PORTFOLIO

SHULONG REN

2021-2022

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01

Seam and Border

A medical town grows insided the US-Mexico border

academic, team work
May - July 2021
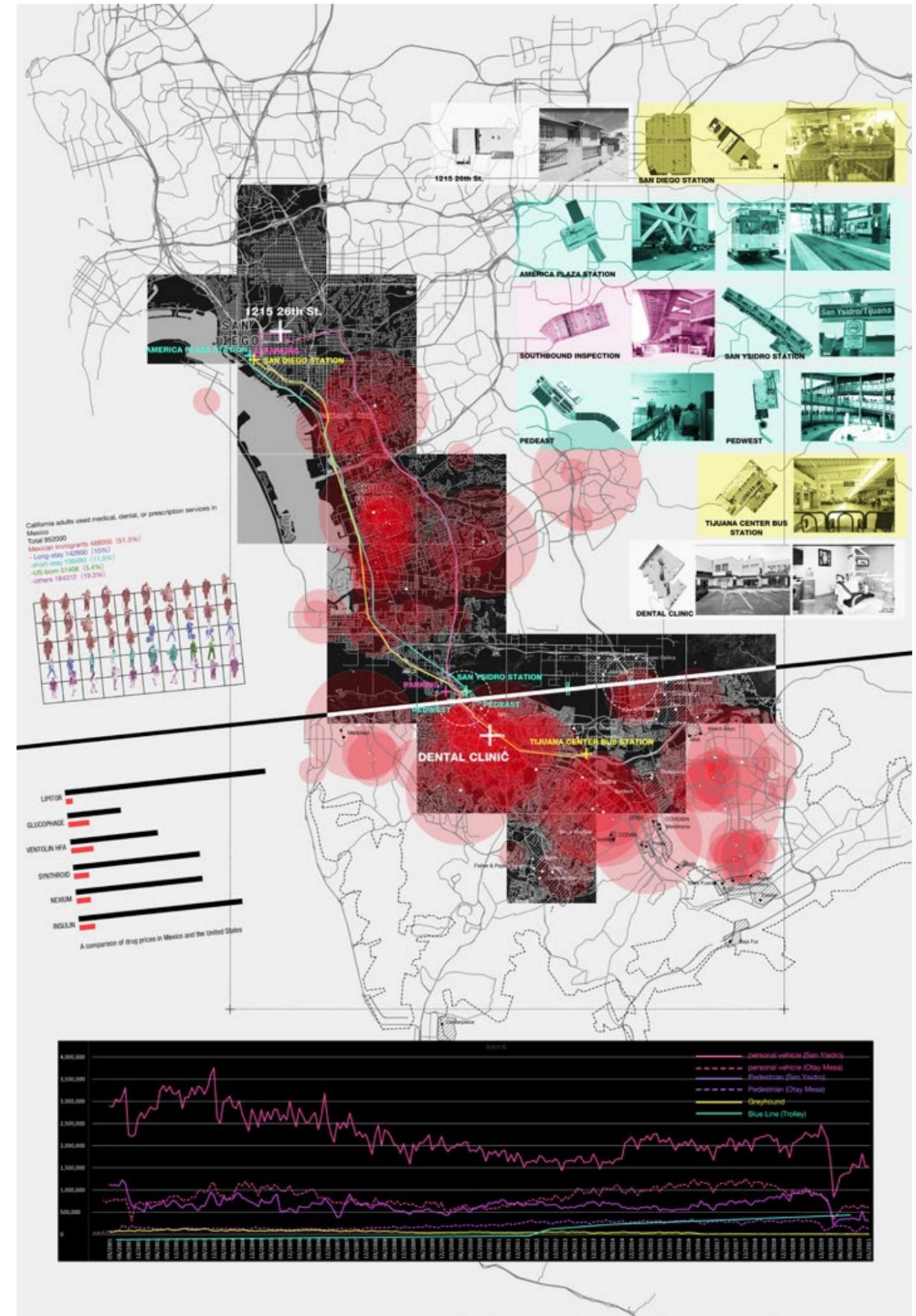
Team members: Qingyang Yu   Shulong Ren
Design Development 80% Precedent Study 40% Prototype Design 20%

Instructor: Ersela Kripa + Stephen Mueller (AGENCY)

This project focuses on people who live in the sister cities on the US-Mexico border. The US-Mexico Border is 1989 miles long, with 14 sister cities and 42 official crossing points along the border. In the most representative pair, **San Diego and Tijuana, the growth of the medical tourism industry has been a biotic form that cannot be neglected.**

According to the increasing tendency, we predict that the number of medical tourists in Tijuana will soon reach 5.1 million in 2030. City governments of Tijuana, as representatives of Tijuana citizens, may want to find a way to both supports the medical tourism industry to keep developing and maintain the quality of citizens' daily lives.

The best image of short-term tourists is that they come for a one-stop service and directly leave. A third governance grows inside the border where patients from US side and staff from Mexico side can meet without crossing the border, but entering the border, is one option. **We try to push this process to the extreme and predict what will happen in the future. A perfect solution? Or endless chaos.**

INSULIN
NEXIUM
SYNTHROID
VENTOLIN HFA
GLUCOPHAGE
LIPITOR

Hospital
Clinic & Community Healthcare Center
Pharmecy

Pharmacy
Clinic & Community Healthcare Center
Hospital
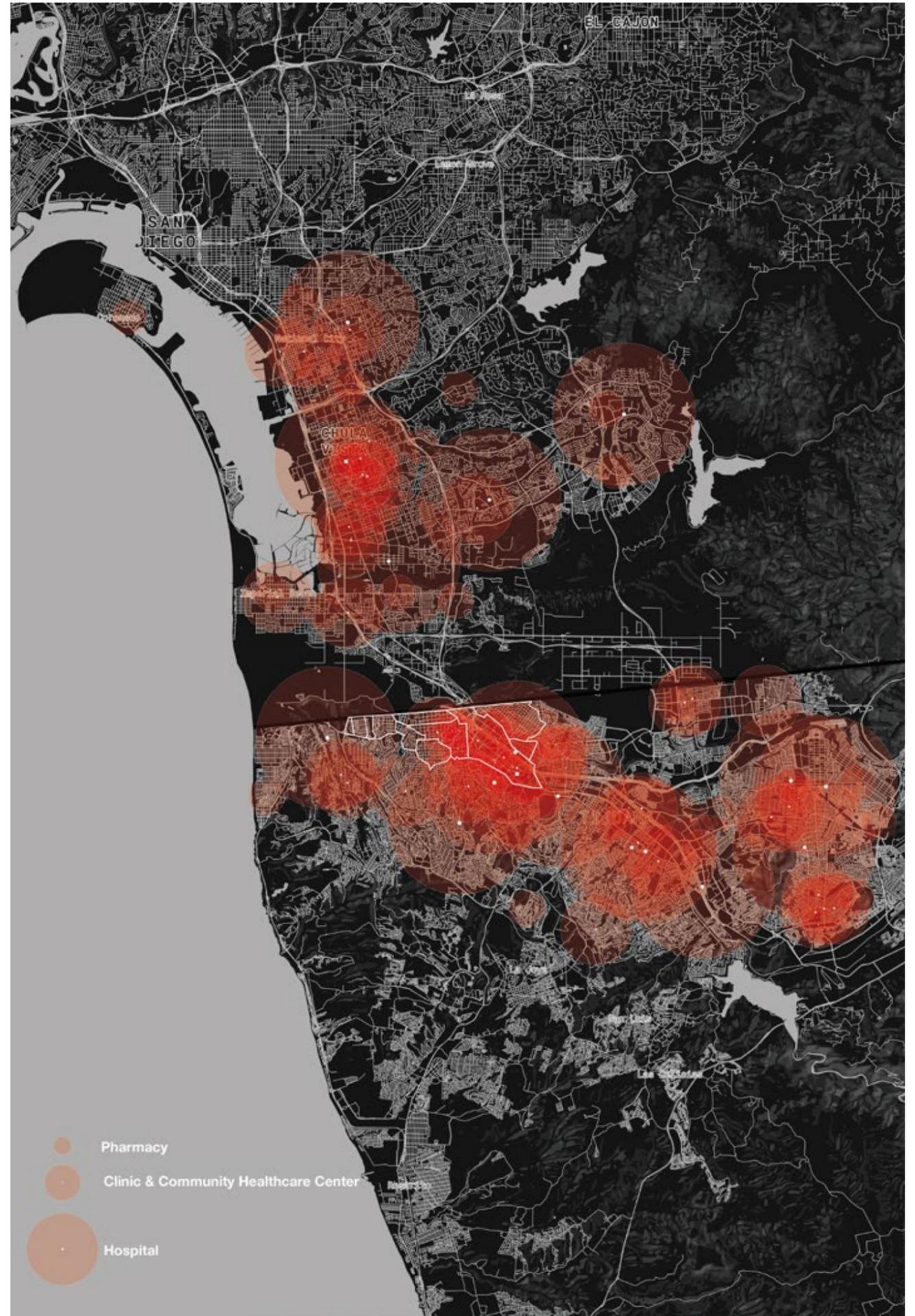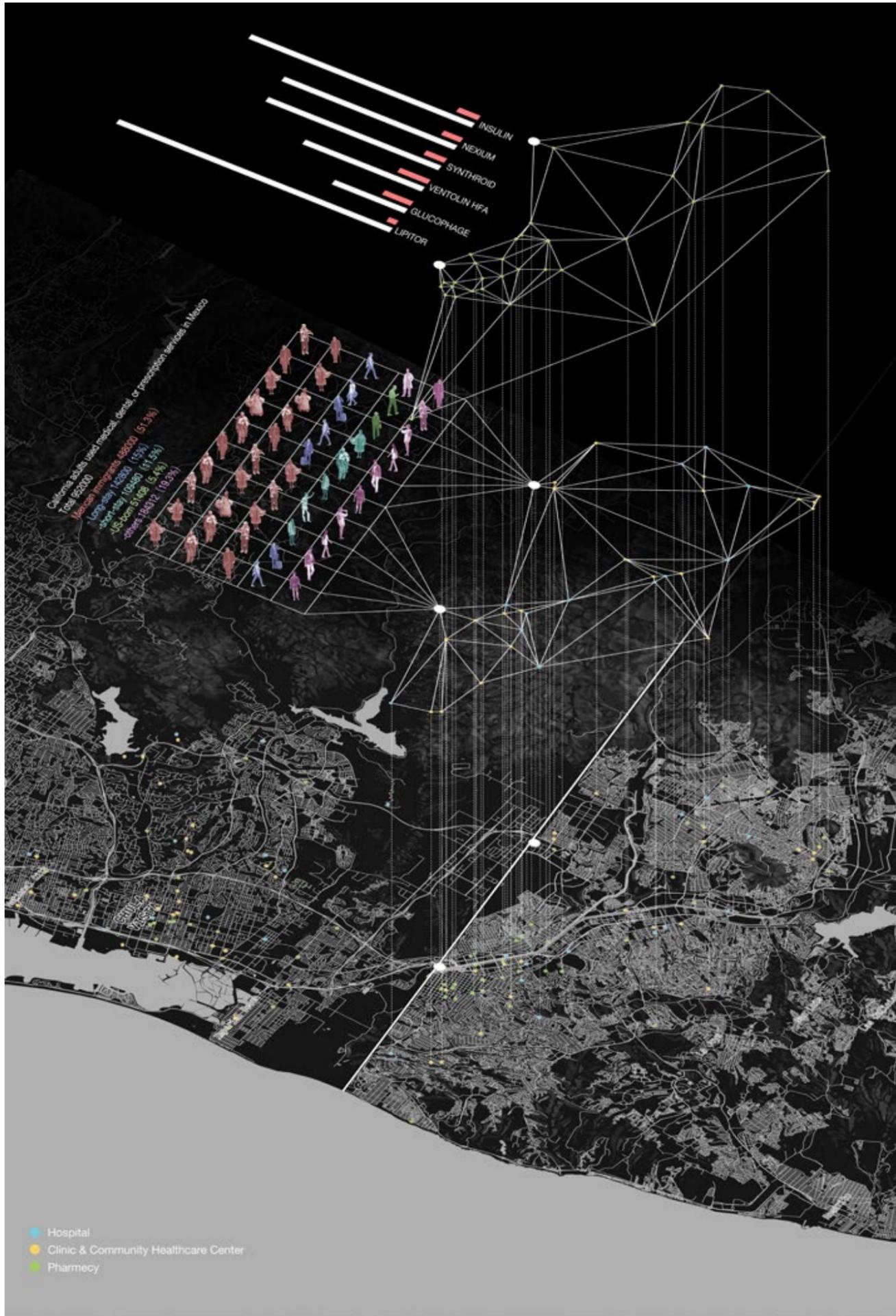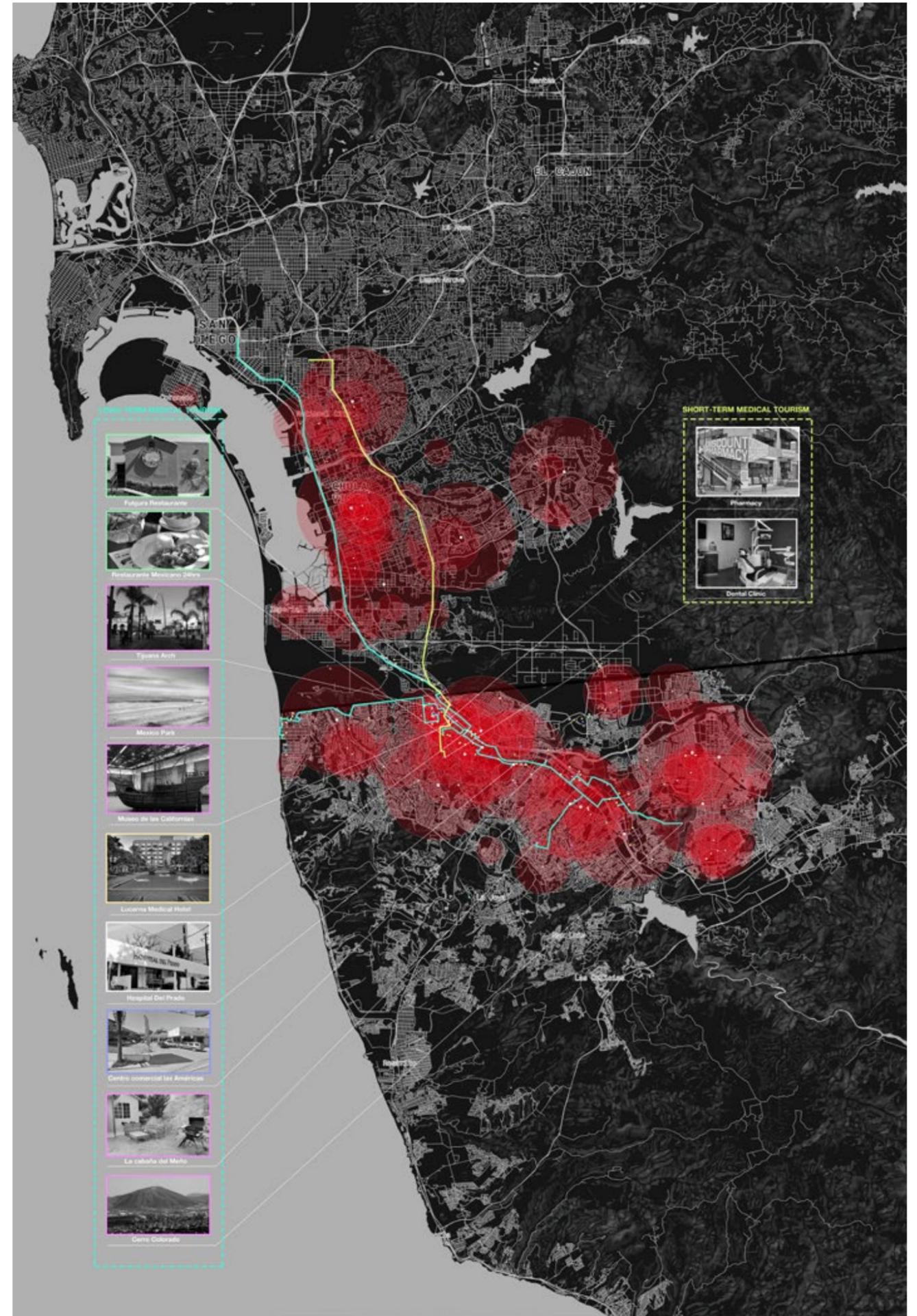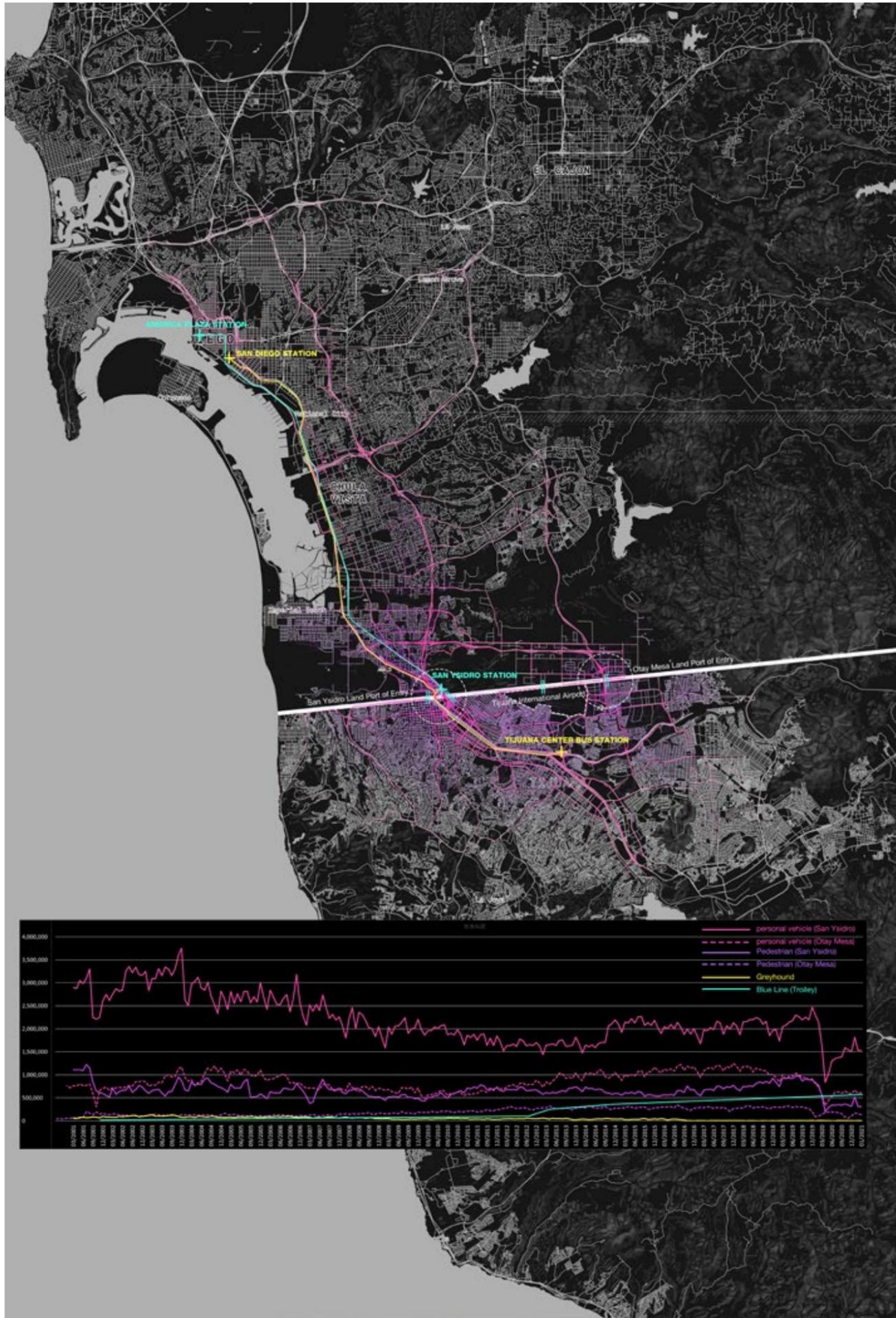
Proposal Diagrams

Actors Diagram

Insurance Company — Patients — FDA

Partially cover / Security guarantee

Treatment list covered by insurance companies / List of certificated healthcare services

Reliable healthcare services / Long arm of jurisdiction

US / Mexico

NGO
Purchase medical supplies
+
Manage medical facilities
+
Manage appointment system

Easing traffic pressure / Optimize resource allocation / Reduce equipments costs / Supplies and maintenance

Traffic

Tax Bureau — Medical Devices Manufacturers — Healthcare Services

More tax / More tax

Process Diagram

Patients

Local Examination

Insurance

US / Mexico

3rd Nation Governance
Medical Valley

Clinics Hospitals — Doctors — Pharmacy — Medical Devices Manufacturers

Designate / Designate

Money Flow Diagram

Patients — Insurance Company

Purchase drugs / Pay for treatment / Certification

US / Mexico

NGO

Rent space

Purchase supplies / Pay for services

Pharmacy — Medical Devices Manufacturers — Medical Waste Management — Clinics Hospitals

Tax / Tax / Tax / Tax

Mexico Government

Shared Space Diagram

Patients

US / Mexico

Clinic — Surgery — Pharmacy — Physical

Clinic — Surgery — Pharmacy — Physical

Support — Support — Support — Support

Support — Support — Support — Support

Site
Activited Road
Congested Road

Site Strategy

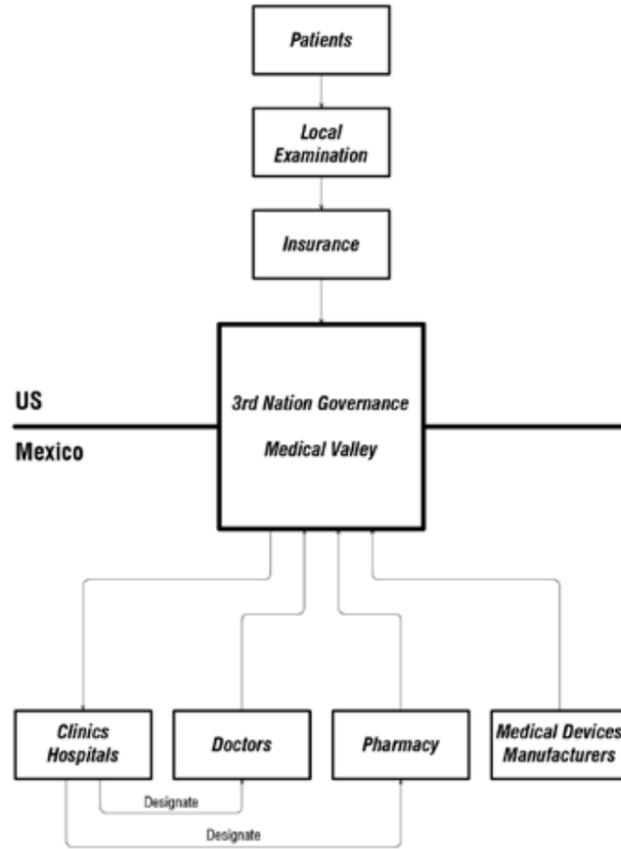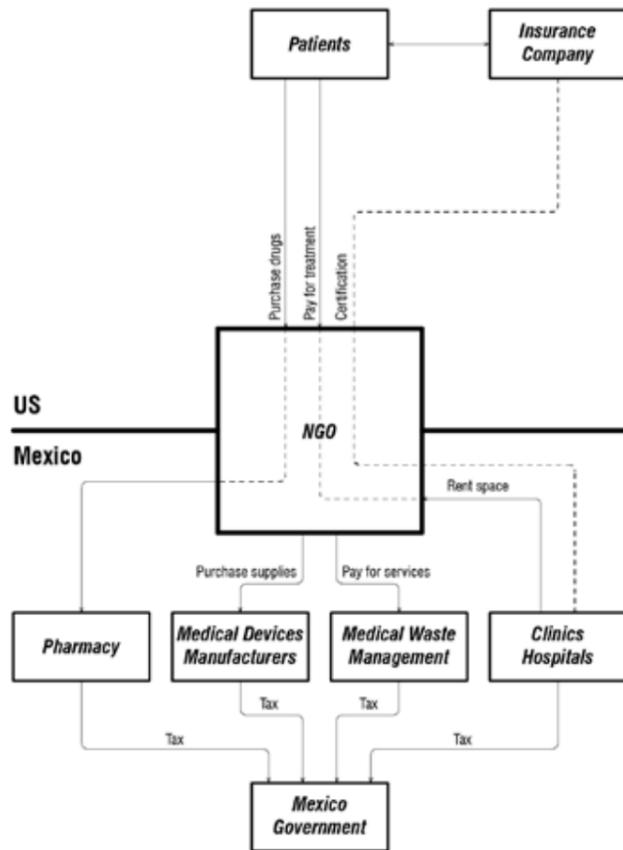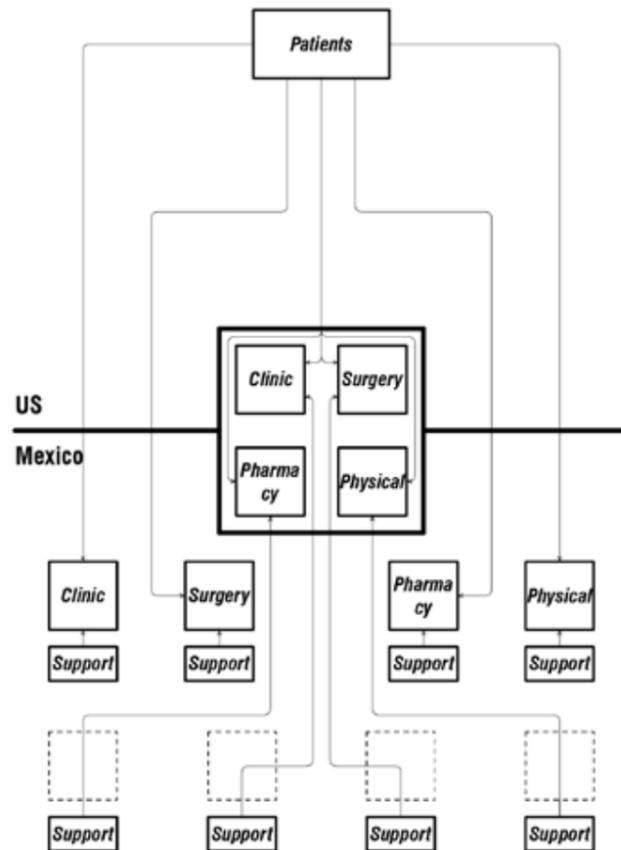The site sits on the border between San Diego and Tijuana. The designers orient the program and space vertically and use the floor plates to separate the patients, staff, and doctors flows. Patients from U.S. side are only allowed in four different medical areas. On the other side, the staff parking and central supply are only connected to the roads in Mexico. Patients and doctors only meet in the treatroom rather than cross the border.

Staff Office / Soiled Area / Medicine → Medicine Pick-up → Purchase & Payment → Lobby ← Pharmacy

Stuff office / Soiled area / Mechanical Support / Clean Supply → Function Test / Blood / Health Screen / Imaging → Waiting Area / Registration & Payments / Report Pick-up → Lobby ← Executive Physicals

Stuff Office / Soiled Area / Clean Supply → Clinic / Injection Workroom → Waiting Area / Registration & Payments / Observation Area → Lobby ← Clinic

Stuff Office / Soiled Area / Clean Supply / Mechanical Support → OR Support / Daytime Surgery / Anesthesia → Waiting Area / Registration & Payments / PACU Bays → Lobby ← Daytime Surgery

Staff Parking
Waste management
Central Supply

Medical Prototype - Architectural Plans
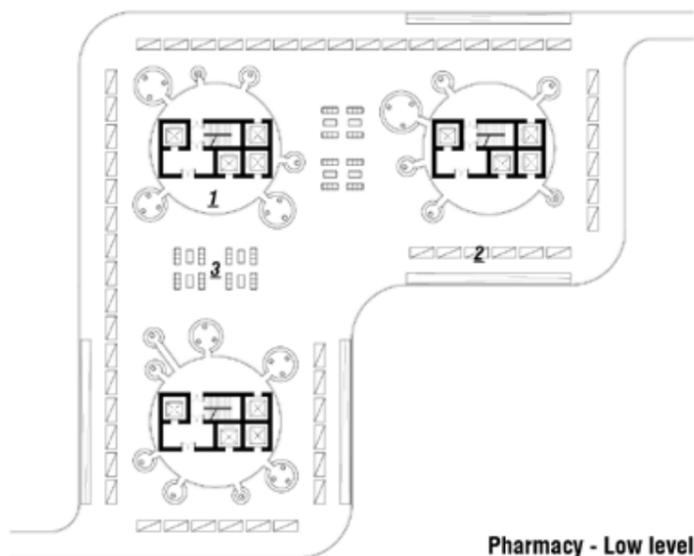
Pharmacy - Low level
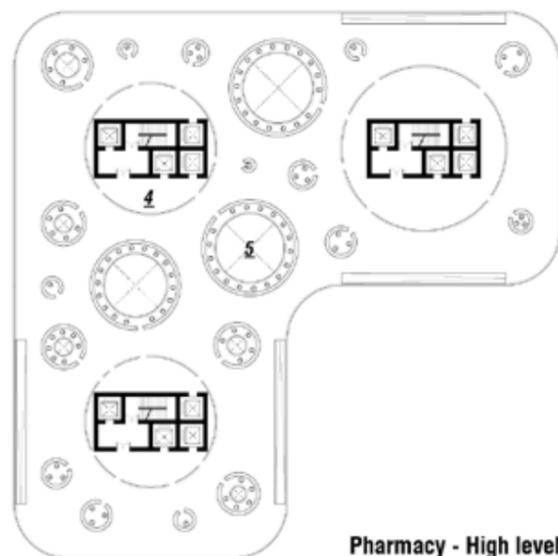
Pharmacy - High level

1 - Aggregated Pharmacy

In low level pharmacies, all the shops are gathered together around the central supply core. Shop assistants will move between the central bubble, where the storage is, and the branch bubbles, where the front desks are, to transport the drugs for customers. Each aggregated pharmacy sells different type of drugs.

