ECE SEL

Architectural Selected Works | 2018-2020

ECE SEL

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Turan Gunes Bul. Ilkbahar
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Ankara I TURKEY

ACADEMIC EDUCATION

BILKENT UNIVERSITY — September 2016 - Present
Faculty of Art, Design and Architectural / Deparment of Architecture
Bachelor Degree
CPGA: 3.58 / 4.00 — 50% Scholorship
Academic Standing: High Honour

POLITECNICO DI MILANO — February 2020 - July 2020
Faculty of Art, Design and Architectural / Deparment of Architecture
Erasmus Exchange Student / Bachelor

INTERNSHIP & WORK EXPERIENCES

CONSTRUCTION INTERNSHIP I — Ankara I Turkey — August 2019 - September 2019
Construction Site Internship at Merkez Ankara Mixed Used Project
Architectural Designers: Kohn Pedersen Fox New York / KPF
A Design - Ankara Turkey
Construction Company: Pasifik Construction

CONSTRUCTION INTERNSHIP II — Ankara I Turkey — August 2019 - September 2019
Construction Site Internship at Next Level Residencial Project
Architectural Designers: Brigitte Weber Architects
Construction Company: Pasifik Construction

WALT DISNEY CAST MEMBER — Orlando I USA — June 2019 - August 2019
International Collage Cultural Internship Program
Company: Walt Disney Company

HONOURS

BILKENT UNIVERSITY DEAN'S HIGH HONOUR LIST
Fall Semester 2017-2018
Fall Semester 2018-2019
Spring Semester 2018-2019
Fall Semester 2019-2020

BILKENT UNIVERSITY DEAN'S HONOUR LIST
Spring Semester 2017-2018

EXHIBITIONS

ARCHITECTURAL DESIGN STUDIO III — *Bilkent University I FADA Spring 2020*
Co-Housing Project in Ulus I Ankara - Selected Student Project for Upcoming Exhibition

ARCHITECTURAL DESIGN STUDIO II — *Turkish Associatation of Architects In Private Practice October 2019*
Art and Culture Center at Ataturk Boulevard I Ankara - Selected Student Project for Exhibition

ARCHITECTURAL DESIGN STUDIO I — *Bilkent University I FADA 2019*
Peer to Peer Renting I Residencial Project in Antalya - Selected Student Project for Exhibition

BASIC DESIGN STUDIO I — *Chamber of Turkish Architects 2019*
Abstract Animal Habitat - Exhibition

CERTIFICATES

TASARIM BILKENT I DESIGN BILKENT
Tasarım Bilkent'2017 I Tasarım Bilkent'2018 I Tasarım Bilkent'2019

MIDDLE EAST TECHNICAL UNIVERSITY & TED UNIVERSTITY
Architectural Design Workshop

SOFTWARE KNOWLEDGE

3D MODELLING & DRAWING
AutoCad
Revit
RhinoCeros
Grasshopper

Sketchup
3DsMax
Hand Made Modelling

RENDERING
Lumion 10
V-Ray

ADOBE
Adobe Illustrator
Adobe Photoshop
Adobe Premier
Adobe Indesign

OFFICE PROGRAMS
Microsoft Word
Microsoft PowerPoint
Microsoft Excel

LANGUAGE SKILLS

Turkish
English
French
Italian

PROFESSIONAL ACTIVITIES

LICENSED COUPLE DANCER - Middle East Technical University — September 2017 - Present
Middle East Sport Club - Ankara

BILKENT UNIVERSITY'S REPRESENTATIVE STUDENT — October 2018 - Present
Representative Student for the Union of Turkish Engineers and Architects

THEATRE EDUCATION — 2014 - 2015
Acting & Theatre Education at Ankara Art Theatre I Ankara

EXPERIENCES & ORGANIZATIONS

EDITOR & WRITER I PAFTA MAGAZINE — September 2017 - Present
Bilkent University Online Student Art & Architecture Magazine I Design And Architecture Society

1M1M MEMBER — September 2018- Present
1 Architect 1 Mimar - Organization Helper I Design And Architecture Society

BILKENT SOCIAL AWARENESS PROJECTS
Spending time with little kids diagnosed with leukima in a hospital environment — September 2017 - May 2018
Teaching primary school children math, English, Turkish — September 2016 - May 2017

METU OPEN DANCE WORLDWIDE CHAMPIONSHIP
Middle East Technical University Open World Wide Dance Competiton I Ankara
Organization Team — October 2017 & October 2018
Dance Hall Design Team — October 2017 & October 2018

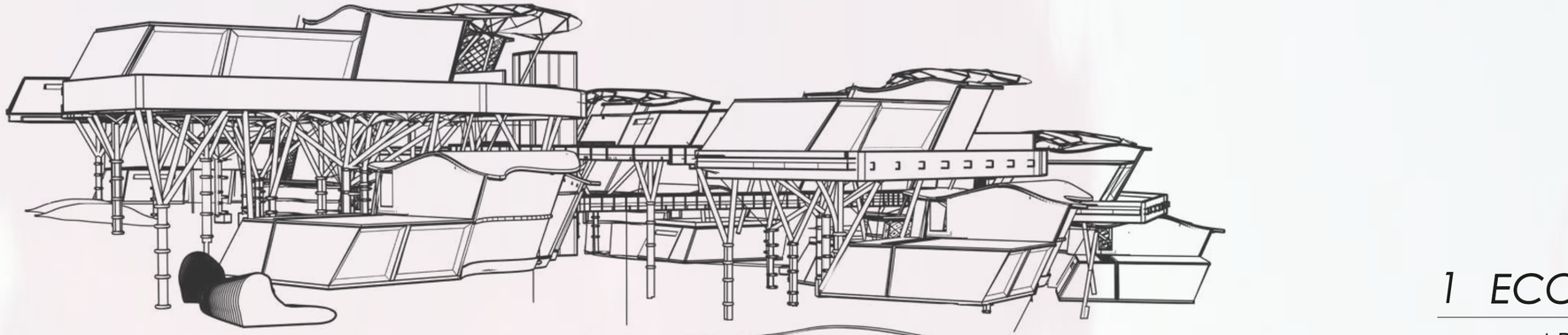
DANCING COMPETITION & SHOWS
BILKENT UNIVERSITY THEATRE CLUB — September 2016 - February 2017
VOLUNTEER at LOSEV FOUNDATION — 2017 - Present
CANKAYA HIGH SCHOOL THEATRE CLUB — 2012 - 2014

REFERENCES

DR. MARK PAUL FREDERICKSON, PHD. LEED AP, FULLBRIGHT PROFESSOR, DIRECTOR OF TEJIDO GROUP
frederickson@bilkent.edu.tr

DR. ZÜHRE SÜ SÜL, VISITING ASSISTANT PROFESSOR DOCTOR, FOUNDING PARTNER OF ACOUSITC MEZZO STUDIO
zuhre@bilkent.edu.tr

Scan for project movie



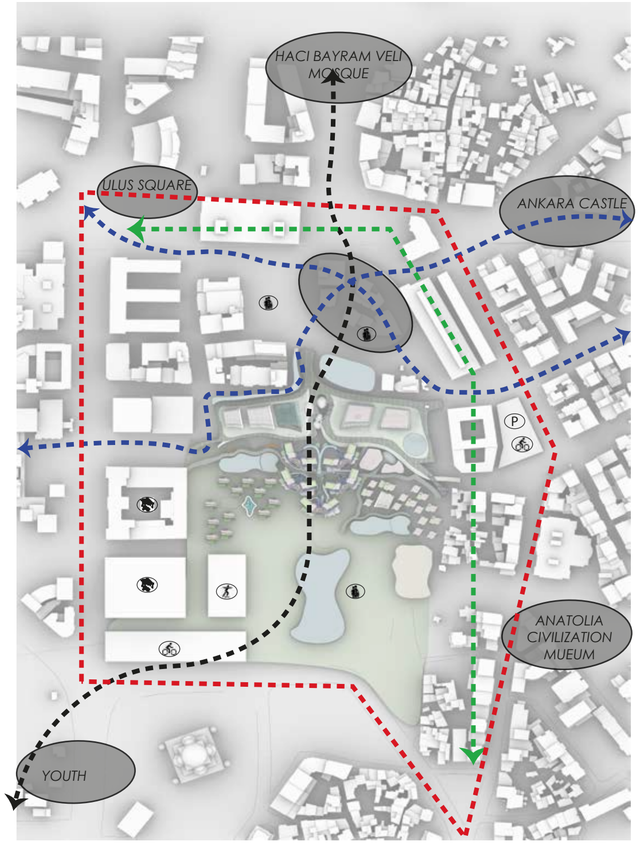
1 ECO SUSTAINABLE CO-HOUSING

ARCHITECTURAL DESIGN PROJECT III - ARCH 301

Fall 2019

Location: Ulus | Ankara , Turkey
Supervisor: Mark Paul Frederickson
3D Modelling: Rhinoceros & Grasshopper

MASTER PLAN ANLAYSIS



Ulus is known as the historical heart of Ankara that connects different Turkish periods.

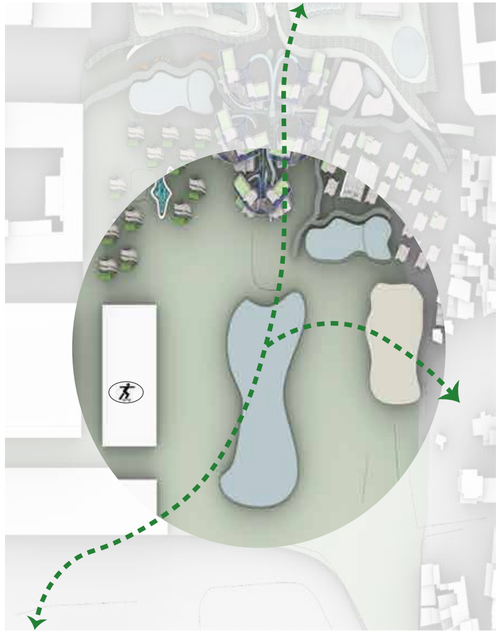
In order to improve the existing charm of Ulus the historical background and the footsteps are protected.

Different historical zones which surround the Ulus are connected at the center with new large & green pathways which are intended to be designed as an "Urban Open Museum". Furthermore, the greenery is increased and bicycle pathways and car-free areas are proposed.

The Co-Housing are located at the hill where ruined dwellings are located. Also site runs from east - west axis to maxime the south sun efficeny and experience of Ankara's historical view.

Green corridor that runs from Hacı Bayram Mosque until the Youth Park connects the two existing greenery to enhance the social life standarts of Ankara.

Green Pathway



Co-Housing Site Plan

HISTORICAL
EXISTING BUILDIN-
ARTIFICAL LAKE

SITE CIRCULATION
SECONDARY CIRCULATION
HISTORICAL AXIS

CAR FREE
UNDERGROUND PARKING
BICYCLE RENTING

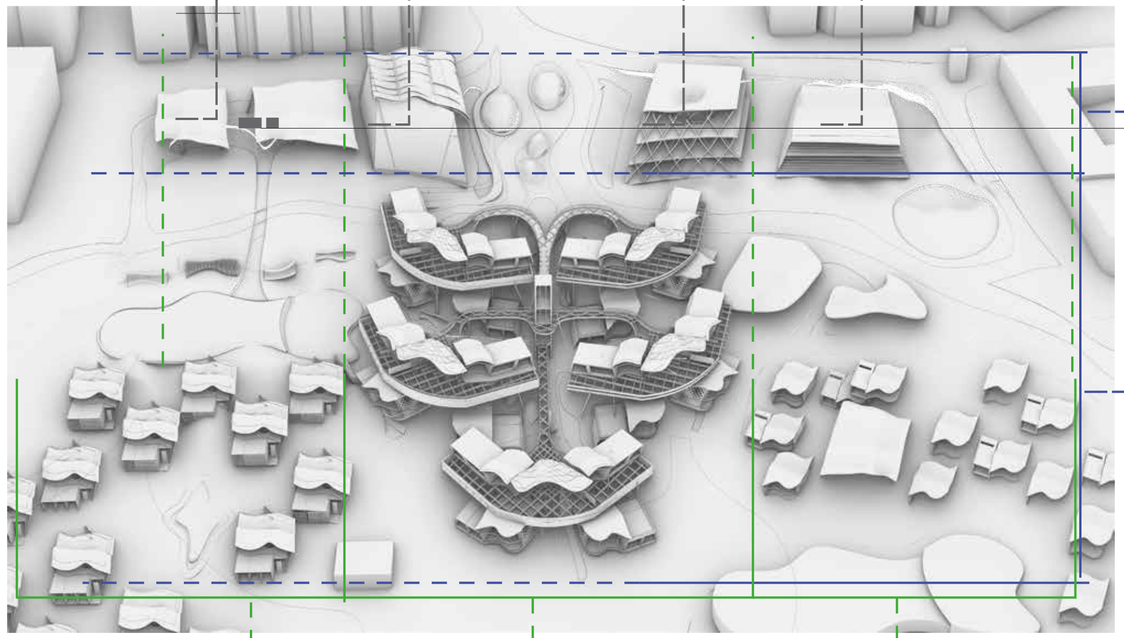
SKATEBOARDING
EDUCATION
SOCIAL AREA

ALGAE FARMING
WATER HARVESTING
ENERGY PRODUCTION

RESEARCH & VOCATION CENTER
DAYCARE CENTER
MARKET & JOBS

SITE OBSERVATORY AREA
CAFE & RESTAURANTS

SITE PLAN ANLAYSIS



The intention of the project is proposing a mixed-used livelihood co-living area where people will be able to live in a productive life cycle with a sustainable & prototype living opportunities. Within all the building programs, the residences will be easily able to socialize & get an education & produce the needs for themselves and their families & consume at the same time and be able to live in a green eco-friendly environment that will lead them into a strong socialized community.

DESIGN INTENTION

- LIVING IN A GREEN ENVIRONMENT
- ZERO FOOTPRINT
- SMOG FREE & CLEAN AREA
- DIVERSE LIVING
- ULUS AS AN URBAN MUSEUM

RECYLE → PRODUCE → CONSUME

EDUCATION → WORK → ECONOMY → GROW → FAMILY → LIFE

DAYCARE CENTER

VOCATION CENTER

ORDERING SYSTEMS

ENVIROMENTAL

ZERO FOOT PRINT
HARVESTING & RECYCLING
GREEN ENVIROMENT

SOCIOCULTURAL

DECREASE IN ISOLATION
INTEGRATION OF HISTORY & NEW
URBAN GATHERINGS

ECONOMICAL

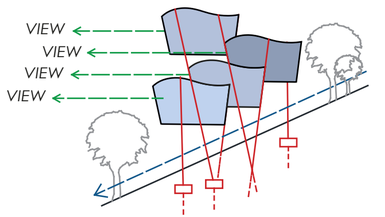
JOB OPPORTUNITIES
SELF-SUFFICENT HOUSES

FUNCTIONAL

RESEARCH & VOCATION CENTER
DAY CARE CENTER
PRODUCTION
HOUSING

AESTHETIC

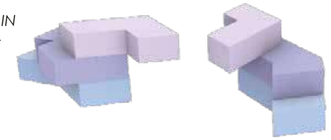
ORGANIC SHAPED BUILDINGS
NATURE SOUNDS RATHER THAN NOISE



PROCESS

PHASE 1

→ UNITS ARE LOCATED IN A WAY THAT CONNECTED TO EACH OTHER



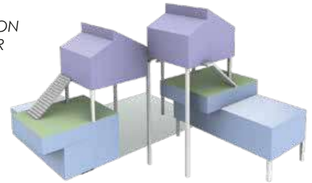
PHASE 2

→ UNITS ARE RAISED OVER PILOTIS FOR THE VIEW OF ANKARA

PHASE 3

→ BETWEEN UNITS COMMON AREAS ARE DESIGNED FOR SOCIZIALIZATION.

