[MOVE IS MORE]

Architectural Portfolio
Sixiong Wang

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EDUCATION

Chang'an University *(Project 211)* Sep 2016 - Jul 2021
Field of Study: Architecture *(5yrs)* | Bachelor of Architecture Degree
Average Score: 78.86 out of 100
Core Courses: *Architectural Design* ***(93)***, *Practice in Design Institute* ***(94)***, *Ancient Architecture Measuring* ***(91)***, *Graduation Project* ***(A)***.

AWARDS & PUBLICATIONS

Outstanding Graduation Design - *National Transportation Architecture Joint Graduation Design* 2021
Tied for Second Place ***(first place vacant)*** - *2020 Future Community International Design and Innovation Competition* 2020
Third Prize - *Zhongshan OCT Happy Coast Center Green Axis Public Space Design Competition* 2021
Masterpiece Award - *UA Creation Award & International Concept Design Competition* 2018
Presented paper ***(the only undergraduate group)*** - *The 3rd National Architectural Criticism Symposium Selected Paper* 2019

ACADEMIC EXPERIENCES

Architectural Workshops:
Figural Translation: Materiality Ensembles - Nate Hume *(senior lecturer of UPenn)* 2022
- *Reassessing and reorganizing the integral material relationship between volumes and enclosures.*

Designer's Utopia: Reclaiming the Autonomy - Lifeng Lin *(founder, principal architect of LIN architecture)* 2022
- *Situationist thinking research: nomadic, drifting life is used to counteract the spectacle society.*

Philosophical Archetypes and Techno-Critical Architectural Narrative - Yu Yan *(assistant professor of SAUP)* 2021
- *J. Lacan's psychoanalytic theory research: evacuation of the body by building.*

Structural Constructions:
Light Wings (3m×2.4m, H=2.7m) - *foam board | interlocking* 2020
Folding Cave (3m×2.4m×2.3m) - *plastic polypropylene sheet | single-sided cutting, folding* 2017
Square Utterances (5m×3m×3m) - *composite board, square timber | mortise and tenon interlocking* 2017

PRACTICAL EXPERIENCES

Hainan Provincial Design and Research Institute Co., Ltd May 2023 - Present
Provincial, Grade A Architectural Design Firm | Architectural Intern *Hainan*
- **Achievement** | *Developed a comprehensive* ***AI algorithm-based architectural workflow*** *(Stable Diffusion-based). Contributed to the acceptance of* ***more than 10 commissioned projects****.*
- **Responsibility** | *Schematic design, technical drawing (primary); rendering, profile formatting (secondary).*
- **Design** | *Designed* ***over 20 building units*** *and* ***multiple residential area masterplans****, achieving an* ***adoption rate of over 80%****. Focused primarily on university campuses, libraries, infrastructure warehouses, and residential areas.*
- **Technical Work** | *Produced and revised* ***over 30 sets*** *of technical drawings, including sunlight duration, green area, and parking layout calculations.*

Shenzhen Huahui Design Co., Ltd Aug - Oct 2020
Grade A Architectural Design Firm | Architectural Intern *Guangdong*
- **Achievement** | ***Won 1 public tender competition*** *and completed* ***3 commissioned projects****.*
- **Design** | *Designed* ***6 building forms*** *and* ***3 sets of urban design*** *master plan drafts, with* ***7 of them being adopted****.*
- **Technical Work** | *Adjusted floor area indicator and modified* ***4 sets*** *of planning layouts accordingly. Revised* ***over 12 node sample drawings*** *based on client feedback. Independently produced* ***over 60 pages*** *for the final reporting atlas,* ***all of which*** *were fully utilized.*
- **Communication** | *Participated in* ***2 communication meetings*** *with developers and government officials.*

Shaanxi Provincial Bureau of Cultural Relics Protection | Mapping Group Member May 2019
Ancient Architectural Mapping - *Main Hall of Xiyue Temple Complex: Hao Ling Hall* *Shaanxi*
- **On-site Mapping** | *Utilized a* ***total station*** *to capture point cloud data of the building and accordingly created* ***4 sets of technical drawings*** *(including truss top views). Conducted research on Donggong brackets.*
- **Responsibility** | *Independently completed* ***11 sets of node sample drawings*** *for* ***all Dougong***

SKILLS & CERTIFICATES

Languages: English (IELTS 6.5/6), Chinese (native), Lin'gao dialect (near-native)
Software Skills: Rhino, Sketchup, Auto CAD, V-ray, Photoshop, Illustrator (main, proficient)
Grasshopper, Enscape, D5 Render, InDesign (intermediate)
Arc GIS, Blender, Keyshot, VS Code, PyTorch (novice)

CONTENTS

Jumping Funland
Pressure Evacuation Park

Imagine Reference: Tschimi, B. The Manhattan Transcripts

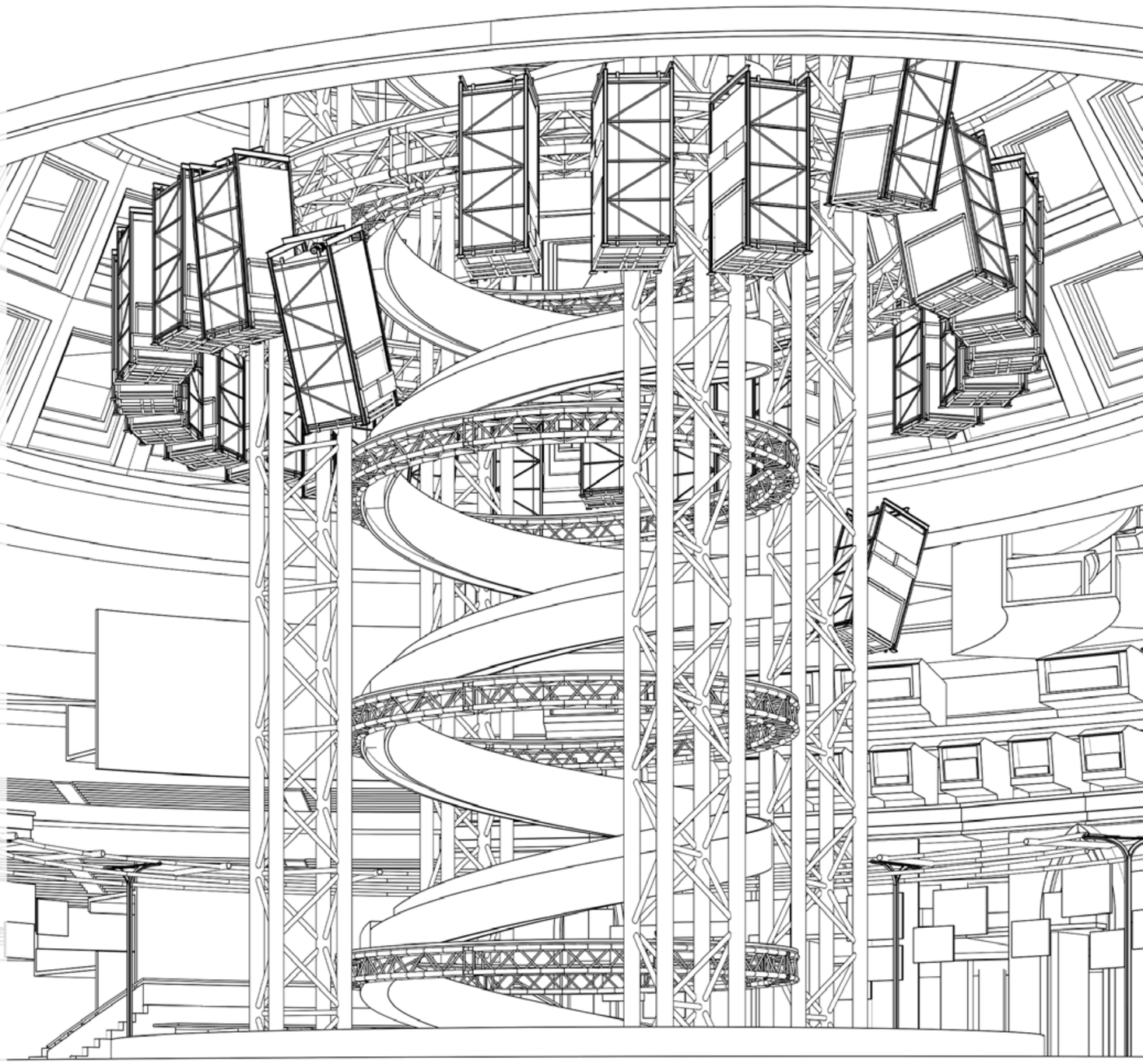
J. Lacan's Graph of Desire depicts an ascending drive which functions to relegate Jouissance to the peripheries of the body. This castration of the body culminates in acts such as speaking or excreting.

To elucidate this drive, this project positions the post-2008 subprime crisis era as a narrative frame. In this period, characterized by suicidal leaps from buildings, bankers deemed it necessary to utilize force to kickstart capital's recirculation. They hijacked the drive, buried it in buildings, and packaged it into an amusement park to rejuvenate the financial landscape.

Are the bankers truly protecting individuals jumping from edifices, or are they even capitalizing on such desperate acts—the most lethal means of alleviating stress—to secure their own financial interests?

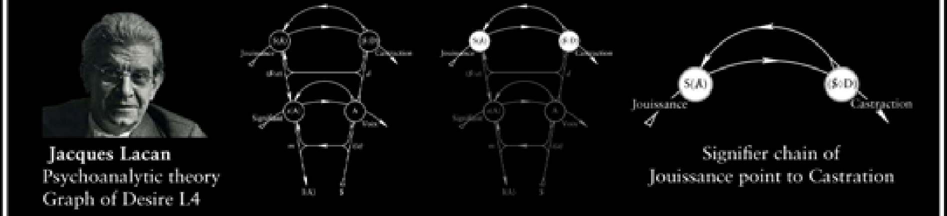
Suddenly, we became aware that our labor-centric way of life is being driven by an imperceptible force. Now, do you know what this force is?

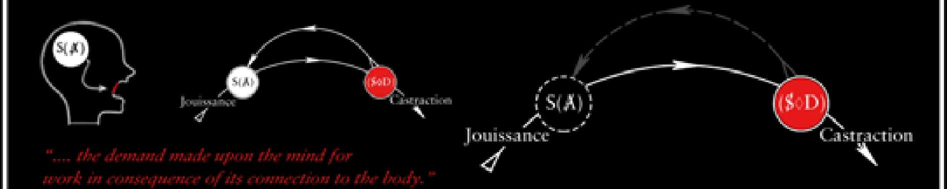
Project Define: Philosophical Archetypes and Techno-Critical Architectural Narrative Workshop
Location: Paper Architecture
Role in the process: Individual Work
Level of the project: Oct 2021, After Graduation
Instructor: Yu Yan (*Yimvyu@qq.com*)



Philosophical Prototype

An irresistible drive





●(/S◇D) read as a drive. Its location is close to the edge of the organ, and it can drive the signifier chain to slip.

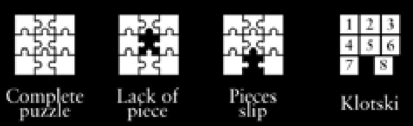
●S(/A) read as a signifier of a lack in the Other.
A signifier that signifies fundamentally lack of any possible signification.

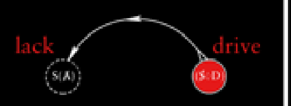
Jouissance is described as being a caustic enjoyment, a pathological enjoyment by Lacan, which being as a tickle and turns into an inferno.

Castraction here refers to the evacuation of enjoyment to the margins of the body, a draining of excitation to the body extremities like oarl, anus, scopic (gaze) and invocatory (voice).

∵Lack create movement.
∴In order to make the signifier chain slip, we need to create lack.

∴We use an irresistible (/S◇D)

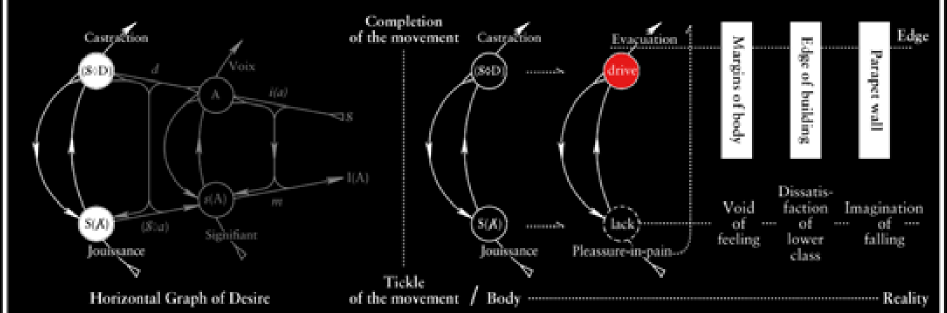




If a puzzle does not lack pieces, it is a stationary picture.
When it is missing a piece, it creates movement, like a klotski.

to create a new S(/A).
Then we create slip.

Castraction of jouissance by drive



Evacuation of the body by building

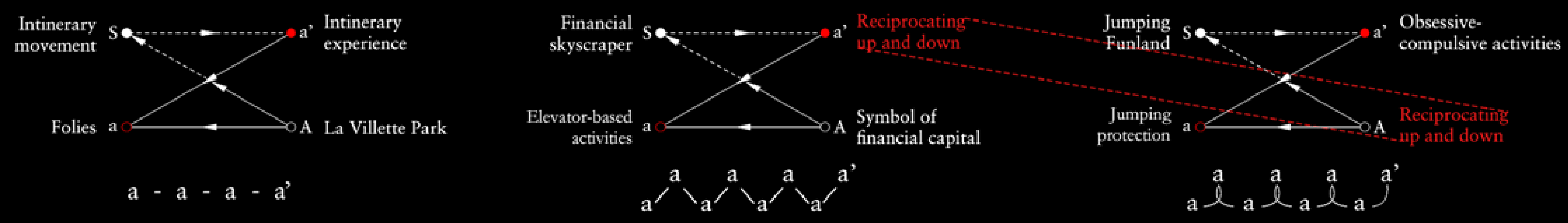
Jumping from a building is also a kind of evacuation of the body relative to the building. In this process, the financial pressure is squeezed out to the edge of the toe scratching.

Suicidal person

Banker

The gap of development

Zigzag Diagram Reading Order: ○A: Design expectation → ●S: Actual development direction → ○ a: Experience expectation → ● a': Actual experience

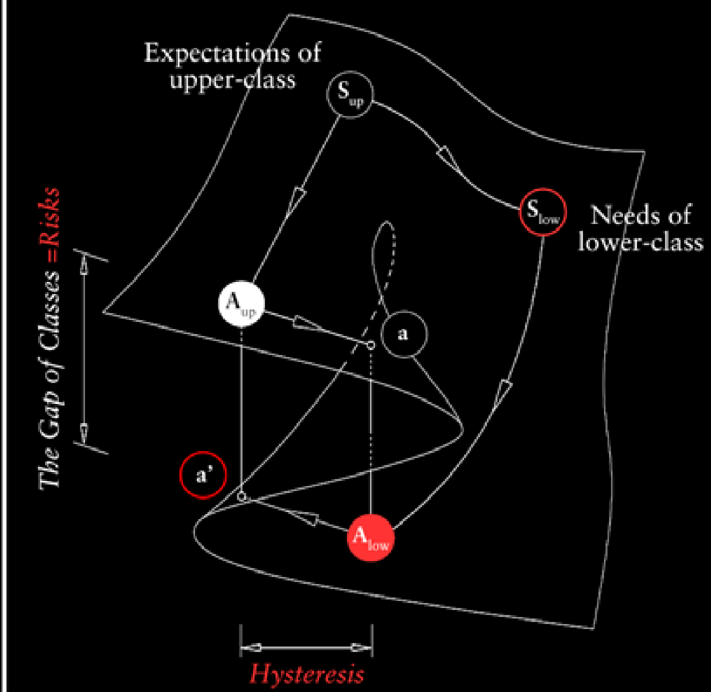


(Continuous experience a')
Tschumi's deconstruction of design "A"

(Reciprocating experience a')
Deconstruction of financial capital "A"

(Jumping/be-saved experience a')
Deconstruction of pressure releasing "A"

The gap of classes/Elevation difference in view

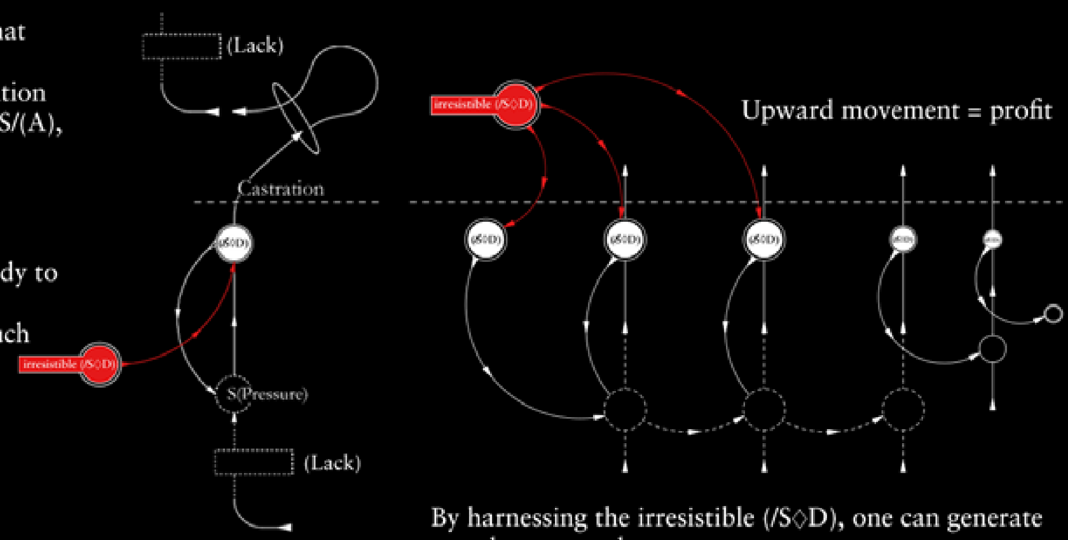


(Despite the upper class's earnest desire to enhance the well-being of more people, additional means of improvement are often misinterpreted as negative scenarios of inefficiency in the context of social class division, which in turn carries implicit risks.)

Obsessive-Compulsive Disorder

The pressure that was in the Jouissance position was pushed to S/(A), leaving it lack.

