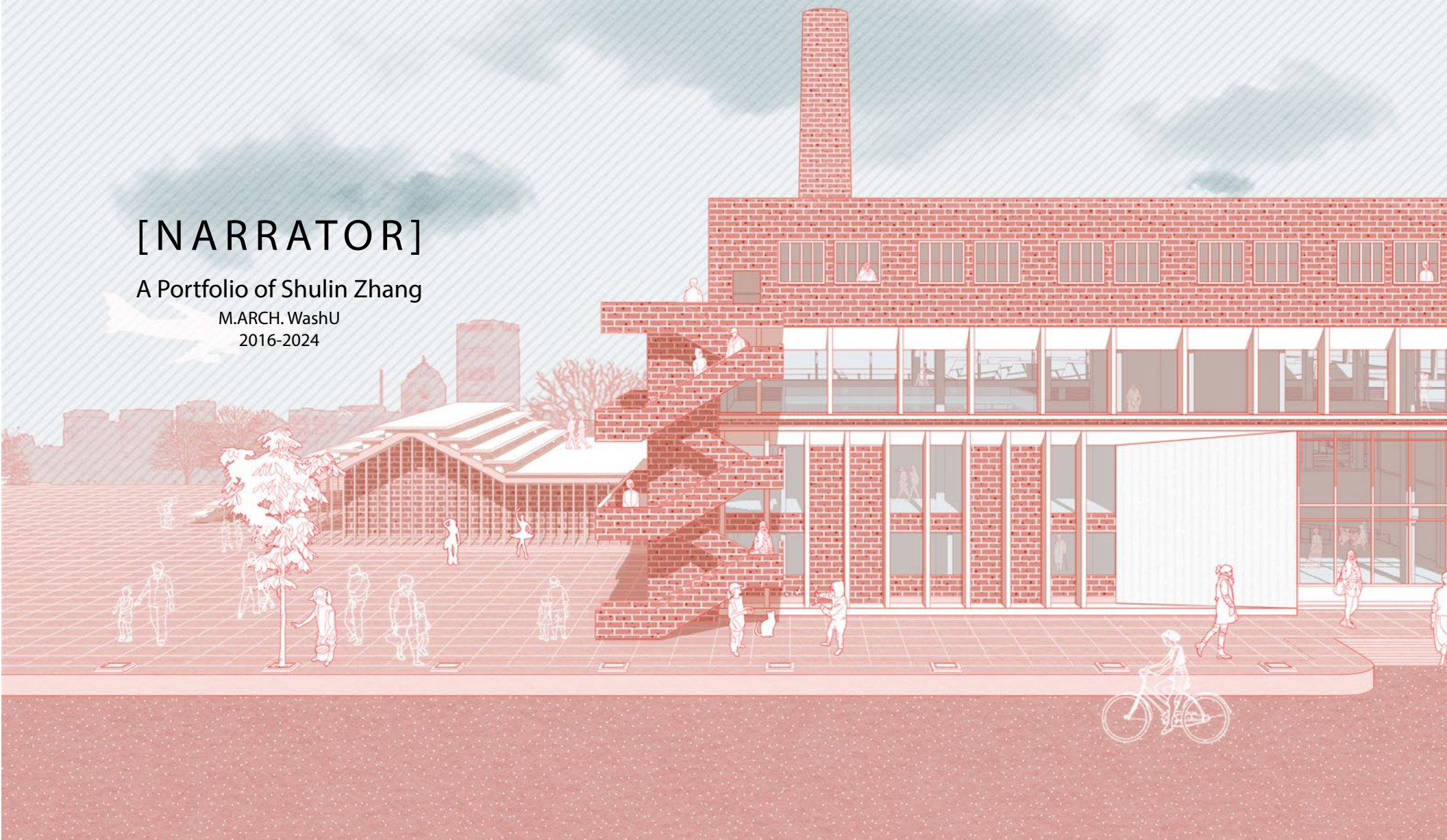
[NARRATOR]

A Portfolio of Shulin Zhang

M.ARCH. WashU

2016-2024



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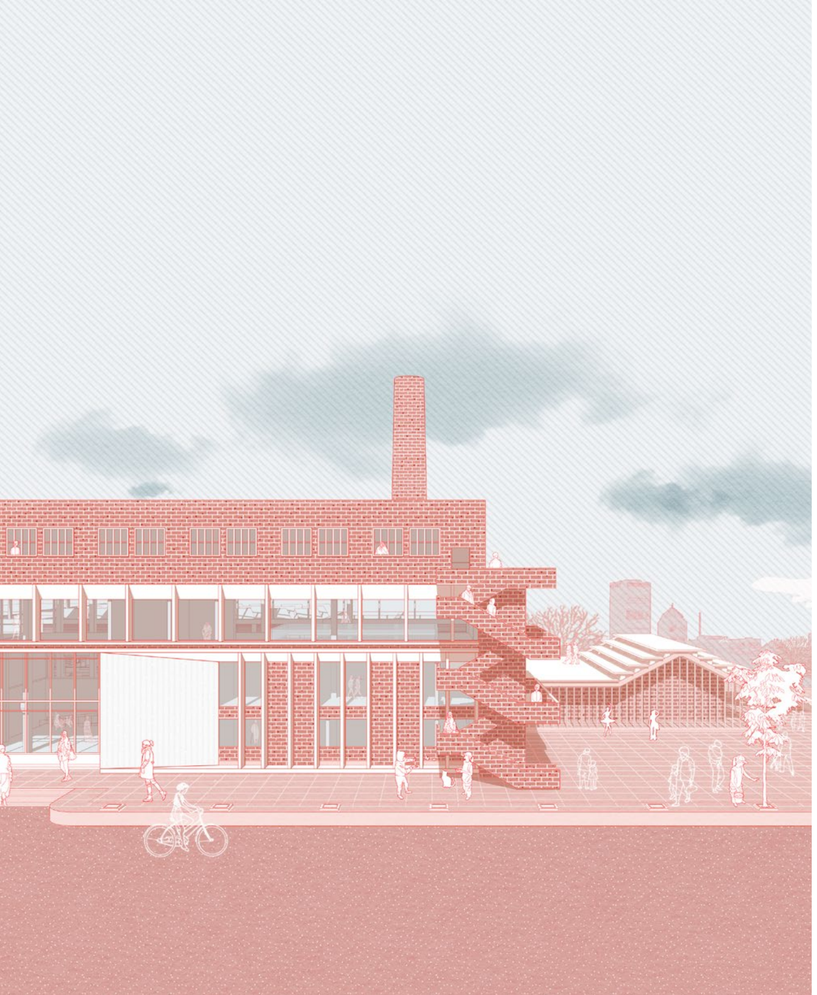


01

The Remains

Renovation and Preservation of Historical Genes

Location:Xuzhou,China
Type:Academic Project, Individual Work
Time:04/2016(8 weeks)
Tutor: Zhu Dongdong, Zhang Xiao

This project revitalizes an abandoned coal mine within a university campus, transforming it into a contemporary office building. The renovation aims to bridge the gap between the historic structure and its natural surroundings, fulfilling modern office requirements while making the site accessible to the public. The design fosters interaction among diverse groups and encourages a dialogue between individuals and the building's historical context.

