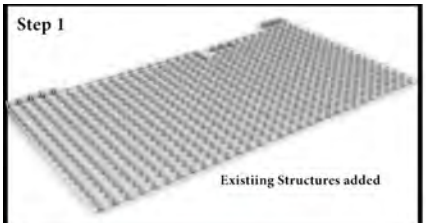
Primary Function Distribution

INITIAL MASSING: PROGRAMMES AND SPACES

SITE: MASTER PLAN

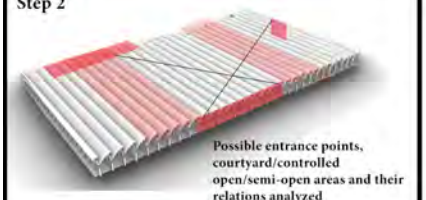


Step 1



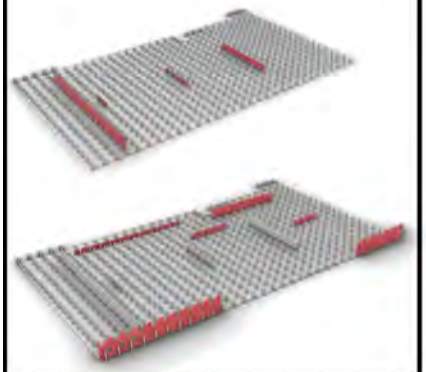
Existiing Structures added

Step 2

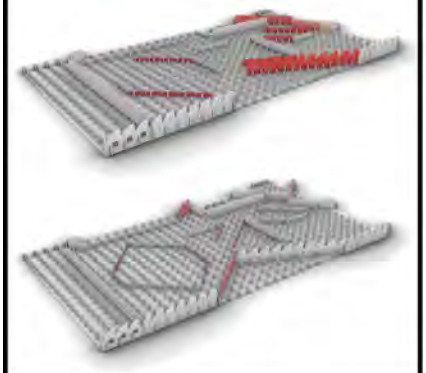


Possible entrance points, courtyard/controlled open/semi-open areas and their relations analyzed

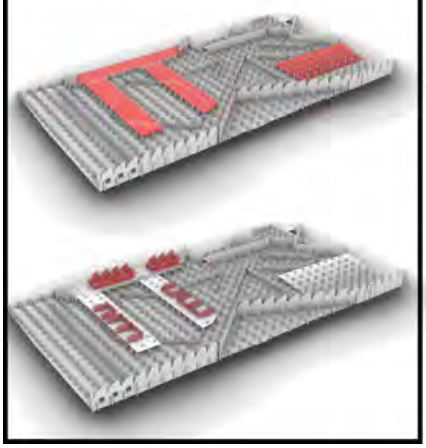
Step 3 Walls that are parallel to the existing shell and...

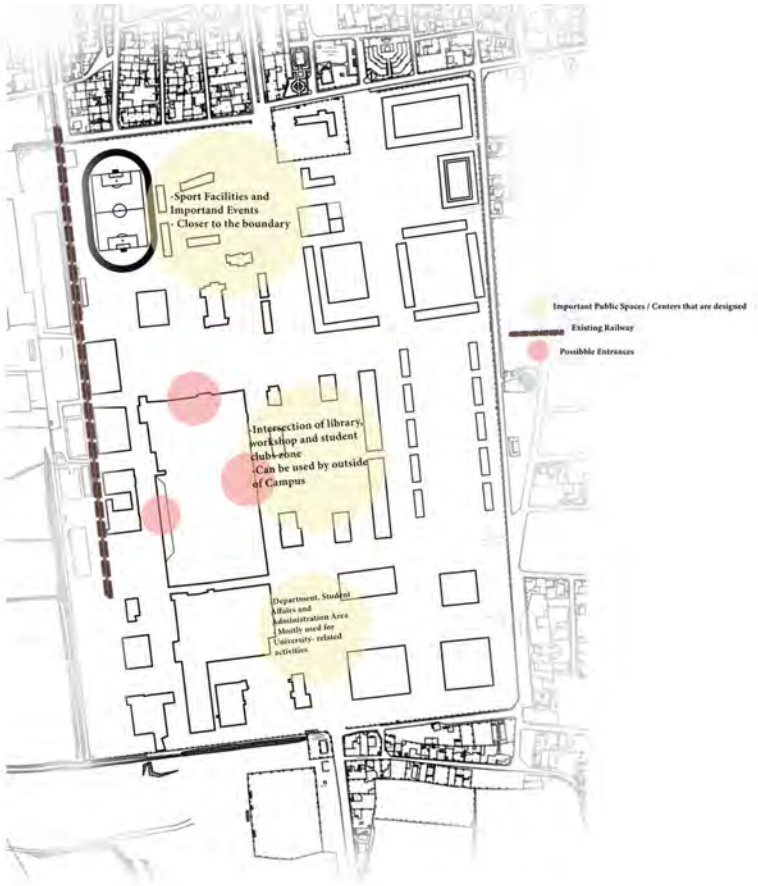


Step 4 ... diagonal walls added according to the space relations.

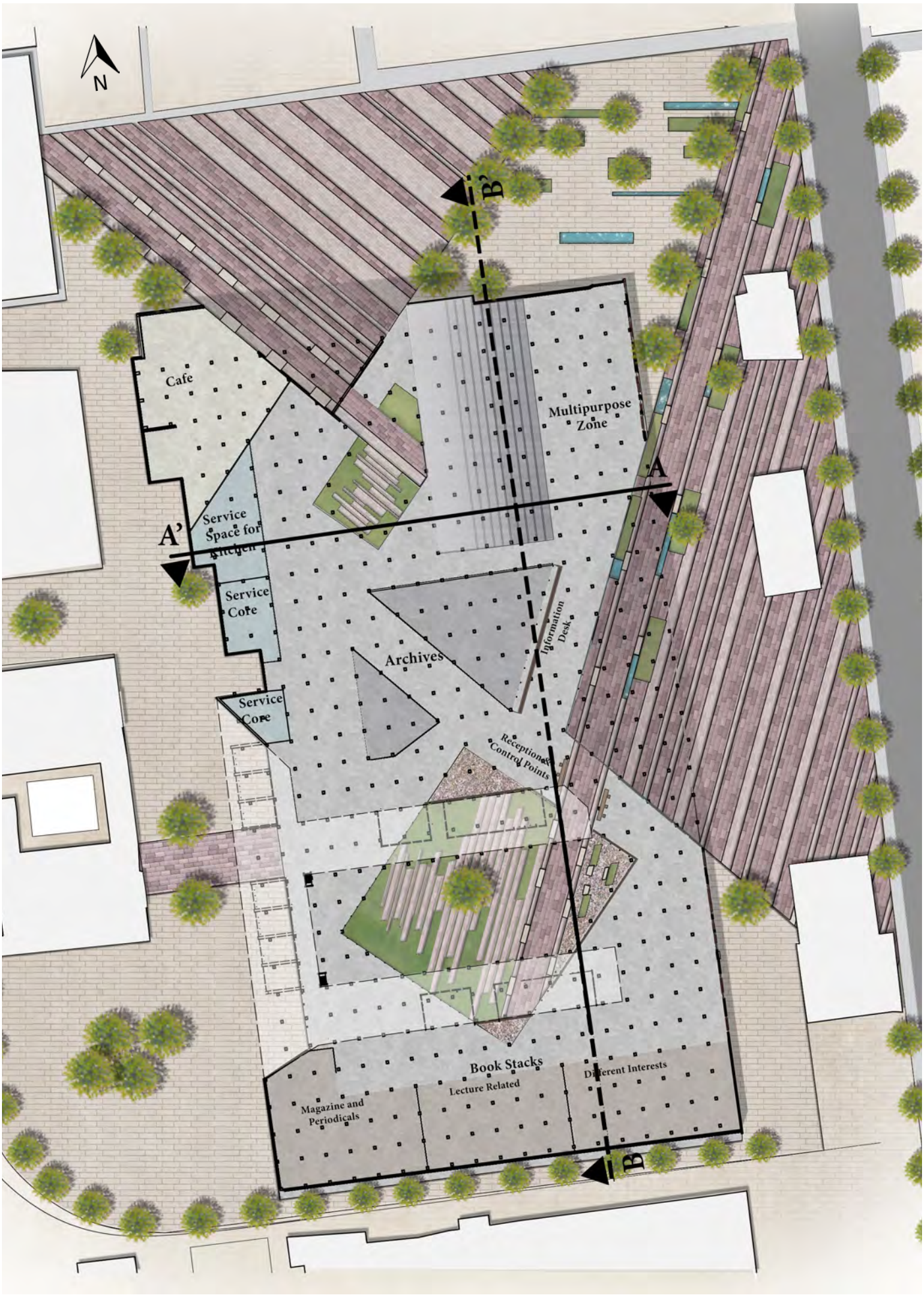


Step 5 Platforms added.

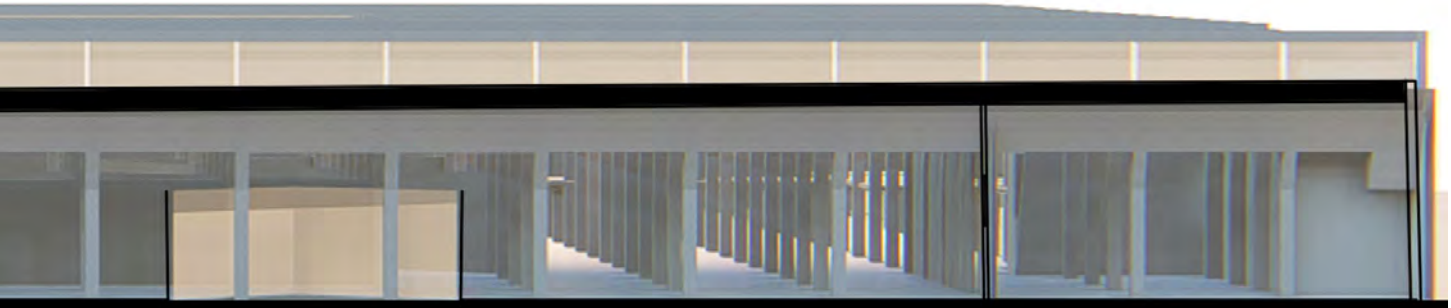




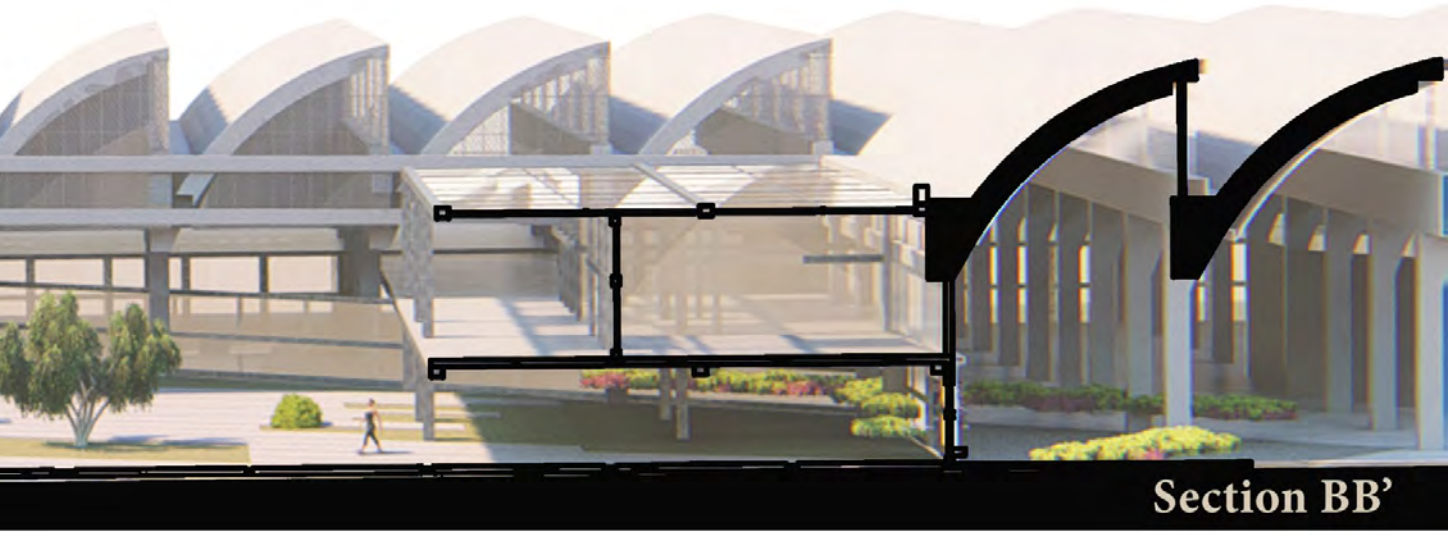
GROUND FLOOR PLAN



SECTIONS



Section AA’



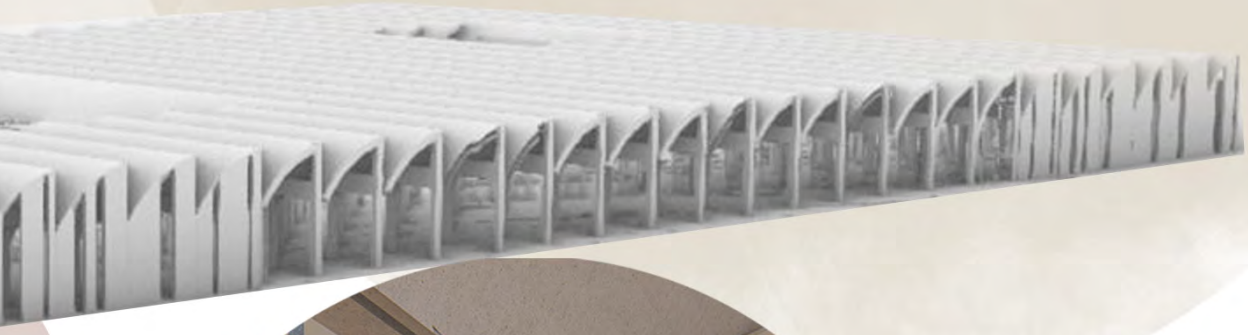
Section BB’

ELEVATIONS

West Eleva

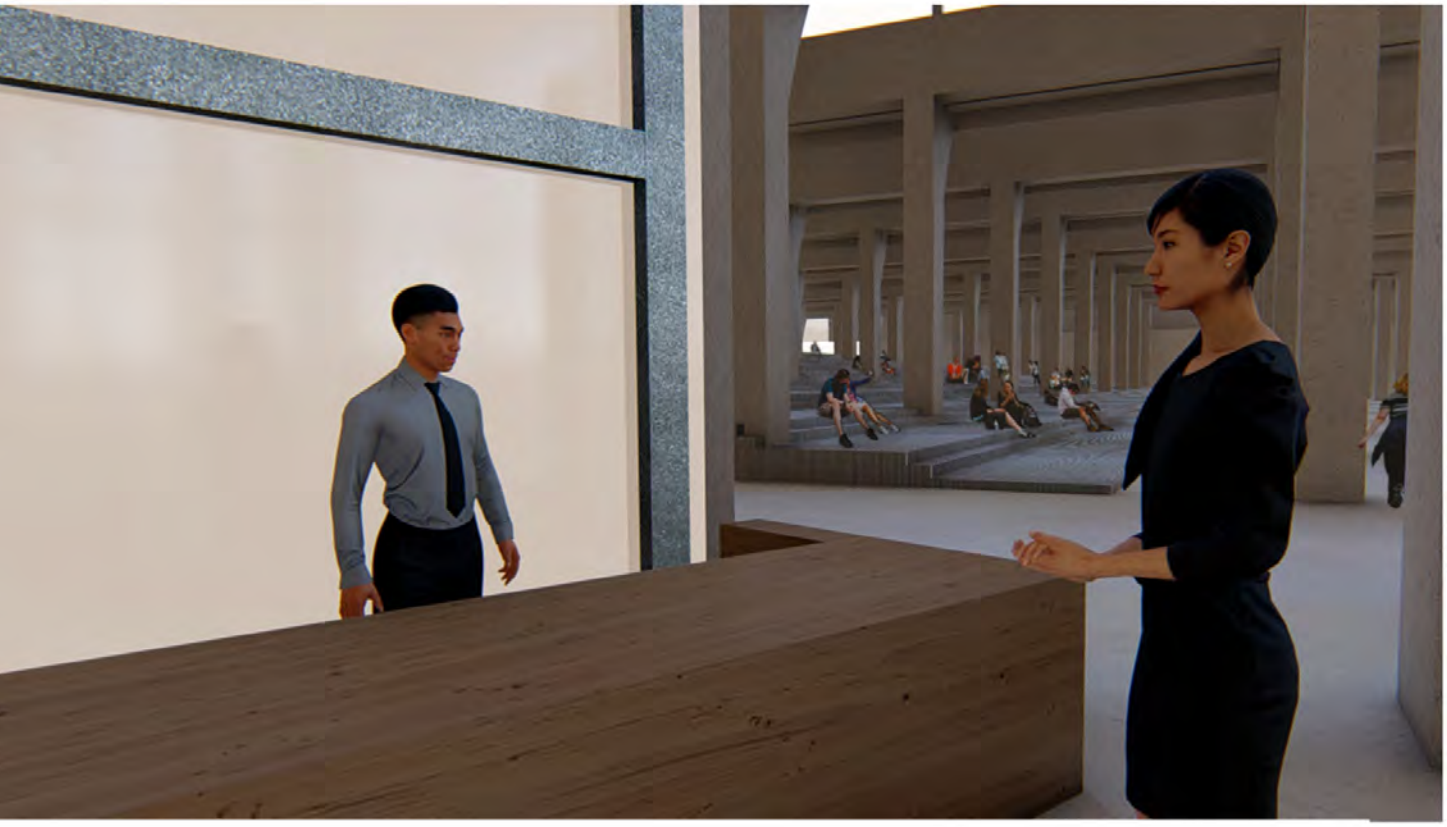
East Elevation

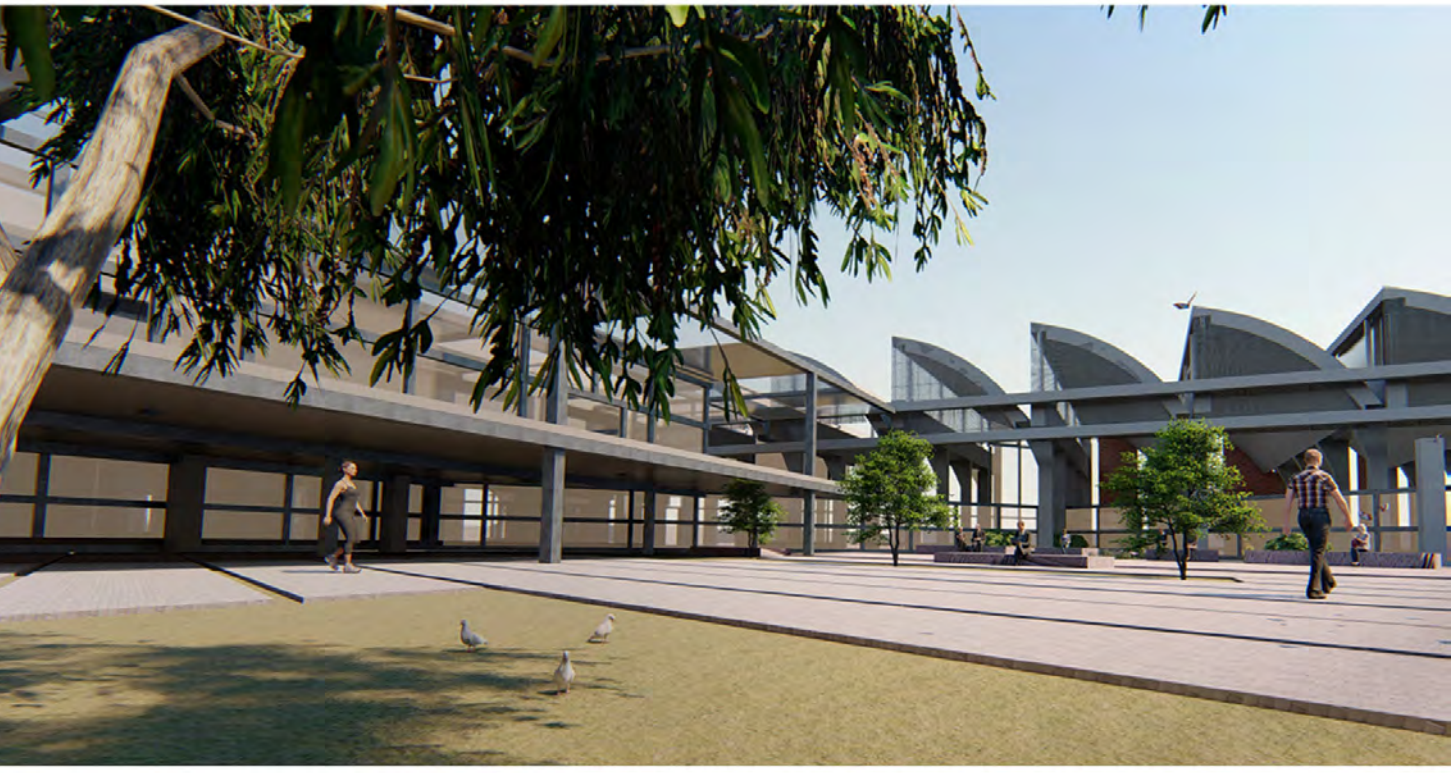
ation



Main Entrance

Experiencing the “Social Factory”: Vignettes





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-Photo Archive of "The Voice of Sümerbank (Sümerbank'ın Çığlığı)" by Dr. M. Turan Keskin

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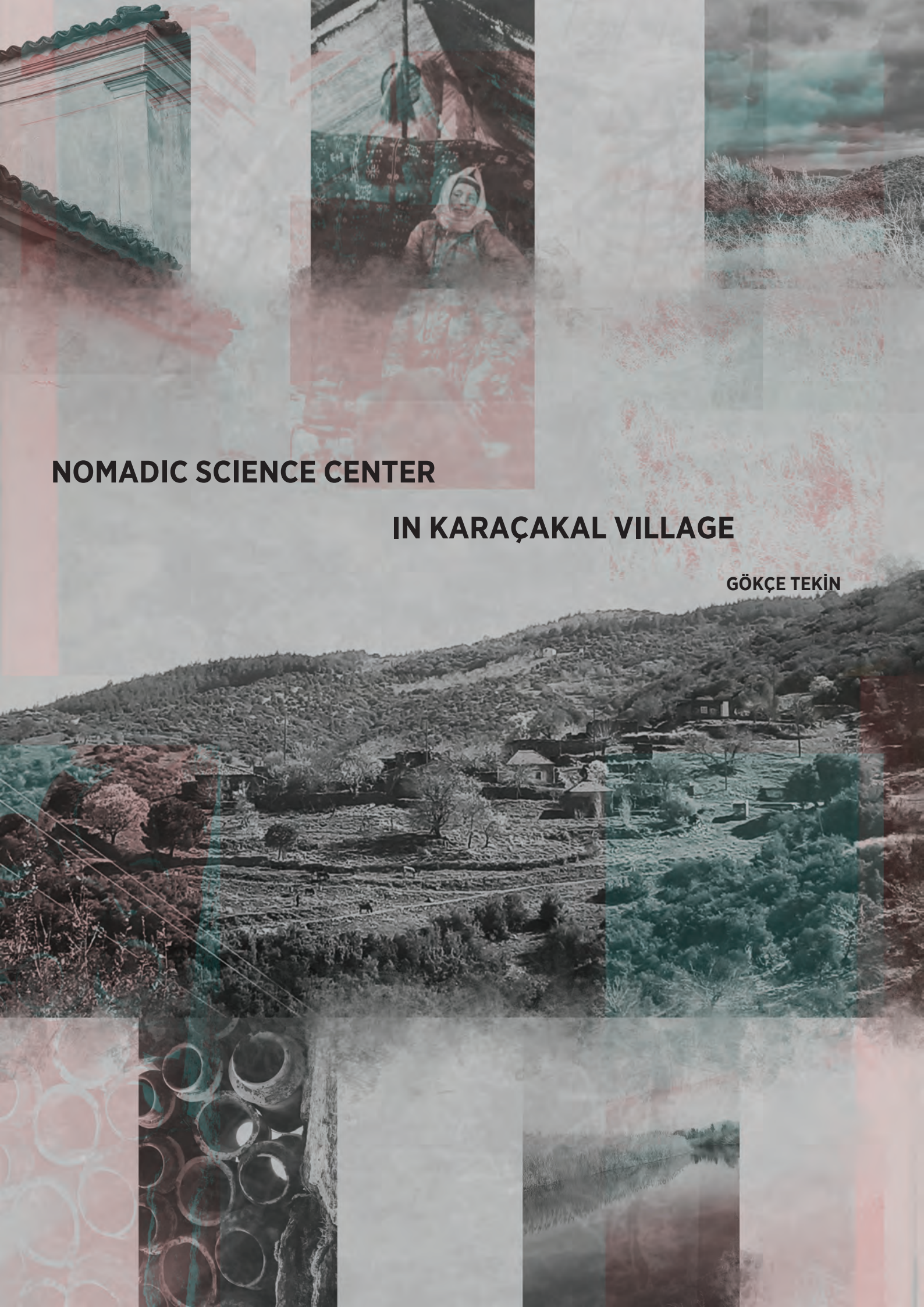


NOMADIC SCIENCE CENTER IN KARAÇAKAL VILLAGE

GÖKÇE TEKİN

NOMADIC SCIENCE CENTER IN KARAÇAKAL VILLAGE

This project proposes a new development plan for village of Karaçakal to strengthen its connection to the region of Büyük Menderes plain and enhance the natural and cultural variety of the region. Therefore, the study focuses on understanding the life of habitants, daily life, culture and the problems of the region.

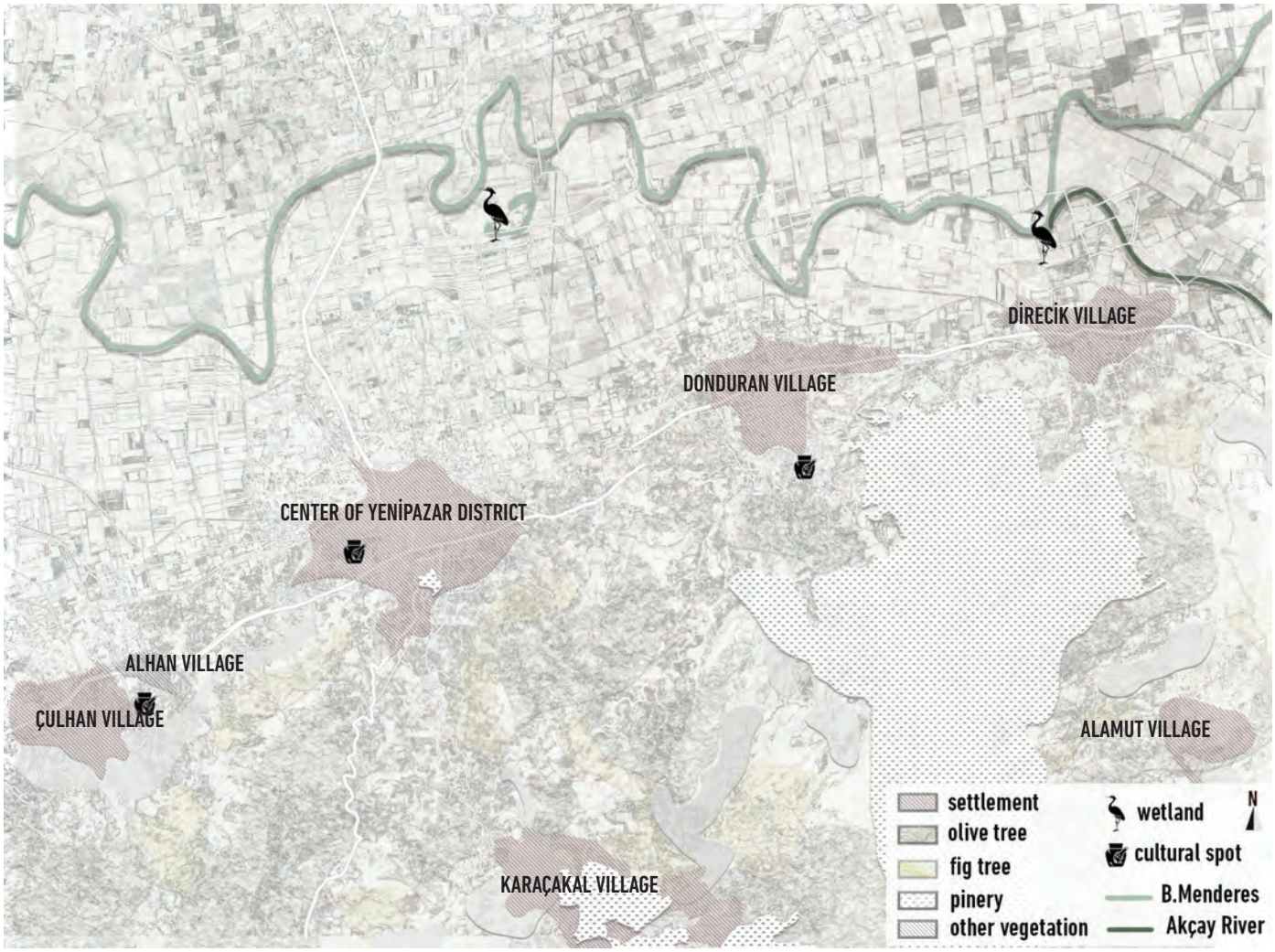
The main problem of the region is urban-rural immigration because of the economic problems. Project aims to provide a sustainable solution for the habitants to stay in their homelands and reunite with nature .

SITE DATA

Yenipazar is 40 km far from southeast of Aydın province and at the intersection of Madran Baba Mountain with the Büyük Menderes River. In terms of transport connections, it is located 8 km inland from the Aydın-Denizli highway, which connects Anatolia to İzmir. Its geographic location brought Yenipazar an important advantage, it has managed to preserve its own culture without getting too much immigration. Yenipazar is a small district, and contains plenty of villages. Some of them are settled in foothills and some are in mountains.

The first settlement location of Yenipazar is said to be in the vicinity of ancient city Orthosia whose history dates back to 2000 BC. Orthosia was a Carian settlement. There are remains of the ancient city in the villages of Yenipazar.

Turkoman people settled around village of Donduran in 1455 which is at the east of recent district center. At the end of the 17'th century, Turkoman people had to move because of disease malaria and they settled in Yenipazar. The region became a new market that is active in one day of week for the surrounding villages to sell what they produce and also buy new products. Therefore, the district named as "Yenipazar" means New Market in Turkish.



Yenipazar has the statue of Cittaslow, which is a kind of movement against the standardizing effect of globalization on cities. Idea of Cittaslow came out in Italy, from the loss of local identiy of cities against globolization and discusses aesthetics, quality of life and local development. Therefore, the movement proposed to protect the cities that has managed to preserve its own culture. According to Cittaslow movement, cities should be improved in terms of technology, modern developments and also should preserve cultural, local and architectural heritage as an identity.

Yenipazar is surrounded by Büyük Menderes River which extends in west-east direction and Büyük Menderes Plain. The plain is very fertile since it is fed by Büyük Menderes river. Therefore, agricultural activities are the main pipe line of the habitants. The main tranportation axes of the region is also parallel to the Büyük Menderes River extends in west east direction.

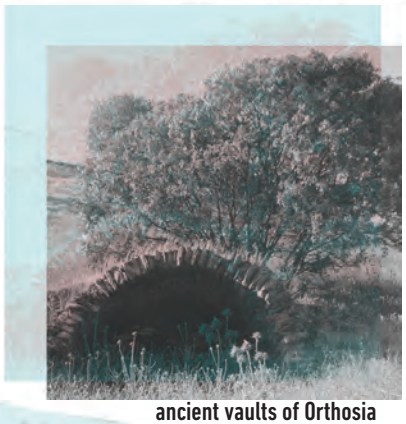
In the center of Yenipazar there is an extension of Büyük Mendres River, which forms a lake called Dip Lake in between the fields. Similar to Dip Lake there is also another wetland at the intersection of Büyük Menderes river and Akçay River in village of Direcik. These wetlands host grey and white herons and plenty of different kind of birds seasonally. These, locations became an attraction point because of their natural beauty.

cotton harvest / karacasu

photo taken by Paolo Monti 1962

winter at mountain villages

Büyük Menders River



ancient vaults of Orthosia

olive harvest

painting motifs of vernacular architecture

CLIMATE OF THE REGION / YENİPAZAR

Yenipazar is in the Aegean region, therefore Mediterranean climate is dominant in the region. Summer is very hot and dry, and winter passes mild and rainy. However, Yenipazar consist of also settlements in the mountains such as village of Karaçakal, and village of Paşaköy. In mountains, winter passes more harsh, it might snow in very cold days. On the other hand, this topographical difference creates an opportunity for the habitants of the region.

In hot summer days, habitants of the region used to go their garden houses or plateaus on the mountains since these areas gets summer breeze.

The setttlements are mainly located between the fields and mountains. Most of the villages are close to each other and the habitants of the region used to walk from one settlement to another. Walking was the primary way of transportation. From my conversations with habitants, it seems like long walks with crowded family to their elderly family members who live in the villages, has a significant place on their memory and childhood. It was like a journey for them.

However, nowadays both the villages and Yenipazar district are affected from urban-rural migration since the income coming from agriculture and animal farming activities reduces. Young generation searches for other opportunities in the city, as a result the young population decrease. Therefore, municipality begin to support tourism activities in the region.

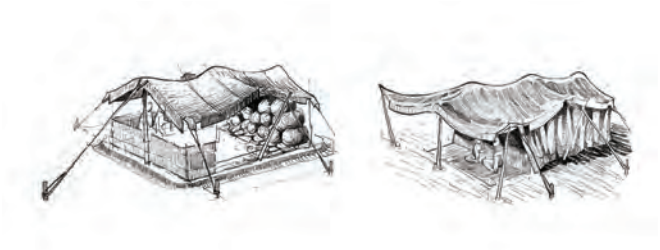


image from "Mimariyi 'Dokumak': Anadolu - Batı Toros Göçerlerinde Çevre - Kültür İlişkisi"

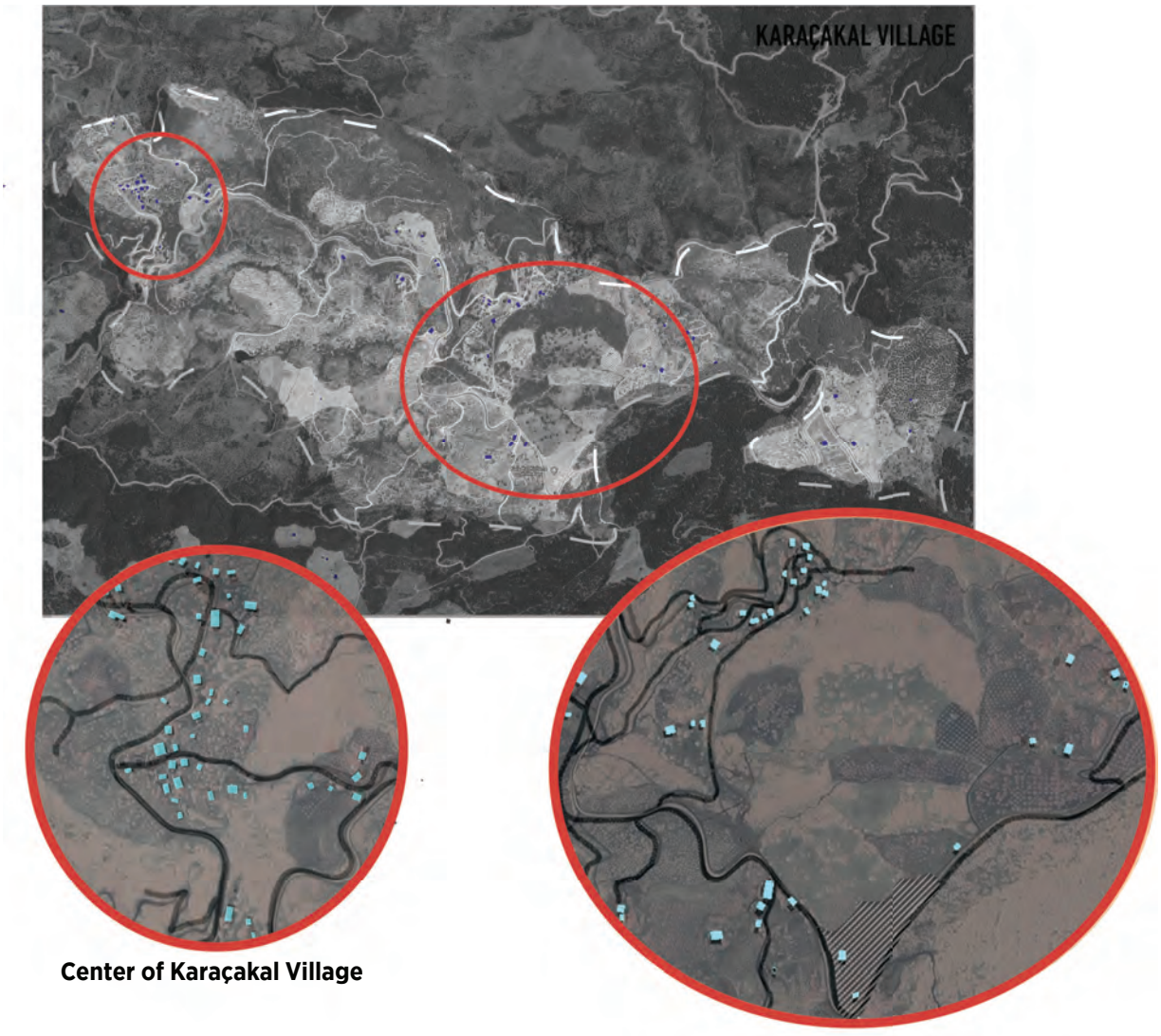
KARAÇAKAL VILLAGE/ MAIN AREA

Karaçakal village is a Yörük village located at the mountains, 5 km far from center of Yenipazar district. Because of economic concerns and lack of infrastructure in the village, the young generation moved to Yenipazar or other cities.Therefore, the density of population is low. It is assumed that theancestors of Karaçakal Yörüks comes from Antalya, the ancestors of Karaçakal village came here by following Mediterranean coastal line, because of unrest conditions in where they live and to find suitable places to feed their animals.

BRISTLE TENT / NOMADIC CULTURE

Yörük culture has a deep connection with nature and animals. The way they live is dependent on the natural conditions and their mutual relation with animals. Because of nature of nomadic culture, bristle tents are the houses of these people. Bristle tents provide healthy air circulation, are waterproof and has non-combustion properties. The pores of the tent, opens in summer and closes in winter. In that way it provides a qualified heat balance inside. Also, weaving craft is one of the traditional features of Yörük culture. Nomadic lifestyle of Karaçakal Yörüks continued untill 19'th century. In the figures, different adaptations of tents can be seen.

EXISTING SETTLEMENT PATTERN OF KARAÇAKAL VILLAGE



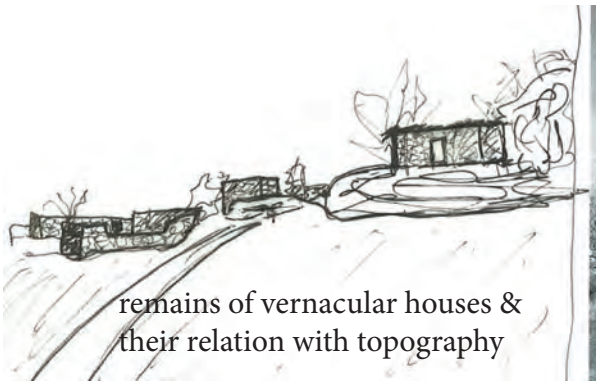
Center of Karaçakal Village

Köseler Neighbourhood

BUILDING PROGRAM PROPOSAL

Karaçakal villaage has a great connection to Yörük Culture, therefore its 2 features creates the base of the concept which are being seasonal and cyclic. Nomadic Science concept is determined to also higlight the historical background.The region economically dependent on agriculture, and has a variety of natural beauty. In addition the vernacular houses of the village provides an architectural point of view. As a result, 3 main areas are chosen for architectural studies, native seed collection and birdwatching. Additionally, some attraction points on the trail is chosen to create small stops for the people who come for trekking. The activities at this areas will be conducted in cooperation with locals. In that way, these activities also provide an extra income. for the inhabitants.

TECTONIC & TOPOGRAPHIC FEATURES OF THE VILLAGE



remains of vernacular houses &
their relation with topography

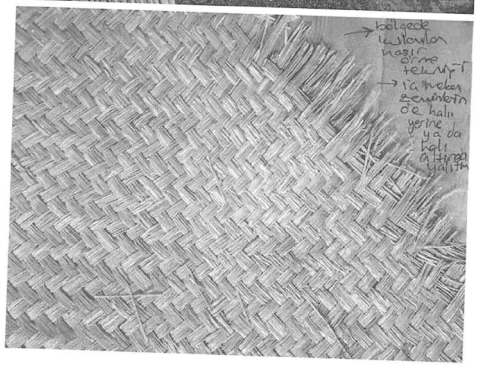
structural details

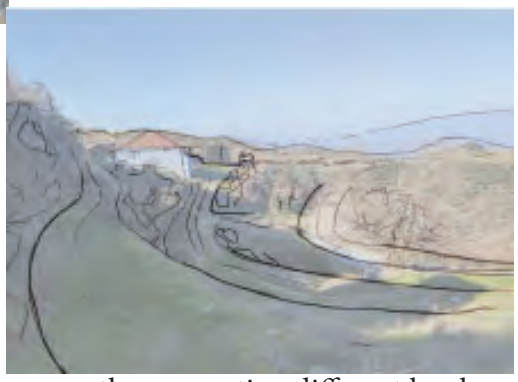
ancient vaults embedded
into topography

old terracotta water pipes

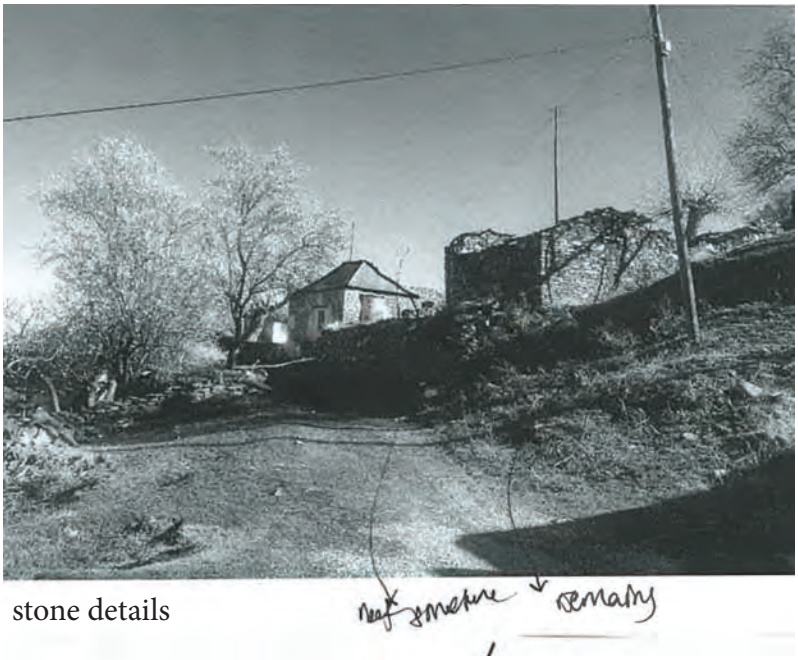
soil texture

material use
stone, wood and reed elements

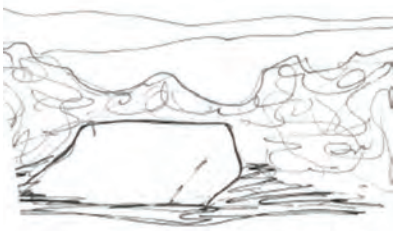


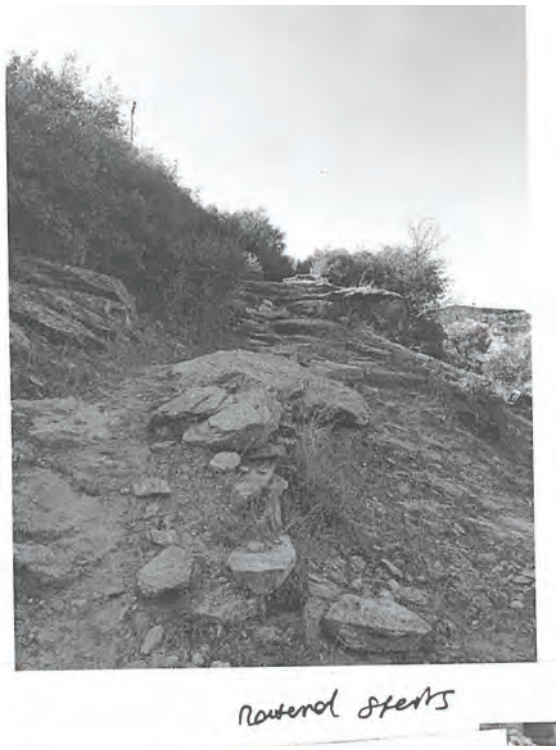


paths connecting different levels

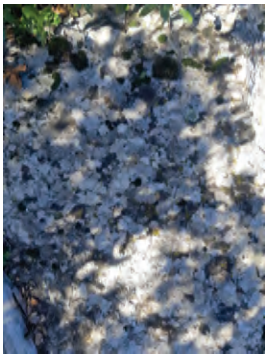


stone details





monumental rocks



natural textures

stone details

relation with topography & natural elements

TRAIL PATH

1- center of Karaçakal

2- Köseler neighbourhood

3- "Koca Meşe" /Huge Oak Tree

4- Adobe hıuse on the road

5- stream bed

6- first break

7- pinery

8- soil road for cars and peo

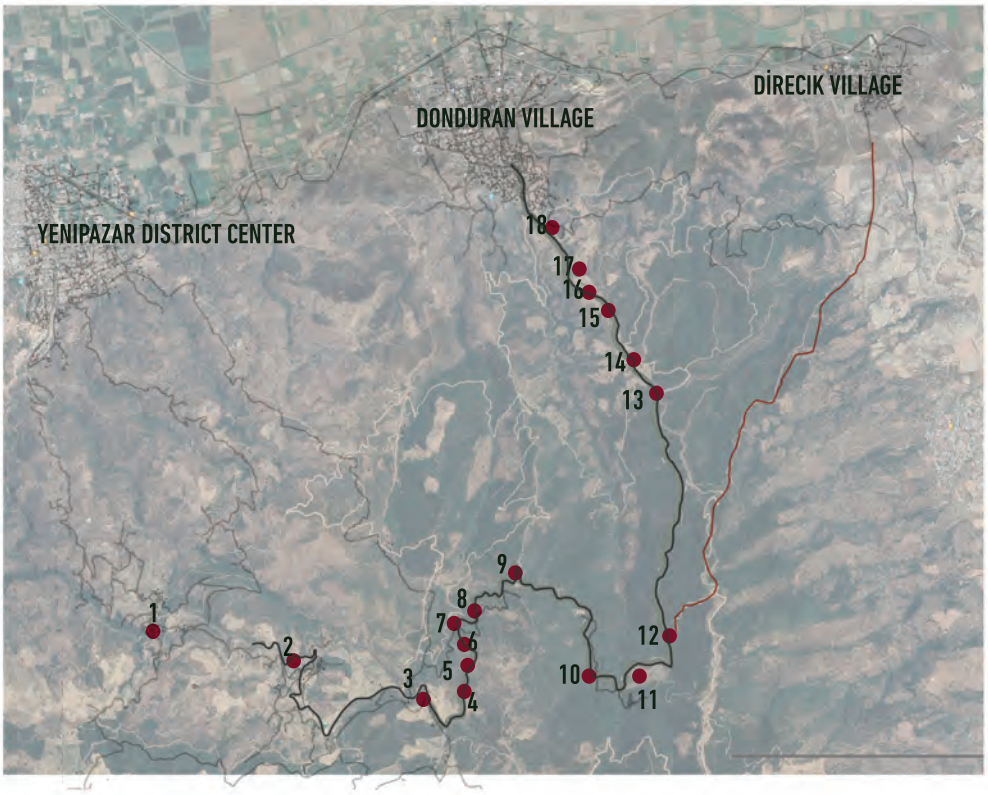
9- second break/spectacular view

9

9- monumental rocks

9- monumental rocks

9- monumental rocks



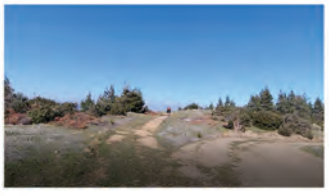
9- monumental rocks

10- water source/hayrat

11- small settlement

12- parting of the ways (Donduran or Direcik village)

13- another parting of the ways/ spectacular view



13

14- voices of birds & bees / spectacular vegetation

15- spectacular view of Menderes ovası

15- cow flock with shepherd

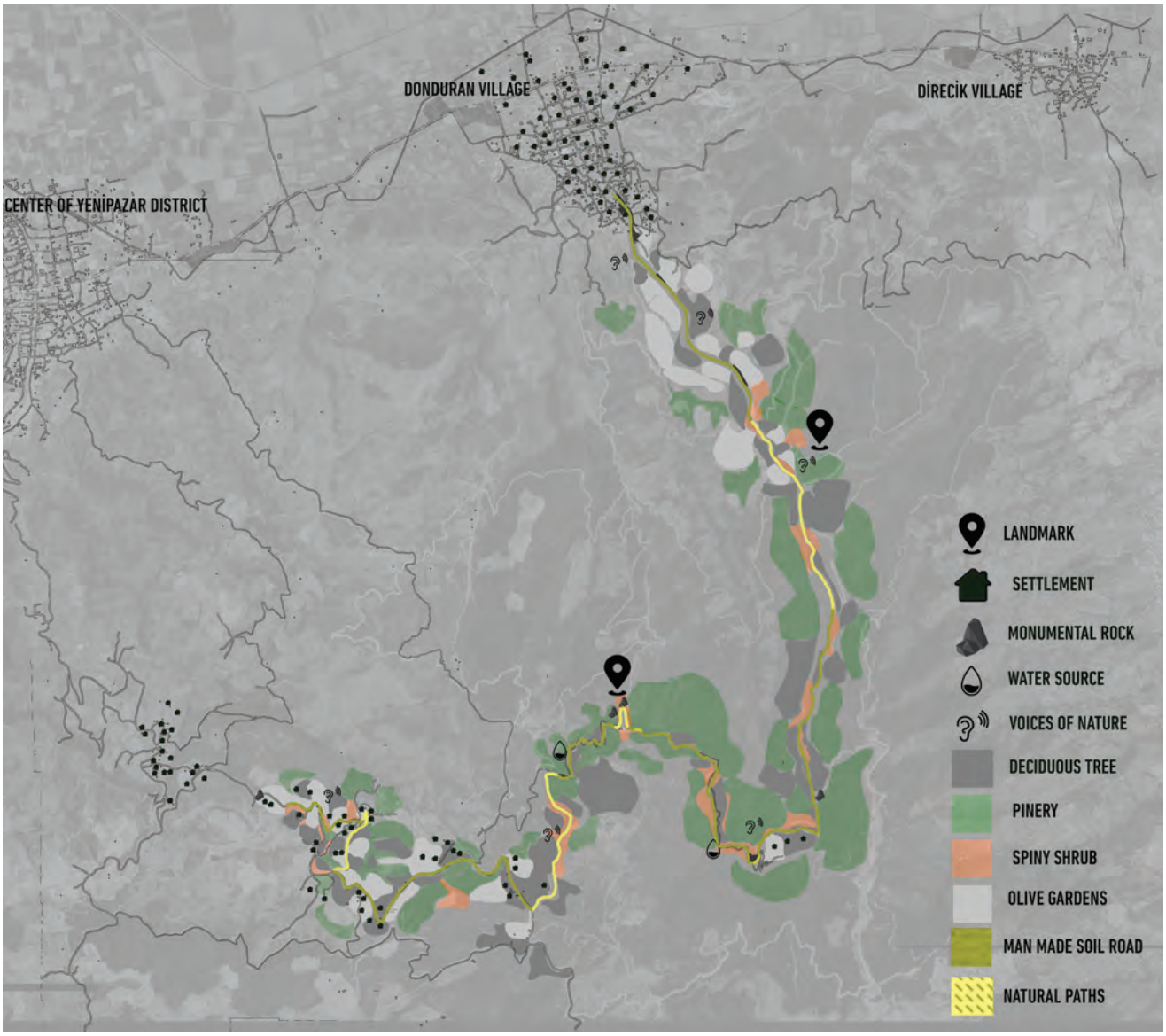
16- olive gardens

17- view of Donduran Castle and the village

18-Donduran Village

EXPERIENCE OF THE PATH

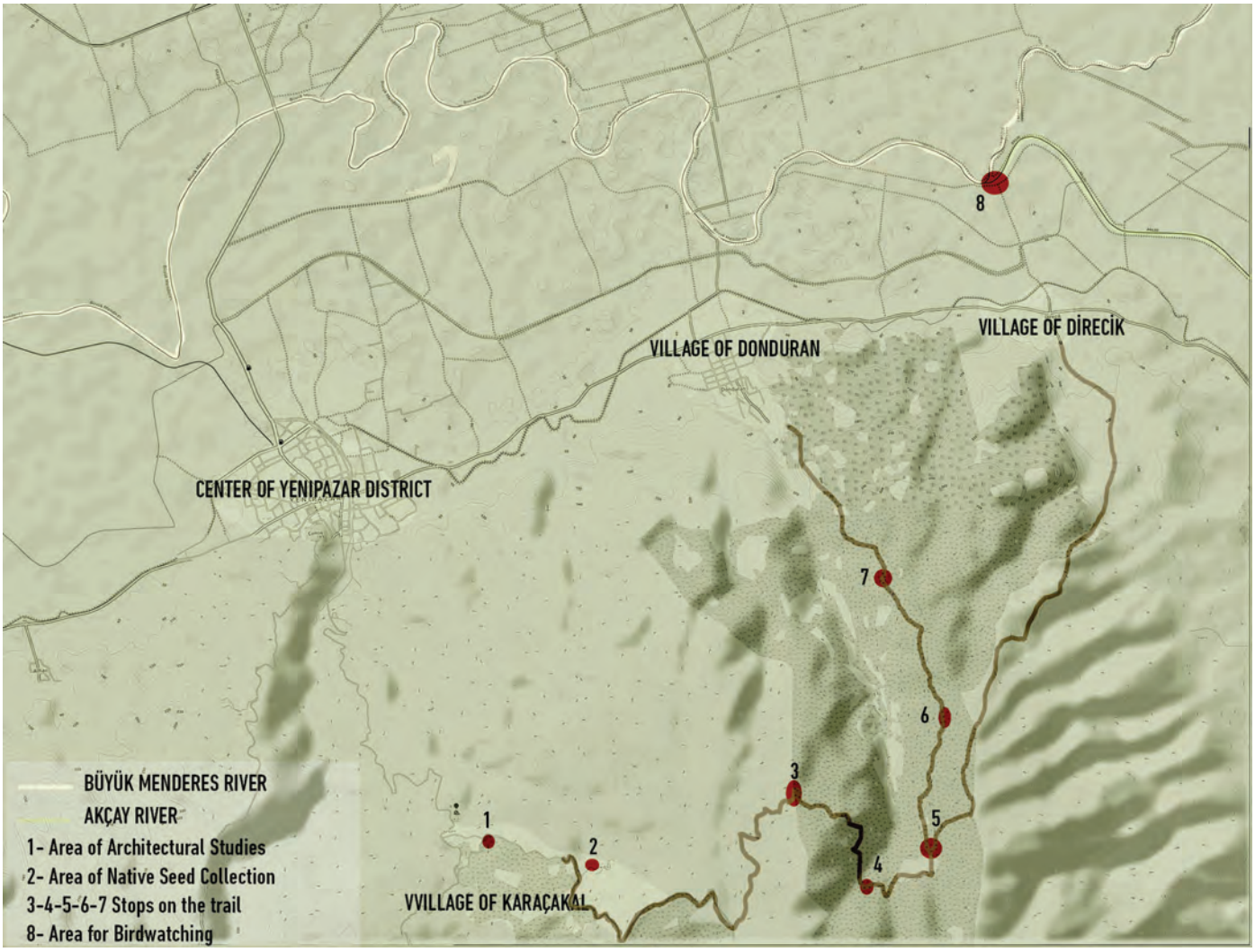
The trail begins from Karaçakal village, and passes through the Köseler neighbouhood. There are many different spots and a variety of vegetation on the path. It provides different experiences both sensually and physically. Some parts of it are stable and easy to walk, beside there are also some parts that are hard to walk because of the slope or dense vegetation. During the trail we had the chance to talk with locals of the villages, have several breaks at different spots, listen the voices of biirds and bees, eat some fruits drink frash mountain water and wirness vonderfull views. It is able to see the big portion of Menderes Plain and ancient Donduran Kalesi. The shape of landscape and formation of rocks created different textures and landmarks during the path. The smell of the nature, feeling of breeze, fresh air and sun was wonderfull.



FIELD CONDITIONS

In the field condition mapping, detailed density of settlement, distribution of vegetation around the path and important spots to experience the view and landmarks can be seen.

While walking on the path the visitors have the chance to see some endemic plants, natural water sources on the mountains. The wetland in village of Direcik and ancient remains in both Donduran and Direcik villages can be seen at the end of the path.



TRAIL PATH CONNECTING 2 VILLAGES: SLOW DOWN AND STAY A WHILE TO EXPERIENCE

As it can be seen, in the culture of the region people used to have a deep connection with nature. The habitants used to walk long distances and it was a common and sociable activity. Creating a path with some sspecific spots came up from the idea to reflect all these elements and also to provide an opportunity for the visitors of the village to experience the natural beauty of space by directly being in touch with nature.

In the native seed collection activities depend son the type of the vegetation people search seeds by walking on the fields and sits on the mountains. Because of these long walks people need to rest at some certain points, therefore the spots on the path serves for tourists, visitors of th institution and volunteers.

NOMADIC SCIENCE : NATIVE SEED COLLECTION

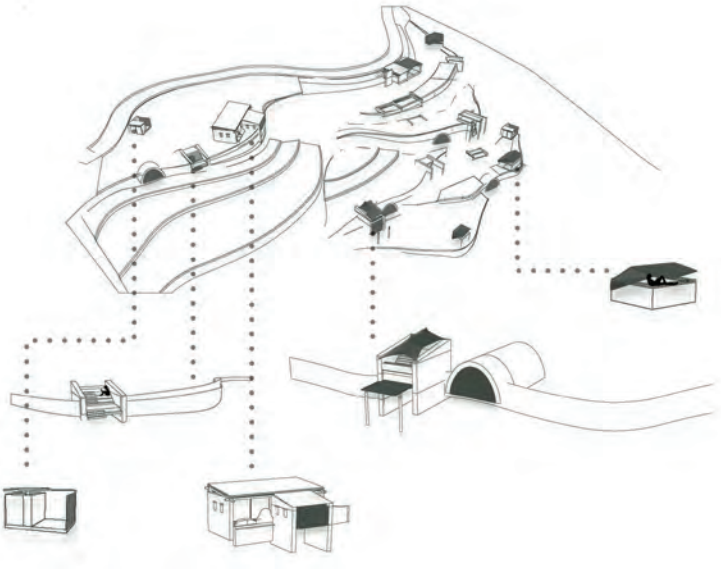
SITE PLAN

Terracing the topography

Masses relation with topography

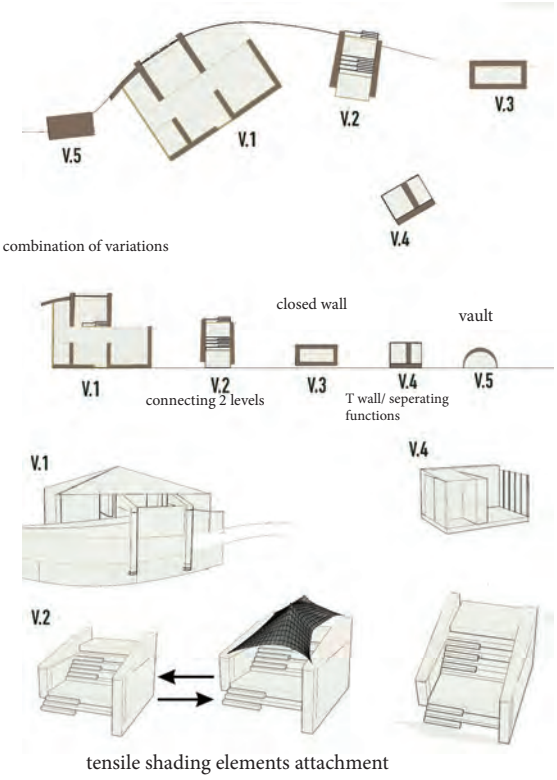
SECTION

Variations of Units



Units serve for short term or long term accomadation, open air activities, washroom and storage for seeds.

Wall Typology / Transformable Units



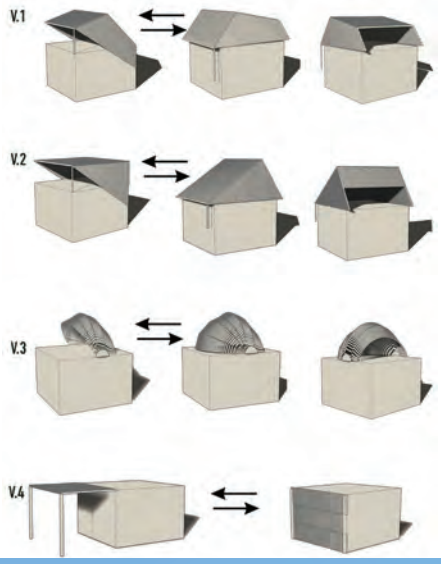
DETAILED SECTION

Stone & terracotta details.

Local materials and building techniques are implemented and improved. There is an interactive understanding of being a visitor in this area. Visitors are supposed to contribute to the daily work of inhabitants as well as native seed collection and research. Also they need to learn some basic ways of making shading elements from reeds to adapt the unit that they spend the night to the conditions of the environment.

PLAN OF CLOSE UNIT

Variations of Shading Elements & Wind Breakers



NOMADIC SCIENCEE : ARCHITECTURE

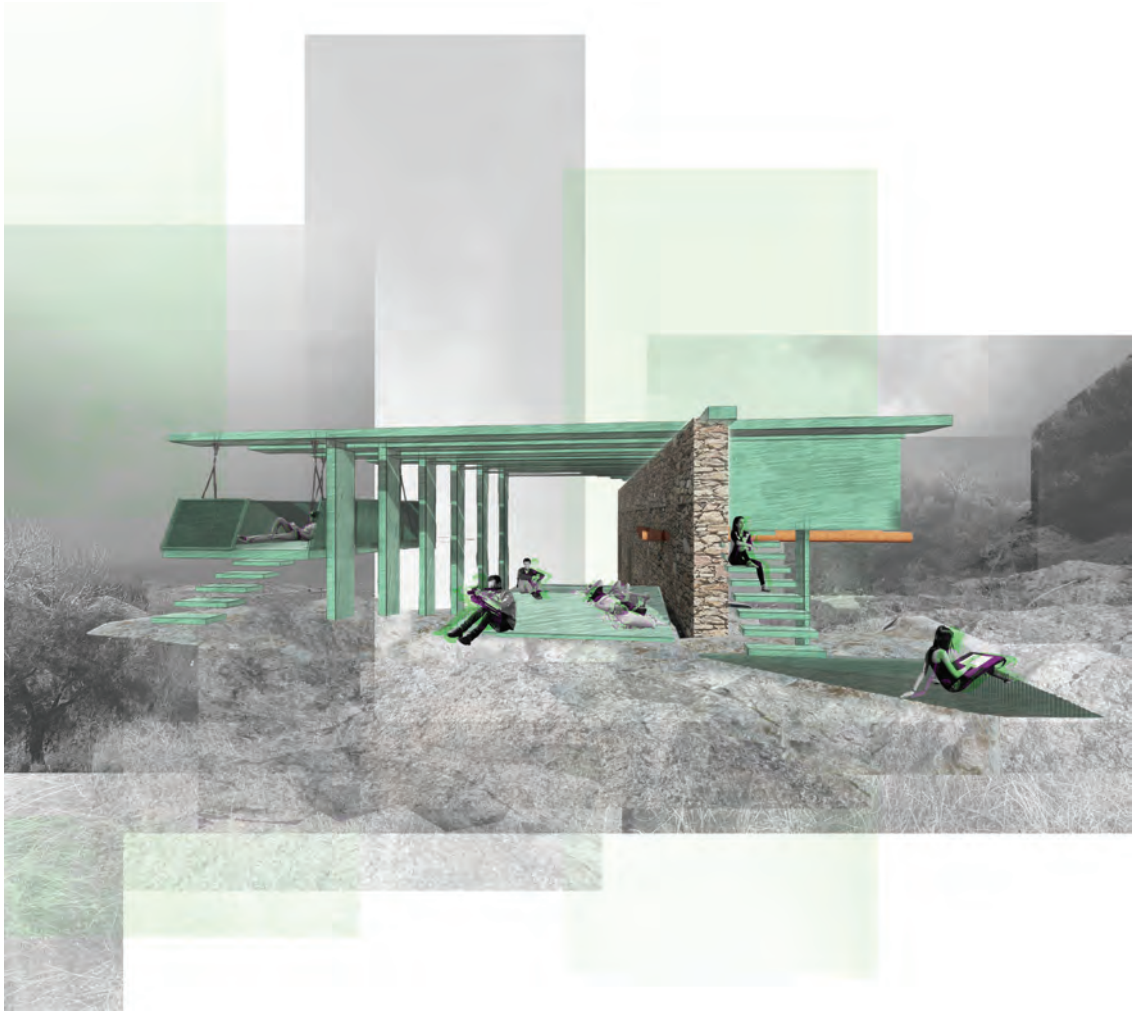
SITE PLAN

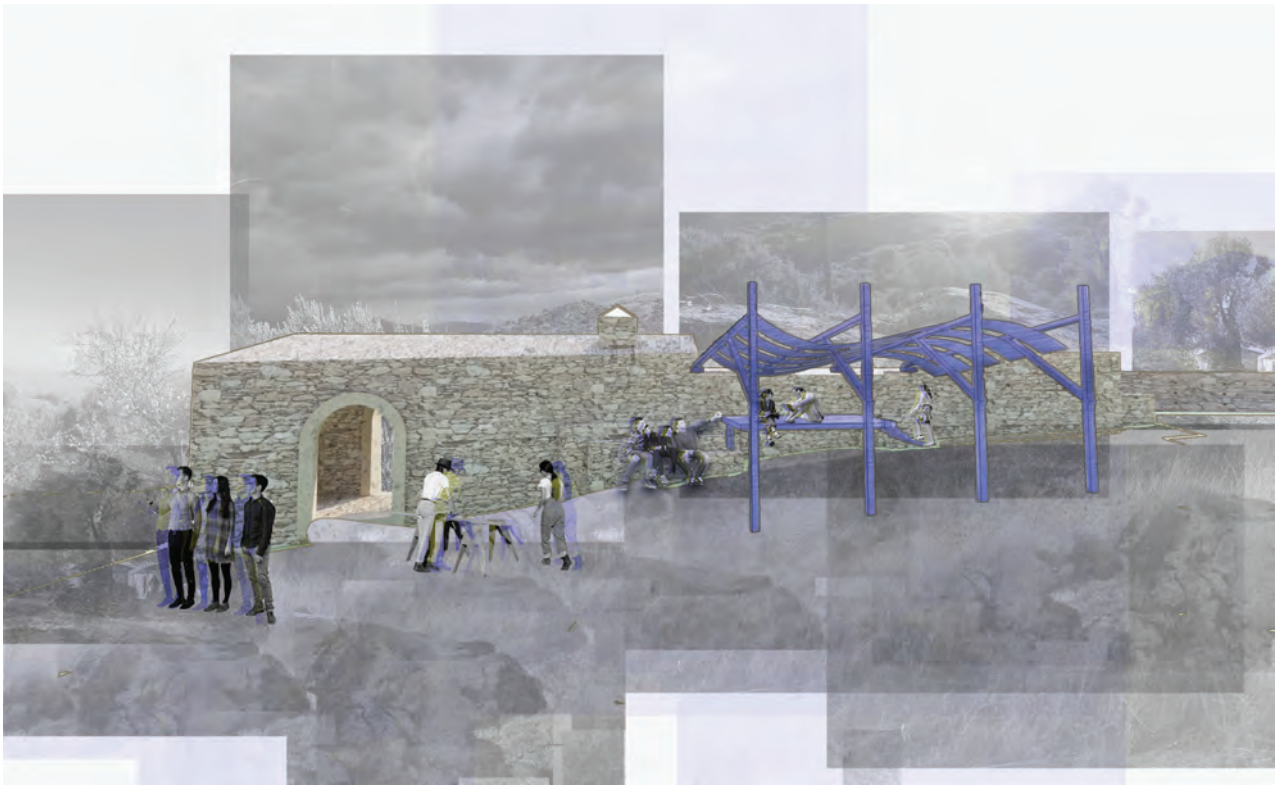
The area is selected for for experimental architectural studies. Students of architecture and professors can come and explore the vernacular architecture and also in this area they have the chance to built their designs that can be integrated with the stone walls. In that way students built up their own environment to stay for the night and spend time while learning building techniques from locals .

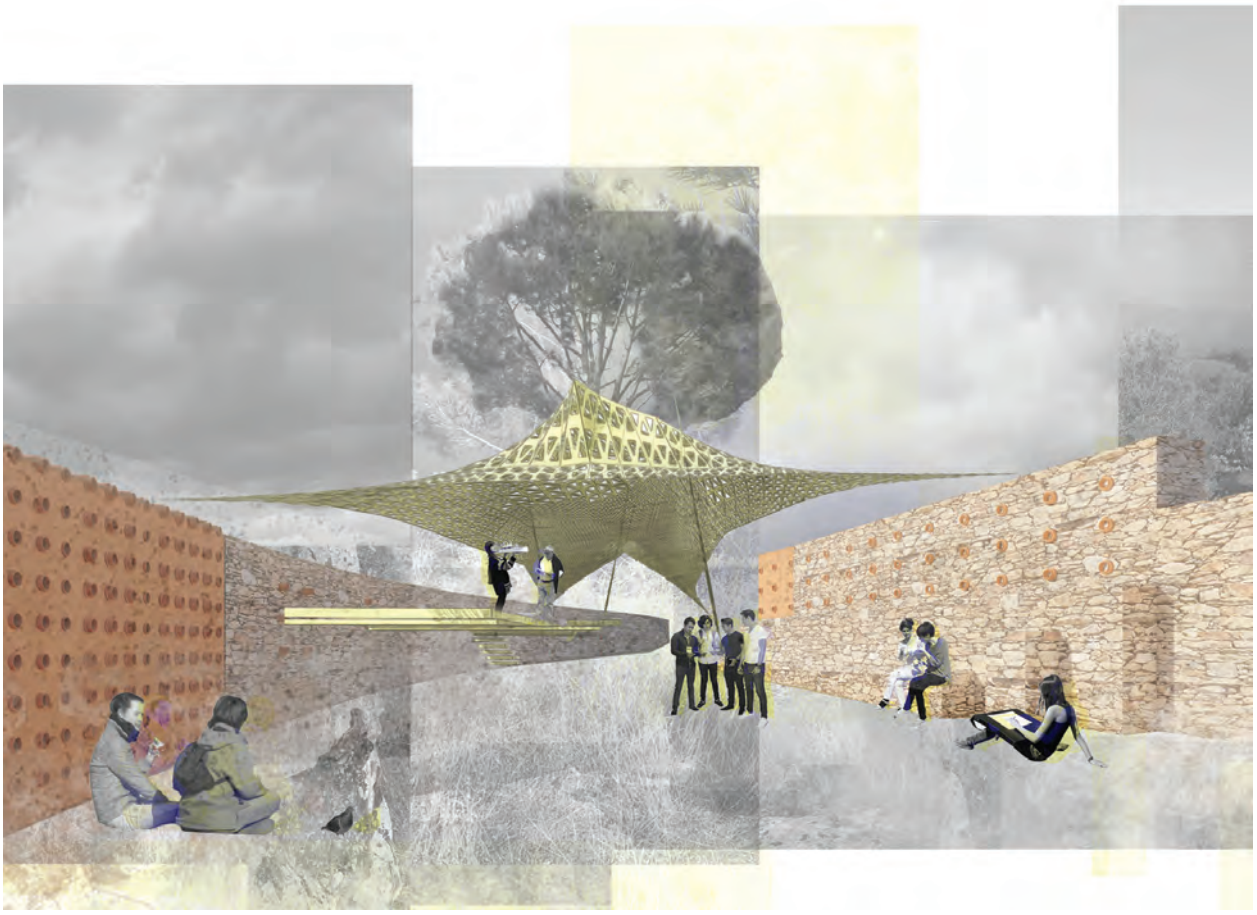
NORTH ELEVATION

EAST ELEVATION

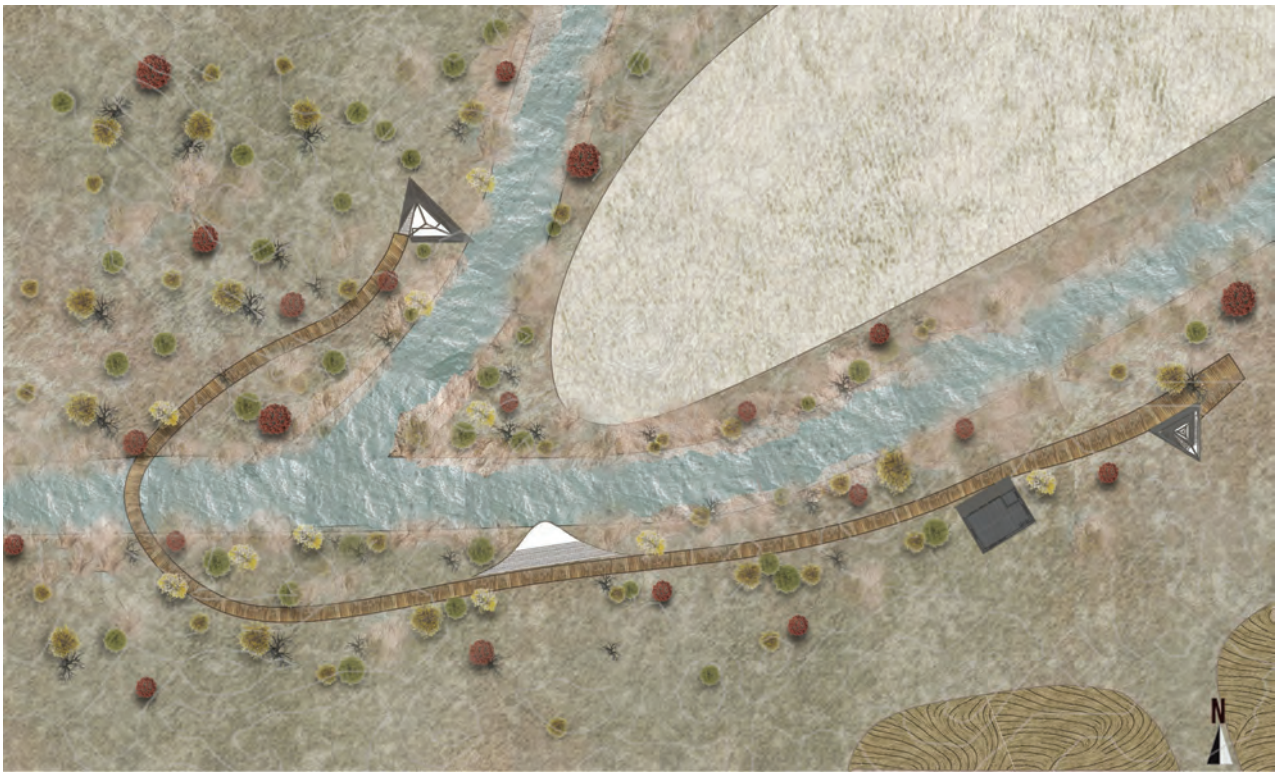
VARIATIONS OF ATTACHMENTS



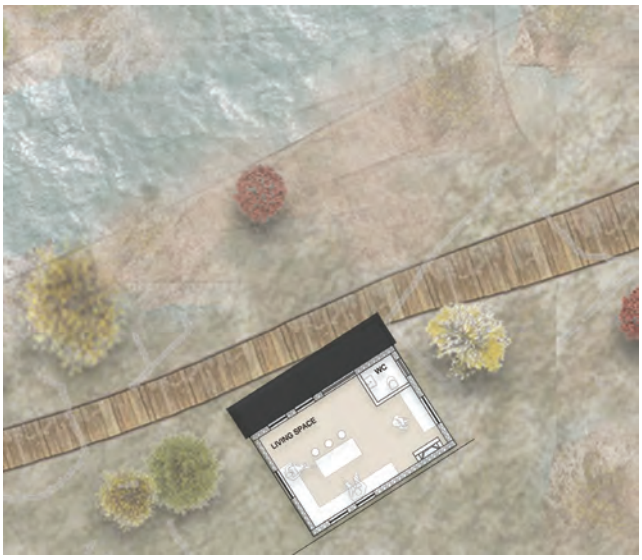




NOMADIC SCIENCE: BIRDWATCHING

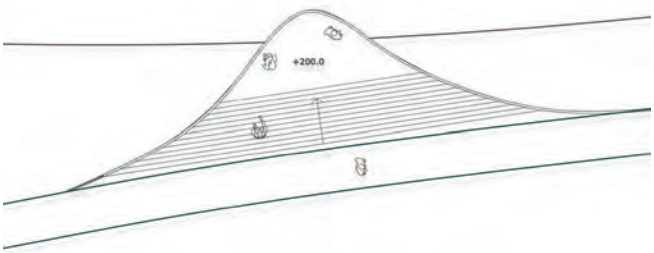


PLAN OF EXISTING COTTAGE

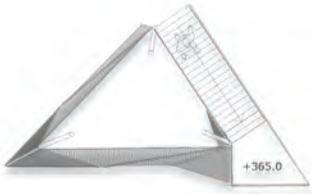


The area is located in village of Direcik which is at the end of the trail path. Bird-watchers coming for research at the area have the chance to explore birds on mountains along the path and also near the intersection of Akçay river and Büyük Menderes river . There are three observation elements located at different angels and heights to provide variety of options for the visitors. The aim of the design is to minimize the footprint and create a lightweight structure. Steel structure that is connected from 3 points to the ground is used for this purpose. Reed elements are used to cover the towers for camouflage.

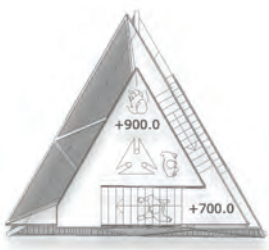
PLAN OF OBSERVATION DECK



PLANS OF BIRDWATCING TOWER I



PLANS OF BIRDWATCING TOWER II



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INTERRELATION OF COLLECTIVE HERITAGE THROUGH THE LAYERS OF NEVŞEHİR

NEZİHE ARZU TAŞIN

INTERRELATION OF THE COLLECTIVE HERITAGE THROUGH THE LAYERS OF NEVŞEHİR

NEZİHE ARZU TAŞIN

The site is located at the historical center of the Nevşehir at the skirts of the Nevşehir citadel. It is situated in a distinctly characteristic environmental context. The site history enhances the multilayered nature of the site, which foreshadows what the site will host in the future.
The site has a special cave system which had been used as storage spaces of the vernacular architure that was there before. The caves are made into the tuff rocks. Nevşehir region is familiar to the stone carving and turning these caves into the places that they live. Throughout the years, due to the reasoning of urban transformation, vernacular architecture has been destroyed and detached from its cave roots. This action lead to the deterioration of the exposed caves due to the weather conditions and the effects of the oxygen. This thesis project, problematizes the condition of the deteriorated urban fabric, and proposes an architectural solution that enables conservation of characteristic cave structures, while allowing public use of this site, with spaces that provide contemporary levels of comfort and conveniences.

SITE INFORMATION

The architectural history of the site dates back to the 6th century, when the first citizens started their dwellings there. The development of the site initiated as an indigenous building culture that, we see the examples in Cappadocia region, which the locals carved the volcanic ash called the tuff. The site developed itself, as an example of vernacular architecture at first, where the locals treated the caves as storage spaces. The main problem of the site has come to the surface when a new construction project developed there. Until 2013, site was composed of low income houses, when the houses were demolished and research had started, the site revealed a network of tunnels which composed of a multilevel settlement of living spaces, kitchens, wineries, chapels, staircases.

As the studies conducted through the site, it is founded that the part where the caves are located, lays in an area approximately 460 square meters. Which suggested the tunnels could go deep as 113 meters long. The near underground city complexes such as Derinkuyu, the site contains a huge, self-sustaining complex with air shafts and water channels. The documents also suggested that the site covers 30 major water tunnels in this region. Through the historical part of the site, the items found have been listed as involving grindstones, stone crosses, and ceramics suggest that during the Ottoman conquest, the town was in use from the Byzantine period.

CHANGE THROUGHOUT THE YEARS

2004

2008

2009

2011

2013

2016

SITE BEFORE THE DESTRUCTION

SITE AFTER THE DESTRUCTION

HISTORICAL BUILDINDGS LEFT

GENERAL CONTEXT OF THE SITE'S SETTLEMENT BEFORE DESTRUCTION

The area was named Nyssa before it became known as Nevşehir. It had been inhabited by various people. First Romans and Iranians, after the 7th century Arabs, and eventually Turks had ruled the area. The cultural heritage of the region had been developed through the centuries, which also reflects highly on the Nevşehir Citadel and its surrounding. The morphology of the site takes its power from the heritage which has been developed through these years.

As the studies suggests, multi-layered cities are cities that have been inhabited since ancient times, continue to be residential areas today, and carry the traces of different periods of settlement continuity underground and above ground. The layered structure of this area, both underground and above ground, is important in terms of the relationship that the periods establish with each other. Understanding all the periods of stratified cities in their historical continuity and the network of relationships they have formed with each other is the most fundamental requirement to maintain multi-layeredness.

CONNECTIONS THROUGH IMMEDIATE TOURISTIC ZONES

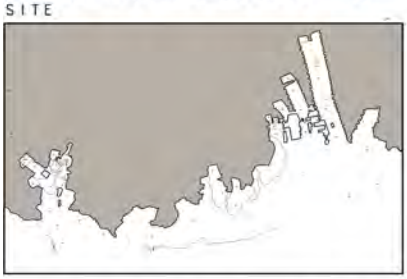
REVITALIZATION OF UÇHİSAR : ARGOS IN CAPPADOCIA

Uçhisar Castle and its surroundings are the best example of settlements cut into rocks. Uçhisar, in the area, is the tallest rock. Uçhisar was listed as a disaster area in the 1960s as a neglected historical site and was abandoned with the help of the state.
Many of the villagers removed stones from their original houses when they left and used them to build their new houses. Uçhisar is a defensive hill settlement. However, its stone and rock formation is problematic due to its softness, loose porosity and dune layers in between etc. Hence, structures in Uçhisar were built smaller compared to other regions with big cave monasteries. In addition to caves; additional rooms with flat roofs were built. They were built out of cut stone on rock carvings. These rooms, owing temperature and humidity regulations, had climatic advantages over caves.

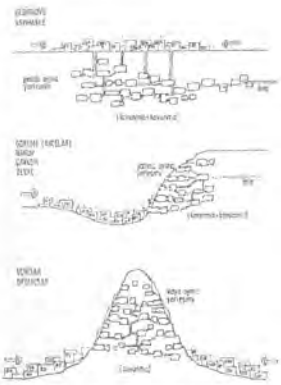
HISTORICAL BACKGROUND: UNDERGROUND CITIES IN THE REGION

AERIAL VIEW FROM THE CAVES OF THE SITE

SECTION FROM THE CAVES OF THE SITE



PLAN VIEW FROM THE CAVES OF THE SITE



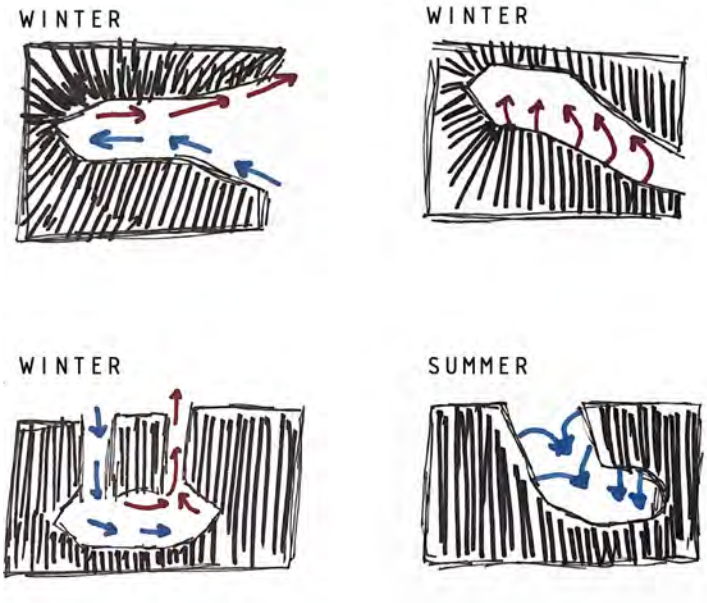
SECTIONS OF UNDERGROUND CITIES

PLAN VIEW FROM DERINKUYU UNDERGROUND CITY

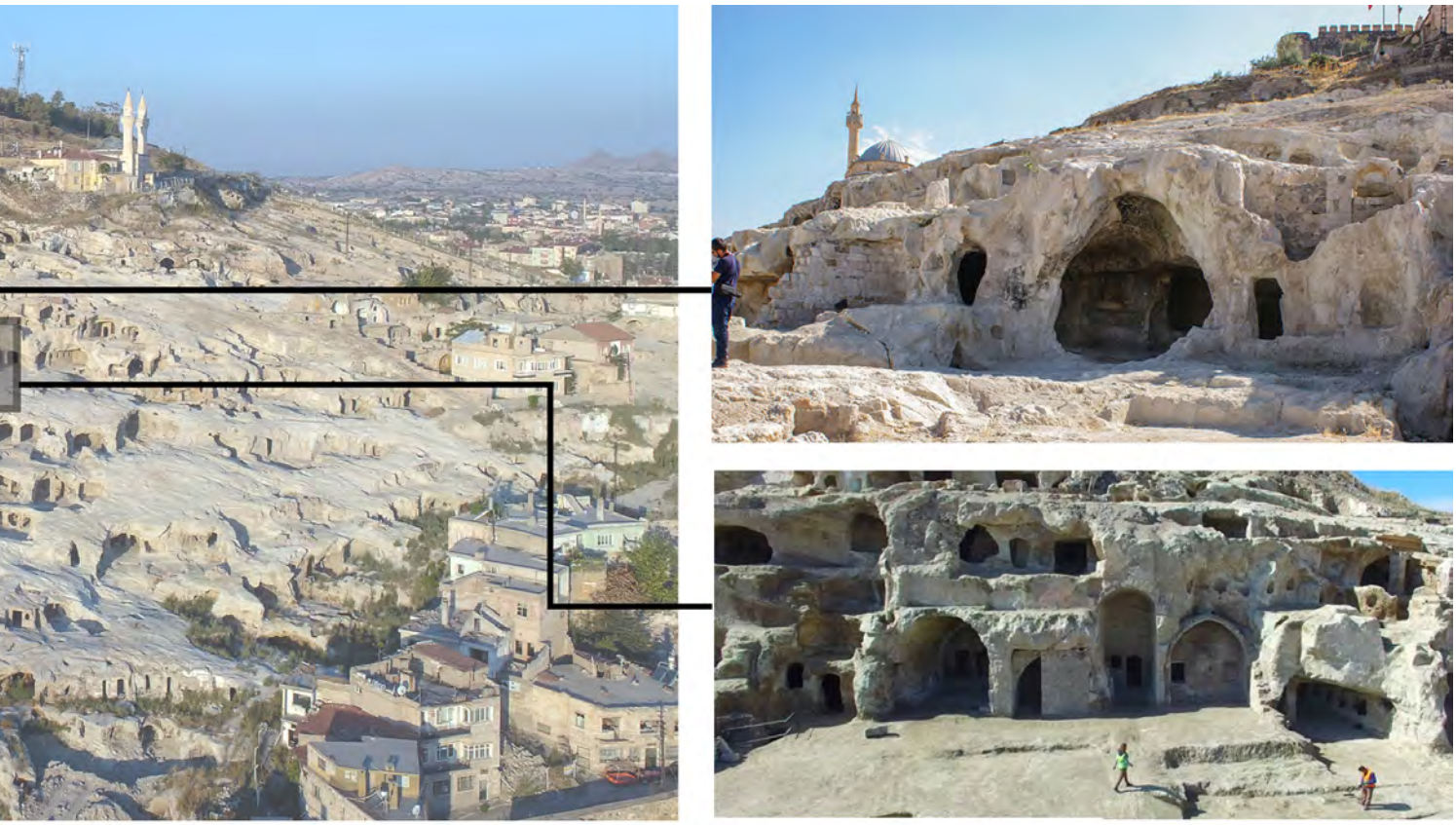
Underground cities had been a cultural asset through the Nevşehir Region for centuries. There are lots of different underground cities which were inhabited by different cultures. The multilayered-ness of them aside, they also served for many different uses such as shelter, protection, and storage department. The cut out architecture in this region had been living there, since the oldest times, which were Hittites. The usage of these places have emerged in the period of Romans and then the Byzantines.
Also, the topic of this thesis project covers a deep connection to the cave structures underground, which resemble the basic logic of underground cities. The spreading of the cave volumes occur both horizontally and vertically and have small connections just like the underground cities in the region. Hence, their development and configuration is strongly related to the historical development in Nevşehir Region.

THE ARCHETYPES OF THE CAVES OF THE SITE

CAVE TEMPERATURE THROUGH SEASONS



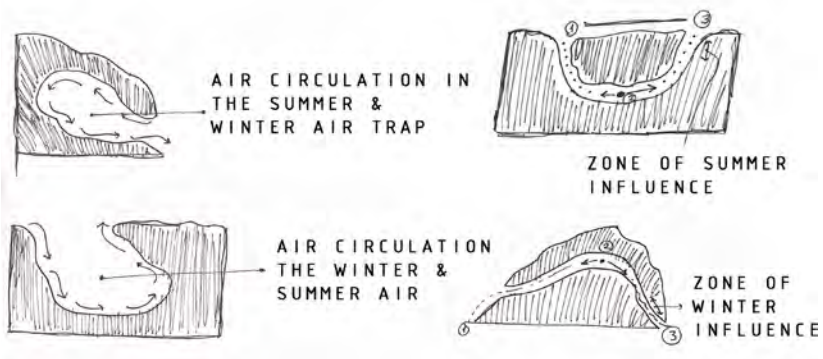
The prosperous archetypes of the concept residence are the Cave houses that have been preserved from ancient times until today. Sustainability is becoming a global problem for local natural ecosystems and cultural heritage, while local sites are becoming learning grounds for different cultures. As a result of the erosion of this tufa sheet, sculpted by wind and flood water, flowing down the slopes of the valleys, these rock formations, known as “fairy chimneys” have been formed. Water has made its way into the valleys, creating cracks in the hard rock and ruptures. The lighter, easily erodable material below has steadily been swept away from the slopes



CAVE AIR CIRCULATIONS

Outside and inside, above and below, left and right, warm and cold, or light and dark. In addition to the natural and topographical conditions described above, all these factors have a strong influence on the style of the building and have been important in the development of housing shape and construction and its spatial surroundings.

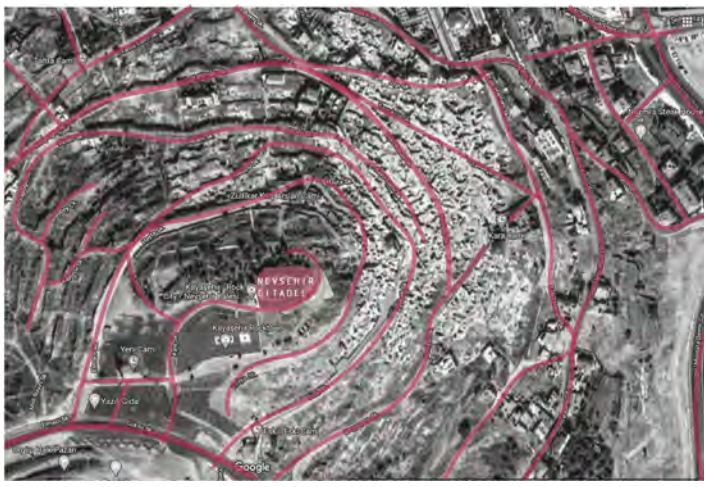
One explanation that people live in caves is that the ideals of natural home builders provide protection against hurricanes, tornadoes, and fires, and provide relief from extreme heat and extreme cold. They are also easy to move into, and they don't need a lot of work to make them habitable.



GENERAL FUNCTIONS SURROUNDING THE SITE

FIGURE GROUND OF THE EXISTING BUILDINGS

CRUCIAL ROADS SURROUNDING THE SITE



GENERAL PROBLEMS OF THE SITE

The region's economic, physical, social, and environmental problems should be handled in a manner which should be elaborate.
This ideology reflects on the Nevşehir Citadel and its surroundings where the vernacular architecture had been deteriorated at a high level.
Furthermore, the surroundings of the site, such as immediate vehicle roads, historical buildings such as mosques, should be analyzed through this manner.
In other words, the heritage left in the area is protected, although the lack of users and the lack of functions to meet the needs of those users, creates the problem itself.

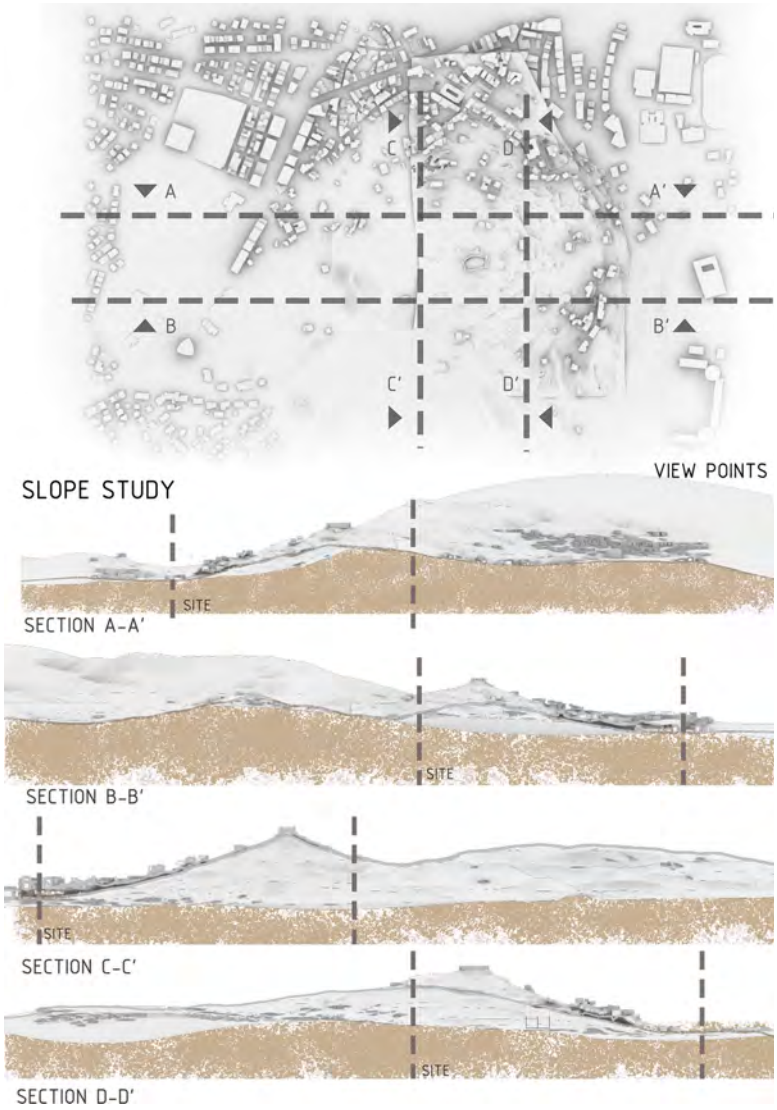
When we look at the site in a more detailed way it is visible that, -demolishing an era's footprints and leaving the heritage behind-, left the site bare in every way. When the area is re-considered within the scope of integrated protection, it is essential to produce conservation decisions not only within the periods, and at the scale of a single building, but also at an urban scale. Because buildings are meaningful not only by themselves but also in relation to other buildings, the street, the city and the city dweller.

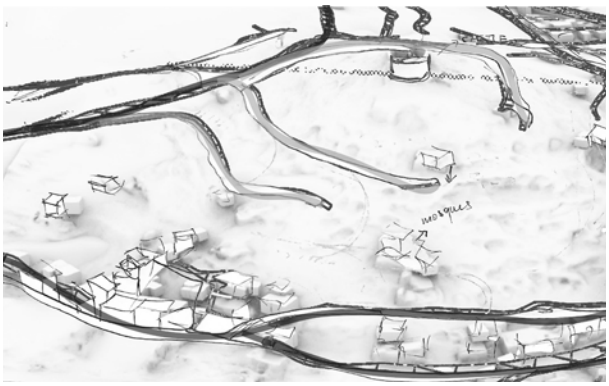
TOPOGRAPHY EXPLORATIONS AND SLOPE STUDY

When urban protected areas are evaluated with sustainable, effective and holistic approaches, the concept of "cultural heritage management" comes to the fore. It should be aimed to solve the problems with a holistic, participatory and interdisciplinary approach and to determine the application methods in the process with the same approach. It is necessary to act in line with the importance of the effectiveness of the area management in eliminating the problems and / or needs related to protection, survival and urban life or functions in urban protected areas.

When considered as an organic entity, these structures can actually be a living element when they have a user. It can be observed that the buildings are protected when their relationship with the city, the inhabitant and its environment becomes stronger.

When the main source of the problem is looked at and when a solution needs to be produced from the ground up, it is to try to create a society that has assimilated this consciousness by raising generations with a high level of awareness about the diversity, protection and importance of our cultural heritage by educating the phenomenon of cultural heritage at an earlier age. However, with a conscious generation, these values can be protected and transferred between generations.

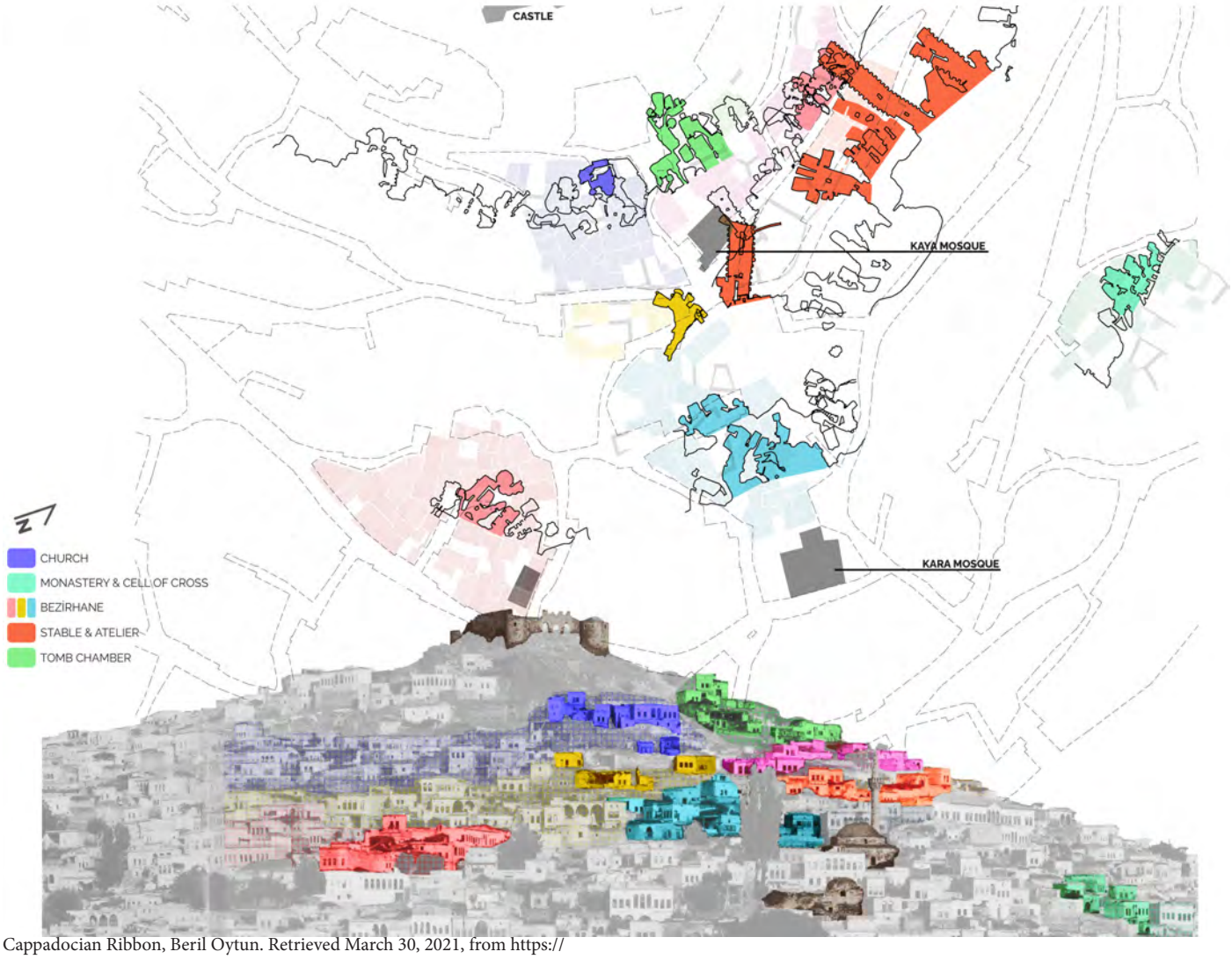




CAVE STRUCTURE & MASSING ANALYSIS

PHOTOGRAPHS FROM CARVED SPACES

CATEGORIZING CARVED SPACES ACCORDING TO THE EARLIER FUNCTIONS

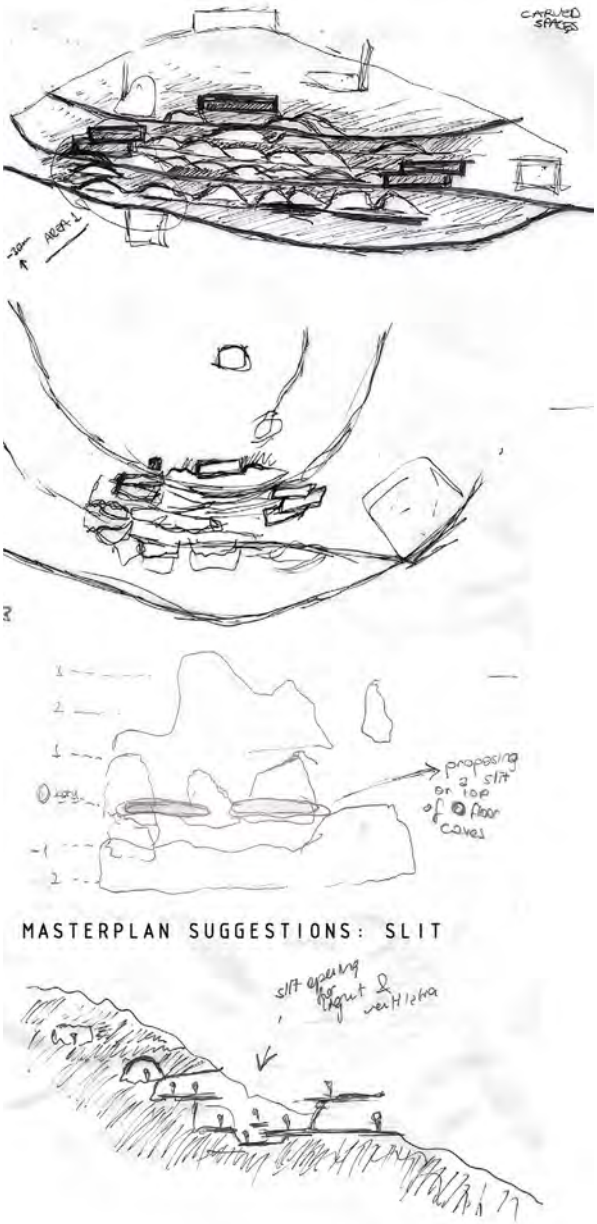


Cappadocian Ribbon, Beril Oytun. Retrieved March 30, 2021, from https://issuu.com/beriloytun/docs/report-issuu

STUDYING THE TRACES OF THE DEMOLISHED BUILDINGS & CAVE ANALYSIS SKETCHES

TRACES OF OLDER BUILDINGS WITHIN THE CARVED SPACES

TRACES OF OLDER BUILDINGS WITHIN THE CARVED SPACES

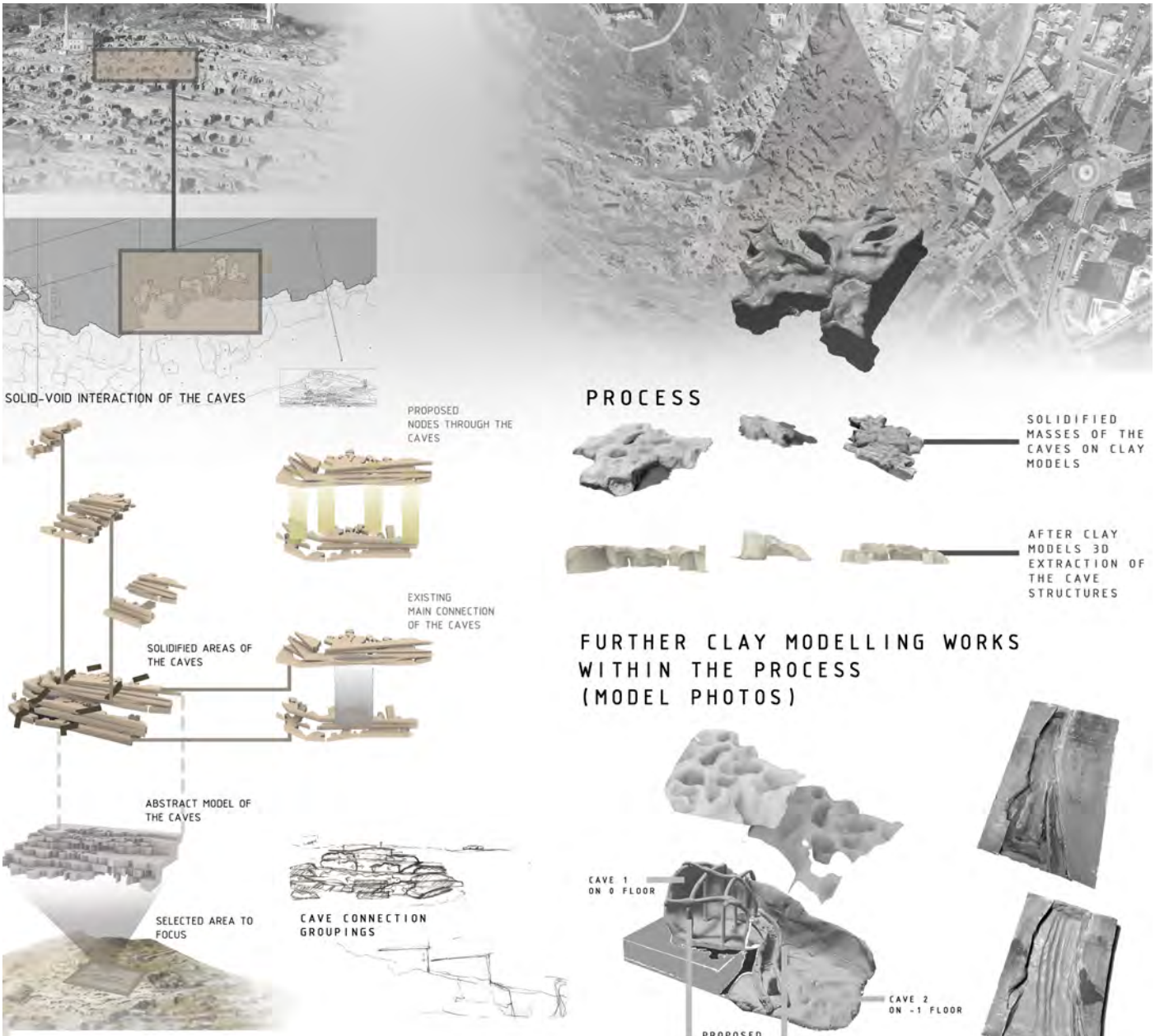


The inital design approach, before placing the masses and the structures, was examining the general context of the caves in the site. The caves have been studied from the data collected within the earlier research studies. In order to understand how deep they go both vertically and horizontally, and how big is the space that they hold in them, the clay practices founded the base for understanding the structures.

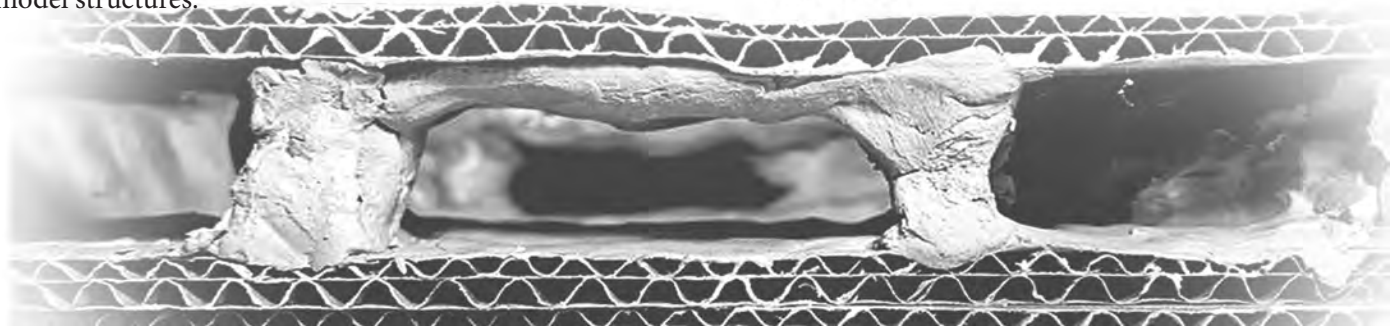
Their existing connections were founded and preserved, creating a footprint for the next design stage. Also, new nodes of circulations were proposed to make a more connected and a better flow of circulation underground.

As the sketches suggests, the next stage in design dwelled upon the footprint which were extracted from the existing volumes of the caves and the traces of the demolished buildings and the roads. The areas which were to be connected and the areas to intervene were selected. The first proposal after understanding the nature of the carved out spaces was using plates in order to cover the tuff rocks which is still decaying. Then according to the general functions, massing propositions were made according to the caves and the platforms.

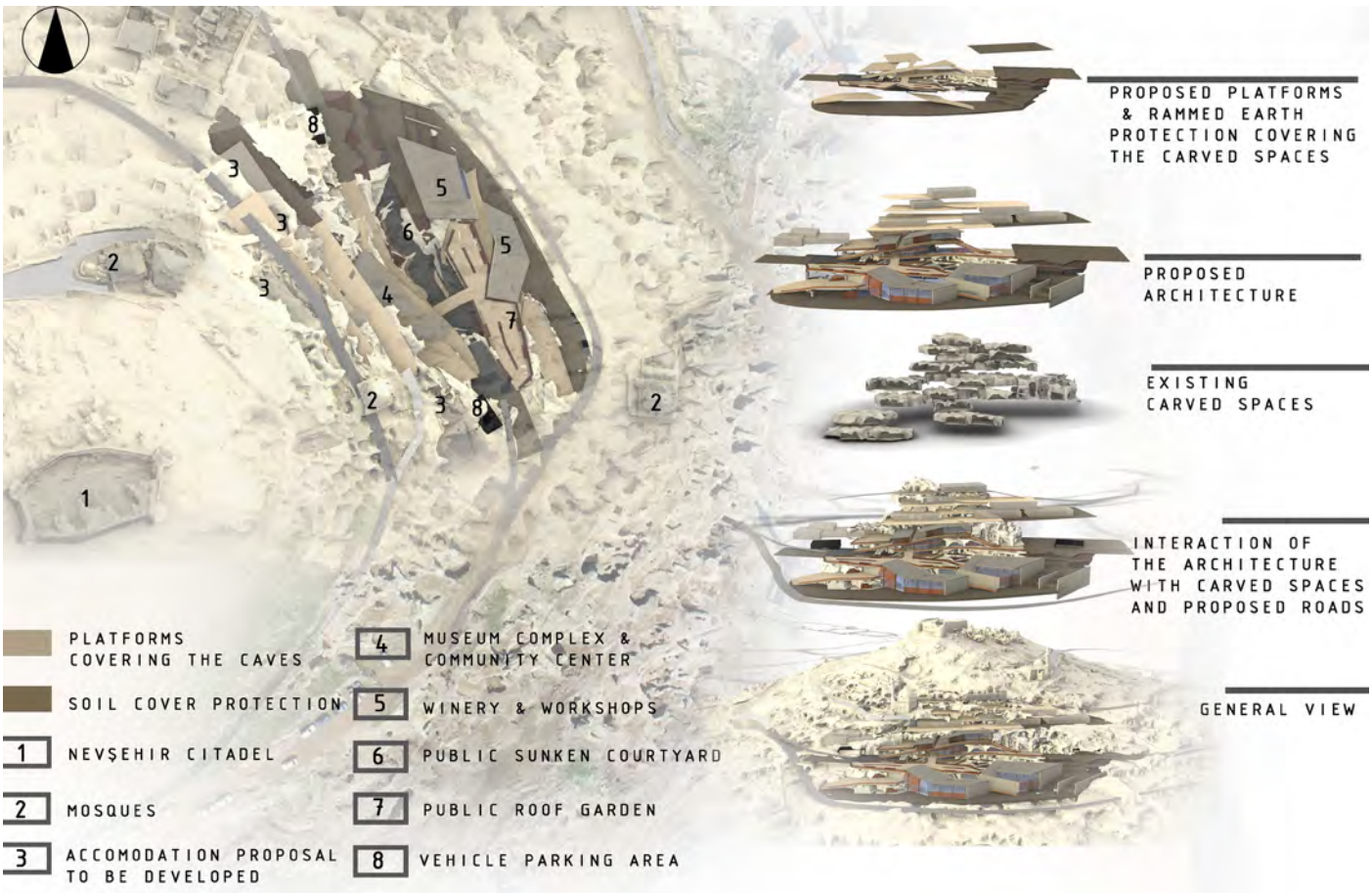
CAVE ANALYSIS THROUGH THE CLAY MEDIUM

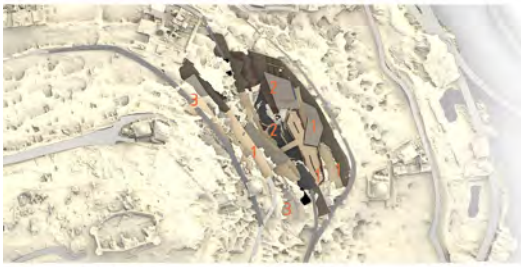


In order to analyze the real structure of the carved spaces located in the area, a new technicque is proposed to portray what a real cave space structure looks like. Thus, after experiencing with the existing footprints of the caves, their void spaces were modelled from clay. After this exploration with clay modeling, a 3D modeling process have begun with the Recap 3D, through the 3D modelling process. The void spaces were obtained as models on the program basis. Final step throughout the process, was extraxting the negatives of the void models in order to obtain the real cave model structures.



SUGGESTED MASTERPLAN





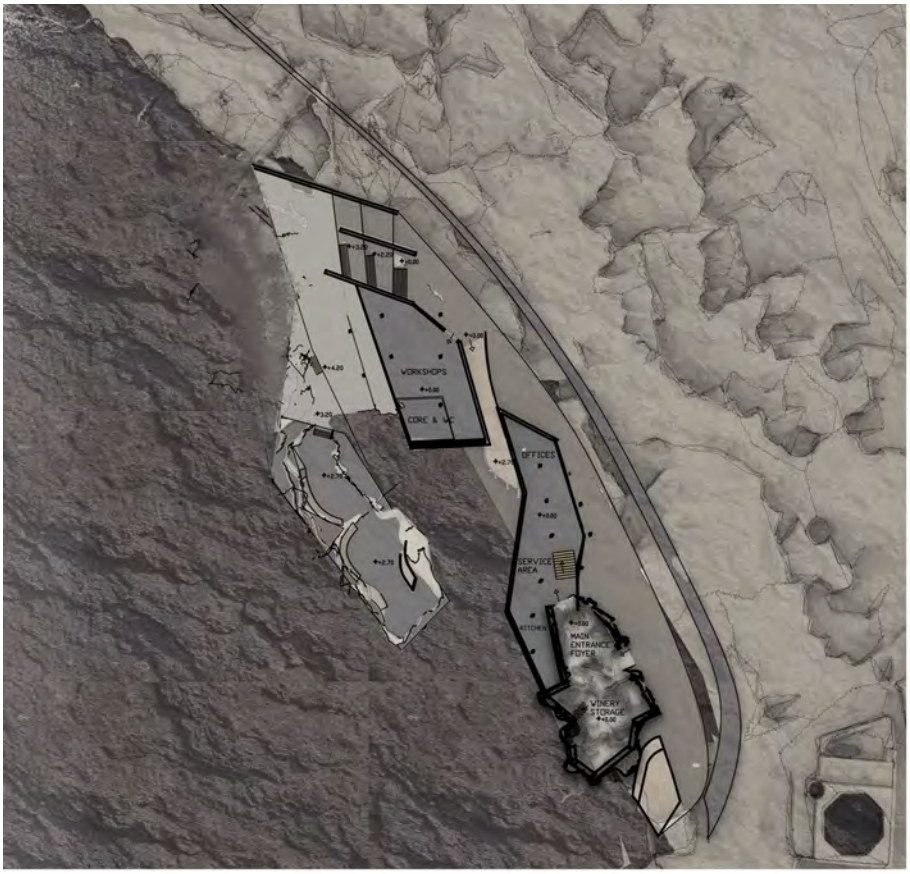
The masterplan aims to convey a similar ideology through the topography lines, while respecting the former fabric housings located there. Since, all of the houses were torn apart from their roots, the masterplan and the architectural approach throughout the site, tries to convey a rather conservative manner, trying to cover the deserted area.
Along the proposed masses, which were working as extensions of the caves underground, platforms were also proposed to create a contionous realm around the site. The platforms cover the surface, and prevent the cave structures from further decay. Lastly, the car access stops at a point to preserve the area, and create a natural connection, within the proposed architectural intervention.

Creating spaces that flow into one another with the help of the cave framework underneath enhanced the public private density around the site. As the region, has different examples blending the public and private to one another, this mixing won't be alien to the general fabric.

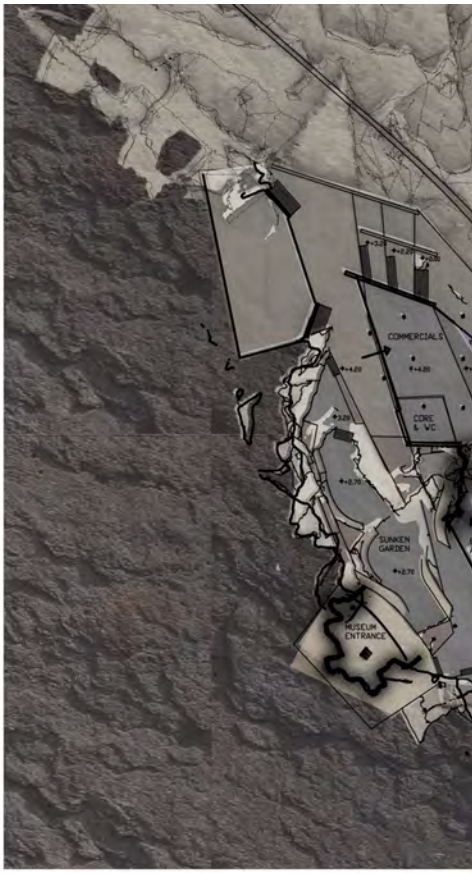
Car access stops at the East - West direction to create a more secluded area, and away from the vehicle pollution at a natural site. When the immediate functions are analyzed it is observed that, the area is generally composed of residentials. Also, commercial areas are scattered through the area, hided through the residential buildings.

Lack of community centers and functions such as art, museum and places where people can socialise reflects on the idea that, the area needs more cultural areas, for the residents.

PLANS



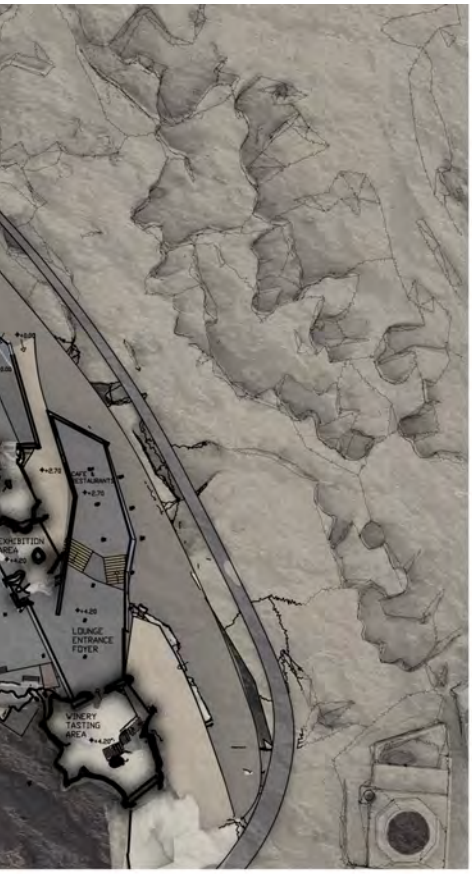
LEVEL -1



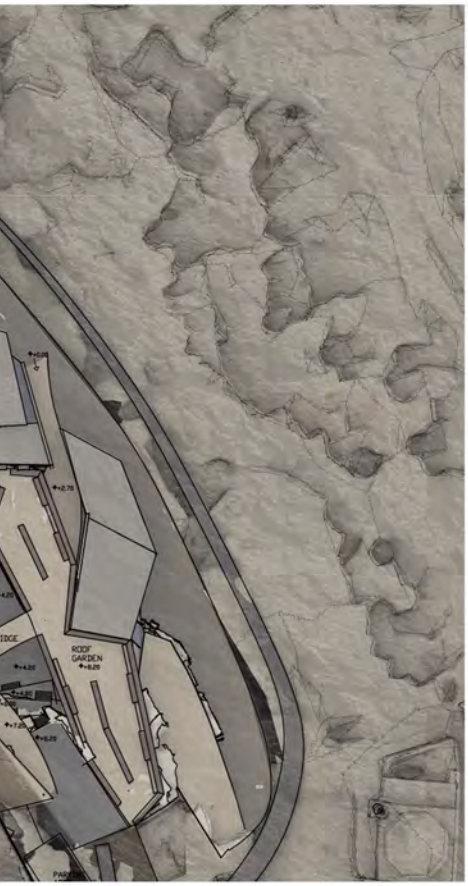
GROUND LEVEL

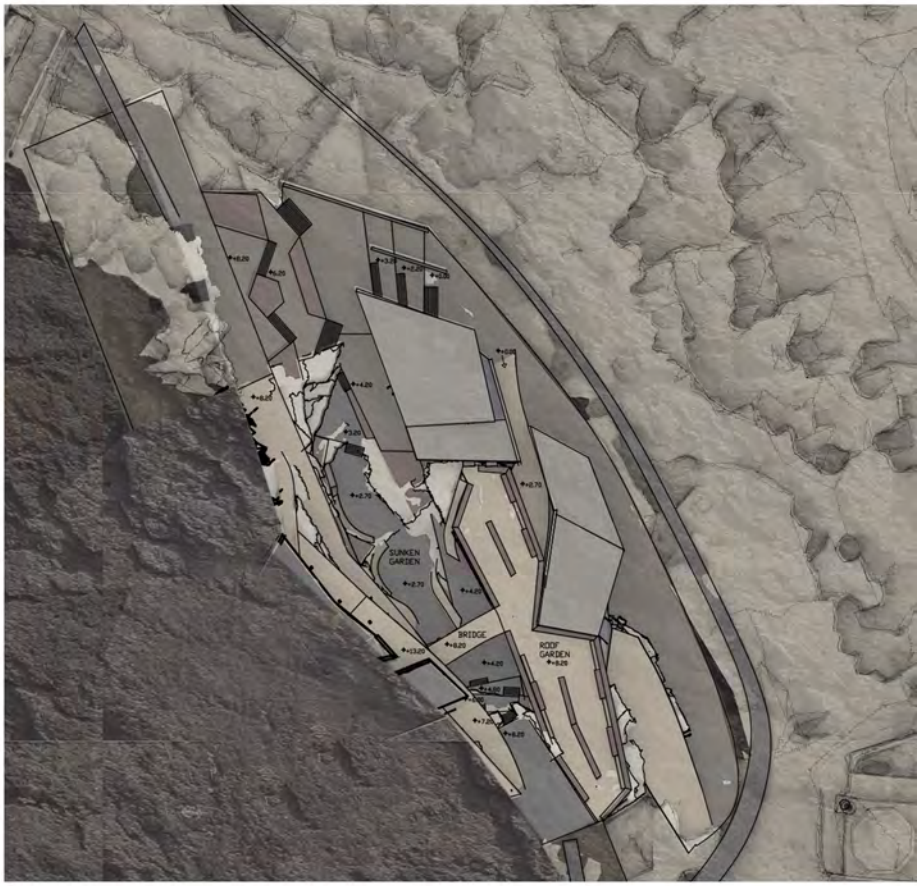
LEVEL 2

LEVEL 3

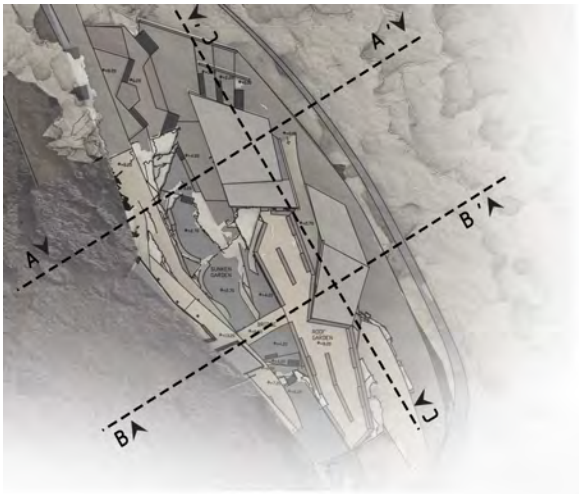


LEVEL 1





ROOF LEVEL

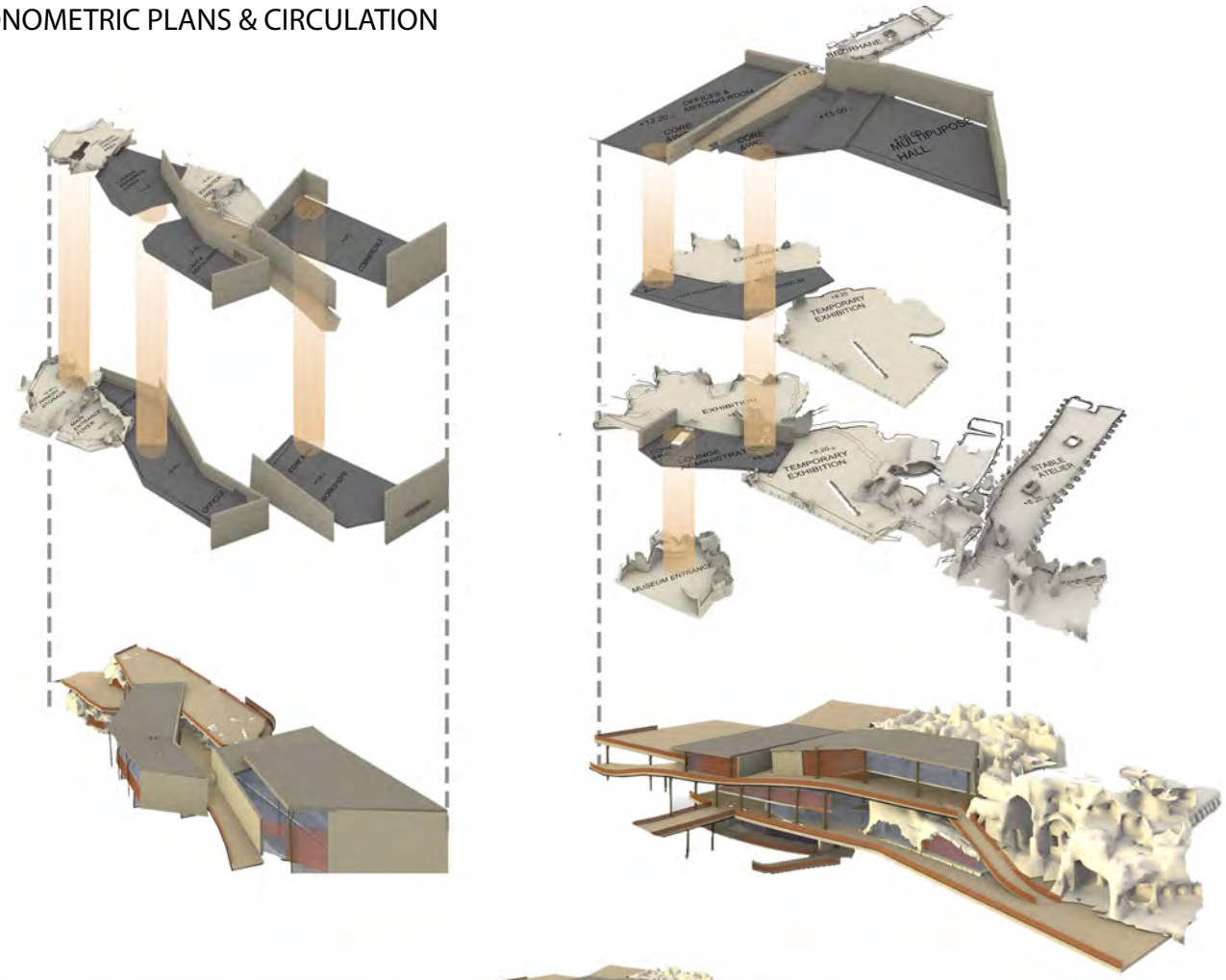


SECTION A-A'

SECTION B-B'

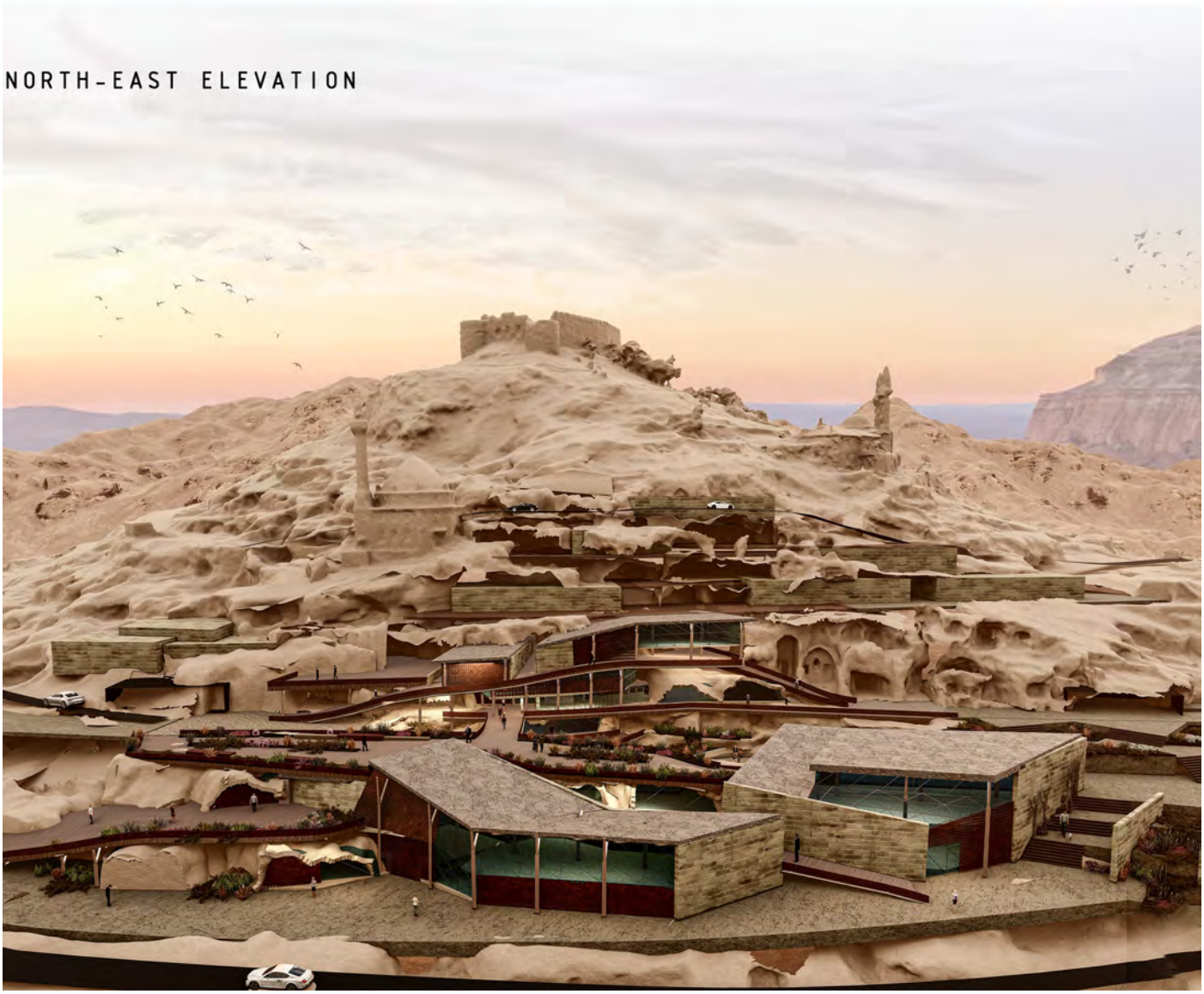
SECTION C-C'

AXONOMETRIC PLANS & CIRCULATION

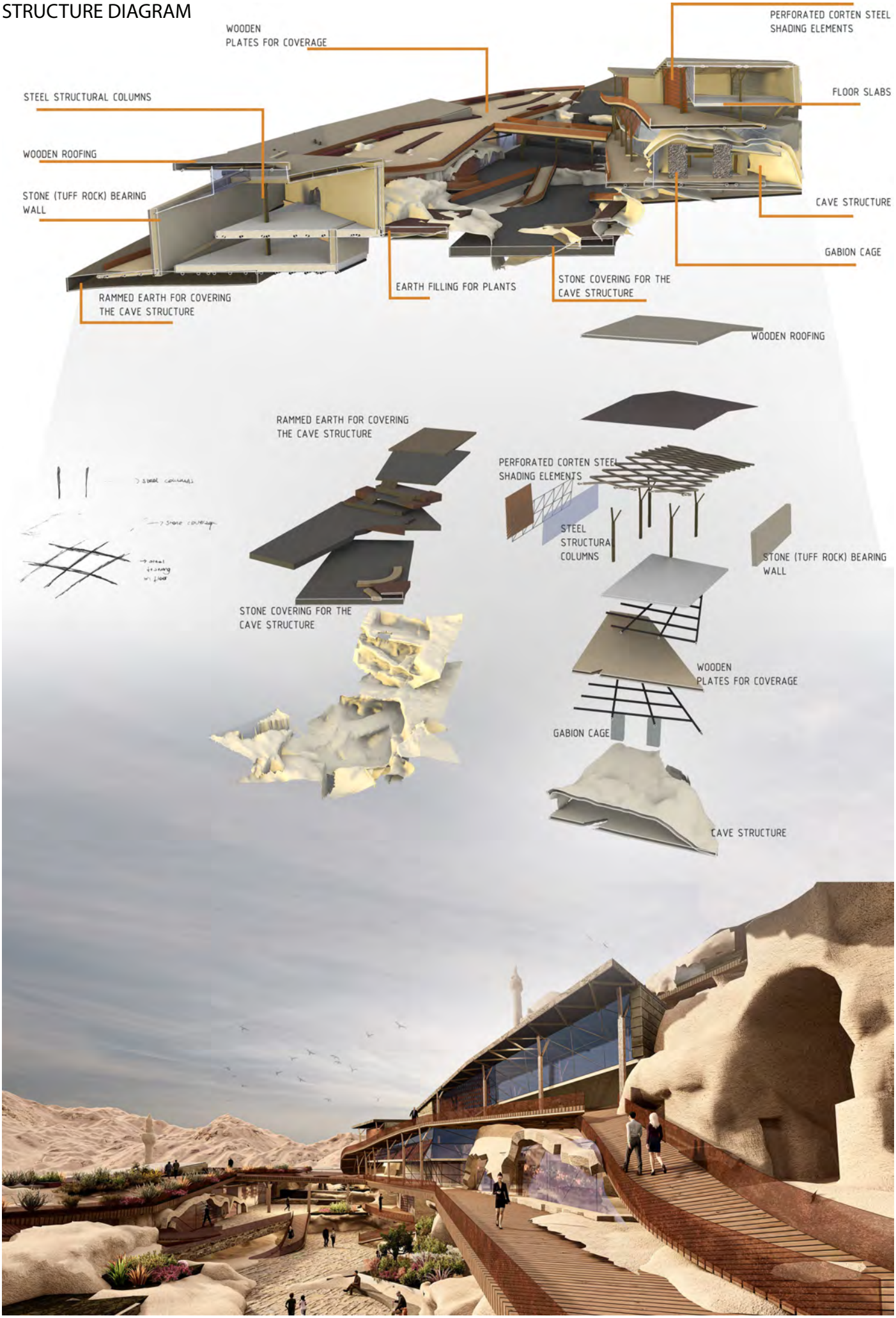


NORTH ELEVATION

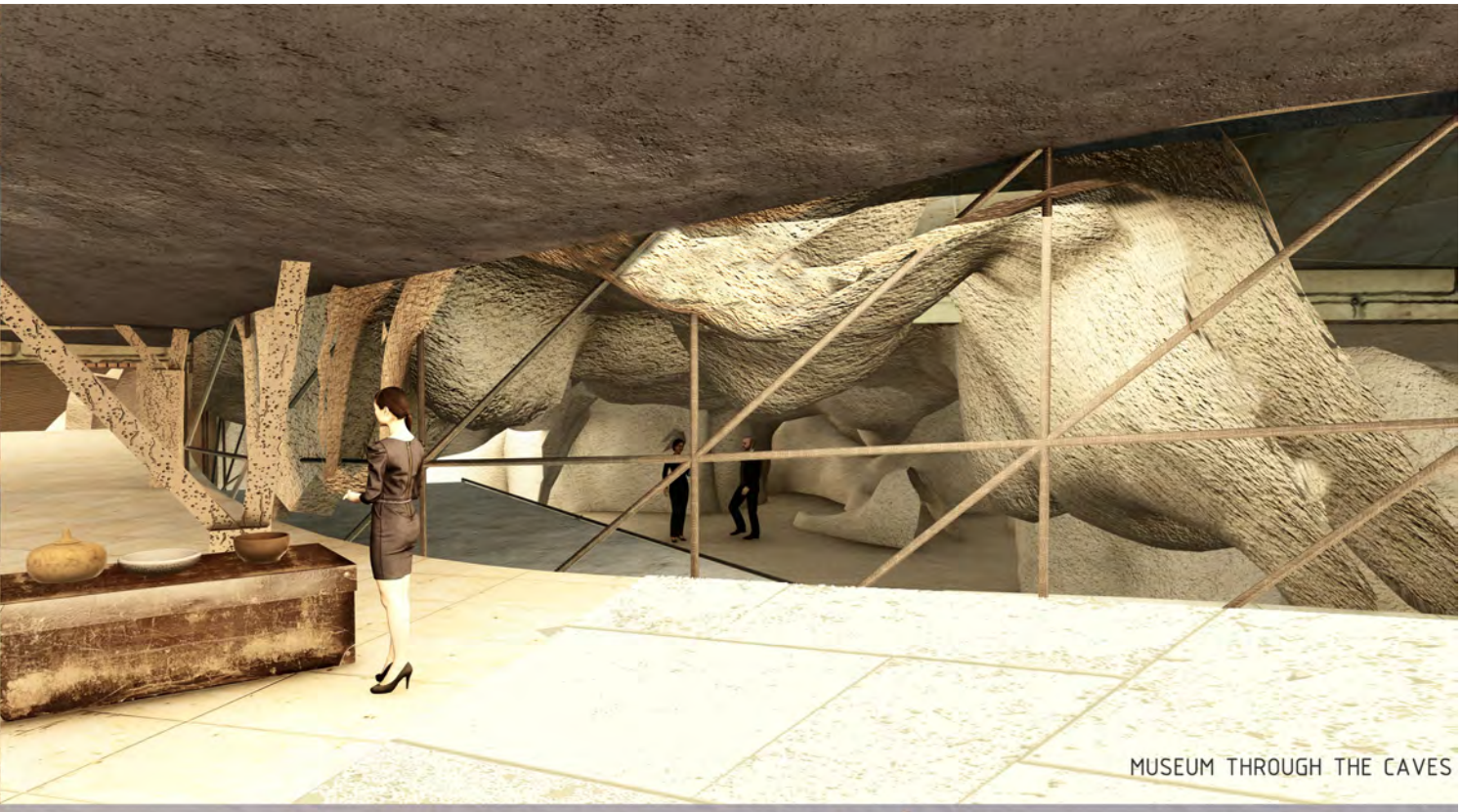
NORTH-EAST ELEVATION



STRUCTURE DIAGRAM



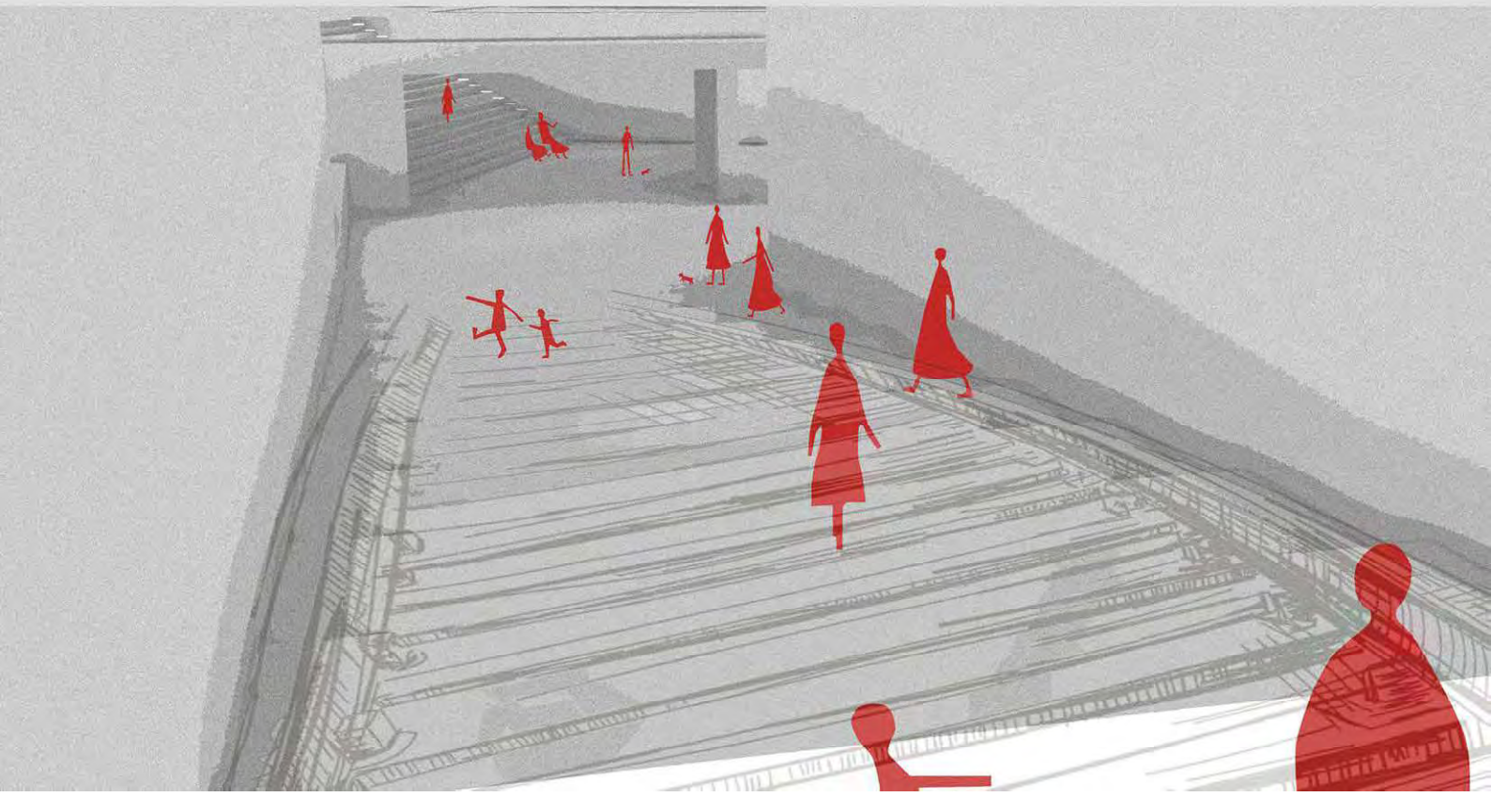
CAVES THROUGH SUNKEN GARDEN



MUSEUM THROUGH THE CAVES

REHABILITATION OF THE CULTURES

ÖVGÜN ATEŞOĞLU



REHABILITATION OF THE CULTURES

ÖVGÜN ATEŞOĞLU

Preservation and conservation of architectural heritage is important for passing our cultural and historical values to younger generations. However, our architectural heritage is better served when kept as functional, living spaces, rather than pristine muséified objects. This thesis focuses on a piece of our indutrial heritage in Döşeme Neighborhood of Adana, to imagine a scenario and create a vision for the reintegration of neighborhood to the city center, and of the building to the life of its citizens.

ADANA - the heart of ancient Cilicia, is a distinct geo-cultural region. Historically, it was agateway from Europe to Middle East and crossroads for religions and civilizations.

Döşeme neighborhood is located very closely to Adana city center; stands out with its characteristic industrial features. From the late Ottoman periods to 1980s, the neighborhood was the center of trade, cultural exchange and education. Due to its proximity to the industrial zone , was designated as a workers' community. Today it also encompasses the intercity highway connects Adana to Mersin and to the center of the country. Sadly, despite its proximity to city center, accessibility from city center as well as from other parts of the country, some historically significant and charming landmarks it houses, this neighborhood is now viewed as impoverished and inferior neighborhood in Adana.

Considering its strategic location and, its unique industrial characteristics, I believe it has a big potential to be a point of social and cultural attraction. My main aim in this project is to preserve Döşeme neighborhood and enhancing itssocial and cultural infrastructure whilst respecting the diversity.

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THE LOCATION - ADANA

The location of the project is in Adana, Turkey. Adana is a Cilician city in southern Turkey. The city is situated on the Seyhan River, 35 km inland from the north-eastern coast of the Mediterranean sea.

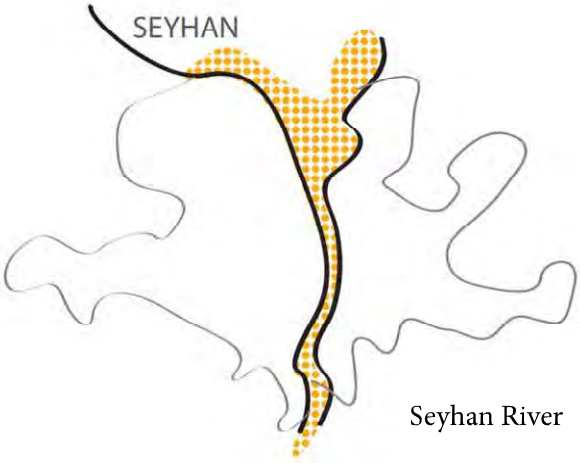
Adana lies in the heart of Cilicia, a distinct geo-cultural region, at a time, was one of the most important regions of the classical world by being crossroads for religions and civilizations. Home to six million people, Cilicia is one of the largest population concentrations in the Near East, as well an agriculturally productive area, owing to its large fertile plain of Çukurova. Adding the large population centers surrounding Cilicia, almost 10 million people reside within two hours' drive from the Adana city center.

In the 21st century, Adana is a center for regional trade, healthcare, and public and private services. Agriculture and l ogistics are significant sectors of the city. The economic decline caused by national policies and de-industrializationsince the 1990s is reversing, as the city is gaining momentum with the fairs , f estivals and entertainment life.

Hermann Jansen City Development

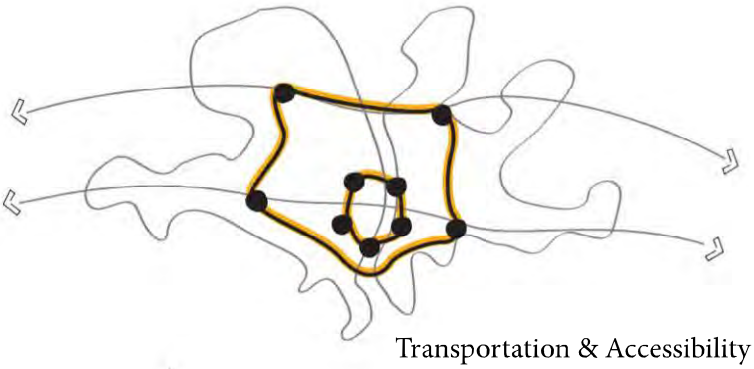
URBAN TRANSFORMATION OF ADANA

Hermann Jansen started working on the Adana development plan as early as 1935 for a limited area between the old city and the new railway station. Later in 1938 he prepared a plan for the eastern side of the Seyhan River and in 1940 the plan that covered both sides of the river.



Seyhan River

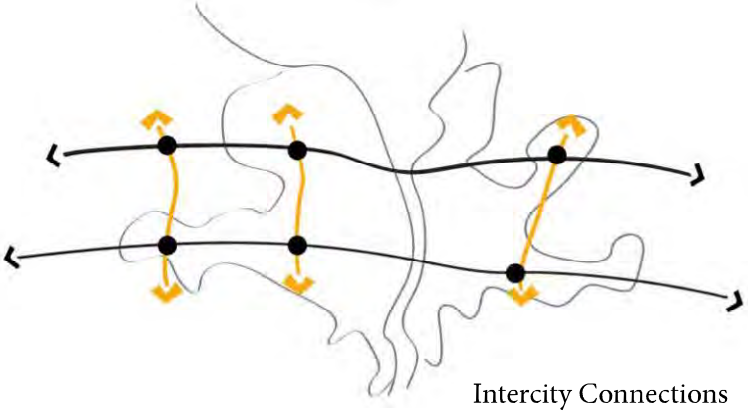
1960s - 1980s



Transportation & Accessibility

1980s - 1990s

1990s - 2000s



Intercity Connections

THE PROBLEM: URBAN SCALE

Döşeme region is one of Adana's neighbourhoods, which is located very closely to Adana city centre; and it stands out with its characteristic features. From the late Ottomans to 1980s, the neighbourhood was the centre of trade, cultural exchange and education. It was designated as a workers' community due to its proximity to the industrial zone. Today along with its industrial role it also encompasses a busy highway which connects Adana to Mersin and to the centrum of the country. Even though this geo-cultural background is maintained in today's modern world, its values have dissolved over time. Sadly, this neighbourhood now is viewed as one of the impoverished and inferior regions in Adana, despite its some charming and historically significant landmarks.

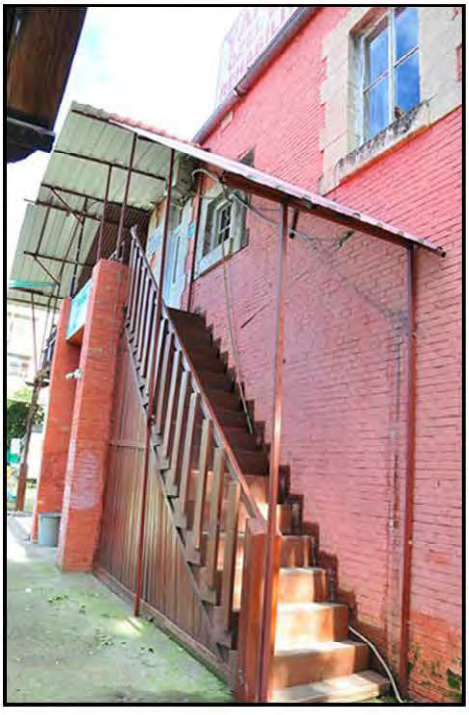
OLD STATION

One of these landmarks is The Old Station. After the new station was built in 1911, the old station remained abandoned f or years. On a sanguine development, in 1999, it was officially registered as a historical building and now is actively used as a school for children with special needs. However, sadly, the building hasn't been maintained well if not devastated. This once beautiful structure has been neglected and forgotten; yet desperately crying to be recognised and to flourish.

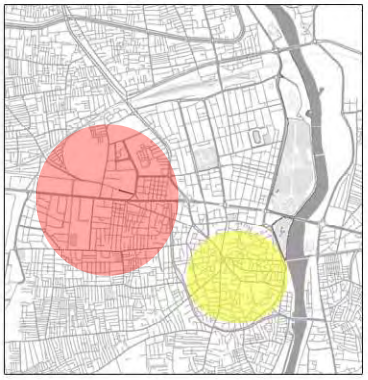
THE OLD RAILWAY STATION

The Old Railway Station was built in 1883 by the English for commercial purposes. It was a 67 km railway between Adana and Mersin. The aim of the railway was to carry cotton and provide shipping through Mersin Port. After a while the railway station exceeded its capacity. As the building was not suitable for expansion, the construction of a new railway station was started in 1911 on farmland north of the city.

Today, the building is used as a Special Educational School.




1
GOVERNOR'S OFFICE




2
ARCHEOLOGY MUSEUM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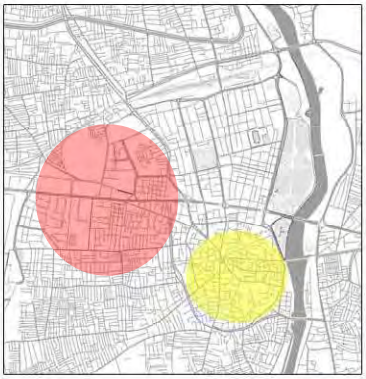
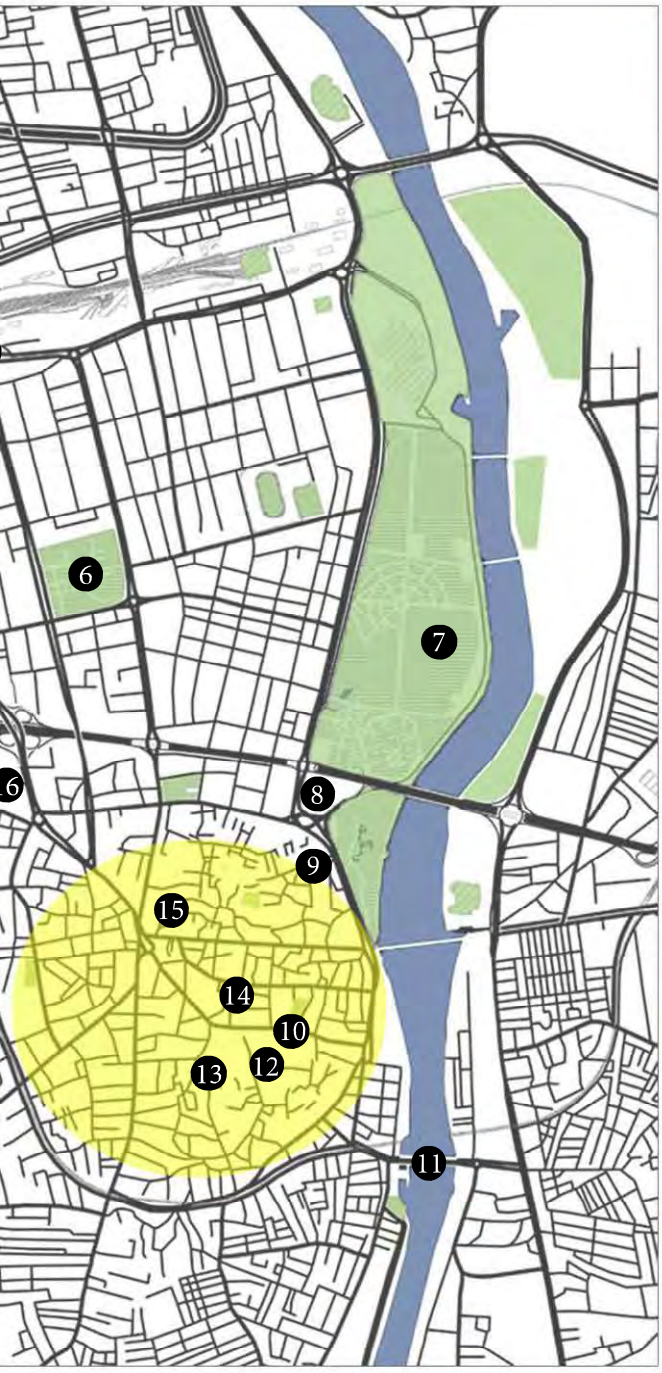
3
OLD RAILWAY STATION


4
İSTİKLAL PRIMARY SCHOOL




5
RAILWAY STATION


6
ATATÜRK PARK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14
BÜYÜKSAAT


7
CENTRAL PARK


8
STATE THEATHER COMPLEX


9
CINEMA MUSEUM

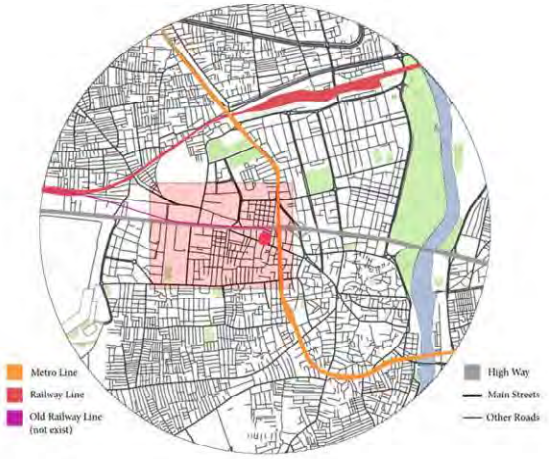

15
BEBEKLİ CHURCH


11
STONE BRIDGE

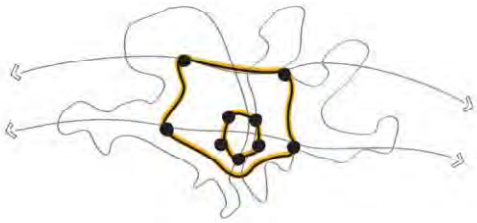

16
SEYHAN KÜLTÜR MERKEZİ
CULTURAL CENTRE


13
ESKİ KIZ LİSESİ


12
ULU CAMİ



Existing Transportation System



Transportation & Accessibility

Proposed Tram Line

Pinus Nigra

Citrus Familia

Olea Europaea

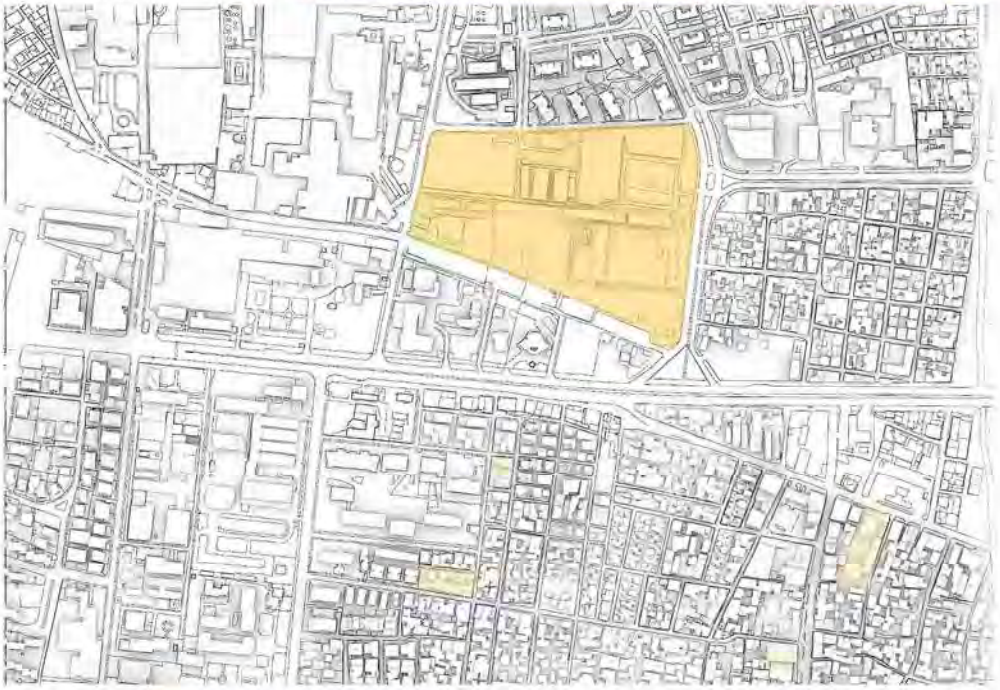
Vegetation Analysis

Macchie / Maquis

Morus Nigra

Nerium Oleander

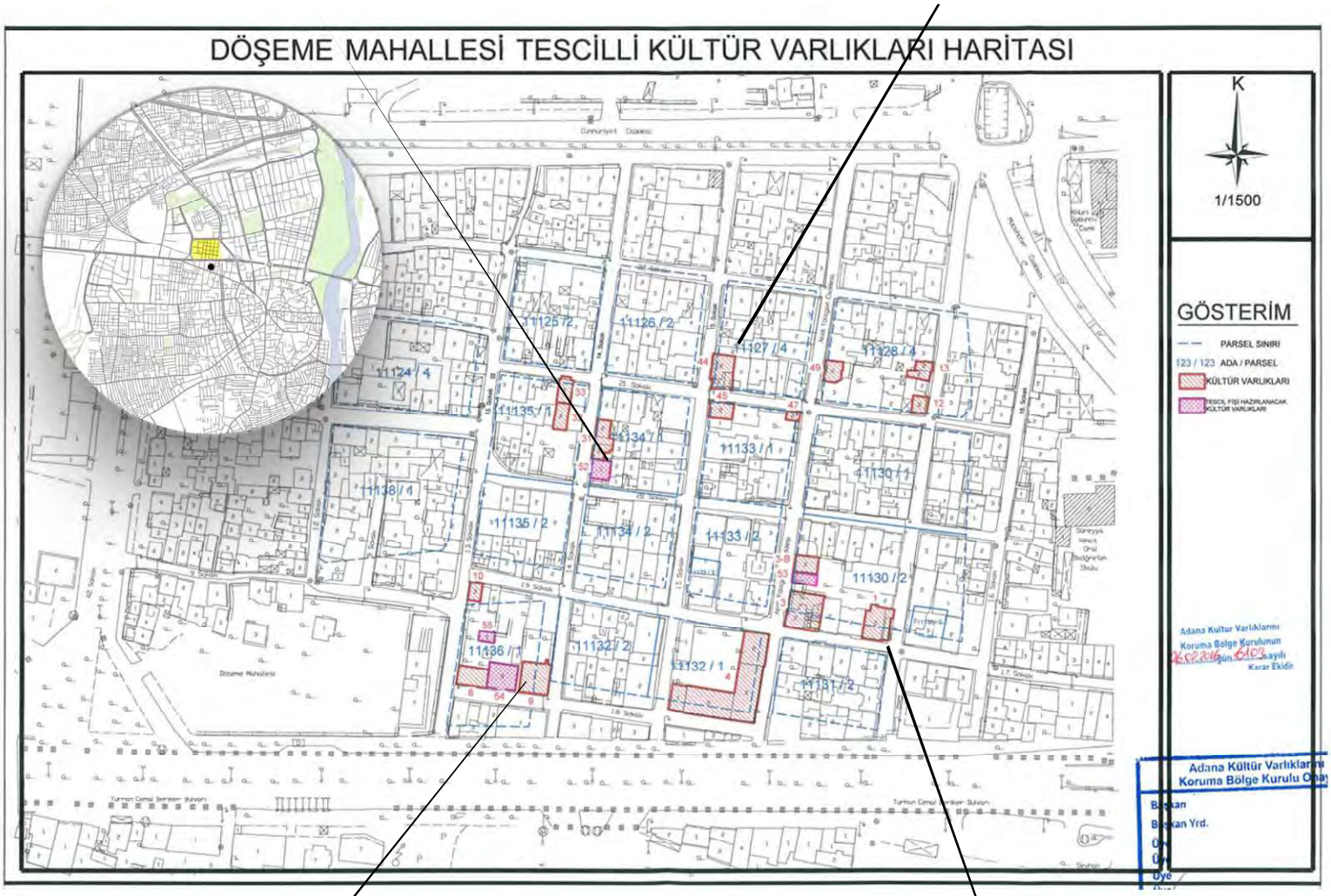
Residential Area



EducationalArea

Industrial Area

Land Use Diagrams


DÖŞEME MAHALLESİ TESCİLLİ KÜLTÜR VARLIKLARI HARİTASI
K
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KÜLTÜR VARLIKLARI
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11125 / 2
11126 / 2
11127 / 4
11128 / 4
11124 / 4
11135 / 1
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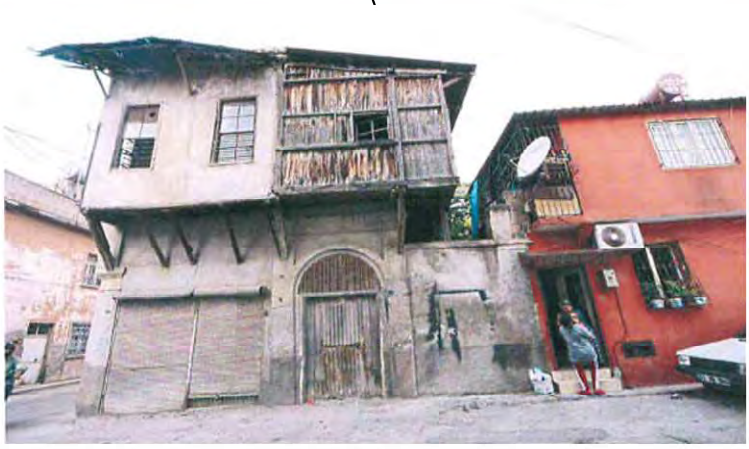
11138 / 1
11135 / 2
11134 / 2
11133 / 2
11130 / 2
11136 / 1
11132 / 2
11132 / 1
11131 / 2
Döşeme Mahallesi
Adana Kültür Varlıklarını Koruma Bölge Kurulunun
Kararı Ekidir
Adana Kültür Varlıklarını Koruma Bölge Kurulu
Başkan
Başkan Yrd.
Üye



MATERIALS

OLD STATION - EXISTING CONDITIONS

Brick Walls (thicker than the blend brick)
Iron Buttress
Stone Work (for the doors and windows)

RESIDENTIAL CONSERVATION AREA - EXISTING CONDITIONS

Partition Tiles
Wooden Beam Structures

LITERATURE REVIEW: SPECIAL EDUCATION

The lives of disabled children and their families are full of difficulties. Theirsensory impairments, communicative problems and mental challengesaffect the daily life of both children, their parents and siblings. The life in the urban context is even more difficult. Once stepped out of thecontrolled environment of their homes it is harder to manipulate the environment. Making adjustments in the city according to these children's needs is very difficult.

The education programs given in special education schools aim to treat the challenged aspects of children with LD, preparing them for a more independent life where they can cope with the difficulties of the outside world. Here the children acquire communication skills, gradually accustomto situations of stress and gain every - day and work skills. It might be difficult to change the outside environment according to these children's needs nevertheless the special education schools try to change thechildren in order to gain abilitie to cope with its challenges, in a more controllable environment according to their needs.

These spaces act as a transition space to the actual world. Consequently providing an adequateand well - designed environment for the education of children with LD not only helps pupils in the learning process but also facilitates the job for the teachers.Furthermore it provides relief for the parents decreasing their preoccupation with their children's future and needs.

LEARNING DISABILITY LEVELS

01 MILD

Can generally learn reading, writing, and math skills between third- and sixth-grade levels. May have jobs and live independently.

02 MODERATE

May be able to learn some basic reading and writing. Able to learn functional skills such as safety and self-help.Require some type of oversight/supervision.

03 SEVERE

Probably not gonna able to read or write, although they may learn self-help skills and routins. Require supervision in their daily activities and living environment.

04 PROFOUND

Require intensive support.
May be able to communicate by verbal or other means.May have medical conditions that require ongoing nursing and therapy.

CONSIDERATIONS OF BUILT ENVIRONMENT

Acoustics
Reverberation
Sensory Effects
Colors and Materials
Lighting
Sensory Stimulation
Circulation
Transitions
Building Security & Privacy
Emergency Preperation
Wayfinding

LITERATURE REVIEW: BIOPHILIC DESIGN

Biophilia comes from the Greek words "bios", meaning life, and "philia" meaning foundless. Biophilia is the innate human love of life, or our affinity for living things.

Biophilic design is a human centered approach, with the goal to connect people with nature. Interfacing with nature complements the technology - rich environments by fulfilling a basic human need.

Visual Connection to Nature

Sound (or other Non-Visuals)

Presence of Water

Patterns that Exist in Nature

Thermal Control & Airflow

Prospect of View Over a Distance

ELEMENTS OF NATURE

Using the indirect methods of reflect nature, such as the use of naturally-inspired patterns and shapes with non-natural materials or materials that have been extensively altered.

These principles can be used individually or togehter to create a connection with nature in a non-natural space: the key to "Biophilic Design Principles" is to integrate these forms in a way that feels natural.

BIOPHILIC DESIGN IN SPECIAL EDUCATION

In schools, natural lighting, views of nature, and areas for outdoor learning have been shown to increase attention and retention of information, and reduce disciplinary incidents and ADHD symptoms. Distant views to exterior, particularly of greenery, help to reduce ocular fatique. Benefits to student engagement and creativity have also been reported.

37% lowered tension and anxiety levels

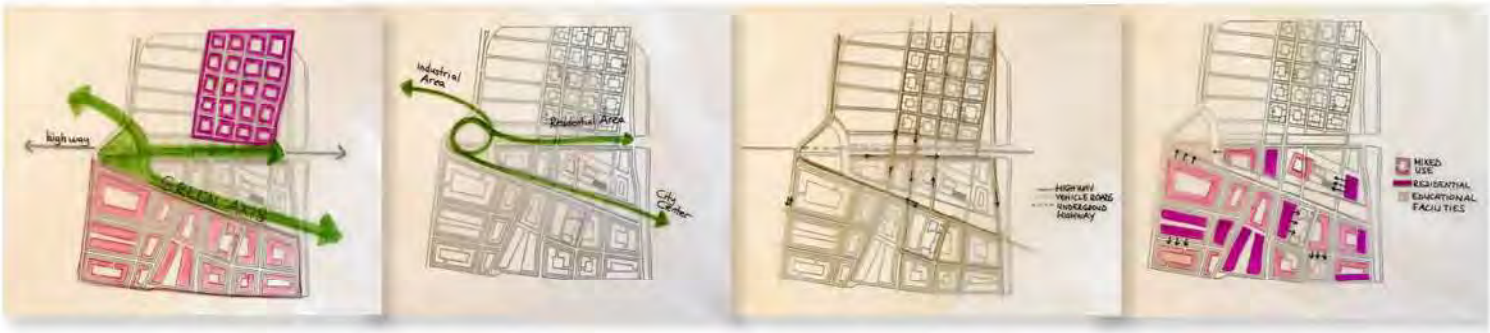
38% reduced fatigue

44% reduced feelings of anger

- optimization and organisation of spaces with a human focus
- thermal comfort levels
- air quality, toxin levels and ventilation
- acoustic comfort
- improved natural and artificial lighting
- internal and external views onto nature
- the use of natural materials textures, patterns and colours
- the incorporation of recuperative spaces
- aesthetic environment with brand recognition
- psychological and physiological effects of the space

Research demonstrates that directly and indirectly incorporating elements of natureinto built environment reduces stress, blood pressure, and heart rates, while increasing productivity, creativity, and well - being.

DESIGN STRATEGIES



GREEN AXIS

In order to improve the interaction along with the preservation area and the other facilities, also to reduce air and noise pollutionand c onsequently to improve quality of life; the highway is to be reconstructed as an underground road and instead the ground is to be recreated as a park covered with vegetation.

VEHICLE ACCESSIBILITY

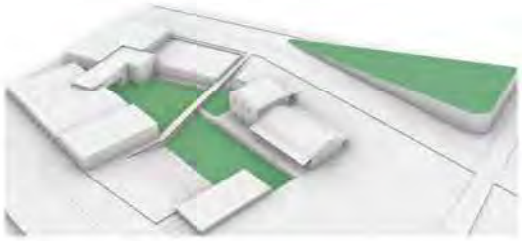
To create a continuous green axis, the highway is converted to an underground system. The roads are arranged to minimise the traffic with some lines permanently closing, encouraging pedestrians enjoy biophilic ambiance

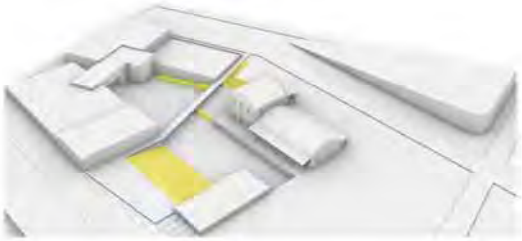
INTEGRATED LAND USE

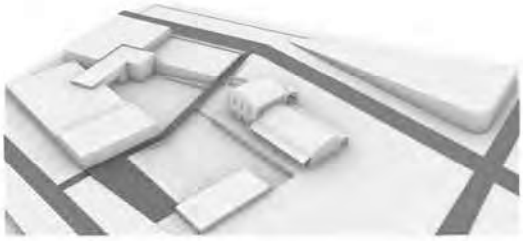
Doseme Neighborhood, due to its location, allows the industrial area and Adana city centre to intersect; which can be utilised to help interface cultural and social diversity.

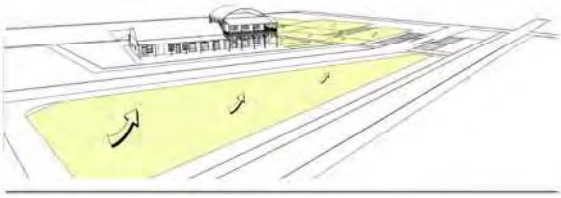
SECURE NEIGHBOURHOOD

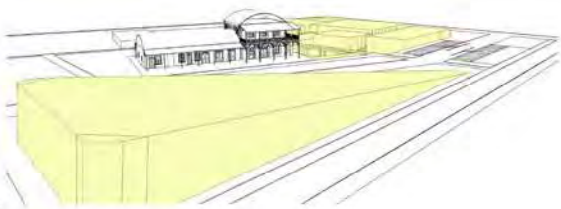
To prevent ghost spaces and to provide safe and friendly neighborhood night and day; the residential buildings are located near the facilities and both facing each other.