2 - Side Parking Spots

The low level pharmacies majorly aim to serve pedestrian customers. Customers need to park their cars first and then go purchase in the aggregated pharmacies.

3 - Waiting Areas

Customers may need to wait for the transportation of drugs they purchase. Therefore, waiting areas are set in the seam zoon between each aggregated pharmacy.

4 - Drive-through Pharmacy

The branch form of atriums offer design opportunities for different spacial orientations of pharmacies on different heights. Different from those on low level, branch bubbles gradually aloof away from the central bubble on high level, which makes the gap between each bubble to be wide enough for dual carriageway. With these gaps, we start an experiment of drive-through pharmacies.

5 - Skylights Atriums

Within some branches, when there is enough space, multi-height atriums will allow skylights to enter the building. These atriums will not only be cores of pharmacy desks, but also serve as structure frames. Each bubble will sell different types of drugs, and which drugs will be sold in bubbles with larger area can be flexibly managed based on dynamic sales of each type of drugs. Electric Guide Boards will be needed to help the customers find the specific bubble for them.

Clinic

6 - Spiral Clinic Platform

All the clinic rooms are oriented around the central supply core on the spiral platform. The spiral form allows layering orientation of different zoon, including supply zoon, doctor communication zoon, clinic zoon, pedestrian zoon, and parking zoon.

7 - Clinic Rooms

Different types of clinic room orientations are offered. Doctors from Mexico side will register only during the appointment time, and meet patients during appointed time periods.

8 - Side Parking Spots

Since this spiral clinic platform will majorly serve for patients who drive here, each clinic room will have a parking spot associated with it. Patients will park on specific spot and enter the closest clinic room.
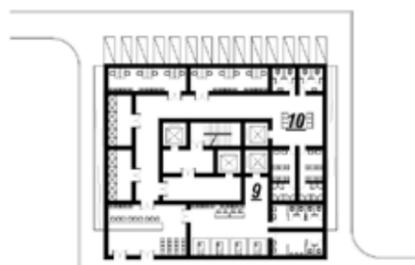
Surgery - Low level

9 - Patient Elevator

The two story package of surgery space offers a program division opportunity to separate the doctor area and patient area vertically. The patient elevator will not allow doctors to enter; besides it will be isolated from the soil elevator and supply elevator.

10 - Doctor Island

It's the space doctors firstly arrive, connected to the changing rooms.

11 - Doctor Tunnel

The doctor's tunnel is the gathering space for doctors entering, waste management, and medical supplies transportation.

12 - Patient Tunnel

The patient tunnel is wide enough for the transportation of medical beds. Patients will change clothes, lie on beds on low level, be transited through patient elevator and pulled to surgery rooms by nurses.

Surgery - High level
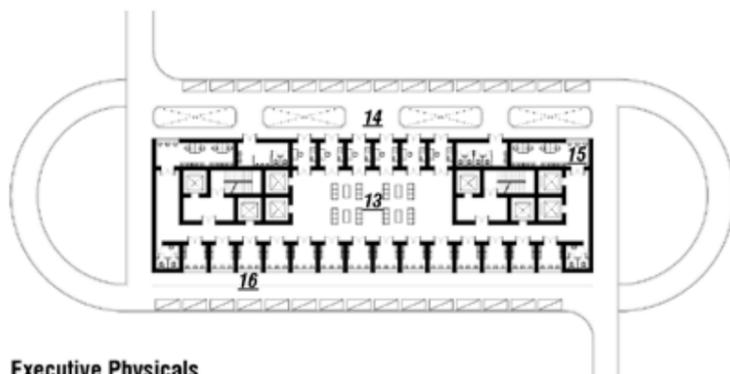
13 - Gathering Island

The gathering space is where everything gathers: doctors, medical samples, supplies, wastes, and reports. As an inner area, it's strictly separated from the out patients.

14 - Pedestrian Physicals

Pedestrian physical rooms are for physicals that cannot be finished in drive-through physical rooms. As additions to drive-through physicals, the number of them is limited. Patients will need to park on the side, walk through the bridges and enter the physical rooms.

15 - Reports Pickup

After finishing all the physicals and waiting for a while, patients can come to the end rooms and pick up their reports.

16 - Drive-through Physicals

Drive-through physicals are the major physical rooms in the building. Patients don't need to enter the rooms; instead, they can finish most of the physicals in their cars.

Executive Physicals

Patient checkpoint

Medical supplies & Staff Checkpoint
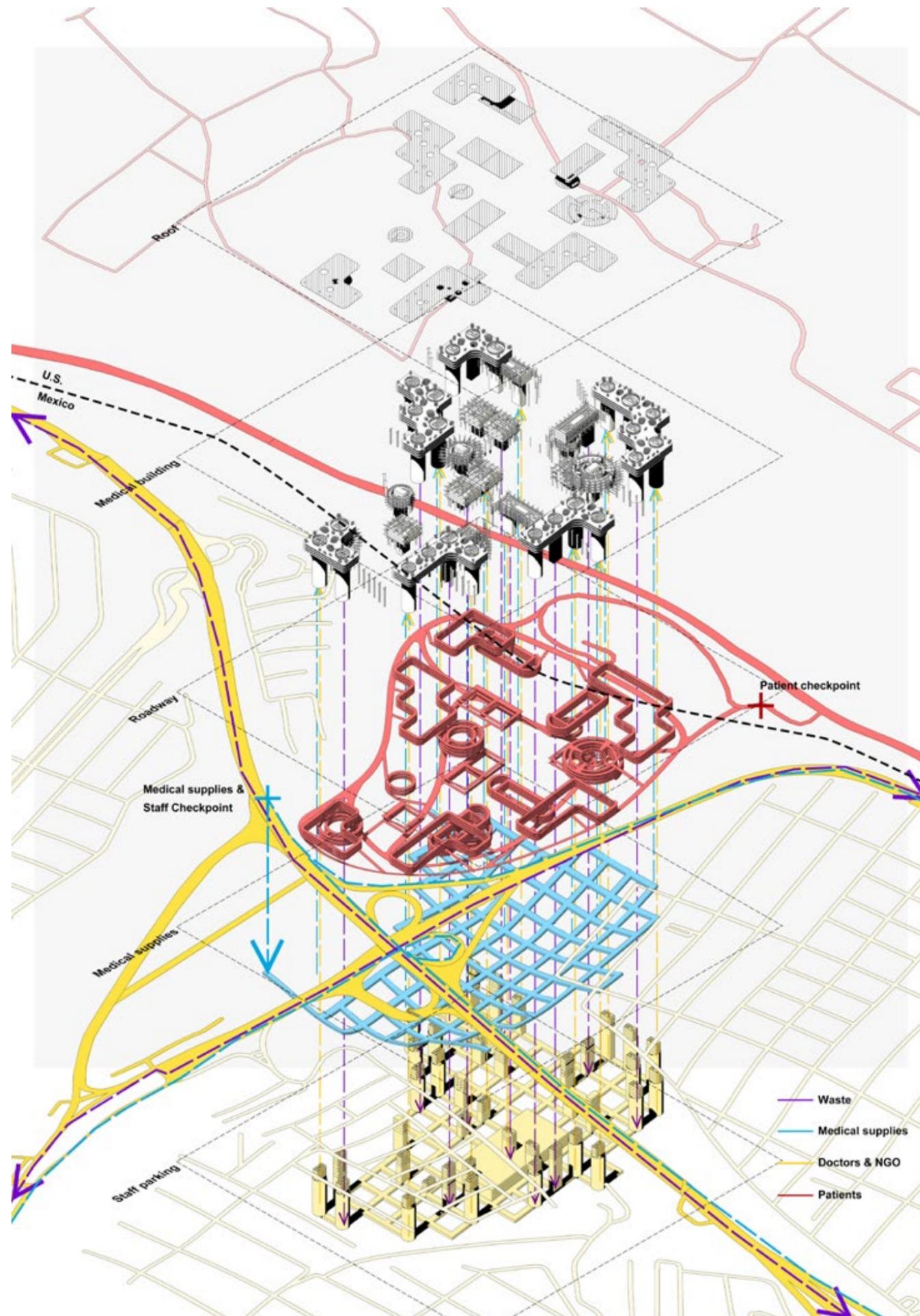
—— Waste
—— Medical supplies
—— Doctors & NGO
—— Patients
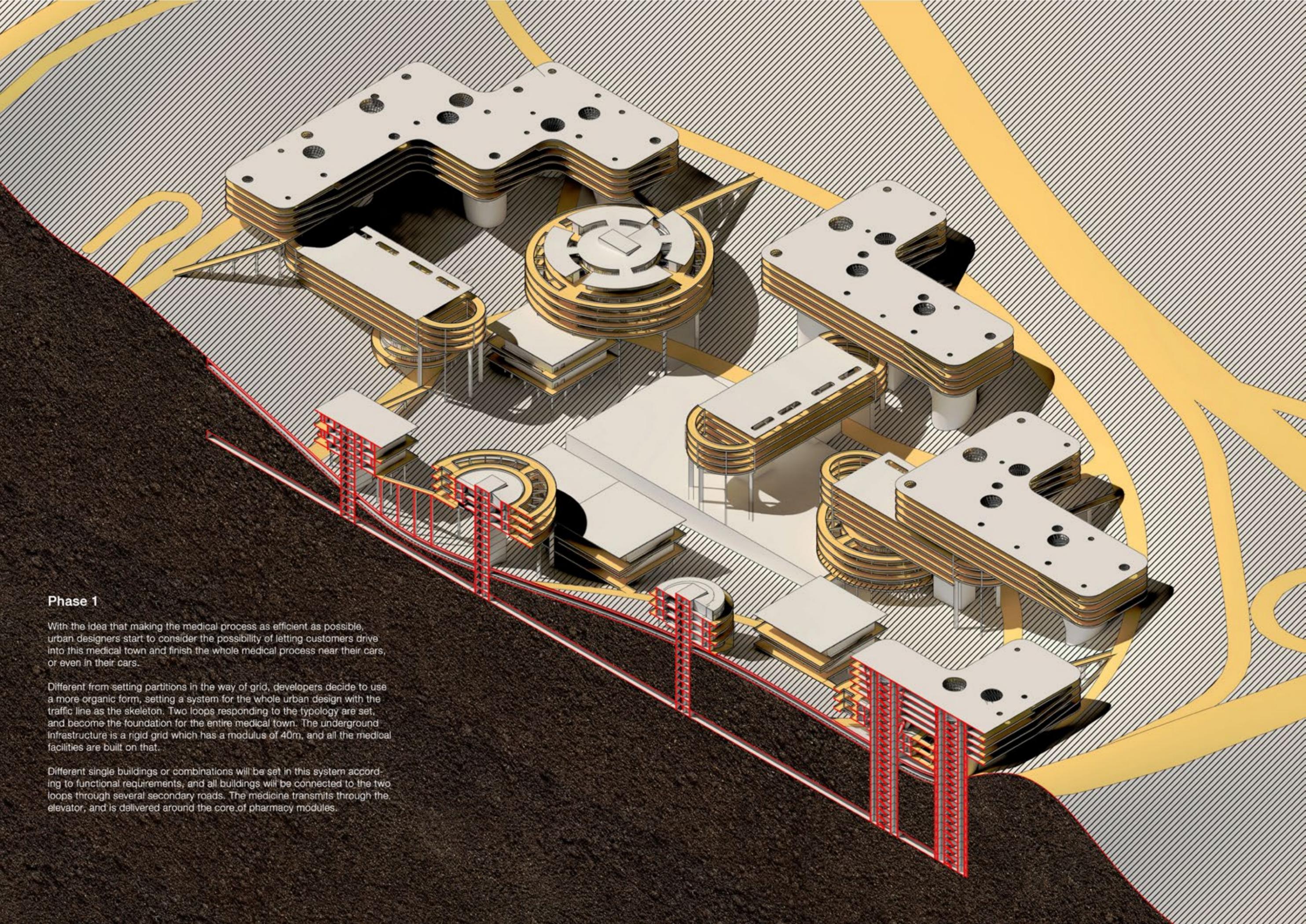
Phase 1

With the idea that making the medical process as efficient as possible, urban designers start to consider the possibility of letting customers drive into this medical town and finish the whole medical process near their cars, or even in their cars.

Different from setting partitions in the way of grid, developers decide to use a more organic form, setting a system for the whole urban design with the traffic line as the skeleton. Two loops responding to the typology are set, and become the foundation for the entire medical town. The underground infrastructure is a rigid grid which has a modulus of 40m, and all the medical facilities are built on that.

Different single buildings or combinations will be set in this system according to functional requirements, and all buildings will be connected to the two loops through several secondary roads. The medicine transmits through the elevator, and is delivered around the core of pharmacy modules.
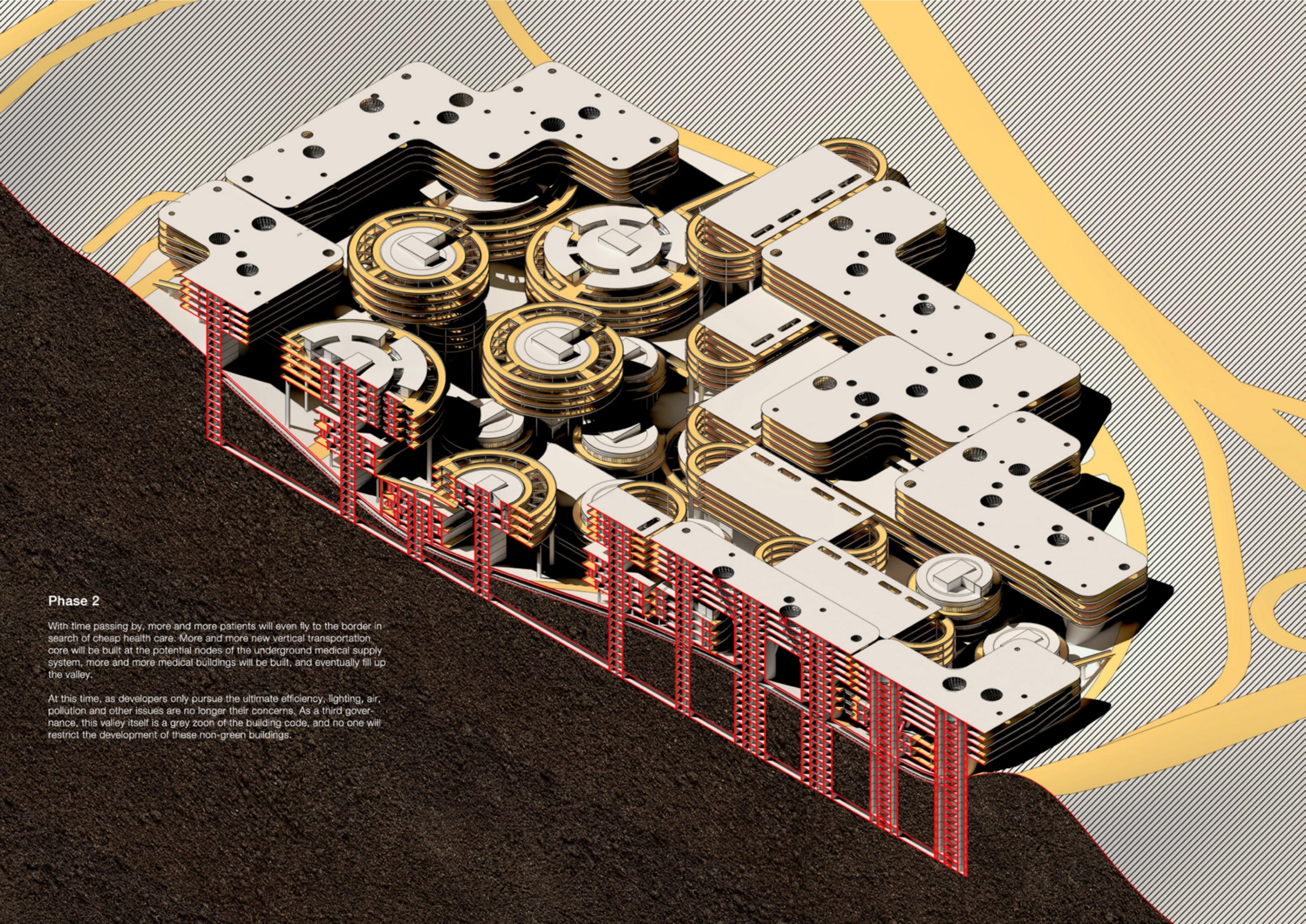
Phase 2

With time passing by, more and more patients will even fly to the border in search of cheap health care. More and more new vertical transportation core will be built at the potential nodes of the underground medical supply system, more and more medical buildings will be built, and eventually fill up the valley.

At this time, as developers only pursue the ultimate efficiency, lighting, air, pollution and other issues are no longer their concerns. As a third governance, this valley itself is a grey zoon of the building code, and no one will restrict the development of these non-green buildings.
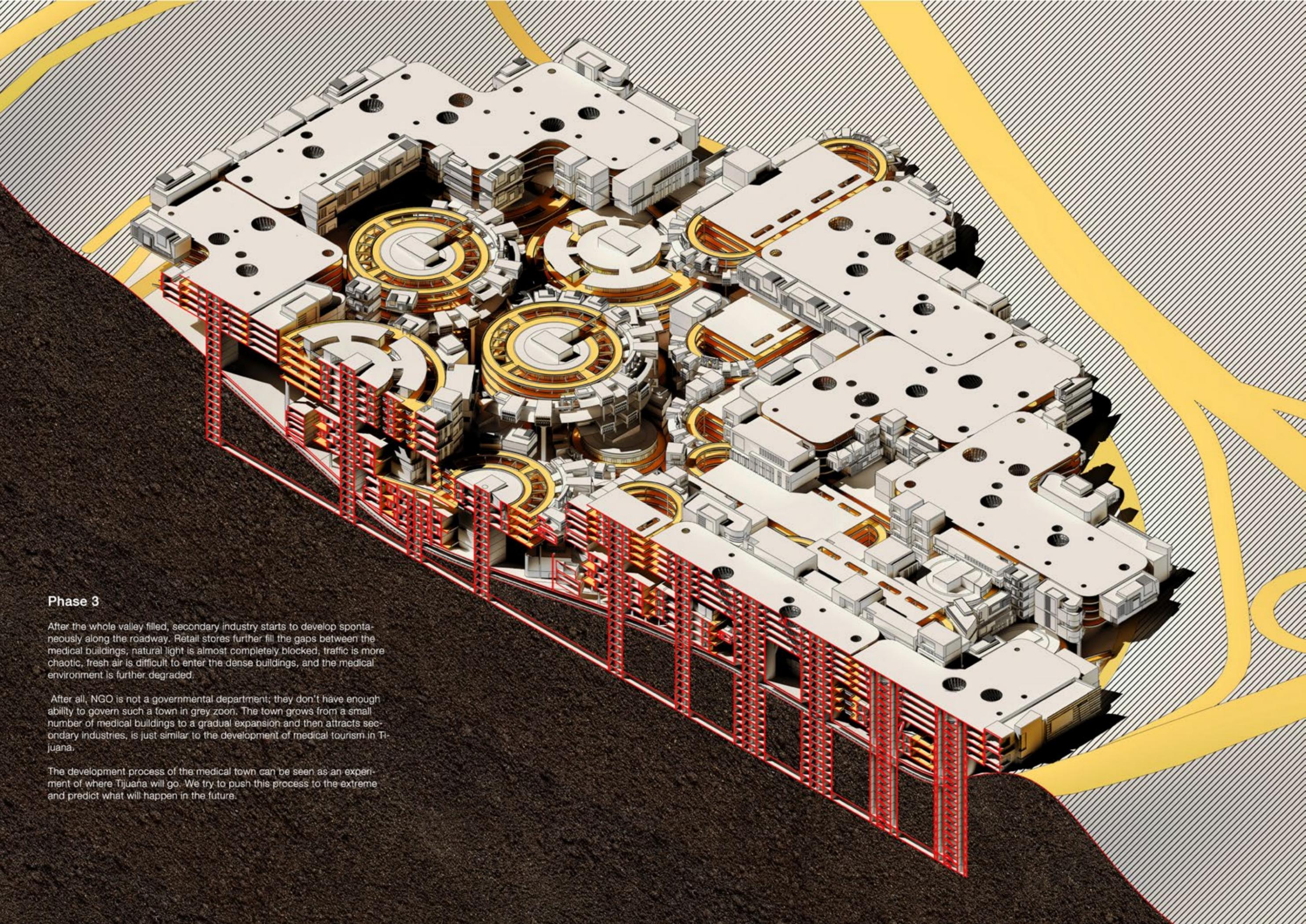
Phase 3

After the whole valley filled, secondary industry starts to develop spontaneously along the roadway. Retail stores further fill the gaps between the medical buildings, natural light is almost completely blocked, traffic is more chaotic, fresh air is difficult to enter the dense buildings, and the medical environment is further degraded.

After all, NGO is not a governmental department; they don't have enough ability to govern such a town in grey zoon. The town grows from a small number of medical buildings to a gradual expansion and then attracts secondary industries, is just similar to the development of medical tourism in Tijuana.

The development process of the medical town can be seen as an experiment of where Tijuana will go. We try to push this process to the extreme and predict what will happen in the future.

Section of Phase 1

Section of Phase 3

San Diego
Tijuana

Calexico
Mexicali

Nogales
Nogales

El Paso
Ciudad Juarez

671514   555352

129347   707124

312364

**Personal Vehicle Passengers
March 2021**

441903

444728

14 Sister Cities

There are 14 sister cities that
are paired and interdepen-
dent on each side of the
border, separated only by
the international boundary.
There are 42 official crossing
points along the US-Mexico
border.

Douglas
Agua
Prieta

Laredo
Nuevo
Laredo

Brownsville
Matamoros

The Third Nation in the Border

Large City
Air Line
Small City
Airport
the Third Nation

Impact region

After Phase 3

We can foresee that healthcare
services will grow around the
valley. Then what happens when a
valley fills up? Maybe the next
valley will be opened, filled, and so
on. And maybe one day the border
will no longer be a line, but a real
third country.

But is this really what the American
government and the American
people want?

AMERICA PLAZA STATION & PARKING

SAN YSIDRO STATION

AIRPORT

TIJUANA CENTRAL STATION

personal vehicle (San Ysidro)
personal vehicle (Otay Mesa)
Pedestrian (San Ysidro)
Pedestrian (Otay Mesa)
Blue Line (Trolley)

Healthcare services

02

Six Buildings

Transformation of the 13th Armory in Brooklyn

academic, team work

Sept. - Dec. 2021

Team members: Shulong Ren, Danlei Yang

Design Development 80% Precedent Study 40% Prototype Design 20%

Instructor: Wonne Ickx

We are looking for a certain complexity and fraction in architecture. Because it make a place alive. In this project, we explored how to turn this massive, enclosed armory into an attractive social condenser in the brooklyn's regular grid.

This community center has various functions, including swimming pool, gym, library, theater, healthcare center, art gallery, etc. By integrating some of these functions together, we designed six small buildings. They stand in the field at random angles and are connected by a public circulation. The parts that intentionally protrudes from the original wall to show the activities to the street. These six small buildings are elevated by huge concrete structures, with numerous huge columns defining the space on the ground floor. The Ground floor was left as much as possible to become a vibrant green space.

It's a small city inside an old building.

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library, theater, healthcare center, art gallery, etc. By integrating some of these functions together, we designed six small buildings. They stand in the field at random angles and are connected by a public circulation. The parts that intentionally protrudes from the original wall to show the activities to the street. These

small buildings are elevated by huge concrete structures, with numerous huge columns defining the space on the ground floor. The Ground floor was left as much as possible to become a vibrant green space. It's a small city inside an old building.
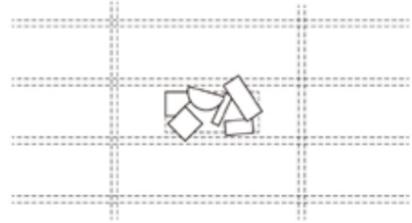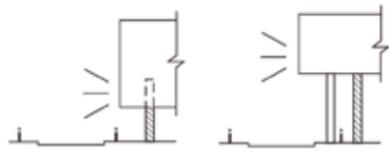
- Six buildings in Brooklyn's regular grid
- Two types of extruded part
- Countless columns defining the ground floor

Program and Circulation

The whole project contains six volumns in total. Each volumn is a combination of a specific program and the circulation. They all have their own private circulation core, and a portion of public circulation, which pass through where the volumn intersects, and form several public gathering areas. The ends of the circulation face the main entrace of the origingal building.

1 Gallery
2 Library
4 Theatre
1 Art Studio

5 Swimming Pool
3 HealthCare
6 Dancing Rooms
5 Changing Room
3 Gym
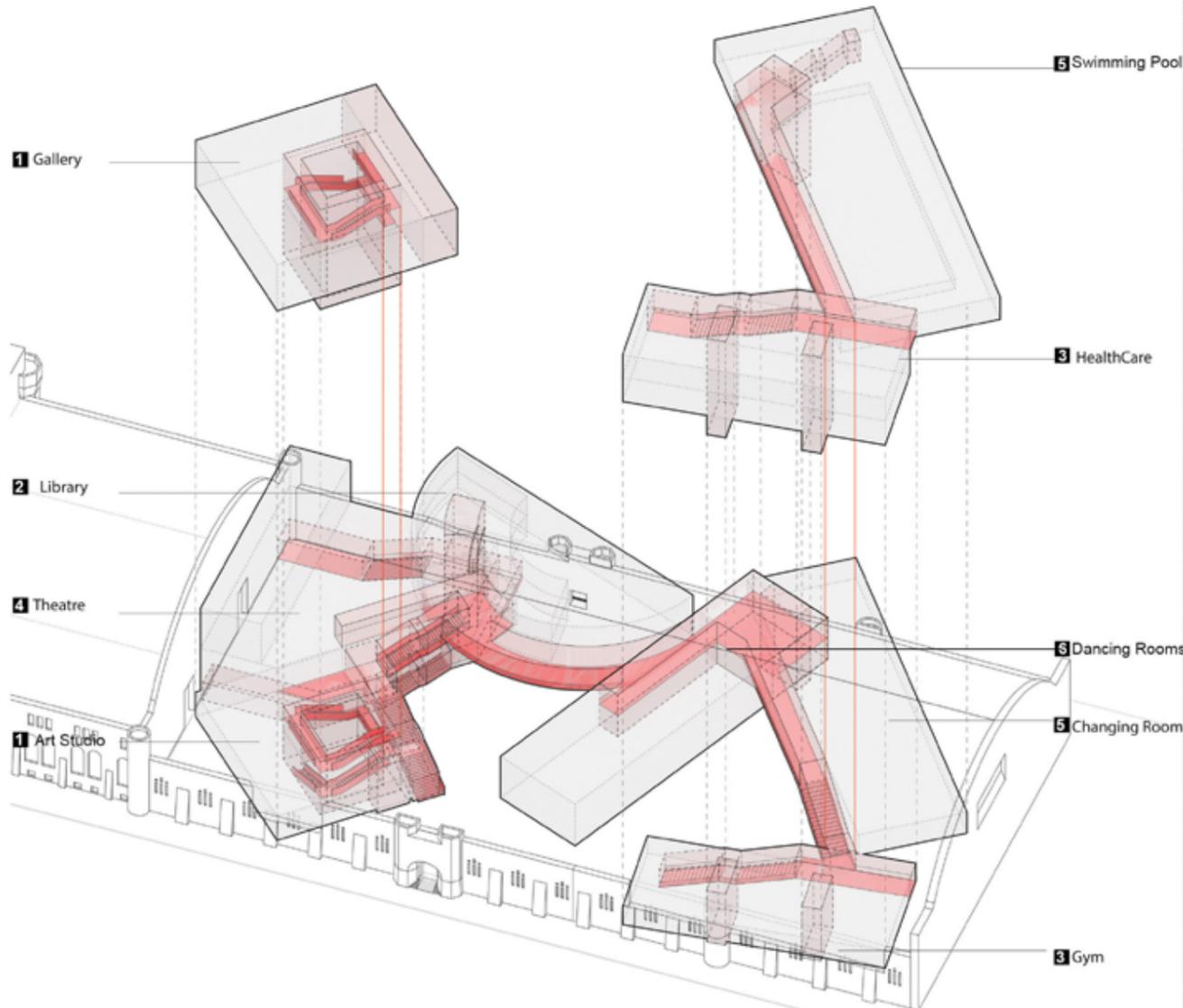
1 Gallery & Art Studio
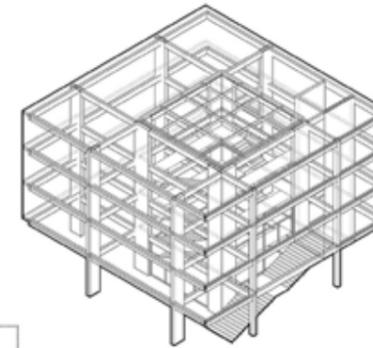
The concrete frame structure with an atrium allows for flexible placement of exhibits.

