

HOU, RUI **Portfolio**
Application for M.Arch
School of Architecture, Harbin Institute of Technology



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THE WALL

TYPE educational

SITE Harbin, China

PROGRAM gallery, library, studios, auditorium, offices, meeting rooms, activity rooms, laboratories, storerooms

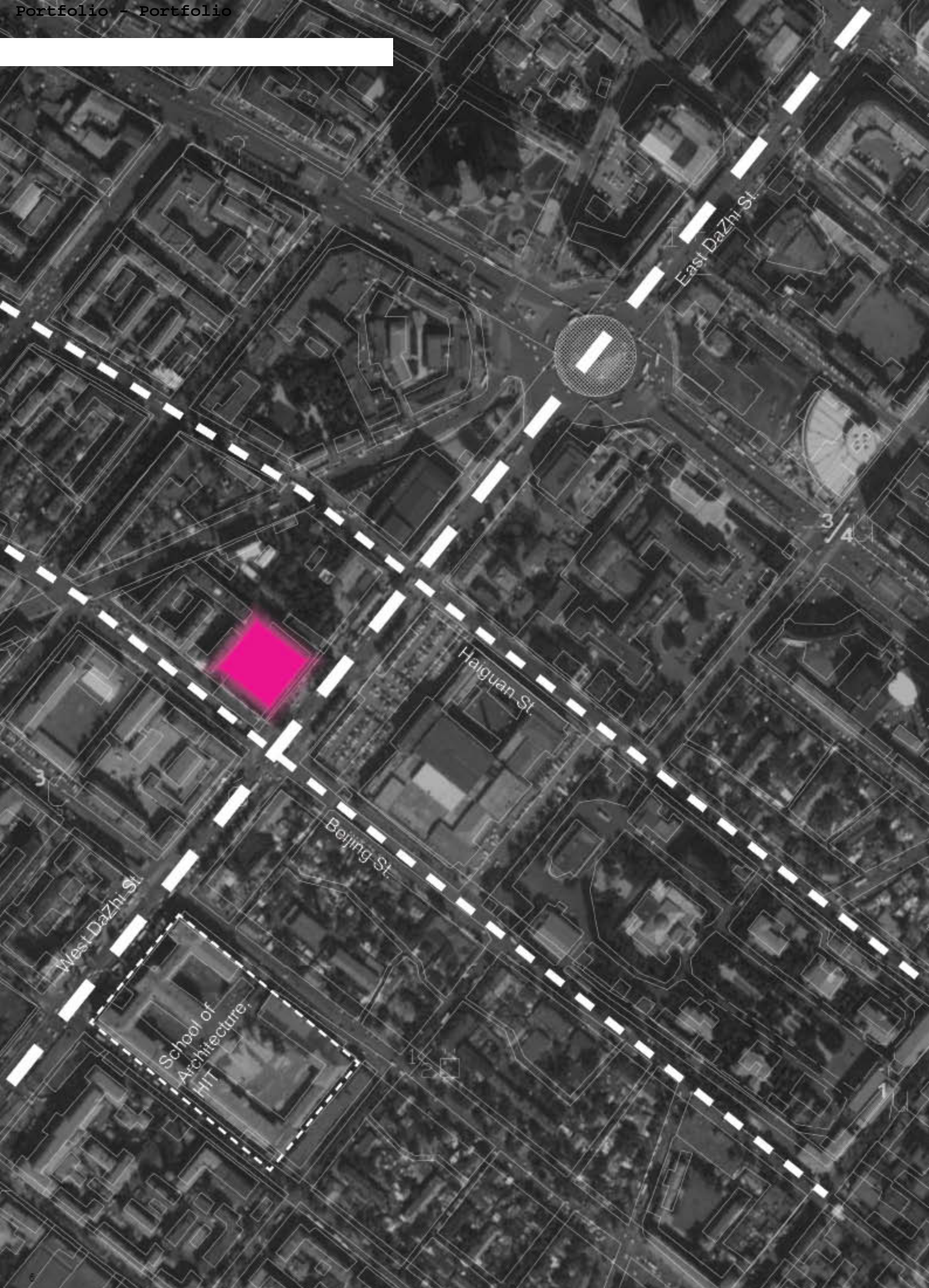
SIZE 8958.5 m²

TUTOR (solo work)

DATE fall, 2011

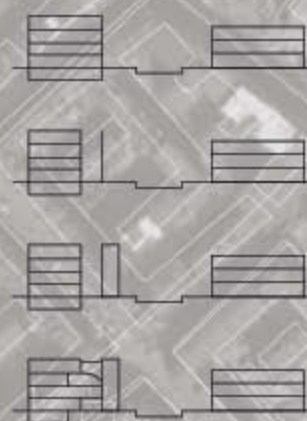
CONSTRUCTION SYSTEM concrete & steel







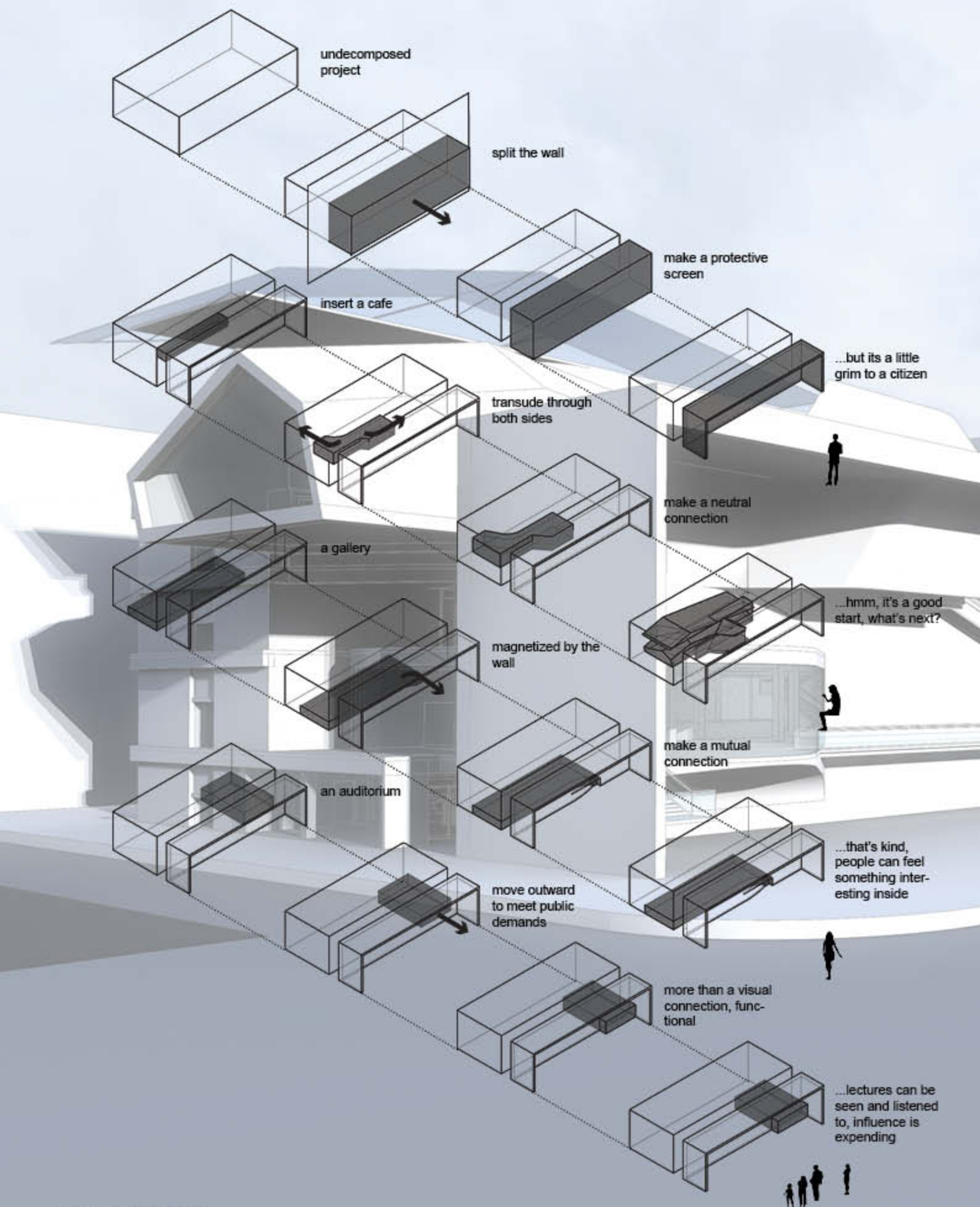
- 1 aerial view from north
- 2 commercial area in the Dahi St.
- 3 a theater in the north
- 4 aerial view from the School of Architecture
- 5 street view in front of the site
- 6 looking to the street from the School

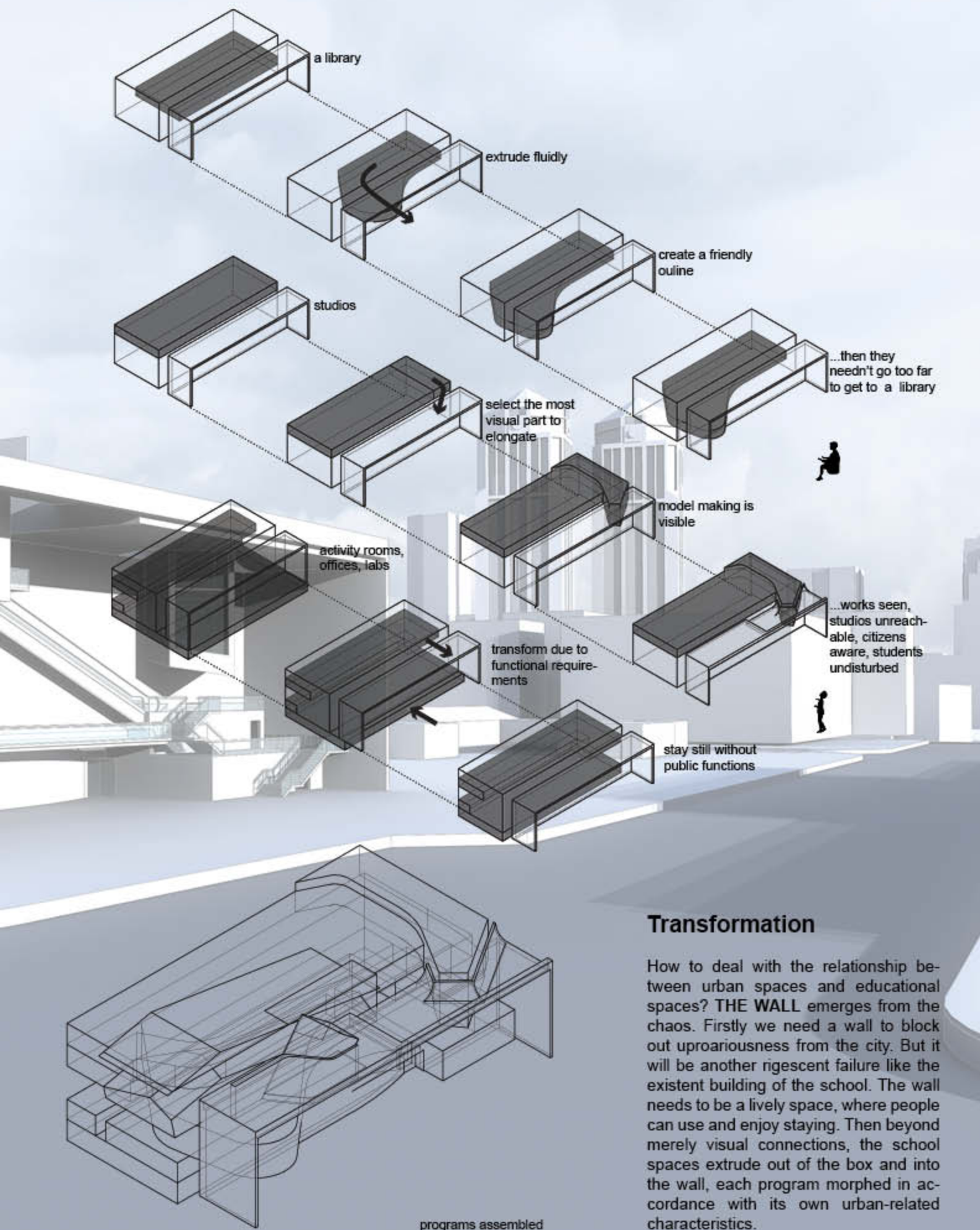


conceptual diagrams

Prologue

The school of architecture in HIT needs a design to meet its requirement of expanding, then part of the students and faculty will be studying and working there. Presently in an old preserved building of eclecticism, the school acts somewhat like a grey monster abruptly in the street. The cold flat profile keeps citizens' willingness of visiting outside. And the rigid interior spaces have confined students' thoughts from being vivid. Since the site is located in an intricate urban context instead of the campus, the main confliction to be solved comes along as how to affect the city through a method of architecture, while keeping people working in the building undisturbed.

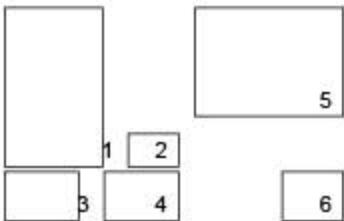
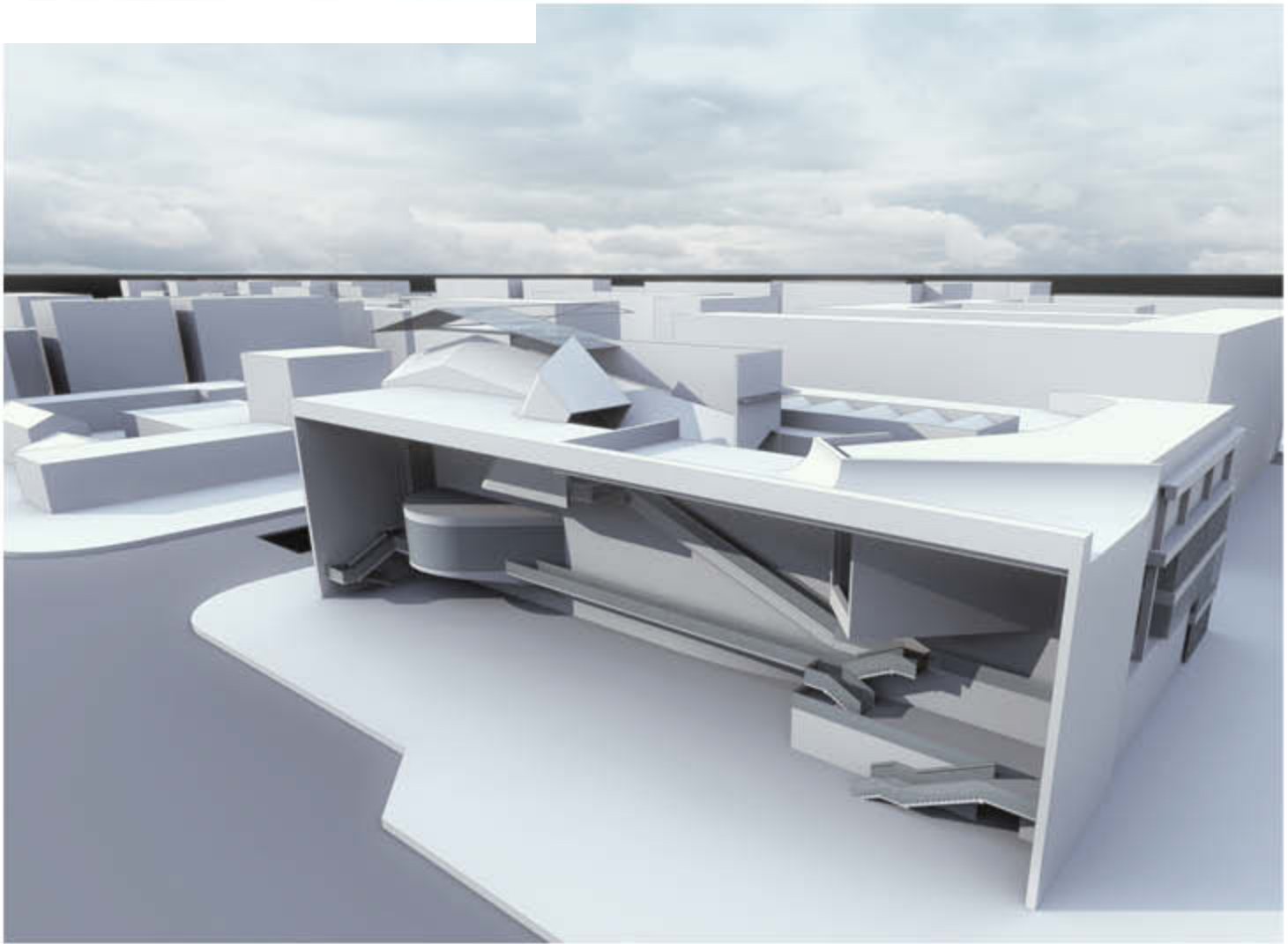




Transformation

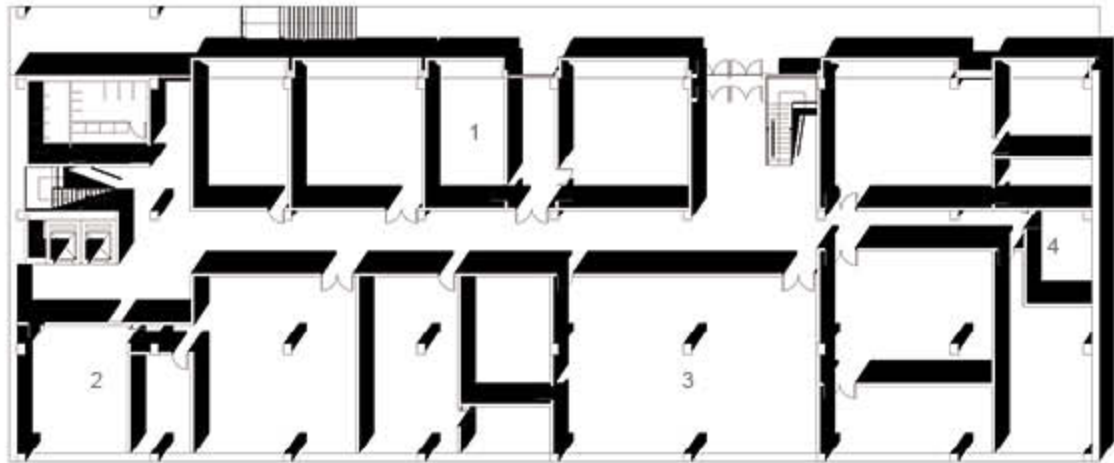
How to deal with the relationship between urban spaces and educational spaces? **THE WALL** emerges from the chaos. Firstly we need a wall to block out uproariousness from the city. But it will be another resplendent failure like the existent building of the school. The wall needs to be a lively space, where people can use and enjoy staying. Then beyond merely visual connections, the school spaces extrude out of the box and into the wall, each program morphed in accordance with its own urban-related characteristics.





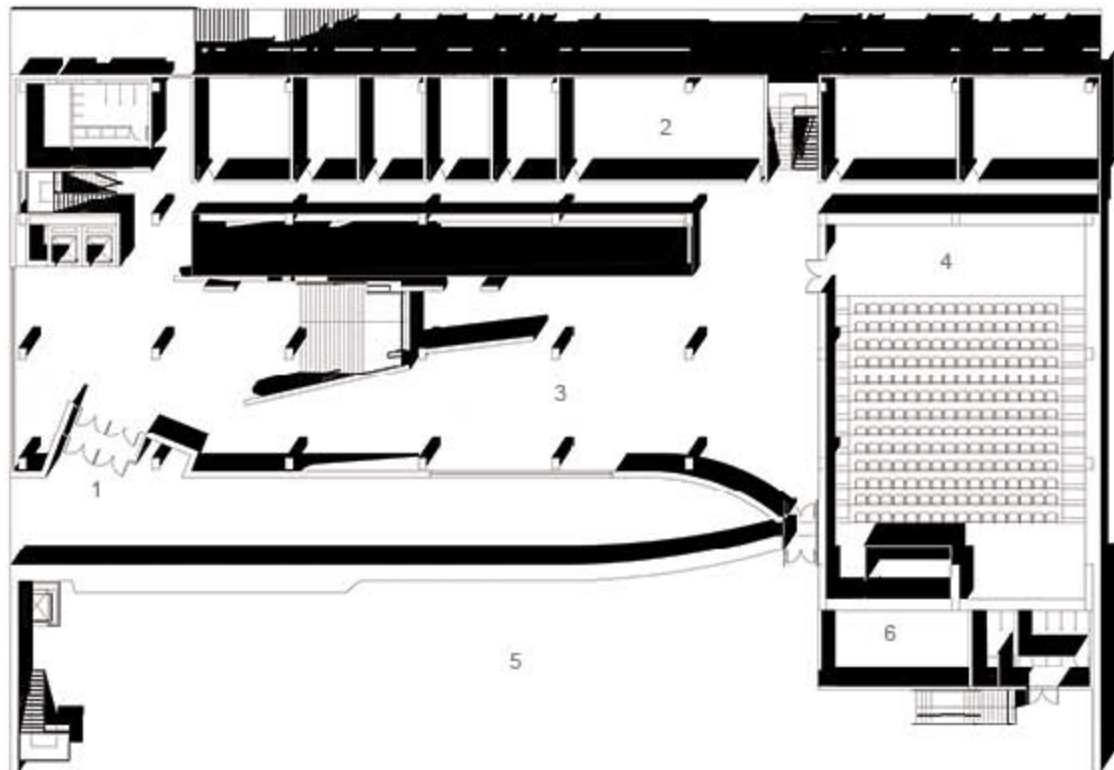
- 1 aerial view from top
- 2 aerial view from front
- 3 sectional view from southwest
- 4 sectional view from northeast
- 5 aerial view rendering with surroundings
- 6 site plan





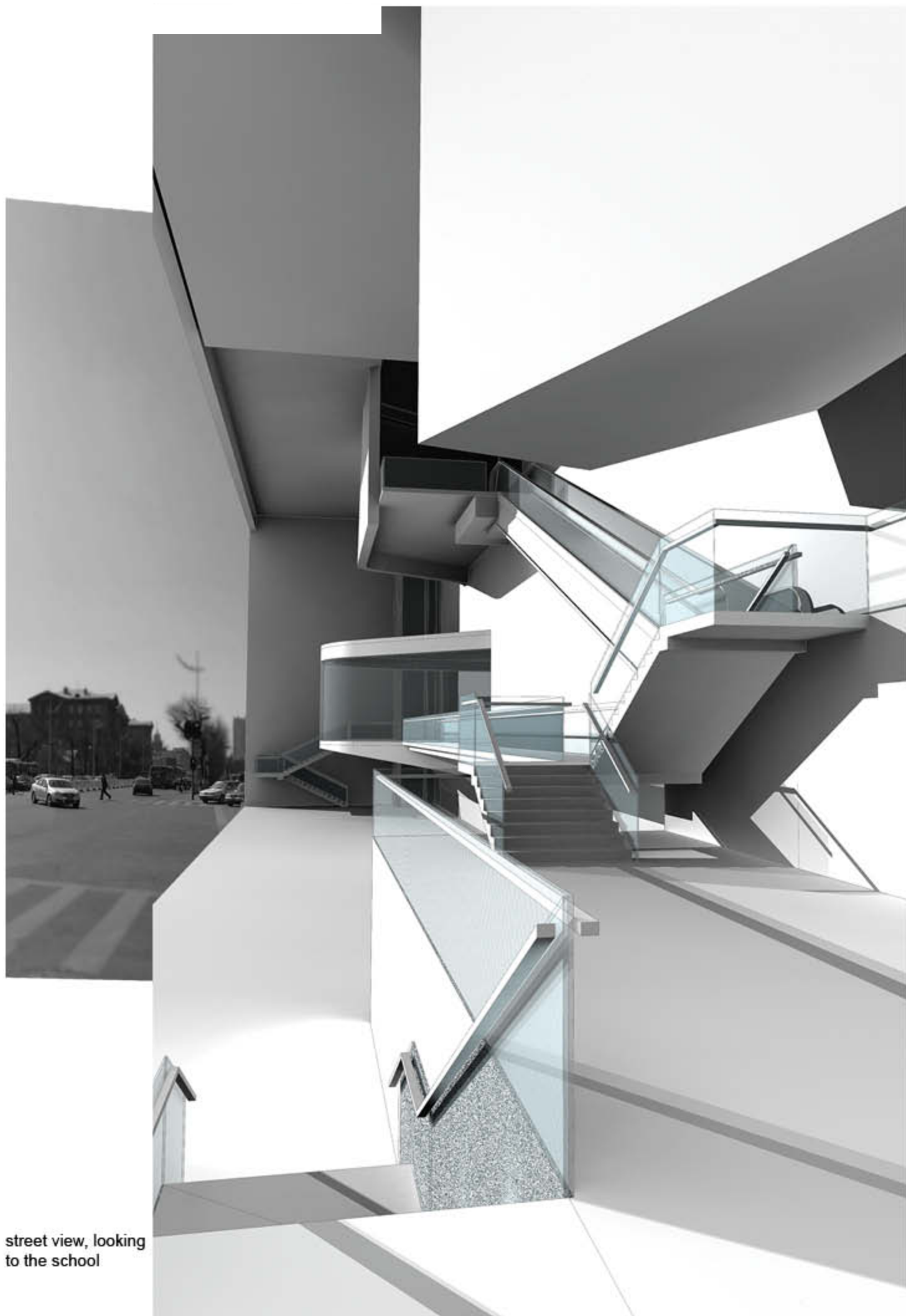
- 1 materials laboratories
- 2 library storage rooms
- 3 architecture study storage rooms
- 4 mechanical rooms

