PEM 211E

TES STUDIO 3

PROJECT 3

Istanbul Technical University,
Faculty of Architecture,
Department of Landscape
Architecture, Taskısla Campus

Phone: +90 (212) 2931300
ext.2808 Fax: +90 (212) 2514895
E-mail : peyzajmim@itu.edu.tr

Editors:
Ikhwan Kim
Çisem Demirel

Graphic Design:
Çisem Demirel

PEM 211E
TES PROJECT III

design studio III

landscape

Dr. Ikhwan Kim
Res. Assist. Nergis Asar

STUDIO . 04
MODULE 1 . 08
MODULE 2 . 18
COMMON MODULE . 26

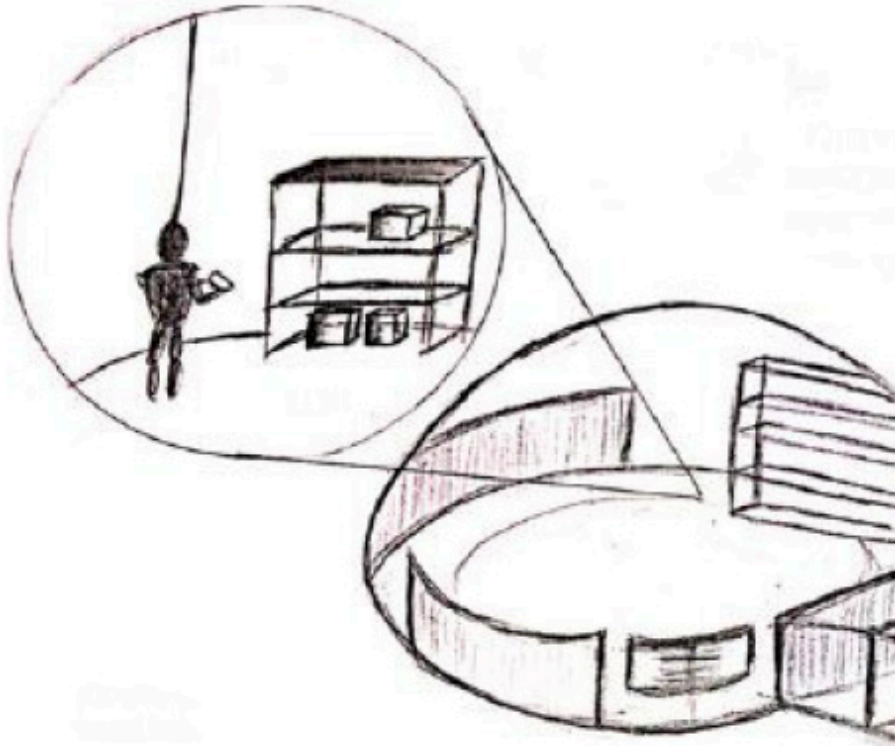
01 STUDIO

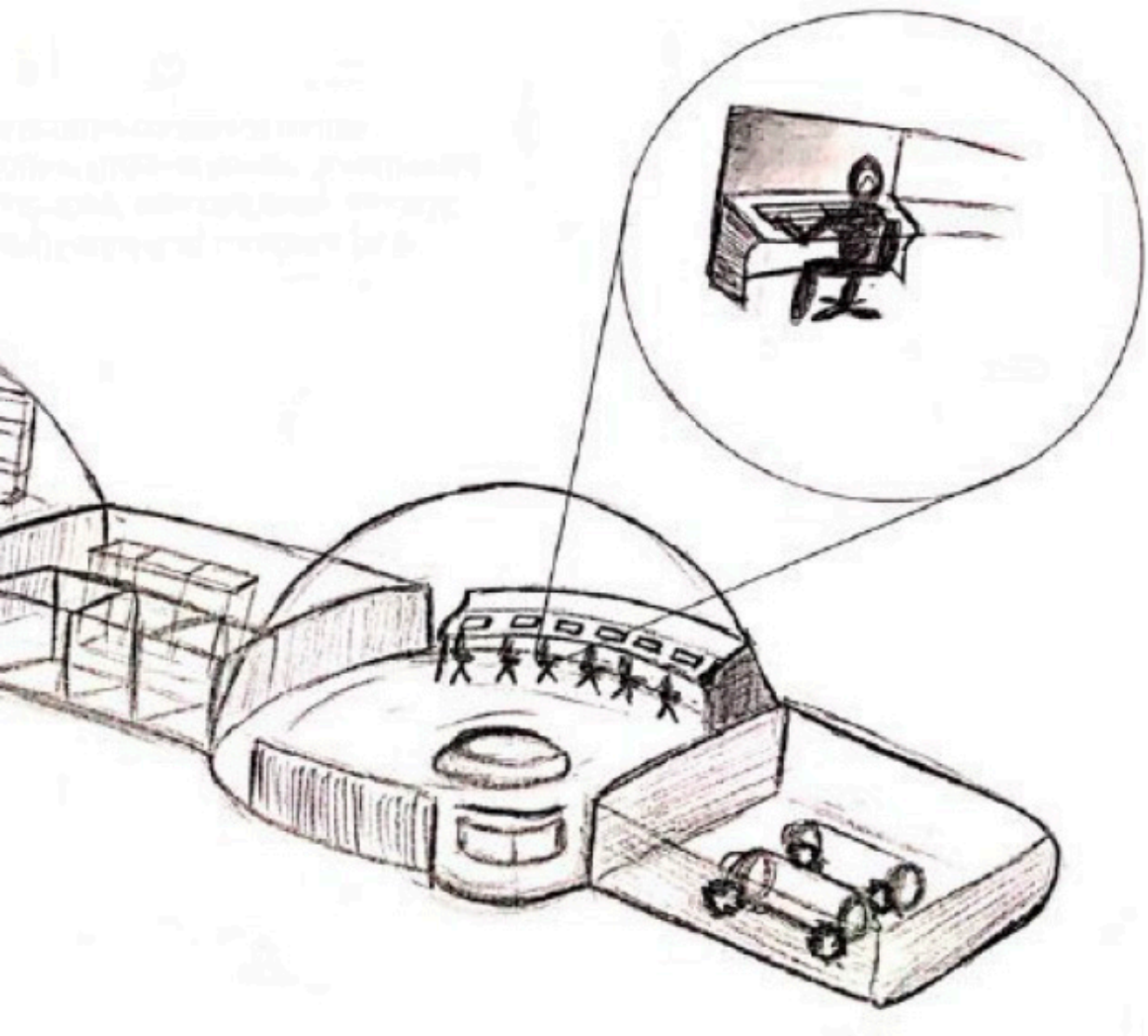
landscape fundamentals

For Young Space Crafters

Though landscape architecture is getting deeper and wider ever in history, the fundamental approach and methodology never change. You need to understand what information you need to collect and read from the level and understand its human beings. This class will train and teach young space crafters, not yet landscape architects, in various ways to do so.

The studio will be conducted under two main modules "Realizing the Future on Mars" and "Future of Landscape in Historical Reality". Additionally, please note that the class will be conducted in English only.





02 NEW HORIZONS

MODULE I

REALIZING THE FUTURE ON MARS

MODULE II

HALIÇ-FUTURE OF LANDSCAPE IN HISTORICAL REALITY

COMMON MODULE

CONTEMPORARY AGENDA

FOR YOUNG SPACE CRAFTERS

2020
2021
FALL

MONDAY - THURSDAY 13:30-17:30
PEM TES211E PROJECT III

DR. KIM, IKHWAN
RES. ASSIST. ÇİSEM DEMİREL
RES. ASSIST. MERVE FERMANCI

MODULE 1
REALIZING THE FUTURE ON MARS

MODULE 2 HALIÇ
FUTURE OF LANDSCAPE IN HISTORICAL REALITY

Though landscape architecture is getting deeper and wider ever in history, the fundamental approach and methodology never change. You need to understand what information you need to collect and read from the level and understand its human beings. This class will train and teach young space crafters, not yet landscape architects, in various ways to do so.

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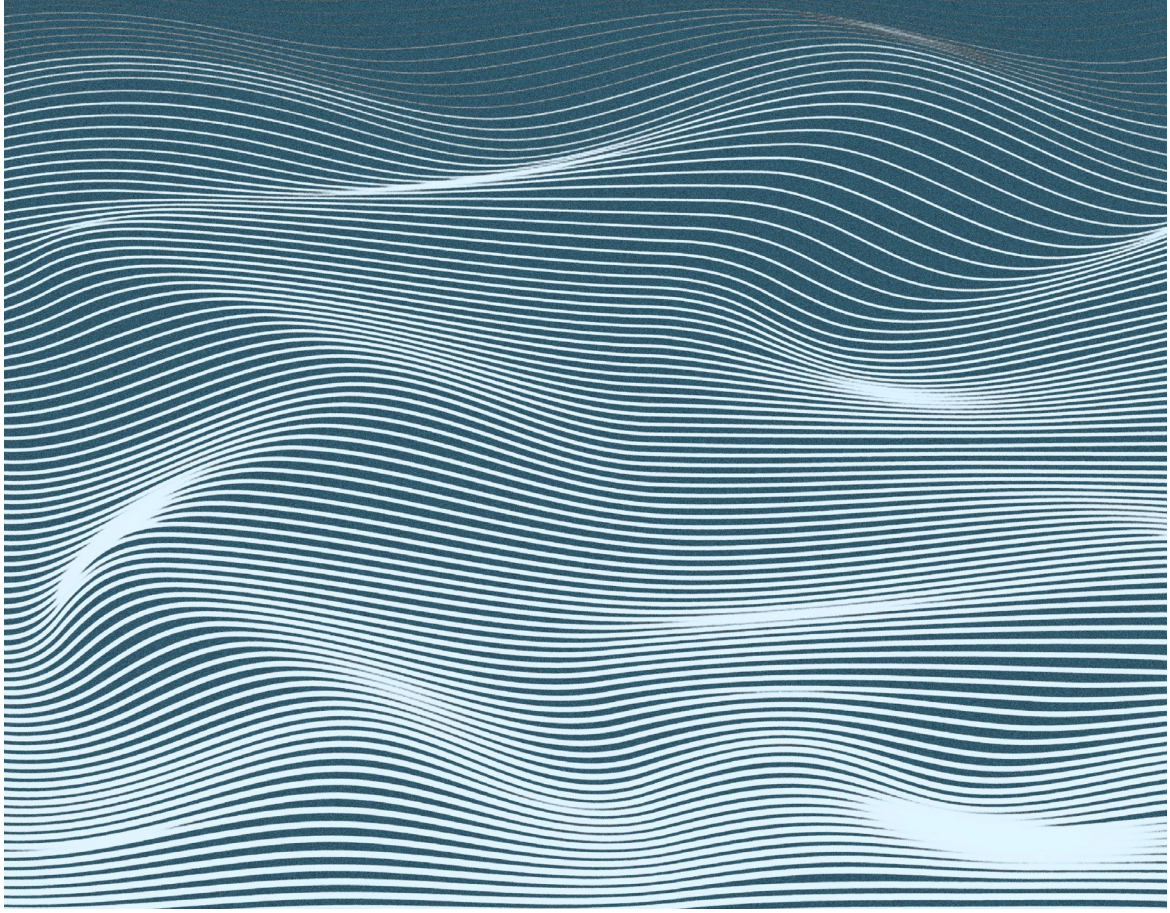


MODULE I

REALIZING THE FUTURE ON MARS

In the context of the first module, students will be dealing with the complexities of the site to develop design ideas based on the local context of the planet Mars. Mars is the most earth-like alien planet in our solar system and facing space exploration in near future. This class will let students study and analyze the environment of this alien planet and will let them select the perfect landing spot for the first expedition team.

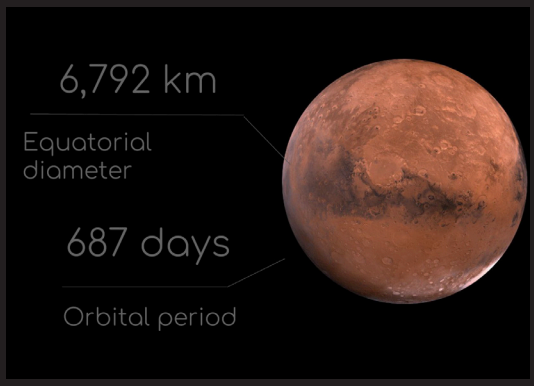
The class will give students conditions such as the payload of the rocket, the number of members in the expedition team, the period of the expedition and necessary supplies, etc. Students will be able to use Google Mars-like online service to investigate.

