

ANA-MARIA
BULUGEA

ARCHITECTURE

Berlin International University of
Applied Sciences

P O R
T F O O
L I O

2020 - 2024

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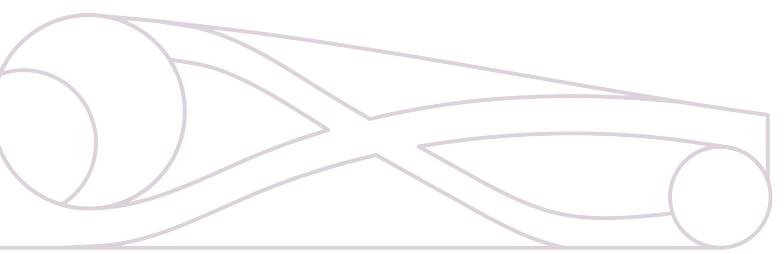
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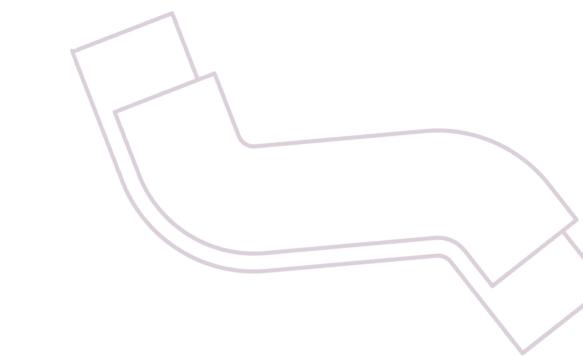
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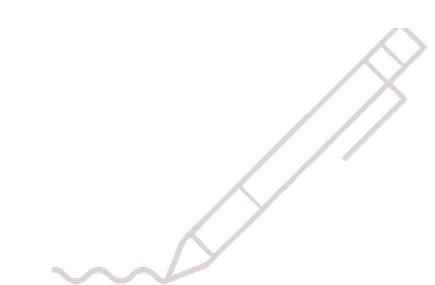
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I. VERONA 2025-2125

(SIMULATED SIMULACRA)

6th Semester Project

International Architecture Seminar "Verona. Spirito | Zoo"

Project Partners : Ema Humajova, Liam Moeller, Sofia Escandon, Yana Rudasevschi

Location: Verona, Italy

Professors: Prof. Dr. Giorgia Aquilar, Marzio Di Pace

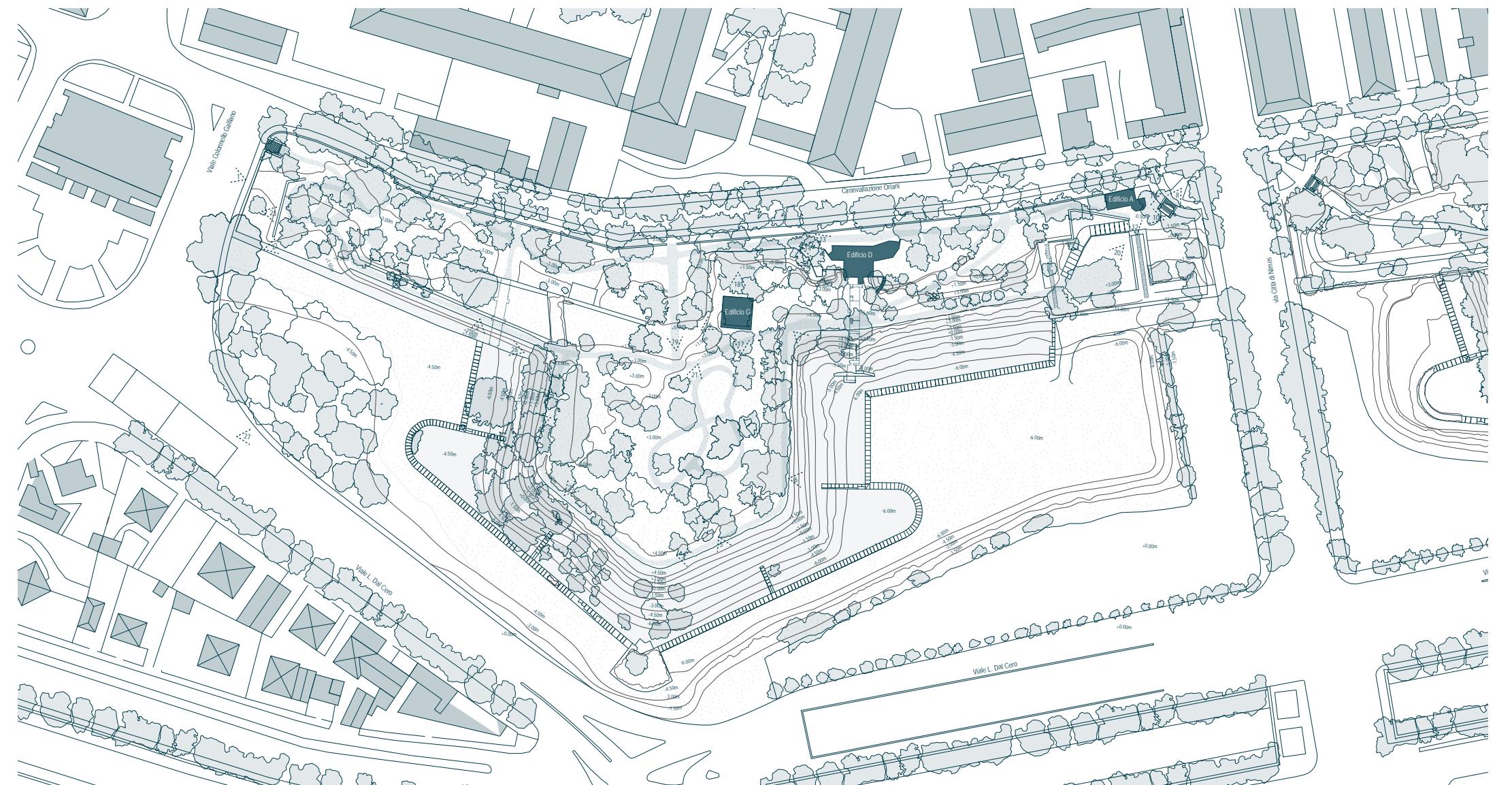
Duration 1st phase (Echo): 5 weeks

Duration 2nd phase (Simulated Simulacra): 2 months

Softwares used: Photoshop, Rhino 3D, Autocad

Main tasks: Concept development, working on everything related to my sector of the undergorund city (doing the 3D model, doing the 2D line-work, photoshopping the view), merging the final line-work view





Site Plan provided by the Municipality of Verona

INTRODUCTION

Verona 2025-2125 was developed through the participation at the International Architecture Seminar “Verona. Spirito | Zoo”. The Seminar is part of the research project “Laboratorio Verona. Architetture del Made in Italy,” promoted by the Municipality of Verona and the editorial centre PARD of the research infrastructure IR.IDE of the Department of Architecture and Arts at luav.

Verona 2025-2125 envisions future scenarios for the site of the Bastione Santo Spirito, part of the fortification walls of the city, listed as UNESCO World Heritage Site. The area—also known as the ex-Zoo, for the function it hosted between 1962 and 1989—is part of the Parco delle Mura, the city-wall park which has been witnessing the abandonment of its structures over the last twenty years.

Verona 2025-2125 was developed in two phases.

Phase 1: Verona 2025. the monumental, the ephemeral, the multispecies (ECHO)

This phase traces visionary and strategic proposals with regard to the guidelines provided by the real-world requirements defined by the International Architecture Seminar. At the same time, the proposals are intended as statements concerning the topic of the “monumental” and the “ephemeral” in architecture. This phase was part of the Seminar’s final Exhibition in Verona.

Phase 2: Verona 2125. future anterior (SIMULATED SIMULACRA)

This phase outlines a more distant future in which the city would face new challenges, needs, and emergencies to which architecture is called to respond. This phase was developed for the purpose of the academic course.

CONCEPT DEVELOPMENT

The project showcases a dystopian future-scenario for the next 100 years, in which the climatic conditions have become so harsh that humans are forced to live and develop a society underground. The proposal presents a holistic understanding of the fictional underground city, taking into account not only its physical aspects but also the human experiences and interactions that shape its character.

The design develops in phases of 20 years, in which changes in design, ideology and social constructs are being made by the new human kind generation.

From 2025-2045 the environments starts becoming uninhabitable for long periods of time and humans create geodesic domes around the existing buildings on site for shelter.

From 2046-2065 people are in a "state of emergency", where new bunkers are being built and existing tunnels are being renovated.

Luxuries such as having a public space or privacy are none existent in a situation where staying alive is the most important thing.

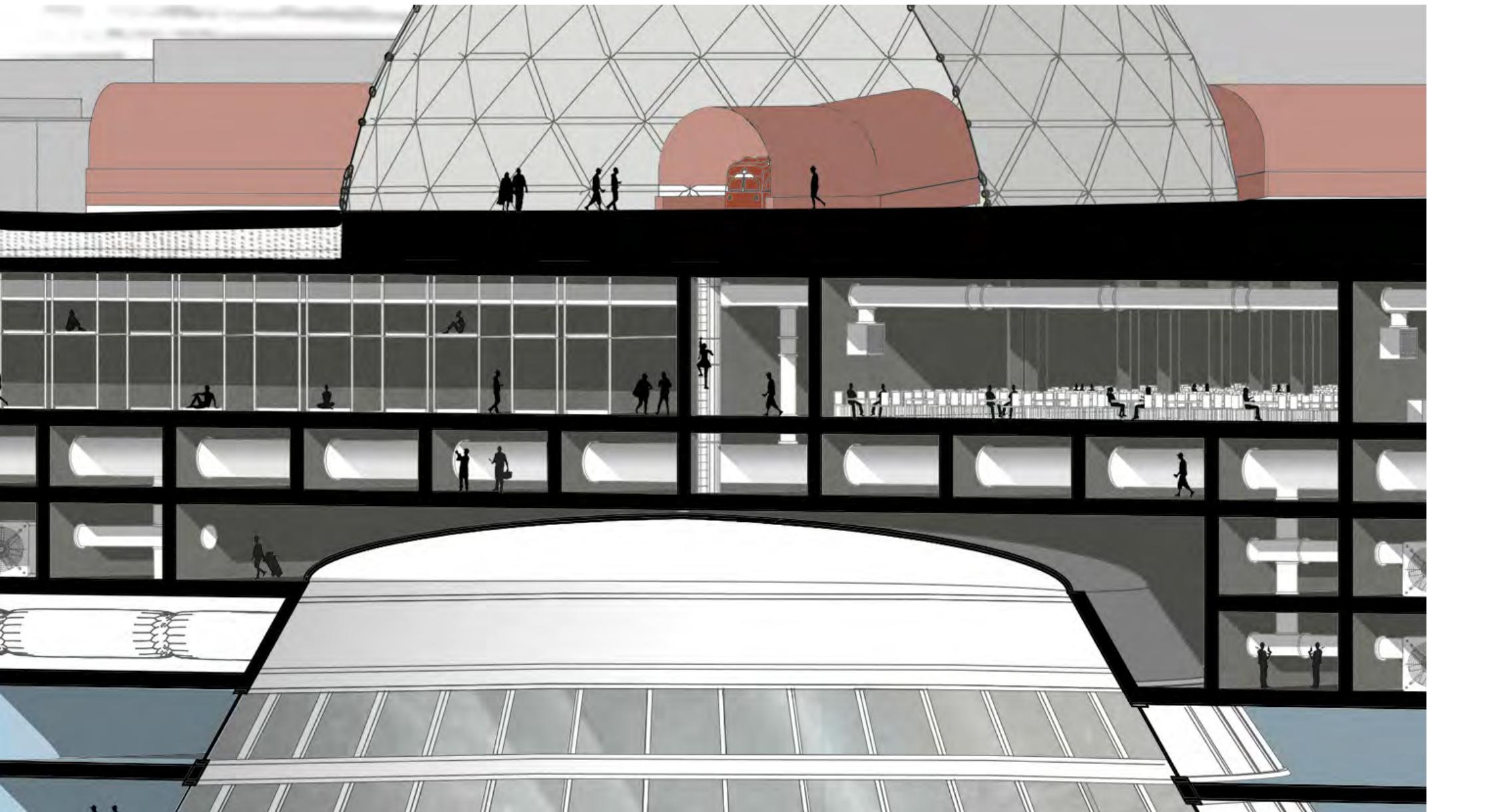
From 2066-2085 going outside without a special suit would kill anyone. People have realized that going back to the earth's surface is not possible so they are trying to develop an underground city that could sustain life. They have built apartments with public spaces in between. They have implemented an industrial sector as well as ways of purifying the outside air. They have created their own inner-environment with giants led screens that resemble a sky-light over a public space. They also build a school in which they can educate the next generation.

From 2086-2105: By this time social classes are starting to form in this new society. A new apartment complex is build for the

richer population, where every block is different and exciting. They also have the luxury of real nature being planted in their new public space. They also build offices for the businesses, as well as a public transport system and a commercial area.

From 2106 - 2125: After 80 years of living only in apartment blocks, the most upper class of society can live in an artificial suburb where they have their own LED dome on which they can program any weather, independent from the rest of the public spaces. Moreover, they could even buy their own individual dome over their house to customise even more their wheather experience.

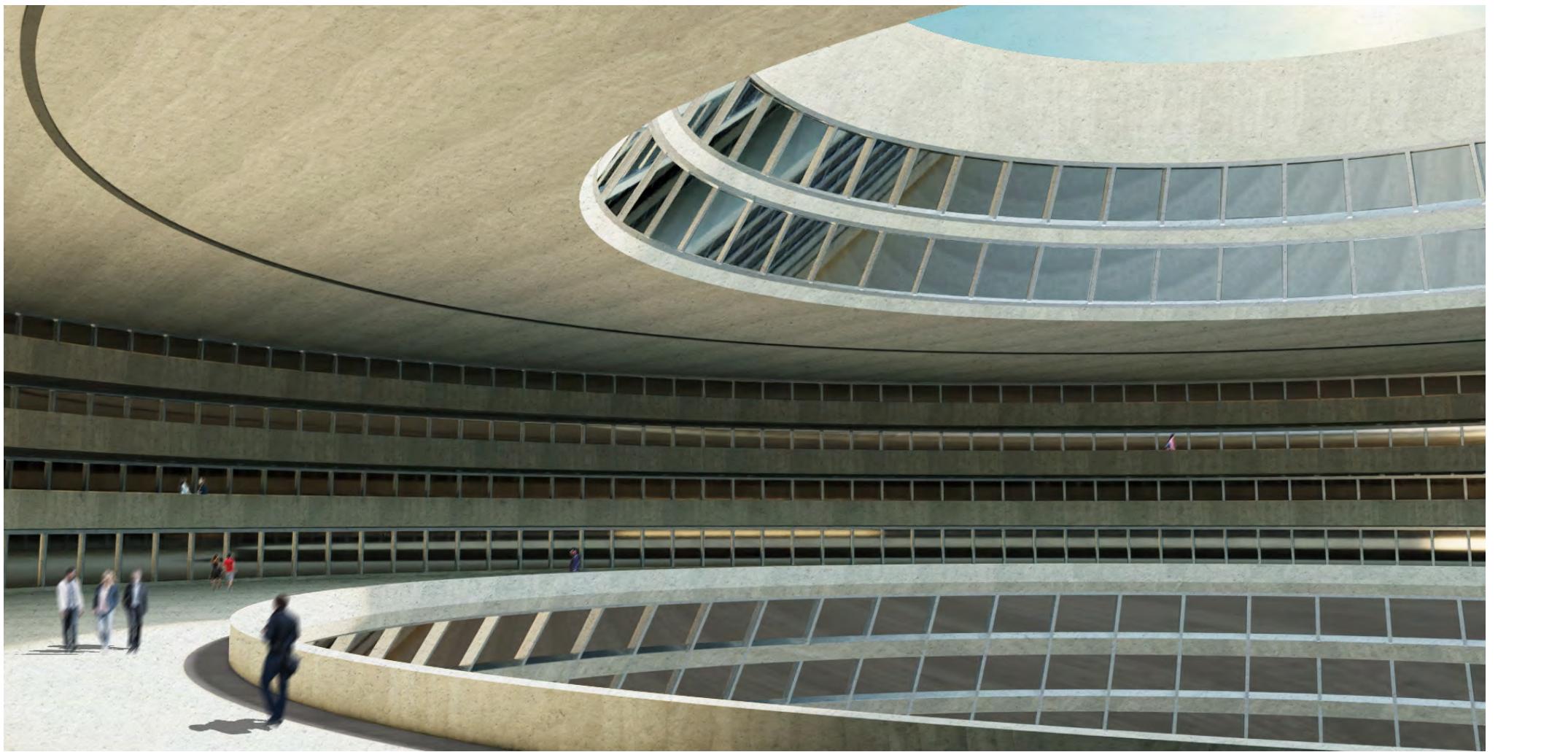
This new society lives in a simulation of the earth from 100 years before. The new generation has never been on the surface of the earth and only knows of it from books or movies.



Bunkers and the fake-skylight maintenance rooms



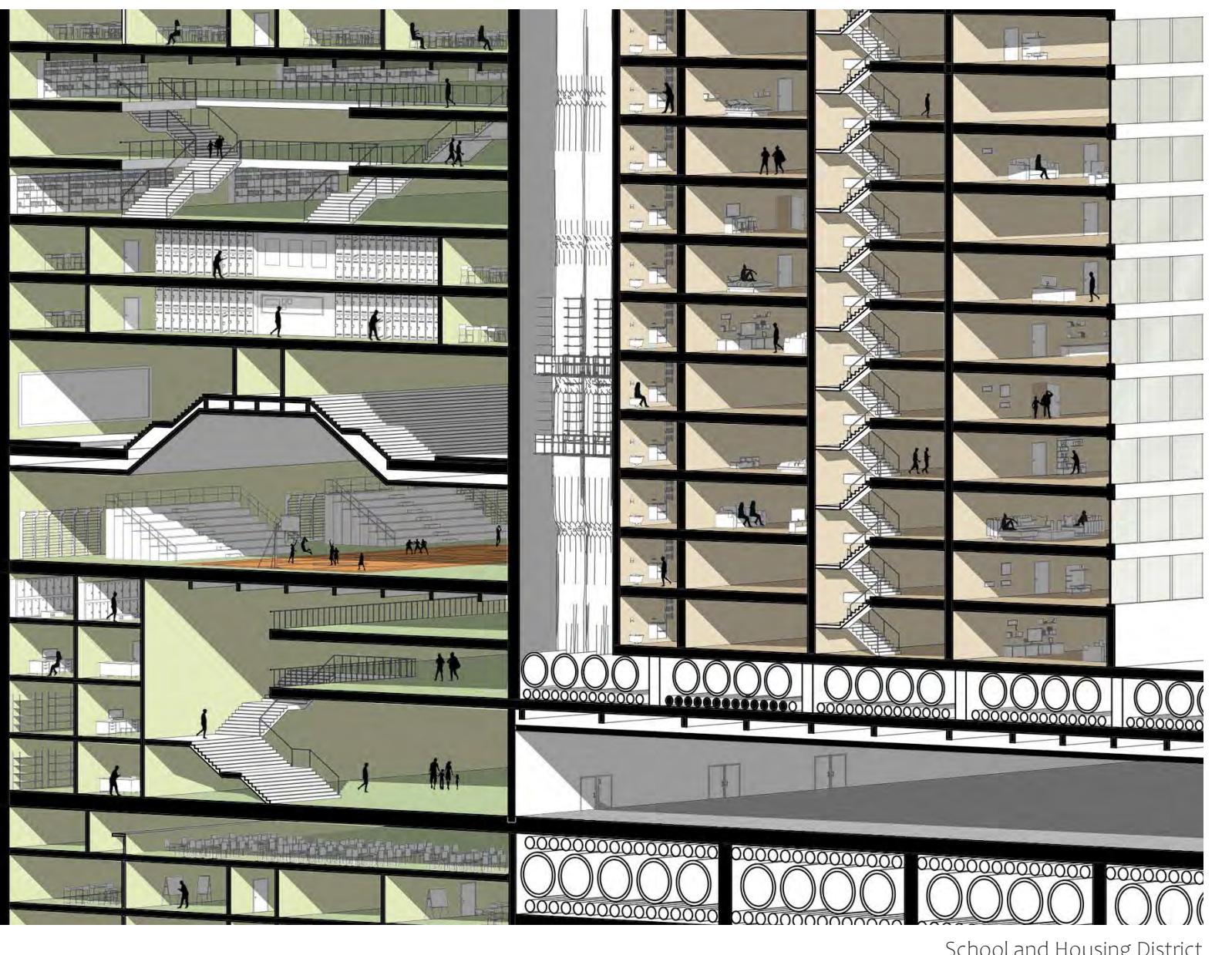
Bunkers view



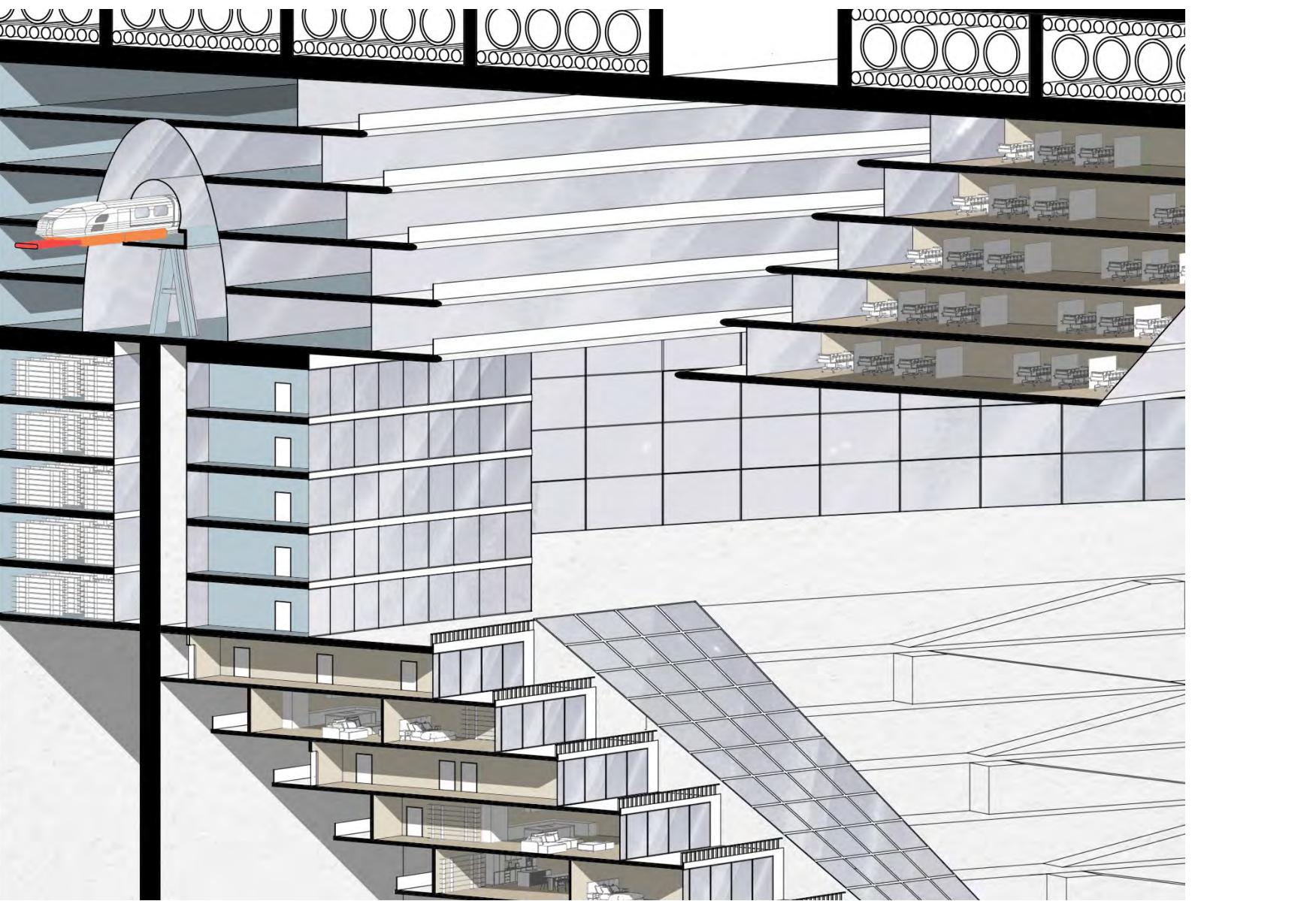
The first Public Space and the fake sky-light view