plan b1

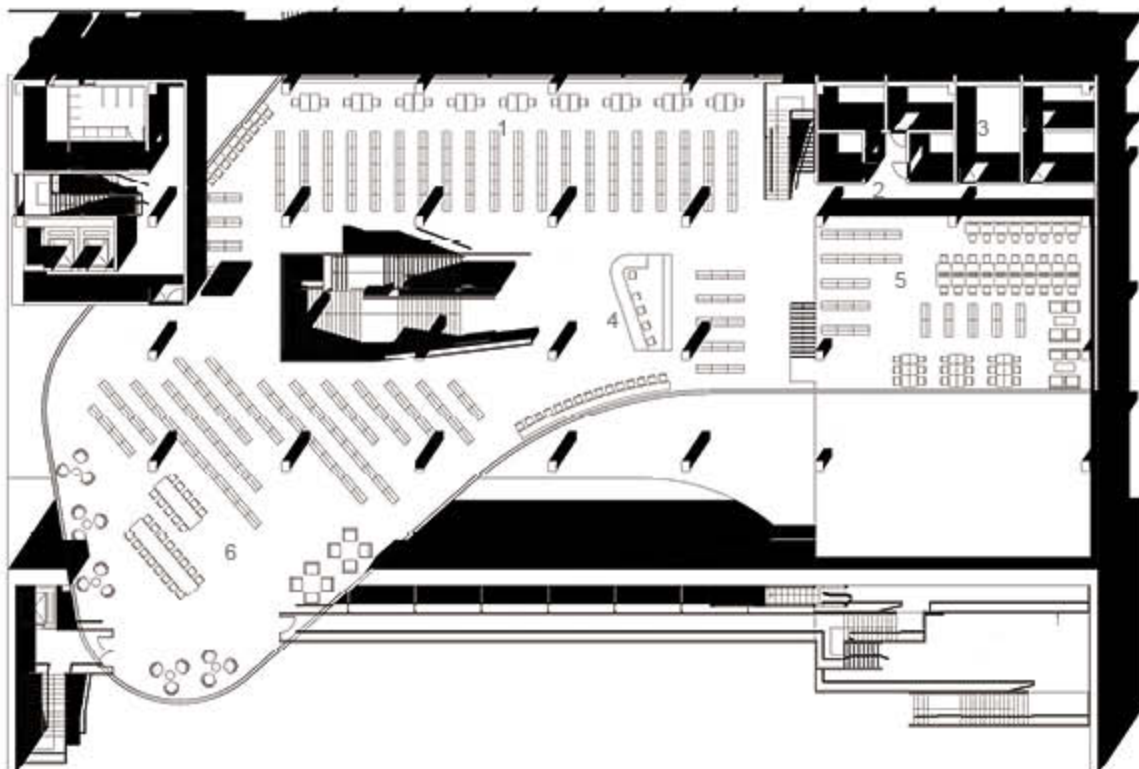


- 1 entrance for the school of architecture
- 2 faculty's offices
- 3 gallery
- 4 auditorium
- 5 the hall for citizens
- 6 kiosk

plan 01

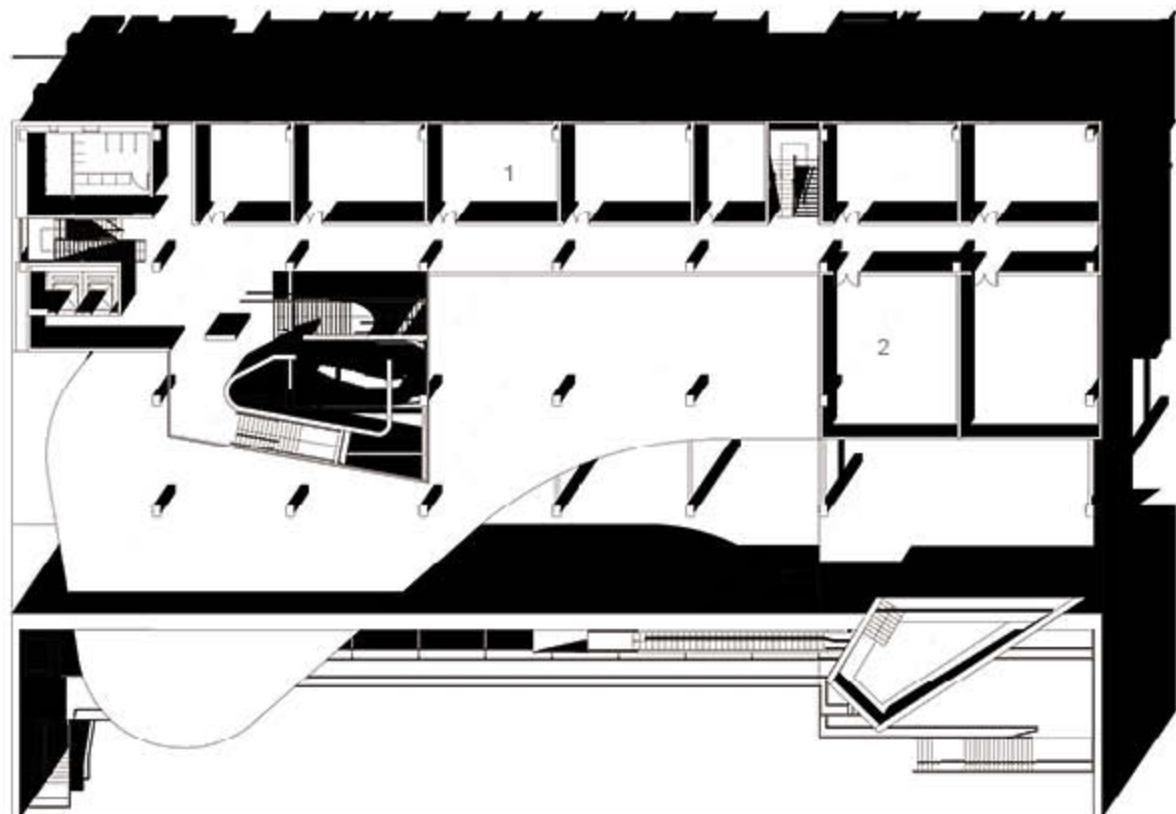


street view, looking
to the school



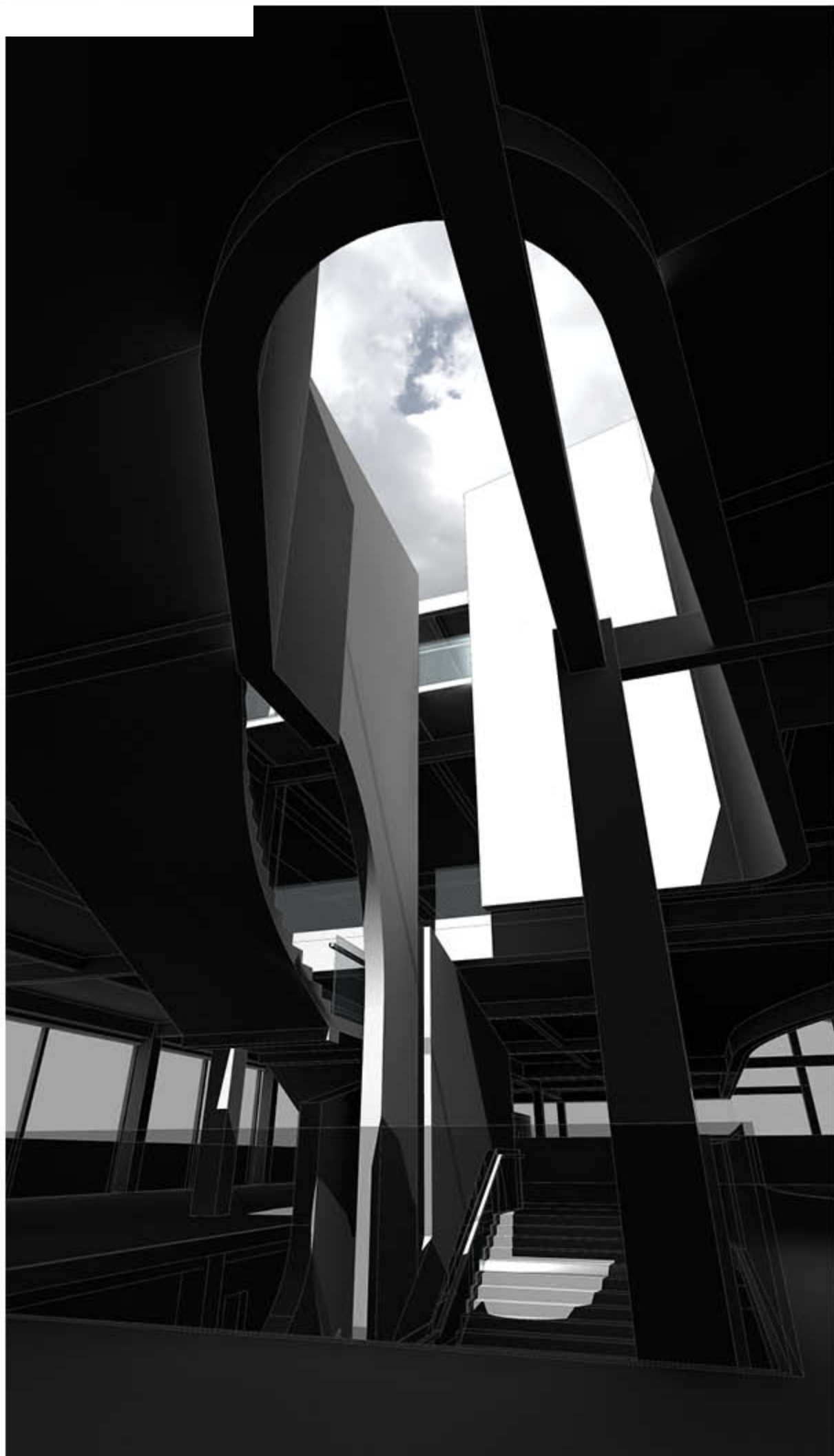
- 1 carrels
- 2 audiovisual materials reading rooms
- 3 librarian's office & scanning/copying room
- 4 reference desk
- 5 electronic resources reading area
- 6 general reading area

plan 02

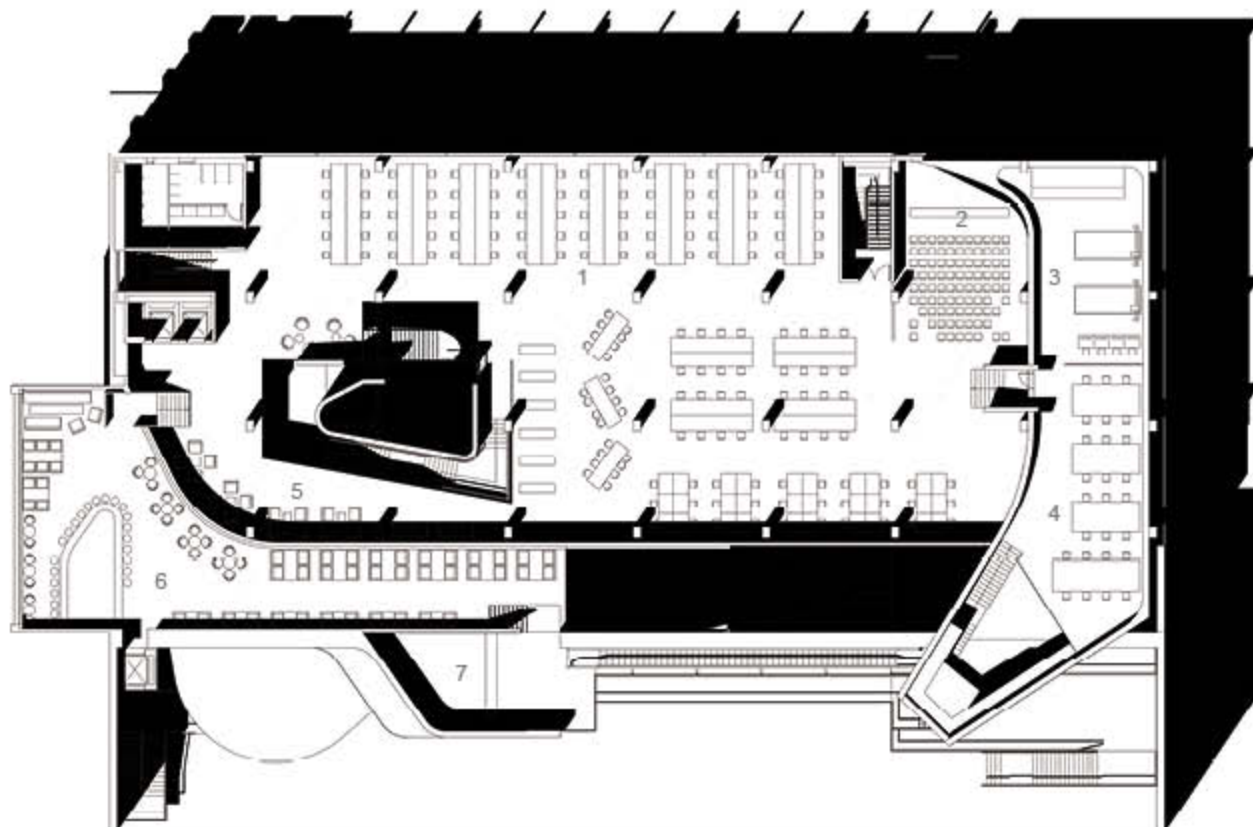


- 1 activity rooms
- 2 classrooms

plan 03

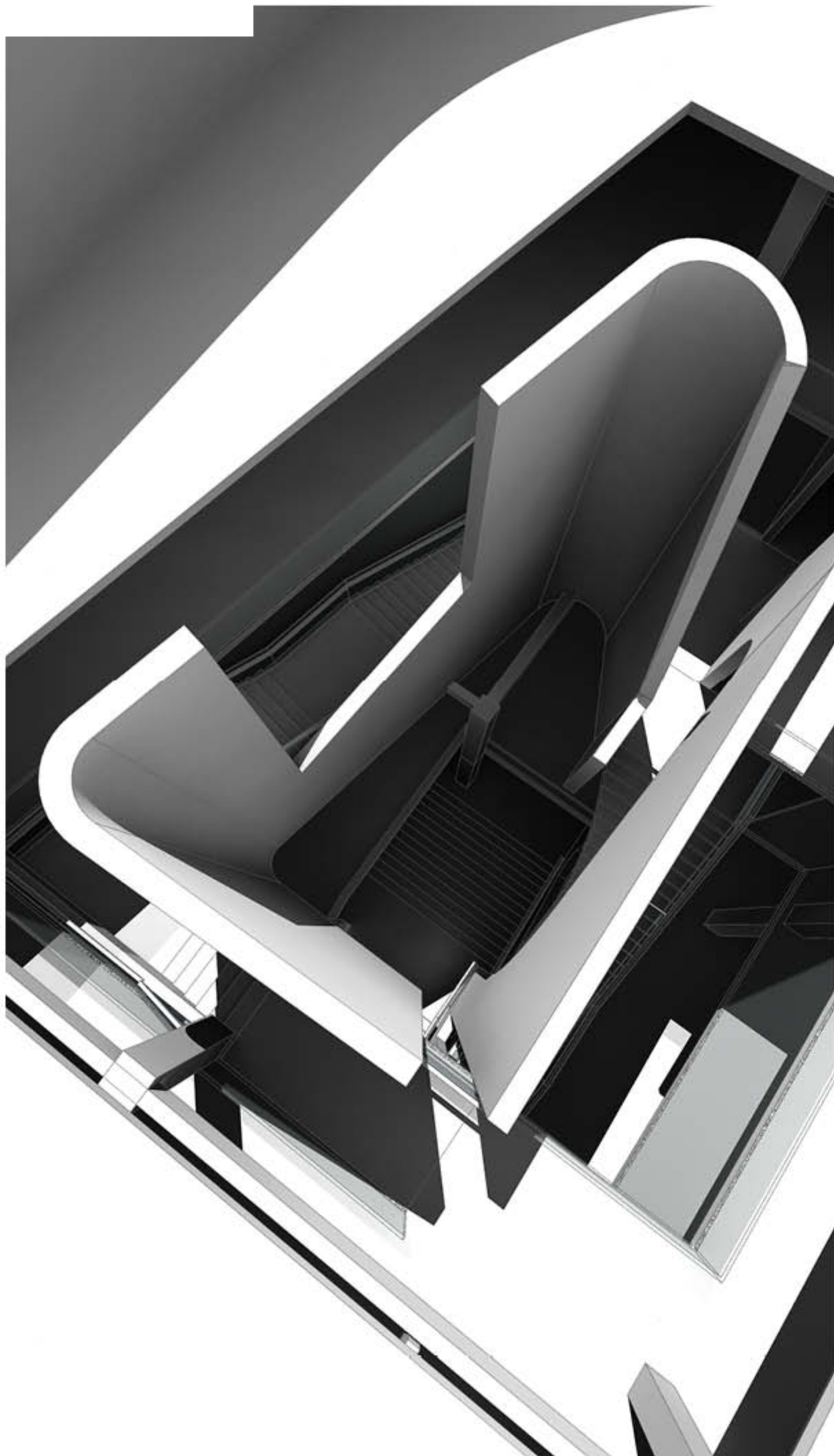


the main staircase,
from library



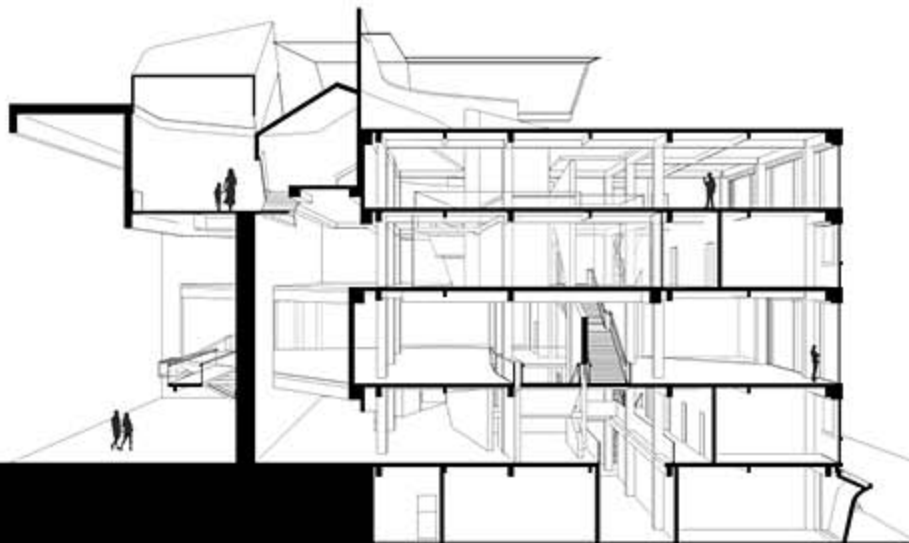
- 1 students working area
- 2 temporary conference area
- 3 modeling machine room
- 4 modeling area
- 5 lounge/small meeting area
- 6 cafe
- 7 kitchen & sale area

plan 04

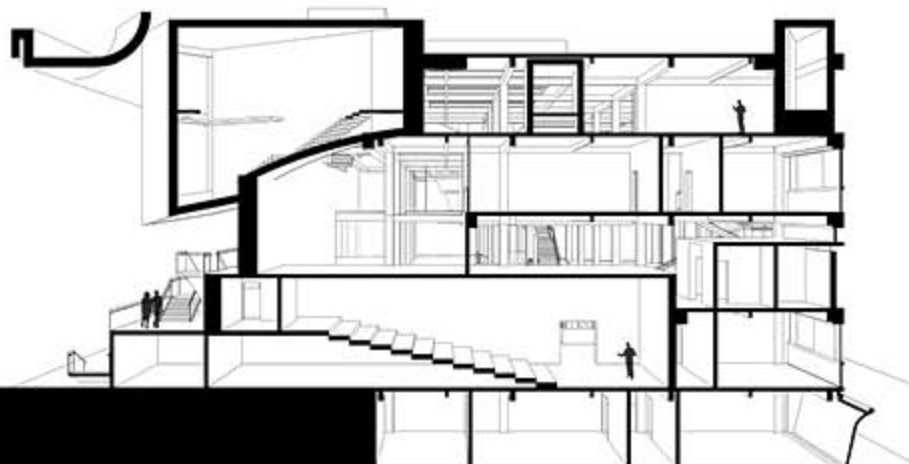


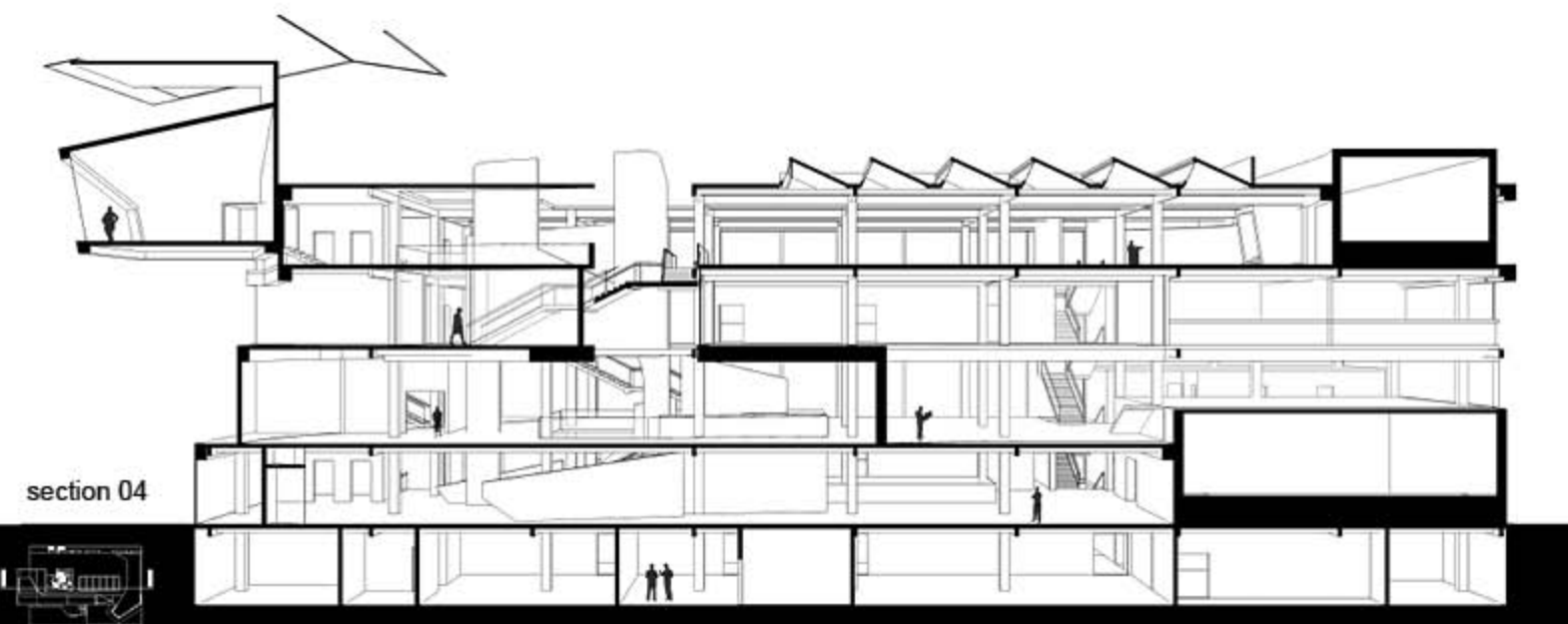
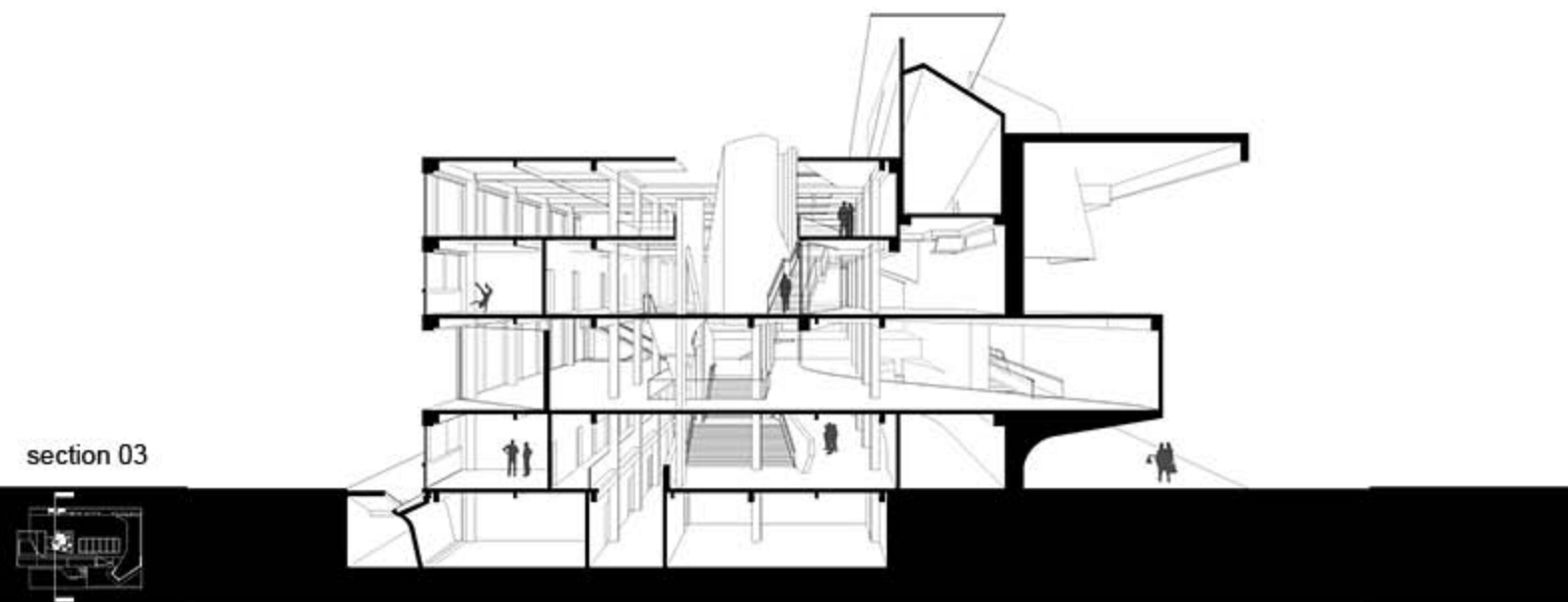
the main staircase,
from roof

