

# Z H O U   K E T I N G

Master of Architecture in Urban Design '20  
Harvard University | Graduate School of Design



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01

## BOSTON INNOVATION CENTER

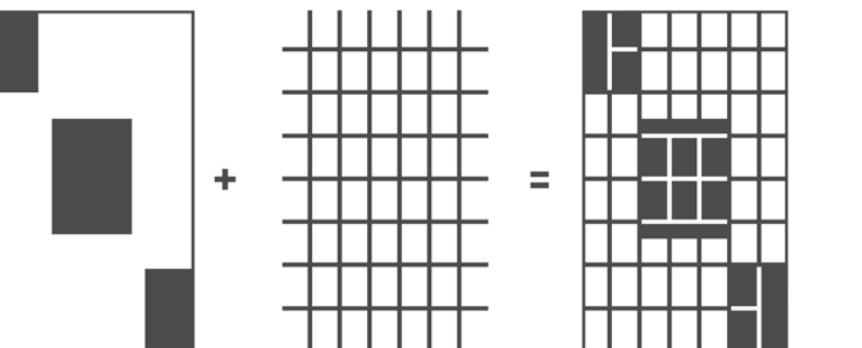
Urban Periphery in Flux

Urban Design Core Studio

Instructor: Dennis Piepz, Rahul Mehrotra, Teddy Kofman

Partner: Yamei Chen

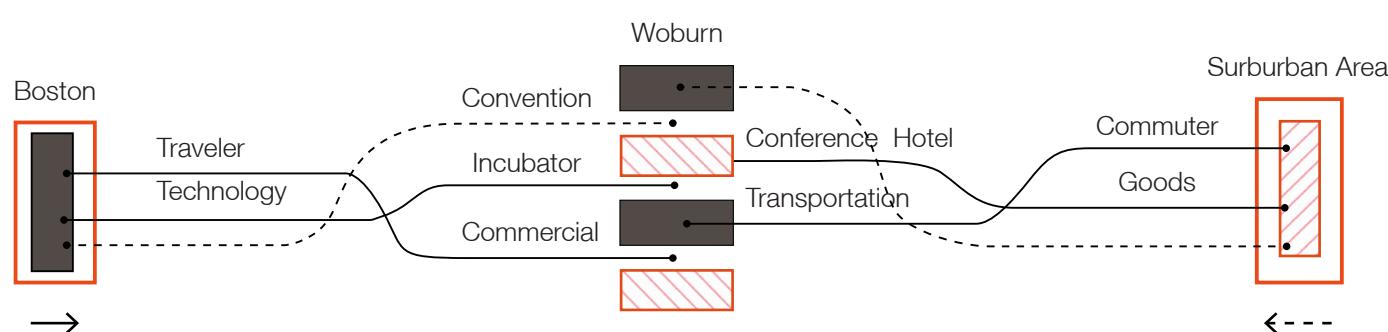
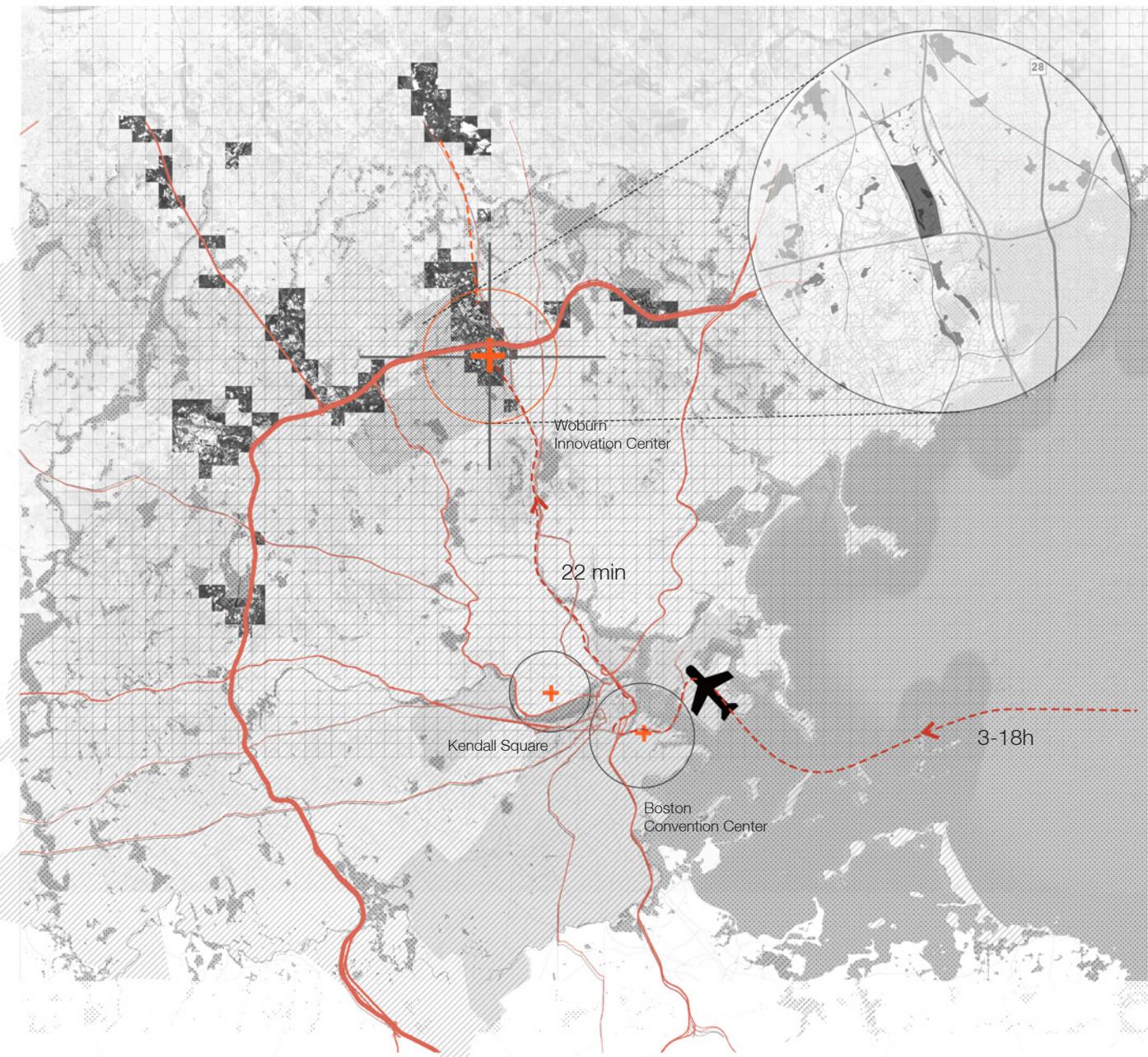
Design: 50% Analysis: 60% Rendering: 40%  
2018 Fall



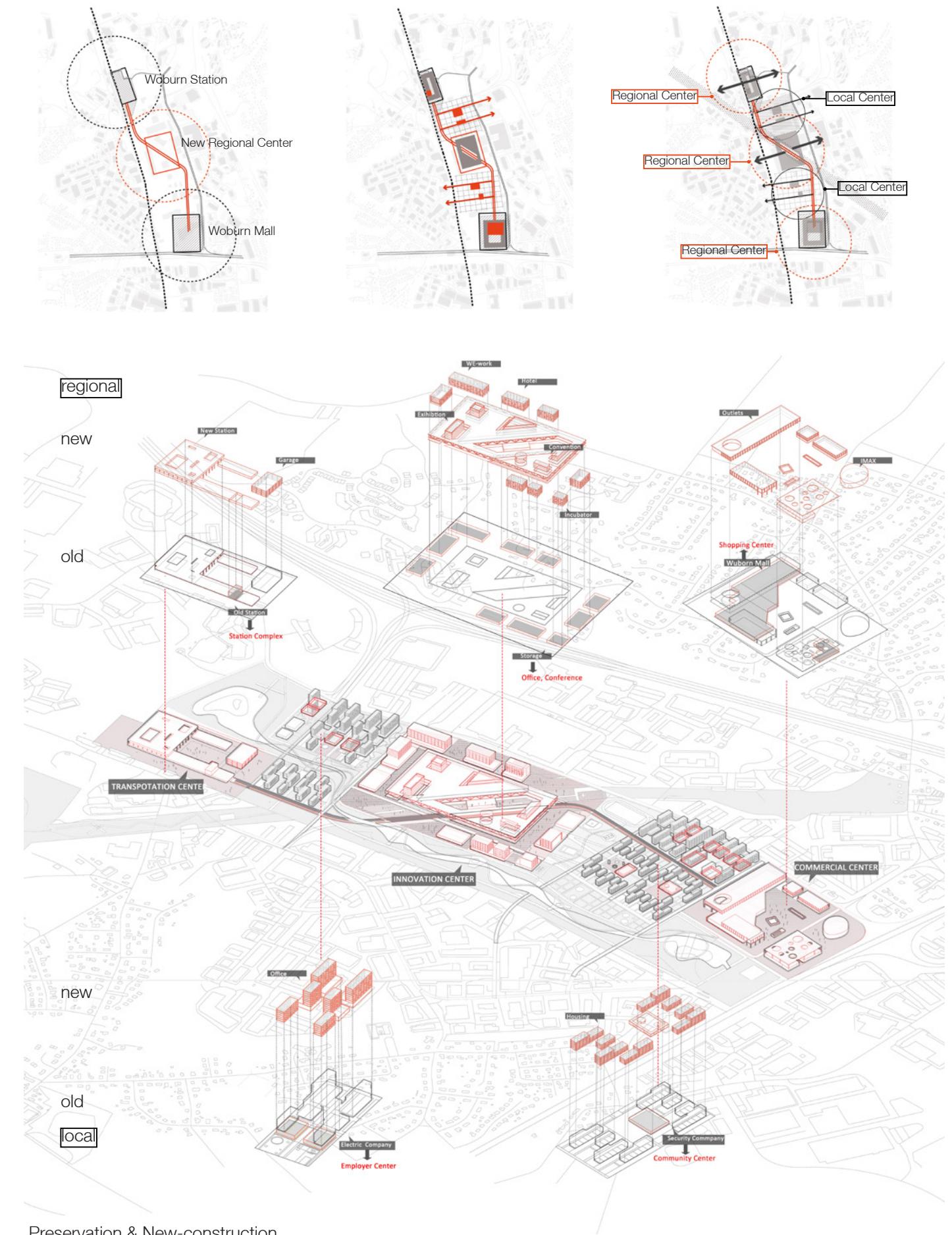
The project aims to address the problems of contamination brownfield reclamation, lack of internal connection and short of open space in the given site. At first, it separates the existing layer of nature and manages it with slight treatment, preparing it as an ecological corridor. Secondly, a new layer is introduced in order to accommodate more programs for future use.

The existing buildings are mostly preserved and renewed for new functions. Corridors and Bridges are used to organize scattered buildings and form more complete space. Across the whole site, three centers from south to north are developed. A second finer grid is introduced to break the large bulks as well as permeating into the neighborhood. As a result, the project serves as a medium between urban and suburban by cooperating existing layers and new layers.





Site Analysis



Preservation & New-construction



Site Plan



Ground Floor Plan



Impacting and Activating the Surrounding



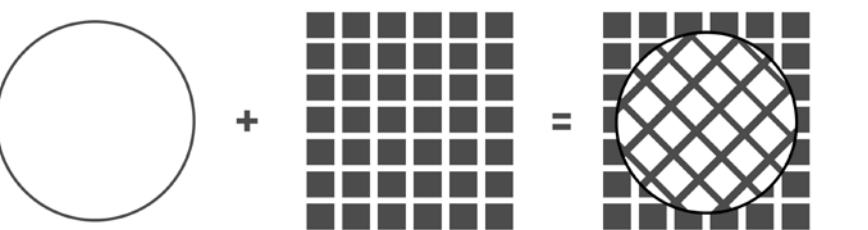
The Convention Center

## BOSTON METROPOLIS RECREATION CENTER

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### The Urban In-Between's Emergence

Urban Design Core Studio  
 Instructor: Dennis Piepz, Rahul Mehrotra, Teddy Kofman  
 Collaborator: Yechan Shin  
 Design: 50% Analysis: 50% Rendering: 60%  
 2018 Fall



