

# PORTFOLIO

KRITAMUK CHIRAAMPHAIRAT

17018677

INTERIOR DESIGN

2018 - 2020

# CONTENT

- Longchamp Staircase
- Barcelona Chair
- Appendix
- Pavilion
- Domino House
- Foundhea (retail)

**LONGCHAMP**

**STAIRCASE**

20  
19

PROFESSIONAL  
PRACTICE DOCUMENT

KRITAMUK CHIRAAMPHAIRAT



LONG CHAMP  
STAIRCASE

132 SPRING ST, NEW  
YORK, NY 10012, USA





# **Longchamp New York Thomas Heatherwick**

Group 6

Tiffany Yu-Ching Huang

Chokun Kritamuk Chiraamphairat

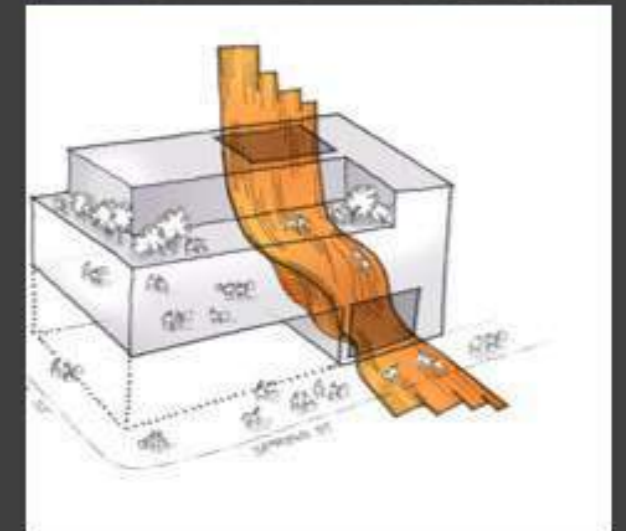
Karmen Odor

Maria Todirascu

# Content



- Thomas Heatherwick
- Longchamp staircase, New York City
- Design style
- Form and Functions
- Materiality
- Spatial Quality
- Related Design
- After Visting Longchamp Staircase
- Final Outcome
- References



A close-up portrait of Thomas Heatherwick, a man with curly hair, looking directly at the camera. The background is dark and out of focus.

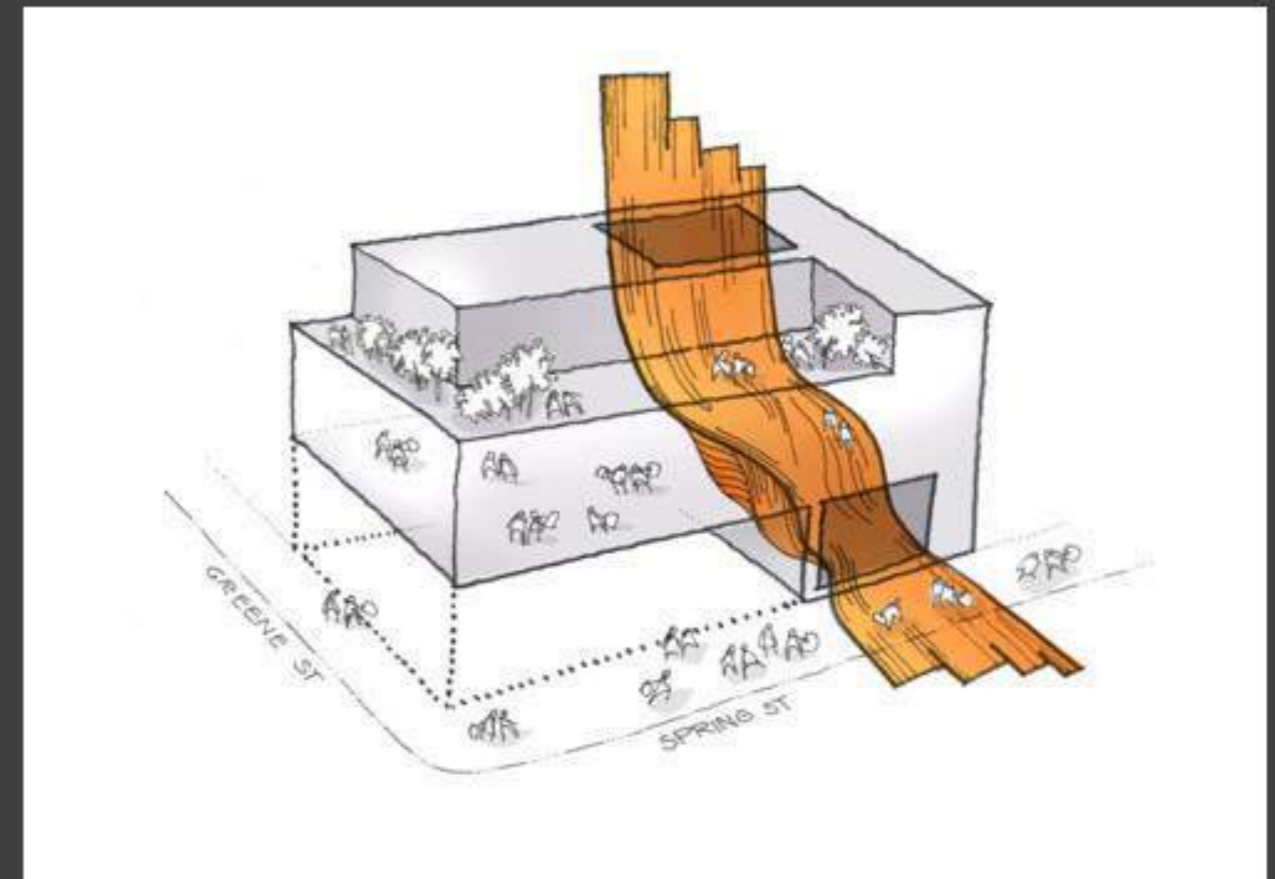
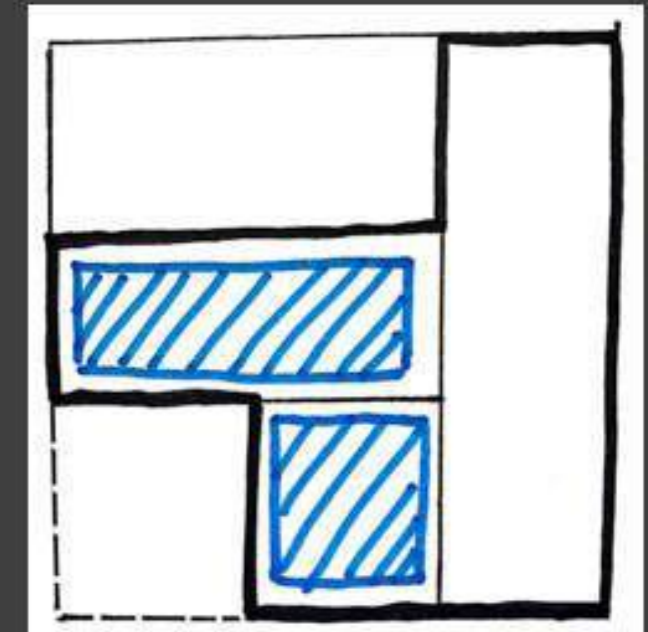
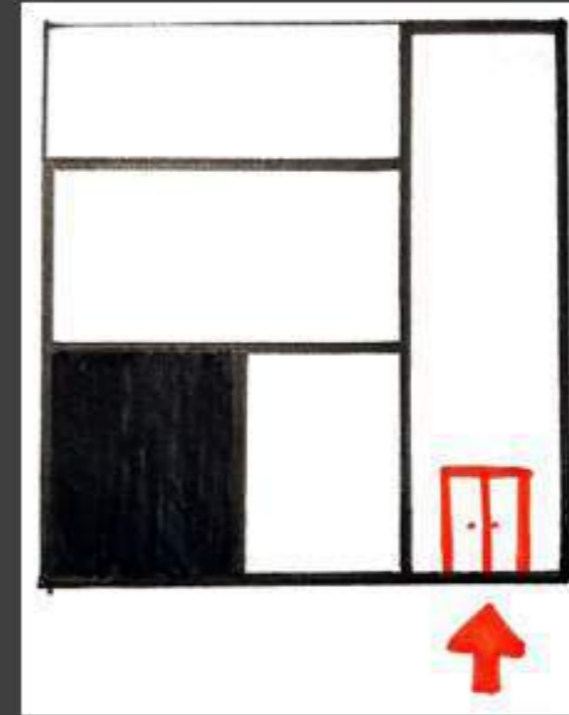
# Thomas Heatherwick

- An architect/ designer
- Has his own studio in central London in 1994
- Focusing on materials and making
- His design is characterized by its ingenuity, inventiveness and originality
- Has been appointed a Commander of the Order of the British Empire, a Royal Academician and in 2004 become the youngest Royal Designer for Industry
- The studio aim to bring the practices of design, architecture and urban planning together in a single workspace

# Longchamp Staircase

## New York City

- It is located on a corner in SoHo (Two-Storey structure).
- Three-storey structure: the ground floor, the first floor retail space and the wholesale showroom.
- Catch people attention from street.
- Create the feeling that people are below ground and needed to make their way to the surface.





# Design style

Modernism.

'Working as practical inventors with no signature style, our motivation is to design soulful and interesting places which embrace and celebrate the complexities of the real world.'

# Form & Function

- Make people feel they were underground, so they need to go upstairs.
- Accommodate a showroom and garden terrace.
- There is also the sense of a downward flow, like a waterfall falling from the skylight, dropping through the stores, bouncing over its big, generous curved surfaces, becoming stairs and landing and more stairs.



# Materiality

- Ribbons (used a series of ribbons, the width of steps, to make a landscape that flows in two directions.)
- Glass
- Steel (One-inch-thick steel plate)
- Weighs 60 tones



# Spatial Quality

- Glass - Create an atmosphere such as a waterfall falling from the skylight.





- Make people feel they are at below ground

# Related Design

- Farahi House/ Wooden-curved Staircase designed by Eisa Ghasemian (BETHANY BEACH, DE. USA)
- Hanging Stairs designed by Arquitectura en Movimiento (Mexico City, Mexico)
- Stairs Smooth designed by Andrii Ortynskyi (Lviv, Ukraine)

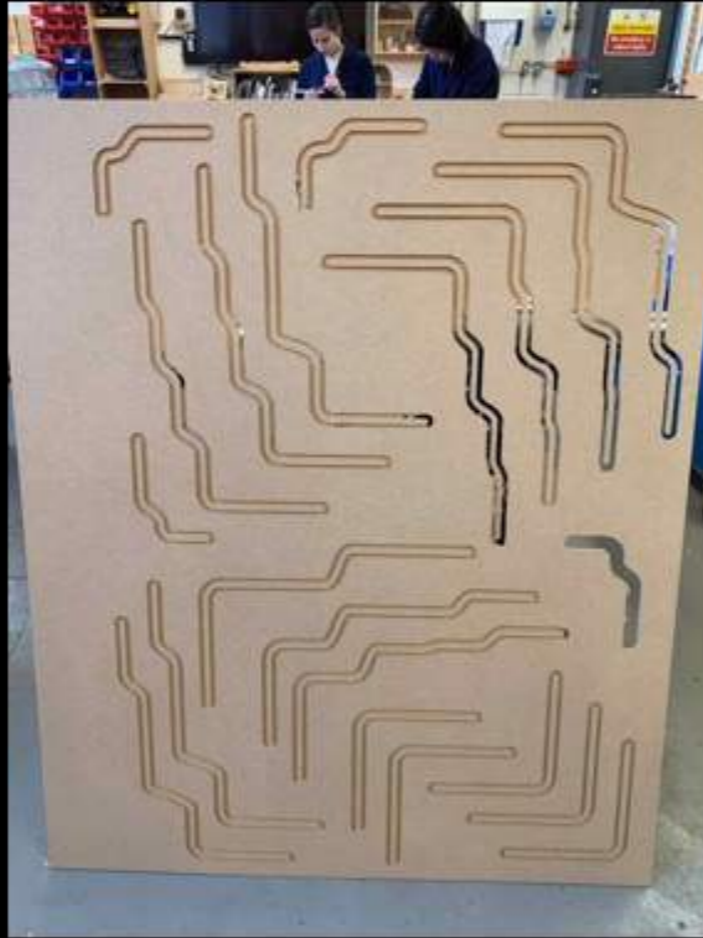


# After Visiting Longchamp Staircase

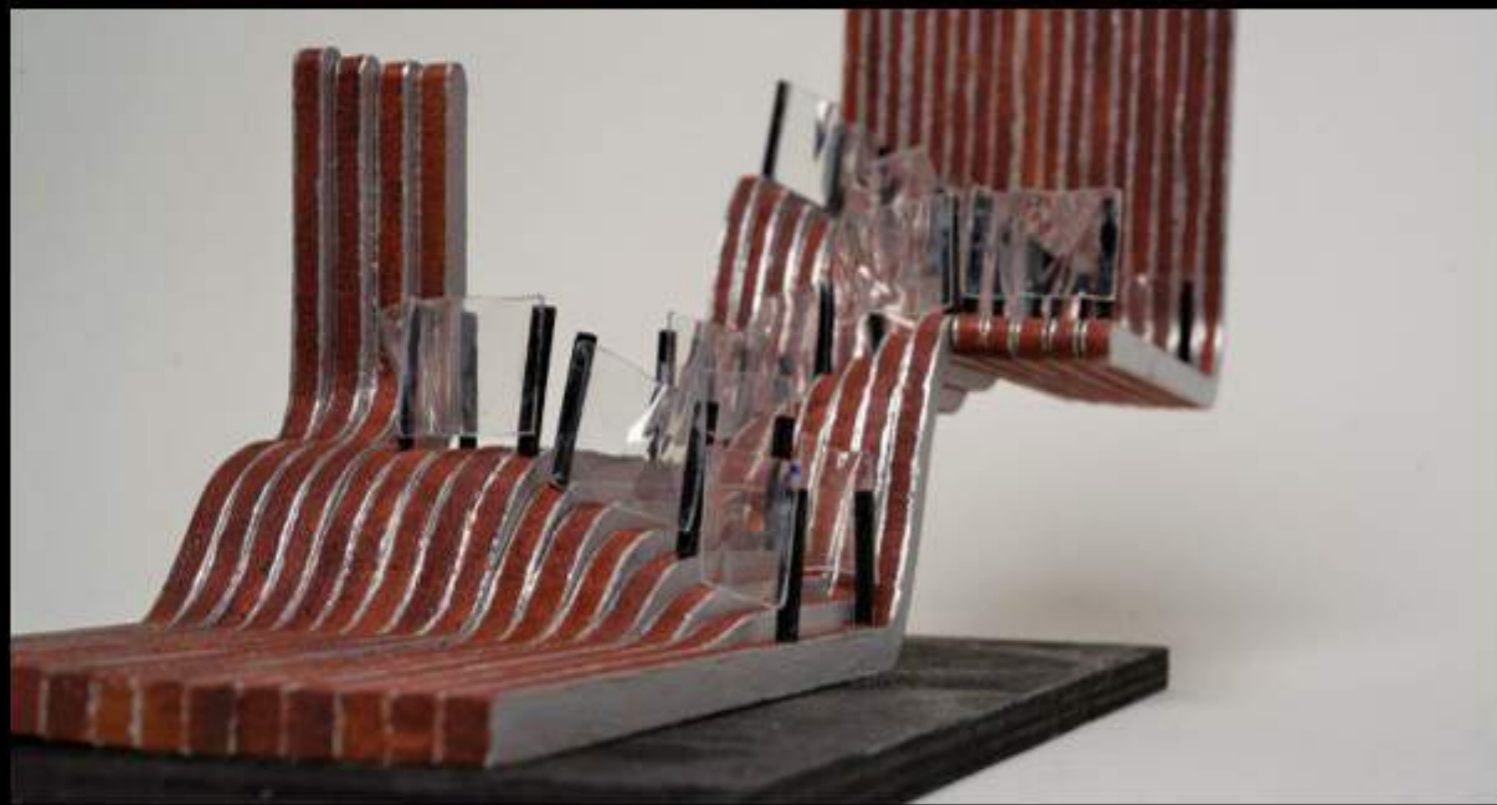
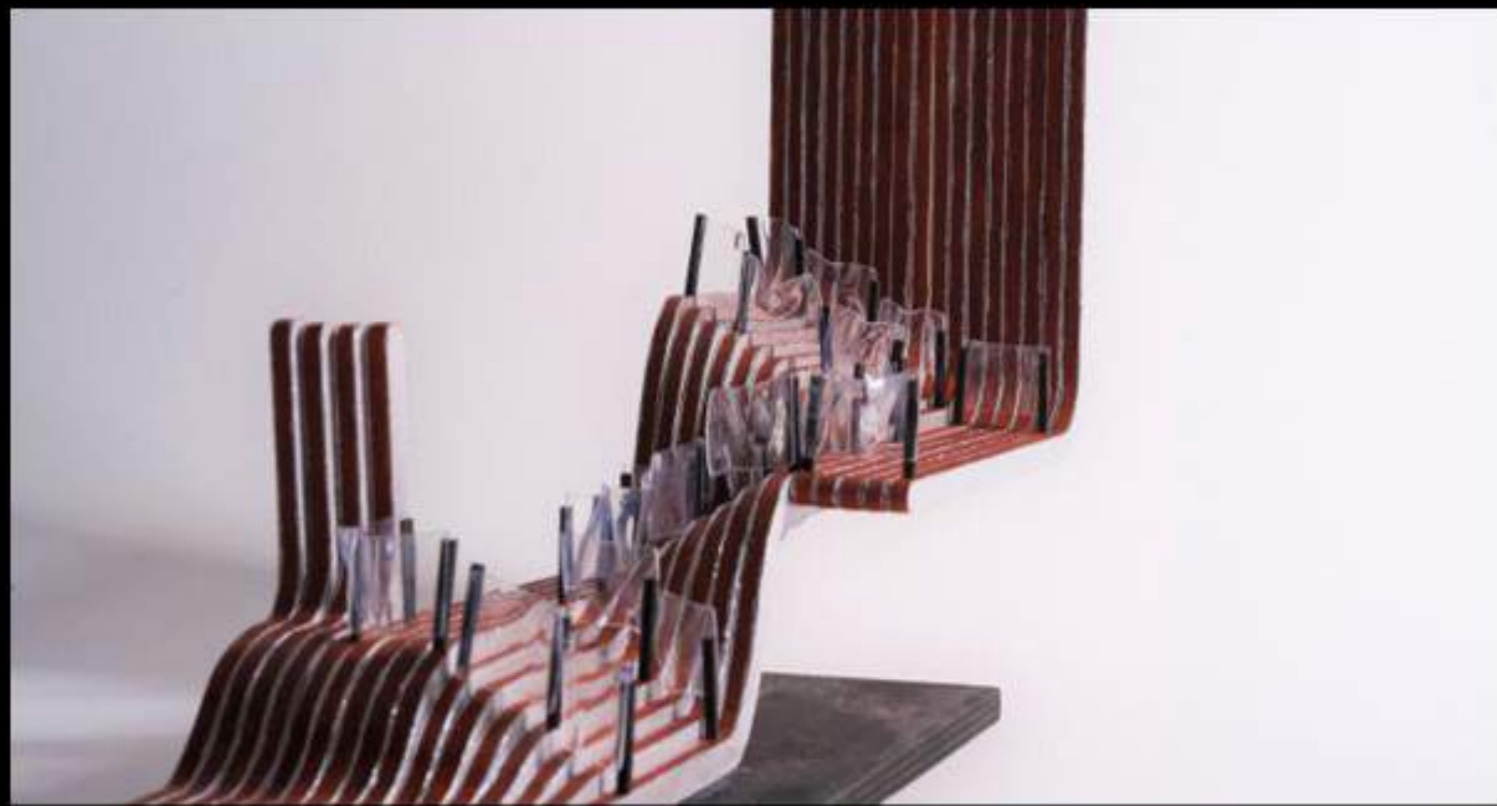
- The actual thing is bigger than he thought it would be.
- A large and clear window which is next to the entrance and at the ground floor of the store becomes a successful part that catching passengers' attention.
- The curve part of design makes the staircase special.
- It feels welcoming to walk up the stairs and want to discover what it is upstairs.



