



nazlımaralgünençarchitecturalportfolio



MSc. Architect, 6 year experienced



## CONTACT

maral.gunenc@gmail.com



## ABOUT

As an Architect, I'm not afraid of taking any responsibility, a good team player, problem solver, hardworking, enthusiastic, creative and positive person. Also, I'm experienced and good at coordinating people and other related teams such as mechanical, electrical and structural etc. In addition, I love to learn new things and I'm a quick learner.



## SOFTWARE SKILLS

MS Office  
Autocad  
Sketchup  
Revit  
Rhino  
Adobe Photoshop  
Adobe Illustrator  
Adobe InDesign  
Lumion  
Vray



## COMMUNICATION SKILLS

Turkish (Native Language)  
English (Business Fluent - Toefl Proficiency)  
German (Intermediate)  
Italian (Intermediate- A2 Certificate)  
Dutch (Beginner)



## EDUCATION

2015-2017 Politecnico di Milano - Master Degree  
- Sustainable Architecture and Landscape Design  
(with Gold Scholarship)

2009-2015 Istanbul Technical University Faculty of Architecture  
Double Major Program - Bachelor Degree  
- Interior Architecture (2013)  
- Architecture (2015)

2004-2009 Kadikoy Anatolion High School



## WORKSHOPS

2017 AA Visiting School Jordan - with scholarship

2016 Politecnico di Milano  
- OC Summer School

2012 Detmolder Schule fur Architektur und Innerarchitektur  
- International Summer School - with scholarship



## HONORS

2015- was accepted to the master program "Politecnico di Milano, Sustainable Architecture and Landscape Design" with the Gold Scholarship.

2013 - was graduated from Interior Architecture with 3rd Degree

2010 - was accepted to the Interior Architecture and Architecture Double Major Program at ITU



## COMPETITIONS

2020 - Archstorming Competition  
Hope Dental Center - One of the Selected Proposals

2018 - Volume Zero Competition  
Marsception - One of the Top 20 finalist

2016 - Inspireli Awards  
Valpollicella Wine Center - Semi finalist

2014 - Istanbul Chamber of Trade Building - Competition  
with the Team of DB Architects - 1st Prize



## WORK EXPERIENCE

2021-... Juurlink + Geluk, Amsterdam  
\* Worked as Junior Project Leader & Designer in many concept and implementation projects. The most important ones listed below with order according to the years:  
- Concept - Excelsior Rotterdam Stadium  
- Concept - Slotervaart Urban Design  
- Concept & Implementation - Naritaweg Residential Project with NEXT Architects

2021 Marmara University  
- Lecturer, Faculty of Architecture

2018 -2021 DB Architects  
\* Worked as Medior Architect & Project Manager in many concept and implementation projects after graduating Polimi. The most important ones listed below with order according to the years:  
- Coordination & Implementation - Sadberk Hanim Museum as Local Architect in collaboration with Grimshaw Architects and Atelier Brückner(Riba Stage 1-4)

- Coordination, Concept & Implementation - Zonguldak Coal Washery Museum and The Public Library  
- Coordination, Concept & Implementation - Istanbul Medeniyet University Campus Project  
- Concept - Ankara Courthouse Competition  
- Coordination & Implementation - Erkanlı Dorm Project  
- Implementation - Diyarbakir Surici Corporate Housing

2016 - Politecnico di Milano - Italy  
Worked as Exhibition Designer  
Exhibition "Silentscapes", FuoriSalone 6th -12th April  
Director - Juan Carlos Dall'Asta

2013 - 2015 DB Architects  
\* Worked as Junior Architect in many concept and implementation projects. The most important ones listed below with order according to the years:  
- Implementation - Premier Campus Office in Istanbul (as Local Architect in collaboration with JDS Architects - Belgium)  
- Concept - Istanbul Chamber of Trade Building Competition, 1st Prize  
- Concept and Implementation - Kapital GY Maslak Office Project in Maslak, Istanbul  
- Implementation - Kapital GY Dolapdere Office Project in Dolapdere, Istanbul

2013 - Net Architecture Office  
- Drawing implementation project of an office project as Junior Architect

2012 - Net Architecture Office  
- Worked as Intern in interior concept design of various projects

2012 - Arkizon Architecture Office  
- Worked as Intern in architectural concept and implementation projects



## CONTENT

### Selected Examples of Office Works

2020 Grimshaw/ Atelier Brückner/ DB Architects -  
Coordination & Implementation  
Sadberk Hanım Museum, Istanbul

2020 DB Architects - Coordination, Concept & Implementation  
The Coal Washery Museum & The Public Library, Zonguldak

2019 DB Architects - Coordination, Concept & Implementation  
Istanbul Medeniyet University, Istanbul

### Selected Examples of Personal Works

2018 Volume Zero Competition - Marsception  
Another - Colonization on Mars, Top 20 Finalist

2017 Politecnico di Milano - Thesis Project  
NABO - Self-Sufficient and Sustainable Desert City

2017 Politecnico di Milano - Design Studio IV  
Cemetery Barcelona

2016 Politecnico di Milano - Design Studio III  
N.O.A 2050 - Nexus of Aquaponic Farms - Lafarge Holcim Awards Participant

2015 Politecnico di Milano - Design Studio I - Part I  
Valpolicella Wine Center - Inspireli Awards 2016 Semi Finalist

# GRIMSHAW ATELIER BRÜCKNER

Design Project Team: Grimshaw Architects  
Interior Design Project Team: Atelier Brückner  
Implementation Project Team: DBArchitects/ Bünyamin Derman  
Project Start Date: 2020  
Project End Date: TBC  
Project Location: Halic/ Istanbul  
Project Type: Museum, Restoration  
Personal Task: Project Manager as Local Architect  
Drawing Implementation Project Details (RIBA Stage 1-4)



2020 Sadberk Hanım Museum, Istanbul



DBArchitects

Design Project Team: DBArchitects/ Bünyamin Derman  
Implementation Project Team: DBArchitects  
Project Start Date: 2019  
Project End Date: 2021  
Project Location: Zonguldak  
Project Type: Museum - Library  
Personal Task: Project Coordinator - Designing  
Concept & Drawing Implementation Project Details

