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DU-Yuhong  
HowayGroup, LLC



## DU YUHONG PORTFOLIO

Bachelor of Architecture from Harbin Institute of Technology  
Applying for Master of Architecture Program in Fall 2013



# WORLD OF DIFFERENCE

While globalization has pushed our society forward, it has also taken negative impact on architecture and urbanism. During the past four years, I was always focused on an antidote to the pervasive sameness generated by globalization, attempting to find out an architectural approach embracing Place, Hybridity, and Local Style.

In my portfolio, six studio works are included. They represent my thinking process and my attempts to resolve and celebrate influences in our era of radical globalization.

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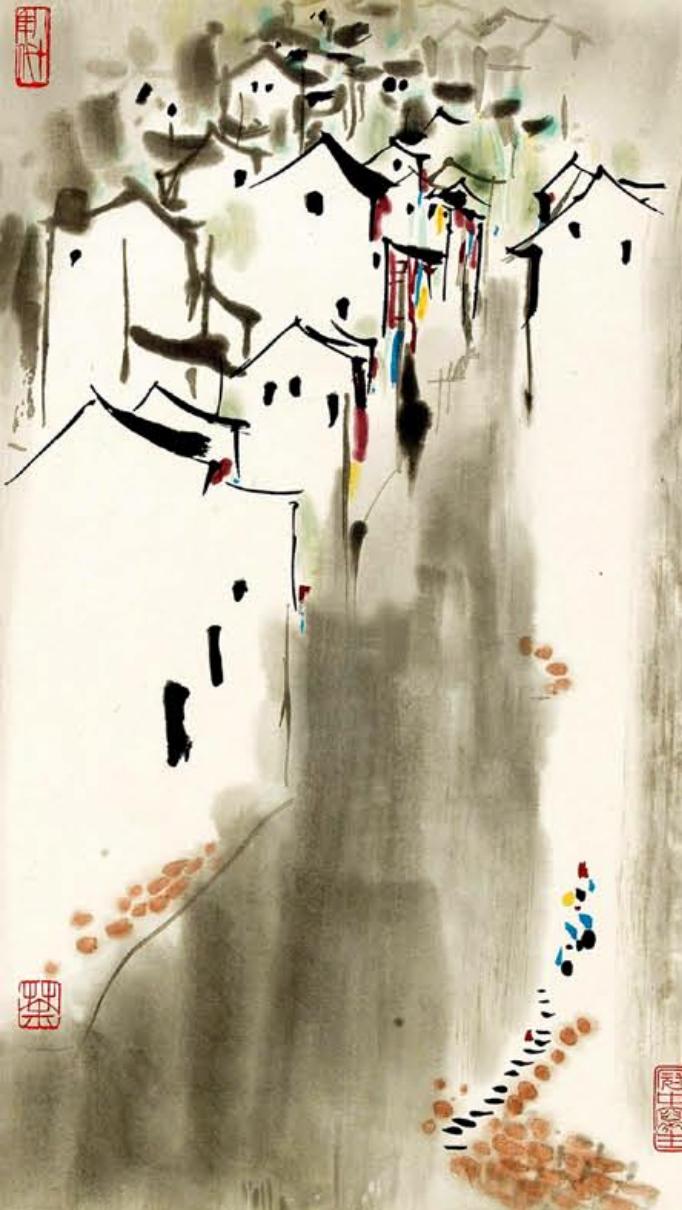
## The Country School

A Primary School located  
in a Village of Taiwan

Type: Independent studio work  
Time: February-April in 2012  
Tutor: Professor Yan Maocang  
Location: Minquan Village, Taiwan  
Size: 8800m<sup>2</sup>

The project is to build a primary school in the village of Minquan in Taiwan, which is located in hillsides and the majority of residents there are aborigines.

In this special natural environment, how to arrange school intervene local presence in a unique and comprehensive approach, is the core of the design.

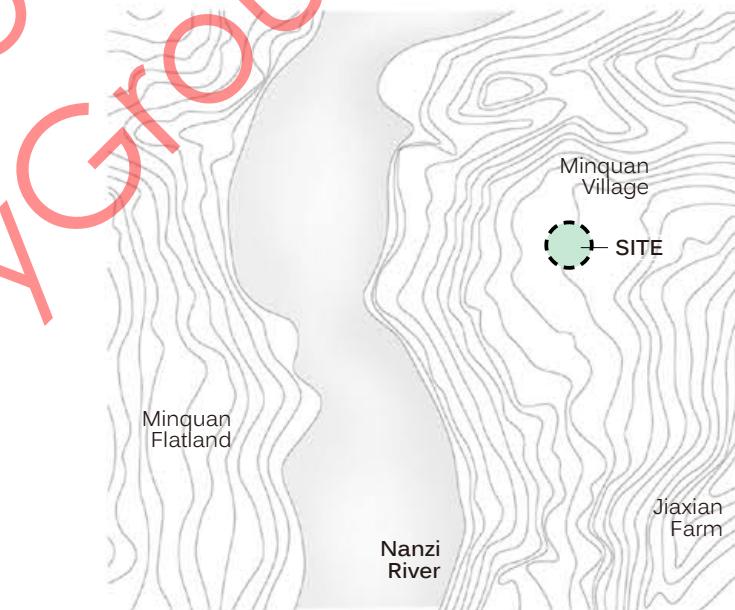


## Spatial Prototypes

The project was inspired by a residential impressionistic painting by Wu Guanzhong.

In the traditional form of Chinese housing, houses not just act as an imitation of nature, but more of a manner in which people learn from nature. Through poetic transformation, houses act as semi-artificial and semi-natural things which actively dialogue with nature. In residential patterns of China, cities, architecture, poetry, painting and nature has been inseparable with each other and difficult to classify from each other, forming a comprehensive state.

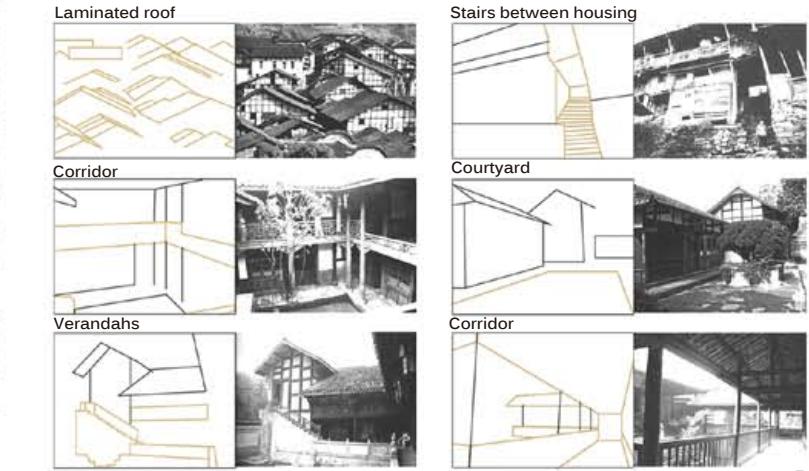
Taken from the prototype of the Chinese traditional residential courtyards, rural schools ultimately rendered as a series of courtyard different with each other facing the mountain.



**Context**

The base is located in the village of Minquan in Gaoxiong , Taiwan, surrounded by river and mountain.

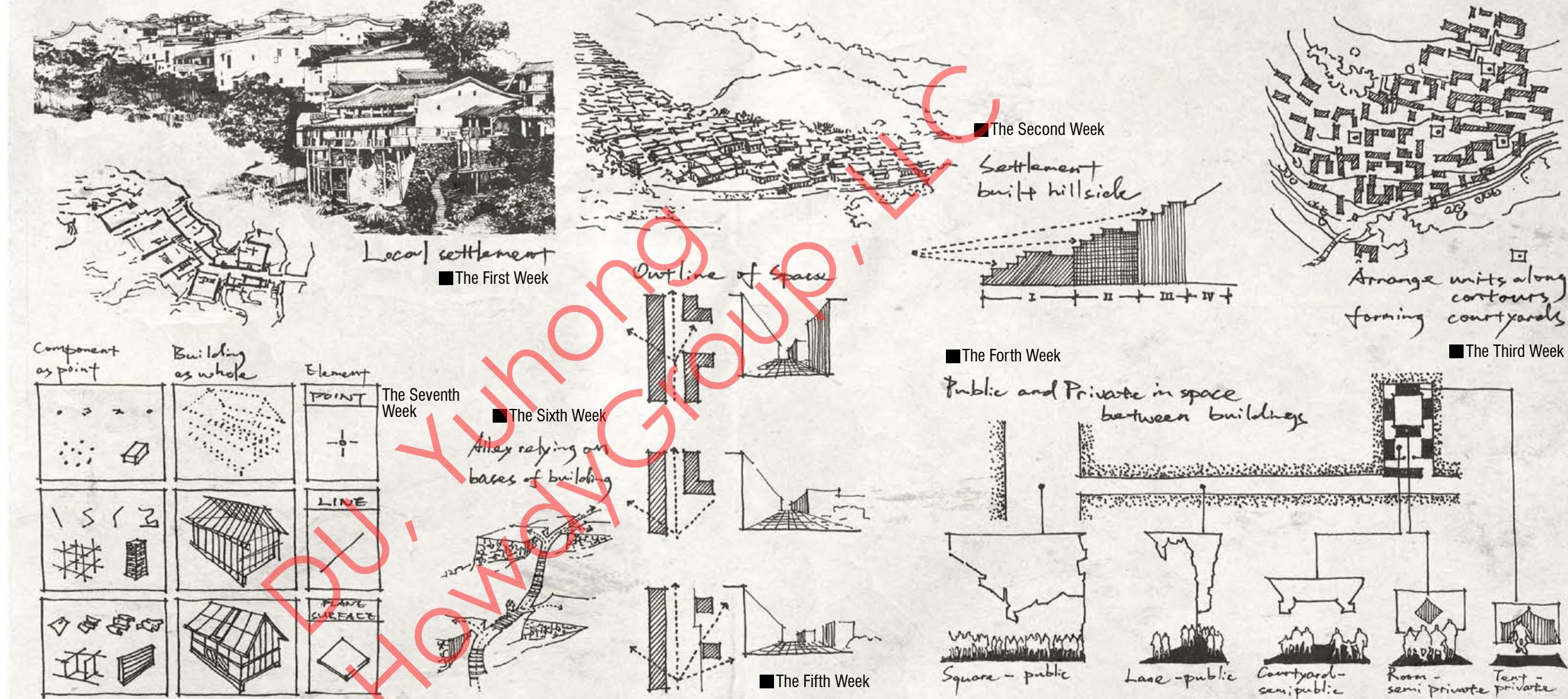
Majority of the residents are indigenous people, who have their own cultural traditions, customs and habits. The characteristic of local building is distinctive, distributed scattered.

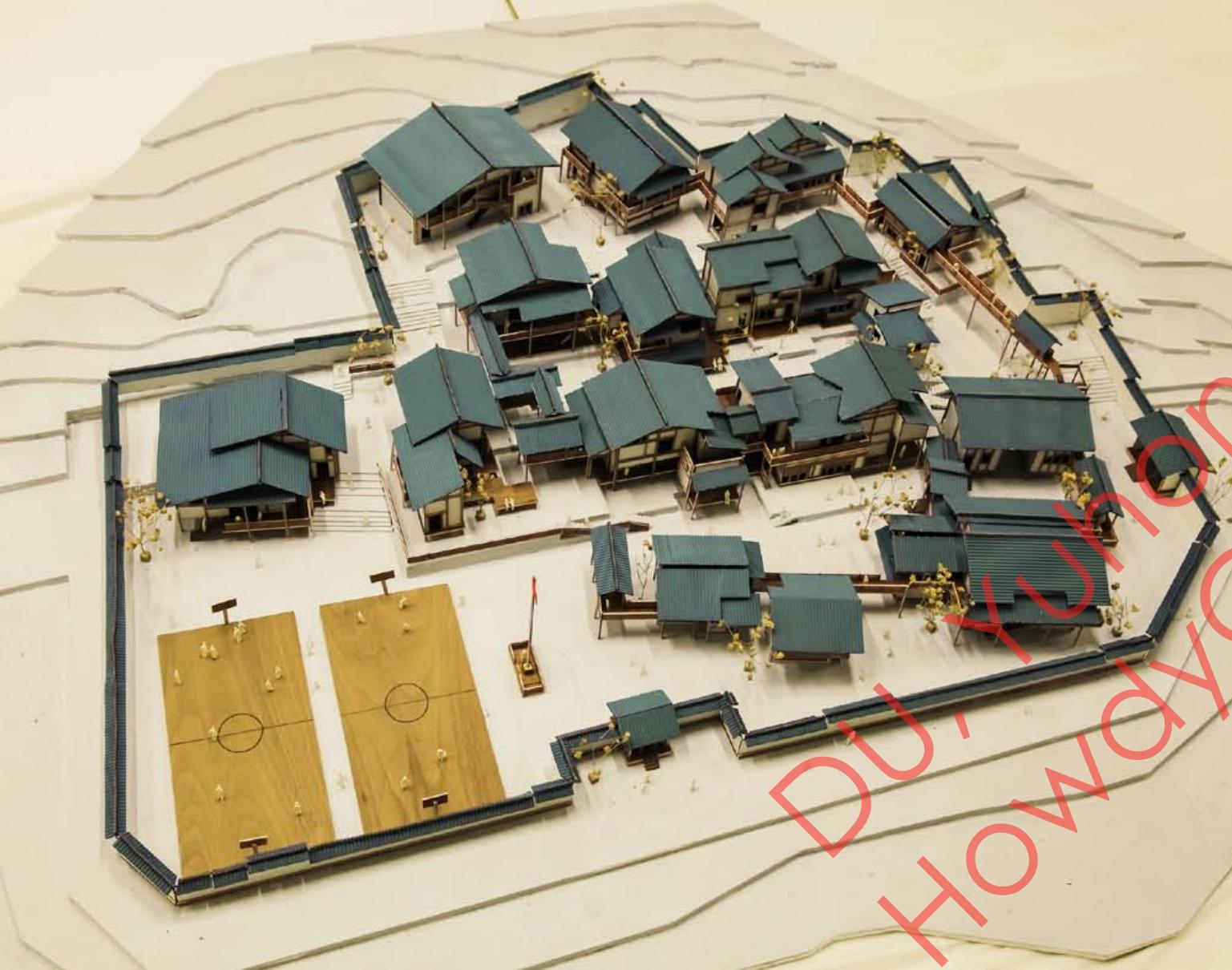


# Design Notes

In the process of design, firstly I studied the organization of local settlement, then formed my own space logic for organization. Finally, coming to the design of each unit.

By bearing the wish that school is not a campus, not only a reaction towards traditional academy design conception, I challenge myself in architecture type, crowd density, architecture scale, construction modes, and cultural diversity. By keeping the original village landform and other geographic features, I attempt to make a living space out of the natural environment.





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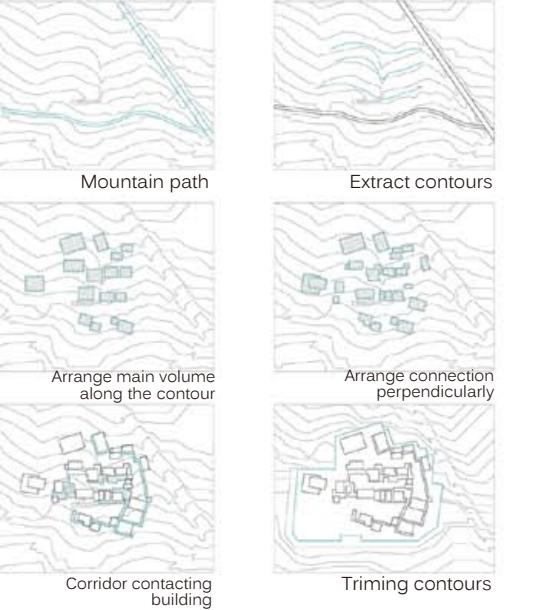
## Spatial Images

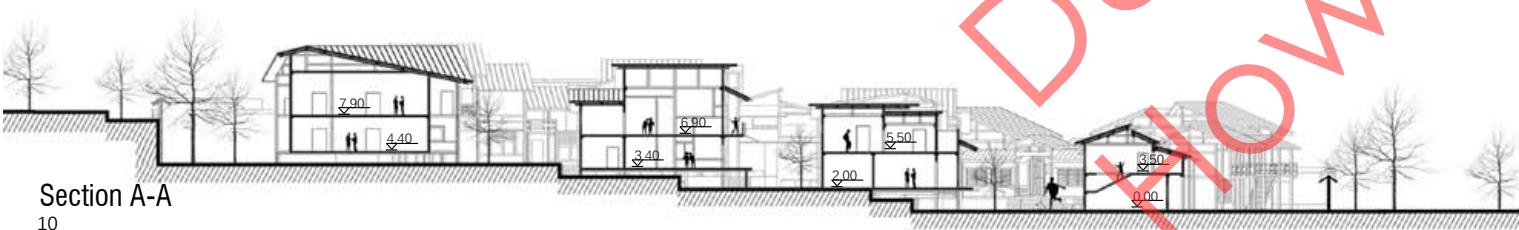
Rural settlements are maze gathering buildings and events, schoolyard here is also positioned as a special rural settlement. The general type approaches at "yard for learning", which represents a free and independent rural settlements.

Driven by the undulating terrain, the naturally scattered space and solid volume has started a vivid conversion between the dynamic and static.



## Generating Process





### Function organization

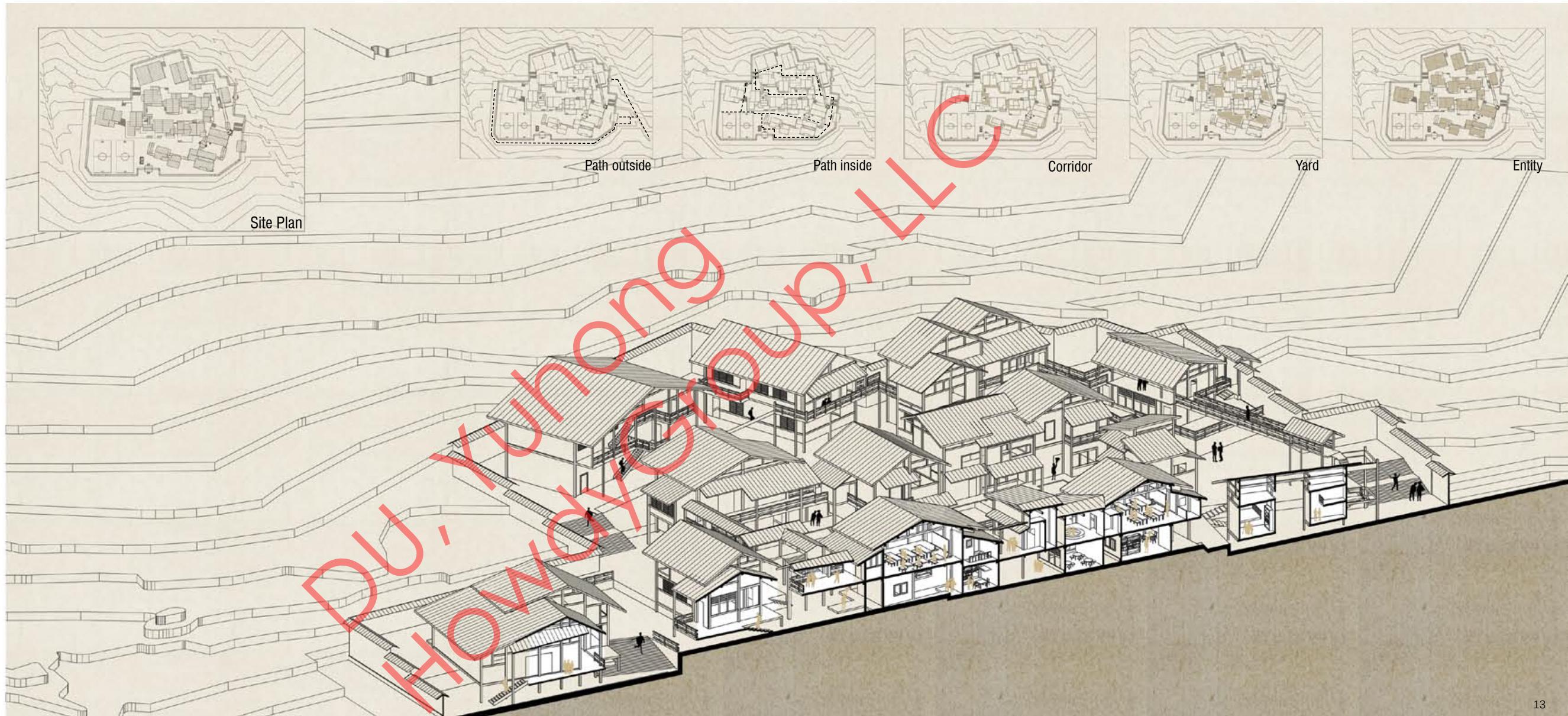
The classification of schoolyard is concise, and function arrangement is based on the trend of the mountain, location and surroundings.

