

**ARCH1101**

**THE STAIR**

# THE STAIR

STUDIO TASK  
STAIRS  
STUDENT WORK

# TODAY IN STUDIO

**Note:** Throughout the class students will be demonstrating modeling techniques using Sketchup.

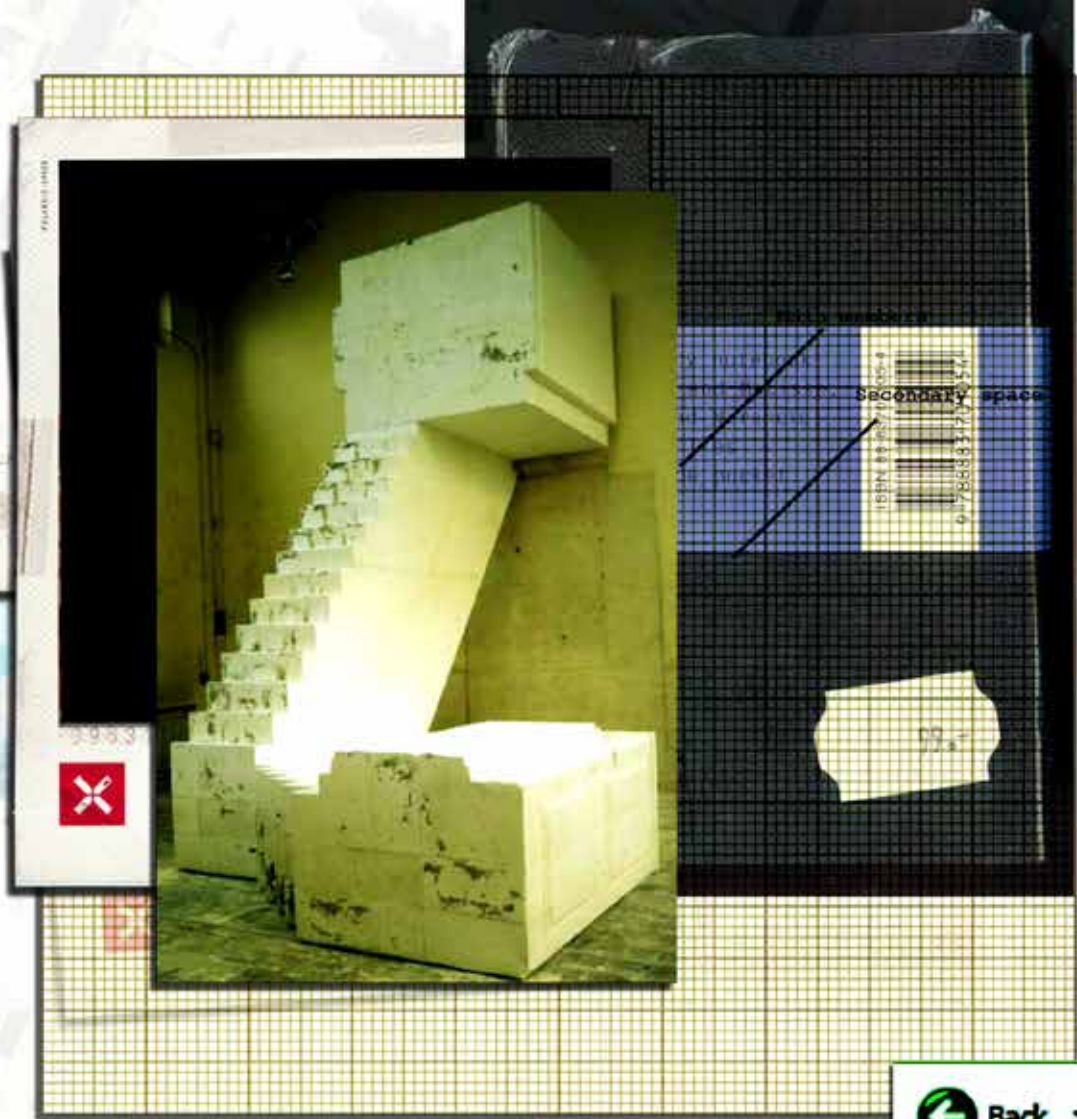
1. Using the scheme you developed in SketchUp (and inspired by the stairs shown below) design two sets of stairs; one that goes from the above ground studio down to the showroom space and a second that comes from the below ground studio up to the showroom space.
2. Represent each stair with at least 2 sections. Keep all the notes, details and sections relating to each stair on one pair of facing pages. Or on two screens if you are using an iPhone, iPad or similar device.
3. In consultation with your tutor take another one of the sections created in the first studio session and design two sets of stairs for that scheme. Represent each of these new stairs with at least 2 sections.

By the end of the studio session you will have at least 8 sections (representing 4 sets of stairs).





ANDREW BARRY



RACHAEL WHITEREAD

# STAIRS

Stairs are an interplay between form, material, structure and light. While primarily responsible for enabling transitions between vertically distributed spaces they can also activate a space through their sculptural presence. They are equally poetic and pragmatic.

The base component of a stair is called the tread. It is the (normally) horizontal element that you stand on. The vertical distance between each tread is called the riser. The riser might be physically present or not. The barrier to prevent someone falling off the stair or to assist them in climbing the stair is called the balustrade. Finally, some kind of structure is required to support the treads, risers and balustrades. In the examples below some of the the stairs are supported by central beam, or two beams (one on each edge), or they are cantilevered from the adjacent wall ... or supported by a structural balustrade.

When you consider the stairs shown below look for the components described above and try to imagine what the designer was intending by expressing them in the way they have.

Discuss with your classmates or your tutor to see if they come to a similar, complimentary or contrasting conclusion.

# CATEGORIES

A note on how the stairs below are categorized:

The stairs shown below are grouped into several different categories. As is the case with any classification system there is always a little room for negotiation; in other words, stairs might fit in more than one category depending on how you define it. You should think about your own categories of stairs and start collecting examples (through images, drawings, models and animations/video) that inspire you.

The online social platform Pinterest is a good option for doing this.

**LIGHT STAIRS**















**STRUCTURAL BALUSTRADE**









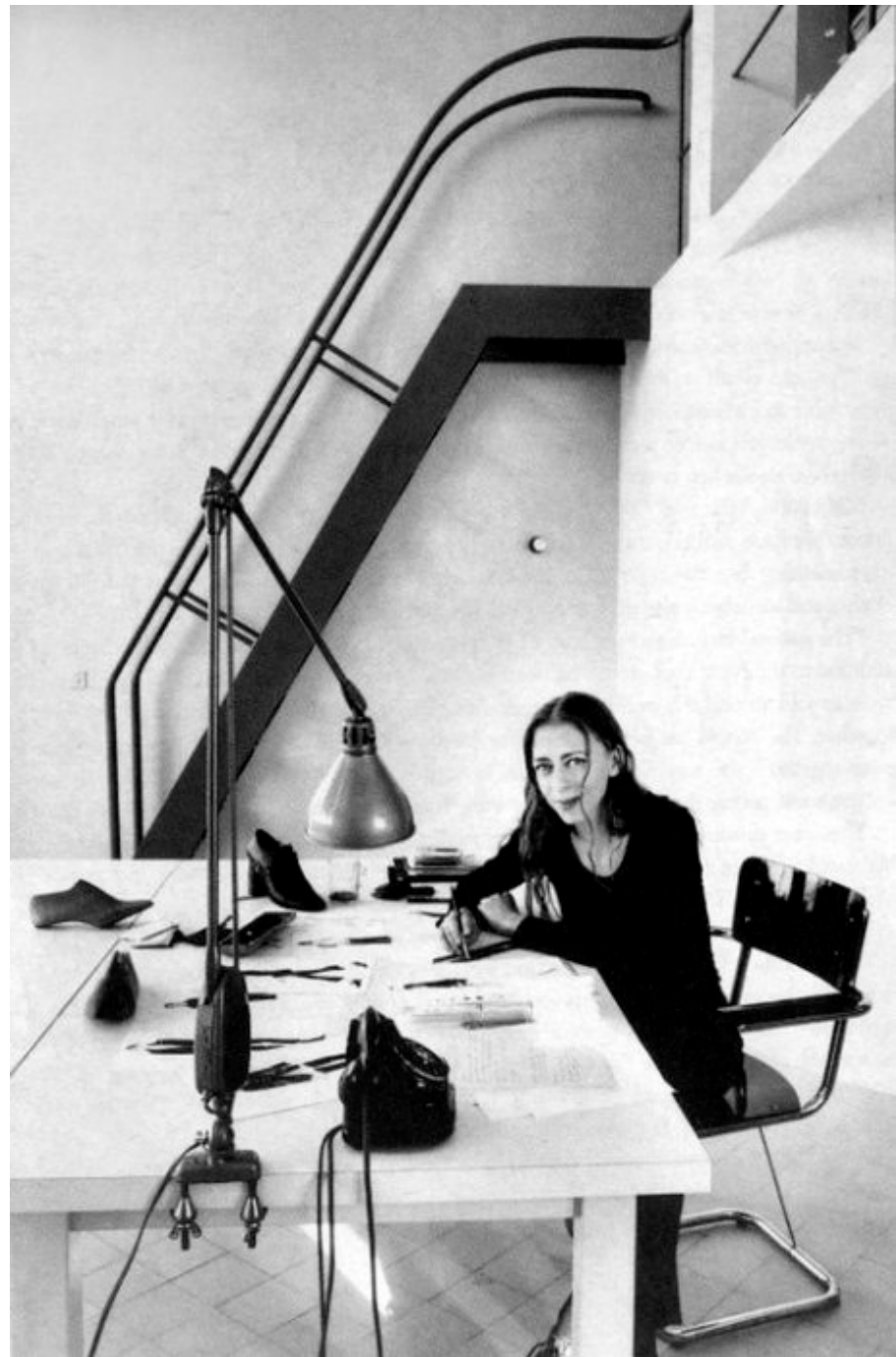


CENTRE POMPIDOU, PARIS





VILLA VPRO, MVRDV

















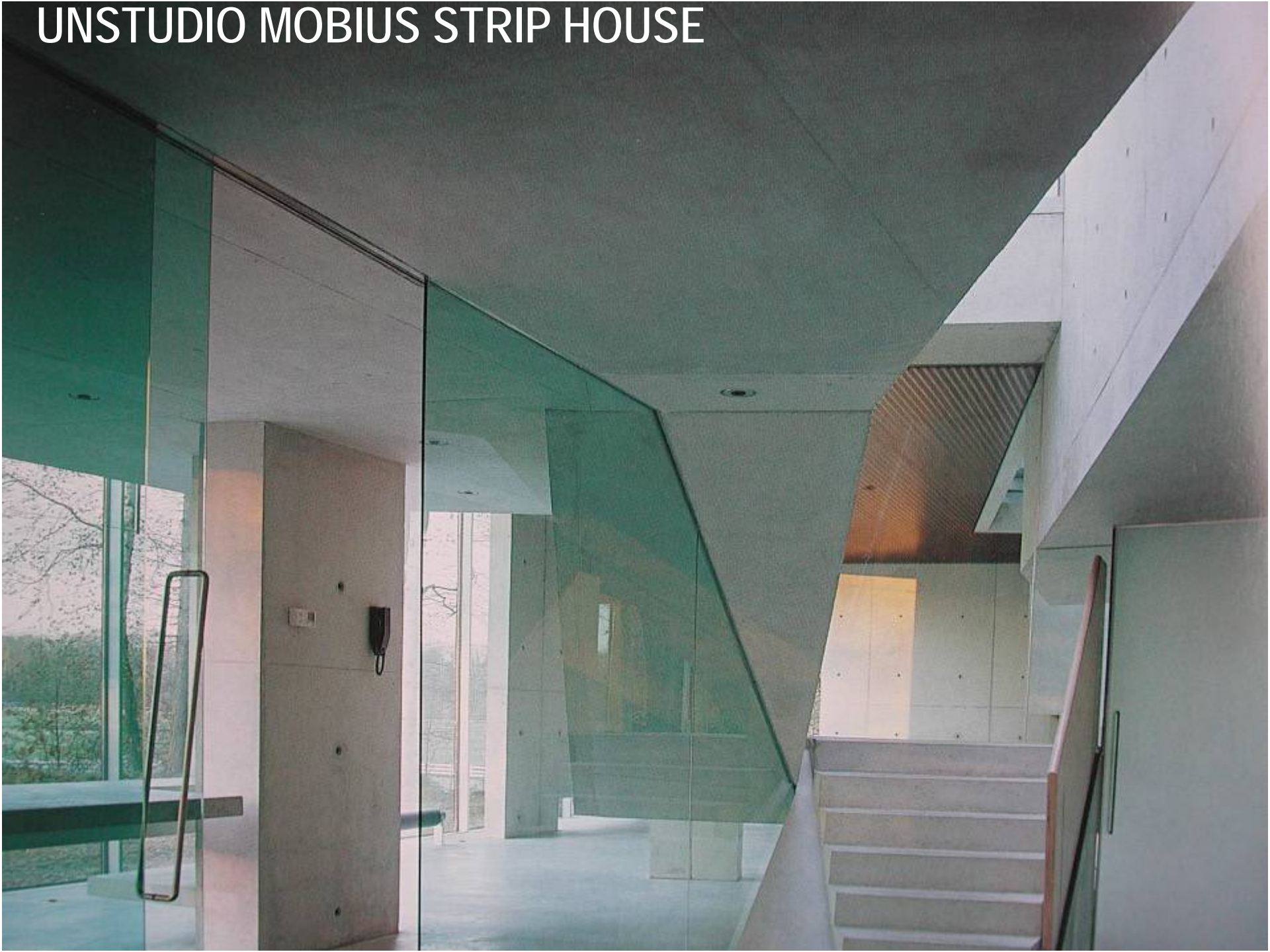
**HEAVY STAIRS**







# UNSTUDIO MOBIUS STRIP HOUSE











LUIS BARRAGAN







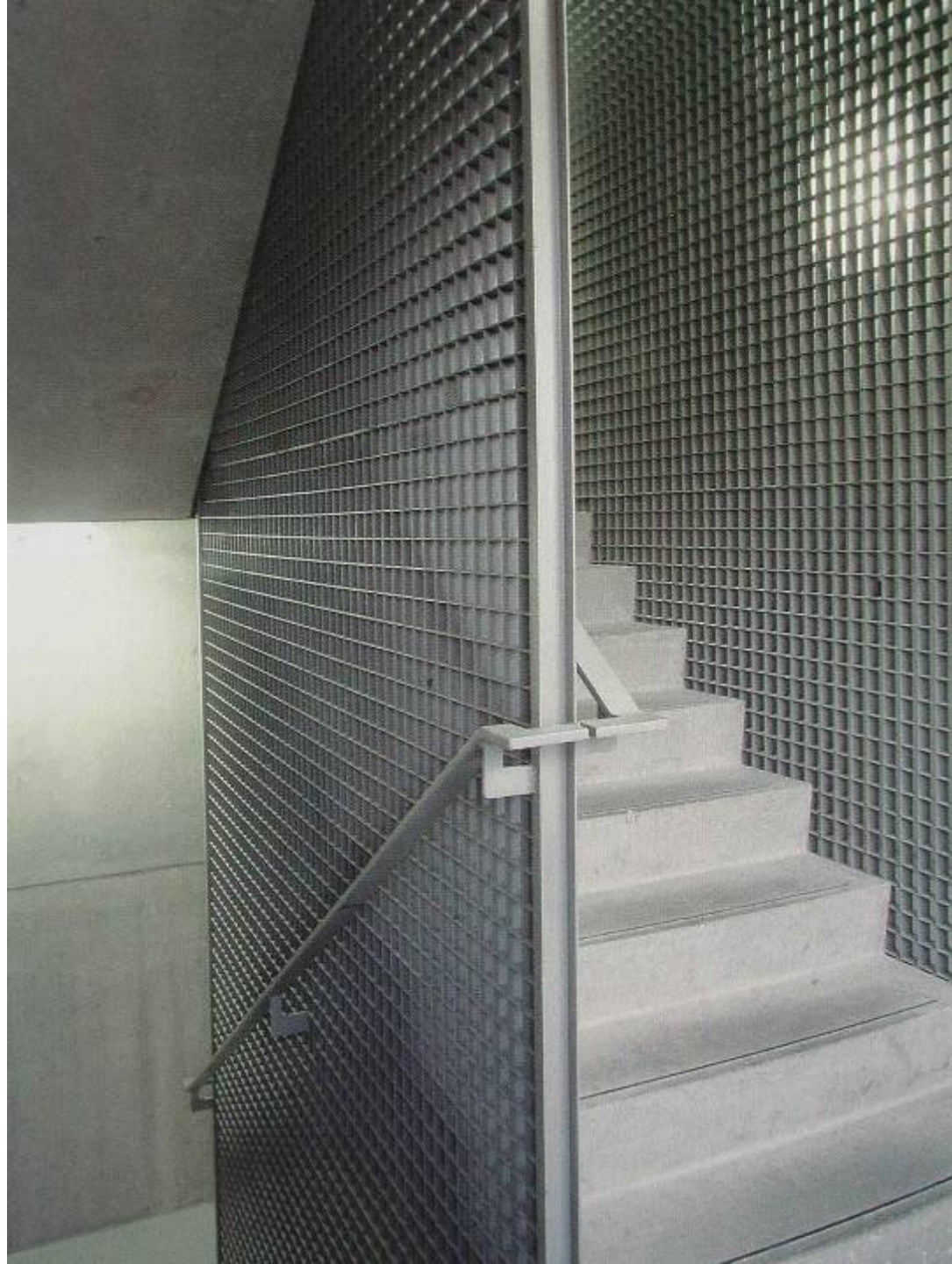


DANIEL LIBESKIND: JEWISH MUSEUM













PHILLIPPE STARK



CARLO SCARPA



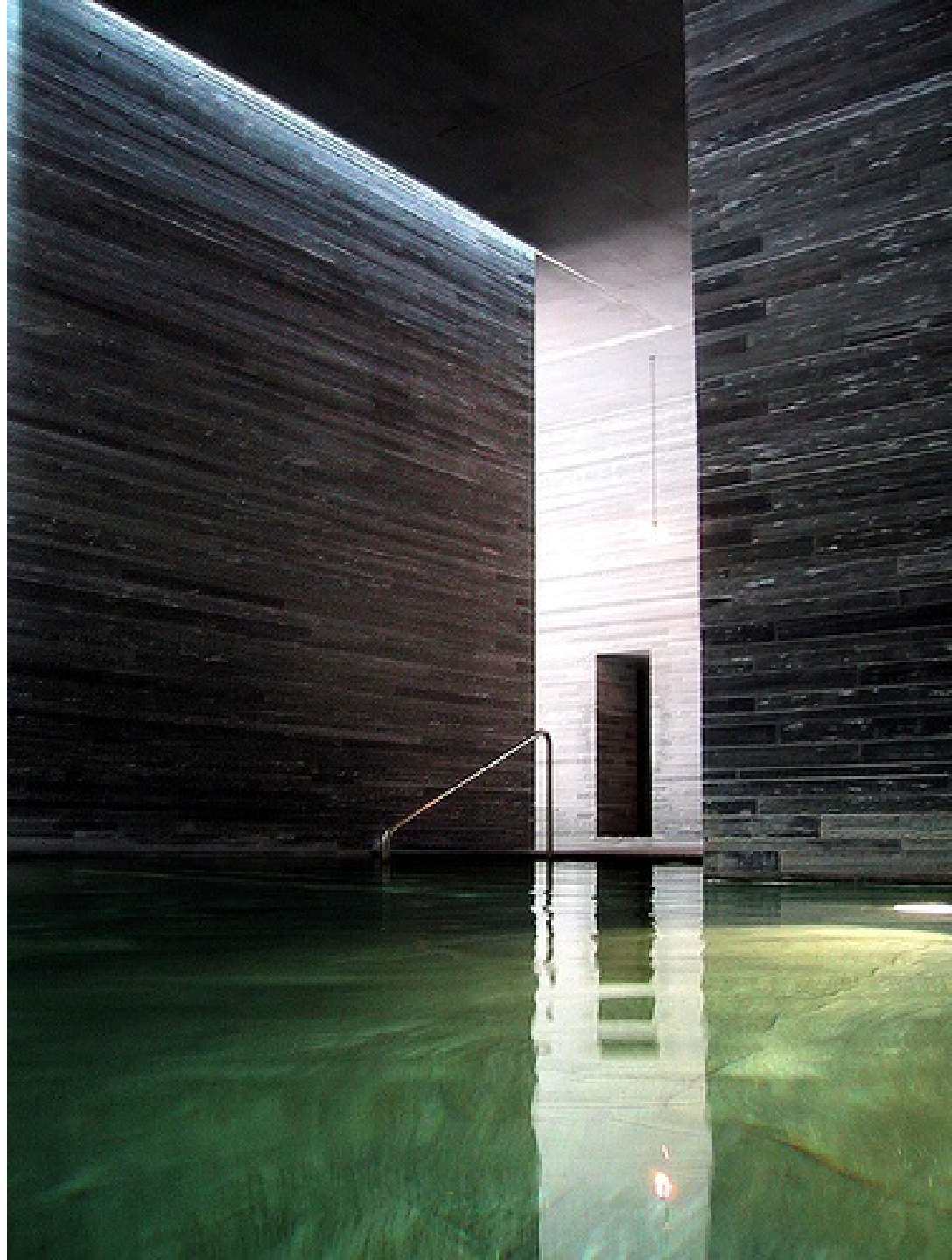








PETER ZUMTHOR  
THERMAL BATHS, VALS



# CANTILEVERED STAIRS

can·ti·le·ver [kan-tl-ee-ver]

Noun

1. Any rigid structural member projecting from a vertical support, especially one in which the projection is great in relation to the depth, so that the upper part is in tension and the lower part in compression.
2. Building Trades, Civil Engineering: any rigid construction extending horizontally well beyond its vertical support, used as a structural element of a bridge (cantilever bridge) building foundation, etc.
3. Aeronautics: A form of wing construction in which no external bracing is used.
4. Architecture: A bracket for supporting a balcony, cornice, etc.

World English Dictionary (Collins)

