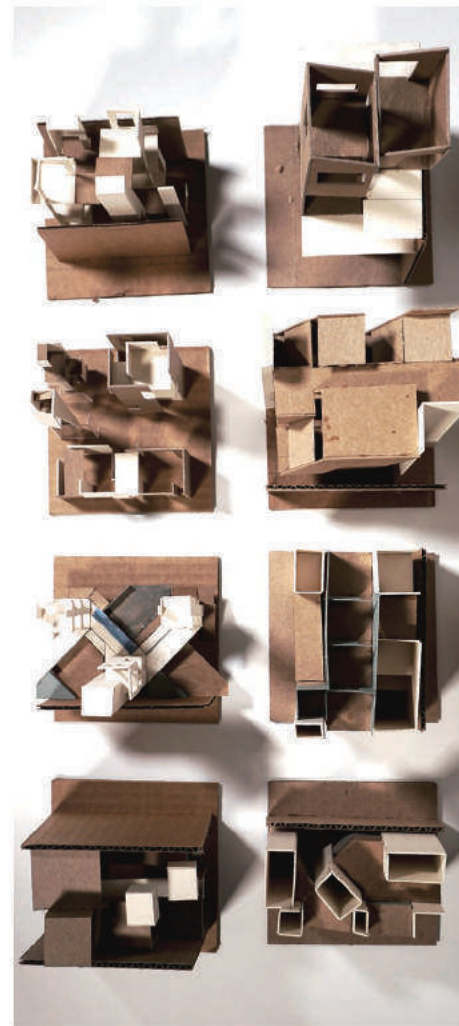
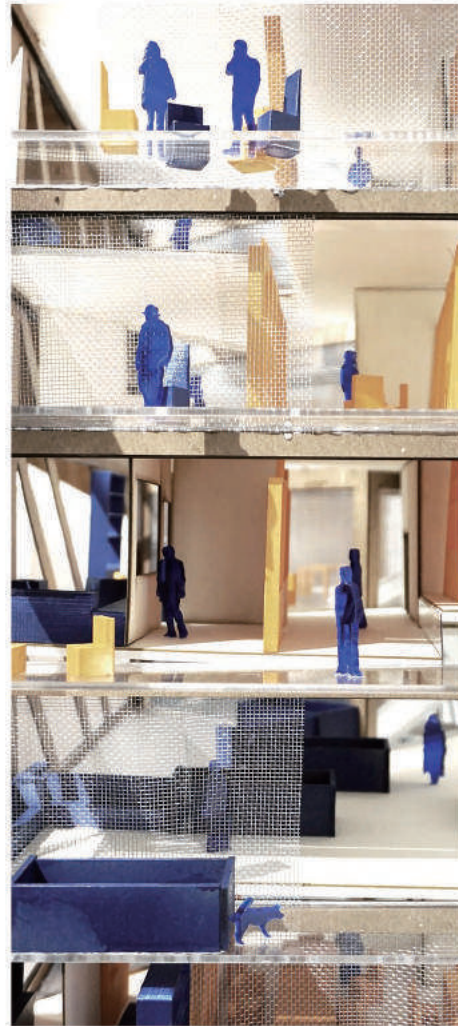


PORTFOLIO OF YUENING JIANG

SELECTED WORKS 2021-2022
COLUMBIA UNIVERSITY, GSAPP



CONTENTS

01 FORMAL & INFORMAL	01
<i>A Community Chain for Senior Immigrants</i>	
02 FACTORY AS IT MIGHT BE	23
<i>A Educational-based Printing Factory</i>	
03 HOUSEFAIL - LIVING AS TWO	45
<i>A House of Dual Personality</i>	
04 RECOMBINANT URBANISM	57
<i>The armature, enclave and heterotopia of Dongguan</i>	
05 A HYBRID JOURNEY	73
<i>An imaginary spaceship in 3dsMax rendering</i>	



01 FORMAL & INFORMAL

A Community Chain for Senior Immigrants

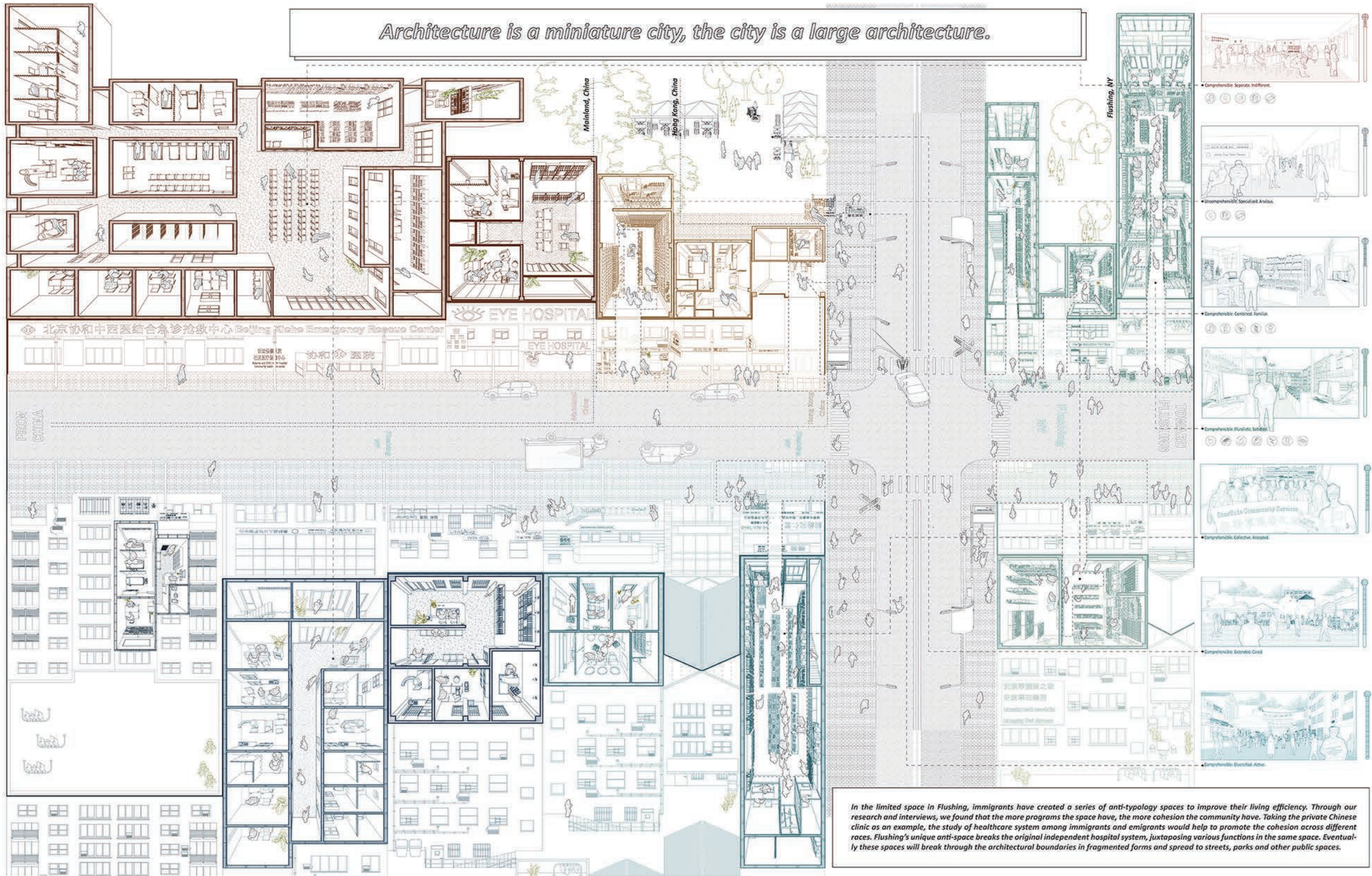
Though as the majority of Flushing immigrants, the seniors' living environment exists problems and the lack of activity space have brought many conflicts. To meet improve the quality of space, we proposed a system along Main Street providing multiple activities in 3 architectural scales due to the current narrow and long lot. The small provide space for senior sport. The medium includes retail. The large is a senior center mixed with multi-generational activities to promote intergenerational communication.

The spatial strategy consists of core, semi-space, and void. Core is the vital element, divided into vertical-circulation and senior-activity core. Semi-space is for multi-generations. Using the movable walls, the size and arrangement of space can be easily changed according to multi-generation use. Void is the gap bringing light and ventilation, adjusting temperature in all seasons.

The outstanding performance in thermal and energy efficiency of cross-laminated timber ensures the architecture is in a low-carbon and eco-friendly status.

Architectural Design Group Work
Site: Flushing, Queens, New York
Collaborators: Bisheng HONG, Jiaying QU
Instructor: Phu HOANG
Date: Fall 2021
2021.9-2021.12

Architecture is a miniature city, the city is a large architecture.



- Comprehensible Separate, Different
- Uncomprehensible, Specialized Anxious
- Comprehensible Combined, Familiar
- Comprehensible Pluralistic, Settling
- Comprehensible Collective, Accepted
- Comprehensible Extended, Cared
- Comprehensible Disrupted, Active

In the limited space in Flushing, immigrants have created a series of anti-typology spaces to improve their living efficiency. Through our research and interviews, we found that the more programs the space have, the more cohesion the community have. Taking the private Chinese clinic as an example, the study of healthcare system among immigrants and emigrants would help to promote the cohesion across different races. Flushing's unique anti-space breaks the original independent hospital system, juxtaposing various functions in the same space. Eventually these spaces will break through the architectural boundaries in fragmented forms and spread to streets, parks and other public spaces.

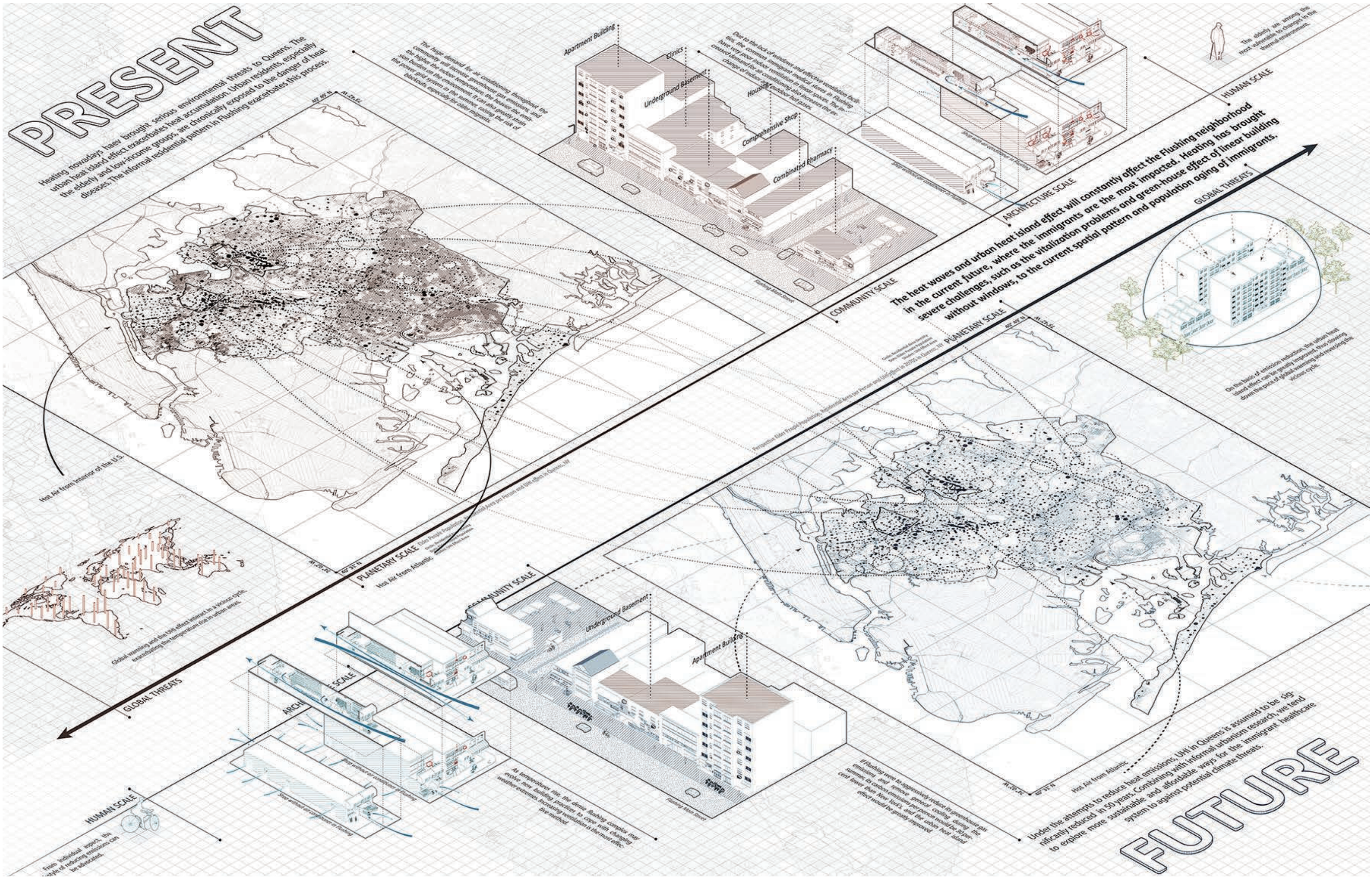
PRESENT

Heating nowdays have brought serious environmental threats to Queens. The urban heat island effect exacerbates heat accumulation. Urban residents, especially the elderly and low-income groups, are chronically exposed to the danger of heat diseases. The informal residential pattern in Flushing exacerbates this process.

The huge demand for air conditioning throughout the community will increase greenhouse gas emissions and the higher the outdoor temperature, the heavier the emission burden on the environment. It can also greatly strain the power grid system in the summer, raising the risk of blackouts, especially for older residents.

Due to the lack of windows and effective ventilation ducts, the common transport medical spaces in Flushing have very poor indoor ventilation in winter seasons. The increased demand for air conditioning also increases the energy charge of indoor air conditioner heat pumps.

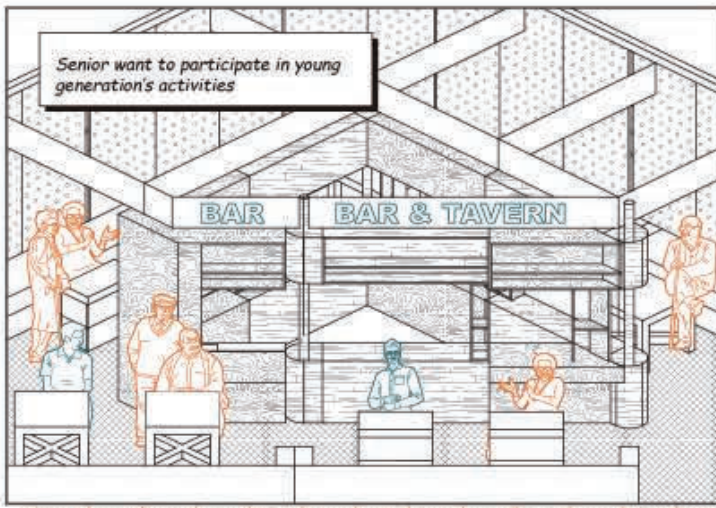
The elderly are among the most vulnerable to changes in the thermal environment.



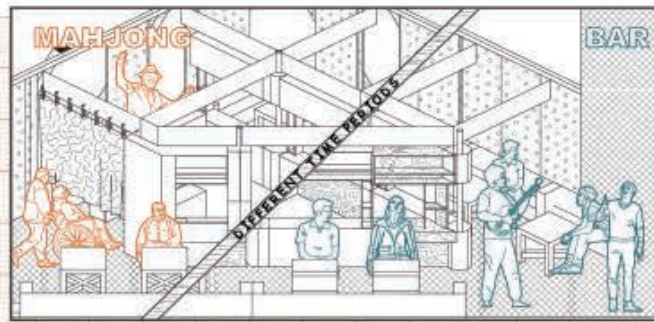
The heat waves and urban heat island effect will constantly affect the Flushing neighborhood in the current future, where the immigrants are the most impacted. Heating has brought severe challenges, such as the vitalization problems and green-house effect of linear building without windows, to the current spatial pattern and population aging of immigrants.

Under the attempts to reduce heat emissions, UHI in Queens is assumed to be significantly reduced in 50 years. Combining with informal urbanism research, we tend to explore more sustainable and affordable ways for the immigrant healthcare system to against potential climate threats.

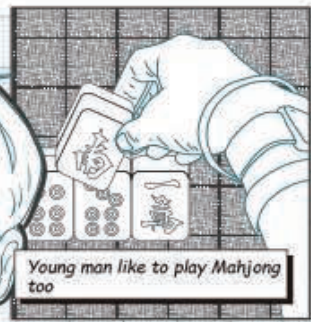
FUTURE



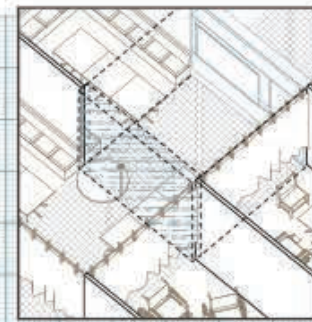
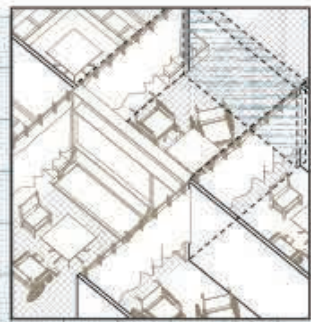
Senior want to participate in young generation's activities



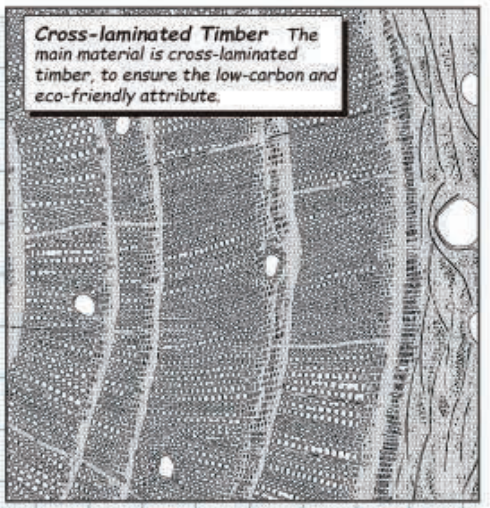
the same space can be used in two different way in different time periods, which could increase the profitability and efficiency.



Young man like to play Mahjong too



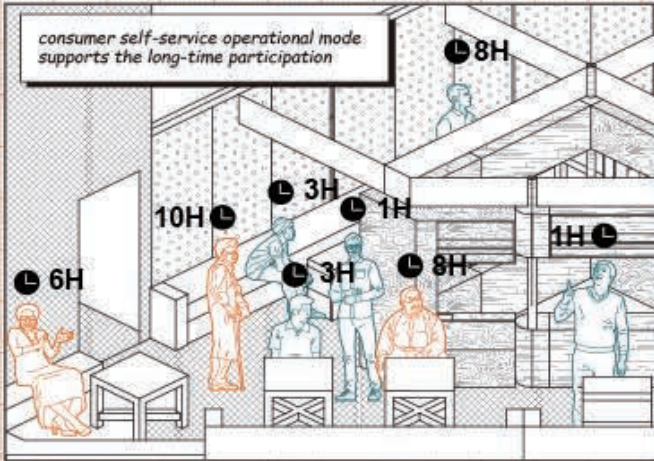
Operational Opening Moveable furniture wall allows the space to be re-divided. The space dominated by the elderly expands and contracts through the movement of the operational opening.



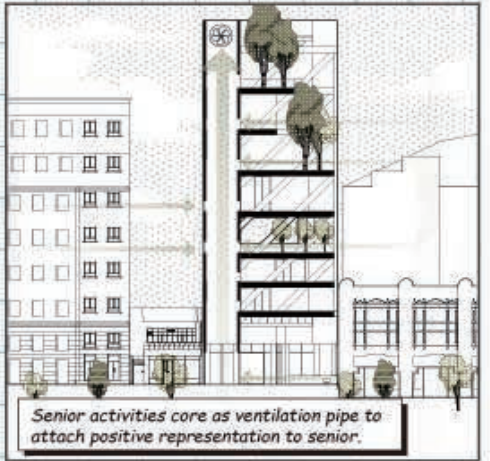
Cross-laminated Timber The main material is cross-laminated timber, to ensure the low-carbon and eco-friendly attribute.



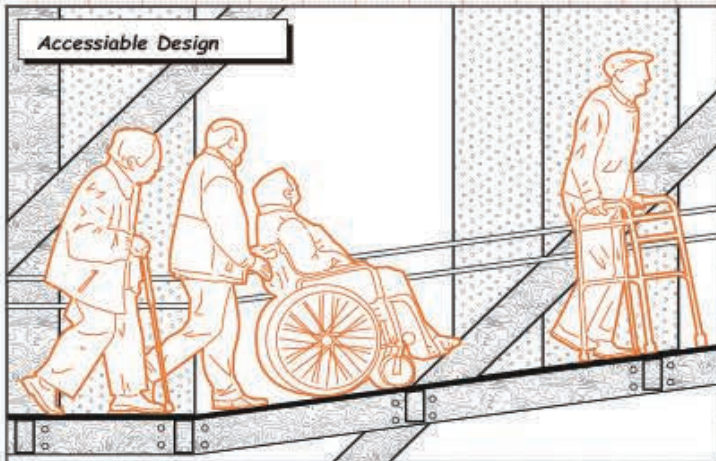
cheap and economical products as LOW-COST Psychological Ticket



consumer self-service operational mode supports the long-time participation



Senior activities core as ventilation pipe to attach positive representation to senior.