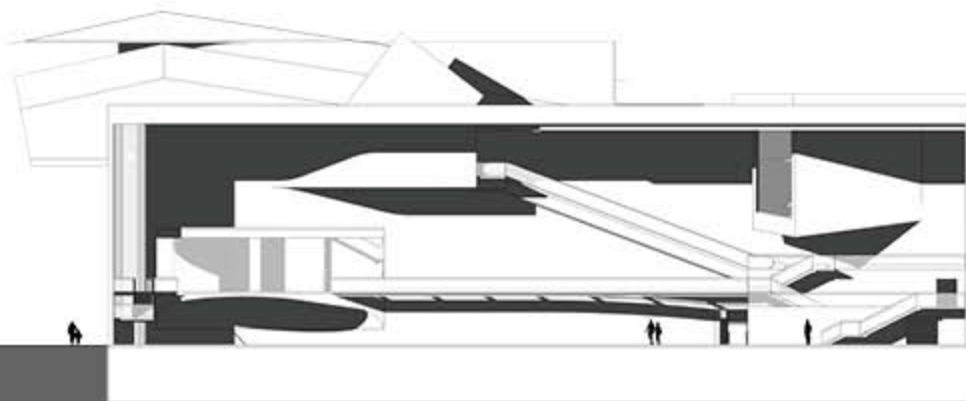
section 01



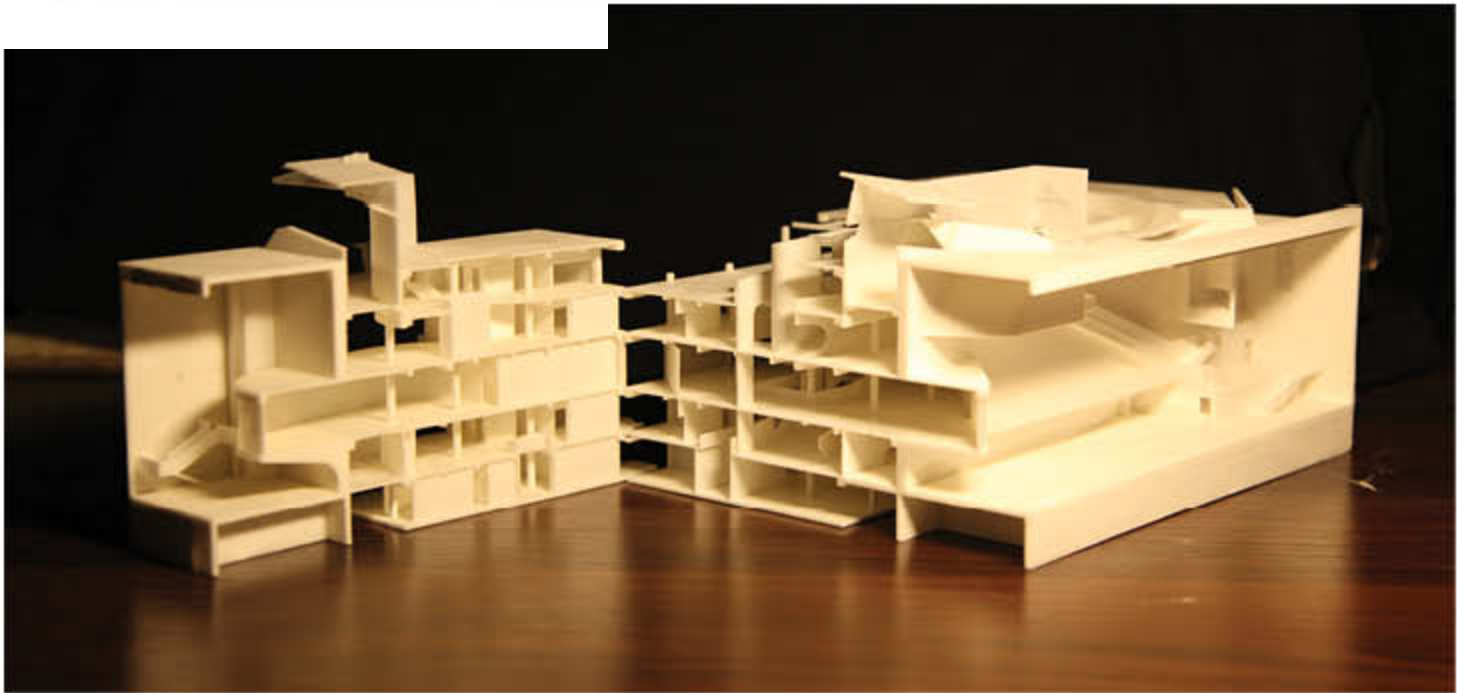
section 02







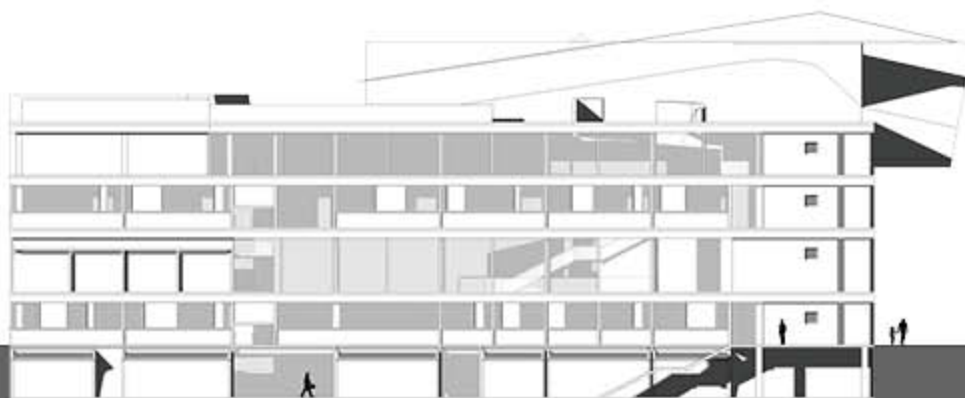
southeast elevation



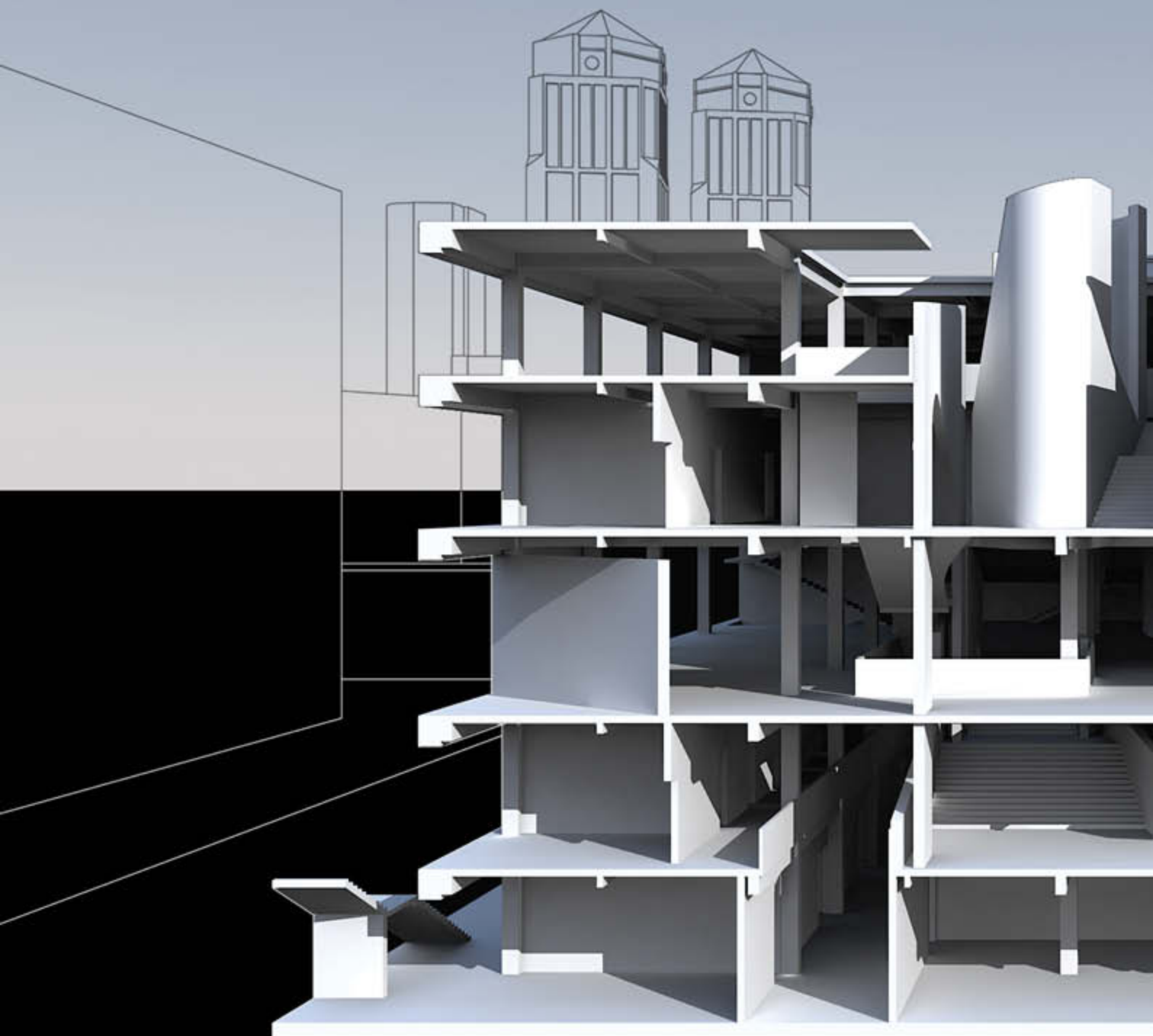
Opposite Page

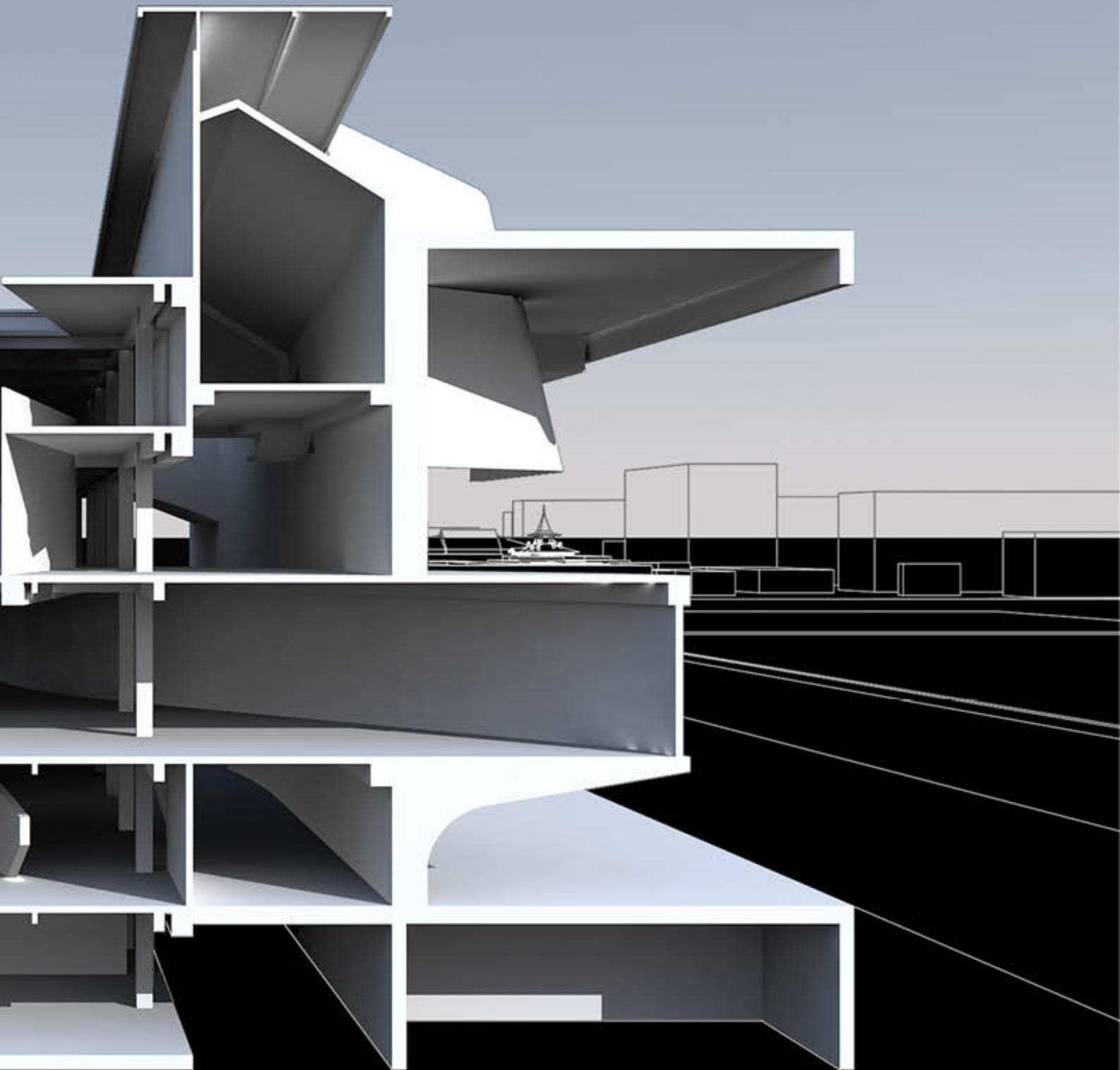
| | |
|---|---|
| | 2 |
| | 3 |
| 1 | 4 |

- 1 continuous spaces of the atrium, from basement to roof
- 2 looking to the cafe entrance on the studios level
- 3 light from sky, on the connection between gallery and the wall
- 4 the main staircase on the ground level



northwest elevation





CITY MEMORY & DRAMA SPACE

TYPE commercial neighborhoods + civic center

SITE Harbin, China

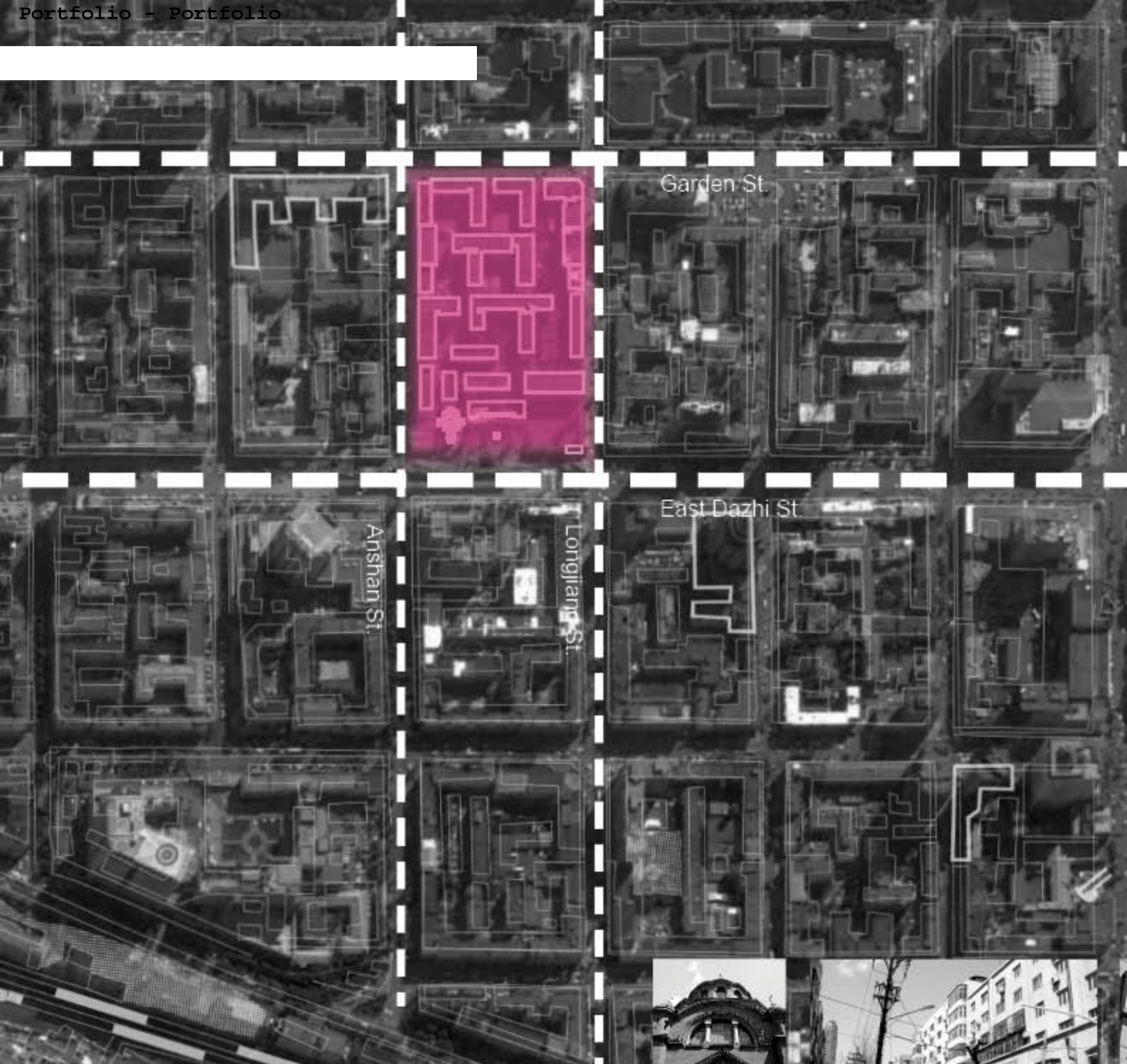
PROGRAM commercial spaces, movie theater, exhibition space, information center, restaurants, game zone, auditorium, workshops, offices, lounge space

SIZE 67916m² (commercial neighborhoods)+5410m² (civic center)

TUTOR Prof. Bu, Chong

DATE spring, 2010





Prologue

This region which is located at the edge of the Nangang District Commercial Area has been growing together with Harbin City for decades. One important part of the metropolitan area is a church still in use; a very famous middle school has been standing here since the 1970's; also, most residences which are gradually constructed as time goes by are out of protection. The renovation is arisen because of the construction of a subway station. As the urban development required, this block would turn into a new complex, and become an extension of the existing commercial area. Therefore, a proposal of demolishing and constructing is needed.

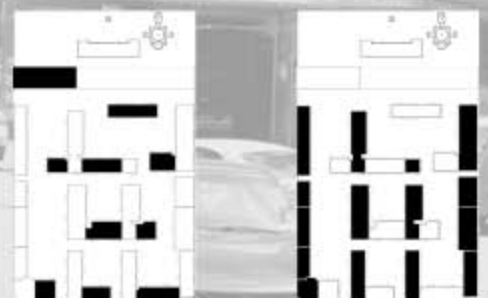




Proposal

The memory of a city is not in the city annals, nor in a mayor's diary. The memory lies deeply in the bottom of every person's heart who are spending their life living and working in this place. A house is very important to an individual, but maybe no more than a merchandise to the rest. After carefully observing the habitants, some of whom have been living there all their lifetime or were born in this area, I decided to find a gentle method to continue. It seemed too radical to remove any part of the houses, and too abrupt to build anything new without considering the people. Consequently, in this design I tried to protect those buildings which are "not worthy to remain" in politicians' eyes-those old apartment buildings.

Renovations are to make life better and are not recklessly cutting the old and thrust with something new. Yet the city is moving forward, so the balance needs to be maintained. Preserving the facade is the way I chose to save the space, but there still had to be a civic center. A new building with such big size would undoubtedly make



Insert small private spaces, e.g. work shops, offices, hotels

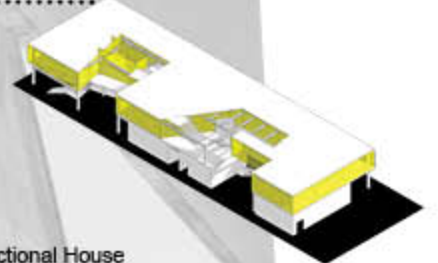
Insert public spaces, e.g. stores, banks, post offices



some apparent effects to the block. Then the solution came out to be disintegrating the considerable hulk. Different functions were distributed into each court and transformed with different site forces. None of them were too large to be outstanding. Every functional member was used to be a stage to make interactions with the old houses. They together became drama spaces, where citizens would be able to play their own roles.

Integrated Form

Restaurants & Cafes



Multi-functional House



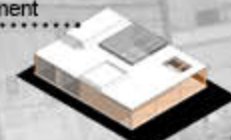
Game Zone & DIY Lab



Movie Theater



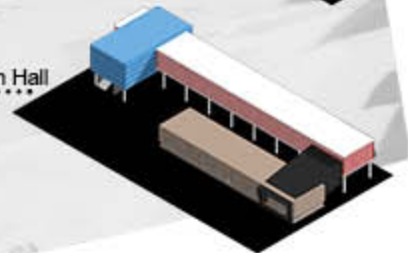
Management



Information Center



Exhibition Hall



From left to right:

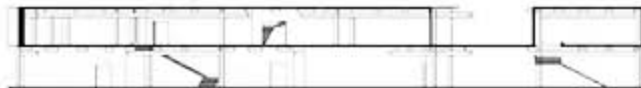
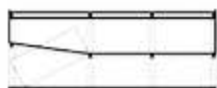
Multi-functional House, Restaurants & Cafes, Management, Exhibition Hall, Game Zone &
DIY Lab, Information Center, Movie Theater

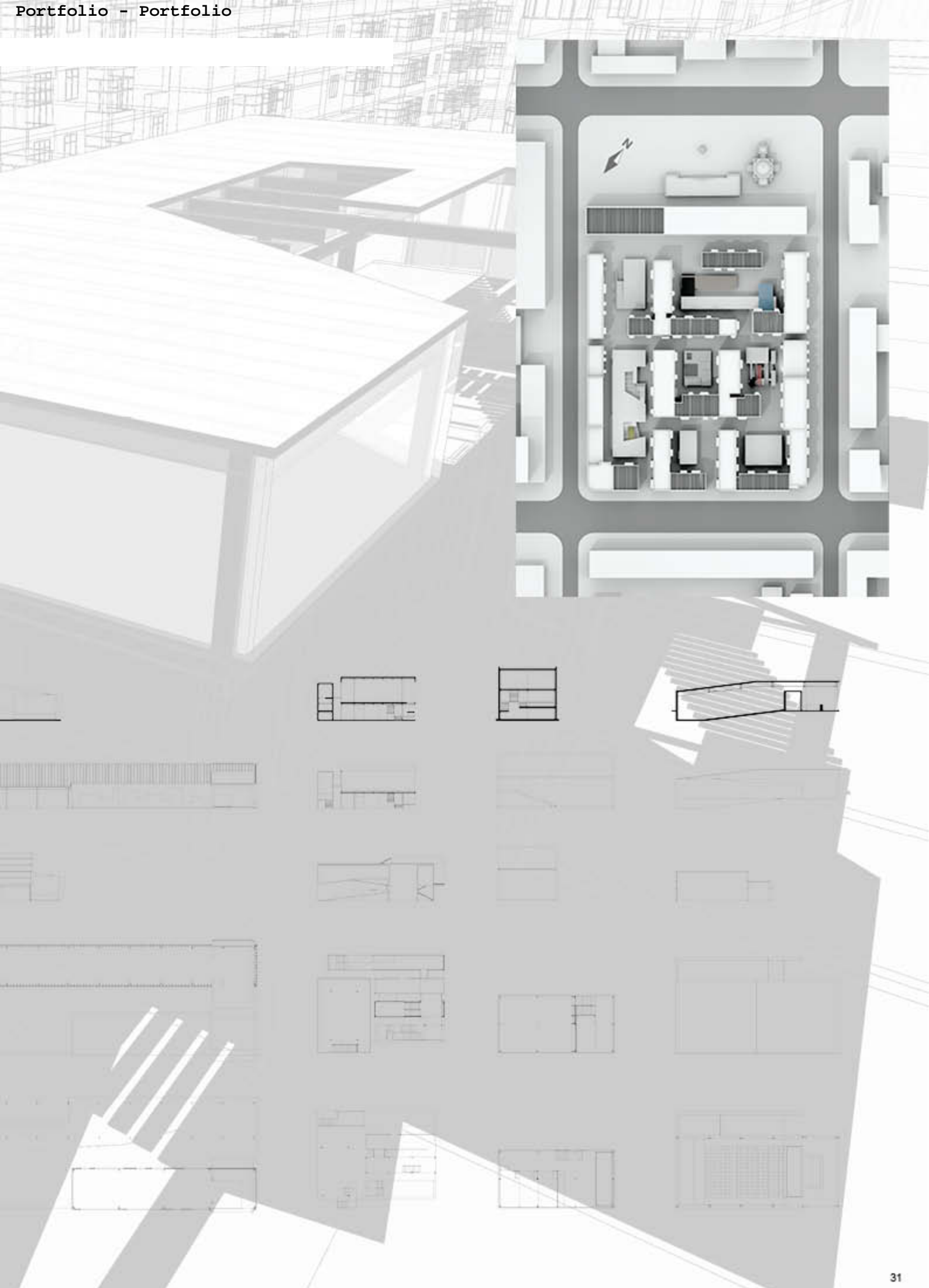
From top to bottom:

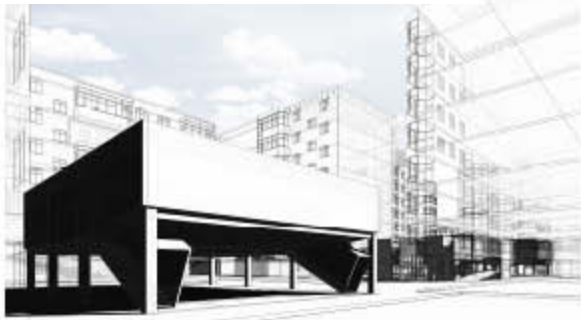
Section, Facade 1, Facade 2, 2nd floor plan \ Roof plan, 1st floor plan

Opposite page:

Site Plan



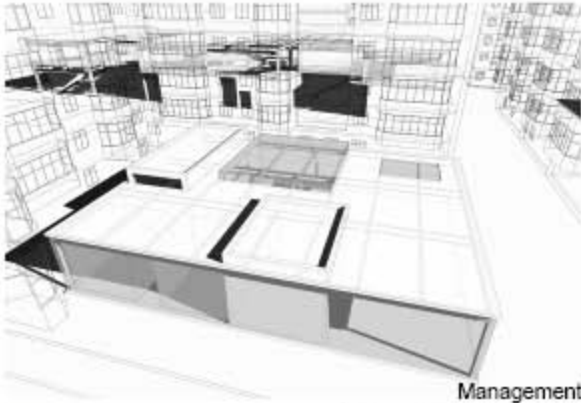




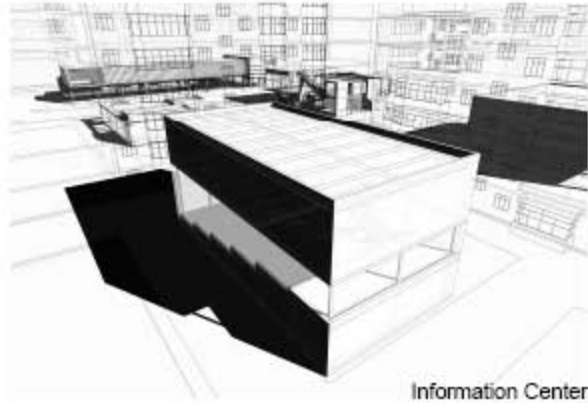
Multi-functional House



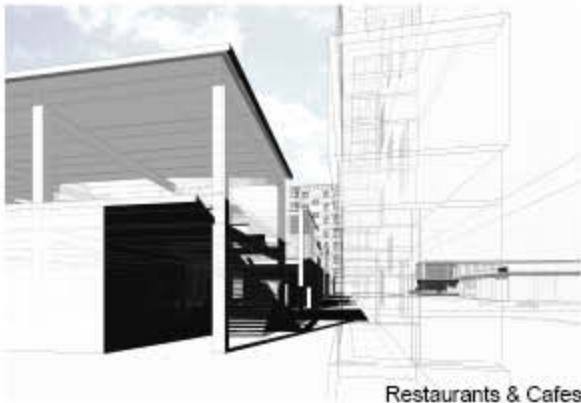
Game Zone & DIY Lab



Management



Information Center



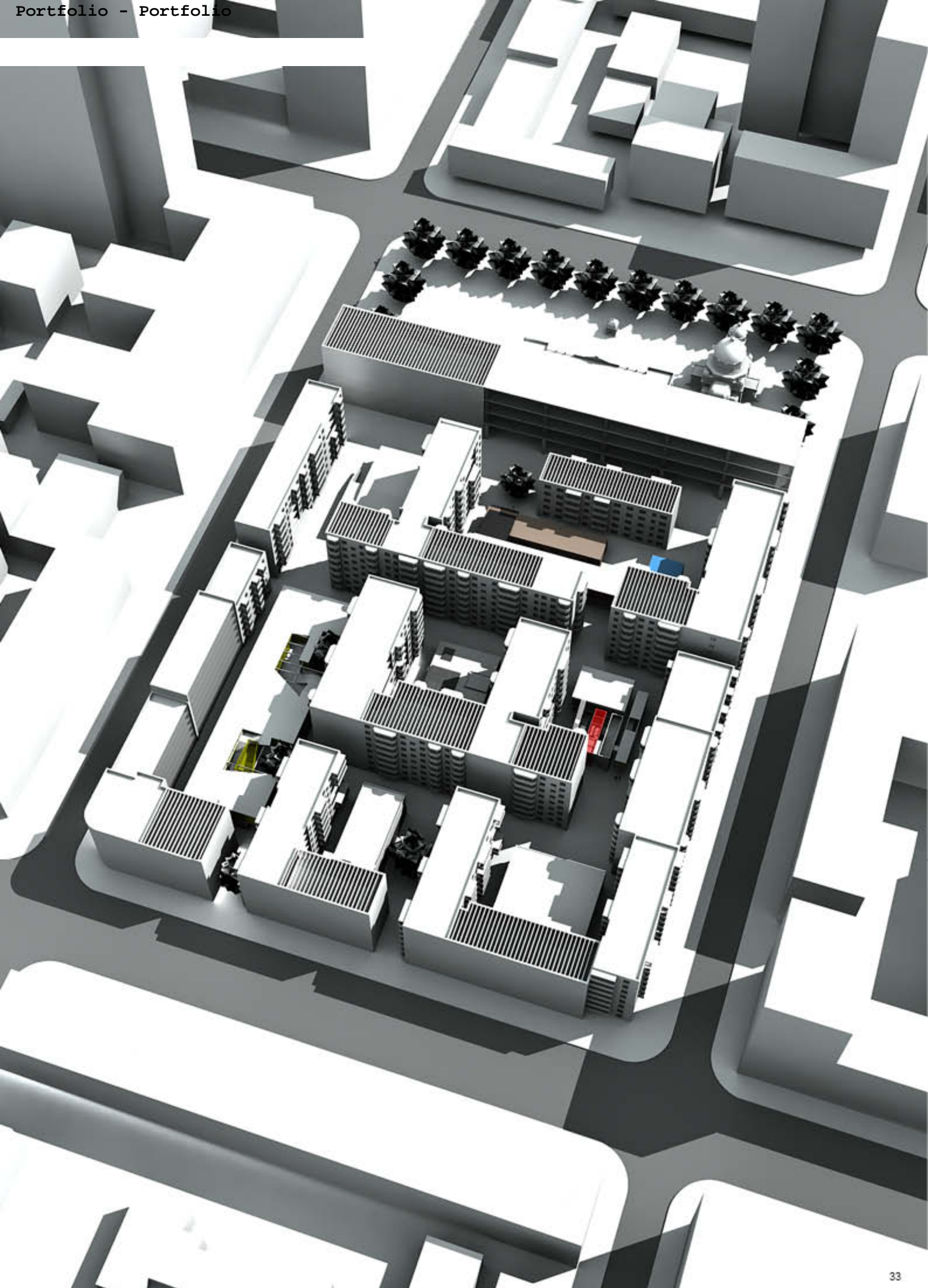
Restaurants & Cafes



Movie Theater



Exhibition Hall



CELEBRATION OF BAYONNE

TYPE habitable bridge

SITE Bayonne, France

PROGRAM houses, commercial space, bycle parking, restaurants, exhibition space, offices, auditorium, lounge space

SIZE 25701m² (plaza)+25950m² (bridge)

TUTOR Prof. Dubosc, Eric and Prof. Bai, Xiao-peng

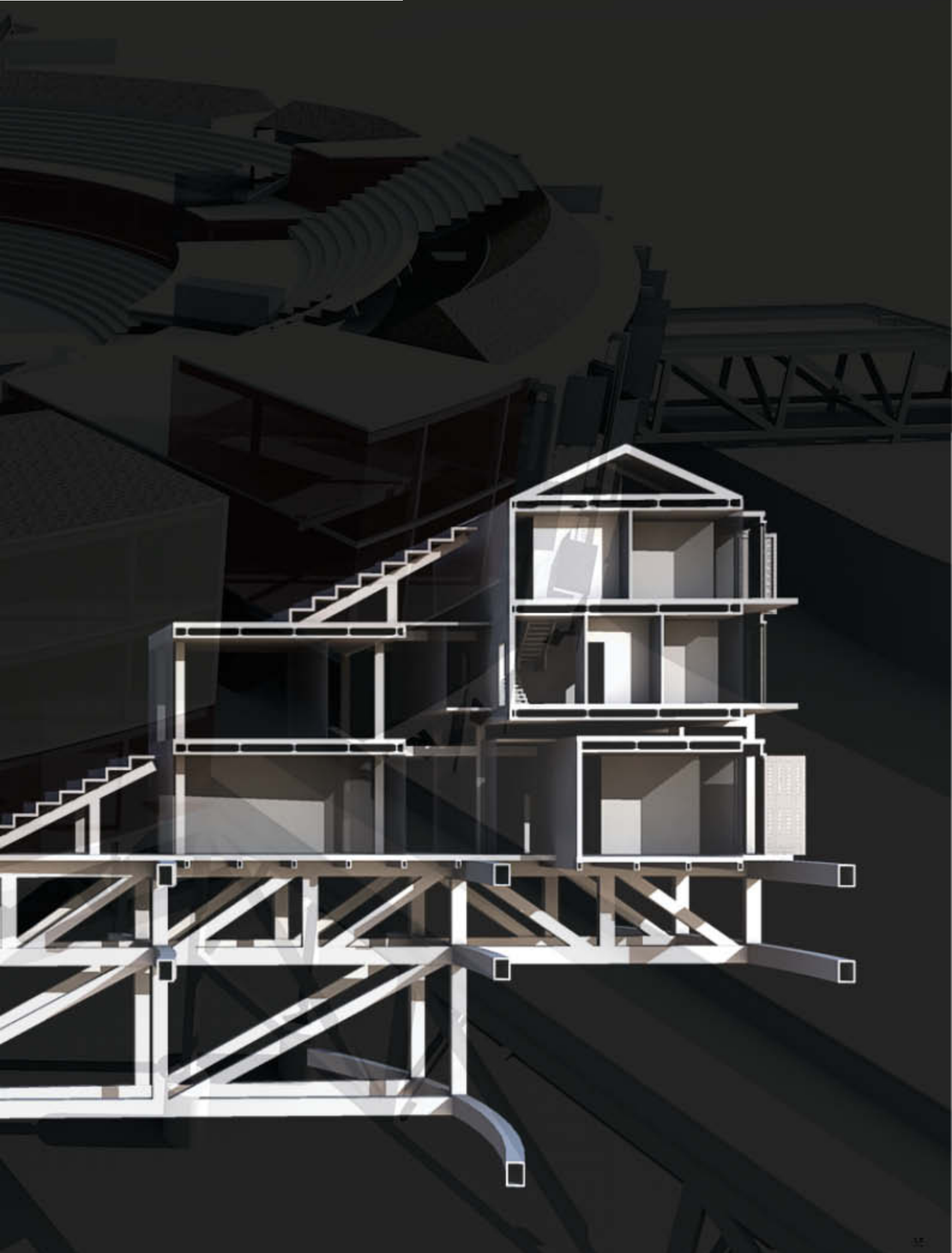
COLLEBRATOR* Ma, Yuanhong and Han, Dan

DATE fall, 2010

CONSTRUCTION SYSTEM steel

* This is a two-phase project. As the team leader in the 1st phase, my part includes: concept, plans, modeling and rendering. The 1st phase ends up at the 1st process model. Works displayed in the portfolio except the 1st process model are solus and of the 2nd phase.









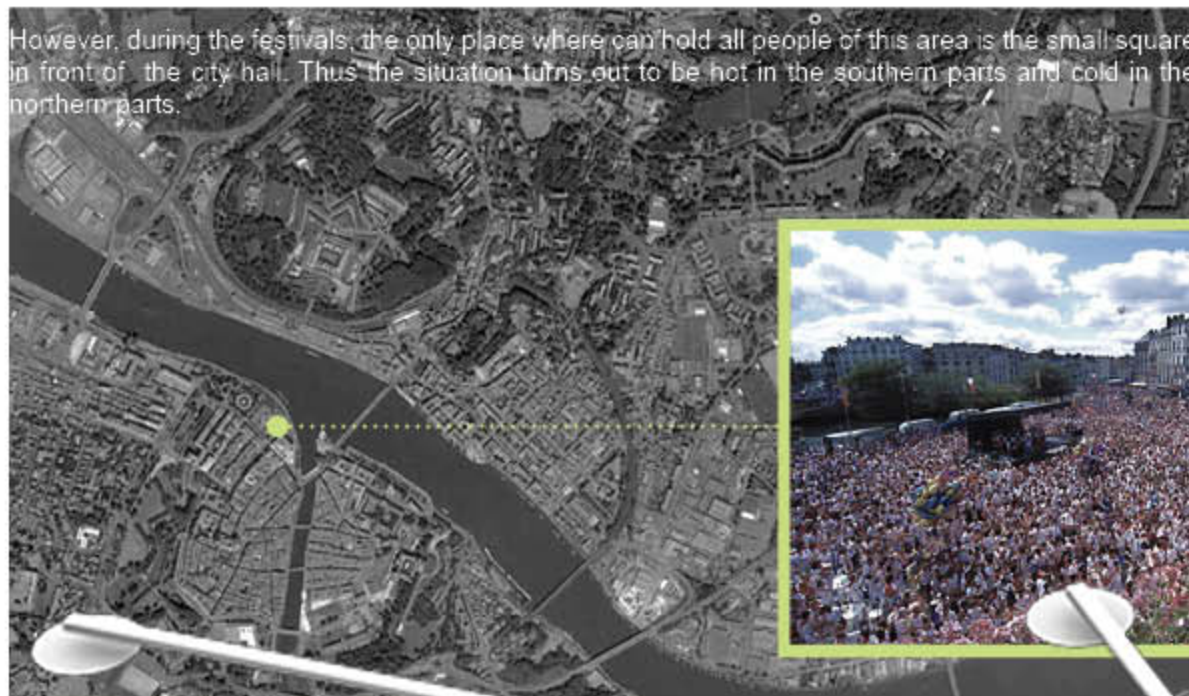
Prologue

This design of habitable bridge begins with the purpose of joining separate parts of Bayonne, which is a beautiful city in south-western France at the confluence of the Nive and Adour rivers. Bayonne is divided into several parts by these two rivers- Grand Bayonne, Petit Bayonne, Saint-Esprit, etc. More connections are needed to unite the whole urban area, due to problems in the city's development, the extension of the railway station, and imbalance in economic growth. Therefore, the purpose of this project is to integrate scattered urban area with a variety of possibilities.

Fêtes de Bayonne

The Fêtes de Bayonne is a series of festivals in the Northern Basque Country in the town of Bayonne. The festivals last 5 days and they are the largest festivals in France. In the eighties, participants started to dress in white with a red scarf and a red belt after the colors of the city of Pamplona. The festivals include musical and street performances, traditional dances, parades, and fireworks.

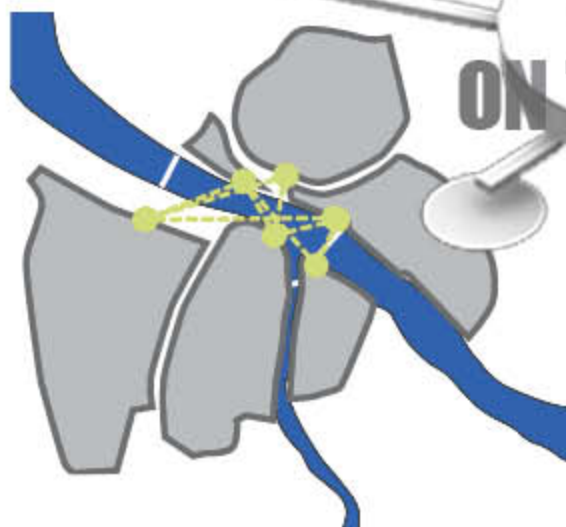
However, during the festivals, the only place where can hold all people of this area is the small square in front of the city hall. Thus the situation turns out to be hot in the southern parts and cold in the northern parts.



Connections

Isolated parts are needing connections. The increasing requirements of communications between them are more than those present bridges could undertake. Consequently, we are searching the best way of connecting, which may stimulate the activities amongst these regions to the highest level.

No boats are sailing now in the section between Pont Grenet and Pont Saint-Esprit in the Adour River. That indicates more possibilities to raise the design.



**A HUB
ON THE RIVER**



Site Plan



Piazza di Spagna, Roma



Place de la Concorde, Paris



Piazza del Campo, Siena



Piazza San Marco, Venice



Piazza San Pietro, Roma



Trafalgar Square, London



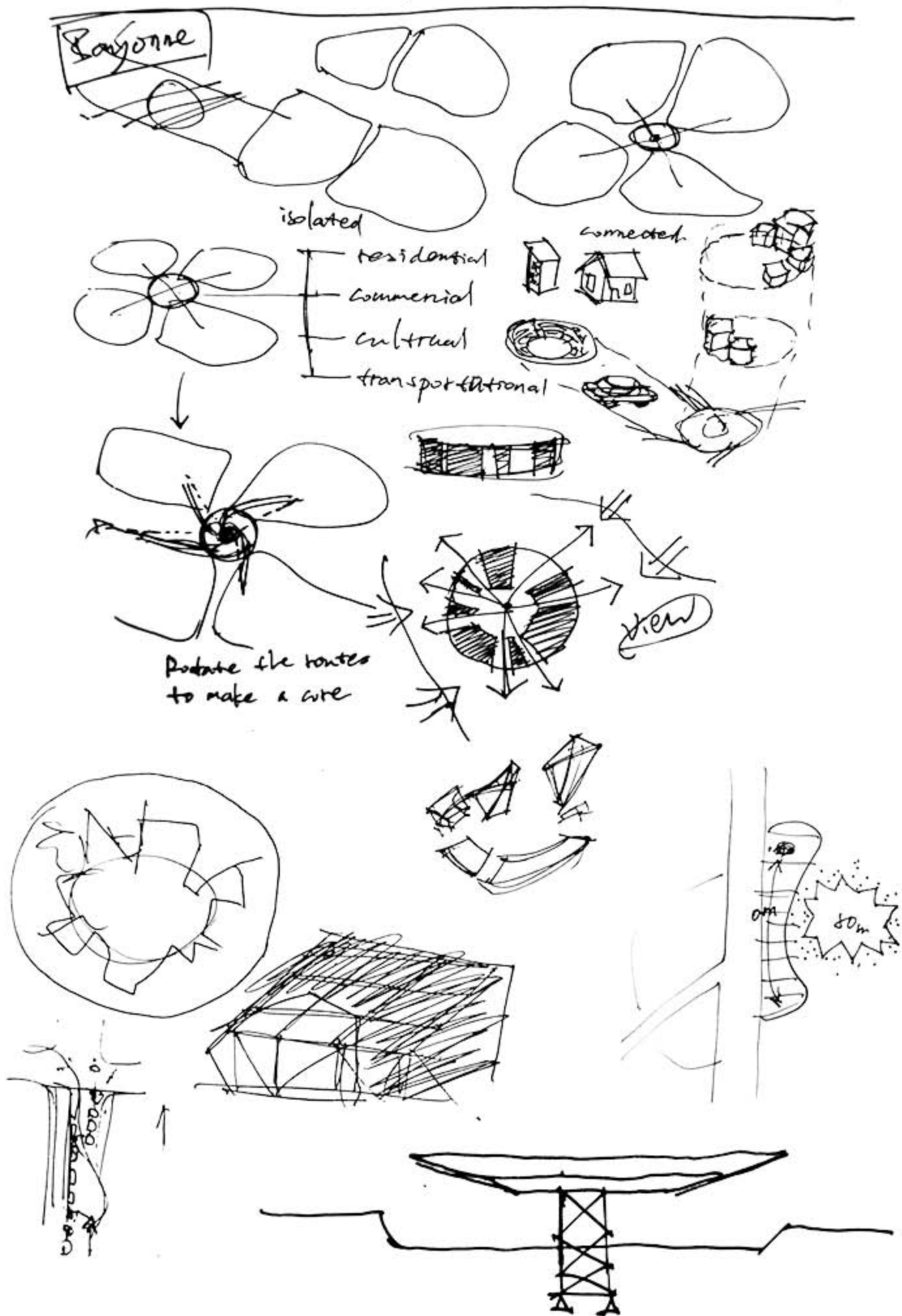
Times Square, New York

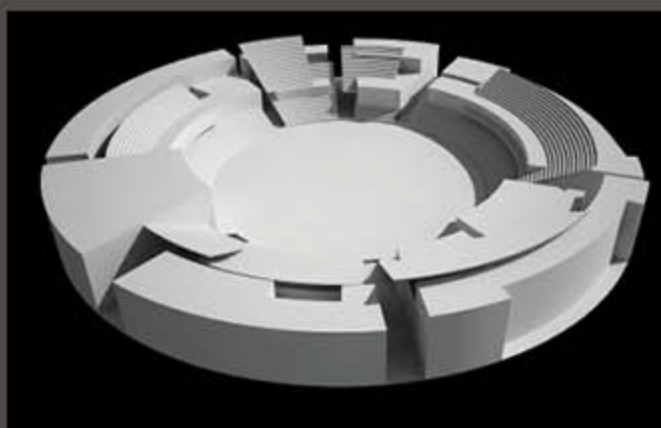
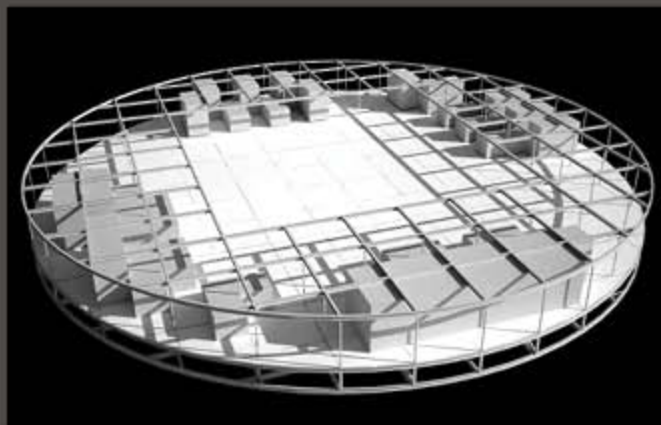
Scale Comparisons with Other Plazas

Space Logic

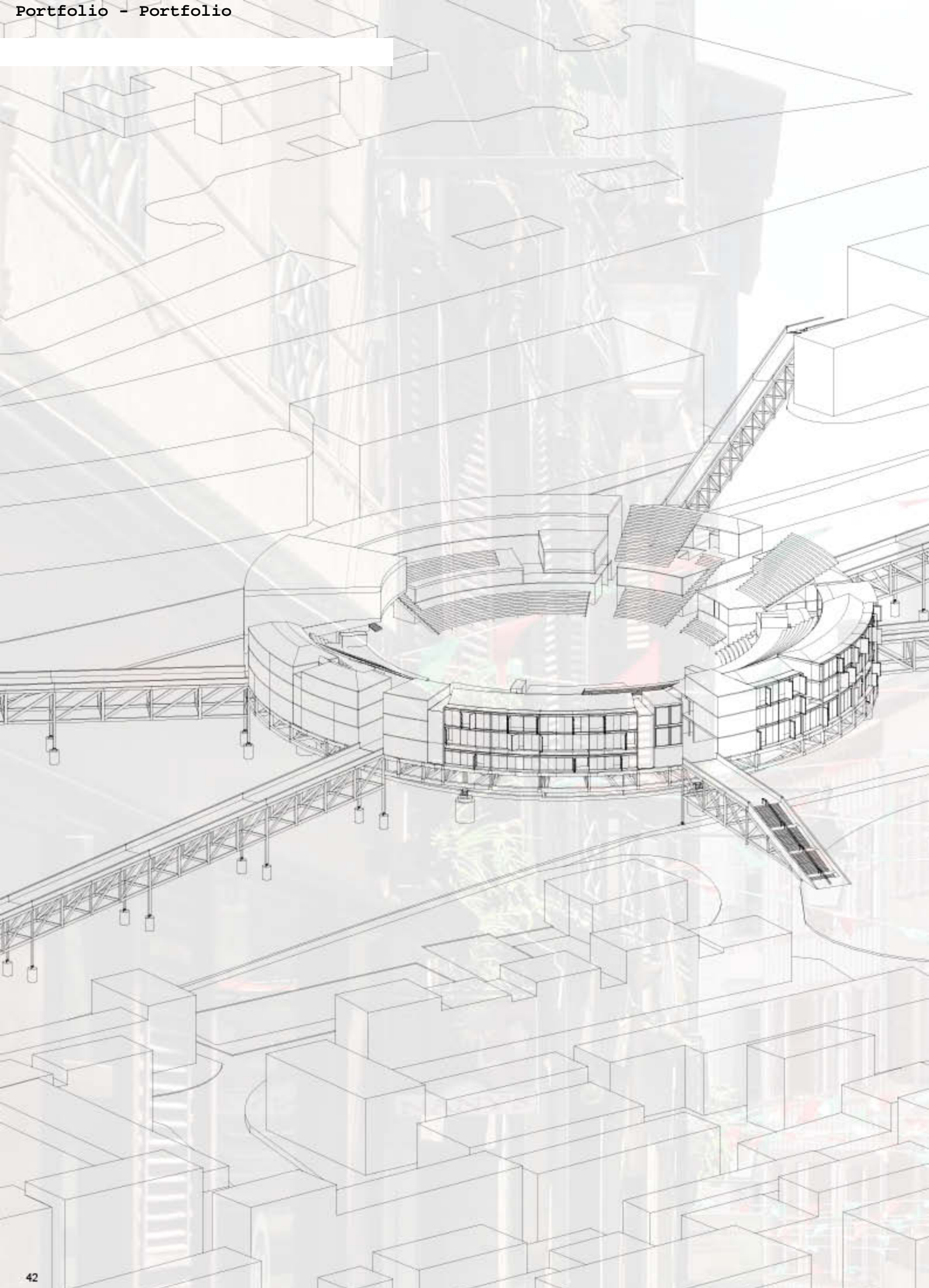
Studies on the textures in Europe cities brought about the logic of creating the hub space. Streets with a feature of centrality would lead people to the core, and a circular form of the core causes disappearance of directionality. As a result, citizens gather from all around the city and interact each other in the hub. Concerning the facade, we need to make a familiar and attractive outward appearance to stand in the city, just as the old Romans did.