1. A beam, girder, or structural framework that is fixed at one end and is free at the other









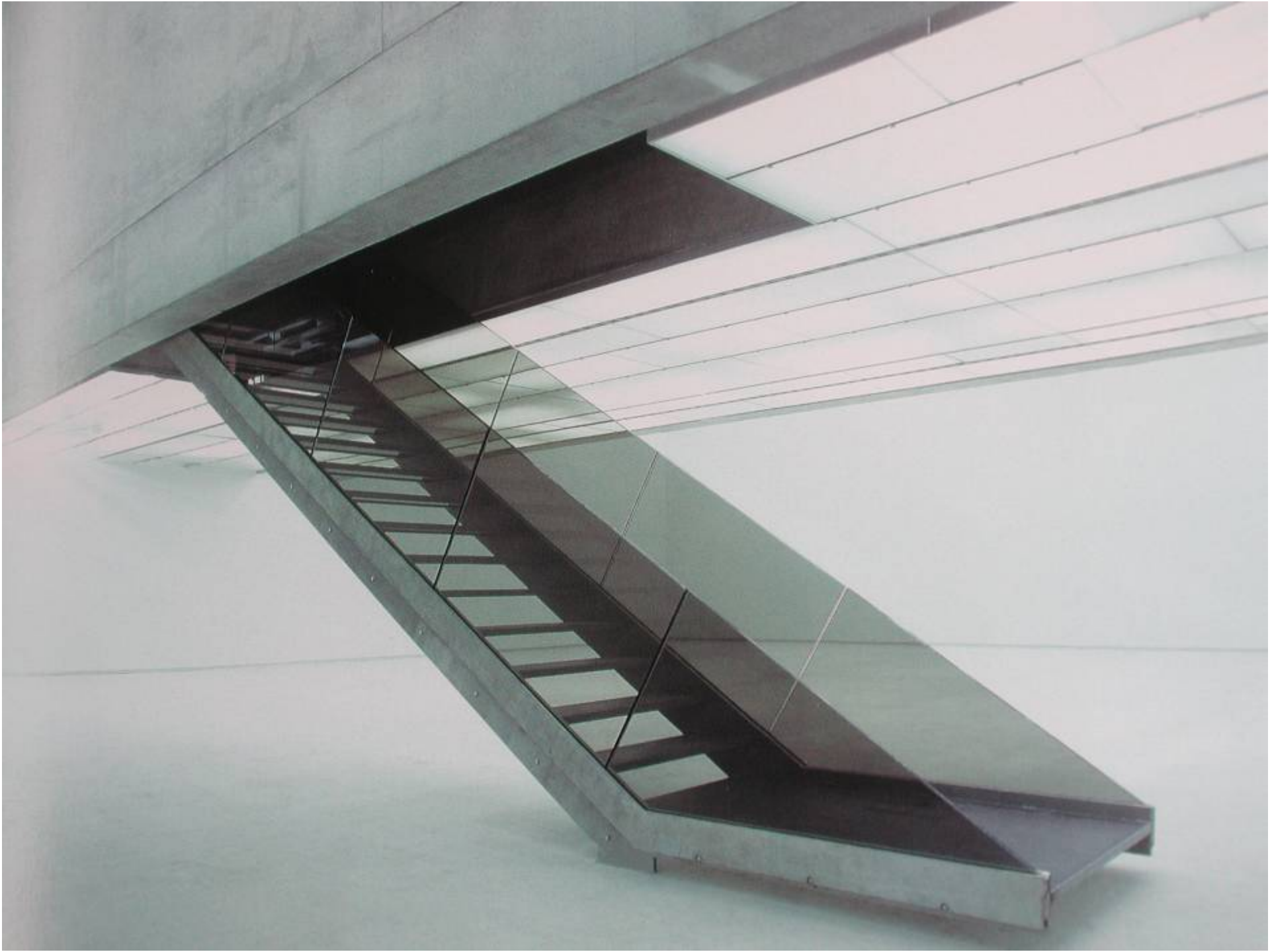










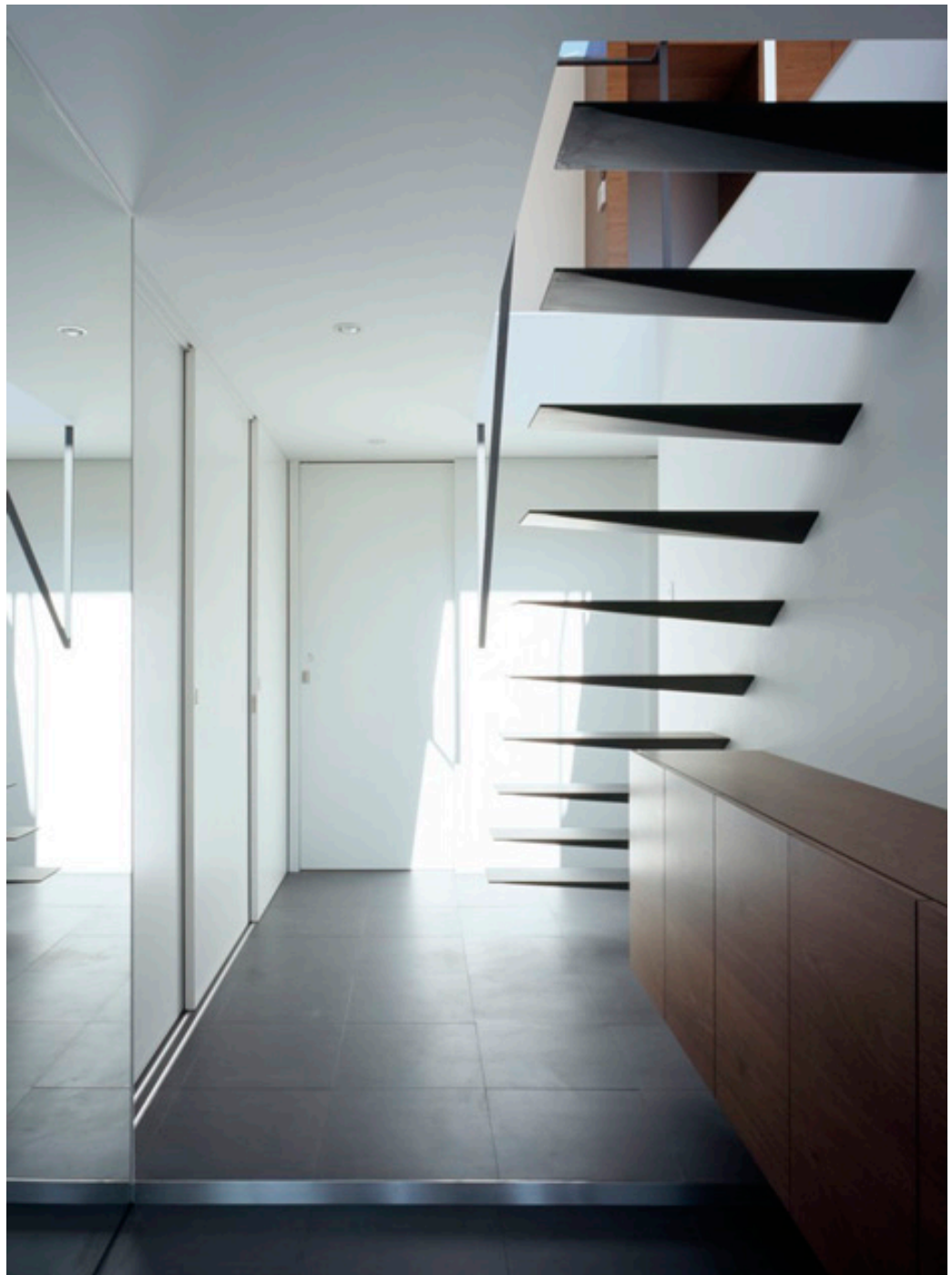


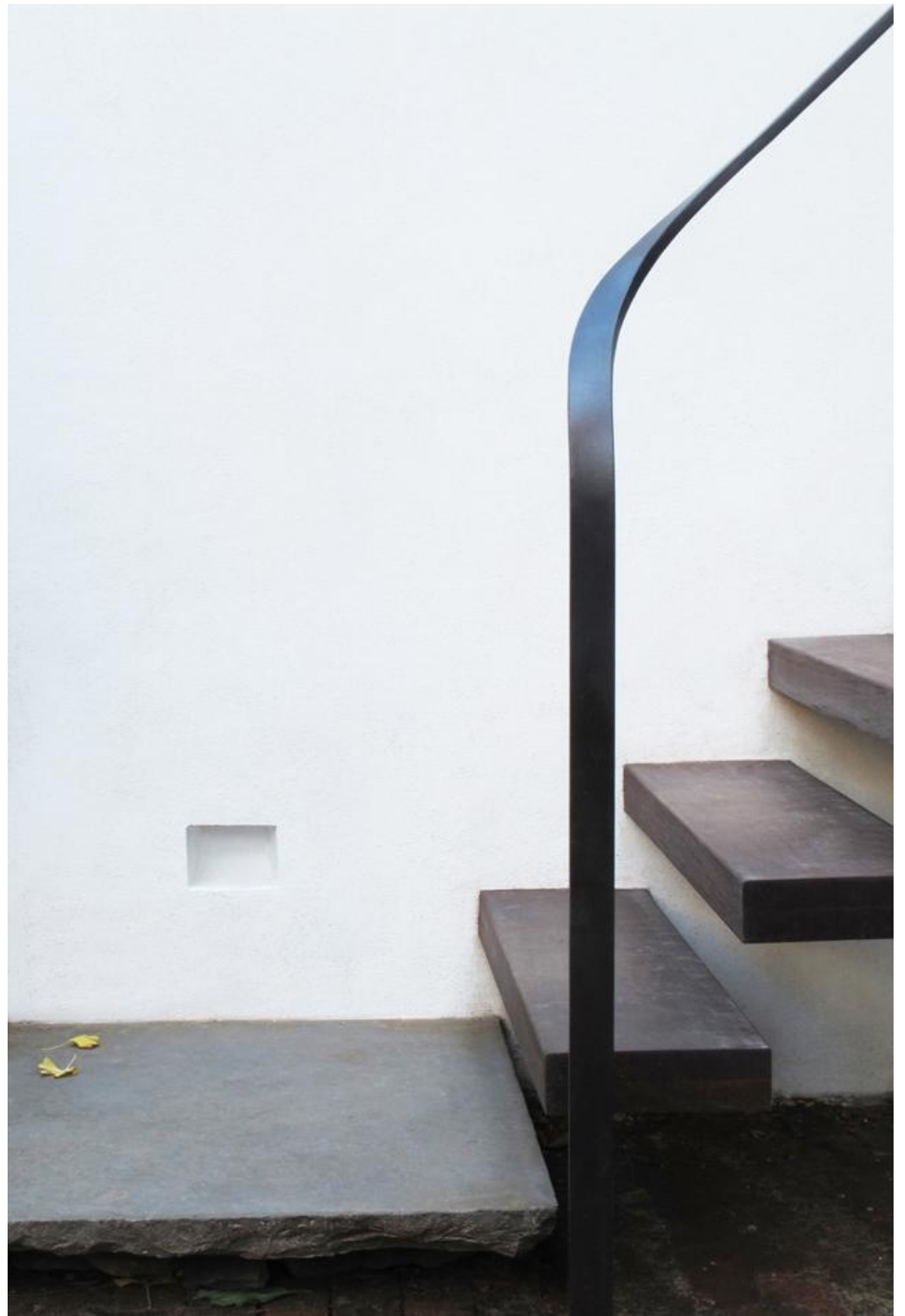
















**OUTSIDE STAIRS**



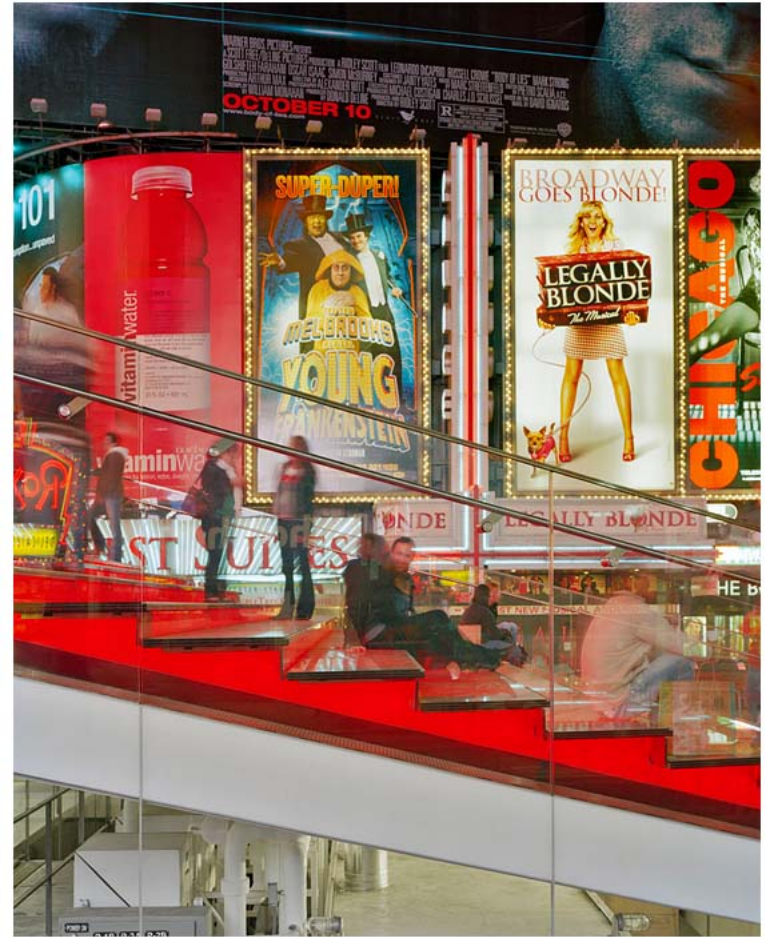
PERKINS EASTMAN. NYC + John Choi and Tai Ropiha. Sydney