# Working Process → FINAL

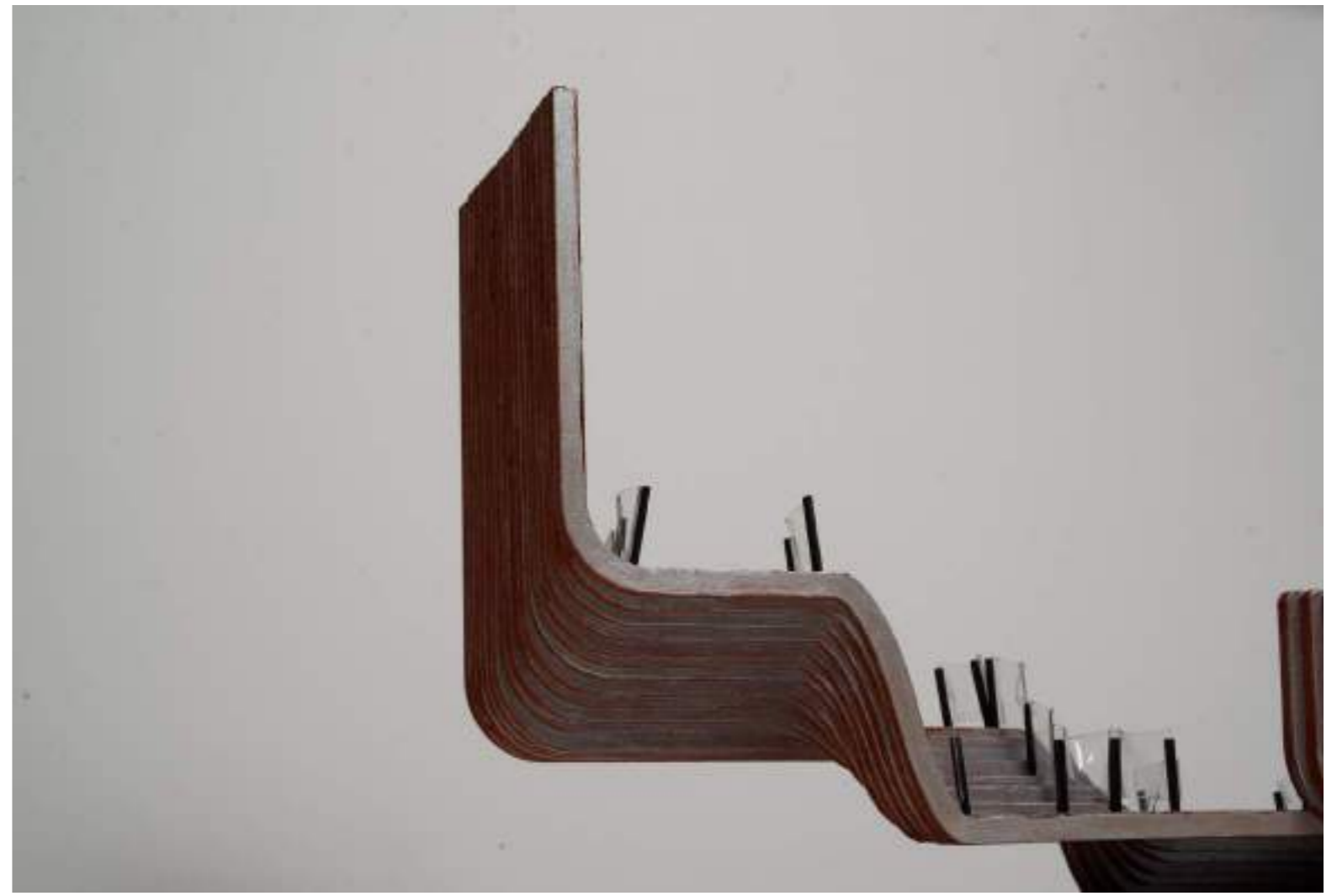
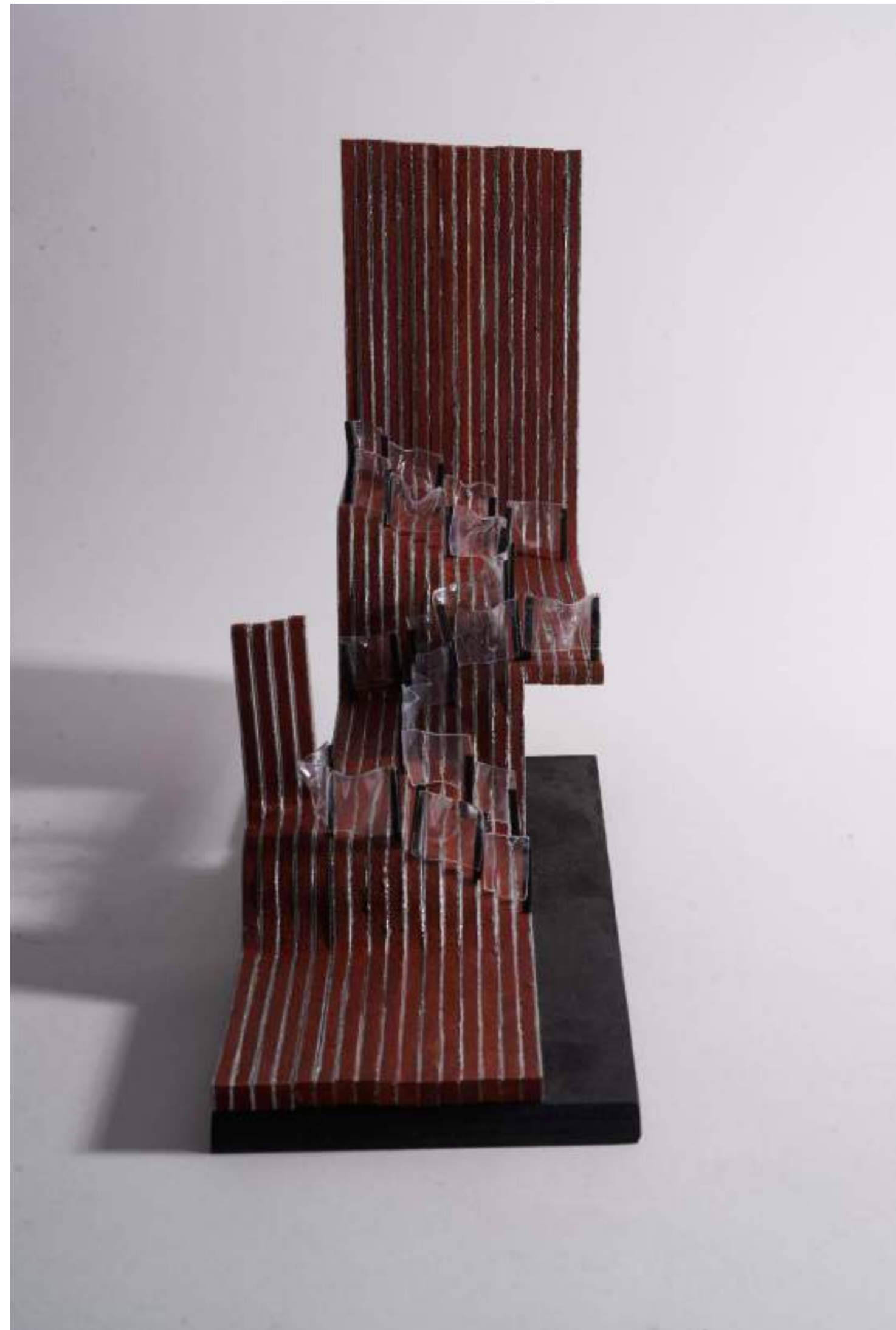






# References

- Barton, P. 2014, *Detail in contemporary staircase design*, Laurence King Publishing, London.
- Heatherwick, T. & Rowe, M. 2012, *Making*, Thames & Hudson, London.
- Longchamp Store 2004, Heatherwick Studio, viewed 23 February 2019, <<http://www.heatherwick.com/project/longchamp/>>.
- Longchamp Store 2004, Heatherwick Studio, viewed 17 February 2019, <<http://www.heatherwick.com/studio/about/>>





**BARCELONA**

**CHAIR**

# BARCELONA CHAIR

# 19 29



## UADAF9-15-1: PROFESSIONAL PRACTICE AND WORK EXPERIENCE I

# CASE STUDY CARD

Kritamuk Chiraam-

Ludwig Mies van der Rohe  
BARCELONA CHAIR



### RESEARCH:

Give a brief introduction about the designer.

### HOW and WHY is the design so important?

What Design Style/Movement is this piece from?

What are the materials?

What else is significant about the piece?

Other pieces or styles that it is closely related to.

Give a critical opinion about the piece.

### SUBMISSION REQUIREMENTS:

A1 orthographic drawing sheet containing:

- Title block and relevant scale
- At least one plan
- At least one side elevation
- At least one section
- Additional drawings as appropriate (details/axon etc)

Any other information (list):

Hints and tips:



# CONTENT

- 01** How and Why is the Design so Important
- 02** The Design Style/Movement
- 03** The Materials and How it was Made
- 04** The Significant about the Piece
- 05** Pieces/Style that is Related
- 06** The Barcelona Pavilion
- 07** Other Informations/ Experiment/Bibliography

# 01

## How and Why is the Design so Important



It was designed by Ludwig Mies van der Rohe and Lilly Reich in 1929.

It was originally designed for the German Pavilion, that country's entry for the international Exposition of 1929, which was hosted by Barcelona, Catalonia, Spain. It was also designed to be like a throne for the Scottish royal family.





He came up with a set of pioneering designs in the search for a style that would be suitable for the modern industrial age. While many of his ideas remained unbuilt

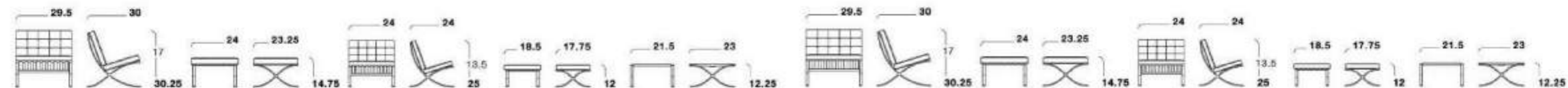
# The Design Style/Movement

02

The Barcelona chair was design in the Bauhaus era, Ludwig Mies van der Rohe did collaboration with his compatriot, an ex-Bauhaus student, Lilly Reich. Lilly Reich was Mies long time partner and companion, the brilliant architect and designer



The Barcelona Chair caused a sensation that has lasted for nearly eight decades. Today, it is still a "must have" piece in the homes of wealthy aficionados, as well as architects and designers. The Barcelona was even honoured with the Museum of Modern Art Award in 1977.





His style was deceptively simple with clean lines and he used modern materials such as stainless steel and plate glass in his buildings, which he referred to as "skin and bones" architecture.



The following year, Mies was appointed director of the Bauhaus school until 1933, when it was shut by the Nazis.

In 1950, Mies redesigned his old Barcelona chair using modern techniques which allowed the frame to be moulded from a single piece of stainless steel rather than being bolted together.

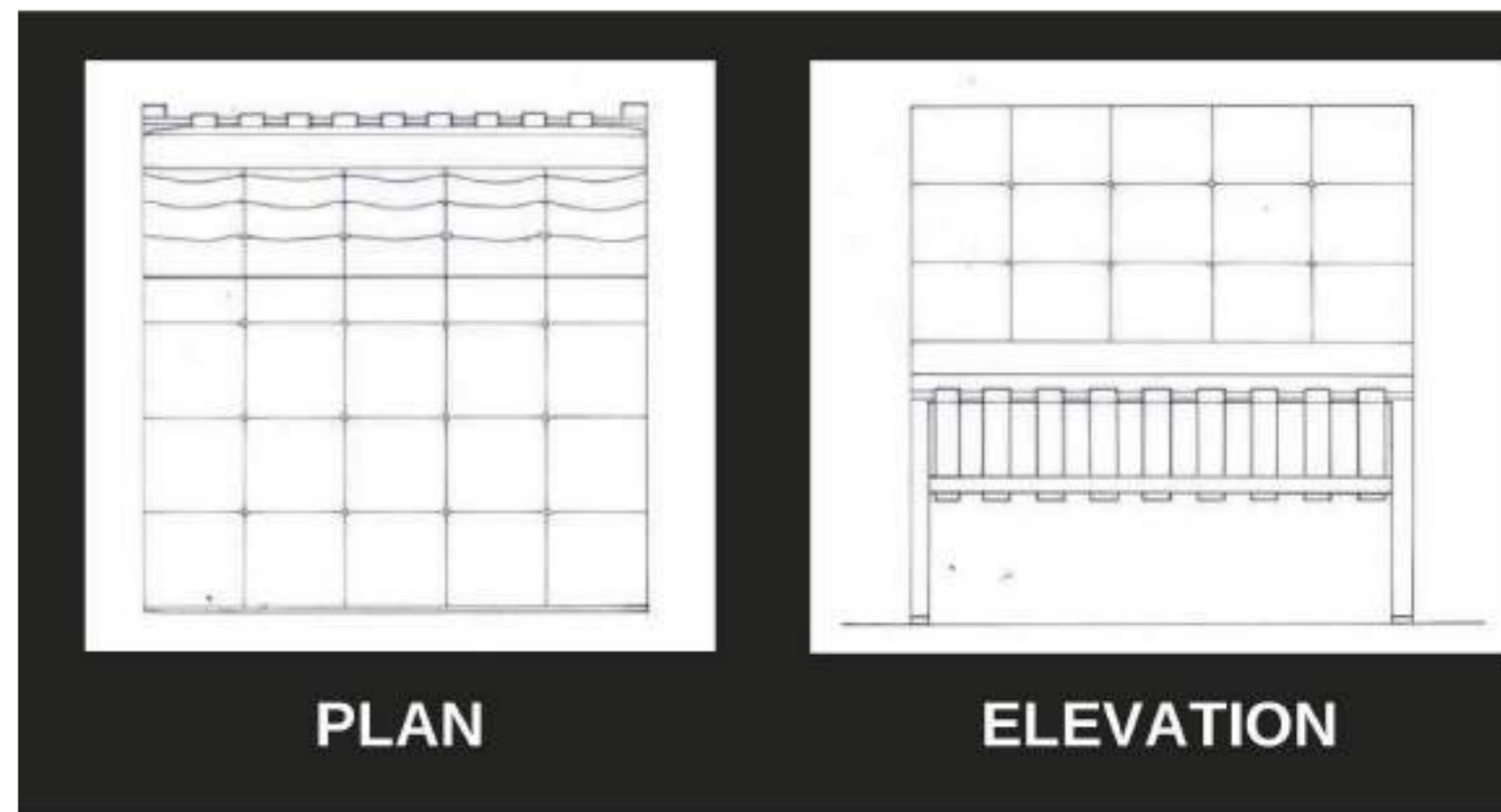
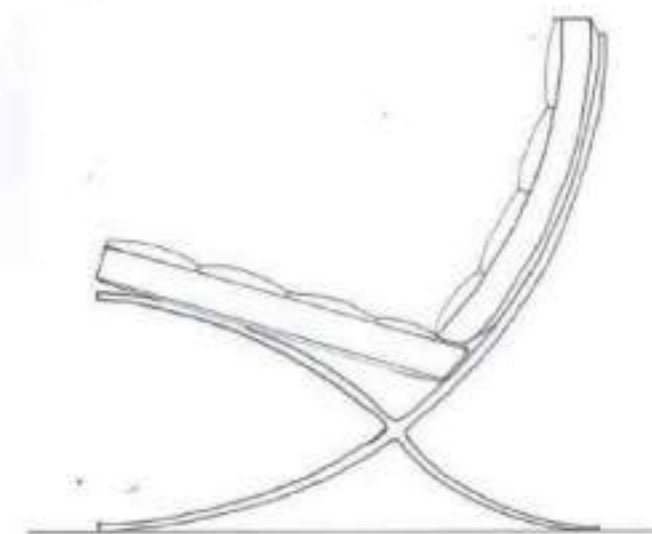


# ORTHOGRAPHIC DRAWING



PERSPECTIVE

## SECTION



PLAN

ELEVATION



# The Materials and how it was made

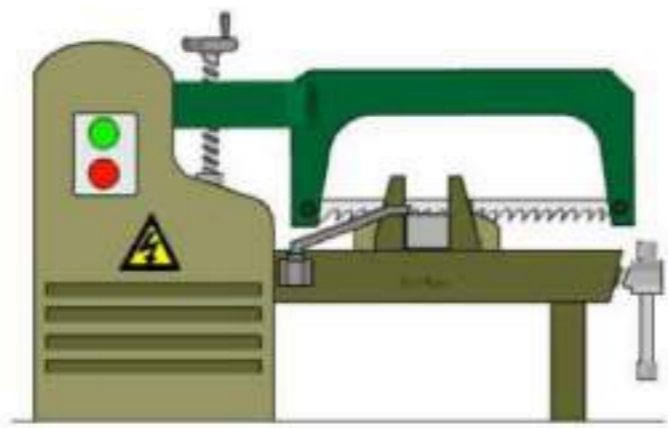
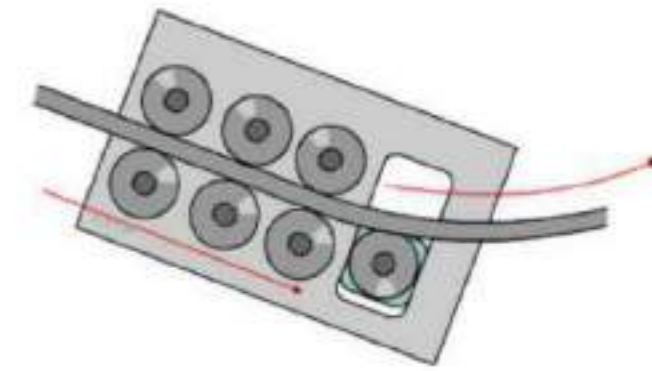
03

- Ivory Pigskin Leather
- Foam (inside)
- Leather Strap
- Reflective Chrome Steel



# The Method

After the selection of quality steel or stainless steel. The flat strips that will later form the 'sides', are put through a set of rollers. This gives each frame its distinctive curve.

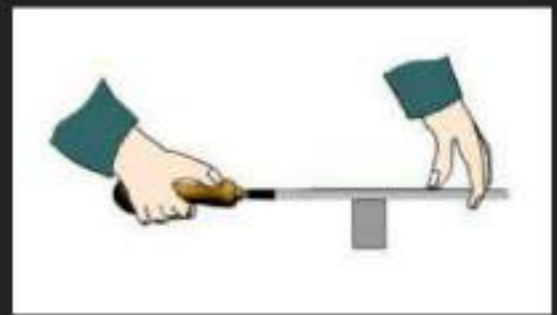


The curved frames are cut to the correct length, using a machine hacksaw. Cutting after the curve has been formed, ensures that the remaining flat part of the material is removed.

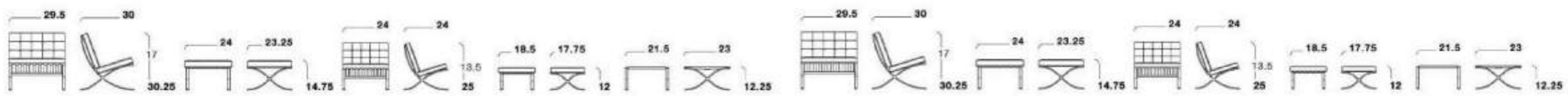
## changes

- >They change from using ivory pigskin leather to black bovine leather
- >They created for than one colours
- >Chrome steal change to polished stainless steal
- >Cotton, burlap and horsehair filling of the upholstery has been replace by foam rubber (the resulted is an even more long lasting chair, with virtually nothing to wear out)

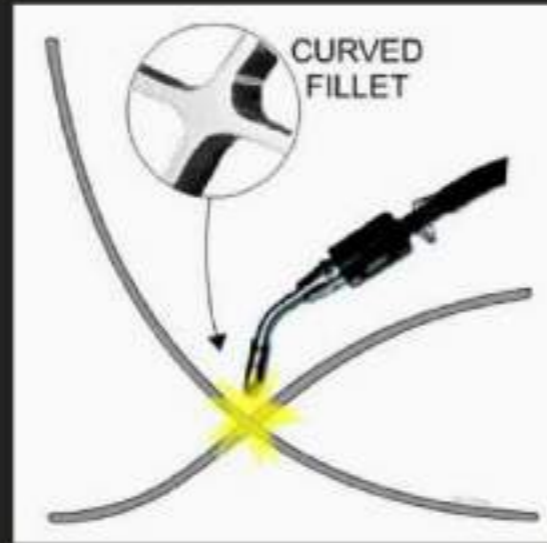
The 'cut' surfaces are finished by hand, removing burrs and rough edges. This ensures that the steel is smooth, ready for further grinding.



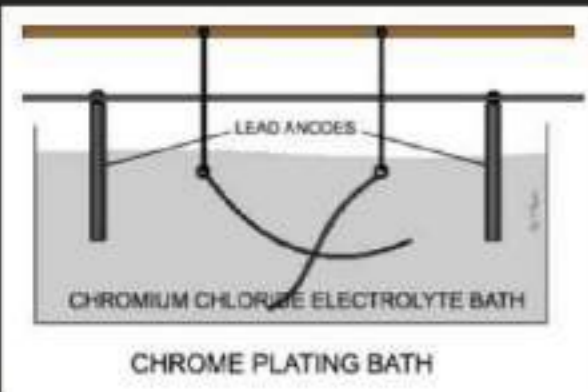
A machine grinder is used to remove rough edges, along the lengths of each curved piece of steel.



The curved pieces of steel, that form the sides of the chair, are set up in a jig and welded together. This is completed very accurately, as a smooth fillet is required at the intersection. The cross pieces and the two side frames are welded, forming the sturdy completed frame. The welds are filed by hand, ensuring a perfect surface finish.



Chrome plating, is a technique, whereby a thin layer of chromium is added to the surface of steel. This protects the steel from corrosion but also gives it a quality, reflective silver finish. (if stainless steel is used for the frames, they do not require chrome plating). One chrome technique uses chromium chloride as the main solution. The chair frame is lowered into the chrome plating bath and allowed to reach the same temperature. An electric current is applied to the solution and after time, chrome is deposited on to the surface of the steel.



Each cushion is manufactured from forty individual pieces of leather. Each square is individual cut to size. The buttons hold the patch work of leather squares together. The piping between each button is also composed of separate pieces. The buttons are hand stitched in position.