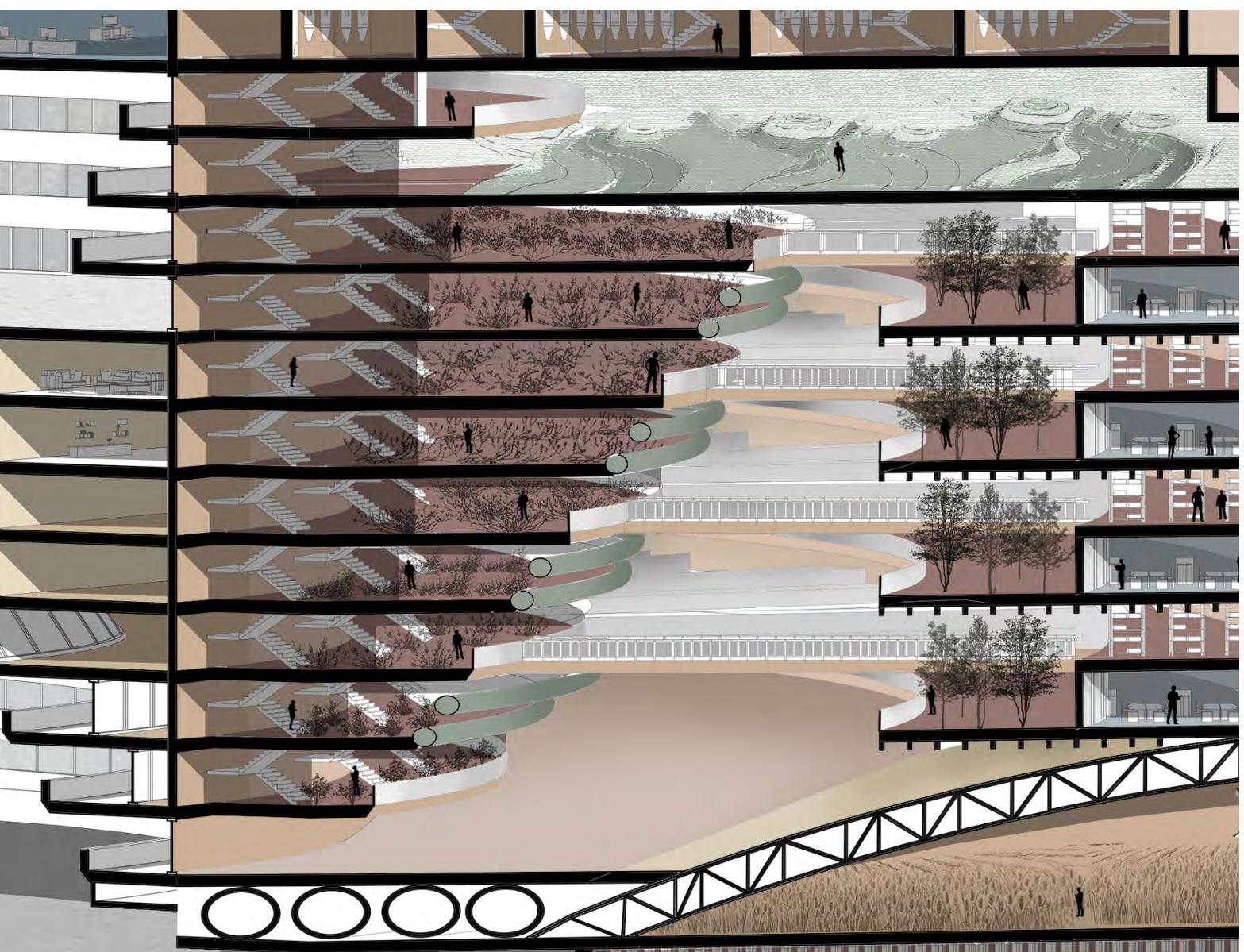
View from the suburbs



School and Housing District



Offices district



Industrial district

I. VERONA 2025-2125

(ECHO)

6th Semester Project

International Architecture Seminar "Verona. Spirito | Zoo"

Project Partners : Ema Humajova, Liam Moeller, Sofia Escandon,

Yana Rudasevski

Location: Verona, Italy

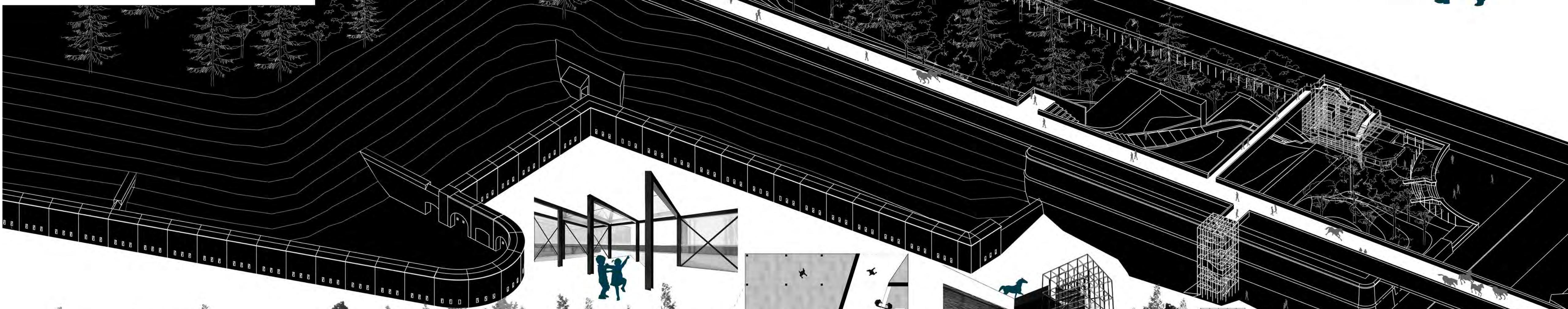
Professors: Prof. Dr. Giorgia Aquilar, Marzio Di Pace

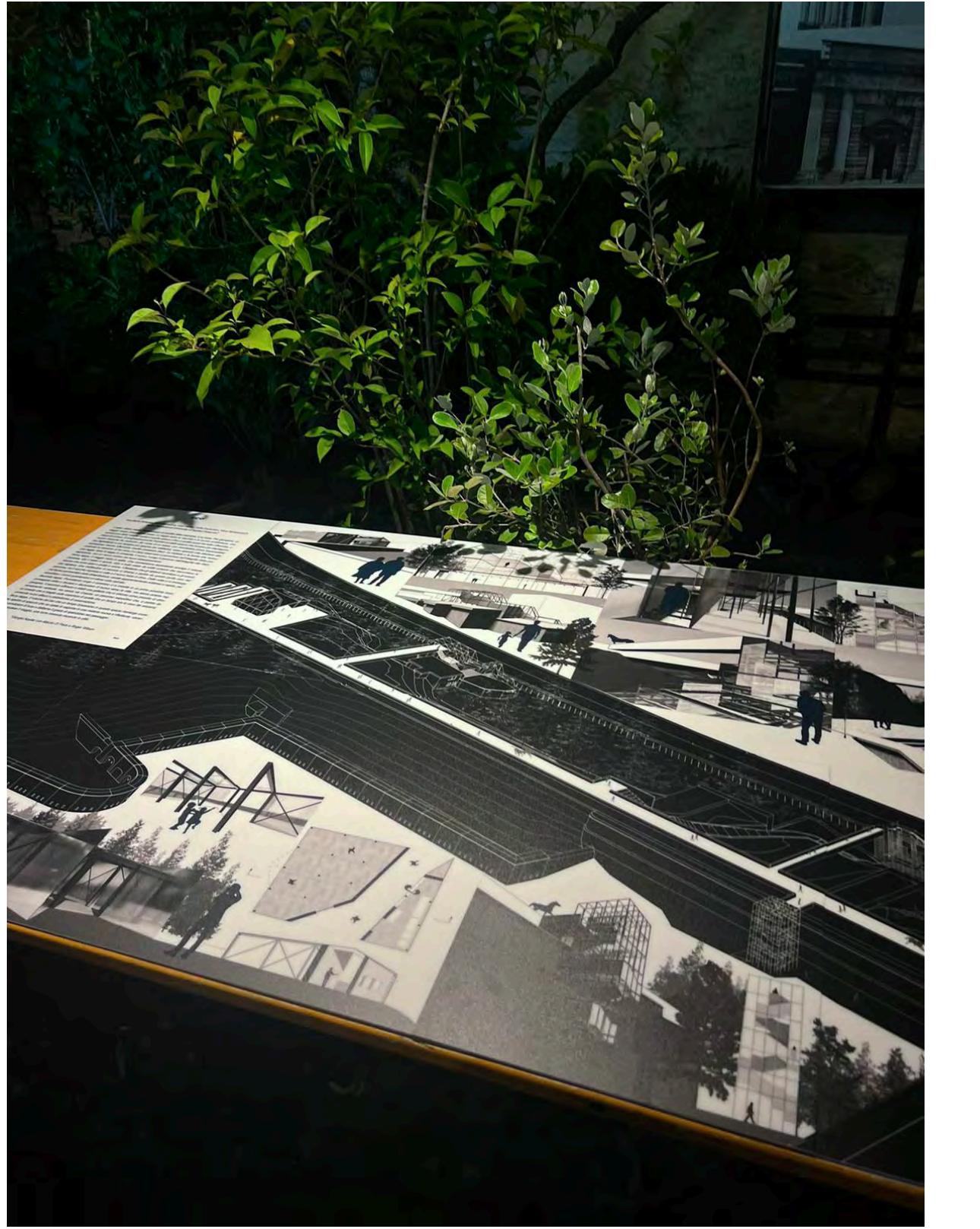
Duration 1st phase (Echo): 5 weeks

Duration 2nd phase (Simulated Simulacra): 2 months

Softwares used: Photoshop, Rhino 3D, Autocad

Main tasks: Concept development, preparing the main line-work axonometry and photoshopping it, working on everything related to my assigned building (designing a solution, doing the 3D model, doing the section), preparing the base for the majority of the perspective views for a later post-production by someone else, Working on the topography.





Proposal exhibited in the Exhibition at Porta Palio, Verona



Publication: *Ephemeral and monumental architecture. Verona laboratory* by Sara Marini, Alberto Petracchin, Luca Zilio. Published by Ancore

CONCEPT AND DESIGN DEVELOPMENT

For this first phase of the project, the requirements were: to renovate the 3 existing buildings on site, to implement a vertical connection and to design a bridge that would unite the 2 neighbouring Bastione over the street for the horses shows that take place there each year.

The memory of the zoo is held in a much firmer grasp by the memories of the community, which is not reflected in its current state. Despite efforts to revive the site's connection to its past, it still seems forgotten, at least in its own ephemeral memory. The aim of this project is to highlight this act of forgetting as a journey through the site.

To achieve this 'journey of forgetting', the concept of oblivion was taken into consideration. Oblivion, in the topic of memory, is the last stage of the forgetting process. It is the stage of being forgotten, especially by the public - by the collective memory. This collective memory can be represented by a path, that leads to that inevitable oblivion. Along this journey, there are certain ephemeral memories that one comes across. These memories fluctuate between the past and the future. This, we represented through the interventions. Each structure along the path to oblivion is ephemeral - they are all there, but fleeting. These structures use materials that were used in the original zoo: steel, glass, fabric or membranes, hoping to spark some individual memories tied to the site's history.

II. BLANK CANVAS

5th Semester Project

Interdisciplinary Project - Project Partners : Alice Brindemark,
Luna Gilly, Nina Lopac (interior architects); Rena Sawaed, Viviana
Wilhelm (architects); Katsiaryna Horbava, Lia Tarakji (graphic
designers)

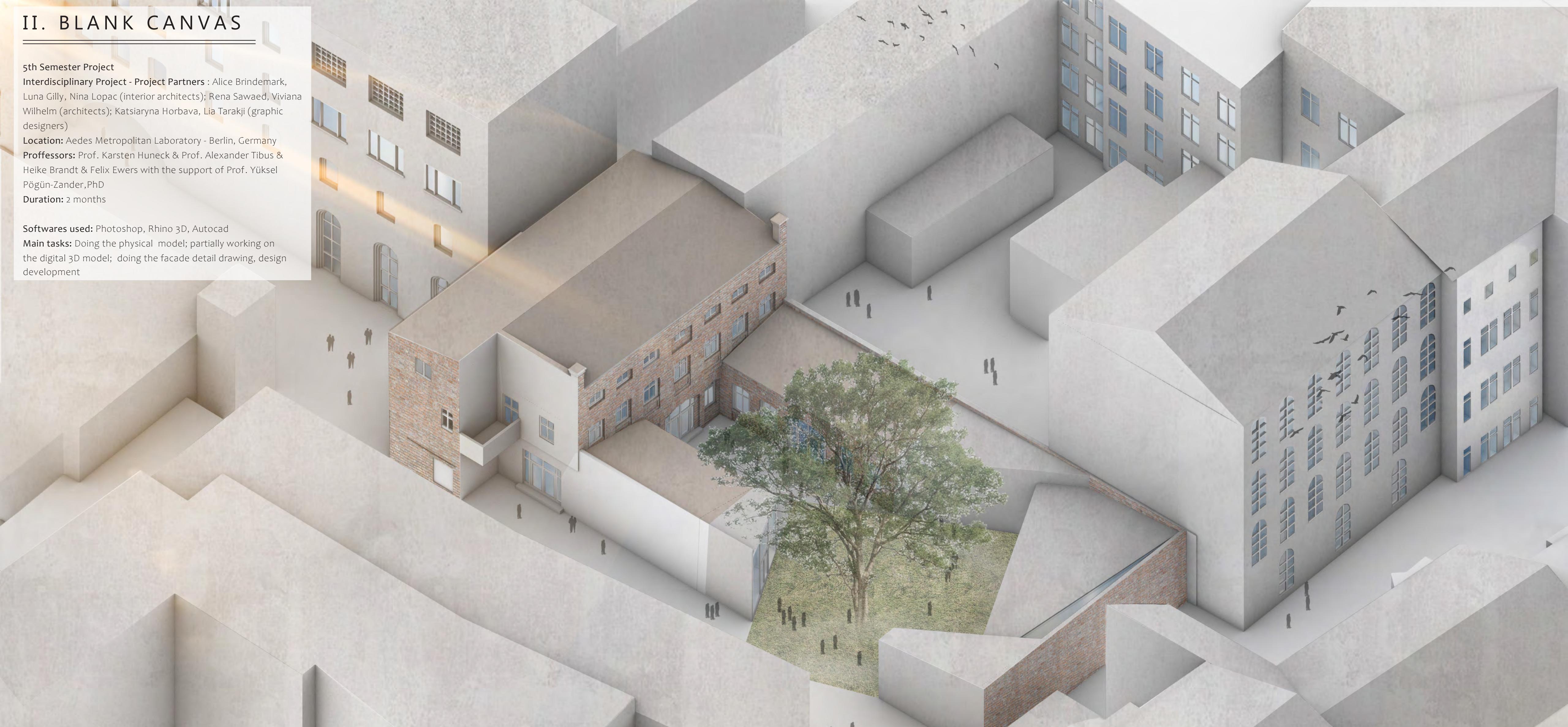
Location: Aedes Metropolitan Laboratory - Berlin, Germany

Professors: Prof. Karsten Huneck & Prof. Alexander Tibus &
Heike Brandt & Felix Ewers with the support of Prof. Yüksel
Pögün-Zander,PhD

Duration: 2 months

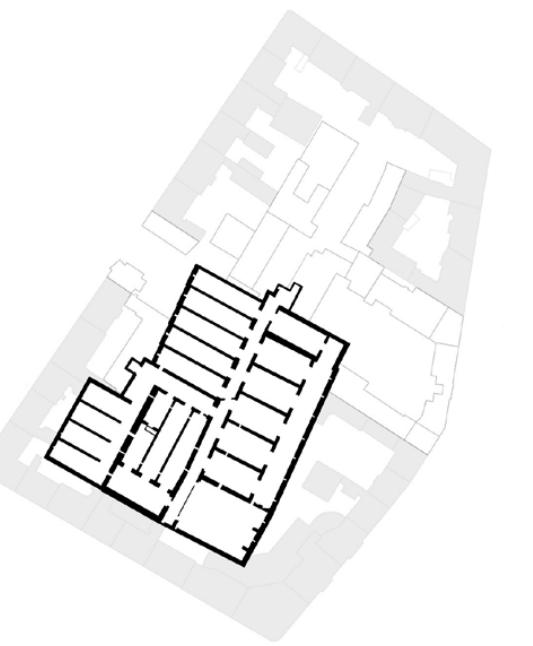
Softwares used: Photoshop, Rhino 3D, Autocad

Main tasks: Doing the physical model; partially working on
the digital 3D model; doing the facade detail drawing, design
development



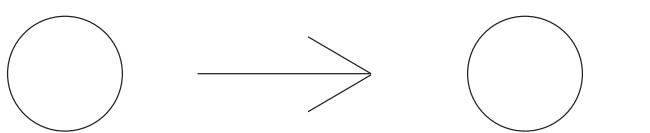


Pfefferberg Diagram showing the people's paths around the site



Existing Kellers which are not seen from above

SITE FUNCTIONS DEVELOPMENT



Chocolate factory

Bread factory

Printing Shop

Cultural and artistic center



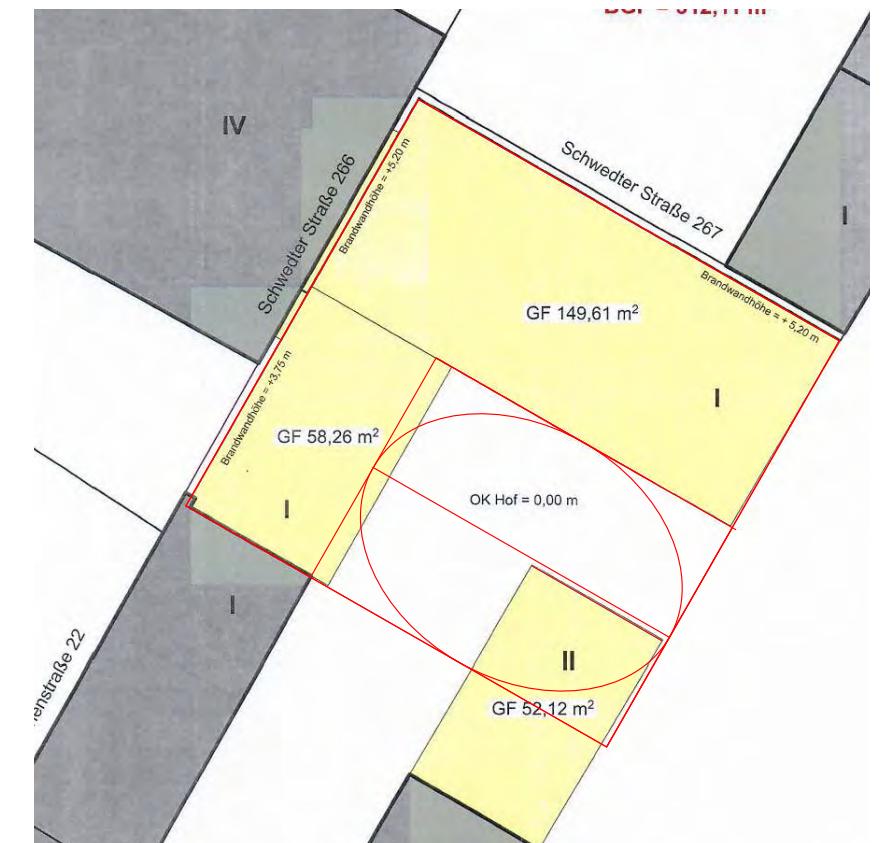
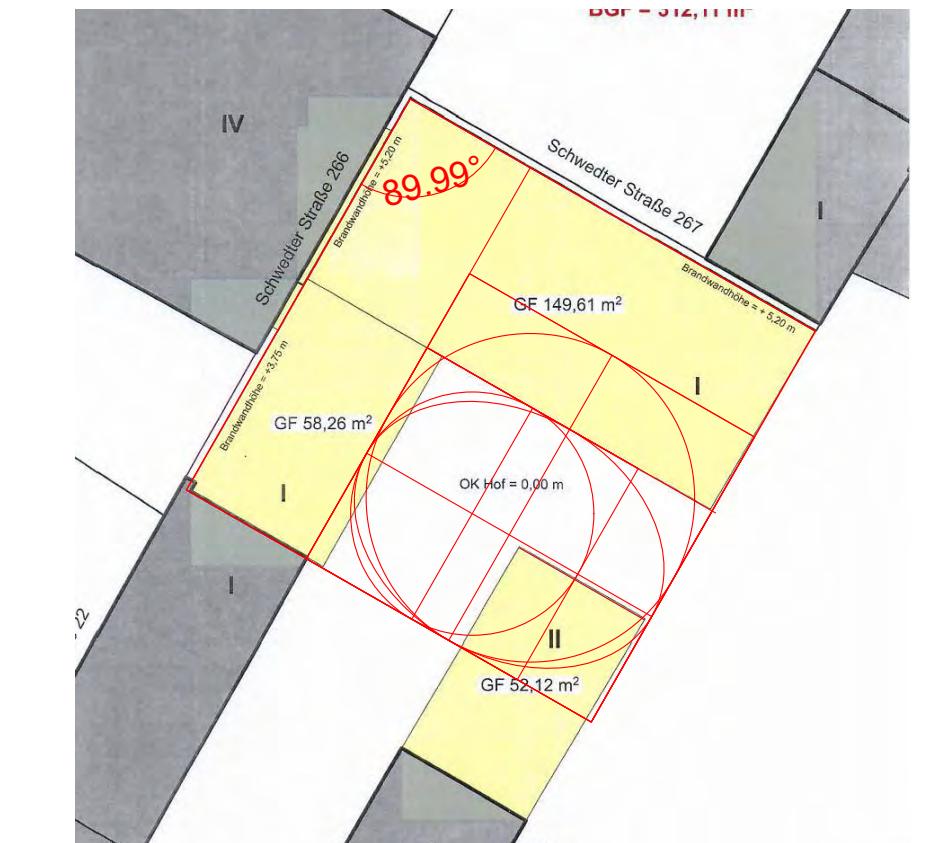
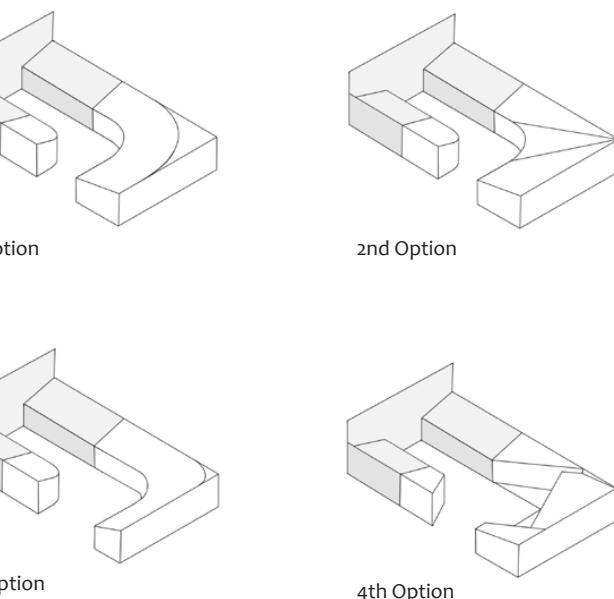
INTRODUCTION

For this project we worked together with the Aedes Architecture Forum and the Aedes Metropolitan Laboratory to design an extension in their backyard which will serve as a Communication Hub . This was an interdisciplinary course, where I worked together with other 2 architecture students, 3 interior architecture students and 2 graphic design students which re-designed their branding strategy.