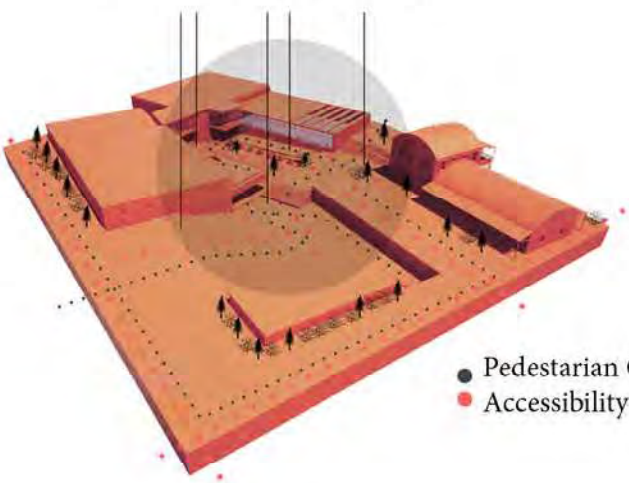


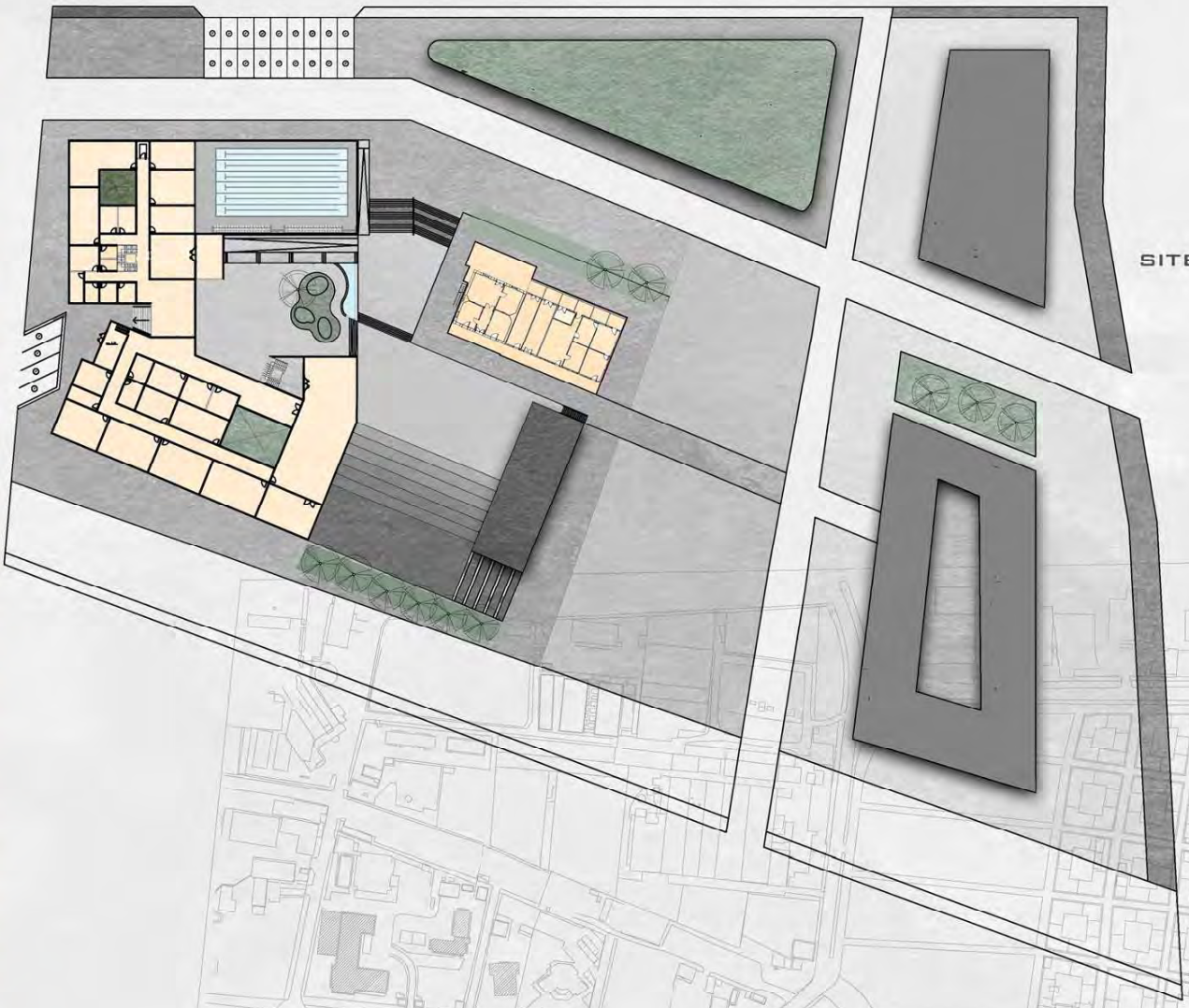






COURTYARD HIERARCHY

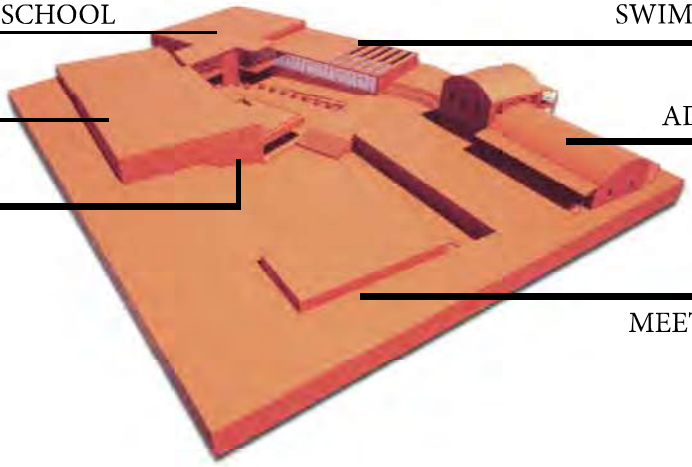




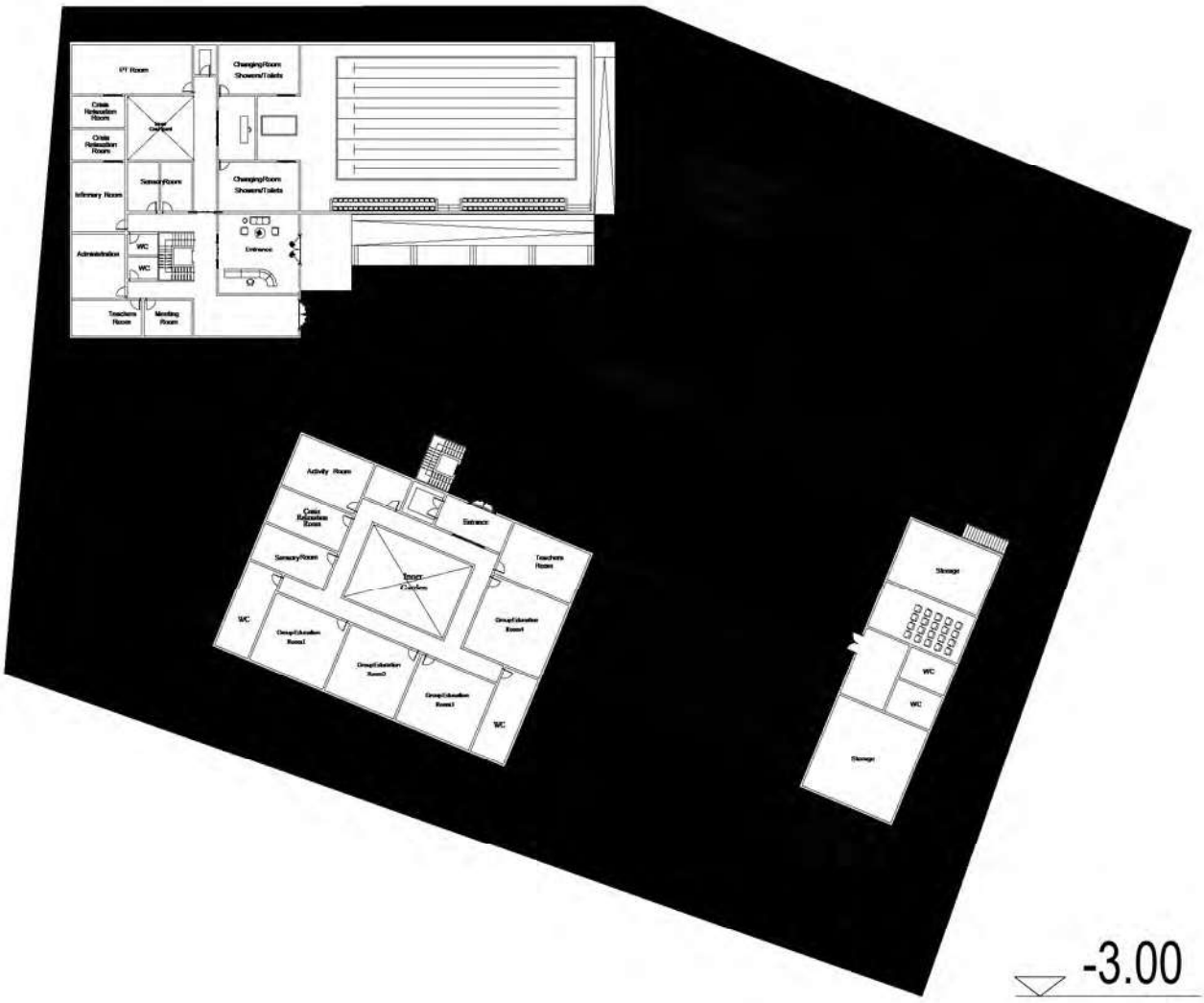
SITE PLAN

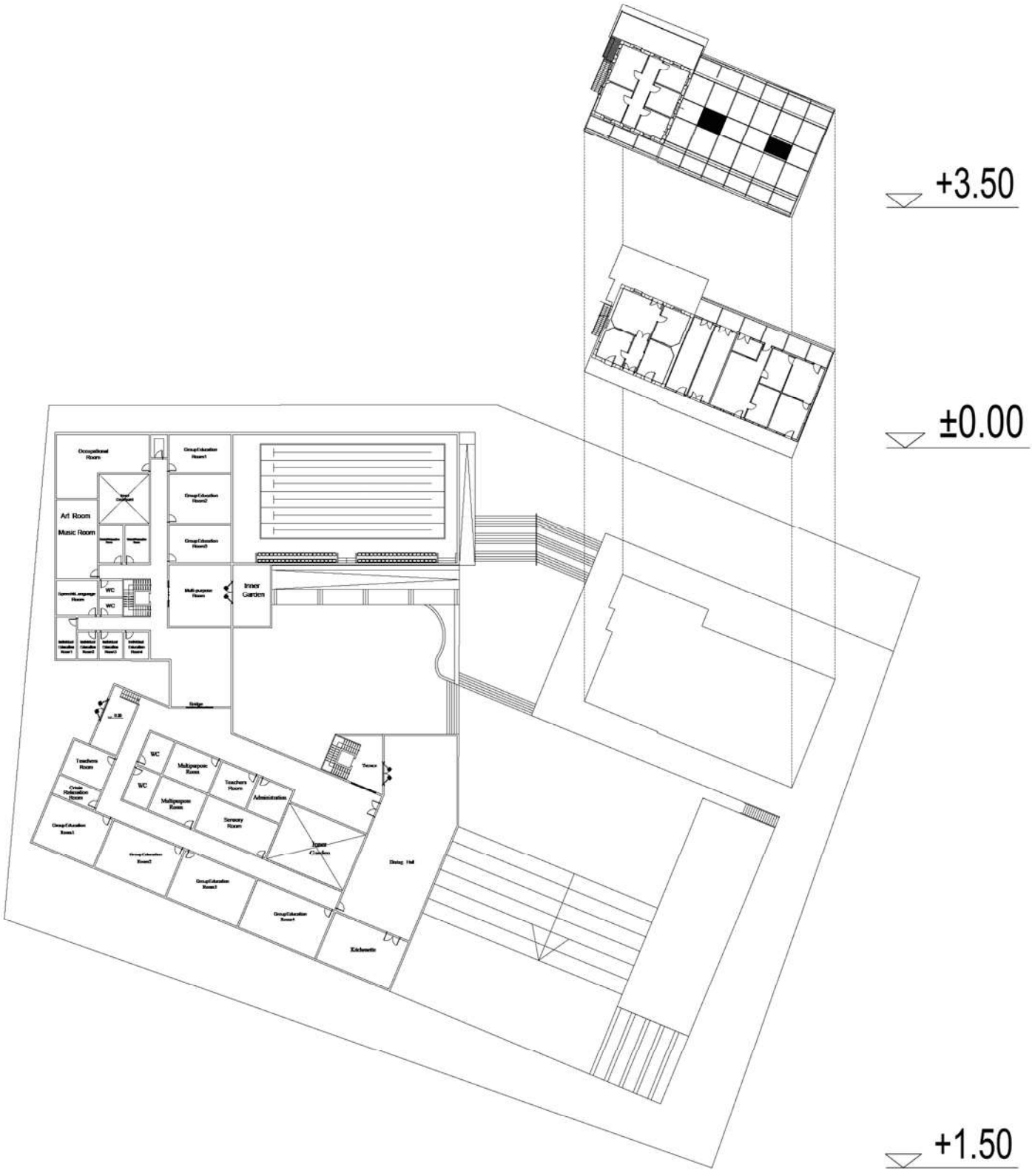
MASTER PLAN

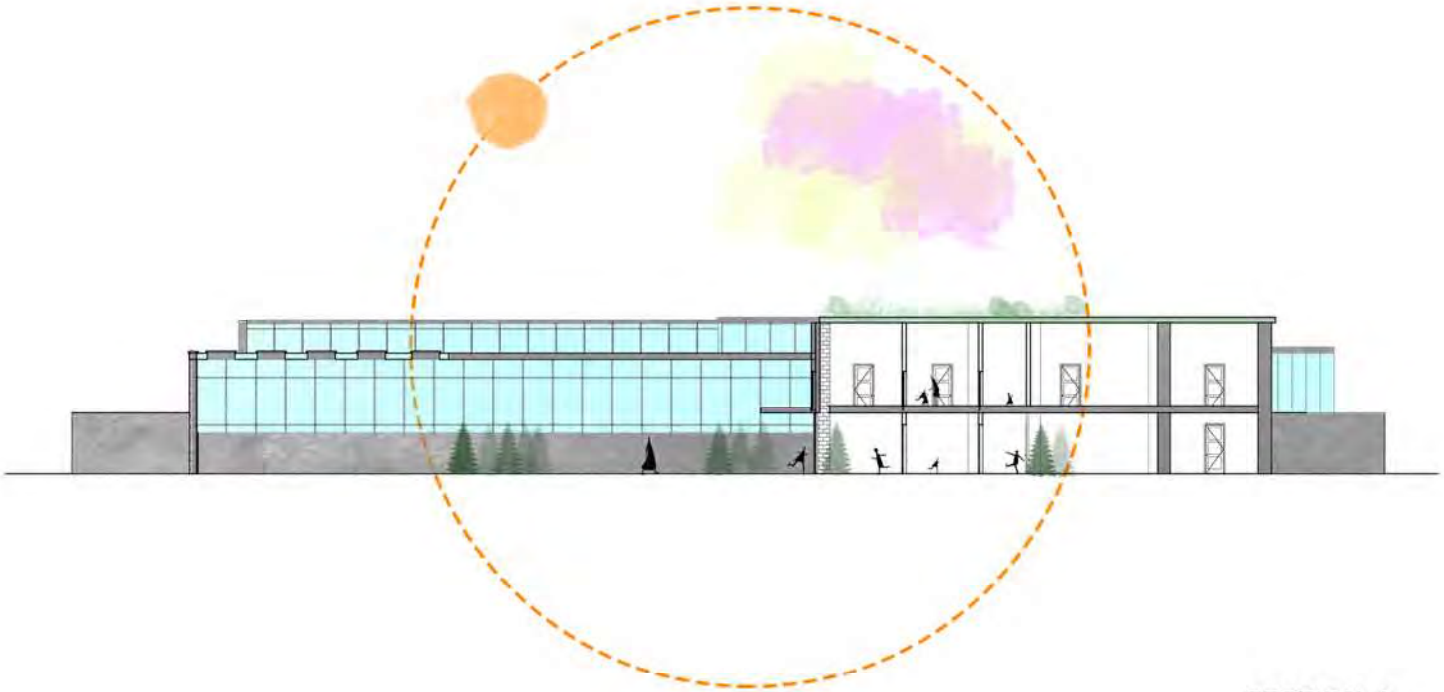
BUILDING PROGRAM



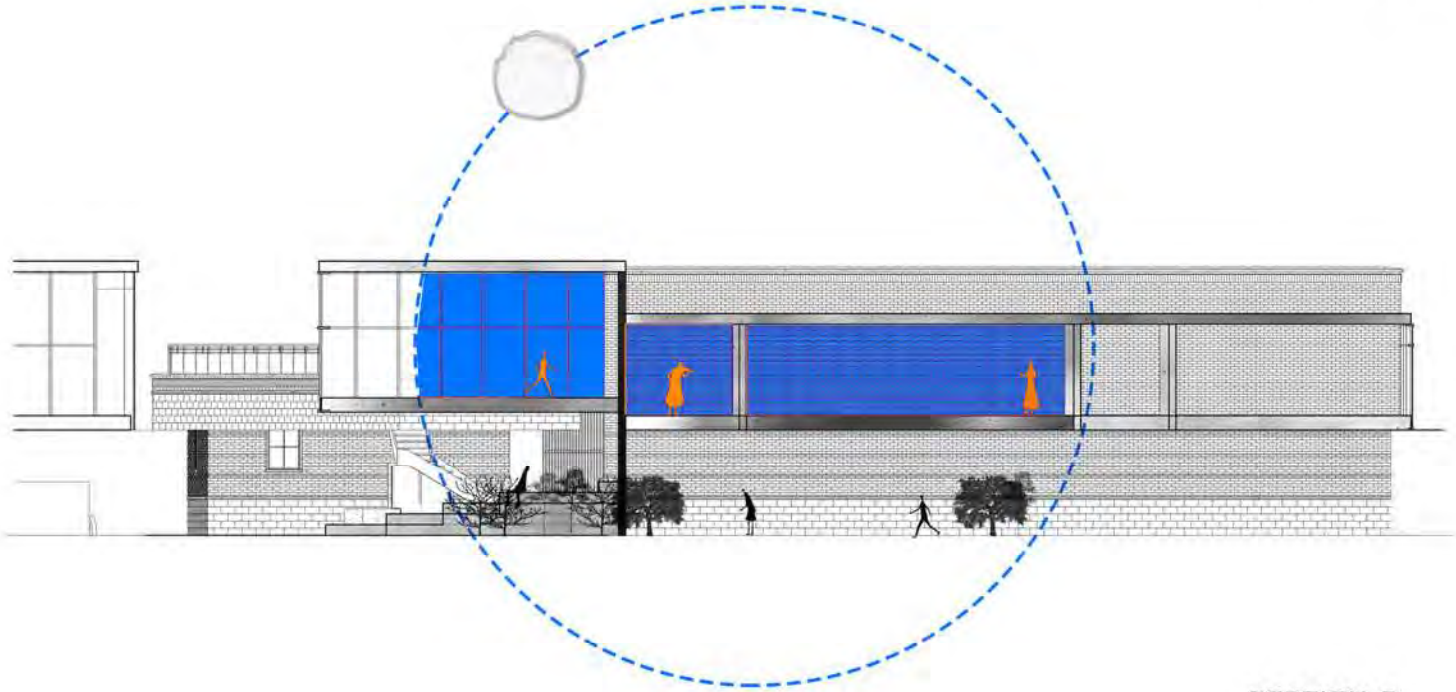
FLOOR PLANS



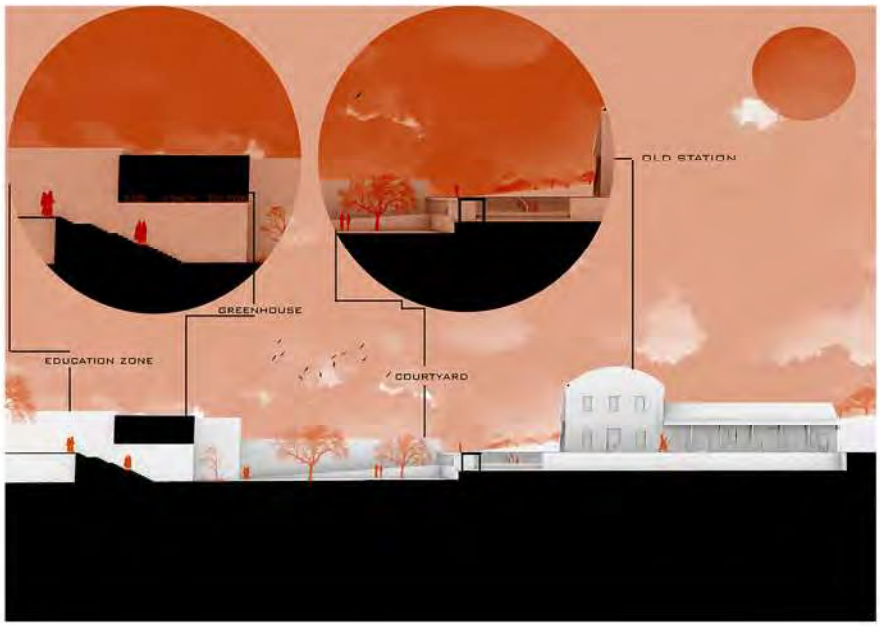

+3.50
±0.00
+1.50
Occupational Room
Group Education Room1
Group Education Room2
Group Education Room3
Art Room
Music Room
WC
Multi-purpose Room
Inner Garden
Bridge
Teachers Room
Cross Relaxation Room
Group Education Room1
Group Education Room2
Group Education Room3
Group Education Room4
WC
WC
Multipurpose Room
Multipurpose Room
Teachers Room
Administration
Sensory Room
Inner Garden
Dining Hall
Kitchenette



SECTION A



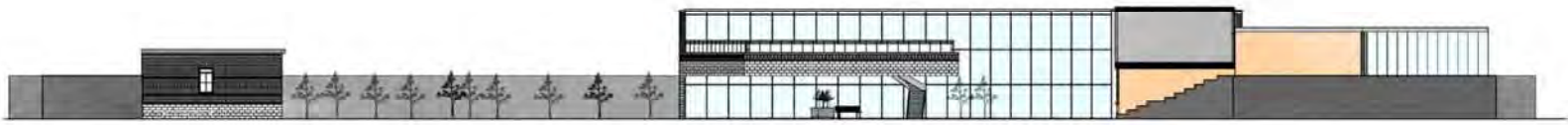
SECTION C



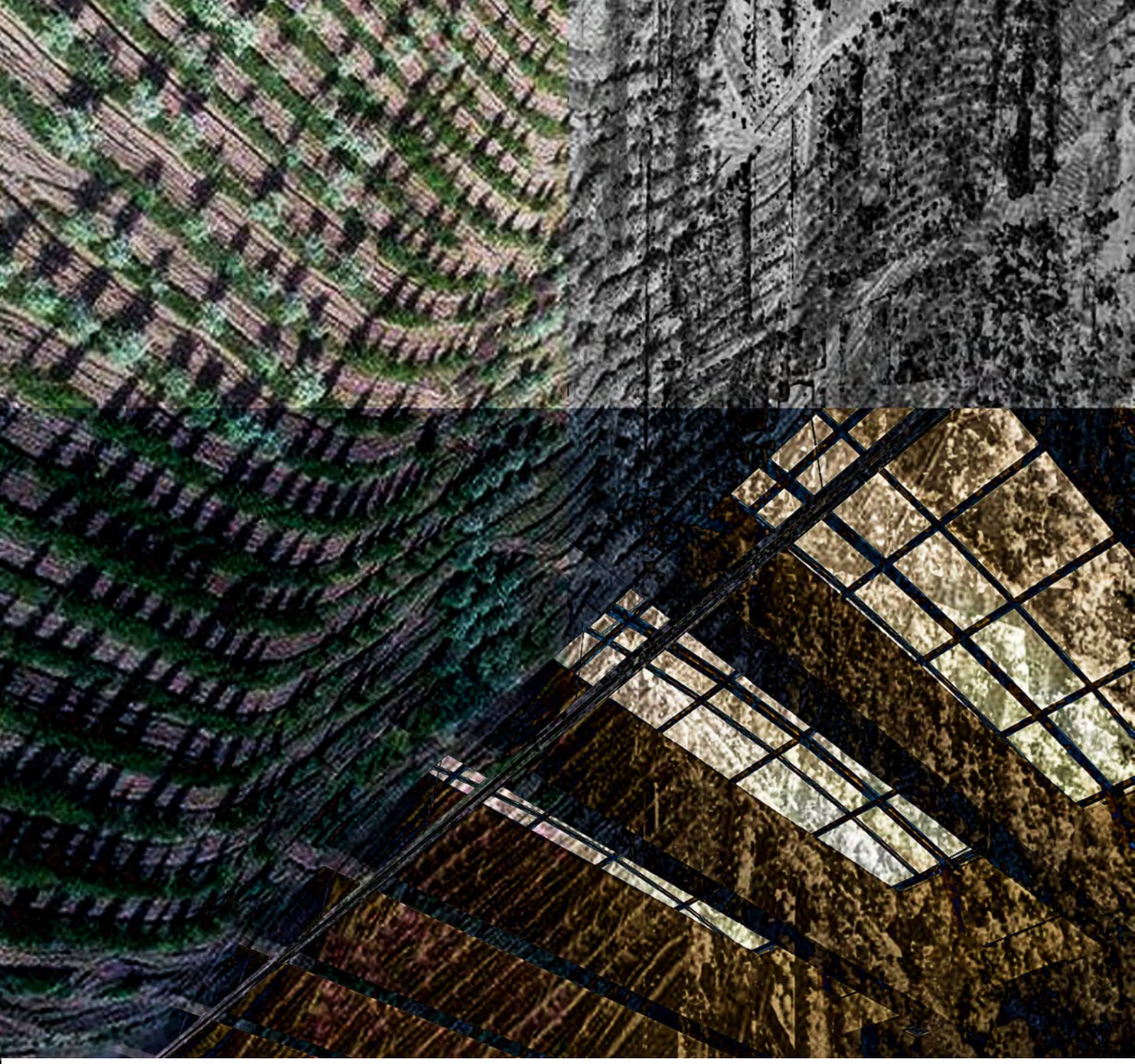
Conseptual Section

SECTION B

ELEVATION A



ELEVATION B



NEW DIMENSIONS OF PUBLICITY : TRANSPORTATION LINKS TO ECOFORM

SARE NUR AVCI

NEW DIMENSIONS OF PUBLICITY: TRANSPORTATION LINKS TO ECOFORM

SARE NUR AVCI

This project aims to transform AŞTİ, the crucial infrastructure node in Ankara city, for its re-integration into community life, via defining new publicity values, introducing contemporary architectural solutions for the given physical and social setting and highlighting the ecoform of Ankara.

The Intercity Coach Terminal, known as AŞTİ, is an important joint on the transportation network of Ankara. Besides its notable architecture, its location within Atatürk Forest Farm lands enriches its significance in the urban environment and memory of Ankara.

In this project, the problems of AŞTİ in the interface of dense urban area and the Forest Farm is examined to enhance its use and re-state its publicity, considering future scenarios. AŞTİ is in the center of changing transportation links and is prone to alter from its intended use as a coach terminal. From this point onwards, the public use of not only the terminal but also its links to surviving fragments of the Forest Farm will be re-defined for it to hold an active place/role in city life and extend into the the most important urban green area of Ankara.

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https://blog.kamilkoc.com.tr/arsivler/4674

THE AŞTİ TERMINAL

AŞTİ is an important transportation node not only for Ankara but also for Turkey, as all cities are connected in this terminal point. Its central role surpasses the geographical center of the country's land and further gains value in the context of the capital city, which carries -and ideally embraces- distinctness in the public place. In the urban memory of Ankara, this place recalls many reunions and separations, gatherings and beginnings. The experience of "voyage" is not necessarily limited to the time on the road; it begins within this environment. The ticket booths & criers; shops & hawkers create a sense of order and disorder in the space.

As an entry point to Ankara, it is associated with the city and its citizens. One can claim that, in the way that ever-changing or stable communities in AŞTİ, the encountered urban environment outside also holds different historical layers of Ankara and reminds of social tensions related to them.

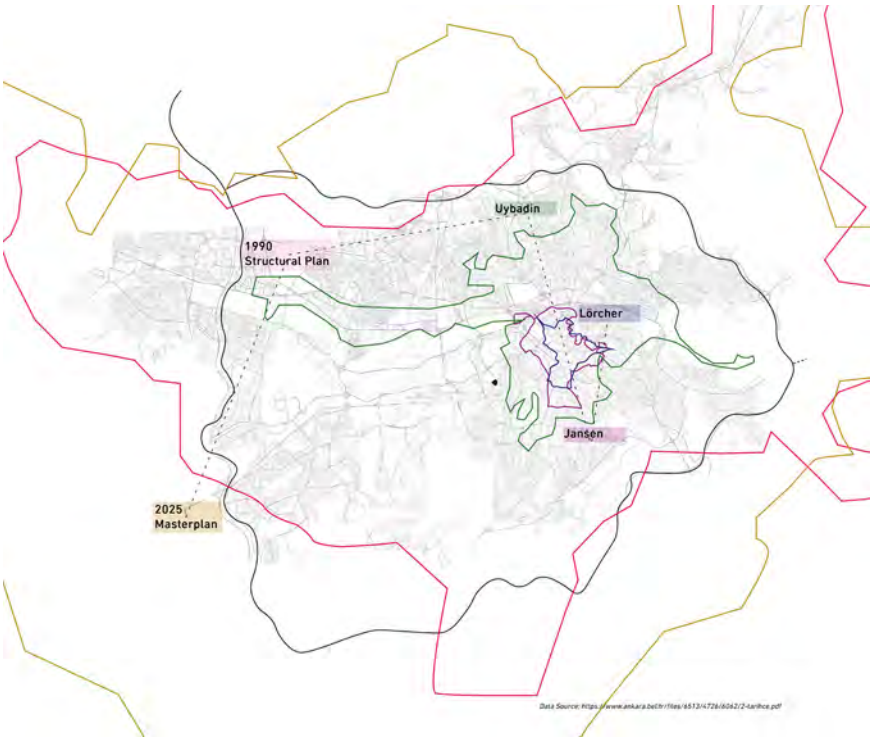
The location of the Ankara city terminal had changed few times following the progress in transportation technologies and social dynamics of the country. After a period when intercity travels were not easy and nearly limited to railways, in the 1960s, road transportation became largely favored. Then, transportation trends were in competition as different socio-economical sufficiency of groups would let them to prefer one. The architectural competition held in 1987 was out of the need for a large intercity terminal for the capital city, as the highway connections had been developed and bus transportation was widespread among the low-middle class.

In 1995, architect Davran Eşkinat's team won the competition and was commissioned to build today's AŞTİ. At that time, AŞTİ's site was of Atatürk Forest Farm and was rented to the operating company of the terminal. This location was both remote and close to the city center and was linked to some of the main roads surrounding - and penetrating into- the city. Today, this location became even closer to the city center. Moreover, the built environment around practically defines the track of development of Ankara city.

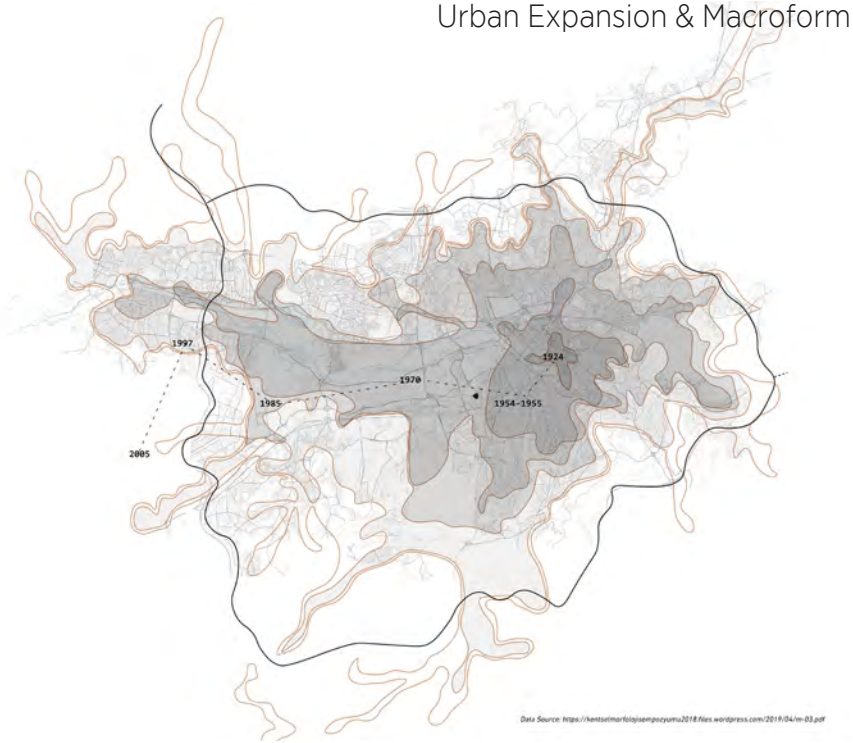
CITY OF ANKARA

Ankara started to be re-constructed into a modern city in late Ottoman years with the extension of railway road to this central Anatolian town. The train station and city in the old citadel were in a dialog that set some main characteristics of the city center of Ankara to this date. Another important issue with modernizing Ankara was to bring green into its barren land from afar; an inspiration from modern European cities. This idea sprouted in that time, lasted until Republican years and today comes into question.

The capital of Turkish Republic was rapidly modernized with its new city center near the train station and green belt formed through West. This green could host various modern activities and practices that needed to be exhibited to old Ankara -and Turkey. Furthermore, a revolutionary act was done by Atatürk himself, who established a state farm on the -far- West, brought modern agriculture techniques to Ankara, and ultimately transformed infertile marshy land into a productive model farm.



Urban Expansion & Macroform

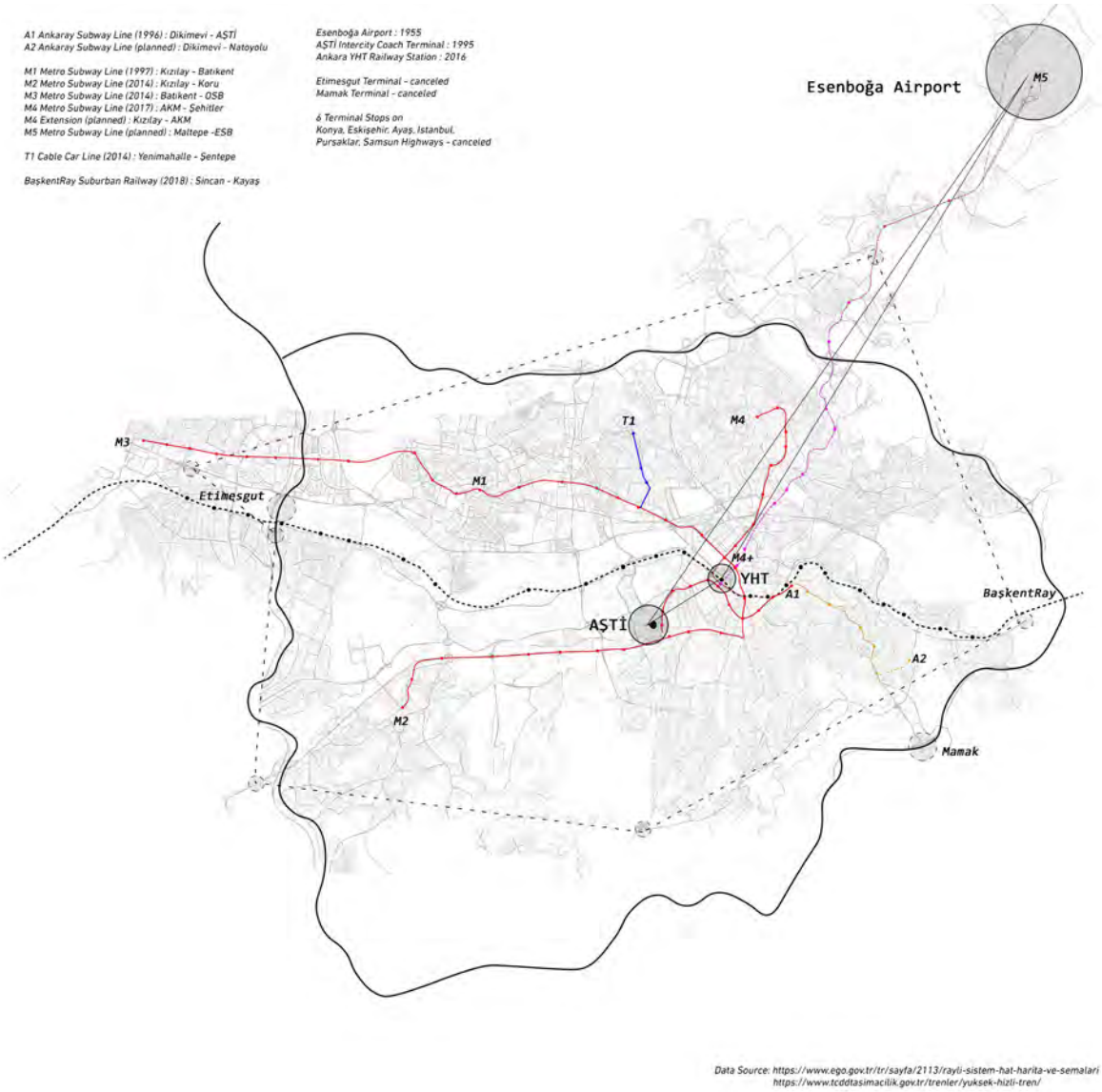


MACROFORM

From the history of urban planning in Ankara, it can be seen that the city center has shifted from the old city, Ulus, to newly settled Çankaya until the recent past, together with the government, finance and social life environment. On the other hand, urban expansion took different dimensions in time, as the migration to capital surpassed the pattern of development on city plans. Hence, far from the city center, Ankara extended in all directions, ignoring the infrastructure and topographic limitations. The development on the West was in a particularly critical change, since a buffer zone between the city center and countryside, Atatürk Forest Farm, was being consumed gradually. In 1990 Masterplan, the vision was for Ankara city was the extension towards West. Especially after but even before this plan, urban projects were constructed on the Farm land and surrounding. Eventually Farm could not sustain its preliminary ideals on production, recreation and being a model for the modern Turkish cities.

Today, government buildings, finance and business develop on the West corridor, forming another city center. Land speculations and social discussions rise from this area in the middle of which AŞTİ is located.

Major Transportation Routes & Nodes



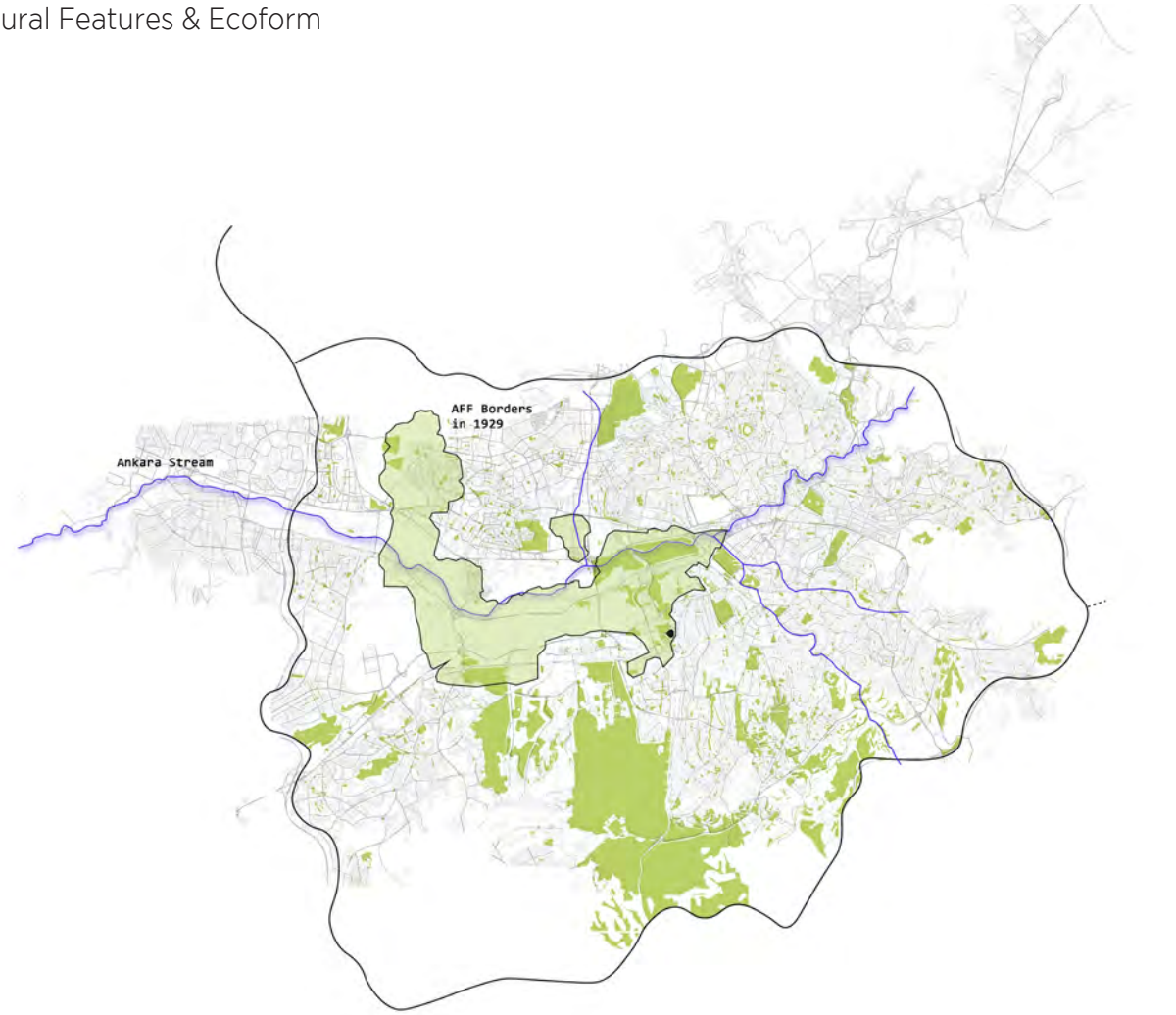
TRANSPORTATION NETWORK OF ANKARA

Ankara is historically on a junction point between Silk Road routes, being in the center of Anatolia. Later with the railway, its significance as being a terminal point between capital Istanbul, Ottoman states and Anatolian cities, increased. This quality was considered when it became the capital of new Turkish Republic. Railway constituted great importance in early Republican years and Train Station symbolized the modernization of the country. It became a line extending in East-West direction, separating new city Yenişehir and old city near the citadel. Along this extension, a green belt was formed, consisting of AFF, sports areas, Hipodrome as green open spaces.

In 1950's, political movements led to collaborations with USA on liberal economic model. With that, highways were developed and gradually became more important than railway connections.With domestic migration in 1960's, road transportation and buses became widespread. even among low-middle class.

Earlier, the bus terminal of Ankara was out of city, in Dışkapı; later it came near the Train Station. In 1995, an intercity bus terminal AŞTİ was constructed for the metropole city. It again became a junction point between Anatolian cities. Today, with changing technologies, airways was advanced and became a preferred travel option. Esenboğa Airport is an important node on transportation network of Ankara. It also has effected the expansion to North and new settlements there. Moreover, the new YHT Train Station offers a fast and comfortable experience and is widely used between intercity travels.

Since city growth was uncontrolled in many directions, for the transportation infrastructure, new terminal locations were proposed in recent history. These plans were encountered with objection, associated with land speculations and not executed. On the other hand, they indicate that assisting terminals on entry roads to Ankara are required to distribute transportation service to a broader urban area than before. In addition, these terminals would unload the excessive amount of density and concentration in the -now-centrally positioned AŞTİ.



Data Source: Ankara kent atlası. (2012). TMMOB.
Yıldırım, D. Design problems of AOÇ as a public property. Master Thesis, METU, Ankara.

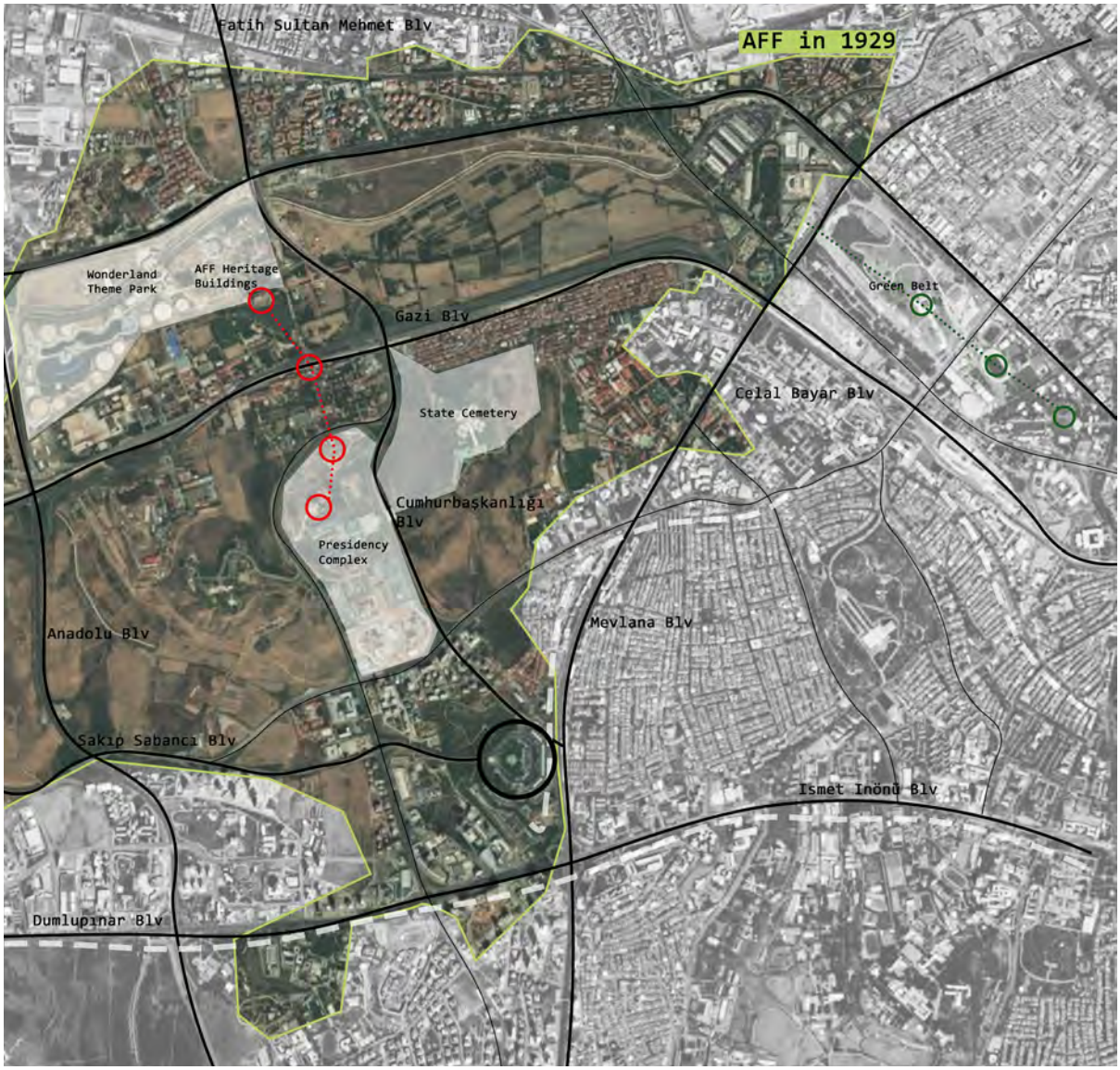
ECOFORM OF ANKARA

Ankara is formed on a basin in the middle of mountains surrounding its four sides. Streams coming from the mountains form the valleys and wetland, creating the unique ecosystems and microclimates in the city. In history, current urban settlements in Ankara such as Dikmen, Etlik, Keçiören were known for the vineyards, gardens and streams. Nevertheless, the modern city of Ankara was developed on covered or dried streams, climbing over the tough topography and eventually changing the natural conditions of the city. Lack of wind corridors, air pollution, floods and extinction of endemic species are in some ways resulted from this ignorance. On the other hand, these disasters are also connected to recent urban growth and destruction of open green spaces which were intentionally left to be open and green.

Transorming Ankara from a barren land to a green city was envisioned and executed on urban parks, boulevards, but most importantly, in the scope of Forest Farm.

AFF was a model to manifest Republican ideals of domestic production, scientific agricultural methods which could transform Ankara's infertile land, besides creating an urban environment with factories, ateliers, recreational areas, pools and restaurants for the capital. These would represent, on a continuous link between Yenişehir, Ulus and Farm, new modern life established in the capital. The idealist manifest and successful production on the farm, however, could not be sustained for so long after Atatürk's testamentation on leaving AFF as a public property. As mentioned before, after this, the land use of production areas were left to construction; recreation to abandonment. Today, AFF land has shrunk down to a little patch in the middle of high rise buildings. Even this small patch is fragmanted between public institutions, roads, private commercial functions and entertainment parks.

AŞTİ is in close relationship with this changing dynamics on green area use. Nearby, new settlements are erected on the Farm land. Relationship of green public space in this built environment needs to be envisioned to create healthy environment which is needed in Ankara.



ATATÜRK FOREST FARM

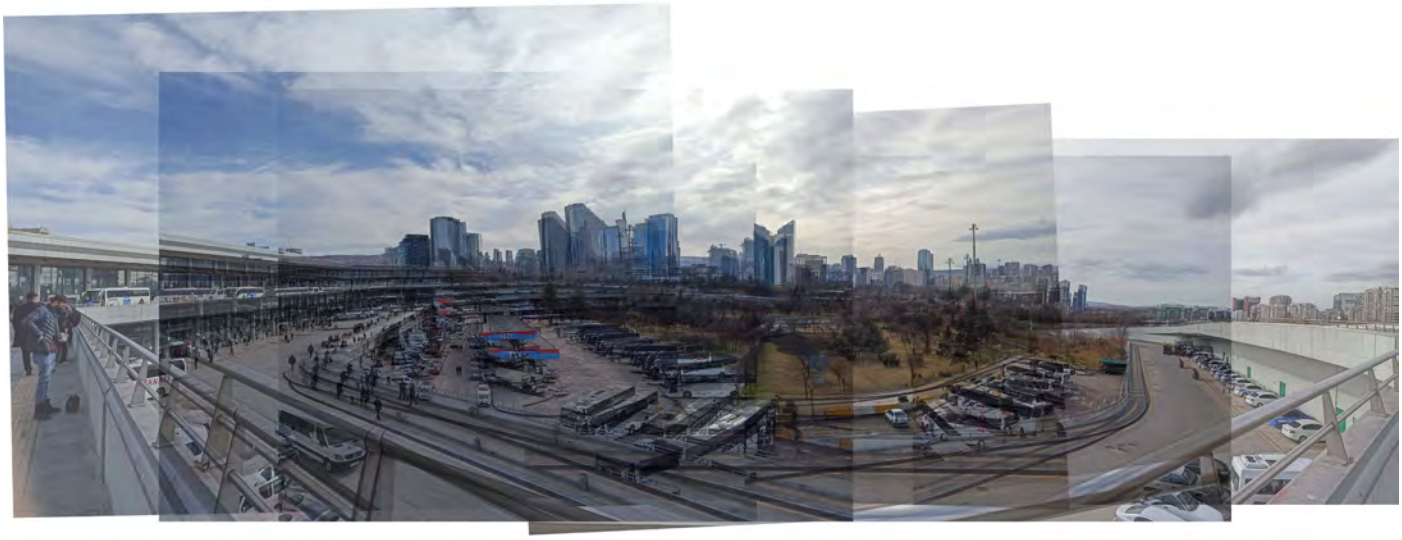
Atatürk Forest Farm was established by Atatürk as a state farm, like those in Yalova, Silifke, Tarsus, etc. The significance of AFF in Ankara was that it challenged the existing capacity of the unfertile earth by modern agricultural techniques. Moreover, this was done to provide open space on the West, the zone that was estimated to be prone to development and land speculations in near future. AFF was far from the city center then and could limit the urban expansion there and create a buffer zone between urban and the countryside.

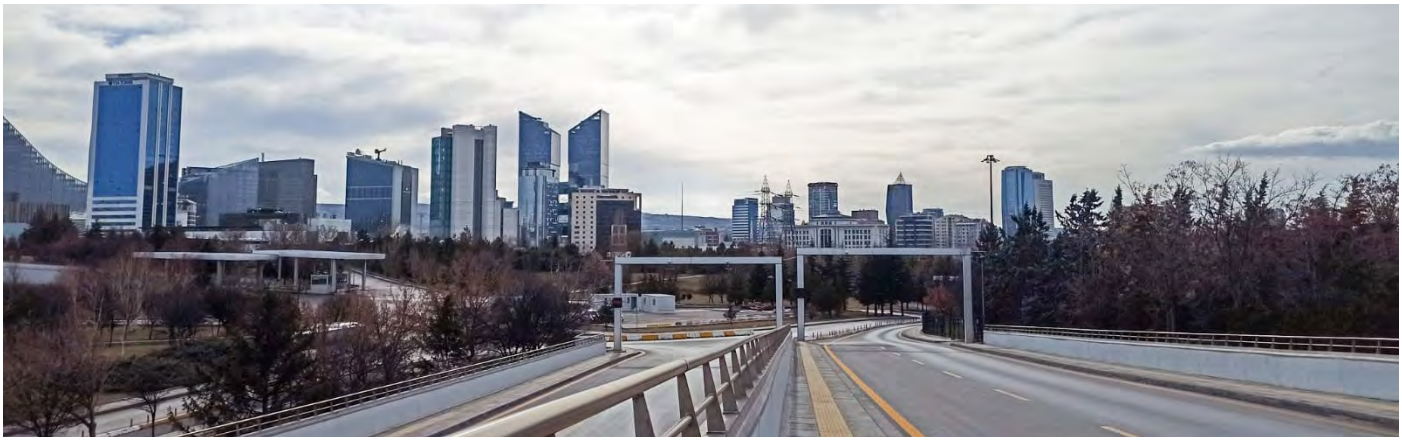
In time, as the land value increased in the city center, the public institutions started to occupy the public property land of AFF for their complexes. Rental giveaways, land transfers, allocations could be done since the urban plans were insufficient in preventing this uncontrolled expansion towards the West. Similarly, AŞTİ and its service buildings had been rented on an annual basis.

Today, AFF is in the middle of various transportation routes, yet, the accessibility and recreational use are not possible as in an urban park model, whereas the public functions it exhibits are decreasing day by day. Commercial and social nodes in the surrounding built environment are intense but not directed to Farm since the surviving fragments do not attract citizens as a public realm.

In recent history, AFF lands were occupied by massive construction projects such as Presidency Complex (2012) and a theme park (2013). Also, some of the development projects nearby are detected to be part of illegal developments related to land speculations on the West Ankara corridor.

To prevent dissolution of the last pieces of a large open green space in Ankara AFF needs to be re-introduced to the city as the valuable urban public space, as it already is. Directing links from AŞTİ and nearby built environment to the green as a recreational area and landscape experience can enhance Ankara's urban environment.





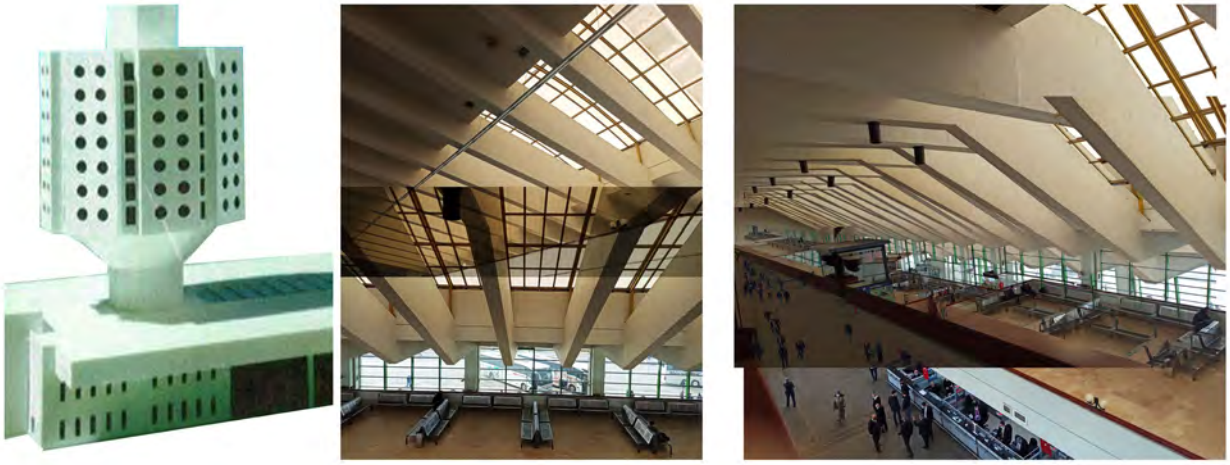
PROBLEM OF PUBLICITY

The very central location of AŞTİ is in some ways owed to the original owner of the land, Atatürk Forest Farm, which itself is left in the middle of a highly and rapidly changing urban environment. Generally, Eskişehir and Konya directions can be counted amongst the routes of this development. Just as the terminal attracts vehicle access on the edge of these roads, many commerce and business centers have looked for a similar effect and are aligned to it, to date.

West Ankara corridor had become a stage for construction projects after the 1970s, as the masterplan foresaw the development through West until the 1990s. On the other hand, some precious lands along this corridor were of AFF, as green space. With the drive through the West, the AFF lands became subject to land speculations and green was gradually consumed. Ultimately, the character of AFF was altered to become an under-appreciated open space and under-used production center.

Today, AŞTİ is surrounded by -continuing- high-rise building projects along the boulevards and on the public lands on AFF. In this regard, this location is subject to very timely discussions on the use of public land, public space, heritage and indicate the price of urban growth. Tension occurs with the rents, allocations, illegal constructions around AFF and along the West Ankara corridor. On the other hand, this expansion to the West not only takes concrete form in the built environment but also sets new definitions of political, national, social appropriation via revealing new publicity in the non-spatial dimension.

At this point, it can be understood that the location of AŞTİ, both with the building and the site, reflects various problems of Ankara. As the character of the built environment changes with economic growth, political statements and social problems, AŞTİ can be re-positioned in the urban to answer those. In its response, parameters can be found among urban character, citizen participation, environmental issues, building functions and contemporary architectural discourse pronouncing new publicity definitions.



CONTINGENCY OF SPACE

Built in 1995 via competition, AŞTİ is a notable architectural piece that reflects its period and a late modern architectural style. The very complicated function of the terminal brings architectural details that need to be highlighted to better understand the building.

The main approach to AŞTİ is from Mevlana Boulevard. From this crowded highway, AŞTİ takes vehicles in via sub-roads on reinforced concrete cantilevers. Later, this road continues on a lower floor with the car park. From there they reach to Boulevard again through cantilevers. Another important aspect of AŞTİ is that arriving and departing floors are on different levels. The attraction points and services such as ticket booths and shops are also planned according to this separation.

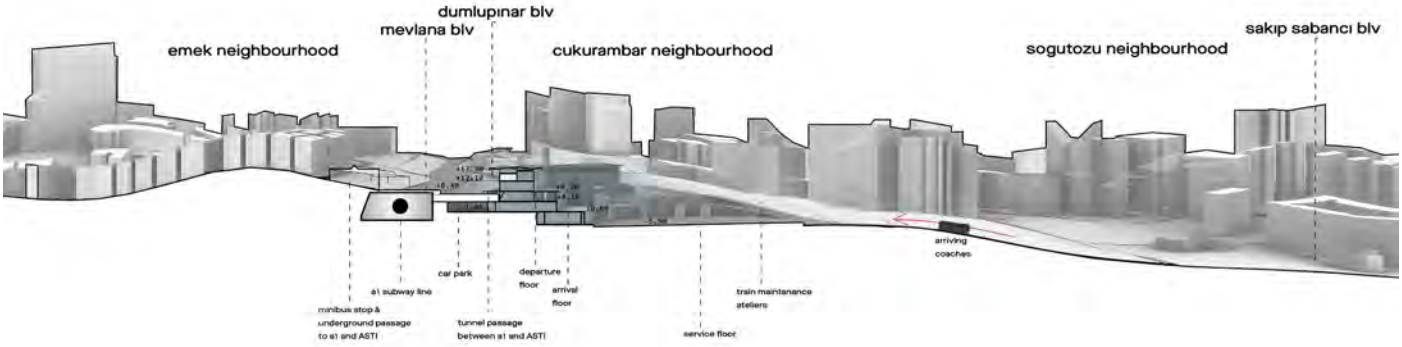
In this spatial analysis, these actions happen in a close loop / pattern. Breking this order is possible by means of spontaneous gestures. Or, it can be sought in the contingent processes that make them possible.

Currently, the predetermined layout in some ways obstructs the current dynamics of the vivid environment related to the transfer / transportation functions. Limited in a certaion envelope and plan, the connection of indoor and outdoor spaces are on weak links of temporary stairs and neglected passages. Two wings and middle body of the terminal receives different amount of input / attraction and criers, hawkers, citizens try to solve the inequality in their own way, but still in the close order. Doing so, the simple and predetermined scenarios take complicated dimensions and result in confusion in the understanding of space.

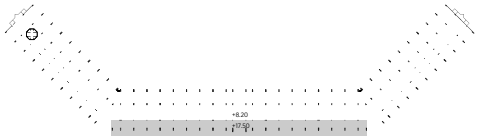
A public building can provide a stage for different scenarios in the city life, project opinions, reflect changes. A wide range of events can take place in AŞTİ's modernist frame, starting from daily encounters to processing the space and larger urban environment around. Their spontaneity can clean out, pierce and re-fill the space, and ultimately re-arrange this frame and order. This way, a public space can be produced in the flexible, ever-changing rhytm of city life and find meaning(s) by responding to city's needs.

CURRENT MORPHOLOGY OF THE BUILDING

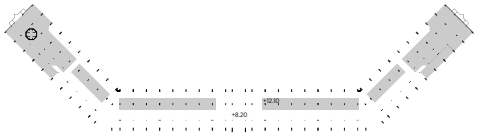
Section towards North - today



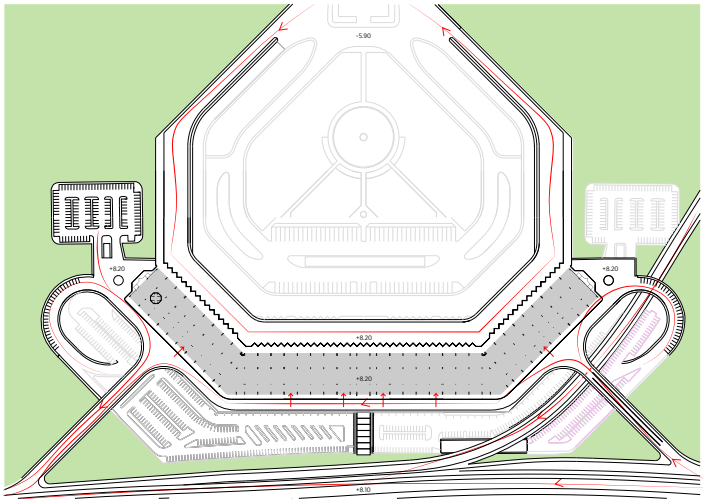
Floor Plans - today



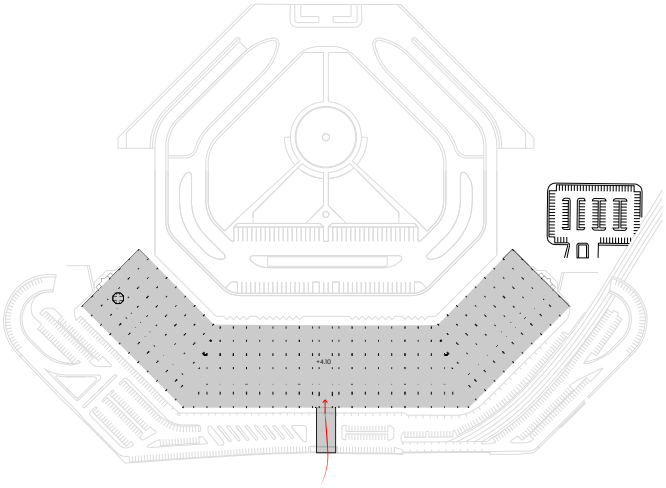
+17.50 Administration Floor



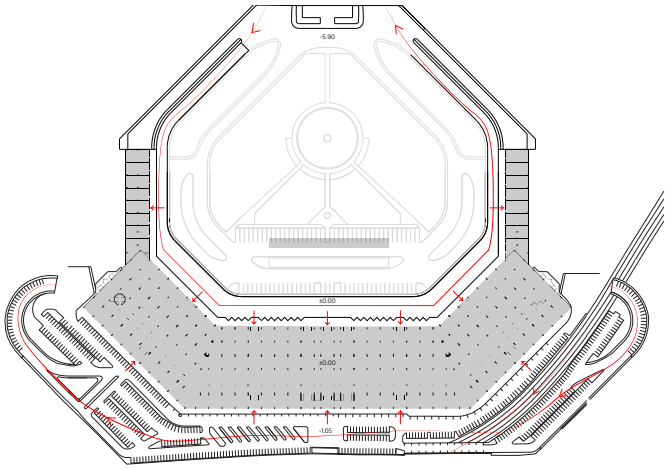
+12.10 Suspended Floor



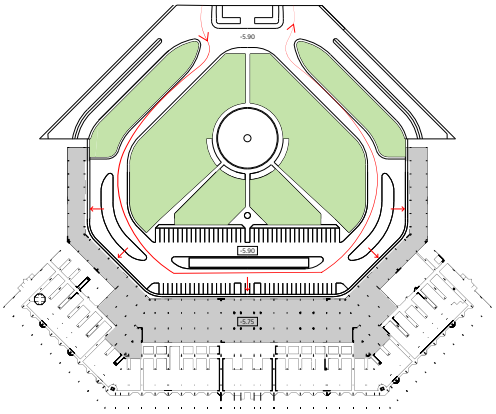
+8.20 Departure Floor



+4.10 Ankaray Floor



±0.00 Arrival Floor



-5.90 Service Floor

LINKS TO THE GREEN

AŞTİ's location in the middle of very valuable green area and speculated built environment brings tension on its use and existence. The building covers a large area and is on an important road edge, yet, functions for transportation in public use. This situation can in turn secure its entity from being destructed in the development race. On the other hand, changing transportation networks and activity ratios need a review on the services it provides. Also, the mentioned links and opportunities to create a more open, flexible public space extending from the terminal can be realized for better a urban environment from environmental and social aspects.

With this argument, this project foresees that AŞTİ's position on different transportation routes can ascribe it a new role. It has become more closer to the city center and is superimposed on various branches of the infrastructure. AŞTİ can be a major component in the public transportation system of Ankara.

While it sustains its function as a coach terminal, as future scenarios show, assisting stations and other transportation opportunities will eventually decrease the active circulation in AŞTİ. A new program will allow for courses between sub-stations and AŞTİ. This way, the connection of intercity and intracity transportation networks will be provided.

In addition to this dimension of the publicity in AŞTİ, the public character will extend towards AFF via pedestrian axes and nearby green areas by landscaping. This way, from internal to external, there will be link of public spaces to better experience the Ankara city and appreciate the heritage and natural earth it is grounded on.

-Cantek, F. Ş. (2017). İcad edilmiş şehir : Ankara. İletişim.

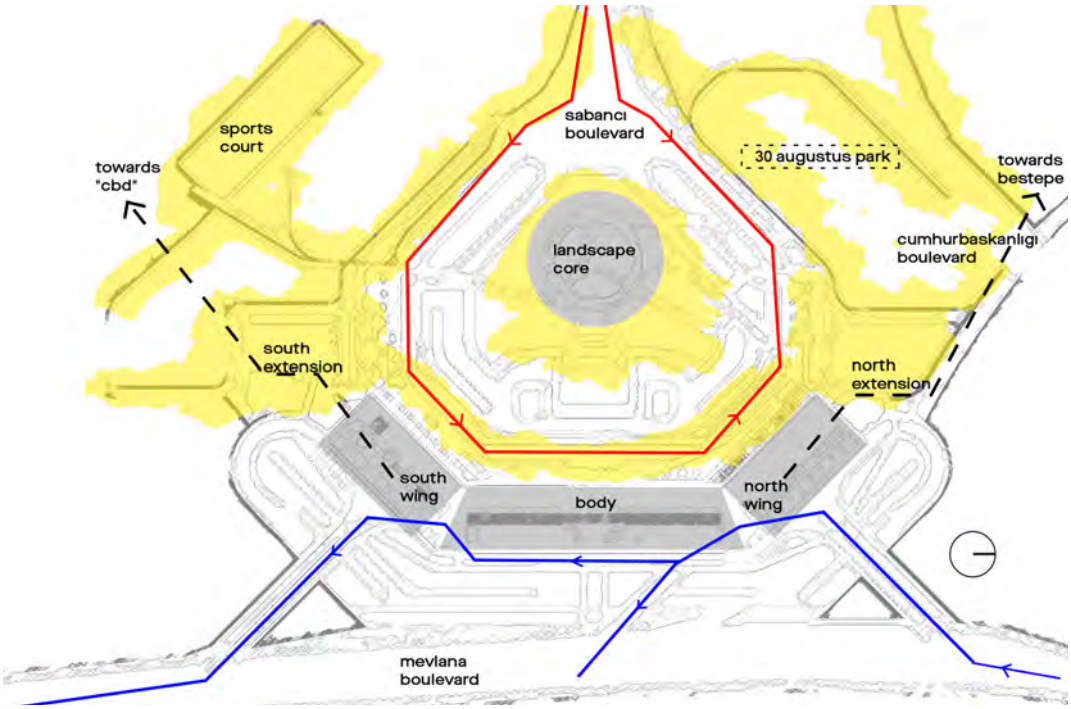
-Ankara kent atlası. (2012). TMMOB.

-Gürallar, N., (2014). Tasarım İktidarı ve Mimarlığın Olumsallığını AŞTİ üzerinden Tartışmak. Arredamento Mimarlık , 71-75.

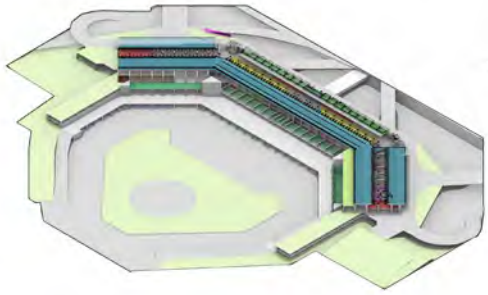
-Till, J.(2008). Architecture and contingency. Field, 120-135.

DESIGN & INTERVENTIONS ON THE BUILDING

Key Diagram of Connections & Interventions

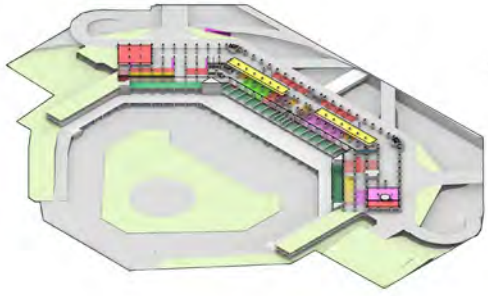


Floor Plans

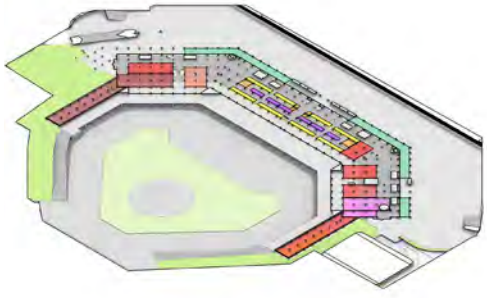


+17.50 - offices

+4.10 - ankaray

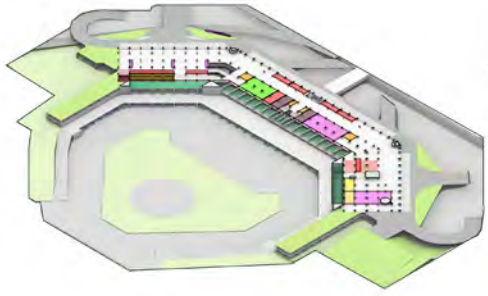


+12.10 - co-working spaces



±0.00 - for intercity transportation

booth
co-working space
service
garage
offices



+8.20 - for public transportation

-5.90 - for Service

hotel/stay
amenities
museum/culture
reserved for AFF
commerce

PERMEANCE INTO THE URBAN

Original building's character is such a frame that it enables various passages, penetrations, perforations both inside and outside. Besides, this transience contributes to the aim of bringing indoor-outdoor (AŞTİ-AFF) connection for the experience of the city.

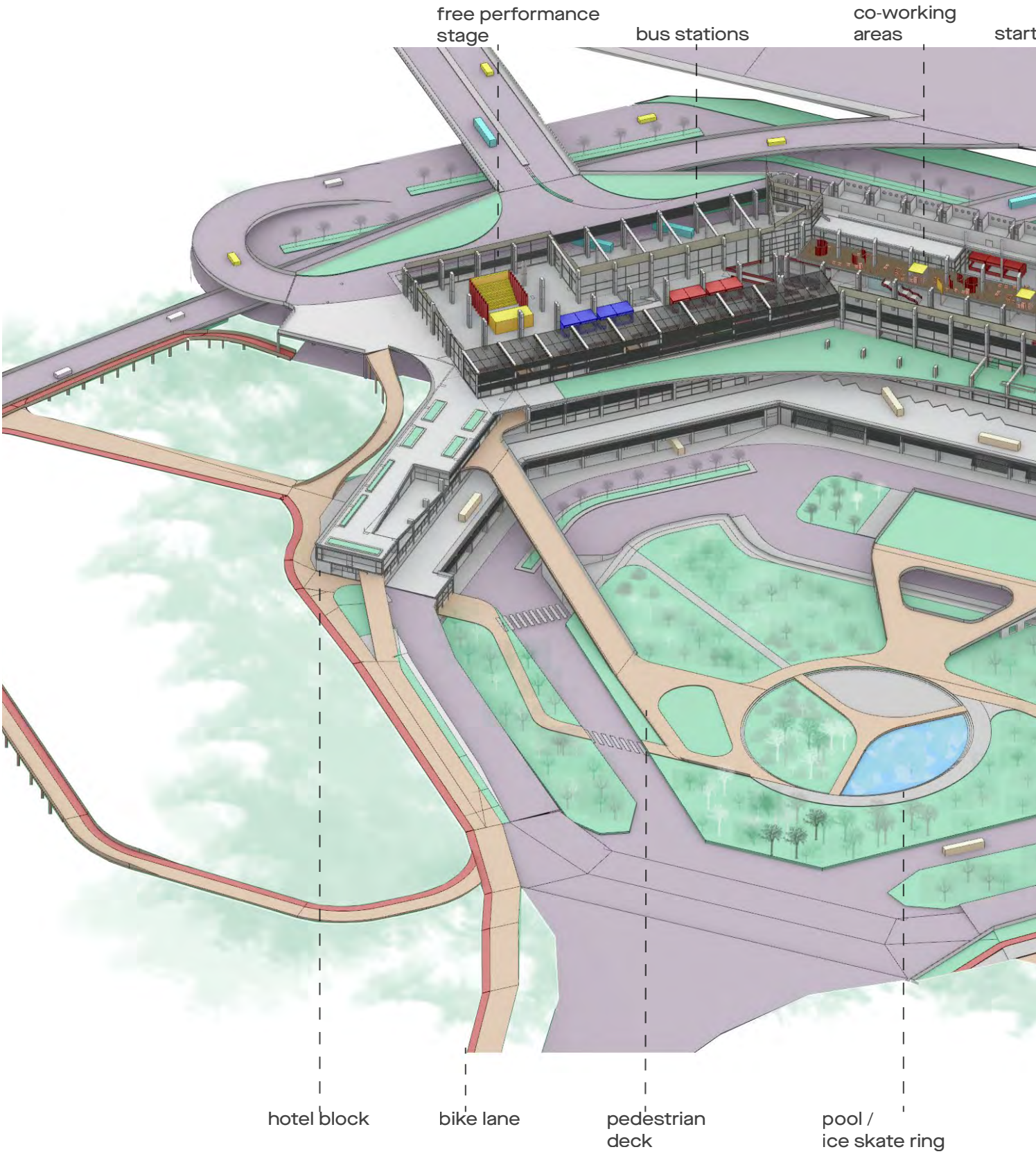
When this heritage building is preserved as a frame, it acts as an (ever) transformable area in the urban; a continuous state of folding and unfolding of the enclosure.

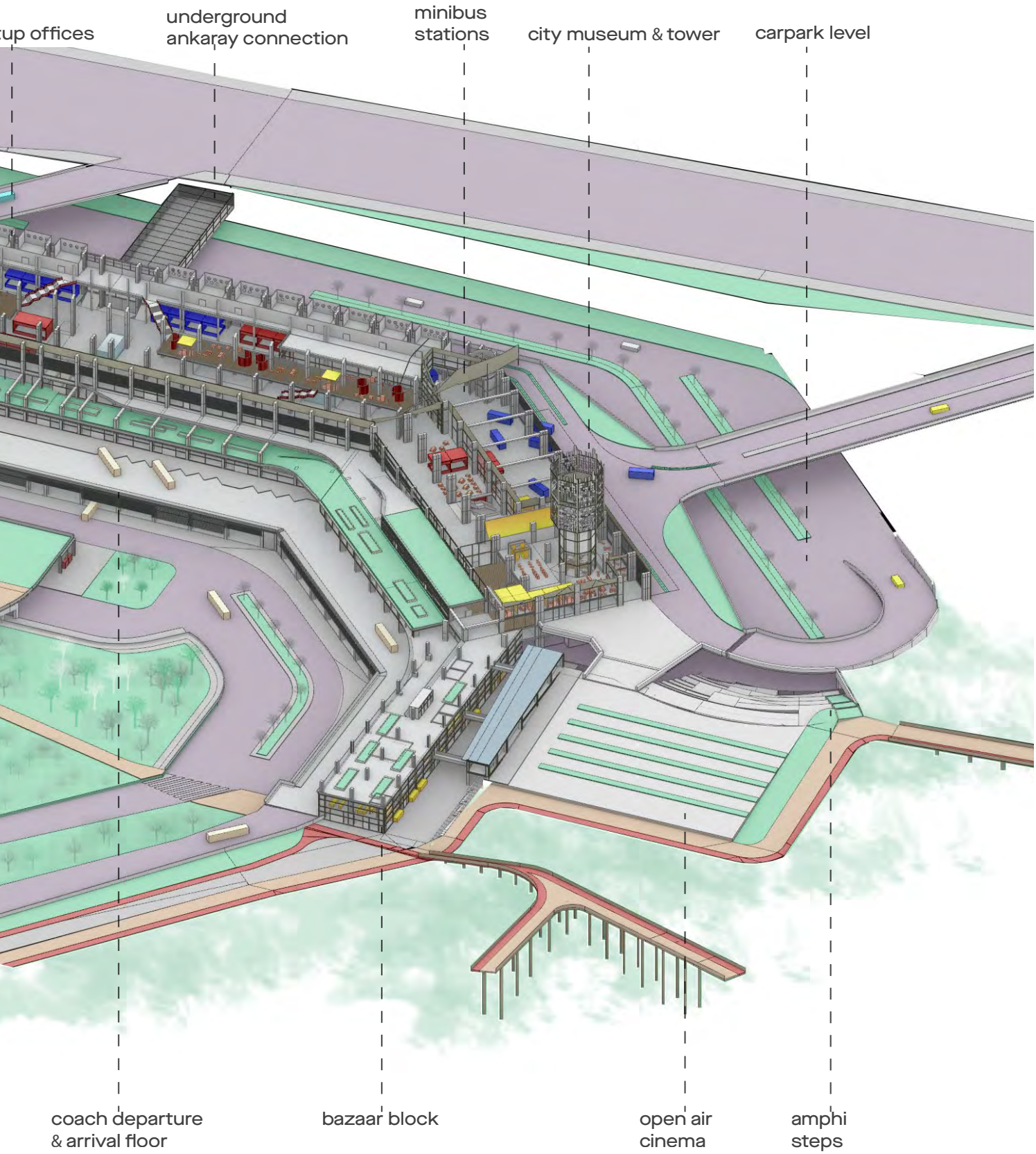
HERE, A DEMOCRATIC, SUSTAINABLE AND ACCESSIBLE URBAN SPACE IS AIMED BY THE RE-PROGRAMMED AŞTİ BUILDING. ON THE OTHER HAND, IT REFLECTS A CITY-MAKING PROCESS WITH SIMILAR CONCERNS.

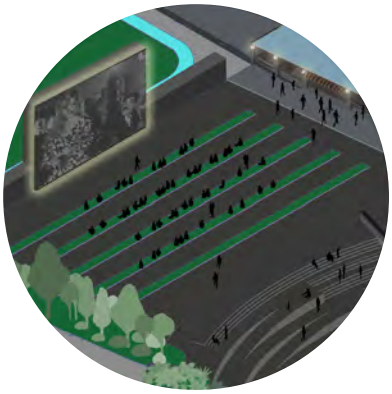
The functions may change according to the city's needs. This is, in fact, how a transportation node is experienced. Temporariness, on the other hand, would not decrease the spatial quality or lead to disfunction if the building still corresponds to con-temporary. For this, interventions shall be made by participatory processes, contributing to the social, economical, infrastructural needs of Ankara.

In this proposal, AŞTİ, a gate point of the city, acts as a representation of Ankara with the city museum and cultural facilities it provides. Distribution of farm products and a closed bazaar are also there for the community to bring value to social and economical life. Public transportation stations are the infrastructure nodes. The competition tower is rebuilt for the view.

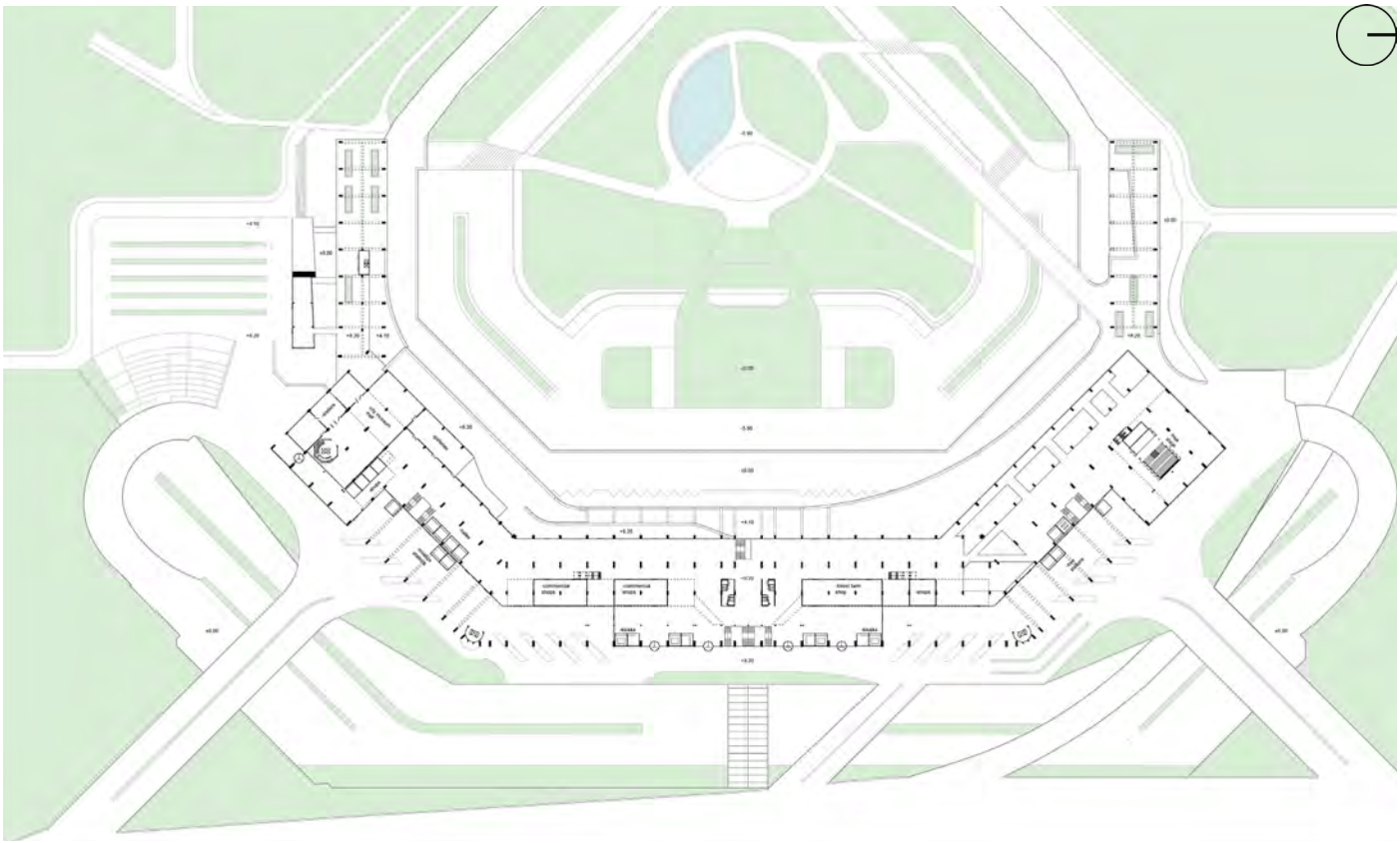
Supporting the manifestation of this project, these interventions are made not by bounding and limiting the accessibility of the building or site by bringing a stable statue/film-still of development. Instead, they encourage unfolding new possibilities, finding new meanings of space, collectively.


free performance stage
bus stations
co-working areas
start
hotel block
bike lane
pedestrian deck
pool / ice skate ring

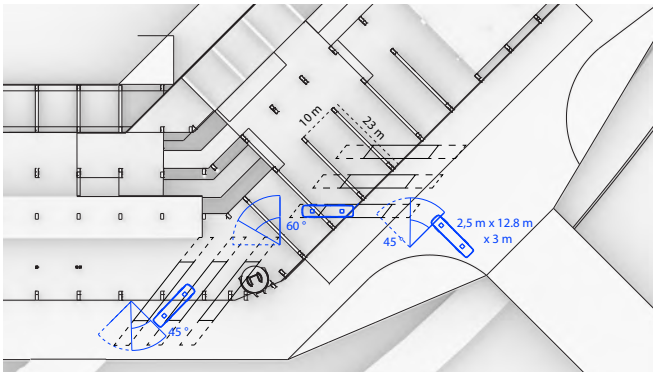

up offices
underground
ankaray connection
minibus
stations
city museum & tower
carpark level
coach departure
& arrival floor
bazaar block
open air
cinema
amphi
steps



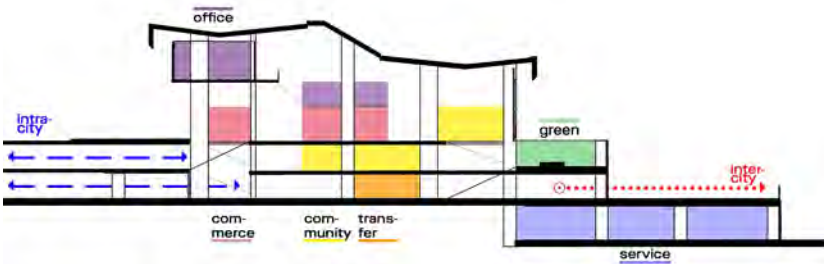
Ground Floor Plan +4.10

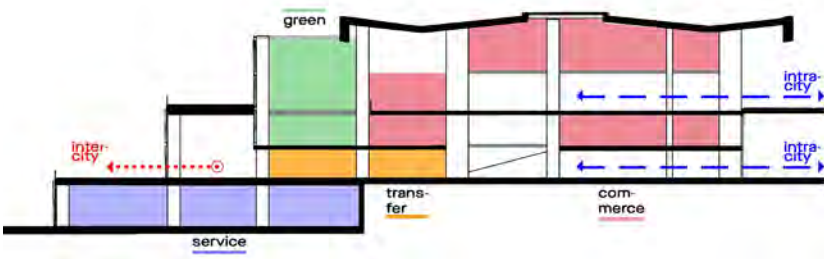


Scheme - from Stations

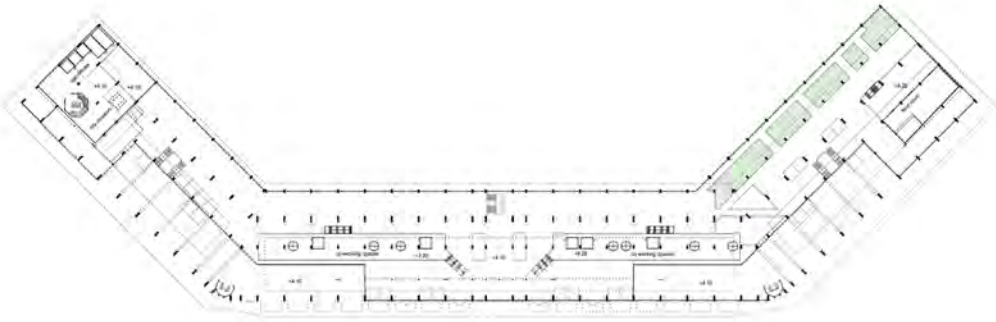


Key Sections - from body and wing

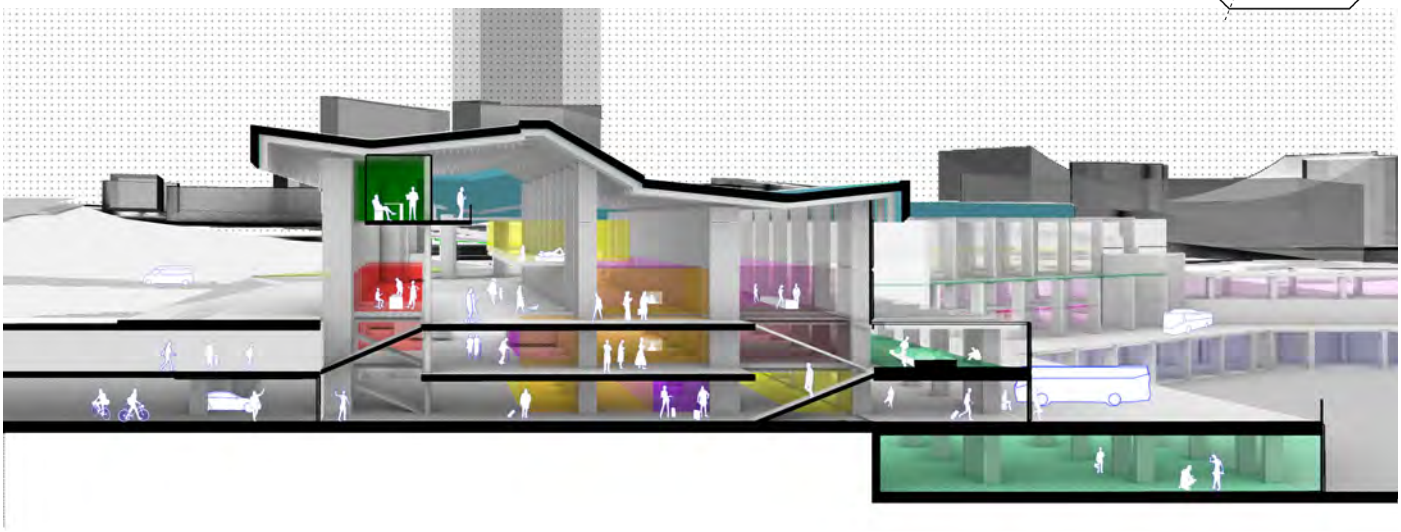




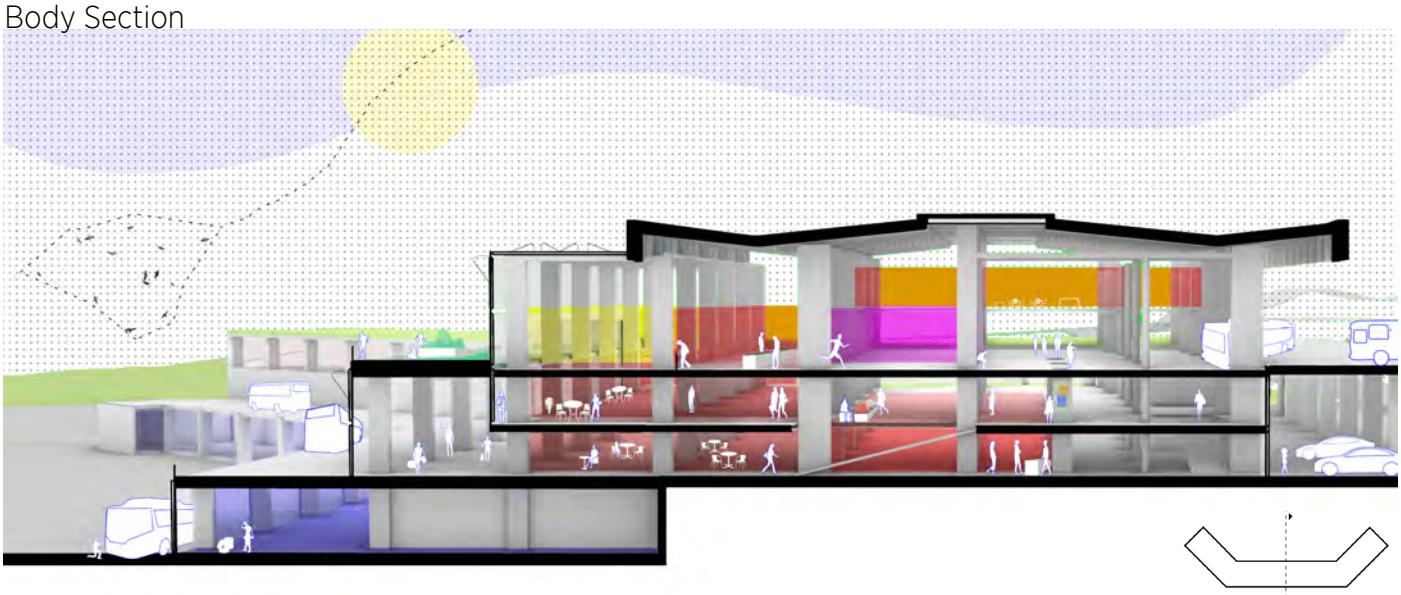
First Floor Plan +8.20



South Wing Section



Body Section



South Wing Stations

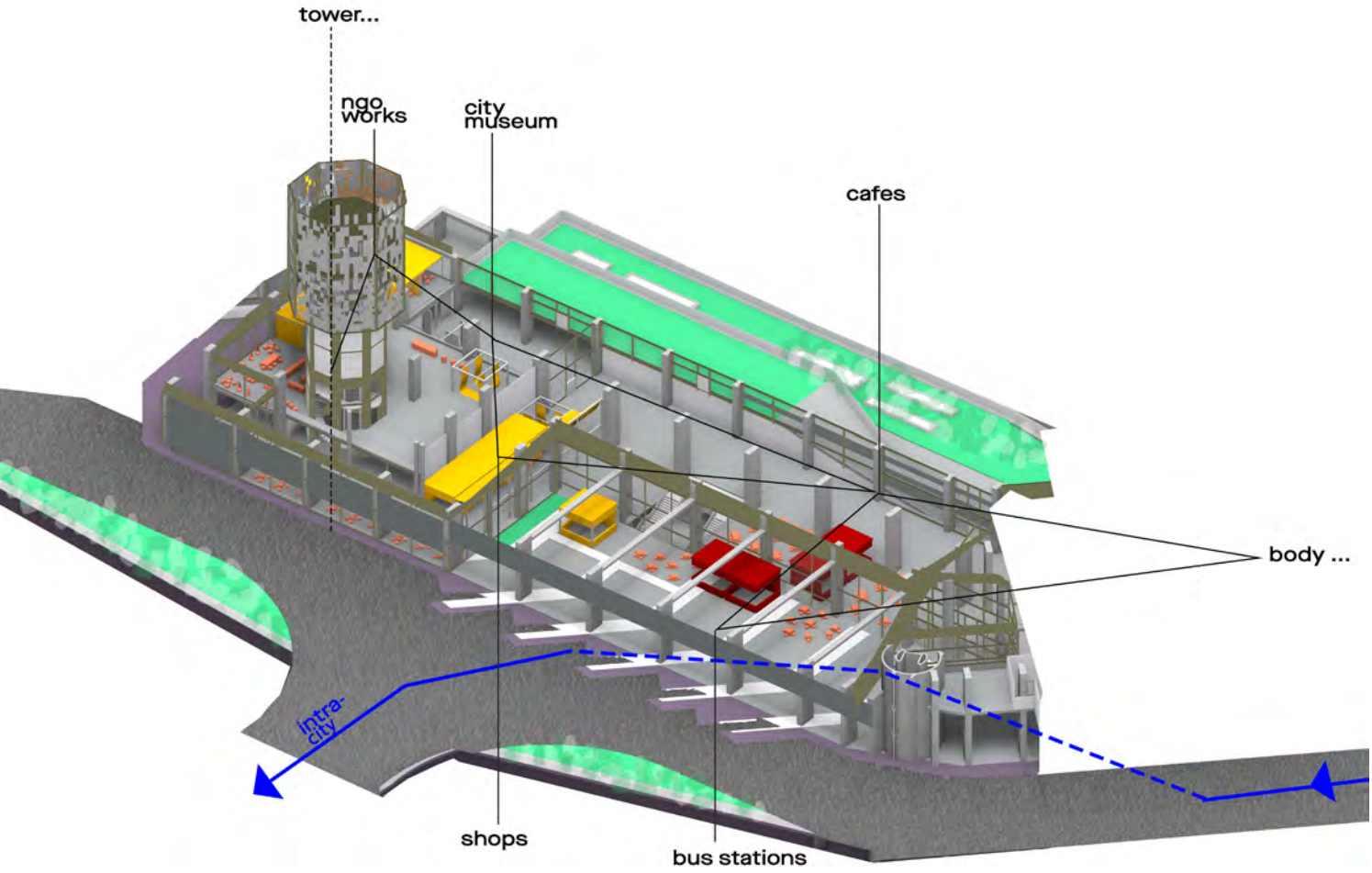
Transportation

On the Mevlana Boulevard side there is heavy vehicle traffic. The courses of the bus line, minibus line, airport buses on the Boulevard, and the subway line underground constitute the major public transportation infrastructure at this partof the city. Furthermore, with the plan of linking two subway lines around this area, it is predictable that AŞTİ can be utilized as a major transportation node in the future.

In the building, bus and minibus stations are located at the outer edge along the Mevlana Boulevard. Via the great cantileversi besides the one that is newly added, the course of vehicle is guided from the road to stationswithin the building or carpark at the level below. At the inner edge of the building, coach buses loop between AŞTİ and periphery sub-stations for the intercity travel.

South West corner

Diagram for the South Wing

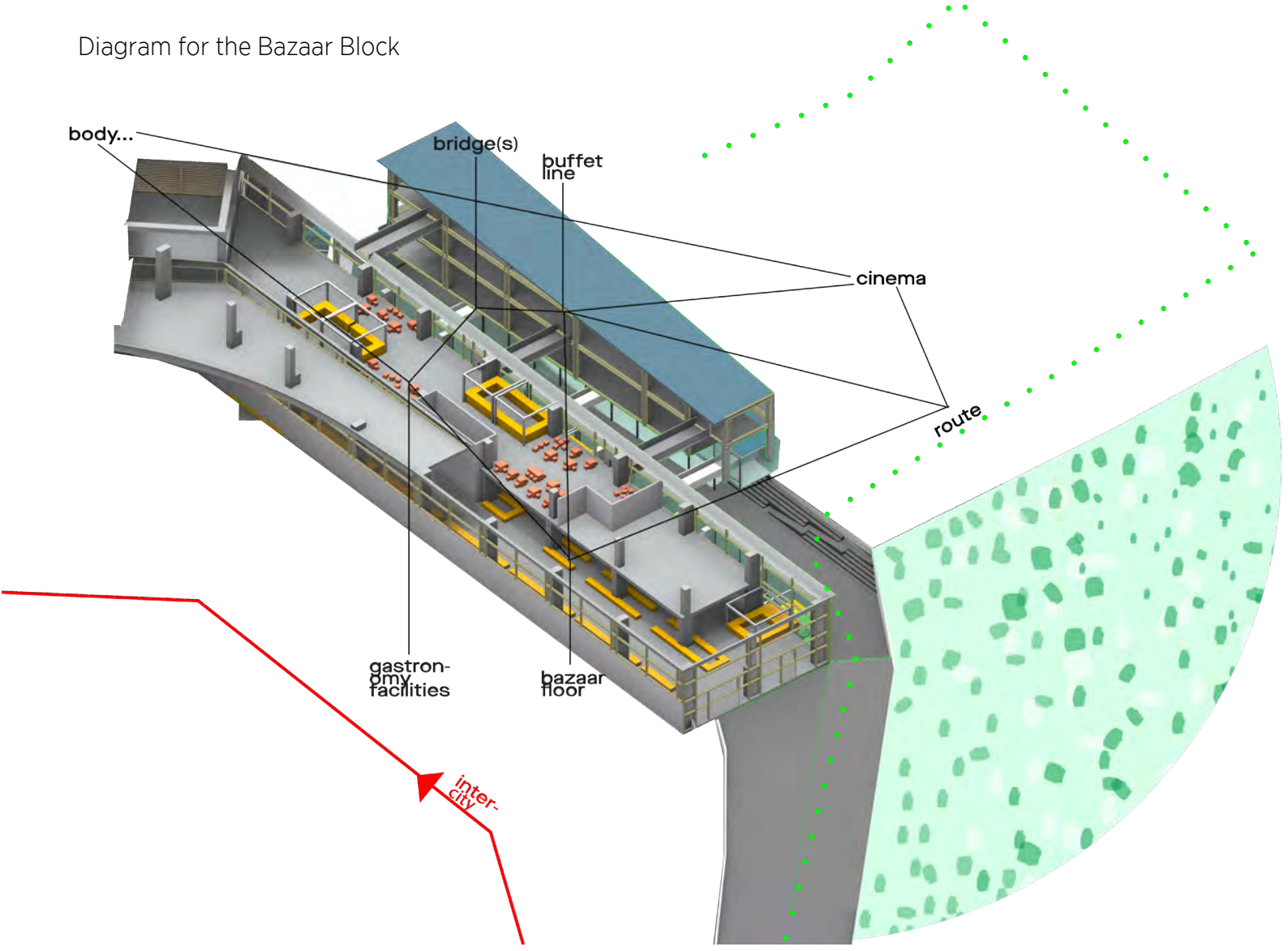


City Experience

The building's design by Davran Eşkinat had included a tower that was not constructed later. In this project, it is proposed to build an observation tower for the city, taking the original tower as inspiration. This, together with the city museum, archives and work spaces for the NGO's and research institutions specialized in Ankara, will allow people to learn and appreciate the city. This way, the City Mueseum will be a creative public space available for both the city and citizens.

Bazaar Arcade and Buffet Line

Diagram for the Bazaar Block



Co-working spaces & Start-up Offices coridor

Contingency and Public Use

The public space is for people to encounter, blend and be a part of city in different areas of life. The role of a place that enables change through dialogue is great, especially when a region such as AFF is a constant debate subject and requires awareness and social responsibility of citizens.

Related to this, this project foresees possibility of spontaneous events, changing functions and transformable spaces within the modernist frame of AŞTİ. Flexible working spaces for start-ups, free performance areas, spaces for production and share of art, culture & knowledge are scattered in the preserved layout.

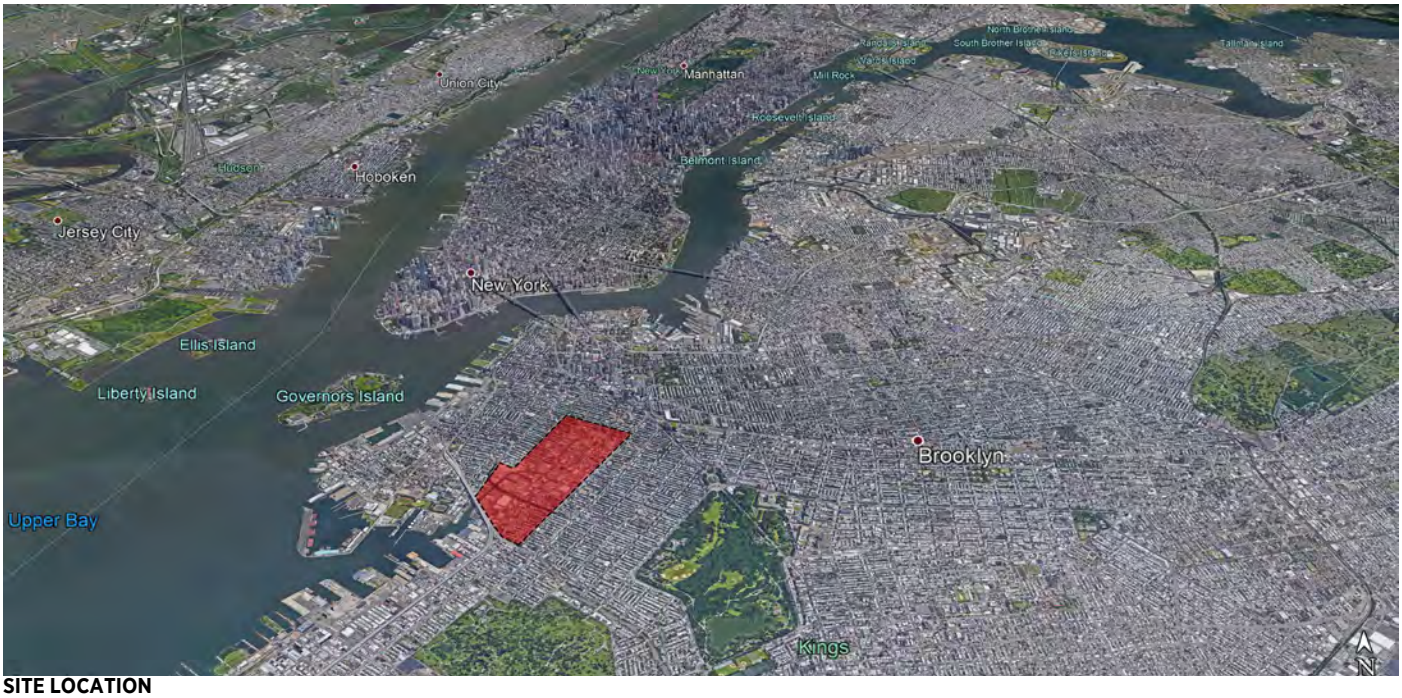
GOWANUS 2.0: A BIOPHILIC INTERVENTION

CANSU ERSOY

GOWANUS 2.0: A BIOPHILIC INTERVENTION

CANSU ERSOY

This project focuses on Gowanus, a highly polluted post-industrial site with lots of problems, mostly environmental. Industrial sites require a lot of care after they start to develop into more social areas. The Gowanus Canal, residing in the middle of the site is an historical sign of the area, but has been and is being used as a dumping area. The main aim of this project is to revitalize a brownfield site by developing its functional, environmental, social, aesthetic and economical aspects, while providing a more ecologically balanced and clean environment for its residents. This is a project that focuses on the possibilities of re-gaining a neighborhood into the city, and fixing its ecology, by providing it with new and re-used strategies and potentials.



SITE LOCATION


FIGURE-GROUND RELATIONSHIP


SUN & WIND DIAGRAM

SITE INFORMATION

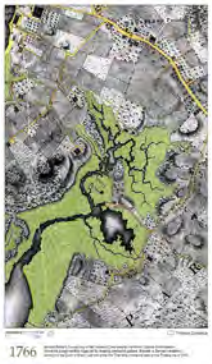
The site is located in Gowanus, Brooklyn, NYC.

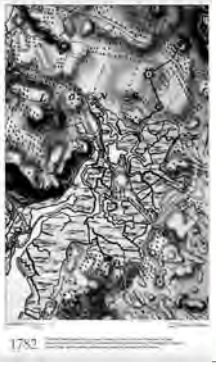
Gowanus is a waterfront site with almost 4 centuries of history. It is in the north-west portion of Brooklyn, and it was an industrial site, which was decided to undergo rezoning by the residents and municipality. It's being developed into a neighborhood of housing and artisan studios, as well as new social places. It's becoming an area of arts and artists, and is on the path of becoming a cultural area. There's the Gowanus Canal, which has been declared a Superfund site in 2010, due to high levels of contamination and pollution, which also defines Gowanus as a brownfield site. There used to be a manufactured gas plant around the canal, so the main source of contamination and sediment on the site is due to coal tar. There are programs already existing and progressive today, so the site is undergoing a clean-up process. Two neighborhoods: "Red Hook" and "Park Slope" were places of "artists-in-residence", and these neighbourhoods surround Gowanus, giving it a potential.

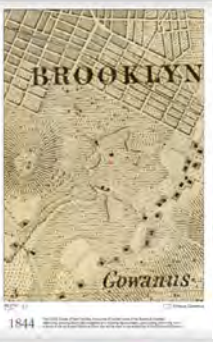
It has adapted to the densely knit gridal system of New York City, and similar to it, is considered an urban heat island.

There are some programmes regarding the rezoning of Gowanus, under the authority of NYC Municipality, and many different architectural offices. New residential buildings, however, are luxury and for higher income residents.

Gowanus is a developing neighborhood, with some of its industrial buildings and warehouses being utilized as commercial areas (restaurants, bars, shops, and studios). It has a language on its own. There are three "landmarks" to the site: the Batcave, the Coignet and the Old American Can Factory. Apart from these three landmarks, most of the buildings follow a neutral color scheme, with a few exceptions of personal changes in the exterior, and use brownstone as materials. Most of the complexes residing in the grid system have inner "courtyards". There is the typology of having the first floors of the buildings commercial, and upper floors residential.







HISTORY

The history of Gowanus, or "Gowanus Bay", as they called it back then, starts in 1636, nearly 4 centuries ago. It was the area of first settlement by farmers, Dutch farmers specifically. There were ponds along the area, which were used as tide-powered gristmills by the Creek of Gowanus.

In 1766, the site became a salt marshland and meadow. It contained wildlife. It was also a significant date because the Old Stone House, which is a historically significant building on site, was built. One of the world's first tidal mills was built here, as well as first oyster farming activity in Gowanus.

During 1777, the place that is known as the Park Slope today used to be "Gowanus Heights", and was used as a place of defense and positioning during the wars of America. It has essentially become a strategical point, that was very handy during wars.

In 1782, there were fortifications built around the Canal, and the site was turned into a strategic military location. "Cobble Hill", was a very strategic place for the wars, however, after the wars were over, it was dumped into the marshes, creating the chain of pollution.

In around 1836, a grid plan was being implemented around New York, for development purposes. The marshes were started to be used more often as a dumping area.

In 1837, the map shows how the Marshes and streams were becoming filled with garbage and industrial waste.

1844 marks the last view of the Marshes, before they were subjected to industrial developments and their consequences.

In 1848, the site was introduced to some new industrial functions, and the Canal was subjected to a drainage and refill, which ended up with the marshes being mostly destroyed.

1897 is unfortunately the marking of the last ecological remains of the Gowanus Marshes, since they were now filled in for port operations taking place in the newly developing city.

In 1927, the last oyster beds were closed up and destroyed, due to over-harvesting, pollution and habitat destruction.

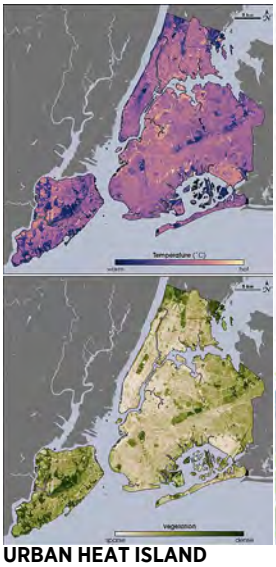
The 1942 map shows new industrial business types being introduced to the site, and their locations.

In 1951, Gowanus was fully developed and new Gowanus Houses were built, to be counted as affordable housing.

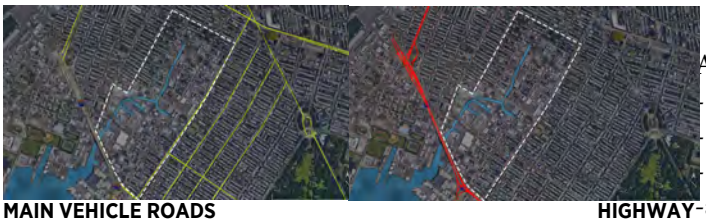
In the maps of 2004, 2007, and 2013, the further development of the industrial areas, and their progressive contamination and harm towards the Canal is visible.

EXISTING GREENERY

EXISTING FUNCTIONS


URBAN HEAT ISLAND

FLOOD MAP


MAIN VEHICLE ROADS HIGHWAY


SUBWAY PATH PEDESTRIAN & VEHICLE PATH

PROBLEMS

There are many observable problems in the site. There was a high potential of increasing the value of the site by providing solutions to some of these problems.

Environmental:
- lack of greenery and green spaces
- the site is an urban heat island due to lack of canopies (natural & man-made)
- lack of trees result in poor flood protection
- the Canal and the site is highly contaminated
little to no sustainable systems integrated
- combined sewer overflow

Functional:
- variety of commercial functions, but not many educational or environmental ones
- vacant areas/buildings
- mixed distribution of functions, lack of definition in space distribution
- not many social functions and areas
- surrounding neighborhoods are more focused on residential, commercial and cultural activities

Economical:
- low rates of employment
- employers work in temporary jobs
- lack of stable job opportunities
- rental prices are high, lack of affordability

Sociocultural:
- lack of social variety and opportunities
- commercial areas consist of tool shops, markets and house-related shops
- some cafes and restaurant are adapted from older buildings, but they are numbered
- the history of the site and the canal is unknown by most residents

Aesthetic:
- some modern integration is required, in terms of material and construction
- no range of architectural aesthetic, most buildings are brownstone construction with different colors
- neutral color scheme

Accessibility:
- lack of plazas and pedestrian walkways
- some areas are under construction/not accessible
- too many parking lots
- accessibility along the river is poor

Safety:
- East-West streets are considered dangerous
- the unused areas under highways and subway are dangerous
- unattained streets and abandoned buildings
- low safety along the canal

LITERATURE REVIEW
SPONGE PARKS & RAIN GARDENS

Sponge Park is an original concept of DLANDstudio, as a strategy to prevent rainwater accumulation and flooding, as well as cleaning the water runoff before it reaches the canal, therefore preventing further pollution.
Another goal of this concept was to create a green area to act as a common ground and integration of private and public areas next to the canal, and make the canal more accessible. They have made a Pilot version of this at the end of 2nd Street.

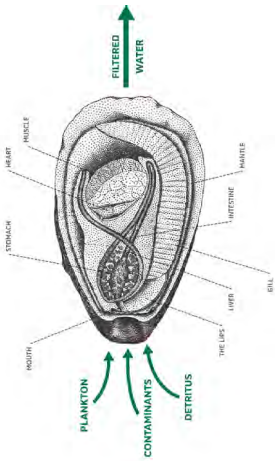
Rain gardens work similar to this concept.

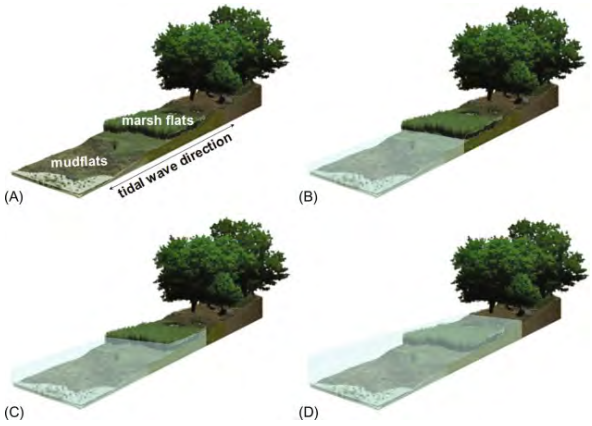
These systems can work best around the canal and areas close to the canal. This is because the canal is on the lowest point of the site, and therefore most of the runoff accumulates there and floods towards the nearby streets. If managed with sponge parks and rain gardens, it will both prevent the pollution that comes with the runoff, which picks up some street dirt, etc on its way down, and can also work as a drainage system and soak up the excess water to prevent flooding.

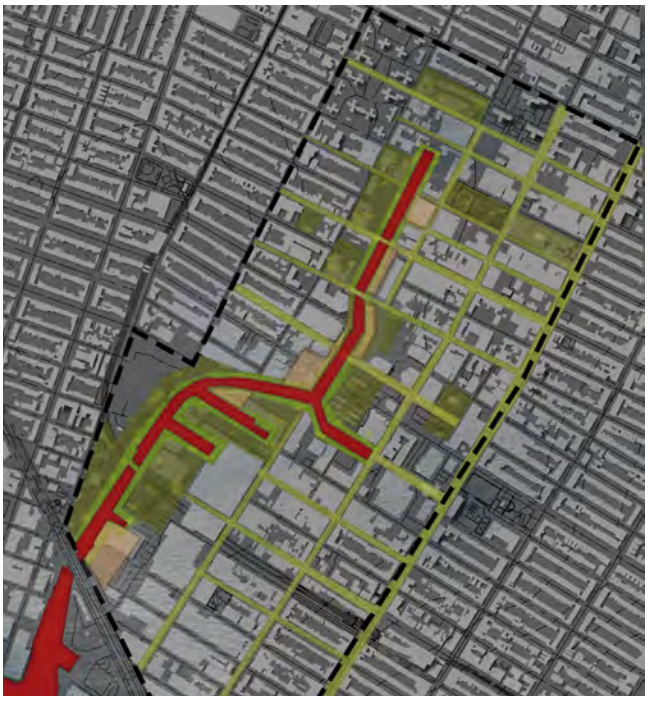
LITERATURE REVIEW
BIOSWALE

Bioswales are shallow landscape elements, a mixture of softscape and hardscape, that have vegetation in it to capture and accumulate rainwate within itself. They are great and very effective in terms of slowing down the runoff and cleaning the water while doing this.
The vegetation used in this green infrasturcture should be chosen carefully, and also some rock formations are required to help slow down the speed of the runoff.

This system can be integrated into the green corridor streets, and especially the main streets to prevent flooding within and slowing down the water that runs off towards the canal uncontrolably.
It is a great technique to be used in addition to the green systems, because while they are better to be had near the canal, this system provides with extra protection within the hardscape.







LITERATURE REVIEW
OYSTER FARMING & HATCHERY

Oysters are known to be natural water filtration systems, by removing the excess nitrogen and by intaking the pollutants into their shells or as additional parts of their shells. They help with the ecological sustainability and balance of the water source.

Oyster farming is a great solution for economical sustainability, however, it decreases the oyster population greatly and thereby undo the ecological effect.
In order to make sure this system is sustainable, oyster hatcheries must be set up along with the farming centers.

This can be incorporated around the starting point of the canal, which is the North part, because the water that is distributed needs to be clean.
It can go anywhere near the canal as well, but the hatchery and the farming center needs to be close to the oysters, so that the process can be controlled.

LITERATURE REVIEW
WETLANDS-SALT MARSHLANDS RESTORATION

Salt marshland was an already existing concept in Gowanus in previous years, however, as the Gowanus Canal became a dumping spot for industrial waste, the salt marshlands disappeared in the process. They are wetlands that are close to the coast. They attract many marine animals, and protect the shorelines from possible erosion, by creating a buffer zone.
They are also good with preventing flooding by absorbing the rainwater as the previous cases have done as well.
It's very important for the cleaning of the water as well.

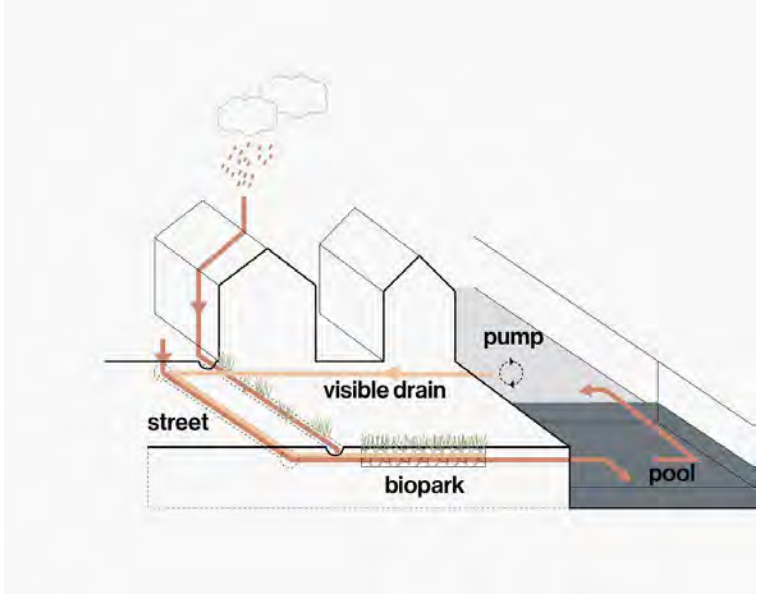
As mentioned, they already existed on this site, so it's easier to bring them back to the current site. It's a smart idea to place them on North and at the East-West sides of the canal, as those places were where they resided at more densely in the past. It's also important to integrate this system with the others to create a well running green system of our own.

CASE STUDY
ISLAIS HYPER-CREEK, SAN FRANCISCO
BIG

This project is also a project that focuses on the revitalization and regaining of the salt marshlands that were once exitent in the site. It's important to note that this canal was, same as Gowanus, used as a dumping ground for industrial garbage, as the city grew and developed.

The aim of this case study is to revitalizethe marshlands and the canal by introducing various social events, functions and interaction. It also focuses on the urbanization of the area by creating accurate links between the nature and architecture.

This project is a great inspiration in terms of finding out more about particular events that can be utilized in my site as well. It's also important to find an example this close by, in the same context of America.
The canal sides can be taken as huge examples from this programme, and also it's important to note that the urban scale architectural design integration can also be an example.



CASE STUDY
DEUTZER HAFEN, COLOGNE
COBE ARCHITECTS

This project has the aim of creating a new masterplan for a post-industrial "harbor area", while dealing with flood due to rainwater runoff.
One of the project's main goals is to turn the industrially polluted neighborhood into s live and sustainable one.

This example is really good in terms of having an idea about what people with similar interests and goals have to offer to similar sites.

In Gowanus, the main issue is the rainwater runoff and the urban planning. The site is very similar in terms of typology of water, density of buildings and industrial background, so it'll be easy to integrate this into my project well.

I think it'smportant to pick what to integrate and what not to integrate. As the decision making process of functioning and green landscaping, I think there's a lot to get from each one of these aspects.

ENVIRONMENTAL SUSTAINABILITY

1. Greenery integration
2. PV panels
3. Water harvesting & purification
4. Kinetic energy (kinetic paving)
5. Oyster farming

FUNCTIONAL SUSTAINABILITY

1. Function variety
2. Social area potential
3. Adaptive re-use potential
4. Landmarks

SOCIOCULTURAL SUSTAINABILITY

1. Social areas
2. Cultural areas
3. Community center potentials
4. Educational & research center potential

ECONOMICAL SUSTAINABILITY

1. Affordable housing
2. Job opportunity
3. Supporting local businesses
4. Production of own energy

AESTHETIC SUSTAINABILITY

1. New material integration potential
2. Cleaner street potential
3. Introduction of visual elements
4. Non-industrial area revitalization potential

These layers are all listed according to the solutions proposed for the problems mentioned above. The most sustainable area according to the solutions is marked as "1".

URBAN SCALE FOCUSED AREA

SYNTHESIS - FOCUSED AREA

To summarize and overlap all these sustainability layers, the most desired area for urban scale intervention is marked yellow on the map above.

The areas around the canal create opportunities for environmental and social aspects, as well as having the potential of creating a better aesthetic view for the neighborhood.

Greenery can be implemented and integrated almost anywhere, but by keeping it around the canal, rainwater runoff and flooding can be prevented.

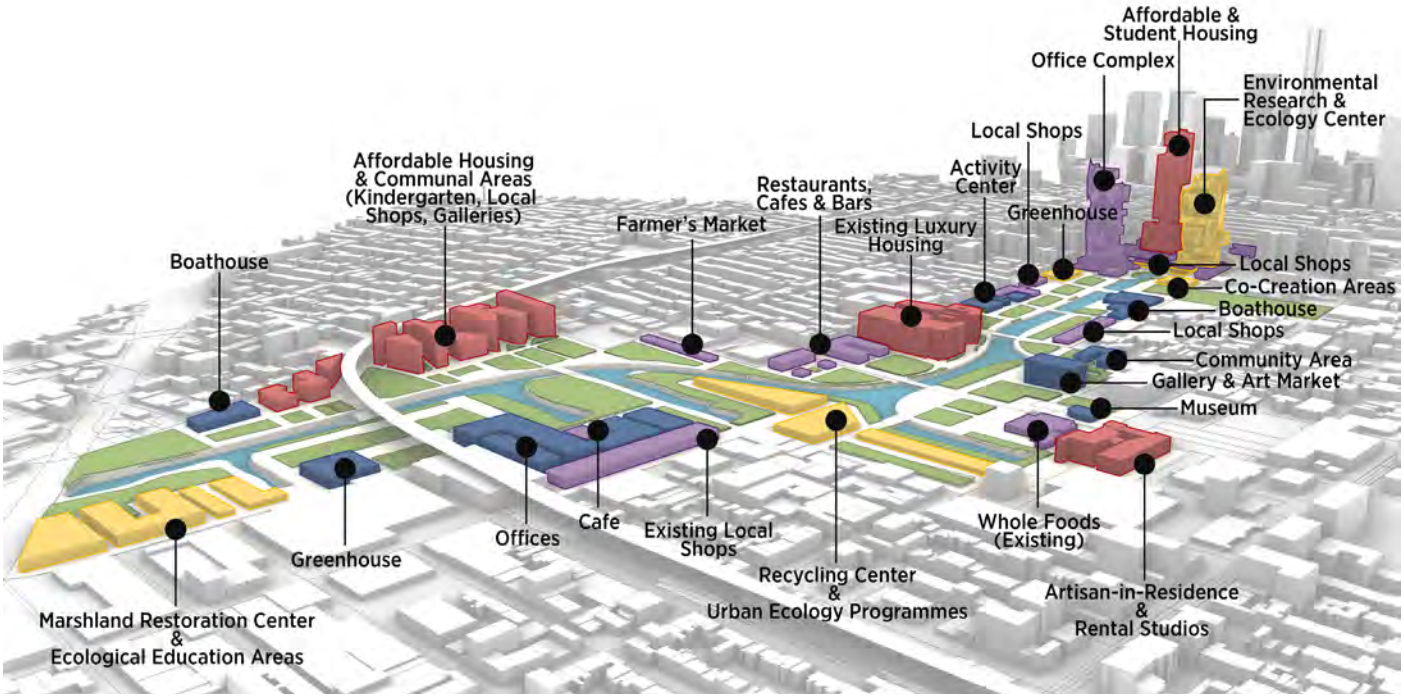
This focused urban area consists of some vacant and re-usable buildings, which means it has a lot of functional potential as well. The vacant lands can be utilized for greenery and park integration, as it's needed for aesthetic, functional and environmental purposes.

BUILDING SCALE FOCUSED AREA

This synthesis, and the focused urban area suggests an intervention focused around the canal, which suggests the ultimate goal of revitalization the canal and regaining it to the residents, while also providing them with new economical and functional opportunities.

The building scale focused area is actually a more dense area, with a few vacant lands and buildings in sight. It is at the starting of the canal, which gives it a lot of opportunities in terms of environmental protection and sustainability.

Having the focused area there may help with the addition of bioswales, sponge parks, rain gardens and oyster farming, not only for the purpose of cleaning the water, but **keeping** it clean too.



FUNCTION PROPOSAL

SYNTHESIS

After all the evaluation and synthesis, the focused area is brought back to this. The master plan addresses all of the problems that were mentioned before, in terms of function, greenery and urban concepts.

The master plan essentially offers a wider solution for the existing problems of the site, and creates new opportunities for development and revitalization, even for the future. There is the continuity of greenery that creates a loop throughout the site. Even though the green areas are in patches, they are placed strategically to make it feel like continuous. The esplanade is offered to be a pedestrian site, except for the 2 vehicle bridges, which are required to be kept for smoother and easier circulation around the site.

The all-pedestrian areas include landscape elements to define the areas and help them differ from the rest of the streets, etc., .

Functionally, the master plan proposal includes many environmental, communal, residential, cultural, commercial and mix-use functions to be introduced to the site.

Mix-use complexes will be introduced as both commercial-residential mixes and galleries-artisan residences, etc. The typologies will follow the local one, by having the first floor as commercial/office/studio, and the upper floors as housing.

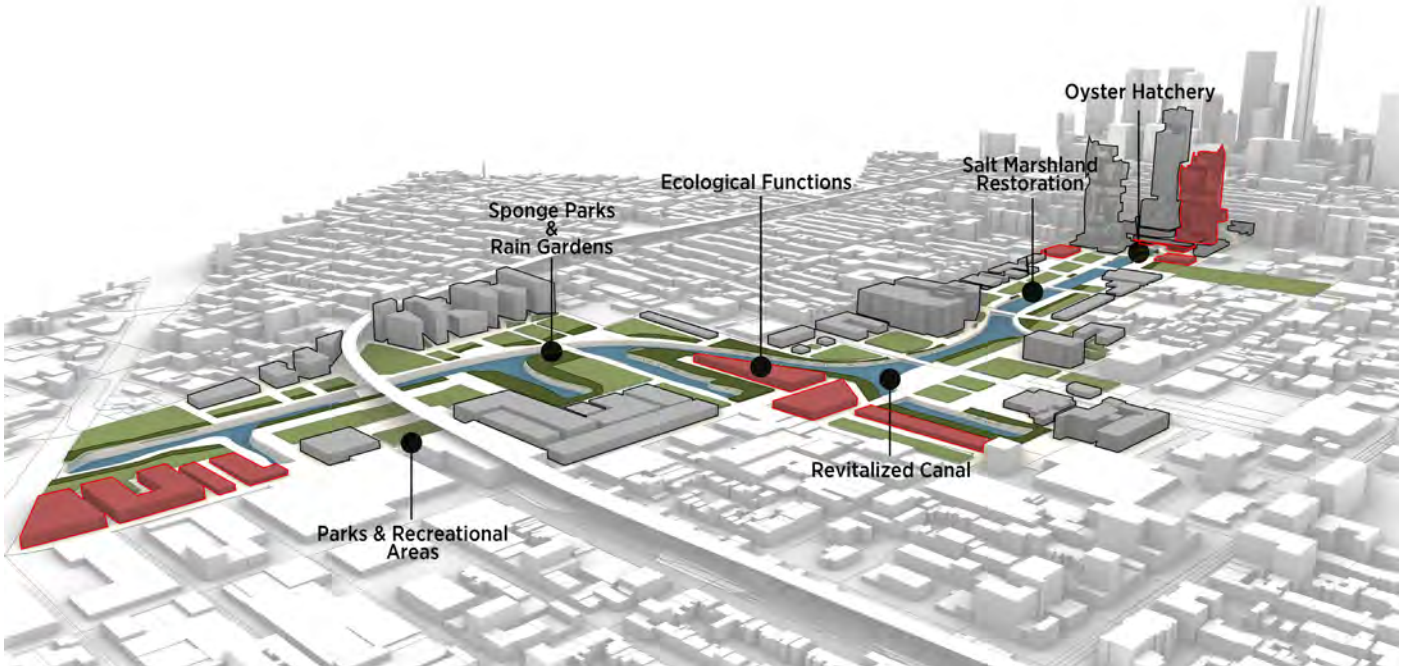
There are also new communal complex zonings introduced, which will help the residents form a societal bond and increase social interaction, especially since the site is very ethniciallyethnically diverse. Industrial areas are collected as one, since the ones existing on the site were mostly abandoned, or replaced with commercial functions.

The importance of this program is its flexibility, by giving us the option of re-using some buildings for different purposes and also make use of unused historical landmarks with this purpose as well.

In the urban strategy, the specific functions with their instructions are given. There are several types of plazas introduced to the site, in order to increase social interactions, and call out to people with different hobbies and likes.

They are located strategically in their respective areas, like the Art Plaza is located next to the studios, galleries and artisan-in-residence type housing, and so on.

New ecological functions are introduced in order to educate people on the environmental aspect of the area as well.



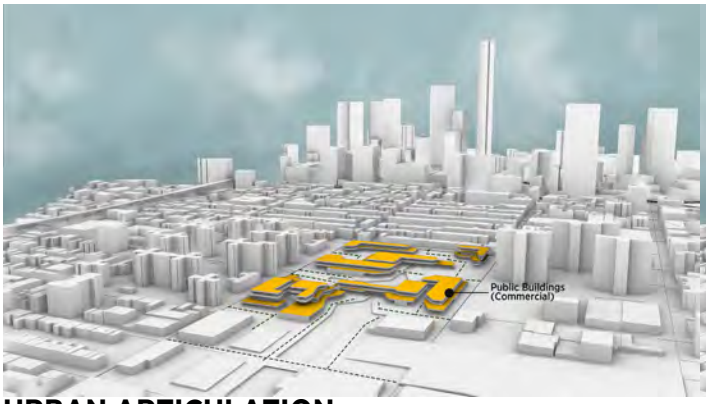
ENVIRONMENTAL PROPOSAL

In the environmental strategy, it can be seen that the river is revitalized and re-shaped to be more organic, to resemble the original shape more, as the canal was shaped into a narrow waterway once the industrial urbanization began.
Sponge parks and rain gardens are introduced in the green areas close to the canal, in order to prevent the flood, and to redirect the clean water into the canal.
Parks and recreational areas are introduced for more greenery integration and biophilia in the site revitalization. They are also important as they can be used to have plants which are good for removing contamination from the soil.
Salt Marshlands, from the earlier stages of Gowanus are also restored to bring back an ecological function.
The greenery integration is also important for decreasing the urban heat island effect.

SOCIAL PROPOSAL

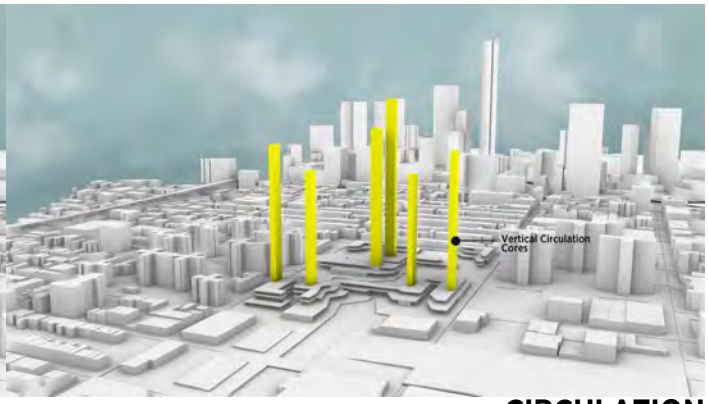
In the social strategy, new pedestrian roads and bridges across the canal are introduced. The previously shown metro line is sufficient for the whole site, as it passes every two blocks from the focused area. Permeability is gained through the introduction of mentioned bridges and esplanade introduction to the site.

Different types of plazas and parks promote variety in social opportunities and greenery integration. All these aspects also promote social potentials in the site, and creates a sense of community within the site, addressing all types of people from all age ranges.



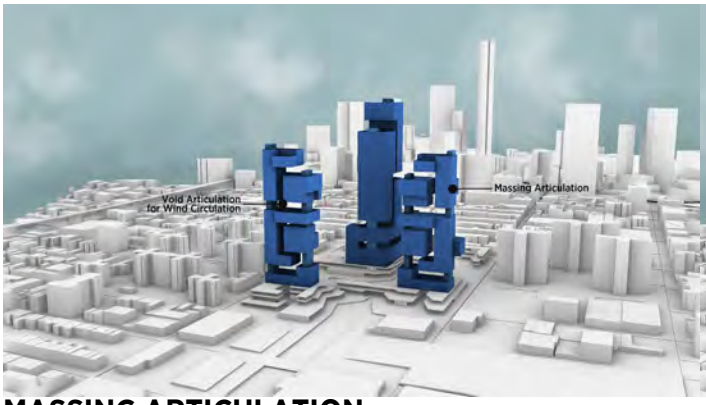
URBAN ARTICULATION

The first layers of this project include a commerical base layer. It fits the urban texture and morphology of the surrounding site, and emphasizes the boundaries of the revitalized area, which creates its own microclimate.
The morphology of the commercial buildings are referenced from the surrounding buildings.



CIRCULATION

The horizontal circulation is referenced from the already existing pedestrian paths throughout the site. It also gives connections to the surrounding buildings. The shapes of the base commercial buildings are decided in a way that they give more flexibility within the site.
The vertical circulation is addressed by the use of double cores in the high rises.



MASSING ARTICULATION

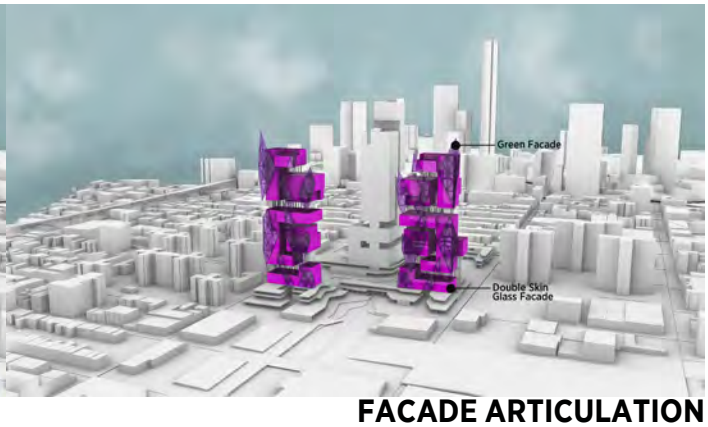
The massing is done in a way that it creates a strong solid-void relationship, in sync with the surroundings, as well as the skyline. The voids are created in order to create outdoor spaces, and address a sense of articulation within the buildings. Also, they work as wind tunnels and improve the passive environmental systems. They also help direct the sun to the back of the towers, so they don't cast shadows.

STRUCTURAL SYSTEM

The structural system is one that supports every element of the towers. The cantilevered parts are supported by diagonal supports, and the main system is column and beam, with help of continuous walls and block cores. The entire system being CLT gives reason to having many structural supports.

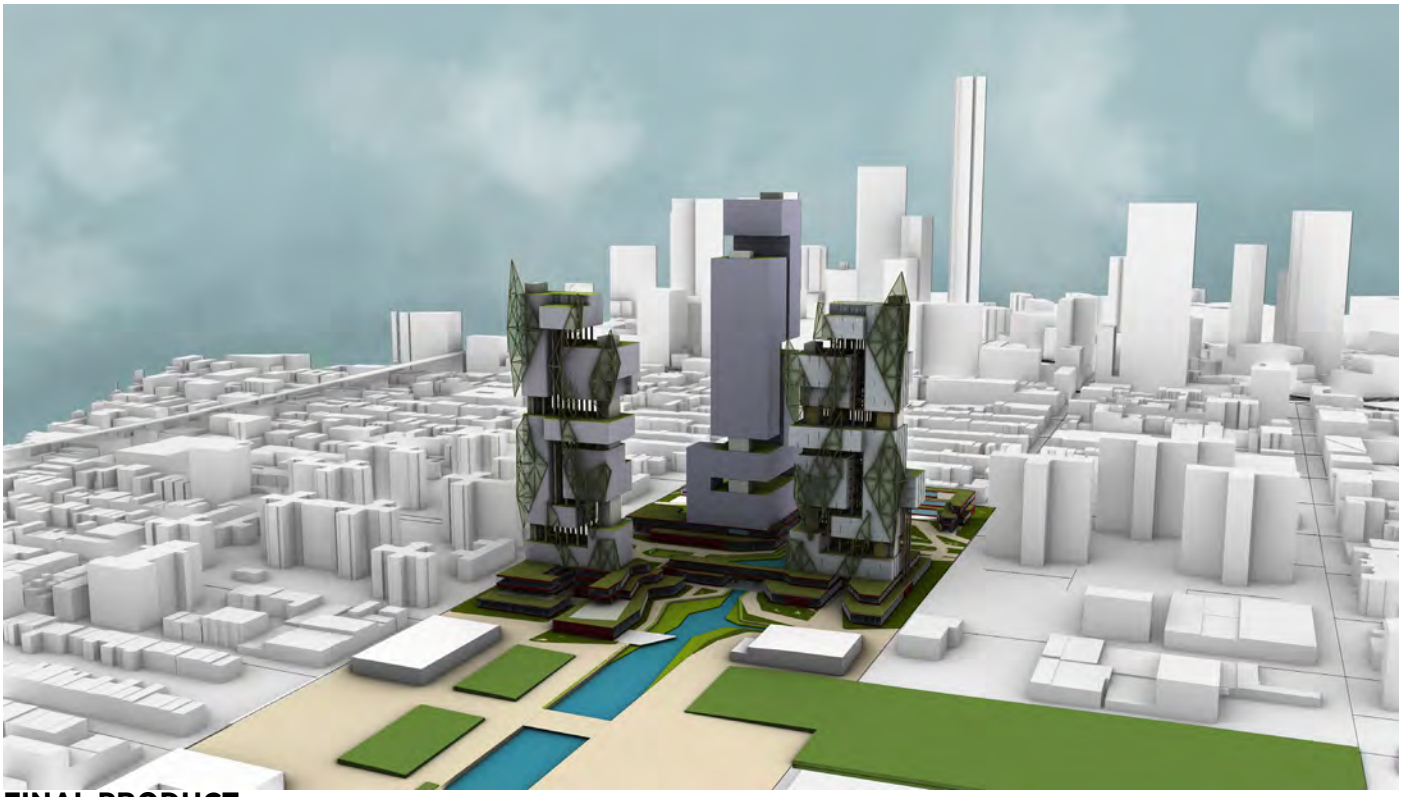
GREENERY INTEGRATION

There are many green elements in the site proposal. The green walls are plantations integrated onto the continuous structural walls, creating the vertical continuity of the green. The greenery and sponge parks are integrated all over the landscape. The salt marshlands and green roofs work as buffer zones and as rainwater control systems.
All these work with the biophilia concept.



FACADE ARTICULATION

The facade consist of double skin facade cast over the glass on the interior, allowing passive cooling and heating, and it is topped with a green facade in some parts, which is put strategically, indicating the public-private relationship behind it, also working as a shading element, with an integration to the greenery below.



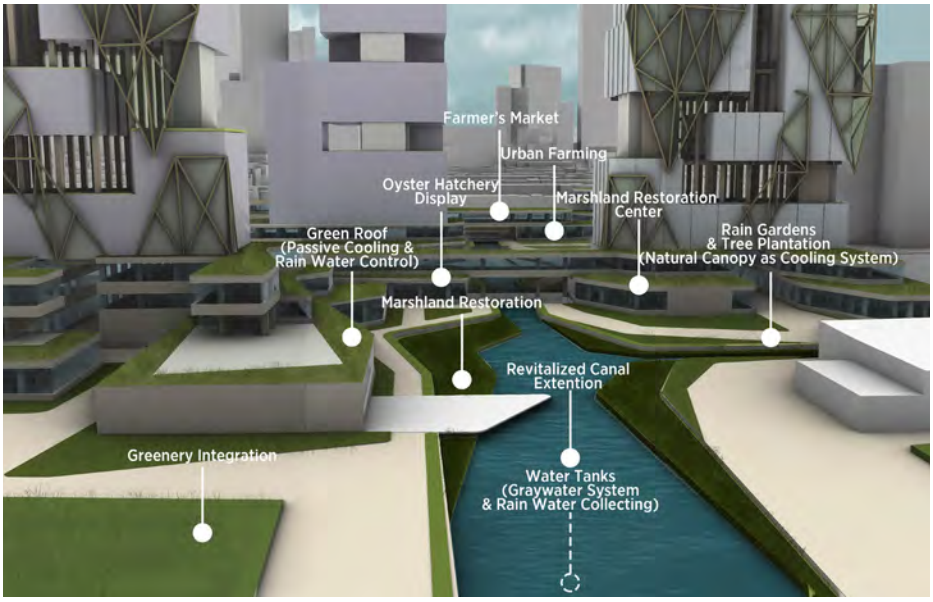
FINAL PRODUCT

After the inclusion of all the mentioned strategies, there are 3 high-rise buildings with low-rise platforms offered as a solution to the problems in the site. This project aims to solve the sustainability concerns of the site in 3 main buildings, along with the help of the platforms. The towers include an Office Complex, Ecological Awareness & Research Center, and Residential buildings. The platforms are commercial, to make up for the old commercial buildings that the locals used as shops. The articulation is with reference to the surrounding buildings, and they are also referencing the old buildings.

The towers aim to create a good solid-void articulation within the site, and avoid blocking too much of the sun and ventilation. They also aim to create a new aesthetical take on the site, by tackling the issue of having too many unmanaged industrial and old buildings.

The office tower creates solutions for the issue of economical sustainability, as it creates new job opportunities for people. The ecological tower creates solutions for environmental sustainability, as well as social sustainability, as it creates places for people, locals, to work together on the well-being of the area and the canal. The residential tower creates solutions for the lack of affordable housing in the area, and also creates functional sustainability in this sense. The commercial platforms are good opportunities to support local artists, and workers. They also act as community areas, where the locals can come together for the well-being of the site, or just for hanging out and getting to know each other.

HORIZONTAL CIRCULATION



ENVIRONMENTAL ASPECTS

Firstly, as mentioned before, the salt marshlands are being restored, This will provide Gowanus Canal with more safety against flood, and will restore its ecological integrity by bringing back the environmental aspects and fauna that is attached to it.

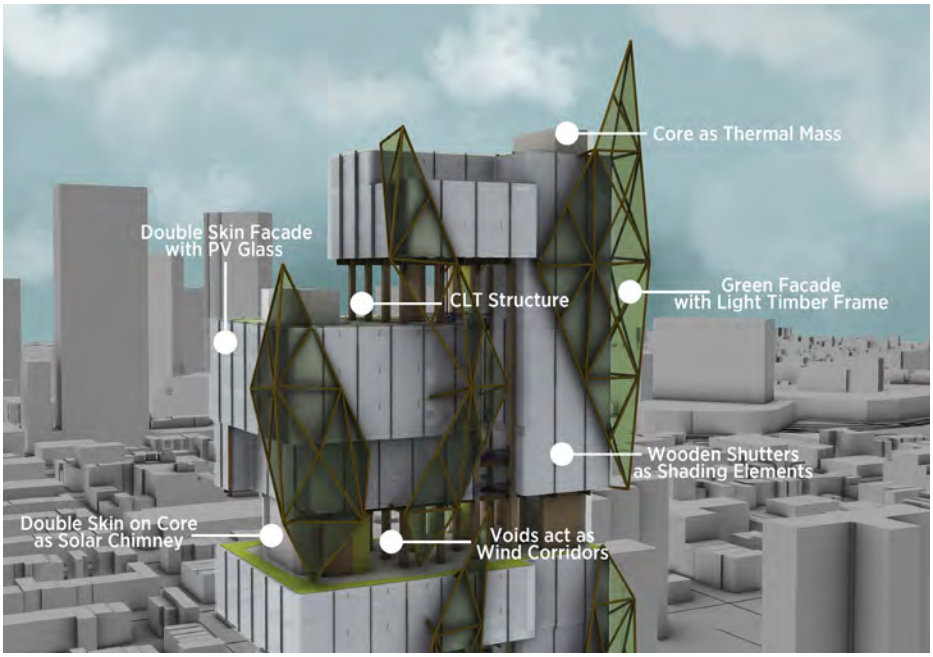
The sponge park and rain garden concepts will also provide protection against the flood, but they are also good for aesthetic and visual purposes, as they are integrated within the community gardening areas and parks.

The river revitalization is vital because the river has been so contaminated. Now, there are opportunities for social interactions in and around the river, without the awful smell and the visual. The river can also be utilized as a part of a cooling strategy, which will be beneficial as the site is considered to be an urban heat island. The rainwater collecting system is one with pipes that run down through the shear wall cores. This water will be collected in the water tanks below the shallow canal extension and cleaned in an underground facility by the parking areas, so that all these buildings will have access to clean water.

Park and greenery integration will also provide the citizens with more flexiblility of green interaction, and provide variety in terms of social activities and outdoor encounters.

There is a building that carries the function of being an oyster hatchery, which is vital for the cleaning of the canal, as well as keeping it clean continuously. It is also so that people can get to work with the oysters and witness how it is to work with them, and how they help clean the water. The greenhouse and farmer's market concepts provide the site with economical and ecological opportunities, as people can grow their own foods and also learn more about the agricultural side of the environmental opportunities.

The double skin façade will be beneficial for the natural ventilation of the complex, as it will be controllable as well. The voids in between the cubic forms of the buildng are also good for ventilation, as well as for increasing of daylight intake in inner parts of the building.

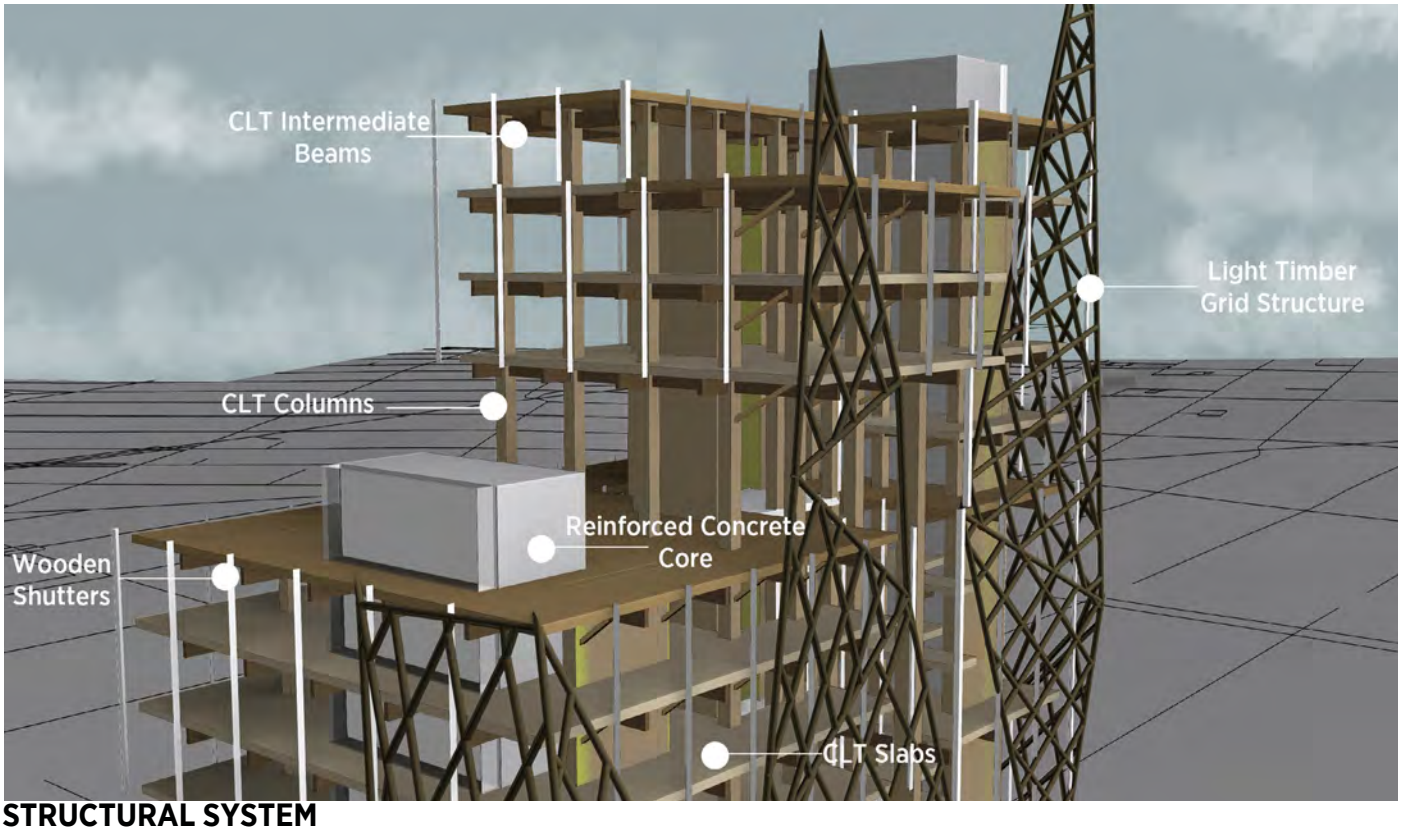


The cores act as thermal masses, as they are concrete blocks without any openings, so they will help with the passive cooling and heating of the building. By creating a second skin of glass around this core, a solar chimney was created, which will also contribute to the heating and cooling, being closed in winter and opened in summer.

PV Panels are put on the surface of the solar chimney, and some of the glasses on the East-West facade are PV glass.

The wooden shutters act as shading elementsor the building. The green screen facade acts as a both aesthetic and environmental aspect in the project. By creating light timber grids, integrated with the CLT material used inside, is a sustainability approach, as CLT as a material has low carbon emission and creates less carbon footprint.

The greenery integrated onto the grid acts as a shading element and also a green intervention to the facade



STRUCTURAL SYSTEM

The structural system of the proposed towers were very important as a concern, since they needed to be environmentally, economically, aesthetically and functionally sustainable. The area is already very contaminated, so the idea of increasing the carbon footprint by building with harmful materials may have made the situation worse.

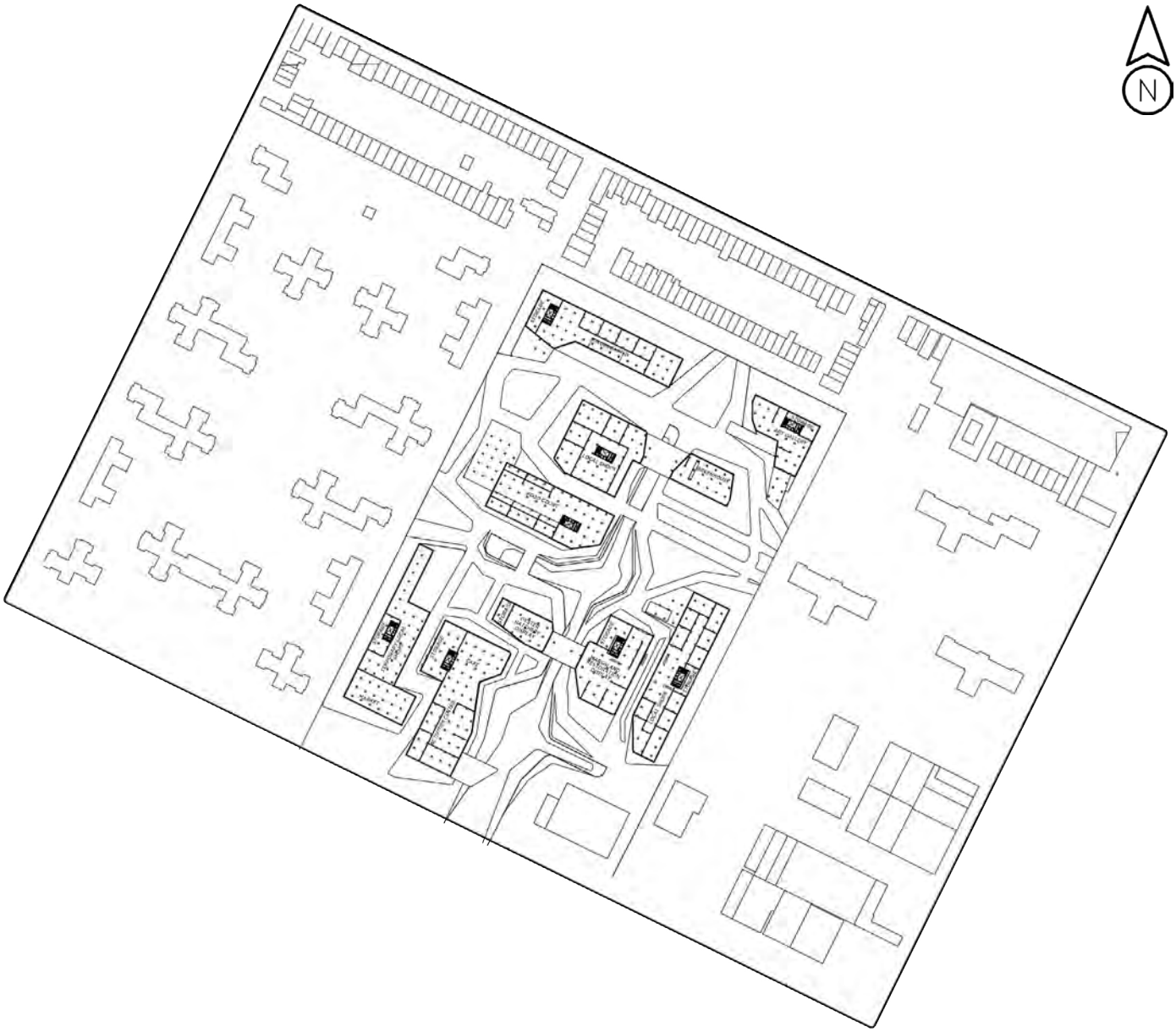
In order to tackle the problem of having a material that is durable and sustainable, CLT construction is proposed. 6 meter spans of 90x90 cm columns are supported by intermediate beams, and diagonal supports in order to provide structural integrity. the diagonal elements come with great flexibility, as they can also be introduced as curvilinear elements.

Timber on its own is a very elegant material, aesthetically and environmentally. With good forestry management, the obtaining of timber will not be an issue for the environment and habitat.

The cores are different than the overall structure in the way that they are shear walls, of reinforced concrete. This was necessary in order to obtain the spine-like structural integrity within the building.

It's safe to say that the overall building is hybrid, with timber and concrete elements, although very little of concrete.

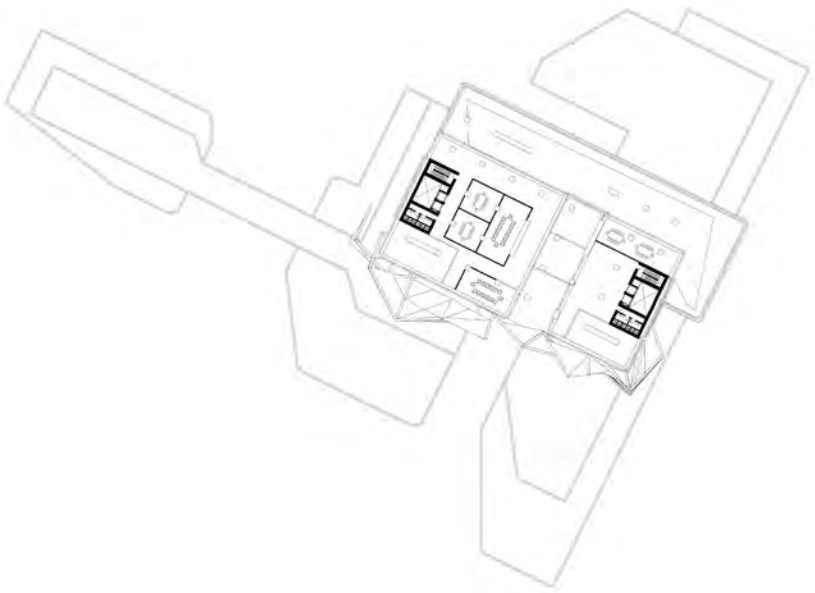
DETAIL SECTION (FACADE AND TERRACE DETAIL)



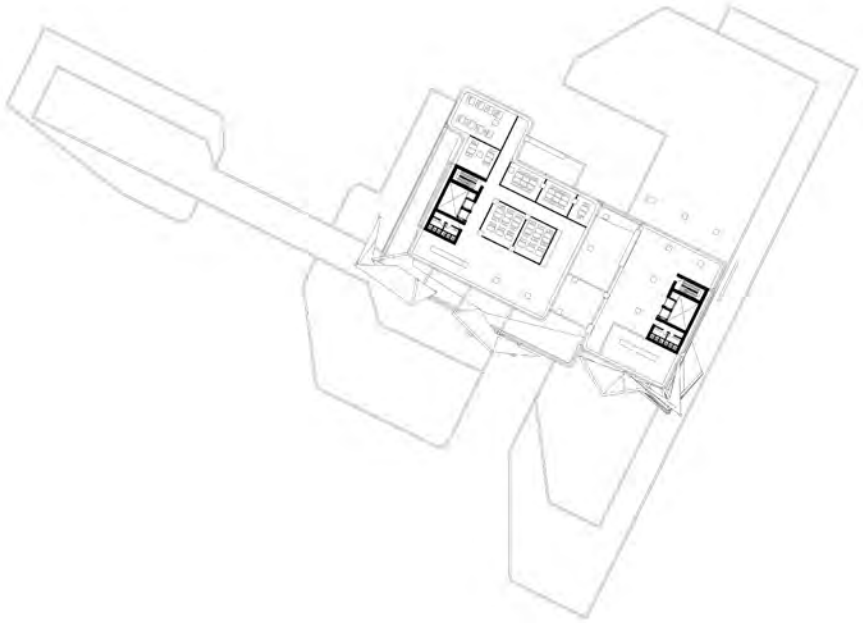
GROUND FLOOR PLAN (+0.00)

The ground floor plan clearly ,ndicates and conveys the integration of the references taken from surrounding buildings.
The ground floors of the site will consist of commercial functions, such as:
- Local Shops
- Greenhouse
- Lounges
- Art Shops
- Marshland Restoration Display Area
- Daycare Center
- Cafes and Restaurants
- Oyster Hatchery Display Area
- Activities Center

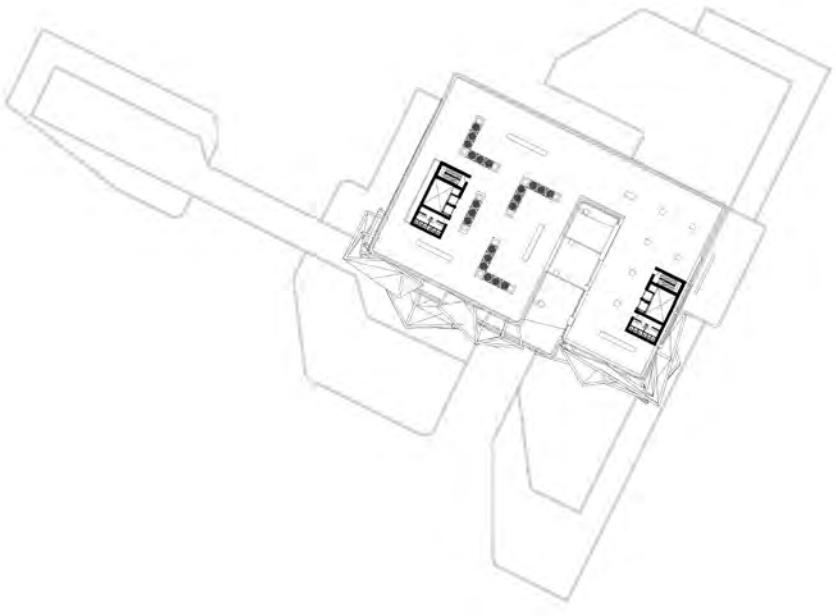
and many other social and communal functions that can be utilized on a daily bases by the users of the site.



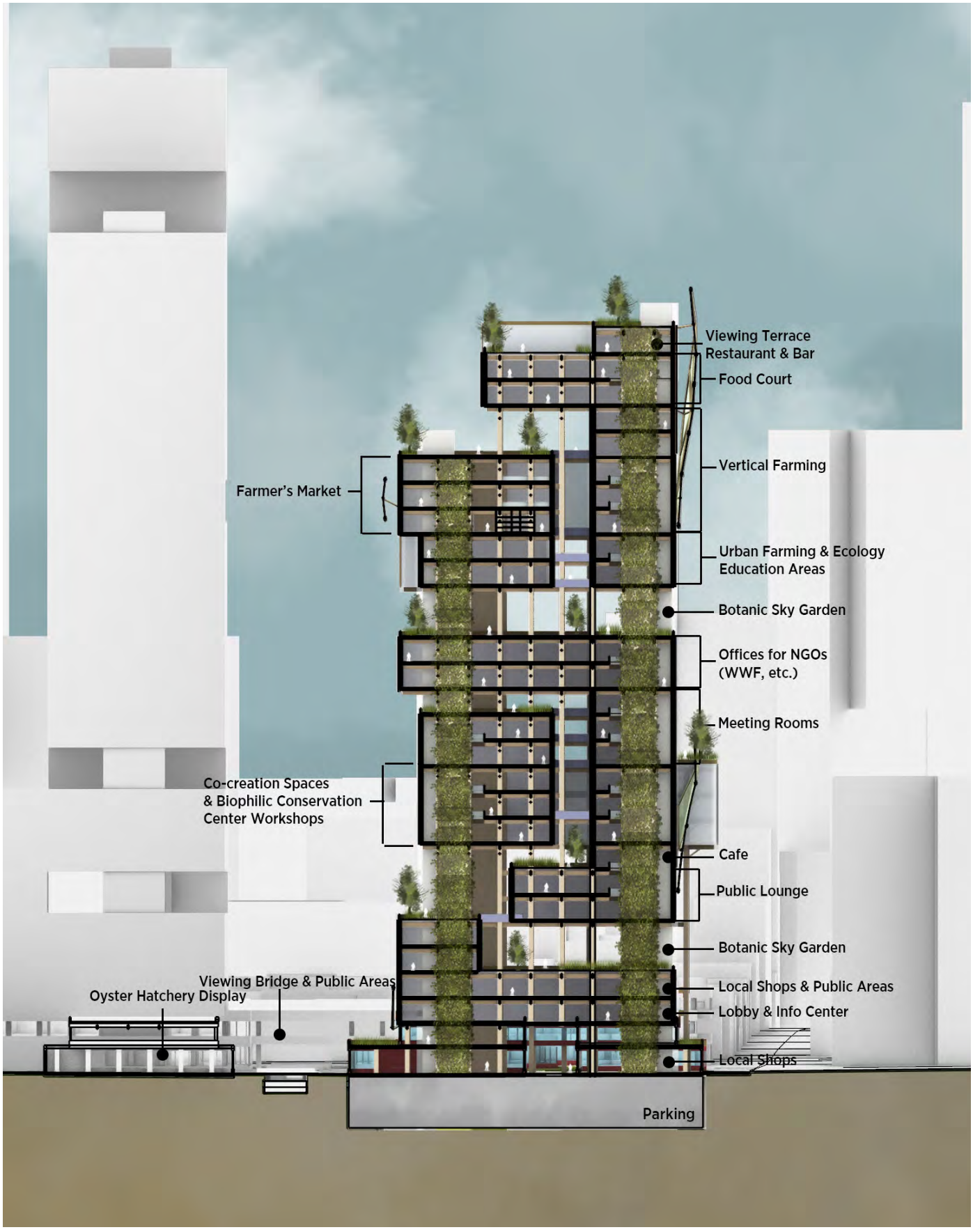
TWELFTH FLOOR PLAN (+61.00)
MEETING ROOMS



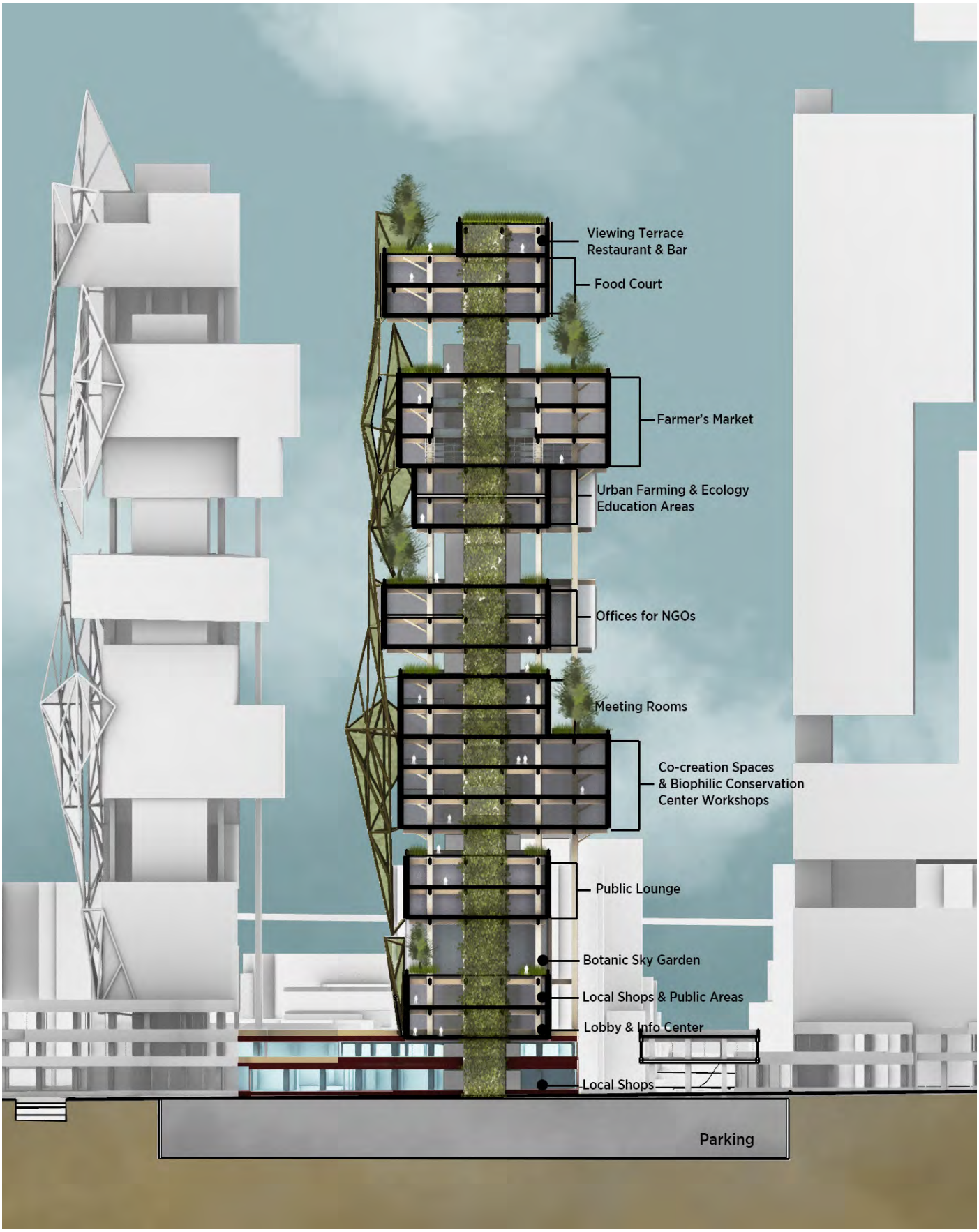
EIGHTEENTH FLOOR PLAN (+104.00)
URRBAN FARMING & ECOLOGY EDUCATION AREAS



NINETEENTH FLOOR PLAN (+109.00)
VERTICAL FARMING & FARMER'S MARKET



TRANSVERSE SECTION (SE SECTION)



LONGITIDUNAL SECTION (SW SECTION)

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- https://www.cobe.dk/idea/deutzer-hafen
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- https://www.shoparc.com/projects/atlassian-hq/

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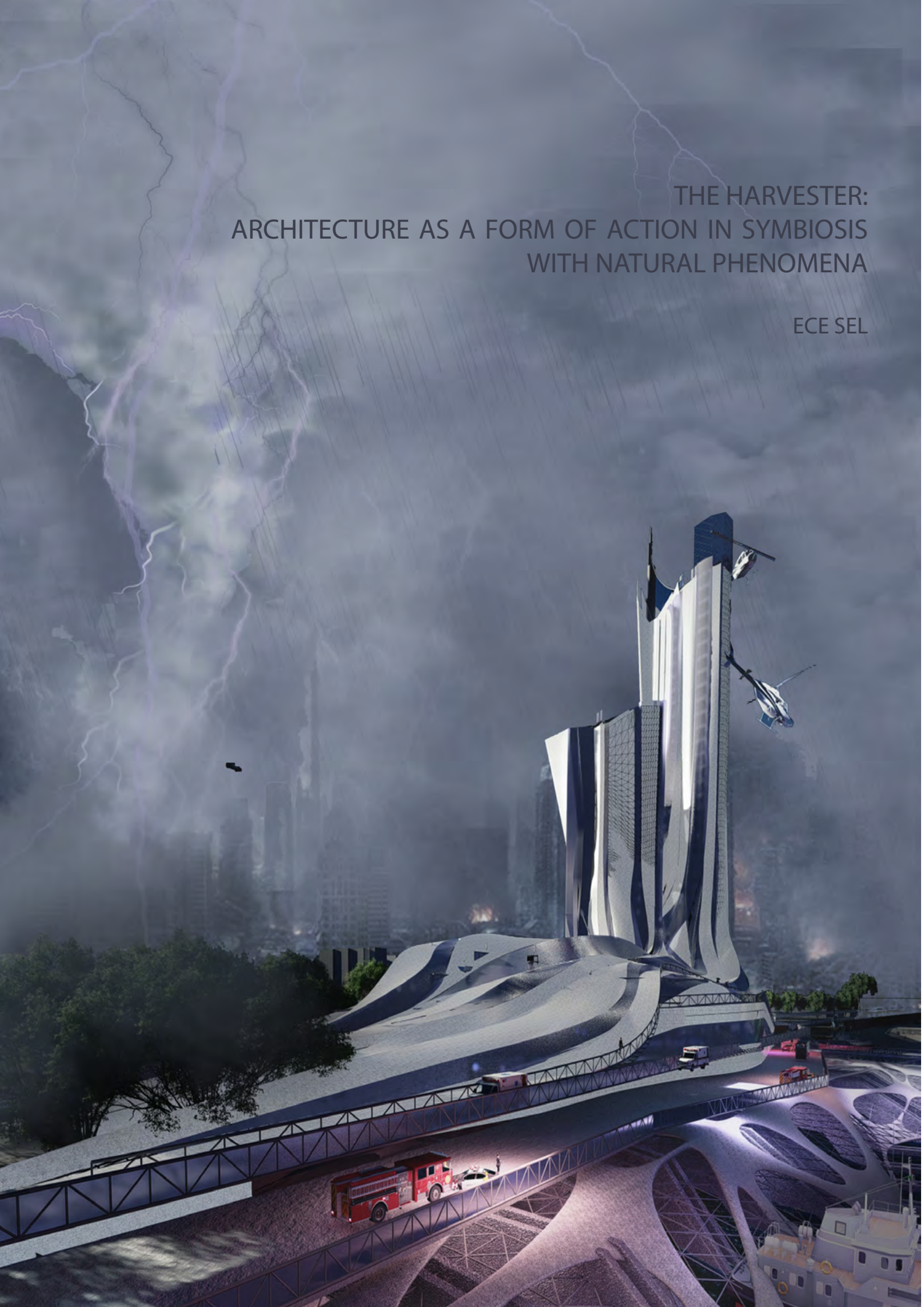
THE HARVESTER:
ARCHITECTURE AS A FORM OF ACTION IN SYMBIOSIS WITH NATURAL PHENOMENA

ECE SEL



ARCHITECTURE AS A FORM OF ACTION IN SYMBIOSIS WITH NATURAL PHENOMENA

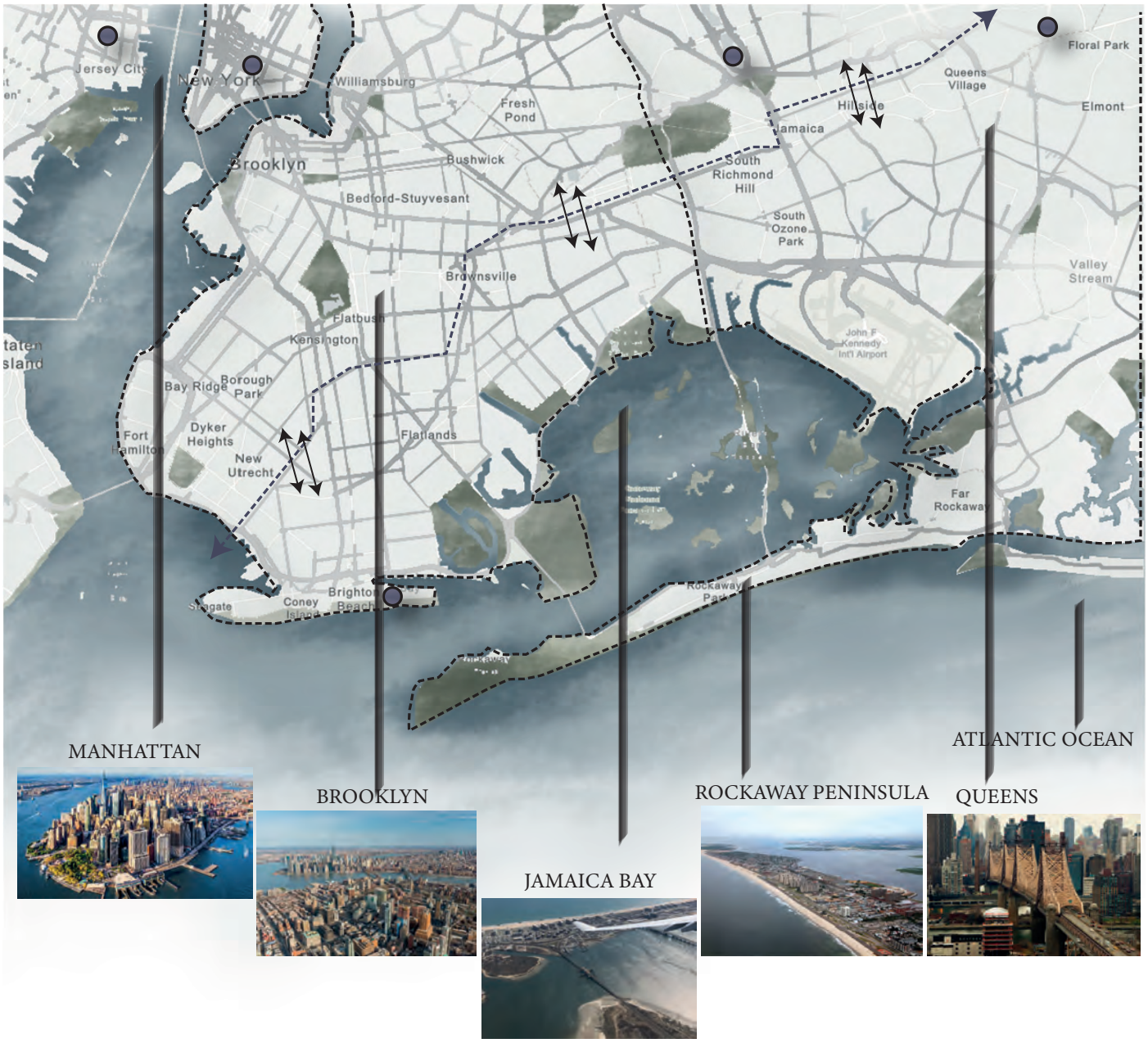
ECE SEL

ecotone • \EE-kuh-tohn\ • noun. : a transition area between two adjacent ecological communities.

The Jamaica Bay and Rockaway Peninsula are located between the east Brooklyn and Atlantic Shoreline in New York, USA. Jamaica bay is the largest open area in the metropolitan city New York with its quite unique urban estuary in terms of its salt marshes laying in the middle of the bay, having wildlife refuge and being home to unique ecological species for quite a long time; On the other side, the Rockaway peninsula is the ocean shoreline of the crowded New York where the local people find their ways through the beach in the summer times. However, due to the anthropogenic impacts as well as global warming and natural phenomena, both of the areas are at serious risk of losing the unique ecotone layers. Additionally, the lack of infrastructures and demographic inequality it has creates an insecure and undesirable life while causing poverty.

Can architecture be made of biomaterials and act in symbiosis with natural disasters, using them as an advantage rather than fighting against them?

Thereby, the project proposes a community college to raise people' awareness and economy by providing particular jobs, mainly focussing on "*biological-scientific research*" and investigating to generate energy for "net-zero lives." Additionally, since the area have been facing quite a lot of natural disasters, the building itself, act as a forms that "*require*" these disasters in order to sustain itself with its long-lasting/future proof strong envelope and strategies.



1. INDTRODUCTION

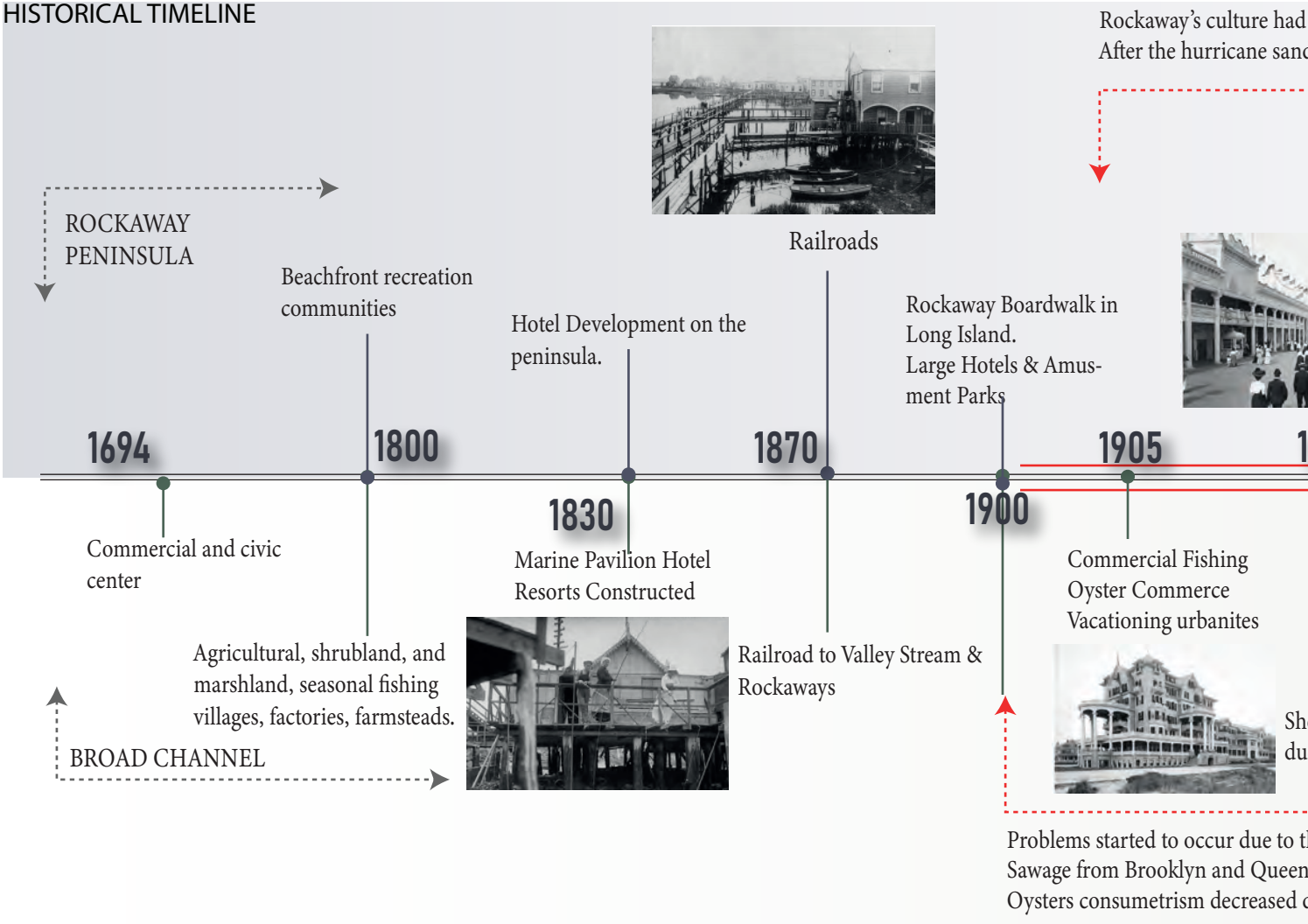
The anthropogenic impacts the carbon footprint people give to the atmosphere increases day by day, which causes inevitable natural disasters. There are two major threats on the Rockaway Peninsula and Jamaica Bay; Natural Disasters and Social poverty.

