

# MAD

Museum of Architecture and Design

Spring 2010 : Master Project  
Tearana Chalermrak





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## Elevator Statement

My project is about creating a recreation and education center of architecture and design in the architecture city like Chicago by combining the Chicago Architecture Foundation with the museum. And enhancing the knowledge of architecture and design for residents and visitors.



## Case Statement

Chicago is one of the most remarkable city about architecture in the world. A lot of traveler from all over the world come to Chicago because of this reason. Currently, the Chicago Architecture Foundation, a nonprofit organization, provides architectural knowledges by using the city as a big museum. They provide boat and bus tour around the city for explaining about architecture in Chicago and provide some special program for people by using other places. That because of the location of the Architecture Foundation is too small and they have restriction about the space.

The city tour is the good way for explaining to people but, sometimes, it could be discontinued in some parts such as a history. The museum will combine everything together in the same place and help people to understand the connection and history in architecture. And it would be great to have many people to join the activity program in the same place by not go out to other place.

Therefore, I think it would be a great opportunity to create Museum of Architecture and Design in Chicago as a new home of the Chicago Architecture Foundation by remaining the program that the CAF provides. And enhancing the knowledge and activity in architecture and design.

## Goals

- To create a new home of the Chicago Architecture Foundation where attract more people to come.
- To fulfill the knowledge of Chicago Architecture to residents and visitors.
- To encourage people to interest in architecture and design.
- To make Chicago as a center of learning and inspire people to study architecture and design.



## Guidings Principles

### Symbolic :

Create a unique form and function that inserted into the city scale and become a one of interesting point in downtown, Chicago.

### Adjustable :

Create flexible spaces to support exhibition and activity that would be changed all the time.

### Knowledge :

Promote a several ways to get a knowledge such as tours, workshop, exhibition or special programs.

### Community :

Create a community space where people can interact and share the ideas or make the activity.





# Programming of M A D

View

+

Learn

+

Share

+

Support

## 1. Viewing Program

- 1.1 Permanent Exhibition**
  - 1.1.1 Chicago Architecture
  - 1.1.2 History of Architecture
  - 1.1.3 Remarkable Architects and Architectures
- 1.2 Temporary and Special Exhibition**
  - 1.2.1 New products and Design projects
  - 1.2.2 New architecture projects
  - 1.2.3 Competition and student projects
- 1.3 Auditorium**
- 1.4 Others**
  - 1.4.1 Restroom
  - 1.4.2 Storage

## 2. Learning Program

- 2.1 Classroom
- 2.2 Studio
- 2.3 Computer Lab
- 2.4 Model making room
- 2.5 Library
- 2.6 Meeting room
- 2.7 Instructor Office
- 2.8 Restroom
- 2.9 Storage

## 3. Sharing Program

- 3.1 Retail Shop**
  - 3.1.1 Book Store
  - 3.1.2 Souvenir Store
  - 3.1.3 Art and Architecture Supply
- 3.2 Food and Beverage**
  - 3.2.1 Restaurant
  - 3.2.2 Coffee Shop
- 3.3 Outdoor Activity**
  - 3.3.1 Public Plaza
  - 3.3.2 Outdoor Performance
  - 3.3.3 City Tour
- 3.4 Others**
  - 3.4.1 Restroom
  - 3.4.2 Storage

## 4. Support

- 4.1 Lobby**
  - 4.1.1 Main Lobby
  - 4.1.2 Information and Reception
- 4.2 Office**
  - 4.2.1 Director Office
  - 4.2.2 Staff Office
  - 4.2.3 Meeting Room
  - 4.2.4 File and Copy
- 4.3 Service**
  - 4.3.1 Loading Dock
  - 4.3.2 Security Room
  - 4.3.3 Janitor Room
  - 4.3.4 Mechanical Room
- 4.4 Other**
  - 4.4.1 Restroom
  - 4.4.2 Storage

## Site of M A D



## Surrounding

## 351 W. Merchandise Mart Street



Loading dock of Merchandise Mart, enter from Kinzie street. Might be used for loading dock way of the project.



Two big building where close to the site. They are on the upper level and site is on the lower level



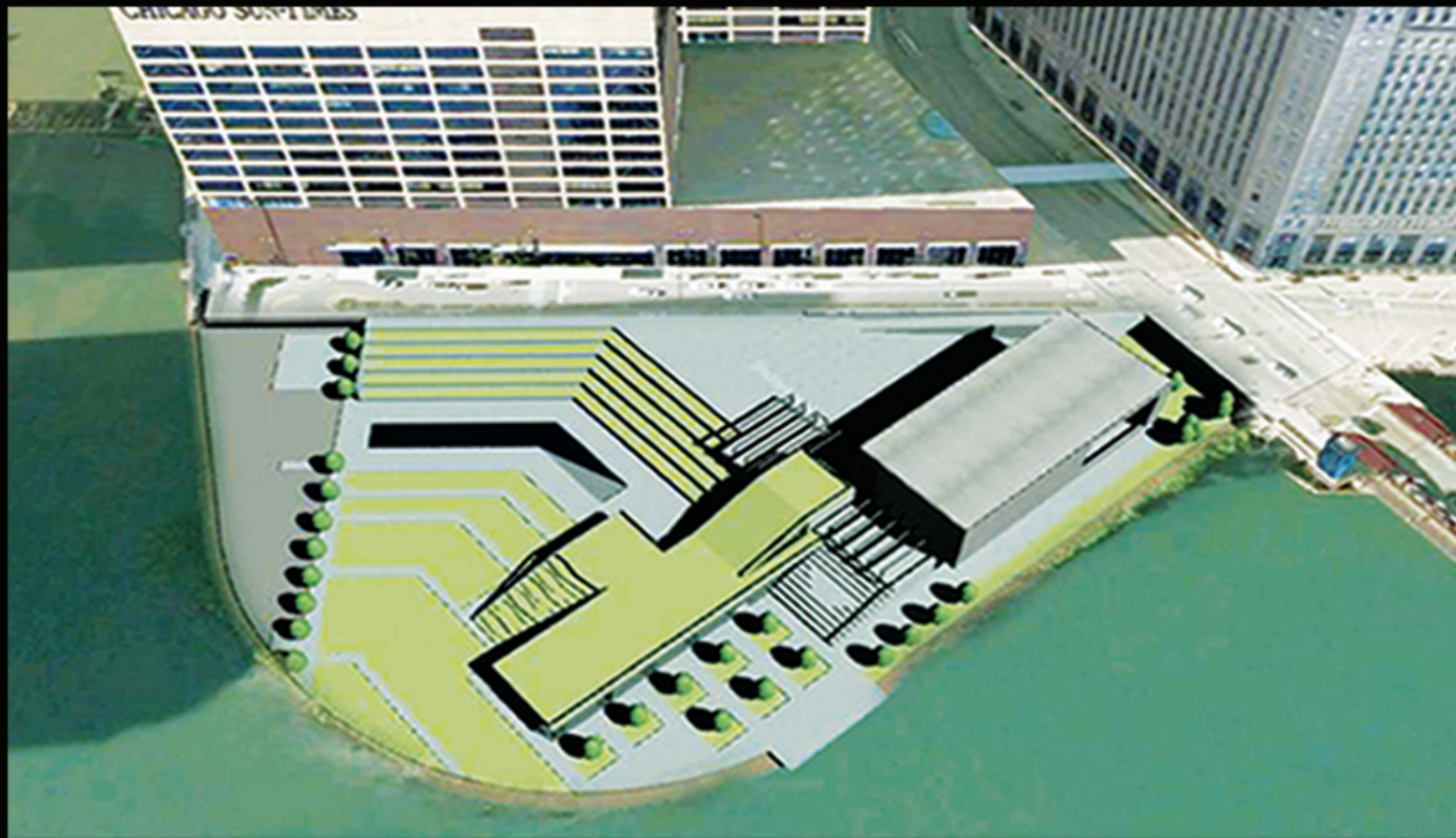
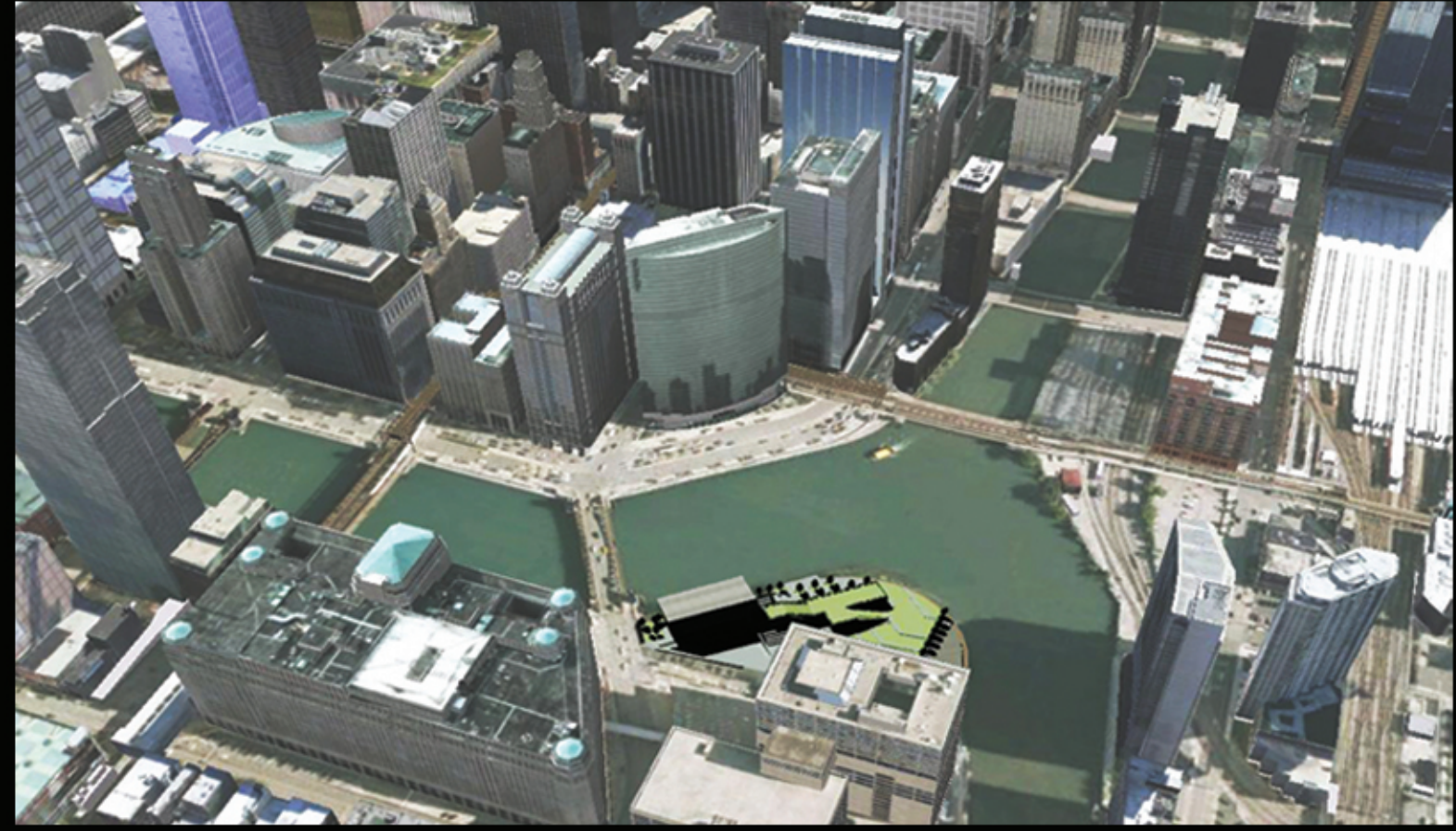
Ramp to parking at lower level. But they have another parking entrance at Kinzie street



View of the Chicago skyline from the site.