TROY DONOVAN



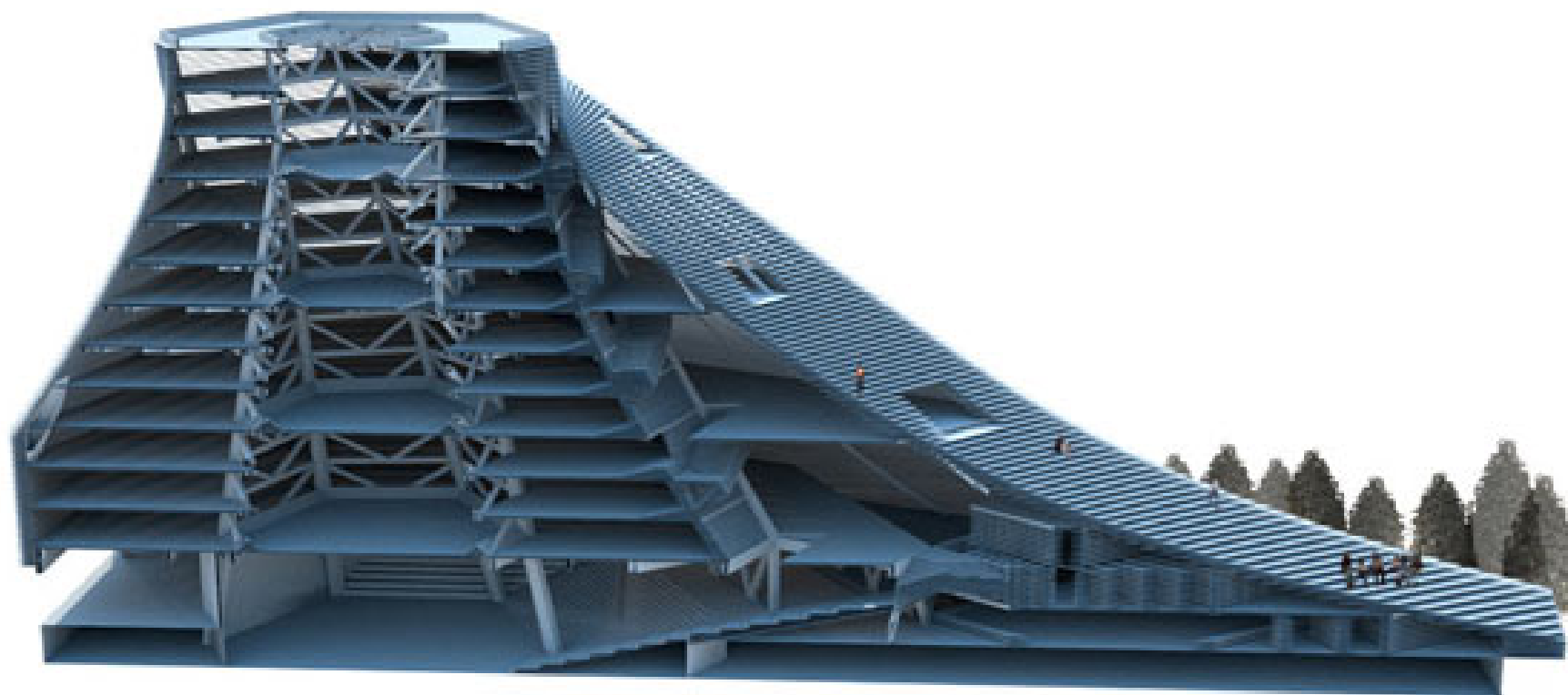




## DETAILS













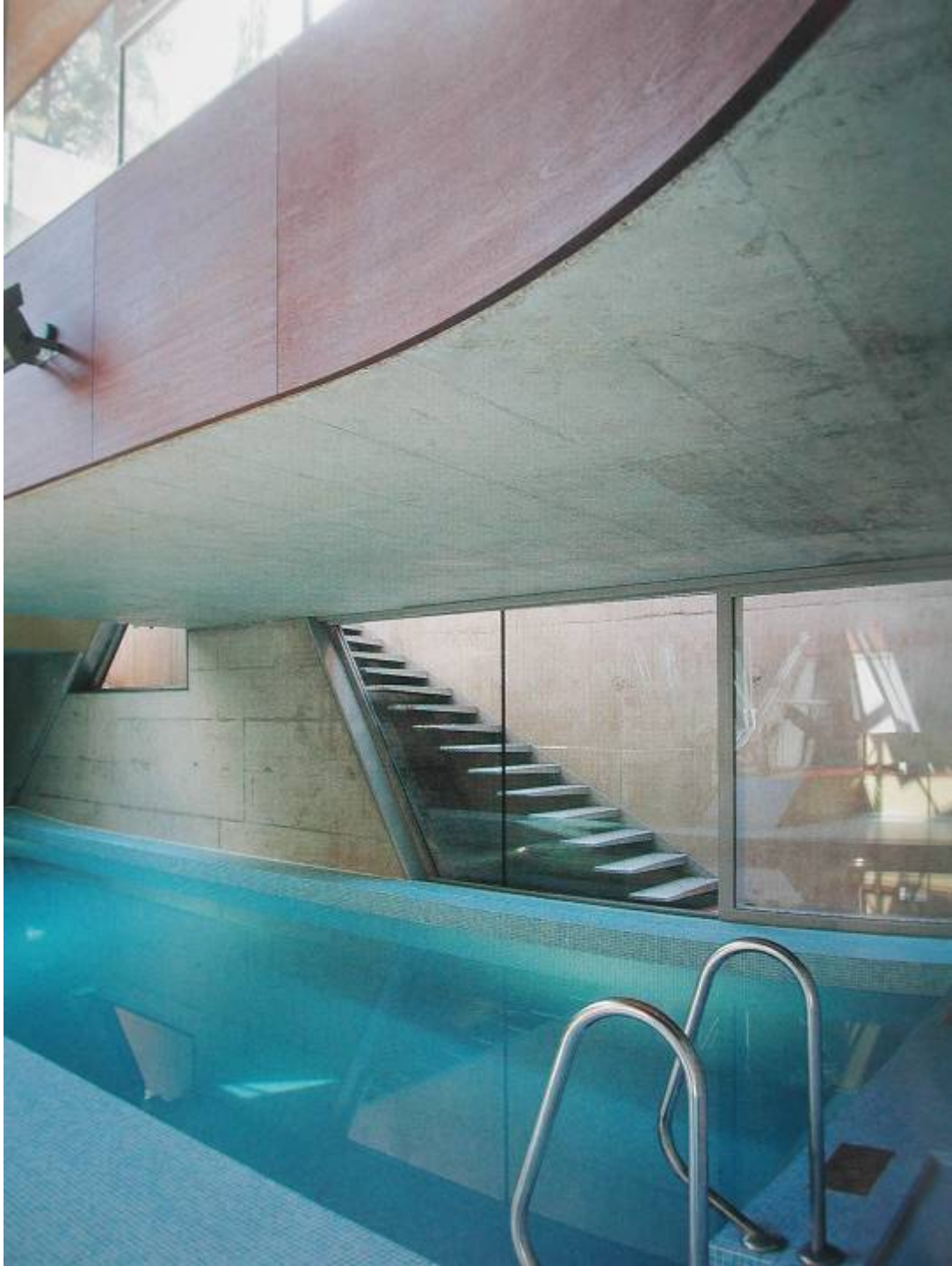


LAKE COMO. ITALY













HOUSE ON MYKONOS. MARC CORBIAU





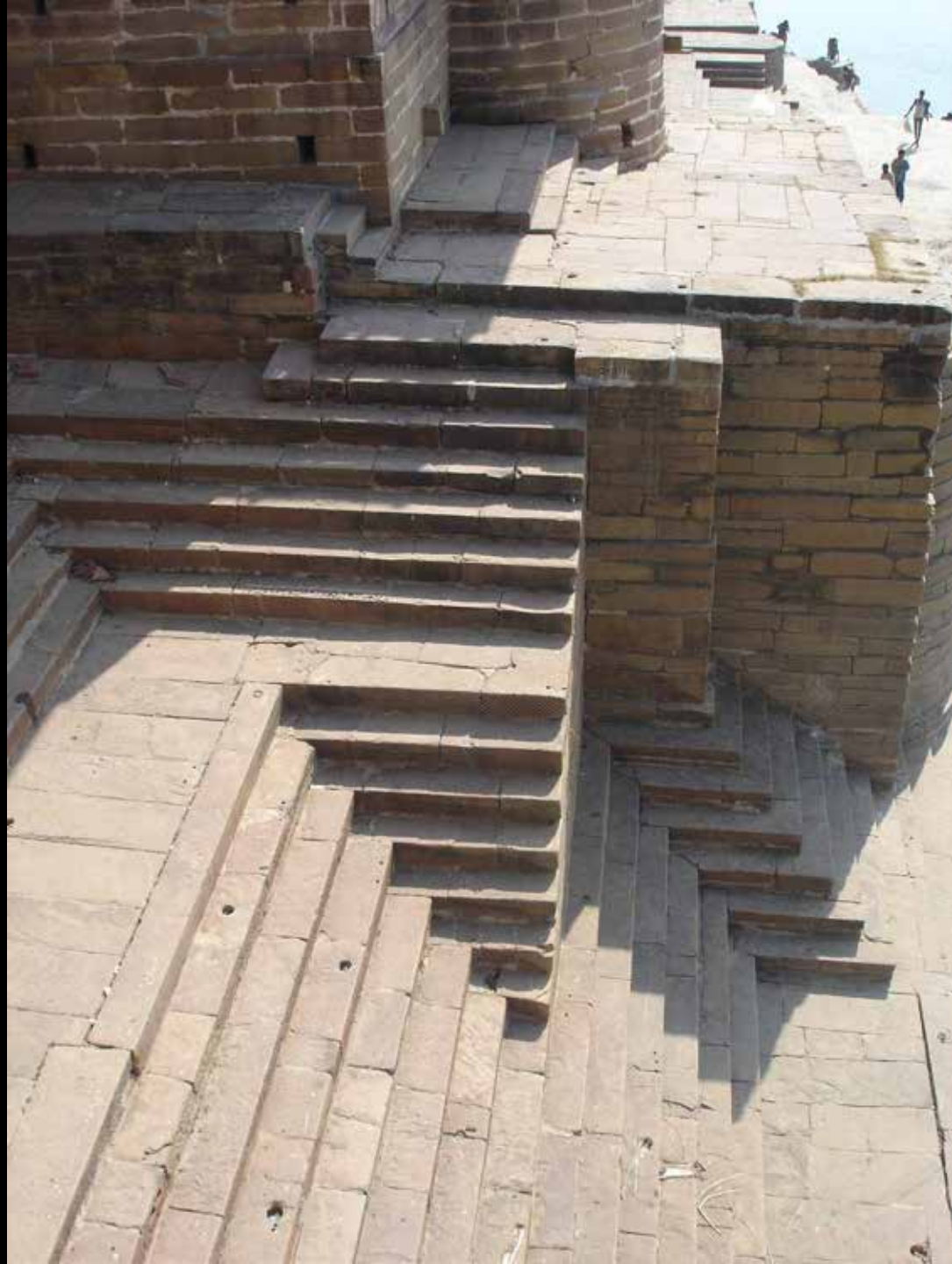






GANGES RIVER. INDIA



















LE CORBUSIER. CHANDIGARH



ROMAN RUINS. BATH. ENGLAND





CARLO SCARPA











OPERA HOUSE. SYDNEY



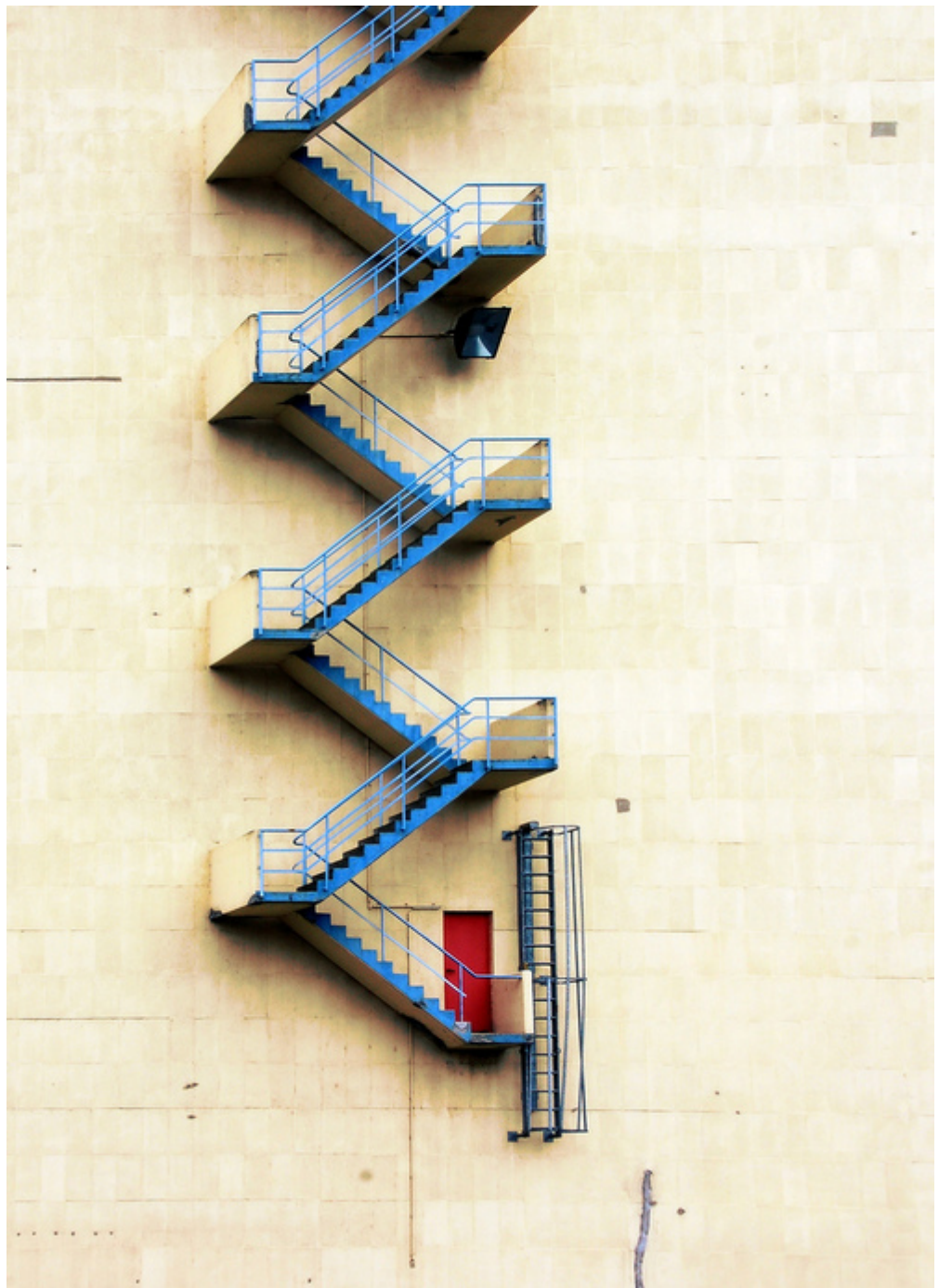












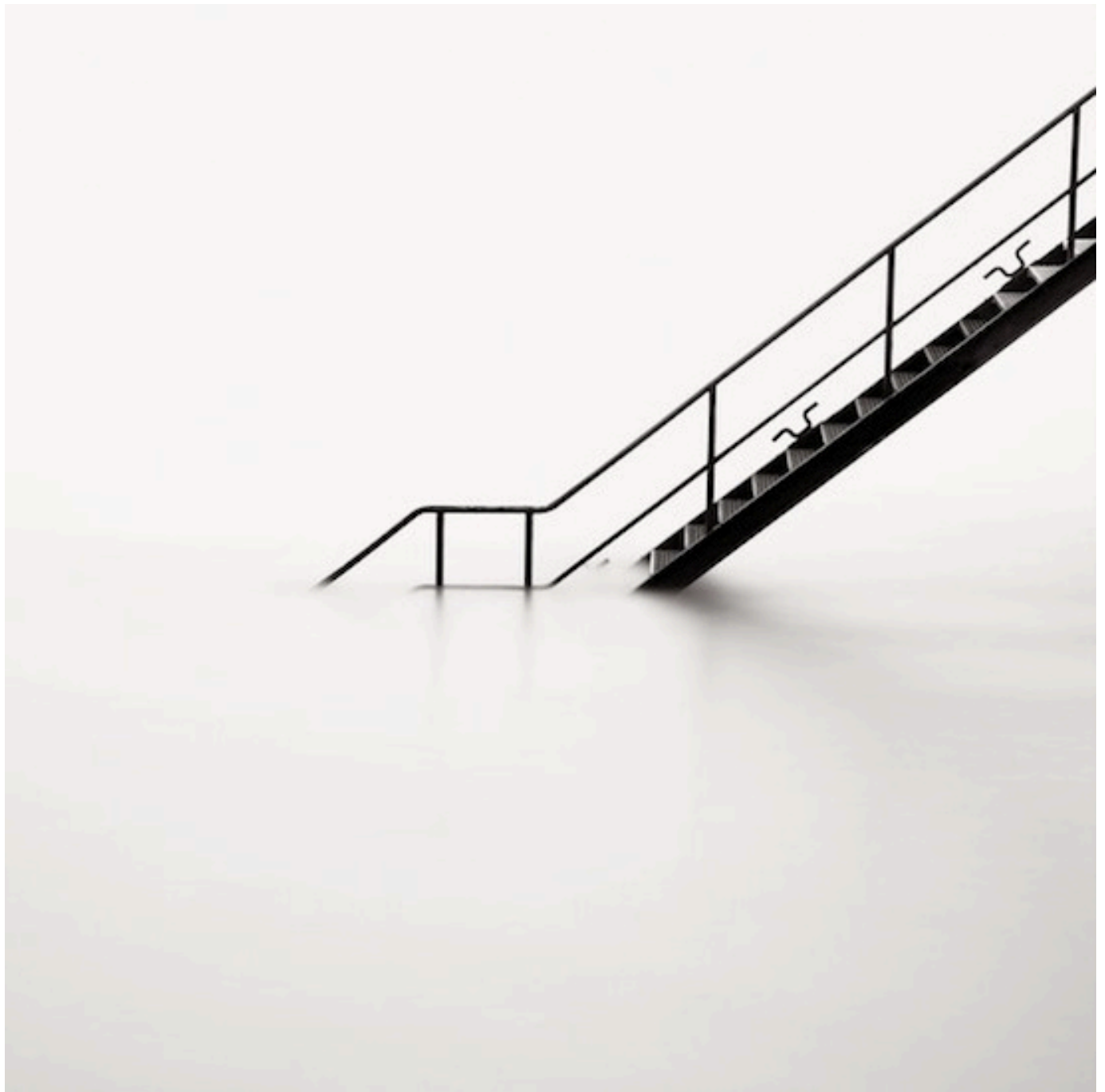


























**SPIRAL STAIRS**

**CASA ROTA  
MANUEL OCANA  
ARQUITECTOS**















**HERZOG AND DE MEURON**



**STEVEN HOLL**





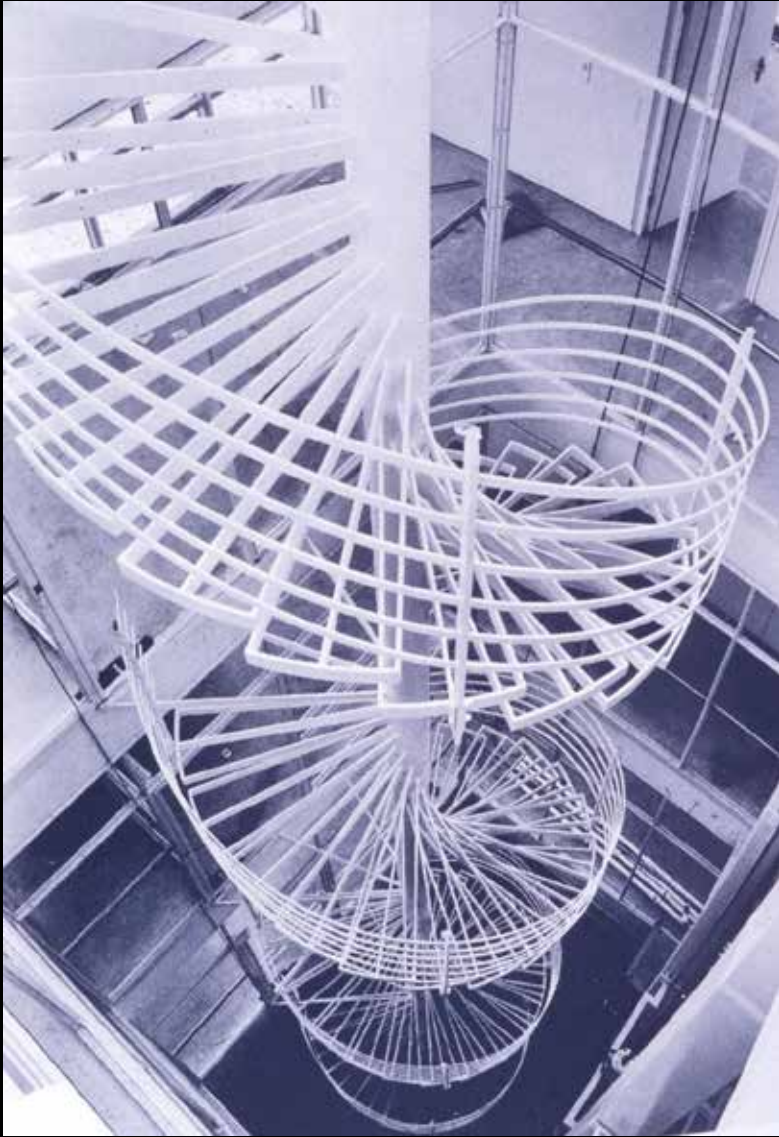


TATE MODERN  
LONDON









HOUSE AT BORDEAUX.  
REM KOOLHAAS







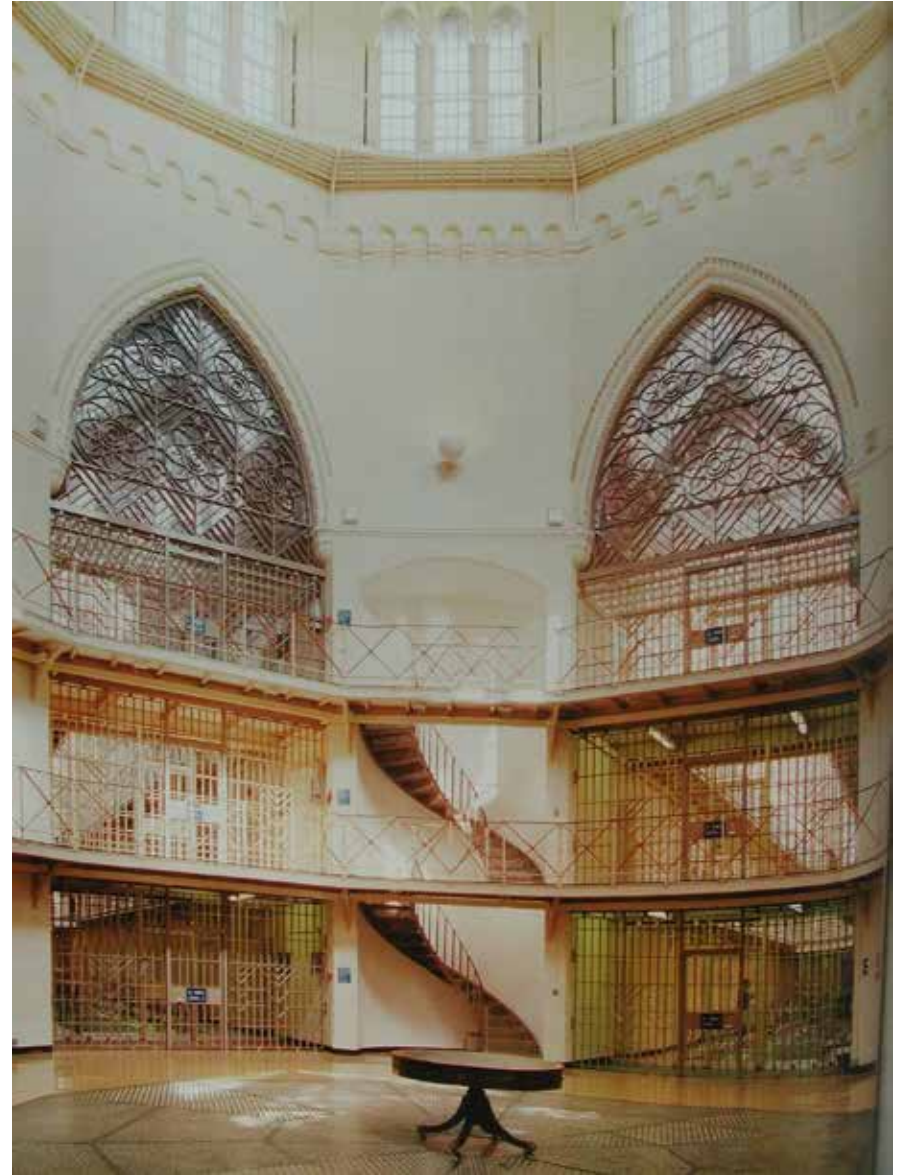
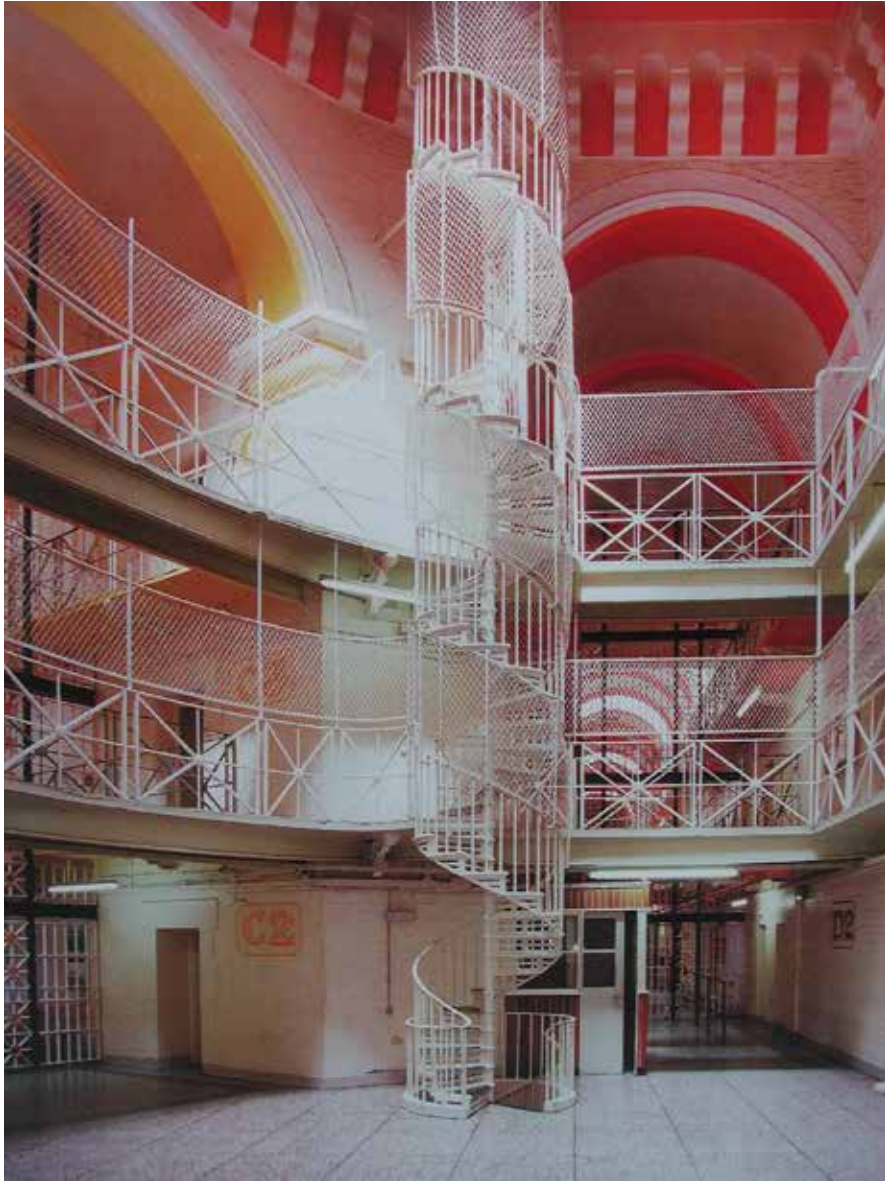