These natural disasters are one of the causes of social disasters happen. Jamaica Bay is a 36 square mile / 95 square km and located in the boroughs of Brooklyn and Queens and stays as an important diverse habitat of New York with its rich ecological resources, home to a variety of species, maritime ecology, woodlands, and food source of ecology. The Bay has nine almost lost salt marshes facing erosion and at the risk of being lost due to climate change and rising sea levels. This situation would put an extensive amount of species in danger, including birds, fishes, crabs, oysters.

Within the population growth in New York during the 1900s, human activities started to harm nature inevitably... Pollutants, oils, harmful nutrients, sewage discharged into the day and result in the poor and toxic quality of water, algae to blooms, toxic and heavy metals on the bay, dissolved the oxygen concentration by preventing light-transmitting. All of these caused erosion on the marshes, preventing oyster traditional farming and putting the whole ecology in danger.

On the other side, the coastline of New York, the Rockaway peninsula, suffers from a lack of opportunities in terms of food, education, business, transportation, and more. Withing the horrible Hurricane Sandy in October 2012, the socio-cultural disasters got strength. Some residence lost their houses; the whole land is submerged in water.

HISTORICAL TIMELINE



2. NATURAL DISASTERS TO SOCIAL DISASTERS

Both Jamaica Bay and the Rockaway Peninsula have been commercial and civic centre since the beginning of the 17. Century. On the Broad Channel, the agricultural facilities, factories are built; and on the Rockaway peninsula, the importance of the beach increased yearly, and designing the shoreline became more important during the beginning of the 19. Century. However, the natural disasters on the location affected the site in a strong manner.

The area is still suffering from the impacts of the 2012 October Hurricane Sandy, and under the threat of annual flood, storm surge, economic crisis. Residents required help from the communities for food, clothes, and most importantly "*a flood-protected housing*" to sleep in.

Thereby, the project intends to create strong, resilient infrastructures and buildings that can withstand the natural disaster; furthermore, take advantage of them while proposing educational & research activities to create resilient and stronger places in New York.

The map is emphasizing the 2021 zoning of Rockaway. As seen through the analysis, the surrounding is filled mainly by one to two-family residential units. Many areas stay vacant due to the natural disasters occurred.

The area lacks social activities, educational and job opportunities and greeneries that could make people socialized, increase cultural activities, provide jobs opportunities. *In turn, these proposed solutions will increase the awareness of the natural resources & biology and economy.*

started change after 1900.
dy the poverty increased and social inequality become more important subject.

Summer houses to year-round houses.
Marine Parkway Bridge Constructed

Economic decline started.
Residences are lured from the location.

Affordable housing approached dramatically changed the built enviroment.

Economy decreased even more and socio-cultural problems occured stronger.

921

1940

1950

1960

2010

2012

HURRICANE SANDY HIT NEW YORK

Resort facilities turn to high rise building.

SAVING JAMAICA BAY!

ellfish industry is closed
e to polluted water.

he high population growth in NY
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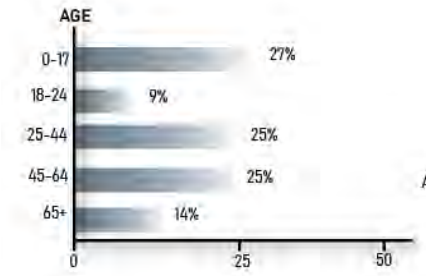
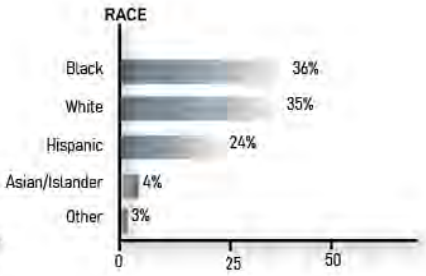
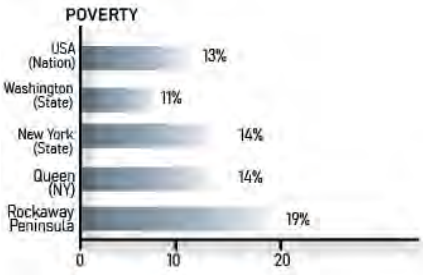
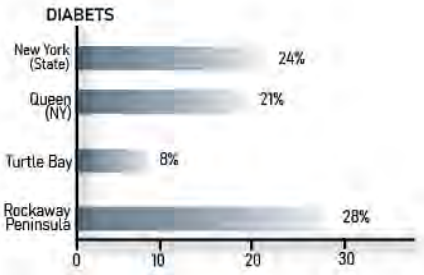
due to problematic feeded.

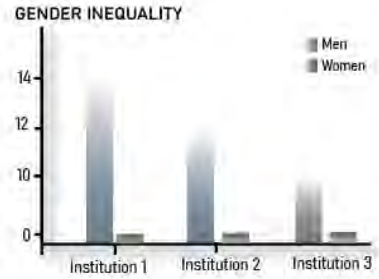
2. DEMOGRAPHIC DATA

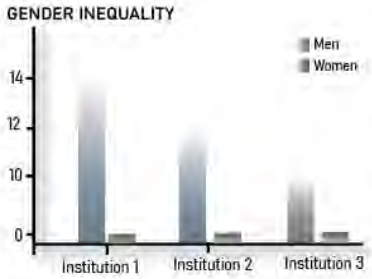




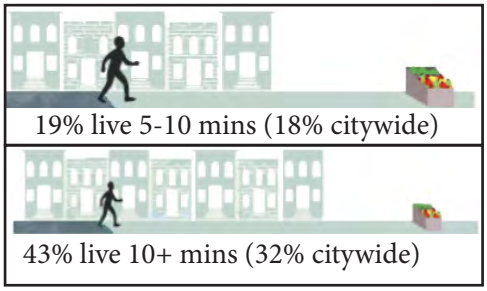








Food apartheid in Rockaway:

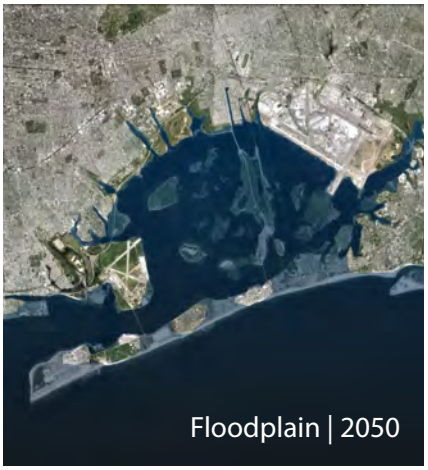


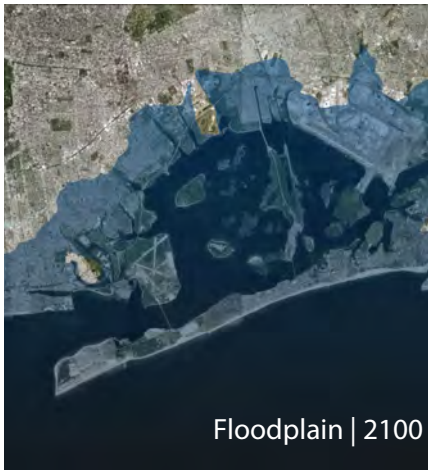
The Rockaway Peninsula have inequality in terms of gender and race. Additionally, due to the poor locality and "food apartheid," the local people having lack access to fresh food close to their houses. In turn, the food apartheid (food desert) causes obesity, diabetes, and increase heart disease.

SOLUTION ? : Since the unemployed is quite high and income of the families are quite low, a community college is proposed to increase the income and educational level give new jobs for higher quality of life to prevent inequality.

3. NOT LETTING NATURAL DISASTERS TO CAUSE SOCIAL DISASTERS: LIVING IN SYMBIOSIS WITH NATURAL PHENOMENONS

3.1 SEA LEVEL RISE





The anthropogenic impacts and the carbon footprint people give to the atmosphere increases day by day, which causes inevitable natural disasters and causes to global warming. They cause glacial melting; in turn, the sea levels rise while destroying the natural habitats of the living organism as well as making the lands being destructed and leaving people homeless.

It has been predicted, in 2050, the whole of Jamaica Bay and in 2100, the whole Rockaway will be under water due to the rising sea level threat.

How to avoid it? How to take advantage of it? In order to avoid this situation, new infrastructures and buildings need to be built.

ADVANTAGE ? : From the movement of sea-level rise and the movement of high tides & floods, water can be collected, sanitized, and be able to generate energy from it.

3.2 HURRICANE SANDY

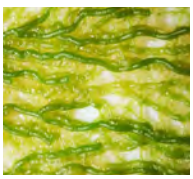
The Hurricane Sandy, in 20212 destroyed a great amount of the Rockaway peninsula. Still the local people are experiencing the causes of these natural disasters since they have lost their housesa and their belongings as well as their local enviroment.

ADVANTAGE ? : The movement of the sandy can be turned into energy.

3.3 ALGAE BLOOMING ON THE WATER

Due to the high amount of sewage and chemicals in the water, the toxic and heavy materials decrease the quality and causes toxic algae to bloom. These nutrients loading on coastal areas cause to decline in aquatic habitat quality, loss of seagrass (which led to erosion of marshes), decreases in dissolved oxygen concentrations as well as corruption of structures.

ADVANTAGE? : ? Algaes are a diverse group of aquatic organisms that have the ability to conduct photosynthesis. However, the term algaculture In this way, algaes are converted into food, bio-fuel and can generate energy as well as they can produce O2 while decreasring the amount of carbon emission.



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Barlett UCL | Algae Bricks for construction
https://www.treehugger.com/

3.4 TRADITIONAL OYSTER INDUSTRY

"Jamaica Bay, which sends 300,000 bushels of oysters to the New York City market each year, will no longer be a source of supply. The waters have become so polluted as to constitute a menace to health, and the Health Department announced yesterday an order that will put a ban on the oyster beds."

The New York Times, 1921

The Oysters were iconic food of Manhattan and New York, once known for its oyster industry. The waters of the city once home to trillions of oysters and coming 80 million from Jamaica bay [1]. By the 1930s, the industry caused to decline because of the harmful oysters which are polluted by the waters came within the growing population and human activity.

They consume algae. Balances the nitrogen level. Fix oxygen-poor waters; increase the aquatic habitat; An adult oyster can filter up to 50 gallons a day; Prevent erosion of the salt marshes and storm-surge.

In order to increase the income and proposed them a job opportunity for the Rockaway residents and bring back the "old New York" oyster industry, farming and rescue works will be proposed within the building program.

ADVANTAGE? : They can be a pioneer approach toward the bio-based organic structural systems

4. PROBLEMS ANALYSIS

Fighting with nature?

An emergency building?

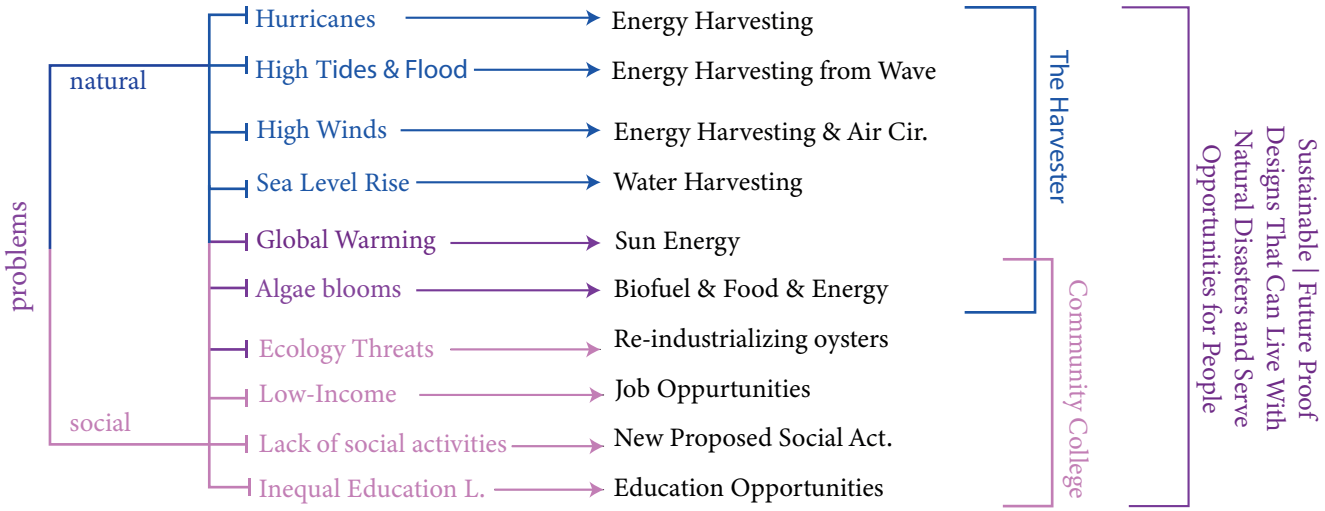
Designing with nature?

Can buildings be future proof?

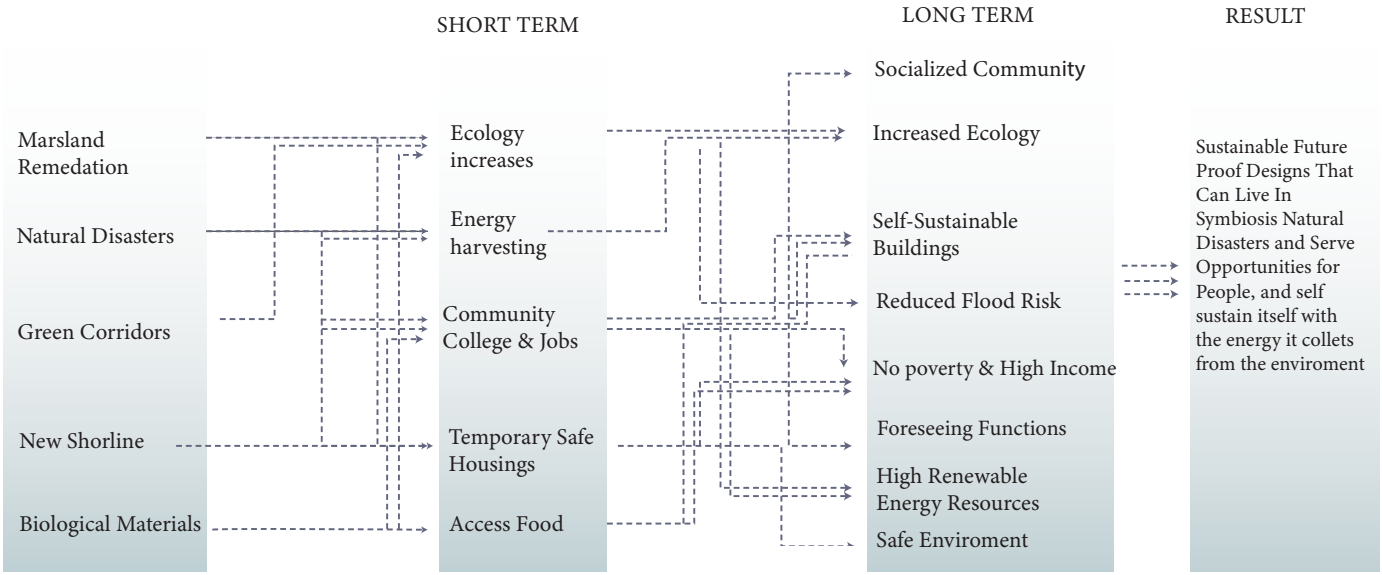
Can disasters turn into advantages?

Requiring storm, wind, water?

Can bio-waste be used as materials?

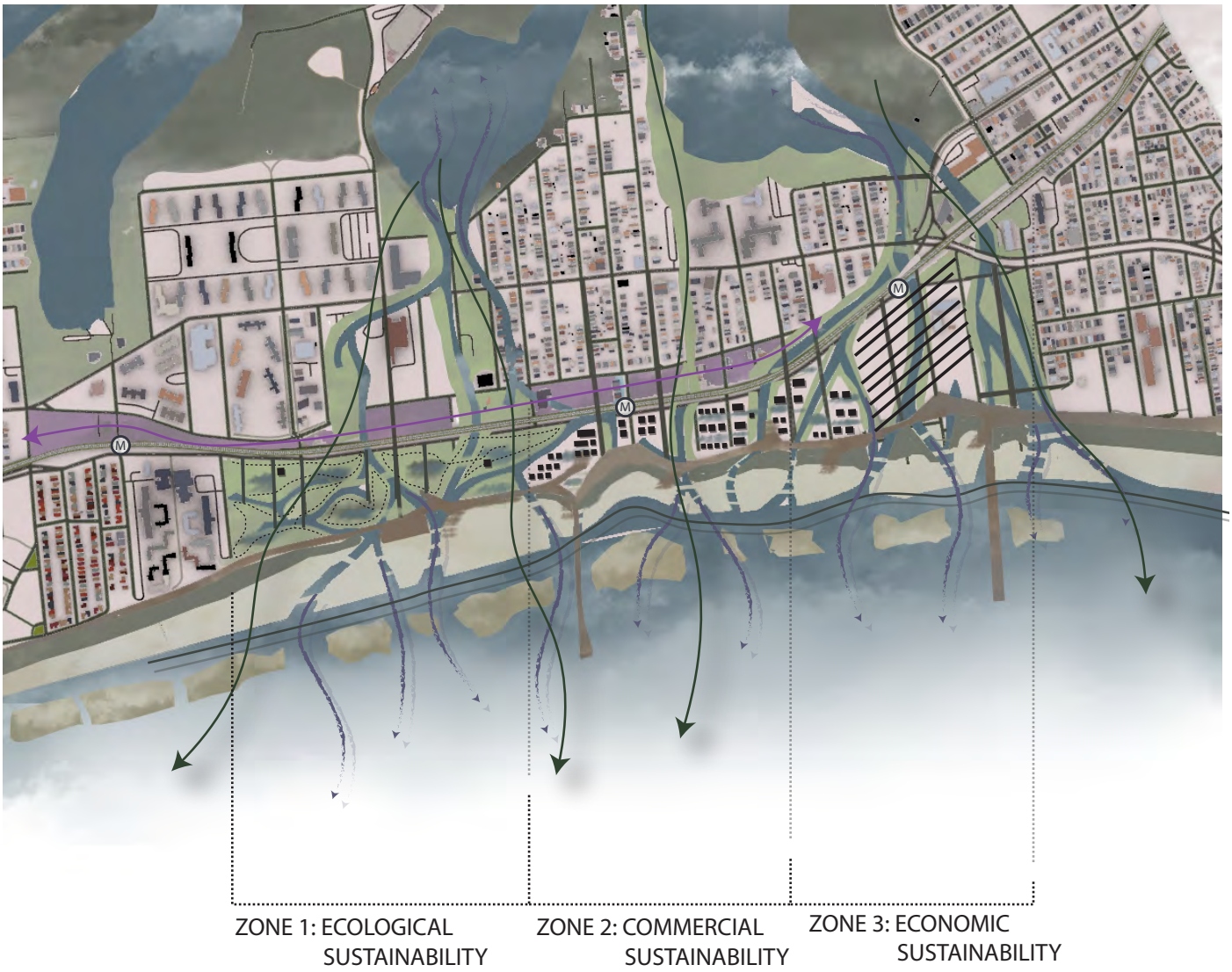


4.2 TIME PRECTIONS



5. URBAN SCALE | SELECTED LOCATION AT ROCKAWAY PENINSULA : ARVERNE BY THE SEA

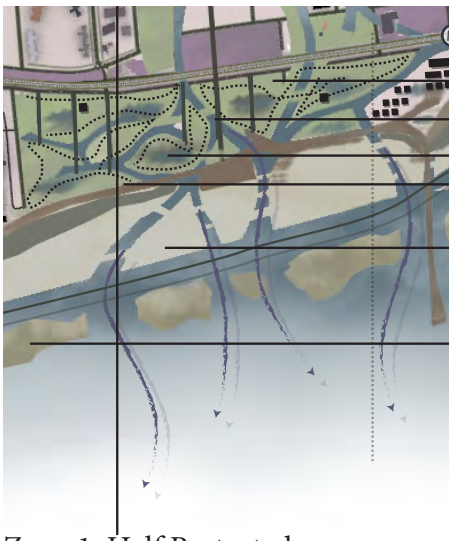
Reference: Photo: https://nextcity.org/daily/entry/the-neighborhood-hurricane-sandy-couldnt-flood



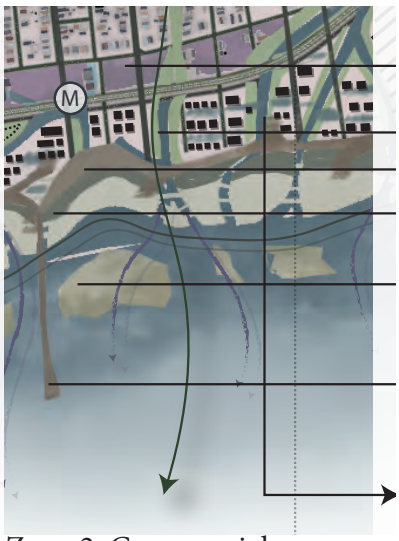
Green corridor
Overwash Flood Canals
Commercial Corridor

Boardwalk
Elevated living coastal barrier
Coastal storm surge barries

Existing Greenery
New Greeneries
Buildings



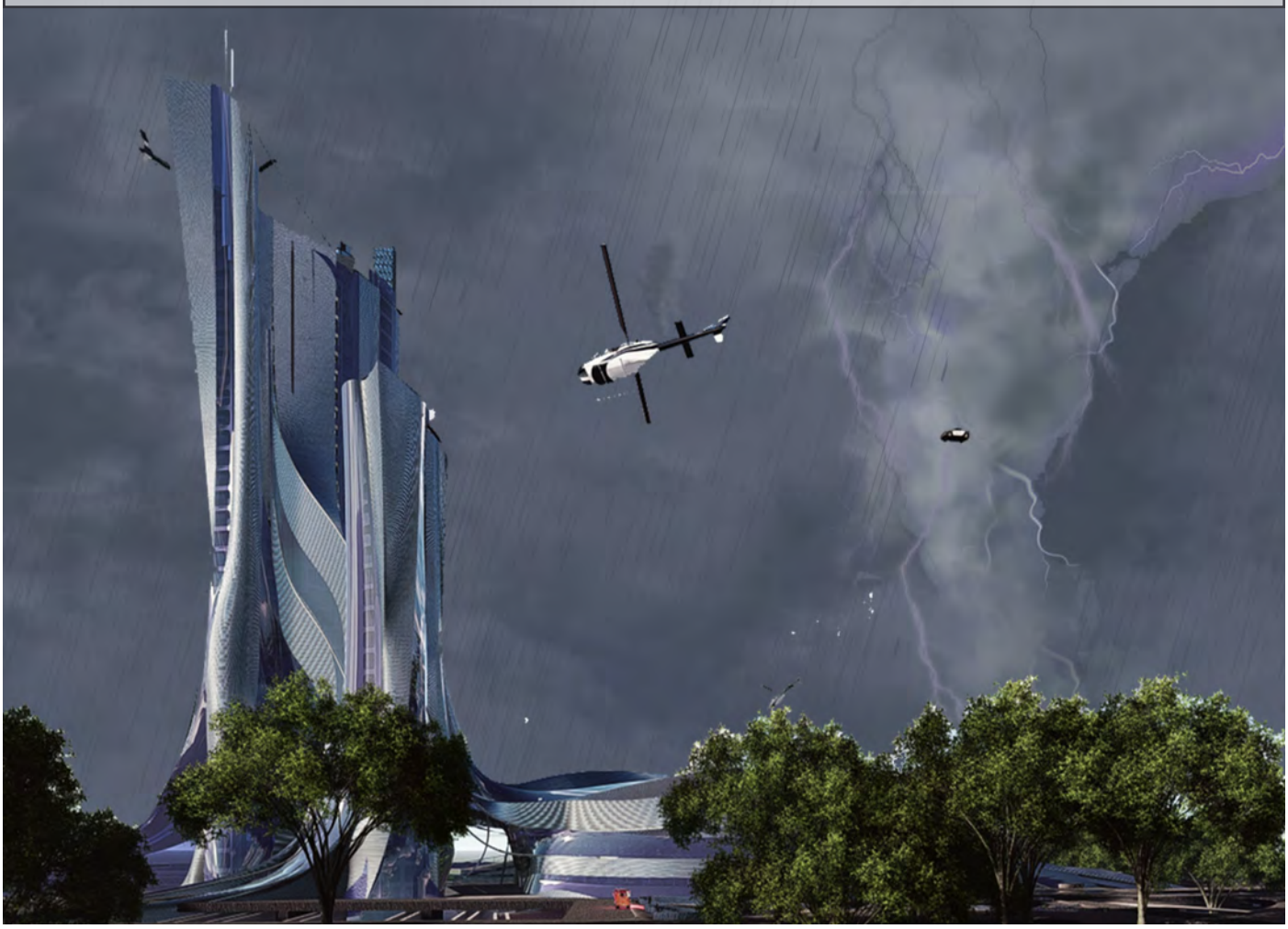
Zone 1: Half Protected
Urban Trail and pipng plover bird habitat



Zone 2: Commercial
Museums & Social and Beachfront Activities

Zone 3: Selected Building Area
Harvester & Community College & Emergency Center

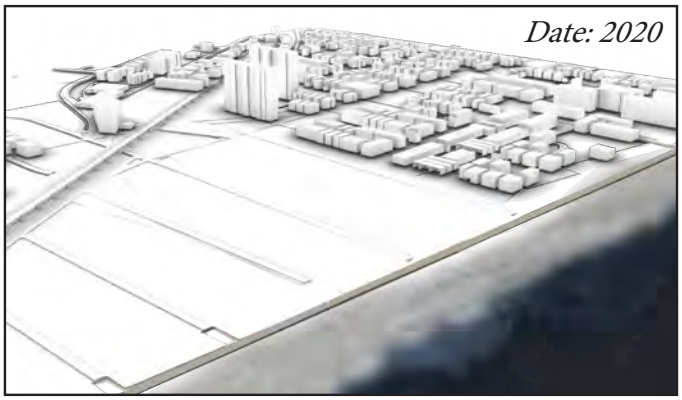
COMMUNITY COLLEGE & FUTURE EMERGENCY CENTER



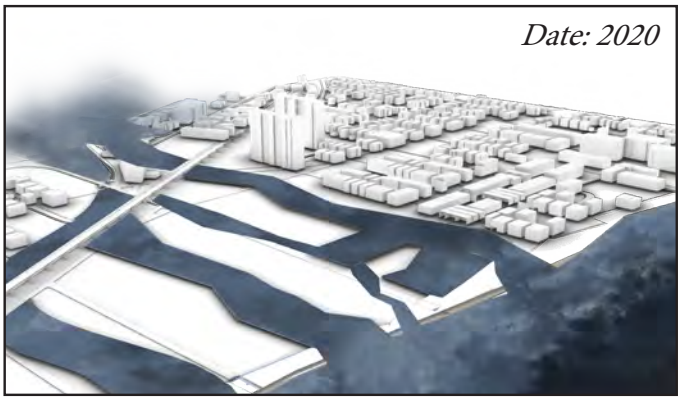
ZONE 3: SITE PLAN

6. PROCESS

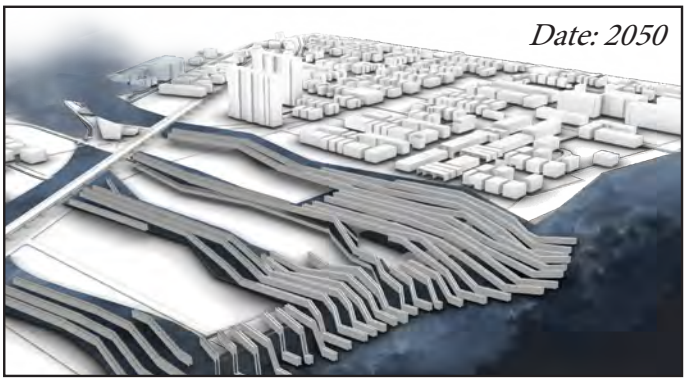
1. Existing shoreline and vacant sandy topography.



2. Water Level Rised +7 meter but they are controlled with designed overwash canals

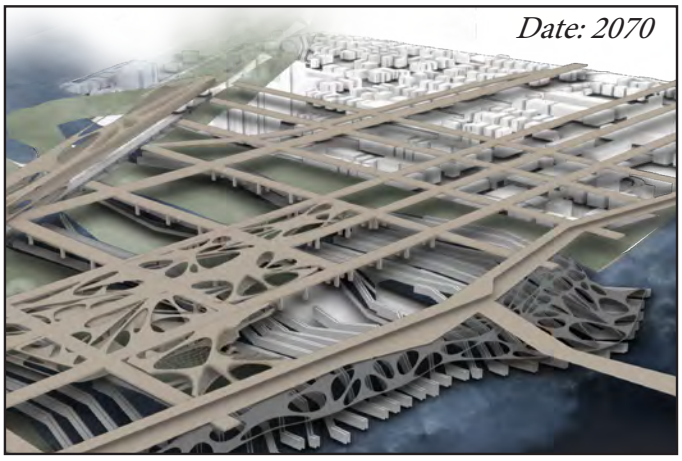


3. Energy generating hydraulic structures are located to generate energy from waves & tides

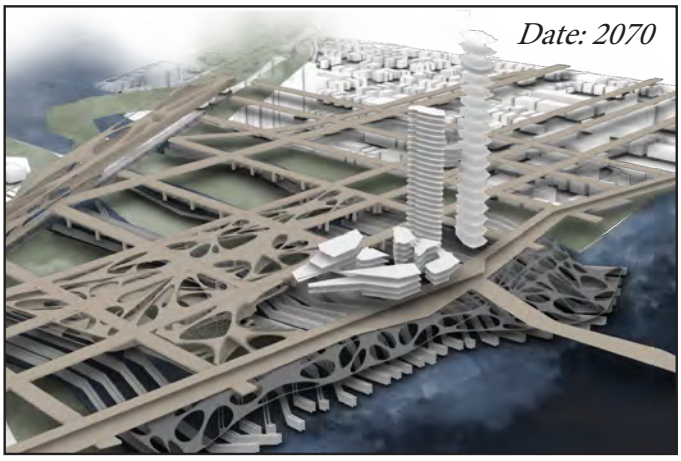


4. Green corridors are designed in a way that integrates the overall peninsula.

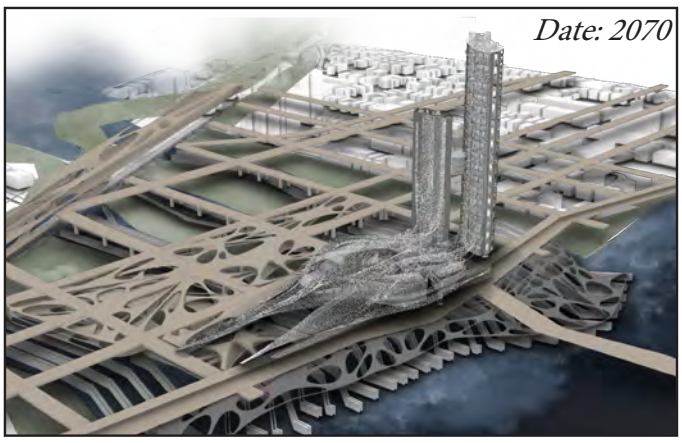
5. Landscape is designed considering the safe zone (7m) and new urban infrasturctures are added



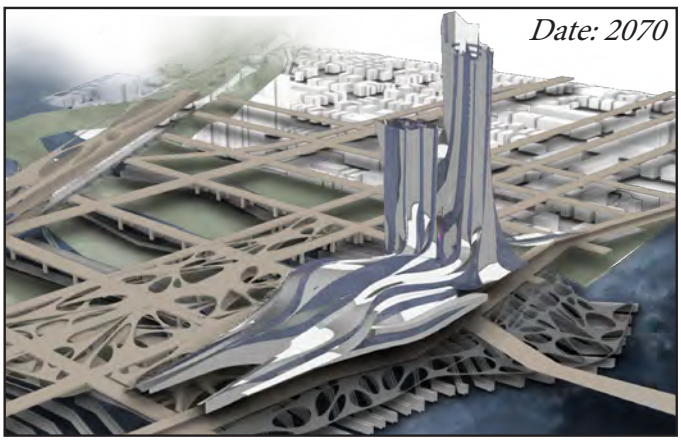
6. The floors have been decided considering enviromental forces and energy generation strategies



7. The structure have been designed as a double layered system in a strong manner to prevent natural disasters.



8 . The outer layer-envelope have been designed in a smooth way enabling inner & outer circulation.



7. 1 OYSTER WATER CLEANING CYCLE

Contaminated water

Oyster are inhabitated in the water.

Single adult oyster can filter 50+ gallons of water per day.

7.2 TOPOGRAHY AND WATER HEALING PREDICTIONS

1. Existing Sandy Topography & Existing Dirty Water

Date: 2020

2. Oysters are poured to the water in order to clean the water and bring the oyster industry back to New York

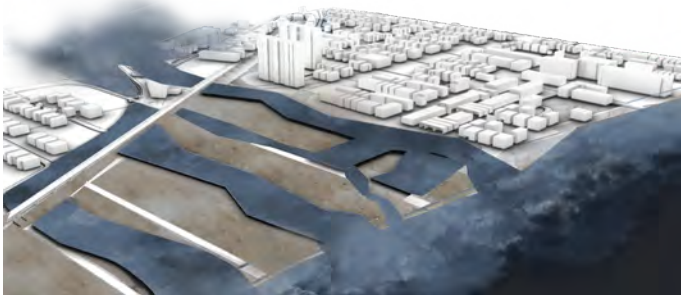
Date: 2035

3. Oyster shells are collected then poured to the topography. Water level rised to +7m.

Date: 2050

4. Topography has been healed and strenghten with osyter sheel & mortar bricks

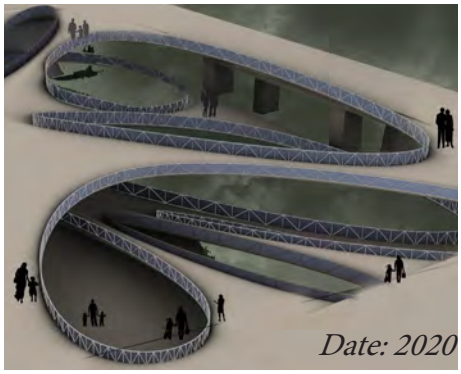
Date: 2070



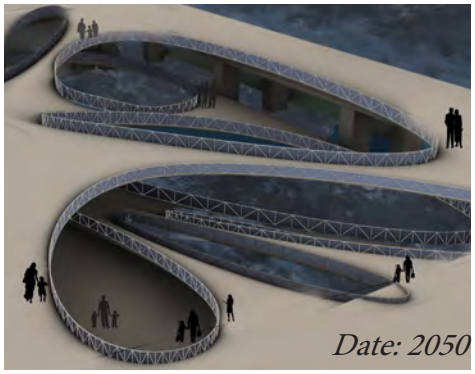
8. FUTURE PROOF LANDSCAPE DESIGN

The landscape has been designed regarding the sea level rise, serving for different levels of the time with its levelled floors, considering the future.

As the water level rises, the usable floor area will be changed but still able to be used as a "future proof landscape". (Rendered image is on the last page.)



Date: 2020

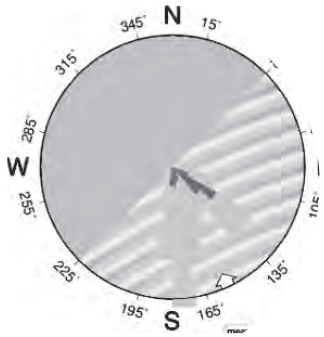


Date: 2050

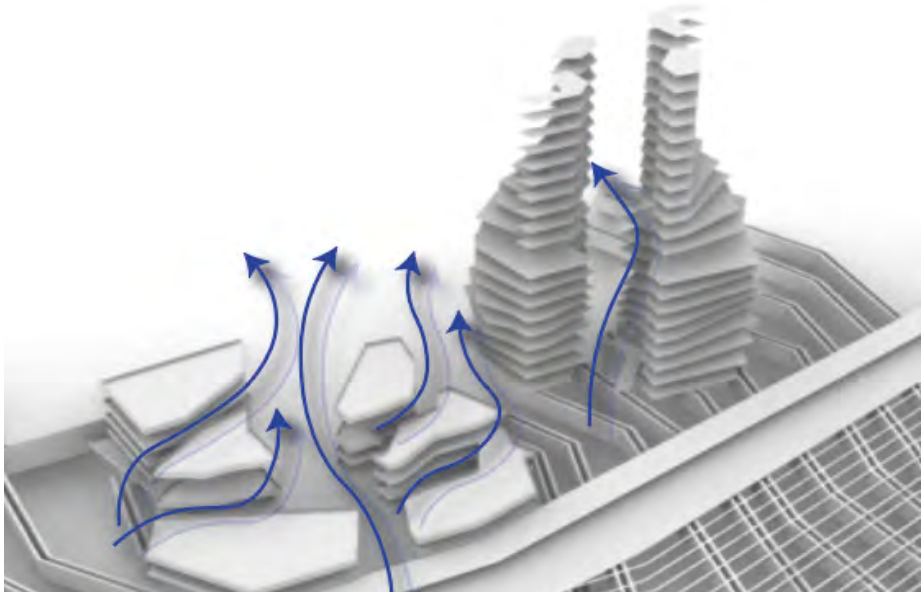
Date: 2100

9. ENVIRONMENTAL FORCES

9.1 Wind Corridors : Energy Generating & Air Circulation

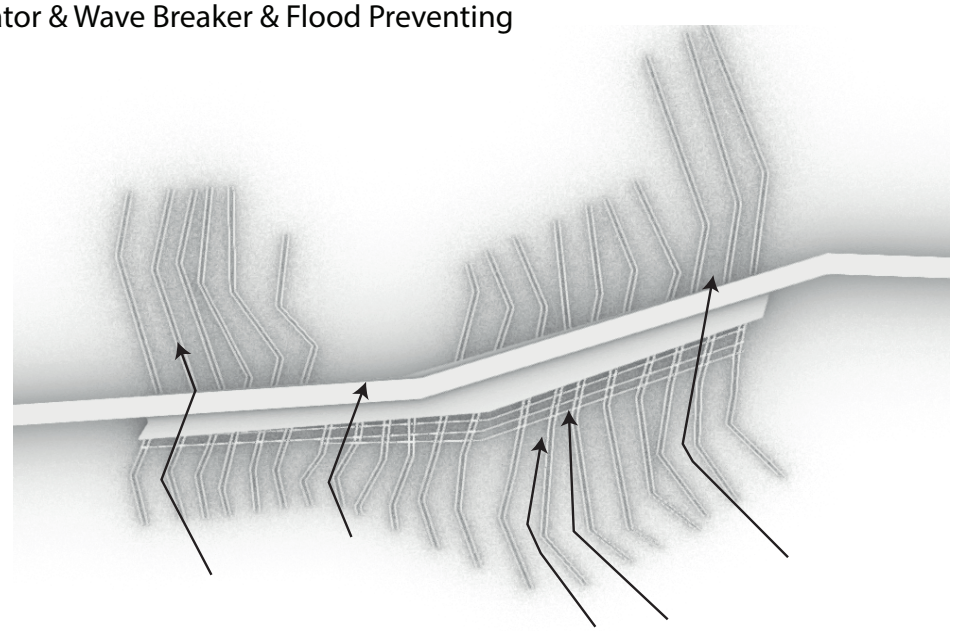


The Rockaway peninsula is facing a lot of wind pressure; in turn, the floors and the form shaped according to the dominant wind direction to design a system that generates electricity from the energy of the wind & hurricane, as well as to maximize air circulation.



9.2 Dam Structure : Energy Generator & Wave Breaker & Flood Preventing

The hydraulic-dam structure is located in the front of the building to act as a barrier that breaks the ocean & tides while harvesting energy from the motion of the waves.



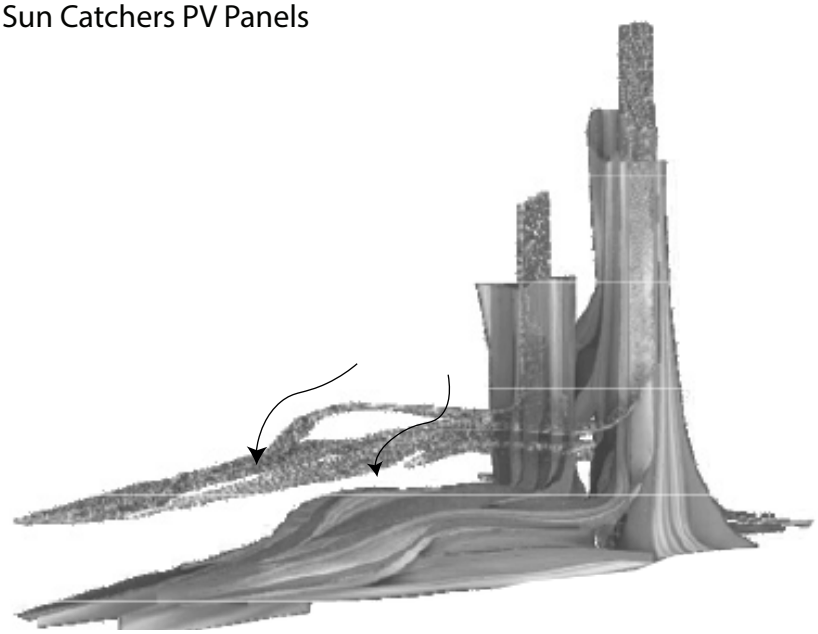
9.3 Rainwater Controller Envelope & Sun Catchers PV Panels

Rainwater Controller Envelope:

The organic and curvature envelope controls the movement of the rainwater and transfers it to the storage below.

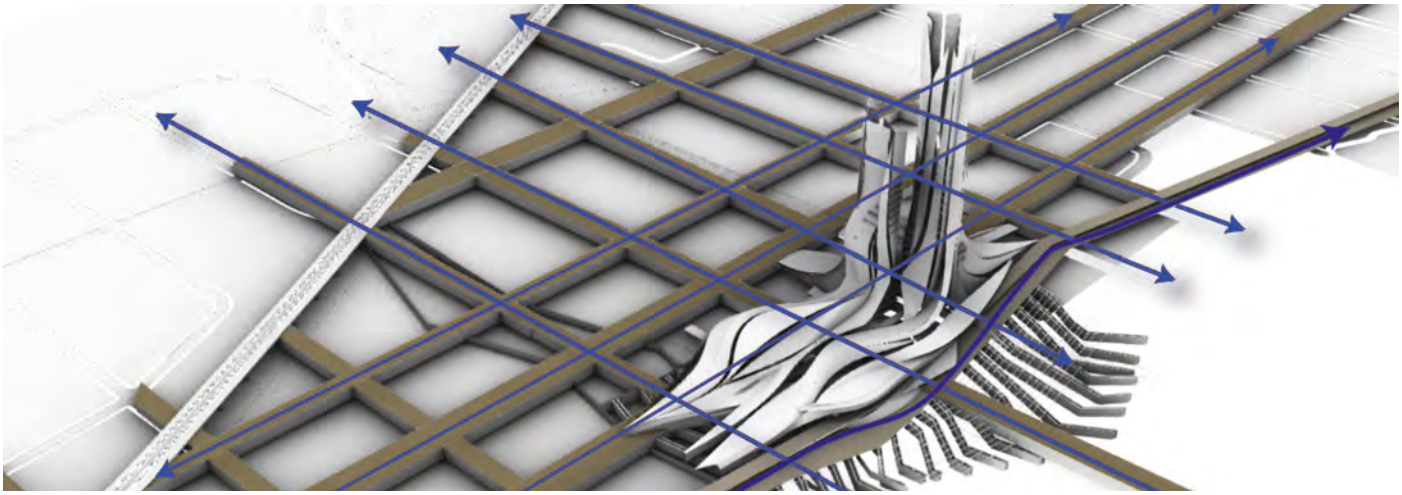
Sun Catchers & PV Panels:

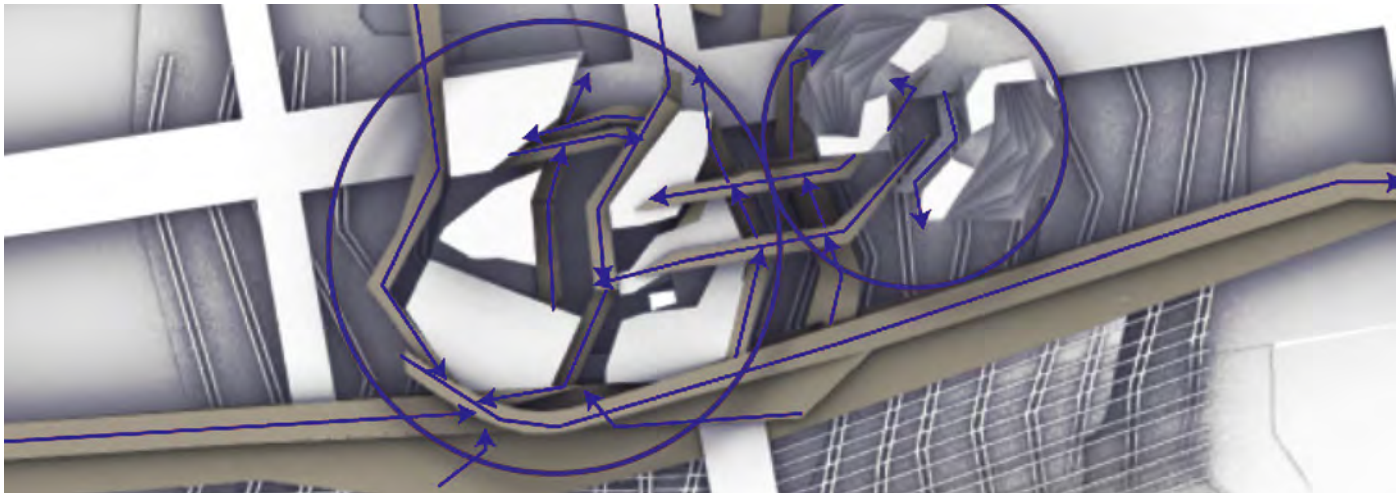
The translucent PVC Panels on the envelope collects sun energy and storage it for future usage or turns it into electricity.



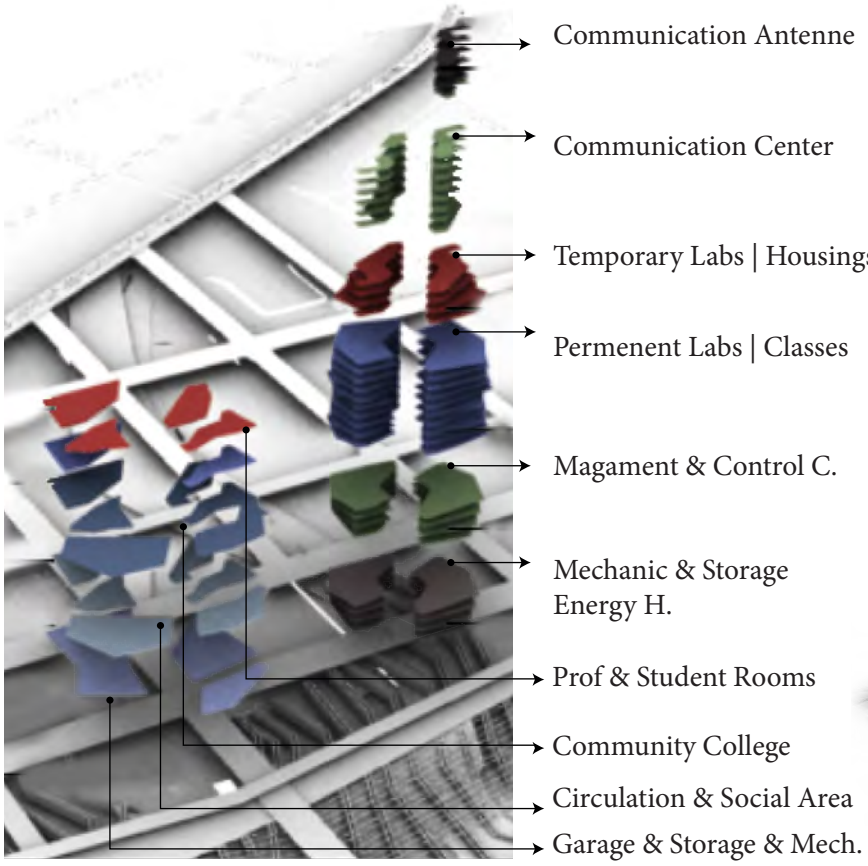
10. PLAN | BUILDING ARTICULATION

10.1 HORIZONTAL CIRCULATION

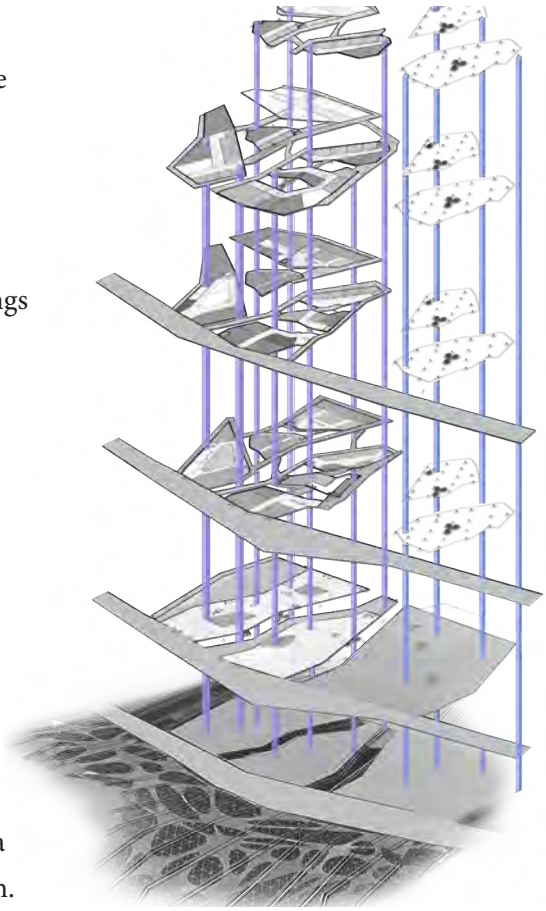




10.2 FUNCTION ARTICULATION

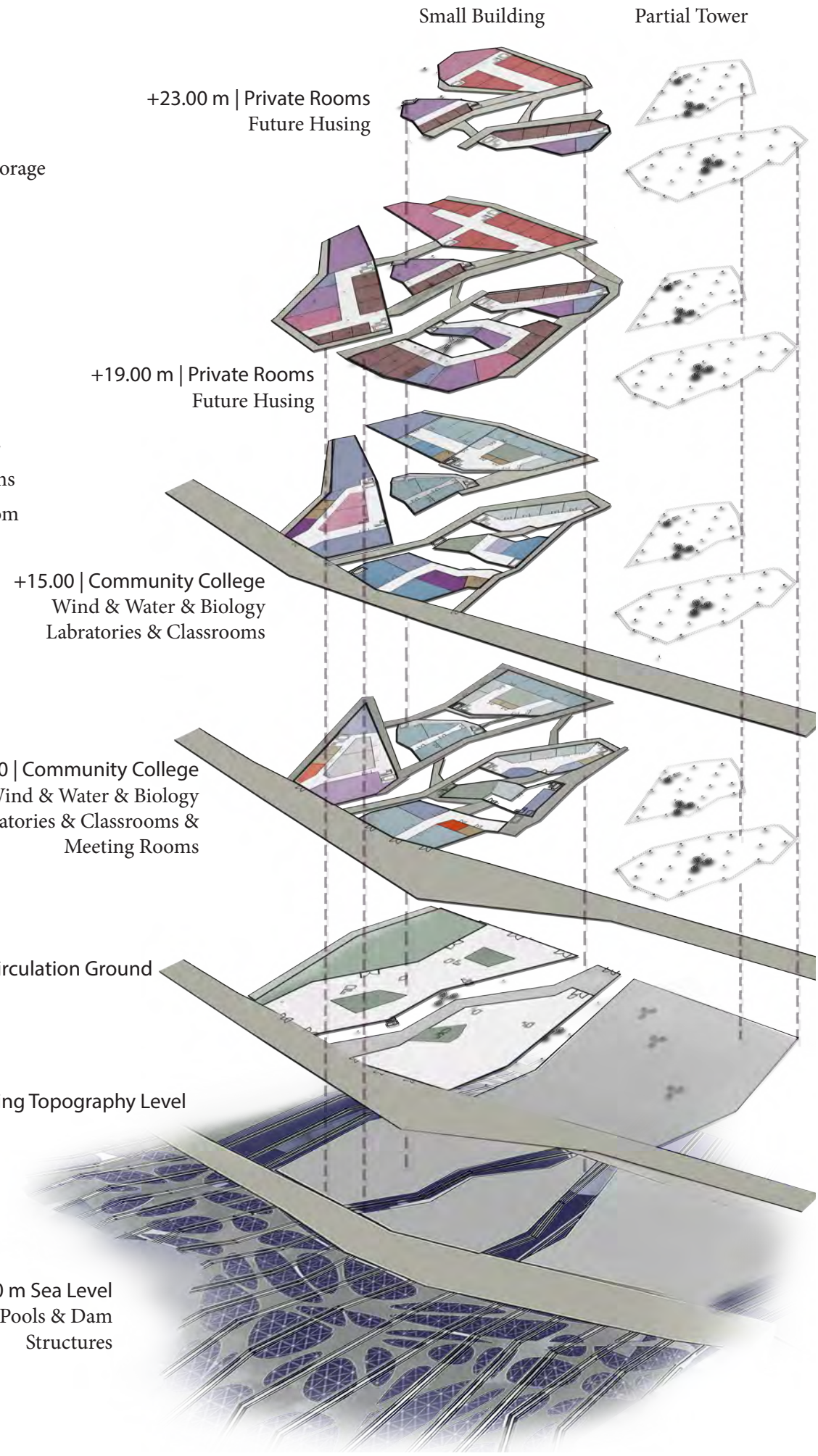


10.3 VERTICAL CIRCULATION



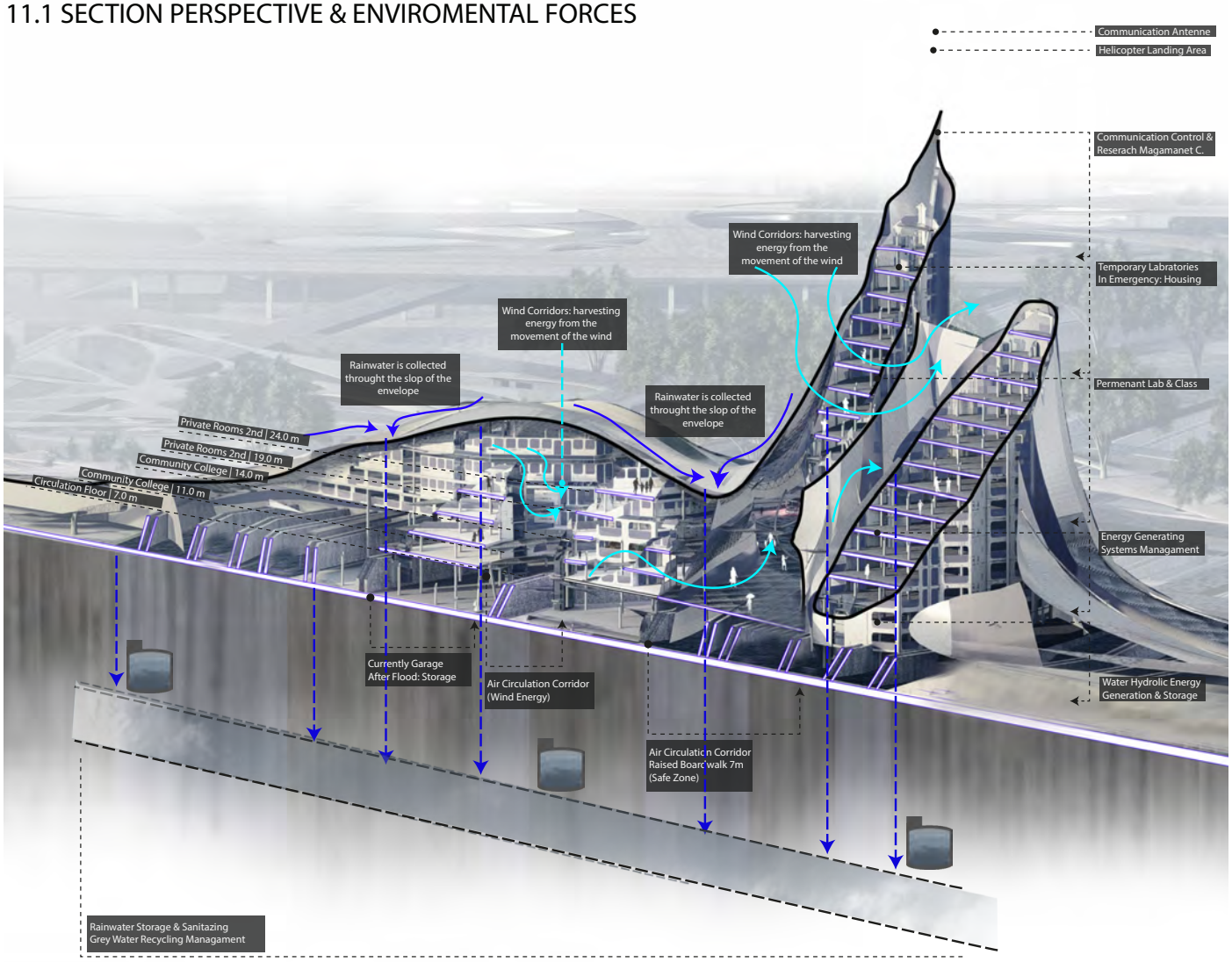
10.4 EXPLODED PLAN | BUILDING ARTICULATION

- Flexible Plan Labs
- Small Labs
- Classrooms
- Machine Storage/Storage
- Greenhouse
- Restrooms
- Emergency Room
- Student Rooms
- Professor Rooms
- Conference Room / Multipurpose Rooms
- Library / Study Room
- Restaurants



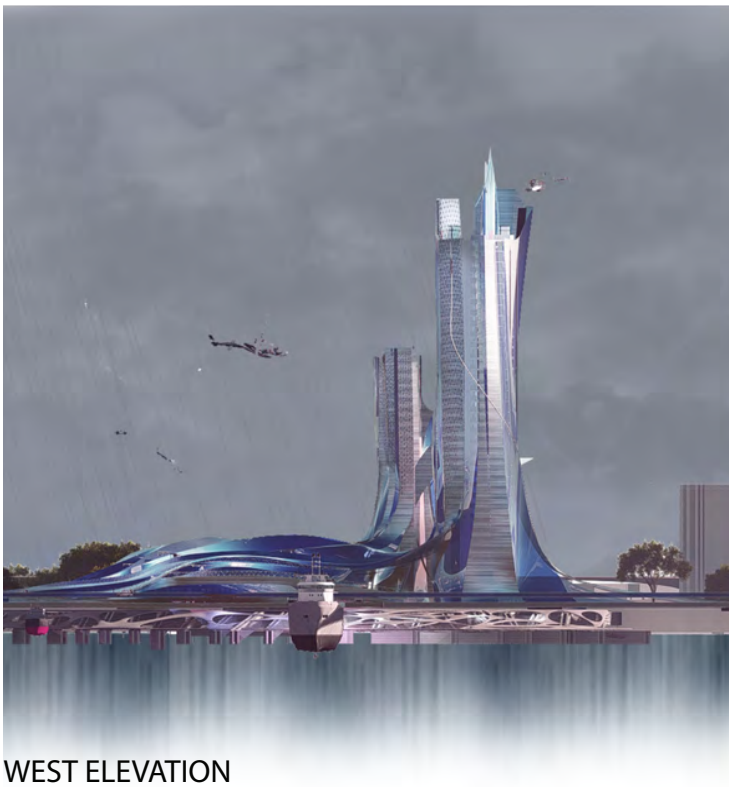
11. DETAIL DRAWINGS

11.1 SECTION PERSPECTIVE & ENVIROMENTAL FORCES



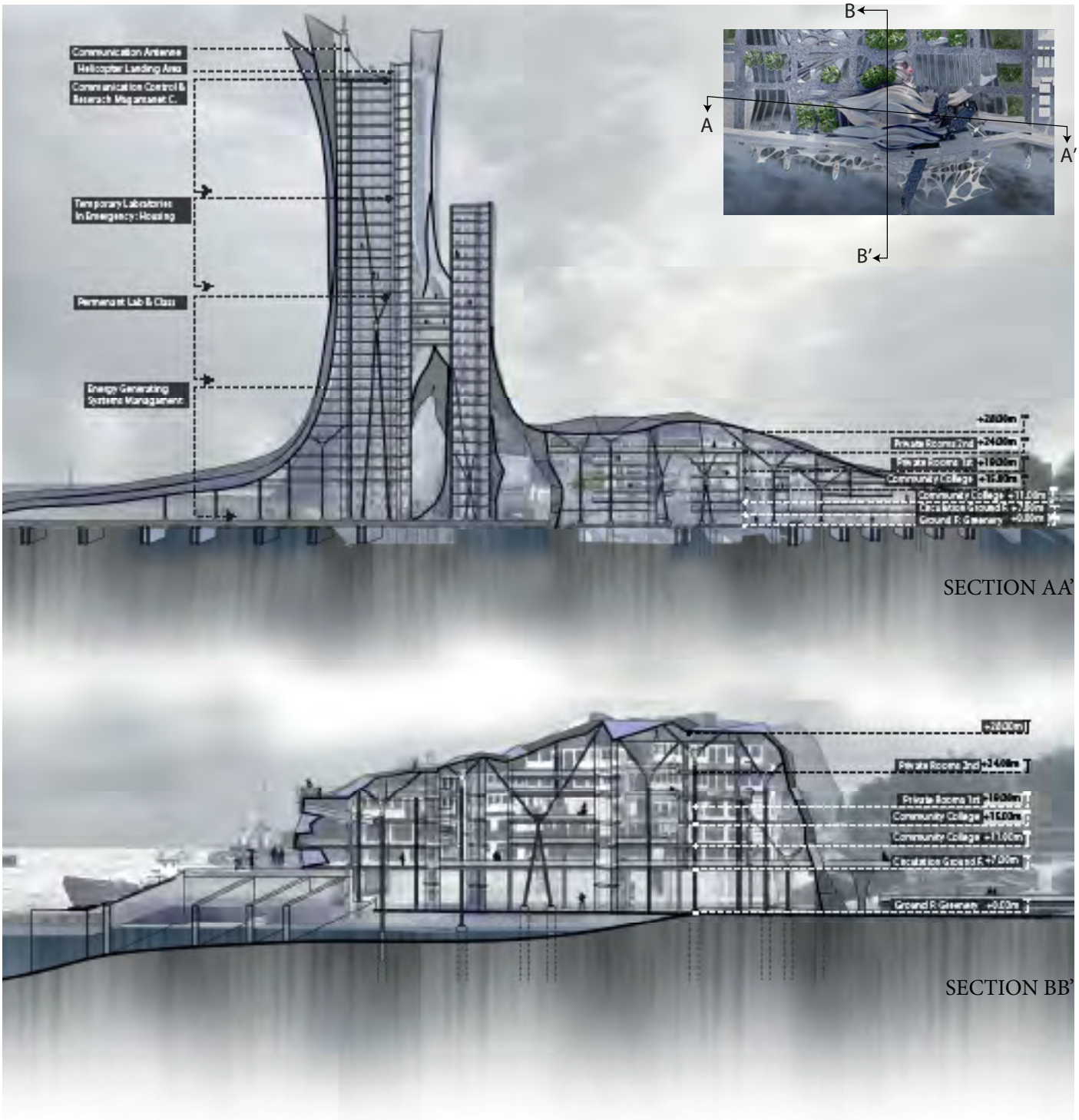
11.2 ELEVATIONS

SOUTH ELEVATION

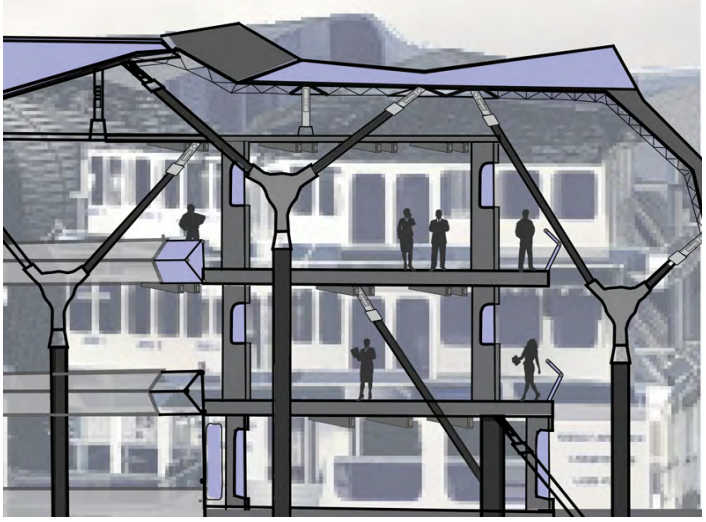


WEST ELEVATION

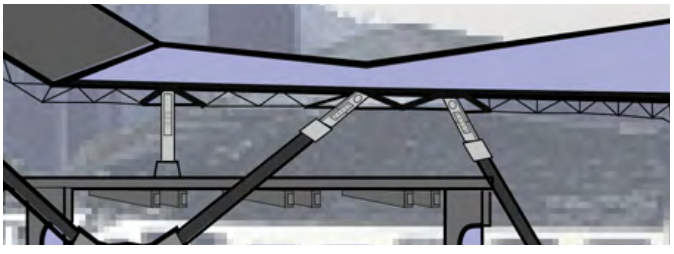
11.3 BUILDING SECTIONS



11.4 CLOSE UP DETAIL DRAWINGS

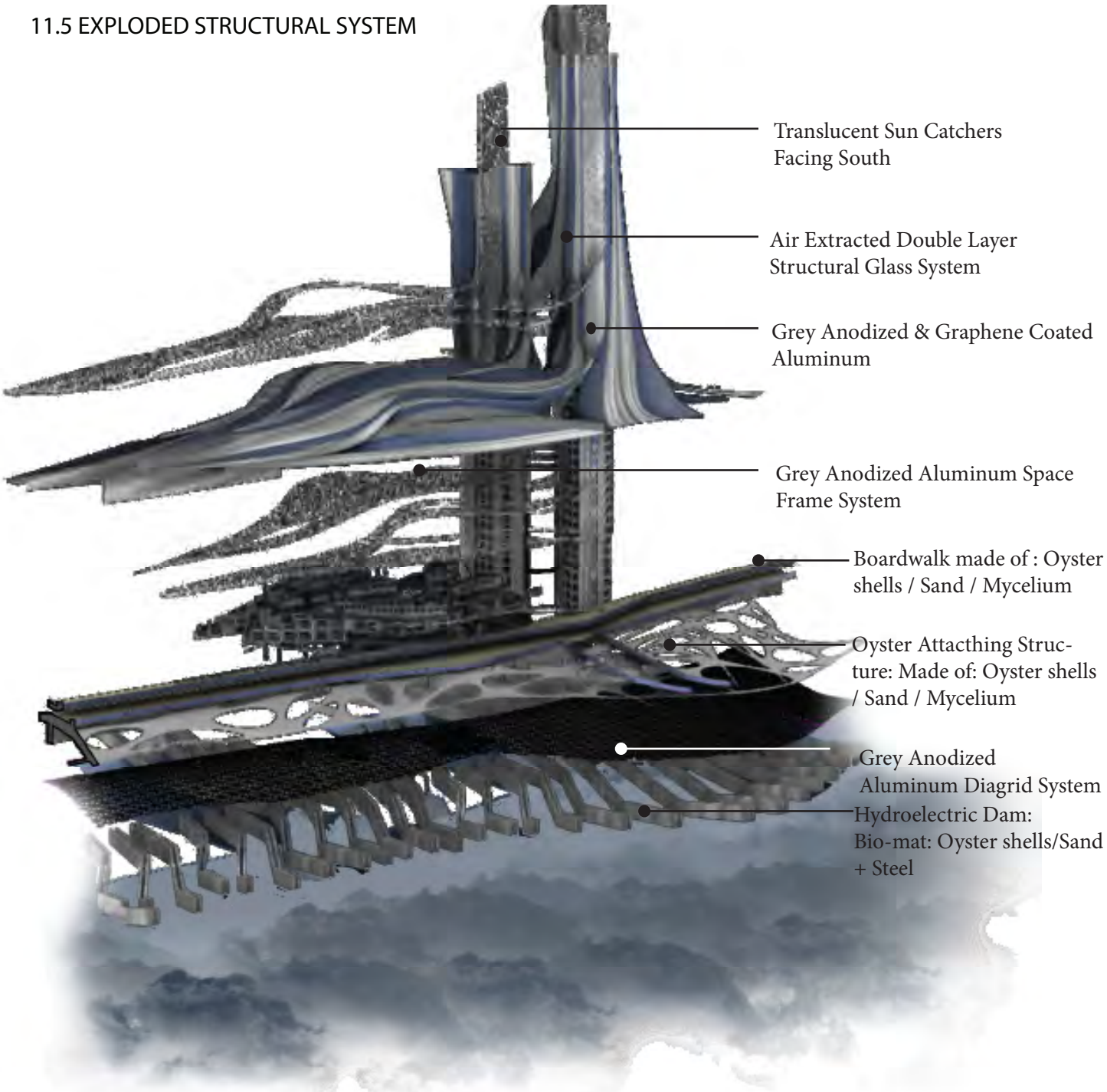


11.4.1 Column to roof structure detail

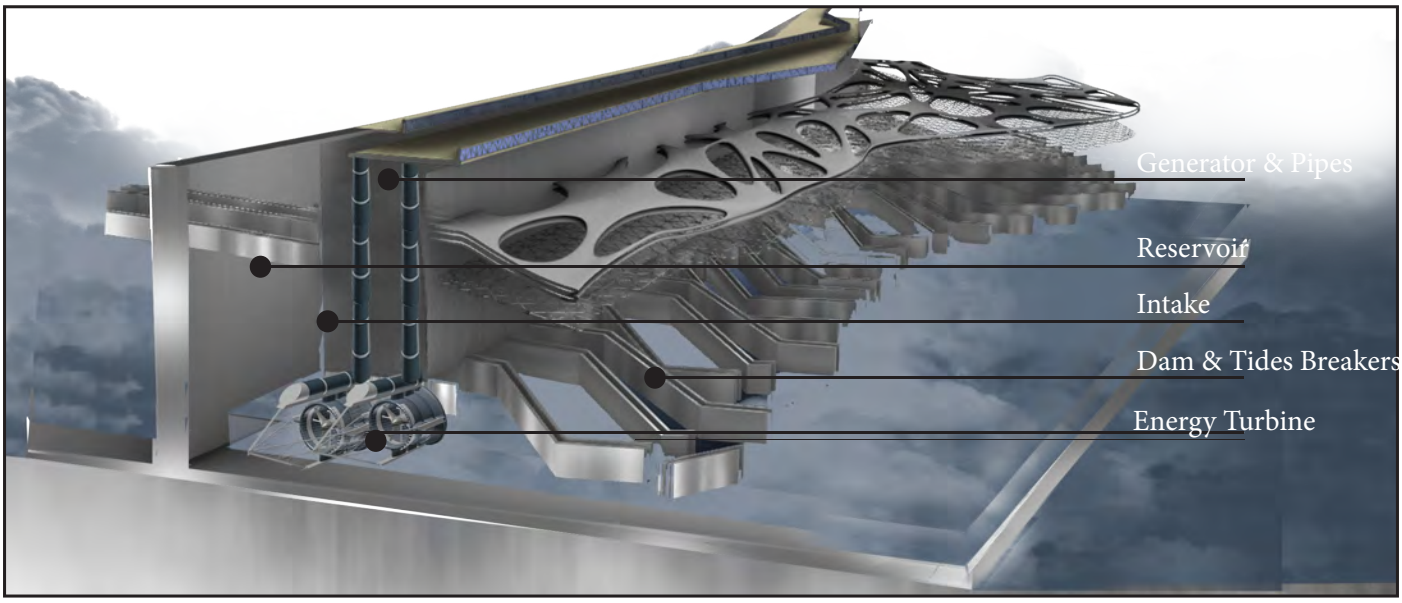


11.4.2 Column to beam detail

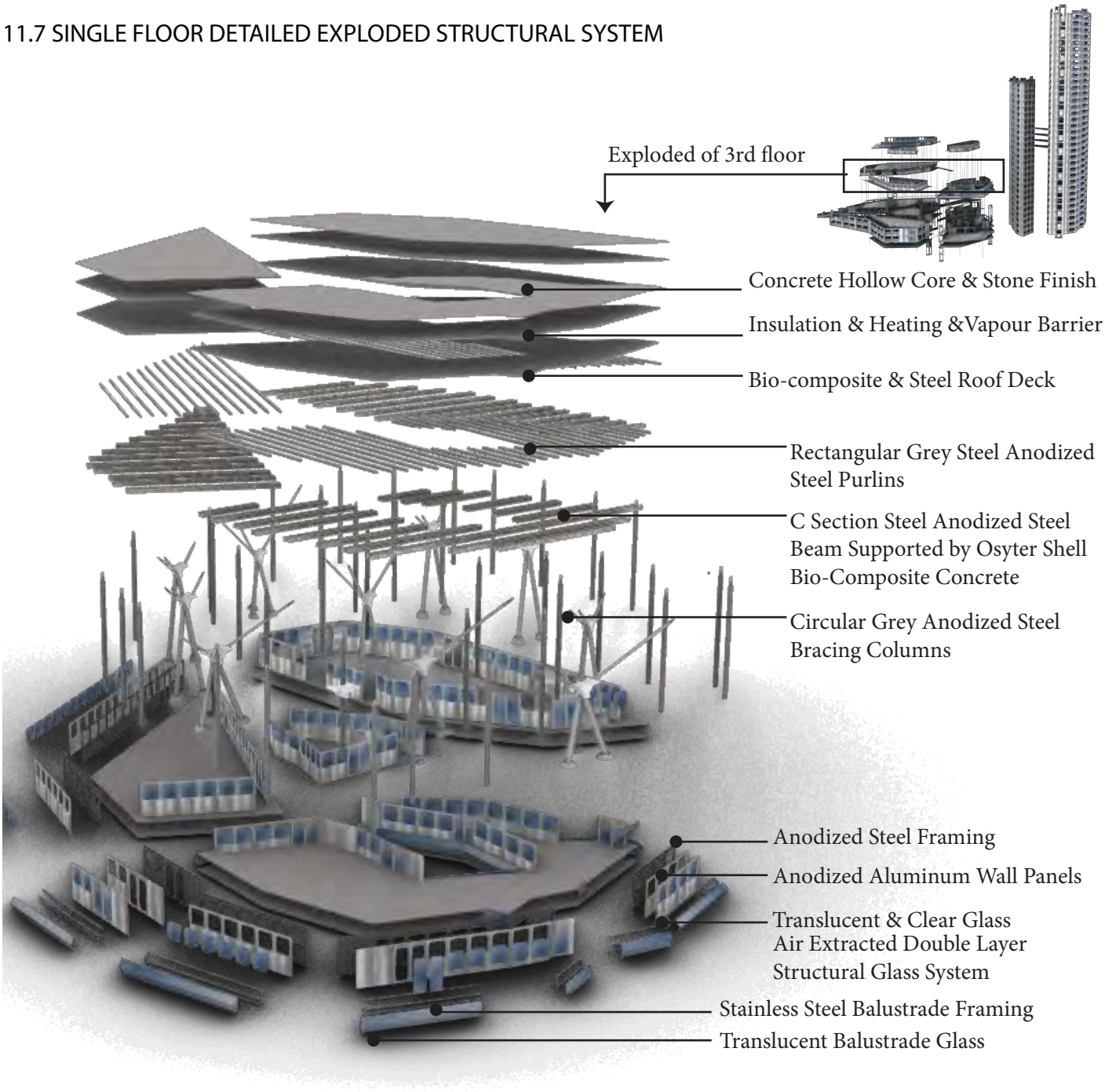
11.5 EXPLODED STRUCTURAL SYSTEM



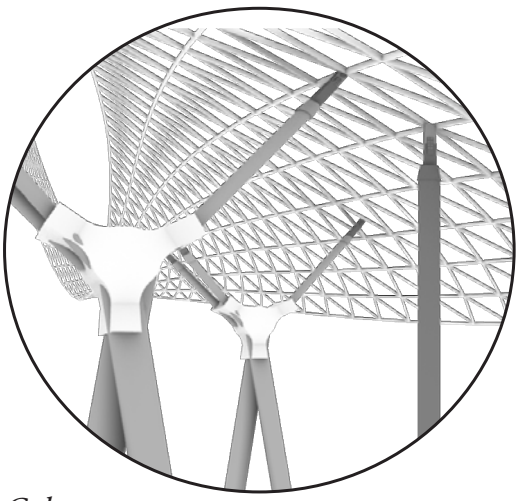
11.6 FLOOD & SEA LEVEL RISE & TIDES : HYDROELECTRIC DAM



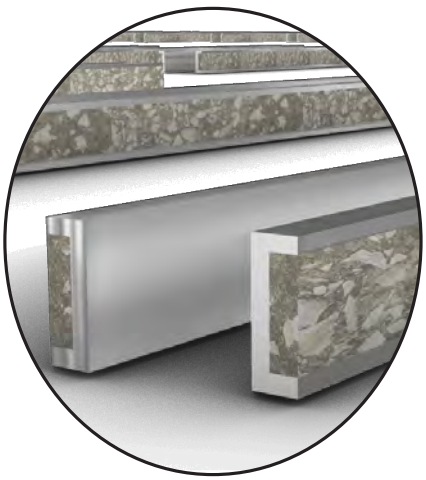
11.7 SINGLE FLOOR DETAILED EXPLODED STRUCTURAL SYSTEM



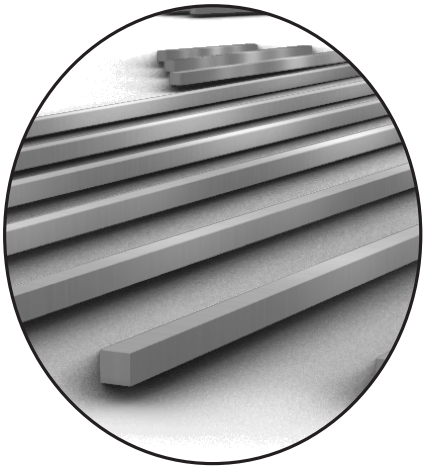
11.8 CLOSE UP DETAILS



Columns:
Circular Grey Anodized Steel Columns.
2 types: Braced-Non braced according to area



Composite Beams:
C Section Steel Anodized Steel Beam Supported by Osyter Shell Bio-Composite Concrete



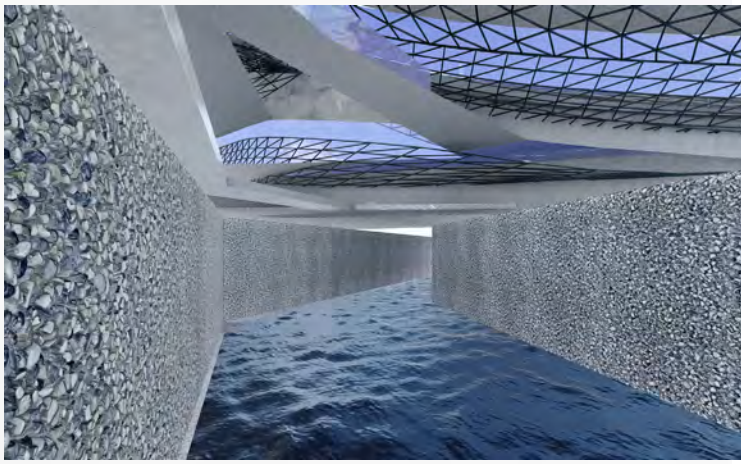
Purlins:
Rectangular Grey Steel Anodized Steel Purlins

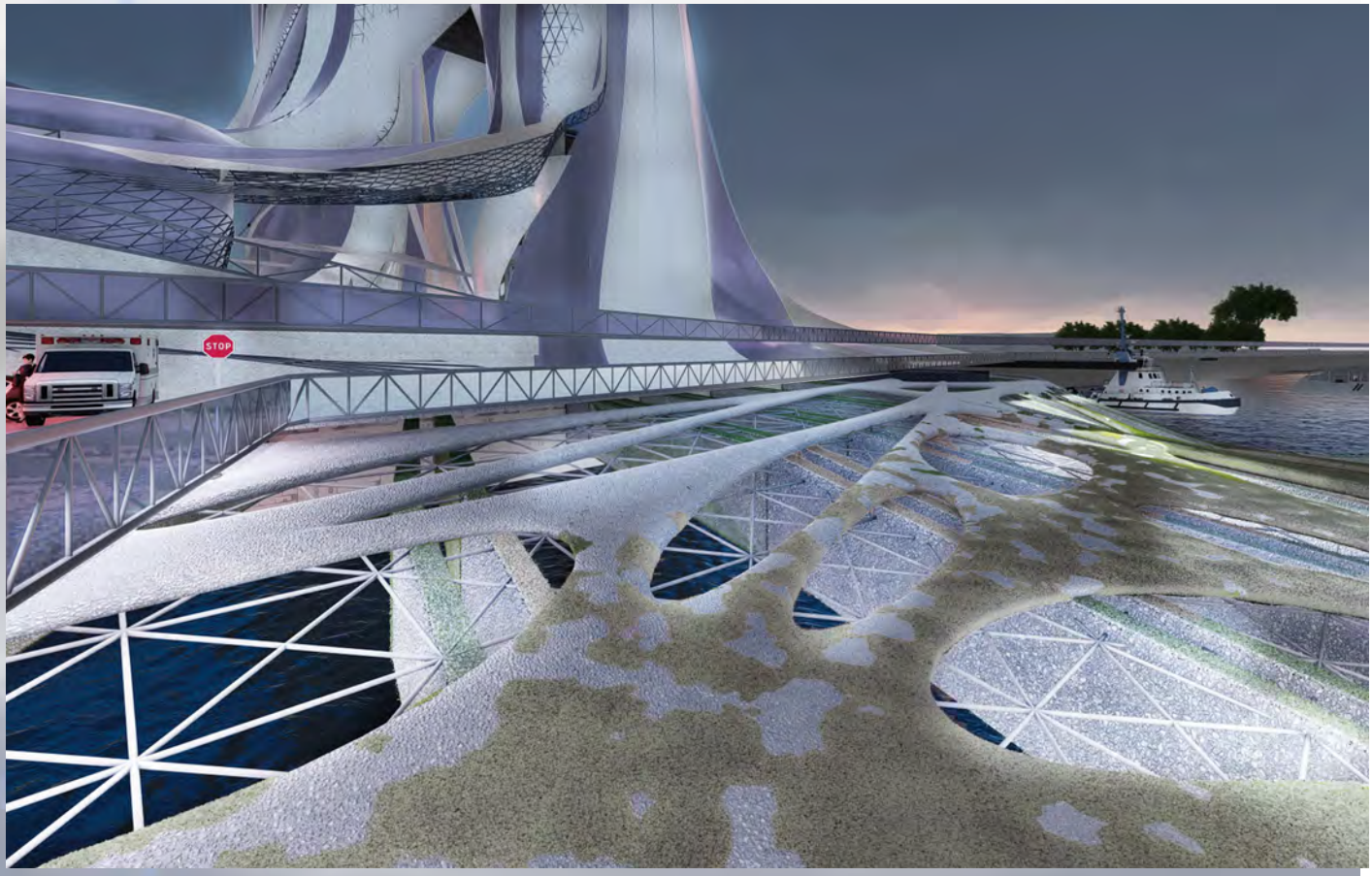
12. RENDERS AND ADDITINONAL STRATEGIES

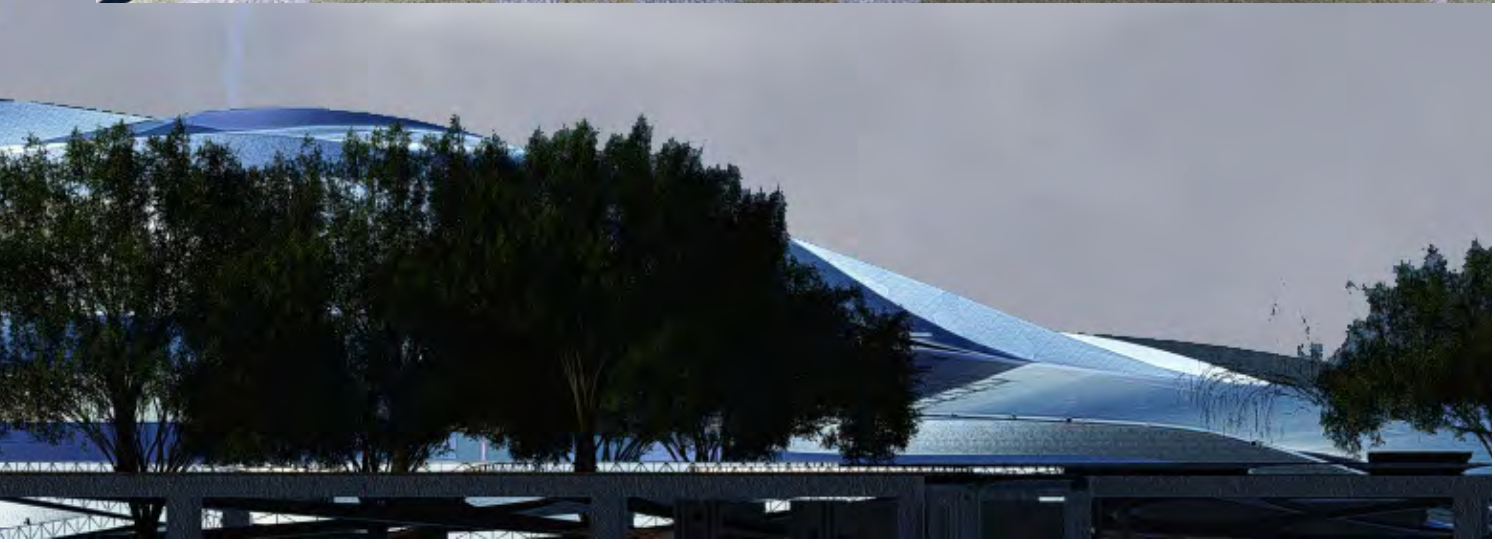
12.1 OYSTER STONES:

Base of the building and the dam-structures are made of biological and inorganic&organic materials that are eco-friendly. They will enable the soil to be strengeth with green methods and also will be a home to oyster to attach to it; to clean water.

1. Mycelium
2. Oyster Shels as mortar (In-situ Materials)
3. Sand (In-situ Materials)
4. Bacteria
5. Graphene





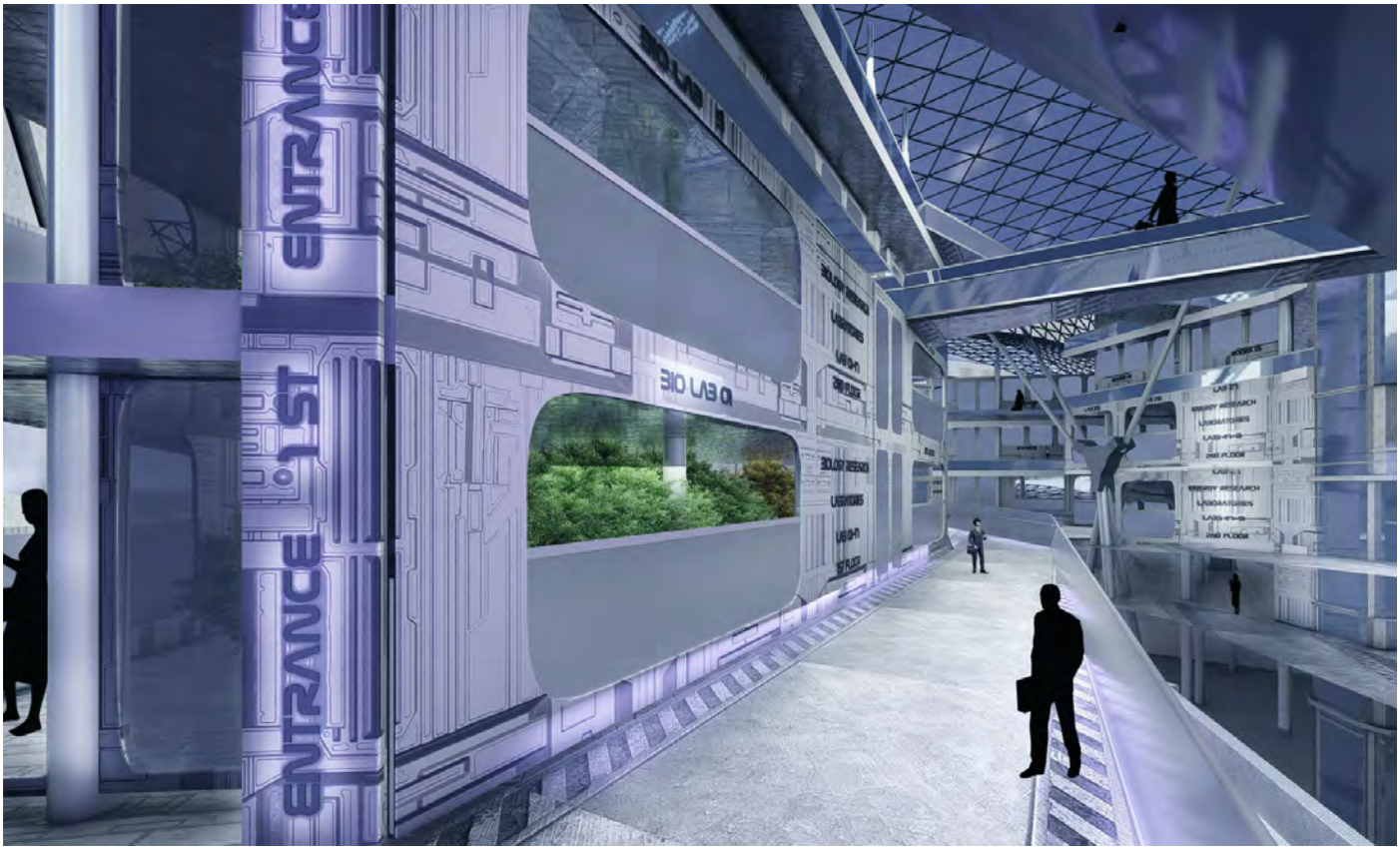


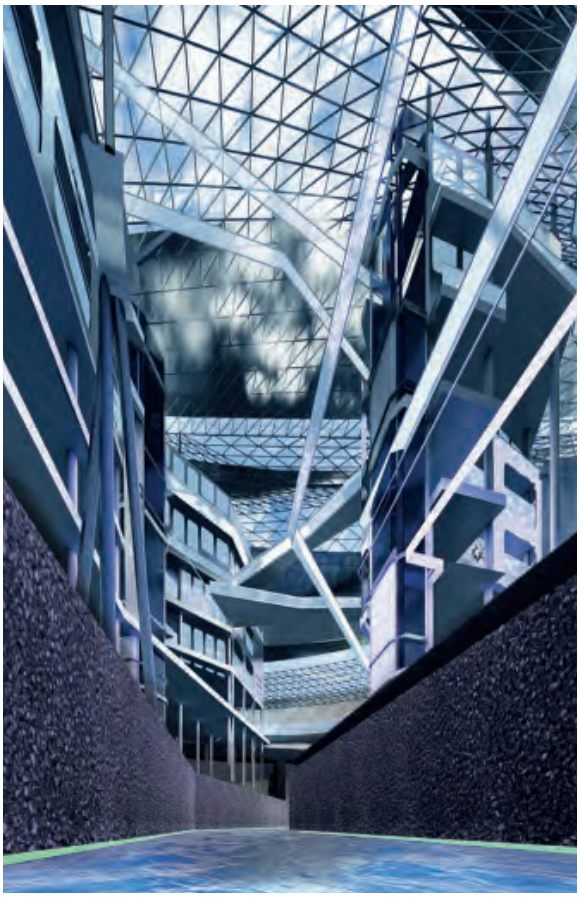
12.2 INTERIOR RENDERS : LABORATORIES

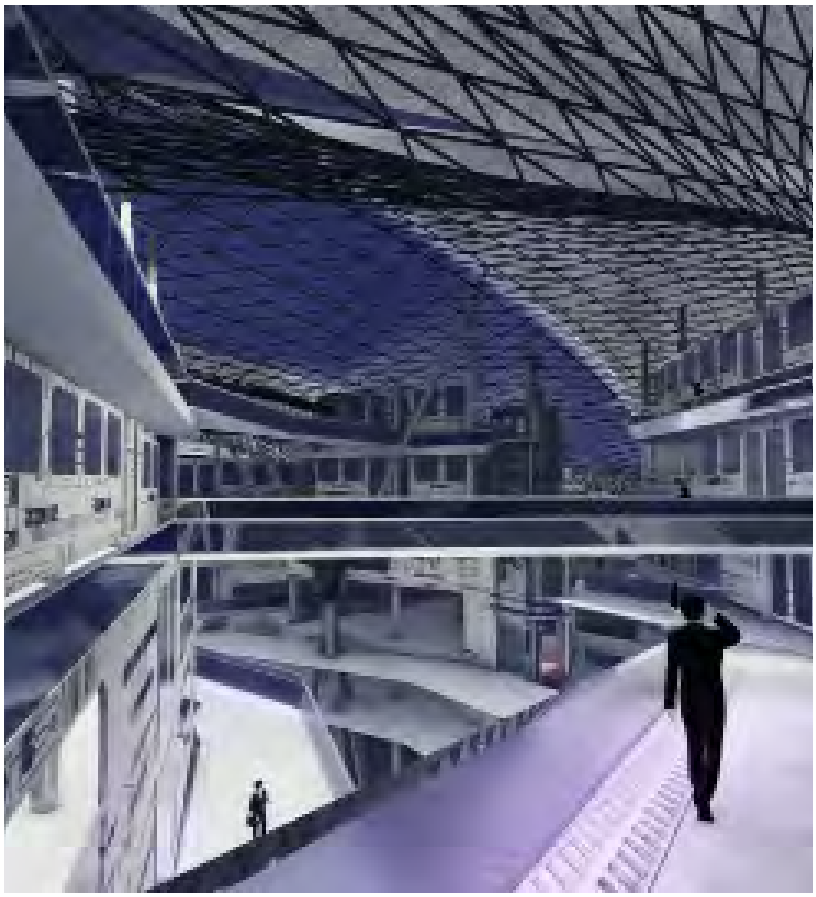
The labratories are having different functions.

1. Bio Labs : Algae Farming
   Oysters Resaecrhing Lab
   Bio-Based Future Material Research
   Greenhouse (Plant & Soil Lab)
2. Water Lab: Sanitazing the water
   Generating Energy From Water
3. Wind Energy Harvesting Labs

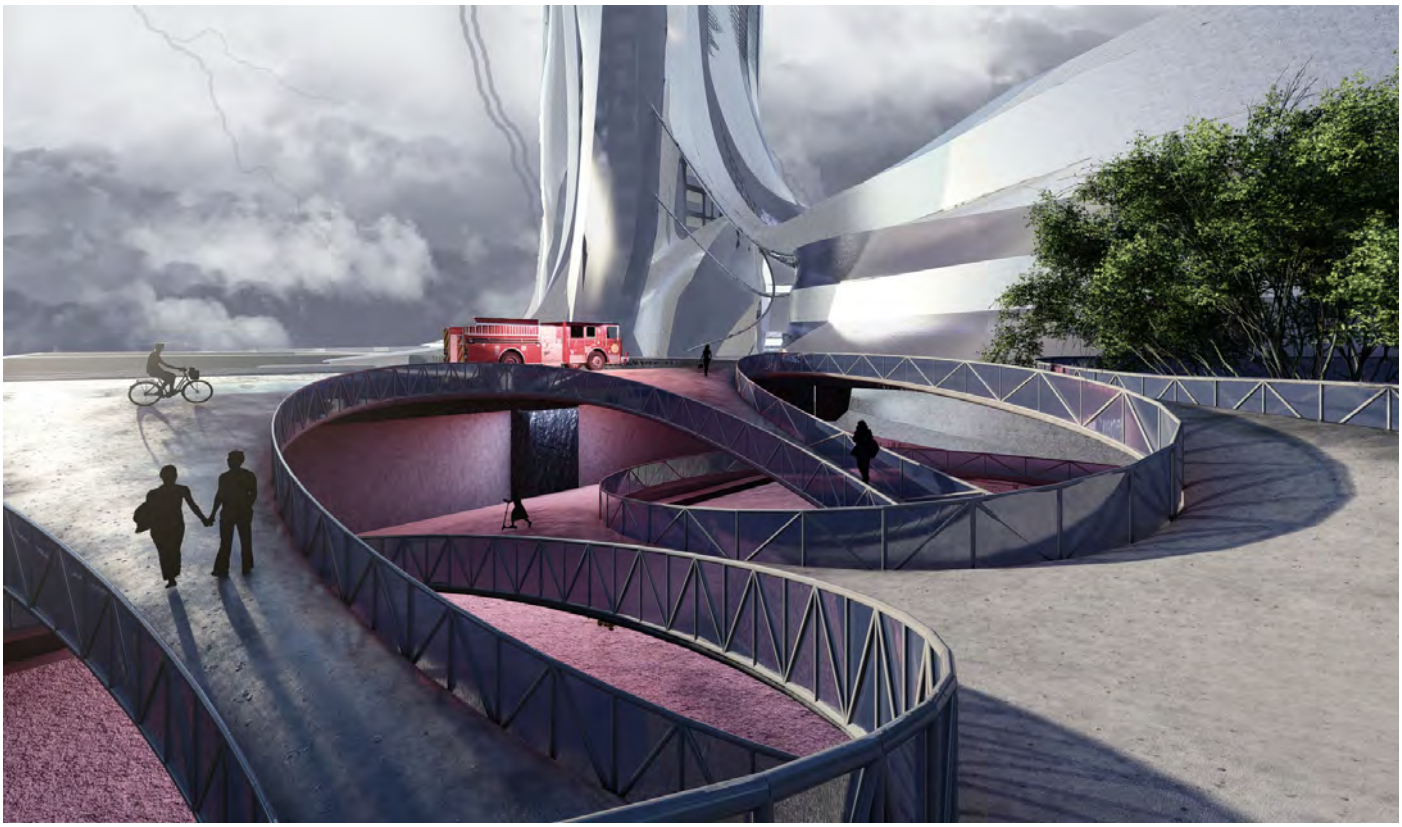
Additionally, there are private professor and student rooms.



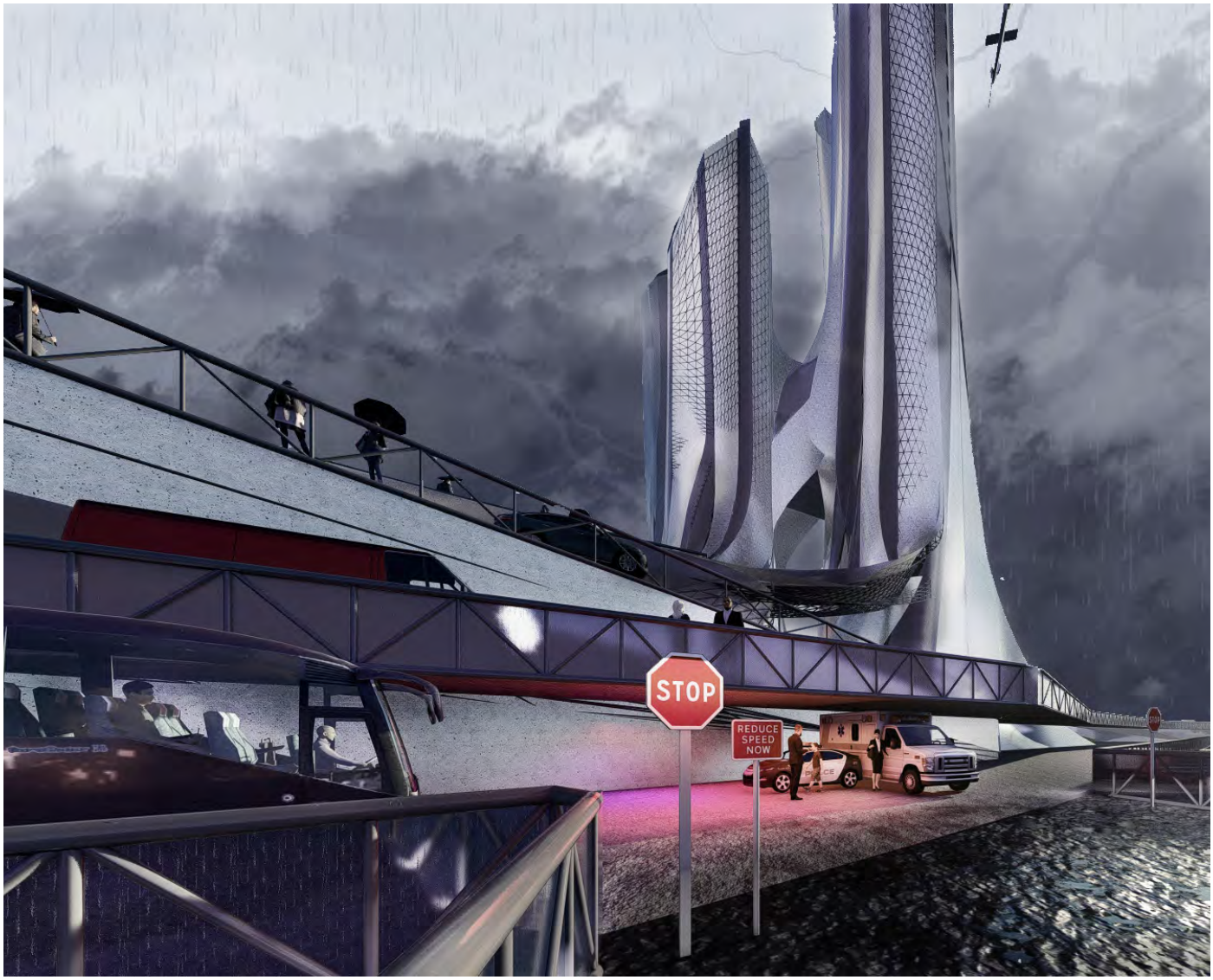




12.3 FLOOD PROOF LANDSCAPE



12.4 VIEW FROM BOARDWALK



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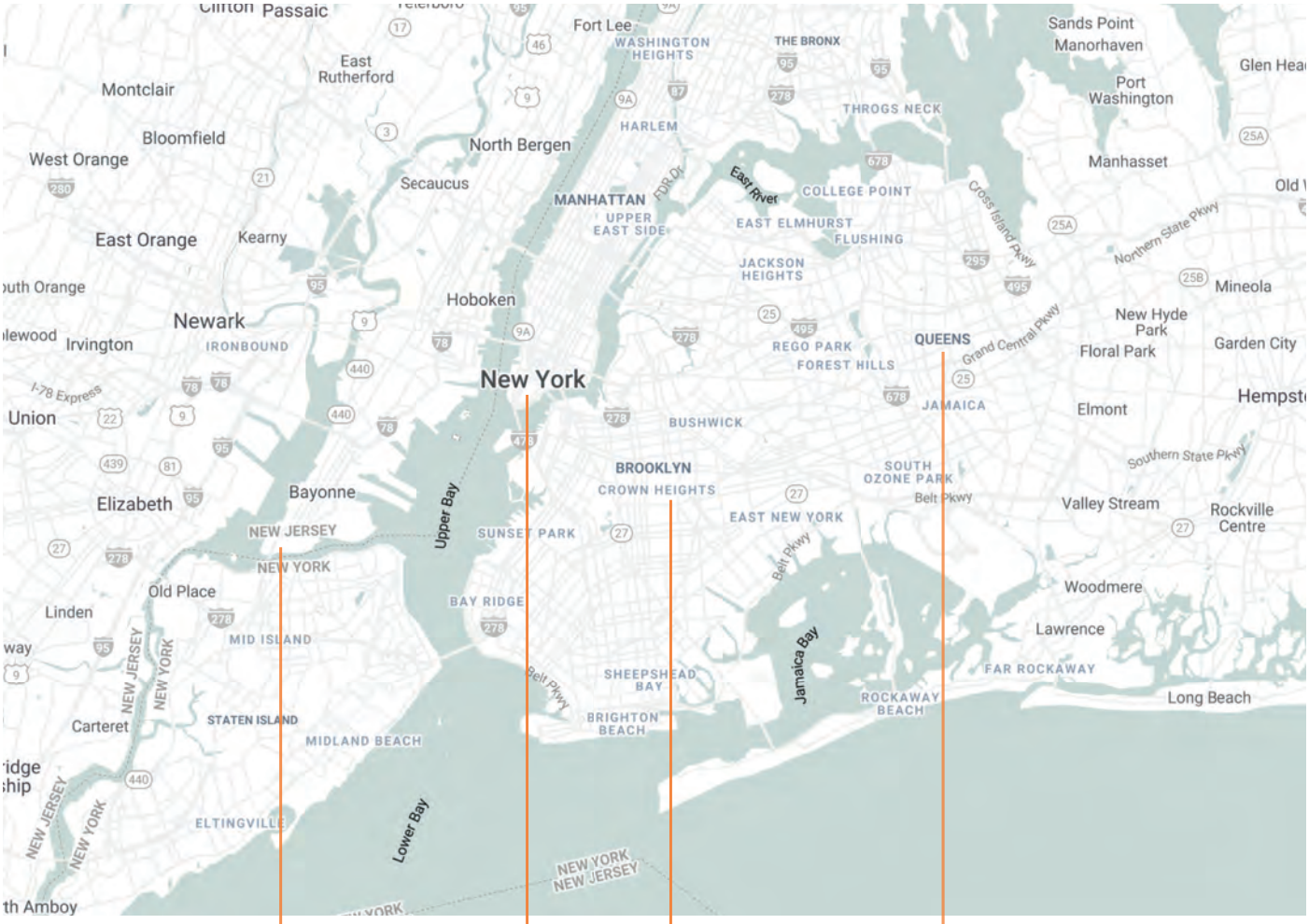
REVITALIZATION OF THE HUDSON YARDS: ELYSIUM NOT ANOTHER OFFICE TOWER IN NEW YORK

DORUK TOPKAYA

REVITALIZATION OF THE HUDSON YARDS: NOT ANOTHER OFFICE TOWER IN NEW YORK

DORUK TOPKAYA

Hudson Yards is located in the lower-west Manhattan, in New York, United States of America. New York, one of the most cosmopolitan, crowded, and densest cities in the world is currently in need of space for creating more job and housing opportunities. There is nowhere suits the needs of New York but Hudson Yards for this case, with being a prime waterfront part of the west-side Manhattan. In addition to that, the municipal planning and support were crucial: the city invested vastly in the infrastructure around the development. Hudson Yards is currently under revitalization. Various architectural firms are working in the site for creating a city in a city, designing buildings with different functions that can sustain life for the New Yorkers, on their own. This revitalization is the largest private development in US history, which costs approximately 25 billion USD. The aim of this revitalization is to create more space for the economy of New York to grow and creating a new community, in simplest words. In this development, I will be working on a mixed-use high-rise complex, focusing on designing an office environment for the post-covid phase. The difference of this megastructure will be the integration of common functions in office and residential units to form an optimized office environment, that will be adaptable for the Covid-19 and the future threats by creating social, public, and user-friendly spaces just like a regular office but, much safer, private, distant in the comfort of a home, that are located nearby the residential units of the employees.




New Jersey Aerial View


Manhattan Aerial View


Brooklyn Aerial View


Queens Aerial View

New York

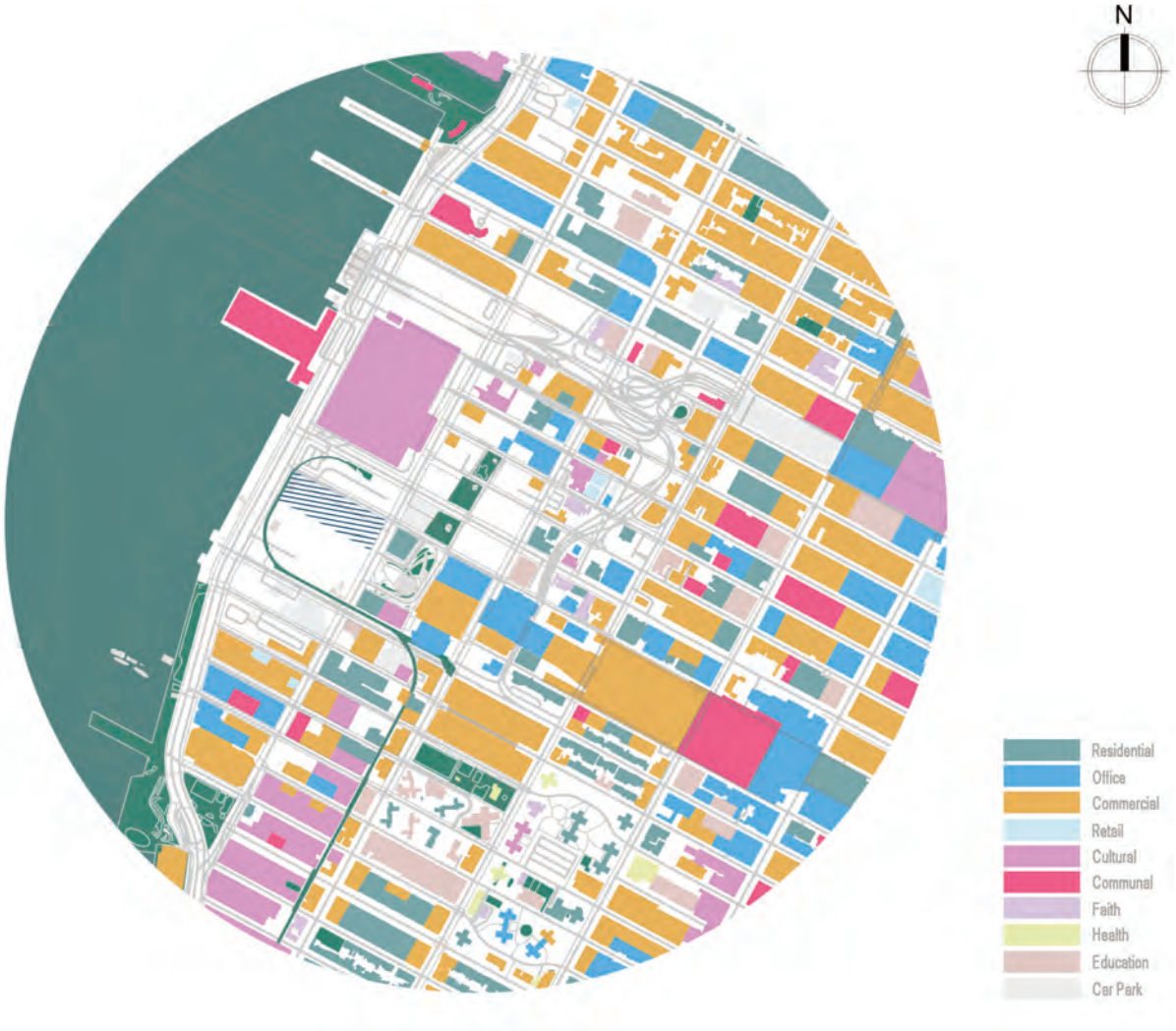
New York is a highly populated dense city, which hosts people from various ethnicity and religion. These days the city is coping with various problems.

Even though the economy of New York is huge, not all New Yorkers are living in welfare. There are a lot of people who would not be able to pay their rent in case of 3-month unemployment. In general, the salary of the people may be higher according to other states, however life is more expensive too. The rents and prices of the houses are mindblowing. In addition to that homelessness becomes a great issue, since people are having a hard time paying their rent they do either leave the city or live on the streets.

This Covid-19 case has already affected many people and has caused them to move out of the city. Since their offices are closed and life has stopped, people no longer have to stay in the city and pay record prices for their rent and living expenses.

There are also many environmental concerns. Lack of greenery is an undeniable truth of New York City. People are detached from nature, that they are coming. Other than that, high levels of chemicals in the state's drinking water, flood management hurdles, and methane emissions from food waste are some of the concerns, which pose a vast problem for New York.

The lack of space to grow is a major problem. Currently, in New York, there is a demand for free spaces to construct new buildings for office and housing units. With these constructions, growth in the economy is aimed. However, the search is hard because finding a spot that would meet the needs of these kinds of buildings in this highly constructed and dense city is almost impossible. Tearing down old landmarks is not a favored action and finding an available space in New York that meets the standards for mega constructions is a really low chance. But, there is one place, the last frontier of New York, Hudson Yards.



Land Use Diagram

Hudson Yards, Lower-West Manhattan

Lower-west Manhattan is a well-developed neighborhood full of various functions, that are homogenously spread in the site. One can reach any kind of need and find any kind of activity. However, there are some industrial ruins and abandoned units that occupy valuable spaces, which need revitalization. Since the neighborhood used to be an industrial zone in the past, its residues are easily recognizable. Among all the new and well-functioning units, there are old and abandoned ones, which need either a renewal or a demolishment; for new developments and opening space for greenery elements.

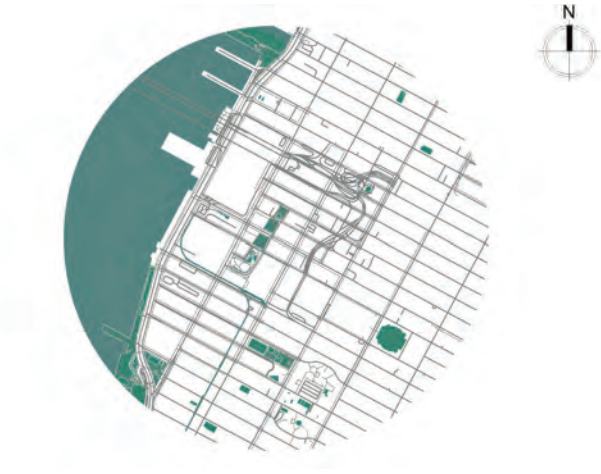
The project site, Hudson Yards is located in the Lower-west Manhattan, New York, nearby the Hudson River. Hudson Yards is currently under private development. Various architectural offices are working for the revitalization of the site independently by designing residential, commercial, cultural, retail, and office units. The site currently consists of industrial units, parking lots, and train rails. The area of the site is 28-kilometer squares. This megaproject is the largest private development in the United States history with a cost of 25 billion USD. The main goal in this development is to design the future of urban living, creating a new community, and playing a crucial role in the growth of the New York economy.

Once the construction phase is over and the project comes alive, it is assumed that the megaproject will host approximately 55,752 people a day and it will contribute 19 billion dollars annually to New York City's GDP and generate more than 500 million dollars in city tax revenue.

This megaproject is seen as the future of urban development and work. It is a well-planned city-within-a-city, which allows people to live, work and play in one place, and no one has to ever leave, because everything is already there.

I will be a part of this megadevelopment, and revitalization of the Hudson Yards, to create a new community, be a part of designing the future of urban living, and designing a mixed-use office and residential unit for the post-Covid-19 phase. My design is an ambitious experiment in urban planning, sustainability, and building technology. It has a diversity like the New Yorkers. As a different approach than the rest of the architectural firms on the site, without economical worries, and its requirements I created an experimental perspective to this megadevelopment, as an academic work.

Figure-Ground Diagram



Street Pattern Diagram

Public Transportation Infrastructure Diagram

Traffic Analysis Diagram

SITE ANALYSIS

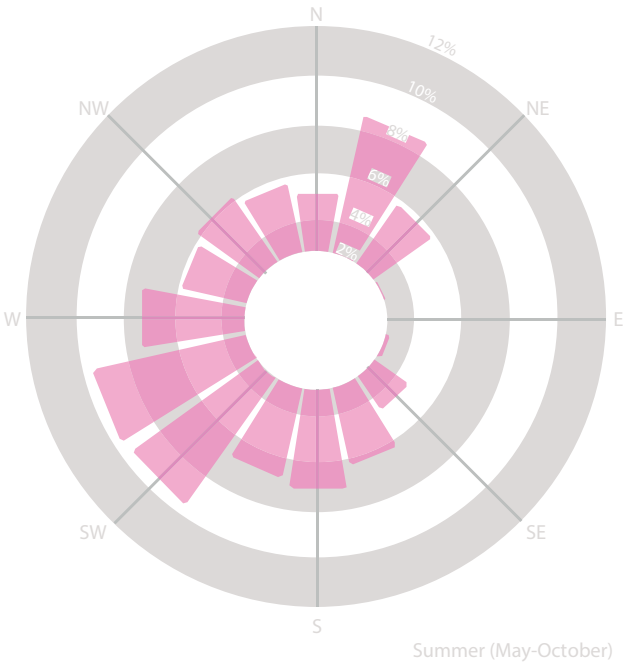
Hudson Yards is in far lower-west Manhattan, New York, United States of America. The site is bounded by 34th and 30th street to the north and south, and by Tenth Avenue and the West Side Highway to the east and west.

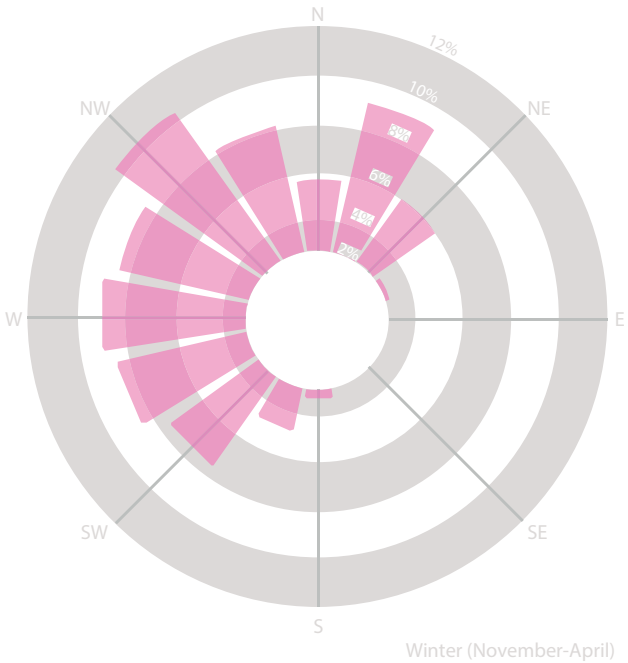
The site is located nearby a water feature, the Hudson River. The river flows in the North-South direction. Due to its unique location, the site has a great view of the river and New Jersey from the opposite side of the river. The site is not lucky in terms of having a connection to greenery, as much as its connection to the water element. Lower-west Manhattan has almost no greenery like the rest of the concrete jungle of New York. However, Hudson Yards has direct access to the nearby passing green pedestrian high-line, and a park named Bella Abzug, which has a size of three blocks and is located on the north end of the site. Other than that, the site is very dense in terms of the man-made environment. People are detached from the nature that they are coming from and they are losing the bond between them and nature, day by day.

Urban planning in Manhattan, New York is a very successful example of grid planning. The city is mainly formed of a specific size of rectangular blocks, which has a great order and discipline. However, it is a lack of variety and uniqueness between the blocks.

The infrastructure around the site is well-developed. There are various bus stops, subway stations, taxi stations, and parking lots around the site. The site is on the United States busiest rail yard with 30 active train tracks and 4 train tunnels. Few helicopter pads are located nearby the site if someone wants to visit the site with a helicopter. Moreover, the municipality did also spend a lot of time and money on the development of the infrastructure around the site. The municipal investment included extending the No. 7 metro line to connect Hudson Yards, which means building a new subway station, which is a first for New York in the last 25 years. Other than that, the green pedestrian high-line was extended to cover the western side of the development. In addition to these, transportation to the site and from the site is very easy and there are various options. Which makes this site extra attractive.

Around the site, there is not much traffic, when the case of New York is taken into consideration. The site being located at the edge of Manhattan might be one reason for that. Well-developed infrastructure results in fluid traffic around the site. However, the use of public transportation in New York is very high. People choose public transportation or cycling over personal vehicles because it is easy, economic, and far less time-consuming.





Wind-Rose Diagram

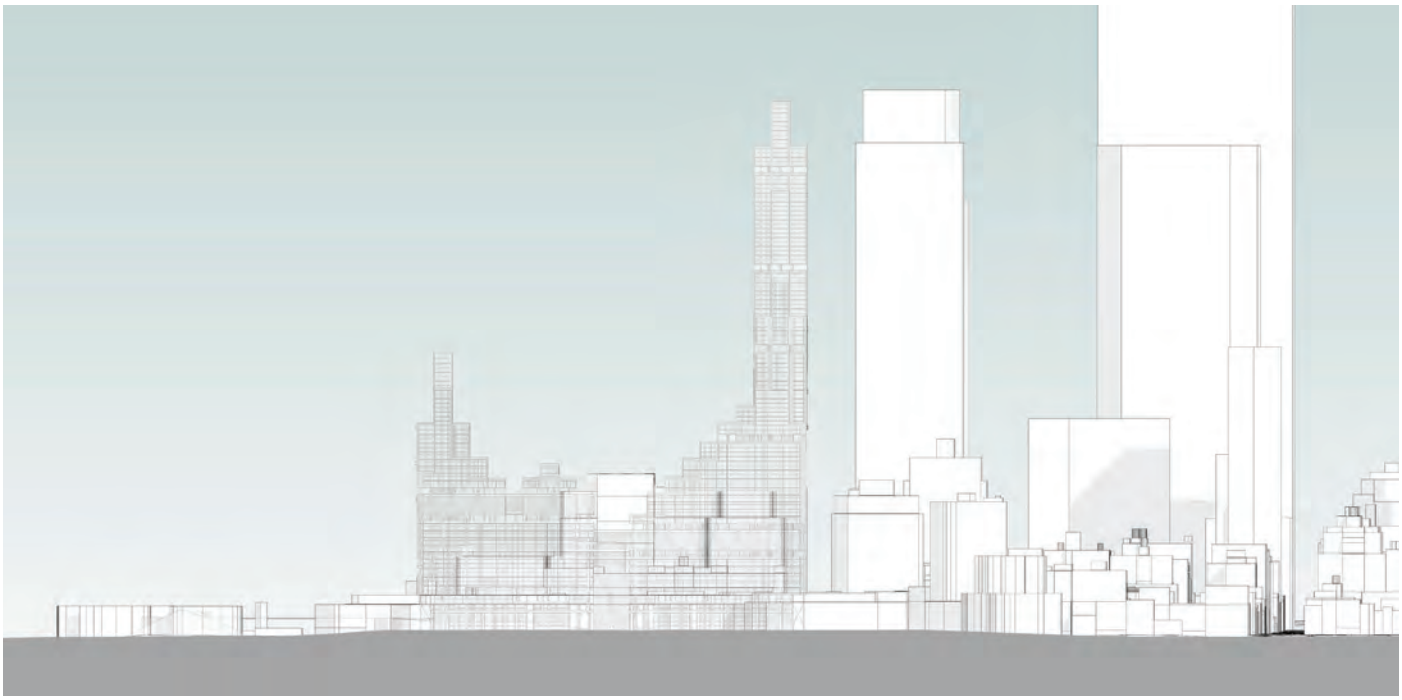
Hudson Yards has located nearby the Hudson River and takes strong winds from the North East-South West direction in the summer season. In winter seasons the strong winds continue to hit the site from the North East-South West direction, with a lower intensity. However, in winter additional and stronger winds starts to come from the North-West direction to the site.

The site is under strong natural force, wind, throughout the year. Which shaped the building in terms of creating voids, opening wind corridors for not disturbing the wind flow and reducing the force of the wind that is applying on the building, and placing terraces between walls to reduce the wind intensity. Other than that, a strong structural system and a durable façade system with modular floor configurations are designed for dealing with the wind.

The site has a very easy topographical condition for construction. The slope is very low that it is almost impossible to notice. The elevation difference between Tenth Avenue and the West Side Highway is 4 meters. Whereas, the distance between the two ends of the site is 507 meters. Which creates an approximate slope of 0.8%.

The altitude of the site is +/- 0 meters.
The altitude of Tenth Avenue is +4 meters.
The altitude of the High-line is +7 meters.

Other than the current elevations, a platform will be built, which will be covering all the sites for the train tracks to continue their activity. The platform's base altitude will be the same as the altitude of Tenth Avenue, which is +4 meters.



Site Section from South East to North West

Enlargements Through the River

New York's Manhattan Island was not always the way it is today. In the past, Manhattan Island's coastline was not extended through the Hudson River as much as today. From 1650 to 2020 there were three phases of extensions, which provides three blocks of spatial increase in every direction.

There were three years, which is easy to analyze the growth of the island. From 1650, the first enlargement was in 1800, then 1965, and then 1980.

Back in 1836, some of the Hudson Yards and almost all of the proposed sites did not exist. In time water levels had decreased and some of the lands came out. Then, a constructible ground is built over the exposed land. In time, with the increasing need for more space for construction, artificial floorings and docks are constructed. This enlargement also decreased the elevation level on the coastline.

The decrease in the water and construction on the exposed land with building artificial land and docks creates space for construction, however, time by time, water levels increase and floods happen.

Hudson Yards Flood Hazard Map

Precaution For The Future Floods from BIG's U proposal

Floods & Proposal

Floods are the inevitable reality of today's New York. In New York's Manhattan Island, floods do happen from time to time, when intense storms happen and water levels increase.

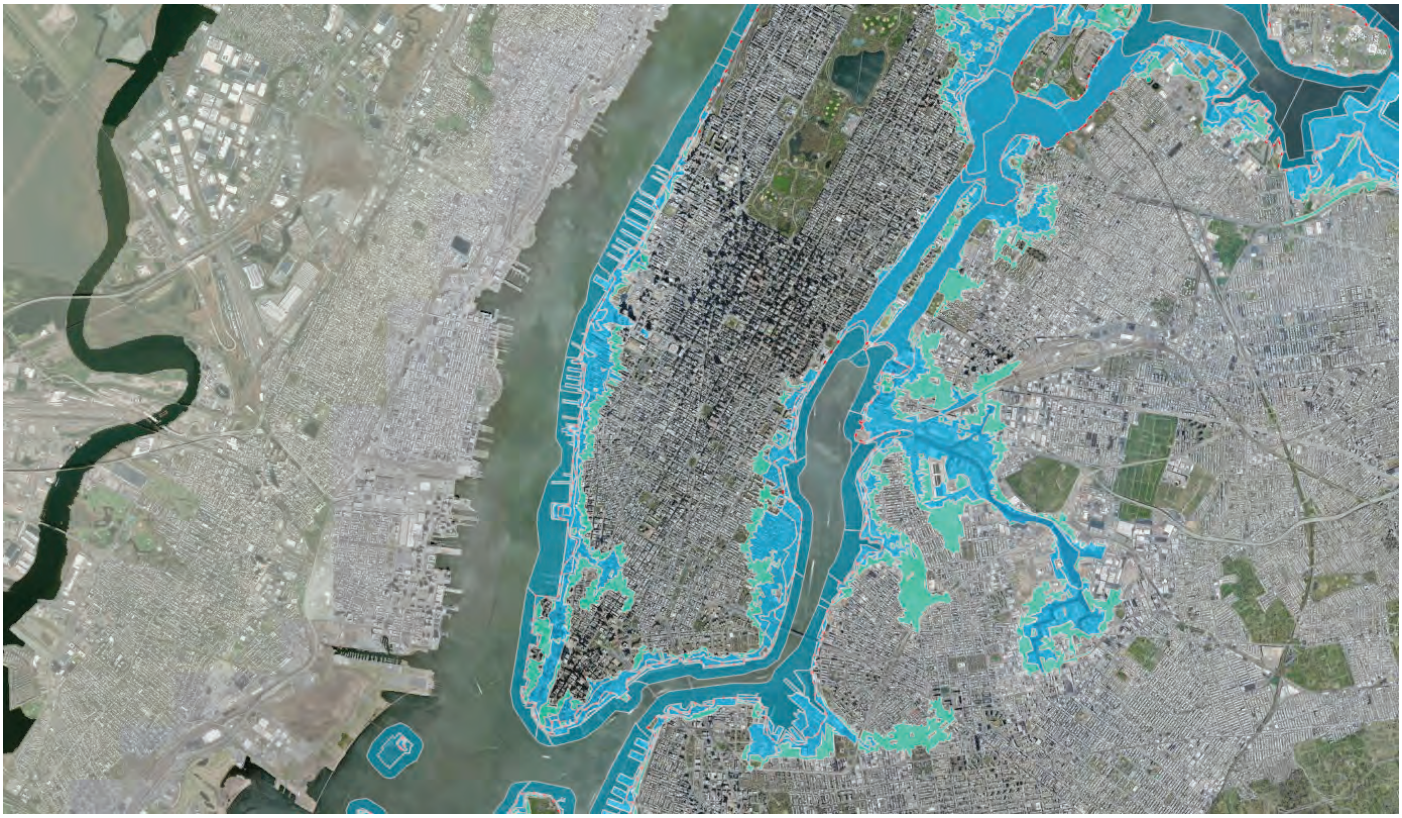
It is now a known fact, that storms and water level changes are impossible to prevent, so we should take some precautions and be ready for the next floods.

Greening the edges of Manhattan Island and shaping the topography, by giving it a higher slope could be an answer.

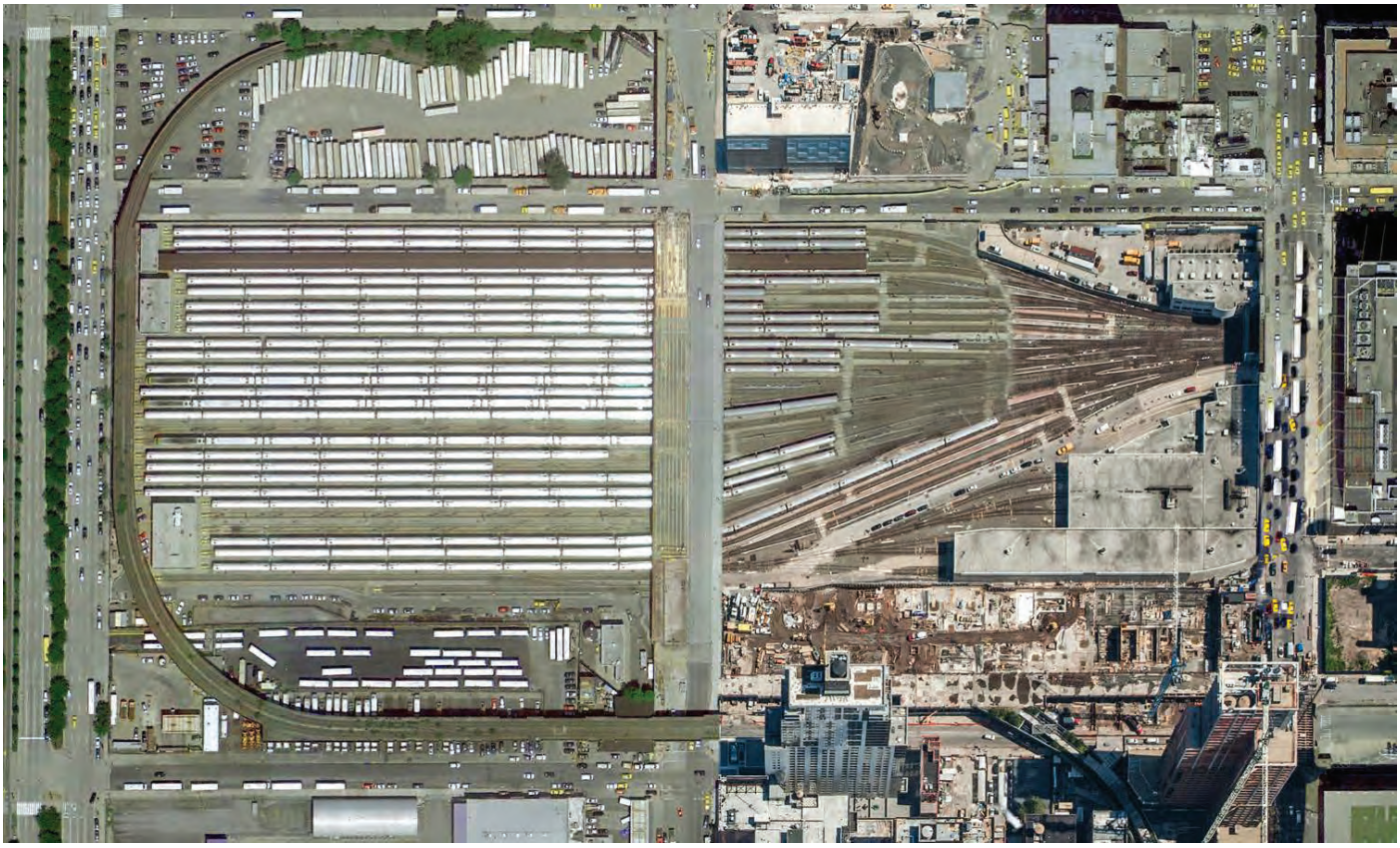
The edge of the site near the Hudson River will extend through the river with a sloped topography, which rises through the site. The topography will be vegetated. In case of a rise in the water level, the topography and the greenery will hold the water.

In addition to that, some units will be located on the edges, that will fully function in regular times and also will be used when the water level rises.

Since the site will be green and located nearby the river, it will also be an attraction point for the people, rather than being just a precaution for floods.



Manhattan, New York Flood Hazard Map



Top View of the Site Before Construction, Rail Yard

Rail Yard & Proposals

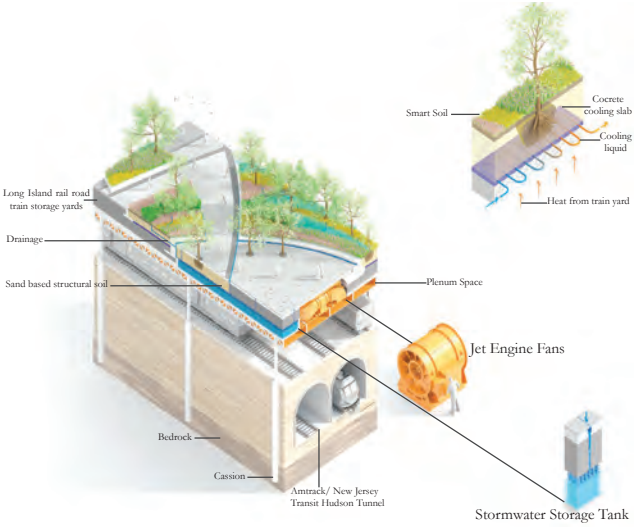
The majority of the site is consists of an active rail yard, that contains 30 train tracks and 4 train tunnels, which makes it the United States busiest rail yard. Building on these tracks is a very challenging task since the train tracks must be still functioning after the construction.

The proposal for overcoming the issue is building a platform over the rail yard. With a well-developed structure: 300 caissons of 1.2-1.5 meters in diameter extending from the bedrock up through the rail yard roofs. These foundations are anchored 6-24 meters deep in the ground and placed between the tracks to allow uninterrupted rail traffic.

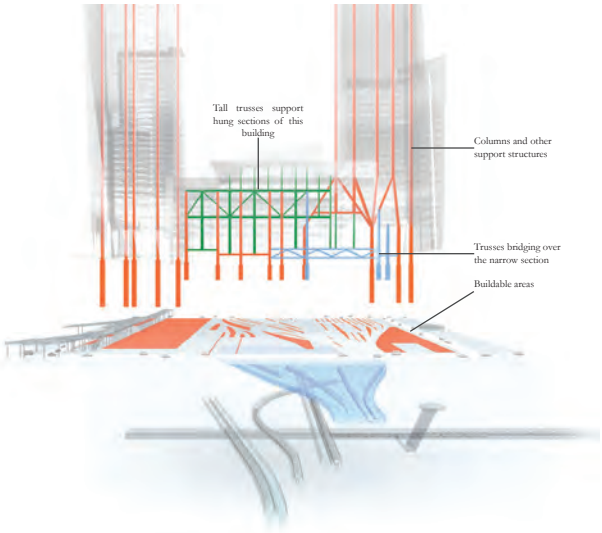
Moreover, buildable areas on the platforms are limited. Due to the location of tracks, underground tunnels, and utilities, only 38% of the site can be used to support structures.

Other than that, space for greenery on the platform is limited so, soils have been specially designed to provide effective drainage and nutrients for the plants and ensure roots can run wide, if not deep.

The last but not least, special cooling elements are used since the train tracks heat up to 150 degrees of Celcius. To prevent excessive heat, jet engines are used.



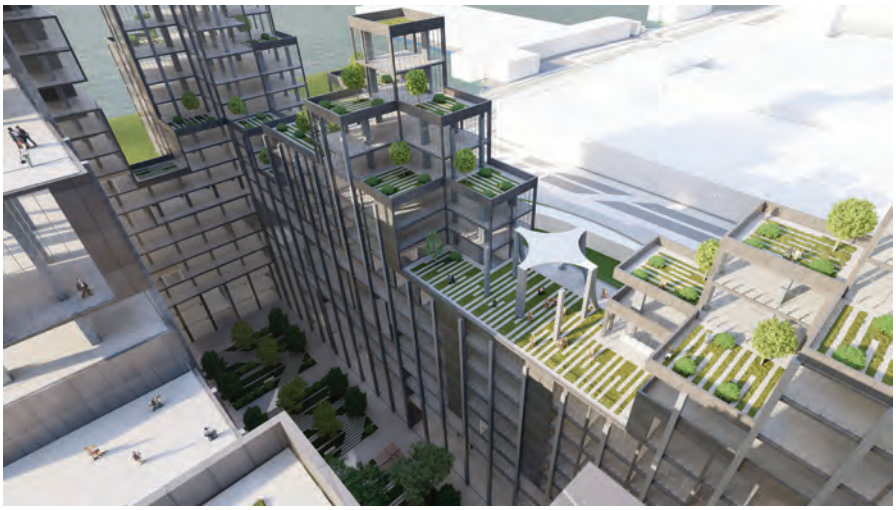
Train Tunnels Proposal Diagram



Platforms & Structure Over The Train Tracks

View of the Building with the Landscape Elements

View of the Courtyard with the Urban Furnitures



View from Green Terraces to River and the Courtyard

Long Looking For The Nature

People of New York are detached from nature, that they are coming from. They are losing their bonds and becoming more of a stranger day by day. Being in nature for people and feeling the bonds between them and nature, makes people feel better. So that, the interpretation of green into the site is very important for renewing the connection between humans and nature.

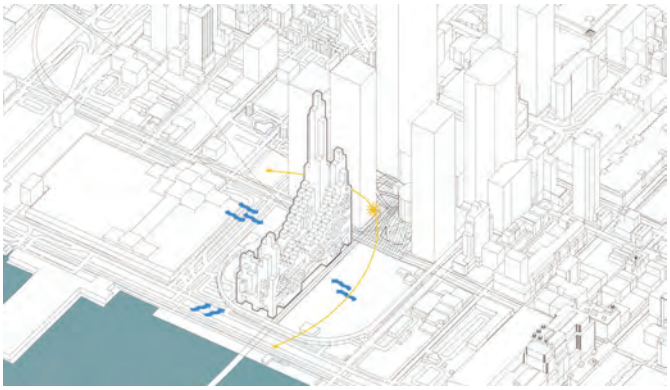
The plantation is not only essential for human beings, but it will also reduce methane emission, purify the air, create a micro-climate, collect the water in case of a flood, and become a home for a variety of living creatures.

On the site, the use of large trees and expansive perennial gardens will be home for migratory birds and pollinators. Moreover, wildflowers will attract bees and butterflies.

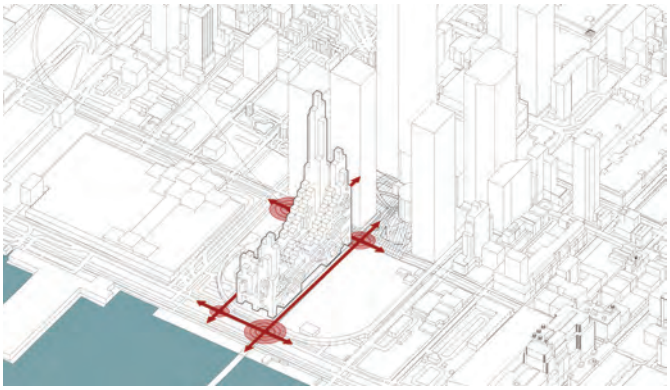
For the plantation, diversity in species and range in size is wanted, just like New Yorkers. Other than that, not only having parks and trees on the platforms but integrating them on the buildings should be another concern for a next-level connection between humans and nature.

Far Lower West Manhattan Site Plan

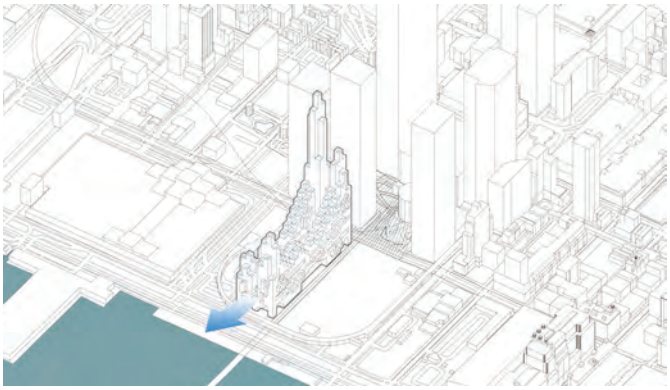
Site Analysis



The site takes strong wind forces from North-East and South-West during the whole year. In addition to that, during winter, the site takes strong wind forces from North-West.



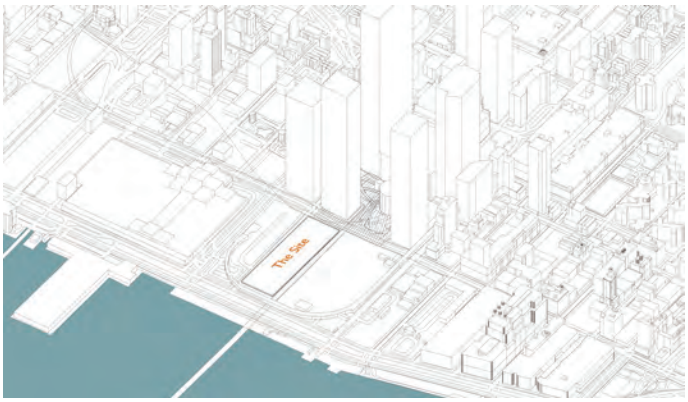
The building is surrounded by 4 main roads, which also acts as a public axis, so the crowdedness and traffic noise increase at the connection points of these routes.



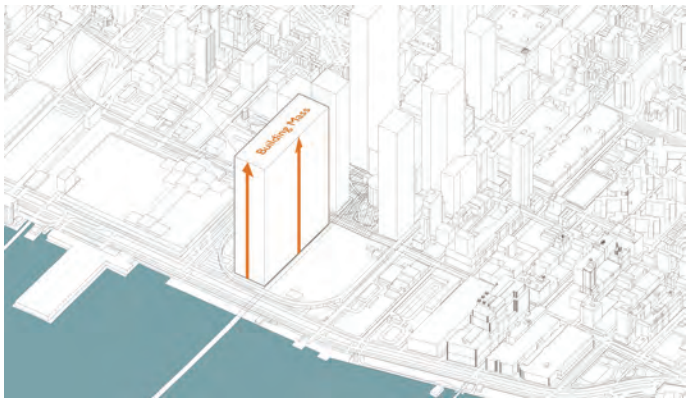
View opportunity of each block differs since the heights are decreased as they get closer to the Hudson River. With the level differences, various heights of terraces are created with various views.

Site Plan

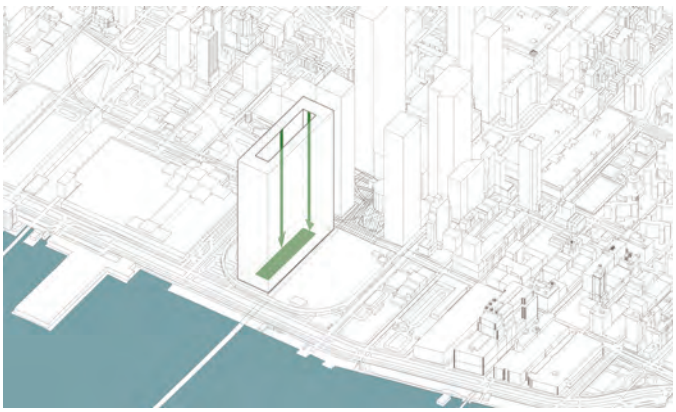
Process Diagrams



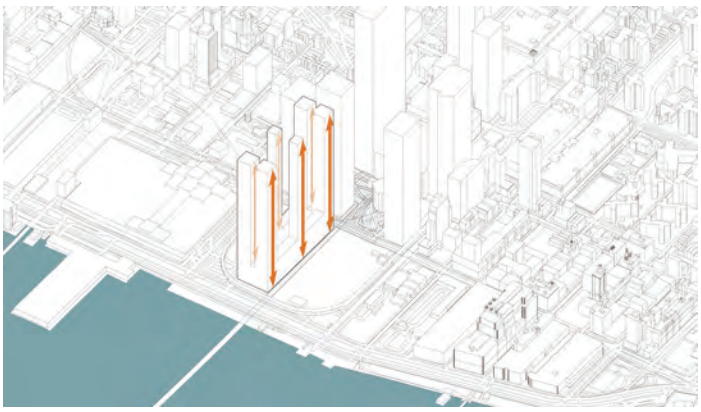
The layout of the site is simplified for the base of the building. A platform system is used as a base, to overcome the problematic situation that is created by the active train tracks located under the building.



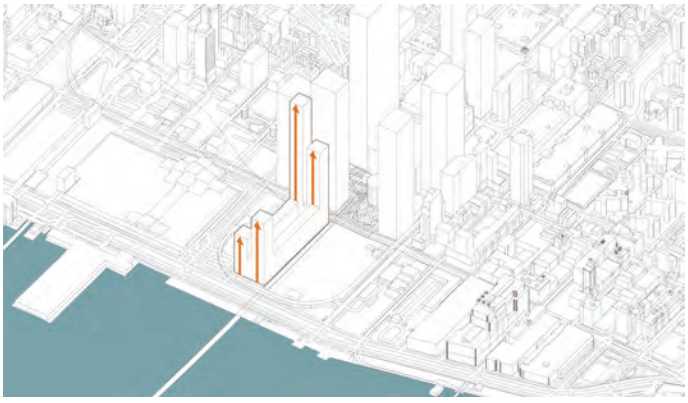
By taking references from the surrounding buildings, the building mass is extruded.



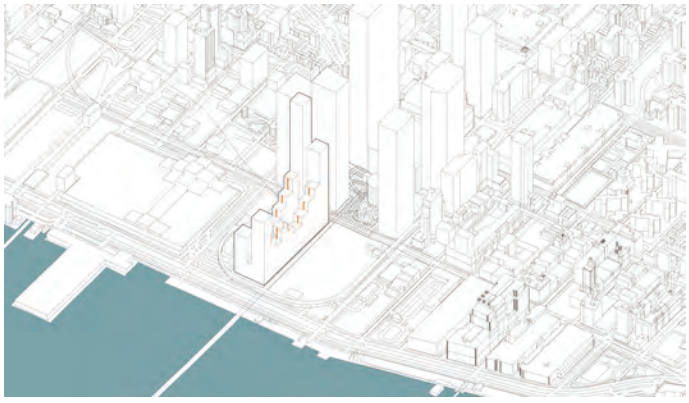
Courtyard space is created for air ventilation and to get the natural light inside.



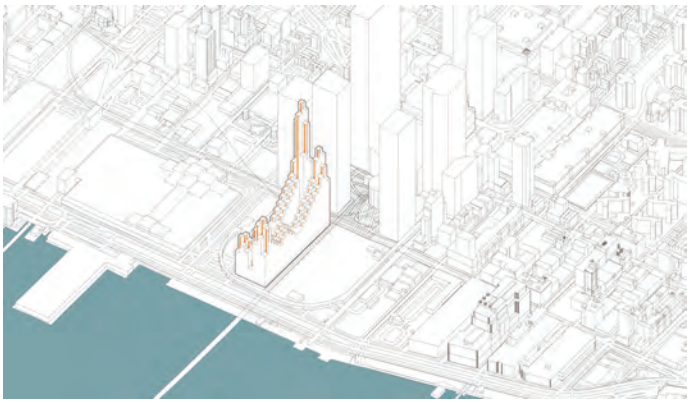
Main core locations are defined.



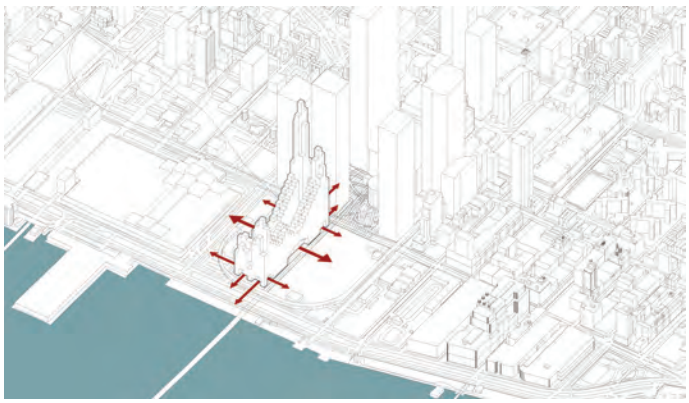
Towers are created. Their heights are adjusted concerning their distance to the Hudson River and by taking references from the surrounding buildings.



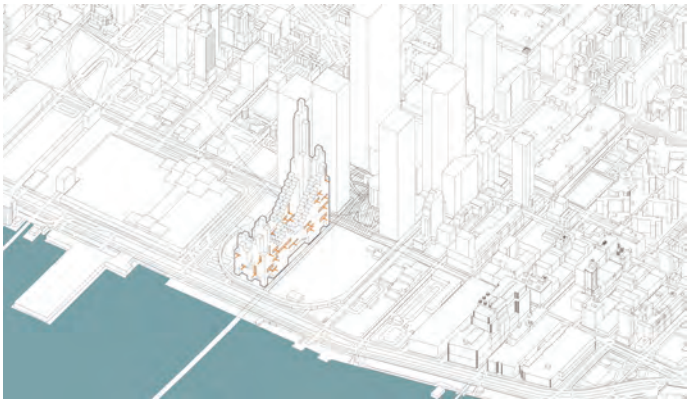
To create different view opportunities and make use of the space, levelings are created. Which descend through the Hudson River.



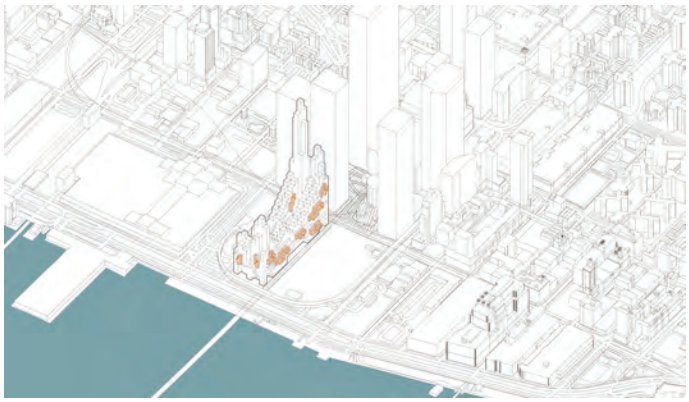
Certain parts of the levels are either raised or shortened to create structural advantage, taking more sunlight, and creating more vistas, which also resulted in the creation of terraces on different levels.



Main entrances and sub-entrances are formed by carving voids on the ground level, concerning the public axis, that surrounds the building.

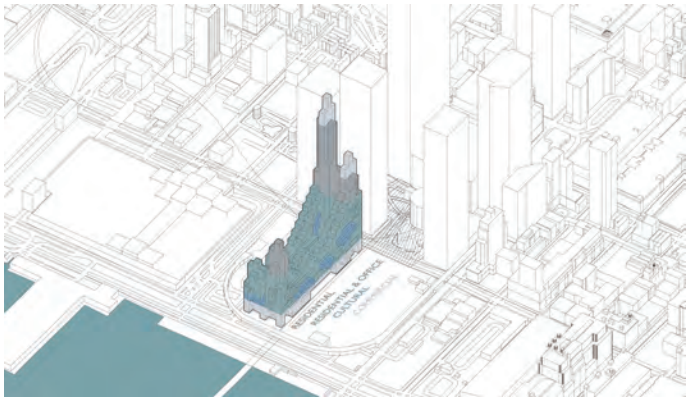


Various size voids are created on higher levels of the building, which acts as public spaces and terraces. These spaces are created for air ventilation and better use of sunlight. With these voids, the use of open-air spaces on high levels is eased.

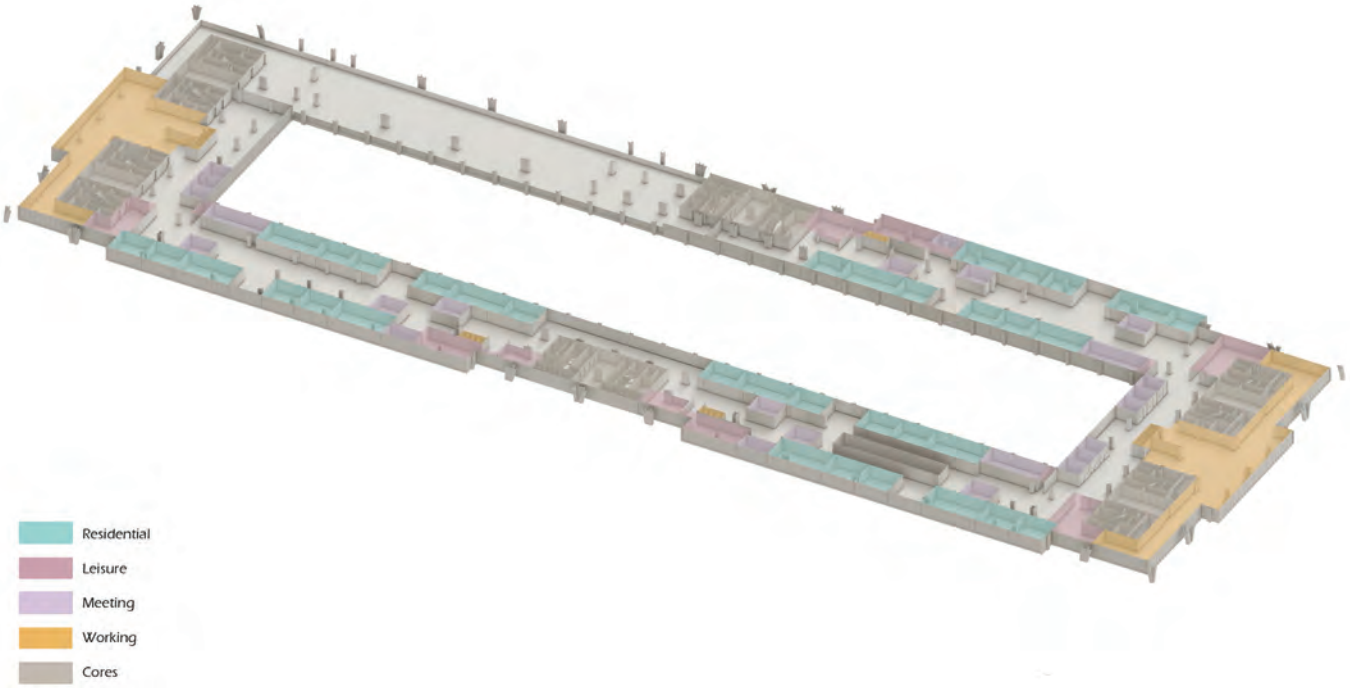


Various sized and shaped pop-ups are added on the façades to increase the area, where proposed functions located on the building lacks space.

Different types of vegetation are used on each level. On the lower levels, trees, flowers, and bushes are used. With the increase in the height, flowers are eliminated and on the levels closer to the top, trees are eliminated too.



Commercial functions are located on the top and bottom of the building. The residential-only areas are placed at the higher levels of the towers. Mixed-use areas are located in the middle of the building. Communal and cultural areas are placed in different locations.



Office-Residential Mix-Use Plan Proposition

Upscaling the Downscaling

Covid-19 Pandemic has created a huge impact on life on earth. Everything has changed and became distant. Most people are working from home and they are getting used to the comfort.

The Covid-19 phase will end eventually, however it might change the work environment permanently. People want to get back to socializing and returning to the offices, but, they will look for the beneficial sides of working from home. The united version of these wants will be the future of office life.

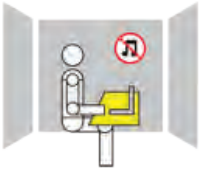
The proposed functions that I focused on were residential and office. In this project, with these functions, I aim to provide an experimental approach for the future of office and residential life.

Some of the essential spaces for the residential and office functions are the same. Cutting those spaces out from both the functions and providing them in a common space, and with this way socializing and gathering people with the comfort of home will be a proposal for the future of office environment.

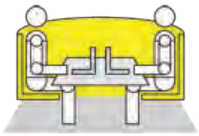
To sum up, due to Covid-19 and the improvements in technology, there is a downscaling in the use of traditional offices. With this approach, downscaling will upscale and create a new office environment, that will be adaptable to unpredictable cases of the future, and will present people their office environment while providing the comfort that they are used to.

Housing For Individuals (Loft)

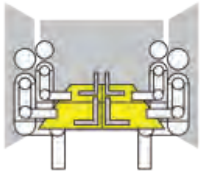
Housing For Individuals (Sliding)



study booth



work lounge



team room

small meeting room

large meeting room

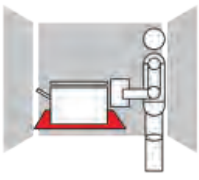
brainstorming room

games room

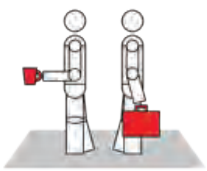
pantry area

break area

mail area



print and copy area



circulation area

Required Functions and Spaces for Office's

Some essential functions must be included in an office. They can be summed under three groups, which are **working areas, meeting areas, and leisure areas**.

There are many types of working areas, which does vary on the number of people using it and needs of those people. In an **open office**, there are singular working areas, plural working areas, and cubicles. In an **office with boundaries and rooms**, there are private offices and shared offices. There might even be specifically separated offices for teams. Other than those, there are study booths, working lounges, and touch-down spaces, which do not specifically belong to anyone but open to using by everybody.

Moreover, there are also a variety of meeting areas. Both open spaces for not private meetings and closed rooms for private meetings. Other than regular meeting rooms, there are also meeting points and brainstorming rooms, where unofficial meetings can take place.

Furthermore, there are also leisure time activity areas, like, pantry area, break area, games room, and library. Other than that, there are some utility spaces, which are essential for the continuity of the work, such as, filling area, storage area, print, and copy area, mail area, locker area, waiting area, smoking room, and circulation areas.

To sum up, few functions form offices. These functions can be listed under three fundamental groups, which are working areas, meeting areas, and leisure areas.

On the other hand, while residential units have a different use than the offices, they do have some functions in common. Leisure, working, and meeting functions can be found in residential units too. To exemplify, kitchen and toilet can be listed under utility areas, study room can be listed under working areas, and living room can be listed under leisure areas.

In this project development of a new office and residential environment for the Post-Covid phase, by extracting the common functions out from both office and residential units and then, interpreting them in public spaces on each floor for the use of the residents of each floor. In this way, returning to office life, while conserving the comfort of home is possible.

ARCHITECTURAL PROGRAMME

Residential

affordable housing

housing for individuals

type a (loft)	6x5x5	meter cube
type b (sliding)	6x5x3	meter cube

housing for family

type a (loft)	10x5x5	meter cube
type b (sliding)	10x5x3	meter cube

luxurious housing

type b (sliding)	10x10x4	meter cube

Housing for Family (Loft)

Housing for Family (Sliding)

Office

leisure

library	15x10x4	meter cube
filling area	4x1x2.7	meter cube
mailing area	4x1x2.7	meter cube
print and copy area	4x1x2.7	meter cube
interior smoking area	5x4x4	meter cube
pantry	7x5x3	meter cube
leisure area	10x5x3	meter cube
break area	10x5x3	meter cube
storage	10x5x3	meter cube
locker room & wc (100)	10x5x3	meter cube

meeting

small meeting room	5x3x2.7	meter cube
large meeting room	11x4x3	meter cube
brain storming room	5x4x2.7	meter cube

working

one-person cubicle	3x2x2.7	meter cube
open office (100)	40x20x6	meter cube
team room/space	4x3.2x2.7	meter cube
private office	3x2x2.7	meter cube
work lounge (10)	11x4.5x3	meter cube
study booth	1.5x1x2.7	meter cube

Luxurious Housing

Commercial

multi purpose hall	40x20x6	meter cube
art gallery	20x10x5	meter cube
study zones	20x10x4	meter cube

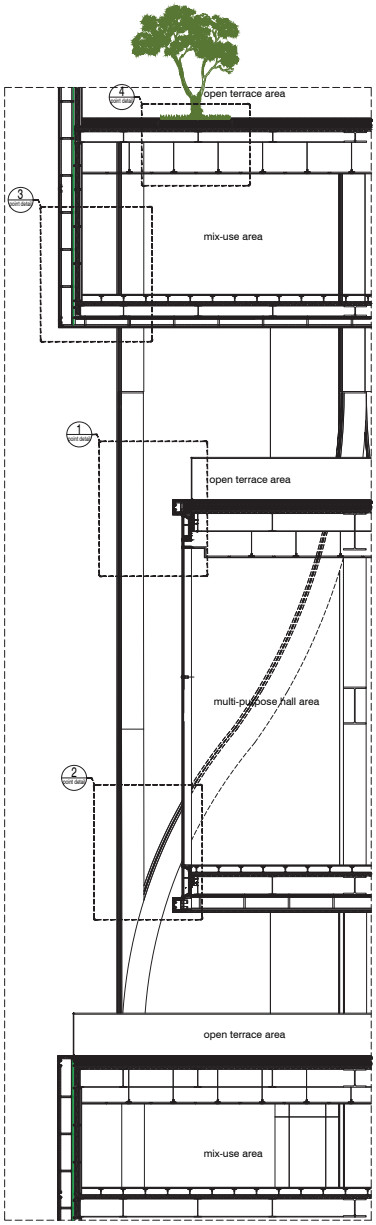
shops

large shop	12x10x3	meter cube
medium shop	8x5x3	meter cube

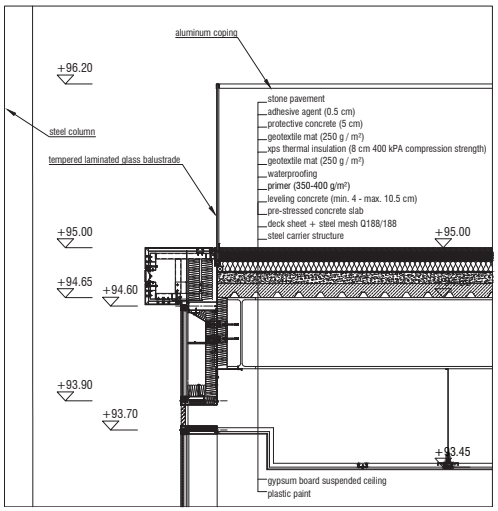
eating places

large restaurants	30x14x4	meter cube
normal restaurants	20x6x4	meter cube
cafe's	15x8x4	meter cube

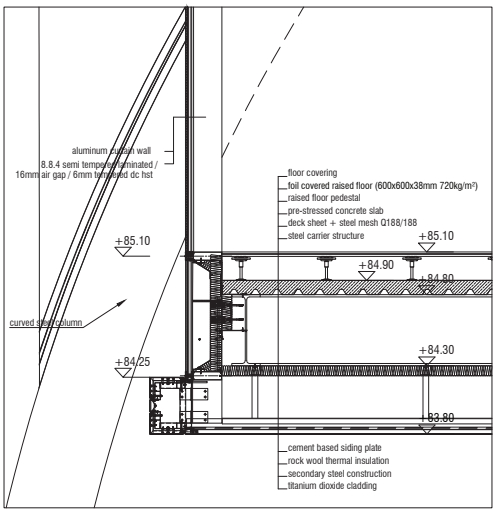
Circulation



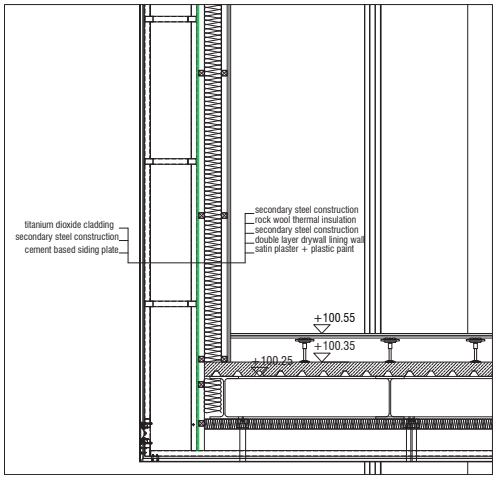
SYSTEM SECTION-1
1/50



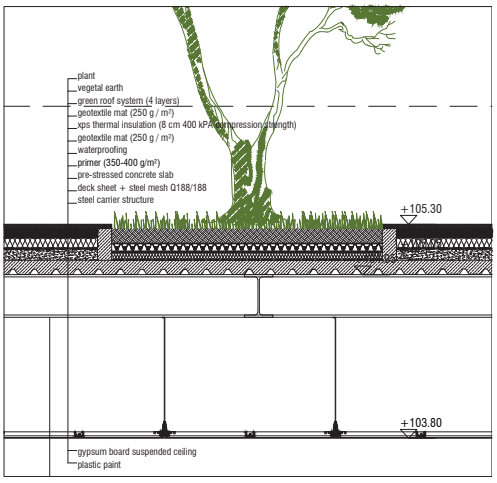
TEMPERED LAMINATED GLASS BALUSTRADE POINT DETAIL



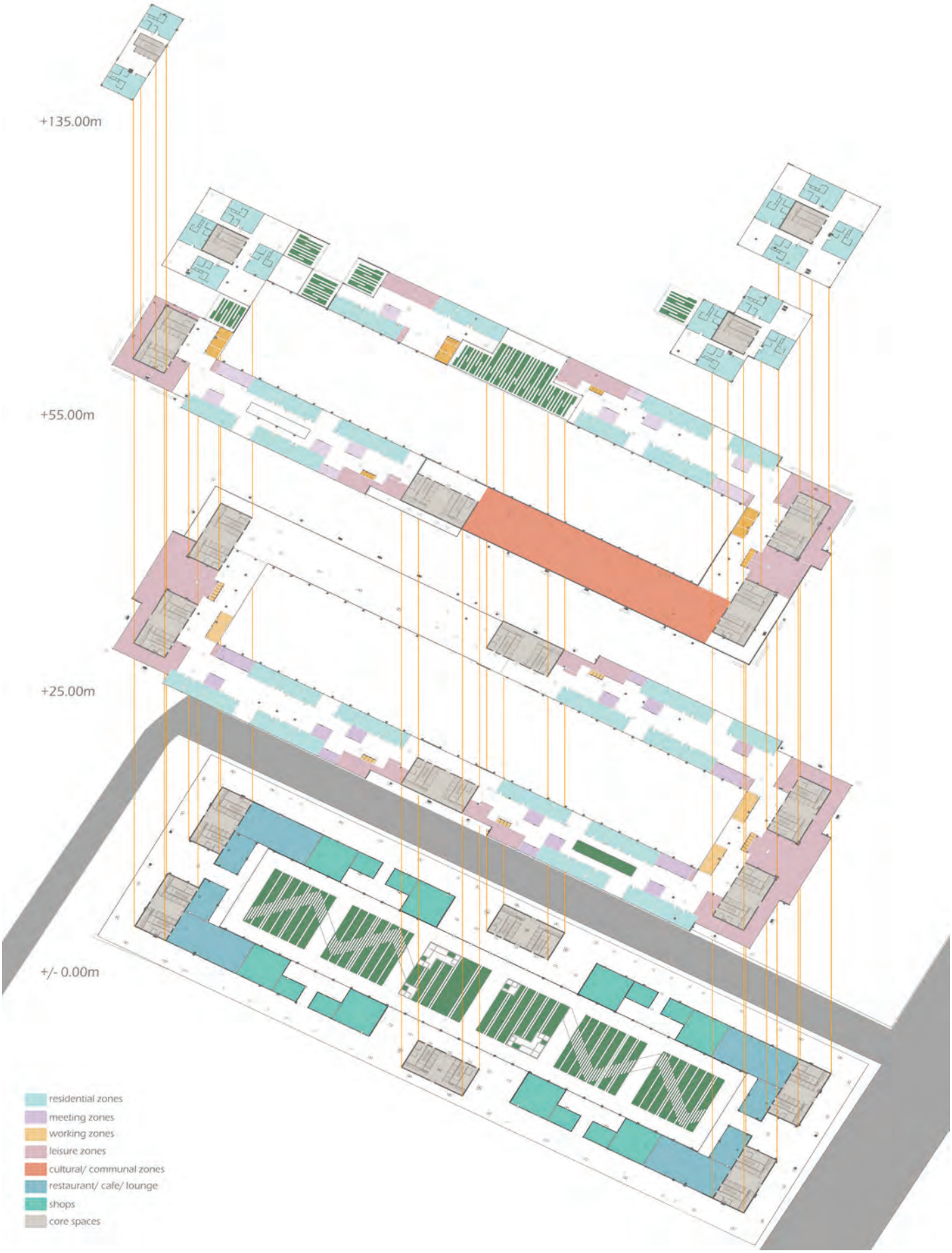
ALUMINUM CURTAIN WALL POINT DETAIL

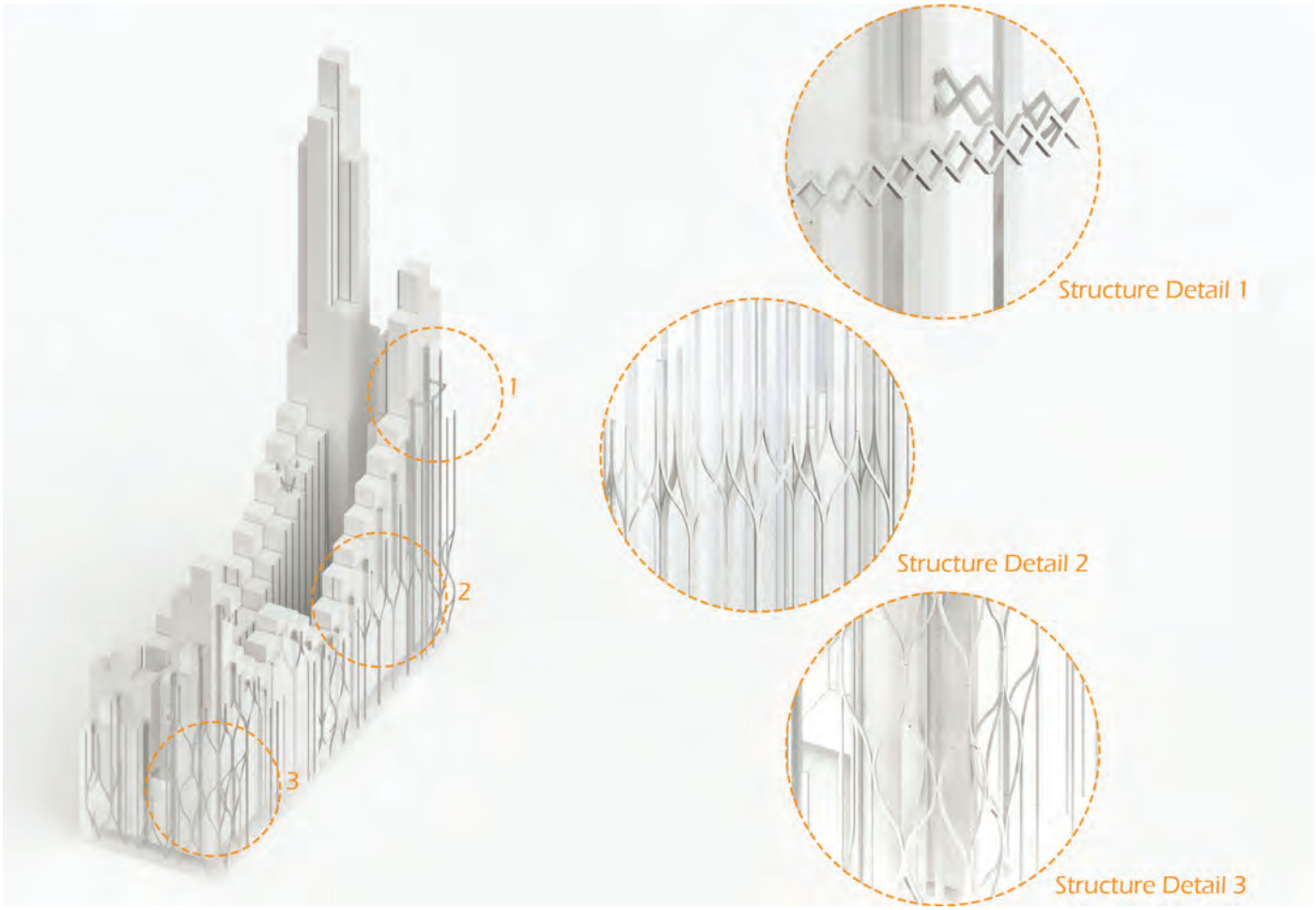


TITANIUM PEROXIDE CLADDING POINT DETAIL



GREEN ROOF POINT DETAIL


+135.00m
+55.00m
+25.00m
+/- 0.00m
residential zones
meeting zones
working zones
leisure zones
cultural/ communal zones
restaurant/ cafe/ lounge
shops
core spaces



Structural System

The structural system of the building is composed of steel frames. A system of, curved columns in the shape of tangent (1) are used for creating modules, where there is a need for larger spans. The structure at these instances work like a diagrid system. The size of the columns depends on the volumes that they are needed for. These columns are used in case of crossing wide spans, creating pop-ups, and voids.

With various combinations of these curved columns and regular columns, modules are created, which are the same in size but different in shape. These modules can be shaped according to the need of the space. With the gathering of the different modules, new structural shapes and voids can be formed.

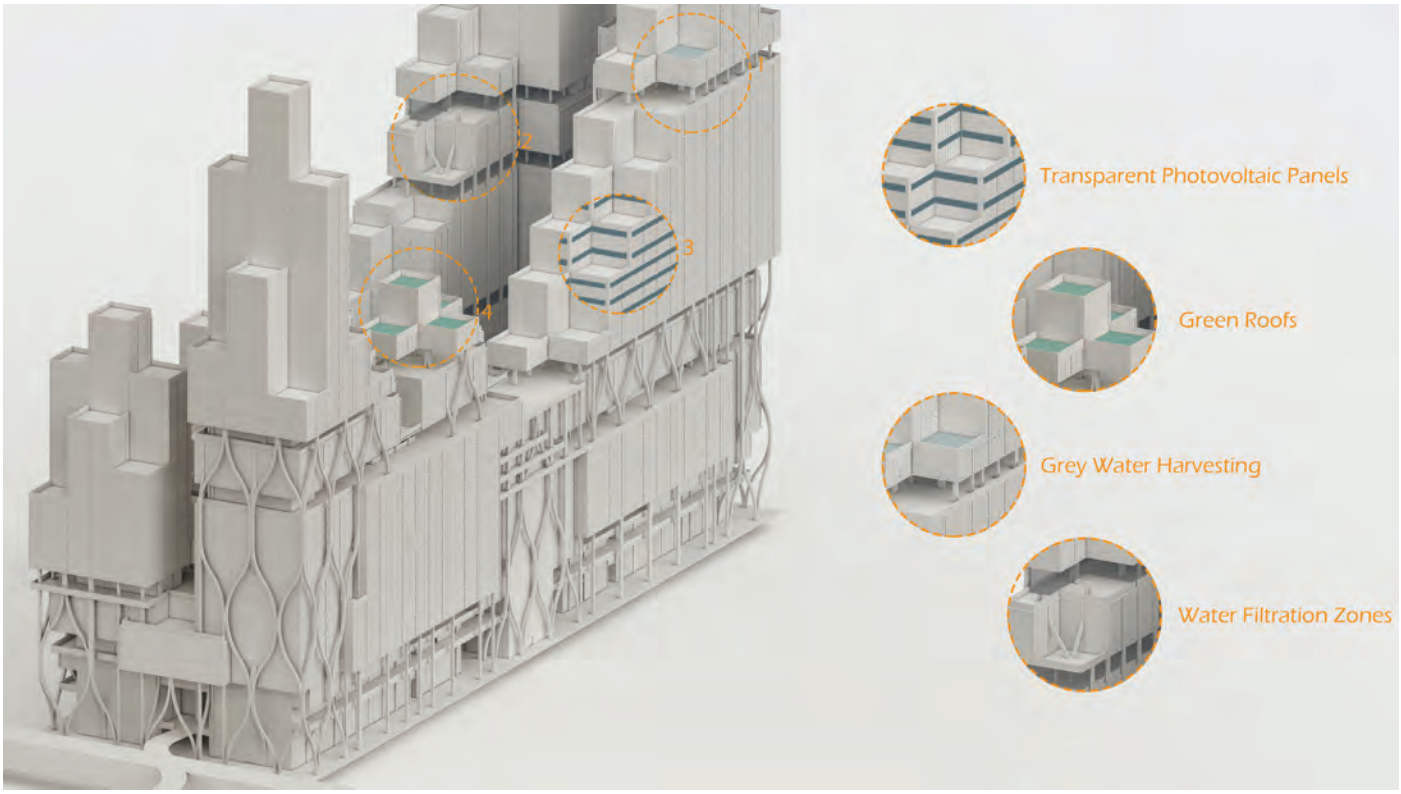
The system is based on a simple spatial modulation that allows for placement of a high variety of spaces.