# SITE OF MAD





View

Learn

Share

Support

1. Viewing Program

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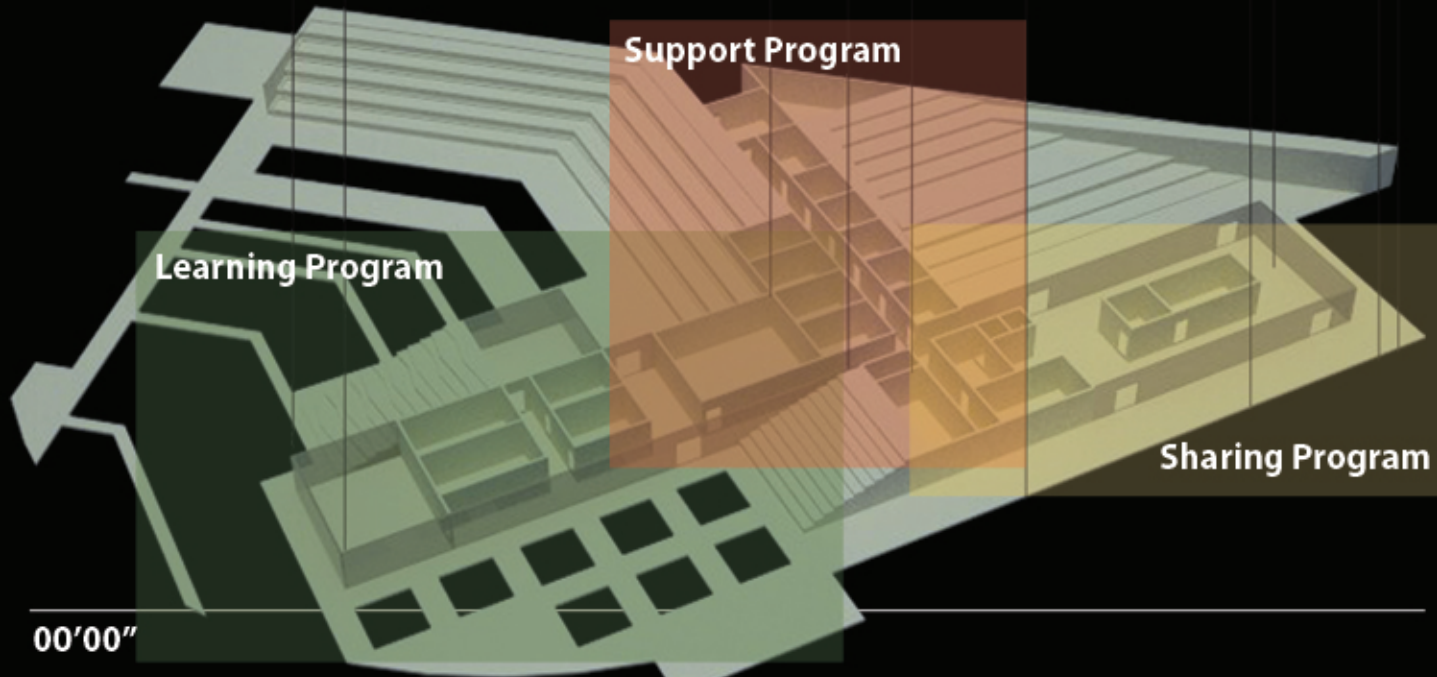
Second level has 2 galleries and they faced to the river. There have a good skyline view from this side

35'00"

First floor is the main entrance for this museum. The entrance at the east side is for pedestrain and another one at the north side is for drop off.

Ground floor is integrated with landscape and there have parkink and entry for staf and student.

15'00"



00'00"

Viewing Program

Support Program

Learning Program

Sharing Program



# Case Study

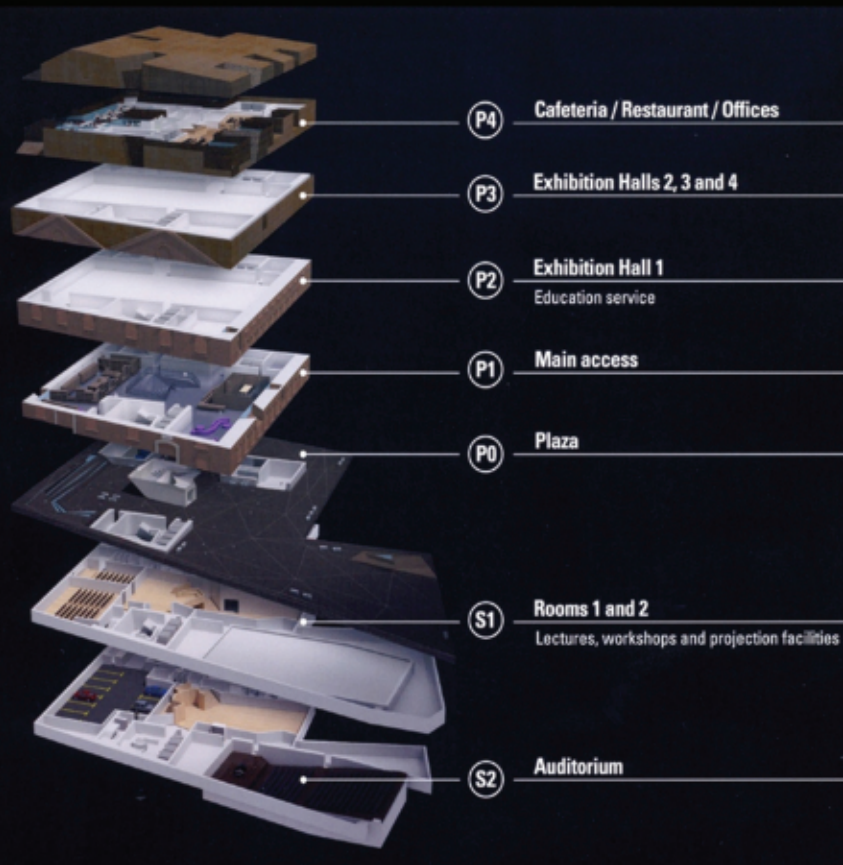


## CaixaForum, Madrid

The new CaixaForum will house expanded programming that includes music, literature, film, and social and educational programs, similar to the mix at its sister center in Barcelona. The opening show includes 37 works by contemporary artists such as Cindy Sherman, Cornelia Parker, Richard Long, Anselm Kiefer and Georg Baselitz (until April 6, 2008).



The CaixaForum located in the heart of the city's cultural district, facing the Paseo del Prado, in close proximity to the Prado, the Reina Sofia and the Thyssen-Bornemisza museums. The museum is housed in a converted 1899 power station, one of the city's few remaining examples of historically significant industrial architecture, that was acquired by the Caixa Foundation in 2001. An insignificant gas station was demolished to create a small plaza between the Paseo del Prado and the new CaixaForum. The classified brick walls of the former power station are reminiscences of the early industrial age in Madrid, while the gas station, a purely functional structure, was clearly out of place.



## Kunsthall, Rotterdam

The Kunsthall combines 3300 square meters of exhibition space, an auditorium and restaurant into one compact design. Sloping floor planes and a series of tightly organized ramps provide seamless connection between the three large exhibition halls and two intimate galleries. Its position, wedged between a busy highway and the network of museums and green spaces known as the museum park, allows it to function as a gateway to Rotterdam's most prized cultural amenities. The site presents a dual condition: the southern edge is bordered by the Maasboulevard, a `highway` on top of a dike. The northern side, a level lower, faces the Museum Park - conventional contemplation.

The building was conceived as a square crossed by two routes: one, a road running east/west, parallel to the Maasboulevard; the other, a public ramp extending the north/south axis of the Museum Park. With these given, and the fact that these crossings would divide the square into four parts, the challenge became: how to design a museum as four autonomous projects - a sequence of contradictory experiences which would nevertheless form a continuous spiral. In other words, how to imagine a spiral in four separate squares. The concept of the building is a continuous circuit.

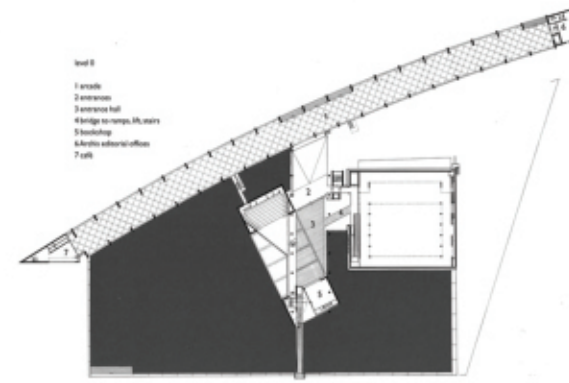




# Case Study



The new architecture institute was to be sited in the "Park Triangle", a green urban wedge that connects Rotterdam city center with the river Meuse. Together with the "Center Diamond" and "Water City", the area, intended for culture and recreation, was a key element of the "Inner City Plan for Rotterdam" (1985-1990), the final phase of the city's post-war reconstruction.