Accessible Design



CONNECTED TO NATURE

NO-CORRIDOR

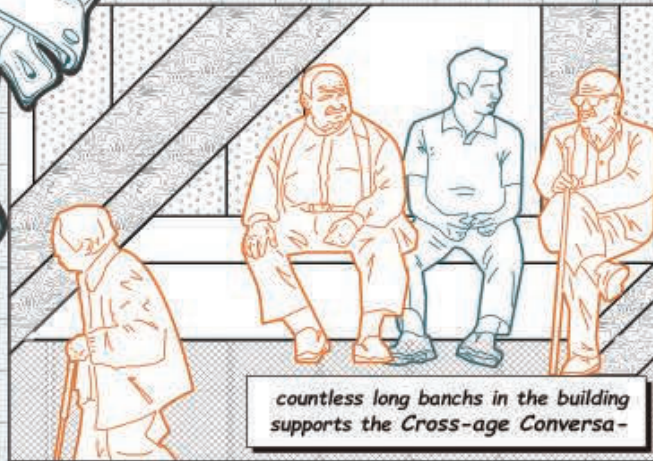
LOW CARBON EMISSION

MULTIGENERATION

POPULAR

CONNECTED TO THE STREET

PROFFABLE IN-COMMERCE

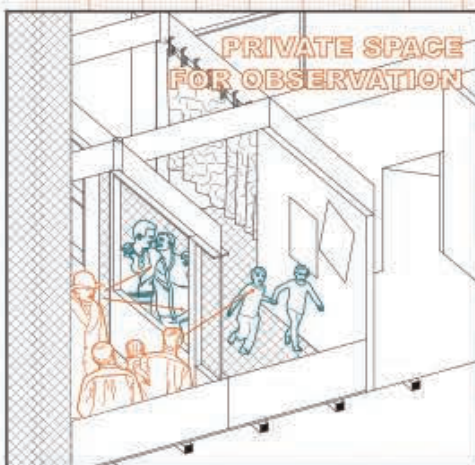


countless long banchs in the building supports the Cross-age Conversa-



CO2 emission

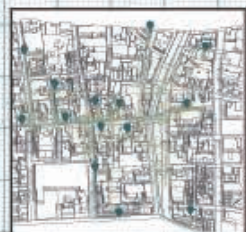
Street temperature



PRIVATE SPACE FOR OBSERVATION



x 1



x 10+



x 100+

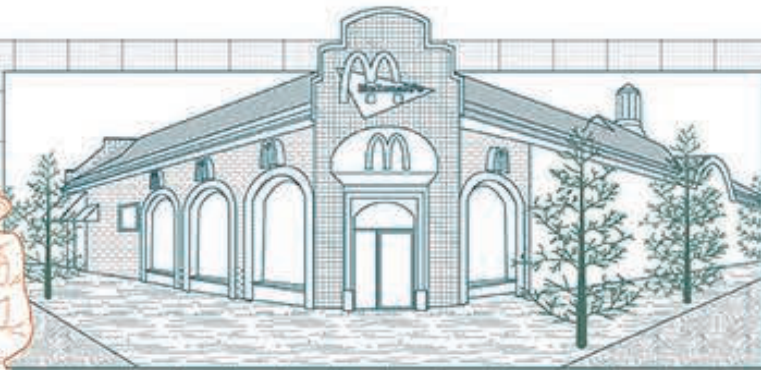
- A business model that will be reused
- A business system that is friendly to the elderly
- A environment friendly design
- A project help to reduce CO2 emission

the power grow strong when the system is duplicated in the Queens/NYC



SENIOR & ENVIORNMENT FRIENDLY

CURRENT FUTURE



McDonald's
1401 Northern Blvd
Flushing, NY 11354

2012

Beauty Salon (總店)
718-661-1116
Entrance at 40th St



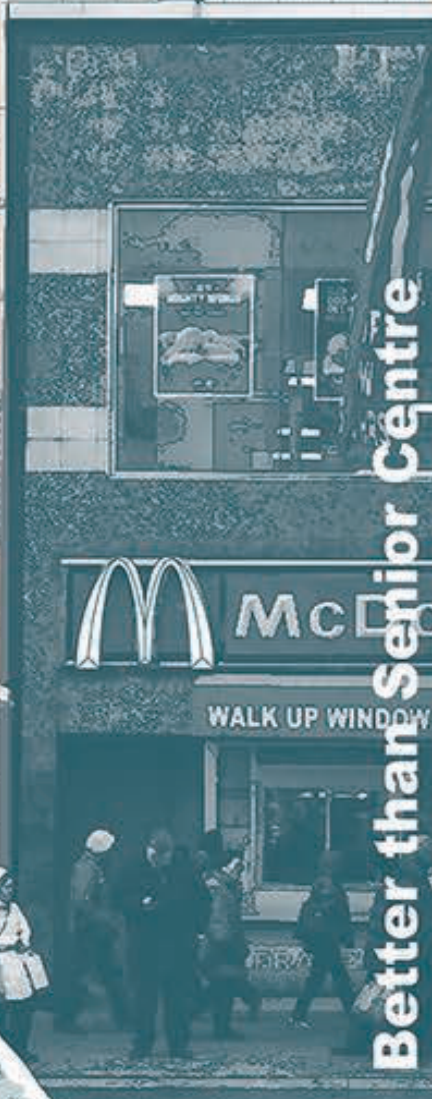
April 2013



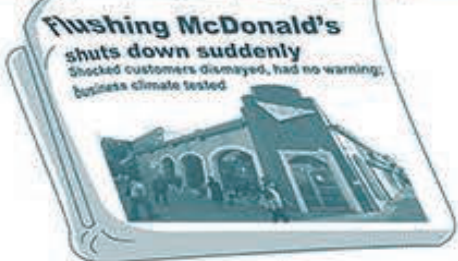
Jan. 2014



McSolution



Better than Senior Centre

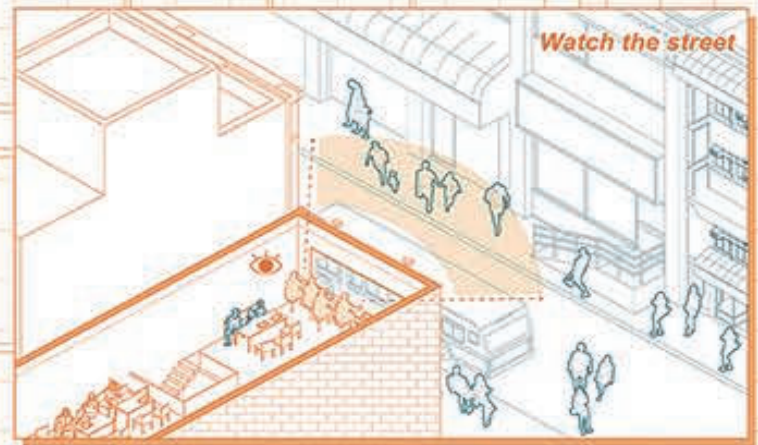


2018



Self-help

Affordable food



Watch the street

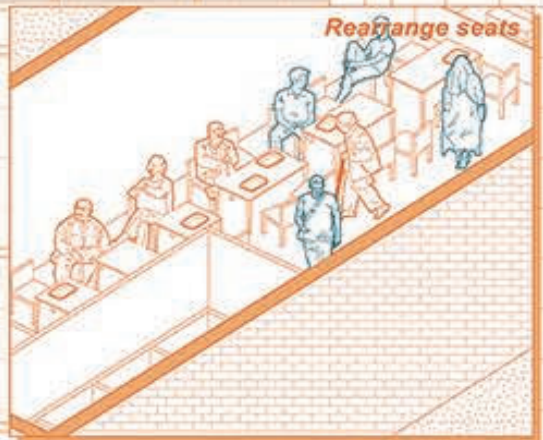


McDonald's

McDonald's



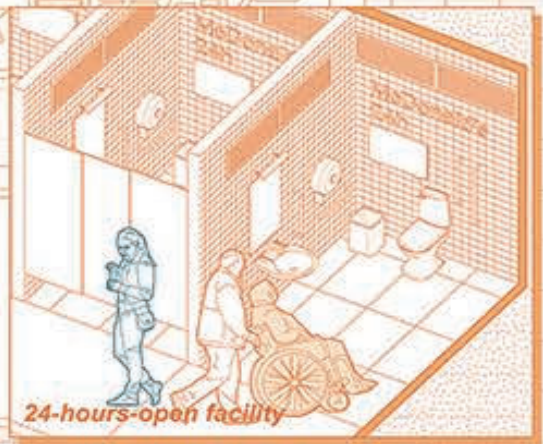
Rearrange seats



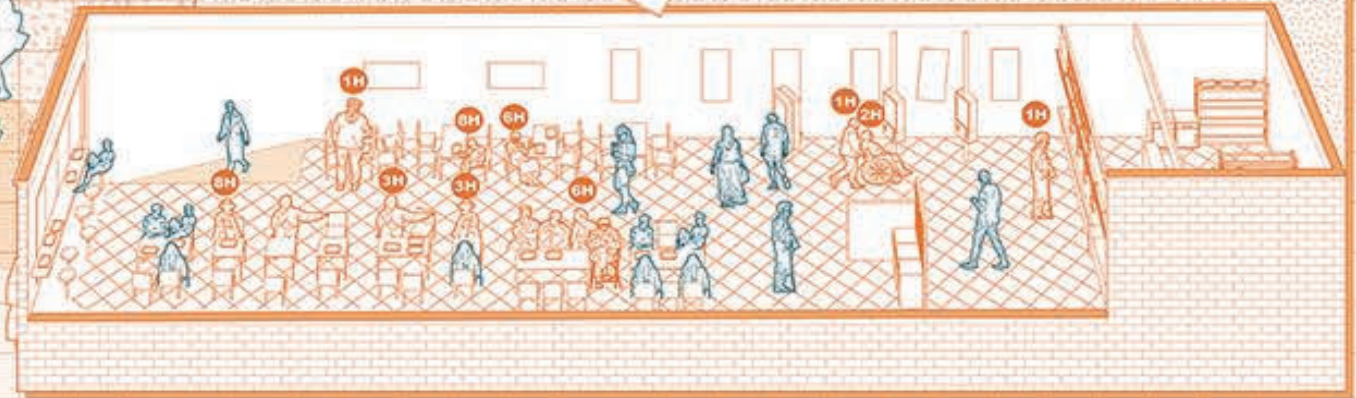
SENIOR LOVE
McDonald's

Flushing Main St.

2\$ = A whole day



24-hours-open facility



Meeting place

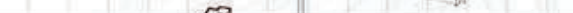
The linear long space without a backyard has Flushing's worst ventilation environment. Relying only on a high window or a small door on the back wall cannot meet the indoor air circulation demand. As a result, the use of air conditioners increases, which has an impact on the urban climate. This type of building has a huge contact area with the surrounding buildings, but in fact, it has no connection at all. The indoor environment is not user-friendly, especially since the ground floor needs to rely on artificial light sources and ventilation systems.

LINEAR LOT WITHOUT A BACKYARD

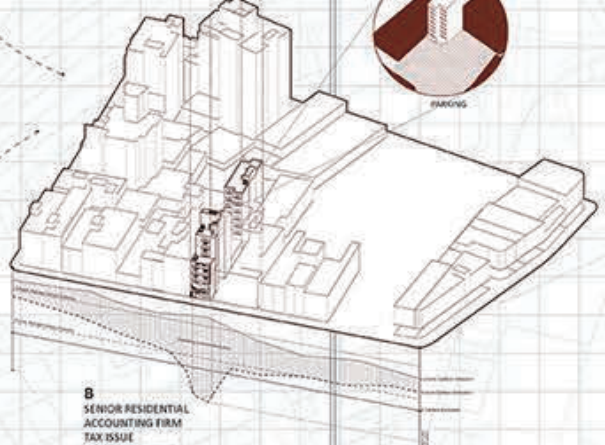


- Large site (35-45 feet)
- Medium site (25-35 feet)
- Small site (10-20 feet)

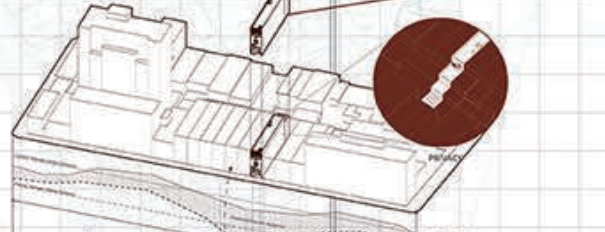
A
FOOD BANK
NGO OFFICE
CAFE



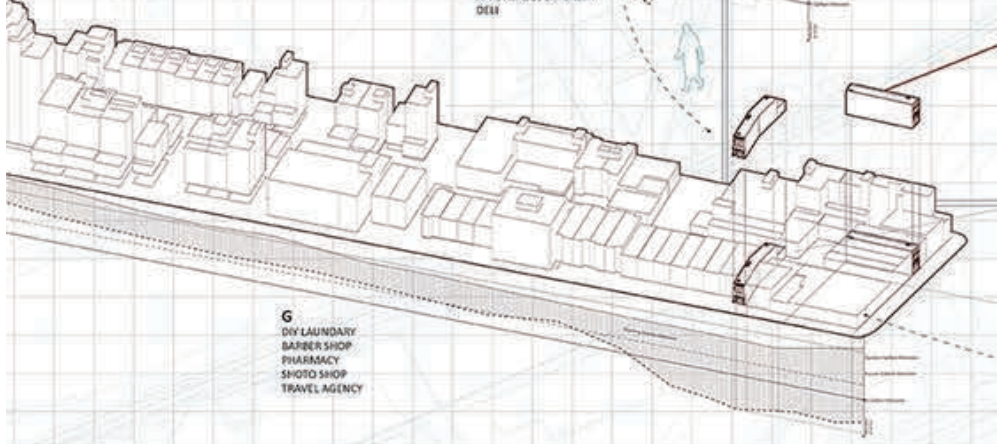
B
SENIOR RESIDENTIAL
ACCOUNTING FIRM
TAX ISSUE
INSURANCE ISSUE
WINE STORE



F
WINE STORE
AFFORDABLE & HEALTH
DELI



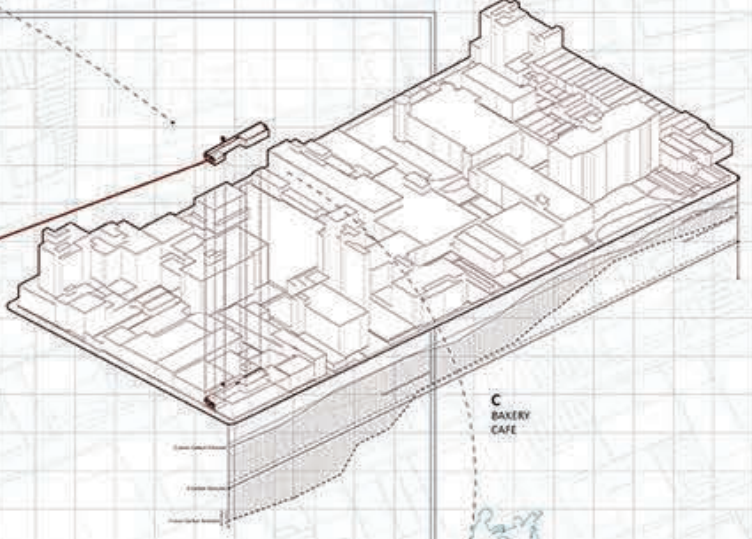
G
DIY LAUNDRY
BARBER SHOP
PHARMACY
SHOES SHOP
TRAVEL AGENCY



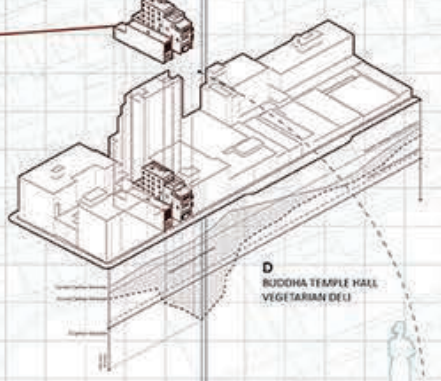
LINEAR LOT WITH A BACKYARD

Common backyard functions are planting gardens, open spaces and parking lots. However, after investigation, it is found that the existing backyard space is not fully utilized, and most of them are piled up with discarded debris. Moreover, due to the small space and the lack of attention from the house owner, the backyard experience is not good.

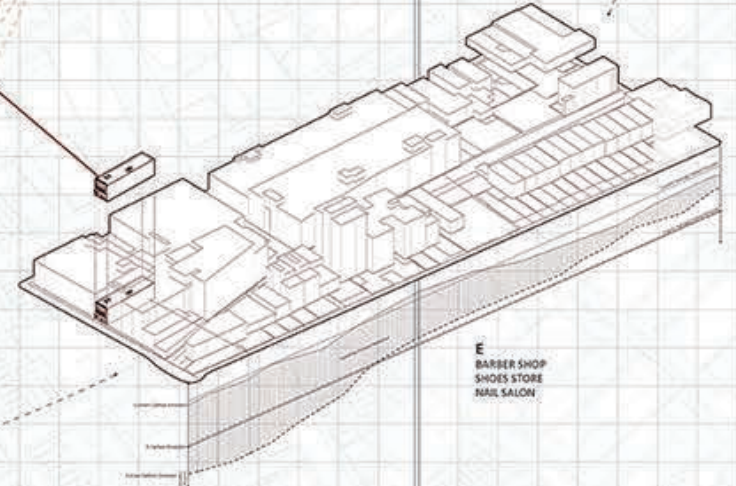
C
BAKERY
CAFE

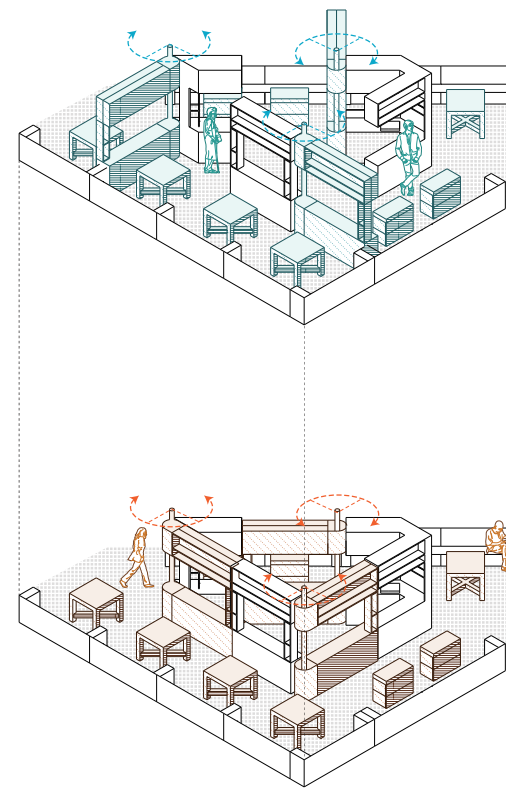
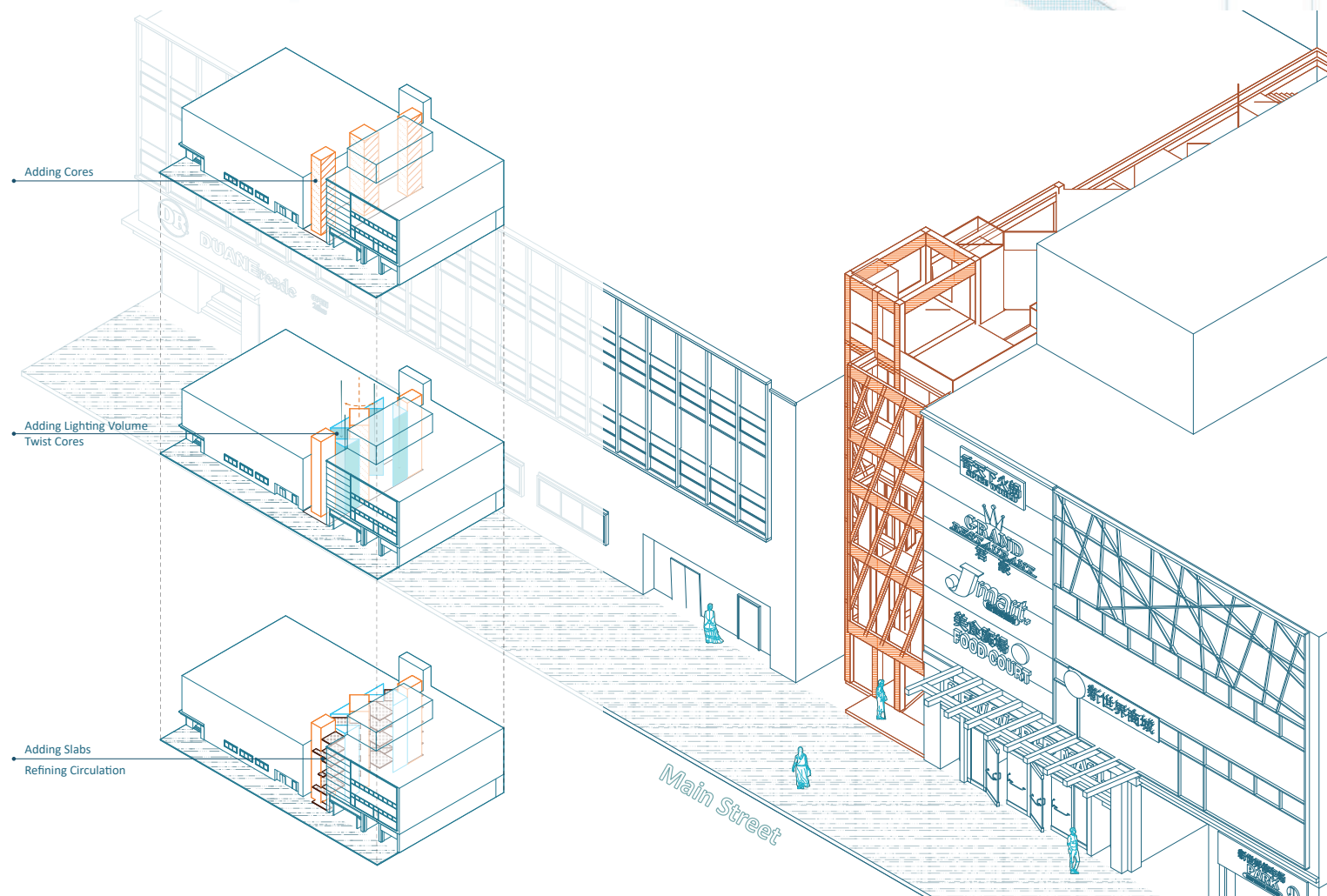
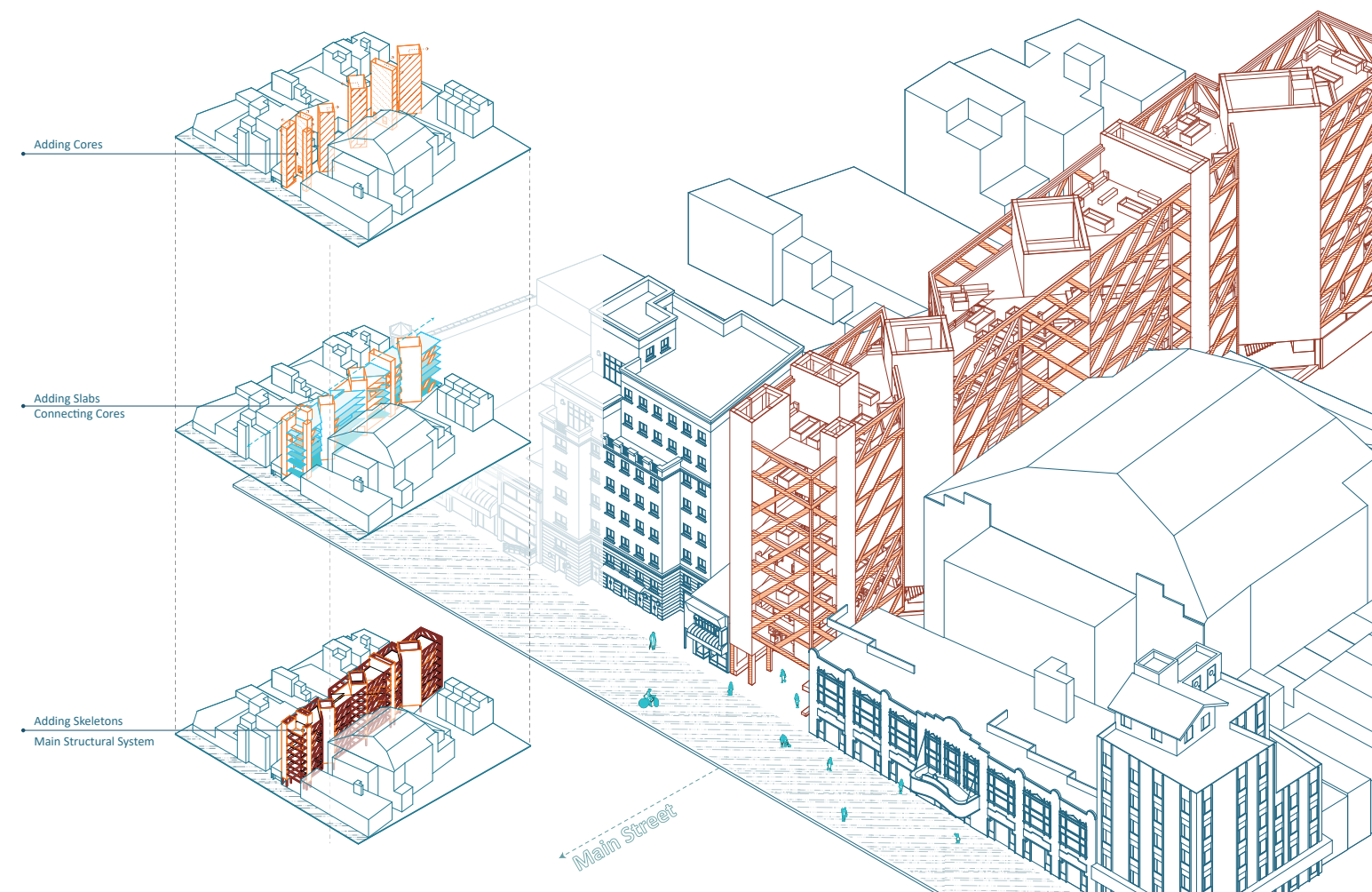
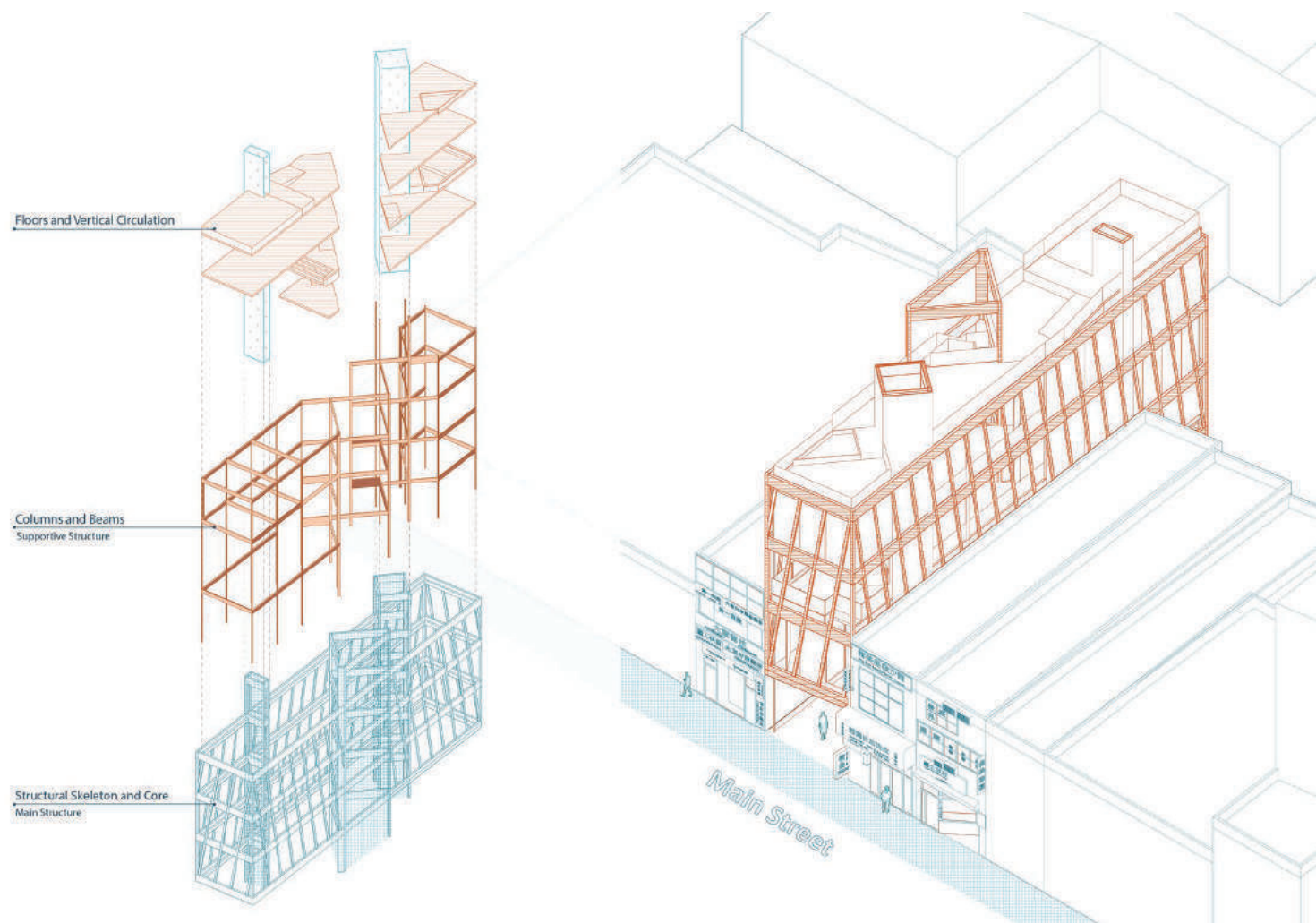