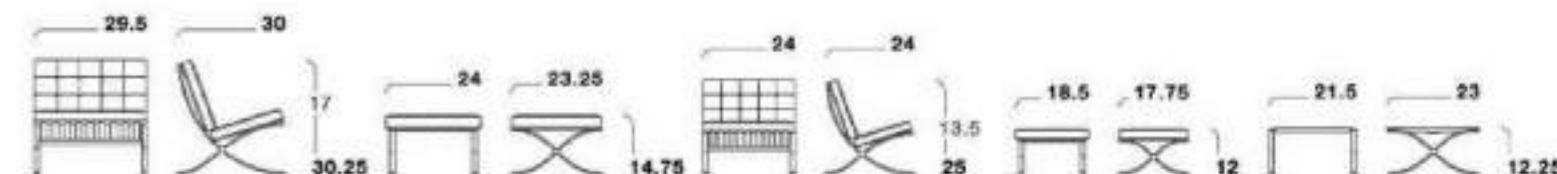
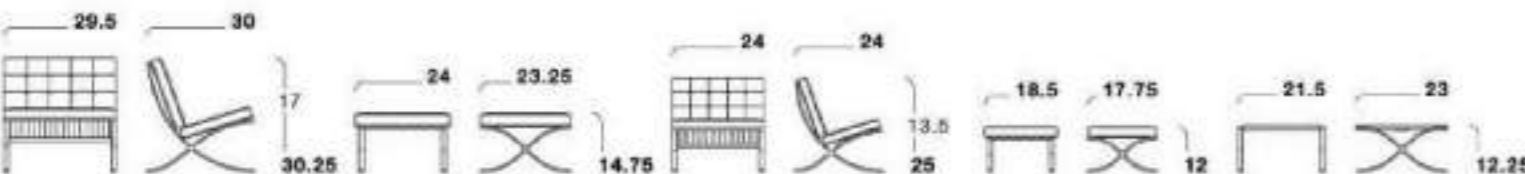


## The Significant about the Piece

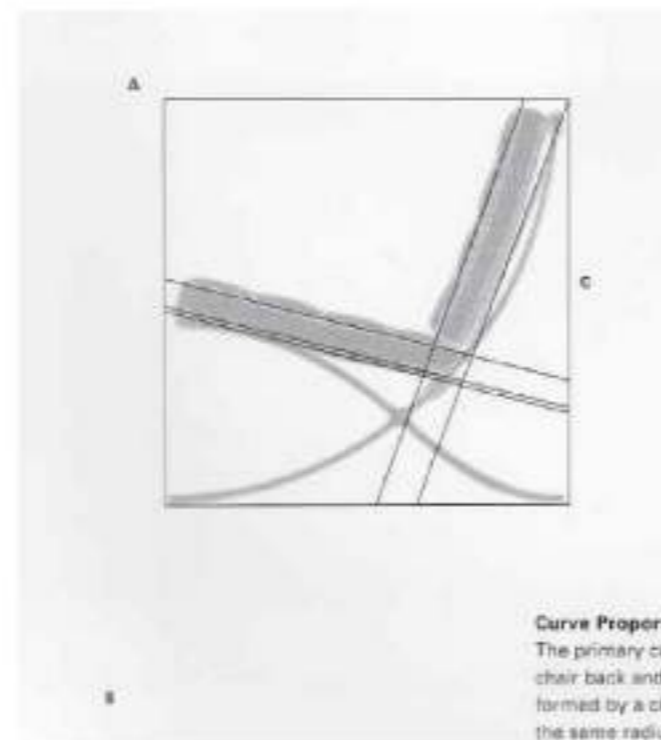
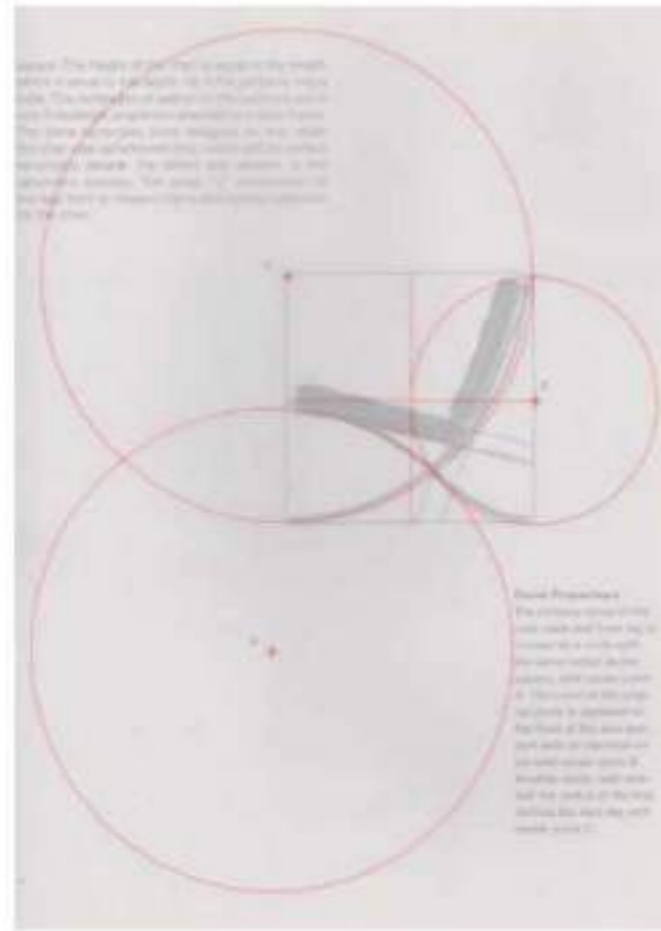
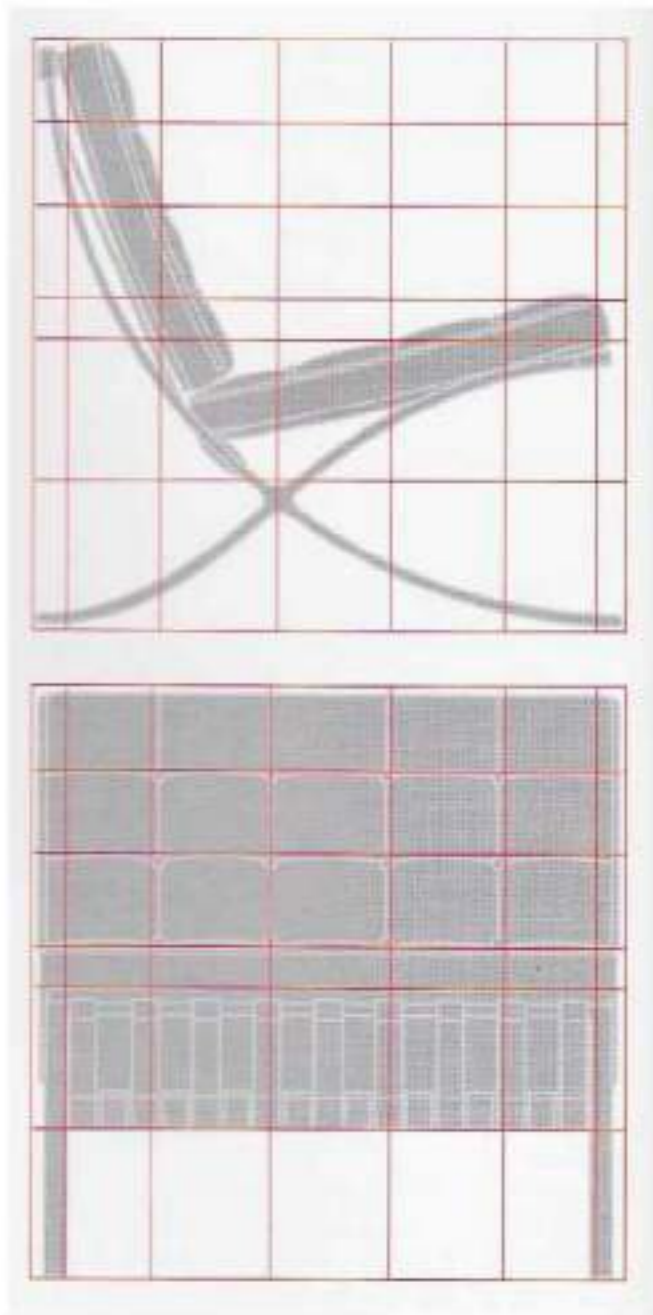


The Barcelona chair was like a throne, it was design for the Spanish Royal Family, for King Alfonso XIII and his queen, Ena, in case they would like to have a rest while visiting the pavilion. Unfortunately the royal couple never sat in the pavilion

The amount of hand work required in the making of the chair is staggering. The upholstery is composed of forty separately cut panels joined by narrow hand-sewn welts, the leather straps are held on by seventy-two screws each tapped and screwed into the metal frame through the ends of the straps, the stainless-steel frame is all electric arc welded, hand finished, and polished to a perfect mirror finish. Apart from some machine sewing and the extruded-steel section the chair is almost entirely hand-made, which explains its high purchase price.



The height of the chair is equal to the length which is equal to the depth, so it fits perfectly into a cube.



**05**

## Pieces/Style that is related

The idea of the chair was taken from the Roman aristocrats Chairs called the Curule Chair, and also the Egyptian folding chair and it requires much more hand craftsmanship than normal chairs. you can see that the leg of the chair looks really similar to the the Barcelona chair.



Egyptian folding chair



Curule Chair



06

# The Barcelona Pavilion

The Barcelona Pavilion was the German Pavilion for the 1929 International Exposition in Barcelona, Spain. This building was used for the official opening of the German section of the exhibition.



It is an important building in the history of modern architecture, known for its simple form and its spectacular use of extravagant materials, such as marble, red onyx and travertine. The same features of minimalism and spectacular can be applied to the prestigious furniture specifically designed for the building, among which the iconic Barcelona chair.



# Other Informations

07

# Knoll



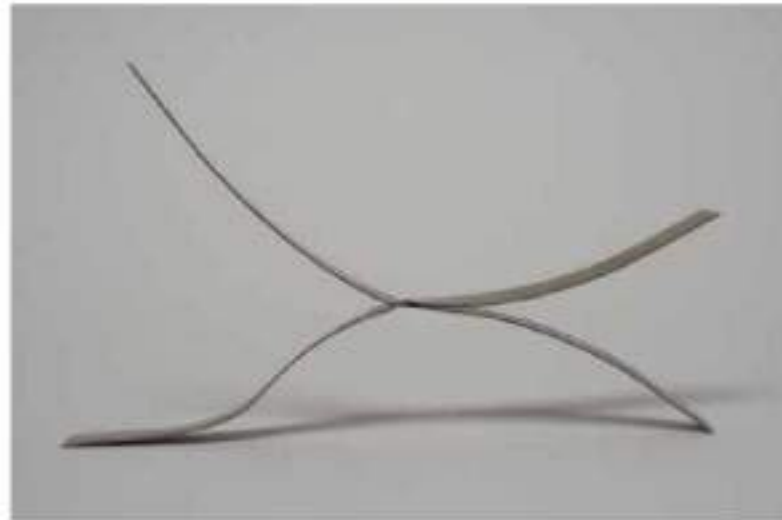
The Barcelona chair went into commercial production only in 1953 when Mies van der Rohe sold the rights to Knoll, and it continues to be manufactured by the US company today. The chair currently sells at upwards of \$4,000, though unlicensed replicas are commonplace.

The Barcelona chair is at its best in an open space, where it can be appreciated from a distance away, or where it can be seen from a low angle



# Experiment

I did an experiment on the shape and curve of the Barcelona chair and also the structure of it. The first image is two metal crossing over each other and the second picture is metal being weld together.



# Bibliography

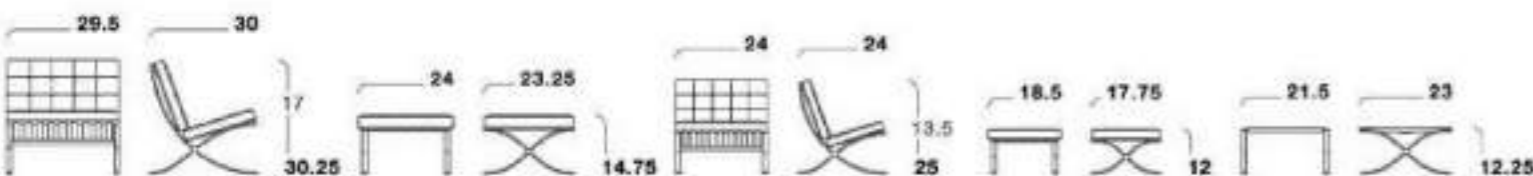
- Elam, K. 2001, Geometry of design: studies in proportion and composition, Princeton Architectural Press, New York.
- Czerwinski, M. & Design Museum (London, E. 2009, Fifty chairs that changed the world, Conran Octopus, London.
- Vazquez Montalban, M. & Robinson, A. 1992, Barcelonas, Verso.
- Gonzalez, A. & Lacuesta, R. 1995, Barcelona: architecture guide 1929-1994, Gustavo Gili.
- González, A. & Lacuesta, R. 2002, Barcelona architecture guide, 1929-2002, New edn, Editorial Gustavo Gili, Barcelona.

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# APPENDIX

# APPENDIX

—  
KRITAMUK  
CHIRAAMPHAIRAT





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ASHMOLEAN MUSEUM  
OXFORD

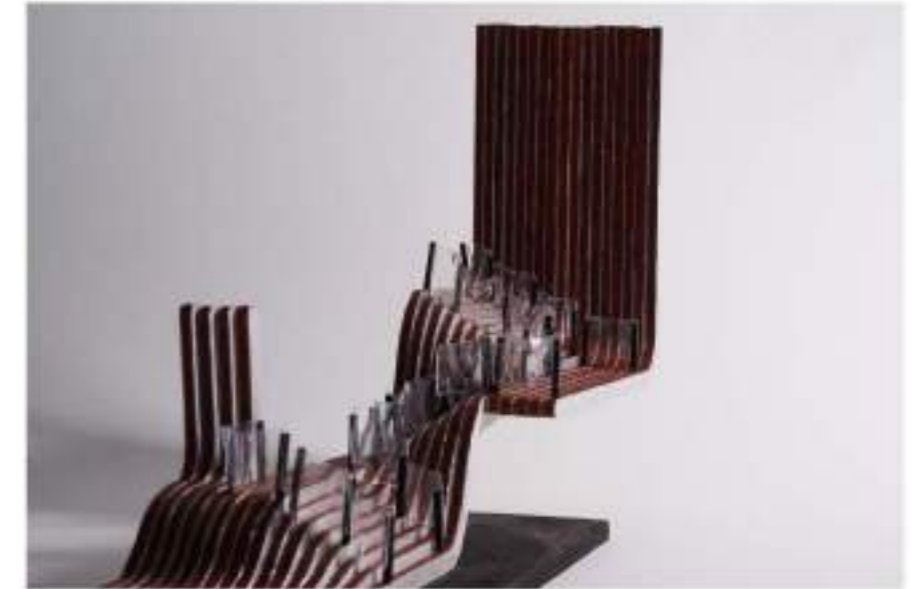
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PITT RIVERS MUSEUM  
OXFORD

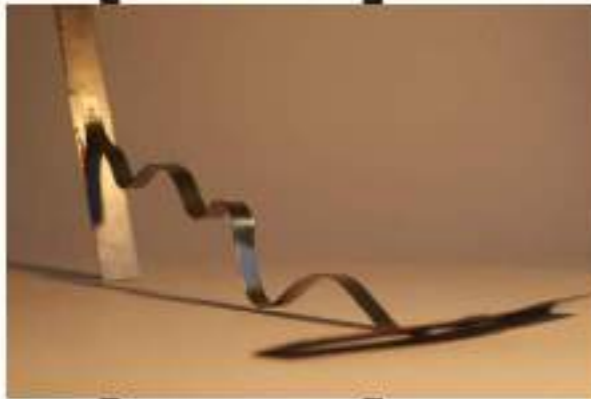
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MODERN ART OXFORD EXHIBITION  
OXFORD

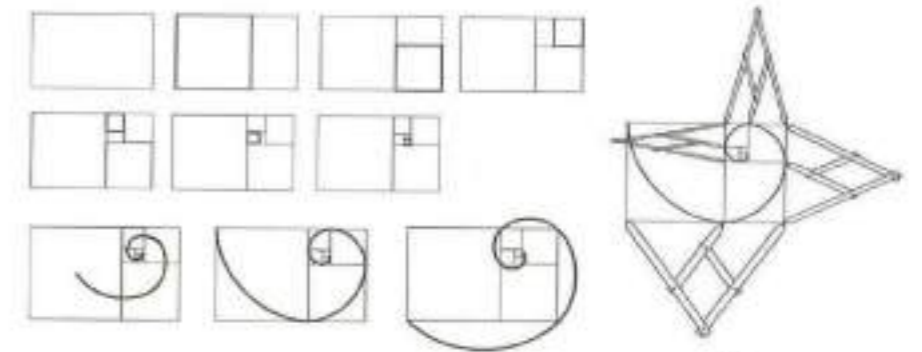
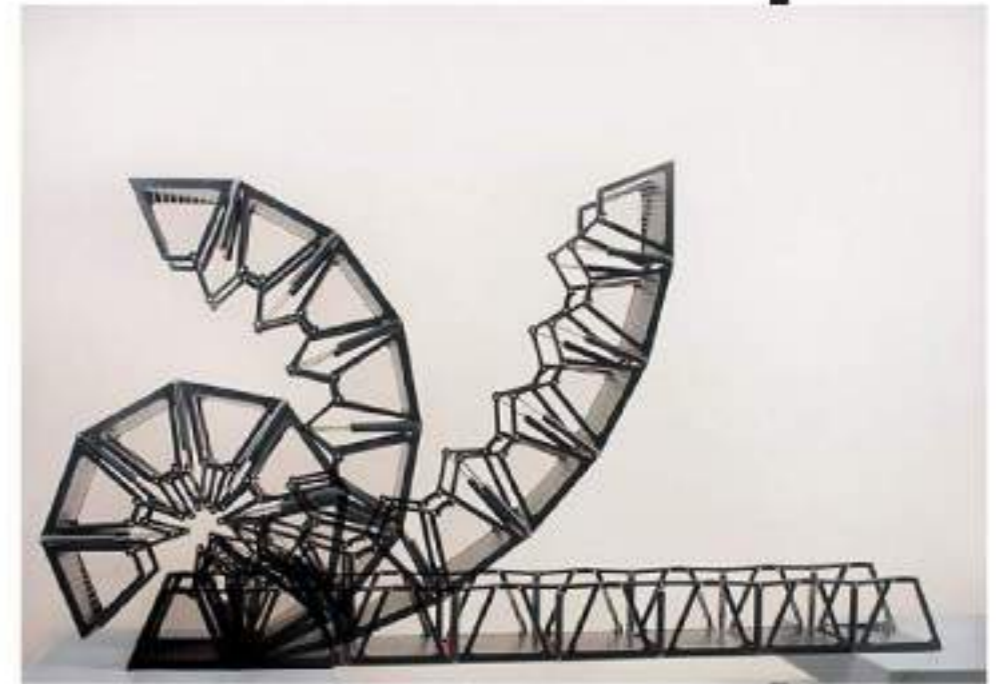
## MAKING THE STAIRCASE

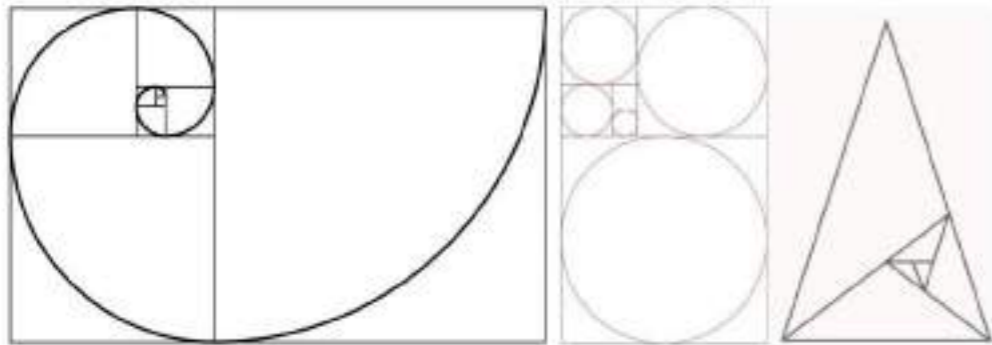
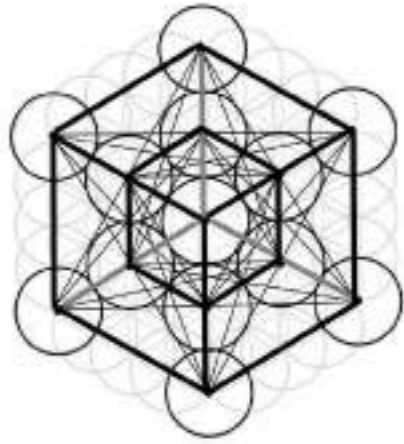


We had James from the model making company to come in and help us think what material we should use for our staircase model, and also how we should make it. He also gave us some tips and tricks for the model making. At first we were going to bend metal strip to make the curve of the staircase, but after we had a talk with James he told us about using the CNC machine to cut each layer of the staircase out. If we didn't have the talk with James we would be bending the metal strip and I'm sure the curve of the stairs wouldn't be accurate. But the hard part for using the CNC machine is when I had to draw everything up on Illustrator first and it wasn't easy.



## GEOMETRY LECTURES





One of the lecture that I like the most was the geometry lecture. I really like how the shape is form and how the shape was drawn, it was really interesting to know how to draw the golden ratio, and i also try to use the golden ration and the golden rectangle in my design.

## LONGCHAMP STORE NEW YORK





I went to America for the winter break this year to visit my friend and I was able to go to the Longchamp store in New York. and that's where the staircase that we got for the staircase project stand. it was a really good opportunity that i was able to go visit the real staircase and not only did research from photographs. The real thing was a lot bigger than I expected, it was massive. it didn't look that amazing when I look through the front store window, but when I walk in the the staircase was really outstanding and really have it's own unique design.

## TATE MODERN LONDON





Went to Tate Modern in London this year and I've found a lot of interesting art and exhibition at the museum. one of the art work that I was very surprise to find in Tate was a painting by Piet Mondrian. I remember studying about him and doing research about him. I didn't think that I would find his work at Tate and be able to see his work in real life. I also use his painting as a inspiration for my project.