One of the design's strengths is its urban siting, its embedment in the environment. The interrelationships of the building elements confirm and enhance the park's main orientations. The archive building hugs the curve of the Rochussenstraat street, forming the boundary with the Museumpark. The main building follows the orientation of the park, while the box with public functions points to the Museum Boijmans. A broad gravel path transecting the park was intended to connect the NAI with the Museum Boijmans. The building's slightly more isolated siting is due to the fact that it proved impossible to create a direct connection to the park. The Rotterdam municipal council was adamantly opposed to making this a car-free zone, so that a road now closes the building off from the park. As a result, the NAI is located adjacent to the park rather than in the park.

## NAi, Rotterdam



In his design for the NAI, Jo Coenen housed the various functions of the institute in different parts of the building, all of which are in perfect harmony. The resulting ensemble blends in with its environment and establishes a relationship with the surrounding buildings.

The new architecture institute had formulated three core tasks on which the program of requirements for the building was to be based: the collection, management and accessibility of archives and collections - including the library; the study of this material and monitoring of current developments; and the dissemination of the resulting knowledge in the form of exhibitions, publications and events.



Colors and use of materials refer to adjacent buildings. The exhibition building, for example, has the same shape and proportions - a box with ground-floor windows - and the same brownish-purple color as the Museum Boijmans van Beuningen. The pergola has the same color as the green copper roof and, echoing the Boijmans, the NAI also has a glass tower, the main building. The building elements' 'boxy' forms refer to the white villas along Jongkindstraat street. Rotterdam's port architecture is also alluded to, in the form of aerial walkways, railings, water, steel, the colors green and brown, and the exposed plants. The archive building's sharp point is also called "the bow".



## Type of Visiting

<b>Short Visiting</b> Main Entry Information Window Viewing Coffee Shop	10-20 minutes	<b>View</b>	Short Visiting is about for people who want only to get informations about the museum. And then they are going to go back next time.	<b>Special Event</b> Main Entry Information Special Exhibition Auditorium Outdoor Performance Retail Shop Coffee Shop Restaurant	2-3 hours	<b>Share</b>	This special event is not going to happen everyday. It is going to use the public space in the building and outdoor space.
<b>Short Exhibition</b> Main Entry Information Special Exhibition Exhibition Retail Shop Coffee Shop Restaurant	30-60 minutes	<b>View</b>	Short exhibition is for people who want to view only exhibition and then just go out. Maybe they are going to have some food or hang around in public area.	<b>City Tour</b> Main Entry Information City Tour Retail Shop Coffee Shop Restaurant Outdoor Plaza	1-2 hours	<b>Share</b>	This program is for people who want to join a tour program. They are going to go through the building to see what happen in the museum.
<b>Long Exhibition</b> Main Entry Information Special Exhibition Exhibition Retail Shop Coffee Shop Restaurant	1-4 hours	<b>View</b>	Long exhibition is for people who can spend more time to join every parts of the museum. Such as exhibition, special event or some meetings.	<b>Dinning</b> Main Entry Information Window Viewing Outdoor Plaza Coffee Shop Restaurant	1-2 hours	<b>Share</b>	Dinning prgram is for people from office around the site or people who walking around the city. They just want to take a rest and have some food.
<b>Practicing</b> Main Entry Information Window Viewing Special Exhibition Studio+Classroom Computer Media Lab Model Workshop	2-3 hours	<b>Learn</b>	Practicing program is for people who want to learn something about architecture. It includes programs for learning.	<b>Staff</b> Staff Entrance Office Storage Security Room Loading Dock Meeting Room	Office Hour	<b>Support</b>	This is the program for staff in the museum such as office, loading dock, mechanical room, etc,



# MAD : Museum of Architecture and Design

## Programing

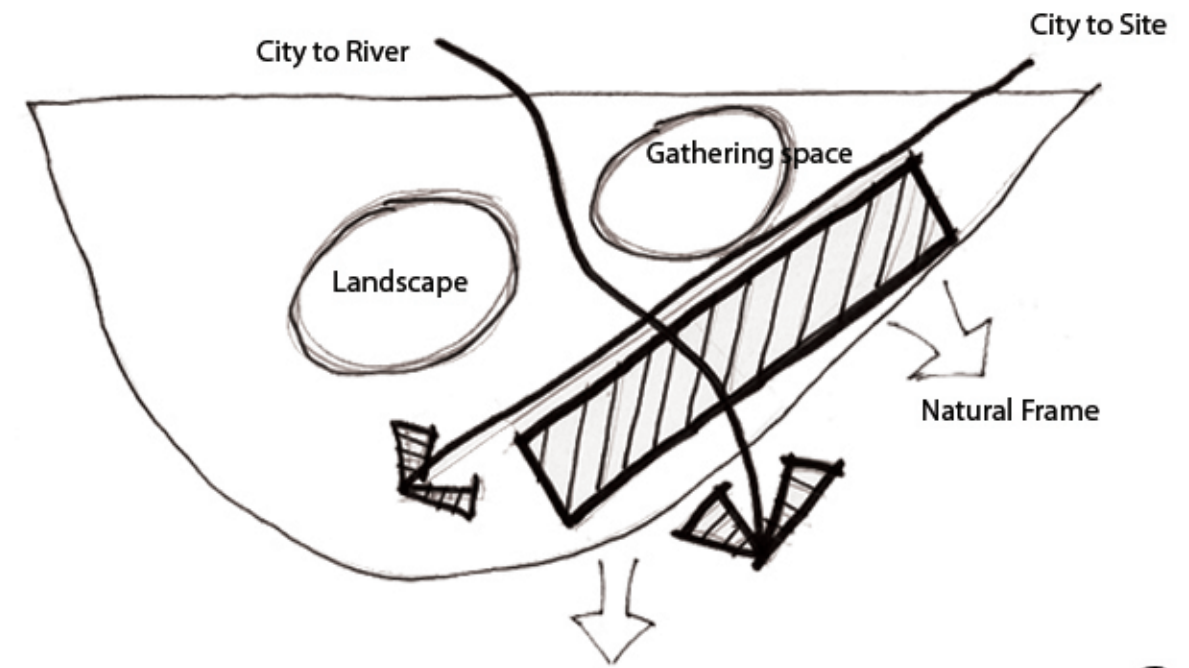
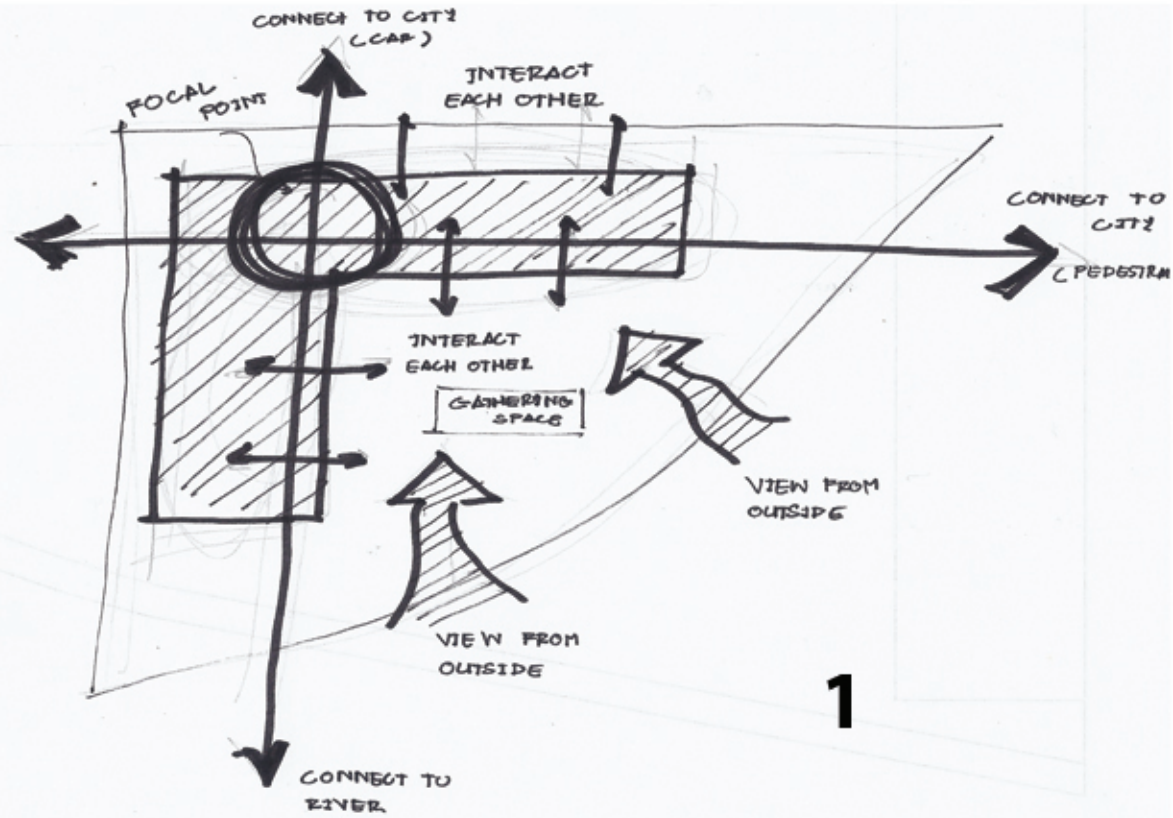
<b>1. Learning Program</b>	<b>Qty.</b>	<b>Net S.F.</b>	<b>Total S.F.</b>	<b>Capacity</b>	<b>Note</b>
<b>1.1 Permanent Exhibition</b>					Share space together and divided by
1.1.1 Chicago Architecture	1	4000	4000	80	using partition
1.1.2 History of Architecture	1	4000	4000	80	
1.1.3 Remarkable Architects and Architectures	1	4000	4000	80	
<b>1.2 Temporary and Special Exhibition</b>					Share space together and divided by
1.2.1 New products and Design projects	1	2500	2500	50	using partition
1.2.2 New architecture projects	1	2500	2500	50	
1.2.3 Competition and student projects	1	2500	2500	50	
<b>1.3 Auditorium</b>	1	4000	4000	100	
<b>1.4 Others</b>					
1.4.1 Restroom	2	400	800	20	
1.4.2 Storage	2	400	800	n/a	
<b>Total</b>			<b>25100</b>	<b>510</b>	
<b>2. Playing Program</b>	<b>Qty.</b>	<b>Net S.F.</b>	<b>Total S.F.</b>	<b>Capacity</b>	<b>Note</b>
2.1 Classroom	2	400	800	20	
2.2 Studio	1	1000	1000	20	
2.3 Computer Lab	1	400	400	15	
2.4 Model making room	1	600	600	15	
2.5 Library	1	400	400	20	
2.6 Meeting room	1	400	400	20	
2.7 Instructor Office	1	300	300	10	
2.8 Restroom	2	400	800	20	
2.9 Storage	1	400	400	n/a	
<b>Total</b>			<b>5100</b>	<b>140</b>	