2 Library
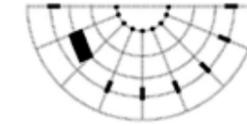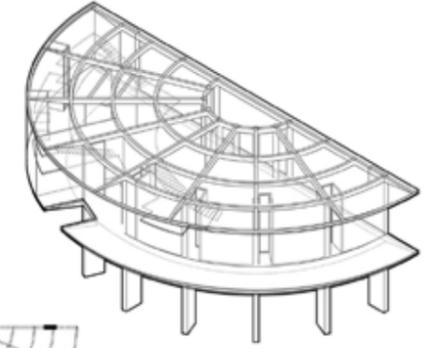
The semicircular concrete frame emphasizes the study space formed by the central colonnade.

3 Healthcare Center & Gym
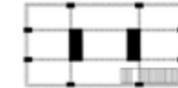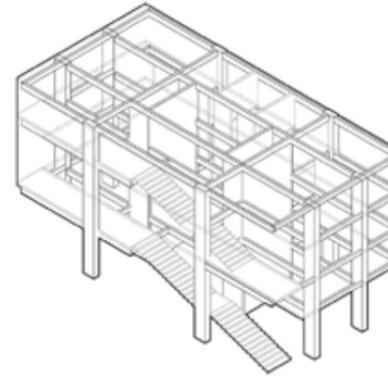
The frame structure with two vertical traffic cores separates the circulation of the doctor and the patient.

4 Theater
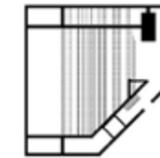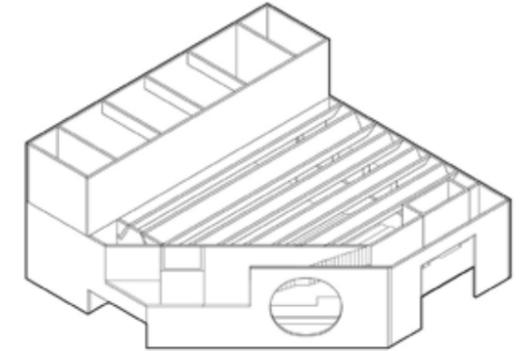
The shear wall structure with huge beams creates column-free space while supporting the roof garden.

5 Swimming Pool
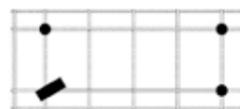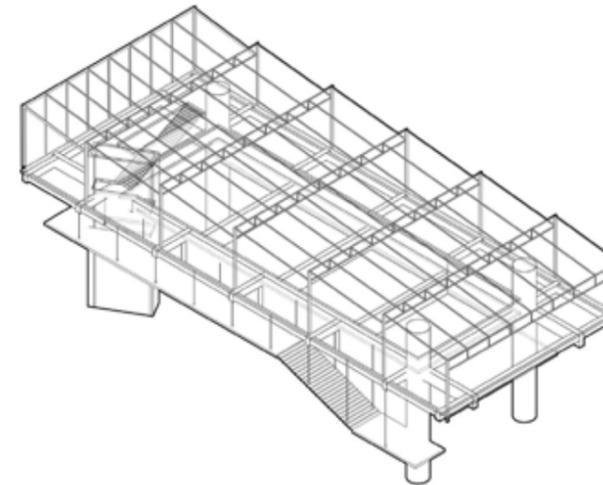
Swimming pool was supported by 4 mega columns. The huge beams support the pool and act as walls separating the locker rooms.

6 Dancing Rooms
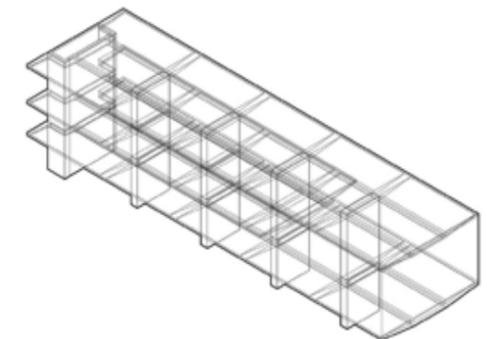
Four short wall and beamless slab provides clear spatial orgnization. The mirrors can be installed on the short walls.

Axonometry

1. Gallery & Art Studio
2. Library
3. Healthcare Center & Gym
4. Roof Garden of the Theatre
5. Swimming Pool
6. Dancing Room
7. Ground Garden

1. Shop
2. Pool
3. Healthcare Center's Lobby
4. Theater's Lobby
5. Basketball Court
6. Theater
7. Gallery
8. Gym
9. Dancing Room
10. Art Studio
11. Stage
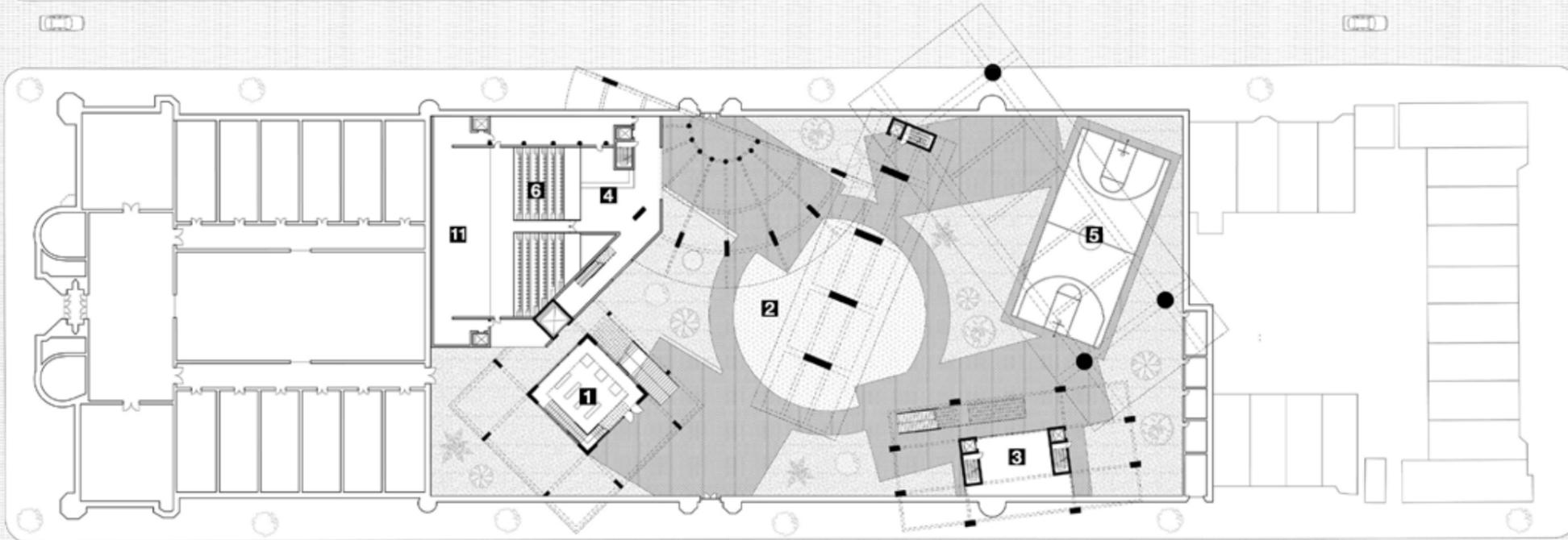
Ground Floor 0 10 20m
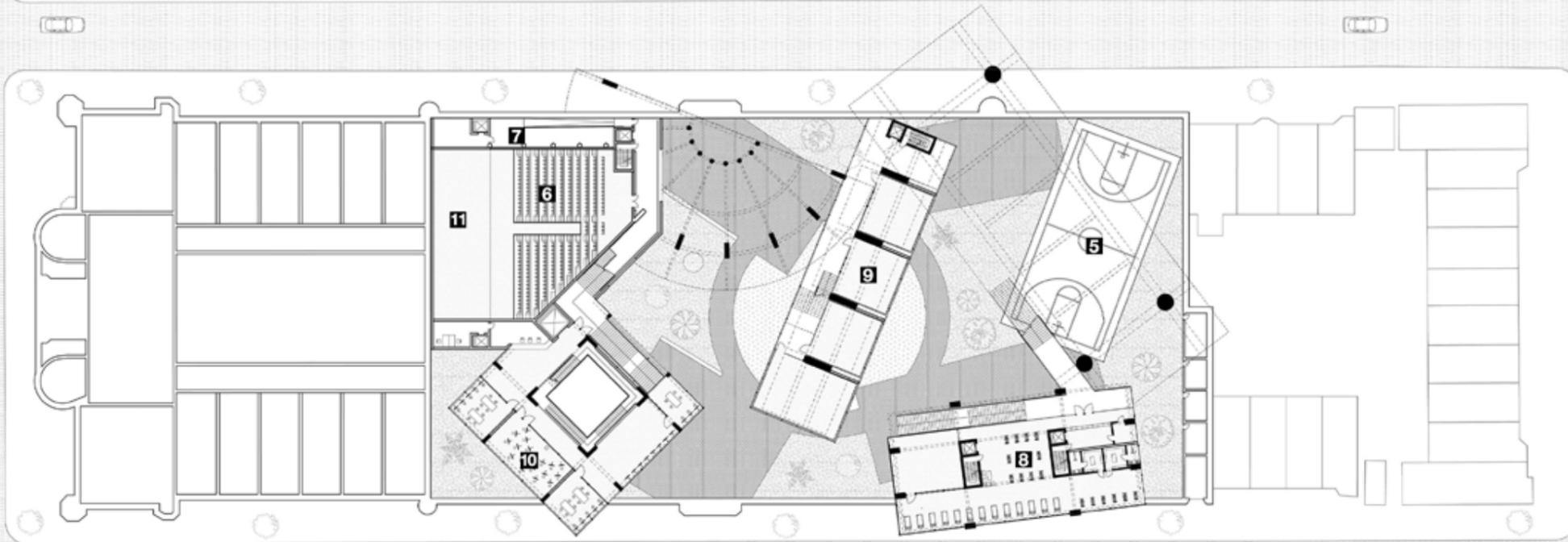
First Floor 0 10 20m

1. Gallery
2. Service Center of Library
3. Lobby of Healthcare Center
4. Roof Garden
5. Locking Room
6. Lobby of Swimming Pool
7. Dancing Room
8. Inpatient Ward
9. Swimming Pool
10. Gallery
11. Apparatus of Stage
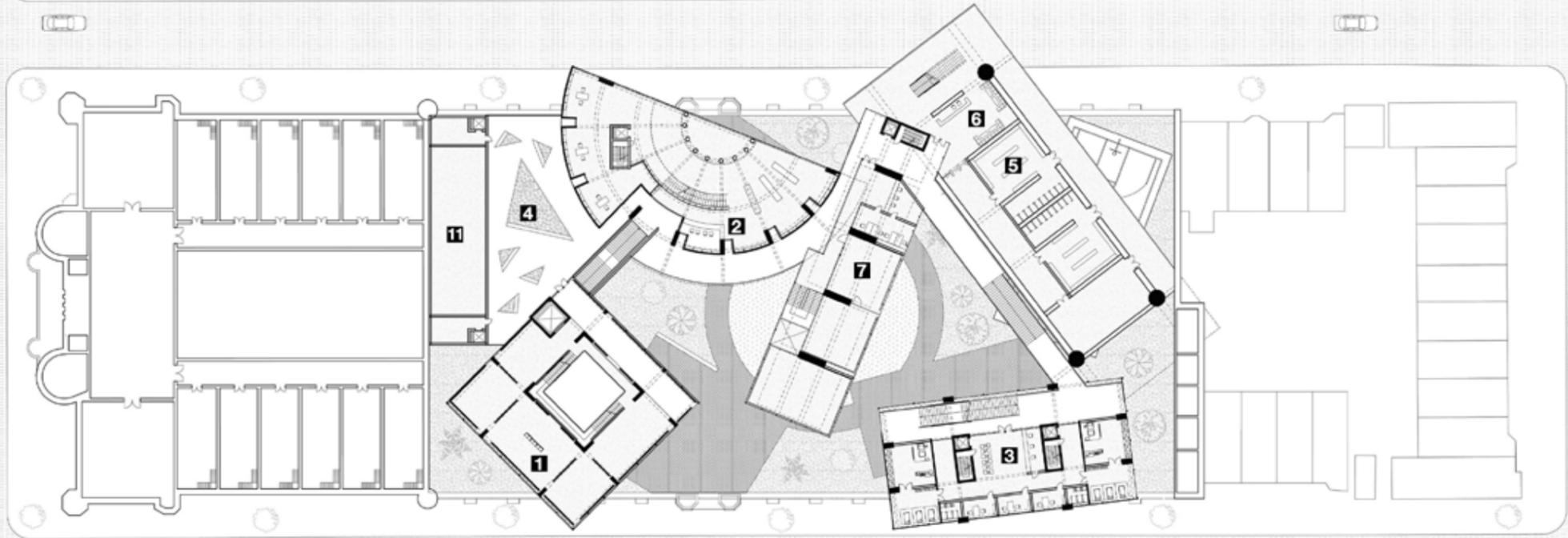
Second Floor 0 10 20m
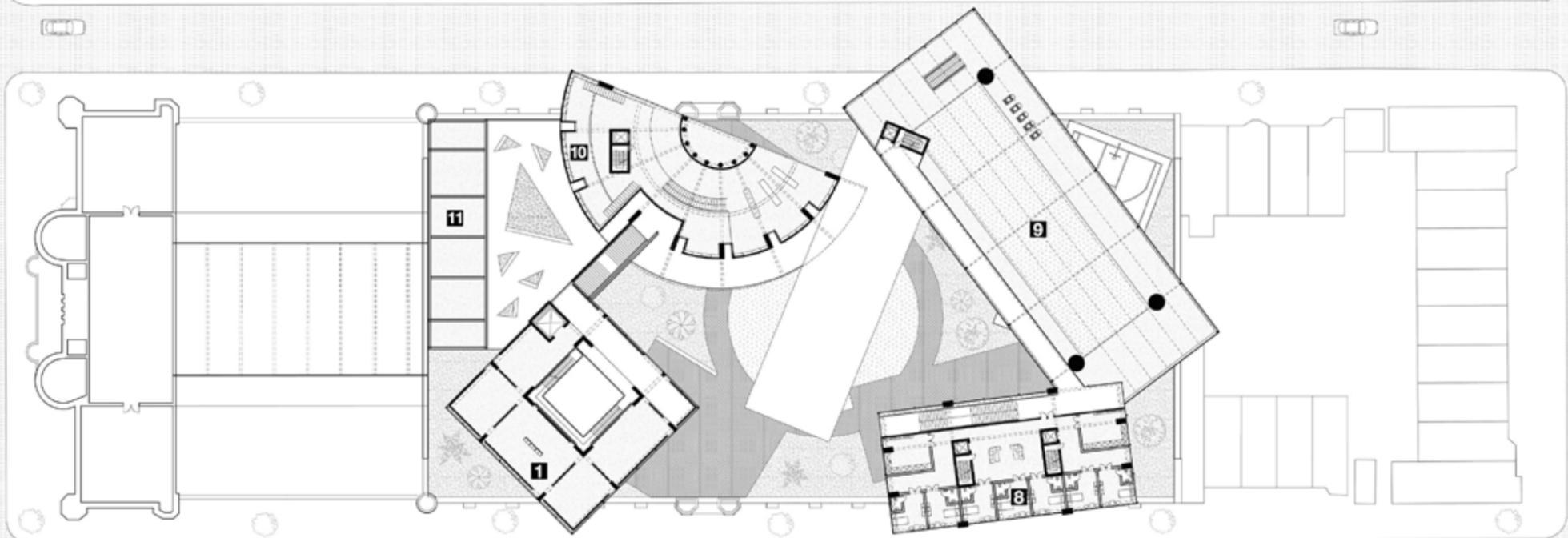
Third Floor 0 10 20m
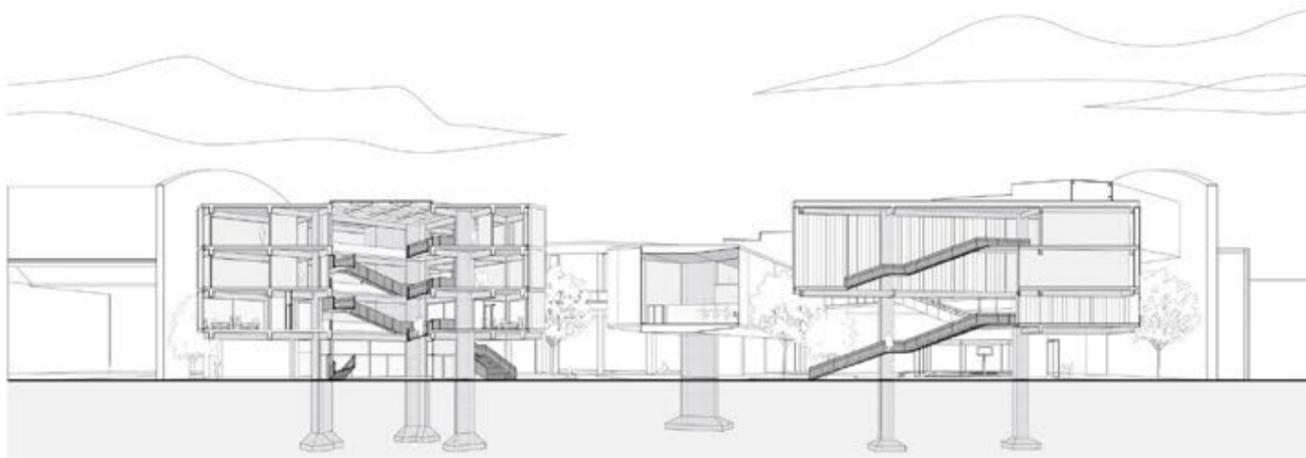
Section A-A Gallery | Dancing Room | Healthcare Center

Street View Art Studio | Gym

Section B-B Swimming Pool | Dancing Room | Library | Theater

Street View Library | Entrance

Garden Pool | Art Studio | Library | Theater
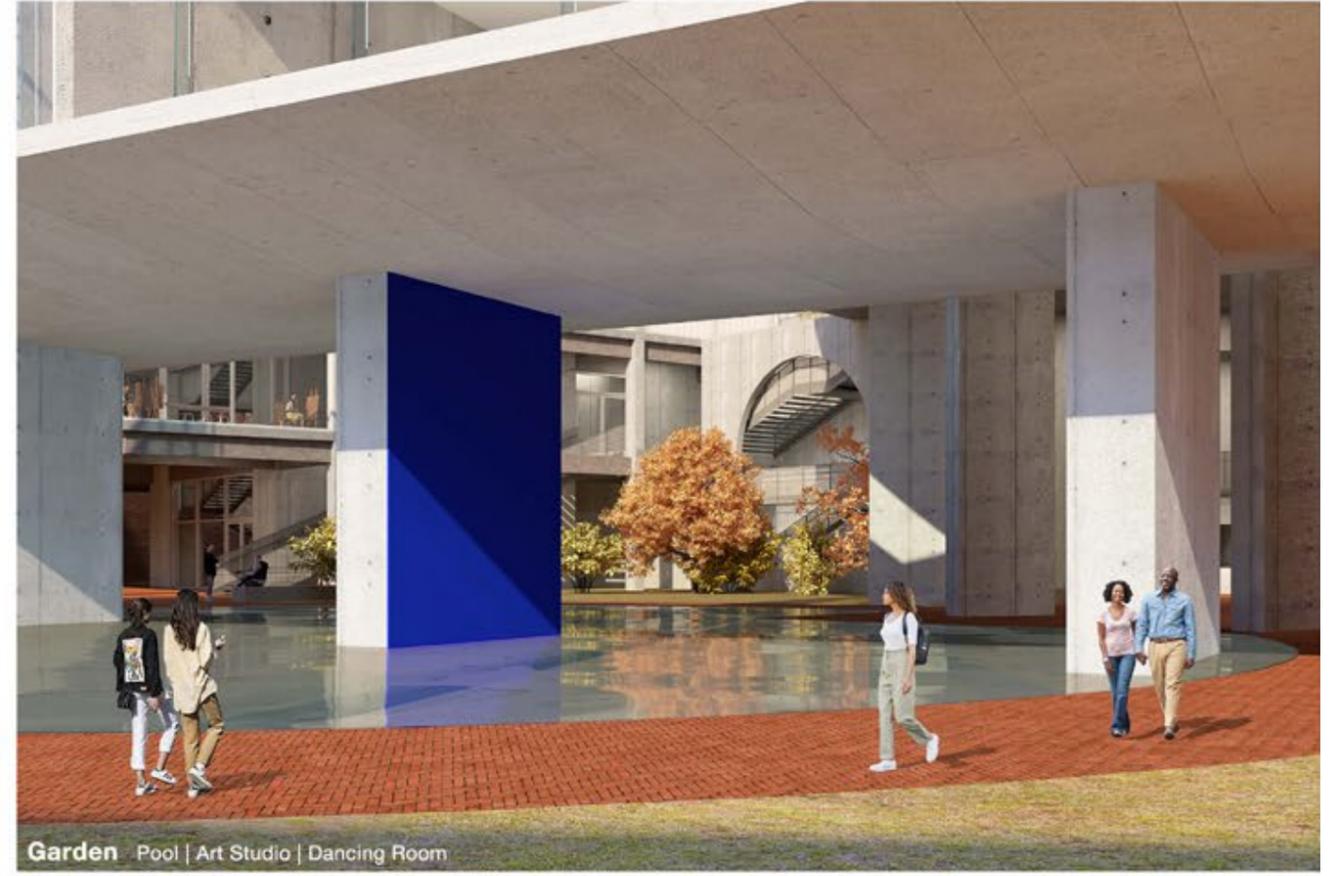
Garden Pool | Art Studio | Dancing Room

Garden Dancing Room | Sports Field

Interior Dancing Room | Basketball Court | Swimming Pool

Interior Gallery | Atrium

Interior Library

03

Re-connecting the Motel
A De-carceral Alternative for Motels Used as Emergency Housing in Ulster County

Instructor: Laura Kurgan

academic, individual work
Jun. - May 2022

With the rapidly gentrifying, Kingston's average home price rose more than 20 percent in 2019, which has led to some low-income people being evicted to the 14 motels in Ulster County.

For the motels, I discovered another system which is trapping people in a carceral way. Most motels used in emergency housing are near to the highway but the residents are not able to afford a private car. The state government gives an average of $23,000 a year for each person. But that also means that they have no options for physical or social mobility to change their economic situation.

At the same time, the Hudson Valley Farm Hub, which is a 1,300-acre farm donated by Peter Buffet, is within a 20-minute drive with five motels and a homeless shelter as well as to the vibrant city of Kingston. This huge farm has potential, not only to cater to the need of healthy food for Motels' residents, but might also support local food industry - the short-chain food industry.

What if we help residents of emergency housing in the Motels establish a **de-carceral alternative** to help them move away from state support toward mobility and independence?

HUDSON VALLEY FARM HUB

GREEN HOUSE

ACCESSIBILIY SYSTEM

LIVING ROOM

MOTEL 19

SHARED KITCHEN

BUS STATION

RODEWAY INN

SWIMMING POOL

LIVING ROOM

SHARED KITCHEN

BUS STATION

ACCESSIBILIY SYSTEM

SHUTTLE

History of Incarceration

Non-institutional Poorhouse

- (Gilded Age) 1% possess 51% property Increasing Unskilled labor force
- Taylorism Efficient Movement Scientific Management
- Social Insurance
- Public Assistance
- Resurrect Scientific Charity
- 1996 PRWORA
- FERA / CCC / CWA / ADC
- 1934 The National Housing Act
- 1935 WPA
- Digital Poorhouse
- HEW Developed database of welfare recipients
- 1877 Great Railroad Strike
- 1963 March on Washington for Jobs and Freedom
- Mothers for Adequate Welfare

Poorhouse

- War of 1812
- 1880s Social Darwinism
- Scientific Charity
- Poor Farm
- Deserving white poor
- Total Institution
- Mid-class
- Bonus Army
- Homeless Shelter
- Shelter Movement
- Eugenetics database of the poor
- African Americans moved to northern cities
- 1861 Civil War
- 1933 Roosevelt New Deal
- 1973 Economic Depression
- Panic of 1819
- 1857 Economic Depression
- 1927 Great Depression
- 1873 Economic Depression
- 1942 All states implement parole system

Prison

- 1790 First penitentiary opens in Philadelphia
- 1891 Federal Prison System
- 1971 Balanced Model
- 1959 Medical Model
- Correctional Facility
- 1829 First "modern" prison
- 1940 Correctional institute model
- 1973 Era of mass incarceration
- 1871 Virginia court deems prisoners "slaves of the state"
- 1930 Bureau of Prisons

Debtor's Prison

- 1833 US bans debtors' prisons
- 1971 War on Drugs
- 1971 Attica prison uprising
- 1890s Immigration Restricitons
- 1890s Xenophobic Hysteria
- 1940 Parents Movement

Mental Hospital

- 1850 Training School
- Eugenetics
- Modern Psychiary
- Deinstitutionalization
- Un-deserving non-white poor
- 1970 The Independent Living
- Colony Homes
- Rousseau : Return to nature
- 1890s Reproductive Restrictions
- Normalization
- 1960 Foucault: Biopower

1800   1830   1850   1870   1900   1930   1950   1970   2000   Now   2040

Poorhouse / Poor Farm	Early Traning School	Total Institution	Scientific Charity	Modern Psychiatric Hospital	Mass Incarceration Prison	Homeless Shelter	Digital Poorhouse
Unable Poor	Unteachable Children	Persons with disabilities & delinquents	Deserving White Poor	People with Mental Disabilities	Mostly Minor Defense	Homeless People	Deserving Poor
Rural Area	Rural Area	Rural Area	Rural Area	Urban and Rural Area	Rural Area	Urban Area	Rural and Urban Area
Segregation / Forced labor	Education / Training	Training to work inside the institution	Segregation / Forced labor	Research, Testing, Monitoring	Segregation / Forced Labor	Temporary Living Space	Public Assistance, like AFDC
Idowed, orphaned, alcoholic, or because of physical or mental disabilities were incarcerated.	Pupils would receive physical training to improve their basic academic training, and instruction in social and self-help skills.	The superintendents of these institutions worked toward self-sufficiency , to reduce their dependence upon government.	Scientific charity argued for more rigorous, data-driven methods to separate the deserving poor from the undeserving.	Superintendents of institutions were often physicians. Interaction with individuals living in the institutions was termed "therapy".	President Nixon paved the path for the zero-tolerance drug policies of the 1980s when he announced a "war on drugs" in June 1971.	One quarter of individuals experiencing homelessness have a disability.	New programs searched burgeoning case files for inconsistencies of recipients in order to cut the social assistance spending.

Institutions for People with Mental Disabilities

My project looked at what might be called a decentralization of the carceral system that is much more hidden from view in the US. This diagram shows people with mental disabilities, as an example, which demonstrates the increasingly elaborate social assistance system as well as the smaller, more decentralized institutions which might as well be called prisons. For the rich, mental disability often means getting healthcare at home. However, for low-income groups and homeless people, who have been recently evicted, their only option is in emergency shelters with harsh environment impossible to get a care. They are still excluded from normal society.