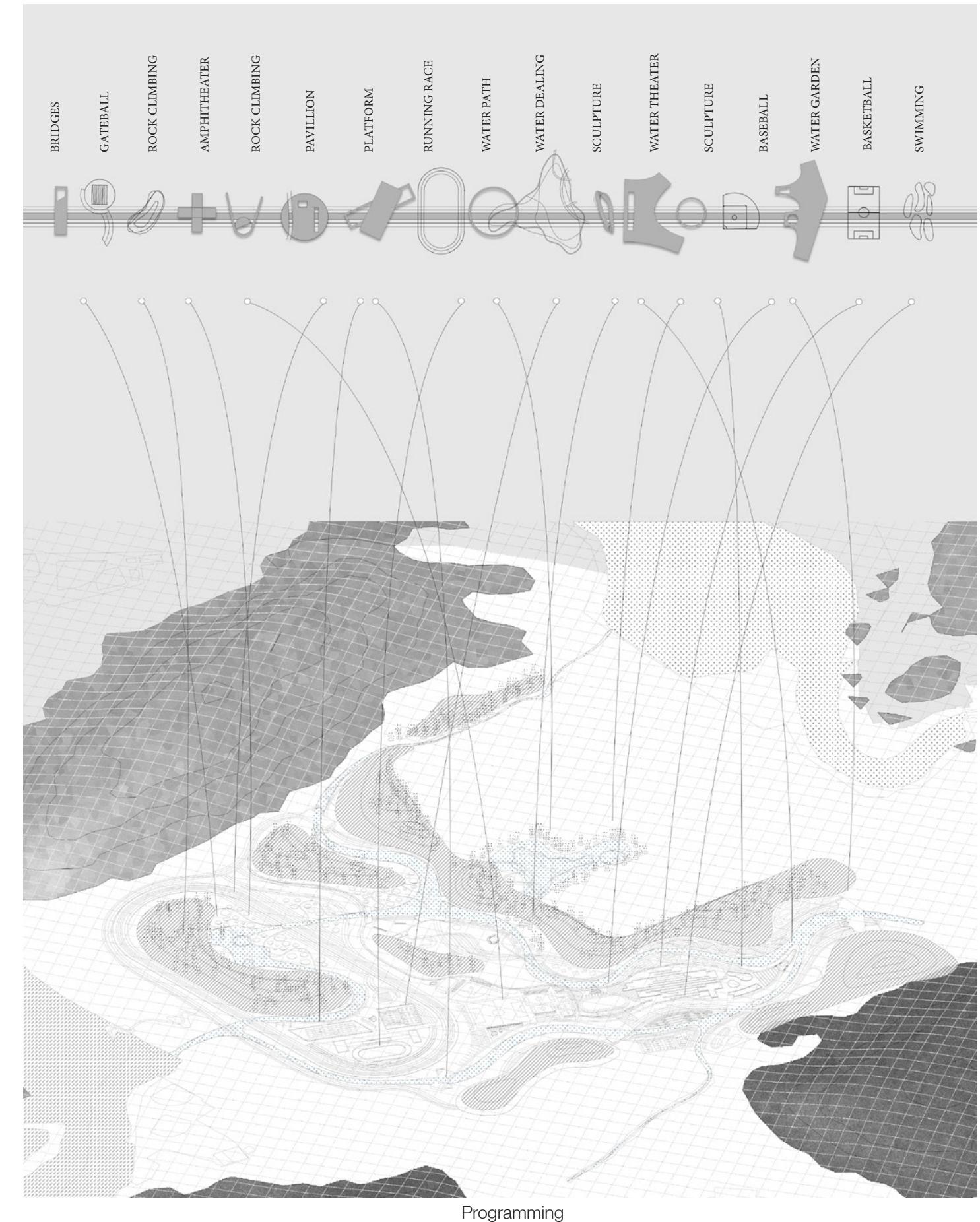
Due to Boston's population growth rate, the ratio between the productive space will break soon. As a result, Bostonians will live in an unhealthy life cycle where recreation is only given to wealthy people. This site is one typical example. It takes significant advantages of transportation convenience, situating the site much close to downtown and suburbs. However, the inner side of the area has been programmed with private entertainment and separated itself from the community and the general public.

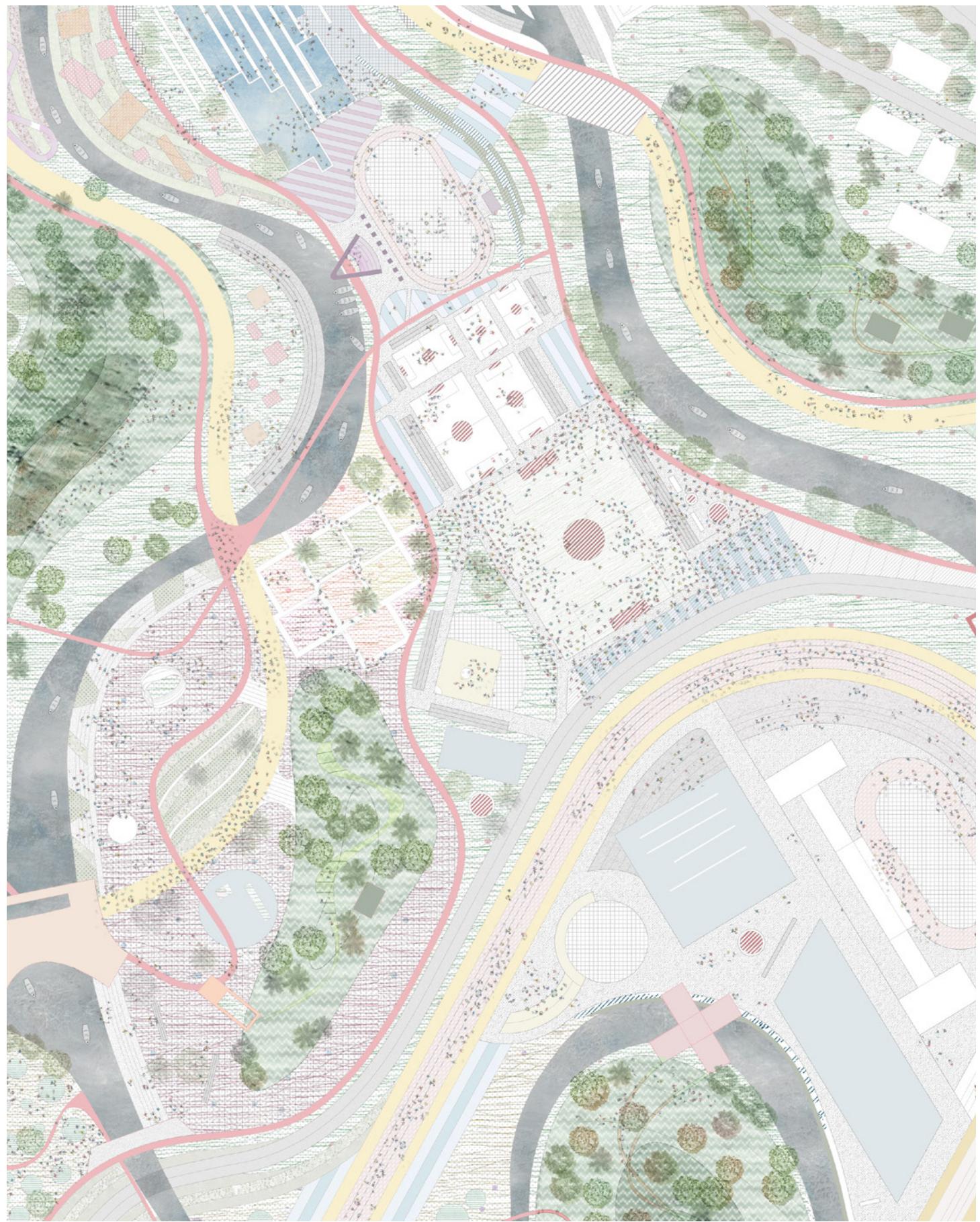
In our design, the oil tank industry and horse track is preserved for their physical and psychological values, at the same time, reprogrammed for future use. Through the research of existing recreational space in Boston, we have accommodated our recreation space with diverse activities. The surrounding site presents beautiful landscapes that we have connected to the park system of ours. The trail experience expands further out to the Belle Isle Marsh Reservation, which is beautiful nature. At the edges of the site and especially close to public transportation, we allowed the High-density Mixed-use development to satisfy housing needs and take the most advantage of the site.