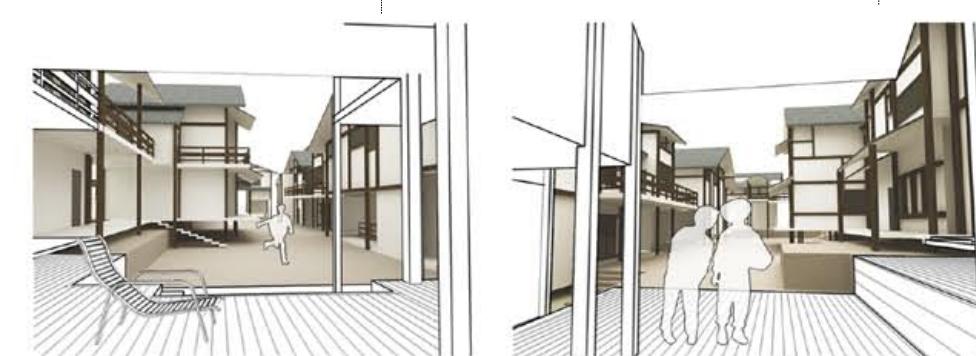
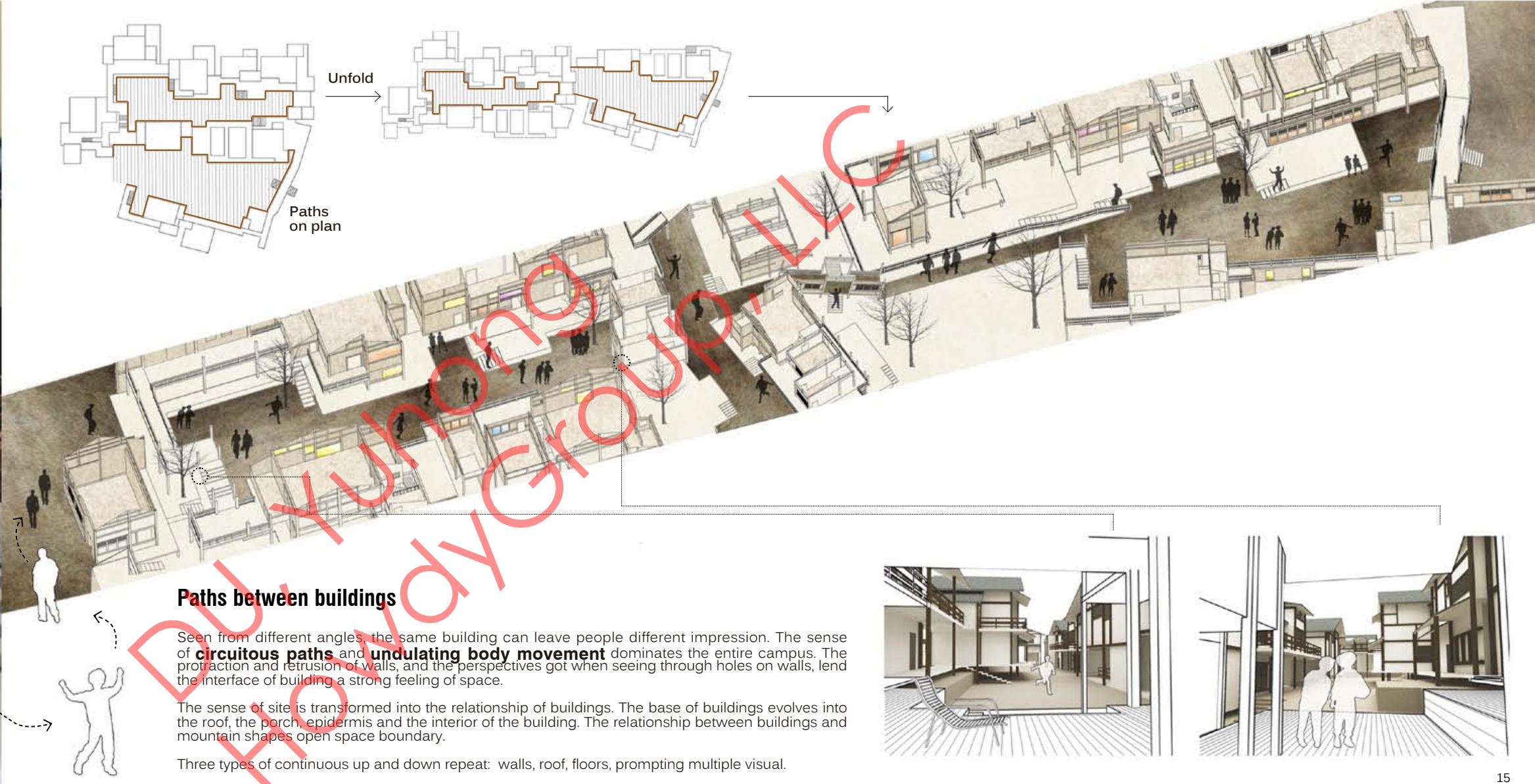
As to the monomer, neatly courtyard and free volume coexist. Driven by the undulating terrain, the naturally scattered space and solid volume has started a vivid conversion between the dynamic and static.

## Logic of Organization

The organization of group space learns from natural settlement in local, combined with the temperament of both the courtyard and garden. The constitution of village is free, spread and incremental.

And environment is considered to be the gap with a high degree of continuity. Function units locate faced up with river while rely on mountain, affected by the trend and of mountain, as well as the adjacent volume and posture relationship between themselves.







## Roof

**Roof** is an important element in the building. Building presents the figure of scattered in height, acting as a response to the up and down of terrain, forming another type of interface and continuous movement.

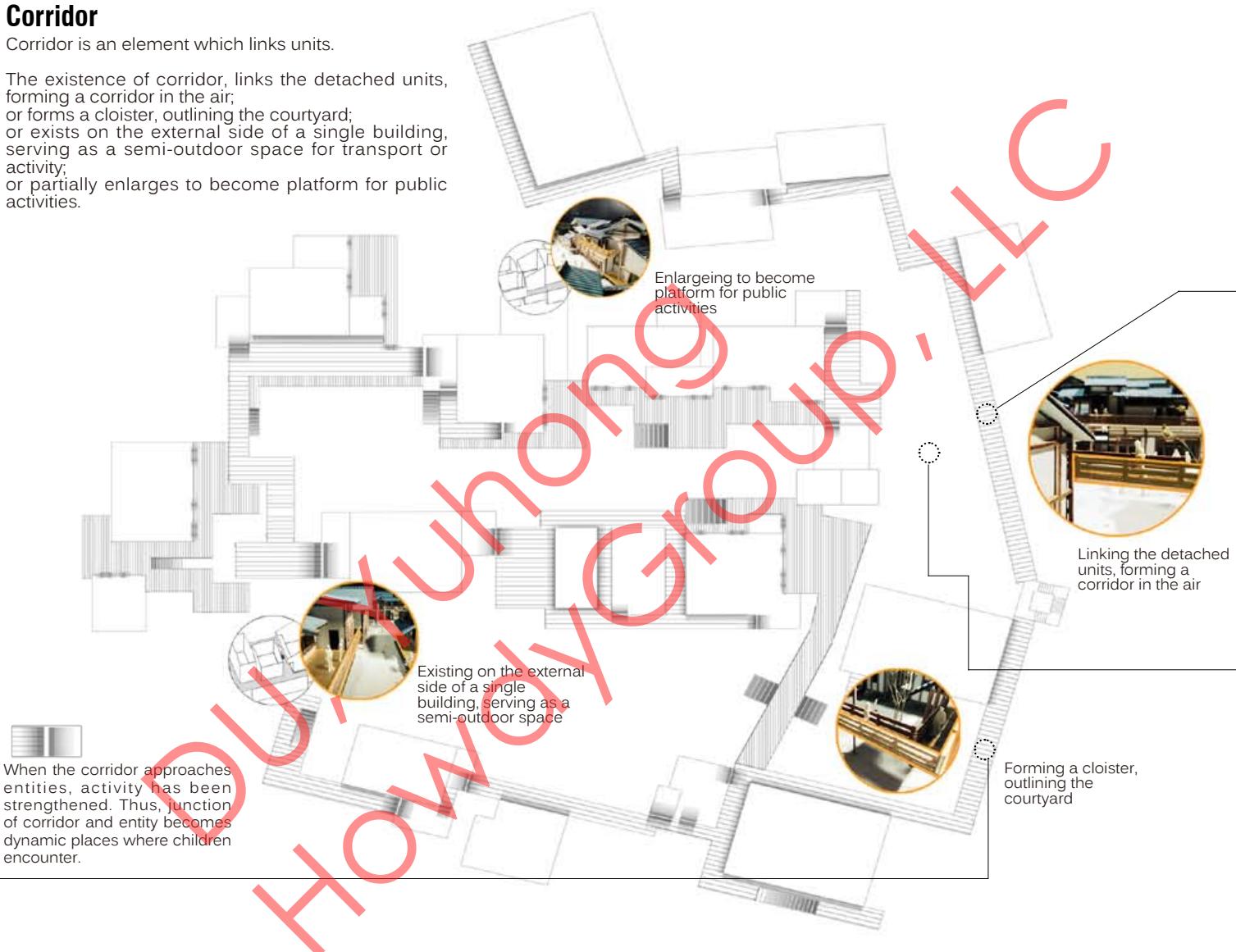
In a single building, the forms of roof also have a strict correspondence with the **interior space**, and combination of different roofs is an alternative embodiment of the internal space.



## Corridor

Corridor is an element which links units.

The existence of corridor, links the detached units, forming a corridor in the air; or forms a cloister, outlining the courtyard; or exists on the external side of a single building, serving as a semi-outdoor space for transport or activity; or partially enlarges to become platform for public activities.



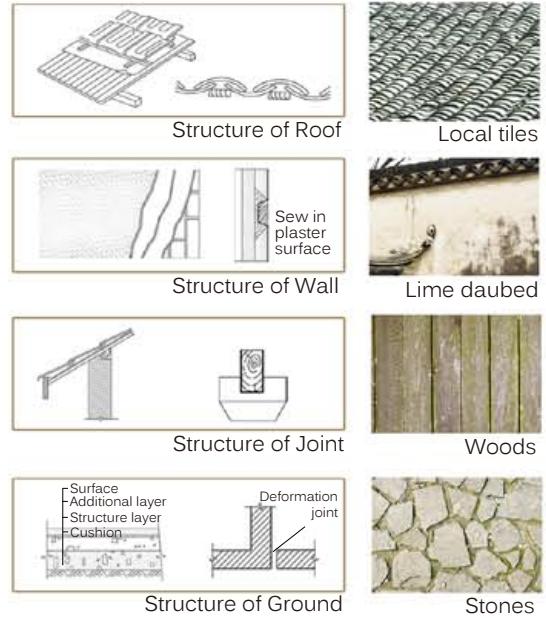
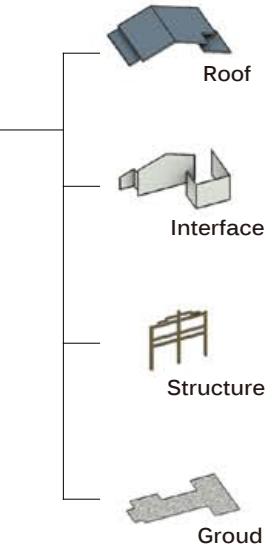
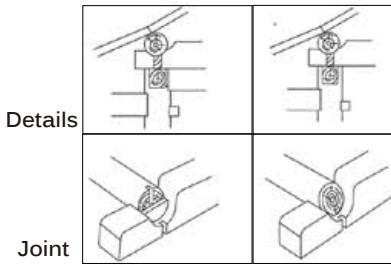
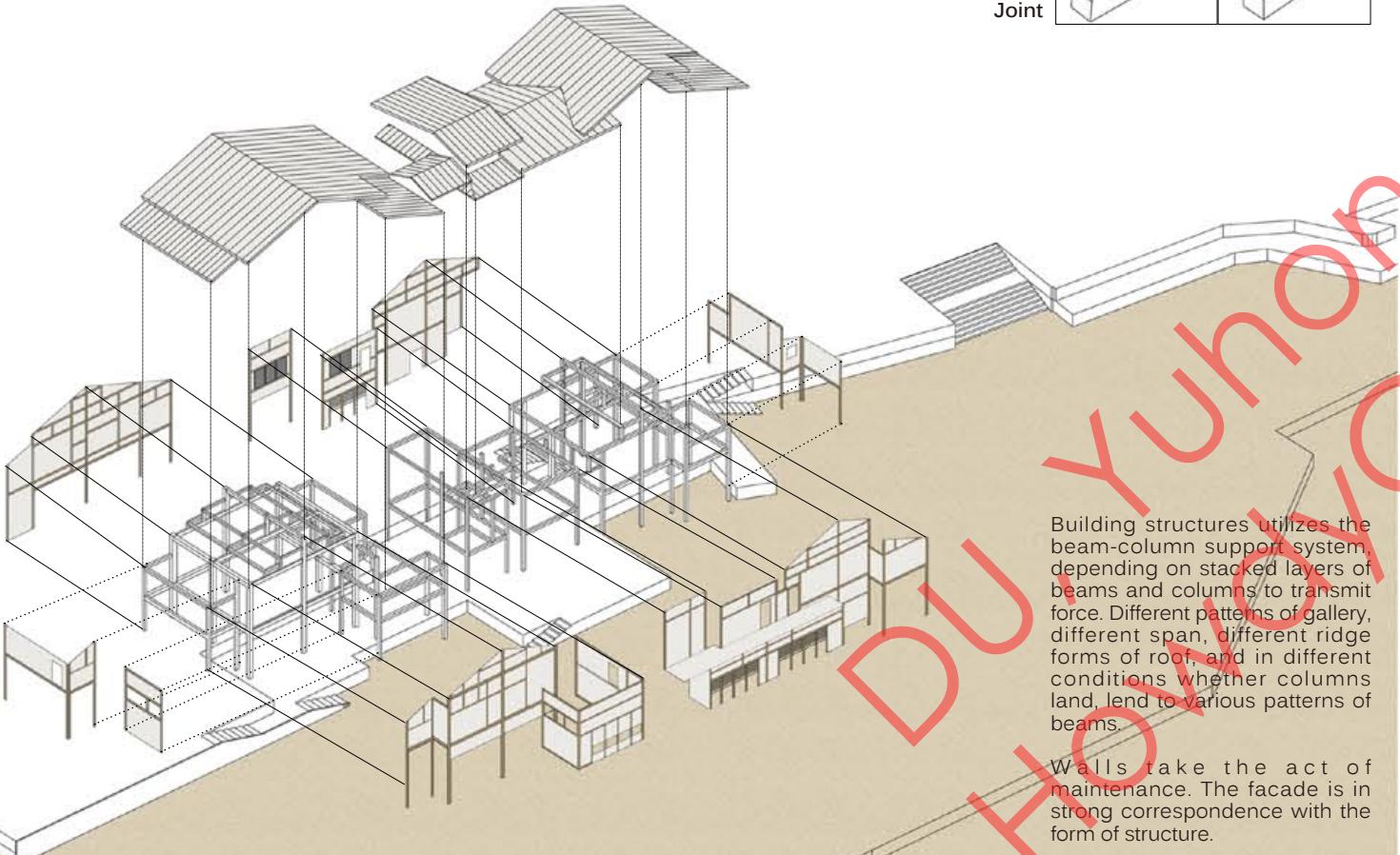
Linking the detached units forming a corridor in the air

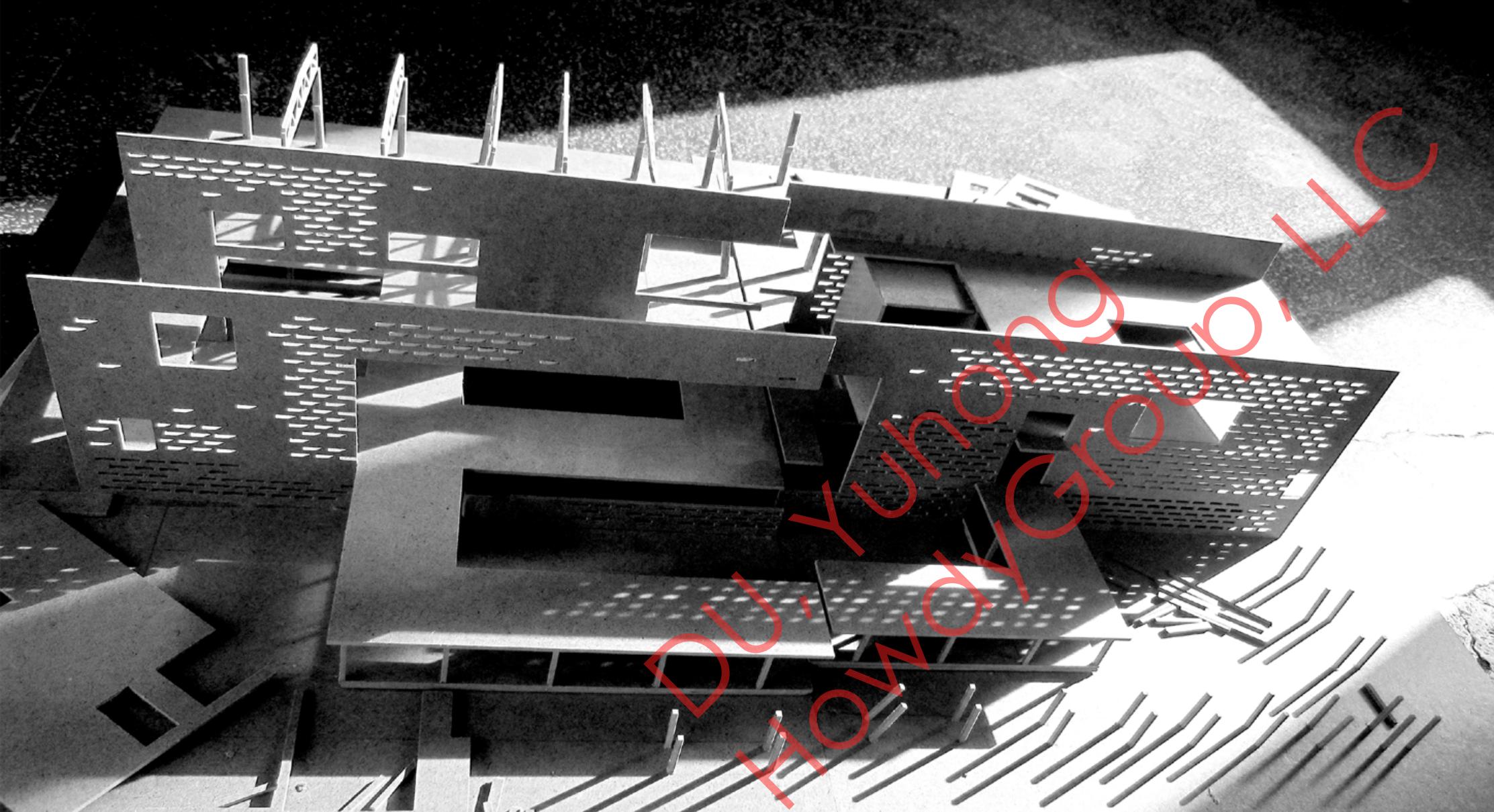


Enlarging to become platform for public activities



## Structures & maintenance interface





## Double Walls

The transform of an old factory  
into a library

Type: Academic studio work

Time: April-June 2011

Tutor: Prof. Li Lingling, Luo Peng

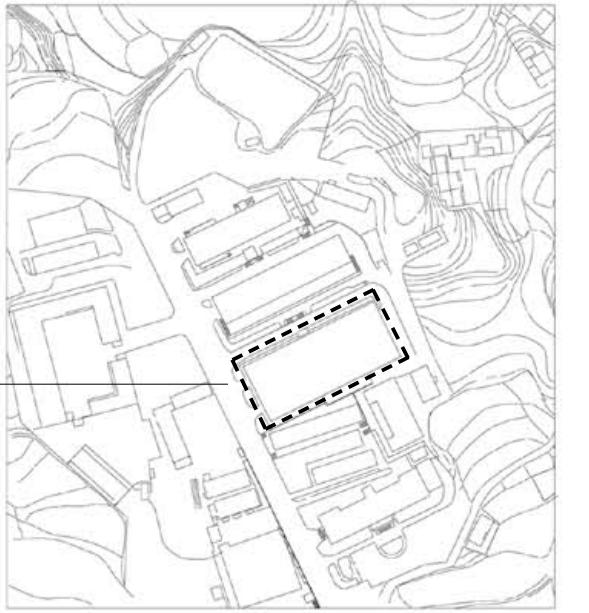
Location: Chongqing, China

Collaborator: Yang Xiaonan, Yiran•Guoge

Size: 2800m<sup>2</sup>

In the project, our task is to transform an abandoned factory into a library. By the renovation of existing space, the life circle of building can be extended, and the value of original building gets continuation.

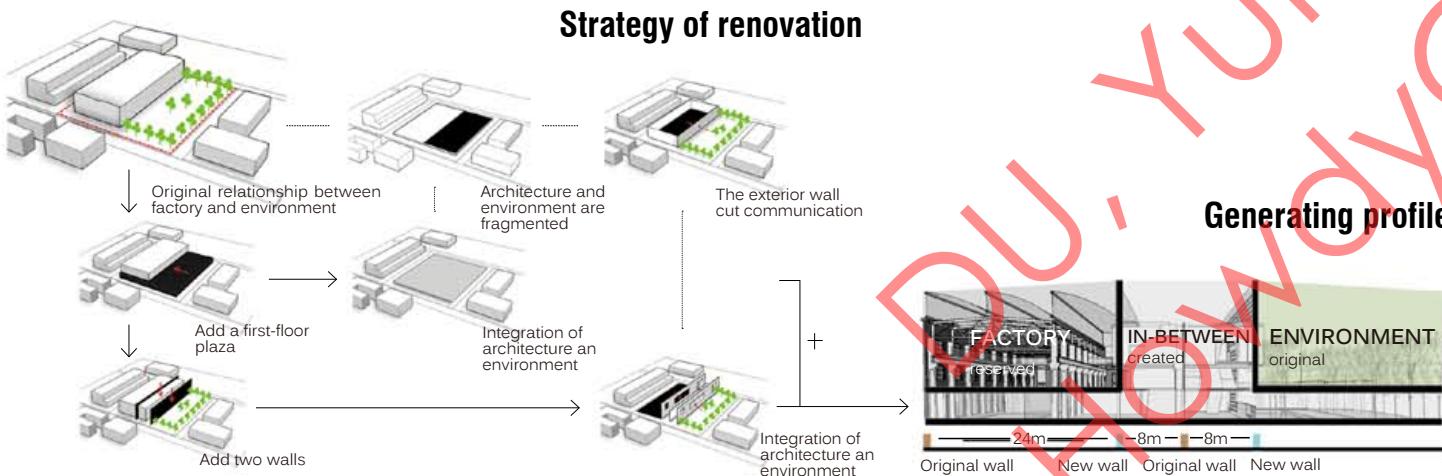
We hope to complete the transformation of the factory as concisely as possible. The main operation for renovation is to insert a wall on both side of the factory's exterior wall, "Double Wall" is the strategy of our renovation.



## Site Reviving

In recent years, as the speeding up of China's urbanization, a large amount of industrial construction located in the central region of urban has to be transformed into land for development, leaving behind a lot of idle industrial architecture.

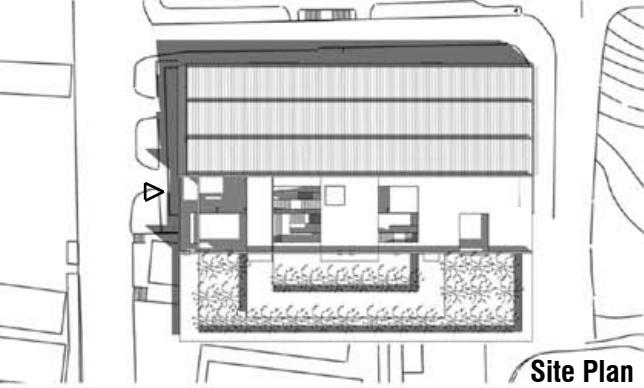
Base is located in university region in Chongqing, stands as the original state-owned 507 factory. There are three well-preserved factories in the base. We choose the largest one as the object for transformation.