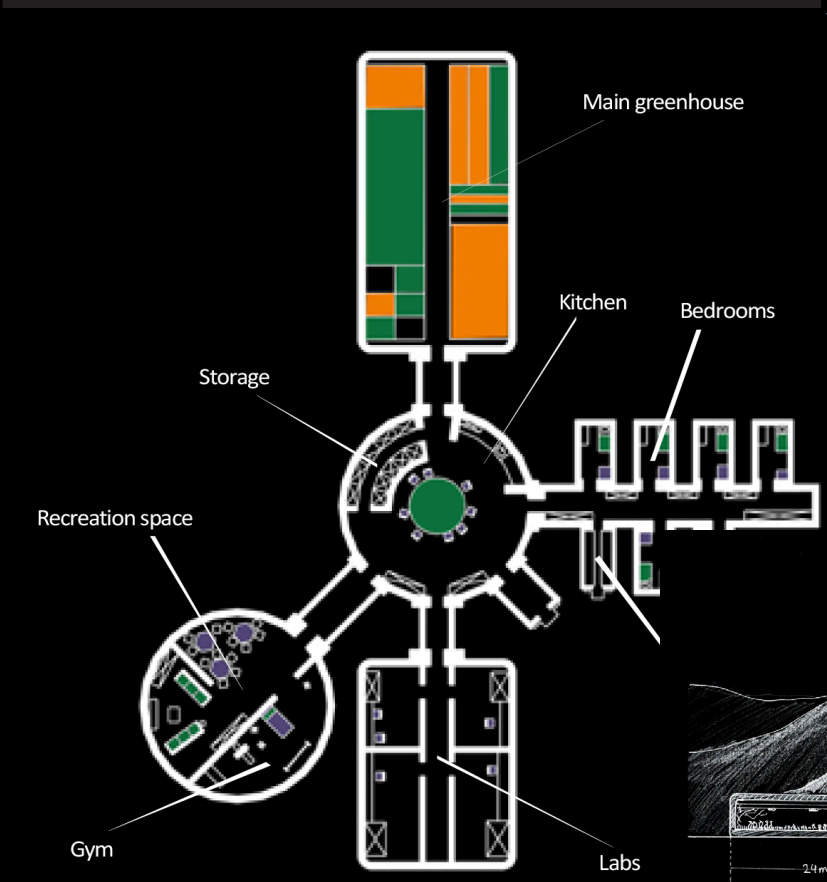
With this module work, students will be able to train how to study and analyze a large-scale site with the perspective of designers. Additionally, there will be no field trip.

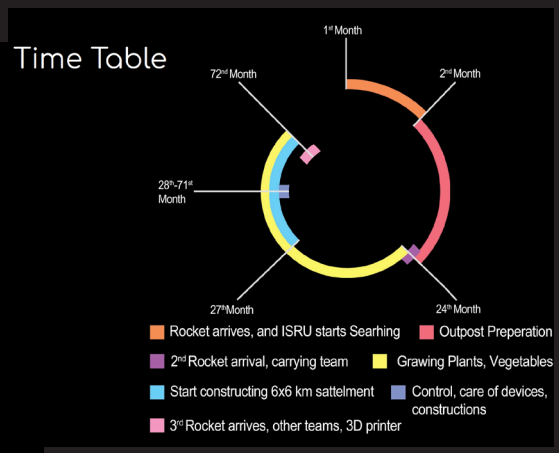
Week	Date	Studio Work	
MODULE 1 – MARS *Realizing the Future on Mars*			
1	19 Oct.	Introduction to the Studio / Program and Context	Introduction and Discussions
	22 Oct.	**Mars Project.** Personal experiences / Site Dynamics / Recording textures / Sketches - Discussion on online lecture and communal production	Studio Work
2	26 Oct.	Reading the topographical landscape of MARS Exploring the landscape models and model materials	Studio Work
	29 Oct.	Understanding & Representing the Landscape Idea	Studio Work
3	2 Nov.	Development of Conceptual Framework / Sketches / Collages / Free scale mapping / Hybrid drafting techniques	Studio Work
	5 Nov.	Landscape Analysis 1/500 Analyzes and assessment examples with Sketch / Section and Plans	Submissions
4	9 Nov.	Landscape design plans 1/100 Sections, perspectives and 3d representations	Studio Work
	12 Nov.	**Landscape analysis of MARS (A-1 poster format)/ Photo collage**	Pin-up
	26 Nov.	Landscape design plans 1/100 Sections, perspectives and 3d representations	Studio works
7	30 Nov.	Landscape design plans 1/100- 1/50 Sections, perspectives and 3d representations	
	3 Dec.	Landscape design plans 1/100- 1/50 Sections, perspectives and 3d representations	Studio works
8	7 Dec.	Landscape design plans 1/50 Sections, perspectives and 3d representations	Studio works
	10 Dec.	JURY	Jury, Panel and submission