→ UNITS ARE FACED TO SOUTH TO MAXIMIZE THE SUN'S EFFICECY



PHASE 4

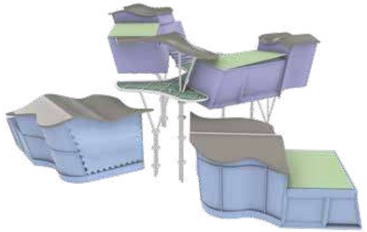
→ UNITS ARE SHAPED CONSIDERING THE SOURCES OF FROMS WHICH ARE
- VIEW
- NATURE
- FUNCTION

PHASE 5

→ THE COMMON SPACES ARE CONNECTED STRONGER

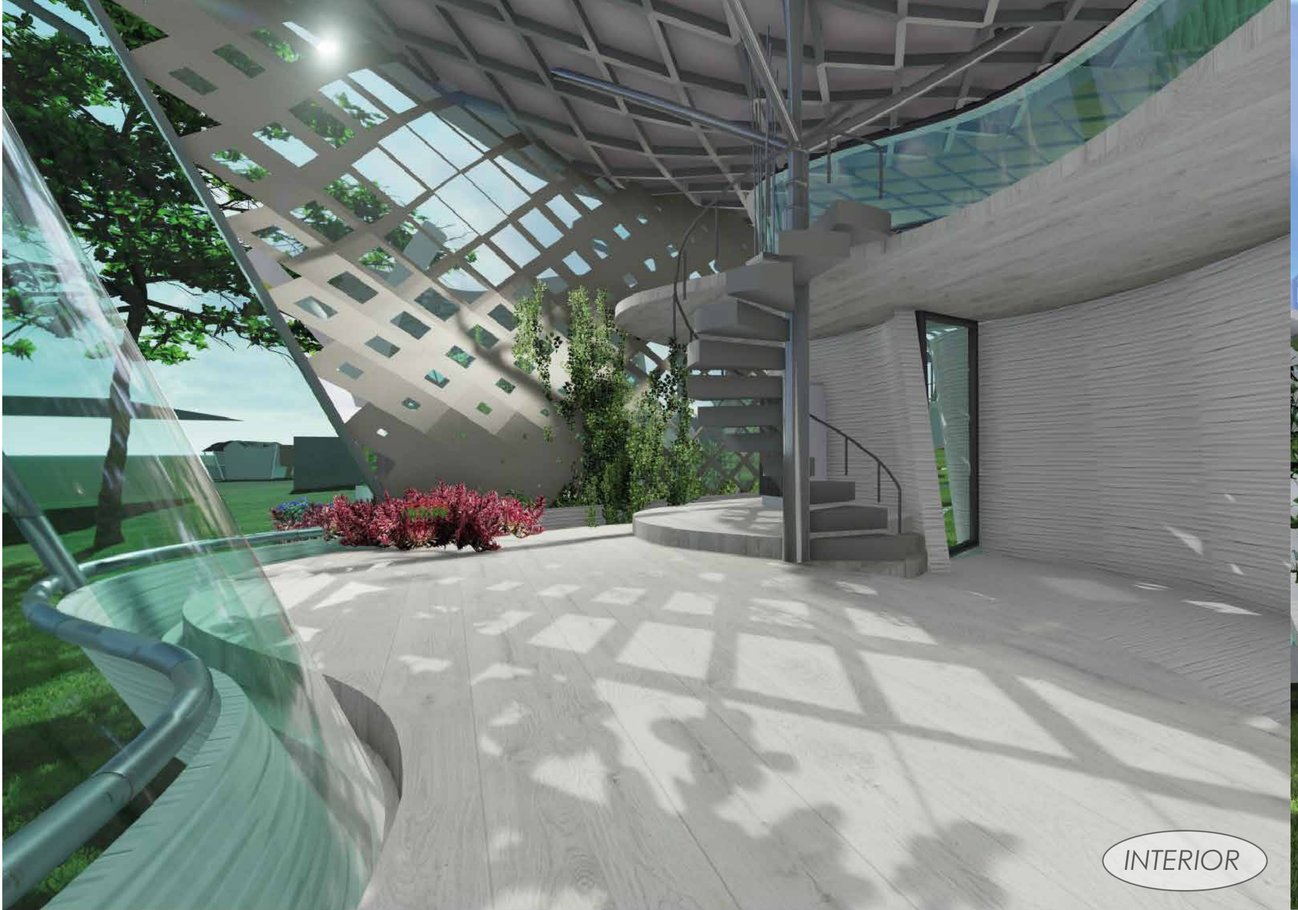
→ THE STRUCTURE HAS BEEN ADDED AND DESIGNED

PHASE 6



→ STRUCTURES ARE INTEGRATED WITH THE UNITS SUFFICENTLY

→ UNITS ARE FINALIZED


INTERIOR

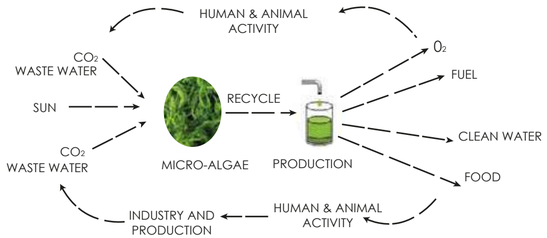

EXTERIOR

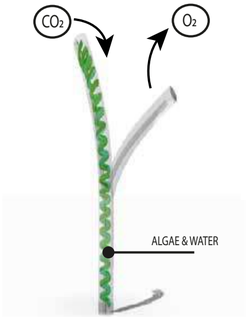
SUSTAINABLE SYSTEMS

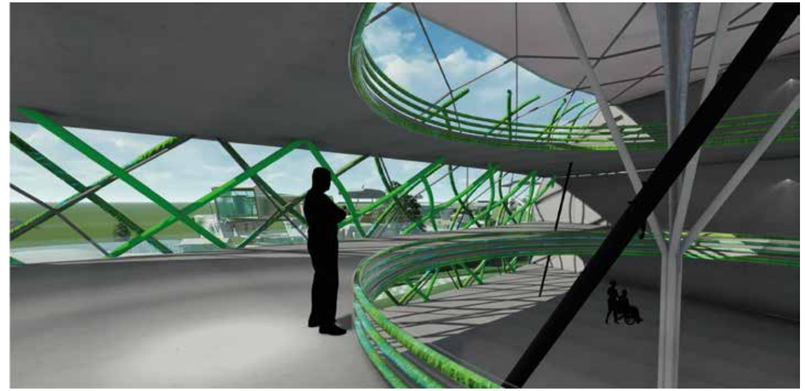
- ALGAE FARMING
- WATER COLLECTOR COLUMNS
- WASTE & GREY WATER TREATMENT & REUSE
- TIO_2 MATERIAL
- PASSIVE SOLAR ENERGY

1 ALGAE FARMING

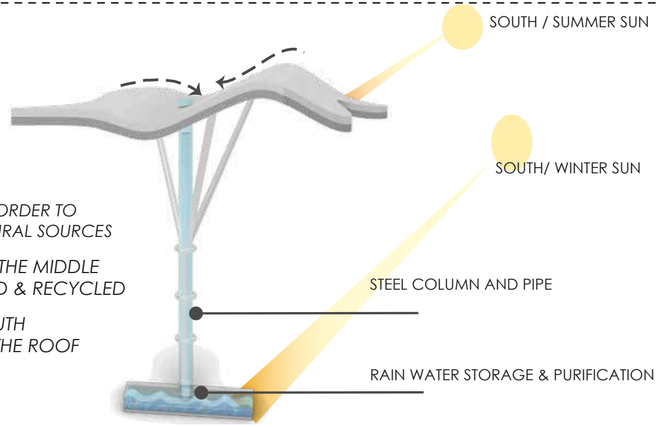
ON BUILDINGS
ON LAKE







2 COLLECTOR COLUMNS

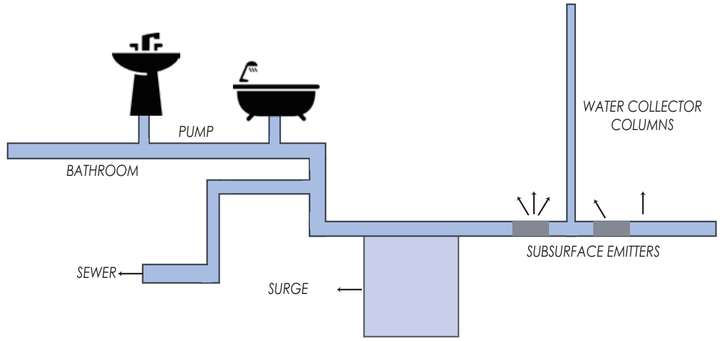


SHAPE OF THE ROOF DESIGNED IN ORDER TO MAXIMIZE THE BENEFITS FROM NATURAL SOURCES

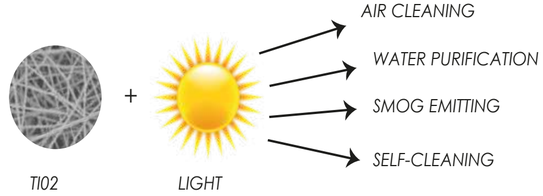
WITH THE INCLINATION IN THE MIDDLE RAIN WATER IS COLLECTED & RECYCLED

PVC LOCATED AT THE SOUTH FACED-ANGLED SIDE OF THE ROOF

3 WASTE & GREY WATER TREATMENT & REUSE



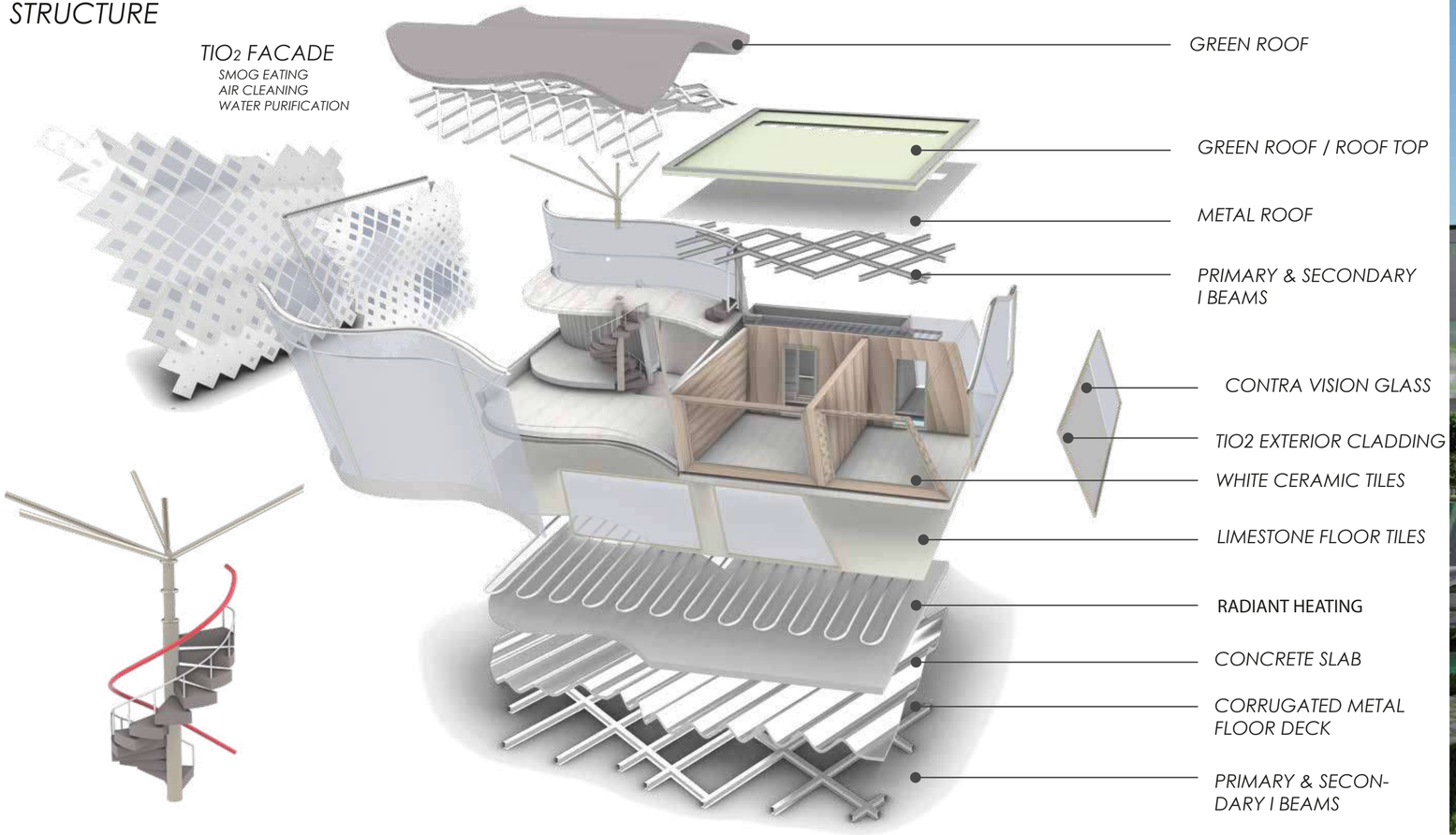
4 TIO2 SMOG EATING & WATER HARVESTING

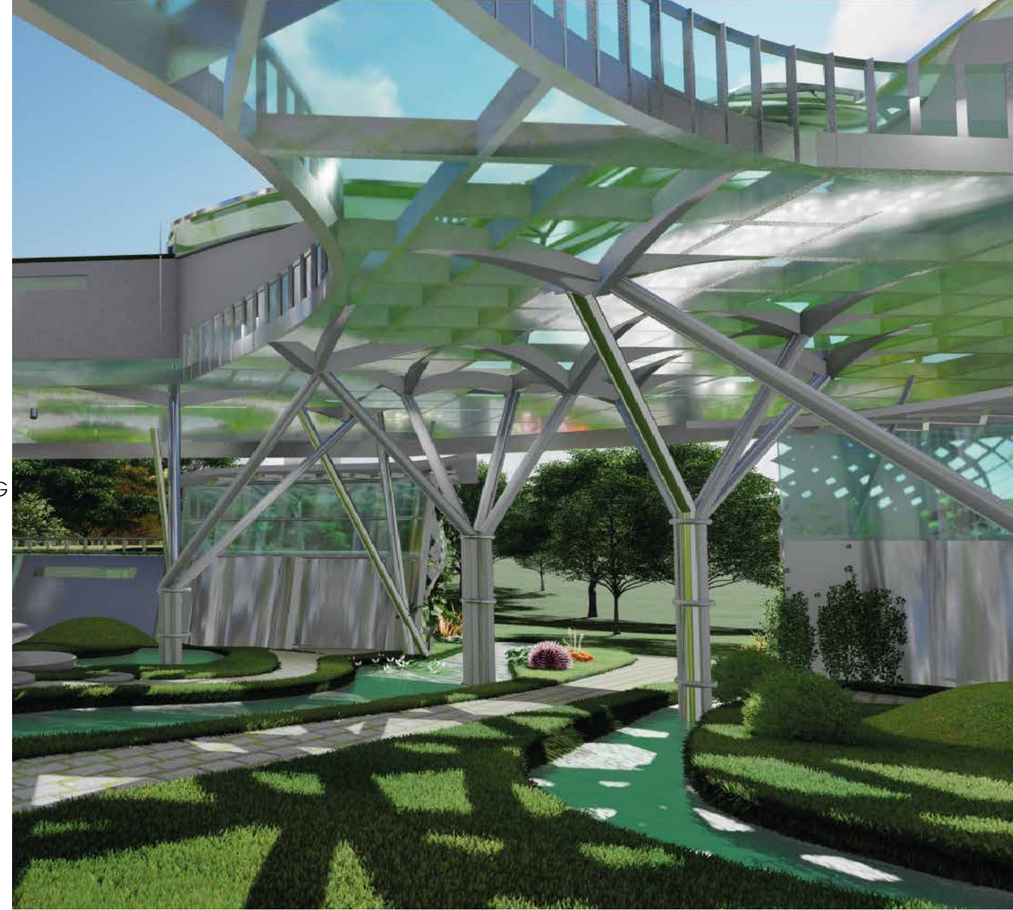


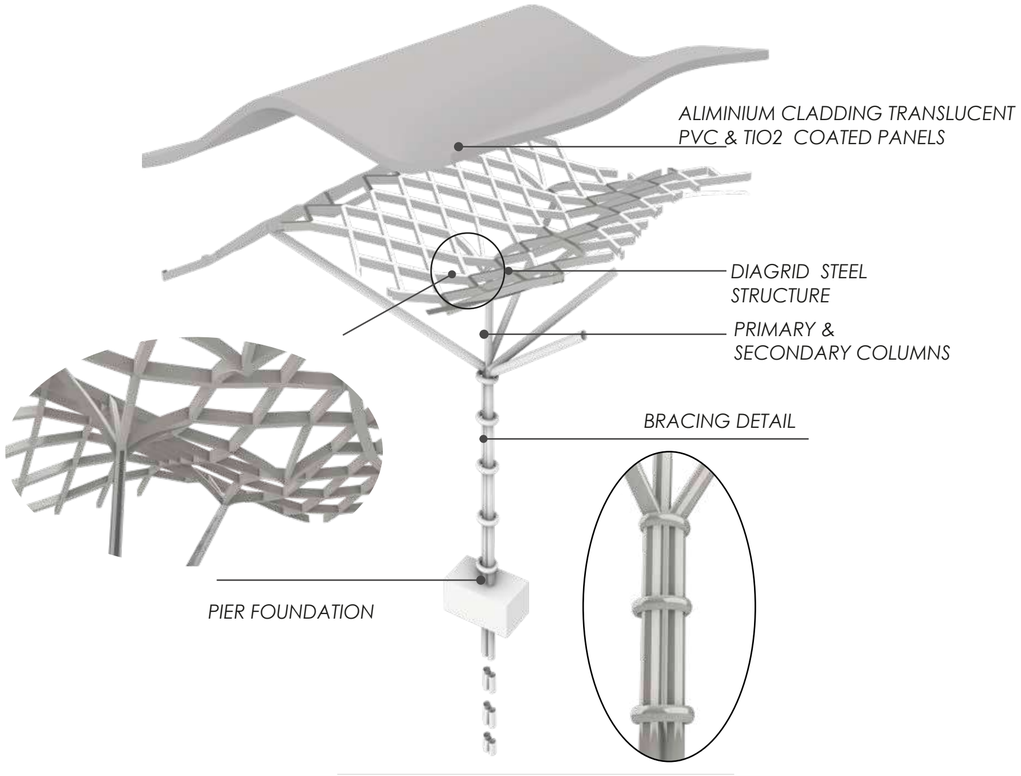
STRUCTURE

TiO_2 FACADE

SMOG EATING
AIR CLEANING
WATER PURIFICATION





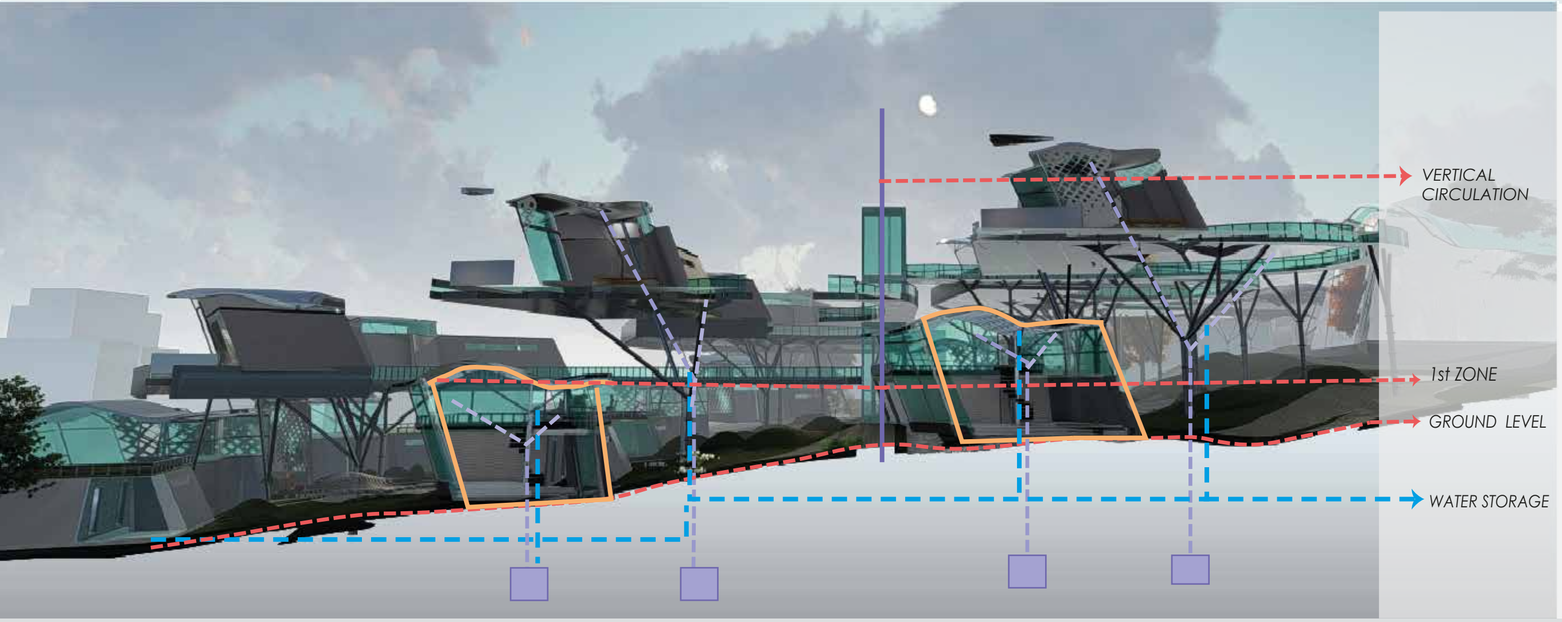

ALIMINIUM CLADDING TRANSLUCENT
PVC & TIO2 COATED PANELS
DIAGRID STEEL
STRUCTURE
PRIMARY &
SECONDARY COLUMNS
BRACING DETAIL
PIER FOUNDATION