## Logic for renovation

In the project, we want to inherit the value of existing building to the extent that when people step on the library, they can experience the unique charm of the once factory. Therefore, we are aimed at giving new life to the old plant in a way of changing as little as possible.

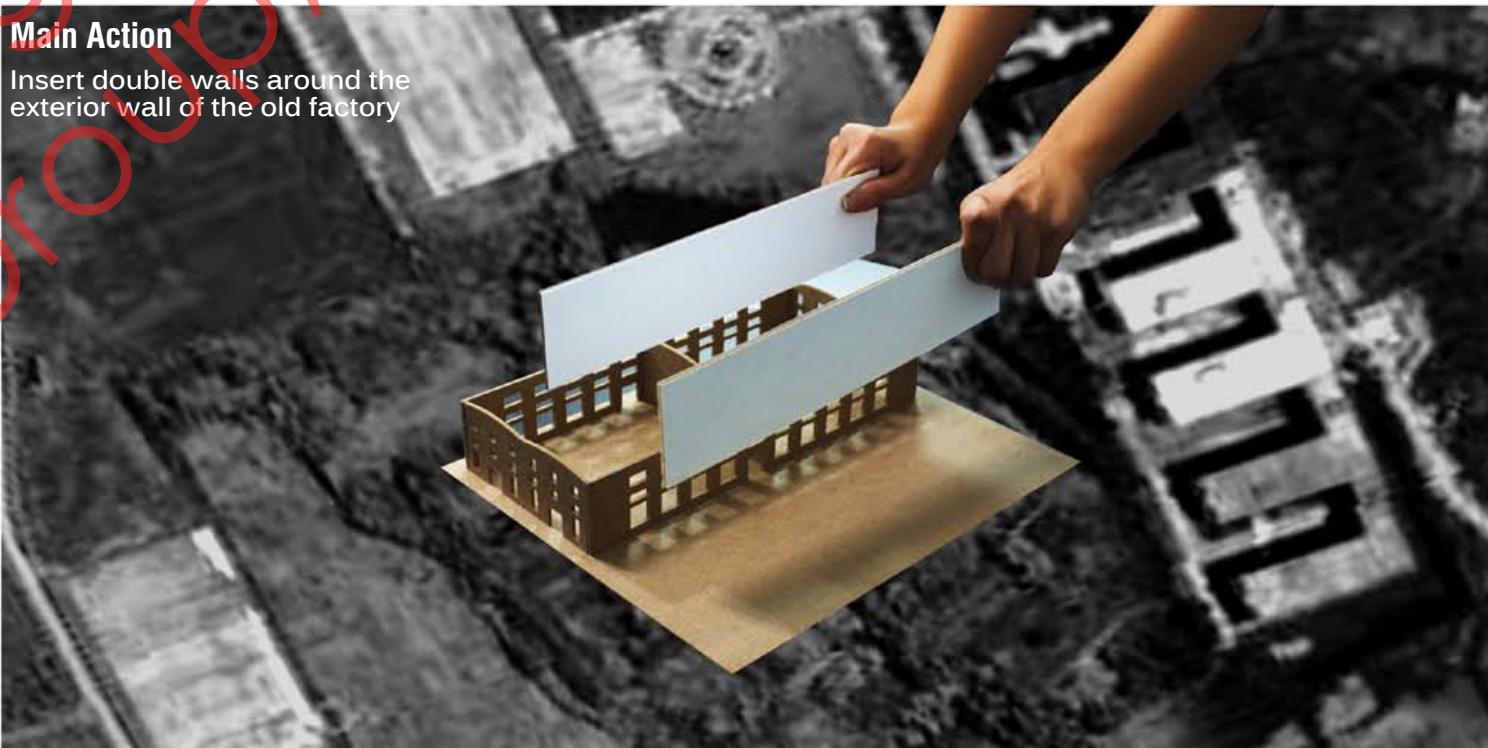
The main operation is to insert a wall on both sides of the factory's exterior wall, called "Double Walls". Space is divided into three parts by the double walls: Preserved Old Factory, In-between Space communicating the old factory and environment and the part of Environment.



## Main Action

Insert double walls around the exterior wall of the old factory

## Generating profile



## Logic of Space

The space of library is shaped by the Double Walls and the walls of old factory into three parts: **RESERVED OLD FACTORY**, **IN-BETWEEN Space** communicating the old factory and environment and the part of **ENVIRONMENT**.

**IN-BETWEEN** space exist in the manner of connection of old factory and environment, communication architecture and environment, communicating the original factory and the newly built building, and it also act as the ecological space helping solve nature lighting and ventilation for internal space in library.

The organization of space interprets the relationship between architecture and environment, interprets the relationship between newly built building and original ones, interprets the strategy of energy-saving.





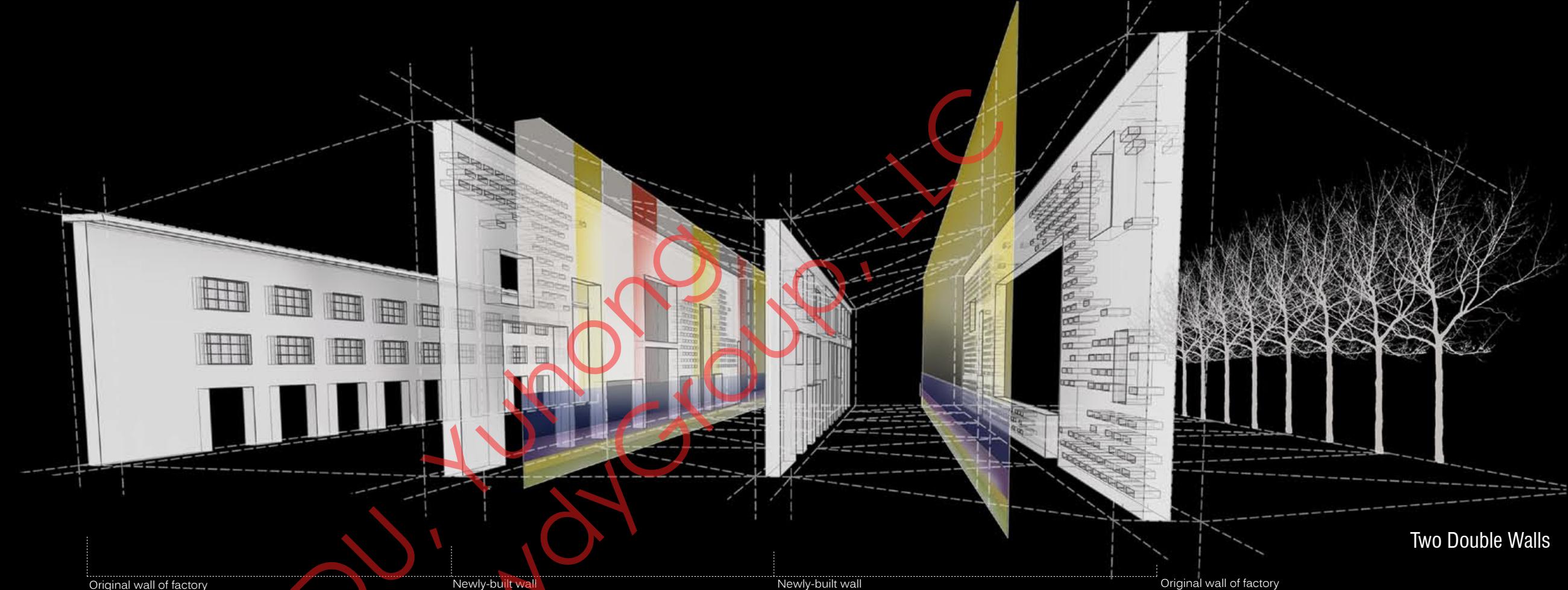
The added double walls and the original walls of old factory, in total, the four walls shape the space logic of library. The four walls take on different roles in the organization of space.

The new wall nearest to environment, act as interface of architecture and environment.

The old wall which stands between double walls, provides people in the library the opportunity to feel the breath of the old building when wandering between the old and new.

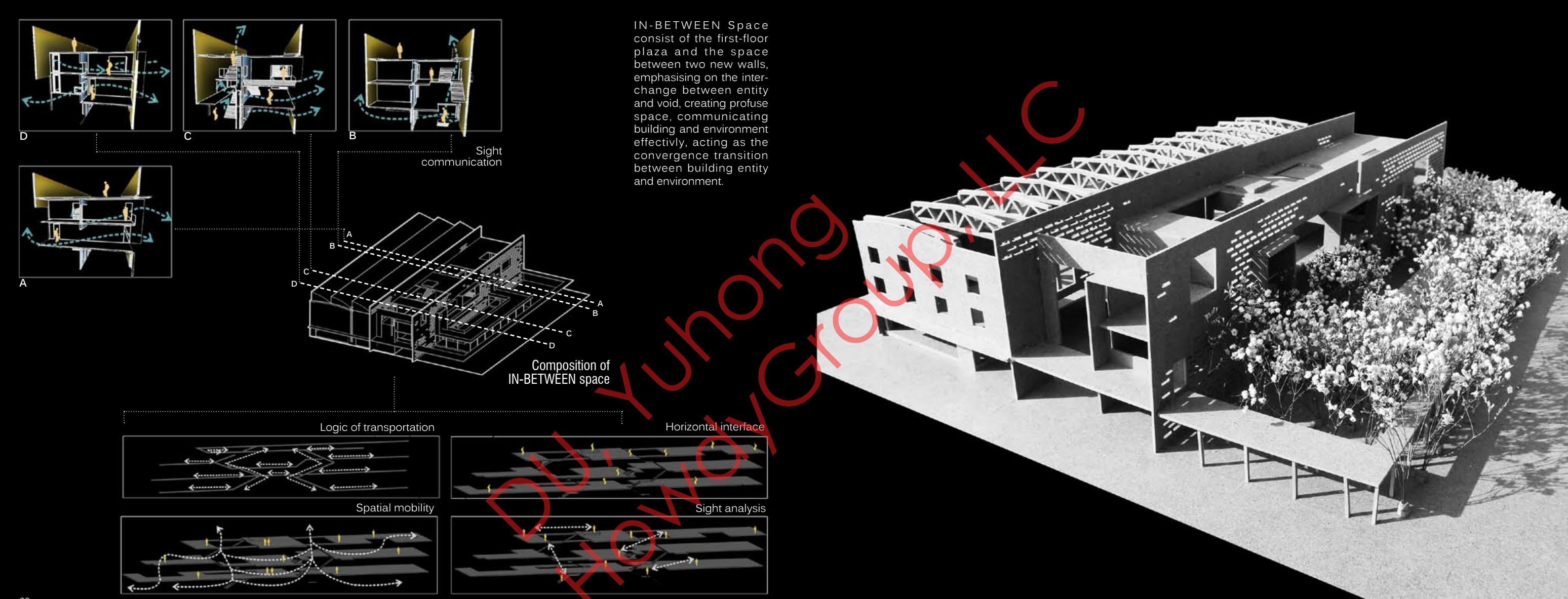
The new wall inserted in the space of library, act as an enclosure interface of the reserved factory as well as the enclosure interface of the newly built space.

Another old wall of the factory retains completely. In the ground floor, the four walls exist in a manner of weaker enclosure, forming a spacious square, gathering popularity.



Two Double Walls

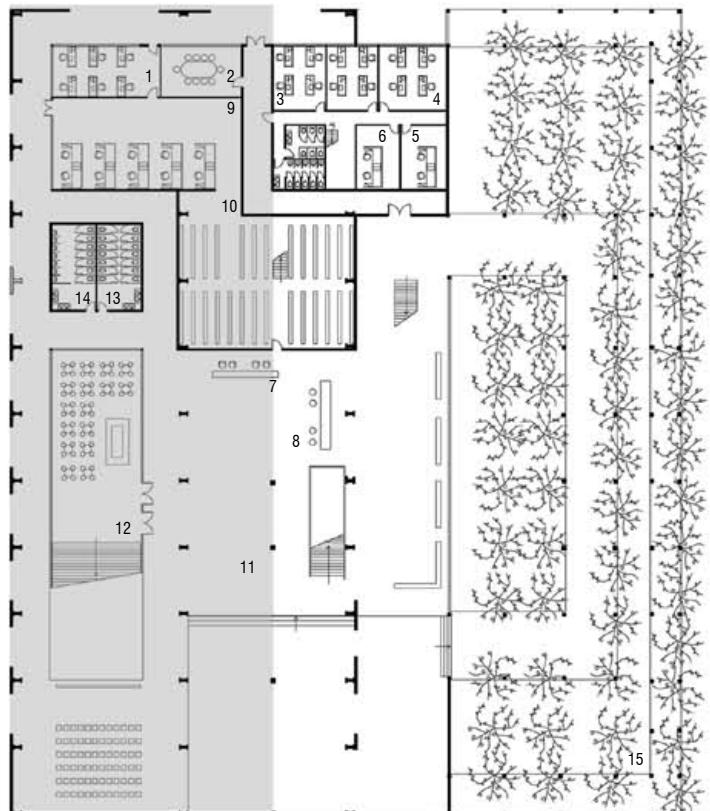




## FACTORY reserved



**1st floor Plan**

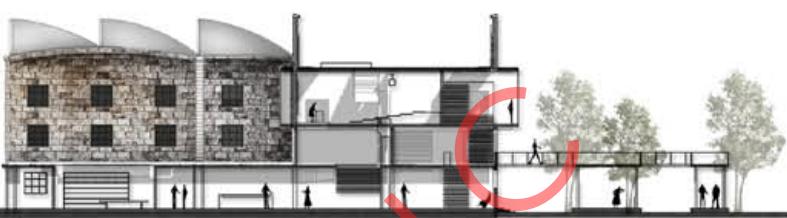


The most prominent feature of industrial building is large-scale, therefore, if aimed at sustaining the old plant's life , it is necessary to let people experience the atmosphere of the large-scale space.

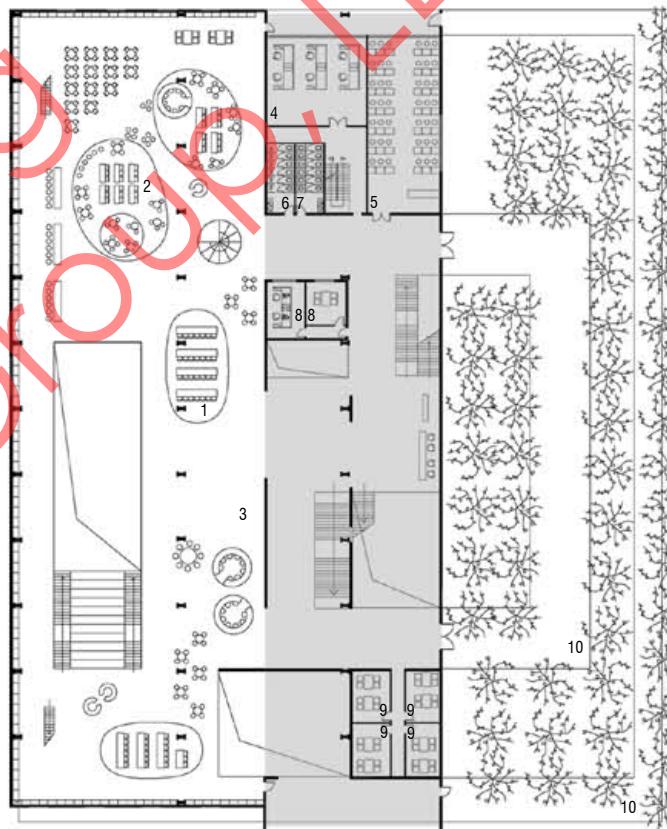
**Preserved factory** space is 72m long, 24m wide, 10m high, with no internal vertical partition. It bears all the reading functions, serving as the main function part .

In addition, the characteristics of large-scale is also conducive to energy saving. So in the way of continuation of spatial characteristics of industrial buildings, we also inherit its energy-saving strategy.

**Perspective of FACTORY reserved**



**2nd floor Plan**



- 1 Electronic reading
- 2 Journals reading
- 3 Ordinary Viewing
- 4 Central control
- 5 Computer room
- 6 Male toilet
- 7 Famale toilet
- 8 Audiovisual cubicle
- 9 Professional viewing
- 10 Readers salon

In the **IN-BETWEEN** space created by the Double Walls, there is solid functional space, semi-outdoor space and white space, in this way, building and environment communicate with each other.

The vertical space shaped by double walls and the ground layer square combine to form an integral wind drawing system. Horizontal and vertical space in the **IN-BETWEEN**, serve as vertical lighting tube and ventilation tube.

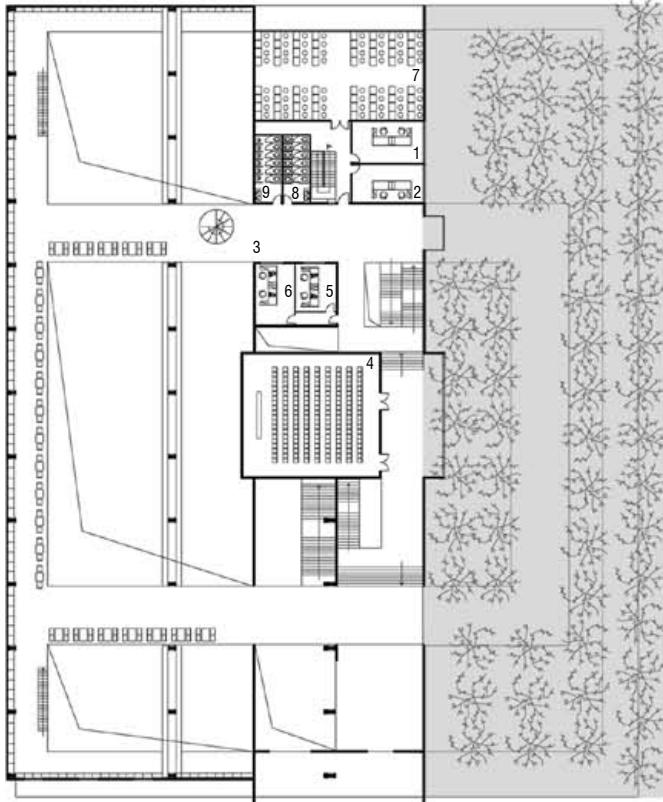
**IN-BETWEEN** space takes up the auxiliary function of the library

**Perspective of IN-BETWEEN**





**3rd floor Plan**

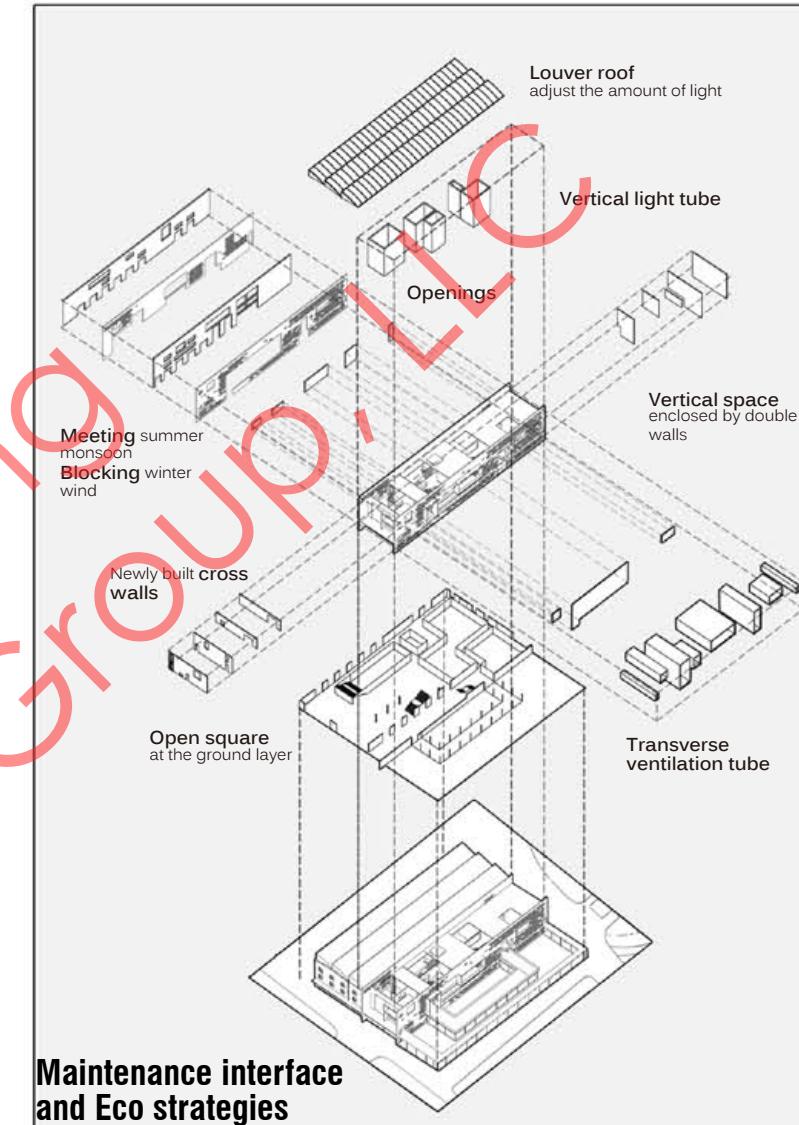


## The Space of Environment

In the part of **Environment**, we add two annular corridors at the height of second floor, connecting with space in factory via In-between. Thus, path has been established from building – building and environment – environment – building, from old factory – newly built space – external space - newly built space - old factory.

Large area of trees is conducive to purify the air, playing a significant role to improve the local environment.

