ENSHAN CHEN

SELECTED WORKS

DENSITY
LINKAGE
DIVERSITY
VITALITY

MASTER OF ARCHITECTURE
TONGJI UNIVERSITY

CONTACT
E-mail: enshanchen@foxmail.com
Phone: +8618521422145

URBAN

More problem solving orientated

Cities are all complex systems, containing numerous elements and relationships, so there are all constraints in it. I see urban design as an opportunity to solve problems like fragmentation, isolation, using strategies like linking, placemaking, thereby adding value to the built environment.

ARCHITECTURE

More vision orientated

When it comes to a single building, the outside influence sometime diminishes to a minimum level. Then here designers' imagination matter. A creative vision can energize the building, turning the meaningless voids into space.

RESEARCH

Problem identification & solution finding

Through researching we can deeply understand the problems underlying, and we can also use research to better our design. Rational research methodology is a counterpart to the emotional design methodology.

CONTENT

RESEARCH WORKS

DENSITY & MIXED-USE
Urban form of station areas

VISSIBILITY & ACCESSIBILITY
"Street eye" of Utrecht central station area

STAKEHOLDERS & ELEMENTS
Utrecht central station area analysis

URBAN DESIGN WORKS

"EXERCISABLE" CITY
District Renewal

LINKAGE & PLACEMAKING
Railway Station Area Urban Design

ARCHITECTURE WORKS

SEE & BE SEEN
Office complex

TERRACE & COURTYARDS
Secondary school

BUBBLES & RINGS
Kindergarten

OTHER WORKS

Shopping Mall
Residential district
Template Preschool Shop
Craftmanship analysis

DENSITY & MIXED-USE

The urban form of railway station areas: an analysis based on density and function indexes

Abstract: Based on two typical density and function analysis frameworks, the data of 38 stations around the world are captured from the CadMapper website, the required indicators are extracted through the grasshopper software platform, and relevant diagrams are drawn and statistical analysis is conducted. The results show that there are obvious regional differences in the density of station areas around the world, and the degree of mixing is improved due to the improvement of residential and other functions.

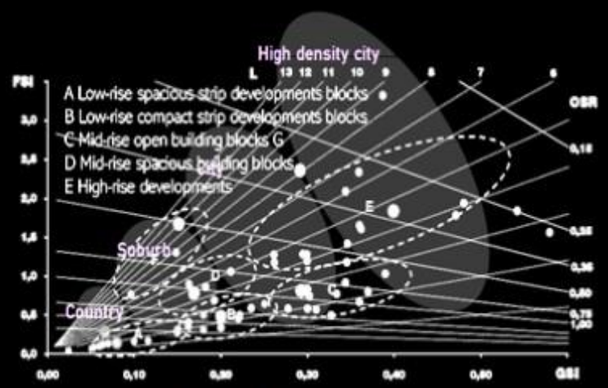


Figure.1. "spacemate"