D
BUDDHIST TEMPLE HALL
VEGETARIAN DELI



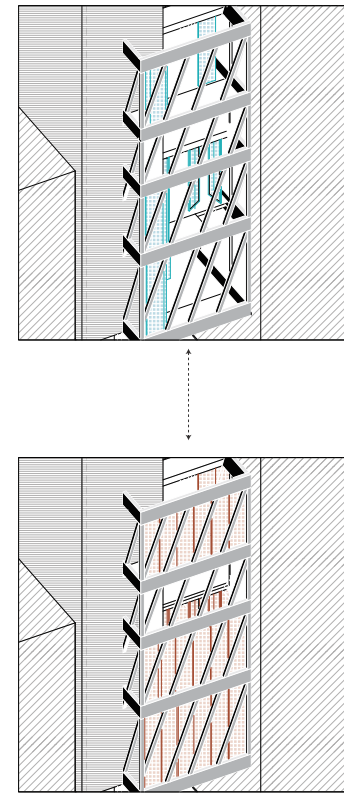
E
BARBER SHOP
SHOES STORE
NAIL SALON





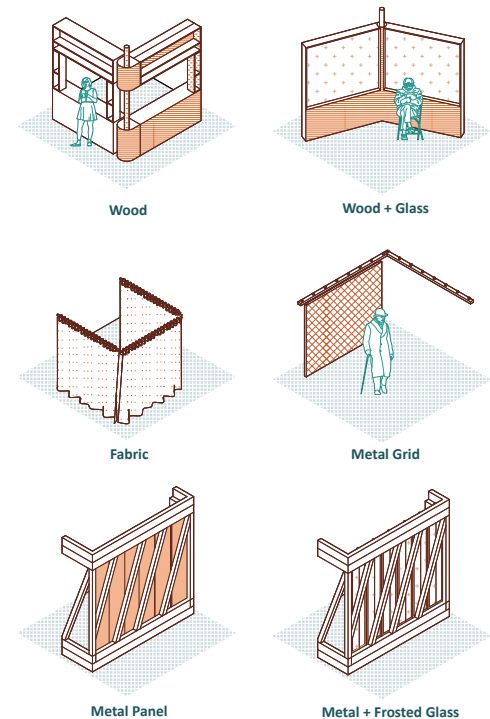
Rotative Openings

By rotating in the sepecific area, the rotative furnitures can create different enclosures in the limited space, to meet the needs for different generations in different day times.



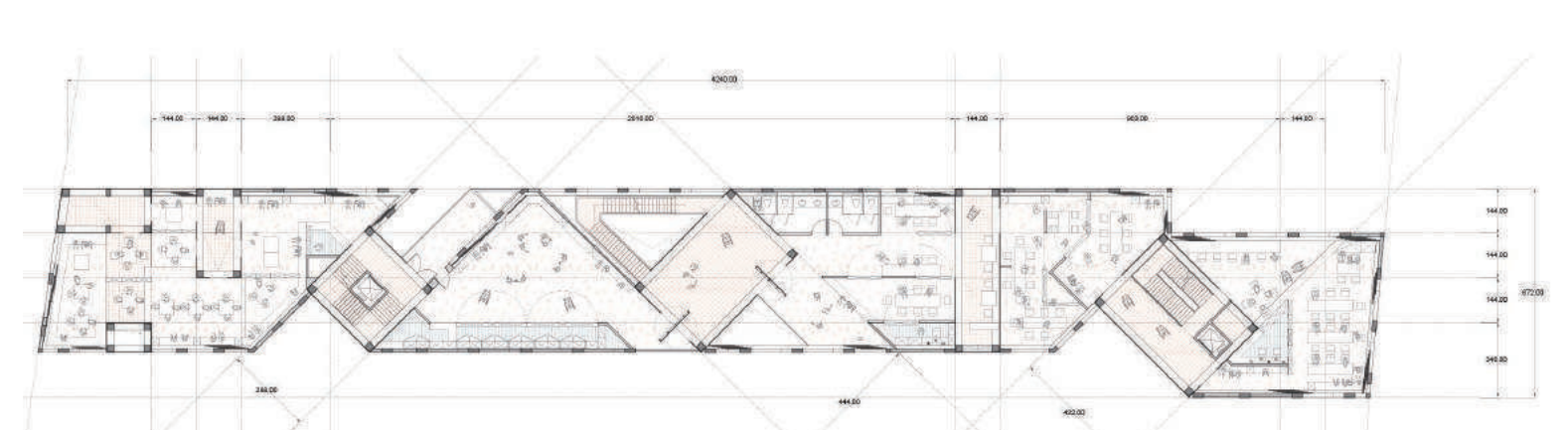
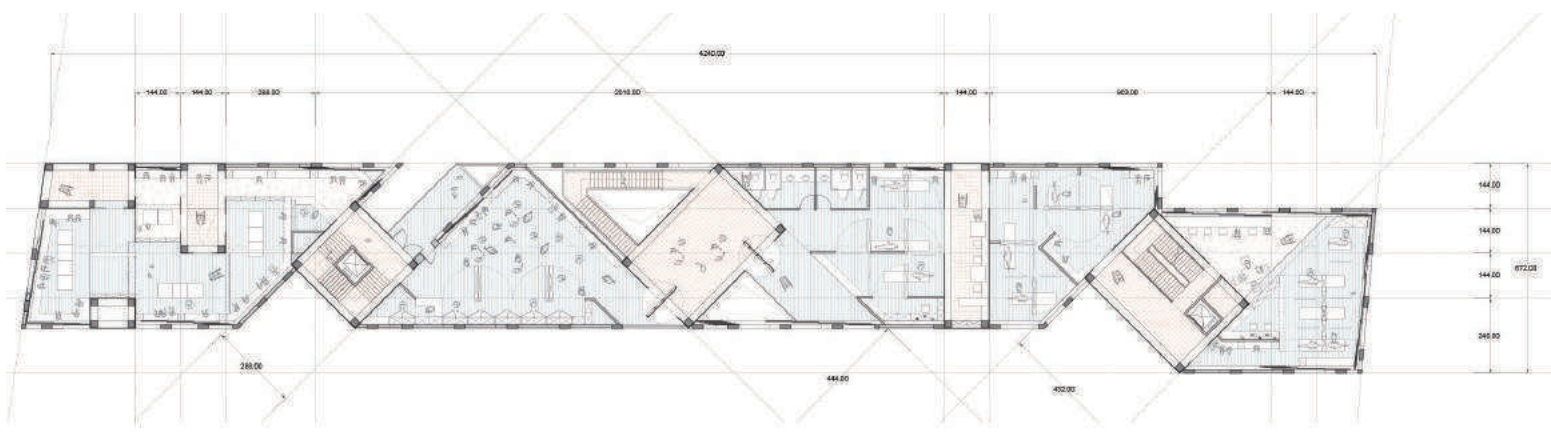
Sliding Facade

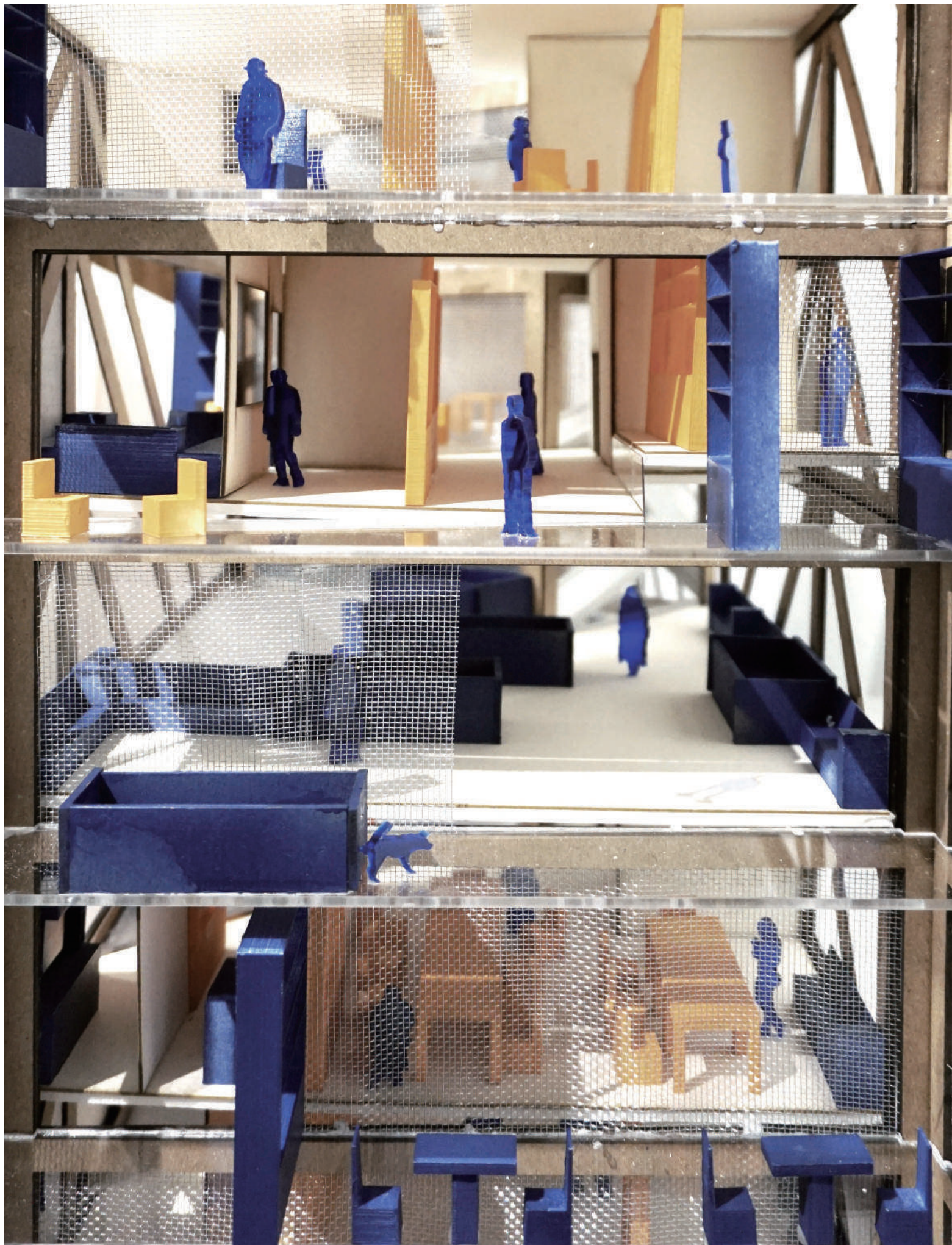
The skeleton of the facade of the building provides a possibility to serve as an opening or fully closed boundary. The sliding panels made by different materials can be flexibly adapted to the needs of diffrent situations.

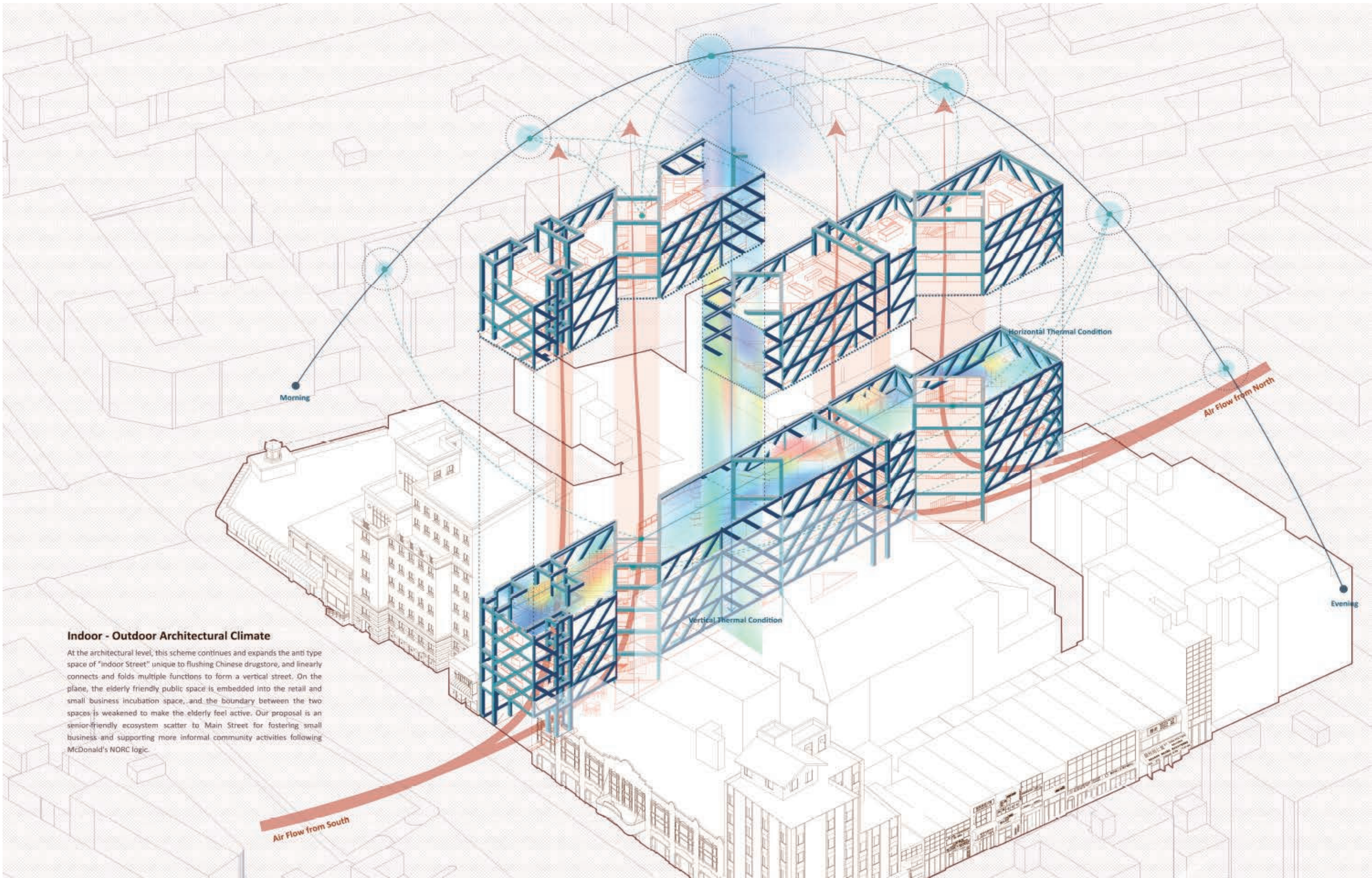


Multiple Matrials

The operator openings are consisted by different materials with diverse material behavior. Through the use of different materials to various light, sight, air and other passability, then produce different architectural boundaries.