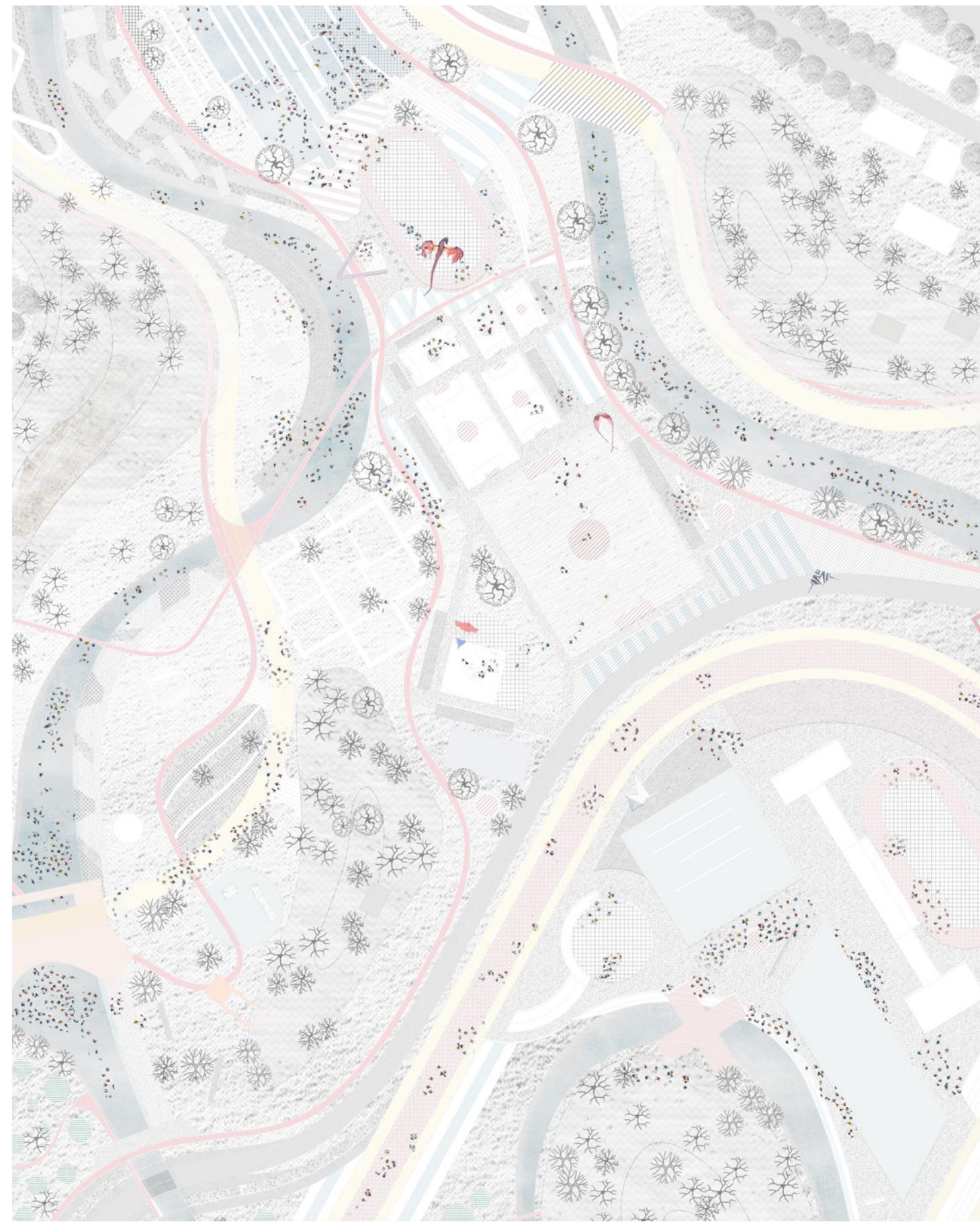


Master Plan





Ground Floor Plan | Summer



Ground Floor Plan | Winter



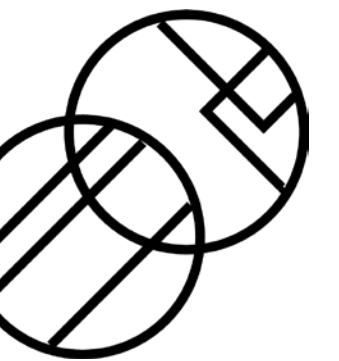
Natural Scene from the Mountains



Alive Scene From the Recreational courts

## GAME OF ZONES

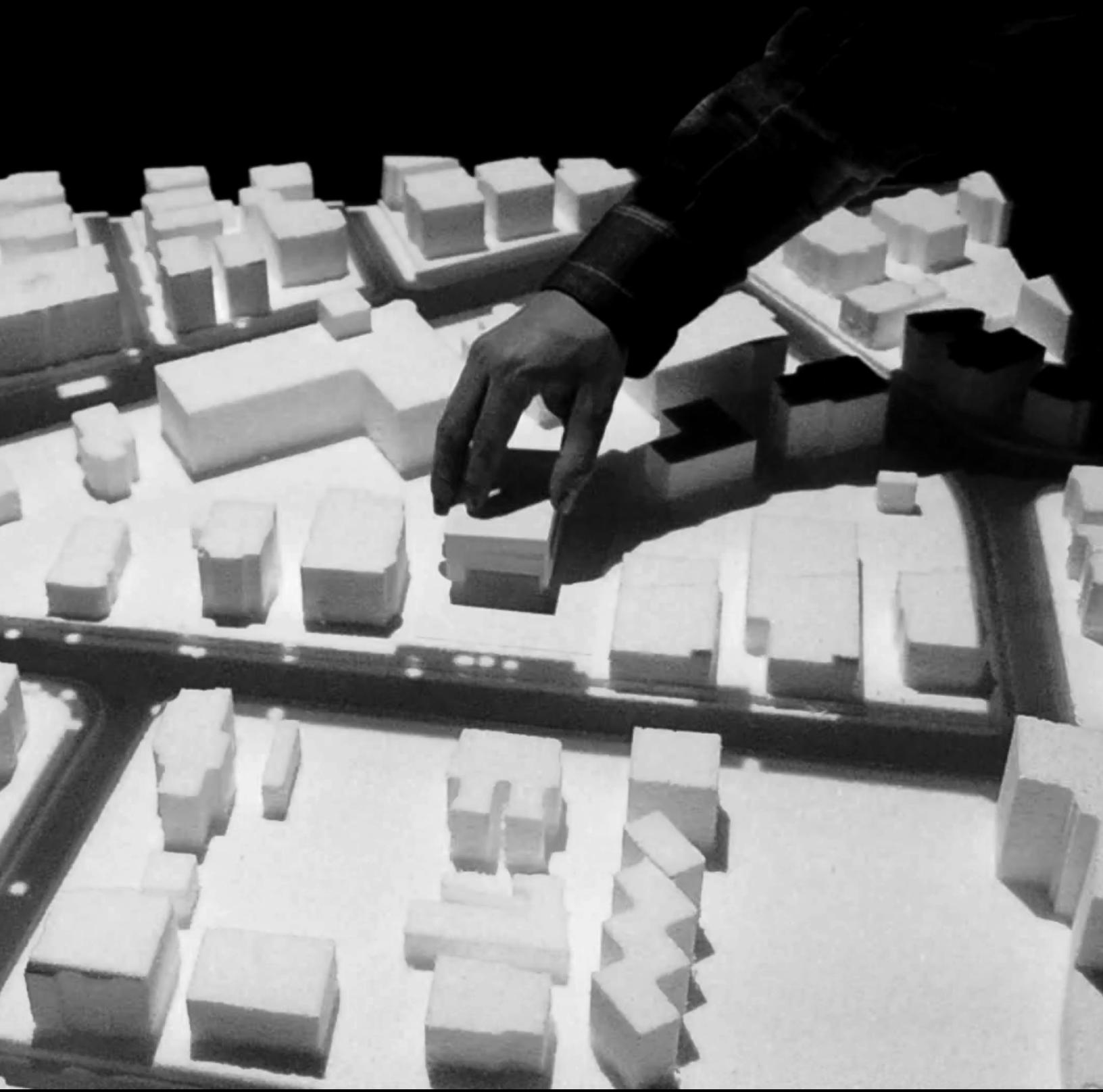
Open platform for zoning

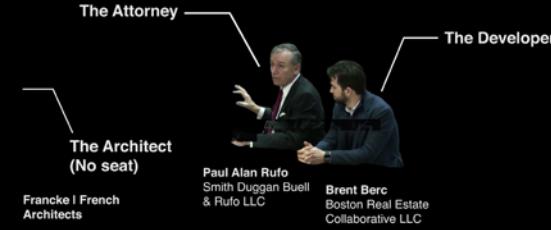


GSD Option Studio  
Instructor: Jose Luis Vallejo  
Partner: Jose Carlos Fernandez  
Design: 60% Analysis: 40% Rendering: 70%  
2019 Spring

Boston is currently facing a crisis of affordable housing. Of the multiple causes of the problem, the project is focused on the issue of neighbor's opposition to new developments. In the process of approval of new developments in the city, not only people demanding affordable housing have no space to voice their concern, but also many developments are approved overlooking the concerns of the neighbors. This issue is happening all over the city. Much of the conflicts between different actors is due to mis-information and lack of empathy. A complex zoning code and a court-like public hearing are just not the best venues for this interaction.

The goal of this project is to create a transparent platform for open interaction between opposing urban stakeholders such as cost-burdened residents and neighbors to new developments in Boston. Game of Zones replaces traditional City Hall hearings on zoning with visualization software showing the potential envelopes of buildings. The platform will determine the amenities required of developers in exchange for additional density through the interactions of the different users in a game-like software available on desktops and cell phones.





"We could explore a way..."



In support for:  
"... they drastically scaled back"



We made a video analyzing the interaction in the actual public hearing of our case study. The request of the developer was the increase of the FAR. The conversation was led by the lawyer; the architect didn't even have a seat. This, we argue, is a direct result of the complexity of zoning regulations.



"...it is a project with no  
community benefits"  
"...it has the trash outside"



"...it is a project with no  
community benefits"  
"...it has the trash outside"



The Board opens the floor for  
neighbors in the room



#### Zoning Board of Appeals

The mayor appoints 7 people to the board every 3 years.  
They meet every other Tuesday at 9:30 a.m.



THERE'S A HUGO BENEFIT TO YOU  
ALMOST DOUBLE THE FAR.



>> ANY OPPPOSED?  
MOTION CARRIES.

Interestingly enough Boston zoning is artificially restrictive. For the increase in FAR the developer has to negotiate for the neighbors support. 3 people spoke in support. One of them said that the developer promised not to rent to undergraduate students.

Then, there were two neighbors opposing the project, who mentioned the impacts in traffic, light, airflow, snow and trash management. The only issue over which the developer was asked to deal with was the trash management.

The negotiation is led by the Zoning Board of Appeals. This setting leaves no chance for the voice of other stakeholders such as the cost-burdened residents of the city. We think that perhaps the whole dynamic might benefit from a change of the setting of these interactions.



The spatial way of thinking might be familiar to designers, but is not the language of the zoning hearings. We begin changing that through a physical model and a projection from above that showed the reproduction of the very same dynamic of the hearing.

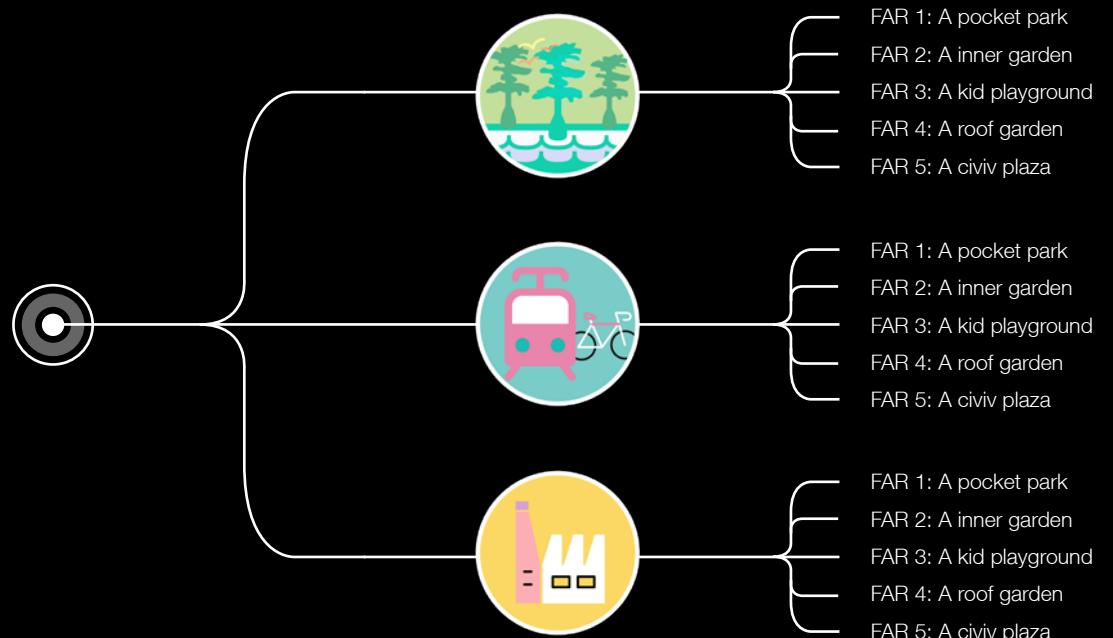
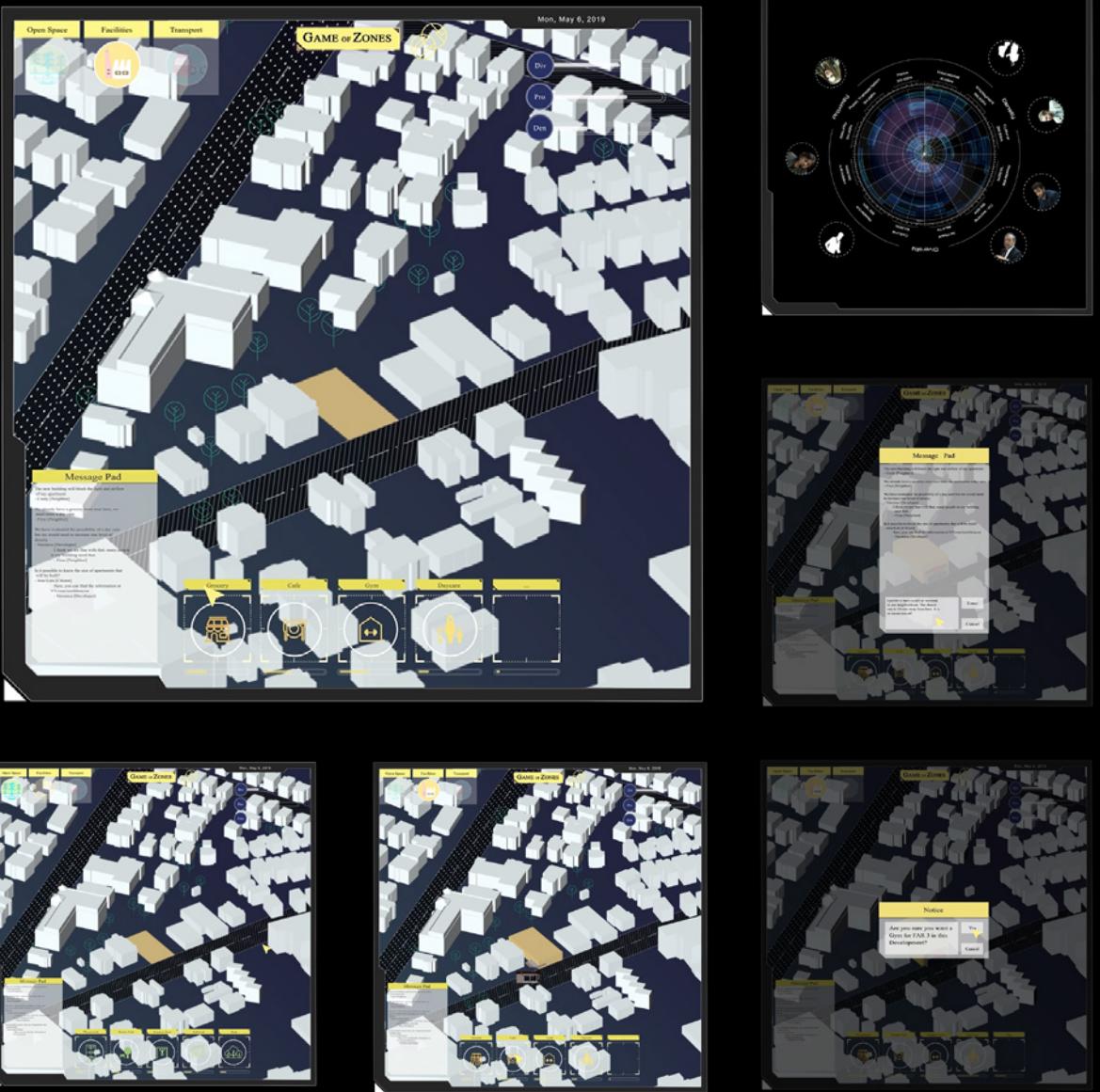
The video projected from above showed an estimation of the traffic and pedestrian movement with the original density of FAR 1 and with the successive increases in density with FAR 2, 3 and 4. The visualization helps an ordinary citizen understand the changes of density.

It can also help us think in what are the amenities that the city should require from the developers for the additional density. The example we took was a requirement of a commercial space that would increase with each level of density.

We know that there already exists incentive zoning. However, the decision for granting still happens in a bureaucratic context. The aim of the platform is for the people to interact with the different alternatives in a different media and for every piece of land.



Based on the previous analysis, we prepared a video introducing “Game of Zones”. Game of Zones is a platform which will complement data analysis of the city with the input from the community in a transparent, game-like setting.



The platform will display the different benefits that people might want for the neighborhood and, at the same time, the corresponding increases in density. The platform will show the implications for each decision in a friendly layout that will resemble successful games such as Sim City or Minecraft.

As mentioned before, our first pilot is the proximity to a commercial space. The users will be able to voice their opinion about the different kinds of commercial space. Maybe the opening of a new grocery store or a community center. Each level of density has an amenity to be developed as a complement.

These opinions are based on a visualization in real time of the changes that different choices imply. For each choice, the platform will show the feasible envelope and a projected sample of the commercial space. The users are able to zoom in, zoom out, and pan around in order to have different views of the property.

The users also have the option to include suggestions and respond to other comments, for example, from other neighbors, developer, or other interest groups. Once a vote is made, the current result would show immediately. The window of visualization will show the current winning option.