TETSUYA NAKAZONO



TETSUYA NAKAZONO



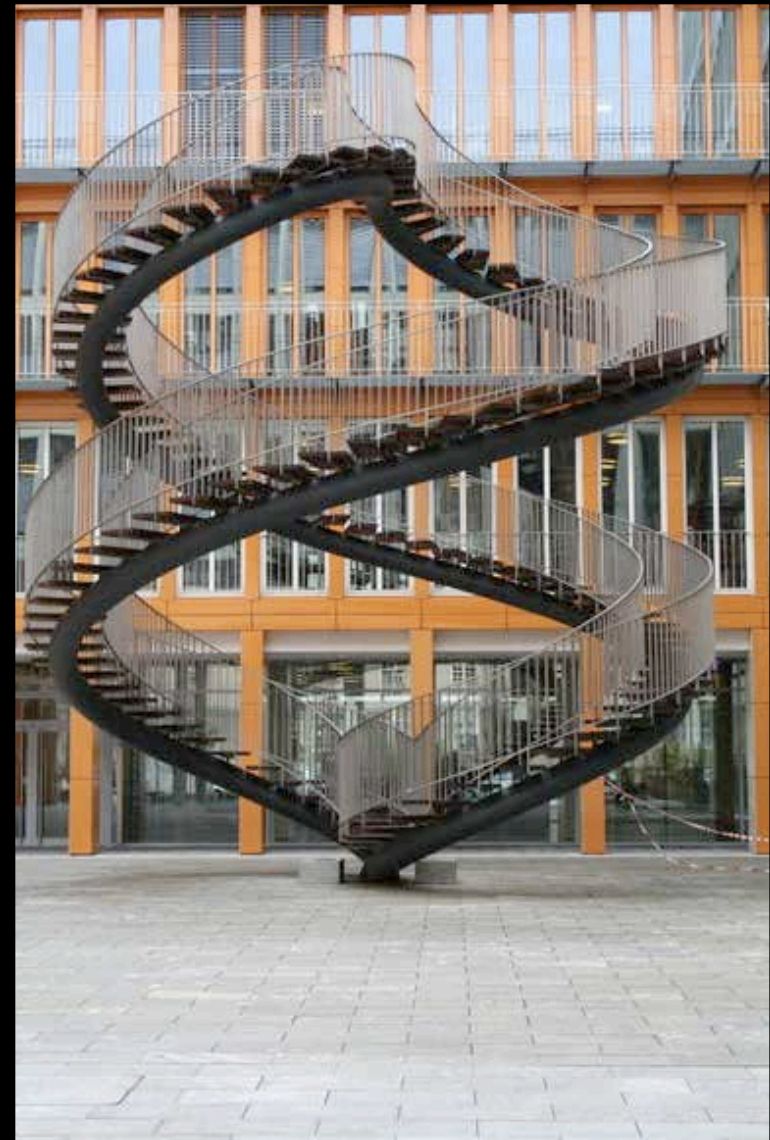












OLAFUR ELIASSON. MUNICH









**ROSS LOVEGROVE. DNA STAIRCASE.**



**SHOP STAIRS**



REM KOOLHAAS. OMA. PRADA. NYC





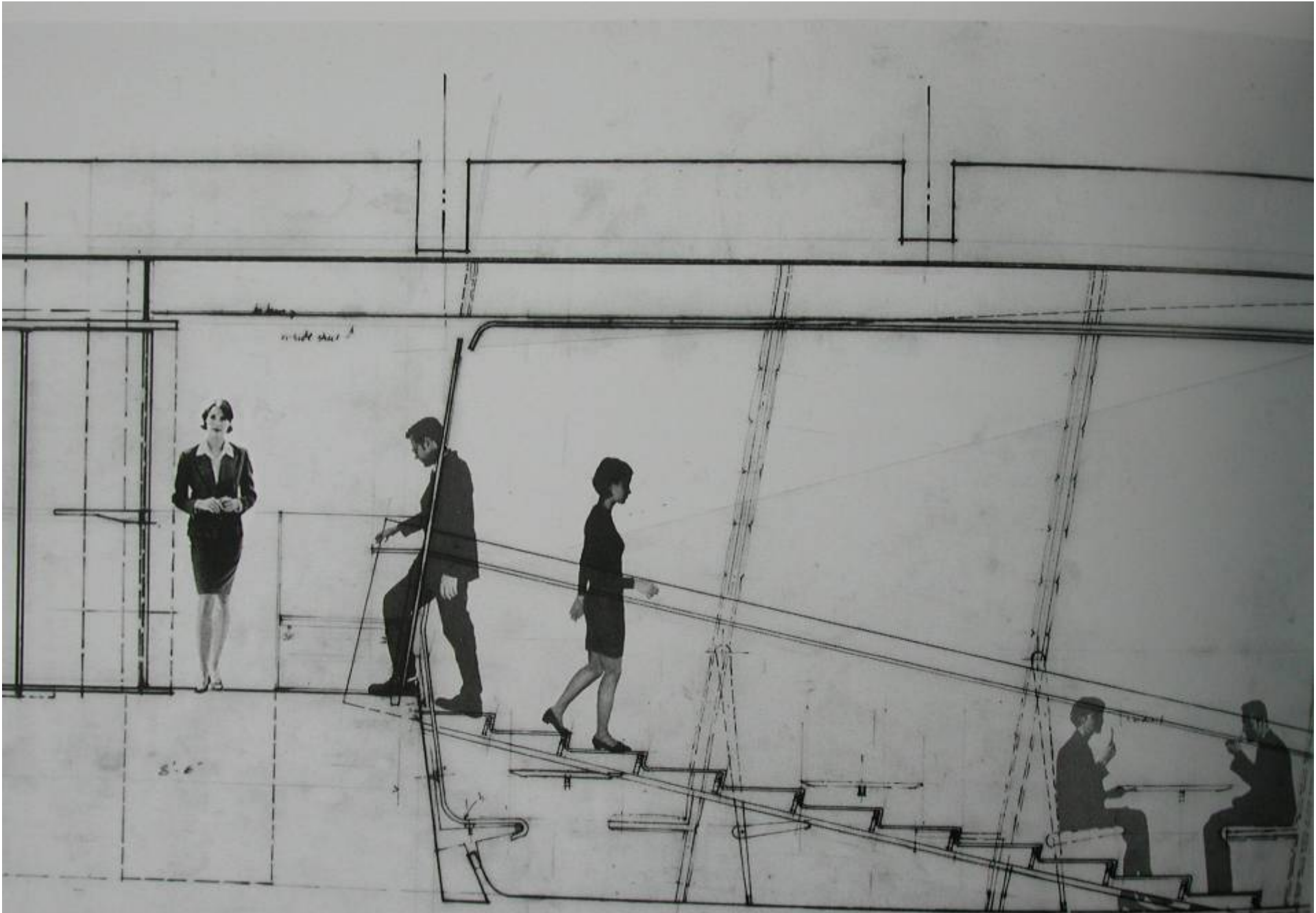












DILLER + SCOFIDIO





**ZAHA HADID**

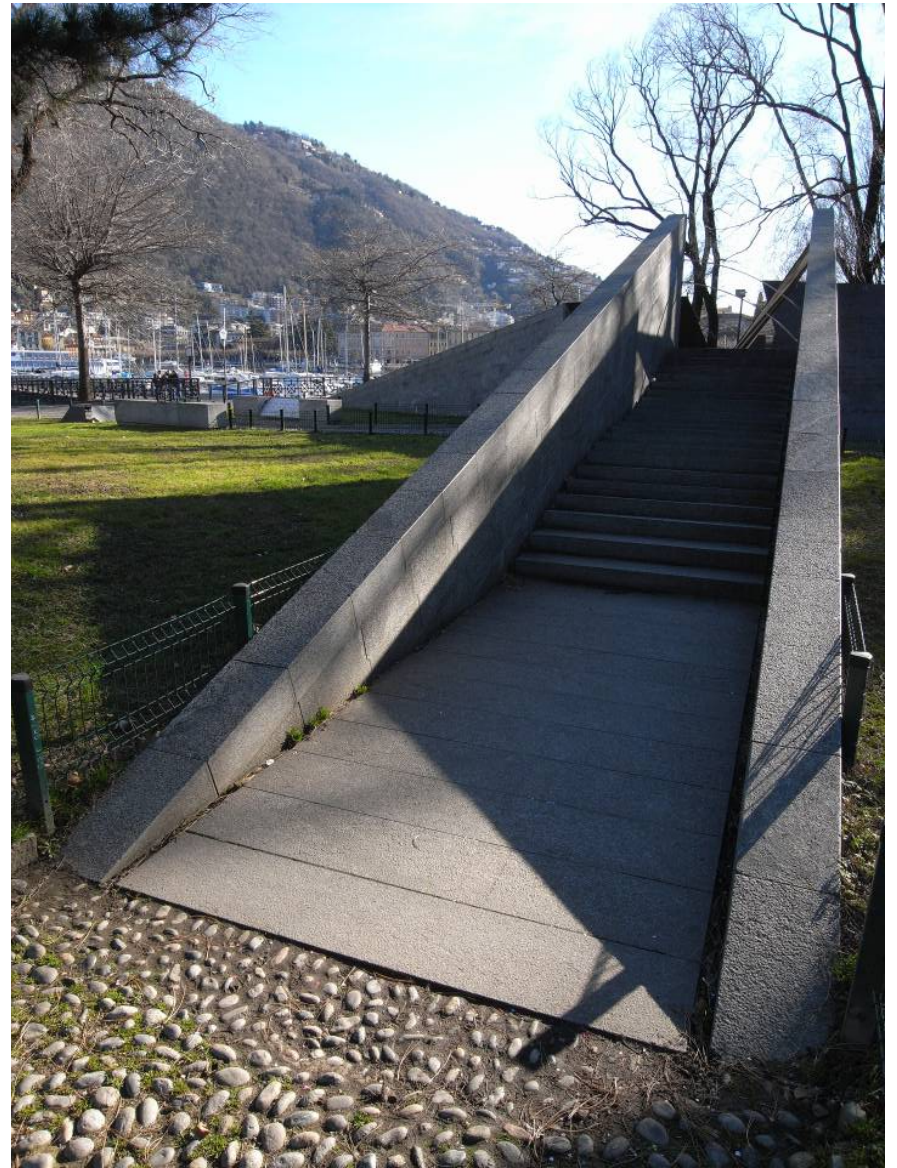


# MONUMENTAL STAIRS



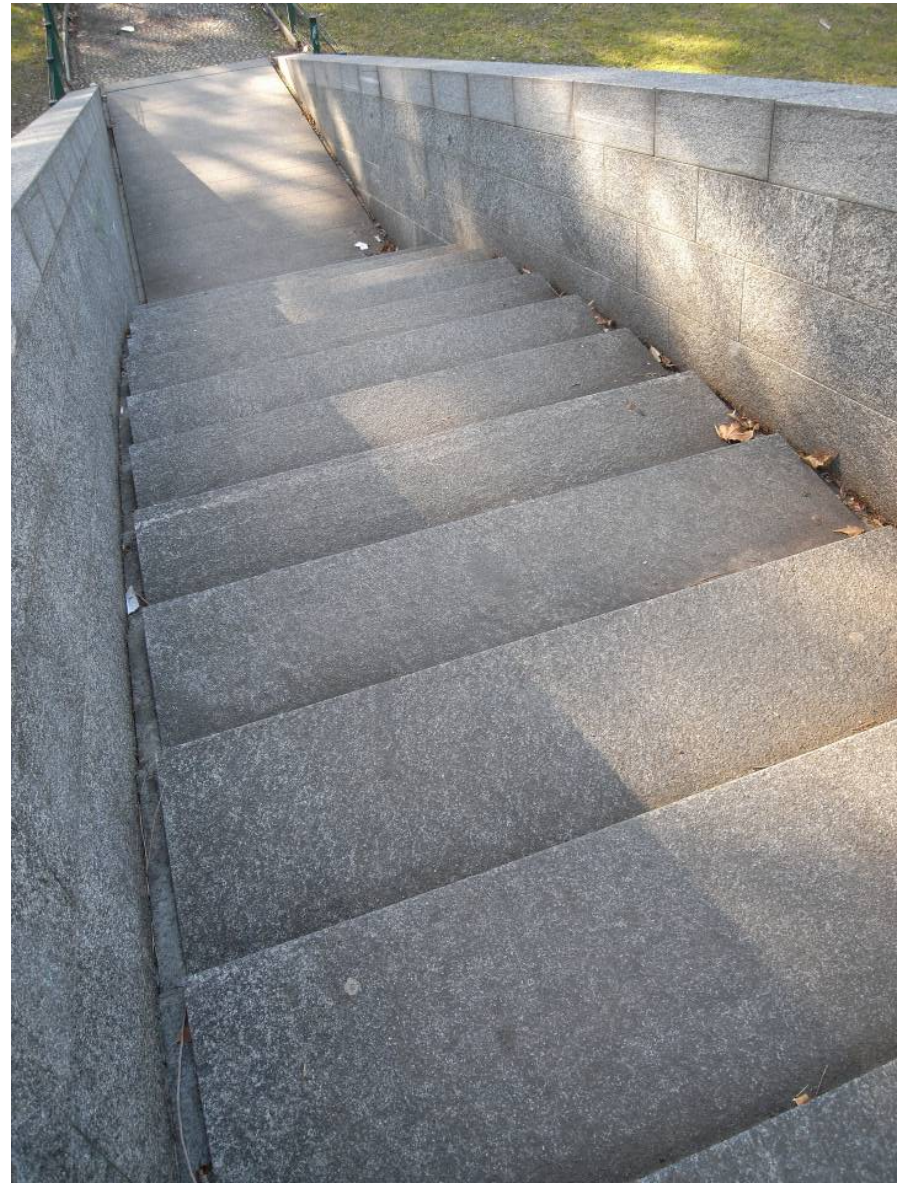
LAKE COMO. ITALY





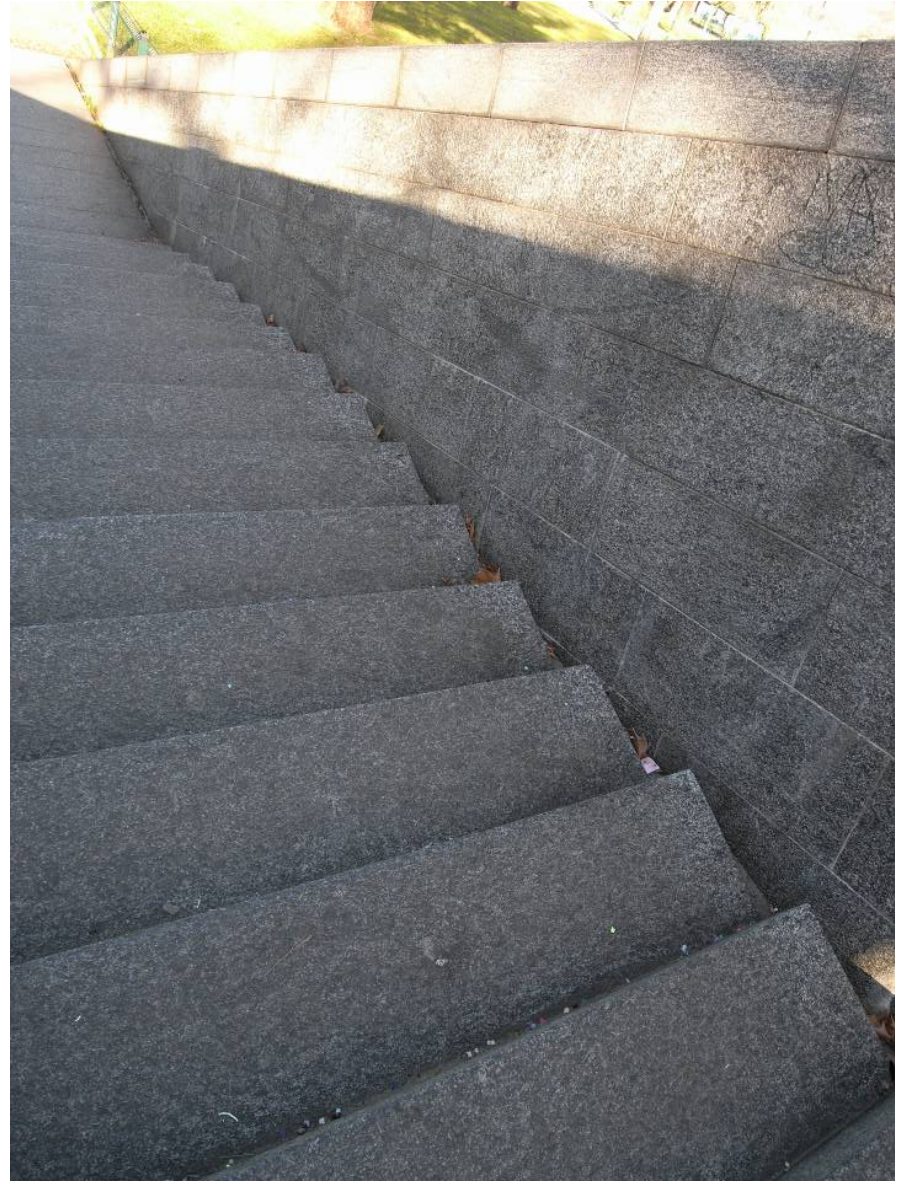
**NOTE THE UNEVEN TREADS AND RISERS IN THESE STAIRS**





**THIS MONUMENT IS A REFLECTION ON WAR.**

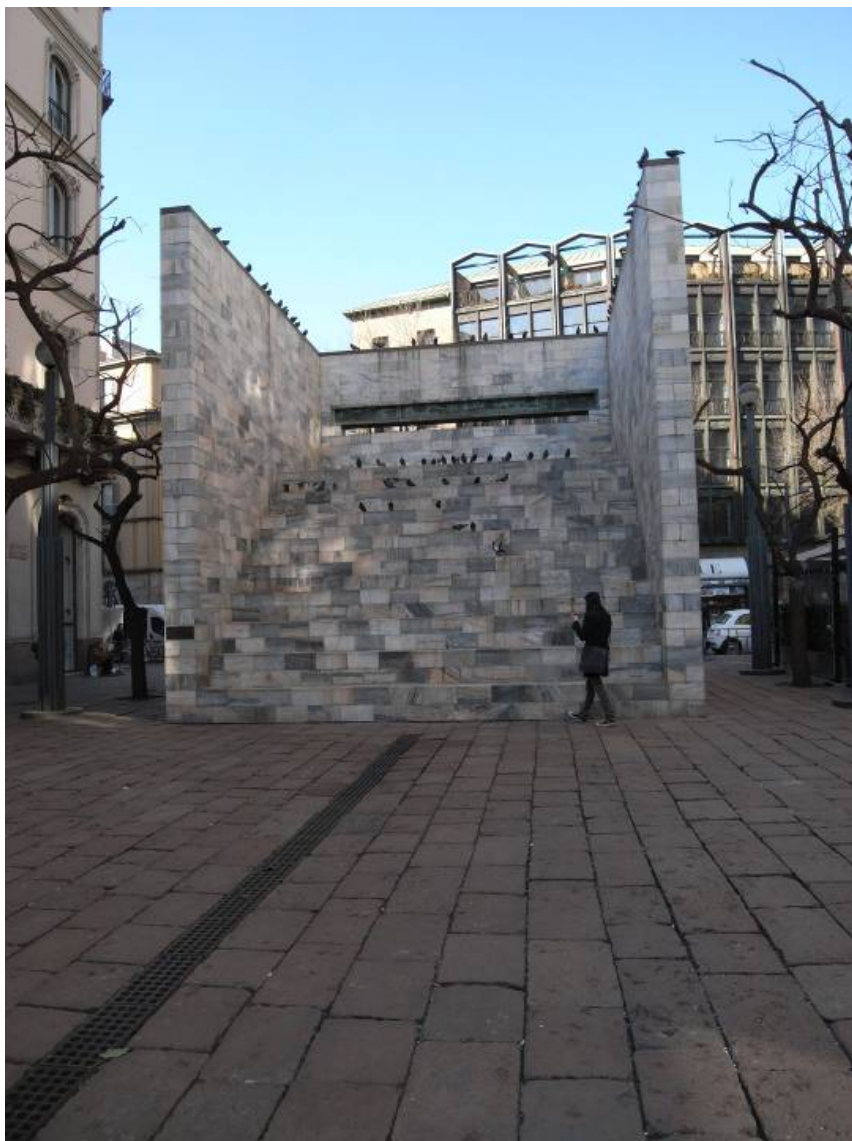




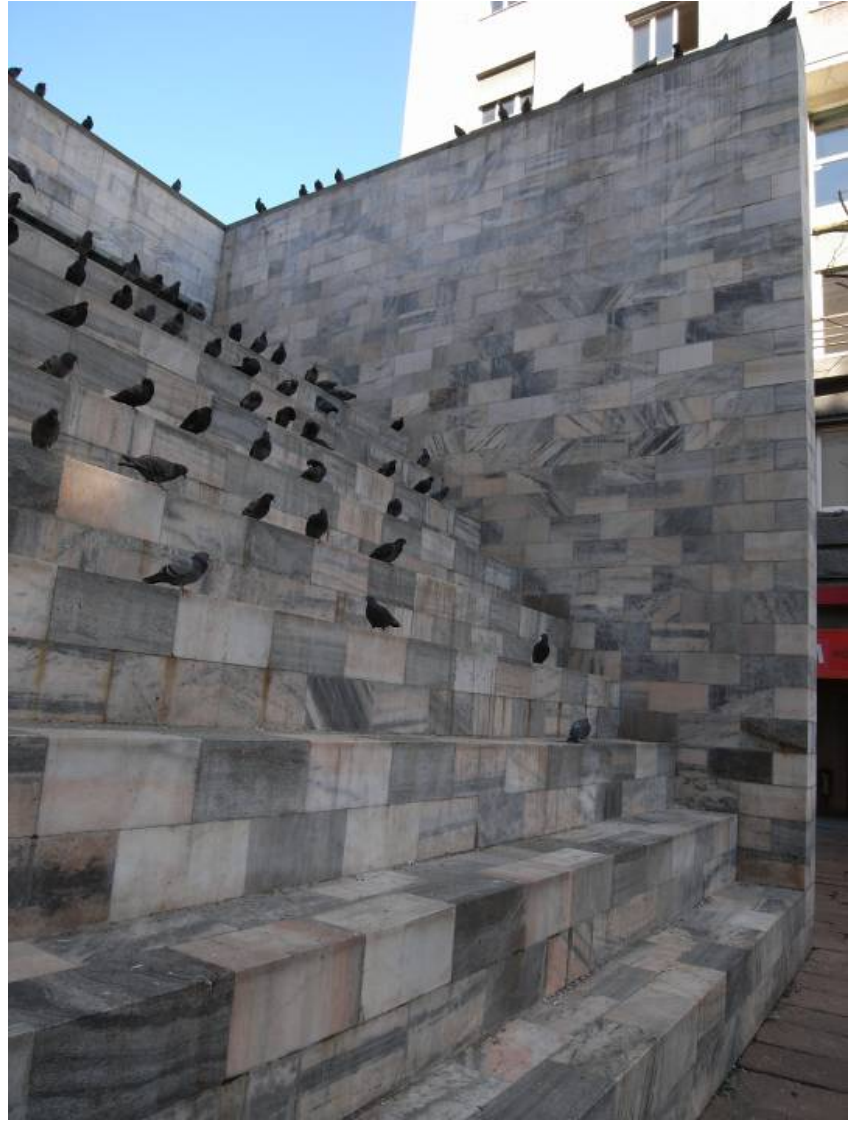
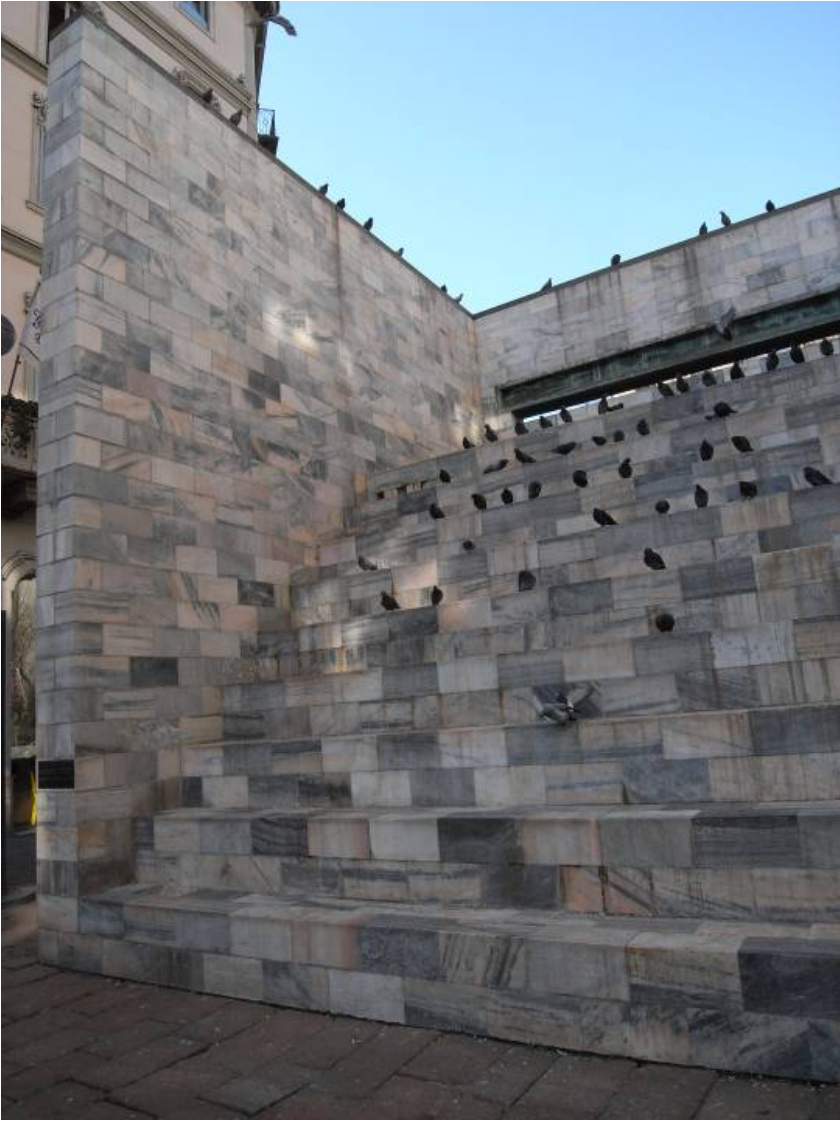