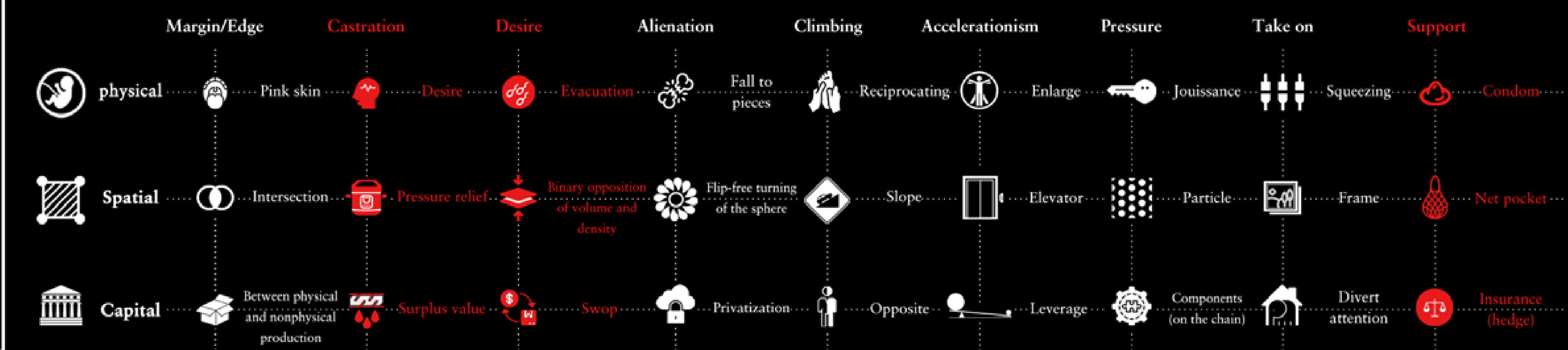
This, in turn, compels the body to chase pressure relentlessly, much like an OCD.



By harnessing the irresistible (/S◇D), one can generate ceaseless upward movement.

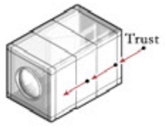
(Homogeneous) Upward momentum slot machine

Analogy diagram

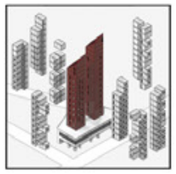


■Analogous Narrative

Bankers
synopitically hide the TRUST
in a fund portfolio box



The end of trust
is residence (capsule)

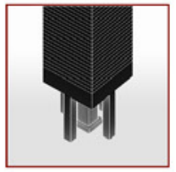


2021 (After 15ys of discussion)
中銀カプセルタワービル
is facing demolition

Stage 1

Financial Crisis of 2008
the credit rating of the
loan was downgraded

Sub-Prime Mortgages
were used to build
more capitalist edifices



1978y Hurricane Ella
Citigroup Center
structure was threatened

Fund portfolios
were snaped up
by investors

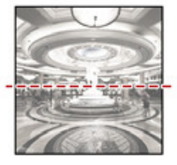
Hedge insurances
were tailor made
by rhetoric

2016 Luke Atkins
skydived at 25000 feet
without parachute

Stage 2

Insurance compainies
BET
CDO would not go wrong

Investors
BET
CDO would go wrong



Caesars Palace interior:
gambling against two side

The collapsed capsules
were hidden
in the bottom of the pit

Cash is frozen
in a refrigerator

"Let's visit
the Jumping Park for
some excitement."

Stage 3

Money printing machine:
serving as a financial risk
safety net

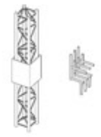
Net weaving worker:
threads originate from
the spider

The capitalist edifice
hangs on a
beautiful big net

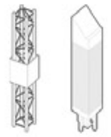
■Philosophical Form Generation Chain

Prototype — Extraction — Spatial Translation

Turbo-Drop
Amusement park



Truss column
and seat

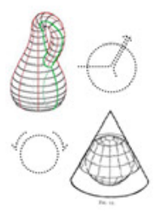


Citigroup Center
(corner) structure

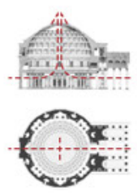
Elevator
up and down frequently

Turbo-Drop Elevator
sent visitors to hotel room

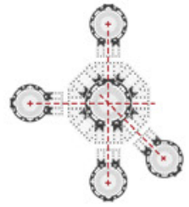
Sphere Space Theory
Peter Sloterdijk



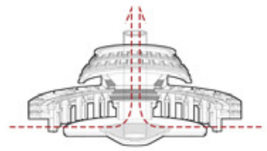
Deformed Sphere:
extrusion movement



Pantheon Section:
internal upward extrusion



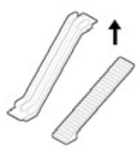
Multiple Implicit Spheres:
multi-axial centrality



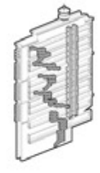
Casino Gambling Hall
indoor central hall;
surround the elevator

The Drawbridge
Piranesi
1749-1750

Scattered, Endless Stairs:
evoking disturbance

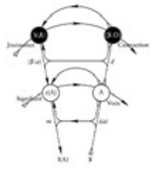


Increasingly Steeper:
accelerationism



Two Sets of Flows:
workers' stairs
and bankers' elevators

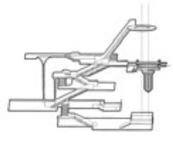
Jumping Machine
neutralized danger;
guide visitors to the top



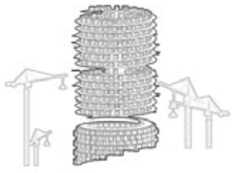
Psychoanalysis
Jacques Lacan

Phallus
and condom

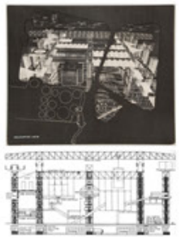
Net Pocket:
catch jump off
self-slayers



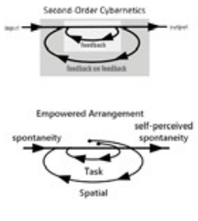
Jumping Protection:
ensures the circulation of
jumping activities



Jumping Edifice
credulous individuals will climb to
higher floors (take greater risks)



Fun Palace
Cedric Price
1964



Funland / Cybernetics:
compulsive spontaneity

Scenic Production:
action control

Perspective Deception:
stability = imbalance

Eccentric Casino + Theater
impercetible climbing variation;
induce "spontaneous" climbing

Weaving Machine
After the first industrial
revolution; 1760s

Upward-rolling threads and
downward-hanging Nets

Flywheel:
Reciprocating ascent

Manpower Consumption:
queueing/sequentially
entering the factory

Weaving Factory
+ Ferris Wheel Elevator Dormitories
taxation / providing net pocket

■Variations of Climbing Forms

Theater's Elevated Seating:
+) **VIEW** is the perfect excuse
for spontaneous ascent;
-) Supporting columns and
rooms below

Spiral Staircase and
Scenic Bridge Corridor:
+) Beautified to attract
visitors to climb
-) Handrails

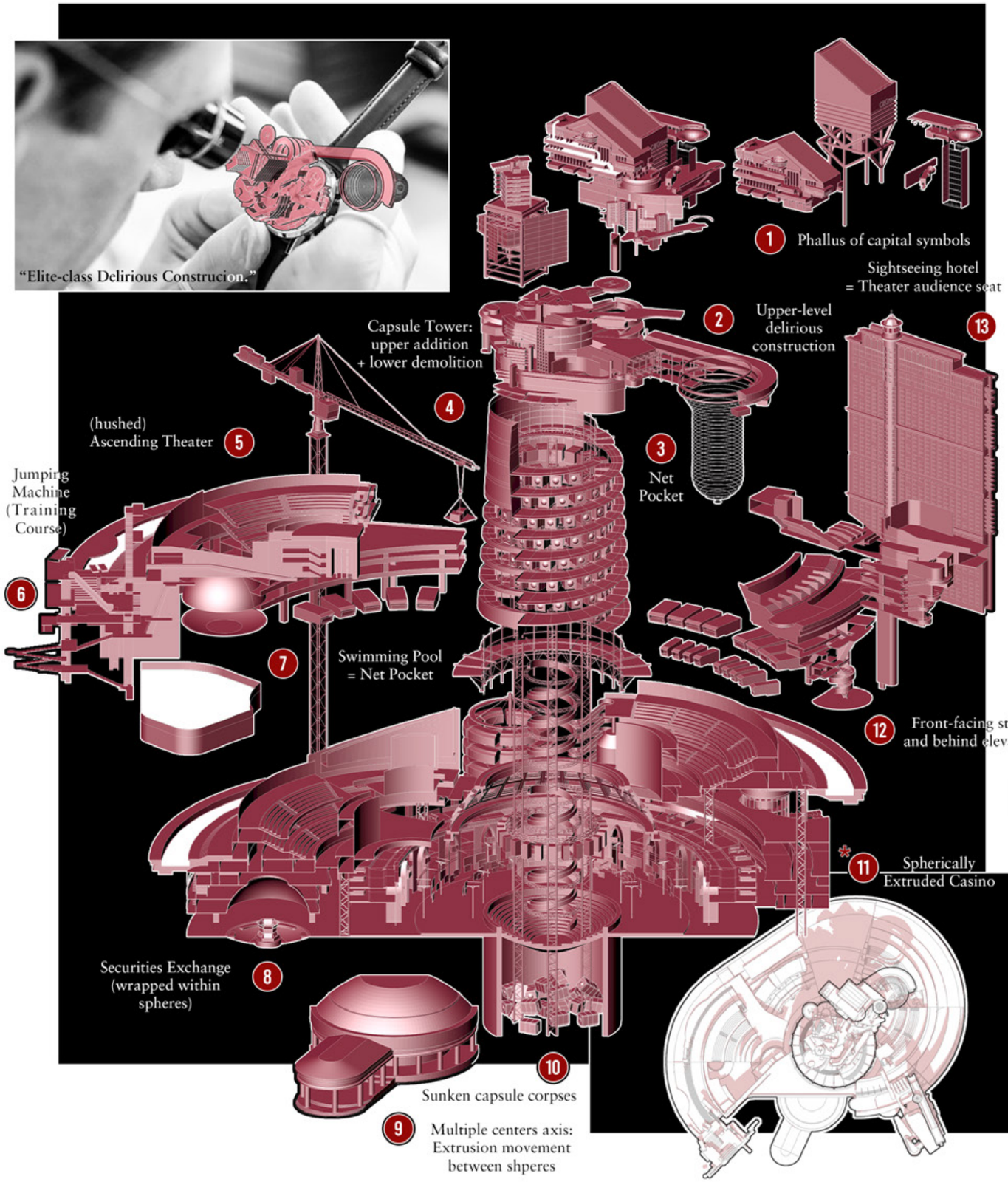
Diving Platform:
-) Pool depth
-) The enveloping
protection of liquid
+) Conversion to the diving
platfrom for capsules

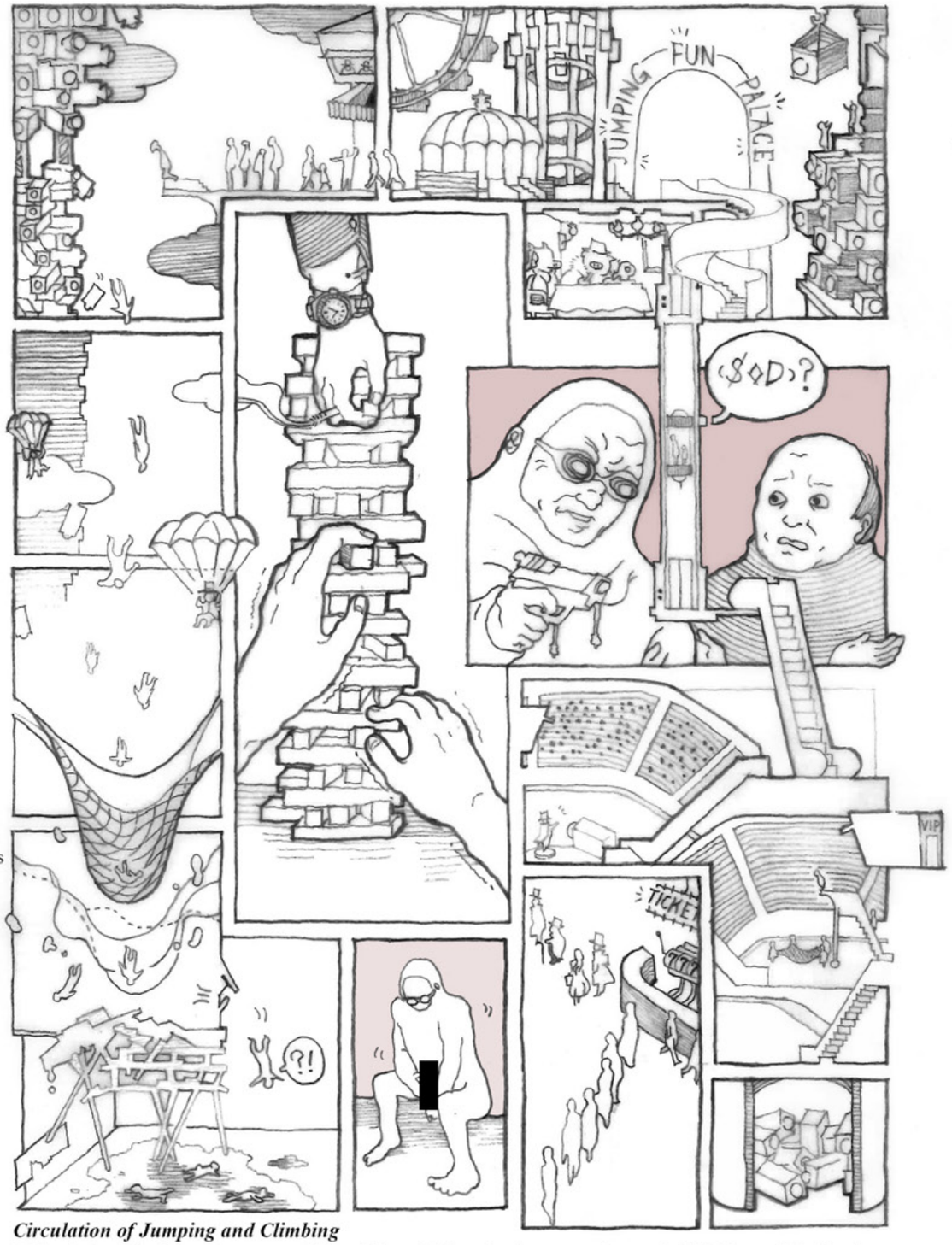
Turbo-Drop Elevator:
-) Modern workers' reliance
on elevators;
-) Low failure rate of
elevators

Jumping Machine Prototype:
The next jumping cycle is facilitated by a
trustworthy protection

"The building is a huge jumping machine."

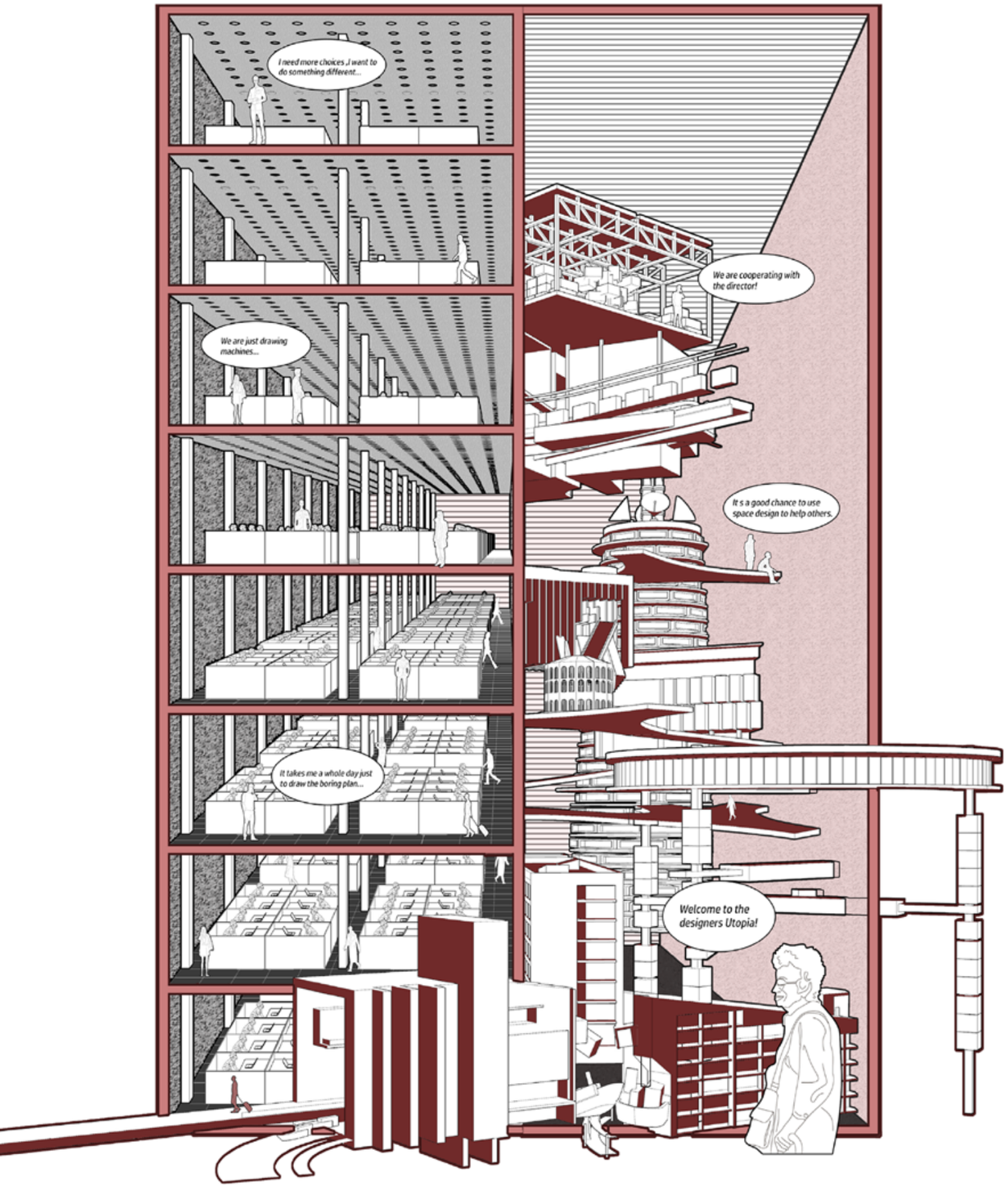
"Why take the stairs when you have an elevator? "





Circulation of Jumping and Climbing

© Comic drawn by the project creator, Sixiong Wang, 2021, paying homage to Jimenez Lai's 'Citizens of No Place'.



Wrapped-up "boring design"

In a rapidly production-oriented construction market, the notion of 'ideal design' is confined within extremely short design cycles and constrained by the unequal power dynamics between developers and design firms. Designers find themselves stuck at the boring early stages of design exploration, no longer able to fully engage their creativity, reduced to the role of mere tools on the assembly line.

<Reclaiming autonomy, against the spectacle society>

Designer's new-Babylonian Utopia

The summarized definitions of the term "boring design":

1. Homogenized, uninteresting space design
2. Redundant, unrelated to the essence of the design work content
3. Compressed design cycles

} *Non-autonomous, wrapped-up working model under the main body of real estate finance*

Strategy to resist →

1. Self-operated [self-built & self-marketed] as a bottom-line guarantee
**2. Leading the movement, itself is a kind of positivization of an absence of the carrier - the design institute building*
3. Developing towards an anti-Real Estate direction

The relationship between real estate companies and architects is gradually shifting from a client-servicer to a space customer-developer relationship.