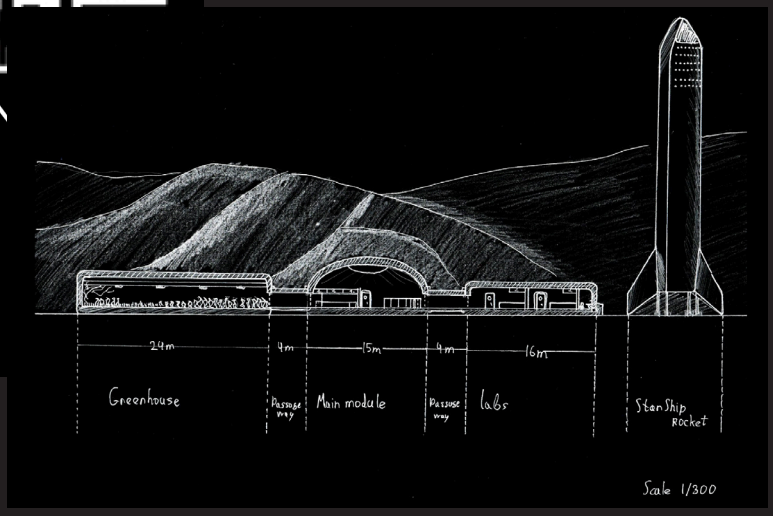
STATION MARS

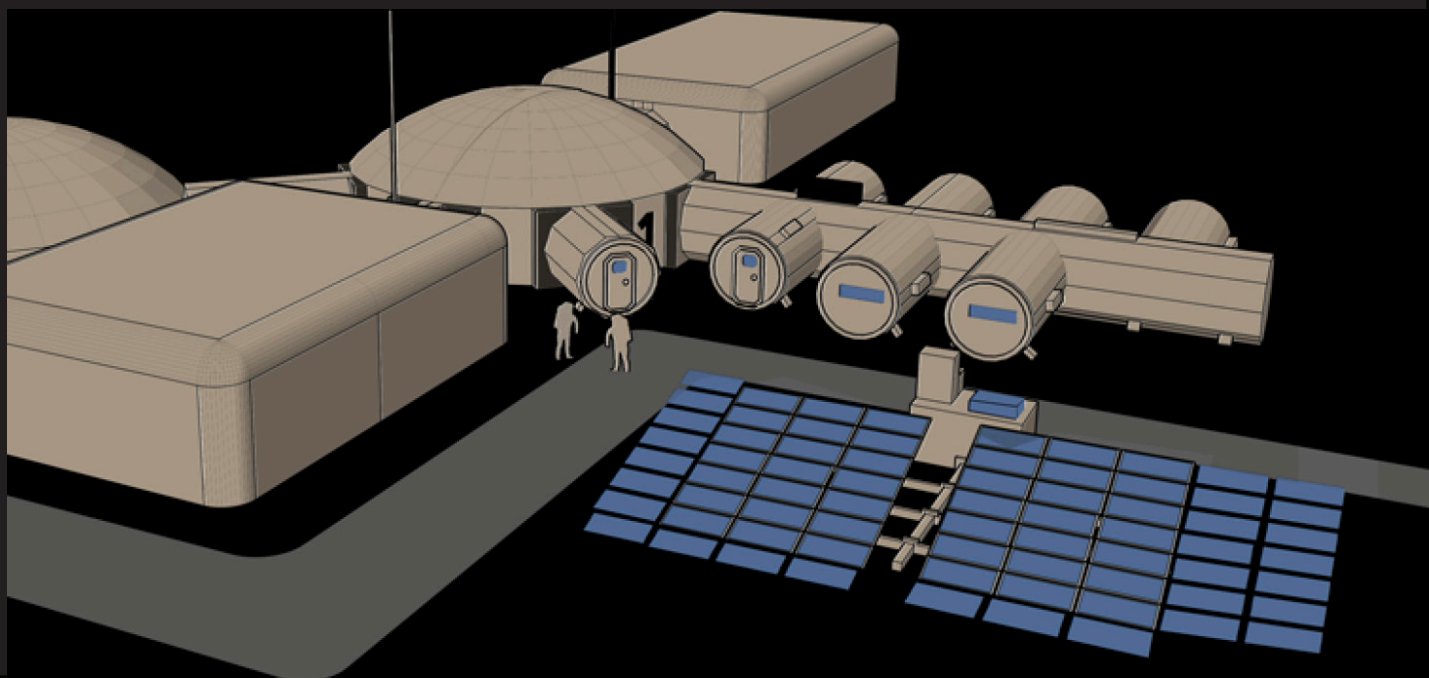
LUJAIN O. MAMI

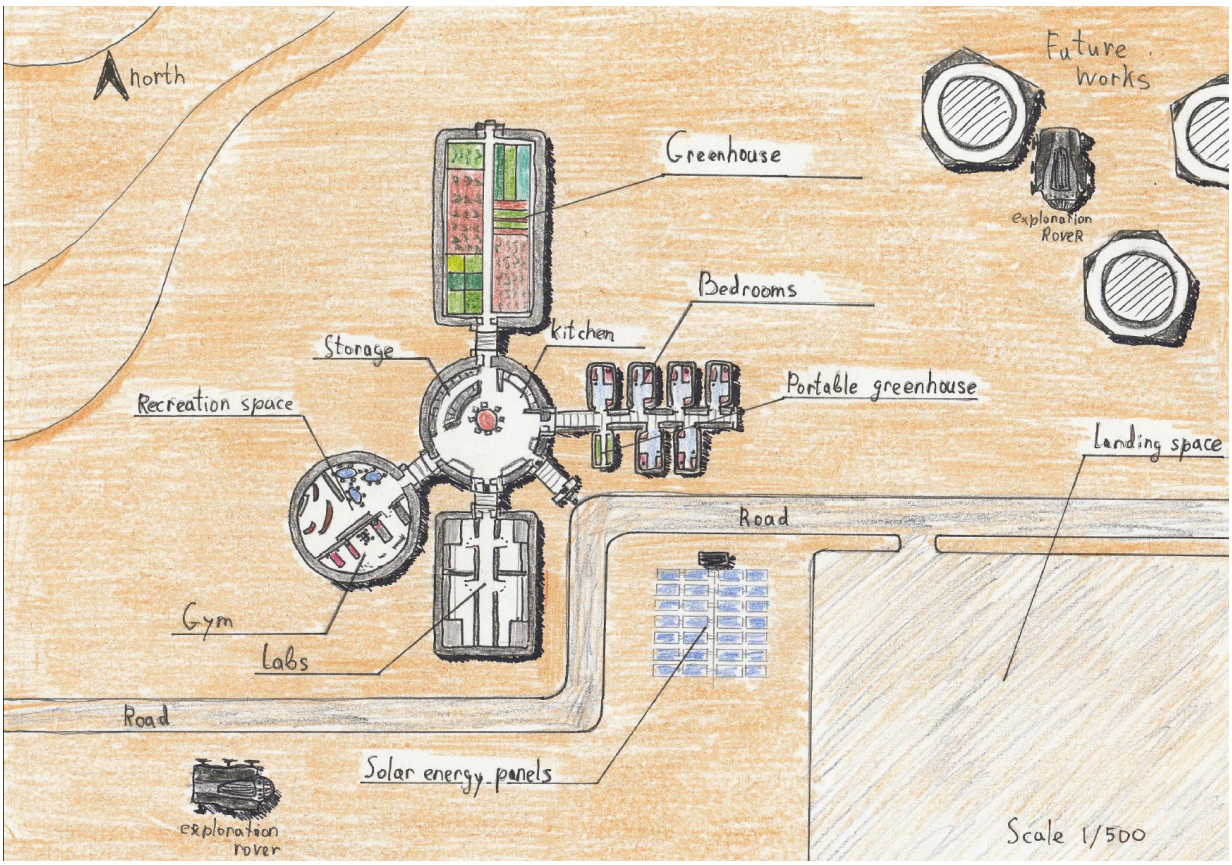


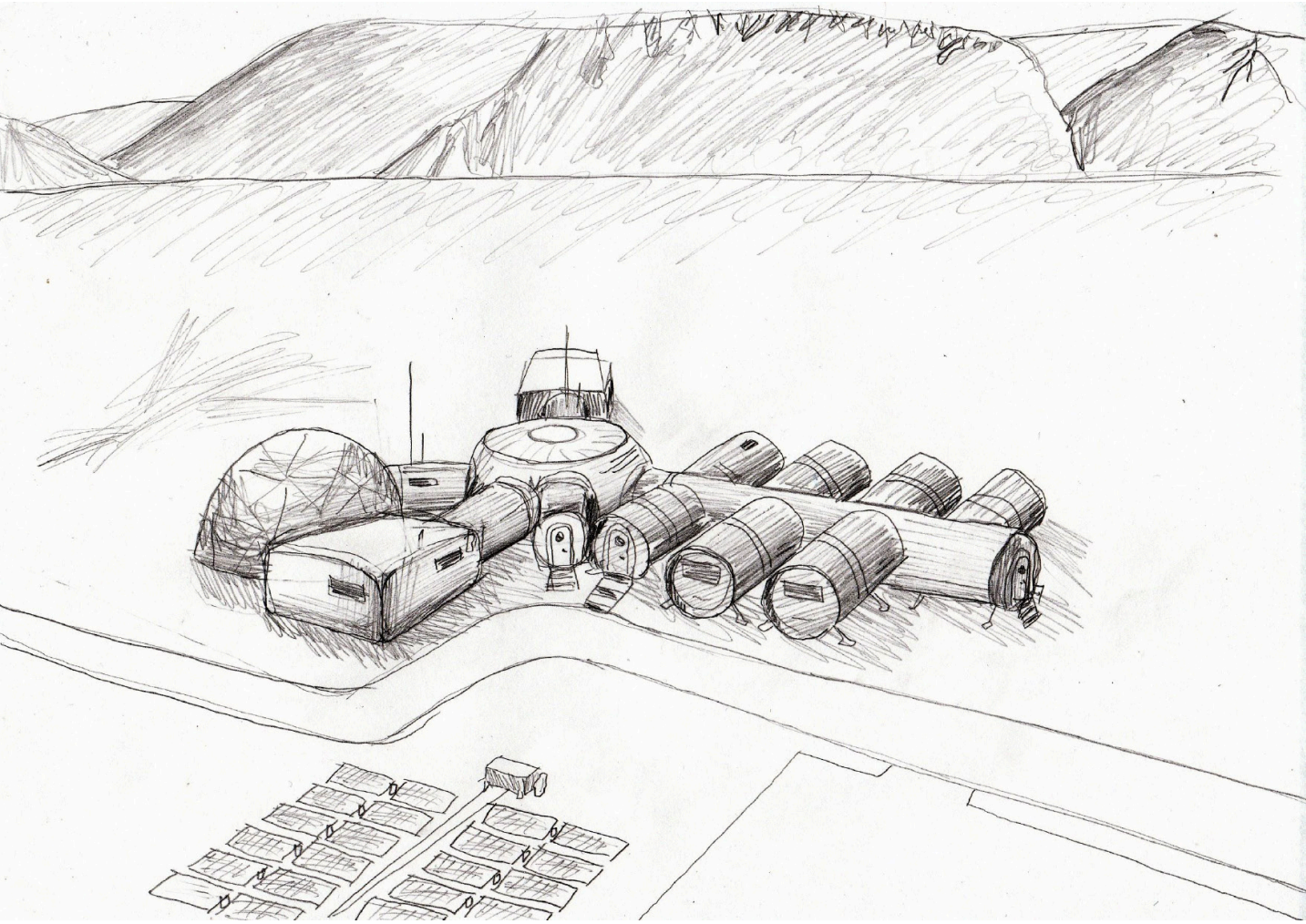








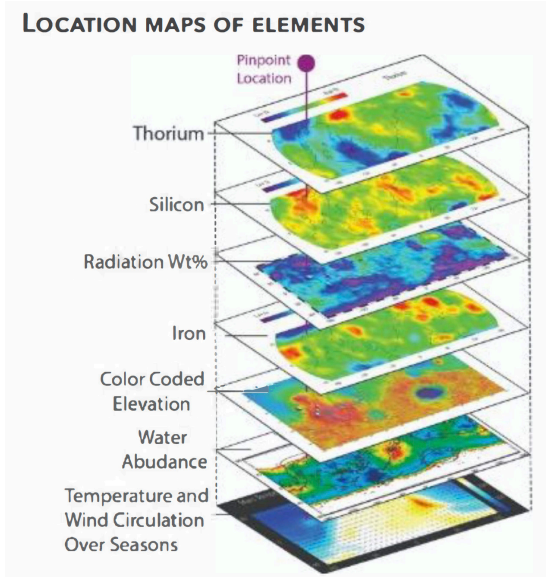

north
Future works
Greenhouse
Exploration Rover
Bedrooms
kitchen
Storage
Portable greenhouse
Recreation space
Landing space
Road
Gym
Labs
Road
Solar energy panels
exploration rover
Scale 1/500