Figure.2. MXI

Figure.3. models downloaded from CadMapper

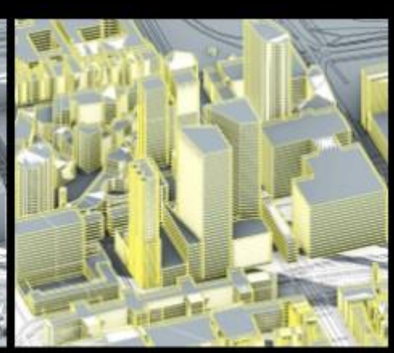


Figure.4. Floor slabs created by grasshopper

Figure 5, 6 Color the buildings based on Google Earth

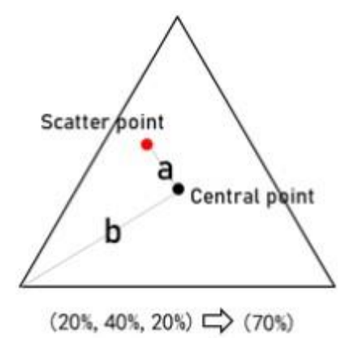


Figure.7 The index M

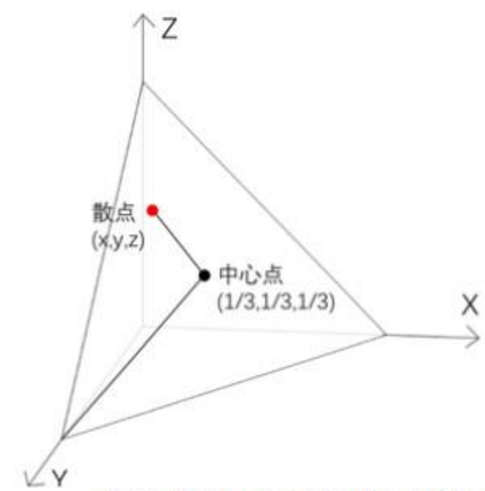


Figure 8 The mathematics of M value

Defining a new index M to combine the separate MXI index

The original MXI is composed of three values, to make these values more understandable, we propose the index "M". Suppose the distance from the center point to a scatter point of the MXI diagram is "a", the distance from the center point to the end point is "b"(Figure 7), and the "M" index is defined as:

$$M=1-a/b$$

Assuming the MXI value of a station is (x, y, z), it can be derived:

$$M=1-3\times\sqrt{(x-1/3)^2+(y-1/3)^2+(z-1/3)^2}\ /\ \sqrt{6}$$

Station Areas	GSI	FSI	L	OSR	Facilities	Residence	Office	M
Antwerpen	0.546	5.085	9.314	0.089	0.545	0.032	0.423	0.536
Berlin Zoologischer Garten st	0.388	3.299	8.504	0.185	0.569	0.035	0.396	0.527
budapest western station	0.465	3.348	7.196	0.160	0.811	0.000	0.189	0.266
chicago_millennium	0.375	10.875	29.007	0.057	0.457	0.002	0.542	0.497
chicago_union station	0.561	11.265	20.078	0.039	0.388	0.055	0.557	0.558
delft station	0.409	3.824	9.357	0.155	0.719	0.154	0.127	0.421
Edinburgh Waverley Station	0.494	4.131	8.361	0.122	0.557	0.186	0.256	0.659
hague central Station	0.376	4.265	11.341	0.146	0.624	0.322	0.054	0.506
Hakata station Station	0.283	3.510	12.404	0.204	0.208	0.386	0.405	0.812
janpan_Shibuya Station	0.406	5.695	14.027	0.104	0.208	0.386	0.405	0.812
japan_Futako-tamagawa Stati	0.180	2.295	12.749	0.357	0.422	0.182	0.396	0.772
japan_Kokura Station	0.284	3.240	11.427	0.221	0.539	0.046	0.415	0.556
japan_osaka Station	0.611	8.294	13.566	0.047	0.592	0.090	0.319	0.565
Lille Europe Station	0.354	3.694	10.431	0.175	0.532	0.196	0.272	0.695
Lisbon_oriente station	0.264	2.577	9.777	0.286	0.573	0.136	0.291	0.615
london bridge station	0.407	5.023	12.328	0.118	0.300	0.216	0.484	0.763
London_blackfriars station	0.389	4.547	11.684	0.134	0.359	0.191	0.450	0.773
london_kings' cross	0.390	4.088	10.483	0.149	0.457	0.002	0.542	0.497
london_liverpool street	0.539	5.963	11.062	0.077	0.548	0.132	0.319	0.639
longdon_Charing Cross	0.385	3.821	9.932	0.161	0.484	0.359	0.158	0.715
Madrid_atocha station	0.507	4.074	8.042	0.121	0.501	0.419	0.080	0.613
milano Porta Garibaldi	0.361	3.987	11.032	0.160	0.353	0.277	0.370	0.914
new york_Grand Central Term	0.916	17.176	18.742	0.005	0.345	0.004	0.651	0.439
new york_HUDSON YARDS	0.425	5.768	13.565	0.100	0.241	0.071	0.689	0.447
new york_Pennsylvania Static	0.638	10.304	16.158	0.035	0.441	0.048	0.511	0.568
paris leshalles	0.545	5.128	9.413	0.089	0.500	0.358	0.142	0.688
paris Austerlitz	0.300	3.168	10.552	0.221	0.393	0.138	0.470	0.699
paris montpanasse	0.484	4.660	9.626	0.111	0.390	0.186	0.425	0.776
Rotterdam	0.426	4.690	11.004	0.122	0.231	0.474	0.295	0.782
san francisco Transbay Transit	0.581	11.649	20.033	0.036	0.358	0.039	0.604	0.509
Switzerland_Zurich	0.386	3.866	10.016	0.159	0.473	0.228	0.299	0.781
Switzerland Zukunft Bahnhof	0.413	3.707	8.971	0.158	0.452	0.279	0.268	0.821
tokyo station	0.561	10.649	18.993	0.041	0.132	0.203	0.666	0.498
Shibuya Station	0.409	6.391	15.641	0.093	0.167	0.157	0.676	0.486
Toronto Union Station	0.519	9.490	18.272	0.051	0.356	0.060	0.584	0.545
utrecht central Station	0.395	4.365	11.043	0.139	0.369	0.283	0.348	0.922
vallingby Station	0.182	2.562	14.052	0.319	0.352	0.627	0.021	0.474
washington DC union station	0.318	3.829	12.039	0.178	0.815	0.120	0.065	0.276