## Maintenance interface and Eco strategies



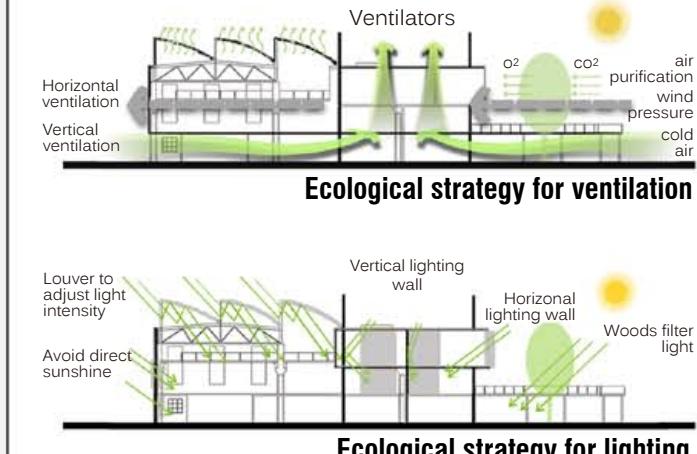
## Ecological energy saving strategy

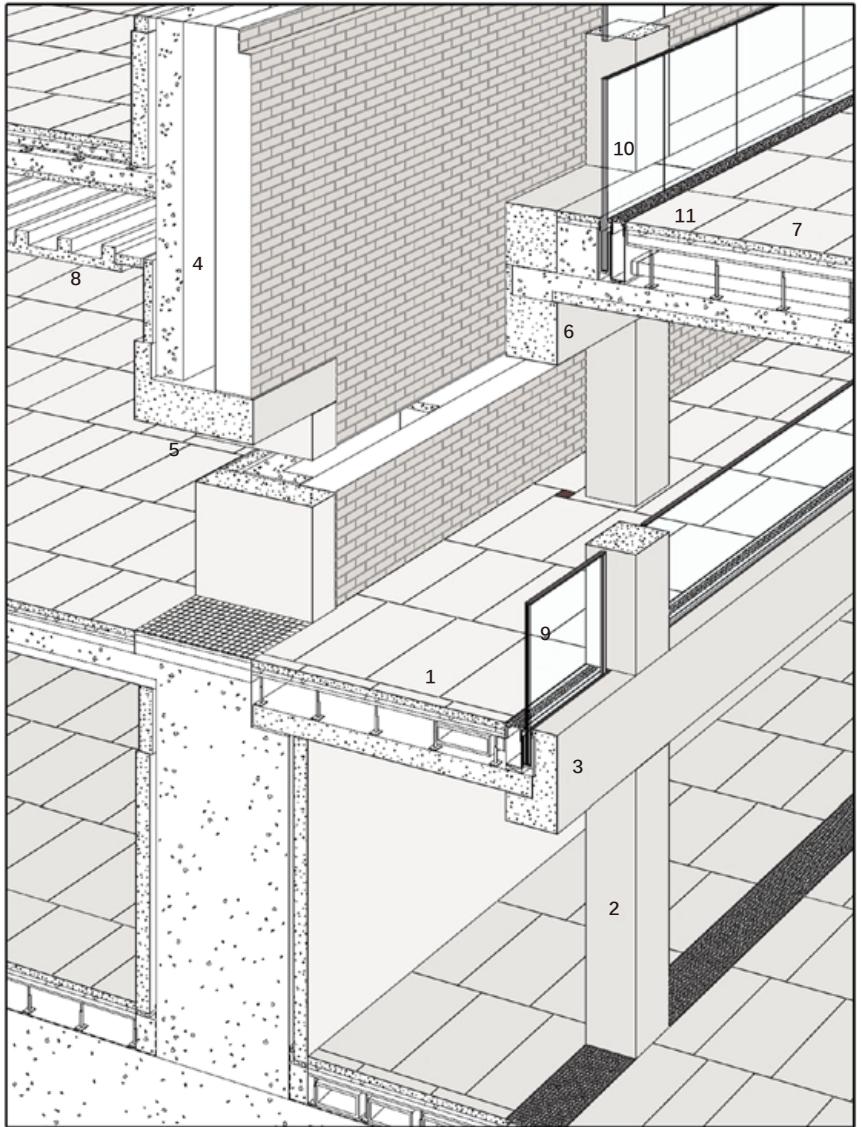
The energy-saving strategy of library acts mainly through **IN-BETWEEN** space consists of vertical space and the bottom square.

**IN-BETWEEN** space exists in the form of a giant wind drawing, to improve the overall ventilation status.

In addition, opening areas of the four walls decline and the transverse ventilation tube realize nature ventilation.

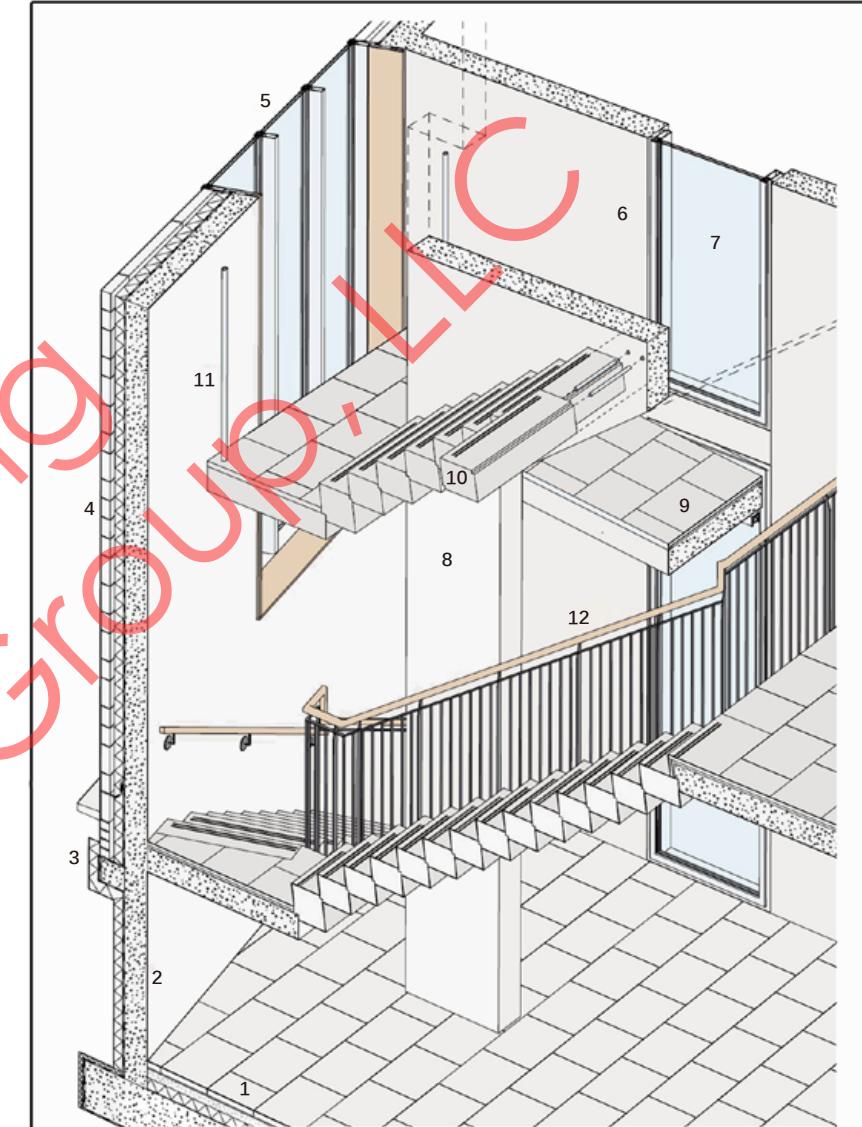
As to the aspect of lighting, the louver of roof and vertical lighting tube, together realize nature lighting.





**Details**  
Through interface between INBETWEEN and ENVIRONMENT

- 1. Ground floor  
Concrete paving with polished Surface  
Strips of mortar supporting paving  
Proprietary raised floor system  
Precast concrete ceiling slab
- 2. Typical column  
Precast concrete column with Sandblasted faces
- 3. Ground floor edge beam  
Precast concrete edge beam
- 4. New courtyard wall  
Face brick wall cavity  
In-situ concrete structural wall  
Cavity  
Precast concrete wall panels  
Precast elements
- 5. Wall opening  
Precast concrete jamb
- 6. Platform beams  
Precast concrete beams  
Perimeter beams
- 7. Platform floor  
Concrete  
Strips of mortar supporting paving  
Proprietary raised floor system  
Composite ceiling  
Precast concrete edge
- 8. New reading rooms at second floor  
Concrete  
Strips of mortar supporting paving  
Proprietary raised floor system  
Composite structural floor Ceiling
- 9. Ground floor balustrade  
Toughened and laminated glass  
Panels with satin-treated surfaces
- 10. Platform balustrade  
Toughened and laminated glass  
Panels with satin-treated surfaces
- 11. Air supply  
Cast bronze grating  
Bronze angle frame for grating  
Galvanised steel plenum channel supplied by ductwork



**Details**  
Section through stairs in INBETWEEN Space

- 1. Ground floor  
Concrete internal walls  
Translucent sealed finish
- 2. External wall below ground level  
Load-bearing Clipsham limestone  
Stainless steel shelf  
Cavity with mineral wool insulation  
Concrete internal walls
- 3. Wall detail at ground level  
Continuous reinforced concrete nib  
Heavy duty protection board  
Engineering brick external leaf
- 4. Central column  
Reinforced concrete column
- 5. External window  
Aluminium box  
Double-glazed sealed unit  
Veneered MDF lining  
Internal venetian blind
- 6. Internal Wall
- 7. Window between stair and Reading room  
Box section frame  
Double-glazed sealed unit  
Window  
Pressed aluminium channel
- 8. Landings  
Reinforced concrete
- 9. Stair  
Profiled stone treads  
Stainless steel
- 10. Hangers  
Stainless steel hanger rods
- 11. Balustrade  
Painted steel balustrade



## Loop Community

### Collective Housing in Old Town

Type: Academic studio work

Time: Sep. - Oct. 2011

Tutor: Prof. Liu Deming, Li Guoyou

Location: Harbin, China

Collaborator: Yang Yuan, Yang Xiaonan

Size: 24340m<sup>2</sup>

Loop Community is a mass housing regeneration project located in an old town in Harbin. Although the district has a long history and a large number of listed buildings, known as "Baroque in Orient", however, away from city center, the old town is unpopular among citizens, rent by people engaged in small business.

Unluckily, the old town gradually got separated with urban community and lose space for cultural interaction, thus becoming less a space for inter-cultural exchange and more of a "ghetto".

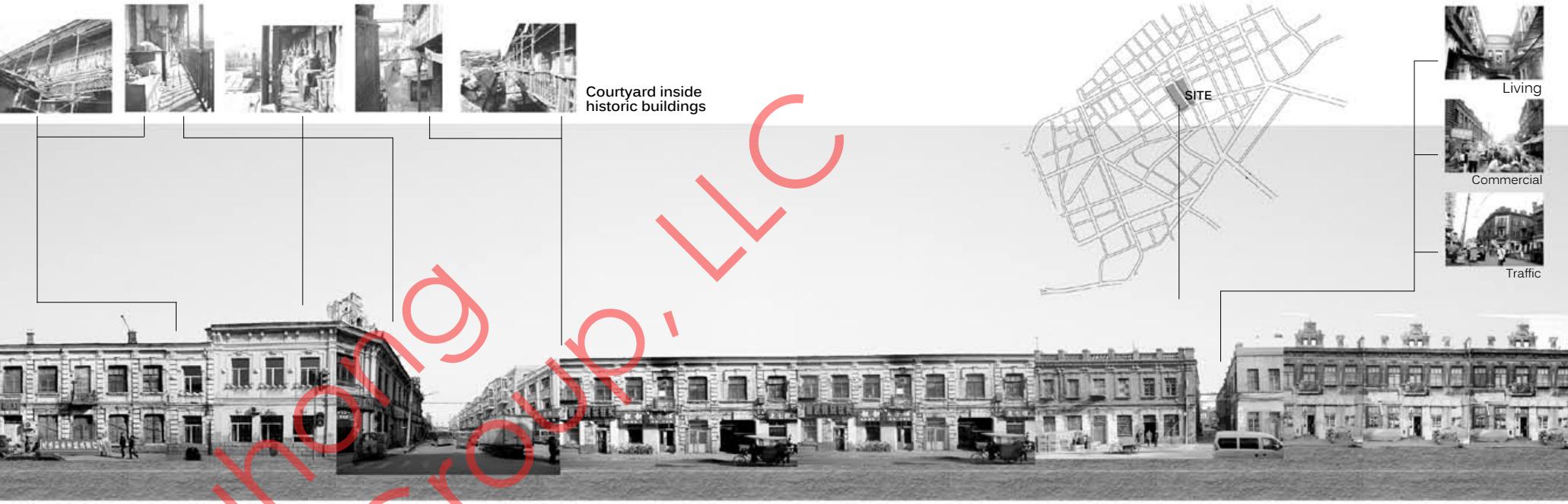
## Site Reviving

Our objective is to renovating the existing residential region as well as inheriting architectural form and atmosphere from the old building, to create a community with sufficient communication space for the residents here, and to make the old town rejuvenated.

We place new single-family homes in the courtyard created by traditional buildings, then a circular corridor is added to organize the new houses. The ring-shaped corridor—Loop is the main public space for the residential community.

In the project, we improve the function of the old buildings from combination of commercial and residential to be only commercial, belonging to the residents living inside the courtyard.

Each house is like a room, the Loop is like the corridor which connects these rooms, it makes the whole community become a big family



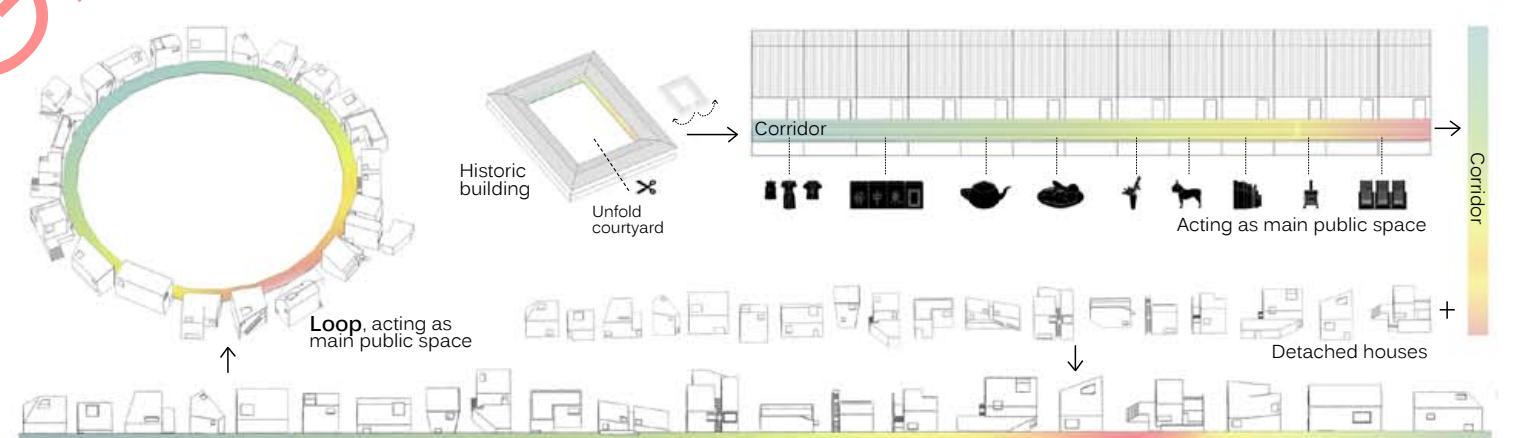
### Context

Site is located in the District of Daowai in Harbin, with a long history and a large number of listed buildings, known as the "Oriental Baroque".

### Spatial Prototypes

A side corridor connects a series of rooms in traditional buildings, so as to play an significant role in public life. We amplify the corridor, which organize the public living space for each room, to the **Loop** serving as the public space for newly-built houses.

Thus, we inherit the atmosphere of living from traditional neighborhood in the way of drawing on the forms of the traditional buildings.





### Step 1 Remove Unorganized Huts

At present, countless huts have disorderly been built in the courtyard of the historic buildings, making the courtyard, which bears the public service for residents, losing function.

Therefore, we **remove** the unorganized huts to restore the original condition of old buildings.



### Step 2 Build Houses

We build **houses** in the courtyard systematically, retaining a certain distance from the old buildings, connecting them in local.

The newly-built houses are detached ones, houses in the same courtyard form a small community, and the 7 courtyards together make a big community.



### Step 3 Add Loop

The **Loop**, derived from the corridor of historic buildings, is the public living space to organize the residential community.

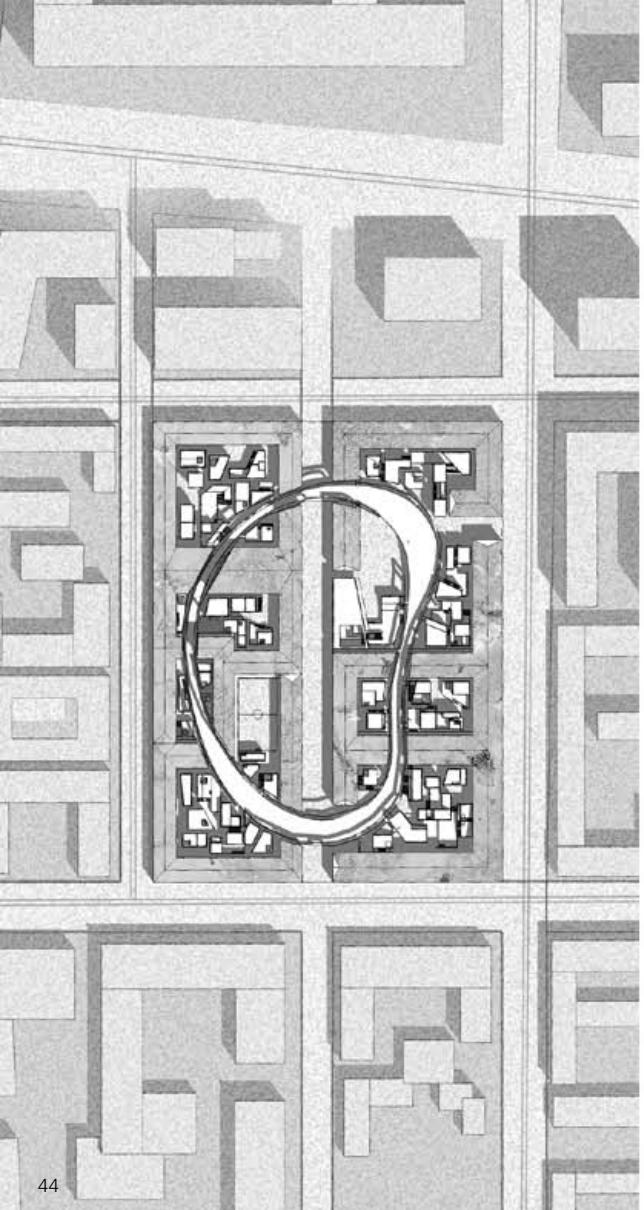
There are a variety of functions for public on and under the Loop. Residents living in different yards also can shuttle in the community through the Loop.



### Step 4 Insert two walls

On both sides of Loop, we set two transparent **walls** respectively to form distinction between public area and private area for living.

While walking on the Loop, residents can feel the unique space between modern buildings and historic buildings through openings on the walls.

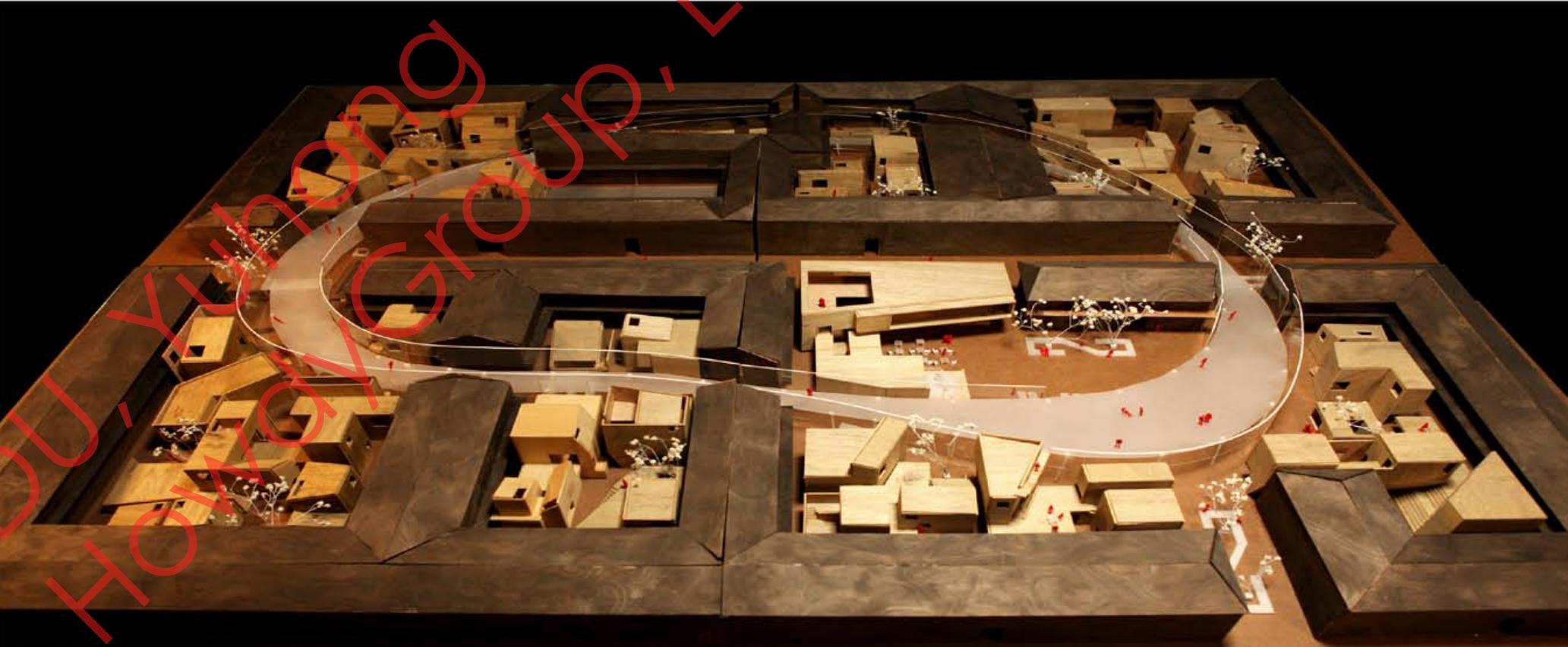
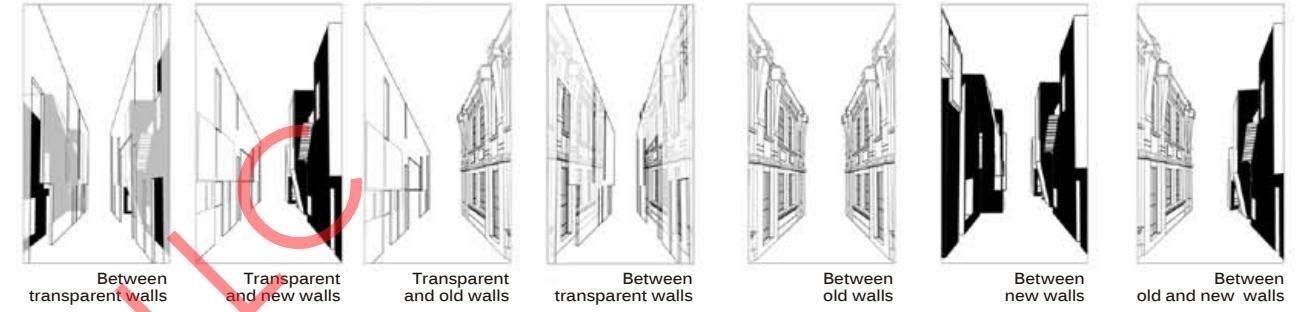