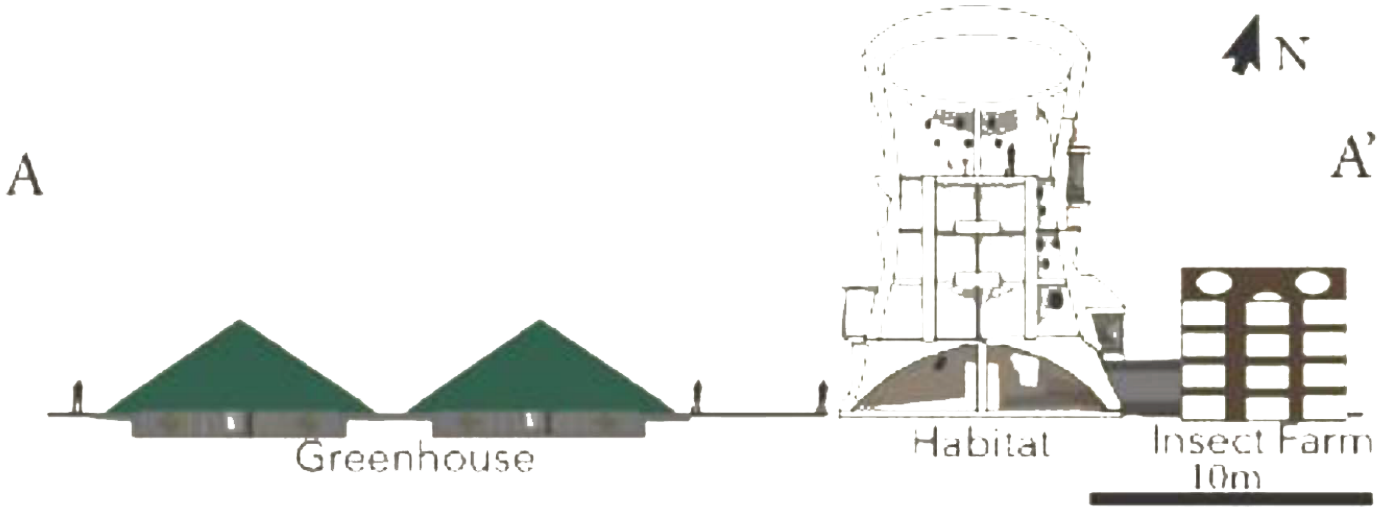


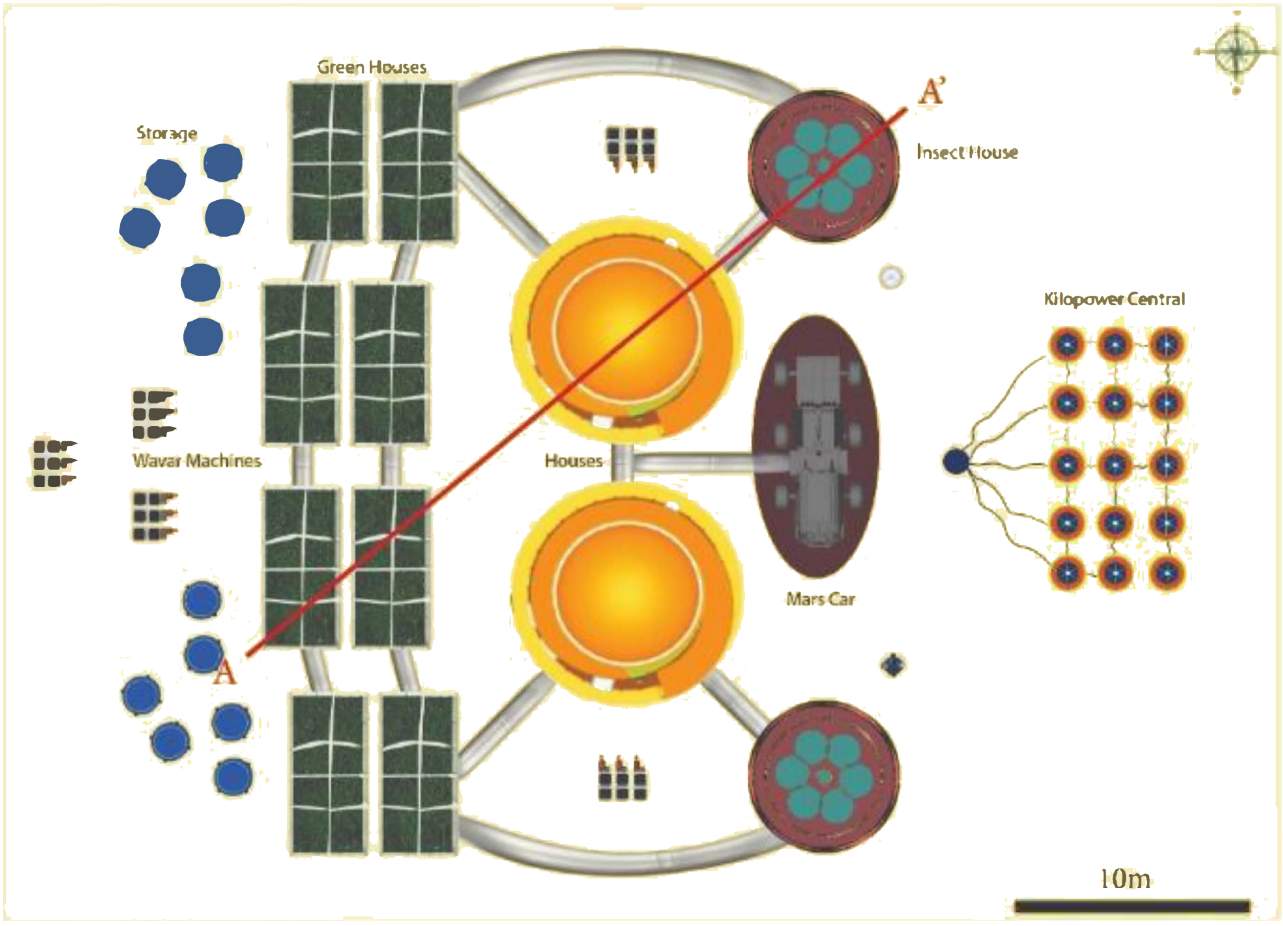
HABITAT B

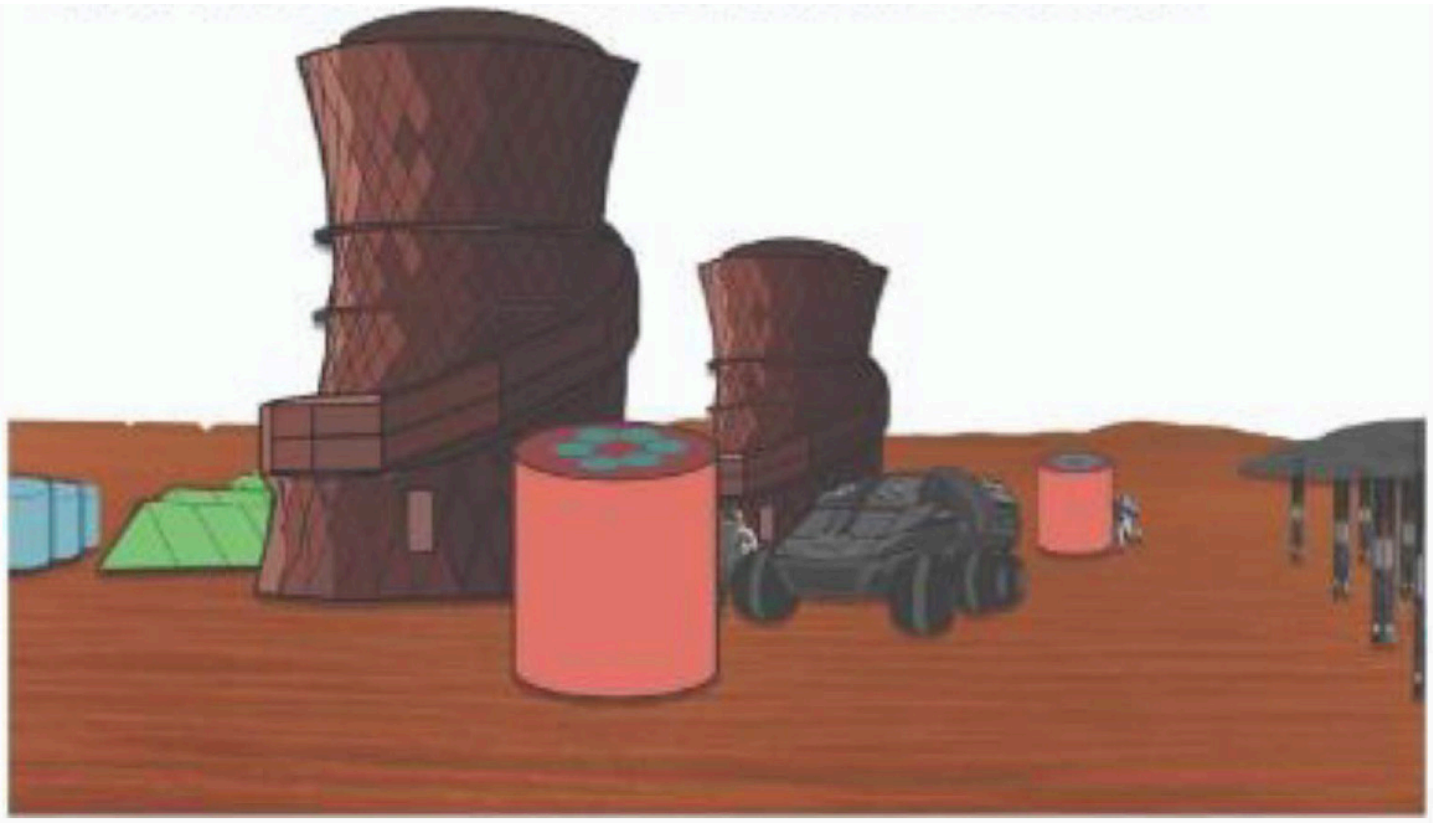
GİZEM DEMİR

Mars is an essential opportunity for the continuation of life .With the depletion of Earth's limited resources, Life on Mars has created us an alternative to the continuation of life. Our aim is not to adapt the life in the World to Mars and to resemble it to the World. Our main goal is to create creatures that can liven on mars. We strive and spread so that can live on Mars. We strive and spread so that life does not exist.






Green Houses
Storage
A'
Insect House
Kilopower Central
Houses
Wavar Machines
Mars Car
A
10m

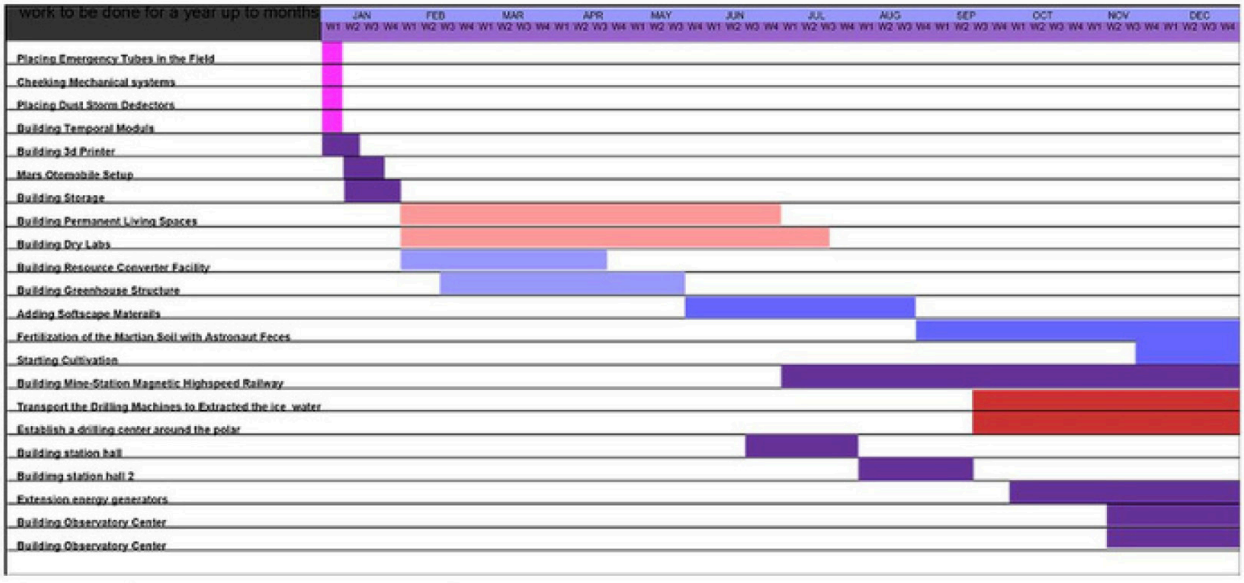


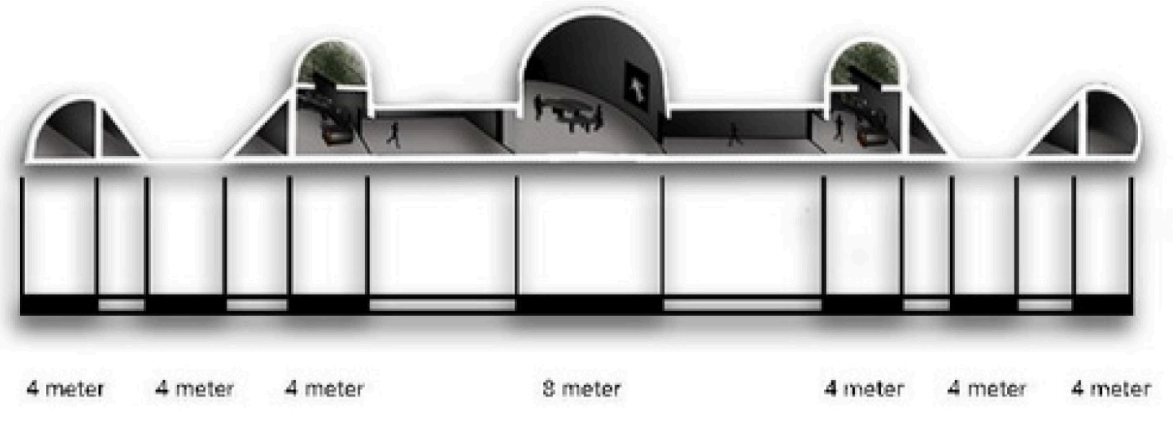
R.S. PROJECT

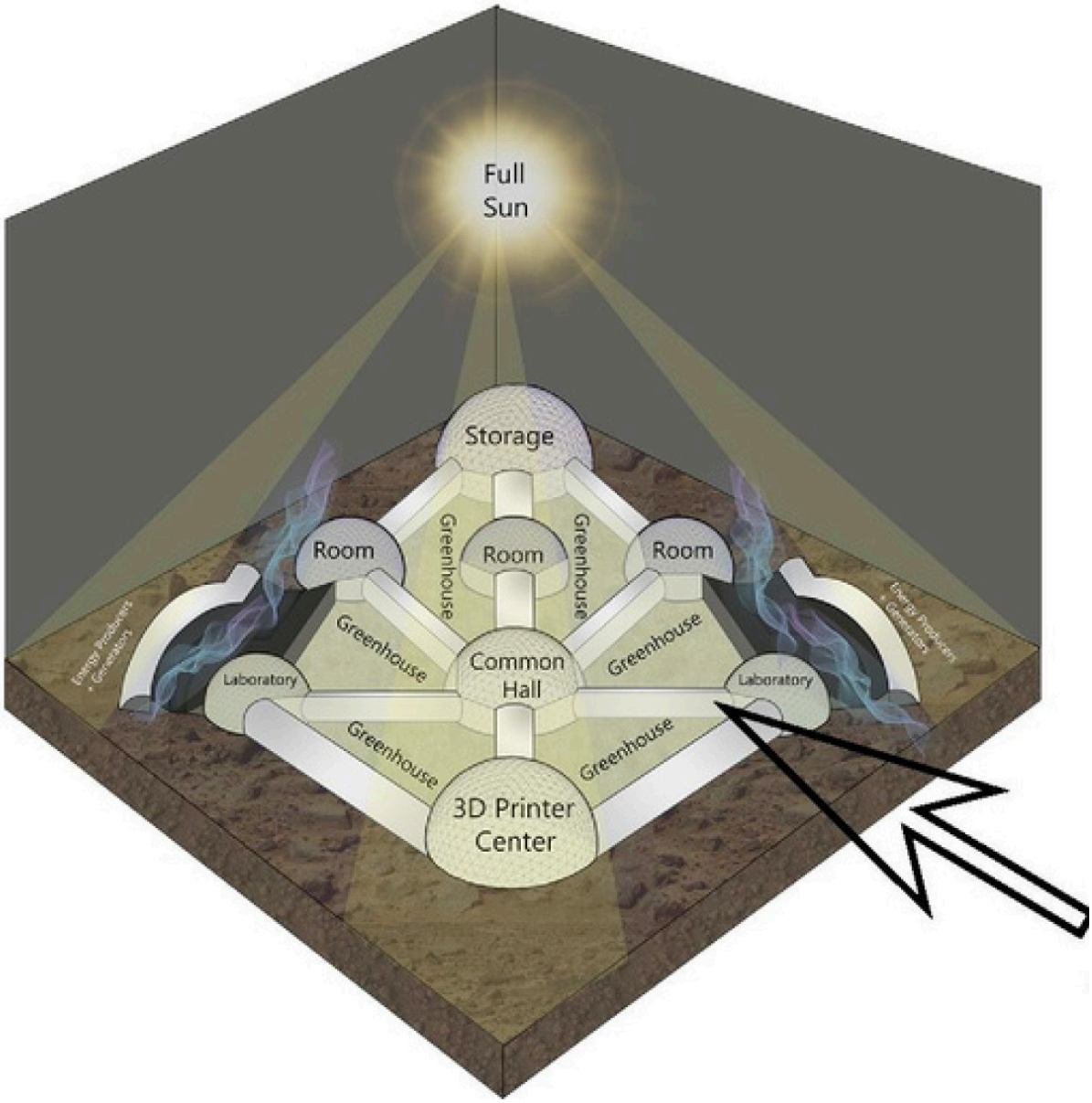
AYŞE ALEYNA ÇOLAK

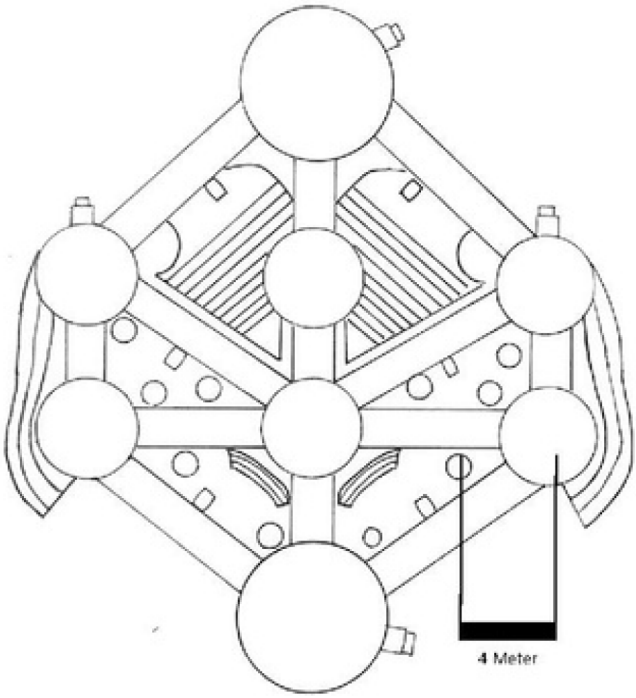
When we landed to Mars we first placed the emergency tubes to protect from extreme dust storms . After the short exploration, we built the settlement where we stay for a few weeks . A month later we build the permanent living spaces with the 3D printer that we brought from the earth . While we are constructing , research team was searching the Mars ground and collecting information with Mars automobile . After we build a permanent room for us we settle the sto rage and make the structure of the greenhouse after the construction we will attach the soft material like plants . Toilet waste was vacuumed and sent to the greenhouse, combining with the Mars soil and the extra nutrition it uses for plants to grow . These stages would follow each other for a year and we would eventually establish our mine research center and observation center .