<b>3. Sharing Program</b>	<b>Qty.</b>	<b>Net S.F.</b>	<b>Total S.F.</b>	<b>Capacity</b>	<b>Note</b>
<b>3.1 Retail Shop</b>					share space together in an open plan
3.1.1 Book Store	1	500	500	20	
3.1.2 Souvenir Store	1	500	500	20	
3.1.3 Art and Architecture Supply	1	500	500	20	
<b>3.2 Food and Beverage</b>					share space together in an open plan
3.2.1 Restaurant	1	1000	1000	30	
3.2.2 Coffee Shop	1	500	500	20	
<b>3.3 Outdoor Activity</b>					
3.3.1 Public Plaza	1	n/a	n/a		
3.3.2 Outdoor Performance	1	n/a	n/a		
3.3.3 City Tour	1	n/a	n/a		
<b>3.4 Others</b>					
3.4.1 Restroom	2	400	800	20	
3.4.2 Storage	2	400	800	n/a	
<b>Total</b>			<b>4600</b>	<b>130</b>	
<b>4. Support</b>	<b>Qty.</b>	<b>Net S.F.</b>	<b>Total S.F.</b>	<b>Capacity</b>	<b>Note</b>
<b>4.1 Lobby</b>					
4.1.1 Main Lobby	1	n/a	n/a	n/a	
4.1.2 Information and Reception	1	250	250	5	
<b>4.2 Office</b>					
4.2.1 Director Office	1	300	300	5	
4.2.2 Staff Office	3	250	750	10	
4.2.3 Meeting Room	1	400	400	20	
4.2.4 File and Copy	1	250	250	5	
<b>4.3 Service</b>					
4.3.1 Loading Dock	1	500	500	10	
4.3.2 Security Room	1	250	250	5	
4.3.3 Janitor Room	1	250	250	5	
4.3.4 Mechanical Room	1	600	600	10	
<b>4.4 Other</b>					
4.4.1 Restroom	2	400	800	20	
4.4.2 Storage	2	400	800	n/a	
<b>Total</b>			<b>5150</b>	<b>95</b>	
<b>Total area</b>			<b>39950</b>		
<b>25% of circulation area</b>			<b>9987.50</b>		
<b>Total interior area</b>			<b>49937.50</b>		