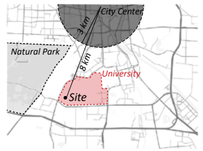
The project addresses the unique challenges of converting an industrial-scale building into a functional office environment. Enhancing the user experience is a central focus, balancing the need for modern amenities with the preservation of the site's historical significance. The design ensures that the historical essence of the building remains palpable, reflecting both its industrial past and its new role as a dynamic workspace.

Anti-Japanese War 1830S

Colonial Occupation 1840S

Dig More Mine 1870S

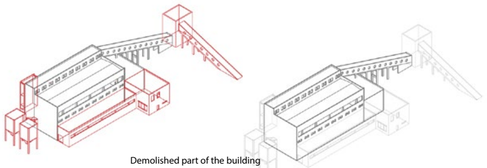
Coal Mine Collapse 2000S

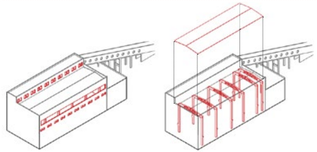


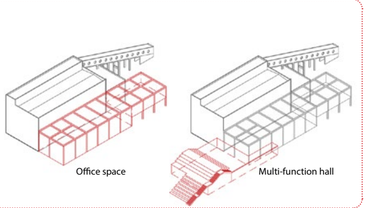
Site Introduction

The site is far away from the city center, about 8km away. It is located inside a university. The east and south sides of the site are adjacent to natural mountains, and the west side is the main traffic road in the school. The main building to be renovated has two floors, with a height of 17.7 m and a building area of about 2000 ㎡. The building is a bent frame structure. The facade is severely worn, but there are still some structures keep intact.