Real estate - Architect ***(Buyer - Seller)***

(Client - Servicer) ***Space customer - Space developer***

In this process of architects gradually gaining/reclaiming their autonomy, a state of time and space in which they can find their belonging, reflect on the rules and regulations, and awaken their sense of autonomy has become a necessity for space development.

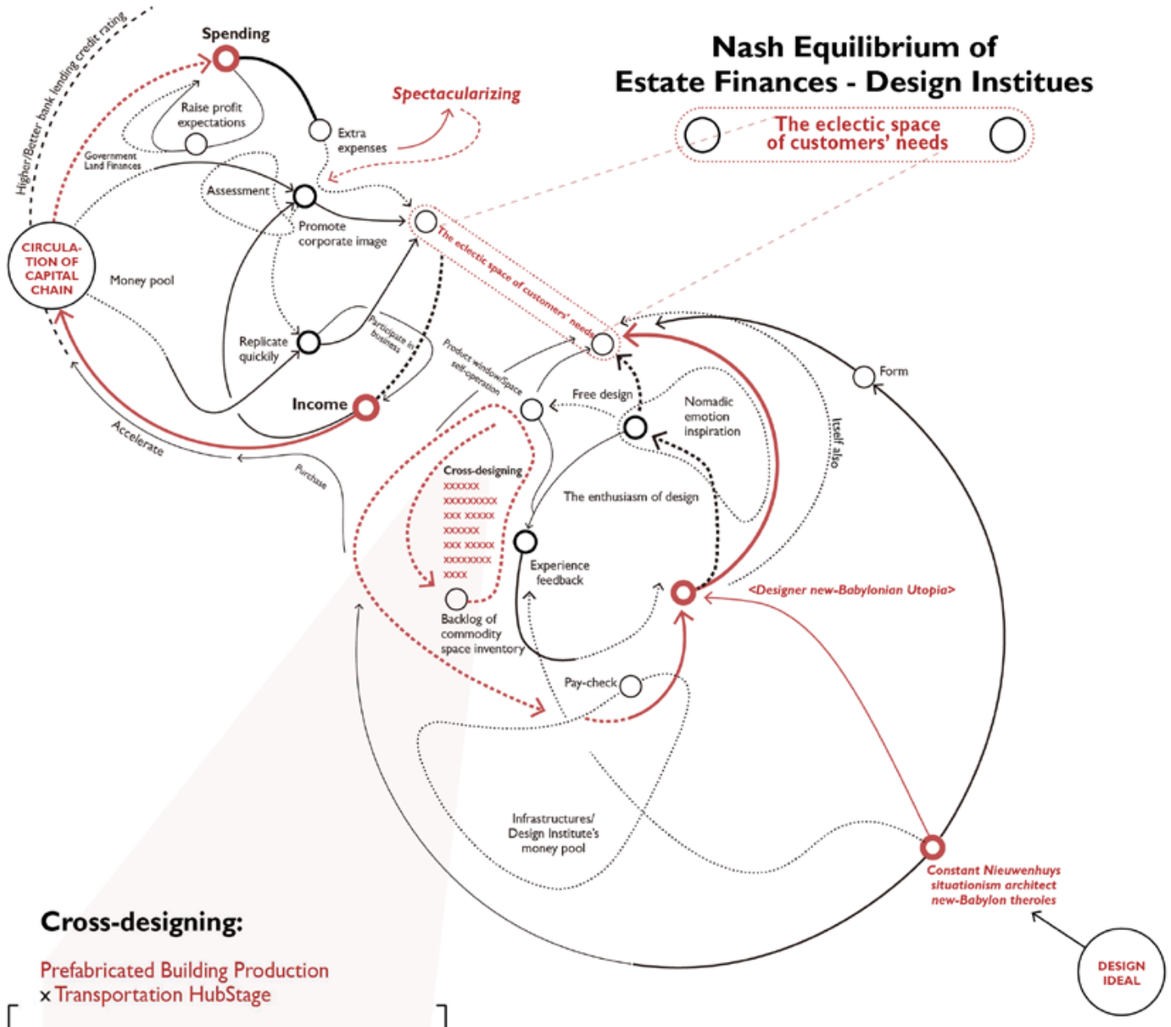
Under ideal infrastructural conditions, a pure spatial design sector can be liberated from burdensome functional demands and caustic constraints of laws and regulations. In this vision, a self-sustaining spatial orientation is a logical but also indispensable choice to support architects' autonomy.

Project Define: **Rethinking the Role of the Design Institute, Utopia Architectural Theory Research Project**
Location: Paper Architecture
Collaborators: Haolun Sheng, Xiaoyu Zhang
Role in the Process: 70% Theoretical Research, 40% Modelling, 30% Drawing
Level of the Project: Aug 2022, after graduation
Instructor: Lifeng Lin (*lin@lin.archi*)

Design Institute in Anti-Spectacle Utopia

0. Under the Nash Equilibrium

The transaction in space represents a Nash equilibrium reached between the cash flow of real estate finance and the fervor of architects' ideal execution. This utopia, while maintaining Nash stability, aims to provide architects with greater opportunities for spontaneous design.



Cross-designing:

Prefabricated Building Production × Transportation HubStage

Medical Space Design × Residence

VR Space Design × Virtual Prison

Entertainment Space Design × Supermarket

Live Streaming × Factory
/// Broadcasting Room × Factory

Design with Experiment × Exhibition

Data Center × Land Art Generator

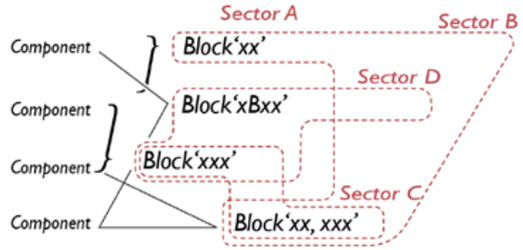
Design × Hotel

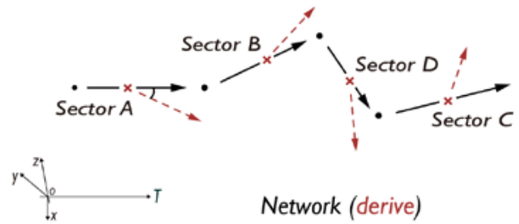
1. Targeted Strategy: Crossing-designing

Cross-designing can provide a spatial definition that escapes the confines of existing real estate vocabulary. Shifting toward an anti-real estate lexicon can open up more possibilities for space to depart from the conventional and establish new functional definitions.

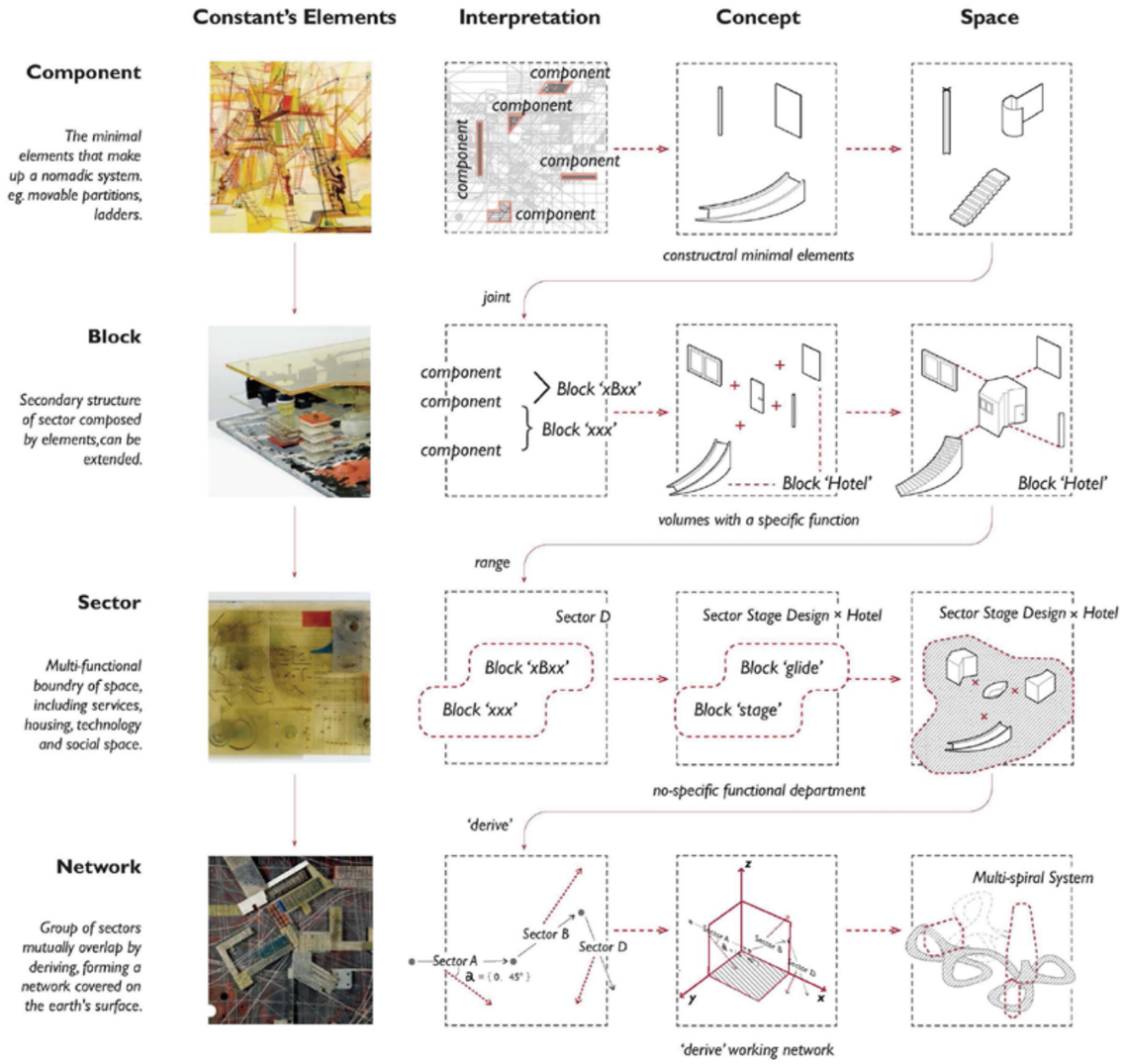
Constant's new-Babylonian Nomadic Theory

2. Overall Strategy: Nomadic City of Drift

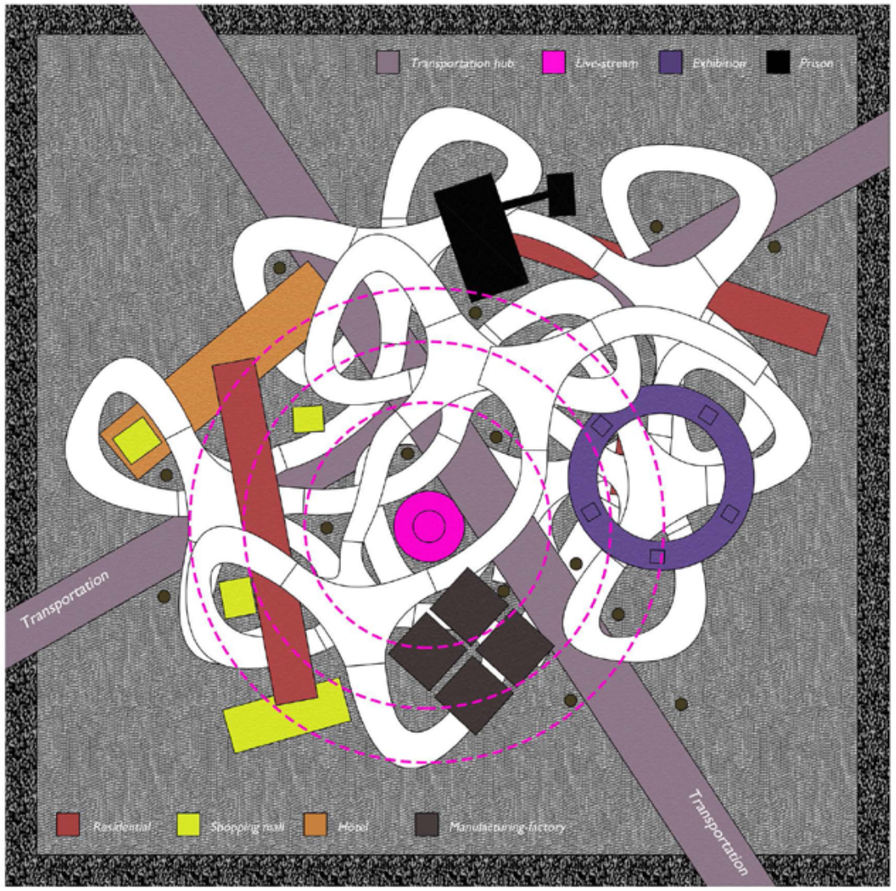


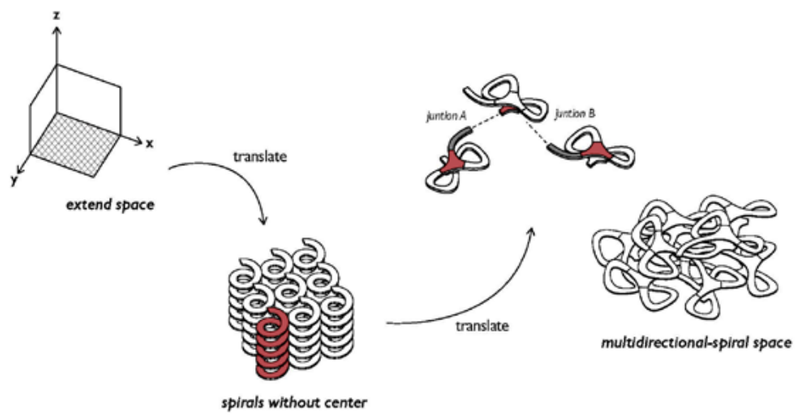


As a member of the Situationist International, Constant presents us with a vision of the nomadic city within an anti-spectacle society.
Only by employing the concept of 'derive' (drift) can we truly disrupt the unidimensional state of societal operation mode and restore individual autonomy.



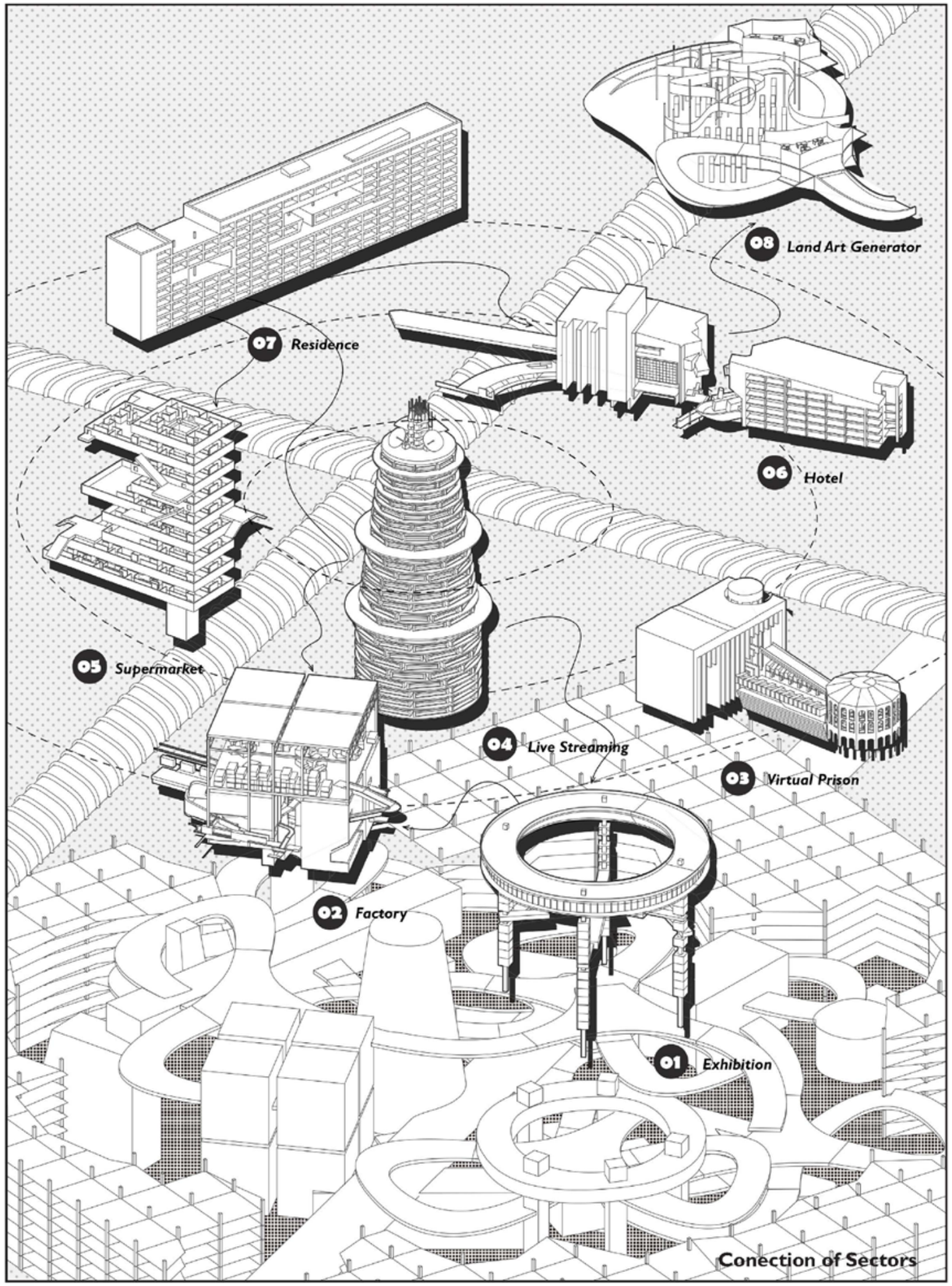
Design Institutes' Expansion of New Babylon Theory





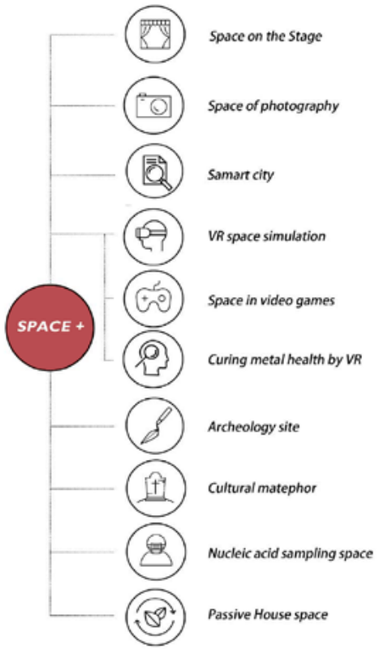
☐ *Translation at the* **Network** *Level* - *Unite Sector Libraries with Multi-Centric*

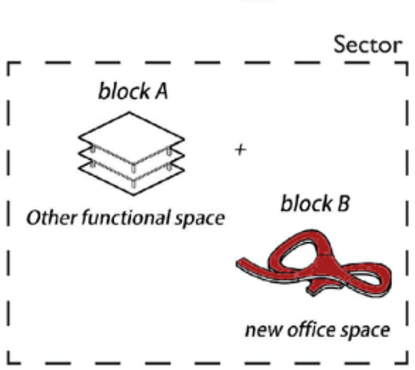
The spiral represents an endlessly extending movement. Each spiral, capable of accommodating the creation of infinite space, signifies a design category or the design organization it represents. Connecting them through a process of drifting will inspire more opportunities for spontaneous choices.