**ALDO ROSSI. MILAN**









**FAILURE**







**CASTLEVECCHIO**

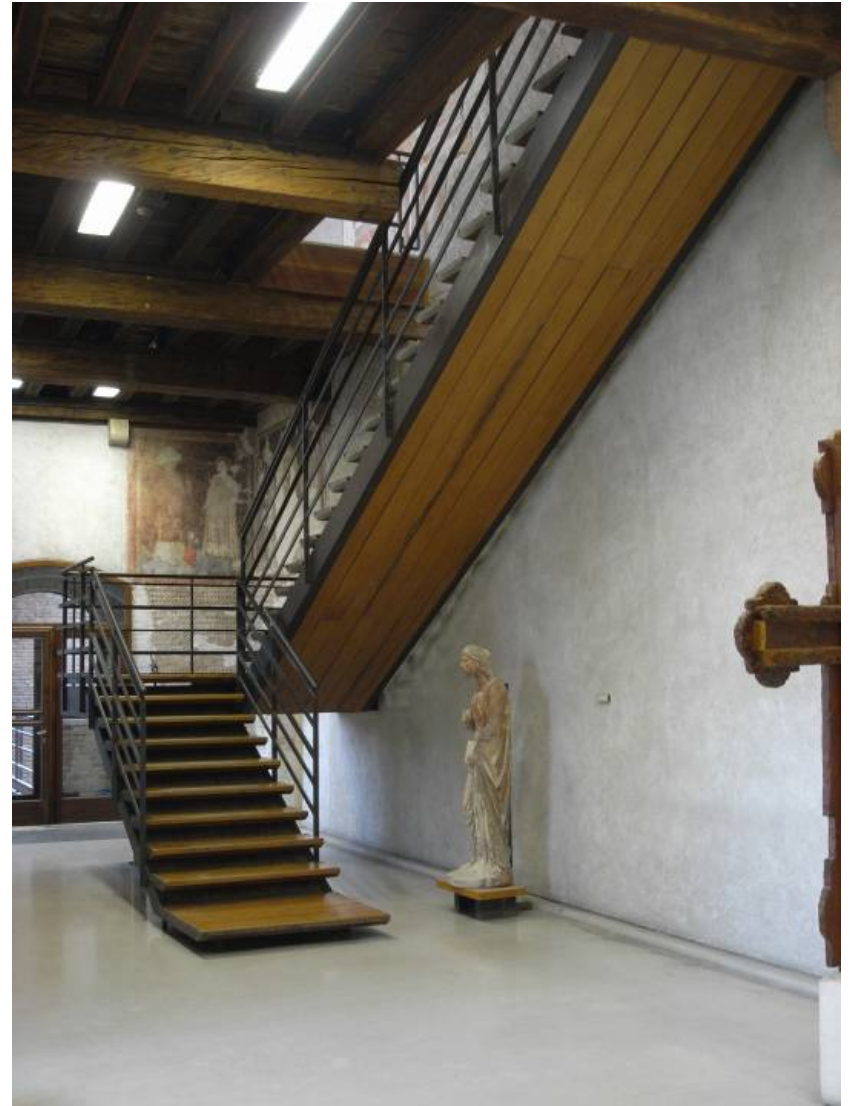
**CASE STUDY**

**CARLO SCARPA**





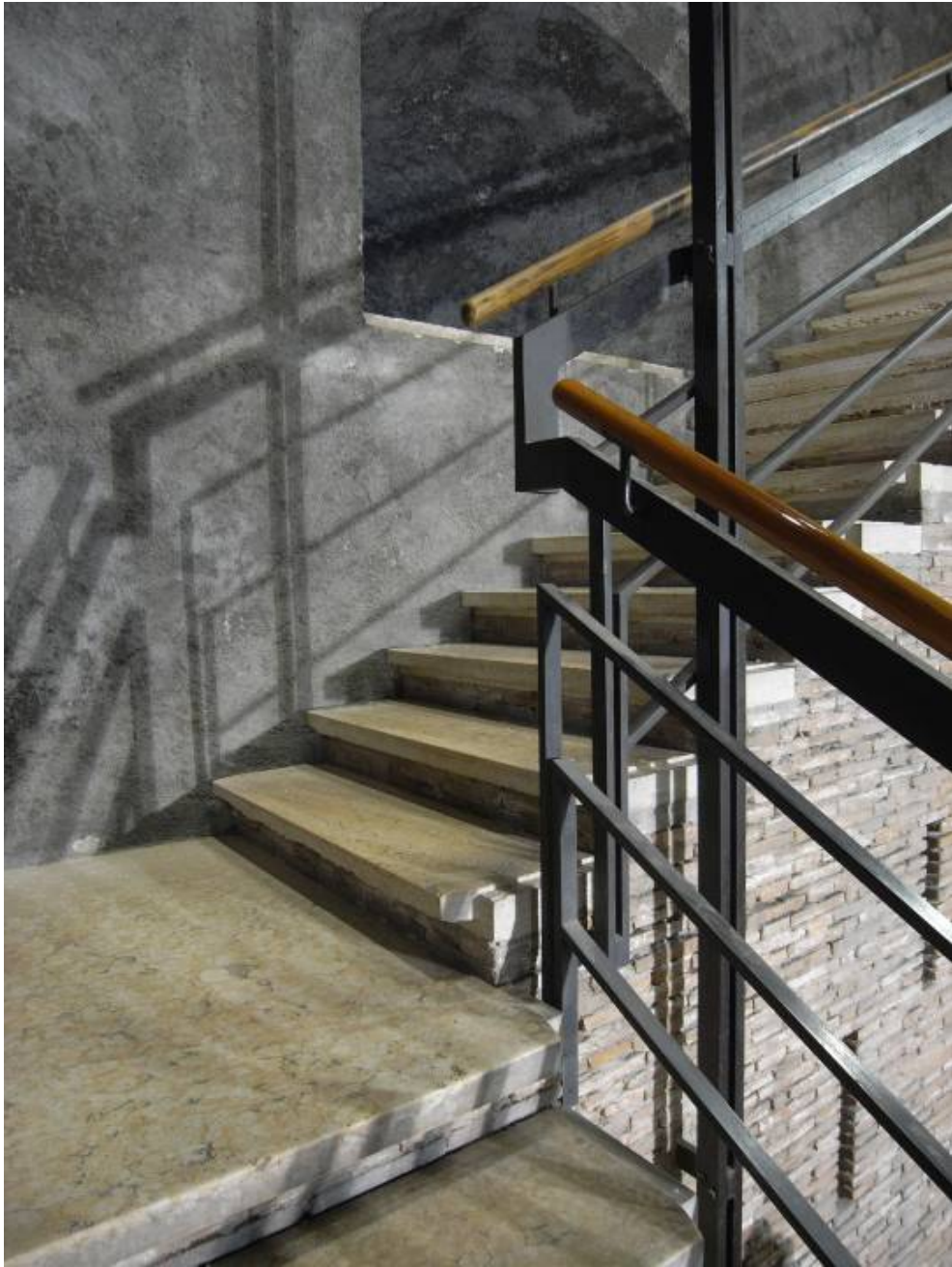








































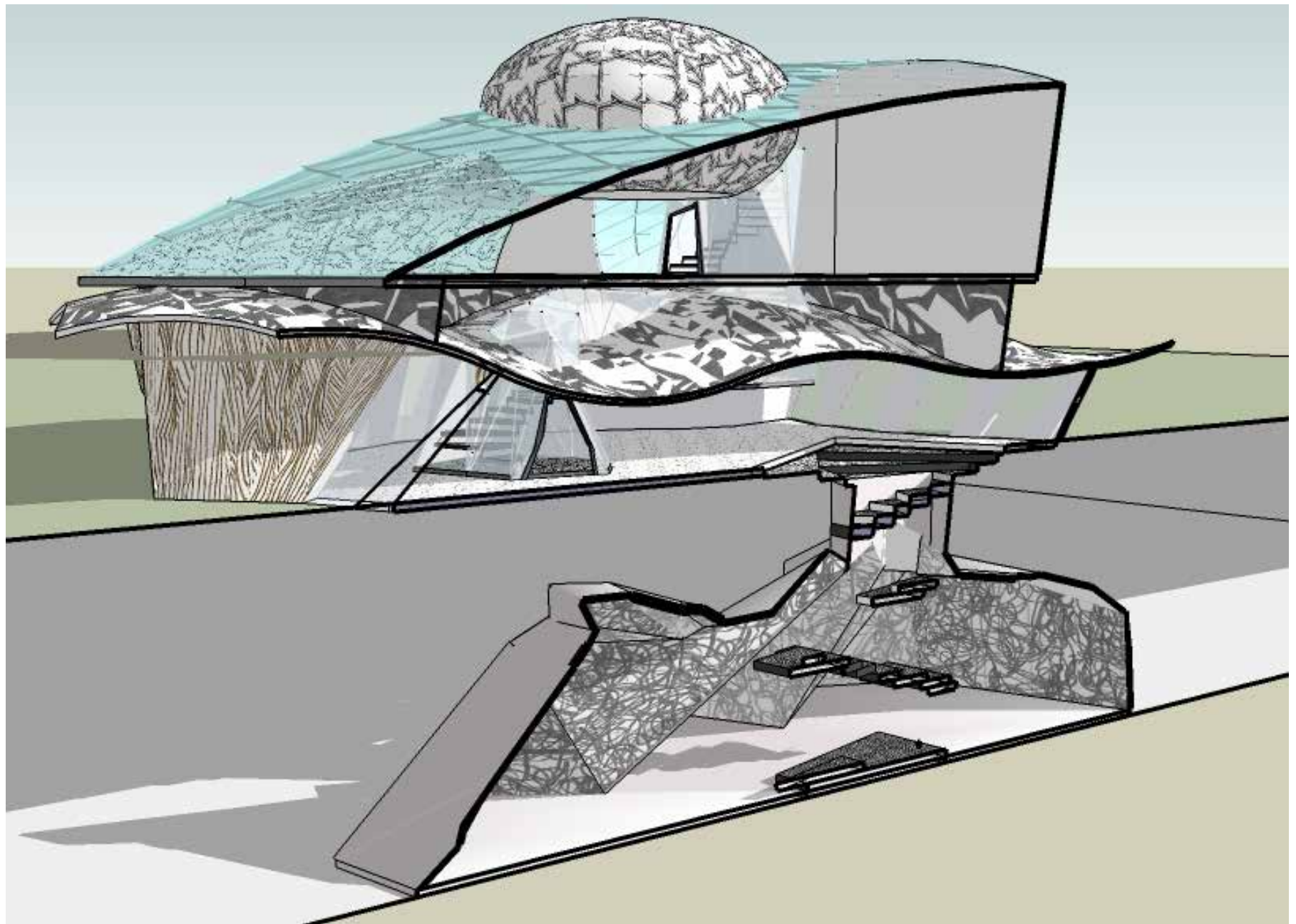


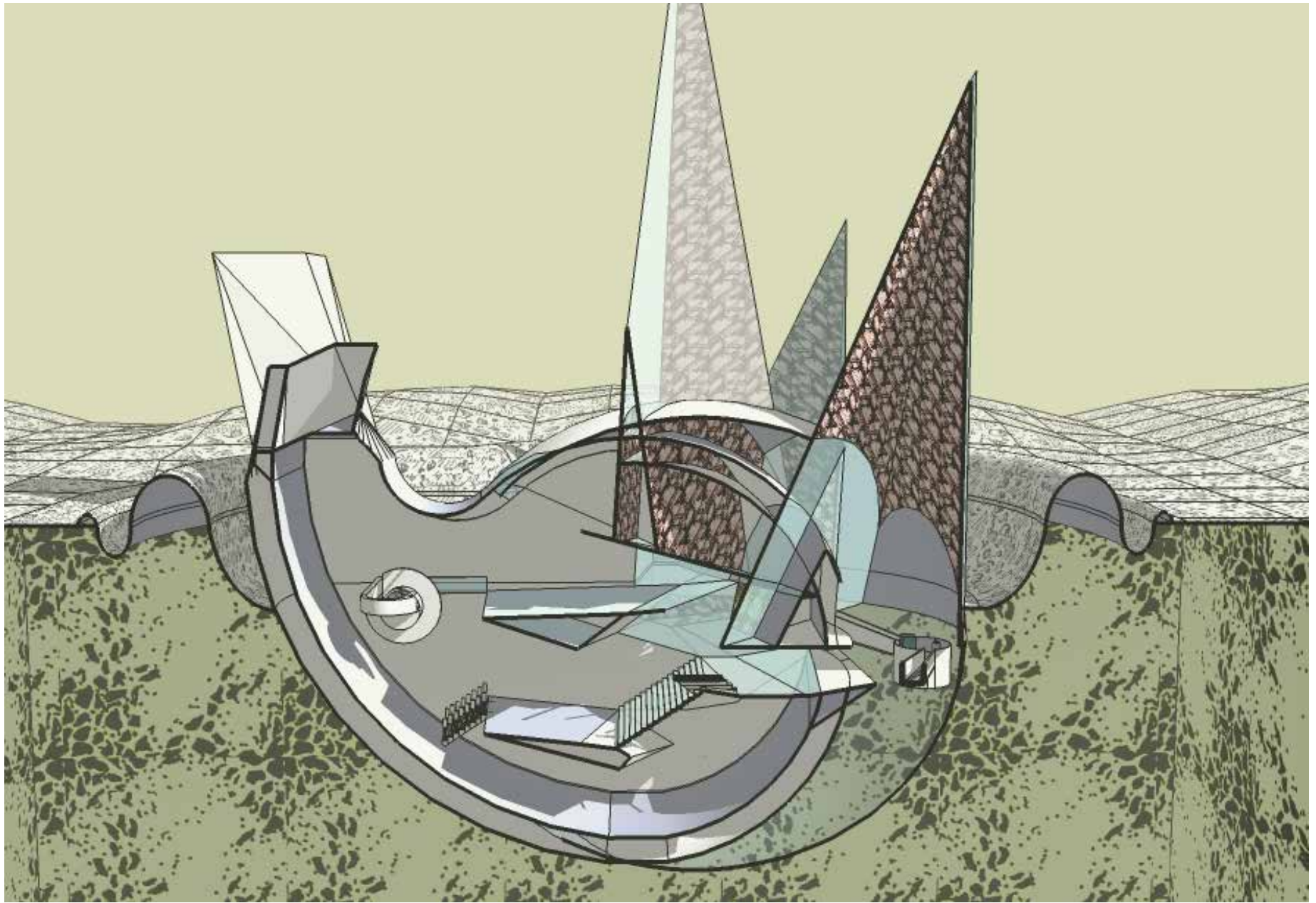




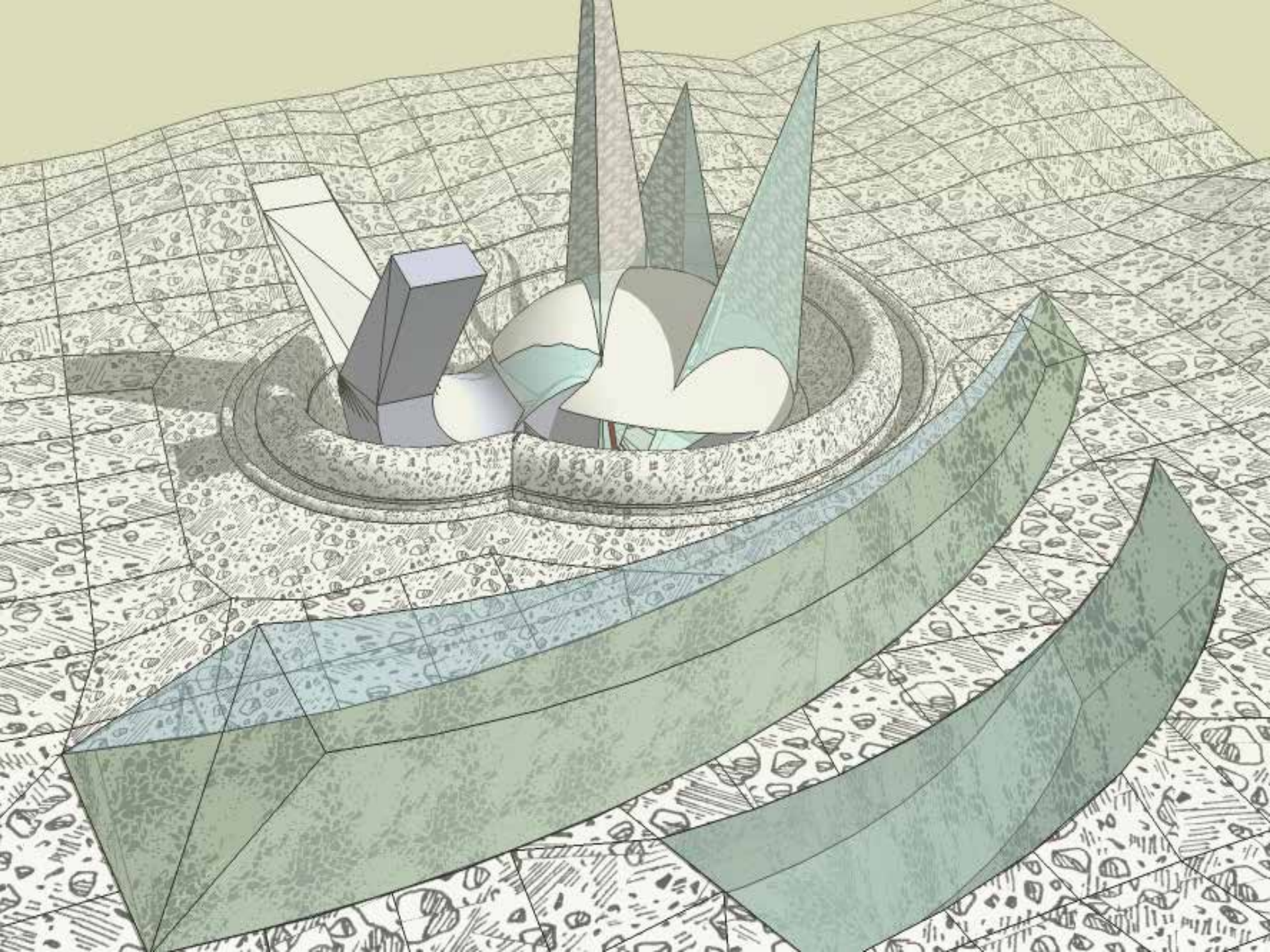
ARCHITECTURE DESIGN STUDIO ARCH1101

**STUDENT WORK**





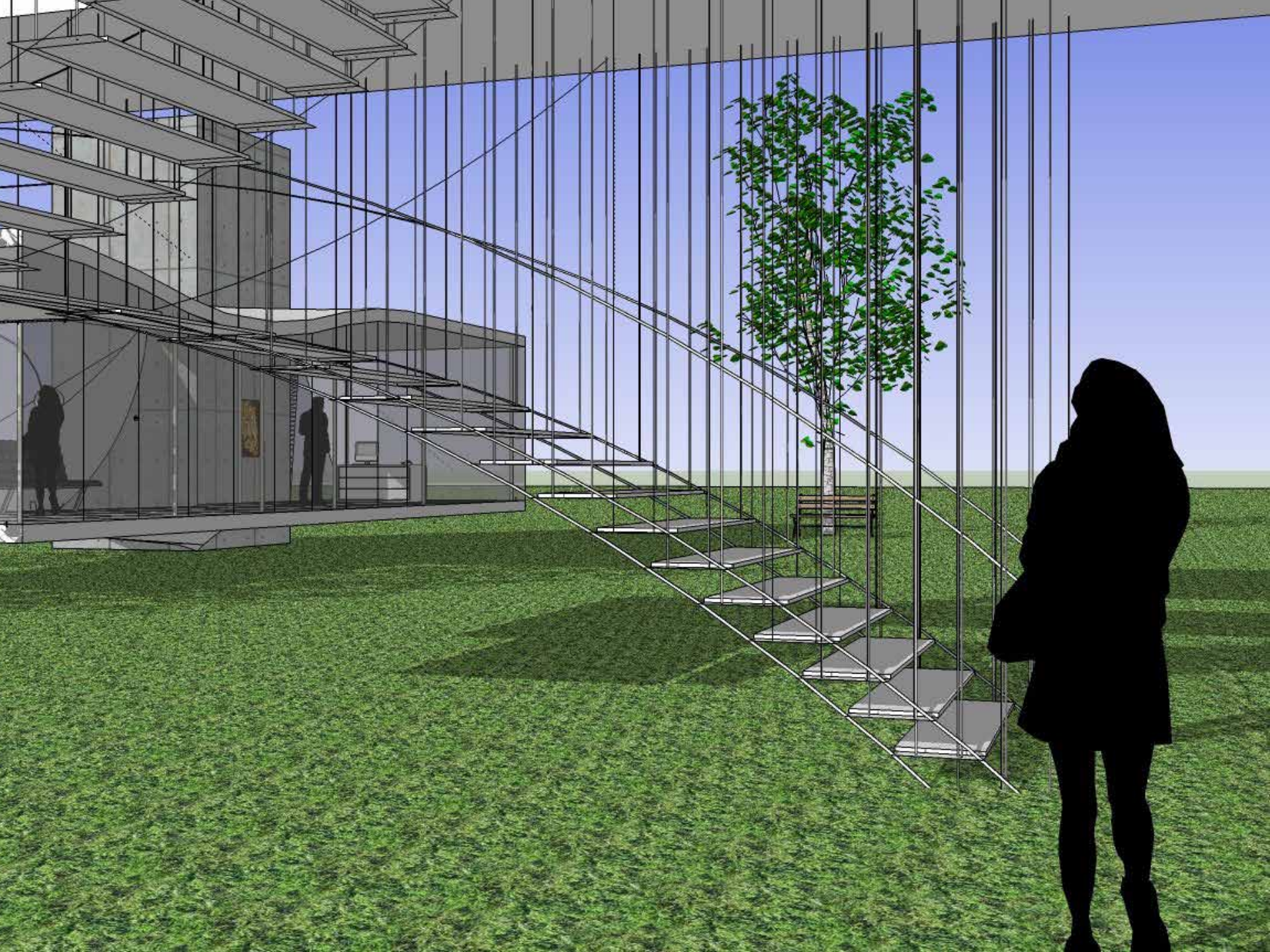








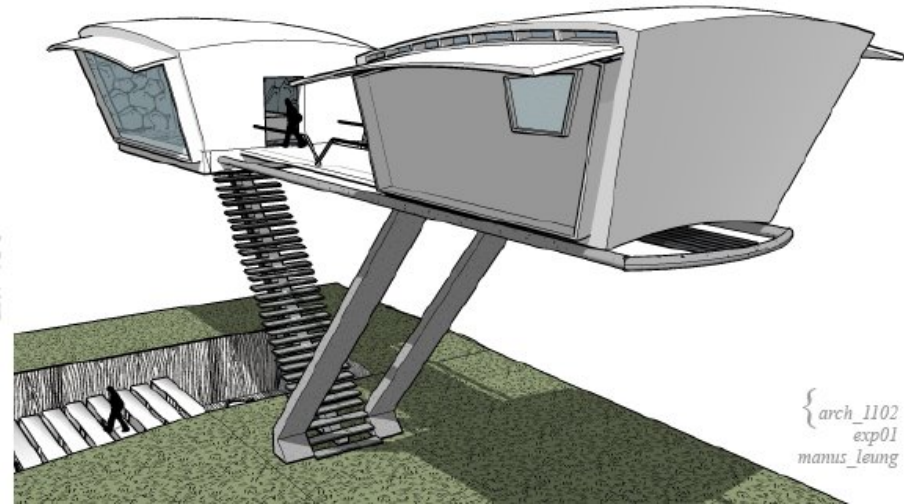
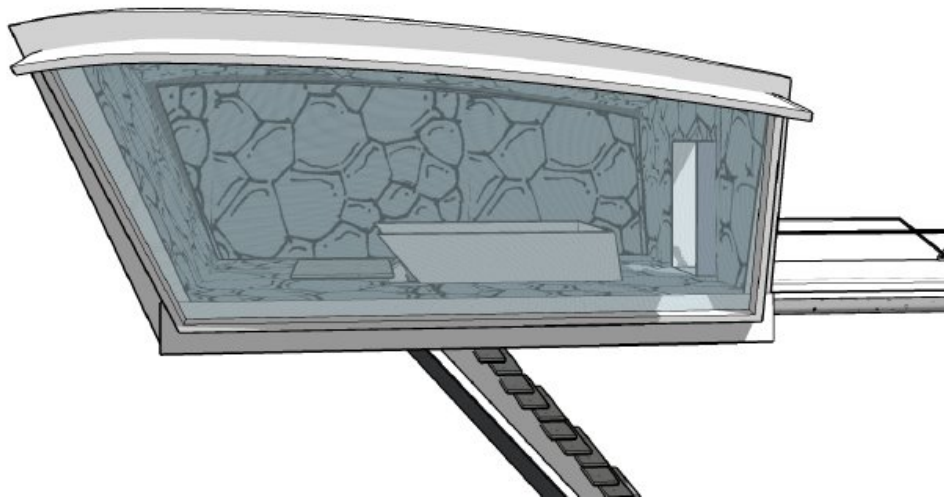
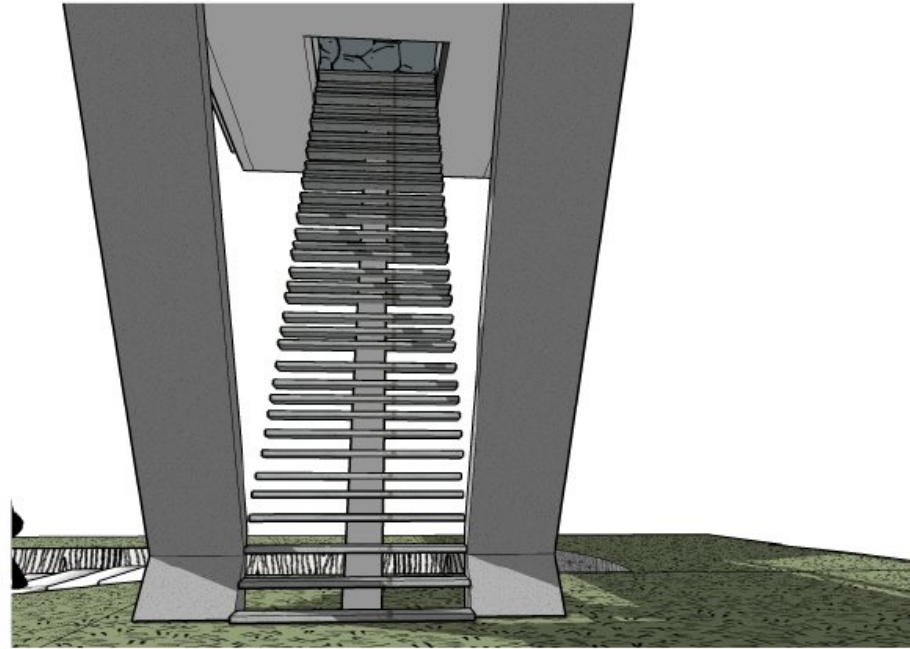
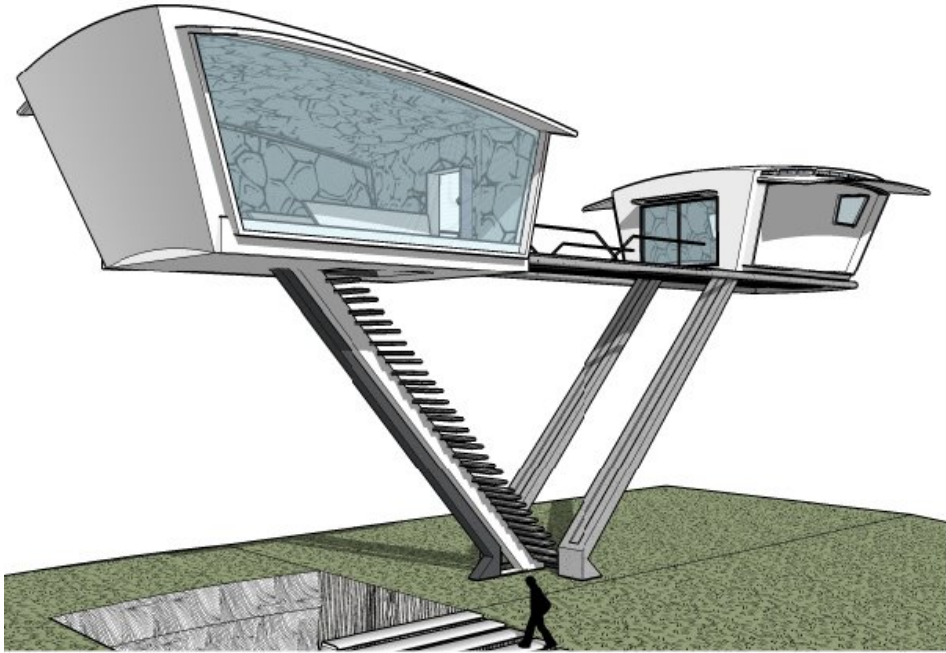




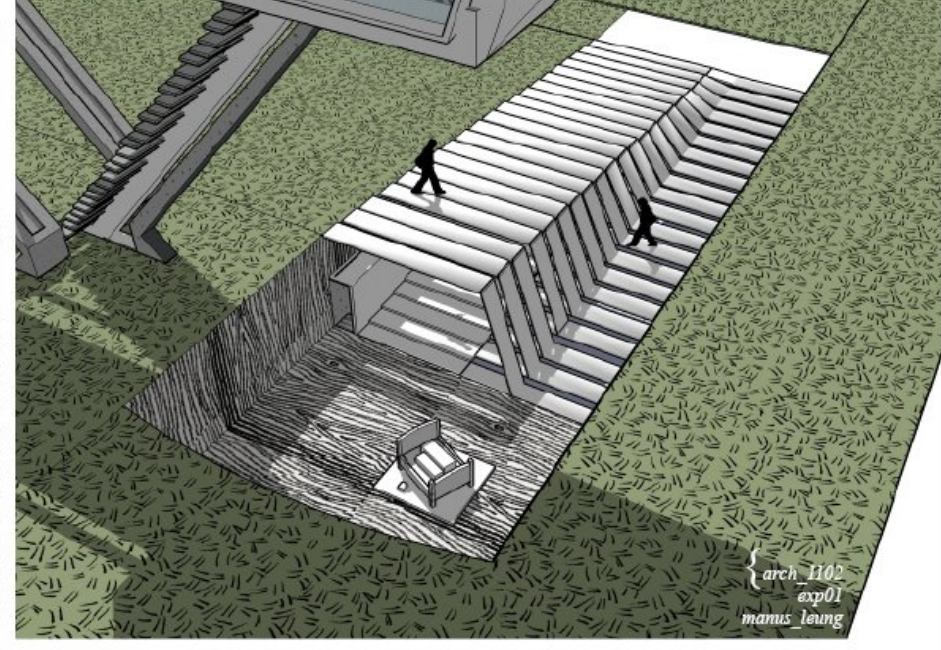
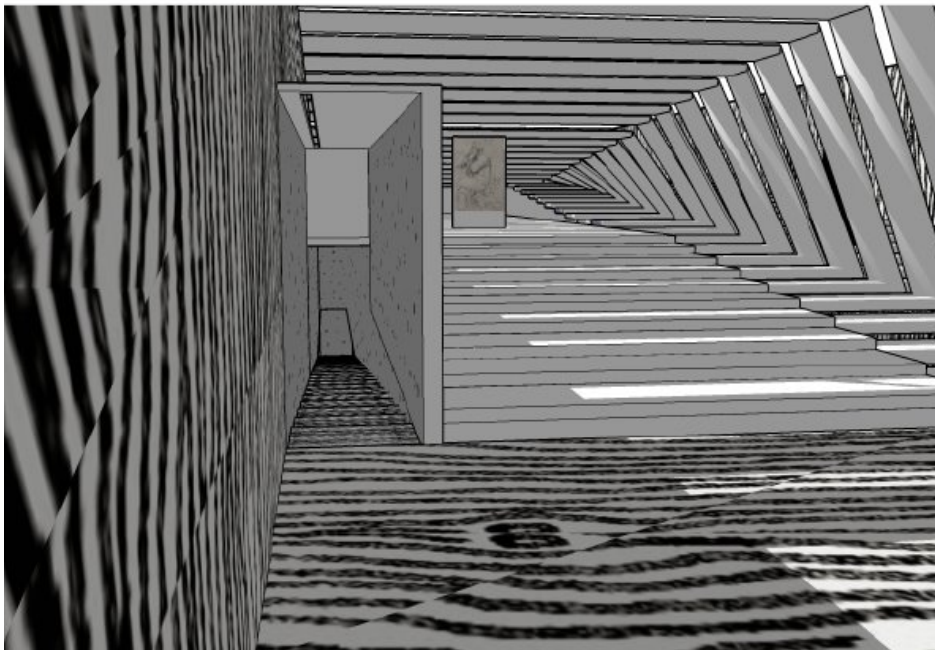
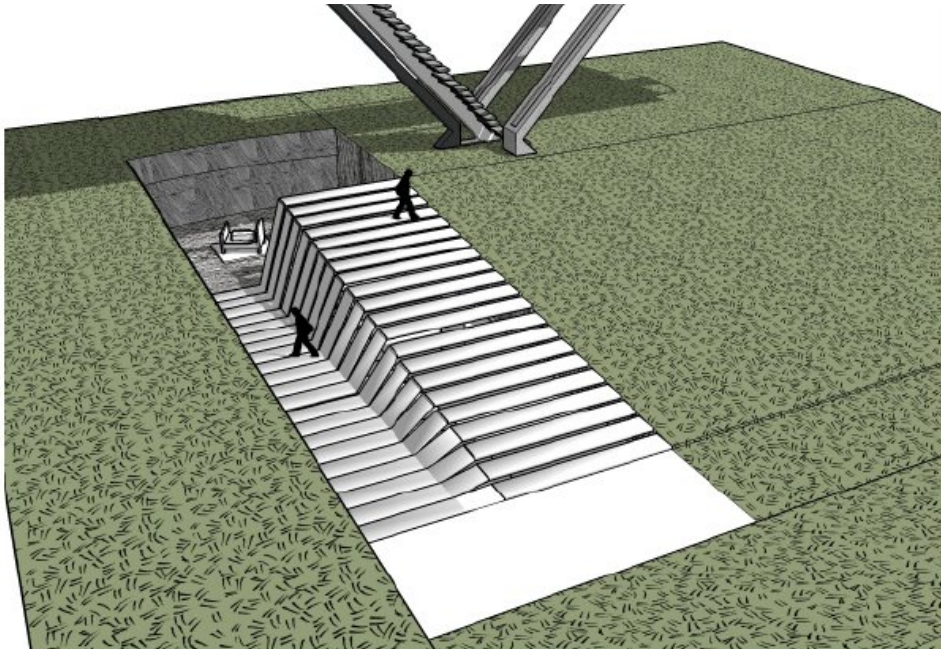
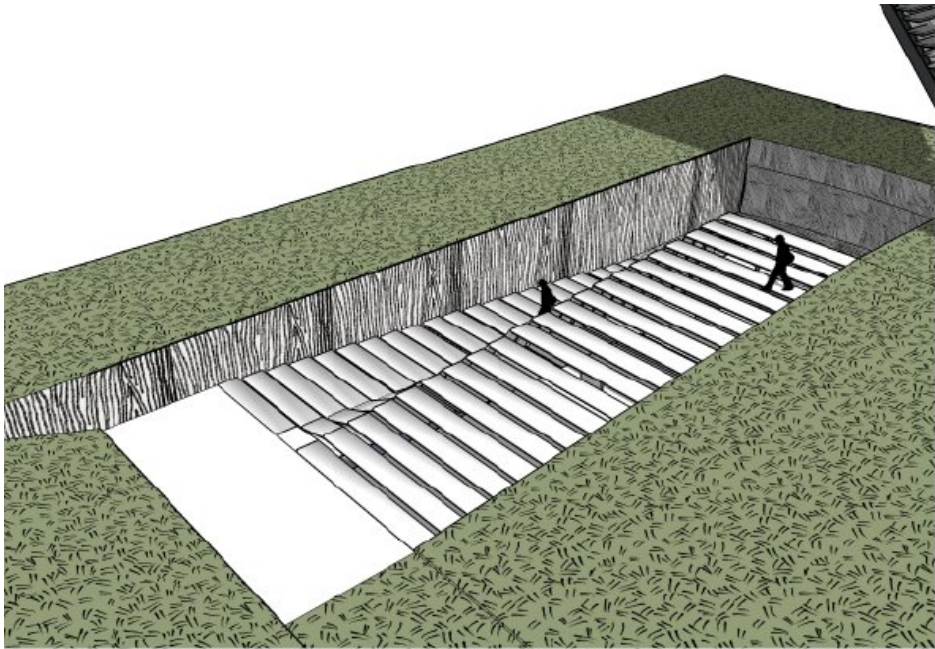










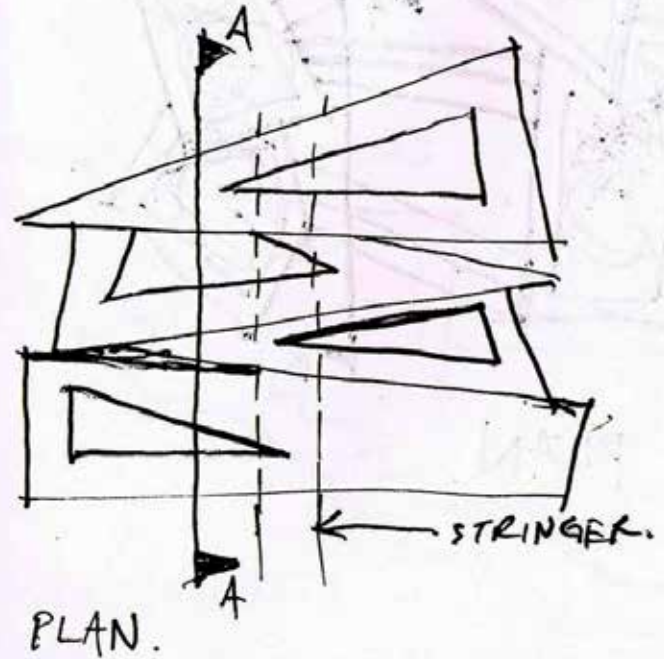
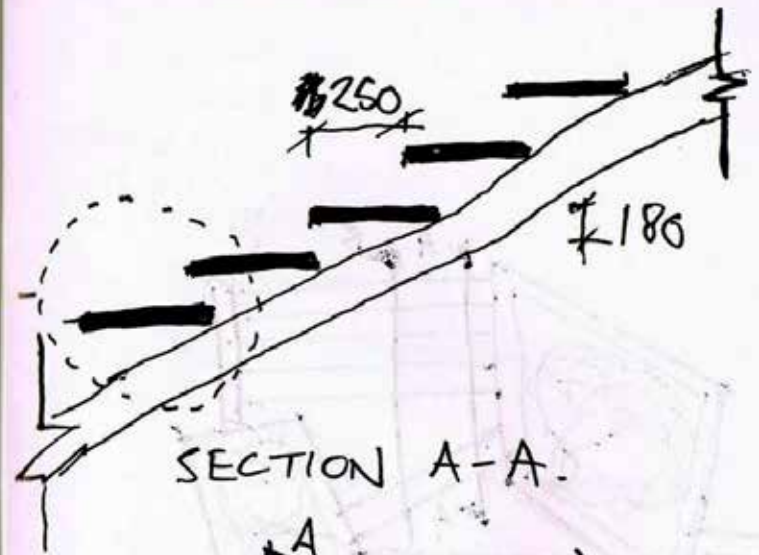
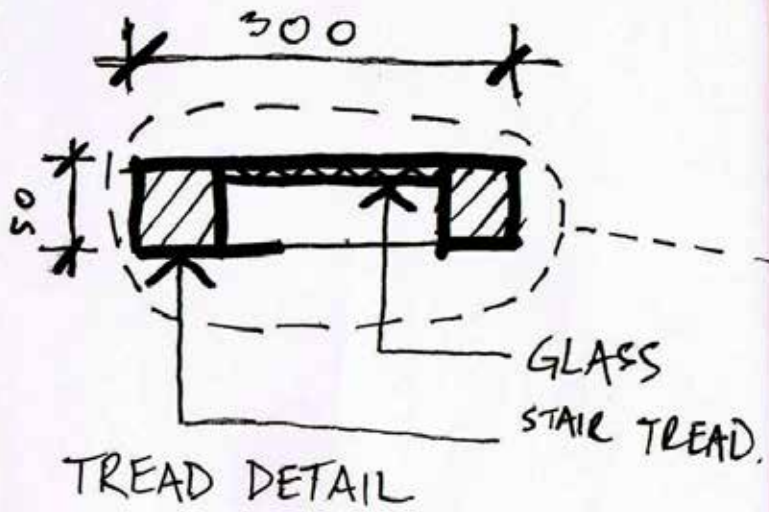