2020 The Coal Washery Museum &  
The Public Library, Zonguldak

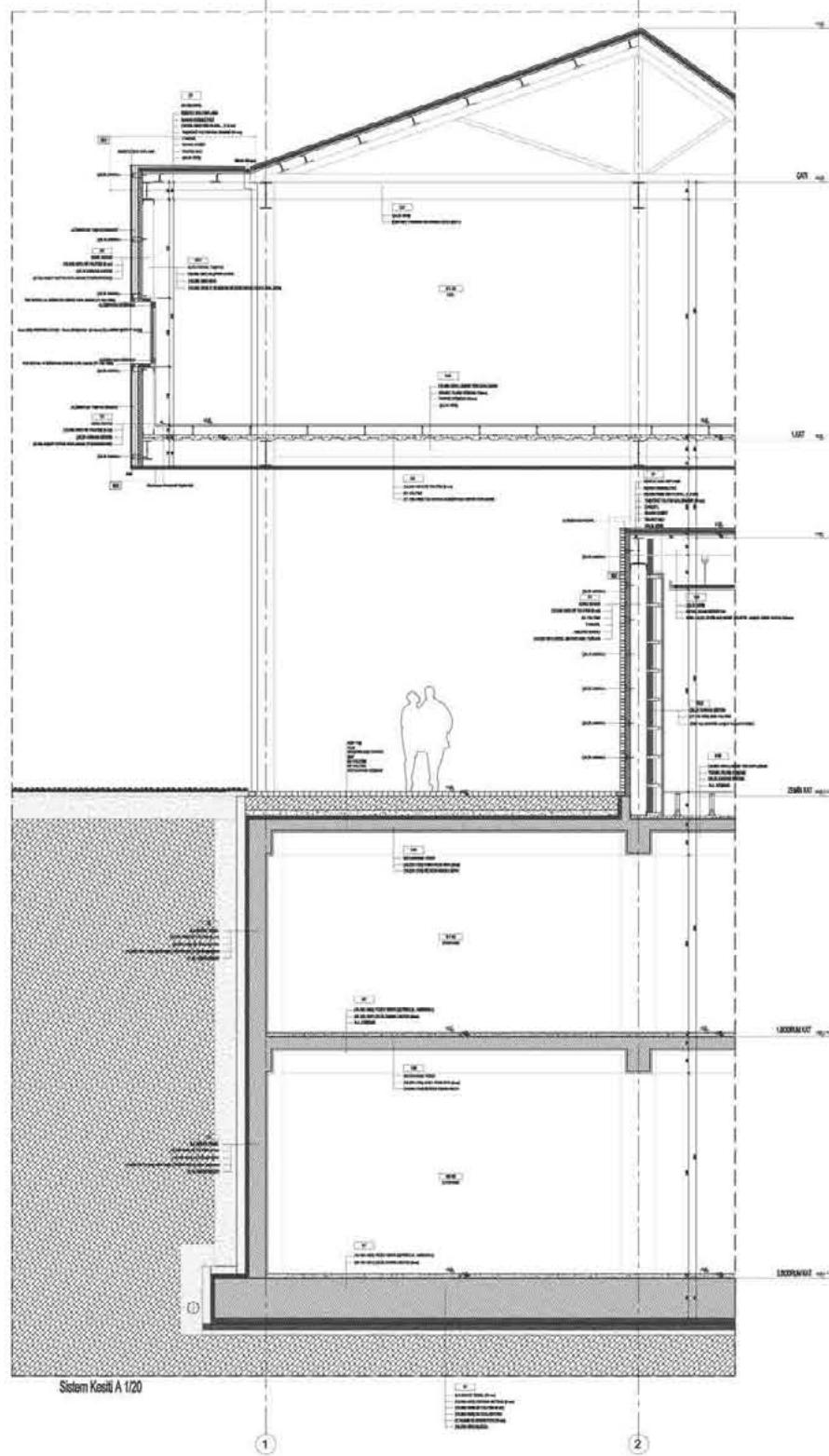




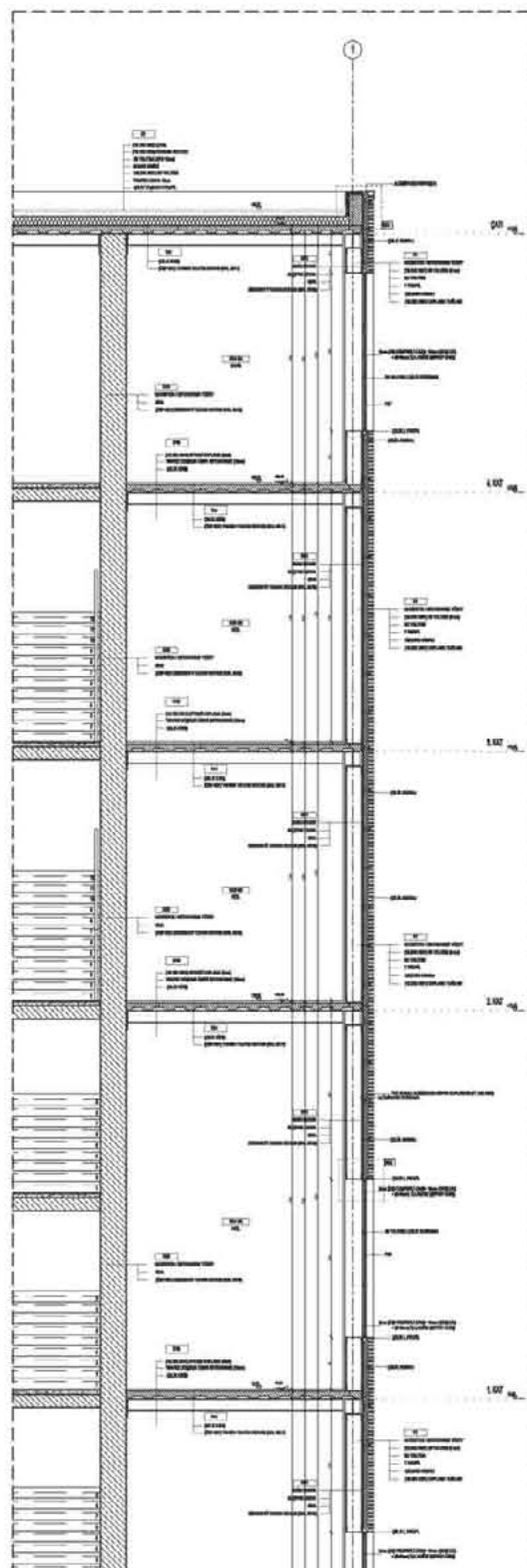


The Coal Washery Museum & The Public Library, Zonguldak







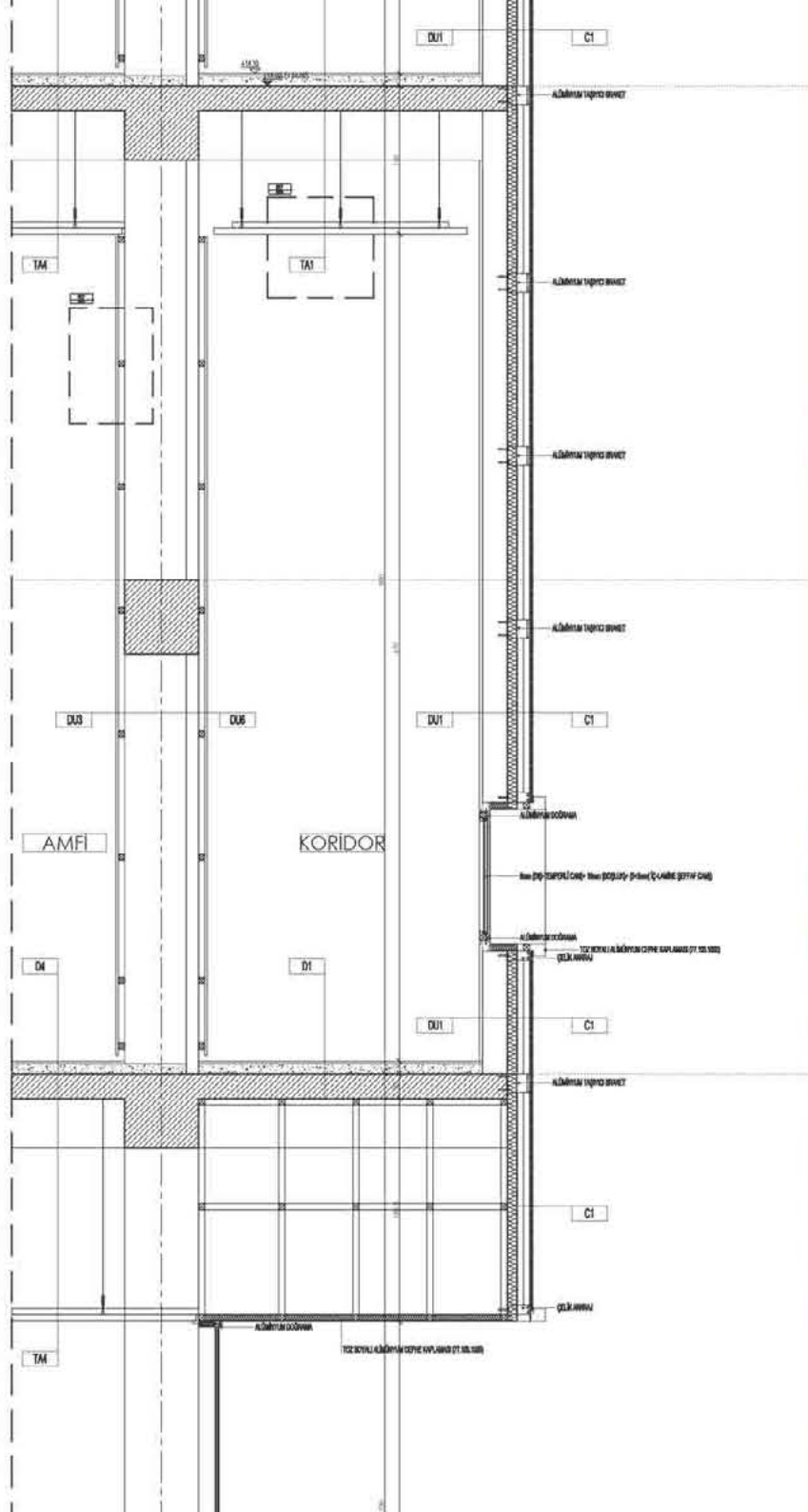




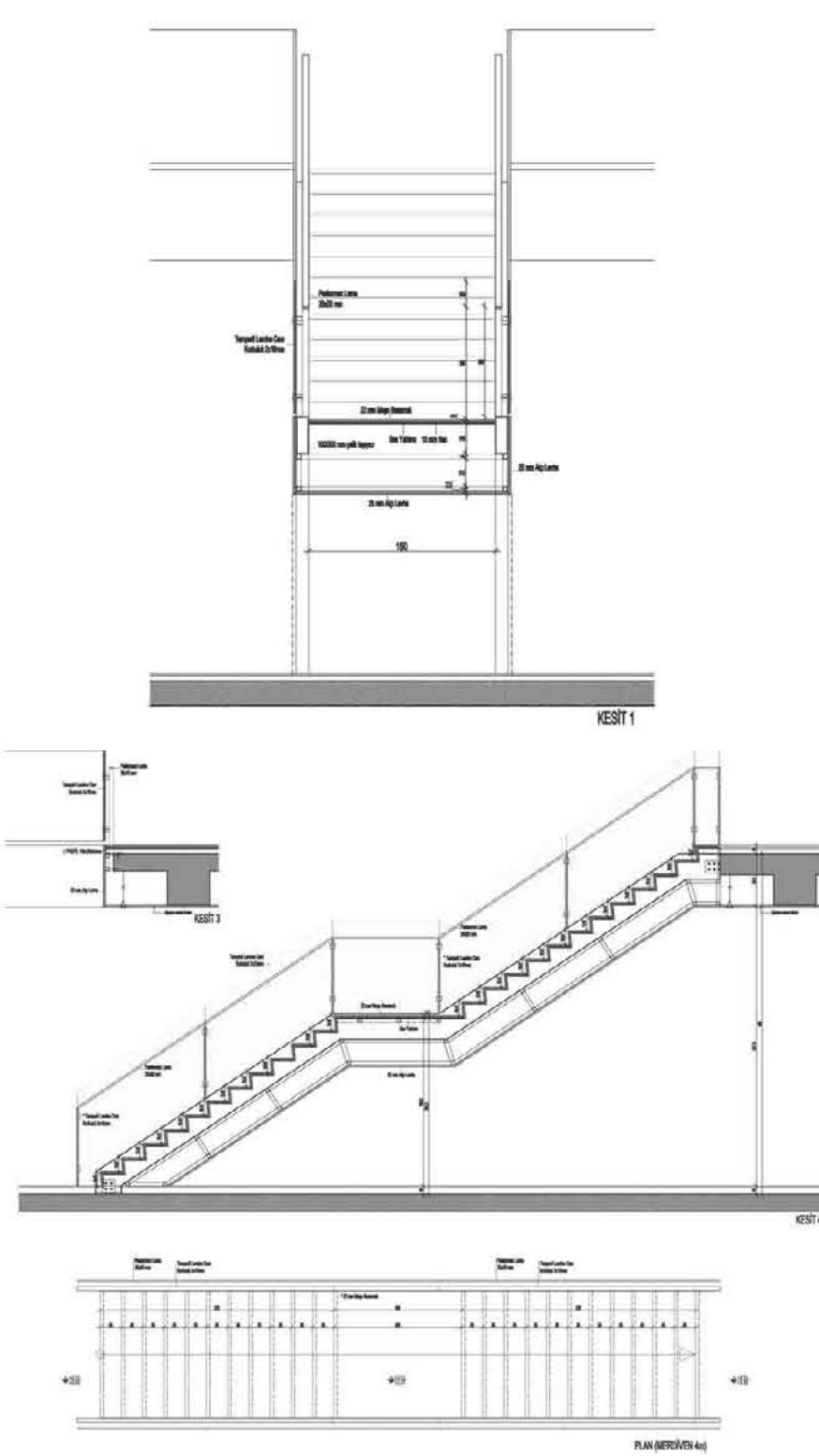
Design Project Team: DBArchitects/ Bünyamin Derman  
Implementation Project Team: DBArchitects  
Project Start Date: 2019  
Project End Date: 2020  
Project Location: Istanbul  
Project Type: University  
Personal Task: Project Coordinator - Designing Concept  
& Drawing Implementation Project Details