In addition to that, modular floor configuration is chosen while forming the shape and designing the floor plans for easing the load-bearing of the towers and reaching higher.

Along the towers, cross-diagonal bracings are used at certain levels to act as infrastructural floors as well as to increase structural capacity resisting lateral loads.

Multi-purpose Hall

Vertical Farming



Environmental Systems

This mega structure consists of many sustainability features, that make it environmentally friendly. With the integration of environmental technologies into the design process, the final product has become much more interesting and sustainable. In the building, both the passive systems and active systems are used.

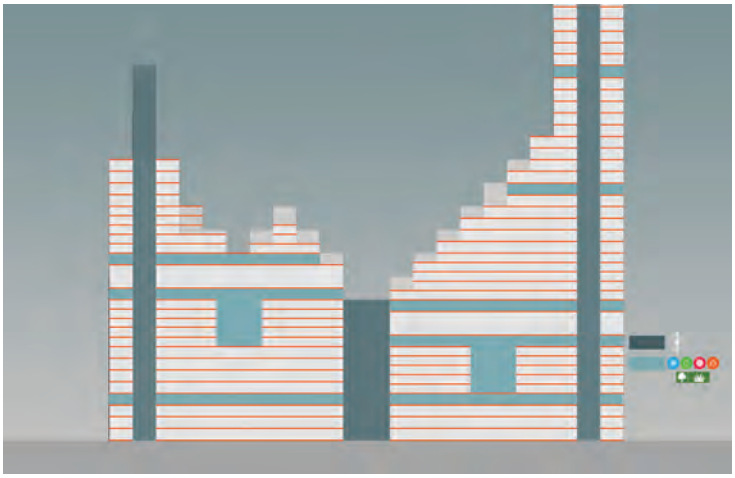
As passive systems, wind tunnels are created for natural air ventilation, carvings through the building and the creation of the courtyard is made for taking sunlight to the interior and getting benefit from it, as much as possible. Moreover, green roofs are preferred for harvesting greywater. Last but not the least, the courtyard and the elements that it consists creates a micro-climate.

As active systems, transparent photovoltaic panels are integrated into the building's façade, for creating electricity from solar energy. Furthermore, stormwater is used in the building by people and for the vegetation on the terraces and the courtyard. The greywater harvesting system collects all the stormwater and sends it to the filter, where the water is purified, then stored in the storage.

Other than those, a vast area in the building is separated for vertical farming, where people produce their nutrients.

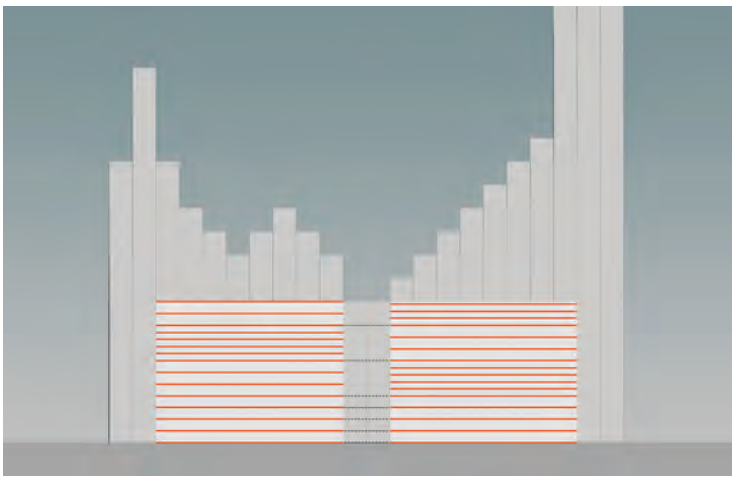
Urban Voids

In each 10-12 floors, one floor is used for environmental, structural, and HVAC systems. These floors are semi-open spaces, which are surrounded by cores and other structural elements. They can be referred to as urban voids, which are consist of passive cooling systems, rainwater harvesting systems, water filtration and treatment areas, and structure. Since they are semi-open spaces, they act both as terraces enriched by vegetation and spaces for controlled air circulation.



Together but Seperate

Various floor heights are used in the building in different parts, which creates independent and separate modules in the same building, that can work on their own. Even though these modules are side by side, they are connected only at specific levels. In case of a lockdown or a pandemic, these modules can regulate themselves with the functions and utilities placed in each module.



Material Selection

To give reference to the site's industrial history and the railway, that the building is designed above, use of natural stone and dark wood in flooring, and steel in the structure is decided. In addition to these materials, titanium dioxide will be used in the façade as a cladding material, to have a light and durable system.

Facade Detail

The glass curtain wall has the highest rate of use in the building's facade materials to get as much light as possible and create different views. Apart from that, the second most used element in the facade is titanium dioxide panels, which are extremely durable and light, that makes them perfect for such a high-rise mega-structure.

References

New York Map in the 4th page is taken from the snazzy maps.
Old New York Maps in the 8th page are taken from the NYC Urbanalism.
Old and New Maps of the New York in the 8th page is taken from Smithsonian Magazine.
Flood Map in the 9th page is taken from the NYC Flood Hazard Mapper.
Image of the precaution for the floods in the 9th page is taken from the New York Times Magazine.
Photographs of the site and diagrams in the 10th page are taken from the Hudson Yards Press Kit.
Illustrations in the 16th page are taken from Wikipedia.

FLAUCHER THE BREW

NİL ÖZKAN

FERMENTATION OF THE NEW URBAN: BREWERY COMPLEX IN FLAUCHER

NİL ÖZKAN

The proposed project is located in the Flaucher district of Munich, Germany. Munich is is best known for the Oktoberfest and for the celebration of beer and and its culture. Flaucher district is an island formation on Isar River. While it suffes from contaminated soil, and air pollution due to industrial activities that has polluted the river, these problems kept it from the expansion of the city. It remains a larger green are in the center of the city, transpassed by various transporation lines that connects two sides of the river. Flaucher has huge potential for revitalization and the creation of a new urban life in the district.

The Project proposes to connect Theresiewiesen, the industrial zone and the focus area to create an urban pattern to ferment solutions to its environmental problems and to socio-culturally, economically, environmentally uplifit Flaucher. .The project creates oppurtunities for both locals and visitors while forming a desired environment to live, experince and cherish.

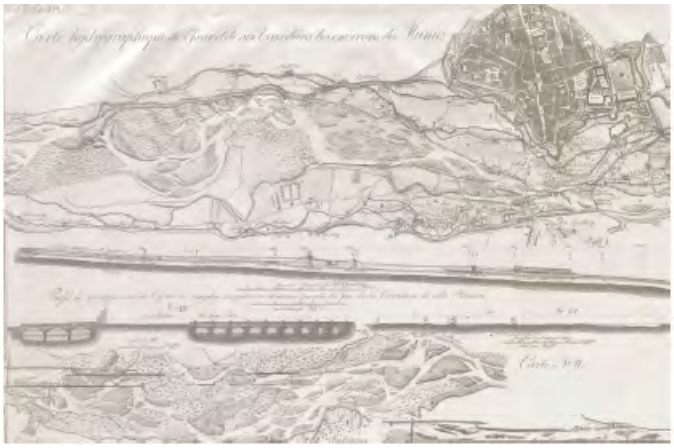
LOCATION

The site is in Munich, Germany. Germany is the second most crowded country in Europe, after Russia. It is a very indigenous country, with many tribes residing since before modern times. It is developed in many sectors of industry, and has the largest economy, among European countries.
Munich is the capital of the state of Bavaria, and is the third largest populated city in Germany. Historically, Munich is known as a European center with good interest in arts, culture, science and architecture. The city was severely damaged in WW2, however it has conserved a good part of its traditional and beautiful cityscape. It has also hosted the Summer Olympics and FIFA.

Today, Munich is a center of art, architecture, culture, finance, science, education and tourism. It provides its residents great standards of living. It has a unique architectural typology, with integration of both historic and modern architecture.

After the afore-mentioned destruction of WW2, old buildings were reconstructed, but they were accompanied by new landmarks. In terms of culture, it has a great variety of artisans in many fields. One of the most significant things about its culture is the Oktoberfest, which is considered to be the largest festival for beers, in the world. Hence, the well-known high reputation of Munich as a brewery/beer production center.

The Flaucher is a river bank area in Munich, by the shore of the very famous river Isar. It is a public area open to anyone wanting to visit. It has a beer garden nearby, so it projects a good alternative for actually getting to know the culture of the city. There are some industrial areas nearby, some post-industrial campuses and some residential areas with a local typology. The typology is mix-use buildings that consist of commercial functions on the first floor, and residential use on the other floors.

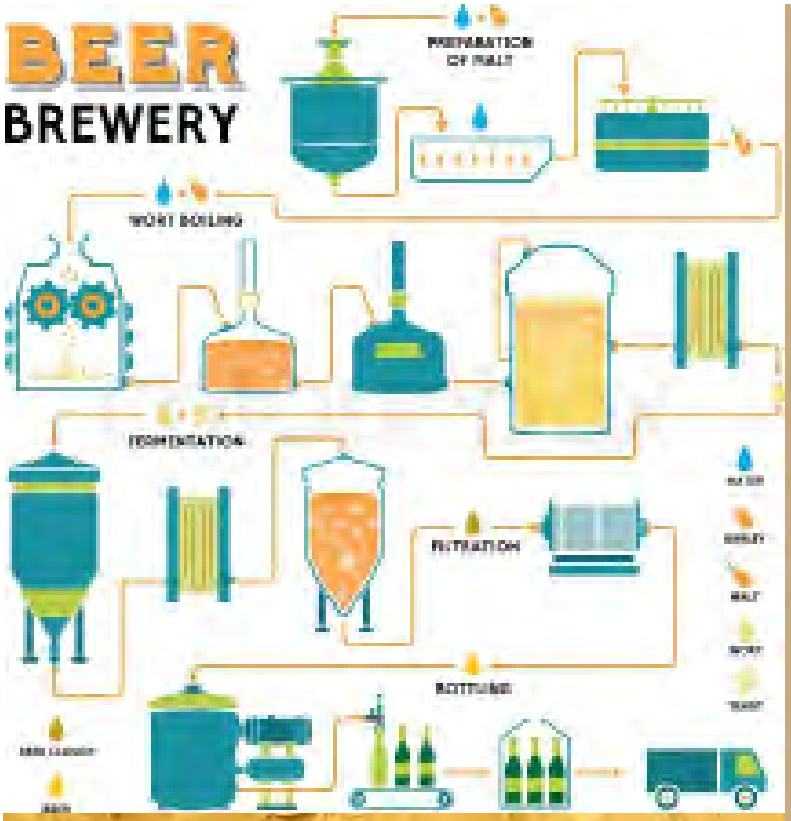


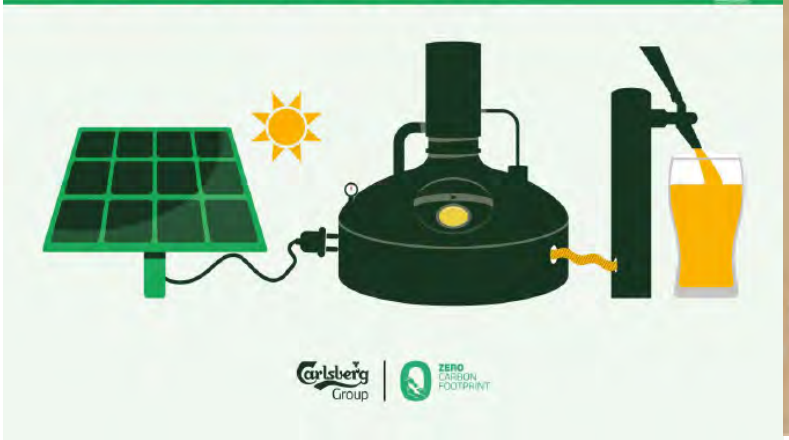
HISTORY

Isar is a river shared by Austria and Germany. It comes from the Alps and flows through Munich.
The river is thought to be around even during
prehistoric times, and was thought to be used as a
transporting goods. But it started getting the role of its life since the foundation of the city in 1158. It was, for a very long time, a block in front of salt merchants taking their goods to northern Europe. There used to be an overpass in close proximity to the Isar Bridge as we know it today. Most of the income that became the foundation of
Munich was due to the toll laid on the overpass.
It was a very important waterway, so it can be said that the economical heart of Munich beats in the river. A lot of goods (wood, stones, lime) were brought to the city by using the Isar, and therefore the construction needs of the city were fulfilled. Before the extending of the railway network in 1870, the river was used greatly for rafting, and was the largest in Europe.

The river was also very important as an energy source, with its “powering waterwheels”, and helps produce renewable energy even today. Isar had to go through a renaturalization phase, due to high degrees of pollution and some flood incidents. In 1970, there was so many pollution, mostly by the industrial and human waste, that the river was contaminated. The renaturalization was done in about 2011, and dams were built to prevent flooding.

BEER IN BAVARIAN CULTURE





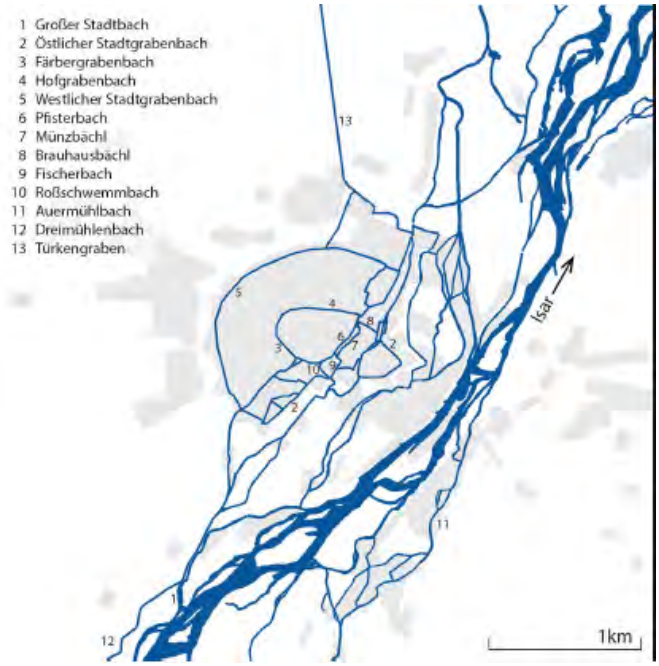
SITE INFORMATION

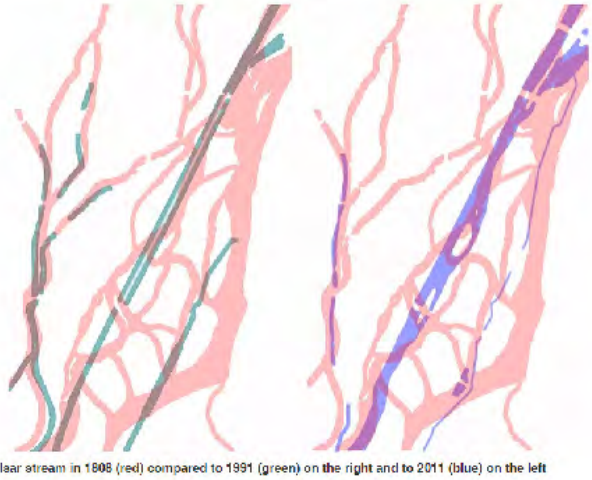
Chosen site is located in Flaucher district in Munich, Germany.

The site is almost an island that seperates Isar River, which divides Munich into East and West banks . The West side of the Flaucher is dominated by industrial plants, whereas the east side is dominantly covered by mixed use residential buildings. The site includes sub-standard housing as well.

Activities around the site are only available during the summer time, therfore the site has limited accessibility
The urban pattern is hard to detect at first sight. It can be considered as a cluster type of pattern without a definite order. Even though greenery exists around Isar, the industrial zone has contaminated those areas in terms of soil, air and life quality in general.
There were some attempts and interventions around Isar and Flaucher to revitalize and clean the area but it did not completely work out. In addition, Isar river create high flood risk in the Flaucher area.
With commercial use on ground floor, residential use on the the rest of the building, a pitched roofs on top the building, the common building typology of the area is also common in the rest of the Munich and Bavaria state. They are organized as clusters of buildings that are supported with inner courtyards.

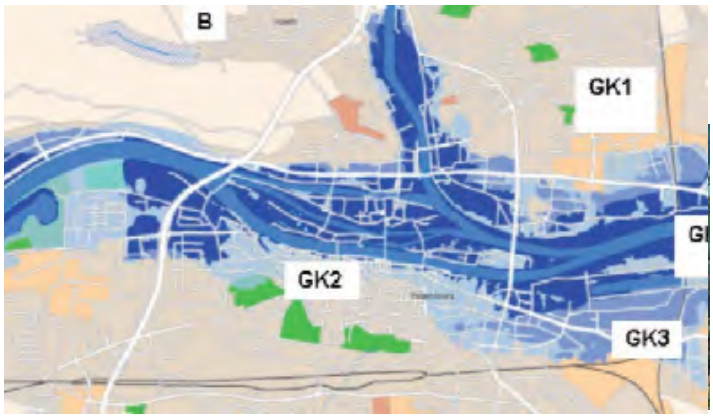
The visual below indicates the features of Isar River over the years, where it is located with other water sources in Bavaria district (bottom left), how it lost its wild Alpine river features (bottom right), how and where river driven hydrolic energy plants placed, and what were the outcomes of the competition that was opened for revitalization of Isar River.





Isar stream in 1808 (red) compared to 1991 (green) on the right and to 2011 (blue) on the left

PROBLEMS IN AND AROUND THE SITE



Proposed area has problems in many aspects of sustainability.

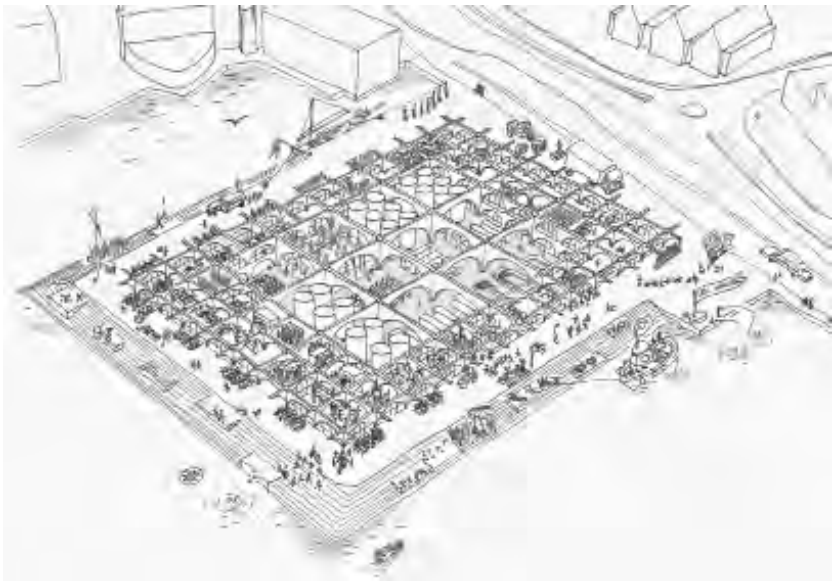
Environmental Problems:
-the Isar River is relatively dirty due to industrial actions
-the air is polluted by the industrial actions
-industrial zones caused decreasse in greenery because of contamination of air and earth
-high flood risk around the Flaucher area
- the site and its surroundings lack green areas and belts
-no continuity between greens

Economical Problems:
-site and its surroundings consist sub standard housing
-employment level is between standard and low since it houses the working class of Munich
-no stable jobs
-expansion of the city
-tourists usually do not know or prefer to visit this area since there are no other attraction points near by

Socio-cultural Problems:
-other than Flaucher's walking paths there are no other social areas to experience
-Even though it is a diverse community, it lacks cherishing them with their cultures
-Since most buildings are residential starting on the 1st floor, area lacks socio-cultural areas and activities
-Area has mostly commercial functions that regards housework

Functional Problems:
-Even though the area has access to different kinds of transportation lines, due to weak figure-ground relations they are hard to access from ground level.
-The area is only used in summer period because it does not have any closed or semi-open or spaces to be enjoyed
-No proper landscape design along the river which makes it harder to reach to the Isar River.

CASE STUDY & LITERATURE REVIEW

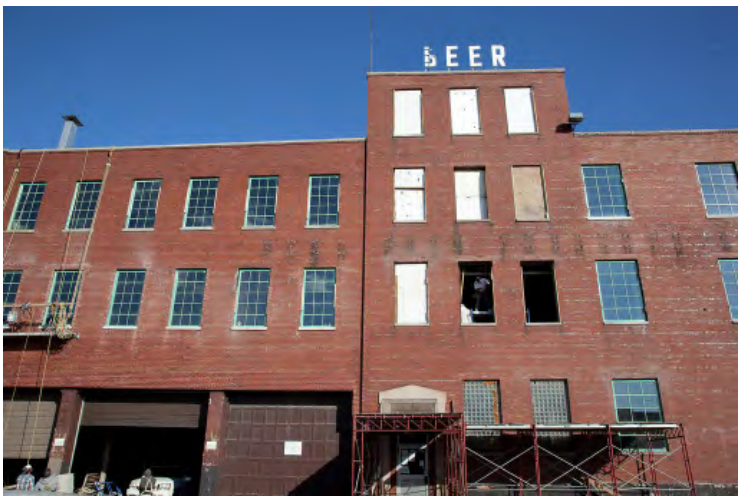


LERWIG BREWERY by COBE ARCHITECTS (NORWAY)

This project consists of a beer brewery, a visitor center, a school dedicated to brewery, and social areas consisting of street food and urban plaza. The site of this project is in Norway, in the waterfront. The project is located on a former industrial pier, so the project also aims to introduce a new function. Another new amenity that comes with this brewery is that it helps break the norm of breweries being "private" places. This project aims to include everyone in the process of brewing, and also introduce new functions within the same context and concept. Through the transparent process of brewing, the visitors will be able to be a part of the system and the function. "The brewery is the heart of the building", surrounding by other vital organs of public areas.

HOW TO INTEGRATE

This complex is a great case study because it supports the idea of my own project, in the sense of introducing a public brewery, by being inclusive of the society by also including public areas and functions, such as beer gardens.
It's also a good inspiration due to its material choice and function variety.



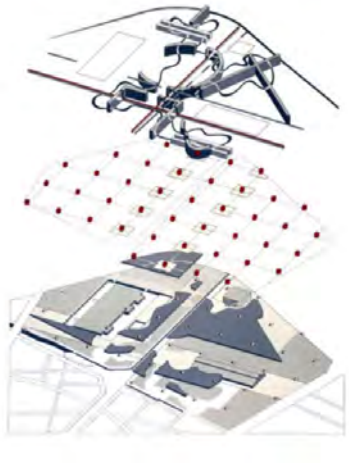
THE PLANT (CHICAGO)

"The Plant" is an indoor vertical farm that triples as a food-business incubator and research/education space located inside of a factory. It was voluntarily transformed into today's condition. It may not has the best architectural value but the urban farm has more impact than its aesthetical value. It applies various kinds of sustainable growing techniques. Its is a successful adaptive re-use example. It also includes a "waste" museum. The systems of the building, both natural and mechanical, operate on a continuous loop and rely on one another.

HOW TO INTEGRATE

This case and literature review hybrid study would work on my site because implementation of urban agriculture facility would work for brewery factory's raw material supply and decrease the amount of CO2 footprint, create new job oppurtunities for locals and researchers & by localizing the production it would become a new city center and responds expansion of the city gradually and respectfully.

CASE STUDY & LITERATURE REVIEW

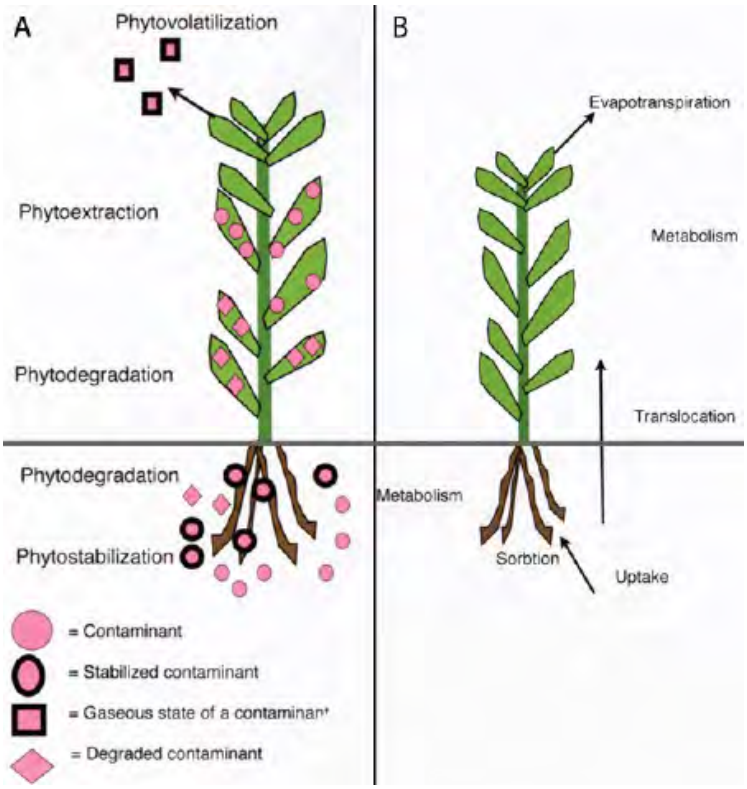


PARC de la VILLETTE by BERNARD TSCHUMI (FRANCE)

The competition winning project of Tschumi Architects is located in Paris which aims paves the way for key area of economic and cultural development in Paris which is formed with cultural and entertainment facilities. It stands out by not being a regular landscape intervention. By overlapping existing characteristics of the site and implementing new spaces to be experienced, La Villette withstands the idea of parks having only softscape and hardscape with proposing a social park that has playgrounds, exhibitions, performing arts spaces, workshop areas, gynasium, bath facilities & experiment spaces for its visitors.

HOW TO INTEGRATE

Since the island is a site that is in use for open air activities only with its landscape features, it has a potential of bringing more people to it with serving social activities by reconnecting urban texture that the island seperates into 2. Introducing socio-cultural functions with analyzing existing and new circulation movements would create a continuous open air space with having semi-open and/or closed spaces from place to place. In addition, opposing the idea of creating a regular park to visitors was a key point to create a landscape to be experienced without any restrictions by having cultural and social activities.



PYTHOREMEDIATION

Pythoremediation is a biological process that uses different types of vegetation in order to remove and stabilize the contamination visible in soil and groundwater. This technique is used for brownfield remediation, and has several processes:

-Phytoextraction: extraction of the substances by the plants

-Phytostabilization: stabilizes the contaminated substances by limiting their movement

-Phytodegradation: degradation of organic pollutants from the soil by breaking down the enzymes

-Phytostimulation: enhancement of the soil biological activity to degrade organic matters

-Phytovolatilization: removing the polluted substances from soil by releasing them into air

-Rhizofiltration: filtration process of water through the roots to remove pollutants

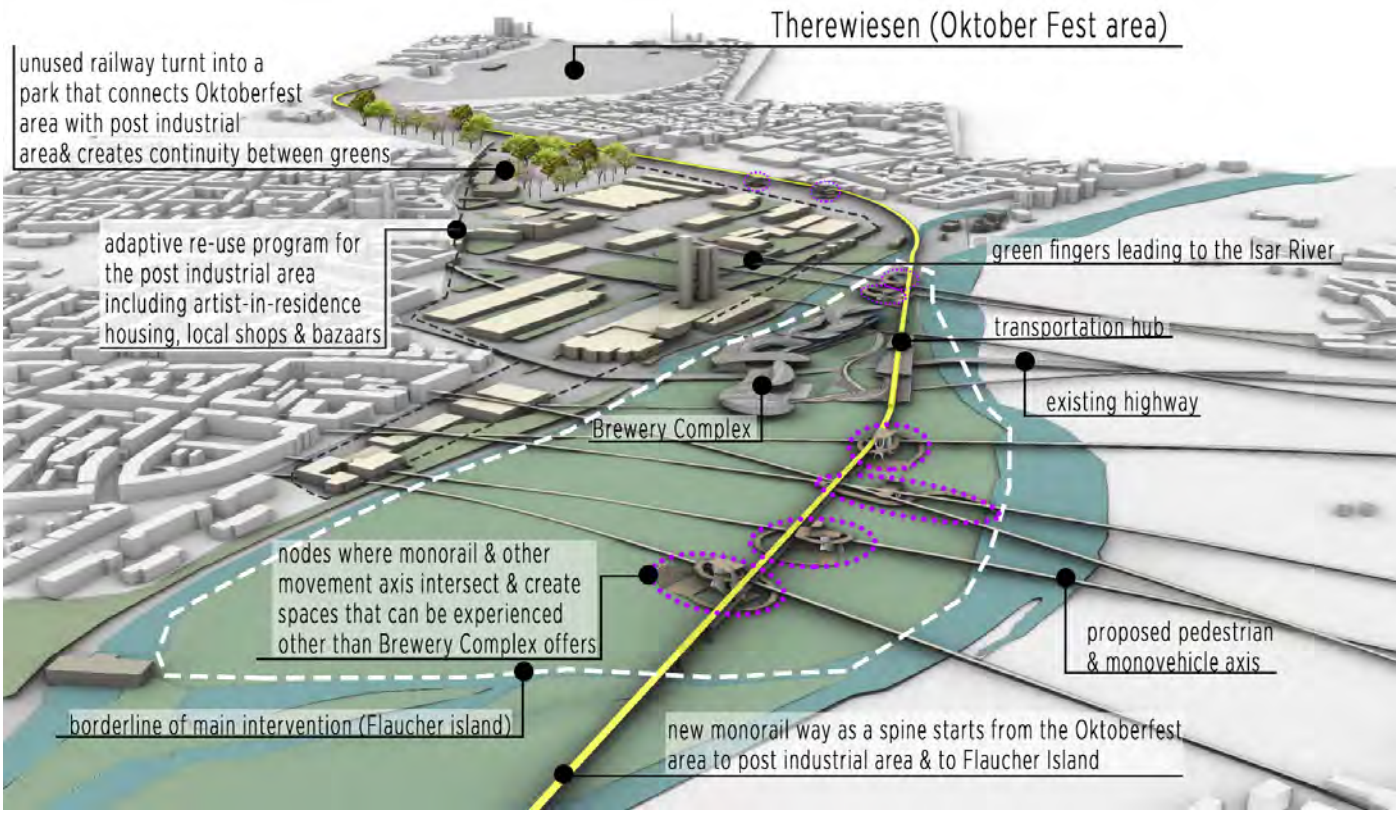
-Hyrdaulic containment: plants drawing water from soil into their roots to decrease movement of pollutants

-Phytodesalination: extracts salt from soil in order to increase fertility, by using plants adapted to salty soil

HOW TO INTEGRATE

This technique and literature review is applicable for my site because it's a post-industrial site, with still industrial functions in the surroundings. With this technique, the fertility of the soil can be improved and the soil can be made cleaner and better for any type of activities to take place on top of it.

MASTERPLAN PROPOSAL



For the masterplan phase, it is proposed that the of Oktoberfest area, post-industrial area & actual invertion space, where the island is located, Brewery Complex. Along this series of connections, brewery tourism is created by generating spaces like adaptive re-use program for the post-industrial area that is in need, a new way of transportation network and forming a hybrid space definition of brewery complex.

Undefined spaces re-generated with edge-defining spaces with the addition of inner courtyards, more permable buildings in order to increase accessibility and bridge and mass connections over the Isar River which made the brewery tourism experience and life for the locals more reachable and easier.

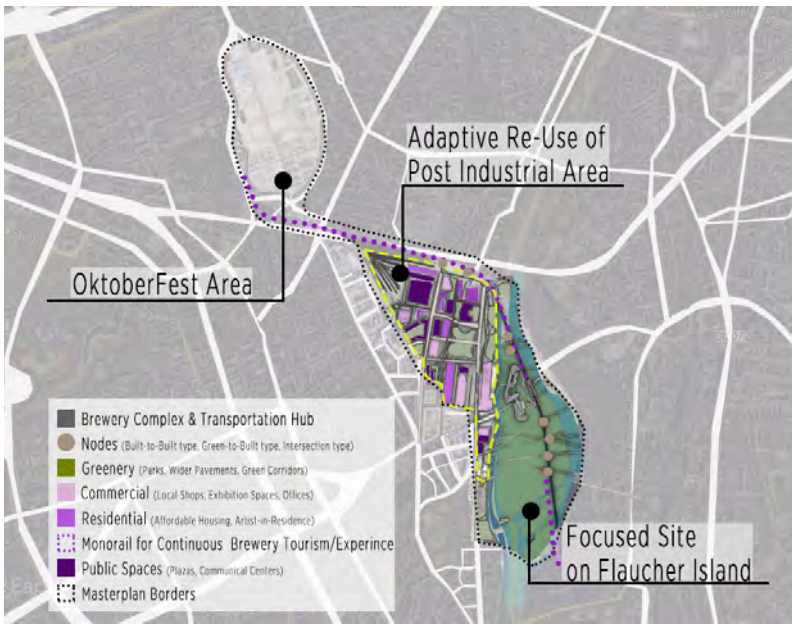
The unused railway areas are turnt into communal parks that greeneries coming through those rails. With the help of phytoremediation, softscape of the masterplan area came back to life once more with plantation of indigenous vegetations in parks, green corridors, inner courtyards of the adaptive re-use area. These vegetations include beech, pine, chesnut, and oak trees and pebbles on the ground in order to keep the brewery storage spaces cold underneath the ground level. The water of Isar River cleaned in time and is not a flood risk area anymore with the help of wetlands in natural environment and pilotis implementation in built environment.

In terms of urbanization in and around the actual intervention area, variation of functions helped to form distinction between spaces and continuity throughout the experience in the neighbourhood. Integration of local shops, exhibition spaces and office spaces became available for those looking for place to work, shop, experience arts & craftmenship of German culture. Also, these spaces created job oppurtunities for locals & increased the value of the neighbourhood. In order to supply affordable housing, some of the industrial buildings renovated and solved the problem of residential rental gap. The new monorail way starts from the Oktoberfest area, reaches the adaptive re-use site and moves to Brewery Complex to be experience throughout the axis of Brewery Tourism. Monorail way also has a tentative end that can be continued to the zoo that is right under the brewery complex area.

URBANIZATION STRATEGY

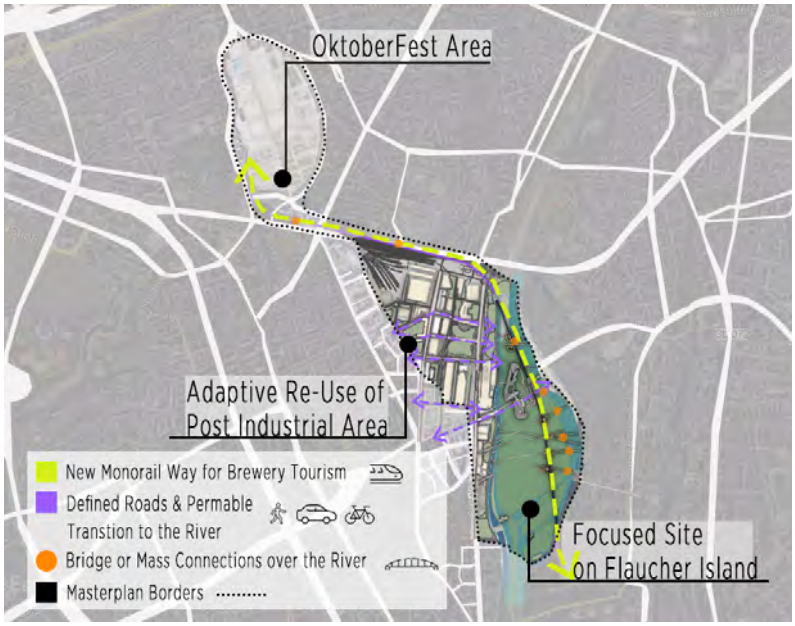
Masterplan has designed according to existing situation and needs of the district with aimed interventions. These interventions are held with different strategies from urbanization to circulation to environmental.

In terms of urbanization, the post industrial zone was in need of revitalization & connection to southern part where the island is in order to help the expansion the city towards this area. With the addition of new axis that connect 2 urban sides that are seperated by the River, nodes & new monorail way is proposed to in order to maintain the iterative process between urban and building scale. New green areas, public plazas, local shops, and many other functions are aimed to placed on the site in order to city to be expand gradually.



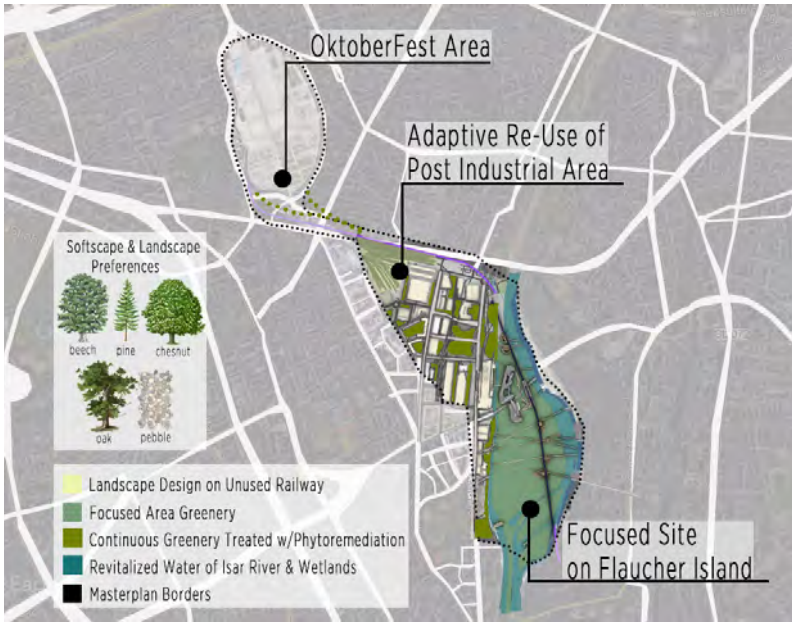
CIRCULATION STRATEGY

Circulation plays a big role in both urban and building scale. By studying the existing circulation types, the area now has a monorail way, which starts from the Oktoberfest area up until the Flaucher island, to maintain brewery tourism/ experience. In addition, more defined roads & permable transition towards Isar River is created which lead the project to have roads that connects River's both sides with having bridge or mass connections over the River. As a result, with the intersection of new roads leading to island and monorail, the nodes started to appear in early phases of the project.

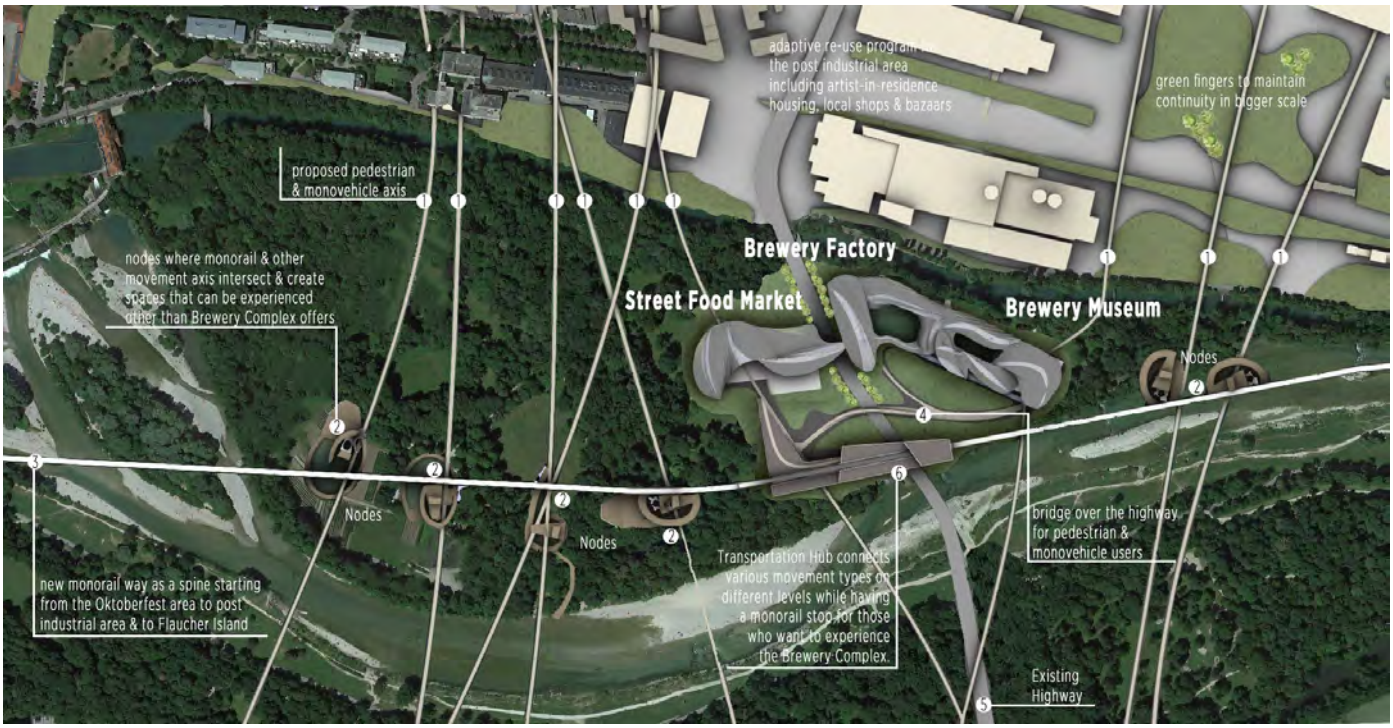


ENVIRONMENTAL STRATEGY

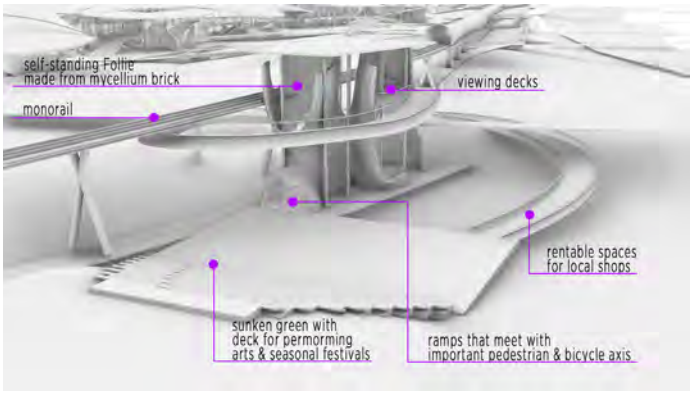
Due to post industrial actions, soil and air need to be cleared in the district. Phytoremediation is used in order to clear soil from its heavy metals and new continous green spaces are created. Clearance of soil lead water of the Isar to be clear as well with designing wetlands. In addition, the unused railway is redesigned to be just landscape of indigenious vegetation & rockbed implementation.



SITE PLAN



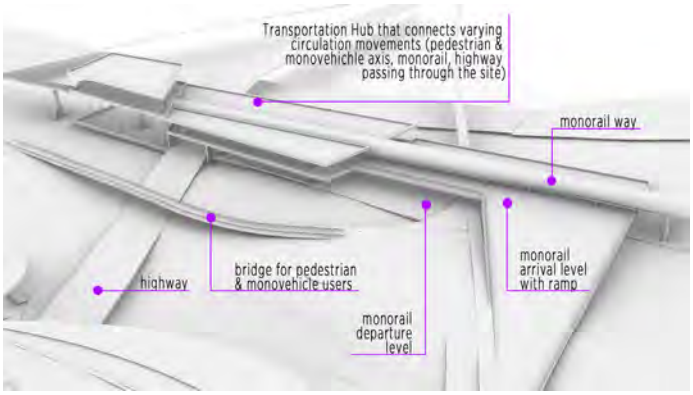
NODE DIAGRAM



New roads for pedestrian & monovehicle* use are designed according to possible axis which aim to create solid connection between existing urban clusters that are seperated into two with Isar River & Flaucher Island.

With the new monorail way, these axis creates nodes that are light-weight structures that connect varying circulation forms. These nodes form modules that are created with Grasshopper's Millipede plug-in. The modules are characterized according to the axis' features that are intersection to them. Self standing modules that are made from mycellium brick include rentable spaces, sunken greens for performing arts, ramps leading to viewing decks for those who want to experience the island freely with giving an option to visitors to stop by anytime.

TRANSPORTATION HUB DIAGRAM



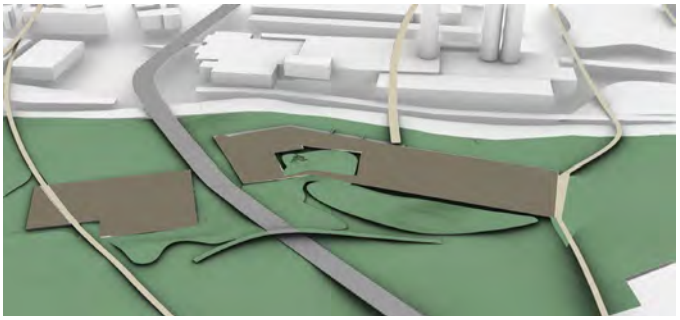
The monorail, being the vertical spine to the island, created the need of having a stop on the Flaucher island. With intersection of monorail, existing highway, more than 3 new pedestrian axis that are passing through the island formed a transportation hub. The hub connects these movement types in varying levels inside & out.

Starting from the Oktoberfest area to post industrial zone and then to the Flaucher island, monorail has an arrival level which is on the 1st floor of the transportation hub. Arrival level has a ramp that leads to the landscape of Brewery Complex & creates an accessible landing for both pedestrians and monovehicle* users .

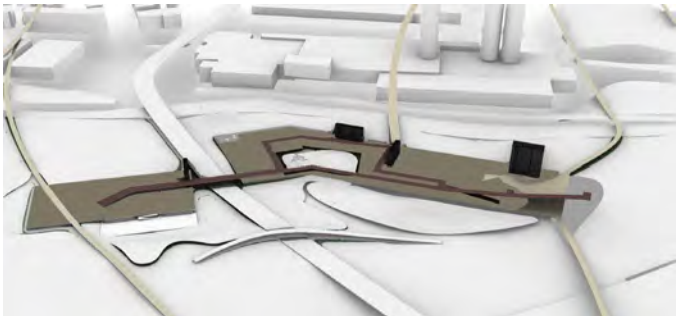
* Monovehichle refers to vehichles that are for singular users like bicycle, electrial scooters, etc.

GENERAL LAYERING OF THE BREWERY COMPLEX

1) TOPOGRAPHY, NEW PATHS & FOOTPRINT

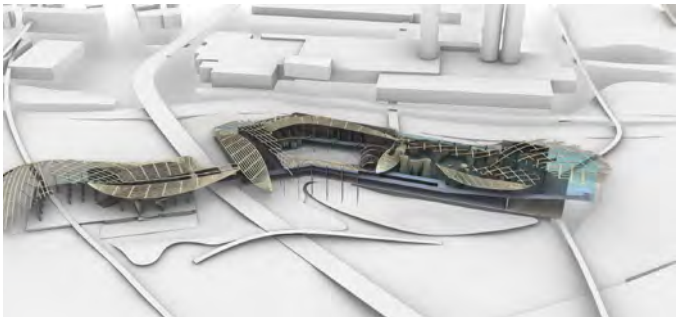


2) PLACEMENT OF CORES & PLATFORM

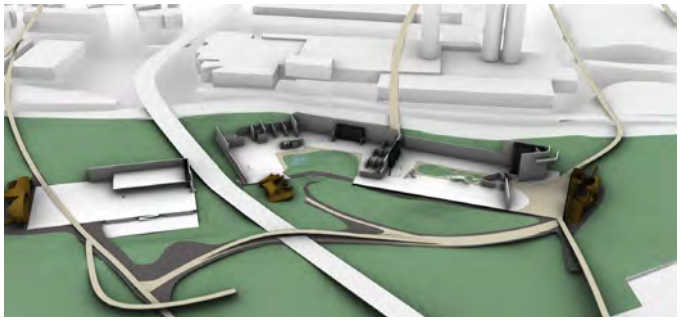


3) OVERALL MASSING WITH UPPER FLOORS

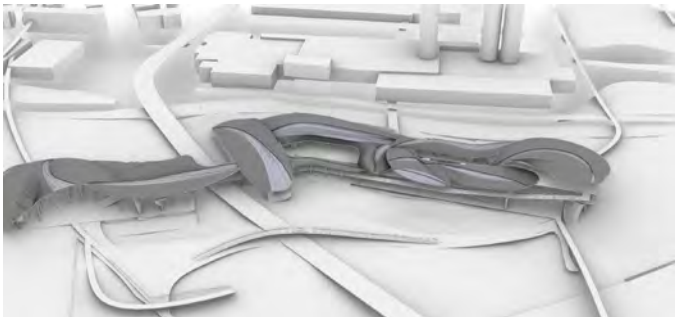
4) STRUCTURAL ELEMENTS



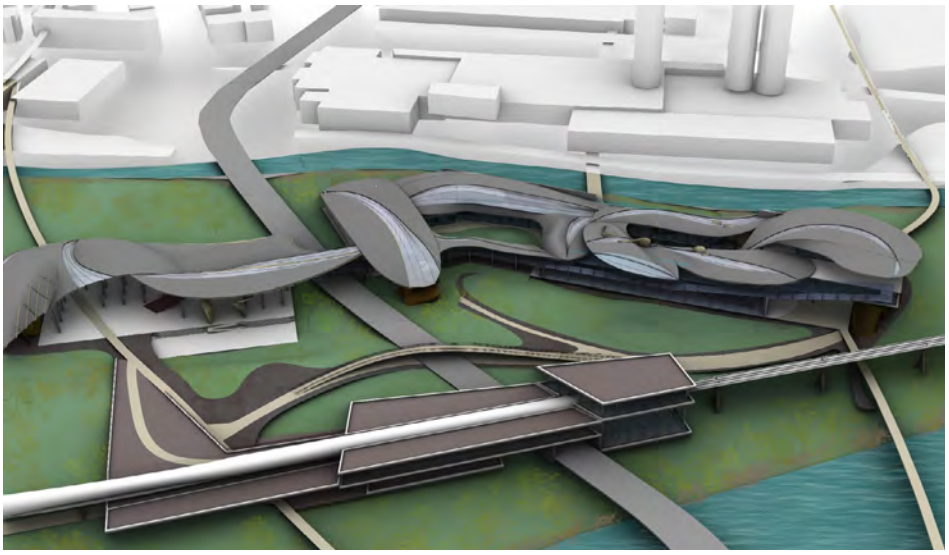
5) COURTYARDS & LANDSCAPE TREATMENTS



6) FORM OF THE ROOF

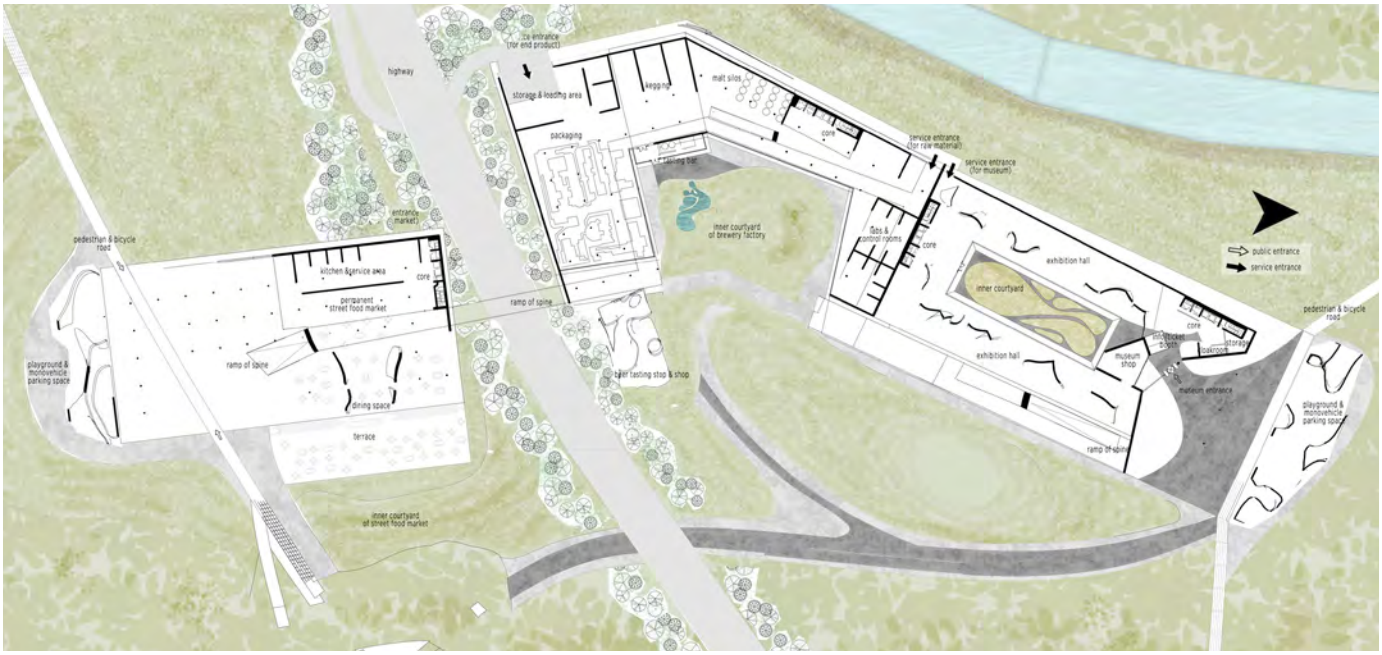


SYNTHESIS LAYER



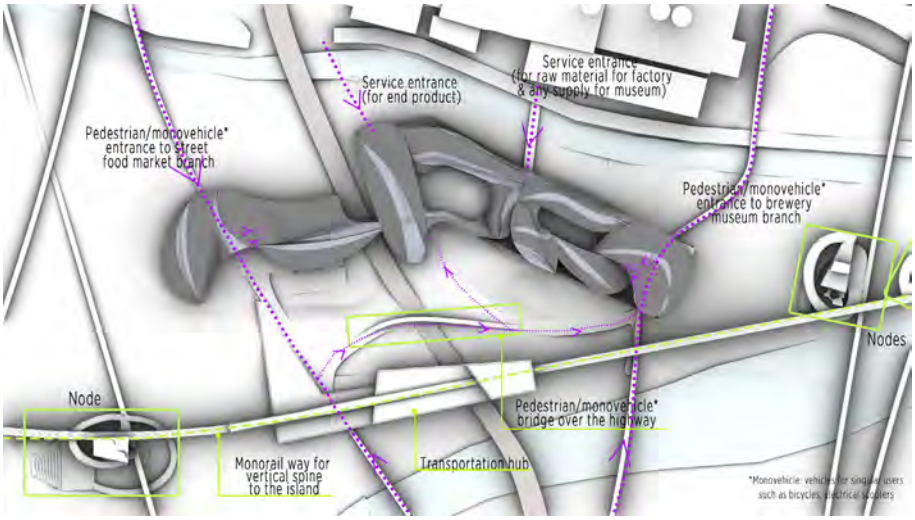
Superimposition of all 6 layers give the final output of the Brewery Complex.
With the expanding city radially & to be in close relation with the proposed revitalization of post industrial zone the branching of the intervention starts from northern part with brewery complex and transportation hub with respect to existing and new circulation paths that are proposed.
The complex gathers people from different circulation paths and serves an effortless & enjoyable experience.

GROUND FLOOR PLAN OF THE BREWERY COMPLEX

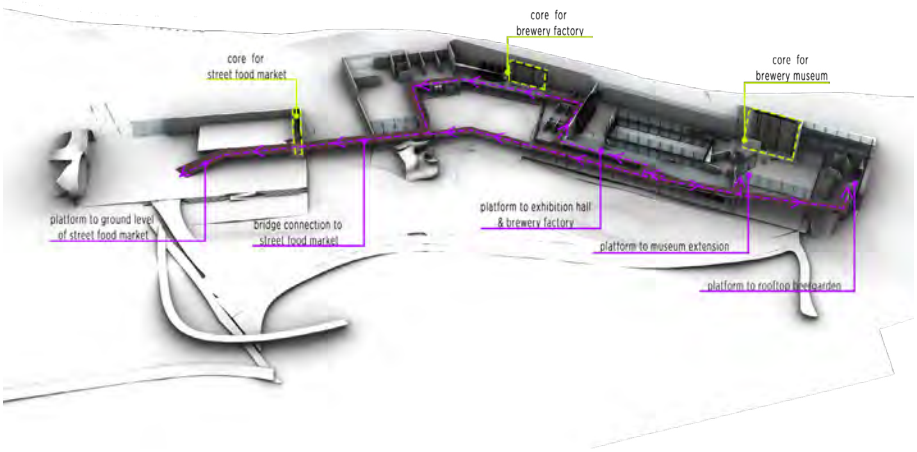


CIRCULATION DIAGRAMS

EXTERIOR CIRCULATION



INTERIOR HORIZONTAL & VERTICAL CIRCULATION

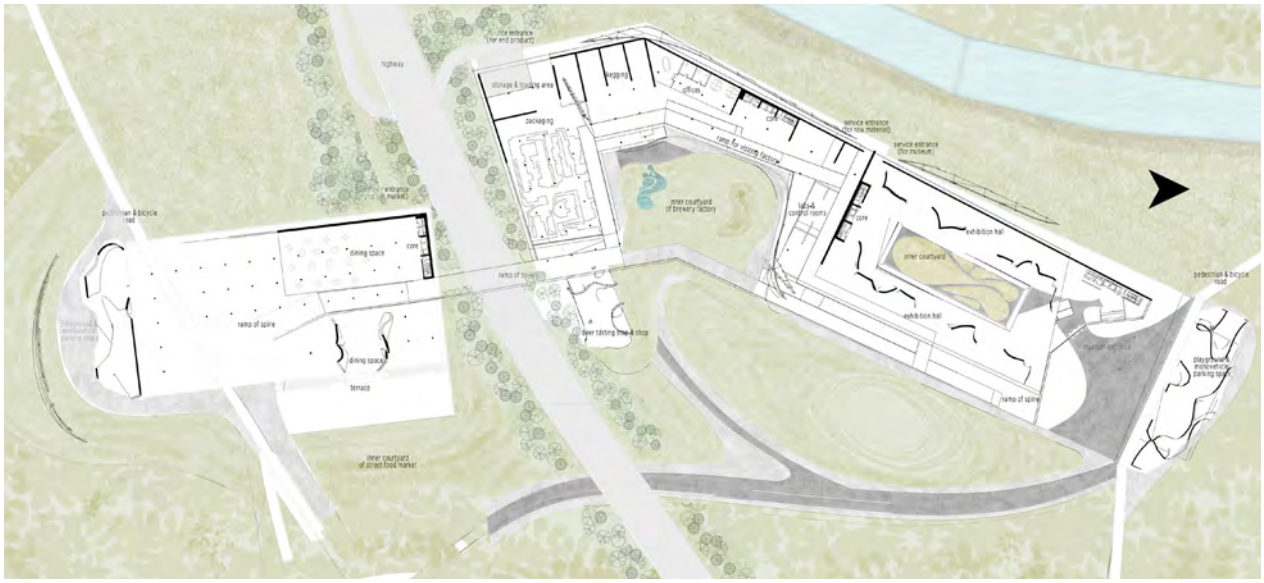


Circulation in and around the site is based on existing and possible axis according to circulation patterns and previous stage studies.

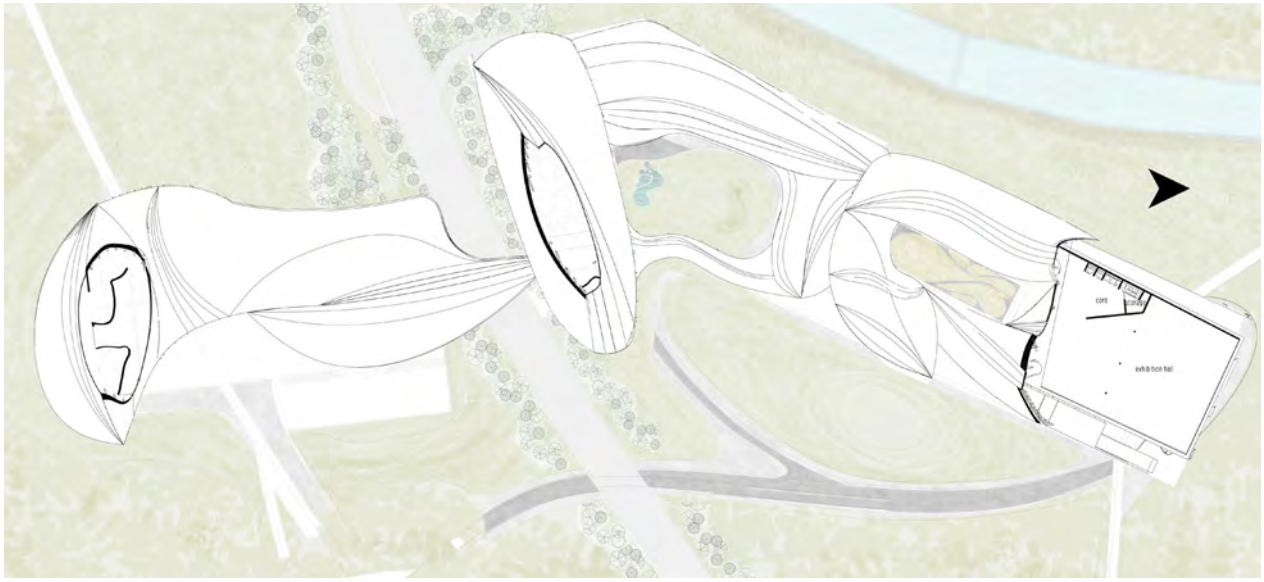
Exterior circulation in the complex is formed with new axis and nodes which are intersections of axis, monorail way, highway that passes through the complex and pedestrian and monovehicle movement. A bridge over the highway maintains the continuous pedestrian circulation in the site. As an addition, the factory has 2 & the museum has 1 service entrance.

Interior vertical and horizontal circulation is maintained with platform with ramps, that connects the complex as a whole, and cores, which include elevator shafts, wet spaces, mechanical spaces and emergency exit stairs.

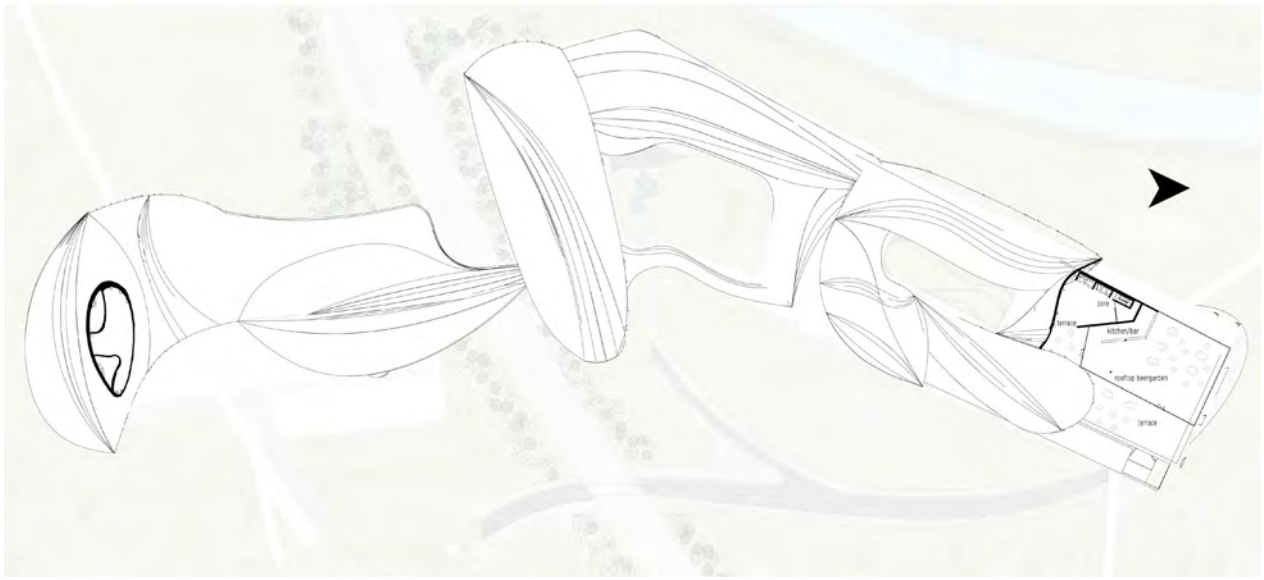
1ST FLOOR PLAN OF THE BREWERY COMPLEX



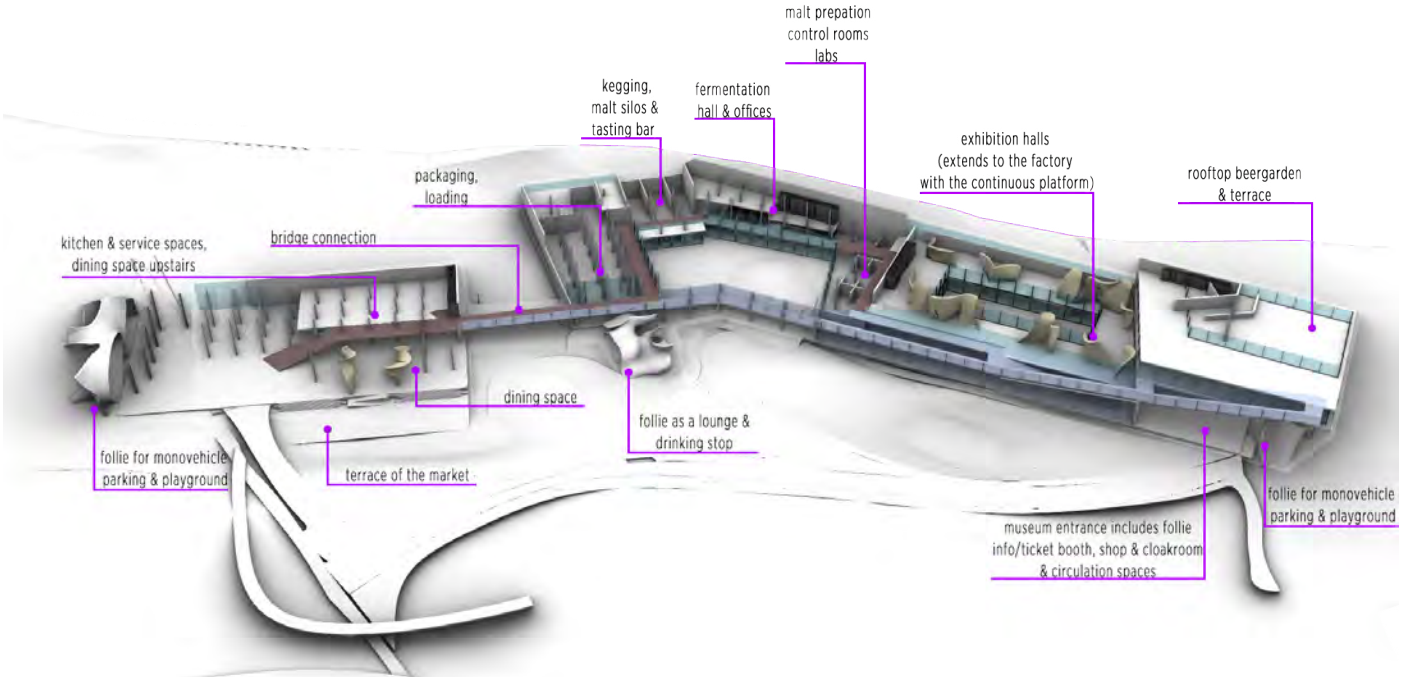
2ND FLOOR PLAN OF THE BREWERY COMPLEX



3RD FLOOR PLAN OF THE BREWERY COMPLEX

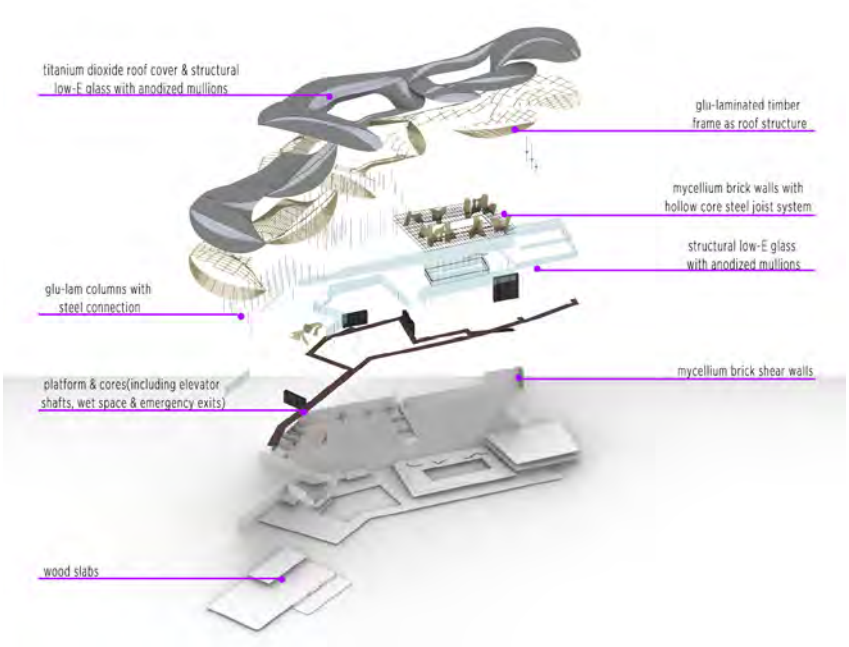


FUNCTION DIAGRAMS



The brewery complex consists 3 main masses which are brewery museum, brewery factory and a street food market The museum has exhibition halls extending towards to the factory, entrance hall with cloakroom, shop & circulatory spaces with the addition of rooftop beergarden. The factory mass includes functions from malt preparation to packaging with a platform acting as a exhibition hall. The street food market consists permanent street food market, dinning hall & temporary local market over the highway that passes through the site.

STRUCTURE & MATERIAL DIAGRAM



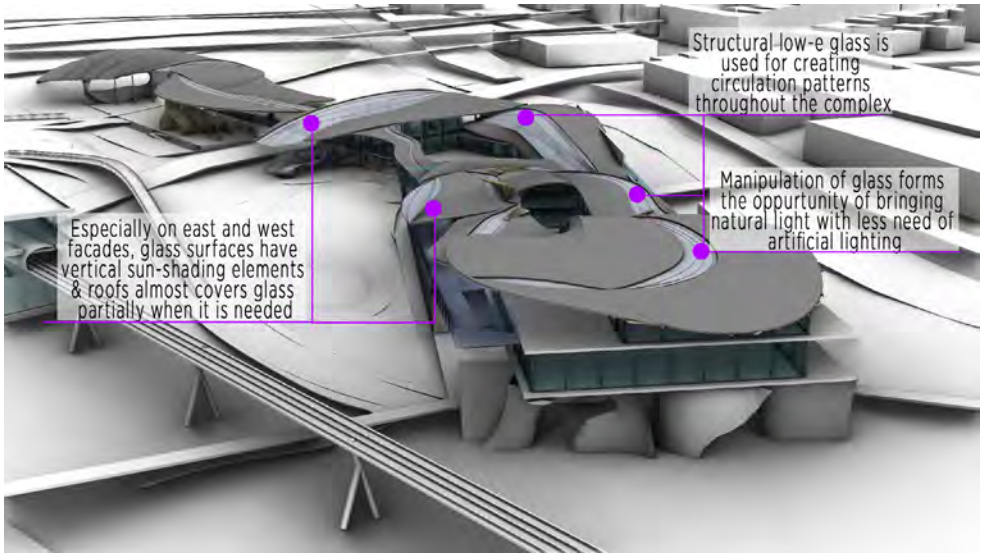
Forms of the roof “pieces” is are designed with respect to what is going to be happening underneath those pieces. The chosen roof system is formed with glu-lam timber frame. Glulam timber is known for its higher structural value than any regular timber. This structural approach toward roof systems is created variation with the chosen materials of anodized aluminum panels and transalucent structural glass in terms of transparency according to functions that are placed underneath. In addition, as for the vertical shear elements are mushroom brick or in other words mycellium brick is a 100% bio-degradeable material that has higher compression resistance value & high fire resistance than regular concrete. This light-weight material is too flexible in terms of workability & is a great reference to fermentation process.

ENVIRONMENTAL STRATEGY DIAGRAMS

Each design decision has made with respect to site spesific conditions and needs with passive & active environmental systems.

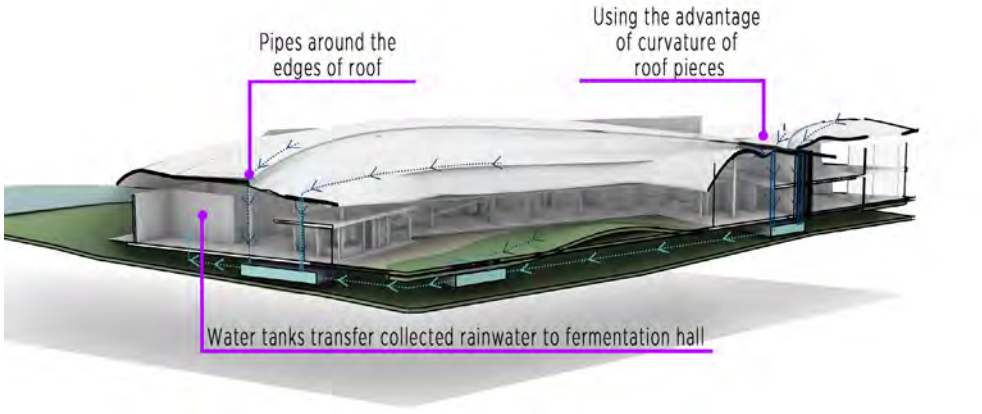
In terms of lighting, glass on roofing is used for creating circulation patterns throughout the complex, manipulation of glass forms the oppurtunity of bringing natural light with less need of artificial lighting & on east and west facades, glass surfaces have vertical sun-shading elements & roofs almost cover glass partially when it is needed.

LIGHTING STRATEGY DIAGRAM



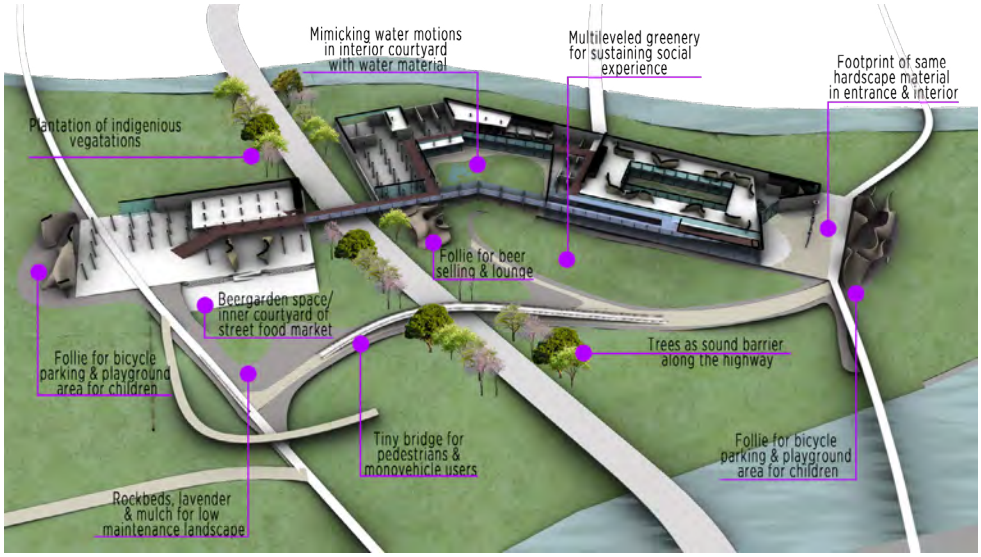
RAIN WATER MANAGEMENT DIAGRAM

The site is considered as high flood risk area & takes huge amount of rain during winter. In order to manage rain water gutters are placed to collect and transfer to the water tank which is used during the process of fermentaion of the beer.

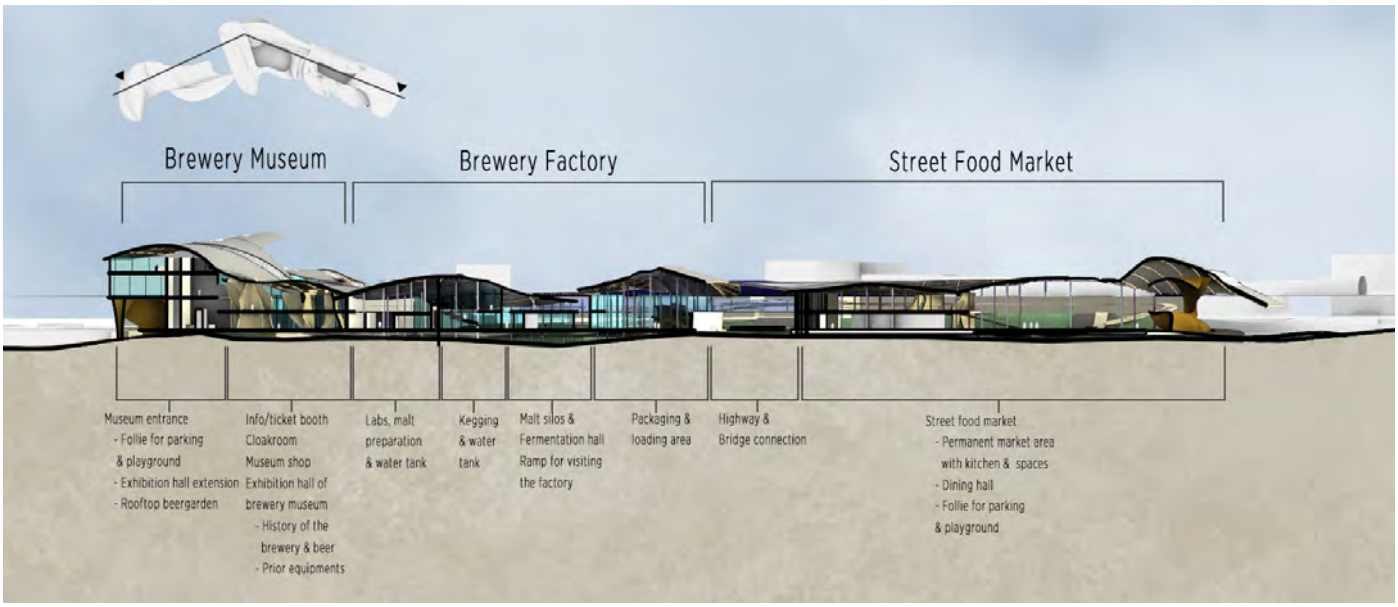


LANDSCAPE TREATMENTS DIAGRAM

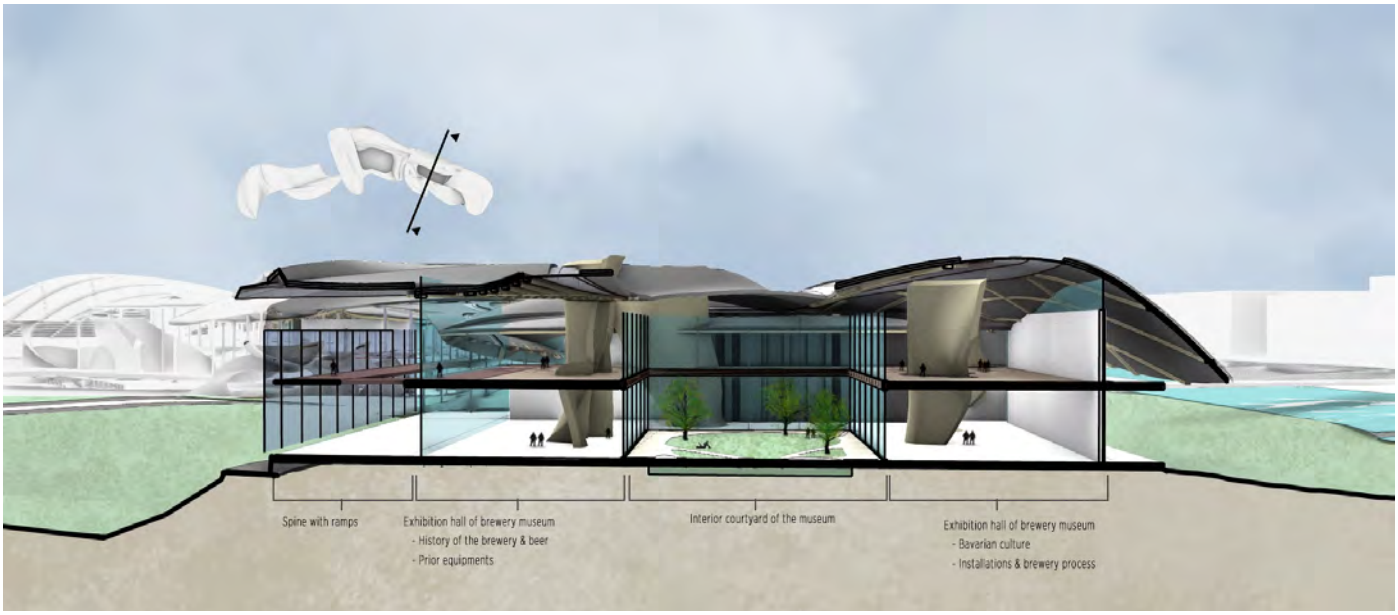
In addition, landscape needs are provided with trees along the highway as a sound barrier, rockbeds, lavender and such materials are used as low maintanance landscape elements, inner courtyards in and around built masses are created in order to interact with nature more closely and to bring natural air and light to the complex.



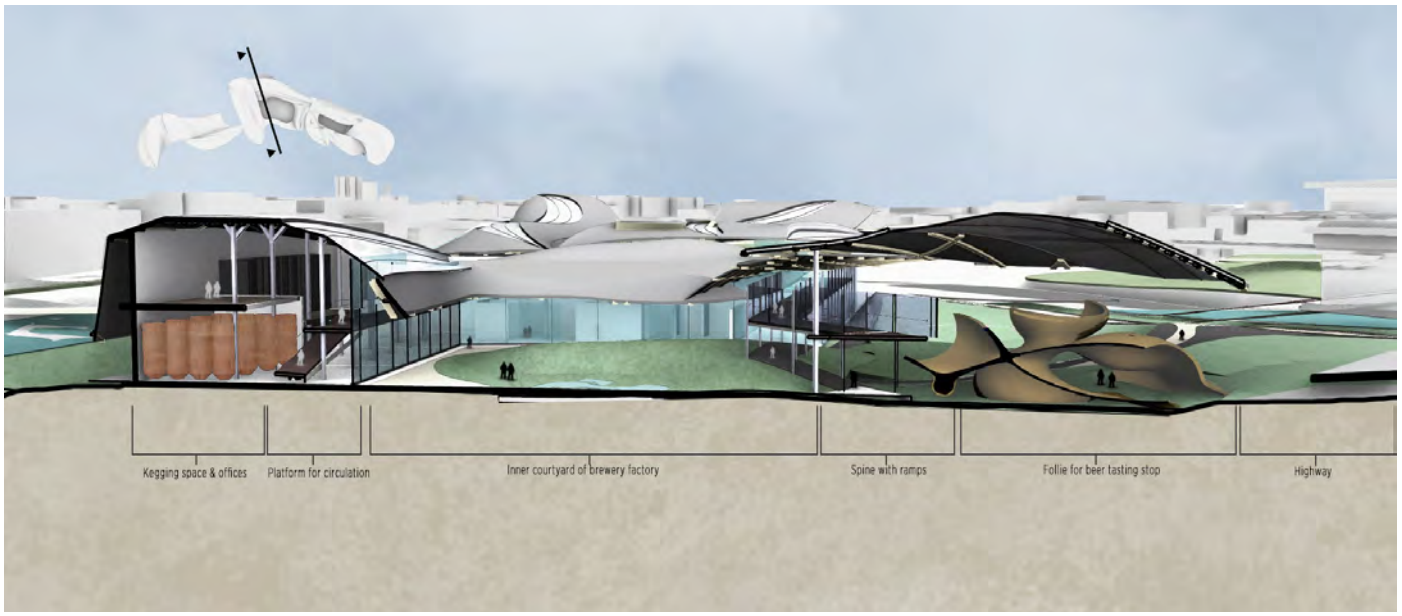
FRAGMENTED SECTION AA' (LONGITUNAL)



SECTION BB'(TRANSVERSE)



SECTION CC'(TRANSVERSE)



SECTION DETAIL

INTERIOR PERSPECTIVE FROM TASTING BAR

PERSPECTIVE FROM TRANSPORTATION HUB LOOKING TOWARDS THE COMPLEX

INTERIOR PERSPECTIVE FROM EXHIBITION HALL OF THE MUSEUM

PERSPECTIVE FROM STREET FOOD MARKET ENTRANCE

PERSPECTIVE FROM BREWERY MUSEUM ENTRANCE

Asena Erbaşı

FICTIVE SPACES: ARCHITECTURE OF BILLENNIUM

An NARRATIVE UNIVERSE of the Short Story of BILLENNIUM by Ballard

Asena Erbaşı

This project aims to create a narrative universe set in the near future based on a short story by James Graham Ballard. This project aims to approach to modern urban concentration within a modernist critique. The theme of the story presents corruption, freedom, overpopulation, power, loss of privacy and planning. One of the most important aspects of the dystopian world is the population number since it shapes the architectural adjustments. In order to achive the goal, this project proposes a whole new city considering the movement of characters, actions and the society of the future over-populated city in order to design spatial spaces created by actions.While designing, some architectural inspirations are taken from the approaches of Metabolist architects. So that, these approaches can end up shaping the non-buildibale dystopian world of Ballard's Billennium.

THE FLAT CHARACTERS AND FUTURISTIC SETTING ARE TYPICALLY BALLARD

ABOUT J. G. BALLARD

British Author James Graham Ballard (November 15, 1930, Shanghai - April 19, 2009, London) spent four years of his childhood in a Japanese prison camp near Shanghai during World War II. The devastated city and nearby countryside also provided settings for several of his apocalyptic novels. His first short stories appeared in the 1950s.

Beginning in the 1960s, Ballard wrote longer works. His short stories were published in science fiction magazines and were heavily influenced by the surrealist movement.

Ballard's works originated around his obsessions and developed these themes that progressed into his novels. The dislocated sense of time and space in these stories is located in his childhood experience of war and provides many of the images that have become associated with Ballard's fiction: wrecked machinery, deserted beaches, crashed cars, abandoned buildings and empty, desolate landscapes.

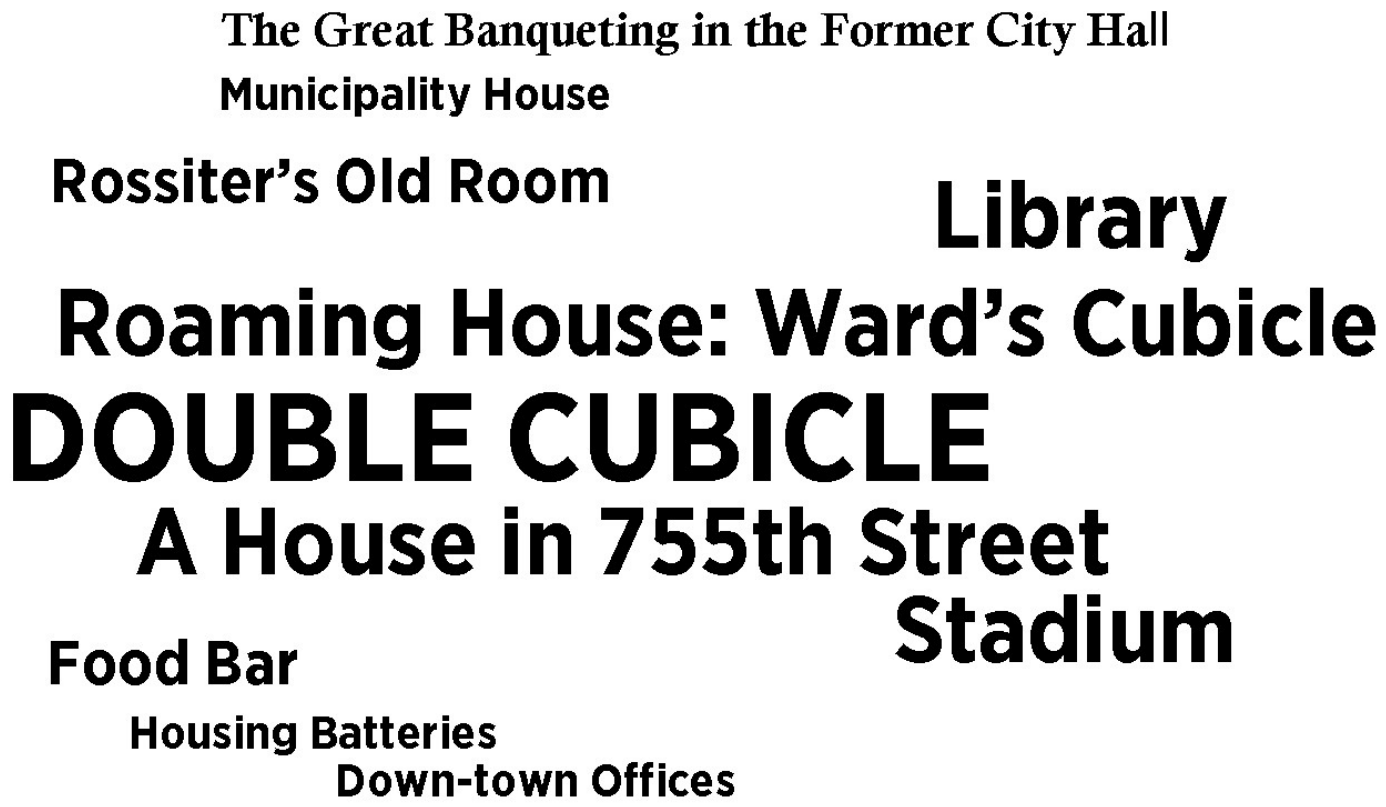
'We live inside an enormous novel', observes Ballard in the introduction to his most controversial novel Crash (1973), 'The fiction is already there."

Throughout all this work Ballard employs a deliberately unemotional narrative voice and an ironic humour.

The subjects of Ballard's stories - time and space, the mass media's control on human lives, individuals discovering conspiracies by corporations or governments - are characteristic of his work as a whole.

Ballard wrote 'Billennium' when he was 31 in 1961, also known as "Common Era". The story published in January 1962th edition of *Amazing Stories*.

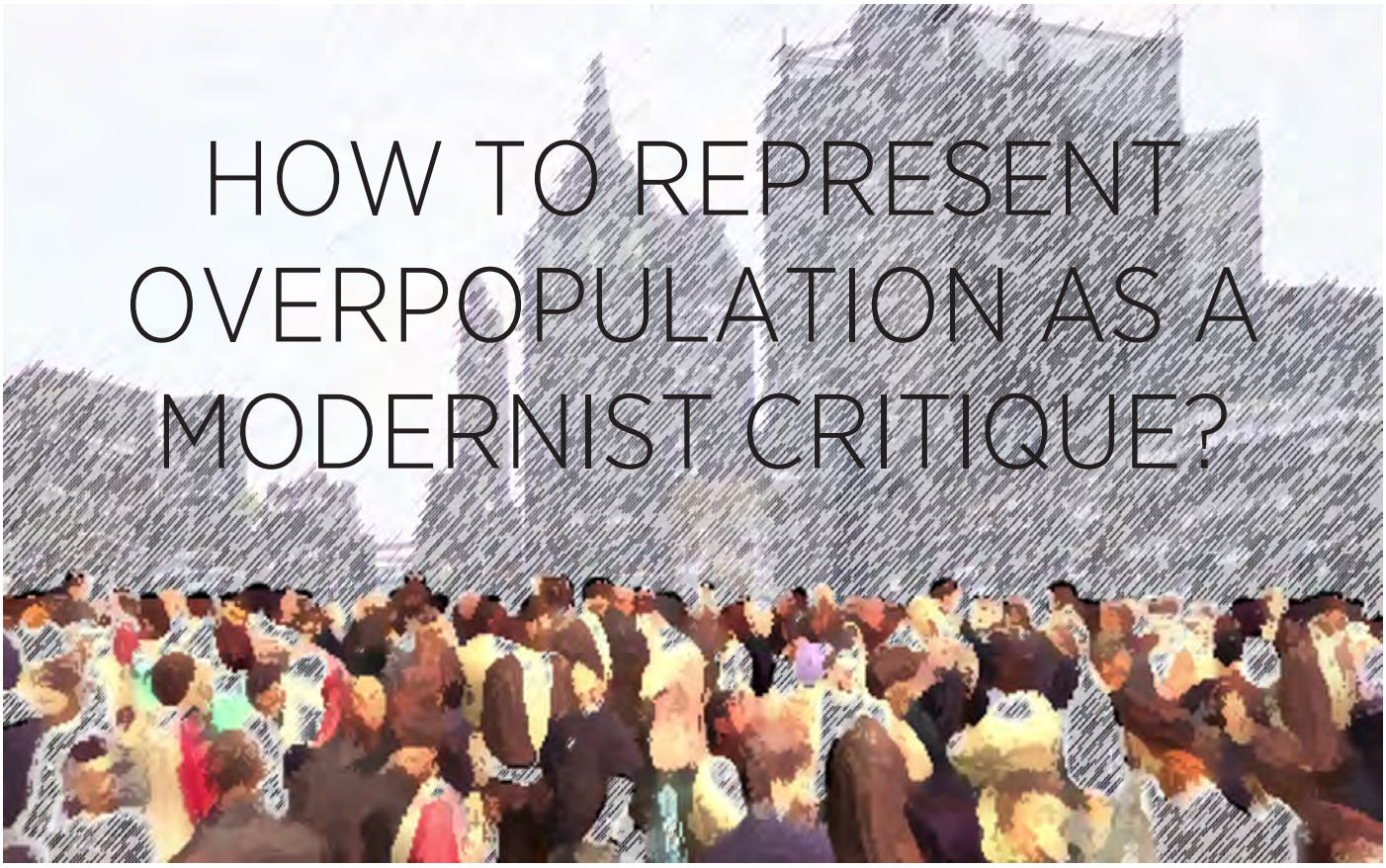
-Britannica, The Editors of Encyclopaedia. "J.G. Ballard". Encyclopedia Britannica, 11 Nov. 2020, https://www.britannica.com/biography/J-G-Ballard. Accessed 16 February 2021.
-https://literature.britishcouncil.org/writer/j-g-ballard



SUMMARY OF BILLENNIUM

The story takes place in distant future, when the global population reaches 20,000 million. Overpopulation is caused by wrong planning that becomes threat for a human race because the space is substantially limited. Streets are so populated with people that once they had to wait 48 hours to cross a street. Government is ineffective to get the balance right between urban and rural space.

The story revolves around Ward who work sin a library. At first, Ward lives in a cubicle located on a staircase between fourth and fifth floors which is only four and half square meters. Normally, the space that each person can occupy is regulated by the city council and is only four square meters. It only becomes equal to a small room if you are a family. Therefore, people are encouraged to make at least three children. Ward and Rossiter are close friends who happen to share a cubicle when they discover a secret space that is larger than an average room and adjacent to their rented double cubicle. They get mesmerized by the extra space they have found and its largeness confused their minds. As they wish to attain maximum benefit out of the space, things get complicated. Rossiter invites two of their girlfriends, who were kicked out several times from their old places, to share the room with them. Later, girls bring their families as well. In the end, what they found as luxurious has turned out to be a crowded space which they tried to escape. They then had to give up on the Victorian wardrobe, one of the many furniture the two bought at the first place when they had more space inside the cubicle, to make more space.



HOW TO REPRESENT OVERPOPULATION AS A MODERNIST CRITIQUE?

The Fictional Representation of Modern Urban Concentration in the Work of J.G. Ballard

Zeynep Tuna Ultav studies the consequences of modernism for an architectural discourse. She constructs her work by also reading J.G. Ballard's fictional media and selects 'Billennium' as one of the dystopian sources.[1]

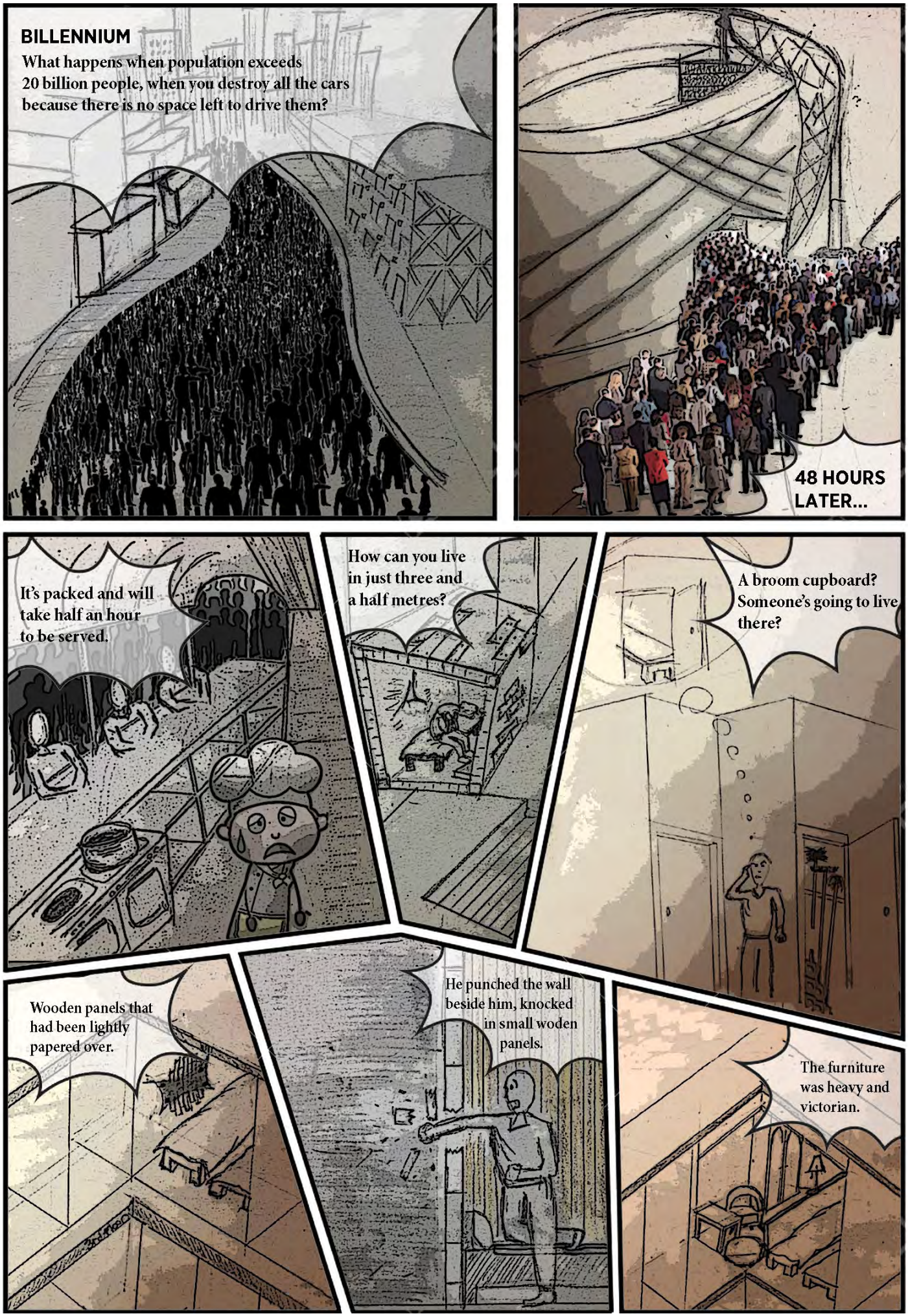
The urban concentration is a constitutive principle of modern architecture, and it is the dominant theme in the construction of Ballard's New Wave novels. She analyzes three science fiction stories by J.G.Ballard in order to convey this modernist urban principle. The Concentration City (1957) displays the dystopia of an over-populated city in which there is an absence of open space. Chronopolis (1962) displays the dystopia, in which city dwellers' use of the city is restricted through legal procedures. An finally Billenium (1961) is another Ballardian story that conveys the restriction on living space to cells of 3 m^2, imposed by the Residential Committee' when the population exceeds 20 million.

Ultav focuses on the literary spaces mentioned in Ballard's works. She believes that "the density of the city and the transformation by scale affect each other".[2] Density can be understood by first the number of people in a city and by secondly, the consequent number of multifloor apartment blocks appear in stories. She highlights that the second depends on the first. She points out that multi-floor buildings make the city look denser because of their height. According to Ultav, Ballard also refers to the loss of public space in a literal sense. In order to cope with population, public spaces were replaced by dwelling spaces, which he calls "housing batteries". Since the only building typology was reduced to apartment buildings alone, publicity could only be provided in the staircases used as informal lounges.

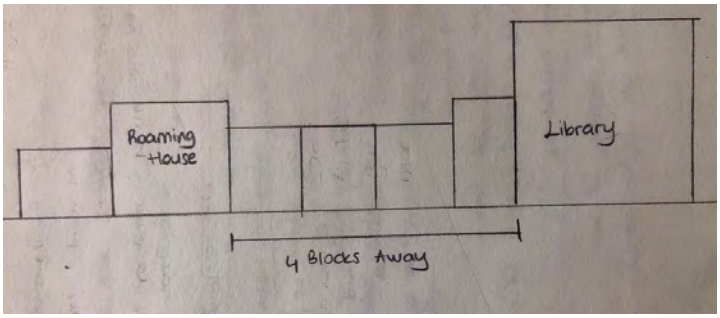
In conclusion, the concept of urban concentration, and the capacity of this concept to create a transformation of scale was proposed in all three works of Ballard. These themes, which appeared early in his work, play an important role in the construction of Ballardian discourse. The long and continuous historical process that includes the discourses of Trancik and Jacobs and Appleyard reveal the importance of the impact of this theme in the architectural realm. Ballard does not create new realities; rather, he interprets the conditions of the recent past as well as the present into a future perspective, and he establishes his criticism through the overstatement of these conditions through what we call dystopia. Ultav claims the data provided by the fictional representation of space in Ballard's dystopian world can provide new knowledge when conveyed to the epistemological realm of architecture.

[1] *Ultav, Zeynep Tuna. "The Fictional Representation of Modern Urban Concentration in the Work of JG Ballard."*
[2] *Ultav, Zeynep Tuna. "The Fictional Representation of Modern Urban Concentration in the Work of JG Ballard.", pg. 26.*

STORYBOARD

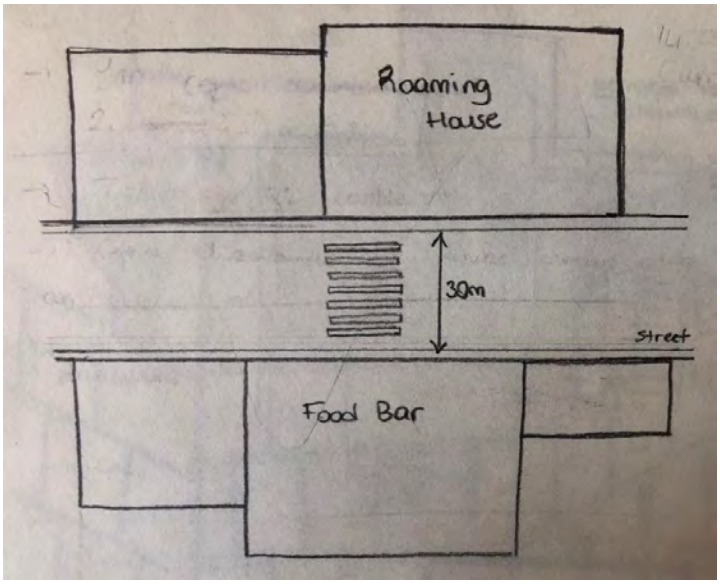

BILLENNIUM
What happens when population exceeds 20 billion people, when you destroy all the cars because there is no space left to drive them?
48 HOURS LATER...
It's packed and will take half an hour to be served.
How can you live in just three and a half metres?
A broom cupboard? Someone's going to live there?
Wooden panels that had been lightly papered over.
He punched the wall beside him, knocked in small woden panels.
The furniture was heavy and victorian.

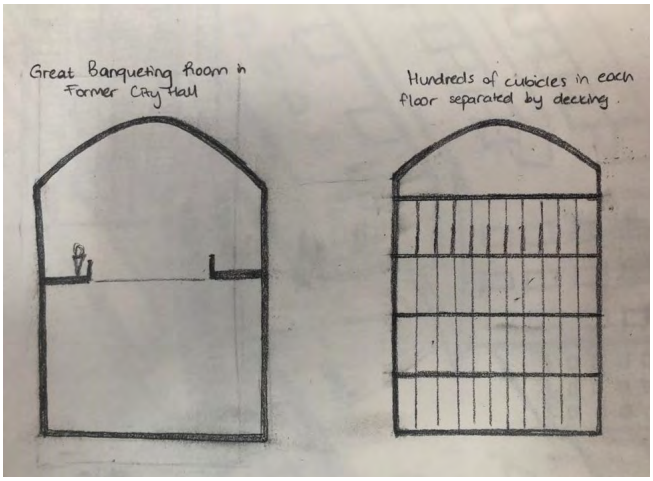
DIAGRAMS OF THE RELATIONS & MATERIAL FINDINGS

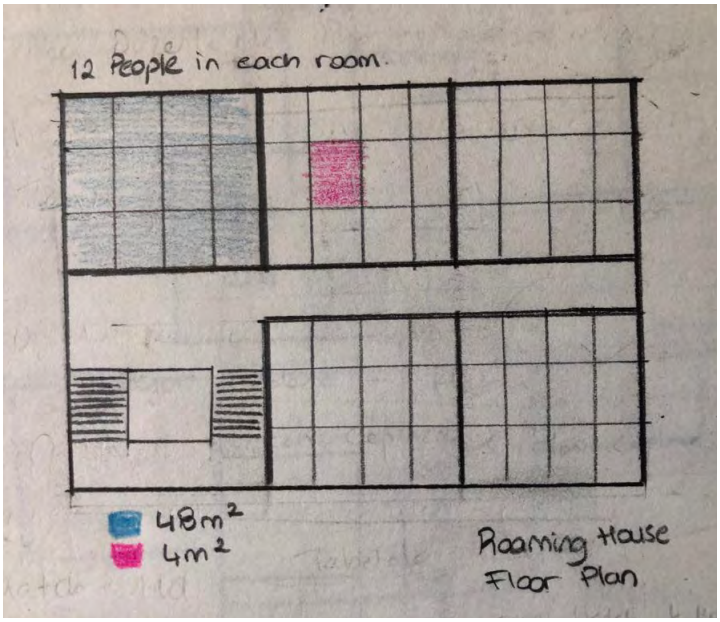


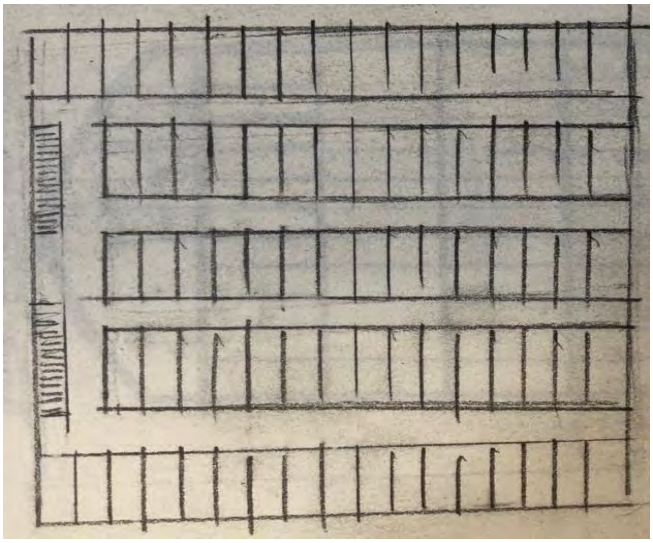
1. CARDBOARD WALLS
in roaming house

2. PLYWOOD WALLS
in roaming house

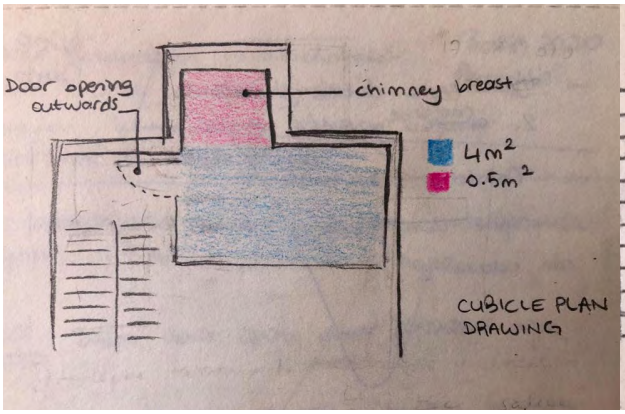


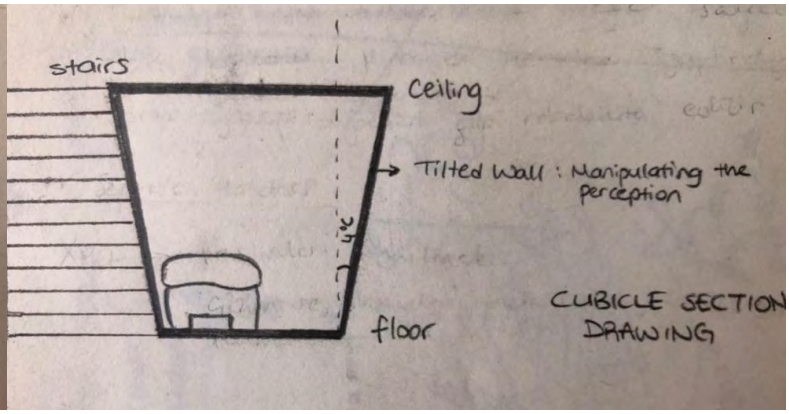






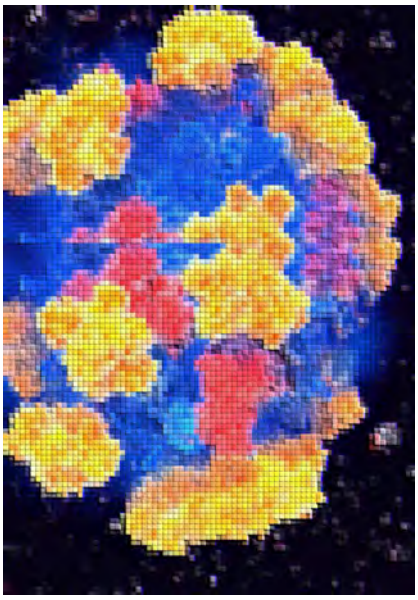
"The great banqueting room in the former City Hall had been split horizontally into four deck, each of these cut up into hundreds of cubicles."

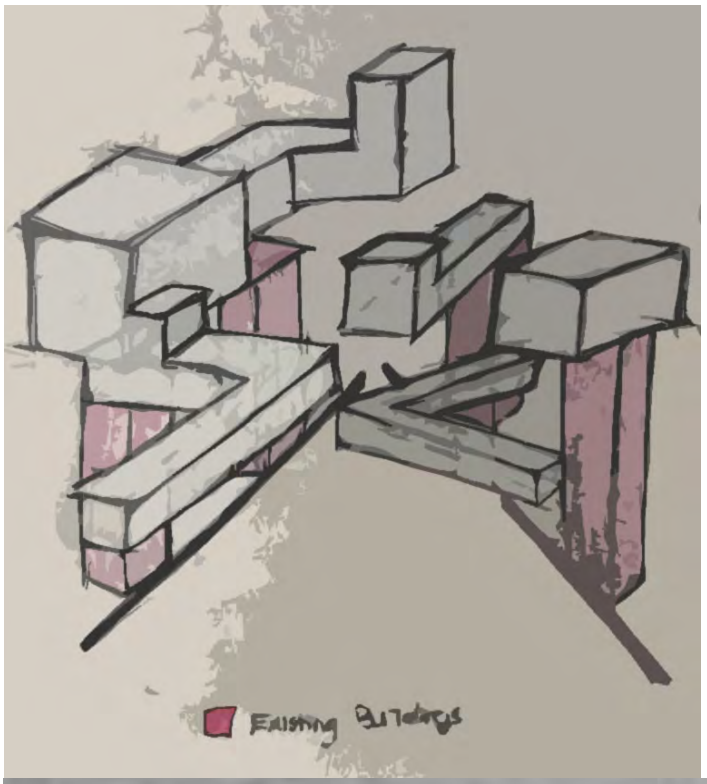




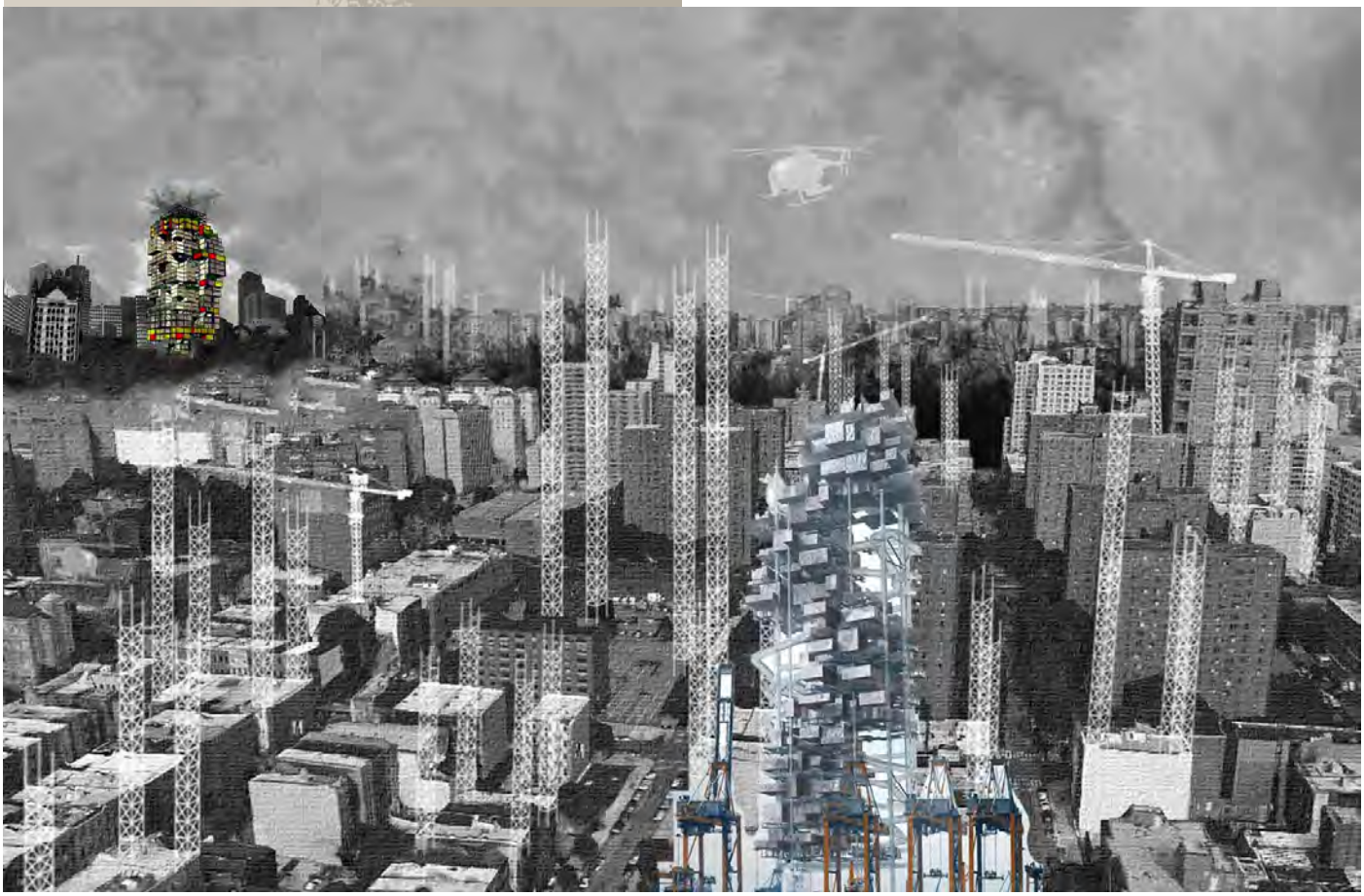
DESIGN INSPIRATION & IDEAS

This project has been inspired by biological growth of cells, mainly of viruses, like the culprits of our current situation. A virus can replicate itself. However, for a virus to do that, it must infect some kind of a cell because it cannot replicate alone. In this project, cubicles are like viruses. They are being added-on to each other and to the existing buildings. This is the way of a cubicle to get multiplied on the building that they are being constructed on.





The city in Billennium should always be under construction because as “Eight hundred million extra people in one year” population growth occurs in the story and the room size per person is decreased from 4 to 3 square meter, rapid changes and additions will always be required. Some new constructed buildings will have an exoskeleton which is the basic infrastructure that provides the main structure. Habitable units can be pre-fabricated or can be constructed out of plywoods or containers to make them portable and lightweight.



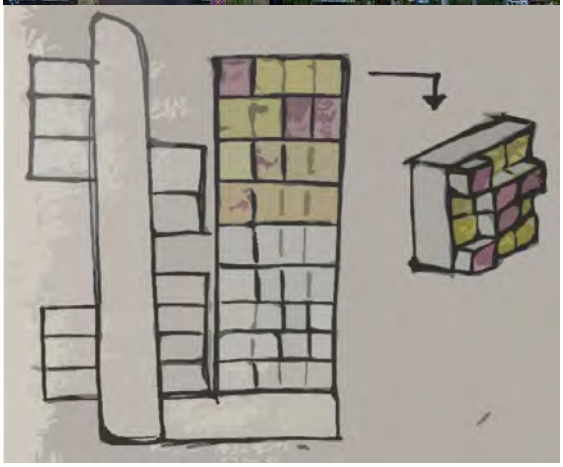
METABOLIST ARCHITECTURE

Metabolist architecture is a tool for spatial realization. On the right image, the Shizuka Press and Broadcasting Center is shown, that encapsulates the concept of new *Metabolist* order in architecture and urban plannign that is prevailed in Post - World War II in Japan.

The Metabolist architecture generated new urban typology that can self-perpetuate in an organic, vernacular, metabolic manner.

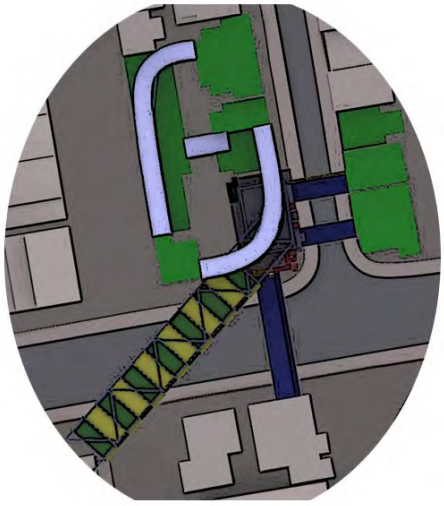
This system is beneficial in order to create a city that is ever growing with also rapidly increasing number of pre-fabricated capsules which can either plugged-in or constructed fast by using Tunnel Scaffolding method. This structure is also beneficial when defining the room sizes. Both the structure and the system gives infinite options to form spaces.

Metabolist architects are also surrealists. In order to include some futuristic elements in Ballard's story world, some surreal approaches are inevitable. For instance, while some buildings are hard to construct due to gravity, ***in this project, the focus will be on dystopian surrealism with repetition, density, soullessness, folding, mashing for spatial manipulation.***



The towns of post-WWII era are rapidly constructed Modernist buildings and are a constant source of fascination, especially after the Iron Curtain was lifted. Since Ballard has lived in this period and highly effected by it, what was not possible back than can be imagined to be possible in the future.

MASTERPLAN & SITE PLAN



SITE PLAN
focusing on double cubicle building

MASTERPLAN
showing all important locations

Per-Capita Space of Urban Residents

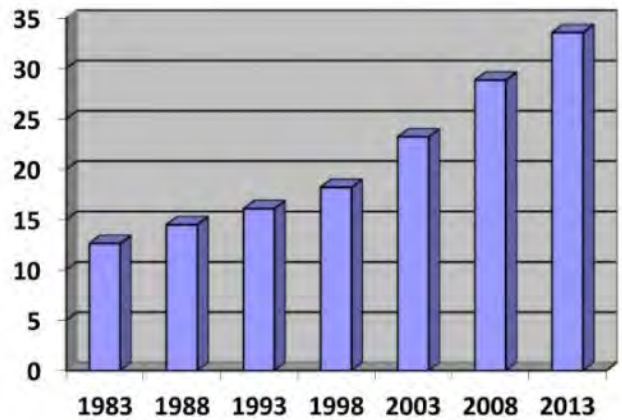


Figure: The steady increase of per capita housing space of urban residents in m2 (y-axis of the graph) over the last four decades in the City of Ningbo, China

Hong Kong id chosen as a base for the masterplan because of its high density both for population and buildings. It has high buildings as imagined for Ballard's story as well. Hong Kong is one of the densest developed cities in terms of population density.

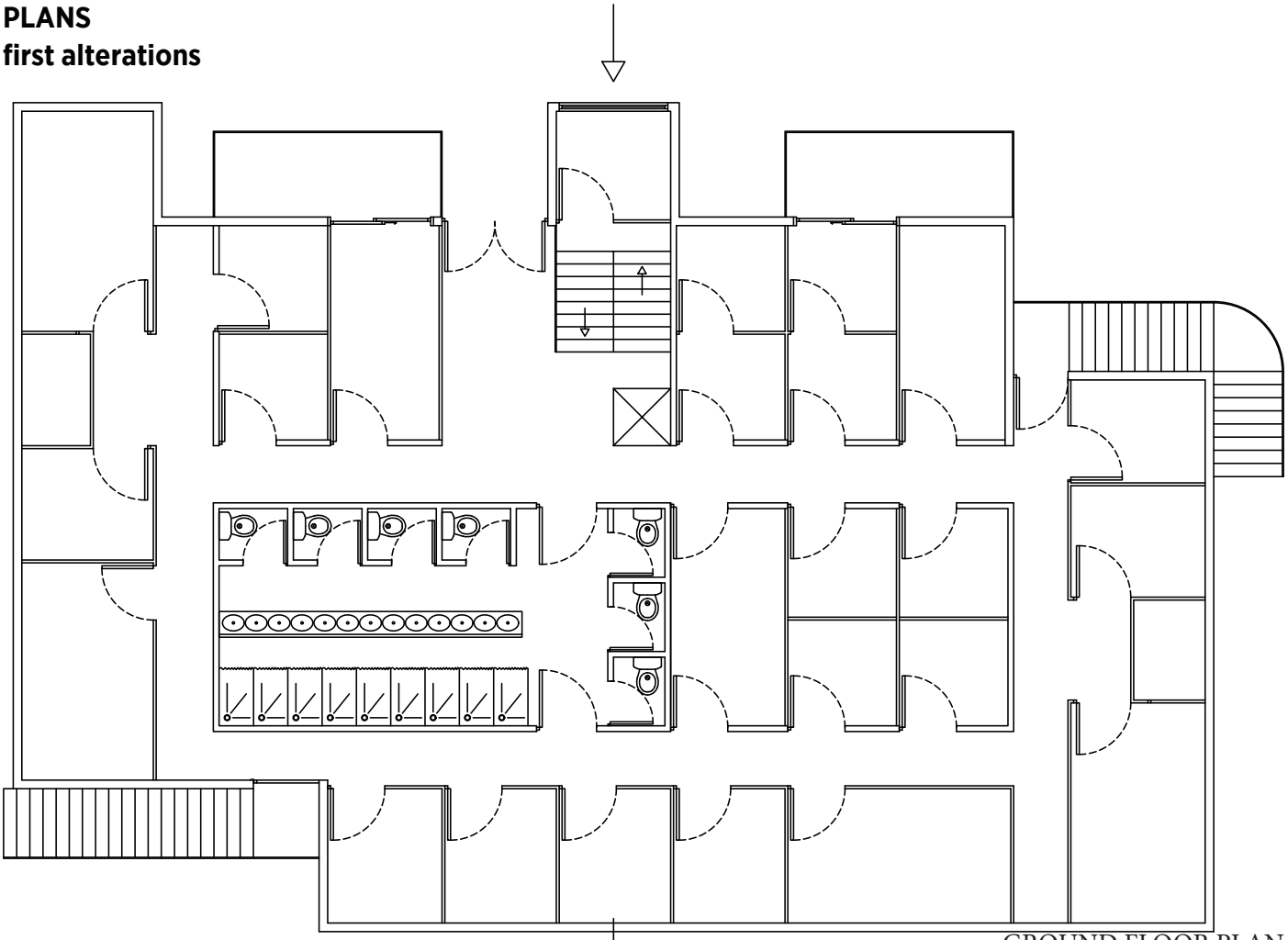
It is difficult to reach such a density by only forming individual housing units. That is why world's busiest settlements is chosen as a base which is significant for this project's design approach.

High-density development pattern is often result in undesirable externalities as overcrowding, traffic congestion, inadequate infrastructure which should be greatly represented in the new created Ballard's story space.

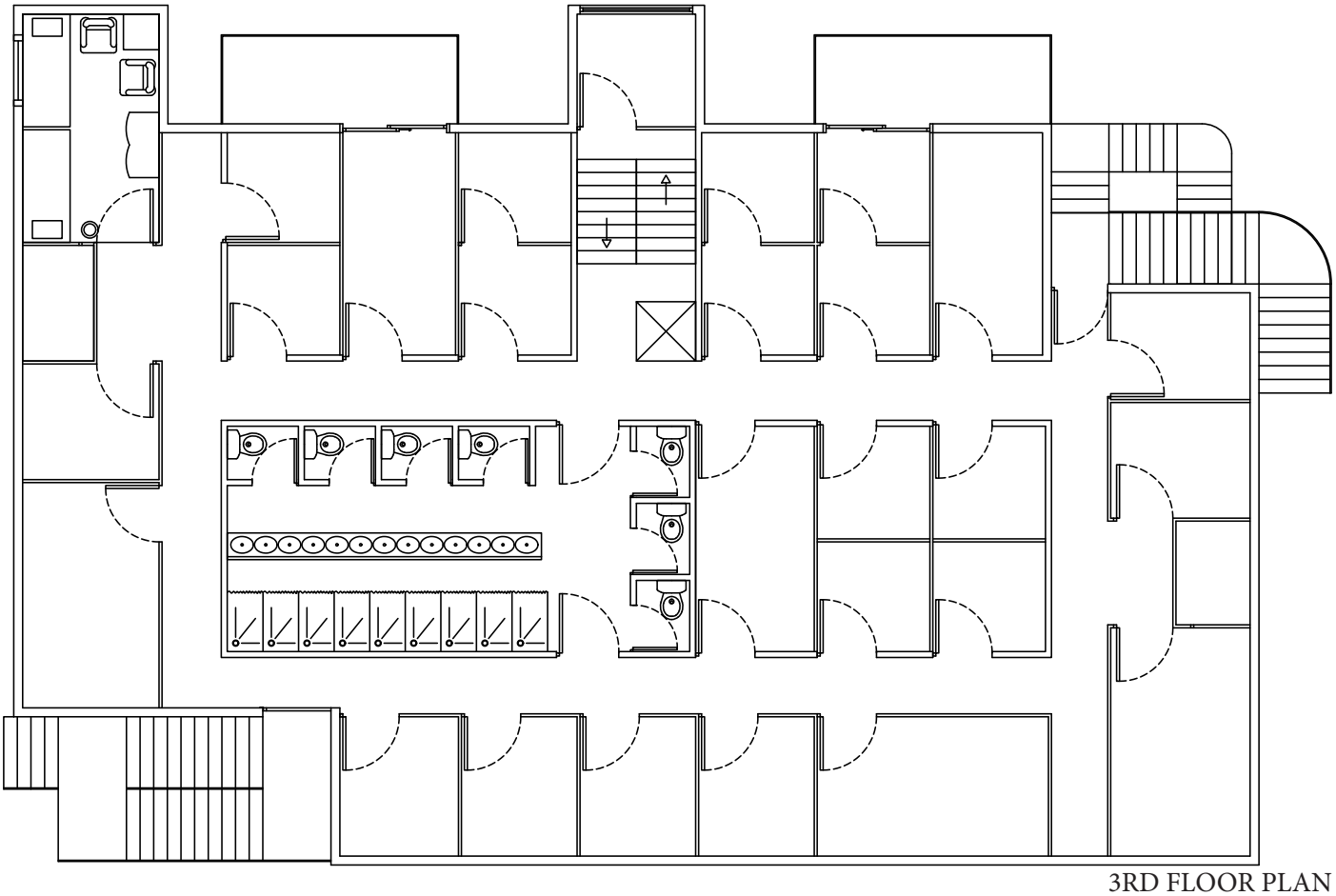
The placements of some spaces are done according to the descriptions that Ballard gave. Through some diagrammatic analysis, the relationships have been discovered to create a meaningful and scaled masterplan drawing for the story world.

EVOLUTION OF MASTERPLAN

PLANS
first alterations

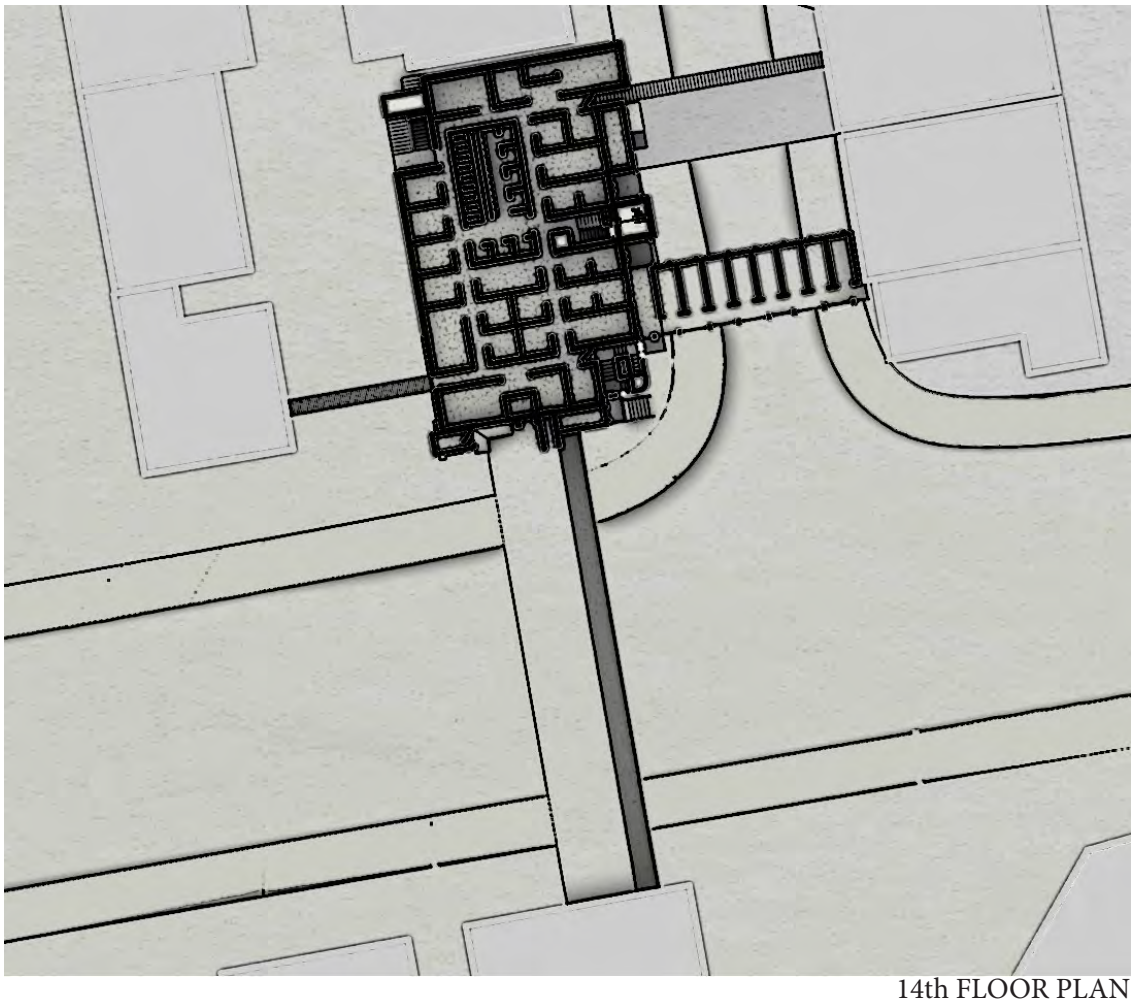


GROUND FLOOR PLAN

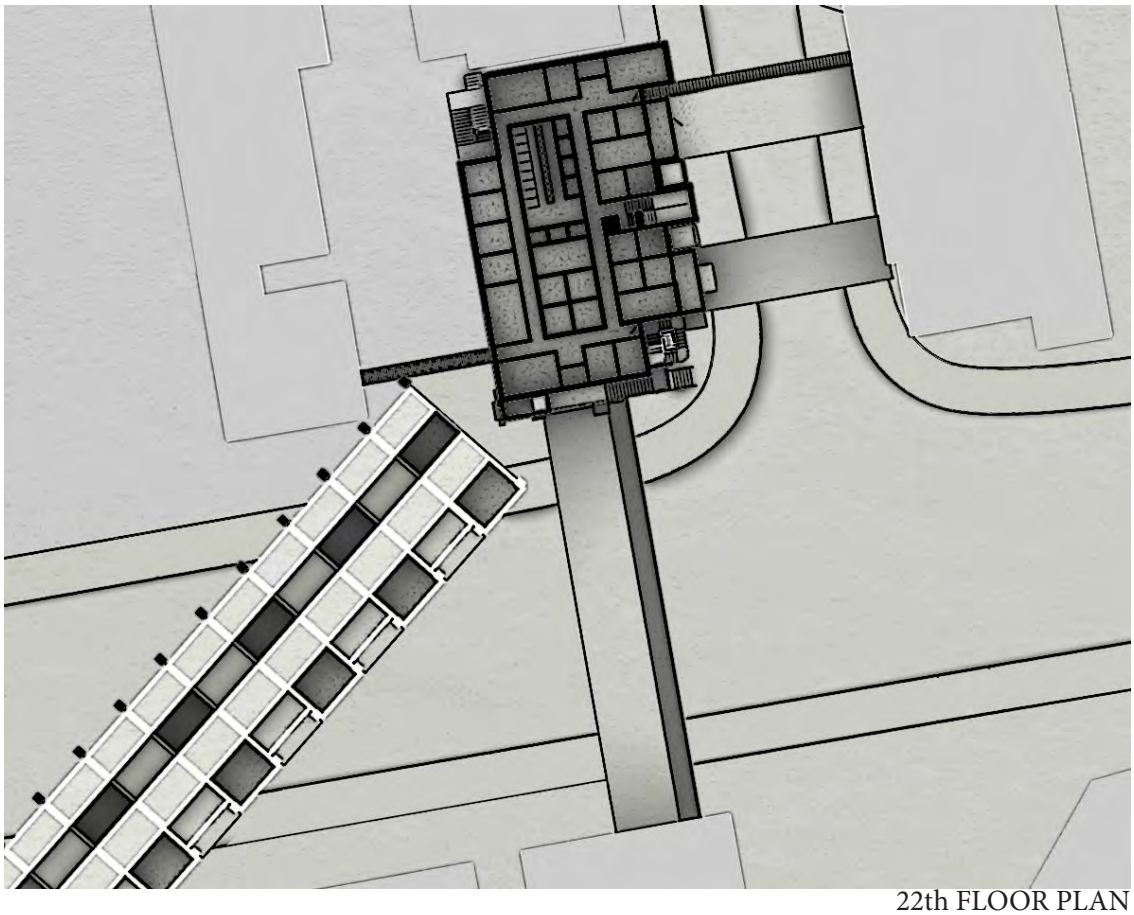


3RD FLOOR PLAN

PLANS
later alterations



14th FLOOR PLAN



22th FLOOR PLAN

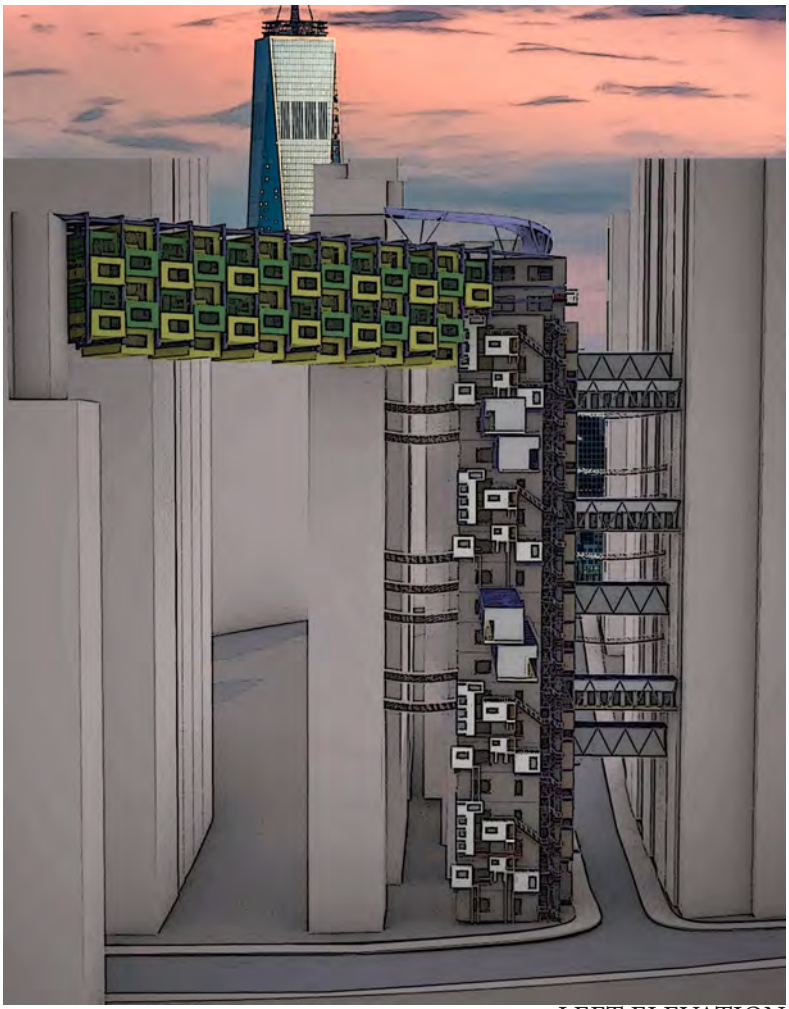
ELEVATIONS

The organic growth that is observed in the articulation of masterplan is also visible on this individual building. A city where all of the buildings are functioned as accommodation is visible on thse elevation views. The most common solution to over-crowdness in a city is to increase the floor numbers which is the first thing that comes to mind. However, when all the buildings reach up to the sky, a new angle is required rather than vertical growth. On these elevation, horizontal extensions create a higher city settlemet.

FRONT ELEVATION

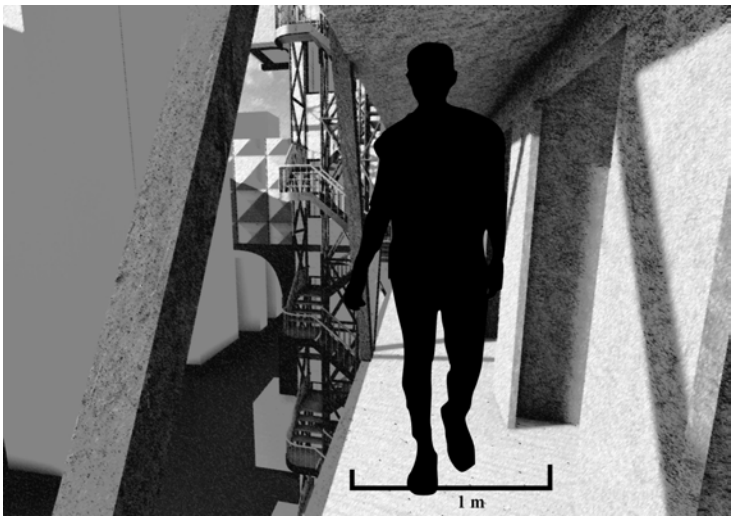
The dystopian effect of the city is created throuhg the haphazardness off additions. Buildings gained new functions and turned into a structure for new formations.

The inspiration and the idology taken from metabolis architecture is used for the 'high city' which will be explained more clearly later.

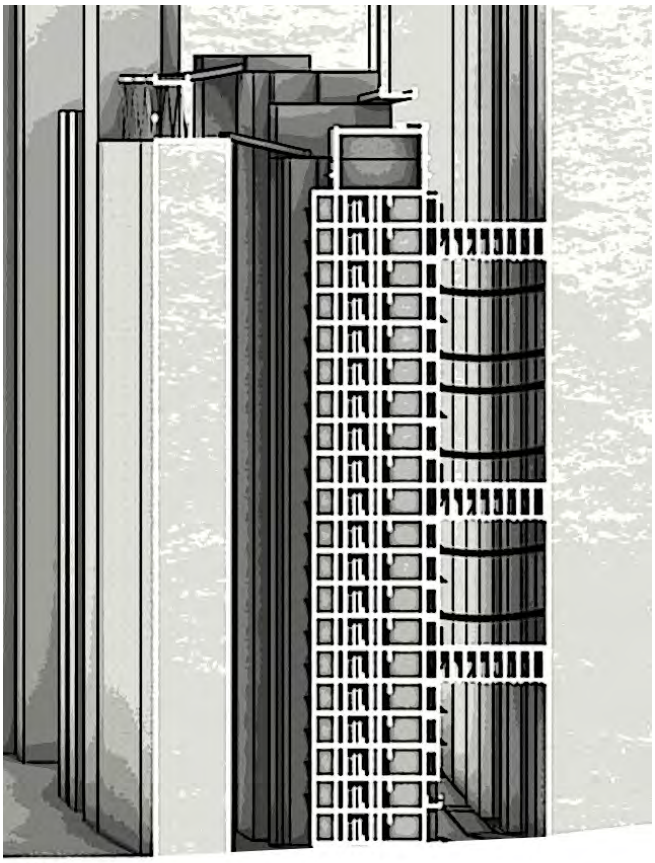


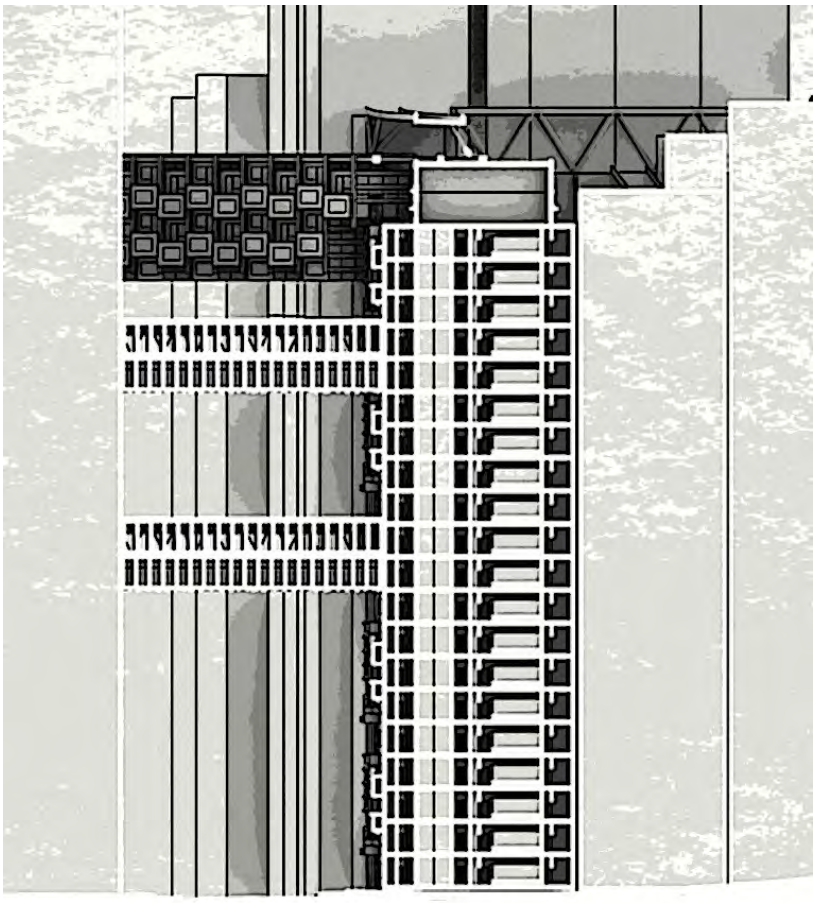
LEFT ELEVATION

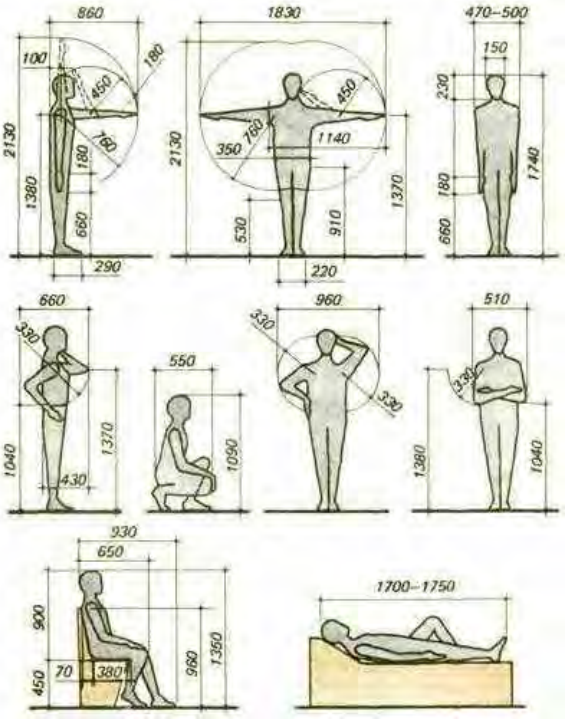
SECTIONS



Most buildings are built with these minimum standard requirements of measurements based on human dimensions in order to provide a life that is comfortable however in the situation where any spacce matters, what the engineers will focus on is more than the comfort. It is sustainability of human life. Therefore, the passage is only 1 metre in width and 2 metres in height. Any door is only as large as a person. As long as the circulation is provided, numbers do not matter.

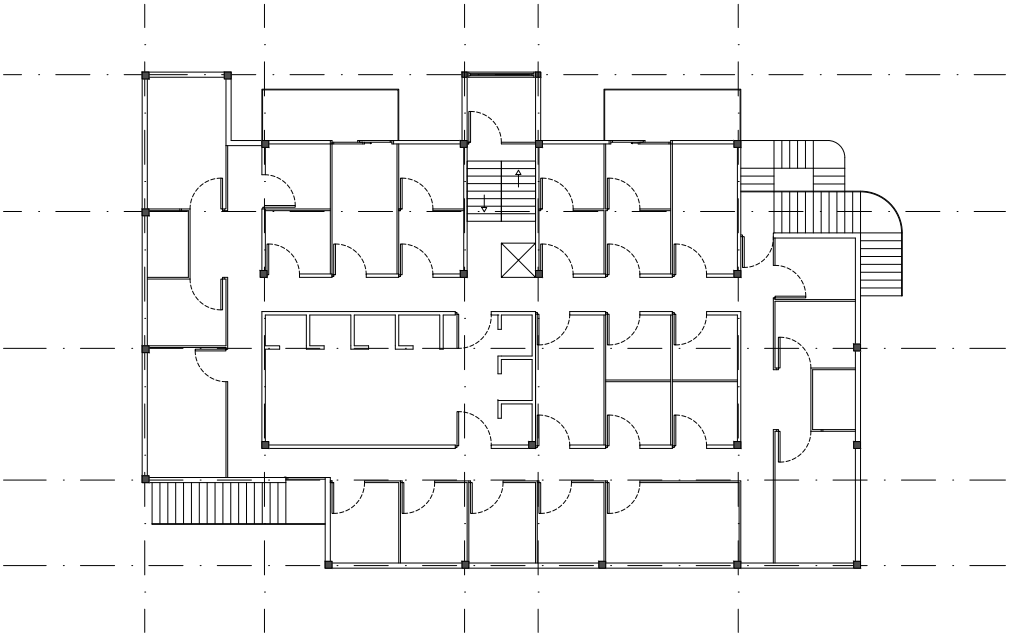


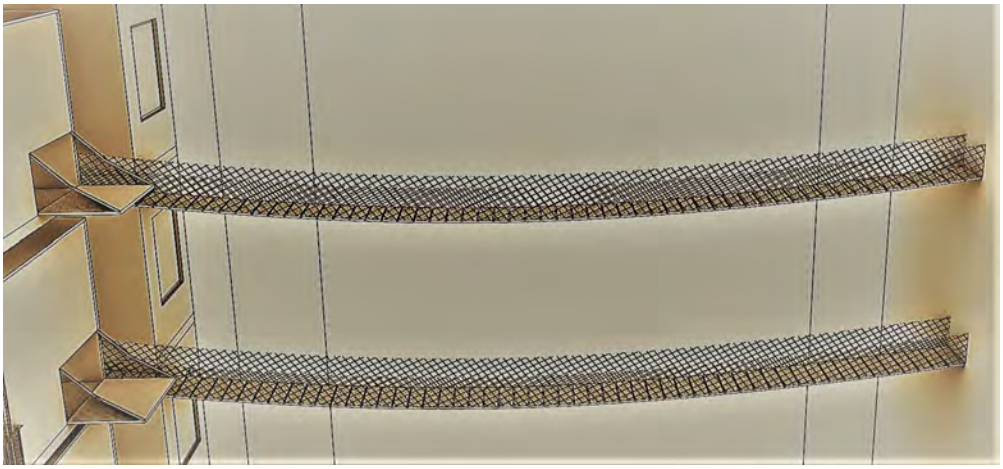




SPATIAL STRATEGIES

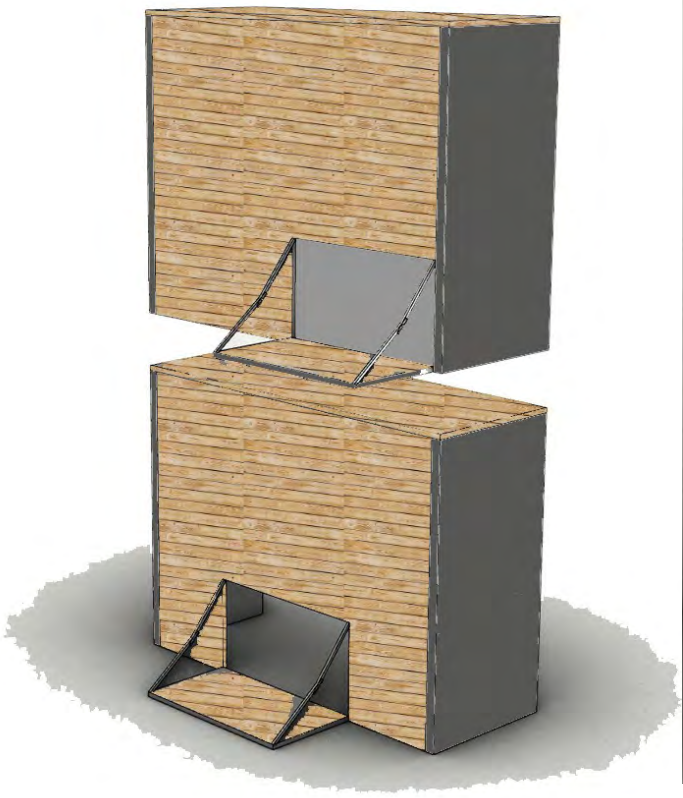
1. EXTERIOR CIRCULATION

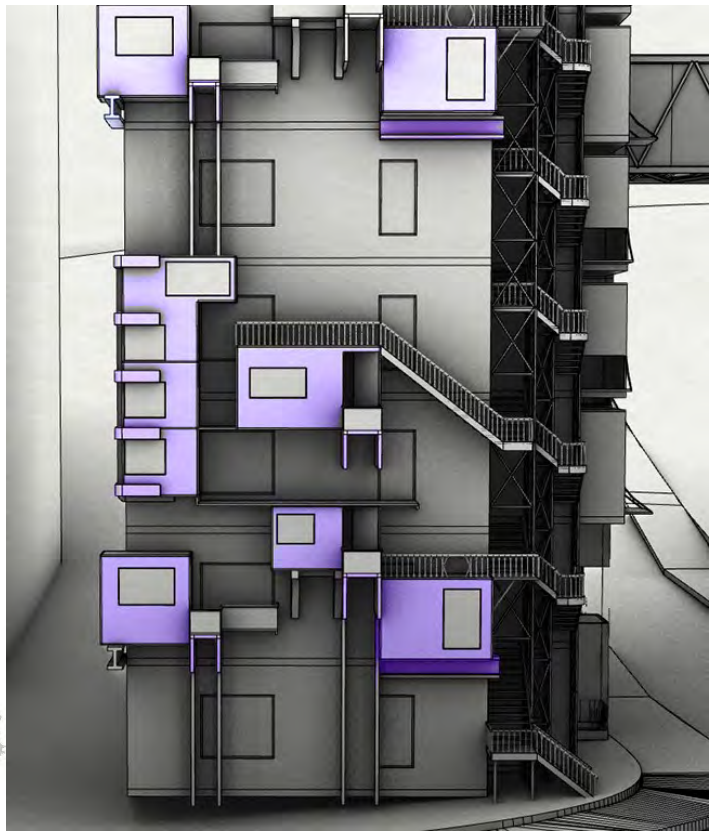




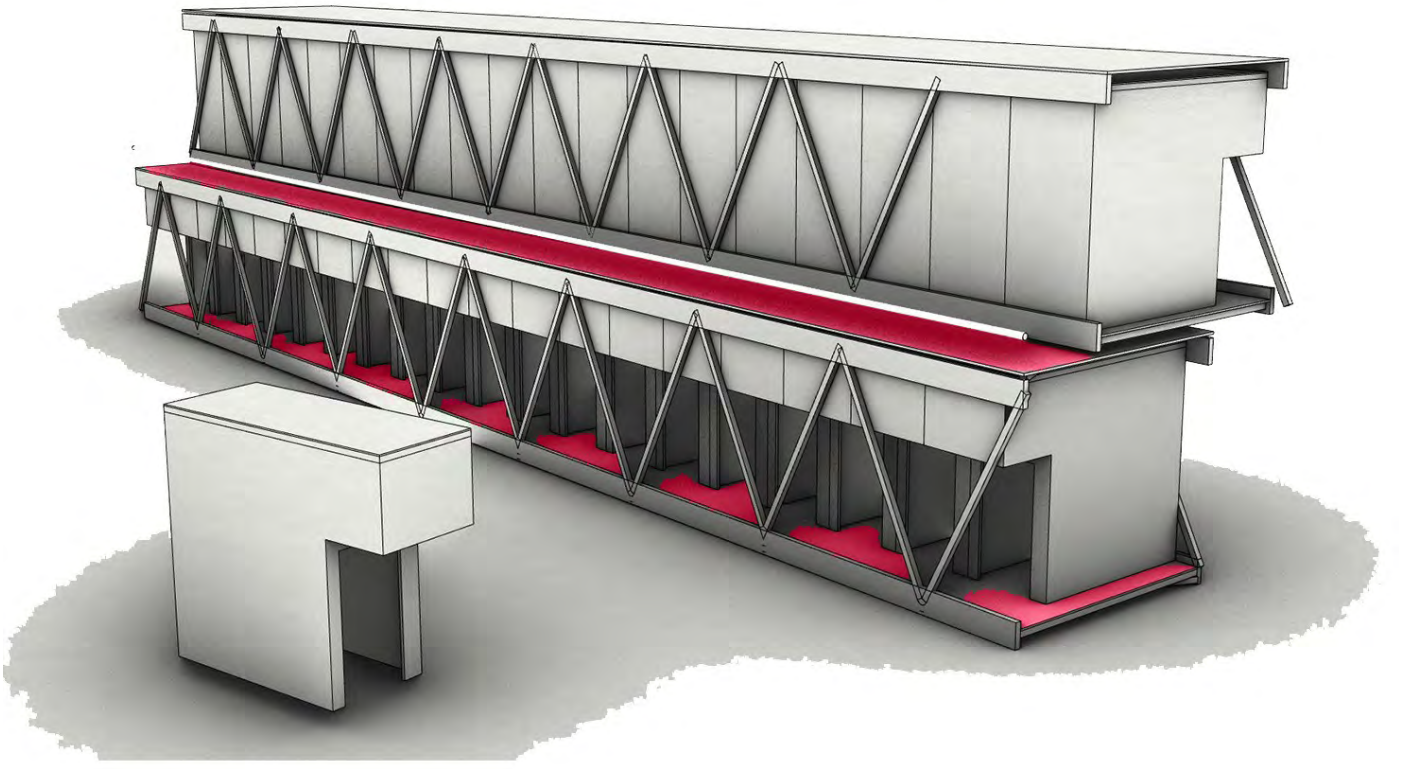
SPATIAL STRATEGIES

METABOLIC CUBICLES



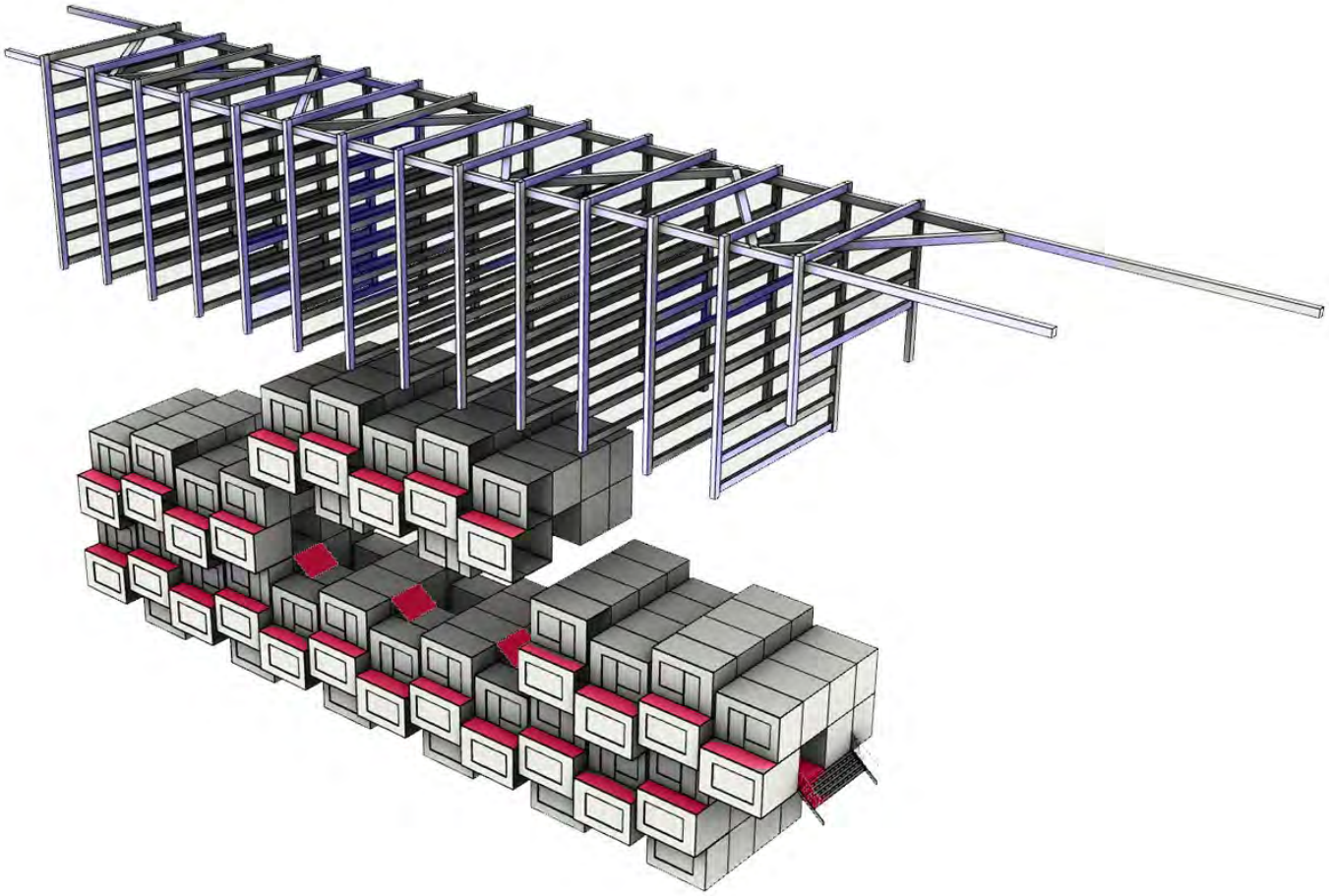


BRIDGE HOUSING

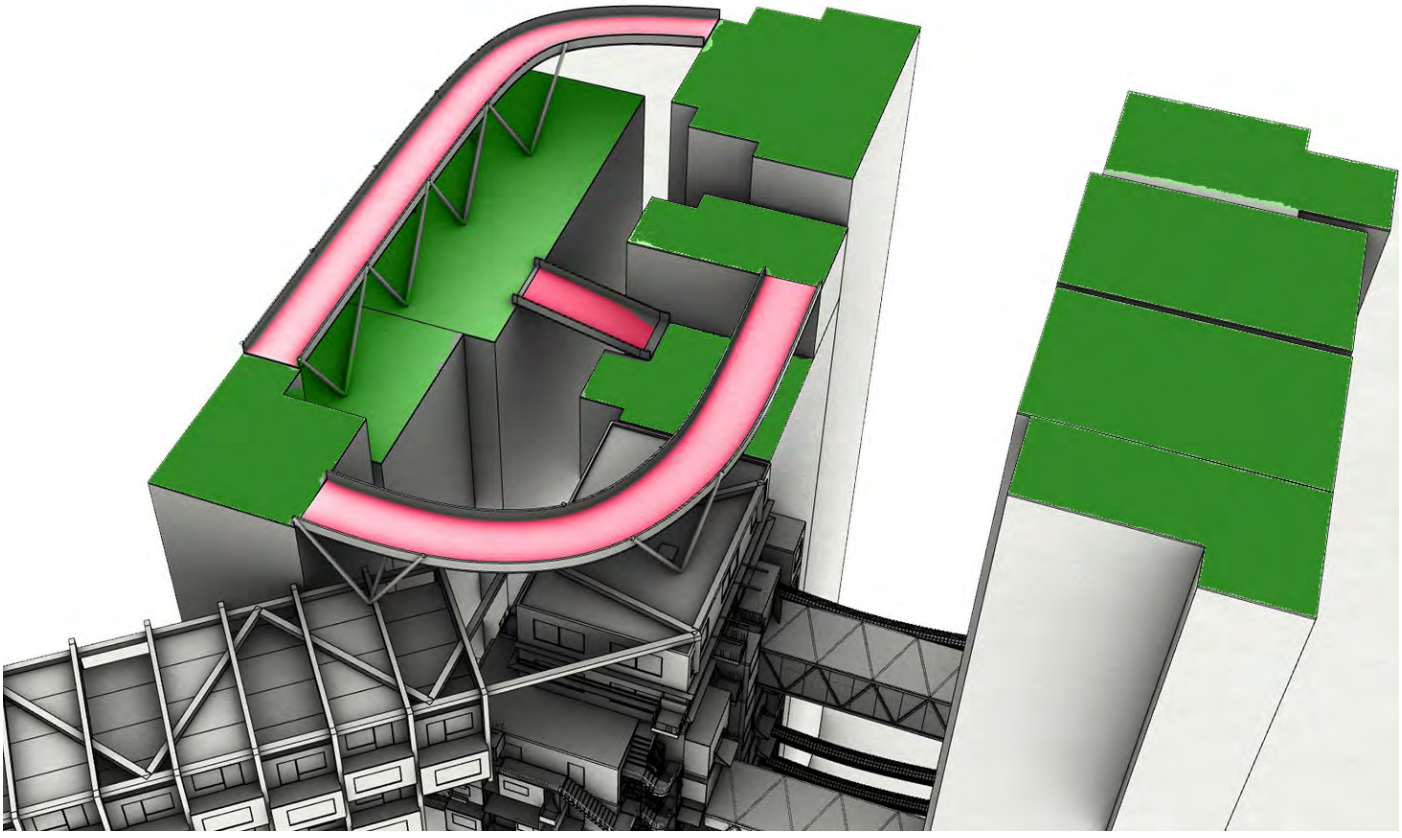


SPATIAL STRATEGIES

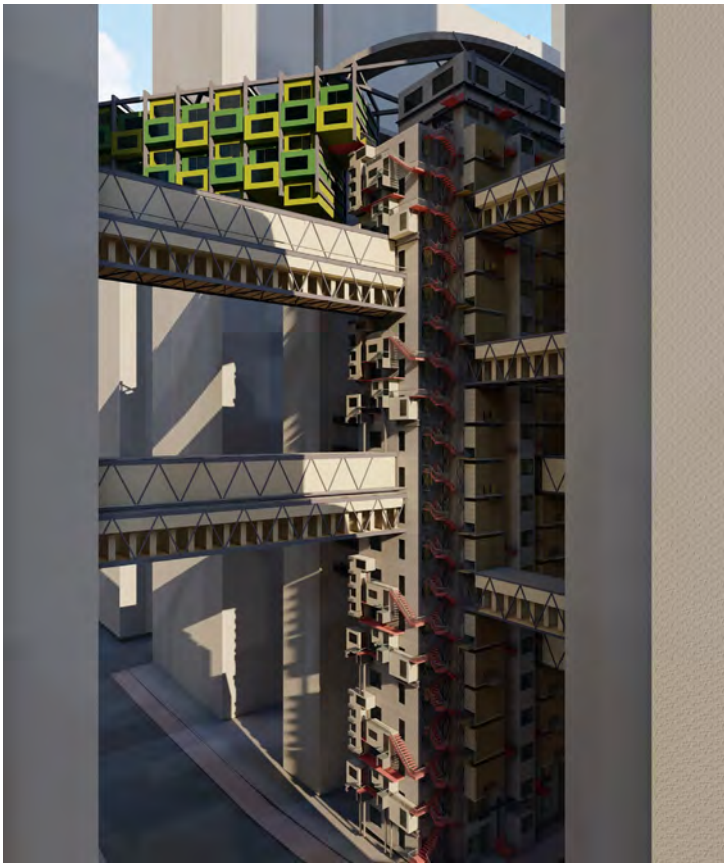
FLOATING ARCHITECTURE

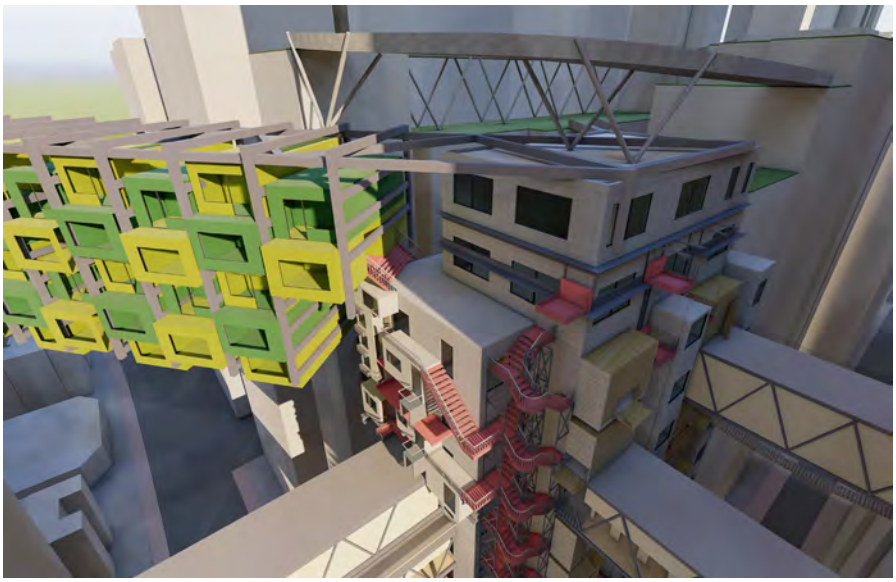


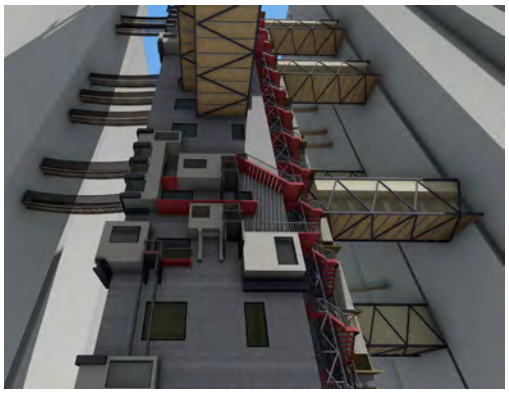
GREEN SKY



RENDERS







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Revitalization of Antalya EXPO, A Campus Project

Başak ÖZTÜRK

Revitalization of Antalya EXPO, A Campus Project

Başak ÖZTÜRK

This project aims to revitalize a mega-event area which is in a malfunctioning condition, with a university campus project which is self sufficient and sustainable. The project also envisages the establishment of a facility that would serve for both urban and rural usages by the effective usage of the fertile site and surrounding area, taking into consideration its location.

ANTALYA EXPO

It is an international exhibition organization officially held in Antalya between 23 April-30 October 2016. International Exhibitions Bureau (Bureau International des Expos-BIA) and the International Horticultural Manufacturers Association (Association Internationale des producteurs de l'Horticulture - AIPH) 17 September 2009 decision by the Expo who obtained the right to edit Antalya, the first held in Turkey It became the host of the Expo. Expo 2016 Antalya was organized with the philosophy of "A Green Life for Future Generations" and the theme of "Flower and Child".
History, biodiversity, sustainability and green cities subthemes of the organization were used in the organization, where the slogan of "Growing the Future" was used. Officially held with the participation of 52, unofficially 3 countries, Expo 2016 hosted various organizations and local and foreign concerts during its active 6-month period.

The exhibition in the A1 category officially lasted for 6 months in an area of 1121 decares in Aksu district of Antalya. It was extended for 2 more months between 31 October and 31 December 2016. It is still open to visitors and the building is available to be visited in general terms. Its cost has reached 1.6 billion TL.
Main parts and the functions of the EXPO site are Expo Tower, Turkish Airlines Children's Science & Technology Center, Capitol Building, Agriculture and Biodiversity Museum, the Expo Lake, Turkey Biodiversity Theme Trails, Children's Island, Country Gardens, Expo Greenhouse, and the Great Theater and Small Amphitheater.

SITE INFORMATION

Antalya province, south of Turkey, is a tourist center in the center of the Mediterranean coast. The city center is surrounded by Burdur in the north, Serik in the east, Mediterranean sea in the south, Korkuteli in the west and Kemer in the southwest.

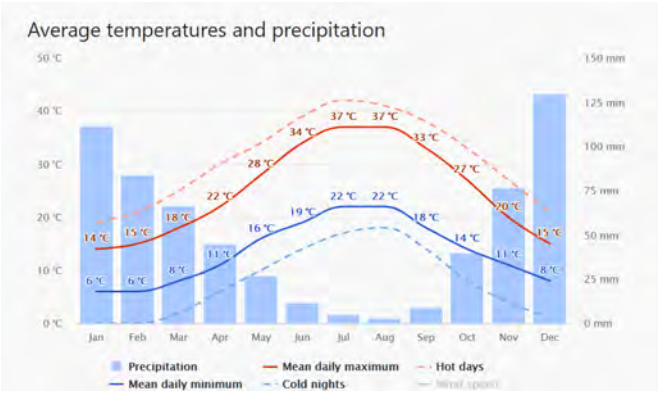
Antalya, which has a worldwide tourism value, is famous for its historical value besides its beautiful beaches.
The economic resource of the people of the region is agriculture and farming as well as tourism. Agriculture is mainly focused on citrus and tropical plants such as bananas and avocados, but is also suitable for greenhouse agriculture due to the climate.
However, with the tourism boom in the last quarter of the 20th century, the place of agriculture in the public has changed greatly. While three quarters of the population lived in agricultural sectors in 1970, in 2000 this ratio decreased to 49%.

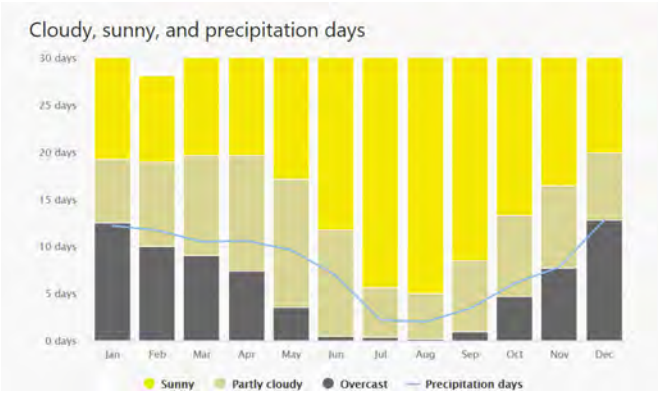
The entire province is located in the Antalya part of the Mediterranean Region and is within the influence area of the Mediterranean climate. Except for settlements, most of the provincial lands consist of plateaus covered with grain fields. Antalya has been also the host of the 2015 G20 Summit and Expo 2016.

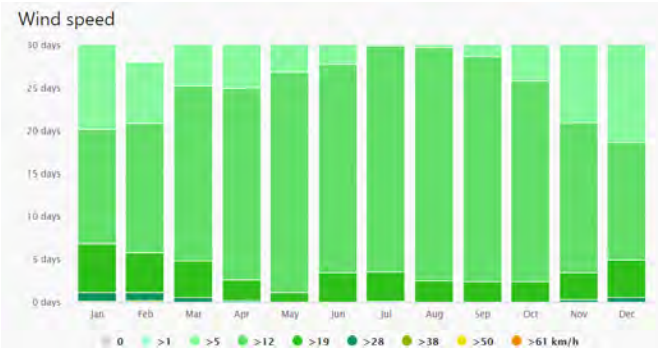
Antalya has a typical Mediterranean climate with wet humid winters and hot dry summers. Winters are mild and rainy, and summers are hot and dry. During the months of April, May, October and November it is most likely to experience good weather with pleasant average temperatures.

Antalya has 300 days of sunshine in a year. Annual average sea water temperature is 22.5 degrees. The minimum and the maximum temperatures are as in January and February 5-16 °C, in March and April 7-21 °C, in May and June 16-30 °C, in July and August 23-33 °C, in September and October 19-26 °C, in November and December 11-18 °C.

ANTALYA AKSU DISTRICT







The Aksu district is a municipality and district governorate in Antalya. Situated on the Turkish state highway which connects Antalya to Mersin, this district consists of 13 villages and one town in its rural settlement. The population is 65303. The district also contains the Antalya Airport.

In the north of the area, which is connected with the Mediterranean with a little coastline, is Burdur region. The district was shaped in 2008 by uniting numerous quarters dispersed the north-south way in the east of the focal region. The focal point of the region is toward the west of Aksu Stream. The area, which is the current district center, has created with different factors, for example, being on the Antalya-Alanya street, being a business opportunity for all the encompassing towns, having an old Anatolian Teacher School and being near the spinning mill. After it turned into the region place in 2008, parts of different banks began to work in the area.

Pamphylia of the antiquity used to contain the area around Aksu. Aksu district contains Perga the Ancient City. Later, the area Aksu has become a part of respectively Roman Empire, Byzantine Empire, Anatolian beyliks, and the Ottoman Empire. During the Turkish republic period, there were five close by towns Aksu and Çalkaya being the main ones. Between 1977 and 1994 these towns were proclaimed townships lastly in 1999 they were converged to shape the district of Aksu.

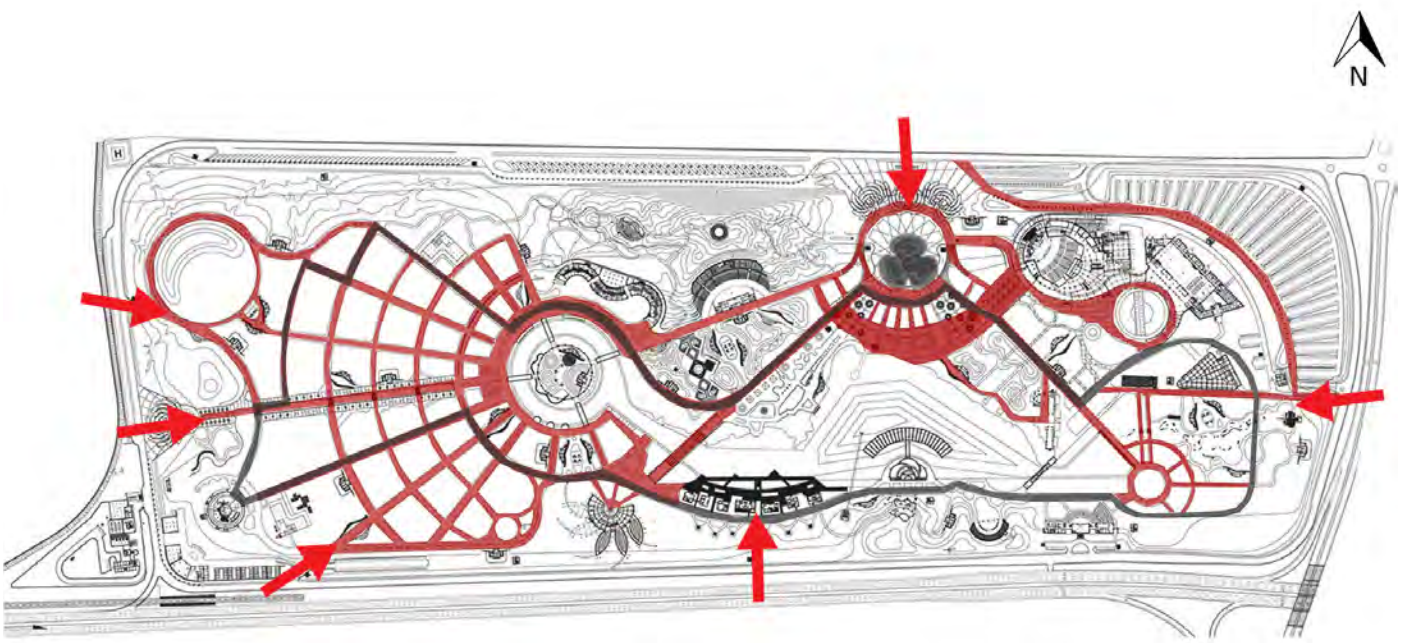
Agriculture is the main economic activity held in Aksu. Tourism is the second important economic activity of the district. The area, with the convenient climate conditions, has made variable endemic plant types, fruits and vegetables happen.