## POST - SHAKER

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R e n e w   o f   T y p e s

GSD Option Studio  
 Instructor: Preston Scott Cohen  
 Personal Design  
 2019 Fall

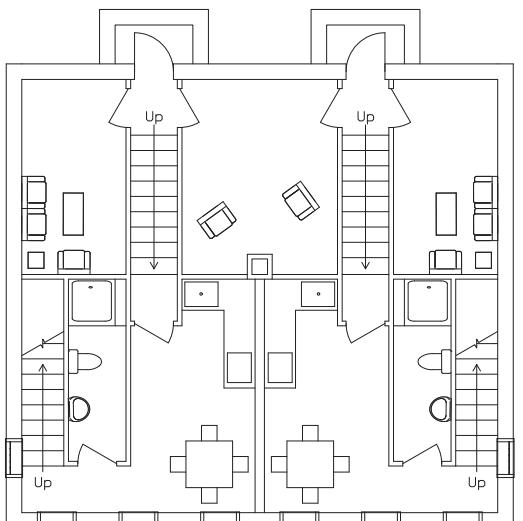
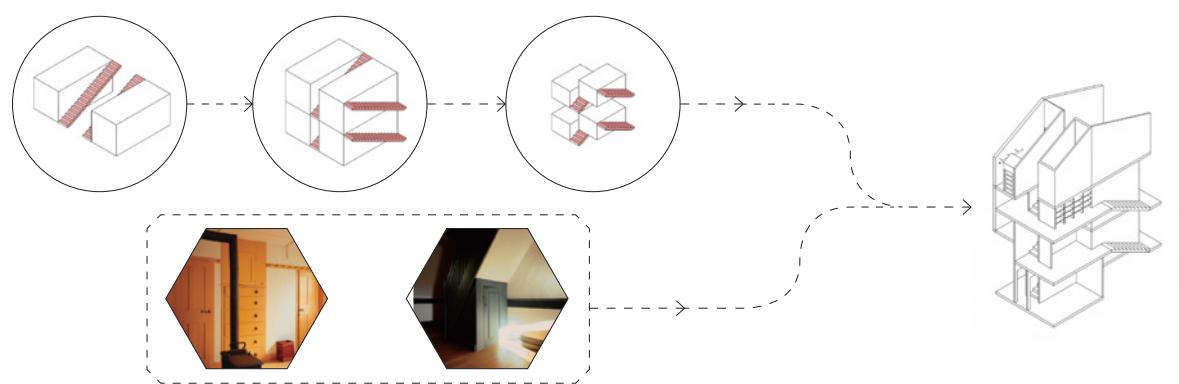


"The Shaker's renunciation of ornament, modern technology, and their artisanal and craft based production was admired by many pioneering architects, most notably Adolf Loos, and by many architects today who are interested in minimalism and new forms of tectonic expression. The Shakers believed in and practiced pacifism, gender and racial equality, and celibacy. Their belief in separation from the world created a distinctive culture related to utopianism."

- Scott

The aim of the studio is to design architecture in the Shaker thinking through a lot of experiments and trials. Three different programs were being explored in the same time: housing, museum and workshop. The duality of gender were transformed into duality of function and form in these buildings. As an identical feature in Shaker buildings, the stairs, however, were broken and regrouped in these projects. In the family housing, stairs were divided to connect mezzanines to optimize space efficiency. The museum has a very 'Shaker' facade, whereas the space inside is trying to break the rule by weaving a pair of stairs. The workshop is imaging the possibility of Shaker building on the slope, which resulted in the inconsistency of exterior and interior. The stairs here became more like a room instead of a circulation space.