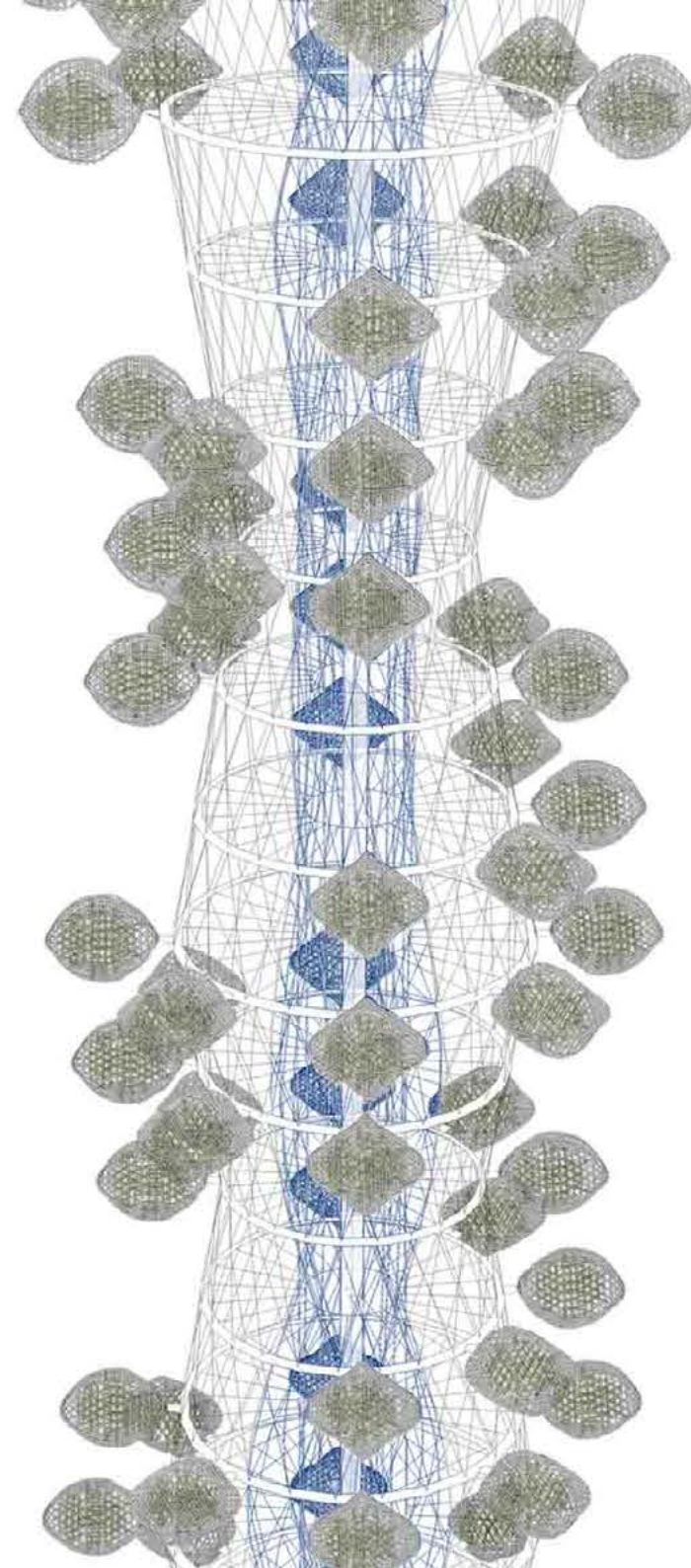




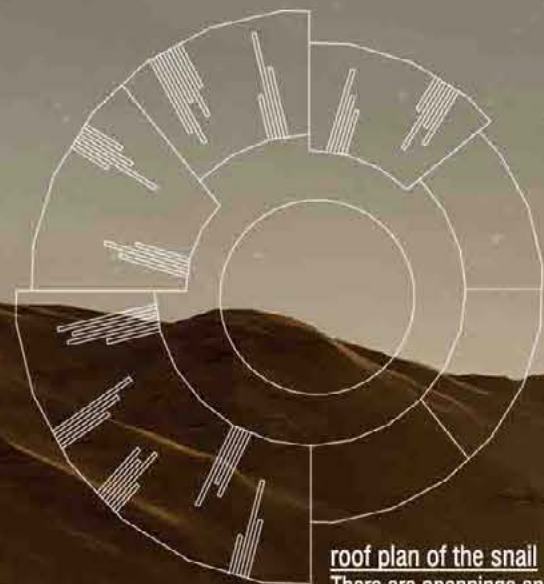




2018 Volume Zero Competition - Marsception  
Another - Colonization on Mars, Top 20 Finalist





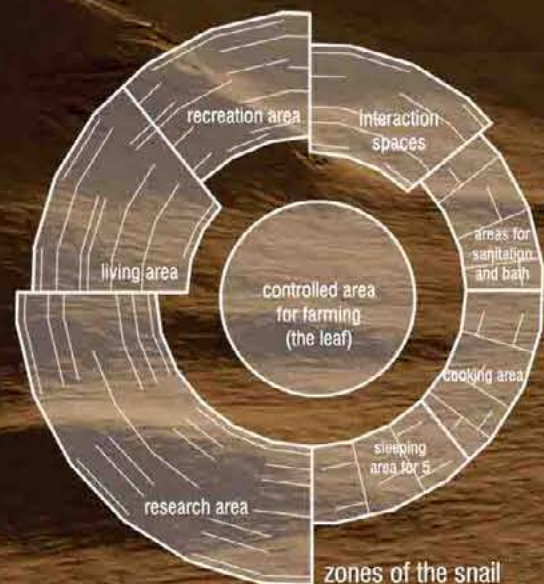


roof plan of the snail

There are openings and solar panels on the top for letting the sunlight in a controlled way.



ground floor plan of the snail



zones of the snail



section

this vertical/horizontal circulation supports the connection between the leaf and the snail. Researchers can use it to pass from the snail to the leaf. It's also for the technical support.

scale  
10m 20m 30m 40m 50m

### the snail of life and the leaf

It's a spaceship landing on Mars and carrying 5 researchers from Earth. Each partition in it represents different zones which supports their needs. Middle area is for farming and constructed by them after landing on mars. That area is called the leaf which is gonna be one of leaves on a life tree (a mega structure which makes vertical farming) in the future. The name and shape of the spaceship comes from the snail which is carrying its home with it and these researchers carrying their home from Earth to Mars with them.

the snail of life

the leaf





200 hundred years after landing...

# AN-THER

\* mega self-sufficient mars cities

isometric view of the capsule

I.the core of source

life trees

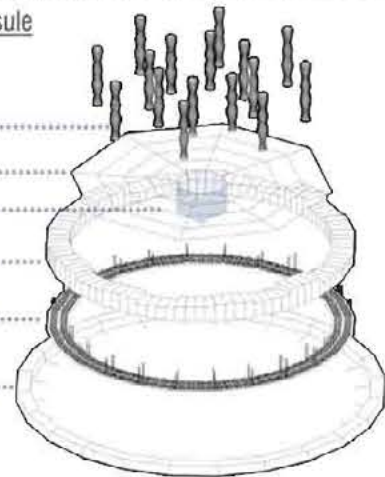
lines for harvesting product

water tank

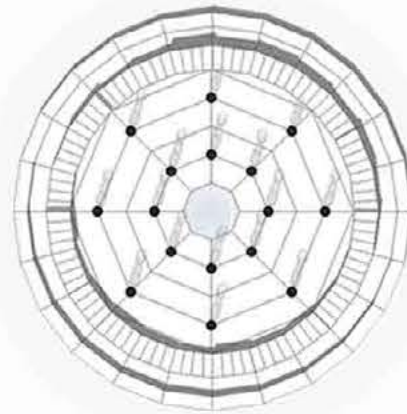
facade

II.the vita area

III.the area of production



top view of the capsule

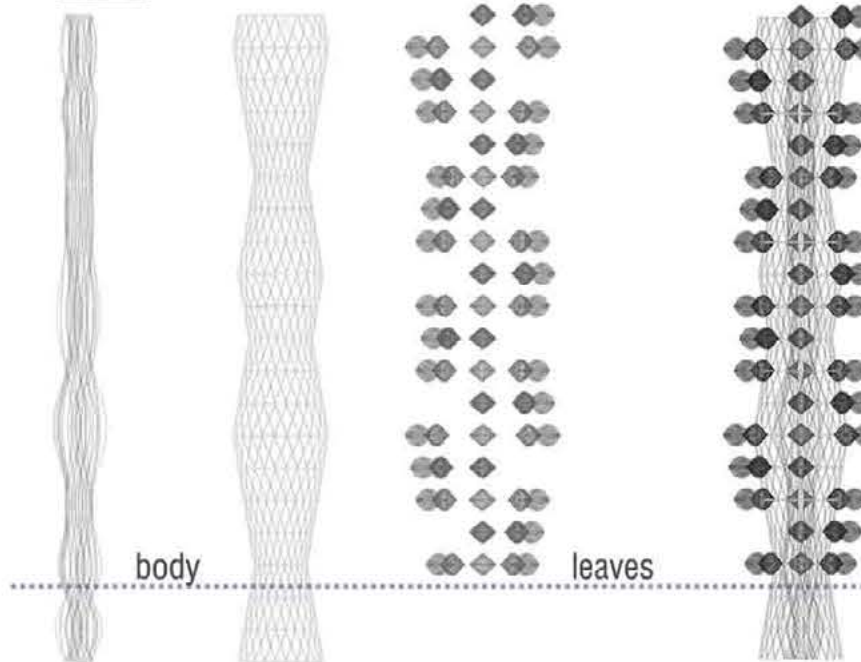


the capsule First exploration colony, which is going to Mars in 2024, will establish this area for staying and living there. They will bring some materials from Earth to Mars for creating the new living area, but later they won't need any other resources from Earth. Because they can produce everything, that they will need, on the surface of Mars with its own materials. First of all, They will build the capsule, a circle shaped structure with a radius 700 m that have 3 different layers. Between these layers, there are lines for harvesting the different products generated in the structure. Surface of the structure will be covered with a facade that is saving people from radiation as creating an artificial atmosphere and will have solar panels for producing the energy. Each layer has different functions; the core of source, the vita area and the area of production.

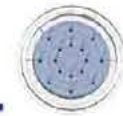
life trees

body

leaves



I.



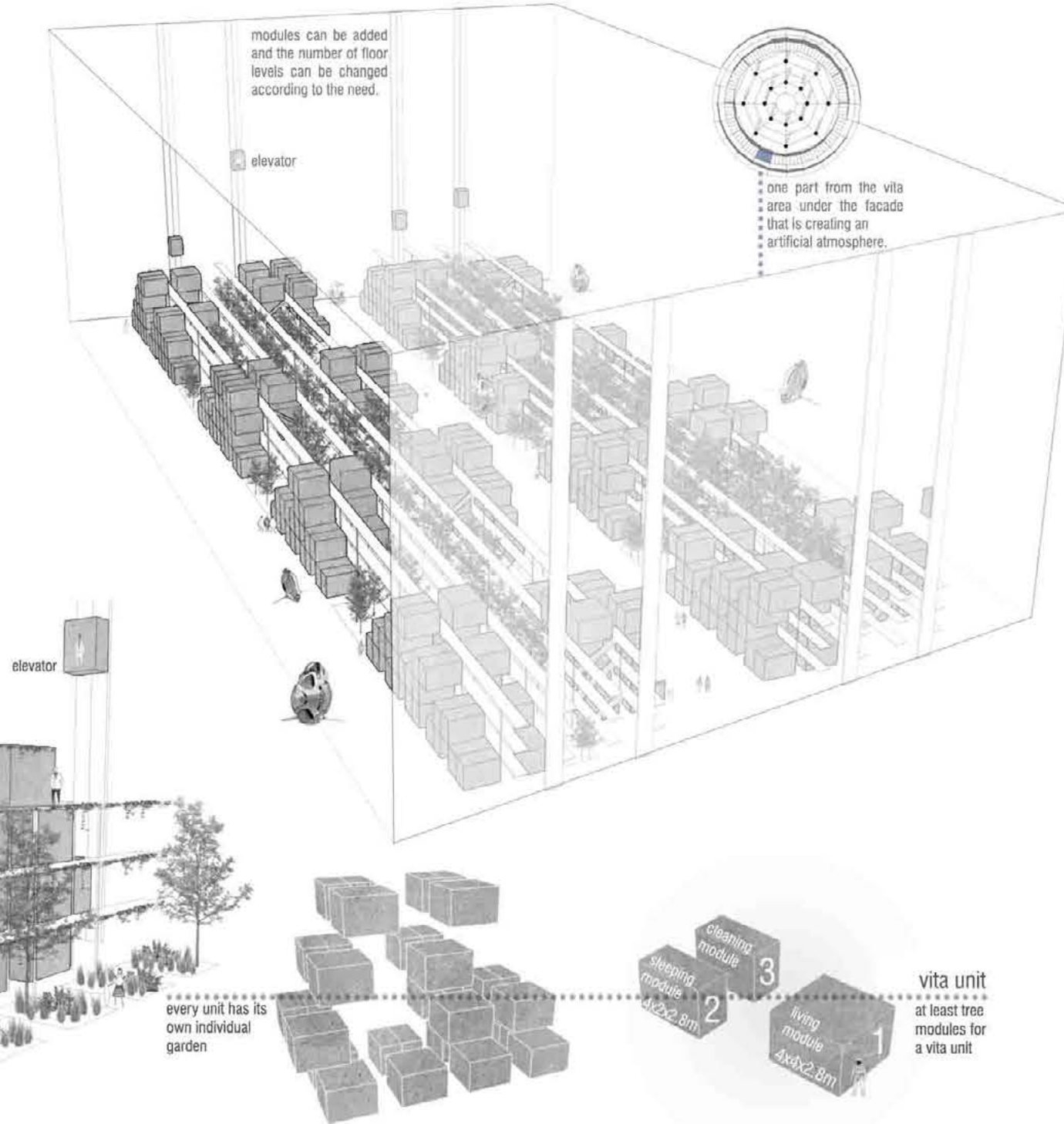
I.the core of source The innermost layer of the capsule is called as the core of source which stores H<sub>2</sub>O in the centered water tank and produces O<sub>2</sub> with the structures called as life trees. The centered water tank is collecting H<sub>2</sub>O from the ice caps of the both Mars poles for usage of human being. Life trees inspired from real trees, making photosynthesis, are producing O<sub>2</sub> with aquaponic systems for creating an artificial atmosphere. Imagine a real tree which has a body and leaves. These 240 m mega steel constructions (Elements of steel are Fe and C, so it can be produced on Mars) have a body with an elevator and other necessary functions for aquaponic systems in the middle and inside the spheres of leaves around it has many plants for producing oxygen. These leaf alike structures has solar panels on its surfaces, so it can produce its own energy. Later, These structures can be used for making the ozone(O<sub>3</sub>) layer on planet Mars and producing H<sub>2</sub>O.





II.