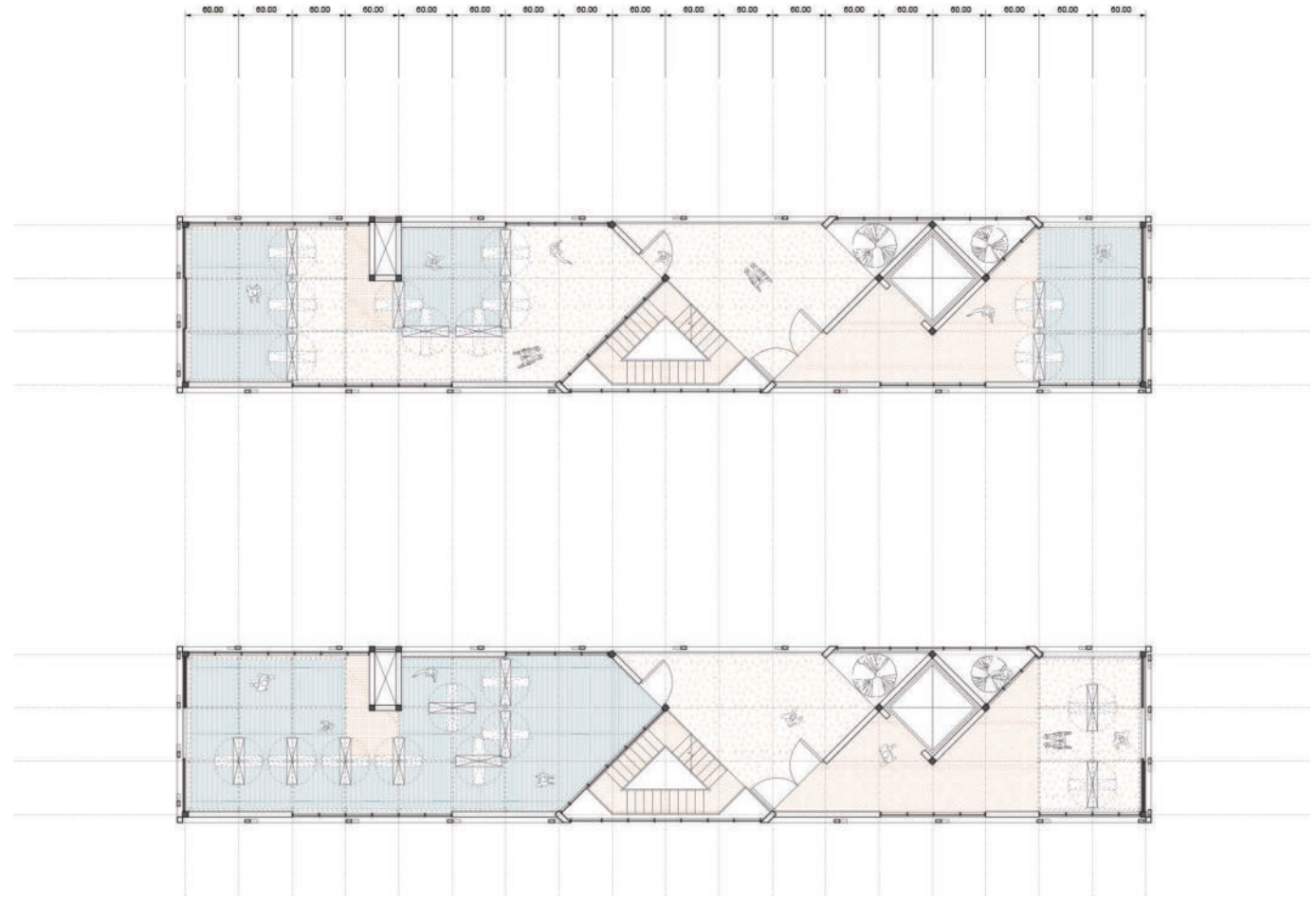
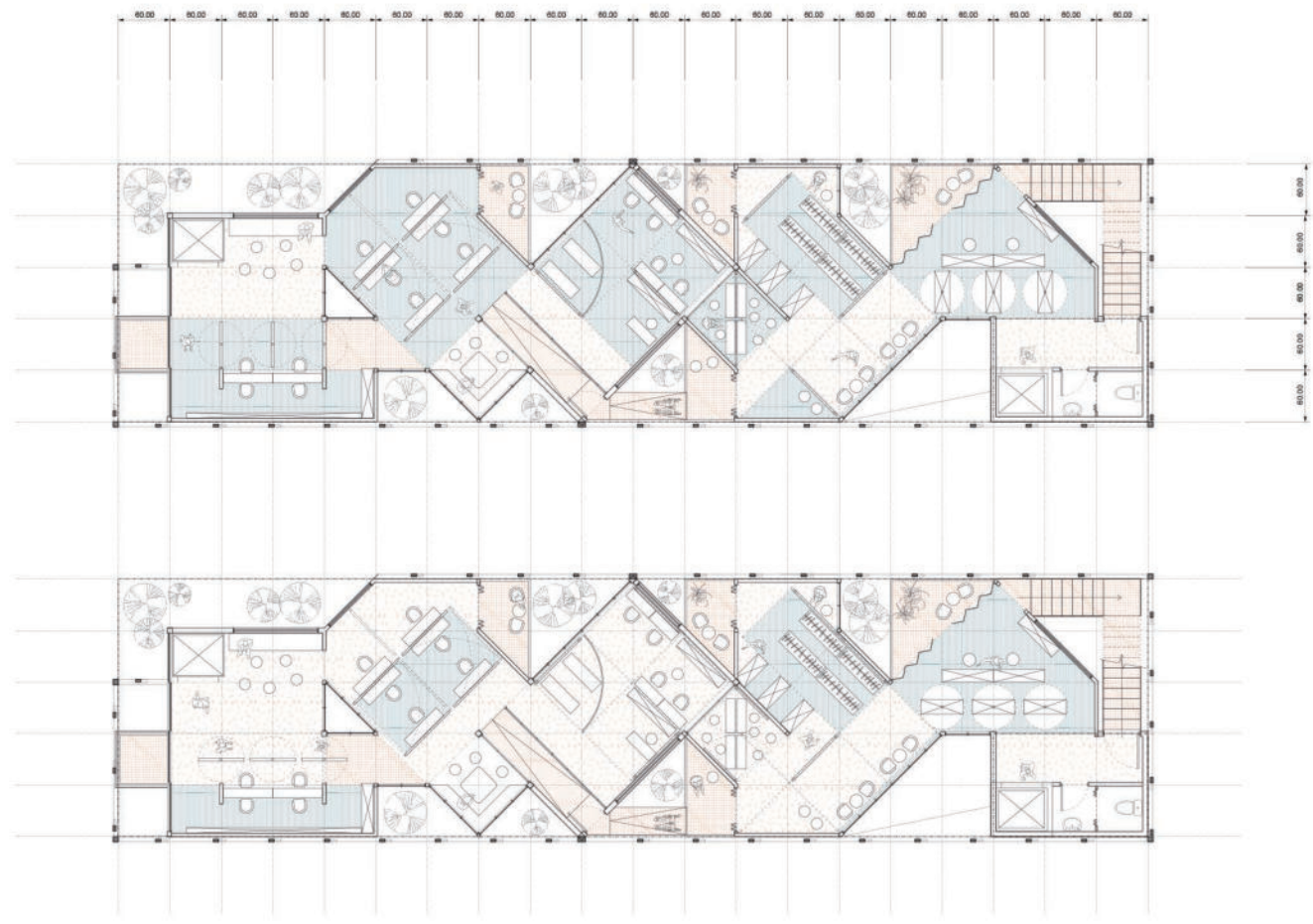
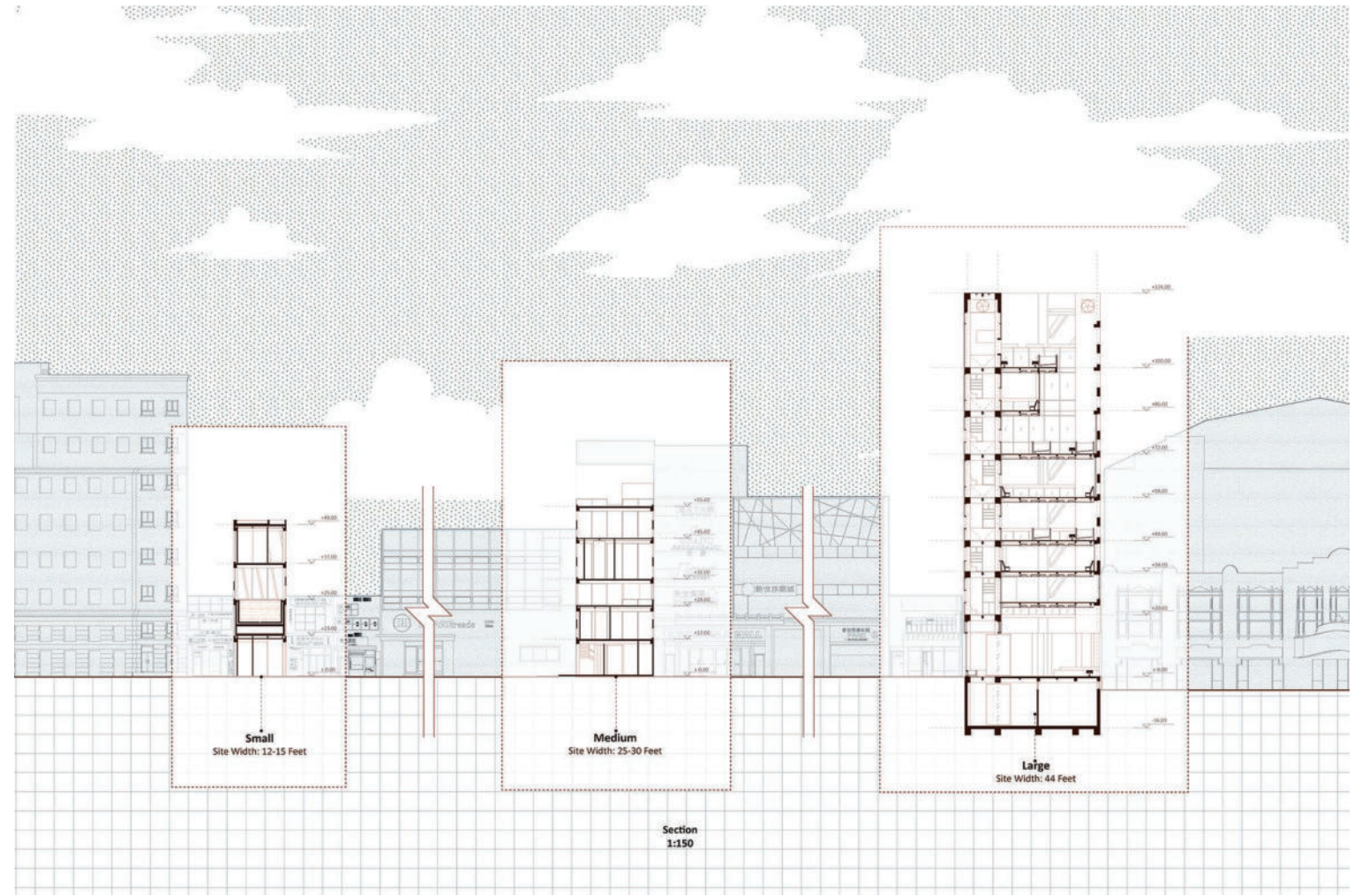
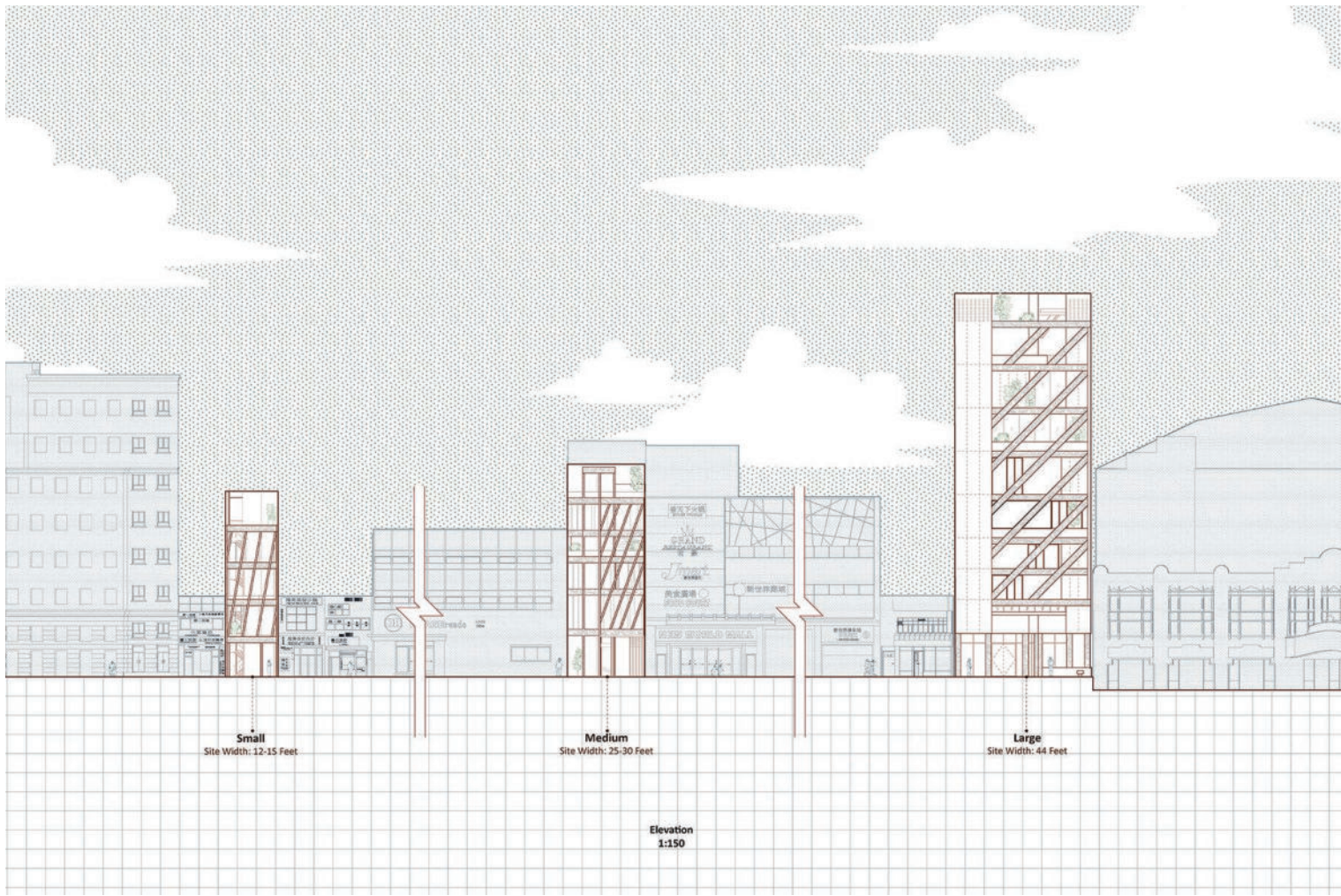






Indoor - Outdoor Architectural Climate

At the architectural level, this scheme continues and expands the anti type space of "indoor Street" unique to flushing Chinese drugstore, and linearly connects and folds multiple functions to form a vertical street. On the plane, the elderly friendly public space is embedded into the retail and small business incubation space, and the boundary between the two spaces is weakened to make the elderly feel active. Our proposal is an senior-friendly ecosystem scatter to Main Street for fostering small business and supporting more informal community activities following McDonald's NORC logic.





02 Factory as it Might be

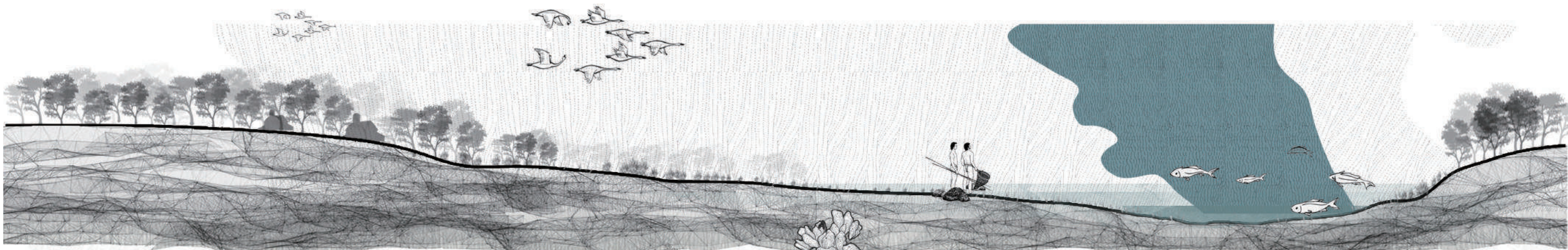
A Education-based Printing Factory

The printing industry always has its vitality in the city of New York. From the newspaper printing of Times to the abundance of advertisement boards in Times Square. Printing is always a carrier of ideas, broadcasting, and creativity. While printed products have a greater impact on our daily life, the industry itself is hiding behind, relatively invisible to the public.

Upon knowing the hidden value of public involvement and the possibility of combining the printing industry with creative workshops, we searched for precise agents to link the printing industry to our site. Many facilities near our site have the potential to use printing on various scales, such as schools, cultural facilities, art workshops, and architecture offices. The future printing factory here will be more than a local amenity, but is a gathering space for different communities, support for artists, designers, and educators, an inspiring attraction for citizens to see the hidden printing industry, and a transformative catalyst in the emerging neighborhood near Gowanus canal.

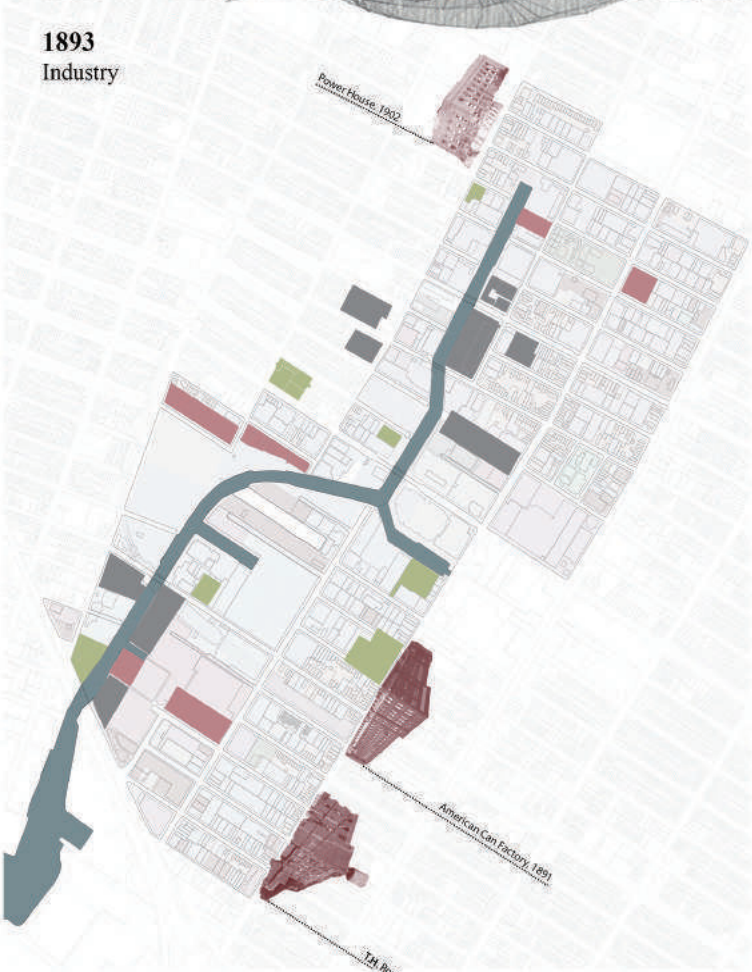
We are trying to propose a new typology for factories and a new role for factories within cities, as an educational amenity, to better serve the local community. To achieve community-factory cooperation, we decide to make a collection of different printing approaches, from traditional paper material to textiles to 3d printing, including large machines and small home-size machines, and reorganize them into different scales. We also propose public workshops for local residents alongside factory work.

Architectural Design Group Work
Site: Gowanus Canal, Brooklyn, New York
Collaborators: Siyu XIAO, Yinlei PANG
Instructor: Mimi HOANG
Date: Spring 2022
2022.1-2022.5



1600s Chief Gouwane
Lenape Tribe

1893
Industry



1915
Industry



1939
Industry

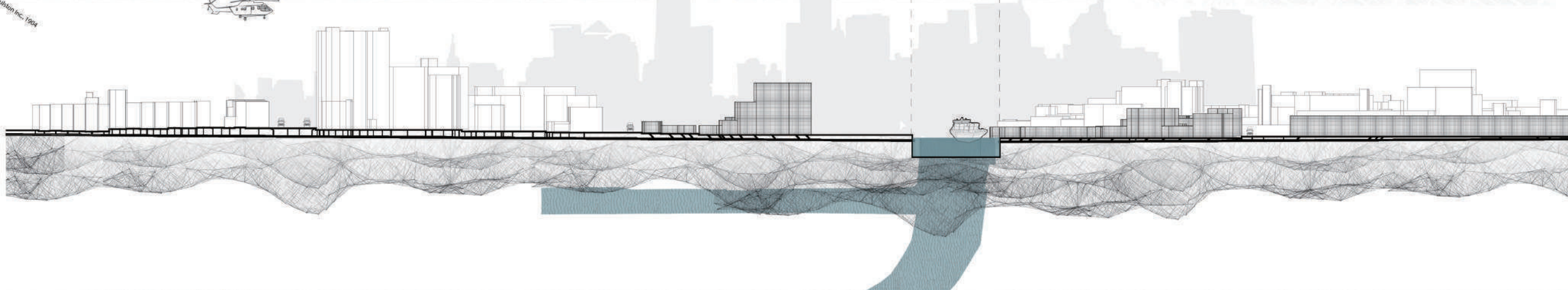


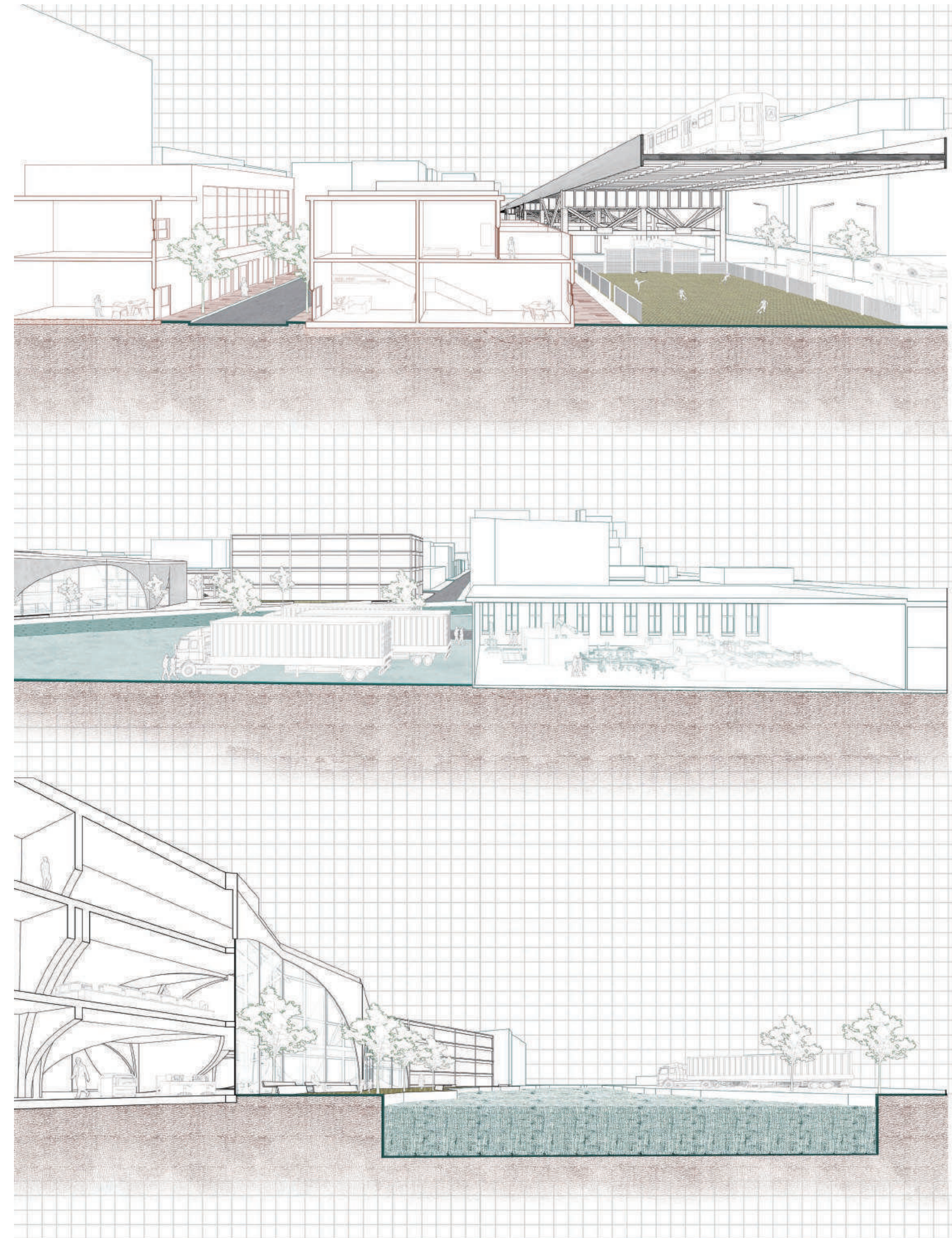
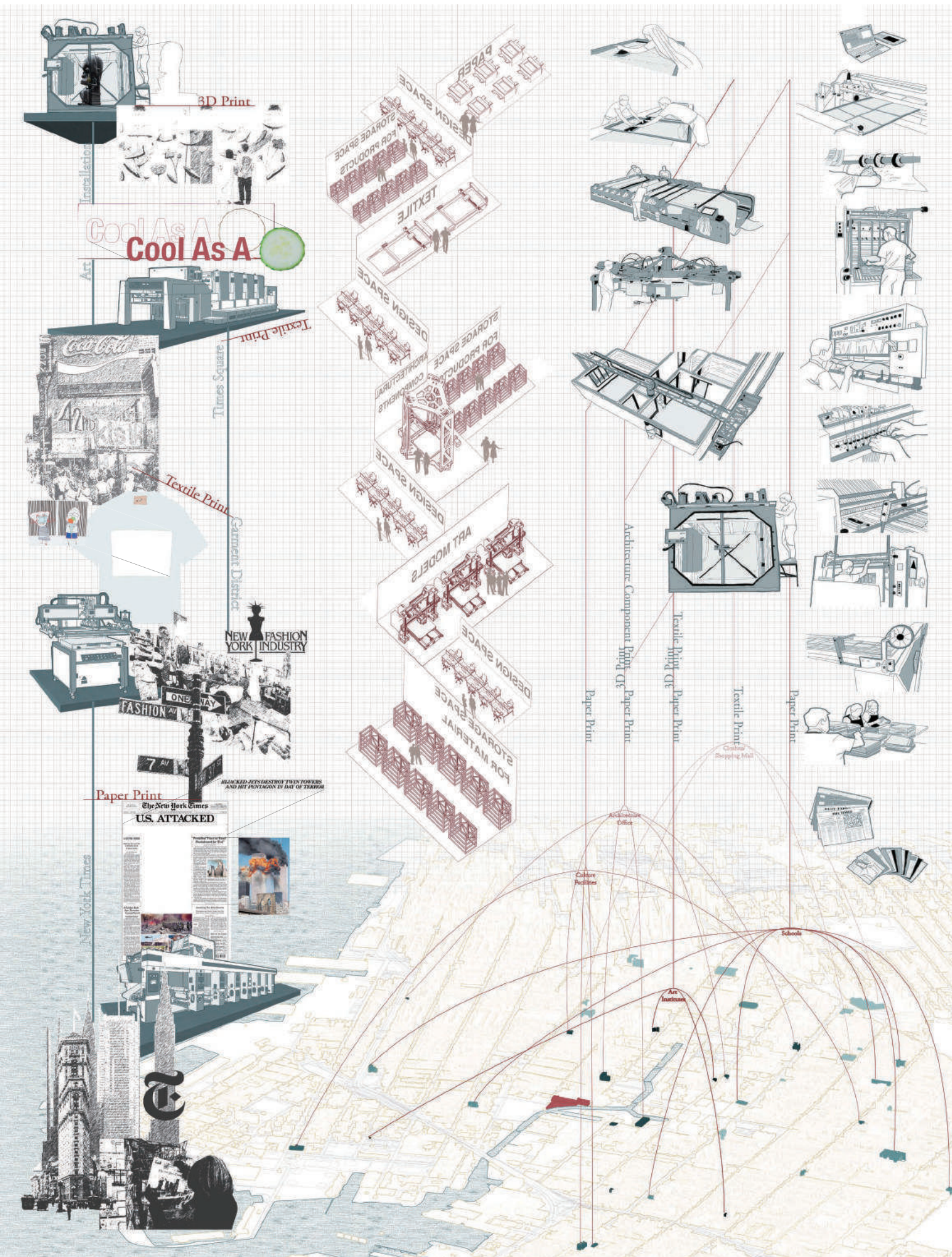
1942
Industry