Site images



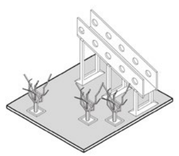


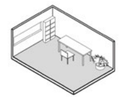


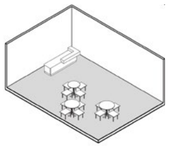
STEP 01 Cut

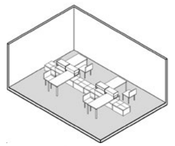
STEP 02 Change

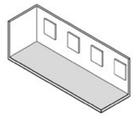
STEP 03 Add

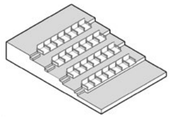

Courtyard


Private Office


Foyer


Open office


Exhibition gallery


Multi-function Hall

SECTION 01

SECTION 02

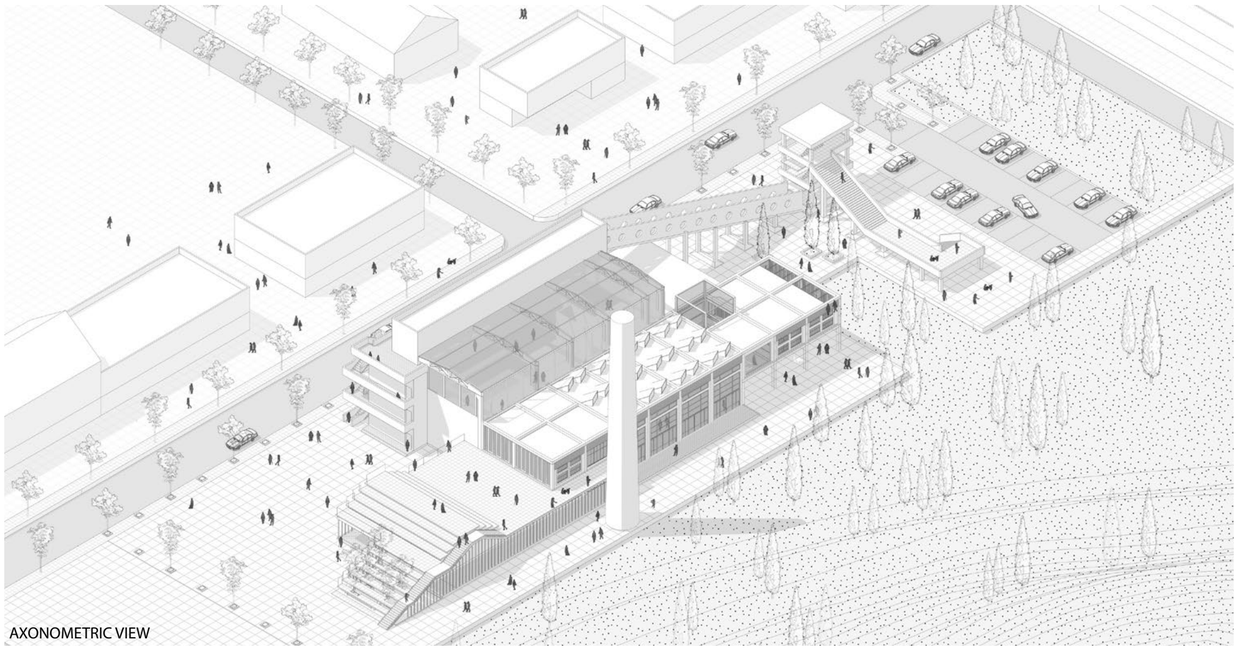
SECTION 03

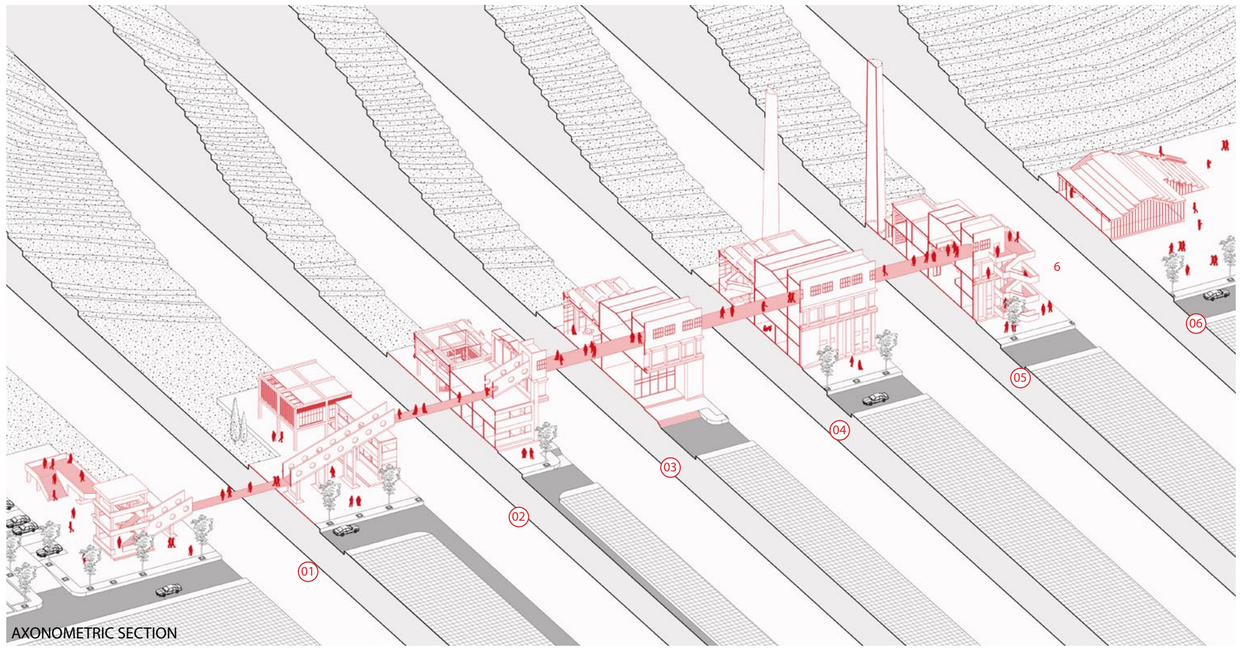
SECTION 04

SECTION 05

SECTION 06

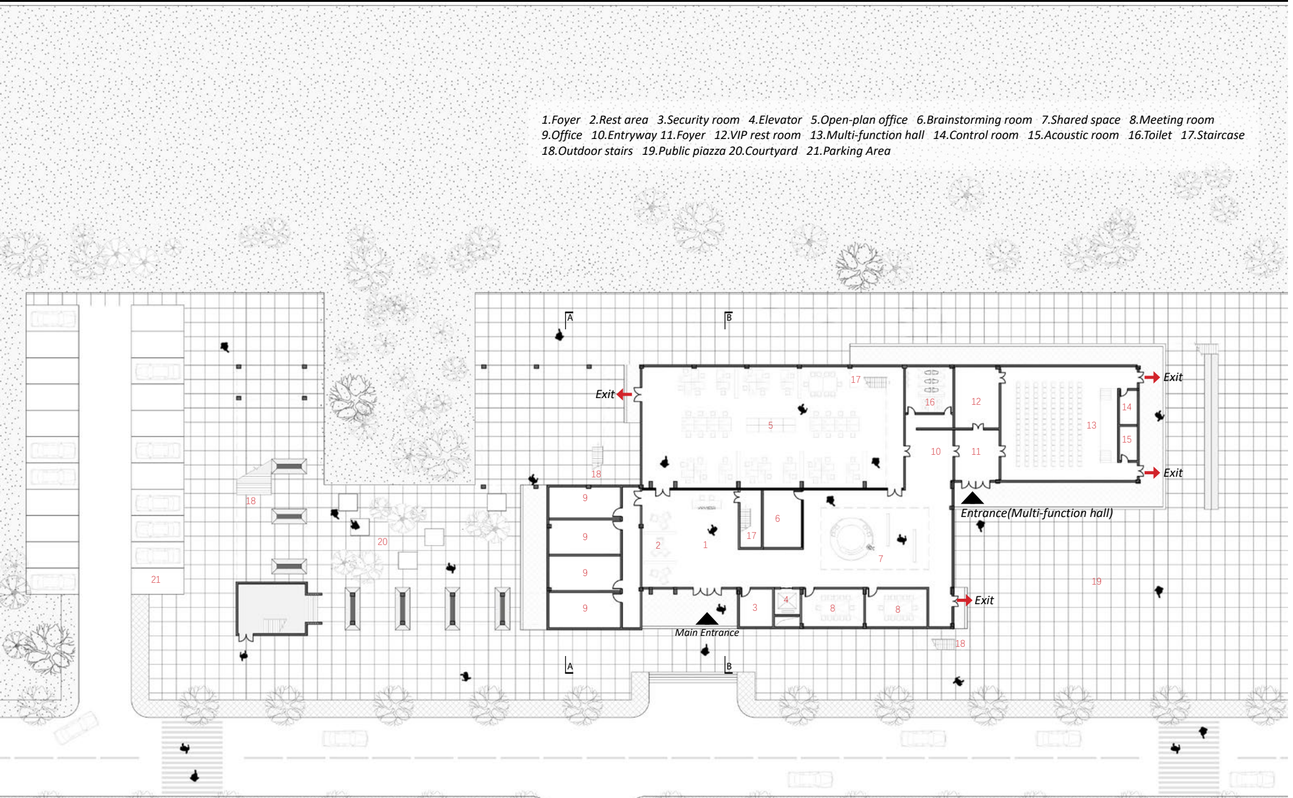
RENEWAL STRATEGY


AXONOMETRIC VIEW

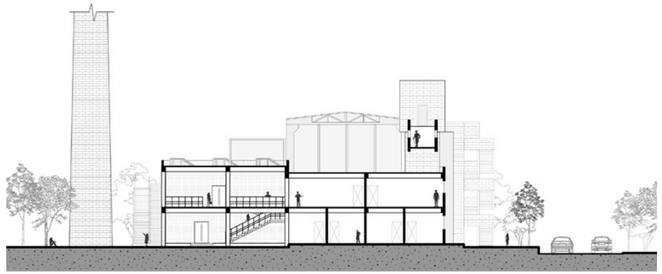


AXONOMETRIC SECTION

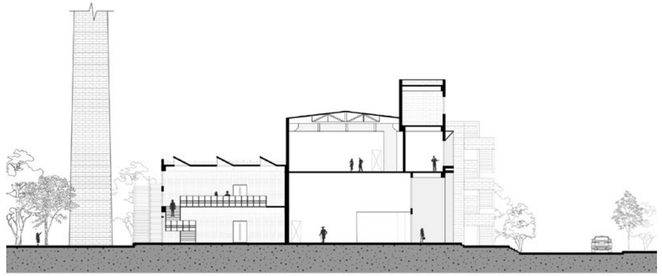
1.Foyer 2.Rest area 3.Security room 4.Elevator 5.Open-plan office 6.Brainstorming room 7.Shared space 8.Meeting room
9.Office 10.Entryway 11.Foyer 12.VIP rest room 13.Multi-function hall 14.Control room 15.Acoustic room 16.Toilet 17.Staircase
18.Outdoor stairs 19.Public piazza 20.Courtyard 21.Parking Area