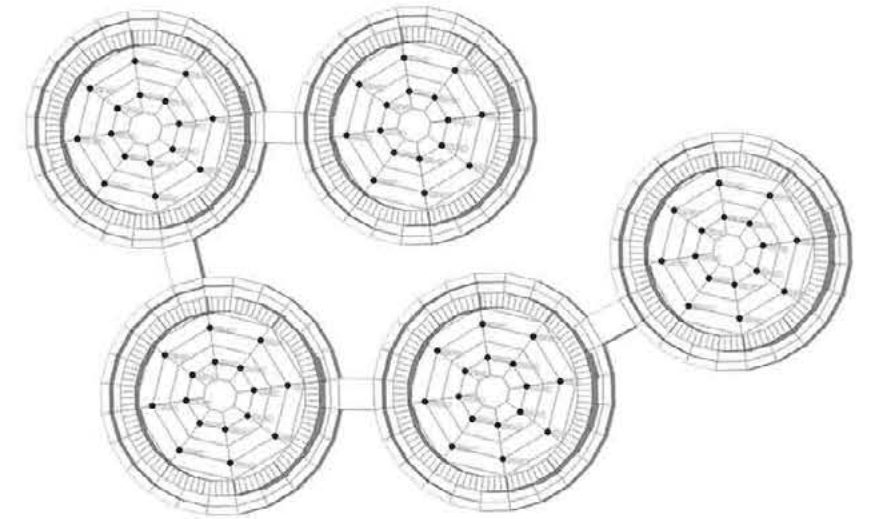
II. the vita area This secondary part of the capsule is the residential area, which has vita units. These vita units are modular designs, that the number can be increased or decreased according to the needs and the number of people who will leave there, so the design is sustainable by this meaning. Also, there are public spaces, working-researching areas, education units, sport zones, entertainment areas etc. between the vita units, because these are also essential functions for the psychology of human being. The smallest unit should be created with tree modules at least. In the units, these three modules are for living, self-cleaning(bathroom) and sleeping. These three are essential for one person or the smallest family. It can be enlarged according to the needs of the family



III.

III. the area of production The last layer of the capsule is for collecting and recycling wastes of human being and also, for producing other materials like steel, glass etc. Actually, this layer can be called as the industrial area of it. On the other hand, these wastes of human being can be used as a fertilizer in the future for the normal agriculture with the soil of Mars, after the ozone layer is created.

combining the capsules



mega self-sufficient mars cities These three layers make the whole the structure of the capsule and these capsules can be also combined with other capsules according to the needs of human being, because they're also designed modular.

In conclusion, it's a sustainable way to use this kind of modular structures, because the number of them can be increased and decreased according to the needs and they have a long life span. Mega self-sufficient Mars cities, answering all needs of human being with the materials that already present on Mars surface, can be created with this modular way without relying on any supplies from Earth.

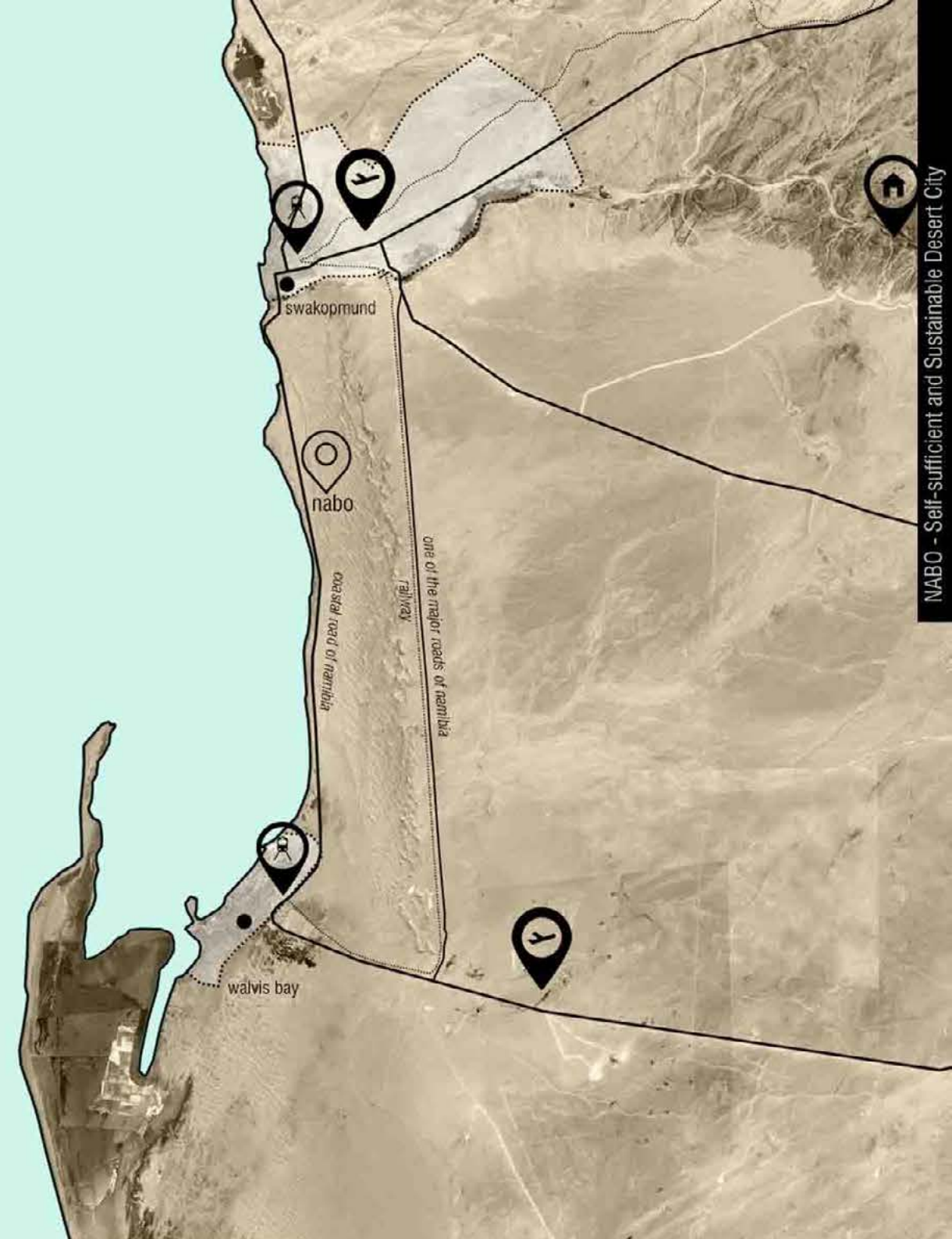
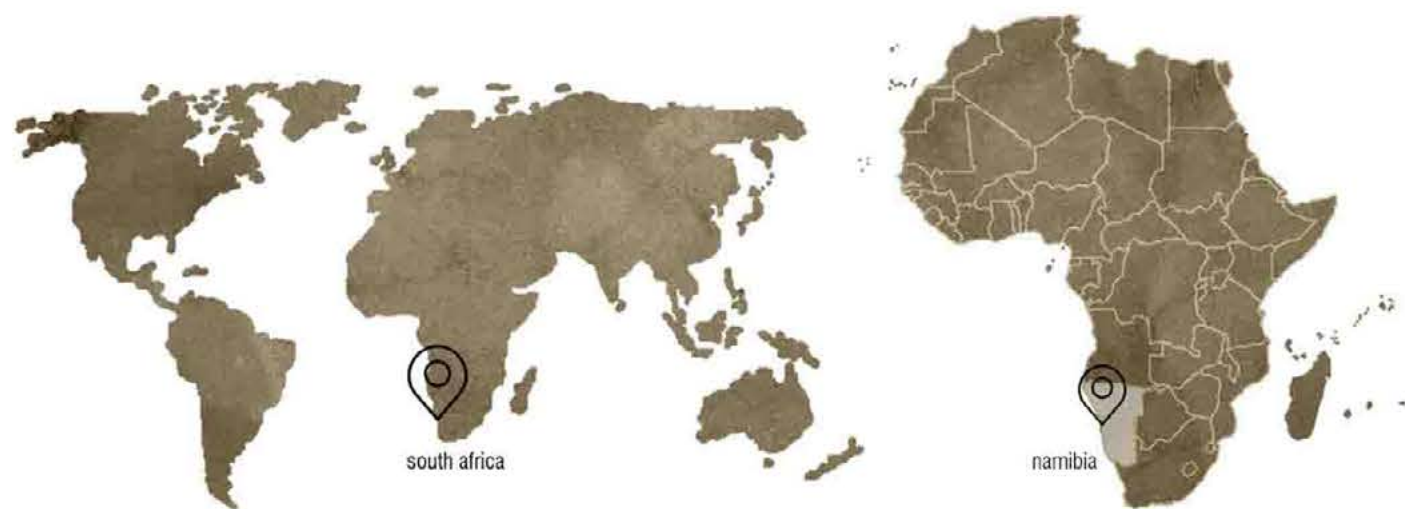


# NABO

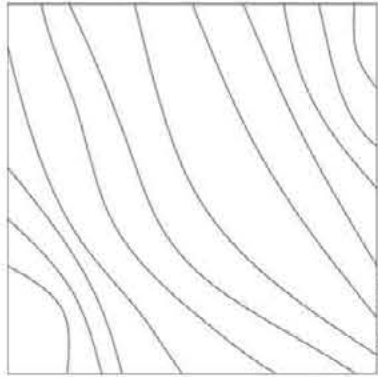


2017 Politecnico di Milano - Thesis Project  
NABO - Self-sufficient and Sustainable Desert City



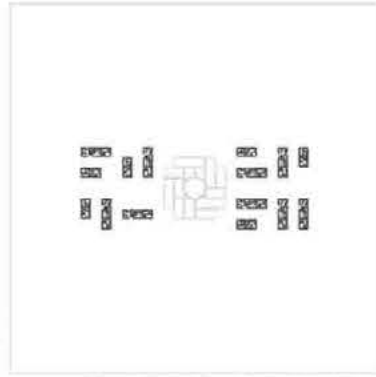






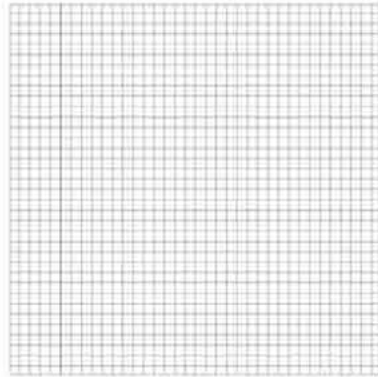
TOPOGRAPHY

Diagrams explain the logic how Nabo was designed. Scale of the diagrams is 1/20,000 and every topography line shows 1 meter.



RESIDENTIAL UNITS AND PUBLIC SPACES

Other facilities for self-sufficiency, water and food resources. They can be checked from the diagrams below in detail.



ZONING GRID 50X50M

The city is settled in a 50x50 meters grid.



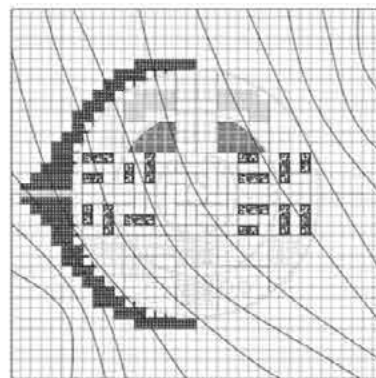
OTHER FACILITIES

Between these residential units, there are fields. Inner circle is established with public spaces.



INFRASTRUCTURE/ FIELDS

This diagram shows Nabo the desert city and how it's settled in 50x50m gridal system.



DESERT CITY

It has a radial master plan which has transportation circles in every 200 meters. In the future, if the island city wants to grow, another transportation circle can be added according to the need.