EXTERIOR

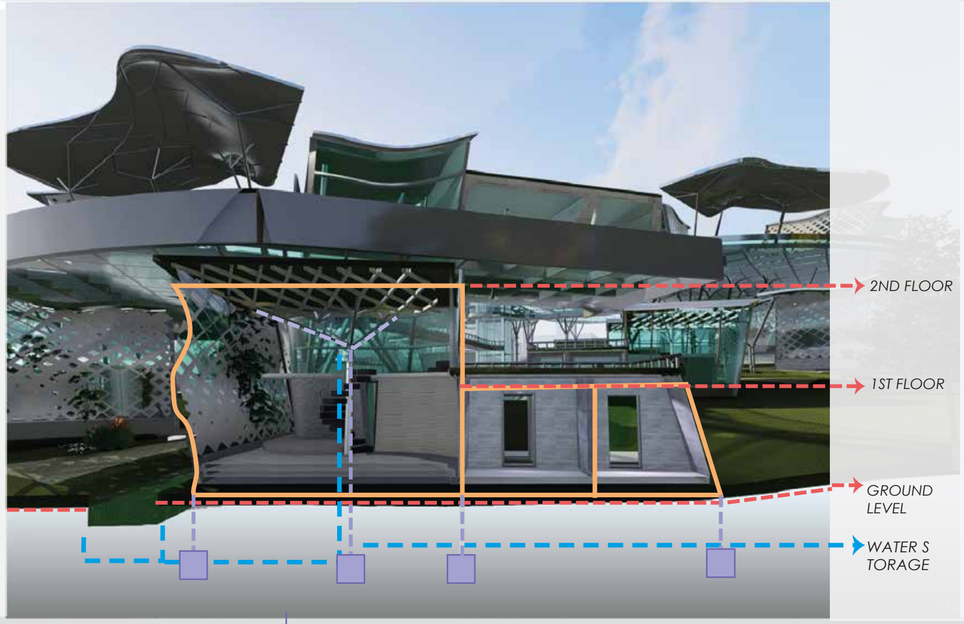

ROOF TOP

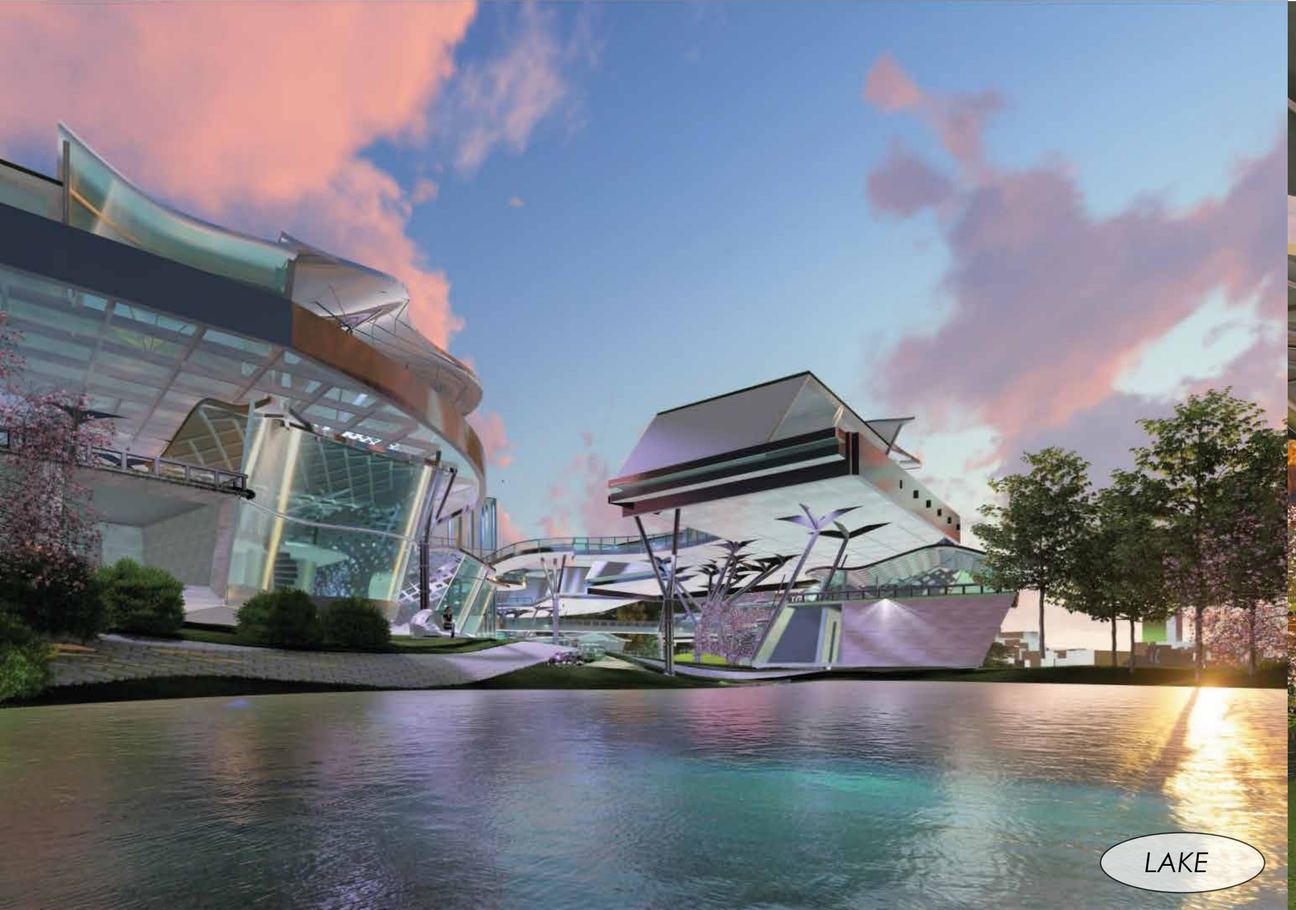
SECTION PERSPECTIVES

EAST SECTION



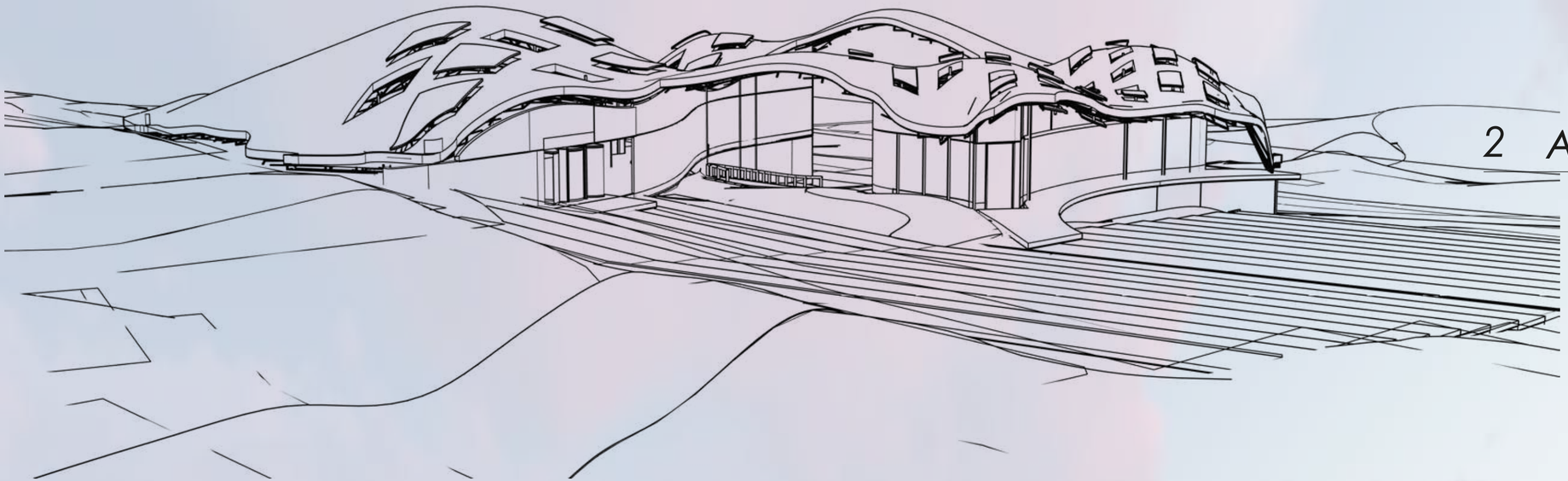
SOUTH SECTION




LAKE


OBSERVATORY
GREEN AREA

Scan for project movie



2 ARTS AND CULTURE CENTER

ARCHITECTURAL DESIGN PROJECT II - ARCH 202

SPRING 2019

Location: Ataturk Boulevard | Ankara Turkey

Supervisor: Zühre Sü Gül

3D Modelling: RhinoCeros I Grasshopper

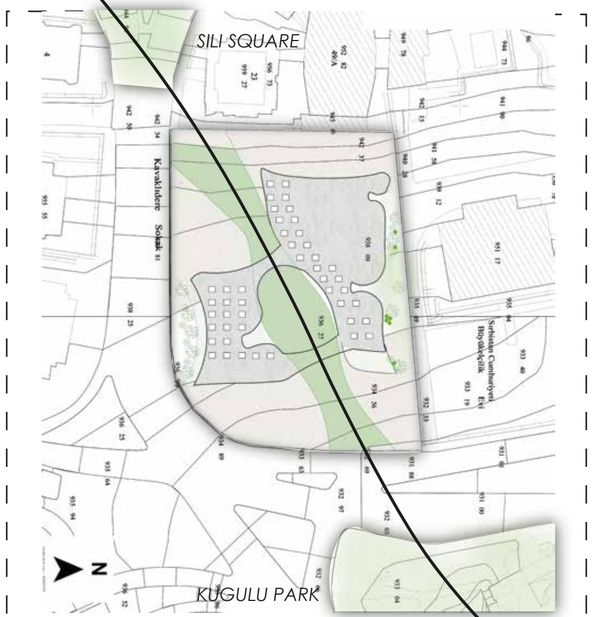
DESIGN INTENTION

The Art and Culture center has been designed as a social & interactive green corridor. In order toraise the interest to green parks of Ankara's two natural parks, the art and culture center shaped as an organic corridor with referensing the topograhy and acting as a passageway with its organic roof acting as a landscape element.

SOCIAL AREAS

CAFES
RESTAURANTS
BOOKSHOPS

PUBLIC FUNCTIONS LOCATED CLOSE TO PUBLIC ZONE



PRIVATE AREAS

PRIVATE HOUSINGS
EMBASSIES

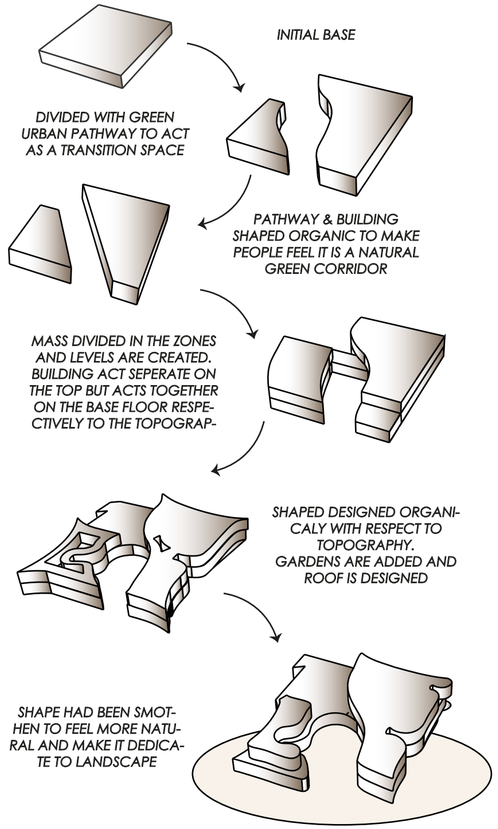
PRIVATE FUNCTIONS LOCATED CLOSER TO PRIVATE ZONE

GREEN CORRIDOR LINE

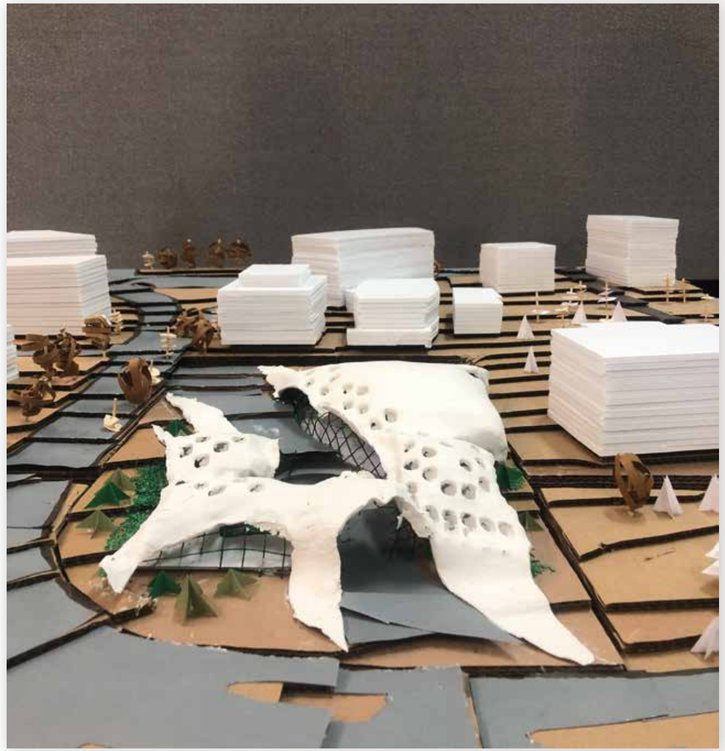
Expected Solutions

- *Increasing the interest to art and culture*
- *Increasing the interest to green parks*
- *Increasing on social- cultural activities*
- *Increasing in sociality*
- *New green socail gathering s*