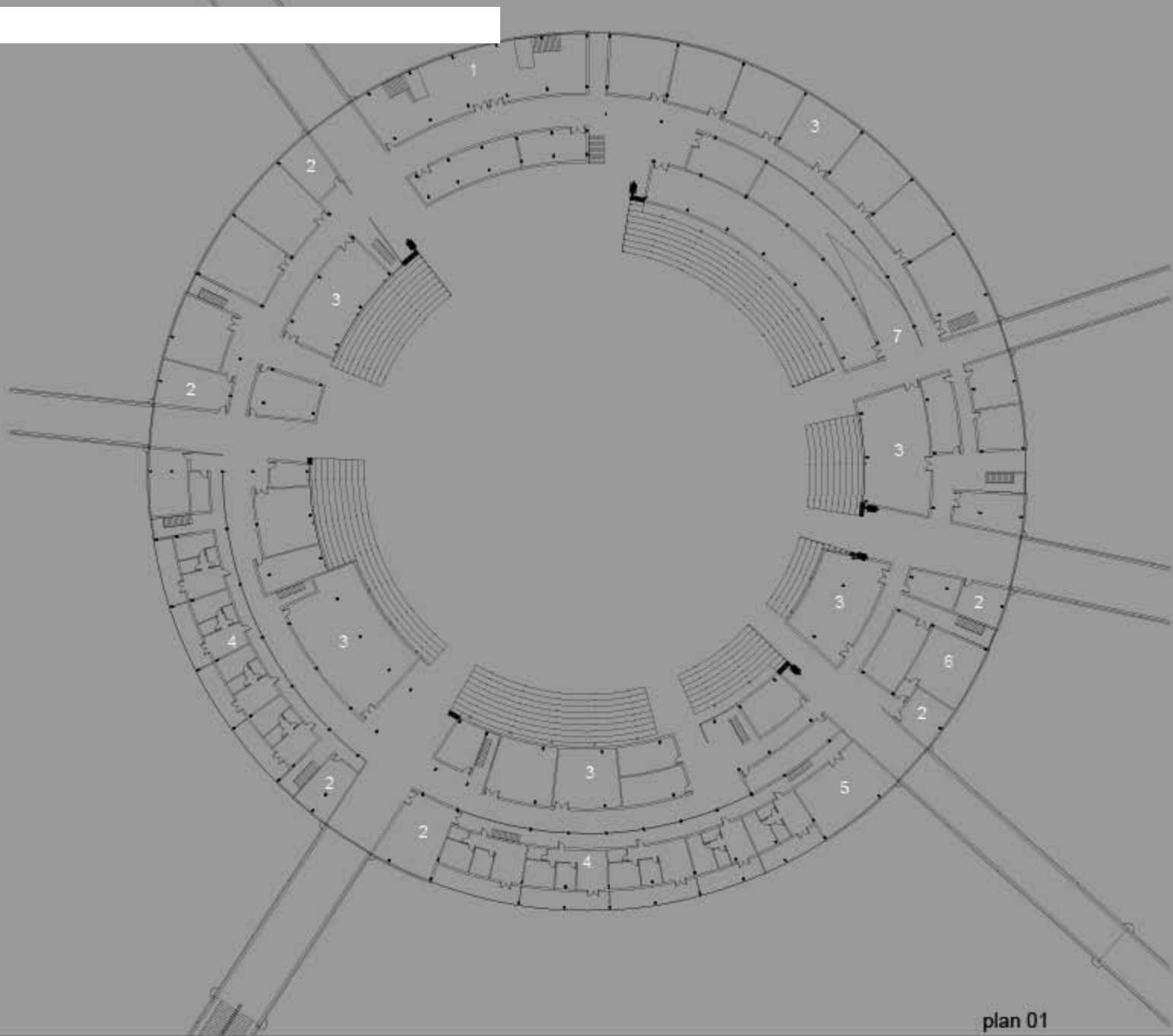
Process Models





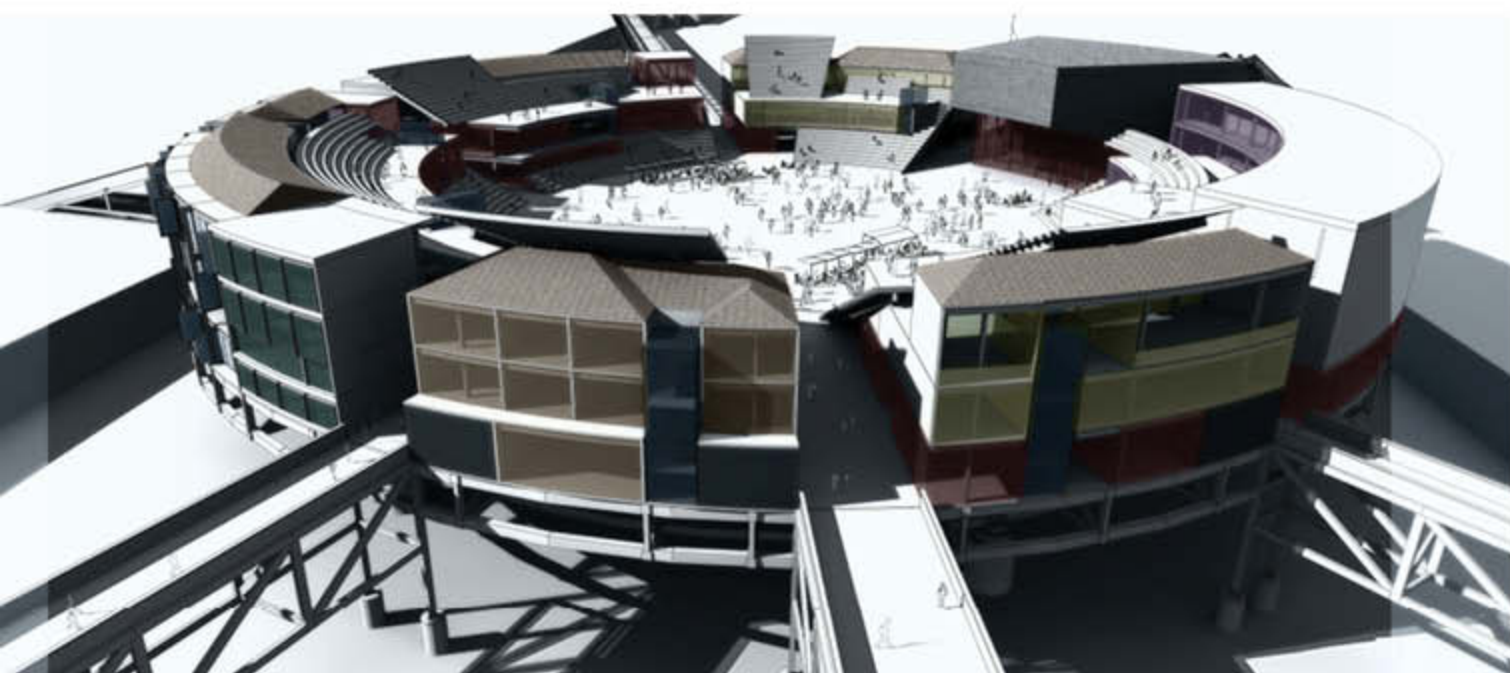
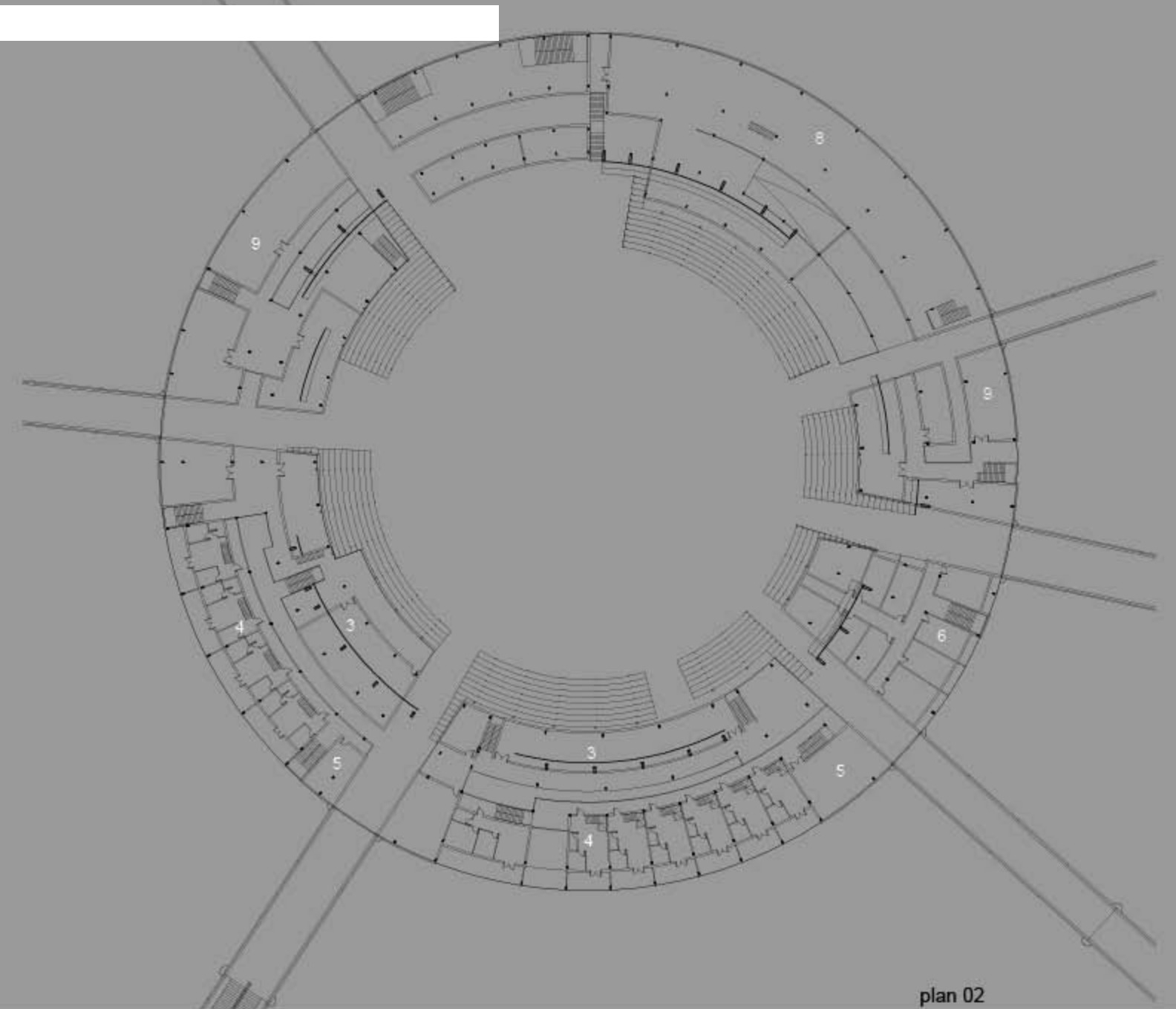
Program Distribution

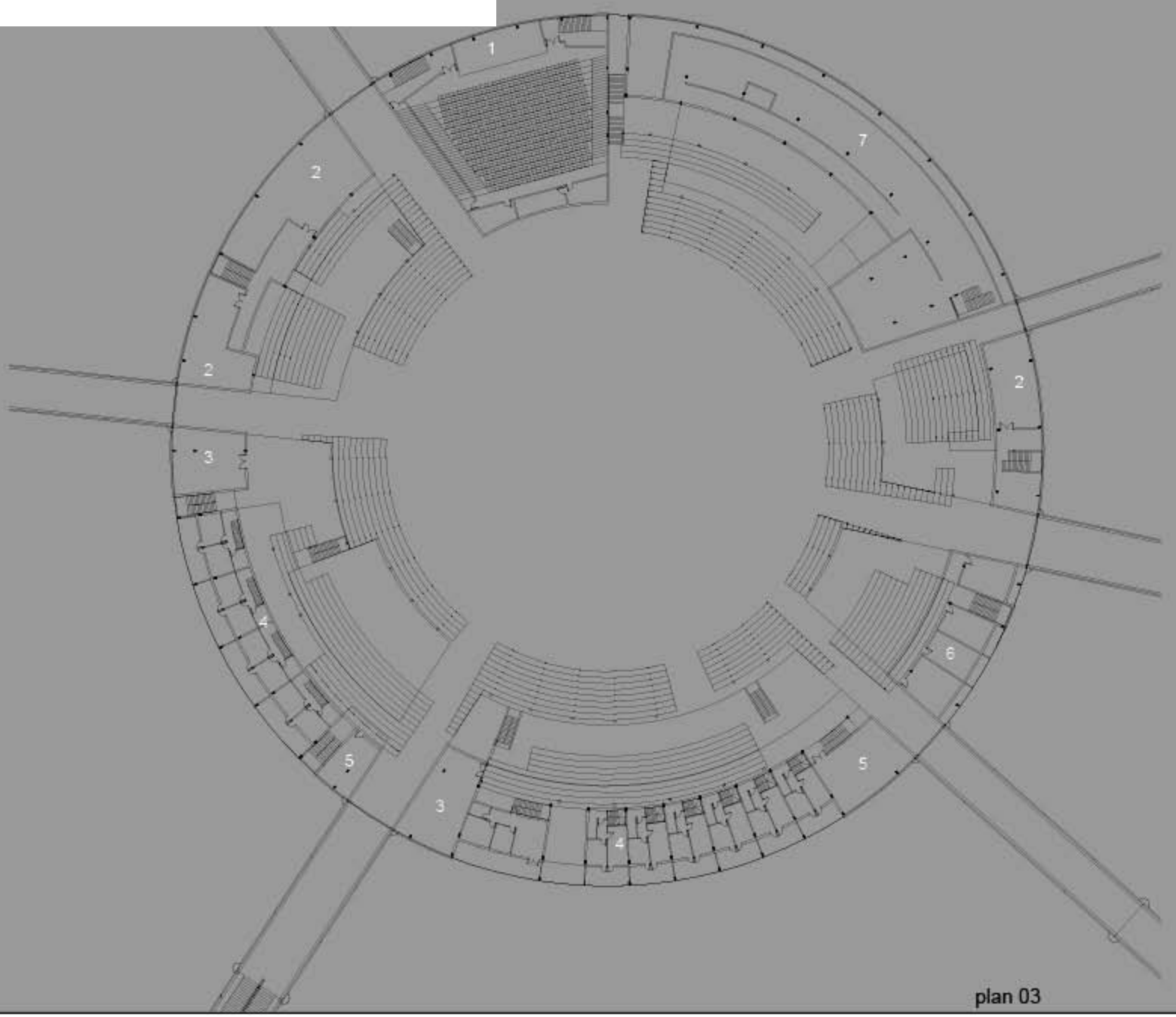
- seats & stairs
- auditorium
- exhibition hall
- restaurants, cafes & bars
- hotel
- offices
- houses
- retail & boutiques
- platform/ plaza & radial "roads"



- 1 entrance hall of the auditorium
- 2 bicycle parking
- 3 commercial area
- 4 residential area
- 5 offices
- 6 hotel
- 7 entrance of the exhibition hall
- 8 exhibition hall
- 9 restaurants

aerial view from east



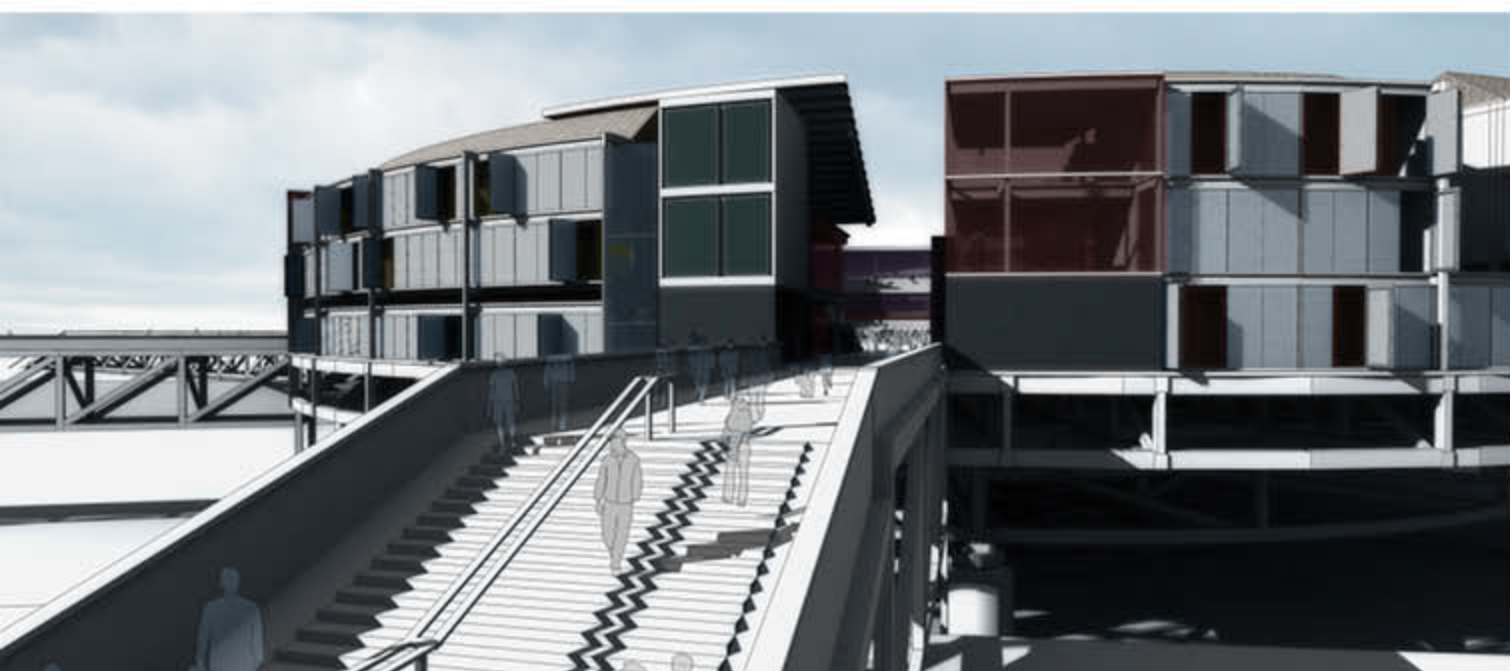
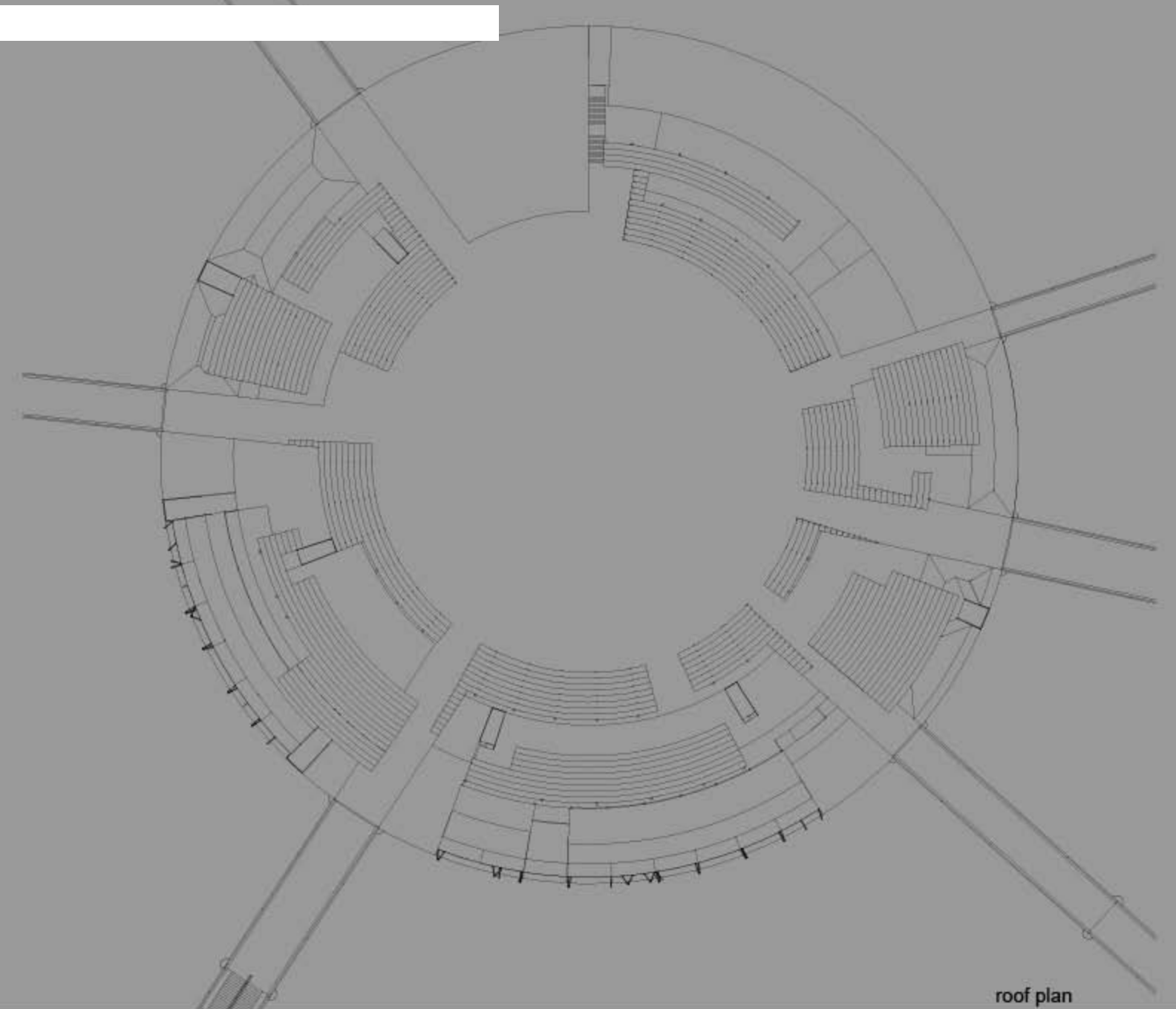


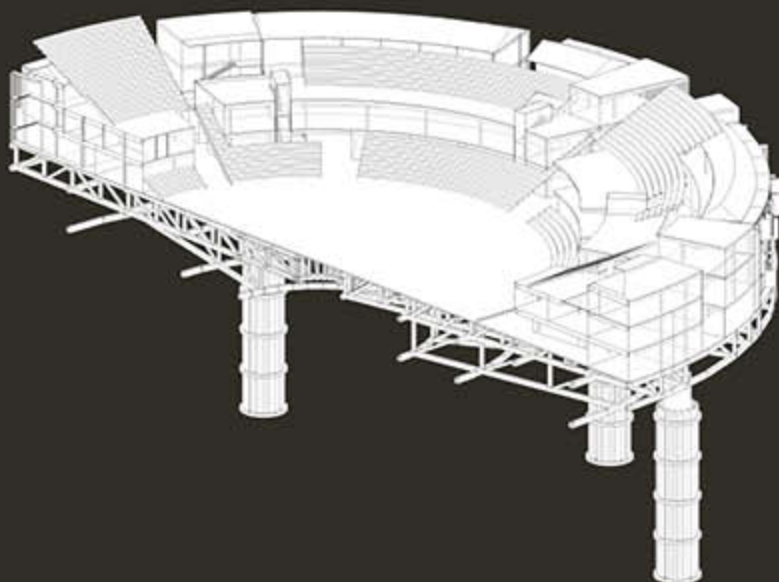
plan 03

- 1 auditorium
- 2 restaurants
- 3 commercial area
- 4 residential area
- 5 offices
- 6 hotel
- 7 exhibition hall