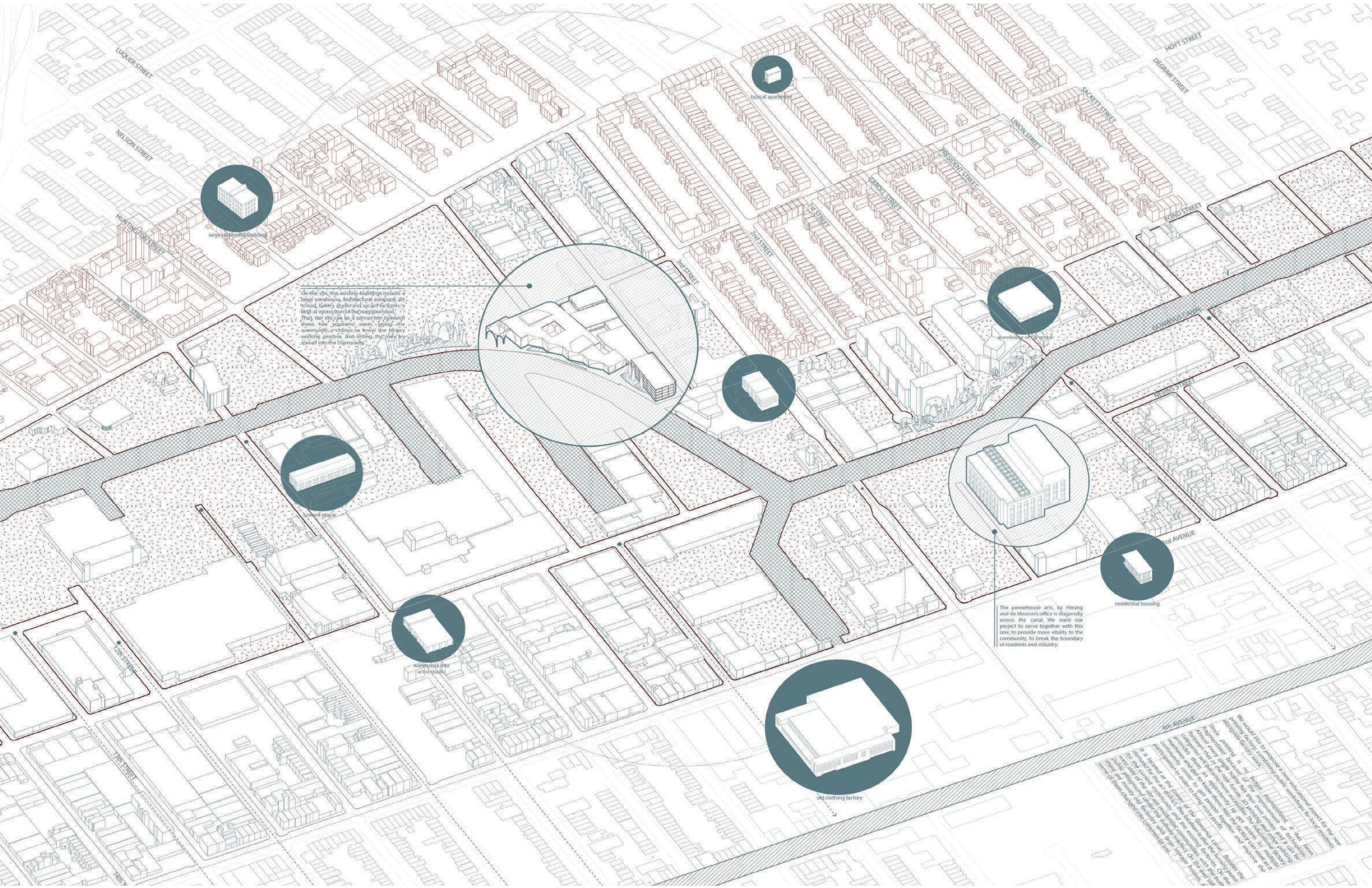


■ DNAPLS ■ LNAPLS ■ Heavy Metal

1900s Gowanus Canal
Industry







large residential building



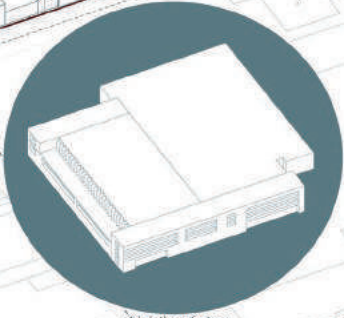
typical apartment



warehouse of Car rental



residential housing



old clothing factory



work space



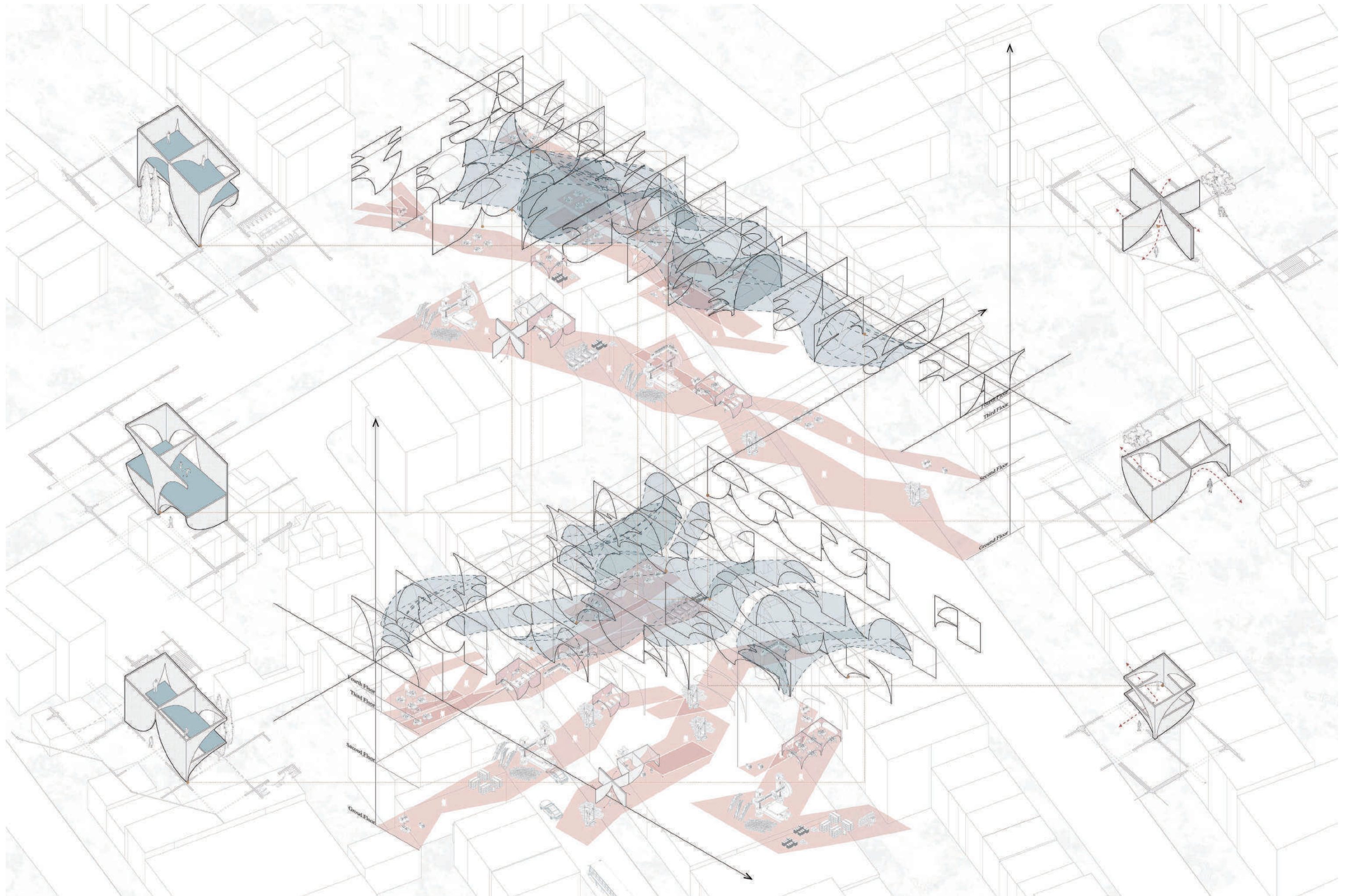
warehouse into artist studio

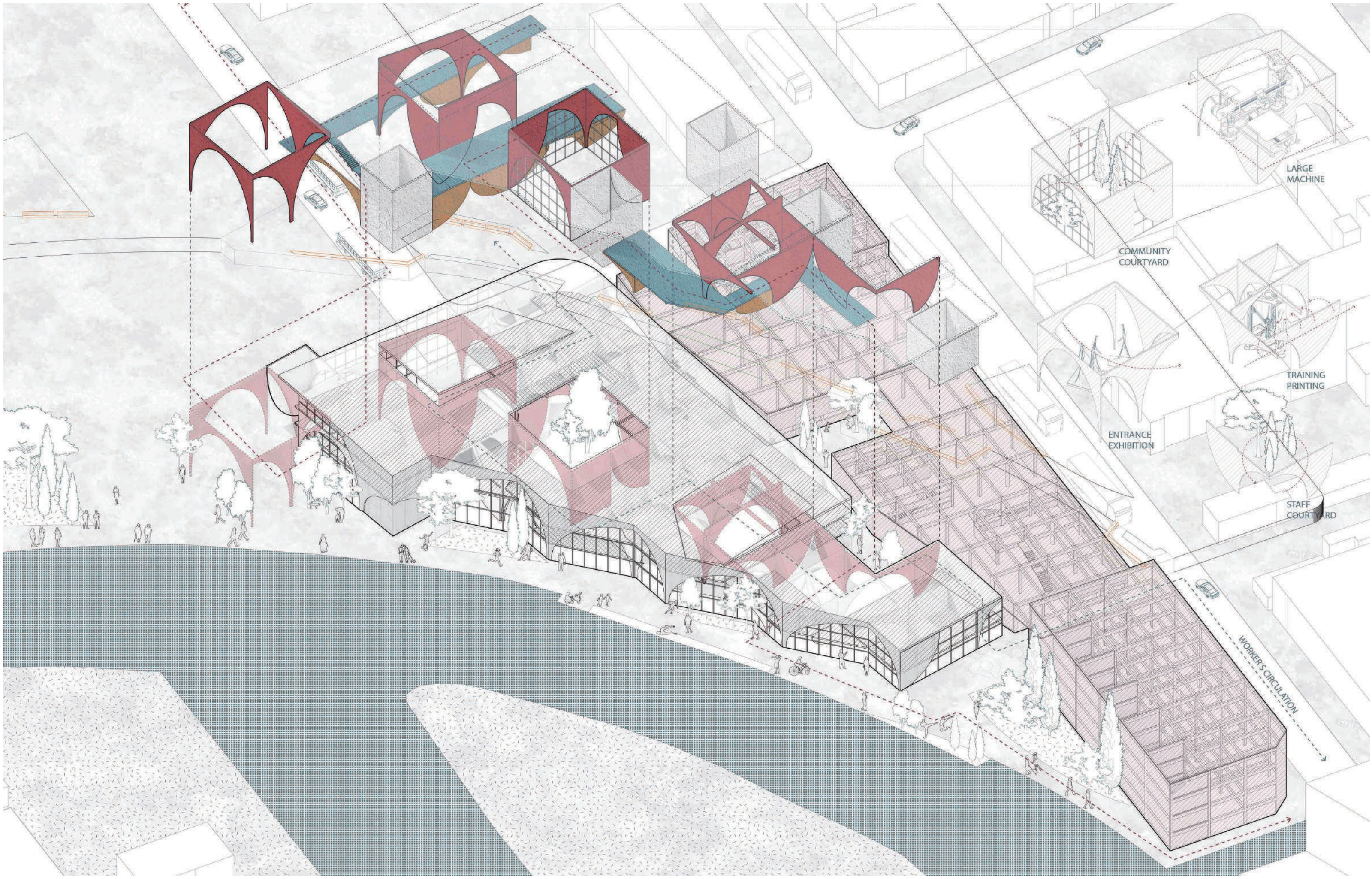
On the site, the existing buildings include a large warehouse, architectural company, art school, bakery, studio and vacant factories. A kind of microcosm of the neighborhood. Thus, the site can be a connection between these two separated areas, giving the community a chance to know the factory working process, and letting the new life spread into the community.

The powerhouse arts, by Herzog and de Meuron's office is diagonally across the canal. We want our project to serve together with this one, to provide more vitality to the community, to break the boundary of residents and industry.

4th AVENUE

We would like to propose a new educational center for the new printing factory combining public workshops for local residents. Since printing is the largest industry in the area, it has been almost entirely abandoned. The new center will be a place where people can learn about the printing process and the history of the industry. The new center will be a place where people can learn about the printing process and the history of the industry. The new center will be a place where people can learn about the printing process and the history of the industry.





LARGE MACHINE

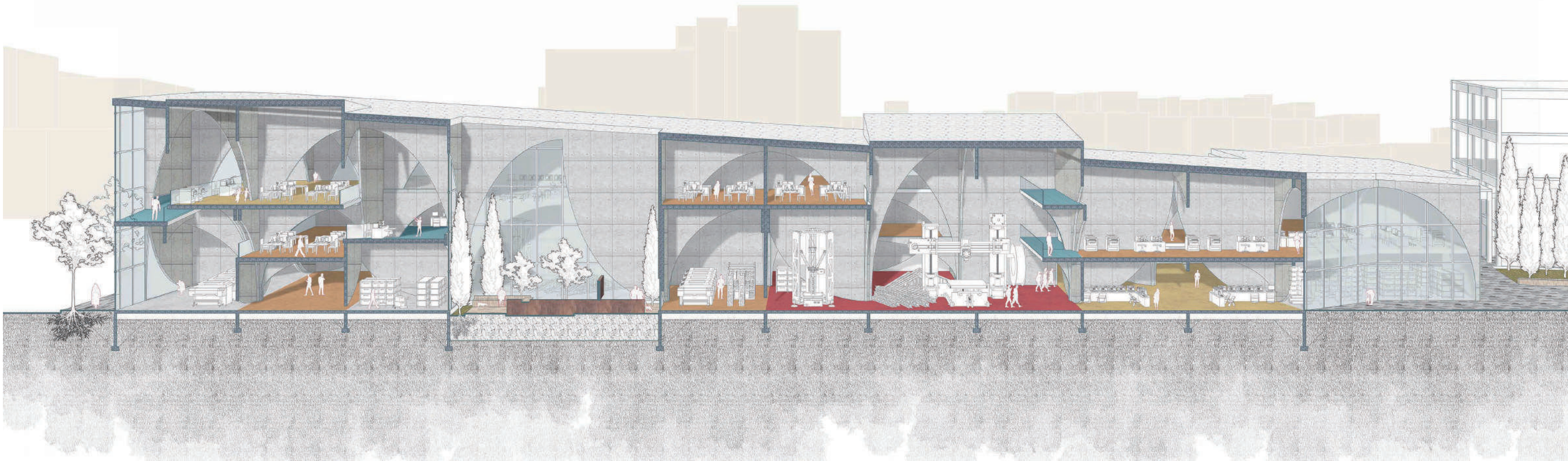
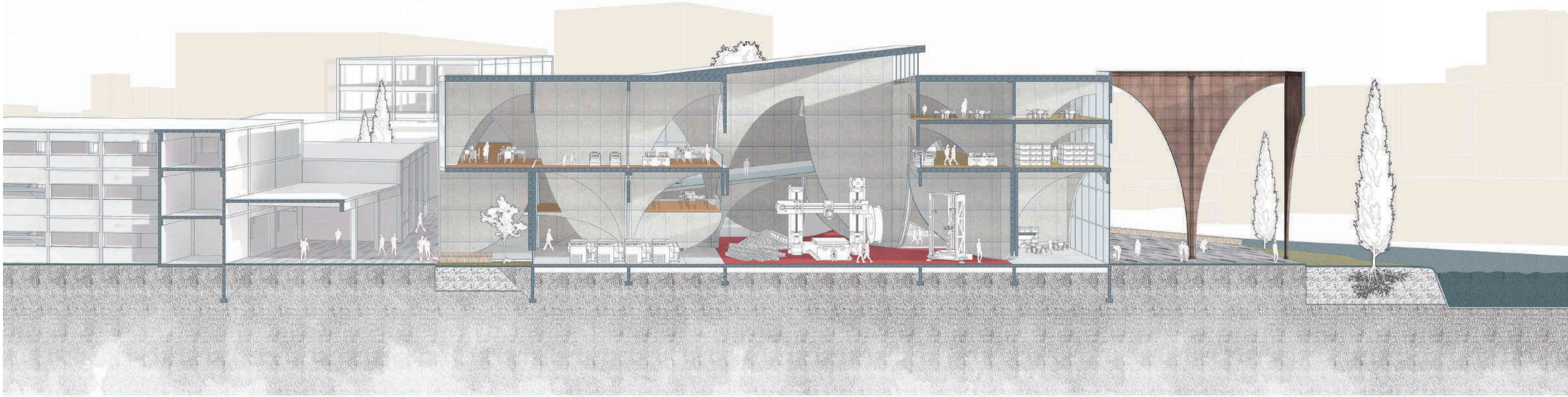
COMMUNITY COURTYARD

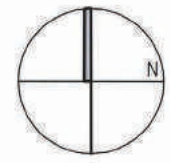
TRAINING PRINTING

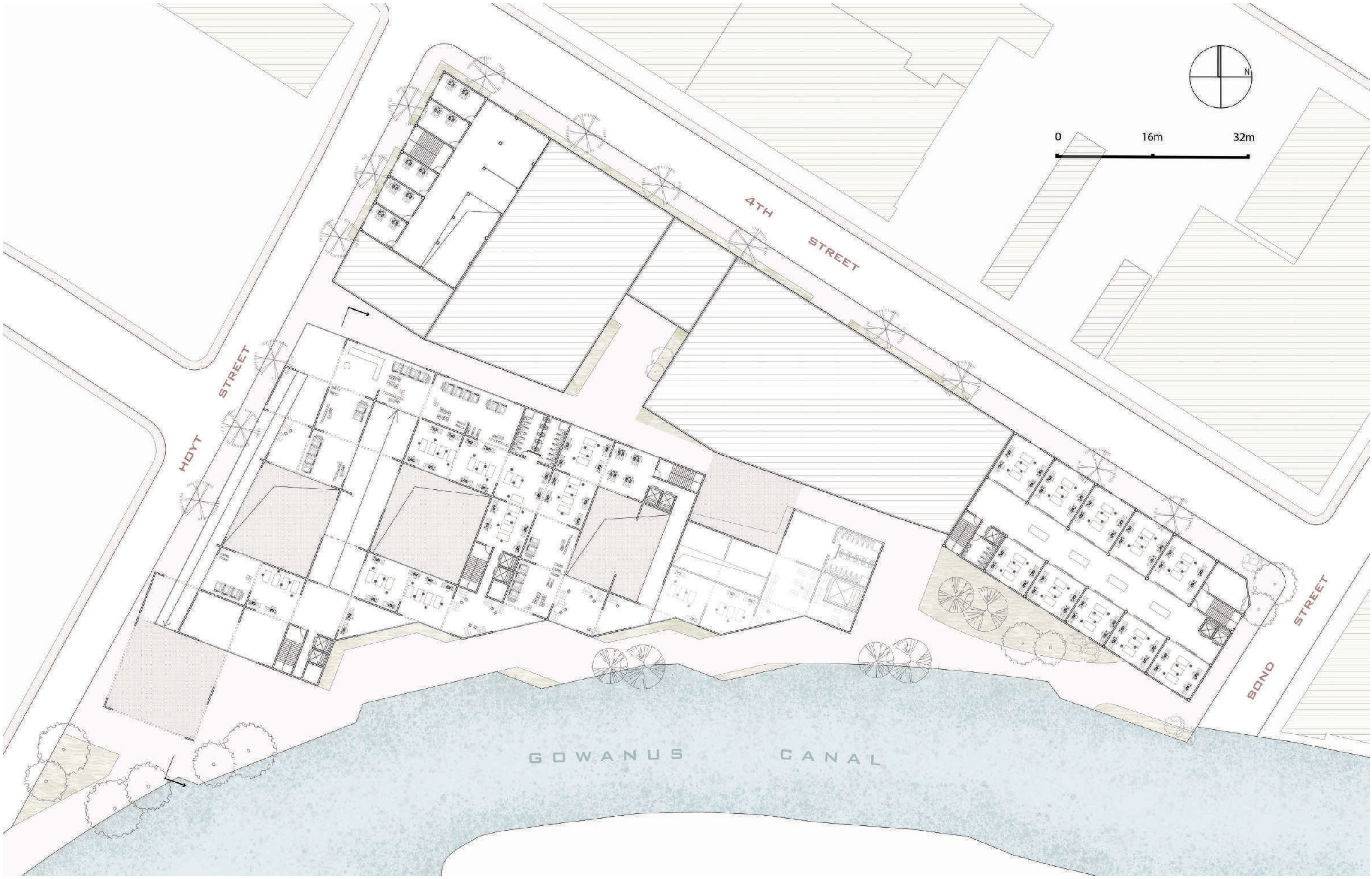
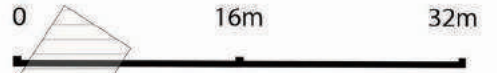
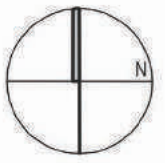
ENTRANCE EXHIBITION

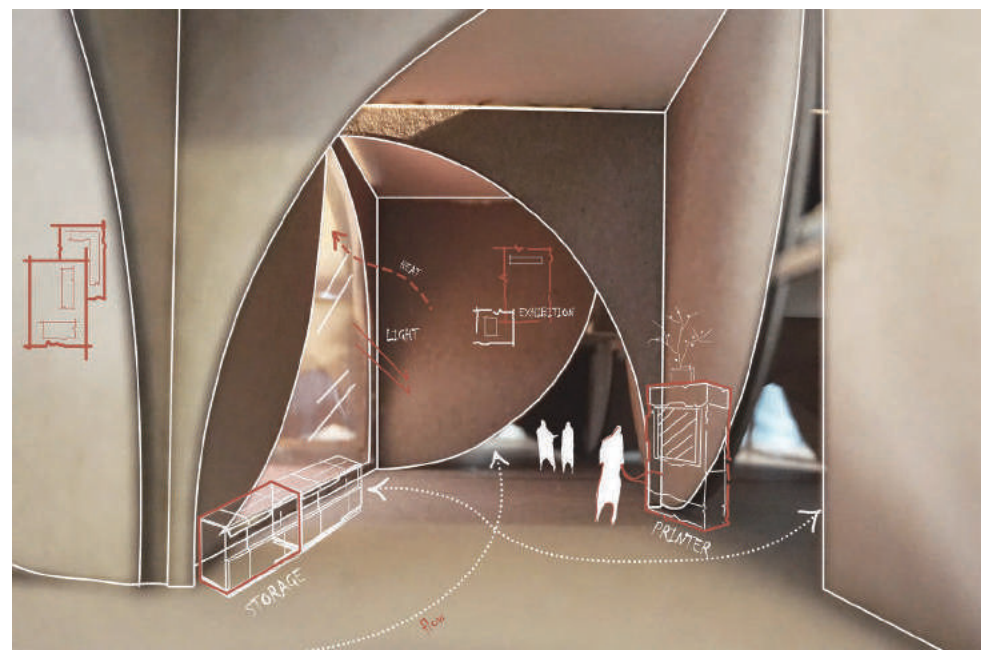
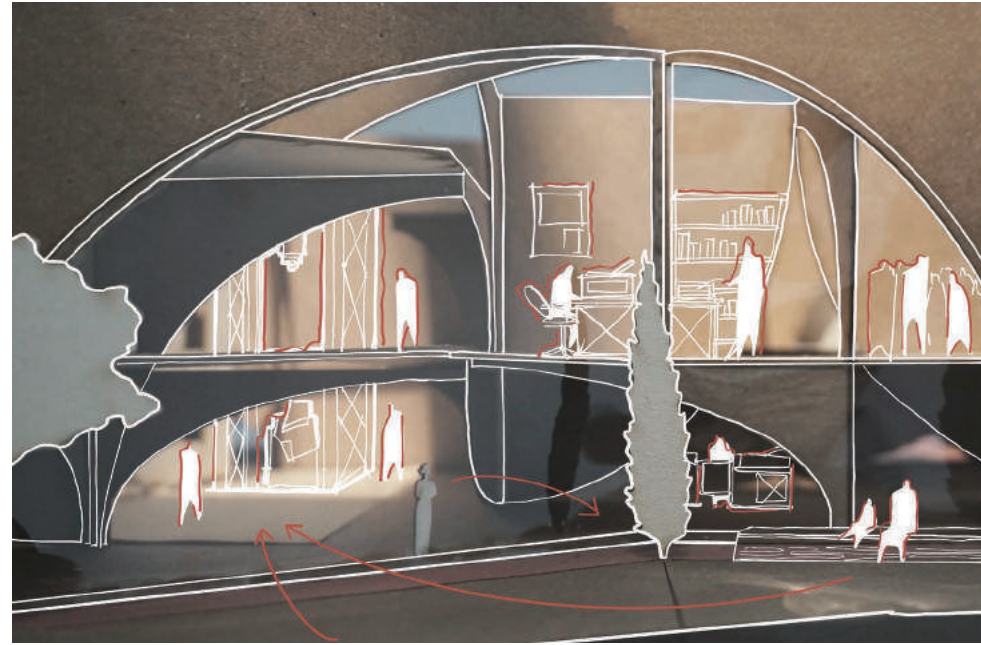
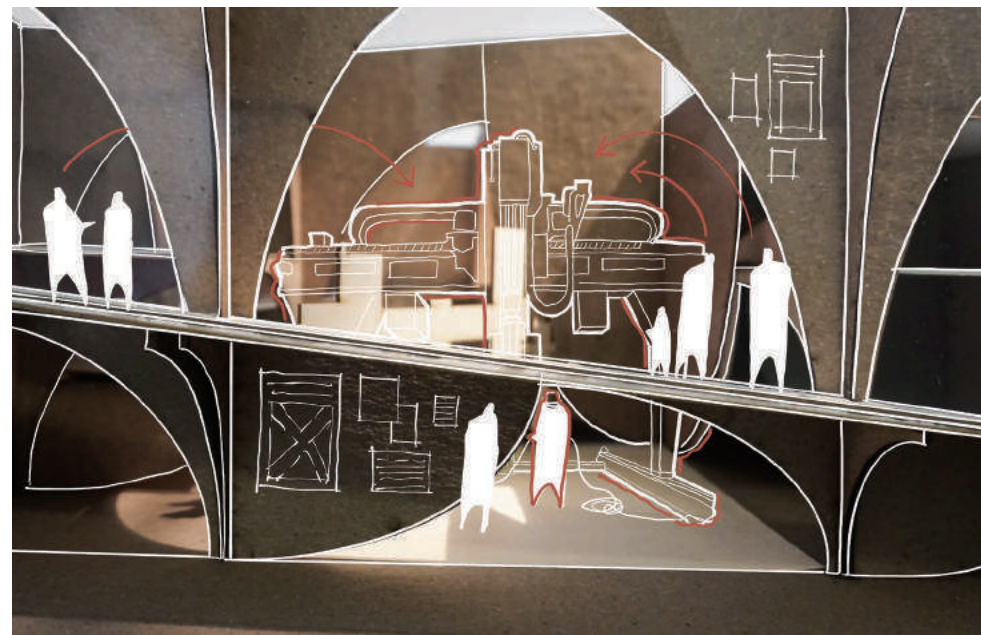
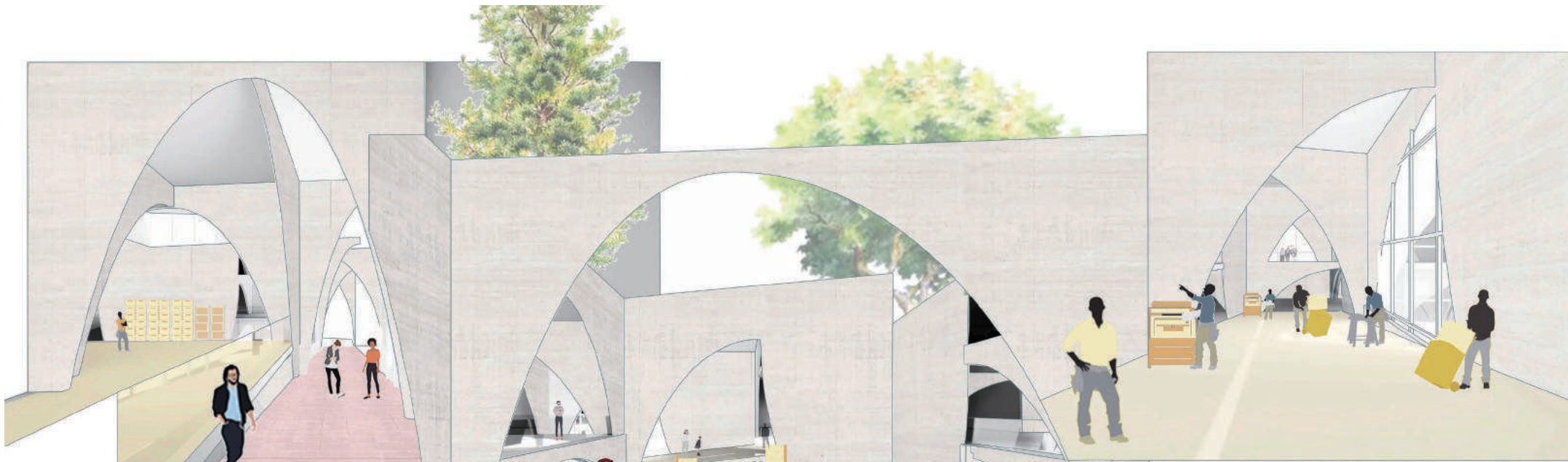
STAFF COURTYARD