Table.1 Density and function data

		GSI	FSI	L	OSR	Facilities	Residence	Office	M
GSI	Pearson	1	.799**	0.278548	-.860**	-0.06254	-.372*	.357*	-0.22971
FSI	Pearson	.799**	1	.783**	-.787**	-0.3023	-.424**	.607**	-0.29627
L	Pearson	0.278548	.783**	1	-.468**	-.403*	-0.29086	.586**	-0.24732
OSR	Pearson	-.860**	-.787**	-.468**	1	0.204197	.358*	-.469**	0.178624
Facilities	Pearson	-0.06254	-0.3023	-.403*	0.2041966	1	-0.293723	-.630**	-.428**
Residence	Pearson	-.372*	-.424**	-0.29086	.358*	-0.29372	1	-.557**	.483**
Office	Pearson	.357*	.607**	.586**	-.469**	-.630**	-.557**	1	-0.02071
M	Pearson	-0.22971	-0.29627	-0.24732	0.1786243	-.428**	.483**	-0.02071	1

**. At level 0.01, the correlation was significant.
*. At level 0.05, the correlation was significant.

Table.2. Correlation analysis of each index

General pattern of density

There are strong regional differences in density distribution. The Americas station areas have the highest GSI, FSI, and L; Japan, which people think is very crowded conventionally, has station density indicators distributed at all levels; Europe, where traditional protection is highly concerned, station areas have medium to low GSI and FSI values, and the value of L is low.

Overall, the more building functions in the station area are disproportioned towards work and facilities, and the proportion of residential functions is relatively low.