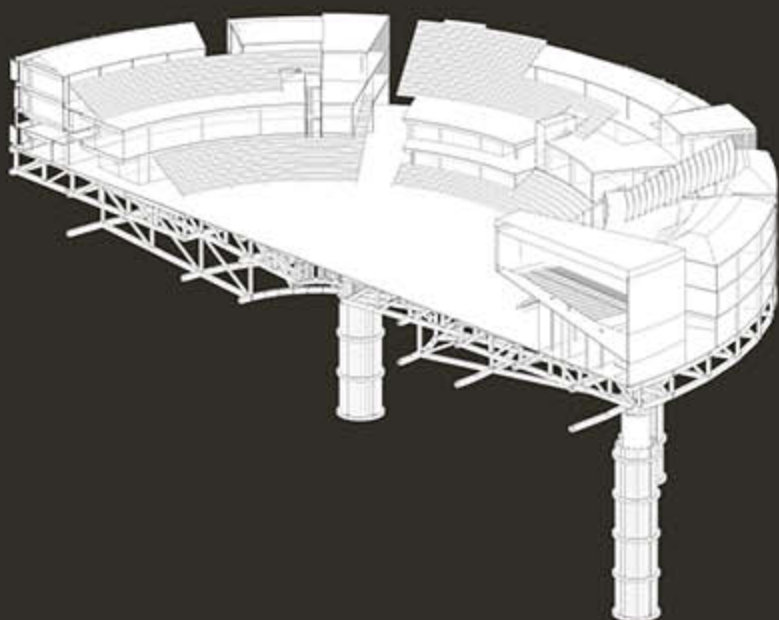
side view from south



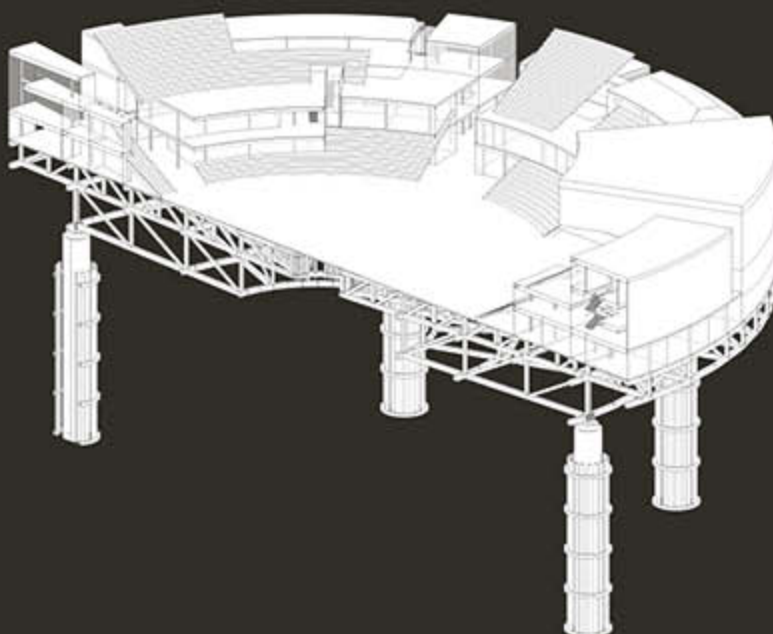




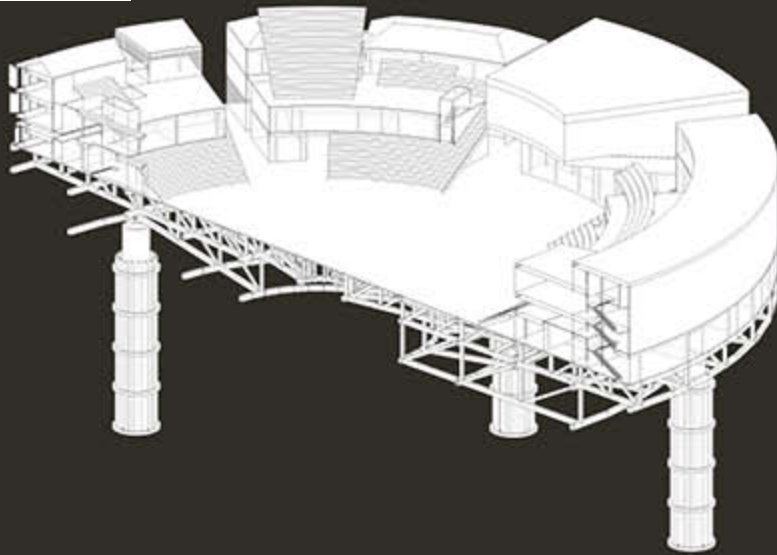
section 01



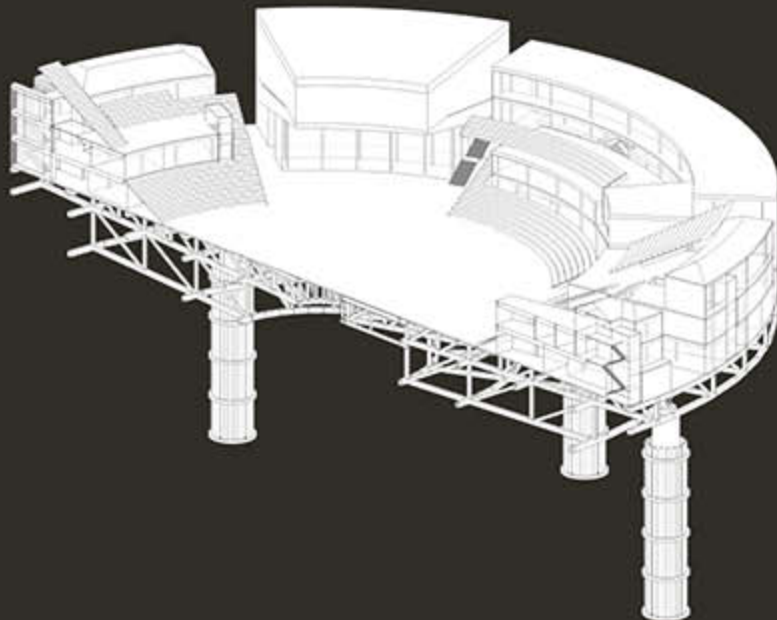
section 02



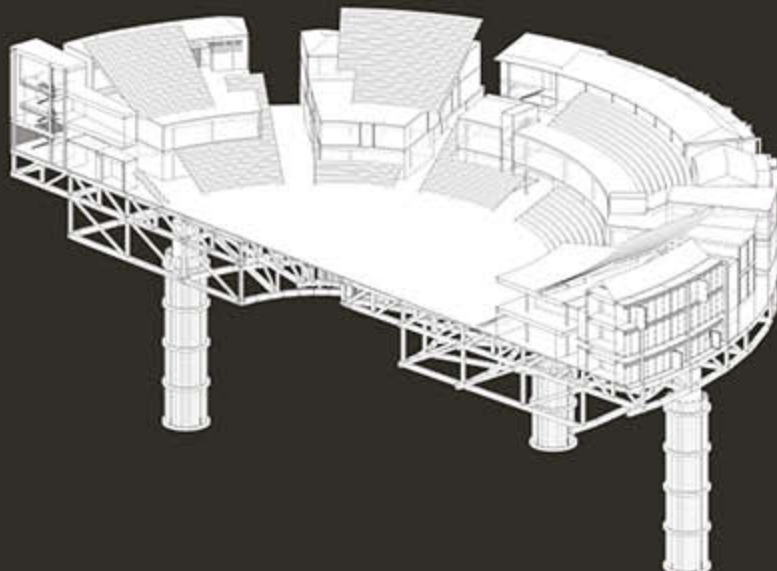
section 03



section 04



section 05

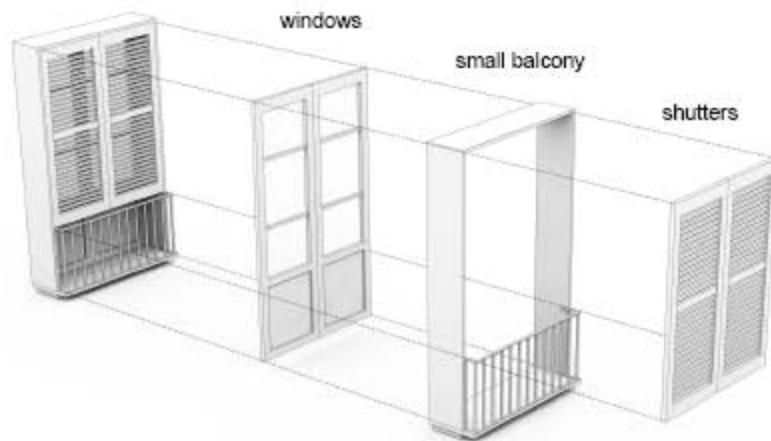


section 06

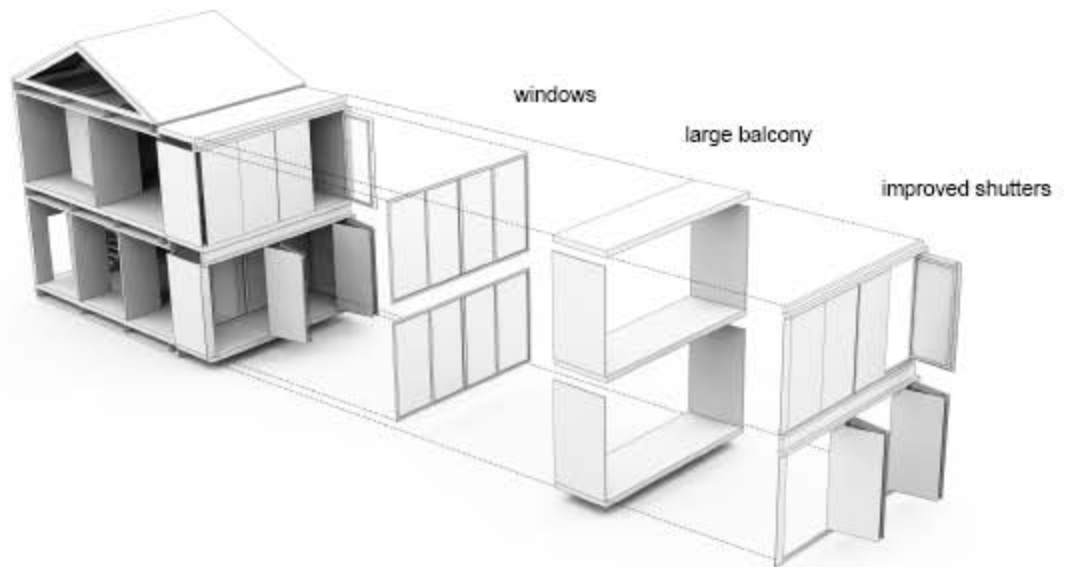
Design of the Houses



conventional houses' outlines



houses on the HUB



90 m² plan A



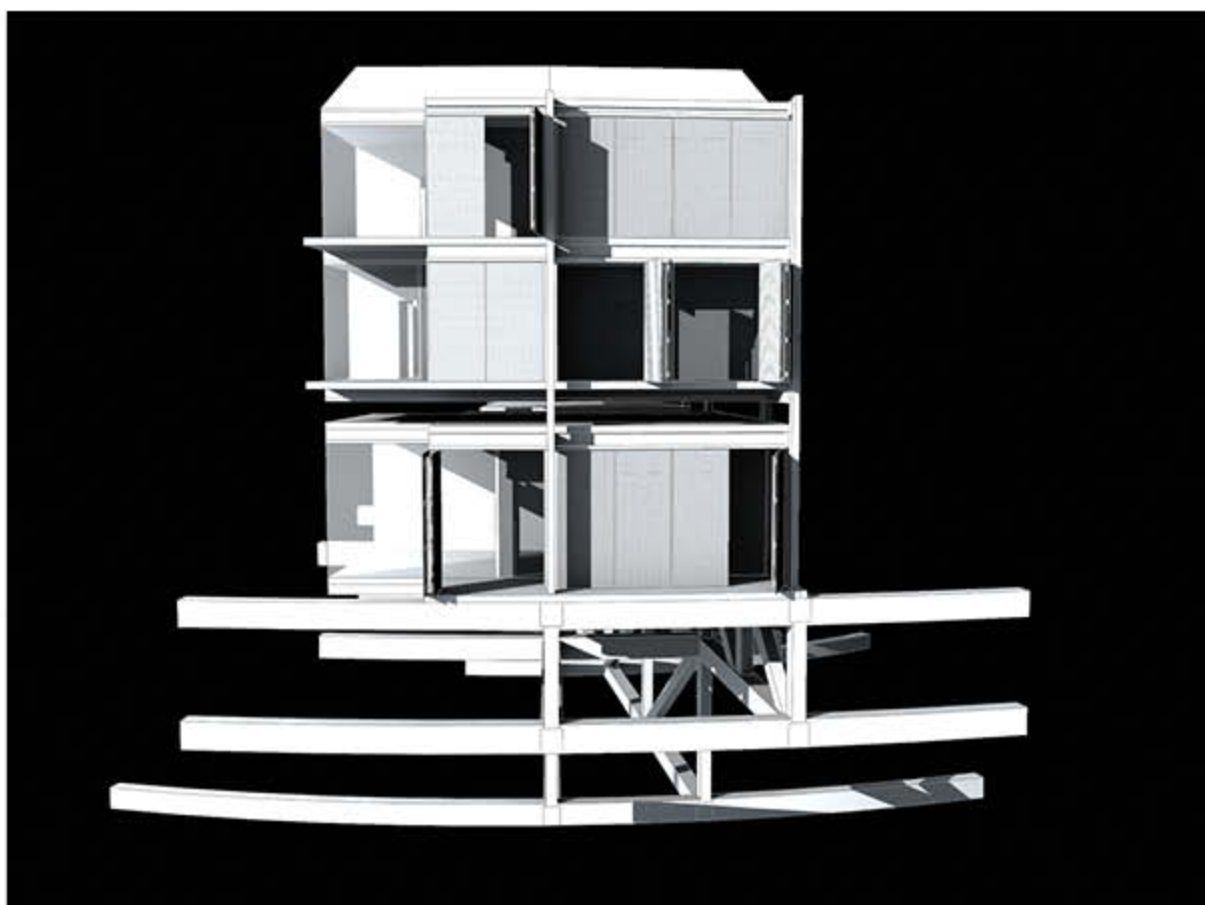
90 m² plan B



45 m² plan



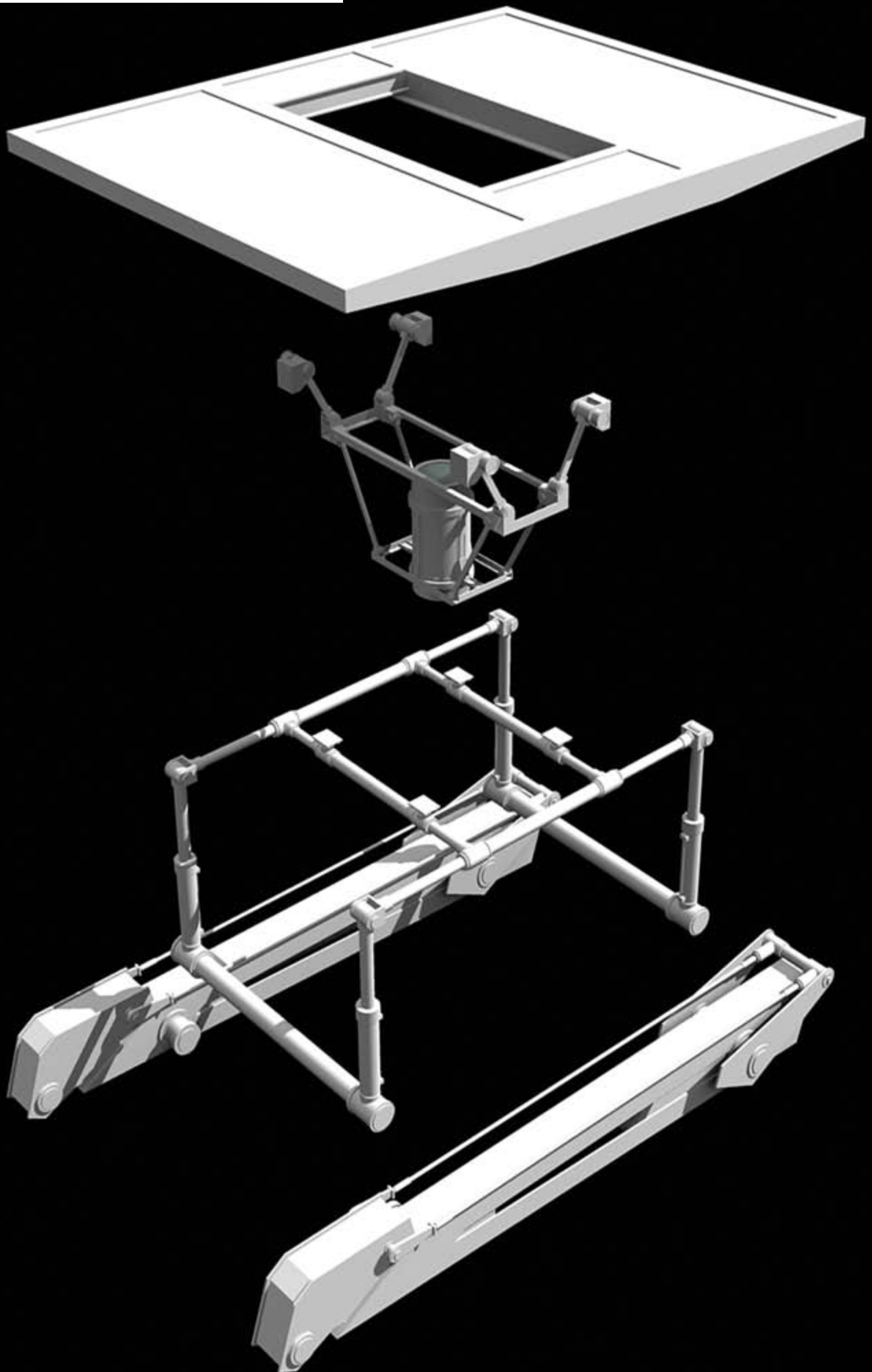
65 m² plan



Sectional Model







MIAMI FESTIVAL

TYPE floating stage

SITE Miami, USA

PROGRAM stage

SIZE 102 m² (module)

COLLEBRATOR Zhu, Lijin

DATE spring, 2011

CONSTRUCTION SYSTEM steel

* This is a competition project with the title of "DawnTown Miami 2011: Floating Stage"



site analysis



site plan

INTRODUCTION

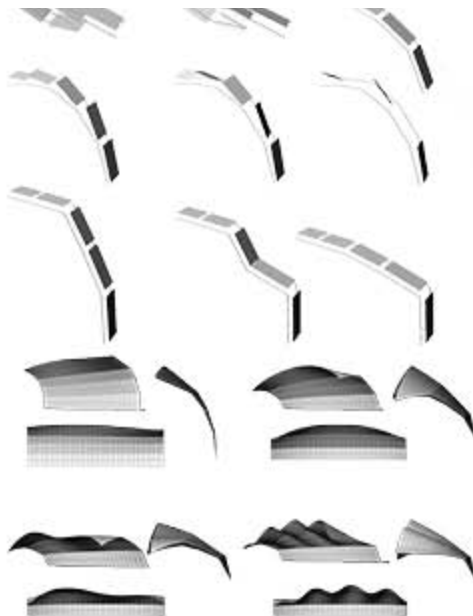
What the stage can be like in this site? After looking into the information about the history of Marine stadium basin and Virginia Key. We decide to maximum the function of the stage, that is to say, to design a stage suitable for all kinds of events (big events, small events, festivals, or even friends gatherings).

The location itself is a place that has a very complex history. It plays an important role in the history of Miami city. And the stadium is of great value too. And it also has a wonderful view to the city of Miami. The place is meant for not only watching programs but also showing the city. Meanwhile since the site is well connected to other potential waterfront venues, it requires the stage more flexible.

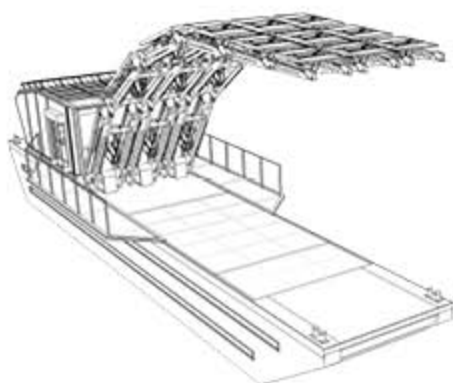
Our stage consists of several individual basic units. They can be used separately in many places for friends or families gathering for small events or festivals. And for big events or festivals, it works together. They form into a line. The shape of the stage is adaptable, we can choose whatever we like. The wall of the stage is equipped with light amplifiers. They are connected with light system via computer. It receives the light in the stage and sends out the amplified light to surroundings. So the light is changing with the performance on the stage. Thus people who are not on the stand can be informed of what is happening on the stage to some extent and feel the atmosphere. People celebrate festival together. This is the celebration of Miami Festival.



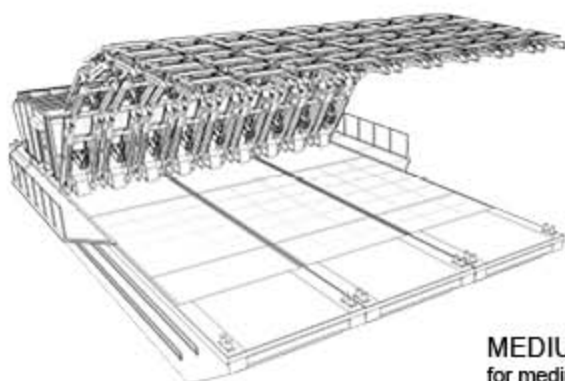
places where people can share happiness of Miami Festival



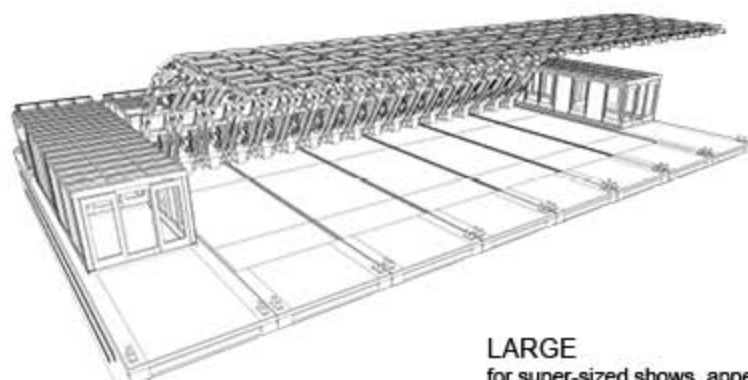
the stage wall morphology



SMALL
for friends and family gathering,
appears at any possible site



MEDIUM
for medium-sized concerts, ap-
pears at several certain sites



LARGE
for super-sized shows, appears at
Miami Marine Stadium



20:00 p.m.



20:20 p.m.



20:40 p.m.

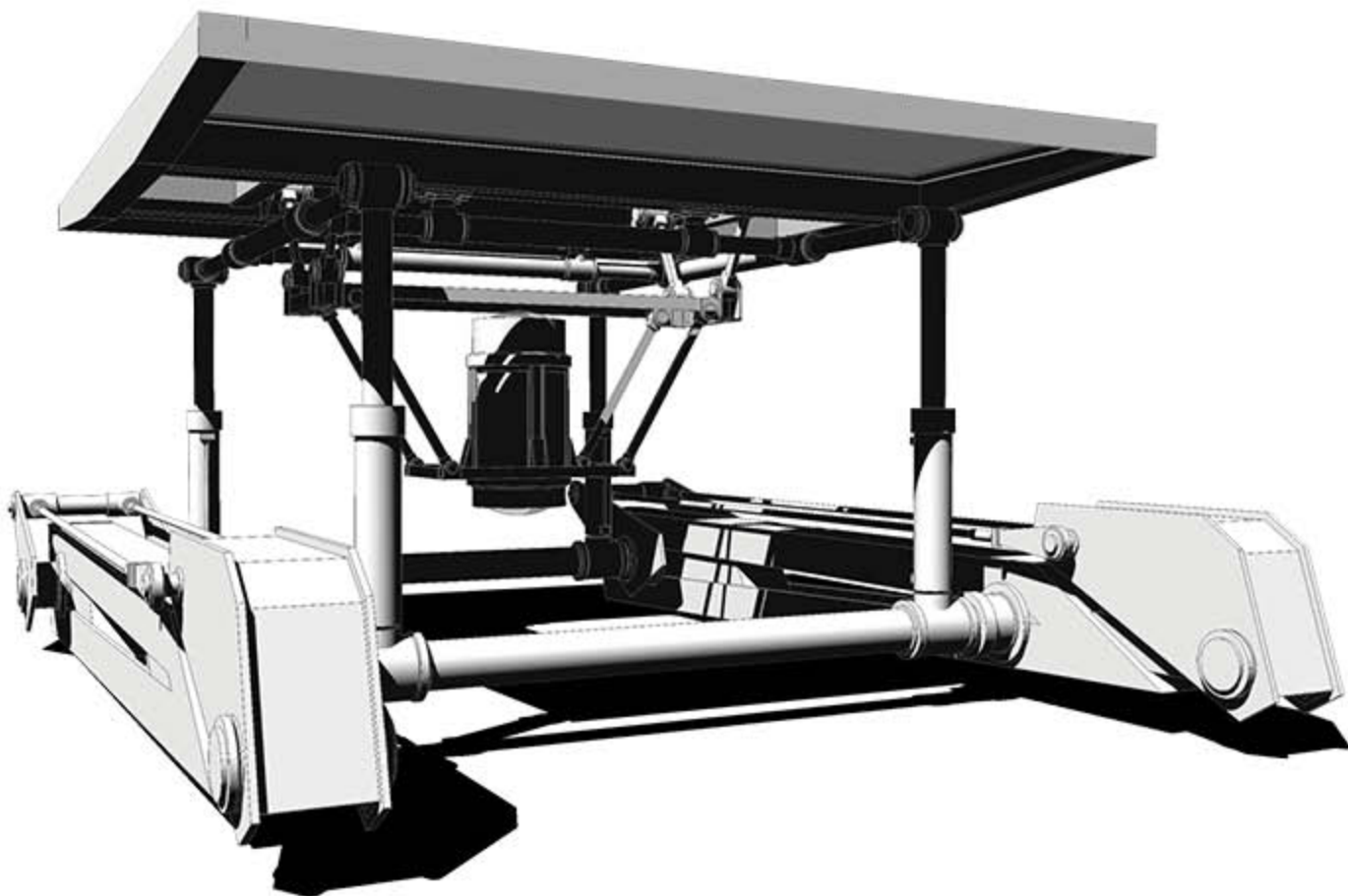


21:00 p.m.