Perga ancient Greek city is one of the most important values of the district. Prehistoric caves and settlements are found in the region. The most well-known caves are Karain Cave, Karain's neighbor Öküzini Cave, Beldibi, Belbaşı rock shelters and Bademağacı are the most well-known prehistoric settlements in the region. Settlement examples show that the Pamphylia plain has been a suitable and popular area since prehistoric times. It has been accepted that the plateau plane of the Perge acropolis has been a preferred area for settlement since prehistoric times. The Perge acropolis works by Wolfram Martini showed that BC. The acropolis plateau has been used as a residential area since 4000 or 3000. Obsidian and flint stone finds among the archaeological finds show that Perge was used as a settlement since the Polished Stone Age and the Copper Age. The first prehistoric burial in the Pamphylia Region was encountered during the acropolis surveys. When compared to other Anatolian finds, pottery finds are similar only to the Central Anatolian samples.

PROBLEM

The main problem of the site is a common problem for all of the Expo events, and also other mega events. In most of the cases, the city which had hosted a mega-event faces the problem of the usage of the area after the event. Antalya EXPO is one of the examples of the case.
The area is not being used on a daily basis (the congress center and museums are used permanently in the site area but at certain times of the year.)
The project could not achieve the aims which were meant to be achieved in the planning process. The aim of turning this project into a landmark has failed. The aim at the beginning which is mostly about sustainable cities and agricultural activities in the city has failed and the area is not functioning as planned.
Most structures are currently under privatization and are not being used.
The site is far from the city center and transportation potentials to Antalya Expo area are more limited.

The project was built on an area which is convenient for agriculture activities. The Aksu River creates an agriculture friendly atmosphere and the surrounding area is also consisting of agriculture areas
In Antalya Expo, spending 1.8 billion TL and earning an income of 2 million TL is an indication that the cost is covered by only 1%. This situation is an indicator that Antalya is a failed expo according to the economic sustainability criteria.
The "Turkish Houses and Restaurants Street", which has been permanently designed, could not function after the expo, but it still exists in the area.
While some of the buildings designed permanently were used, it was determined that some were empty and dysfunctional.
The exhibition spaces compared to the criteria determined for ensuring sustainability; temporary pavilions fulfill most of the environmental, economic and social sustainability criteria, but permanent gardens meet some social sustainability criteria.



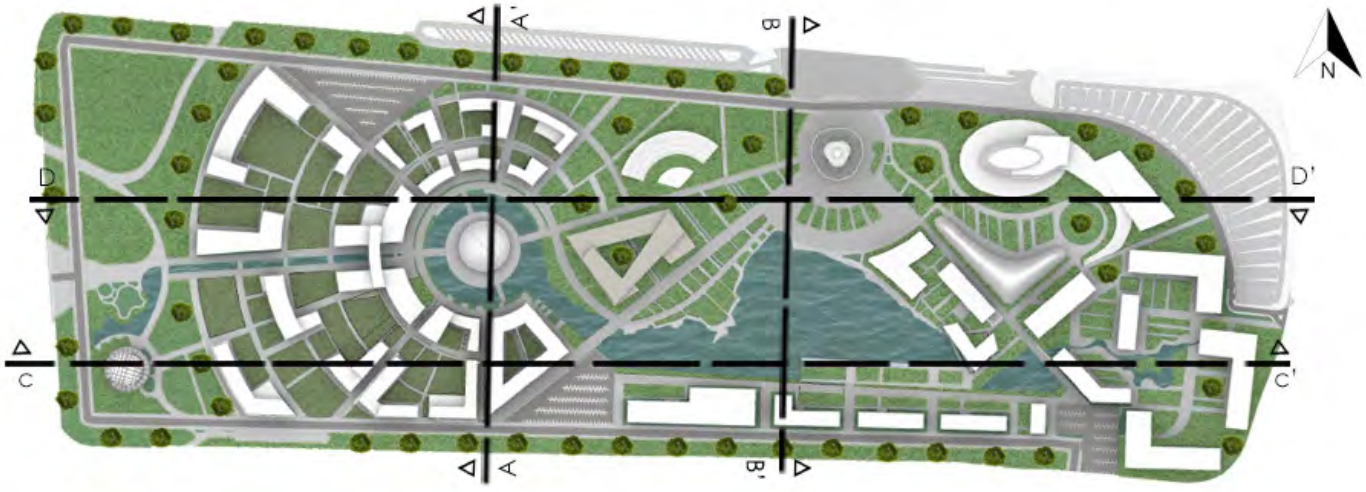
PROPOSED SOLUTION

The main problem to be solved in the site is to augment the usage and attract the attention. Revitalization of the area would provide a well-constructed, working and usable settlement in the site.
With the usage of the advantages and convenience of the site, the strong characteristic of agriculture should be emphasized and be processed so that the site would not lose its meaning but in contrary, it would become beneficial for the surrounded settlement.
Without changing or destroying every building, some existing functions will be emphasized and the needed functions and buildings will be added in order to not to harm the convenient farmlands existing.
Without any massive or monumental forms, more open spaces and small buildings which work together will be established.

Since transportation is an important problem of the site which disables the easy accessibility and lowers the number of users, a transportation web will be proposed for the site and the transportation through the site will be improved.
The campus project for the site would enable revitalization of the site with a self sufficient project without the need of the revitalization of the surrounding area.The usage of the existing infrastructure of the site is another beneficial principle of the proposed project.
The proposed functions would provide a better usage of the site and also provide the surrounding area to be in connection with the site as well.
Steel construction is chosen as the main material of the project, to maintain the sustainability idea.

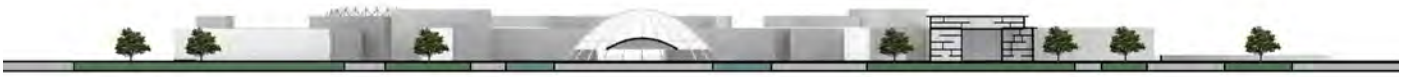
MASTERPLAN PROPOSAL

Masterplan



Section Lines

SECTIONS



Section AA’

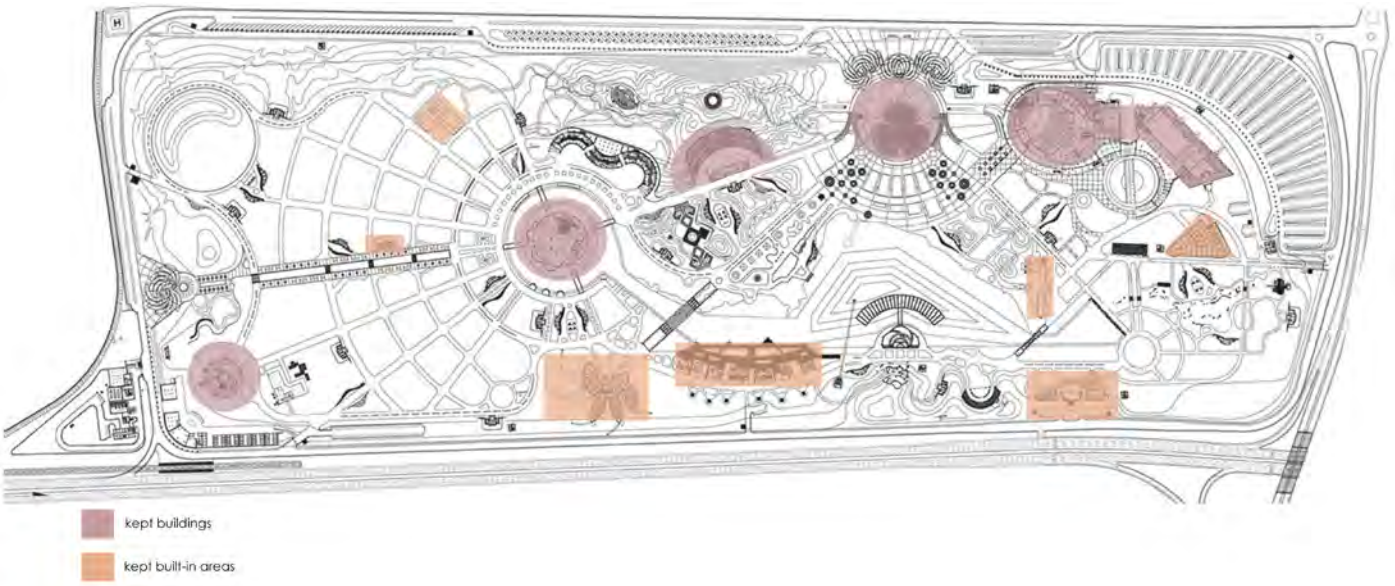
Section BB’

Section CC’

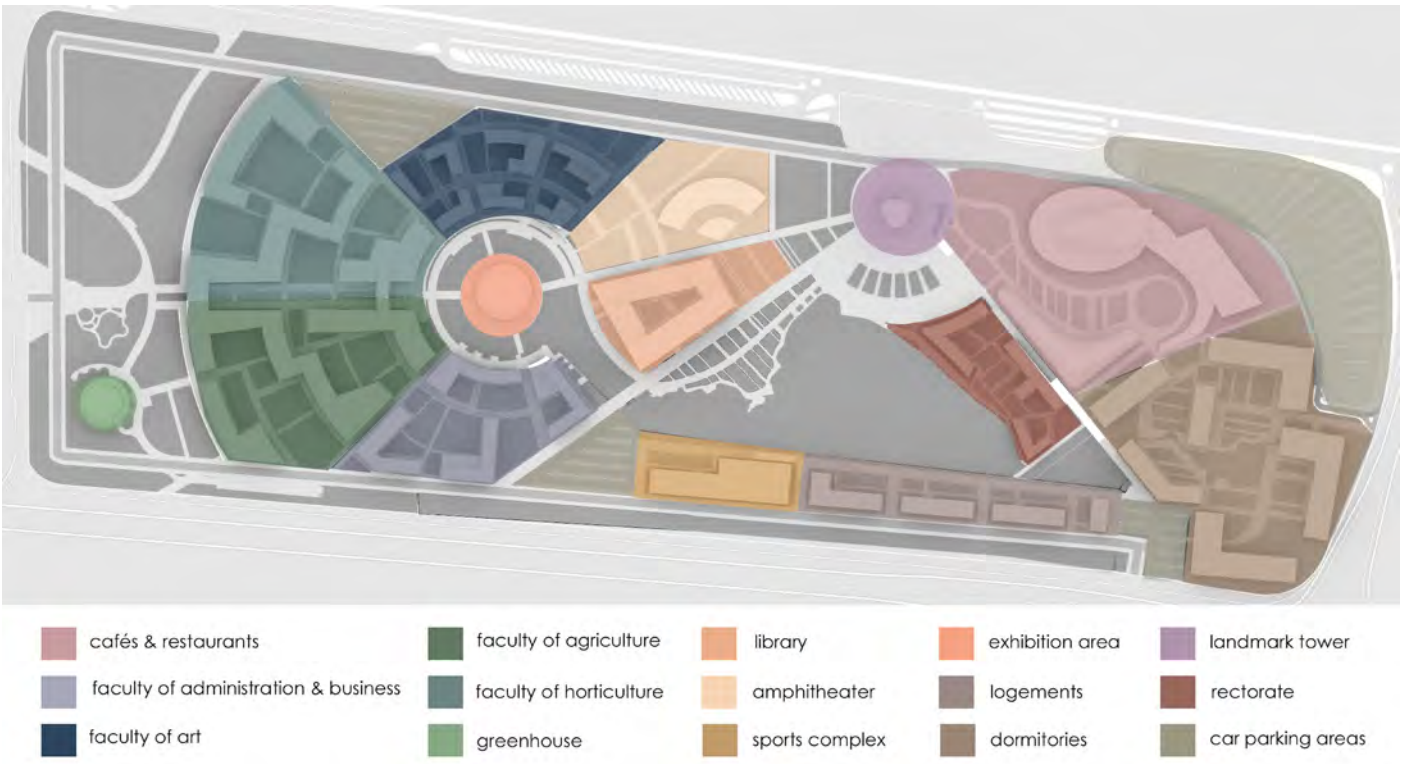
Section DD’

Site Plan

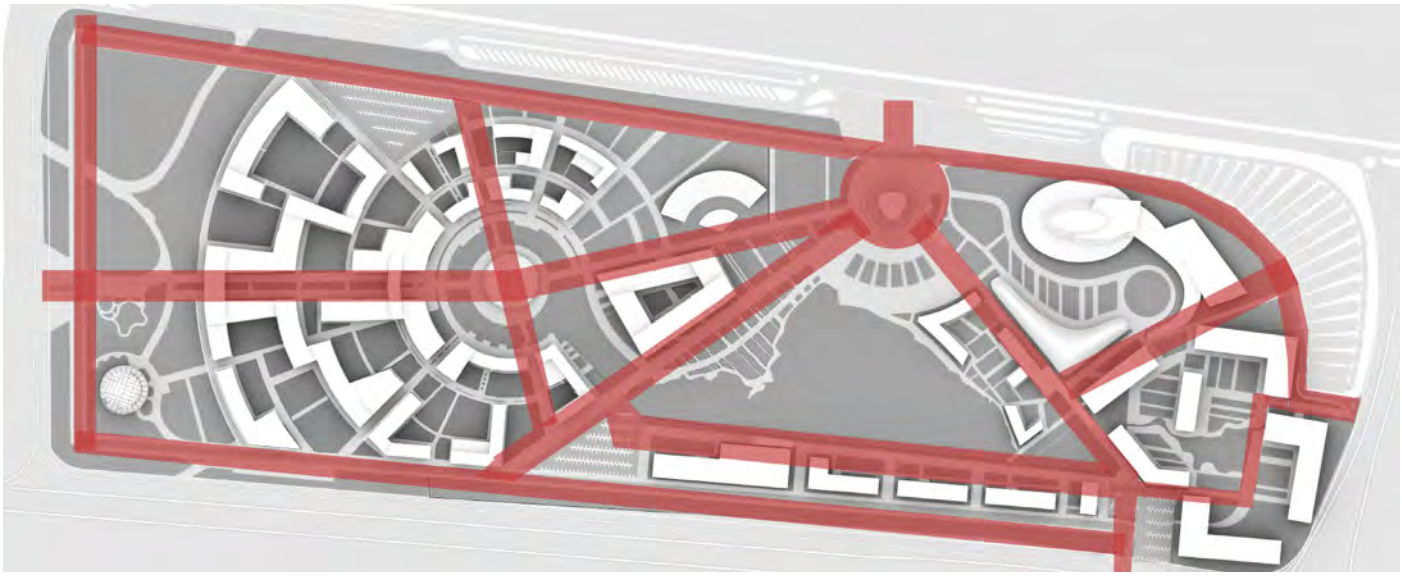
SITE DIAGRAMS



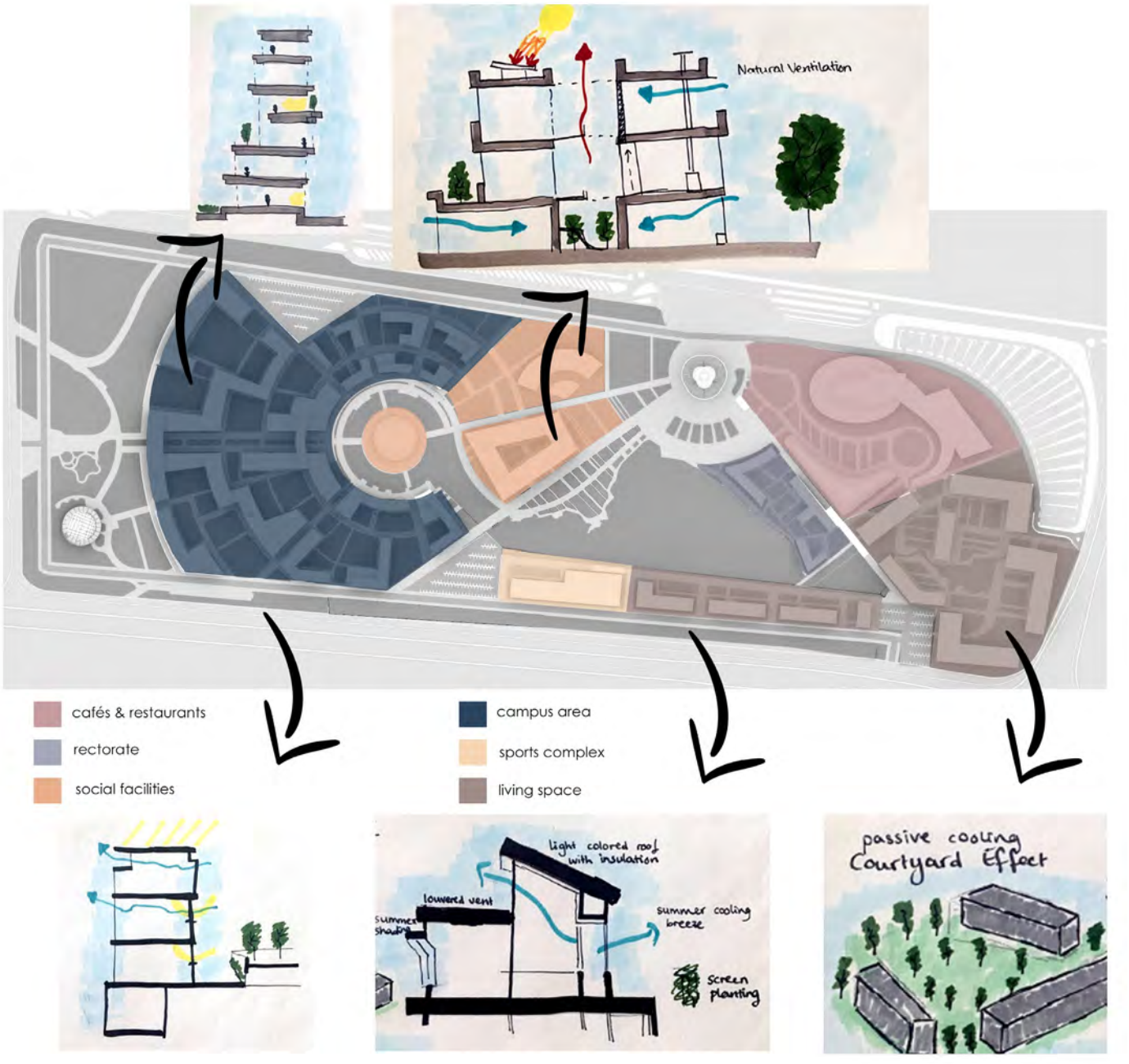
Preserved Areas Diagram



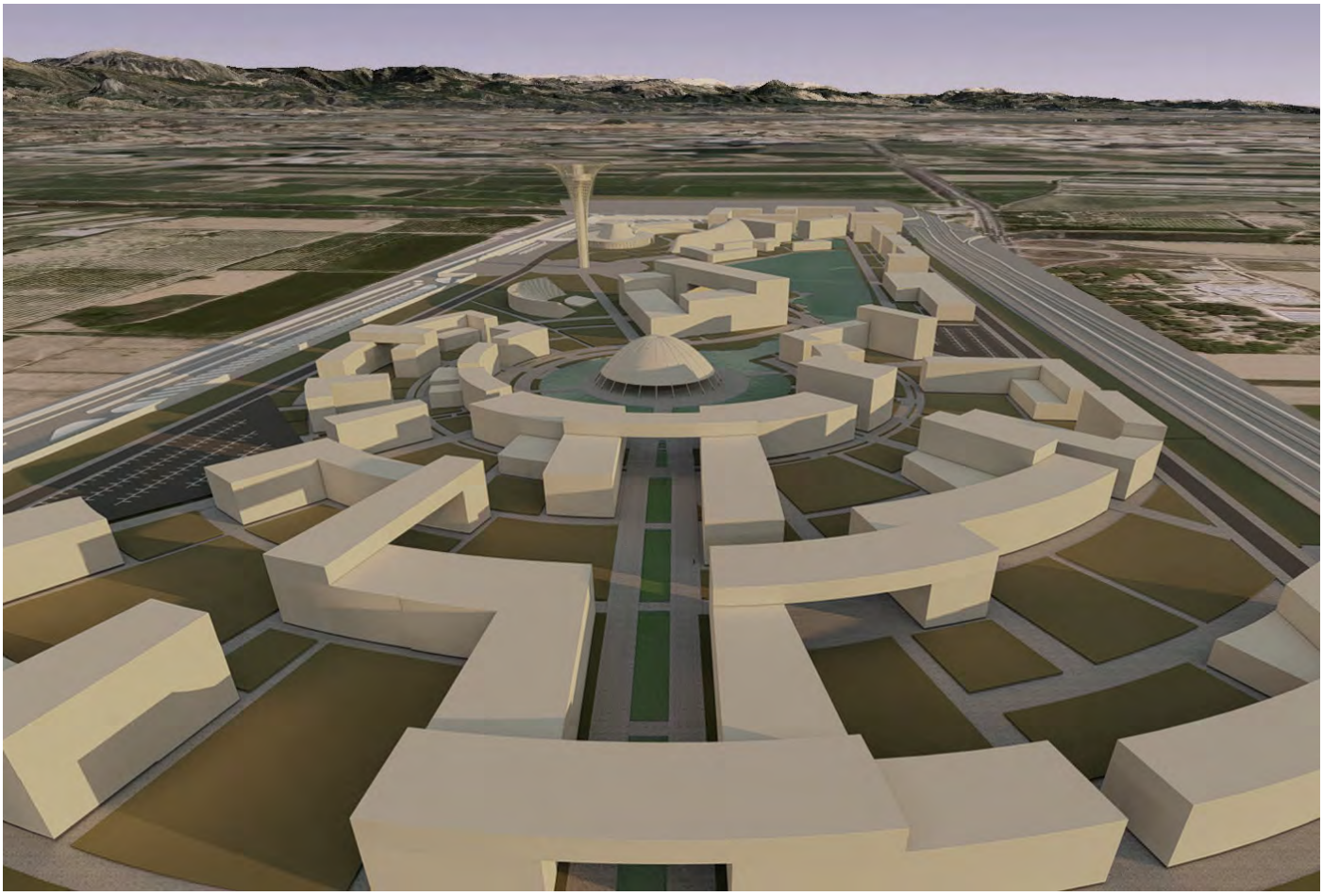
Function Diagram



Pedestrian Circulation Diagram



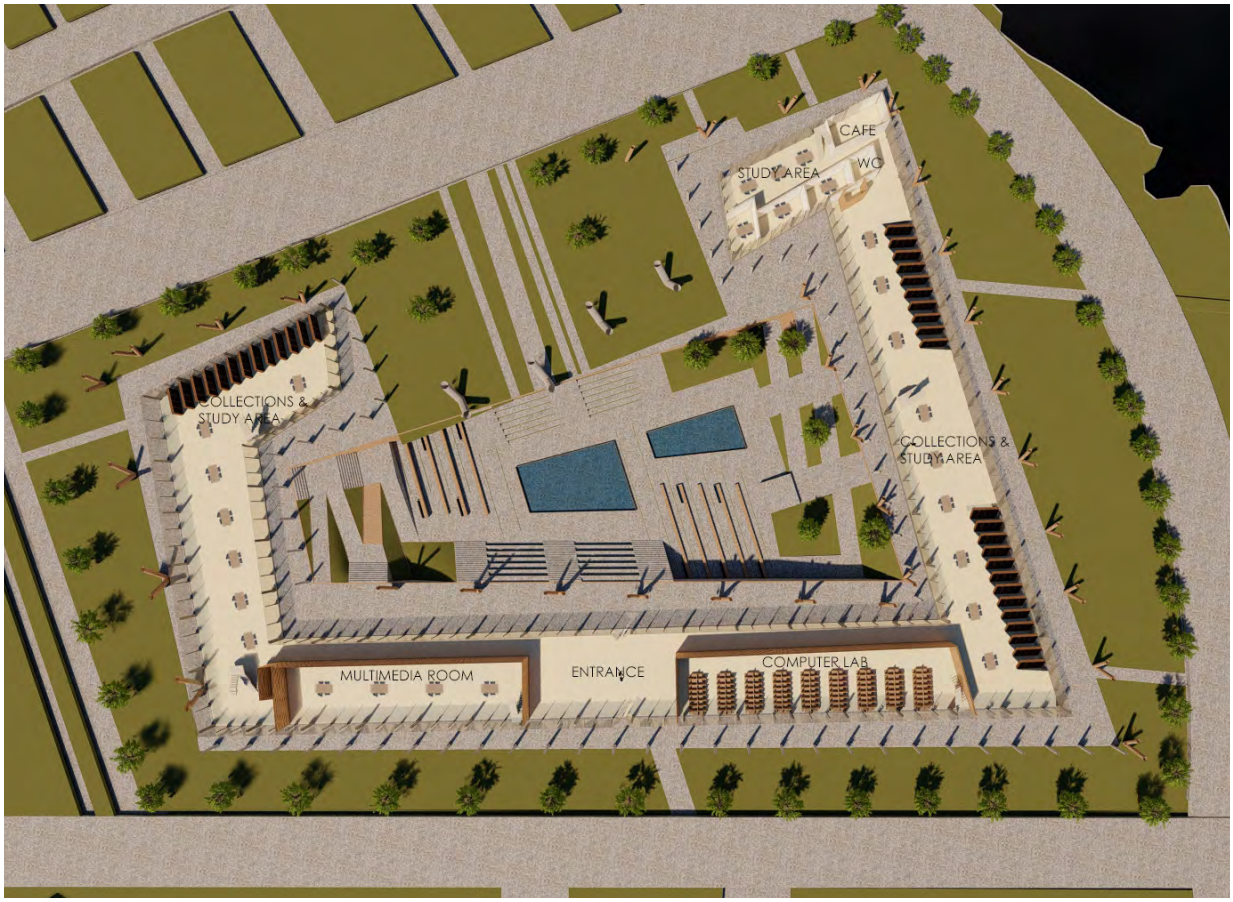
Building Strategies for Function



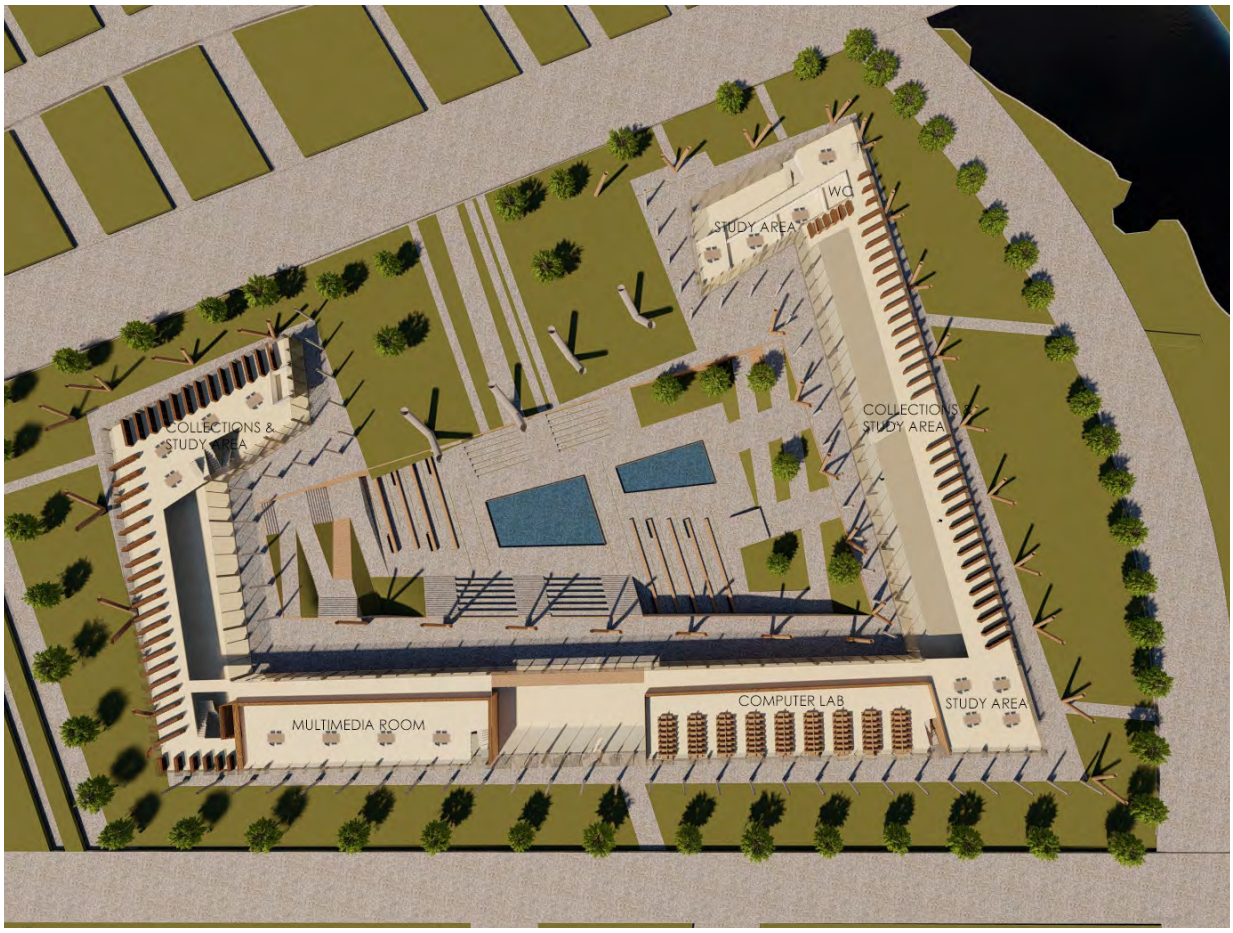
CONTEXT

MASSING TYPOLOGY

LIBRARY FLOOR PLANS



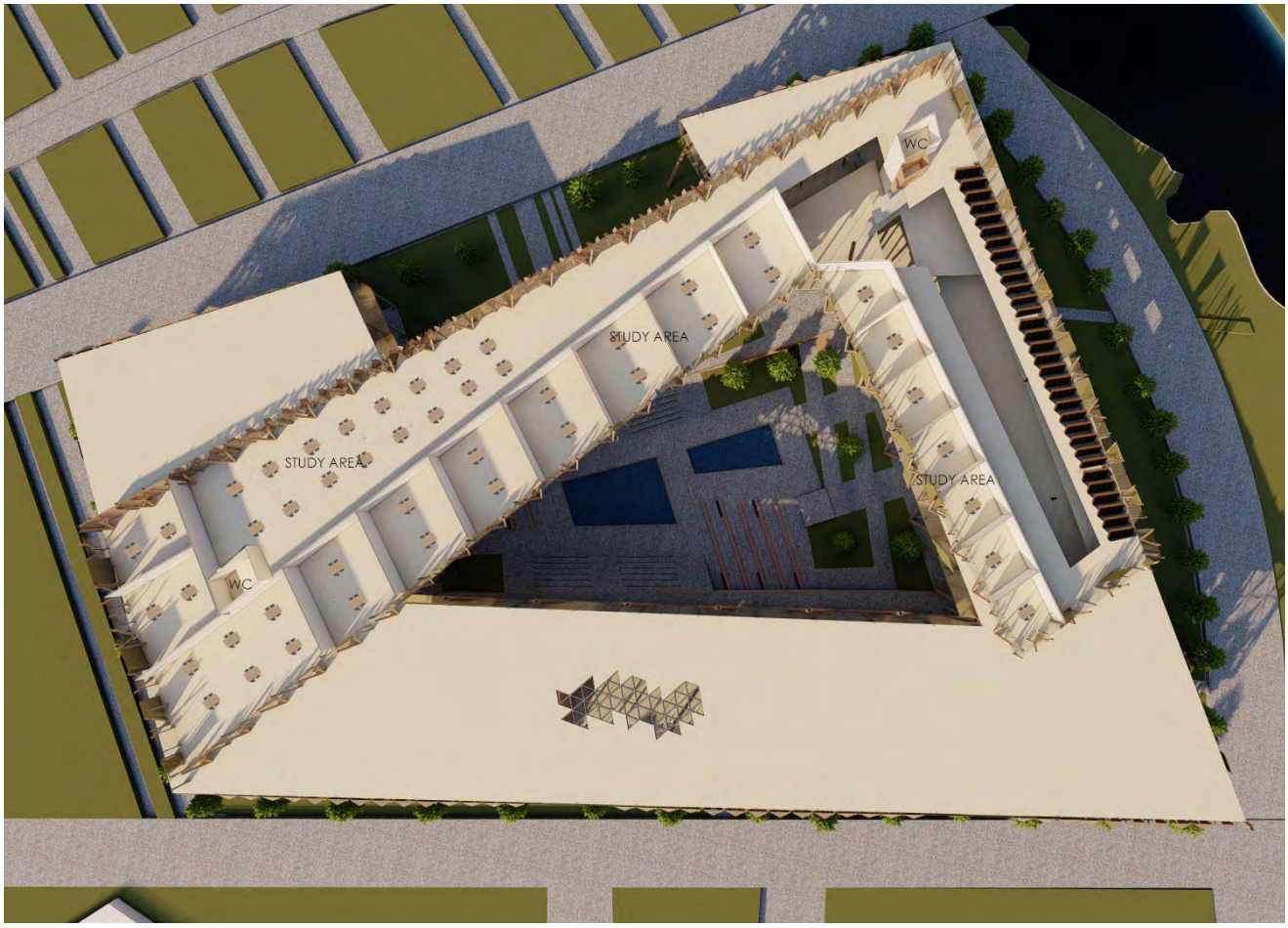
Ground Floor Plan



First Floor Plan

Second Floor Plan

Third Floor Plan

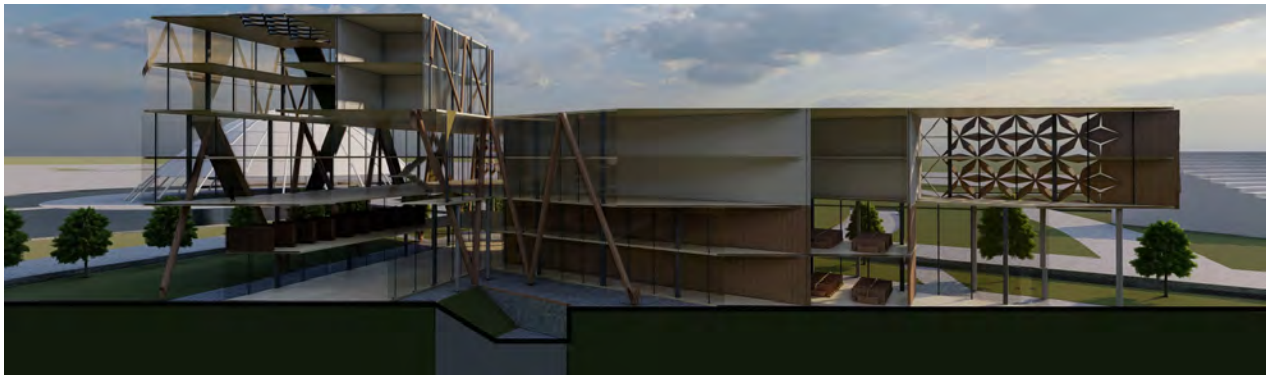


Fourth Floor Plan

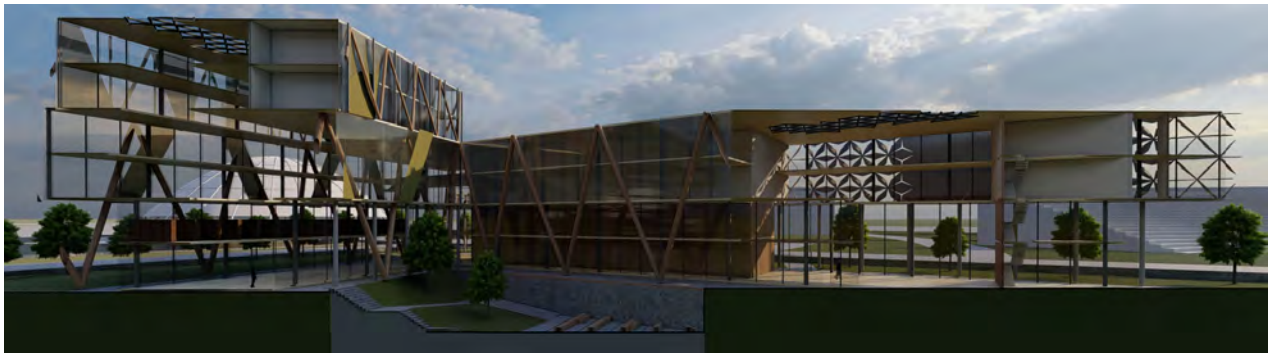
Fifth Third Floor Plan

LIBRARY SECTIONS

Section 1



Section 2



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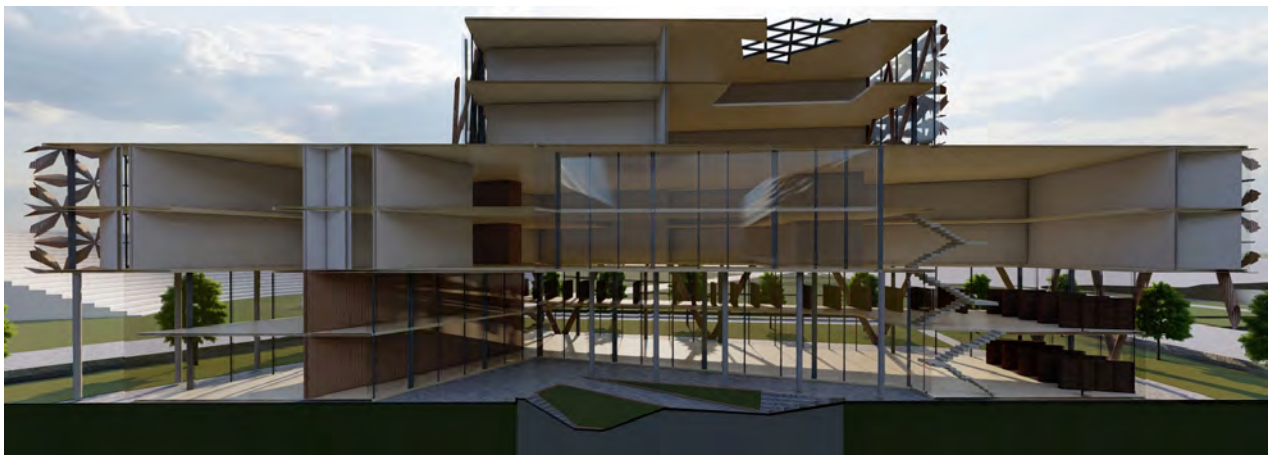
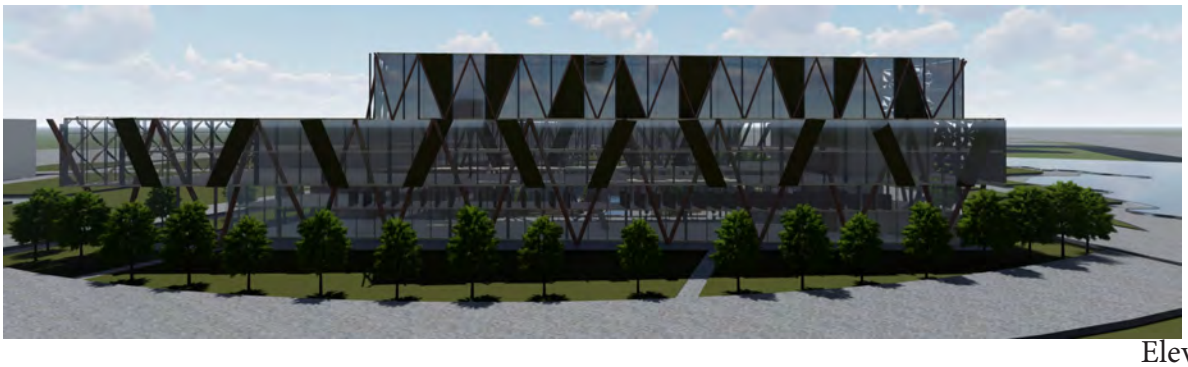


Section 4

Section 5

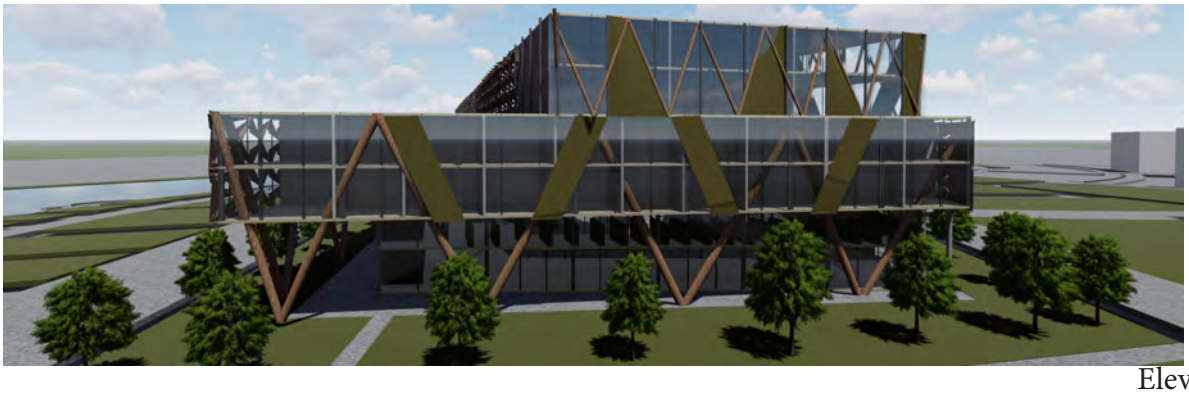
LIBRARY ELEVATIONS

Elevation 1



Elevation 2

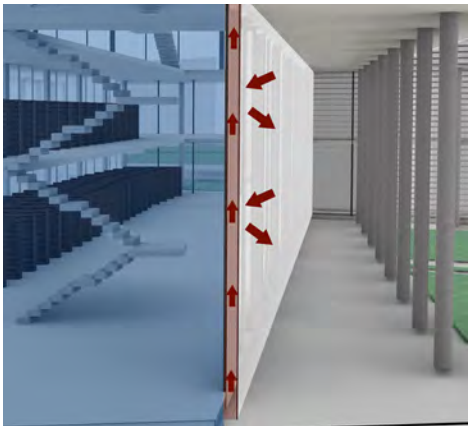
Elevation 3



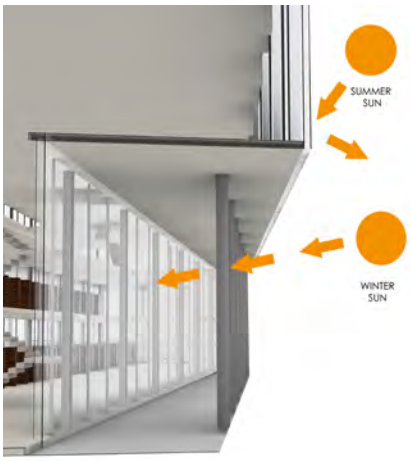
Elevation 4

LIBRARY DIAGRAMS

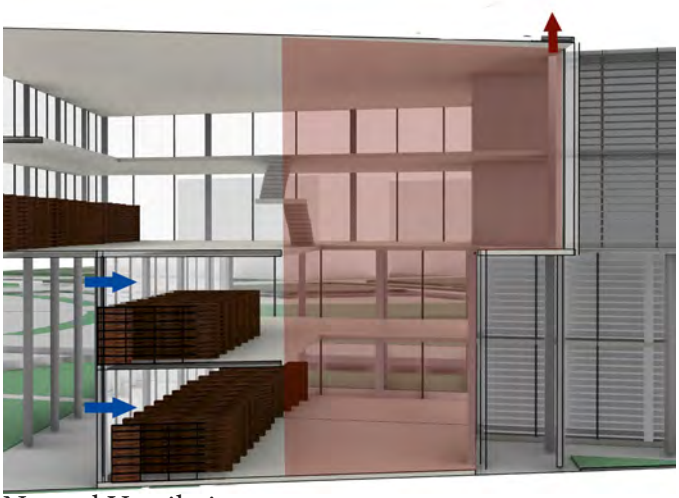
Adaptive Facade



Double Skin Facade



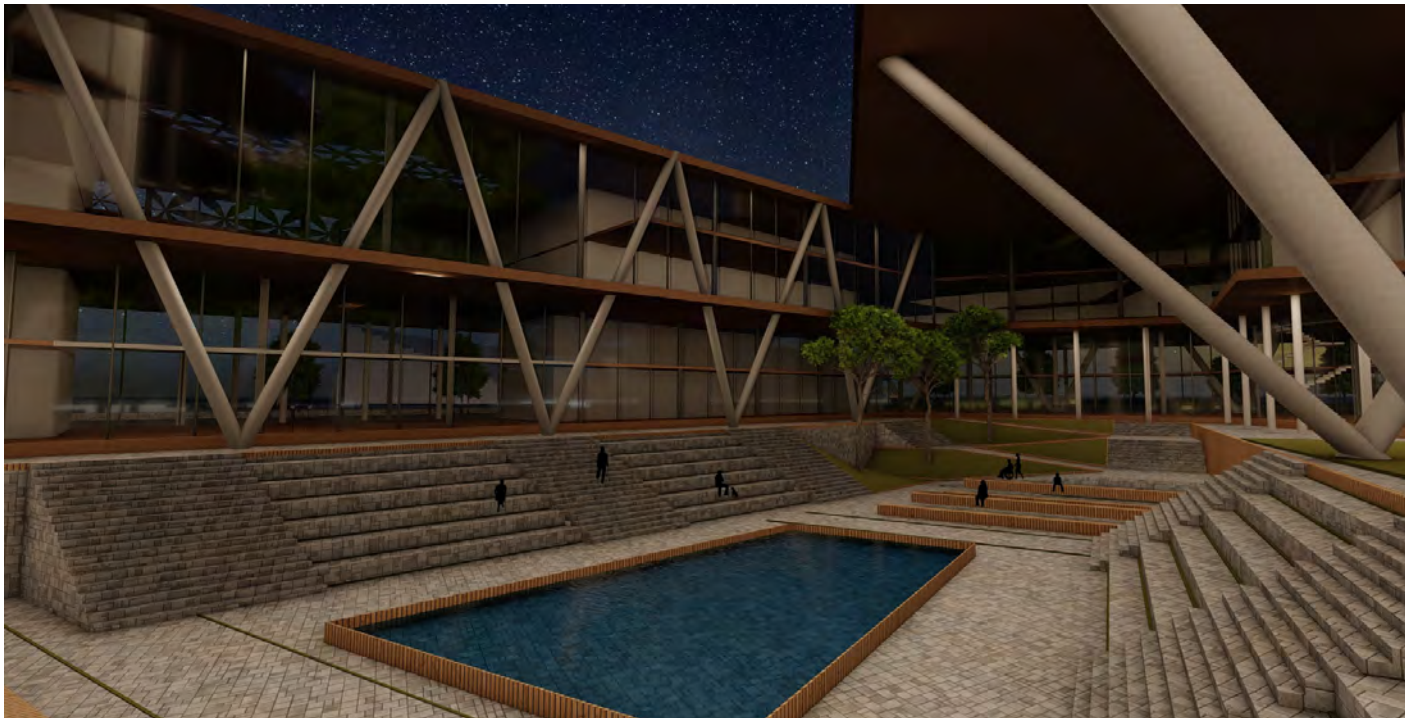
Sun Diagram

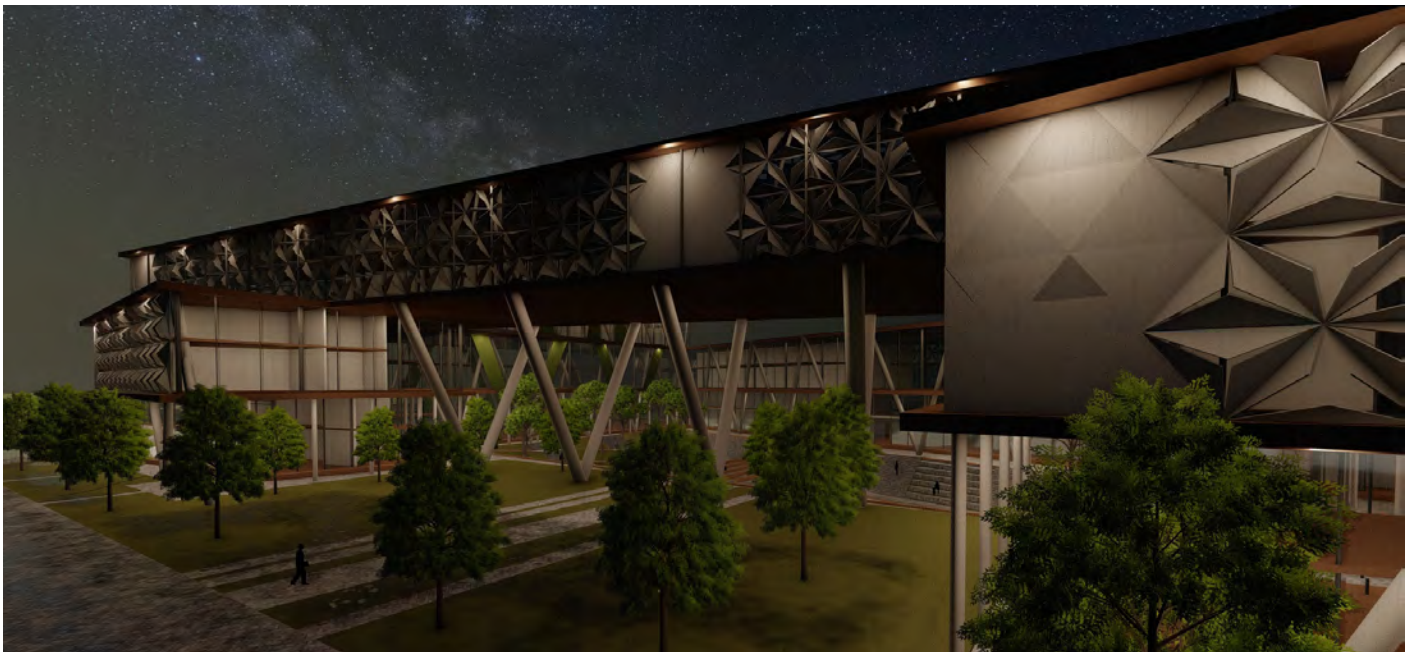


Natural Ventilation

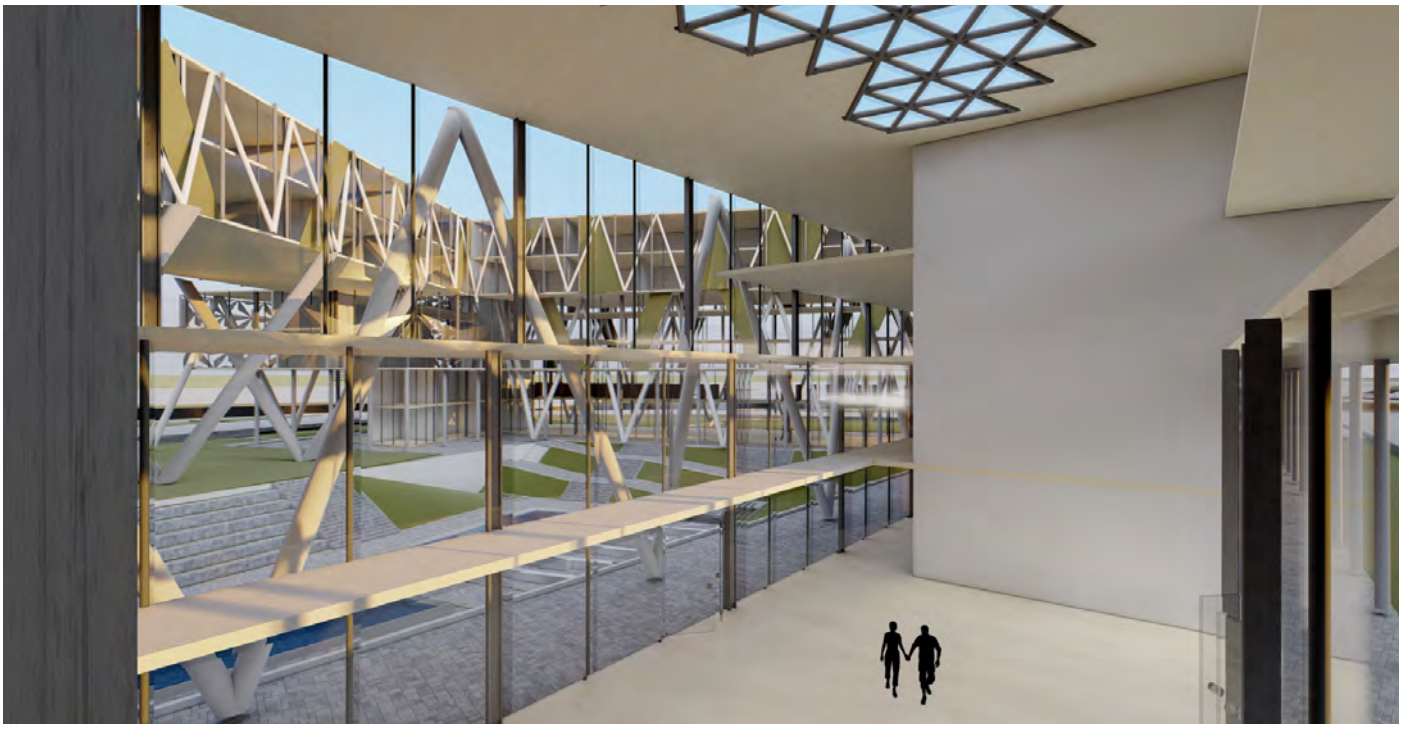
Reduced Building Footprint,
with Steel Construction System

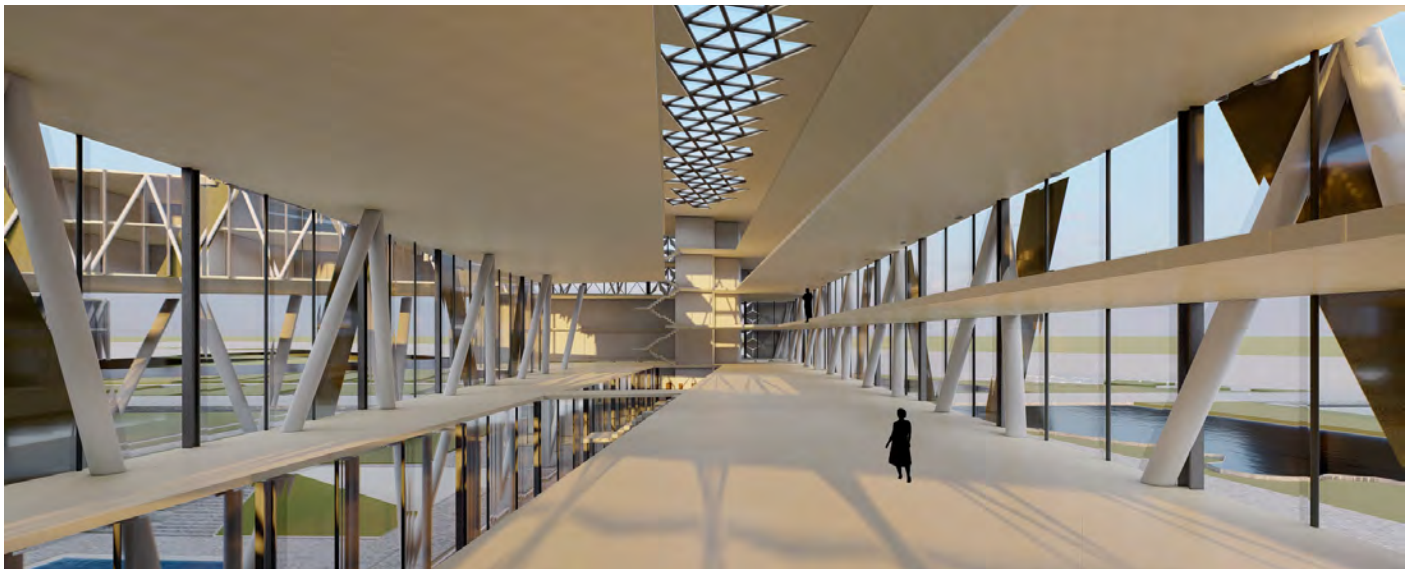
LIBRARY RENDERS

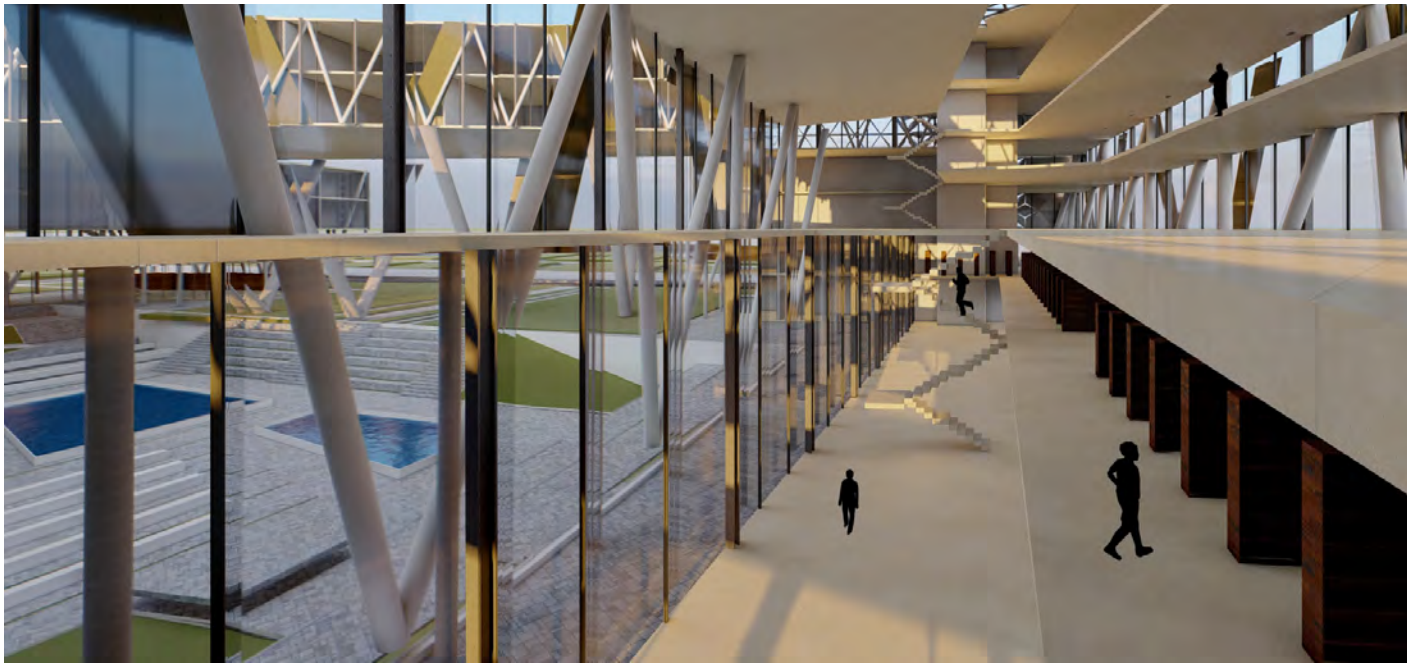




LIBRARY INTERIOR RENDERS







REVITALIZING THE COMMUNITY OF MAKOKO

DORUK TEKER

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REVITALIZING THE COMMUNITY OF MAKOKO

DORUK TEKER

This project aims to begin the process of solving two main problems that currently exist in the Makoko community in Lagos, Nigeria. The Makoko community lives in extreme poverty. The community is deprived of many basic services such as healthcare and education. Other main problem being an isolated part of Lagos, while being located so close to the economic and social center of Lagos. The project proposes a system of low-cost low-maintenance spaces which is affordable for this community and has low maintenance costs. The premise of the project is that such systems will keep on being adapted by the local community leading to an incremental improvement in the communty of Makoko's lives.

LOCATION

The site location for the project is located in the coast of the African continent in Lagos, Nigeria. Although Lagos being the wealthiest city in the whole continent, Makoko in Lagos is a slum area.

Makoko is located on the coast of Lagos Lagoon, right after the narrowing of the Lagoon connecting to the Gulf of Guinea. It is located on the west coast of the Lagoon. After the many docks that accomodate transport ships that carry Africa's wealth, the area around the Makoko community is quite deserted.

The settlement of Makoko is built above water near the Third Mainland Bridge, which is the longest bridge connecting Lagos Island to the mainland with a length of 11.8kms. The area is seen from afar by many people that cross the bridge but rarely experienced from the inside.

-Google Earth

MAKOKO

Makoko, sometimes referred to as the "Venice of Africa", is the largest floating community in the world. Makoko is a community located on the coast of Lagos, Nigeria. As of 2020, most of the community is built on stilts that rise from the seabed of the Lagoon.

Makoko community was established in the 19th century, built on wooden stilts above Lagos Lagoon as a fishing community. Until 2012, it has continued to grow by the construction of new houses by the locals until the government of Lagos ordered demolition of the houses on water. The demolition process didnt go through completely but some of the houses were demolished. After this event Makoko drew some attention and urban renovation and regeneration plans had been made to develop the community. However, they were mostly cancelled and the community stays as it is.

Within the poor economic conditions and many problems is a very interesting culture. This is not available to experience, though. The community is very much on its own and not many people outside the community visit here because of reasons like the lack of transportation or any infrastructure to traverse in the community. The traditional way of living and the culture in Makoko deserves to be experienced and be an important part of Lagos, Nigeria.

Site Selection

Makoko is a challenging area with many restrictions regarding economic factors or the very distinct context that it provides consisting of wooden structures built by the locals through its establishment till now. Locals living in the community mostly if not all have poor living conditions because of some obvious problems that the government of Lagos refused to take part in. But within these poor economy and unpleasant living conditions there is this rich culture that needs to be flourished even with the constraints of Makoko.

To overcome such challenges and make people realize that there is a hidden gem of a culture in Makoko is an interesting idea. That is why the project site is the community of Makoko even though its harsh conditions and constraints.

-Andrew Esiebo/The Guardian

Makoko Houses

The houses of Makoko are crucial in the community's culture. They are built by locals using local materials such as wood, terracota and some fabrics to use as canopies. The wooden stilts are buried in the seabed rising above the water. Then there are the platforms on top of the stilts and the houses on these platforms.

The houses are built in a somewhat of a gridal pattern featuring some common canoe routes passing through them. Some are connected with wooden platforms featuring canopies which form small courtyards that are used for daily life activities by the locals.

Wooden Platforms

Canoes

At the edge of the Makoko community, there are many wooden platforms that reach further into the sea. These platforms are used to reach deeper areas of the water for fishing. Fishermen walk on these platforms and throw their fishing nets into the water. The wooden platforms create an interesting fabric above water which can be inspired from for a project located in Makoko.

Canoes are one of the crucial elements of daily life in Makoko. The only means of transportation is by canoe on water since there are not much walkable areas in the community. Locals use canoes for reaching their destination and also to sell fish or goods. The sellers canoe through the community in hopes of finding customers. This has become a part of every locals daily life.

PROBLEMS

Integration

While being located very near to the city of Lagos, the economic hub of the continent of Africa, Makoko can't benefit from any advantages this could provide. By being seperated physically from Lagos through insufficient transportation or decent roads, and also because of the lack of attention from the government of Lagos, Makoko is left out in a weird spot. With the right touch, Makoko could benefit from its surroundings and become a much more developed community with better life standards.

Transportation

As shown in the figure, the public transportation routes, which is the bus routes in this case, end fairly far away from Makoko. This makes it hard for visitors to go into the community of Makoko, which creates a gap between the city of Lagos and Makoko. Another aspect of this issue is the locals of Makoko have a hard time participating in the city life, whether it is just traversing the distance to the nearest transportation route or having to carry the goods that they intend to sell without a proper transportation system.

Figure. Flood mapping showing after sea level rise of; 1m, 2m, 3m.

No Infrastructure

There is very limited infrastructure in Makoko. As the houses were built in an organic fashion by the locals, there is little to no organization of any sort. The houses are built similar to a grid pattern but very distorted. The platforms between the houses and commonly used routes between them are the only elements that govern some kind of an infrastructure.

Flooding

Flooding is an issue in Makoko, as most of the coastal cities face because of the global climate change. The area susceptible to floods is only increasing by time. The economic conditions of Makoko make the area especially prone to a disaster of flood since it will be very difficult to recover from such. This needs to be considered in any design process regarding the area.

-Reviving the fishing culture in Makoko through Aquaponics by *Ashish Afun-Ogidan*

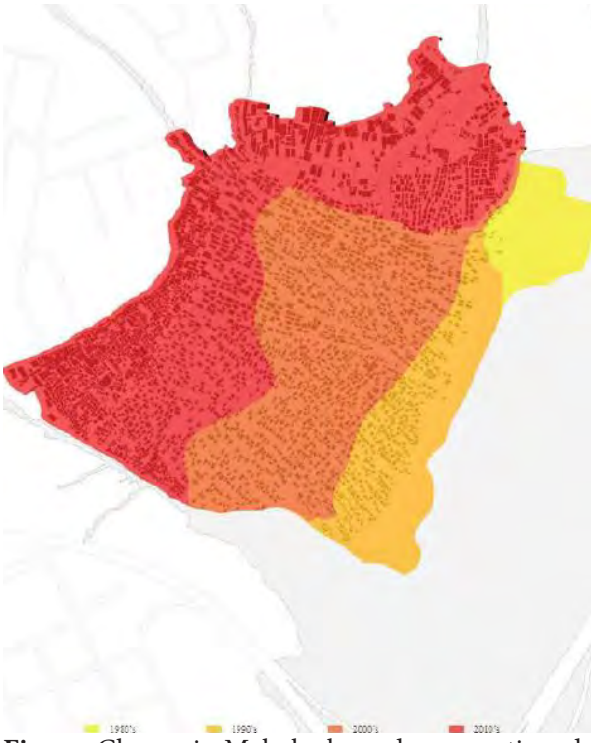


Figure. Change in Makoko boundary over time due to rising water levels.

Sea Level Rise

With the effects of global climate change, sea level is rising across the globe. This effects the living spaces of many people around the world, especially coastal cities are affected. Lagos is also very much affected by sea level rise, losing great amount of land which were once habitable. The government of Nigeria have been actively battling this issue with land reclamation projects near Lagos Island but since Makoko does not draw much attention of the government it is left untouched.

Locals of Makoko have been trying to cope with this issue on their own, reclaiming land in more primitive ways like piling clay and wood to create buildable land. But this is only a temporary solution for a short period of time. They have resorted to building on wooden stilts above water.

Healthcare

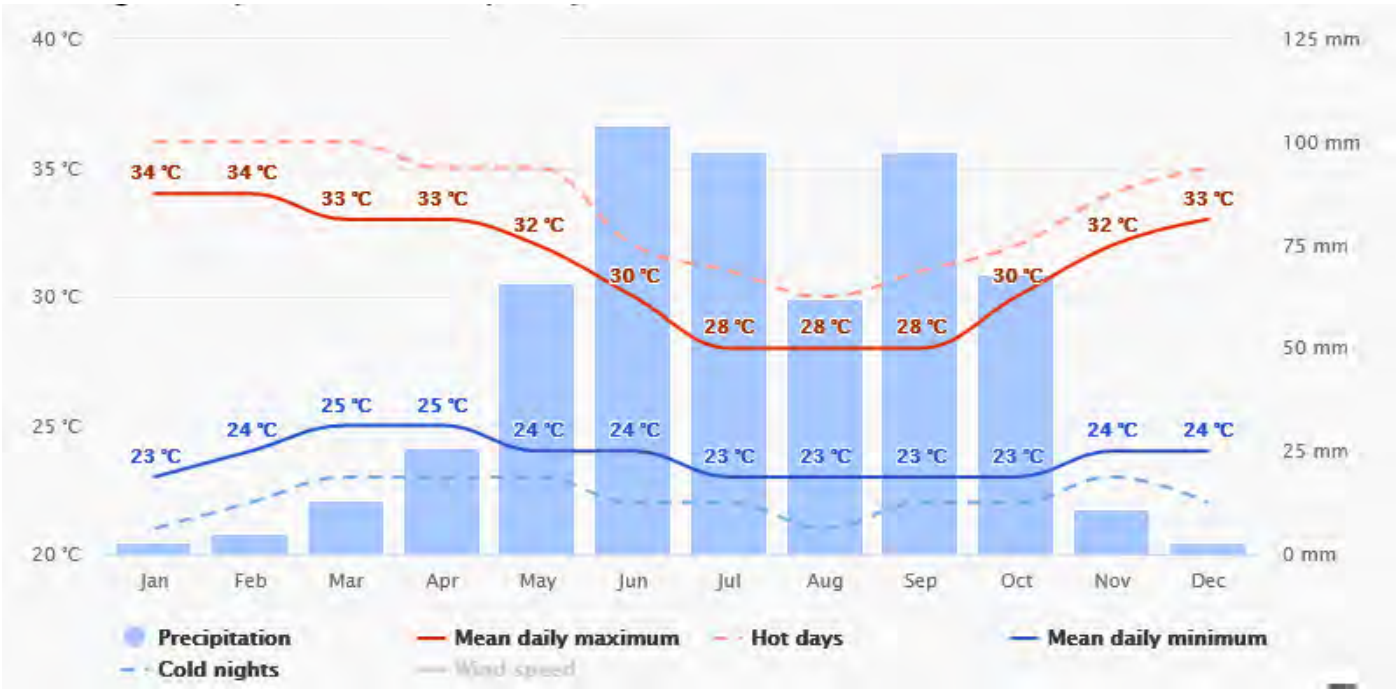
Heathcare in Makoko is a major problem. The existing healthcare facilities are mostly volunteered by locals with little to no resources which face difficulty even treating very easily treatable illnesses. One of the main causes of death in the community is by such diseases.

Sanitation

Sanitation is very much lacking in Makoko. Living very close to a polluted water with very little access to fresh and clean water brings many health issues. Majority of locals have difficulty finding clean water in their daily life struggles.

-How Makoko, Nigeria's floating slum went digital with new mapping project By Oluwatosin Adeshokan, for CNN

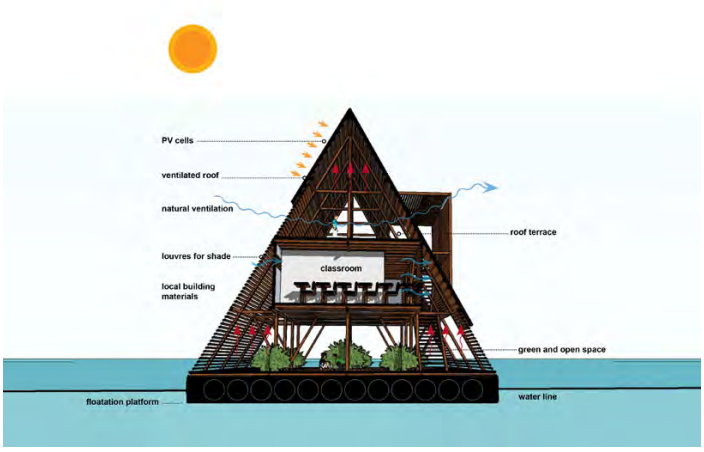
Climate



Makoko has a tropical savanna climate. Temperatures does not go below 20 °C meaning that it has a hot climate every month of the year.

The precipitation fluctuates greatly between seasons, rising to very high numbers in June-September. It is important to note that storms and floods are a crucial problem in Makoko.

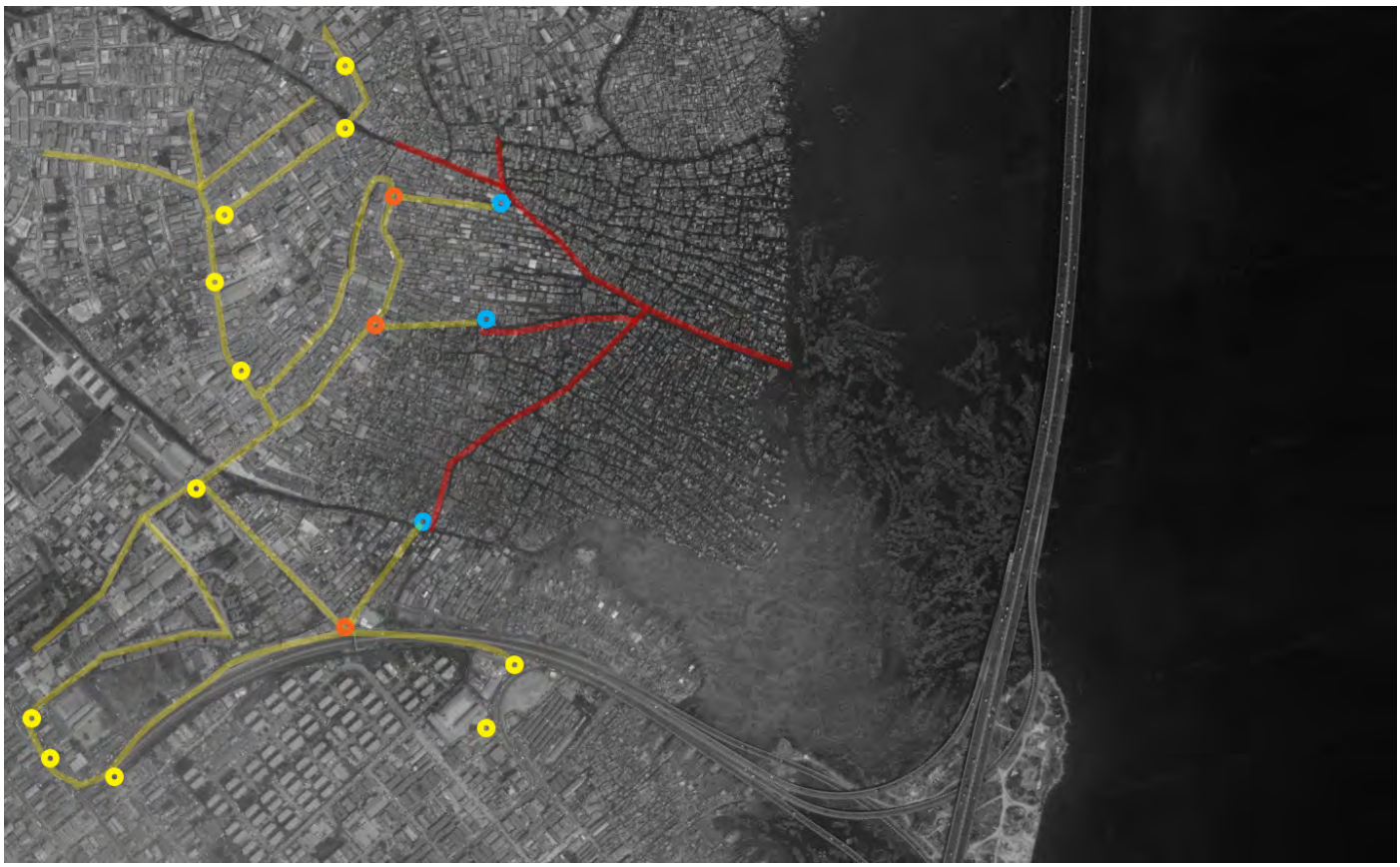
Case Study: Makoko Floating School

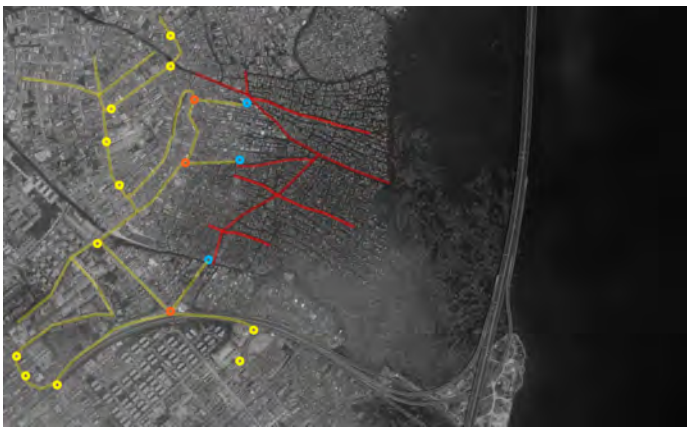


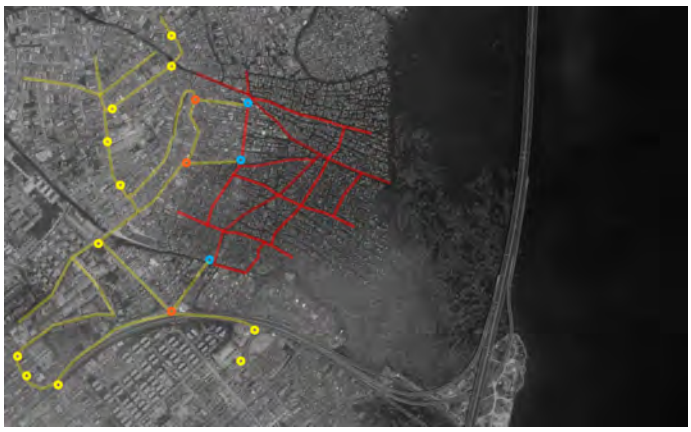
The Makoko Floating School project was one of the few projects related with the Makoko community. The attempt to solve the education issue within the context of elements that are existing in Makoko is what I have inspired from in this project.

The use of wooden stilts with a pitched roof on a platform is the niche style of Makoko houses. However, Kunle Adeyemi established natural ventilation and greenery in his project which are very much lacking in Makoko. Also by the use of a floating platform rather than one sitting on wooden stilts, he aimed to overcome the problem of flooding but due to harsh weather conditions during construction, the structure was collapsed.

-How Makoko, Nigeria's floating slum went digital with new mapping project By Oluwatosin Adeshokan, for CNN







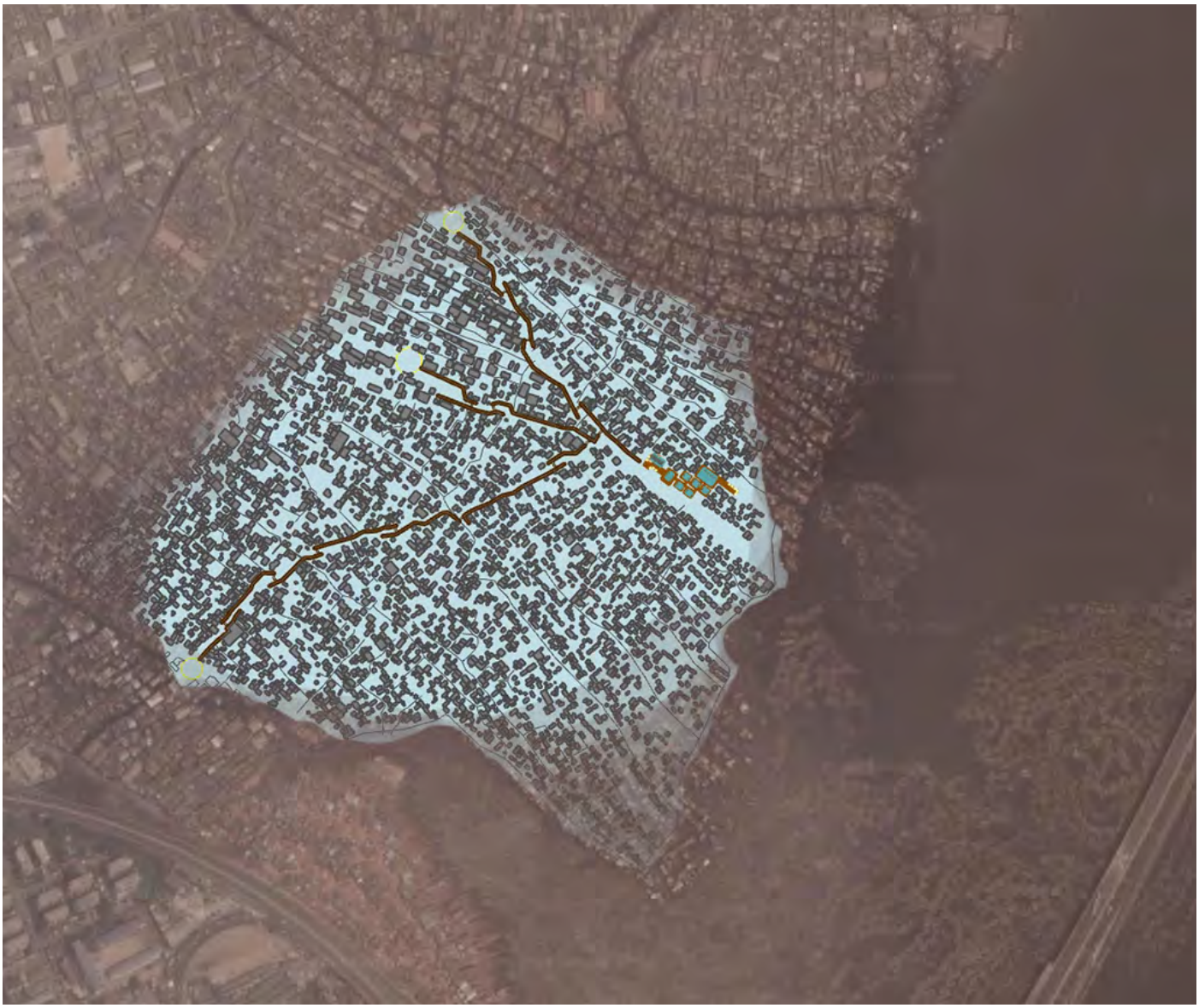
The lack of any infrastructure has impacted the community of Makoko such that it is disintegrated from the city of Lagos and also isolated in a physical sense. It is very hard to reach into the community from the outside and also without any infrasture the commune life is also disintegrated.

In the community the only existing organization is through the commonly used canoe paths between the wooden structures. These become more crowded parts of the area that people gather around but still very weak in terms of creating a collective living experience.

The project proposes to create an infrastructure that will govern an organization in the community. With proposed additions to transportation routes, making it easier to reach the proposed axes in the community, and arteries that extend from these routes till the inside of the community will aim to recreate what the locals have already created with a stronger relation.

The infrastructure created in Makoko by this project can be developed later on to cover a larger area of the community and branch out from that point. By doing such, the daily life in the community will be much more connected and the integration to the city of Lagos will be stronger.

MASTERPLAN

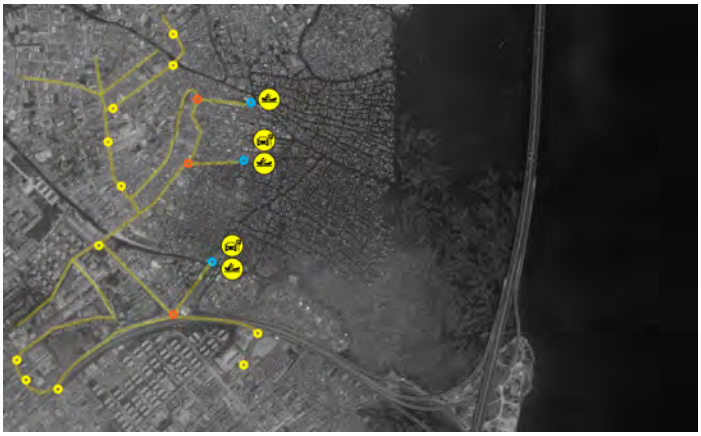


The project masterplan is composed of three main elements. The added transportation stops that feature car parks and canoe rides into the community will become a junction between the city of Lagos and the communtiy of Makoko. Connecting these stops to the insides of Makoko will be arteries. These arteries will feature floating platforms that provide walkable area through the community which helps to create a stronger connection within Makoko.

Structures and buildings accomodating important everyday functions can be attached to these arteries to enrich the connection later on the development of the community.

Within the reach of the arteries is the focus area of the project which will feature functions that aim to solve the problems mentioned before. The focus area will feature a healthcare center, a multi-purpose bazaar for fish and flea markets, streets that accomodate some cultural activities such as street food vendors and everyday goods and a pier for the service of these functions since canoe is the means of going about in Makoko.

Proposed Transportation Routes

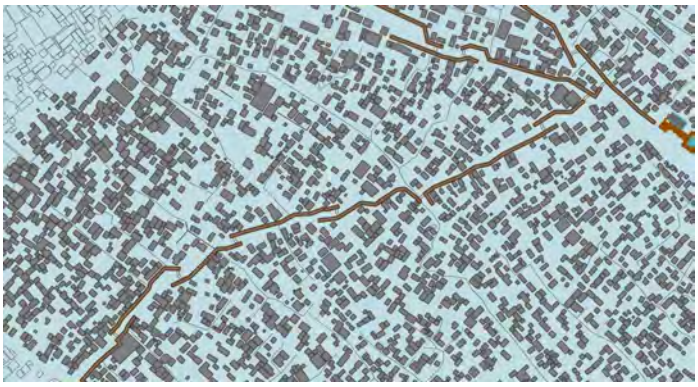


The transportation routes nearing Makoko consists of bus routes that don't reach the vicinity of Makoko. Because of the lack of decent roads, it was difficult to set up bus routes going into the community. With the proposed transportation routes of the project, there will be three additional bus stops located as shown by orange and blue circles in the map. Then, after the last bus stops there will be stops that feature car parks and also canoe stops that feature guidance by the locals. Visitors can ride the canoe with a guide to reach the inside of the community.

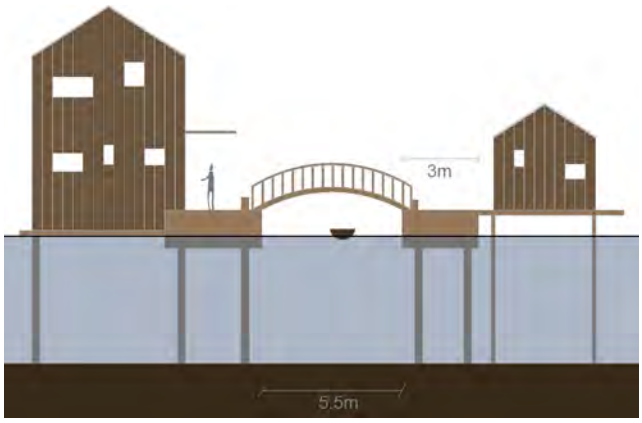
From these stops arteries are also an option to go into the community if preferred to go by foot rather than by canoe. the sidewalks connected to each other offers a walking path through the community.

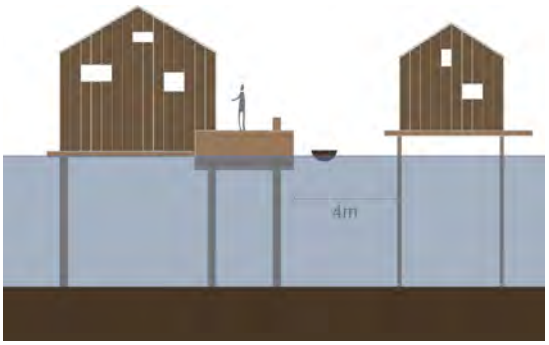
With the addition of propoper transportation opportunities to the community, the community will become part of the city of Lagos. The fishing culture and the fish market will be attractive aspects of the area that the people in Lagos will look forward to experience.

ARTERIES



The arteries that extend from the proposed transport routes, which accomodate car parks and local guided canoe transport, to the focus area are basically sidewalks that enable a terrestiral way of movement within Makoko. Currently, as the only way of circulating within the community is by canoe, this creates a disconnection within any type of daily life activities. Locals only travel to their destination without any interaction to whatever they pass by during their canoeing. These arteries aim to create some sort of connection that can be extended further with additions of more platforms and also buildings attached to these.





While designing the arteries, there were two main challenges; there should be enough space for canoe transportation and also to connect both sides of the axis, there needs to be some sort of a bridge. To have widths providing the needs for these within the narrow axes, the dimensions need to be precise and not wider than it should be.

Unused materials: Wood

The material choice for the project is most conveniently wood. As it is the most used local material, it is only logical to use so. The project design will feature wooden stilts, wooden platforms and wooden frames just as the locals have used already in the area but with a better sense of organization.

Also near the edge of the community towards the Lagos Lagoon, there are many wooden structures built incompletely and not being utilized. The materials from these unused structures will be harvested and used in the project to cope with sustainability issues and also to blend in within the community

Morphology

The wooden structures in Makoko have their own unique style of combining into the urban fabric. This is a valuable aspect that defines the characteristics of the community.

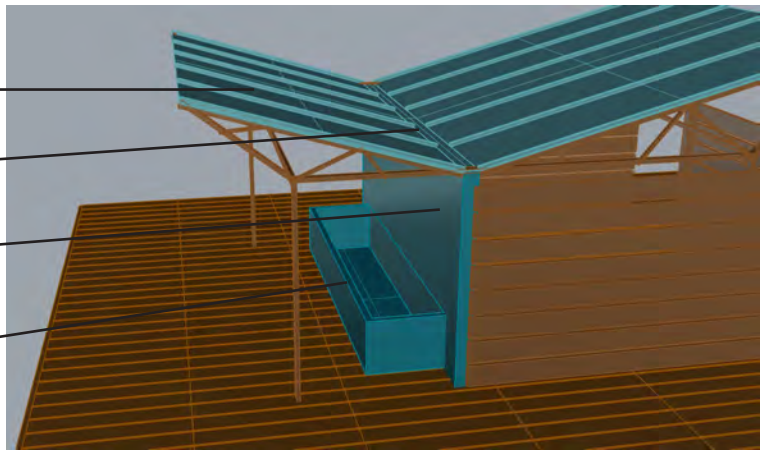
Taking inspiration from the already existing structures, the project aims to recreate the relationship between the wooden stilts, buildings, wooden platforms and the small bridges that connect them.

Focus Area

At the junction point of the arteries is the focus area of the project. The sidewalks become platforms that connect the important functions for the community. The connected platforms and functions aim to create a walkable area with some of the very crucial functions for the community, helping to create a central organization around these functions.

The focus area features a healthcare center, which is necessary for the community since there are only a few with very limited resources. Placing a healthcare center in a reachable area will help solve the issue. Another feature of this platform is the streets as a transition. The streets will include small shops related with the culture of Makoko. Street food vendors and sellers of everyday life products will be able to concentrate in once place rather than selling their products mobile by canoeing. Then there is the multi-purpose bazaar area which is going to feature the most important economic activities of Makoko, fish market and flea market. Between the 7 days of the week, 4 of them will be used to set up a fish market and 3 will be set up for the flea market where people can sell daily life goods. Lastly, there is the pier at the end of the platform for mostly locals to bring their goods by canoe. Since fishermen come back to the community from the bridge side, the pier is located at the ending of the houses near the sea.

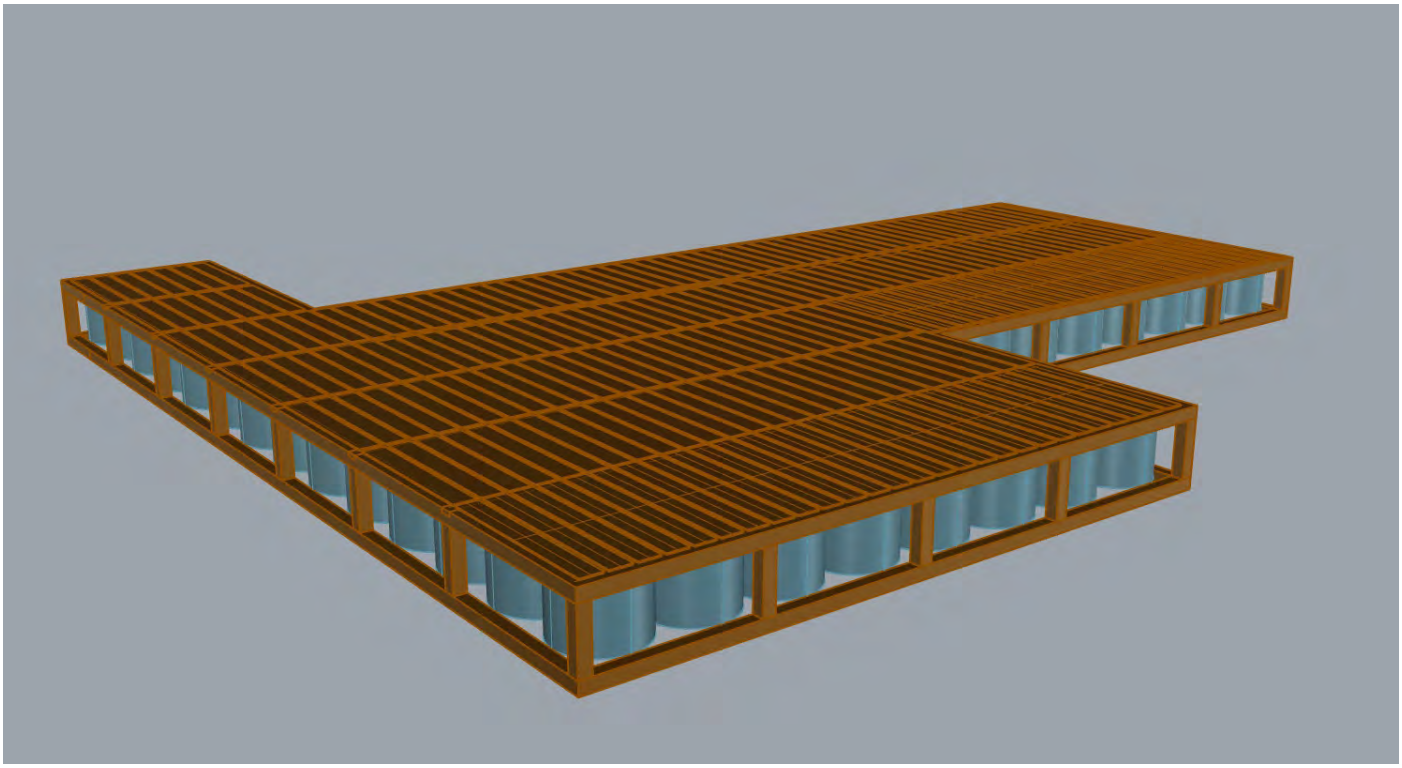
Storm Water Collection

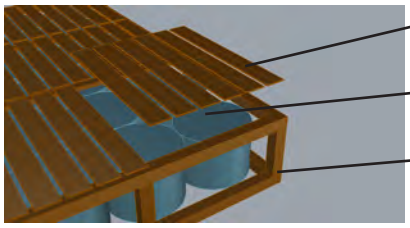


As sanitation is a major issue in Makoko, there is very little access to clean water. The storm water collection installed in the buildings will provide clean water to the locals.

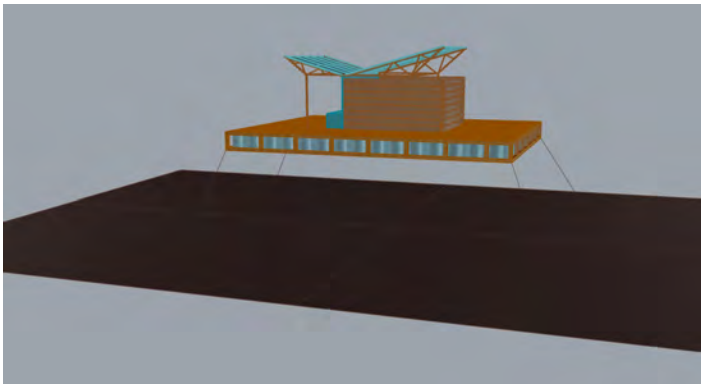
The zinc roof with gutters will guide the water to the filter and then clean water will be stored in the water tank which acts as a partition wall. It is placed on the center of the floating platform to increase stability.

FLOATING PLATFORMS





The floating platforms feature reused barrels which are very accessible in Makoko. These barrels will be filled with air to provide buoyancy. The wooden frame will hold the barrels together. The structure is finished with the wooden tiles installed to the wooden frame.

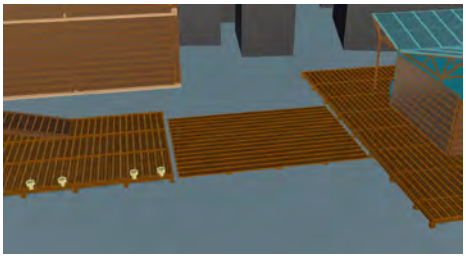


Anchors

The floating platforms will be anchored to the seabed to prevent horizontal movement of the platform. The anchors will allow vertical movement of the platform so that it will adjust itself to sea level.

Transition platforms

Inspired from the fishing platforms which are used by locals everyday, the transition platforms will float on water connecting to the bigger platforms via tensile members.

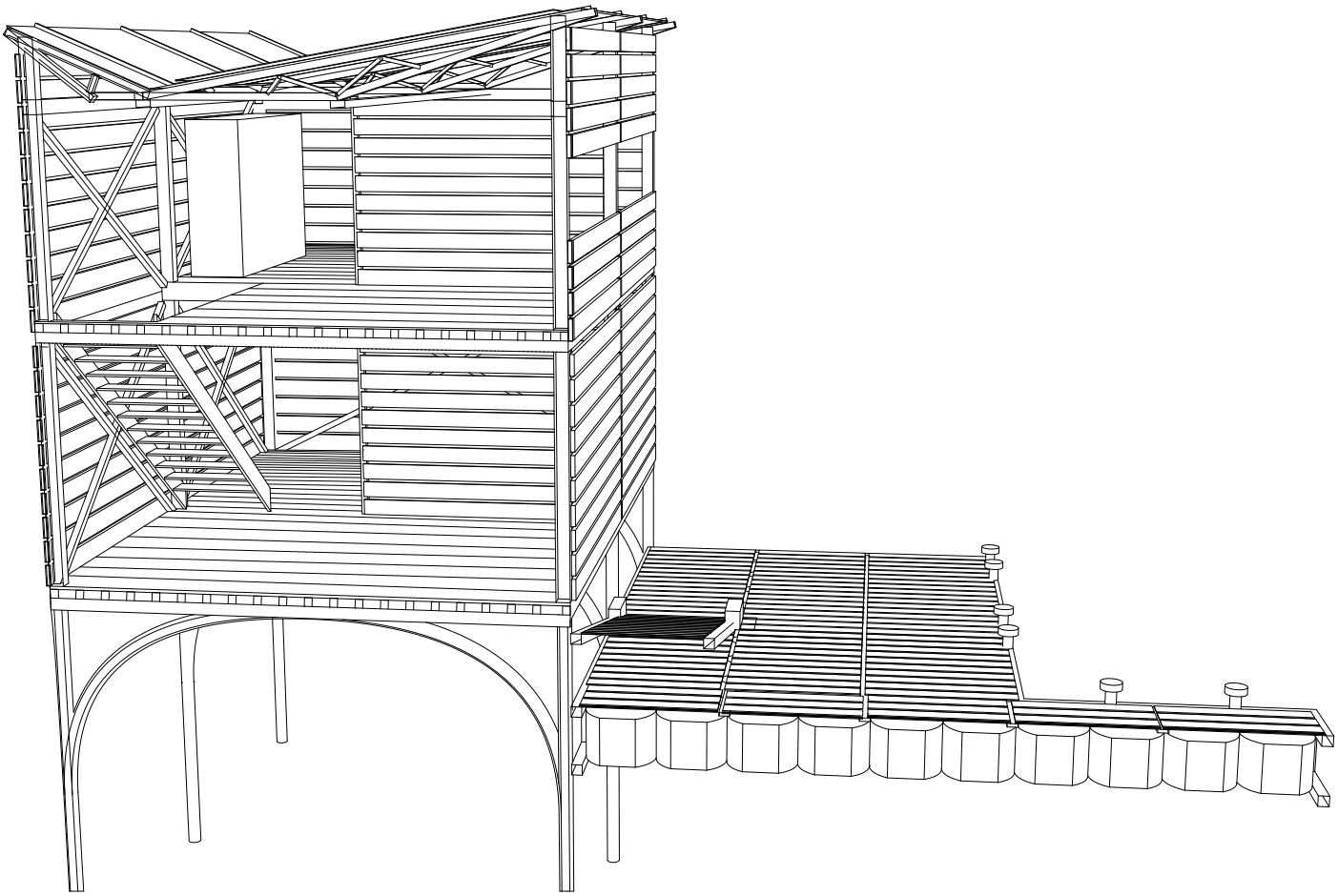


HEALTHCARE

The need for a healthcare is obvious in the community. There are only a few operated by volunteers with very limited resources.
Health being a major issue in Makoko, results in healthcare in a easily reachable area being mandatory. Placing healthcare in the junction of the arteries in a central place will make it convenient for locals.

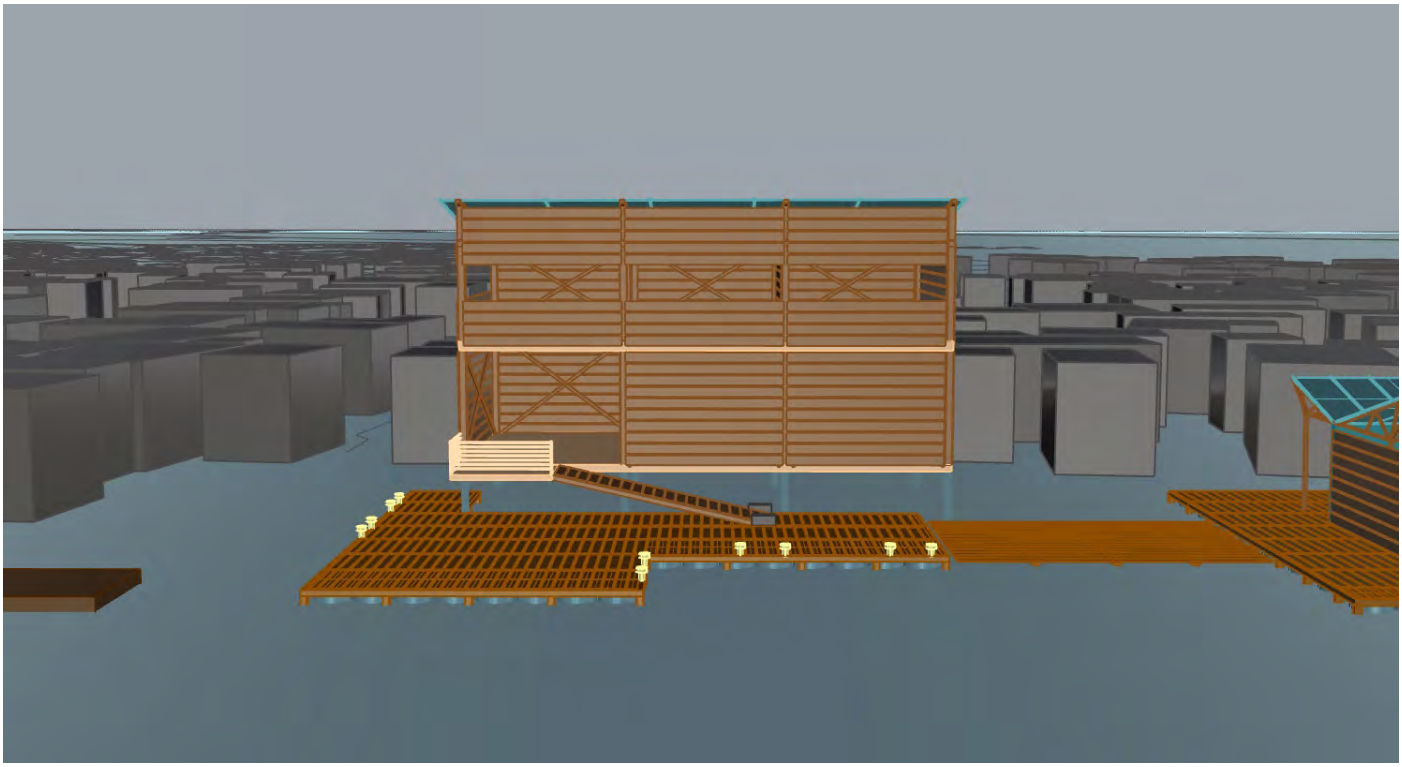
The healthcare will be an investment for the community. Having solar panels on its roof, biorock stilts which will endure any flooding and with the building being located 1.5m above sea level (sea level is expected to rise about 90cm till 2100) the building will steadily serve the community for long years.

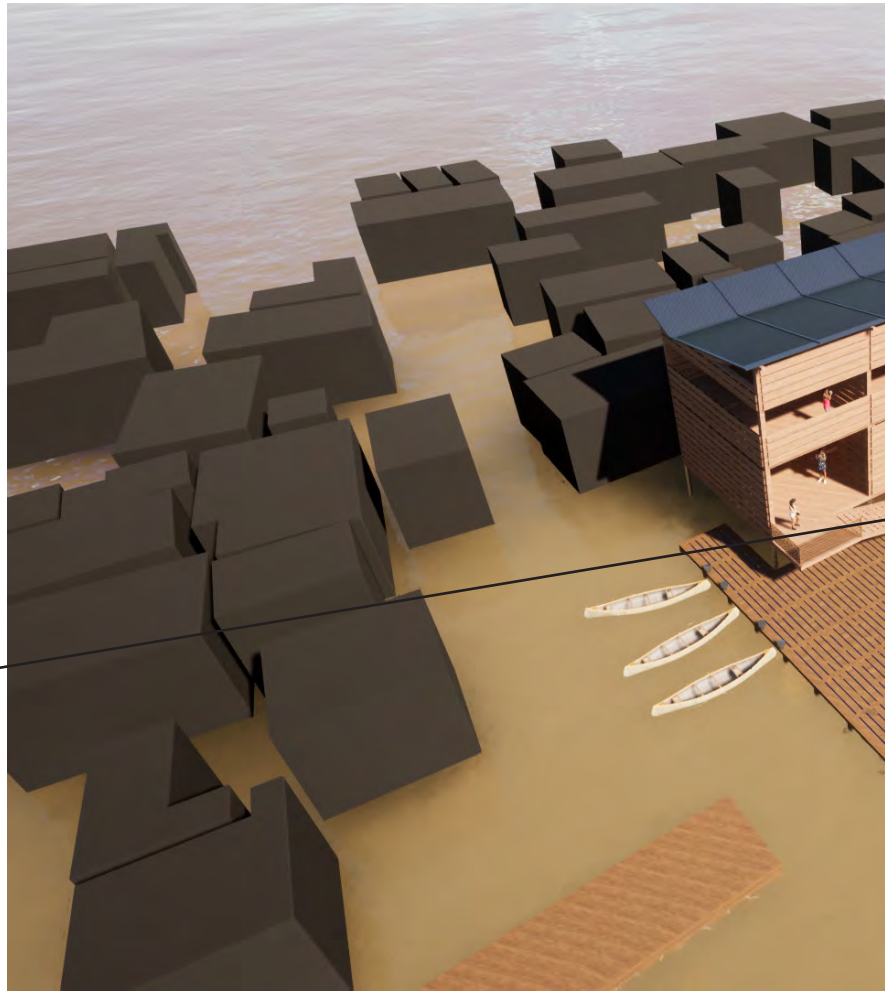
Ground Floor



1st Floor

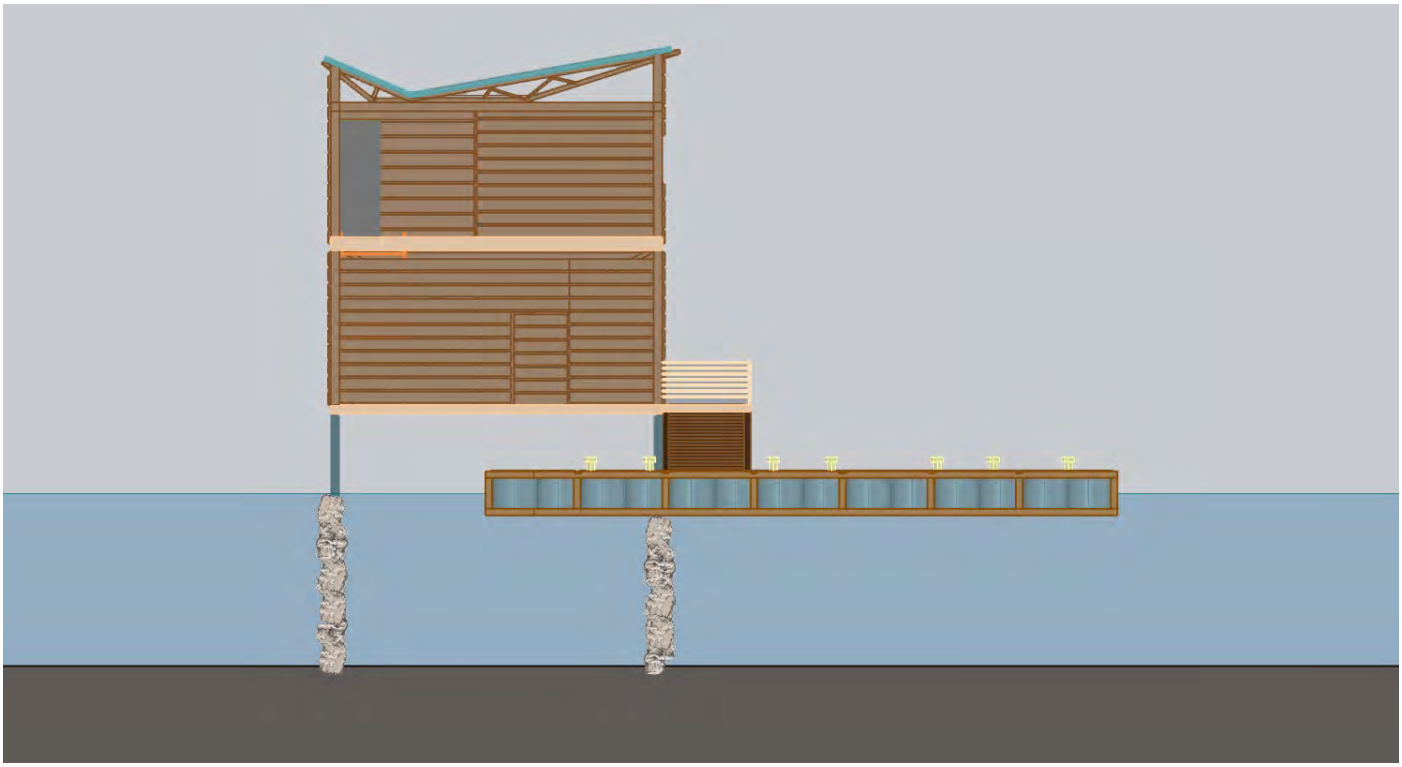

Mechanical Equipment
WC
Patient Room 1
Patient Room 2
Patient Room 3

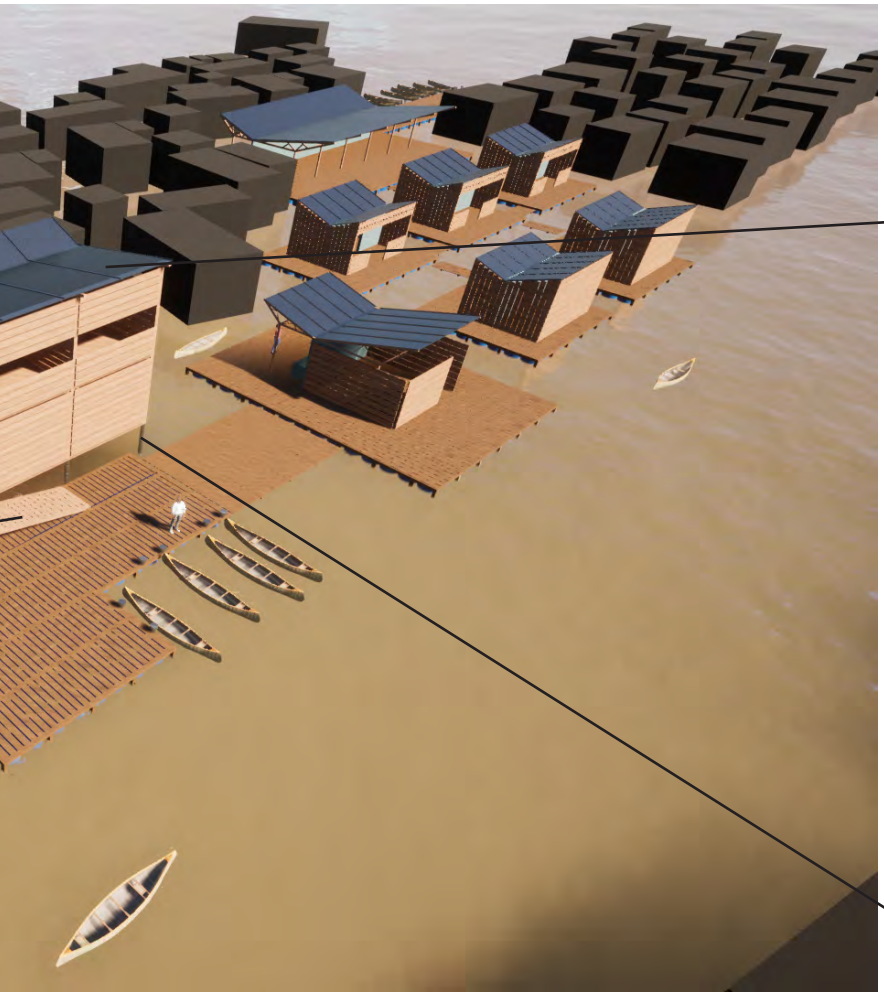




Ramp

The ramp connecting healthcare to it's corresponding floating platform is not connected to the platform, leaving it free to move in the vertical direction. This allows for the platform to rise together with the sea level in the following years.





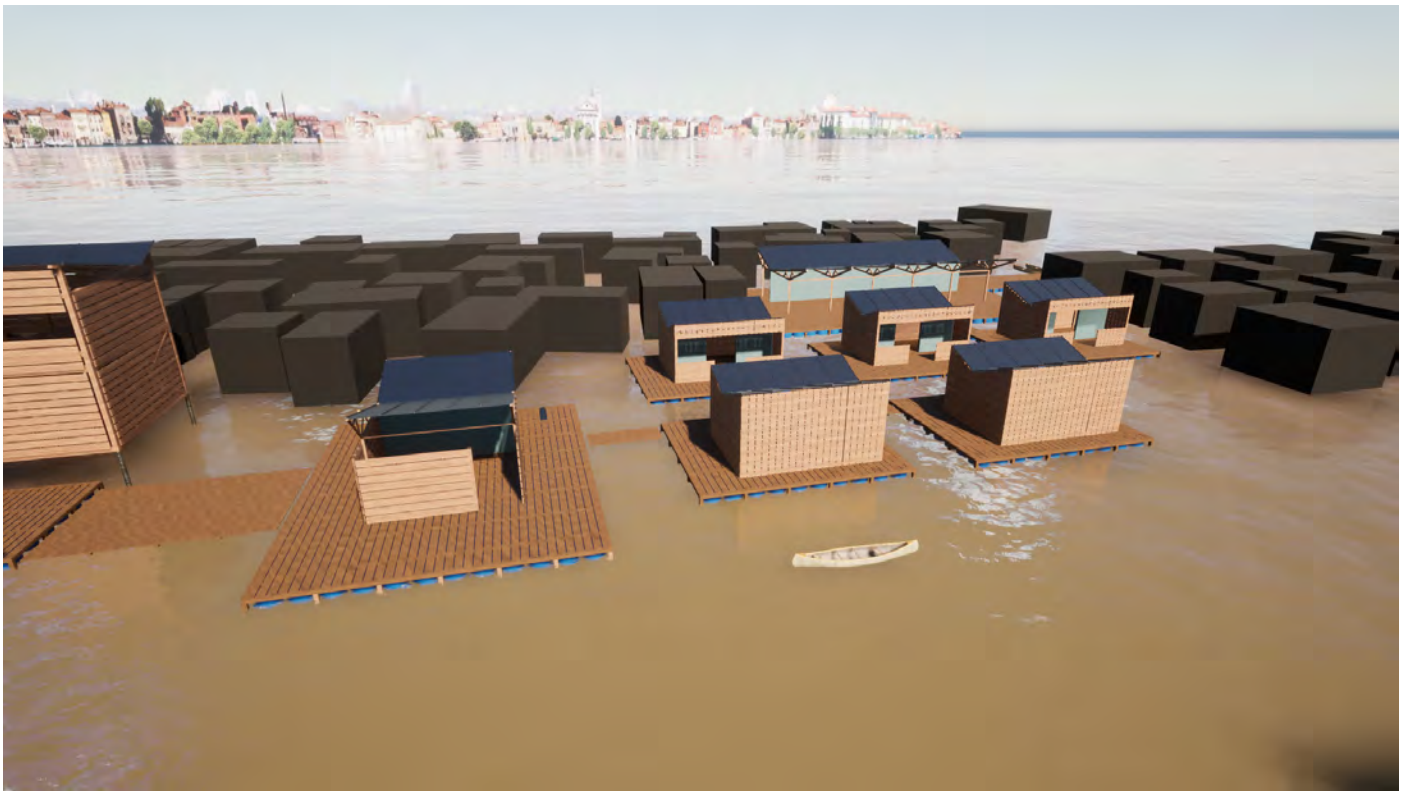
Solar Panels

Solar panels oriented towards north without anything to obscure sunlight will provide solar energy.

Biorock Stilts

By applying low voltage current, supplied by the solar panels, to the steel stilts underneath the building, an electrolytic reaction occurs causing dissolved chemicals naturally found in sea water to form a mineral rock around the steel. This protects the steel from corrosion and the biorock is around three times stronger than concrete.

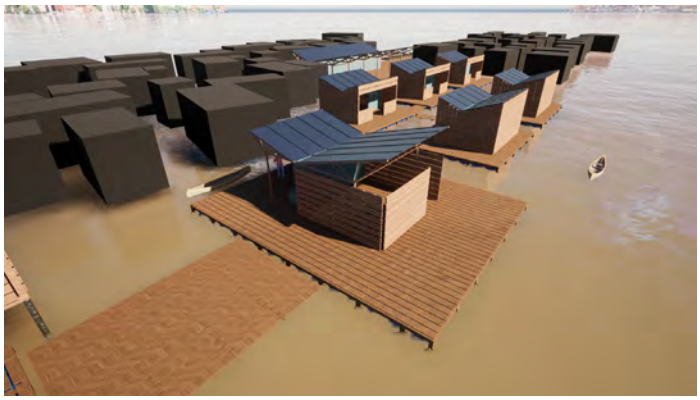
STREETS



The streets will feature activities related with daily life in Makoko. Currently scattered around the community, the culture of street food and everyday goods will be collected in a single place. This will make it convenient for both vendors and also customers. Increasing the engagement between them will help the economy which is a major issue in Makoko.

Market

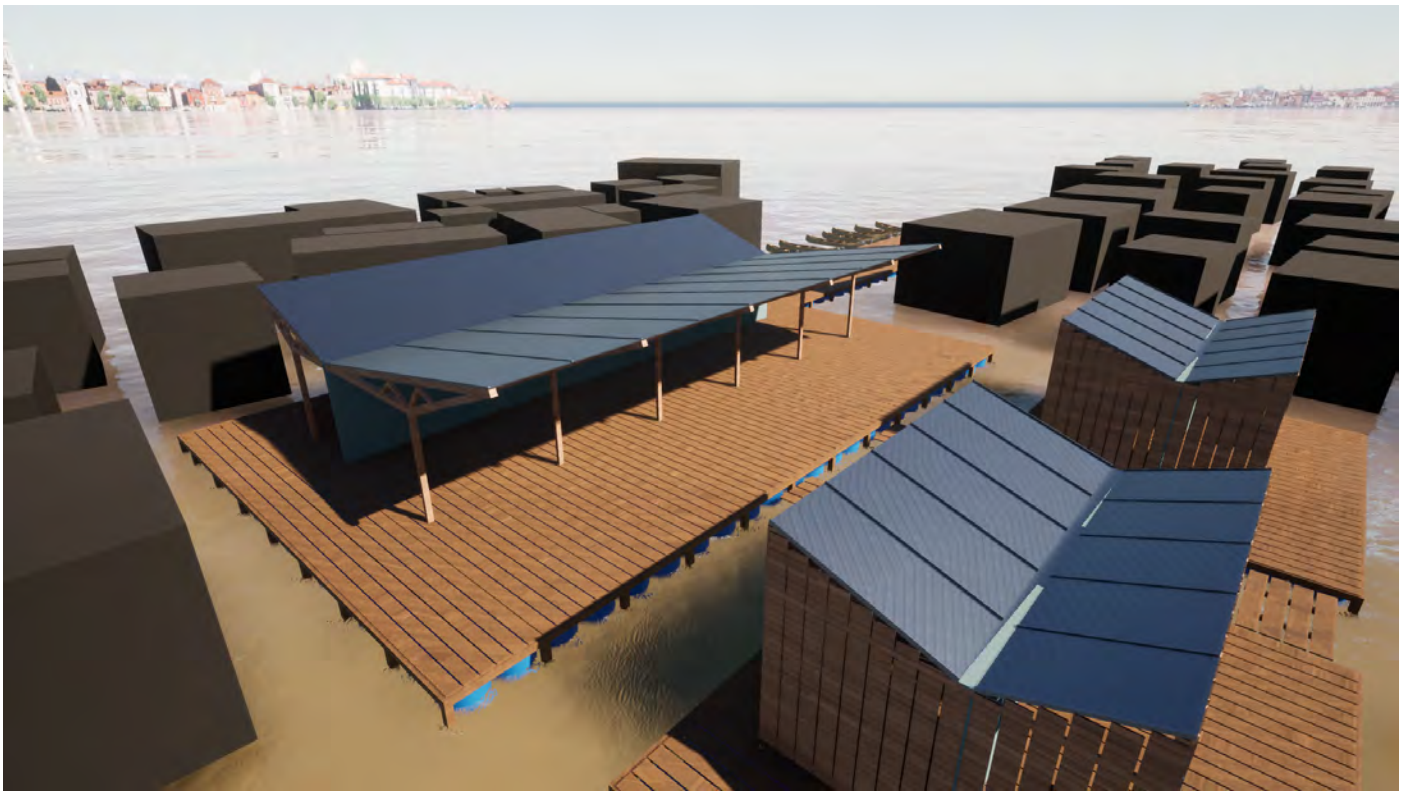
The market is easily reachable and features public clean water distribution through use of the water collecting roof.



Street Food Vendors

Street food is an important culture in Makoko. Street food as one of the main economic activities of Makoko, will be featured in the streets.

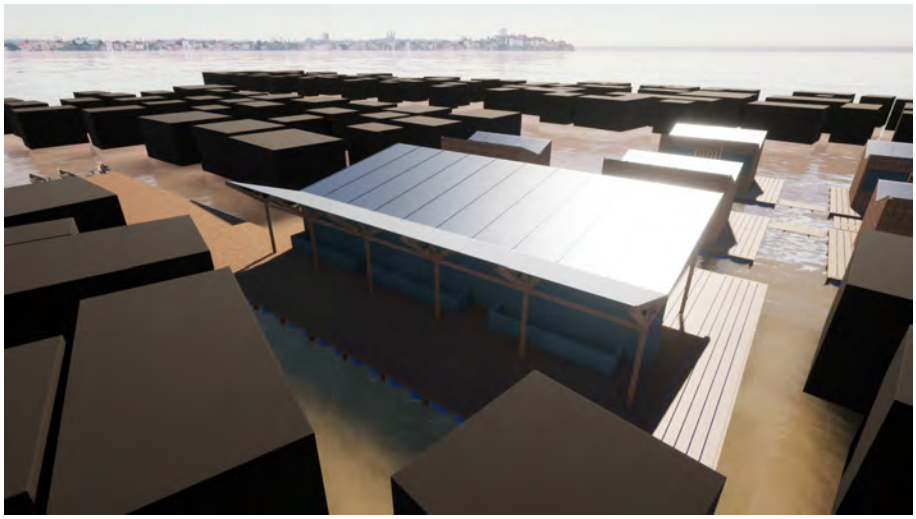
BAZAAR



The bazaar area will accomodate two types of bazaars alternating everyday. As the two main economic activites of Makoko are the fish market and daily goods.

The bazaar will feature fish market four days of the week and the rest three days will be for flea market where goods related with daily life will be sold. This area will collect the spread vendors into one place of common transactions.

Clean Water



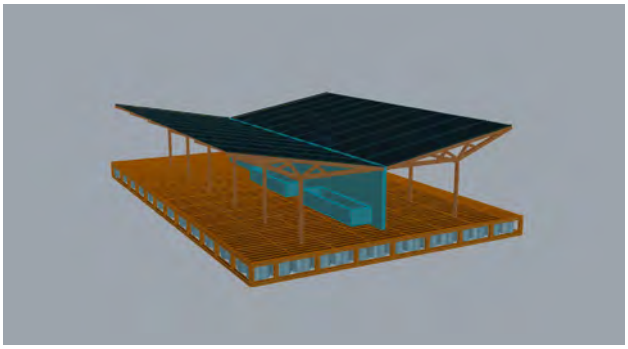
The large roof of the bazaar is utilised as a water collection system. It gives access to clean water to locals aiming to help solve the sanitation problem.

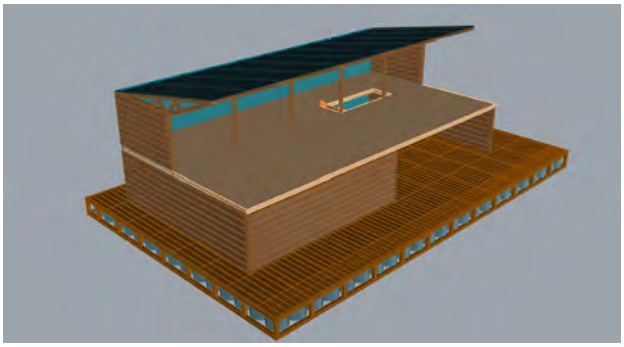
Canoe Piers

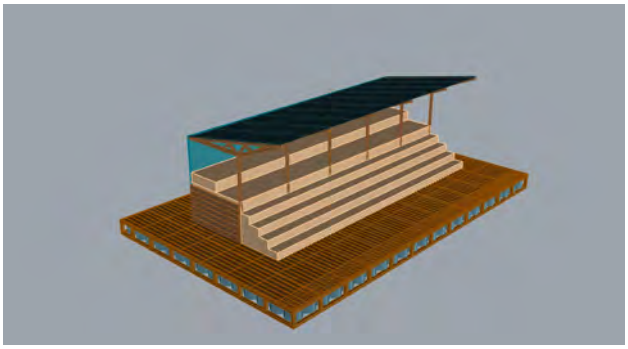
As the locals use canoe to traverse around the community a pier for canoes is needed for such activities. Visitors can also come via boats from the Lagoon.

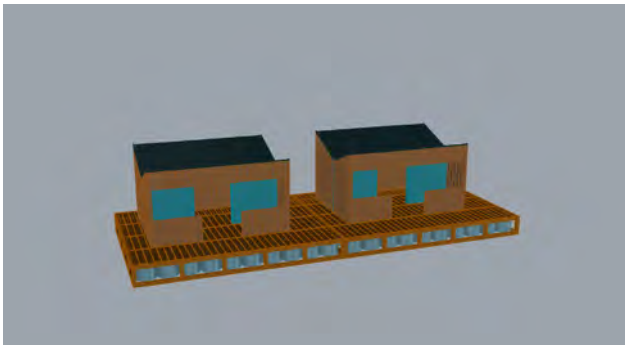
Also, the pier will be used for the service of the bazaar. The fishermen coming from the bridge side, back from fishing, will be able to easily transport their goods to the designated bazaar area and vendors.

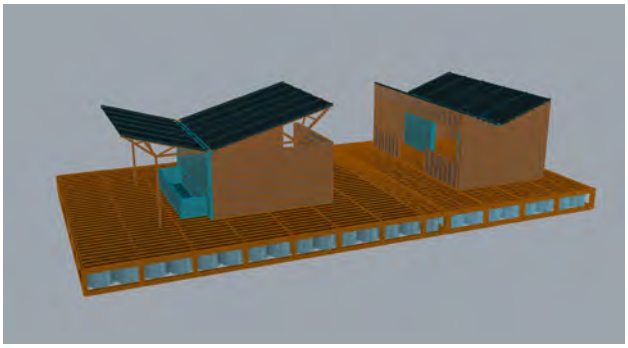
VARIATIONS



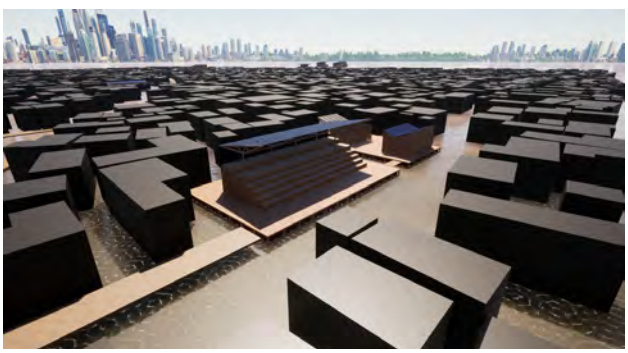


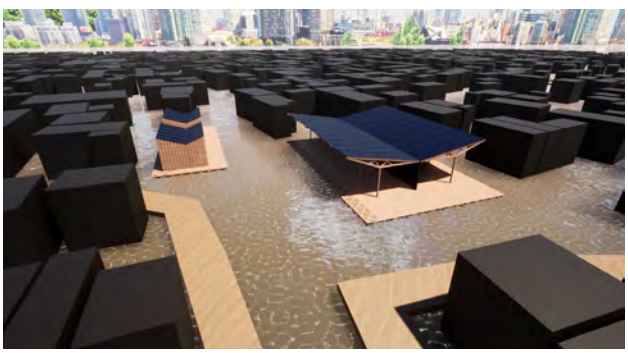






These are some possible variations of the low-cost floating platforms system which can be implemented in the future to needed areas in Makoko. This system proposal can be deviated and be used for any of the site needs in the future.





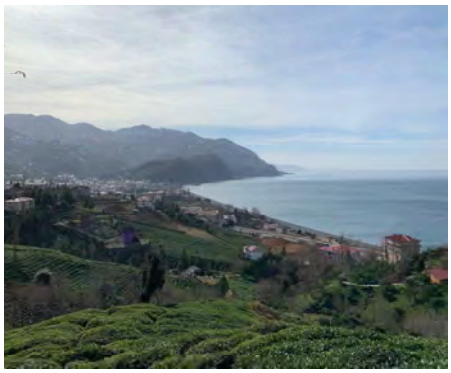
WATERFRONT URBAN DEVELOPMENT
KEMALPASA, ARTVIN

ECE PAPILA

WATERFRONT URBAN DEVELOPMENT
KEMALPASA, ARTVIN

ECE PAPILA

The coasts are physical spaces that create the social, cultural and economic identity of cities. These places should be areas with high quality of life where people of all ages and all walks of life can socialize and spend time. People's access to the shore should in no way be restricted and, on the contrary, it should be facilitated. Only in this way is the relationship between the coast and the city strengthened and the coastal becomes a living part of the city. Accordingly, this project aims to strengthen the relationship between the coast and the adjacent urban area in Kemalpasa and to create a waterfront that is accessible to all. Thanks to new waterfront urban development, people will have a happier and more relaxed area to spend quality time. At the same time, this area will contribute to Kemalpasa socially, culturally and economically.



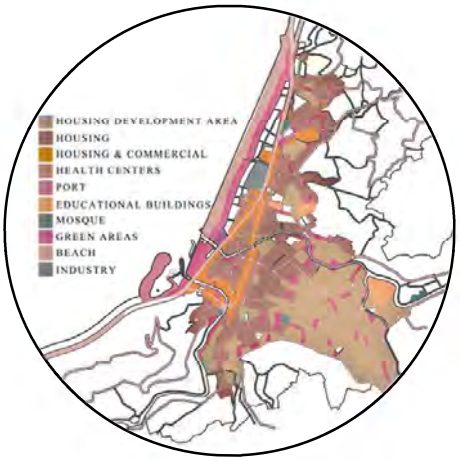
GENERAL INFORMATION ABOUT KEMALPASA

Kemalpasa is a district located on the Black Sea coast of Artvin province. Nature and water are together there. The economy of the settlement is based on agriculture, fishing and animal husbandry. In terms of agriculture, tea is the most important economic resource. Accordingly, the agricultural industry developed in the district. Blueberry production and sales also abundant and is the most important product right after tea. Apart from that, many fruits and vegetables are grown and sold. Many organic products such as milk, yoghurt and butter are produced and sold by the public depending on the animal husbandry. In addition to these, the area is used for the transition by many people since the district is only 5 minutes away from Georgia, and the Sarp Border Gate is within the boundaries of the district. Accordingly, border trade has developed in recent years and Kemalpasa has become a shopping center for Georgian citizens.

Kemalpasa gets very active especially in the summer months because it has a wide beach, and nature. With the start of the sea season and the start of the festivals, citizens coming from neighboring provinces and districts for daily or camping purposes show great interest to Kemalpasa. Apart from these, people who live in big cities and have higher education prefer the summer months to spend their holidays here or to visit their relatives. With the start of fresh tea production in May, labor migration is also increasing. Therefore, the population of 15 thousand increases to approximately 20 thousand in the summer months. Accordingly, both population density and social density are increasing.

-Foto Galeri, www.kemalpasa.bel.tr/?Syf=4&pt=Foto%2BGaleri.

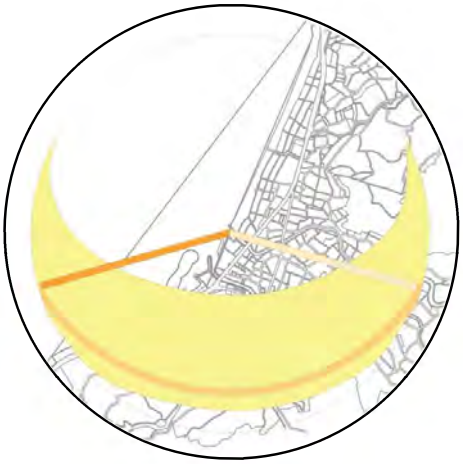
--Kemalpaşa Belediyesi, www.kemalpasa.bel.tr/?pnum=5&pt=TAR%C4%B0H%C3%87E.



Functional Diagram

Agriculture Areas

Water



Sun Path

SITE ANALYSIS

The settlement plan of the Kemalpasa takes shape according to the geographical structure of the region. There are huge agricultural areas where topography has steep slopes, and the settlements are getting intense in between the mountains where slope is much more suitable. With respect to this, the settlements are very dispersed in the district. However, there is a distinct difference in urban settlement along the flat areas of the coast.

In Kemalpasa, education, health, trade and transportation activities are highly developed according to the population. However, although the young population is dense, the places that operate in social and cultural areas are almost non-existent. In addition, although there are many agriculture areas, there is no place having good potential to introduce and sell them.

At the coast of the district, there is land between the sea and it is separated from the town by the Black Sea Coastal Road. This area has a private usage with the housing, industrial factory and the restaurants. The other parts except from them, is like a urban voids. People use these areas to access the beach.

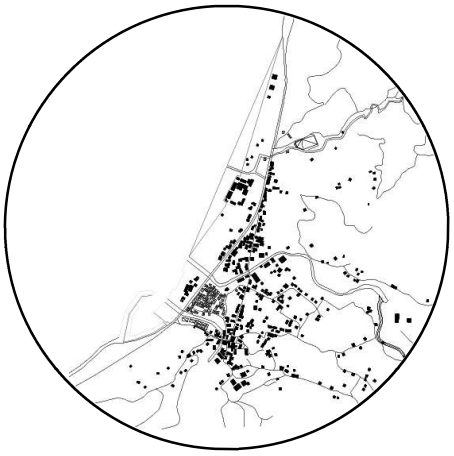
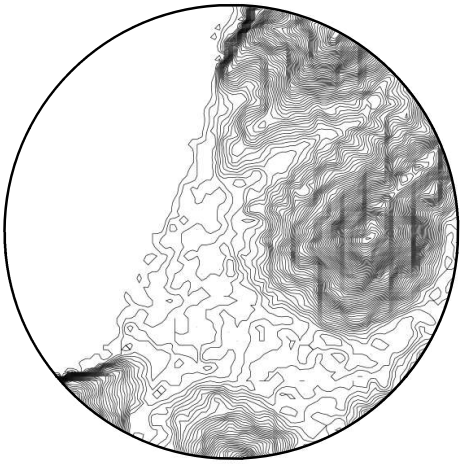


Figure-Ground



Topography

PROJECT SITE

The project area is the filling area between the sea and the coast. The area has a high potential to increase life quality in Kemalpasa thanks to its ecological situation. The sea and the streams make the coast stronger to design a place where people are happier and relaxed. Water is the most critical design component for physical and psychological comfort. Furthermore, it can bring the area a variety of visual and functional characteristics. With respect to this, all people should have plenty of visual and physical public access to both water and coast. Namely, a coastline should be used for more than limited purposes. The coastline should be a place that the public can enjoy. In other words, it should have a higher quality of life. In addition, a balance between nature and social life must be created for communities to grow sustainably. The establishment of this harmony relies heavily on urban natural water components.

The waterfront of Kemalpasa has all the features that will offer people a high quality of life. However, it is currently used for limited purposes. The industrial factory is located in the most central and accessible part of the beach. The remaining areas operate as private property. The places that are open to the public are almost non-exist. In addition to these, the number of visitors to the region increases in the summer months. Since there are only two beaches on the Artvin coast. Therefore, the beach is also used by people living in the surrounding provinces and districts. However, the beach of Kemalpasa is the only one that has places to spend time right next to the beach. However, it cannot provide people with the necessary service and nice environment due to the problems caused by its misuse.

-Timur, Umut Pekin. "Urban Waterfront Regenerations." IntechOpen, IntechOpen, 1 July 2013, www.intechopen.com/books/advances-in-landscape-architecture/urban-waterfront-regenerations.

PROBLEMS

Ruined Urban Voids

Housing and Restaurants at Coastline

Industrial Factory

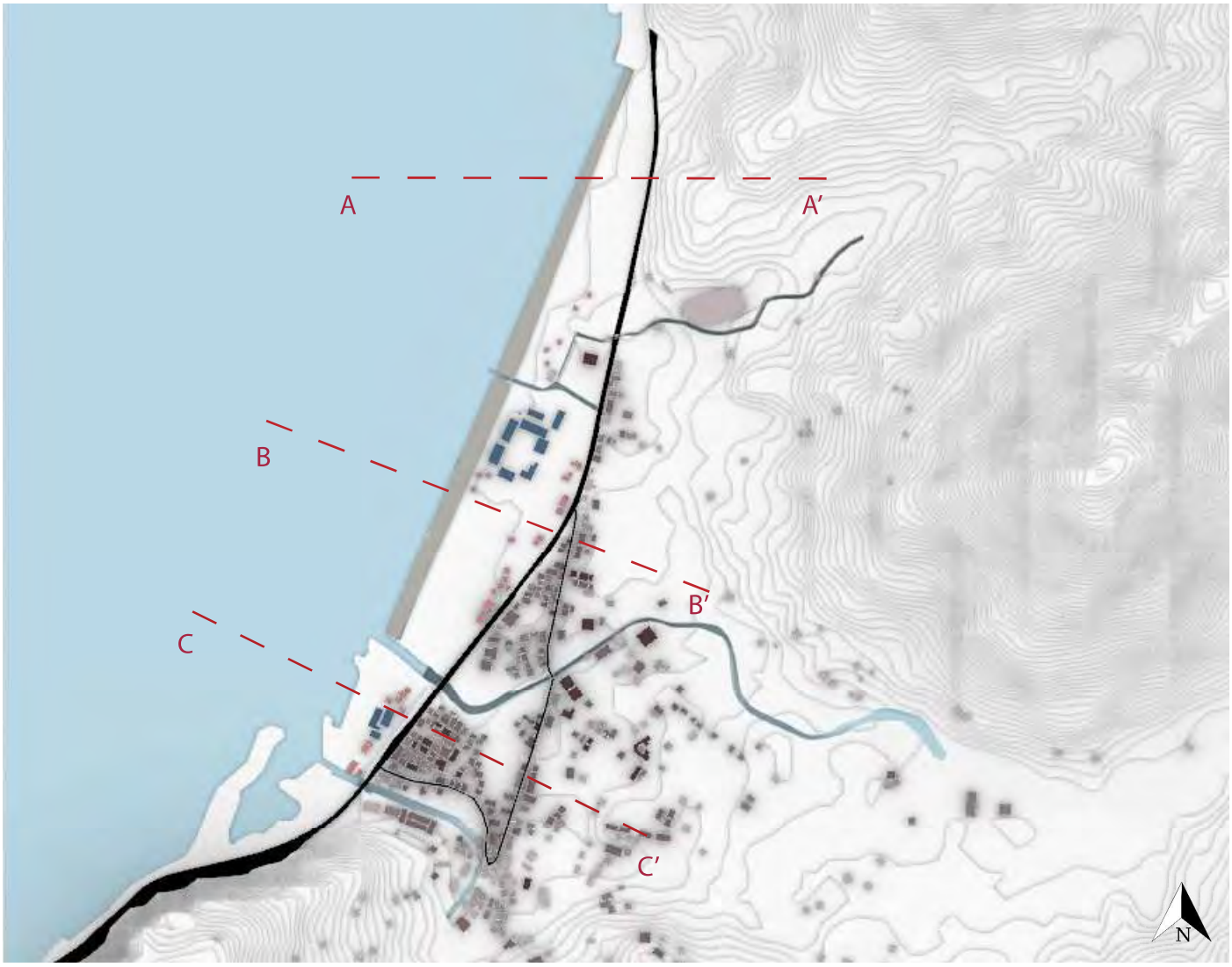
Truck Parking

The main problem is disruption of the natural relationship between the coast and the neighboring urban area. The coastline of the district is used for limited purposes and irregularly. With the coastal road and the functions, the coast is disconnected from the city and people. Accordingly, the people and the coast are also diverging. Namely, people's access to coastline is restricted due to misuse. If the situation continues in this way, people will be completely disconnected from the city.

One of the problems is that the factory is located in the most central and accessible part of the coast. In addition to restricting people's access to the beach, it creates water and air pollution. It also negatively affects the coast visually. The housing at the coastal line also has problems such as the obstacles to access blocking the beach. The part where houses are located on the beach is underutilized. This is because people have to use the garden of the houses to reach the beach, and this is not preferred that much by people. With respect to this, the beach starts running like private property. Restaurants also create the same problems with accessibility as in homes. Thus, people who want to go to the beach have to use the ruined urban voids or unorganized areas.

In short, while the coast should be open to public usage, it is used as disorganized private property areas. This makes the coast unusable and inaccessible by the public. Therefore, the social, cultural, and economic potential of the Kemalpasa decreases. This results in a decrease in the quality of life, even though it has strong natural elements like water and green to create a nice environment for people.

Coastal Road

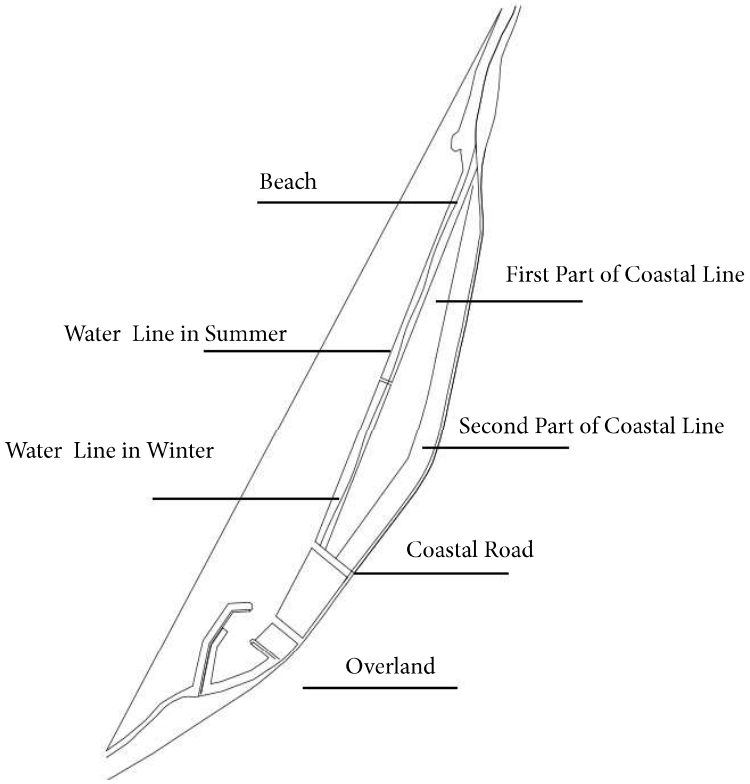


Buildings that will be saved

- Industrial Factory
- School

Buildings that will be removed

- Restaurants blocking the beach access
- Housing at the coastline
- Other buildings that are not addressing to all people



SECTION AA′ Hills, Coastal Road, Coast, Beach

SECTION BB′ Housing ,Shops, Coastal Road Coast, Industrial factory, Beach

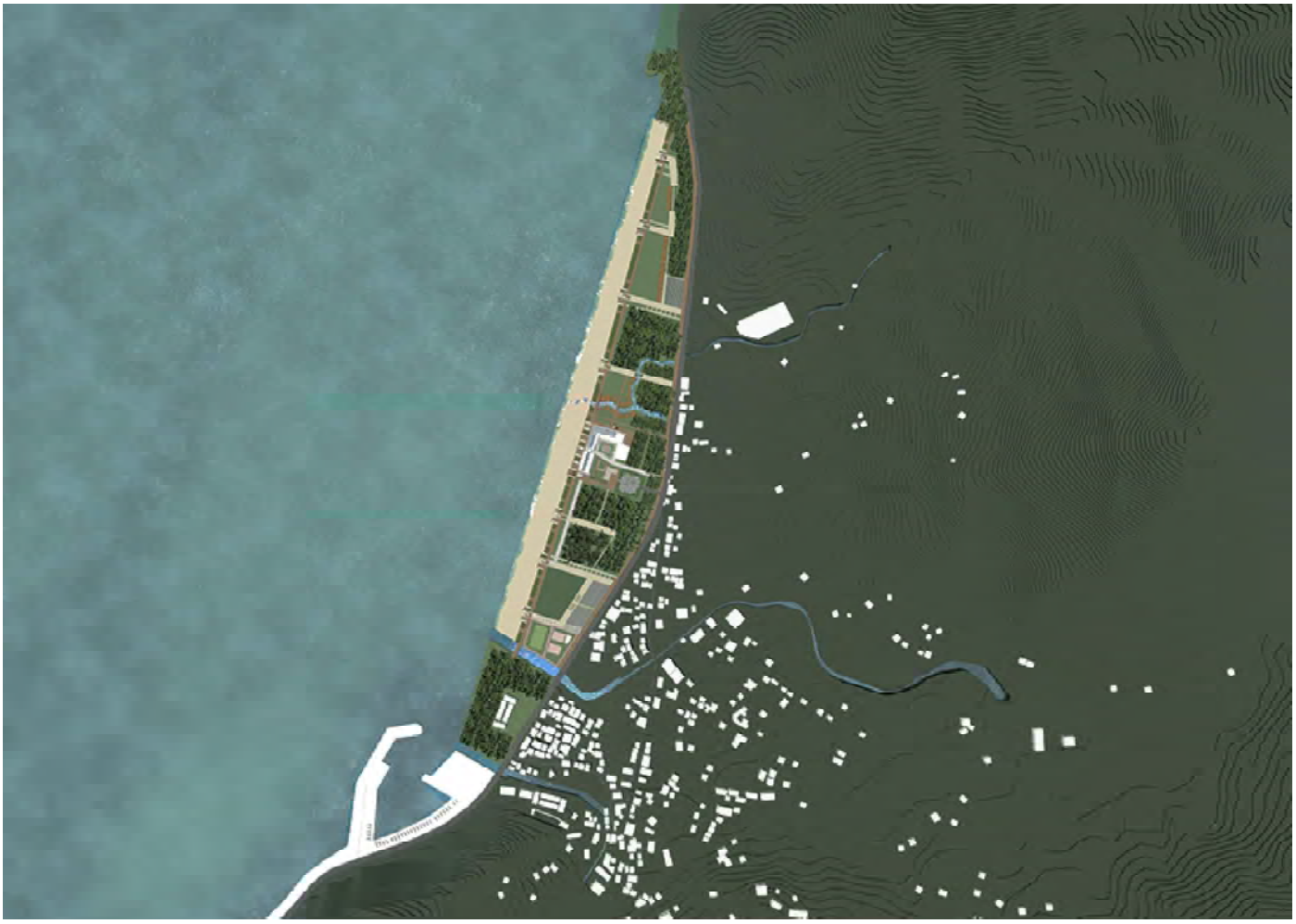
SECTION CC′ Center of the city, Buildings educational, health, houses etc., Coastal Road, School

PROPOSALS AND MASTER PLAN IDEAS

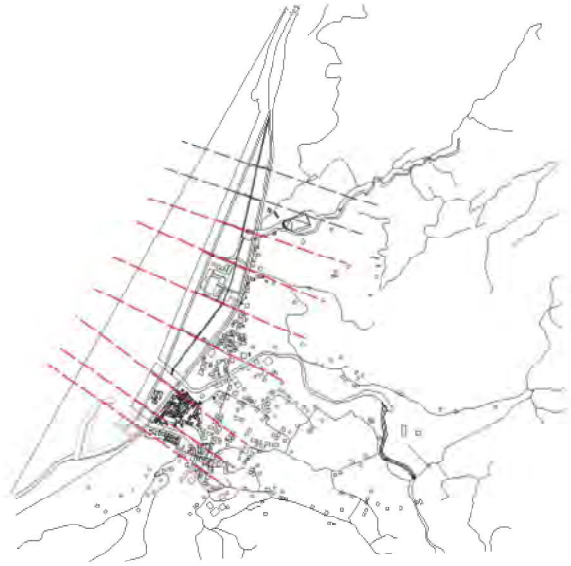
The new waterfront urban design in Kemalpasa aims to make the beach an accessible and living part of the city by strengthening the broken relationships. To achieve this, this project first proposes to move the coast from private usage to public usage. The buildings located at the coast do not address the public. However, If we analyze these buildings, some of them are suitable for functional change for the public. These buildings will be kept and used for the public. On the contrary, buildings that are not suitable for public use will be demolished. They will be replaced by functions that will provide social, economic and cultural contributions to the city.

The plan of the site will be shaped according to the geographical conditions and functional infrastructure of the city. When we look at the area, there are two geographically and three functionally different situations.

In the first section, there are no settlements, mountains with agricultural areas located at the back of the beach. This side of the coast mainly consists of the open spaces, parks and cafes. The other section from zone II has different situations. In this part, there are settlements and shops. It is an area where people are denser than the first zone. Also, the factory which is appropriate for the functional change is located in this zone. Accordingly, this zone consists of the mixed used building by transforming the factory, open spaces, parks and the cafes. The other area works as the center of the city and includes functions such as school, hospital and city hall. Therefore, services such as education and health continue in this field. The one more important geographical condition is at the coast. There are three meter retaining walls to prevent the water in winter. Also, there is a four meter level difference from coastline to car road. With respect to this, stepped landscape will be used in the first part of the coast. For accessibility from the adjacent urban area, overpass and underpass will be used.



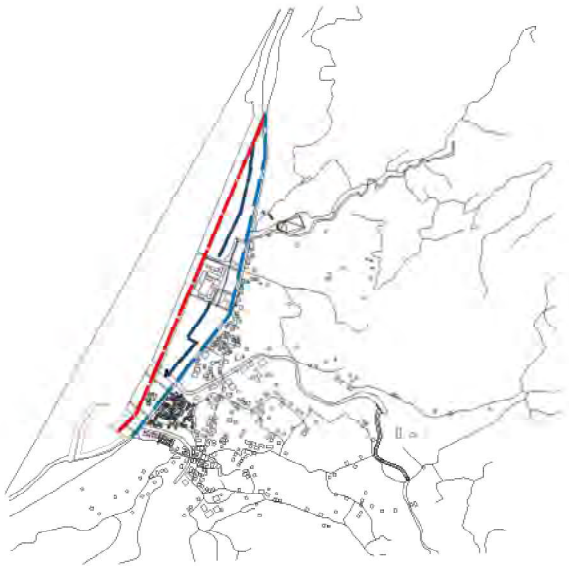
Platforms | Multi-Purpose Grass Area | Sport Facilities | Car Parking | Community Center



Vertical Circulation to Shore

Comes from road being density in adjacent urban area

Designed according to pattern

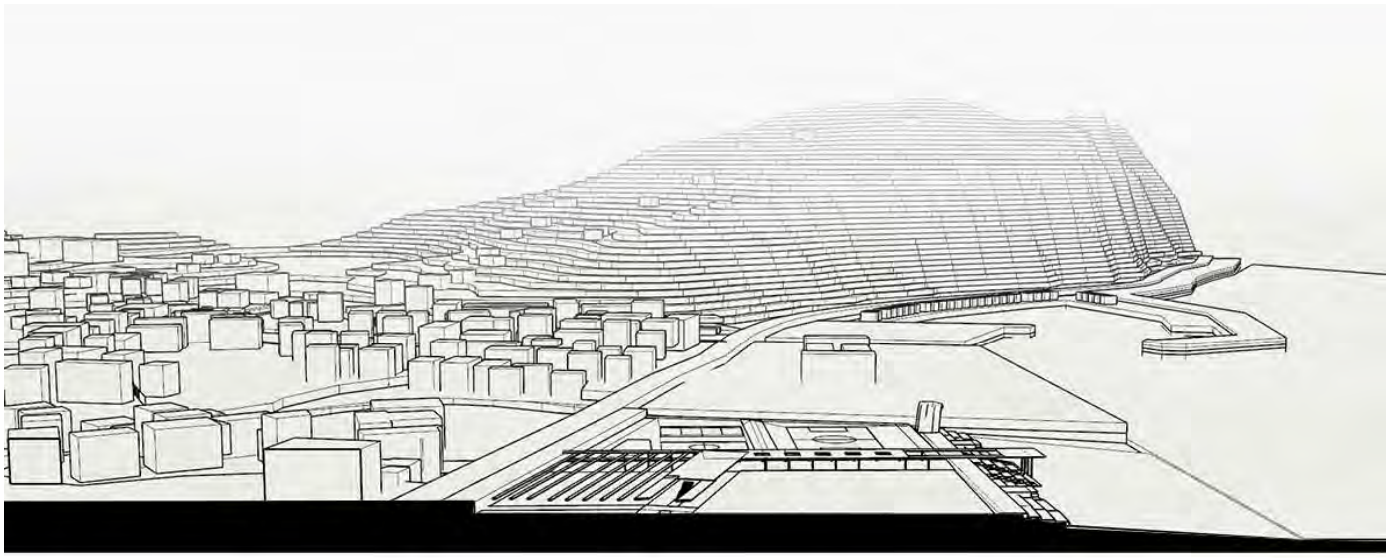


Horizontal Circulation in Shore

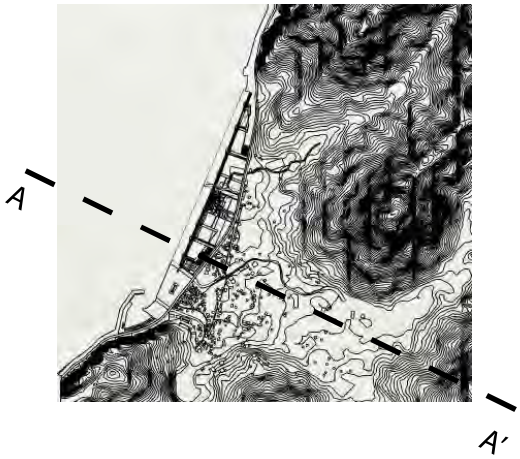
Coridor at Coastal Line

Coridor Between the Platforms

Pedestrian Way Near the Road

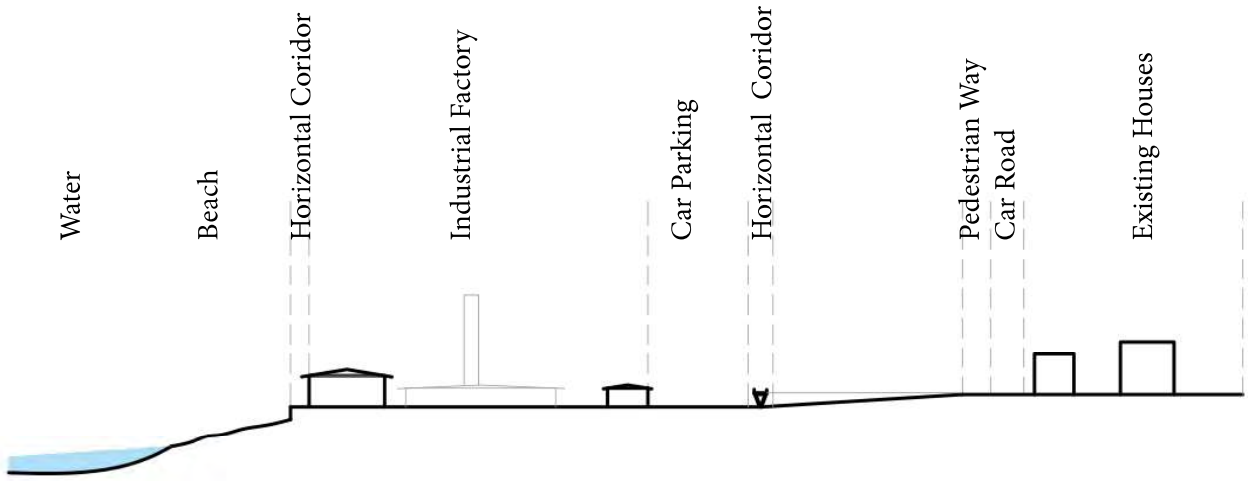


SECTION AA'

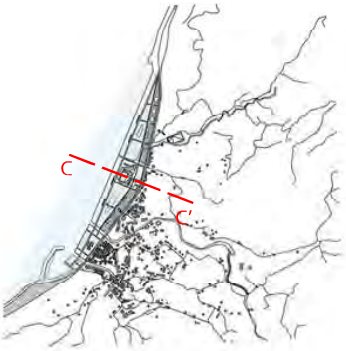


Urban Platforms and Stairs

For the new coast, the natural identity of the settlement is important. This goes in in the coast, and also the socio-cultural identity is added with community center designed by using the factory building. Also, the urban platforms and stairs are using for whole coast. These are strenghting the accessibility of the coast. At the same time, the open and closed spaces is provided people under the platforms using as multi-purpose. It is also used for the view or spend time on it. Platforms provide places for people to spend time in any weather conditions.



Section CC'



Industrial Factory

Disadvantages

- Air and water pollution
- Preventing people from accessing beach
- It locates center of the coastline
- Damages the natural relations
- Visual pollution

Advantages

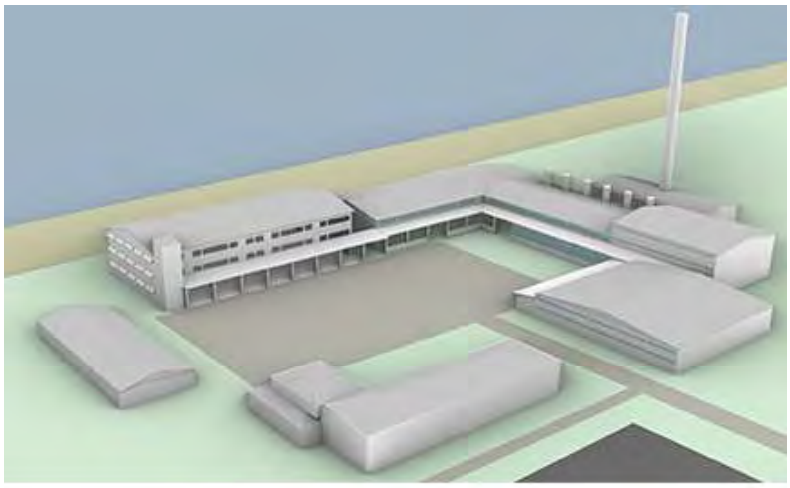
- Size
- Location
- Function can change
- Appropriate to be focusing point with chimney
- It can be cultural identity of the site

Proposed Program

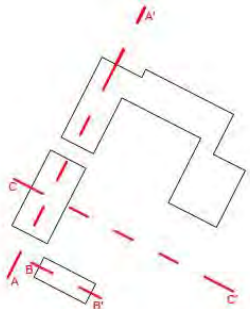
- Community Center

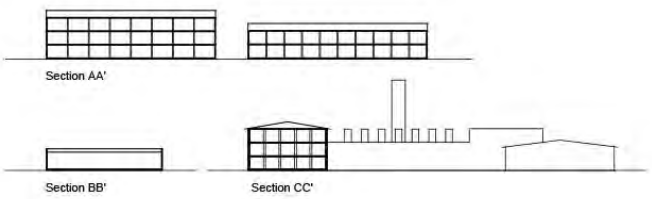
Development as social, mental and physical health by providing multi-purpose hubs that offer different things for the all people

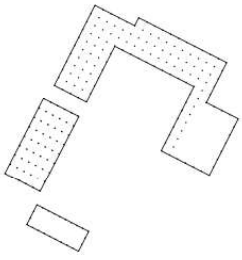
Analysis of Industrial Factory



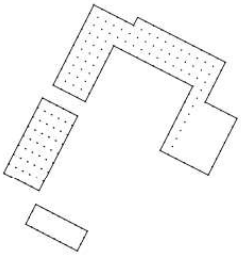
- Large Volumes
- Characteristic Elements
- Cental Courtyard
- Car Parking
- Center of Coastline



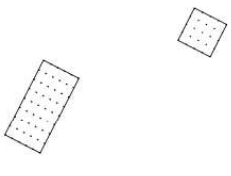




GROUND FLOOR

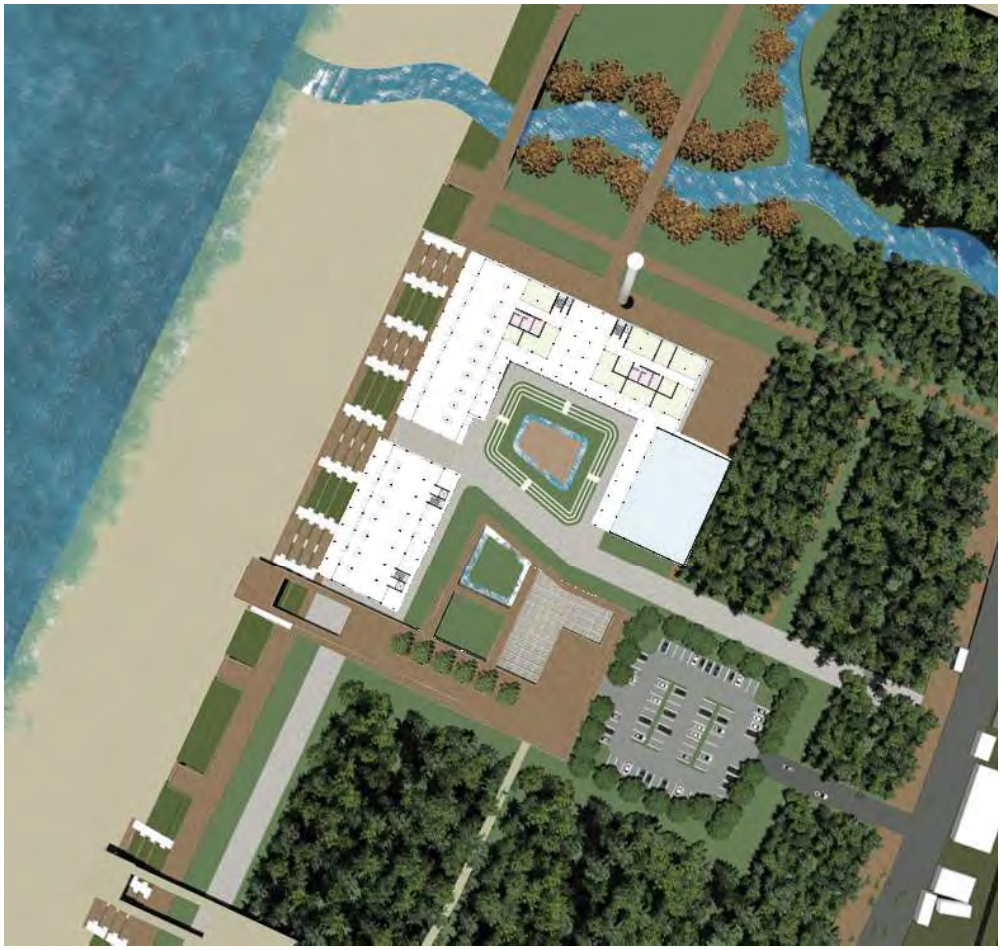


FIRST FLOOR

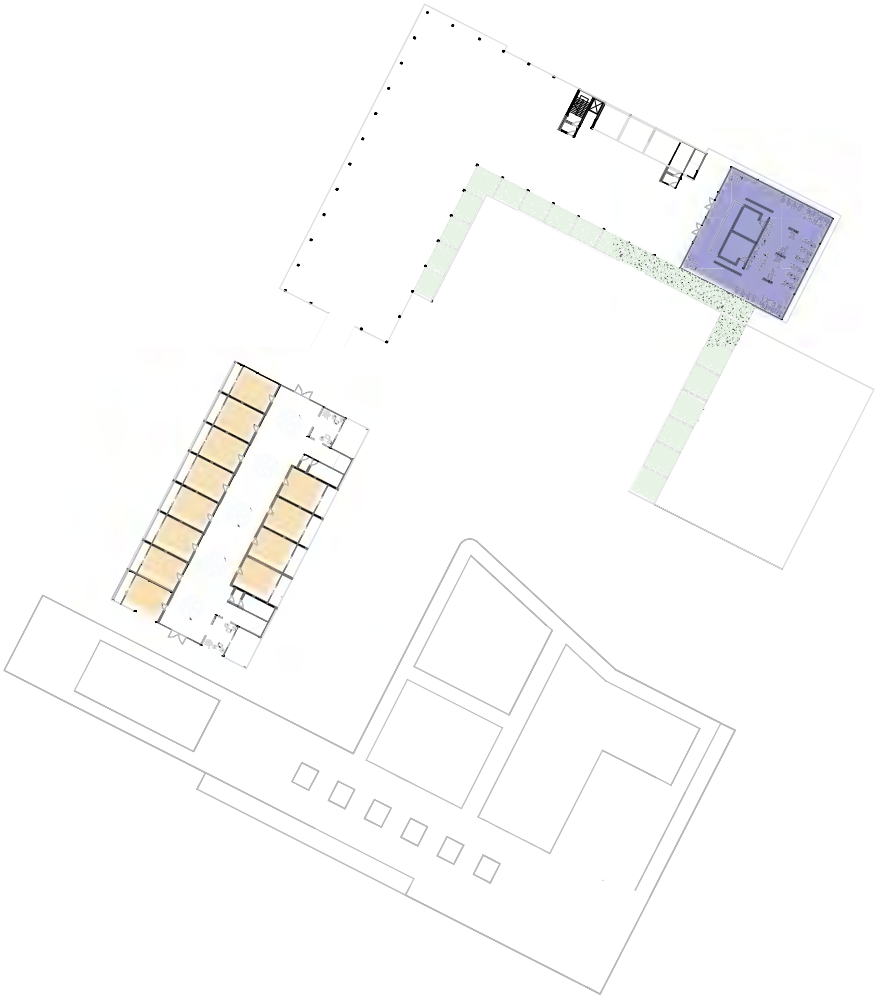


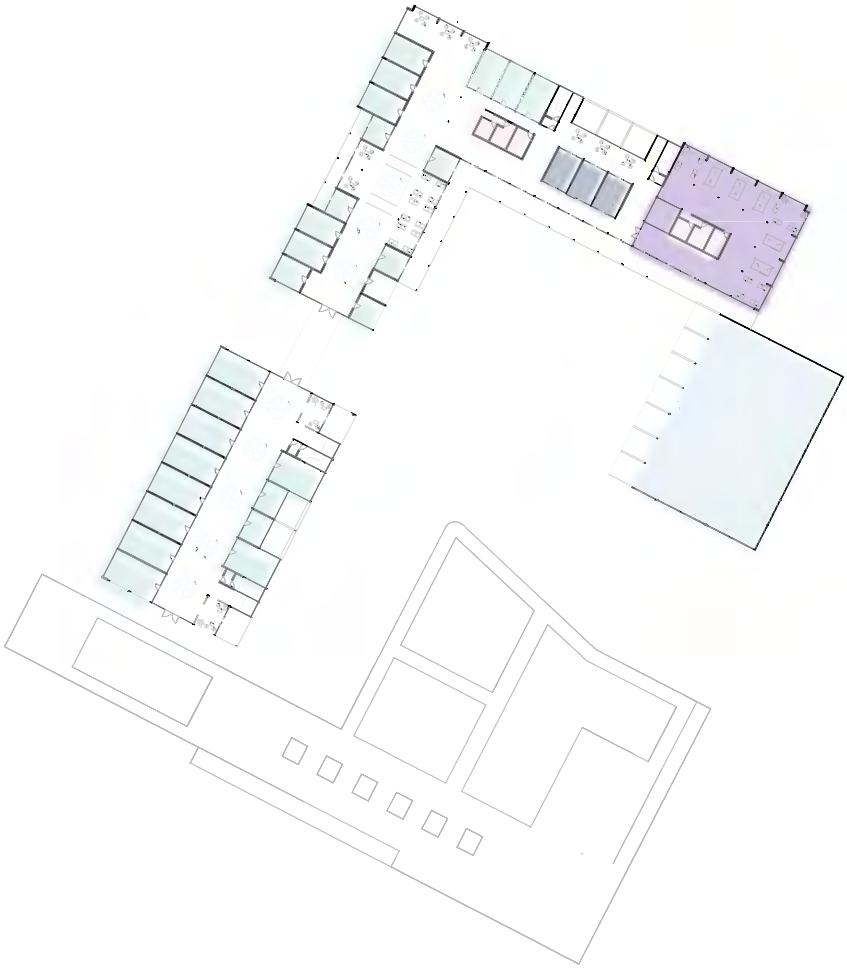
SECOND FLOOR

PARTIAL SITE PLAN



GROUND FLOOR PLAN





Restaurants & Cafes

Restrooms & Storage

Multi-Purpose Hall

Educational Rooms & Workshops

Meeting Rooms

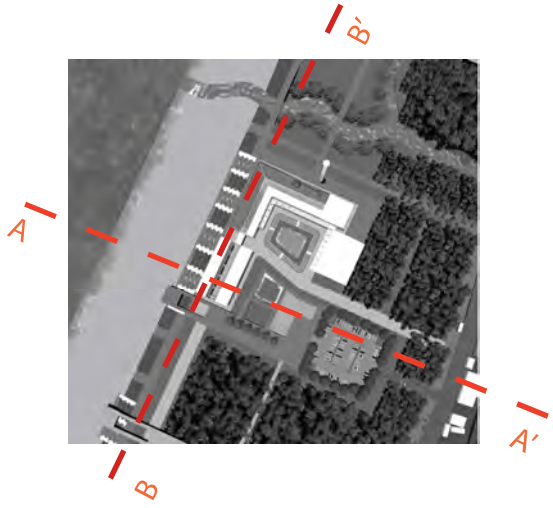
Fun Activity Area

Accommodation

Gym

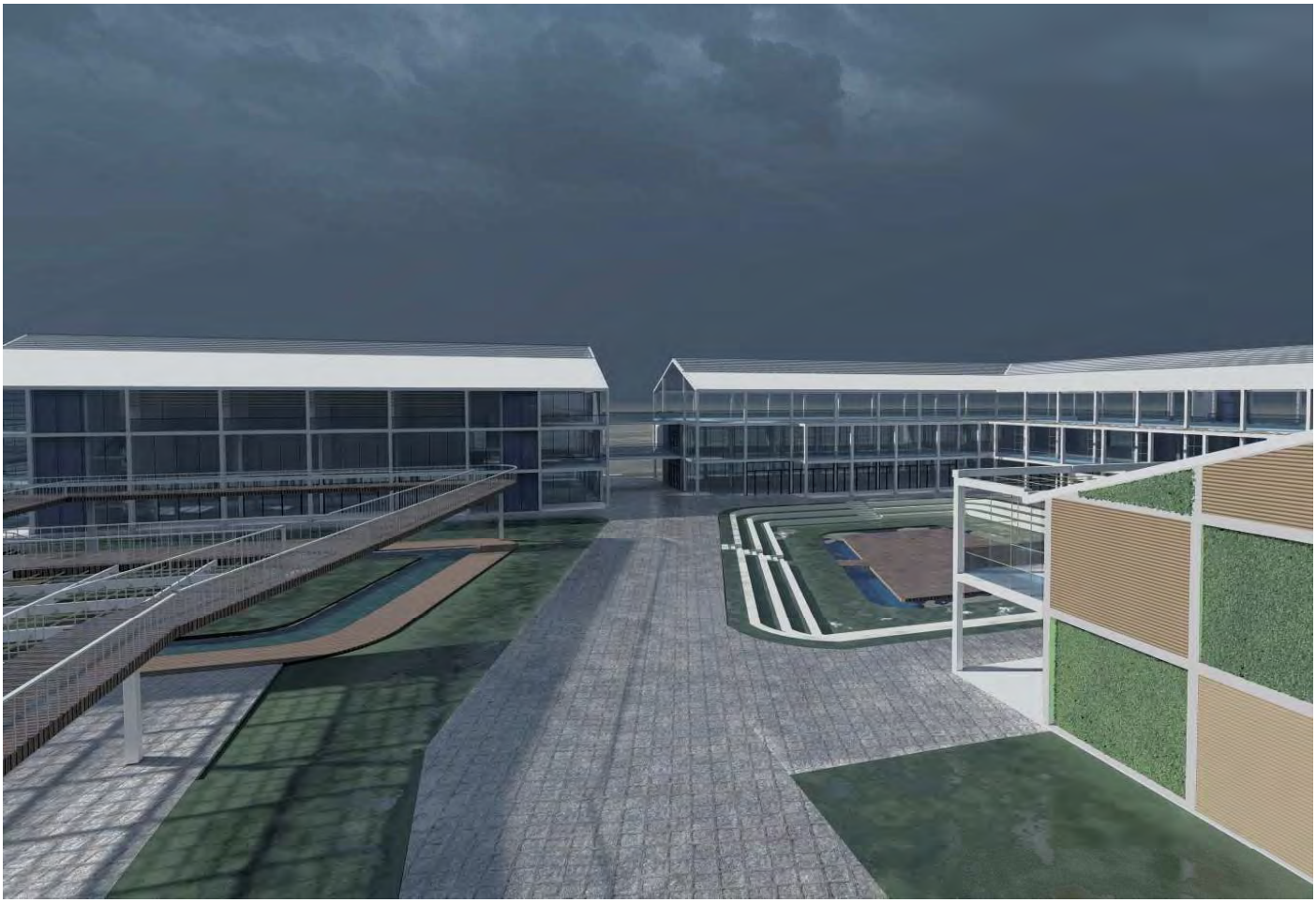
SECTION AA'

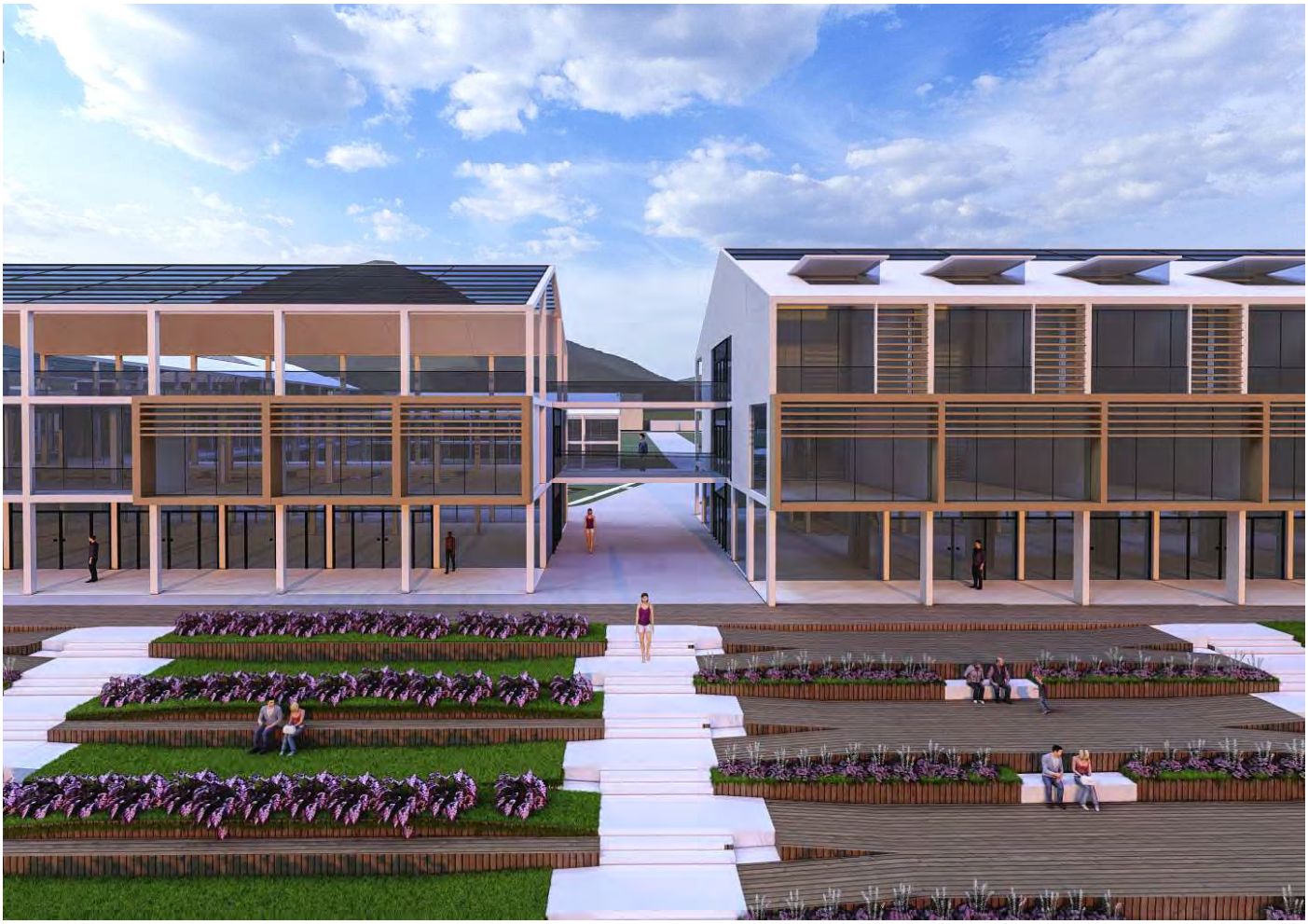
SECTION BB'

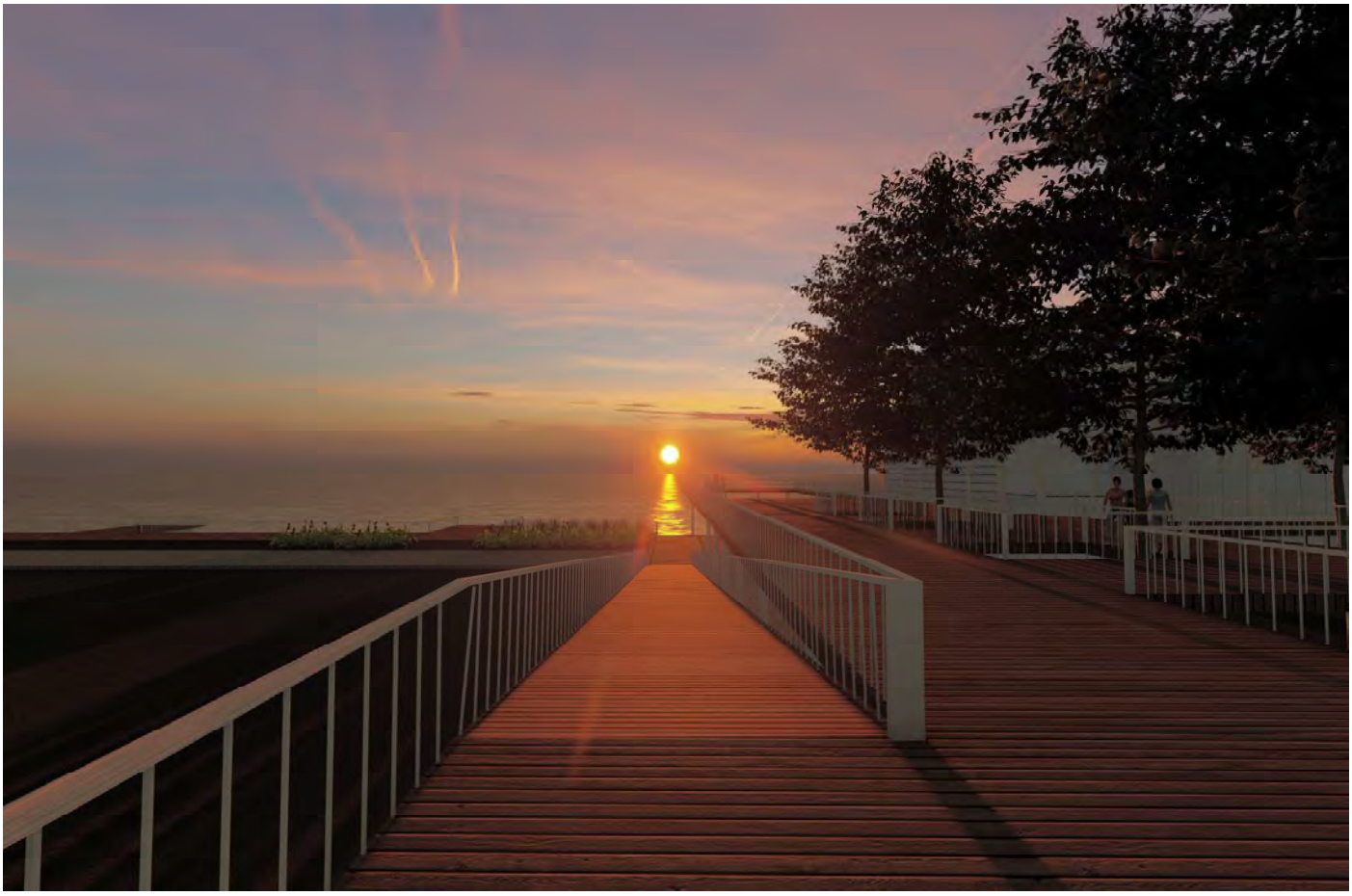


WEST ELEVATION

NORTH ELEVATION







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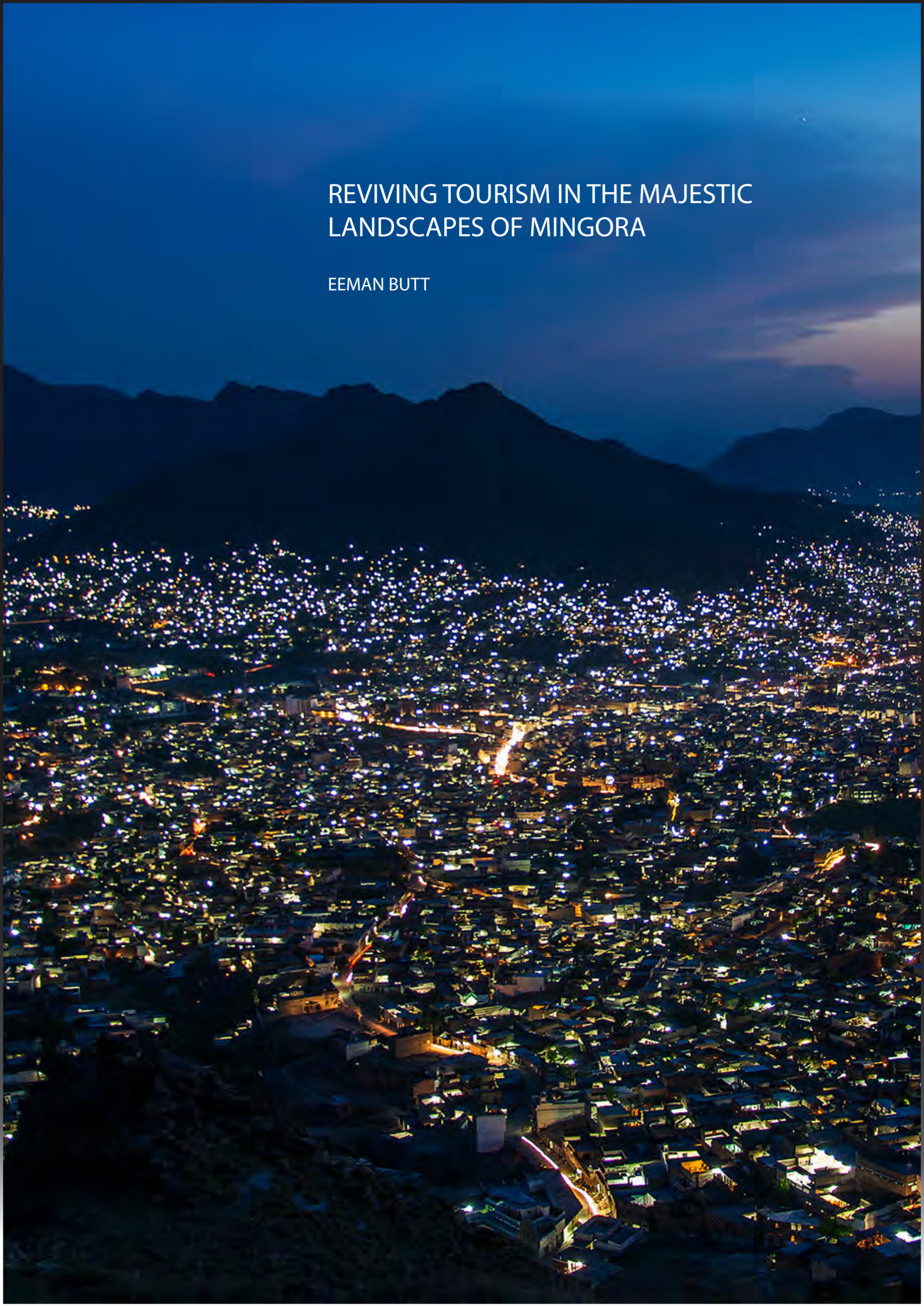
REVIVING TOURISM IN THE MAJESTIC LANDSCAPES OF MINGORA

EEMAN BUTT



REVIVING TOURISM IN THE MAJESTIC LANDSCAPES OF MINGORA

EEMAN BUTT

This project proposal is based in Mingora, Swat which is the administrative capital and center of all commercial activity in Swat Valley, Northern Pakistan. The city was once a promising hub for the growing tourism industry, but due to turbulence, terrorism and flooding in the last decade, it was unable to reach its full potential. As a result of all this activity, houses and public buildings were destroyed along with infrastructure. With its lush green forests, clear blue lakes and the spectacular Hindu Kush Mountain range nearby, this city remains one of utmost beauty with untapped potential. This thesis aims to revive tourism in the city, and provide more sustainable design solutions in regards to the existing site conditions.