Site Plan

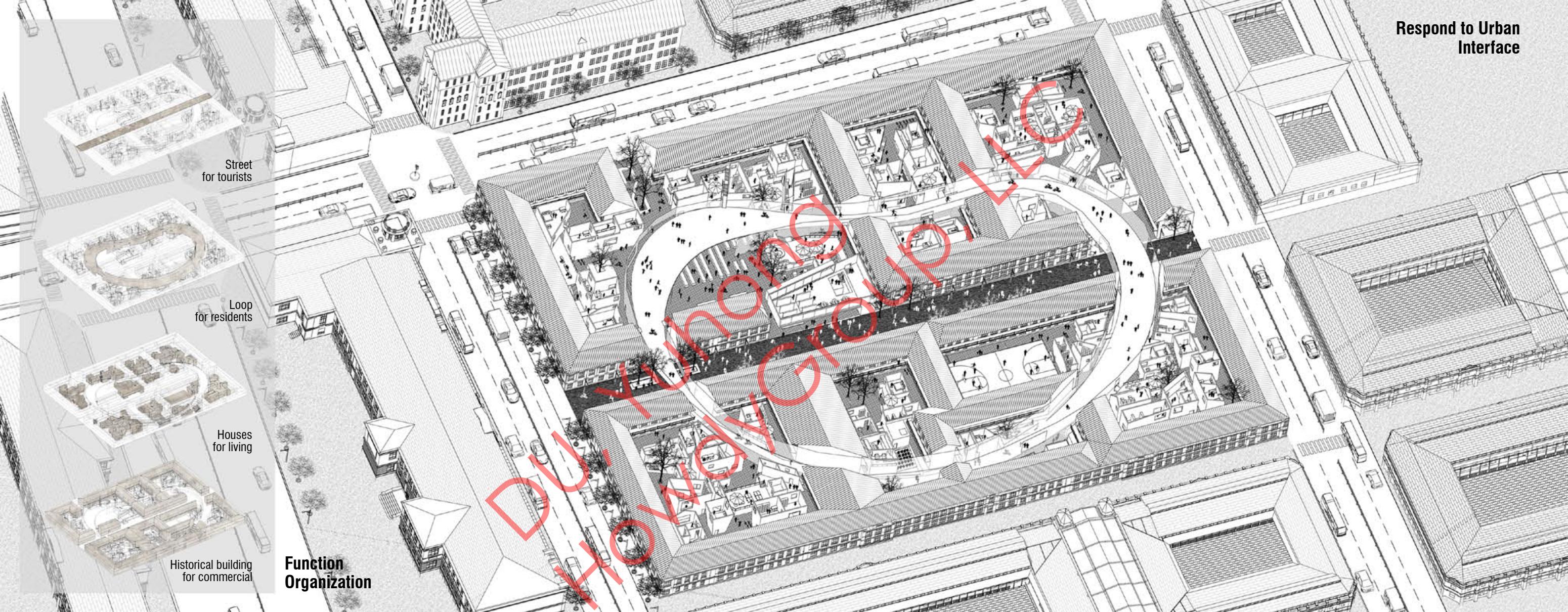
## Interface

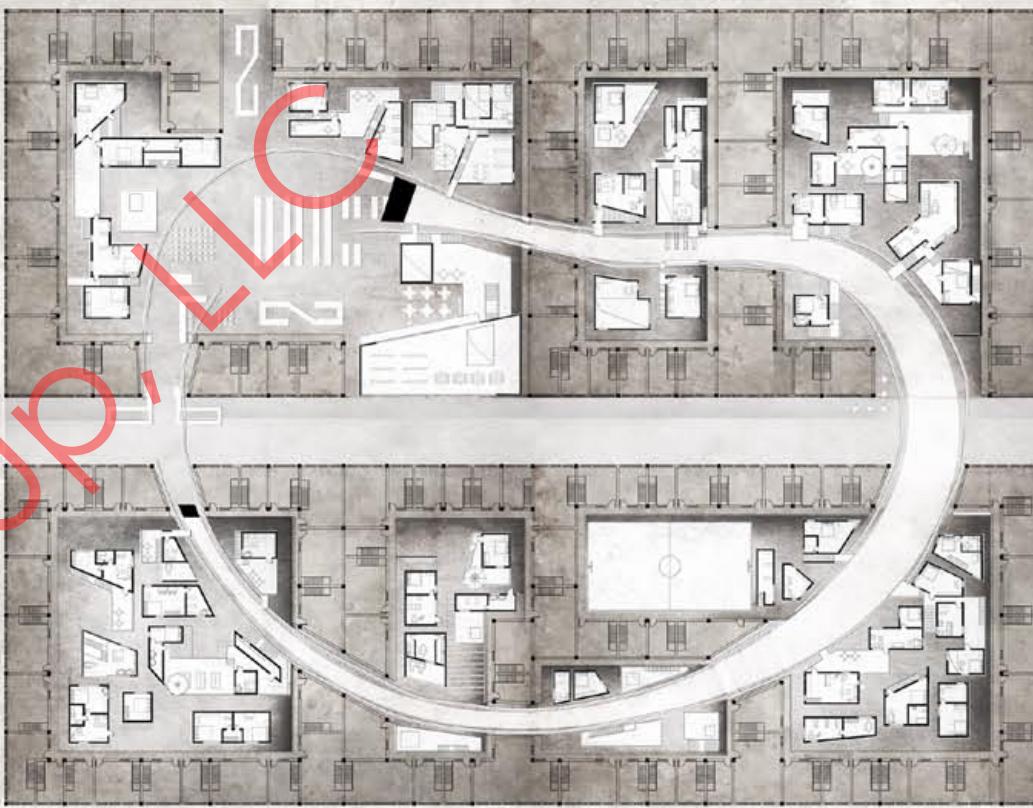
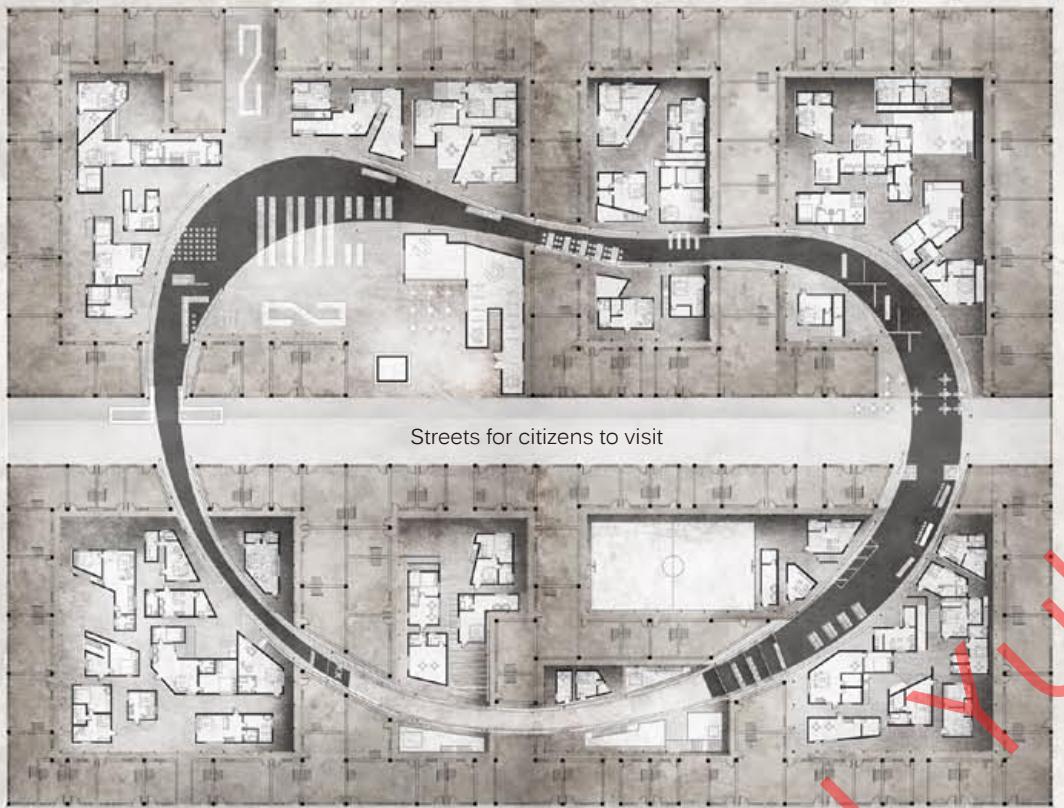
Newly-built detached houses are in the courtyard of historic buildings, and the Loop organizes the whole community by passing through the new and the old buildings simultaneously.

Thus, when people walk through the community, they're actually touching the old wall belonging to the historic buildings, or the new wall belonging to the new houses, or the transparent walls, getting diverse space experience.

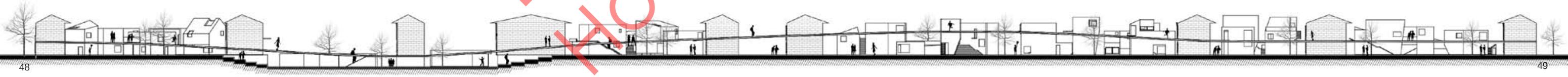


**Respond to Urban Interface**





Section along the Loop



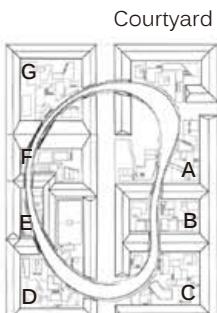
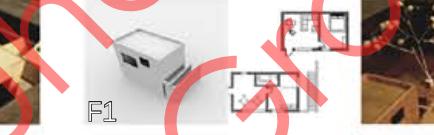
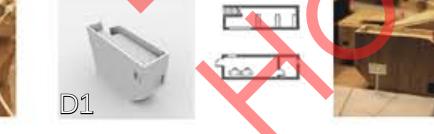
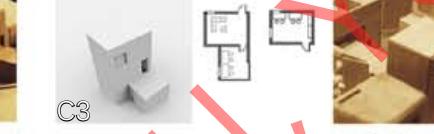
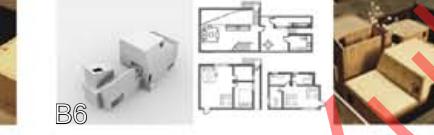
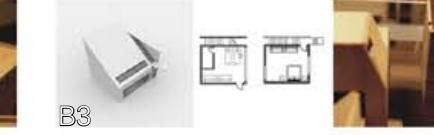
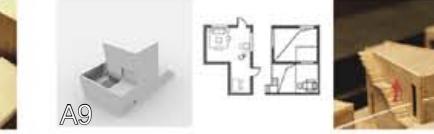
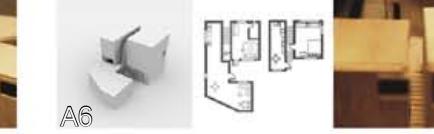
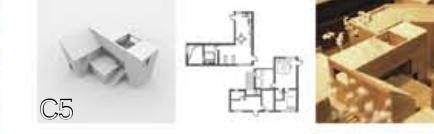
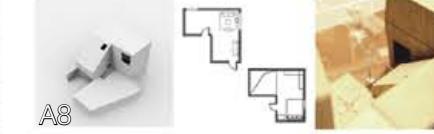
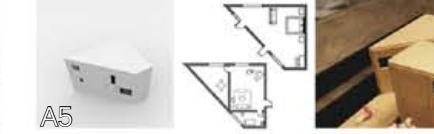
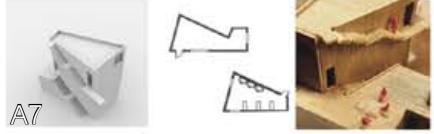
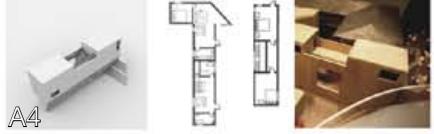


### Section

Newly-built detached houses are in the courtyard of historic buildings, and the Loop organizes the whole community by passing through the new and the old buildings simultaneously.

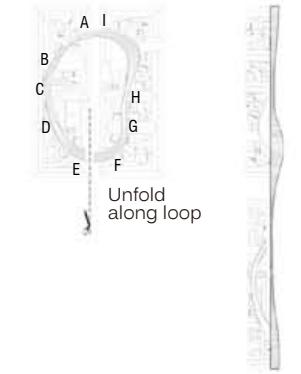
## Detached House

We design each single family house to make full use of small space, and make people in his own house have various space experience. The following is details of each house.





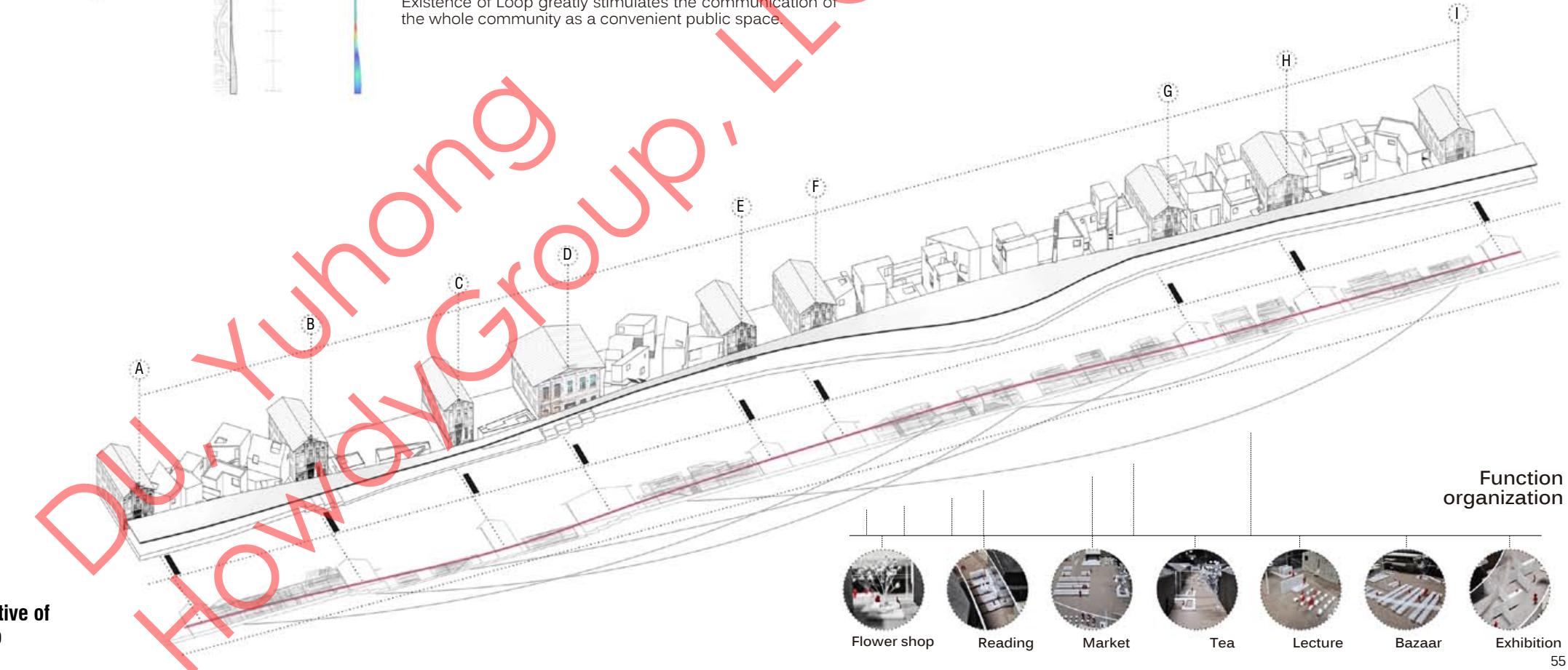
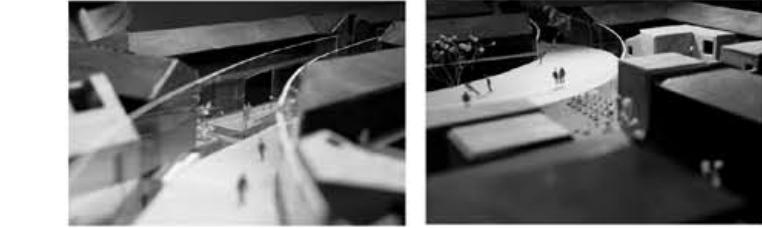
Perspective of  
the Loop



## Definition of the Loop

The Loop serves as public living space in the community and connects different residential regions in seven courtyards.

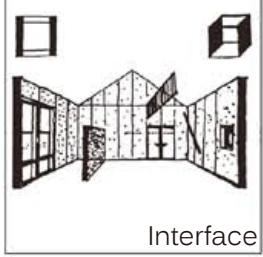
Under the Loop, exists lots of functions such as reading rooms, market, lecture rooms, exhibition, etc. On the Loop, residents can go walking, chatting, riding, exercising. Existence of Loop greatly stimulates the communication of the whole community as a convenient public space.