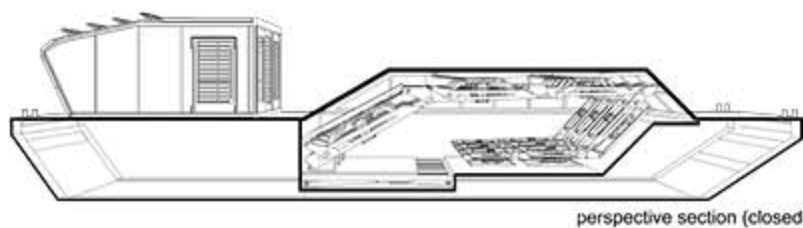
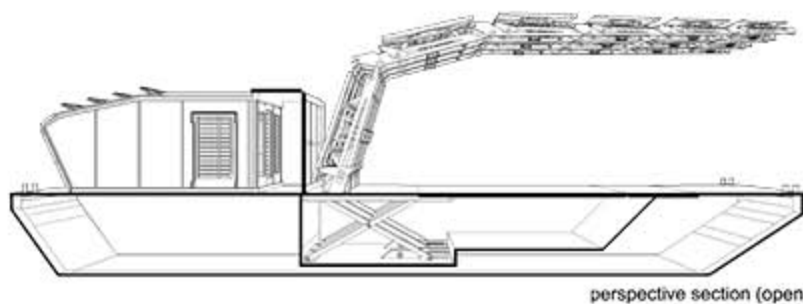
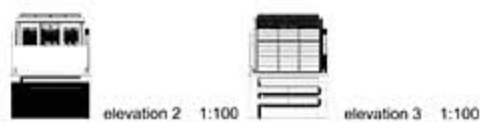
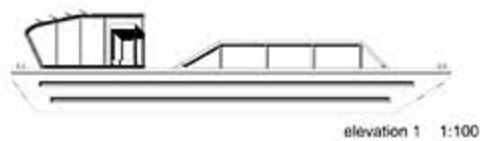


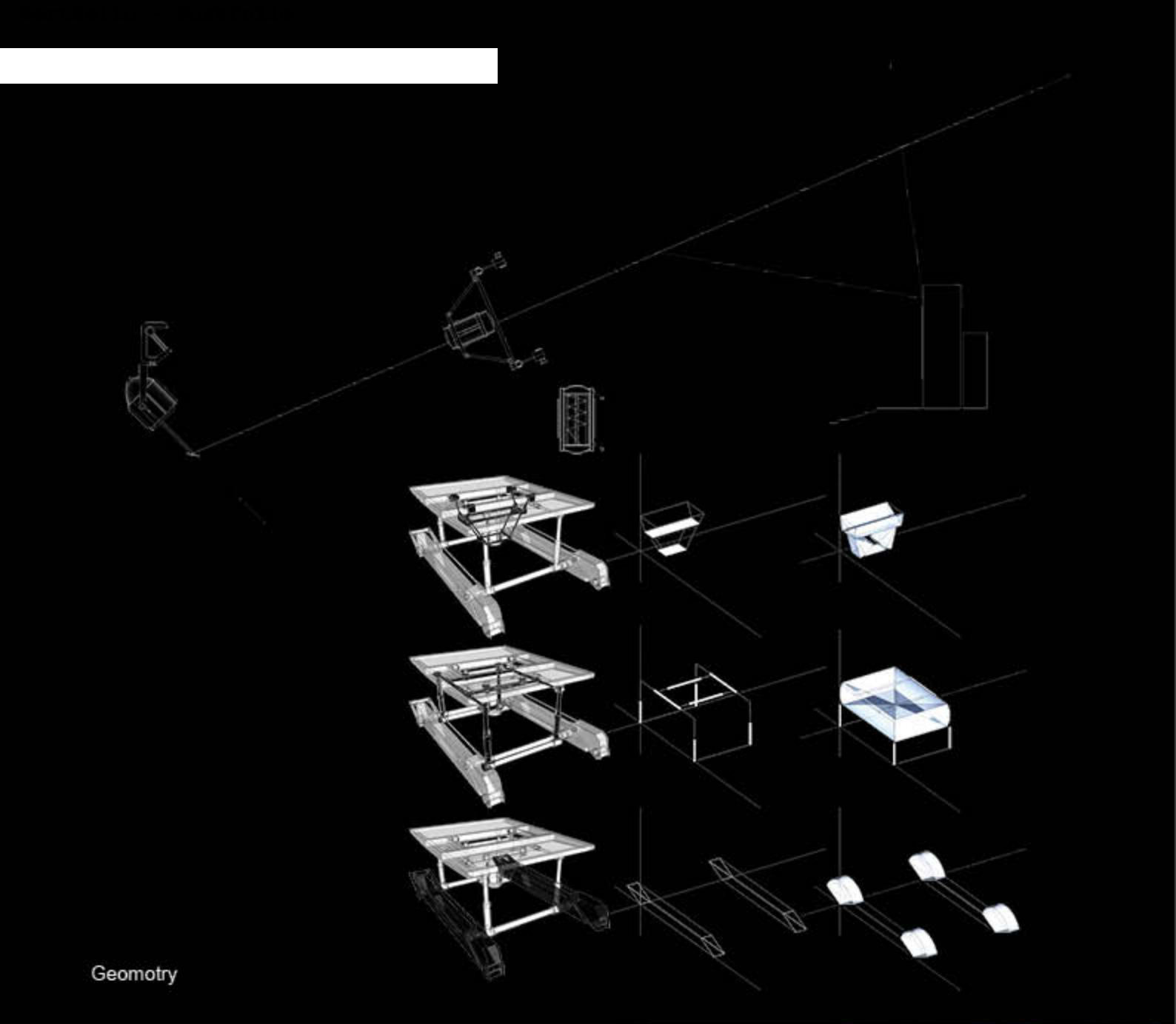
21:20 p.m.





The Stage Wall Module







EVOLUTION

TYPE cultural

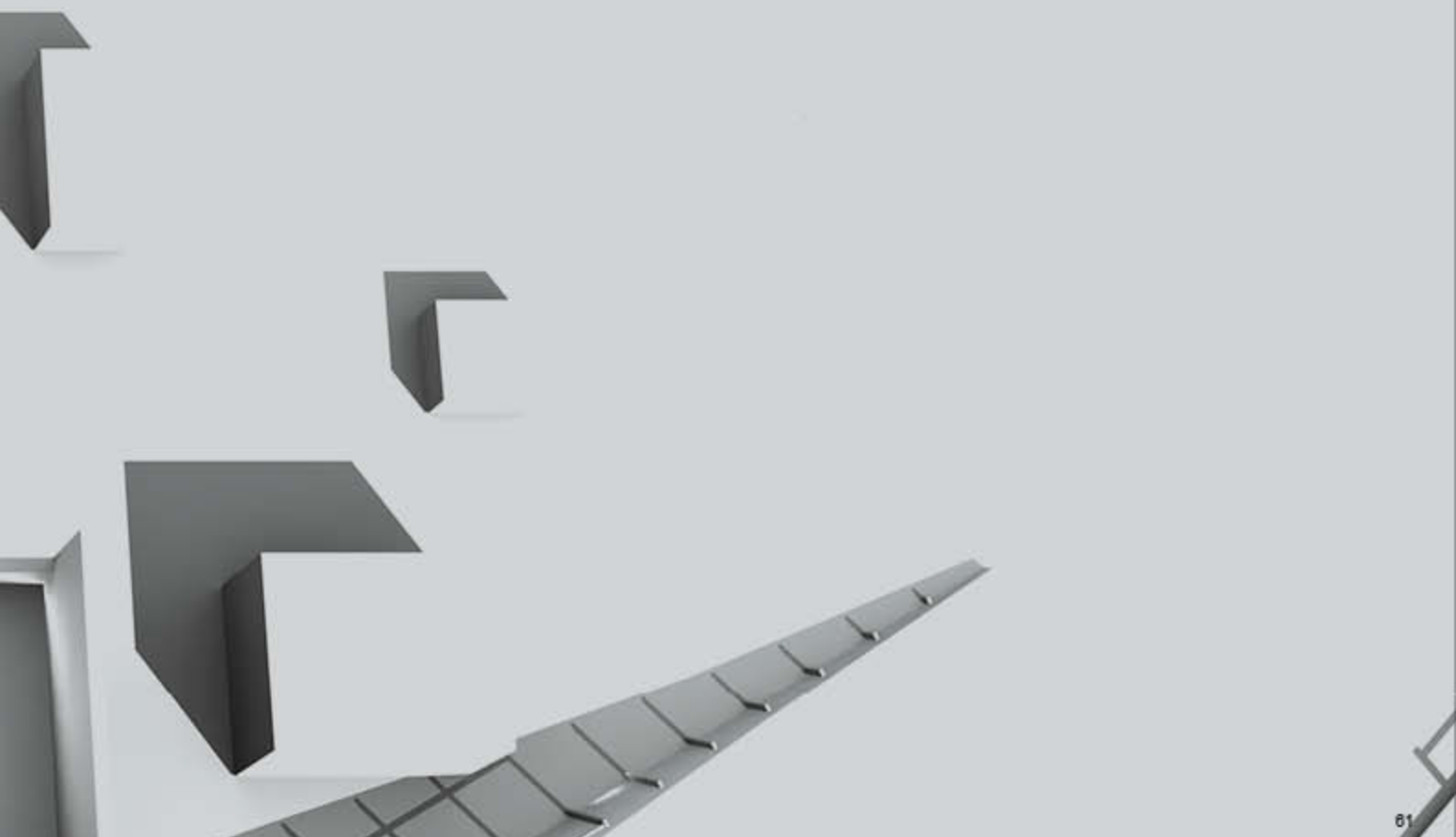
SITE Harbin, China

PROGRAM exhibition spaces, offices, auditorium, lounge space, storerooms

SIZE 3100 m²

TUTOR Prof. Bu, Chong

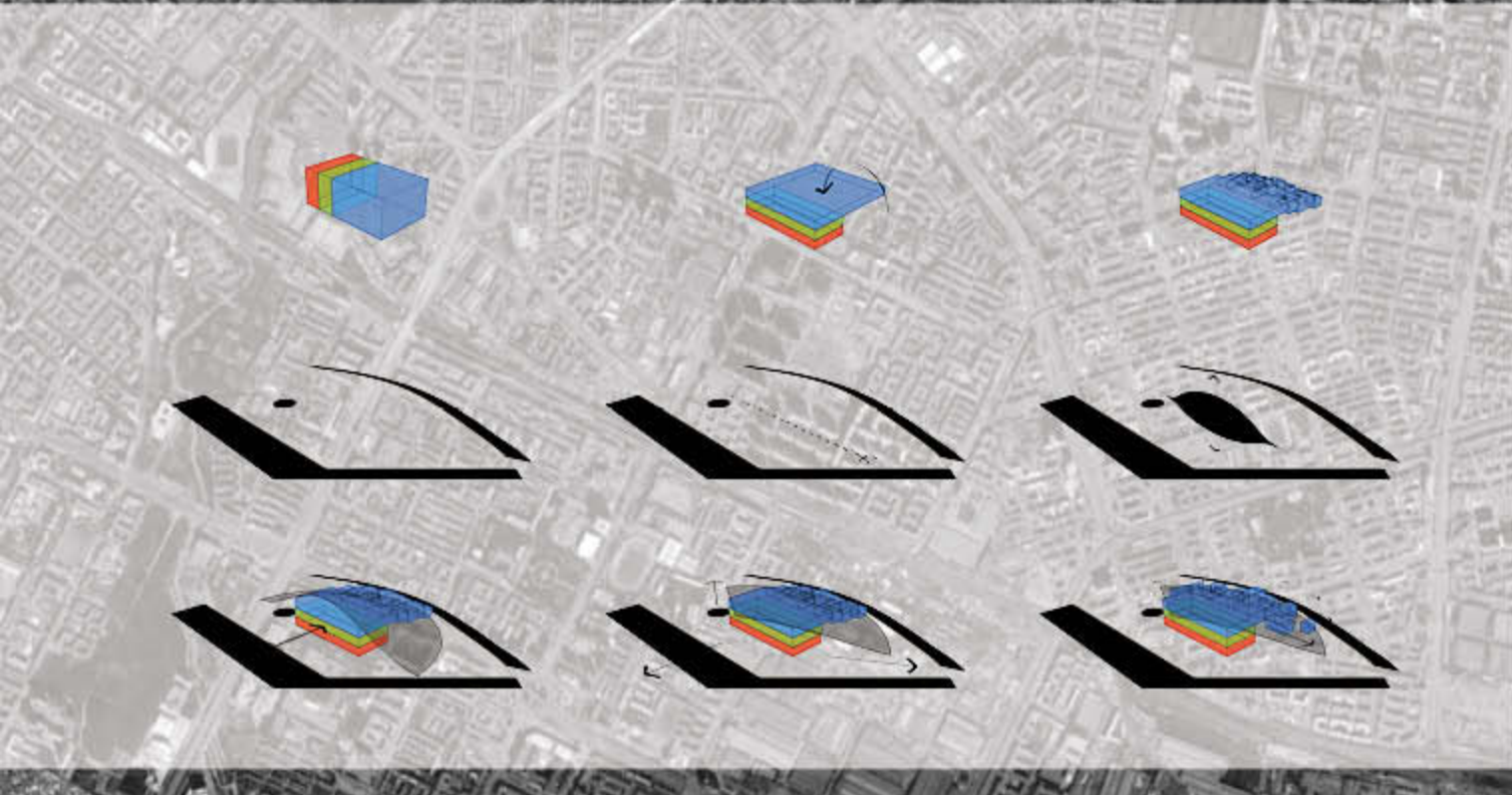
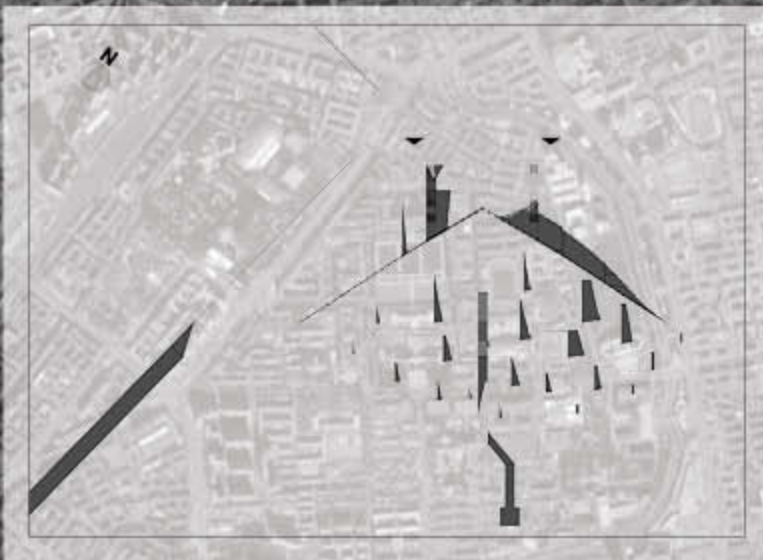
DATE spring, 2010





Introduction

This museum was built on a virtual site, so it required the students to find a real location to make it executed. I put it in the north bank of Songhua River, which flows through Harbin. The museum is used to display and explain the ecological environment of the river, and to provide assistance to ecological research. The project aims to build up a connection between nature and human's world with an architectural method. Therefore, the building needs to respect for both human and nature, and I try to create an evolutionary city-to-nature experience for the tourists. In a humble attitude, this museum is inserted into the land, and shattered to fit the locale. Every route leads to the nature, and the roof is for anyone to walk on. The journey begins from a straight lined facade, and ends by the river.

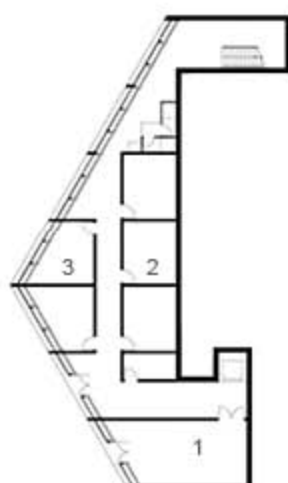




+7.3m level

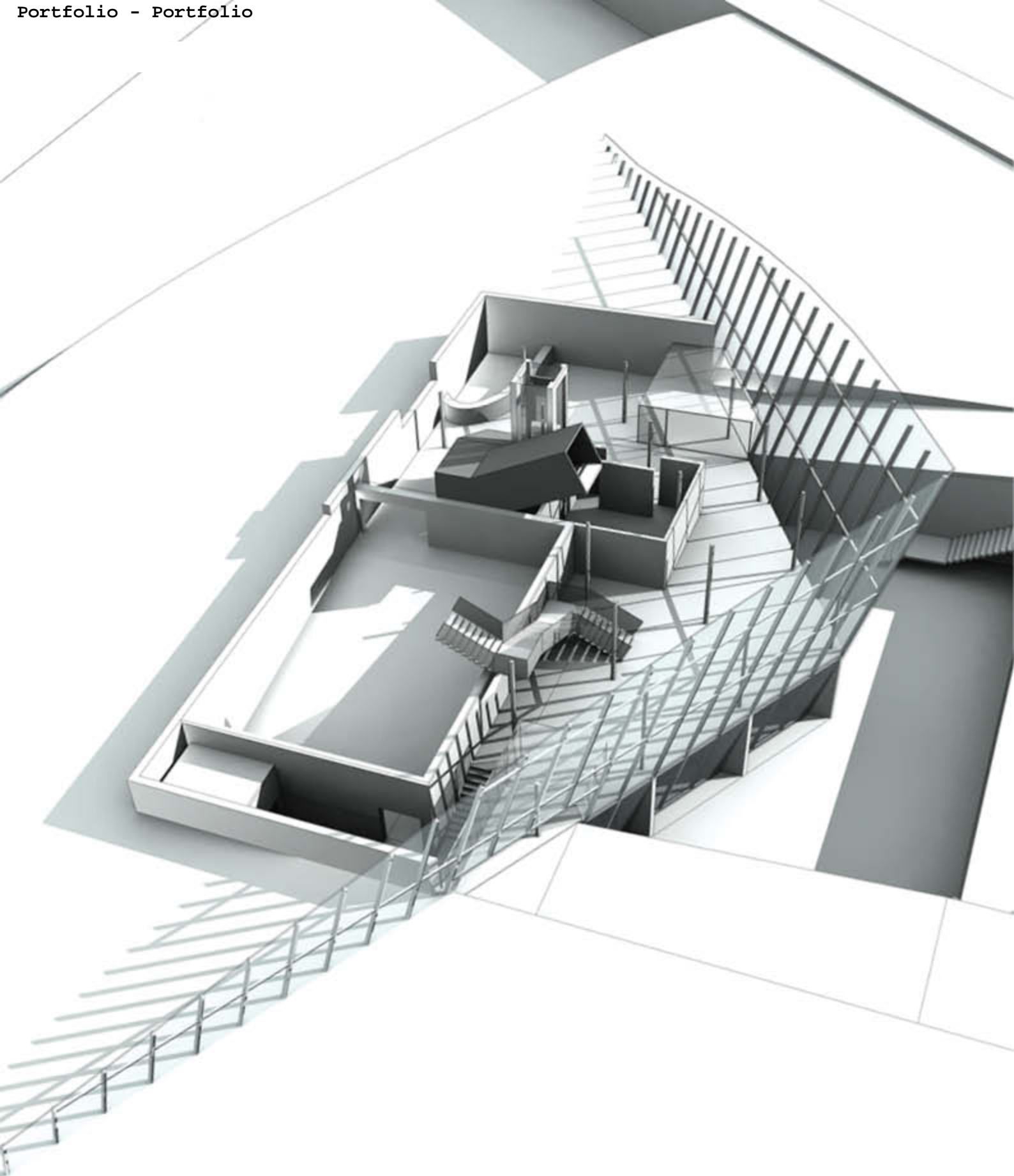


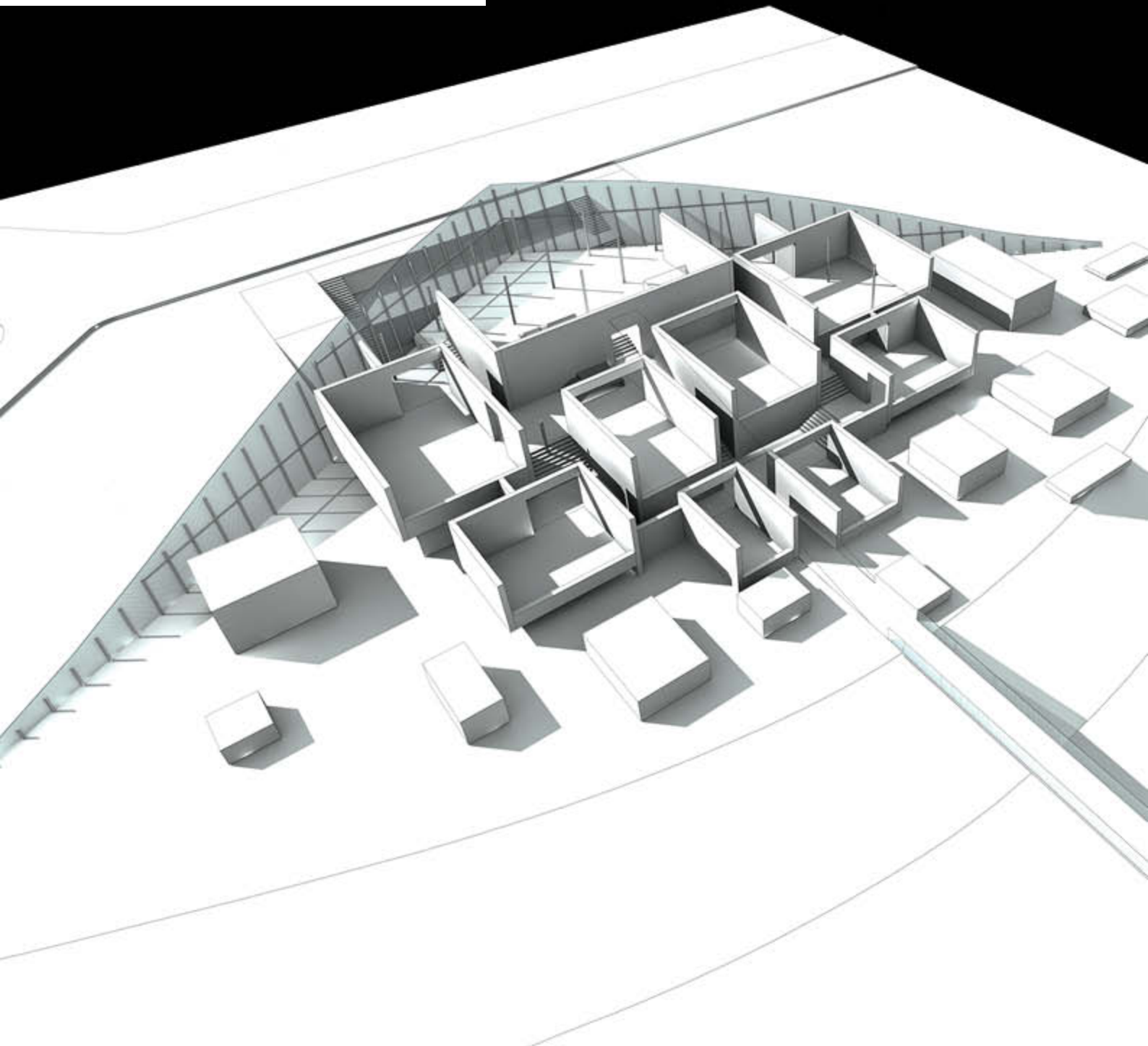
+0.4m level



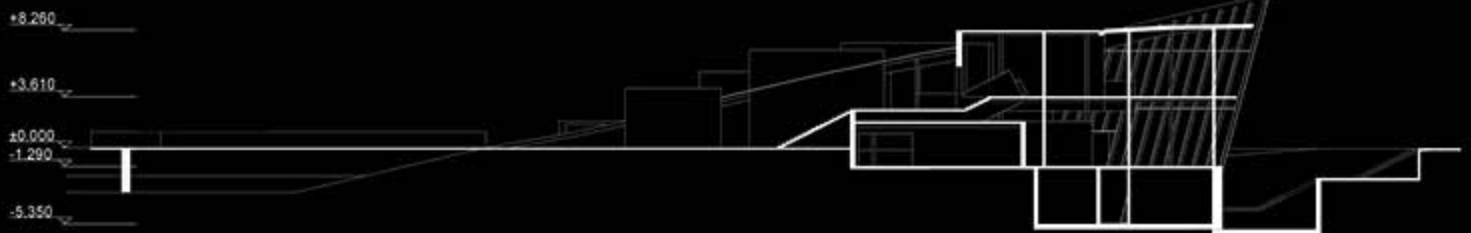
-2.3m level

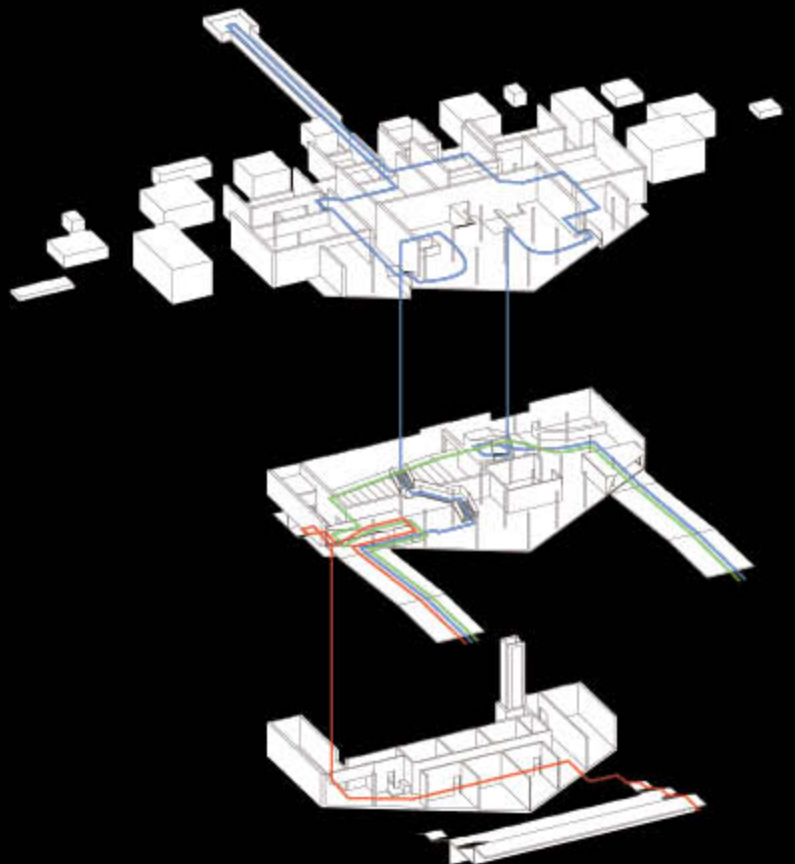
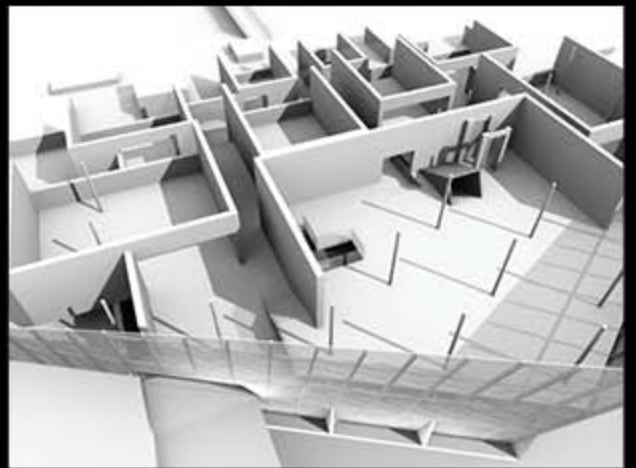
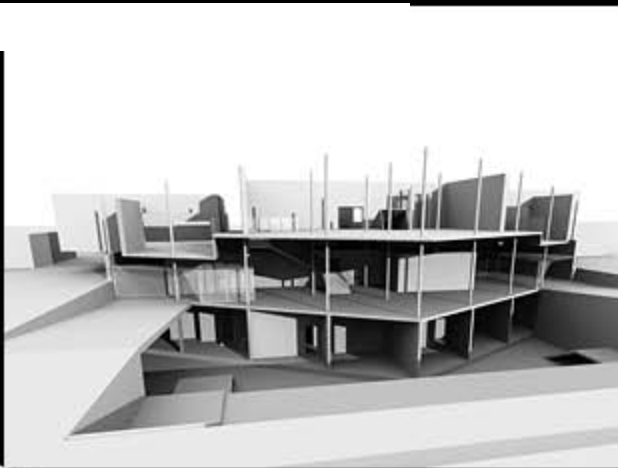
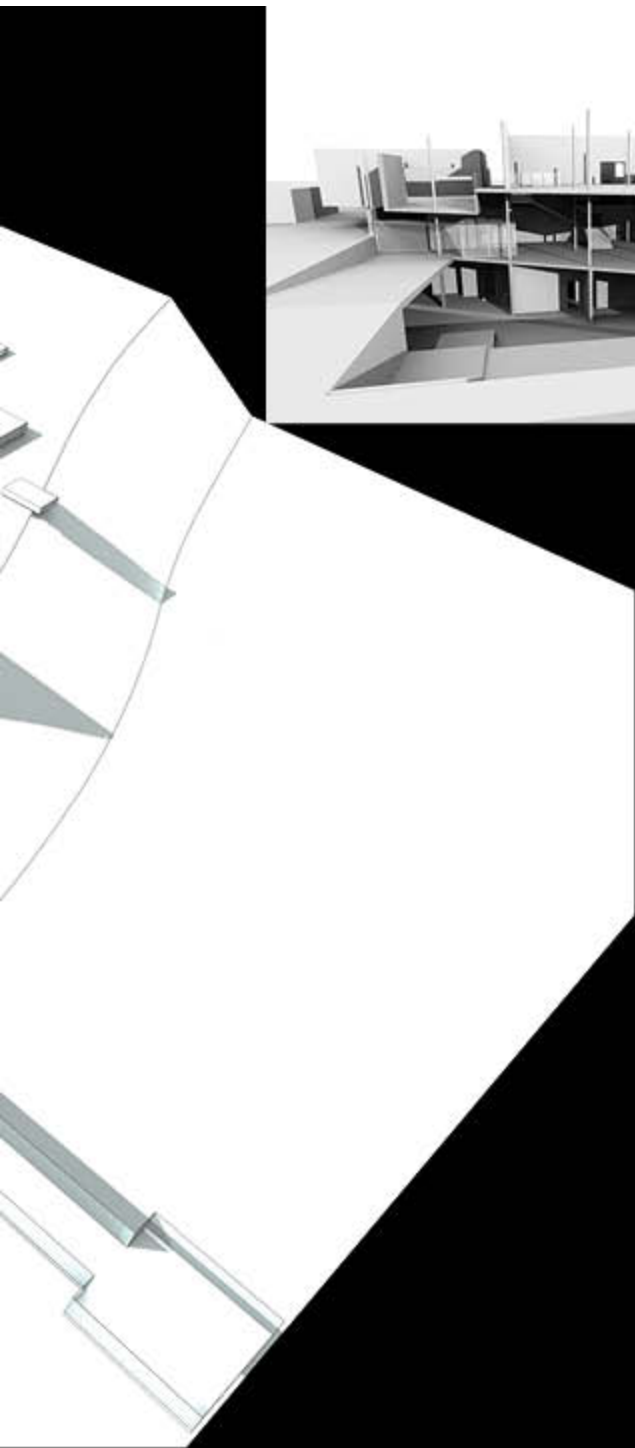
- 1 storage rooms
- 2 research offices
- 3 offices
- 4 information desk
- 5 lounge hall
- 6 lecture hall
- 7 mechanical room
- 8 showrooms
- 9 the lookout