Tons	Materials
40	Water
50	3d printers
14.4	Sleeping modules parts
1	Personal stuff and furnitures
6	Green house materials
2	Dry and wet lab materials
4	Plant seeds
2	Food suply
4	Each of 5x energy generator






Full
Sun
Storage
Room
Room
Room
Greenhouse
Greenhouse
Greenhouse
Greenhouse
Greenhouse
Greenhouse
Laboratory
Laboratory
Common
Hall
3D Printer
Center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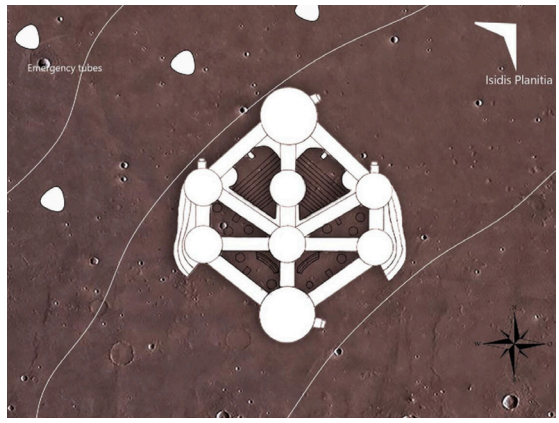
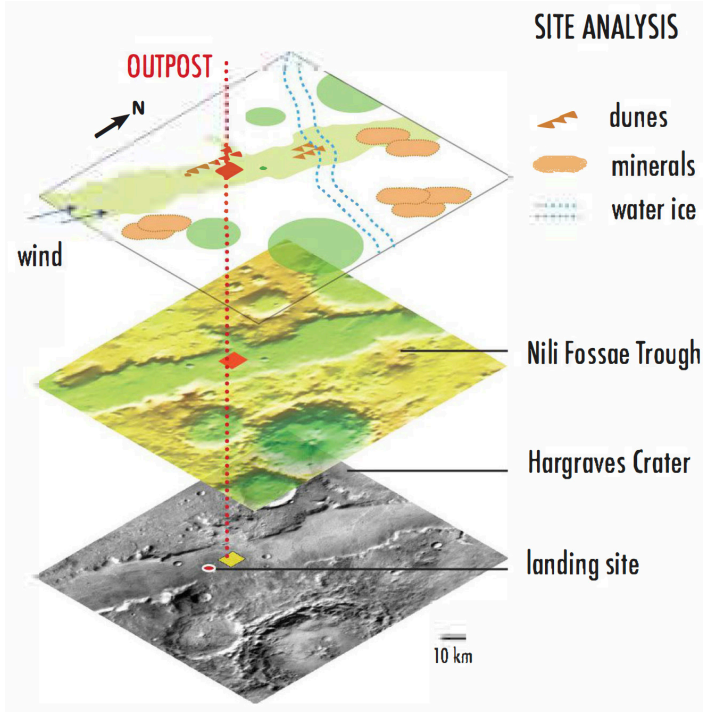
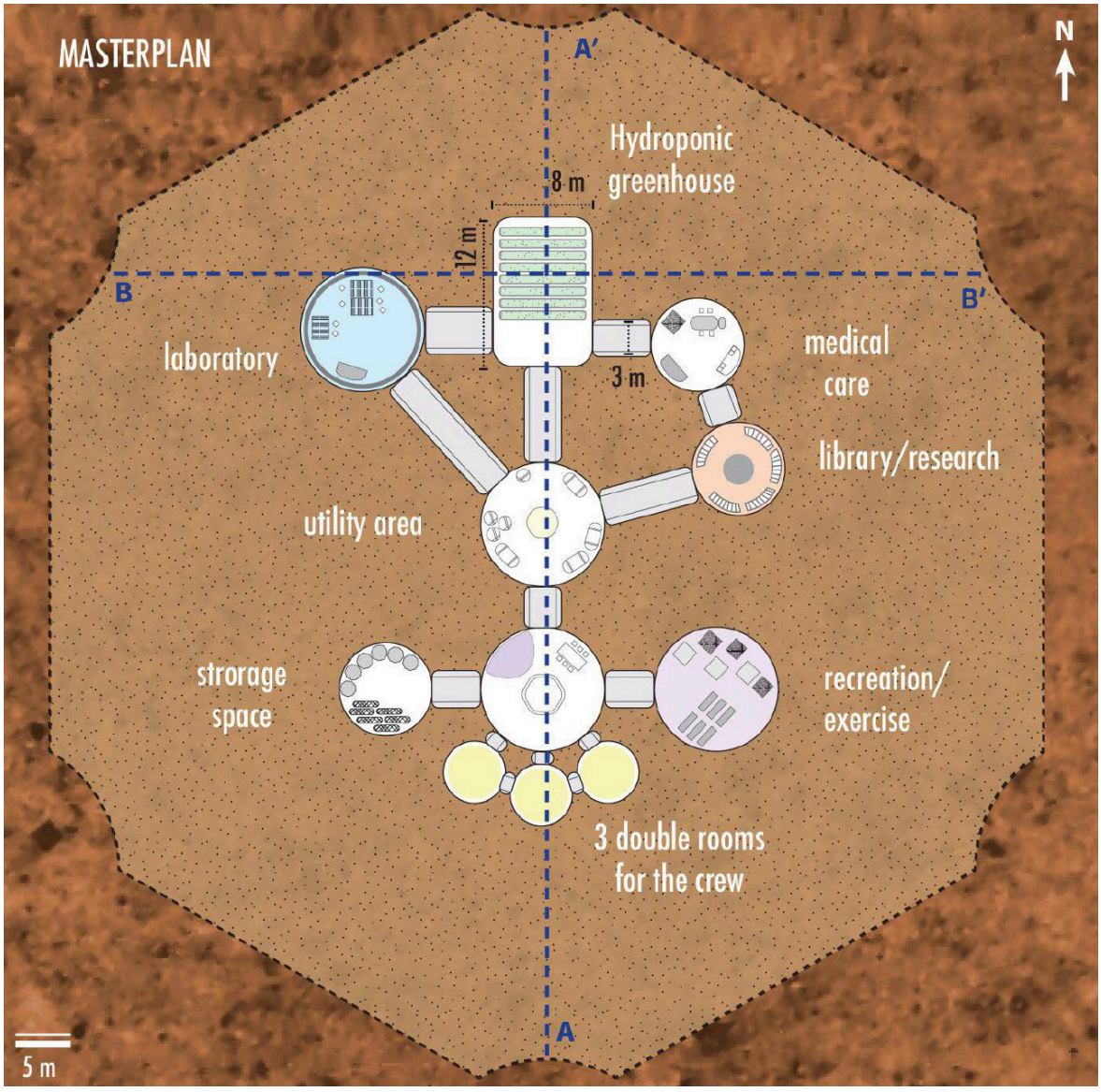

Emergency tubes
Isidis Planitia

NILI FOSSAE SETTLEMENT

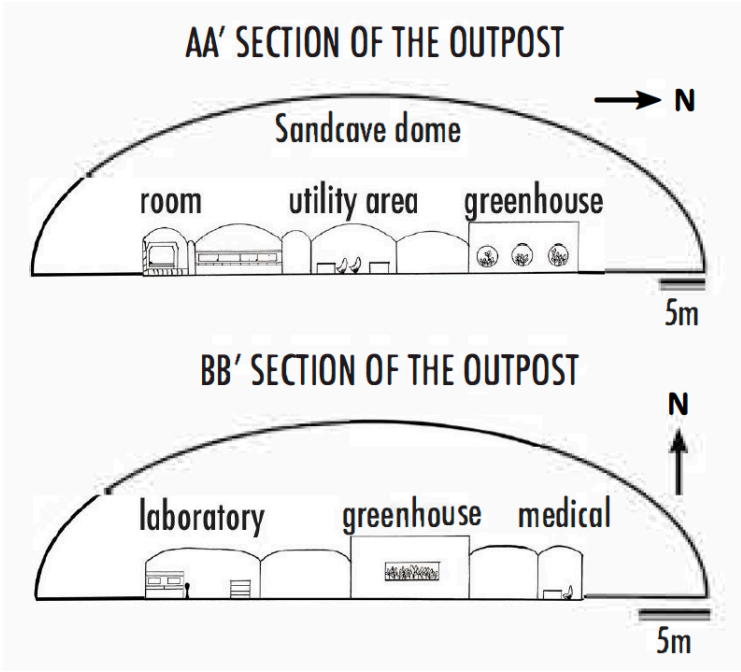
TUVANA YILMAZ

During a long time, living on another planet was seen as a dream. Now, with new technologies and scientific progress, sending humans to Mars is becoming a reality. The purpose of this projeci is to design an outpost on the red planet in order to show that human survival is possible there, and to build a mars colony on the long term.

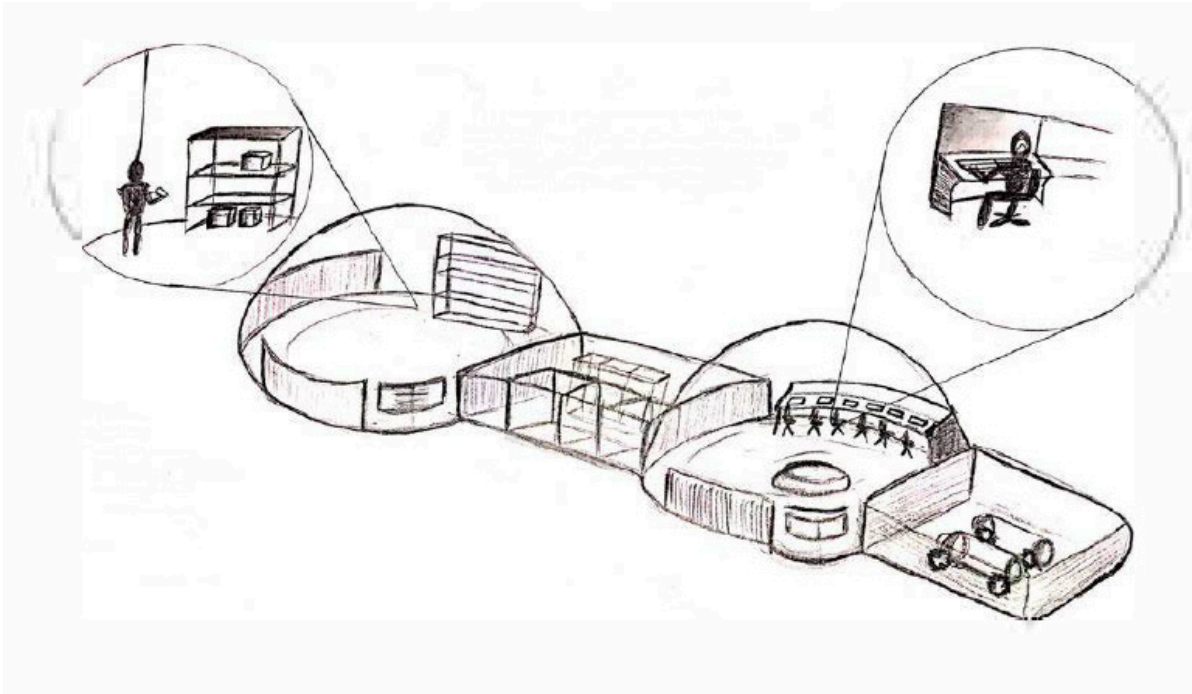




ROCKET SUPPLIES (Kg)	TIME (years)	1	2	3	4	5	6
Robots (25 pieces) - 625 Solar panels (11) - 242 6 astronauts - 420 Inflatable structures - 1000 Food supplies - 4500 Lab supplies - 2000 Greenhouse - 2000 Kitchen facilities - 2000 Bathroom facilities - 2000 Room supplies - 1000	robots constructing cave						
	arrival and survival of crew						
	preparation of inflatable structures						
	installation of living habitat						
	installation of secondary structures (laboratory, library)						
	building of greenhouse						
	cultivation greenhouse						
	communication with Earth						
	exploration/collect of resources						



We decided to choose Nili Fossae Trough as the location for our outpost. The linear trough is about 25 kilometers wide. According to Nasa's searches the rocks at Nili Fossae contain interesting minerals. Moreover, Nili Fossae contains plumes of methane and water resources.