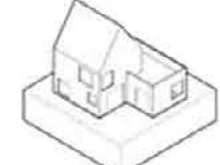
The first inner transportation circle is for cars. The second one is for tram. According to the need, other circle(s) can be used as car-way or tramway. Gridal roads are for bicycles and pedestrians. There is one main road going through the city connects the city with major roads of Namibia from west and east.



public spaces



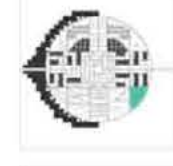
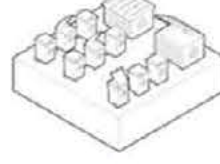
residential



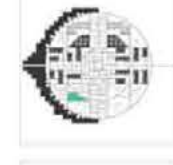
solar panels



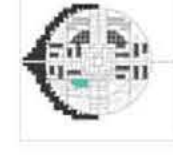
waste



bio gas (bio energy)



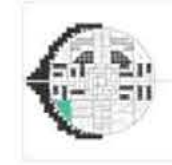
traditional desalination



salt ponds



livestock



mariculture algae



halophytes



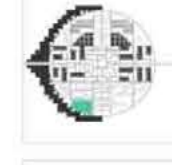
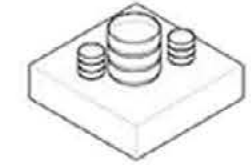
aquaponics salt water cooled green houses



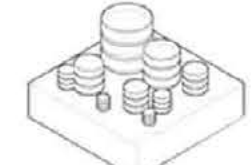
fields with evaporation hedges



water storage



grey water

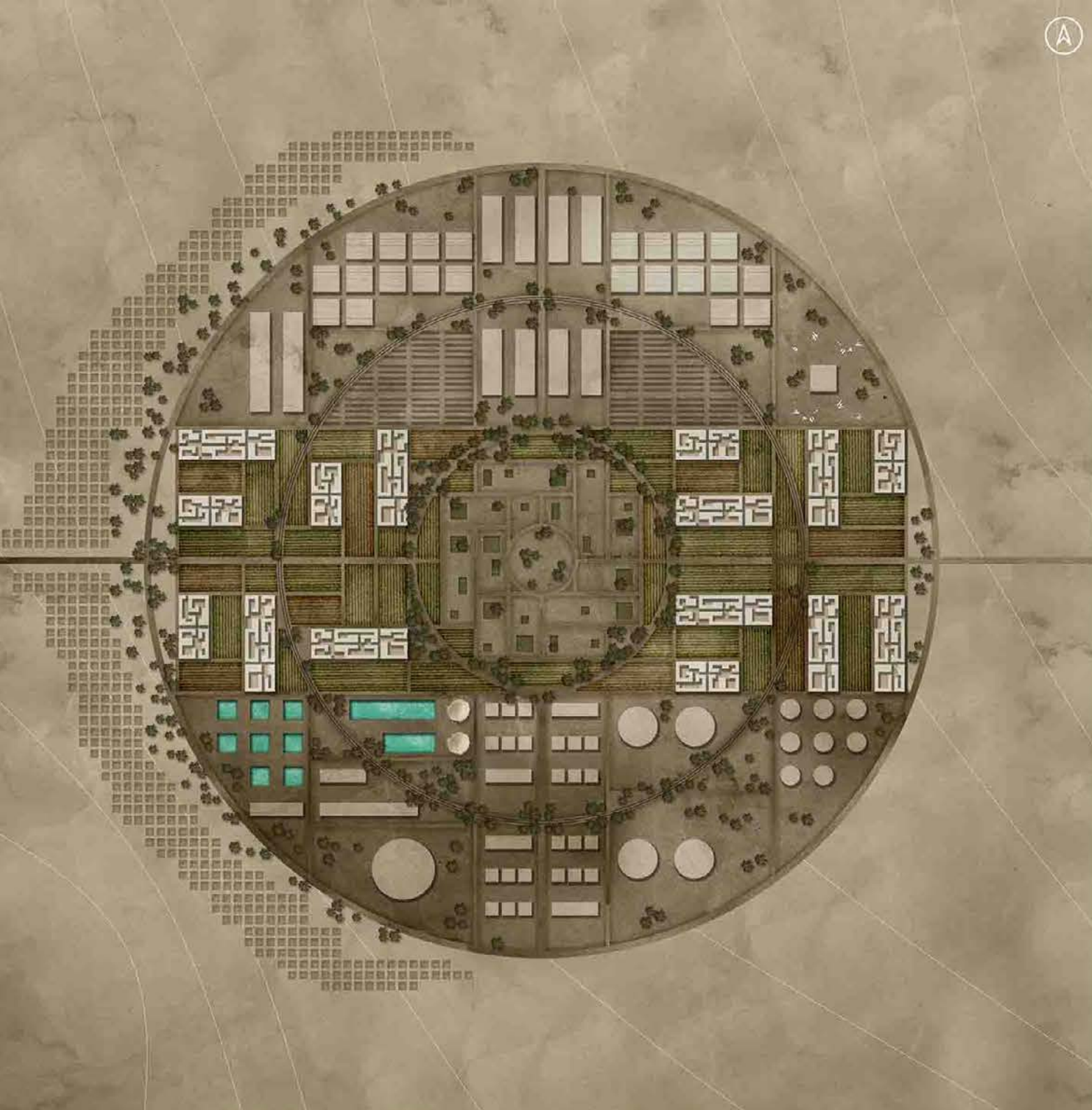


laboratories



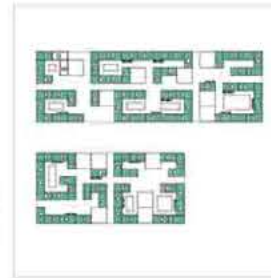
Which kind of requirements do 750 - 1000 inhabitants need? And how much space is required for each? (Calculations are based on Sahara Forest Project and Regen Villages)  
the area of grid's one square =  $50 \times 50 = 250 \text{ m}^2$





#### Residential Module Grid 5x5m

There is also another grid which is called residential module grid(5X5 meters) for residential modules.



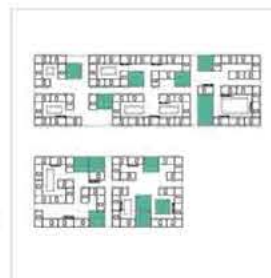
#### Residential Modules

There are 2 types of residential modules; 1 floor module for 2 people and 2 floors module for 4 people in max. They combine and make the residential units.



#### Circulation

Circulations in the unit can differ according to the combination of the modules, but it was designed for people to find their way inside easily.



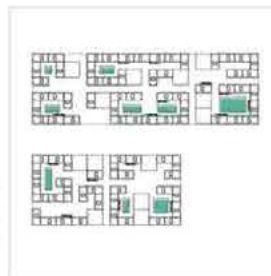
#### Other Facilities

Other facilities are social dining, community learning, play ground, sport facilities, water storage, grey water and waste.



#### Canopies

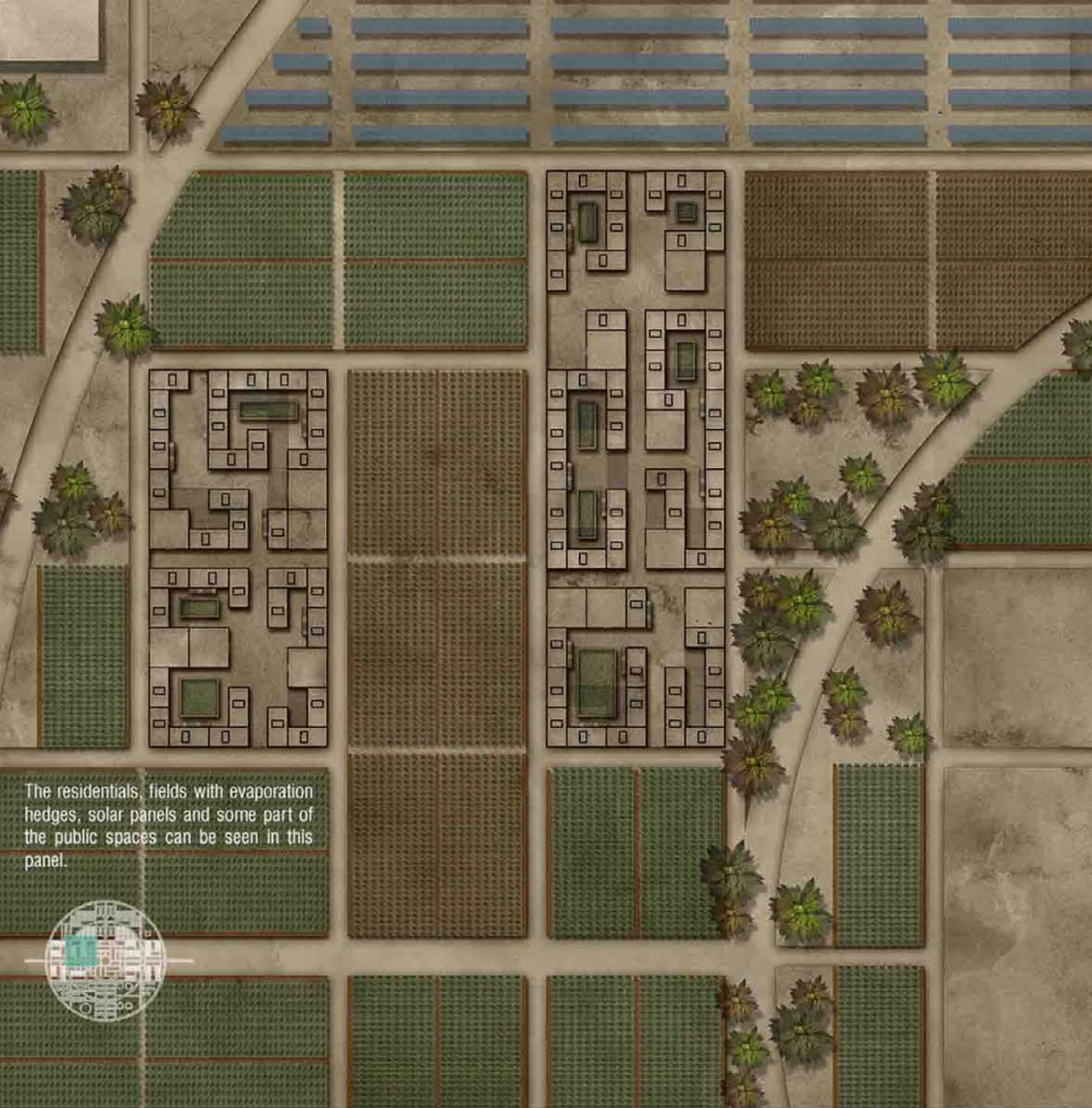
Canopies are to make shades for protecting the modules from the sun's harmful effects.



#### Courtyards

Courtyards are the semi-public spaces of the residential units.





The residentials, fields with evaporation hedges, solar panels and some part of the public spaces can be seen in this panel.



NABO - Self-sufficient and Sustainable Desert City



### The Roof of the Module

The module's designed according to the desert condition. So the double roof should protect the module from the sun and make a natural vantilation. Also, if it's needed, solar panels can be added on it.

### The Foundation of the Module

Sand also behaves like sea. For fixing the modules to the ground, some sand is allowed to go inside the foundation, just like ships taking some water inside for balancing themselves on the water.





When we come across a mound in the wood, six feet long and three feet wide, raised in a pyramidal form by means of a spade, we become serious and something in us says: somebody lies buried here. This is architecture.

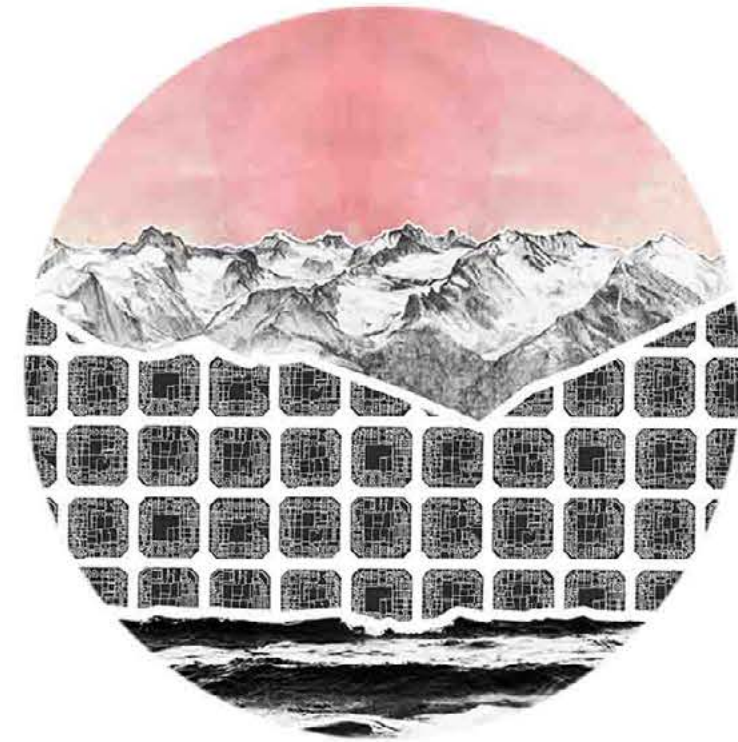
"Architecture arouses sentiments in man. The architect's task therefore, is to make those sentiments more precise."

"only a very small part of architecture belongs to art: the monument and the tomb."