## ASHMOLEAN MUSEUM OXFORD



## PITT RIVERS MUSEUM OXFORD



## MODERN ART EXHIBITION OXFORD



Nicolas Party : Speakers



Last year I when to oxford and went to the modern art museum and there was an exhibition going on at the time. the exhibition was by Nicolas Party an artist from Switzerland and the exhibition was called "speakers". i was very interested on how she made the layout of the room and also how she place each head in each area and direction. and each head had a speaker inside and its making noise all the time.

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**PAVILLION**



# INSPIRATION

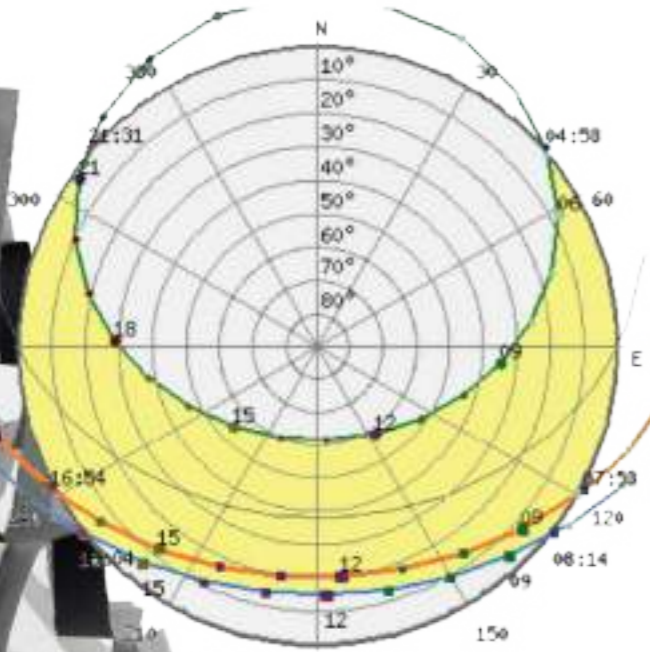


THE TOWER AT TEMPLE CHURCH



THAI LANTERN

The inside of the tower remind me of the Thai lantern called "Kratong puang tow lung". I got the modular form from the individual shape of the lantern, and I looked at the sunpath as the lantern create a really nice shadows.



SUN PATH ANALYSIS



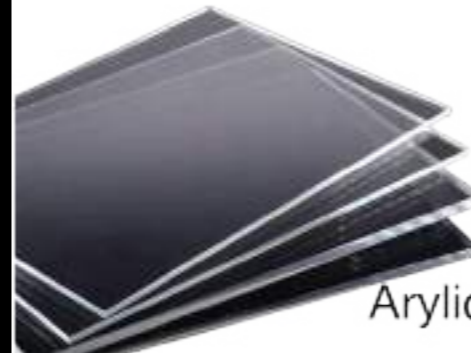
# PAVILION

LEFT ELEVATION

RIGHT ELEVATION

PLAN

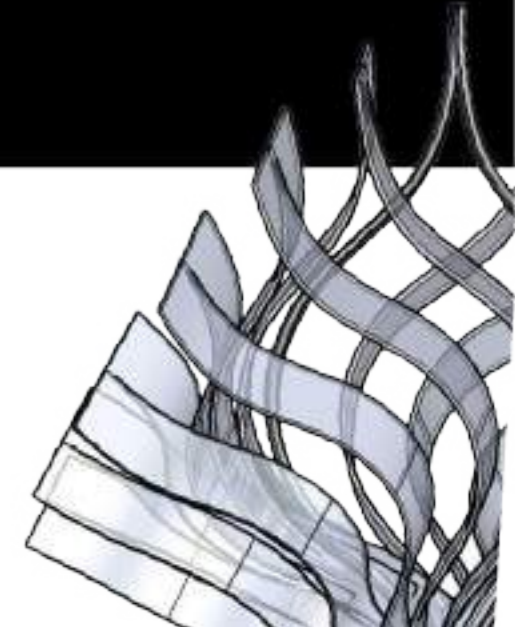
## MATERIAL



Acrylic Sheets

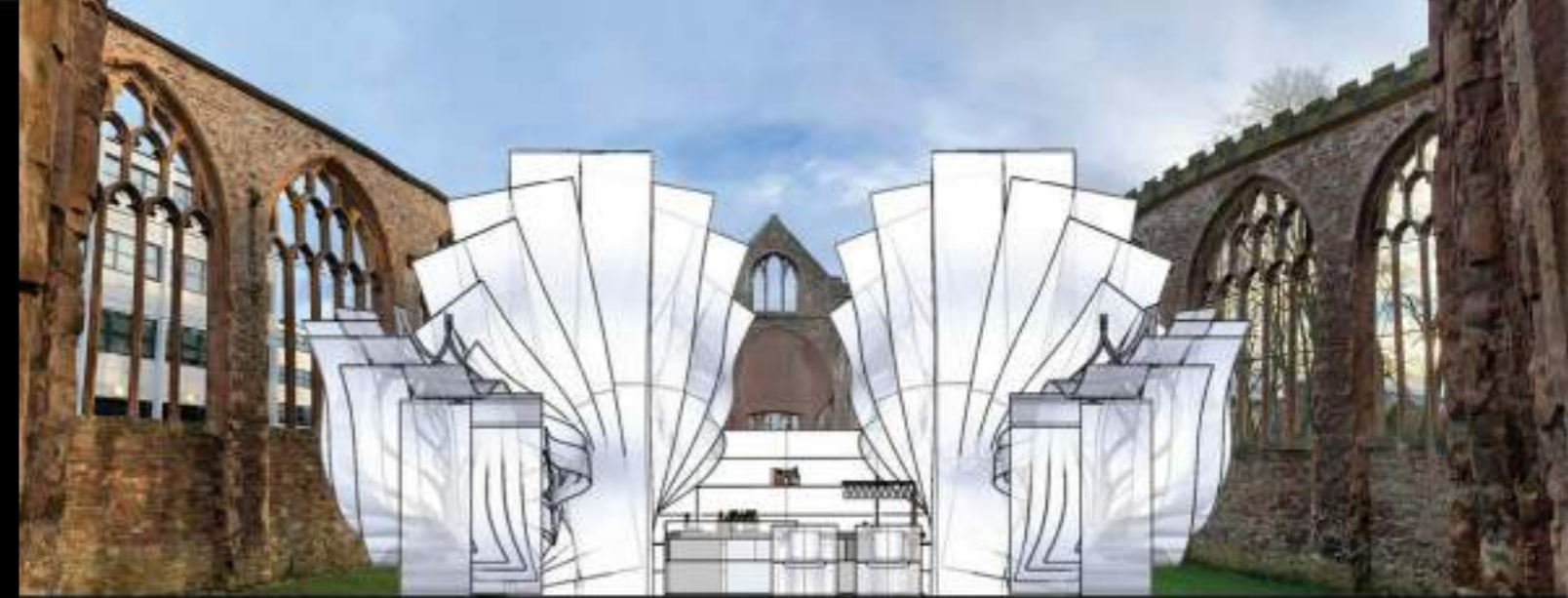


Metal Rod



MODULAR FORM

# BAR DESIGN



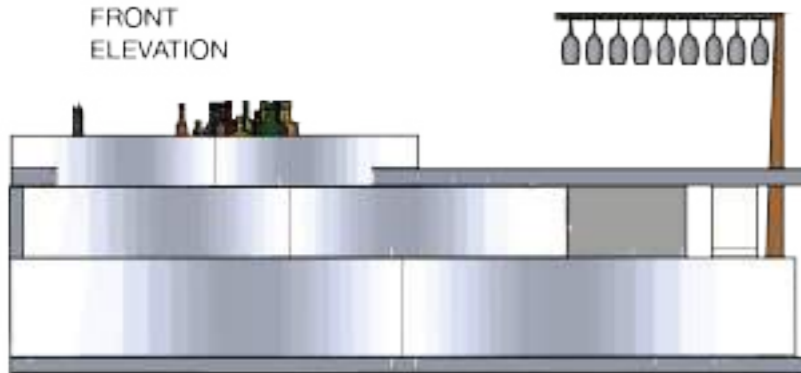
## FINAL



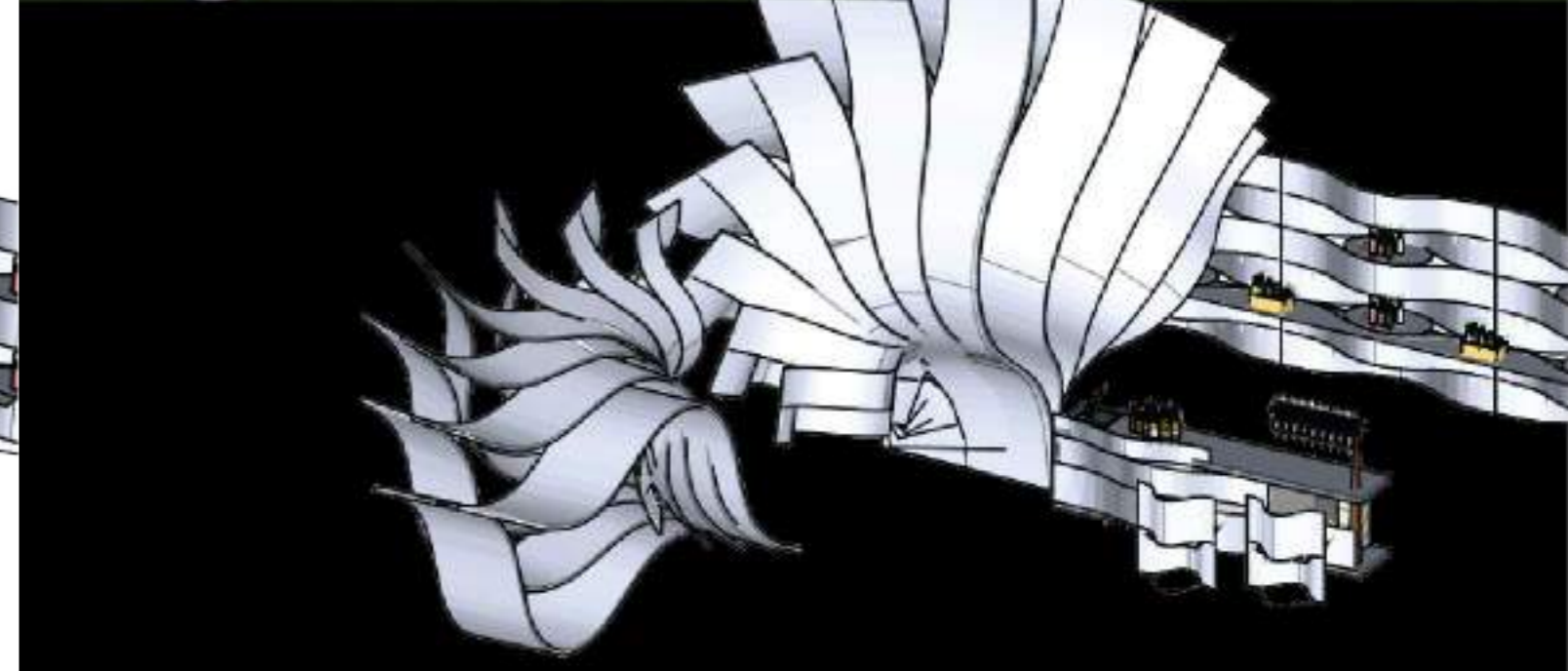
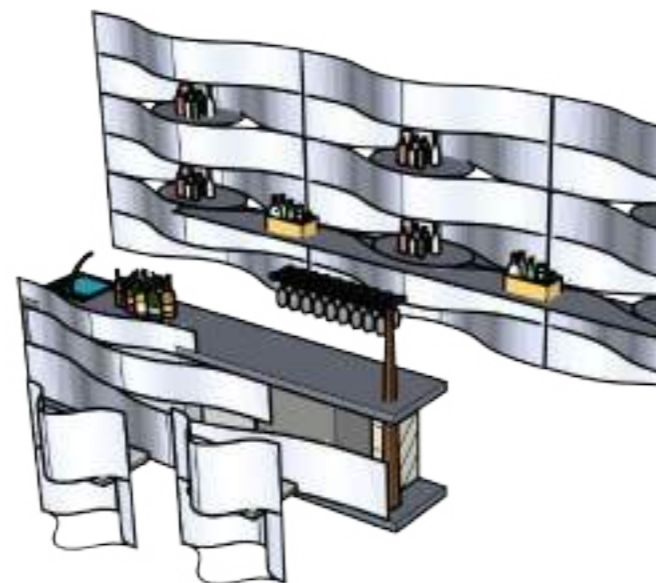
PLAN

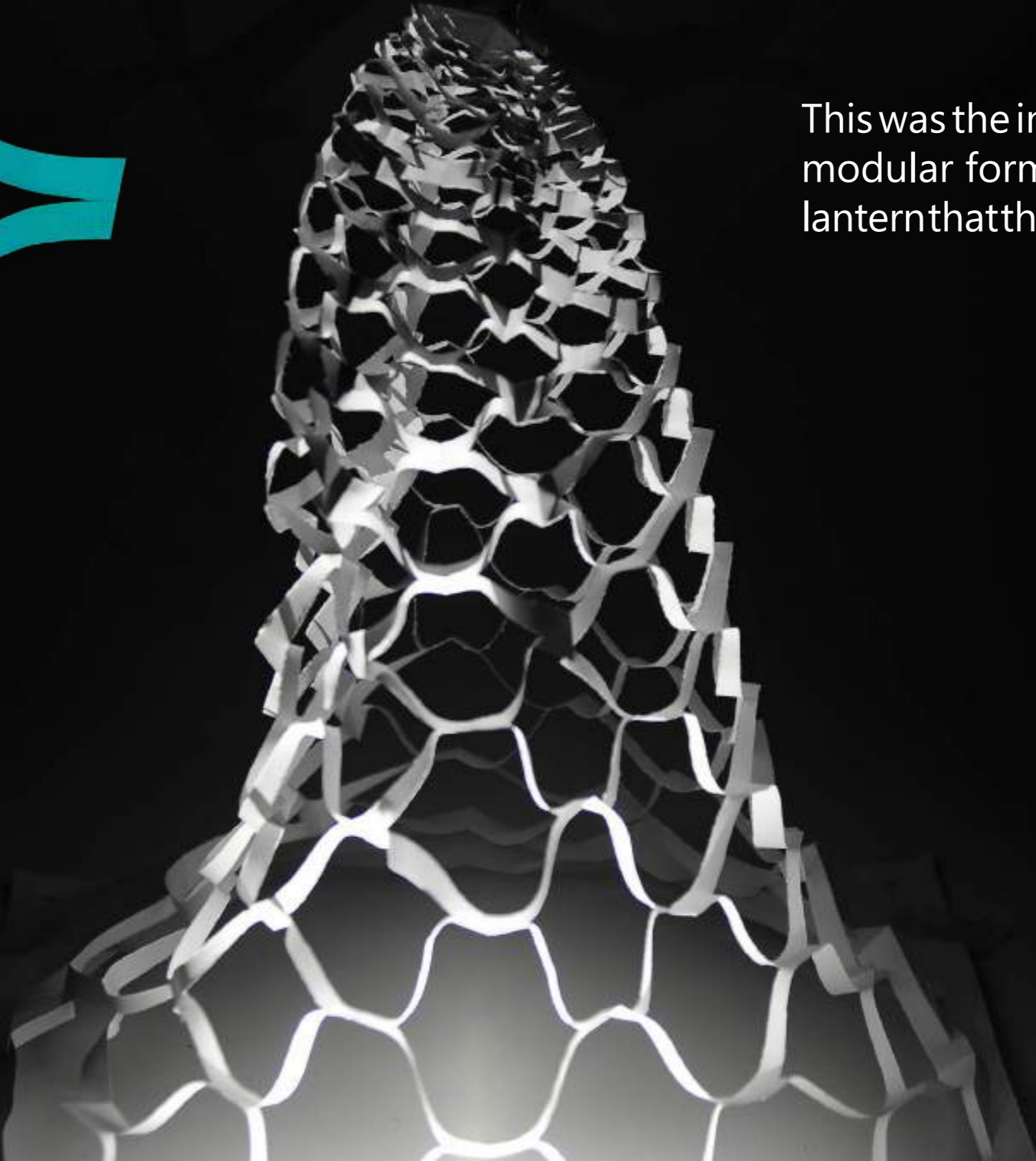


FRONT ELEVATION



My main bar uses the same curve from the modular form to form a new design, and for the back bar I just use the modular form and duplicate it 9 times to create the design





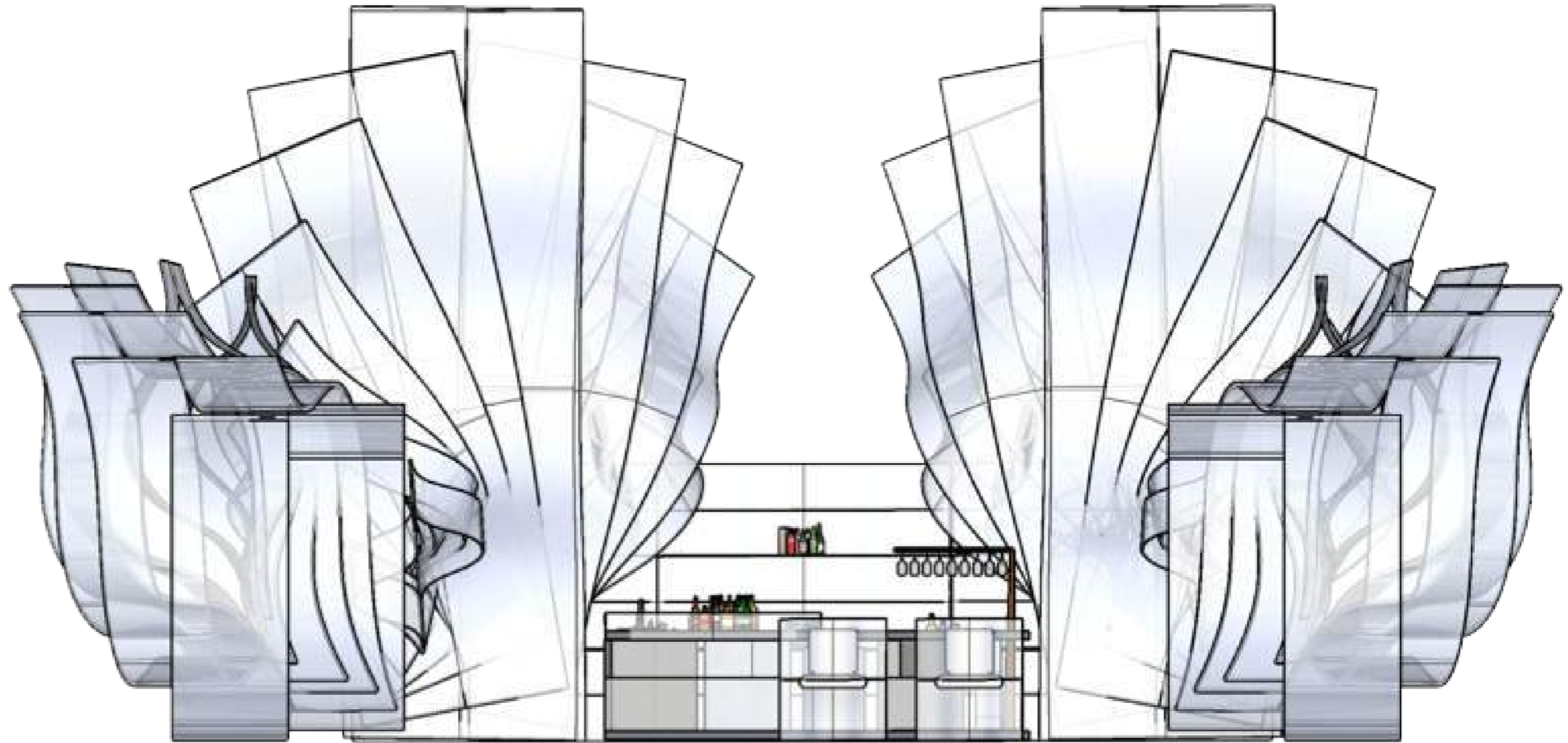
This was the inspiration for my modular form, its from a thai lantern that they use in a festival