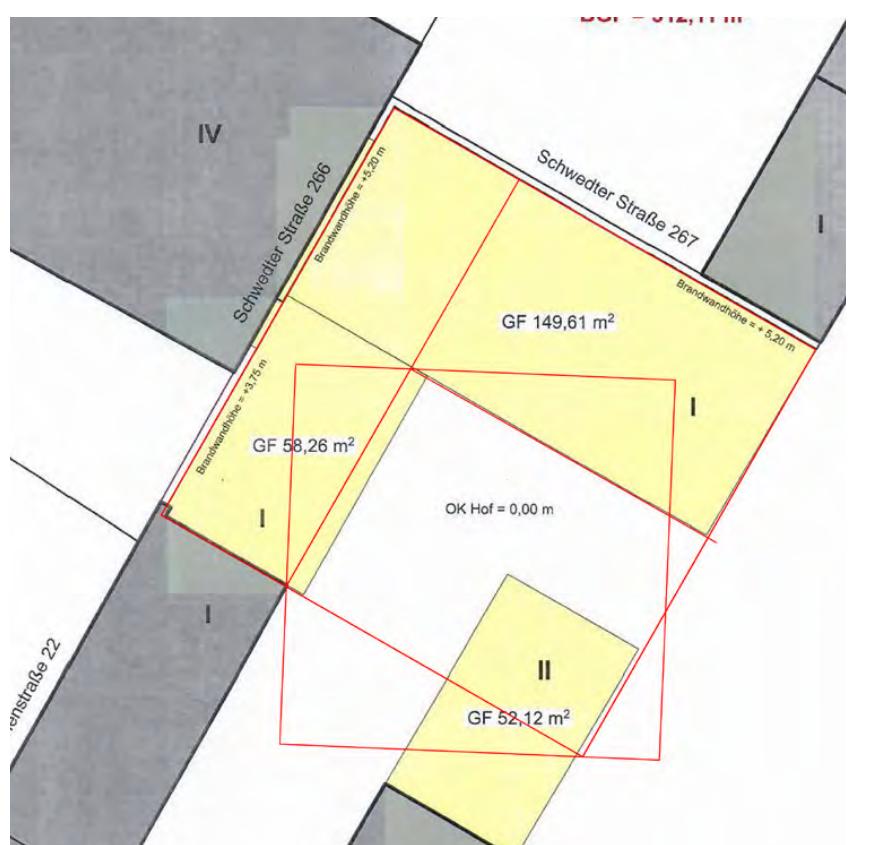
SITE ANALYSIS

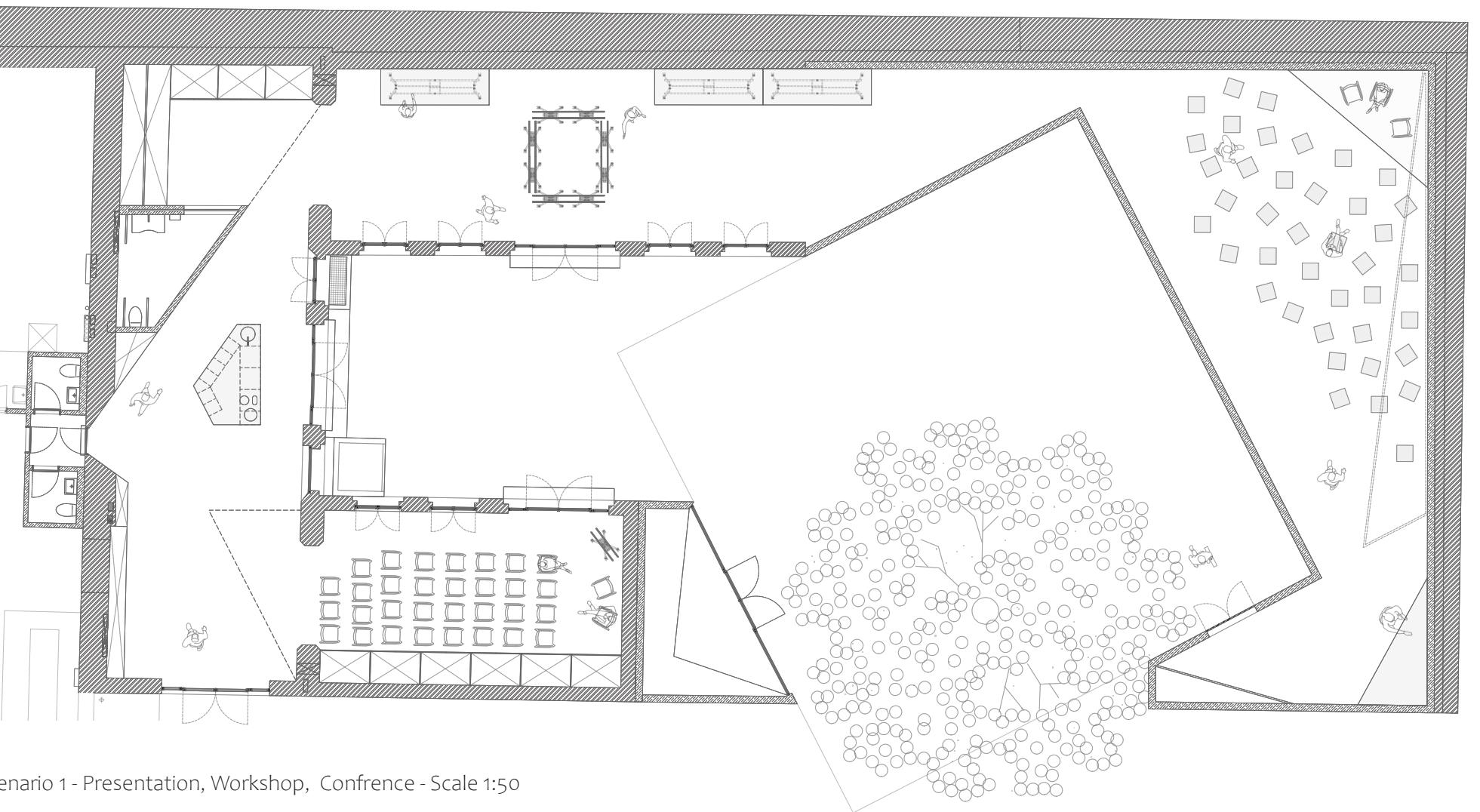
Aedes is located in the Pfefferberg complex, in units 8 and 10.

Pfefferberg was a former brewery established in 1982 and along the years it hosted many functions. From the site analysis we came to the conclusion that there's more to it than meets the eye. It has an explorative characteristic due to the arrangement of the buildings on the site, always requiring you to go over a corner to explore more of it. The site itself embodies the ideas of creation and innovation, being rethought as a cultural and artistic center. It's ever changing functions show it's flexibility.

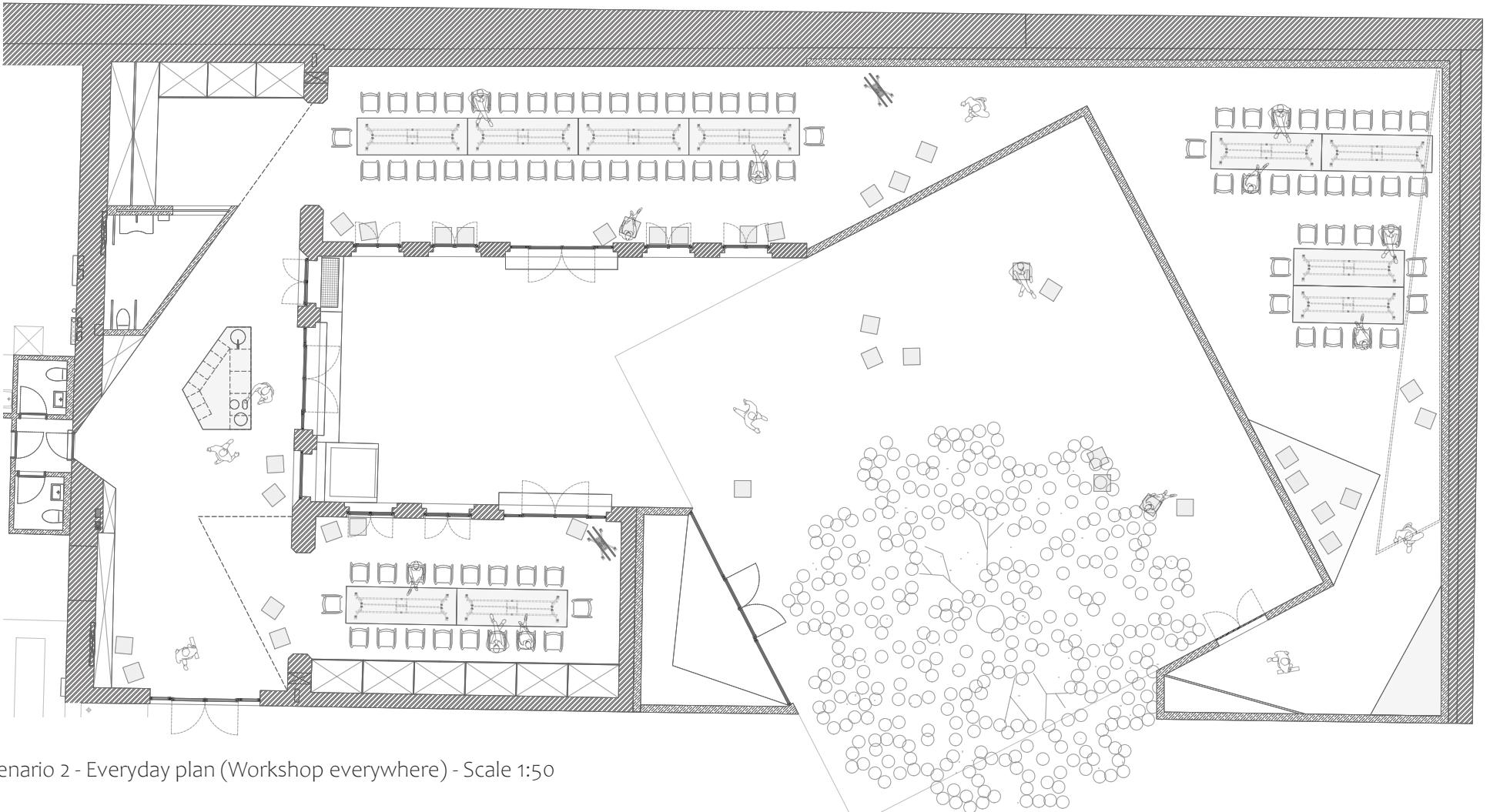


Site Geometry exploration



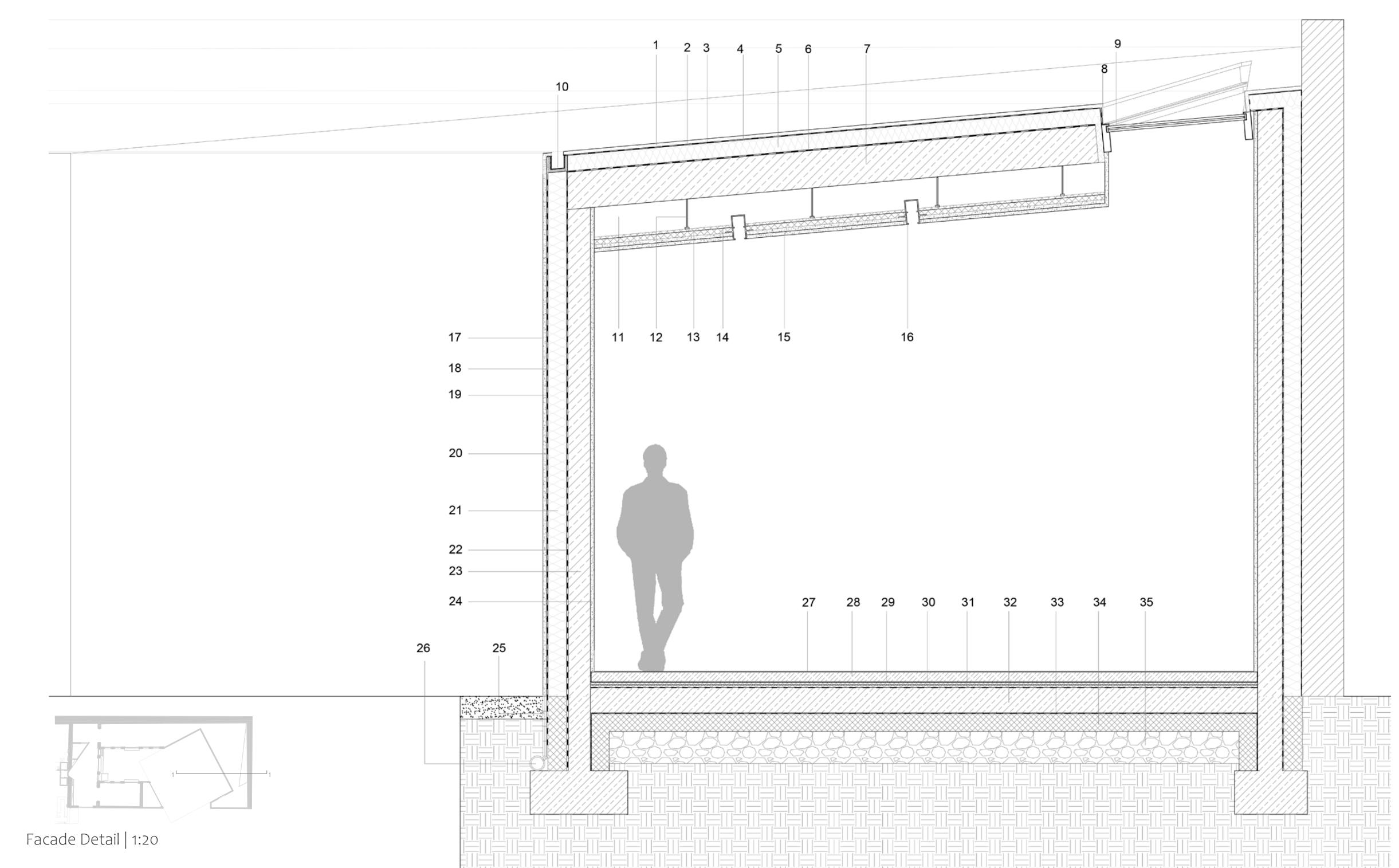


Floorplan Scenario 1 - Presentation, Workshop, Conference - Scale 1:50



Floorplan Scenario 2 - Everyday plan (Workshop everywhere) - Scale 1:50

Roof built up (from top to bottom):		Suspended ceiling:		Wall build up (outside - inside):		Floor build up:	
1. Plaster-cement	30 mm	11. Clear Opening	240 mm	17. Plaster-cement	30 mm	27. Microcement	3 mm
2. Primer		12. Hanger		18. primer		28. Screed	80 mm
3. Metal lash		13. Supporting profile	40 mm	19. Metal LASch		29. Separation Plastic layer	4 mm
4. Waterproof layer	3 mm	14. Acoustic Insulation	60 mm	20. Waterproofing layer	2 mm	30. Sound insulation	20 mm
5. Insulation	150 mm	15. Plasterboard	60 mm	21. Insulation	150 mm	31. Vapour membrane	4 mm
6. Vapourbarrier	4 mm	16. Lights Track		22. Vapour Barrier	2 mm	32. Concrete slab	200 mm
7. Load-bearing concrete	300 mm	Total	360 mm	23. Load bearing concrete	200 mm	33. Vapour Barrier	4 mm
8. Window drainage gutter		Total	487 mm	24. Plaster-cement	30 mm	34. Insulation	
9. Skylight				25. Filter layer	30 mm	35. Gravel	
10. Hidden gutter				26. Drainage		Total	315 mm





View to the courtyard - Outdoor Presentation/Event Set-up



Workshop area - Workspace set-up



Model Pictures



The new extension - Exhibition set-up



Physical Model | Scale 1:50



Extension area - Exhibition set-up

III. HEAD, HEART OR GUT?

4th Semester Project

Project Partner: Rahma Aly Mohamed Aly

Location: Olympiapark's old S-bahn station - Munich, Germany

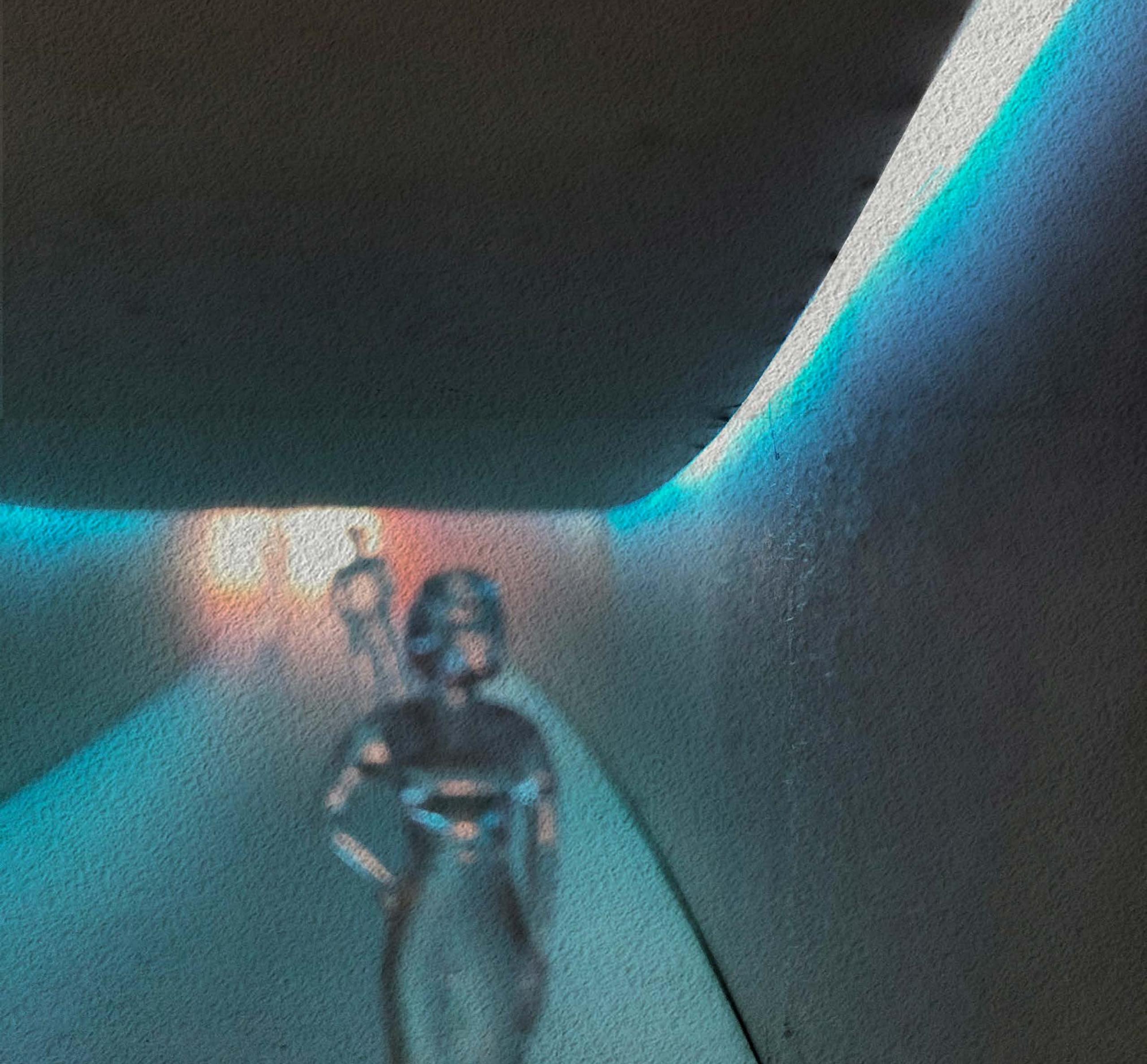
Professors: Prof. Karsten Huneck, Prof. Jeanne Fischer, Dipl. Ing.

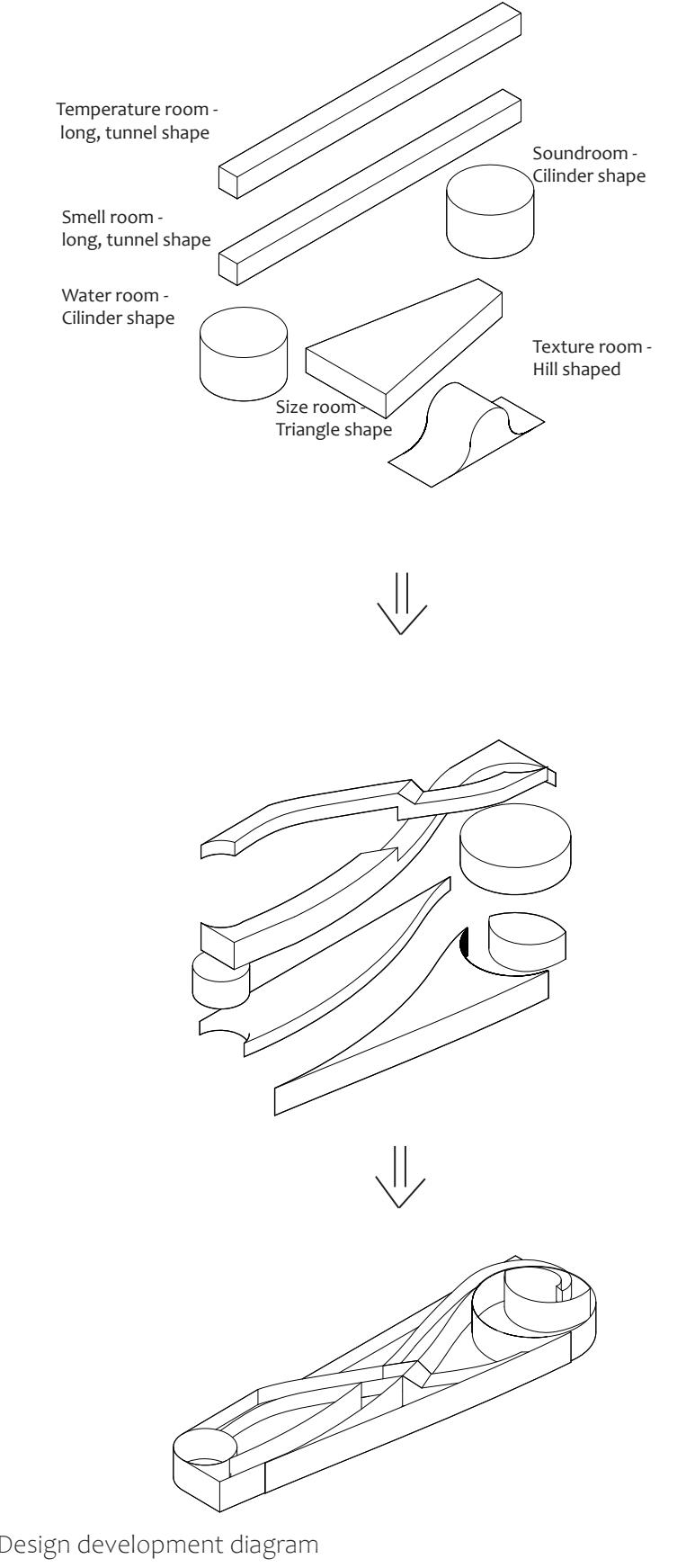
Bernd Trümpler, David Conner.

Duration: 4 months

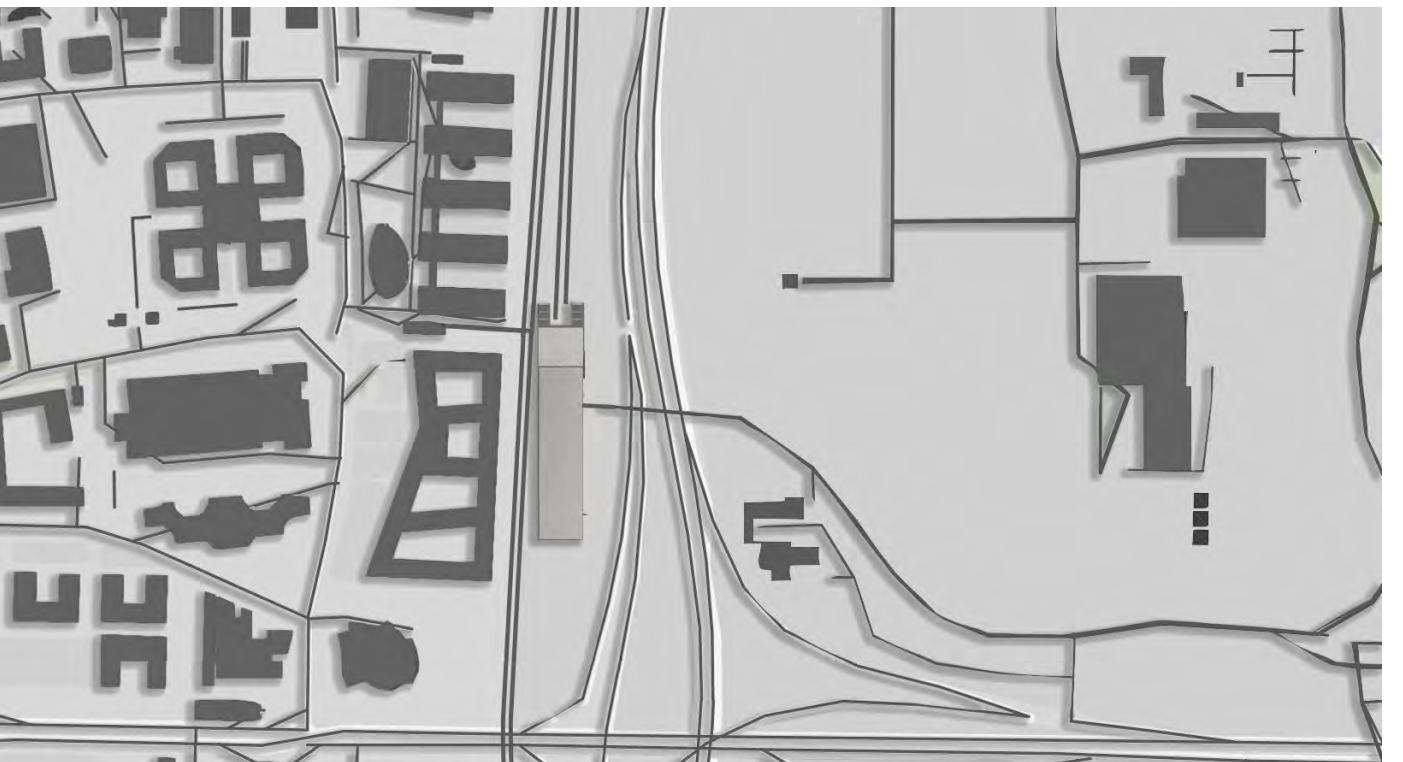
Softwares used: Photoshop, Autocad, Adobe Premiere Pro

Main roles: Working on the physical model together with my partner; Doing the visuals (interior views - model shots; one exterior view, short experiential videos); doing the facade detail drawing





Design development diagram



SITE ANALYSIS

In our perception, the building lets its users choose how they want to interact with it, based on their own willingness of discovery. This character it's present on the top part (choose to go forward and interact with the building or choose to ignore it) and on the bottom part as well (choose to follow the railway that goes inside the station and interact with it, or choose to take the other railway and ignore the building completely).