Adolf Loos, 1910

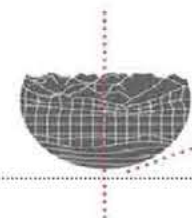
Team: Maral Günenç, Johana Narvaez, Sebastian Moreno

2017 Politecnico di Milano - Design Studio IV  
Cemetery Barcelona





## [Site]



The identity of Barcelona is given by the topographic condition that shapes the city from a starting point on the sea and interval boundaries of mountains that connect to the sky. The circumstance led to the conformation of a compacted and dense artificial topography that increase the value of space reducing the possibility of forgotten spaces.

## [Concept]

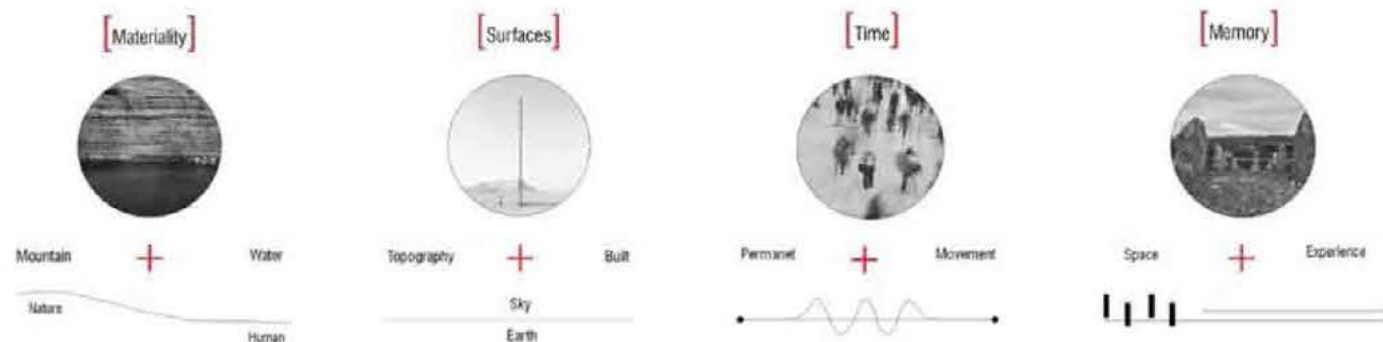
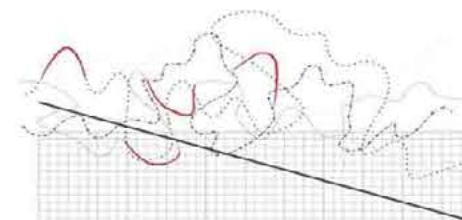
### Topographic Memory



The structure of our memories is related to topography and landscape through abstract and physical relations, in this sense the topography is a kind of knowledge that as the gestures of the body comes before the language, since it is a condition that shapes the human experience from the action of walking and looking for a shelter. The memory of a place is given by the connection between topography and mind, by interaction, experience and appropriation; this last one starts as a mental process but turns to be relevant for others when it becomes physical, when the topography is intervened and adapted with a propose; then if a landscape has not passed through this process, it still does not exist, and therefore is a landscape without memory.

## [Strategy]

The proposal seeks to fully respect the existing landscape balance in the natural environment. Taking advantage of the current drop of the plot, the building attempts to minimize its presence. This way the proposal organizes the programme into 5 areas. The buildings shows a double image; on one side seeks to minimize its presence and lowering its height merging with the ground and directing its green cover in continuity with the existing topography. On the other side of the buildings claims its contemporary facade that pretend convey an idea of unity.



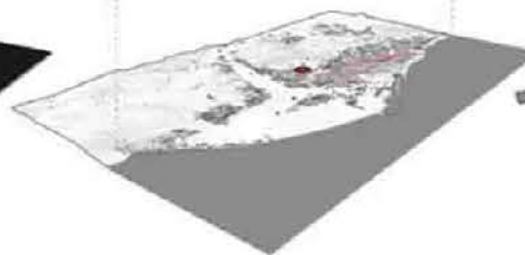
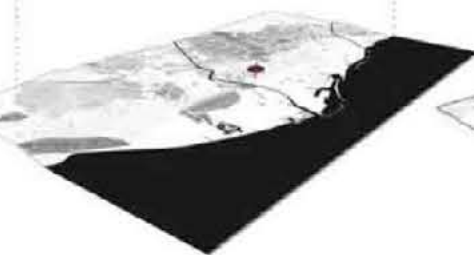
### Natural Attractors [Mountain-Water]

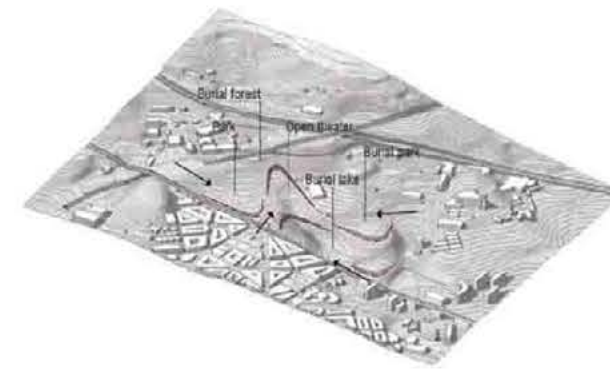
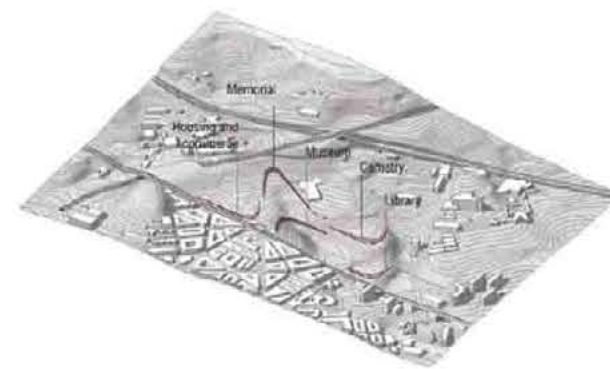
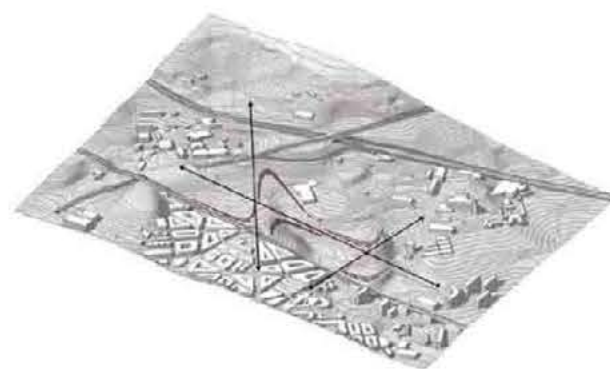
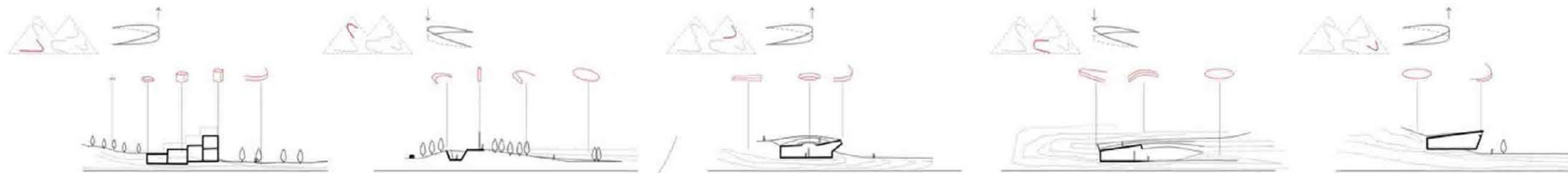


### Land Forms [Build -Void]

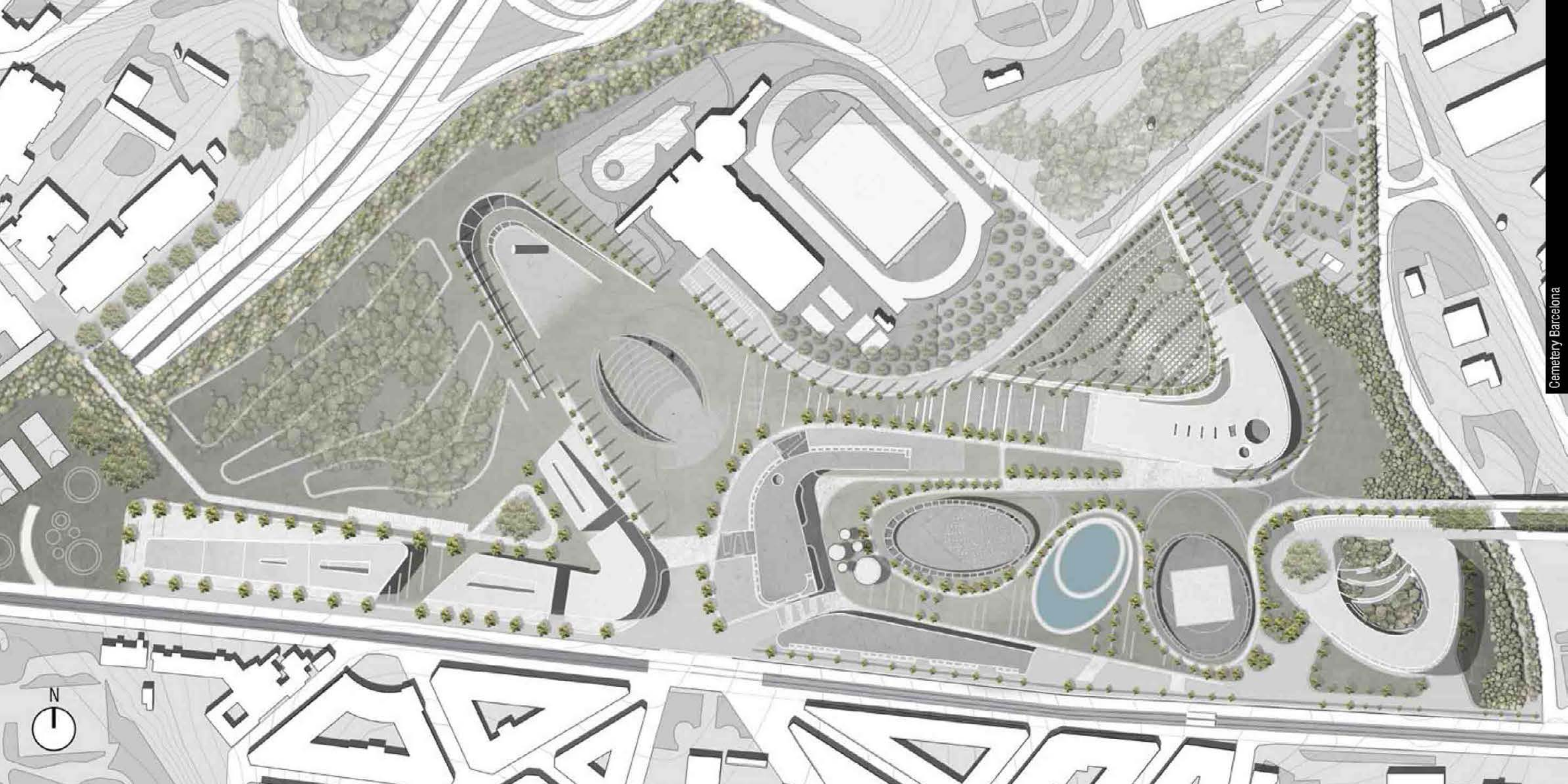


### Movement [Topography]

















Team: Maral Güneç, Srishti Gupta, Johana Narvaez, Adedunni  
Roberts, Hriday Bharaj, Hossein Rezaei

2016 Politecnico di Milano - Design Studio III  
N.O.A 2050 - Nexus of Aquaponic Farms  
Lafarge Holcim Awards Participant



## The Situation Global Warming



95%

OF THE NORTH POLE IS MELTING

Causes



Emission of Green House Gases  
Combustion of Fossil Fuels  
Methane from Land Fills  
Nitrogen and Phosphorus Cycle

75%

OF GLACIERS WILL MELT IN THE NEXT 30 YEARS

Possible Consequences

If the temperature rises more than 2 °C



Arctic disappears



Rise in Sea level by 20 meters by the end of 21st century



MELTING RATE

Equivalent to a football stadium, every 3 minutes

What is the polar ice?