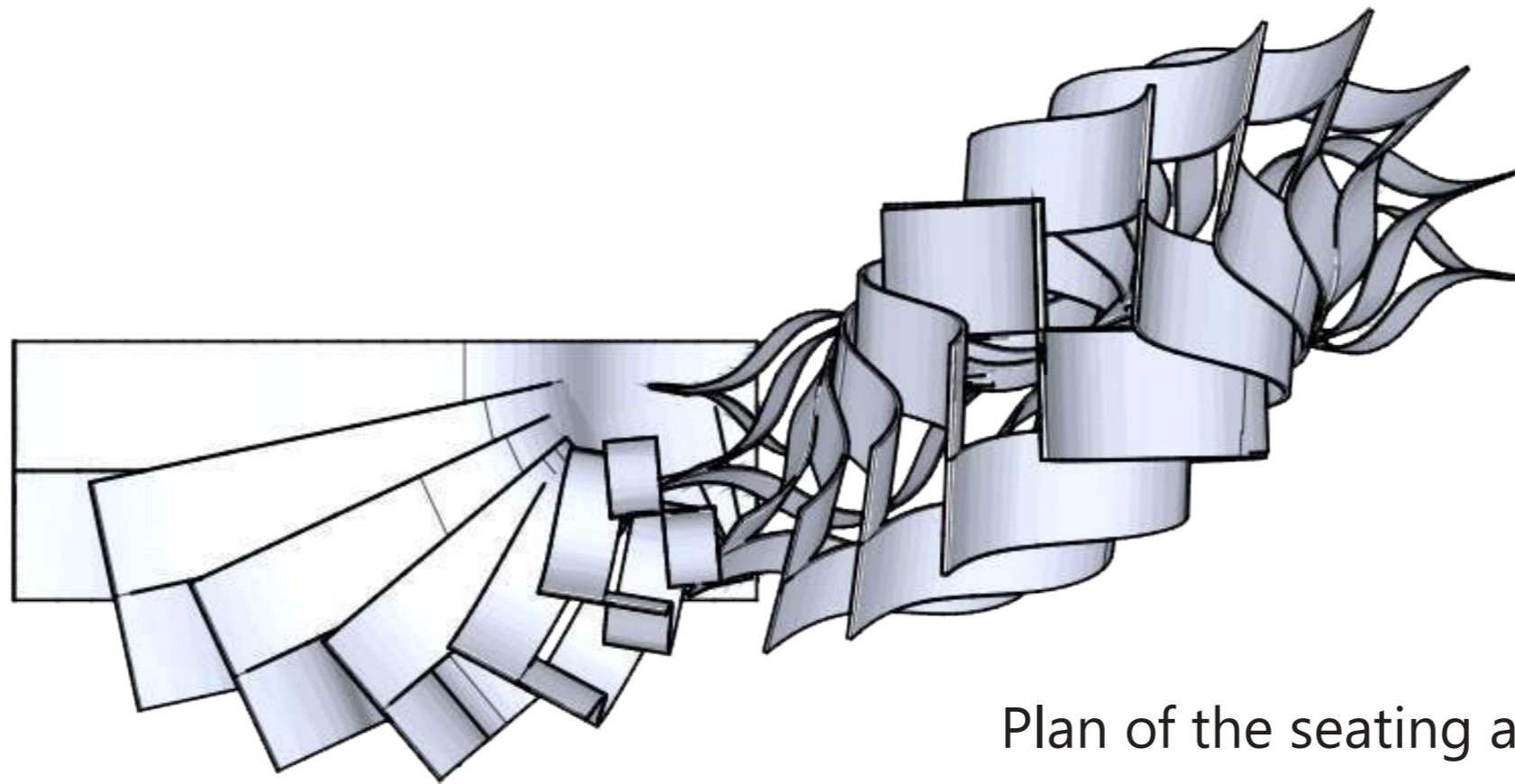
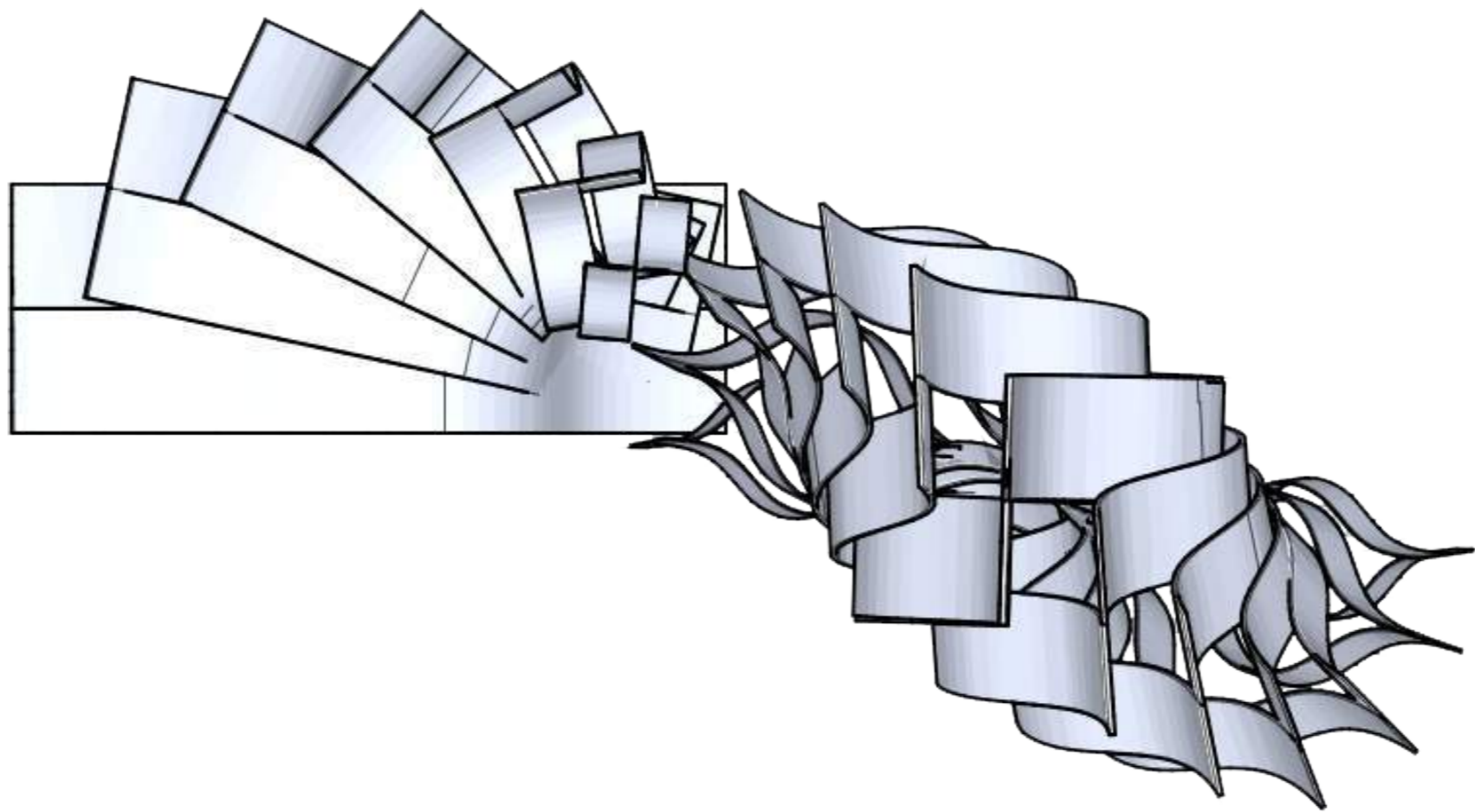


The design of the bar, using 3D printing



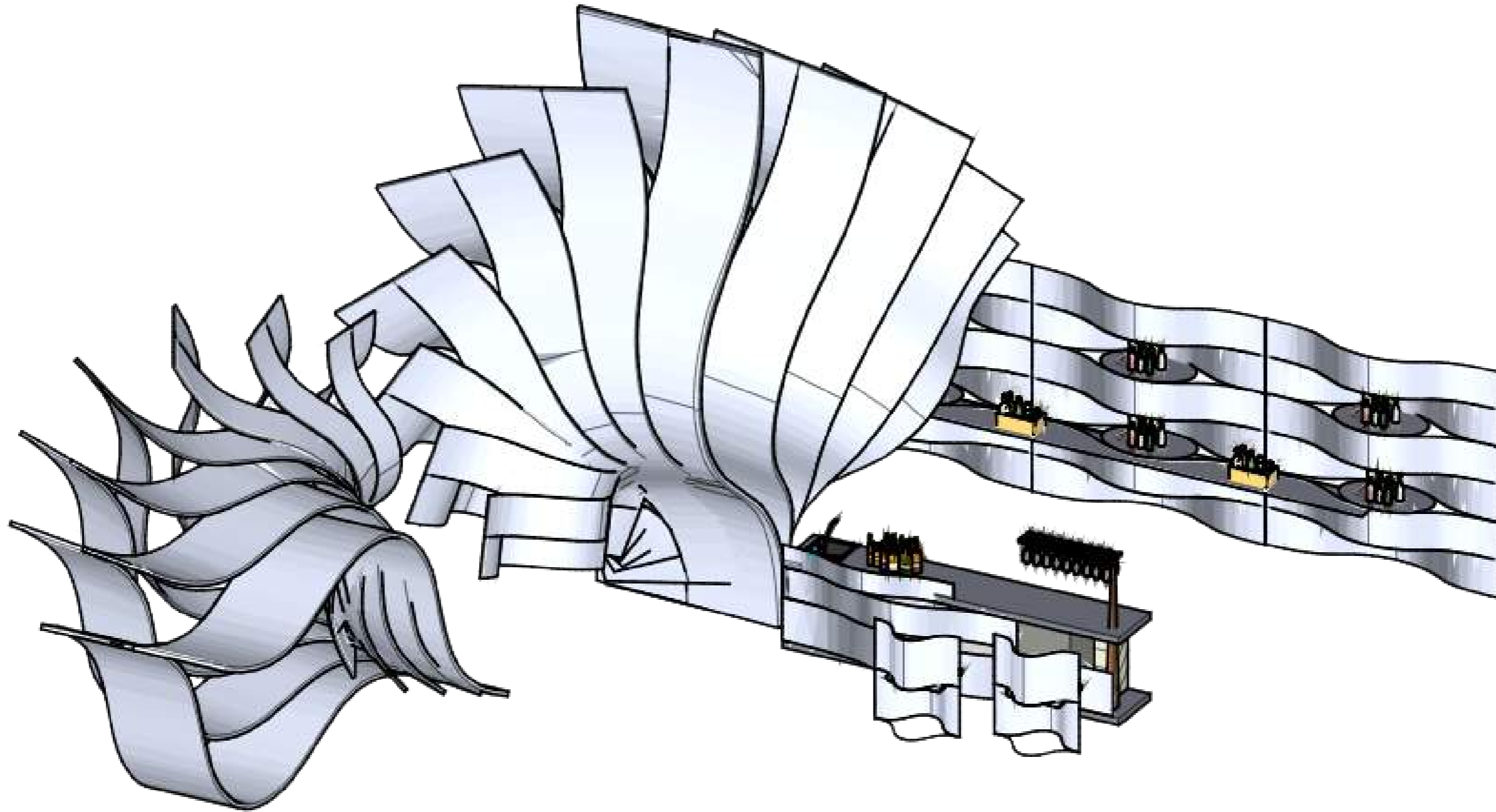


Front Elevation

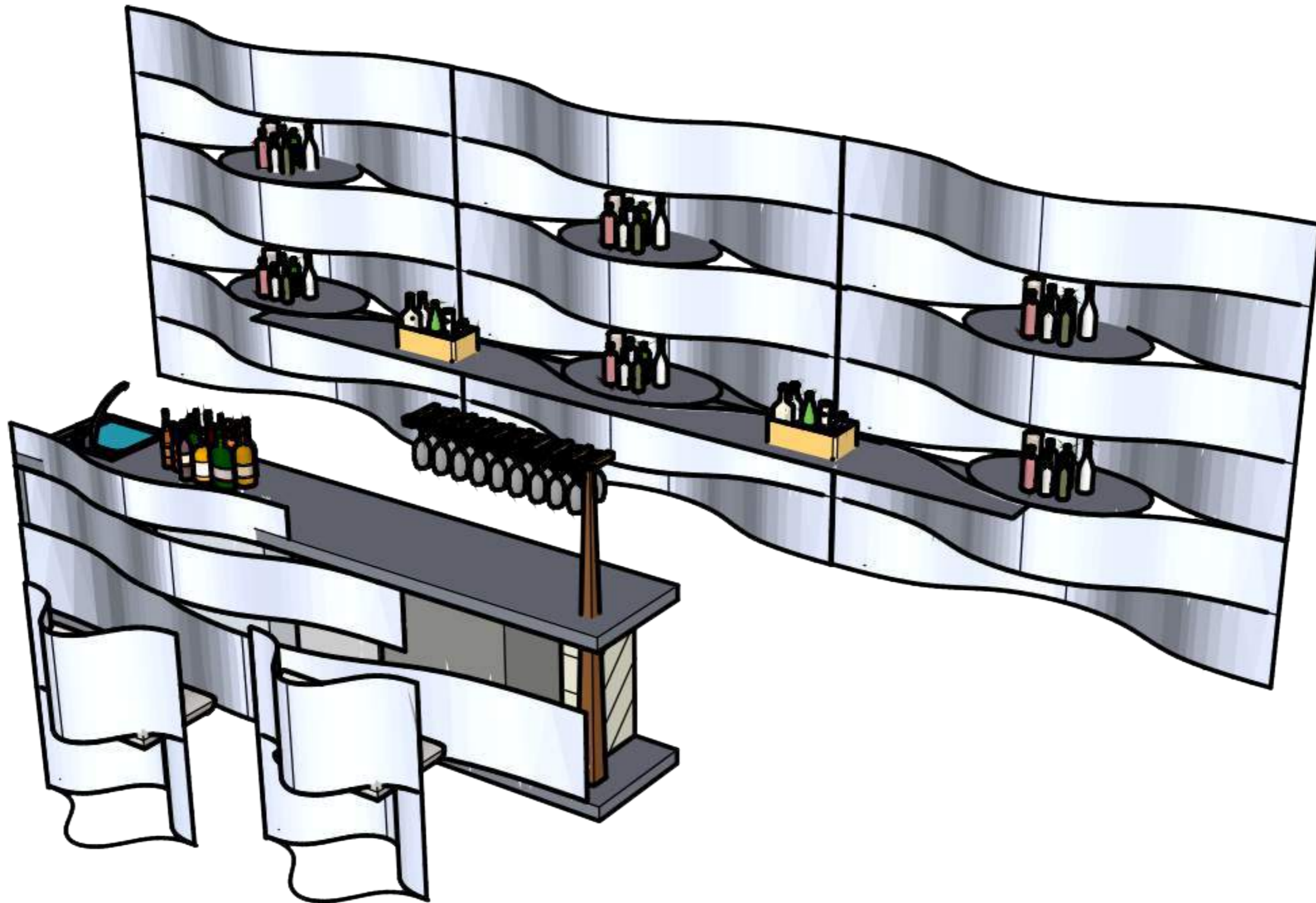


Plan of the seating area and the installation





Perspective view of the bar/ seating area

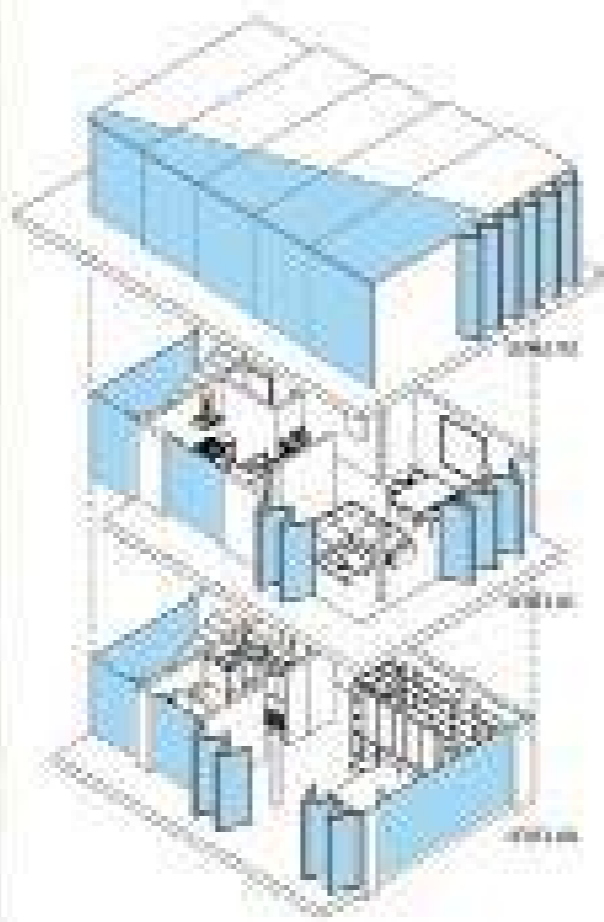


Bar design

**DOMINO**

**HOUSE**

Structure is composed with many rooms in order to fit requirements in Moscow where the car gets expansion from the surrounding and mixture with the house, so I wanted to create a space for free choice for car users to both an inside space and an outside space. I made a series of zigzag walls so that the whole wall opens up to have a full site diagonal view of the surrounding. The main material I use for this house is concrete, in addition is the kind of cement with steel to make a good floor steel to create around the foundation in order to make it waterproof and concrete can be the base of any material, so the wall can be used to build anything over the house. I do not use it, I made the layout of the house like this because I want to make it possible to see the open landscape of the building and surrounding area through the walls, in other words having an additional space doesn't have to enter the private living space. There's also a lot of windows in the house because on the ground floor and first floor one side of the wall is all covered up against the site, so I want the maximum amount of natural light to enter the building and also maximize it one of the natural light resources in that angle.



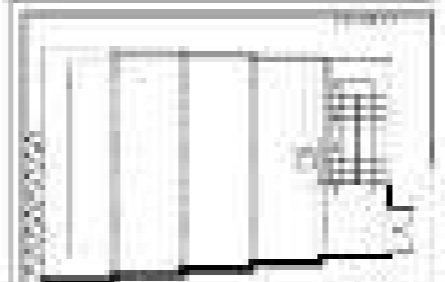
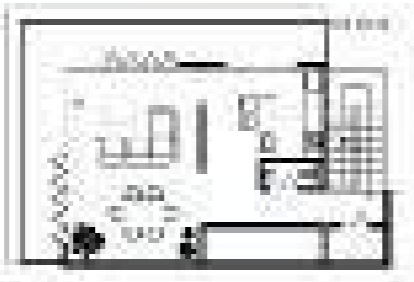
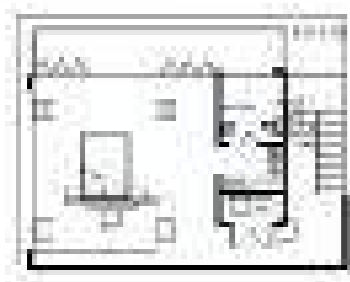
The ground floor is the entrance space where the entrance and the view of the space and the surrounding landscape can be seen in the background. It is a very interesting thing to make this concept plan.

SECTION

The first floor is the main living space and dining area. It is a very interesting thing to make this concept plan. The main material I use for this house is concrete, in addition is the kind of cement with steel to make a good floor steel to create around the foundation in order to make it waterproof and concrete can be the base of any material, so the wall can be used to build anything over the house. I do not use it, I made the layout of the house like this because I want to make it possible to see the open landscape of the building and surrounding area through the walls, in other words having an additional space doesn't have to enter the private living space. There's also a lot of windows in the house because on the ground floor and first floor one side of the wall is all covered up against the site, so I want the maximum amount of natural light to enter the building and also maximize it one of the natural light resources in that angle.



LIVING ROOM SECTION



LIVING ROOM

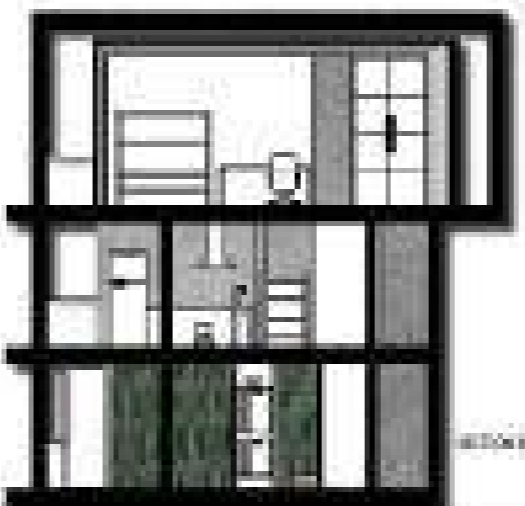
DINING ROOM

KITCHEN

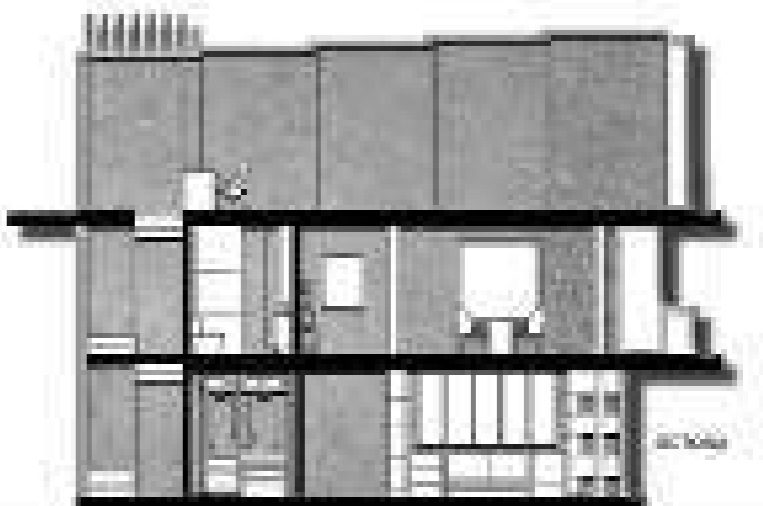


The small dining area is a very interesting thing to make this concept plan. The main material I use for this house is concrete, in addition is the kind of cement with steel to make a good floor steel to create around the foundation in order to make it waterproof and concrete can be the base of any material, so the wall can be used to build anything over the house. I do not use it, I made the layout of the house like this because I want to make it possible to see the open landscape of the building and surrounding area through the walls, in other words having an additional space doesn't have to enter the private living space. There's also a lot of windows in the house because on the ground floor and first floor one side of the wall is all covered up against the site, so I want the maximum amount of natural light to enter the building and also maximize it one of the natural light resources in that angle.