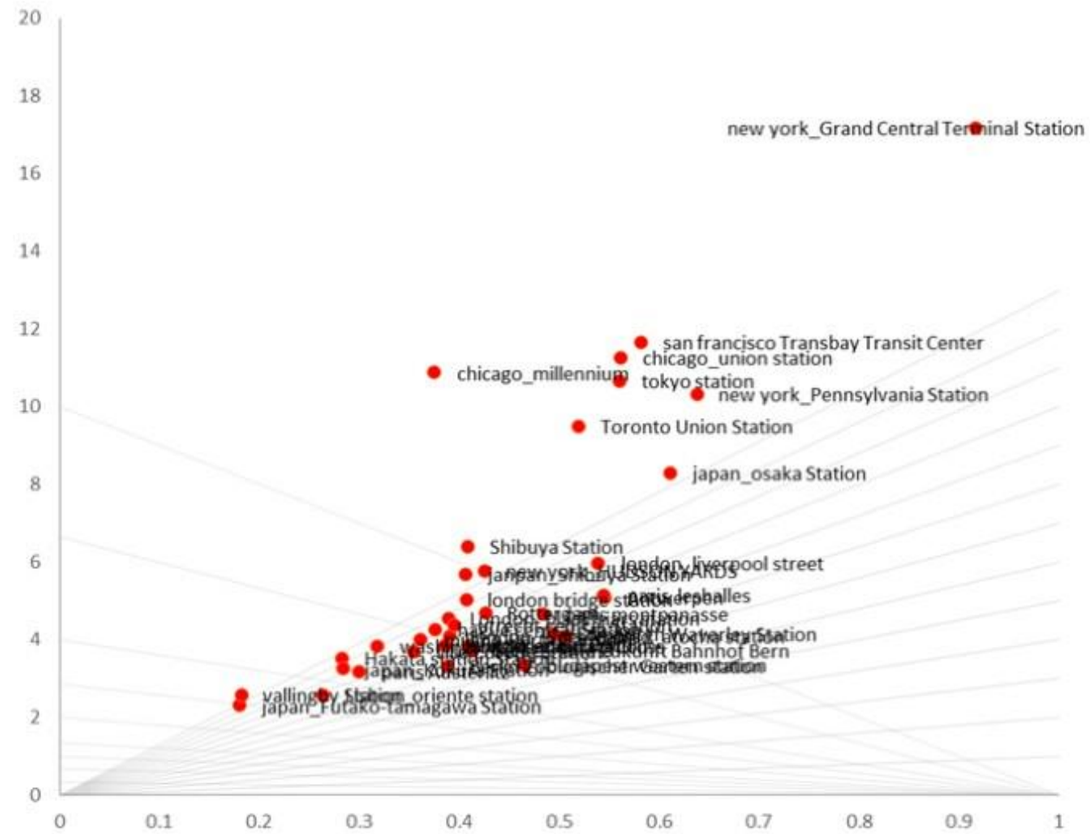


Figure.5. The spacemate diagram based on the data collected

Case examples of density

In specific cases, though as the station with the largest passenger flow in the world, Shinjuku Station has all density indicators at an intermediate level; the GSI of New York Grand Central Station reaches 0.92, the L is 17.2, thereby turning this sation area to be the most densified one among all the cases. (Picture 9, 10)