SITE INTRODUCTION

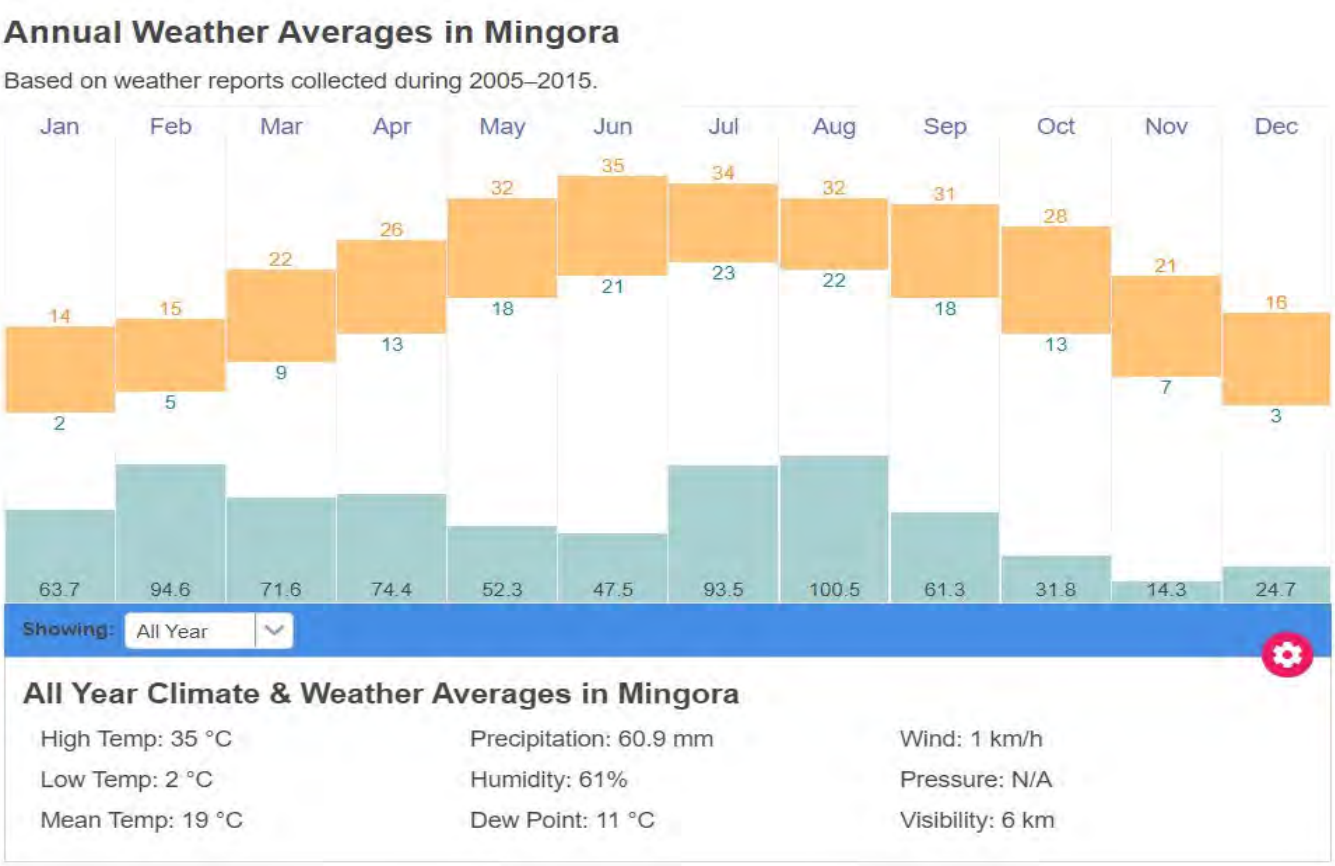
This site lies in the Mingora, the main center of social, cultural and economic activities in the Malakand region of Northern Pakistan. Since the time of the Swat State (1915-1969) tourists from inside and outside the country stayed in Mingora before moving to the upper valleys of Swat. The city is also home to rare Buddhist ruins and stupas. According to 1998 census 175,000 people reside in Mingora. Apart from the local Yousafzai tribe of the Pashtuns (predominantly Muslim), Hindu and Sikh families also live in the city—giving diversity to its cultural life.

The rise of the Taliban insurgency in 2007 changed the traditional pattern of life in Mingora. In 2008, their campaigns against girls' education, anti-polio treatments and liberal expressions of life left the city and its residents with serious challenges for their survival. The aftermath could be seen not only on people and local residents, but the condition of the city itself.

The Green Square of the city, once the hub of social and cultural activities, turned into a ''bloody square" where the dead bodies of Taliban opponents, police and civil society workers were hung from electricity poles.

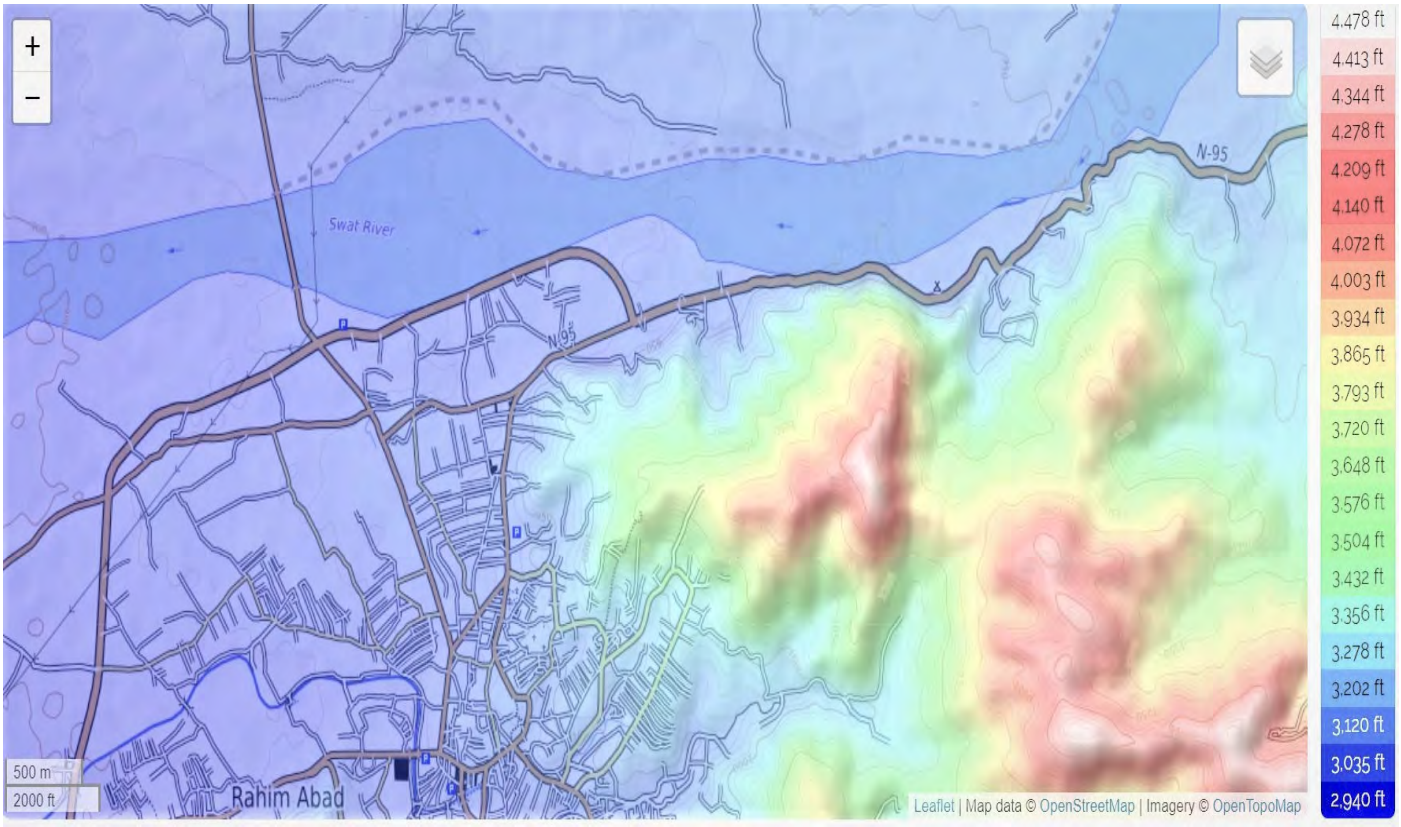
The conflict between the security forces and the Taliban displaced 2.5 million people from Malakand, of which Swat is a district. The city became a battleground and, by the end of the year, a number of buildings were destroyed. The power supply center had been bombed by the Taliban. The military operation pushed the Taliban to the mountainous area along the Pak-Afghan border close to the upper Dir district and Bajaur tribal agency. The displaced people returned to their homes and complained that in their absence their houses were looted and their properties damaged.

The following year, floods caused further property damage. The once vibrant and prosperous city of Mingora was stripped of its economic means. With this proposal, considerations are taken on its revival and regrowth.



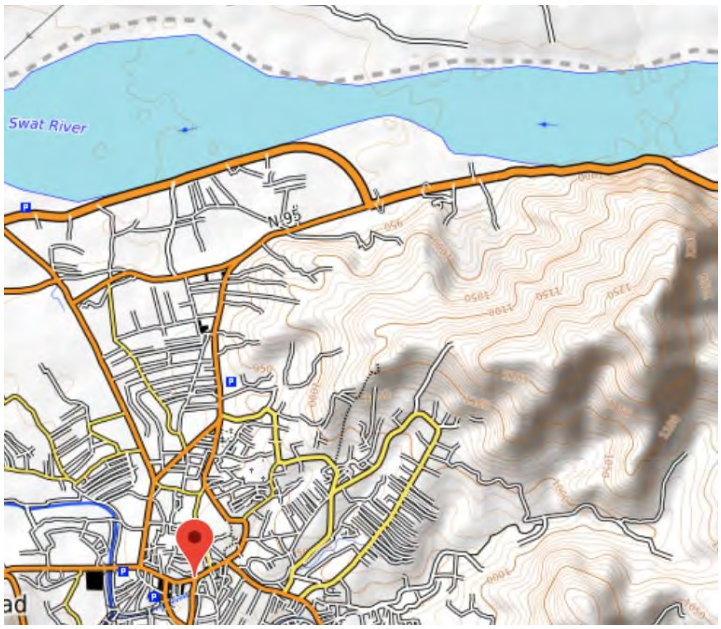
SITE INFORMATION

Mingora has a complex landscape with tall mountains, valleys, a river and beautiful lakes. As seen by the chart above, it has mostly temperate climate which gets very hot in the summers, despite the high altitude. In winters, the region is mostly met with very low temperatures and heavy precipitation, including both rain and heavy snow. In this manner, the city serves as an ideal touristic retreat for tourism and travelling all year round.



TOPOGRAPHY

Mingora has a diverse topography, making it an idealistic tourist attraction. The map shown above demonstrates how the landscape varies from low-lying, flat urban city-scape to valleys, a river and high mountains.
The mountain peaks reach as high as 4750 feet. Across the river, farmlands can be seen where most of the agricultural practice takes place.



Before 2007

Mingora has been a major administrative center - housing a large number of government offices, an army garrison, an airport and some of the best educational institutions in Khyber Pakhtunkhwa province. Before the advent of the Taliban, Mingora had a vibrant hotel industry and a vast network of tourism-related businesses including shopping malls, riverside restaurants, a thriving handicrafts industry and a privately-owned system of transport.

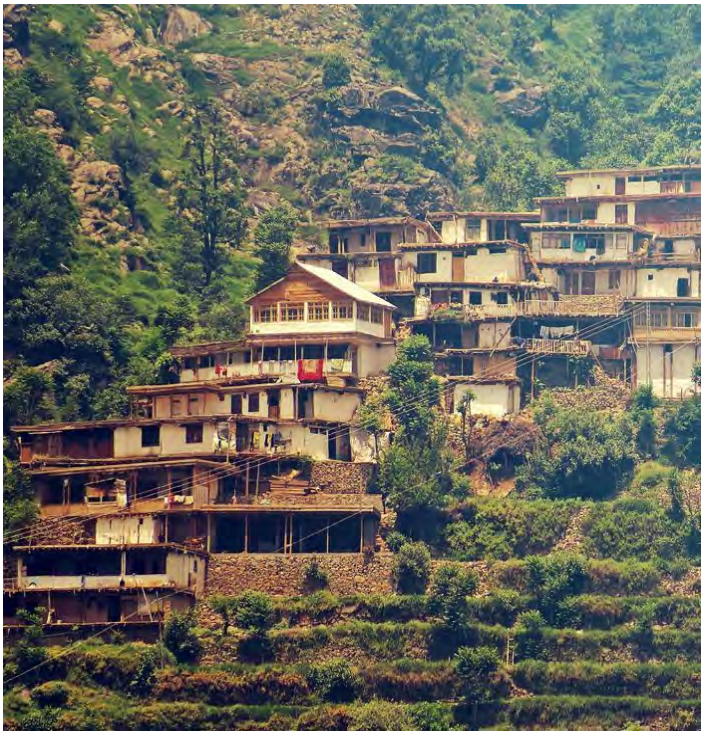
2007 - 2012

Hundreds of schools for girls sweep across the land where, in 2012, 15-year-old Malala Yousafzai was shot by the Taliban. This was the land where, under Taliban control between 2007 and 2009, schools were destroyed and girls barred from education. A once bustling junction in Mingora became known as Khooni Chowk (literally "bloody intersection"). The shops surrounding it were shuttered, their windows shattered, their walls pierced with bullet holes.

2015 - 2020

Today, the walls have been rebuilt, the glass replaced, and the scars plastered over. Khooni Chowk, back to being called Green Chowk, could be a junction in any one of Pakistan's major cities. The roads are choked with cars and motorcycles, slowed to a crawl, while a harried traffic policeman directs the four-sided onslaught. The air is thick with blaring horns, conversation, smoke, and dust. Shops crammed side by side sell everything from shawls to toys. Street vendors swoop in to occupy whatever gaps exist between them.

https://www.bbc.com/news/world-south-



COMMUNITY

Residential houses and hotels mostly made of timber, brick and stone. Several terraced houses can be seen in this topography. Hotels are very common but not in very good condition.

CULTURE

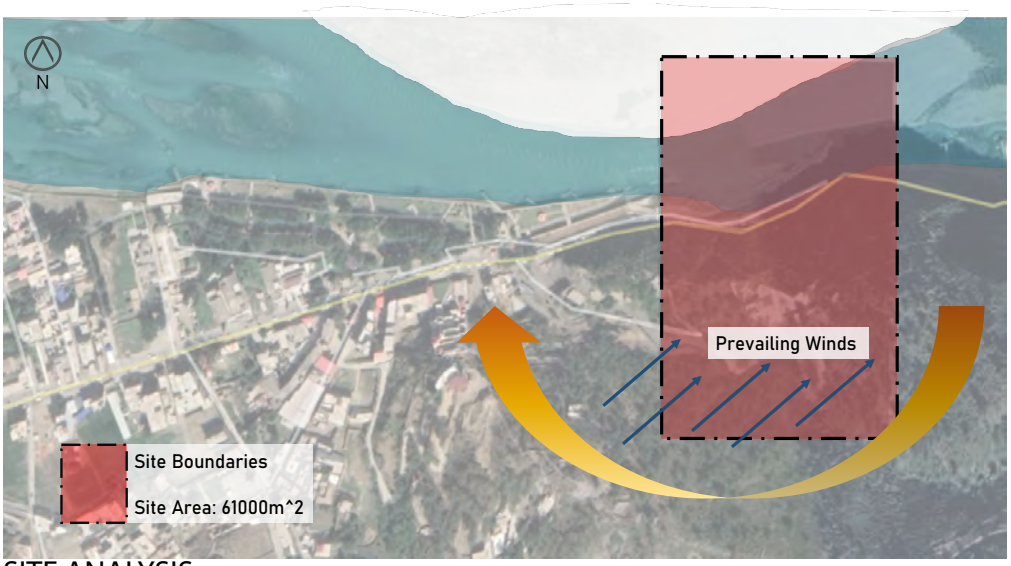
- Pashto and Urdu most commonly spoken languages
- Handicrafts include needlework, embroidery, woodwork, carpets and stone art

ECONOMY

Dependent highly on tourism and agriculture

- Mingora produces 18 varieties of apples and exports them locally and internationally
- Peach farming is common in Swat Valley

https://foreignpolicy.com/2020/02/19/pakistans-success-story/



SITE ANALYSIS

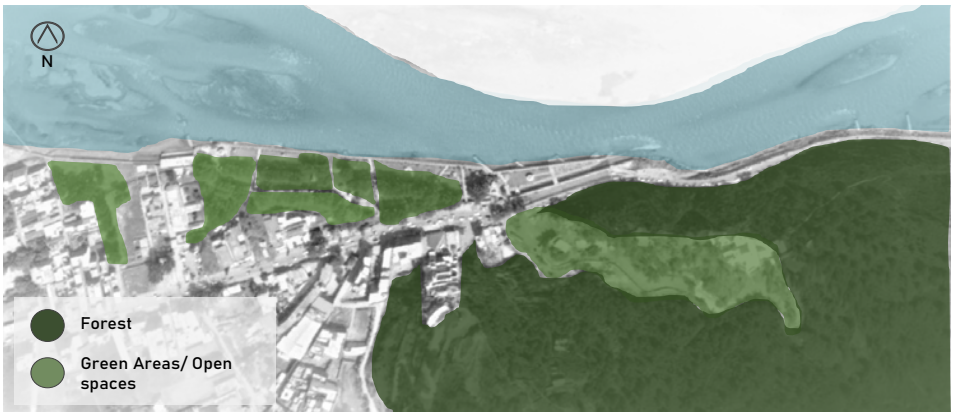
The diagram above shows the site area which I have chosen to work on for my thesis project. The area is roughly 61,000 square meters, and is situated somewhat far from the main city center and social hub. The topography in this region is also very challenging and steep, which is why there are not many settlements or buildings that can be seen here.

This site area was chosen deliberately to tackle all these issues at hand. The slope can be used as an advantage for activities such as skiing, or even transport by cable cars. The Sun path and wind analysis are shown in the diagram. The high mountains on site would block most of the natural Sunlight and prevailing winds, therefore indirect methods for passive lighting and ventilation would have to be used.

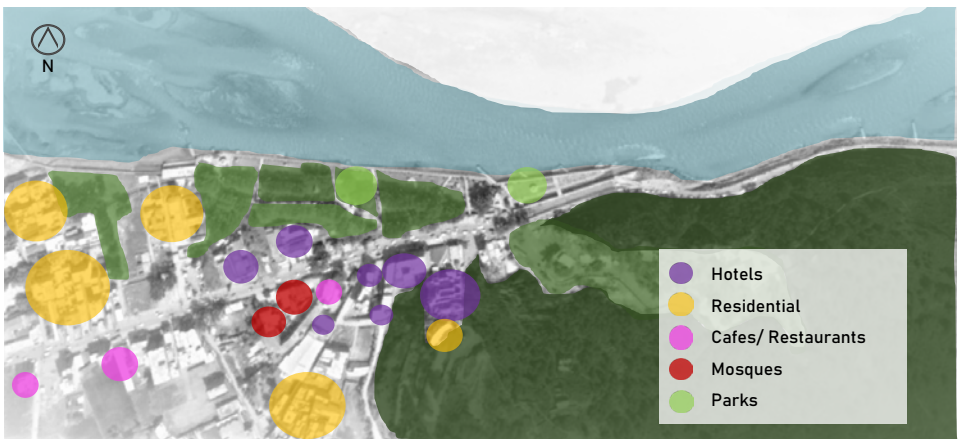
https://en.wikipedia.org/wiki/Mingora

SITE DIAGRAMS

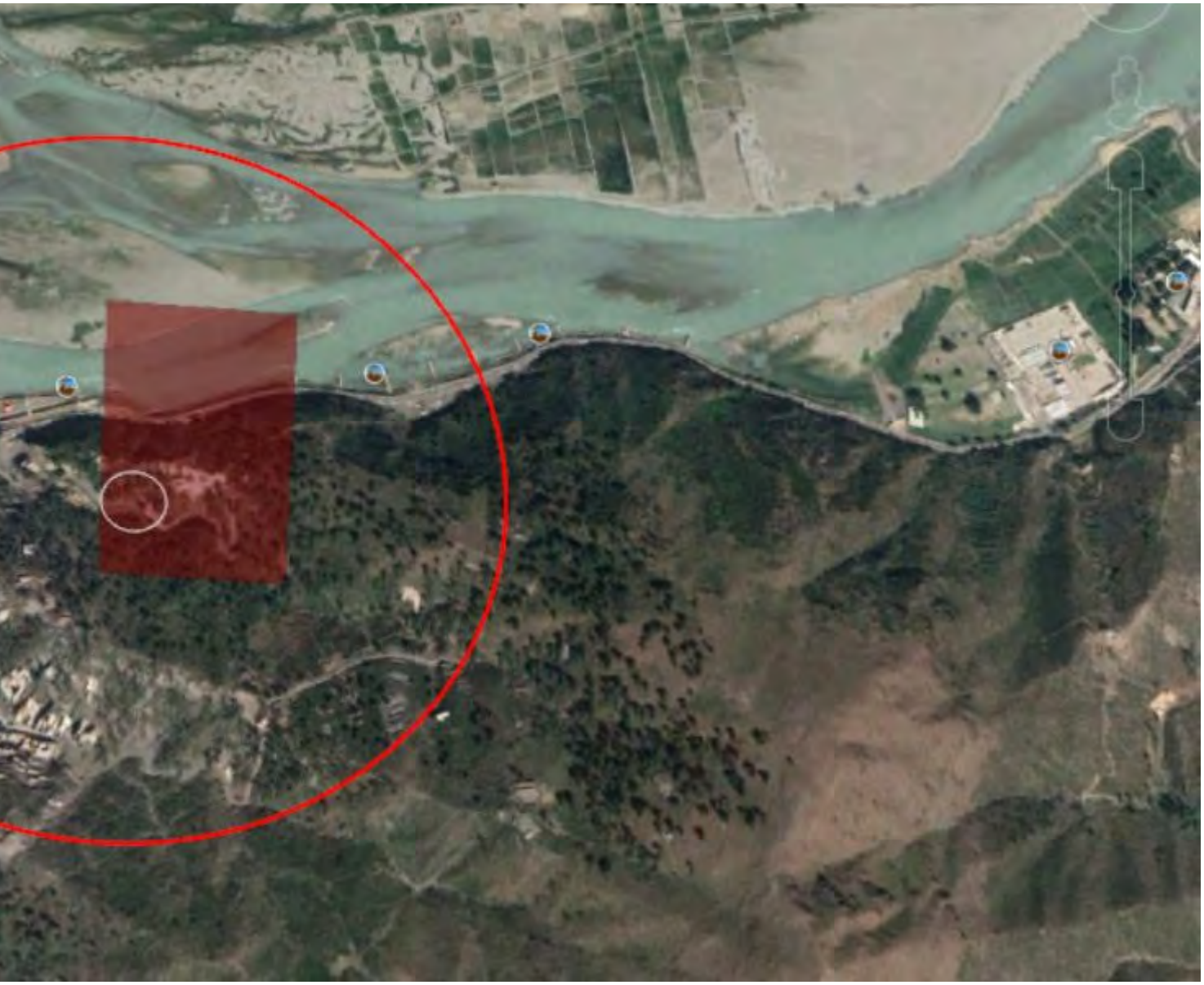
The first diagram shows the green areas on the site and its surroundings. This is to give a general idea of vegetation cover and forest area on the entire site. As seen above, a large portion of the site is covered by forests, mostly as the topography in the region is too steep to create settlements there.



The second diagram is a map showing areas near the site, and their functions. The buildings closest to the site are mostly hotels, and some residential buildings. Some cafes and restaurants can also be seen scattered through the site, and park areas can be seen along the river edge.
In this part of the site, there is a lack of industrial and commercial buildings. Some small departmental stores, pharmacies and hospitals are present however no economic or cultural buildings can be seen.



VIEWS FROM THE SITE
WITHIN 5 MINUTE WALKING DISTANCE (400m)



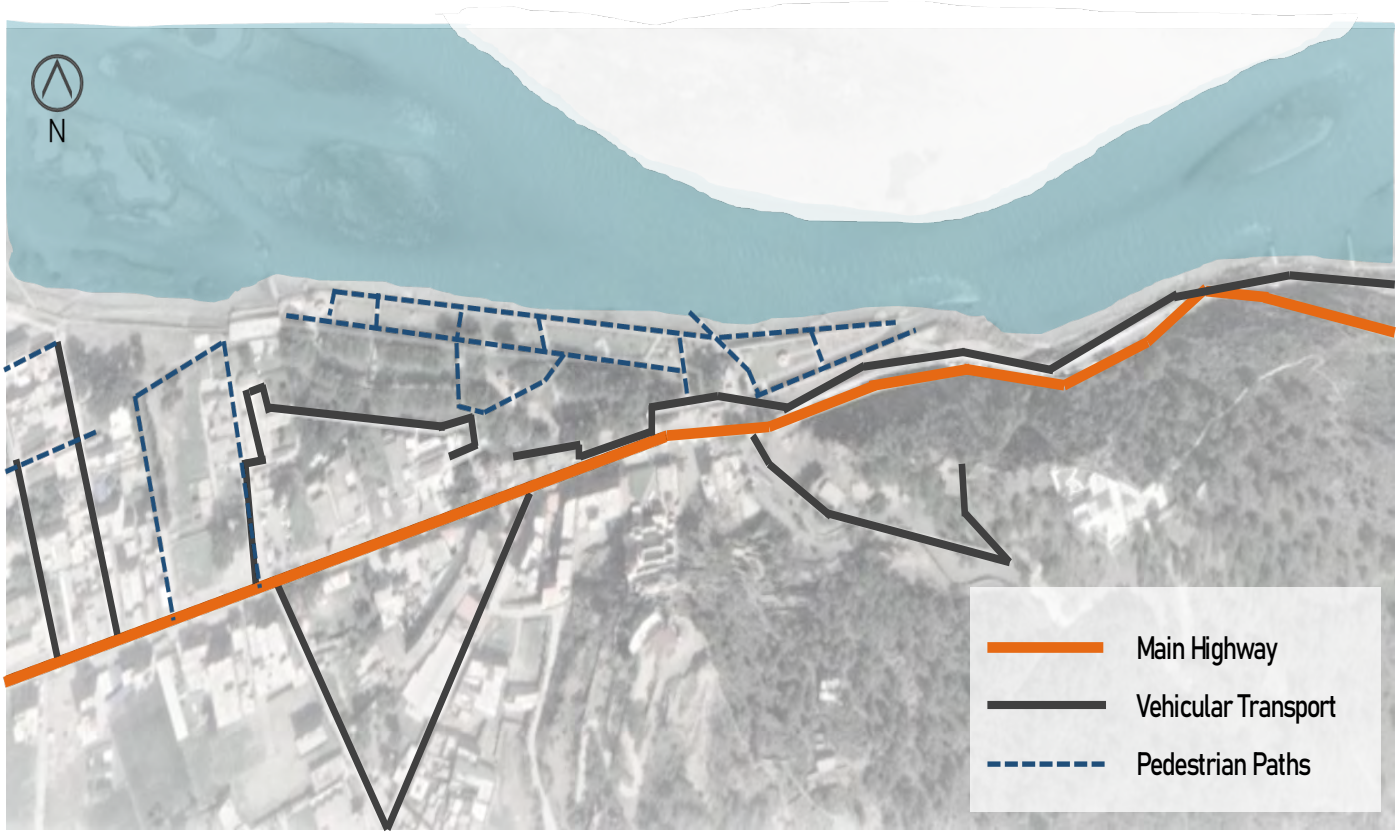

3


4


5


8


9



CIRCULATION

The diagram above shows the circulation map for the site region. There is one main axis, the NH95 highway running through the site. The nearby roads are not in good condition, and break up in places. Some pedestrian paths can be seen which are only accessible on foot as they are too narrow or damage for vehicles to pass by safely.

The city has a population of over 200,000 people. With this much overcrowding, it is inevitable that traffic would be congested and residential plots would take up most of the land area. Therefore, circulation and road design needs to be optimal to ensure higher level of comfort for both residents and tourists.

With the rocky and steep terrain, it would be a challenging process to create a smooth transportation system. Instead of roads on the mountain edges, I aim to create tunnels or a metro going through the mountain where scenic beauty is not disturbed and smooth flow is also ensured. Apart from that, highways would be able to tackle this issue without harming the landscape at all.

https://en.wikipedia.org/wiki/Swat_District

https://elevation.maplogs.com/poi/mingora_pakistan.87215.html

EXISTING ROAD CONDITIONS IN MINGORA

SITE ISSUES

The site has several key issues at its current stage that hinder growth of any industry in this area. It includes the following:

- Poor condition of infrastructure due to challenging topography and previous turbulence
- Houses and property also either underdeveloped or destroyed
- Overcrowding in central city area
- Lack of employment opportunities after migrations during the unstable terrorism period
- Occasionally harsh weather conditions
- High investment cost
- Difficult to import too many materials off-site
- Lack of industrial buildings surrounding the site area
- River is polluted and its banks are overcrowded, with no proper bridges to move across
- Untapped potential in adventure sports and nature tourism
- Danger of landslides or earthquakes

SOLUTIONS

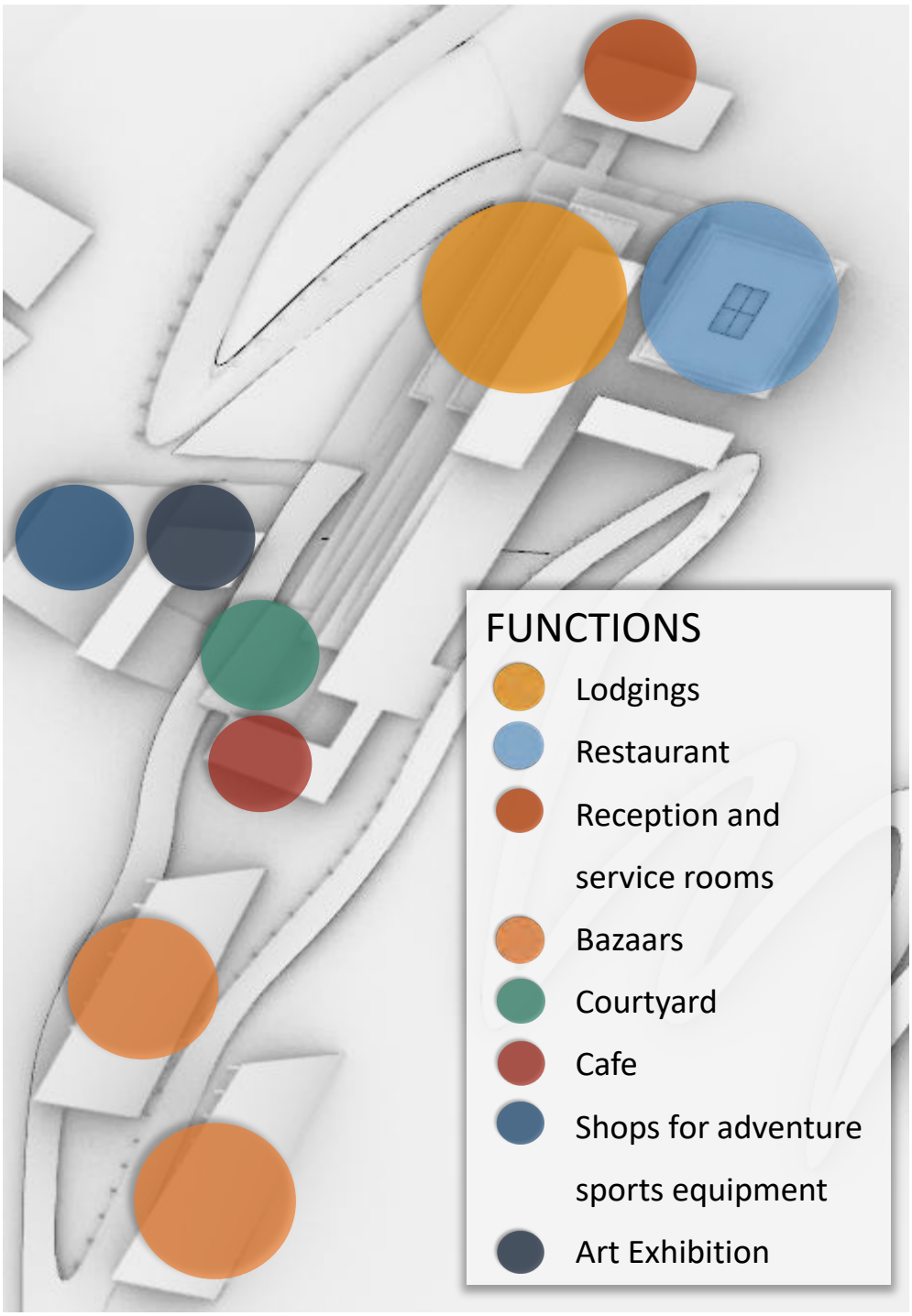
- Fixing existing roads on new masterplan or using highways, bridges, tunnels and hiking trails to avoid issues with challenging terrain
- Use of zip-line or cable cars/ chairlifts to transport both people and goods more efficiently
- Tourism hub offering residential suites and rooms to accommodate locals
- Creating job opportunities for people, to reduce crowding in the densely populated urban fabric
- Multi-functional and multi-purpose proposal, which would boost the economy and create jobs for residents
- Passive heating and cooling methods implemented to ensure perfect ventilation and comfort.
- Roofs can be downward sloping for snow and water run-off
- Use of primarily local, easily accessible and low cost materials, fitting with the site context; timber, brick, concrete
- Rainwater harvesting and water collection tanks in order to recycle and reuse water
- Proper bridges designed on the river, and banks cleared for activities such as fishing and camping; river could also be used for white water rafting or boating
- Providing opportunities for skiing, ice skating, zip-line, rafting, snowboarding and other adventure sports by creating required circulation paths and making necessary changes
- Creating retaining walls or clearing off some area in case of an avalanche
- Using pliers along with a strong foundation to provide earthquake resistance

DESIGN PROGRAM

PROGRAM IDEA
Mixed-use tourism hub with camping, fishing, hotel facilities and access to adventure sport areas. Additional shops for recreation, restaurants and cafes also present. Architecture integrated with the landscape, so that scenic beauty is not destroyed.

In addition to sport and leisure facilities, there would also be a bazaar allowing tourists to interact with the locals and get to know about their culture, crafts and ethnic work. It would lead to a multi-purpose plan with facilities that can be enjoyed by all.

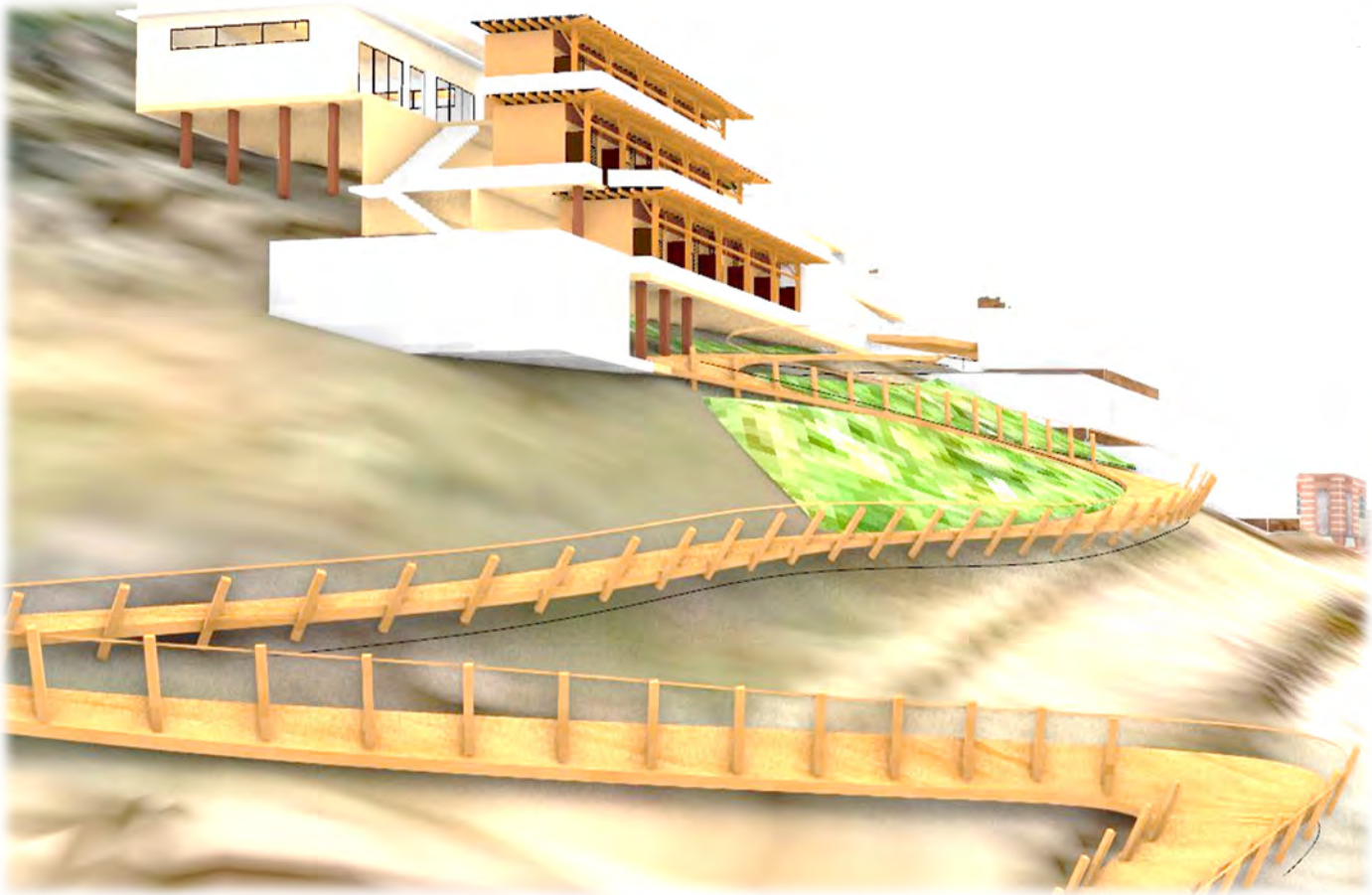
While the primary concern for the local site and building development would be creating a touristic space, the overall project aims to deal with the issues that the site currently faces. The goal would be to revitalize some of the land in order to set an example for how the urban fabric of Mingora can be better adjusted to meet the needs of the people.



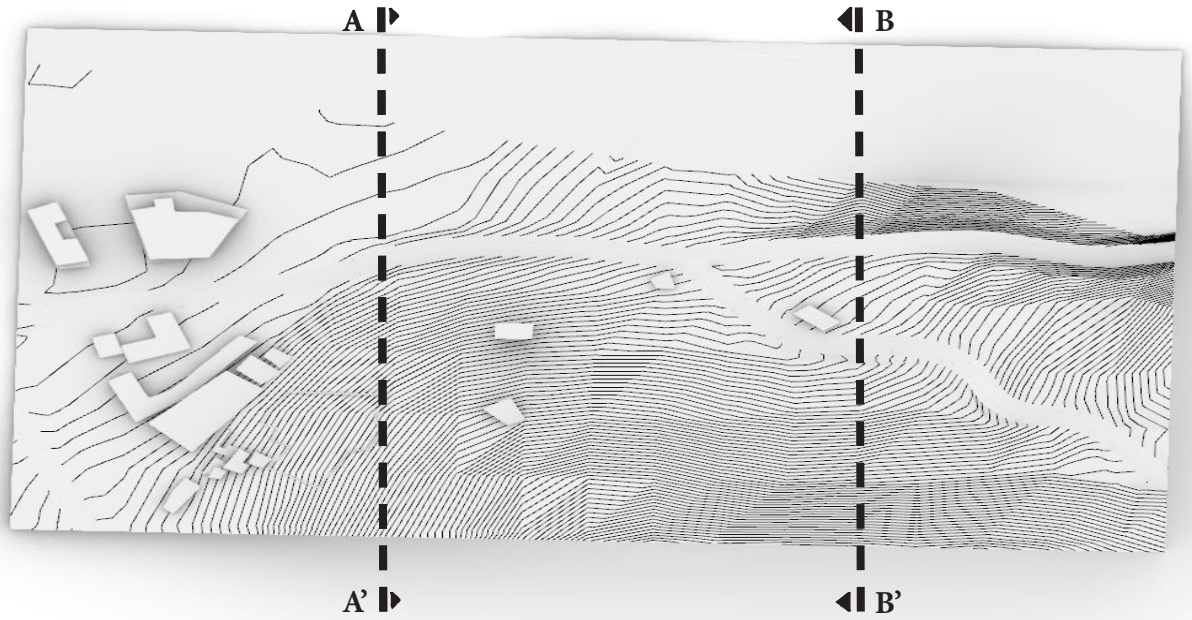
TRAIL DESIGN

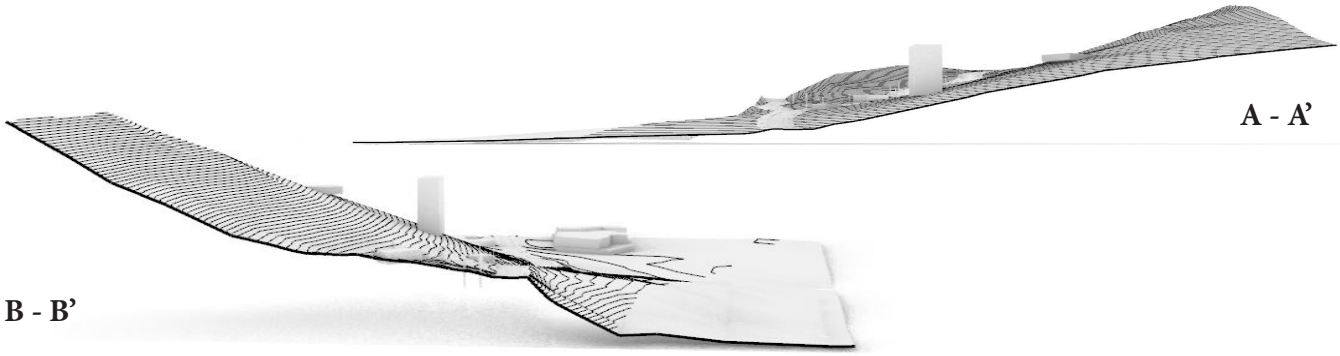
Trail design is one of the most important factors to insure that the route offers optimum scenic, geo-logic, historic, cultural and biological sites to provide a variety of diverse habitats for the trail user to experience. Trail design is the critical connection to make the trail sustainable, to reduce impacts to the natural environment, and to minimize future trail maintenance.

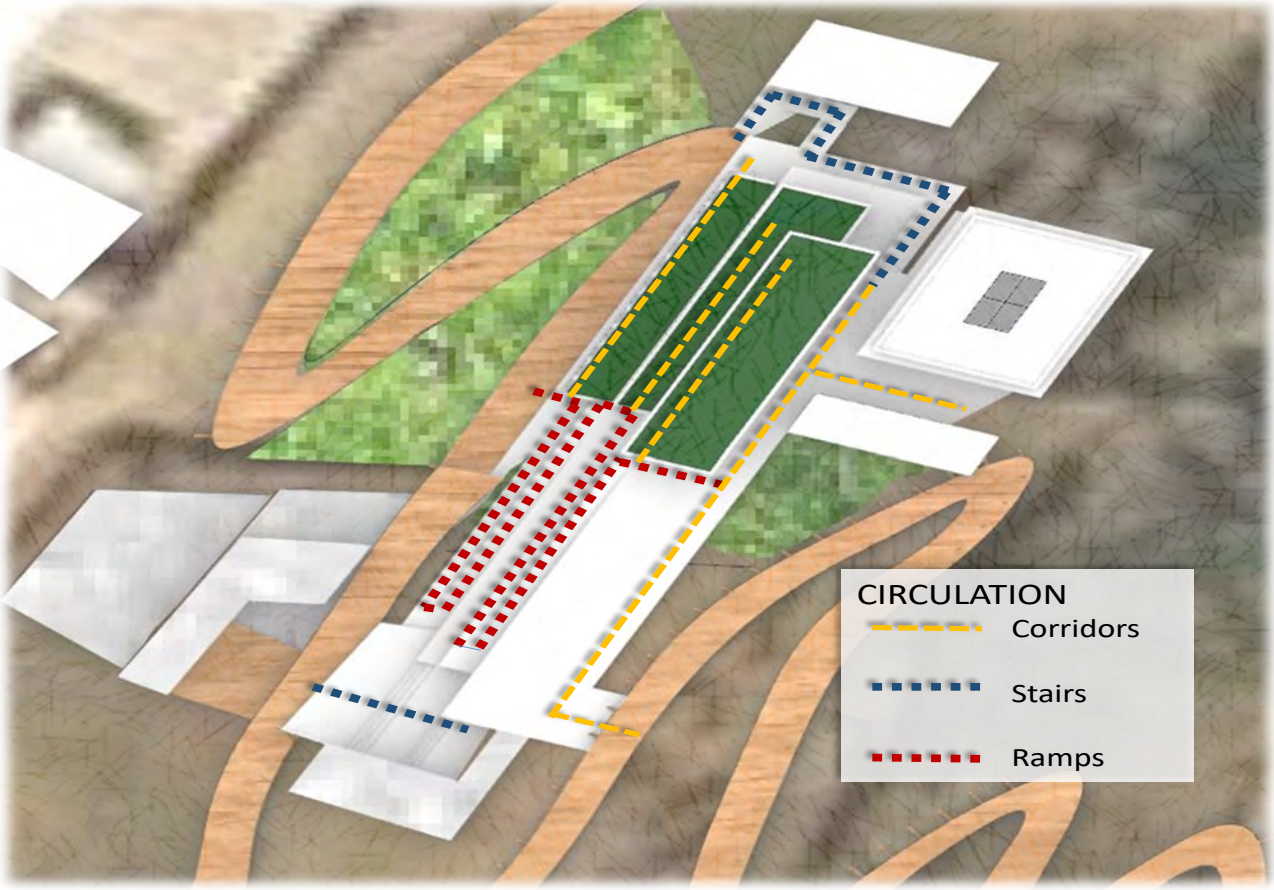
In this project, a large part of the site consists of landscape elements such as forests. For this purpose, a trail design is an appealing idea to create a more touristic experience of the site. It also serves as a secondary means of pedestrian movement and it is very easy to
sustain. Sustainable trails minimize environmental impacts, are easy to travel and reduce future trail operation and maintenance costs.



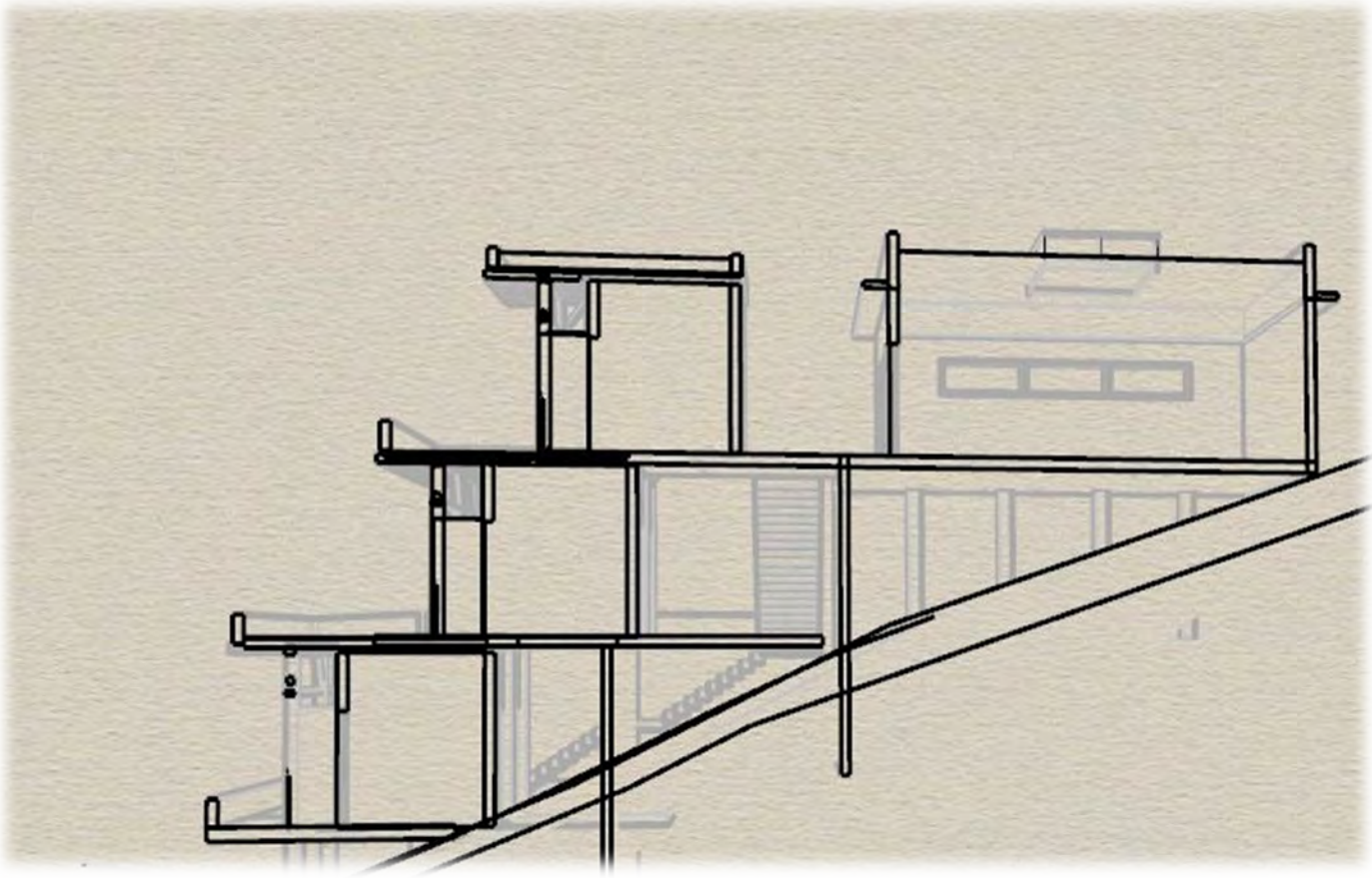
RHINO 3D MODEL AND SITE SECTIONS

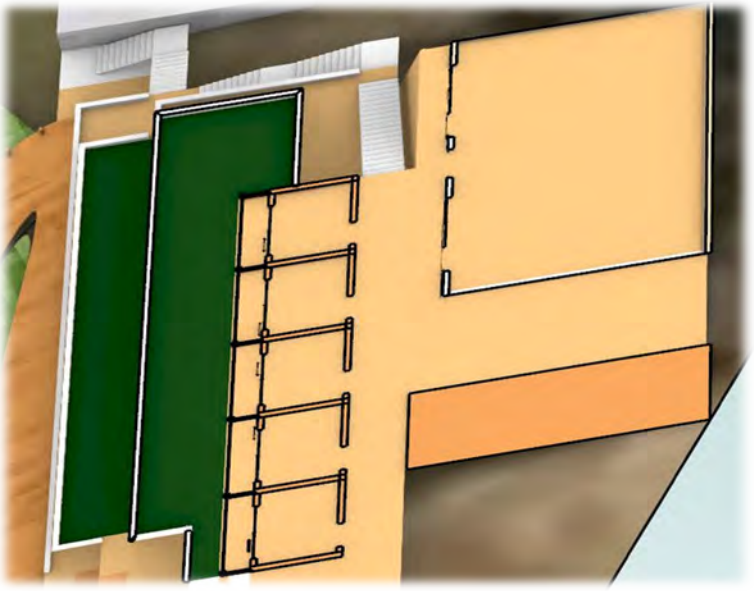






BUILDING SECTIONS

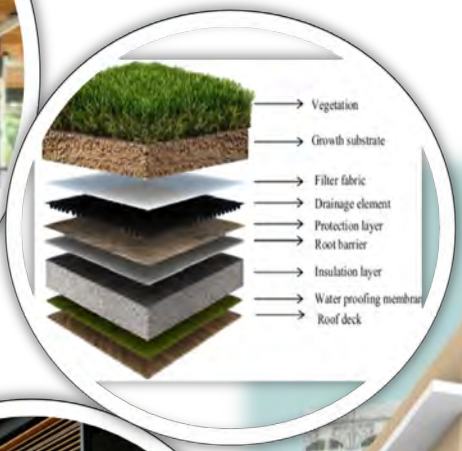


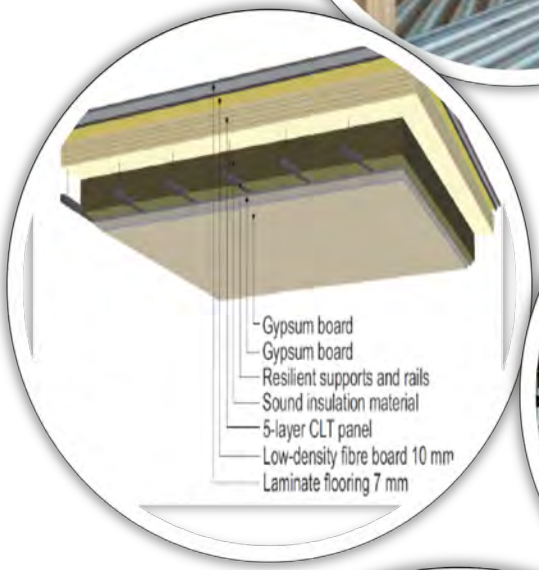


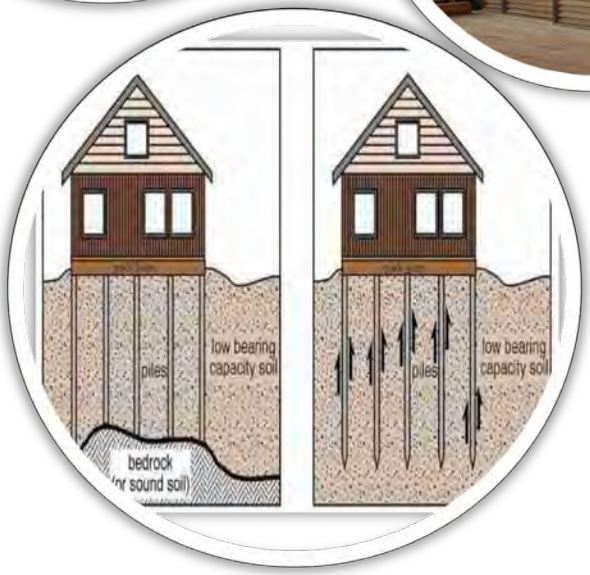
SECOND FLOOR PLAN

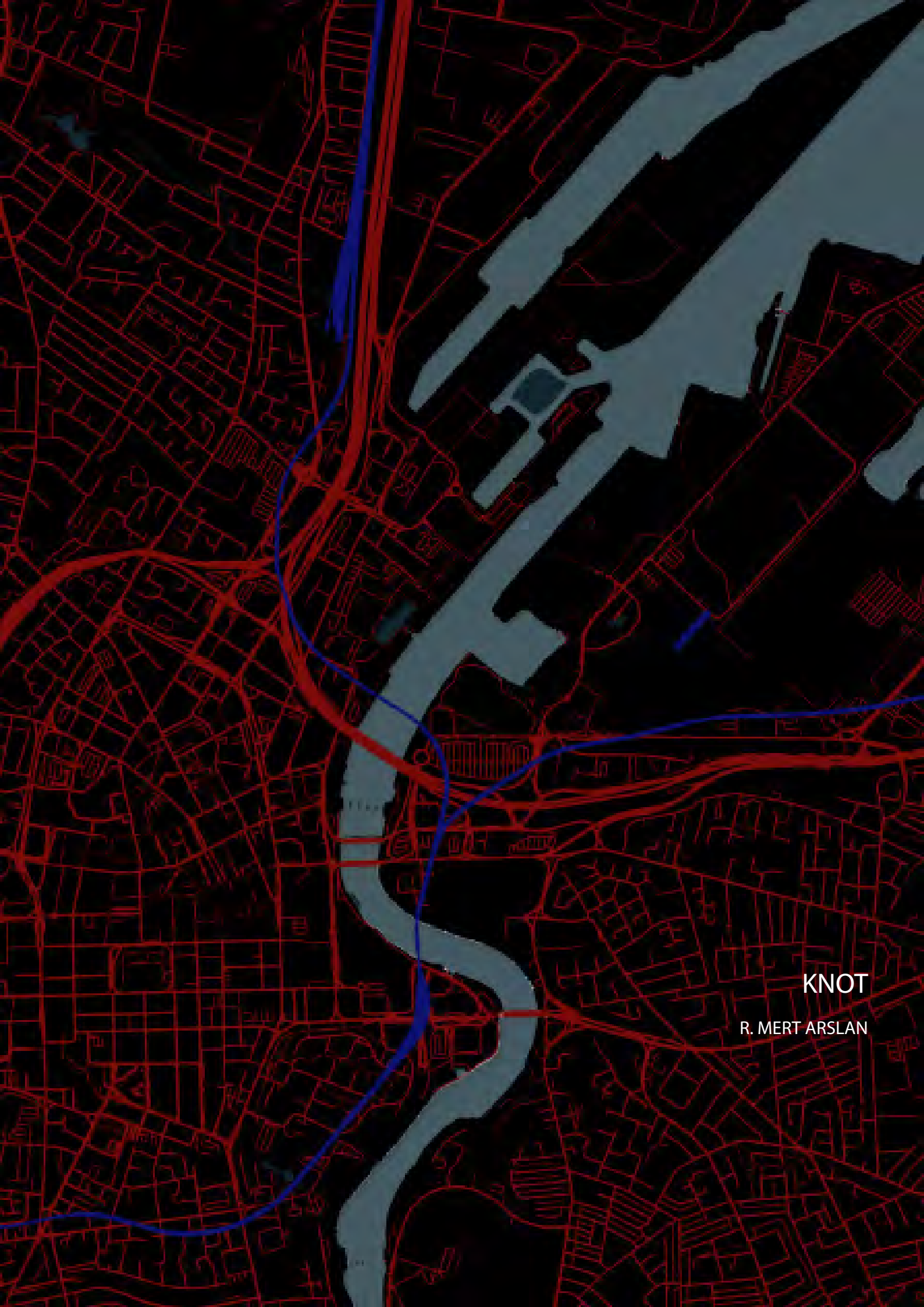
WEST ELEVATION

SOUTH ELEVATION


Vegetation
Growth substrate
Filter fabric
Drainage element
Protection layer
Root barrier
Insulation layer
Water proofing membrane
Roof deck


Gypsum board
Gypsum board
Resilient supports and rails
Sound insulation material
5-layer CLT panel
Low-density fibre board 10 mm
Laminate flooring 7 mm


piles
low bearing capacity soil
bedrock
piles
low bearing capacity soil



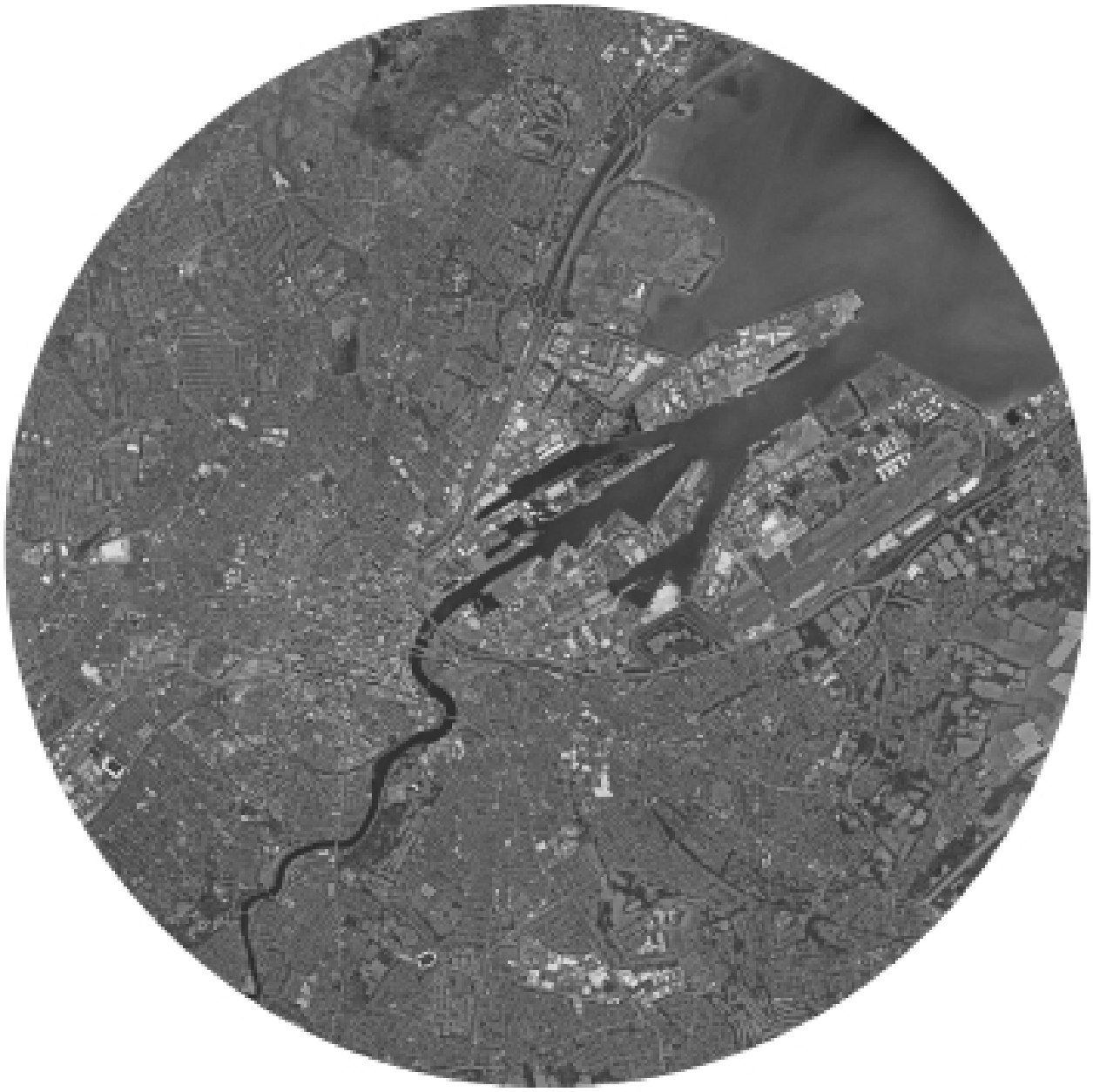
KNOT

R. MERT ARSLAN

KNOT

R. MERT ARSLAN

Belfast City is capital of Northern Ireland, standing on the banks of the River Lagan. The project has been designed within urban context which is social, cultural and functional.The city has important harbors for industry and tourism. The Lagan River, which runs through the city, strengthens this bond with water. The aim of the project is to re-design the waterfront areas in Belfast with a paying attention to city typology and social context.



LOCATION

Northern Ireland is located in the North East corner of the island of Ireland and is part of the United Kingdom of Great Britain and Northern Ireland. Northern Ireland and some adjacent counties in the Republic of Ireland comprise the historic Irish region of Ulster. Administratively, Northern Ireland is divided into six counties (Antrim, Armagh, Down, Fermanagh, Londonderry, and Tyrone) and 26 districts. Belfast is the capital of Northern Ireland and in population, functions and economy it is the region's most important city. In 2005, the city had 269,000 inhabitants. The metropolitan area has 645,000 inhabitants, which represents more than a third of the entire Northern Irish population of 1.7 million.

Belfast's history is closely linked to the history of both Britain and Ireland. Belfast is a derivative of the Gaelic Béal Feirste, meaning either 'mouth of the river Farset' the latter referring to its function as a fording point of the River Lagan.

With the industrialisation of linen production in the 19th century, Belfast became the world's largest production center for this textile. The harbour was expanded throughout the 19th century. New industrial sectors such as brewing and rope and sail-making were added. More important, however, was the development of shipbuilding as a key industry. The shipbuilding company Harland & Wolff was founded in 1861. By the 1914 it was by far the city's largest employer, with a workforce of 14,000, and had become the largest shipbuilder in the world. The company is widely known for the construction of the Titanic, which tragically sunk on its first voyage across the Atlantic. Belfast's industrial development during the 19th century was remarkable, given its remoteness, lack of energy supplies and raw materials. A third important sector, engineering, was added to Belfast's industrial 'portfolio' in the early 20th century. In the years before and during World War II aircraft production became another important sector.

HISTORY

1177	Construction of a castle at Belfast
1613	Beginning of modern history: town receives Charter of Incorporation from King James I
17th C.	Britain encourages settlement of Protestant migrants from Britain [illegible] to control [illegible]
17/18th C.	[illegible] violent clashes ensue
18th C.	Under rule of the Chichesters, city develops as market town and port
1800	Development of linen production (textile industry)
1840	Act of Union [illegible]
	Foundation of Queen's University Belfast
1861	Harland & Wolff shipyard founded, Belfast becomes important centre for shipbuilding
1888	City status granted by Queen Victoria; construction of representative buildings (e.g. new City Hall) and infrastructure
Late 19th C.	Fast population growth; Belfast overtaking Dublin as largest Irish city
1912	Titanic built by Harland & Wolff starts voyage to America
1912/1913	Conflict over Home Rule for Ireland: first rise of paramilitary groups Irish Republican Army (IRA) and Ulster Volunteer Force (UVF)
1919-1921	Irish War of Independence against British occupation
1921	Ireland divided into independent Republic of Ireland and province of Northern Ireland under British control
1921-1972	Stormont governs Northern Irish affairs subject to Westminster approval and funding
1951	Population of Belfast peaks at 443,000
1969-1994	Period of the 'Troubles', British army occupation
1972-1999	Northern Ireland under 'Direct Rule' from London, suspension of parliament at Stormont
1985	Anglo-Irish Agreement on status of Northern Ireland
Mid-1980s	Peak of urban crisis due to deindustrialisation and violent conflict
	Physical regeneration: Belfast Urban Area Plan, 'Making Belfast Work' Programme
1989	Creation of Laganside Corporation, an Urban Development Corporation to implement regeneration [illegible]
1994	Paramilitary ceasefires
1995	EU launch peace process with special programme (PEACE)
1997	Election of New Labour government in UK
1998	'Good Friday' or Belfast Agreement negotiated between Irish and British governments and main Northern Irish political parties
1999	Reinstatement of elected Northern Ireland Assembly
2000	Plan to develop 'Titanic Quarter' on former shipyard
2003/04	'Belfast: State of the City' initiative and Masterplan
2002-2007	Suspension of Northern Irish Assembly and re-imposition of Direct Rule
2005	IRA announces end of armed campaign
2007	2nd reinstatement of elected Northern Ireland Assembly

The city started to develop and expand from where the vport was. Besides the port, railways were also effective in the settlement. Industry developed in the city so city continued to grow. One of the most important factors in settlement was the Lagan River. Roads and train ways started to connect both side of the river.

The success of Belfast's city center is vital to the future of the city and of Northern Ireland. It is the location of economic growth, at the core of Northern Ireland's image to the rest of the world, a place that has something to offer everyone. It is the factory, the advertisement and the meeting place of the region's future.

The Map (1908)

SITE

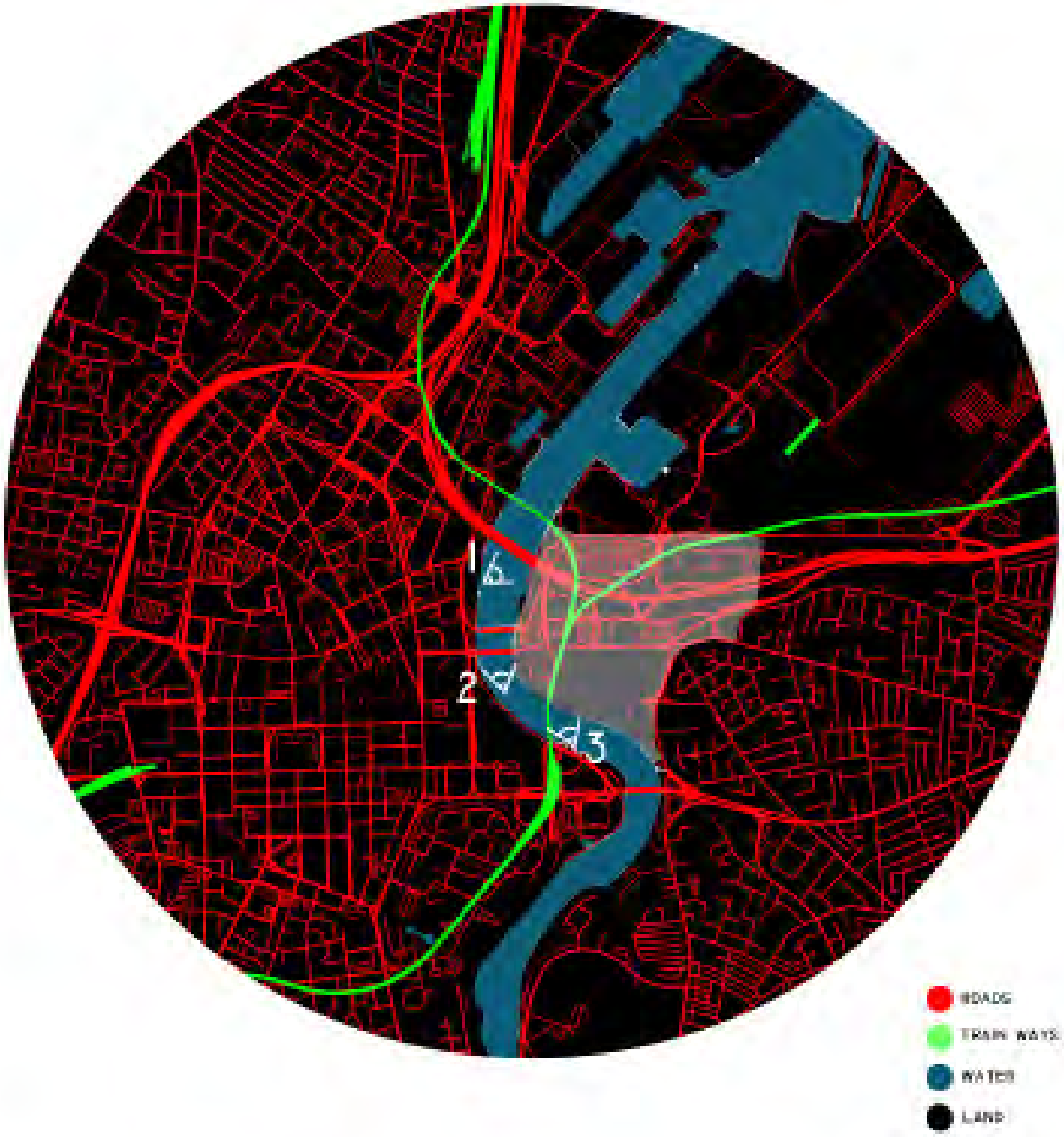
The East Bank of the Lagan, the northern end of the city centre, City Quays, Titanic Quarter and the surrounding communities, most of which have to be reached after crossing a motorway or rail barrier.

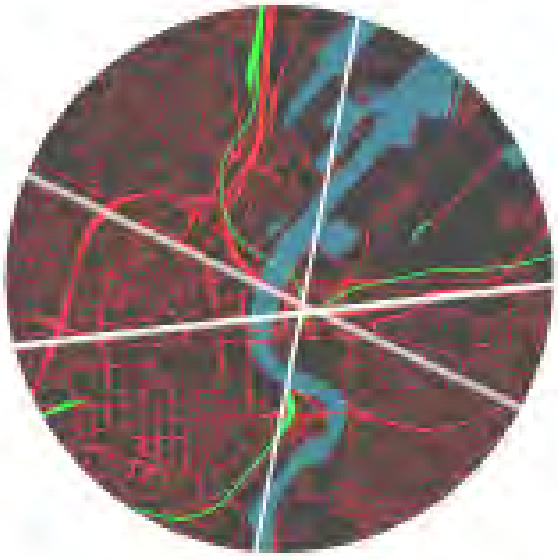
The East Bank is steeped in industrial history. During the 19th and 20th centuries, heavy industries such as ship-building and rope works dominated the area and there are potential development land on the east bank of the Lagan.

The River Lagan is underplayed in the city centre. It is a largely negative space at the edge of the traditional core, lacking in the drama and celebration that other cities bestow on their waterfronts. The bridges are utilitarian rather than iconic, and there are not enough of them.

The recreational possibilities of the water itself are ignored; in this lower section of the river there is a complete absence of water activity. Overall, the river's enormous potential as a recreational and public space asset for the centre remains unrealised. It is all the more important that the River Lagan receives proper treatment because it is no longer the edge of the city centre.

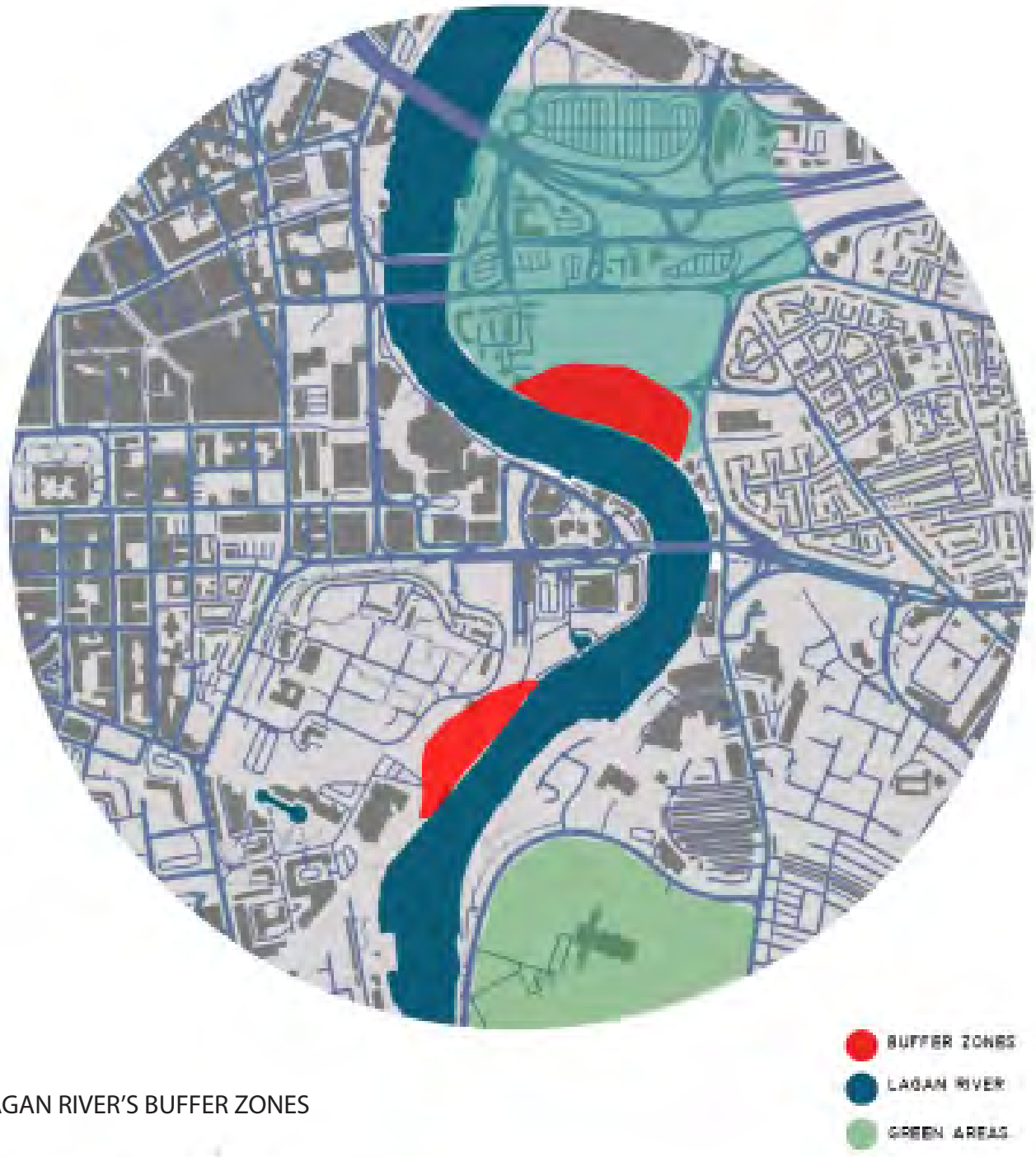
-Belfast City Report By Jörg Plöger
-Screening Report Strategic Environmental Assessment Determination East Bank Development Strategy 2017
-Belfast City Council - The Belfast City Centre Regeneration and Investment Strategy



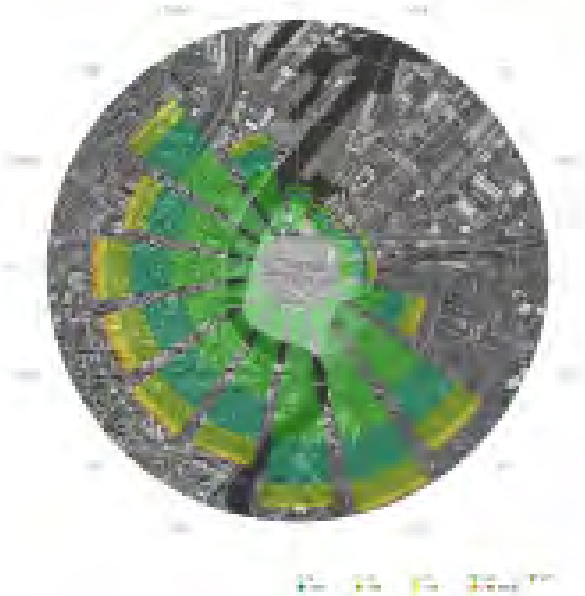


ROADS & AXIS

In the East Bank, there are two main vehicles ways which are main motor way and train way. There are four connection road for both sides of the Lagan River. One of them is for train transportation.



LAGAN RIVER'S BUFFER ZONES



At some points where the Lagan River changes direction, there should be some buffer zones as a precaution against the risk of water overflow. we can use green areas for buffer zones. In addition, in front of the area, there can be some part like a pool for where water is filled and discharged.v

The wind rose for Belfast shows how many hours per year the wind blows from the indicated direction. Example SW: Wind is blowing from South-West (SW) to North-East (NE). Cape Horn, the southernmost land point of South America, has a characteristic strong west-wind, which makes crossings from East to West very difficult especially for sailing boats.

https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/belfast_united-kingdom_2655984

PROBLEMS

Much of the city center feels incomplete, as development is interrupted by vacant sites, underdeveloped sites and surface car parks.

Rationalizing and reshaping the divisive impact of transport infrastructure to improve permeability and connectivity north-south and east-west.

Enhancing linkages with the West Bank by the creation of pedestrian bridges.

Energizing the riverside via development of waterfront public spaces.

This City Centre location accommodated industrial and engineering works which, by their very nature, generate issues relating to contamination of the ground. Viewed in conjunction with their proximity to the River Lagan these may give rise to environmental concerns regarding potential pollution of the waterway.

The extent of roadway in this area and the level of traffic it accommodates may also give rise to concerns for air quality.

SURROUNDINGS

3

4

5

6

THE BELFAST CIVVTY CENTRE REGENERATION AND INVESMENT STRATEGY PLANS - BELFAST CITY COUNCIL

KNOT | \ ‘nät\ | noun. : A JOIN MADE BY TYING TOGETHER THE ENDS OF A PEACE

DESIGN PROPOSAL

The proposal is based on the following core principles:

- Create a green, walkable, cyclable centre
- Connect to the city around
- Public Spaces and social impact
- Developing streetscape
- Restructuring public use
- Encourage sustainable development and respect the natural and historic environment
- Energize the Lagan River waterfront
- Create connected and accessible East Bank
- Creating a mix of uses bringing vitality and economic growth

ECONOMICAL

- Low rates of employment of the East side of the Lagan River.
- Undeveloped area under the industrial port district.
- Economically poor waterfront section.
-The region where roads cross and need to be revived.

SOCIO-CULTURAL

- It's a harbo r of about 300 years of history.
- Industrial works have always affected the dynamics of the region.
-Located in the middle of the harbor, city center and East side residential area.

Infrastructural Urbanism:

- Organizes & regulates flow

- Manages, directs & modifies artificial ecologies
v
- Accomodates local contingency while maintaining overall continuity

- Allows detailed elements to form (creating design)

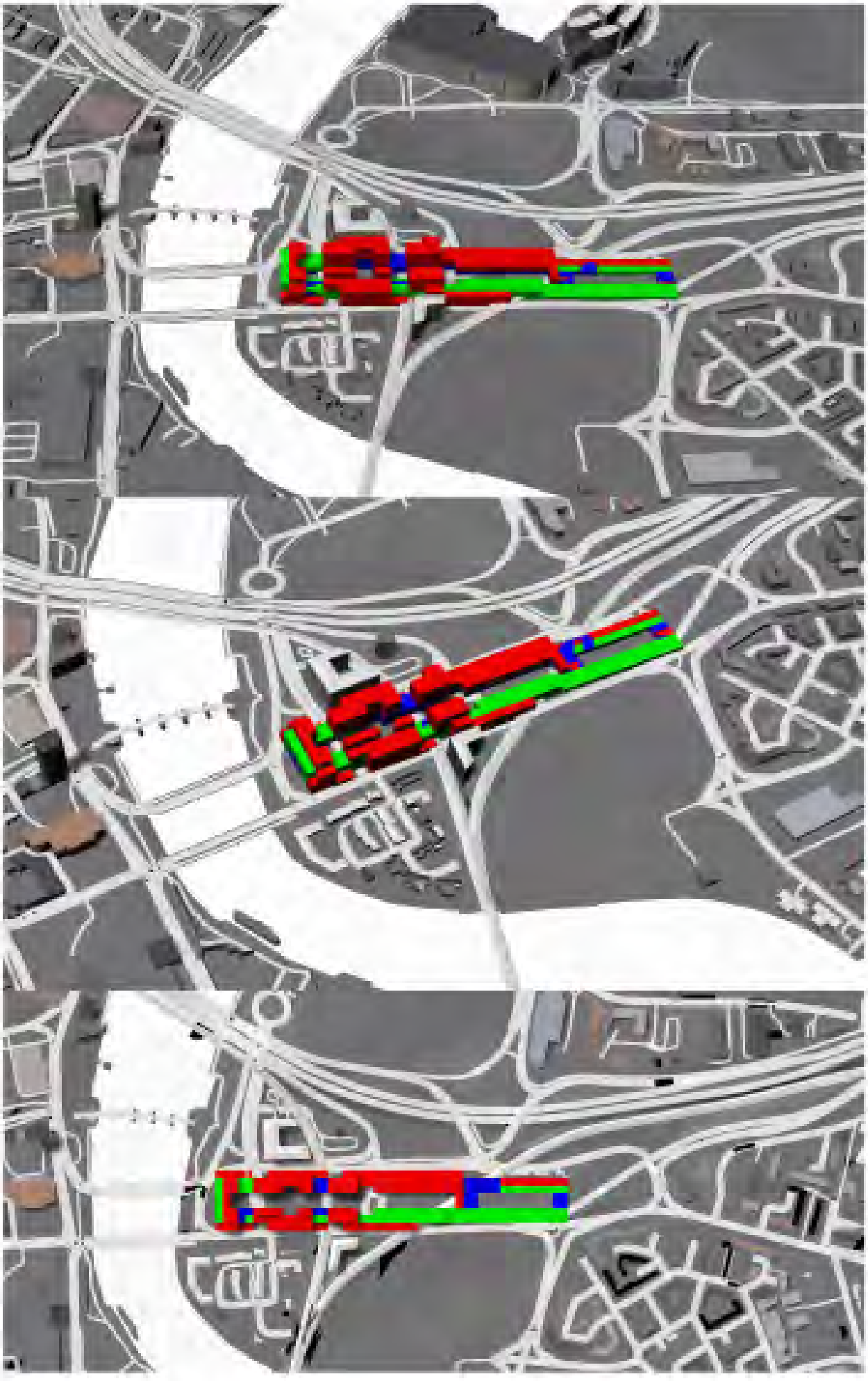
t- Evolves with its loose envolope

ENVIRONMENTAL

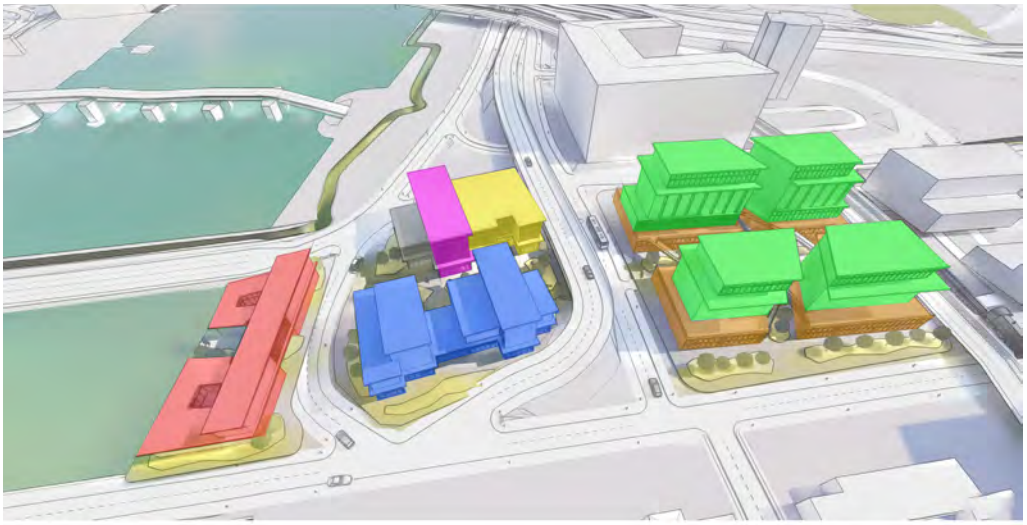
- Staying on the east side of the river.
- Meets the wind and possible risk of flooding by the river.
-Some parts of the site that need a green zones.
-The roads passing through the site define the regions.

FUNCTIONAL

- Undeveloped area for public use.
-It's a buffer zone between city center, harbor and REsidential di
- It is necessary to be live the waterfront.



SITE PLAN

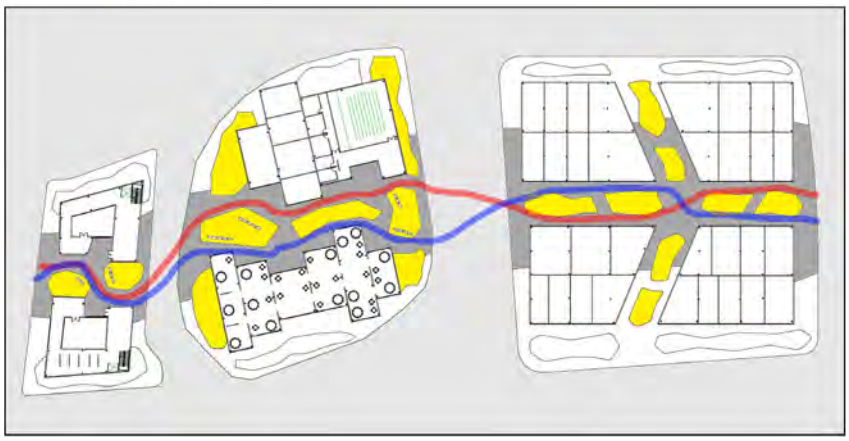


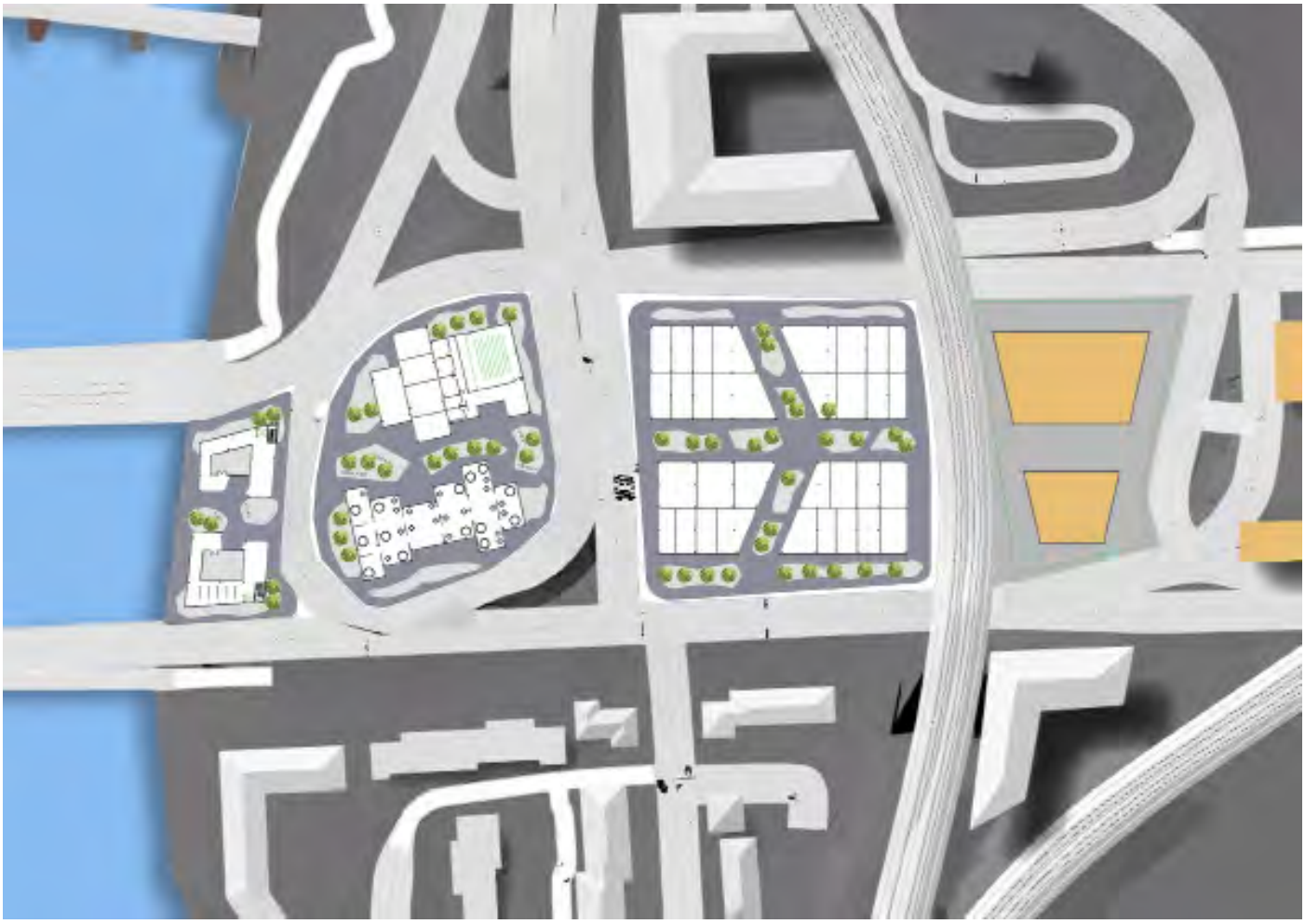
FUNCTIONS

EXHIBITION CENTER
CONFERANCE HALL
OFFICES
WORKSHOPS & GUEST HOUSES
ADMINISTRATION
COMMERCIALS
RESIDENTIALS

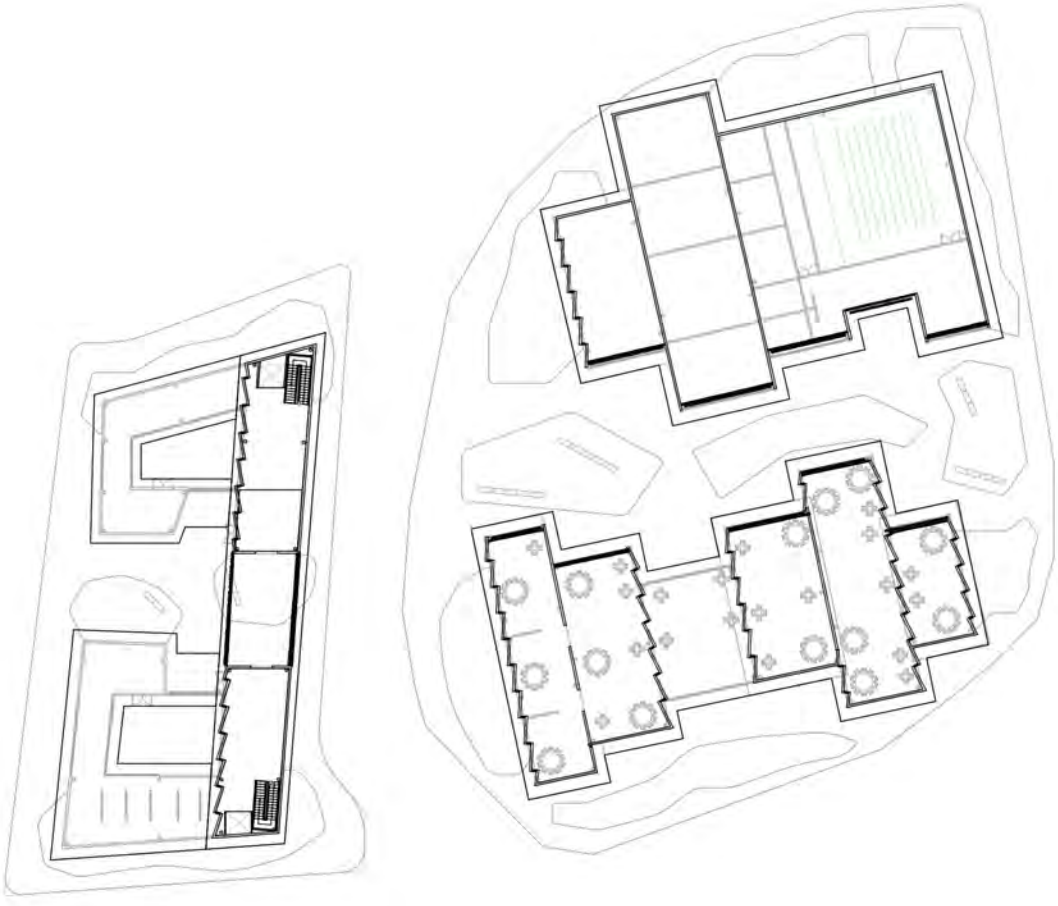
CIRCULATION PATHS

In order for people to understand the circulation automatically, the walls on the ground floors must be covered with stones. The circulation axis was created so that people could use the entire area longitudinally.

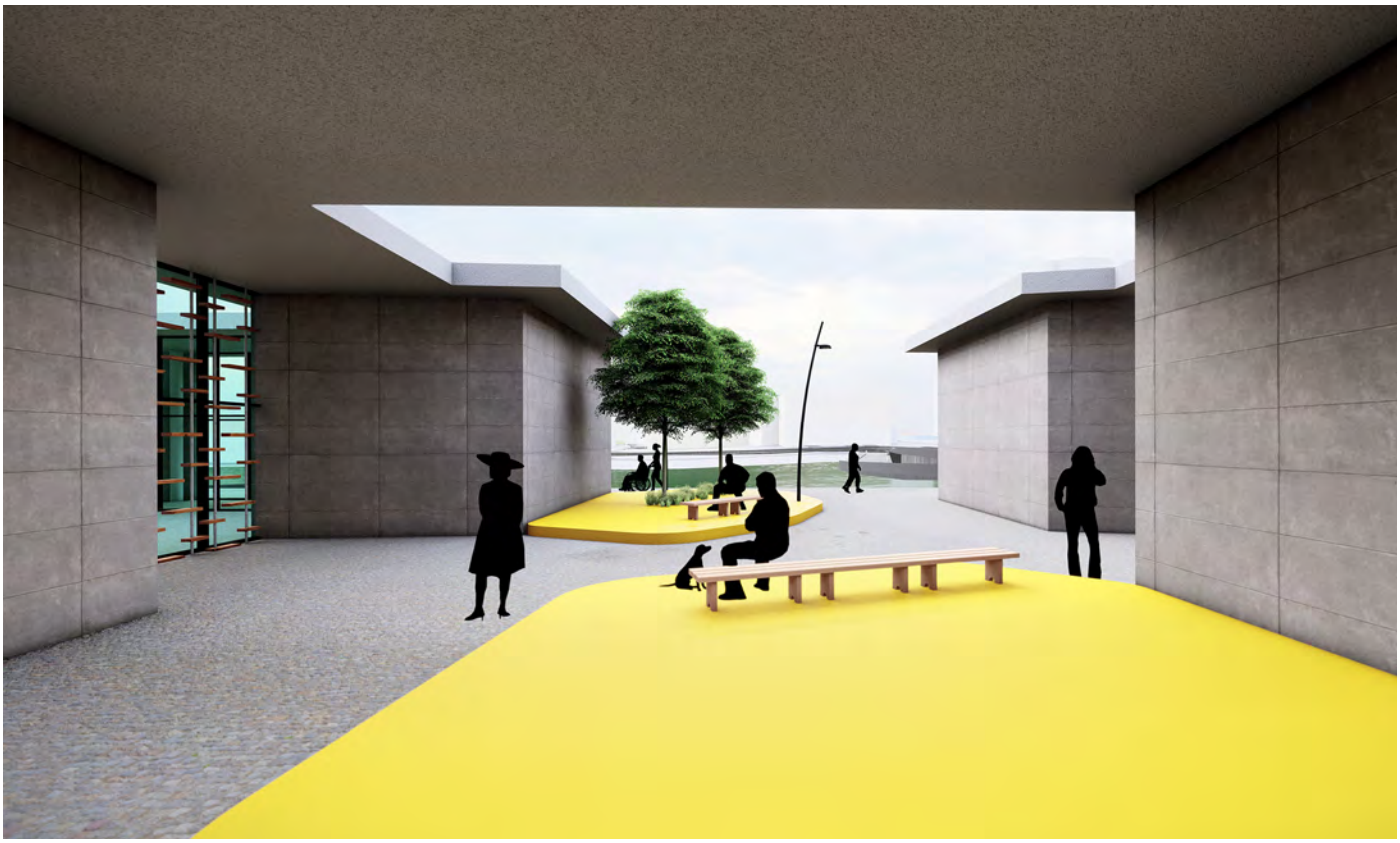




GROUND FLOOR PLAN



PARTIAL FIRST FLOOR PLAN (in 1/200 detail)



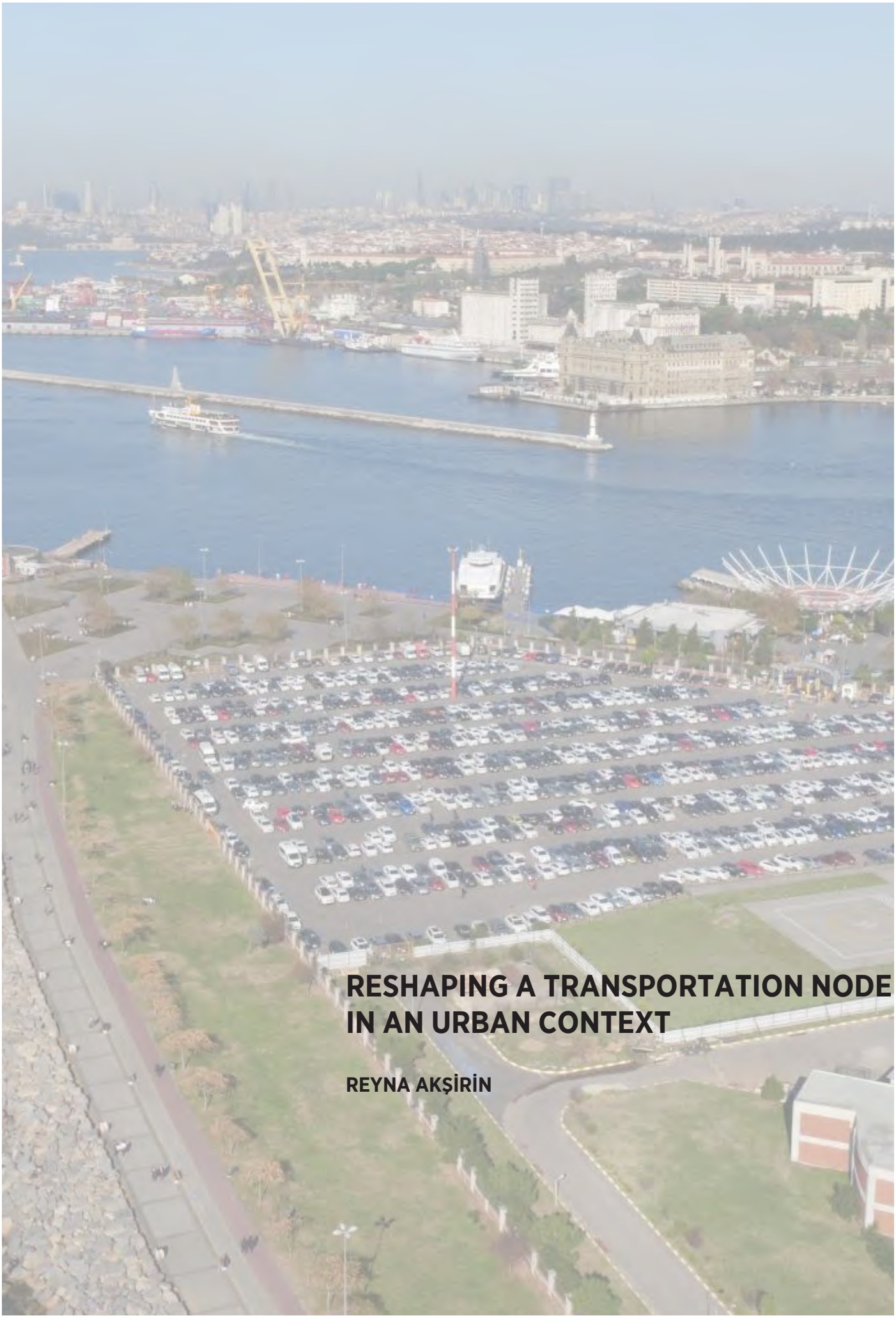
LONGITUDINAL SECTION

PARTIAL SECTION

FRONT ELEVATION

PARTIAL ELEVATION

In order to solve the light problem in the upper floors, angled narrow openings were used. This differentiation the perception of the building from different points. Wooden panels were used to protect the Curtain Wall facades from sunlight.



RESHAPING A TRANSPORTATION NODE IN AN URBAN CONTEXT

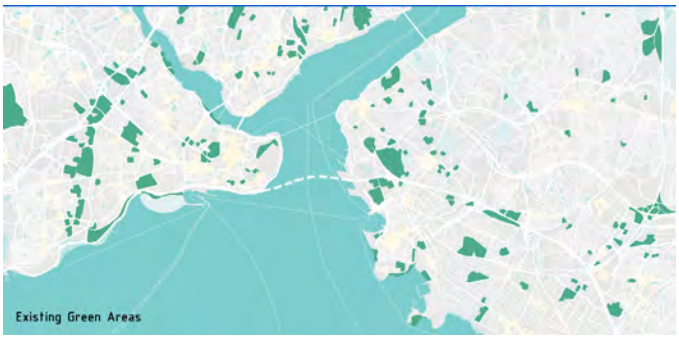
REYNA AKŞİRİN

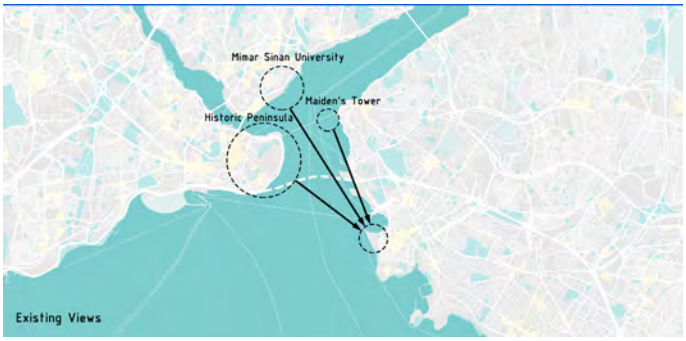
RESHAPING A TRANSPORTATION NODE IN AN URBAN CONTEXT

REYNA AKŞİRİN

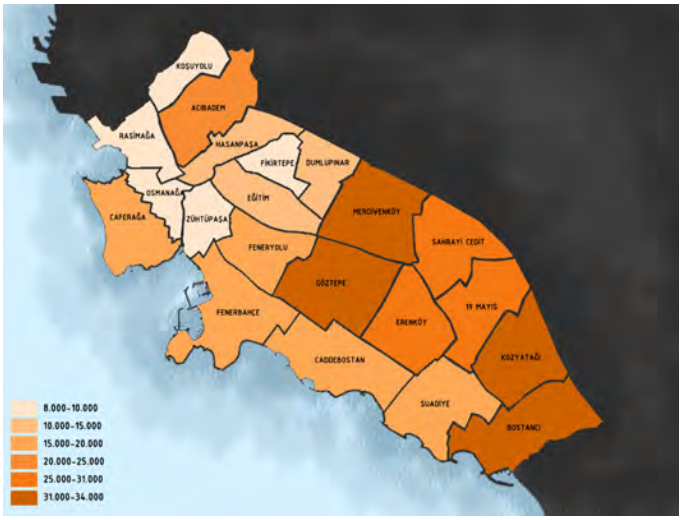
The project is located in Kadıköy, near important transportation nodes. The areas around the transportation nodes have the potential to develope into a public node where cultural activites can be maintained however in it's current state, the large unorganized spaces act as boundaries that the users cannot get access to. The main aim of the project is to reshape a part of the coastal line in order to revitalize the area and transform it into a public node with a focus on performance arts and allow local artists the access to the public performance spaces.

GENERAL ANALYSIS OF THE ISTANBUL REGION

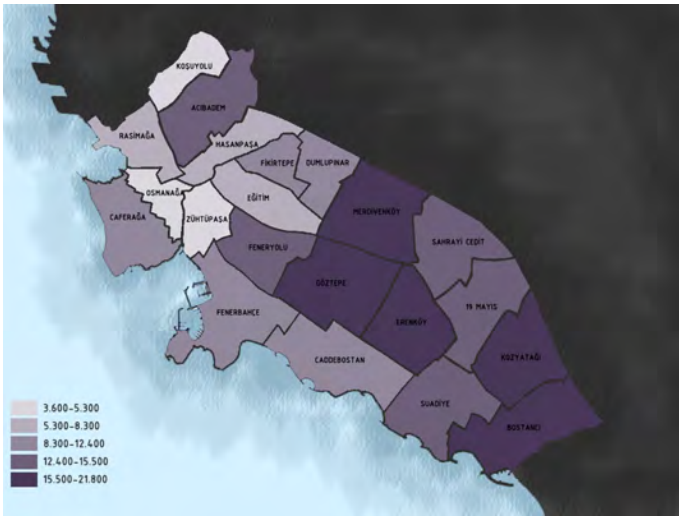




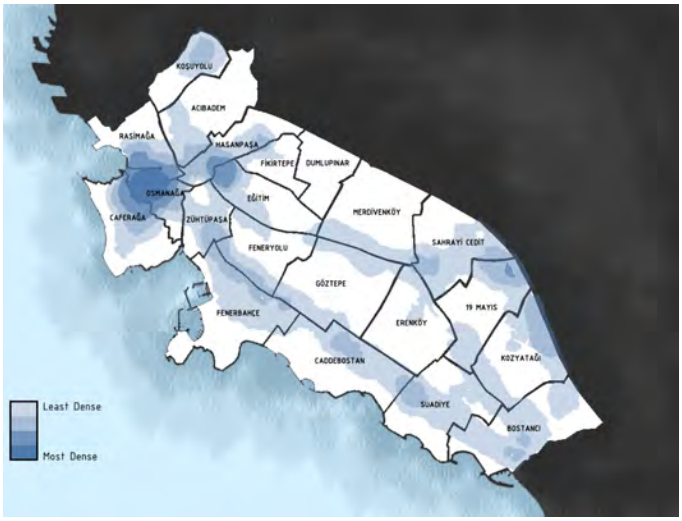
The site is located in the city of İstanbul, with a rich history as well as a rich urban fabric. Analysis of the city's main road system were made from the wide urban research database and it is found that the city began expanding rapidly around the 1960s and 1970s. The expansion of the city itself has also forced the road system to rapidly change around the new upcoming urban fabric that was added onto the already existing dense urban fabric.
The existing roads areprimarily located around the shoreline and after the expansion these roads began to be expanded and widened in order to reach the rural areas which were under development.
This information was also important since the site which is selected is located in an area where the historic roads which follow the coastline passes.
Although the area is quite rich in its history, most of the coast line in the Anatolian side have not been developed properly and this also applies to the selected site which was not used to its full potential.
The green areas are also available however these green areas are fragmented and quite far away from each other and following the city's rapid urban development, in some parts of the city the greenery is completely lost and replaced with masses.



Population Analysis



Housing Density Analysis



Commerce and Cultural Activity Analysis

The proposed site is located in Caferağa District, Kadıköy, İstanbul. The analysis of the Kadıköy region as a whole, indicate that the Caferağa district is heavily populated and it is in close relation with the regions where commerce and cultural activities are most dense.
The district itself is rich in history, as well as potential activities that are available to the large population.
The chosen site has the potential to serve as a center that reshapes the coastal line as well as the transportation nodes around it.

FIGURE GROUND RELATIONSHIPS

SITE BOUNDARIES

GREEN AREAS

Upon examining the figure ground relationships and the building functions surrounding site,it was determined that the site itself has potential for a development that is capable of working together with the transportation nodes which are located in the site boundaries and which are located around the site as well.

The site boundaries are formed from the figure analysis, which indicated that the non-built areas form a division between the highly dense urban fabric and the transportation areas.

The green area analysis shows that although the site itself has green spaces available, since the green spaces are too large to be controlled they are left in an unorganized way which leads to a decrease in the use of the green areas which could be potential public spaces or public squares. There are also green areas which are restricted from the public and these large areas have the potential to be added onto an urban transformation project which revitalizes the space as a whole and makes the large open spaces user-friendly.

For public use, a program centered on performance arts is proposed to transform the node for the street artists as well.

HISTORICAL LANDMARKS

BUILDING FUNCTIONS

The site is located near a highly dense urban fabric which is also composed of historical buildings. Although the site does not contain much of these historical buildings, there are old piers and an old state building which has been turned into a traditional theatre scene: Haldun Taner Theatre Scene which is planned on being demolished. The site is also in close relationship with Haydarpaşa, an old train station which has become one of the symbols of Kadıköy as well as Istanbul.

The primary functions surrounding the site are centered on education and cultural activities and this aspect provides the potential of the site to become something more than just a transportation node.

Sun & wind are also important factors since the site has green spaces in certain areas, it does not receive proper shade during the summer and the heavy winds coming from the south-west direction effect the pedestrians during the winter, making it almost impossible for the site to be experienced fully.

SUN & WIND ANALYSIS

PEDESTRIAN AXIS

TRANSPORTATION

THE PROBLEM

The transportation lines are located on the busy axis' which also respond to the busy pedestrian axis as well. The pedestrians movement is dense around the coastal line and at the main street of Altıyol in which a tram line was established in 1900s. The tram line passes to move to Moda as well.
Although the site is on a busy transportation network, it has become a place dedicated for this one function and the site does not encourage its users to stop and enjoy the spaces, instead it makes people move along the existing paths in order to get to their destination.
The northern area of the site has the issue of becoming a heat island since it is only covered with pavement and the eastern area includes a large green area which is unused and this creates a tension between the two parts of the site.

THE PROPOSAL

The proposed solution includes a multi-layered approach in the masterplan phase. The proposed solution includes the newly proposed primary axis following the shoreline and secondary axis according to the pedestrian movements. According to these axis' small hills are implemented into the topography in order to provide seating areas as well as help generate public square formations. For the green areas that already exist around the area, the hills are shaped to not disturb the green and they turn into traces on the ground level where the green area gets dense.
The program of the site follows the general principles, the site is aimed to be turned into a performance arts hub, where the building functions could overflow into the streets and the program is continued on the large unused area, turning it into a place where people spend their time in, instead of viewing it as a path or a stop on the way.

RUNNING MAP ANALYSIS

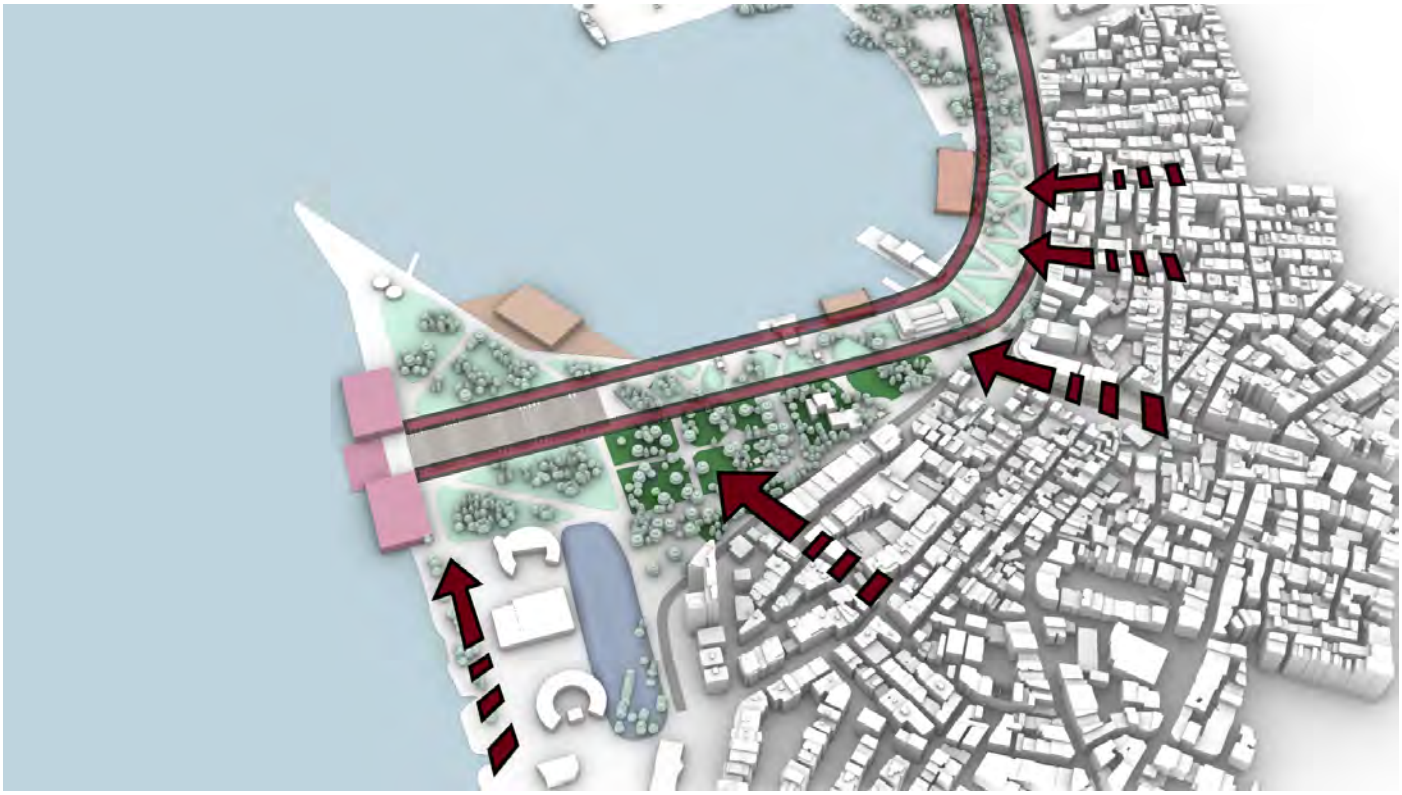
EXISTING GREEN AREA ANALYSIS

IMPLEMENTATION OF THE NODES

IMPLEMENTATION OF THE HILLS

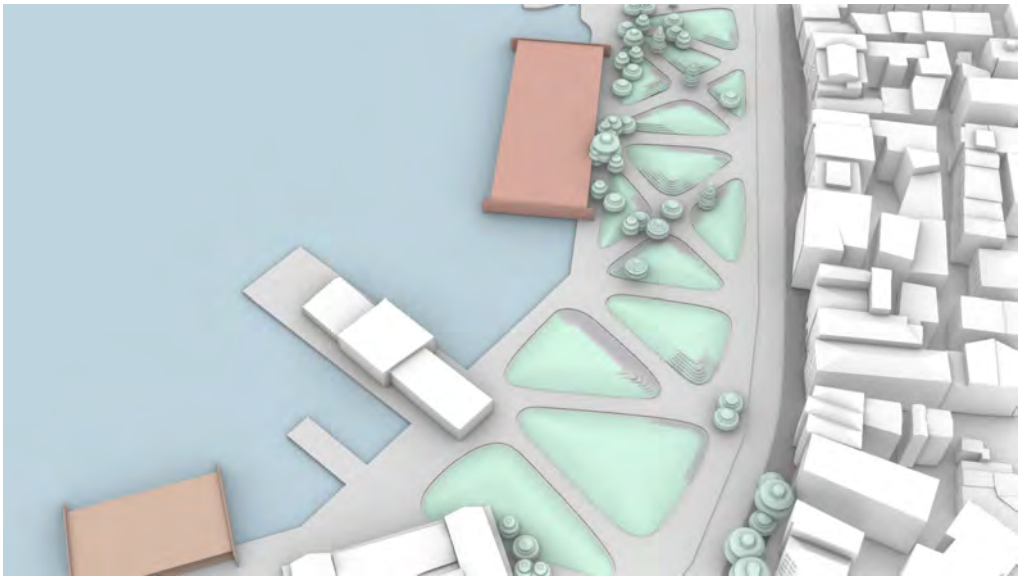
The running map was used in order to determine the possible pedestrian pathways and the pedestrian density and it is found that the northern part of the site is more prone to the dense pedestrian circulation. Smaller hills were formed on this part which followed the already existing corridors created by the pedestrian themselves and as the site reached the south, these hills were formed to get larger to accommodate different needs and provide spaces for different types of use that the northern part could not allow since the northern part is also very close the a transportation node.
After the running map was established, the location of the nodes were also determined and according to the green area analysis the location and the form of the hill implementations were changed. The multi layered process created a flowing series of spaces and axis which enrich the area.

AXONOMETRIC SITE MODEL & DIAGRAMS

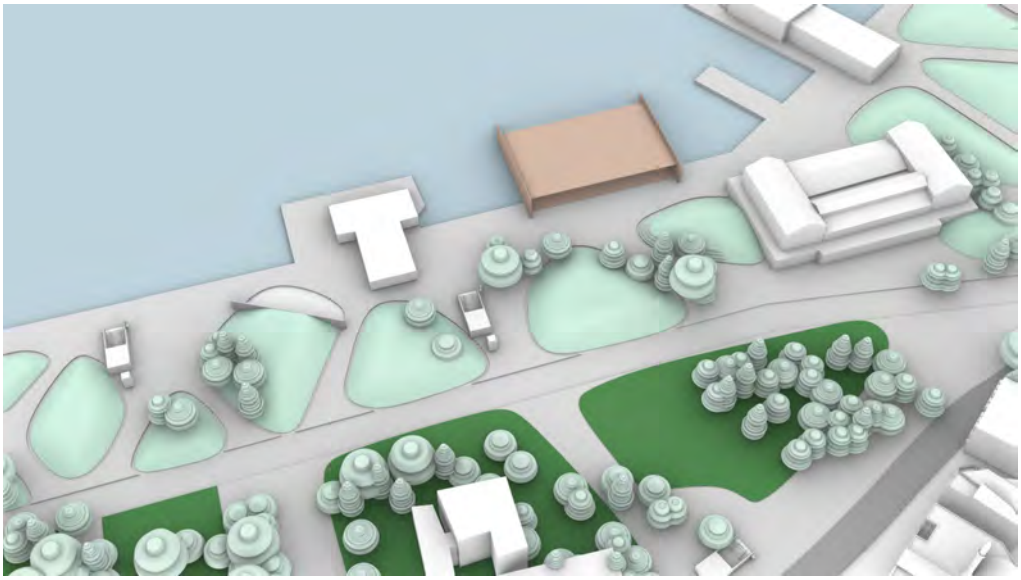


With the help of the running map, which was used to determine the pedestrian pathways, the site began taking its shape and the hill formations began reshaping the pedestrian circulation network. The mass development was kept around the shoreline since the existing green fabric is a valuable element of the shore and the added masses which are focused around the program of performance arts. The masses are proposed in order to provide spaces for professional artists as well as artists who are willing to experiment with different mediums and the hills themselves along with certain interventions to the hills provide small squares or pockets for the street artists. Since street art is an important aspect of Istanbul's culture, the focus of the site divisions was to create a pedestrian network with different corridors that also create lively streets for the street artists to perform around. The main function was focused around performance arts since the site offers a large amount of open space, the performance aspect can move from the building enclosure to the landscaping elements thus making it not be bound to one space but the large open area the site has to offer.

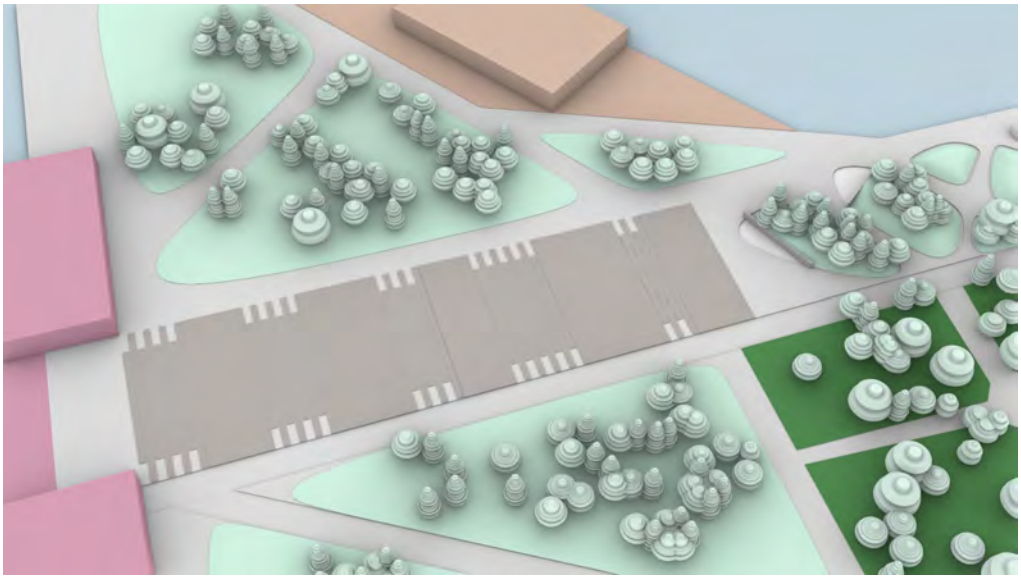
CLOSE UP OF THE IMPLEMENTED TOPOGRAPHY



The topography formations on the northern side of the site (closer to Haydarpaşa) have small interventions which are mainly used as seating areas.
Since the pedestrian circulation on this side of the site is quite dense and pedestrians use these routes in order to access transportation lines (ports), hills are implemented in order to provide seating areas for the waiting passengers.

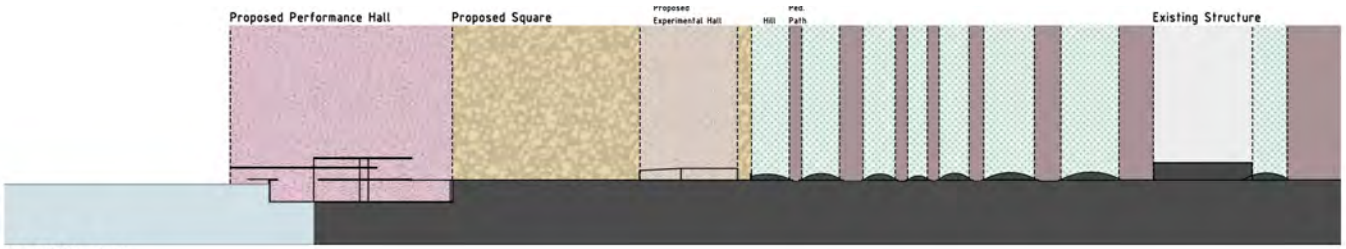


As the hills get larger, wall elements cut through in order to create small squares for the street artists to set up or create spaces for open exhibitions as well as acting as graphiti walls in various sizes and lengths.
These wall elements are planned out to act as similar elements of the walls of the masses and they are thought to be extensions of these walls, creating their own spaces by cutting through the hills.

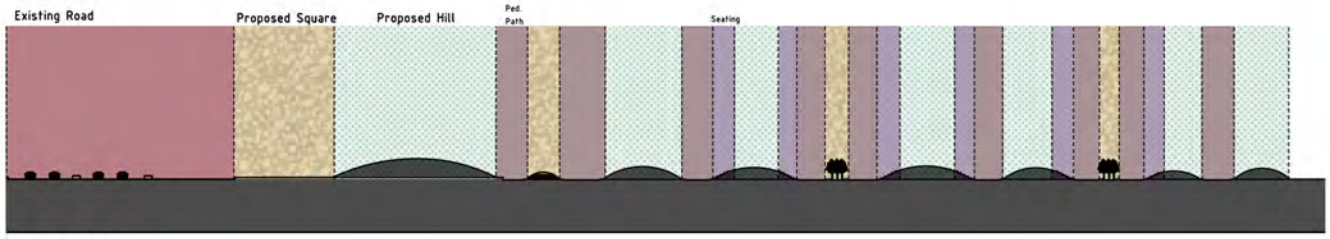


As the proposed axis' and the existing axis from Moda are getting closer, the hills start to turn into traces of landscape and a larger square to lead to the main performance hall building and it's open-air stage which faces the sea. This building is the ending point of the existing and the proposed axis and the large square infront allows the performance aspect to move to the streets.

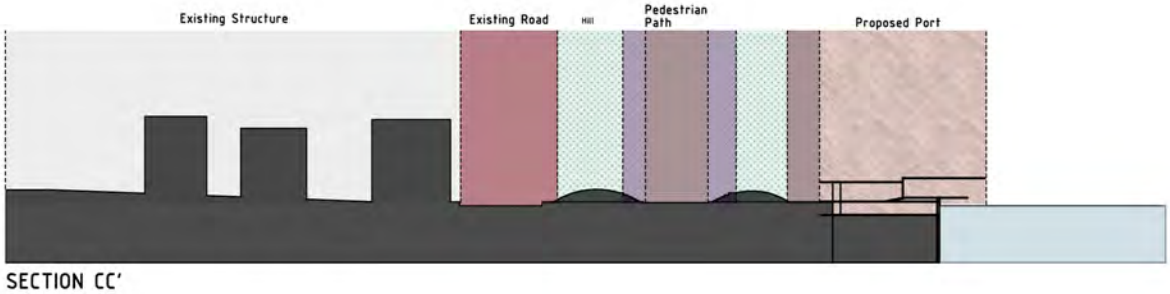
MASTERPLAN AND PROPOSED SECTIONS



SECTION AA'

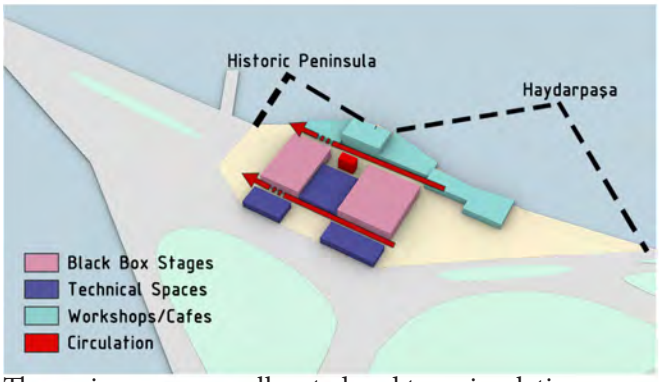


SECTION BB'

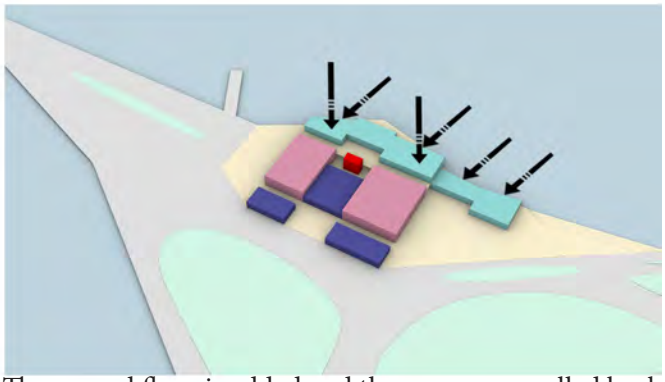


SECTION CC'

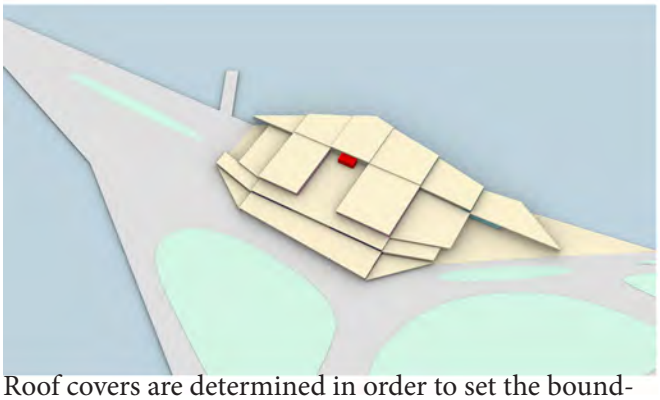
SELECTED EXPERIMENTAL THEATRE BUILDING



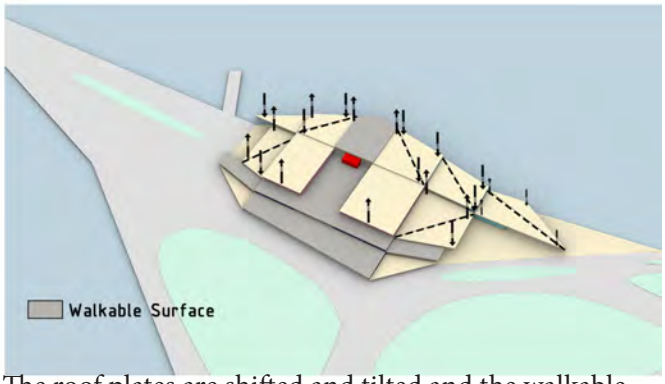
The main spaces are allocated and two circulation corridors are formed in order not to face the blind façades towards the sea and the street level.



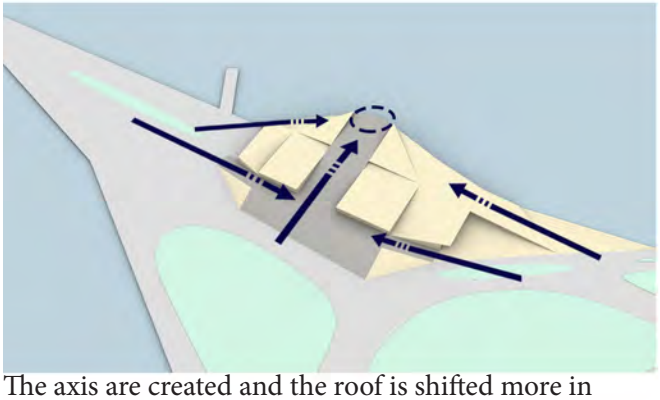
The second floor is added and the spaces are pulled back in certain places in order to create terraces along the sea.



Roof covers are determined in order to set the boundaries of the tilting roof plates.These plates are shifted according to the sun and the hierarchy of spaces.

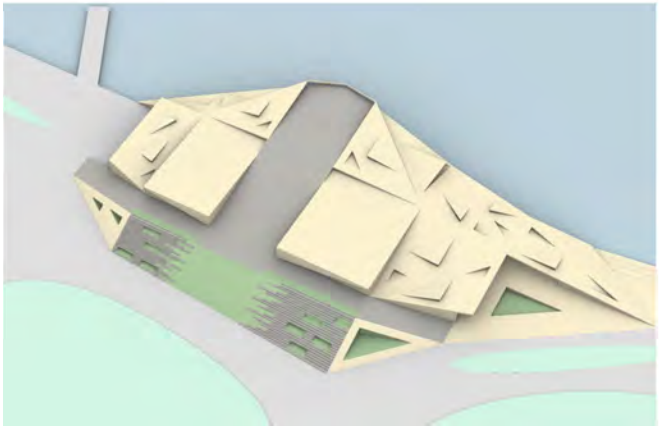


The roof plates are shifted and tilted and the walkable area is determined in order to keep the pedestrian axis created in the masterplan as well as provide a viewing terrace for Haydarpaşa.



The axis are created and the roof is shifted more in order to fit into the topography and the surroundings.

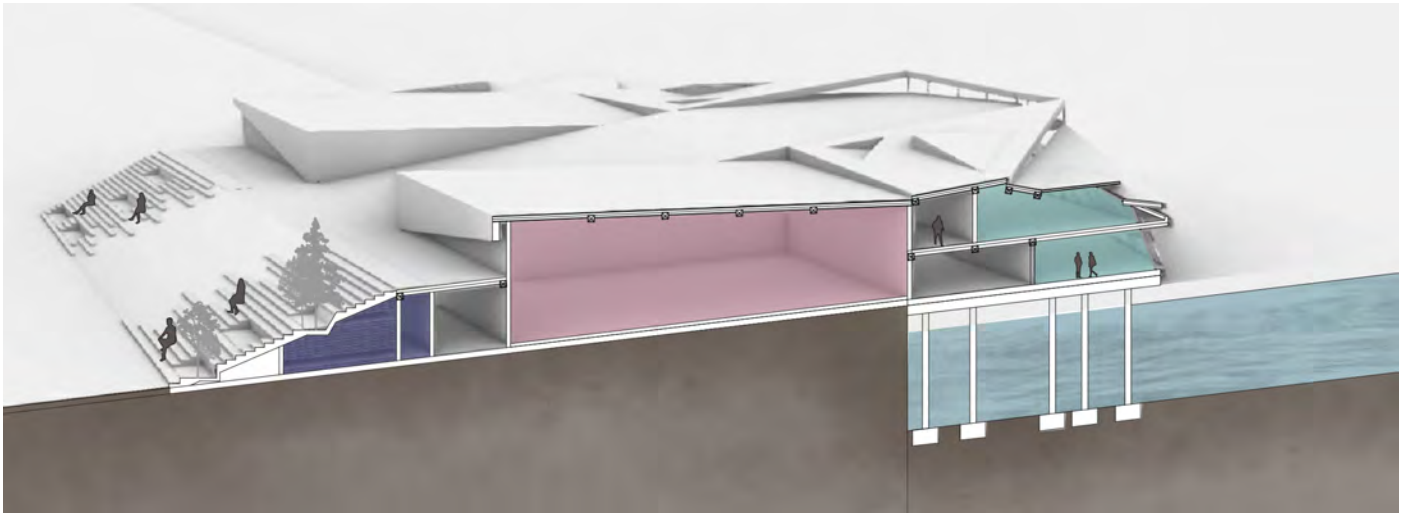
Triangular openings are made where the roof either tilts upwards or downwards in order to allow controlled sunlight into the building.



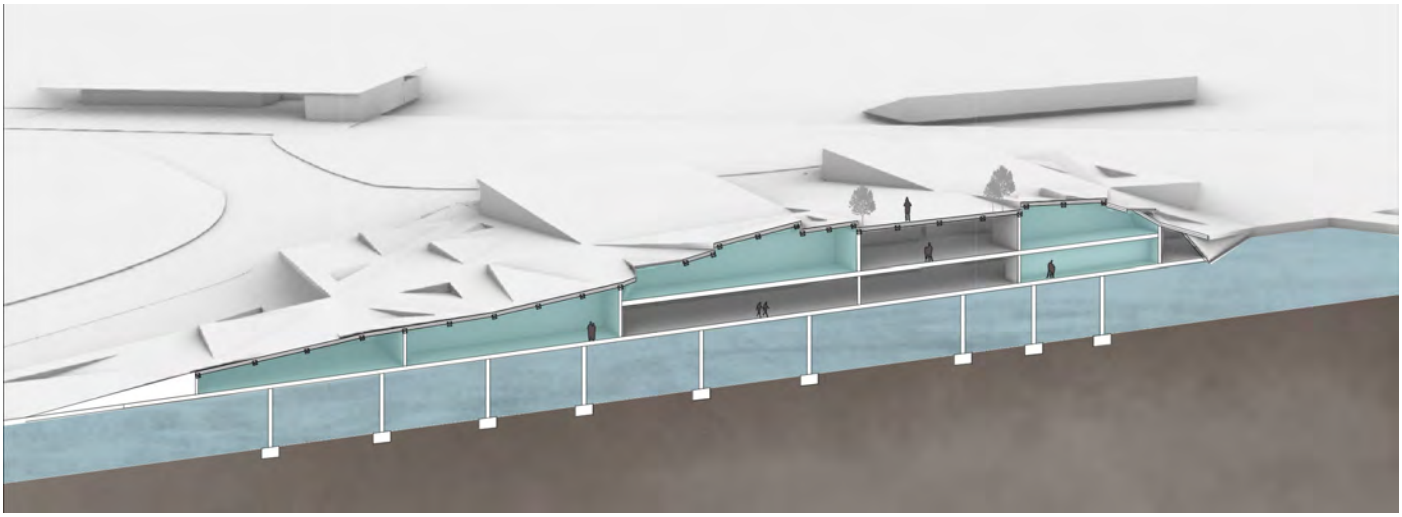
THE URBAN ROOF is formed to gather the pedestrians from certain axis' and turn into the topography in order to fit the design principles applied in the masterplan where the hills come out of the topography in order to provide spaces for the artists. In the building scale, with the help of the tilted roof planes, the building emerges out from the topography while still not disturbing the pedestrian axis, it becomes a part of the urban system. This also creates a relationship with the topography as well as the sea where the façades are opened up.

BUILDING PLAN AND SECTIONS

GROUND FLOOR PLAN

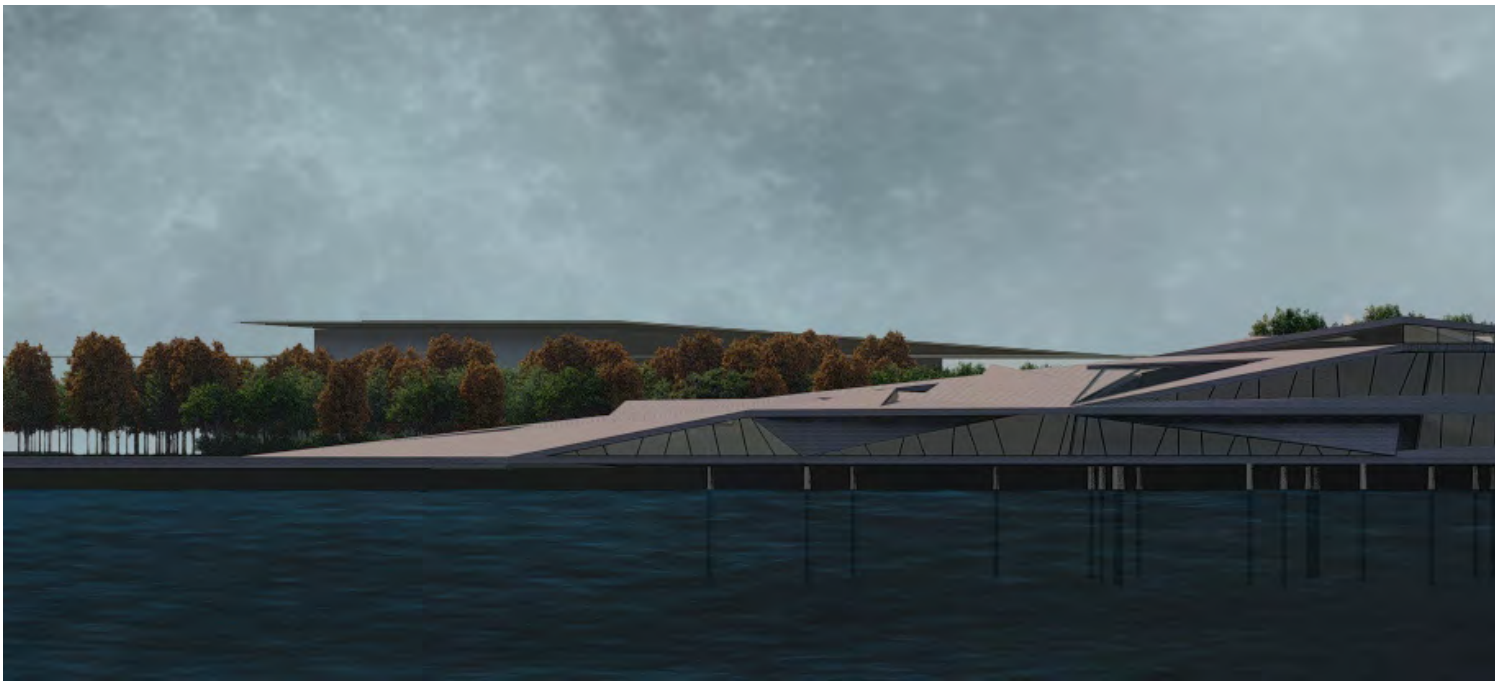


SECTION AA’

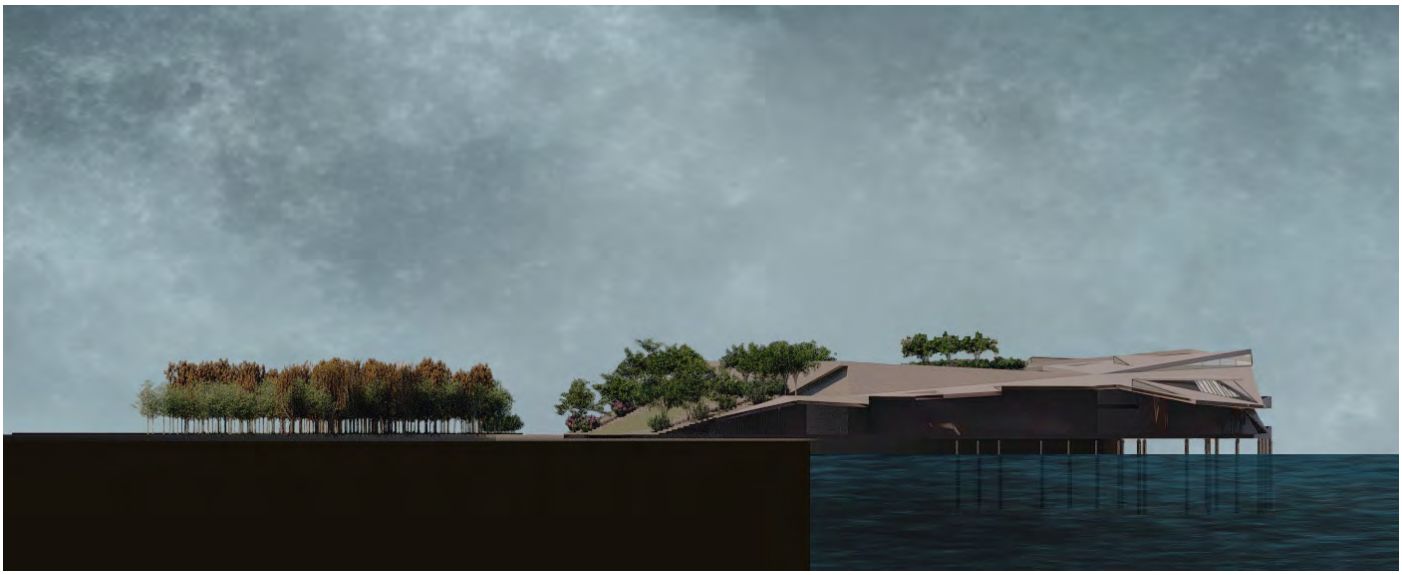


SECTION BB’

BUILDING ELEVATIONS & SECTION DETAIL

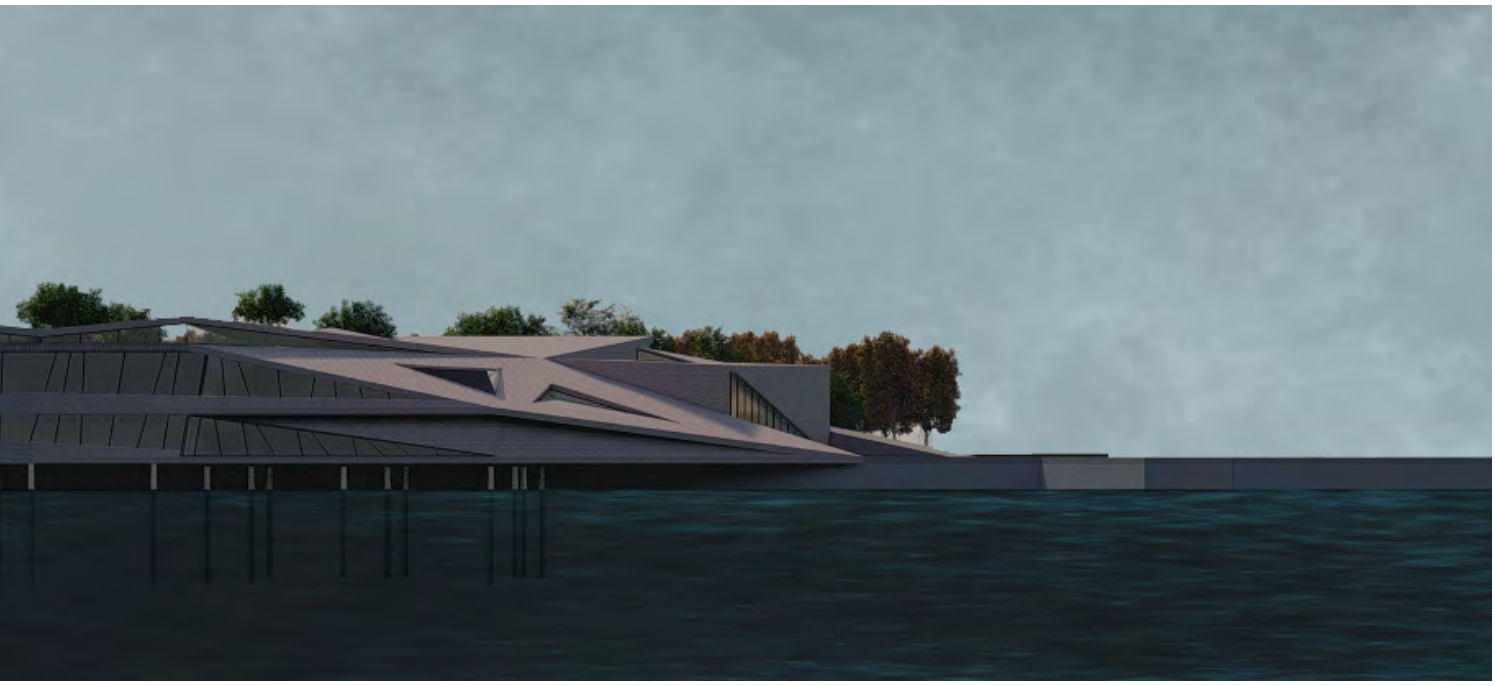


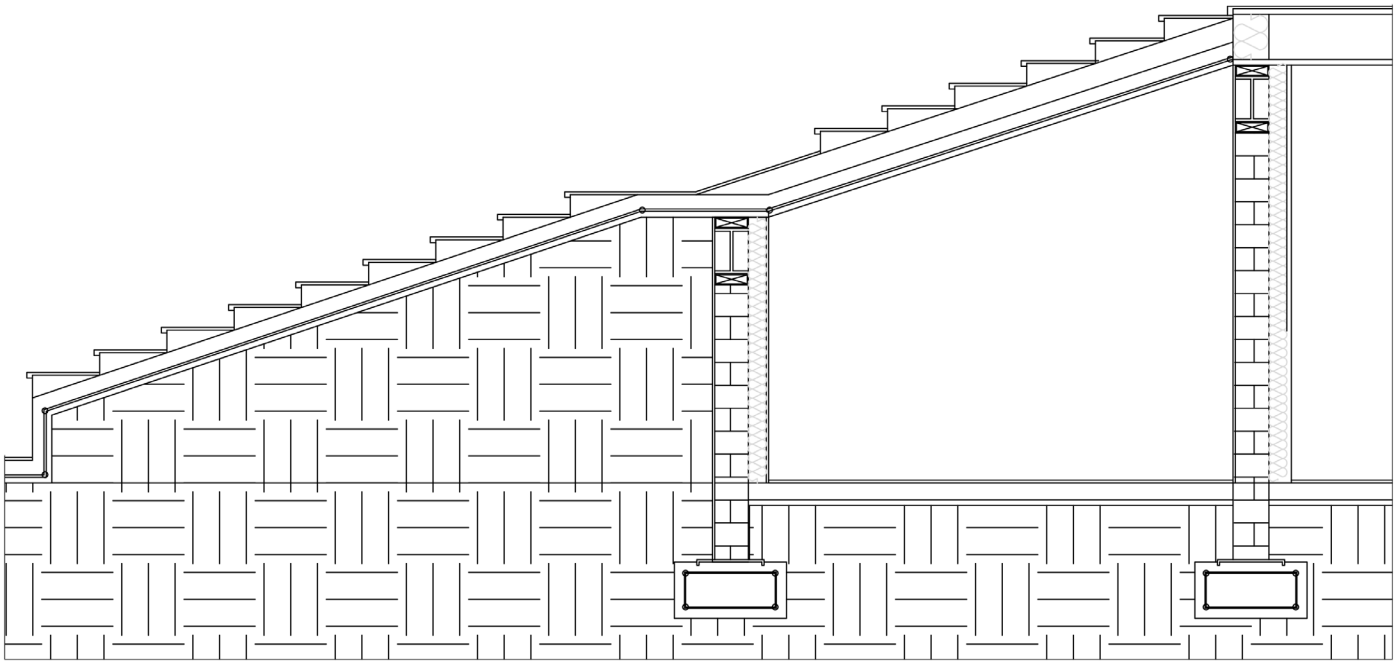
SOUTH-WEST ELEVATION



NORTH-WEST ELEVATION

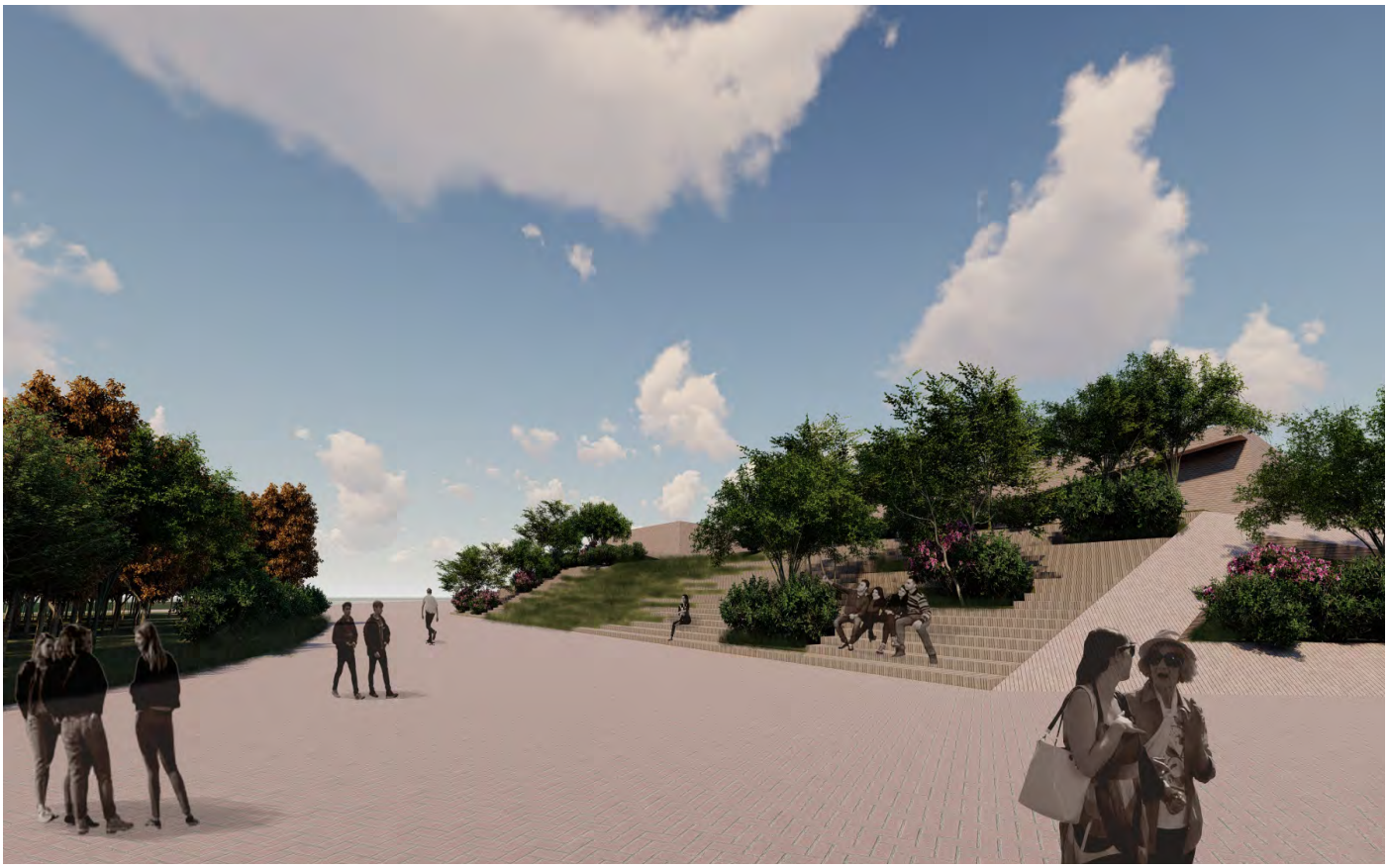
SOUTH-EAST ELEVATION

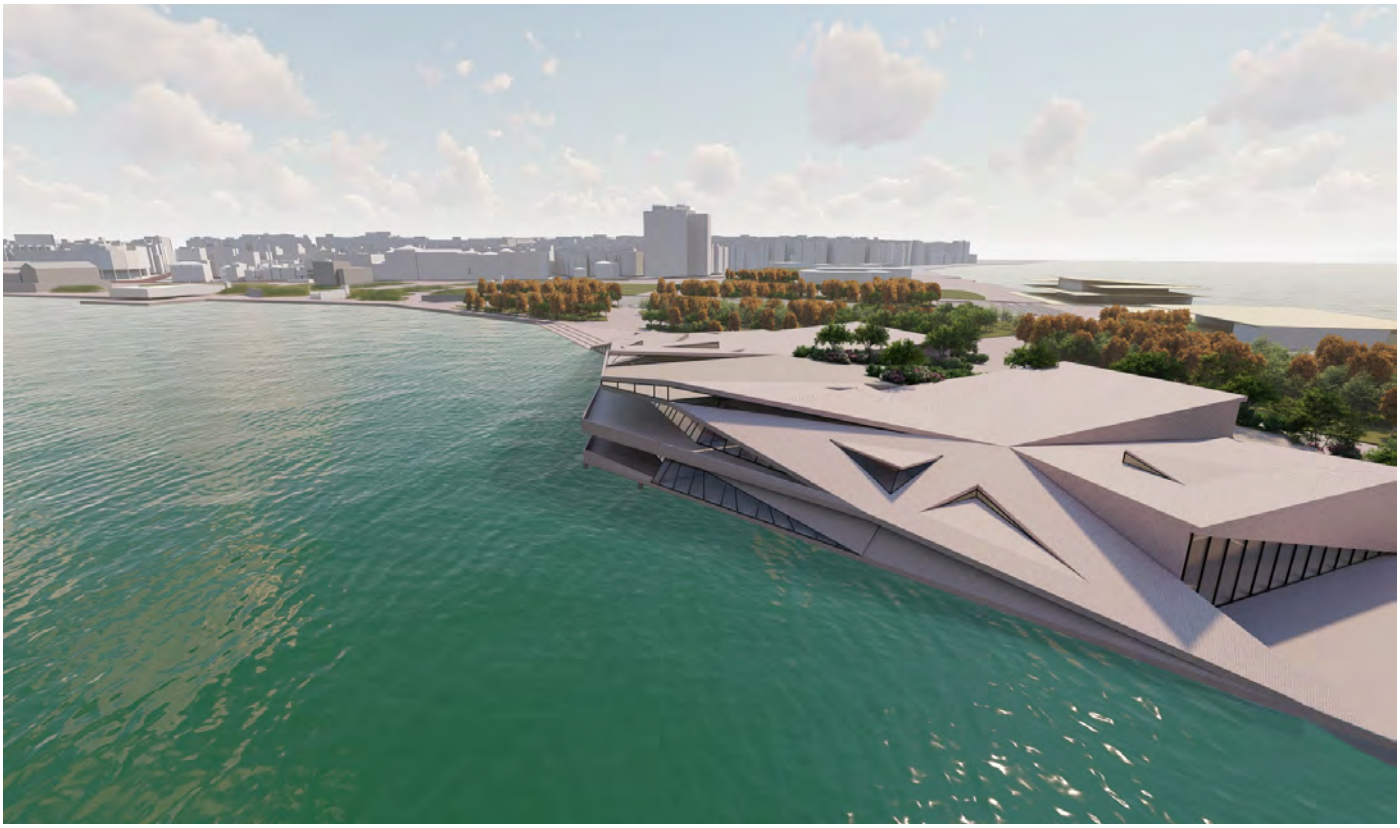


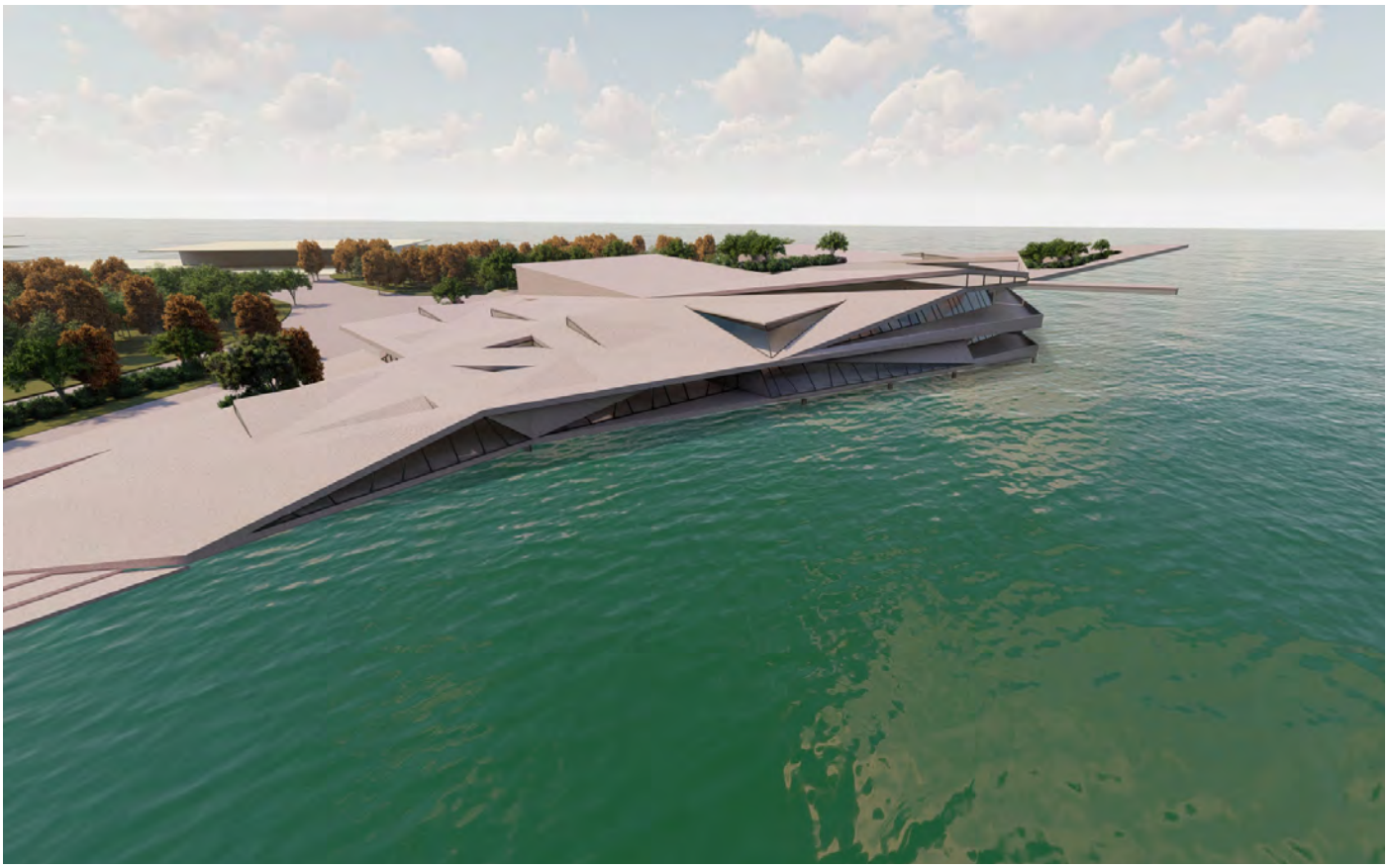


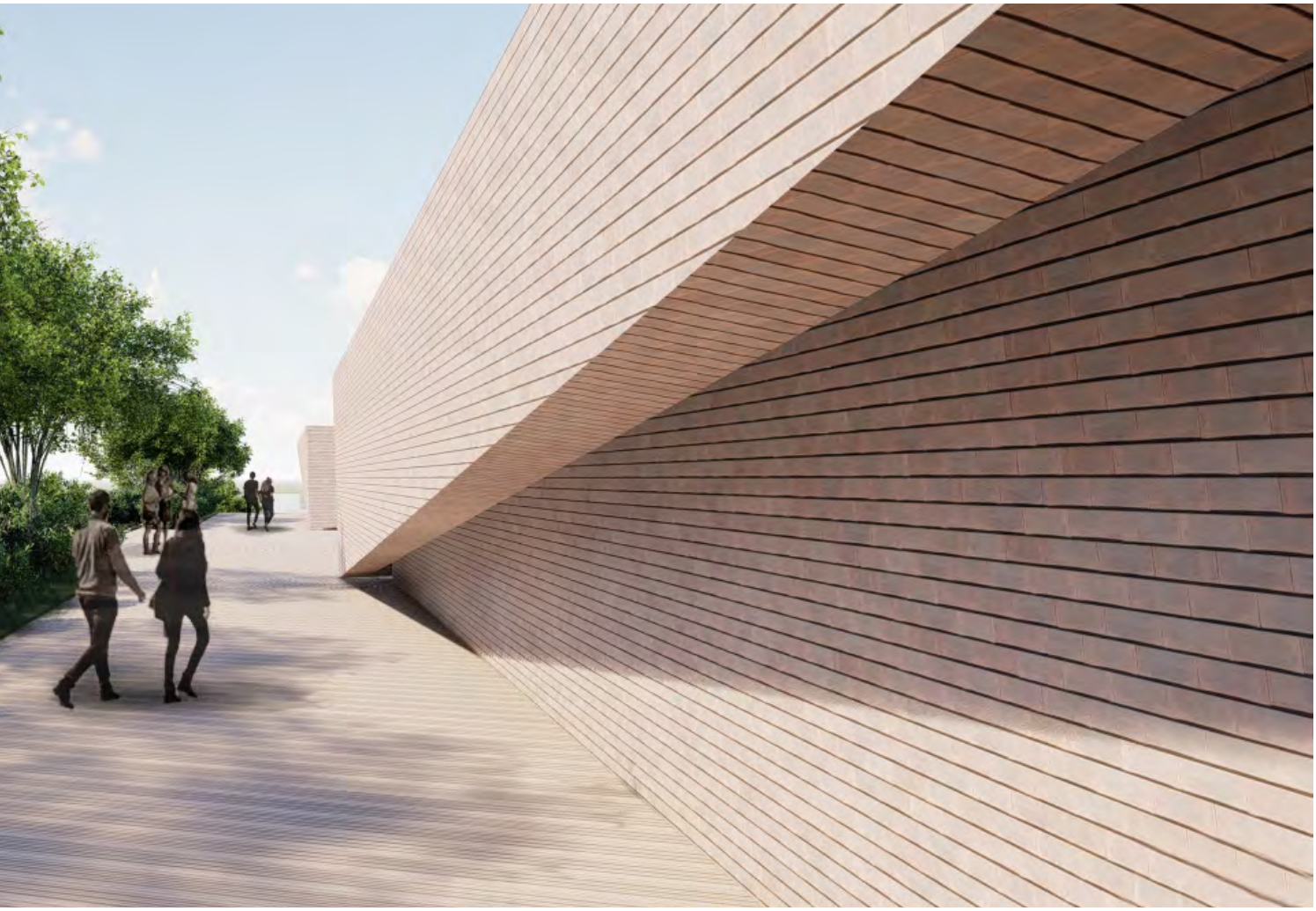
SECTION DETAIL

RENDERS









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• http://www.kadikoy.bel.tr/
• Kadıköy Belediyesi, Imar ve Sehircilik Müdürlügü Arsivi

AGORA OF BODRUM

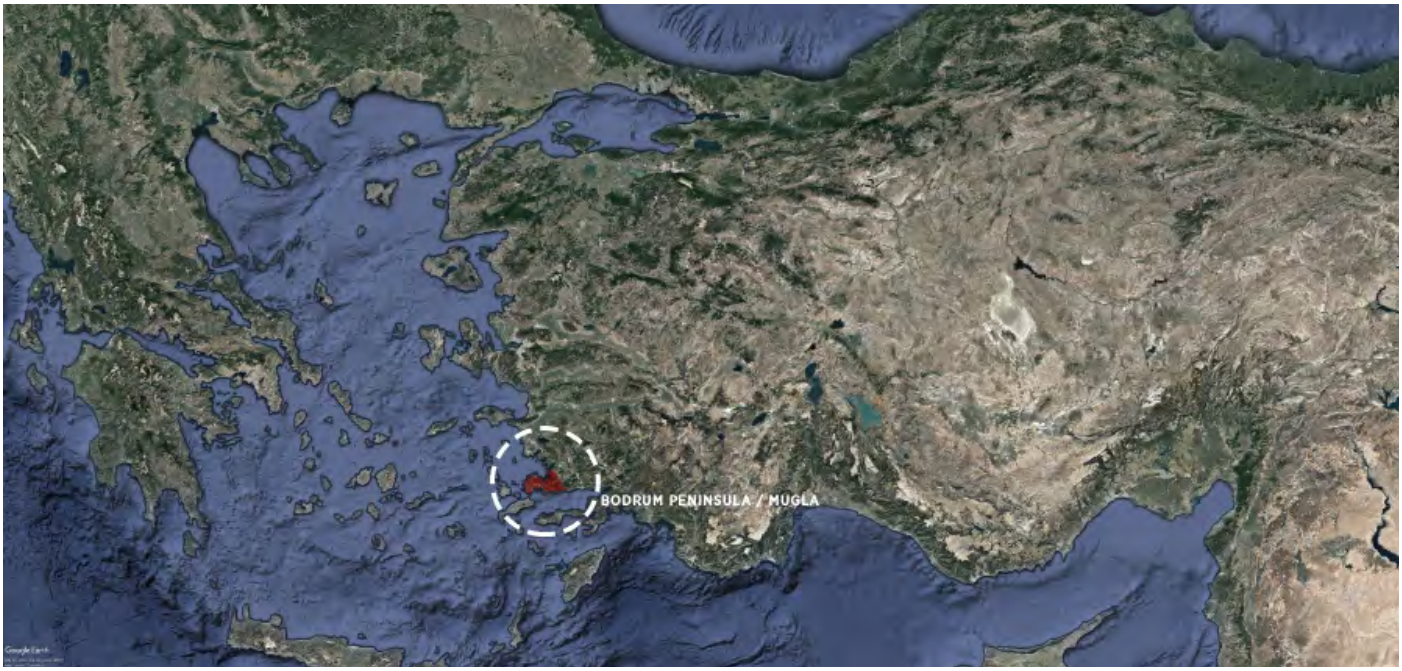
YANKI EKİN DENKER

AGORA OF BODRUM

YANKI EKİN DENKER

Agora is a unique urban texture in Ancient Greece, later forum of the Roman's. Agora of Bodrum is a project aims to rewoke the roots of the ancient port city of Halicarnassus, at the very center of the unique modern texture to create a space of the people. Instead of a shopping mall or privatizing of such a land the area shall be given to people as a space of tradition combined with modernity, proposing a modern agora surrounded by commerce and the local people, an area of freedom, speech and protest.

The pathway to follow is to combine a local bazaar, a public area and the already existing commercials, knitting them together into a space to host foreigners and locals, bring people together. By using local and modern elements the project is a manifestation of a modern day agora.



LOCATION

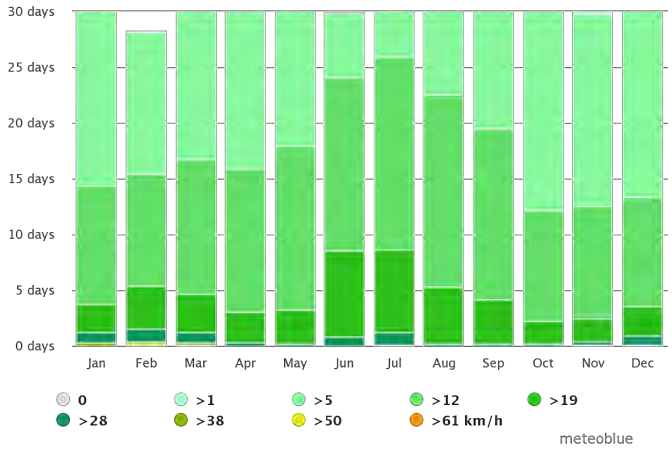
The site is located at Bodrum, Mugla Province.

Bodrum is a district and port city in Turkey's southwestern Aegean region, in Muğla Province. It is situated on the southern coast of the peninsula of Bodrum, at the point of entry to the Gulf of Gökova, and is also the center of the district of the same name.

The world famous Bodrum Peninsula; 3 thousand 500 years of history, culture and art inherited from ancient civilizations, natural beauties, original architecture, agricultural riches, gastronomy, climate, sea and magnificent bays, entertainment life until morning, quality and different concept accommodation facilities that meet all kinds of visitors' needs.

Although the city stands out as a tourism center, it also has a great historical value. Even though its population is 160 thousand, it exceeds 2 million with tourists due to its popularity in the summer months.

Another thing that Bodrum is famous for apart from its beautiful bays is the white limestone covered houses.