# IDEA OF MAD



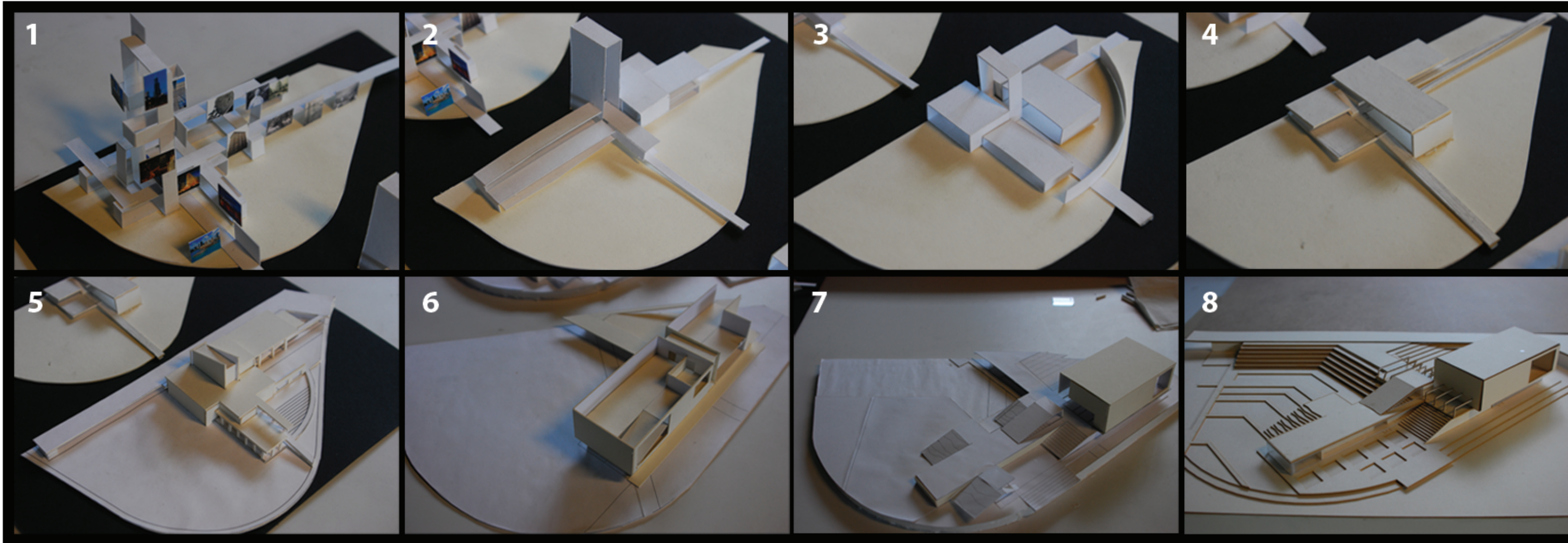
1

2

3

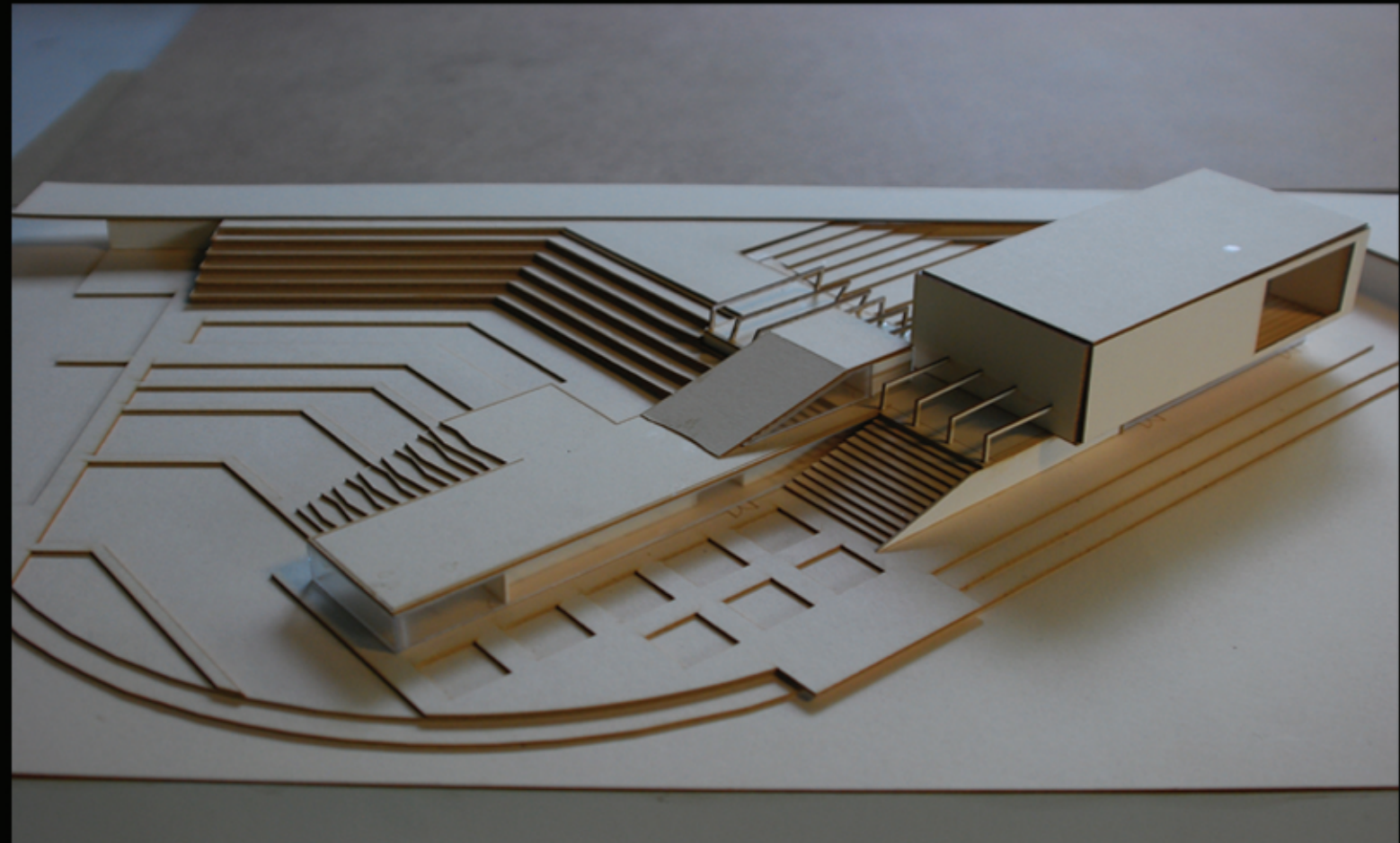
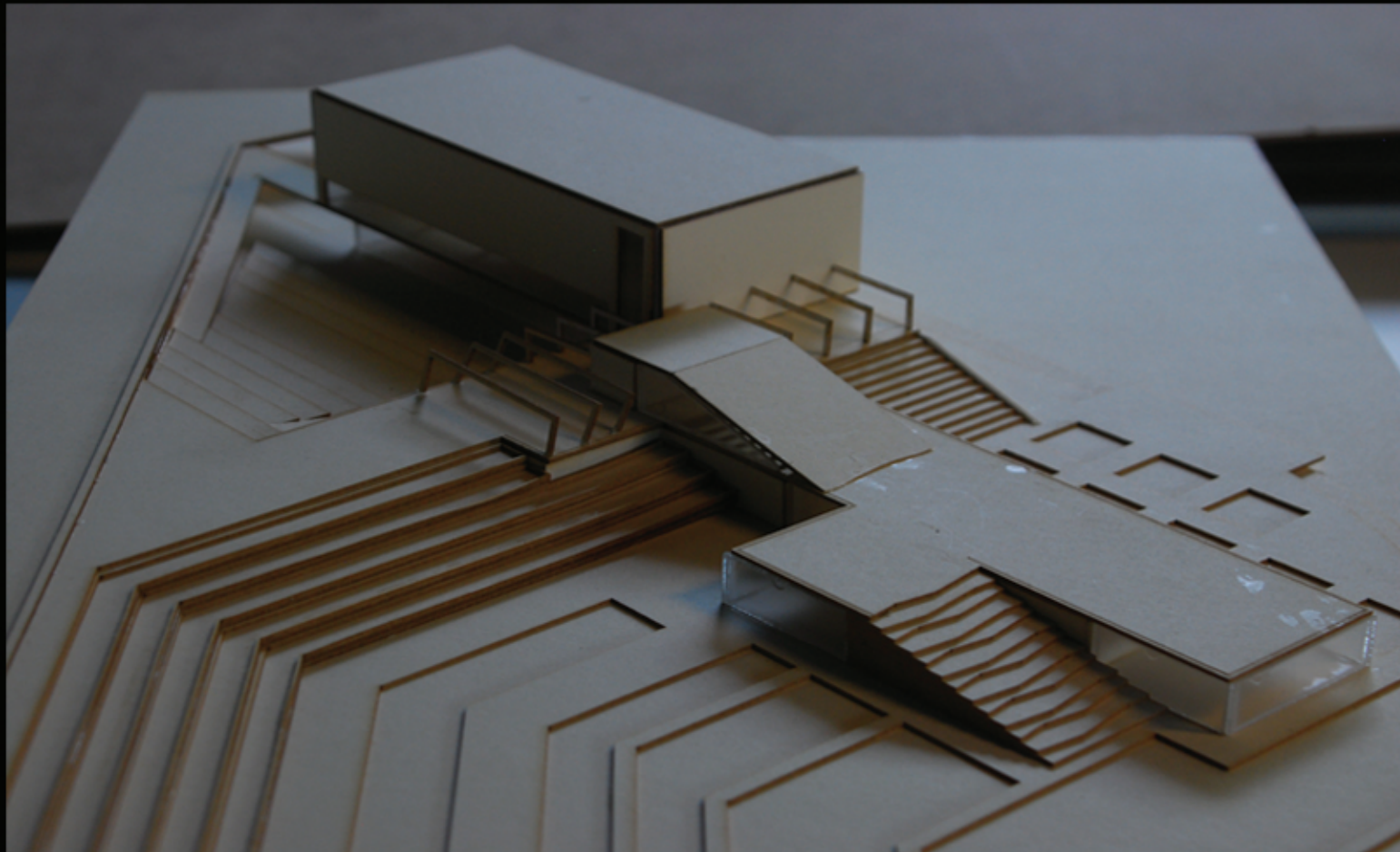
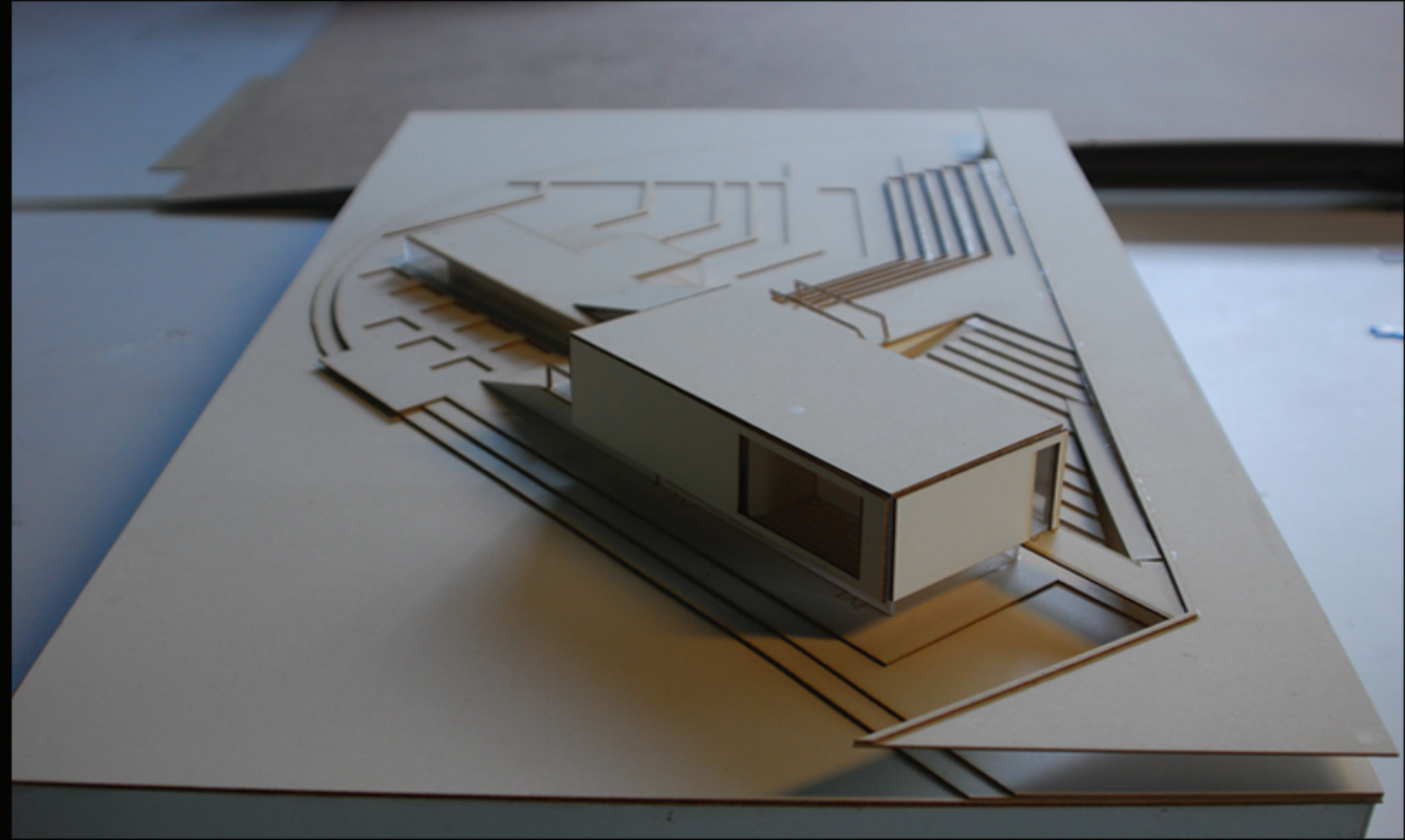
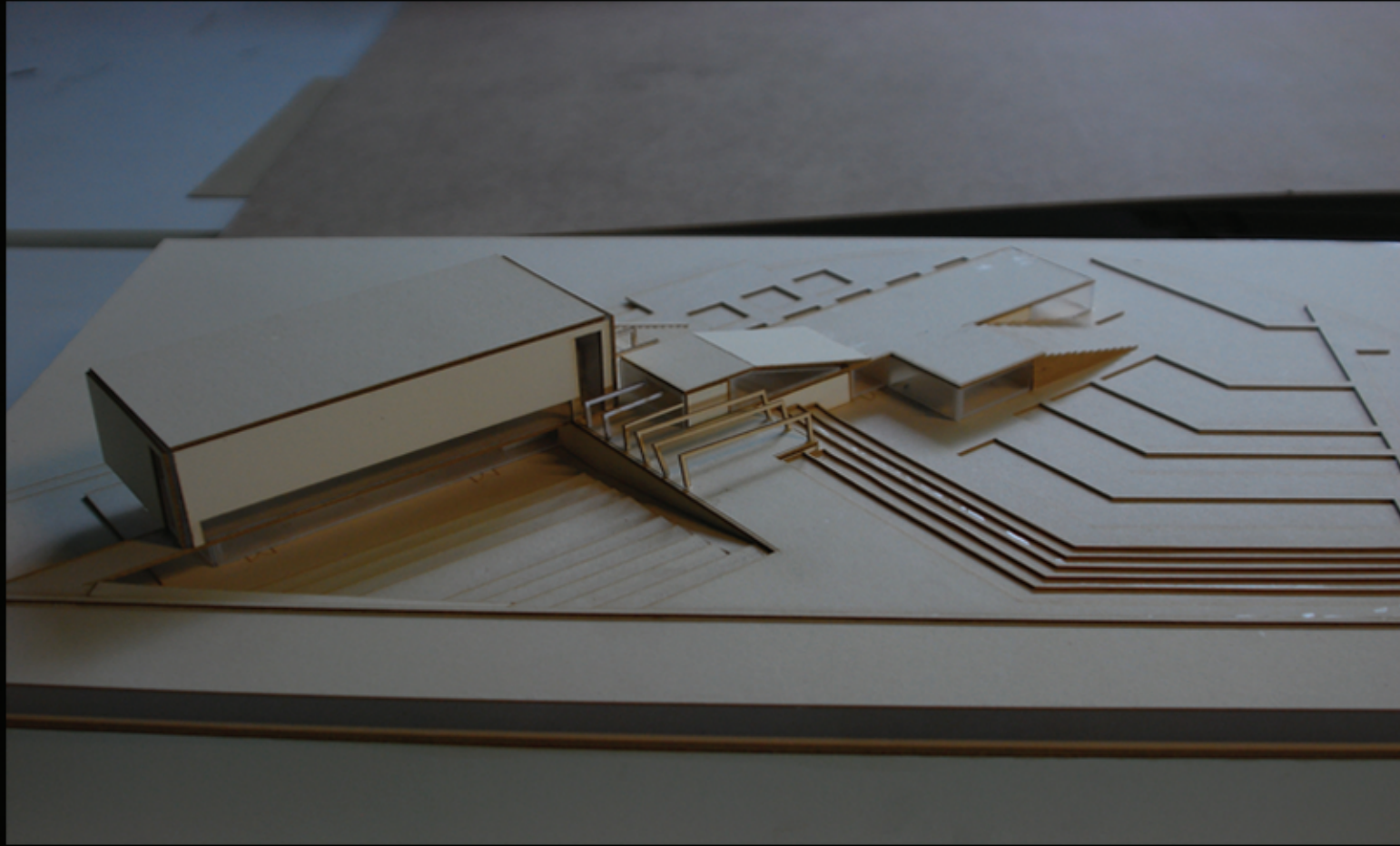
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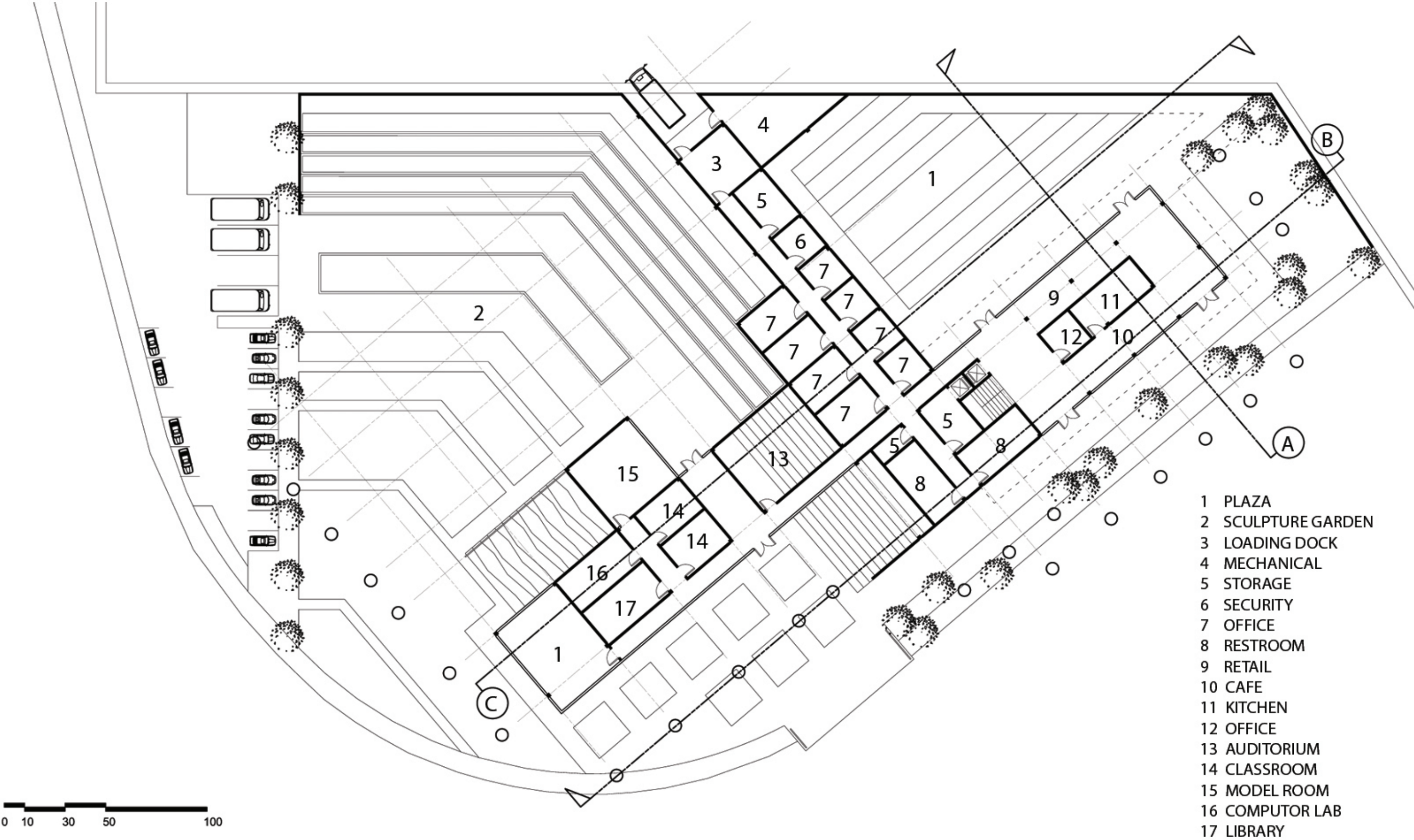
**MODEL DEVELOPMENT**