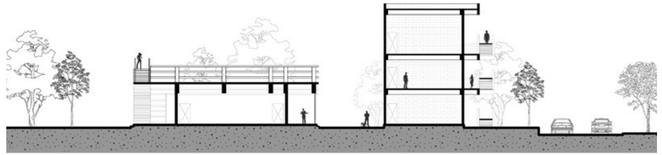
GROUND FLOOR PLAN



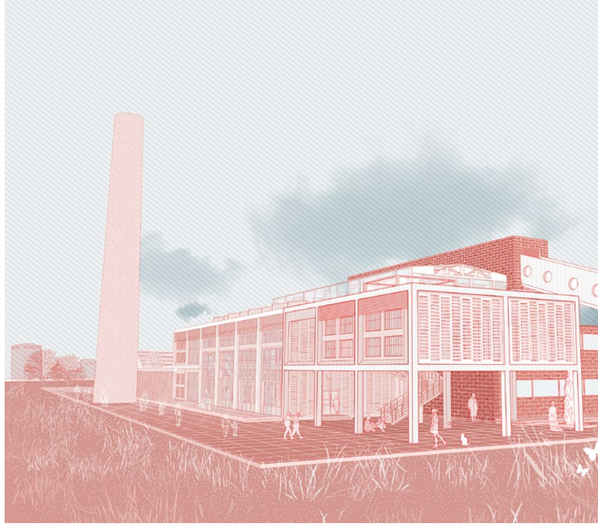
SECTION A-A

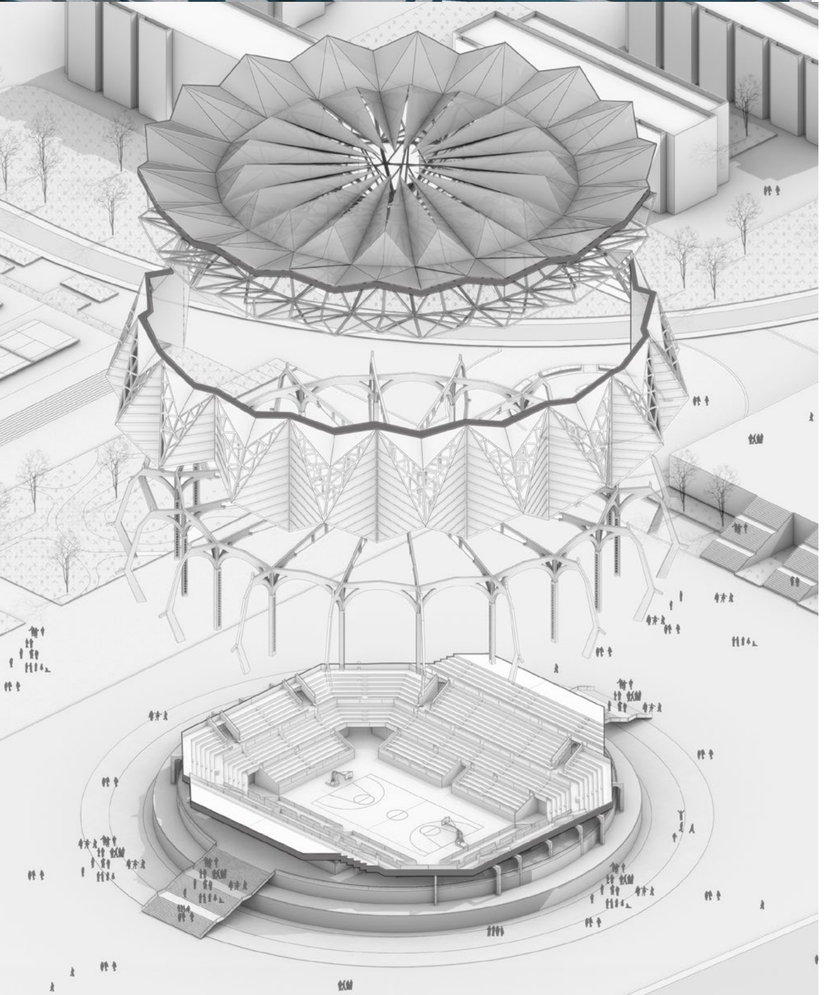


SECTION B-B



SECTION C-C





02

Origami

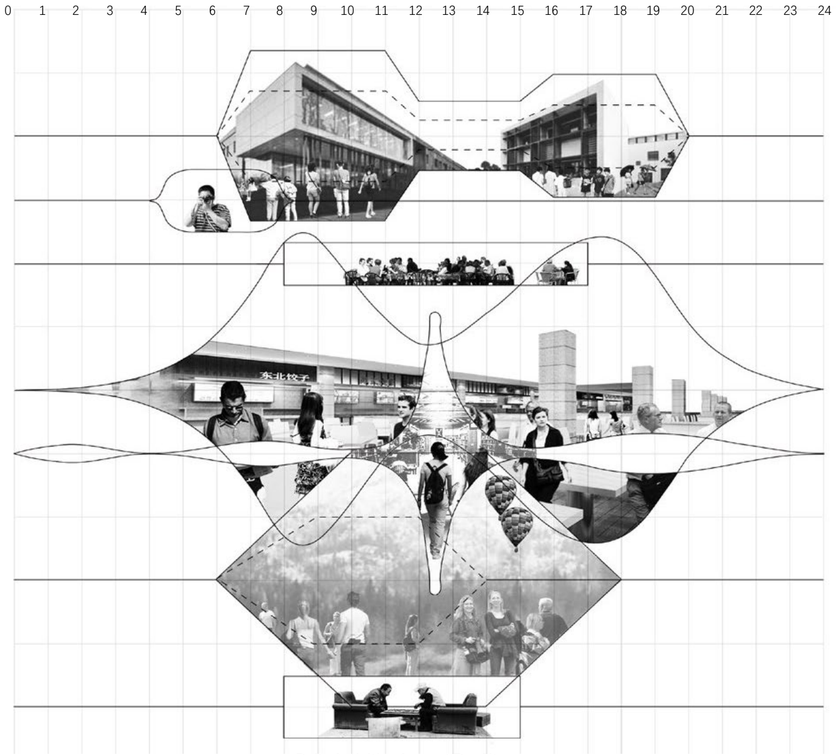
Stadium Design, sport as a universal language

Location:Xuzhou,China
Type:Academic Project, Individual Work
Time:05/2016(8 weeks)
Tutor: Han Chenping, Sun Liang

Due to the requirement to accommodate both sports venues and large audiences, sports architecture often features expansive spans and streamlined functional organization. As a prominent structure, a stadium not only serves as a key facility but also as a landmark for the university, necessitating a design that is both functional and iconic. This project is located at China University of Mining and Technology and aims to create a multi-functional sports center that serves the campus community.

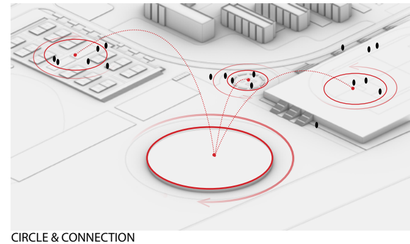
The stadium must integrate various functions, including gymnasiums, training areas, performance spaces, exhibition halls, and teaching facilities, while also being equipped to host professional competitions. Additionally, it should be designed to engage and benefit the surrounding community and the public.

The primary challenge lies in effectively organizing diverse functional spaces within the constraints of budget, materials, structural integrity, and building technology. To address these challenges, I propose utilizing Origami-inspired design principles, which offer innovative solutions for spatial efficiency and structural creativity.

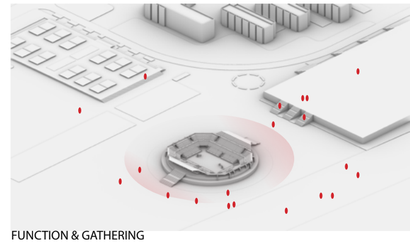


Daily Activities Around The Site

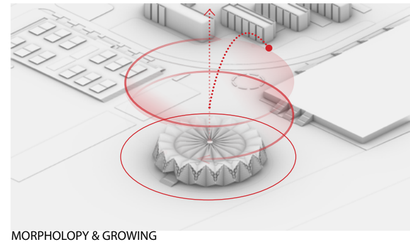
The site encompasses outdoor basketball courts, table tennis courts, and a vibrant plaza with considerable pedestrian activity. The design leverages a circular configuration to seamlessly integrate with these adjacent facilities, enhancing connectivity and drawing visitors toward the stadium. The structure features an Origami-inspired form, establishing itself as a distinctive landmark within the university. This approach not only creates a visually striking building but also reflects a dynamic and organically evolving architectural identity.