Figure.9. Shinjuku Station

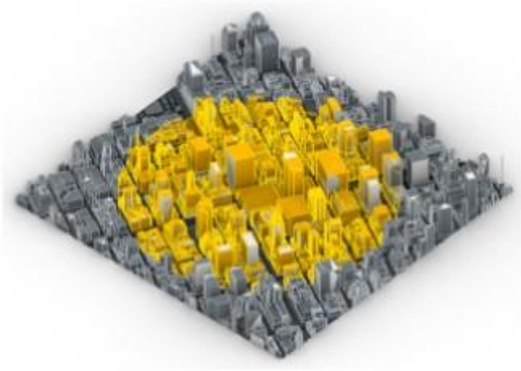


Figure.10. New York Grand Central Station

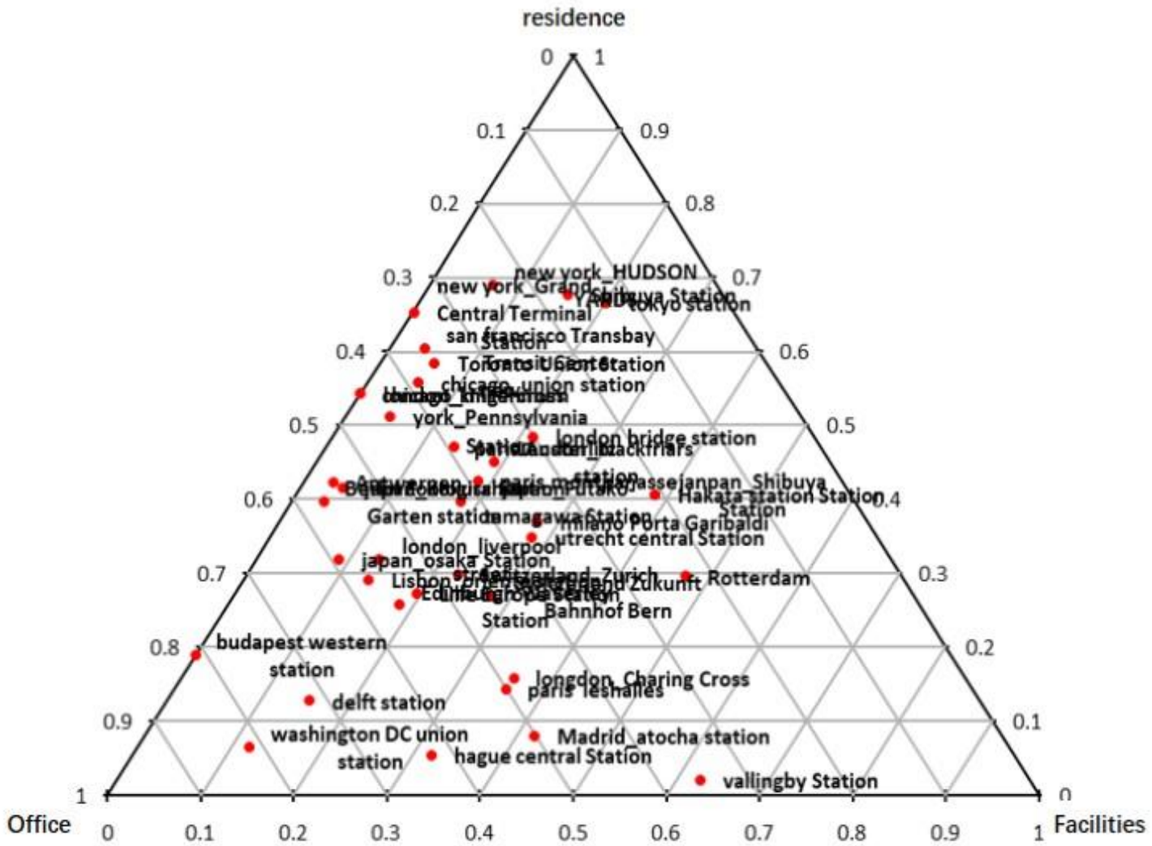


Figure.6. The MXI graph based on the data collected

General pattern and cases of function

The American cases contain a high proportion of office functions, which is consistent with the phenomenon that American trains are mostly used for short-distance office commuting. Europe is represented by countries such as the Netherlands, with a high degree of function mix, and stations both as transportation nodes and as places of activities are strongly reflected (Figures 10 and 11).