Cross-Designing Products in New-Babylonian Utopia

The possibility of the space design

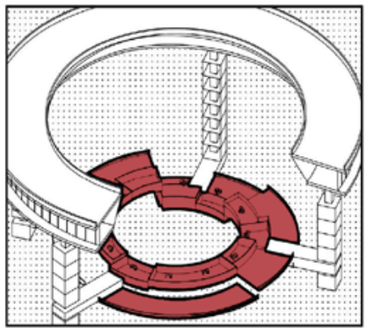




Translation at the Sector level

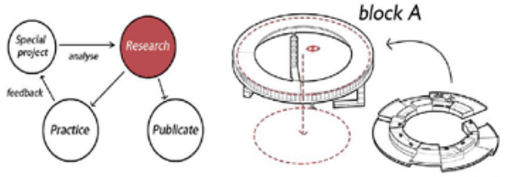
Joint component libraries with topological relationship

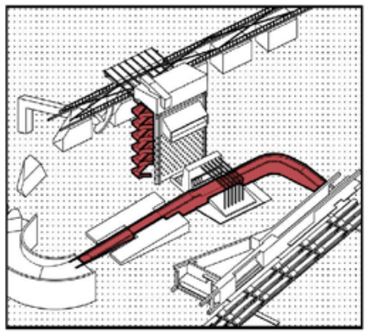
The scope of space design should be broad. Compared with traditional design buildings, we should try to expand its boundaries and integrate space office design into occasions that can be seen everywhere in life.
And thats why we use the concept of "misuse of space" to implant these different models of space design product departments into buildings with other functions, giving them a more vivid office scene. This emphasizes the freedom and dominance of designers.



01 Design with Experiment x Exhibition

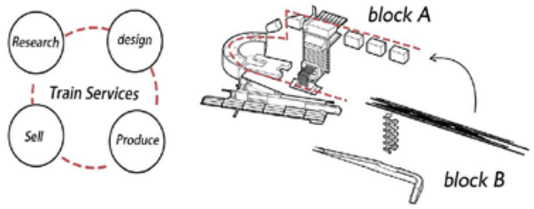
The office staff conduct research on the spiral, and the state of their research is that the exhibits in the pavilion are available for viewing.

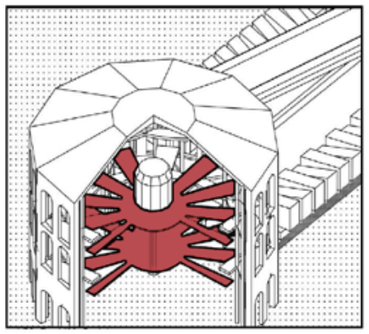




02 Prefabricated Production x Transportation Hub

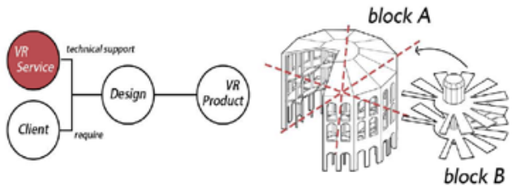
Both the assembly factory and the transportation hub have an obvious line to connect, and the transportation hub helps the fast operation of the factory assembly line.

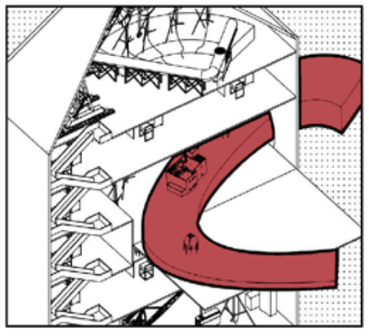




03 VR Space Design x Virtual Prison

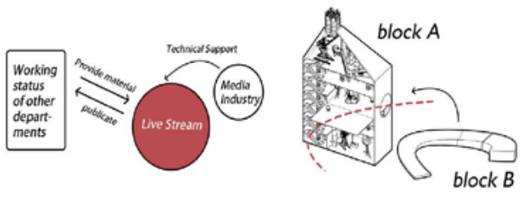
Prison is a closed environment, which limits the freedom of prisoners to contact the outside world, and VR design can provide prisoners with a virtual world so that they still have the conditions to perceive the world.

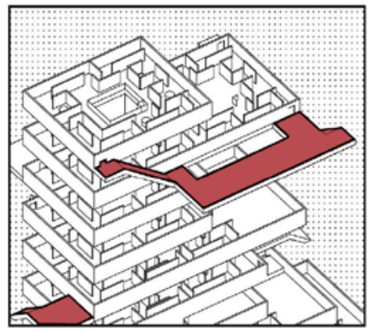




04 Live Streaming x Factory

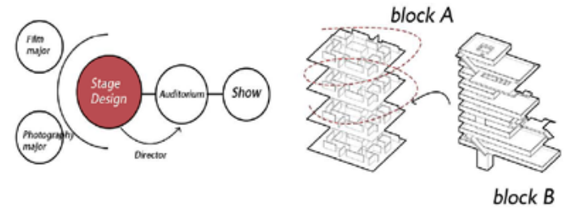
The Live Tower is a separate large propaganda building. It is located in the middle of other space office areas. It records the work process and space works of each group of employees every day and broadcasts it to the outside world to promote the entire company.

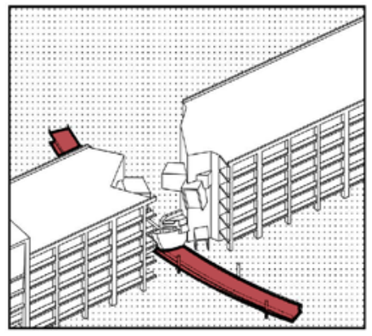




05 Entertainment Space Design x Supermarket

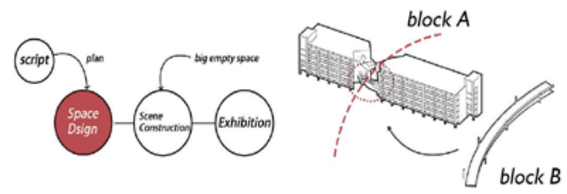
When the entertainment space is combined with the supermarket, it will become an entertainment maze composed of shelves, and the goods in the supermarket are the "gold coins" in the maze. There are multiple routes for people to choose to get what they want.

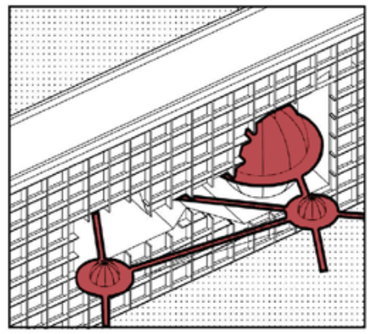




06 Stage Design x Hotel

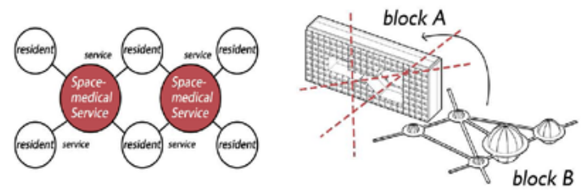
A stage space is implanted from a certain part of the hotel. This is where the space designer and the stage designer work, and also serves as a work of art for the hotel people to stop and watch.

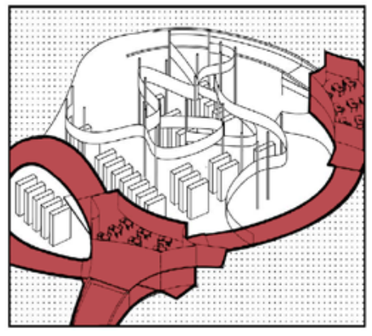




07 Medical Space Design x Residence

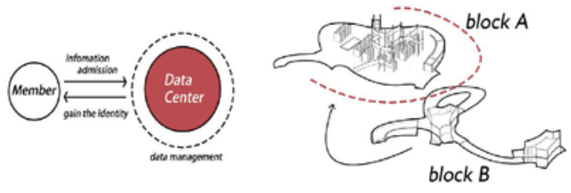
A point-shaped space medical service point is inserted into the apartment, and each service point provides psychological services for residents within a certain range. The space medical department can also create soothing spaces in the residence to regulate the mood of the residents.

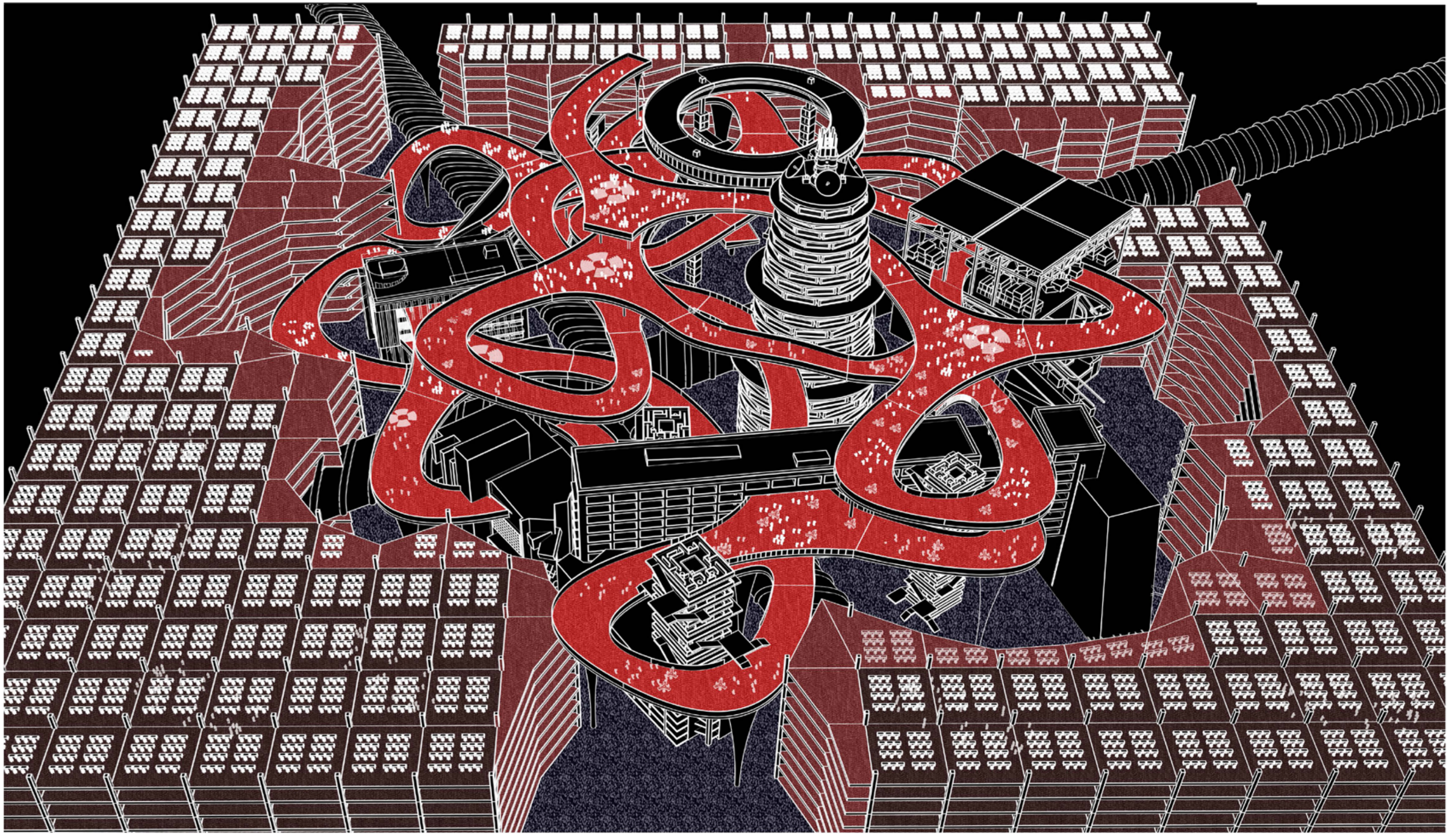




08 Data Center x Land Art Generator

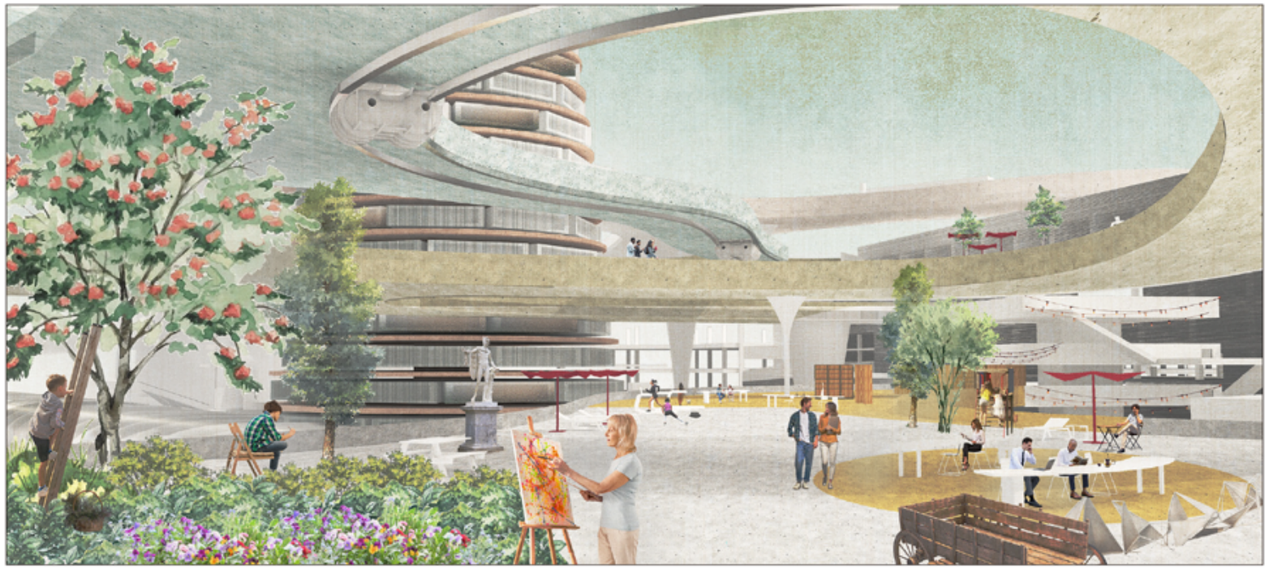
There are many arrayed monuments on Land Art, and each time a new employee is recorded in the data center, there is one more monument. This represents respect for the identity of each employee.



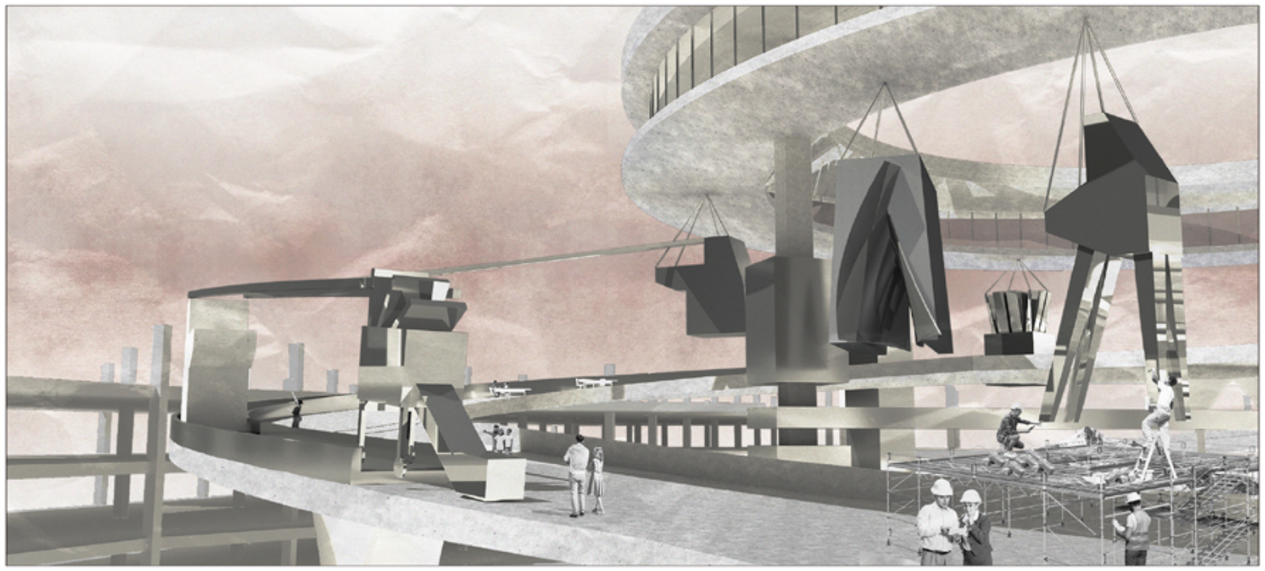


Design Institutes' Purpose - *Positive Erosion*

The disordered nomadic creation erodes the existing rigid and monotonous domino system, constituting an essentially positive response to the oppressive working environment and content.