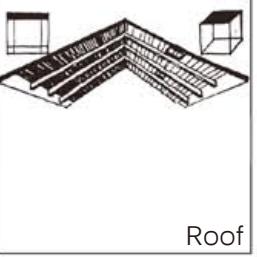
## Detail

### Vertical Section

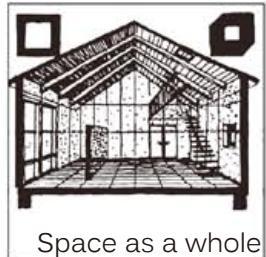
#### Components



Interface



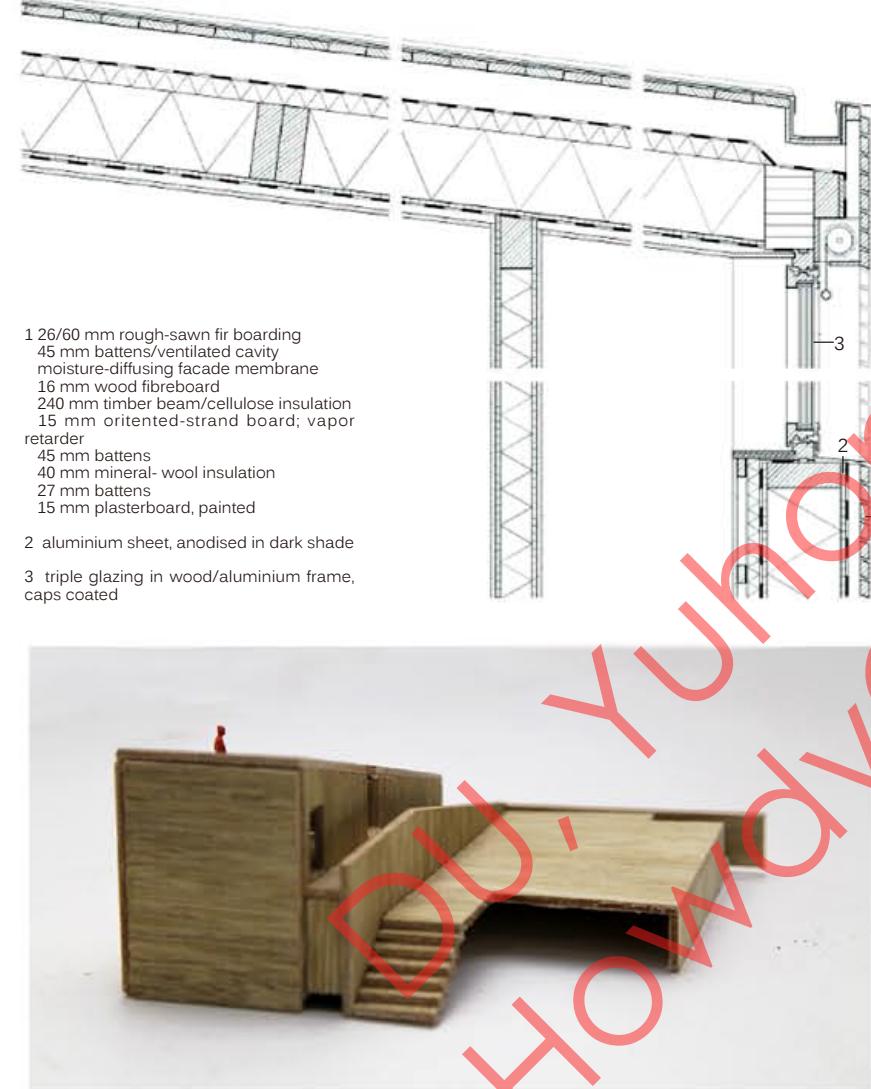
Roof



Space as a whole

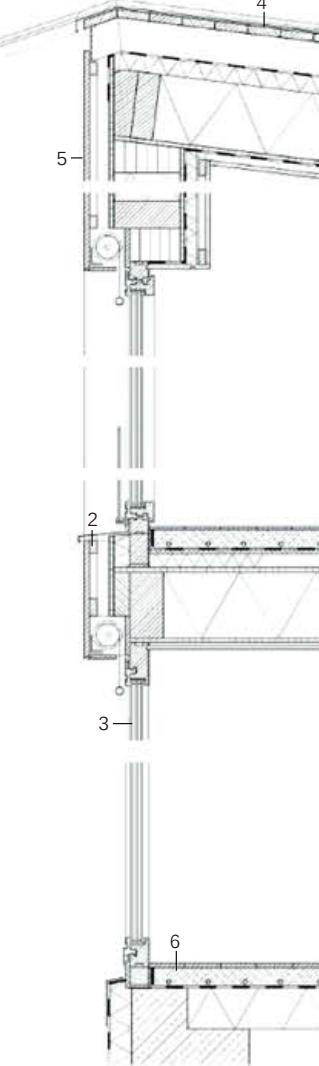
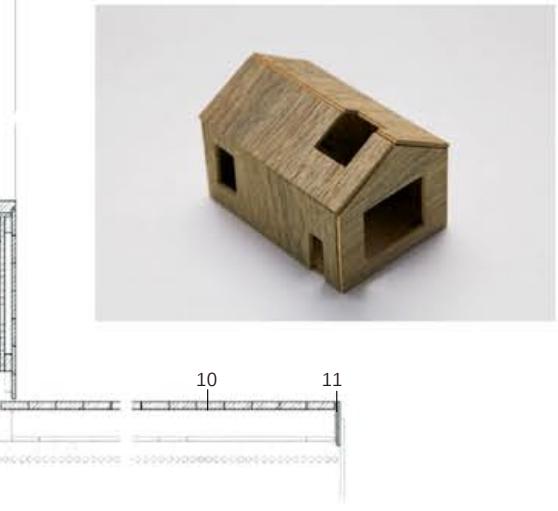
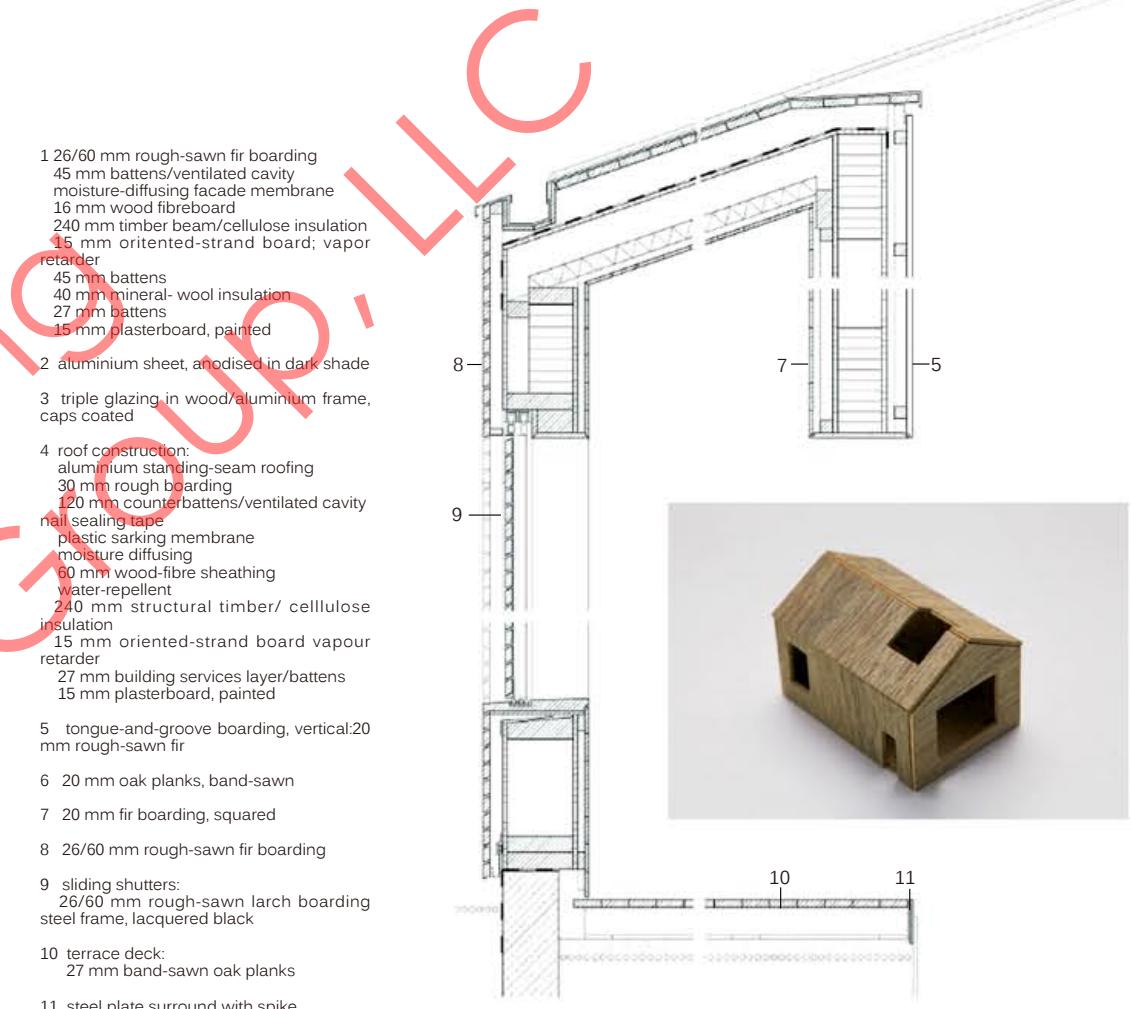


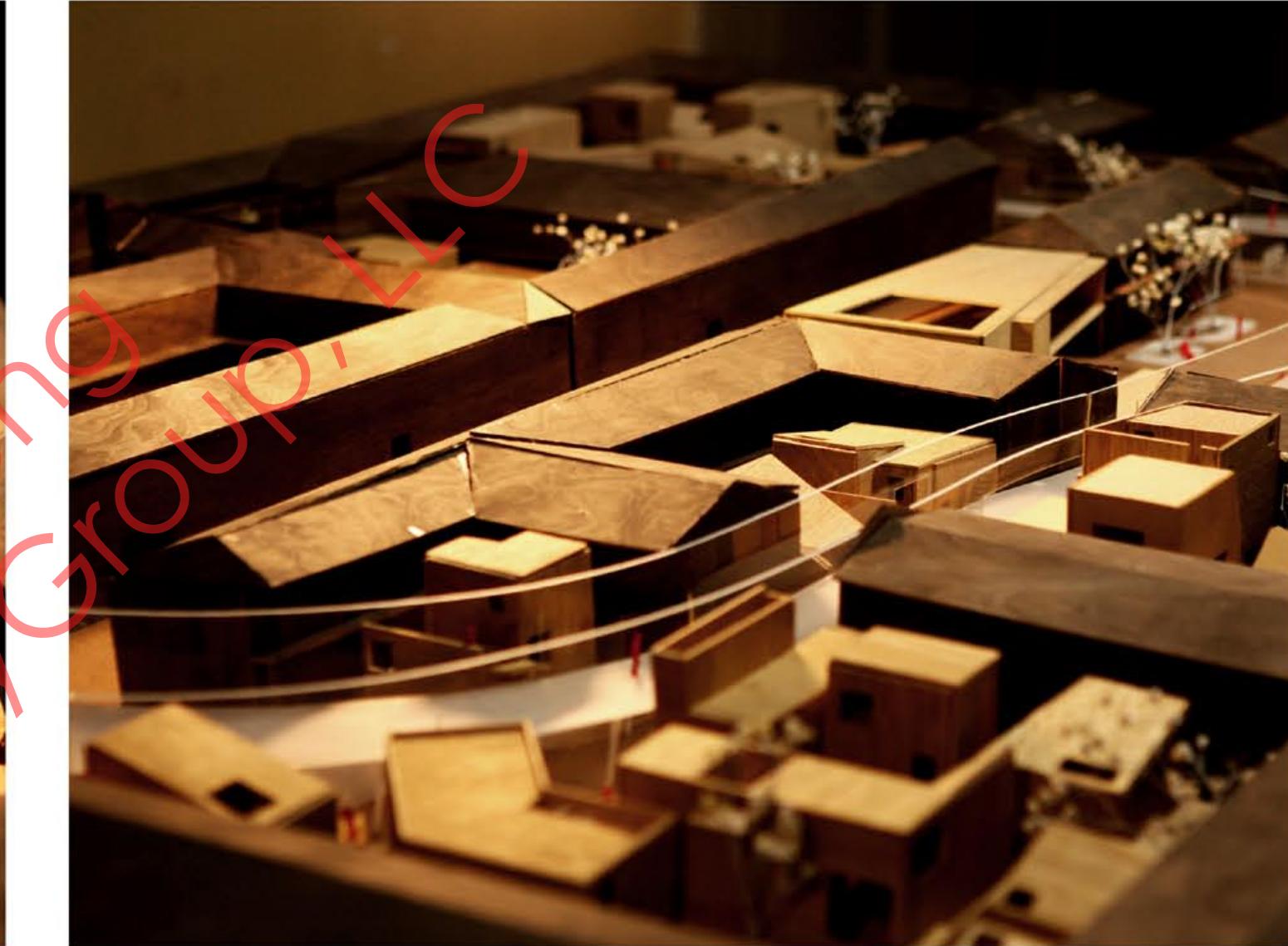
Ground



All wood boarding and planks - both inside and outdoors - are untreated.

- 1 26/60 mm rough-sawn fir boarding  
45 mm battens/ventilated cavity  
moisture-diffusing facade membrane  
16 mm wood fibreboard  
240 mm timber beam/cellulose insulation  
15 mm orientated-strand board; vapor retarder  
45 mm battens  
40 mm mineral-wool insulation  
27 mm battens  
15 mm plasterboard, painted
- 2 aluminium sheet, anodised in dark shade
- 3 triple glazing in wood/aluminium frame, caps coated
- 4 roof construction:  
aluminium standing-seam roofing  
30 mm rough boarding  
120 mm counterbattens/ventilated cavity  
nail sealing tape  
plastic sarking membrane  
moisture diffusing  
60 mm wood-fibre sheathing  
water-repellent  
240 mm structural timber/ cellulose insulation  
15 mm orientated-strand board vapour retarder  
27 mm building services layer/battens  
15 mm plasterboard, painted
- 5 tongue-and-groove boarding, vertical: 20 mm rough-sawn fir
- 6 20 mm oak planks, band-sawn
- 7 20 mm fir boarding, squared
- 8 26/60 mm rough-sawn fir boarding
- 9 sliding shutters:  
26/60 mm rough-sawn larch boarding  
steel frame, lacquered black
- 10 terrace deck:  
27 mm band-sawn oak planks
- 11 steel plate surround with spike







DU-YuhongGroup LLC

## Living above City Plaza

Hybrid Architecture in Tainan City

Type: Independent studio work

Time: April-June 2012

Tutor: Xie Wentai

Location: Tainan, Taiwan

Size: 8800m<sup>2</sup>

Housing is a basic demand of human beings, while hybrid architectures present the vitality of urban life. The urban mixed residential reflects changes taking place in society and living environment, and pattern of mixed residential act as a key factor shaping the personality of the city.

In the project, I'm trying to achieve the ideal that residential area is no longer appear in the way of occupying urban public space, but in an attitude of gathering citizens, acting as another type of urban



## Site Reviving

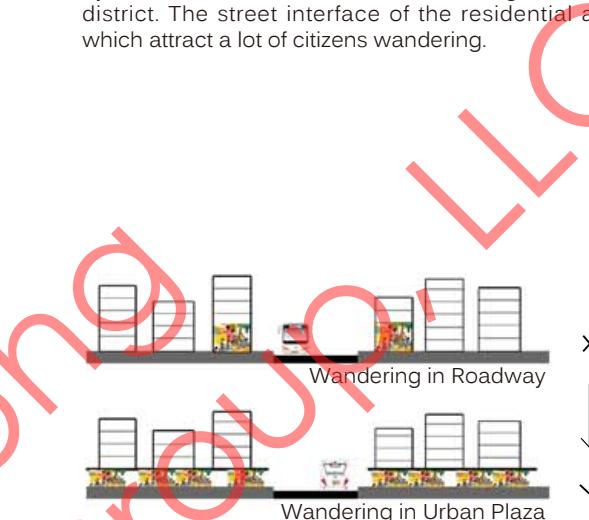
In the traditional urban design of Taiwan, detached houses are main living pattern, which occupy vast area of cities. In contrast, space for commercial behavior serving public life, is more of street shops.

Consequently, when people walk in the city, they are actually wandering in the narrow streets left by residential area, shopping, entertainment and leisure.

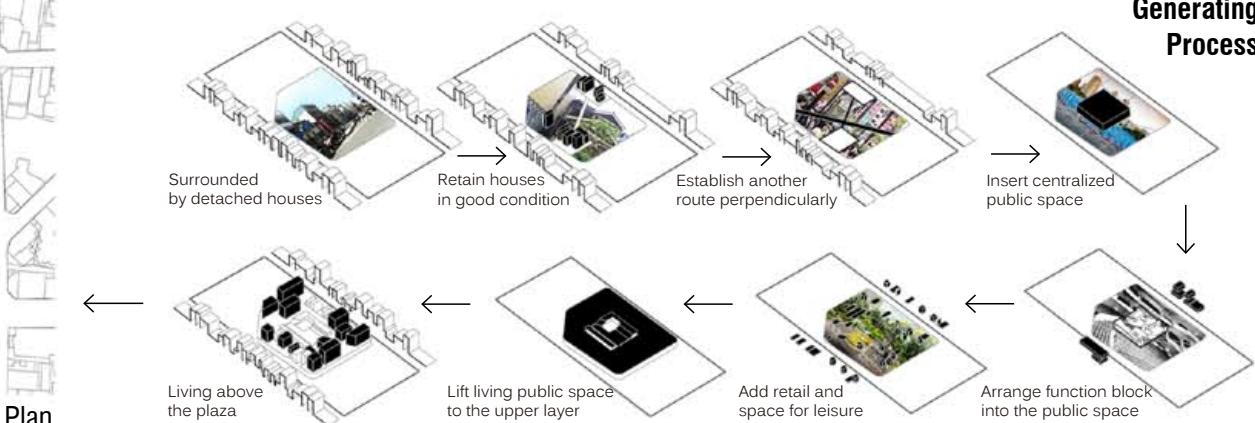
I'm attempting to let the hybrid architecture leave more open space for urban people, to serve citizens via altering the residential intervene in city.

## Context

The base is located in the heart of Tainan City, surrounded by residential areas, on the side of a large-scale business district. The street interface of the residential area are shops, which attract a lot of citizens wandering.



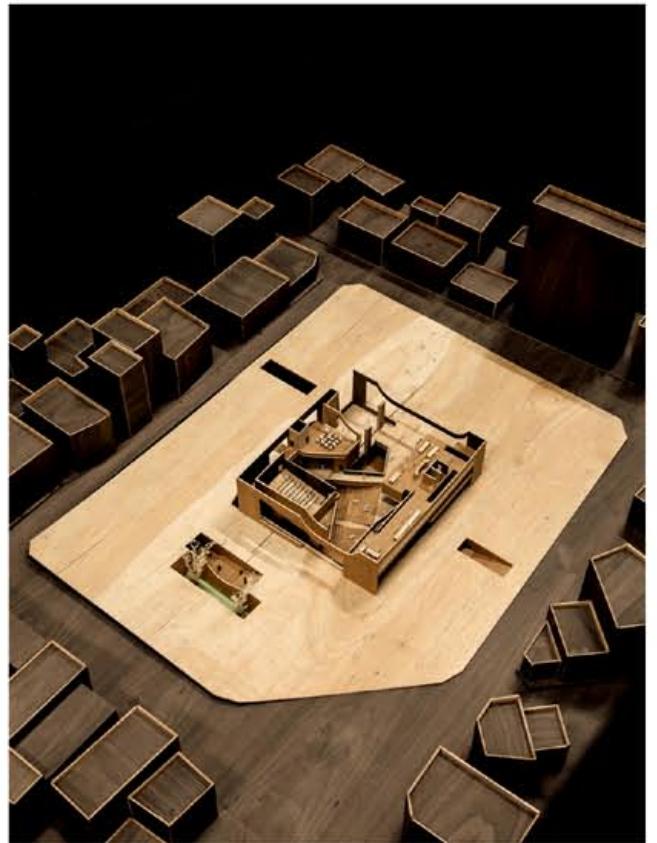
## Generating Process



## **Public Plaza** on ground floor

### **Activity Center**

A centralized public activity center is arranged in the core of the ground floor. There is theater, performance platform, SPA, open space, aimed at to serving citizens with their public life, attracting more people go into this square.



### **Open Square**

The rest of the ground layer is arranged as an open square. Enough amount of entrance lend the plaza easily access to citizens. In the square, stand coffee, local snack and space for public activity. Citizens can chat, shopping .etc



## **Residential** on the upper layer

### **Public space for Residential**

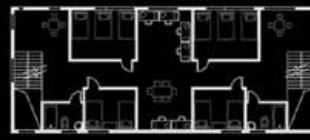
Living behavior is raised to the upper layer. Thus, the roof of the underlying concentrated activity center acts as public space for residential. A separation has been established between living and public leisure, maximizing the use of space



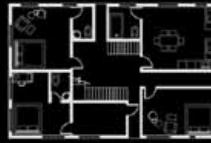
### **Residential**

In the design of residential, according to the existing situation, the residential area is divided into four regions: large family living, young people living, Small Business living, and the core family living..





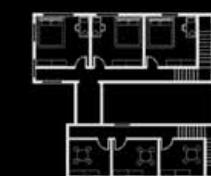
dwellers  
Type1:Single partment



dwellers  
Type2:Three generations



dwellers  
Type3:Core family



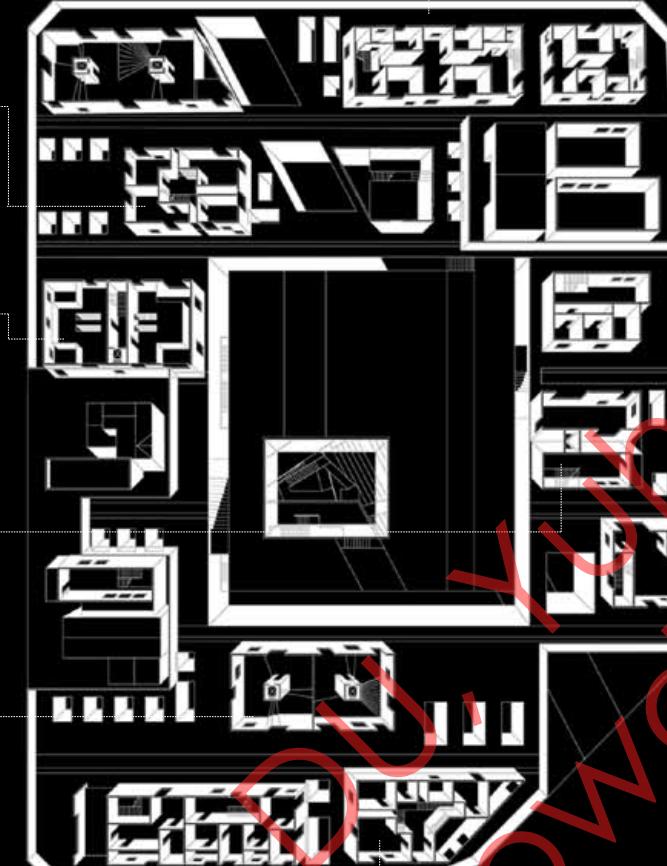
dwellers  
Type4:Soho



dwellers  
Type5:Typical family



dwellers  
Type6:Big family

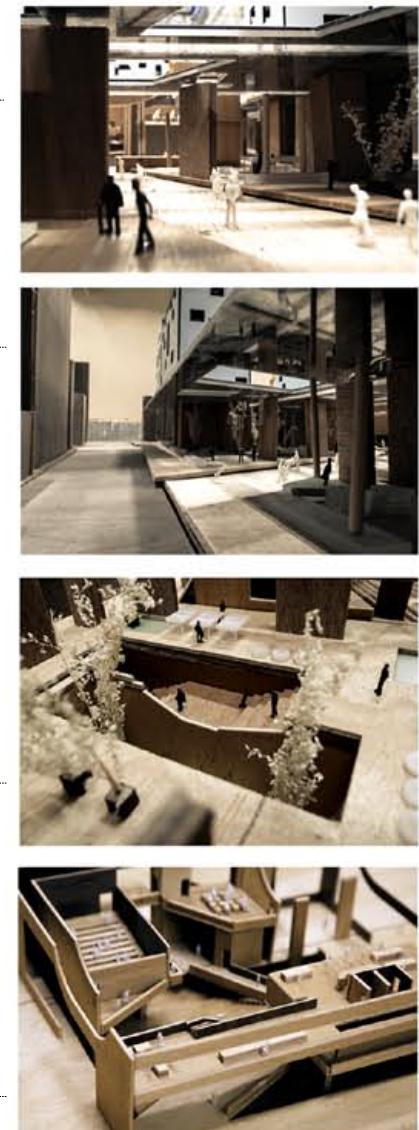


3rd Floor Plan

HowdyGroup

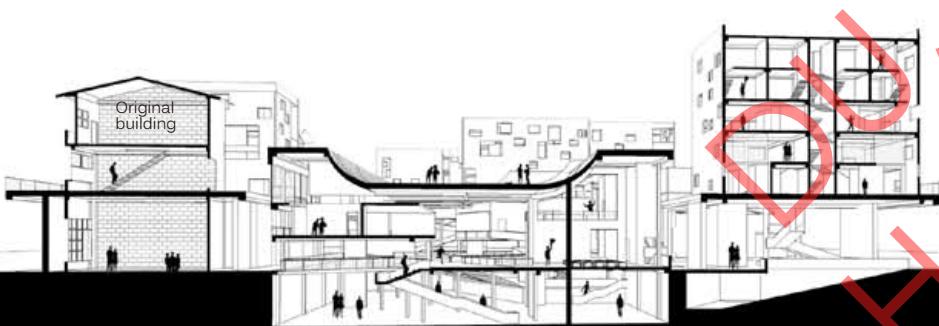


1st Floor Plan





Respond to Urban Interface

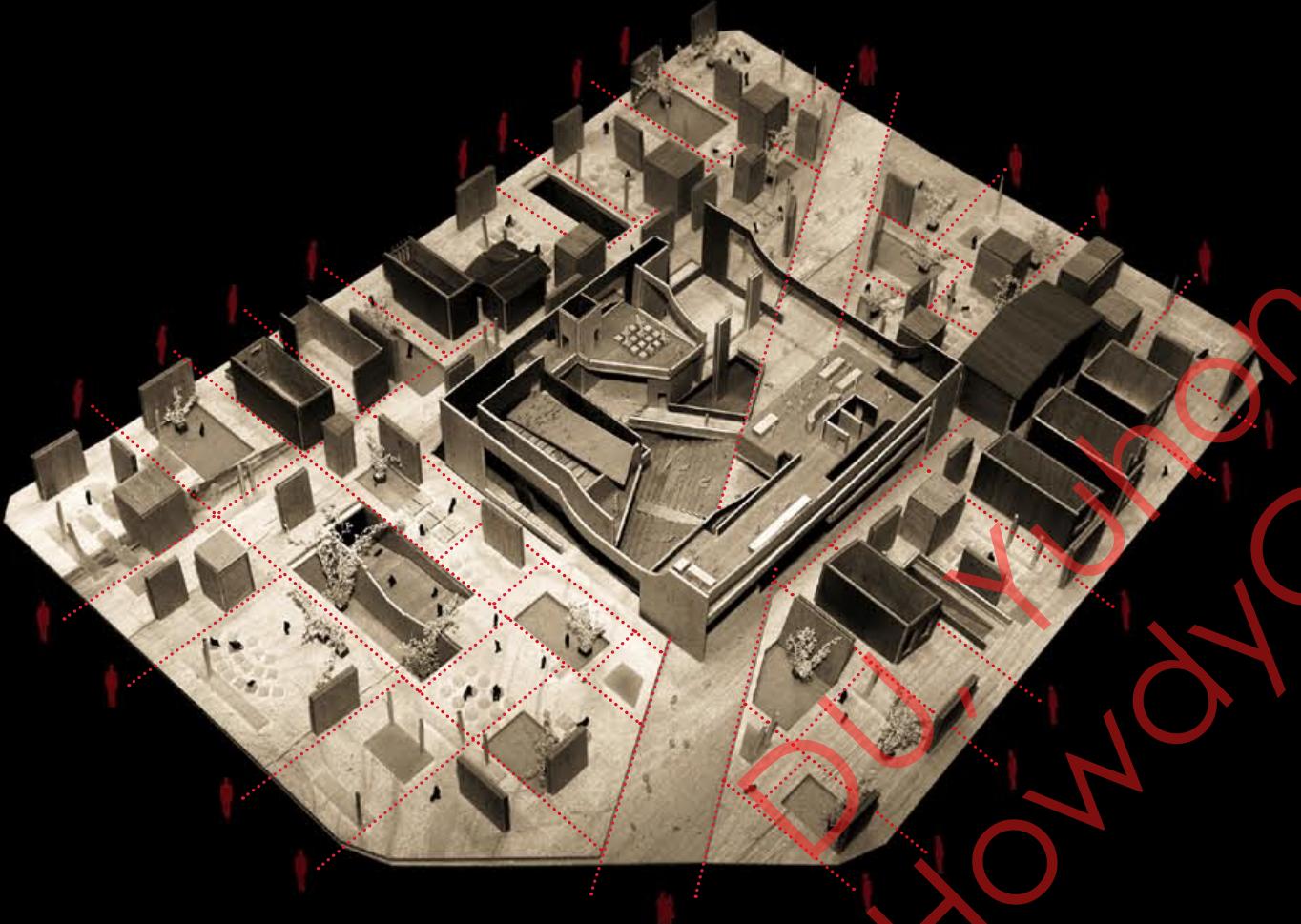


Deal with Urban Environment

The function of a few original buildings reserved is transformed from residential to commercial. As featured in its quaint figure, they form a heterogeneous type among hybrid residential, invigorating the community.