Stabilizes weather systems for Agriculture



Reflects solar heat into space

## The Scenario Flood?

It is safe to assume that most cities in future, will be concerned with the issue of water. With the increase in global temperature two extreme conditions, either abundance or absence of this natural resource is predicted. We are defining and concentrating on the following two scenarios:

Scenario 1: Business as Usual, where the water levels stays as it is, including the perennial flooding of the river Po, where water can rise up to 10mt. in the worst case scenario.

Scenario 2 : With the increase in Global Warming, a flood is more likely to occur in the near future.

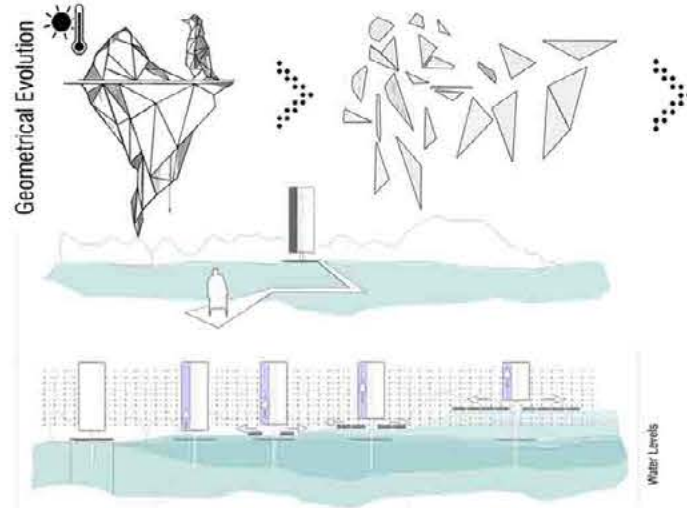


Po River Flood Patterns



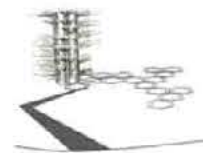
## The Idea Plug/Un-Plug

The flexible platforms which is anticipated to plug into natural and artificial elements, sensitively responding to environmental issues and requirements, water, the binding element of energy, nature and economy becomes the spine for the functioning of these platforms. The platform is envisioned to adapt and modify itself with the change in water level in natural water bodies, where it could fragment into smaller floating members with different services or could stack-up like a tower with environmental services on different levels.



## The Targets Design Focus

PROGRESS



Innovation Porous modular framework, Plugging/unplugging hexagonal platforms accommodating all the functions optimally.

Transferability: Structure and platforms adaptable to different cities. The conceptual structure is stable to the best of our knowledge but needs to be verified with experts.

PEOPLE



Ethical Standards: Architecture brings about coexistence with the surrounding community. Provides farm land in the absence of the natural land.

Social Inclusion: Platforms enhance spatial experience for users. Public interaction with the structure.

PLANET



Resource: Productive landscape merging with natural environment to serve future needs

Environmental Performance: Energy generation Biodiversity park to enhance the ecological character. Submerged structure to feed aquatic life.

PROSPERITY



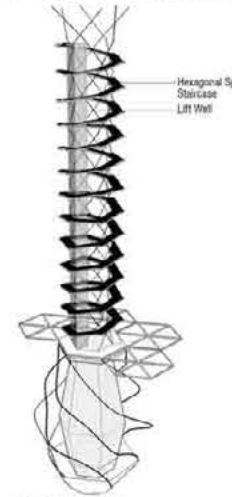
Economic Viability: Production of food as means of sustenance for the community. Provision of jobs, investment opportunities. Compatibility: Small area occupied on river with respect to greater outcome of productivity. Water purification system for feeding the structure.

PLACE



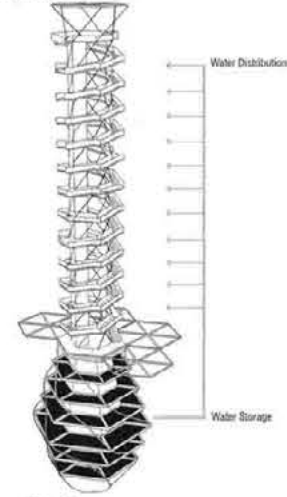
Contextual and Aesthetic Impact: Re-defining urbanism by creating a new riverscape, visible from numerous access points. Landmarks floating on the water, connecting the city to the river.

## The Structure Development



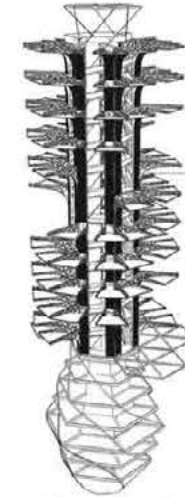
Vertical Circulation

The lift core forms an effective circulation in combination with hexagon spiral staircase wrapping around it.



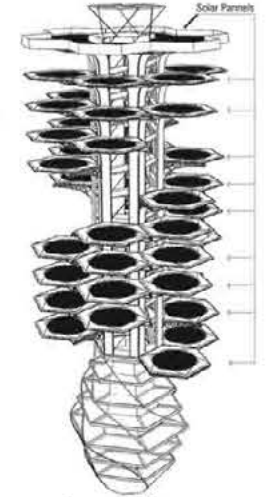
Water Storage

The under water tank with the ballast helps in further balancing the structure and keeping it upright.



Structure Framework

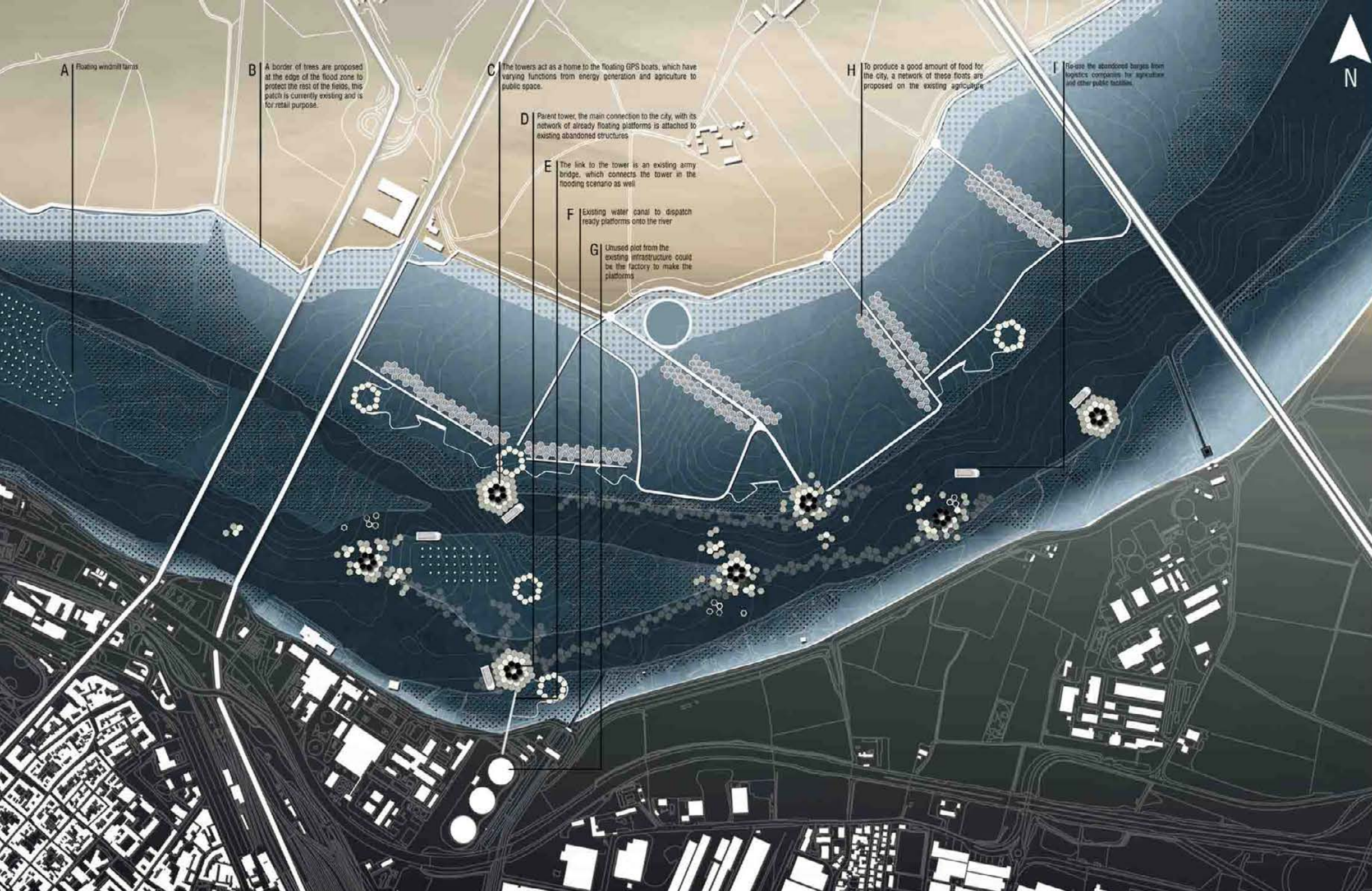
The Structure is a combined configuration of I and C Steel sections. The Vertical I section column provides space for running service pipes feeding different levels.



Hexagonal Platforms

The Platforms at different levels serve ecological and public purposes. Solar panels on top, are connected to a battery that charges the smart GPS boats.













## The Details

### Platform Details

Every level of the tower serves different functions based on the proximity required with human interaction. The following are the different functions incorporated and in the sectional view you can see the order in which they are composed.



#### a. ECOLOGY HABITAT

Another adverse effect of the flood is the loss of ecology and biodiversity of our lands. We proposed a platform for this to help the current diversity to grow and expand further. It is designed as a home for birds, plants and small animals.



#### b. HARVEST PLOT

Agriculture lands get affected a lot with flooding, and to help support the community we proposed platforms which can grow food [Grains and other tall plants] and float when the flood comes, hence helping to prepare for the immediate future.



#### c. SOLAR ENERGY

To make our structure independent from the available infrastructures, the top layers are for energy generation through solar power that makes it self reliant.



#### d. HYDROPONICS

For agriculture within the tower, hydroponics will be used to cultivate vegetables and fruits. This technique will be usefull when the platforms are unplugged from the tower and the plants can get the nutrition directly from the river itself.



#### e. GREEN HOUSE

Some plants, for human consumption and otherwise, need special care and conditions to grow, and cannot always be grown in all temperatures. For this the project proposes to also have platforms with green houses; which can be multilevel.



#### f. FISH AND KELP NURSERY POOL

With hydroponics unplugged, the lower part can be very good for breeding fish. So it becomes somewhat like aquaponics, but the fish are free and not necessarily for human consumption.

### Barge Details

Designing a network on the river can be challenging and expensive. To manage this, we proposed a link made of abandoned barges that can rest on the existing roads in between the fields. Till the flood comes, they can act as the connection to the field and start floating as the water rises.

This network of barges in the flood scenario can float and maintain the connections; serving a dual purpose of boundary and other functions that can be added on it to increase social interaction with the project and also increase yield.

Existing road section



Proposed road section



Flooded road section



#### a. OPEN MARKET

The floating barge provides a big area for the retail of the harvest grown on the hexagonal platforms. these markets can be managed by the farmers maintaining the harvest or even as a community effort.



#### b. SPORT FACILITIES

When the main resource for humans gets flooded, we need alternatives for possibly all activities we partake in, including sports. Since barge sizes vary, the facilities could vary from a play feild to a soccer feild, depending on the availability.



#### c. WORKSHOP AREAS

Along with buying the food for consumption, it is sometimes nice to learn how to grow it yourself as well. These floating workshops will serve that purpose for those curious to learn.



#### d. OPEN THEATRES

Other interactive activities could include pop up theatre as it provides a good public space.