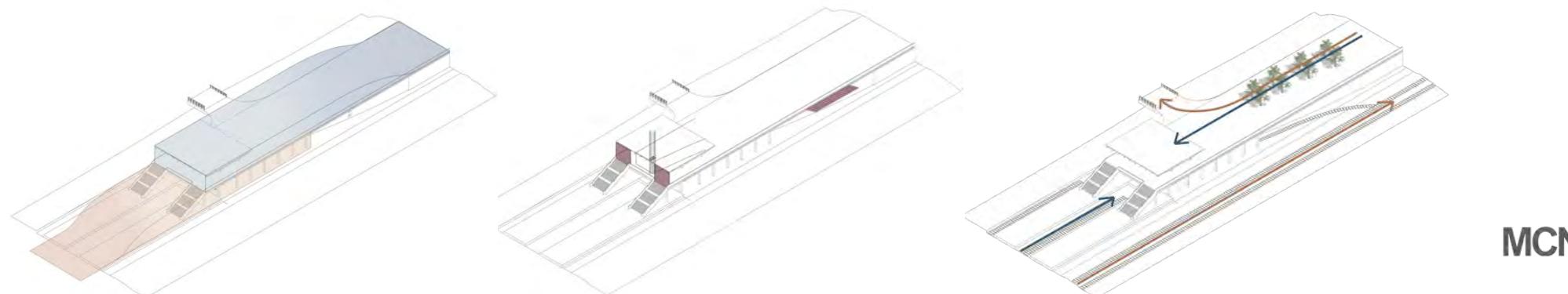
These observations lead us to question HOW DO PEOPLE MAKE DECISIONS? what drives them? Following this mental process we came across "The Enneagram" which is a self-discovery tool consisting of nine different personality types categorized into three main core motifs, THE HEAD, THE HEART AND THE GUT, these motifs explain patterns of the way people think, behave, and see the world.

Being more interested in psychology and human behaviour, human perception, we found out about the Munich Neuroscience center that deals with these aspects and it became our main focus in developing a programme.

OUR PROPOSAL

Our proposal is to create a tool for the Neuroscience Munich Center and its affiliated universities, to conduct research studies on the topic of "body and mind", psychology and human behaviour.

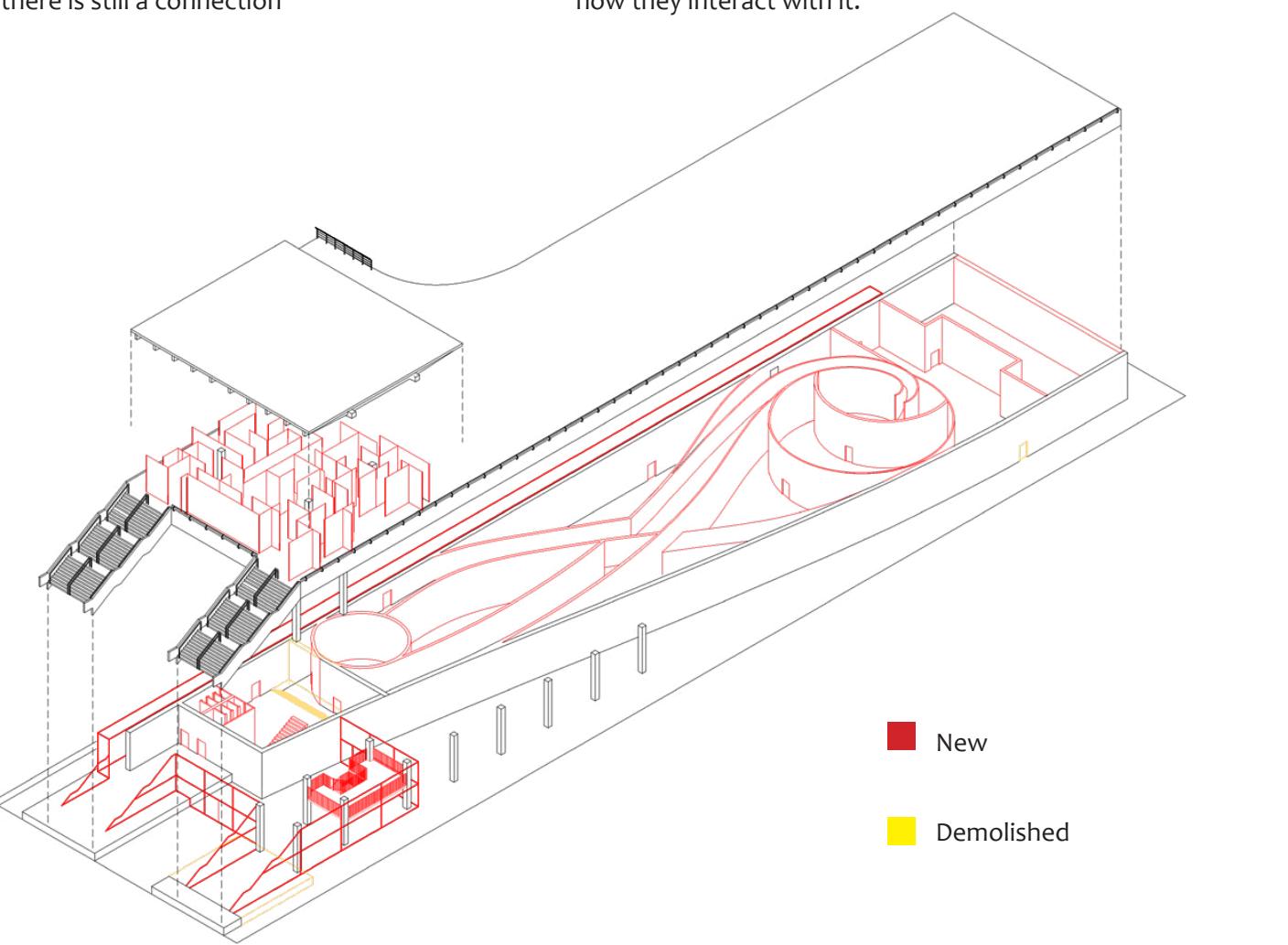
Its aim is to provide the research institute with a space that they can use for their experiments and in the same way make it enjoyable and fun for the people that are participating. It is intended to become also an attraction, inciting curiosity in people to come and experiment these spaces for themselves.



Two different worlds

Physical separation by a fence, but there is still a connection

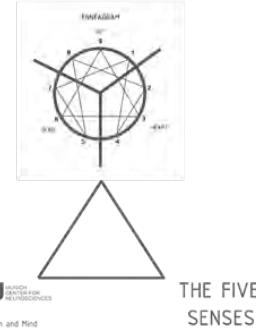
The building lets its users choose how they interact with it.



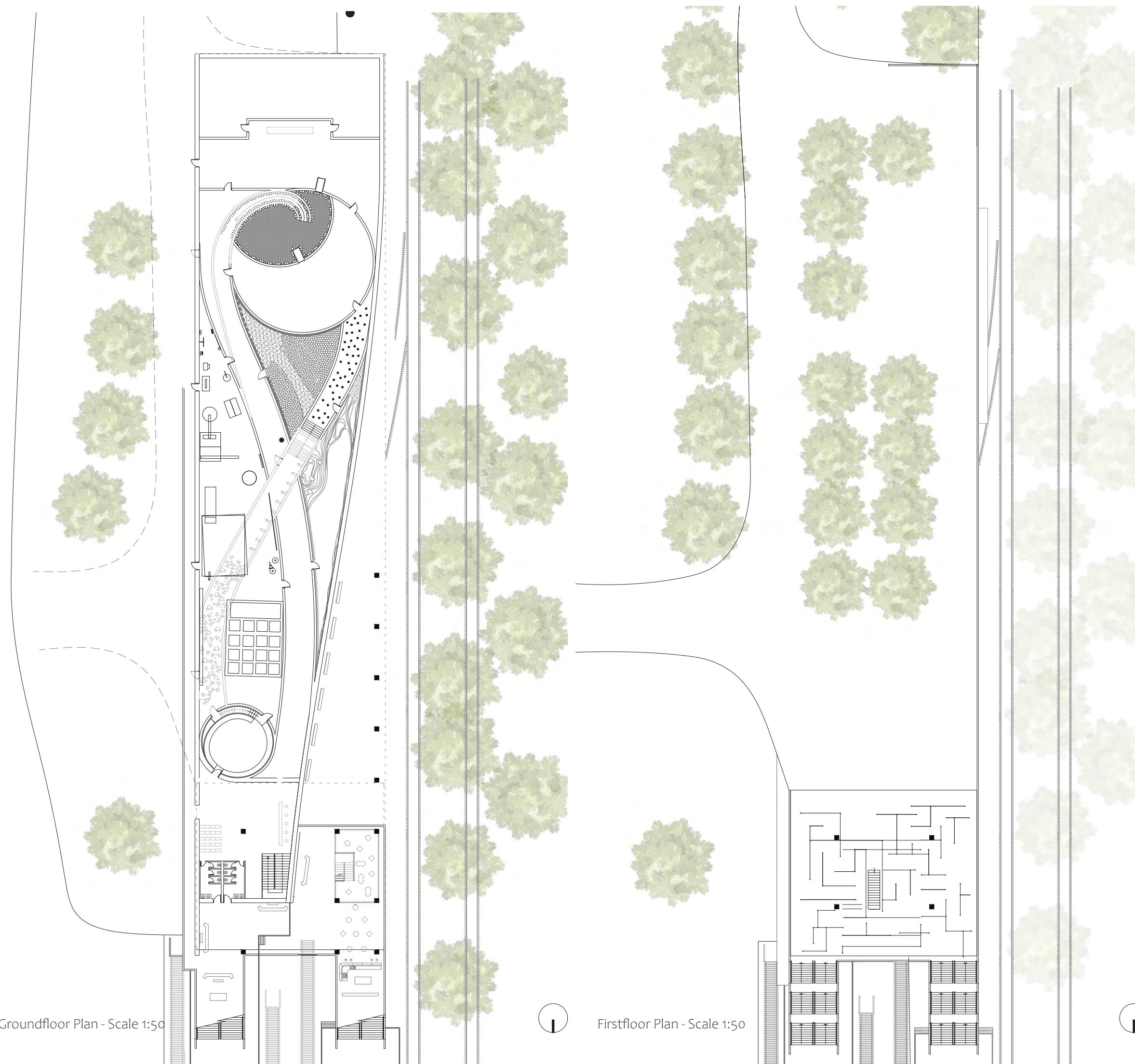
■ New

■ Demolished

Exploded Axonometric showing the transformation



HOW DO PEOPLE MAKE DECISIONS?

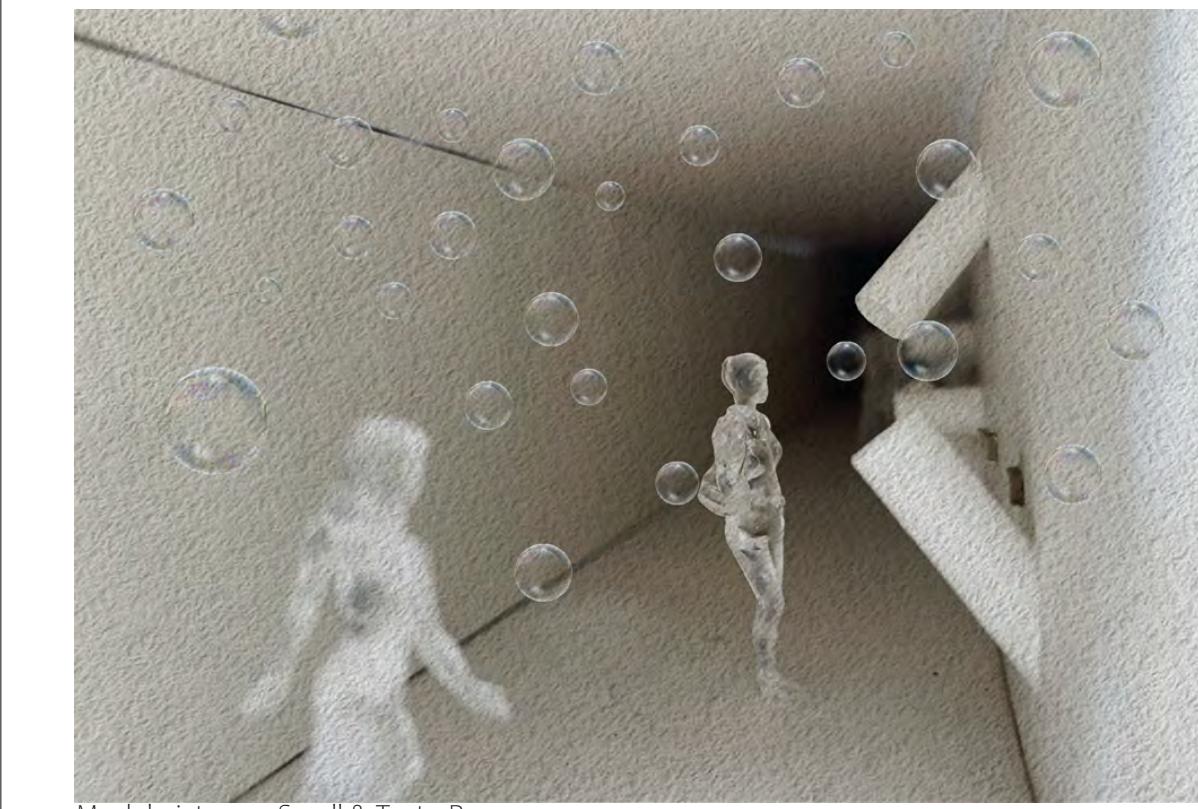


SMELL AND TASTE ROOM

Smell and taste are deeply related to one another, we can not have one without the other.

This room explores how people react to different smells. The room is divided into three experiential and interactive parts.

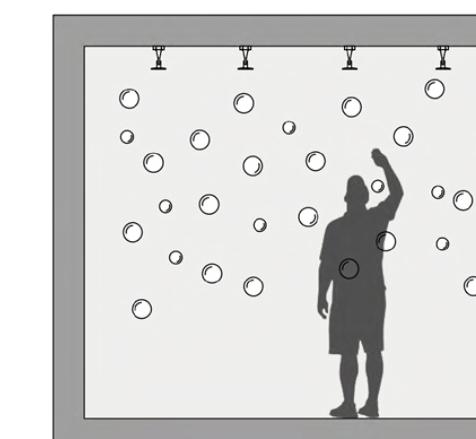
The first part consists of a system that encapsulates smells into soap bubbles. The second part consists of tubes mounted on one wall, to give people the choice if they want to interact with it or pass by. The smells in the tubes are released only if the person pushes a button. The button has two options on it, of a bad smell and a nice smell, the person doesn't know which one they will get. One of the smells gets released into the tube, while the other one gets released through the soap bubbles at the beginning.



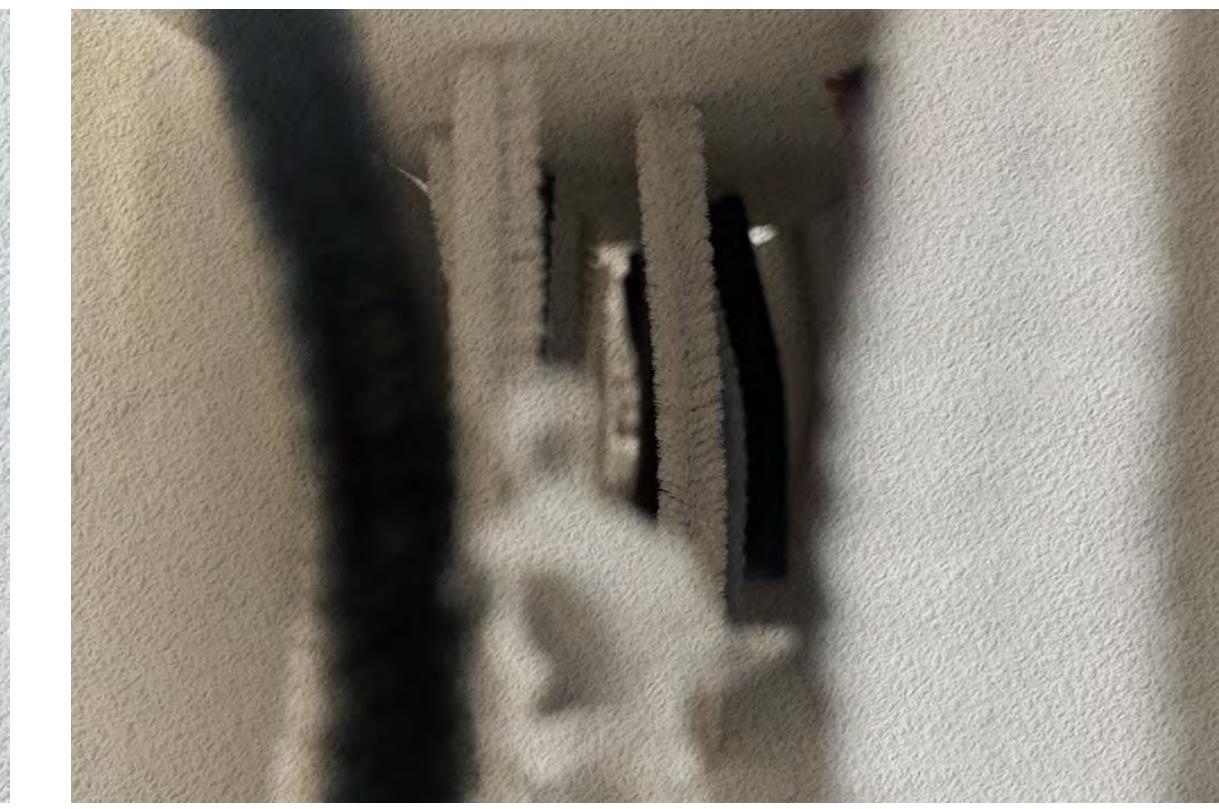
SMELL ROOM

The third part of the smell room consists of colored strings made out of edible fibers hanging from the wall.

When people are walking through them, disturbing their position, the smell will be released and also the fibers will detach from the strings entering in people's mouth and releasing a taste.



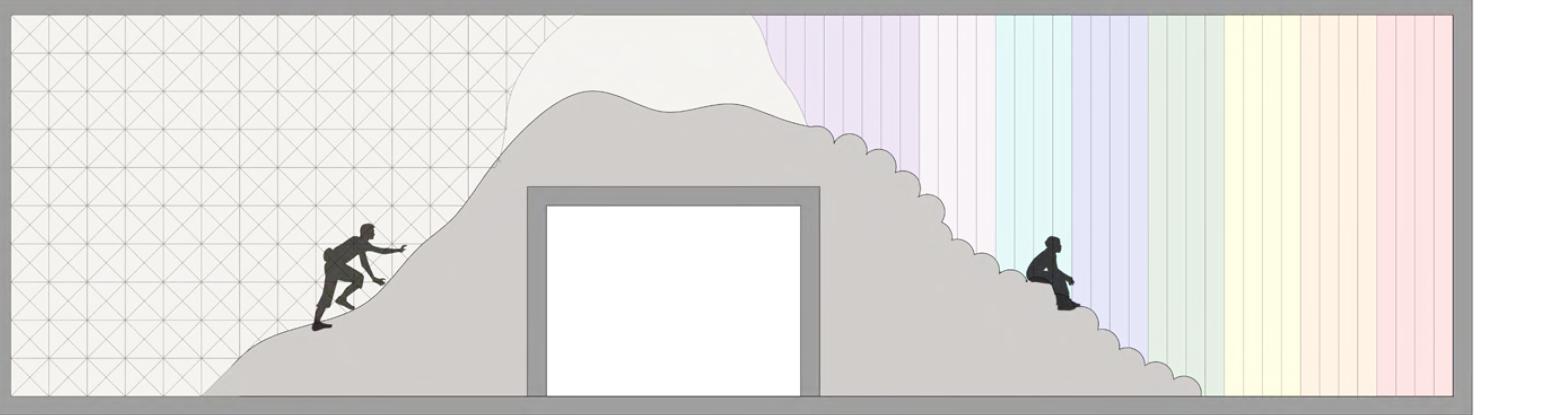
Sections Diagrams through the Smell & Taste Room



TEXTURE ROOM

This room was thought to challenge the participants' sense of touch. The space itself requires people to engage in a physically way with it, being it to keep their balance or to be able to move forward.

The room is organized in two parts, both of them provide different tactile experiences but one of them is stripped of color, while the other part adds the color element.



Section Diagram through the Texture Room



Model Picture- Texture Room

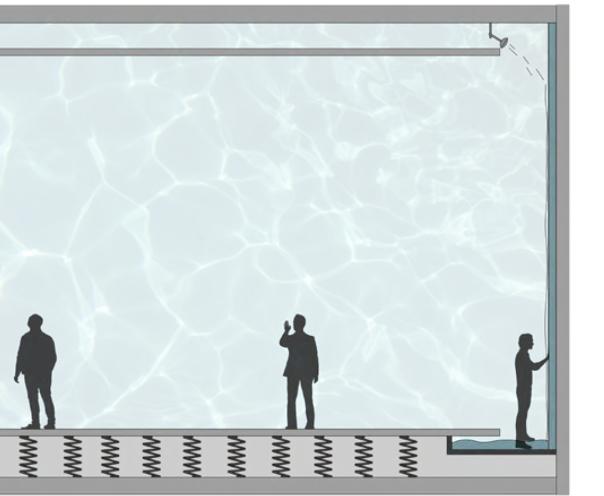
This room provides us with important data of how people interact with a color neutral space and then with an explosion of color.

WATER ROOM

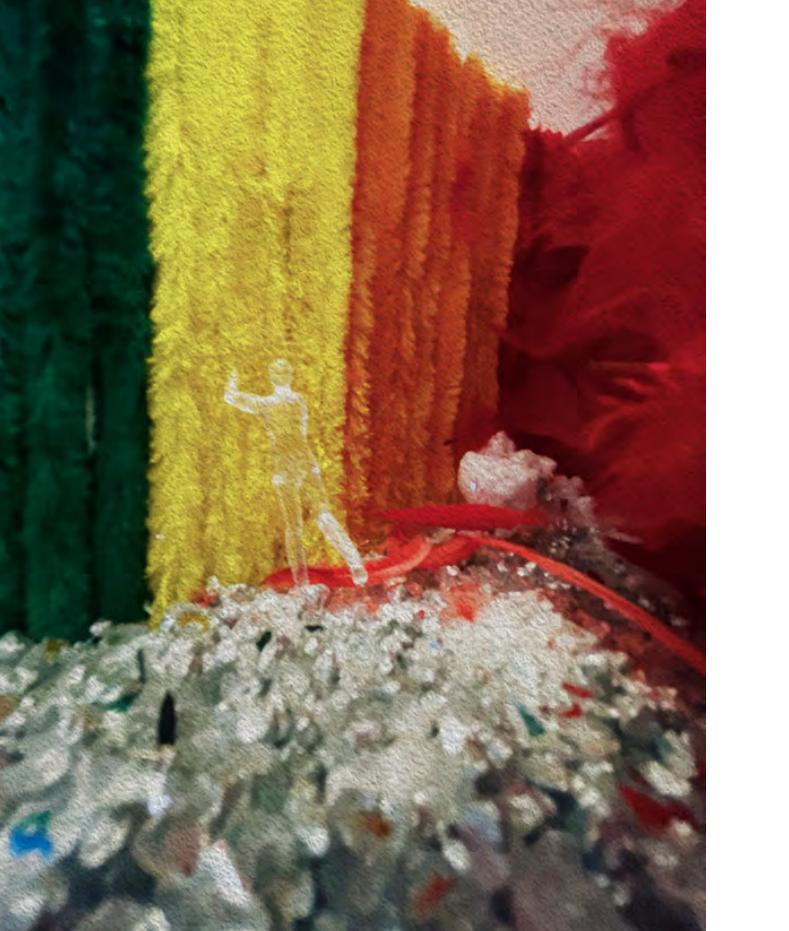
The water room consists of glass walls filled with water to create an underwater feeling.