MODULE II

FUTURE OF LANDSCAPE IN HISTORICAL REALITY

The second module of the studio includes development of design ideas with respect to preliminary investigation of the site. With this perspective the main goal of the second module is to develop small scale design interventions which are going to be attached to the existing spatial setting of the Haliç. The rich historical background of this unique estuary and ecological structure of the landscape will be scrutinized in this module. Site specific design regarding these cultural settings, geographical context and topography will be expected from students.

The design proposals will be developed for the sites which will be chosen by students in the light of their individual assessments. The potentials of the land, topographical advantages, vista points, natural setting, usage behavior, existing spatial layout, historic and cultural characteristics will be leading parameters for site selections.

The decisions on landscape design, the location, spatiality, materiality, structural composition and its relation to topography will be precisely defined by the student.
Following issues should be answered with landscape representation techniques (plans, sections, drawings, axons, isometrics, photo collages, models).

The main purpose, and context of design,
The correlation of the design idea with human and nature,
The unseen historical walls of the city and their relation with public spaces,
The coastal landscape and public usage,
The landmarks in the urban context,
The silhouette of the urban fabric.
Finally, what is your contribution to this valuable landscape with your design.

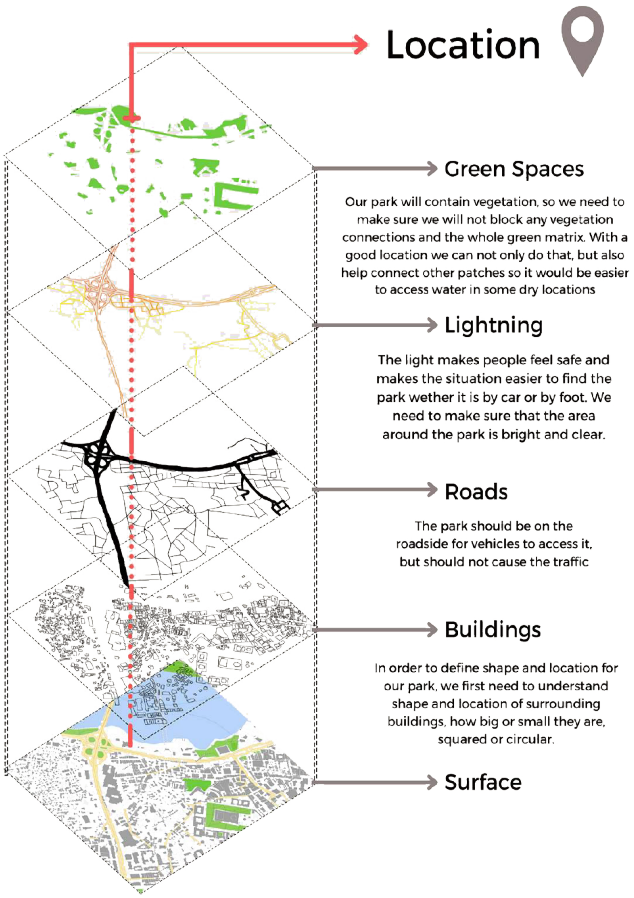
MODULE 2 | *The Historical Port of Istanbul –HALIC* *Future of Landscape In Historical Reality*			
9	14 Dec.	Introduction to the Studio / Program and Context	Studio works
	17 Dec.	Understanding & Representing the Landscape Idea	Studio works
10	21 Dec.	Development of Conceptual Framework / Sketches / Collages / Free scale mapping / Hybrid drafting techniques	Studio works
	24 Dec.	Development of Conceptual Framework / Sketches / Collages / Free scale mapping / Hybrid drafting techniques	Studio works
11	28 Dec.	Through Conceptual Thinking to Design Thinking / Landscape Design Plan & Sections / Scale 1/500	Studio works
	31 Dec.	Through Conceptual Thinking to Design Thinking / Landscape Design Plan & Sections / Scale 1/500	Studio works
12	4 Jan.	Through Conceptual Thinking to Design Thinking / Landscape Design Plan & Sections / Scale 1/500	Studio works
	7 Jan.	Landscape Design with Model / Structures in landscape/ 1/200 scale landscape design	Studio works
13	11 Jan.	Landscape Design with Model / Structures in landscape/ 1/200 scale landscape design	Studio works
	14 Jan.	Landscape Design with Model / Structures in landscape/ 1/200 scale landscape design	Studio works
14	18 Jan.	Detail Design in Landscape / Materials, point details. Urban furniture	Studio works
	21 Jan.	Detail Design in Landscape / Materials, point details. Urban furniture	Jury, Panel and submission

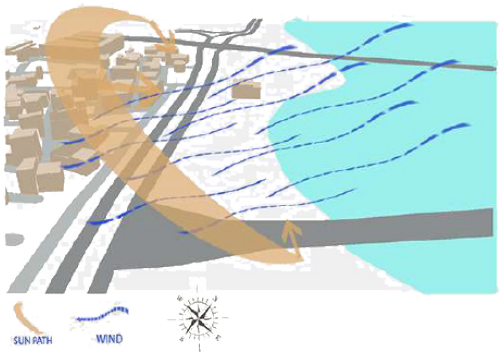
DRIVE-THRU PARK HALİÇ

ARTEM MINENKOV

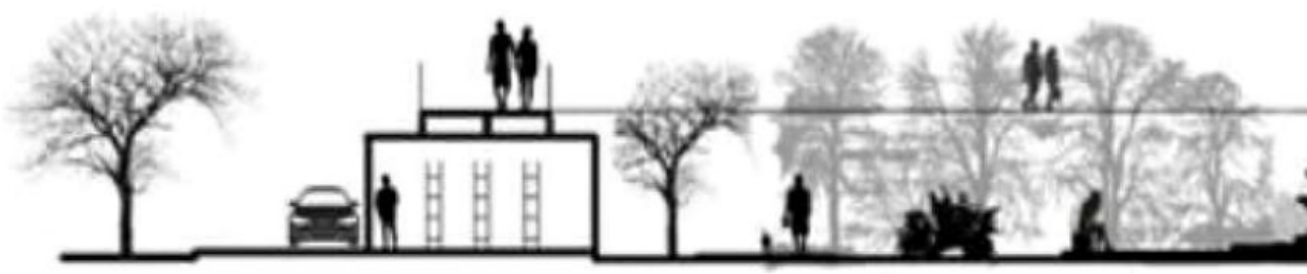
Design goal and methodology

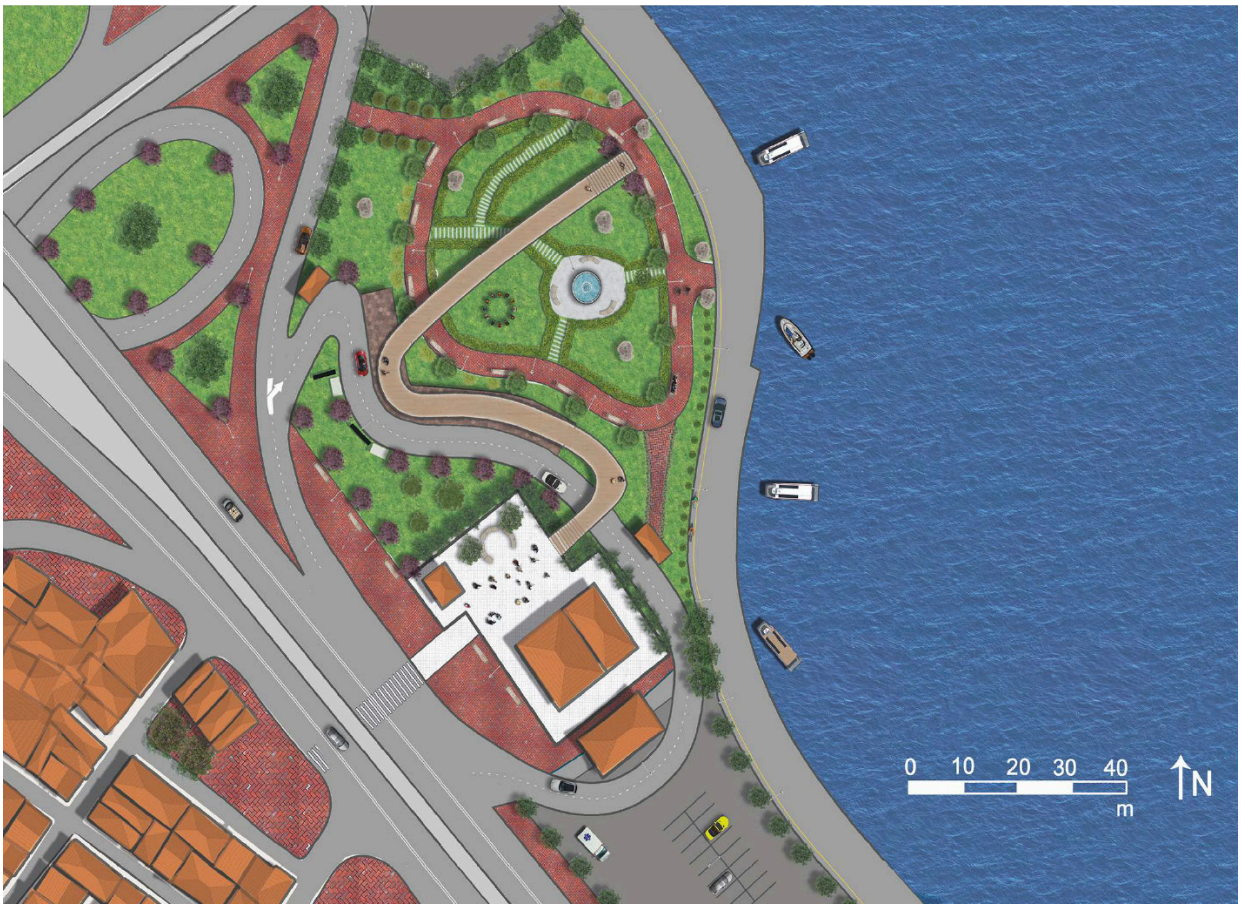
in the Haliç region, which has a historical commercial background, we are thinking ofa park which gives an opportunity for healthy shopping that will contribute to economy of lstanbul during the covid 19 pandemic process. The park can be used to preserve social distance and provide information about the region, while at the same time being in harmony with the historical background.





Probabilistic User Profile
Besides the people ofthe region, there can be students and tourists due to its proximity to some universities. historical places and squares; Possible to be used by passengers due to its location on the highway route and its proximity to bridges.

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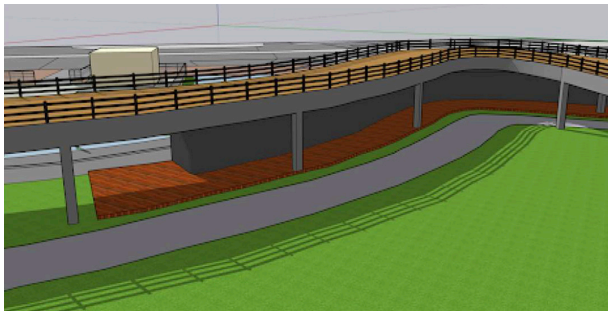
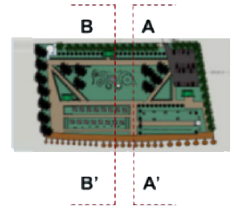


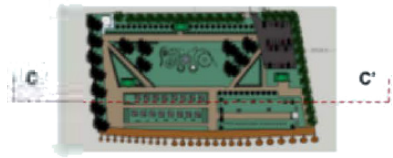
FISHING PARK HALİÇ

SEMANUR KANDEMİR

Our goal is;
To ensure that the Haliç region, which was called the shipyard zone in the pası and has lası its historical structure and is subject to privatization, regain its former popularitywith fishing activity that lost it's etfectivityduring the covid period.