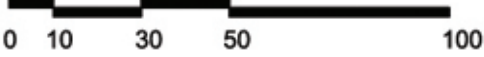




# GROUND FLOOR PLAN

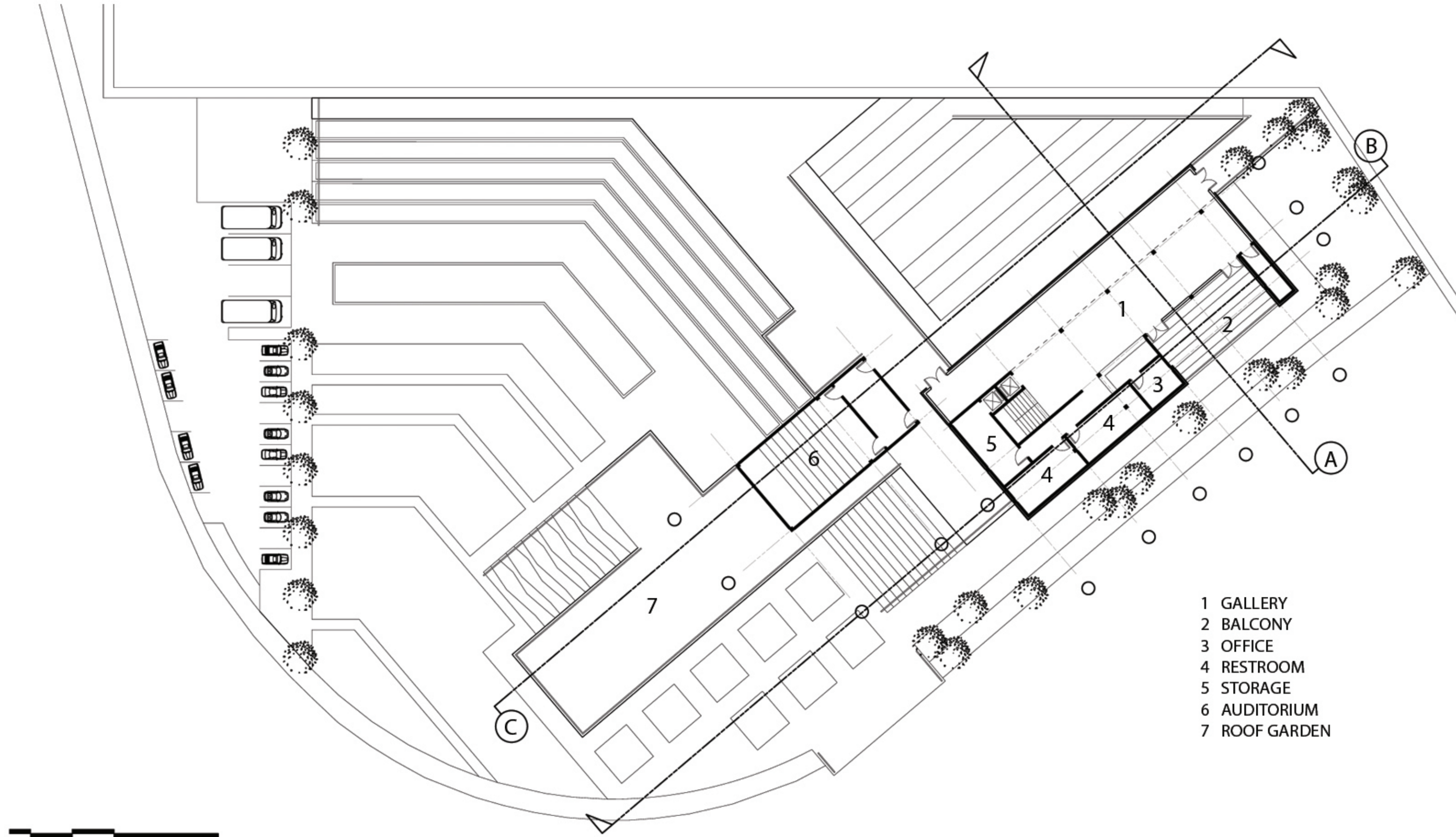


- 1 PLAZA
- 2 SCULPTURE GARDEN
- 3 LOADING DOCK
- 4 MECHANICAL
- 5 STORAGE
- 6 SECURITY
- 7 OFFICE
- 8 RESTROOM
- 9 RETAIL
- 10 CAFE
- 11 KITCHEN
- 12 OFFICE
- 13 AUDITORIUM
- 14 CLASSROOM
- 15 MODEL ROOM
- 16 COMPUTER LAB
- 17 LIBRARY