CIRCLE & CONNECTION

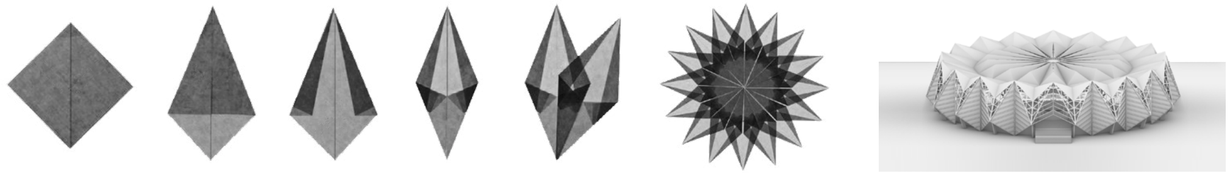


FUNCTION & GATHERING

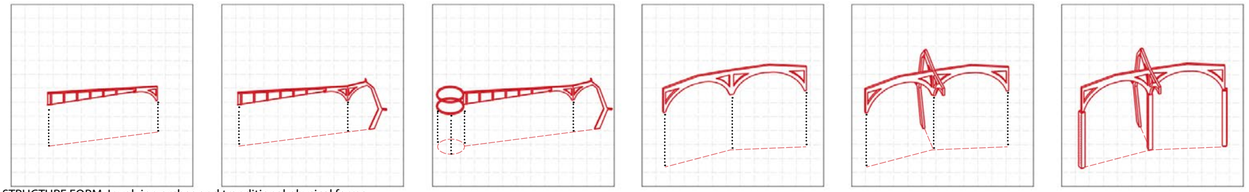


MORPHOLOPY & GROWING

Inspired by the traditional Chinese art "Origami", to create a rhythmic aesthetic.

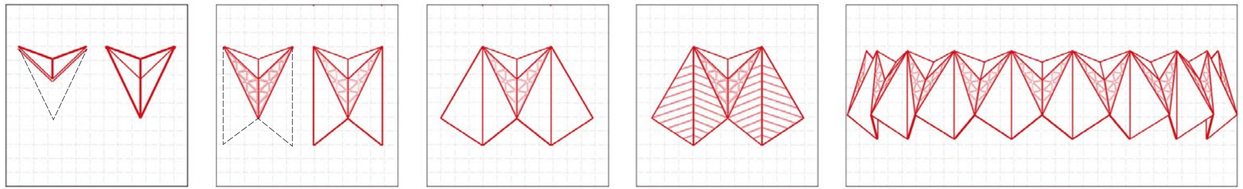


Step 01 Step 02 Step 03 Step 04 Step 05 Step 06



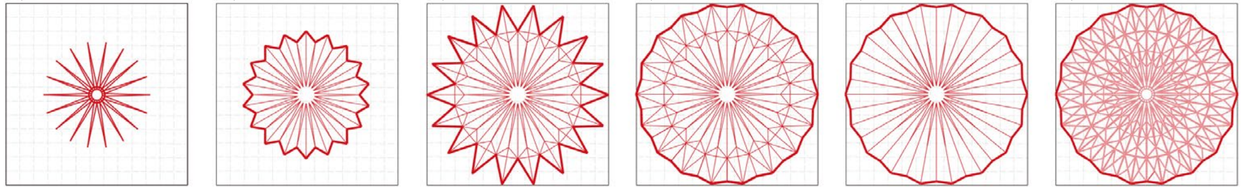
STRUCTURE FORM. Involving arches and tranditional physical forms

Step 01 Step 02 Step 03 Step 04 Step 05

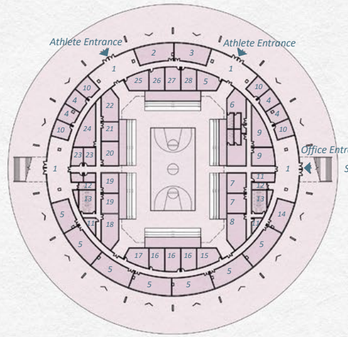


CURTAIN WALL. Folded-plates skin

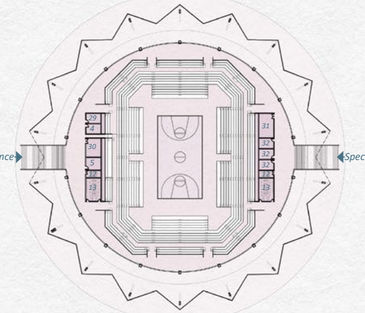
Step 01 Step 02 Step 03 Step 04 Step 05 Step 06



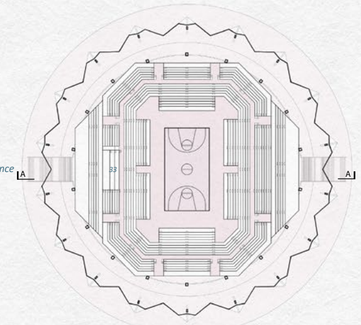
ROOF. The aesthetics of origami



FIRST FLOOR

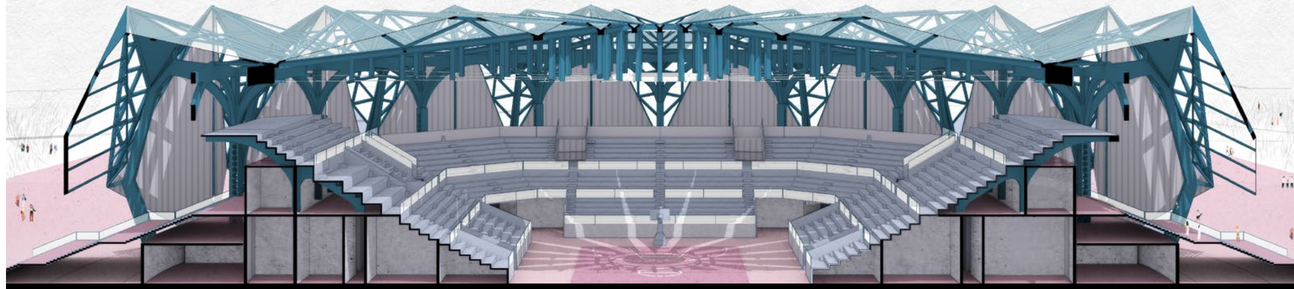


SECOND FLOOR



THIRD FLOOR

1. Foyer 2. Game office 3. Rest room 4. equipment room 5.Office 6. Athletes' lounge 7. Drug control room 8. Control room 9. Teaching room 10.Duty room 11. Hovel 12. Fire staircase 13. Toilet 14. Fire control room 15. Referee lounge 16. VIP lounge 17. Locker room 18. Reception room 19. Editing room 20. Projection room 21. Conference room 22. Service room 23. Acoustic room 24. Activity room 25. Sick bay 26. Isolation room 27. Detection room 28. Check room 29. Storing room 30. Service room 31. Snack bar 32. Shop 33. Photographic Area