PROCESS



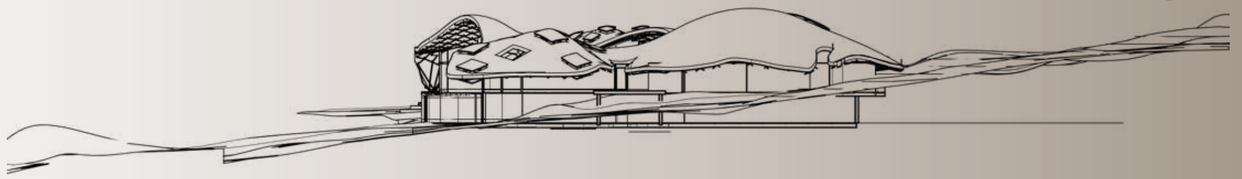
HAND-MODEL MODEL



TOP VIEW

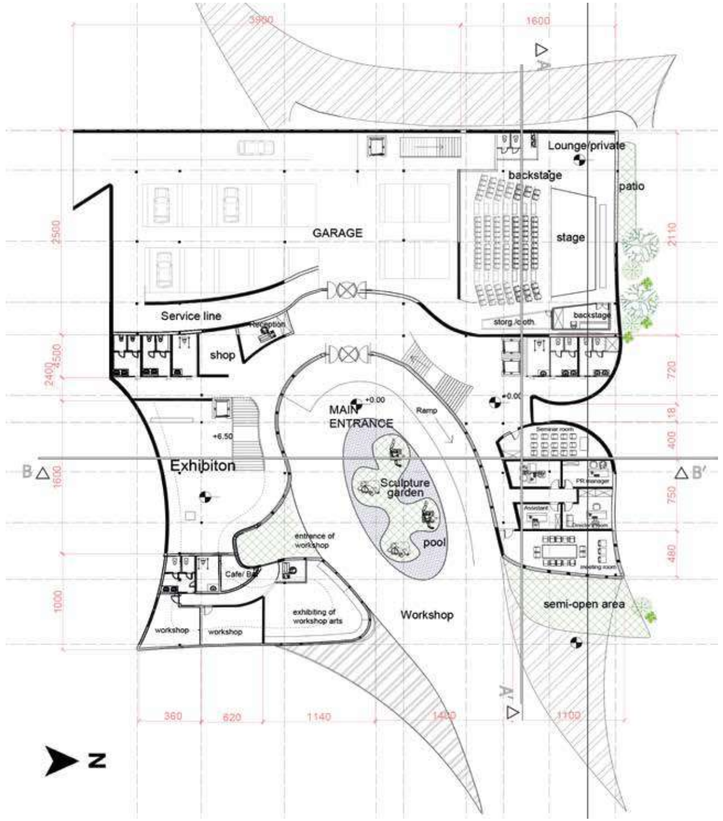
FIRST FLOOR

SECOND FLOOR

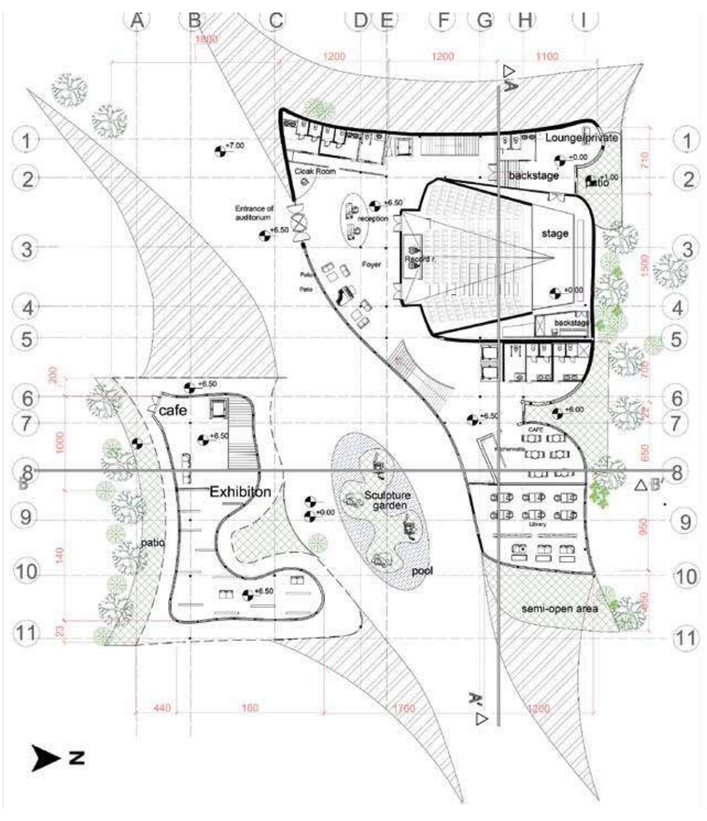


PLANS *scale 1/300*

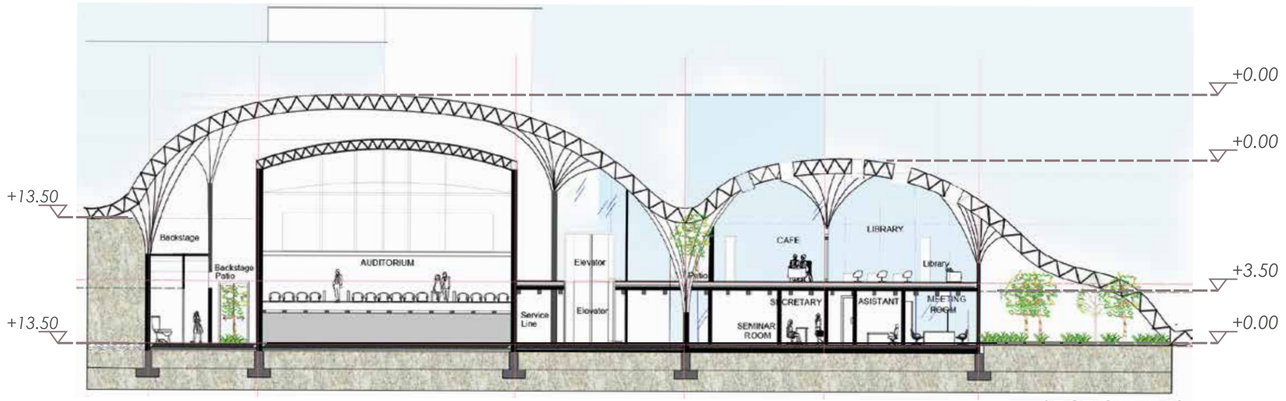
FIRST FLOOR



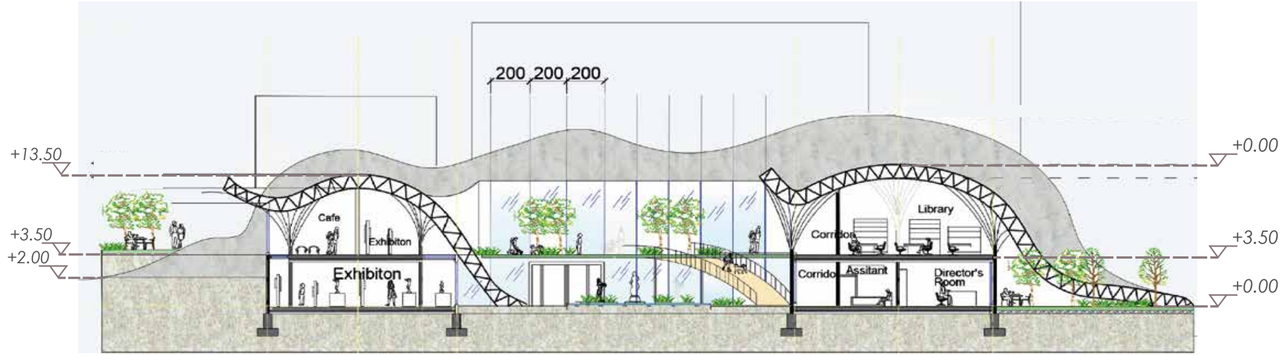
SECOND FLOOR



SECTIONS

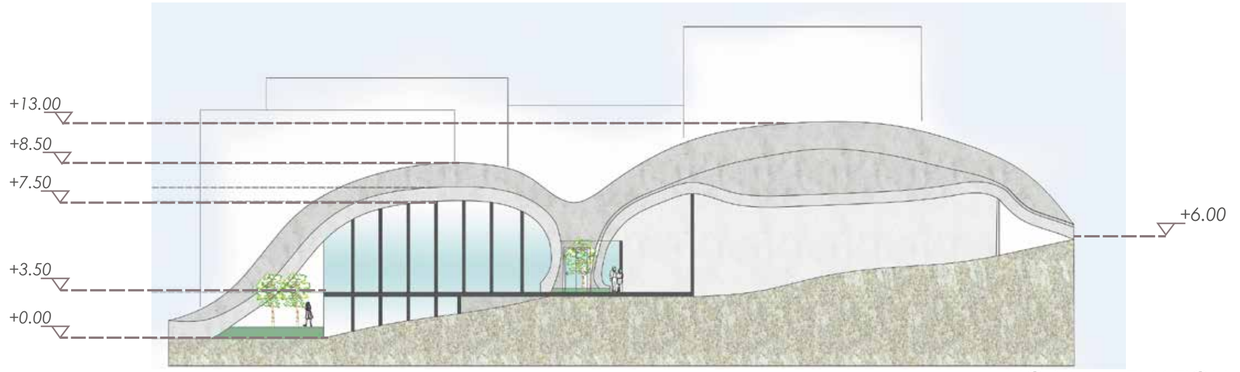


SECTION AA'

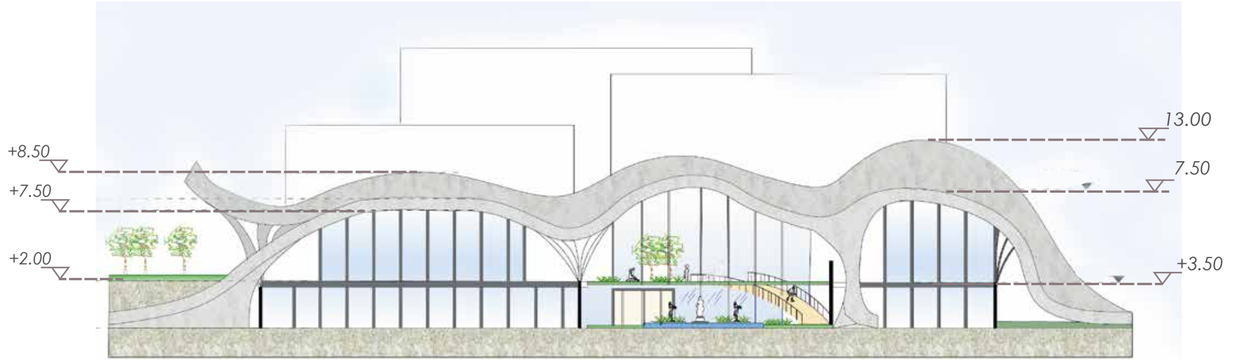


SECTION BB'