Permanent Supportive Housing (PSH)
Hotels
Cluster Apartments
Homeless Shelter
Nursing Home
Adult Care Facilities
Hospital with bed for mental illness
Social Adult Day Care
Residential Health Care Facilities
Foster Home
Home Care Service

Life Care

Total Institution •   200,000 Children and Adults   **ICFs/MR**   Drop from 220000 to 10700

Institution closure reached its highest

44 ICFs/MR in NYS

• **Community-based Residential Service**

Community Institution
500 beds, in urban areas

A type of housing, <12 persons
Foster care home
Small group home
Hostel
Independent community residential settings

Community Home •
3-6 persons

60,000 in 1986 to 150,000 in 1990.

Own Home   **Own home**   **Own Home** •

Special Schools   • **Special schools**   **Special schools**

Full-time Special Class
Part-time Special Class

Mental Age: Idiots, Imbeciles, Morons •

borderline (IQ 67-83), mild (IQ 50-66), moderate
(IQ 3-49), severe (16-32), and profound (IQ <16)

Regular schools •   1/5 people with disabilities were educated   IDEA

Mental Retardation exclude people with
higher IQ scores
"Developmental Disabilities" Includes More People

IDEA slowly developed

Regular schools with special classroom

Regular schools •
1. Natural proportion
2. Age-appropriate placement
3. Heterogeneous groupings

• **Regular schools with Regular classroom**

Education

going from 756 to 2,500

Workshop
1. Train people who are suitable for competitive employment
2. Provide permanent job for people who are not minimally acceptable to competitive industry

Day Treatment Center
Day Activity Center   **Work Activity Center**
Sheltered Workshop   **Sheltered Workshop**

employ workers with disabilities at sub-minimum wages.

Activity Center

Sheltered Industry

Regular Program Center

Semi-Sheltered Group Employment

Competitive Job
Landry
Hotel
Motel
Restaurant

Competitive Work with Support

Individual Competitive Employment

Vocational service continuum

Supported Employment
For people with severe disabilities

9,900 to 140,000

Supported Employment

Sales
Service
Transportation
Production
Material Moving
Self-employed

Employment

Legend:
— **Adults with mental disabilities**
— **Children with mental disabilities**

Motel - A New Carceral Institution

For the motels, I discovered another system which is trapping people in a carceral way. Most motels used in emergency housing are near to the highway but the residents are not able to afford a private car. Also, there is no public transportation. So, they're stuck in the small cells with no kitchen, no access to healthy food. For some people with physical disabilities, them cannot get into of their room because of the lack of accessible corridors and entrances.

HUDSON VALLEY MOTEL

SUNSET PARK MOTEL

RODEWAY INN

MOTEL 19

KINGSTON

DARMSTADT SHELTER

PORT EWEN

CAPRI MOTEL

HUDSON VALLEY FARM HUB

KINGSTON PLAZA

GODEN HILL

Motel

Public Transportation

10-Minute Walking Circle

HUDSON VALLEY ROUTE 9W MOTEL

SUNSET PARK MOTEL

RODEWAY INN

DARMSTADT SHELTER

MOTEL 19

CAPRI MOTEL
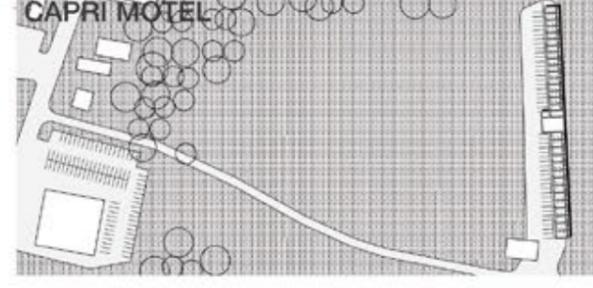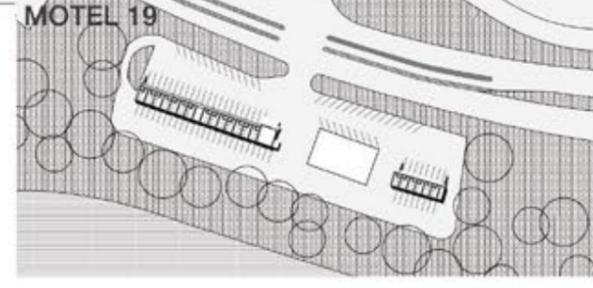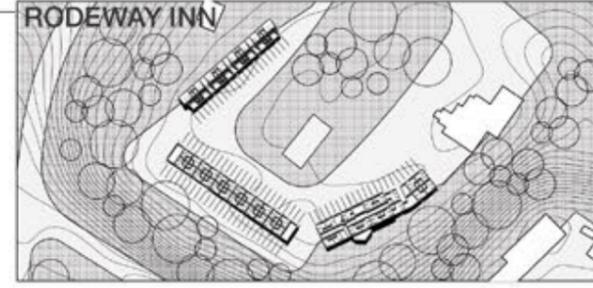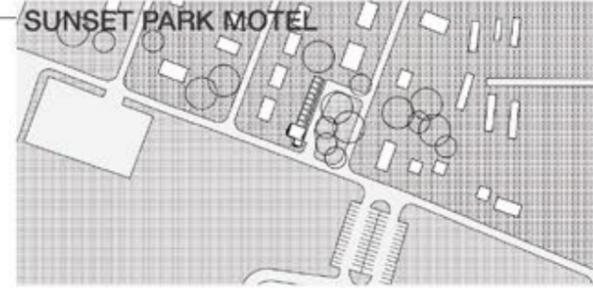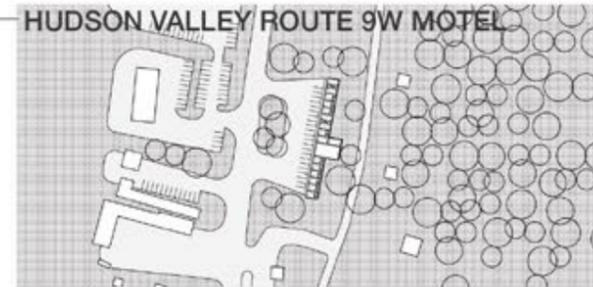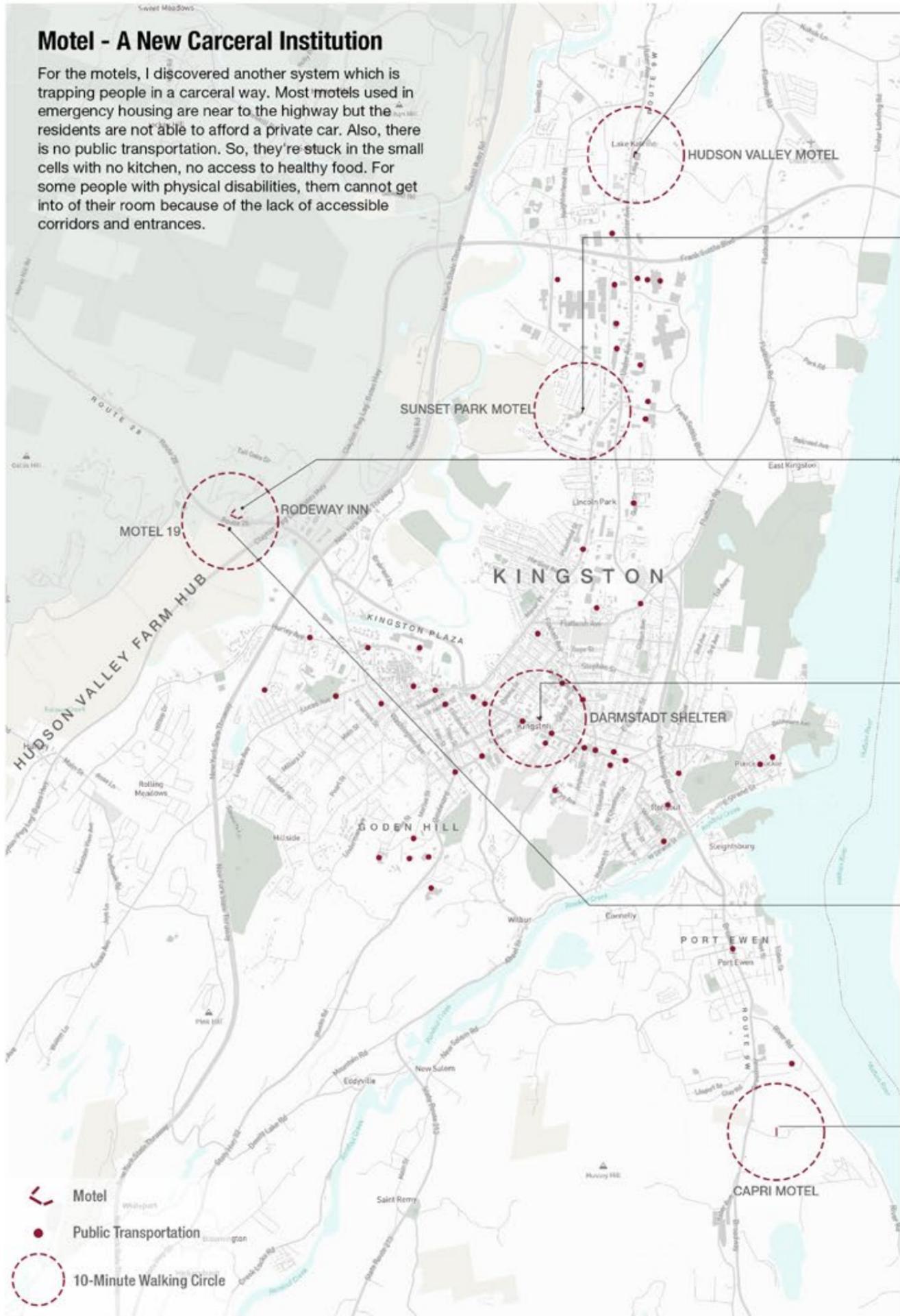
20-minute Circle: Motels, Farms and Markets

My analysis shows that Hudson Valley Farm Hub is within a 20-minute drive with five motels and a homeless shelter as well as to the vibrant city of Kingston. This huge farm has potential, not only to cater to the need of healthy food for Motels' residents, but might also support local food industry - the short-chain food industry.

LONG CHAIN

- From other states
- High consolidation
- Deep processed
- From large farms
- Less profit to farmers
- Vulnerable to pandemic

SHORT CHAIN

- From local farms
- Low consolidation
- Less processed
- From small farms
- More profit to farmers
- Resistant to pandemic
- Fresher

Legend

- Mall & Supermarket
- Motel
- Community Fridges
- Food Pantries
- Farmland
- Hudson Valley Farm Hub
- 10-Minute Walking Circle

Map labels: HUDSON VALLEY MOTEL, WALMART, SAM'S CLUB, HANNAFORD, TARGET, SHOPRITE, RODEWAY INN MOTEL 19, LINCOLN PARK, KINGSTON, HANNAFORD, GODEN HILL, DARMSTADT SHELTER, PORT EWEN, CAPRI MOTEL, KINGSTON FARMERS MARKET, FOOD PANTRIES, COMMUNITY FRIDGES, COMMUNITY ORGANIZATION, TWENTY MINUTE DRIVE CIRCLE, HUDSON VALLEY FARM HUB

DONATION MODEL

Post-capitalism Practice

Warren Buffett — Berkshire Hathaway, value falls 25% in 2020

Peter Buffett — NoVo Foundation

- $7m/y → Radio Kingston
- $420k/y → O+ Festival
- $55m/y → People's Place Thrift Store, YMCA of Kingston, Kingston Food Coop, Holistic Healthcare
- $16.7m/y → Hudson Valley Farm Hub, Large farm 1,300 acres

Community Partner, Elementary School, Kingston Farmers Market, KEFC (Mon. - Fri.), 8 Food Pantries

Sale 2%, Donate 98%

State Government $23,000/p/y

6 Motels

Too far, 2 days a week. Volunteers distribute directly. Too far, only Sat.
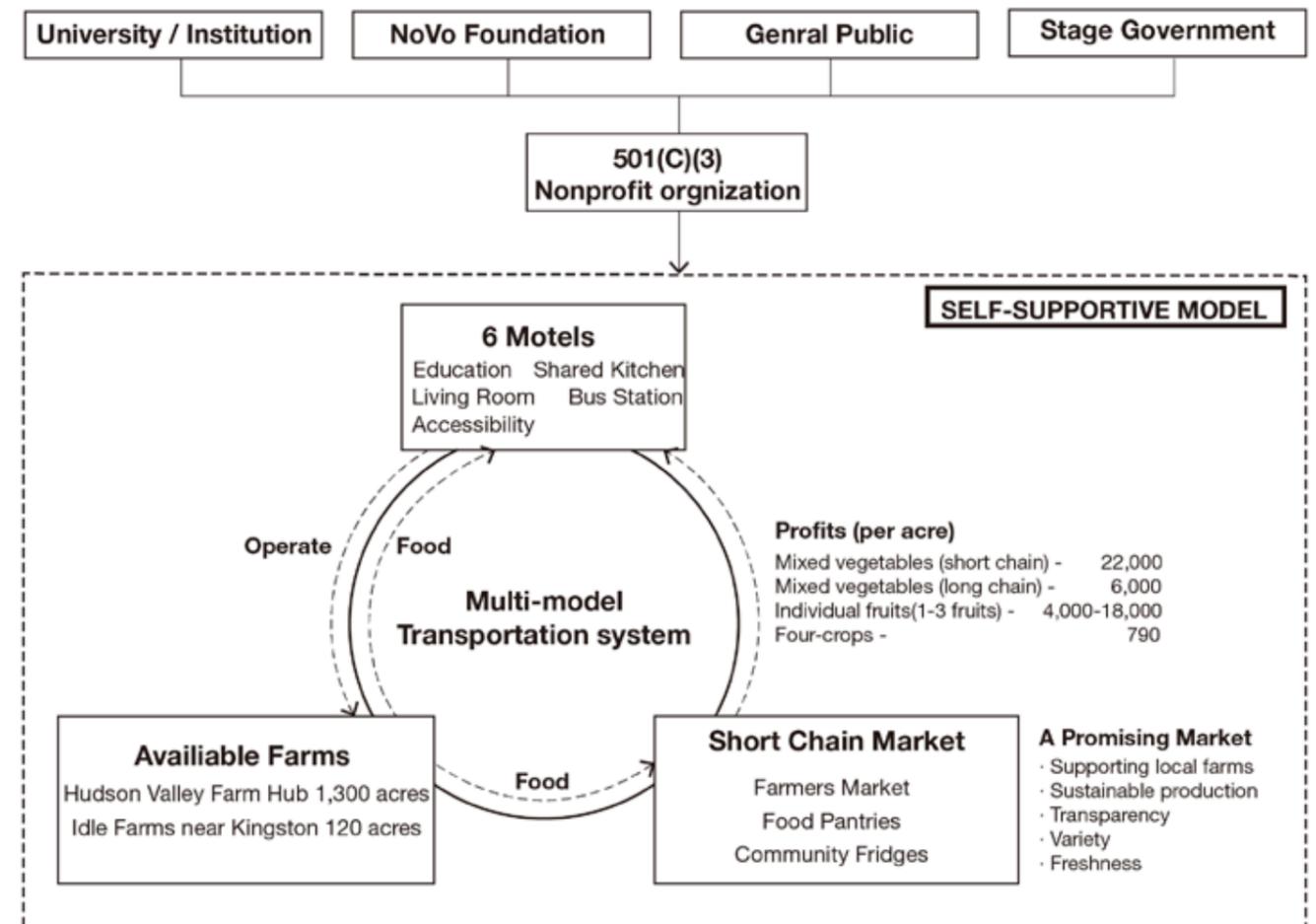
Toward Mobility and Independence

The Novo Foundation that Buffet runs has invested a ton of money in a number of non-profits in Kingston, with Hudson Valley Farm Hub receiving the most donations. It's a 1,300-acre farm near Kingston, and most of its produce has been donated to Kingston's Food Pantries and community organizations during the pandemic. It seems like a positive anti-capitalist practice, but not for the residents of Motel. Because of the lack of public transportation, it is difficult for them to access these cheap foods on foot. And they don't have kitchens to cook food which is being grown, in effect next door to them.

The state government gives an average of $23,000 a year for each person in social assistance to maintain a minimum standard of living. But that also means that the kind of isolation from transportation and other networks, they have no options for physical or social mobility to change their economic situation.

My proposal is to establish a connection between motel, farm and market through multi-modal-transportation system, so that residents can not only get food directly from the farm, but also sell it in the local market and make profits. A new 501 (c) (3) organization will be formed, which is responsible for organizing all the available resources, operating the transportation system, and helping residents of emergency housing in the Motels to eventually establish a self-supporting circle to help them move away from state support toward mobility and Independence.

SELF-SUPPORTIVE MODEL

University / Institution — NoVo Foundation — Genral Public — Stage Government

501(C)(3) Nonprofit orgnization

6 Motels
Education, Shared Kitchen, Living Room, Bus Station, Accessibility

Operate / Food — **Multi-model Transportation system**

Availiable Farms
Hudson Valley Farm Hub 1,300 acres
Idle Farms near Kingston 120 acres

Food →

Short Chain Market
Farmers Market
Food Pantries
Community Fridges

Profits (per acre)
Mixed vegetables (short chain) - 22,000
Mixed vegetables (long chain) - 6,000
Individual fruits(1-3 fruits) - 4,000-18,000
Four-crops - 790

A Promising Market
- Supporting local farms
- Sustainable production
- Transparency
- Variety
- Freshness

Shared Kitchen

Each shared kitchen module provides eight kitchen units. The width of each wing is enough for a wheelchair and one person at the same time. The ports can connect stairs, ramps and food trucks. The food truck can be seen as a movable part of the shared kitchen, connecting the motel, farm and market.
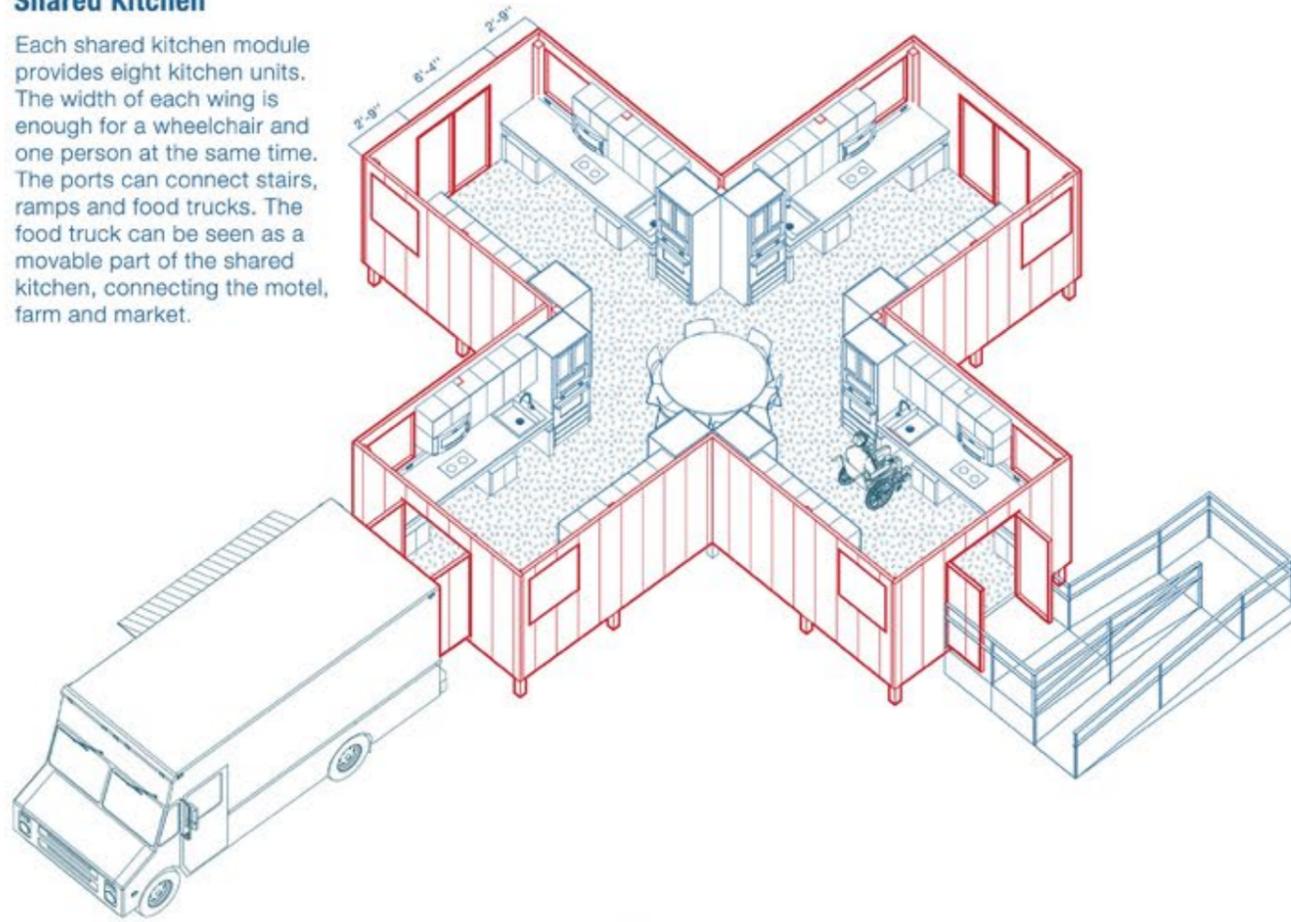
Living Room

The Living Room is a round space centered on a fireplace. The residents of motels are the host of this place. Residents can freely combine modular sofas to meet the needs of different activities. They can meet guests or invite agricultural experts to give lectures through the new 501 (c) (3) organization.
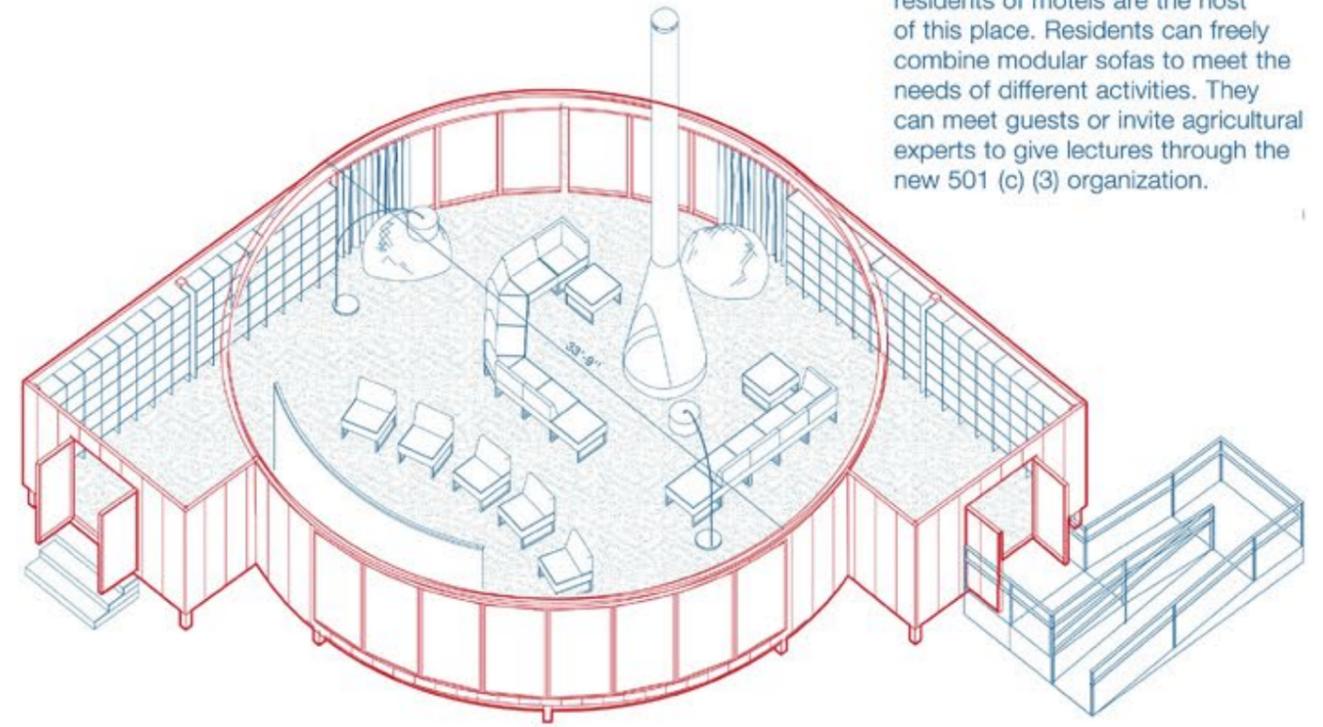
Accessibility system

Accessibility system is a ramp system that changes according to each motel. The ramp will be wide enough to accommodate the turning radius of the wheelchair, and the ramp system will also provide new social spaces.

Ramp for Plug-ins

Ramp for Threshold

Ramp for 2nd Floor
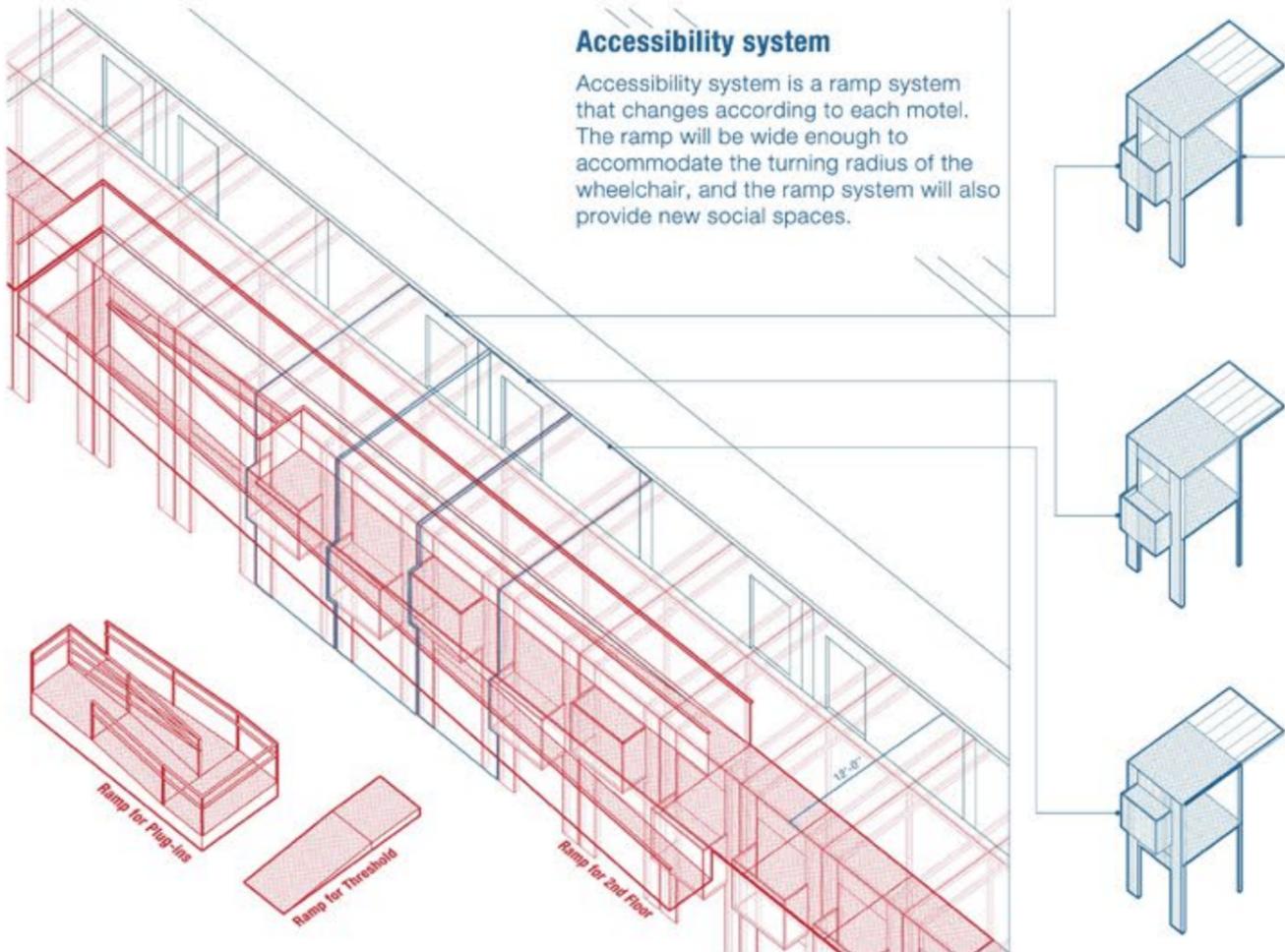
Bus Station

The Bus station provides the parking place and charges for a variety of vehicles, including shuttles, buses, sharing bikes and food trucks. The Shuttle connects the motel to the bus stop located on the main road. Bus connects motel to further areas. Sharing Bikes will be a good choice for travel to the nearby community. Food Truck will be an important tool to connect with Motel, Farm and Market.