A-A SECTION

03

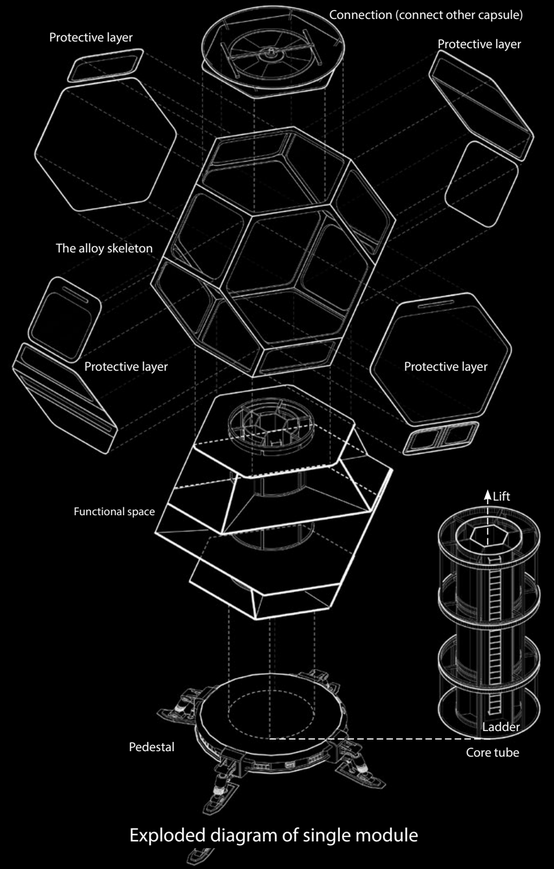
Explore the Moon

Design of space capsule, buildings in outer space

Location:the Moon
Type:Academical Project,Individual Work
Time:03/2017 （8 weeks）
Tutor: Yao Gang, Jing Lu

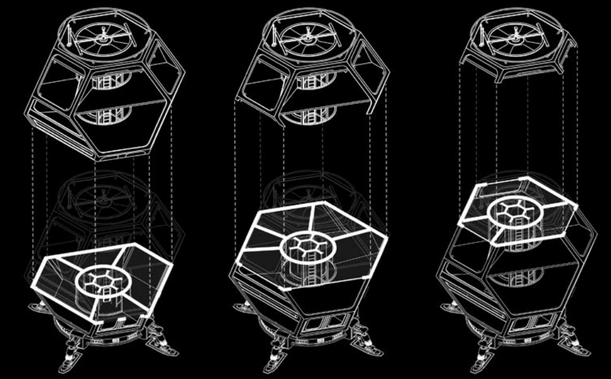
The future of architecture has no perfect answer. Architects worldwide adapt to evolving environments and social needs, designing unique structures that push boundaries and embrace the unknown.

Our proposal envisions a simple, economical, and sustainable lunar settlement based on the Weaire-Phelan structure. This aggregation system creates a modular, organic landscape that accommodates future residents. The repetitive yet organic foam design ensures efficient construction and assembly, offering functionality and comfort with minimal effort.This system allows us to build a modular system, simple but at the same time functional with the minimum necessary, ease of construction and assembly ensuring all comforts. Once we built the module, it will be a “kids game” put it in its position and fasten it to the other modules.



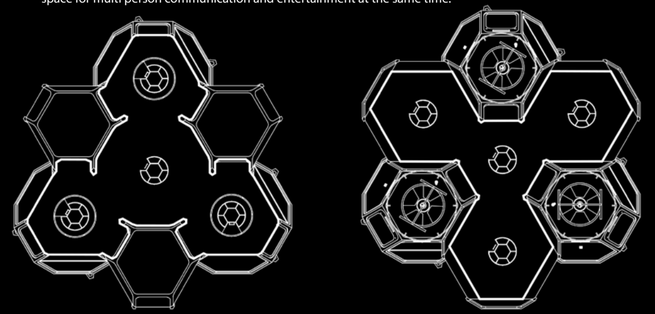
Exploded diagram of single module

Each module meets the needs of human life, work and research.



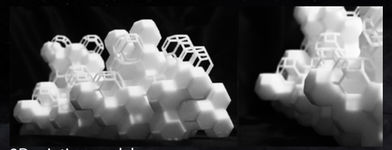
The first floor　The second floor　The third floor

Combination group can further meet a wider range of research work and provide space for multi person communication and entertainment at the same time.



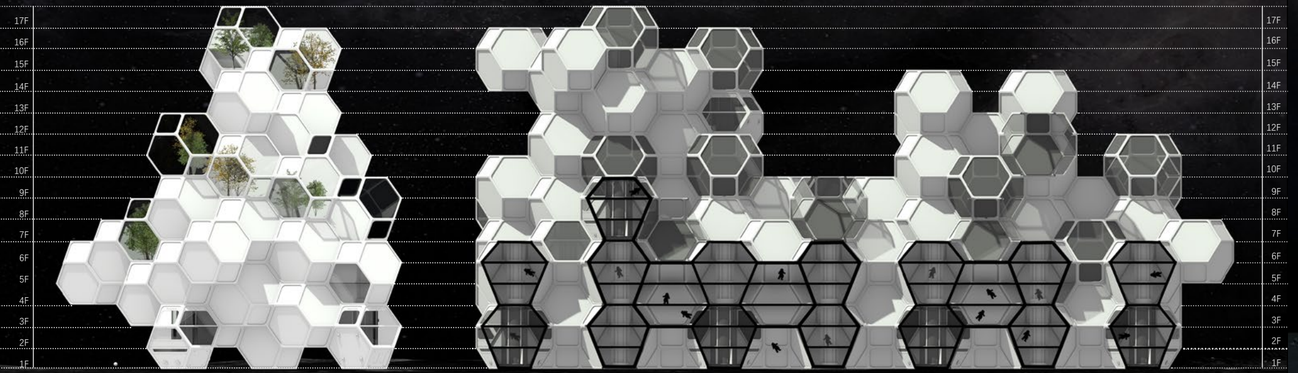
The third floor (combination group)　The fourth floor (combination group)

The complex provides more space for humans, including living areas, recreation areas, and research areas. Human beings can not only live alone on the moon, but also carry out further social activities.



3D printing model

The eighth floor plan



Elevation

Section A-A

Talking about the future is a dream. In this sense, "utopia" is the ability of human beings to dream, and "the other shore" is the boundary of dreams. Because of this ability and boundary, humans have direction and goals, and they will not lost in the darkness.