In this way, traditional culture conveyed by the original building has been inherited, at the same time, the old building has been arranged new implication.

## Behavior Intervention



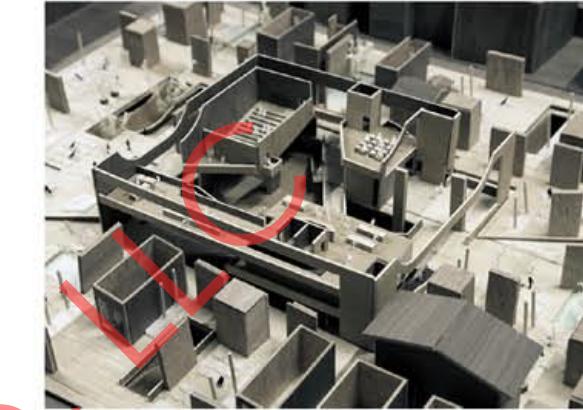
DU Yunhong  
HowayGroup

### Public Plaza

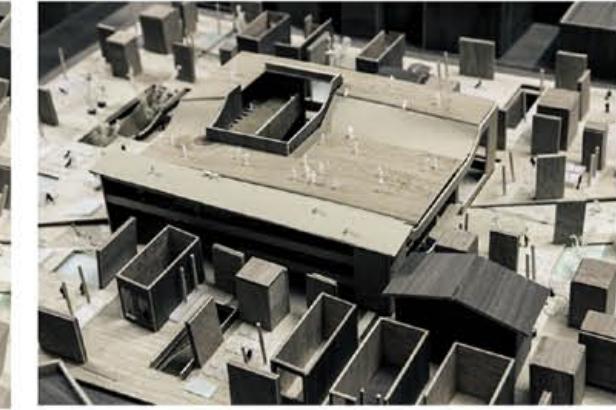
The ground layer of the site is arranged as a centralized public center and an open square, returning the ground to city as civic plaza.

Enough amount of entrance lend the plaza easily access to citizens. In the centralized public center, stands a theater, a large stage, SPA and open space. In the square, stand coffee, local snack and space for public activity.

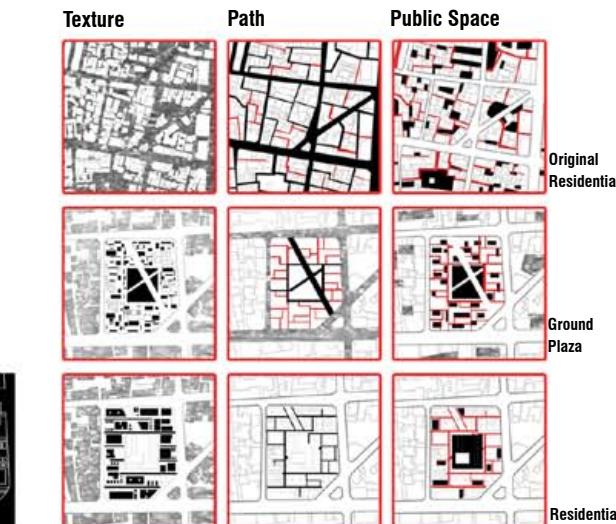
Consequently, citizens can meet, chat, shopping and enjoy themselves here.

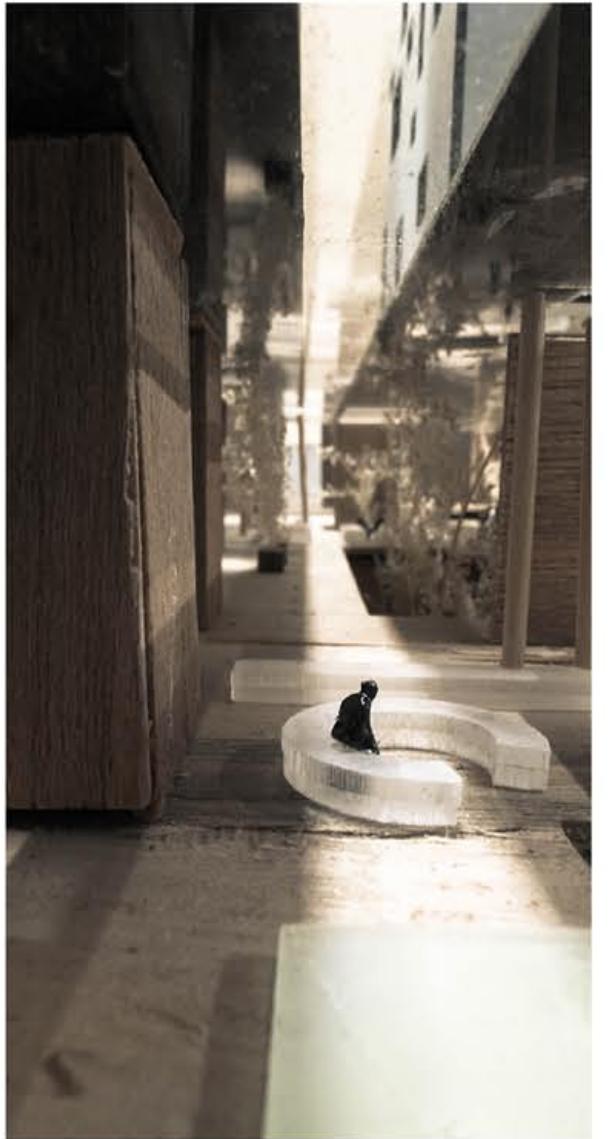


Public space for citizens

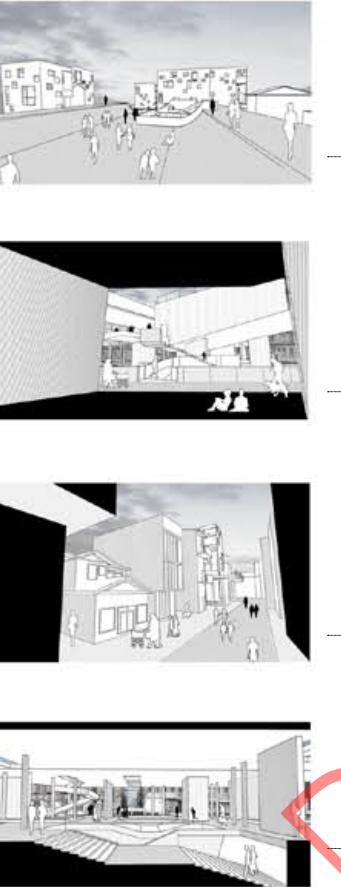


Roof of the public space act as activity space for residences





## Organization of mixed residential

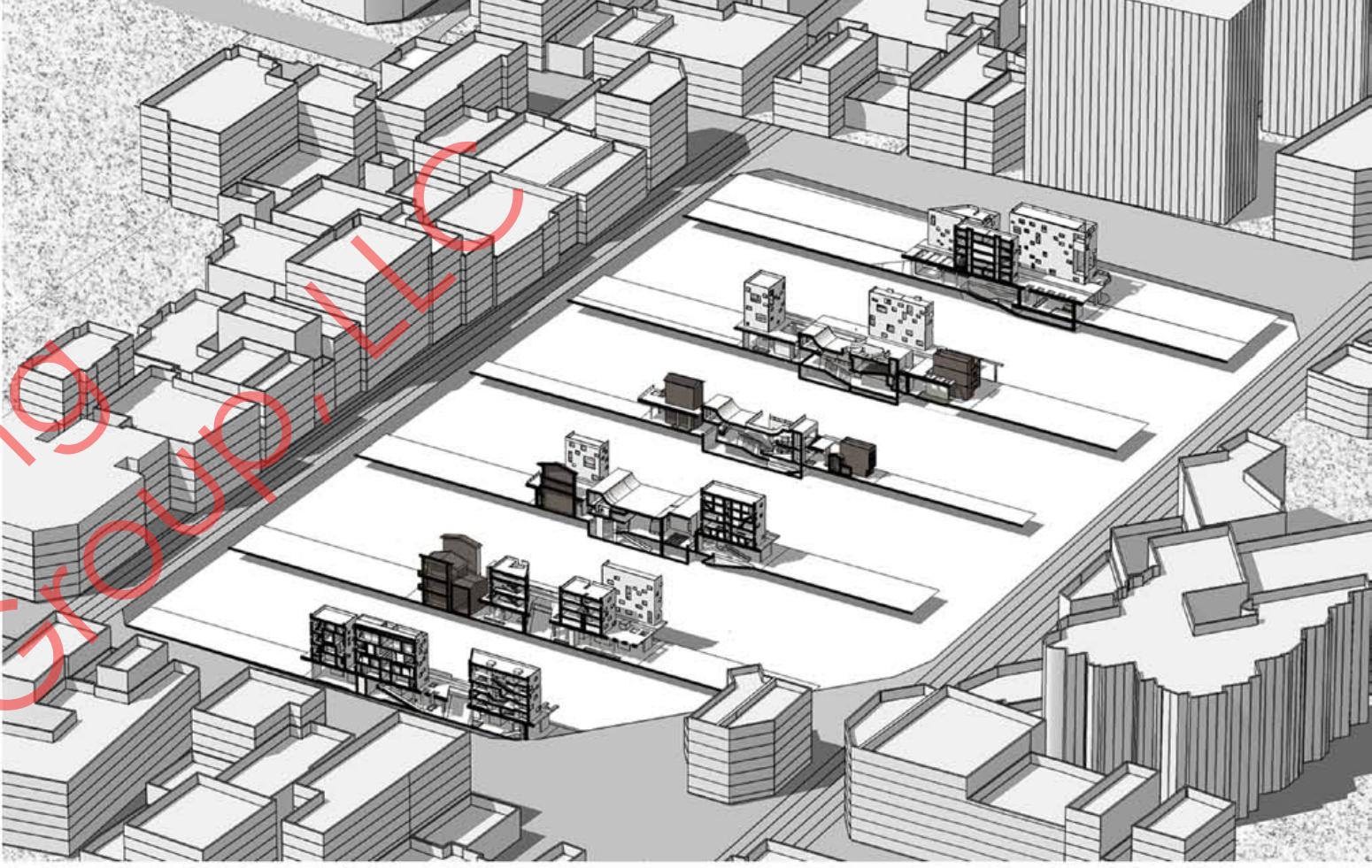
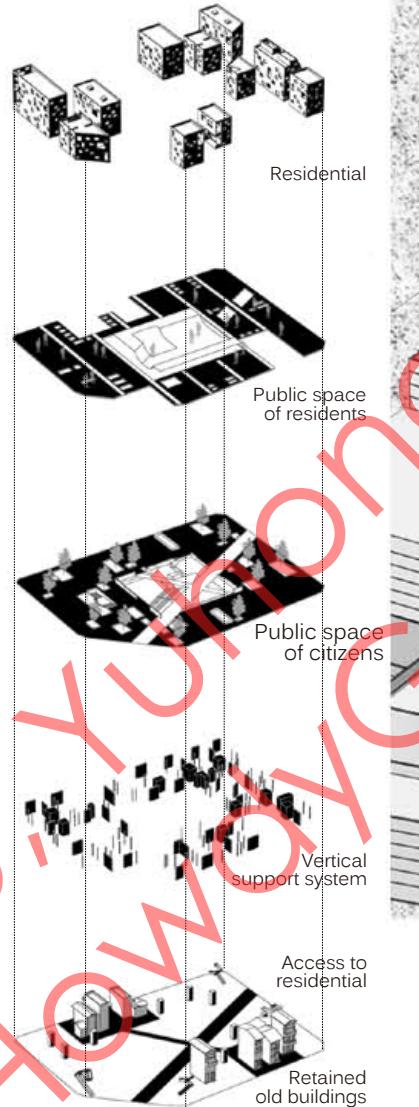


Perspective  
on the roof

Perspective  
of cinema

Perspective  
in streets

Perspective  
of plaza



## Profile

The continuous profile interprets the organizations of hybrid residential: housing located above the public space, leaving ground layer to urban; new constructions stand in concession to original ones, locally get united with them, in this way, endow old ones new connotation as well as continue the life of them; the new hybrid residential enliven atmosphere of urban life, and actively improve the relationship with surroundings.



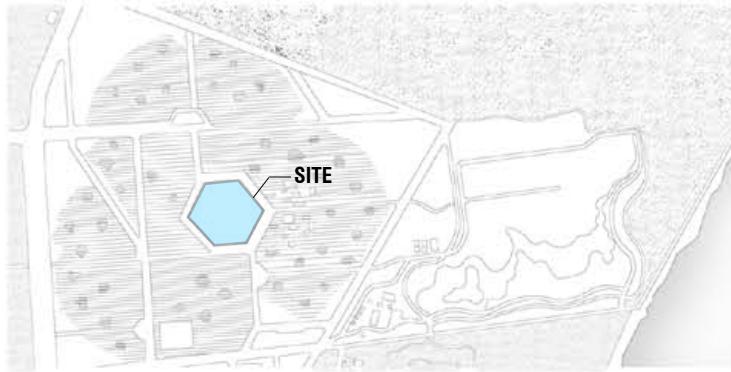
## Knoll

### Community Center for the Hualien Resort

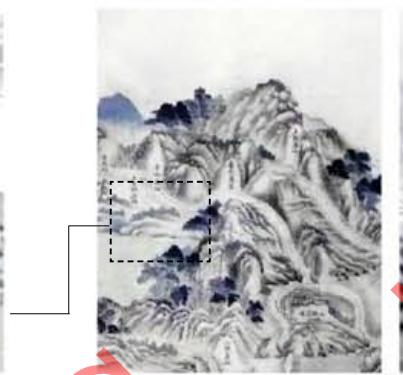
Type: Mini-studio work  
Time: May, 2012  
Tutor: Professor Larry Wayne Richards  
Location: Hualien, Taiwan  
Size: 3800m<sup>2</sup>  
Collaborator: Zhang Shuang, Liu Jiankun, Wang Luli, Zhang Xiran

The vehicle for the mini-studio was the conceptualizing of a community centre for the proposed Hualien Beach Resort in Taiwan, designed by BIG(Bjarke Ingels Group, Copenhagen, Denmark).

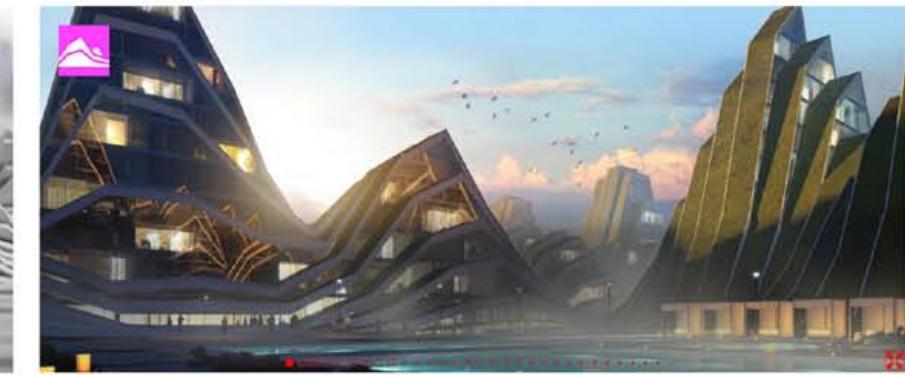
In the project, we were aimed at making the community centre appropriate with the existed design, acting as a connection of the several parts.



Concept of Knolls



Concept of Hills by BIG



Perspective of Hualien Resort



## Concept

The site has great potential for spectacular view as it is located prominently against the coast and near the intersection of two river deltas. In the project designed by BIG, a language of green landscape stripes create a mountain terrain of commercial and residential program that echo the natural mountains in distance.

While BIG were inspired by the hills in the traditional Chinese painting, we were inspired by the knoll lying at the foot of hills in the same painting. We want to create a knoll(or hillock) to better connecting the hills, creating field, gardens and rurality sceneries.

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Section A-A



DU-Yuhong  
Howay Group, LLC





## Renovation of Urban Plaza

Based on the Research of Wind

Type: Parametric studio work

Time: June 2011

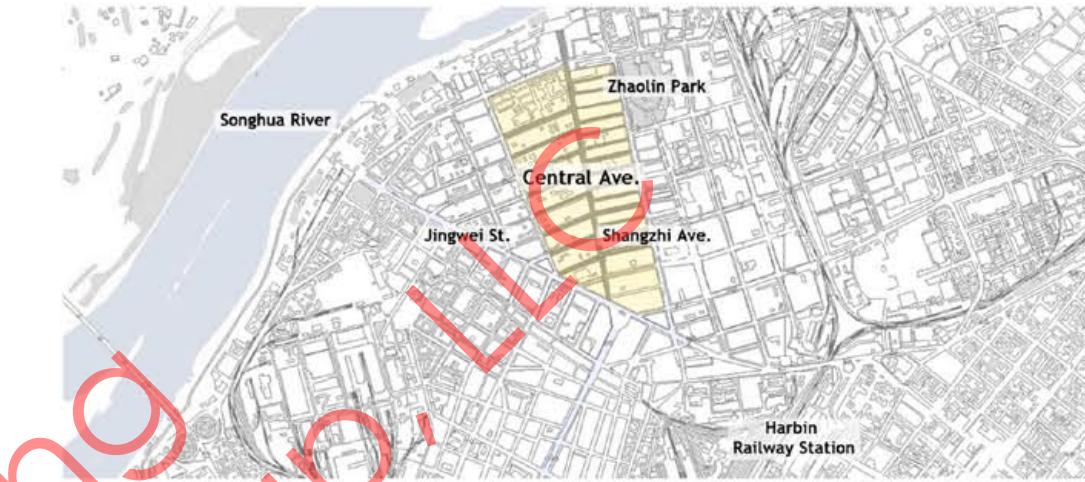
Tutor: Professor Nimish Biloria(TU Delft)

Location: Harbin, China

Collaborator: Zheng Zhi, Yu Honglei, Lin Shaokang

The workshop emphasizes on a research driven design approach, which primarily focuses on articulating the complex relationship between social, environmental, spatial, technological and user based information with physical matter.

The urban context consisting both qualitative and quantitative data, is subsequently analyzed and experimented with for its potentiality to embody and generate spatial 'formations' with the use of evolutionary computational tools and techniques.