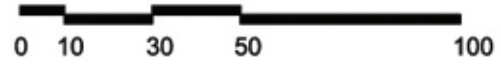




# FIRST FLOOR PLAN

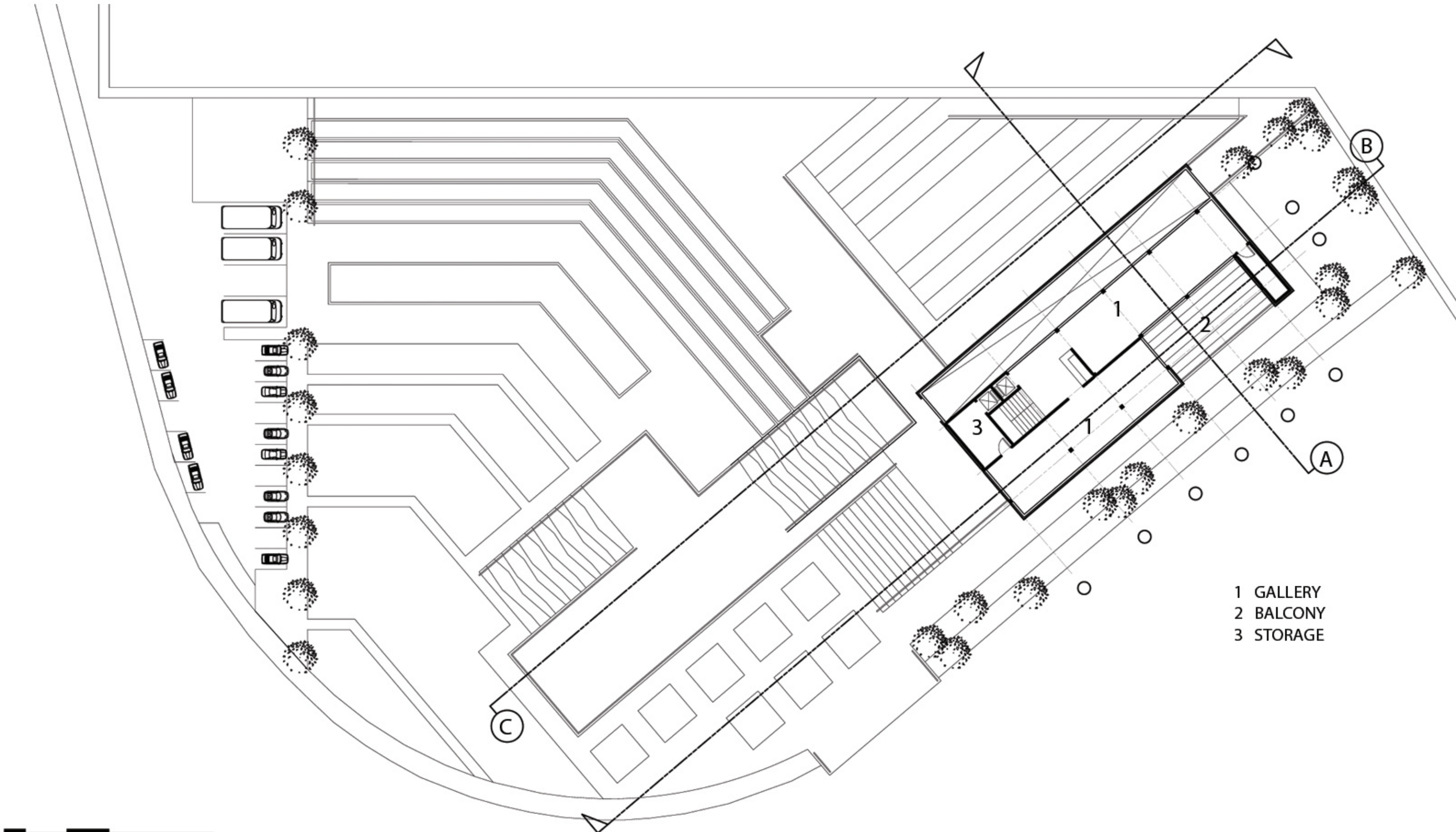


- 1 GALLERY
- 2 BALCONY
- 3 OFFICE
- 4 RESTROOM
- 5 STORAGE
- 6 AUDITORIUM
- 7 ROOF GARDEN

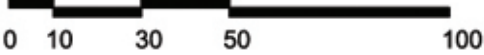




# SECOND FLOOR PLAN

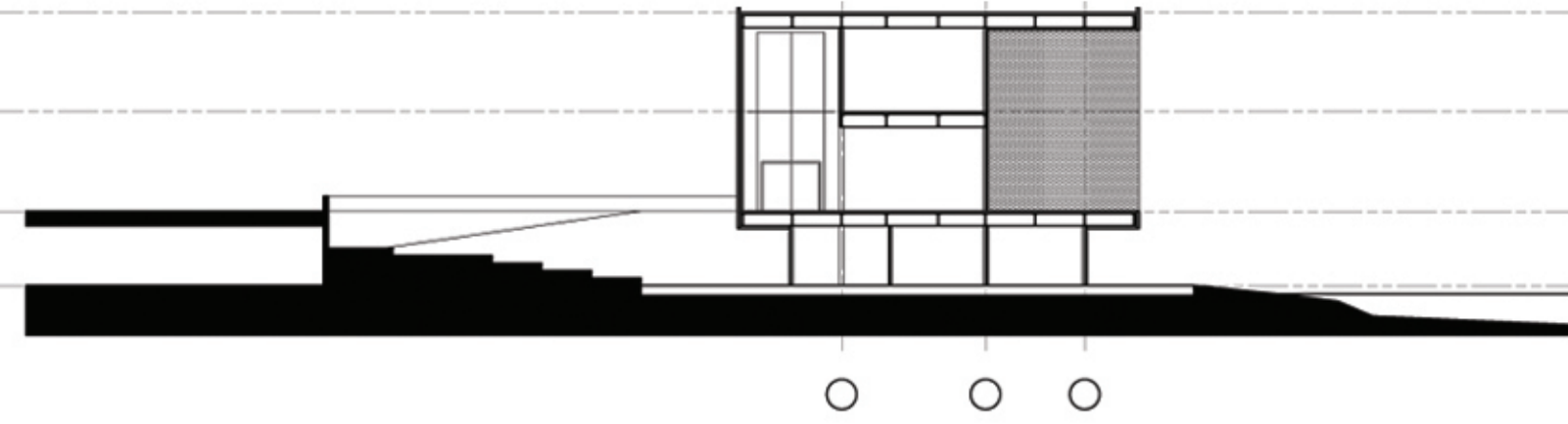


- 1 GALLERY
- 2 BALCONY
- 3 STORAGE

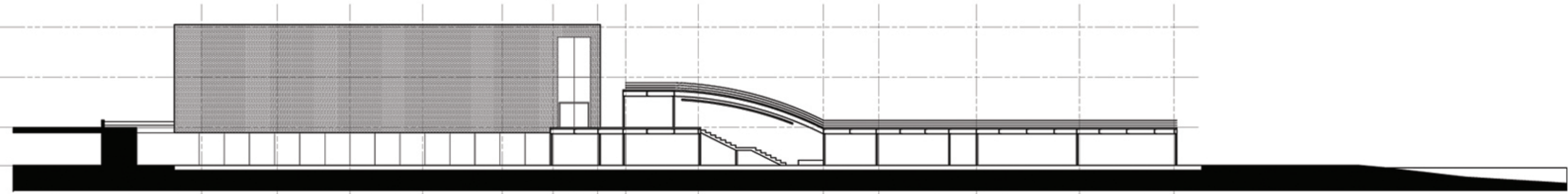
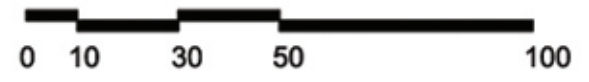




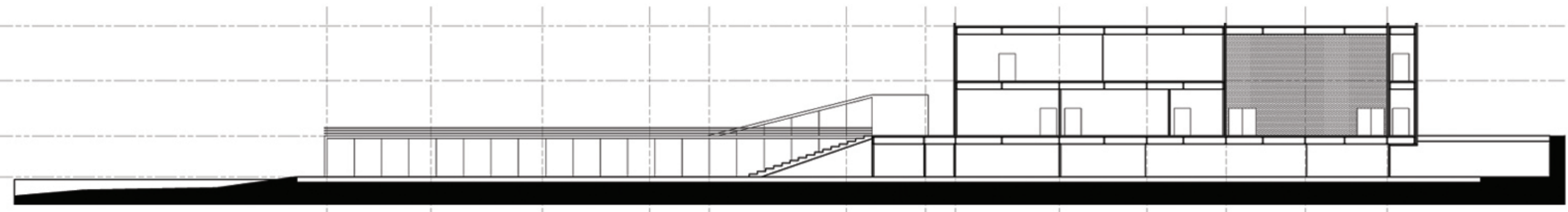
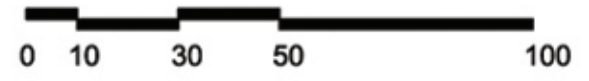
SECTION