To add to this effect, the user's sense of balance is challenged by the unstable floor, that it is placed on a series of springs.

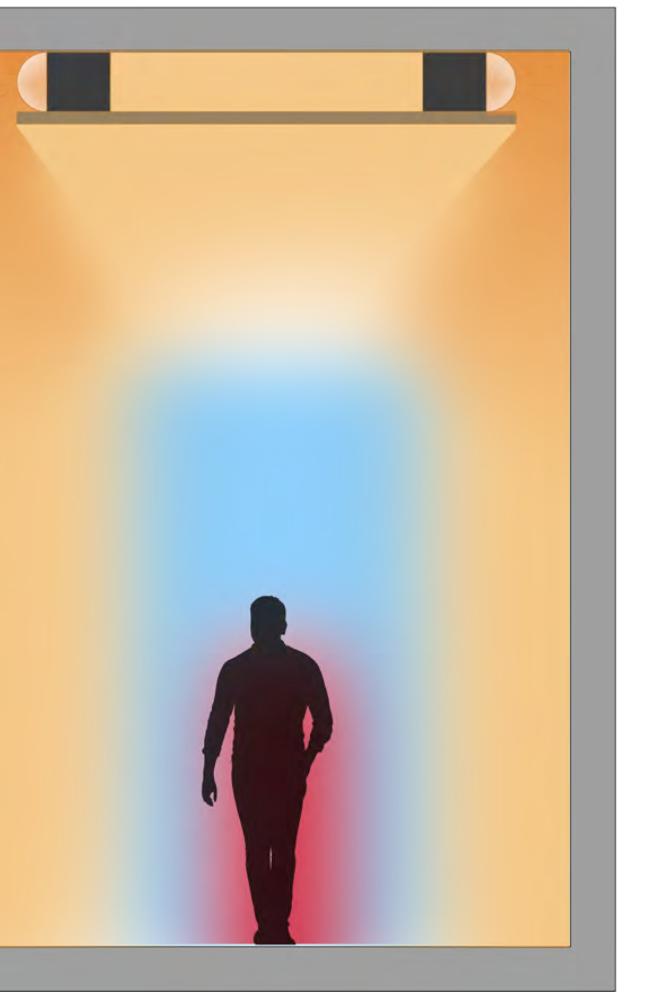
Water is being poured down the walls to provide also a tactile experience.



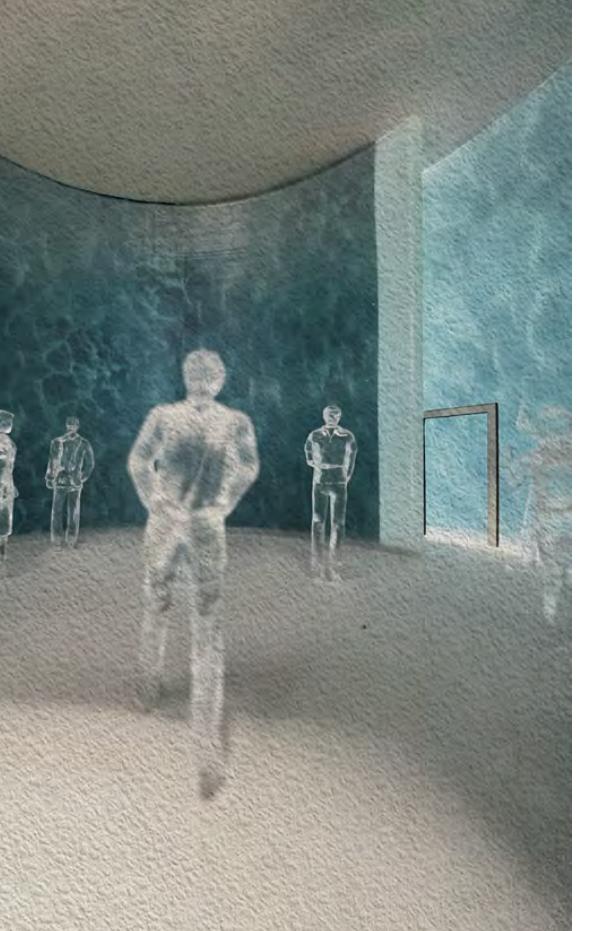
Section Diagram through the Water Room



Model Picture- Texture Room



Section Diagram through the Temperature Room



Model Picture- Water Room

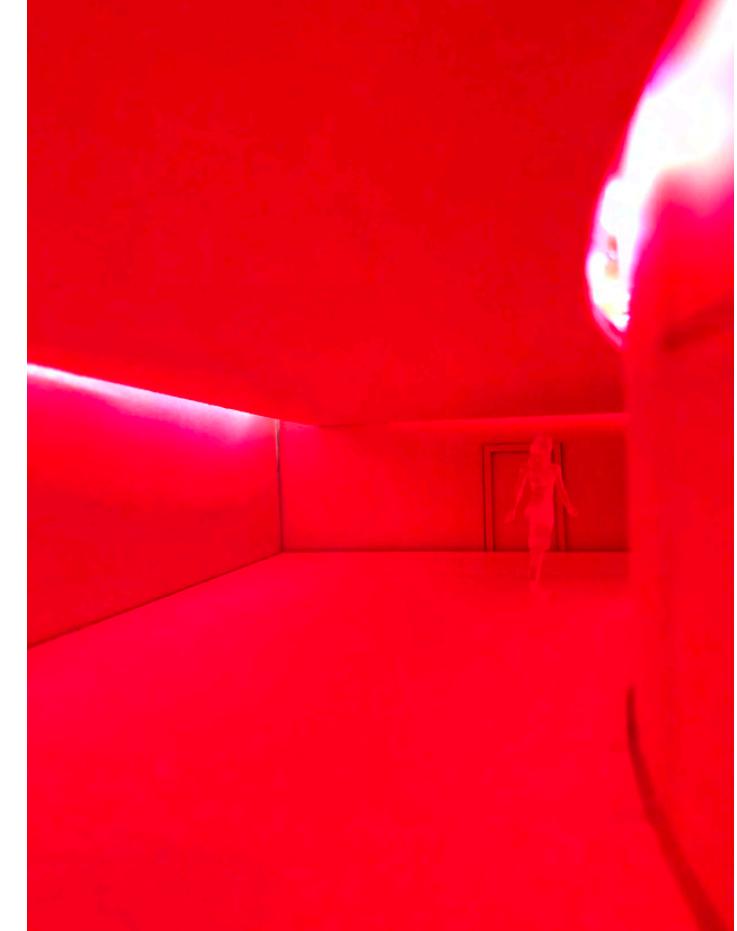
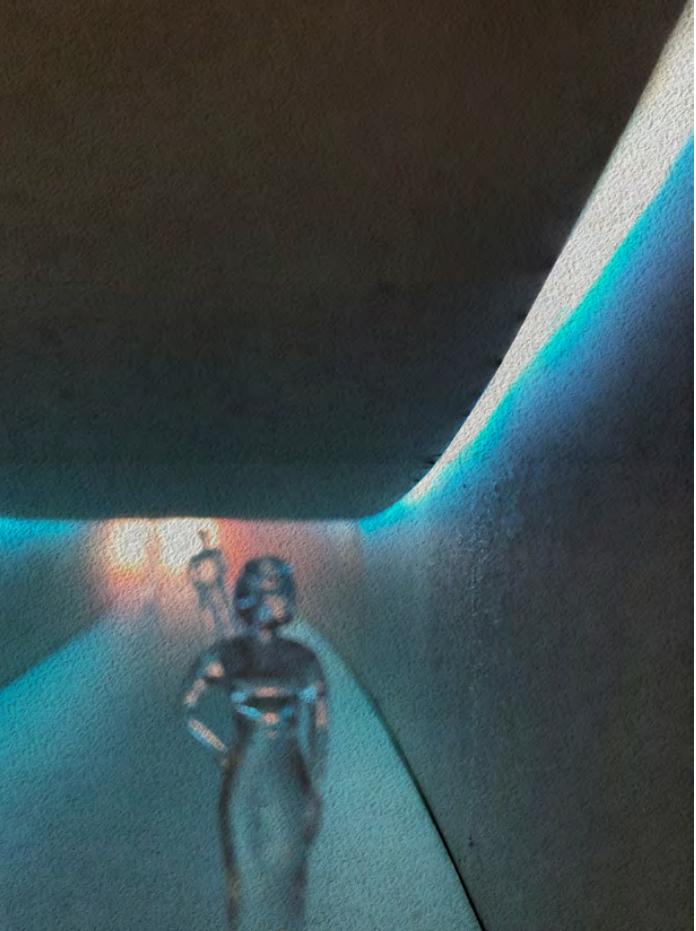
TEMPERATURE ROOM

Temperature and color are highly interconnected. A hot environment is associated with the color red and a cold environment is associated with the color blue.

This room aims to play with peoples' sense of temperature and how or if it is influenced by the color of the space.

As people go along the tunnel they experience different climatic environments which do not correlate to the main color that fills the space. At the same time, the height of the tunnel changes from 6m at the entrance to 3m at the exit.

When entering the tunnel there is a cold and humid environment, accompanied by the color orange, as well as a high ceiling.



Model Pictures- Temperature Tunnel

The second portion of the tunnel is lit up in a cold blue color but the temperature is very high, having a hot environment.

The last part of the tunnel has a lower temperature, closed to freezing, and the color of it is a very bright red.

The room works by having lights installed in the ceiling, and covered by a fake ceiling, that are oriented towards the walls. The light reflects throughout the space creating a hypnotizing effect.



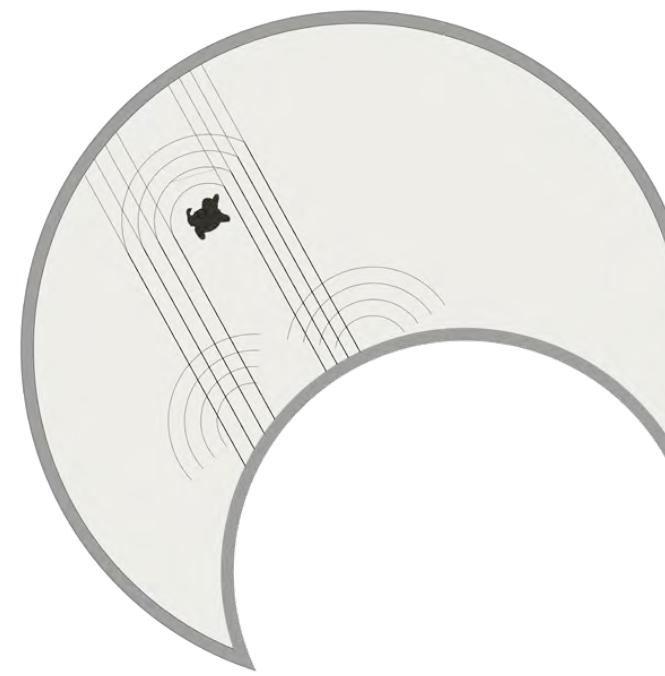
SOUND ROOM

The sound room is meant to explore the sense of hearing, and how different people experience the space in different ways.

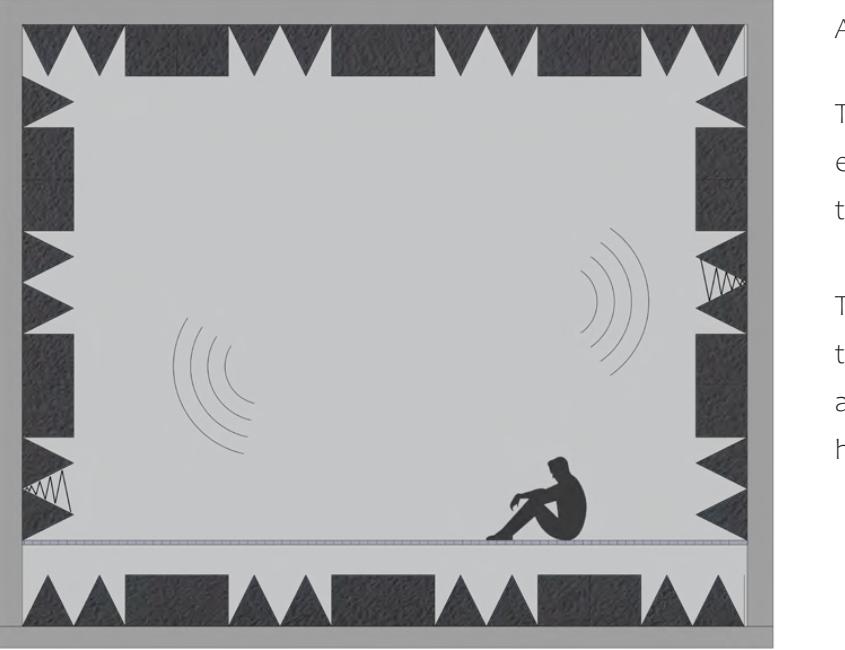
The shape of the room is carefully chosen to create a maximizing effect of the sound in the room. The concave wall distributes the sound received by a single source in a linear manner to the origin of the circle that it is part of.

When the sound waves produced by the concave wall hit the convex wall, the sound is distributed and magnified in other parts of the room amplifying the original sound even more.

Model picture- Sound Room



Plan Diagram- Sound Room



ANECHOIC CHAMBER

The anechoic chamber is a room that absorbs all the echo produced by any sound in the room, being called the quietest place on earth.

The walls, floor and ceiling are covered by special foam that due to its chemical properties and its shape, absorb all the echo in the room. In complete silence, one can hear its blood flowing to the brain.

Section Diagram through the Anechoic Chamber Room



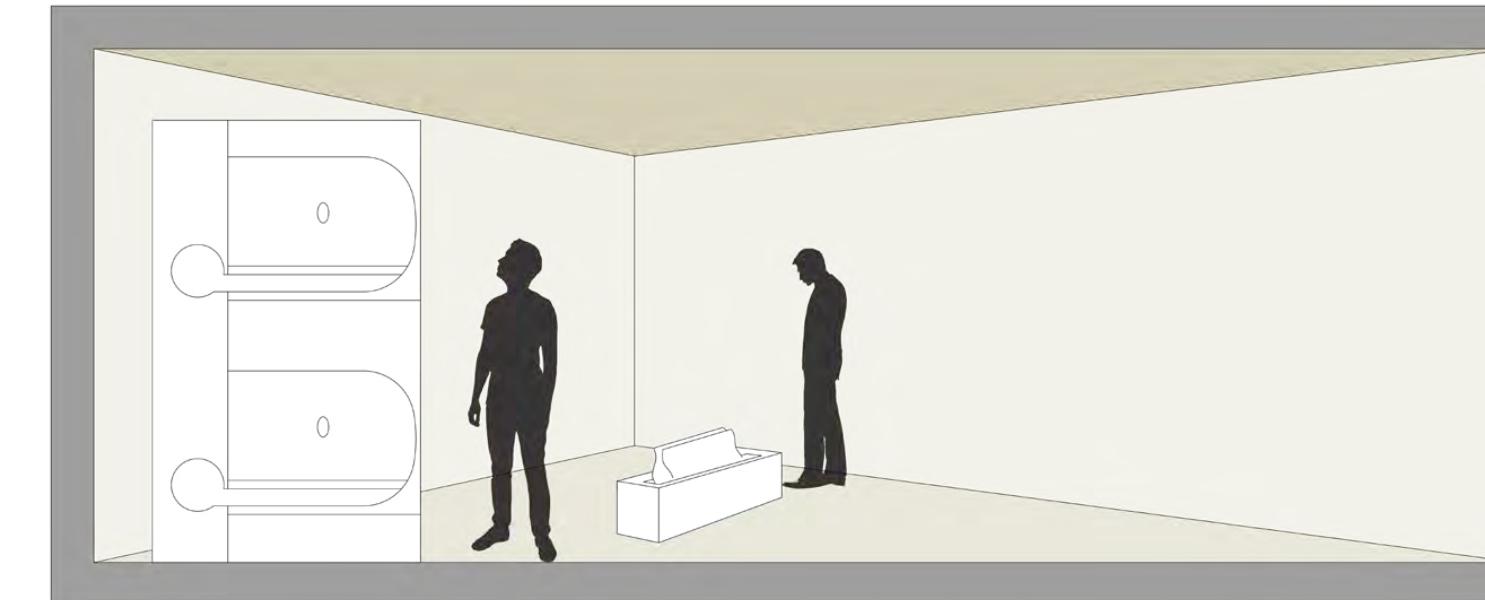
Model picture - Anechoic Chamber Room

SIZE ROOM

The size room plays with the human perception of the perspective, emphasising it through its shape.

When entering the room, the geometry of the space gives the illusion of a long room. This illusion is also reinforced by the oversized furniture.

The room uses an environment known by everyone, the desk, to put people in an unusual situation, that plays with their sense of scale.



Section Diagram through the Size Room



Model picture - Size Room



Outside view from the bridge

IV. CREATIVE CLOUD

3th Semester Project 2022 - Group work
Project Partners: Yana Rudasevschi, Acelya Goegce
Location: Berlin, Germany
Professors: Prof. Jeanne Fischer, Elena Kasumova, John Tubles
Duration: 4 months

Softwares used: Rhino 3D, Photoshop, Autocad

Main roles: Doing the digital 3D model; Working on the visuals;
Working on the physical model; doing the facade detail drawing,
design development

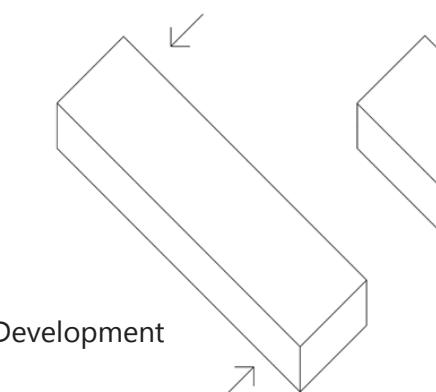




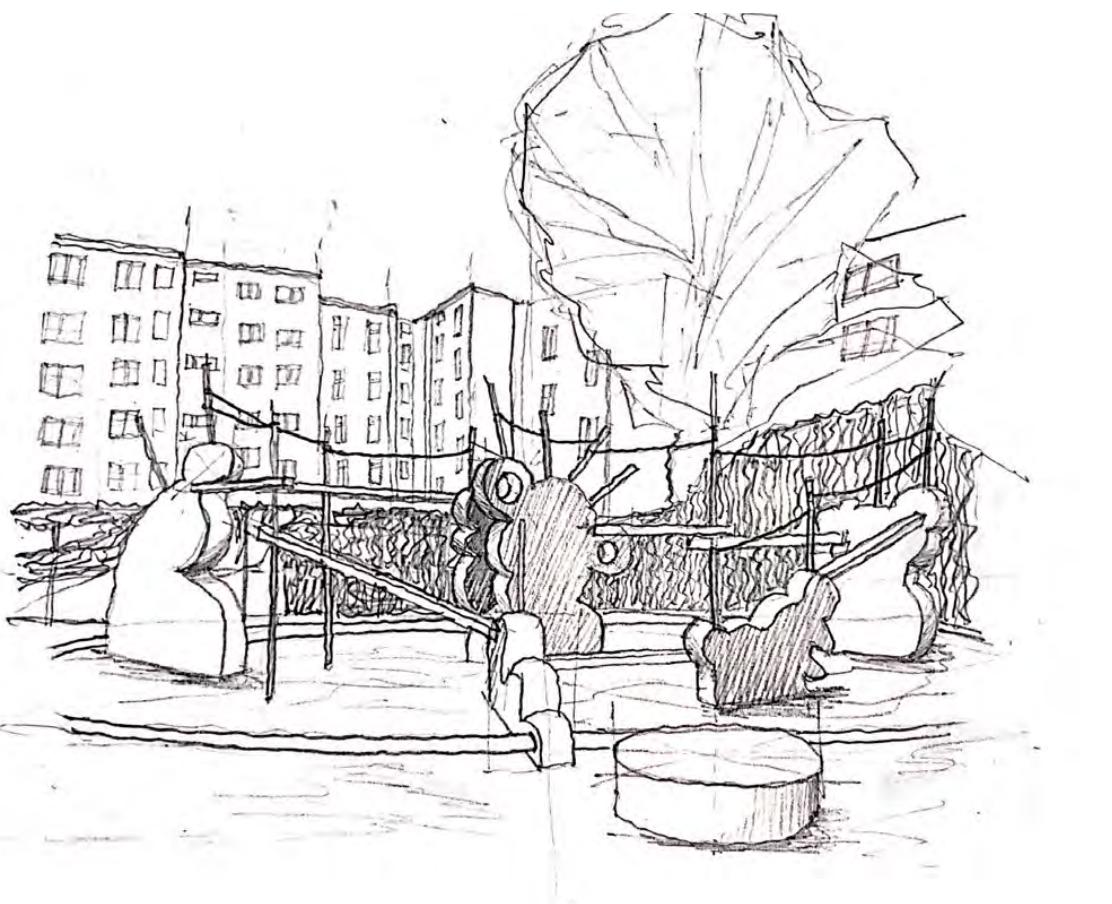
Site plan showing the path and location of the graffitiies



Site plan showing the lights at night



Form Development

**SITE ANALYSIS**

Because of the particular delimitation and its narrowness, it conveys a sense of start and ending, that can also be interchangeable. The walking path gives a sense of fluidity, which is then reinforced by the various organic shapes of the playground equipment.

The site is very colorful which can be in contrast with the grey tones of the neighbouring buildings. The various paintings and graffiti seemed to tell a story of their own about the place. People left their mark there and you can see the different approaches and styles.

This approach comes again into contrast with the straight lines and shapes of the buildings and the surrounding streets, it is a universe of its own. Circular shapes vs the straight lines of the buildings and how it tries to mimic the nature through mostly unnatural materials, such as: concrete and steel.

It is very dark, the only thing seen is the lights that come from the neighbouring buildings and the main street.

OUR PROPOSAL

The shape of our proposal is inspired by the existing path, which connects the two main entrances. We implemented the building into the path itself, creating new ways of experiencing the site. The linearity of the original path is maintained as we wanted to keep.

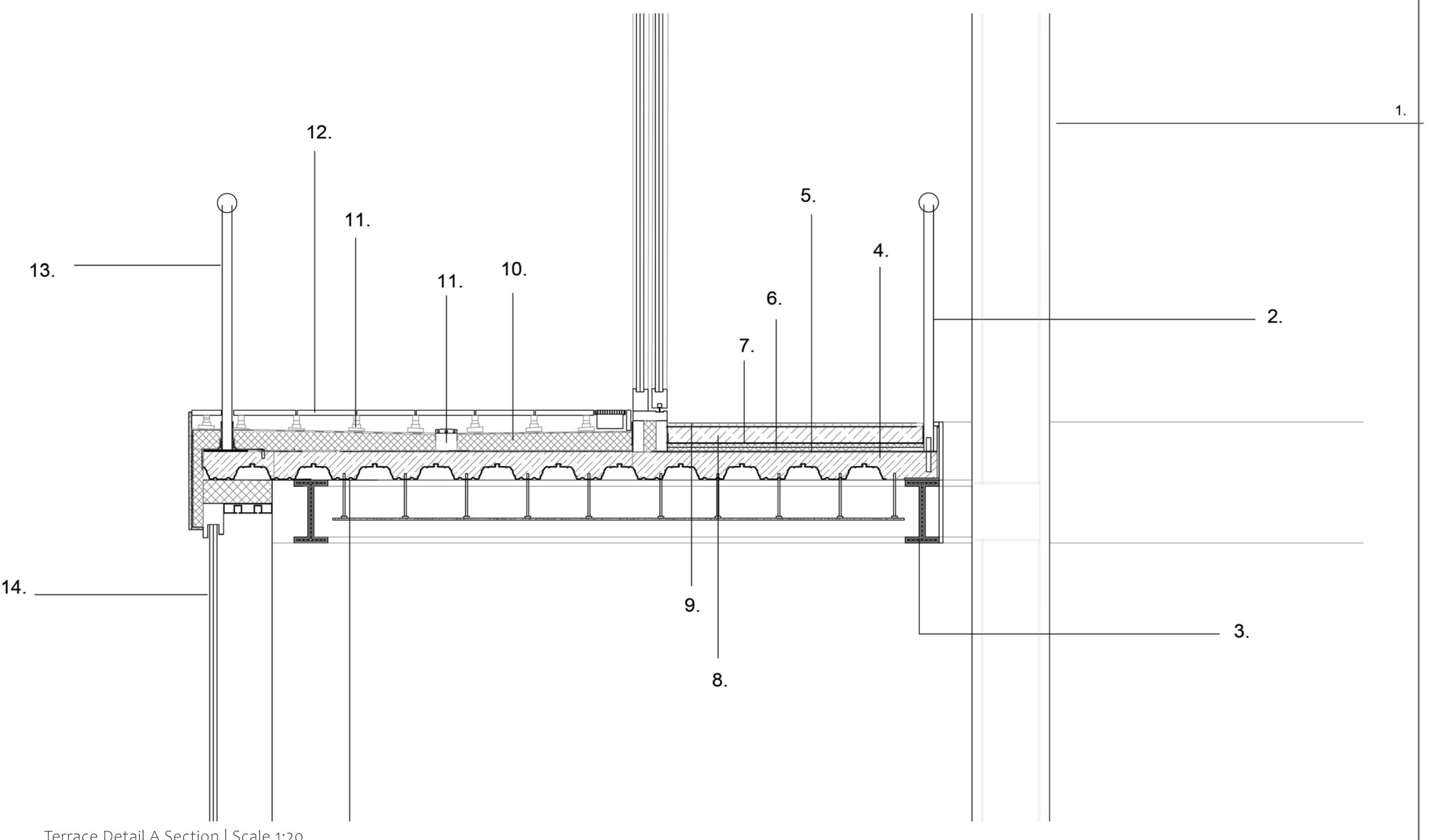
Our program consists of: a dance studio, a workshop, a cafeteria/night bar, exhibition space, library/reading areas and a theater. The aim of this proposal is to encourage the people from the neighborhood to showcase and enrich their creativity through various forms of art, being it music, dancing, plastic arts or writing. The performance hall and exhibition space are meant to be used for sharing this creativity.