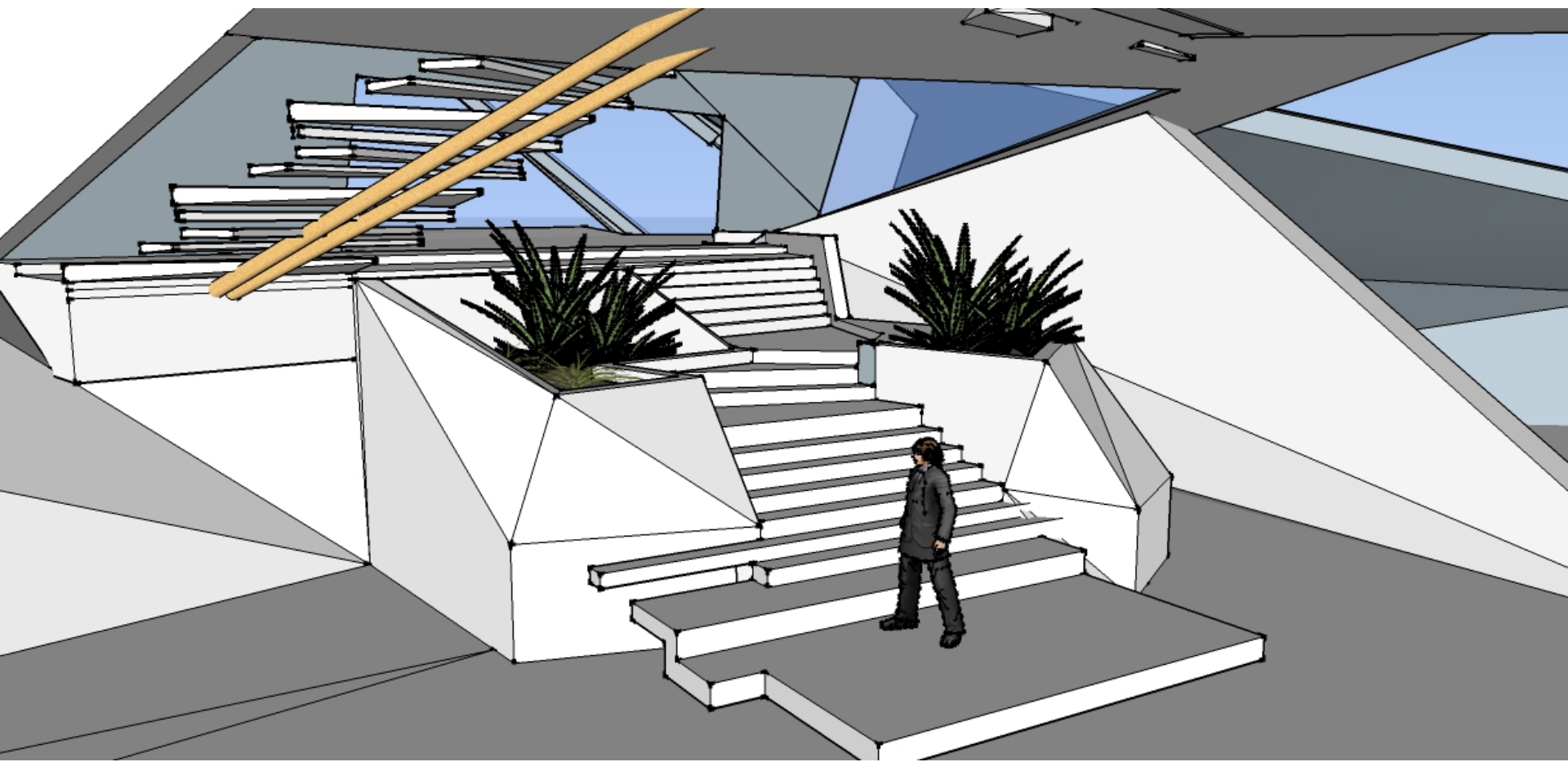
arch 1102  
exp01  
manus\_leung



**HAYDEN**

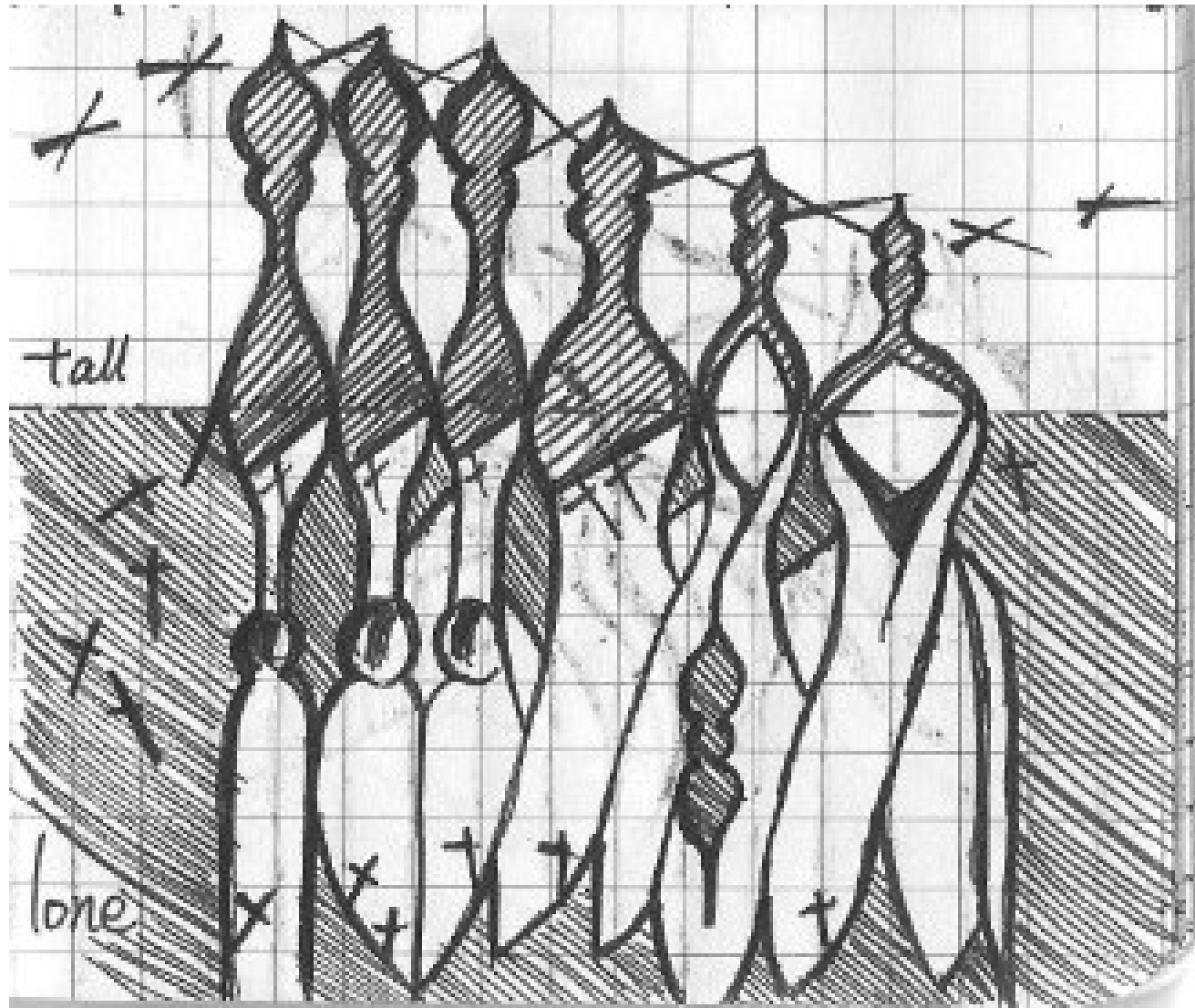
**WOOLDRIDGE**





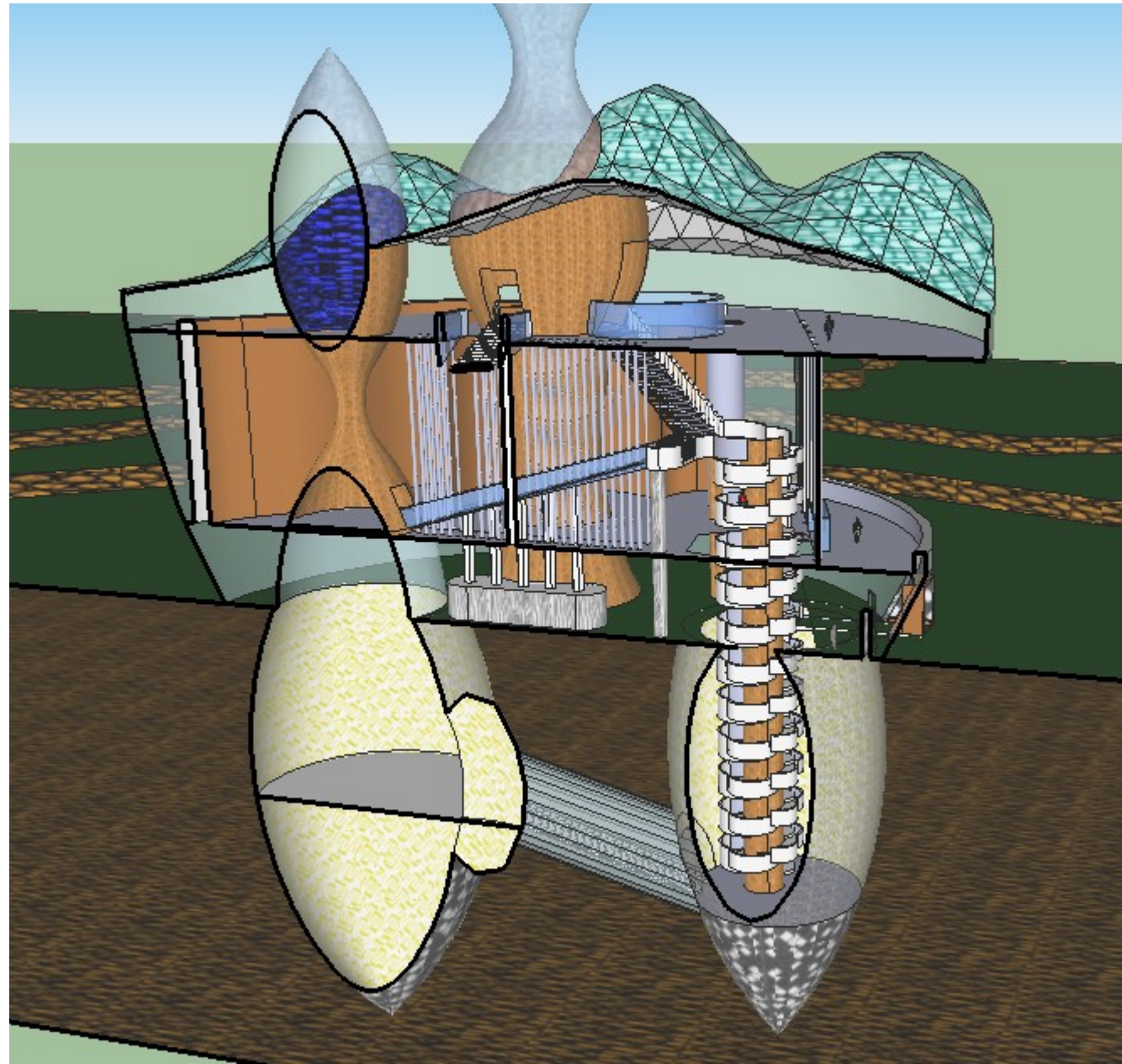


**LI QIAN**



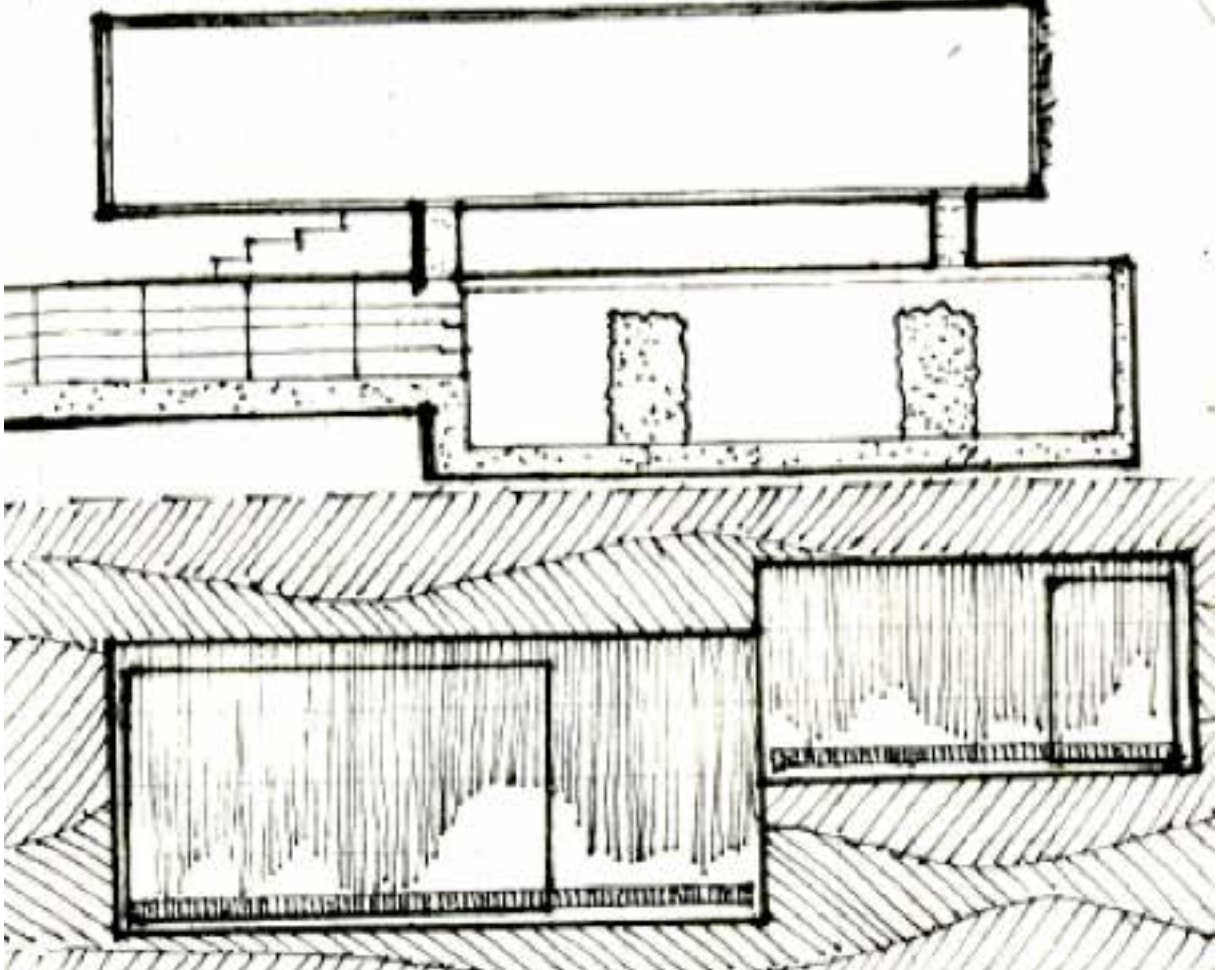
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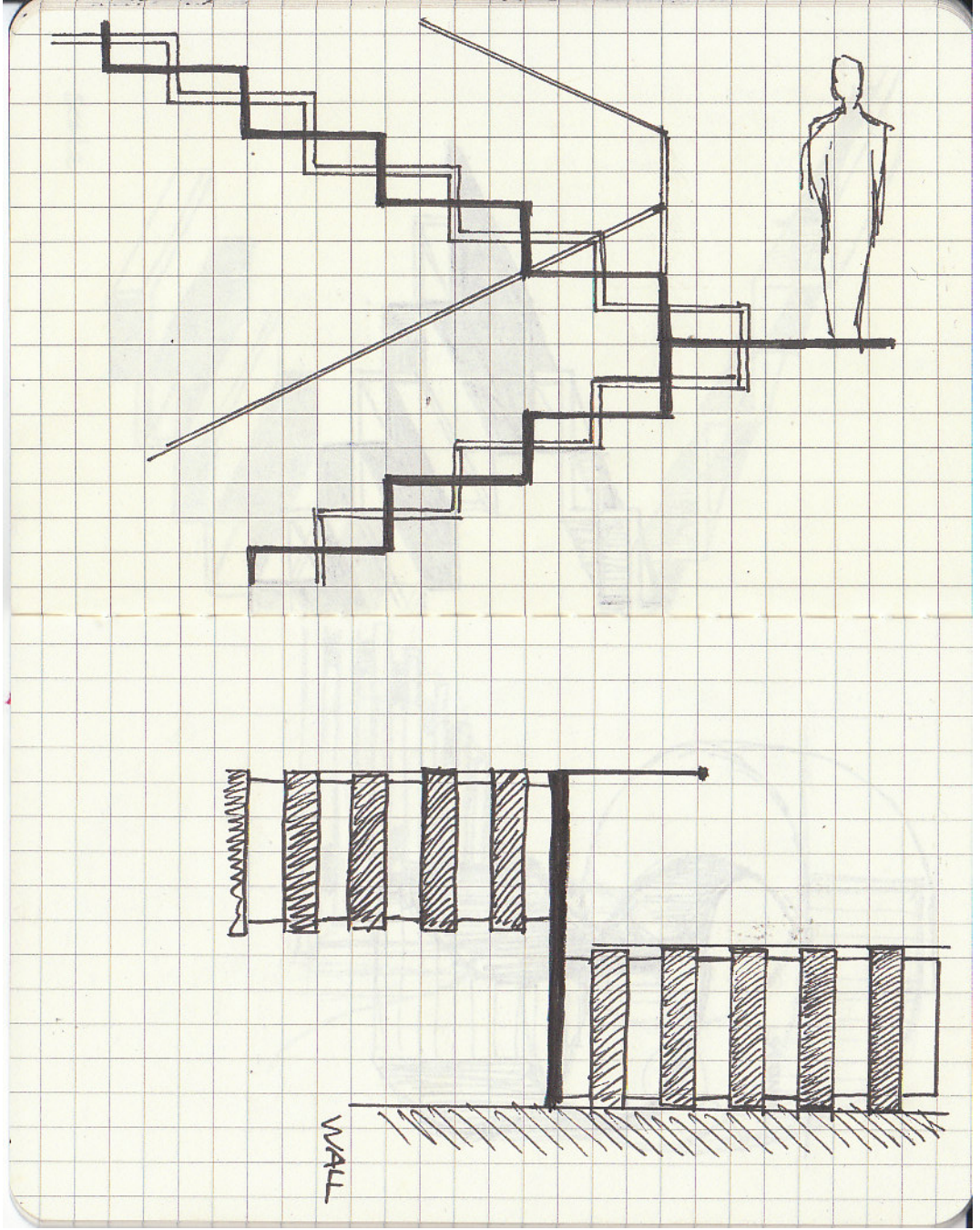
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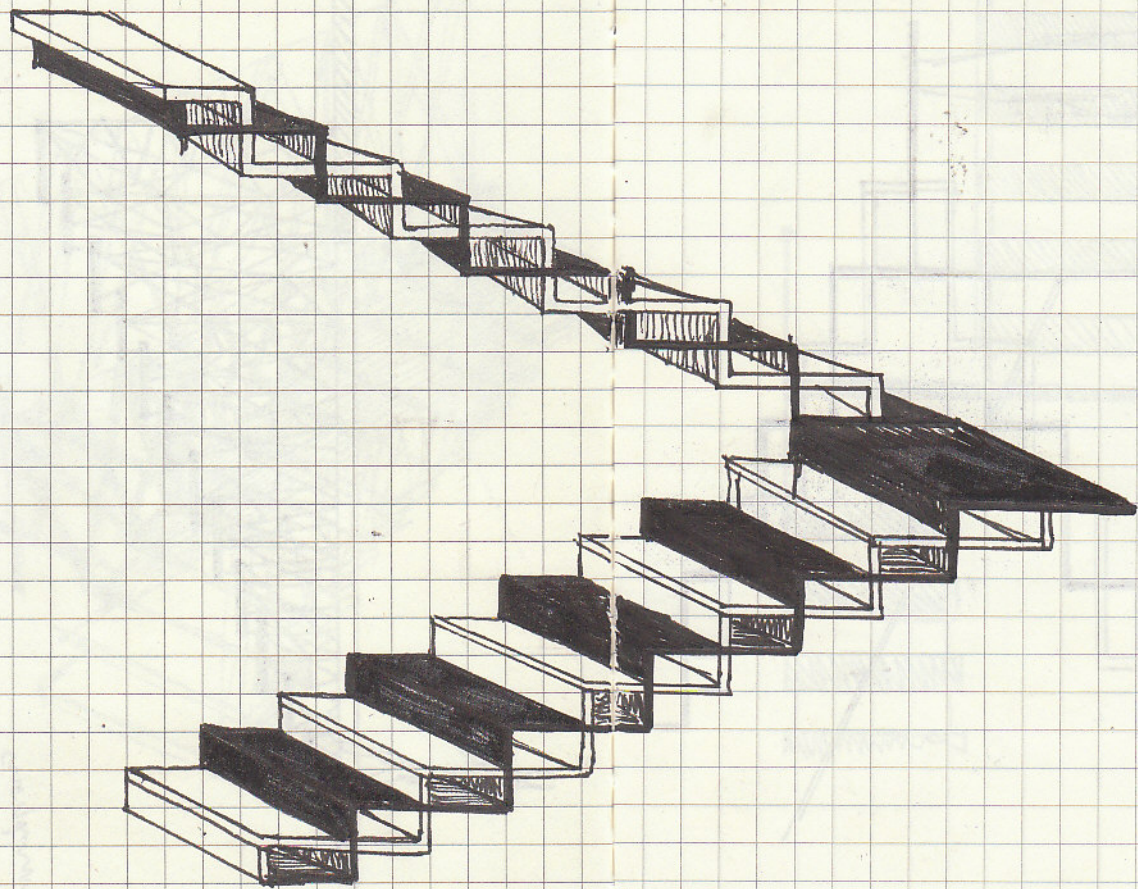






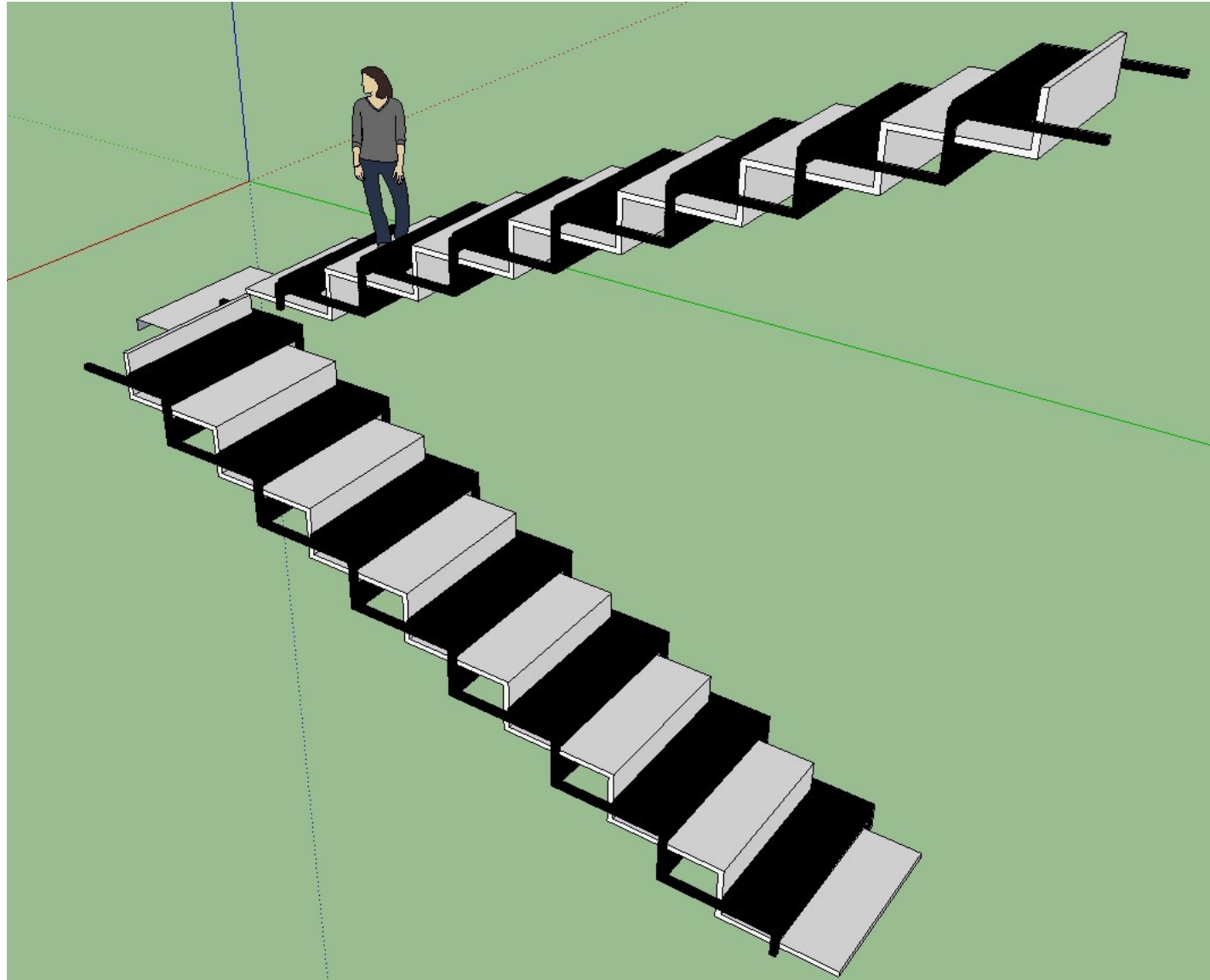
**YIMING SONG**

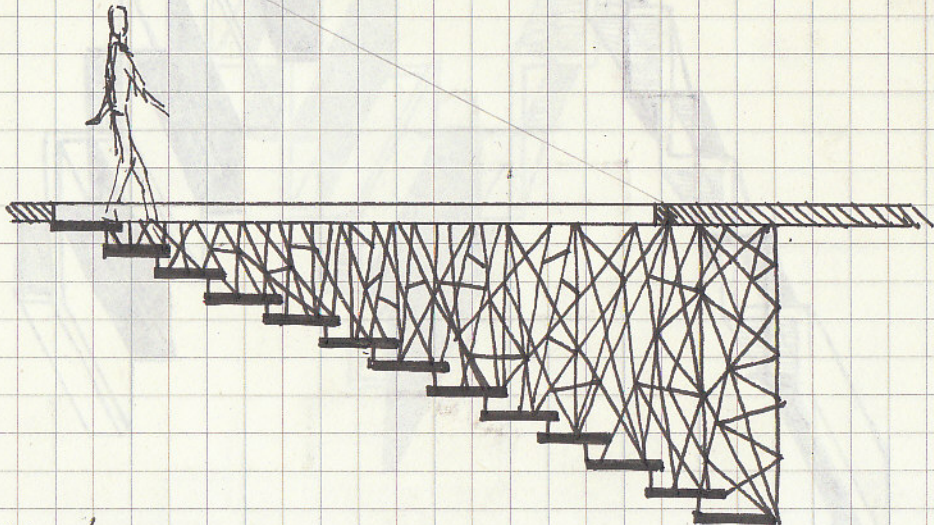
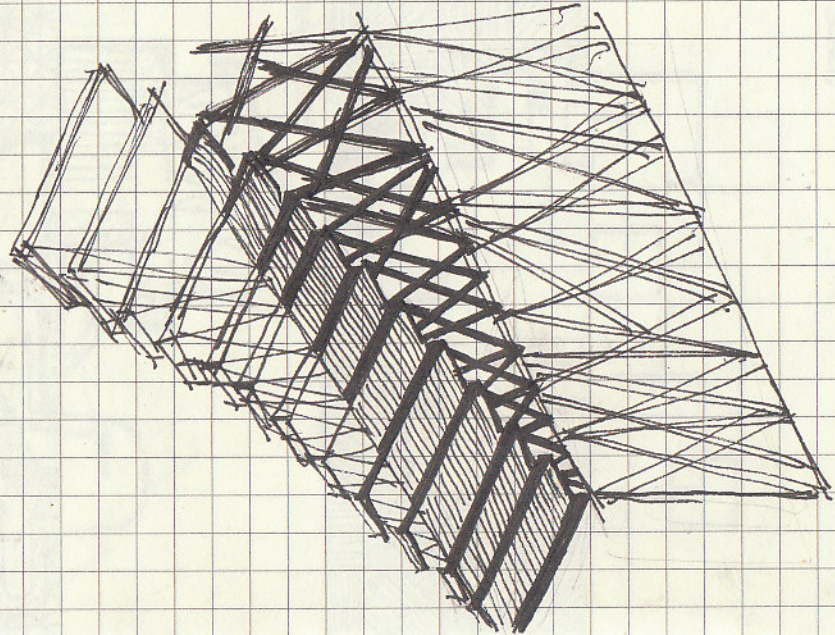