Multidirectional spiral walkway & Live Streaming x Factory Sector

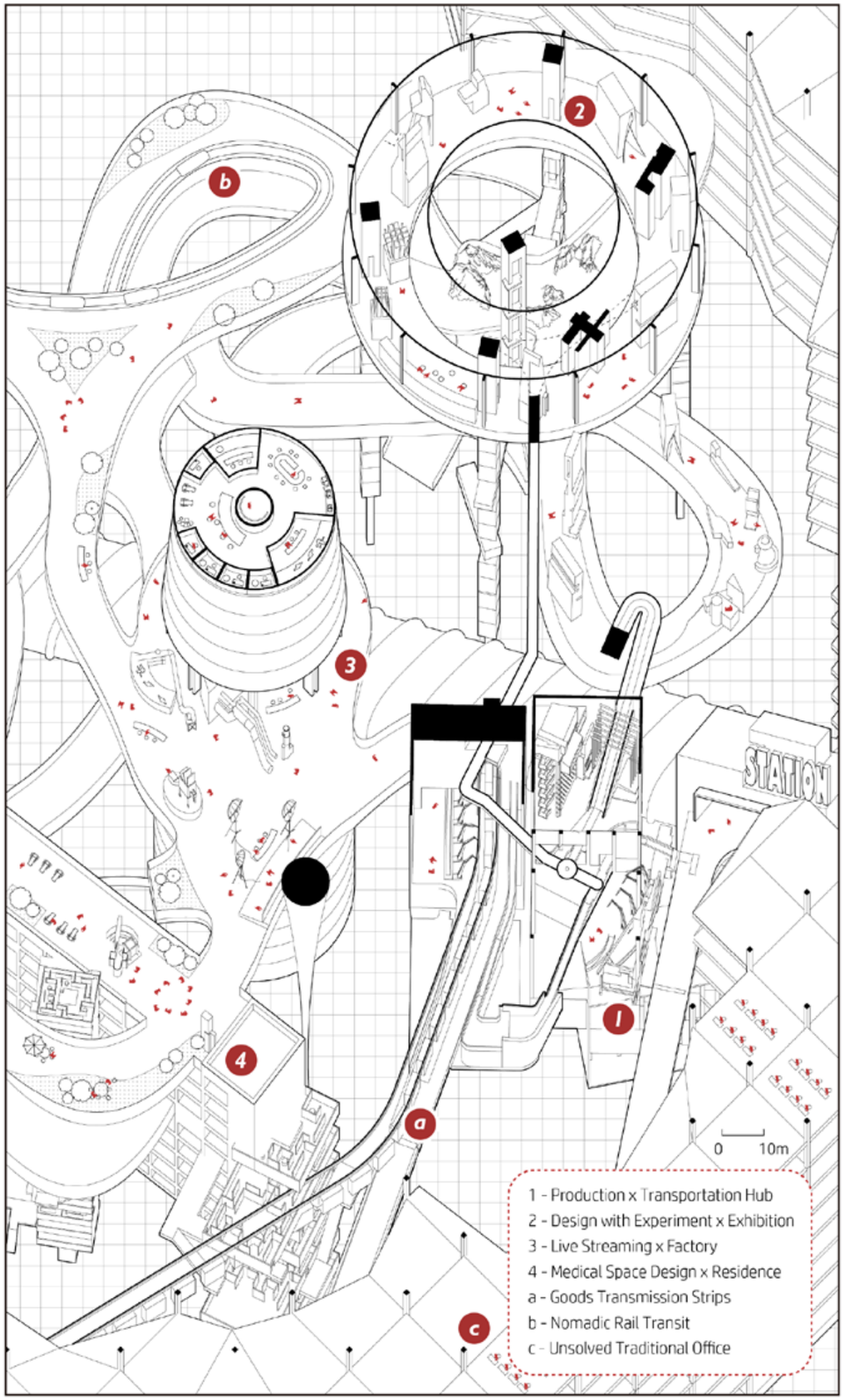


Design with Experiment x Exhibition Sector

■ Vision - *Pictures of driftingly nomadic working mode*

The essence of nomadism is derived from misadventures based on behavioral activities. This deviation from the original course represents a spontaneous compensation for the space designer.

Free and spontaneous space design is the first step, followed by a softening of the boundaries of professional identity and work content. The working mode and environment are no longer a one-dimensional transfer or transportation, but rather a warm encounter, fusion, and satisfaction.



Detail Plan

2021 NATIONAL TRANSPORTATION ARCHITECTURE JOINT GRADUATION DESIGN - "HEALTHY CITY, DIGITAL MAPPING": URBAN DESIGN FOR INTEGRATED DEVELOPMENT IN THE VICINITY OF ZHANGJIAKOU STATION BASED ON COMPUTATIONAL FORMING METHOD. (SELECTED)

PROJECT DEFINE: Urban Design + Personal Architectural Unit Design (1/4)
Location: Zhangjiakou City, Hubei
Collaborators: Qin Wang, Luoting Zhu, Birong Liu
Role in the Process: 60% Urban Design Concept, 40% Algorithm, 40% Thesis Contribution
Level of the Project: Spring 2021, Graduation Semester
Instructors: Lei Zhang (zl.wc@chd.edu.cn), Qian Chen

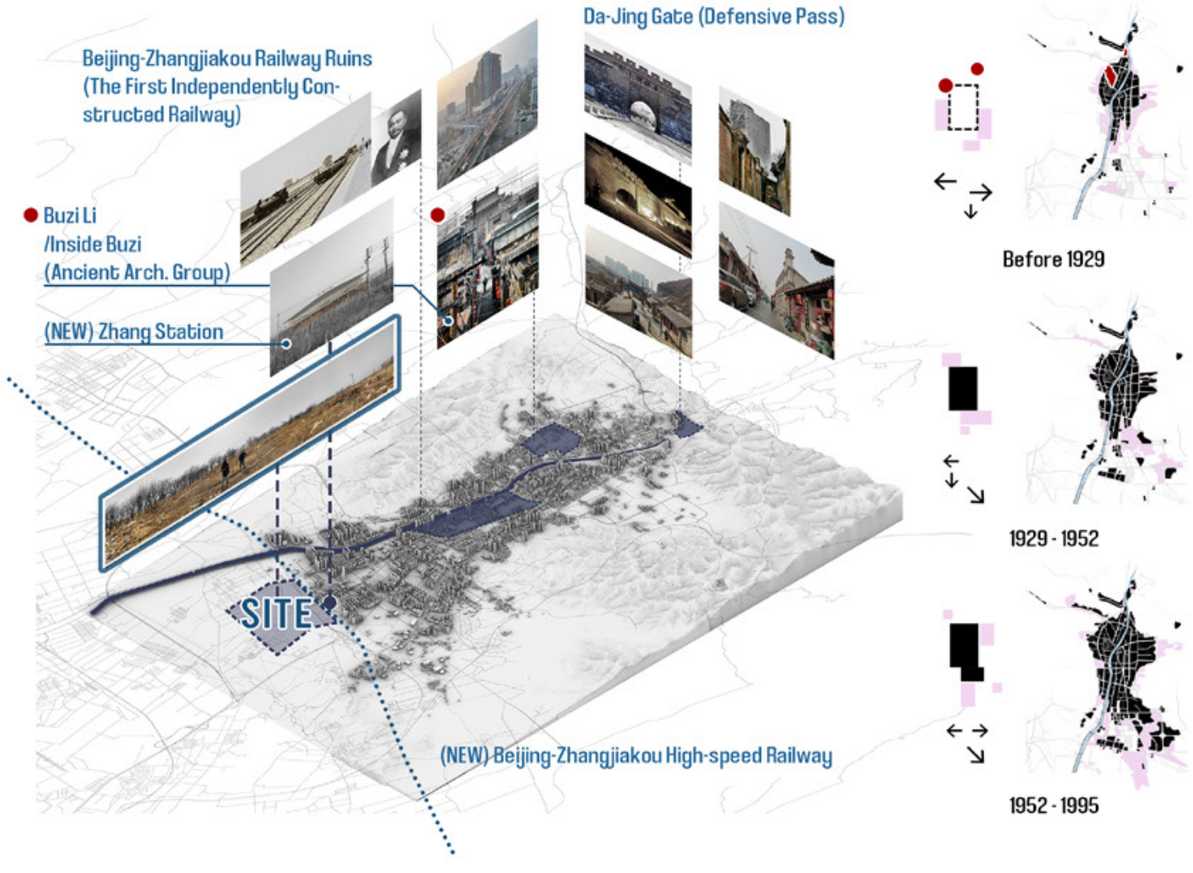
ABSTRACT:
The sudden outbreak of the acute public health crisis in 2020 has prompted a reevaluation of urban health monitoring systems. While the traditional concept of a healthy city has aimed to ensure the physiological well-being of urban residents, it has overlooked the health of the city's operational systems, specifically the dynamic effectiveness of monitoring and feedback.

Looking ahead to 2022, a crucial period for Zhangjiakou as a Winter Olympics host city and for the integrated development of the Beijing-Zhangjiakou-Tianjin region, the area surrounding the Zhangjiakou Station (hereafter referred to as Zhang Station) is undergoing significant population migration and new land development. In light of this temporal and spatial context, our research team has undertaken theoretical and practical exploration in the construction of a neurified urban monitoring and feedback system. This system aims to provide real-time self-assessment of the health of urban structural transformations induced by the short-term mass movement of people. The study seeks to elucidate a new concept in the healthy city paradigm, focusing on neurified self-assessment, and aims to contribute fresh perspectives to urban design within the framework of the healthy city concept.

© Sketch by Sixiong Wang, April 2021 (Mid-stage).

1. (LOCAL) PROBLEM IDENTIFYING

1.1.1 Before implementing the monitoring and feedback mechanism, it is essential to initiate the assessment of urban health indicators and establish an evaluation system. Our team members conducted on-site research and utilized online data crawling and integration methods to accomplish the initiation of urban health assessment indicators.

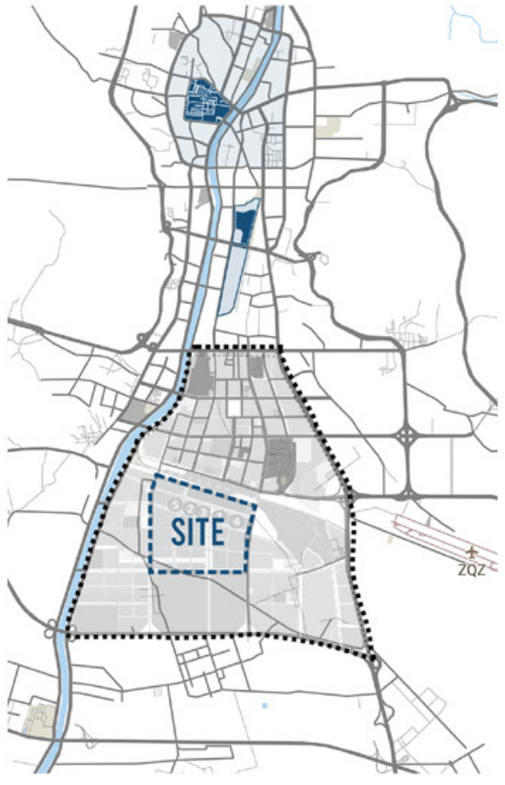


1.1.2 Geospatial relationships and administrative hierarchy conditions have shaped the uneven economic development in the Beijing-Tianjin-Hebei region, leading to imbalances in population migration outcomes. From 2010 to 2020, there has been a sustained net outflow of the young and middle-aged population from Zhang City to the other two cities.

Hebei Province, North China

Geographical Relations

Population Outflow



"DISJUNCTION"

"Like many others from Zhangjiakou, I worked in Beijing for over ten years, but due to the unaffordable housing prices, we returned to Zhangjiakou."

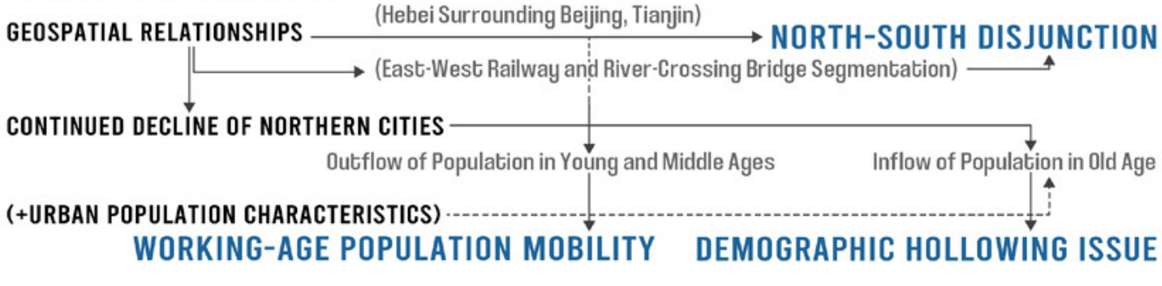
Taxi driver

"When we were young, we all wanted to escape from Zhangjiakou to develop in a better place. But deep down, we always miss our hometown."

School Professor

(Interview in March 2021)

1.2 RESULT/CONCLUSION



2. RESOLUTION STRATEGIES (MUST ALIGN WITH THE TITLE "HEALTHY CITY, DIGITAL MAPPING")

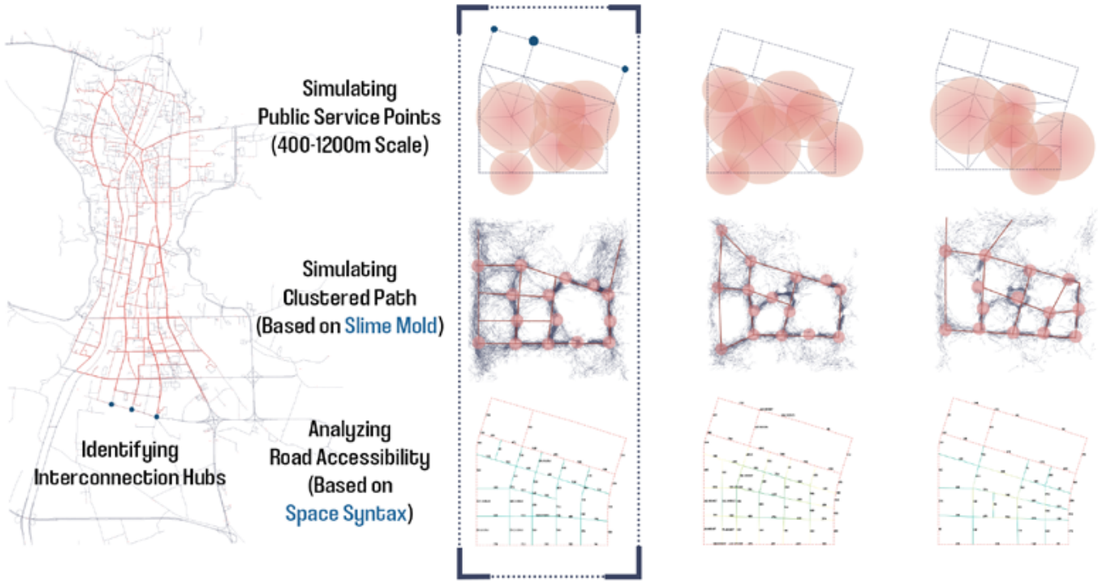
[DISJUNCTION] Boundary → Connect/"Fetch" ← Digital Configuration
Spirit/Civilization → Continuation ← Formal Transcription

[POPULATION MOBILITY] → [Neurified Monitoring] ← Feedback

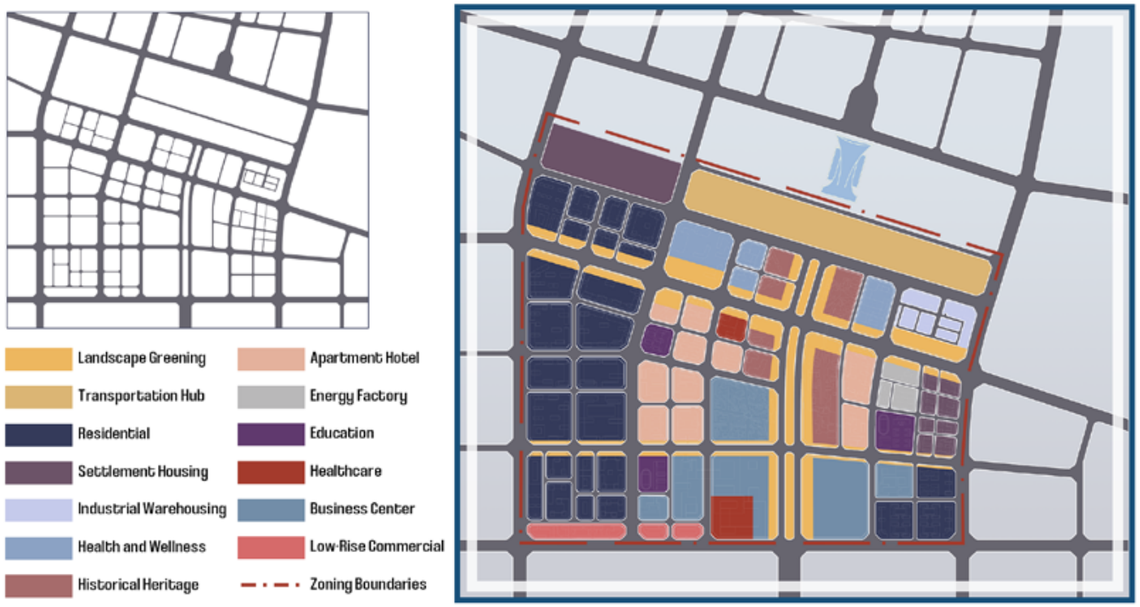
[AGING] → Thermal Distribution ← (Public Place) "Square"

*Disaster Resilience/Urban Resilience — Distribution Space

2.1 OPTIMIZING PATH SELECTION (COMPUTATIONAL)

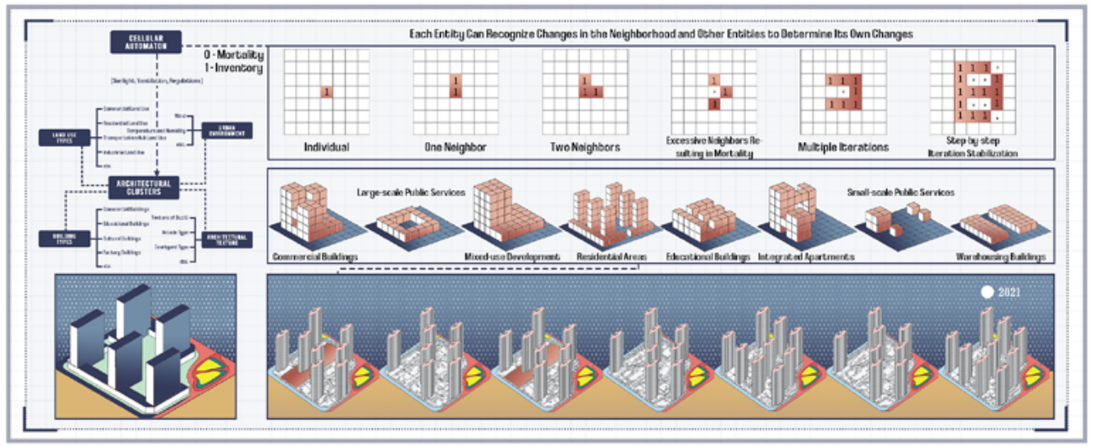


2.2 REGULATORY PLAN (HANDMADE)

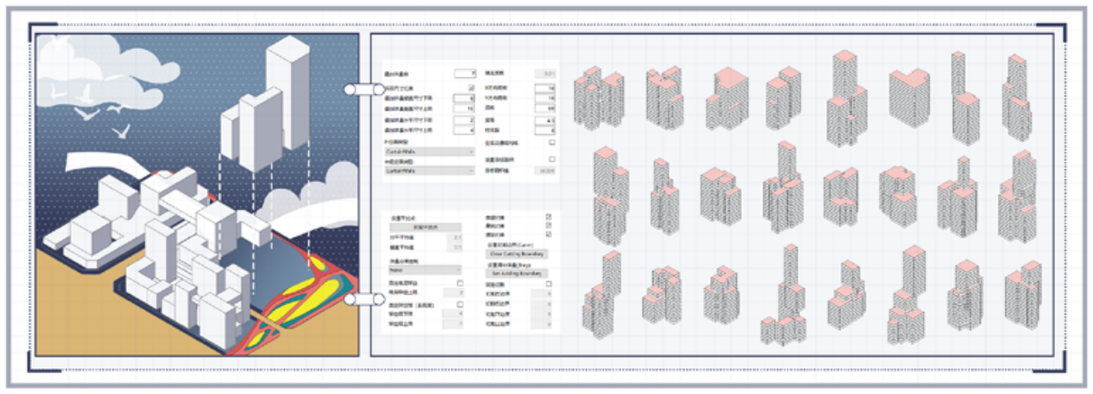


Monitoring vast and dynamic urban areas is resource-intensive. Inspired by neural systems, our decentralized approach connects multiple points, enhancing health surveillance efficiency. This system, mimicking neurotransmission, enables swift urban feedback and responses to dynamic city changes.