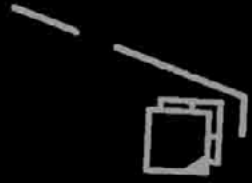




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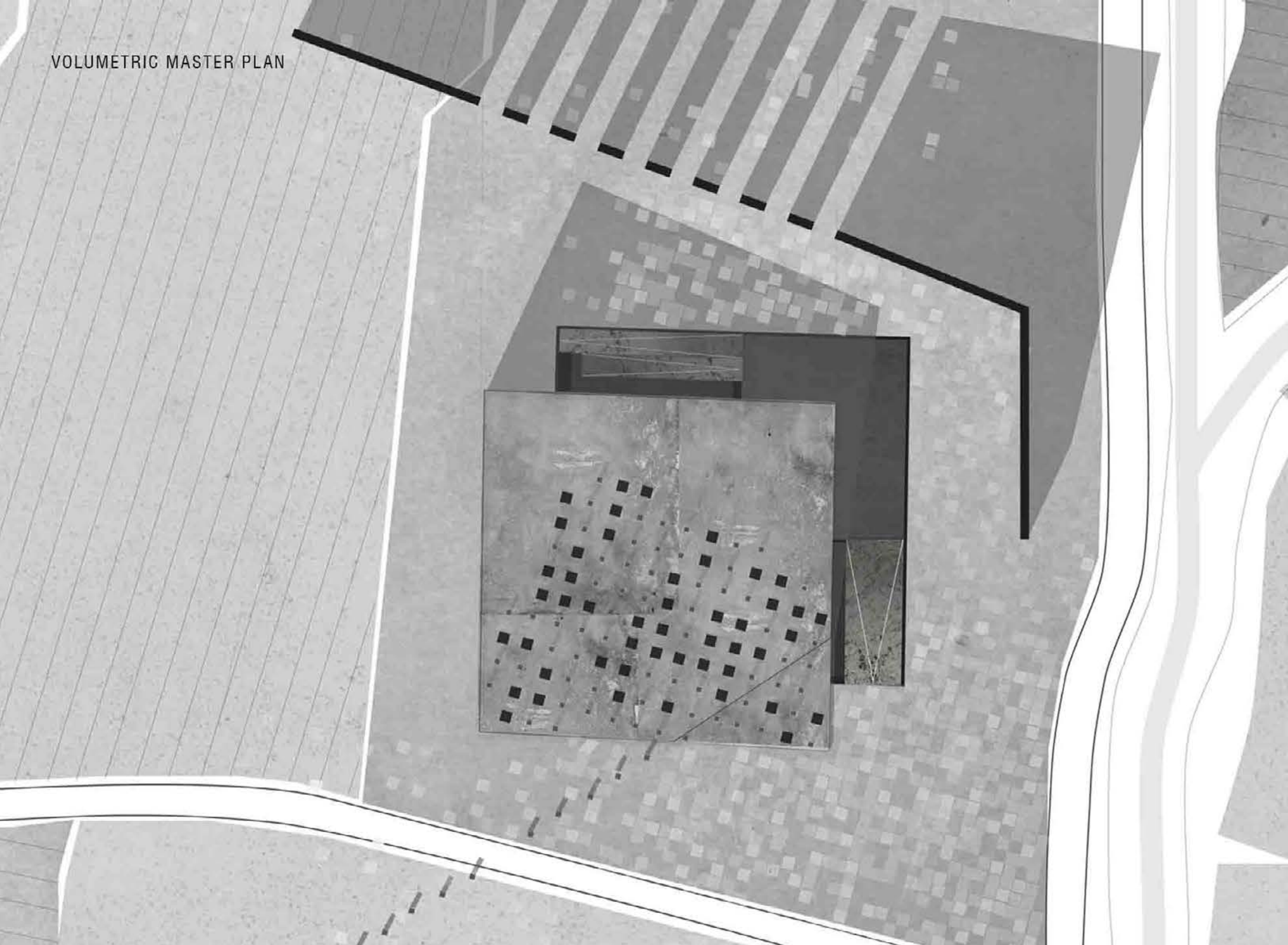


Team: Maral Güneç, Priscilla Cruz, Maria Aldea

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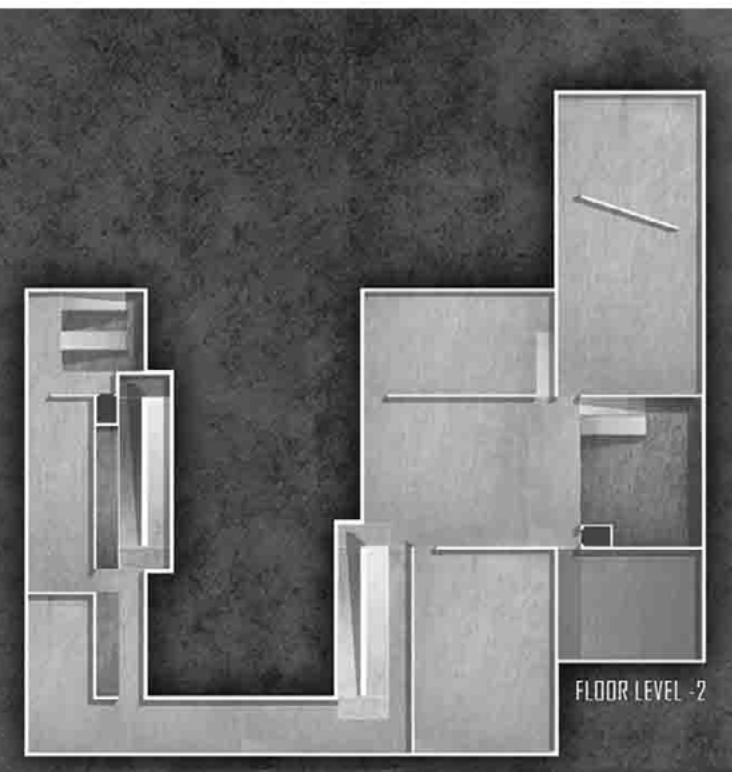
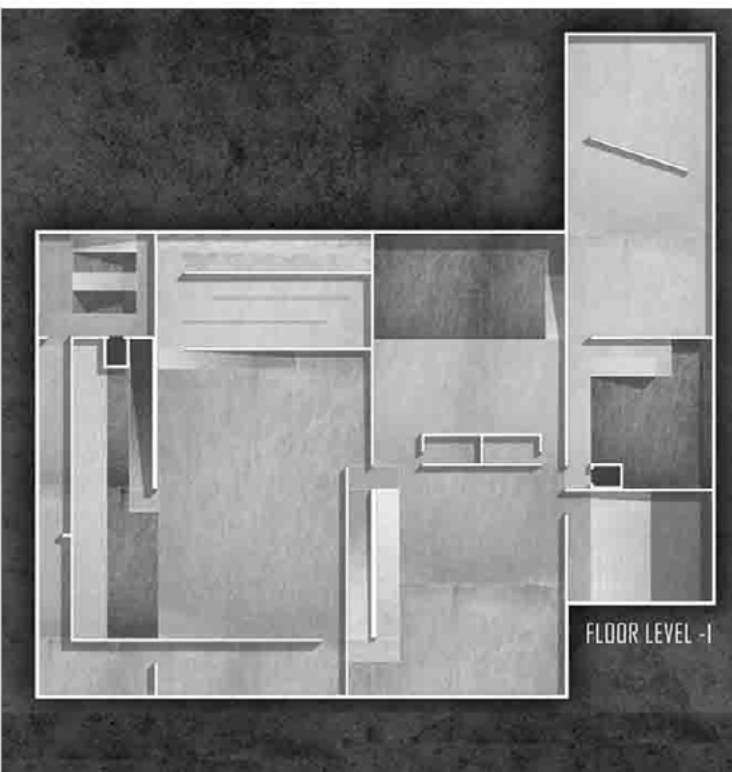
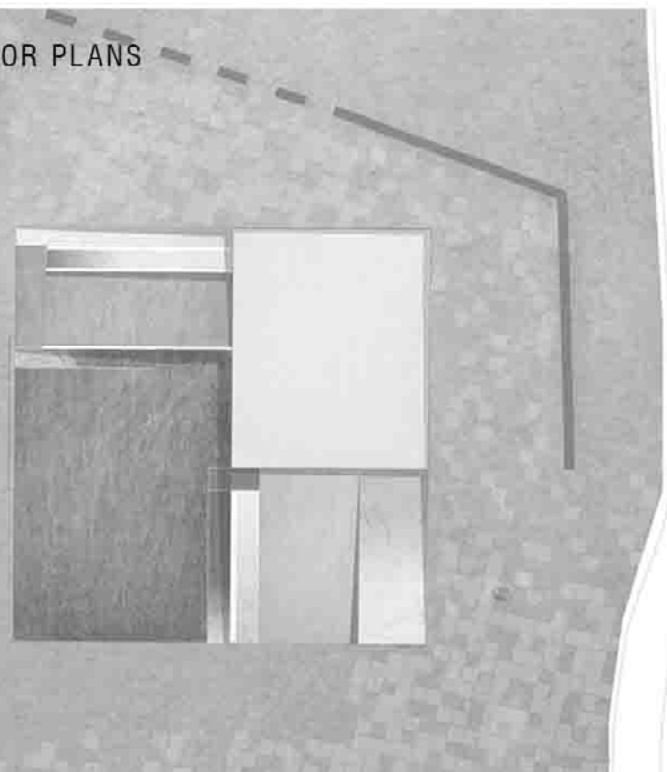


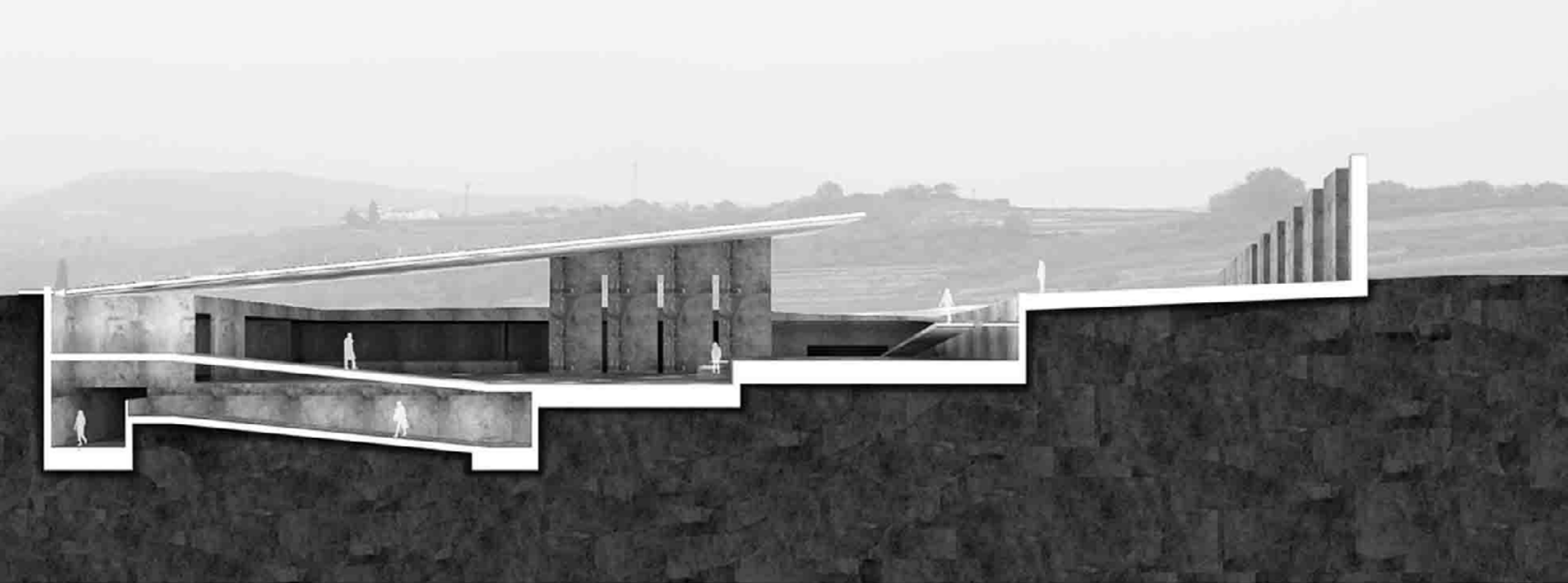
VOLUMETRIC MASTER PLAN





▲ FLOOR PLANS





SECTIONS FROM THE BUILDING