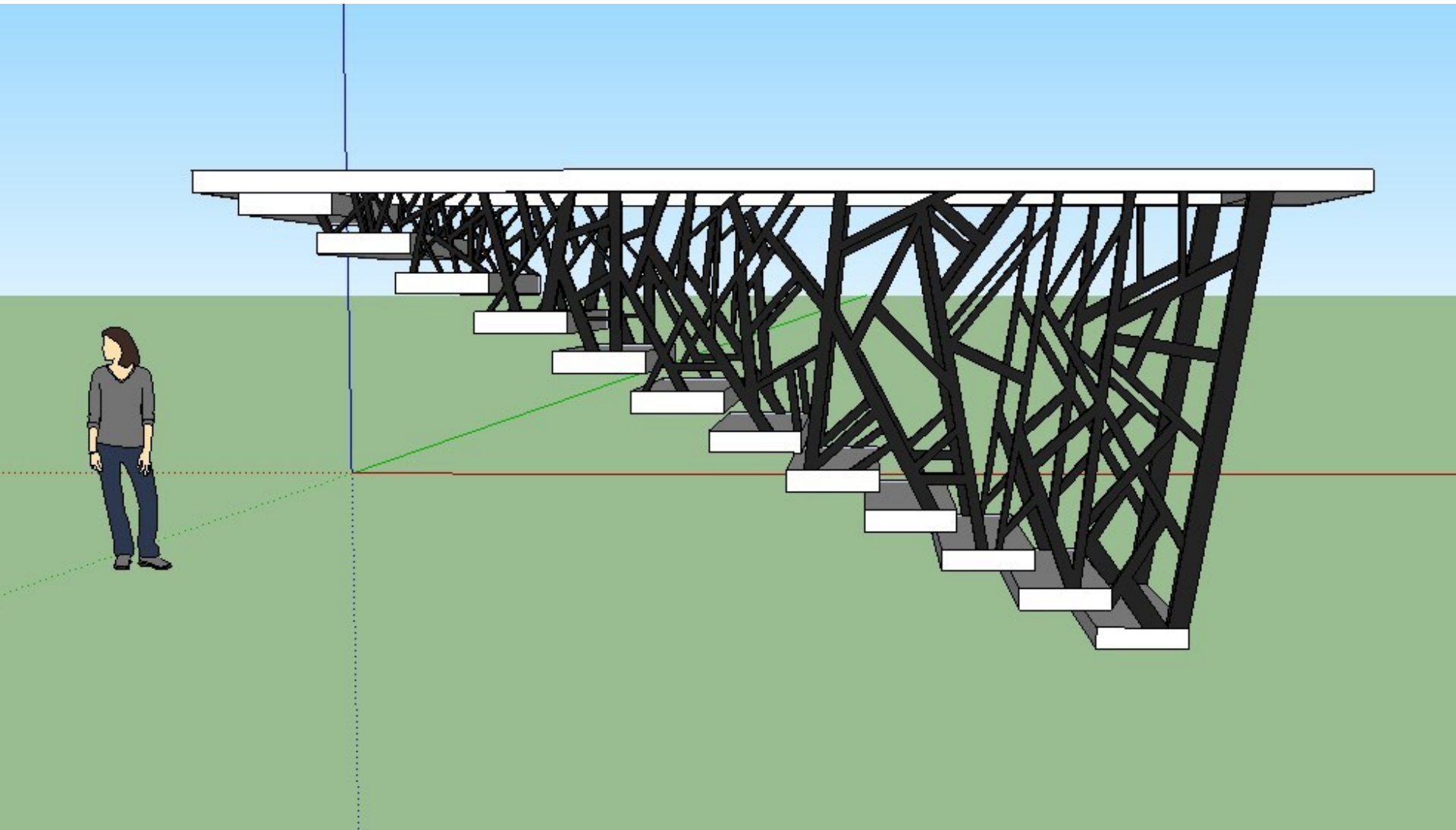
scale





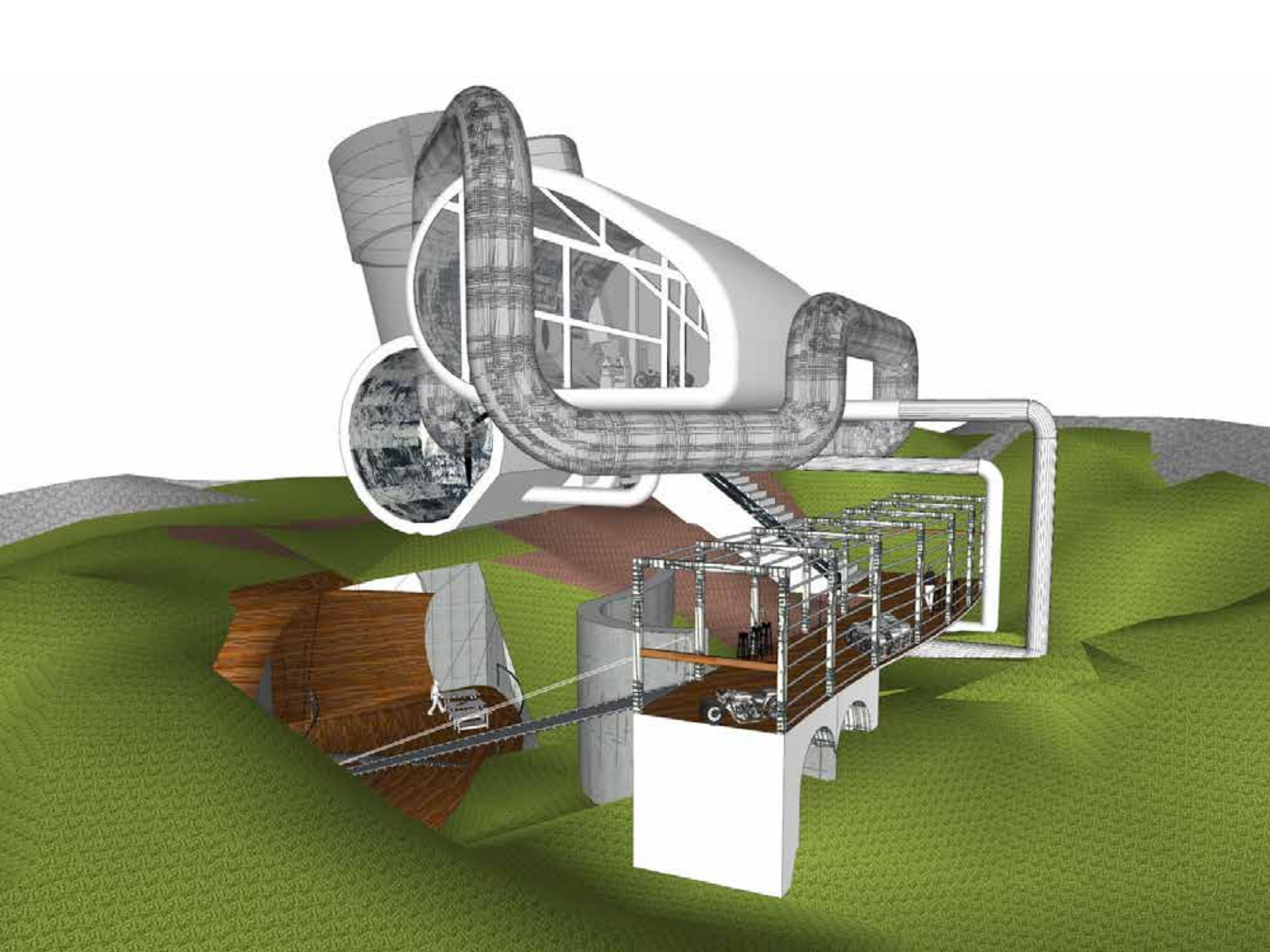


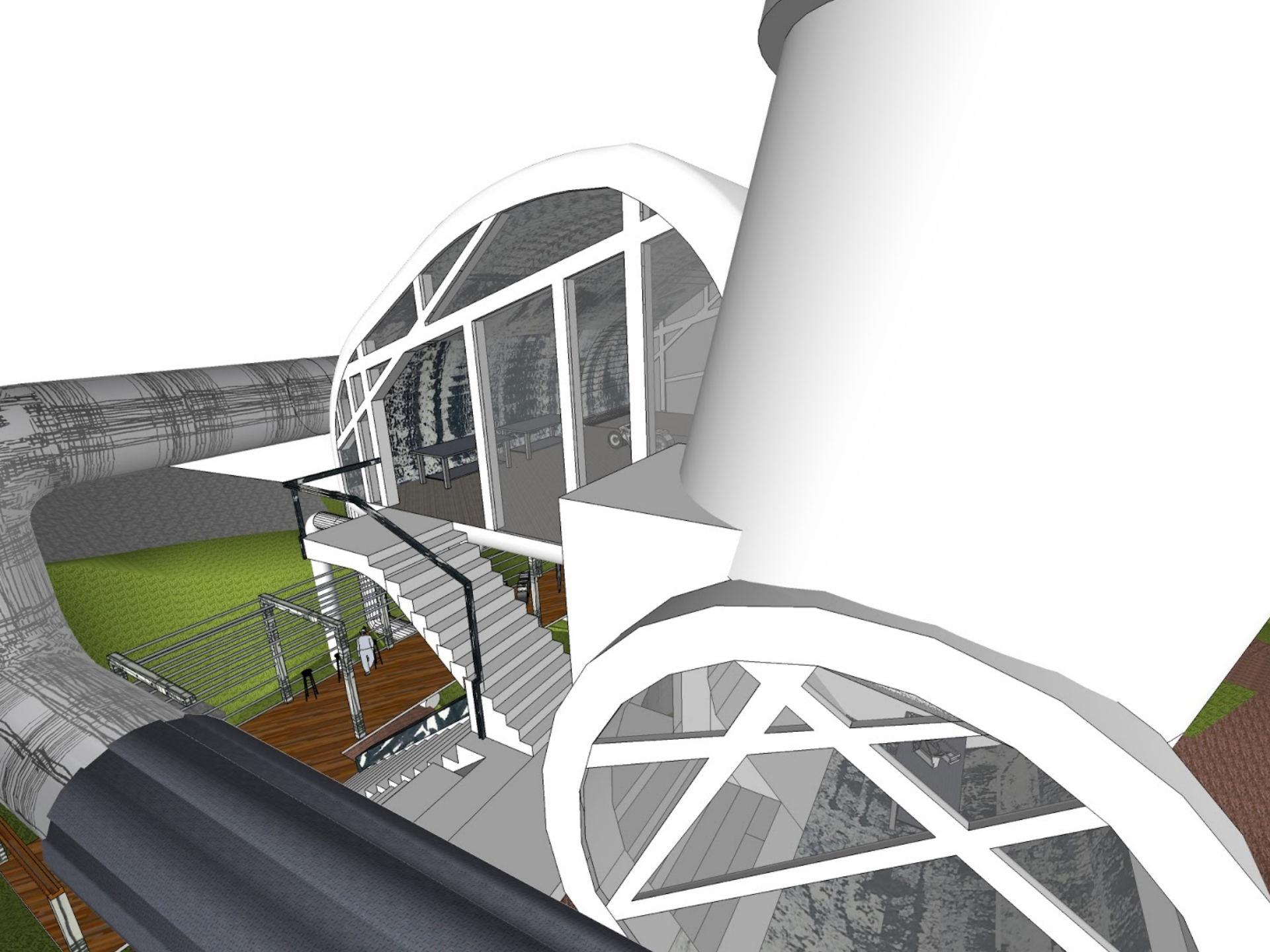
amorphous



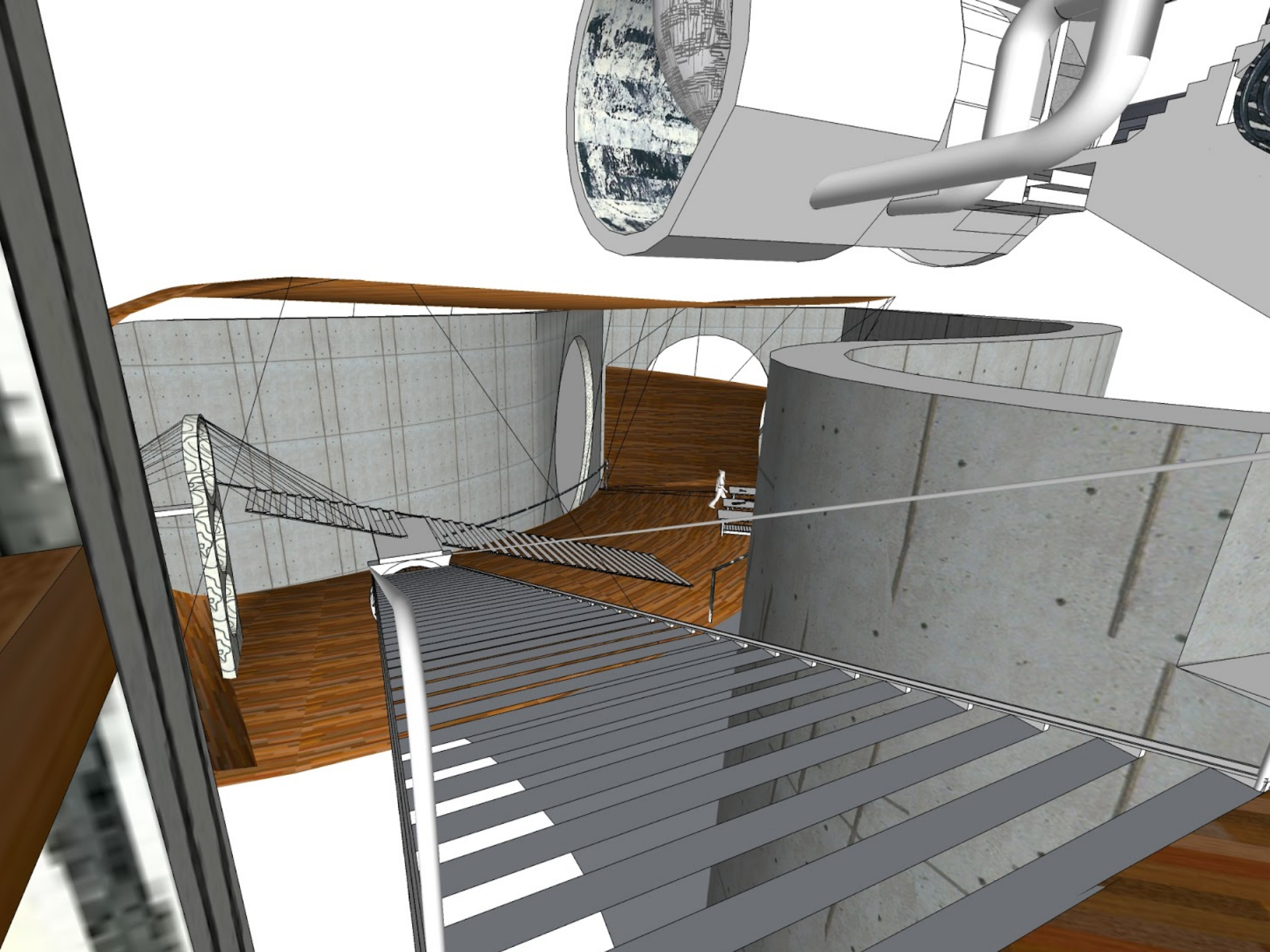


**ANDREW WEETMAN**





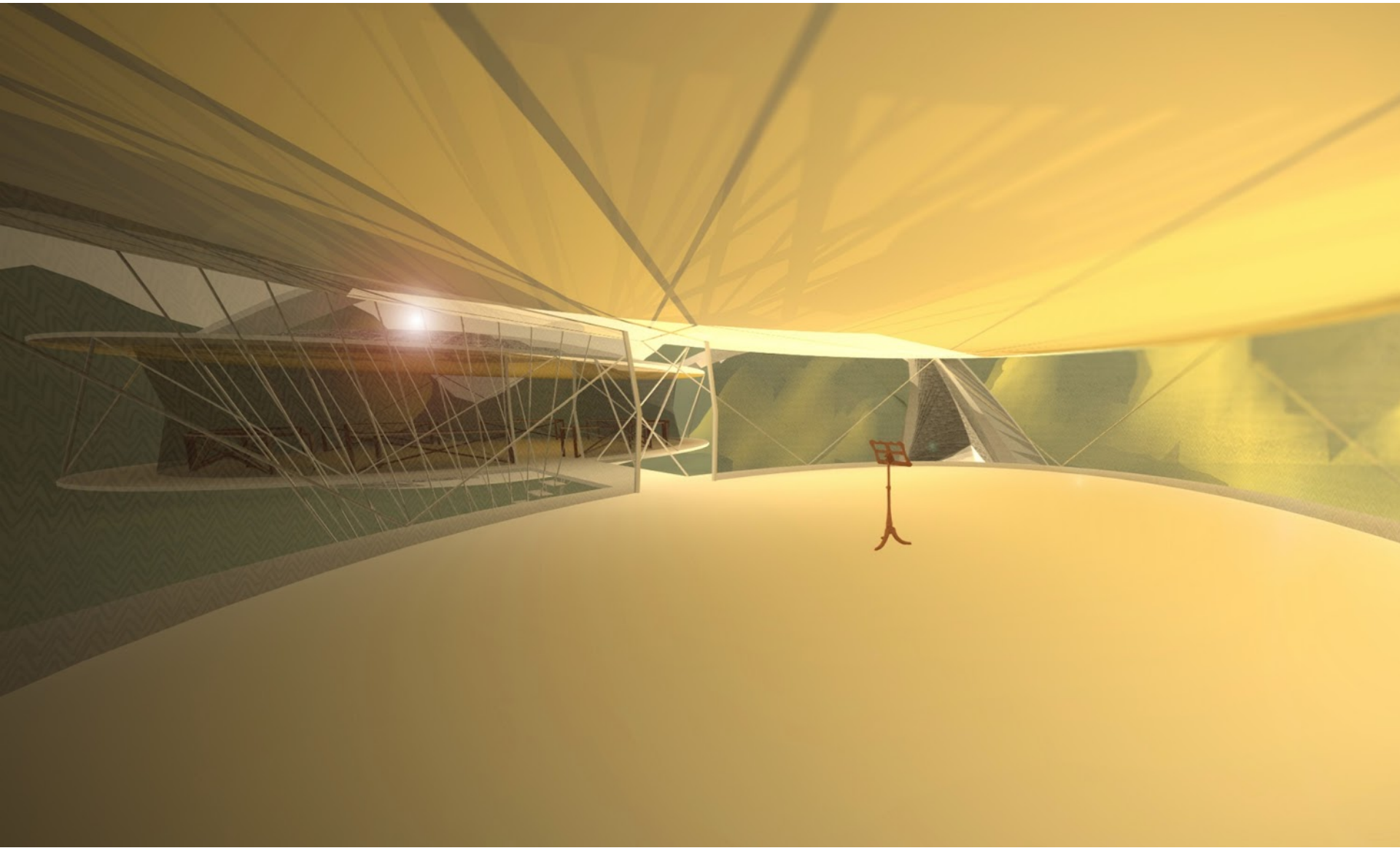


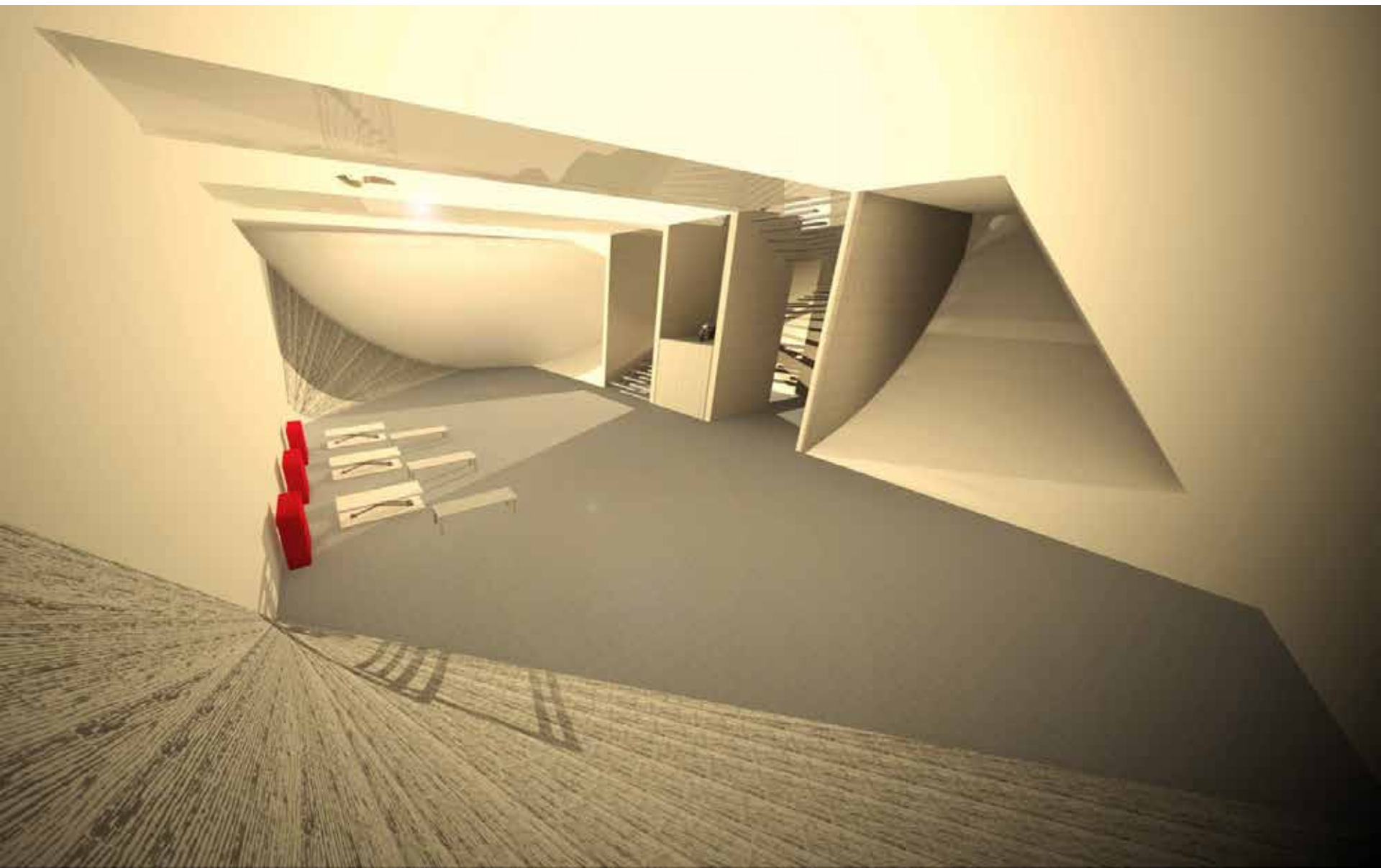


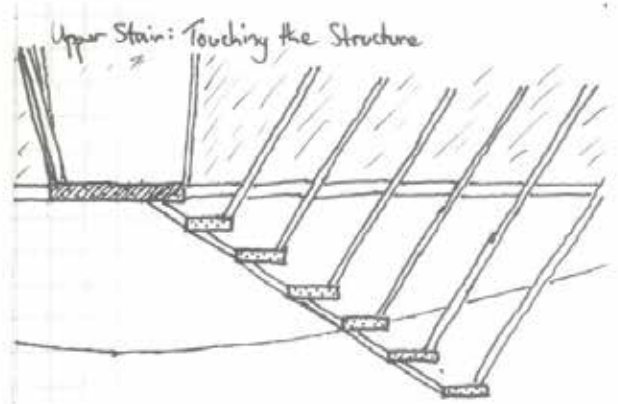
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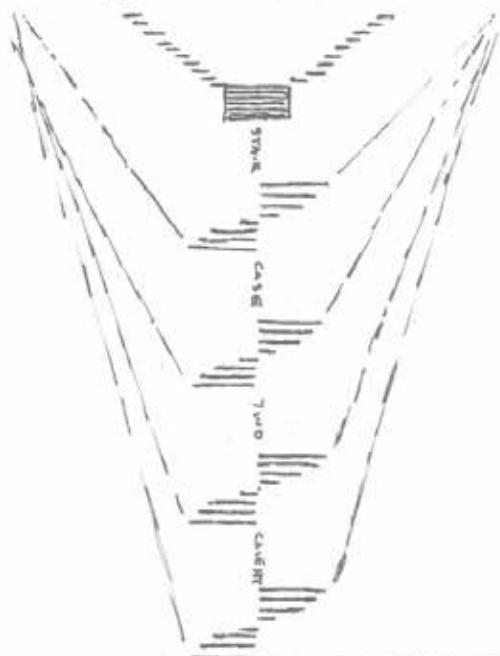




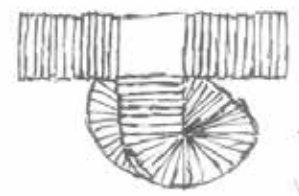




Section One



Section Two



Plan



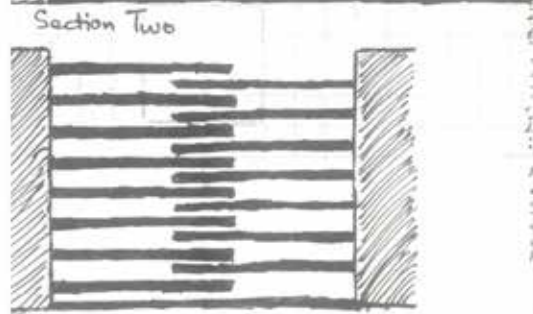
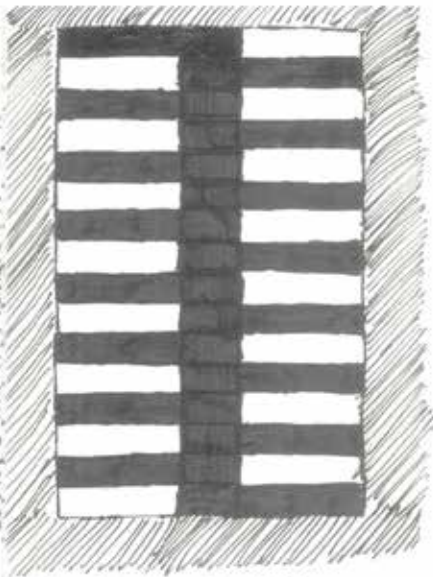
Why so insubstantial?  
Metaphor for the transcendent  
experience of music.

Emphasises the fragile balance of  
violin making.



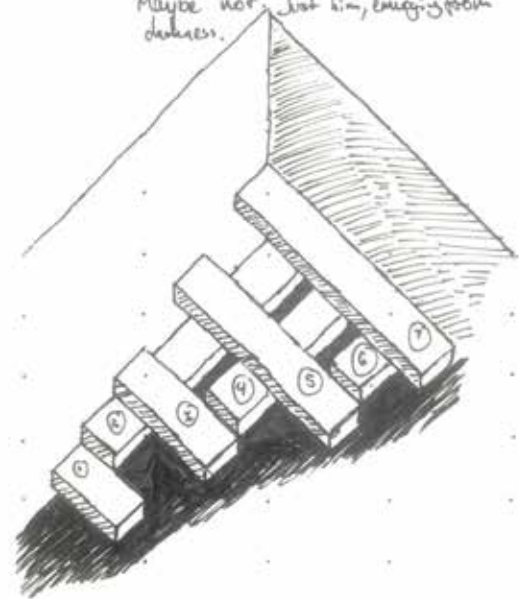


Section One

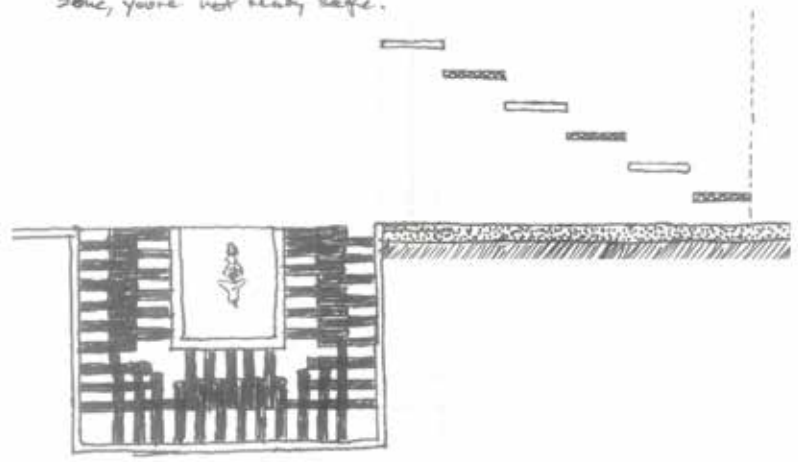


Section Two

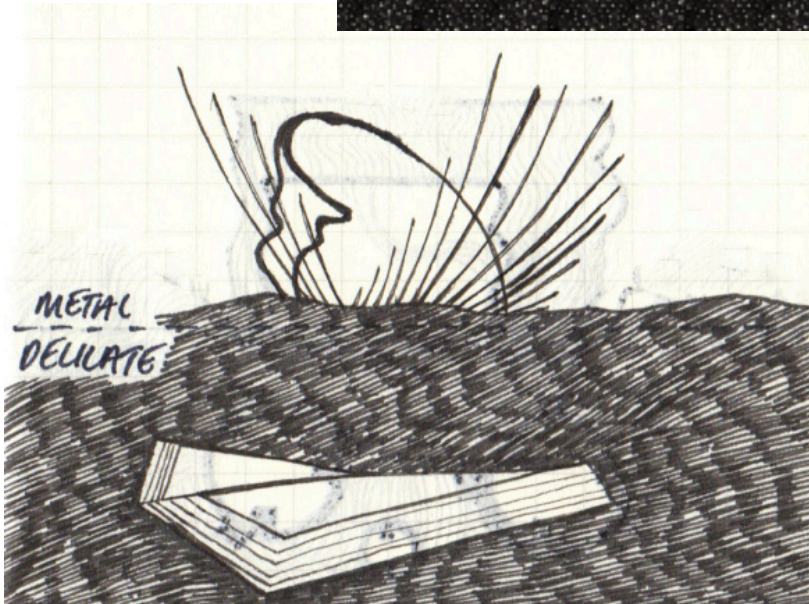
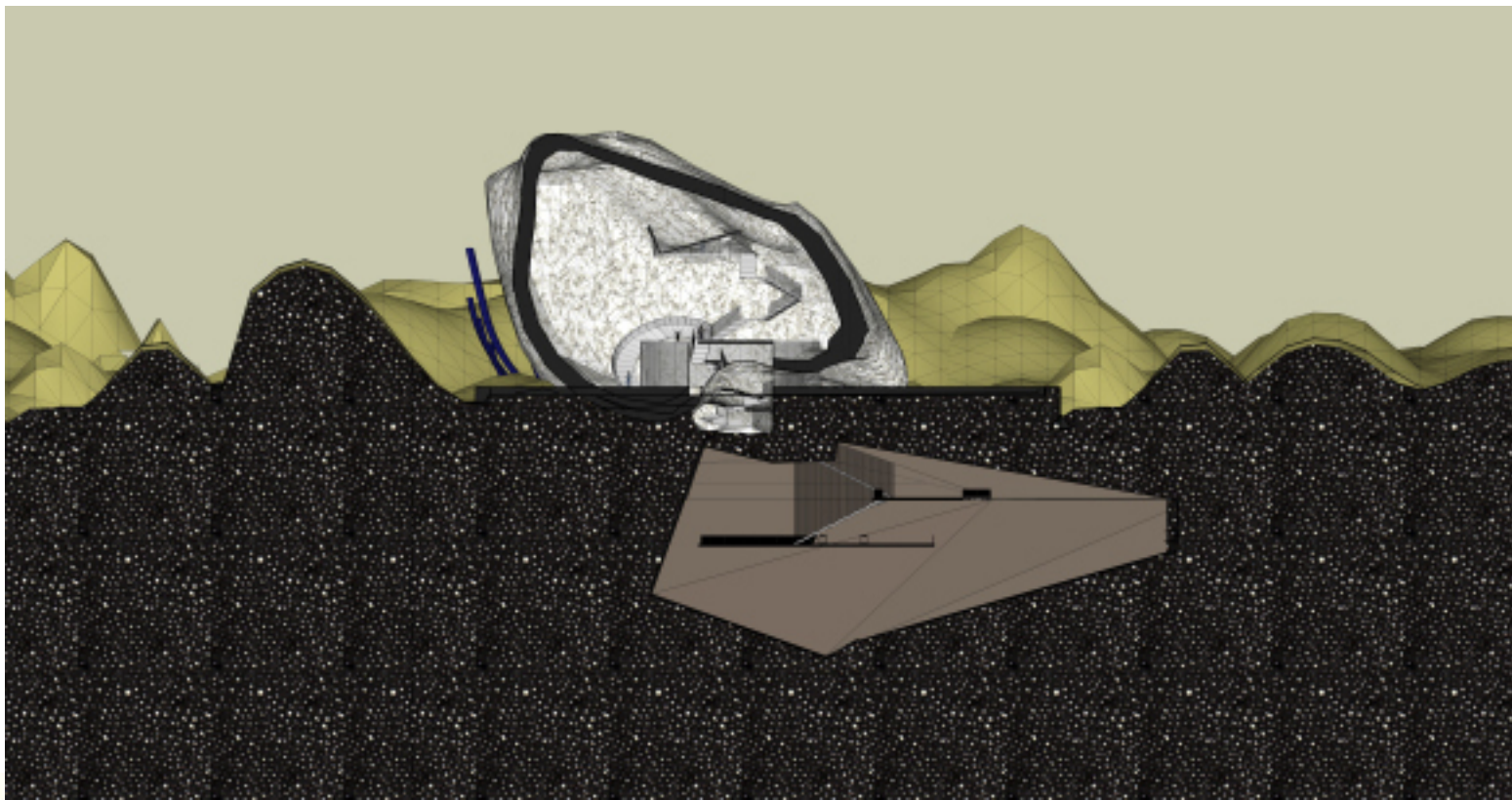
Below Ground to Ground Plane.  
 Kimura  
 Will he bring the motorbikes up?  
 Maybe not. Just him, emerging from  
 darkness.



Why only the middle line?  
 Metaphor for riding - the further you  
 stray from the center line, the greater  
 the danger. You must always pay  
 attention.  
 Cantilever  
 Even when you are in that safe  
 zone, you're not really safe.