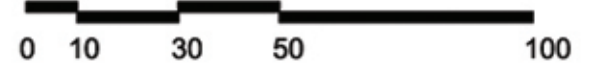
SECTION A



SECTION B

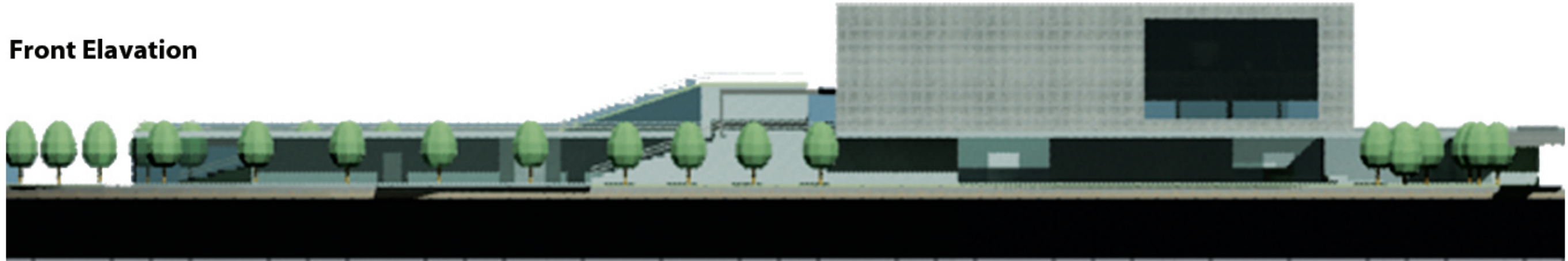


SECTION C

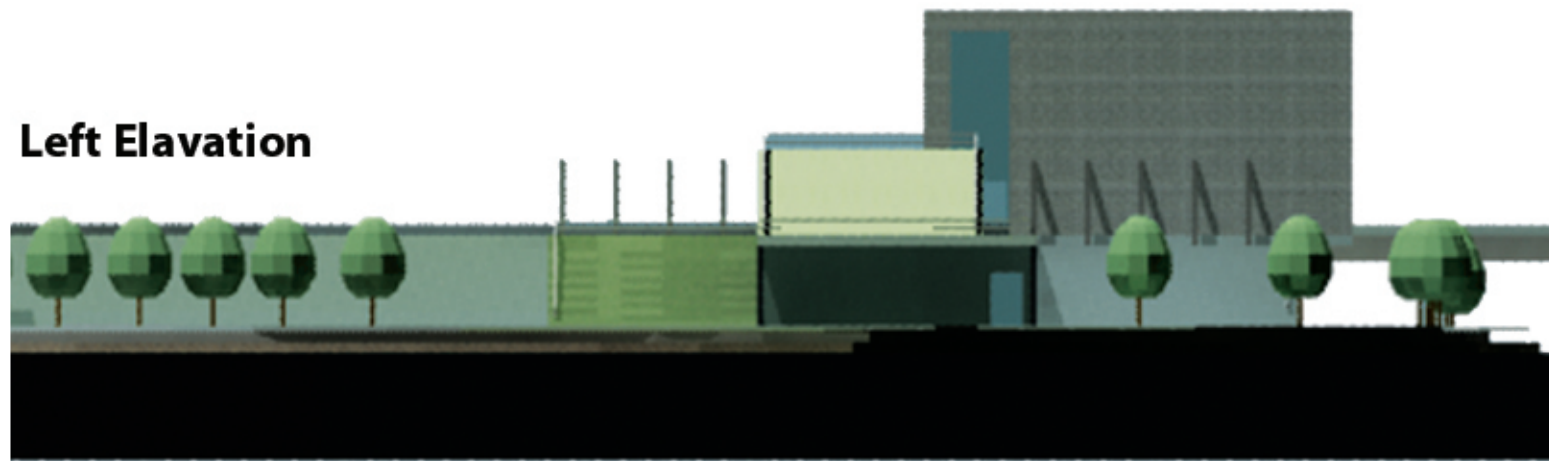




**Front Elavation**



**Left Elavation**

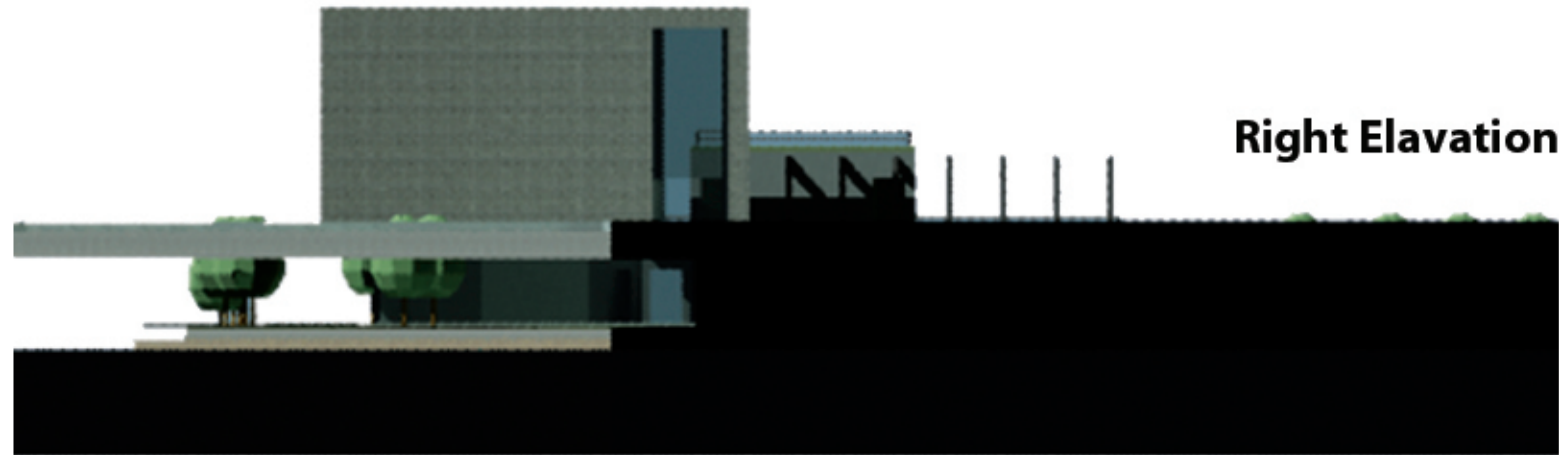


**ELEVATION**





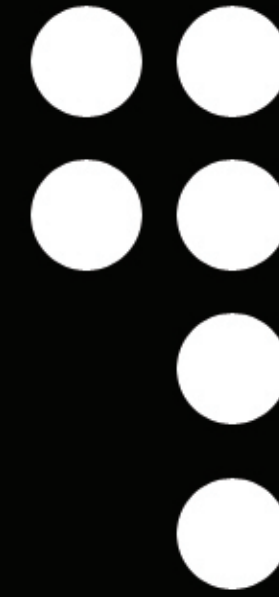
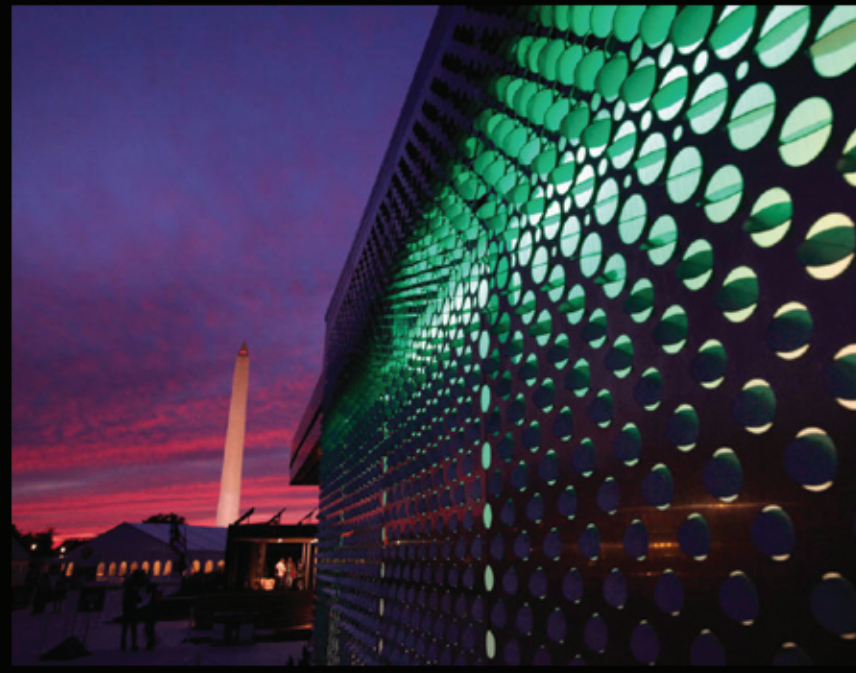
**Back Elavation**



**Right Elavation**

**ELEVATION**





## MATERIAL

Perforated metal is used for the facade of this museum. It allows the light to go inside the building and it looks like a solid wall when you see the building from outside. It has lighting fixture behind this wall, so, at night, this building will be glowing and looks like floating box on the ground.

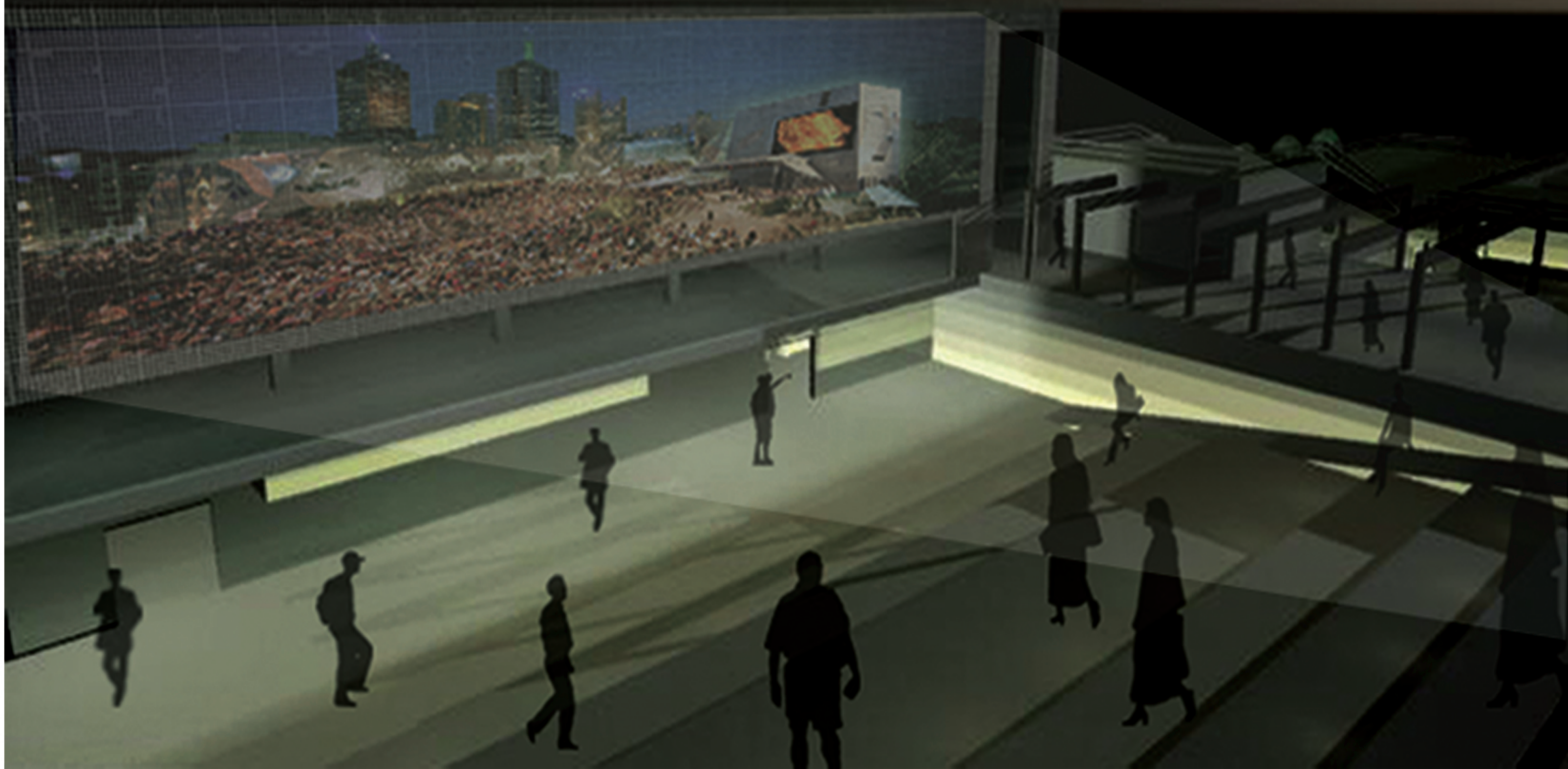




PERSPECTIVE, VIEW FROM THE RIVER



# URBAN SCREEN AND GATHERING SPACE









LIGHTING GLOW AND REFLECTING WITH THE RIVER