DINING ROOM

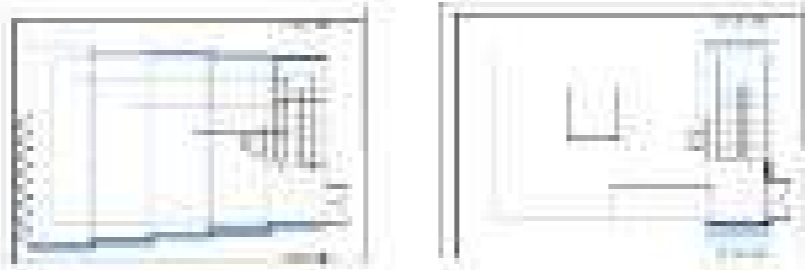


SECTION

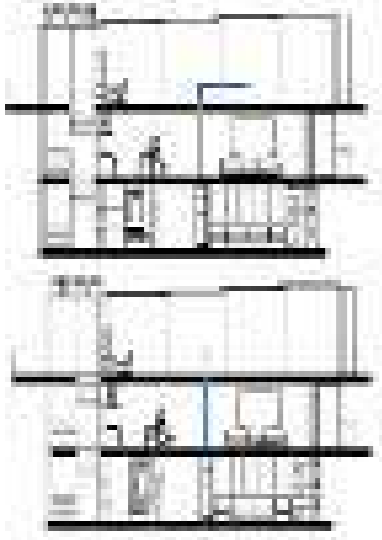


SECTION

In his studio space I wanted to create more than just a studio, where the car also can be an exhibition area. In just a piece of metal he can relax and look out 180 degrees of the view of the surrounding. I also created a sitting table in the middle of the studio which he can rotate and be able to see the view of the gorge. The table is composed of glass with sliding the bottom and the designers had to use some of the materials made a table in the middle of the studio. I also design a storage where he can rotate it from the first floor to the second floor by using a lift they can rotate with the storage. The main reason for this was because I wanted to create an area where he can see the view. All things in parallel to create a functional area for him.



A plan showing the table and storage. The table is fully rotate and when it's lift up.



A section showing the table and storage. The storage is lifting and the table can rotate in the studio.



# ABRAHAM CRUZVILLEGAS

"However, art makes itself evident, it shall remain, above all raw source material in all its natural, unstable, physical, chaotic and crystalline states: solid, liquid and gaseous. It is the joy of energy"

Abraham Cruzvillegas is a well-known architect and artist. He is well known for his extensive projects internationally. His idea was born from his experience of his parents building their house out of found materials. The word means "self-building". Abraham really likes to collect stuff which sometimes he doesn't use it right away, so he created a lot of storage in his house. He also like to change stuff around his house and he loves to work on the same of the time, so I design a house where he can rotate with it change the house by himself. In his real life workshop he had only one table to work on a bench or a seat of a chair or paper but more of his work is done on the open floor, some of his art is the size of a roof house. So, I created a table with a big open space.

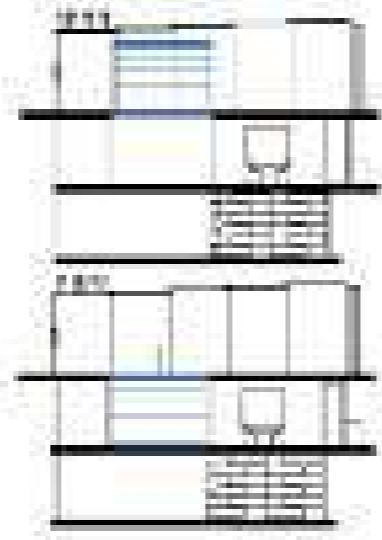


## DOM-INO HOUSE

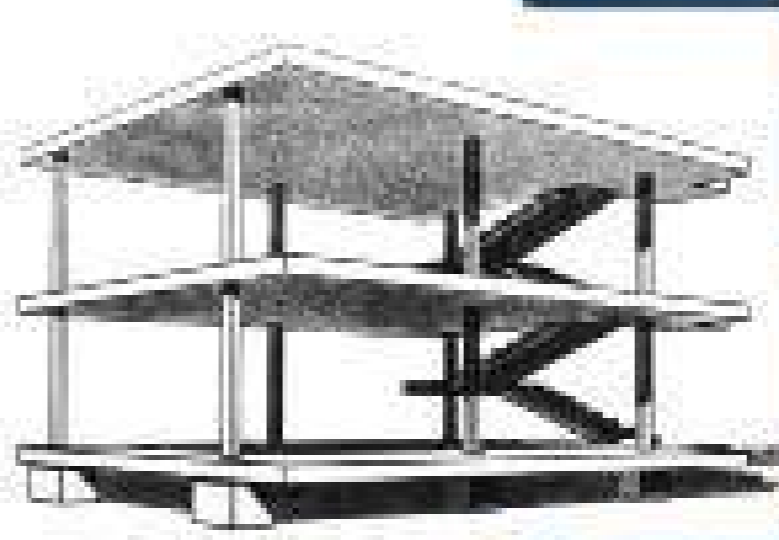
Architect: Abraham Cruzvillegas



The table where the sitting table.



A section showing the house. The house is composed of three levels and the table is located on the second floor.



## The view of the gorge

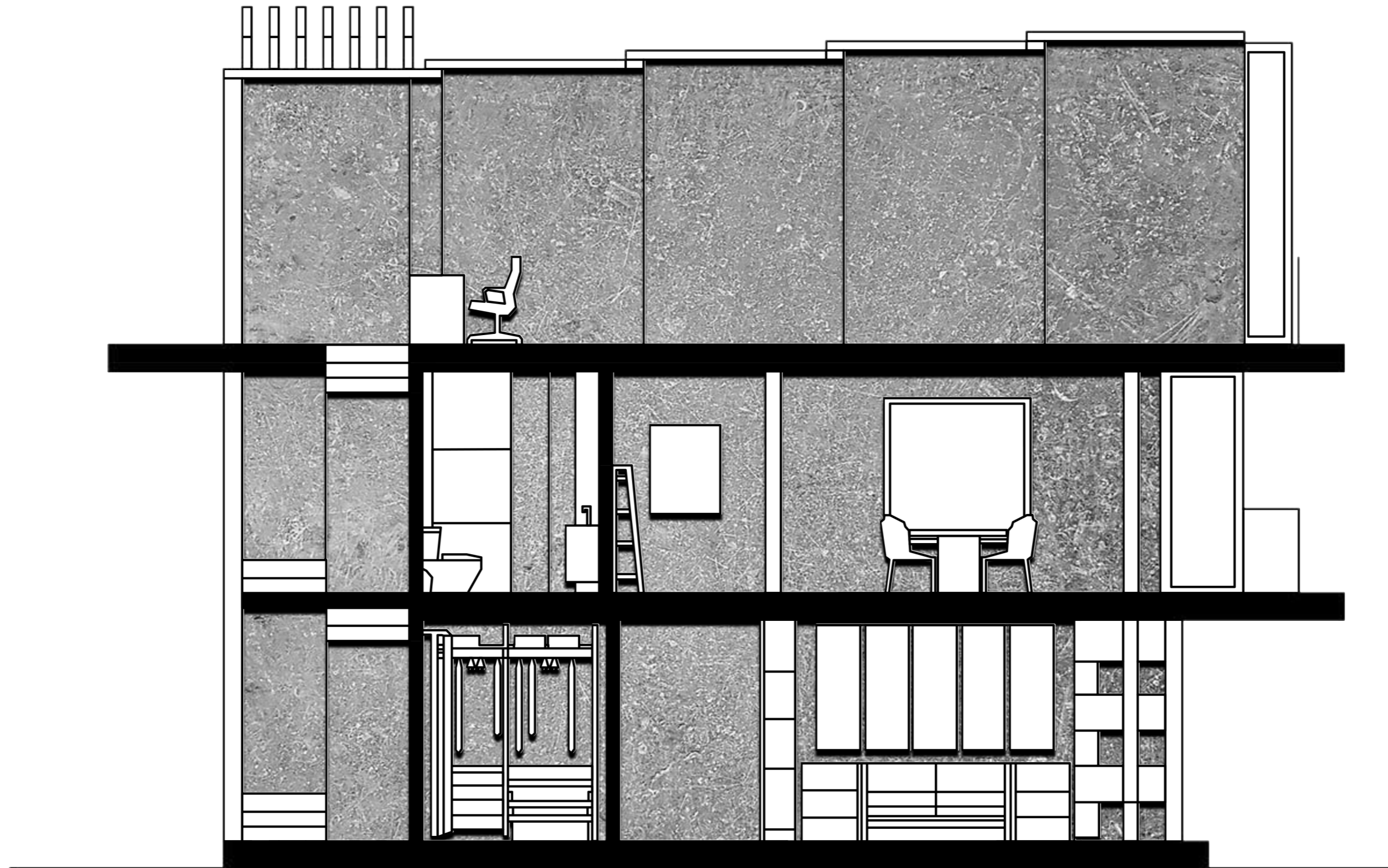
The main reason of the house and the table is to create a view of the gorge. The table is on the second floor and the house is on the first floor. The house is also on the gorge. The house is also on the gorge. The house is also on the gorge.



A cut through the domino house to see the space for each floor

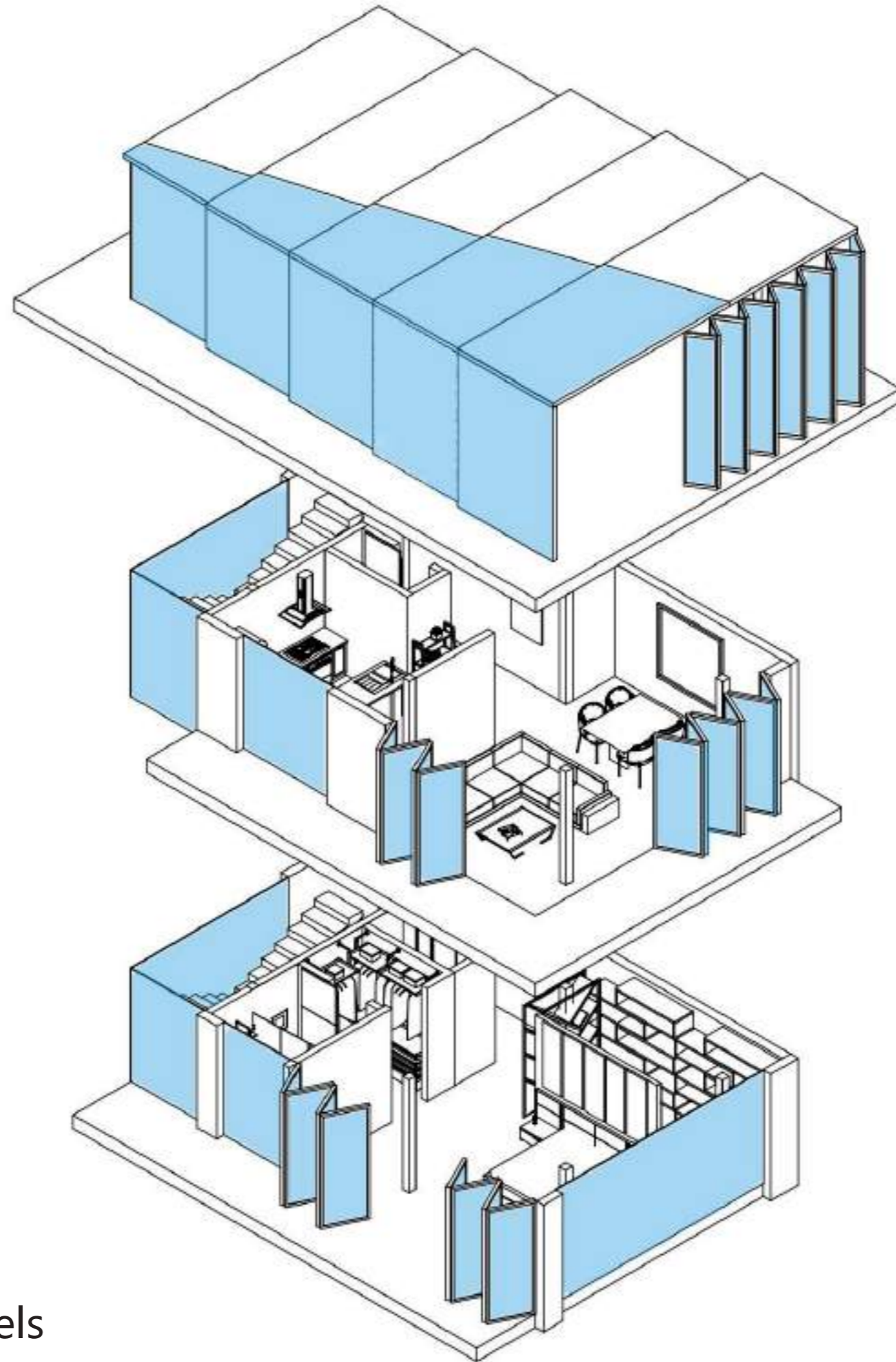


Visual of the studio at night, showing how the light would be lit up

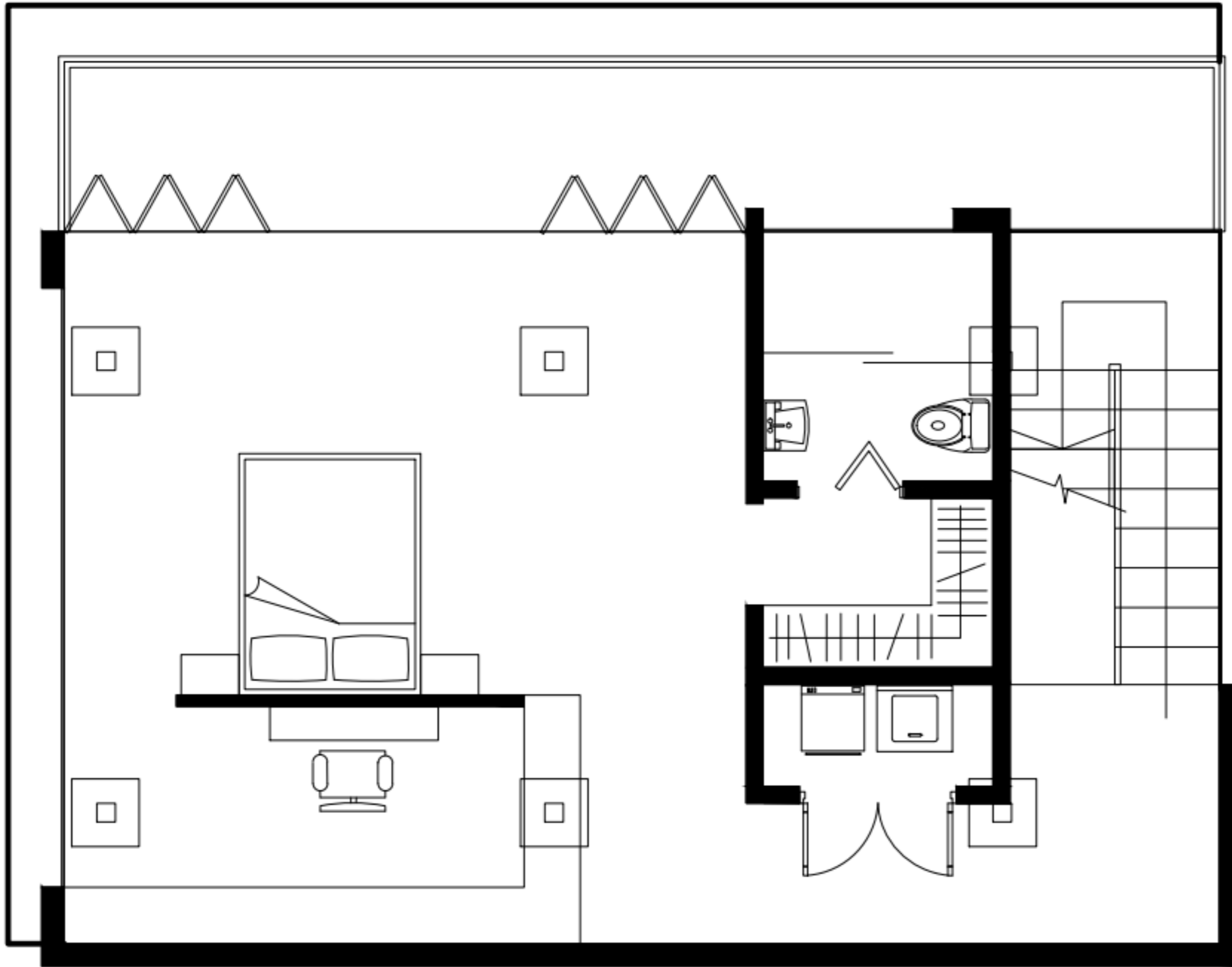


Section of the domino house

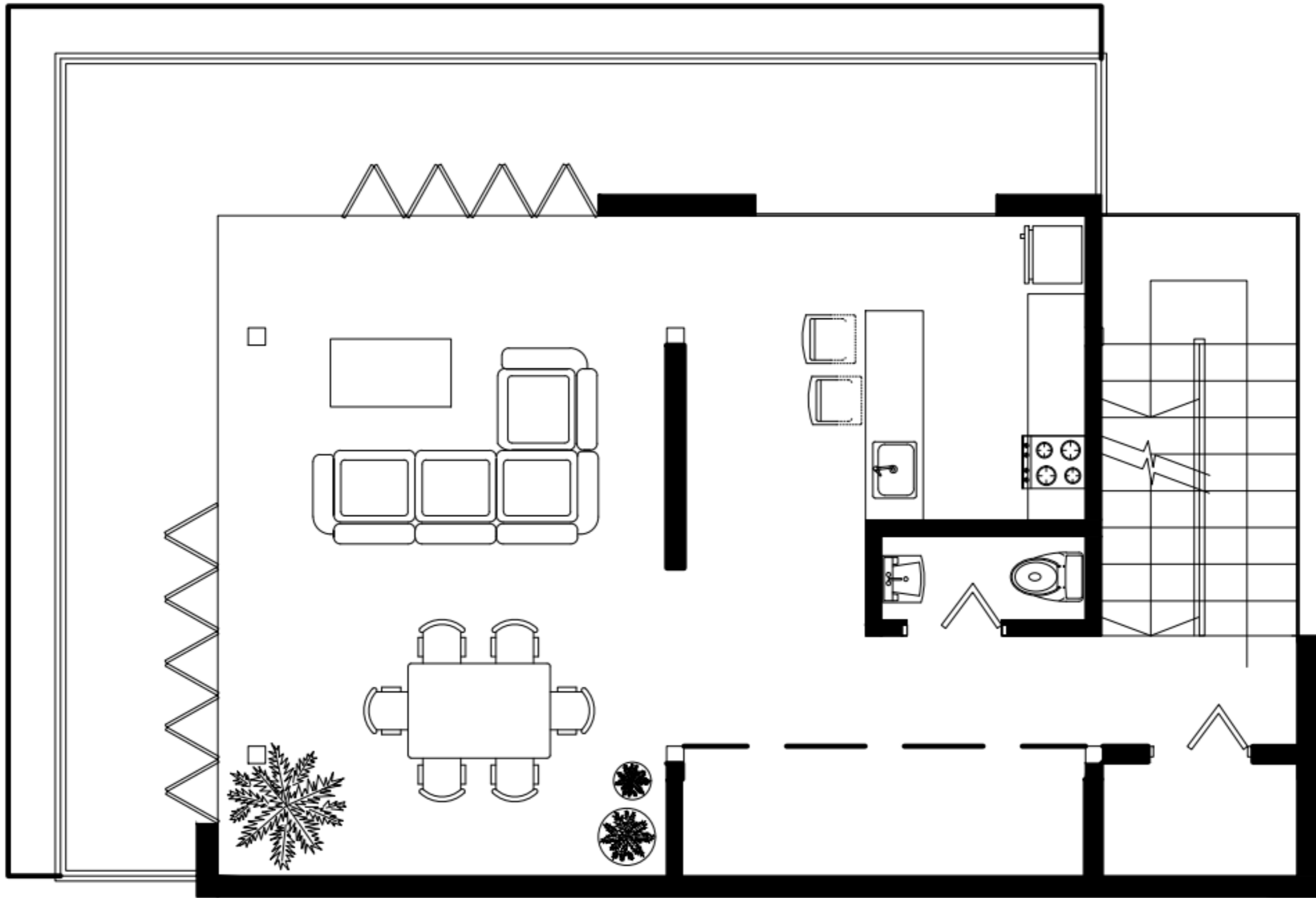




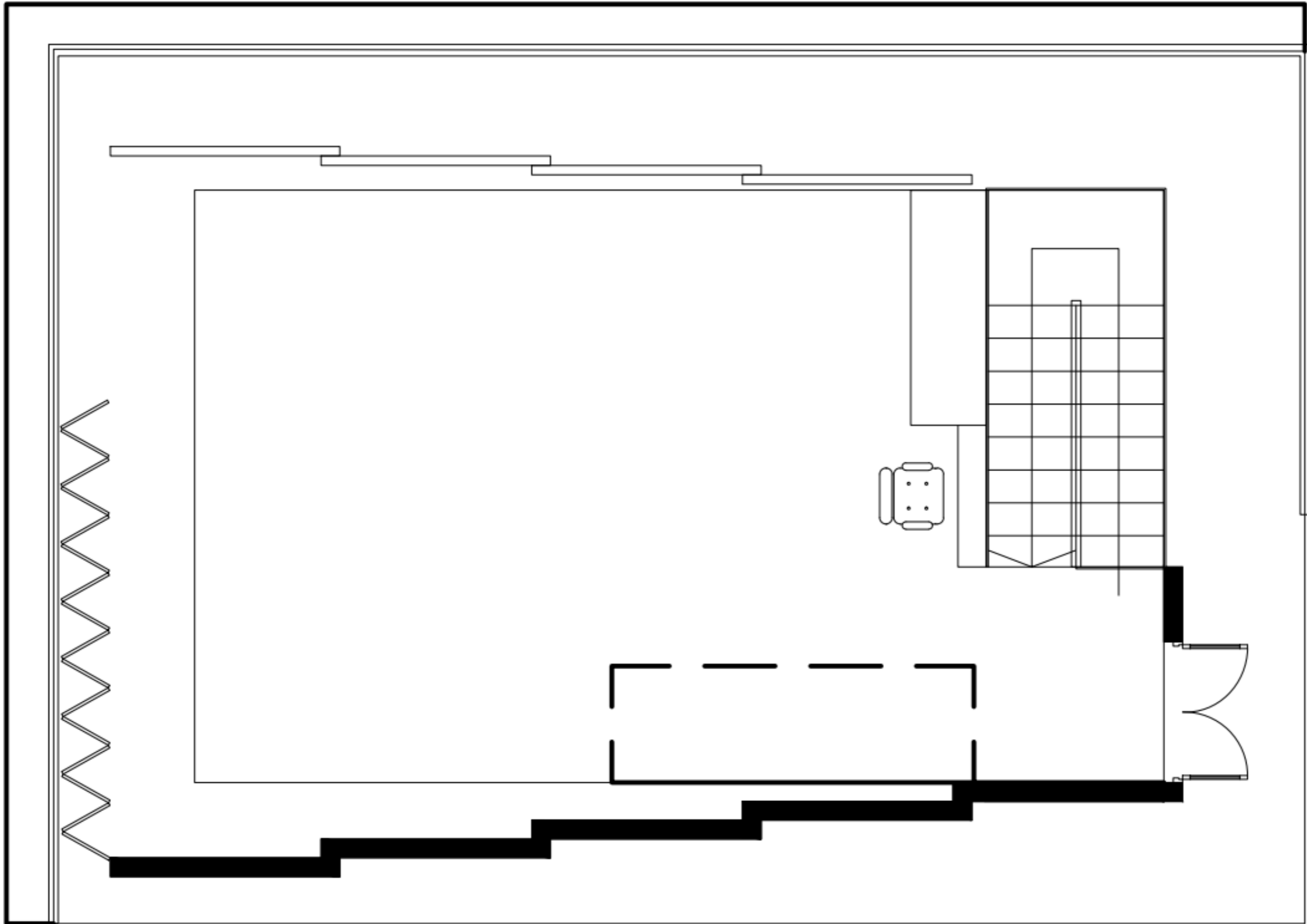
3D perspective of the 3 levels



Plan level 00



Plan level 01



Plan level 02

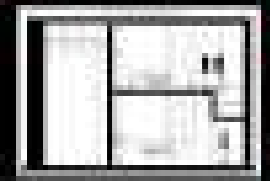
**FOUND HEA**

**URETALD**

# FOUND HEA



- A - workshop area
- B - Part of the glass stair design
- C - accessible lift
- D - glass stair
- E - cashier
- F - storage/ staff area
- G - changing room
- H - main store area
- I - lounge area
- J - entrance/ light installation
- K - bathroom
- L - mannequin



ELEVATION A

## CONCEPT

The concept of this store space first lay individual responses to the site, where it should be. The goal is to create a feel of light and airy environment in the brand. In the concept, we can make the store feel very natural and make it look like a gallery and also comfortable for some. I think the most important will be lighting design.