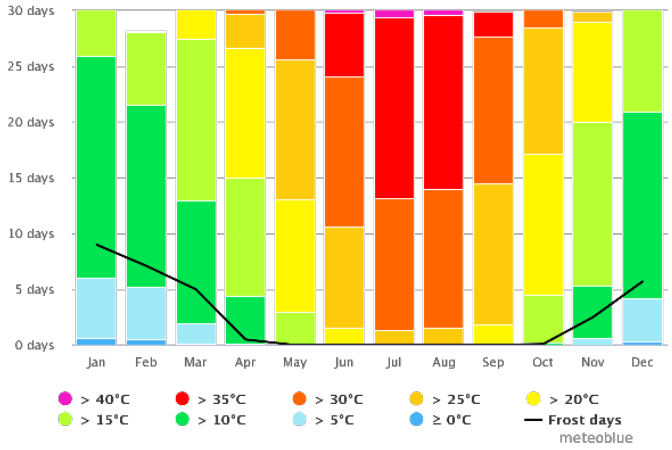


CLIMATE

Bodrum has a hot-summer Mediterrenean climate. There are hot and mostly sunny summers and cool and rainy winters.

In the summer, there is almost no moisture. There is very little humidity in the winter months. It is hot and dry in the summer months, and very hot and rainy in the winter months.

Southern winds are heavy in Bodrum usually bringing the rain to the coast and filling up the creeks. Since the streets are built over the creeks it floods few times in a year. Heavy winds strand the boats.



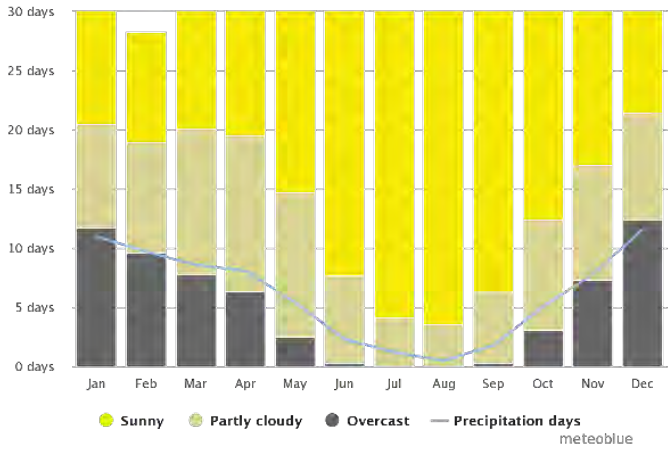
VEGETATION & ANIMALS

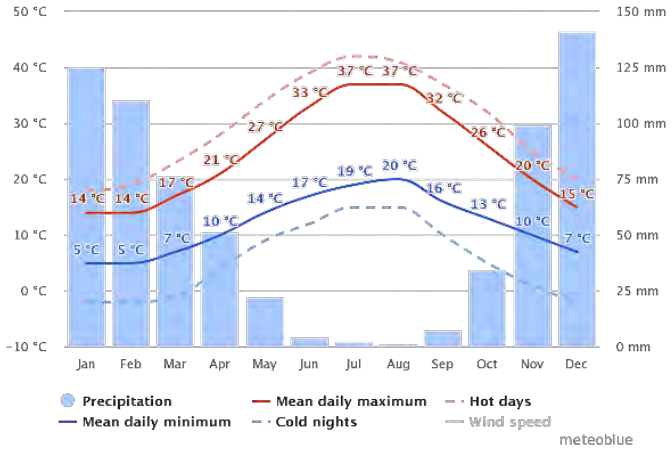
The vegetation of the peninsula is divided into two. Interior / eastern and hilly areas contain forests of red pine, wild strawberry, mrytle and sandalwood.

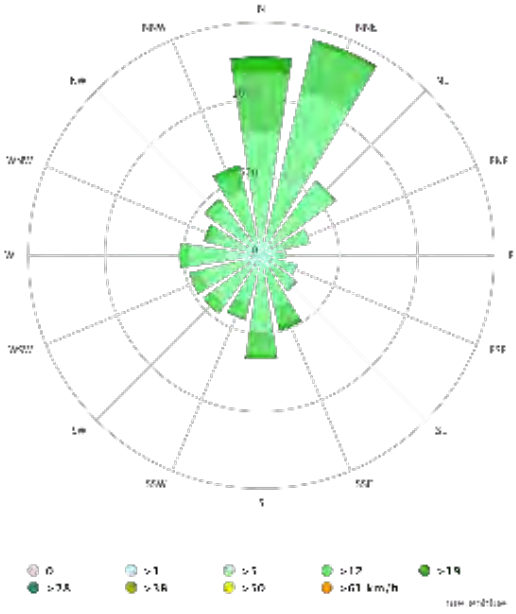
Western side of the main road hosts shrubs, bushes and various short, prickly plants.

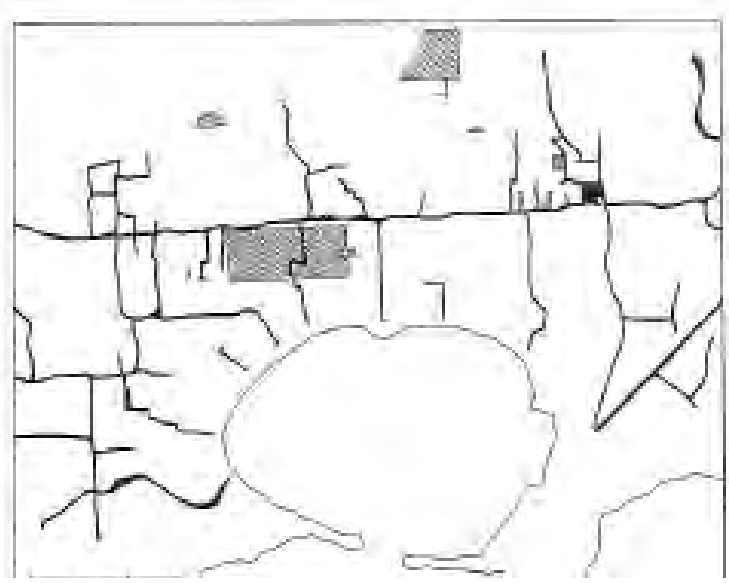
The peninsula is rich of fauna; dolphins, caretta carettas, Mediterrenean seals and various fish types at the sea; hedgedog, snake, hogs, coyotes and foxes at the land and woods.

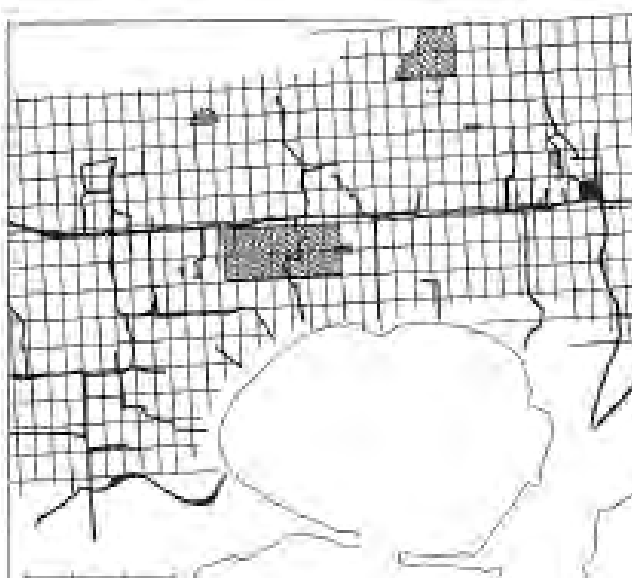
Alongside the wildlife the city provides shelter for a vast number of dogs and cats.











HISTORY

Bodrum harbors the traces of various cultures and civilizations such as Leleg, Caria, Persian, Doric, Helen, Roman, Byzantine and Ottoman throughout history.

Archaeological findings show that Bodrum and its surroundings have a history of 7 thousand years.

According to the famous historian Heredotus of Bodrum, the city was founded by the Dorians around 1000 BC, where the castle is today.

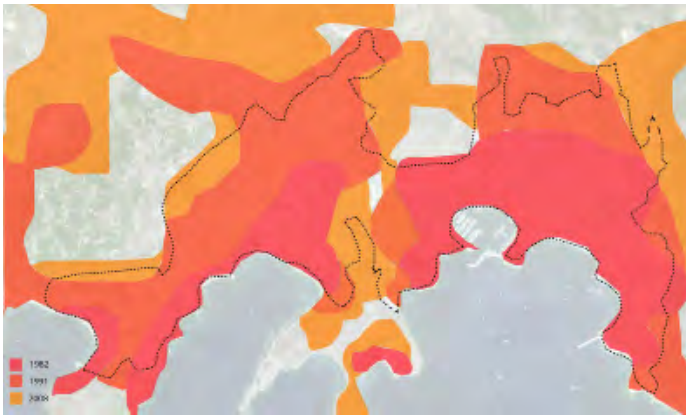
The Carians came under the rule of the Lydians in the 6th century B.C. and then the Persians. The Caria Region, ruled by the Hekatomnos Dynasty, was moved from Mylasa to Halicarnassos by Mausolos.

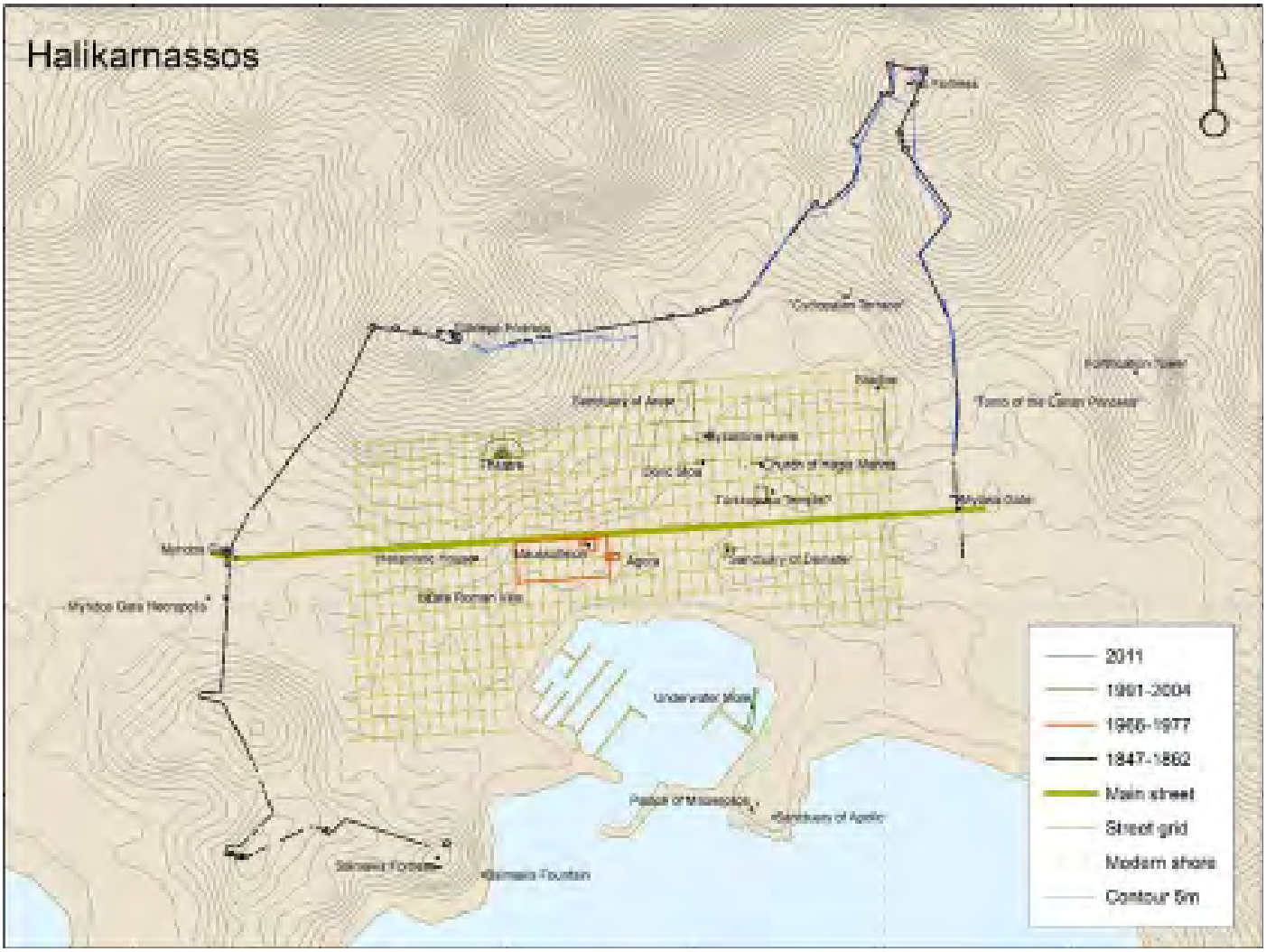
Halicarnassus Mausoleum, which we know as one of the seven wonders of the world, was started to be built by Mausolos, the founder of the city, and was completed by his brother Artemisia II after his death.

The city, which was under Persian rule, was conquered by Alexander the Great in 334 BC, but was severely damaged during this time.

The city of Caria, which was ruled by the generals for a while after Alexander the Great, was first under Ptolemaios and then under the rule of Rhodes, finally became a part of the Asia state, which was founded by the Romans in 133 BC and included the western coasts of Anatolia.

After the division of Rome into two in 324 AD, the city became an episcopacy under the Aphrodisias Metropolitan.





The ancient city plan is gridal, ancient main street is under the current primary route Turgut Reis St.

The city, which was captured by the Turks in the 11th century, joined the Menteşe Principality in the 13th century. During the reign of Suleiman the Magnificent, it joined the Ottoman lands with Rhodes.

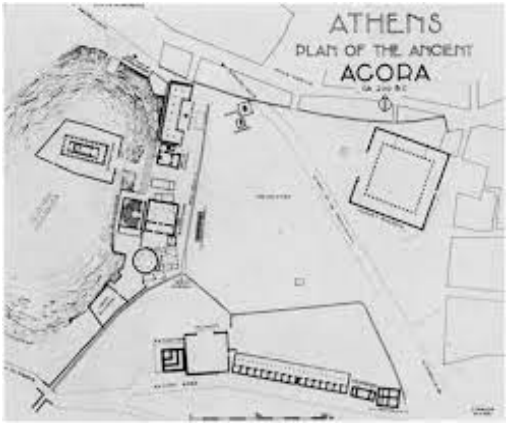
At the end of World War I, it entered the Italian occupation in 1919, but was liberated from the invaders in the War of Independence in 1921.

Serving as a small fishermen's town Bodrum has become one of the most popular places and got bigger.

Bodrum's name comes from the Knights of Saint Petrium. At the time, this name was pronounced as such by the Turks living here, but with the establishment of the Republic, the name became known as Bodrum.

AGORA

A public agora is a city center where commercials, public buildings, stoas shape the area to create a gathering point for the streets. Where the streets join the people sell goods, spend time in public spaces and speak of politics. The agora has evolved in years and take the shape of the forum in Roman era, followed city patterns as the decades passed.



Looking at the examples of the modern cities, built on ancient ground; for example Kemeralti of Izmir, primary commercial district is located over the ancient agora, or the ancient forum rebuilt by Marcus Aurelius. Bodrum stands over the ancient city of Halicarnassus which has the parallel urban structure with the current city, main arteries, the coast and other attributes.

Turkkuyusu Square is an example of the urban fabric of Bodrum with the surrounding buildings and the definition of an gathering area.

Turkkuyusu Square 1982

Turkkuyusu Square 1999

THE SITE

The focus of area covers the industrial site, intracity bus terminal, intercity bus terminal, old bazaar and underground car park.

To investigate the area;

Mugla Metropolitan Municipality is currently relocating the intercity bus terminal from the city center to the entrance of the peninsula, Torba. The aim of the municipality is to prevent huge buses to enter to the narrow streets of Bodrum.

The intracity bus terminal is decided to stay on the site transporting people around the peninsula, from a network connected from Torba Intracity Bus Terminal.

The municipality considers the vast space as to be designed as a public space where people can enjoy after coming from the boats, children to meet there.

The area has constraints for strict building code of Bodrum with vernecular types of buildings, weak substructure and remains underneath the city.

The area has a limitation of 2 storeys and 6.5 meters in height. Due to remains possible and weak substructure; heavy and tall constructions are avoided.

The Terminal

The terminal located at the very center of the town at a junction point, the area is surrounded by commercial zones.

Since the buses bring passengers to the terminal already problematic traffic and creating air pollution around the narrow streets become a bigger issue, so the terminal is relocated.

Bazaar

Bazaar is the largest bazaar around and it is the point where people from all around the peninsula gather and sell their own goods, creating a reflection of the local people and commerce in Bodrum. Bazaar is a vast attraction but the existing building is used only for two days in a week.

The upper floor is designed as an open space, later covered with canopy but the structure is decaying. Weather control is problematic on the structure, underground parking is flooding in rain, the main ground is under heavy winds, cold or rain.

PROPOSING AN AGORA

Aim is to;

redefine the area using the existing and historical references.

to touch the urban problems in larger scale, proposing concepts and ideas

create a public void and a commercial zone

provide a farmers market which will work in any weather condition and create a sustainable solution to existing problems

diminish traffic to allow pedestrian use

open up a public space which people can enjoy

propose a new generation library which will focus on the local culture, arts, flora, fauna and history

offer workshops for the people to inherit the local culture

rather than proposing such a high valued space for a shopping mall or a private investment, offering area for the NGO's and the locals; people to speak and share ideas

URBAN DENSITY

INITIAL PROPOSALS

CASE STUDIES

James Simon Galerie /
David Chipperfield Architects

for the historical references and reflections on the style, modernizing on structural and visual elements

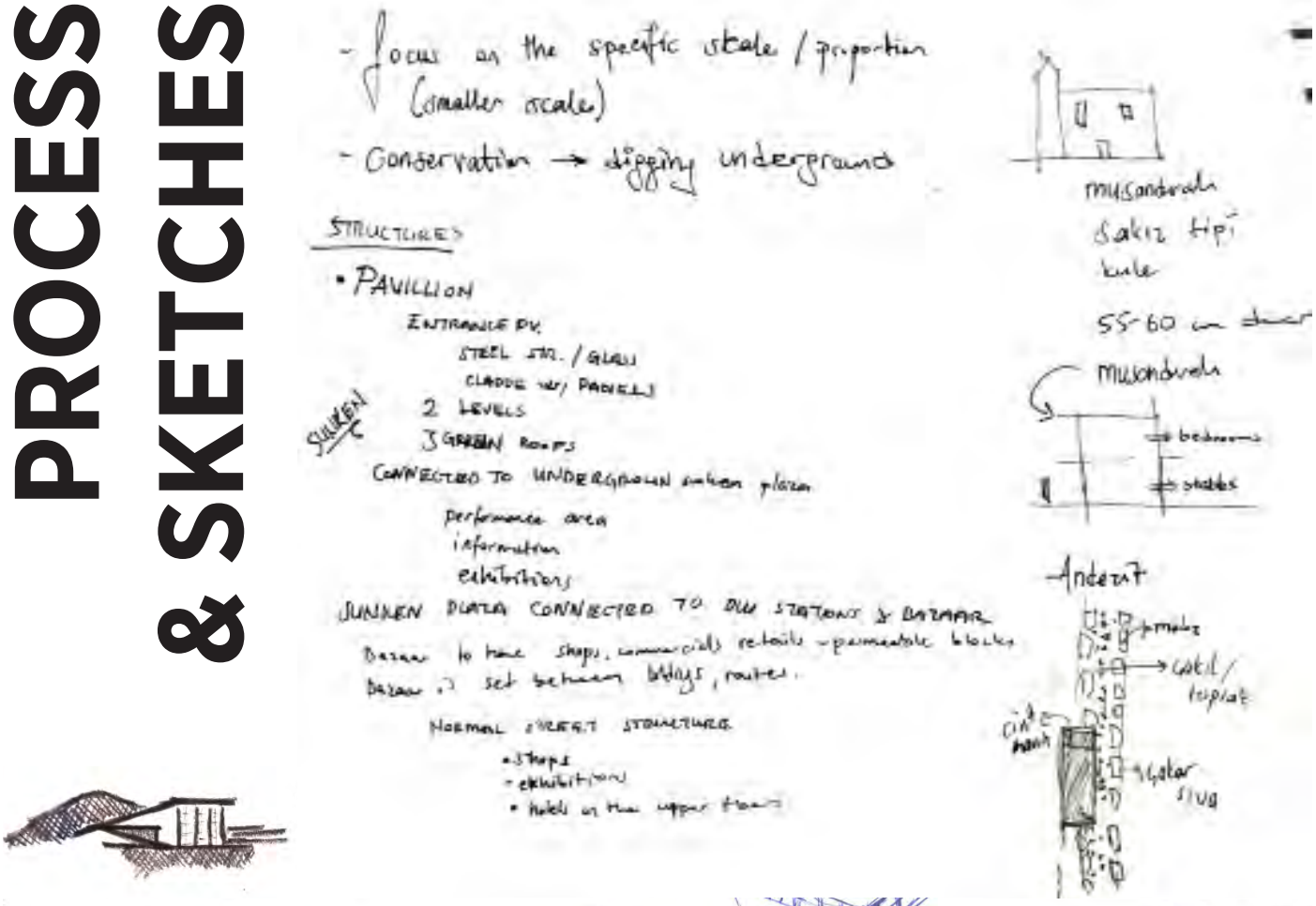
Park Meydan /
ASMA

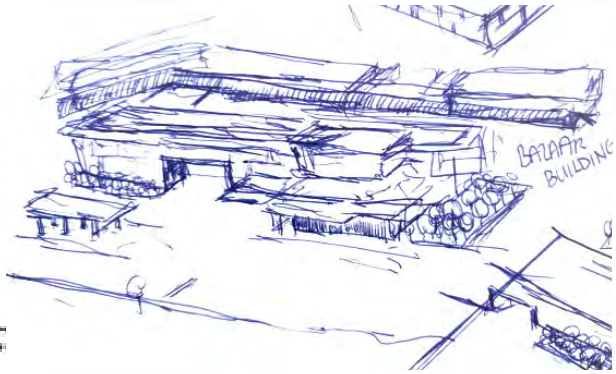
for the landscape design elements

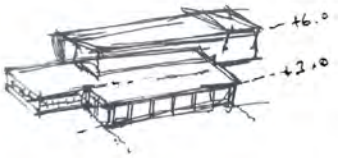
Baltic Station Market /
KOKO architects

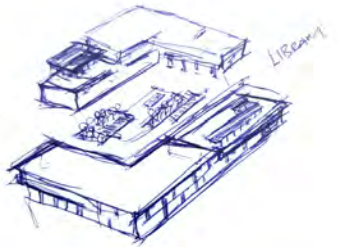
market design & relation with the surrounding buildings

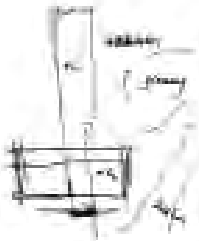
PROCESS & SKETCHES

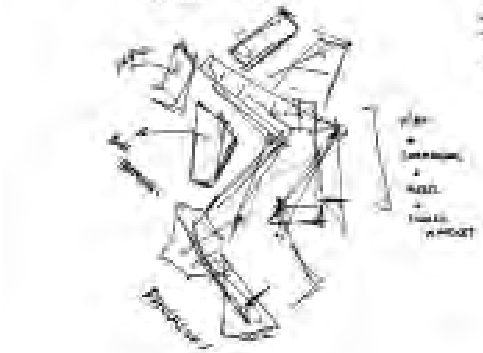


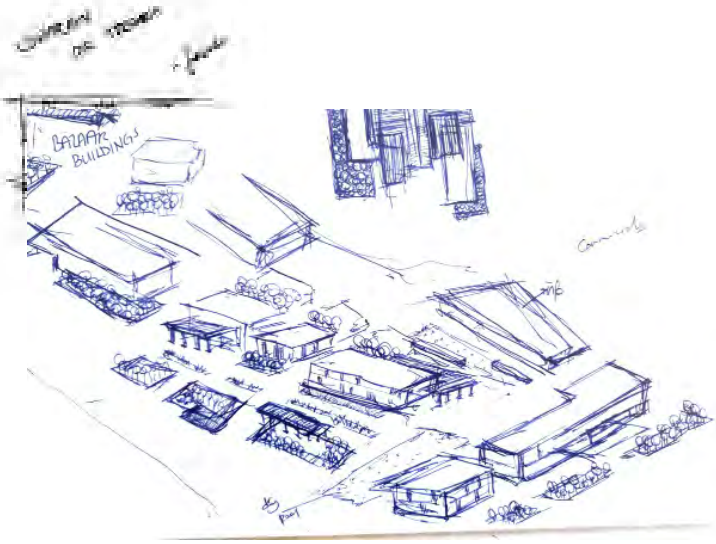








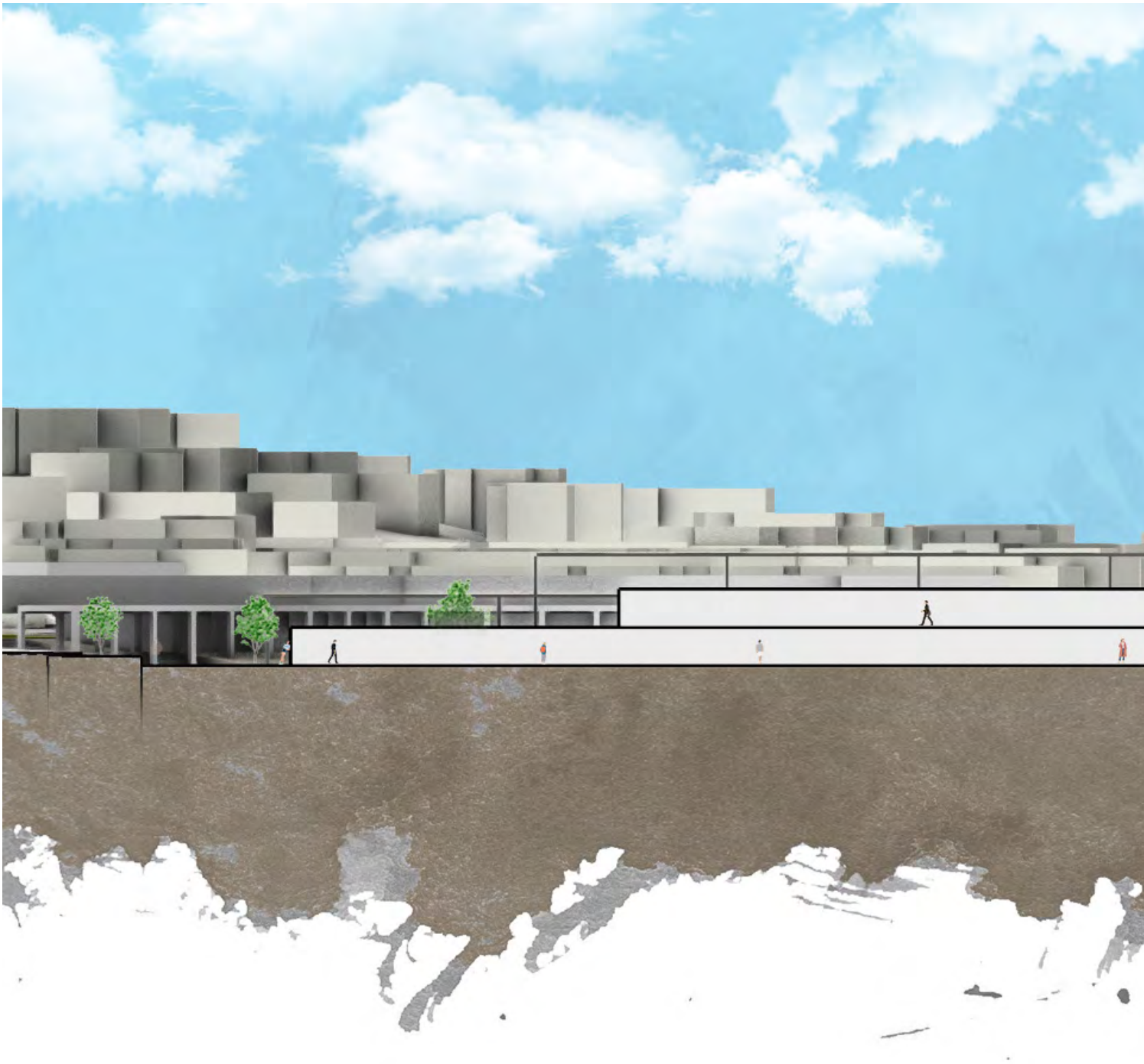




THE AGORA OF BODRUM

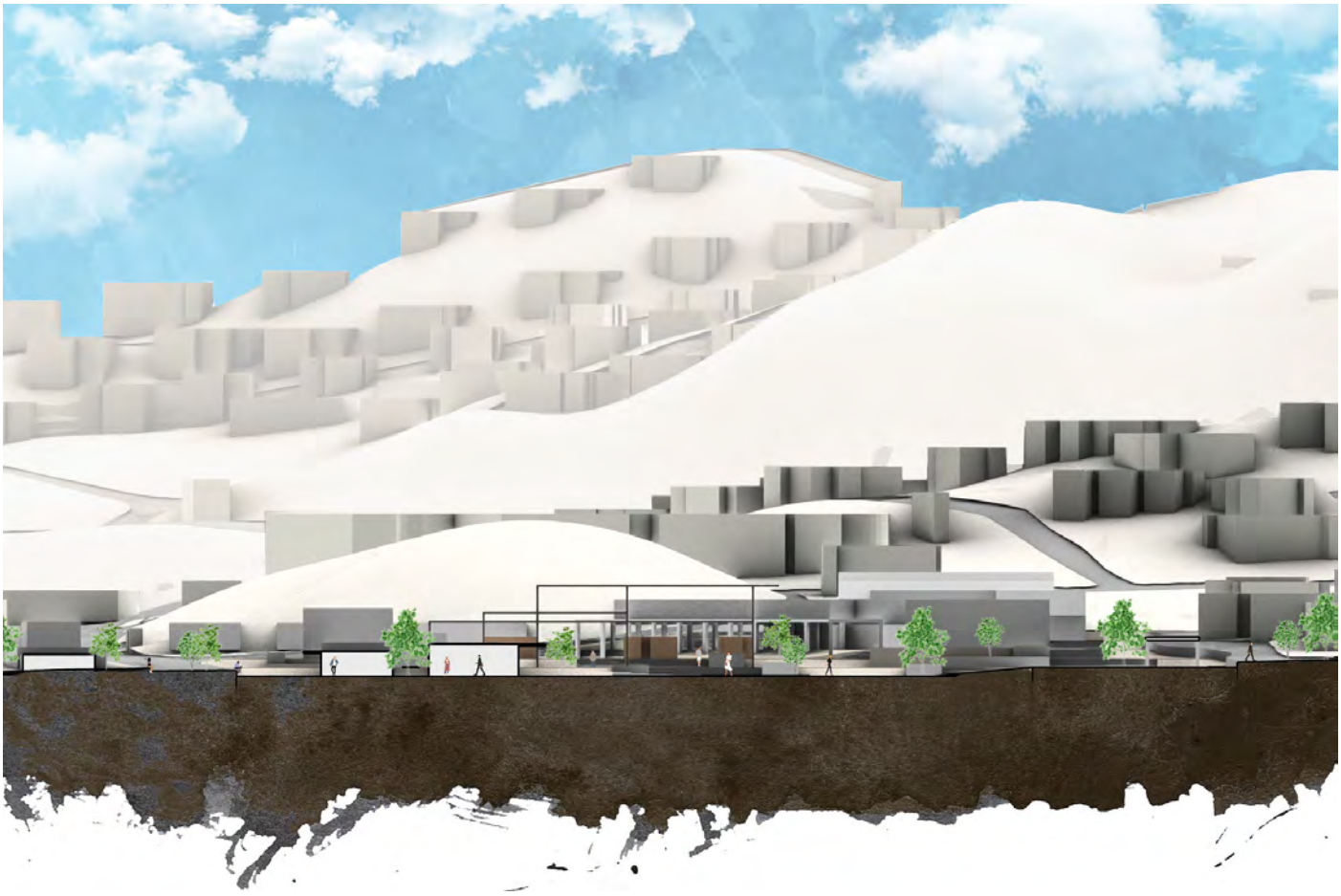
SITE PLAN

KEY PLAN

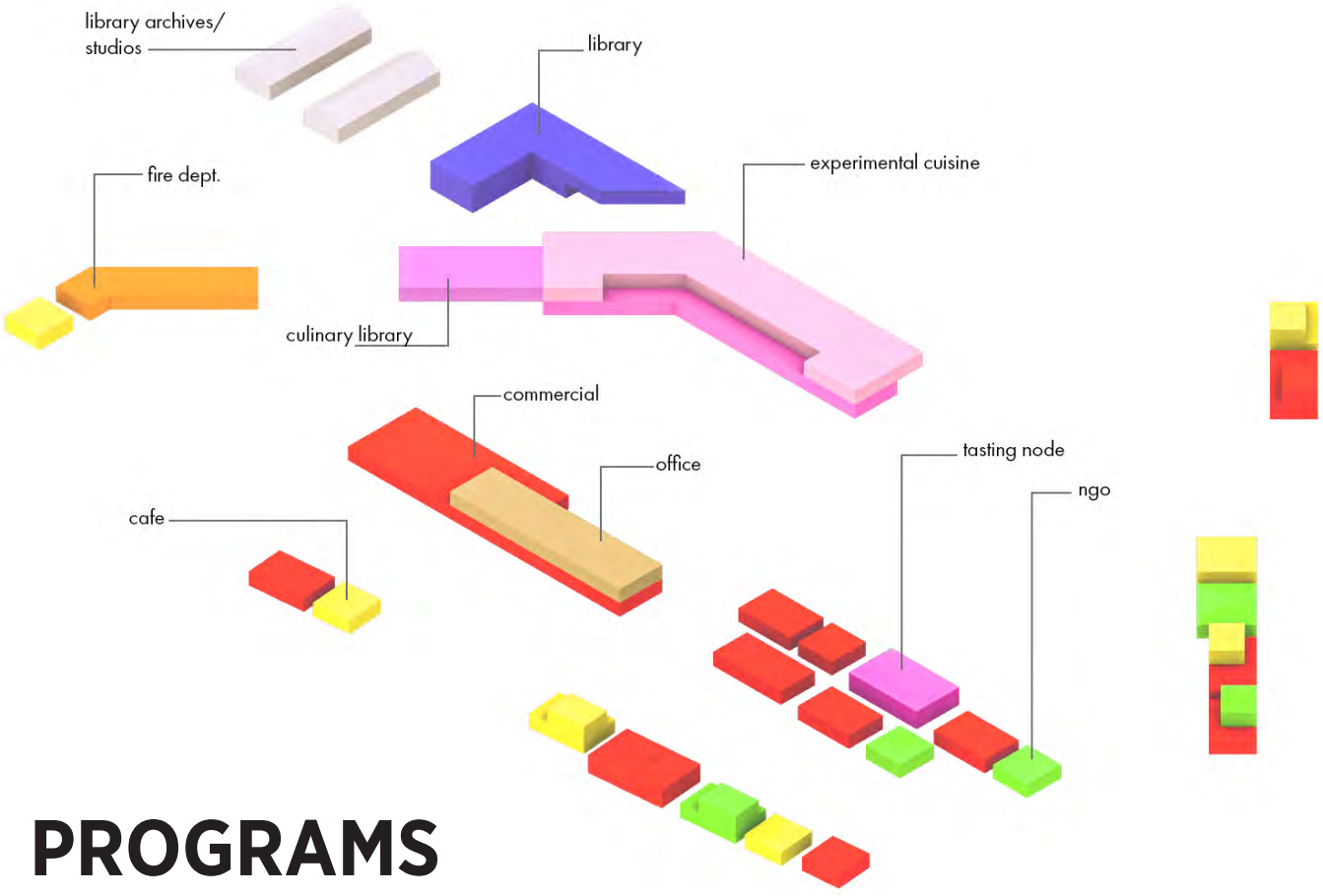


SECTION AA’

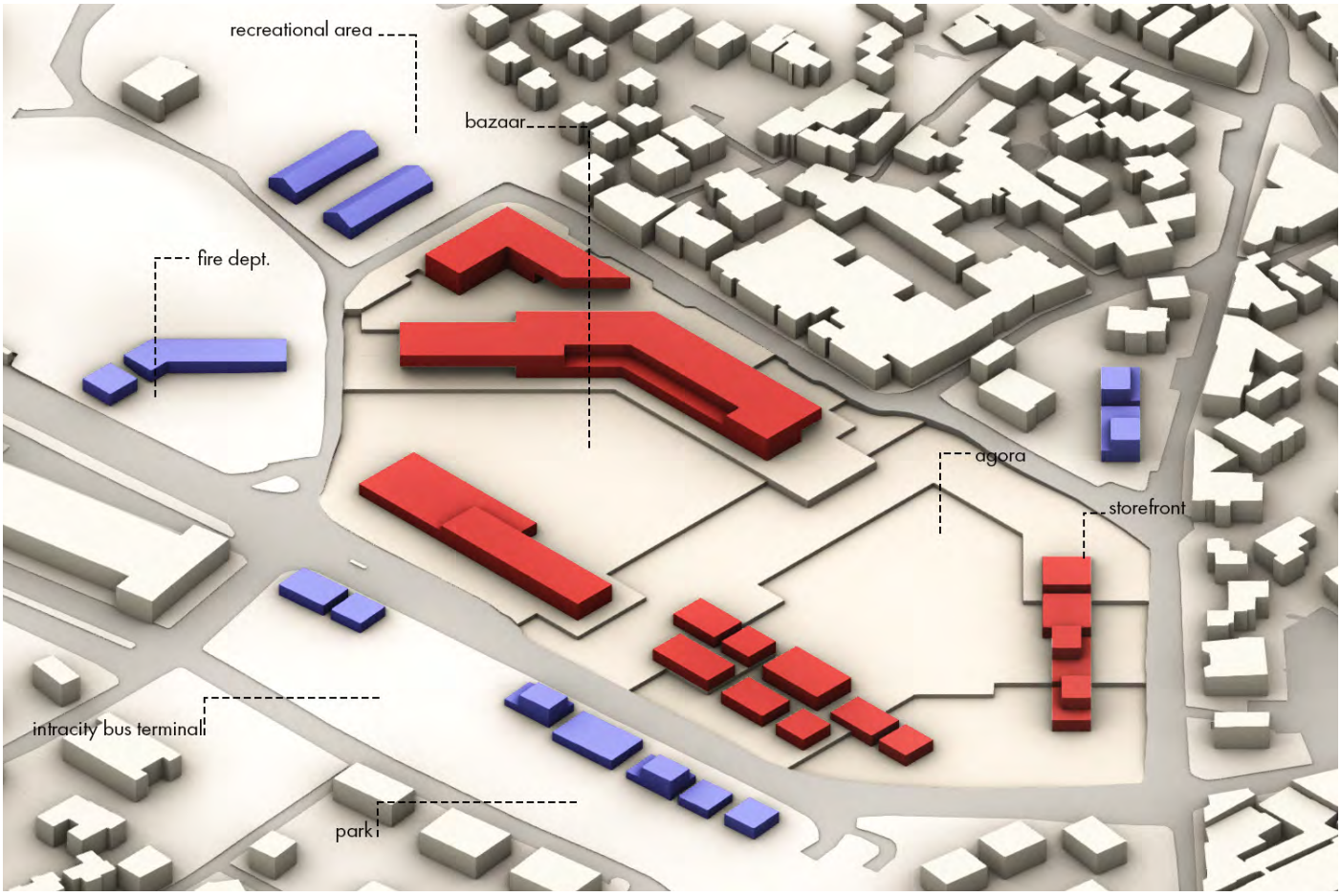
SECTION BB’



SECTION CC'



PROGRAMS


recreational area
bazaar
fire dept.
agora
storefront
intracity bus terminal
park

RENDERS

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Koç, Cengiz, Yıldırım Bayazıt, and Recep Bakış. “A Study on Assessing the Urban Growth, Population, and

Water Resources of Bodrum Peninsula, Turkey,” September 9, 2020. https://link.springer.com/article/10.1007/s10661-020-08594-7/figures/3.

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URBAN MEMORY CENTER ON GALATA WATERFRONT

ZEYNEP SENA EKİZ

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URBAN MEMORY CENTER ON GALATA WATER FRONT

ZEYNEP SENA EKİZ

The scope of the project is designing in an urban context which has an collective memory. The multi-layered cities are facing the problem of choice between keeping the past alive and living in the day. Being one of the oldest settle¬ments of İstanbul and primary commercial center of the recent past, Perşembe Pazarı is having an identity crisis. The dense urban life brings with it the risk of loss of cultural heritage. The traditional sectors of Perşembe Pazarı marketplace are being undervalued and even replaced due to the necessities and ability of the time. The project is specifically designed to make Perşembe Pazarı a place of past, present and the future; an urban memory center.All tangible and intangible values are taken into consideration.

SITE

Perşembe pazarı is located specifically at the intersection area of Azapkapı and Karaköy neighborhoods of Beyoğ¬-lu. The site is located at the northern part of Golden Horn, it is on the coast of Haliç. On the opposite shore Eminönü neighborhood is located. With the view of the historical peninsula and the atmosphere of Bosporus it is one of the places to sense İstanbul.

Perşembe Pazarı has a wide range of transportation opportunities for its visitors. Seaway and railway are the characteristic features of the site.

Land use is mostly commercial which consists of ironmongery, marine industry and craftmanship of that is local to Perşembe Pazarı. The popula¬tion is mostly composed of those local trades people.

With a history dating back to BC 3000, Perşembe Pazarı shows multilayered characteristics of Galata. In 1992 the site was registered as a protected urban site. Galata City Walls, Galata Bedesteni, Kurşunlu Han are some of the significant components of the cultural heritage over the site.

TIME

BC 196
Roman Period

forum
theatre
harbour
city walls
(Galata)

300
Byzantine Period

Galata Tower
Church of St. Paola
(Arap Mosque)
St. Benoit Church

1204
Geneose Period

a spread through
Azapkapı-Sishane
-Galata Tower
-Tophane

1453
Ottaman Period

“han”
“bedesten”
commercial
buildings
bridges
mosques

LINE

2016
application of rehabilitation area

2015
cancellation of rehabilitation area

2012
cancellation of Persembe Pazarı Archeological Site Reconstruction Development Plan by metropolitan muncipality

2011
approval of Persembe Pazarı Archeological Site Reconstruction Development Plan by metropolitan muncipality

2010
declaration of Persembe Pazarı as a rehabilitation area

2002
declaration of Persembe Pazarı as an protected archeological site

1500-1600's
Haliç Shipyard
Persembe Pazarı and marine business
foreign trade
residentials shift to Pera

center of banks
marine business
office blocks
shops
street vendors

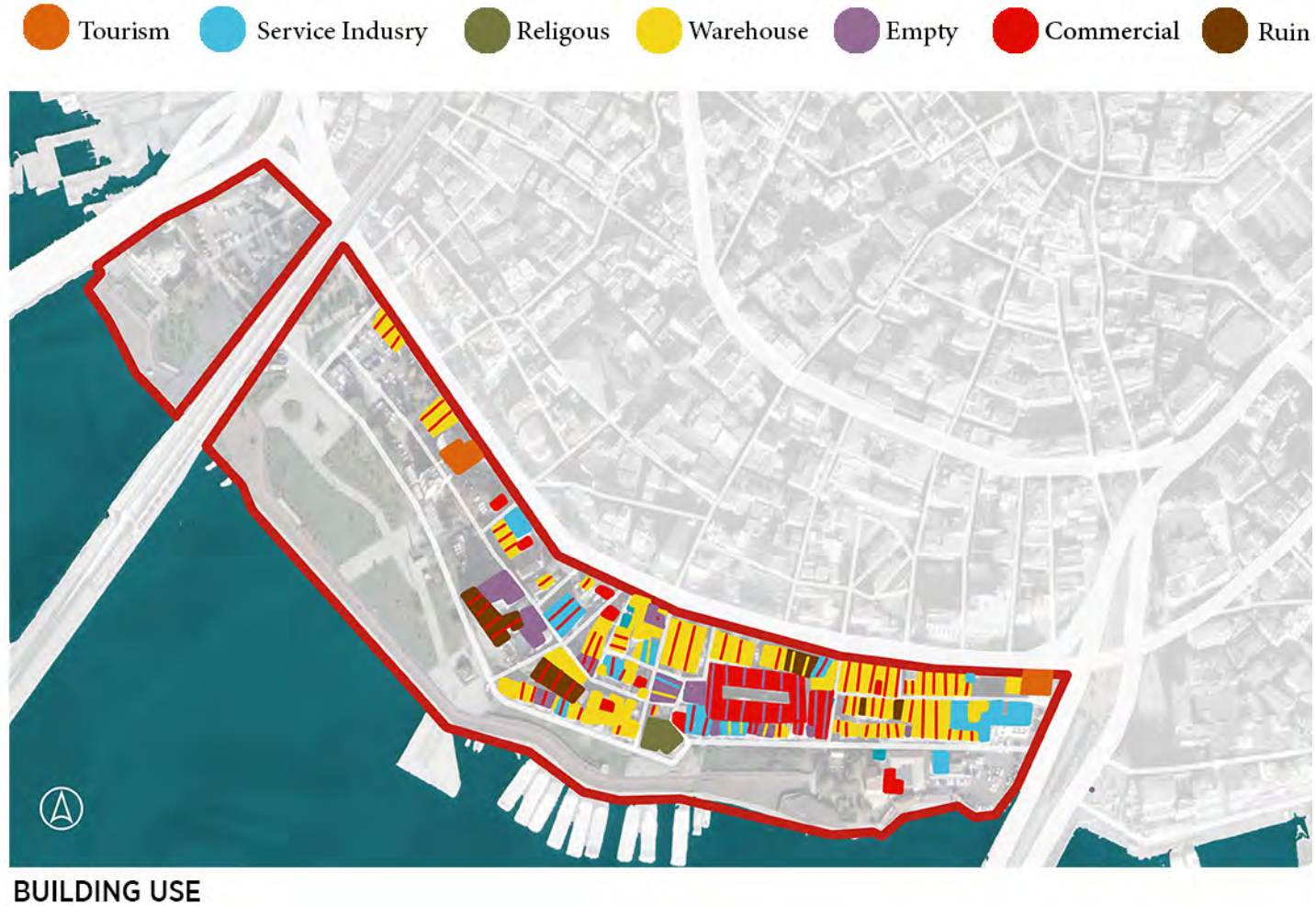
1923
Turkish Republic

1955
Minority groups left the area due to 6-7 September.

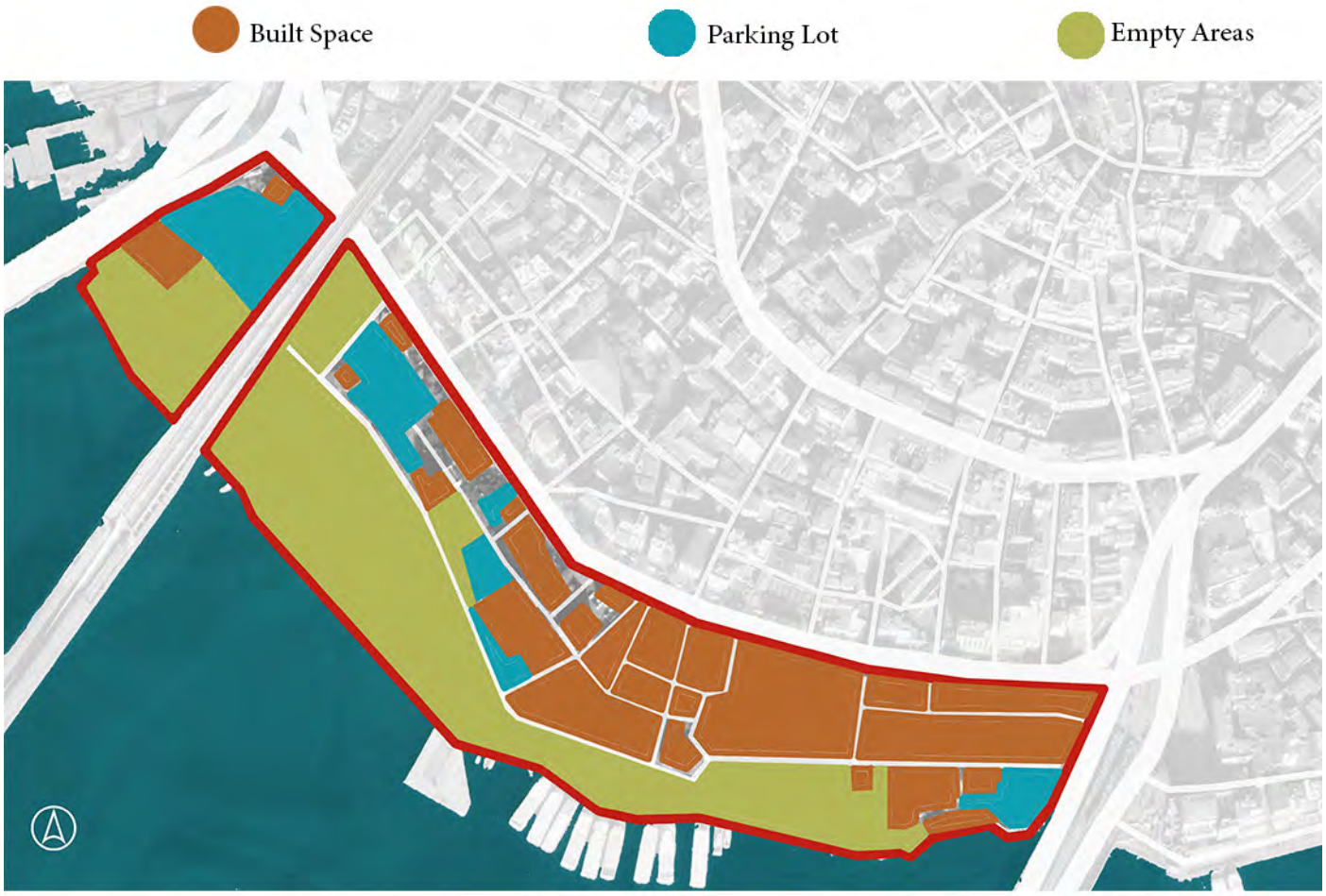
1970-1990
1/1000 Karaköy Azapkapı Master Plan
Haliç Master Plan
PERPA

1800's
first bridge (Azapkapı-Unkapanı)
Galata Bridge
foundation of the head office of Ottoman Bank

CIRCULATION



BUILDING USE



SPACE USAGE

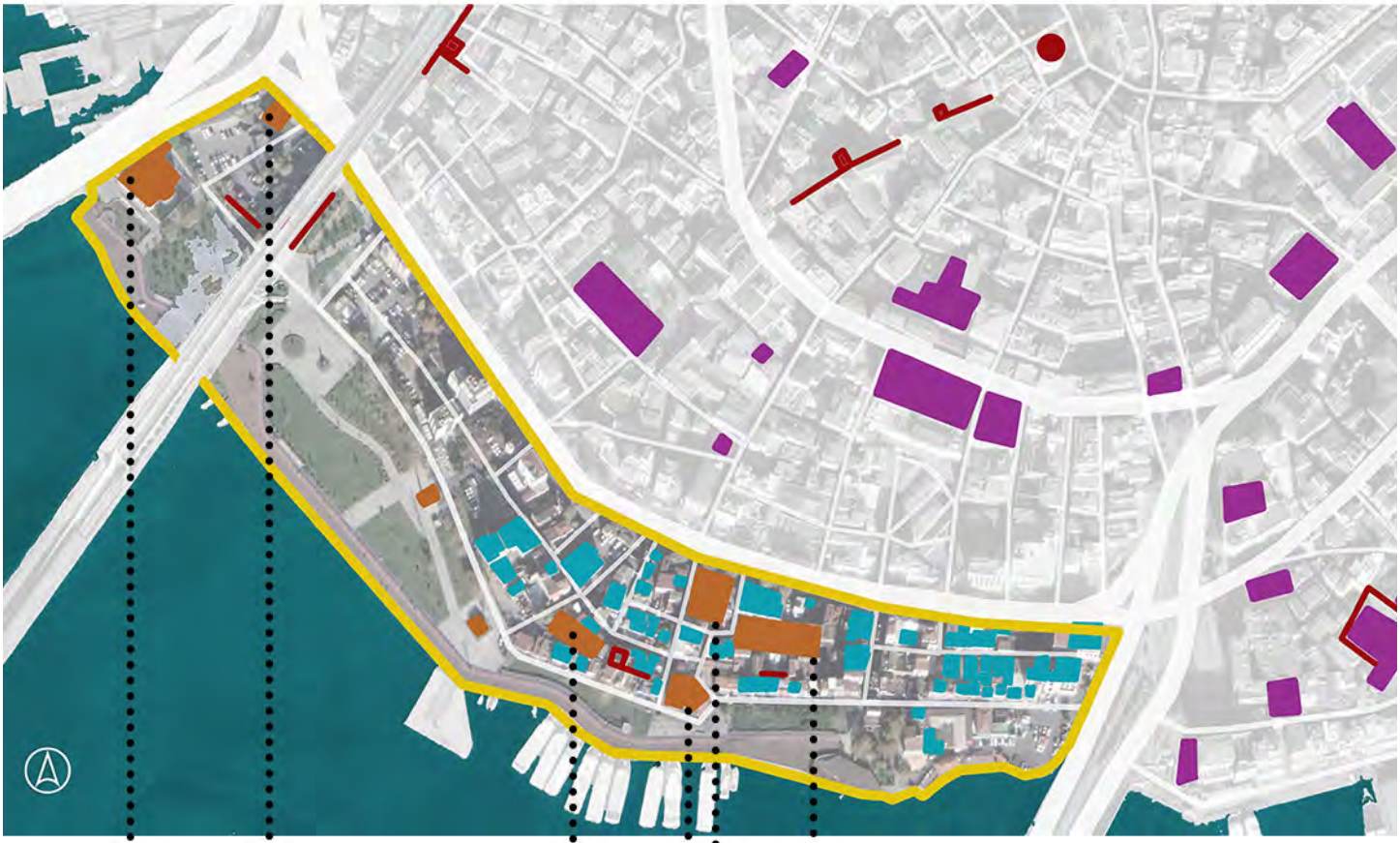
GREEN FIELDS

Registered monumental buildings

Registered civil architecture

Galata city walls

Other important buildings in the outer site



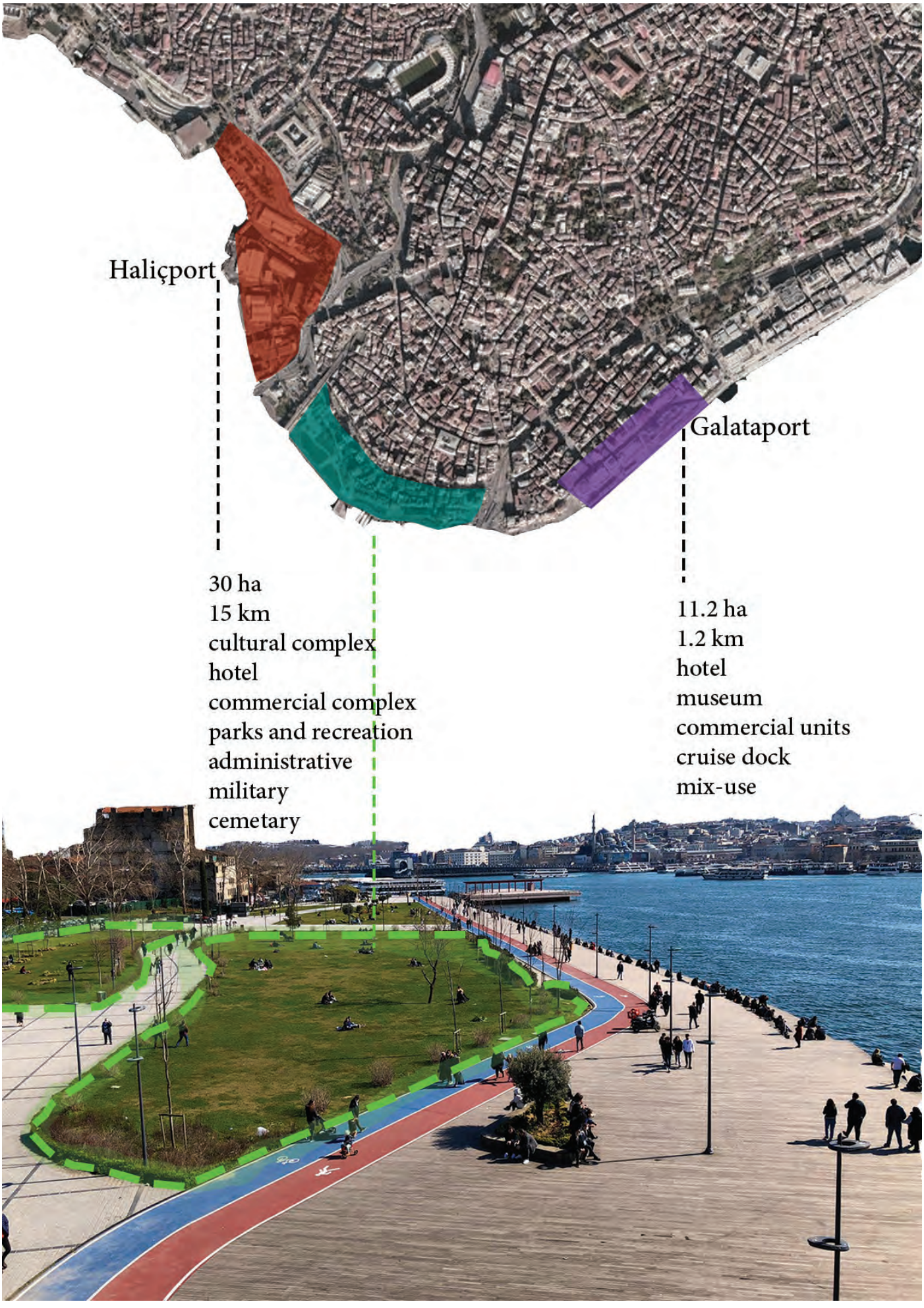
Sokullu Mehmet Paşa Mosque

Yelkenciler Han

Kurşunlu Han

Galata Bedeteni

Yağkapanı Mosque


Haliçport
Galataport
30 ha
15 km
cultural complex
hotel
commercial complex
parks and recreation
administrative
military
cemetary
11.2 ha
1.2 km
hotel
museum
commercial units
cruise dock
mix-use

URBAN ISSUES

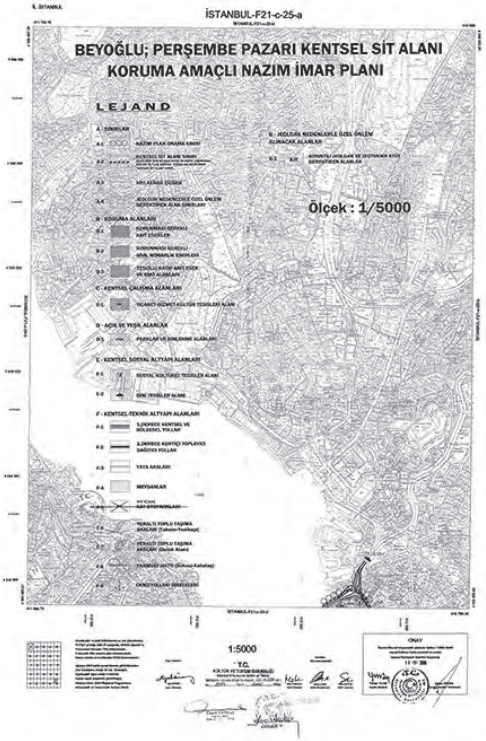
The side streets are far from reflecting the significant layers of Perşembe Pazarı. Sometimes architectural disruption makes the cultural heritage unreadable. The disruption is mostly caused by carelessness and wrong application of architectural elements such as façade, lighting, sun breakers etc. by the local people. Also, irregularity of pedestrian path and its dysconnectivity with the Tersane Street make a weak connection between the street, the waterline and the city.

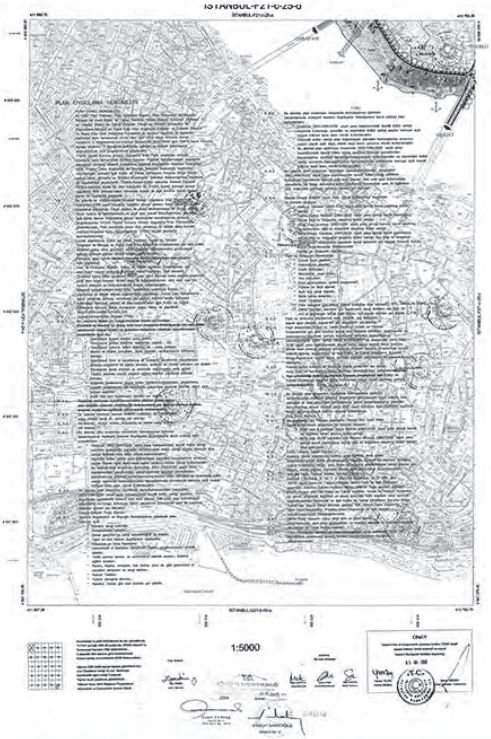
Perşembe Pazarı can be easily divided into four areas according to their characteristics. (A) First area is the square that consists of Sokullu Mehmet Paşa Mosque and metro station. In the second area (B)there are mostly open spaces and parking lots. (3) C is the commercial zone. And (D) the last area is the ferry port zone. That division into four doesn't necessarily mean variety. All of the four are introverted spaces, barely interacting with each other.

Rest of the city, especially Galata is connected to Haliç directly only at four points in the street level which is low for a 90000 m^2 area. As the site has no dialogue in its parts it barely has a dialogue with the city.

The pedestrian circulation also shows a low quality. On Tersane Street there is a high density of traffic. In area A the vehicular traffic meets the pedestrian traffic and this situation sets the ground for an irregular pedestrian circulation. Also, street width is another parameter for the quality of pedestrian circulation. Perşembe Pazarı has really narrow streets that nearly stops the pedestrian traffic in case of a vehicular entrance.

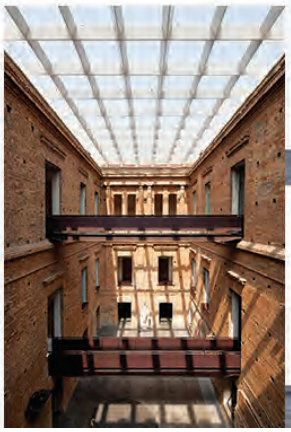
LITERATURE REVİEW



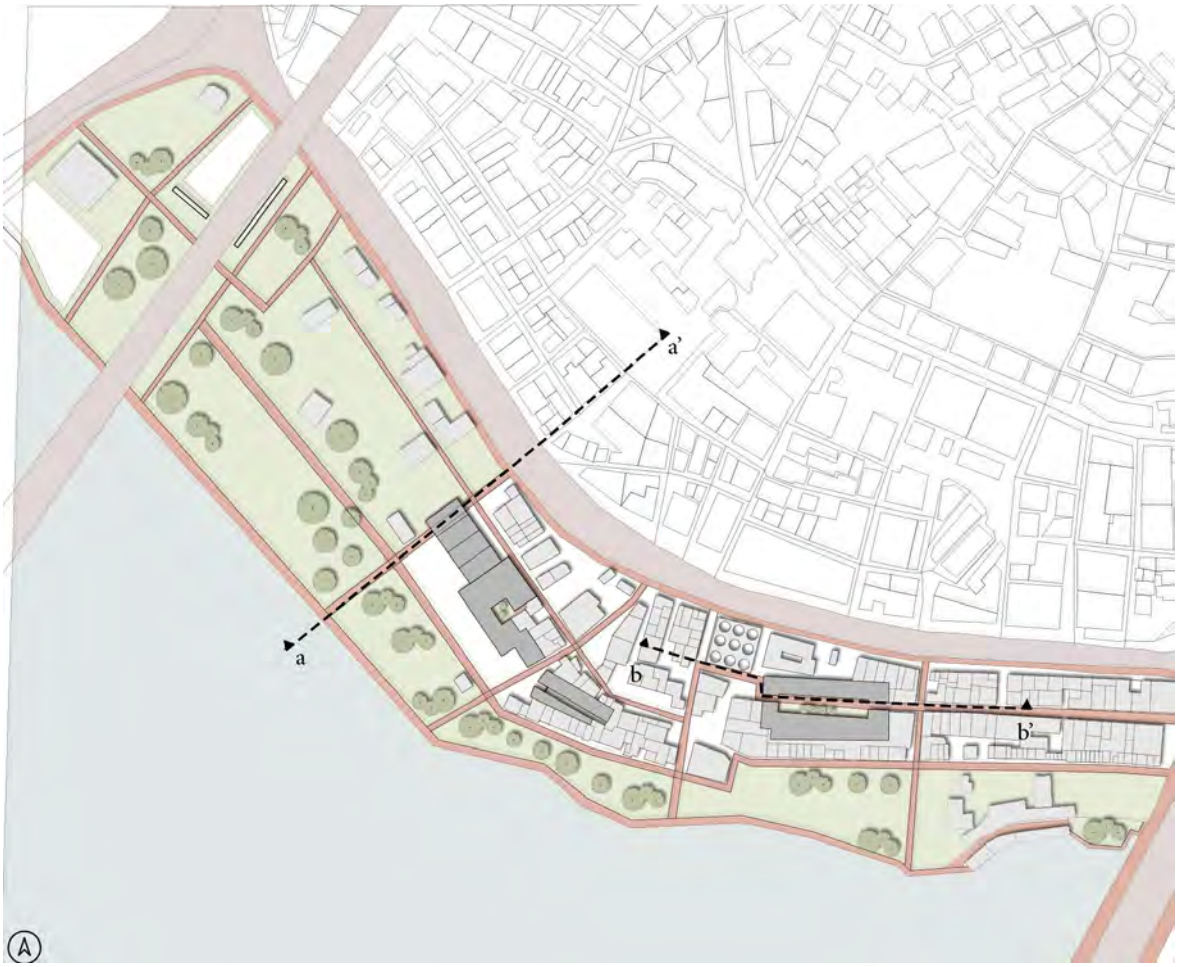


ADAPTIVE REUSE

Adaptive reuse is a term used for the process of reusing an existing building and defining it a function other than which the building was originally constructed for. It prevents building demolition and helps those buildings to become components of urban life. It is good for sustainability and circular economy. Many of the architectures are turning to adaptive reuse as a solution to contemporary built environment such as environmental reasons, land availability, loss of historic values etc.
With adaptive reuse we can bring new life into the abondoned buildings in fornt of Yelkenciler Han and at the south-east side of the site.

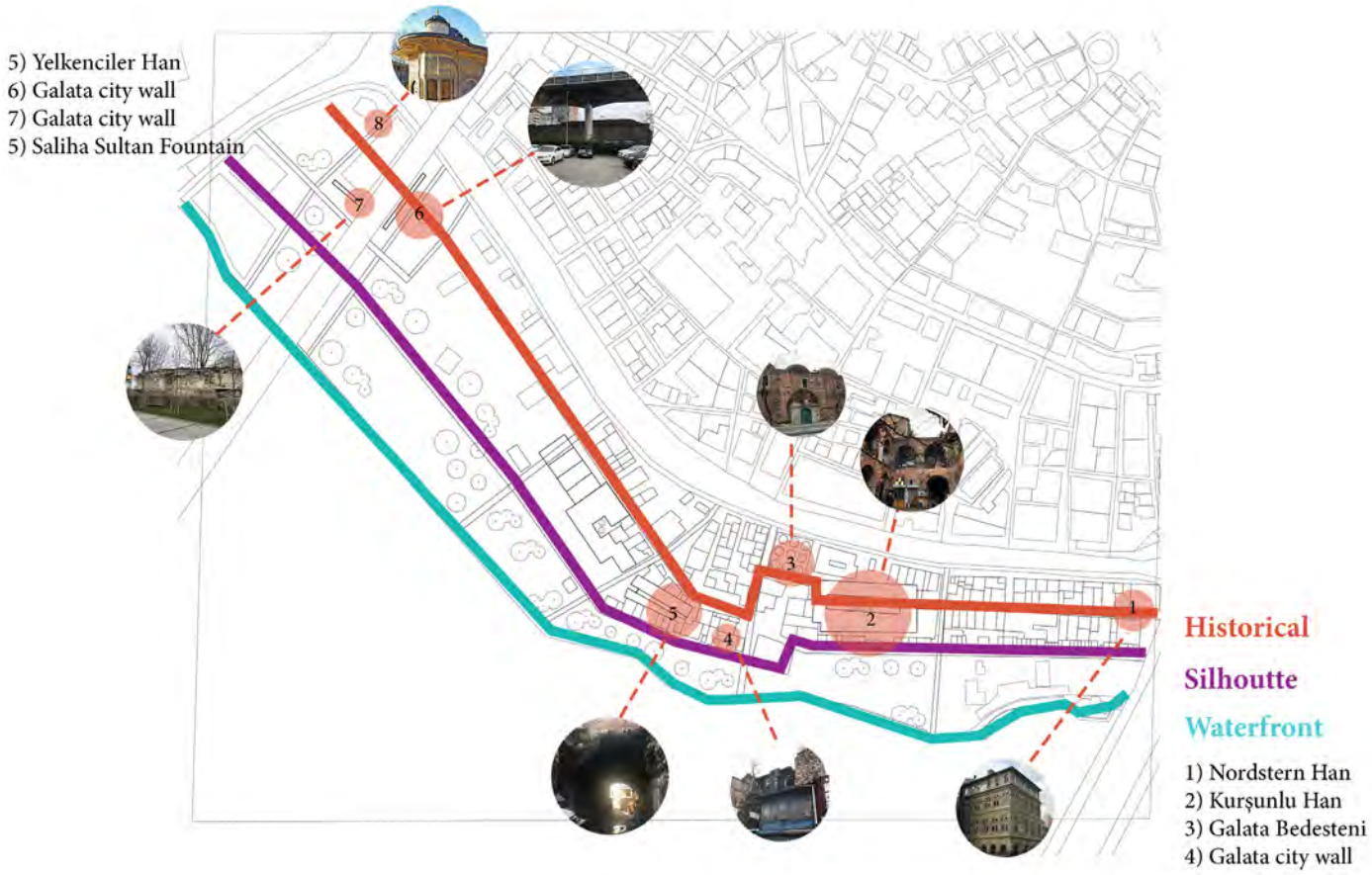


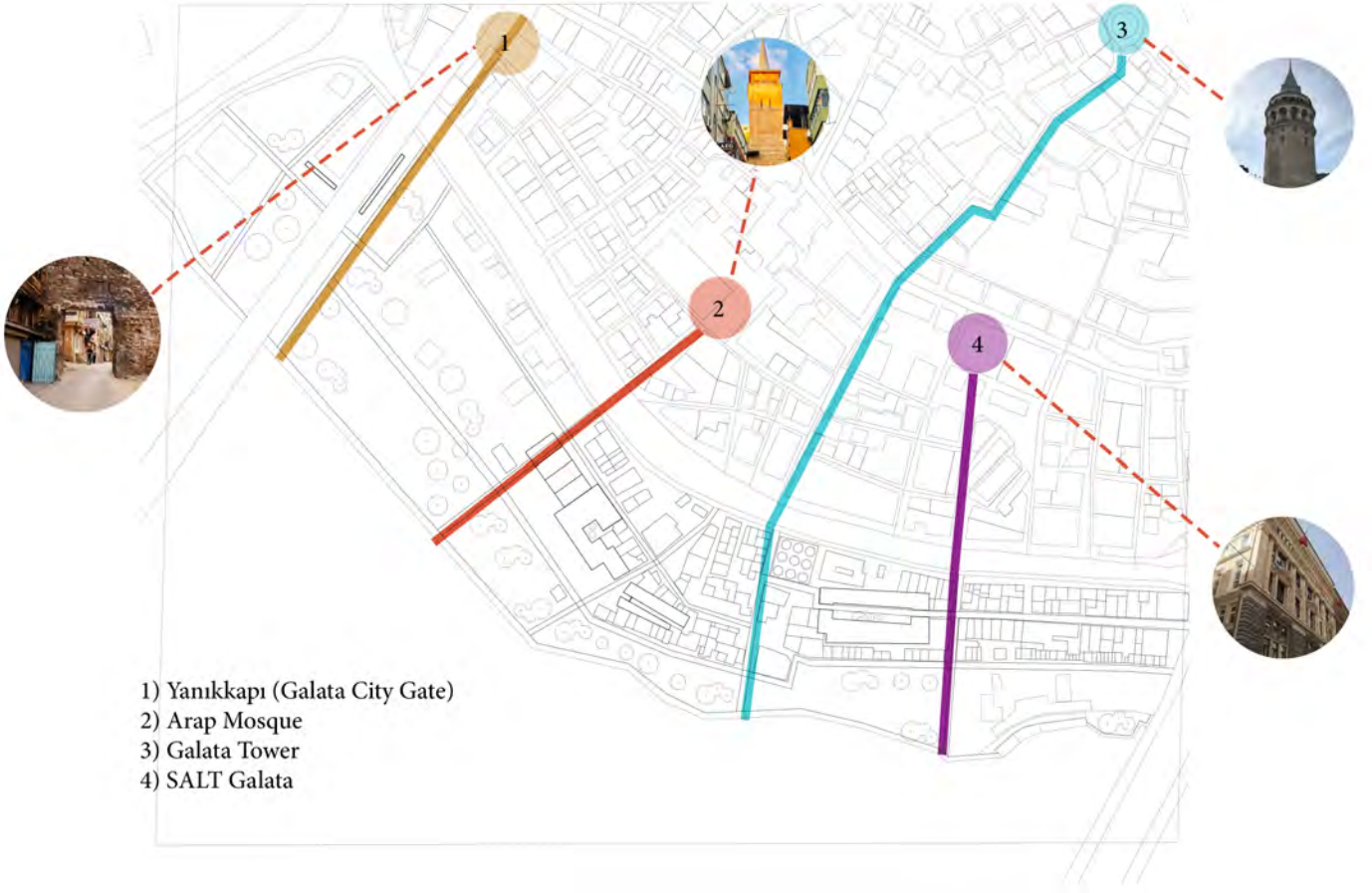
MASTER PLAN



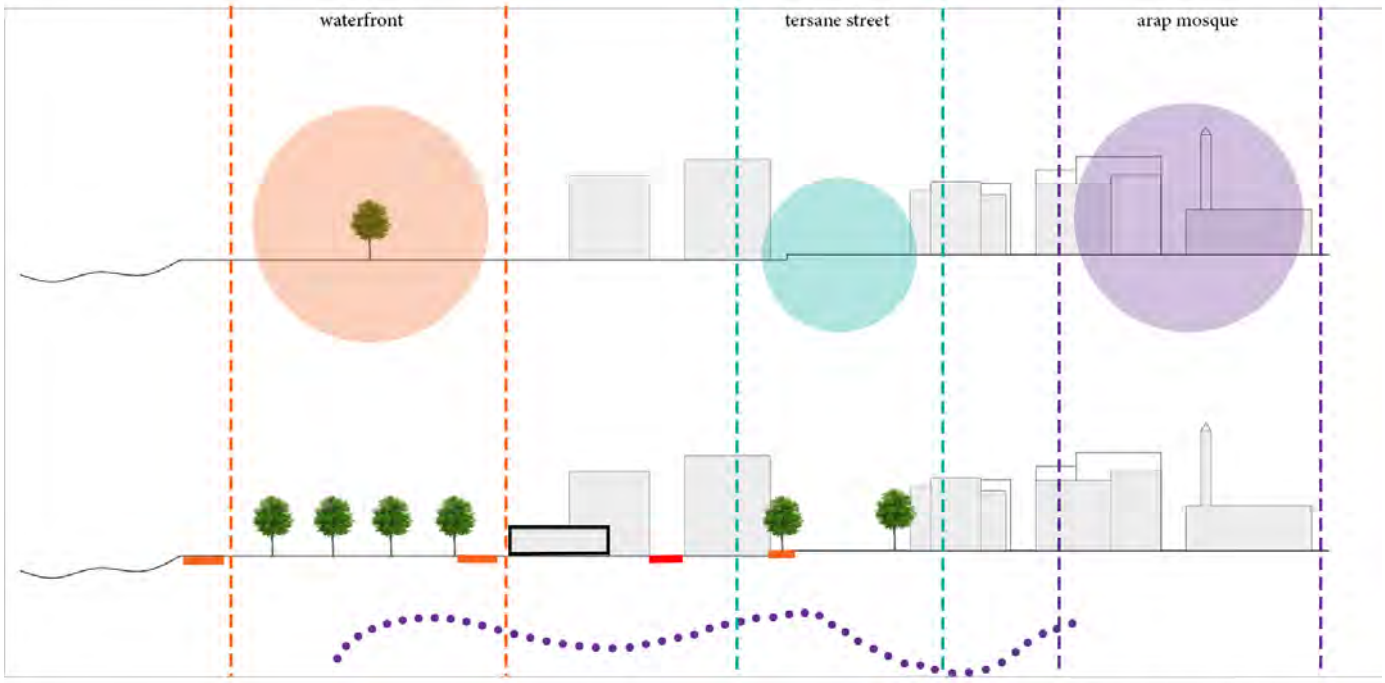
NOLLI MAP

AXIS

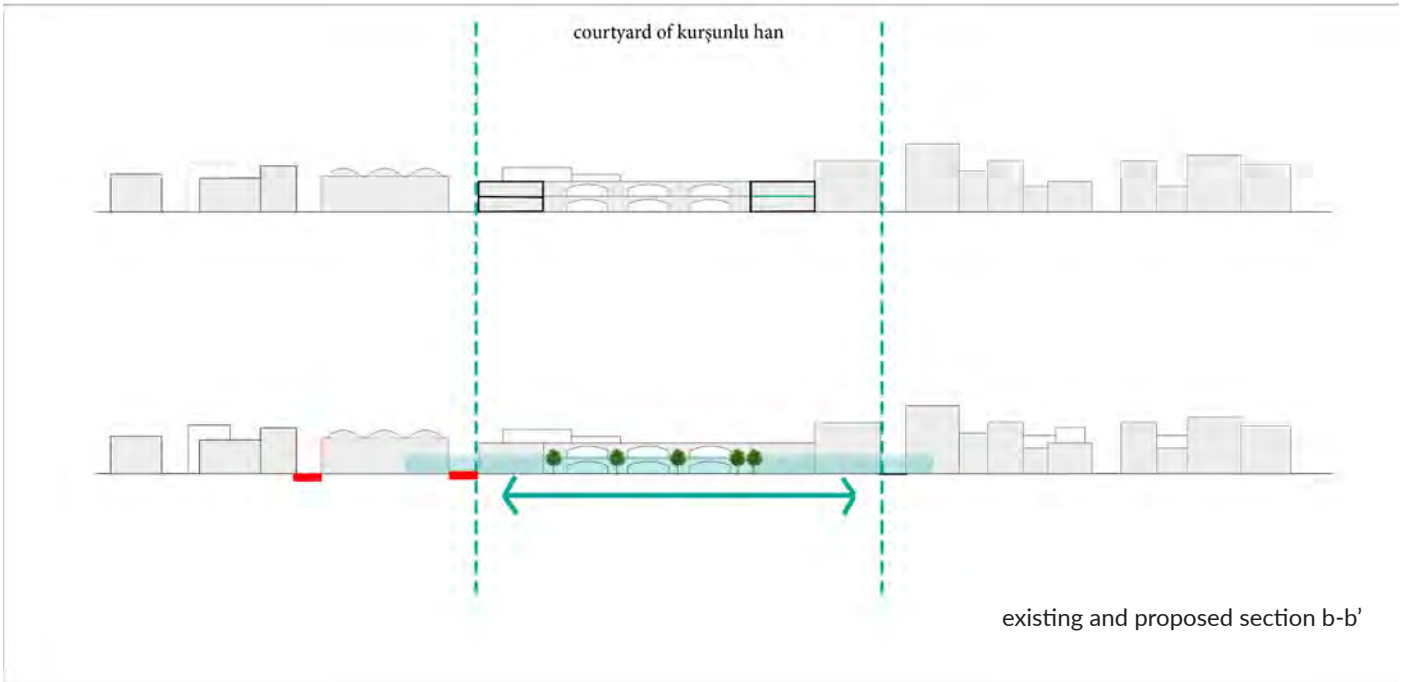

5) Yelkenciler Han
6) Galata city wall
7) Galata city wall
5) Saliha Sultan Fountain
8
7
6
5
4
3
2
1
Historical
Silhoutte
Waterfront
1) Nordstern Han
2) Kurşunlu Han
3) Galata Bedesteni
4) Galata city wall


1
2
3
4
1) Yanıkkapı (Galata City Gate)
2) Arap Mosque
3) Galata Tower
4) SALT Galata

SITE SECTIONS



existing and proposed section a-a'



existing and proposed section b-b'

STRUCTURE AND FUNCTIONS

yelkenciler han kurşunlu han

redesigned
reused

steel frame structure

products that are produced in the site will be used in the design and art ateliers

double skin of glass and polycarbonate

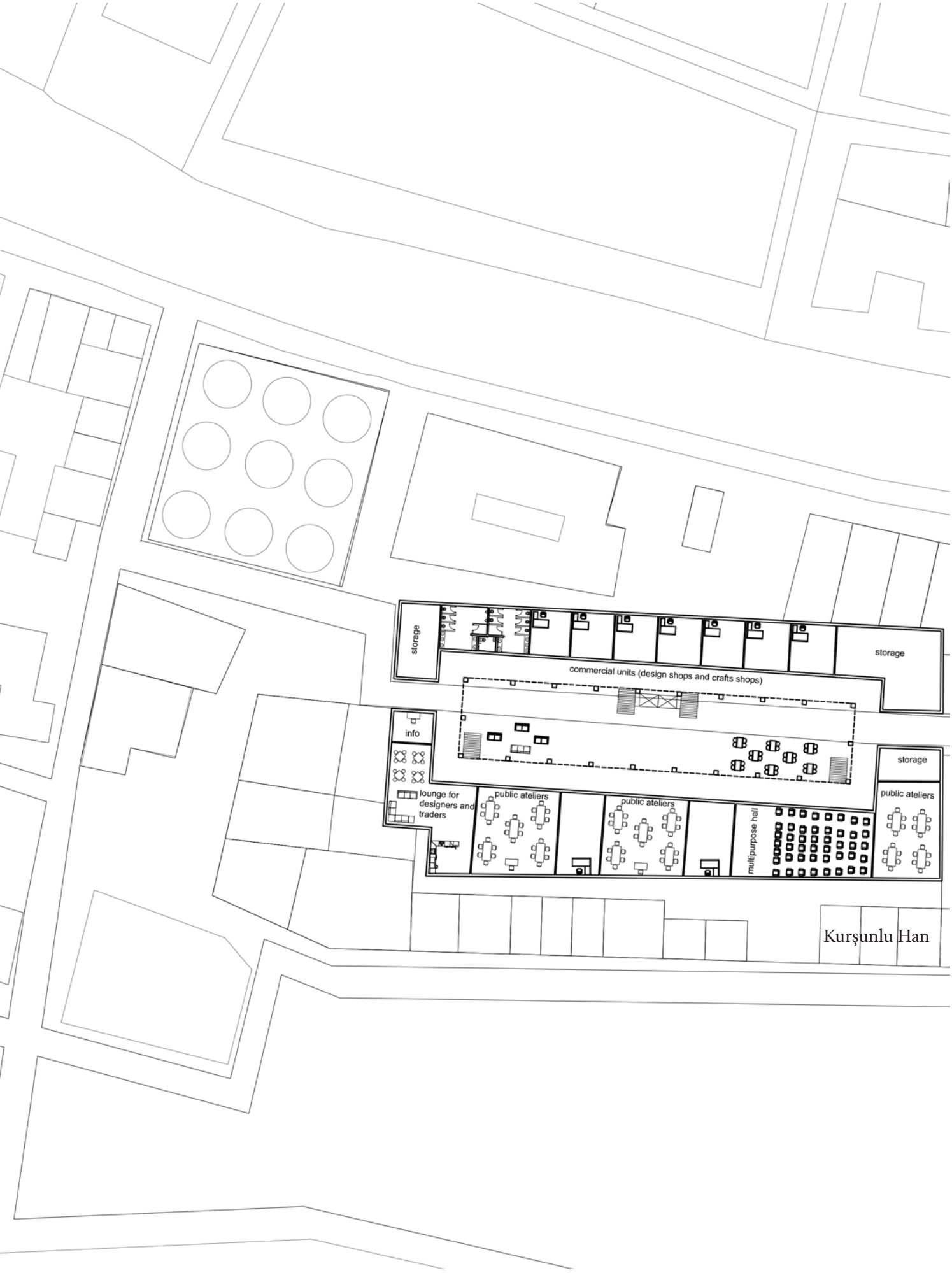
musem and gallery spaces for the (art, architecture and crafts) history of

additional structural strenghtening

ateliers and commercial units for the local craftsmen, tradespeople and designers

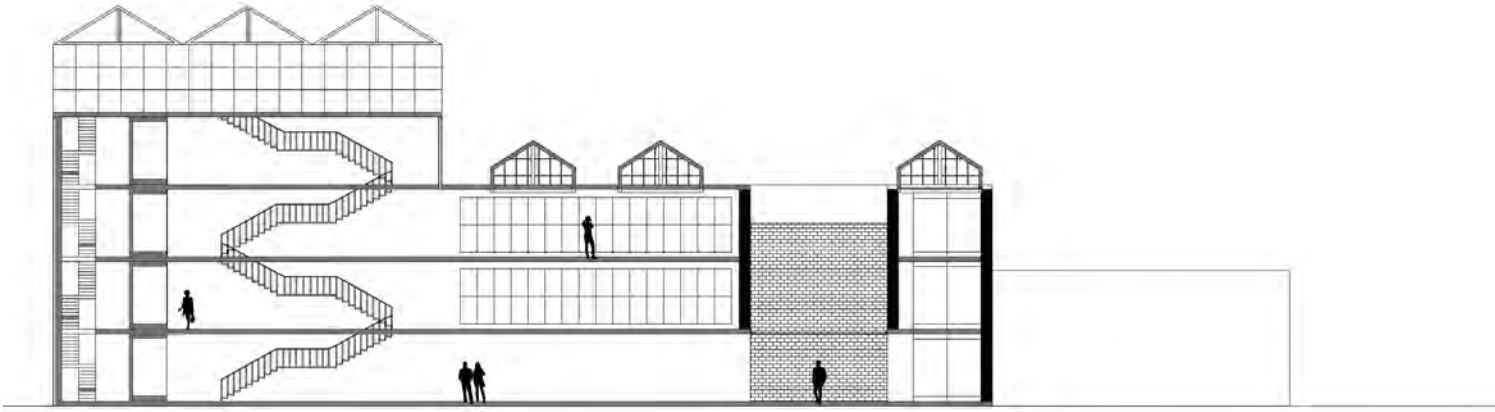
modular steel frame

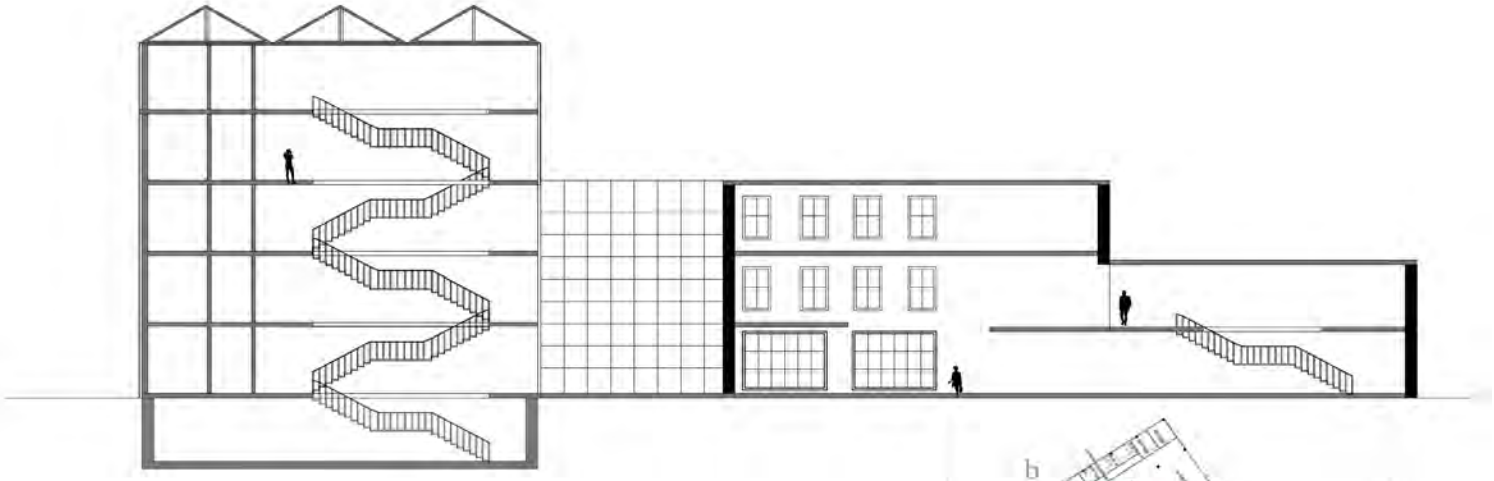
GROUND FLOOR PLANS



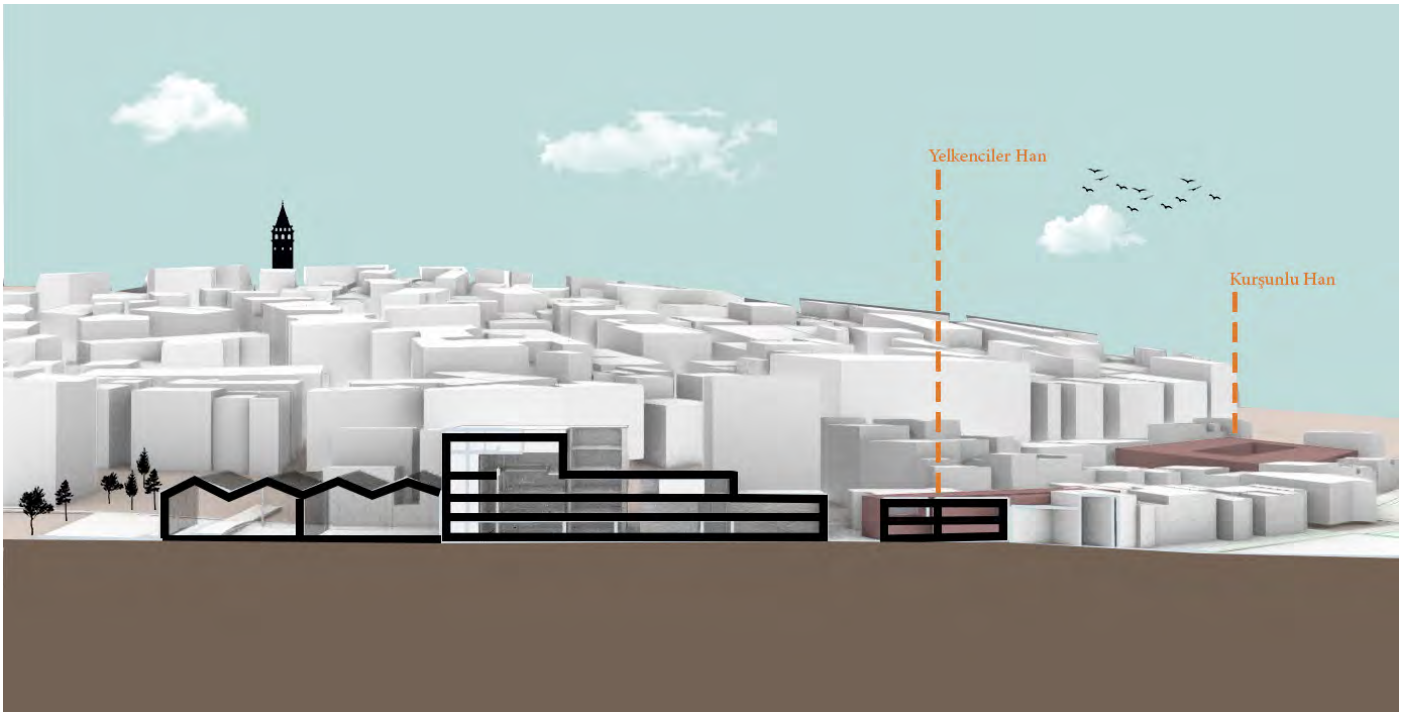
Kurşunlu Han

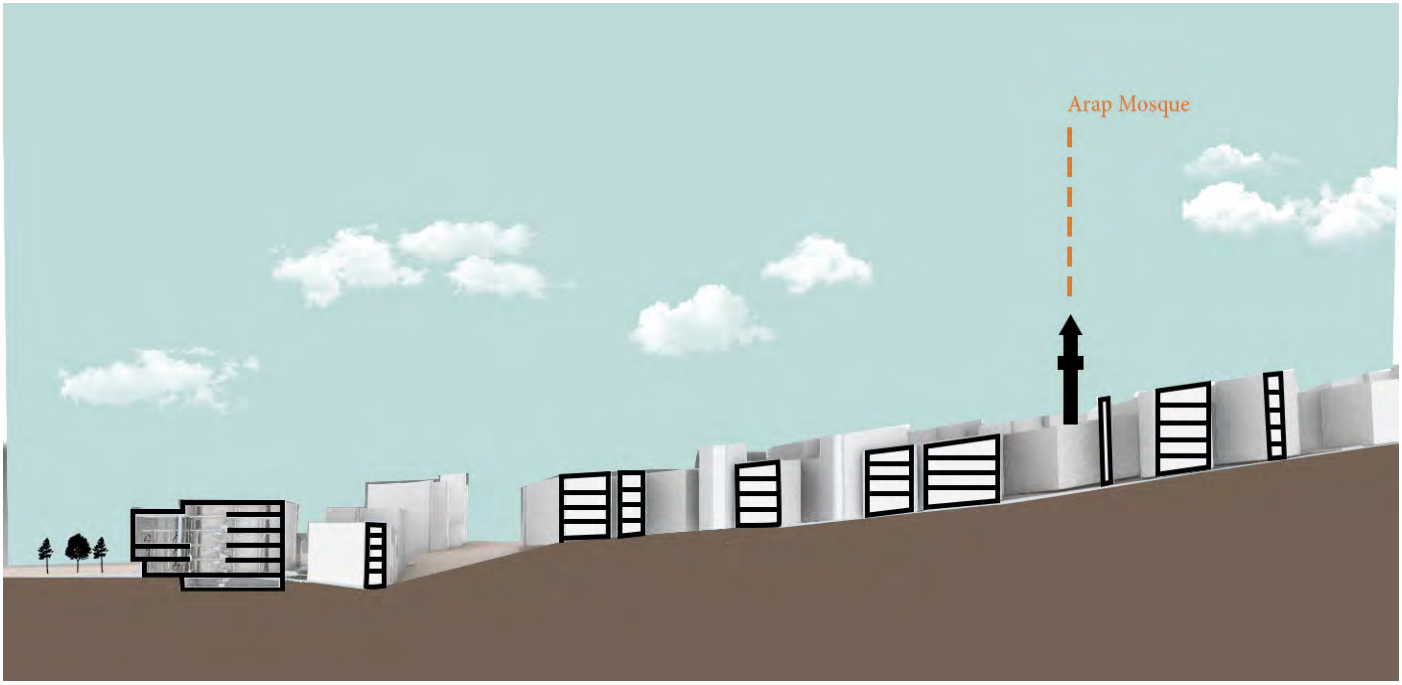
BUILDING SECTIONS



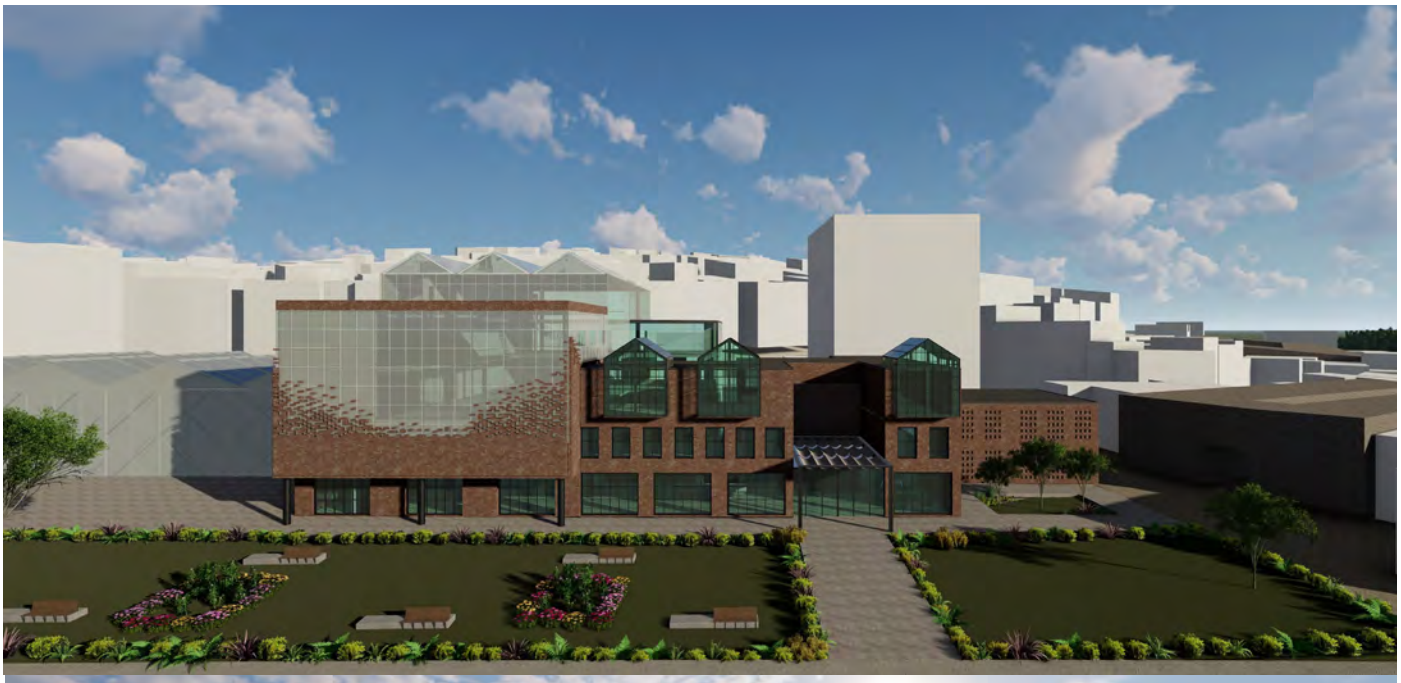


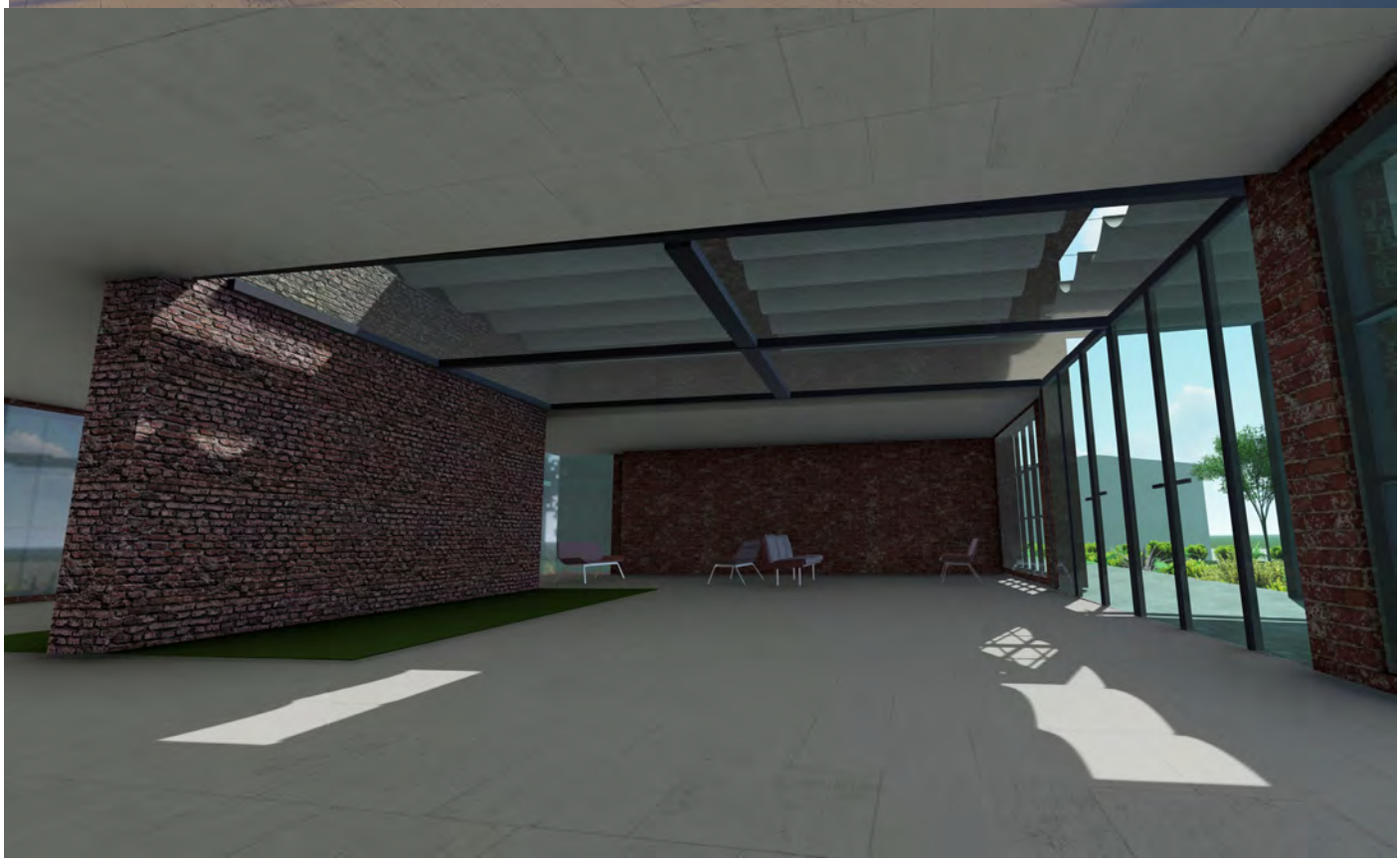
SITE SECTIONS





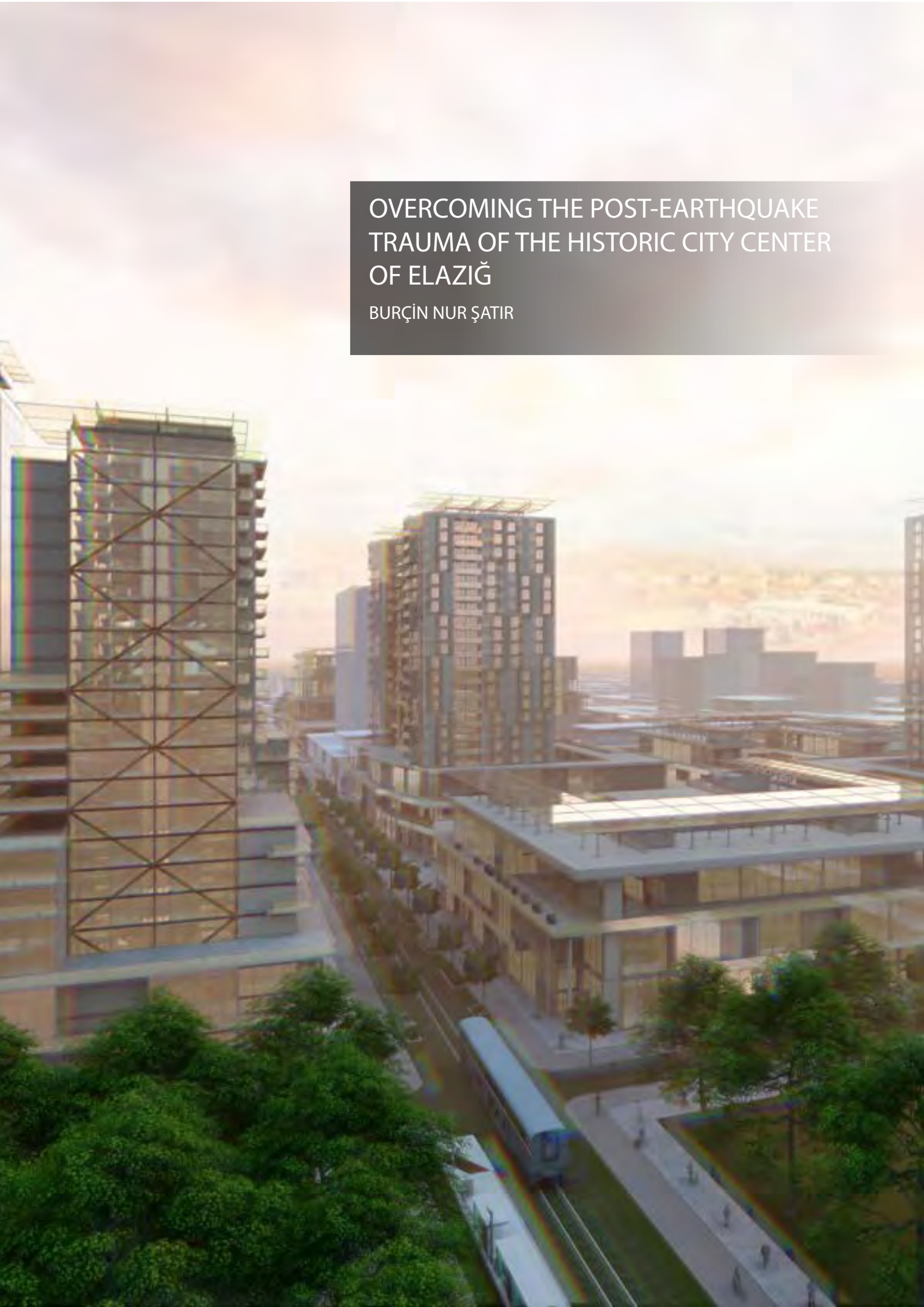
RENDERS





OVERCOMING THE POST-EARTHQUAKE TRAUMA OF THE HISTORIC CITY CENTER OF ELAZIĞ

BURÇİN NUR ŞATIR



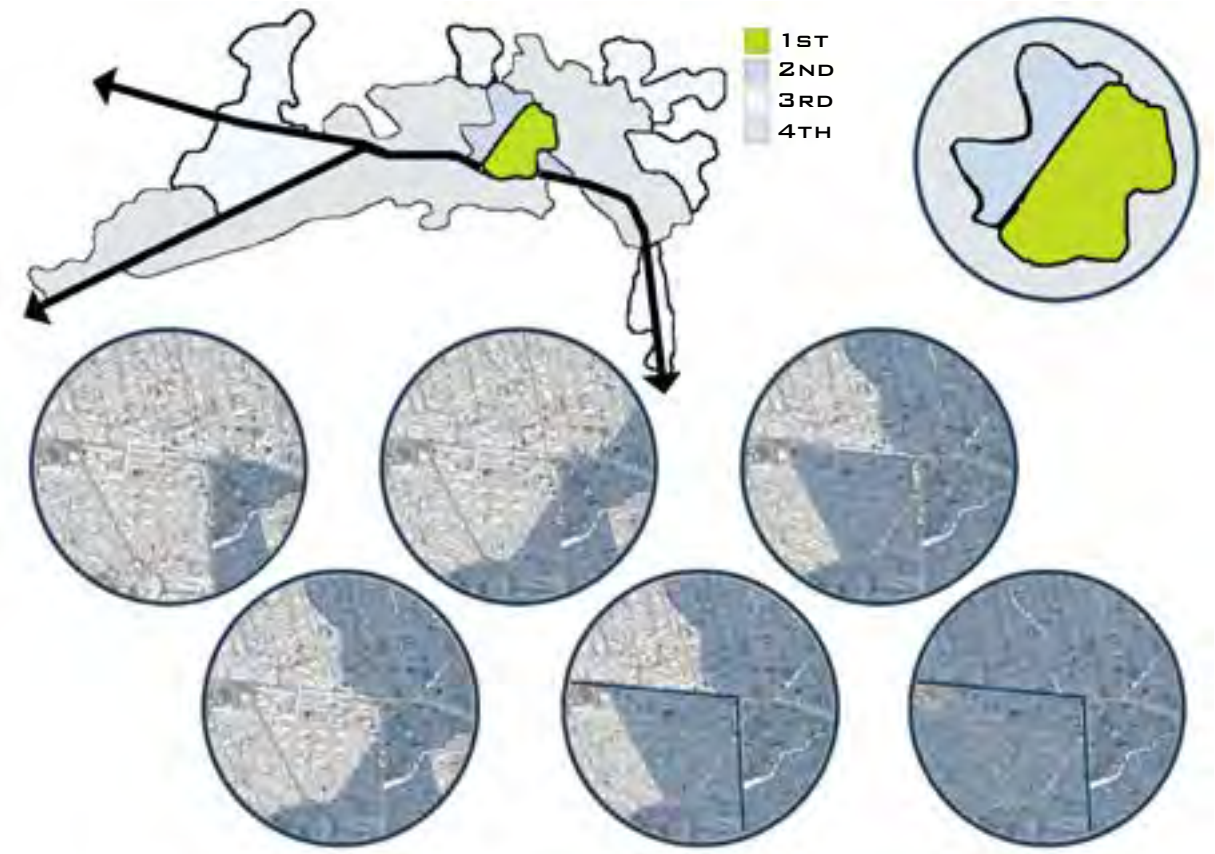
OVERCOMING THE POST-EARTHQUAKE TRAUMA OF THE HISTORIC CITY CENTER OF ELAZIĞ

BURÇİN NUR ŞATIR

The main purpose of the project is accomplishment of urban transformation in the historic center of Elazığ. After the major earthquake and the aftershocks happened in 2020, almost all the buildings in the selected area was highly damaged. It is aimed to provide more durable buildings with users. The historic city center where is consisting of Gazi Street and its surrounding neigborhoods, has many issues further than structural matters such as traffic jam, lack of pedestrian scale, noise pollution and unsuccessful urban development. The project aims to meet other needs while it accomplishes the urban transformation.

SITE INFORMATION

Elazığ is a city settled at the foot of the hill where the historical Harput Castle is located in Eastern Anatolia. Present-day Elazığ was established in beginning of the 19th century when it was moved to the plain called “mezre” (in Turkish) which is a hamlet of historical Harput. In the 19th century, although the city was located on the crossing point of the caravan route, its rivalry with Harput, which had been centralized for centuries, and the backwardness in the transportation technology of that period, it maintained its pedestrian city character and its spatial development was slow.



GROWTH IN ELAZIG

The first growth was in the area that is numbered as 1 in the diagram above. The focused area covers the historic city center where Gazi Street and its surrounding neigboorhoods are.

The second growth was in northwest of the first settled area. The second area started to develop in 1925 and it is also includes some parts of the selected area for the project.

GROWTH IN CITY CENTER

The presence of the first Government Mansion and the Saray Mosque shows that the first core of the city in the hamlet located in Çarşı and Sarayatik Neighborhoods.

The opening of Gazi Street, which roughly divided the city into two in the east-west direction, in 1940, affected the development of the highway.

Elazığ Municipality, Current Condition Report of Elazığ

19TH

1 SARAY MOSQUE

1930

2 GOVERNMENT MANSION

1930

3 COMMUNITY HOUSE

1950

4 PUBLIC SQUARE

1960

5 ÇARŞI NEIGBORHOOD

1970

6 PTT BUILDING

SETTLEMENT PATTERN

In the city center, it is observed that neighborhoods differ from each other in terms of their settlement patterns.
It is presence that the first settlement neighborhoods have the least organized pattern.

The diagram above demonstrate the same neighborhoods with same letter code.
While A and B districts have their distinct settlement patterns, C and D districts have the least organized patterns. It is noticed that D district is the very first settlement neighborhood of the region.

MAIN ROADS AND CIRCULATION

The vehicle route on Gazi Street is one-way. The route is completed with using parrallel streets.

The inner streets have two-way paths however, the area for vehicles on those streets are not enough for two-way paths.
The inadequacy is caused by the parking violations.

ISSUES

EARTHQUAKE

The Elazığ 2020 earthquake occured at 20.55 on January 24. It influenced the entire Eastern Anatolia region, espacially cities of Elazığ and Malatya. The earthquake, whose epicenter was Çevrimtaş Village in Sivrice district of Elazığ, lasted about 22 seconds. Kandilli Observatory announced the magnitude of the earthquake as 6.5 Mw. After the earthquake, 1140 aftershocks with magnitudes varying between 1.8 and 5.4 occured. 13 of them were 4 and over.

After the earthquakes and its aftershocks, in many districts urban transformation progresses were started except from Gazi Street and its surroundings. Since there are more critical regions in the city, Gazi Street district is not the focusing point of the municipality or the ministry. Unfortunately, the damage in this are is huge and it also needs urban transformation.

"2020 Elâzığ Depremi." Wikipedia, Wikimedia Foundation, 16 Jan. 2021, tr.wikipedia.org/wiki/2020_El%C3%A2z%C4%B1%C4%9F_depremi.

URBAN DEVELOPMENT

The configuration of vehicle routes and the urban settlement patterns do not meet the regions' visitors or residents. Inconsistent storey levels and mass volumes do not work for the street in terms of any way such as architectural, economical or social.

Solutions which have been implemented or designed are not beyond that changing landscape plant types or pavement materials.
The city center needs a planning which is programmed by considering the regional analysis and its primary needs.

LACK OF PEDESTRIAN SCALE

Gazi Street and the most of the streets that are in the region has lack of pedestrian scale.

To create a better human scale proportion while not decreasing the square-footages of the buildings, the mass volumes in the selected area should be calculated and shared proportional in between apartment units.
From the human scale perspective, the buildings should not be seen high as they are.

TRAFFIC & NOISE

It can be summarized that the noise source in Elazığ as follows; unplanned urbanization, industrialization, increasing number of motor vehicles, peddlerss market places, voices during construction and repair and so on.

It is a presence that the most crowded and traffic-intensive areas in Elazığ are Gazi, Hürriyet, İstasyon Streets and the freeway. These roads have severe noise (90dB) while other sections have low and medium noise. The traffic jam and high storey adjacent buildings affect the severe noise in these streets.

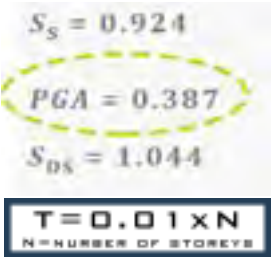
DESIGN STRATEGIES

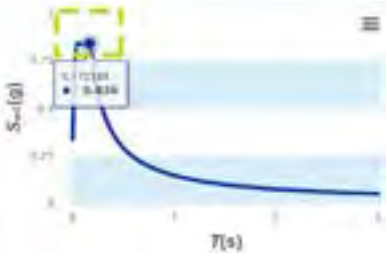
EARTHQUAKE ARCHITECTURE

GROUND SURVEY AND ITS OUTPUTS

According to the datas taken from AFAD, it is noticed that the buildings which have 3 to 15 storey height are exposed more oscillation than others in the designated area.

The datas are spesific for the focused area. They were collected by choosing the designated area from the official website of AFAD.
According to the these datas, it is decided to design buildings more than 15 storey height as much as possible. Furthermore, the buildings in the dangerous zone should be designed more carefully in terms of structural design.



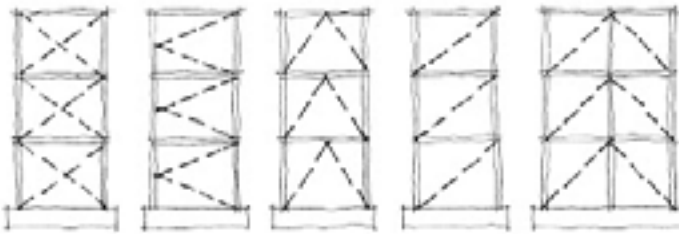


STRUCTURAL DETAILS

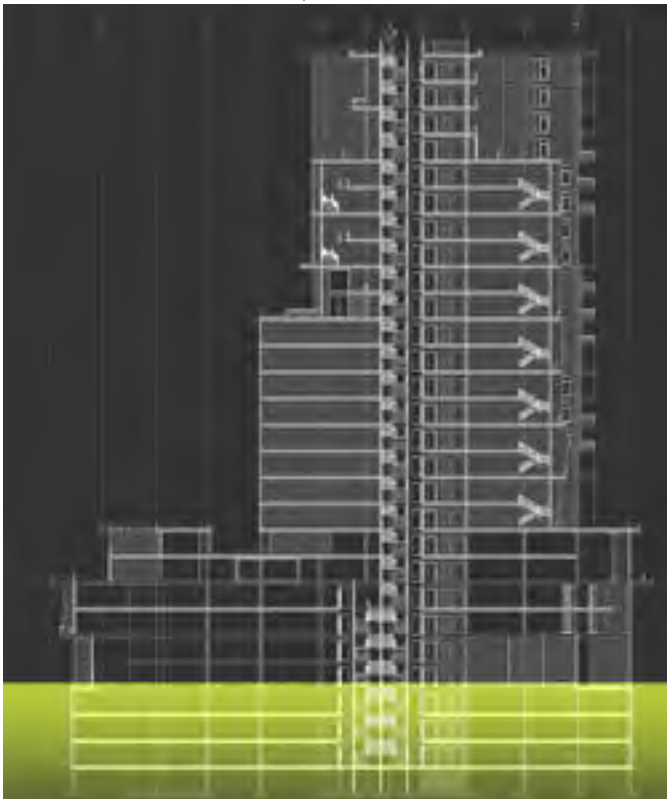
CONCRETE POST AND BEAMS

In those kind of structures, curtain wall distrubition sould be regular and symmetric as much as possible in order to minimize the harm of oscillation.

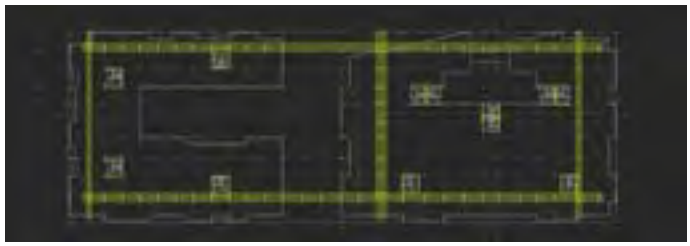
STRUCTURAL STEEL FRAME WITH BRACING



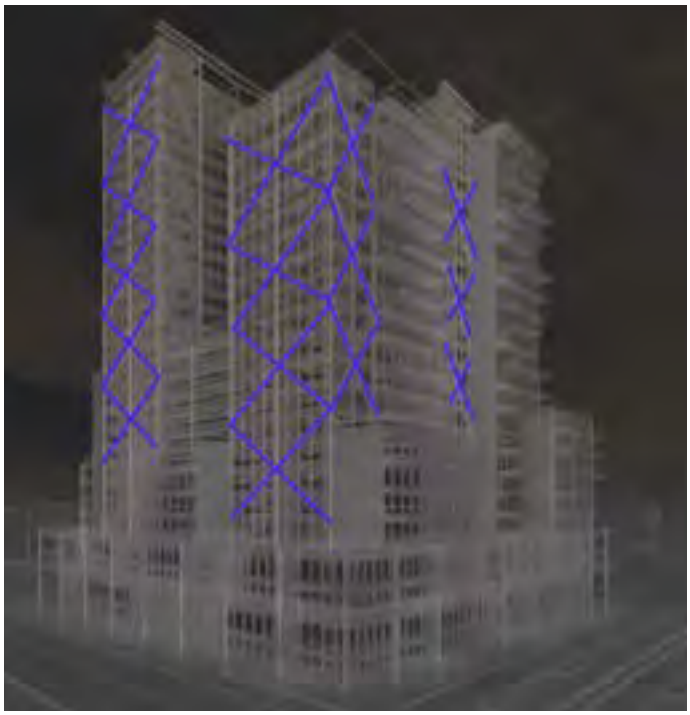
Bracing involves added additional elements to a frame in order to increase its ability to withstand lateral loads.



SECTION (TYPE1)



GROUND FLOOR PLAN (TYPE1)



(TYPE2)

BASE ISOLATION AND THREE STOREY OF BASEMENT

The seismic design strategy involves seperating the building from the foundation and acts to absorb shock. The building must be designed to act as a unit, or a rigid box, of appropriate height and have flexible utility wconnections to accommodate movement at its base.

It is important to have three storey of basement in terms of reaching the rock after soft and stiff soil in order to have stability in foundation.

SETBACKS AND BALANCED VOLUMES

The preliminary decisions in design were to create a more human scale environment and an accomplished urban development.
For instance the higher buildings were designed in a way that they become a monumental landmarks.

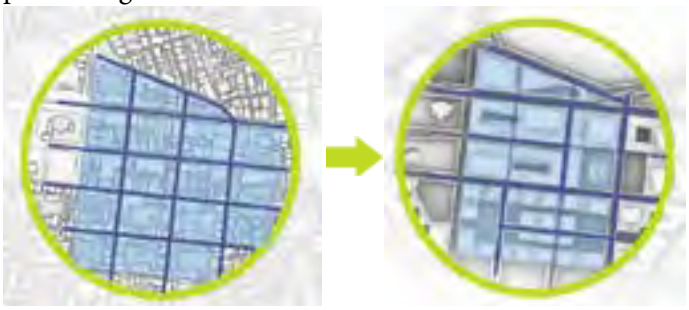
Since the one of the main purposes was accomplishment of an urban transformation, it was required to meet all residence rights in terms of owning same value of property with their preexisting properties.

In order to meet the preexisting floor area of the site, it was needed to increase the heights of the buildings. Those increases were balanced with setbacks.

The buildings whose footprint are thick and hard to create an even circulation were divided into two or more major rising masses and they were connected in the first four floors.

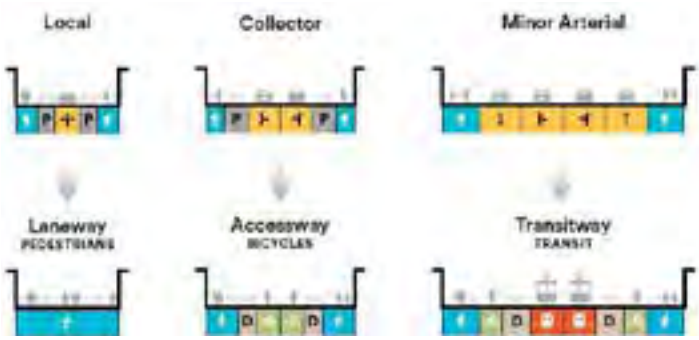
In order to protect to value of the field, existing functions were kept at their existing locations or replaced with a similar location that has same value.

In order to provide a human scale with the streets, while protecting the values of the properties, some site blocks were united. However, they still have the passages in the preexisting streets.



To create more human scale- environment, the voids between masses were designed as squares.

CAVs (CONNECTED AND AUTONOMOUS VEHICLES



Connected and autonomous vehicles (CAVs) can be required to follow speed limits and can operate in narrow streets where lanes may appear, disappear, or change direction.

Connected vehicles are vehicles driven by people that receive warnings on speed limits, potential conflicts, hazardous conditions, and other detailed information to improve safety. Autonomous or self-driving vehicles are able to ingest this information and have the vehicle itself respond, without a person driving.

On Transitways, priority is given to transit vehicles — through designated lanes and signal priority — to travel at their desired speed. Bike-share and scootershare stations are co-located with transit stops to enable convenient transfers to other modes. Transit can also travel on Boulevards, but may not be given the highest priority.
On Accessways, center-running bike lanes with green waves will allow comfortable cycling.

On Laneways, street furniture and greenery will create safe yet lively paths for pedestrians whether they are trying to get somewhere quickly or just want to stroll through the city.
When they have proven an ability to follow speed limits and yield to other users, CAVs will be able to use every type of street, maintaining building accessibility for those who need it.

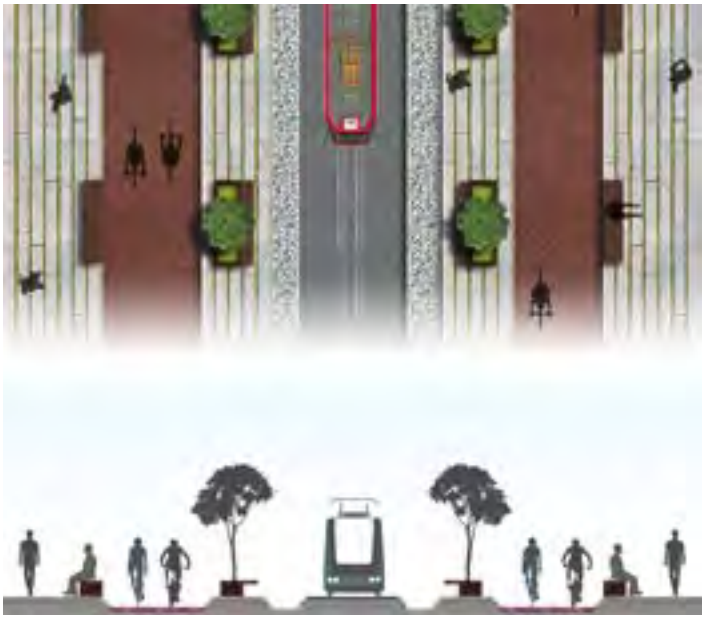
IMPLEMENTATION TO THE SITE

PEDESTRIAN PATHS

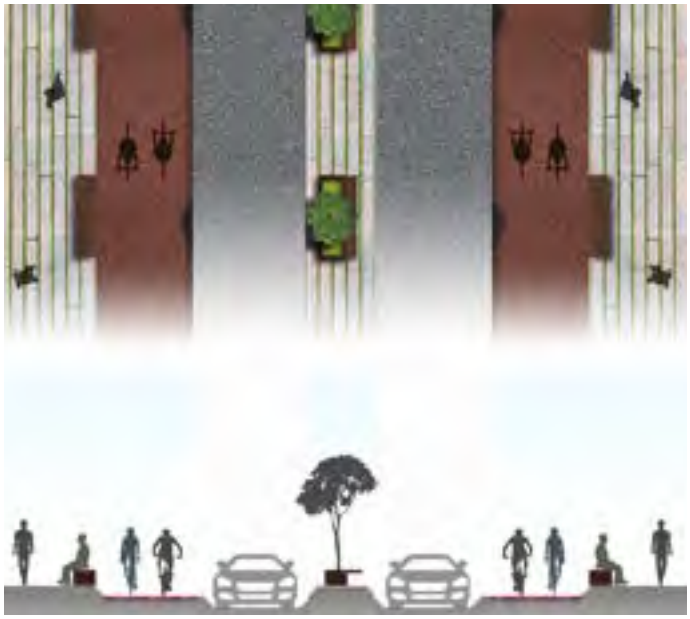
BICYCLE PATHS

STREET TYPES

TYPE 1



TYPE 3



TYPE 2

TYPE 4

TYPE 1

TYPE 4

GREENERY LANDSCAPE

TRAMWAY STATIONS AND MAJOR URBAN SQUARES

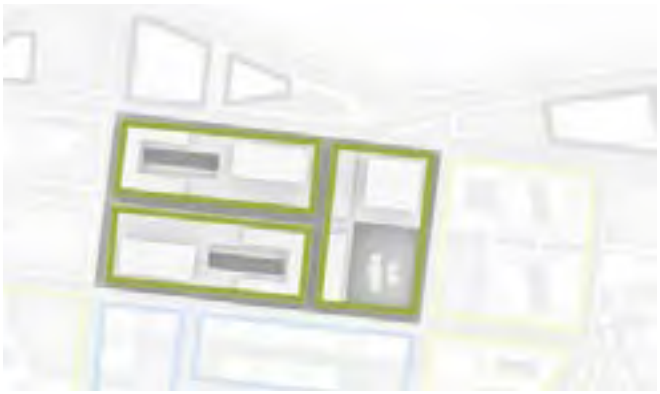
URBAN SQUARE - WEST OF THE GAZI STREET

URBAN SQUARE - EAST OF THE GAZI STREET

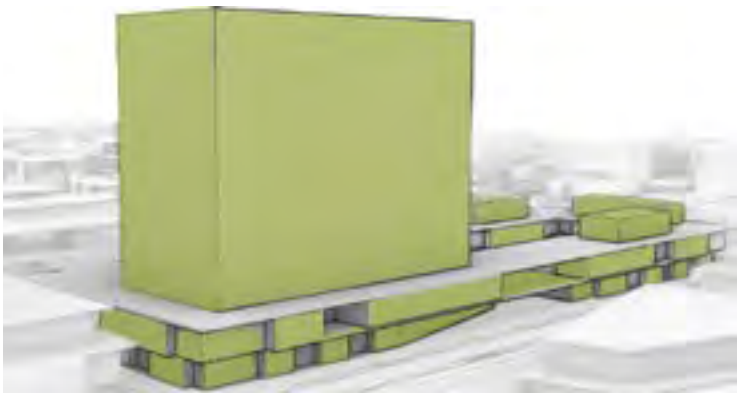
MASTER PLAN PROGRAM

TYPOLOGY TYPES

TYPE A



Type A offers units up to six storeys height commercial spaces like cafes and shops while it has also a residential building which is twenty-four storey height.



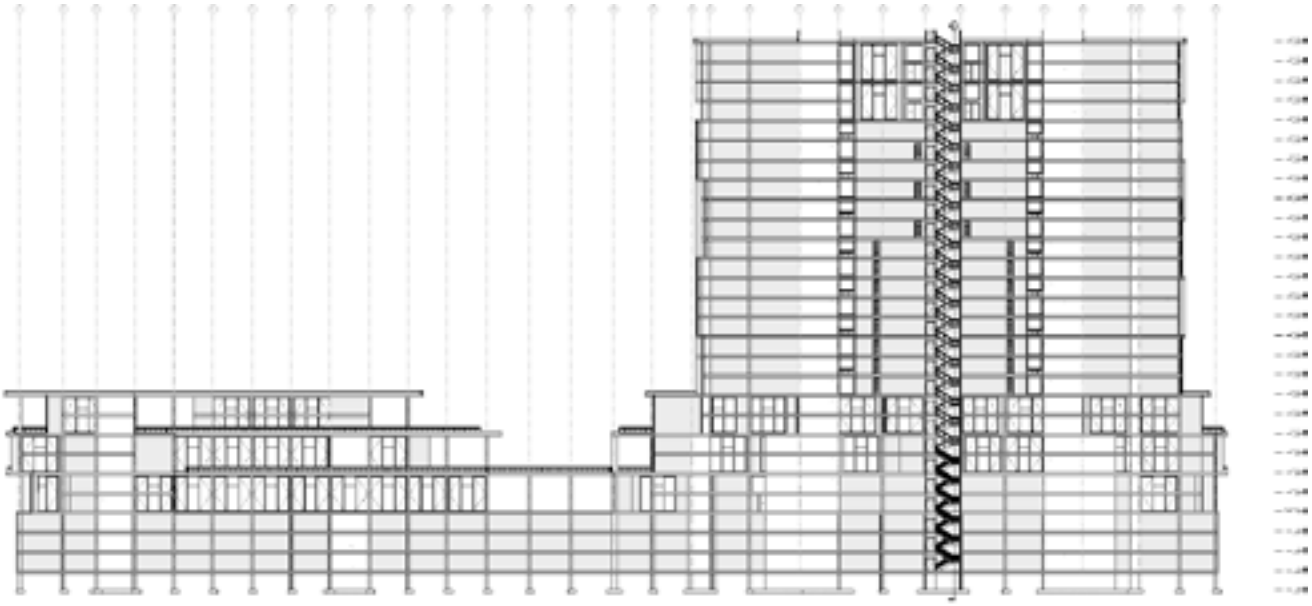
Those types were located in the sites that composed of two united pre-existing sites, therefore the type was designed with a street passage.

GROUND FLOOR PLAN

In between the residential and commercial functions of the building a common area function was placed in order to provide a transition in terms of both architectural or contextual

In the facade design, two tones of tavertine stone cladding were preferred

Darker color were placed to the first two storeys while lighter tones were on the after second floor.

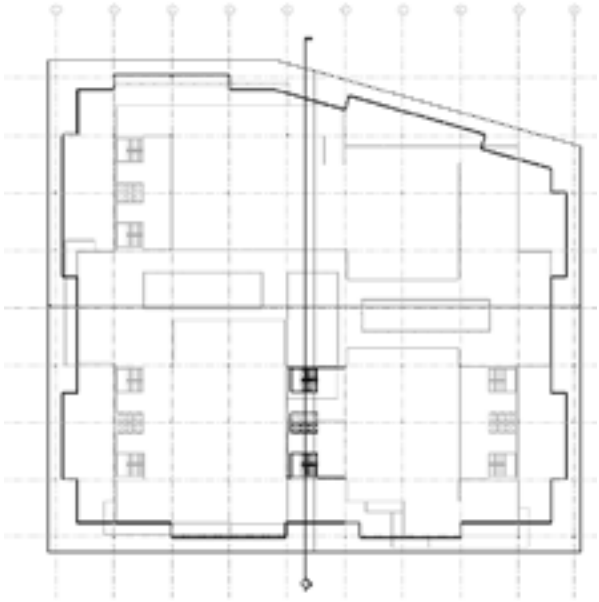


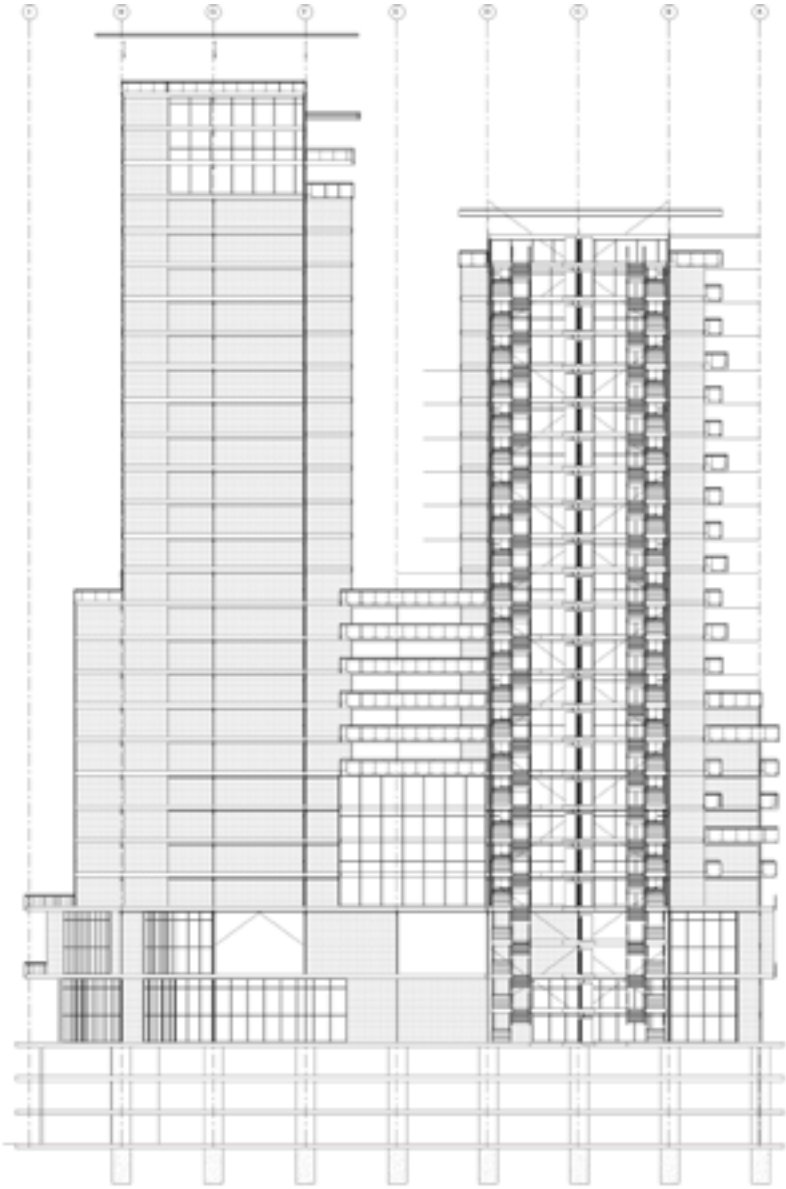
SECTION TYPE-A

SECTION -TYPES A AND B

TYPE B

Type B buildings are given the program of office and work spaces. These type of buildings are placed next to large green area which gives them an monumental landmark effect.





This type of buildings will be constructed with the structural steel frames system with bracings.

Bracing were placed exterior of the building with the function of vertical circulation. It was mainly aimed to avoid interruption in the floor plans by bracing members. Furthermore, structure was emphasized by the bracings.

The articulation which starts in division the major mass into four parts were continued with balconies and terracces.

SECTION TYPES A AND C

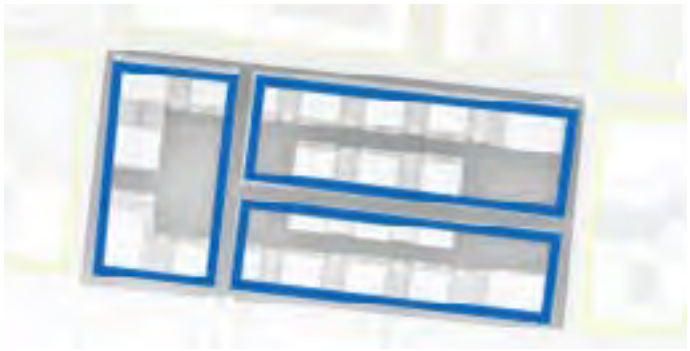
TYPE C

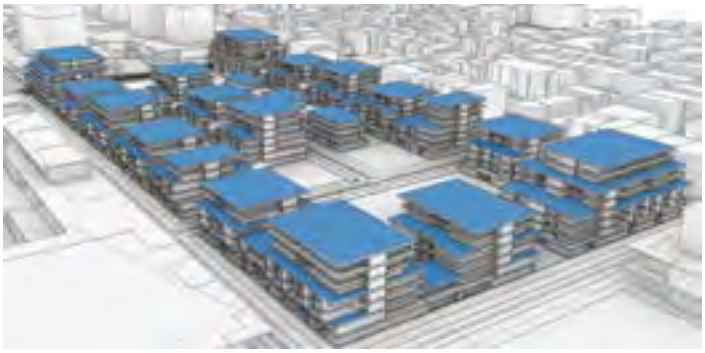
Type C allows constructors to build seperate and in smaller scales.

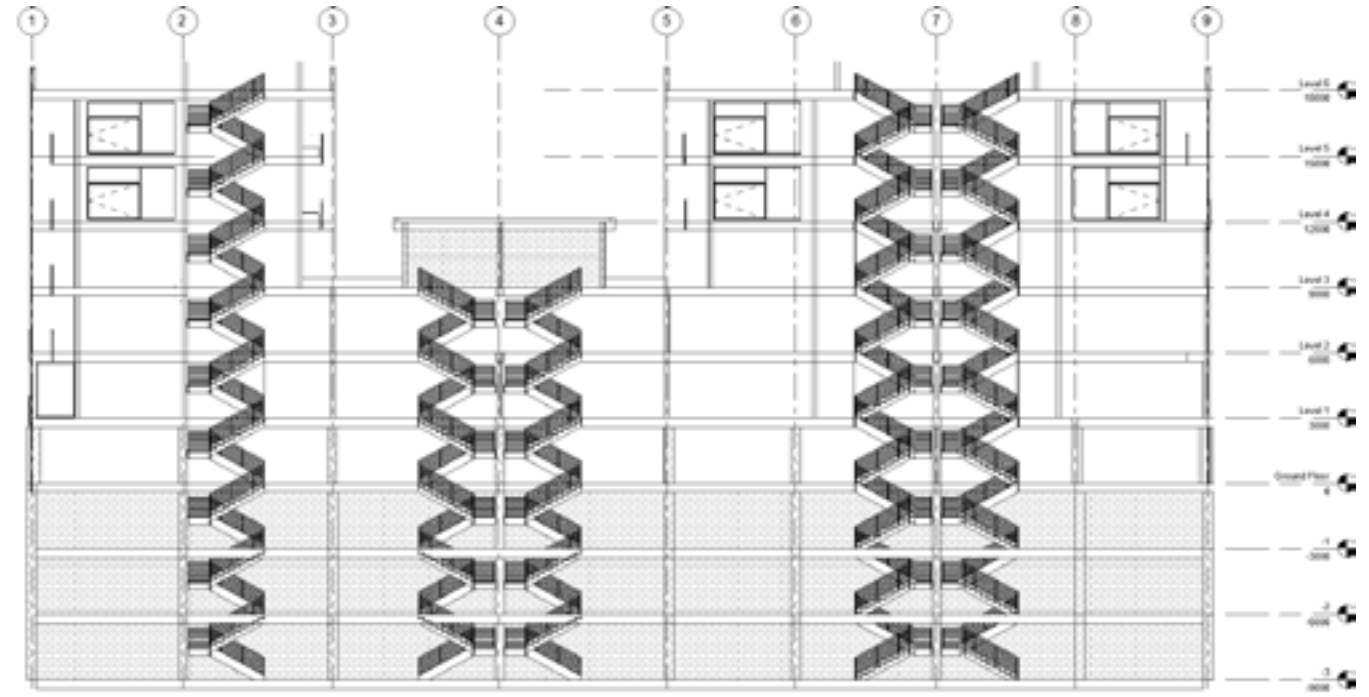
This type of buildings are more flexible in terms of design principles, however, still there are setback necesseties.

This type of buildings's heights differ from three to nine.

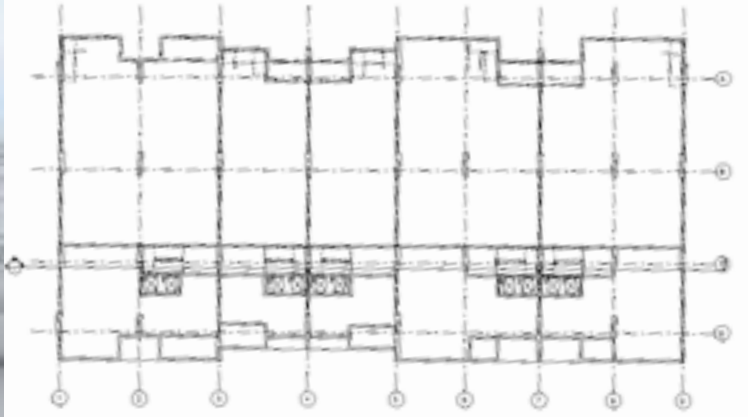
This type of buildings's heights differ from three to nine. The heights were determined according to the oscillation effect and pedestrian scale factor.





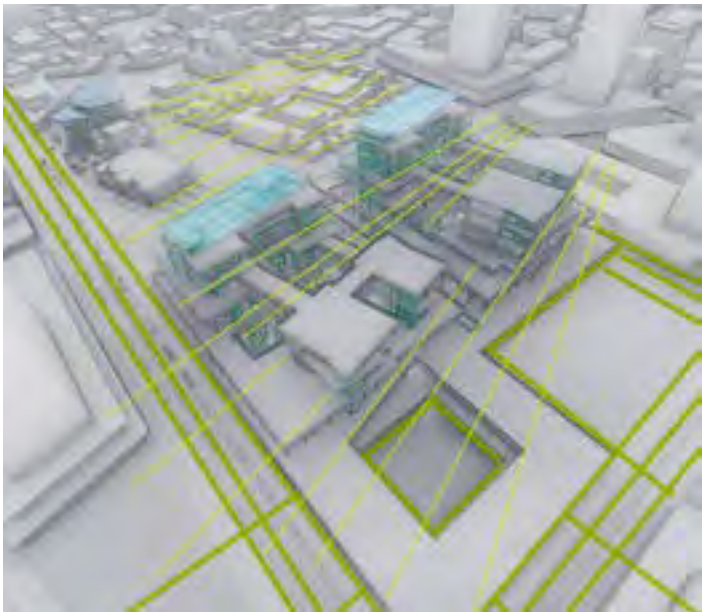


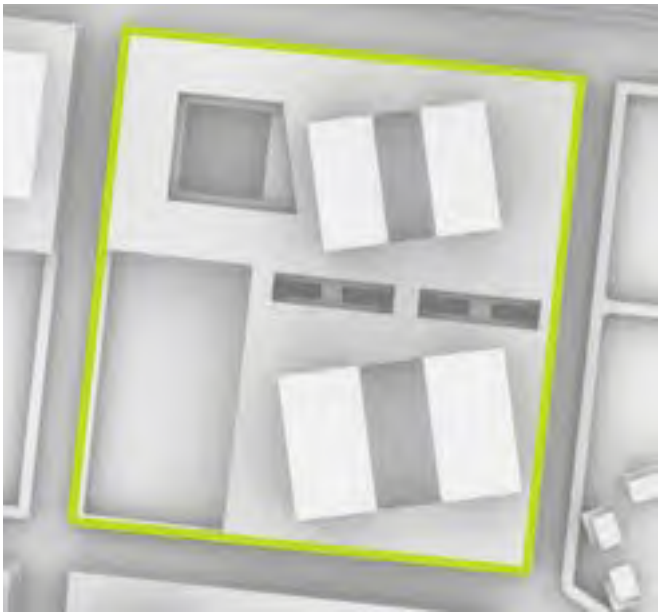
SECTION TYPE C

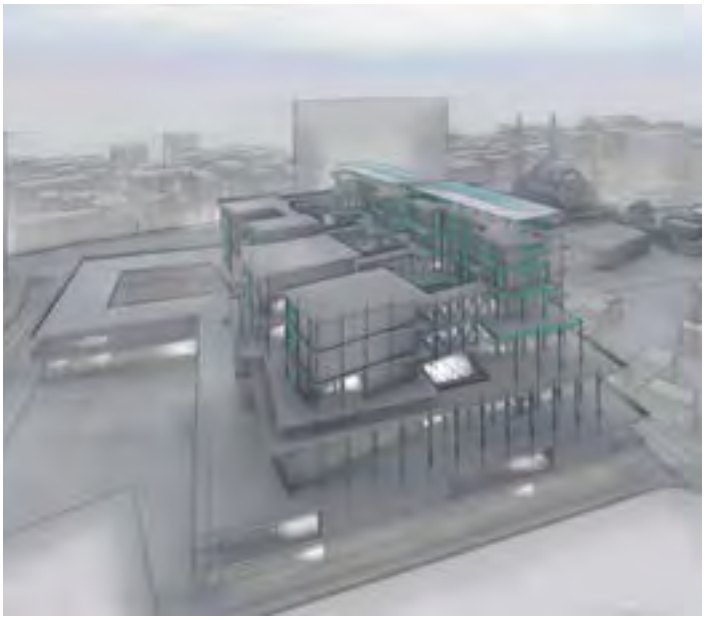


GROUND FLOOR PLAN

TYPE D





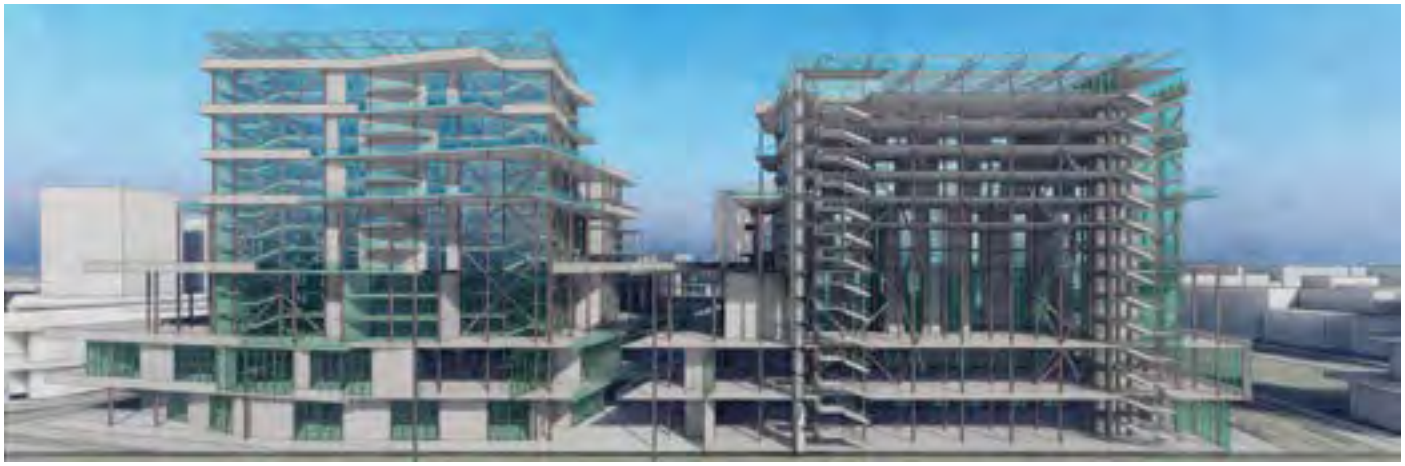


Type D is a flexible type that fit with its own context in each area.
The articulation of its high rises were differs between contexts, however, the first four floors were articulated similar with Type 1.

In the contexts where close to the historical contents, the high rises rotated by taking reference from the historical content. The floors, terraces and balconies were kept the angle of street lines.

Programs like accommodation facility, health centers can be assigned to this type of buildings.

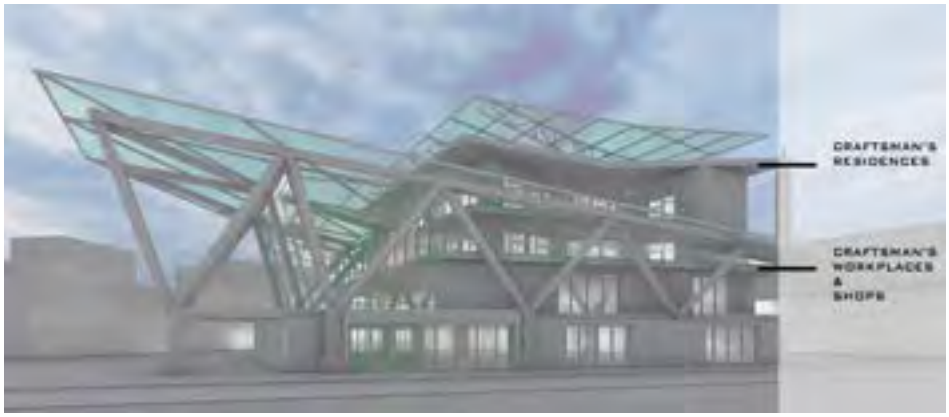
The brigdes that supoorted by the trusses provides the connection between the divided masses.



SECTION TYPE D

ELEVATION OF TYPE D AND E -IN BEETWEEN MAJOR URBAN SQUARE-

TYPE E



Type E buildings will be referenced to the old historic center of the designated area.
The first two storeys' footprints are parallel to the street lines while upperfloors' lines reffered to the historical content.

Comparetively lower heights and more articulated spaces. In this type of buildings, timber frame structure is recommended.

SEYHAN LAKE SHORES DESIGN and RECOVERY

H. MELİS YILMAZ

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SEYHAN LAKE SHORES
DESIGN and RECOVERY

H. MELİS YILMAZ

This project aims to develop an urban context which is underutilized and in a bad condition. The urban context is a riverfront undefined area in Adana, Seyhan Dam that could not be a part of the city and could not use its potentials for many aspects such as social and economical. In order to create the value of the site deserves, a rapid transformation and development project is needed. Bringing a healthy, safe, high quality of life, improving the physical environment and making the area as a part of the city and making it to be used effectively are the main concerns.

Moreover, the site is defined as natural conservation area by municipality so; in order to preserve this value, sustainable and environementally-friendly approaches will be essentials and natural production will be another focus.

HISTORY of ADANA and SEYHAN RIVER

The history of Adana Province stretches until the first ages in 3000 BC and Adana is one of the oldest civilizations of Anatolia's according to Kava Inscriptions of the Hittites.

According to a legend, the sky god Uranus has two names named Adanus and Sarus. His son came after fighting around Adana and named himself Adanus and gave it to the city they founded. Seyhan River also took the name of Sarus. Phoenicians under the influence of Hittite, the name of agriculture and plant gods Adonis, as a name for Adana due to its fertile lands has given. When the Turks crossed the Taurus Mountains and went south, they named it Çukurova. Çukurova in history its name is Cilicia. Kilikya got its name from the lime deposits.

Two much larger rivers—the Seyhan and the Ceyhan—flow into the Gulf of Iskenderun; their broad combined delta forms the greater part of the fertile Adana Plain. The Seyhan River is the longest river of Cilicia and the longest of Turkey that flows into the Mediterranean Sea. The river is 560 km and flows southwest from its headwaters in the Tahtalı-Mountains (in Sivas and Kayseri provinces) in the Anti-Taurus Mountains to the Mediterranean Sea via a broad delta.

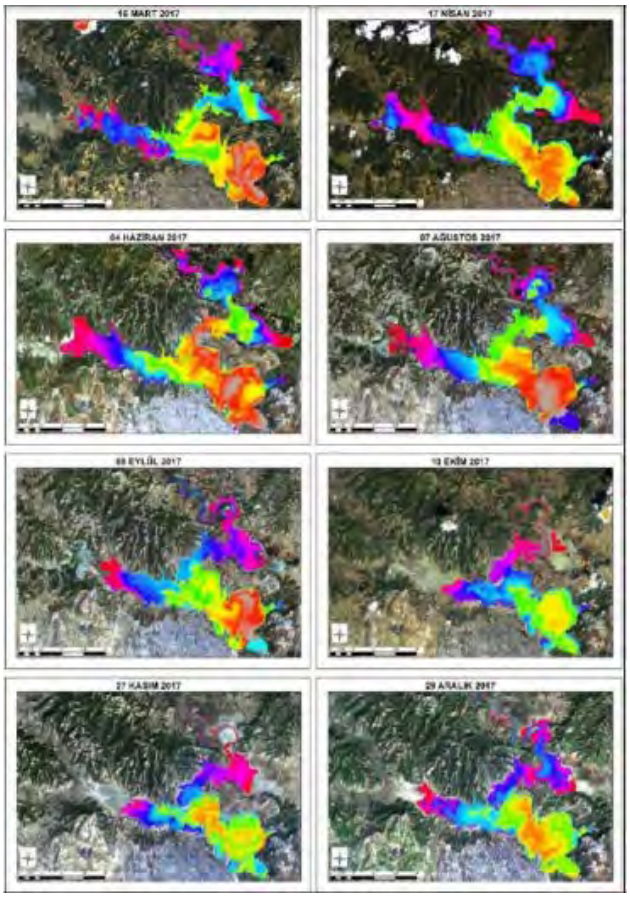
50 km from its mouth, Seyhan River flows through the city of Adana, the only settlement situated on the river. Several bridges and footbridges cross the river in Adana including the Stone Bridge, a 2nd-century Roman bridge. Ancient city of Augusta was also situated on the river, corresponding today to the east side of the Çatalan reservoir. In 2009, a total of 33 fishes were listed as being found in the Seyhan River, including 29 natives, 3 introduced and 4 endemic species. Eight amphibians were listed and two of them are known to be endemic to the river. The major Seyhan Dam upstream of Adana serves for irrigation, hydroelectric power, and flood control. Yedigöze, Çatalan and Kavşak Bendi are the other dams on Seyhan River which also serve the same purposes. The river is currently under extensive development for hydroelectric power and irrigation.

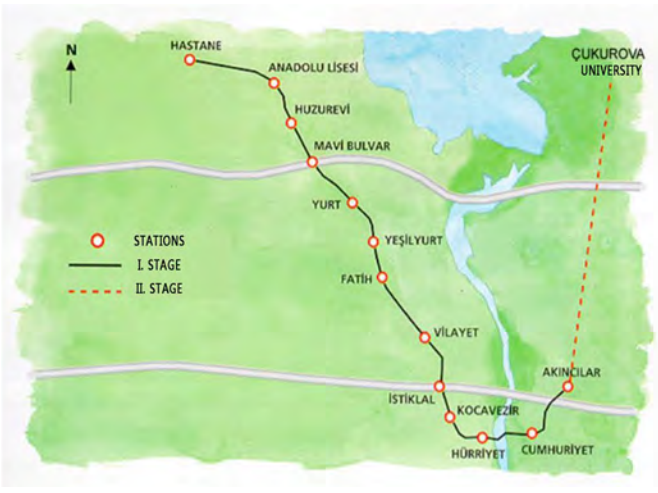
ADNAN MENDERES BOULEVARD - SEYHAN DAM

Seyhan River transforms into an artificial lake at the North of the city. The lake is surrounded by natural elements such as forests, active and passive green spaces. The shores of this lake have been used in unorganised ways and because of that reason the real potentials could not achieved. For example, there are marin activities as gondol travels, restaurants like huts, fishing activities and there are some areas that people came and stand at the shore with their cars. Due to the lack of quality spaces and organization the area becomes rural and society do not prefer there. Desolition feeling creates problems. Also, althought there are universities, sport complexes, cultural events adjacent to that area, the city is disconnected with the coastline.

There are important commercial streets which are including shops, cafes and restaurants linked with residential areas and offices. Public do want to use the area as a relaxation point and the natural values of fertile lands of Adana has to gain their power. So, my proposal for that area focuses on the elaboration of the activities at that area based on production and conservation of nature. Moreover, the desig will provide people with a continuous coastline experience with different combinations throughout the shore. Dynamic, sustainable and environmentally friendly approaches are going to develop the project.

The topography of the area is located in a dry stream flowing in a north-south direction between the valleys formed by beds from low-slope lands. Connecting to the base of the valley where Türkmenbaşı Boulevard is located, north-west-southeastern The dry river basin, flowing in the direction of the topographic direction of the planning area to two regions The elevation increases towards the north. The elevation difference between the north and south of the 2160m area is 70m, and the average slope of the area is 3%. In the planning area, the valley floors and the tops of the ridges are flat and almost flat.





SPECIFIC INFORMATIONS ABOUT AREA

Seyhan Dam Lake, has been defined as a Wildlife Development and Conservation Area. Stage 1 / 5.000 scale master development plan on an area of 4,092 hectares by Adana Metropolitan Municipality. and its boundaries can be seen at the figure.

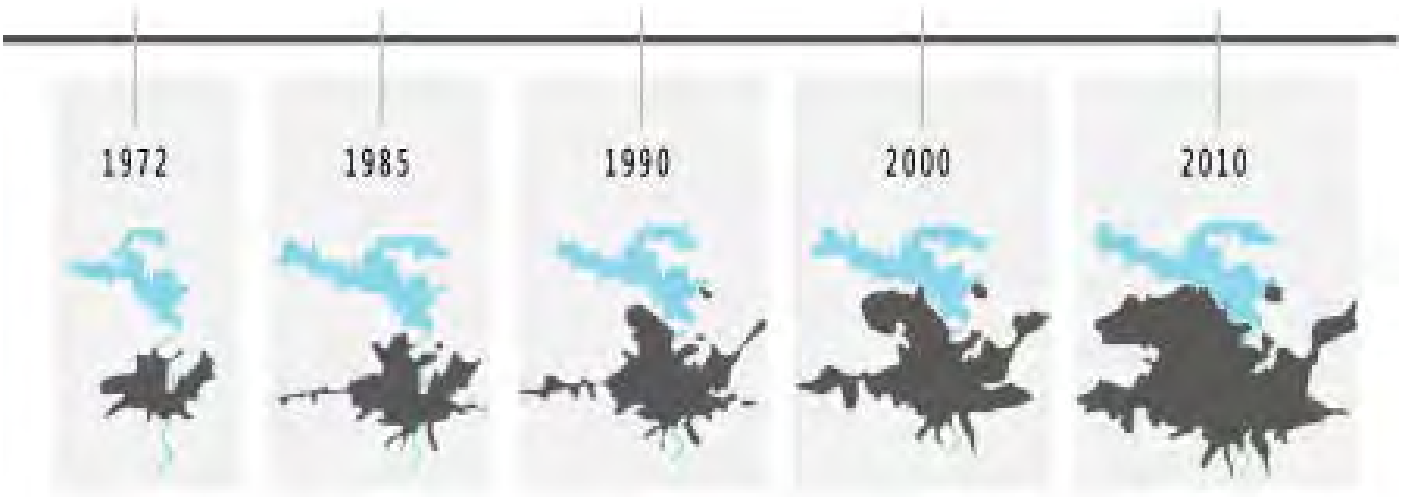
Adana Young Businessmen Association (AYBA) asked for support of a project that envisions building a marina port on the shore of Seyhan Dam Lake. At a press conference held, AYBA President Sefa Noyaner said at least 10 thousand people went to Mersin on weekends since there are not enough opportunities for water sports and swimming activities with the marina where the boats are connected to Seyhan Dam Lake.

The change in the amount of water in dams and lakes can be determined by bathymetric maps made with certain periods. Bathymetric maps constructed with classical methods such as lead-line and technological methods such as echo-sounder are now also made with remote sensing methods. In this study, it was tried to determine the bathymetric elevations of the Seyhan Dam Lake due to the water depth by using Log Ratio Transformation (LRT) method as described by Stumpf et al [2003].

For the calibration of the depth of water, 17 points were used. The depths of these points were selected from the bathymetric map of the Seyhan Dam Lake in 2005, with a depth difference of 2 m between the points. As remote sensing data, 8 images were selected and analyzed considering the cloudiness in Landsat 8 satellite. As a result of the analyzes, the regression value R2, between the average bathymetric levels and the actual bathymetric levels was 0,9359 and Root Mean Square Error (RMSE) was 2,78 m. The generated maps can be used directly when the accuracy is found to be sufficient.

At 8 separate dates, 8 satellite images were obtained for Relative Water Depth Maps. Water level changes troughout the year and at my site it does not reach the highest level. The water level at my area is generally on the middle average however, some part of the peninsula can stay underwater during the spring.

Railway System Itinerary, located west of the hospital starts from the warehouse area, reaches the Anatolian High School following Turgut Özal Boulevard, turning south from here over Alpaslan Türkeş Boulevard over Yeni Governorship and it crosses the D-400 highway and passes to South Adana, West of Kocavezir Business Center, Hürriyet Police Station, follow the route of the Military Office reaches Seyhan River by passing the river from the north of the Regulator Bridge. In addition, in areas where the route is formed as a level, In order to ensure crossing over of pedestrians, 9 underpasses were planned and designed.



BOUNDARY

WATER SOURCES

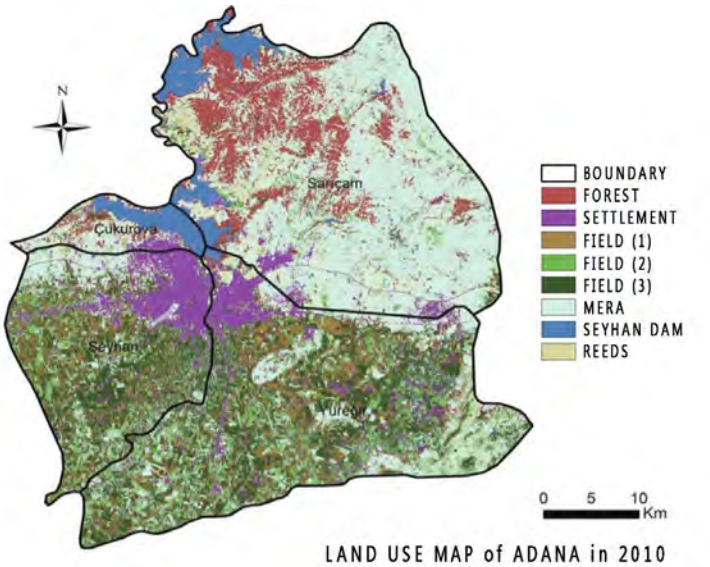
URBAN CONTEXT

GREENERY

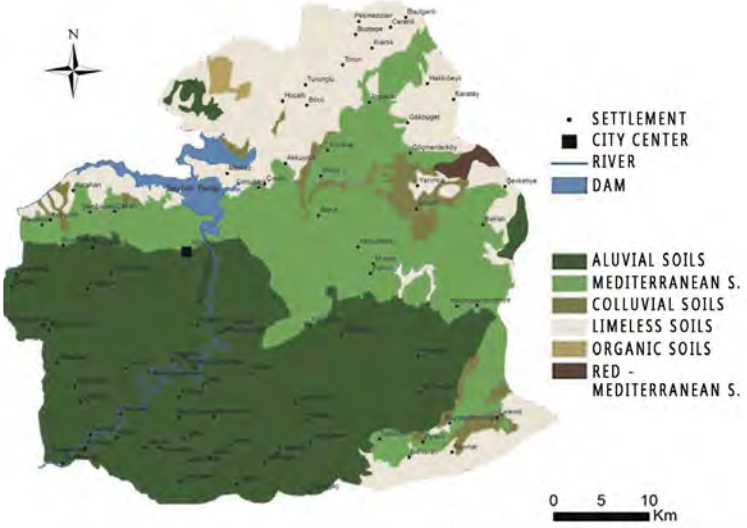
HIGHWAYS

RURAL CONTEXT

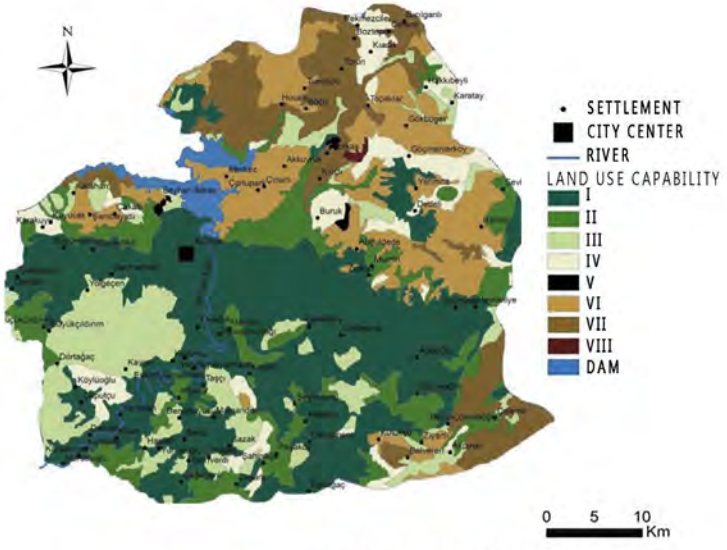
MAPS



LAND USE MAP of ADANA in 2010



SOIL GROUPS in ADANA



LAND USE CAPABILITY CATEGORIES

Large-scale investments have been in the western part of the city since the 1990s. While it concentrated within the boundaries of Çukurova and Seyhan districts, it increased in Yüreğir and Sarıçam districts after 2008. Land in the northwest of the city Land in investments made by the government due to high prices. In order to minimize the costs, public lands in the northeast of the city were preferred for investments. The large-scale public lands in the city will be invested with the development plan changes (Hospital, Public Administrative Facility, Stadium), and the legal process was fulfilled. Another factor affecting the planning process is urban transformation projects. Within the Adana metropolitan area, until 2017, the Council Decision declared urban transformation areas in 30 regions, and the total size of these areas 1041 hectares.

While the forest areas in the north preserve their condition, the woodlands in the areas remaining in the Seyhan plain and Sarıçam district forest areas within its borders are severely damaged. As in forest areas, pasture areas have decreased in Çukurova, Seyhan and Yüreğir districts. On the other hand, forest areas in Sarıçam district have been transformed into pasture areas. Therefore there is no significant change in the amount of pasture areas.

Due to the fact that the city is located on the edge of the Seyhan River and on the floodplain, the area where the city spreads is largely fertile alluvial. Corresponds to the area where the lands are located the slope is low in value, soil is rich in minerals and these extremely fertile soils are covering approximately 50% of the city. In the work area, another important soil group is the Red Brown Mediterranean Soils which are approximately 30% of the total area. These soils are also like alluvial soils, they are extremely efficient and have high agricultural values.

Another determinant of the agricultural productivity of the land is the factor of usability of the land. More than half of central districts are suitable for agriculture.

MASTER PLAN DEVELOPMENT

Main aim for the coastline development is sustaining the continuity and integrity of the elements which are the building masses, green areas as urban farming and patios.

According to gridal systems of the circulation roads and the researches the functions has been placed. At the lowest water level, the seafood production area and its consumption places, and at the exterior part of the shore the harbor has been designed. Harbor's patio is common with the waterfront marine activities complex since they can work together. Another coherence has been implemented between the urban farming areas and their market places with facilities for equipments.

Another point that this master plan aims is using the landscape and slopes in a dynamic way. In order to create spaces on waterfront the coastline will be differ in different dimensions and will become in areas like piers, elavated stages and walkway trails.

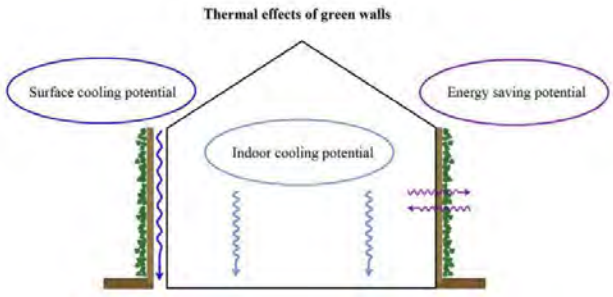
Moreover, urban farming starts at the inner parts of the coastline where are near the residential areas and spread troughout the lake and transforms into wet lands. These wet lands are also supportive for the seafood production since their roots can be the nutrients of sea animals.

In other words, the area is focussed on natural production and public activities and for the focus area that ı am going to work, the function will be like a mixture of commercial and cultural center.

https://www.archdaily.com/551290/big-designs-7-building-waterfront-development-in-aarhus
https://www.archdaily.com/306834/detroit-river-front-competition-entry-ama/ama_dtr_4_sections
https://big.dk/#projects-rivr
https://challenge.whatdesigncando.com/projects/produce-healthy-food-on-water-reduce-emissions-of-food-production-create-new-spaces-and-experiences-floating-food-farm
Sönmez, Mehmet Emin. The Urban Expansion in Adana, Turkey, and Relationship between Land use Changes in its Surroundings.

FACADE DESIGN IDEAS

In urban regions, where green areas are scarce and open ground space is limited, vertical greening methods represent an innovative and promising opportunity for increasing green infrastructure in cities. Apart from aesthetic, ecological and social values, economic benefits are proved by several studies. Due to the continuing increase of artificial and sealed surfaces replacing green spaces in urban areas, shading and evaporative cooling benefits provided by plants have progressively been lost. This, in combination with the reflection from mineral surfaces such as concrete, asphalt, plaster etc. has been resulting in accumulation of raised temperature hot spots, also known as the urban heat island effect which is primarily influenced by wind speed, temperature difference between the undisturbed air and the building surface temperature and the height of the buildings. Also, considering landscape aspects, green walls are an ideal tool to integrate vertical construction buildings into the natural surroundings, thus optimizing landscape aesthetics. Vertical greening systems, including green wall systems as well as green façades, mobilize high research potential, particularly addressing their contribution to thermal regulation of building envelopes.