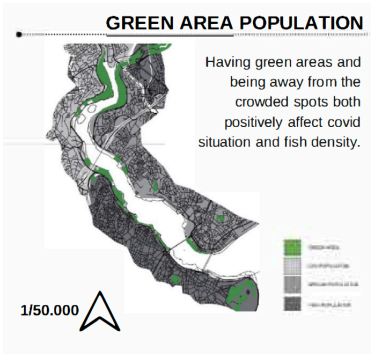
Our metodology is;
To remobilizing fishing activity that lost its effectiveness during covid period.

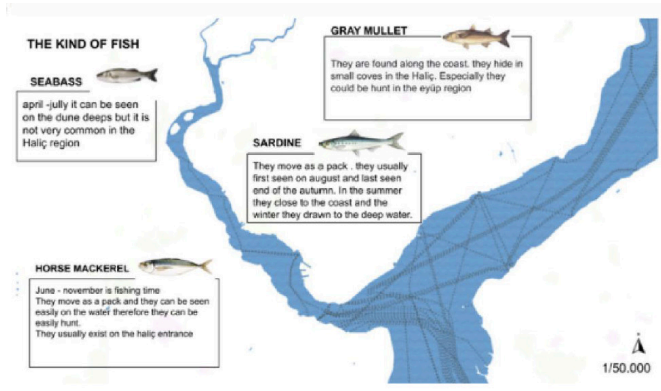


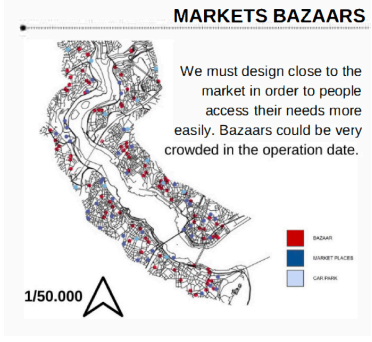


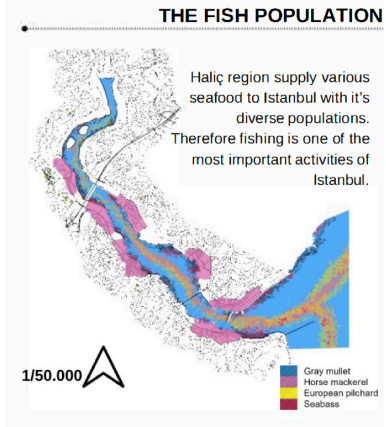
A A'

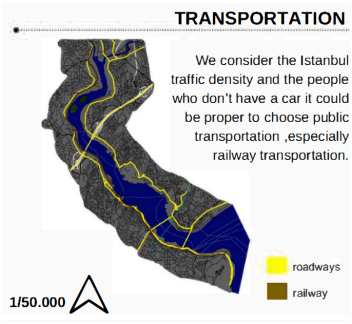
B' B



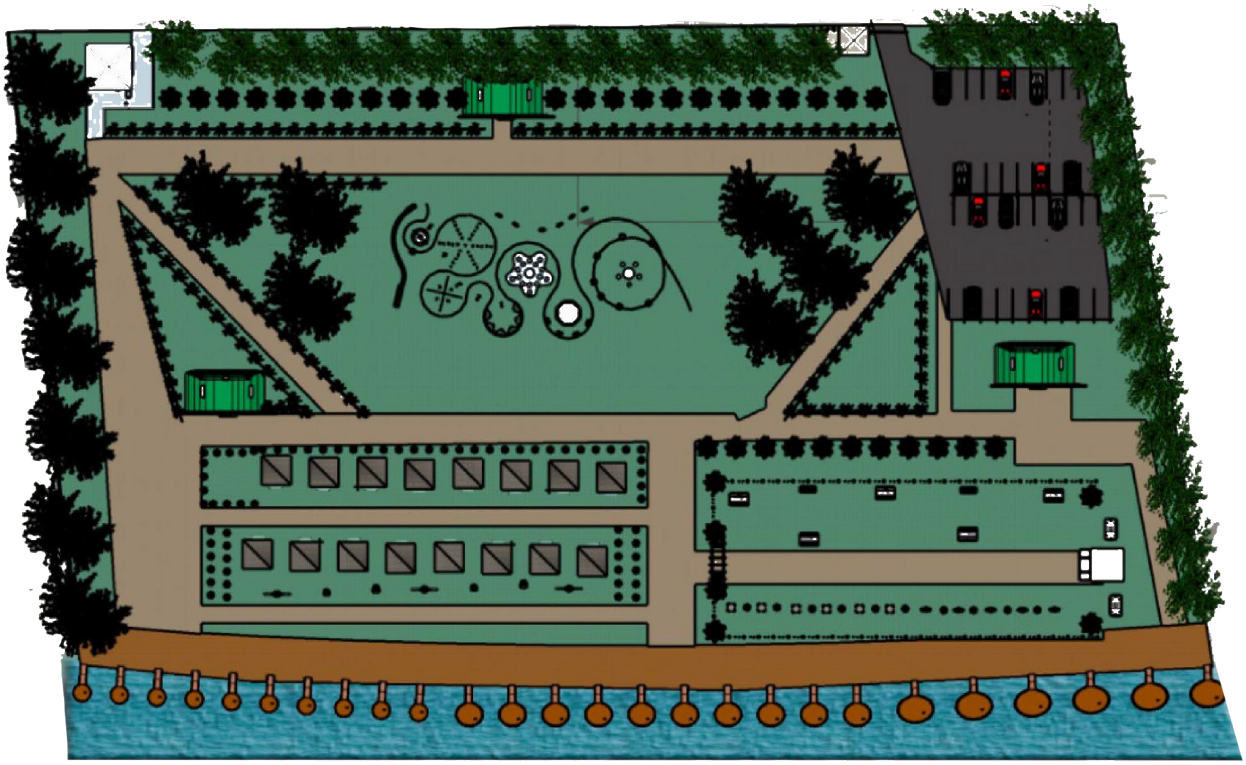


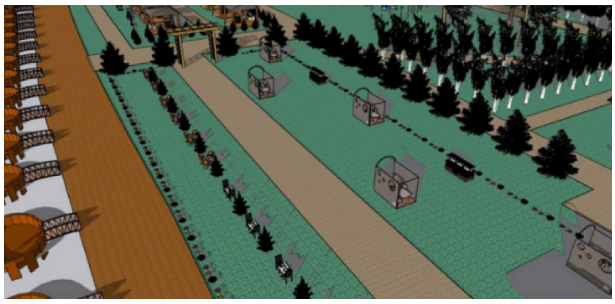


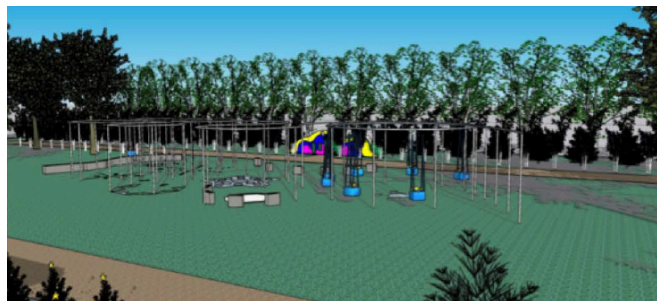




Fishing Park includes:
- 2 entrances where covid measures are taken. The first entrance is far pedestrians, the second entrance contains parking far vehicles.
- in the middle of the area, there is a playground and a sports area lor children.
- The eating and eating areas were divided into two. On the one hand, there are structures far people who want ta eat their fish. On the other hand, there are seating areas far those who don't eat fish, where they can buy snacks and enjoy nature in the open area.
- There are wooden structures along the beach. These structures are designed according ta covid measures.