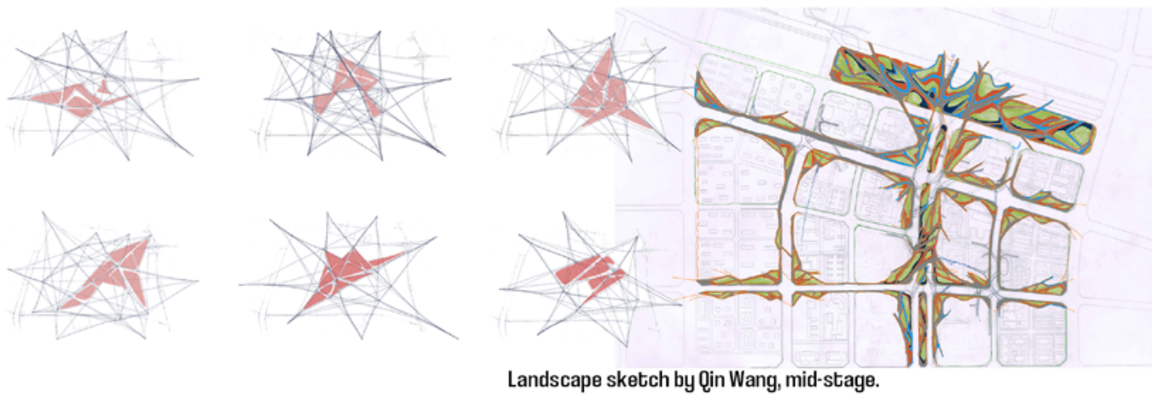
2.3 CLUSTER FORMATION (BASED ON CELLULAR AUTOMATA TYPOLOGY)



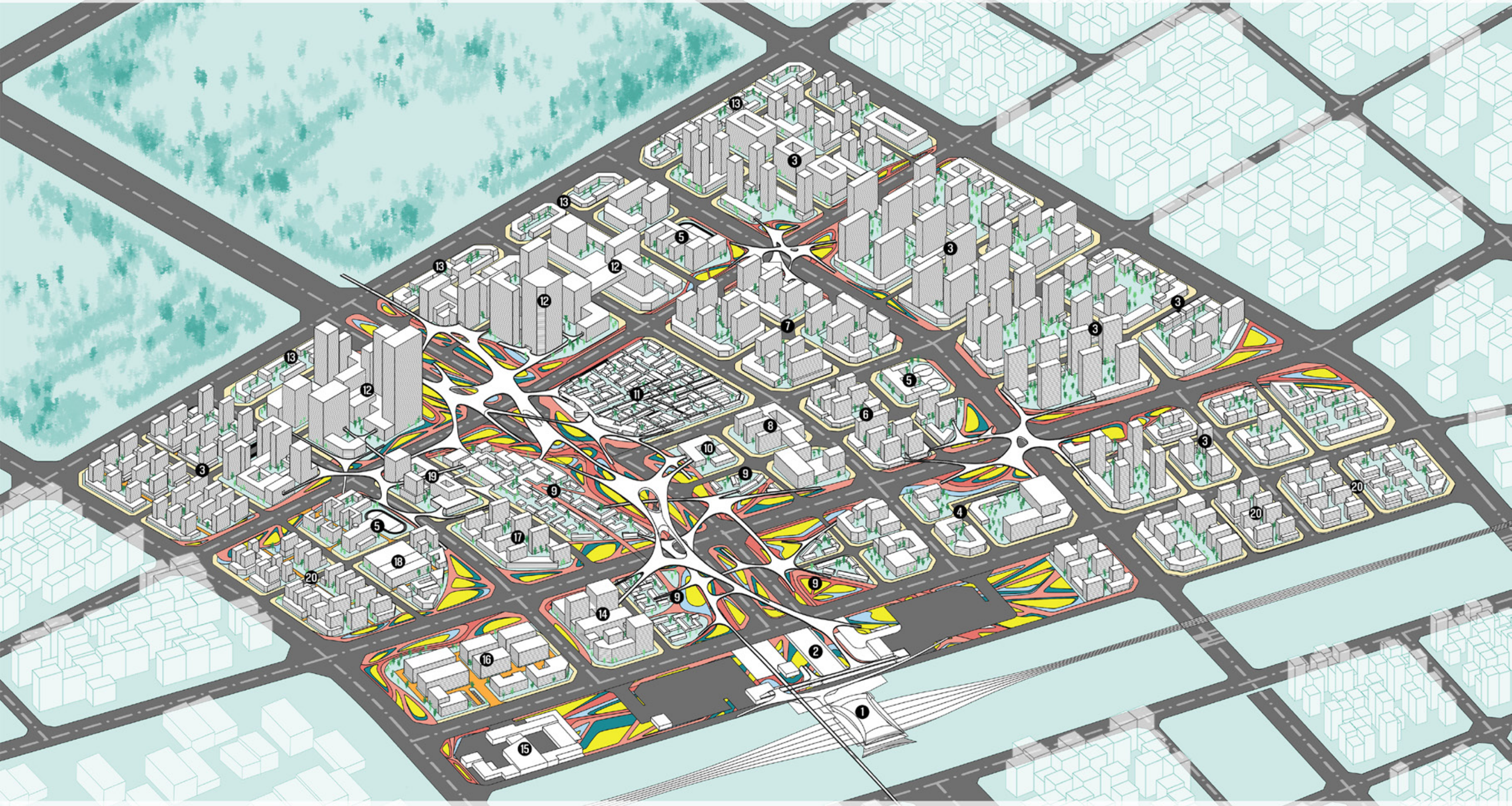
2.4 ARCHITECTURAL MASSING GENERATION (BASED ON PBMDGO ALGORITHM)



2.5 LANDSCAPE GENERATION (BASED ON THE WOOL ALGORITHM)



Landscape sketch by Qin Wang, mid-stage.



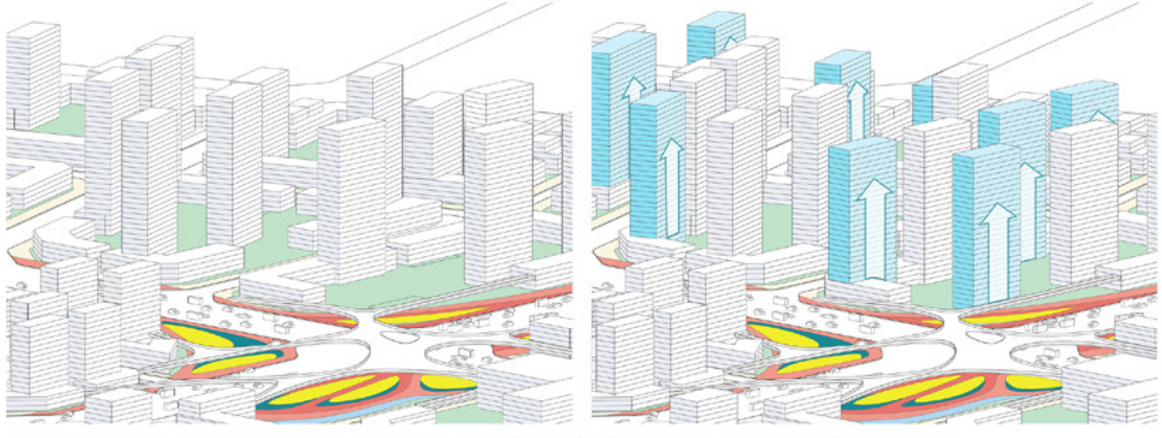
❶ Zhang Station
❷ Station Front Square
❸ Residential Area
❹ Wellness and Care Center
❺ School
❻ Hotel-Style Apartments
❼ Short-Term Rental Apartments
❽ Medical Center
❾ Cultural District
❿ Museum
⓫ Historic Character Commercial District
⓬ Commercial Complex
⓭ Low-Rise Commercial District
⓮ Exhibition Hall
⓯ Police Station
⓰ Industrial Warehouse Area
⓱ Apartment
⓲ Energy Plant
⓳ Cultural Complex
⓴ Settlement Housing

N

3.2 SPATIAL STRUCTURE FORM FOLLOWS THE DYNAMIC PLANNING STRATEGY

INTEGRATION OF BUILDING SECOND FLOOR AND BRIDGE

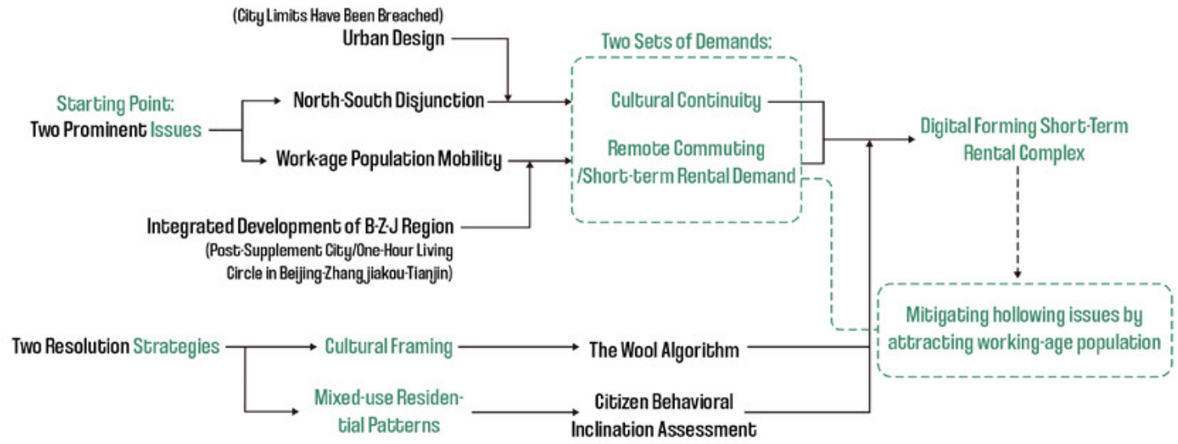
REGIONAL RESTRICTIONS BASED ON BRIDGE ENDPOINT MONITORING



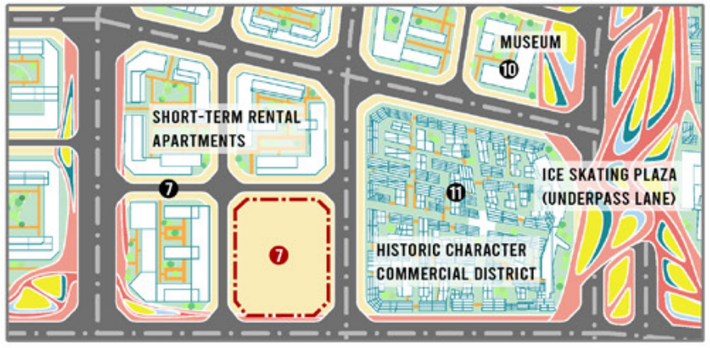
LONG-TERM MONITORING PROVIDES DYNAMIC UPDATES AND RECOMMENDATIONS FOR PLANNERS AND DECISION-MAKERS.

4. INDIVIDUAL PART - "CULTURAL FRAMING, IMMERSED WITHIN": MIXED-MODE SHORT-TERM RENTAL COMPLEX DESIGN

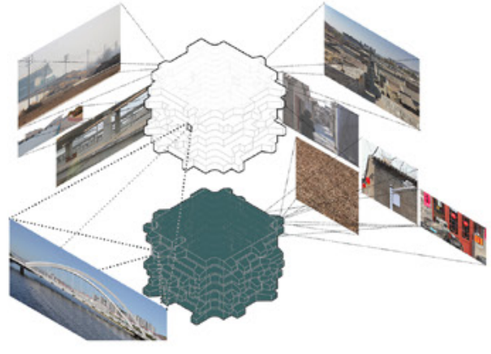
4.1 TARGETED ISSUES AND RESOLUTION STRATEGIES



4.1.1 LOCATION SITE



(Following the cultural continuity strategy)



4.1.2 The cultural ambiance demands a sense of "being in it (immersed within)," creating subtle and immersive living scenes through framing the surrounding cultural points of interest. In the unique context of Zhang City's high population mobility, coupled with the synergy of the Beijing-Tianjin-Hebei coordinated development, a mixed and short-term residential model exhibits significant vitality.

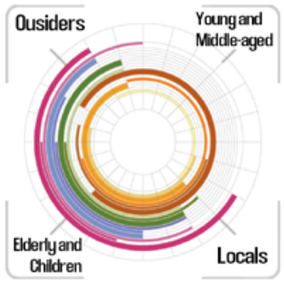
“CULTURAL FRAMING, IMMERSED WITHIN”:

MIXED-MODE SHORT-TERM RENTAL COMPLEX DESIGN (INDIVIDUAL PART)

4.2 FORM FOLLOWS STRATEGIES

Orient observation points toward the surrounding landscapes. Establish a citizen behavior inclination assessment for Zhang City, guiding the functional distribution of individual buildings. Furthermore, utilize a double-pass Wool algorithm to determine the primary pedestrian flow, guiding both spatial circulation and furniture arrangement.

4.2.1 BEHAVIORAL INCLINATION DIAGRAM FOR ZHANG CITY RESIDENTS



- Walking
- Driving
- Preferred Modes of Transportation
- Parks
- Dining
- Expectations for Public Activities
- Employment Preferences
- Dominant Industry: Service
- Expectations for Employment
- Settlement Needs
- Short-term Rental Demands
- Experctations for Residential Patterns
- Tendencies for Nearby Recreational Spots
- Sale of Local Specialty Products
- Expectations for Cultural Continuity

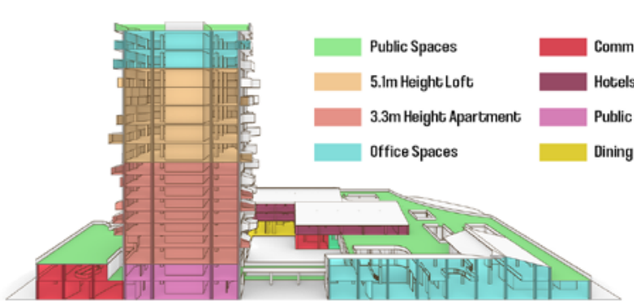
Mode of transportation: Walking and driving in clear opposition, guiding the structural connection of elevated walkways and the separation of pedestrians and vehicles.

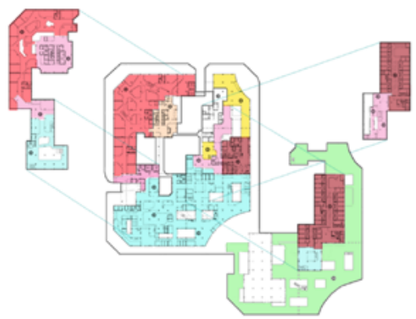
Influenced by high population mobility, there is a clear expectation for short-term rental demand in the housing pattern.

Public squares, crucial leisure spots for city residents, coupled with a significant share of food consumption, guide residents

The cultural dissemination capability of Zhang City does not match its cultural heritage. Creating local products and industrial opportunities to attract outsiders can stimulate consumption and even encourage settlement.

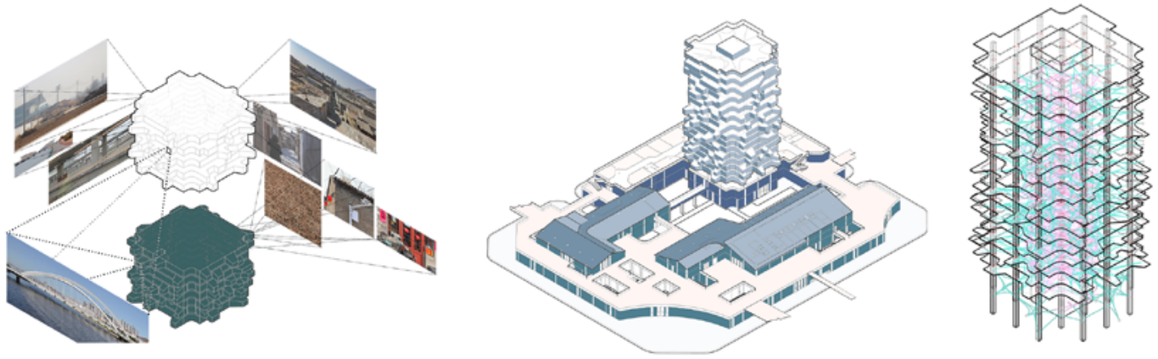
A unique workforce in Zhang City frequently commutes to and from Beijing. With no clear pillar industry locally, developing the service sector and guiding long-distance commuting are crucial to adapting to employment opportunities within the Beijing-Tianjin-Hebei coordinated development region.



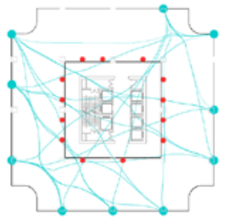


Plan a mixed-use model based on citizen inclination assessment indicators.
Plan the layout of building functions based on the net difference between expectations and current conditions. Implement vertical segregation between public and private through floor height, and introduce transitional public service spaces (or additional access control gates) horizontally.

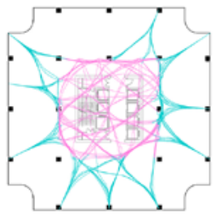
4.2.2 TWO-PASS WOOL ALGORITHM TO GENERATE FLOOR PLANS



In the high-rise residences, our design strategy prioritizes cultural continuity. By optimizing each unit's view based on nearby points of interest, we enhance residents' local identity. The building's programmatically oriented floor plan anticipates landscape evolution, ensuring adaptability for future updates.