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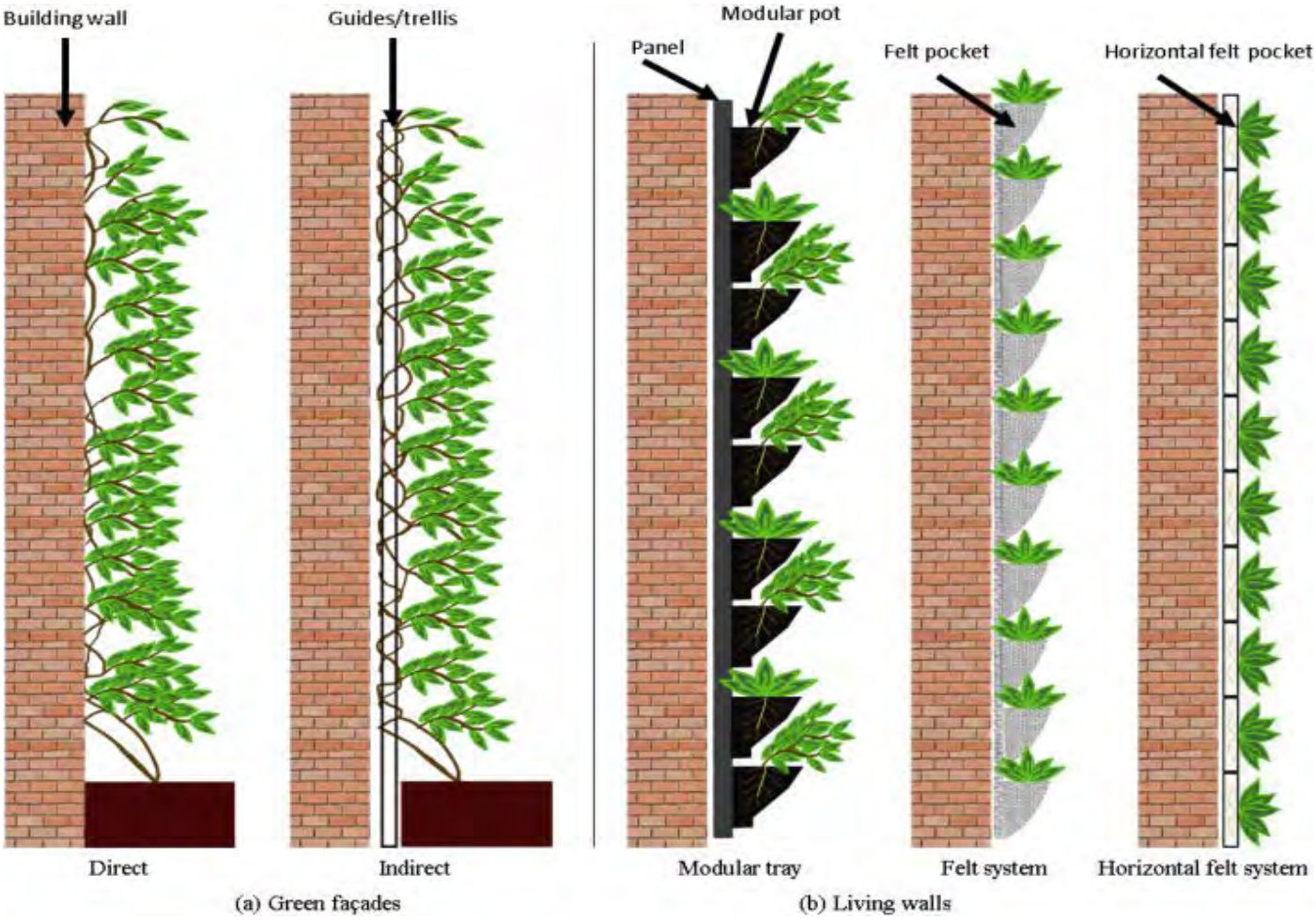
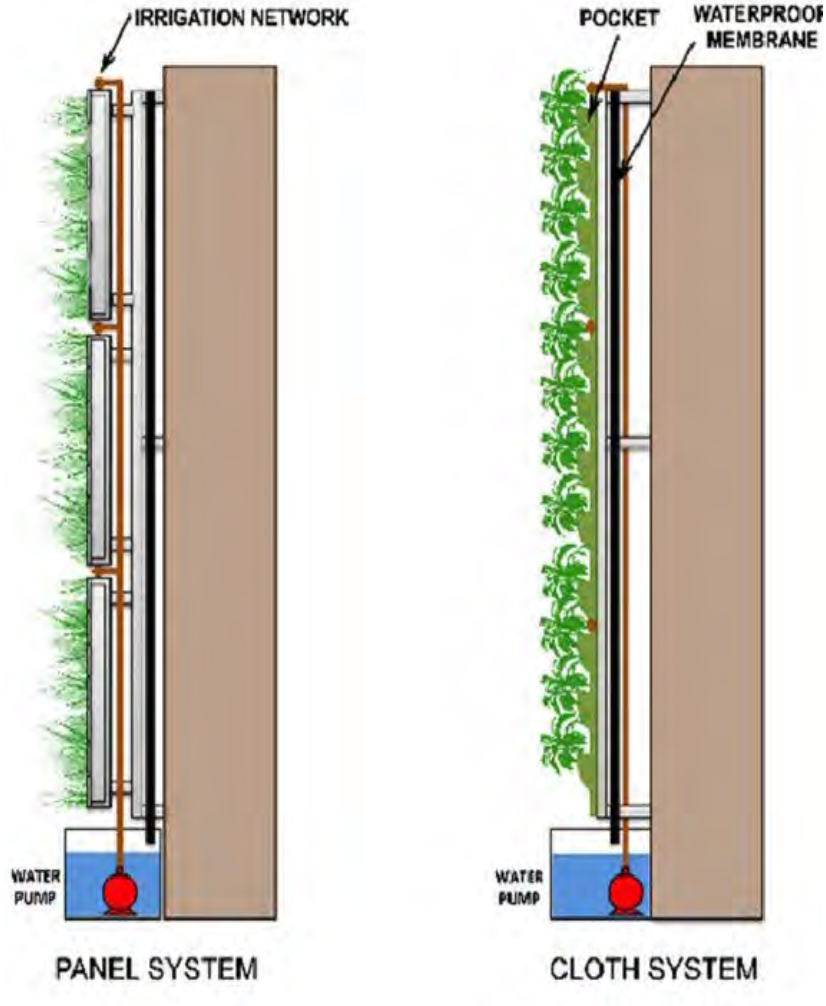
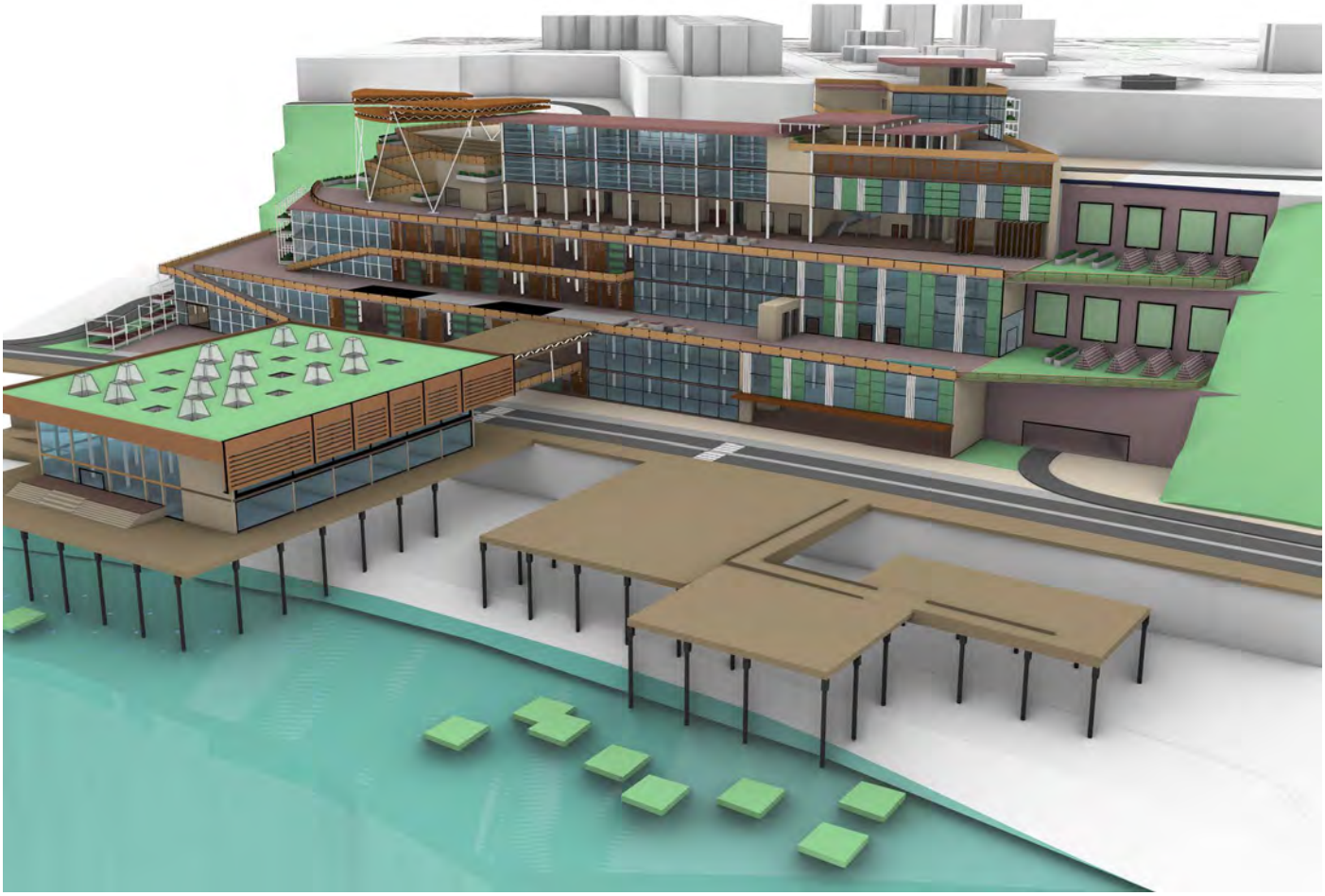
https://www.sempergreen.com/en/references/semper-green-green-facade-for-greenhouse-antwerp

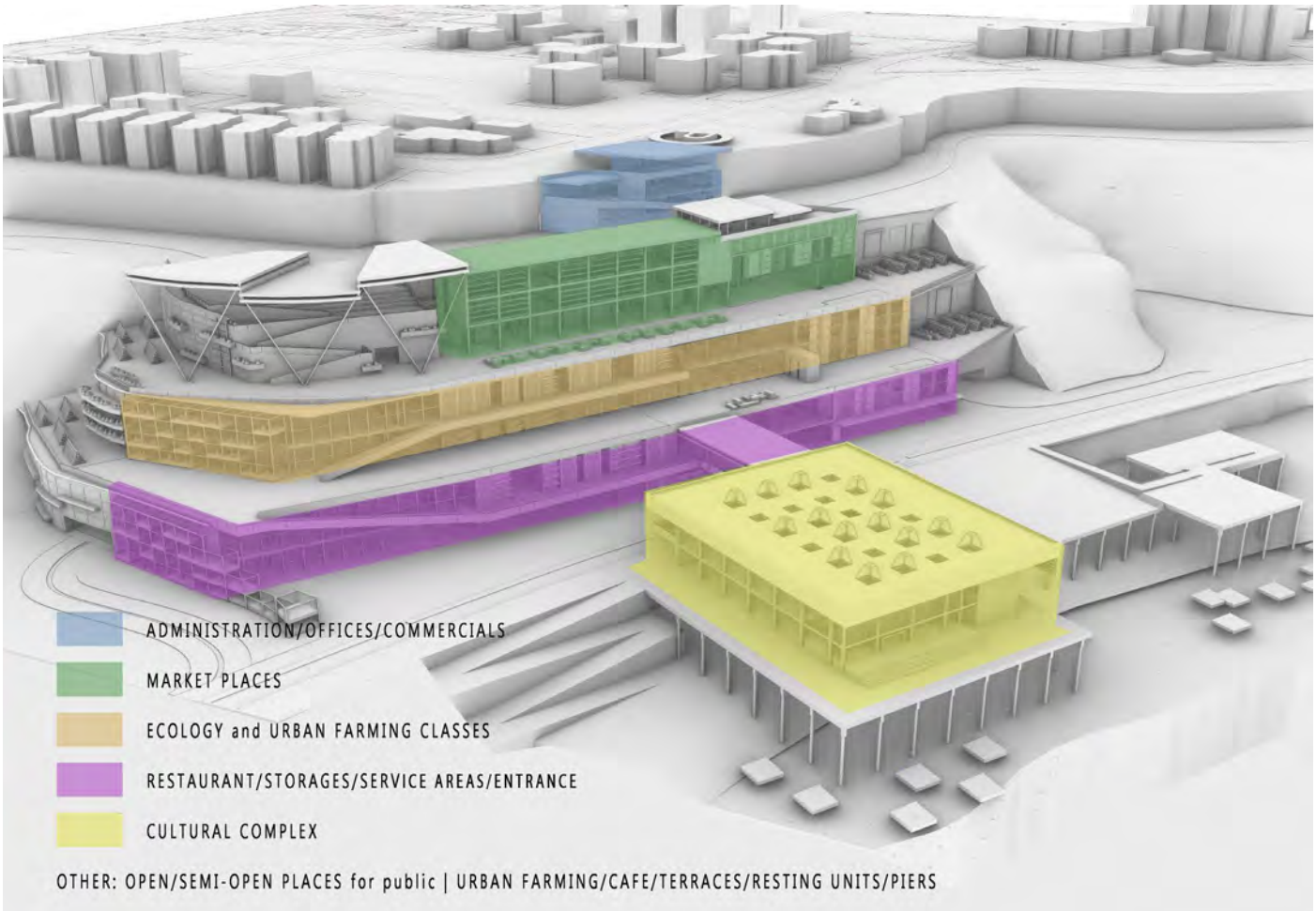


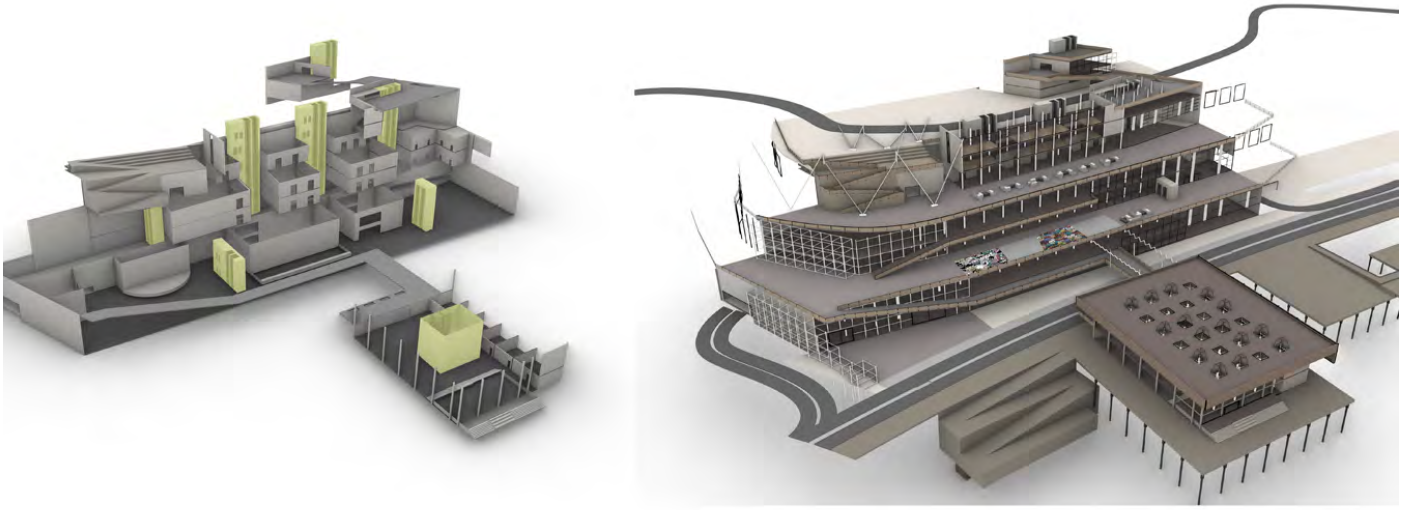


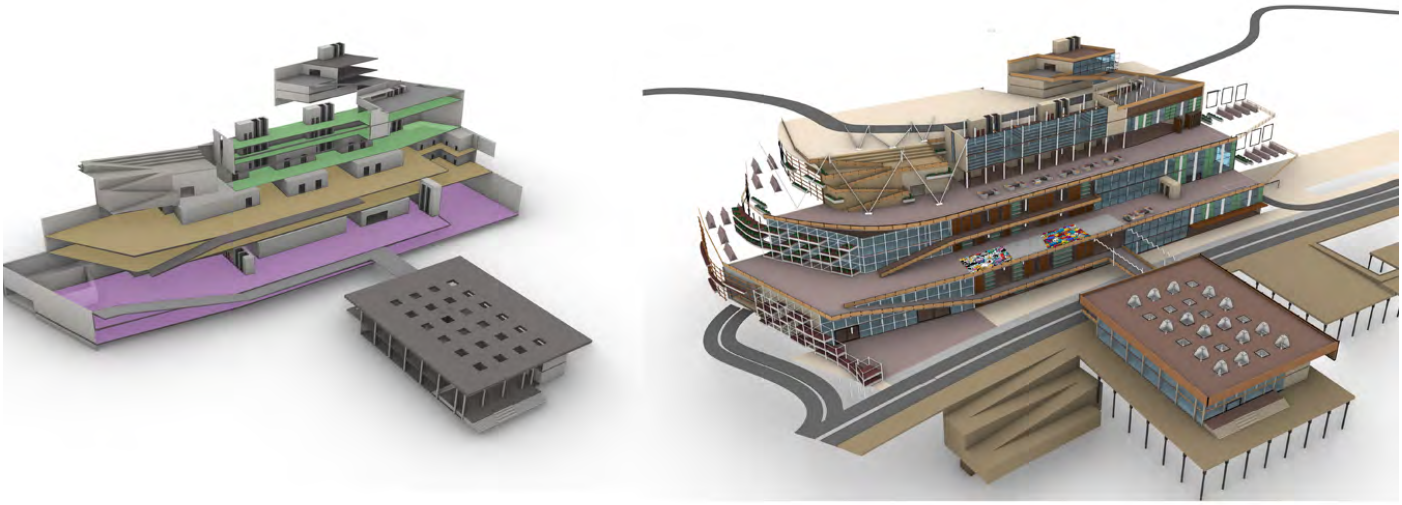
Since direct green façades are characterised by plants with adhesive root structures that enable attaching themselves directly to the façade additional supportive system components are not needed. Double-skin green façades are equipped with supporting elements like cables, meshes, trellis or nets made of steel (stainless, coated or galvanized), hard wood, aluminium and plastic. Plants to be applied are climbing species without adhesive properties but tendrils.

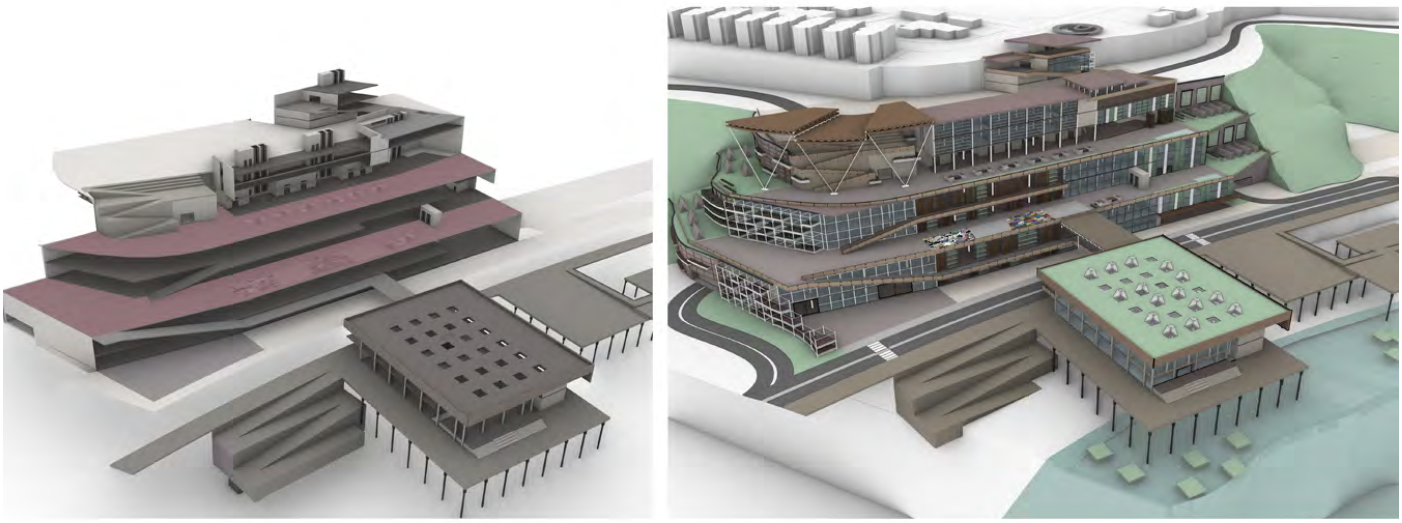
Continuous green walls usually include a frame that holds the base panel and protects the wall from humidity. The application of a fabric layer (permeable, flexible and root proof screens, also serving as drainage) serves as growing media. Continuous green walls therefore often do not have any further requirement for soil substrate. This hydroponic technology provides water and nutrients to the plants. The fabric layer is attached to waterproof membranes that protect the construction material from moisture.




ADMINISTRATION/OFFICES/COMMERCIALS
MARKET PLACES
ECOLOGY and URBAN FARMING CLASSES
RESTAURANT/STORAGES/SERVICE AREAS/ENTRANCE
CULTURAL COMPLEX
OTHER: OPEN/SEMI-OPEN PLACES for public | URBAN FARMING/CAFE/TERRACES/RESTING UNITS/PIERS







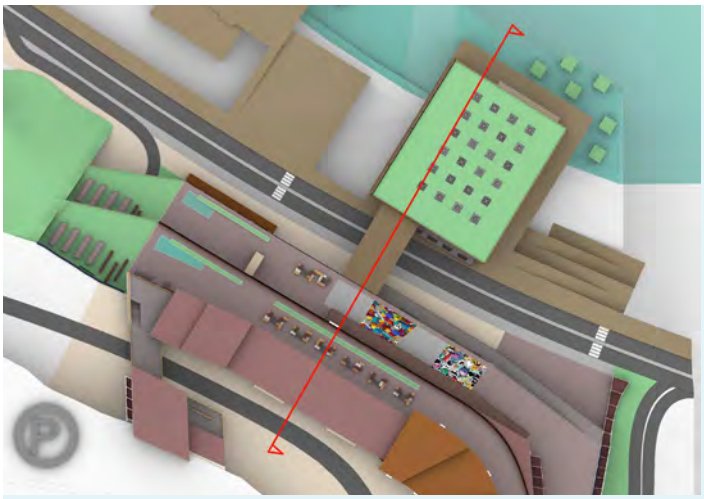
Project has three main cores which reach all storeys and other five cores as supportive vertical curcilation elements. At the main body of the design there are three different plan organization according to the variety of functions and each of them consist of similar two storeys. Terraces create open spaces and outside circulation areas with the outside furnitures like seatings, ramps, skate ramps, counters and benches whic support human activities. Between two main highway the design has steel structure and truss systems, also wooden materials. Continuous coastline trails and circulations are integrated to the design and with the design of canopies and exterior facade systems it supports production activities and develops social-economic aspects.


PIER
INFO DESK
40 m²
UNDERGROUND
CARPARK 2600 m²
WC
44m²
WC
50m²
ENTRANCE
FOYER
STUFF
STORAGE
350 m²

COASTLINE FLOOR PLAN

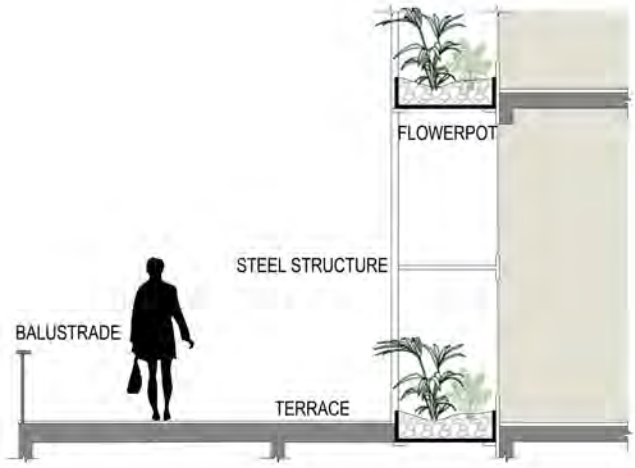

WC
30 m²
WC
30 m²
STUFF
INSTRUCTOR
ROOM
150 m²
CLASS
100 m²
CLASS
100 m²
SEMINAR
ROOM
90 m²
CLASS
100 m²

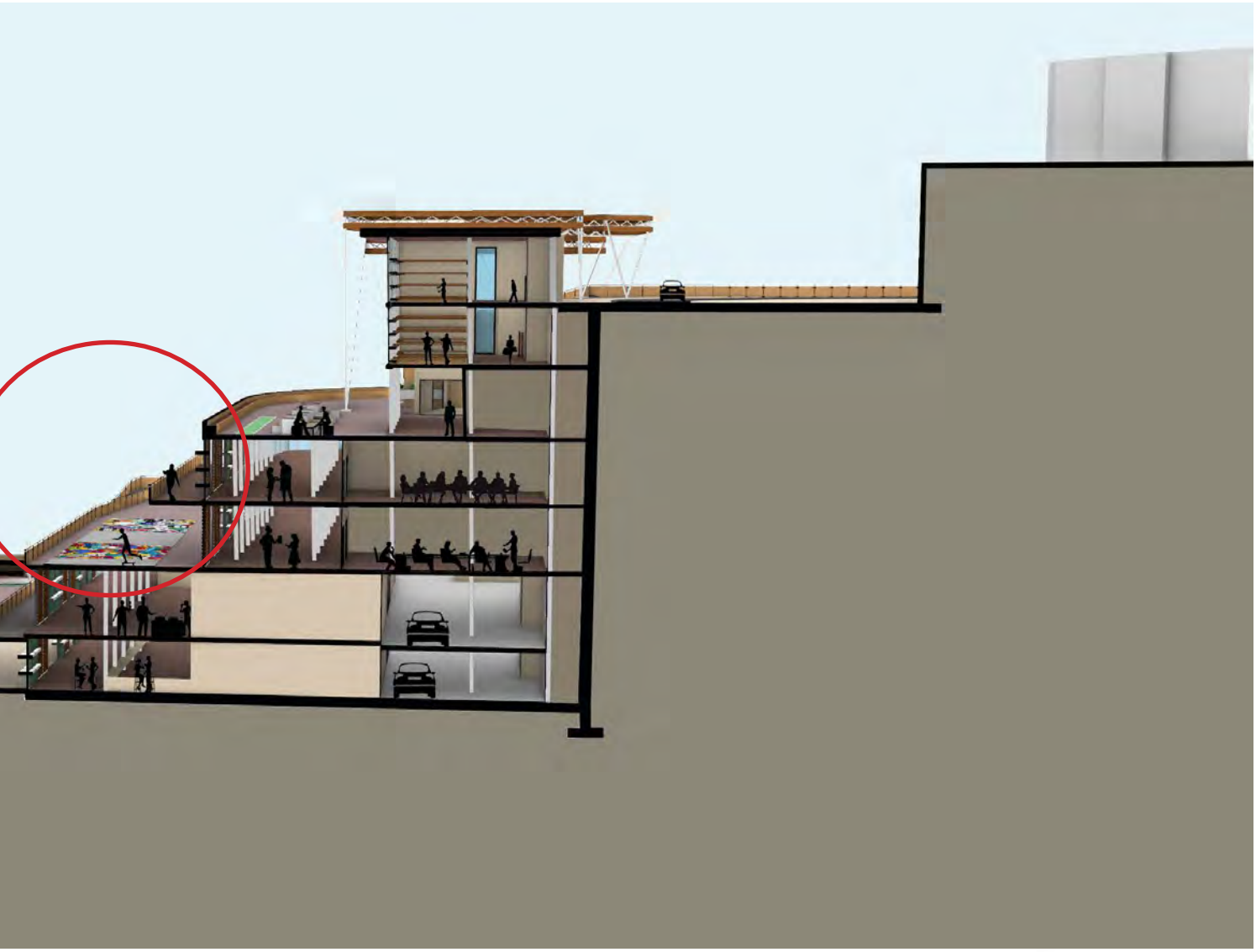
GROUND FLOOR PLAN



SECTIONS

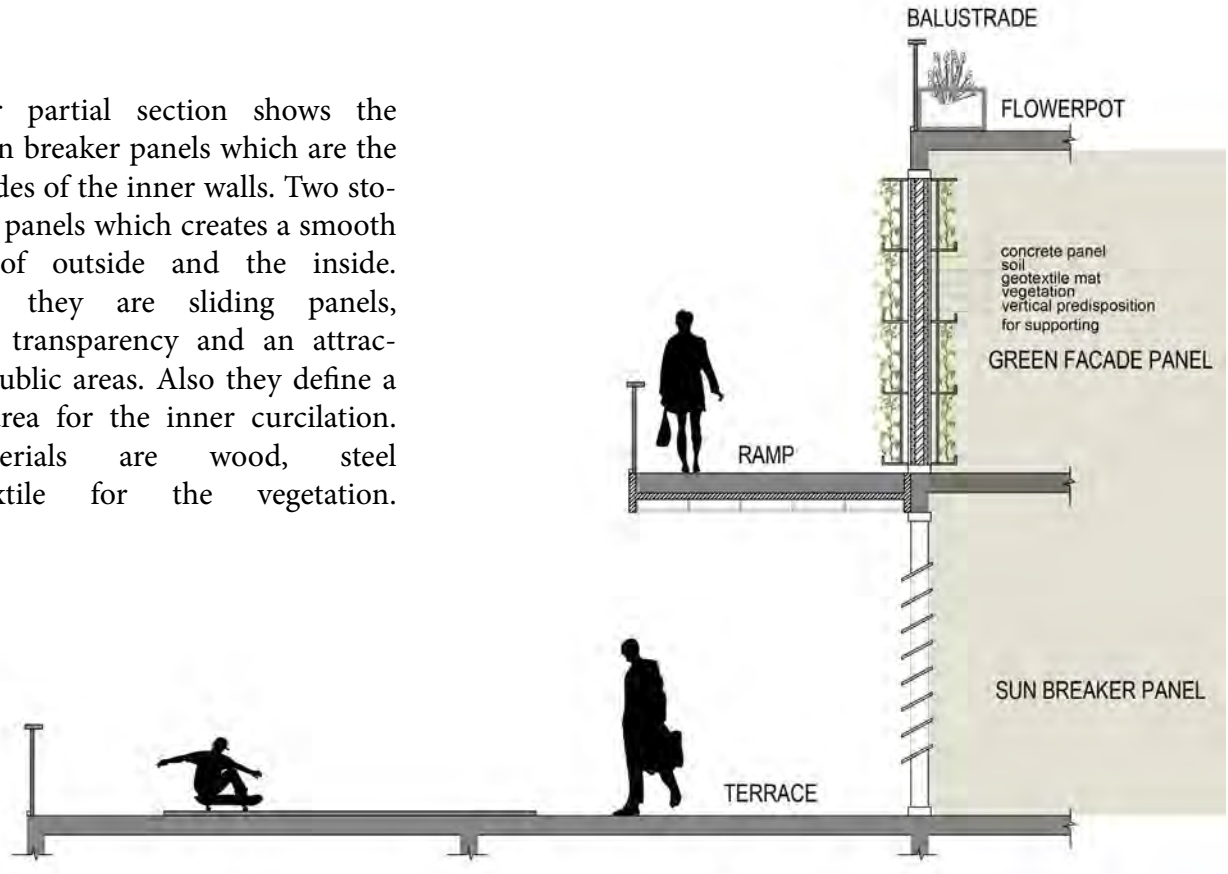
In order the understand the topography and the connection of masses with the environment, sections were needed. The first section is taken from the very middle of the design in order to show the connection of cultural center with the market places. Green roof system with the filtered skylights creates a view for the upper parts and at the same time skylight sustains a proper area for the galleries and artifact with the natural light. Also, bar, education places, underground carpark and terrace designs are clear in that section. There are many main entrance areas thanks to vertical and bridge like circulation elements. Canopies on the open areas are neccessary to avoid extreme sun exposure. Sudden slope difference is not a problem anymore and people have reasons to visit the coastline. First partial section demonstrates the exterior steel facade system with the orientation of flower pots. It sustains cooling and contributes to the production consept.

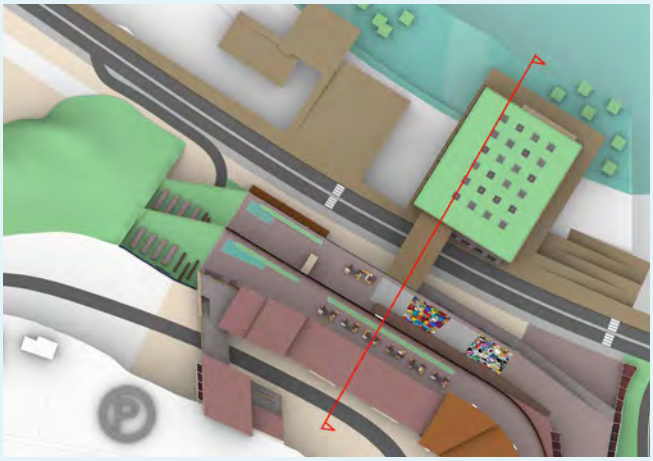


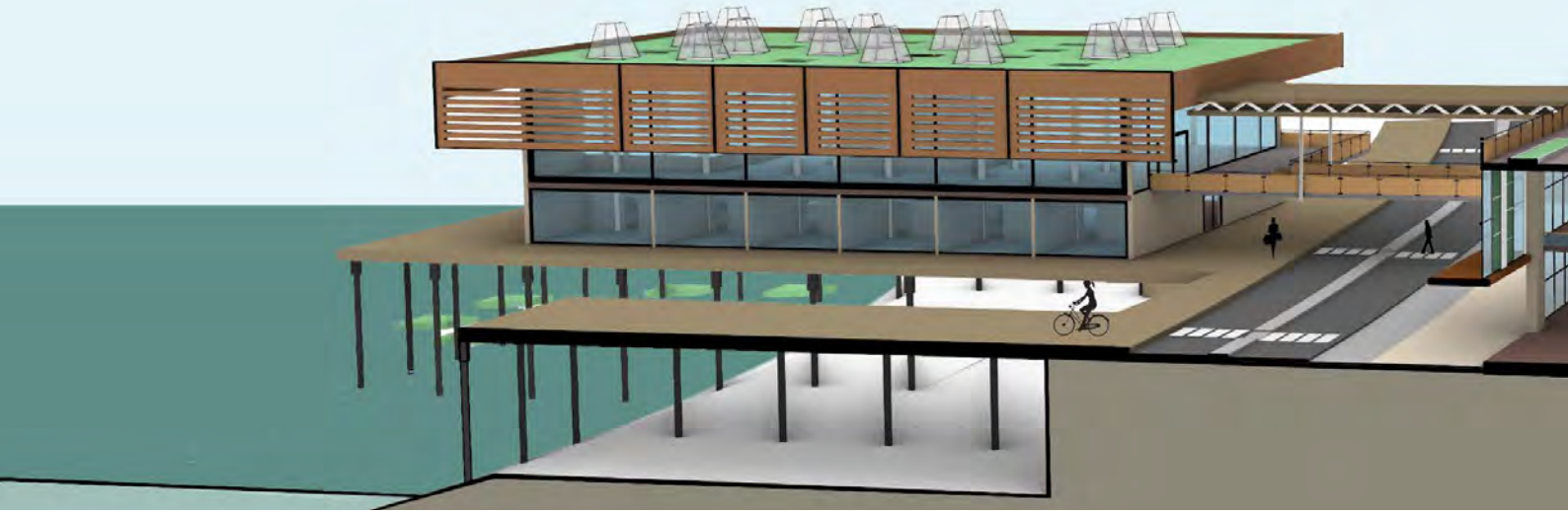


Other partial section shows the green and sun breaker panels which are the seconde facades of the inner walls. Two storey has these panels which creates a smooth connection of outside and the inside.

Since they are sliding panels, they sustain transparency and an attraction to the public areas. Also they define a semi open area for the inner curcilation. Their materials are wood, steel and geotextile for the vegetation.



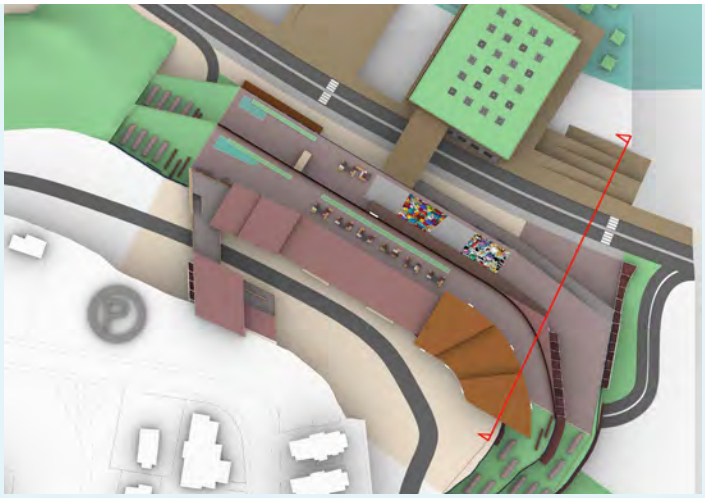


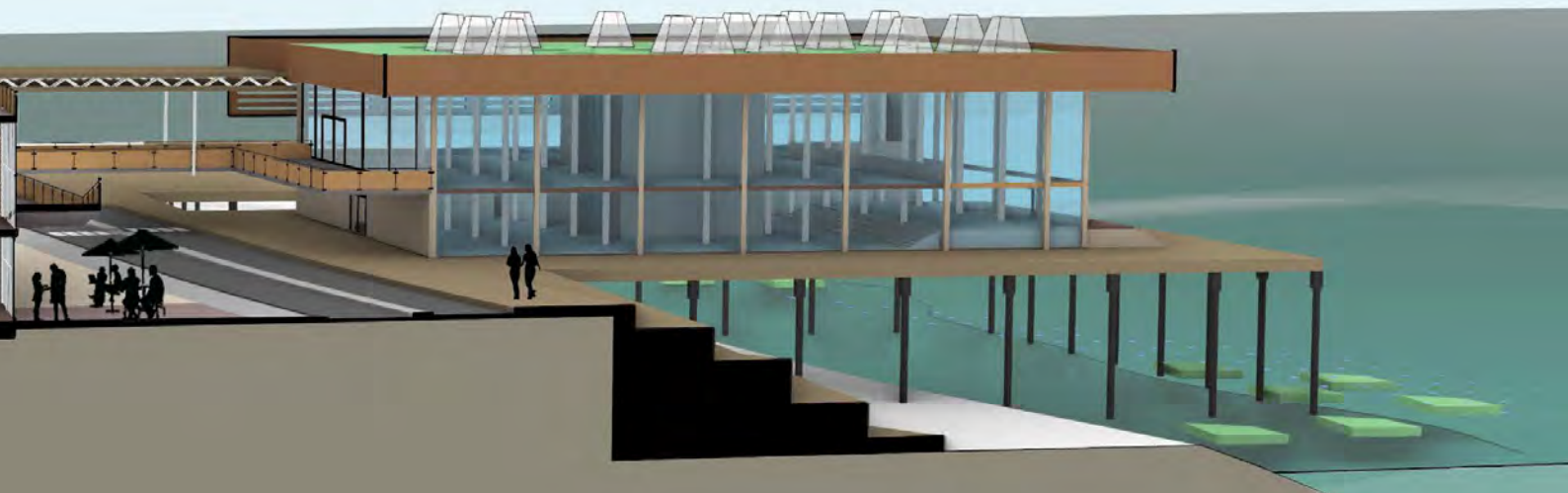


The second section is from the west side of the design which is showing the vertical circulation throughout 40 metres and building reflections to the lake.

Also, at that section carpark, main entrance foyer, cultural complex, market places, rooftop cafe, commercial building and educational areas can be seen. Ideas for facade and roof structures are double skin facade systems, green facades, bridge and ramp connections and truss systems which are in an integrity and sustaining different place organizations.

People can reach the coastline from the residential area with vertical circulations, staircases and ramps. They can experience views, natural elements .



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PRO STUDENT


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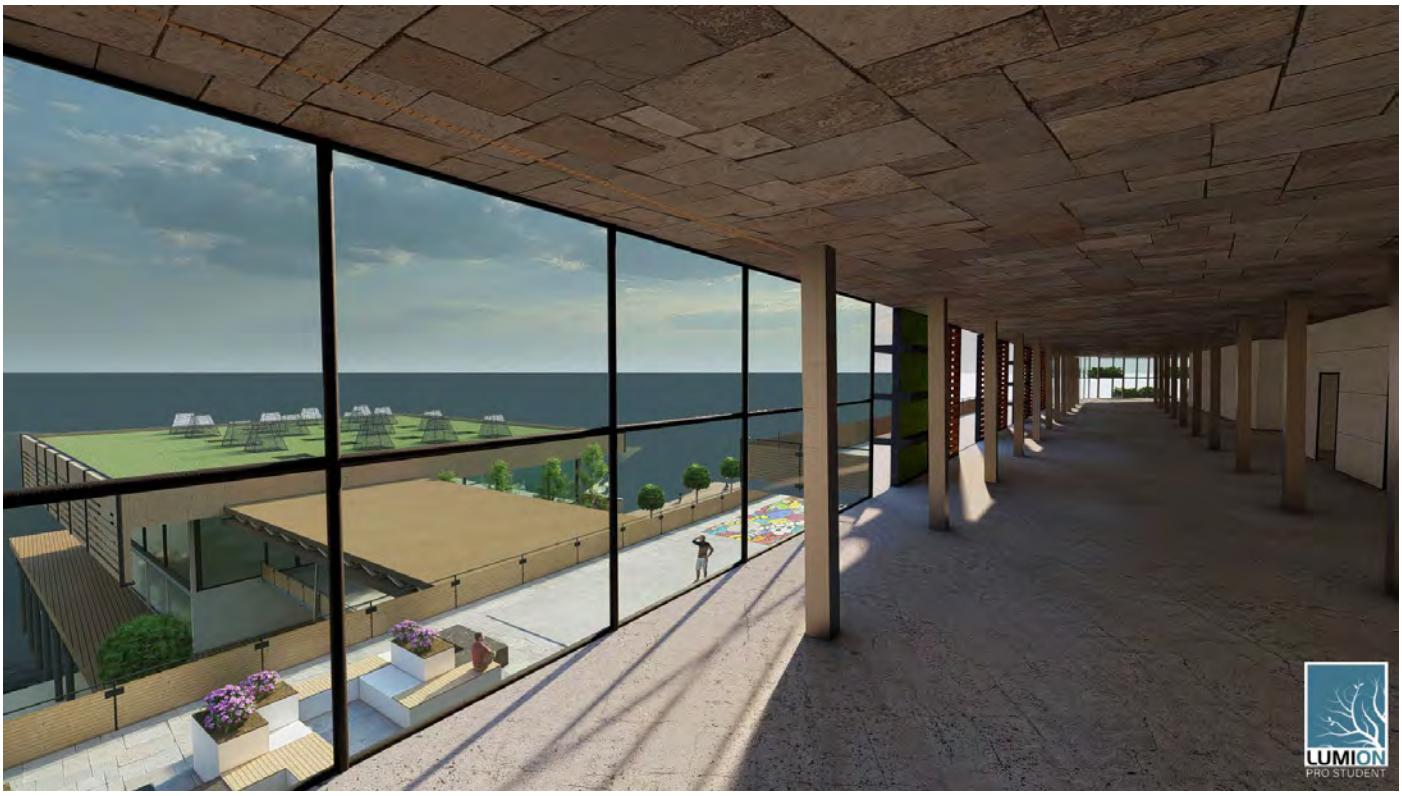
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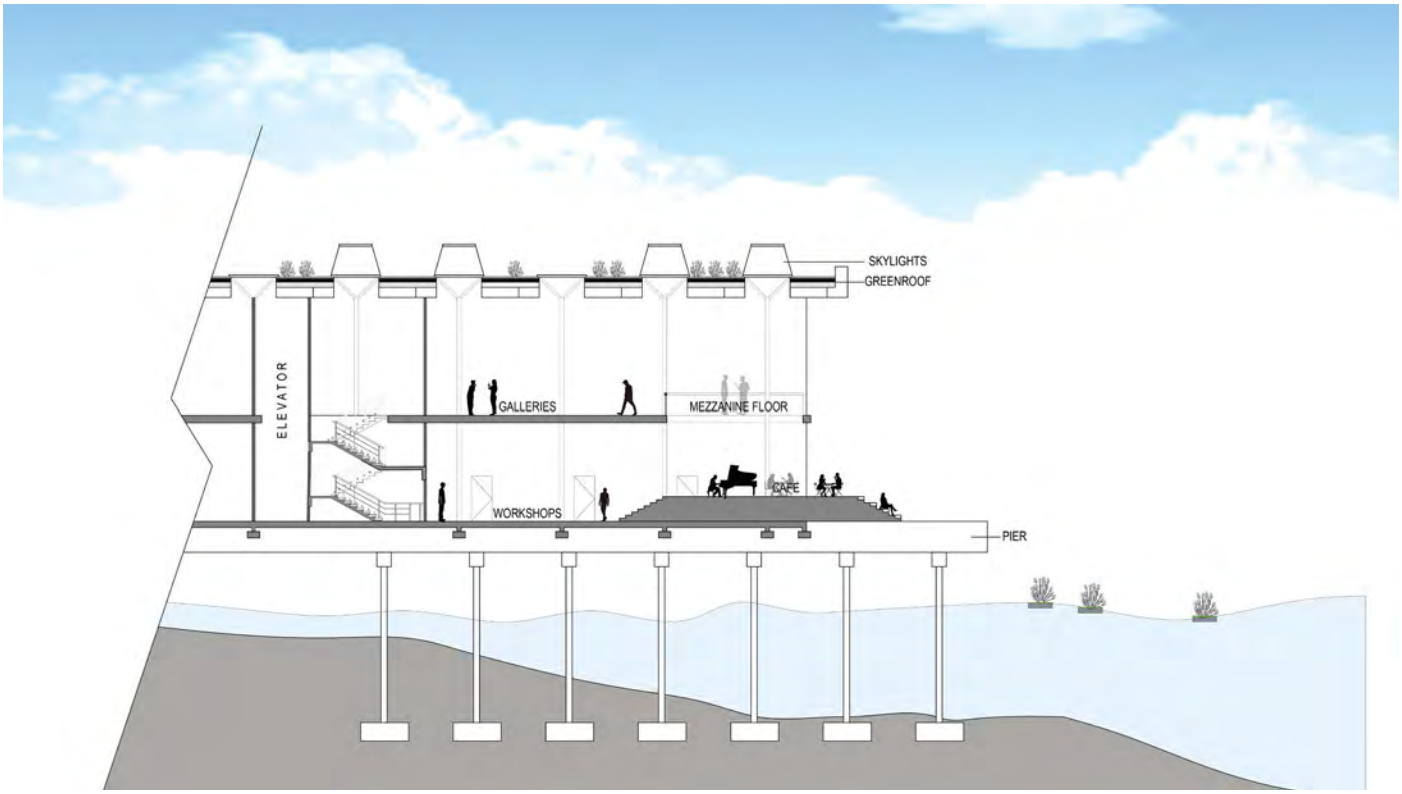
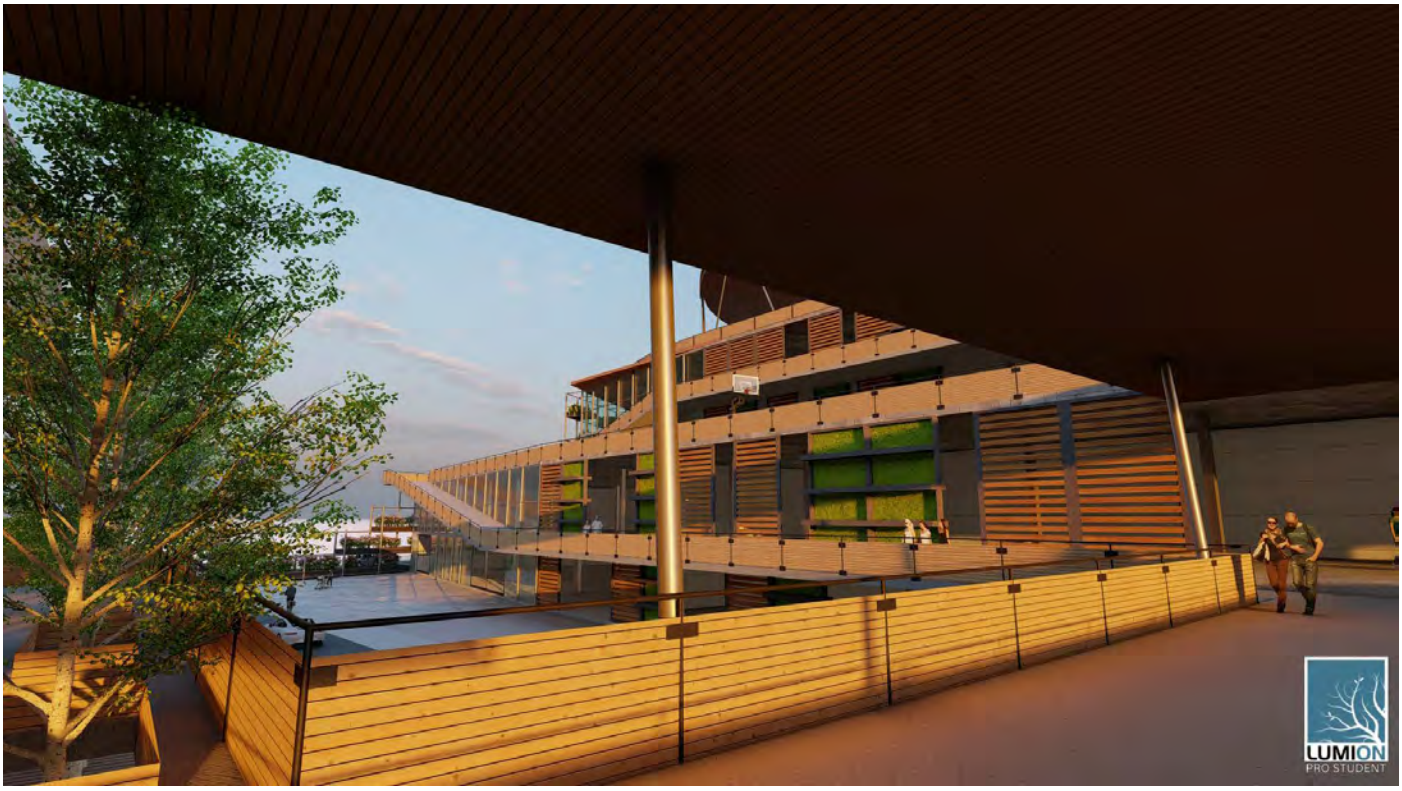

SKYLIGHTS
GREENROOF
ELEVATOR
GALLERIES
MEZZANINE FLOOR
CAFE
WORKSHOPS
PIER


LUMION
PRO STUDENT


LUMION

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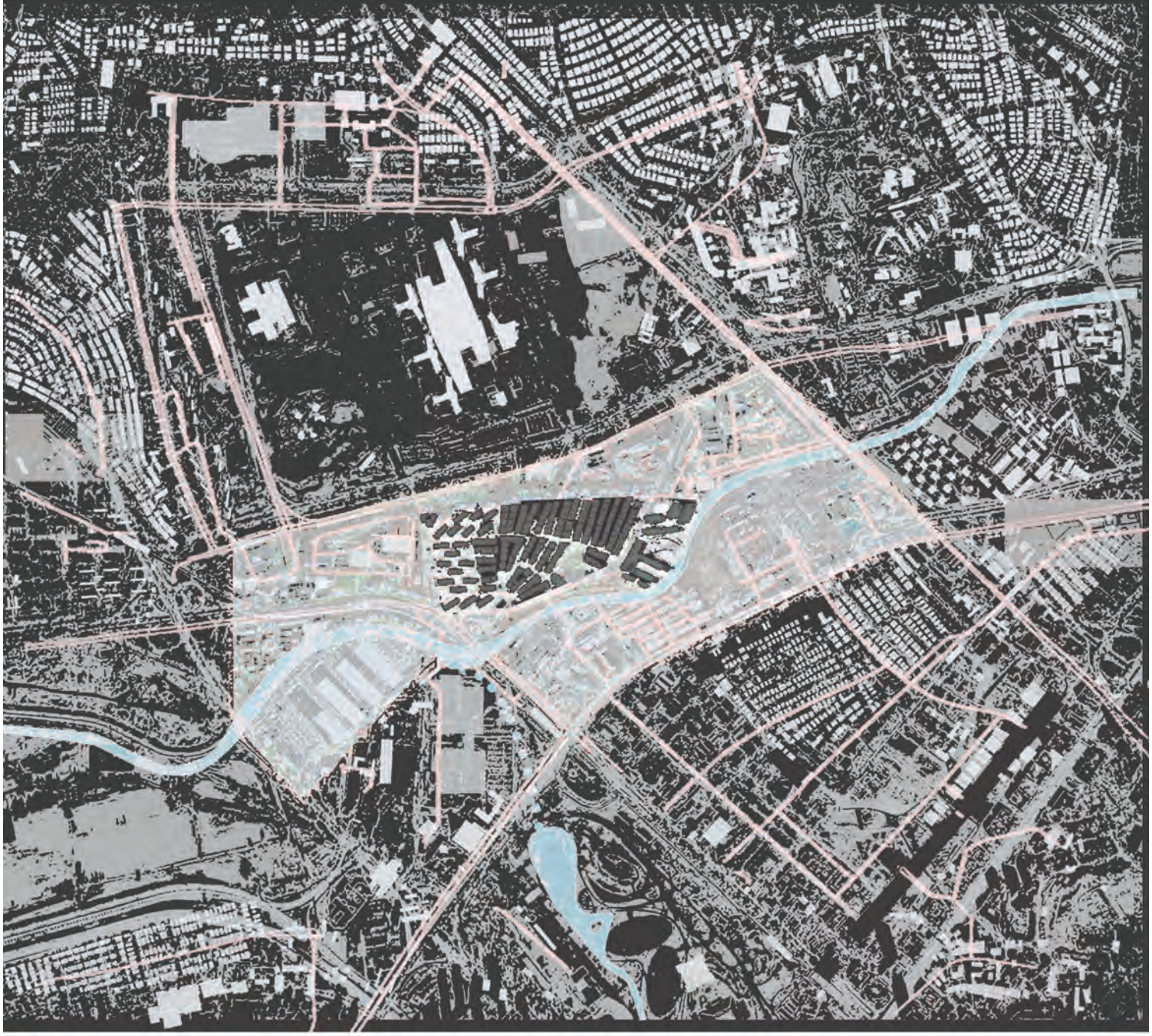

REVITALIZATION IN AN ENCOMPASSED AND NEGLECTED ZONE OF ANKARA

VARLIK MAHALLESİ

FURKAN KIRIKOĞLU

REVITALIZATION IN AN ENCOMPASSED AND NEGLECTED ZONE OF ANKARA

VARLIK MAHALLESİ

The project site is located in a historically problematic terrain of urban design which is Varlık District with its close surrounding (Ata Industry, KGM, DSİ, some state buildings) and the Çubuk river passing by the site. Varlık District is a 1950's modern settlement that was isolated from city and though its advantageous location to the city center, it creates a seperation zone as the time passes by. Furthermore, currently, surrounding the project site, there are ongoing large scale projects including City Hospital, Millet Bahçesi, Business projects which will create imbalance in the morphology of the site and cause uncontrolled increase in the density . So, in the first phase, the project will propose an urban design solution to existing problems with the provision of an inovative city concepts. Later on, with landscape design, the river in the centeral location of the site will be transformed into an integration element in urban scale continuity with proposals of recreational areas. And then, finally a building will be designed to examplify one of the building typologies.

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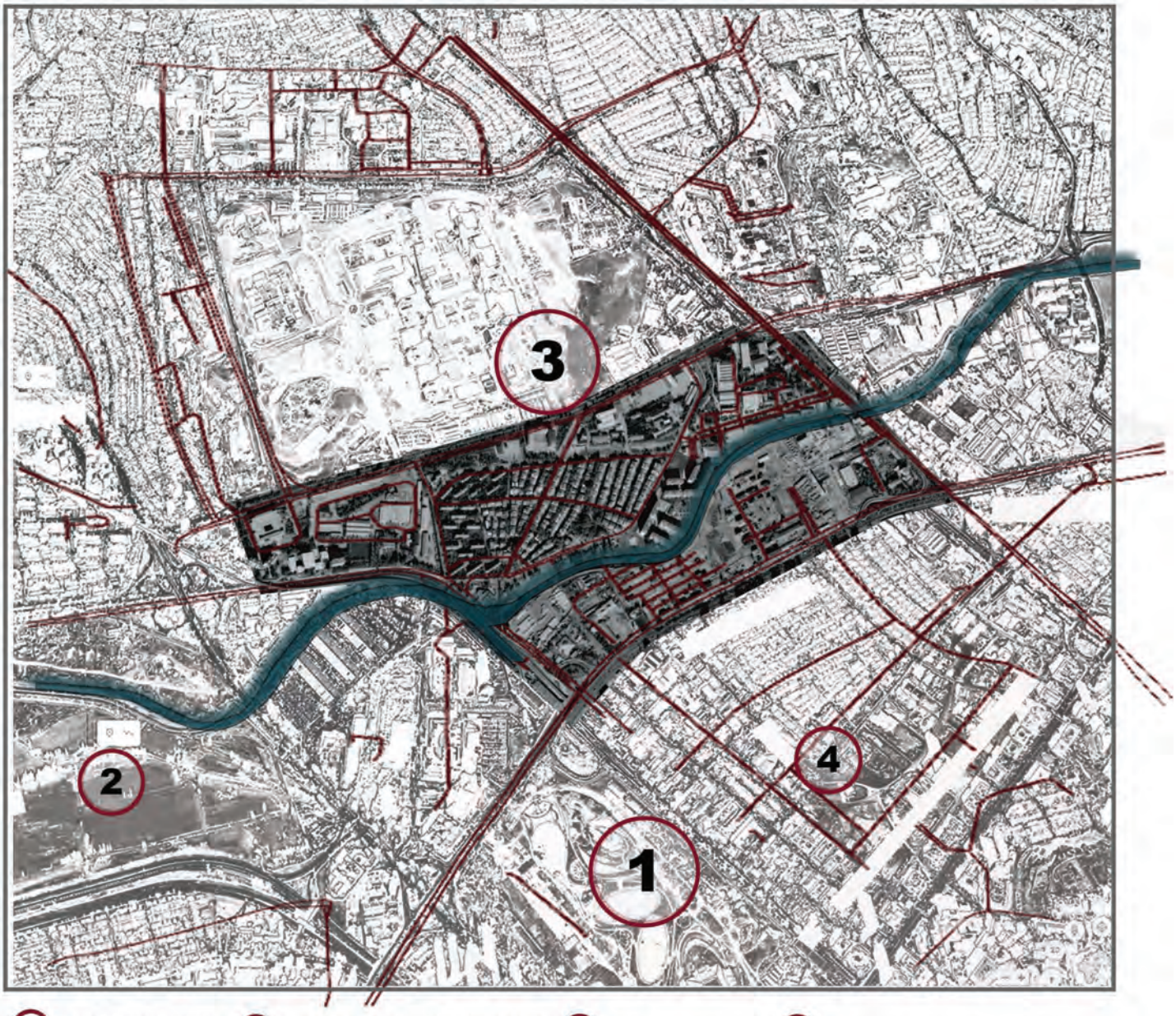


1 MILLET GARDEN 2 AOÇ AGRICULTURAL ZONES 3 CITY HOSPITAL 4 BUSINESS CENTER PROJECTS

LOCATION

The project site covers Ata Sanayi Zone, Toptancı Hali and State Building(DSI, KGM buildings),which are located in junction of Altındağ, Yenimahalle and Keçiören District, in Ankara. Although the site is placed in junction point, it creates a seperation zone between different districts due to unqualified spaces. The site is nearly positioned to new large scale projects such as City Hospital, Millet Bahçesi and MIA (Business Center) Projects in Iskitler, which will increase the density of the land. t

So, the project site has an important mission while creating a connection of this projects.The site is located surrounding the Çubuk Stream which is right now creating unpleasant smell and view for the city.However, for Millet Bahçesi Project, the stream will be reclamed and accumulated as pond for social activities. So, The stream passes through the project site will be cleaned soon, which means the stream provides an advantage for the site.

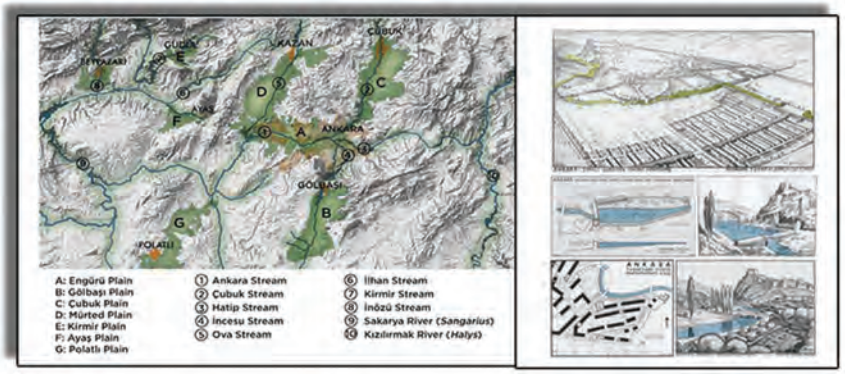
JANSEN AND LÖRHER PLANS

Planning based on three criterias

-Topography (Different Levels of Terraces)

-Water paths

-Vineyards

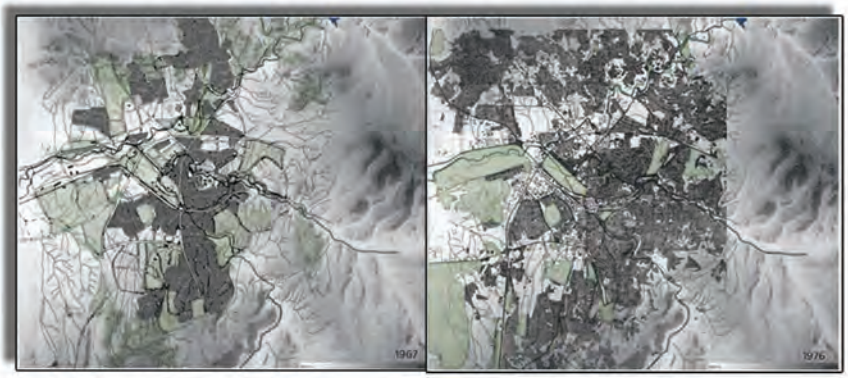


DEVELOPMENT ZONING ALONG RIVER

Ankara will develop around streams

Imagination of streams city

A city of nature



RAPID URBANIZATION

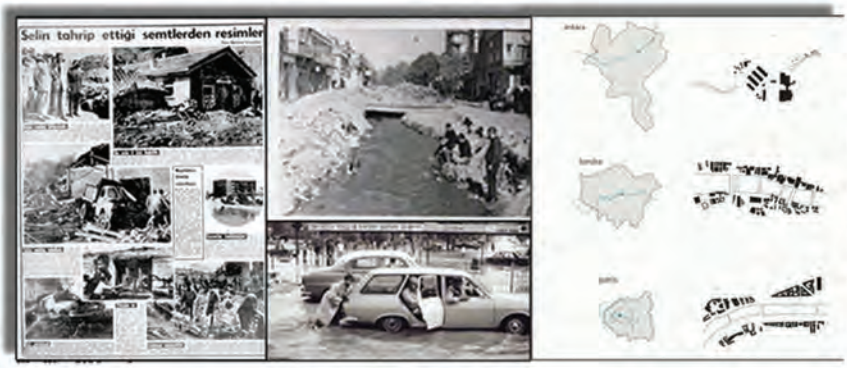
Immigrations from rural areas

RESULTS

-Slum area

-Intended plans not satisfy and undesired areas occupied

-Irregular settlements



NATURAL DISASTERS

As one of the advantages of city, streams became one major problem of city

-During 1960's, floods cause destructions in city

-Water collected as dam to prevent flow in streams

-Streams taken under the streets

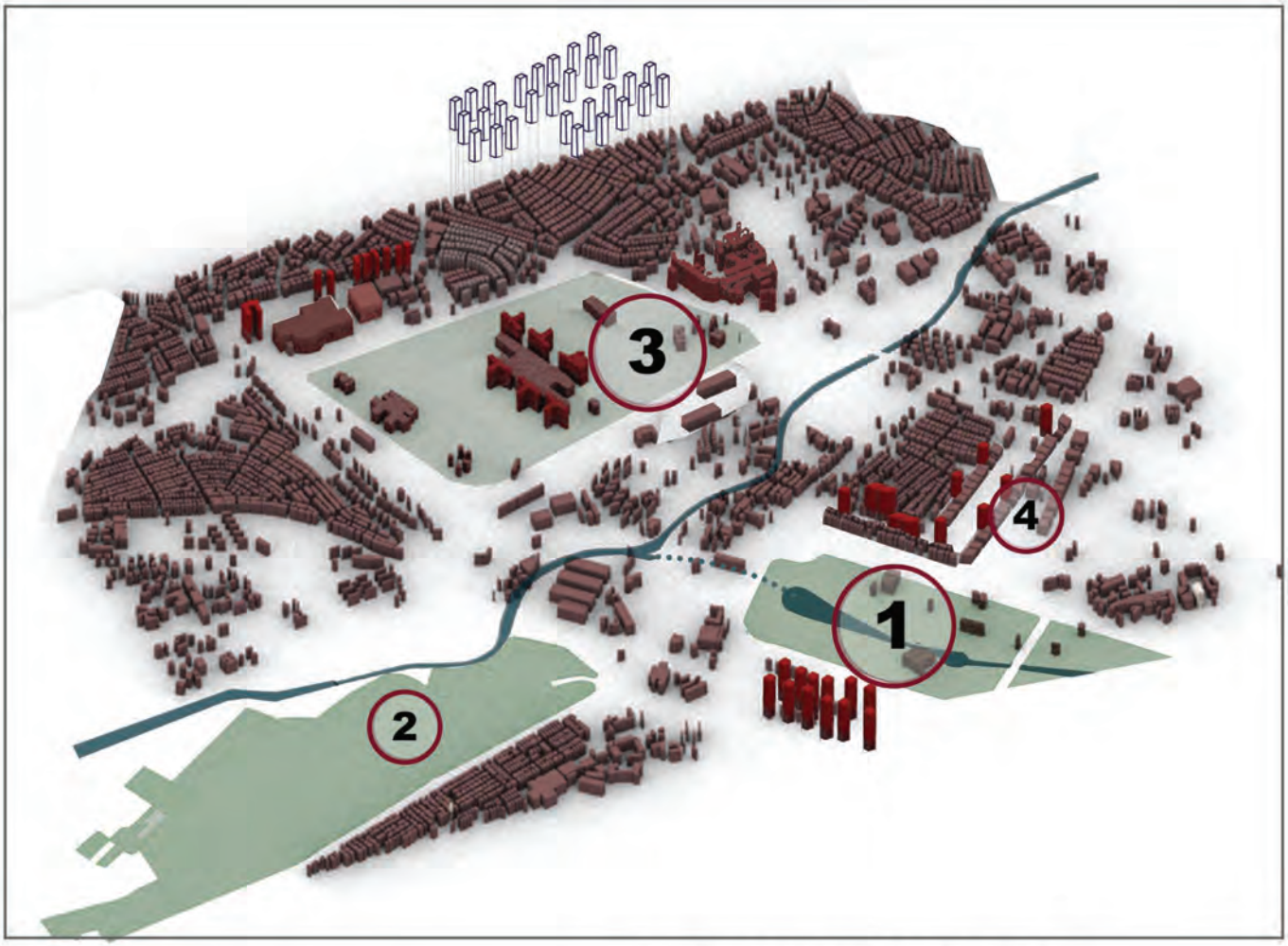
-Uncleaned water

AN URBAN LIFE FAR FROM NATURE

-Lack of greenery

-Existing greenery: man made/ articial fountains

-The dreams of stream city ended in concrete



PROBLEMS

-Density of area needs to increase

-Renewal law to construct high rise buildings

Keçiören: Ayvalı, Etlik, Aşağıeğlence,

Tepebaşı zones-*-

Altındağ: Merkez Ankara, MIA project

-Unplanned urbanization

NEAR SURROUNDING OF PROJECT SITE

-Mass-Void Relationship weak

-Industrial buildings in Ata Sanayi abondened

-Improper scale buildings on site

-No greenery in site

-Old and unqualified buildings

-Project Site Isolated from City

GREEN ZONING IN MACROSCALE

WATER LINE CONTINUATION

FIGURE- ROUND RELATIONSHIP

CONTINUATION OF GREEN ZONING

-Along Çubuk Stream

-Millet Bahçesi

-Aoç Agriculture Zone

-Ata Sanayi Zone

WITHIN CITY HOSPITAL

-Densificatıon of the area

-Different scale buildıng footprınts

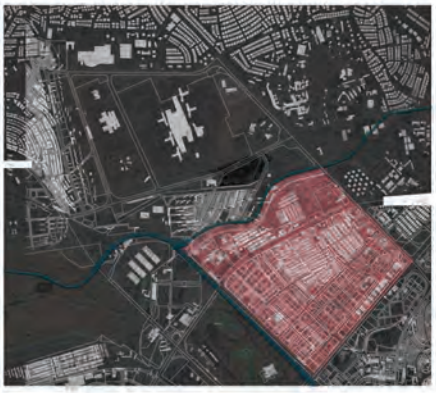
-Potentıal accommodatıon places for patıents and health workers

CONTINUATION OF BUSINESS CENTER

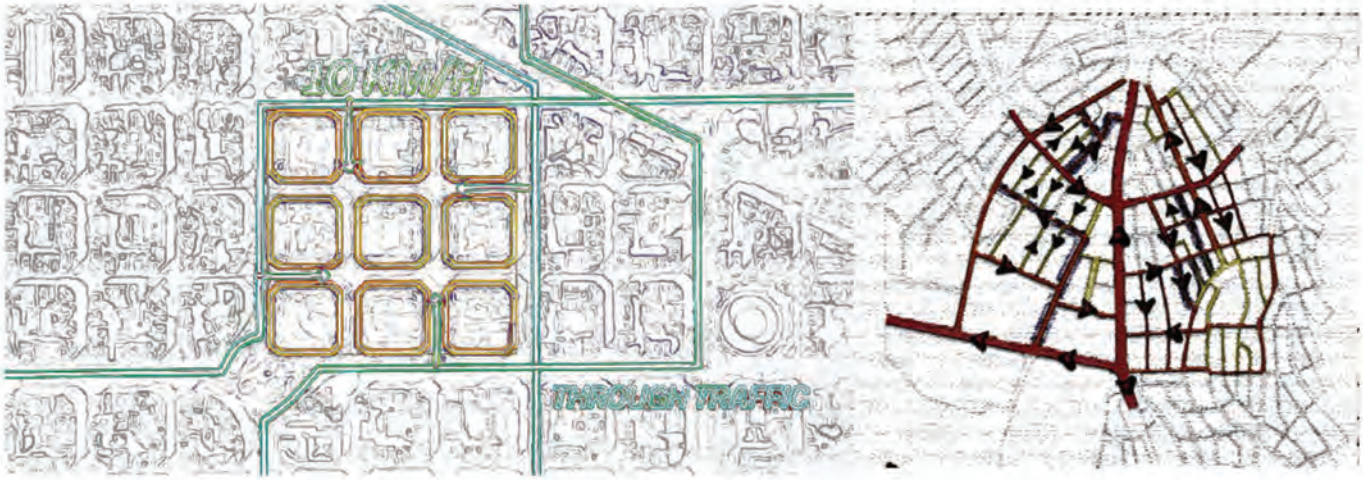
-Jansen's plan

ankara's second trade hub

-MIA projects continuity



TRANSIT ORIENTED DEVELOPMENT



Transit-oriented development (TOD) is defined as "walkable, compact, mixed-use, higher-density development within walking distance of a transit facility." TOD generally provides a mix of residential and commercial uses and is designed to make public transit successful, enhance the convenience and safety of walking and bicycling, and provide for a vibrant, livable community. By 2025, 14.6 million households will demand homes within walking distance to public transit and rail systems. TOD can help meet some of that demand.

It contains a walkable, high-quality pedestrian environment that integrates streetscaping.The highest housing densities are located closest to the transit center in order to decrease sprawl and promote compactness.The transit center is also at the center of a destination that has a diverse, mixed-use development.Parking is carefully located, designed, and managed.-Most importantly, the community has quality public transit facilities and service. Source: http://transportpolicy2013.blogspot.com/2013/06/transit-oriented-development-without.html

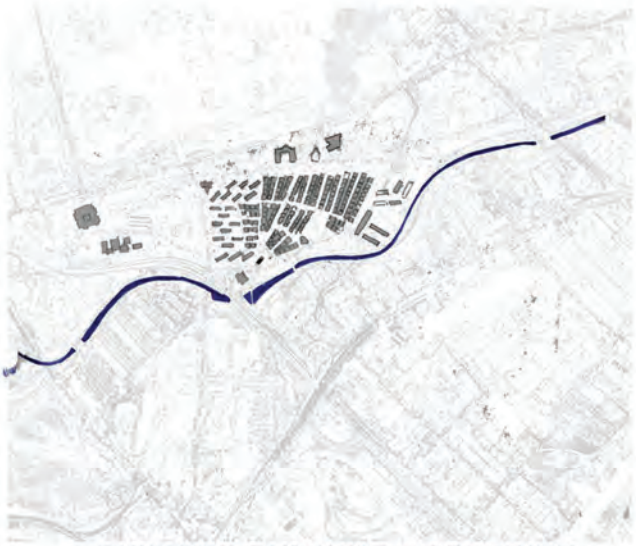
PUBLIC TRANSPORTATION AVAILABILITY

Varlık District and its surrounding is located in between high dense vehicle roads. So, as it was applied in Barcelona and Kızılay Example, pedesterian walkways in between the junctions

of vehicle roads can be redefined and linked with the surrounding potential pedesterian paths. So, within revitalization of the site, the area will solve the disconnection of Yenimahalle and Altındağ.

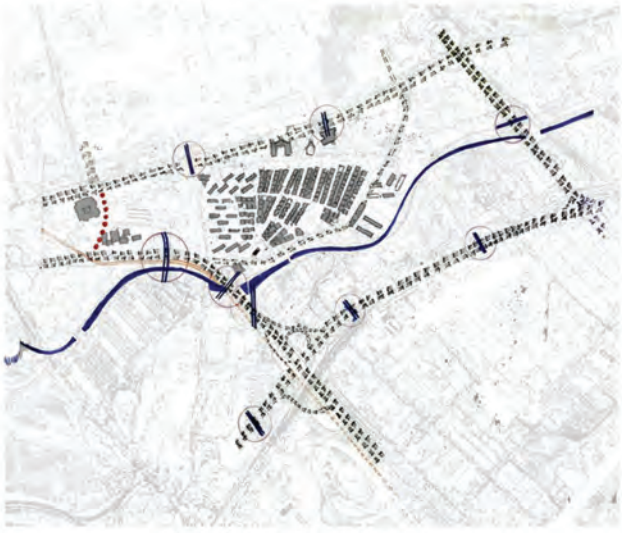
ANALYSIS

POTENTIAL HUBS

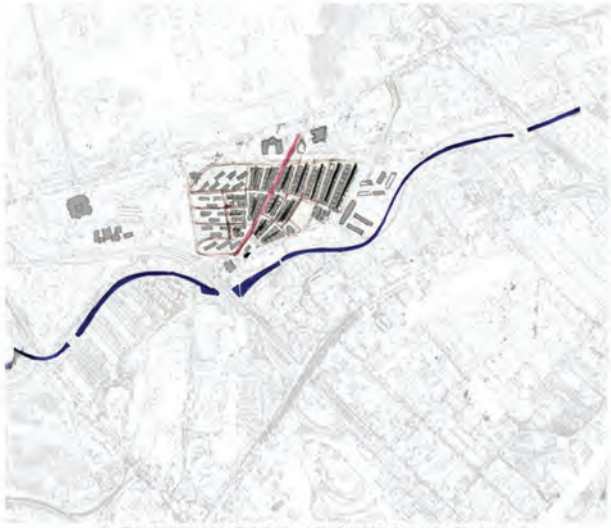


EXISTING BUILDING FOOTPRINT

EXISTING GREENERY

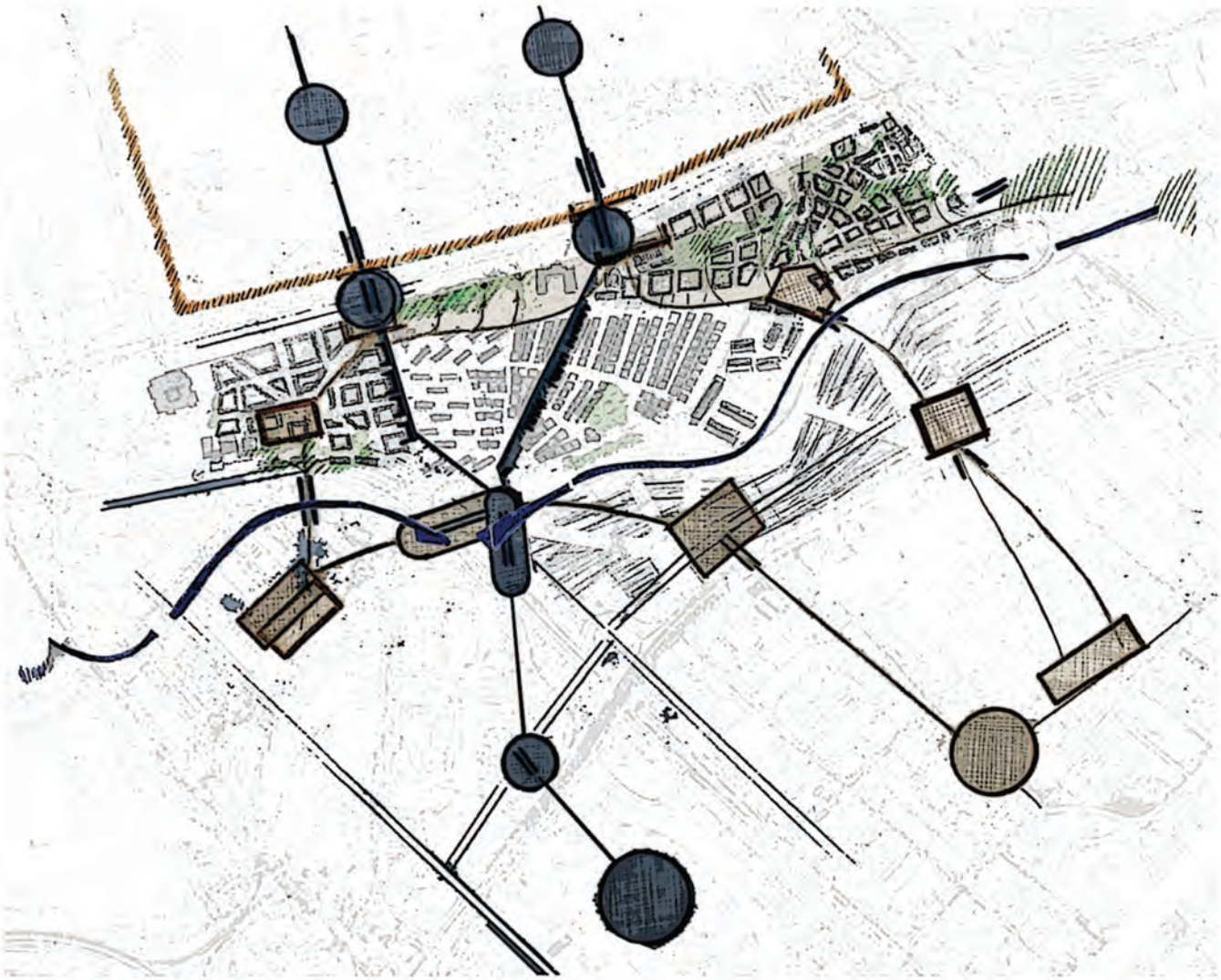


VEHICLE DENSITY



COMMERCIAL ACTIVE ROADS

POTENTIAL ENTRANCES AND CONNECTIONS



DESIGN GUIDELINES

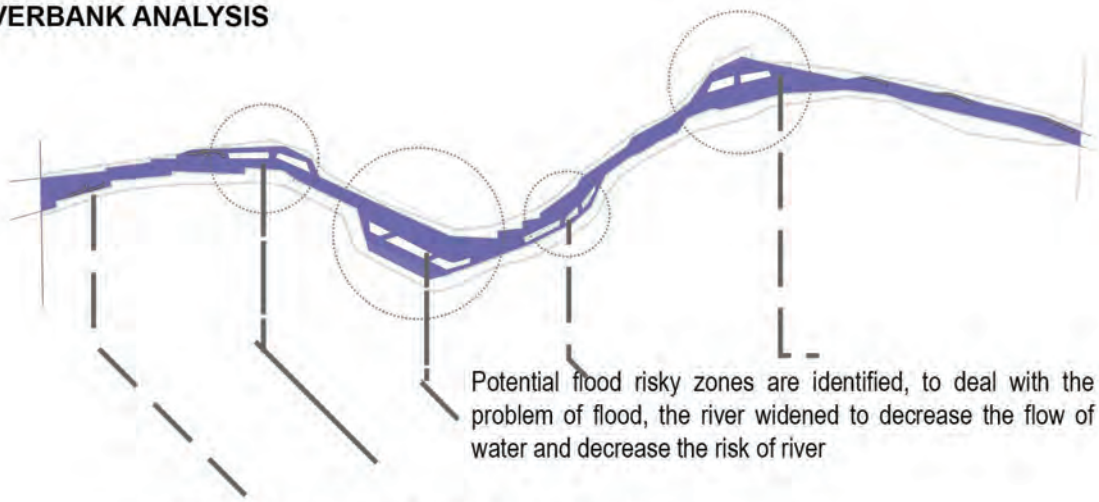
Some squares and street continuation will increase the integrity of site with its surrounding. Within added connections, the ongoing projects including City Hospital, MIA projects, Millet Garden will be connected and the project will propose a solution to the problem of densification occurring in its surrounding.

While developing the design, existing and new greenery diffuses into each other so with treelined street connections, the integrity will increase. The river in the centeral location of site will be transformed to an integration element with proposals of new designed public spaces and public squares in riverbank.

GREEN CONTINUATION

RIVER REVITALIZATION

RIVERBANK ANALYSIS

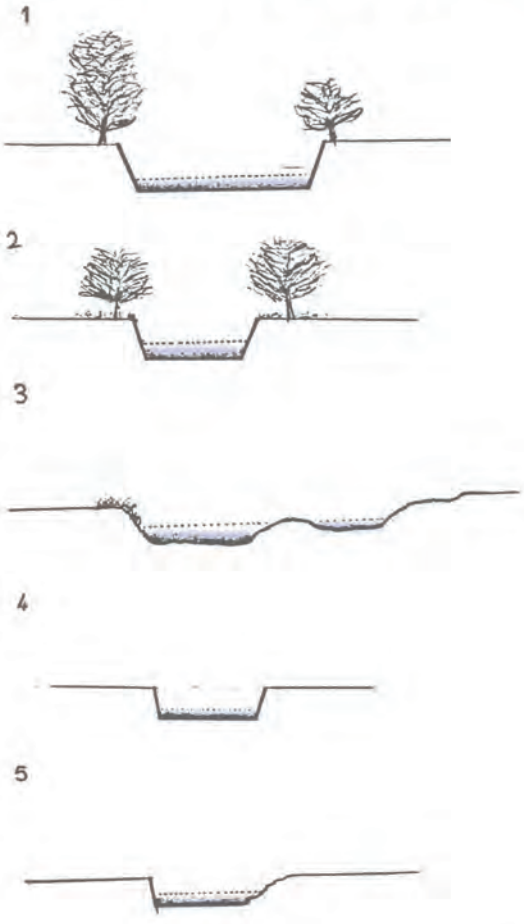


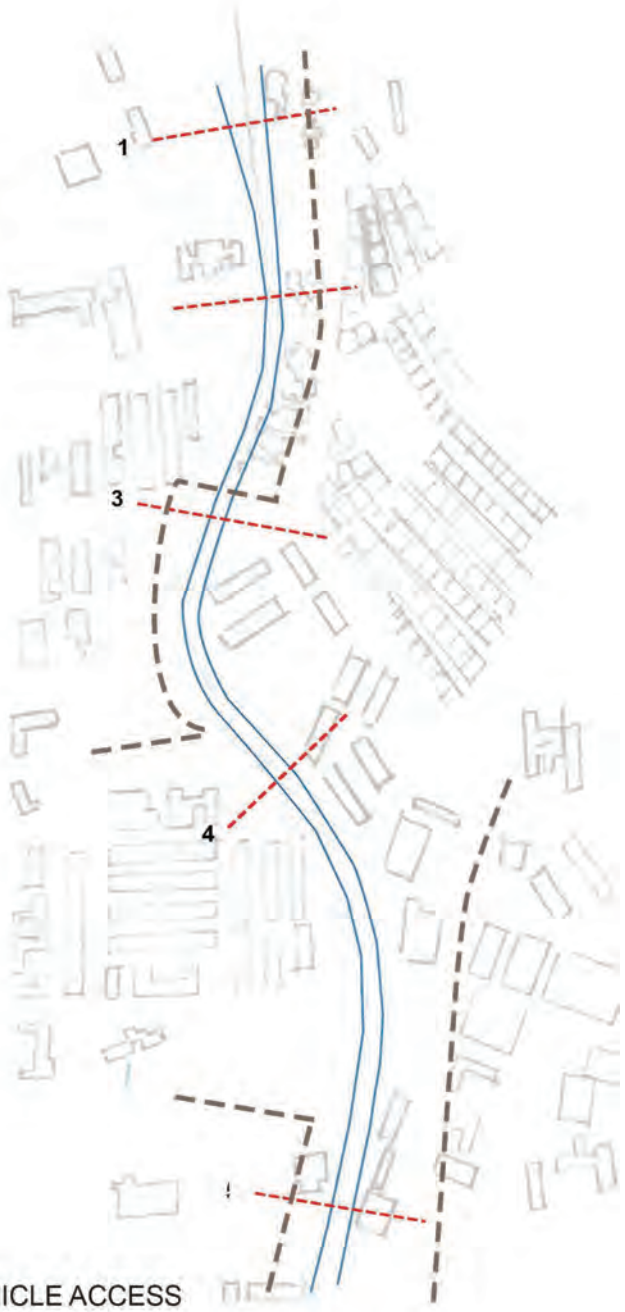
Potential flood risky zones are identified, to deal with the problem of flood, the river widened to decrease the flow of water and decrease the risk of river

Diverse relations between river and the riverline provides a rich interactions

EXISTING RIVER TYPOLOGY

In existing situation, to minimize the risk of flood, the level of water in river was kept under control which will decline the human interaction with water. In addition to this, vehicles can only access some parts in site. Most of the site consist of abondened lands and buildings.



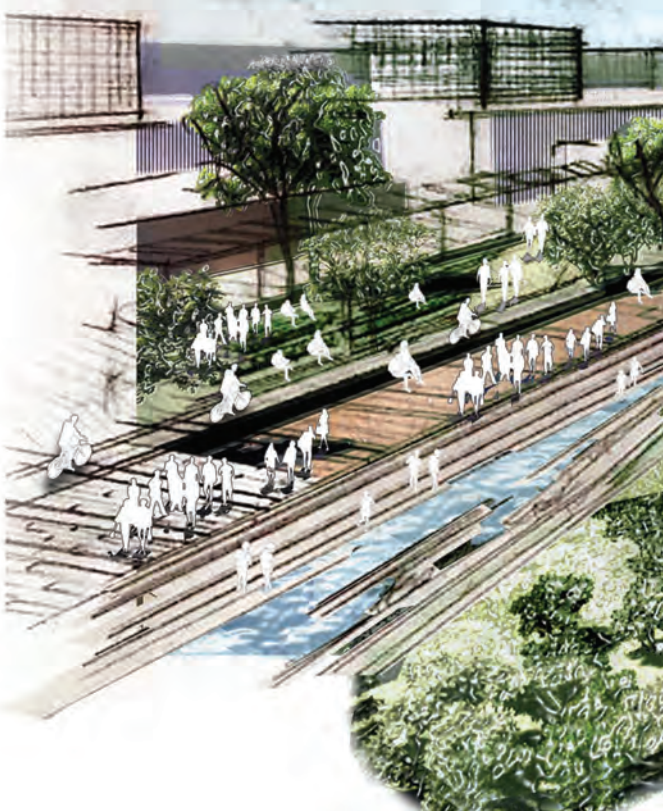


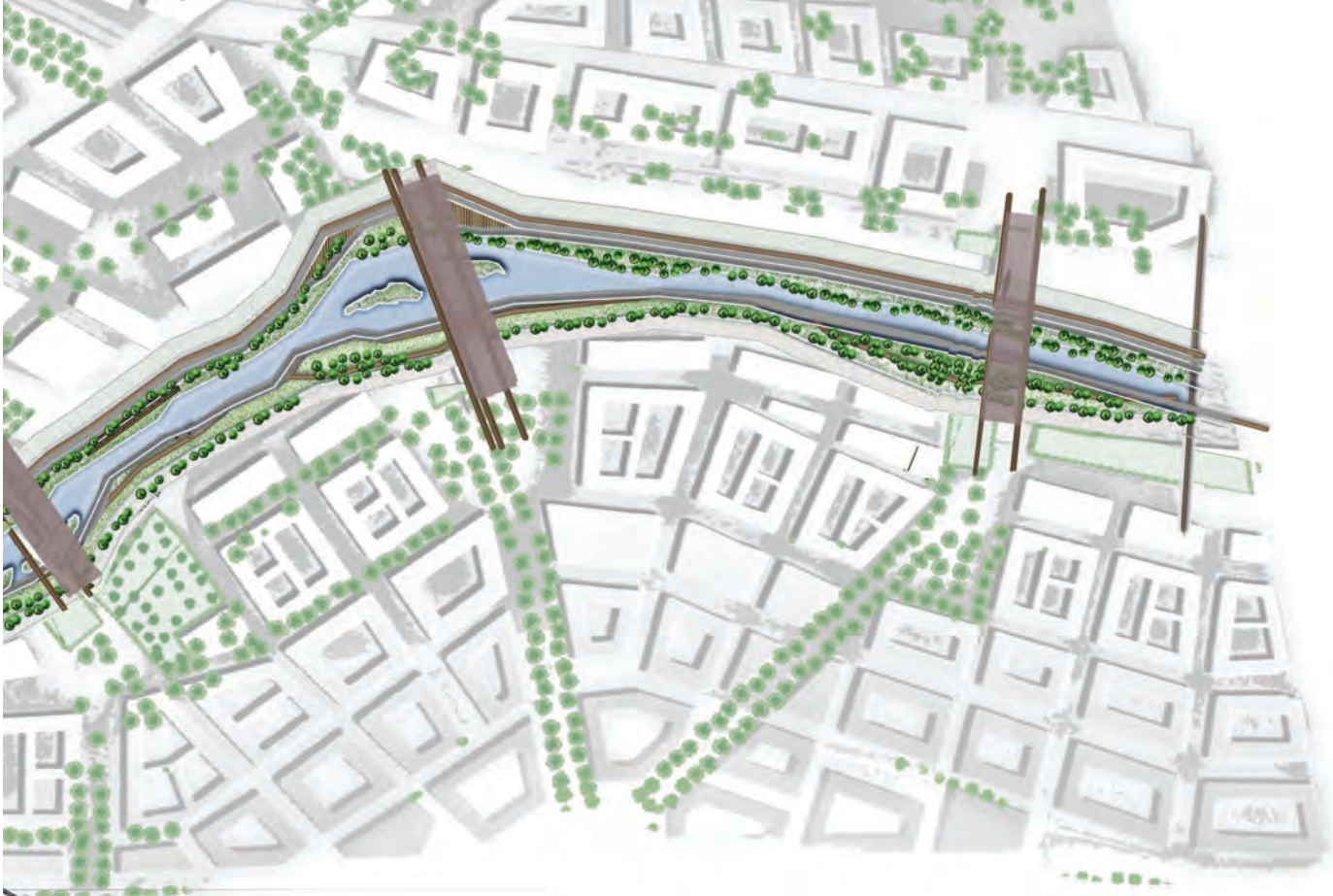
REVITALIZATION OF RIVER

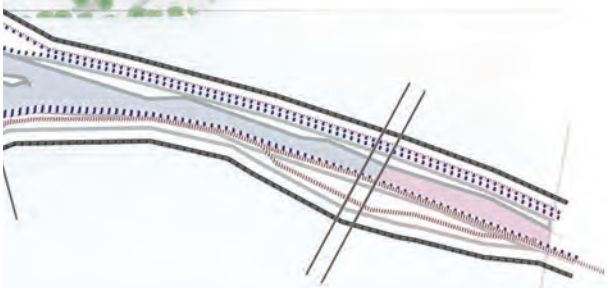
While revitalization of the river, a continuous water experience within greenery is provided. The design around riverbank includes pedesterian and bycle walkways. And, for only emergency situations, the walkway is open to vehicles. Thus, the abondened characteristics of the site will be transformed into an attraction center for both inhabitants of site and the users of ongoing large scale projects.

The identified flood risky areas are treated to create second corridors that will decrease the flow of water by rising the area of water. This application also increase the water experience with users.

The bridges on river are located in critical locations that will integrate the site with its surrounding. And, the public squares along and accross the river will ensure a continuous and interconnected functional structure rather that being point based.







BYCYLE PATH

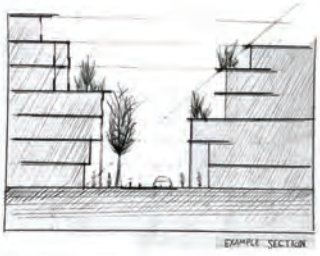
PEDESTERIAN PATH

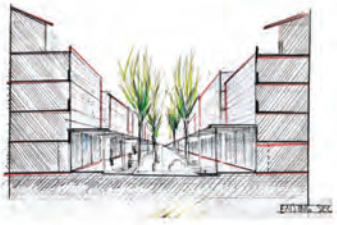
EMERGENCY VEHICLE PATH

MASTERPLAN PROPOSAL

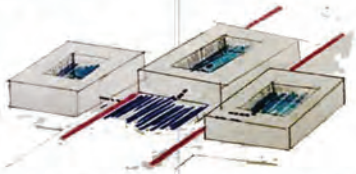
The design of masterplan aims to provide a model for cities morphology. While doing so,

-Well Defined public spaces and streets
-Close Proximity to Metro Station
-Mix of uses- Lively and Vibrant Places
-Pedesterian Scale- comfortable- Safe, Enjoyable
-Active Ground-Floor Retail
-Sidewalk Cafes
-Tree Lined Streets
-Reduced and Hidden Parking

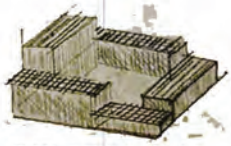




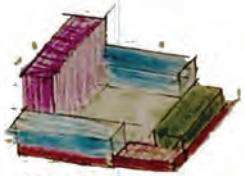
BUILDING TYPOLOGY



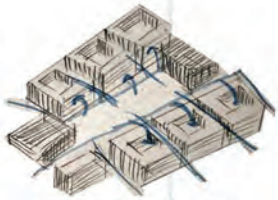
Private and Public Courtyards



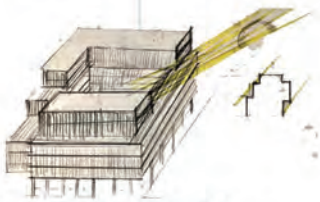
Different Levels



Mix Functions



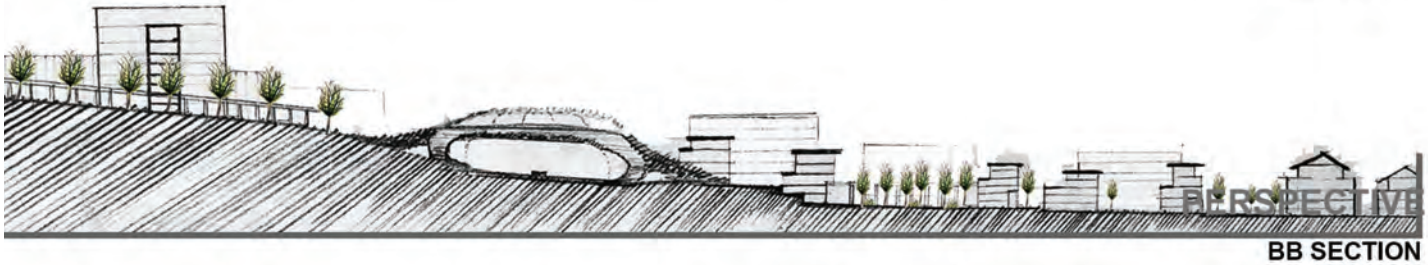
Wind Distribution



Sun oriented buildings

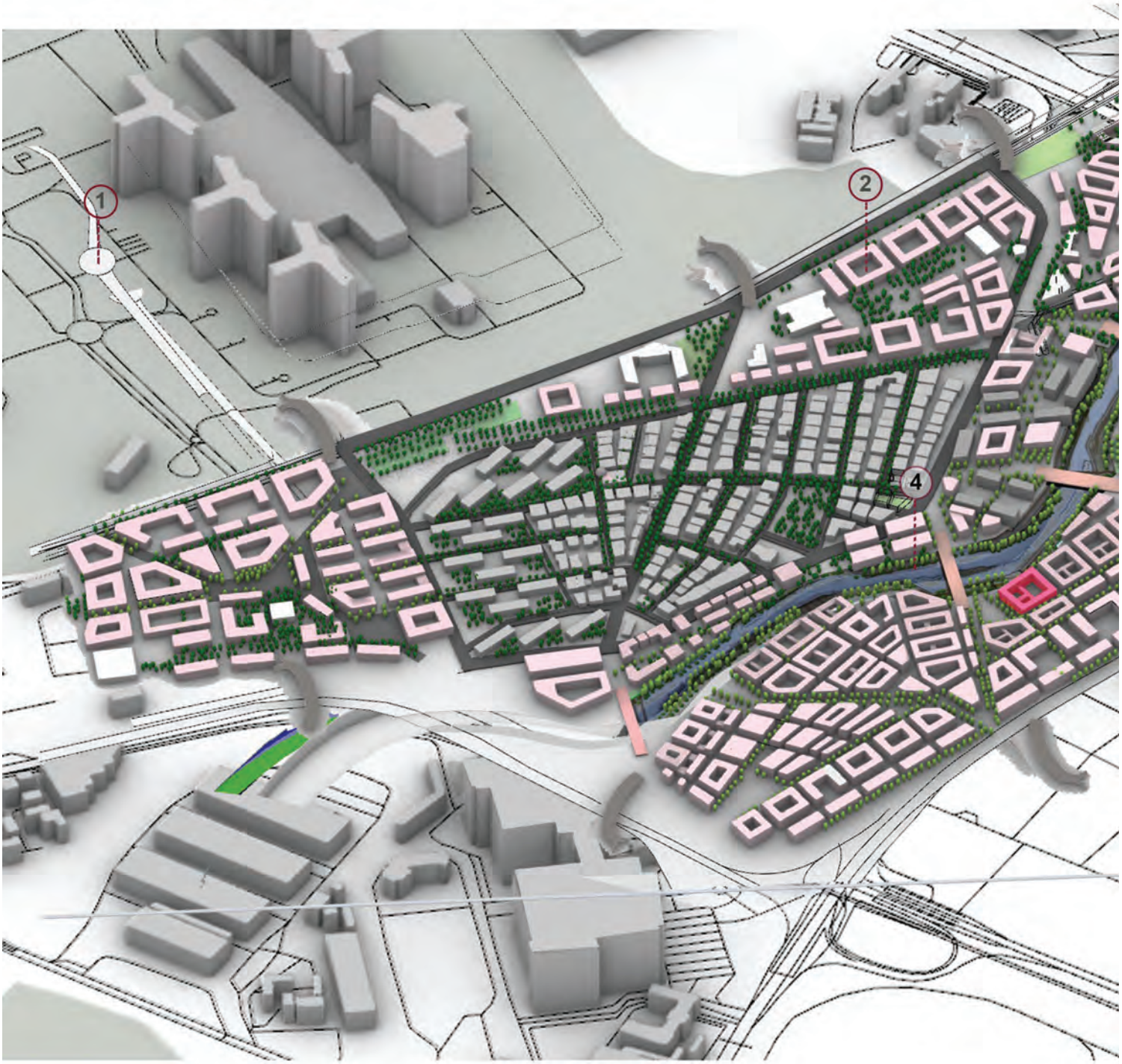
SELECTED BUILDING

AA SECTION

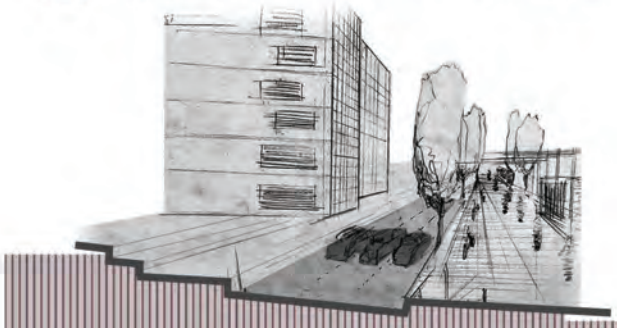


BB SECTION

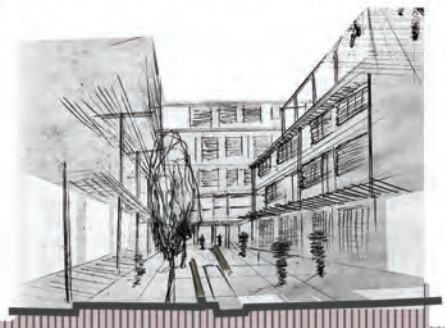
MASTER PLAN VIEW



1 City Hospital Pedesterian Way Suggestion

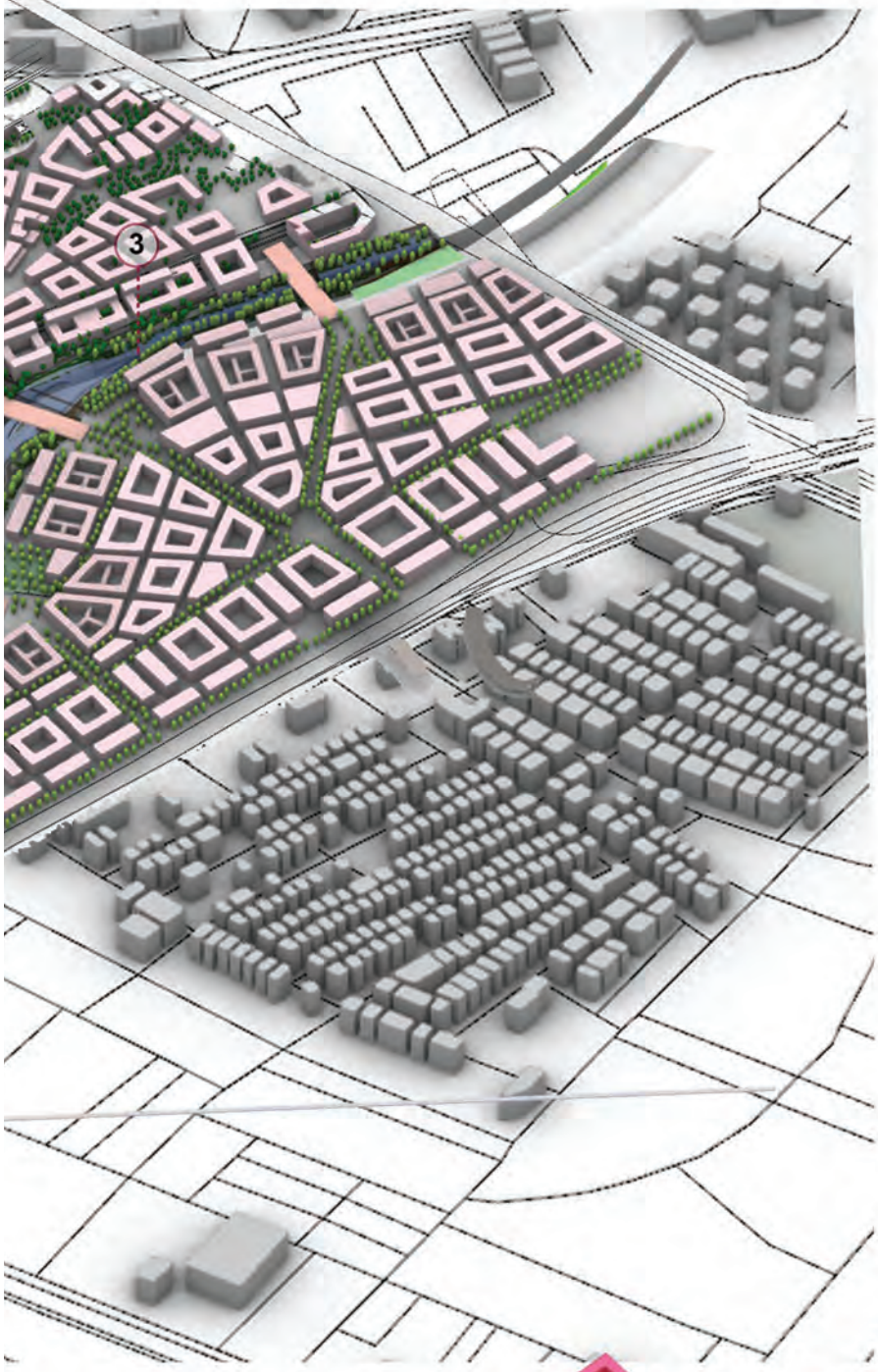


2 Courtyard between Residances

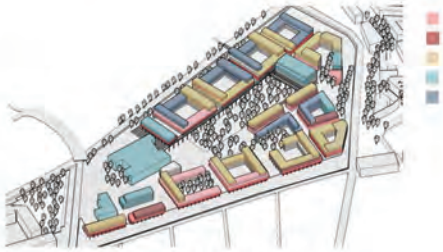


3

ONE GROUP BUILDING DESIGN

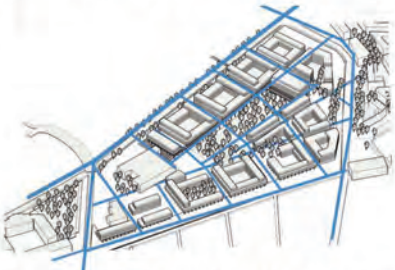


EXISTING GREENERY



MIX USE

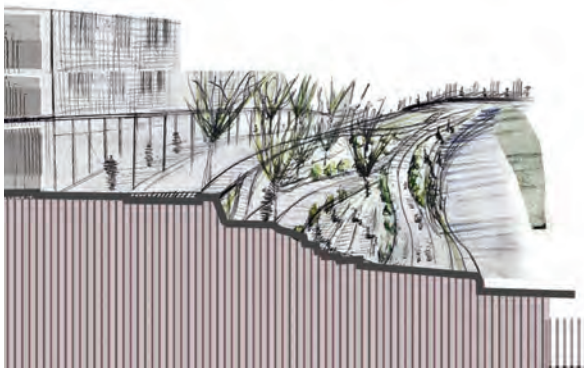
VEHICULAR CIRCULATION



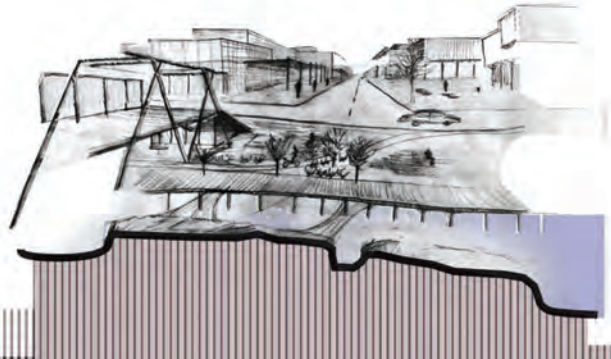
PEDESTRIAN CIRCULATION

SELECTED BUILDING

) Revitalized Riverbank Landscape



(4) Looking Maidan and Landscape



BUILDING MASS AND RIVERBANK DESIGN TYPOLOGIES

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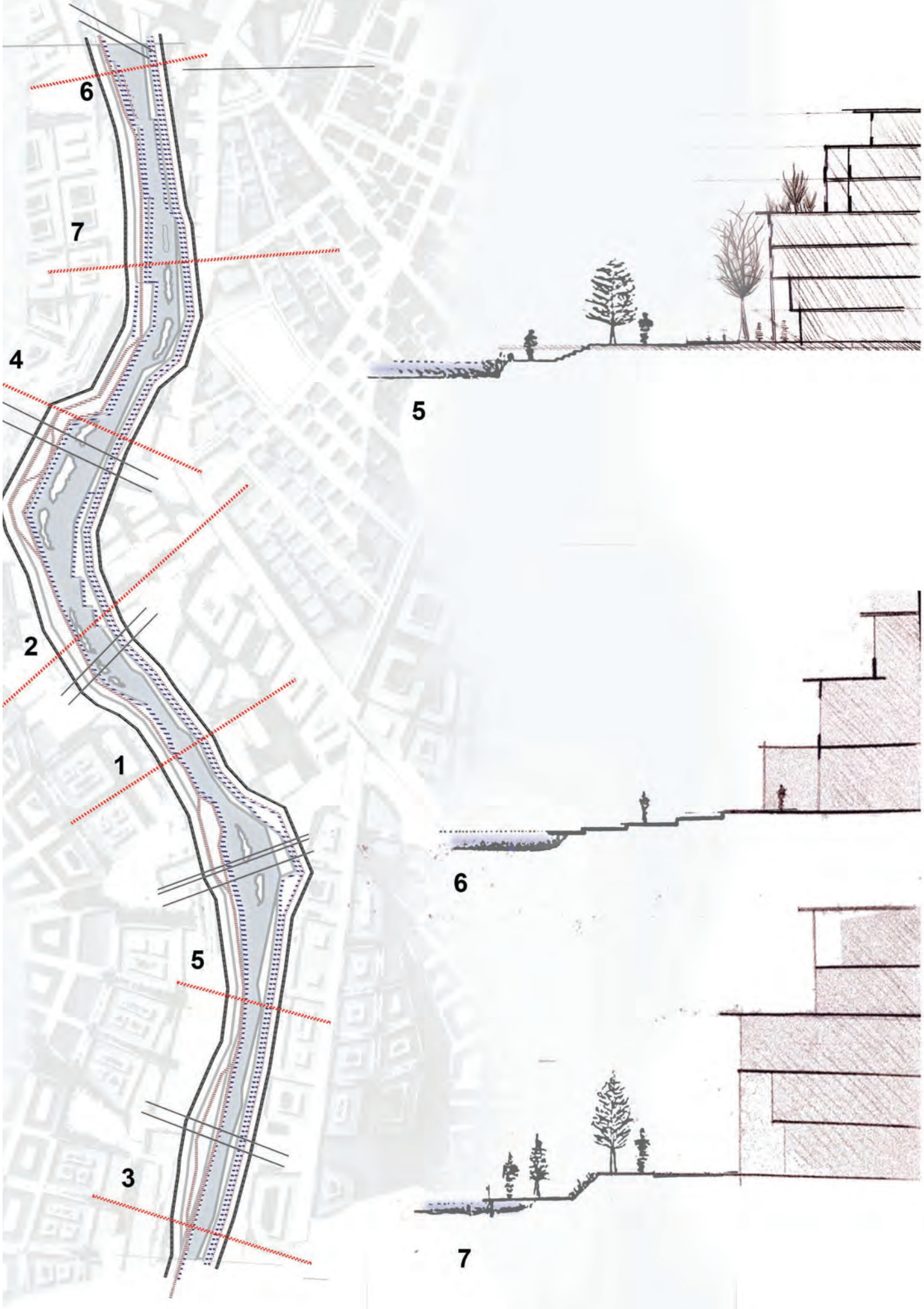
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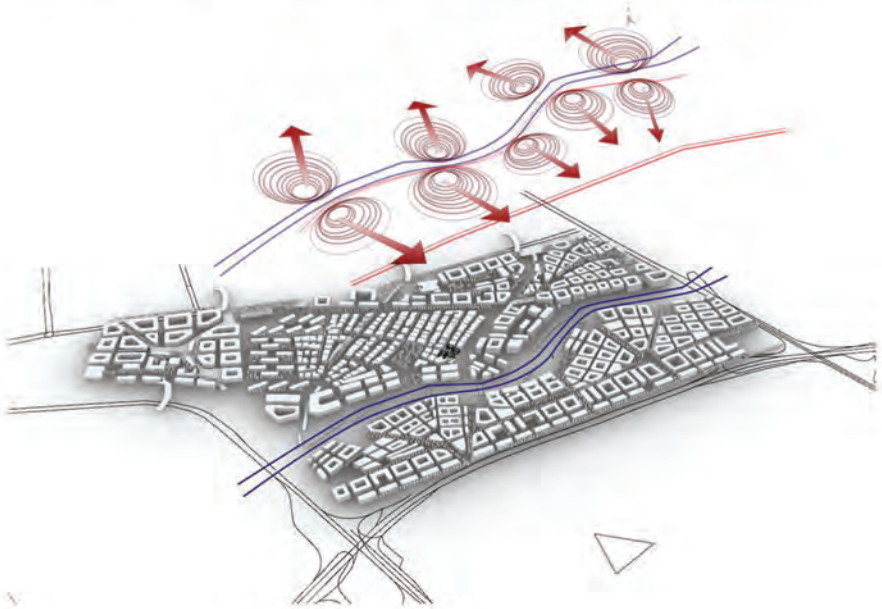
7

COURTYARD MORPHOLOGY GUIDELINES



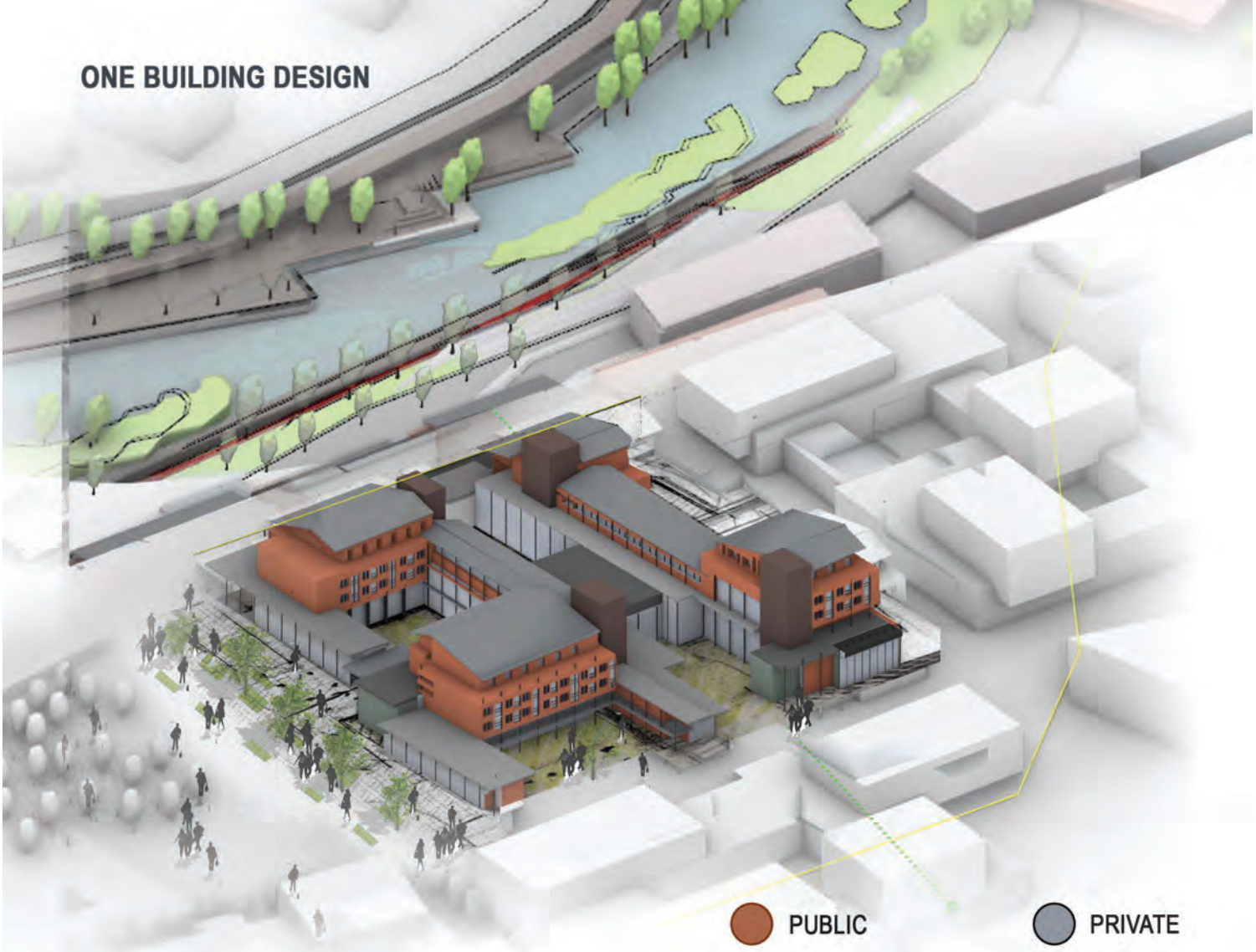
In the design of the project, a horizontal city model is suggested. Horizontal developments in city will provide a much pedesterian based approach and increase the relations between landscape-human-space, which was the design guides in the vernacular turkish houses. So, the buildings morphology is established in a way that surrounds one or multiple courtyards. And, public and private spaces are set up around these courtyards.

In the design, the intensity of public and private courtyards are determined according to its closeness to public squares around river.

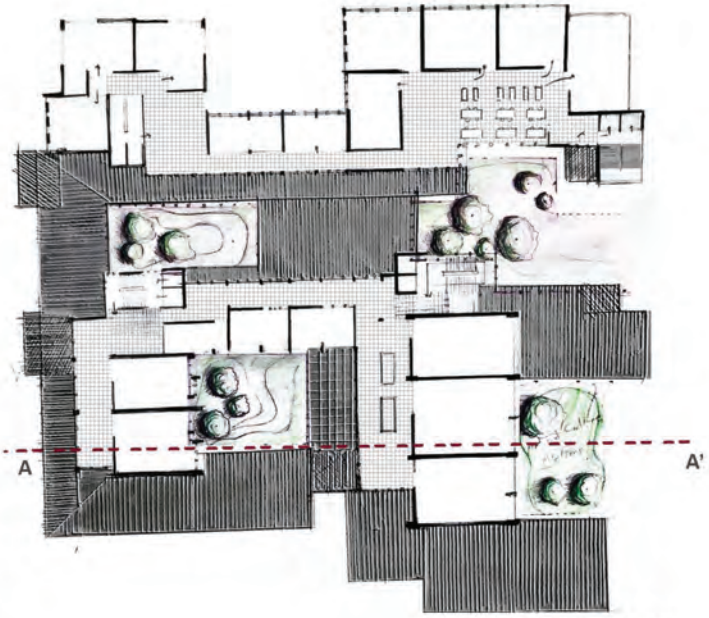
How close to the square, the rate of public spaces increase,

How far to the square, the rate of private spaces decreases

ONE BUILDING DESIGN



PUBLIC UNITS



PRIVATE UNITS

SOUTH ELEVATION

AA' SECTIONS

SOCIAL AMNESIA
THE DIVIDED AND CORPORATE CITY OF BEIRUT

ZEYNEP BERRA KIRBAŞOĞLU

بيروت

SOCIAL AMNESIA

THE DIVIDED AND CORPORATE CITY OF BEIRUT

ZEYNEP BERRA KIRBAŞOĞLU

The project is a statement towards designing within an urban context that is in social and political crisis. A cosmopolitan city, where diverse ethnicities, beliefs and cultures are embodied, always has the potential ground for tension within the society. The project is located in Beirut, a city that is shaped by such tensions and reflects its divisions. The culturally divided nature of the city and the bogus reconstruction projects through corrupt urban construction concluded with a massive blast. The aim of the project is to develop the port of Beirut with a vision of healing the torn and chronically divided city.

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LOCATION

Beirut is the capital city of Lebanon, which is located in Middle East. It is on the eastern shore of Mediterranean Sea. The city has population of 6, 8 million and Beirut with its coast line, inholds the geopolitical importance as being the gate opening to sea transportation of Middle East.

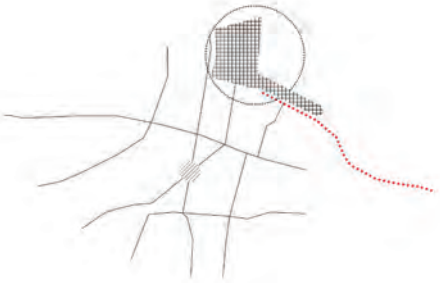
Its strategic location as a Levantine city created the prominence of Beirut as a 19th century city. The diversity in the social structure in which different religions, ethnicities and cultures are included creates the multiplicity but with the potential cultural and economic divisions.

SITE

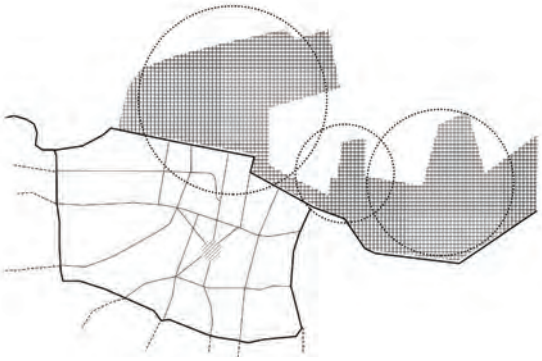
Beirut has been an important coastal city dating back to Phoenician civilization. Traces of the city under Roman rule are still visible today in downtown. Considering its significance for a port-city which enables the transcontinental transportation, Ottoman Empire have enhanced the value of the city by developing the port in 19th century. The further development of the railway, which connects the port with the inner parts of the region especially the city of Damascus have enriched its position in the region. In 20th century, the port had been enlarged within the new city planning during French mandate. Finally, in 2000s, the existing port and the seaside extension of central district forms the port today in Beirut.

Urbanization is strongly related with the port activity in Beirut. The port have extended towards East in time and the urban development progressed in parallel to it. After 1975, by the beginning of civil war, the rail transport have ended and with respect to that, a new transportation network have been provided to serve for the port on Eastern coast of Beirut. Today the port is divided into three parts: the newly developing extension of central district, the part in which warehouses are located where explosion have occurred, and the container terminal.

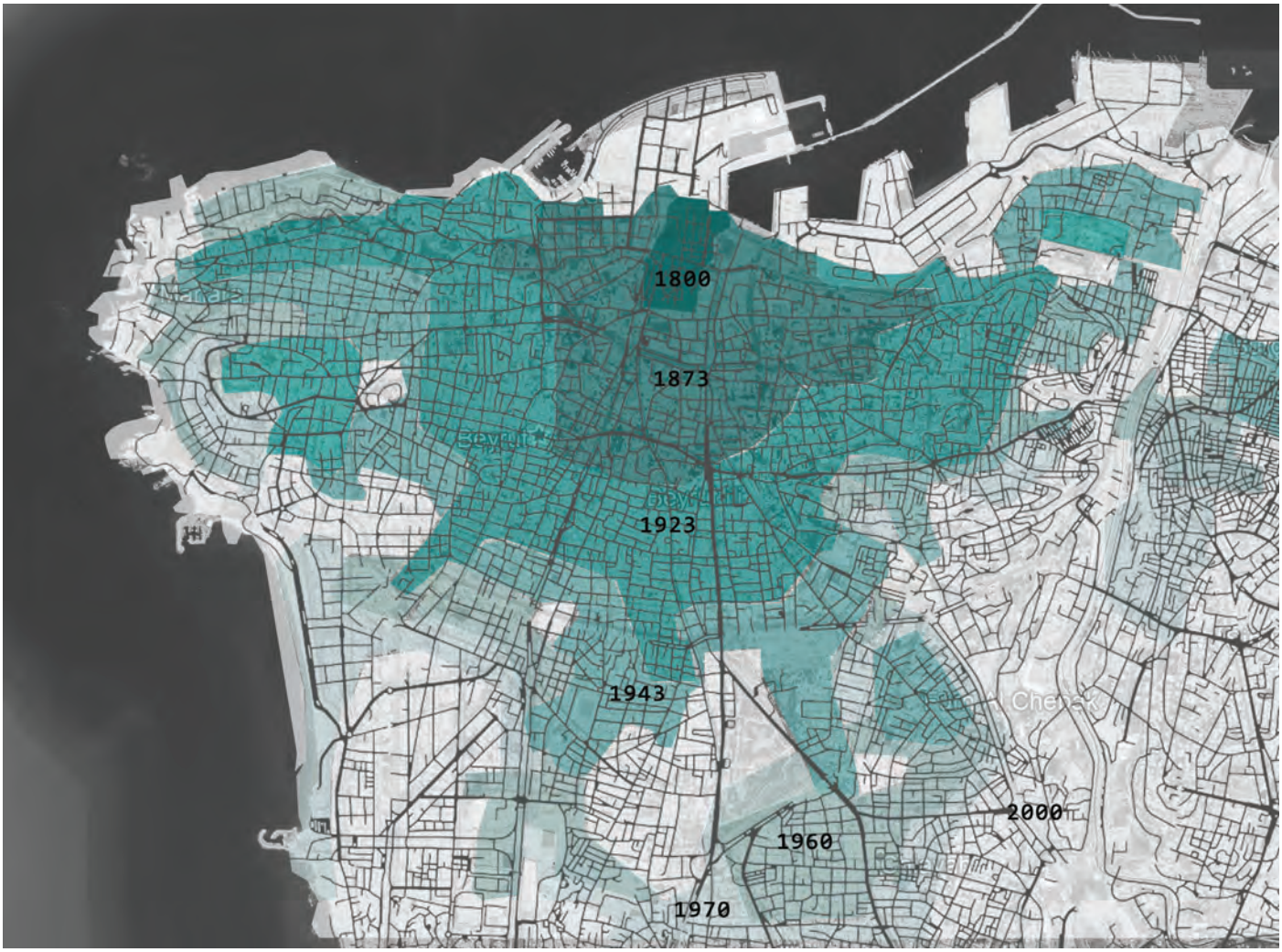
1835

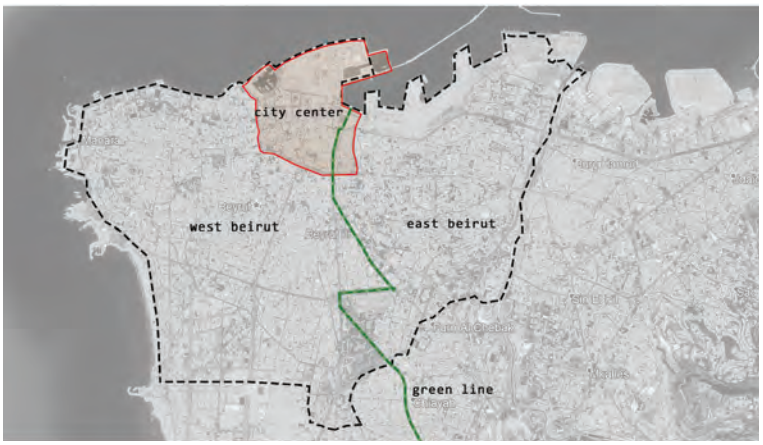


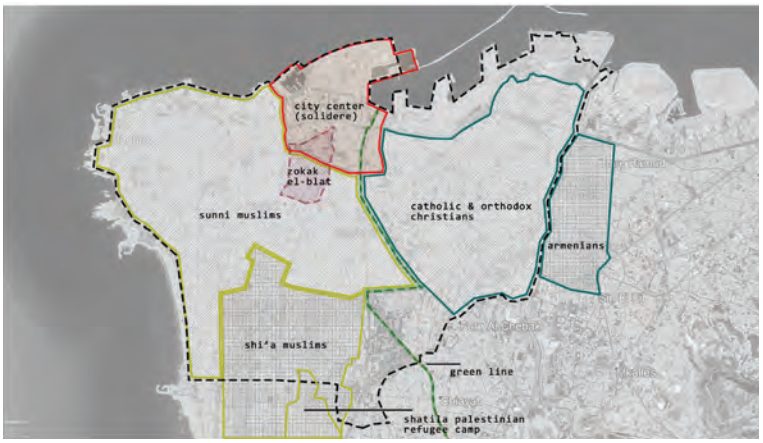
1975

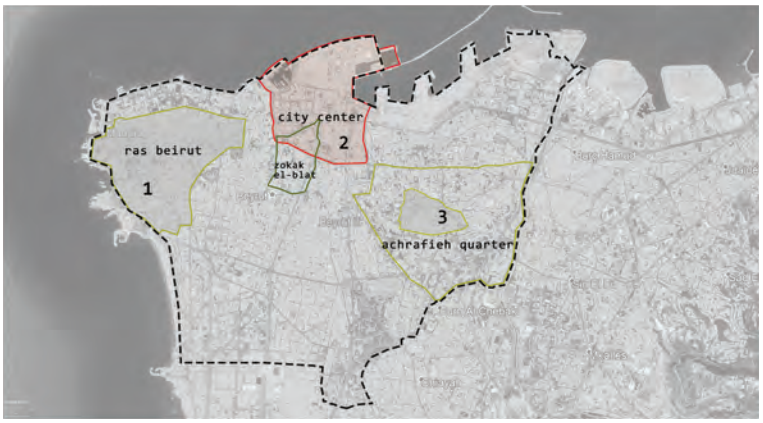


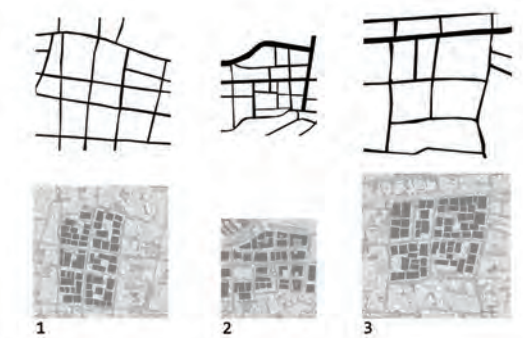
2009









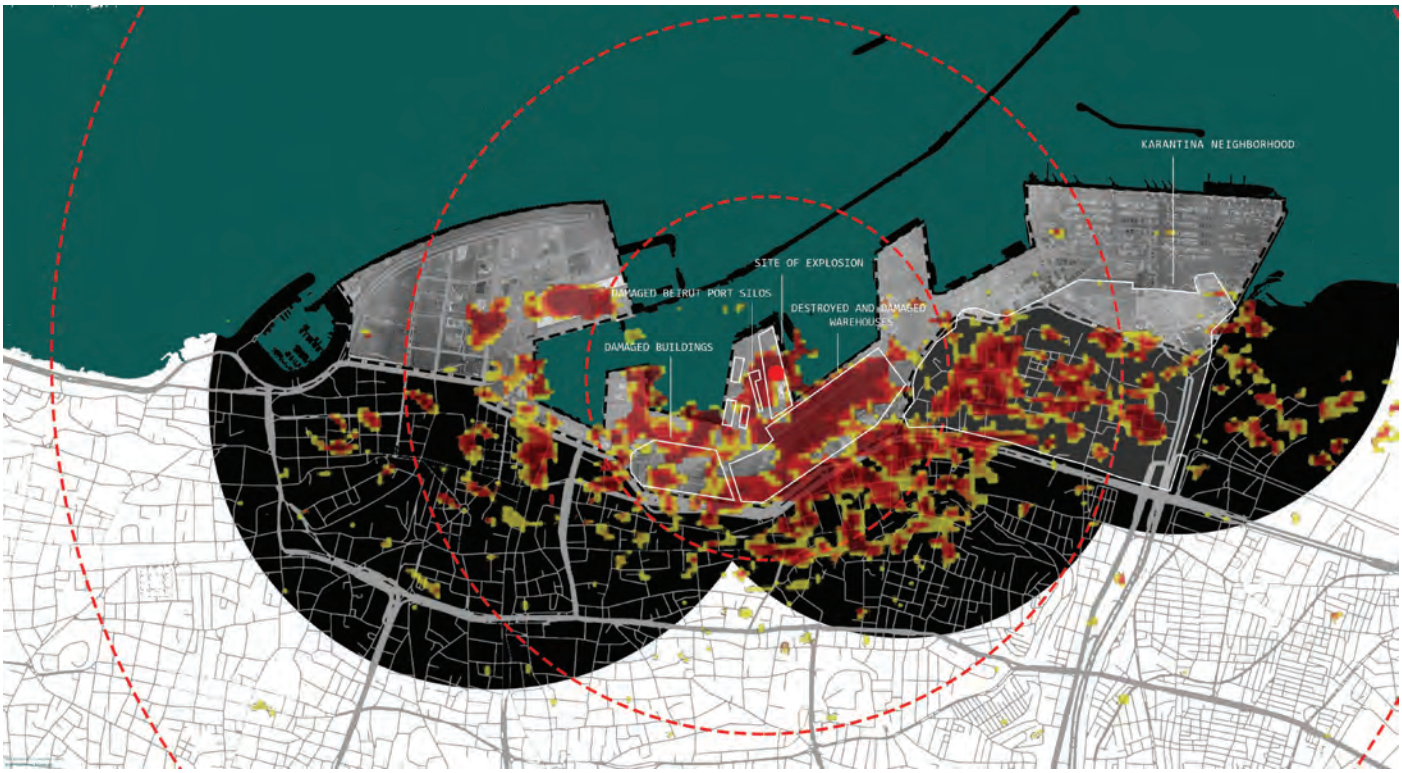


BACKGROUND

Beirut is a city of multi-cultural society, which inholds different religions, sectarians and ethnicities. Diversity is accepted as the main factor of the urban conflict in Beirut which have turned out to a civil war in 1975. Beirut is a city where Orthodox and Catholic Christians; Sunni, Shi'a and Druse Muslims; Palestinian refugees and Armenians live together. However, the very obvious and sharp distinction within the city have occurred in civil war. The city have been divided into Christians in East and Muslims in West Beirut with a barrier in between them called the 'green line', which was no one's land. This division have strengthen the divergence within society after the civil war and this have been reflected to the urban texture.

After the civil war, the physical border within the city have been removed, but another border have been created between the city center and peripheral neighborhoods. The reconstruction project of the post-war city center, created a sharp line physically and mentally between those who have and those who do not. (Charlesworth 2006: 61). The project have been hold by a private company Solidere, which was personally financed by the former Prime Minister Rafic Hariri.

Morphological studies on three districts: the city center which have been reconstructed, the district of Ras and the district of Achrafieh clearly represents why the reconstruction project have not been successful. The organic and sincere texture of Ras and Achrafieh where Christians and Muslims mainly live together, in contrast to the large boulvarded and large blocked Westernized planning of the reconstructed city center represents the morphological conflict.



PROBLEM

The massive blast in Beirut port in August 2020 have destroyed the considerable extent of the city. Explosion of the warehouses in the city's commercial port have destroyed many buildings nearby and damaged a respectful area of the city including neighborhoods on seafront and the city center. Located on the north-eastern edge of the port, the Karantina neighborhood have been heavily impacted by the blast. The economic disparity of the neighborhood have resulted with the desperate situation.

The economic and political instability after the civil war built the foundation for the reconstruction projects to be handled by the private sector, a company that is financed by the former Prime Minister Rafic Hariri. This led the foreign investments dominate the construction projects in city center. Beirut's central district is the historical heritage and the economic center of the city.

The city has been once more divided by favoring the private sector and marginalizing the public. The corrupt urban construction have isolated the public from the coastline of the city and the port. The corruption in state institutions have been reflected on the built environment of the city. Ongoing political autocracy and the capitalist private based economy of the government headed by Prime Minister Saad Hariri have resulted with the ongoing unease within public. As a result 2019-2020 protests started and followed by the massive blast.

The corrupt government and the policy have been clearly unfold by the explosion and the environment of the Karantina neighborhood resulted afterwards.

Compaction of public spaces such as commercial buildings-souks, heritage sites and open spaces in the central district, and isolation of the site from the peripherial urban tissue by physical and mental barriers enriches the division within the public.

Distribution of the religious buildings: mosques, churches, and the synagogue reflects the territorialization of the divided city.

Distribution of the public buildings, schools and hospitals directs towards determining potential public nodes on peripherial area.

The culturally divided city is once physically divided by the reconstruction of the city center. The new developed design creates borders surrounding the site which strictly isolate the city center, and the seafront from the rest of the city. Two main roads, one on seafront and other surrounding the city center are very dominant borders creating divison mentally and physically.

There are already existing nodes within the central district and in peripheral districts. The potential nodes on the borders show the potential paths that can connect the port, the city center and the city.

1975-1990

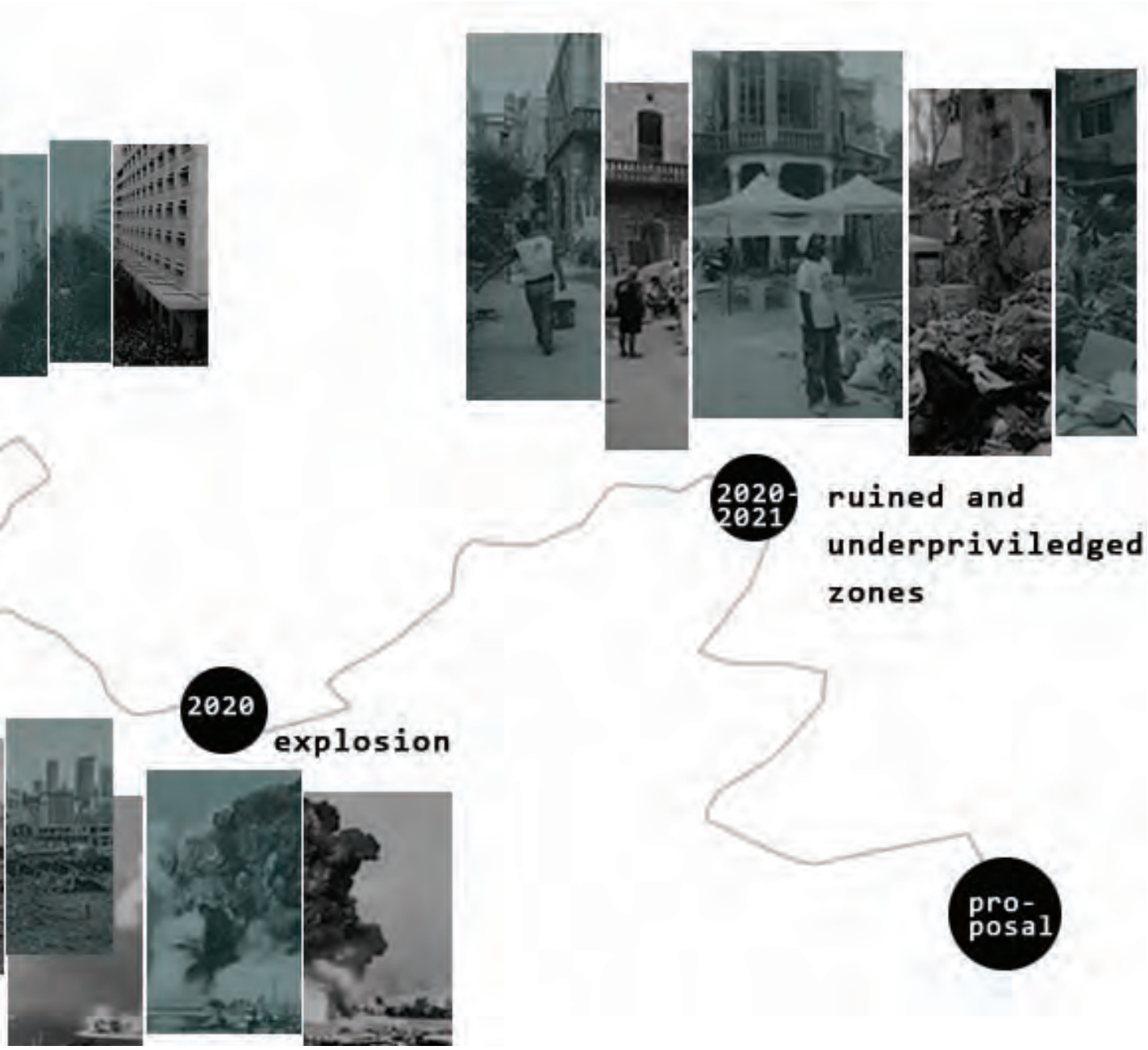
civil war

protests

2019-2020

1990-2009

solidere project



PROPOSAL

The proposed site for the project is a place where accumulated social and economical factors have great impact on. The socially diverged society and the further seperations created within the city are the initial guiding problems within the site to be handled.

To achieve the expected cosmopolitan city, the sub-cultural nature of the society should mainly depend on the tolerance that will be created among the groups. It is to embrace the understanding of a mixture in which all ingrediants are individually visible, but not to create a 'melting pot' that will homogenise the society. This became the failure of architectural character and the design strategy of the existing Solidere project.

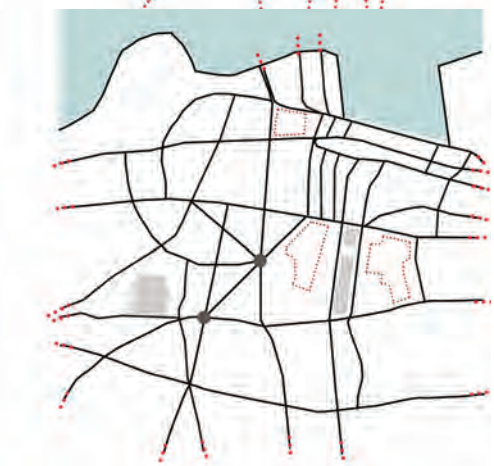
The geopoitical standing of Lebanon in the Middle East region which in conflict, enhances its importance as leading model for a diversed society. The project aims to have a political standing depending on a reuniting strategy on the divided city of Beirut and with respect to that a socially stable position in the region.

Activity of port is one of the essential factors to maintain the importance of the city. With respect to that, the industrial port will partially be active . The port that was isolated for all these years will be opening to the public interaction, and will aim to reunite the divided city.

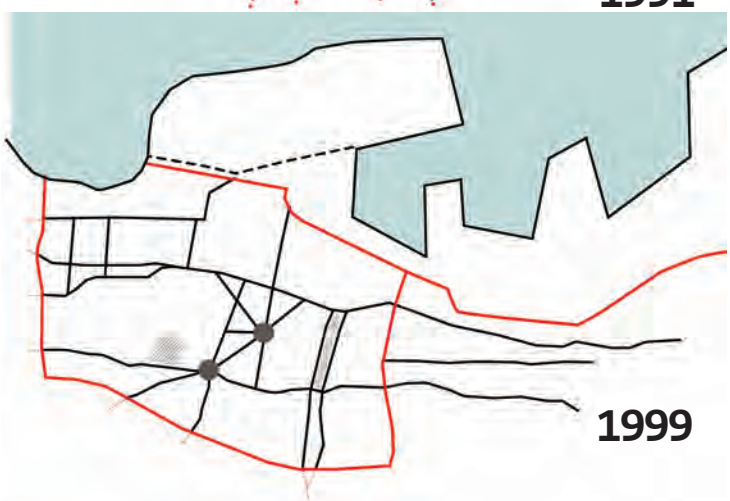
1835

1926

1942



1991

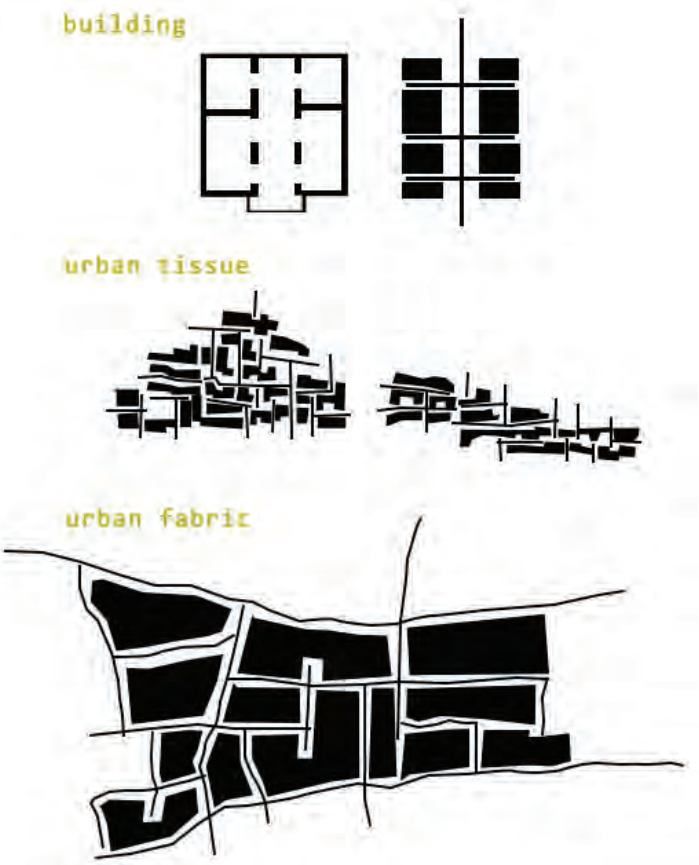


1999

BEIRUT URBAN NETWORK

Architecture and city is the product of the civilizations that created it and the people who lived in it. Beirut as a mediterranean city inherits a historical process of different attempts on the formation of urban fabric. The recent urban environment in Beirut is the product of five phases of transformation. The medival city fabric is significantly dominated by the street typology of cul-de-sac (zuqaq) which is a type of street without an exit. The medival urban fabric is transformed first in Ottoman period. A main axe and parallel axis connecting the coastline and inner city is perpendicularly enriched with axis connecting the heritage zones. This new urban fabric clearly enables the permeability within the city. The influence of French mandate on the formation of the city planning ould be called Hausmannization, creating a public square with intersecting axis.The urban fabric before the destructions in civil war, was permeable enough to create connection with the sea and the inner city. Scale of the paths and blocks have nabled the strong connectivity within the city. The destructed city center in civil war is once more deconstructed by the privatist manner. City center have become a barrier between the inner city and the coastline. The new large boulvared Westernized urban fabric have radically seperated the city center and the sea from the surrounding neighborhoods. The recent urban fabric of Beirut is created by the cumulative result of the previous behaviours on city. However, a drastic and artificial transformation by the Solidere project enriches the division within the city and the society.

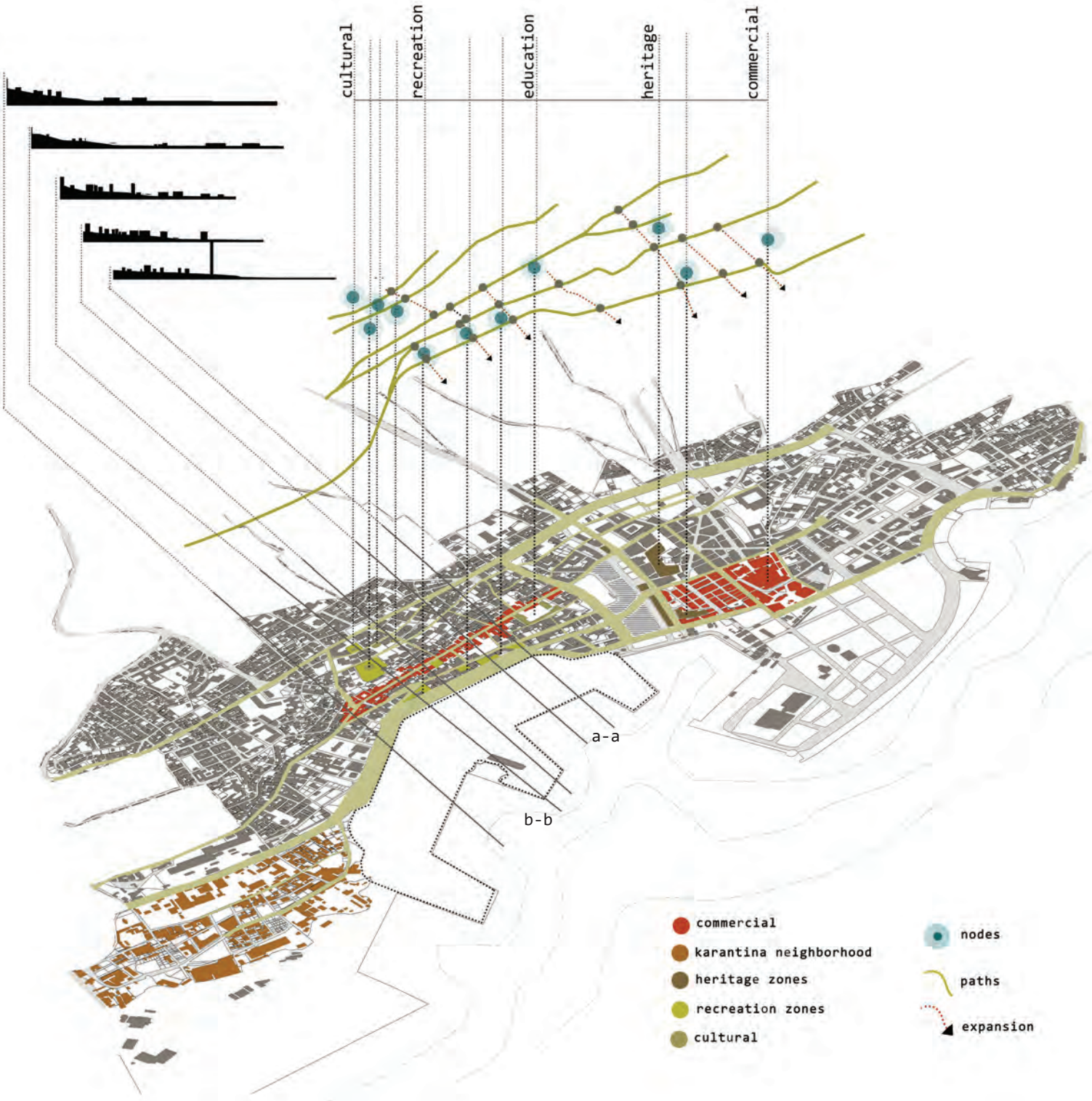
OBJECT TO FIELD
BEIRUT HOUSE AND URBAN FABRIC

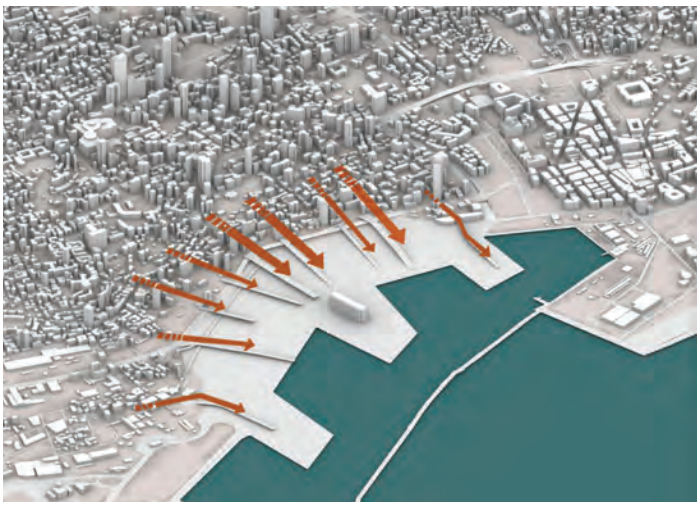


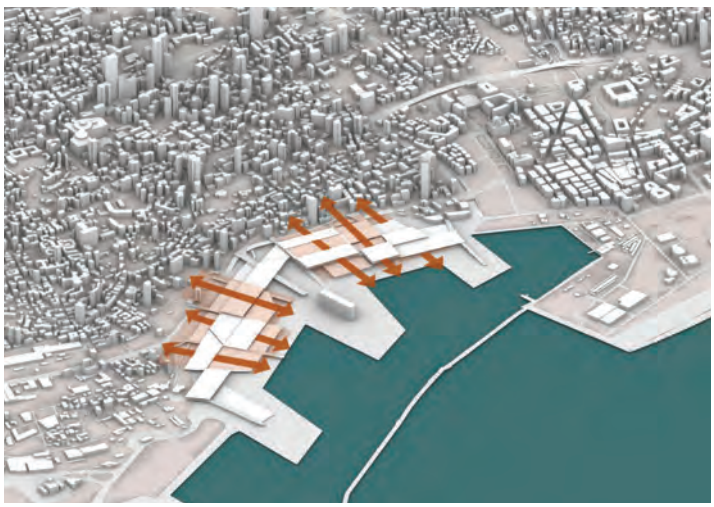
Urban fabrics are studied by the behaviours within elements and their hierarchial orders by geometric relationships (Allen, 1997). Creation of the urban fabric is by relationships in order of: buildings, urban tissues, urban nucleus and urban fabric. The formal behaviour and the movement within these elemets repeats in each level. The morphological strategies on the smallest part of the urban fabric, the building, is repeated within the relationships of buildings and within urban tissues. The spatial formation and movement in traditional Labanese house is repeatedly applied within relationships of buildings. Groups of buildings creating urban tissues and their configurations creates the urban fabric and the behaviour of this urban fabric. According to these studies the newly developing parts of the city could be designed in the manner of expansion of the existing fabric and with the same manner of configuration.

The project site is located on coastline but with very weak connection to inner city and surrounding neighborhoods. The project aims to reconnect the politically and physically divided city by a newly developed urban design and a memorial architecture. Therefore, the solution on this highly isolated site is aimed to be solved by the inherent strategy of the city itself. The site is in relation with the Eastern side of the city and surrounded by mainly commercial zones. The city center on West with heritage zones and commercial facilities; the residential, commercial and cultural facilities on southern part and on the East the Karantina neighborhood surrounds the site however, strongly seperated by a physical border. The possible connection axis to the site are decided by the intersection of existing paths and nodes and possible recreation zones.

Traditional Beirut House


cultural
recreation
education
heritage
commercial
a-a
b-b
commercial
karantina neighborhood
heritage zones
recreation zones
cultural
nodes
paths
expansion



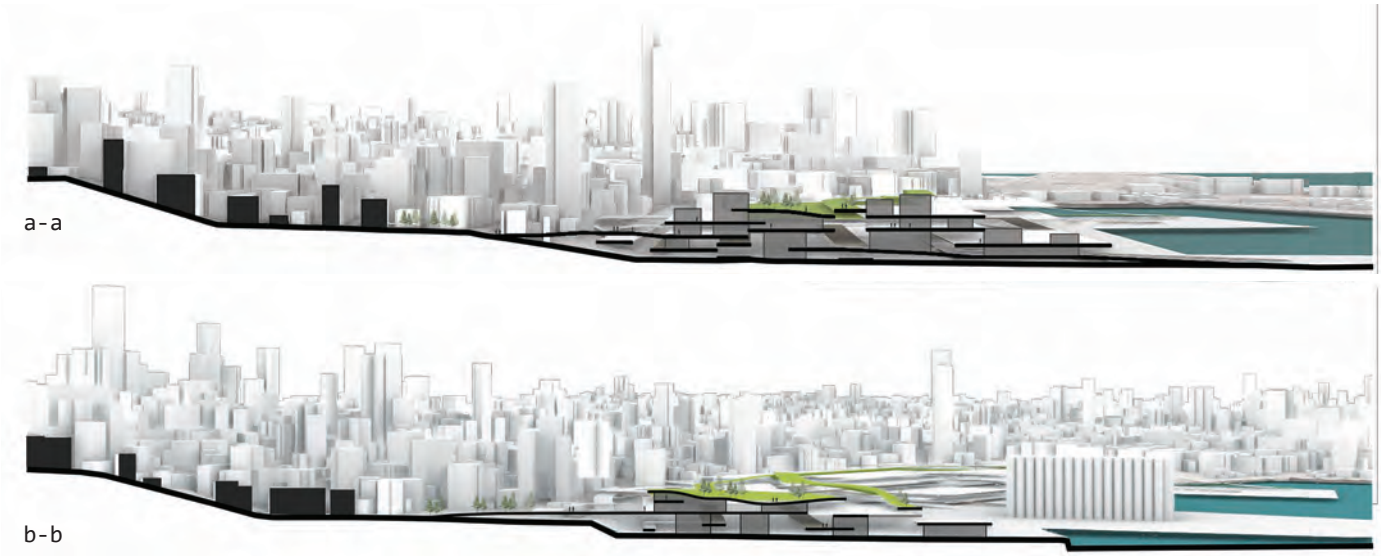


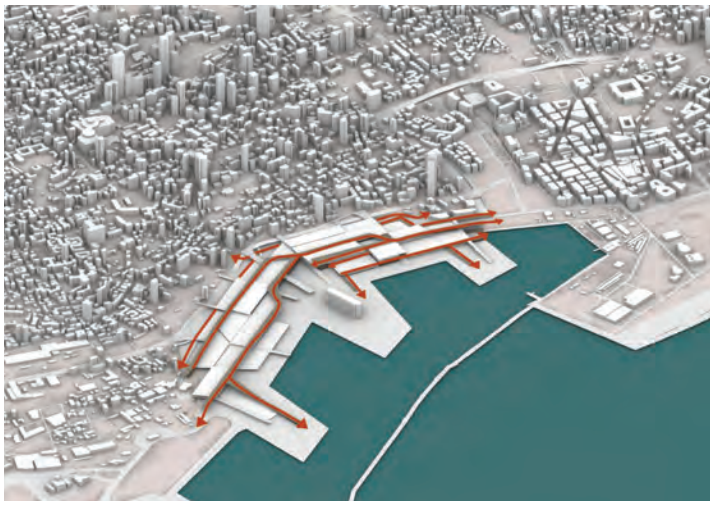
Beirut City and Coastline

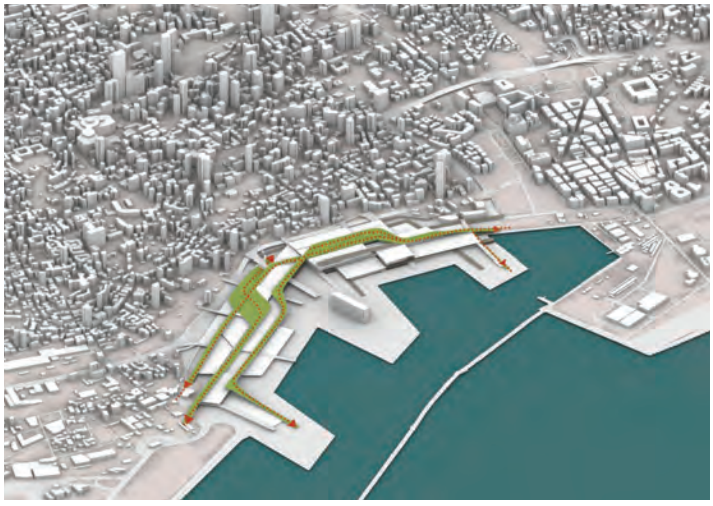
The existing city plan and its relation with the coastline is clearly layered and highly divided. The layered urban section is in order of: old city buildings of middle height, the skyscrapers, the highway, the wide coastline and finally sea. The city is strictly divided from the coastline and therefore there are no any public spaces in which people can reach the sea. Public spaces are very essential to reconnect the divided parts of the society, it is where different ideas and beliefs encounter and shared with eachother in first hand.

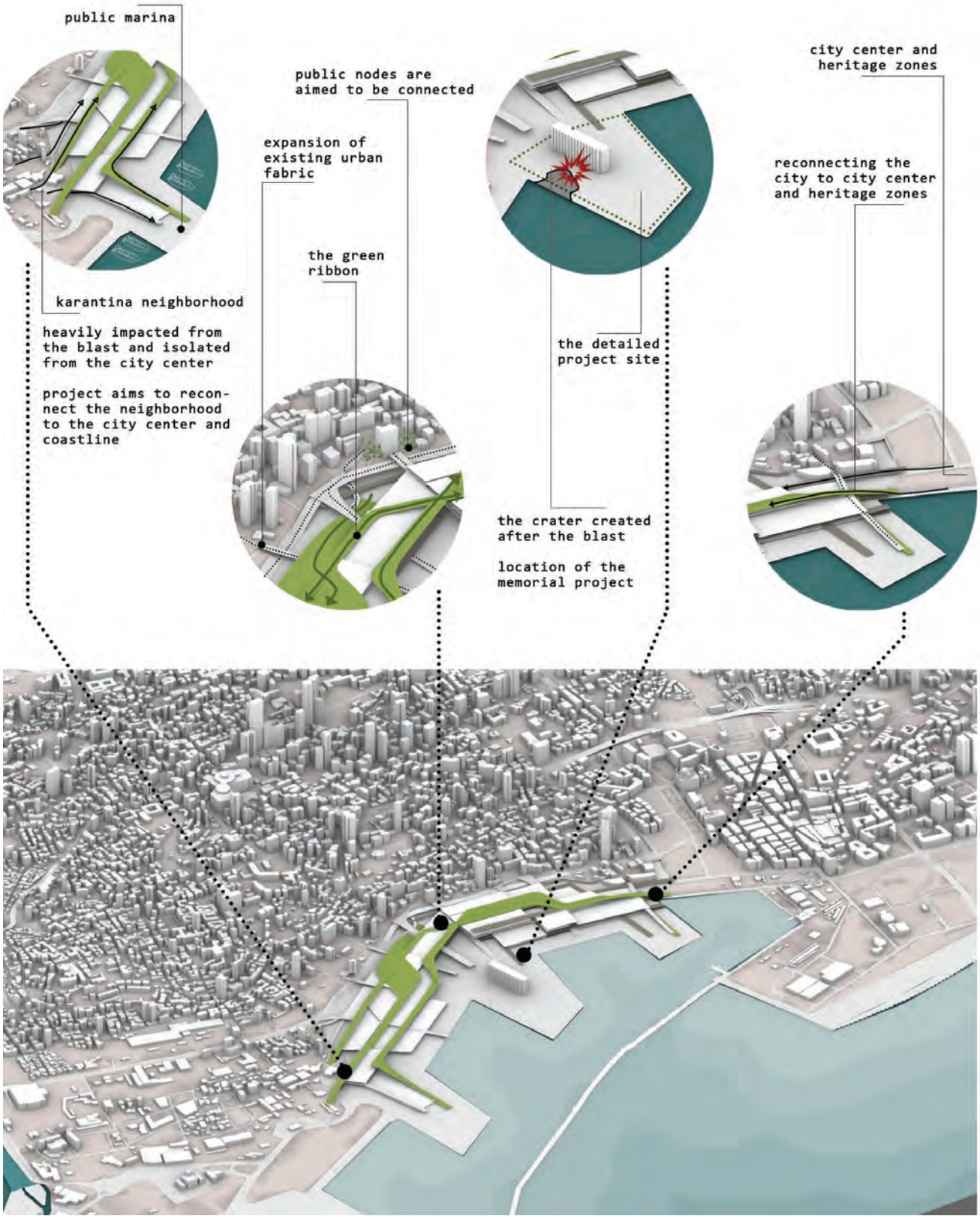
The urban design strategy for the project site is mainly depending on these issues. The possible connection points and axis are decided, and a horizontally layered and fragmented urban fabric is preferred to a one layered plannig. This fragmented structure enables high permebeality from inner city to the sea through the wide coastline.These layers are connected to eachother with a highly articulated circulation web. These circulation paths are generated by references taken from the existing pathways.

Site is designed to be a new public urban space where the existing landcape is continued and merged with the new structure.







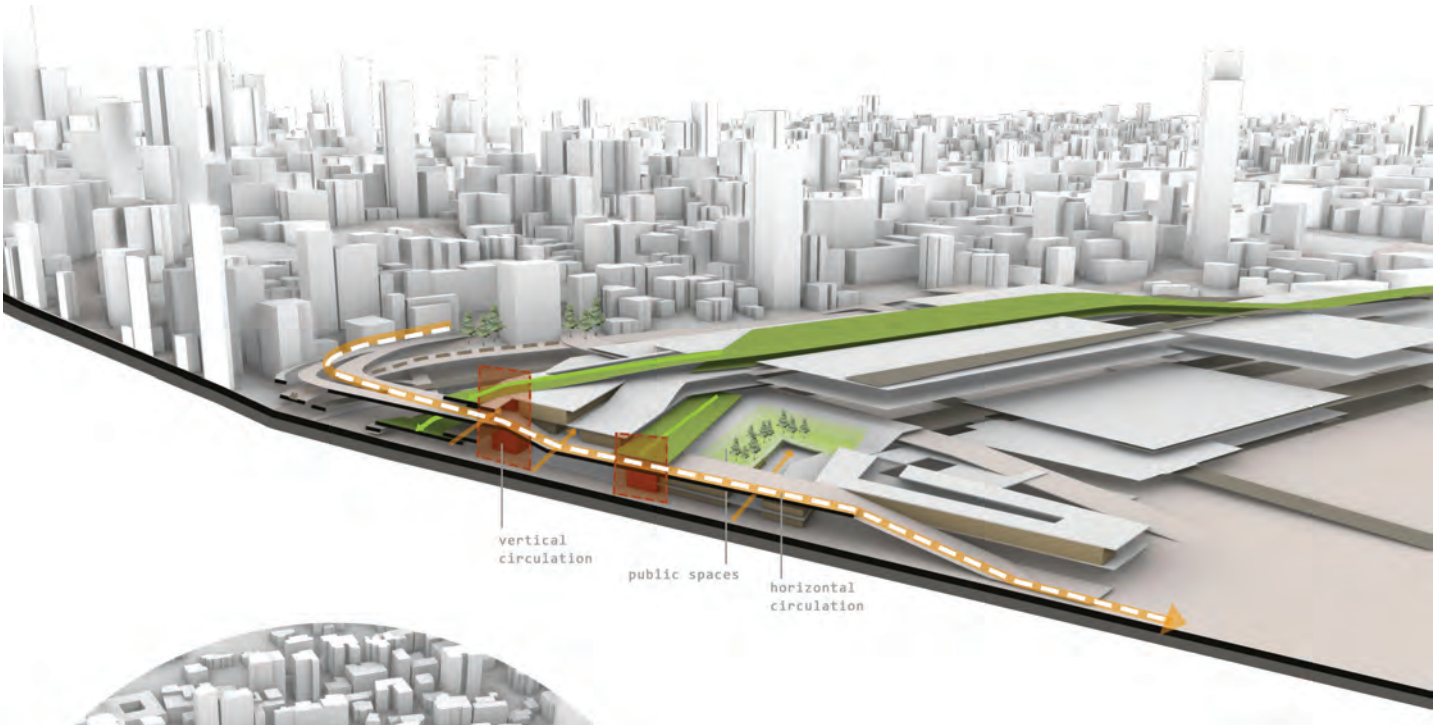


THE MASTERPLAN

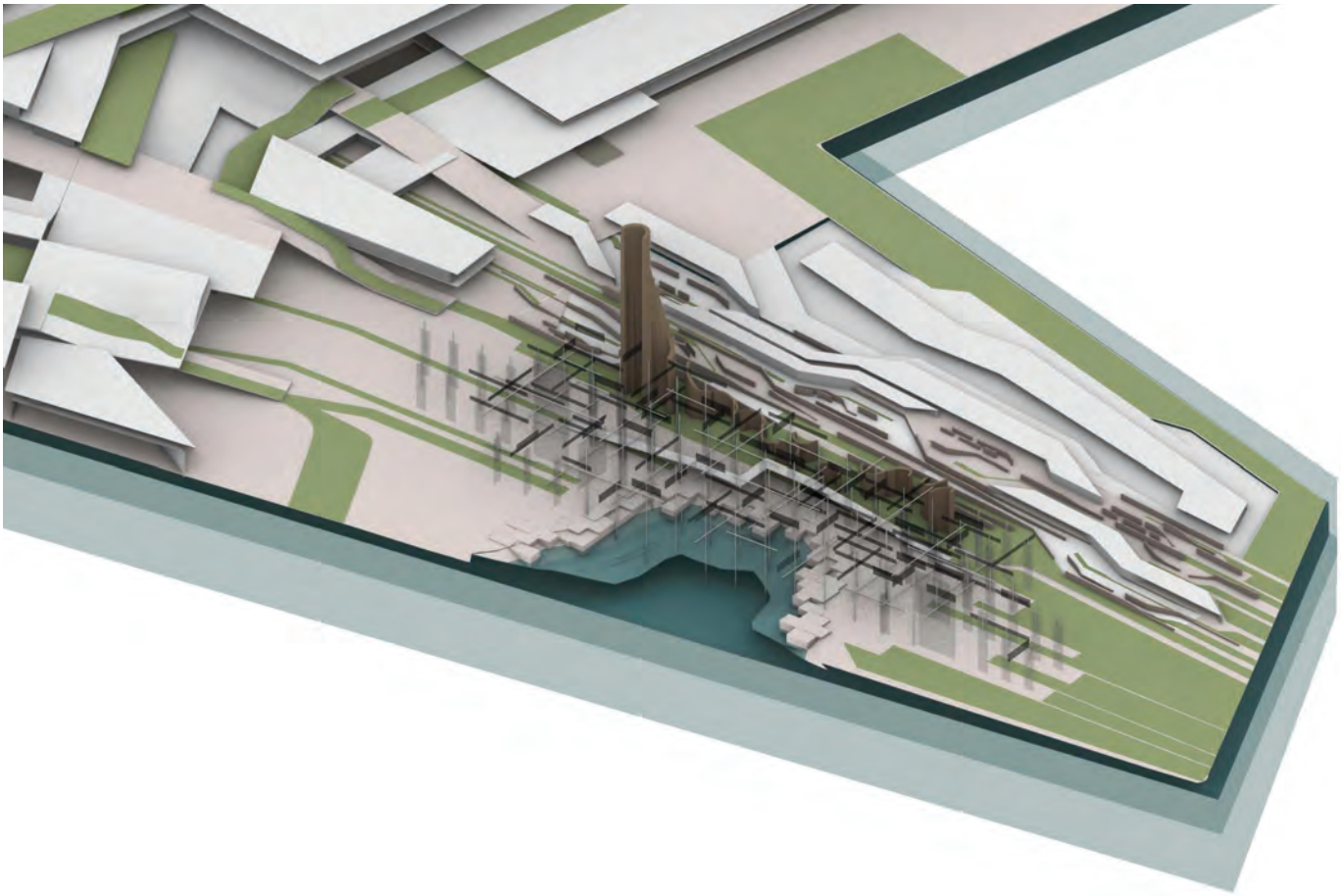
The project aims to include different functions. The designed urban space is planned to be mainly commercial and enables high public interaction. This transitional space between the neighborhoods and the sea will be as permeable and as interconnected as possible. The divided and corrupt urban construction history of the city will be aimed changed and city will be aimed to reunite again with the memory of a common trauma: the blast in the port. The detailed design will be the focal point of the site and the memory of the city. The crater that is created by the blast will be the part of the memorial architecture.

The new developed urban fabric of the project site aims to create an urban mix. The area provides predominately commercial, office and residential zones where public zones are the important parts that enables connectivitiy-within the zones. The layered structure of the urban design enables great permeability through the zones and enhances the public activities and connection to the coastline.

The residential strip going through the site aims to create living space for the ones who have lost their homes in this part of the city in the explosion.

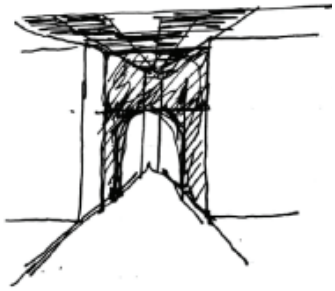


Providing housings without dislocating them, aims for social justice in a more provocative way.
The site approaches to the coastline through the memorial and other public spaces such as community center. The crater is the focus of memorial architecture that designed to evoke the explosion, the divided city and corrupt urban strategies.
The community center aims to cover the needs of this traumatic society that will be living in this urban site.

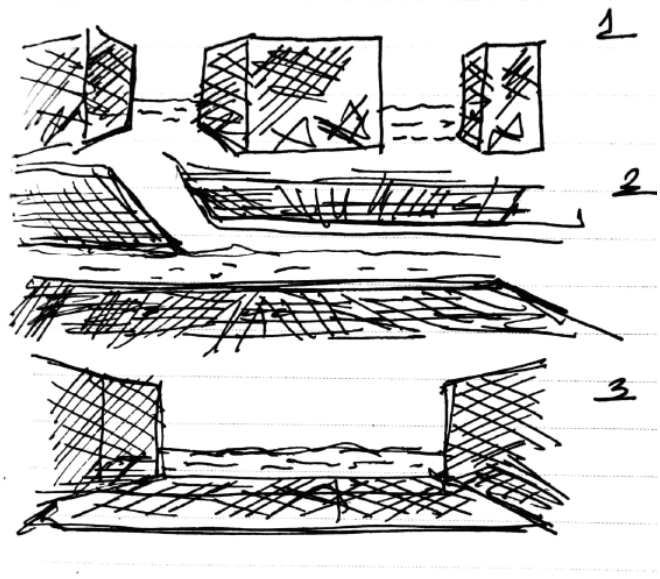


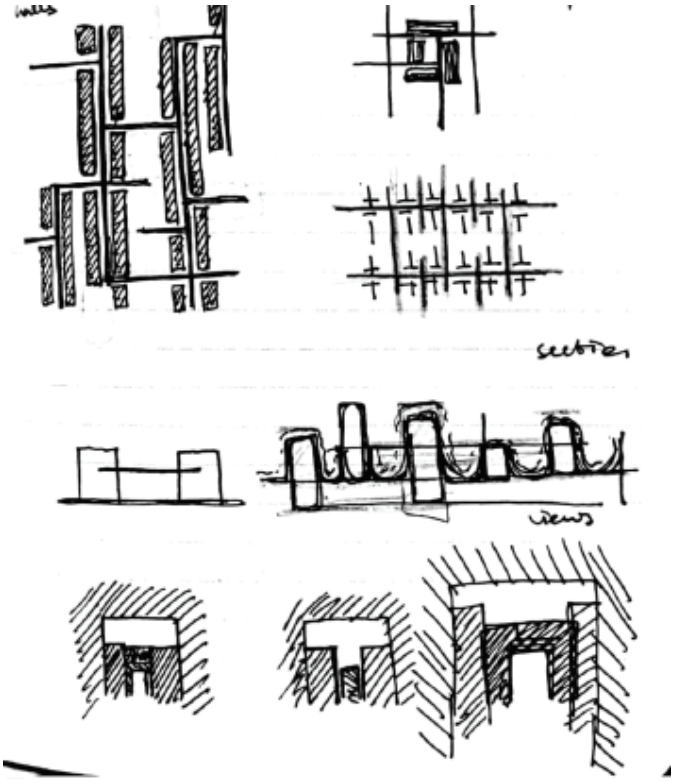
indirectionality

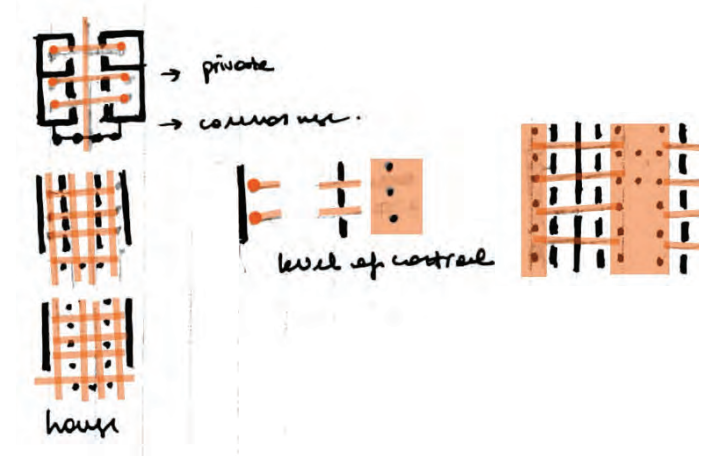
mediterranean region light control



traditional arched and layered space







STUDYING THE CITY AND CREATING THE URBAN DESIGN STRATEGY

The comparison between the traditional souq and the new developed shopping centers clearly shows the difference and the failures of new designs. Traditional souqs enables rich pedestrian and vehicle circulation. This rich permeability enables strong public interaction that is lacking in large closed shopping centers in the style of western suburbs.

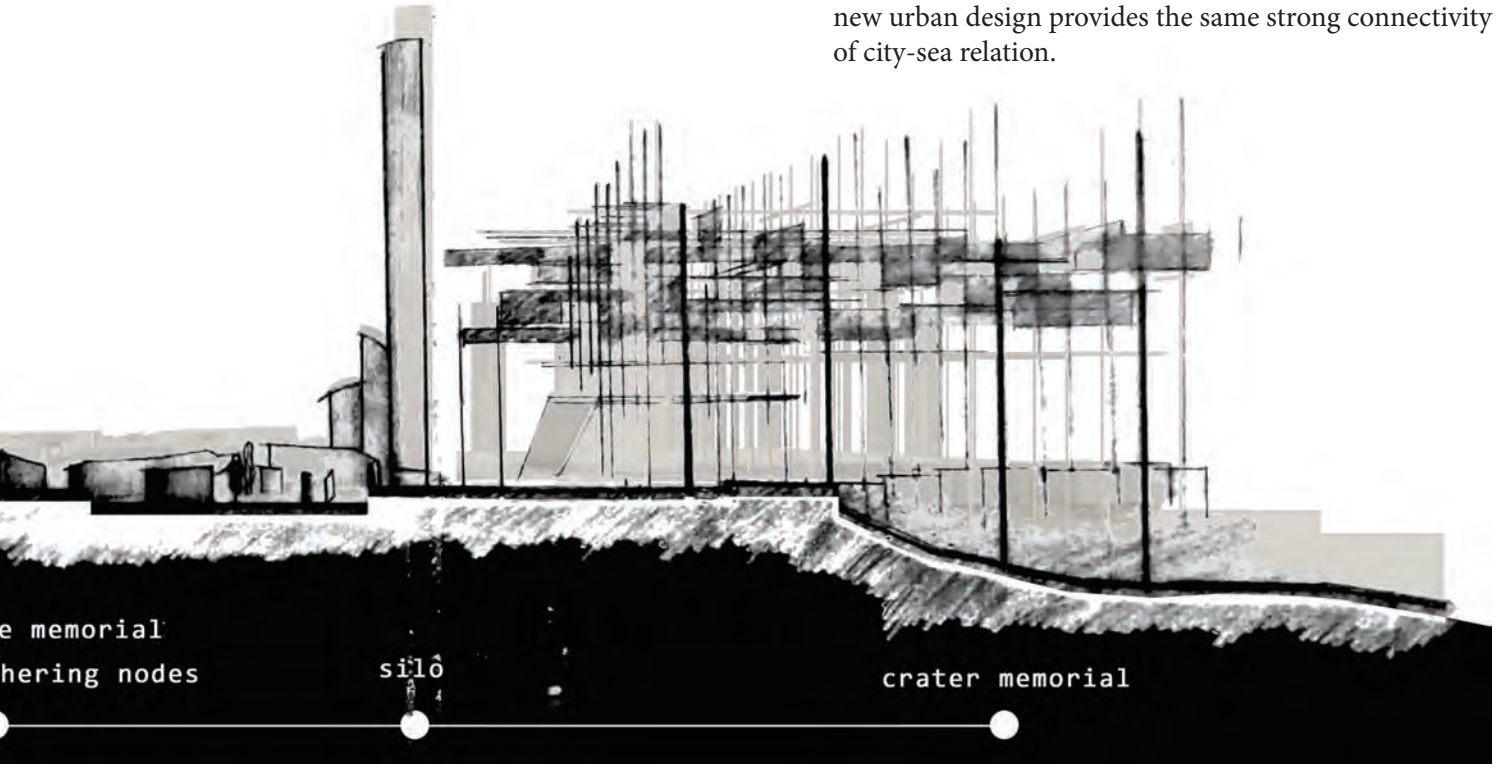
The city center of westernized urban fabric of large boulvards and big courtyards are experienced to be a failure, therefore the urban fabric inherent within the traditional city have been aimed to be studied.

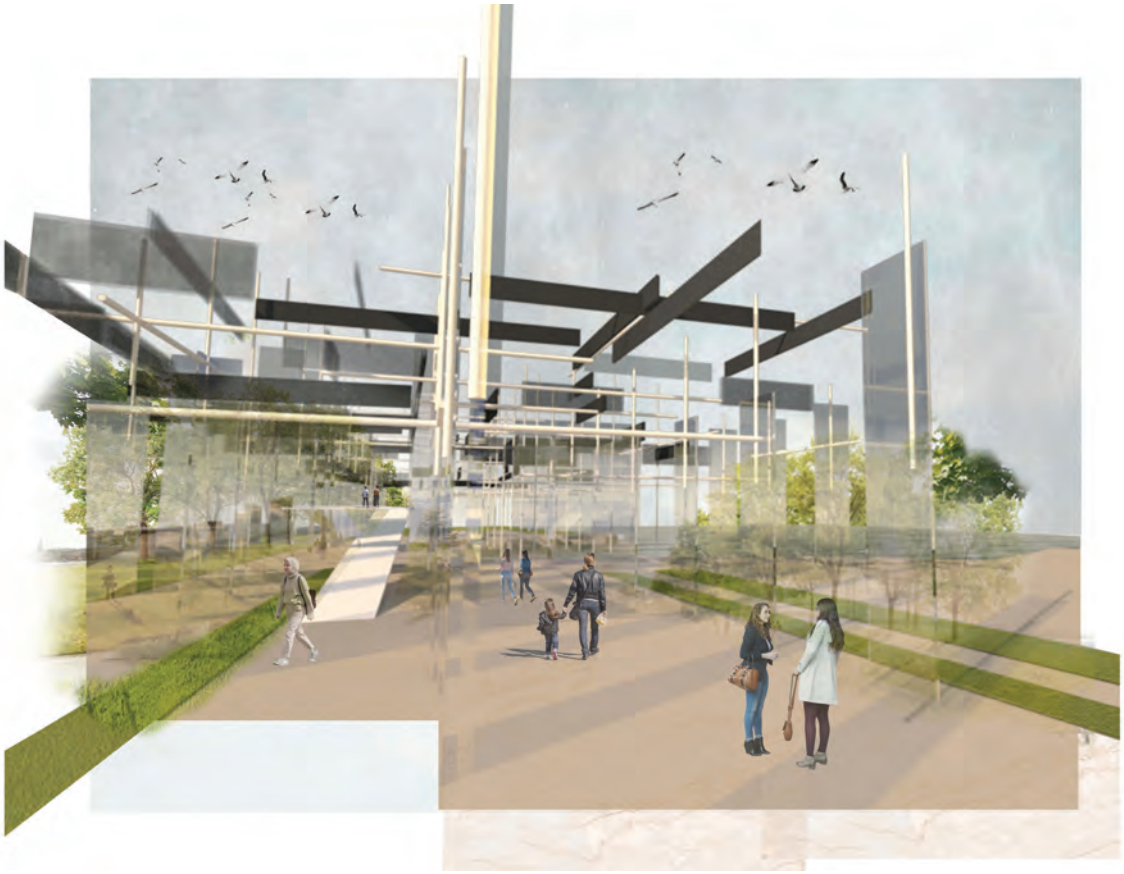
The circulation layout of the traditional commercial zone provides an example to come up with a strategy for the urban fabric layout.

In a smaller scale, the traditional housing and spatial features have been studied. This study have been finilized by coming up with a strategy on level of controlling the space. Continuation of elements and their configuration creates spaces in different levels of control.

According to these studies the new urban fabric is aimed to based on the same strategy that was inherent in the traditional city planning. Not only the plan but the section of the site is based on the same strategy, enabling strong permeability both in vertical and horizontal mediums.

In addition to the spatial features, visual experiences of traditional Mediterranean cities are another part of the study. How city is visually connected to sea is experienced with several types of views towards the sea. The new urban design provides the same strong connectivity of city-sea relation.





1

2

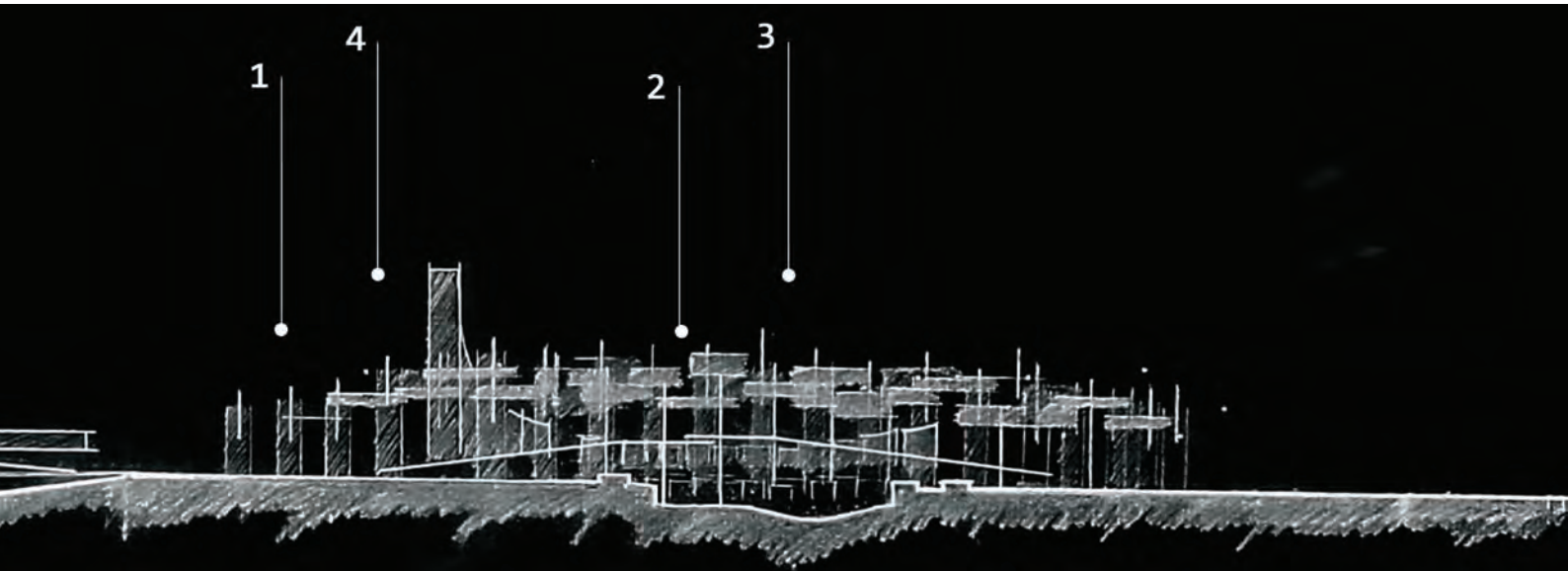
THE MEMORIAL

Beirut have been a city of traumas throughout history, starting from civil war and finally the huge explosion in 2020. This incident have effected many lives and created trauma in people's minds.

The memorial design aims to create remembrance through a phases of experiences.
-The very first thing visible was the dust after the explosion.
-Afterwards, the ambiguity of destroyed city is observed.
-At the end, observers are faced to the very permenant reality: the crater.

3

4



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