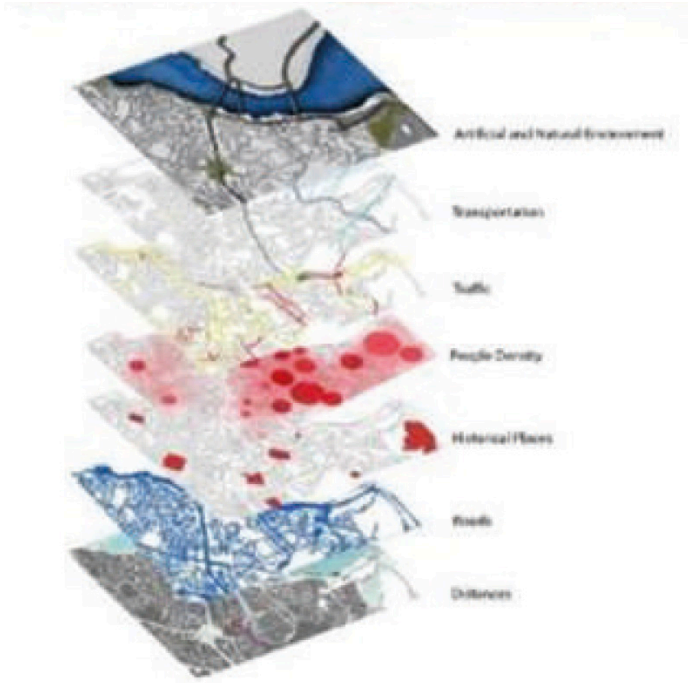


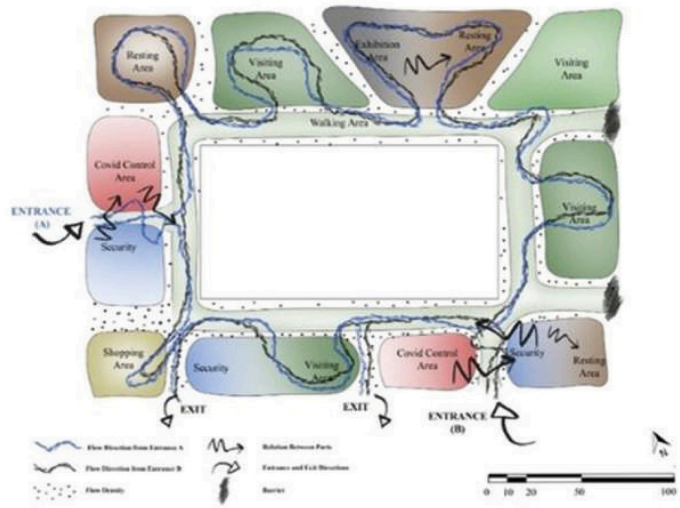


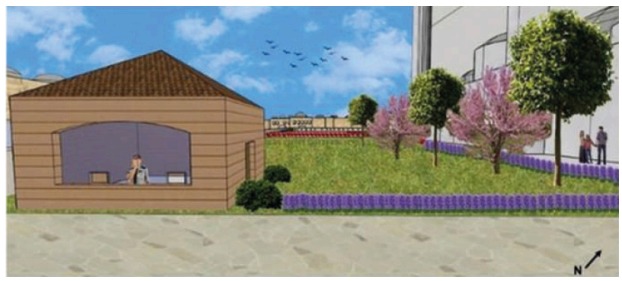


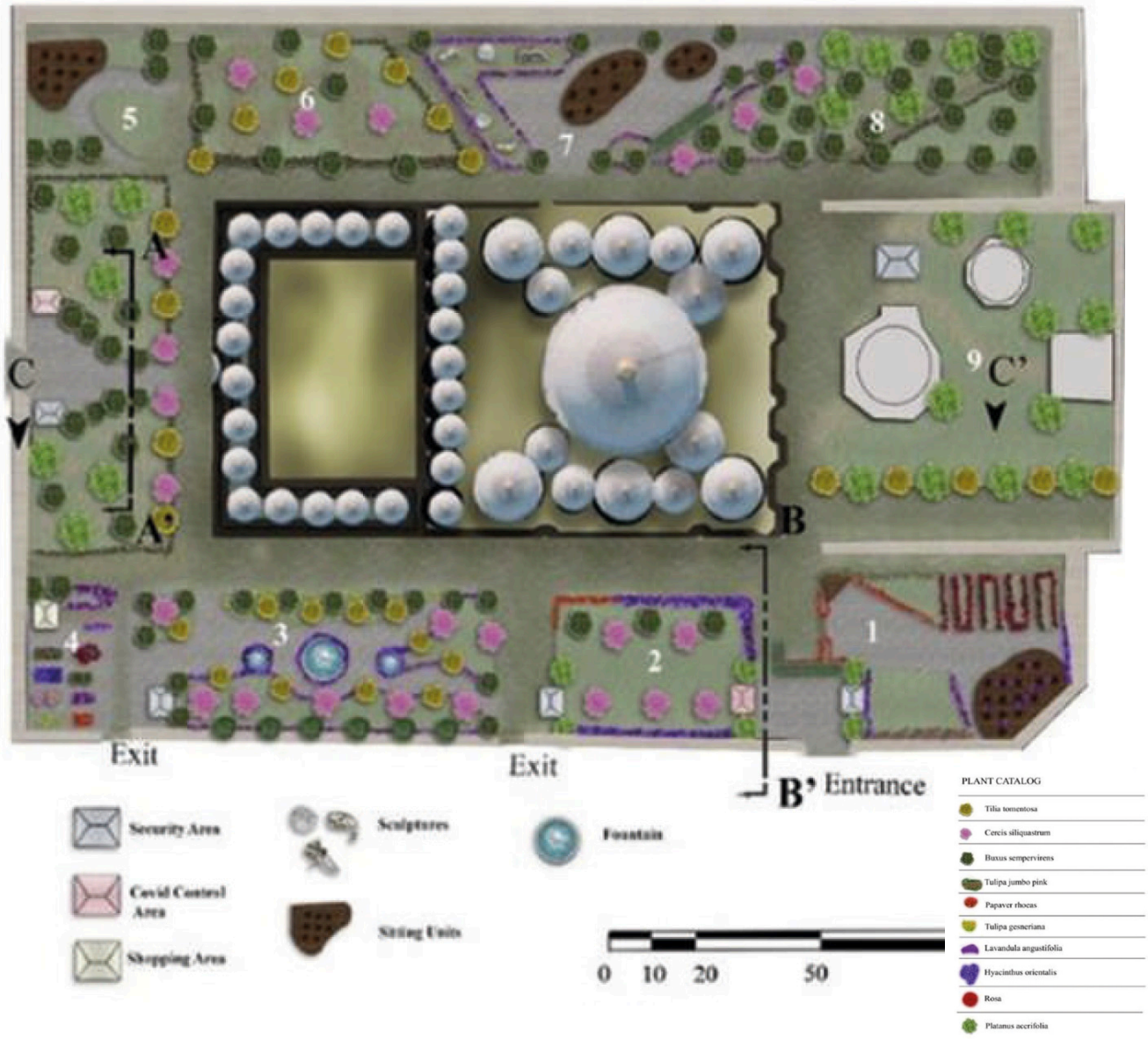
SULEYMANIYE HISTORICAL PARK

N. BURÇAK KANDUR





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A
A'
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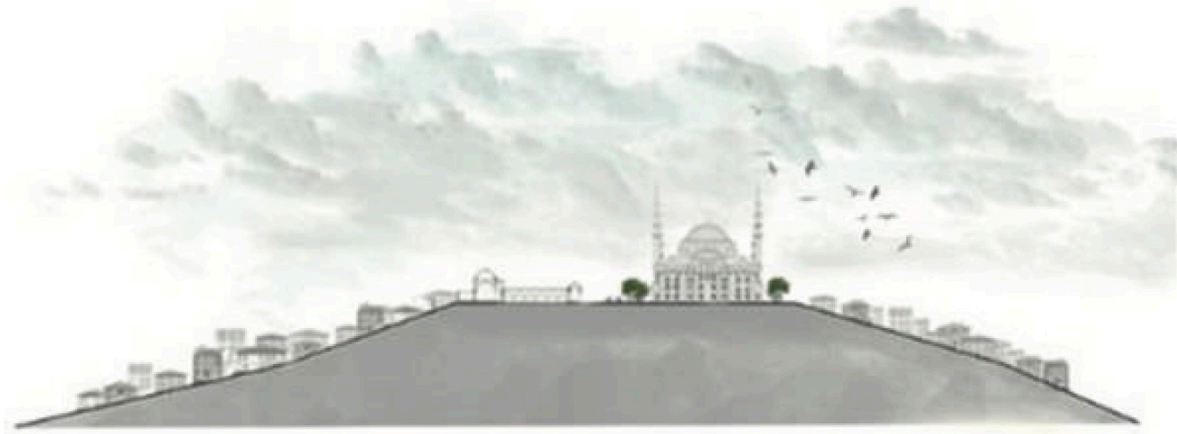
Entrance
Security Area
Covid Control Area
Shopping Area
Sculptures
Sitting Units
Fountain
0 10 20 50
PLANT CATALOG
Tilia tomentosa
Cercis siliquastrum
Buxus sempervirens
Tulipa jumbo pink
Papaver rhoeas
Tulipa gesneriana
Lavandula angustifolia
Hyacinthus orientalis
Rosa
Platanus acerifolia



COMMON MODULE

CONTEMPORARY AGENDA | OBSERVING EMERGING ENVIRONMENTAL ISSUES WITH DESIGN

This common module will be held within Project III of the Foundation Studio for three studio meetings of the Fall semester of the 2019-2020 academic year. The activities of Common Module– Contemporary Agenda are designed to bring an approach towards the definition and perception of "ecological issues", "environmental change" and the "virtual design" in the disciplines including urban and regional planning, and landscape architecture. These topics include Climate change, International migration, Smart city, Eco-city, Universal design, Foot security, Virtual landscape, etc.

Altogether, the instructors will provide a learning environment for students from these departments. Attendees will work on common design problems, be expected to apply the knowledge and use the skills acquired via their respective experiences of their previous and current semesters.

5	16 Nov.	**COMMON MODULE** *Seminars on Landscape Architecture and general information on common module process.*	Seminar
	19 Nov.	**COMMON MODULE** *Seminars on Urban and Regional Planning and information about term paper and study groups and student distributions.*	Seminar
6	23 Nov.	**COMMON MODULE** *JURY: Final Panel of the workshop productions and critics*	Jury, Panel and submission

Smart Cities and Sustainable Future

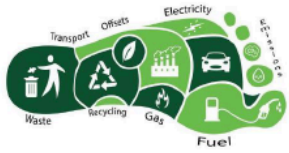
Sustainable smart cities use limited resources more effectively and efficiently, generate smart solutions with investment in information and communication technologies and thus save money, increase service and life quality, restructure spatial planning processes in a holistic way, invest in innovative and sustainable development. It is defined as cities that continuously reduce their carbon footprint and invest in sustainable development. In this context, sustainable smart cities can be handled under four subtitles;

- Sustainability
- Urban Resiliens
- Renewable Energy
- Sustainable Transportation

Projectm Common Module Poster
Ahmet Metin Kaymaz / 020170204
Elif Nur Buculuğan / 020170205
Zişan Başak Ekici / 020160192
Tuvana Yılmaz / 020170538

Sustainability

City sustainability is a multidimensional concept that includes economic, social and political dimensions. The main idea is that the sustainable development is the kind of development, which satisfies the current needs without endangering the future generations to satisfy their own.



Key features of a sustainable city

- Resources and services in the city are accessible to all.
- Public transport is seen as a viable alternative to cars.
- Public transport is safe and reliable.
- Walking and cycling is safe.
- Areas of open space are safe, accessible and enjoyable.
- Wherever possible, renewable resources are used instead of **non-renewable** resources.
- Waste is seen as a resource and is recycled wherever possible.
- New homes are energy efficient.
- There is access to affordable housing.
- Community links are strong and communities work together to deal with issues such as crime and security.
- Cultural and social amenities are accessible to all.

Batagan,L.(2011). Smart Cities and Sustainability Models
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Urban Resiliens

Cities can calculate an indicator of their resilience with respect to the topics and subsequently develop a strategy to improve weak points.Resilience is currently framed as the fundamental property that individuals and societies must possess in order to live with danger . Especially in a environment characterized by protracted economic insecurity, terrorist threats and the increasingly clear impacts of climate change, resilience as a capacity of responsiveness to sudden changes has resonated across multiple social spheres and sectors.Fragility, instability and hazards are often compounded by the urban condition. Therefore, resilience is especially needed in cities. In this context, urban planning and design have been perceived as vital tools for building urban resilience.

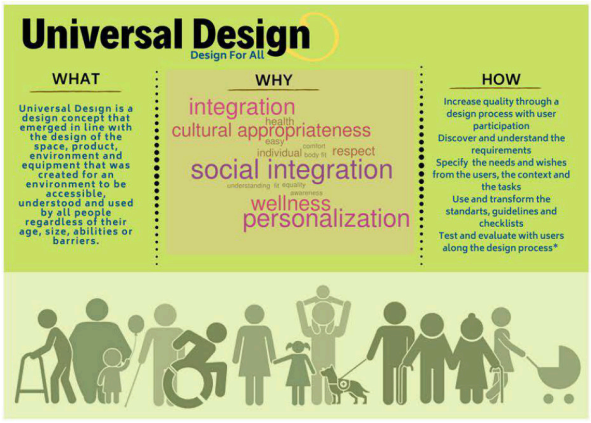
-First are the negative environmental impacts of smart technologies.The everyday operations in any sufficiently large smart city consume energy that is-for most places in the world, at present and also in the near future-still mostly generated from fossil fuels.

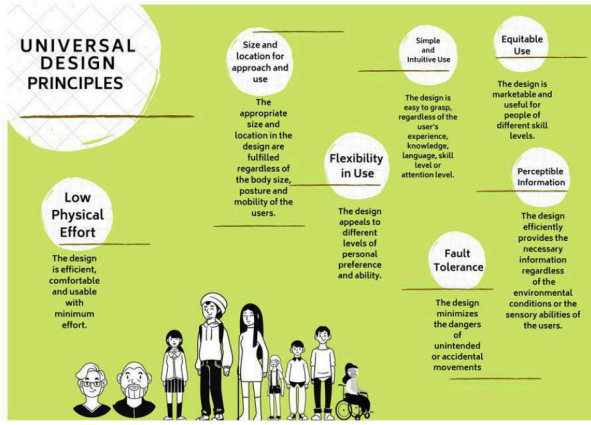
-The data-driven smart city technology may result in biased decisions that contribute to exacerbating social and economic vulnerabilities and undermining urban resilience.

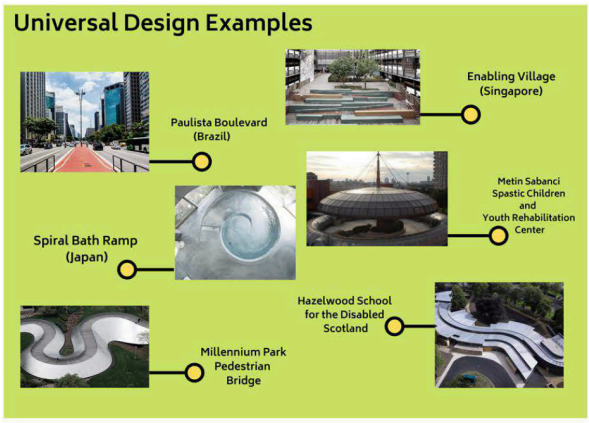
-The compounded realities of opacity, secrecy and power asymmetry tend to undermine trust and solidarity within the city, and in turn, this can only corrode any prospects for urban resilience.

-Last, with respect to urban planning and design, as planners increasingly plan the city based on the abstract models of the city constructed from the data amassed from the multitude of sensors deployed in the urban environment, what is considered efficient and desirable for the city will also increasingly depend on what this data reveals. This 'circularity' of the smart city, then presents a risk for urban resilience.

Chan, J. K. H., & Zhang, Y. (2019).Urban Resilience In TheSmartCityhttps://www.researchgate.net/publication/333398312_Urban_Resilience_in_the_Smart_City







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Hilal Çakır 020180345
Rabia Yılmaz 020180227
Nurefşan Sobacı 020180529
Asım Berke Taşoğlu 020180565