——Bei Dao 《Nine Letters to the Future, To Readers of 2049》

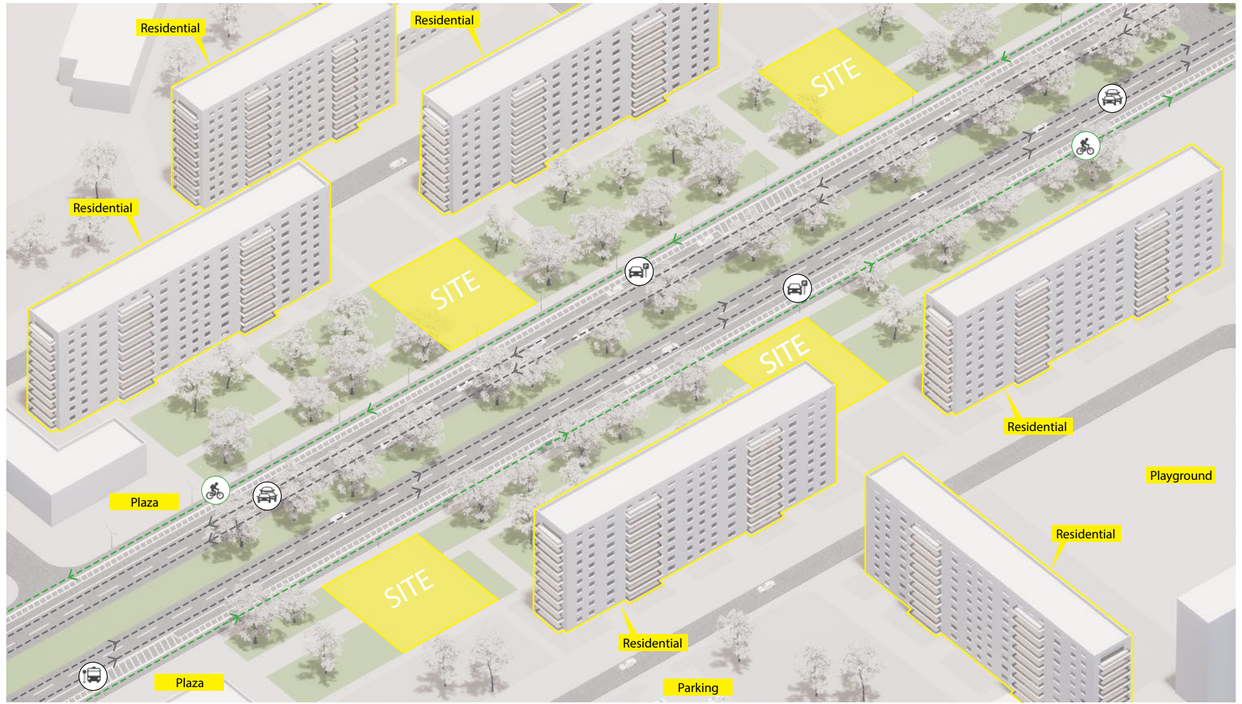
04

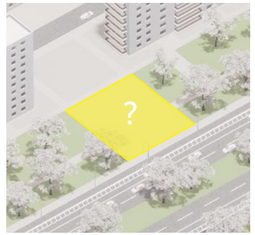
Extension

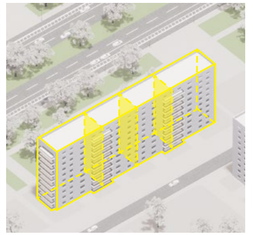
International Housing Design

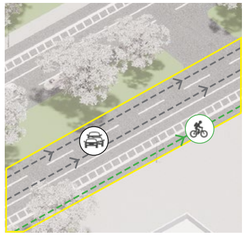
Location:Berlin,Germany
Type:Academic Project, Individual Work
Time:09/2022(4 months)
Tutor: Julie Bauer

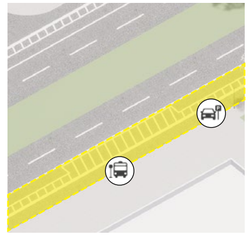
Berlin,the perpetually unfinished city.The history of deconstruction and reinvention prohibited large growth of wealth and result the berlin affordable compared to other European capitals. The affordability combined with the unfinished and inprogress nature makes the city attractive and charming. Draws young people, artists, and subculture activists to the city, full of vitality. The project focus on the re-densification of the Karl-Marx-Allee, we have 6 site choices, 4 closer to the road, other 2 low-rise buildings site further inside. In these sites, the questions is how can we develop new context- specific architecture based on the feature of the site the city, and how we can learn from the unfinished character of the city and transform its flexible qualities into housing units, and how can we provide spaces for different ways of living, goal is create a vital and mixed neighborhood.



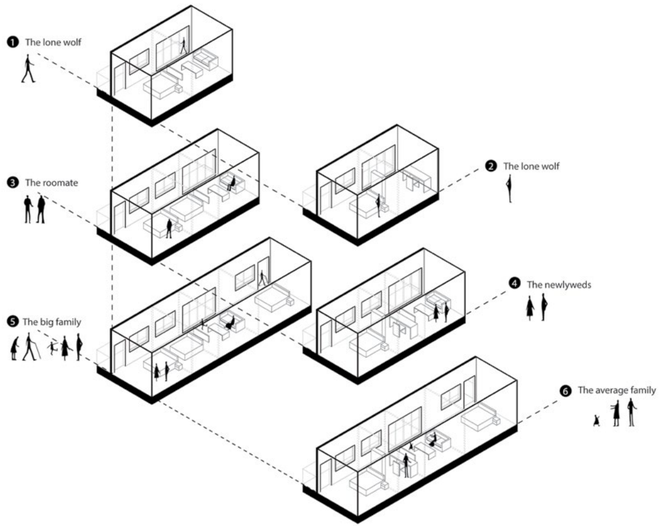








What a family could be like ?