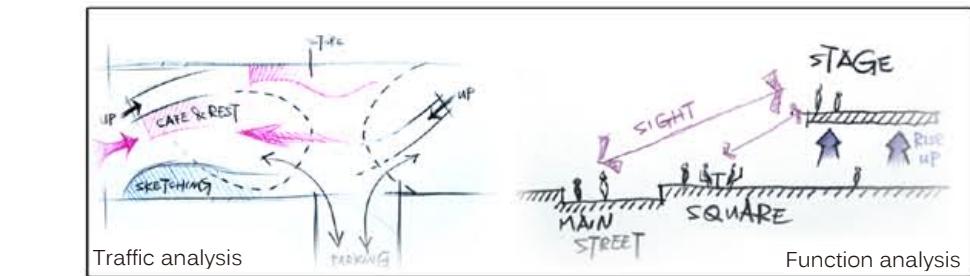


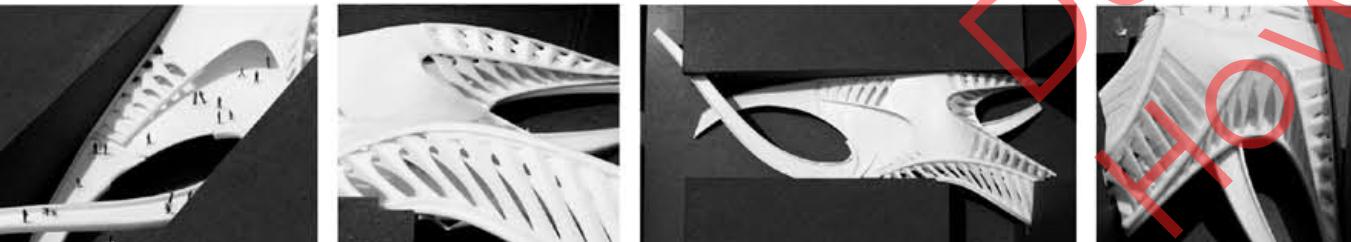
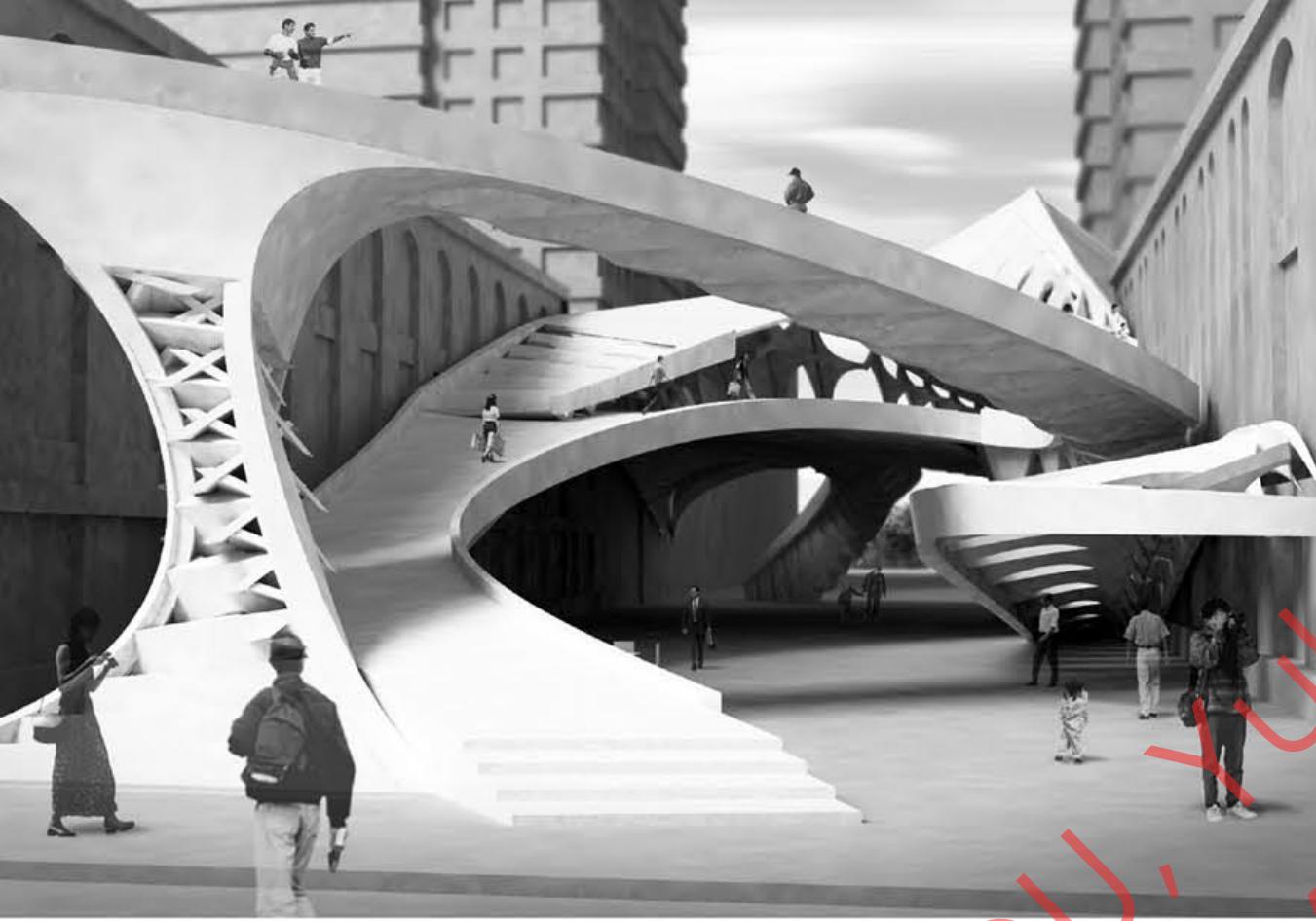
### Site Analysis

We put our site on the cross road of the Central Avenue and the West 7th street where people are having various kinds of activities. The Central Avenue is one of the most famous attractions of Harbin since it presents a series of architectures that was built in the age of The Art Nouveau and recreation here.

### Function Organization

From the observation, 4 kinds of activities are picked out to conform the main function of the plaza. Also, the use of Pedestrian bridge will bring in the functions. Then we analysed the wind environment that are needed according to each function.

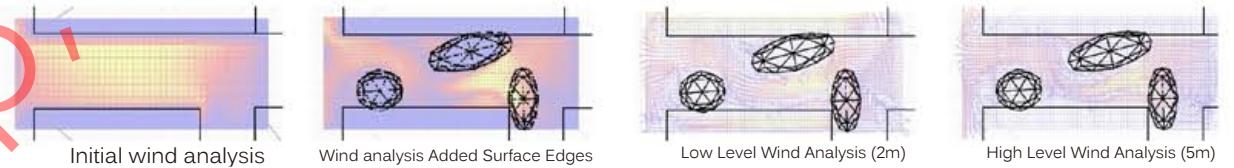




## Generating Process

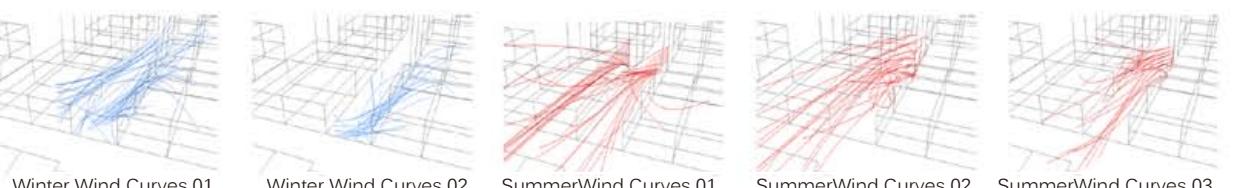
### Step1

Analysis wind environment of initial situation and after putting in function boxes



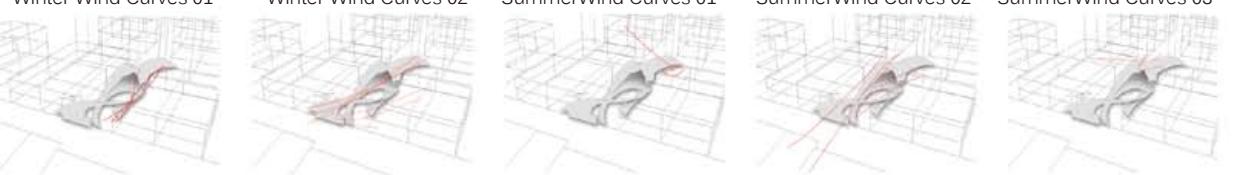
### Step2

Getting wind curves in different seasons



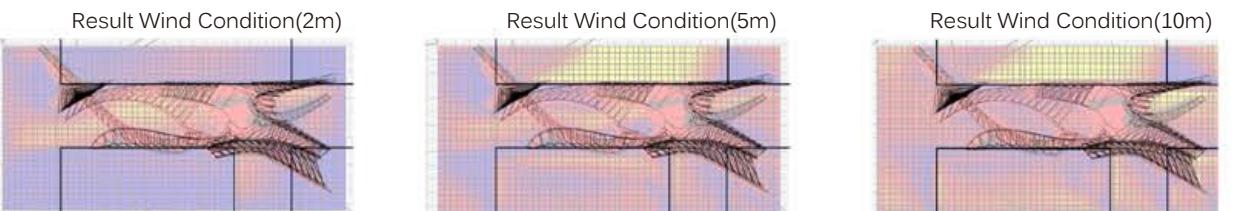
### Step3

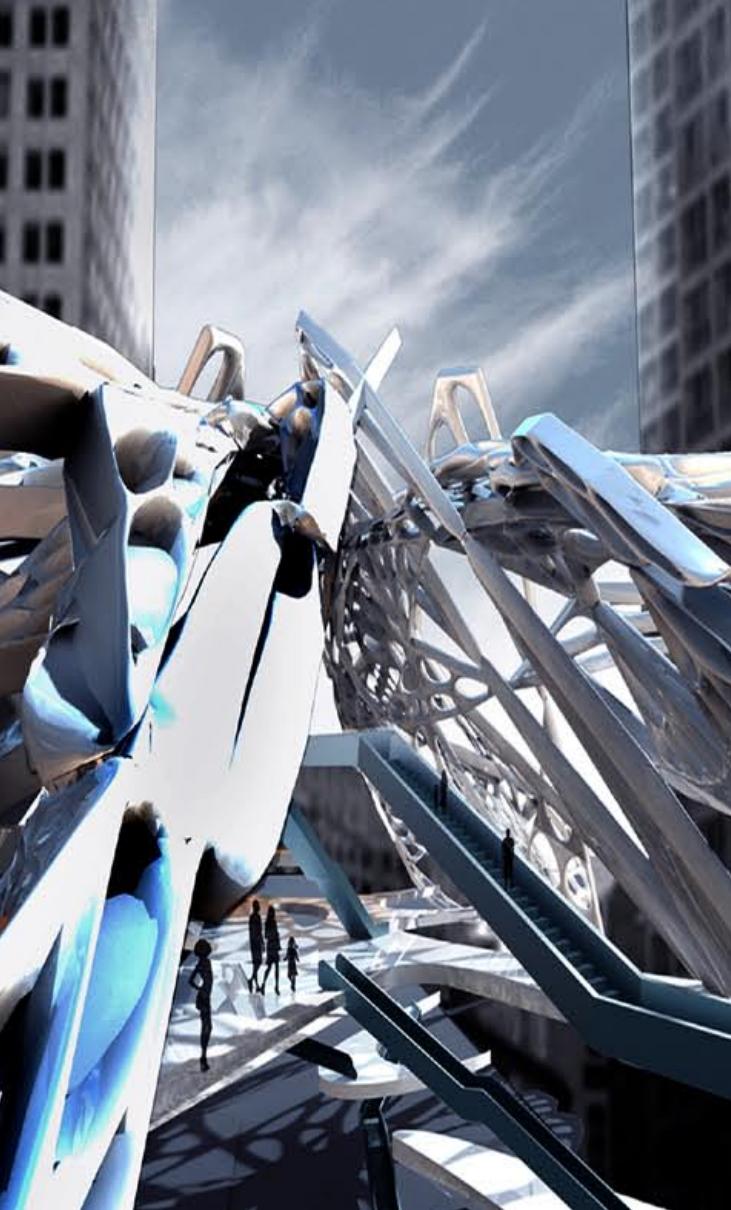
Transforming wind curves to control lines generating plaza



### Step4

Verification whether function accord with the wind environment created





## Floating Bridge

### Renovation of urban space

Type: Parametric studio work

Time: July 2011

Tutor: Professor Ercu Gorgul, Nikolaus Wabnitz, Tong

Xiaowei, Xu Weiguo

Location: Beijing, China

Collaborator: Fan Lu, Wang Luli, Zhang Xiran

In the workshop, the focus of our study is to use parametric design ideas to guide the design, replacing the traditional design methods. And to learn using parametric analysis software, to transform factors existed in the current situation into parameter which controls the generating of building, thus completing the design.

Our project is the transformation of existing urban space, the circulation of population and sunshine are two parameters dominating the building.



Beijing is full of big scale things that play an important part in separating people from city, which means people often have a feeling that they don't belong to the city.

We choose the site located in Jianwai Soho as our study area. It is making the tall buildings smaller in people's mental sense and getting them participating in the area when giving people the sense of belonging to the area.

In order to achieve this goal, we consider people's circulation as a main factor. The bridge is decided by people's circulation, and its structure can move based on the sun's movement. In this way, people can find convenience and sense of belonging.

## Two size of Beijing

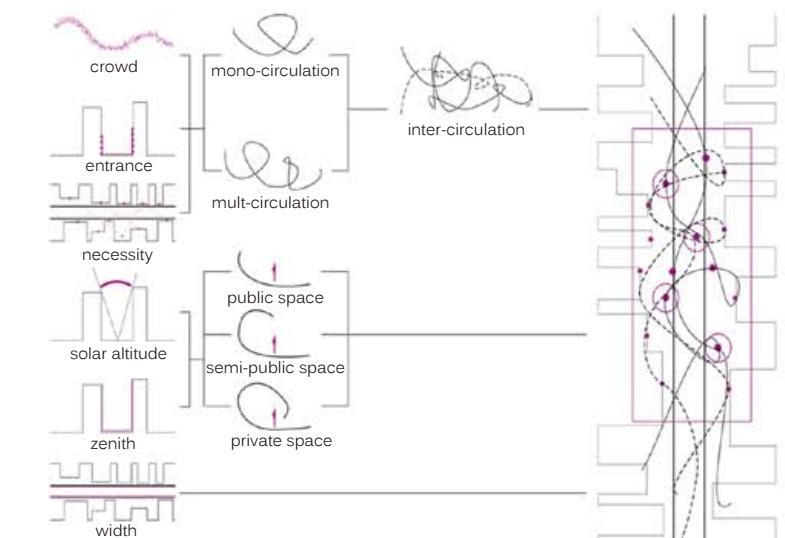


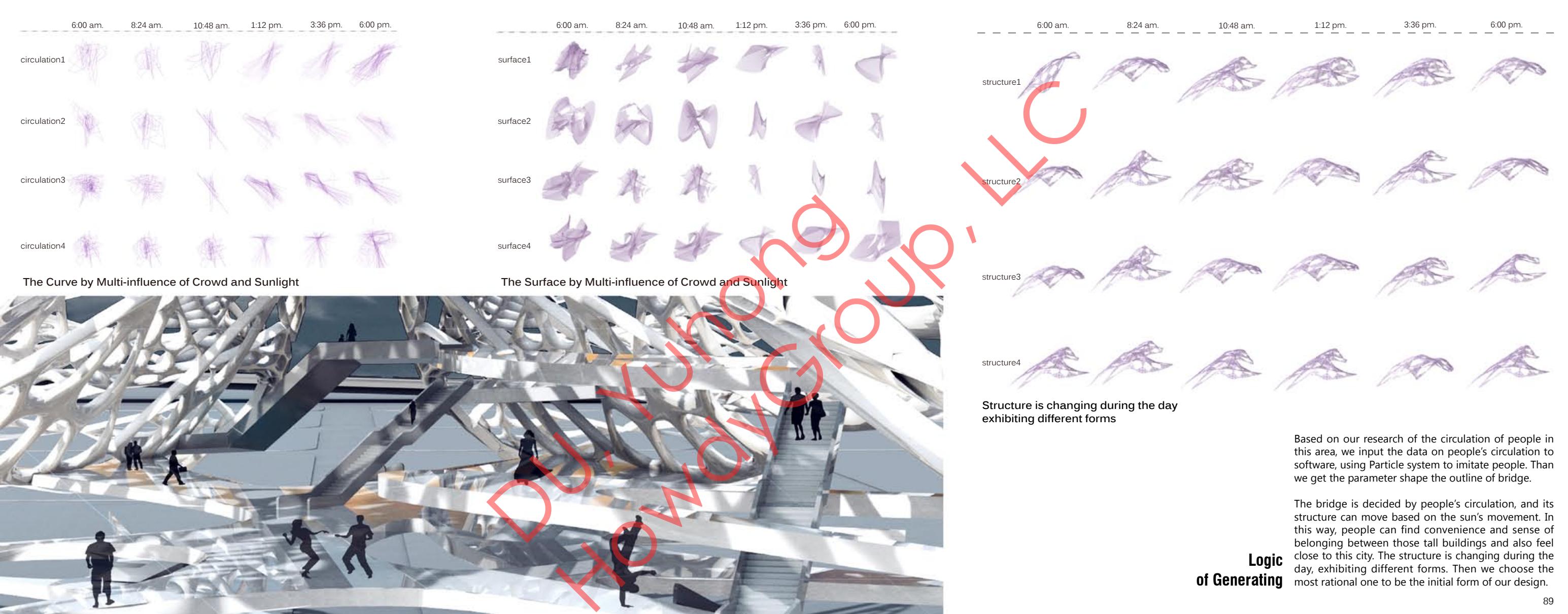
in the past



at present

Research on the Movement of People's Multi-circulations





# What I learned? What I challenged myself?

works overview

2009. Fall

**what I think  
what I want  
what I like**

This is my first architectural design work. The project is to design a small tea house. In the first design process, I had learned how to approach the way I like to feel space, arrange space, how to make the space and function compatible, how to make form and space coordinate with each other

**Tea House Design**



2010. Spring

**architecture  
and  
structure**

In the kindergarten design work, I was engaged in the study of relationship between building and structure for the first time, as well as the relationship between structure and space. In this design, as the structure of the framework is fixed, while the envelope interface can have a variety of envelope, it can create a variety of space.

**Kindergarten Design**

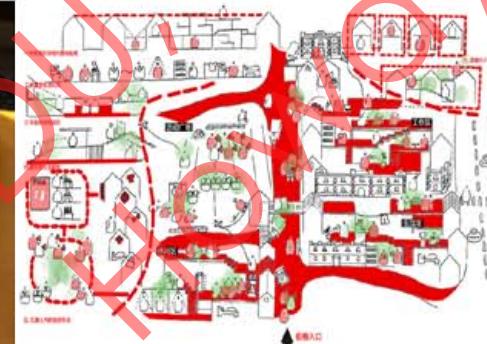


2010. Fall

**human  
feeling  
capture**

The topic of design is to transform an old city of Harbin, although many historical buildings stand in the Old City area, however, due to the isolation with urban, the site is not attractive to citizens. We want to take advantage of the old town and its convenient living conditions for service to serve young people, forming a living community.

**Renovation of an old town  
into Youth Community**



2011. Spring

**architecture  
dealing with  
nature environment**

In the museum design, I set the base in a special natural environment - desert. How to live in harmony with the harsh natural environment, how to maximize the use of the natural environment, how to make close connection between building and environment is the focus of the design, as well as the main point I learned through the design.

**Museum in Desert**



2011. Spring

**learning  
from  
historical buildings**

In the course of Architectural History , we learn both the history of Western architecture and traditional Chinese architecture. I gradually realized the building was frozen music, a record of the times and social changes. At the same time, I experienced different forms of buildings under the influence of various context.

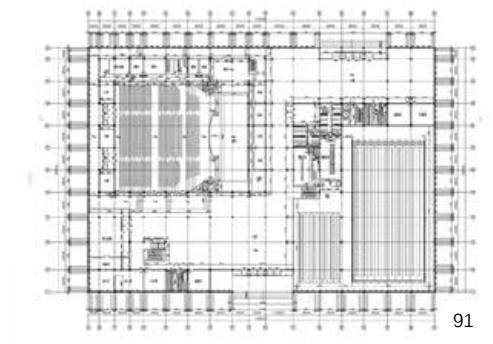
**Studying of  
Chinese Folk Residences**



2011. Fall

**design is  
science  
methodology**

Comprehensive museum is the design of highly technical, including theater, swimming pool, Shooting Gallery, basketball courts and other large space. How to arrange these spaces reasonably, how to make combination between structure and space, is the main object for the design. This is the first time I learned the design of construction details



# What I learned? What I challenged myself?

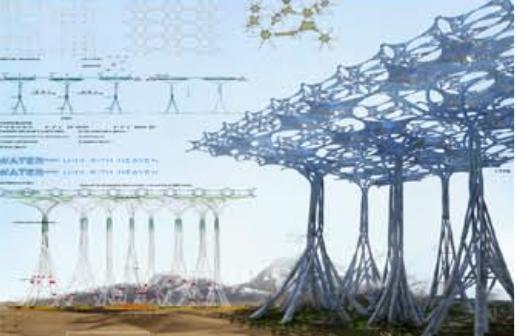
works overview

2011. Fall

**exploit  
the potential  
of my brain**

What is residential like in the future? We set the base in the highland areas of water shortage, and building act as the entity to collect rain water, realizing water cycle self-sufficiency. The top of the building is a large rainwater collection device, when rainwater collection comes to a certain amount, it will sink due to gravity, beyond the snow line, ice melt to water.

**Housing in tomorrow**



2011. Fall

**challenge  
a  
prototype**

The hotel's design mode is always to put public space on the ground floor, while put living above. In my opinion this function can be improved, so I arrange the public space distributed in the hotel, then establishing a direct link between the public spaces, in this way, servicing more efficiently to consumers..

**Hotel Design**



2011. Fall

**as  
a messages  
conveyer**

In the skyscraper design, we believe that today the large number of high-rise building construction is too cold, people are raised to the islands of altitude, losing contact with the ground, and communication between people decreased, and the environment was also blocked. Therefore, we hope to establish contact between the high-rise buildings.

**Emancipation of  
Skyscraper**



2011. Fall

**architecture is  
the approach of  
touching**

Research center locates in our campus, which is lack of reasonable planning, leaving no enough public space for us. So we choose to arrange the research center underground, on the ground designed as part of activities square, serving teachers and students, in the hope of creating a plaza. In the design, we also emphasized the issue of Energy-saving

**Underground research  
center in schoolyard**



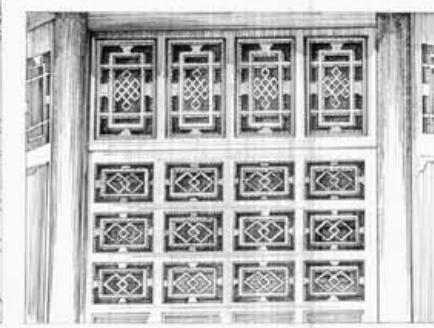
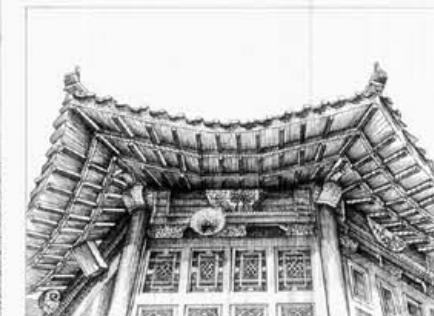
2012. Spring

**we  
truly have our  
responsibilities**

Primary school is based in a village, located in the hillside. How to make the building coordinate with the local culture and tradition, as well as the local climate, becomes the key of design. I arrange teaching unit as independent space, with two complete roof covering teaching units, creating a sense of space field.

**Primary school**





钟楼座落于哈尔滨极乐寺，极乐寺位于哈尔滨市南岗区中央大街尽头，建于公元1923年，占地面积5700平方米。极乐寺是东北三省四大著名佛教寺院之一，也是佛教徒参谒朝拜的礼佛佛堂圣地，也是中外游人观赏浏览的名胜所在，已被列为全国重点开放寺院和省级重点文物保护单位。极乐寺整体设计、布局和建筑结构，均保留了我国寺院建筑的风格和特点。寺院庄重，面临街街。进入山门，首先见到的是钟楼二层，庭院内，横向分为主院、东跨院、西跨院三部分。主院建筑1800余平方米，分四大殿：天王殿、正中佛堂弥佛，东西有四大天王；大雄宝殿，是全寺最大的殿，供释迦牟尼，正殿；藏经楼。殿内西侧尚有观音殿。该寺为黑龙江省内最大的近代佛教寺院建筑。钟鼓楼上书“佛曰普照”、“佛光普照”。