Food Truck

Shuttle

Shared Bike

Bus

Motel 19 & Rodeway Inn

HUDSON VALLEY FARM HUB

GREEN HOUSE

CROP FIELD

ACCESSIBILITY SYSTEM

LIVING ROOM

MOTEL 19

SHARED KITCHEN

ACCESSIBILITY SYSTEM

TO KINGSTON

BUS STATION

SHARED KITCHEN

LIVING ROOM

SWIMMING POOL

RODEWAY INN

LIVING ROOM

SHARED KITCHEN

BUS STATION

ACCESSIBILITY SYSTEM

SHUTTLE

Hudson Valley 9W Motel

SHARED KITCHEN

HUDSON VALLEY 9W MOTEL

BUS STATION

LIVING ROOM

TO KINGSTON

Capri Motel

LIVING ROOM

CAPRI MOTEL

SHARED KITCHEN

BUS STATION

SHUTTLE

Sunset Park Motel

BUS STATION

SHARED KITCHEN

LIVING ROOM

BASEBALL COURT

SUNSET PARK MOTEL

CHAMBERS ELEMENTARY SCHOOL

Darmstadt Shelter

The Darmstadt Shelter, is located in the center of town amid a sea of parking lots. In addition to the shared kitchen and living room, I tried to fix the relentless landscape with the bus station. The combined bus station unit produces a rich form that becomes several small pavilions providing public space.

DARMSTADT SHELTER

Combination of Bus Station Unit

BUS STATION   SHARED KITCHEN   LIVING ROOM
DARMSTADT SHELTER   BUS STATION

BROADWAY
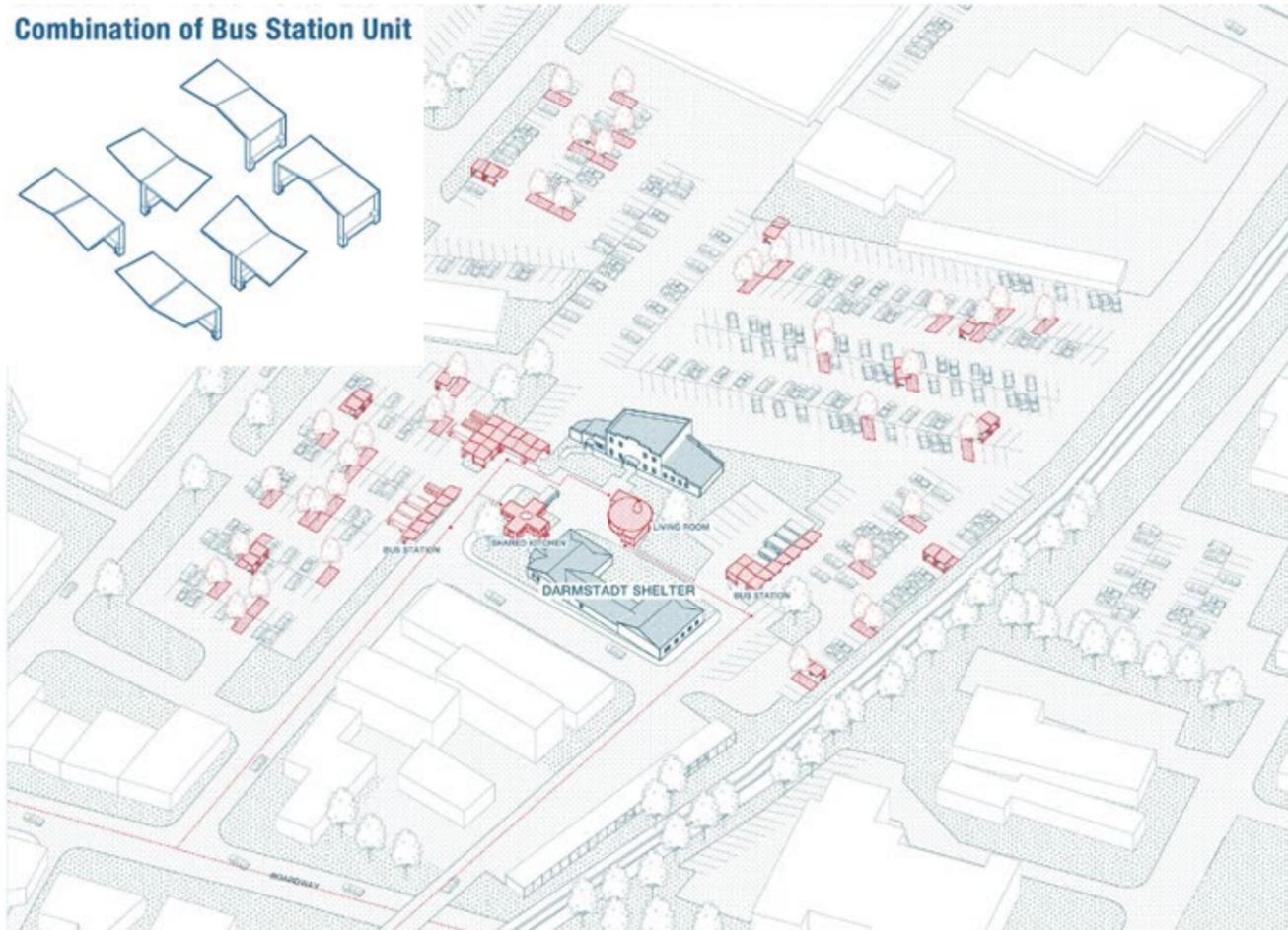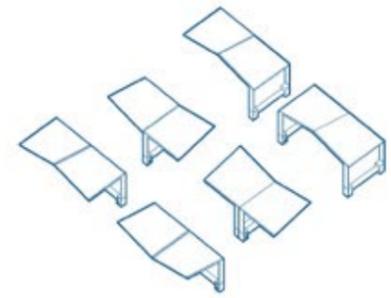
Future Vision

Finally, Motel will no longer be isolated islands, but will form a network Connecting the Motels with Hudson valley Farm Hub, Food Pantry, Farmers Market, community organizations and the whole city.
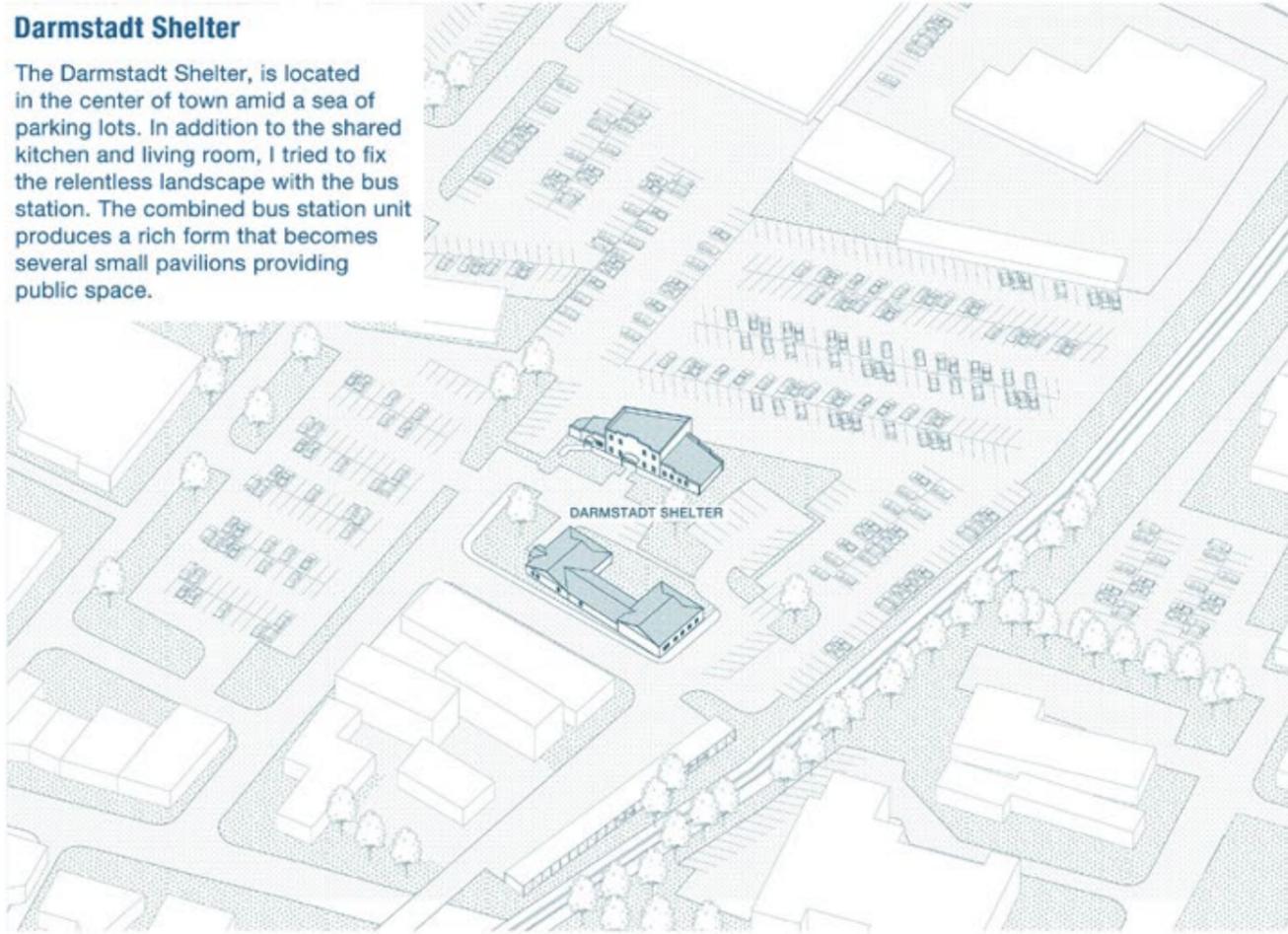

HUDSON VALLEY MOTEL

SUNSET PARK MOTEL

MOTEL 19   RODEWAY INN

KINGSTON

DARMSTADT SHELTER

HUDSON VALLEY FARM HUB

CAPRI MOTEL

TWENTY MINUTE DRIVE CIRCLE

- • Existing bus stops
- • Multi-modal-transportation
- ■ Community fridges
- ▲ Food pantries
- Motels
- Farmland
- Hudson Valley Farm Hub
- 10-Minute Walking Circle

04

History and Theory

I believe that design is driven by theory. In the pluralistic atmosphere of GSAPP, my focus is also interdisciplinary and cross-era. This part is my question and reflection on the history of architecture and the boundary of architecture.

In the first essay, I considered rural China as a testing ground for politics and capital. **Is the countryside itself valuable?** What was the idyllic life like without being over-exploited and disturbed? How do political and manufacturing networks affect rural life and landscape in China?

The second essay is about the **criticism and re-criticism of anthropocentrism**. Admittedly, anthropocentrism has had a profound impact on nature, but we also should be wary of nostalgic and utopian eco-centrism.

The third essay is about the discourse power of Chinese architecture and architectural design under political interference. In an Oriental country with a deep history and culture, what does "**Weird Architecture**" mean? Why is CCTV headquarters controversial?

The fourth chapter analyzes the theoretical framework of Venturi's **Complexity and Contradiction in Architecture** and how it became a work of architectural theory.

The fifth part, under the guidance of professor Bernard Tschumi, systematically analyzes the architectural trends **from 1968 to the present** and we focus on rossi's theory and work for final essay.

Is it necessary to maintain the authenticity of the countryside?

A question about the current situation of rural development in China
Based on the Samir Bantal's argument lecture "Countryside, the Future"
Shulong Ren // Summer 2021 // Argument // Instructor: Andrés Jaque

// In China, under the grand narrative of eliminating poverty by 2021, the strategy of targeted poverty alleviation requires local governments to find their own development strategies suitable for each village. Undoubtedly, with the joint intervention of the government and capital, 8 million people has been out of poverty. At the same time, new production technologies, live streaming e-commerce, short video platforms and tourism are profoundly shaping the rural image. Will the rural landscape become homogenized due to the development of production technology? Will rural life be alienated by the intervention of live streaming e-commerce? **What is most worth preserving about the countryside?** *Is the landscape? Building? Lifestyle? Or traditional culture? //*

To answer this question, we first need to define what the original rural area was like. In Samir Bantal's memory, his parents dressed in traditional costume, standing in front of a slightly lopsided wooden house, their feet on the unhardened soil. In my memory, the village is a group of carefree children playing in the clear stream, friendly villagers working with the sunrise and resting with the sunset. Wheat fields taller than man stretch as far as the eye can see, and frogs and insects croak in the summer evening. Every festival, there is a market in the town, where residents can trade life supplies. There is no lure of luxury, no rapid change, no trace of industry, no big data or surveillance cameras.

But such descriptions seem to be a kind of urban romantic nostalgia. Do rural residents really miss this simple idyllic life? In some cliff-top villages in China's remote mountains, residents rely on wooden ladders attached to rocky cliffs to get around. The pigsty was in front of the house, and there is no electrical appliance in their clay hut. There is neither arable land nor viable industry. The Chinese government believes the only way to help them out of poverty is relocation. Between 2013 and 2018, the Chinese government relocated 5 million people, tearing down and rebuilding hundreds of villages every year. The method seems crude, but when the BBC spoke to residents of the new concrete houses, they said they did not miss their old life.

In fact, it is not only the rural residents hovering near the poverty line who are eager for a new life, but almost all rural residents want to improve their quality of life. In the process of urbanization, many villagers choose to work as construction workers in big cities. In 2019, there were 290 million migrant workers in China, a number that was still on the rise before the pandemic. However, as urban infrastructure improves and labor markets saturate, cities cannot provide jobs for the growing number of migrant workers. In 2019, the living space of migrant workers was only 16.5 m2 per capita, while the temporary living space of construction workers was even smaller. The countryside, on the other hand, has more land and a better natural environment. So we need to make the countryside attractive again to young people, not just labor, but also intellectual. In the lecture, Samir Bantal pointed out that among the villages surveyed by AMO, China was one of the few countries with a clear rural policy. Specifically, these rural policies have reformed China's rural areas in the following aspects.

◀ Re-collectivization of agricultural production

Since 2000, agricultural production has been mechanized and digitized in China. Farmers monitor crop growth through satellites, improve crop yields by controlling temperature, humidity and light in greenhouse, and fertilize by UVA. The cost of large equipment were not affordable to individuals, so agricultural production was re-collectivized.

In Shouguang, there is the largest greenhouse area in the world: 30 times the size of Manhattan, and producing vegetables for 60million people. Here, the rural landscape is completely changed, with numerous greenhouses arranged neatly on the land. **The biggest problem here is a lack of arable land, so villagers have built city-like high-rise neighborhoods and underground garages.**

Live streaming e-commerce reshaping rural industries ▶

The rise of Taobao, an Amazon-like e-commerce platform, is pushing rural areas into global supply chains. Dongfeng, for example, had only three taobao stores at the beginning, but now it has 16,000. The village mainly produces mass customized furniture. Especially during the pandemic, the emergence of live-streaming further contributed to the explosive growth of e-commerce. In 2019, Taobao's goal was to attract a mere 1,000 farmers to its platform.

By the end of 2020, there were more than 200,000 live-streamers. Taobao has expanded its free training workshops and aims to generate RMB 15 billion ($2.1 billion) in agricultural sales via live-streaming within 2020. Taobao Villages like Dong Feng are constantly updating their village planning due to the rapid development. **New Taobao economy are separated into distinct clusters for logistics, production, research and investment, and living.**

◀ Short-video reinventing rural aesthetics

Different from the live-streaming, some rural residents have attracted legions of fans by showing their village life in Short video platforms. Li ziqi, for example, promoted the idyllic rural lifestyle to urban residents, and promoted the growth of resort such as Xijingyu, which takes family hotel as the main source of income.

But it's worth pointing out that the comfortable life away from cities and capital in her videos is actually a rural China repackaged for urban fantasies. With many rural hotels in Xijingyu now priced at more than 2,000 RMB per night. **Minimalist design has become the new class symbol, and the luxury of rural life has deviated from its original purpose.**

Tourism commercializes the countryside ▶

The vigorous development of rural tourism transforms historic villages into tourist attractions, bringing a lot of wealth to local residents and commoditizing traditional culture at the same time. In Wuzhen, for example, local residents no longer live in the village but work there by selling local crafts, running family hotel and catering as a source of income.

The village's traditional buildings, streets and waterways are preserved intactly, and traditional crafts are displayed in storefronts. In 2019, Wuzhen's net profit reached RMB 807 million ($124 million). The success of Wuzhen was quickly replicated in other historic villages and even some fake historic villages. These shoddy archaizing buildings and repetitive artifacts reveal new questions: **how can local traditional culture remain unique after it has been commoditized?**

As Deng Xiaoping said in his speech on reform and opening up, "It doesn't matter if the cat is black or white, as long as it catches mice." Under the historical burden of national rejuvenation, development is the prior principle in China. Economic development has profoundly influenced the industrial structure, lifestyle and landscape of rural areas. The countryside is no longer the countryside of memory.

As an architect, we should not only recognize and accept this change, but also be alert to the trend of overexploiting, homogenization and luxury brought by this change. It is necessary to retain the countryside as a resistance to capital.

between Anthropocentrism and Ecocentrism

Researches on Oyster-tecture by SCAPE

Shulong Ren // Summer 2021 // Transscalarities // Instructor: Andrés Jaque
07/15/2021

Image 1: In the 1850s, Manhattan colonists consumed oysters without restriction

LIFE CYCLE AS STRATEGY

Image 4: New oyster industry: an important part of oyster habitat restoration.

The Failure of Anthropocentrism and Ecocentrism

When Dutch colonists first set foot on Manhattan Island in 1700, they were amazed by the billions of oysters along the coast. Within the next 300 years, not only had the wild oysters been consumed up, but the habitat of oysters was covered by silt, and oysters were almost extinct in Manhattan. In the 1970s, people gradually realized that the anarchy of production led to the serious waste and destruction of natural resources, and the excessive consumption culture advocated by capitalism was the essential reason for the ecological crisis. The global green movement arose under the guidance of ecocentrism. **Although the Green Revolution strongly criticized anthropocentrism, it is an unattainable utopia** that is depicted by them as anti-growth, anti-production, anti-technology and "back to the jungle"

with the romance of nostalgia.

A New Model

Is there a new model between anthropocentrism and ecocentrism that liberates nature and meanwhile humanely dominates nature? SCAPE's proposal, Oyster-tecture is a great example. This series of proposals explore the possibility to carry out a revolution in the structure of human instinct and ethics of nature by challenging the existing way of life, thinking mode, and production mechanism. This is not only an ecological landscape design, but the integration of various social forces through oysters, including the government, oyster industry, public education and consumer culture. **The purpose is to transform the ecocentrism utopia into a practical action plan.**

New Oyster Industry

Unlike the unrestrained exploitation from 1700, this project explores a new oyster industry. In the oyster farm, some oysters are regularly picked and provided to the nearby seafood market and restaurants. The shells are recycled to form part of the breakwater at the estuary. So this project is not only applicable to the Gowanus canal, it is a sustainable model for the ecological restoration of the entire waterfront of Manhattan. **Consumption of oysters is no longer the destruction of oyster habitat, but an important part of oyster habitat restoration.**
It is important to make a radical post-industrial

Conclusion

manifesto, from anthropocentrism to ecocentrism, but it does not stop there. If it is only from anarchic production to anarchic worship of nature, then it is only from one uncontrolled state to another one. **What is important is how to reshape rational consumption culture and ethics of nature.** The purpose of such revolution is not to pursue higher material enjoyment, but to realize the essence of human beings, overcome the alienation brought by excessive consumption culture, liberate nature, and enable human beings to dominate nature humanly.

Image 5: New ethics of nature and consumption culture advocated by SCAPE

Image 2: Imagination of future Gowanus canal oyster farm

Gowanus Canal Restoration Plan

In this case, ecocentrism does not give up domination of nature. Domination doesn't mean mastery, but means deliberate control of the collective human relationship to nature. **This is a service, not a disruption.** Since it is hard to bring back the same number of oysters to Manhattan, SCAPE plans to recover the habitat for oysters. They put a fuzzy net over the riverbed, which acts as a substrate for the oyster to stick on. Once the first generation of the oysters are settled, their shells become the attachment points for the next generation. They designed the FLUPSY (Floating Upwelling System) nursery to provide a safe environment for baby oysters to grow. They feed the oysters by pumping nutrient-rich fresh water, as well as stormwater runoff from CSO, through Gowanus canal. Also, SCAPE cooperates with the New York harbor school which offers diving classes to give minors the opportunity to observe the oyster reef ecosystem up close. All of this can be experienced through a public access path floating on the canal. Citizens can walk through the oyster farm, see the oysters through the clear water, feel the moist moisture, and hear the sound of the river washing over the oyster reef.

Image 3: Oyster-tecture: integrating recreation space, oyster industry and ecological sanctuary

Fig 1. Homogeneous and westernized Chinese cities

It is common to divide architectural history into Chinese and western architectural history in Chinese architecture education. These two courses are like two parallel lines, completely unable to find the intersection. Faced with the homogeneous and westernized Chinese cities, I often had such a question: **how did Chinese architecture be replaced by western architecture?** (Fig 1)

In the history of 3,000 years, Chinese architecture evolute continuously, forming a stable architectural theory in the Song Dynasty (960 A.D.-1279 A.D.). (Fig 1) After 1840, with the invasion of Western colonists, China entered a state of war for 100 years, and China's architectural history came to an abrupt end.

In the 1970s, China opened up to the world again. Various western architectural theories did not enter China with enlightening architectural education, but by winning the design rights of large public building projects. Compared with other parts of the world with a colonial history, such as India and Brazil, China was struck by Western architectural theory later, but more quickly and indiscriminately. **As a result, Beijing has become a testing ground for foreign architects**, achieving architectural ambitions that would be impossible in Europe or the United States. (Fig 5)
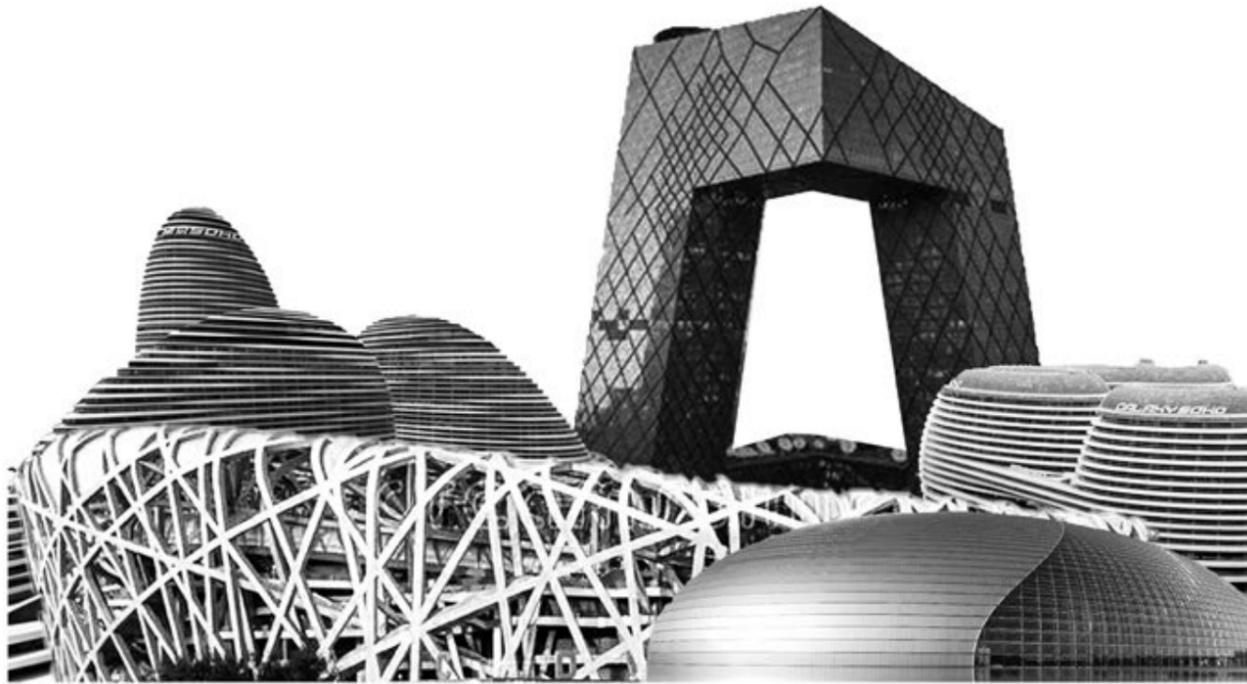
Fig 2. "Oversize, xenocentric, weird" architecture in Beijing

CCTV, the largest media company in China, has 12 programs with an audience of more than 1 billion. Its desire for expansion coincides with Koolhaas' strategy to deal with the city and architecture formed under the contemporary capitalism, which ignores the history, resources and local residents. **CCTV headquarters presents a tension between the architect's ambition and traditional value.** First of all, the strange form without any precedent is called the Big Pants by the public, completely ignoring the traditional Chinese

aesthetics. Secondly, this project cost more than $600 million, 140,000 tons of steel, just to make a huge cantilevered mass. (Fig 3) Finally, Koolhaas organized offices, news and broadcasting, program production and services into a chain. The idea of grouping all functions together is based on the study of delirious New York rather than Beijing. **Therefore, this work is based on the architect's own theoretical system and will, rather than respect for the indigenous culture.**

Fig 3. more than $600 million, 140,000 tons of steel, 10 years to build

Fig 4: Steven Chilton Architects' renderings show that they were clearly aware of the building's incongruity, a critical and uncorrected attitude reminiscent of colonial arrogance.

It's not just Beijing. The Sunac Opera House in Guangzhou, designed by Steven Chilton Architects, is another example. (Fig 4) Designer attached the traditional Chinese ornamenting to a weird surface crudely, which shows their superficial understanding of context. "Oversize, weird and xenocentric" are the visual features of these building, and they are usually supported by a series of mature western discourse. For China, Parametricism, Bigness and Planetary urbanism are not different from postmodernism and populism in the 1970s or even earlier Beaux-Arts. **These well-developed western discourses dominate China's public building market, depriving the discourse right of Chinese architecture.**

But this has changed in the last decade. In 2012, Wang Shu became the first Chinese architect to win the Pritzker Prize. He established a methodology to transfer traditional Chinese aesthetics to modern architecture. (Fig 5) "This award to Mr. Wang Shu is not only a recognition of his personal achievements, but also a tribute to China and Chinese culture." In 2014, Xi pointed out that Beijing needs no more weird buildings, criticizing Koolhaas's CCTV headquarters. **No Weird Architecture is not a rejection of famous architecture or innovative architectural forms, but a humble respect for local culture and history, and a resistance to western interference.**

Fig 5: Ningbo museum and Xiangshan Central Campus of China Academy of Art by Wang Shu

Complexity and Contradiction in
Complexity and Contradiction in architecture

Summer 2021 // History of Architecture Theory // Instructor: Mark Wigley

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I.   1960s：after the Modernism

The 1960s, a series of dramatic changes happened in philosophy, politics and the arts. Postmodern philosophy is an intellectual stance or mode of discourse defined by an attitude of skepticism toward what it describes as the grand narratives and ideologies of modernism, as well as opposition to epistemic certainty and the stability of meaning. In politics, populism, the worker movement, and various affirmative action movements have exploded around the world. In the field of art, the art center moved from Paris to New York as European artists fled to the United States due to the impact of World War II. In a thriving social environment, pop art, closely related with consumerism and populism, gradually became the mainstream.

In this context, it prompted people to rethink the modernist architectural movement. In America in sixties, urban renewal, supplier of work for architects for two decades and a major locus of the remains of the Modern movement, was not merely artistically stale, it was socially harmful.[1] These upgrades in urban centers, targeting slums or economically backward areas, create a lot of commercial value, but increase segregation and gentrification; Real-estate developers' plans for suburban housing not only create repetitive, boring landscapes, but also displace black and minority Americans.

During this period, Robert Venturi and his wife Denise Scott Brown were acutely aware of the problems posed by stale modernist architecture and urban planning. "If high-style

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[1] Learning from Pop, Denis Scott Brown, 1971

architects were not producing what people want or need, what and who should we learn from?"

Robert Venturi graduated summa cum laude from Princeton University in 1947 and received his Master of Fine Art degree, also from Princeton, in 1950. He furthered his studies as a Rome Prize Fellow at the American Academy in Rome from 1954 to 1956. Shortly after his return to the United States, he taught an architectural theory course at the University of Pennsylvania, School of Architecture.

In the early 1960s, Venturi met Denise Scott Brown, a planner and architect who also taught at Penn. They forged a remarkable professional partnership, and in 1967, they married. Teaching together at Yale University in the late 1960s, they famously led studios on subway systems, the so-called Levittown suburban developments of mass-produced ranch houses built after World War II, and Las Vegas. Besides, boating communities, Co-op City, golf resorts, soap operas, TV commercials, mass ads, billboards are also sources for a changing architectural sensibility in their perspective. The social critique of urban renewal, the attention of pop culture and the preference of complicated architectural form brings them unique perspective on architecture.