Site Plan 1:500







Construction:

1. Column with steel core
2. Interior steel balustrade
3. Steel beam

IPE 300
40 mm
IPE 300

WALL CONSTRUCTION:

4. Composite floor slab
5. Vapour barrier
6. Sound insulation
7. Plastic layer
8. Screed
9. Concrete overlay

150 mm
2 mm
2 mm
2 mm
8 mm
15 mm

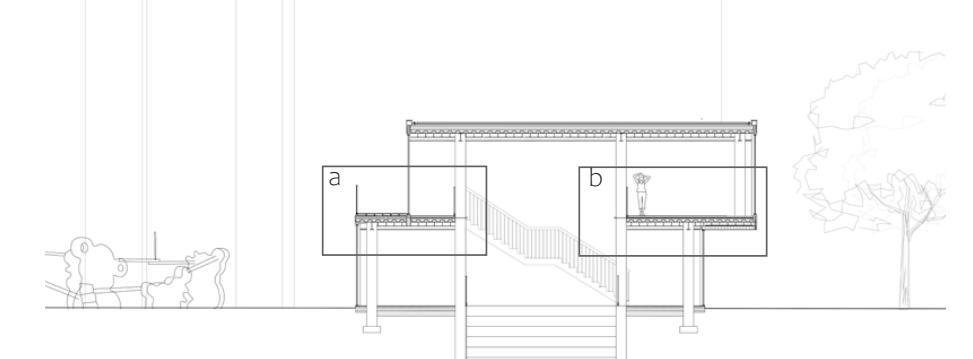
TERRACE CONSTRUCTION:

10. Insulation
11. Drainage system
12. Concrete tiles
13. Outside steelbalustrade

110-120 mm

WINDOW CONSTRUCTION:

14. Double Glazing



Cross Section showing details A and B



Cantilever Detail B Section Model | Scale 1:20

V. NATURE AS A WAY OF LIVING

2th Semester Project 2022

Individual Project

Location: Berlin, Germany

Professors: Prof. Karsten Huneck, Juan Almarza

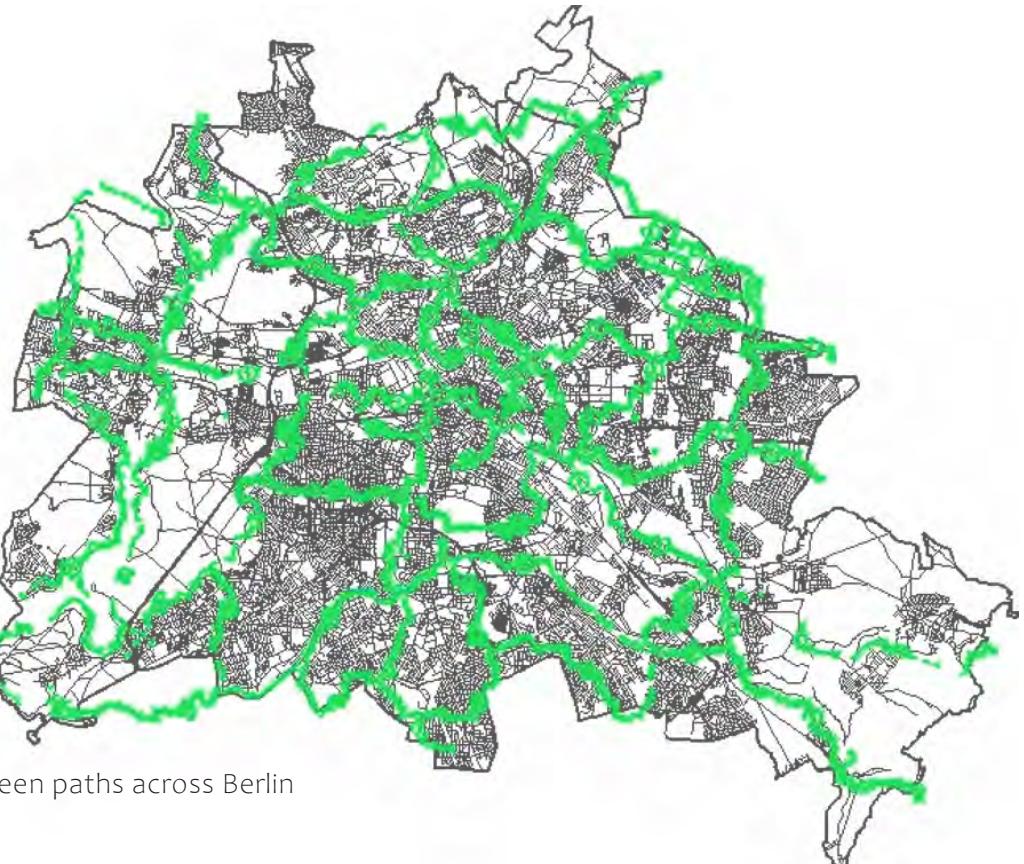
Anwandter, Kay Fingerle

Duration: 4 months





The site seen from across the Spree



Green paths across Berlin

SITE ANALYSIS

Germany has recognized the benefits of living a balanced lifestyle in concordance with the nature around, by taking care of implementing a lot of green spaces in which people can enjoy the natural elements.

Berlin is no different from this statement, having an Inner Parkring of 20 main green routes. Their aim is to “link residential areas with the diverse recreational opportunities in parks and local recreational areas in Berlin and Brandenburg” (Senate Department for Urban Development and Environment). One of these paths runs across our site.

My proposal aims to continue the strategy of reconnecting people with nature, not only through the outdoor spaces, but also through architecture. It translates the concept of nature as the need to live a balanced lifestyle and to have access to the essential joys. (Fresh air, light, sun, greenery). On this note, my design embodies also the ambiguous character of nature, catering for every individual's needs and providing moments of enjoyment of the surrounding nature.



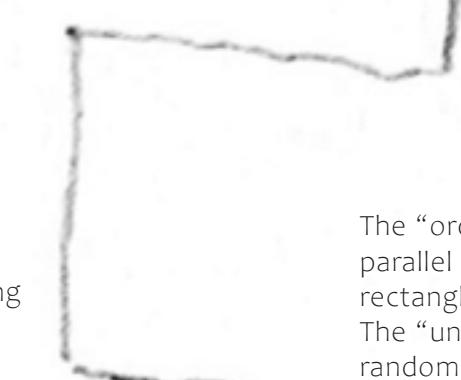
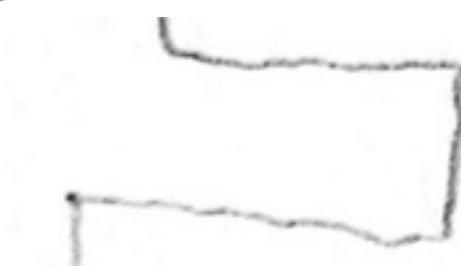
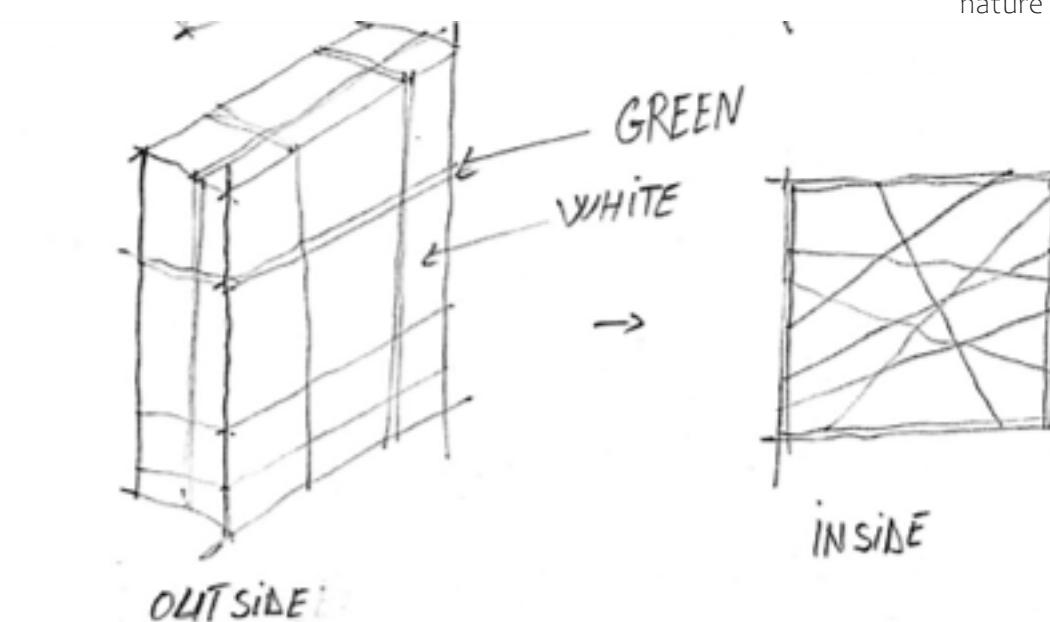
CONCEPT MODEL



My concept embodies the ambiguous character of nature, and its ordered and unorganized aspects.

A structure that doesn't let the viewers from outside to identify what is happening on the inside.

Emphasize the colors of the surrounding nature by having a white building .

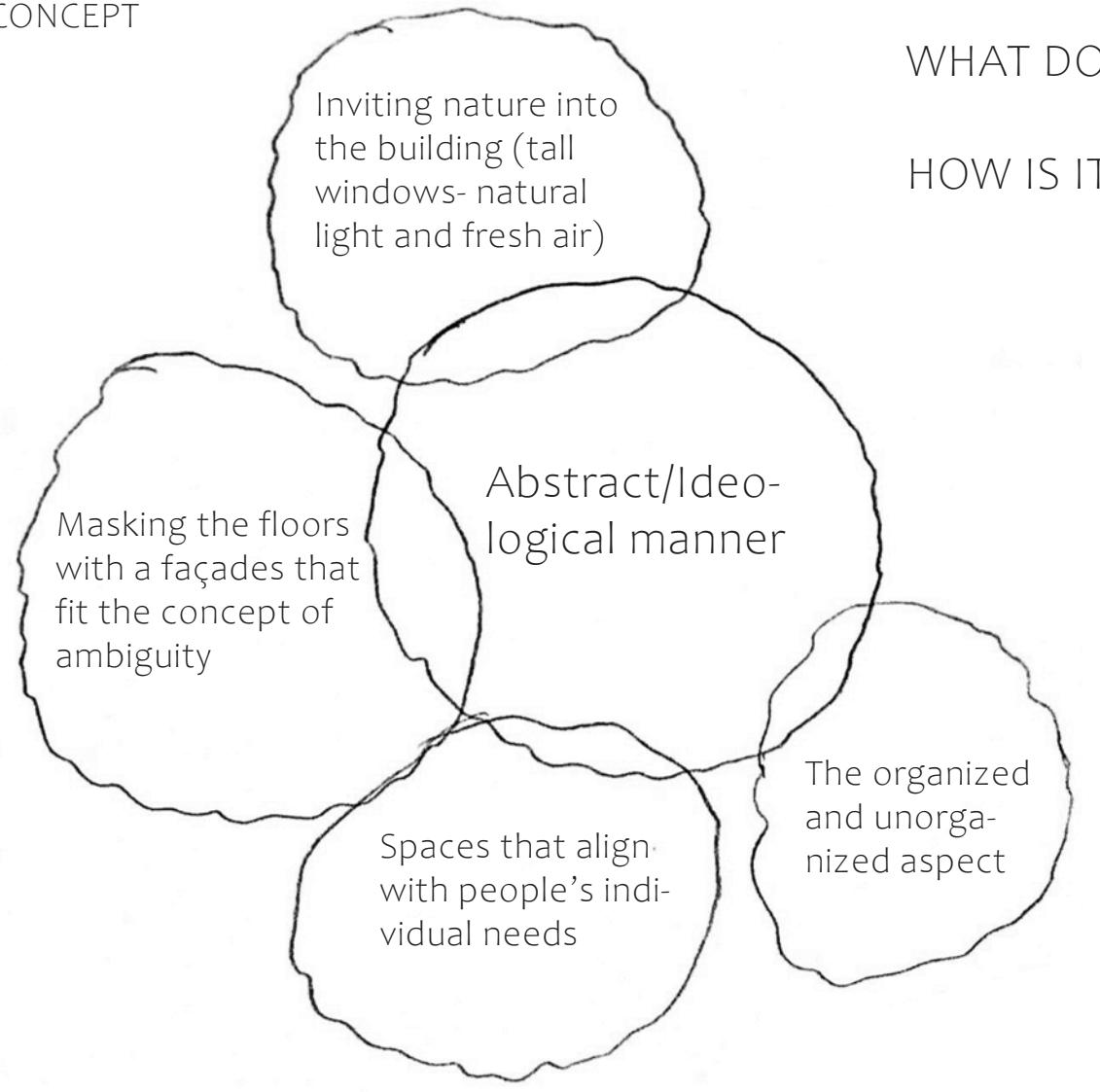


The “ordered” aspect is translated into the parallel and perpendicular lines, that form rectangles.

The “unorganized” aspect is given by the random intersections of the thread, that are seen only from the inside.

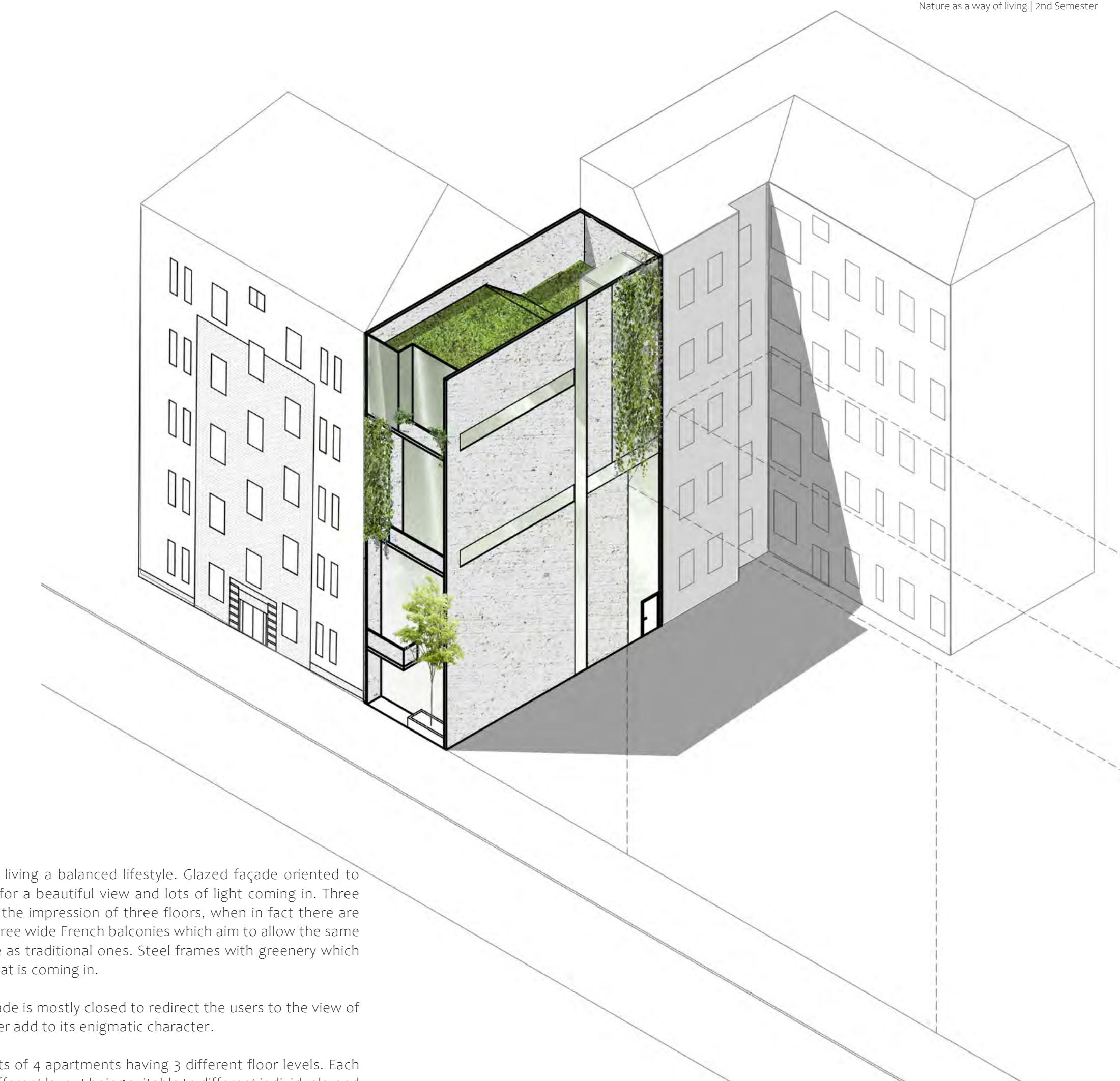
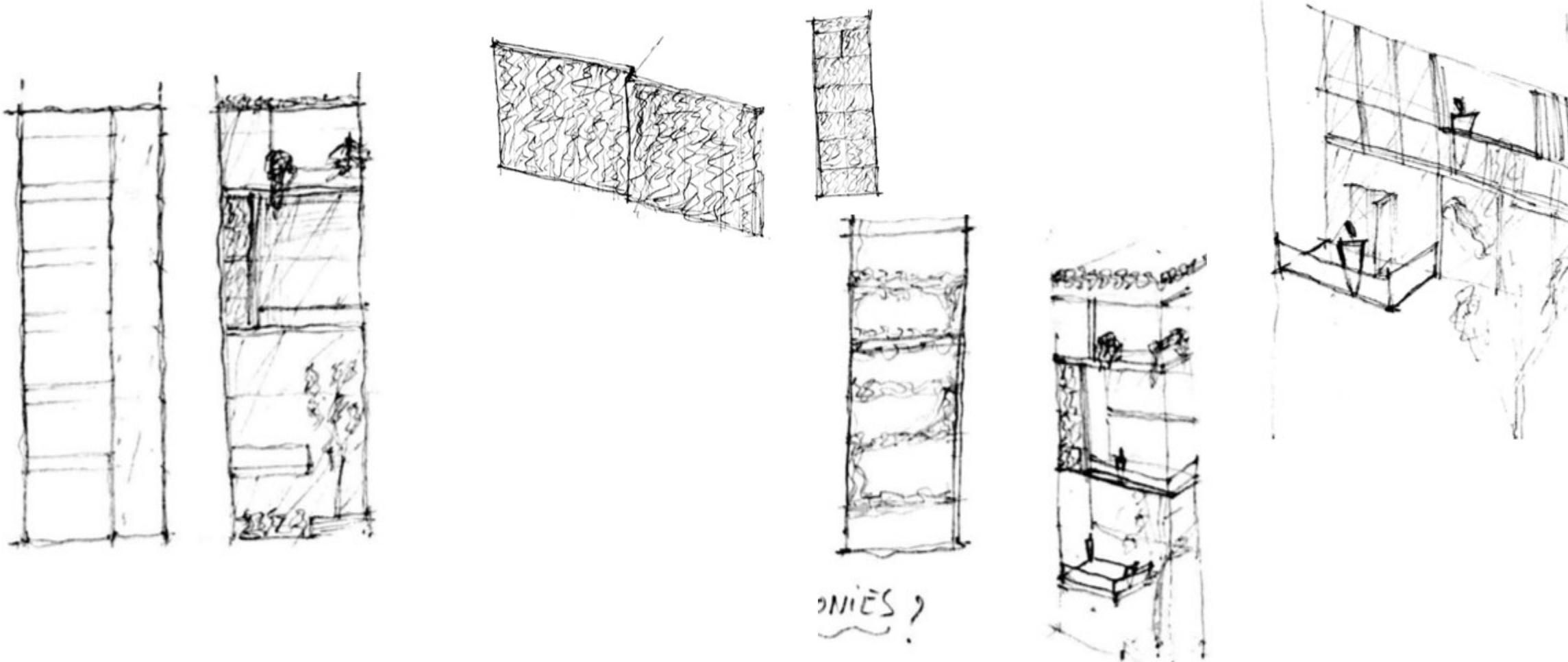
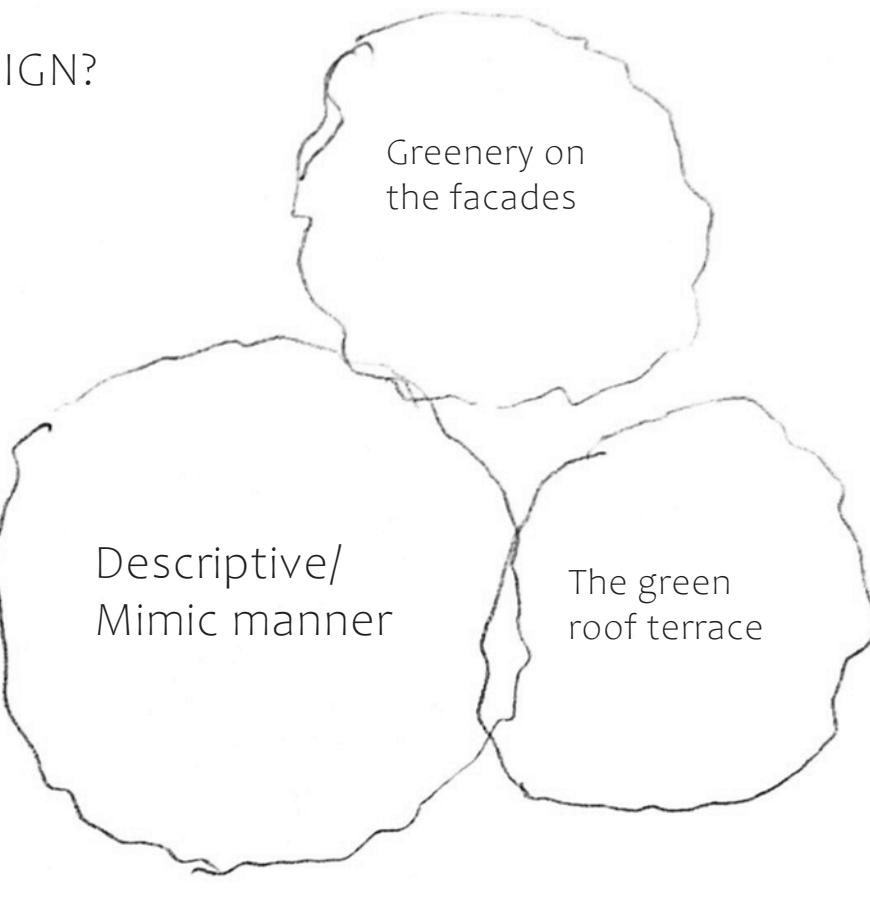


CONCEPT



WHAT DOES NATURE MEAN TO ME?

HOW IS IT PART OF MY DESIGN?