ELEVATIONS



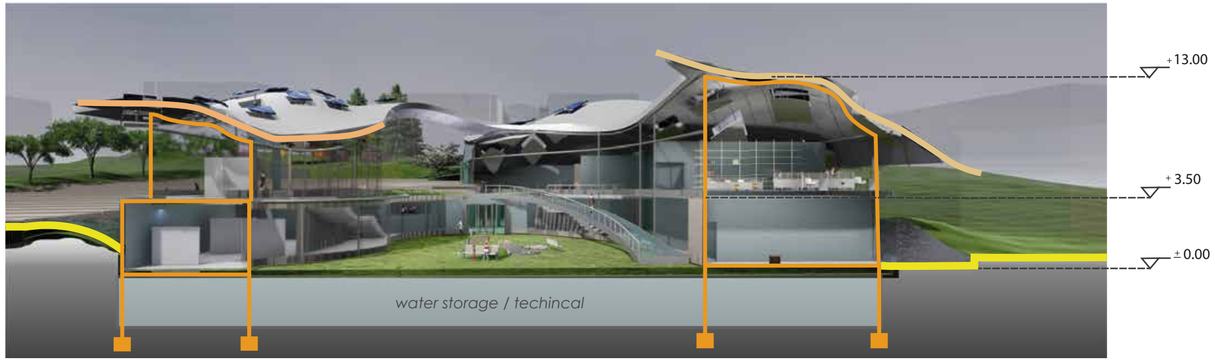
NORTH ELEVATION

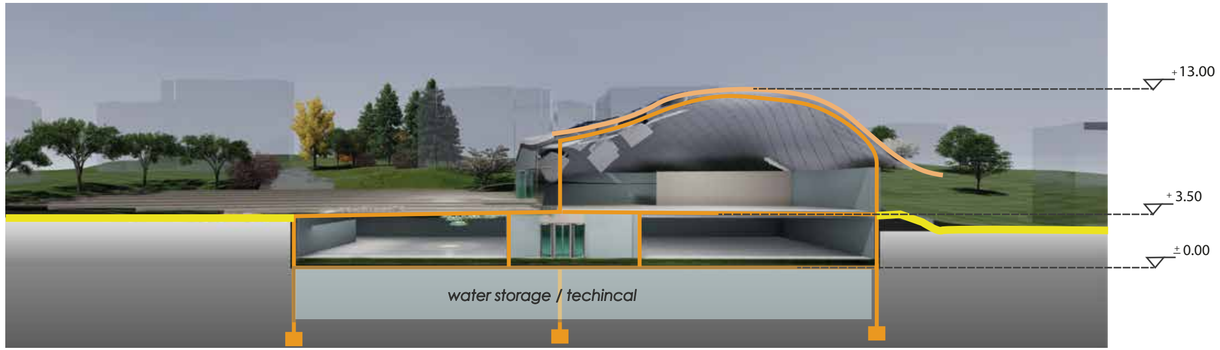


EAST ELEVATION

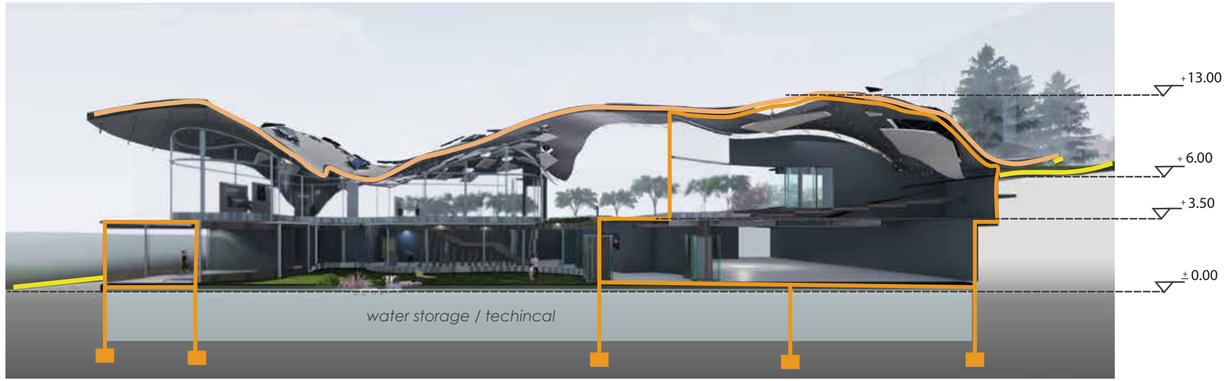
SECTION PERSPECTIVES

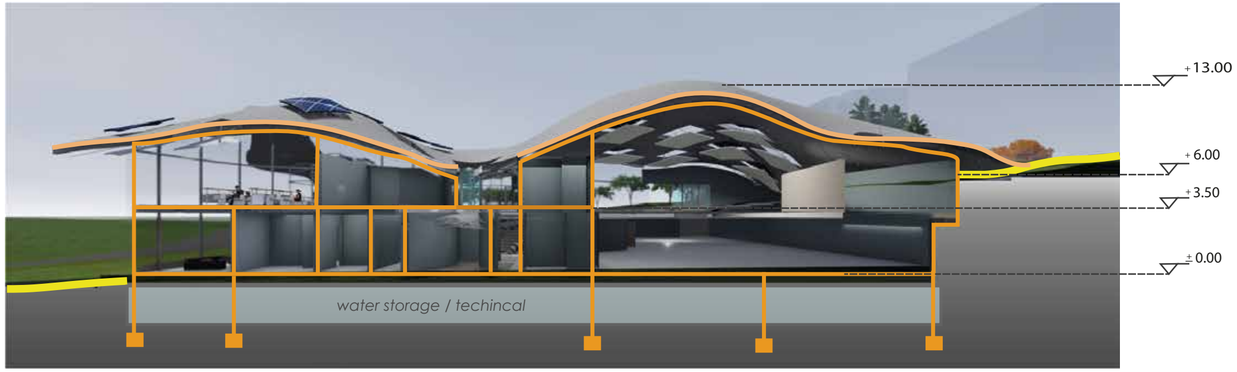
EAST SECTION





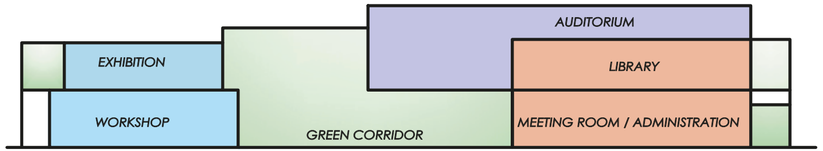
NORTH SECTION



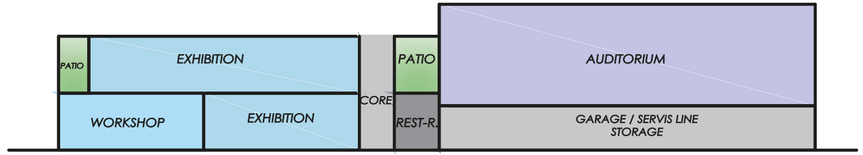


SPACE DIVISION

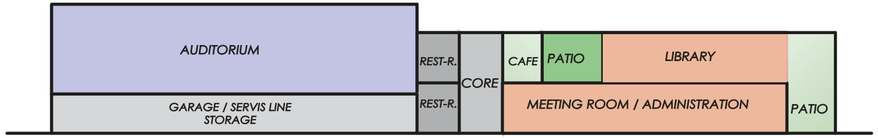
public
private



FRONT FACADE

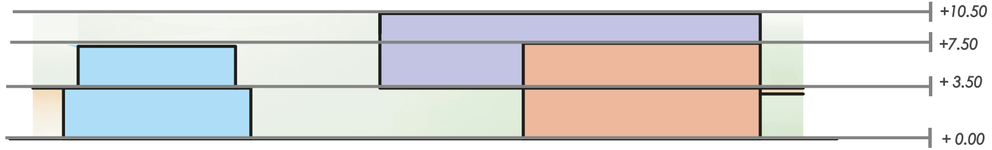


NORTH



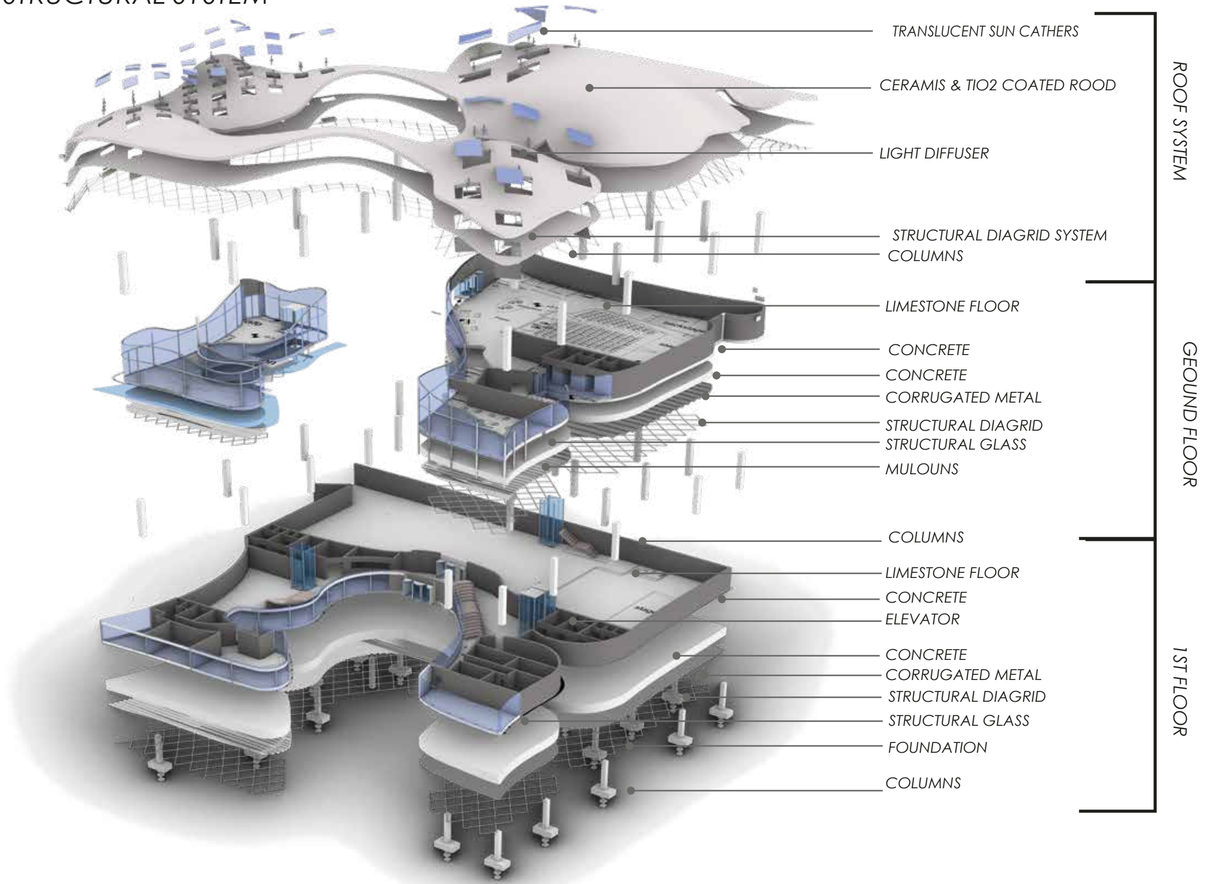
SOUTH

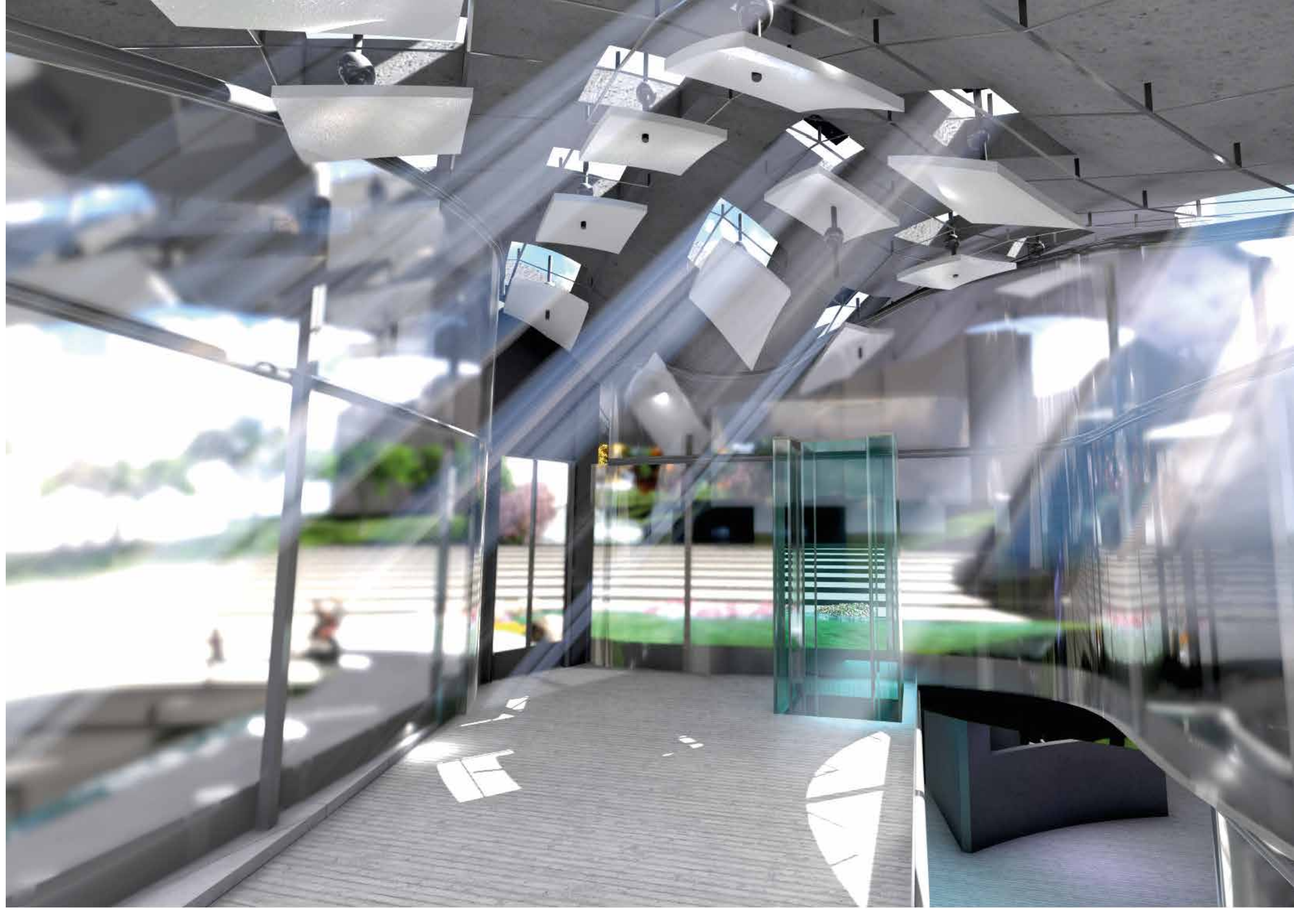
LEVEL DIFFERENTIATION



LEVEL DIFFERENCES ACORDING TO THE FUNCTIONS

STRUCTURAL SYSTEM





ORGANIC ROOF FORM

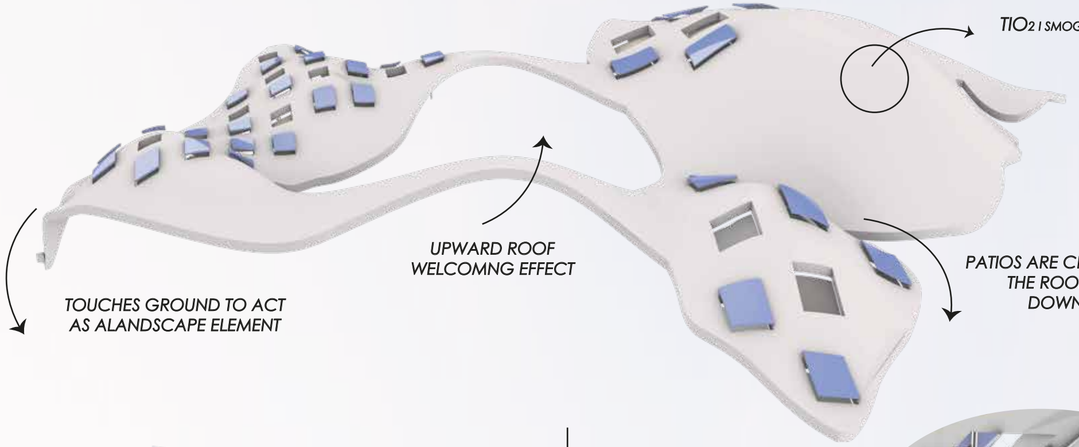
WHITE CERAMIC CLADDING AND TIO2 COATED 3D ORGANIC SHAPED ROOF:

TAKES THE ATTENTION FROM OUTSIDE AND INVITES PEOPLE TO ITS CENTER PLAZA THEREFORE IT INCREASES THE PUBLIC ATTENTION TO THE ART AND CULTURE ACTIVITIES.

THE ROOF ACTS AS AN ORGANIC ANDSCAPE ELEMENT AND IT FOLLOWS THE PATHWAY OF THE GREEN CORRIDOR

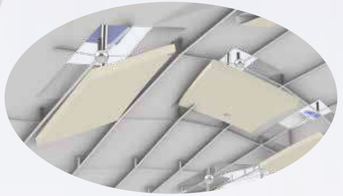
THE OPENNIGS ON THE ROOF HELPS BUILDING TO GET EFFICENT AMOUNT OF DIFFUSE LIGHT SINCELIGHT IS A CRITICAL ISSUE FOR ART CENTERS

THE SIZE AND THE AMOUNT OF THE OPENNINGS AREDEPENDED ON FUNCTION



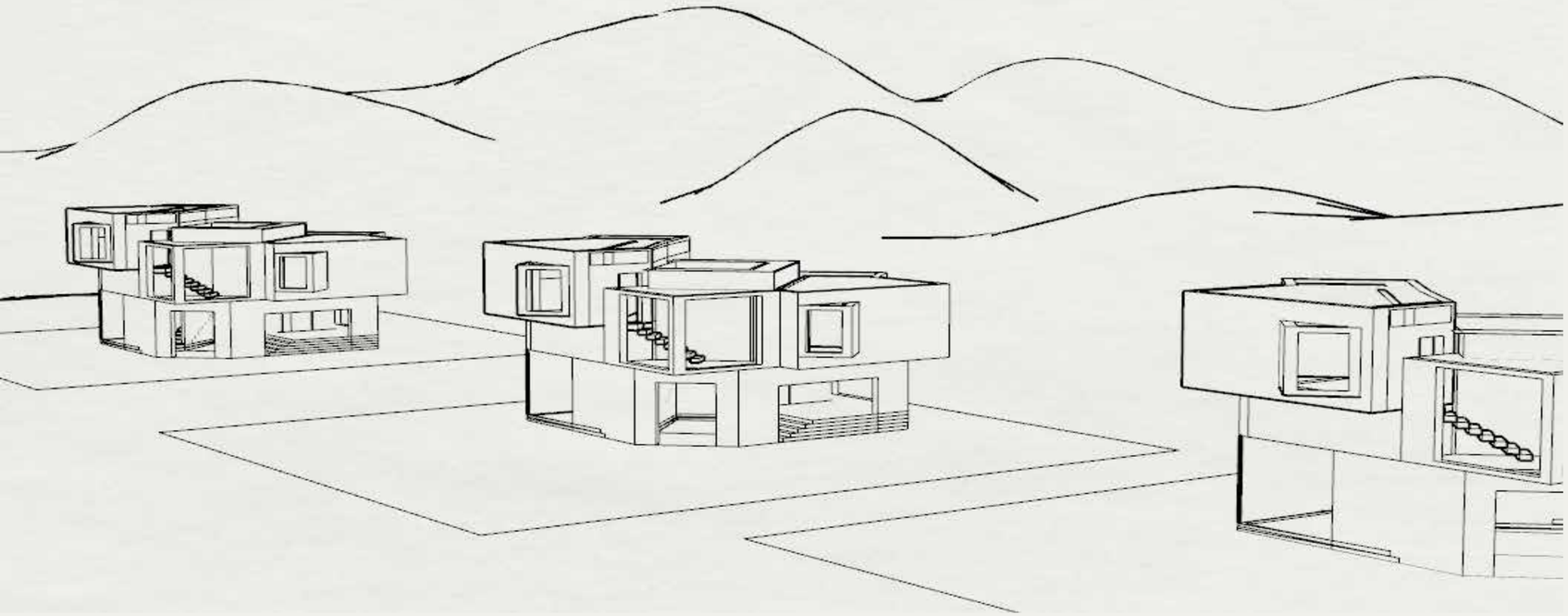
SUNCATHERS & TRANSLUCENT PVC PANELS

SUNLIGHT DIFFUSERS INDIRECTSOUTH SUNLIGHT DIRECT NORTH LIGHT



PATIO

LIBRARY



Scan for project movie

3 PEER TO PEER RENTING I RESIDENCE

ARCHITECTURAL DESIGN PROJECT I - ARCH 201

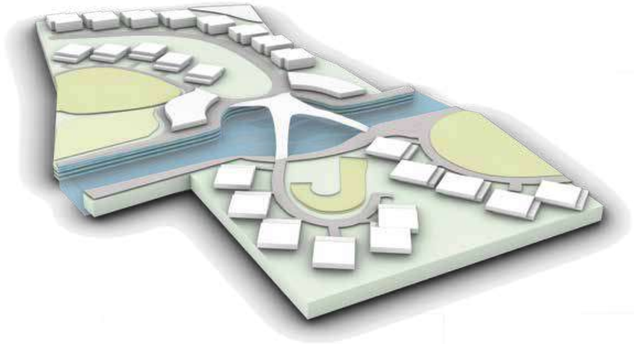
ARCH 201 I SPRING 2018

Location: Adrasan I Antalya I TURKEY

Supervisor: Zühre Sü Gül

3D Modelling: Revit

MASTER PLAN



- HOUSINGS
- SOCIAL PLACES
- AGRICULTURE
- GREENRY
- BICYLCE PATH & PEDESTRAIN PATHWAY

Adrasan is located at the south sea side of Ankara with its hot climate.
The intention of the master plan is maximing individual housing experience within its private borders and creating a peaceful era where they can also produce their own foods and look after their flower gardens and having a large green area where they can spend time with their neighbours within Adrasan's quite and peaceful environment.

BUILDING PROGRAM

120 m^2 : Large families
Individual agricultural area

90 m^2: Families
Individual agricultural area

60 m^2: Young professionals and small families.
Common agricultural area

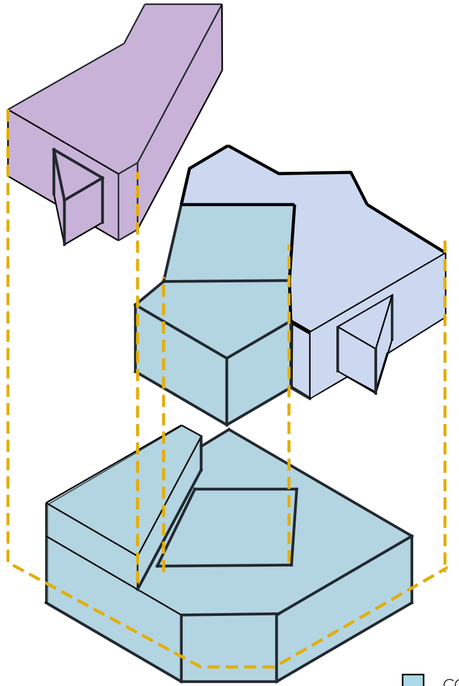
PEER TO PEER RENTING | HOUSING DESIGN

Peer to peer renting is a type of a hostel of a private individuals where they can rent their entire property or a small part of their apartments.