They were arguing for what they called "the messy vitality" of the built environment. At the same time, other new sources were sought when the old forms go stale and the way out is not clear. The Classical heritage, pop art movement, or industrial engineers' and primitives' architecture without architects motivated them to establish a new architectural theory. They wanted architecture to deal with the complexities of the city, to become more contextual.

Complexity and Contradiction in Architecture, published in 1966, was their first book on architectural theory, bringing together their thinking on architecture in the 1950s and 1960s. This book brings the concept of postmodern architecture into the vision of architectural theorists. In 1972, they published a more radical manifesto, *Learning from Las Vegas*, showing their interest in "Ugly and Ordinary Building Paradox". There is a distinct continuity in content between the two books, and they can be seen as the same bigger project. The former is about architectural form, the latter is about architectural symbolism. The former already hints at some of the latter, it can also clear up some of the misunderstandings caused by the title of the latter, which I will elaborate on later. These two books established their significance in postmodern architectural theory.

II.   the Complexity of Postmodernist Architectural Theory

This article focuses on analyzing the theoretical framework and writing method of *Complexity and Contradiction in Architecture*. The text of this book is as contradictory and complex as the architecture it describes. This is a very interesting phenomenon in the field of architectural theory. Implicit, fragmented and even obscure words gradually replaced Vitruvian writing tradition which focus on the practical and straightforward description of architecture.

The introduction to the book written by Vincent Scully makes a comparison between the book and *Vers une Architecture*, which intuitively shows this change.

Le Corbusier, exercising that side of his many-sided nature which professed Cartesian rigor, generalized in Vers une Architecture much more easily than Venturi does here, and presented a clear, general scheme for the whole. Venturi is more fragmentary, moving step by step through more compromised relationships.

I think there are two reasons for this change.

First, the architecture itself was becoming more and more complex. New techniques, new needs and criticism of architecture by various democratic movements have made architecture more and more closely associated with society, and architecture can no longer be seen as an isolated event. For example, research laboratories, hospitals, factories, especially urban planning and other huge projects, not only the reduced form is difficult to work, but also the equipment, infrastructure, building codes, and the impact on the surrounding environment are the concerns of architectural theory.

The second point is that all architectural theories are more or less influenced by the philosophy of postmodernism. The common point of various postmodern philosophies lies in anti-logocentrism, that is, against all inherent, unified and stable discourse. In the field of architectural theory, architects have realized that a good planning or architectural are not able to be created only through rationality, quantification or certain fixed standards as claimed by modernists. Architecture is more complex. They began to consciously criticize the inherent stability of architecture since Vitruvius and the utopian ideal supported by modernism, trying to expand the boundaries of architecture. Not only was the stable form from ancient Greece questioned, but also the evaluation system of architecture was dissolved. The inherent contradiction and complexity of architecture

made more and more theories about philosophy, economy, technology, history and arts used to describe and evaluate architecture. To a large extent, this makes that postmodernist architectural theory is more complex, fragmented and ambiguous than any previous era of architectural theory.

I will elaborate the contradiction and complexity of this book from four aspects in the following ground: epistemological framework, overall structure, secondary structure, referenced instance and figures.

III.   "A Gentle Manifesto"

This is not a radical postmodern work of architectural theory. As written above, the sixties is a transitional period for architecture theory. Even at the time of publication there was no definition of postmodern architecture. Chapter one of the book is titled Non-straightforward Architecture: A Gentle Manifesto. This partly reflects his complex and contradictory position on architecture.

The title is very different from *Vers une architecture*. Le Corbusier is the flag-bearer of the new architecture for spirit of the time, swagger toward the future. His enthusiastic praise of machinery and industry shows no nostalgia for history and the past. This attitude stands in stark contrast to the book, which Venturi says that this book is "about today, and yesterday in relation to today." He did not break with modernism or historical architecture. He accepted not only history but also the important legacies of modernism – the rules and the order. It can even be said that he accepted the tenet of modernism and criticized modernism on the basis of modernism.

This book does not dissolve architecture like the architectural theory in the late post-modernism. In the book, they did not choose the *ugly and ordinary buildings* as examples to criticize modernism. The examples they listed were almost all well-designed buildings, even magnificent and famous historical buildings designed by Frank Lloyd Wright, Louis Kahn, Alva Aalto, Corbusier and numerous Renaissance and Baroque churches. The scope of discussion covers all levels of urban planning, space, form and tectonics. He looks for the inherent complexity and contradiction of architectural form through these buildings which undoubtedly reflect the traditional art of architecture.

The only time venturi mentions the Ugly and Ordinary Building in the book is at the end

of Chapter seven. Venturi compared St. Mark's Square, Times Square, dive bars and nightclubs. He thinks that St. Mark's Square, with its contradictions in scale, rhythm and texture, and Times Square, with its jagged billboards, are both vibrant. But the dive bars, honky-tonk nightclubs and rambling American roadside towns are messy and deserted. They embrace the vitality of chaos, but they also criticize chaos beyond its limits.

Therefore, while their second book has a flowery title, *Learning from Las Vegas*, which does not suggest a preference for kitschy architecture. They have a love-hate relationship with the Ugly and Ordinary building. Love is because the populism and symbols contained in this kind of architecture can be regarded as a weapon to break the shackles of high-culture. Hate is because no one really wants chaotic and kitschy architecture. The title is an irony of a love-hate attitude.

He begins by setting out his basic ideas.

I like complexity and contradiction in architecture. I do not like the incoherence or arbitrariness of incompetent architecture nor the precious intricacies of picturesqueness or expressionism.

In these two sentences, there is a pair of confusing concepts. How can the architecture be complex and contradictory without incoherence or arbitrariness? Obviously, in the context of Orthodox Modern Architecture, the unity now excludes all elements that do not conform to the rules. Modern Architecture is about "either-or".

But complexity is what he describes in the following passage:

I like elements which are hybrid rather than "pure," compromising rather than "clean," distorted rather than "straightforward," ambiguous rather than "articulated," perverse as well as impersonal, boring as well as "interesting," conventional rather than "designed," accommodating rather than excluding, redundant rather than simple, vestigial as well as innovating, inconsistent and equivocal rather than direct and clear.

It seems like the complexity is the opposite of rules and order. But Venturi argues that true complexity is born out of order. In other words, the order is the prerequisite for the complexity. The existing rules must be broken by certain exceptions in order to produce the true complexity. Otherwise, it is as messy as brothels, casinos and other secular places. He doesn't think it's really complicated.

At the end of this gentle manifesto, he said it (architecture) must embody the difficult unity of inclusion rather than the easy unity of exclusion. Though difficult to achieve the Unity of Inclusion, is an essential quality for architecture. Rather than, as some dogmatic modernist architects did, solve the problem they wanted to solve while ignoring the real complexity of the real situation.

The second chapter starts from criticizing the simplification and picturesqueness of modern architecture and further expounds the complexity and contradiction in architecture. This is a chapter that defines the analytical framework of the book. His balance between complexity and unity is evident throughout this chapter.

First, simple versus false simple. Complexity does not preclude effective simplification, which is an analytical method and can even produce complexity, but simplification is not the end. Some modern architects have taken simplification as an aim, not to achieve true unity, but as an escape from complex realities. The result of this simplification is not only a failure to meet the needs of users, but also a lot of boring results. The example used here is the Levittown, which is the representative of suburban development of mass-produced ranch houses in American sixties.

Second, complexity and false complexity. Venturi's idea of complexity is subtly related to the Mannerism and Expressionism. The Mannerism architecture referred to by Venturi mainly refers to the works of Italian architects in the 16th century represented by Michelangelo. Not limited by the Renaissance's pursuit of harmony, these talented architects added more personal elements to sculpture, painting, and architectural. As a result, Mannerist architecture appears playful, almost as if the architects are deliberately playing with expectations put forth by Renaissance architecture. Mannerism eventually evolved into baroque. Contrary to the critical views of most art and architecture historians of the time, Venturi, in a way, loved the Mannerism. He thinks that the works of many modern architects such as Sullivan, Le Corbusier, Alva Aalto, Louis Kahn all have the shadow of modalism. But his love of Mannerism is neither the complex facades deliberately sought out to picturesqueness, nor the complex but meaningless structure in the Autostrada church designed by Giovanni Michelucci. (Fig. 1) The complex decoration produced by modern technology is not real complexity, but a formalism divorced from life, which is only the desire to show off. He advocated a Mannerism rooted in the design requirements and structure of architecture. Such as Vuoksenniska church designed by

Alva Aalto (Fig. 2) with its triple-divided plan and the ceiling, this form creates a great acoustic environment. He called it justifiable expressionism.

Finally, acknowledging complexity is not the same as denying the desire for simplicity. First, the simplicity of architecture is created by the contrast to the complexity. For example, *the Doric temple's simplicity to the eye is achieved through the famous subtleties and precision of its distorted geometry and the contradiction and tensions inherent in its order.* Second, the essence of the unified principle of architecture is the integration of complexity. In the last chapter of the book, which illustrates the relationship between the parts and the whole, Venturi focuses on how to enhance the unity of the whole through the application of the principle of complexity.

In short, complexity is rooted in rules, and the essence of unity is the integration of complexity. Complexity and unity, the seemingly contradictory concepts defined by some negative sentences, can only produce a vague concept of complexity and contradiction when reading this book for the first time. The chapter's theoretical framework on the complexity of architecture becomes Venturi's tool for analyzing and understanding all architectural examples. This ambiguous theoretical framework can be gradually understood only by combining the discussion and the analysis of examples at the end of this book.

IV.   Overall Structure

Venturi's theoretical framework of the contradiction and complexity in architecture also applies to the analysis of his text. Based on the analysis of contradiction and complexity theory in the previous section, I will explain the order and rule of the text and then try to analyze the exception and ambiguity.

The order and rule

The main body of this book, as a whole, has a relatively clear structure. To put it simply, I summarize the structure of the book by conclusion - epistemology - methodology.

To be specific, Venturi draws the conclusion of complexity and contradiction, and sets the tone for the theory of the whole book by a gentle declaration (Chapter 1). Then, starting by the criticism of simplification and picturesqueness of Modernism, Venturi puts forward the theoretical framework of the contradiction and complexity of architecture, which is a

new epistemological way to architecture. (Chapter 2 and 3). He then uses this epistemological tool to analyze the inherent complexity of architecture as a system (Chapter 4 and 5). The methodology of how diversity elements should coexist is proposed through the elaboration of the dialectical relationship between rules and exceptions. (Chapter 6). Afterwards, he introduces three specific ways of conflict, including Contradiction Adapted, Contradictions Juxtaposed (chapter seven to eight), and the contradiction between the indoor and outdoor space (chapter 9). Finally, on the whole, the essence of the principle of inclusive unity is the integration of complexity rather than simple and exclusive unity, which can be regarded as an emphasis on the conclusion. (Chapter 10). Like an appendix, Venturi's own projects are as strong support for the methodology. (Chapter 11).

The Exception and Ambiguity

But there's a kind of ambiguity in the way these chapters are divided.

1. Ambiguous Classification.

Chapter 4 (Contradictory Levels: The Phenomenon of "Both-And" in Architecture) and chapter 5 (Contradictory Levels Continued: The Double-Functioning Element) are epistemology of architectural complexity. Venturi explains the difference between both-and and double-function at the beginning of Chapter 5:

The "double-functioning element and "both-and" are related, but there is a distinction: the double-functioning element pertains more to the particulars of use and structure, while both-and refers more to the relation of the part to the whole. Both-and emphasizes double meanings over double-functions.

To summarize, the both-and focuses on the meaning or semantics the architectural elements to the whole building, while the double-functioning emphasizes function of the architectural elements.

Some examples can be clearly classified as both-and, which means the architectural elements have double or more meanings, in answer to spatial. Structural, programmatic, and symbolic needs. For example,

The mannerist elliptical plan of the sixteenth century is both central and directional. The Arc de Triomphe also has contrasting functions. Seen perpendicularly from the axis of the

Champs Elysees, it is spatially and symbolically both a termination and a portal.

While some examples can be clearly defined as double-functioning, which means the architectural elements can meet two or more specific and practical needs which are usually not responsible for the whole. For example,

Mannerist and Baroque buildings abound in drip mouldings which become sills, windows which become niches, cornice ornaments which accommodate windows, quoin strips which are also pilasters, and architraves which make arches.

However, a deeper analysis of the two categories reveals that the classification is not clear. Because the architectural elements themselves contain so much. It could be the shape of the space, also could be stairs, columns, windows, or decoration and details. These architectural elements can have many functions at once, but also provide semantic meaning for the whole.

For example, the main stair in Frank Furness' Pennsylvania Academy of the Fine Arts in Philadelphia (Fig. 3) is too big in relation to its immediate surroundings. But it is the exaggerated scale that makes it double-functioning and both-and. It is both a staircase connecting the ground floor to the first floor and provides a generous public space for entrance. Its scale responses to the great scale of Broad Street outside. It is also a monumental and grand entrance to the whole building.

The renaissance pilaster (as well as other structural elements used in a nonstructural way) is double-functioning. For example, in some Mannerist and Baroque masonry construction the pier, pilaster, and relieving arch about evenly make up a façade is bearing wall and frame at once. (Fig. 4) At the same time, these redundant structural elements can involve the phenomenon both-and at several levels. They are both structural and rhetoric. The symbolically structural through association, and compositionally ornamental by promoting rhythm and also complexity of scale in the giant order.

Kahn's open beams in Richard Medical Center (Fig. 5) is multi-functioning. They are both a space for pipes and equipment, a structure supporting the cantilevered floor slab as well as a means of dividing the glass on the façade. At the same time, they have both -and meanings. They are neither structurally pure nor elegantly minimum in section. Instead, they are structural fragments inseparable from a greater spatial whole.

2. Juxtaposition of Epistemology and Methodology

The ambiguity of overall structure is also reflected in the interweaving of epistemology and methodology. In Chapter 6, for example, Venturi expresses his interpretation towards rules and exceptions. Rules must exist before they can be abolished. Complex or exceptional or traditional elements must be contrasted with a system of rules in order to be understood. Otherwise, it's pointless chaos.

At the same time, this chapter is based on the analysis of conventional elements, which are a kind of specific architectural elements. Therefore, he also proposes a methodology for dealing with old and new (ordinary) problems: to reproduce ordinary elements in an unusual way, so as to give the observer a feeling of familiarity and strangeness at the same time. This conventional element is also reflected in other places in the book. It can refer to both historic buildings and some public and even kitsch buildings.

V.   Secondary Structure

Secondary structure here refers to the sub-categories used in each chapter to support the general idea. What is discussed here is basically the methodological part, mainly involving chapters 7-10.   There is no clear division between the arguments within these chapters, which are distinct from each other but do not have an either-or framework. Venturi provides numerous examples to illustrate the general point of each chapter. It is worth noting that unlike some architectural theorists who borrow an abstract concept from philosophy or another field, and then propose a new design method from top to bottom. The design methodology he proposes in this book is entirely based on specific cases. Venturi summarized these cases to some extent, but did not form a clear framework. These design approaches are still very fragmented.

In chapter 8, for example, one can vaguely read a classification. Venturi didn't really have a clear serial number when he wrote it, But through some sentences like

Besides these violent adjacencies there are contrasts of direction within the whole.

I can read the implications of the different ways in which juxtaposition occurs, so I summarize these ways as follows.

1. Adjacent. E.g., Orders of constant proportion and different sizes are placed on the same facade. 2. Overlap. Overlap can exist between architectural elements with distance, such as foreground and background. As people move, components overlap. 3. Contrast, the

elements are not adjacent, but in the corresponding position on the facade. 4. Coexistence, such as the various structural elements around Porta Pia, which coexist on the facade, is both structural and decorative. 5. The contrast of directions, for example, the walls and columns of The Wolfsburg Cultural Center in Aalto have contradictory directions. 6. Urban planning, such as viaducts, or plazas generated by New York's sloping streets. 7. Double facades that are close to, but not touching, the building as lining.

Thus, Venturi's writing process follows basic rules of classification, but a careful analysis of the sub-arguments reveals that they are not mutually exclusive but mutually inclusive. Because there is no unified classification method that can clearly generalize all these points without overlapping, just as the architectural examples in the article are also full of contradictions and ambiguities. For example, the possible classification methods include 1. Distance between elements (the elements are adjacent or in a distance), 2. According to whether elements exist in the same building (the elements are on the same façade or on the different building), 3. Scales that produce juxtaposition (the urban scale or the architectural secle), 4. Different levels of architecture (space, structure, facade, detail).

Another example is about the Chapter 7 (contradiction adapted). The secondary ideas can be summarized as follows: 1. Circumstantial Distortion: e.g., curved façade adapts curved streets; 2. Expedient device: e.g. The ornamented post in the center of the inner portal at Vkzelay, which is a shore for the lunette, interrupts the axis to the altar. 3. Altered symmetry: e.g. The layout of the windows according to the interior function requirements of the house breaks the symmetry on the facade. 4. Use diagonal elements: Instead of simply using diagonal elements, the exception always has to do with the rule, so architects need to create a balance and relationship between orthogonal and diagonal elements. But the altered symmetry of the facade is often an expedient device, a compromise on internal functionality.

The complexity of Venturi's writing is also reflected in his ambiguous attitude towards certain arguments. For example, in Chapter 9, there is a discussion that some buildings have an extra layer of space between the inner and outer layers of structure (decoration). These inner and outer layers produce residual space that is sometimes useless. Venturi, on the one hand, finds it rather annoying that this leads to uneconomical construction and waste of space and materials, but he also acknowledges that it will bring some more quality natural light and sense of space. As Kahn's servant space, which not only serves high-quality spaces but also becomes a contrast to high-quality primary Spaces. He quotes Kahn's assessment of these Spaces, "A building should have bad spaces as well as good spaces."

But the next paragraph immediately makes clear the point he wants to make. He cites Mies' buildings as counterexamples, such as the basement of his German Pavilion in Barcelona, which is a space completely excluded, without any design intention, and becomes a space for storing clutter and equipment. Taking this as a counter example, what he wanted to express was not whether the residual space was of good quality, but that the existence of the space needed to be acknowledged, and then needed to be used and designed.

Therefore, venturi's writing is very fragmented, with ideas and examples woven together, based on a rigorous overall structure, but with loose organizational logic in parts.

VI.   Referenced Instance and Figures

The book keeps the problem complex by citing examples.   The book does not, as some works of architectural theory do today, habitually assign the title of modernism to all architects and works from the 1920s to the 1950s, but rather looks at them case by case. Because once we try to classify certain buildings as "modern architecture," it's a simplification of the real situation.

To understand this, we should go back to when he was writing. At the time of Venturi's writing, there was no definition of postmodern architecture, so it was hardly a criticism of modernist architecture. The examples in this book are actually all the buildings up to the time of writing, from ancient Greek temples to Louis Kahn's building. Instead of taking a simple view of supporting classical architecture and opposing modernism, he tried to analyze all buildings equally with his framework of complexity theory. Therefore, he was not critical of modernist architecture as we recognize it today. For example, he made positive comments on the buildings of Alva Aalto, Louis Kahn and Le Corbusier, holding that they could achieve Difficult Unity of Inclusion by accepting complexity. It is just a negative attitude toward some architecture instance of orthodox Modern Architects.

Each of the examples in the book has a different focus, from meaning to structure, from city to architecture to detail. I categorize my concerns as follows.

Urban planning. Venturi takes the St. Mark's Square, Times Square, Rome, New York, and the roadside town as examples. Venturi takes the example of skew Street in New York breaking a grid when he discusses the contradiction juxtaposition in chapter 8.

These juxtapositions create unique, residual, triangular blocks containing unusually shaped buildings, which give the city visual variety and quality. The "squares" in Manhattan formed by the unique diagonal intersections of Broadway-for instance, Madison, Union, Herald, and Times Squares-became events each with its individual character. which added vitality and tension to the overall J gridiron of that city.

Urban design. Urban design refers to the design of buildings to be carried out in the city. For example, when chapter 9 discusses the relationship between architecture and urban environment, in order to explain the adaptation of architecture to the city, simple appearance is often adopted to adapt to the urban road network, or to form square facades with a sense of enclosure. The complex interior of the building is hidden, which contradicts the simplicity of the exterior.

The colonnades at St. Peter's and at the Piazza del Plebiscito in Naple, respectively exclude the intricacies of the Vatican Palace complex and the city complex, in order to achieve unity for their piazzas.

Architectural structure. For example, when discussing double-functions of structures in Chapter 5, the structure of beams and floors in Kahn's Richards Medical Center is described in detail.

Flat plate construction consists of concrete slabs of constant depth and varied reinforcement, with irregularly placed columns without beams or caps. To maintain a constant depth, the number of reinforcing bars changes to accommodate the more concentrated structural loads in the constant, beamless section.

This design is not purely for structure, the form of the floor slab obeys two functions in a contradictory way, the solid floor slab obeys the structural function and the shape obeys the spatial function.

Architectural details

Windows which become niches, cornice ornaments which accommodate windows, quoin strips which are also pilasters, and architraves which make arches. The pilasters of

Michelangelo's niches in the etrance of the Laurentian Library also look like brackets.

This rich detail shows that the dual function of architectural elements was a very common phenomenon during the Renaissance.

Architectural Spaces, such as one with contradictory axes in Chapter 4, can bring people rich and vivid spatial experience.

The pedimented porch of Nicholas Hawksmoor's St. George, Bloomsbury, and the overall shape of its plan imply a dominant axis north and south. The west entrance and tower, the interior configuration of balconies, and the east apse (which contained the altar) all suggest an equally dominant counter axis.

Architectural atmosphere

Soane uses interior domes in square spaces even in small areas like the breakfast room at Lincoln's Inn Fields. His fantastic juxtapositions of domes and lanterns, squinches and pendentives, and a variety of other ornamental and structural shapes elsewhere work to enrich the sense of enclosure and light.

Here venturi's precise and beautiful description of the building's light and atmosphere is used to illustrate the advantages of a double facade.

Figures

These architectural instances are accompanied by exquisite photographs or architectural drawings to better support the argument. These illustrations are selected carefully and consolidated with text. I will elaborate the features of them in the following ground.

The first feature is fragmented. Venturi does not focus on a comprehensive and holistic analysis of any building, but disintegrates the building into architectural elements for analysis. This has to do with the contradiction and complexity he proposed, rejecting architecture as a stable, unified whole. As a result, the illustrations in this book are very fragmented, with almost all architectural examples having only one image, even focusing on a part of the building facade. Michelangelo's rear facade of St. Peter's, for example, is only partially composed of two Windows. (Fig. 6) Venturi took only a portion of Michelangelo's Porta Pia facade and recomposed it with an asymmetrical, incomplete photograph, but a good illustration of the juxtaposition of elements. (Fig. 7)

Second, the juxtaposition of photos is conducive to comparison. Since the book focuses on the architectural form, a large part of the book is an analysis of the facade. The way that put numerous facades on the same page allows readers to easily find common points among these diverse facades to understand the author's intention. For example, in the chapter of Contradictions juxtaposed, Venturi lists 10 architectural facades in the same paragraph to illustrate that the components separated from the wall give the facades richer layers. (Fig. 8) Although these components are different and the composition of the facade is different, when they appear together, their common ground is very easy to understand.

Finally, there is also a lot of comparative argument in the book, and the pictures of comparative cases make the argument stronger by taking a similar perspective. For example, the photos of Roadtown in U.S. and Piazza S. Marco, Time Square (Fig. 9) both use human perspective to show the urban environment in a wide range. In the roadtown, the telephone poles, roadside billboards, and low, ordinary buildings, combined with the wide highway, form a deserted, chaotic scene. There is with no space for pedestrians, just cars and endless billboards. And the photos for the Piazza S. Marco and Time Square make a contrast with a very living urban space. The classical square and the modern square, although built in completely different periods, are both very dynamic. What they have in common is that there are a lot of pedestrians, have a good spatial scale, and have a comfortable sense of space.

Venturi does not analyze these buildings with a fixed cognitive framework, but with a complex realistic attitude to analyze each building individually. But I also realized that the way I wrote it was actually a simplification of the venturi text, and that the architectural examples in the book were far richer than the ones I cited. I try to make sense of this complex text with some effective simplifications.

VII.   Conclusion

As Described by Venturi, Architecture itself is a complex system, so it is impossible to have an either-or way of classification and analysis. Any exclusive way of classification is a unreasonable simplification of problems. Venturi is trying to make a comprehensive understanding of architecture, which must be based on a rigorous theoretical framework and overall structure, but at the same time expressed by implicit and integrated textual structure.

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Figures

Fig. 1 Giovanni Michelucci, Autostrada church

Fig. 2 Alva Aalto, Vuoksenniska church

Fig. 3 Furness. Pennsylvania Academy of the Fine Arts, Philadelphia

Fig. 4 Palladio. Palazzo Valmarana, Vicenza. Elevation

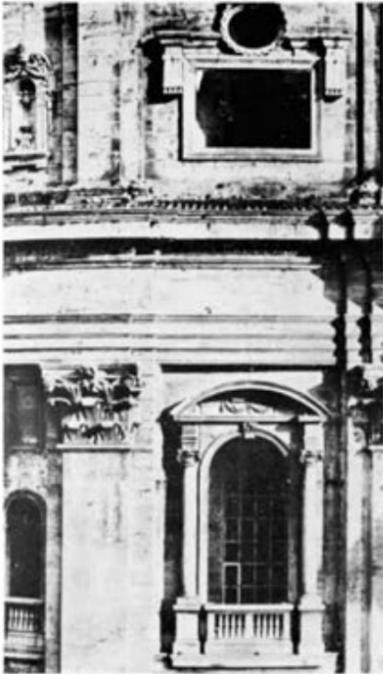Fig. 5 Kahn. Richards Medical Research Building. UPenn

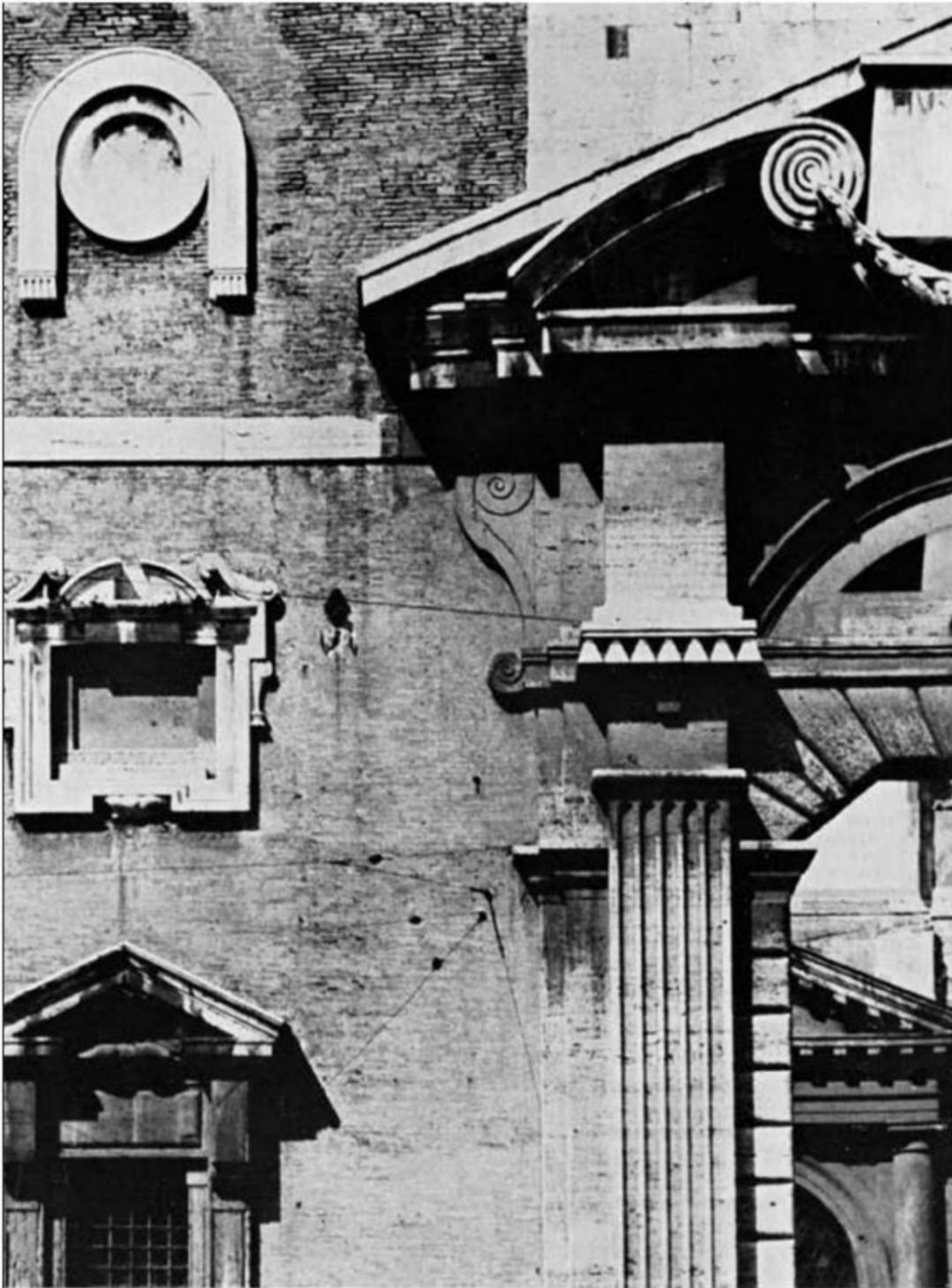Fig. 6 Michelangelo. Rear Façade, St. Peter's. Rome

Fig. 7 Michelangelo. Porta Pia. Rome

115. Lucca Cathedral

117. Notre Dame, Paris

119. Gaudí. Casa Batlló, Barcelona

116. Strasbourg Cathedral

118. Nepveu. Château, Chambord

120. Gaudí. Casa Güell, Barcelona

Fig. 8 Six façade of different building

86. Piazza S. Marco, Venice

87. Times Square, New York

88. Highway, U.S.A.

Fig. 9 Piazza S. Marco, Time Square, Roadtown in U.S.