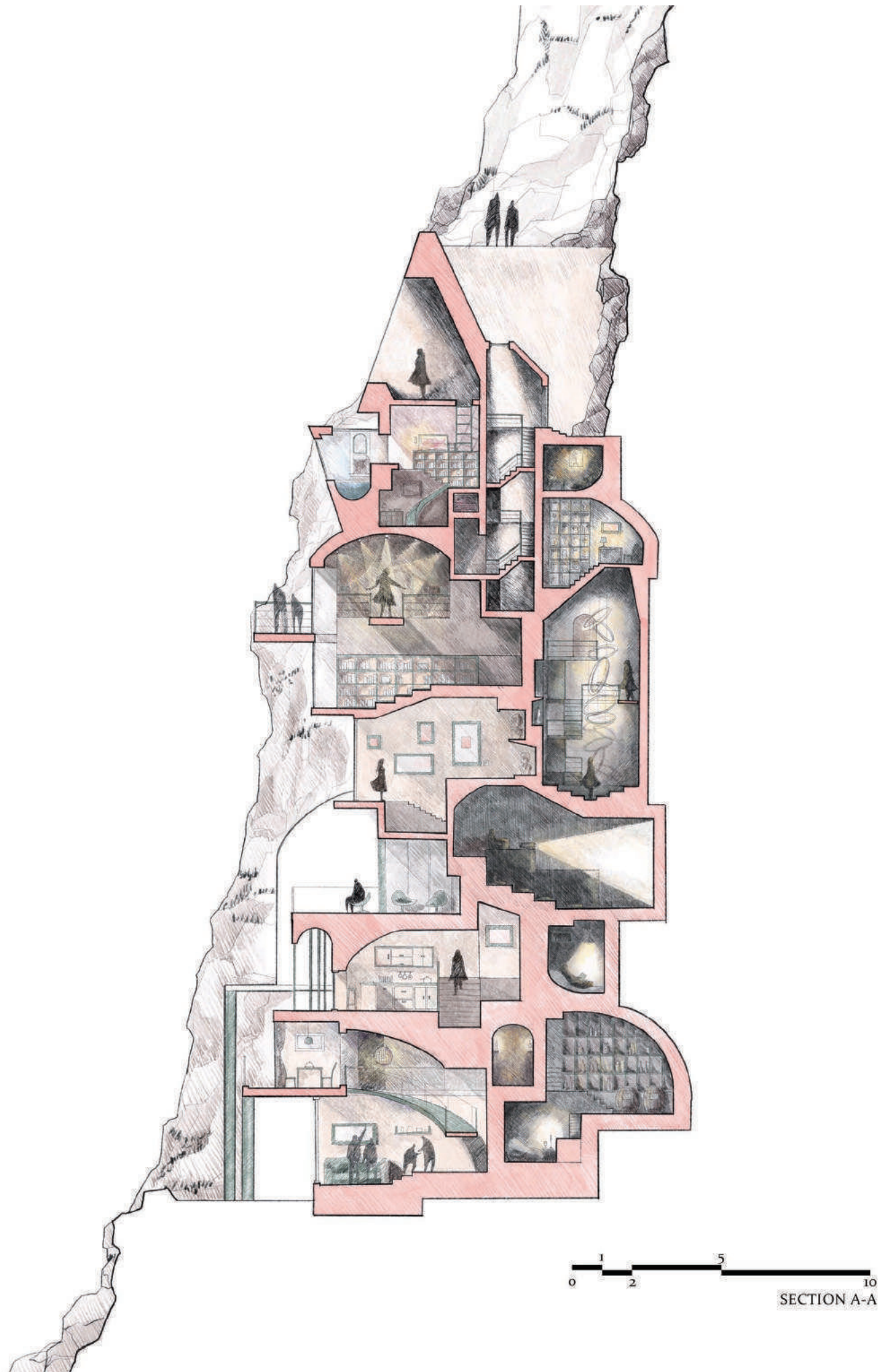
WORKER'S CIRCULATION











03 HouseFail - Living As Two

A House of Dual Personality

How does one know oneself?
Two personalities in this world.

A party girl and a nerd.
A delirious actor and man with a social phobia.

This is a place where two personalities meet.
Let each side of me be able to release their energy and land carefully.

The house is built on a cliff on the black beach of Iceland, with one side open to the sea and one side embedded in the rock of the mountain. Strangers can freely pass and traverse the public areas of the entire building, but the owner of the house can decide whether to join them or lock themselves in a cave with a sense of security.

Architecture brings uncertain, fresh and exciting opportunities for social interaction, meeting the psychological needs of extroverted personality, and at the same time creates a comfortable and solitary space for introverted personality.

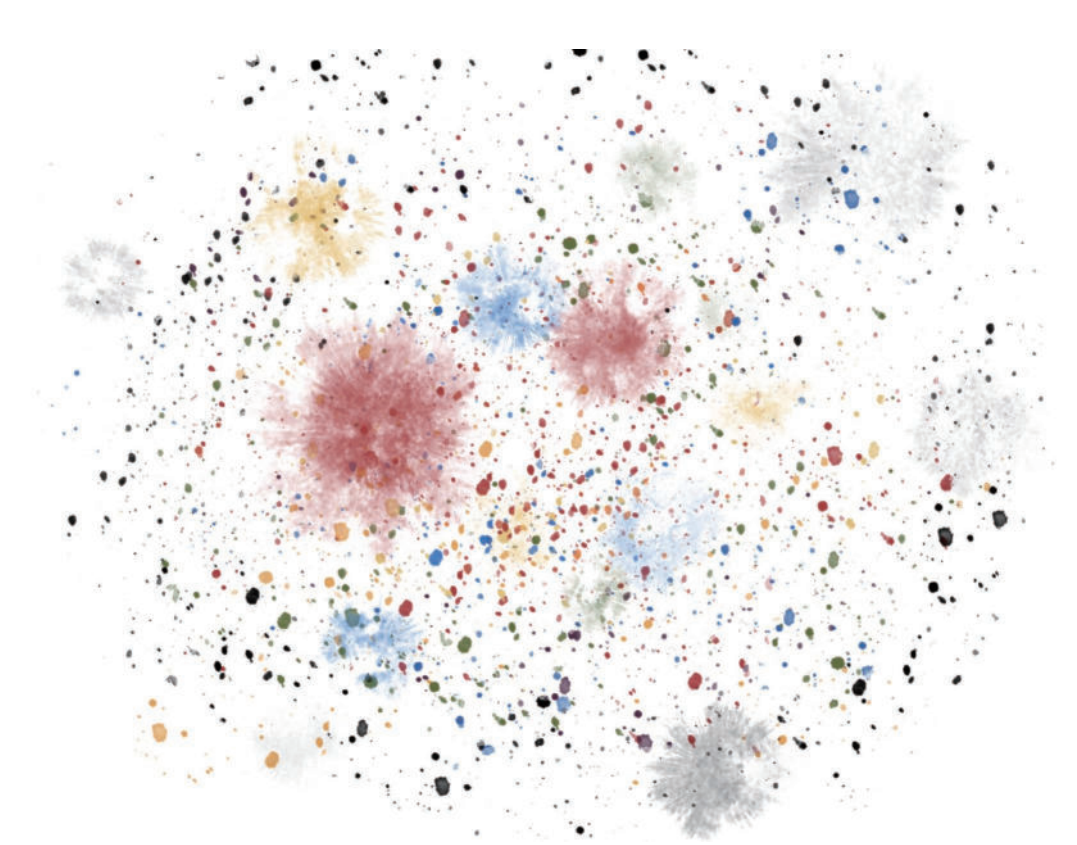
Architectural Design Individual Work
Site: Vik, Iceland

Instructor: Dan Wood, Maurizio Bianchi Mattioli, Nuar Alsaadir

Date: Summer 2021

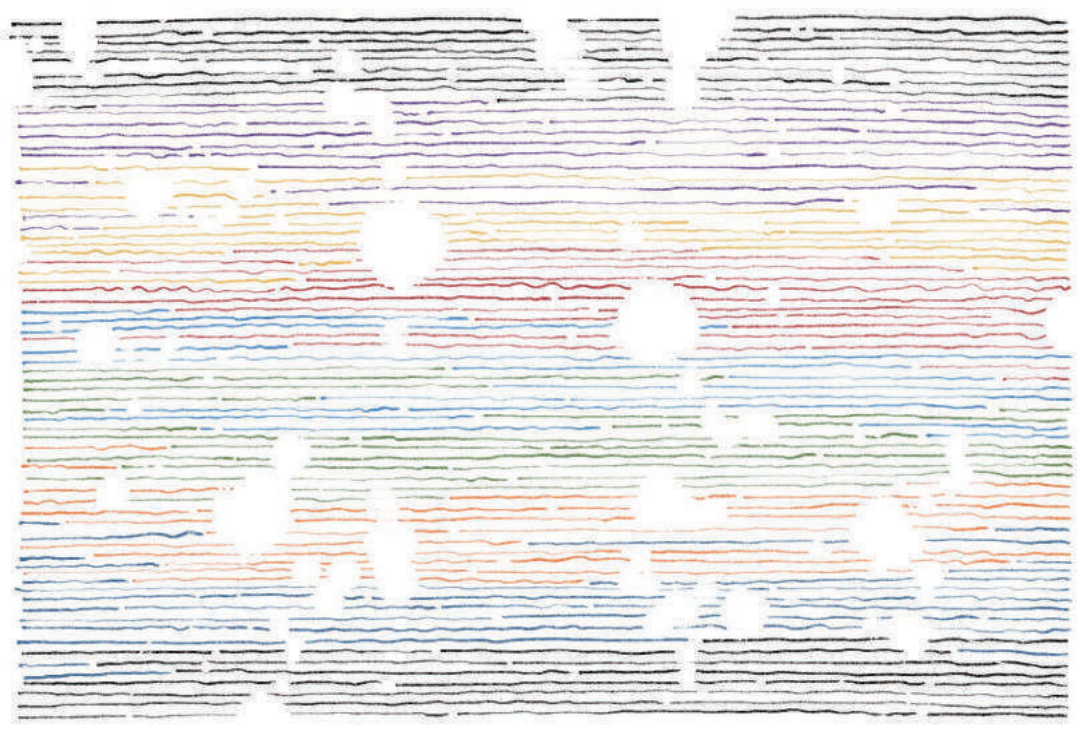
2021.6-2021.8

0 1 2 5 10
SECTION A-A



UNCONSCIOUS DASHES

Colorful spots splashed on the black and white background, making them almost invisible. Overlapping allows the two forces to suppress each other, but they exist at the same time and talk to each other.



CONTINUITY AND INTERRUPTION

The continuous line has gone through a black-and-white-color cycle, and the splashed white spots have become breakpoints, giving new possibilities for the cycle. It can lead to many different interpretations. It can be the birth of a person, after experiencing the colorful world, the man die alone.



THE FUNERAL

The dried flowers were surrounded in a circle around the broken can, and the petals were hanging toward the center as if mourning for the dead can. The purple hues set off a melancholy and heavy atmosphere. Subconsciously, jumping repeatedly in loneliness and excitement.



OVER THE CLOUD

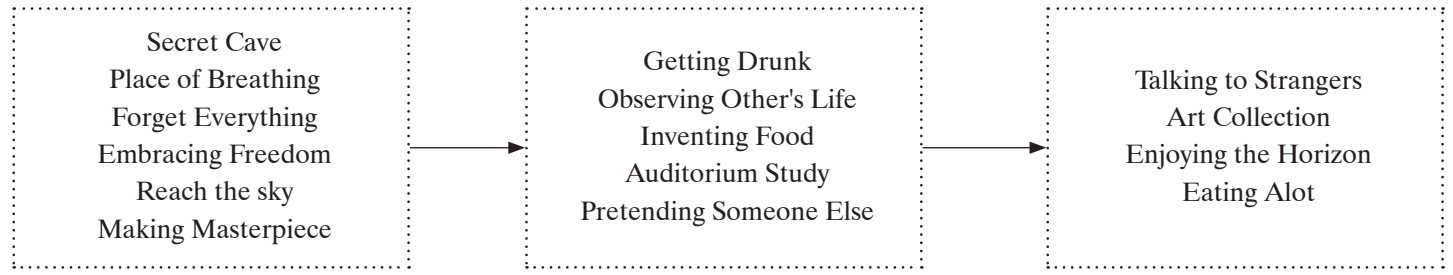
The most emotional materials are cotton, cans, dried flowers, and rubber ducks. This is the epitome of childhood and adult life, symbolizing happiness, softness, perishable time, and fixed eternity.

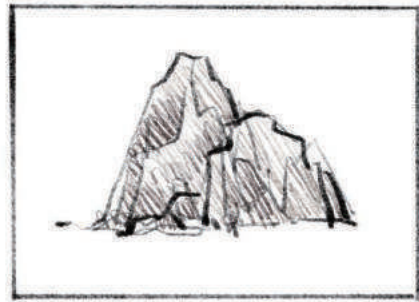




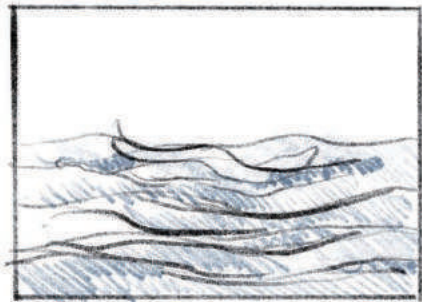
Dual Personality of both Site and Oneself

The black beach of Vik, Iceland is a very magical place, full of countless fantasy and conflicts. As a destination that has been planned but never reached, the black sand beach is full of imagination and fantasy. It feels divided and broken here. The black beach and white ice and snow make it lonely and pure, but at the same time, the noisy tourists and colorful coats make it full of noise. This extreme purity and extreme hustle and bustle make this place more mysterious and charming.

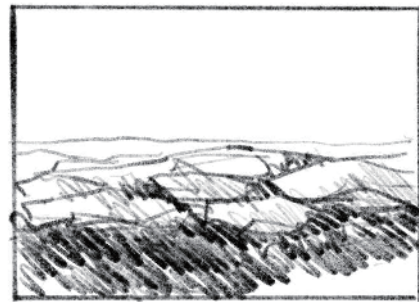




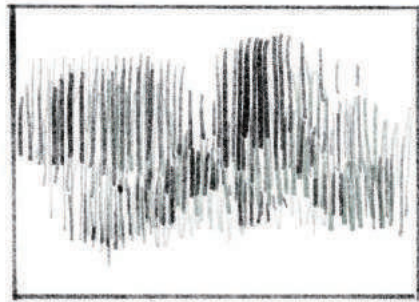
ROCK



OCEAN



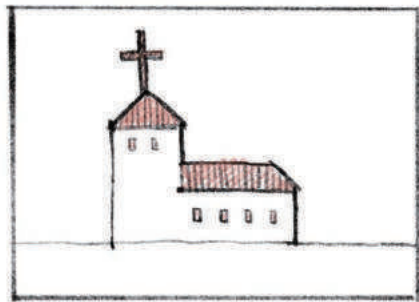
SNOW & ICE



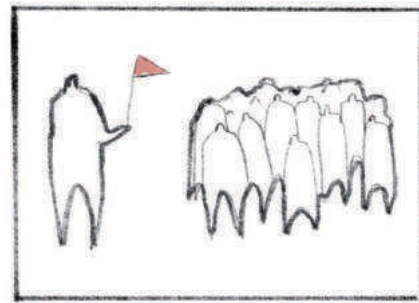
AURORA



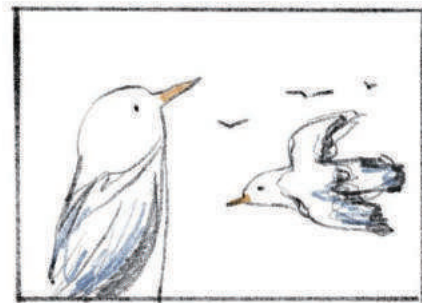
CLIFF



CHURCH



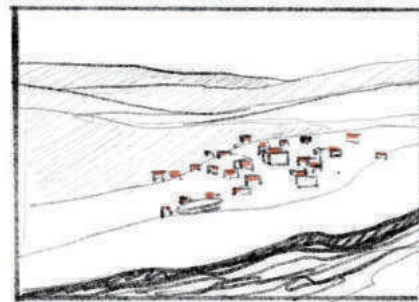
TOURIST



FAUNA



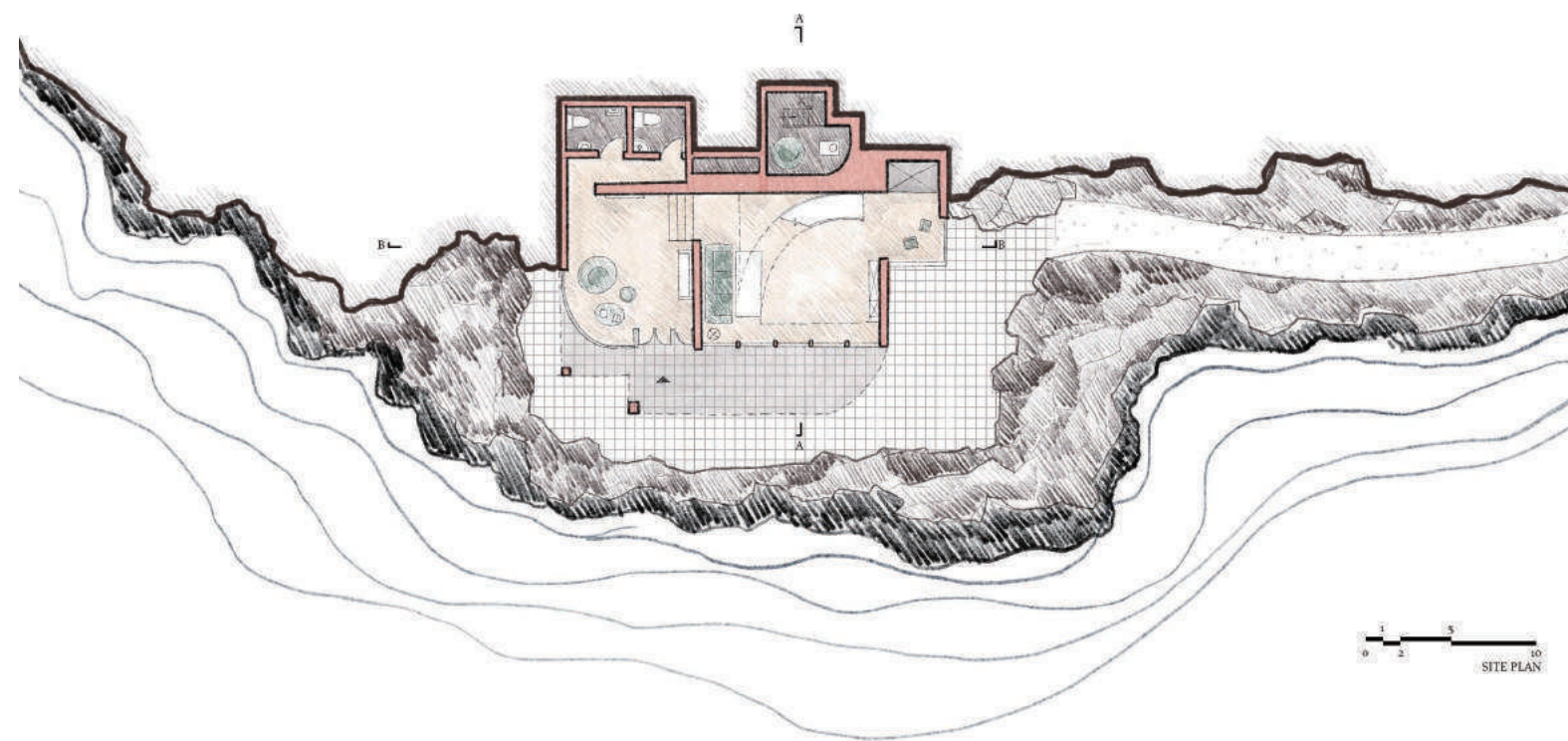
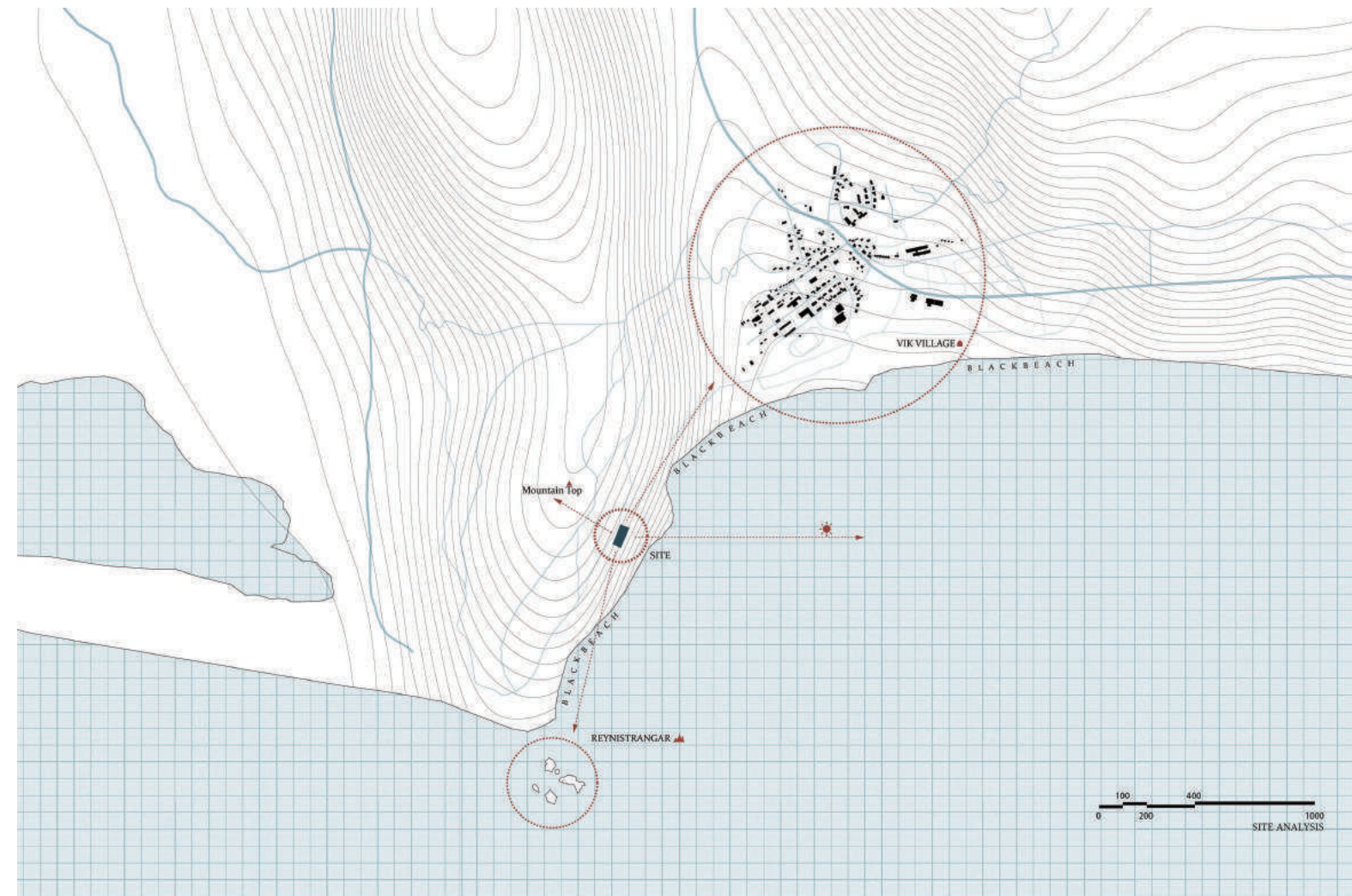
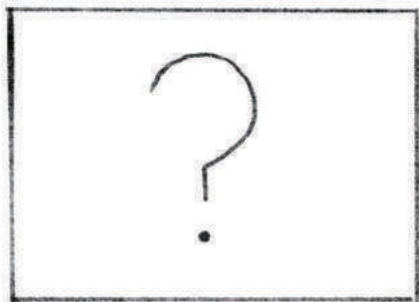
FLORA