section 01

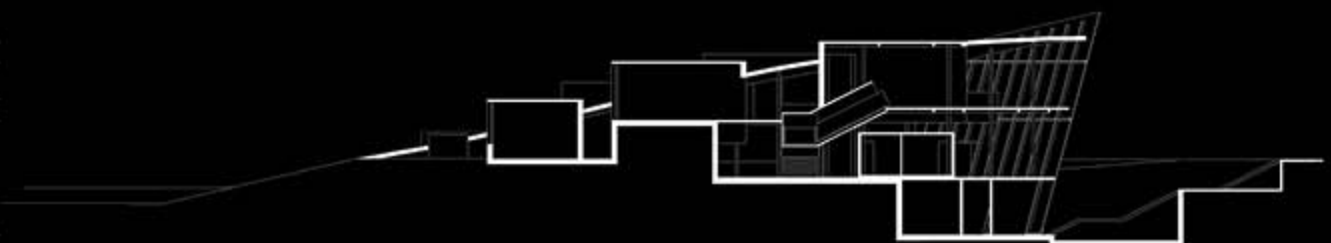




section 02



+8.260
+6.880
+4.160
+2.700
-5.350

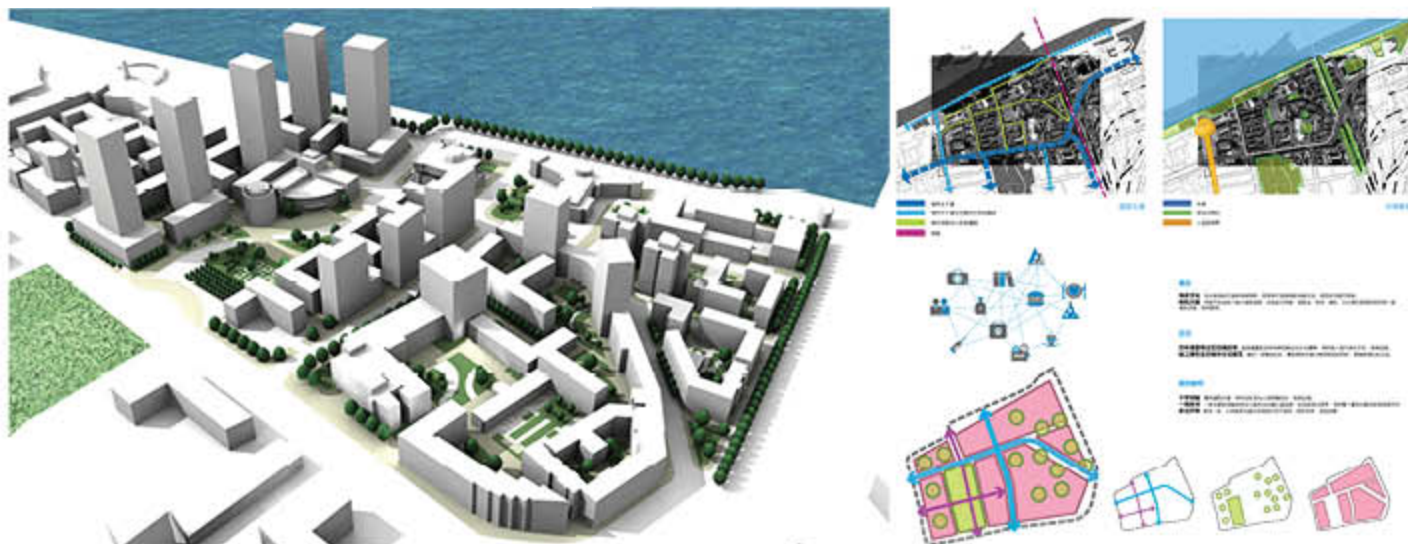






OTHER WORKS

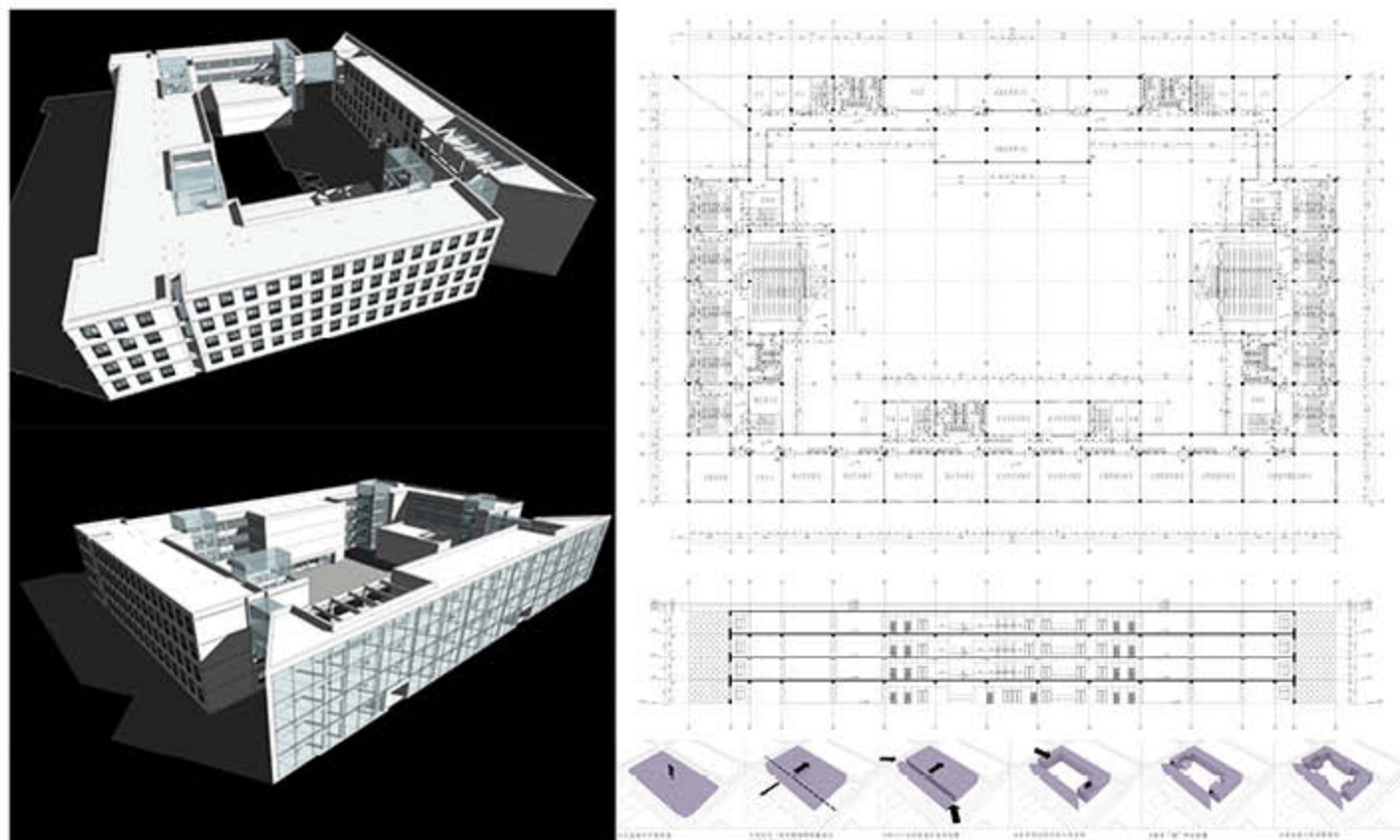
TYPE architectural / drawing
DATE fall, 2007- fall, 2011



Daoli Youth Palace Area Urban Design Tutor: Qiu, Zhiyong, 2011



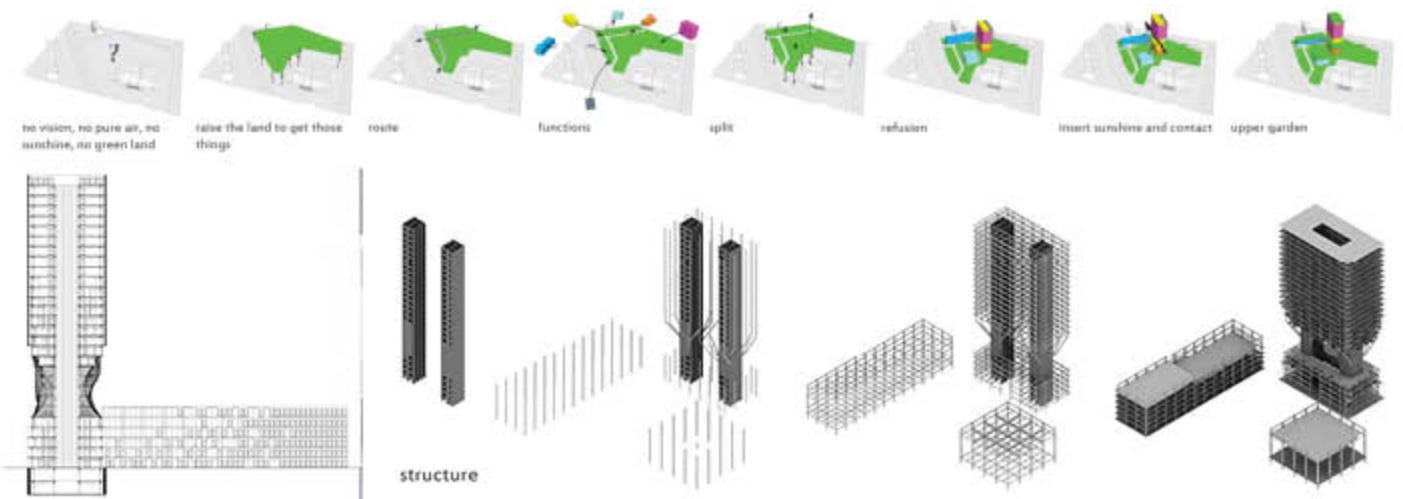
Xuancheng City Olympic Sports Park Stadium Design Tutor: Prof. Liu, Deming, 2011



Jilin Agricultural University Arts Laboratory Building Construction Design Tutor: Prof. Sun, Qingjun, 2010



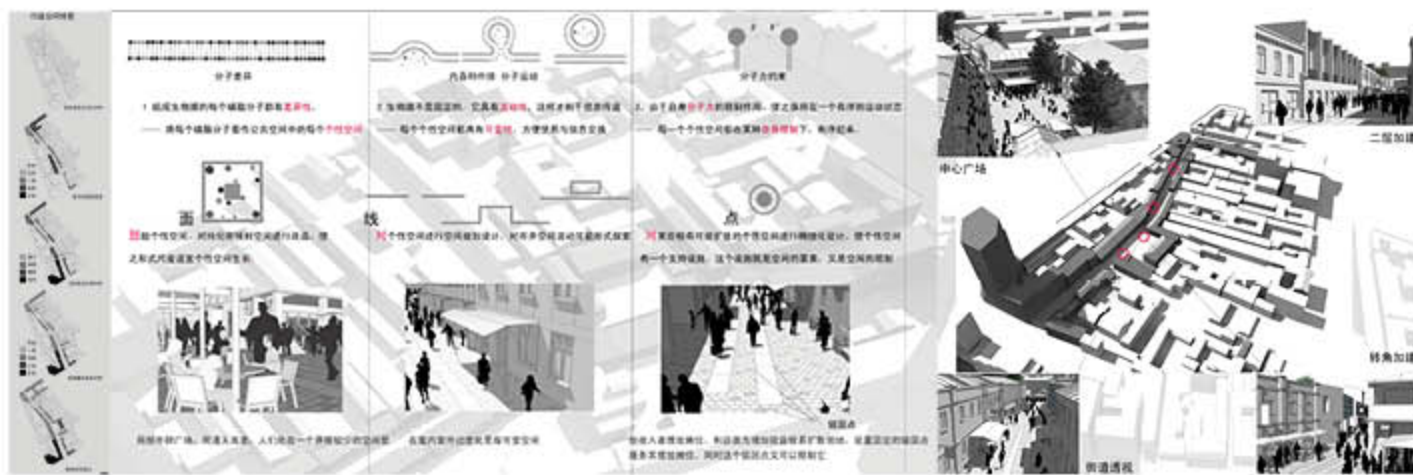
The Spiretec Competition Tutor: Prof. Bu, Chong, Collaborator: Zhu, Lijin, 2011



High-rise Hotel, Comprehensive Technological Design Tutor: Prof. Bai, Xiaopeng, 2010



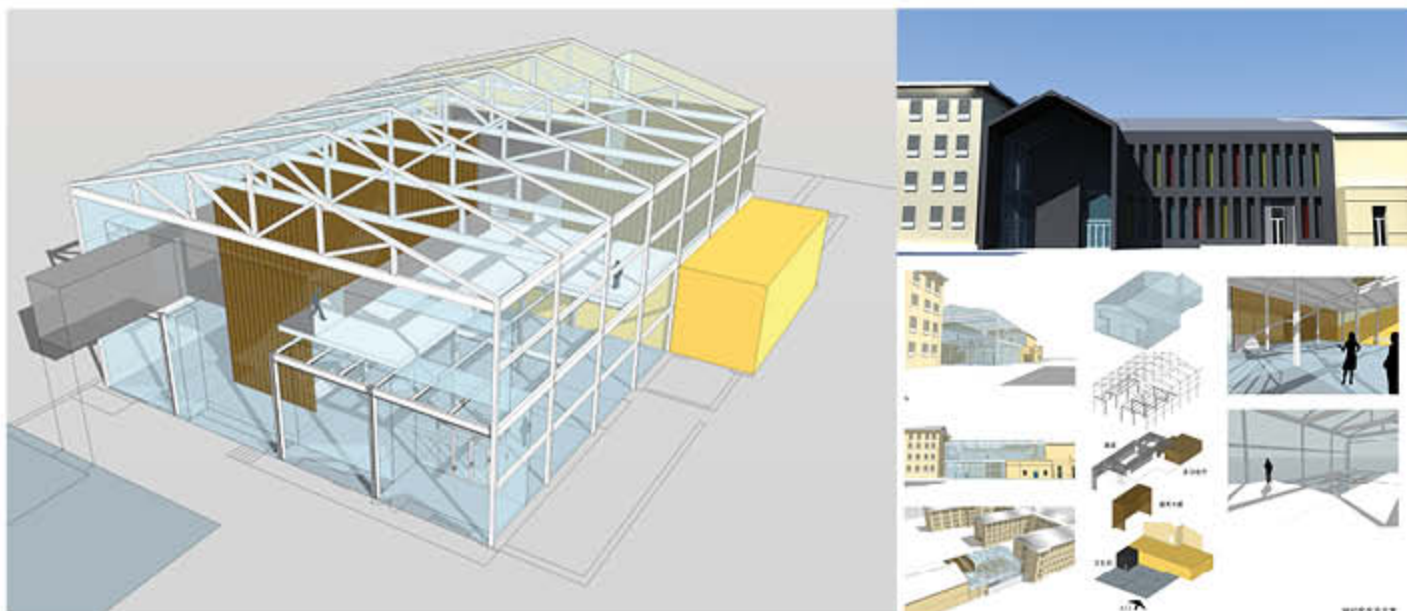
Shuangyashan City Reception Center Professional Work, 2011



Biofilm Repair of the Urban Living Room "Zhonglian Cup" national college students architectural design competition, Award of Excellence, Tutor: Li,Guoyou, Collaborator: Zhu, Lijin, 2009



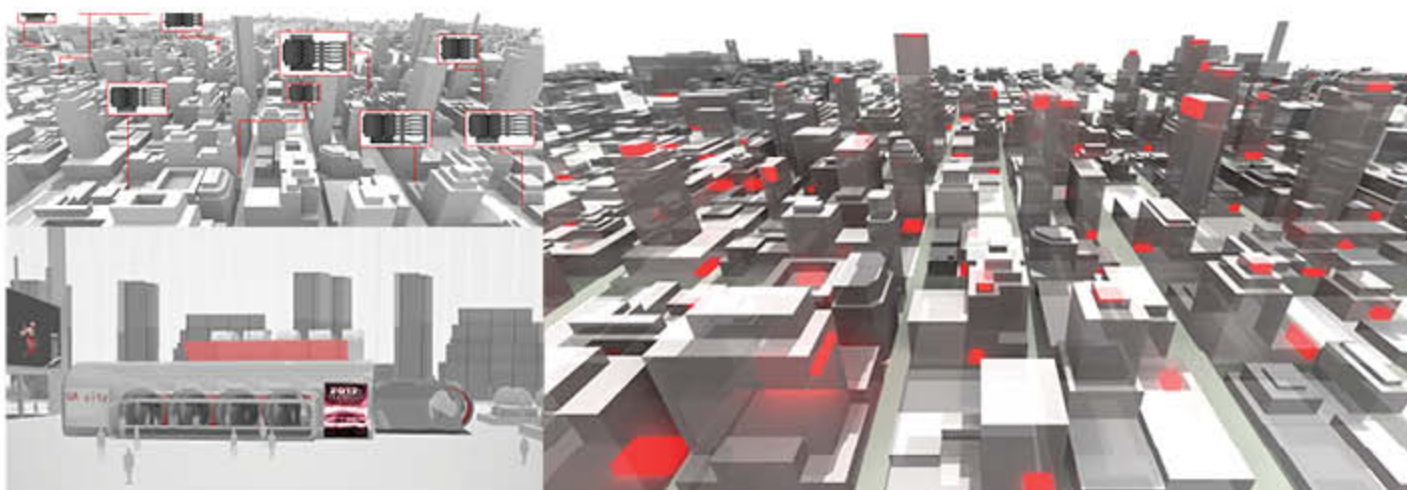
Chinese Baroque District Renovation (2nd Phase) Professional Work, 2010



HIT School of Architecture student activity center design-renovation Elected Implementation Proposal, Tutor: Prof. Bu, Chong, 2010



"Dou Gong" Model for History of Chinese Architecture Collaborator: Xie, Linbo/ Zhu, Lijin/ Liu, Fangfei, 2010



City Neurons "UA CITY" International Competition, Tutor: Luo, Peng, Collaborator: Chen, Yan/ Zhu, Lijin, 2010





Drawings 2007-2008

EDUCATION

Harbin Institute of Technology, Harbin, China

Bachelor of Architecture, School of Architecture

Expected Graduate Date: 2012.7

2007.8-present

AWARDS

"Autodesk Cup" national architectural teaching plans and students projects award, Award of Excellence

2011

[EXHIBITED in <AUTODESK NATIONAL ARCHITECTURAL TEACHING PLANS AND STUDENTS PROJECTS EXHIBITION> 2011, China]

HIT School of Architecture student activity center design-renovation, Elected Implementation Proposal

2010

HIT-Paris La Villette School of Architecture joint workshop, Honorable Mention

2010

collaborator: Ma, Yuanhong / Han, Dan

parts: concept, plans, modeling, rendering (team leader)

[PUBLISHED in <ARCHITECTURE PORTFOLIO OF SOA, HIT> 2011.9 HIT School of Architecture, Harbin, China]

"Zhonglian Cup" national college students architectural design competition, Award of Excellence

2009

collaborator: Zhu, Lijin

parts: concept, plans, modeling, rendering

"Chenneng Cup" small scale landscape concept design competition, Honorable Mention

2009

collaborator: Zhu, Lijin

parts: concept, plans, modeling, rendering

HIT the second "hit Star" public apartments space design competition, 3rd Prize

2008

collaborator: Zhu, Lijin / Li, Nian

parts: concept, plans, modeling

PROFESSIONAL EXPERIENCE

Intern

FZJZ, China

2011.10-2011.12

Project: Harbin Oriental College Stadium and Museum Design

parts: plans, modeling, latter expression

Project: "Napa County" Residential District Architecture Design

parts: plans

Intern

Architectural Design and Research Institute of HIT, China

2011.8-2011.10

Project: Liaoning Medical University, New Campus Architecture Planning and Design

parts: plans, animation modeling, latter expression

Project: Harbin Jiancheng Group High-rise Office Building Design

parts: concept, plans, modeling

Project: Zhalong Wetland Museum Design

parts: concept, modeling

Intern

WIN architecture and environment design office, China

2010-2011

Project: Chinese Baroque District Renovation, 2nd Phase

parts: concept, modeling (team leader)

Project: Spiretec Competition

parts: concept, plans, modeling, rendering

COMPUTER SKILLS

3D Modeling SketchUp, Rhinoceros, Grasshopper

2D Graphics Adobe Creative Suite(PS/AI/ID), AutoCAD, TArch

Rendering V-ray for Rhino/ SketchUp, Podium for SketchUp, Keyshot

Movie Editing Ulead Video Studio

Application Microsoft Office, Adobe Acrobat Pro

COLLEGIATE & COMMUNITY ACTIVITIES

Orchestra, HIT College Troupe

2007-present

*as: violin, the first violin part**participated in many performances, including the HIT 90 Anniversary Performance, 2010**[Award]: Harbin Institute of Technology 2009-2010 Outstanding Members***HIT School of Architecture Men's Volleyball Team (school representatives)**

2008-present

*as: one of the main players (wing spiker)**[Awards]: HIT Student Volleyball Games, Men's group, 3rd Place, 2008**HIT Student Volleyball Games, Men's group, 5th Place, 2009**HIT Student Volleyball Games, Men's group, 3rd Place, 2010**HIT Student Volleyball Games, Men's group, THE CHAMPIONSHIP, 2011***HIT School of Architecture A1 Basketball Club (school representatives)**

2008-present

*as: basketball team player**[Awards]: HIT Student Basketball League Competitions - Men's B, 2nd Place, 2009**HIT Student Basketball League Competitions - Men's B, 2nd Place, 2011***HIT SOA Architecture People Volunteers Association**

2008-present

*as: member**participated in volunteer activities, e.g. supporting education in YUXIN Primary School for Disabilities***HIT-Base Division 07 Outstanding Excellent Study Style Classes Appraisals**

2008

*as: deputy squad leader \ organizer \ planner \ materials producer**[Award]: Excellent Study Style Class in the Whole University, 3rd Place (70 college-level classes eligible)***Stage Show "New Yellow Snake Lady Legend"**

2008

*as: director \ adapter \ heroine (Yellow Snake Lady)**[Award]: "School of Architecture Branch Big Stage", 1st Prize (8 participating classes)***Stage show "Romeo and Juliet"**

2007

*as: director \ adapter \ heroine (Juliet)**[Award]: "School of Architecture and Computer Science, Joint Branch Big Stage", 1st Prize (13 participating classes)*

AVOCATIONS

Playing the violin*[Level]: National Violinists (amateur) Grading, Level 10 (top)***Basketball, Volleyball, Painting**