The Trial:

Elementary School in Fagnano Olona

Aldo Rossi

1972-1976

Daniela Beraun (db3461)

Rocio Crosetto Brizzio (rc3420)

Shulong Ren (sr3845)

Yifei Yuan (yy3146)

Characters:

1. The building
2. The prosecutor
3. The Architect: Rossi
4. Mario Bellini
5. Pier Vittorio Aurelli
6. Manfredo Tafuri

Intro

PROSECUTOR: The Scuola Elementare at Fagnano Olona, a building designed by Aldo Rossi in 1972, is called to TRIAL. This building has been accused of a series of terrible crimes that we will proceed to announce to you, dear members of the jury. But before starting this session. Let the building present itself.

BUILDING: Hello everyone. As you already know, I'm the Scuola Elementare at Fagnano Olona. Honestly, I have been feeling very comfortable with myself lately. Very confident. I believe it is probably because of this sort of ongoing Rossi's neo-revival we are experiencing these days. I feel I am back in fashion. But well, all great until I got accused of some crimes. So here I am.

Let me tell you my story: I am one of Rossi's first buildings. When he designed me, he had already written The Architecture of the City. However, it didn't have an English translation until much later so you probably wouldn't know it yet.

So…I was designed in 1972 and I am located in a small town 40 km north of Milan. Rossi wanted me to be like a small city. You can definitely see that if you look closely enough. The city, you may know, is built collectively by the continuous superposition of layers across history. We all share a collective memory of the city so that we recognize it, in spite of it having different forms across the world.

I will explain myself in more detail. I am the square in the center of my plan, and the monument that is inside of it: a round volume which is the library of the school.

I am the theatre formed by the monumental stairs and the empty space of the courtyard. I am also the classrooms, which are like houses of a city, distributed in wings according to a central axis of symmetry. And of course, as this place used to be occupied by a factory before my

construction, I also am some elements that refer to the past of this place. Like a chimney aligned to the entrance. Essentially, I am like the city because I am all these things juxtaposed. I am past and present perceived all at once. A whole, not the sum of my parts.

PROSECUTOR: That's enough building, they get it…don't try to buy the jury before we even start. You will have more time later to speak for yourself. I will proceed to read the crimes you are suspected of committing. You are accused of:

1. Representing an obsolete past that we are leaving behind.
2. Your timeless abstract form is incapable of representing its particular time and place.
3. Prioritizing the form of the building rather than its function.
4. Not aiming for the maximum efficiency and flexibility.

Let's begin the trial.

1. Does not represent the future

PROSECUTOR: You are accused of representing an obsolete past that we are leaving behind. We want our buildings to be about tomorrow, or at least, a snapshot of the best version of today. The value of architecture is its capacity to renew our hopes for the future. On the contrary, you represent an image of the past, even at the time you were built. We have proof.

We bring Mario Bellini to testify. He was the curator of the 1972 exhibition "Italy: The new domestic landscape" at MOMA.

MARIO BELLINI: Thanks for having me. This is a picture of the exhibition I curated at MOMA the same year you were designed. New technologies were being used to solve the problems of everyday life. Moreover, the presence of designed artifacts in every aspect of life was so successful that "good design" became just "design". You, on the other hand, completely negate these technological advancements. The only artifact you display is a clock on the wall at the end of the staircase. And it's not even a digital one, a technology that was around since the 50's.

This second image is a collage called Happy Island by Superstudio. Around the same time, you were designed, the forward-thinking group Superstudio was representing futuristic ideas about the built environment. This image represents the world as a continuous landscape made of hidden technological infrastructures that would support a nomadic lifestyle for people. Great stuff. Instead, this drawing of Aldo Rossi references only architecture elements and composition. Nothing that would give us a sense or vision of the future.

PROSECUTOR: Well said. Lastly, your plan resembles more of an 18th century hospital than an elementary school in Fagnano Olona. You don't carry any novelty, nor experimental inquiry, which ultimately leaves no chance for people to do things differently, to evolve, to become their future selves…

BUILDING: You have it all wrong. I will ask the architect himself, Aldo Rossi, to respond to these claims.

ROSSI: Architecture has nothing to do with technological artifacts, or images of the future. I don't care for the over-optimist illusion of the future that is just creating images of an Eden of labor. I want to reveal the power hidden in the architecture, which lies in its essence, or what I like to call its type. The type is what is permanent, constant. It is the essential collective memory from which architecture takes meaning. t is a logical principle that is prior to form and that constitutes it.
Fagnano Olona's type is the city itself, therefore it cannot be, as you say, an image of the past. The history of the city is what constitutes its present, what gives meaning to its present form. It doesn't make sense to say that a city is "an image of the past" as long as it has the possibility of being repurposed. This collective construction over time IS the city.
By referencing history and repurposing it in the Fagnano Olona school I am not "supporting an image of the past", but being true to the principles that form the city. This makes my architecture prevail. Or, in your terms, be part of the future.

BUILDING: So, what Rossi is saying here is that I'm innocent of being an image of the past because I'm actually timeless. If that doesn't renew your hopes for the future honestly I don't know what would.

2. Timeless

PROSECUTOR: Being timeless requires a certain degree of abstraction, which brings us to your second crime. You are accused of being "too abstract". In other words, of not being specific of a particular time and place. We expect buildings to represent the spirit of the time since they are, after all, a catalogue of human progress.
We are bringing our expert, Manfredo Tafuri to present the case for this one.

MANFREDO TAFURI: Hello everybody. Hello building. I will amplify the prosecutor's claims. So, what is the crime in being "too abstract"? The problem of placing your value in the abstract concept of a type is that it is only true if everyone can relate to the same original concepts. And that is a very naive belief.
How can you expect people from Olona to have the same mental references to someone in, for instance, Rome? Or, even, how can we expect people from this very jury to have the same mental references with each other? Architecture should relate to real places with real people having real experiences.
Let's see some picture evidence. You don't look like either Fagnano Olona city or Rome. You look like a diluted image of a city that does not exist. You resemble more of a Chirrico painting of an idealized Italian city square than the overlapped layers of history that you claim to be.

PROSECUTOR: Thanks. Manfredo. Seems like you, Building, are intentionally detaching yourself from the context. Your materials don't speak of the site. In the same way your plan, as we saw before, is more reminiscent of an 18th century hospital than what we might find at a mid-sized town in the north of Italy. In that sense, you appear without context in all these representations, in which it is also evident that scale acts in favor of abstraction rather than to appeal to the human experience. Symptomatically, your sections don't have any human figures.
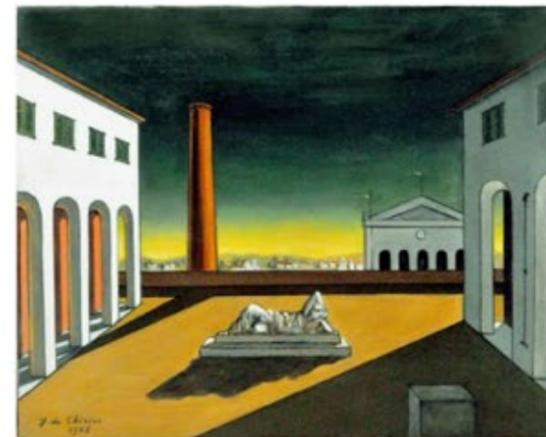
BUILDING So you are accusing me of being too abstract to the point of being unrelated to a time and a place, and disconnected from the real city. I would say, that is not a crime. I am like a monument. I carry the collective memory of a place throughout time.

The concept of locus is important to understand this. This is the relationship between a certain specific location and the buildings that are in it. It is at once singular and universal, a never-ending relationship that generates the city.

I might be abstract in form and essence, but I am permanently making the city around me inasmuch as the city it is making me. Being abstract does not limit me from engaging with the city. I can be repurposed to respond to the city's current needs, whatever they are in any period of time.

3. Form does not follow function

PROSECUTOR: I'm not convinced, but this takes us to your third crime. Rossi has always favored form rather than function. You do not look like a school. You are not constructing the image of what a school should be like. In other words, form is not following function. This is a serious crime. You could be anything. People expect things to look like what they are. You are getting people confused!

BUILDING: But which is the form of a school? Is there one? Should every function have a particular form? Is that a LAW? I can speak for Rossi in this matter, we have discussed this a lot. Rossi completely rejects the idea that form follows function, which was Sullivan's popular claim. Rossi is interested in permanence, and function is not a permanent matter. It changes over time. I want to bring back to the judgment stand the Palazzo Della Ragione in Padua. It first hosted the law courts of the city and now houses an active retail market in the ground level. And it looks like neither.

Architecture is much more complex than temporal functions. Rossi is interested in the type, which represents the essence of architecture. As I mentioned before, he says: The concept of the type is permanent and complex. It is a logical principle that is prior to form and that constitutes it. Function changes over time. On the contrary, the form

remains.

Please, I would like to invite Pier Vittorio Aurelli to comment on this matter. He will better relate Rossi's architecture with the idea of an autonomous theory and the political implications it has. Pier…

PIER VITTORIO: Yeah, thanks Building. I was about to jump in. In my work the project of Autonomy, I claim that Rossi's work is to establish a new socialist theory of the city opposing to the city of bourgeoisie. Rossi believes that the hybrid and technological heteronomous city is caused by neo-capitalism. Due to the rapid development of technology, in order to integrate social resources and workforce, a new urbanism raised, which was characterized by integration of urban and rural area, megastructures, and the establishment of the overall framework of the new city.

Rossi was against integration, technology and overall planning. He decided to learn from history, from the discipline of architecture itself, so called architectural autonomy.

He also admired the individuality of urban artifacts, or as he called it the singularity of Locus. The typology and the Locus concept, as well as Rossi's rejection of functionalism, is his way of rejecting capitalism.

4. It is not flexible

PROSECUTOR: Well, but our present time demands us to be efficient, to be productive, to be flexible, to be specific; to be all those things right now. For buildings society demands exactly the same. The Scoula is accused of the fourth and last crime: Its lack of efficiency and flexibility. Rossi rejects completely the Modern Movement triumph in the liberation of the 18th and 19th century Beaux Arts plan corset. How could he design a school with a miniature palazzo-like plan? After Mies' Crown Hall? Rossi rejects the free-plan, which has been probably the most radical conquest of the Modern Movement. The free-plan allows experimentation, evolution, and change to happen. In contrast, Rossi's architecture is a grammar of rigid geometric volumes that lacks flexibility. His architecture is not efficient in responding to today's needs.
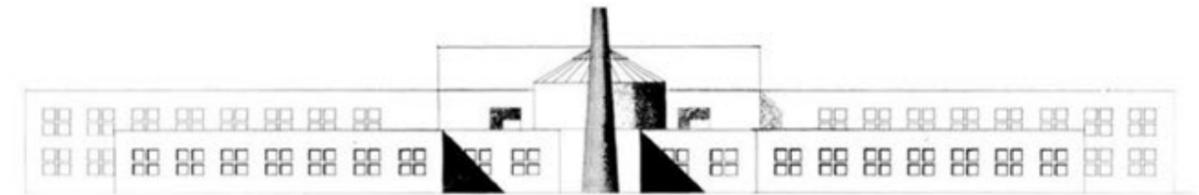
BUILDING: Wait, wait, wait. Are you really accusing me of not being flexible and efficient? I can easily adapt to other functions. Everything that has prevailed in history did so because it was capable of absorbing new functions. For instance, my simple forms: a central void, a cylindrical room, and a series of small and medium clusters can host many functions. This architecture is highly flexible in terms of having a variety of spaces. And I don't need the latest technology to do that. I didn't need luxurious construction materials, high-tech products, complex geometries or specialized workers to be built. Tell me if that is not efficient. Less is Enough, as Pier Vittorio would say.

I am austere by choice. By political choice actually. Just think about it one second: the customization of things actually makes them much more rigid. Specificity is inherently linked with rigidness. If something changes, your product becomes obsolete. Part of Rossi's idea of autonomous architecture was detaching form from function so that nothing is so specific that it couldn't be

anything else. Therefore, when things change, there is no real need for building anew, you can repurpose the old buildings. In this sense Rossi's architecture opposes the consumerism culture of neoliberalism. My austere look just reinforces his political stances.

5. Final statement

PROSECUTOR: As a conclusion of this trial, we believe that the crimes that the Scuola is accused of can be understood in very different ways. Some people may claim the building is guilty; others may say it is not. Are you on Rossi's side or not?

We believe that the architectural concepts that each of us defend represents what we think and what we are. Architecture, to a certain extent, is an image of the architect, and the ideas that we embrace.

We might also find ourselves agreeing to contradictory statements and realizing some of the complexities of architecture itself. What do you think?

Architecture: The contemporary
Prof. Bernard Tschumi / Valeria Paez

Contextualizing a concept:
Teatro Del Mondo
Aldo Rossi
1972-1976

Daniela Beraun (db3461)
Rocio Crosetto Brizzio (rc3420)
Shulong Ren (sr3845)
Yifei Yuan (yy3146)

Intro

RC: The Teatro del Mondo or "Venetian theater" was built by Aldo Rossi in 1979, for the Theater and Architecture section of the 1980 Venice Biennale in conjunction with the exhibition Venice and the scenic space.

DB: This was the first Venice Biennale that had an independent architecture section, showcasing the works of postmodern architects in the Arsenale interior space. The theater was the only project done outdoors, and it was anchored at the Punta della Dogana for the duration of the Biennale.

Hypothesis

SR: The hypothesis we have selected to explain this project is CONTEXTUALIZING THE CONCEPT. We believe Rossi uses the conditions of a specific context, in this case Venice, to address, domesticate, and humanize an abstract concept, in this case the idea of the theater.

Content

RC: We will first explain what the concept is, then how it gets contextualized and some final conclusions that relate to Rossi's theories.

1. The concept: the essential theater
What is the essential theater?

RC: The concept of Teatro del Mondo is the idea of the essential theater

YY: So, what is the essential theater, according to Rossi?

DB: In the Teatro del Mondo, Rossi keeps the elements as minimal as possible in order to catch the essence of the theater. According to Rossi's design of the Venice Theater, there are three main elements that compose the concept of a theater: the stage, the line of vision and the city. They give response to three needs: the performing space for the troupe, the watching experience for the audience and the place for social encounters.

SR: The first element is the stage. Rossi retains two of the most typical features of the Renaissance theater's stage: the

linear perspective and the tight connection to the city. In 1580, Palladio pioneered the use of the city as a theatrical scenography.

RC: This innovation had a profound influence on the stage design of Renaissance theaters, and linear city streets were painted or constructed as a part of the stage's representation.

YY: In Teatro del Mondo, Rossi redefined this stage typology. The linear stage is directly connected to the city through the gate, being a continuation of Venetian streets.

DB: The second element is the line of vision. When we look at theaters since the Renaissance, we find that the form of the spectator area varies from square, circle, oval to horseshoe. But the aim is always to maximize the sight of the audience.

SR: In the Teatro del Mondo, the first floor has two symmetrical seating areas, which can hold 250 people. On the 2nd to 4th floors, the gallery encircles the stage and ensures that all the audience have a full view of the stage on the ground floor.

RC: This kind of seating area and gallery can be found in many Renaissance theaters, such as Anatomical Theater of Padua, Shakespeare's Globe and Teatro Farnese.

YY: The third element is the city, which here is specifically understood as the foyer of the theater. The most important function of foyers is to provide a place for the audience to socialize and encounter.

DB: As part of the Venice Biennial, lots of people arrive in Venice. They attend multiple events, they encounter each other in the city, to finally arrive at Rossi's theater. There is no need for another foyer; the city of Venice as a whole is the theater's foyer.

SR: And then, when you go up to the top floor, you access a large balcony from where you connect again with Venice.

2. The universal and the specific
Contextualizing the essential theater

RC: The second point is the universal and the specific. Rossi bases his concept for this building in something that is constant in architecture, which is the essence of the theater.

Therefore, he looks for a separation between the universal or constant and the specific.

YY: This idea is born from Rossi´s definition of the city. In Architecture of the city, he explains that he understands the city as an architecture of layers constructed over time, in which there are universal elements and particular ones, or "singular urban artifacts".

DB: In Rossi´s theory, the singularities or monuments give structure to the city. The Fagnano Olona project is a good example of this, because it is mostly universal but it has some elements that perform like singularities. The chimney for instance, and one can also argue that the round volume of the library was designed with that intention.

SR: This early project of Rossi already had this idea of universal versus specific that will be pushed forward in Teatro del Mondo, and the rest of Rossi´s projects. In the case of the Teatro del Mondo, the project itself performs as a singular urban artifact.

RC: As we saw, the concept is the idea of the "elemental theater" but how it is actually configured is by layers of particular elements that relate to the context, Venice. We could say that these elements are contextualizing the concept. We want to point out four specific conditions. The movable aspect, the access to go in and out the theater, the proportions of the overall building, and the material.

DB: Regarding the movable aspect, the boat in which the Teatre rests is the most straightforward element that contextualizes the project. It is actually a barge, a floating platform that is pulled by a boat. This is how things get around in Venice, from grocery store trucks to construction materials.

SR: It is a logistical solution that allowed the project to be built elsewhere and be brought to Punta della Dogana for the Biennale. But it also made the theater harmonize with Venice´s elevation.

RC: Going back to Rossi´s idea of the singularities or monuments giving structure to the city… What happens when it is a movable monument? This might be what makes this building a metaphysical representation of Rossi's ideas: It represents the idea of a monument that structures the city, but it isn't attached to a specific place. In this project, the space of representation coincides with the representation of space.

YY: The second condition is access. A similarly "logical" element such as a bridge is used to go in and out of the barge. These bridges are very similar to what is commonly used to access the Vaporetto stations, which are the buses of Venice.

DB: The third condition is the overall proportions. They reference the Old Custom House of Punta della Dogana. The original Customs House was built in the 1680´s, so it has been part of the Venice mental image for a long time. We could say that the Teatro wants to relate to this history, and to the typology of a public building through its proportions.

SR: Finally, the material. The theater is built out of scaffoldings, which are the most basic construction elements that are also temporal; its light, it can be moved. Scaffoldings are used to restore old buildings. The use of scaffolding is not hidden in the Teatro, instead it is very present in the interior.

RC: On the exterior, it appears solid in contrast, but the use of wood conveys lightness. A comparison can be made between the cladded exterior of the Teatro and how until today many buildings in Venice that are being restored "clad" their scaffolding with a printed facade.

YY: Rossi liked using austere materials for political reasons (against consumerism and pro reuse of buildings), so we believe here the use of wood is not contextual but responds to that. Here is the equivalent of his usual masonry.

DB: All these particular elements are layered in the project making the concept – the idea of the elemental theater – very contextualized. The specifics make the theater a singularity.

3. Locus and Monument
Conclusions

DB: To recap, Teatro del Mondo is based on the concept of the essential theater, and it is contextualized by how specific conditions are resolved architecturally. We wanted to end the presentation with the idea of locus and monument as a conclusion that brings back the project to Rossi's theories, and show 3 enactments we prepared to illustrate them.

SR: We believe that the Teatro del Mondo is successful in the creation of the locus, which in Rossi's words *is a relationship between a certain specific location and the buildings that are in it. It is at once singular and universal.*

RC: The locus is the result that comes from the interaction between the place and the building. It is universal because the building emerges from a *concept*, in the case of Rossi from the idea of the theater; from its type. And it is singular because the context makes it particular.

DB: In other words, the locus emerges from the process of contextualizing a concept. The theater is conceived as a universal concept, which becomes singular when it is contextualized in Venice.

SR: The Teatro del Mondo celebrates both the idiosyncrasy of Venetian people, its identity and celebrations which are historically related to the water, such as the Festa del Redentore or the Venetian Carnival.

RC: The canals are for Venice what the streets are for every other city. They are the public realm; they are the urban element that makes Venice *be* Venice. The Teatro del Mondo, as a monument to the idea of a theater (concept) and the city of Venice (context), had to be a *floating theater*.
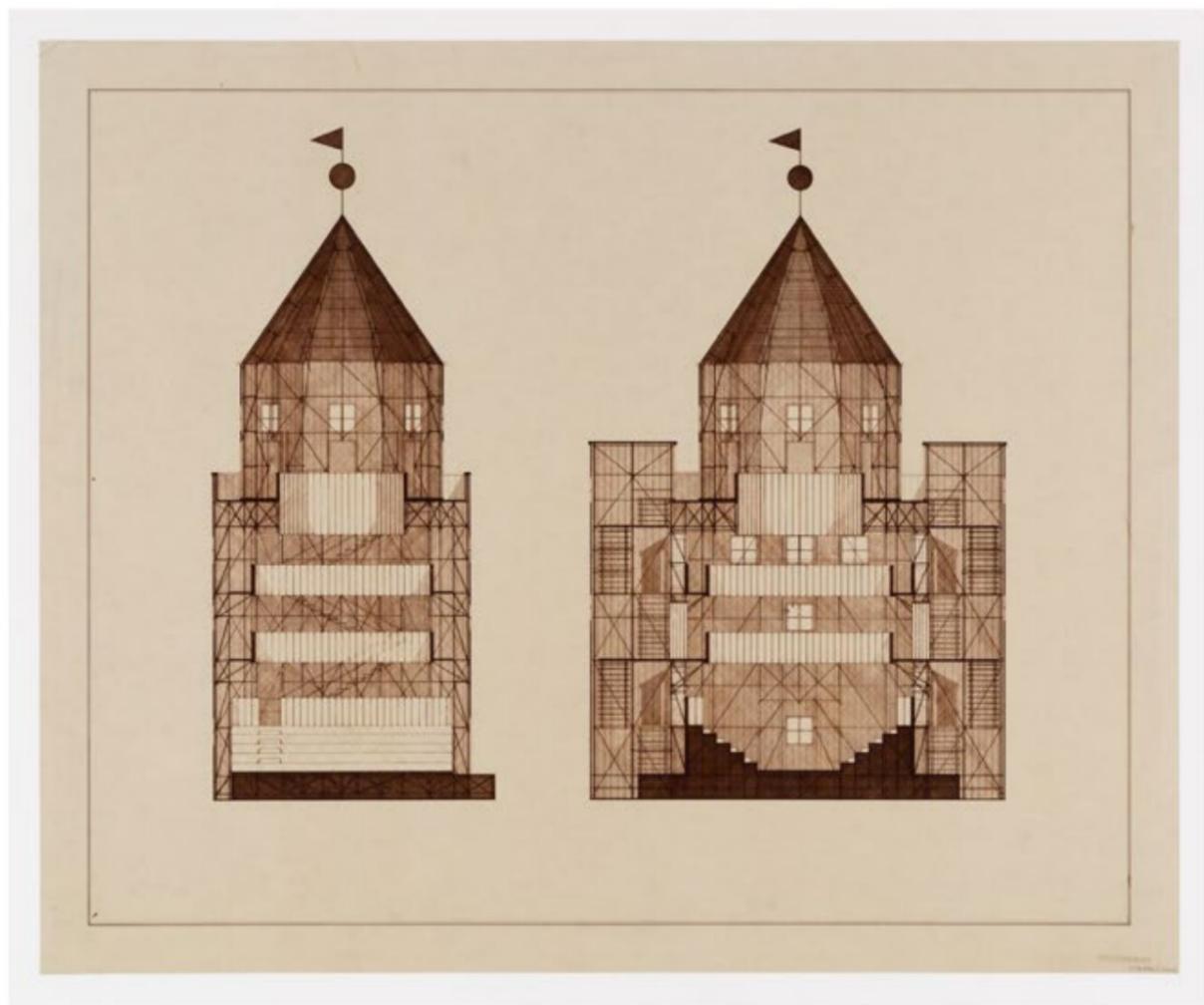
For and Against Statement

1. Autonomy vs. Sign

For

As Robert Stern wrote in Gray Architecture as post-Modernism, implicit in this emergent post-Modernist position is a recognition that the more than fifty-year history of the Modernist movement has been accompanied by no notable increase in affection on the part of the public for the design vocabulary that has been evolved. For a Post-Modernist attitude to take root in a meaningful way, an effort must be made toward recapturing the affection of architecture's very disaffected constituency, the public.

One of the most important contributions of Grey is to take public, which has been neglected by architects for a long time since the birth of modernism, into consideration. This is of profound significance now. Because architecture is increasingly related to various social realities, and architecture cannot be regarded as an isolated event. Architecture always takes a large number of resources, which is not able to be determined by the architect's personal will or theory. We must put down our arrogance and communicate and cooperate with clients, government, local residents and experts more actively.

To make architecture responsive and visually cognizant, Greys explore the meaning of architectural form. As Alan Colquhoun pointed out in Form and Figure, architecture as a historical phenomenon is not determined by what has existed before but by emergent social and technological facts. History is not the only explanation. Technology and social facts can also bring understandable meaning to the building. The recognition of mass culture and pluralism, to a certain extent, restored the interpretation power of a better world from a few Orthodox Modernists to a place where everyone could discuss it equally.

Against

First, both structural linguistics borrowed by Eisenman and Hejduk's interest in modern art and literature raise questions that what is architectural autonomy. Even as Robert Stern said, White treated formal compositional themes as independent entity freed from cultural connotations. Aren't philosophy, literature and art part of the cultural metaphor? Where is the real architectural self-discipline?

Second, As Colin Row's critique in Introduction of Five Architects, the camp of "the true believer" – always anxious for authenticity – attempted to work over the results of the revolution so as to make them strange, arcane, difficult, interesting to the few and inaccessible to the many. Even architects with architectural training cannot evaluate House X and Wall House without reading relevant theories. What is the point of this confusing and unnatural building for the masses? After all, these theories do not produce a better world that can be understood by the public

2. Phenomenology

For

If there are some similarities in the post-war architectural theory, including European futurism, typological concept, the architectural autonomy, and the power of symbols and allusions, I think they are all based on Inductive reasoning as methodology. That is, first observe reality, then through rational logical thinking, summarize some abstract connection or essence between certain things, and finally materialize the abstract thoughts into architecture. The abstract idea is the most important, which determines the difference between these theories.

But reason is never the only way to understand the world. Phenomenology offers a completely different epistemology. Phenomenology is about perception, and recognizes that the knowledge can be directly obtained from the observation of things, without thoughts. Phenomenology has revived the debate about what is real in the estranged postwar world.

Anthony Vidler calls this kind of estrangement "uncanny"。 It's a kind of disorientation and anxiety rooted in modern metropolis that began in World War II. As the post-war prosperity continued into the 1960s, the inherent contradictions of multi-international capitalism caused more and more social problems. Urban dwellers are increasingly separated from nature. places, history, and things. With the rapid technological progress and global modernization, it has been found that the signified has disconnected with the signifier. Seems nothing is fixed anymore. This coincidence of the sensibility of exile, intellectual and existential, with the forced nomadism and lived homelessness of the Depression only reinforced the growing feeling that modern man was, essentially and fundamentally, rootless.

This social context gave rise to a shared vision: people need to find their identity and orientation between sky and earth. Even nomads need mound-like artifacts that allow them to draw psychological boundaries, to distinguish between the savage nature and the safe interior, and to legitimize their existence. Phenomenology provides a methodology to re-anchor with concrete character of things, so called "return to things", to help people find objective reality in such an uncertain world.

Based on these philosophical discussions, architecture finds a new direction. The first is the attention to place. Place include prehistory, geology, agriculture sense of specific locations, as well as local climate and light. The unique characteristic of each site is a means to resist global modernization. Second, there is the focus on perception. In addition to the visual, it also adds attention to tactile, hearing and smell. And how the human body relates to buildings, or broadly, things. The human experience in architecture became the focal point of design, which led to a focus on tectonic. Frampton even wrote that Autonomy is embodied in revealed Ligaments of construction. This brings the architecture back from the realm of logical reasoning to the focus on real sites and real construction methods.