TOWN

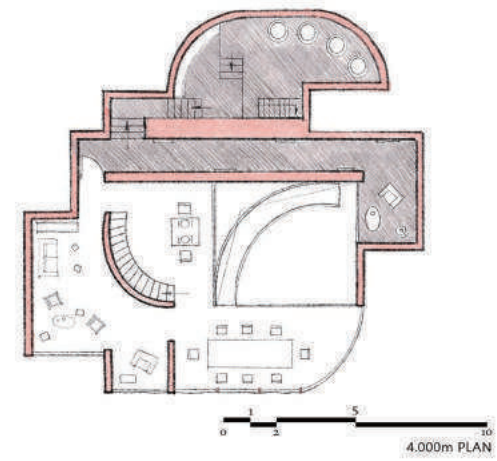


WIND

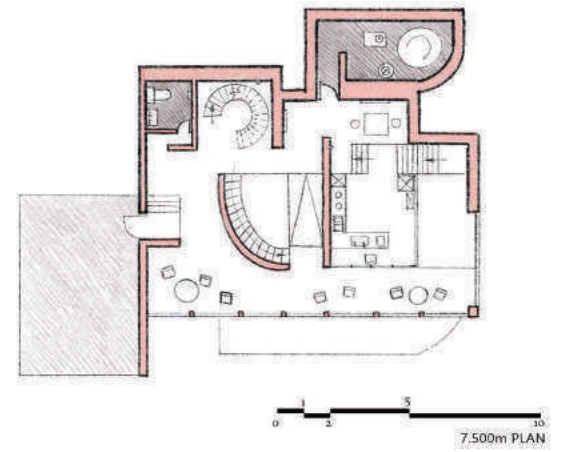




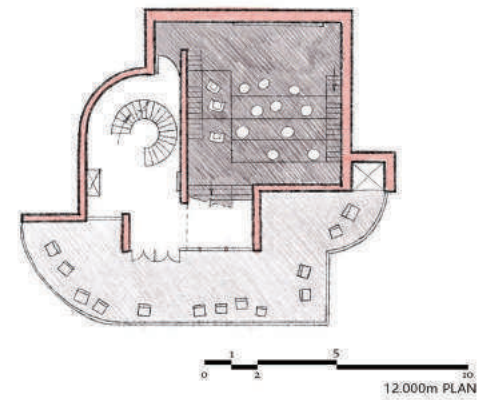
0 2 5 10
SECTION B-B



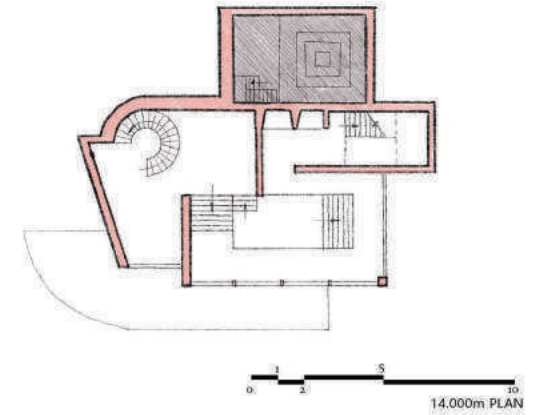
4.000m PLAN



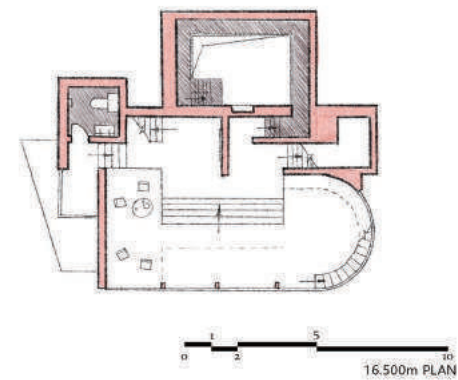
7.500m PLAN



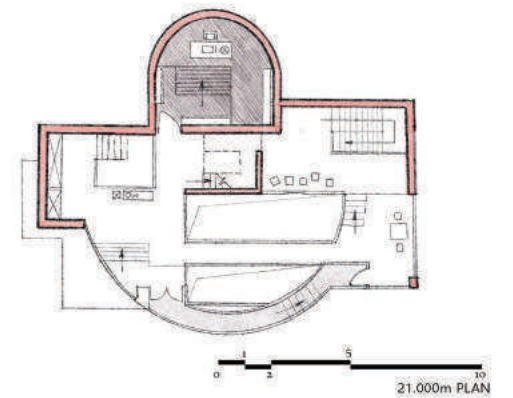
12.000m PLAN



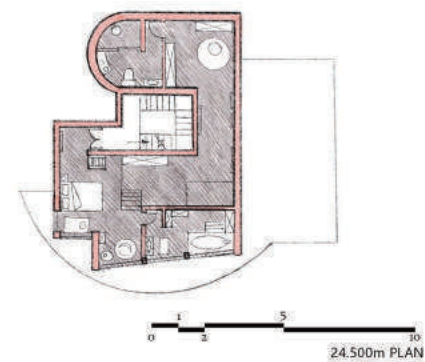
14.000m PLAN



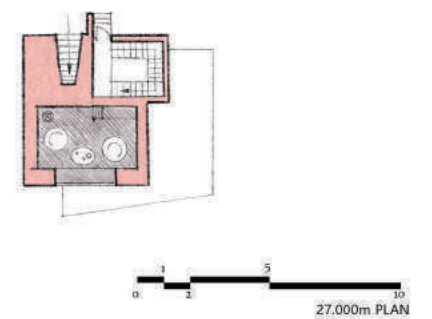
16.500m PLAN



21.000m PLAN



24.500m PLAN



27.000m PLAN



04 Recombinant Urbanism

The armature, enclave, heterotopia of Dongguan

1830 - 1842, the first opium war started in Humen, a small town in Dongguan, initiated china's opening for trade with foreign nations after closing for hundreds of years. Later in 1949, Mao announced the foundation of the PRC after decades of wars. By 1978, Chinese economic reform started, with 9 cities in Guangdong province nominated to be special economic zones in the pearl river delta, meaning these cities have more inclusive policies for foreign investors. Dongguan was one of them. But at that time, it was still a small town, the main industry there was fishing and agriculture. So the benefits of the economic reform policy didn't change the urban context a lot.

By 1985, Dongguan was finally recognized as a city, which means the local government had more funds to support the industrialization of this city. From 1985 till 2021, this small town gradually grew into a modern city with mixed landforms. Agriculture and modern factories coexist on this magical land. However, compared to those 2 mega cities, Guangzhou and Shenzhen, Dongguan's growth pace are still pretty slow.

In 1997, to make Dongguan more accessible to these 2 megacities, a human bridge was built, and Dongguan turned into a critical transportation hub. Humen bridge soon became the busiest bridge in the whole pearl river delta, and brought a lot of business into Dongguan, like illegal industrial factories and red-light districts alongside the highway that connects Guangzhou and Shenzhen.

Recently, a new policy called big bay area development brought this city back to life. A high-speed railway was built connecting the main cities in the pearl river delta, including Hongkong and Macau.

Urban Research Group Work
 Collaborators: Rae LEI, Jiayi ZHAO, Siyu XIAO
 Instructor: David Grahame SHANE
 Date: Spring 2022

Timeline of Dongguan

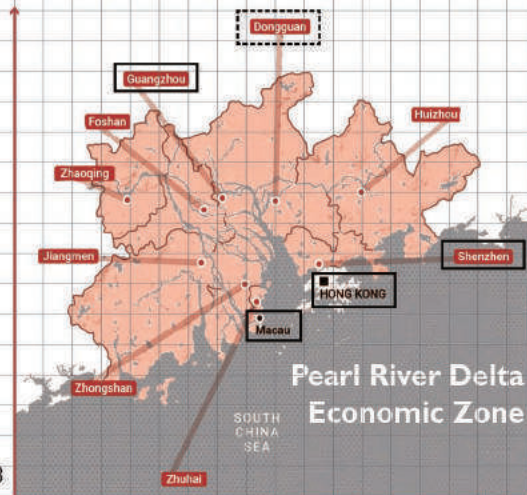
1949 Foundation of PRC

The founding of the People's Republic of China was formally proclaimed by Mao Zedong, the Chairman of the Chinese Communist Party (CCP), on October 1, 1949 at 3:00 pm in Tiananmen Square in Peking, now Beijing (formerly Beiping), the new capital of China.



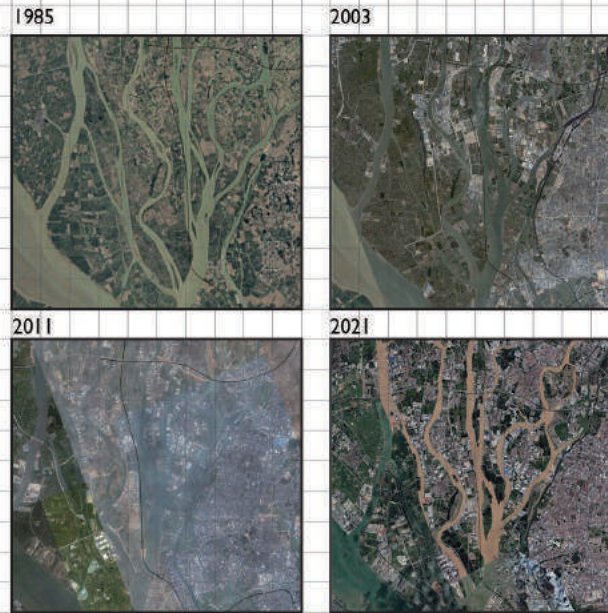
1978 Chinese economic reform

China's open-door policy and economic reforms jumpstarted the development of nine municipalities designated by the Guangdong government as the Pearl River Delta Economic Zone, in addition to Hong Kong and Macau. Industrial development and export processing zones, as well as technology parks, have proliferated, with domestic and foreign enterprises in various industries establishing major operations and headquarters in different cities.



1985 Start of Semi-urbanization

Dongguan earned city status in 1985, and was upgraded to prefecture city status three years later. During this period the city changed its focus from an agricultural town into a manufacturing hub, with an average annual growth of up to 18%.



In February 2015, the government launched a crackdown on the sex trade in Dongguan, which has been dubbed China's 'Sin City'. More than 2,000 hotels, saunas and massage parlors that catered to the city's migrant workers and visiting buyers were shut down, according to state media.

2018 Guangzhou-Hong Kong high-speed train greater bay area development

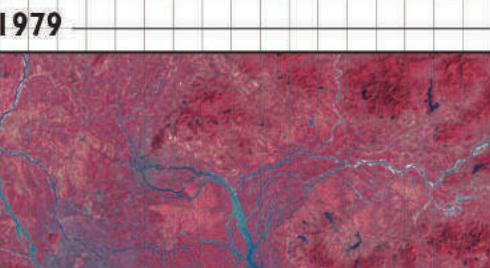
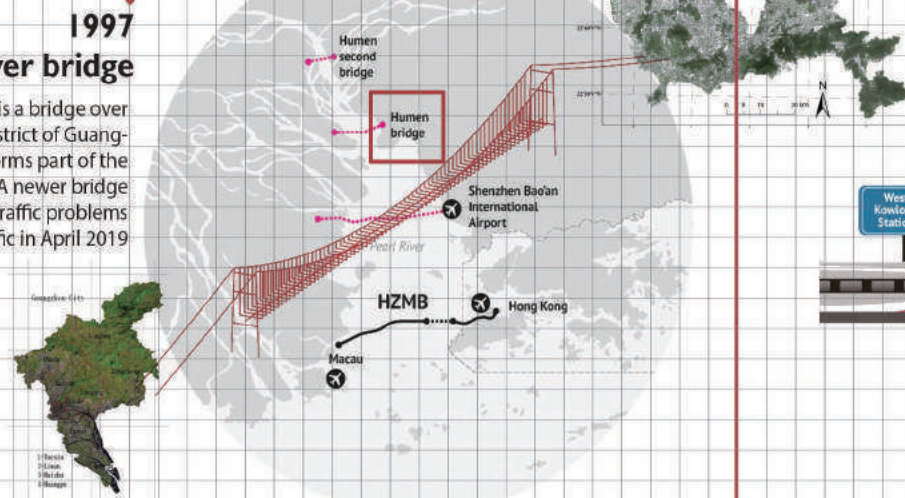
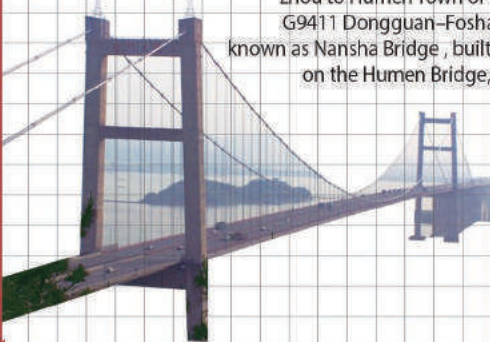
1830 - 1842 First Opium war

The destruction of opium at Humen began on 3 June 1839 involved the destruction of 1,000 long tons of illegal opium seized from British traders under the aegis of Lin Zexu, an Imperial Commissioner of Qing China. Conducted on the banks of the Pearl River outside Humen Town, Dongguan, which provided casus belli for Great Britain to declare war on Qing China. What followed is now known as the First Opium War, a conflict that initiated China's opening for trade with foreign nations under a series of treaties with the western powers.

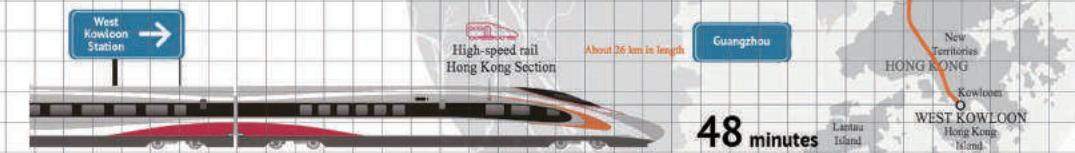
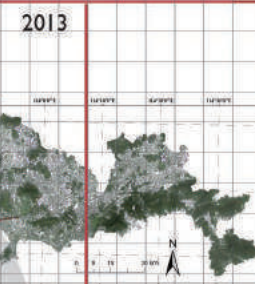
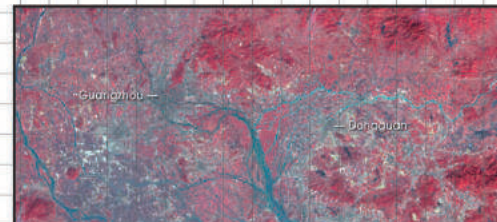


1979 Construction of Humen Pearl river bridge

The Humen Pearl River Bridge (虎門大橋) is a bridge over the Pearl River. It connects the Nansha District of Guangzhou to Humen Town of Dongguan. It forms part of the G9411 Dongguan-Foshan Expressway. A newer bridge known as Nansha Bridge, built to reduce the traffic problems on the Humen Bridge, opened to traffic in April 2019.



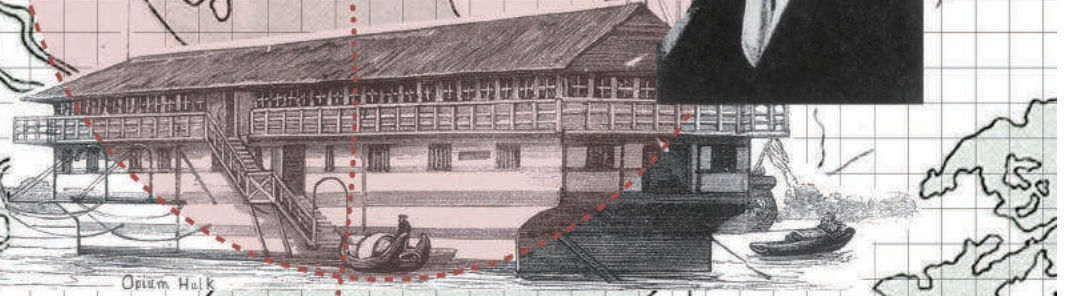
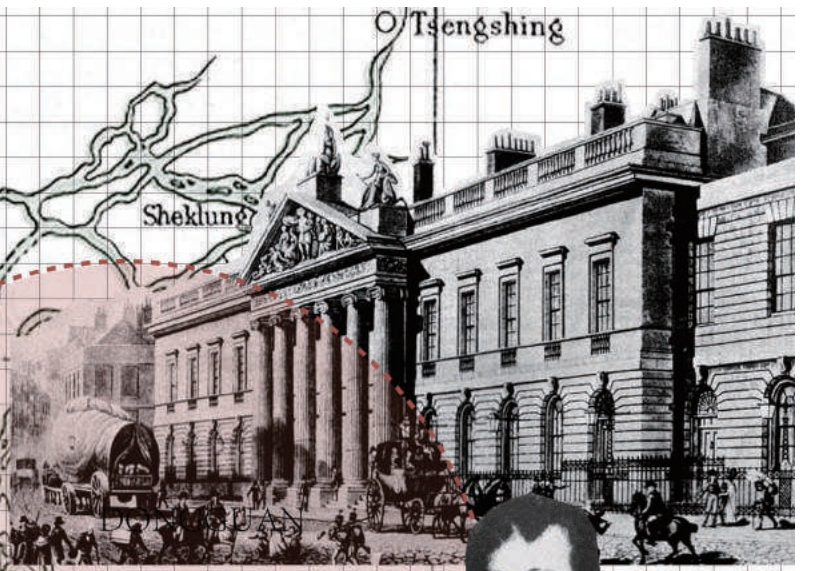
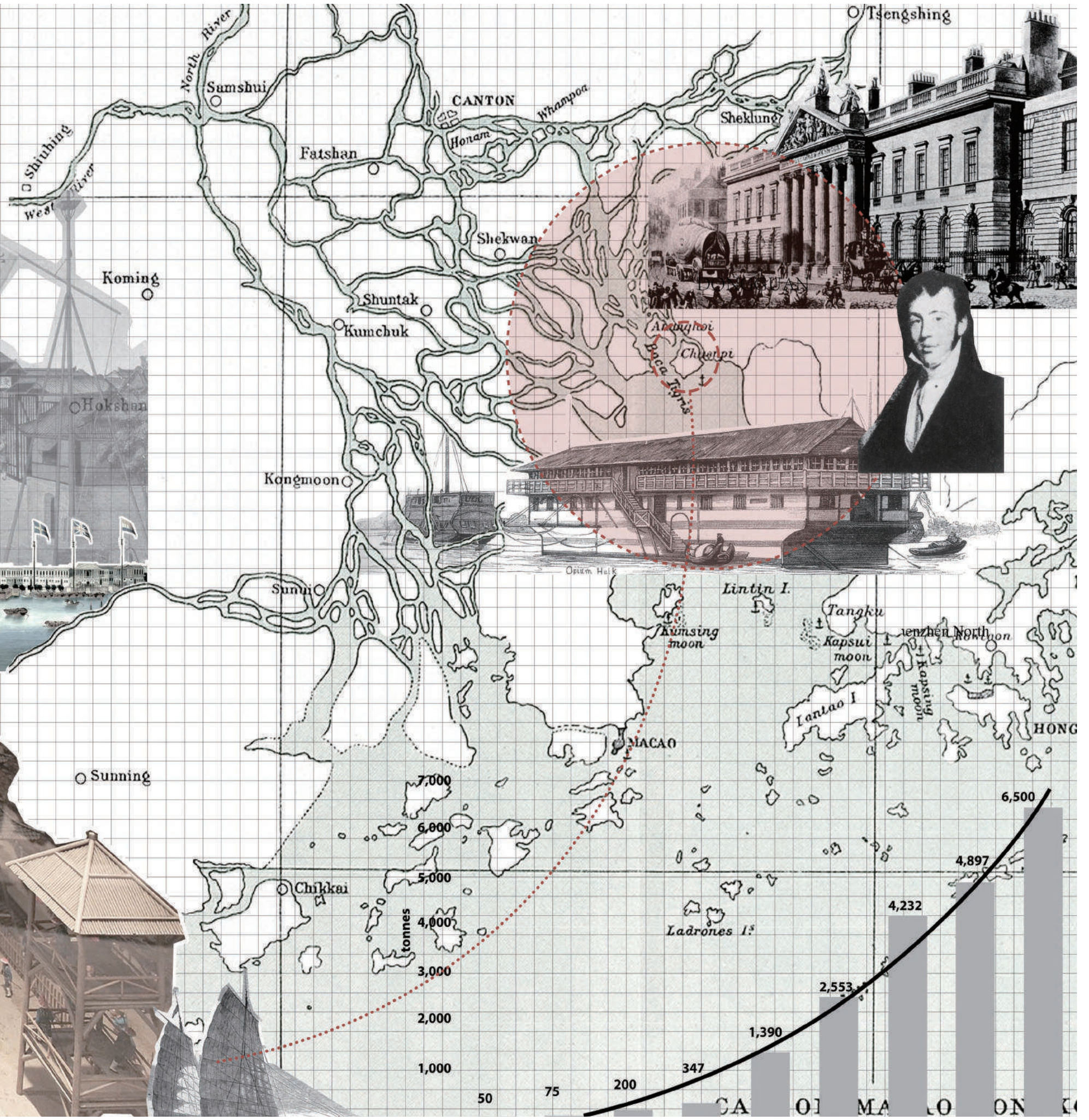
urbanization in 34 years



The high-speed train services between Guangzhou and Hong Kong was commenced on 23 September 2018, as the G6501-6558 trains formerly operated between Guangzhou and Shenzhen were extended to Hong Kong West Kowloon, when the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong XRL was opened.