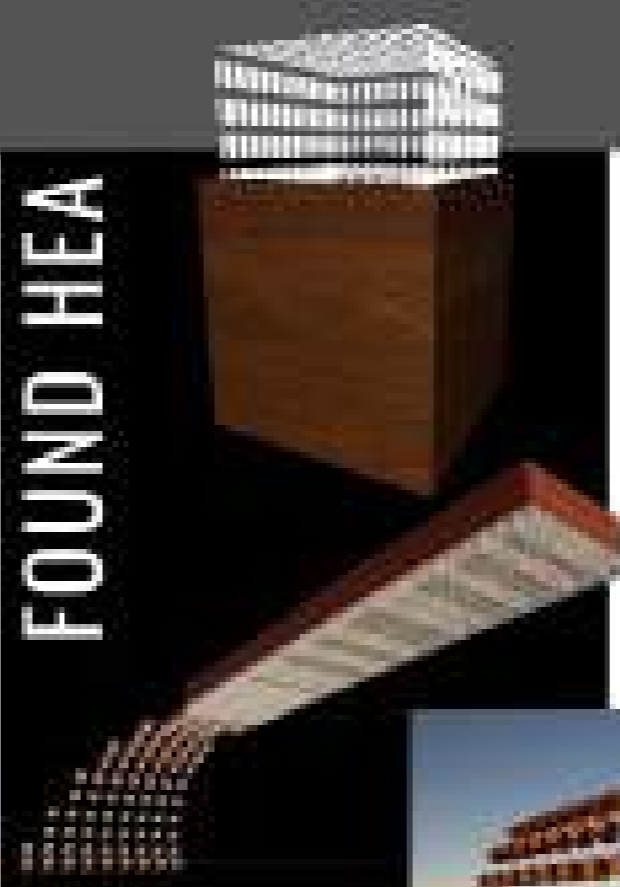


I wanted to keep the interior of the store very minimal, as the product that the store is selling is very minimal itself. So I didn't want the interior to over cover the attention from the products.

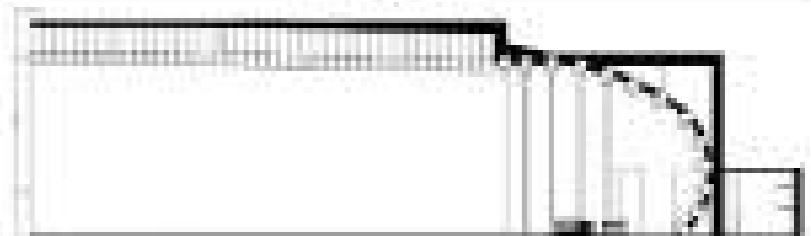
## ORTHOGONAL DRAWING



# FOUND HEA



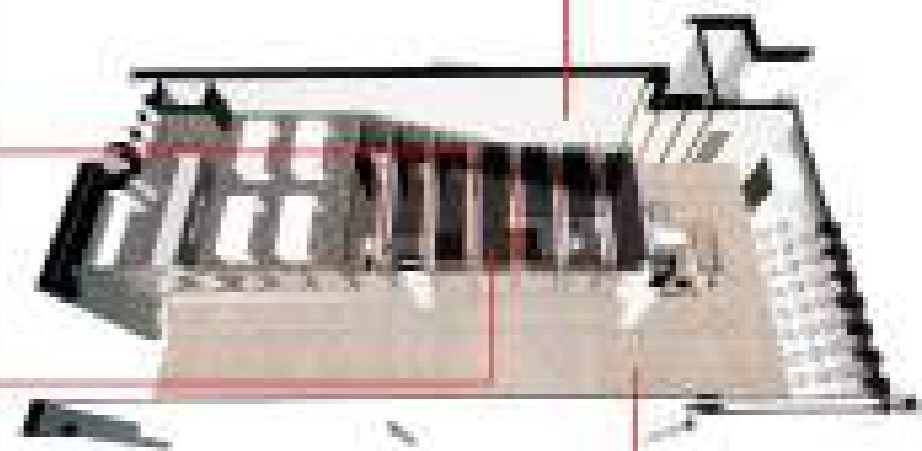
## LIGHT DESIGN



The inspiration of Light design come from the concept of a recovery box. Where light is from our natural response of the site. The light installation come from the structure of the store and change the feeling into the store. The light box will be able to move up and down in the window box, so it will create more pattern along the ceiling, making the customer feel like the light is from the box is just like from a.

## MATERIALS

- Concrete
- Demitted Oak Wood
- Black Tint Glass
- Oak Flooring



I'm using the most basic material, as the brand itself is very minimal and natural. And I also use demitted oak wood to keep the store natural and warm. I picked oak wood that had the same tone and feel to it as some of the material that we have used in the store. So the product that FOUND HEA sells is very natural, so the products still would not over on display.