The intention for the designing the housings are,

- ⟶ *where owner of the houses and the guests can have privacy at the same time.*
- ⟶ *maximizing the view towards the sea*
- ⟶ *maximazing the opportunities of the season. Such as sun, wind.*
- ⟶ *maximing privacy withing other neighbours.*
- ⟶ *having common space inside of the house for the owner and the tenant.*
  - *interior courtyard*
- ⟶ *having common spaces outside of the house.*
  - *patio*

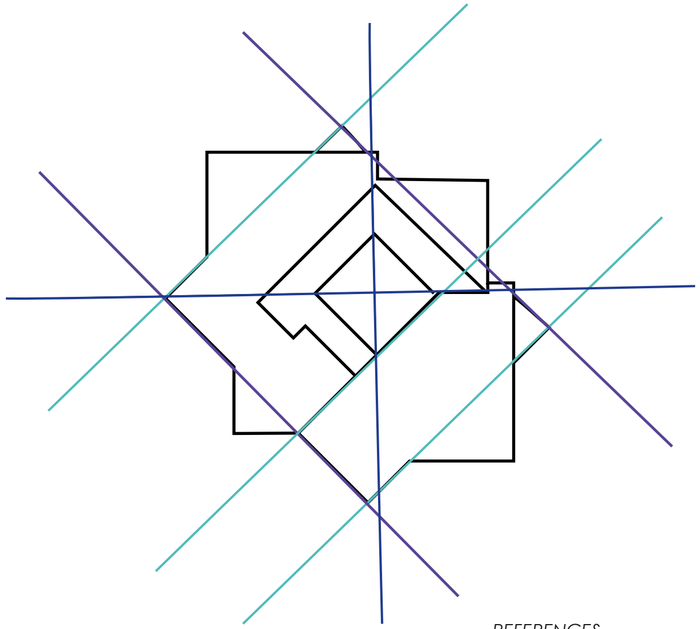
HOUSE DIVISION AND CIRCULATION



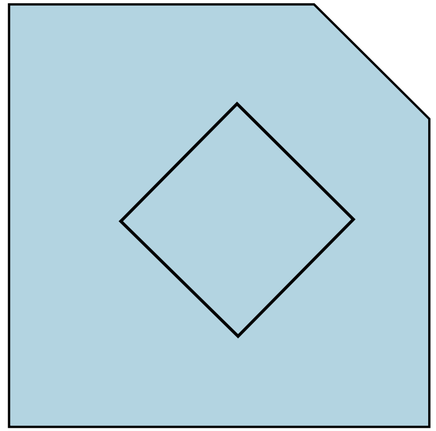
COMMON SPACE

GUEST'S HOUSING

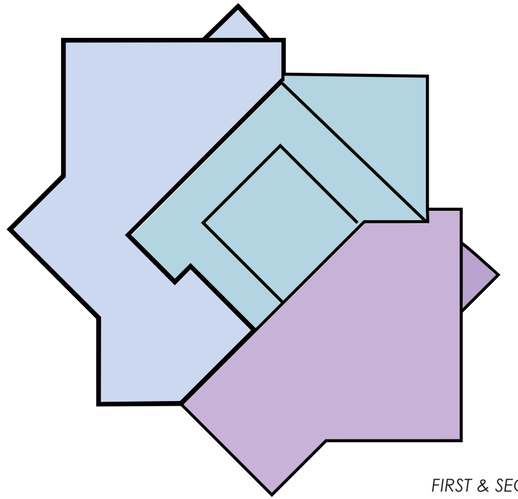
HOST'S HOUSING



REFERENCES

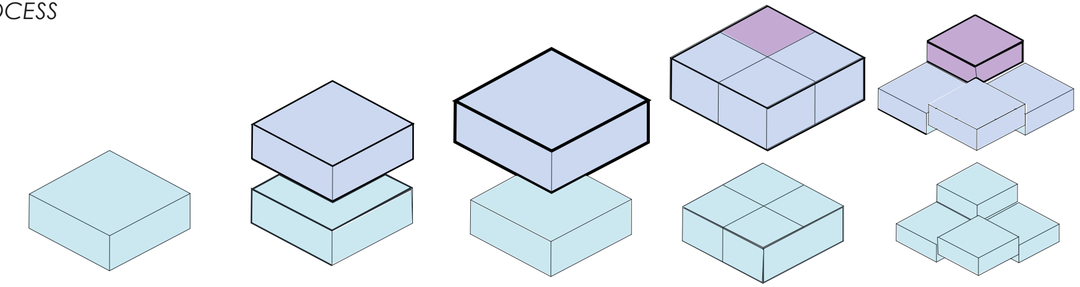


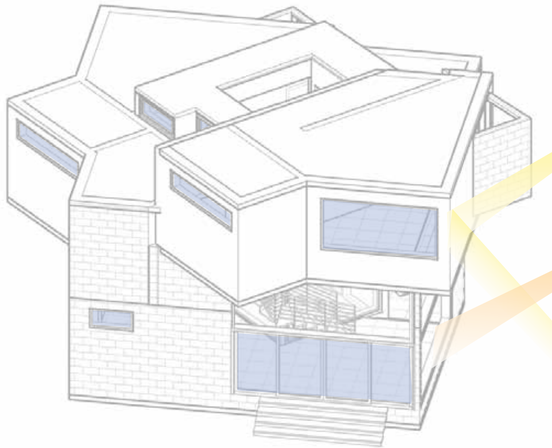
GROUND FLOOR



FIRST & SECOND FLOORS

PROCESS

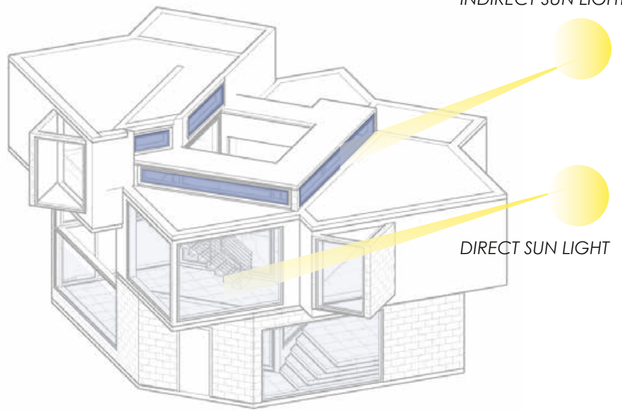




SOUTH SUMMER LIGHT

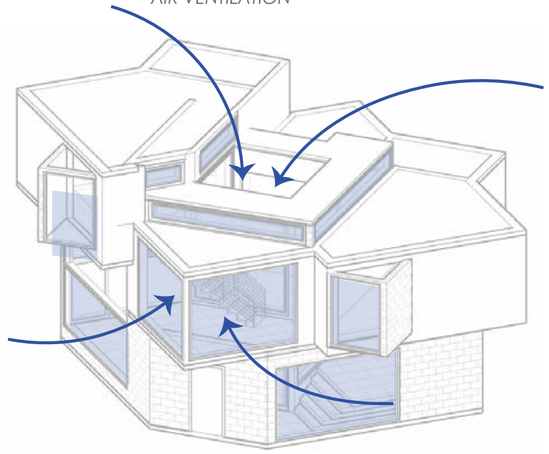
SOUTH WINTER LIGHT

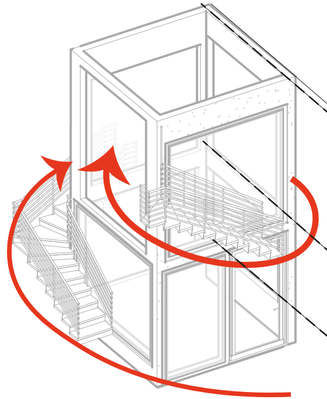
INDIRECT SUN LIGHT



DIRECT SUN LIGHT

AIR VENTILATION





PRIVACY INCREASES

CIRCULATION OCCURS
AROUND THE COURTYARD

HOST

GUEST

COMMON SPACE

SUN LIGHT

NATURAL SUN LIGHT TO COURT-
YARD TO HEAT AND LIGHT THE
COURTYARD AND THE INTERIOR

AIR VENTILATION

CROSS VENTILATION

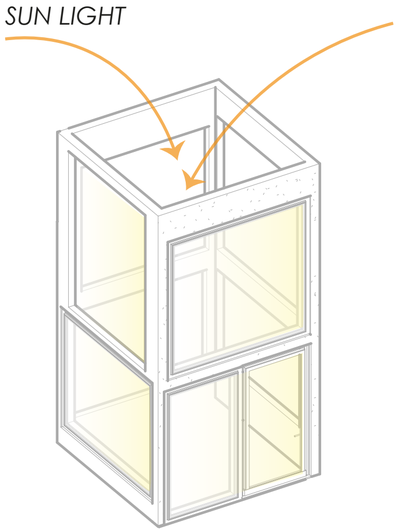
COURTYARD

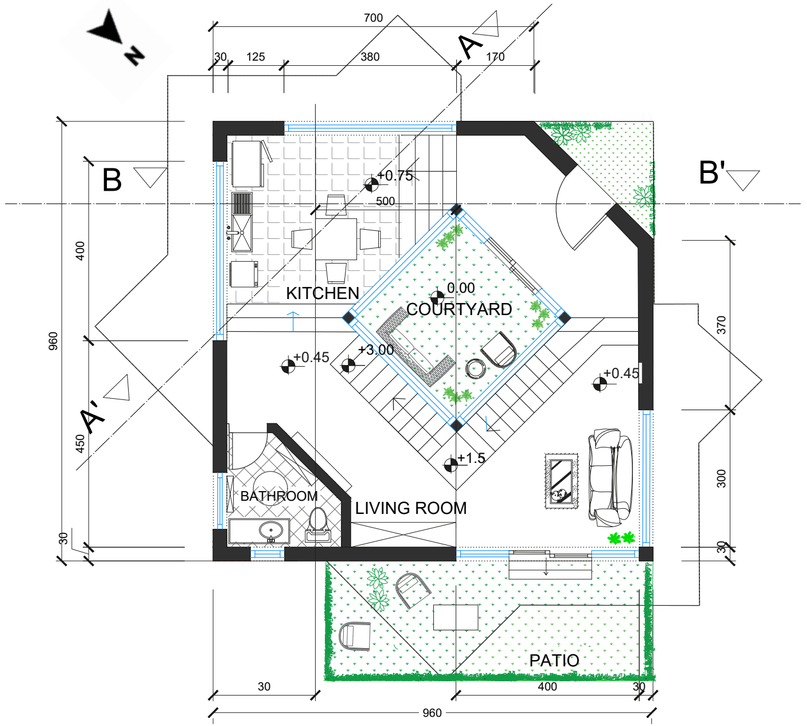
LIGHT

NATURAL LIGHT

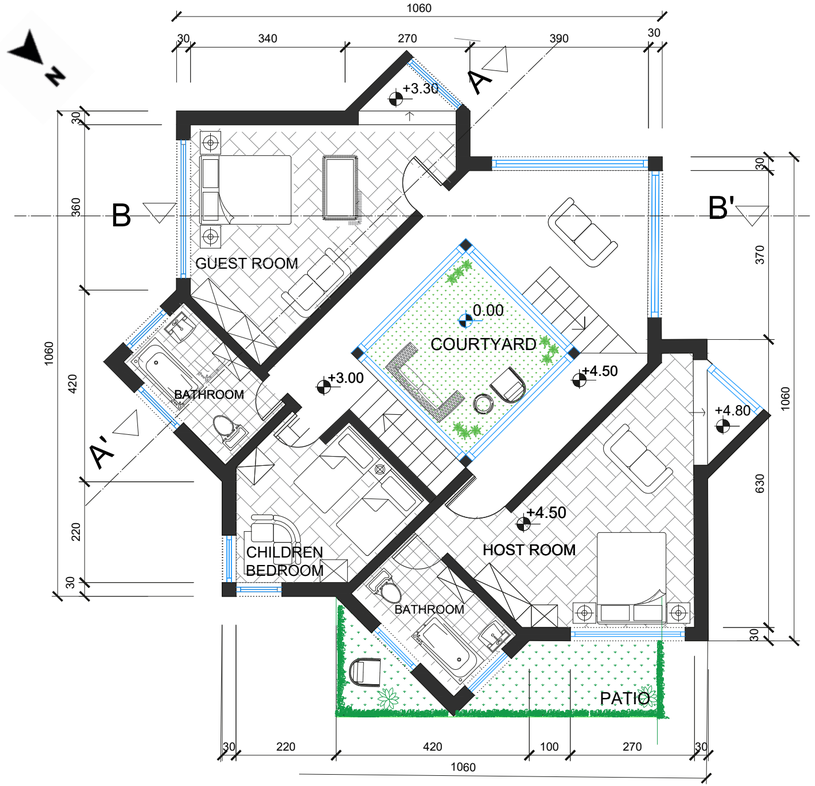
DIFFUSE LIGHT

SUN LIGHT





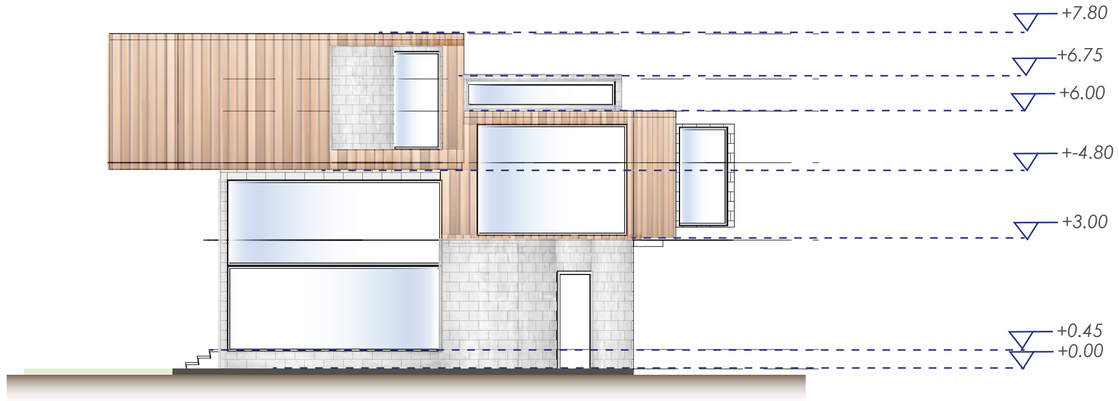
FLOOR PLAN



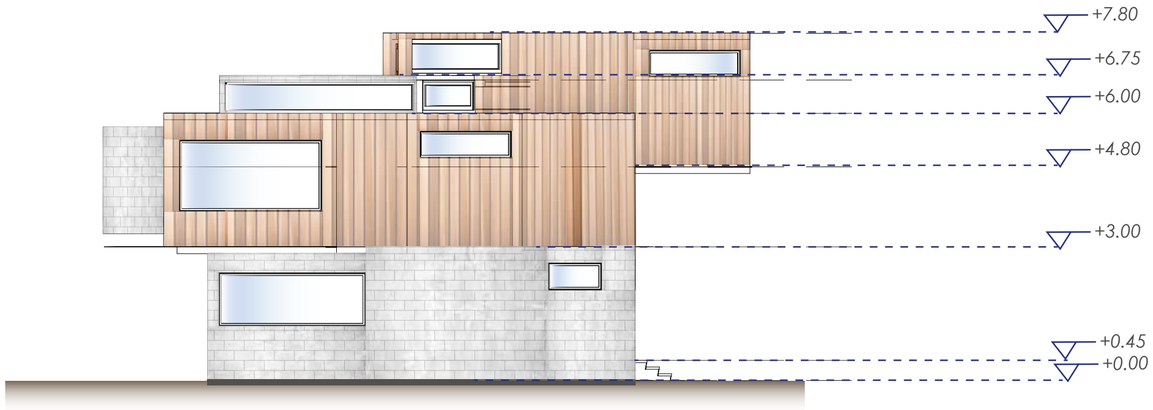
FIRST AND
SECOND FLOOR

ELEVATIONS