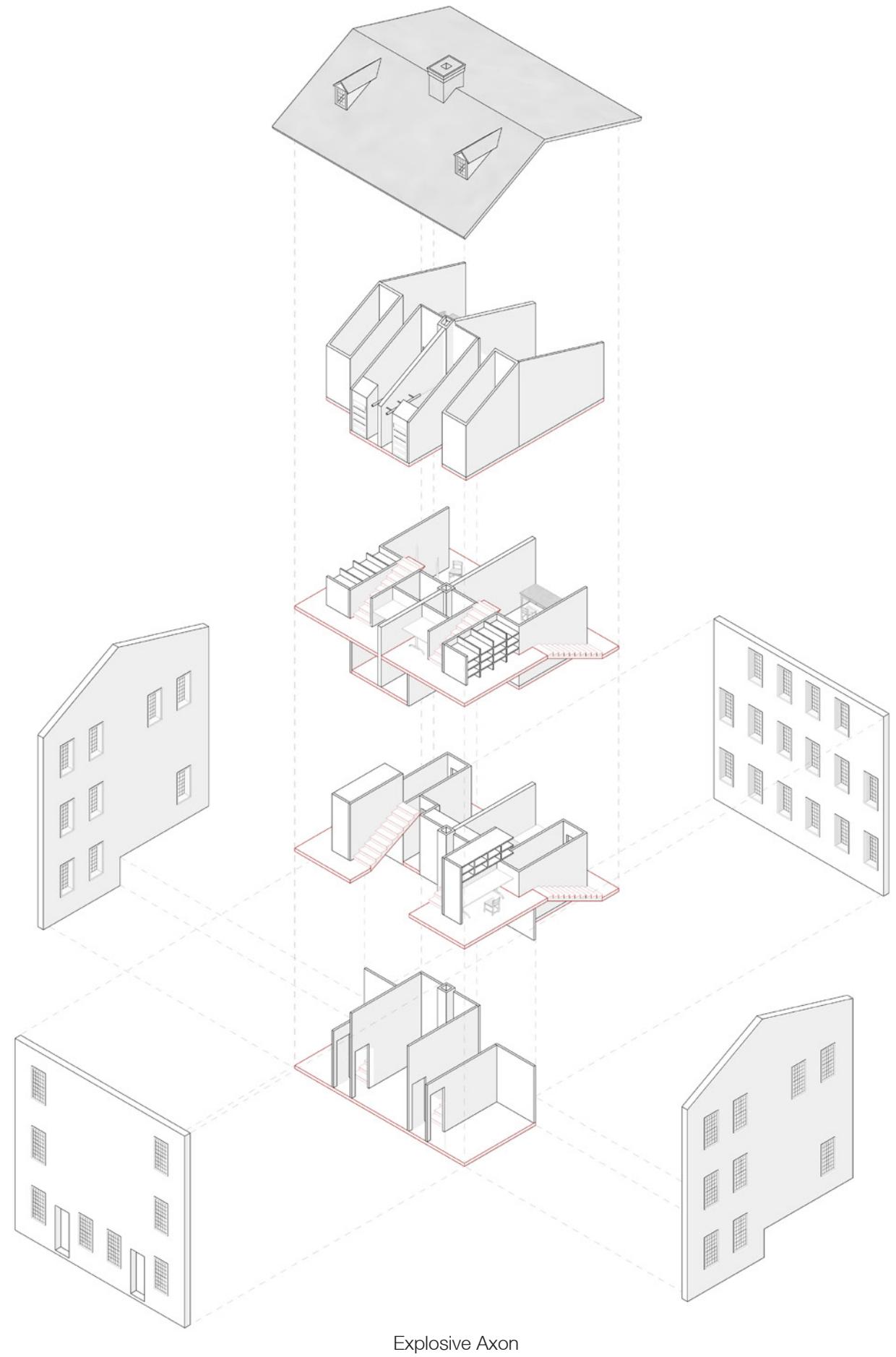


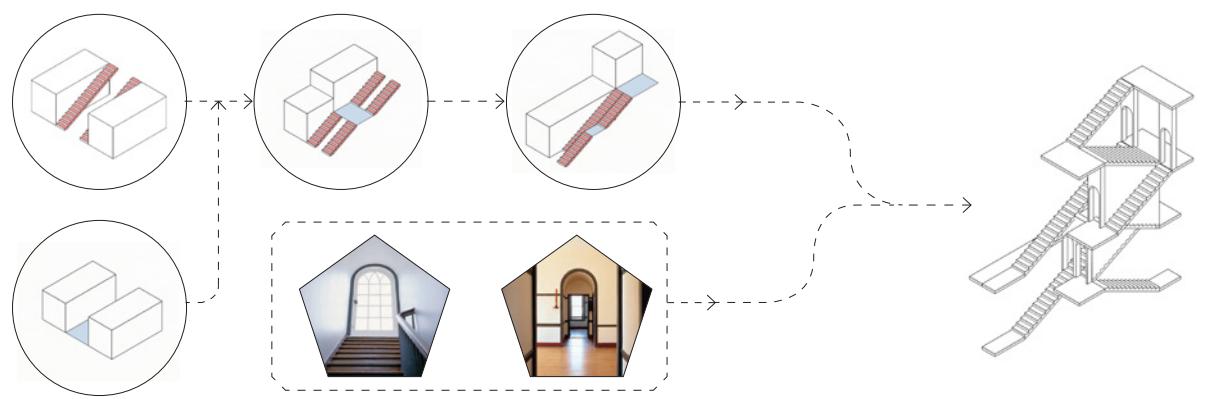


1st Floor Plan of Housing

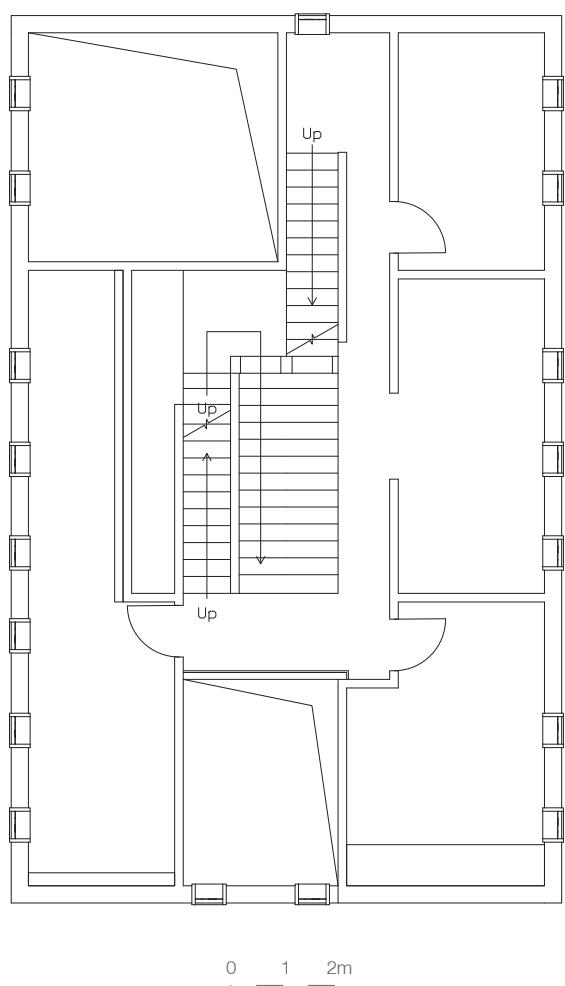


Rendering

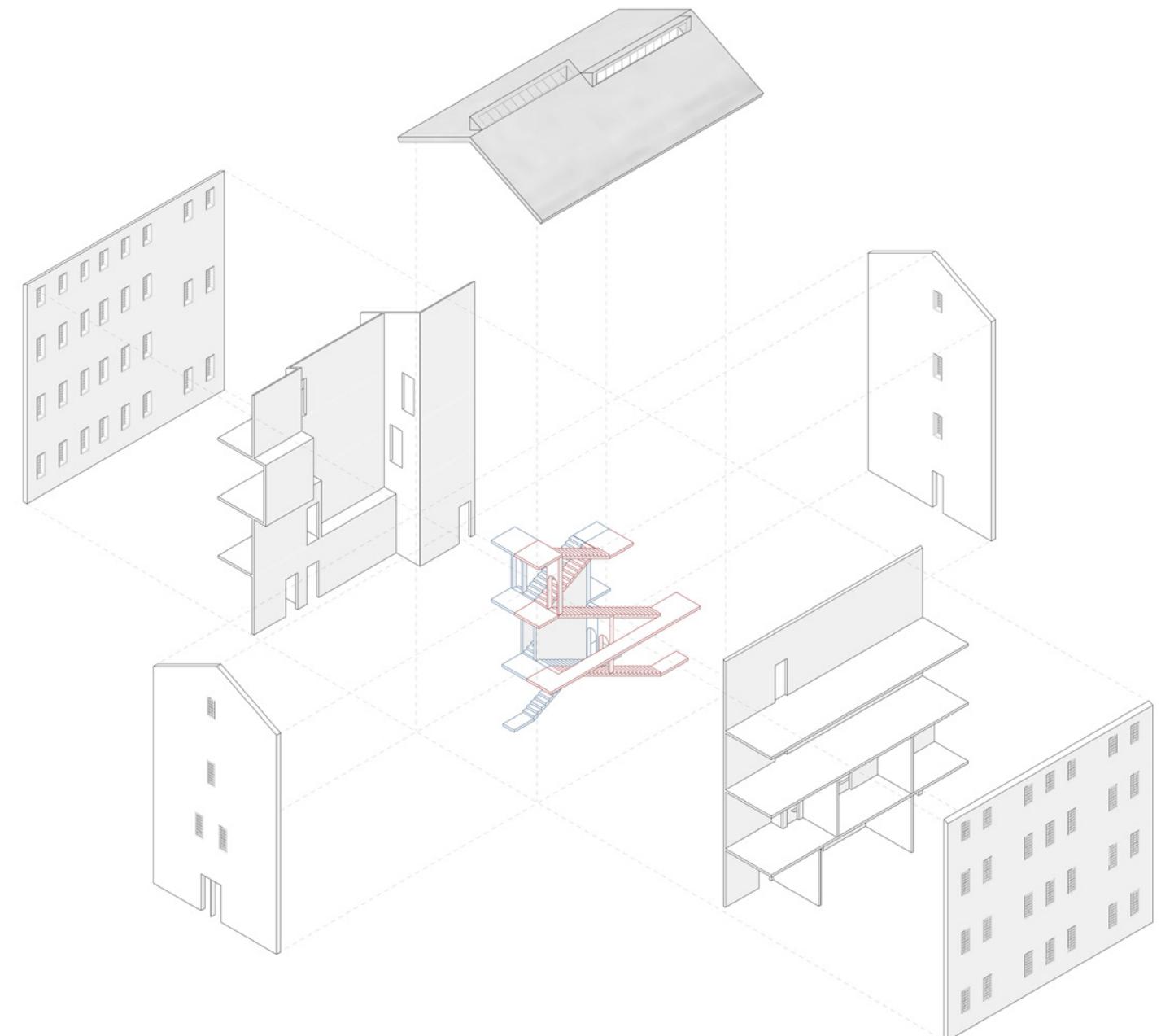




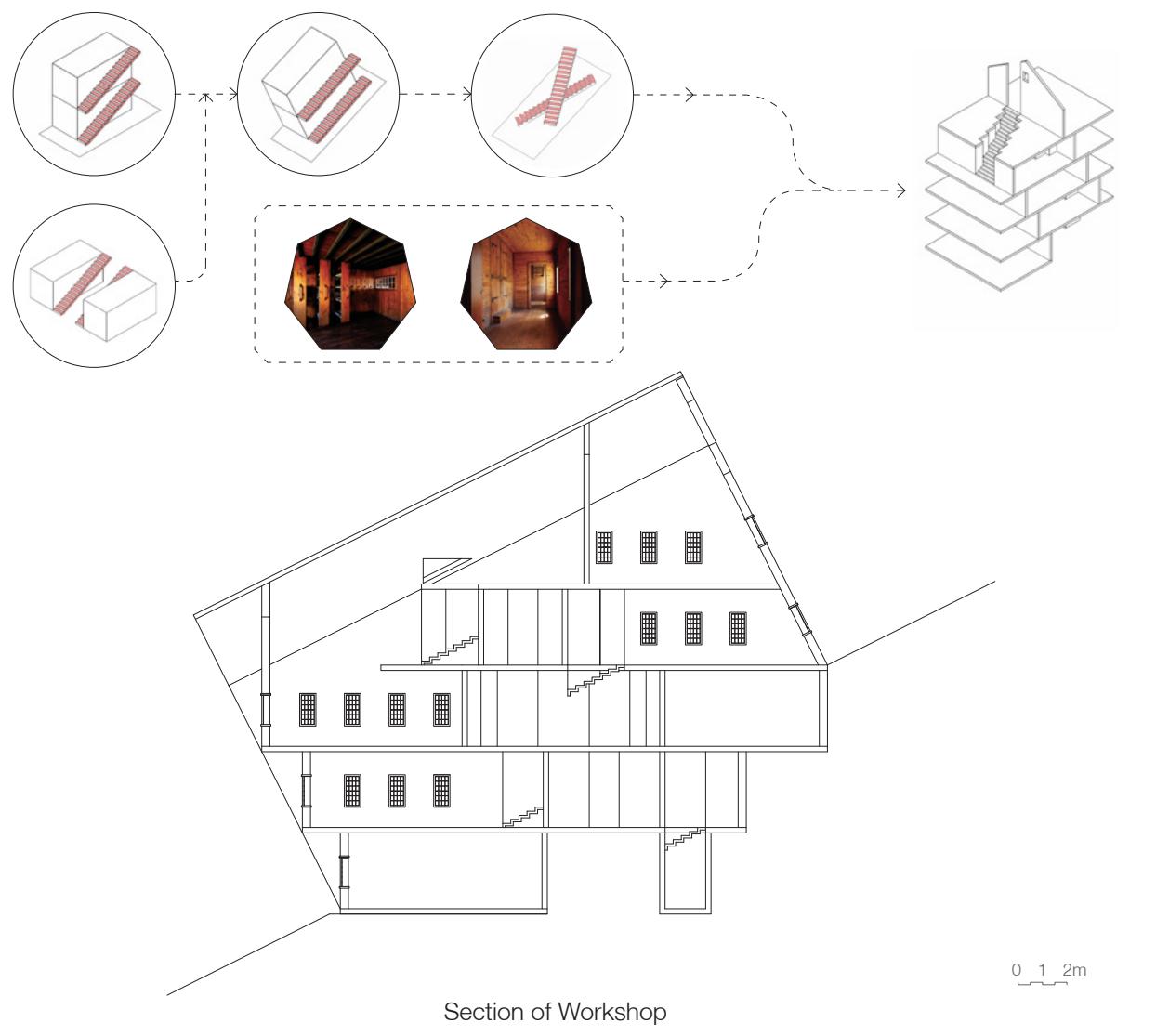
Rendering



2nd Floor Plan of Museum



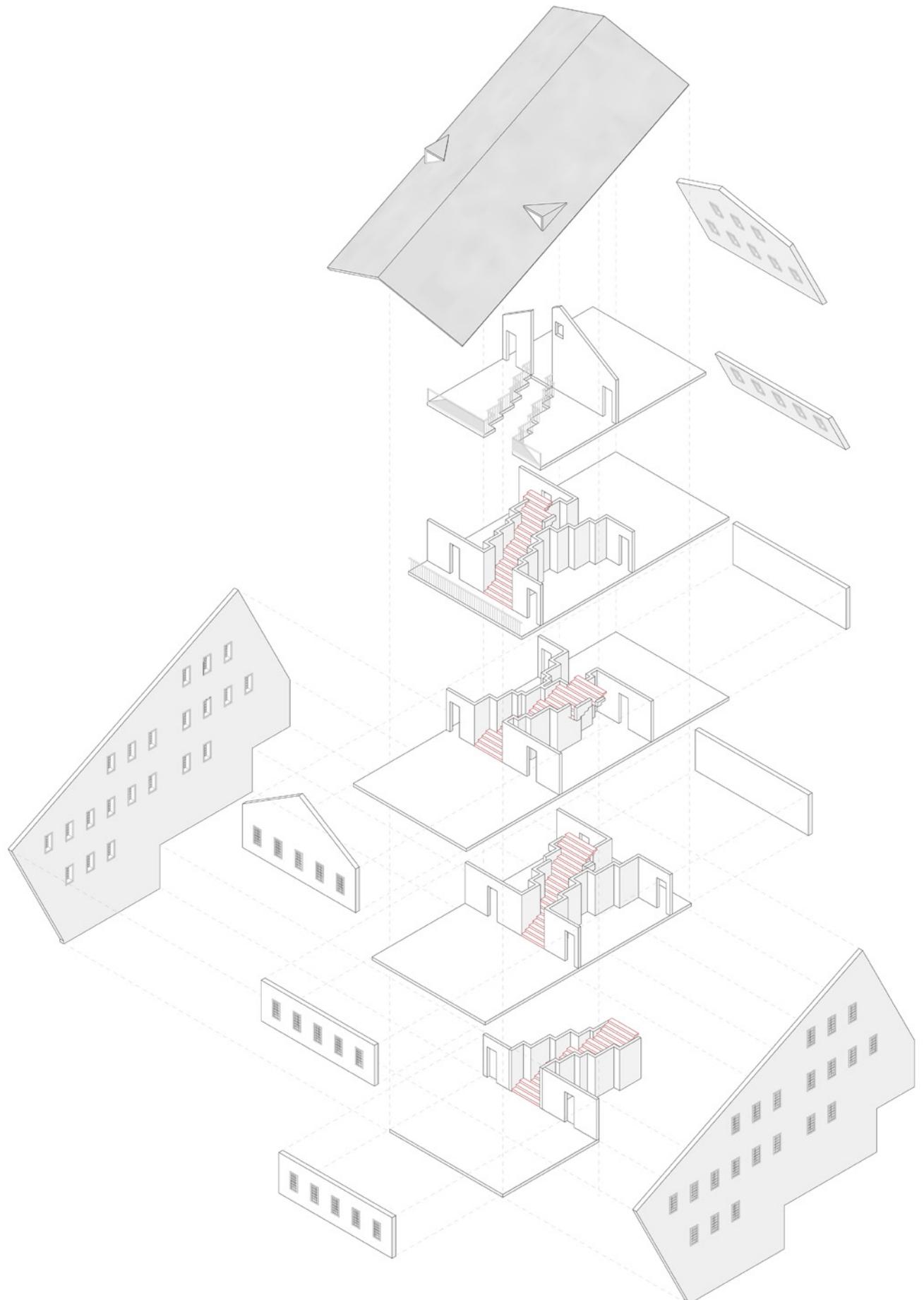
Explosive Axon



Section of Workshop



Rendering



Explosive Axon

## ELDERLY VERTICAL COMMUNITY

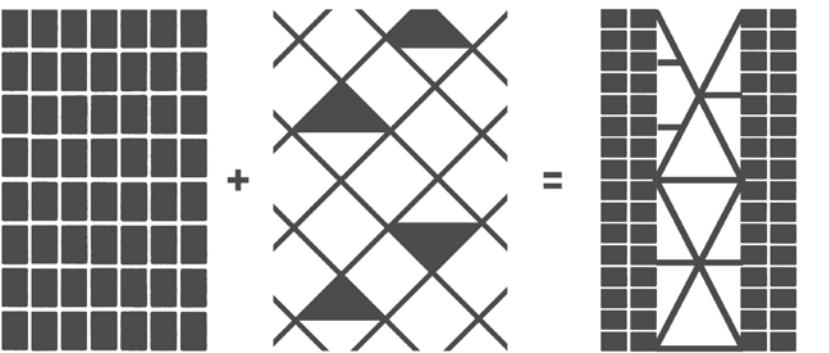
The Transformation Of Types

1st Prize in 2016 ICCC Competition

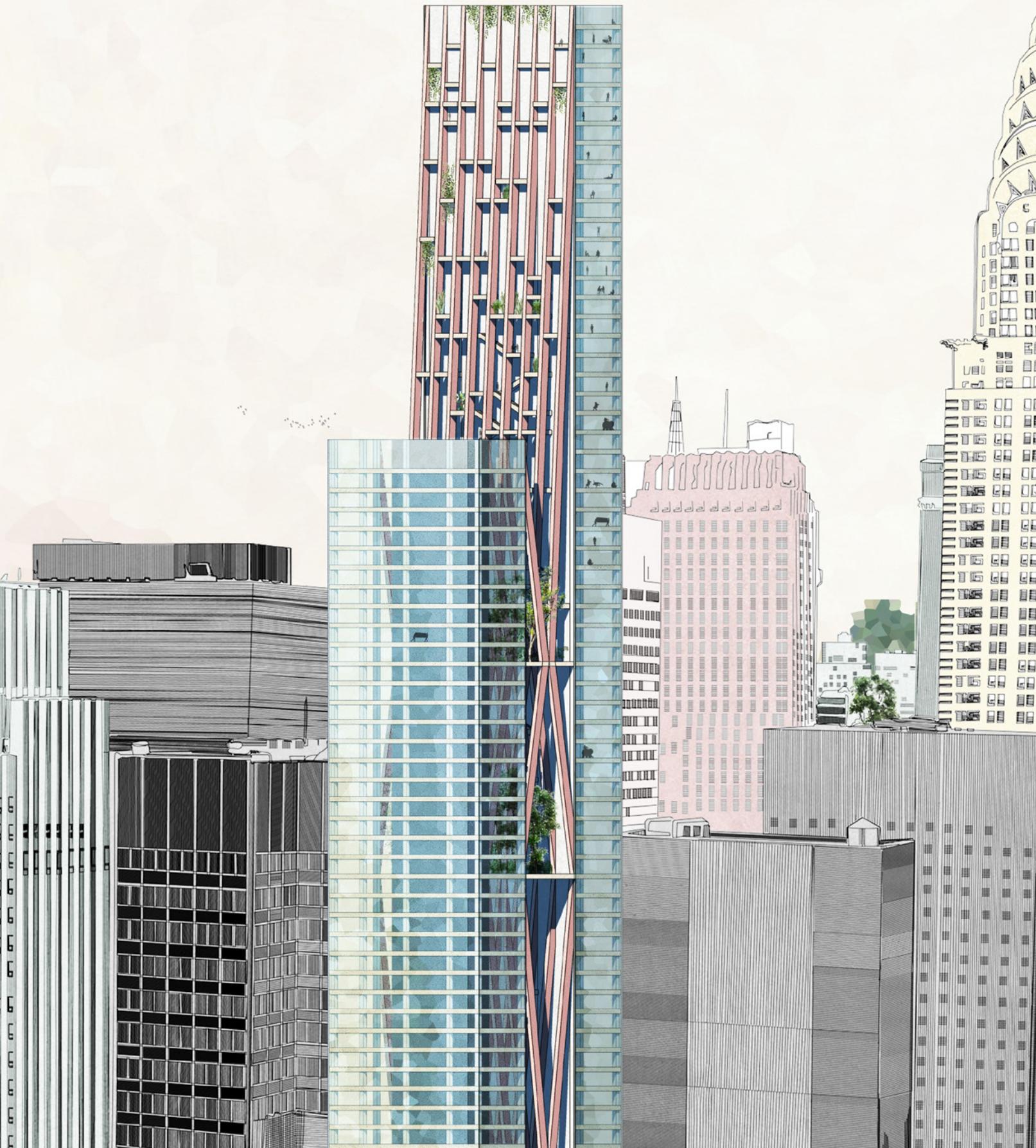
Personal Design

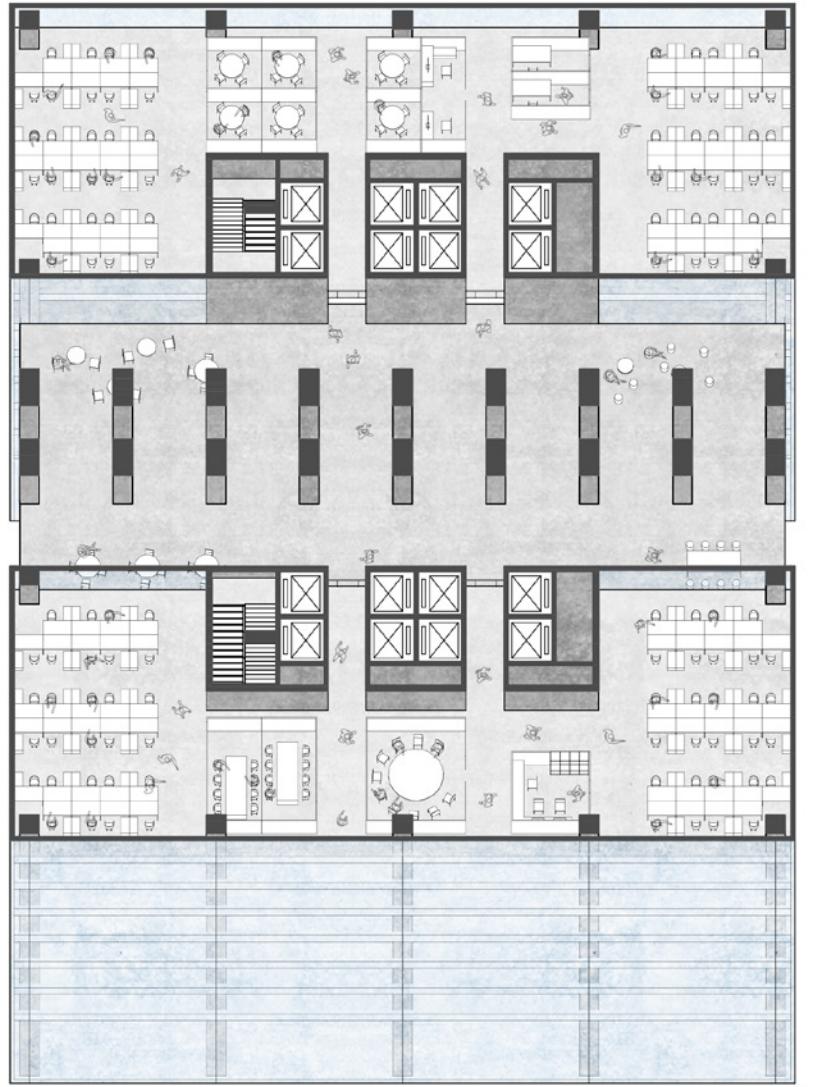
Instructor: Fei Lian, Wenjia Li

2016 Winter



With the trend of global ageing becoming evermore prominent, this project proposed explorations on aging problems in China and other countries or districts of land resource shortage. The residence mode is considered as all ages, including the senior, the middle-aged, the young and children, harmoniously living in one community, and contributing themselves to society. The environment is considered to be friendly to anyone in the community but not only for the elderly. The typical plan of high rise building is centralized layout based on a core based typical plan. I am thinking how to create more public place for different ages. So I changed the organization mode of core, integrating it with the organization of path in Chinese traditional garden. In the meantime, I must comply with the structure form in high-rise. The finished design is totally new in form but consecutive in content.