PROPOSAL

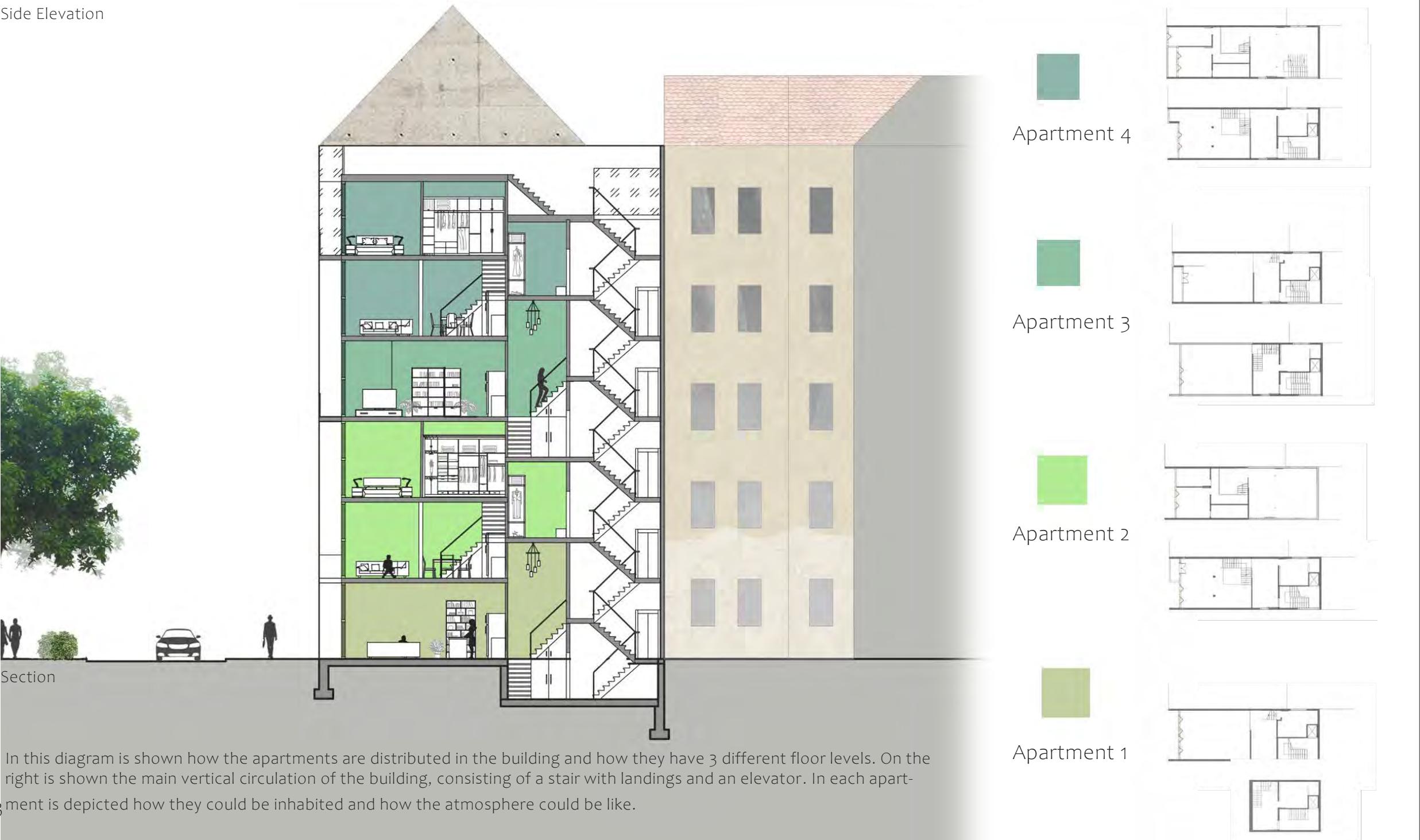
Is centered around living a balanced lifestyle. Glazed façade oriented to the Canal allowing for a beautiful view and lots of light coming in. Three balconies that give the impression of three floors, when in fact there are seven floors, and three wide French balconies which aim to allow the same outdoor experience as traditional ones. Steel frames with greenery which filter the sunlight that is coming in.

The north-west façade is mostly closed to redirect the users to the view of the Canal and further add to its enigmatic character.

My proposal consists of 4 apartments having 3 different floor levels. Each apartment has a different layout being suitable to different individuals, and a green roof terrace which is accessible to everyone in the building through the main staircase. The access to the building is made from right side of the north-west façade, provided with light by the glass glazed panels.



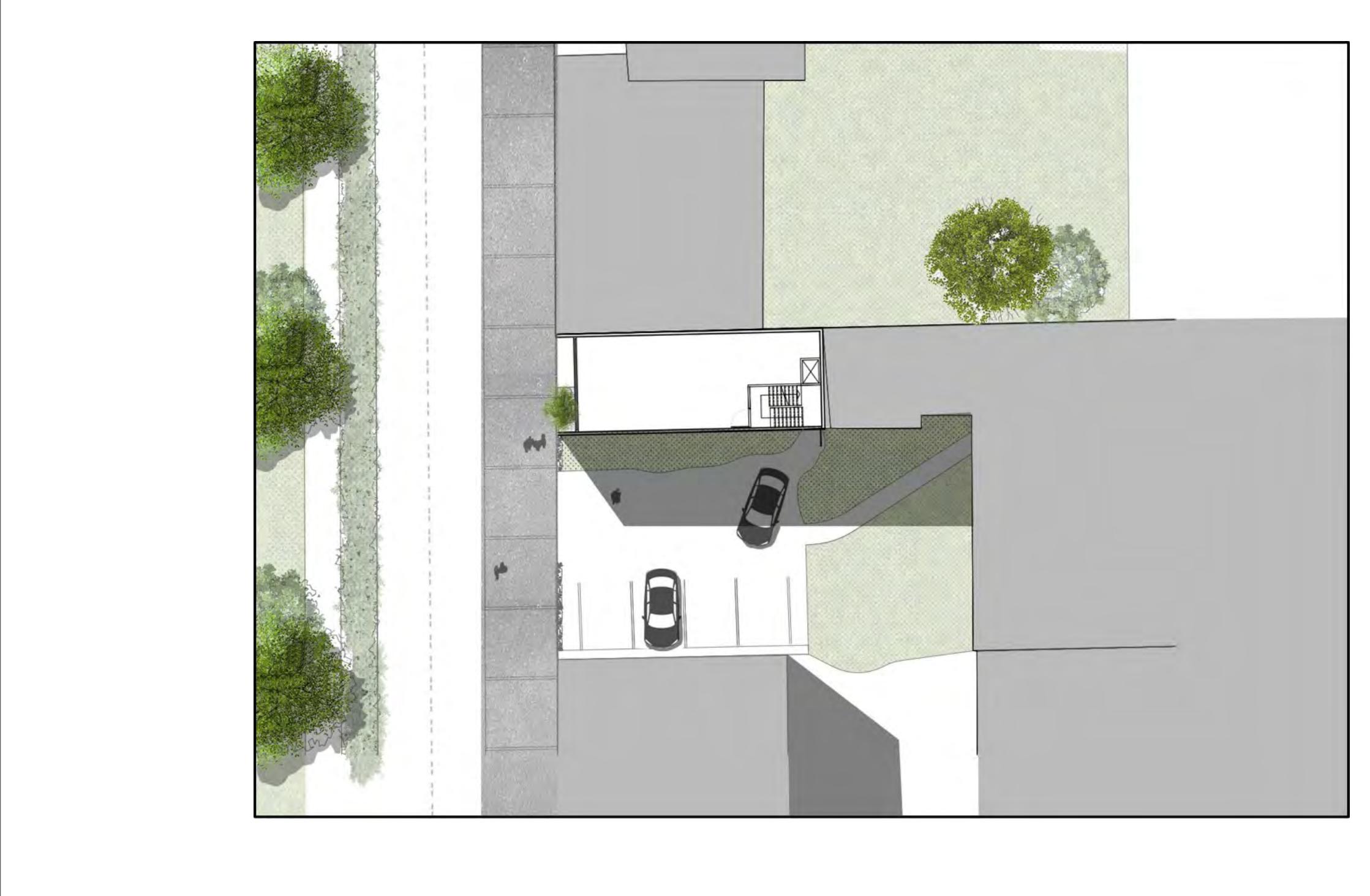
Side Elevation



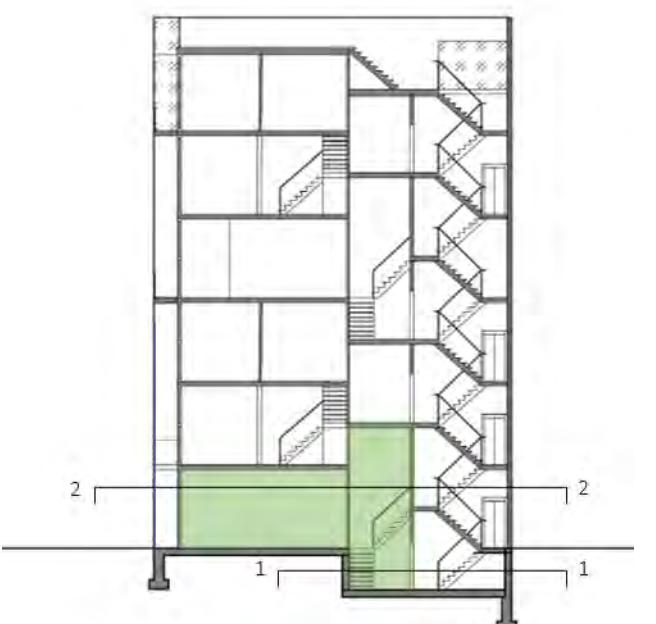
Section



Front Elevation



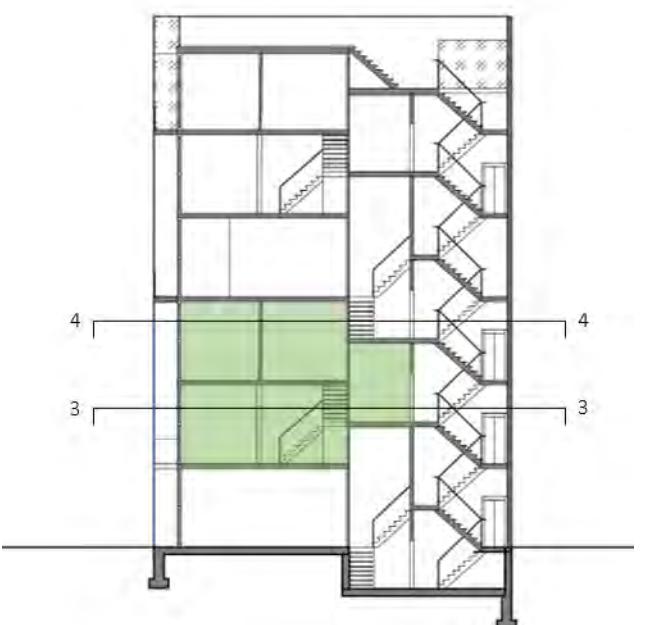
Site Plan



1st Apartment



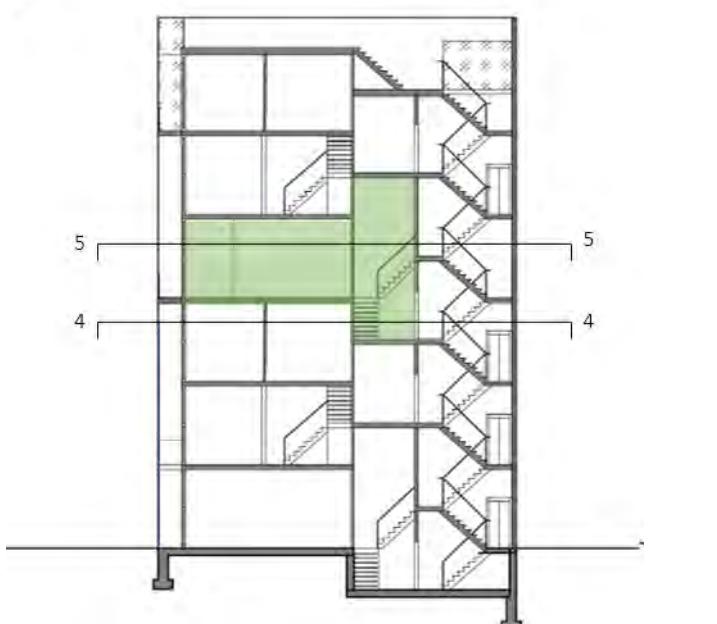
Section 22



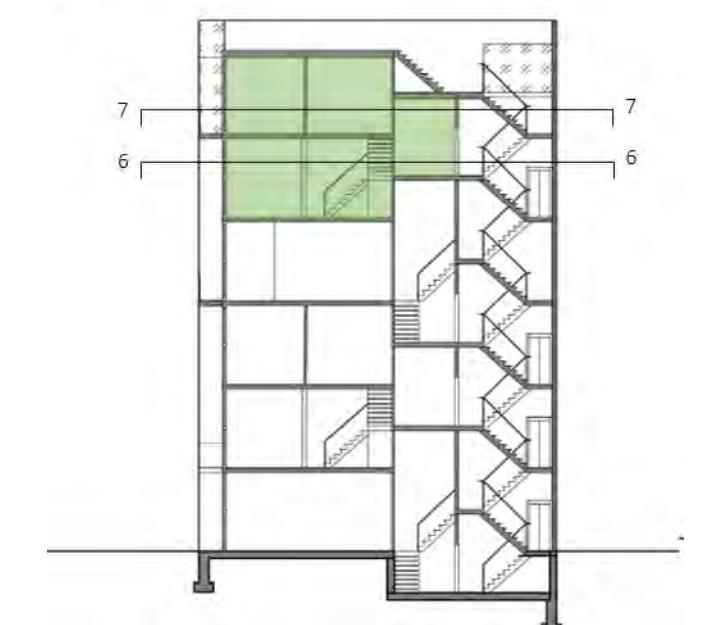
2nd Apartment



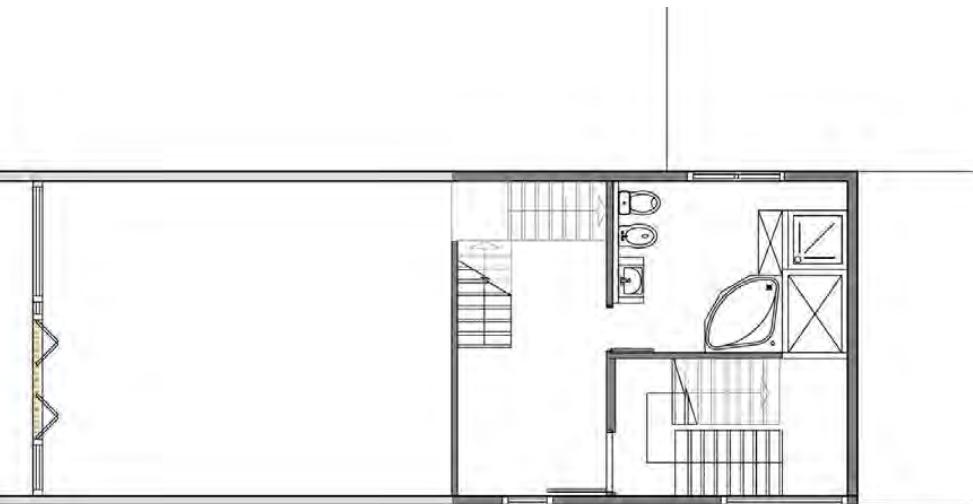
Section 44



3rd Apartment



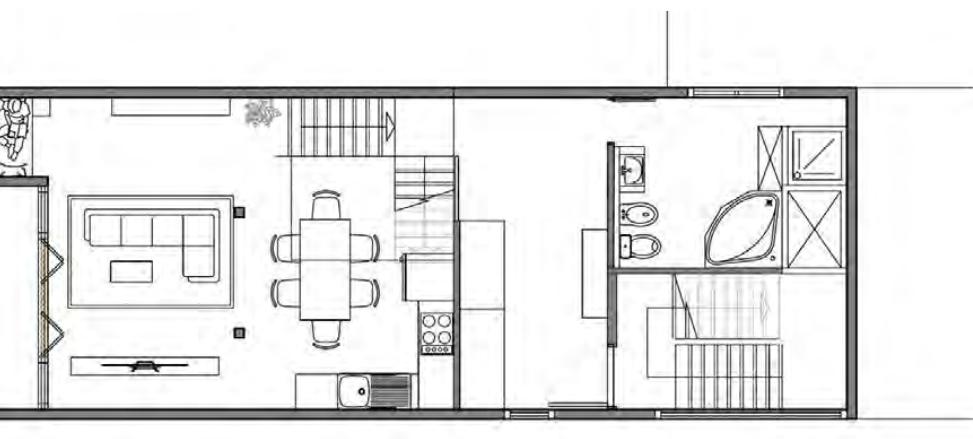
4th Apartment



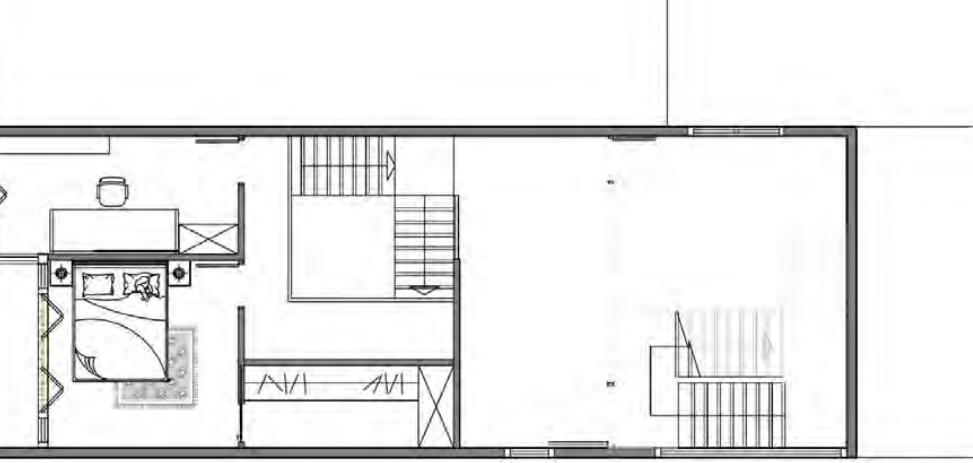
Section 44



Section 55

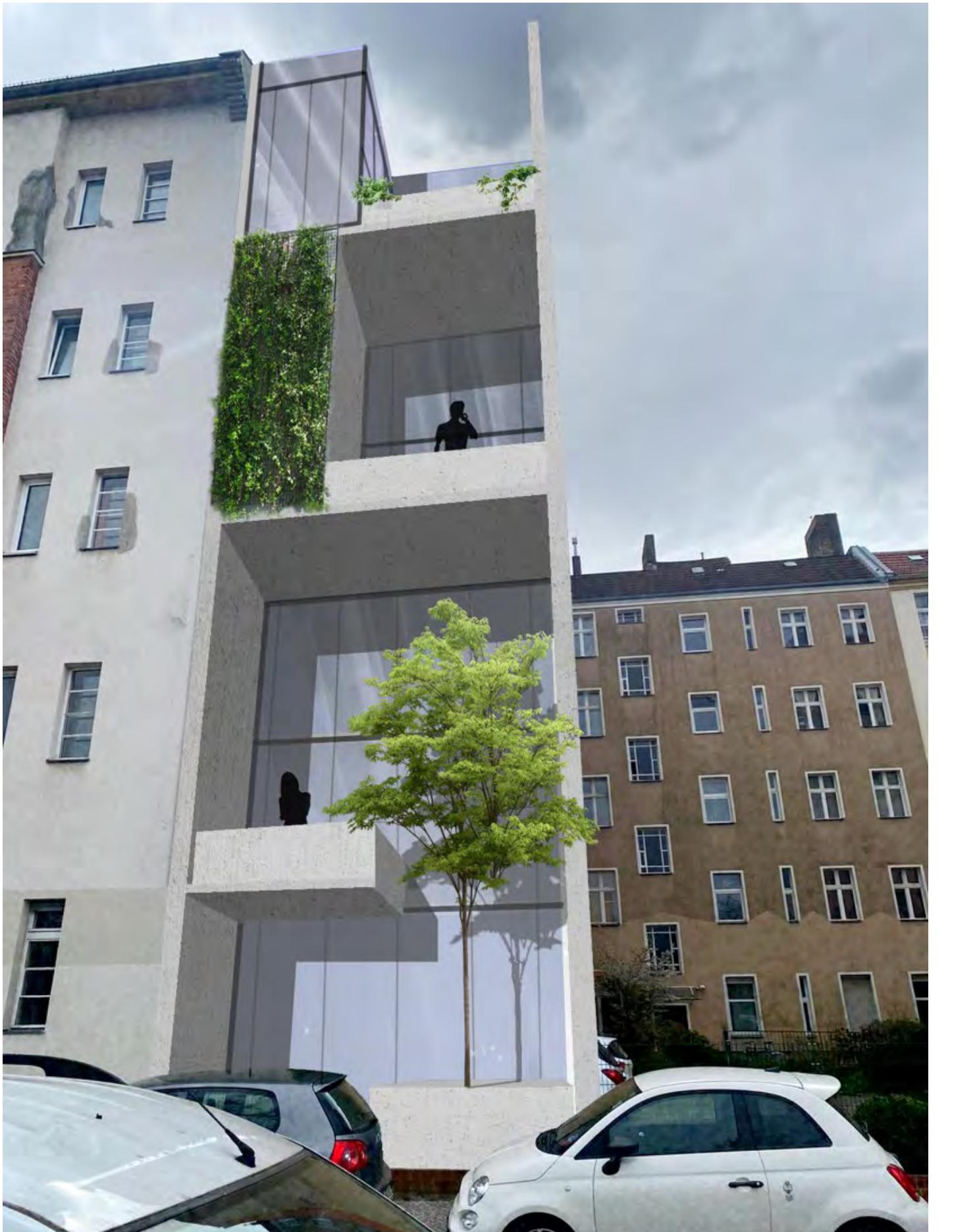


Section 66



Section 77

FAÇADE DETAIL



ROOF CONSTRUCTION

- | | |
|-----------------------------|------------|
| 1. Gravel | |
| 2. Topsoil | 80 mm |
| 3. Filter Layer | |
| 4. Drainage / Reservoir | 45 mm |
| 5. Waterproof Membrane | 6 mm |
| 6. Bitumen roofing, 2layers | 8 mm |
| 7. Thermal insulation | 200-240 mm |
| 8. Vapor barrier | |
| 9. Concrete slab | 240 mm |
| 10. Plaster | 30 mm |
| 11. Curtain Wall Anchor | |
| 12. Glazed Balustrade | |
| 13. Transom | |

Total 609-649 mm

GREEN INSTALLATION CONSTRUCTION

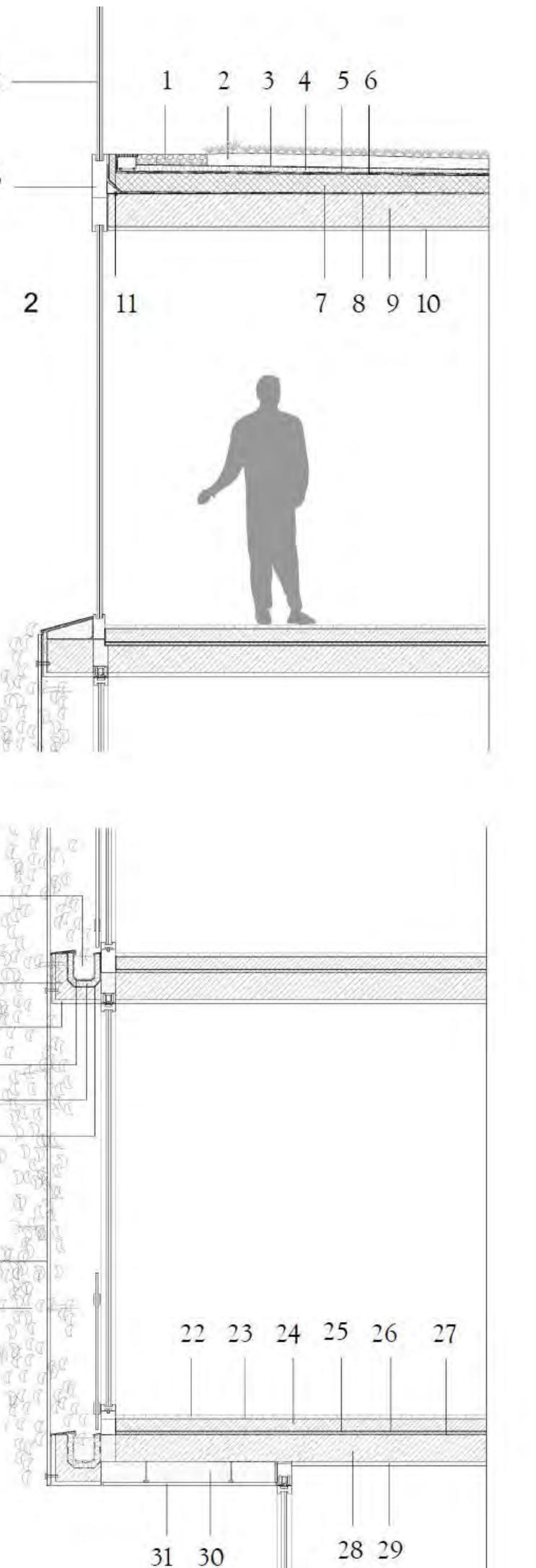
- | | |
|-------------------------|-------|
| 14. Soil | |
| 15. Geotextile fiber | 8 mm |
| 16. Drainage Layer | 35 mm |
| 17. Waterproof Membrane | 8 mm |
| 18. Reinforced Concrete | 90 mm |
| 19. Plaster | 30 mm |
| 20. Galvanized Steel | |
| 21. Greenery | |