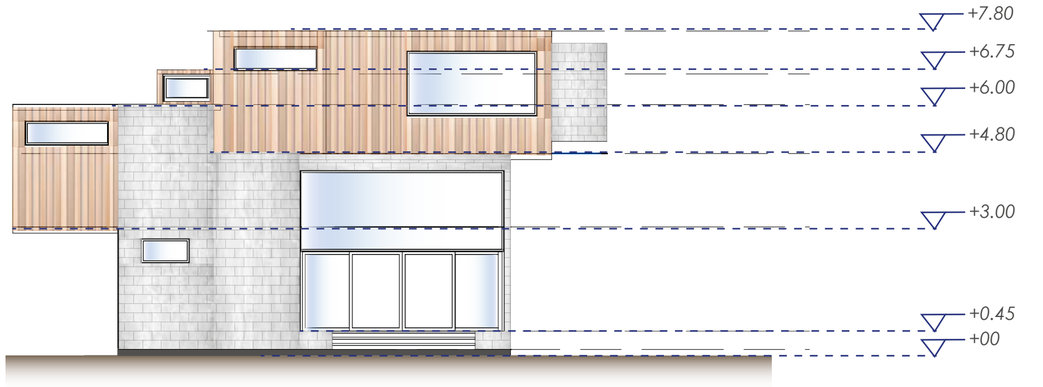
NORTH EAST ELEVATION



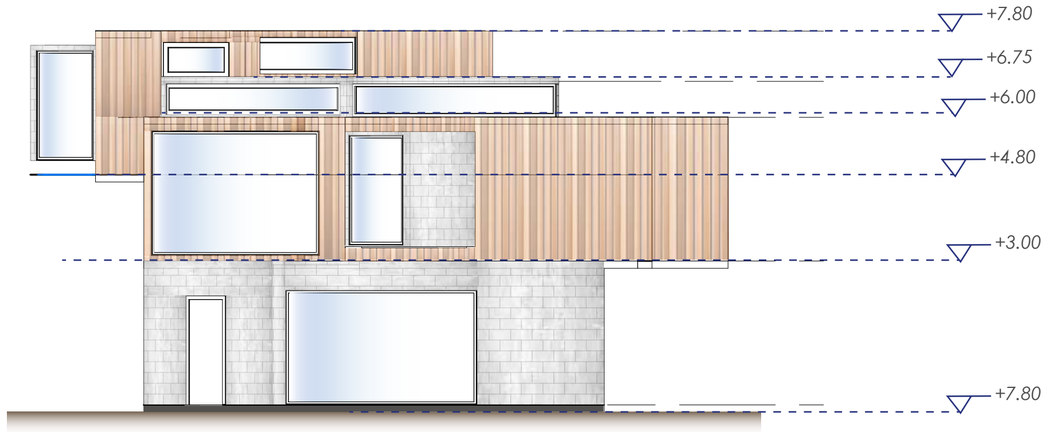
NORTH WEST ELEVATION



SOUTH WEST ELEVATION

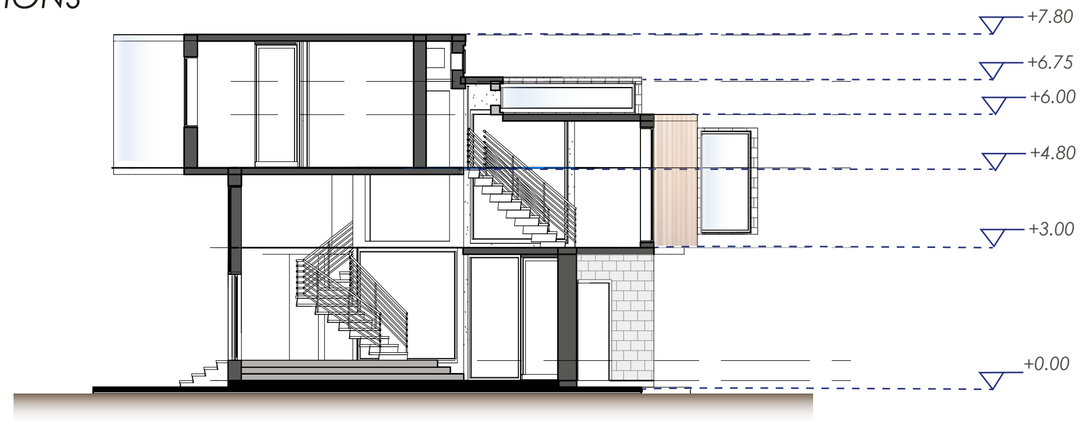


SOUTH EAST ELEVATION

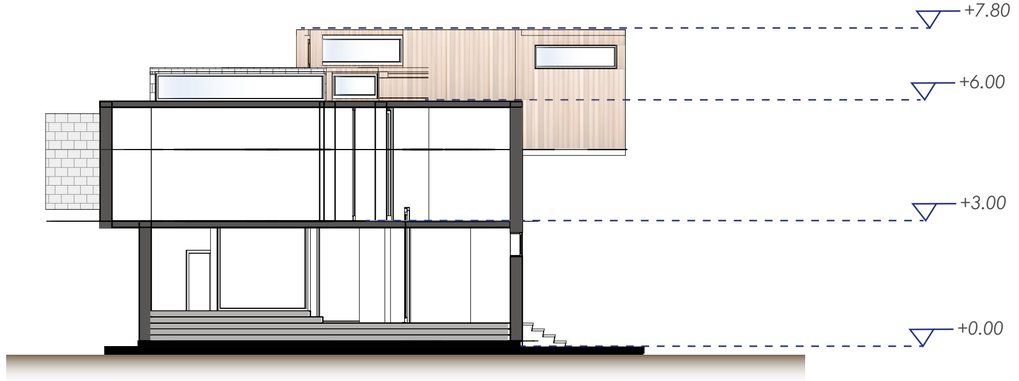


SECTIONS

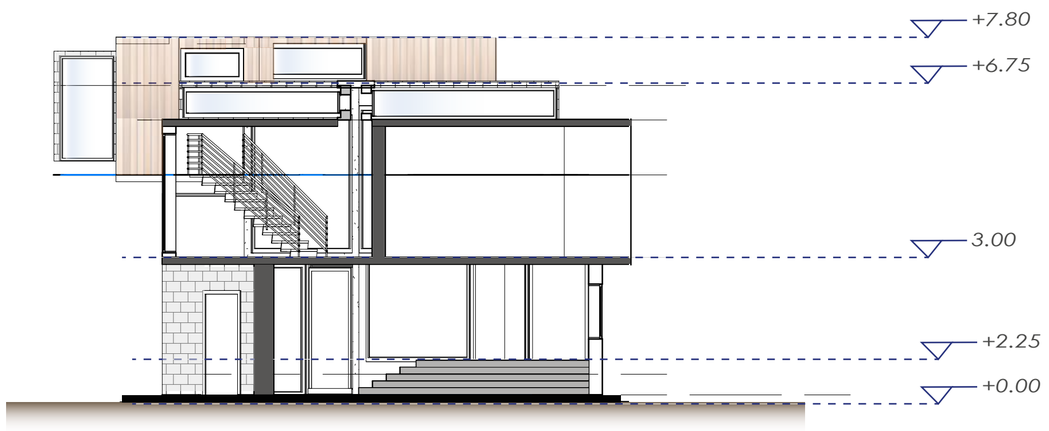
SECTIONS AA'



SECTIONS BB'



SECTIONS CC'



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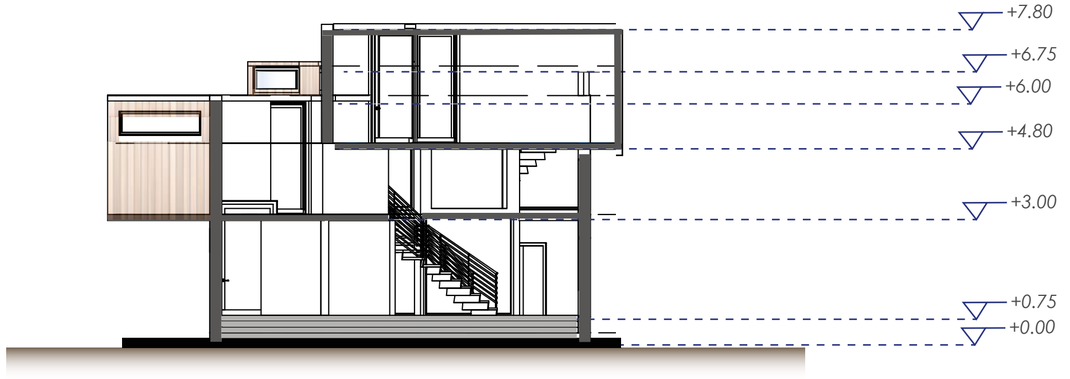


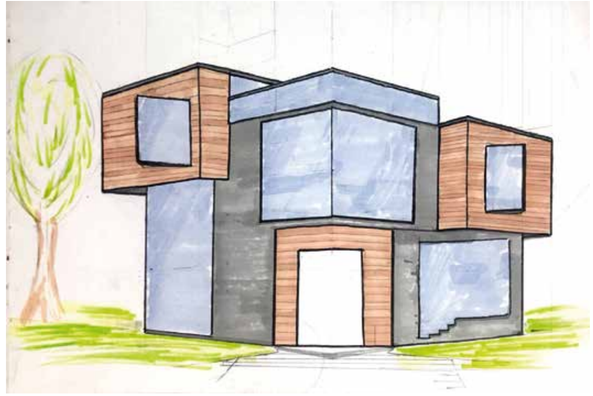

COURTYARD
+3.00

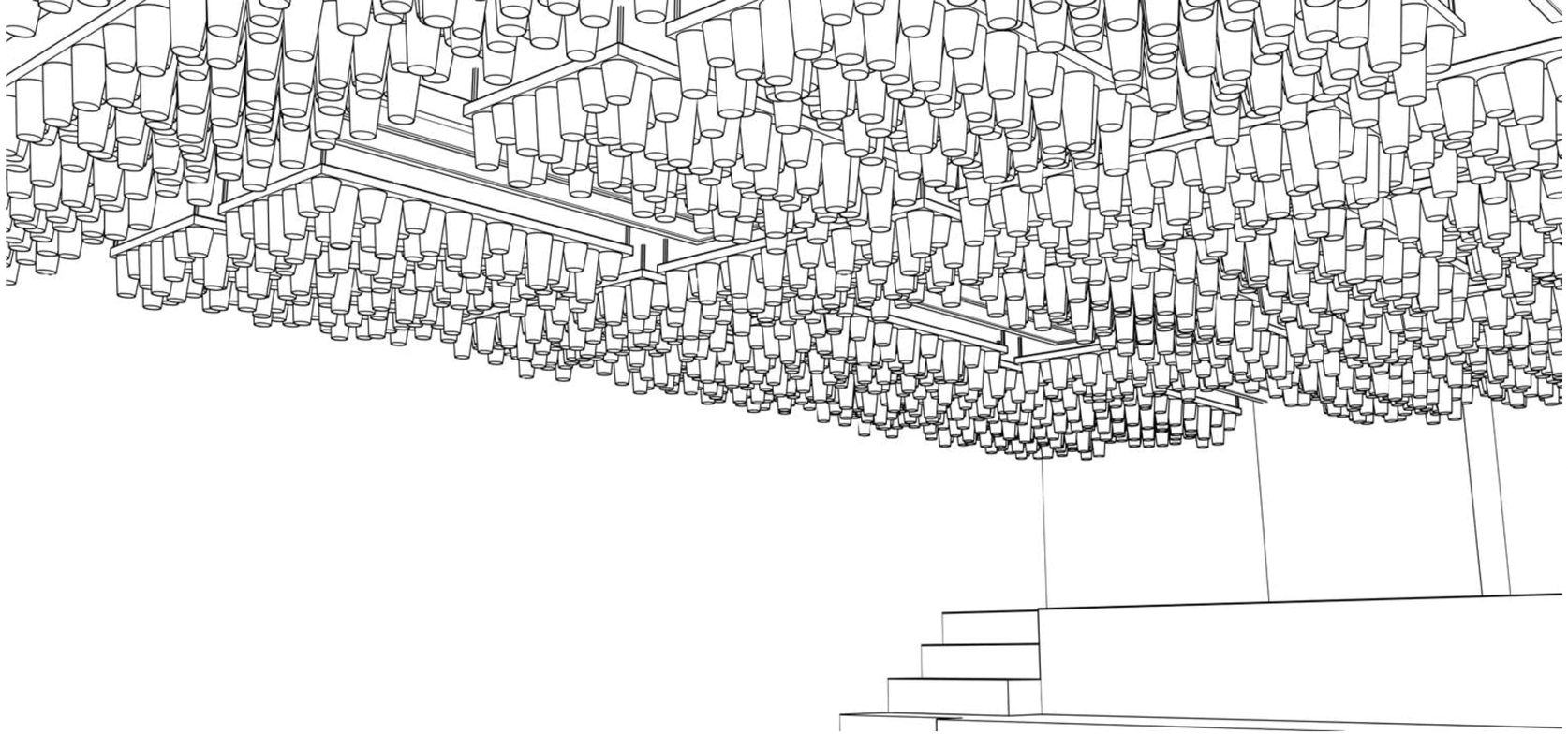

COURTYARD
+0.45


HOST'S BEDROOM
+4.80


LIVING ROOM
+0.75

PHYSICAL MODEL





4. ACOUSTIC ROOM TREATMENT

LIGHTING AND ACOUSTIC PROJECT

FALL 2019-2020

LOCATION: BILKENT UNIVERSITY FFZ08 STUDIO

DESIGN TEAM: ECE SEL
İPEK DÜZOVA
ANIL EGE ŞİRELİ

SUPERVISOR: ZÜHRE SÜ GÜL

3D MODELLING : REVIT & RHINOCEROS

ROOM ACOUSTIC TREATMENT

THE INTENTION OF THE PROJECT IS TREATING THE ROOM ACOUSTIC BY DECRASING THE REVERBERATION TIME OF THE STIDO FFZ08

PROBLEM :

- *HIGH REVERBERATION TIME*
- *LACK OF COMMUNICATION*
- *SOUND AS NOISE*

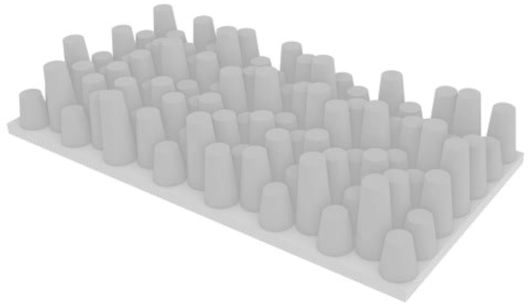
SOLUTION:

- *SUITABLE REVERBERATION TIME FOR A MULTIPURPOSE ROOM*
- *CLEAR CONVERSATION*
- *SOUND FOR GOOD*

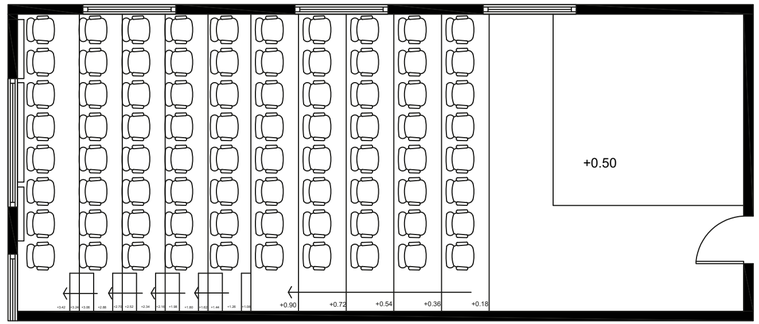
TO DECREASE THE RT OF THE ROOM, THE STUDIO IS TREATED WITH BOTH CEILING AND WALL ABSORBER PANELS

ABSROBER PANELS

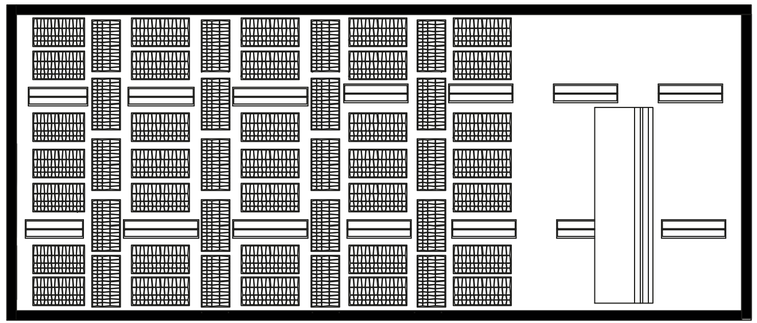
- *100% OF THE CARDBOARD CUPS ARE USED*
- *RECYCLED COFFEE CUPS*
- *6 DIFFERENT VARIATIONS*
- *120x60 m^2 SIZED PANELS*