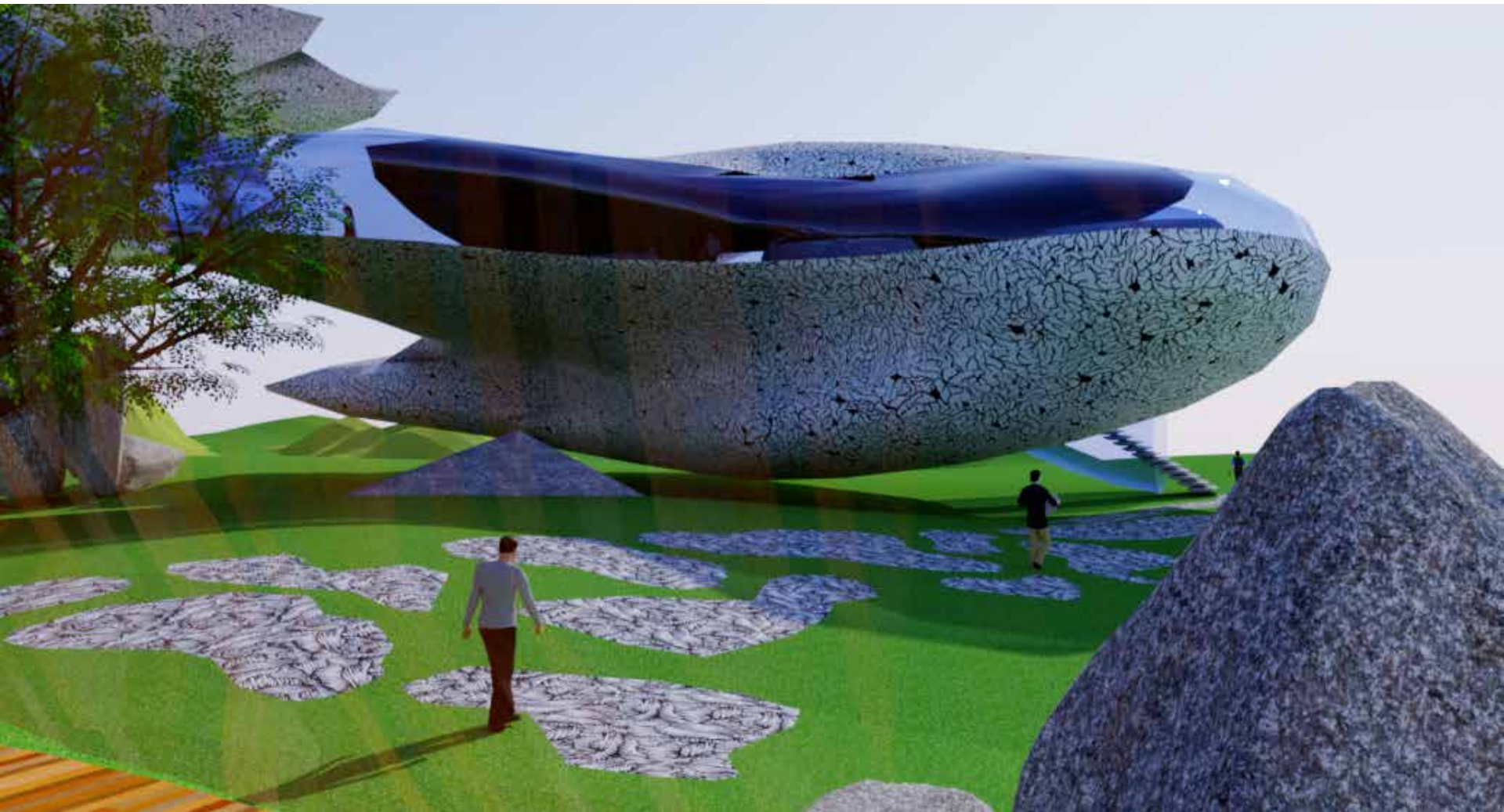


**TANNY TAN**



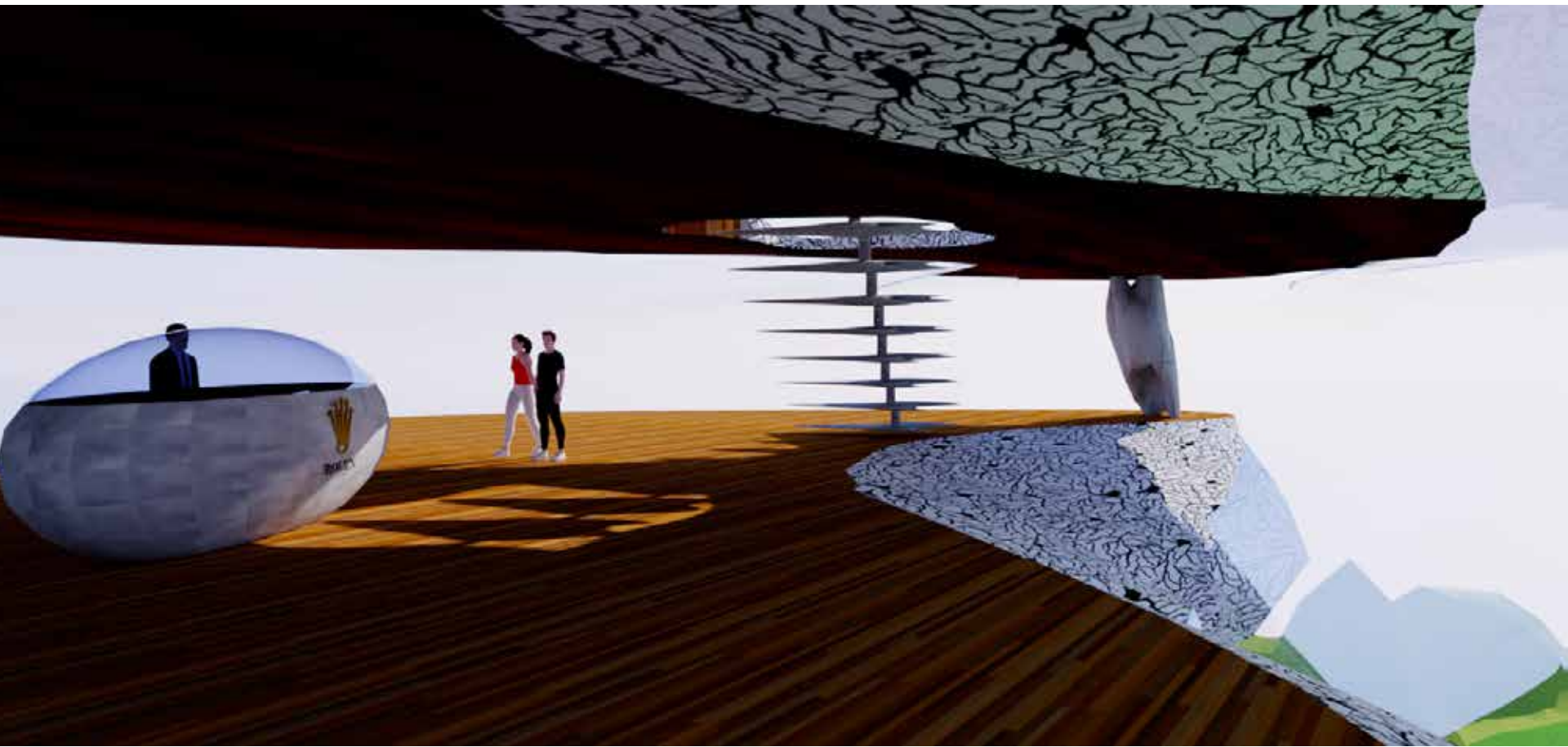


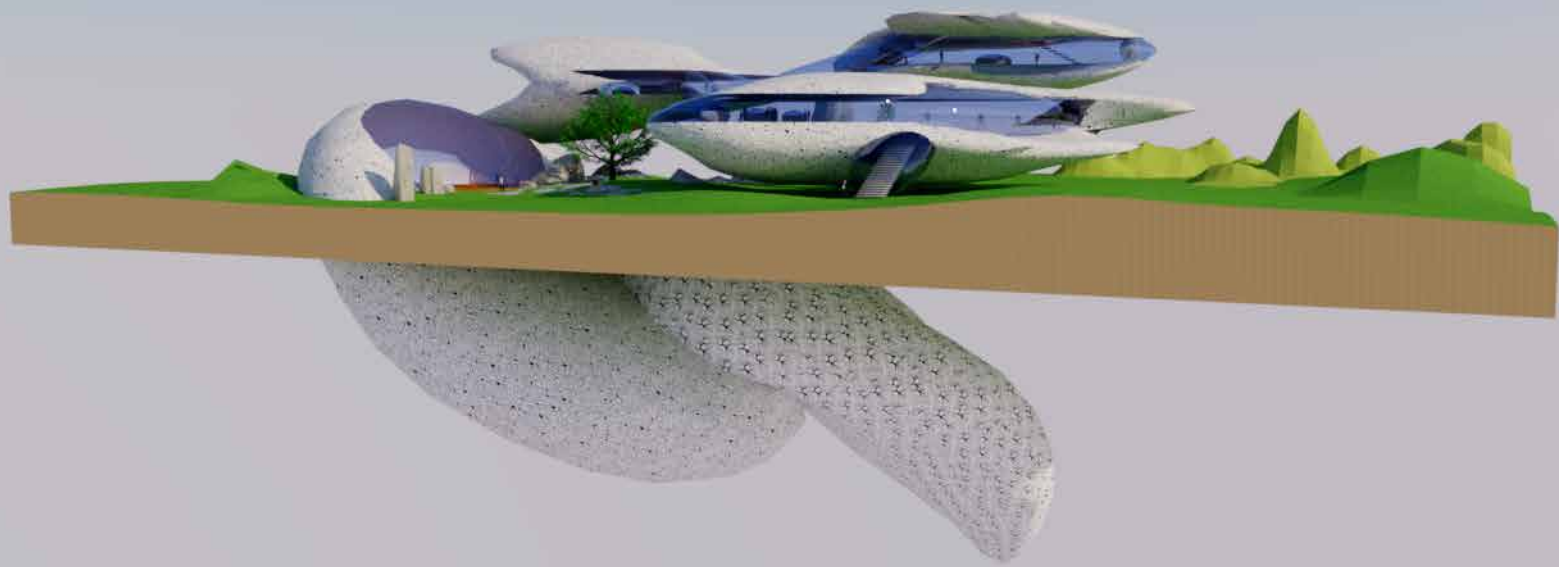
**AARON BUCKLEY**





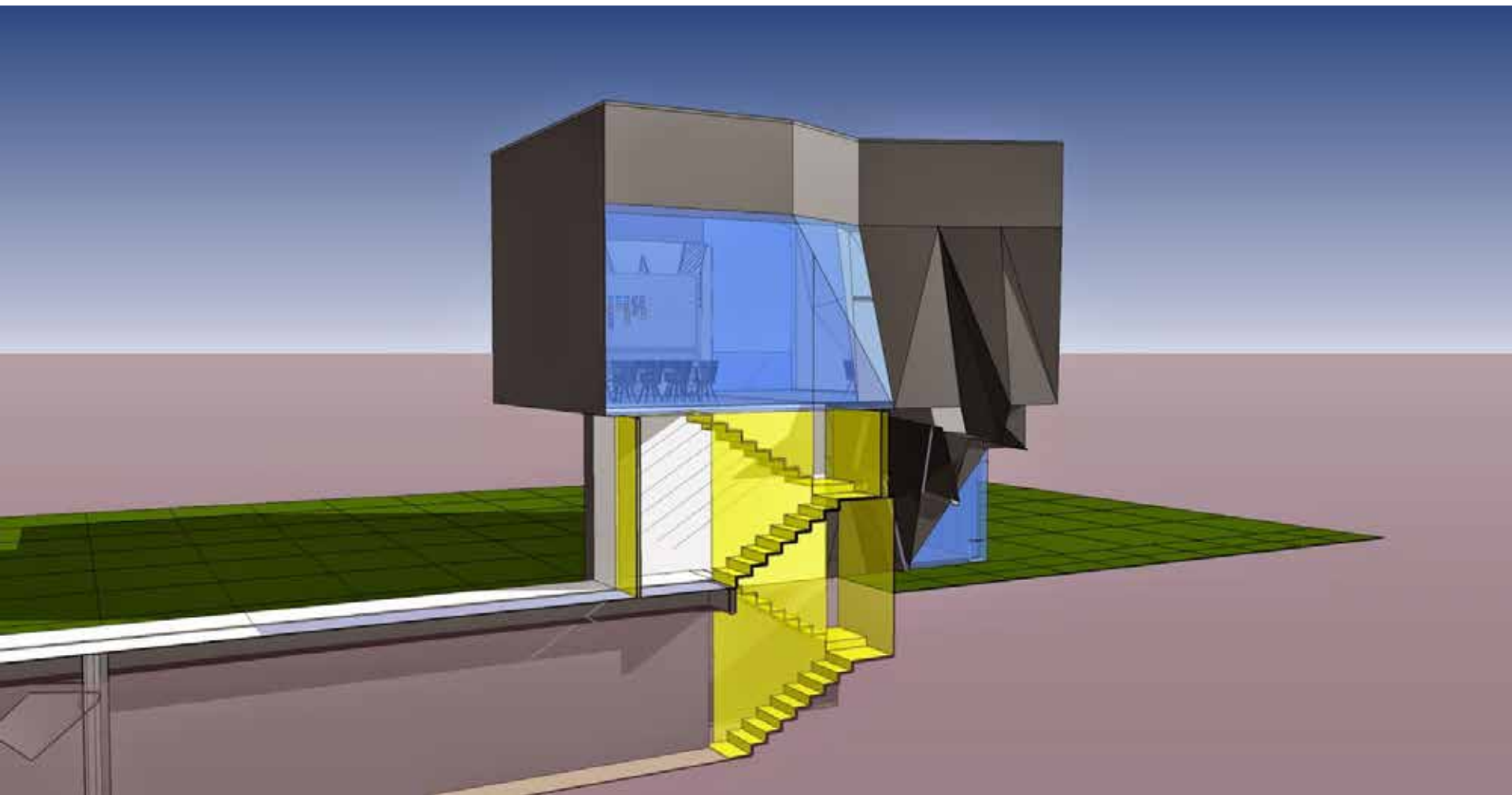




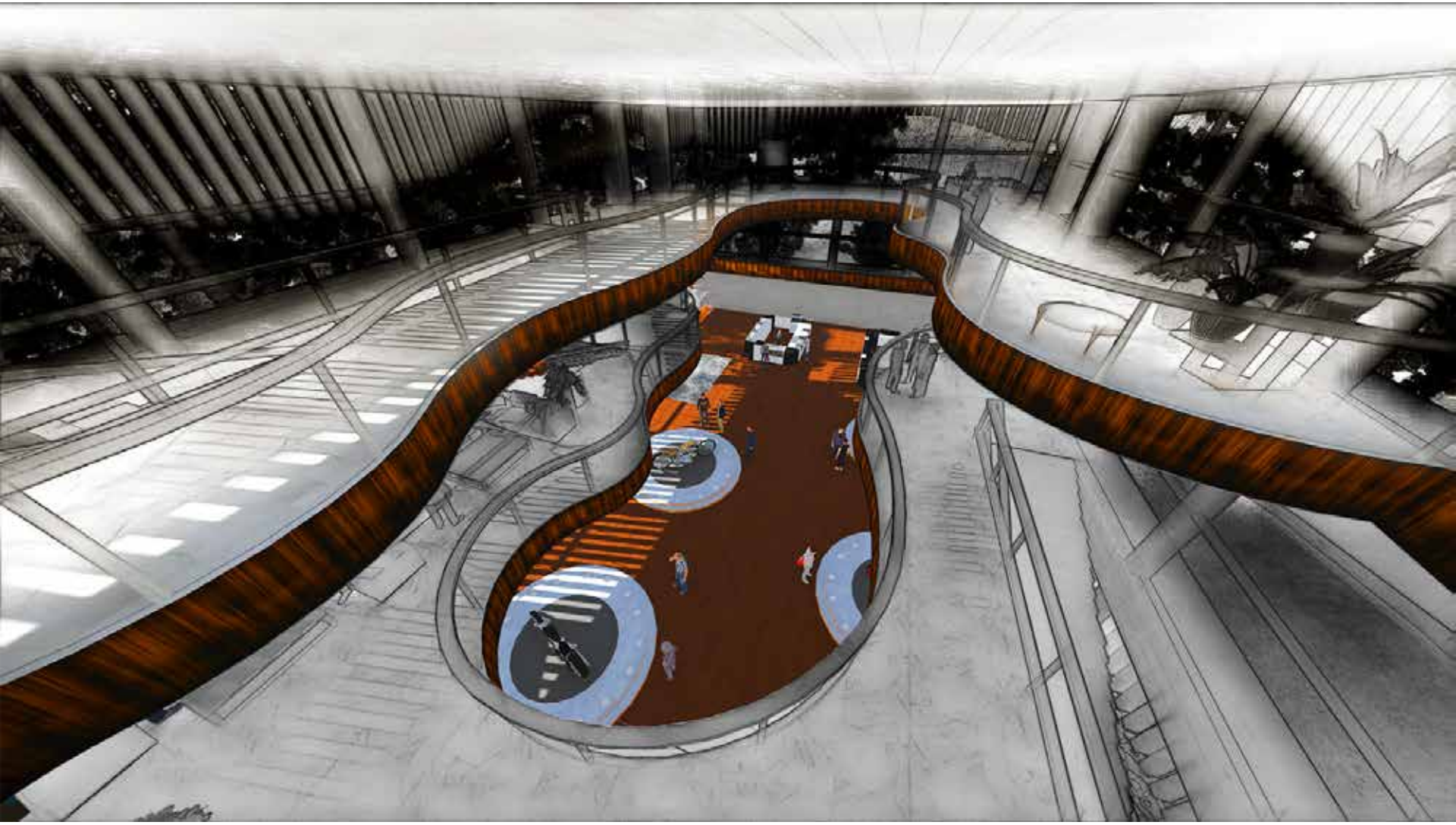


**CHRISTINE PHAN**





**HARRIS PANERAS**









**JESSICA WONG**

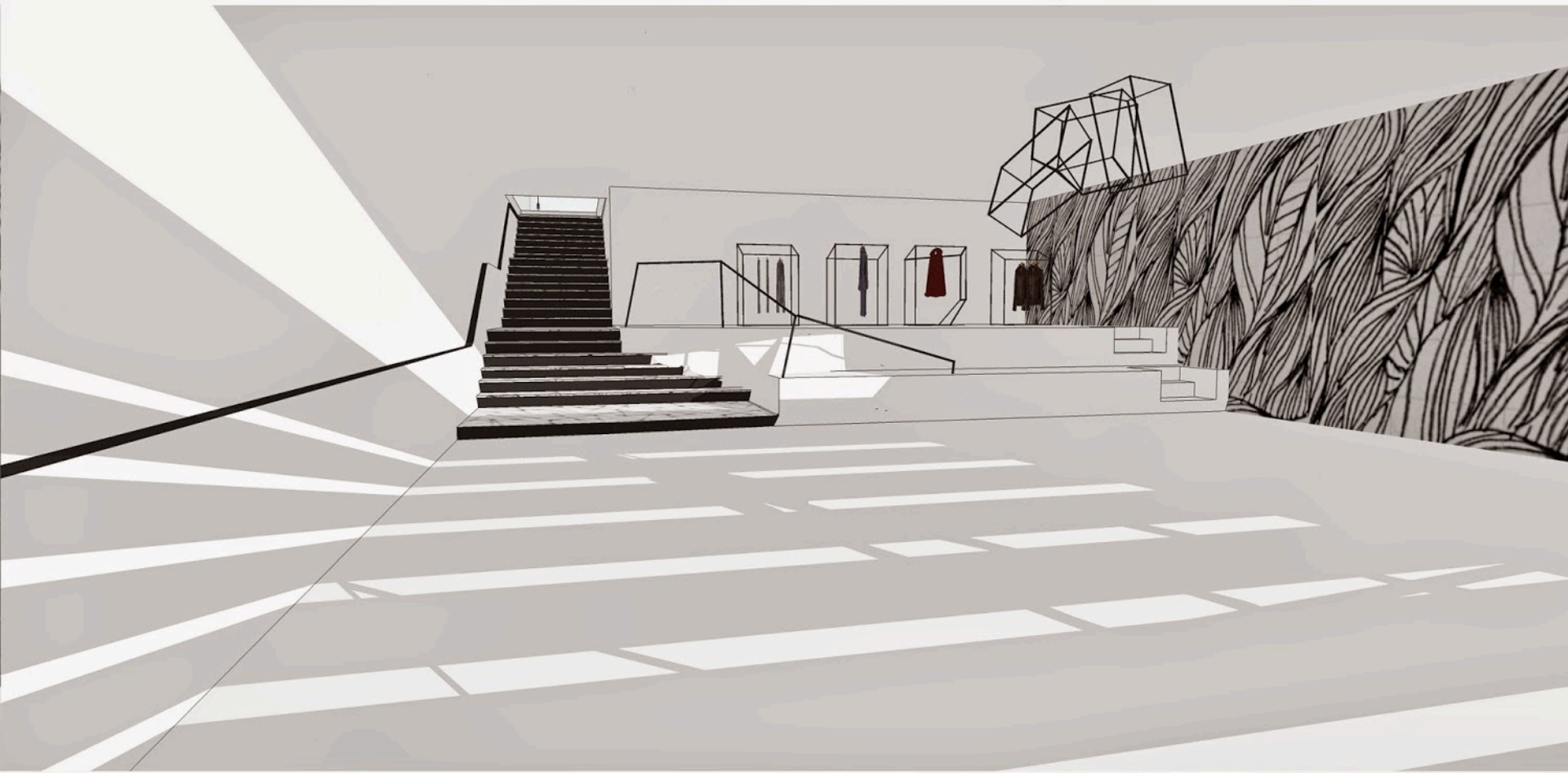




Section //

Hazaan Motorworks Studio

Top: Hazaan Motorworks Studio  
Inbetween: Exhibition Space  
Below: Christian Benner Custom



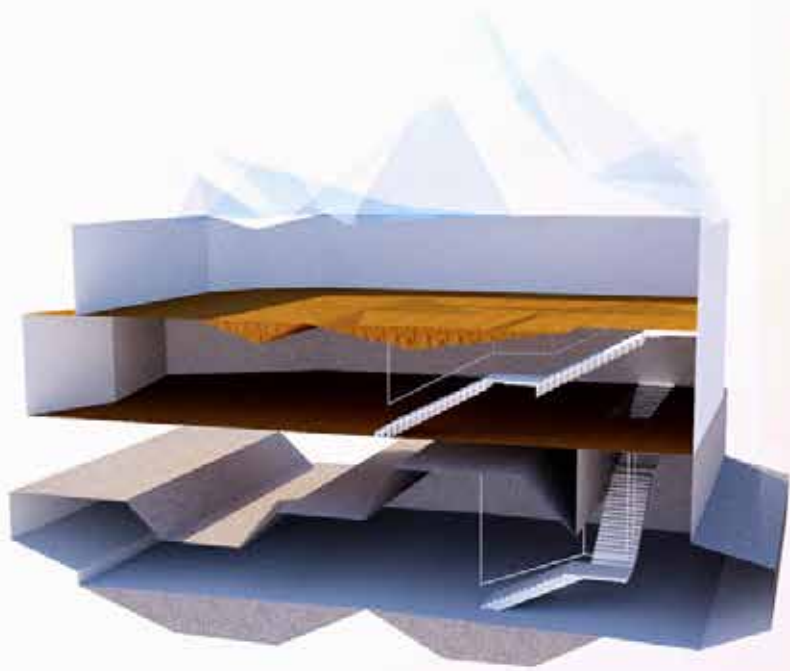
Perspective // *graymattersstudio*

Christian Benner Custom

**NARISSA BUNGBRAKEARTI**



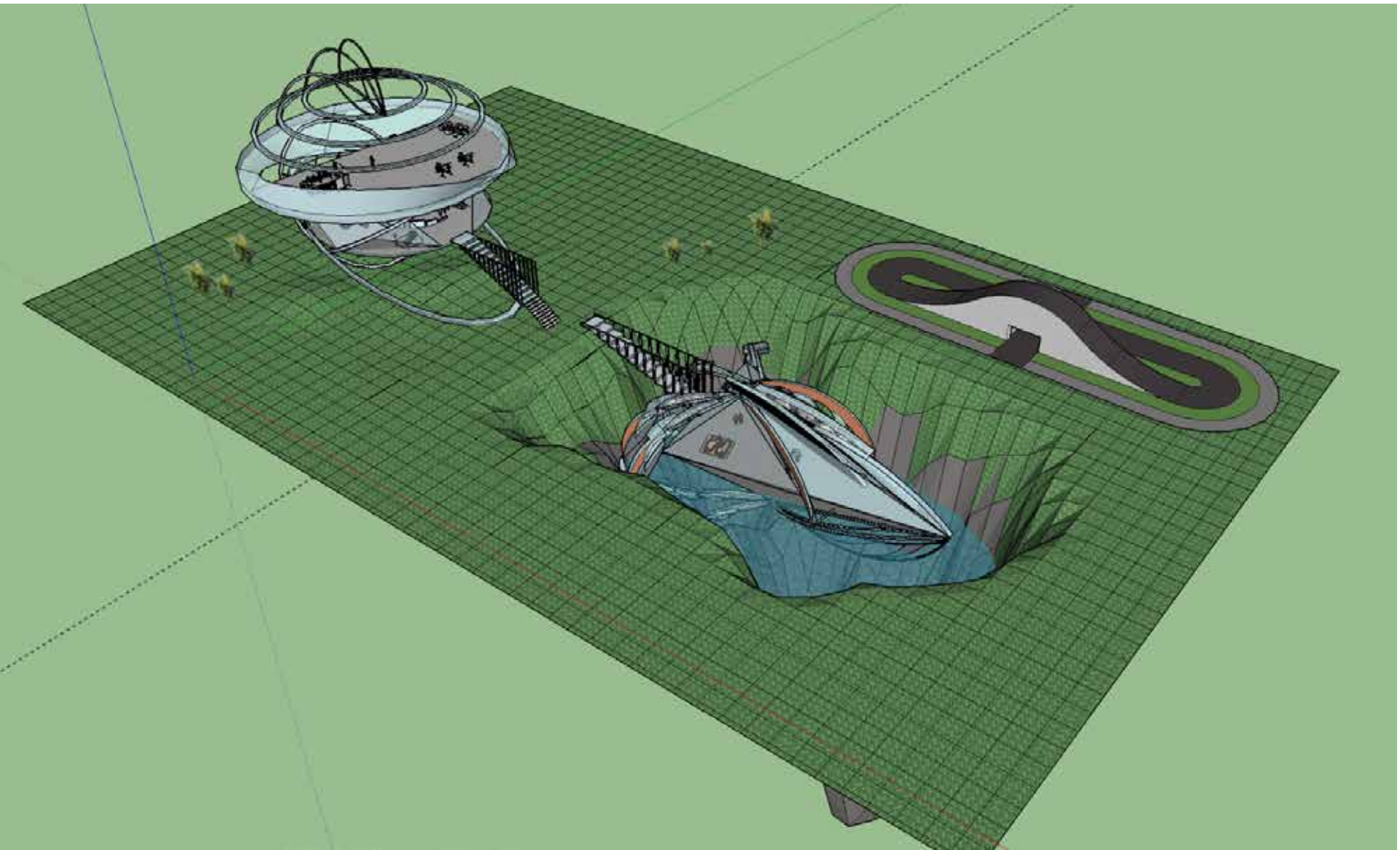








**SHENGYAN HUANG**



**YISHUN TANG**







# TODAY IN STUDIO

**Note:** Throughout the class students will be demonstrating modeling techniques using Google Sketchup.

1. Using the scheme you developed in SketchUp (**and inspired by the stairs shown above**) design two sets of stairs; one that goes from the above ground studio down to the showroom space and a second that comes from the below ground studio up to the showroom space.
2. Represent each stair with at least 2 sections. Keep all the notes, details and sections relating to each stair on one pair of facing pages. Or on two screens if you are using an iPhone, iPad or similar device.
3. In consultation with your tutor take another one of the sections created in the first studio session and design two sets of stairs for that scheme. Represent each of these new stairs with at least 2 sections.

By the end of the studio session you will have at least 8 sections (representing 4 sets of stairs).