3. Heterogeneity, disjunction, and fragmentation

In 1960s, deconstructive philosophy is the dissolution of logocentrism and all western philosophy. This thought brought about attention to various marginal groups, and reflection on Eurocentrism, anthropocentrism, and totalitarianism. According to Evans's article and Mark Wigley's intro, the deconstructivism architecture focused on the stability and unity of the structure of architecture inherited from ancient Greek architecture – that is, order, techniques, and procedure that entailed by any architectural works. At the same time there is a deep aesthetic tradition, which inevitably refers to the dynamic formal of Cubism and Russian constructivism.

Against

What I question is the application of deconstructive philosophy in architecture. In other words, can a more democratic architecture, which opposes totalitarianism, be realized by dismantling the unity and stability of architecture?

The Collage City is a criticism of modernist urban planning. I think the power of this criticism comes from the inclusiveness of types, aesthetics and the uniqueness of places. In addition, Frank Gehry takes the dissolution of unity as the starting point of his design, but when the complex and shinning building conspired with the consumption culture, the Bilbao Effect comes into being. From the dissolution of the unity and stability of architecture into a kind of idolatry, deconstructive architecture has become a new unified aesthetic style. Architecture does not dissolve centrality, but moves from one center to another.

For

But I strongly agree with Aalto's architectural practices. Fragmentation and diversity of forms are limited within a reasonable range, and are neither sentimentalism nor reactionary hedonisms. Rather, it manifests itself as a sympathetic concern for each individual.

In the era which the self-image of human beings is broken

and the centrality is dissolved, what do people need, chaos or order?

Pure rationality and utopian order had been proved a failure, but the chaos created by deconstruction created another kind of capitalist centralization. Perhaps the criterion for determining whether architecture is more democratic is not its fragmental aesthetic tradition or whether it challenges the unity of architecture itself, but whether architecture is inclusive enough for each individual. As Evans said, "Whether the architecture can conspire with a range of activities either unauthorized or beneath consideration."

4. Programmatic Concepts

For

I agree with Bart Lootsma's idea in the Second Modernity of Dutch Architecture, "awakened by Koolhaas, a number of architects steeled themselves to investigate and express a substantive relation to modernism in their work." I think this substantive relation is the idea that architecture is deeply connected with society, politics and economy, like the early modernist architects in the 1920s. They also have a strong critical spirit and believe that architecture can provide practical solutions to specific social issues. Inexpensiveness and abstraction, especially in Dry design, are in keeping with the left-wing thoughts of early modernism. The social conditions in the 90s and 20s are similar, both of which are a new round of population growth and economic prosperity, with the expansion and density of cities.

However, the differences are also obvious. The projects of 1990s have gone beyond a certain scale into a new field, so called Bigness. Neither single building nor urban planning can be controlled by a single architect, people also do not accept utopian unified planning. Free-market capitalism has become a global condition, and in order to cope with the new demand, some new types of architecture based on social research need to be conceived.

Against

However, as The Generic City predicted by Koolhaas becomes a reality gradually, I admit that this is an inevitable reality, but is this reality what people need? Generic City had unified planning but free market capitalism eventually occupied every corner of the city. Generic City had history but was almost eliminated. Homogeneity and congestion became the big picture of Generic City. It's a cold, delirious city with no identity. The city dwellers here are simply slaves to capitalism by constantly seeking new thrills. Although it's a very productive city, it's a very fast-growing city, which is very common in southern China.

What I question is whether the history and identity of the city itself can really become an obstacle to urban development. What position should architects take in the context of global capitalism? If richness comes from different geographical conditions, climates, ethnics, and histories, then Generic City is a phenomenon to be avoided.

5. Minimalism and the Art of Construction

For

I advocate the introversion of Minimalism architecture.

Introversion of Minimalism architecture embedded in a specific historical background. In the 1990s, the principle of reduction served as a means of "defending the truth and the delight of seeing against the propaganda of form in utterly confused cultural Circumstances," which indicates the fact that the Minimalism is a kind of resistance to postmodernism.

Although postmodernism as an architectural style has become a thing of the past, the legacy of postmodernism still exists. The world today is even more decentralized and fragmented than it was in the 60s. The propaganda of capitalists and politicians makes it harder to tell what is real. And the sensory stimulation brought by the increasing number of virtual worlds leaves people empty.

Therefore, buildings should be the bastion for dwelling. At least some types of architecture (e.g. residences, art galleries, teahouses, etc.) should be able to provide people with places of quiet, uniced, unacquisitive. It requires the building to be as simple and honest as possible, using natural materials, simple construction, and low-key architectural forms to provide a comfortable but unobserved background and enclosure for life which goes on in and around it. The simplicity of the form makes people focus on the materiality of the architecture, which provides real experience.

Aginst

What I reject to is the symbolization of Minimalism architecture. Just as the Modernism movement arrived at America, and soon became a new style of architecture sought after by the rich, an aesthetic of renunciation, embedding in luxury consumer culture makes minimalism architecture become a symbol.

Many minimalism architectures use more complex and redundant tectonics to hide equipment and use more expensive materials to make the walls smoother. This makes architecture to some extent a return to the kind of dogmatic Modernism that Postmodernists criticize, in which architects solve only the problems they want to solve and ignore the inherent complexity of architecture.

6. Ideological and Ecological Envelopes

In the period of modernism, the facade was an inseparable part of the building. In the post-modern era, signs and historical context add more meaning to the facade. Now, Envelope integrates facade and roof, treating the exterior of the building as a whole. What separates Envelope from the architectural whole and makes it a category to be theorized?

The first is the functional requirements of large public buildings (such as airports, railway stations, exhibition centers, art galleries), which separate the internal space from the external structure. More and more public buildings need free plane and flexible space arrangement. Also, because the scale is too large, the "human scale" emphasized by modernism cannot work. The focus of architecture is no longer the space but the shell. Secondly, large public buildings are controlled by capitalist rationality and national rationality, and both of them need an image that can be accepted and praised by the public. In most cases, the public cannot enter the building, so Envelope is used as a means of communication with the public.

In this sense, Foster's buildings are characterized by sustainability, ecology, rationality, sophistication, transparency and optimism of technology that appeals to high-tech companies and governments. It conveys a new high-culture to the public, one that is easy to be accepted. Piano's practice lies in a combination of tradition and technology, a mediation of local craft of building and global enterprise, a blend of mechanical aesthetics and classical aesthetics. Rather than Foster's control of integration, Piano's architecture expresses a preference for repetitively exquisite components, a fetish.

For

I am for envelope that genuinely contains variety of concerns, such as more permeable envelopes, which is accessible for everyone, or more ecologically friendly, using more recyclable and renewable materials.

Against

But I reject envelope as just an image of a new global modernity. The transparent glass analogies to democracy, but the buildings are not really open to everyone. The green plants are used to create an ecological image, but it removed a hill away. Nature, history and democracy were abstracted into a myth. The Pompidou Centre and the three main buildings for the Beijing Olympics are more of a spectacle. It has either become the zero of monuments of art or production of political affects. This era demands this kind of spectacle culture, which is embraced by the masses, even if it has no real cultural core. But Baudrillard's implosion ultimately leads to the destruction of meaning and the silence of each individual. Although capital and state machinery demand these buildings, architects should reflect and resist this trend.

05

Visual and Technology

In the first project, we tried to minimize sight occlusion area by optimizing seat position through Genetic Algorithm in the existing theatres without changing the original building structure.
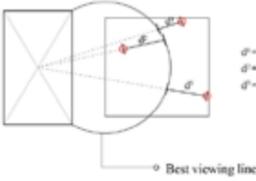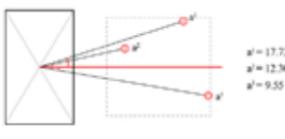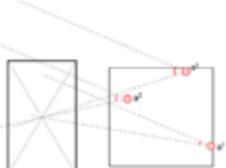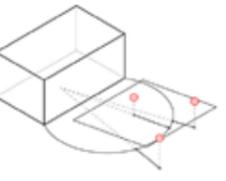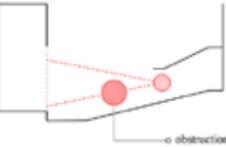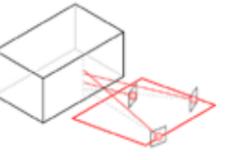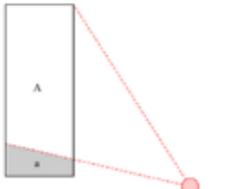
In the second project, we explore the construction and tectonic details of ETFE facade, which functions as a light-weight sun protection system that filters daylight and provides the interior with soft illumination.

Theater View Optimization
Palace Theater View Optimization

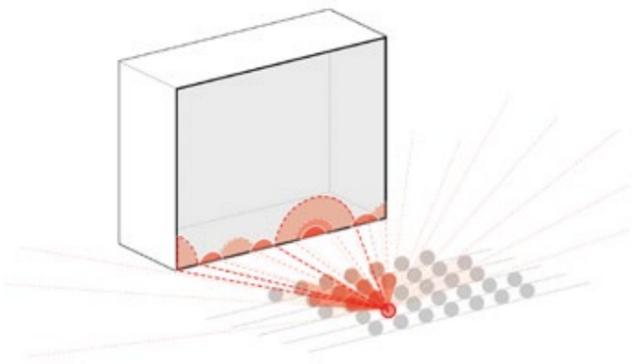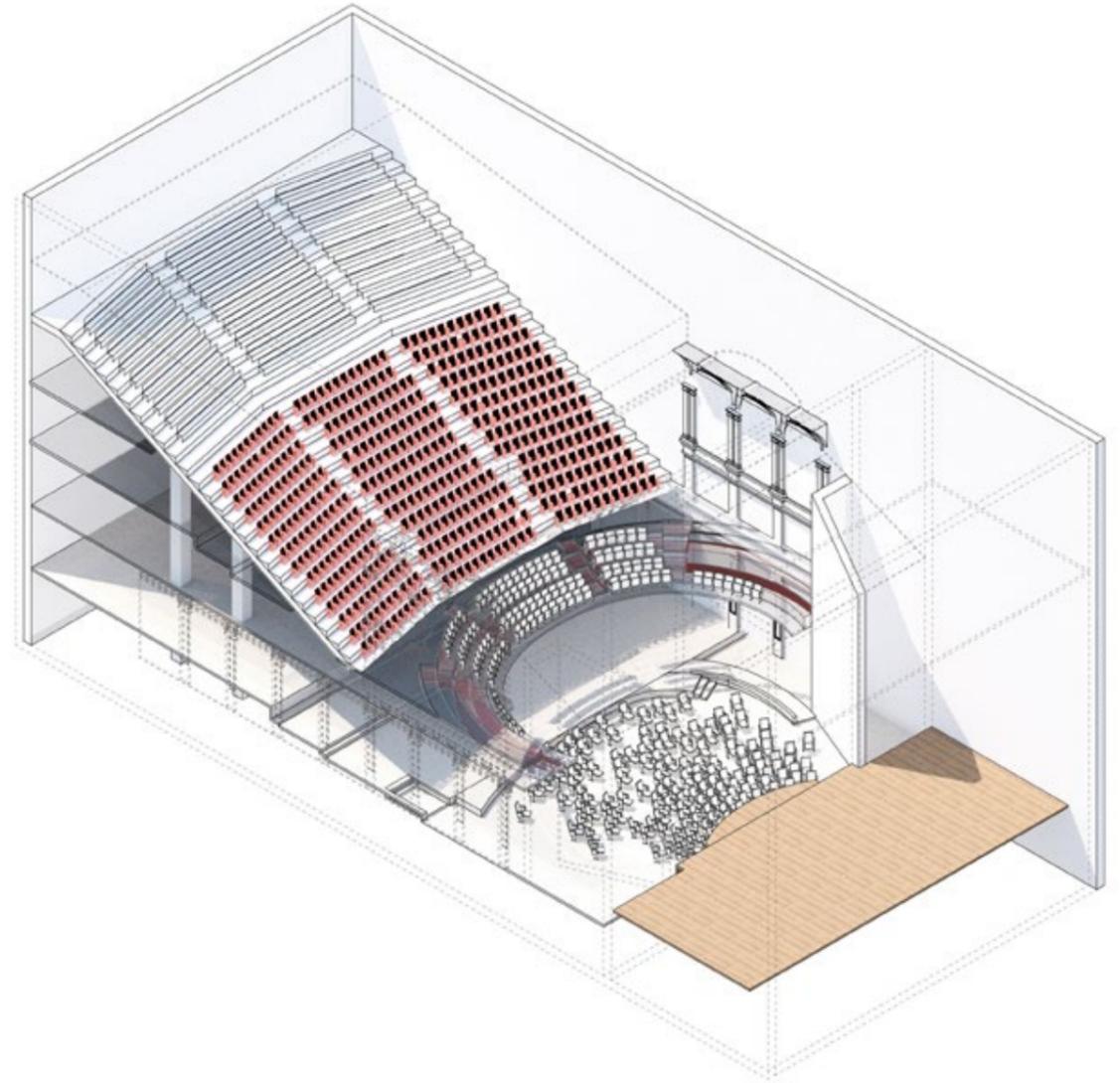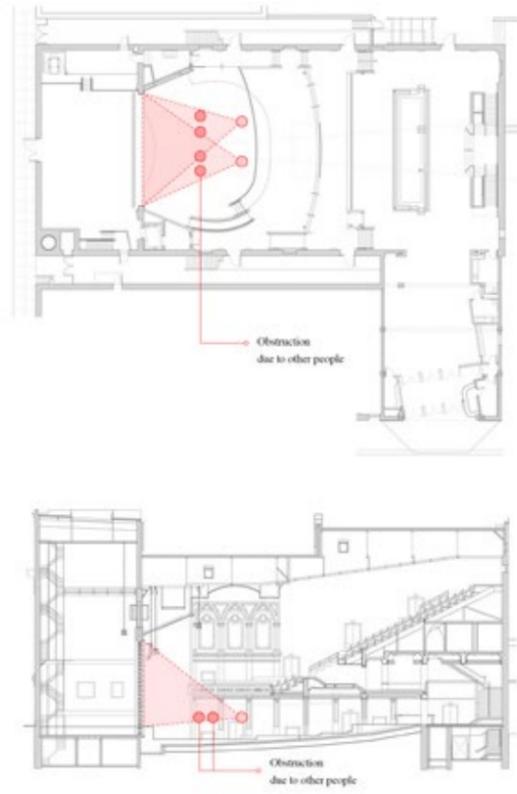Shulong Ren, Xueyin Lu, Yunlong Fan, Yukun Tian, Juno Lee

To ensure a good viewing experience is the focus of theater design. We found that the viewing experience depends on the distance between the audience and the stage, the Angle from which the seat deviates from the central axis of the auditorium, the Angle from which the audience needs to turn their heads, and the sight occlusion area. We established an evaluation system for the viewing experience.

In some existing theatres, the sight occlusion has always existed due to space limitation and unreasonable seat arrangement. We trie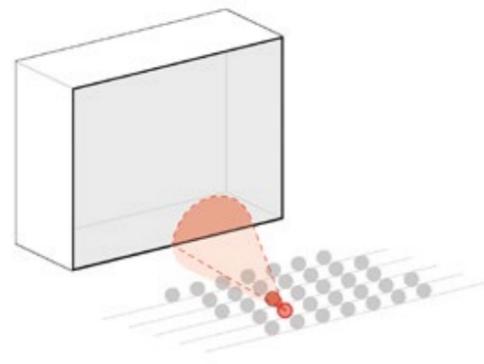d to minimize sight occlusion area by optimizing seat position through Genetic Algorithm in the existing theatres without changing the original building structure.

First, we draw a cone with the eyes of a random viewer as vertex and the head of all other audiences as base. After extending the length of the generatrices, we selected the cones that have intersected area with the screening. We found that those who are far from this audience have little influence. So in order to simplify the calculation, we only calculate cones in a small range. We also used collision detection to prevent any two seats from being too close or out of bounds.


| The distance between seat and best veiwing line	Angle at which the seat is positioned away from the center line	Angle of turning head in horizontal direction
Angle of turning head in vertical direction	Proportion of area obscured by stage frame	Proportion of area obscured by front people's head
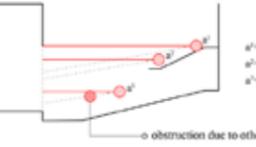
Calculate all the seats in front of the selected one

Use the intersecting area of a cone and the stage as the sight occlusion
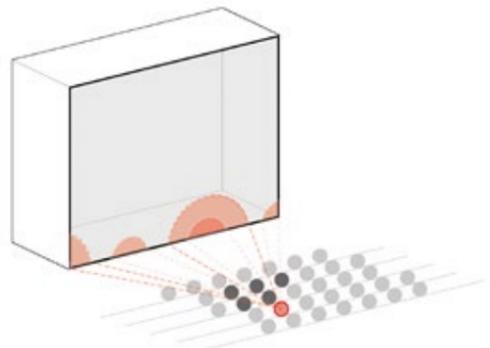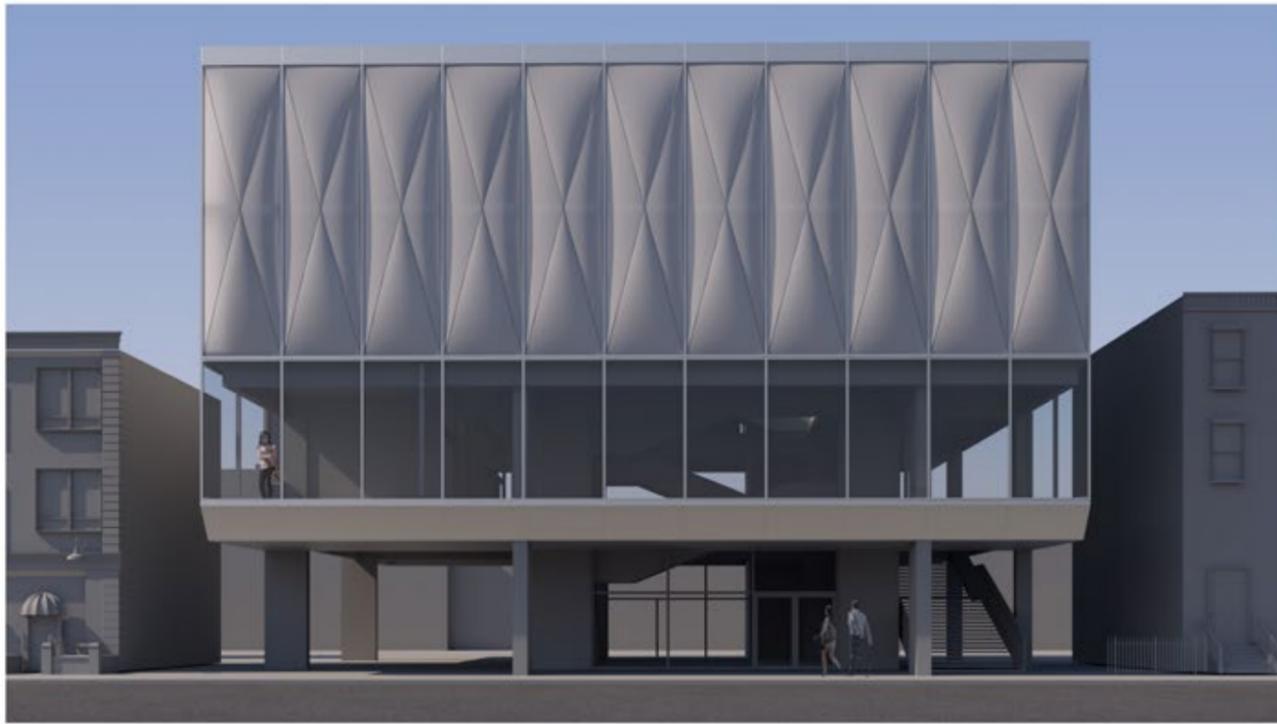
Only the seats near the selected one have efficient influence on sight occlusion
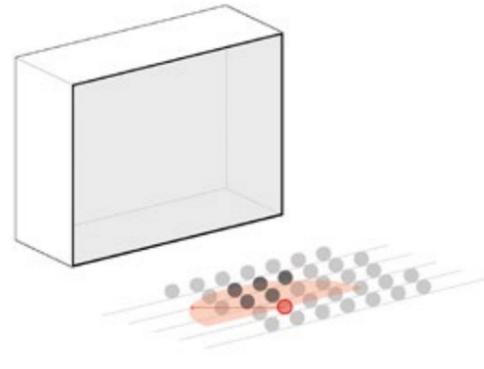
Simplify the Calculation:
Draw a semicircle of a certain radius to choose the seats that need calculating
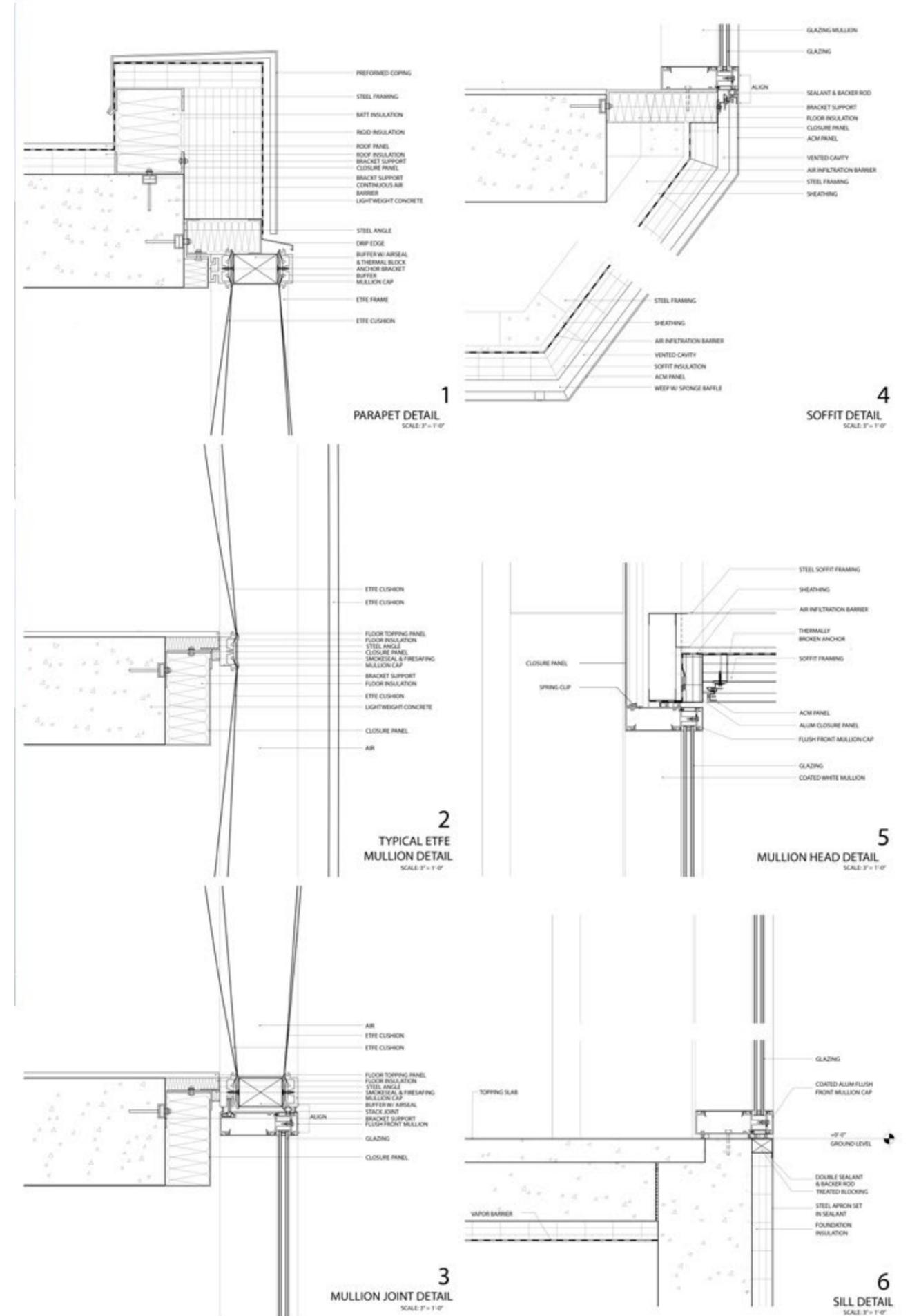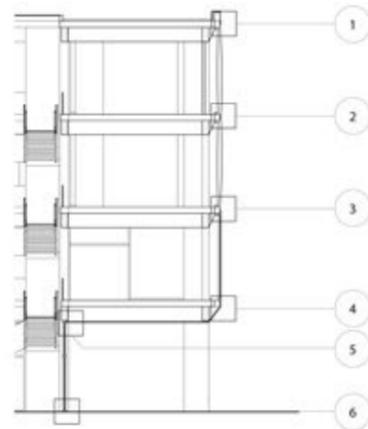
Cloud Gallery

ETFE Facade Details Design

2022 Spring // Facade Detailing: A Material Understanding // Instructor: Kevin Schorn

Yaxin Jiang // Qingyang Yu // Shulong Ren

This four-story gallery building is designed to be a multi-functional art hub in the city. Contrasting with the robust concrete structure is its lightweight facade panels of varying transparency, providing visions as well as shades according to different needs. The ground floor is recessed with street-facing room height fixed glazing and glass doors as the main entrance. The second floor of the building enclosed by glass curtain wall is for exhibitions that welcome sunlight, while it also cantilevers to provide sun shading. Tall ETFE foil cushions envelope the upper two floors of art galleries, functions as a light-weight sun protection system that filters daylight and provides the interior with soft illumination. Held in place by thin cables and customised air seal clips, the ETFE foil is 1% the weight of glass and gives the building a cloud-like appearance.

1 — PARAPET DETAIL
SCALE: 3" = 1'-0"

Labels: PREFORMED COPING, STEEL FRAMING, BATT INSULATION, RIGID INSULATION, ROOF PANEL, ROOF INSULATION, BRACKET SUPPORT, CLOSURE PANEL, BRACKET SUPPORT, CONTINUOUS AIR BARRIER, LIGHTWEIGHT CONCRETE, STEEL ANGLE, DRIP EDGE, BUFFER W/ AIRSEAL & THERMAL BLOCK, ANCHOR BRACKET, BUFFER, MULLION CAP, ETFE FRAME, ETFE CUSHION

4 — SOFFIT DETAIL
SCALE: 3" = 1'-0"

Labels: GLAZING MULLION, GLAZING, SEALANT & BACKER ROD, BRACKET SUPPORT, FLOOR INSULATION, CLOSURE PANEL, ACM PANEL, VENTED CAVITY, AIR INFILTRATION BARRIER, STEEL FRAMING, SHEATHING, STEEL FRAMING, SHEATHING, AIR INFILTRATION BARRIER, VENTED CAVITY, SOFFIT INSULATION, ACM PANEL, WEEP W/ SPONGE BAFFLE

2 — TYPICAL ETFE MULLION DETAIL
SCALE: 3" = 1'-0"

Labels: ETFE CUSHION, ETFE CUSHION, FLOOR TOPPING PANEL, FLOOR INSULATION, STEEL ANGLE, CLOSURE PANEL, SMOKESEAL & FIRESAFING, MULLION CAP, BRACKET SUPPORT, FLOOR INSULATION, ETFE CUSHION, LIGHTWEIGHT CONCRETE, CLOSURE PANEL, AIR

5 — MULLION HEAD DETAIL
SCALE: 3" = 1'-0"

Labels: STEEL SOFFIT FRAMING, SHEATHING, AIR INFILTRATION BARRIER, THERMALLY BROKEN ANCHOR, SOFFIT FRAMING, CLOSURE PANEL, SPRING CLIP, ACM PANEL, ALUM CLOSURE PANEL, FLUSH FRONT MULLION CAP, GLAZING, COATED WHITE MULLION

3 — MULLION JOINT DETAIL
SCALE: 3" = 1'-0"

Labels: AIR, ETFE CUSHION, ETFE CUSHION, FLOOR TOPPING PANEL, FLOOR INSULATION, STEEL ANGLE, SMOKESEAL & FIRESAFING, MULLION CAP, BUFFER W/ AIRSEAL, STACK JOINT, BRACKET SUPPORT, FLUSH FRONT MULLION, GLAZING, CLOSURE PANEL

6 — SILL DETAIL
SCALE: 3" = 1'-0"

Labels: GLAZING, COATED ALUM FLUSH FRONT MULLION CAP, TOPPING SLAB, GROUND LEVEL, DOUBLE SEALANT & BACKER ROD, TREATED BLOCKING, STEEL APRON SET IN SEALANT, FOUNDATION INSULATION, VAPOR BARRIER