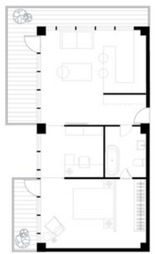


Combination 1 Floor plan

Combination 2 Floor plan

Unit 1-A

Unit 1-B



Unit 2-A

Unit 2-B

Unit 3-A

Unit 3-B

TRESHOLD IMAGE

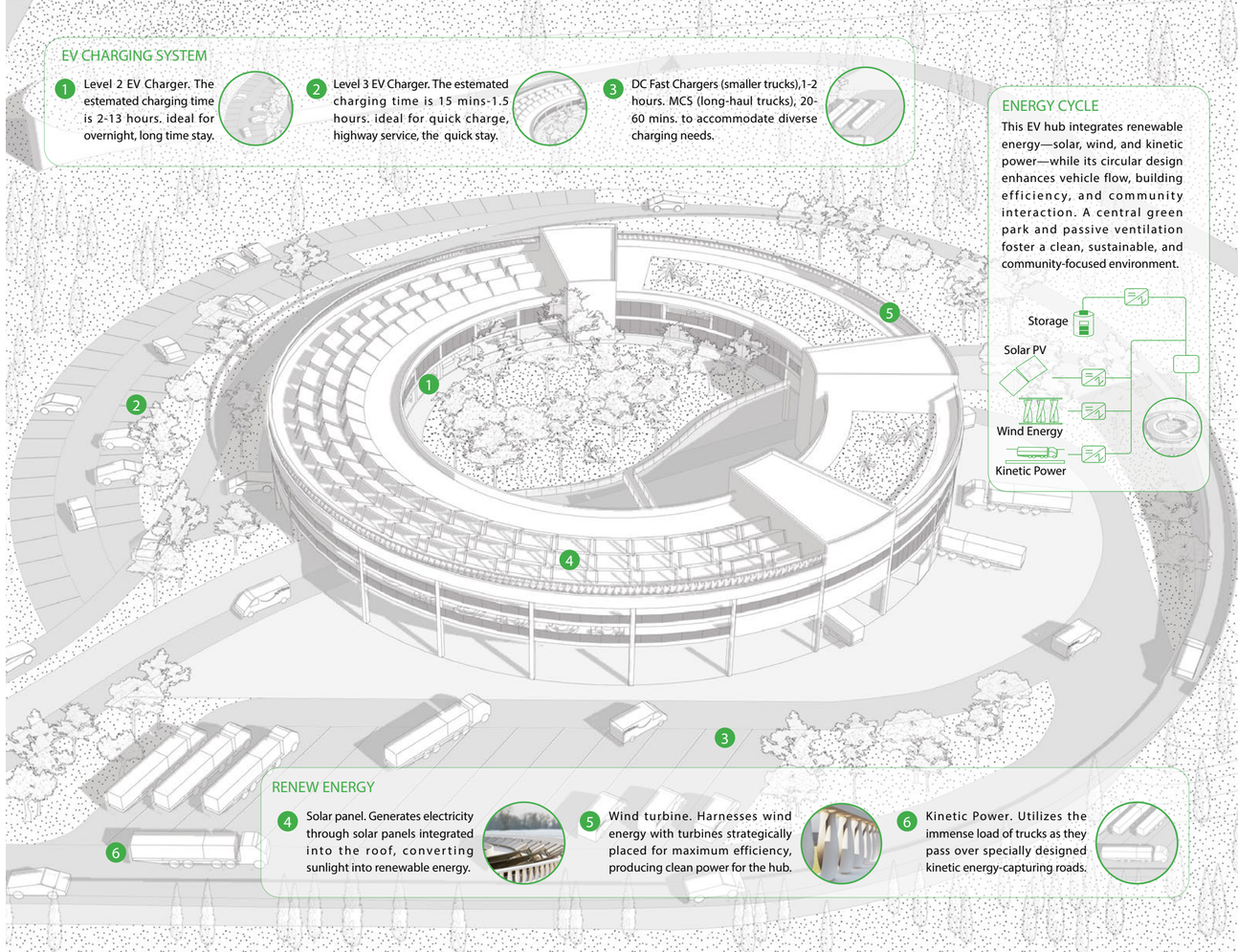
05

Energis Nexus

Redefining the highway architecture

Location:St. Louis, The United State
Type:Academic Project, Individual Work
Time:01/2024(4 months)
Tutor: Julie Bauer

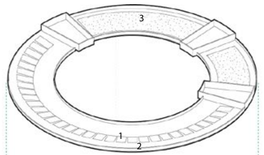
The project reimagines the highway architecture focused on the future. The inclusion of essential amenities such as electrical charging station, driver rest areas, truck wash area, a convenience store, a restaurant, and a hotel . within the architectural vision adds functionality to the highway. The circular design is purposeful and innovative. Its outer ring facilitates smooth car movement. Inside, essential services are situated, creating a functional and efficient space. At its heart lies a vibrant green park, symbolizing the project's commitment to sustainability. In addition, the project incorporating renewable energy sources like wind turbines, solar panels, and innovative pavement technology, the project sets a new standard for ecofriendly architecture in transportation hubs, serves as a model for sustainable design practices

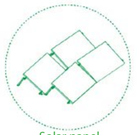


ENERGY CYCLE

1.Solar panel 2.Wind turbine
3.Roof garden

ROOF FLOOR PLAN





Solar panel

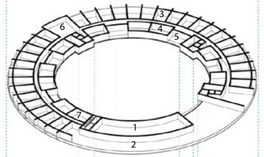
Wind turbine

Roof garden

HOTEL COMMUNITY

1.Resaurant 2.Coffee 3.Room1
4.Room2 5.Share balcony
6.Water fountain 7.Laundry

THIRD FLOOR PLAN



Hotel room

Laundry

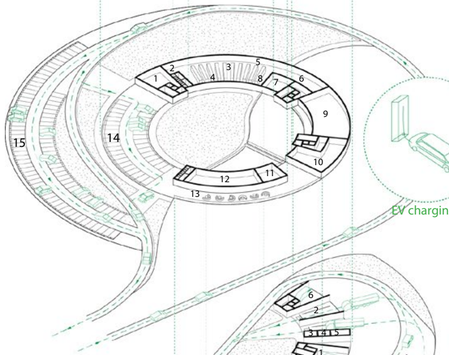
Share balcony

Roof restaurant

ACTIVITY CENTER

1.Hotel reception 2.Check 3.Shelf
4.Softer drink 5.Fast foods
6.Coffee station 7.Storage 8.ATM
9.Resaurant 10.Kitchen 11.Foyer
12.Gym 13.Coffee 14.EV Charging
level 3 15.EV Charging level 2

SECOND FLOOR PLAN



EV charging

Convenience store

Food bar

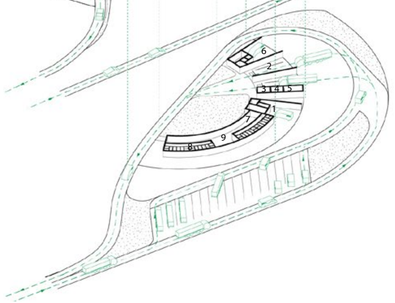
Gym

Dog park

TRUCK STOP

1.Delivery(Convenience store)
2.Truck Wash 3.Equipment room
4.Driver rest room 5.Reception
6.Delivery(resaurant) 7.Driver
service 8.Shower 9.Lobby

FIRST FLOOR PLAN



Shower room

Driver service

Truck EV charging

Truck wash

FUNCTION DIAGRAM

1.Hotel reception 2.Check 3.Shelf 4.Softer drink 5.Fast foods 6.Coffee station 7.Storage 8.ATM
9.Resaurant 10.Kitchen 11.Foyer 12.Gym 13.Coffee 14.EV Charging level 3 15.EV Charging level 2

SECOND FLOOR PLAN

01

Wanda Mall

Mall design, display of facade and structural details

Location:Shanwei,China
Type:Professional Project
Collaborative Work（4 People）
Role: Main designer
Contribution:30%
Time:04/2020(more than 2 Years)
Supervisor: Zhang Liang

02

PowerChina Headquarter

Office Building Design

Location: Beijing City
Type: Professional Work
Collaborative Work（7 People）
Role: Designer
Contribution: 30%
Time:2021.03
Supervisor: Zhang Liang

03

100 Fenghuang Street

Mix-use design, commercial street design

Location:Changsha,China
Type:Professional Project
Collaborative Work（10 People）
Role: Assistant designer
Contribution:20%
Time:04/2020(more than 2 Years)
Supervisor: Zhang Liang

04

Renewal of Silk Factory

Uban Renewal of Qiandao Hu Zhong Si Silk Factory

Location: Hangzhou,Zhejiang Province
Type: Professional Work
Collaborative Work（6 People）
Role: Assistant Designer
Contribution: 20%
Time:2020.04——Present
Supervisor: Xuanlei

Other Works

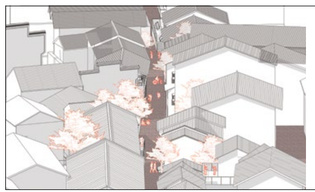
Professional works, Competition works

Survey and Drawing of Chinese Ancient Building

Location: Hangzhou,Zhejiang Province
Type: Professional Work
Collaborative Work（7 People）
Time:2018.11-2019.02
Supervisor: Xuan Lei

City Farm Design

Location: Zhengzhou,Henan Province
Type: Competition Work
Collaborative Work（3 People）
Role: Designer
Contribution: 50%
Time: 2017.08
Tutor: Zhu Dongdong



Renovation Design

Location: Qimen,Anhui Province
Type: Professional Work
Collaborative Work（7 People）
Role: Designer
Contribution: 30%
Time: 2018.09——2020.02
Supervisor: Xuan Lei

Mall Design

Location: Hangzhou,Zhejiang Province
Type: Professional Work
Collaborative Work（6 People）
Role: Assistant Designer
Contribution: 20%
Time:2020.04——Present
Supervisor: Zhang Liang

School Design

Location: Chongqing City
Type: Professional Work
Collaborative Work（4 People）
Role: Assistant Designer
Contribution: 30%
Time:2020.06
Supervisor: Zhang Liang