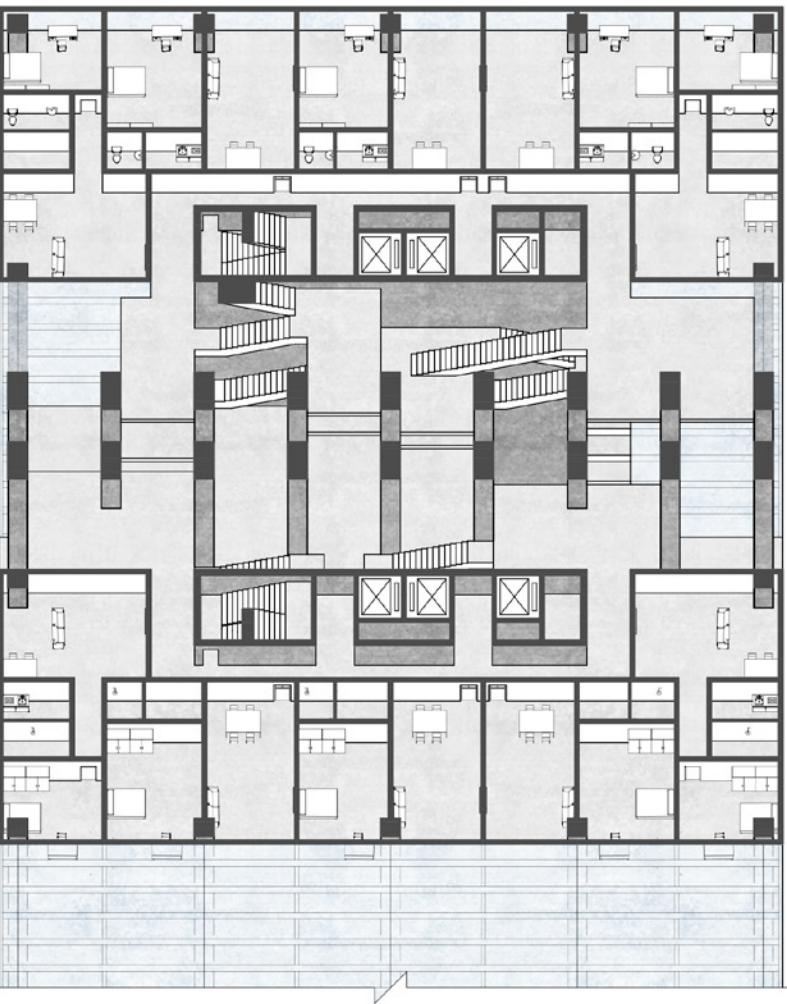




Axonometrical Plan of Office Block



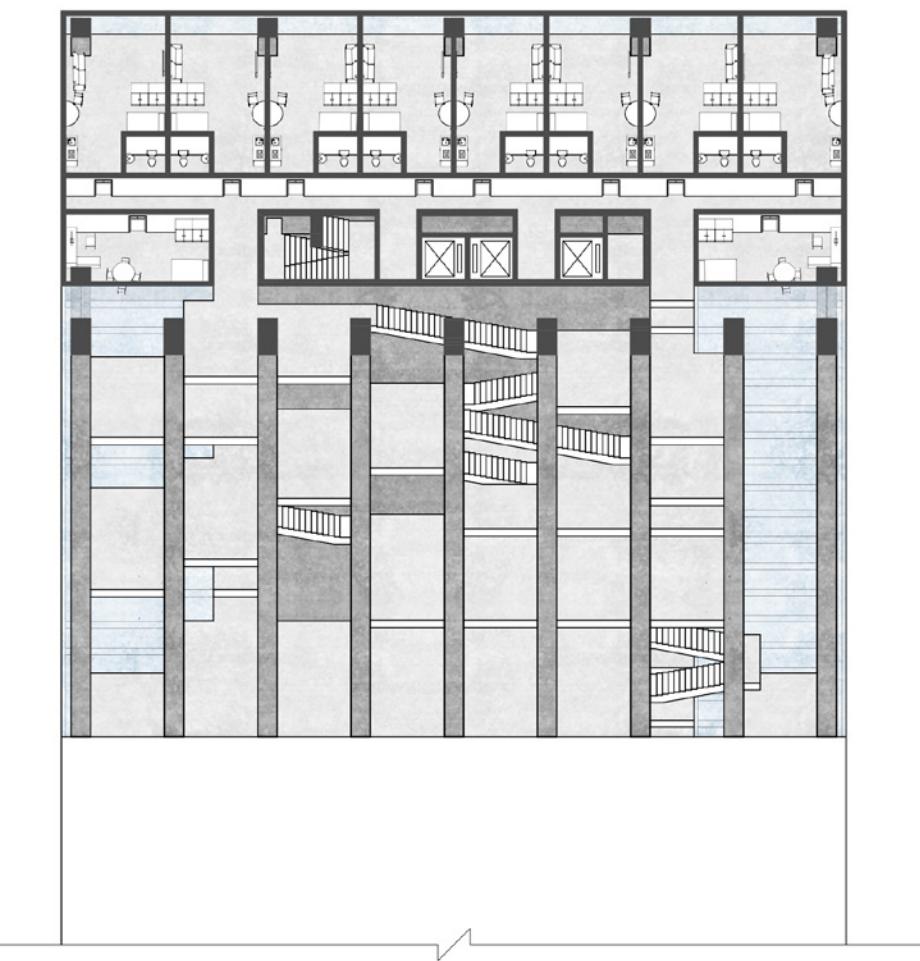
Rendering



Axonometrical Plan of Residential Block for Families



Rendering

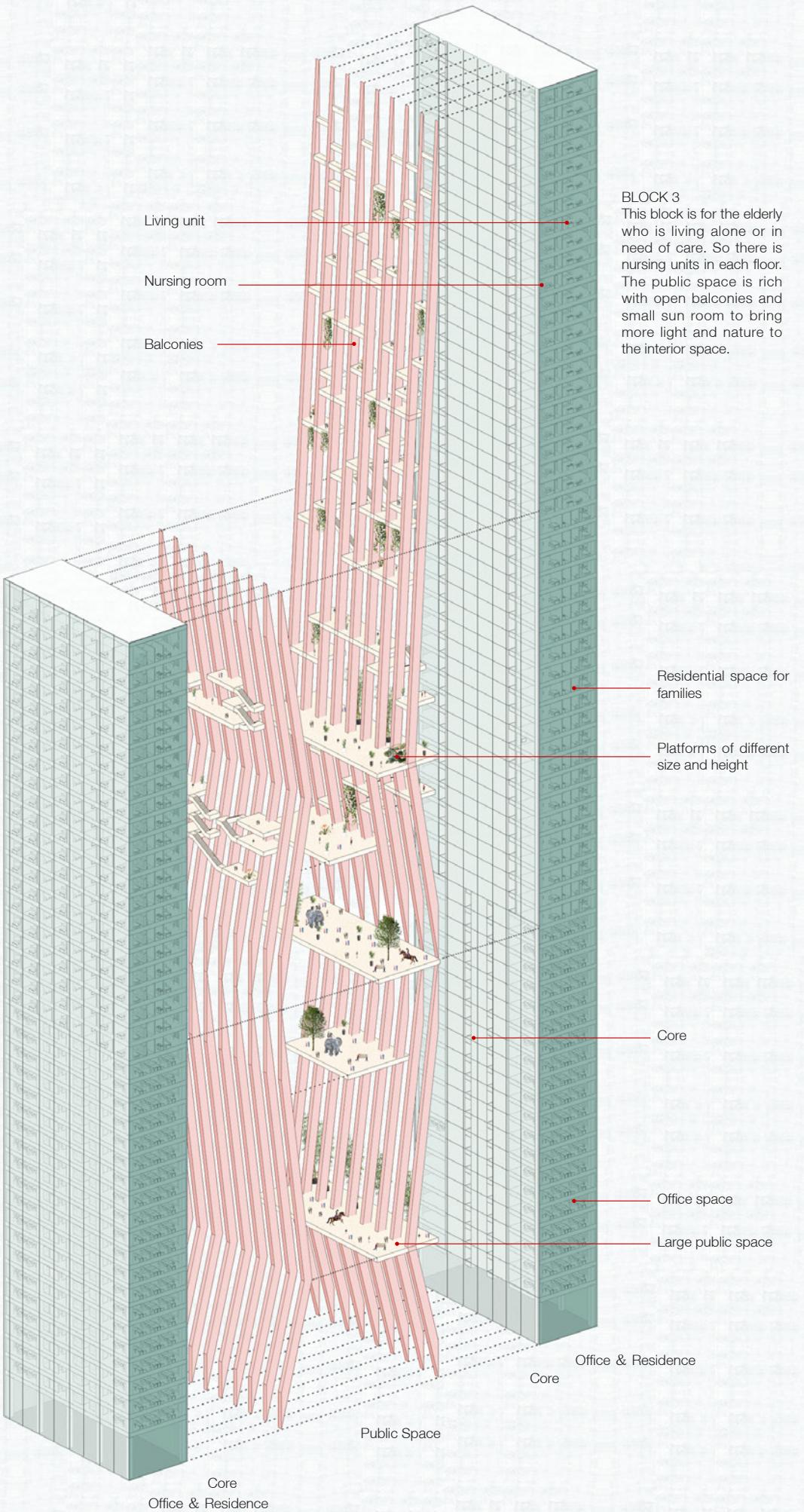


Axonometrical Plan of Residential Block for Living Alone



Rendering

Explosive View

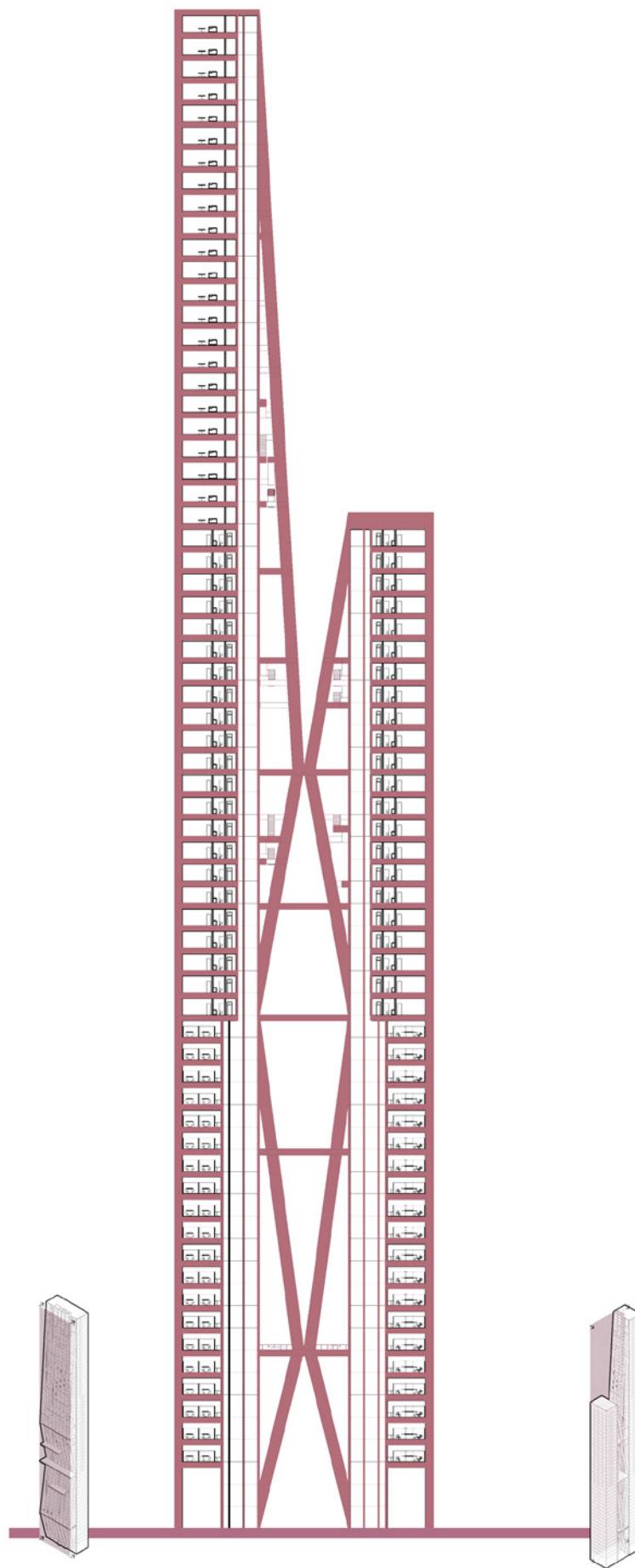


**BLOCK 2**  
This block is for families with two or three generations. The residential space is clear in function and separated in circulation. What's more, it could be adapted to future needs. The public space is mainly for recreation and amusement. Some broad platforms are designed to set large space like park.

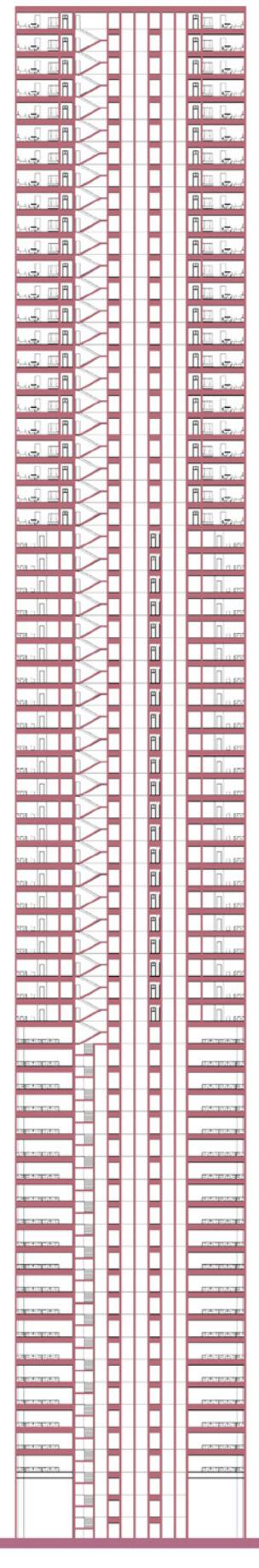
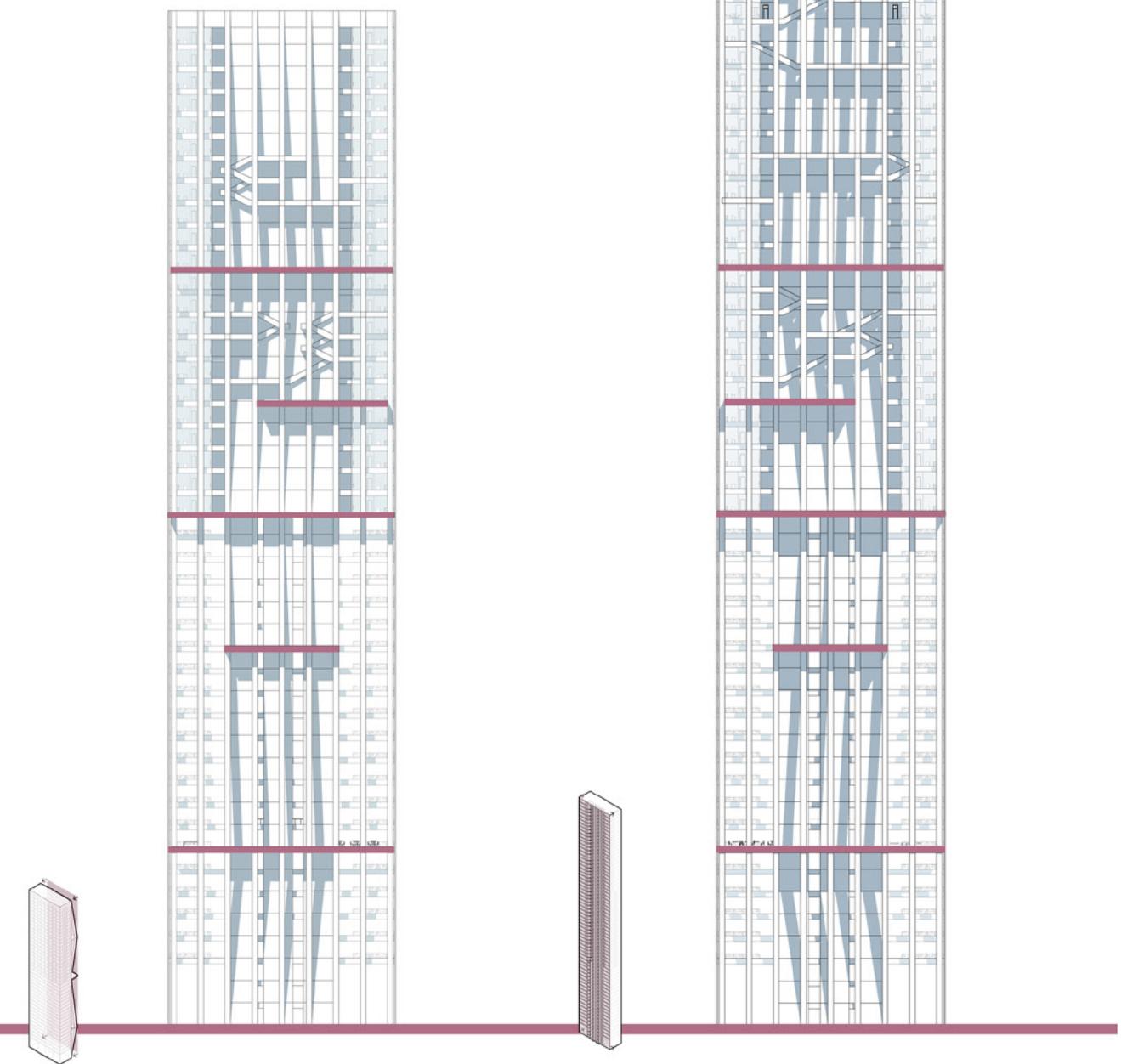
**BLOCK 1**  
This block is a working space to integrate more people of different ages to seek job and live here, thus promoting the communication between the elderly and young. The office area is quite open to satisfy different needs. The public area is a large space to accommodate various of activities.

**BLOCK 3**  
This block is for the elderly who is living alone or in need of care. So there is nursing units in each floor. The public space is rich with open balconies and small sun room to bring more light and nature to the interior space.

Section



Inside Elevation

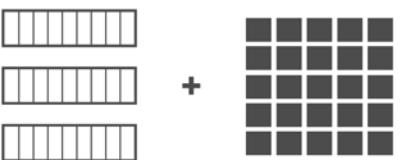


## TALENT APARTMENT + INCUBATOR

C l o s e   T o   W o r k   &   H o m e

Site: Fukuoka/Japan  
Competition Design

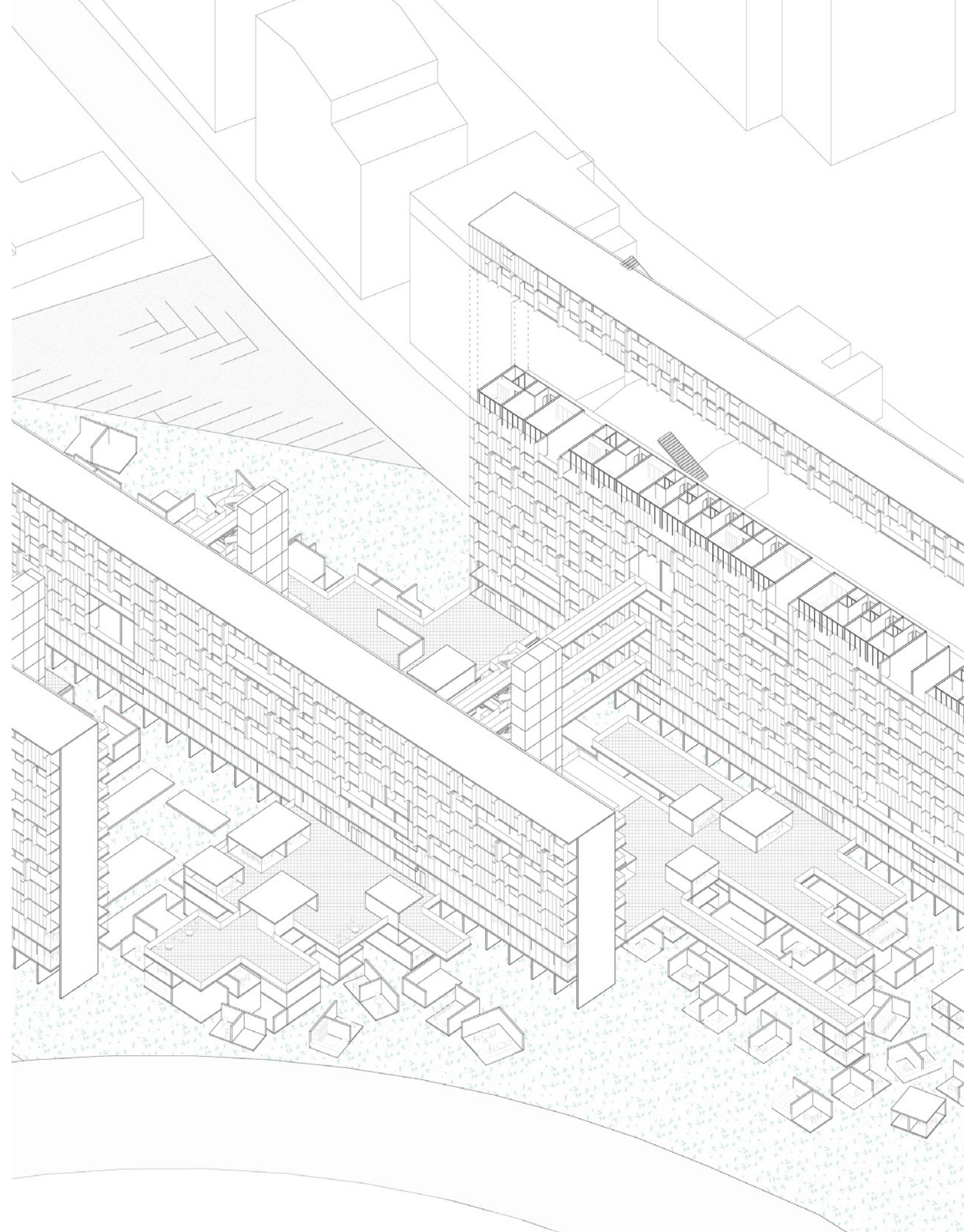
Collaborator: Juntong Zhang, Boliang Du  
Design: 70% Drawing:100% Modeling:90%  
2020 Fall



The City of Fukuoka wants to create a new center for the city. It should be attractive, creative and experimental. The design should adapt to the current challenge of COVID-19 and more severe living conditions in the near future. A completely new living mode is needed. This mode should be both economically logical and spatially efficient.

Based on this goal, we are imaging a habitat with less living cost, shorter service cycle and higher adaptivity. We proposed the social housing - talent apartment for the "living space". The construction is subsidized by the government, which relieves the residents from high living cost. Different types of units are provided to serve different family structures. Residents could choose to either stay shortly or live for a long term. As for the "workspace", we designed an incubator which consisted of the offices in the first two floors of the residential tower together with the co-work space on the platform between them. The incubator is gifted with relatively low renting price and high spatial adaptivity, making it an ideal place for new startups.

When organizing the living space and workspace, we introduced market space as an adhesive, which occupies 30% of the total floor area. These tiny pavilions are rented out to the city for small business, while some of them are open spaces. We hope people would be attracted here to meet, eat and shop.