VISUALS

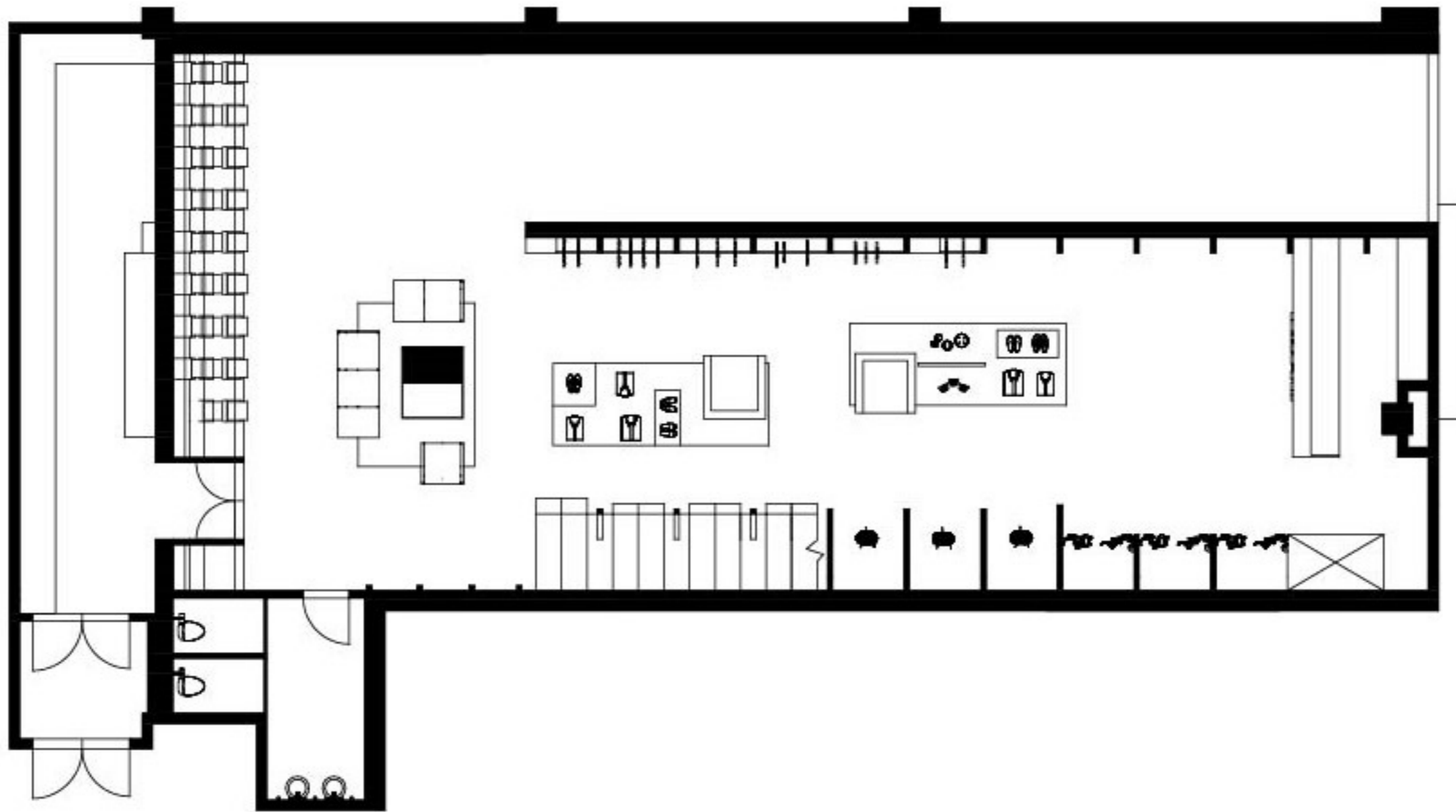
FOUND HEA



VISUALS

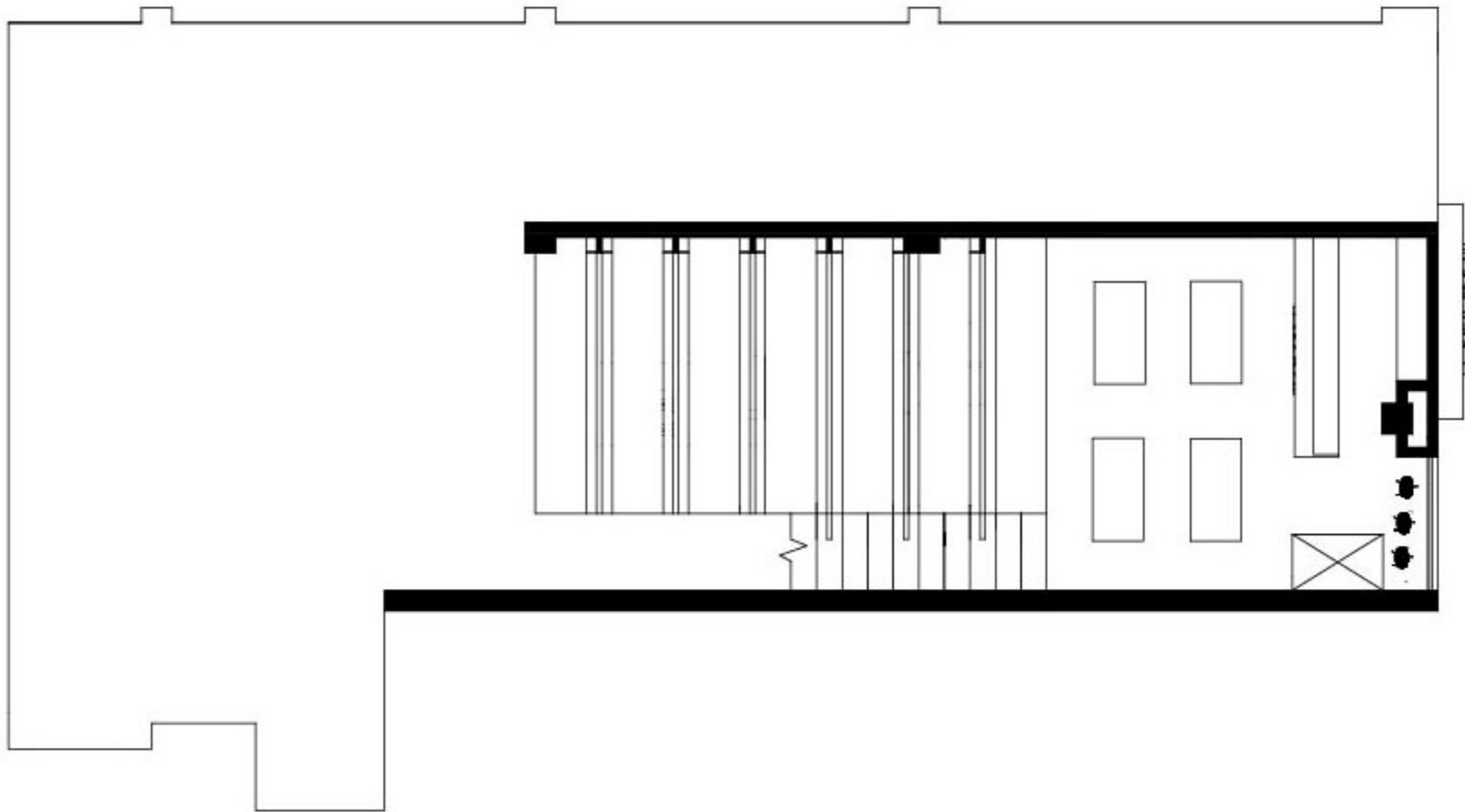
FOUND HEA



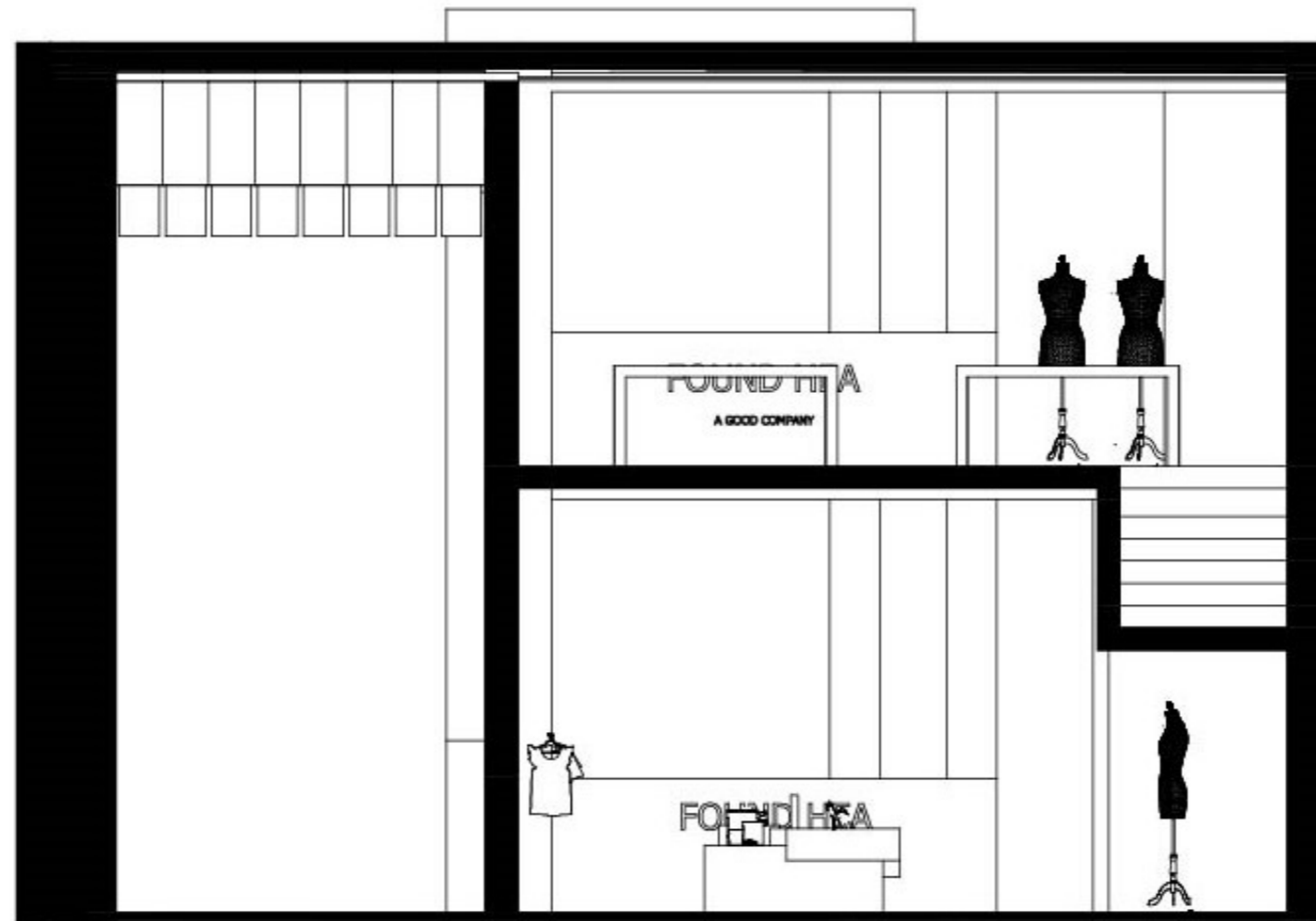


Plan level 00

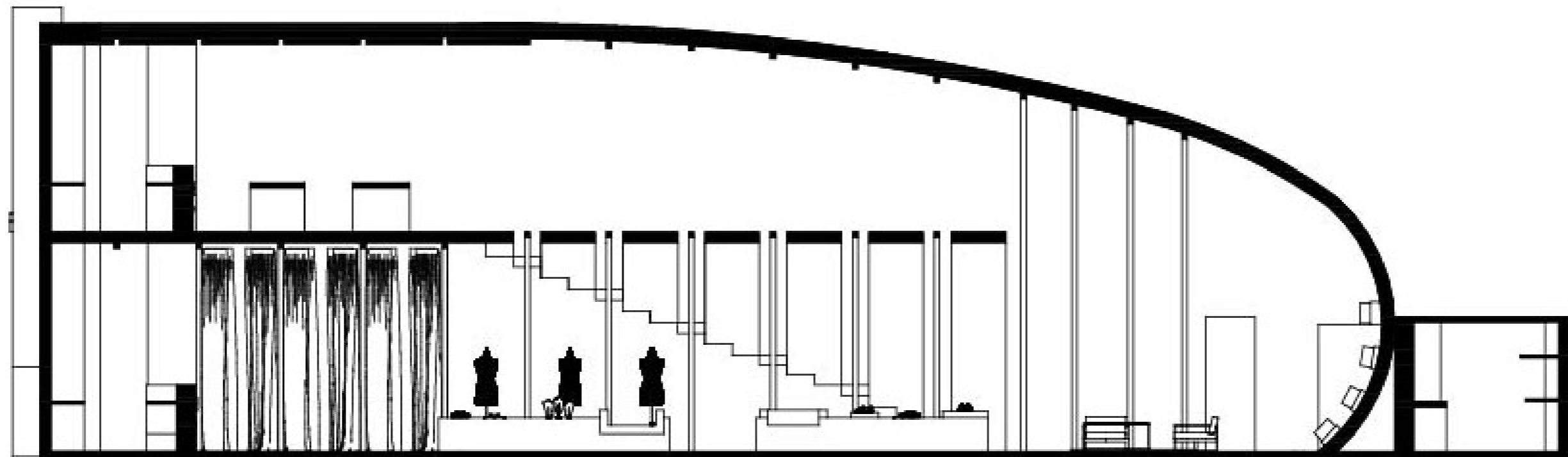




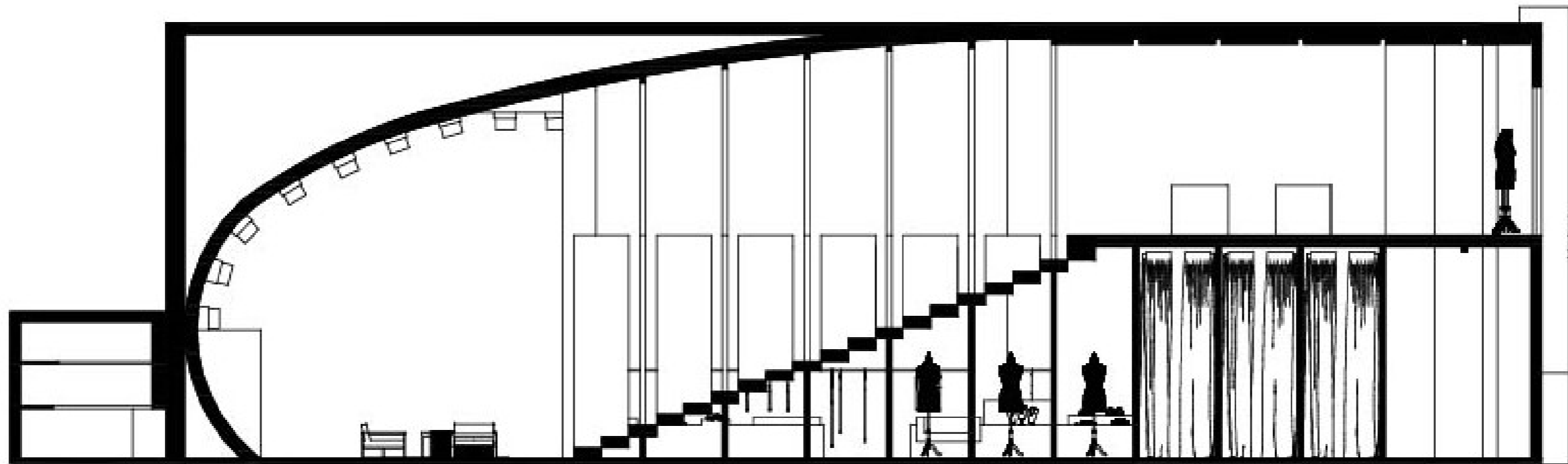
Plan level 01



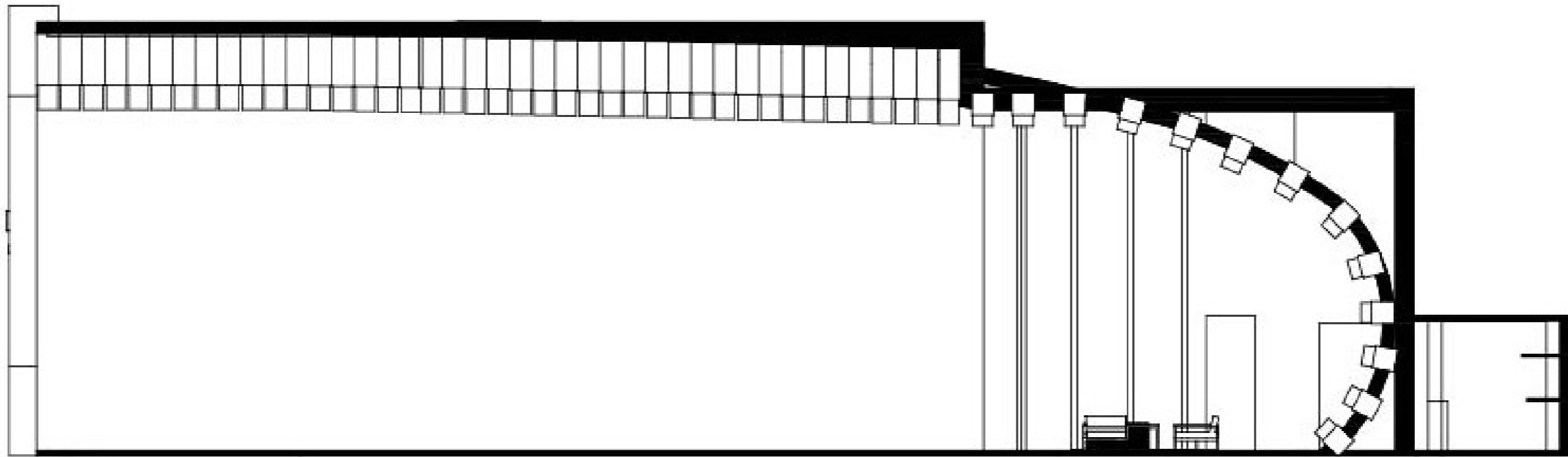
Section 1



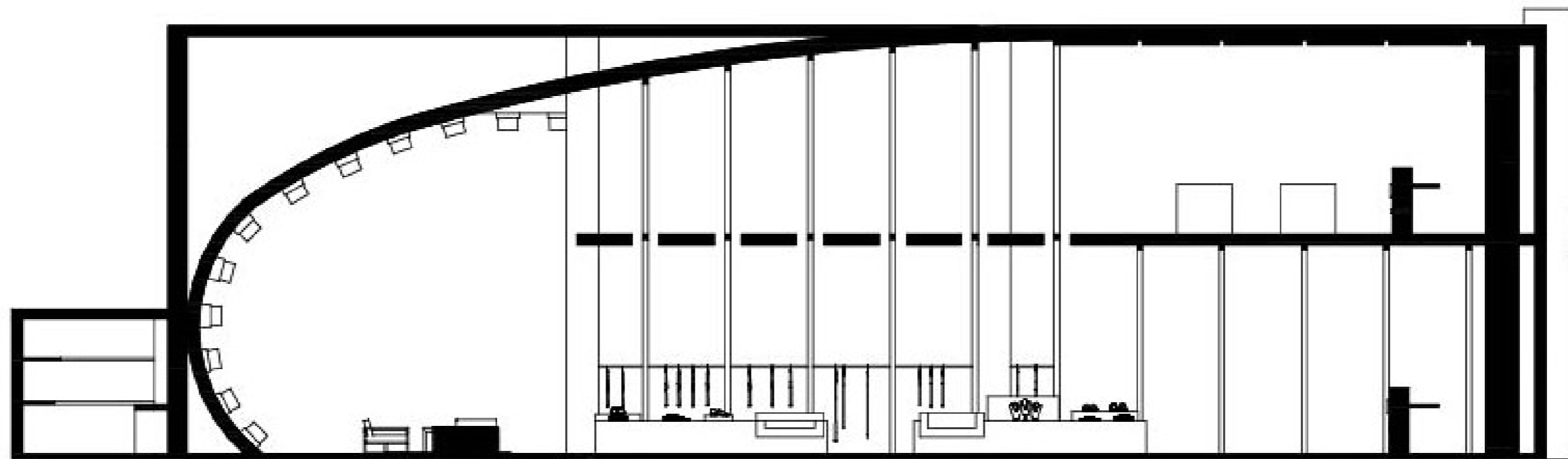
Elevation 1



Section 2



Section 3



Section 4

**LIGHT**

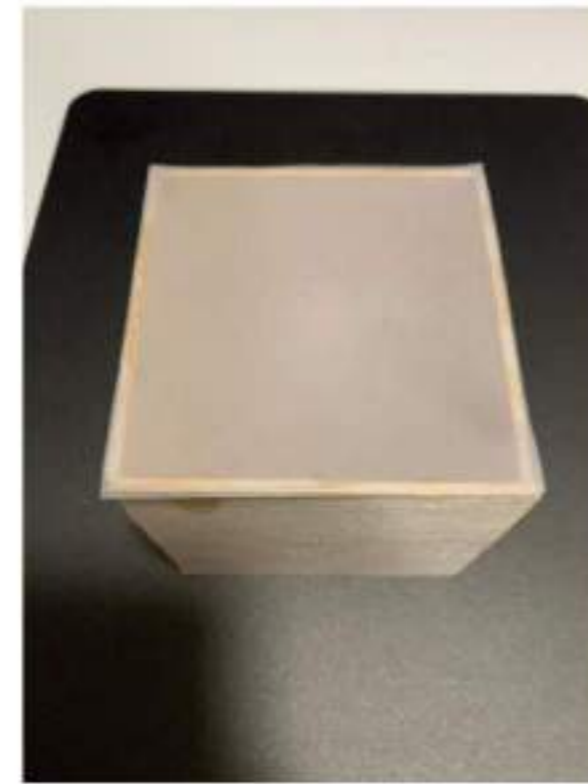
**DESIGN**

# FOUND HEA



LIGHT  
DESIGN

KRITAMUK CHIRAAMPHAIRAT

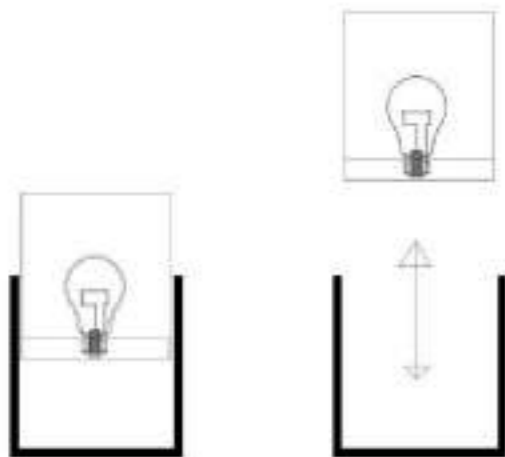
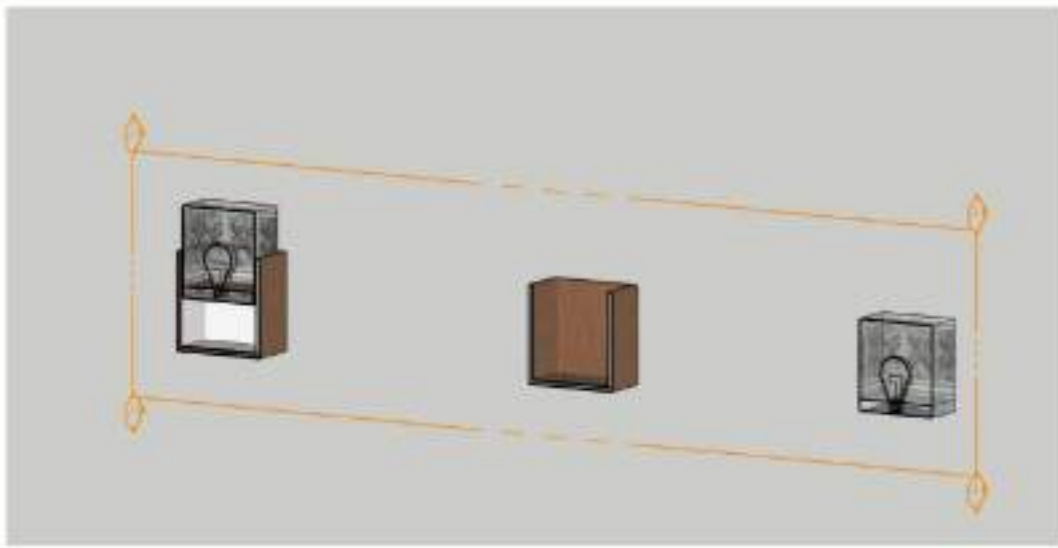


This was my individual response to the site and the brand found hea. I created a wooden box that lights up when you shake it, (I've installed a motion censer inside the box.) this was to represent a mystery box, as the site that we went was all covered up in the front and when you walked inside I didn't expect the room would be that big, so the site remind me of a mystery box ( you wouldn't expect what's inside ). I used wood to represent the brand 'found hea'



I then experiment more with the design and material but still keep the mystery box concept. I used rhino to design the shape of the mystery box and then 3D printed it. the 3D print came out really well, then i tried to design this 3D print into a light fitting.





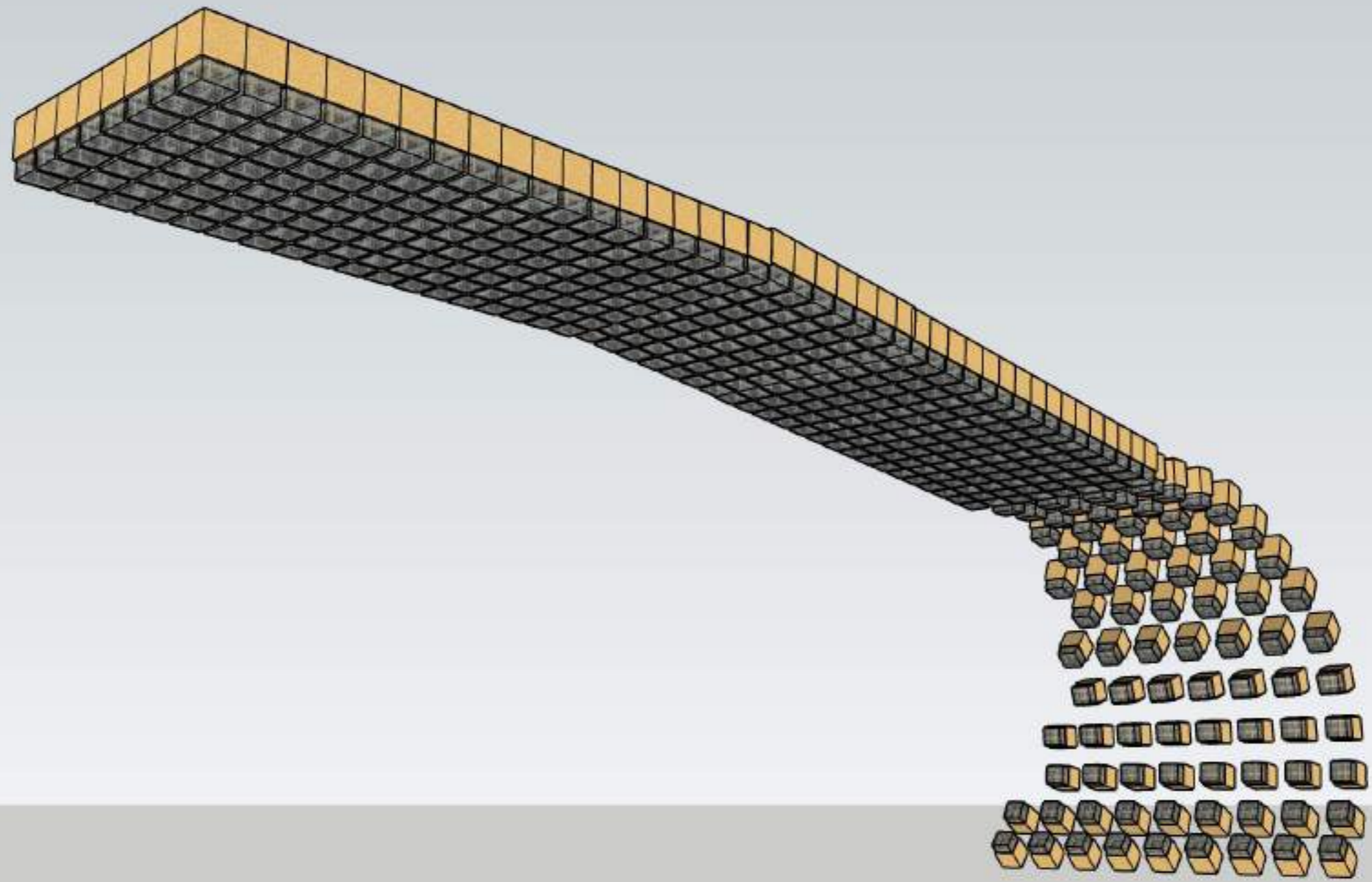
Then I came up with the light design from the mystery box, I wanted to create a light fitting that is able to move up and down, so that its more interesting and mysterious. As you can see from the section of the light box that there's 2 part of the light fitting. there's the wooden box and the glass cube ( that contain a light bulb)



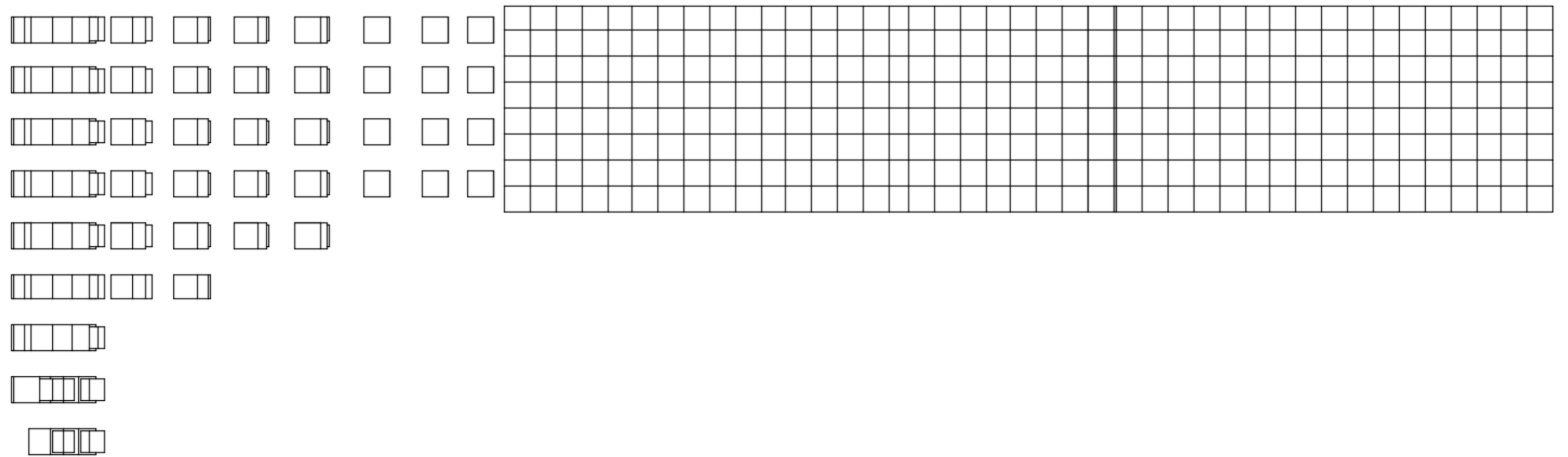
Finally I use this design and created a light installation for the entrance of the store and into the store space. each row would move at the same time and create a wave movement, this would make the costumer want to walk into the store like the light is pulling the customer inside to the main store area. there would me a motor for each row of the light pulling it up and down.



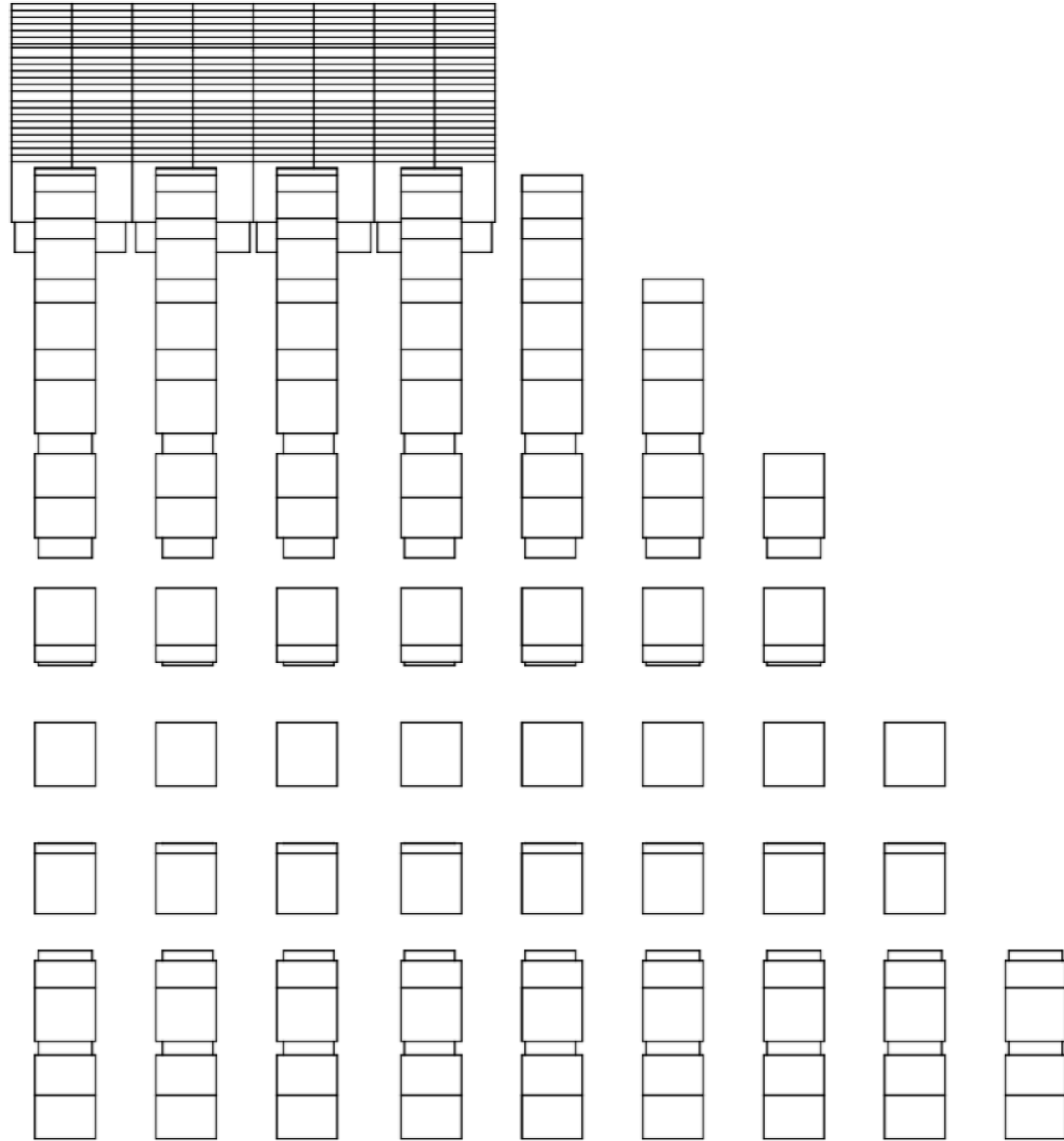
I made a model of the light design ( I had only A4 paper and tape at home and all the material store in Thailand is close right now) but the outcome of the model doesnt look like the final design at all but I wanted to show the shape and form of the light design



Light installation



Plan of the light installation



Back elevation