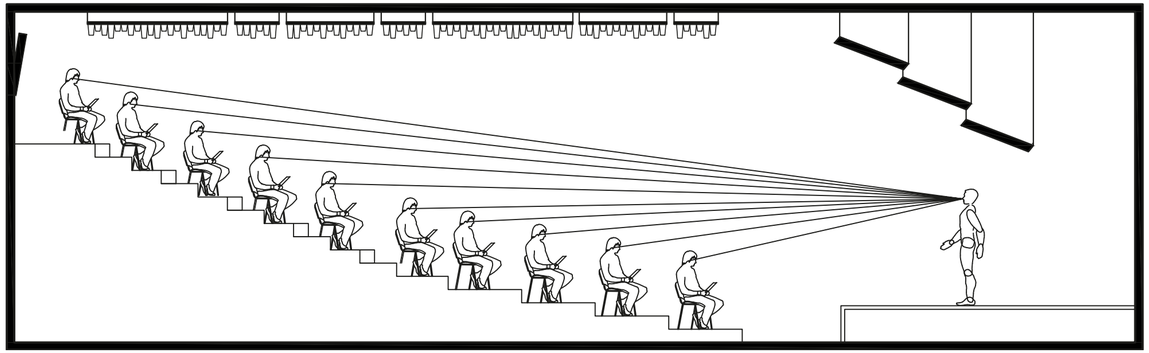
RAY TRACE DIAGRAM



FLOOR PLAN 1/100

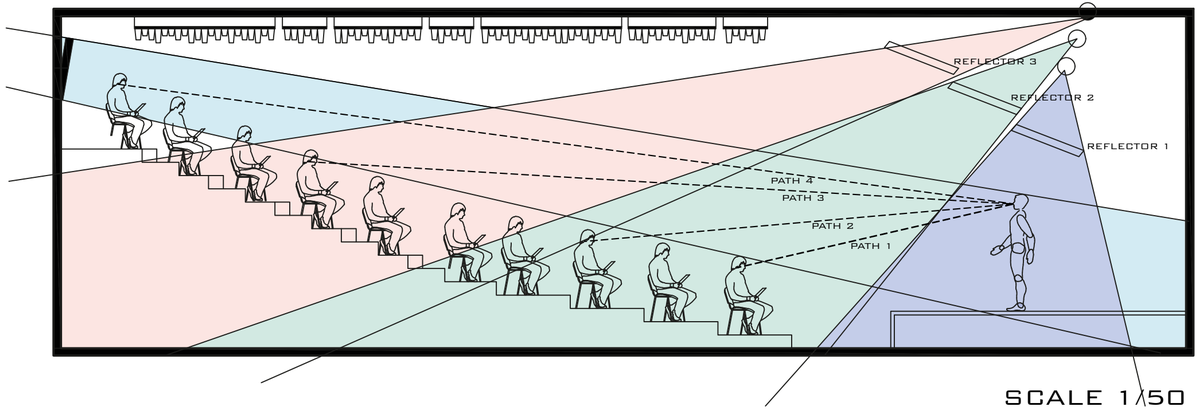


CEILING PLAN 1/100

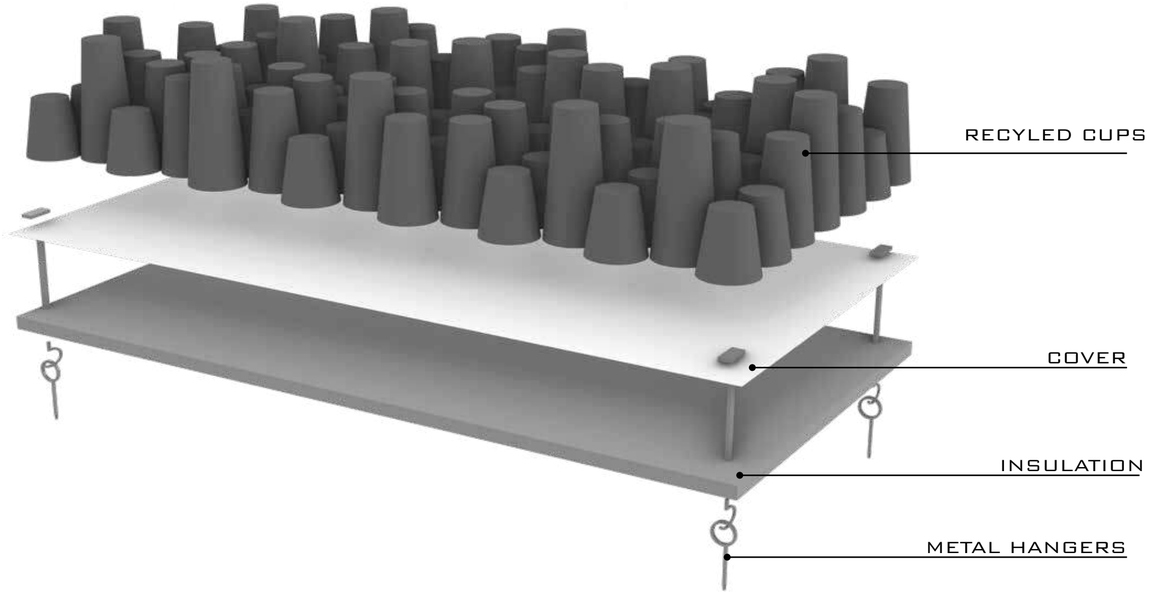


REFLECTOR COVERAGE AREA

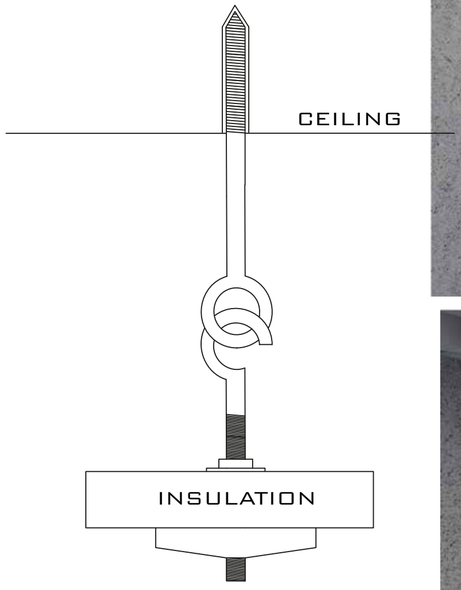
SCALE 1/50



SCALE 1/50



EXPLODED AXONOMETRIC



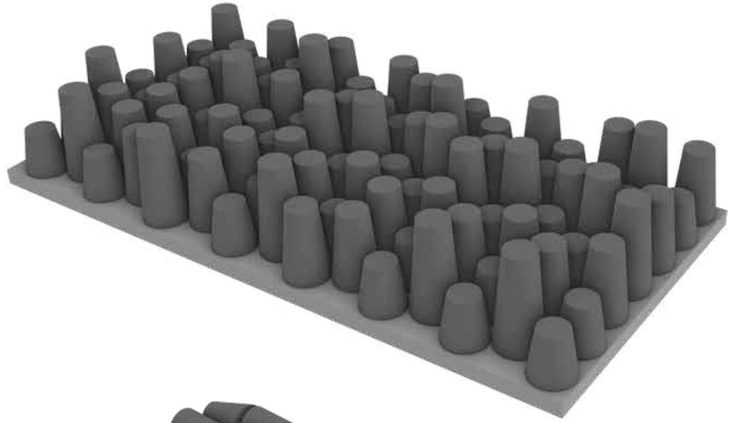
HANGING DETAIL

PHYSICAL MODEL OF THE ABSORBER PANELS

APPLICATION TO THE FFZ08 STUDIO

ABSORBER PANEL VARIATIONS

1.



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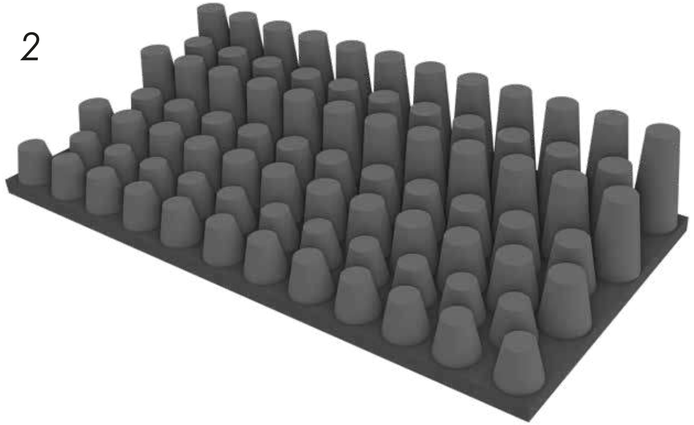

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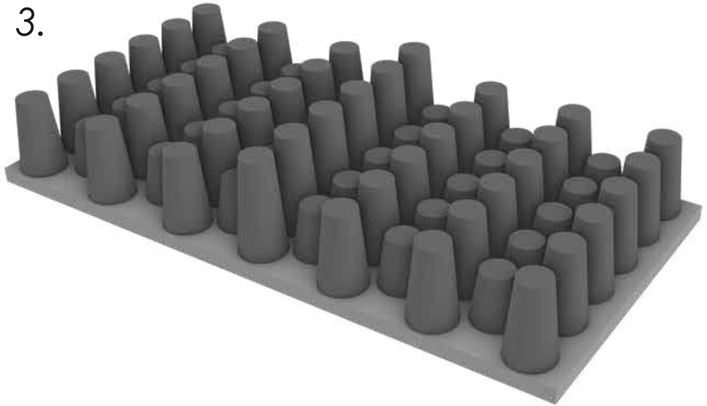

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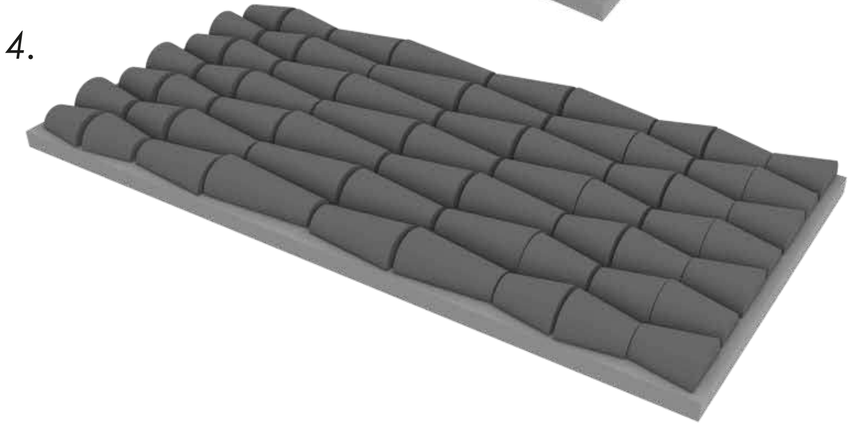

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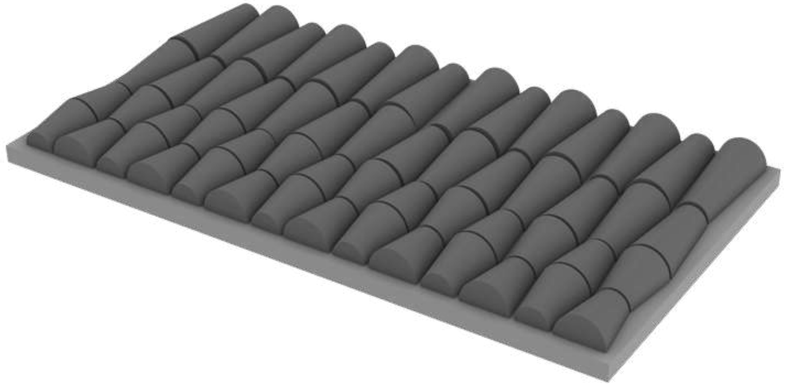

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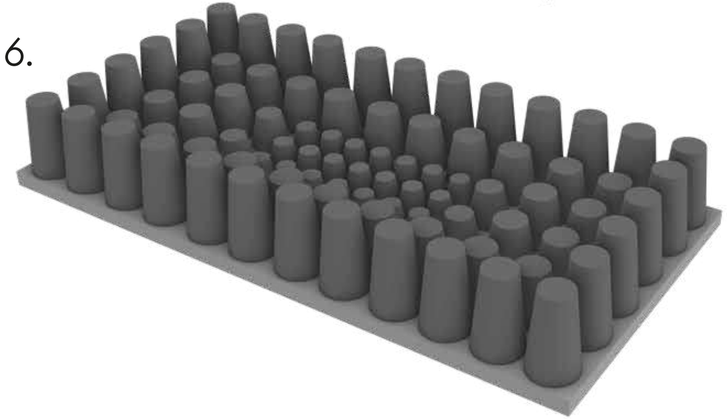


REVERBERATION TIME CALCULATIONS

CASE 1: INITIAL CONDITIONS

	Material	Surface Area (m²)
Floor	Ceramic tiles with smooth surface	95.1
Ceiling	Plasterboard on frame, 13 mm boards, 100 mm empty cavity	95.1
Wall	Concrete block, painted	175.3
Glass	Double glazing, 2-3 mm glass, 10 mm gap	16.0
Door	Wood 50 mm thick	2.0
Tables	Wood 50 mm thick	19.2

Table 1: Current materials and surface areas of the room surfaces.

	125Hz*	250Hz*	500Hz*	1kHz*	2kHz*	4kHz*
Floor	0.01	0.01	0.01	0.02	0.02	0.02
Ceiling	0.08	0.11	0.05	0.03	0.02	0.03
Wall	0.10	0.05	0.06	0.07	0.09	0.08
Glass	0.10	0.07	0.05	0.03	0.02	0.02
Door	0.15	0.11	0.10	0.07	0.06	0.07
Tables	0.15	0.11	0.10	0.07	0.06	0.07

Frequency (Hz)	Reverberation Time (s)
125	2.28
250	2.98
500	3.68
1000	3.71
2000	3.33
4000	3.42

Table 3: Final results of the conducted calculations regarding the current situation.

CASE 2: STUDIO SCENARIO

	125Hz*	250Hz*	500Hz*	1kHz*	2kHz*	4kHz*
Floor	0.01	0.01	0.01	0.02	0.02	0.02
Ceiling	0.08	0.11	0.05	0.03	0.02	0.03
Wall	0.10	0.05	0.06	0.07	0.09	0.08
Glass	0.10	0.07	0.05	0.03	0.02	0.02
Door	0.15	0.11	0.10	0.07	0.06	0.07
Tables	0.15	0.11	0.10	0.07	0.06	0.07
Absorbers	0.10	0.40	0.80	0.90	0.90	0.90

Table 4: Table presenting the proposed new conditions of the room surfaces in the studio scenario.

	Material	Surface Area (m²)
Floor	Ceramic tiles with smooth surface	91.5
Ceiling	Plasterboard on frame, 13 mm boards, 100 mm empty cavity	58.9
Wall	Concrete block, painted	175.3
Glass	Double glazing, 2-3 mm glass, 10 mm gap	16.0
Door	Wood 50 mm thick	2.0
Tables	Wood 50 mm thick	19.2
Absorbers	Recycled cups placed on 30 mm rock wool	32.6

Table 5: Table presenting the sound absorption coefficients related with the studio scenario.

Frequency (Hz)	Reverberation Time (s)
125	2.26
250	2.04
500	1.62
1000	1.49
2000	1.41
4000	1.44

Table 6: Final results of the conducted calculations regarding the new studio condition.

CASE 3: THEATRE SCENARIO

	Material	Surface Area (m²)
Floor	Ceramic tiles with smooth surface	13.7
Ceiling	Plasterboard on frame, 13 mm boards, 100 mm empty cavity	54.8
Wall	Concrete block, painted	149.8
Glass	Double glazing, 2-3 mm glass, 10 mm gap	6.3
Door	Wood 50 mm thick	2.0
Stage	Wood 50 mm thick	16.1
Seats	Wood 50 mm thick	61.8
Reflectors	Perforated Wood, circular hole (R: 10 mm), 5 cm cavity filled with rock wool	11.8
Absorbers	Recycled cups placed on 30 mm rock wool	32.6

Table 7: Table presenting the proposed new conditions of the room surfaces in the theatre scenario.

	125Hz*	250Hz*	500Hz*	1kHz*	2kHz*	4kHz*
Floor	0.01	0.01	0.01	0.02	0.02	0.02
Ceiling	0.08	0.11	0.05	0.03	0.02	0.03
Wall	0.10	0.05	0.06	0.07	0.09	0.08
Glass	0.10	0.07	0.05	0.03	0.02	0.02
Door	0.15	0.11	0.10	0.07	0.06	0.07
Stage	0.15	0.11	0.10	0.07	0.06	0.07
Seats	0.15	0.11	0.10	0.07	0.06	0.07
Reflectors	0.30	0.70	0.80	0.75	0.60	0.4
Absorbers	0.10	0.40	0.80	0.90	0.90	0.90

Table 8: Table presenting the sound absorption coefficients related with the theatre scenario.

Frequency (Hz)	Reverberation Time (s)
125	1.43
250	1.26
500	1.00
1000	0.98
2000	0.99
4000	1.04

Table 9: Final results of the conducted calculations regarding the new theatre condition.

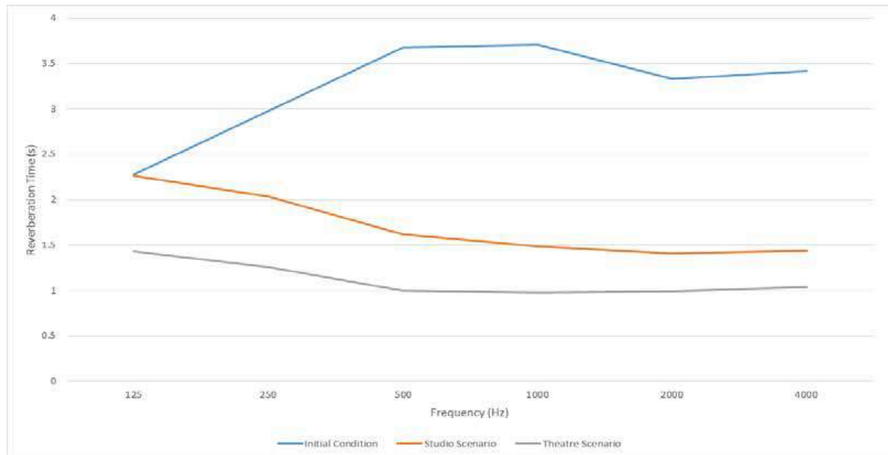
CALCULATION OF PATH LENGTH DIFFERENCE AND TIME DELAY GAP

Receiver Positions	1st Reflector Panel	2nd Reflector Panel	3rd Reflector Panel	Backwall
First Row		1.71	-	-
Third Row	-	1.40	-	-
Seventh Row	-	-	1.17	-
Tenth Row	-	-	-	1.50

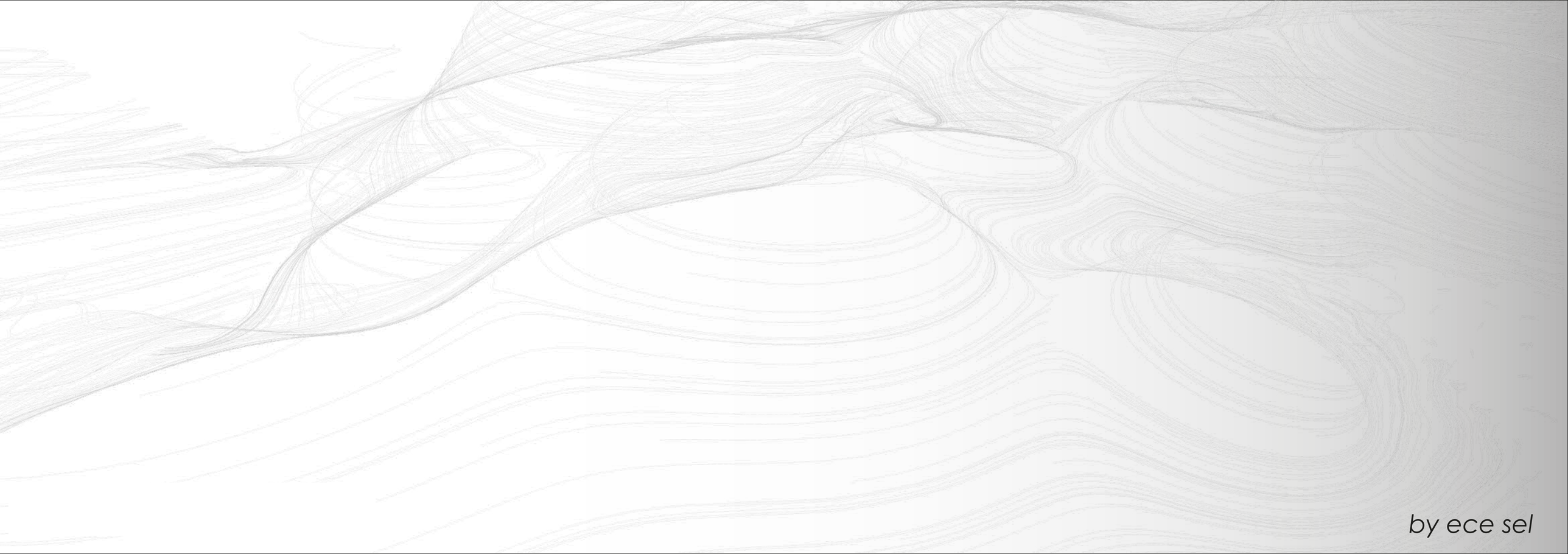
TABLE 1: TABLE PRESENTING THE PATH LENGTH DIFFERENCES OF THE THREE REFLECTORS.

Receiver Positions	1st Reflector Panel	2nd Reflector Panel	3rd Reflector Panel	Backwall
First Row	-	4.49	-	-
Third Row	-	4.00	-	-
Seventh Row	-	-	3.40	-
Tenth Row	-	-	-	4.37

TABLE 2: TABLE PRESENTING THE TIME DELAY GAPS.



GRAPH 1: GRAPH ILLUSTRATING THE DIFFERENCE IN REVERBERATION TIMES OF ALL CASES.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