Public Market



Co-working Space

## TO THE FIELD

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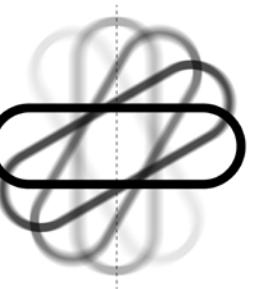
### The Combination Of Types

Design Anthropology: Objects, Landscapes, Cities

Site: Muff & Culmore, Ireland

Instructor: Gareth Doherty

2019 Spring

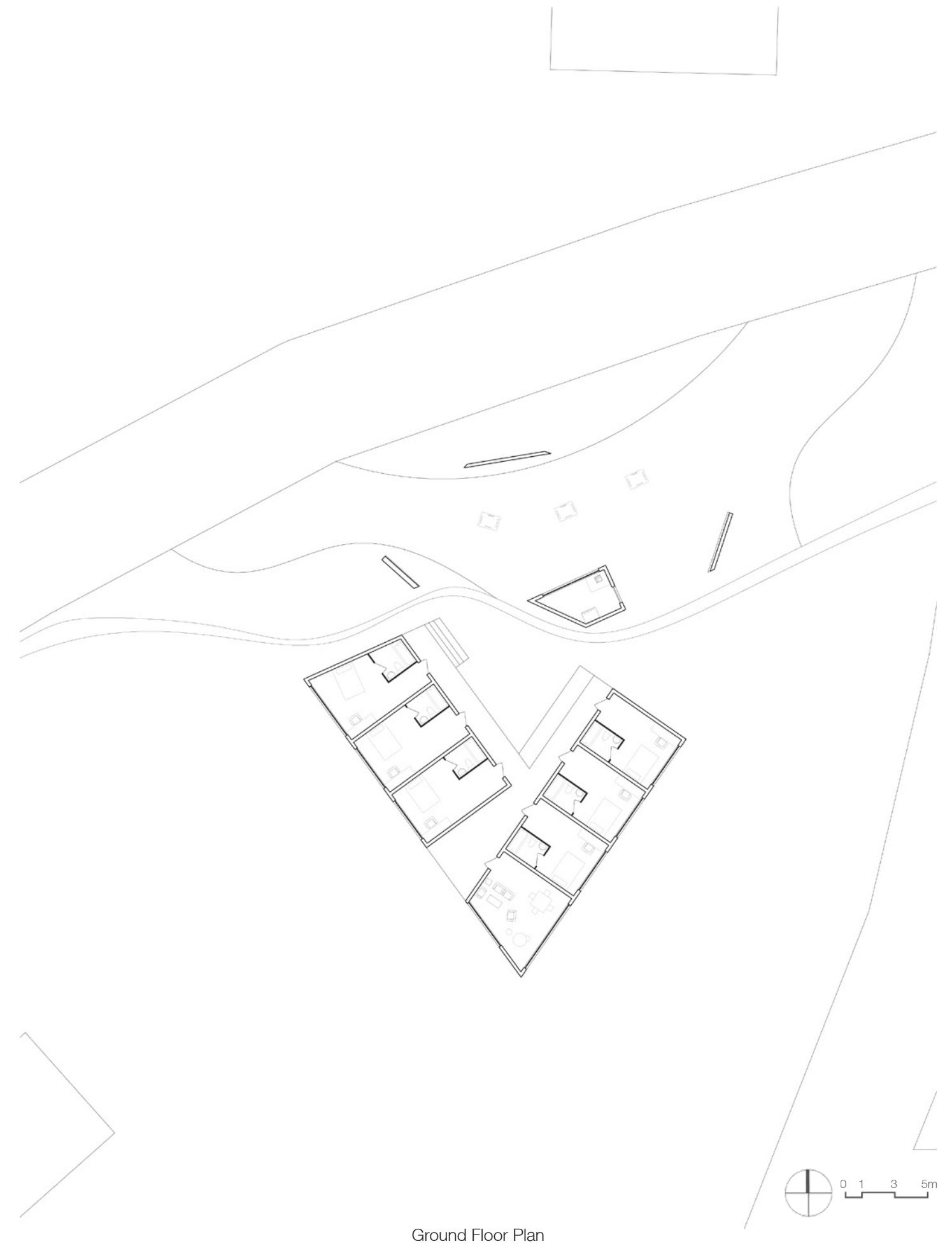


The project began with the field research to Muff in Ireland and Culmore in North Ireland. The research is focused on morphological factors of the city alongside the border, as well as its reason of formation. One discovery is the uneven distribution of petrol stations and hospitals as well as pharmacies.

Living along the border of two countries, people in these two towns know very well how to acquire benefits from both sides, such as filling up their cars on one side in lower gas price while driving to the hospital on the other side because of lower healthcare cost. However, things could be different due to Brexit.

The project is assuming the return of hard border near the former custom point in Muff. Two utterly different programs are put together: a petrol station in Ireland and a retirement home in Northern Ireland. The idea is to make use of the benefits on each side and create a gathering place for nearby residents. Two buildings are separated in function but correspond to each other in form.





The Petrol Station



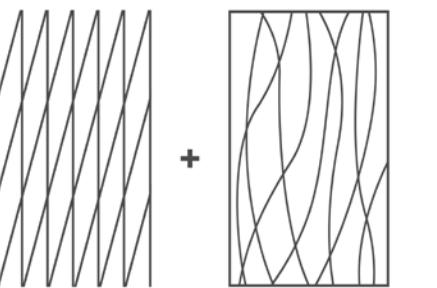
The Courtyard

## FLOWING

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### Multiple Walking Experience

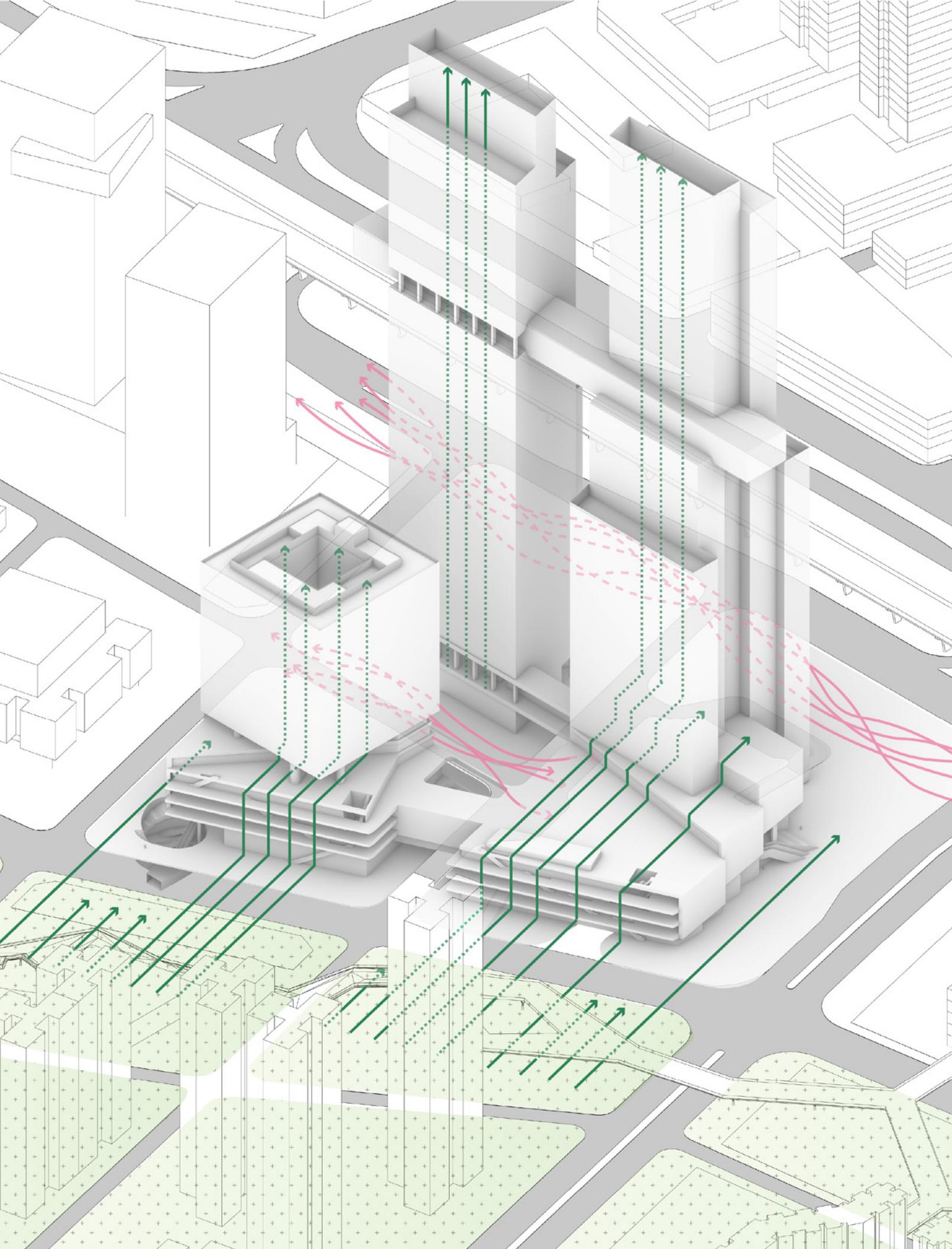
Landworks Studio Intern Project  
 Site: Shenzhen, China  
 Architecture Design: OMA  
 2020 Fall



The project is a commercial center located in Qianhai Bay area in Shenzhen. OMA did the architecture design and Landworks Studio is committed to join the competition of designing the public space and landscape.

The concept is to extend the green space from the nearby Silk Corridor into the site. Landscape design organized various programs throughout the building, and in the same time, weaved together different public spaces on site, from sunken plaza to ground garden, from courtyard to sky bar.

Two different patterns are utilized. The straight diamond-shaped one bridges the public space from outside to the building inside, welcomes visitors from the whole city. The curved flowing one is defined within the site, created different feature spaces for workers here.





- 1 feature sunken plaza
- 2 interactive plaza for art & commercial
- 3 feature panel
- 4 sky art courtyard
- 5 outdoor dining
- 6 feature wall
- 7 bus station pedestrian entrance
- 8 green walk
- 9 office drop off
- 10 office leisure meeting park
- 11 retail landmark entry
- 12 ecological corridor

Ground Floor Plan



- 1 reflection water feature
- 2 skylight for mall
- 3 seating area
- 4 crossing
- 5 step plaza
- 6 feature lighting

Roof Floor Plan



Retail Landmark Entry



Event Step Plaza



Office Leisure Meeting Park

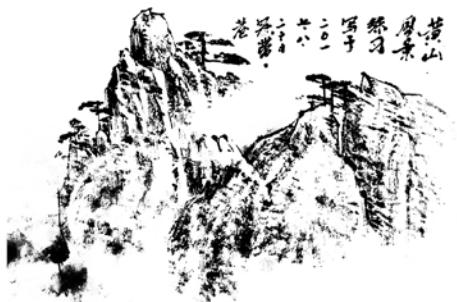


East Landart Plaza

09

## SUPPLEMENTS

### Intern and Other Works



During the past five years, I never ceased to try new things. Painting, Installation construction, photography, film-making have riched my spare time. At the same time, I participated in various of design competitions to achieve my novel ideas as well as practicing major skills.

Besides, My intern experiences from architecture frims to landscape architectural studios enhanced my ability as a qualified architect in different settings. For me, Architecture isn't only something I study for, it is something I grow up with.



NUOVO PAESAGGIO BAGNOLI

Type: Recreational Park  
Role: 3D Modeling & Rendering  
Place: Bagnoli/Italy  
Time: July - Aug, 2020

Jiakun Architects



ART CENTER OF HAND

Type: Art Center  
Role: Rendering  
Place: Hangzhou/China  
Time: Nov, 2016 - Jan, 2017

BONITA IDYLLIC\_Bonita Village Concept Design Competition

Partner: Meng Jiang, Oi Wai Charity Cheung, Kai Chi Ng

Prize: Finalist

Place: Bonita Springs/USA

Time: June - July, 2019



MULLAE LIGHTS\_2017 UIA Summer School Design Proposal

Partner: Bartha Beata, Camille Fibien, Chiara Gerini, Hwan Ji, Karolina Kielb

Instructor: So Young, Marta Bastos

Place: Seoul/South Korea

Time: Aug - Sep, 2017



Alpha Bravo Charlie\_Film Making - UCLA 2019 Film and Television Summer Institute

Partner: Varun Sagar, Pierre Barthélémy, Matthew Deleon, A.M Sanchez, Jessica Rahmani, Hanadi Elyan, Ang Gardner, Camilla Almond, Hannah Xie, Red Chua, James Zhang, Wudy Wu, Medina Baydoun, Joe Allanoff, Eva Magana, Kelly Diaz

Instructor: Melissa Finnel, Paul Cannon, Karen Smally

Place: Los Angeles/USA

Time: July - August, 2019



PAPER HOUSE\_Installation Building

Collaborator: Wenjing Xu, Siyao Bai, Shilin Zhu, Changming Zhuang, Jingjing Shang

Prize: Third Prize

Place: Harbin/China

Time: May - June, 2013





THE BEAUTIFUL MOUNTAINS AND RIVERS

Type: Traditional Chinese Painting and Calligraphy

Time: 2016 Winter

Place: Jingzhou/China

TWO PEACOCKS ON THE TREE

Type: Gouache Paint

Time: 2012 Winter

Place: Harbin/China