48 minutes





改革开放 发展 东莞 经济

Taiping Handbag Factory
China's first "three to one supplement" enterprise



Wanjiang Aozhou Ancient Pagoda



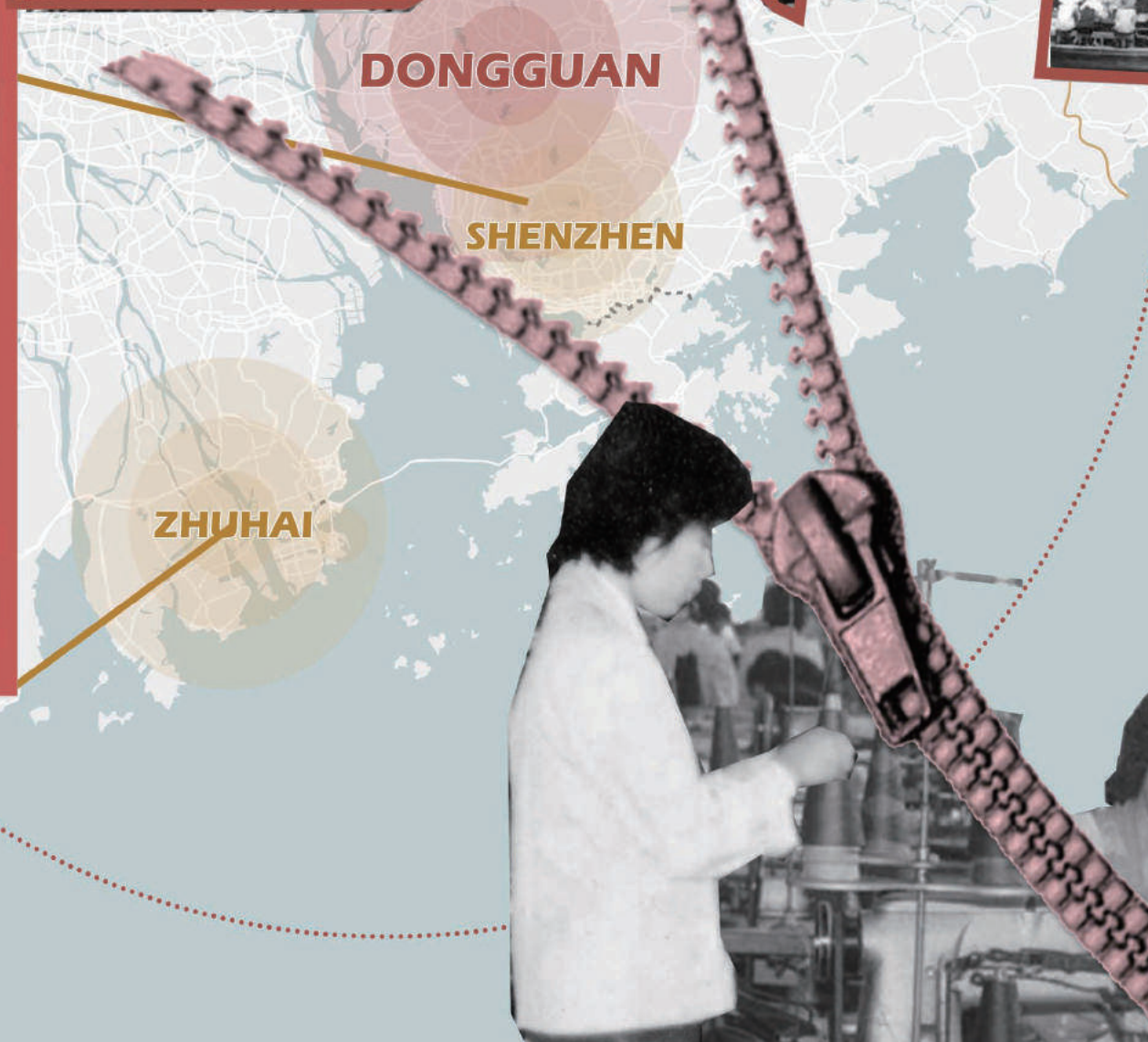
Dongxin Hotel



Taiping ferry



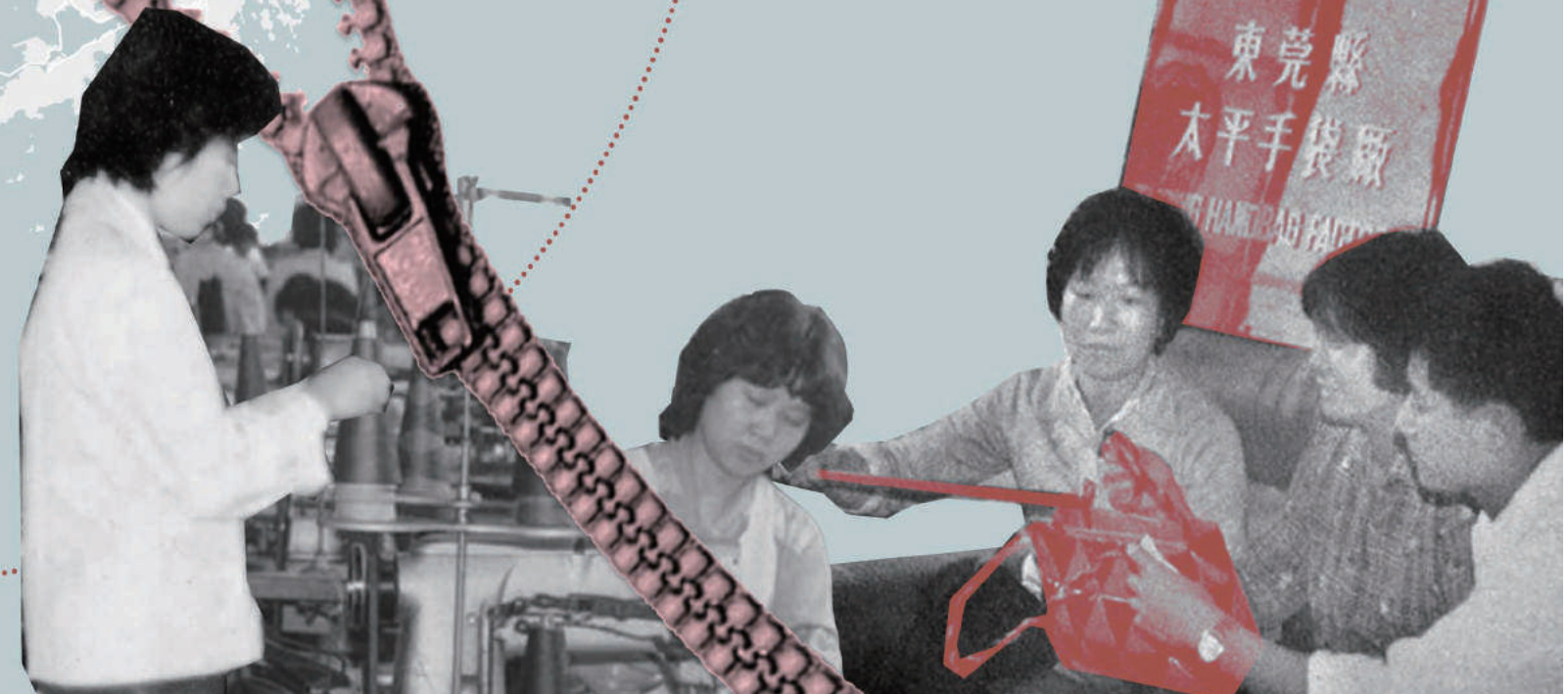
Xiaoping Deng
TIME magazine-person of the Year

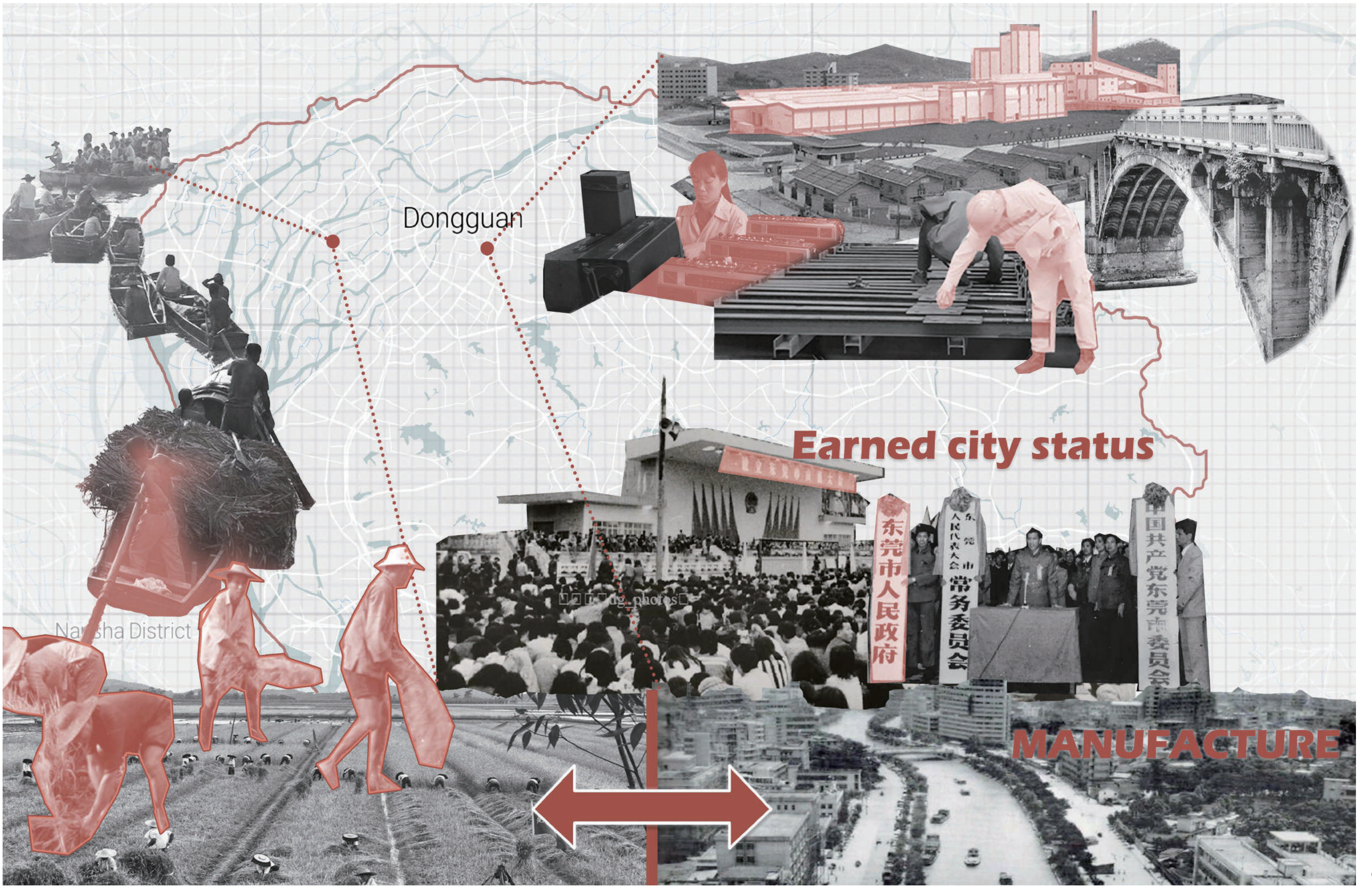


DONGGUAN

SHENZHEN

ZHUHAI





Dongguan

Earned city status

Nansha District

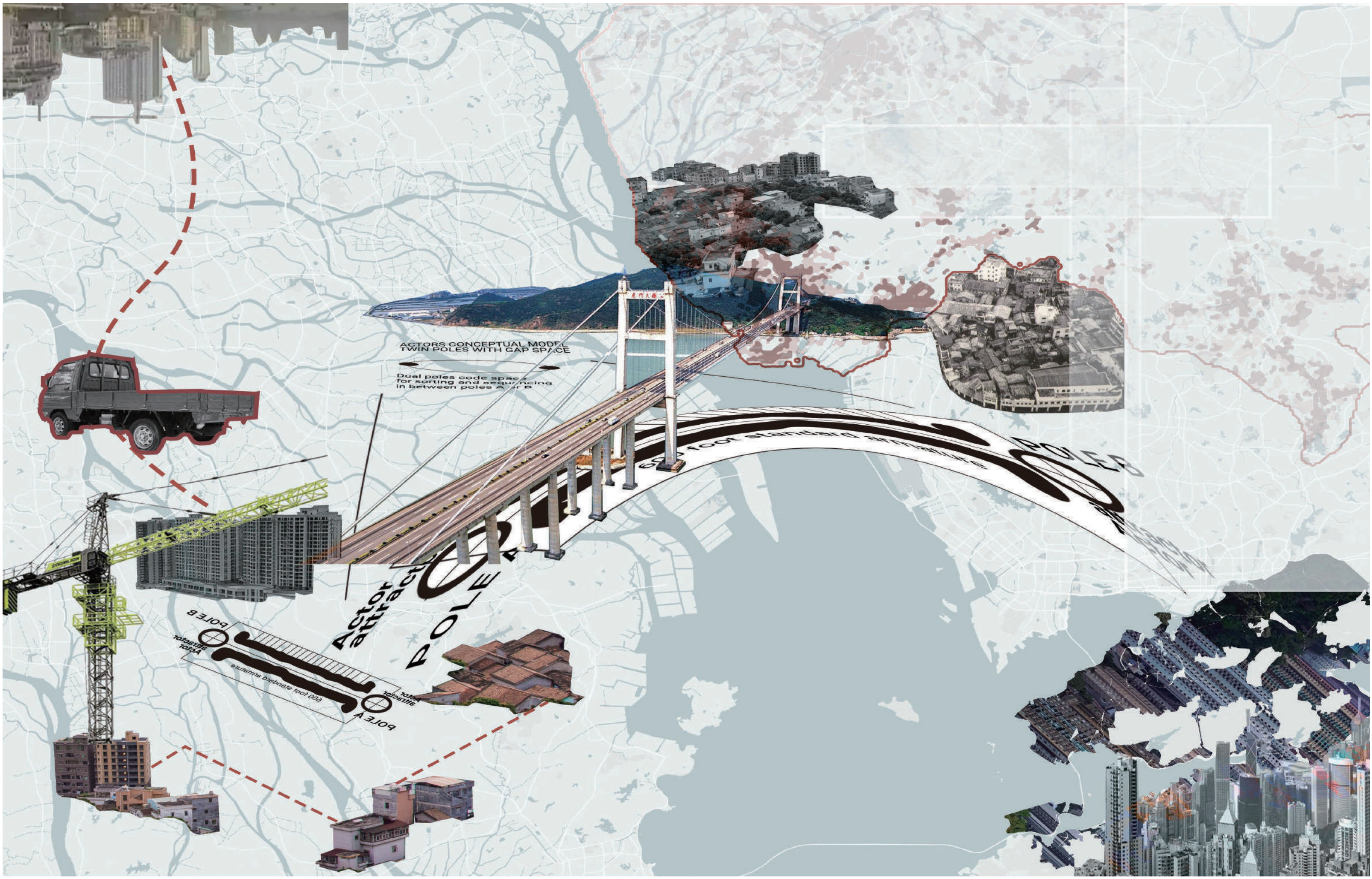
东莞市人民政府

东莞市人民代表大会常务委员会

中国共产党东莞市委员会

MANUFACTURE





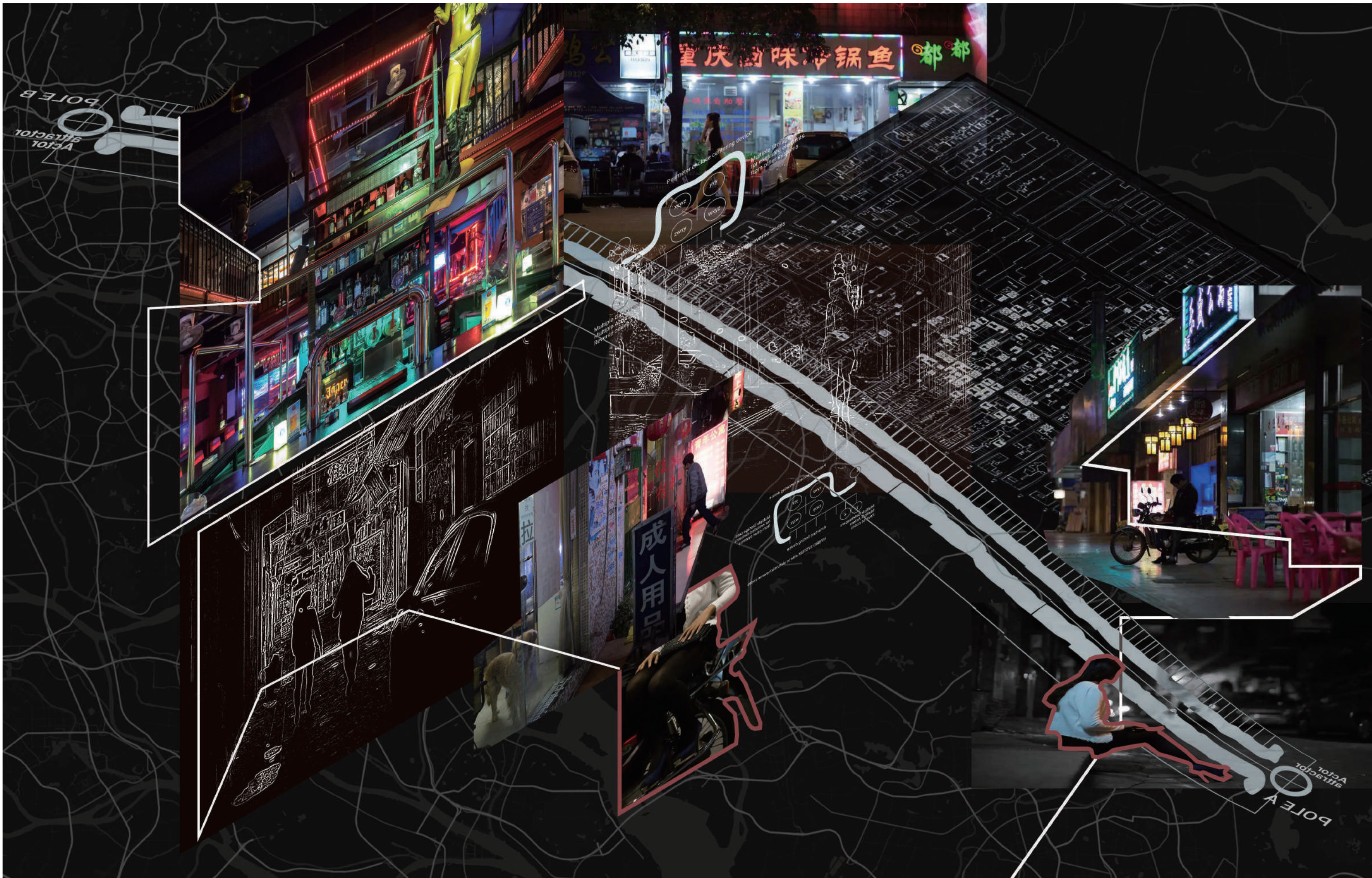
**ACTORS CONCEPTUAL MODEL
TWIN POLES WITH GAP SPACE**

Dual poles code spaces
for sorting and sequencing
in between poles A & B

Attraction
POLE A
Attraction
POLE B

Attraction
POLE A
Attraction
POLE B
60' foot standard street width





Guangzhou-Kowloon Railway 2016

GUANGZHOU

Guangzhou South

FROM KOWLOON
48 MIN

Qingsheng

Humen

FROM KOWLOON
39 MIN

Guangmingcheng

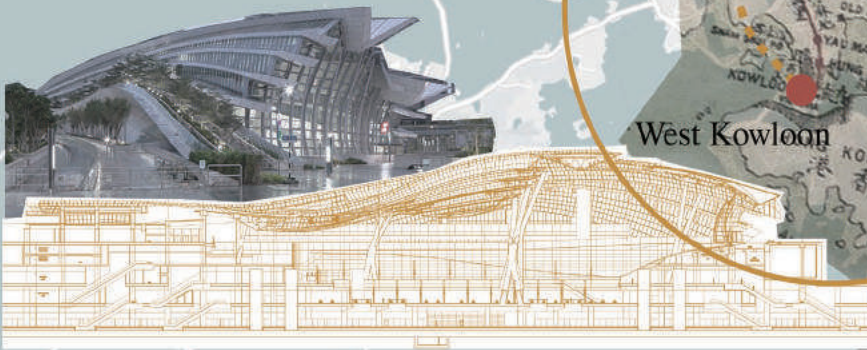
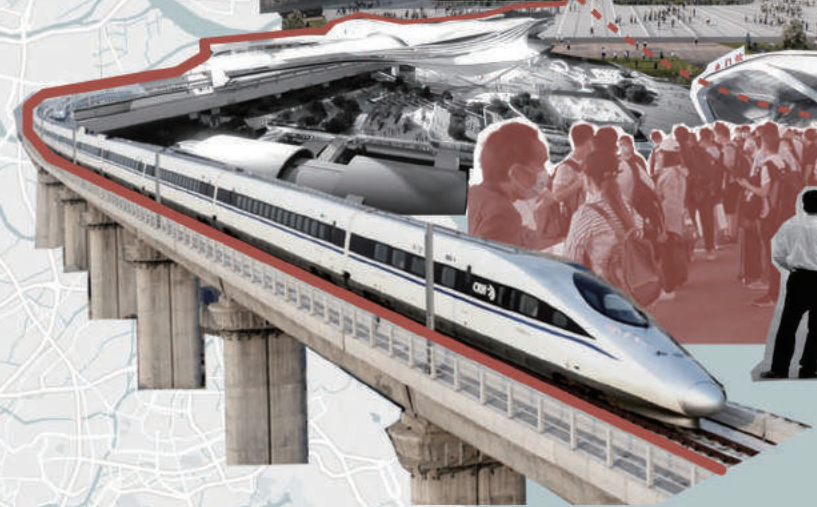
Shenzhen North

Futian

BRITISH LEASED HONGKONG

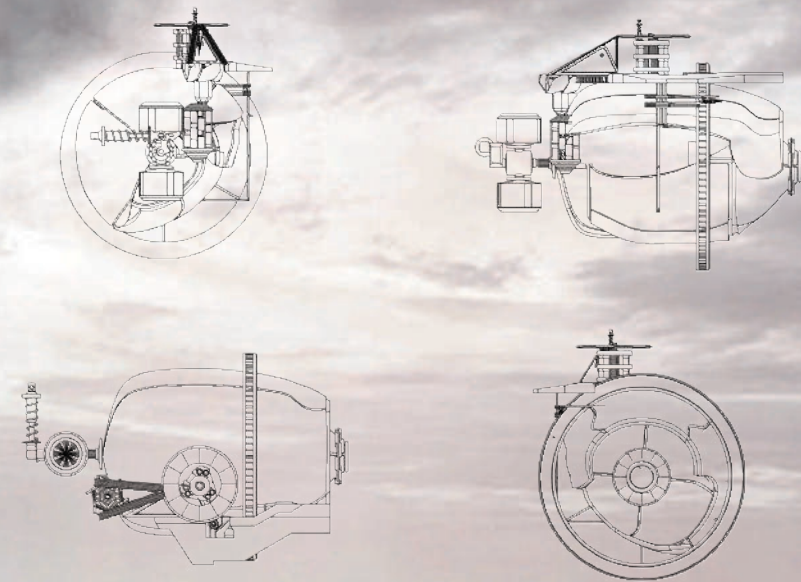
West Kowloon

Canton-Kowloon



05 A HYBRID JOURNEY

An Imaginary Spaceship in 3dsMax Rendering



3dsMax Modeling and Vray Rendering Group Work
Collaborators: Siyu XIAO, Santiago ALVAREZ
Instructor: Joseph BRENNAN, Phillip CRUPI
Date: Fall 2021