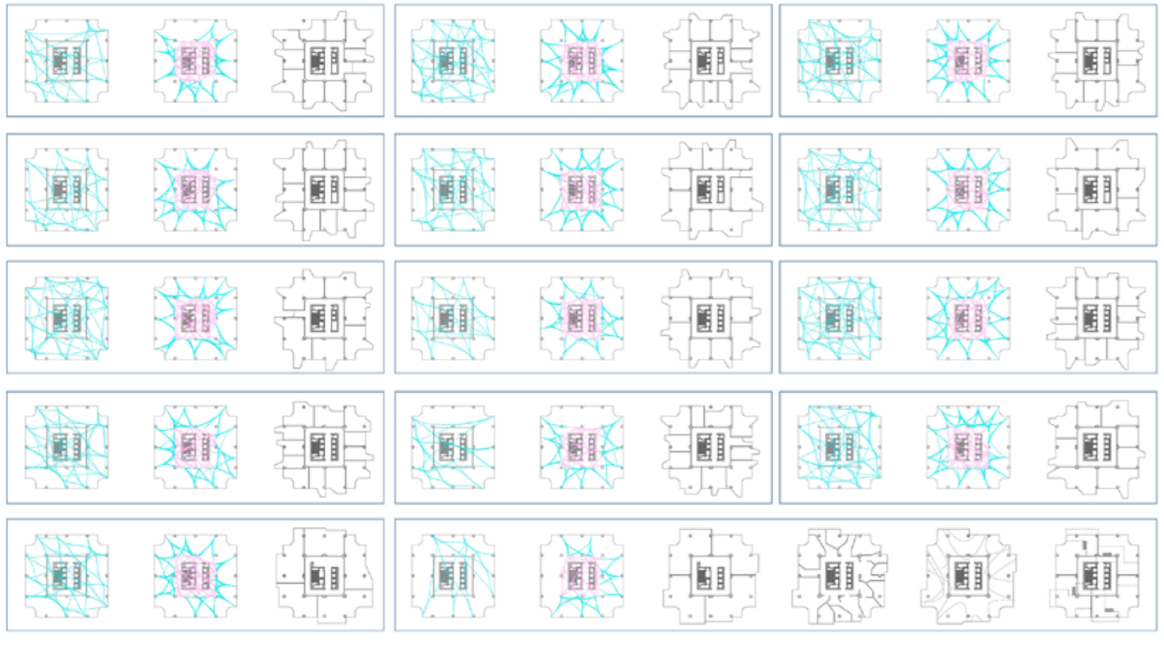


1) Obtaining core intersections through first-pass wool algorithm.



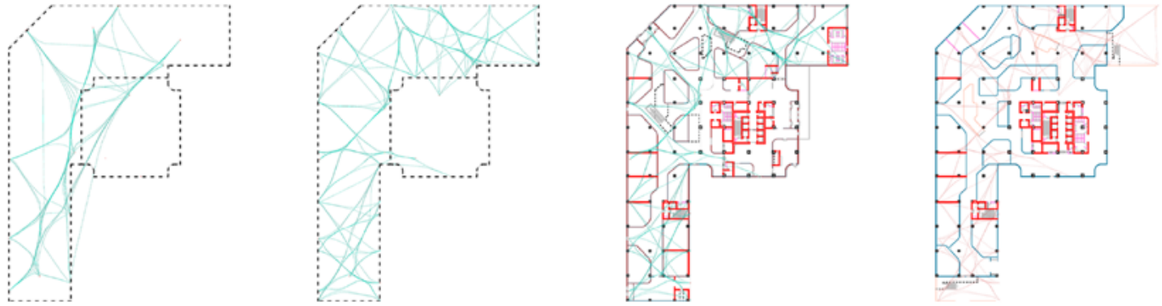
2) Determining dominant motion paths through second-pass wool algorithm.

3) Employing conditional operation logic to generate planes and guide path generation.



Floor Plans

Can guide spatial layout and also inform the subtraction (negative space) of the plan.



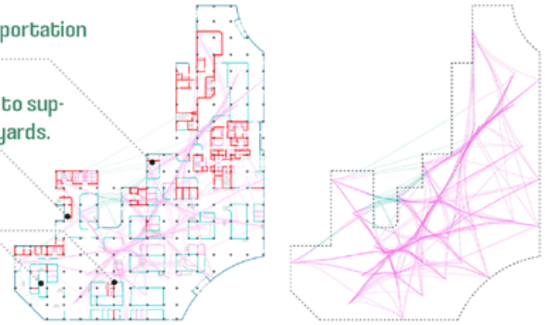
Wool Deduction Process for Internal Commercial Section on Floors 1-2

Guide the generation of main pedestrian pathways: Outer hotel transportation hub/Inner dining-illuminated atrium route.

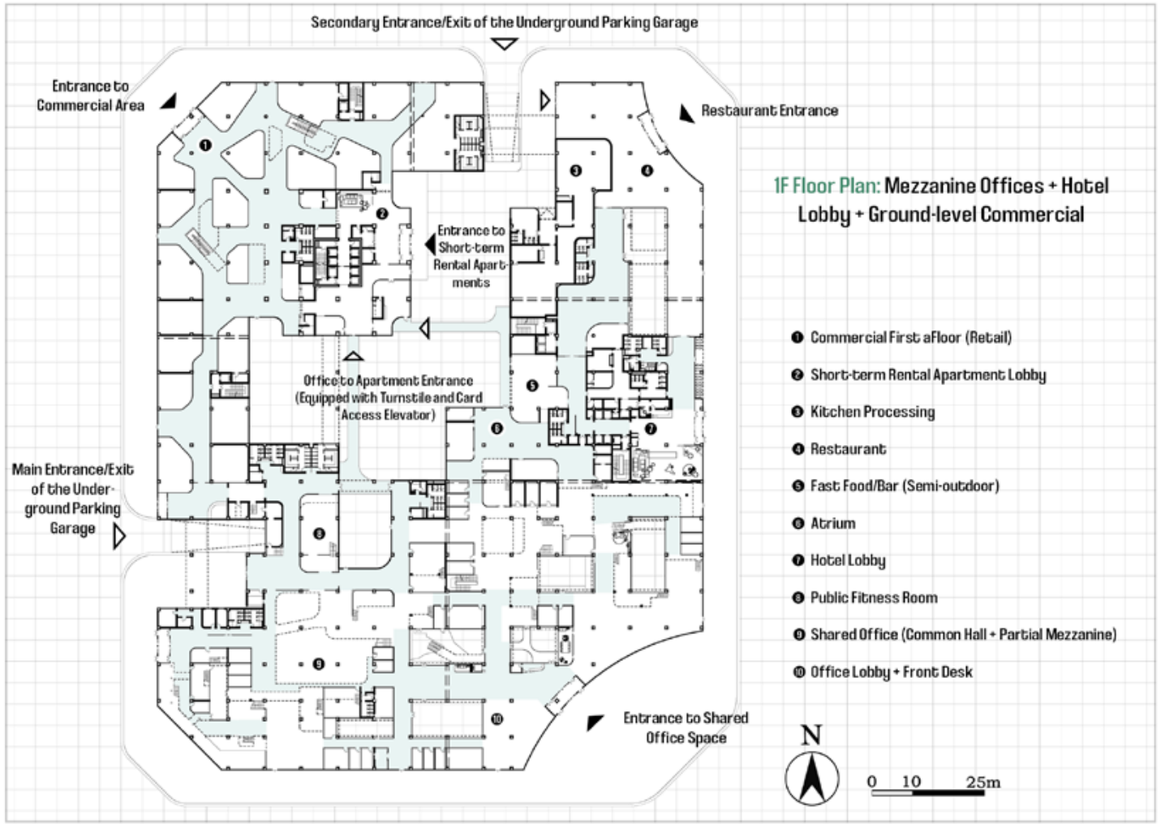
Break through boundaries with partial wool lines, indicating the need to supplement flow branches; establish inner corridors to form inner courtyards.

Establish shared office spaces in the core area.

In the current Studio model, workplaces serve both as production spaces for product design and as retail spaces, leading to the transformation of office spaces towards a more display-oriented approach.

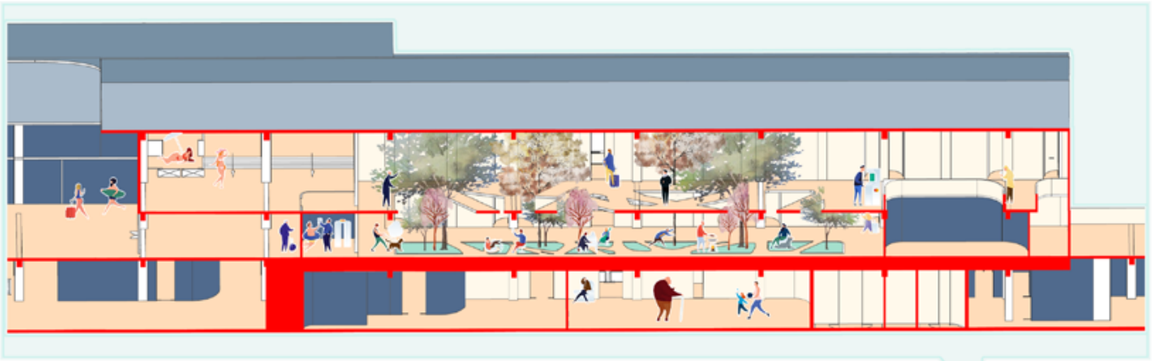


Wool Deduction for 1F Shared Office Area and Generation of Floor Plan



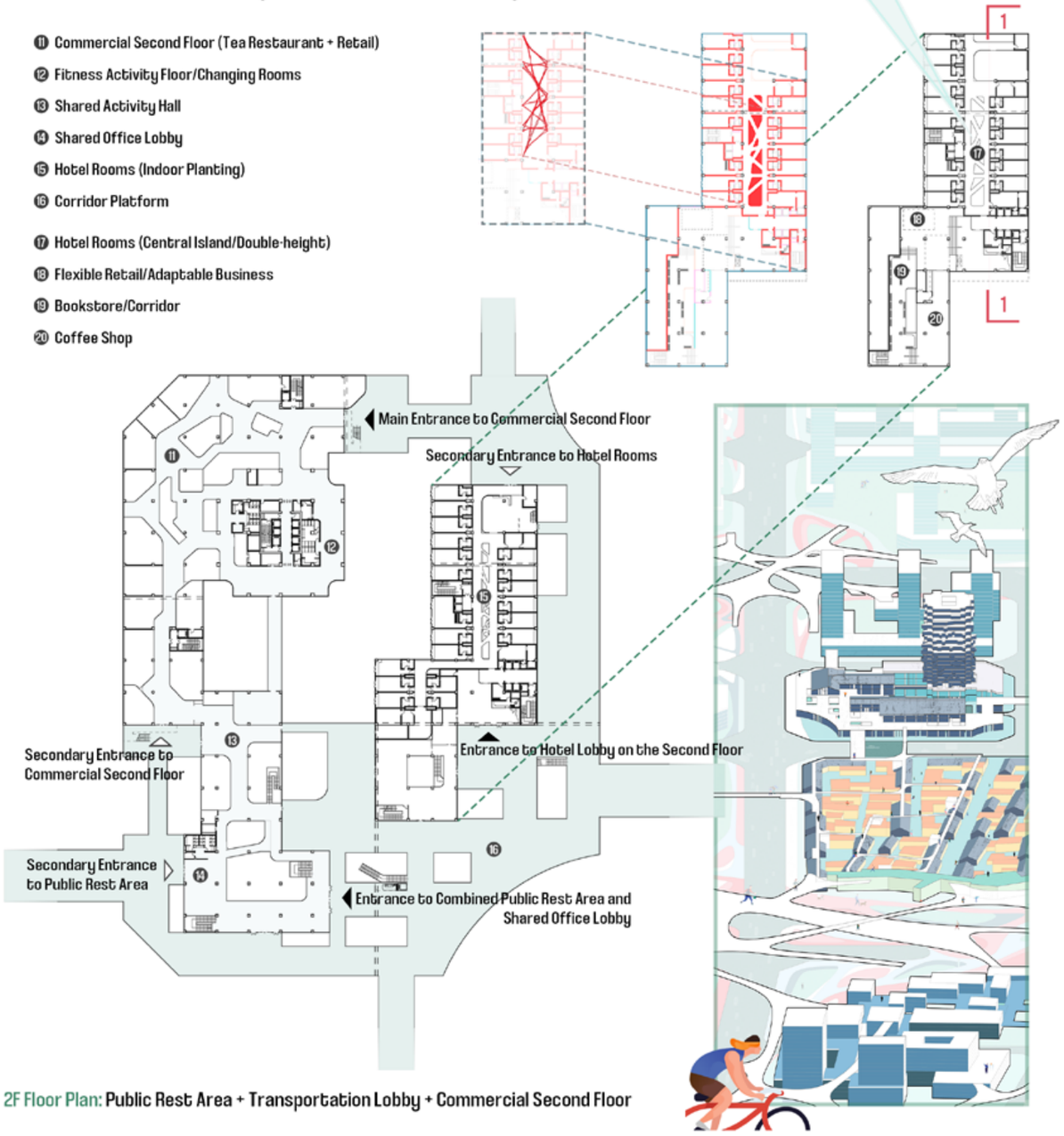
1F Floor Plan: Mezzanine Offices + Hotel Lobby + Ground-level Commercial

1. Commercial First aFloor (Retail)
2. Short-term Rental Apartment Lobby
3. Kitchen Processing
4. Restaurant
5. Fast Food/Bar (Semi-outdoor)
6. Atrium
7. Hotel Lobby
8. Public Fitness Room
9. Shared Office (Common Hall + Partial Mezzanine)
10. Office Lobby + Front Desk



1-1 Section: Central Island Planting/Blurred Indoor/Outdoor Flooring

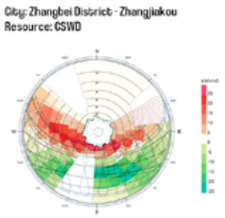
⑪ Commercial Second Floor (Tea Restaurant + Retail)
⑫ Fitness Activity Floor/Changing Rooms
⑬ Shared Activity Hall
⑭ Shared Office Lobby
⑮ Hotel Rooms (Indoor Planting)
⑯ Corridor Platform
⑰ Hotel Rooms (Central Island/Double-height)
⑱ Flexible Retail/Adaptable Business
⑲ Bookstore/Corridor
⑳ Coffee Shop



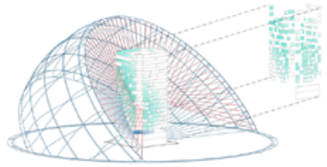
2F Floor Plan: Public Rest Area + Transportation Lobby + Commercial Second Floor

4.3 STRUCTURE FOLLOWS FORM

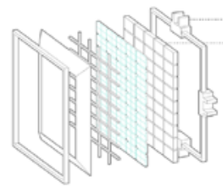
4.3.1 ENERGY STRUCTURE (IN COORDINATION WITH ZHANG CITY'S SOLAR ENERGY ADVANTAGE)



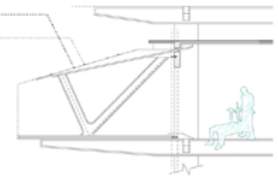
Use Chinese Standard Weather Data (CSWD) to analyze annual sunlight distribution and sun trajectory in Zhang City for meteorological insights.



Generate interference curves by intersecting sunlight with buildings, adjusting parameters to create solar panel layouts with gradient openings.

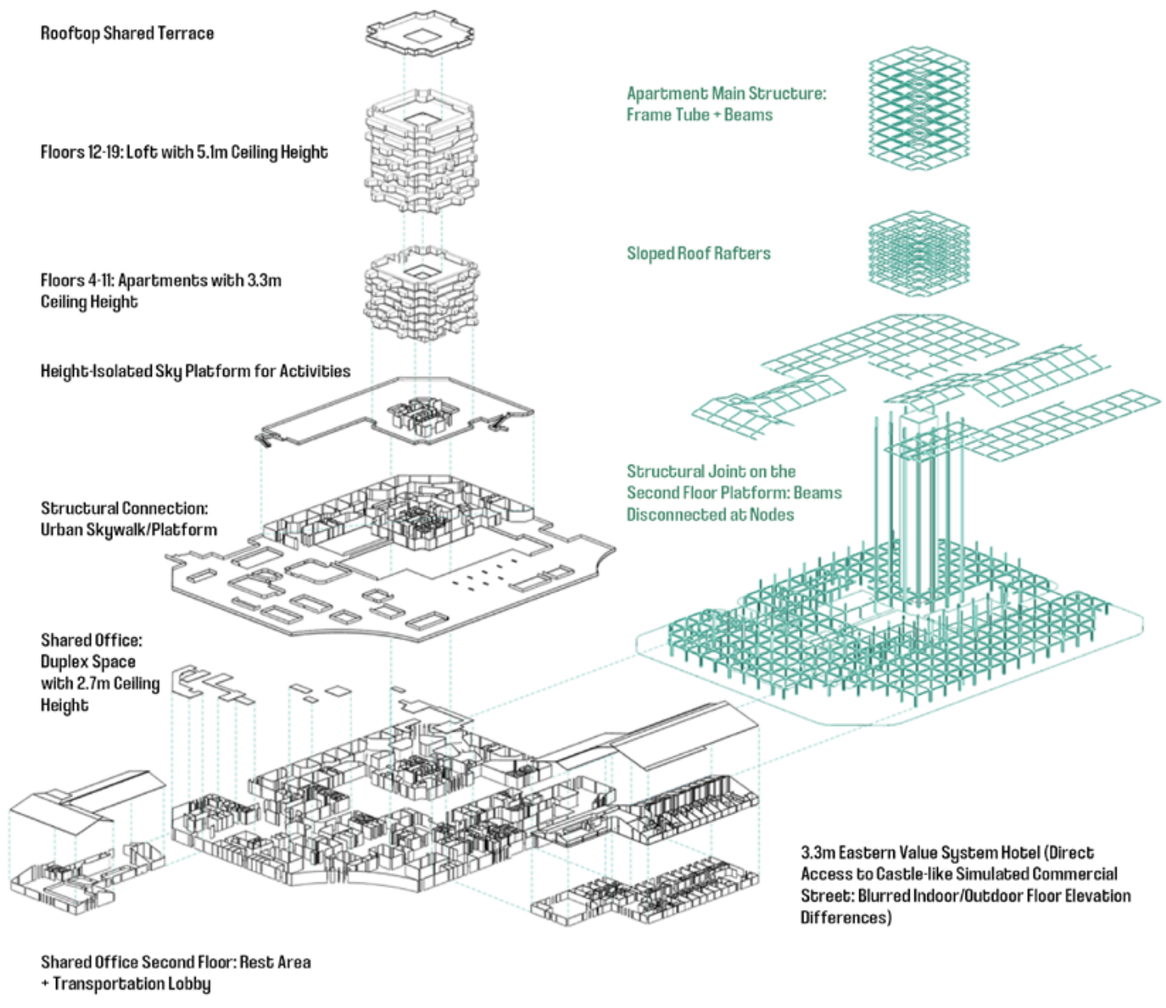


Design solar photovoltaic panels with customized modular dimensions for practical and efficient production.