Total 171 mm

FLOOR CONSTRUCTION

- | | |
|---|--------|
| 22. Parquet Flooring | 23 mm |
| 23. Foam (Pad) | 9 mm |
| 24. Screed | 88 mm |
| 25. Separation Plastic Layer | 4 mm |
| 26. Sound Insulation | 20 mm |
| 27. Damp proof membrane | 4 mm |
| 28. Concrete slab | 200 mm |
| 29. Plaster | 30 mm |
| 30. Insulation (outside) | 130 mm |
| 31. Suspended ceiling (outside) (Plaster board) | 30 mm |

Total 538 mm



Roof Construction

- | | |
|-----------------------------|------------|
| 1. Gravel | |
| 2. Topsoil | 80 mm |
| 3. Filter Layer | |
| 4. Drainage / Reservoir | 45 mm |
| 5. Waterproof Membrane | 6 mm |
| 6. Bitumen roofing, 2layers | 8 mm |
| 7. Thermal insulation | 200-240 mm |
| 8. Vapor barrier | |
| 9. Concrete slab | 240 mm |
| 10. Plaster | 30 mm |
| 11. Curtain Wall Anchor | |
| 12. Glazed Balustrade | |
| 13. Transom | |

Total 609-649 mm

Green Installation Construction

- | | |
|-------------------------|-------|
| 14. Soil | |
| 15. Geotextile fiber | 8 mm |
| 16. Drainage Layer | 35 mm |
| 17. Waterproof Membrane | 8 mm |
| 18. Reinforced Concrete | 90 mm |
| 19. Plaster | 30 mm |
| 20. Galvanized Steel | |
| 21. Greenery | |

Total 171 mm

Floor Construction

- | | |
|---|--------|
| 22. Parquet Flooring | 23 mm |
| 23. Foam (Pad) | 9 mm |
| 24. Screed | 88 mm |
| 25. Separation Plastic Layer | 4 mm |
| 26. Sound Insulation | 20 mm |
| 27. Damp proof membrane | 4 mm |
| 28. Concrete slab | 200 mm |
| 29. Plaster | 30 mm |
| 30. Insulation (outside) | 130 mm |
| 31. Suspended ceiling (outside) (Plaster board) | 30 mm |

Total 538 mm

Loggia Flooring Construction

- | | |
|------------------------------------|----------|
| 32. Tiles | 20 mm |
| 33. Pedestals for terrace flooring | 70-82 mm |
| 34. Waterproof Membrane | 4 mm |
| 35. Thermal insulation sloped | 30-50 mm |
| 36. Vapor Barrier | |
| 37. Concrete slab | 20 mm |
| 38. Plaster | 30 mm |

Total 206 mm

Balustrade Wall Construction

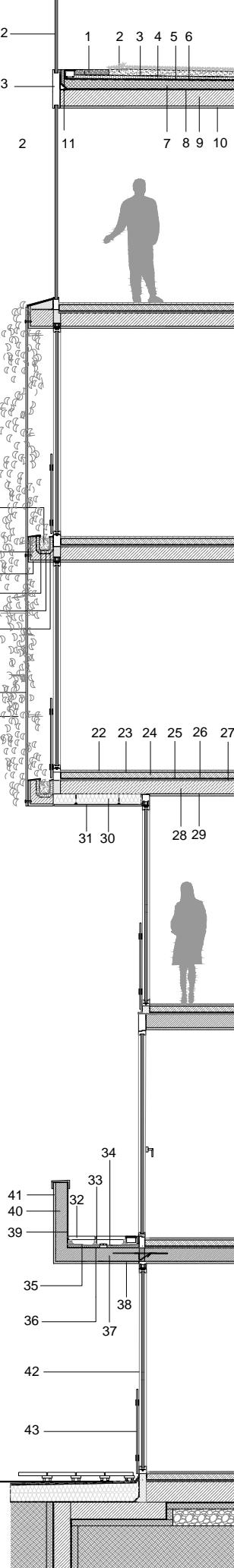
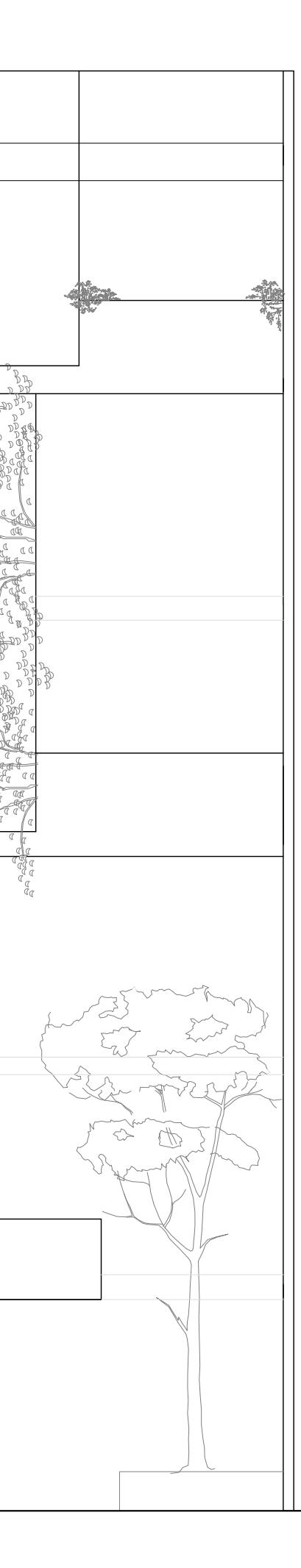
- | | |
|--------------|--------|
| 39. Plaster | 15 mm |
| 40. Concrete | 170 mm |
| 41. Plaster | 30 mm |

Total 215 mm

Wall Construction

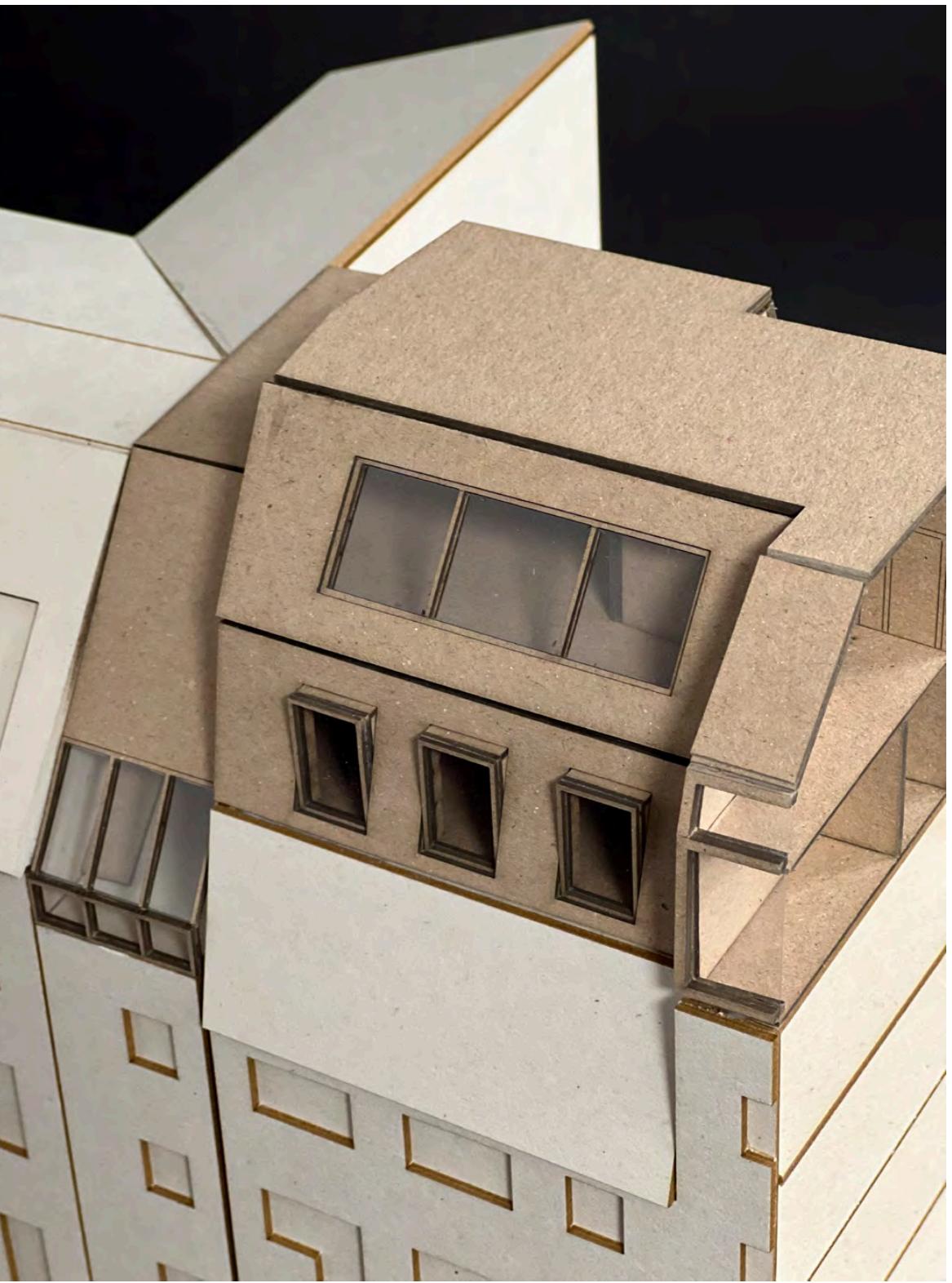
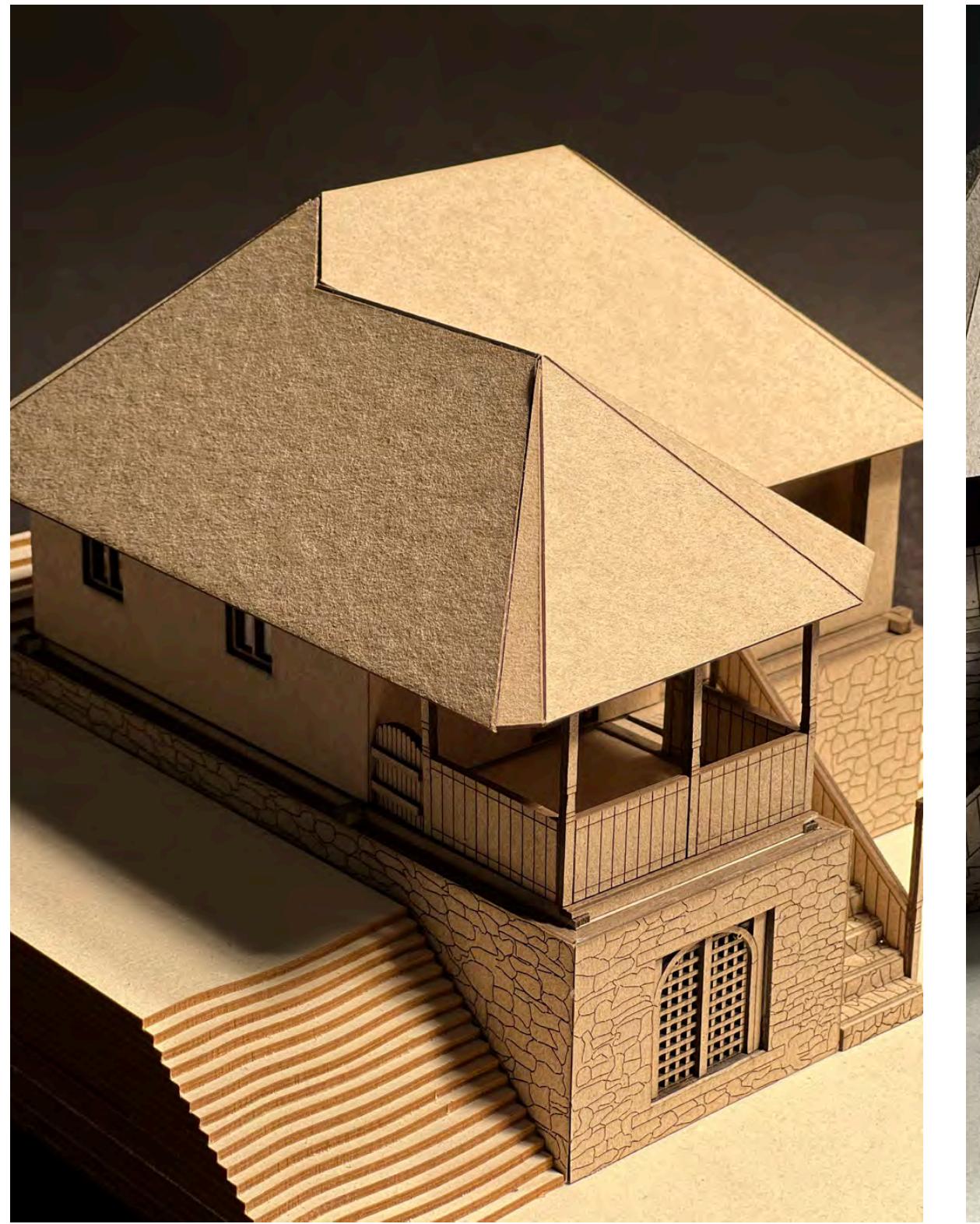
- | | |
|---|--------|
| 42. Glass frame | 100 mm |
| 43. Frameless glass balustrade (French Balcony) | 20 mm |

Total 120 mm

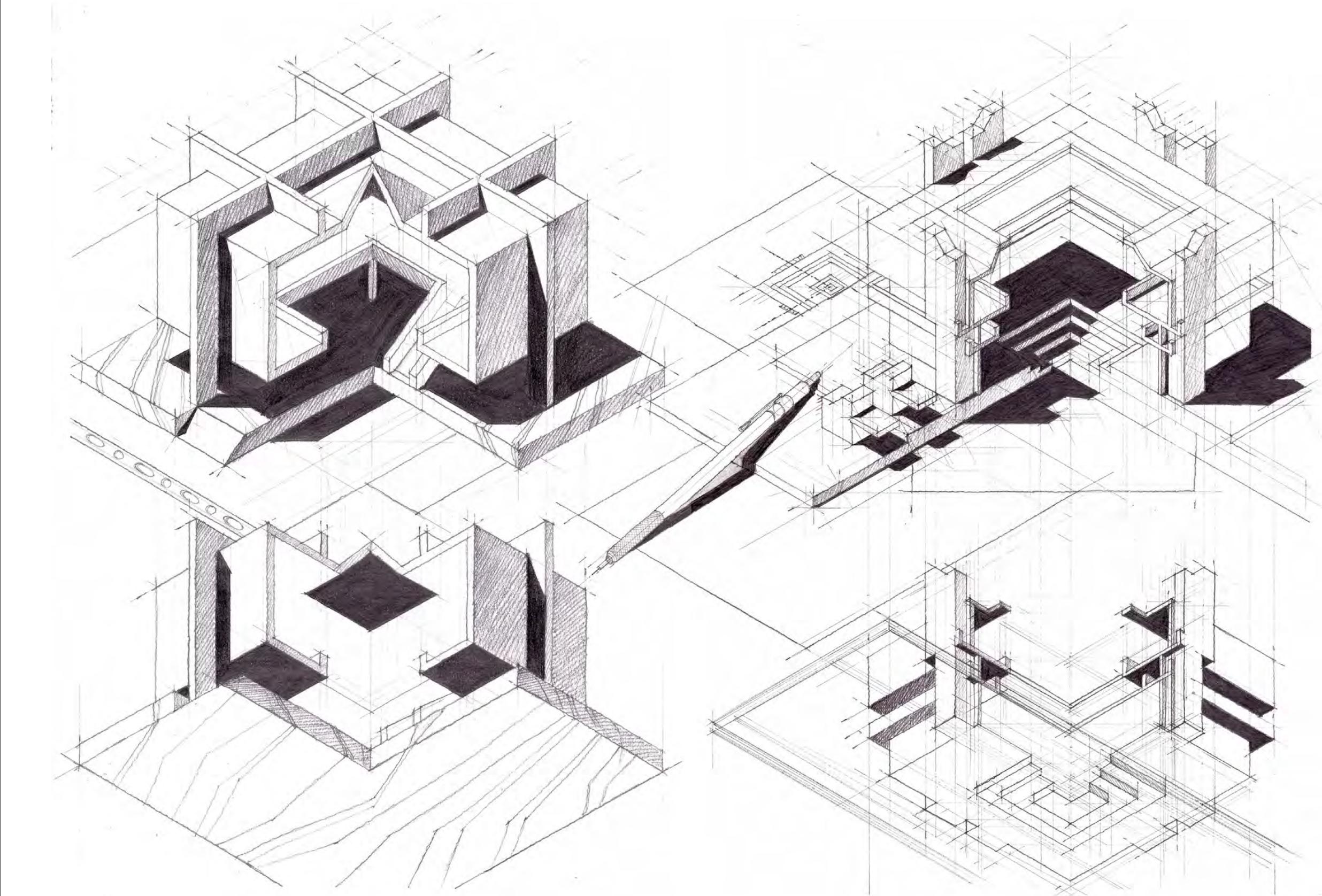
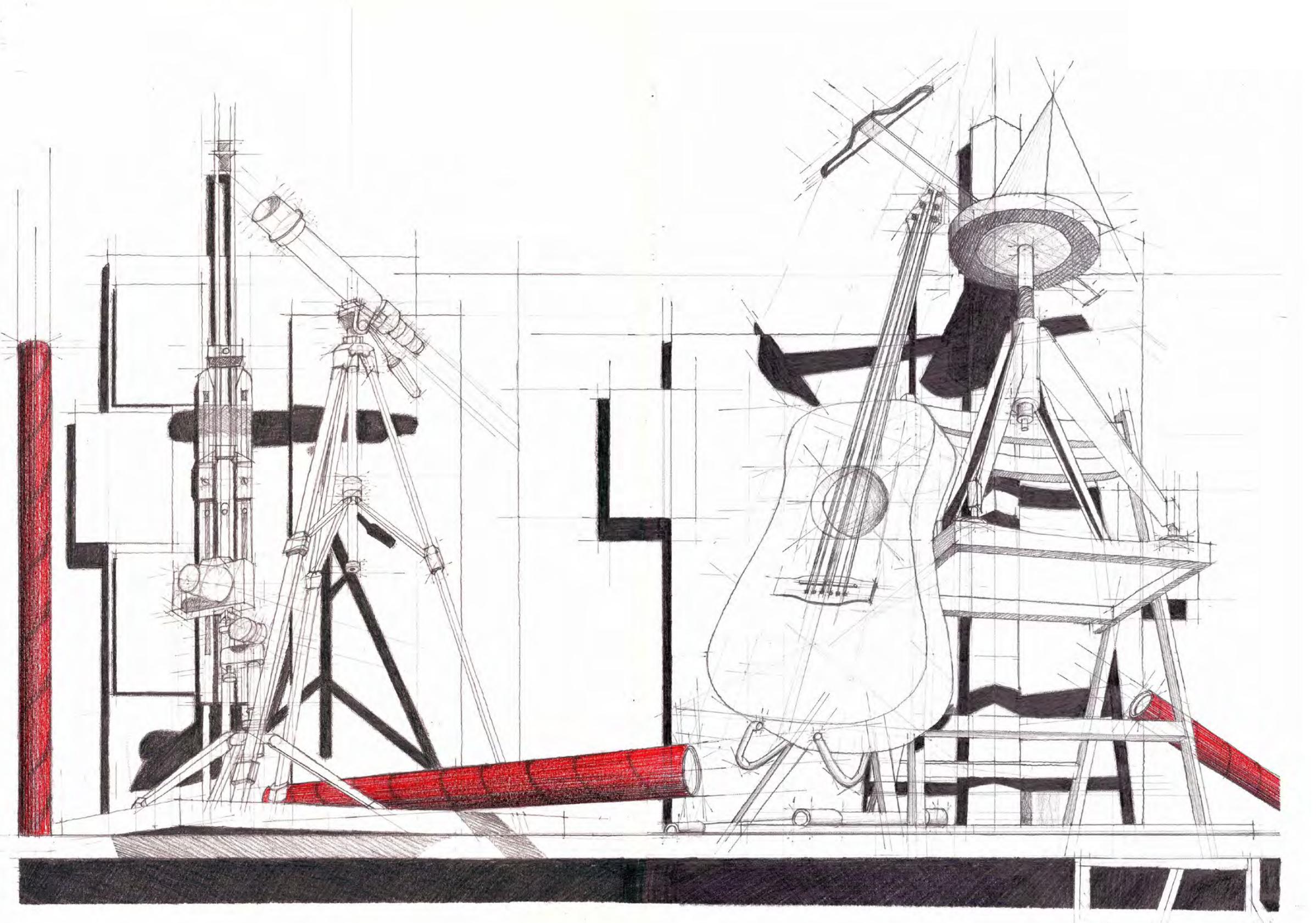


VI. DRAWINGS & MODEL-MAKING

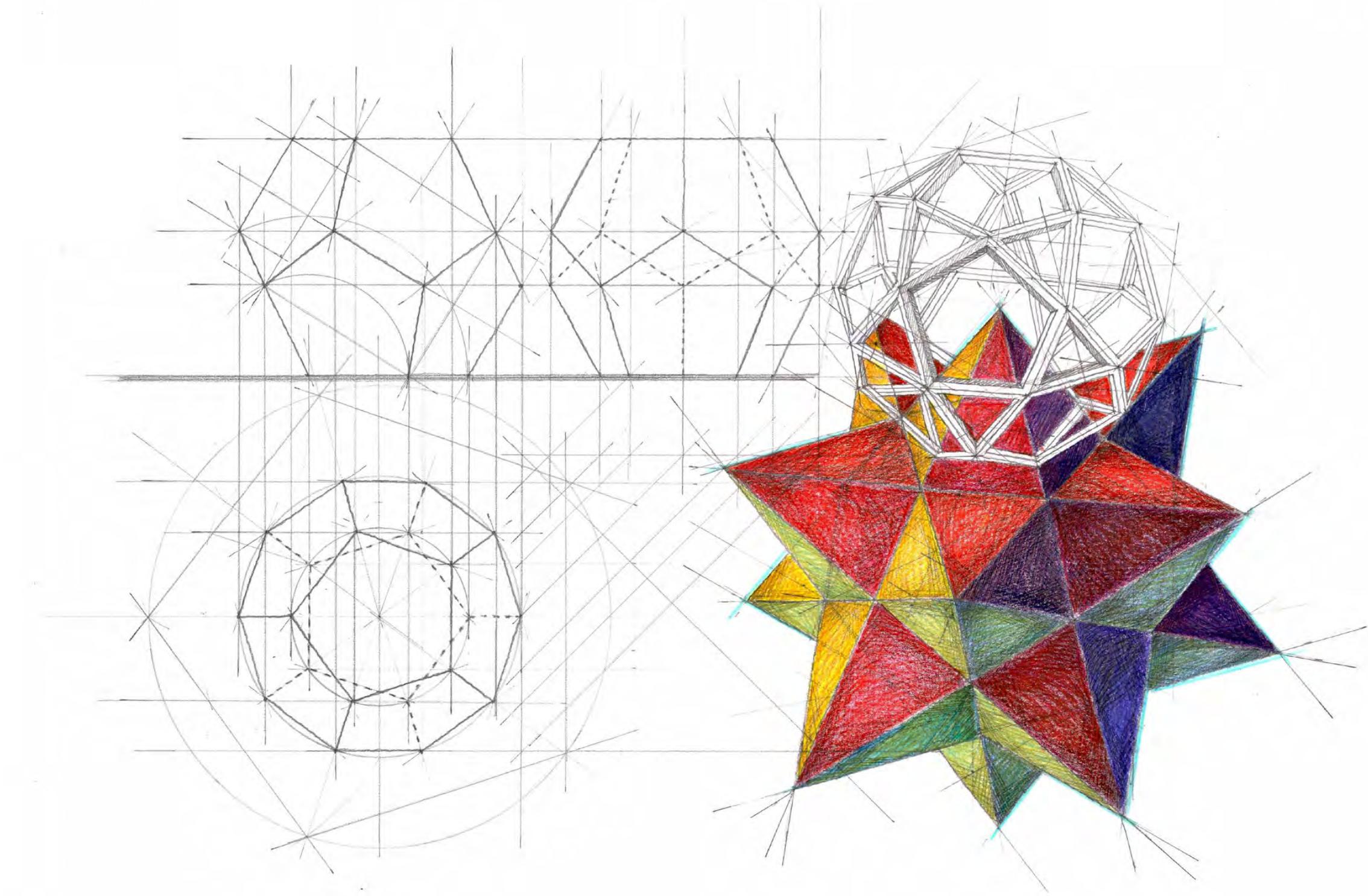
Models for the 7th semester. Individual work.



VI. DRAWINGS & MODEL-MAKING



VI. DRAWINGS & MODEL-MAKING



THANK YOU !

Ana-Maria Bulugea