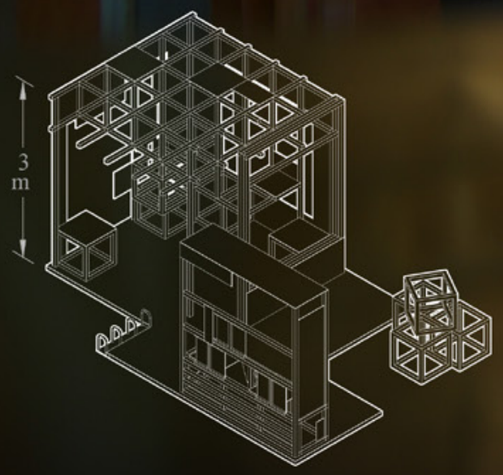


Develop an along-window structure independent of the main structure, allowing for future installation and removal while maintaining structural integrity.

4.3.2 CEILING HEIGHT ALLOCATION + STRUCTURAL TYPE SELECTION



Exploded Diagram: Vertical Functional Zoning with Height + Structural Configuration Options



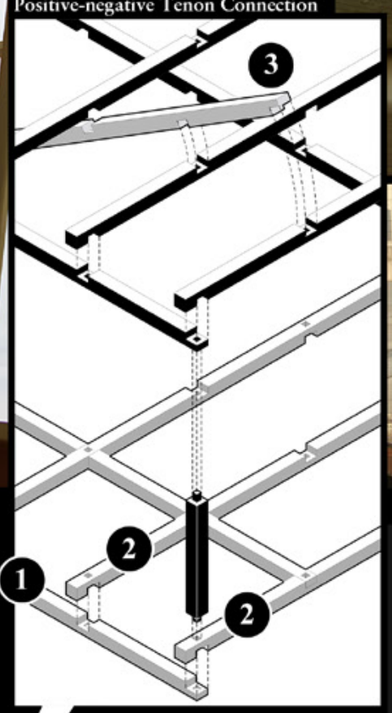
[OTHER WORKS]

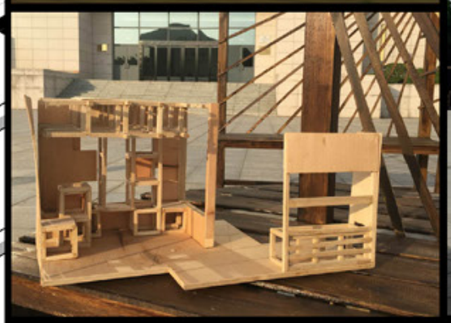
PROJECT DEFINE

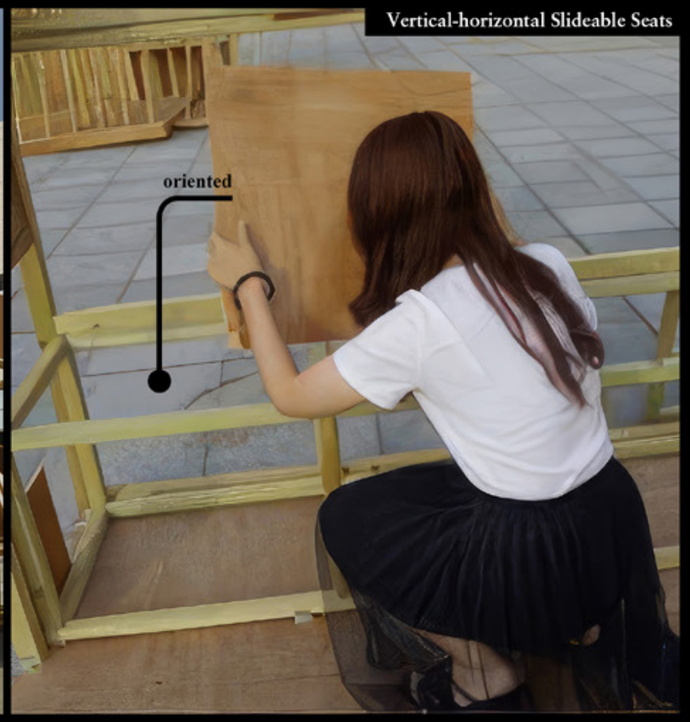
Project Name: Square Utterances
Architectural Type: Structural Construction
Location: Shaanxi, China
Materials: Composite Board, Square Timber
Connection Method: Mortise and Tenon Interlocking

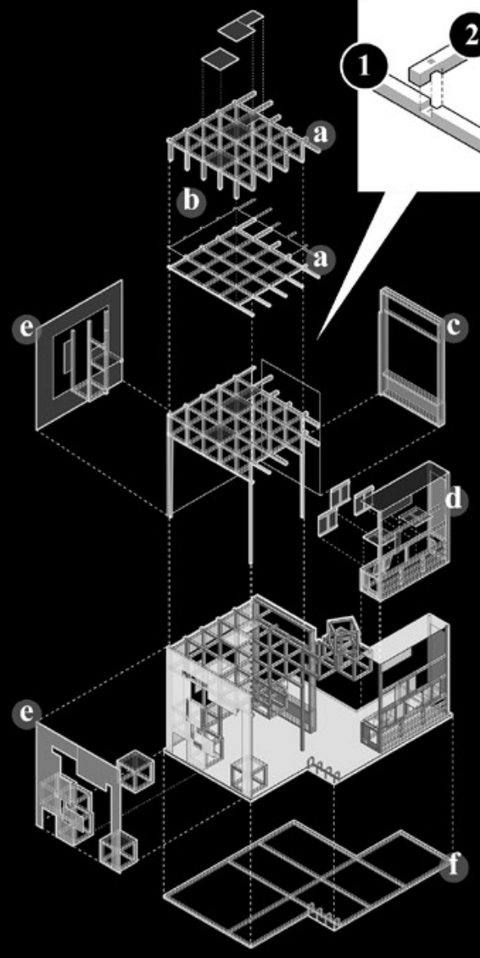
Collaborators: Ziyi Xu, Tao Ma, Yangchen Zhu, Siqi Du, Haixi He
Role in the Process: 80% Structural Node Design, 40% Conceptual Design, 30% Wood Cutting
Level of the Project: May 2017, Freshman Year, Course Design
Instructors: Yifan Zhou (*40773670@qq.com*), Wei Zhang

Positive-negative Tenon Connection









a. Mortise and Tenon Grid

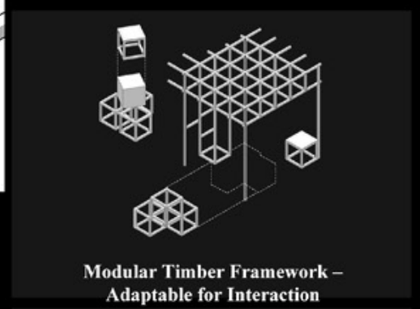
b. Vertical Column + Wooden Dowels

c. Soft Partition + Sightline Frame

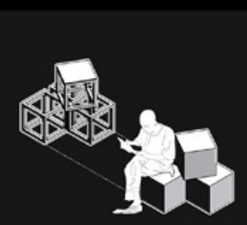
d. Slideable Seats

e. Detachable Panels

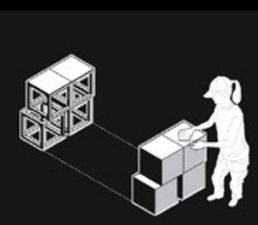
f. Support Beams + Bike Lock Clasp



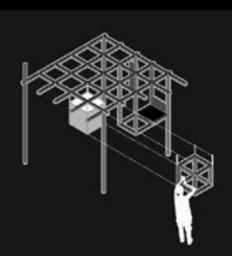
Modular Timber Framework – Adaptable for Interaction



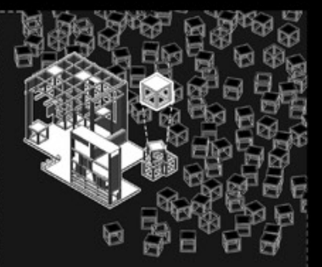
Reclining Scale



Desktop Scale

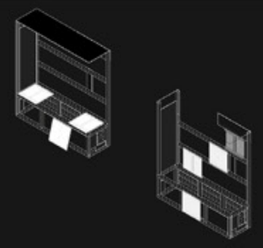


Hanging Scale

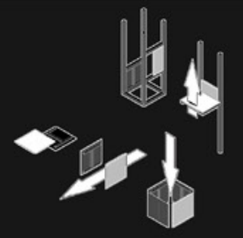


Symbolic Significance

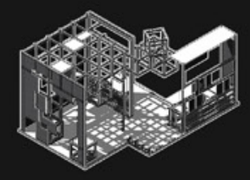
Detachable Panels – Adaptable for Interaction



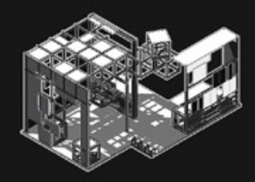
Vertical = Horizontal Orientation



Penetration, Enclosure, and Support

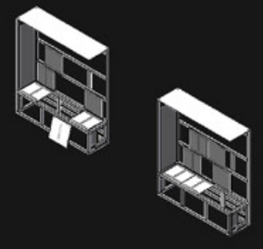


Direct Light/ Shadow Relationships

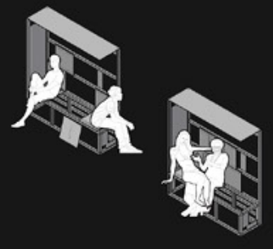


Sheltering/ Enclosing Barriers

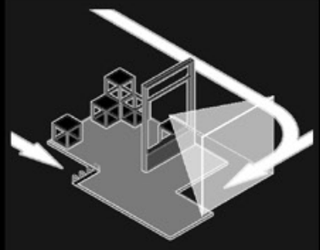
Overall - Fosters Interaction



Seats Converging



Strangers Familiarizing



Internal Corner and Protective Sightline

Attracts Different Ages

PROJECT DEFINE

Project Name: Main Hall of Xiyue Temple Complex: Hao Ling Hall

Architectural Type: Ancient Architectural Measurement

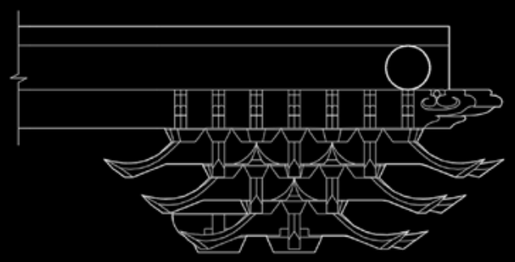
Location: Shaanxi, China

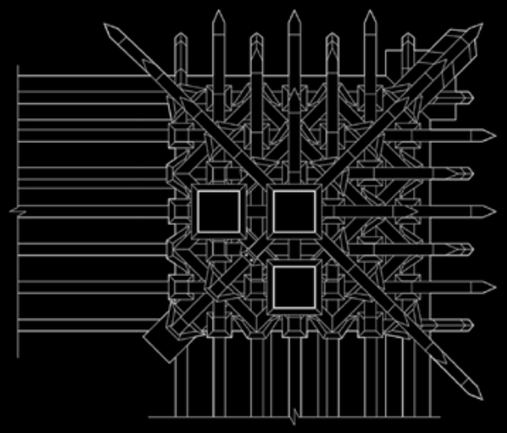
Collaborators: Yue Feng, Qin Wang, Zhande Cai

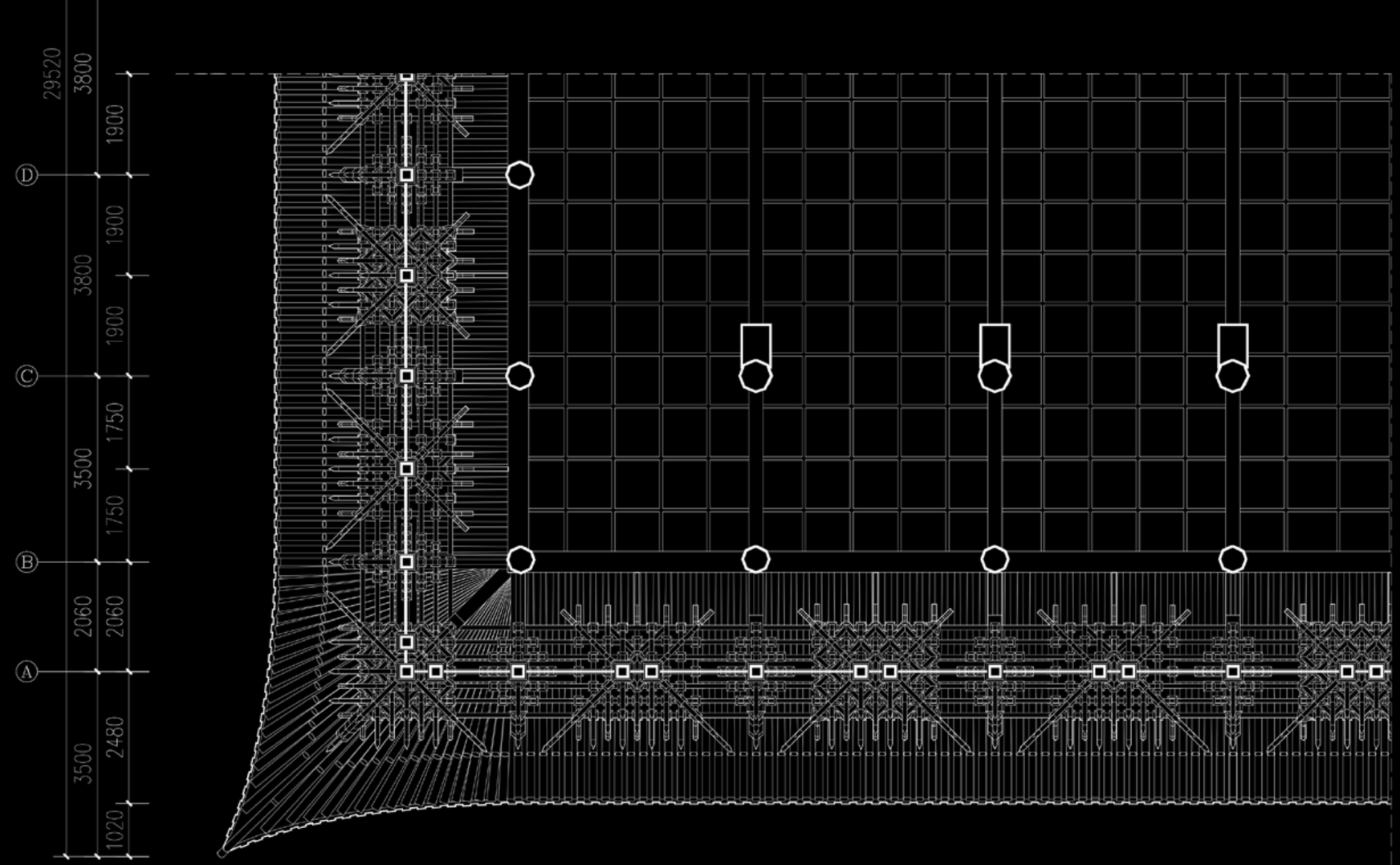
Role in the Process: 100% Structural Node drawing, 40% Total Station Point Setting, 30% Measuring

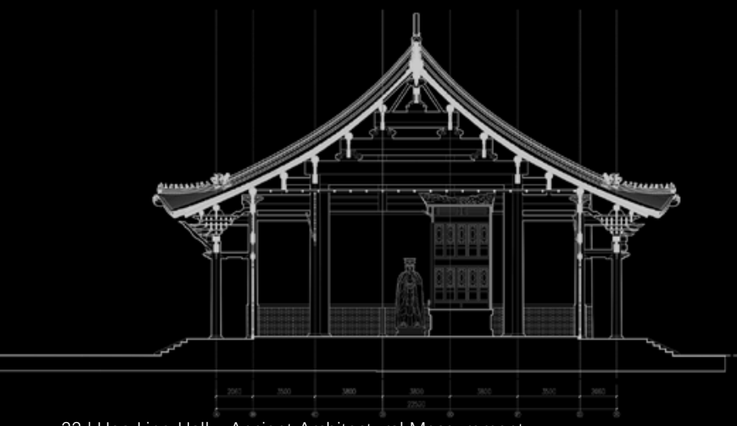
Level of the Project: May 2019, 4th Year, Practical Module

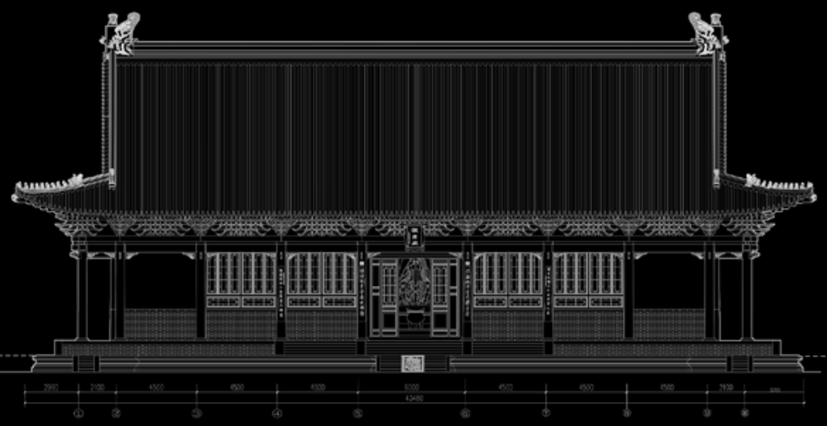
Instructor: Siliang Chen (*siliangchen@qq.com*)

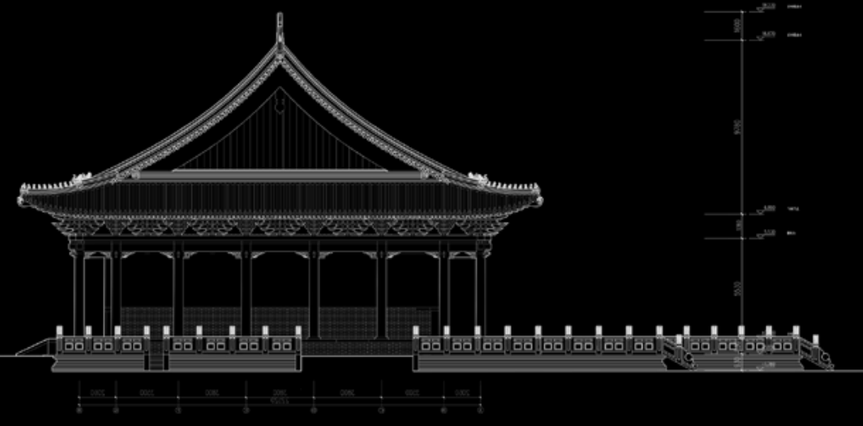












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Drawing/Composition: Sixiong Wang in 2023, Hainan, China
Best regards / Thank you.