Figure.11. The east side of the utrecht central station area

Figure.12. The west side of the utrecht central station area

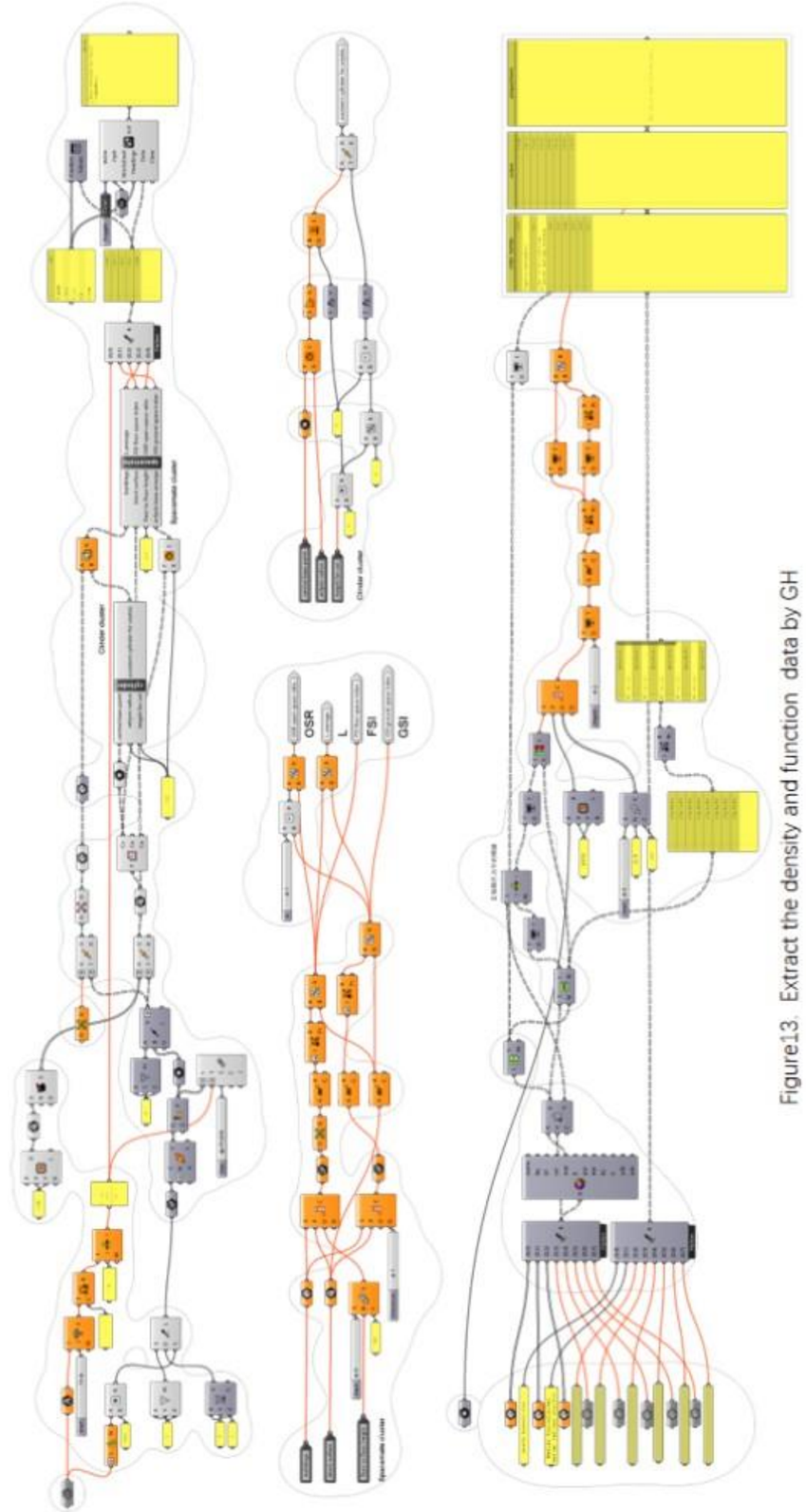


Figure13. Extract the density and function data by GH

VISIBILITY & ACCESSIBILITY

Analysis of Urban Security Based On Visibility: A Case of Utrecht Railway Station Area

Abstract: Urban open spaces, become more secure under the visual supervision of the surrounding environment. This article view analysis to put forward the concept of Visual Monitoring Rate to describe visual supervision. Taking the Utrecht railway station area as an example, it quantitatively analyzes the space security and observes the dynamic relationship between visibility and space security, verifying the validity of the whole approach.

Isovist 2D and Isovist 3D

The concept of isovist (field of view) from the discipline of geography is currently used in architecture and urban design field for view analysis. But for space analysis, more factors need to be considered.

Figure 1 Isovist 2D and Isovist 3D

Defining the visibility

Since the line of sight is reciprocal, when one ray of sight from the origin endpoint a is blocked by the building, it also means that we can see point a from the building. Considering the characteristics of the human vision, we set the downward viewing angle range as 0–30°, that is, the comfortable angle of the person near the building window is no more than 30° when looking down. Besides, the recognition ability of the human eye has a distance limit; here we set the distance as 30 meters.

$$V_{monitoring\ a3} = \Omega_{blocked\ a3} / \Omega_{hemisphere\ a3} \times 100\% \quad \text{(Equation 4)}$$

Figure2 A $_{unblocked}$

Figure3 $\Omega_{unblocked}$

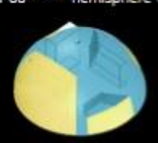


Figure4 $\Omega_{blocked}$

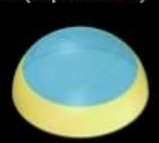


Figure5 $\Omega_{hemisphere\ a3}$

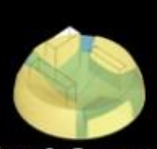


Figure6 $\Omega_{blocked\ a3}$

Ladybug software platform

Divide the ground into 4mx4m squares, and calculate the visibility value of every square center point. Then, we get a map of visibility.

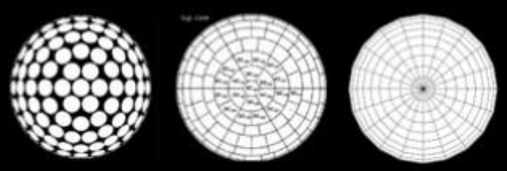


Figure 8 Tregenza sky subdivision

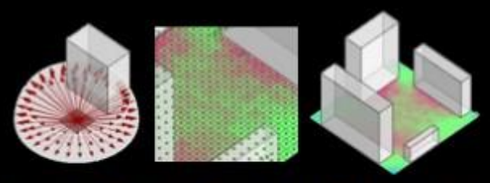


Figure9 The principle of view analyzing function in Ladybug software

Modeling the Utrecht railway station area

This research obtains spatial information during various periods from the following sources: Utrecht Archives (online), Google Earth, CadMapper map information website, CU2030 project official website. After the information is compared, three representative time points of 1968, 1992, and 2020 are selected. With the plan outline and height information of each building, we built a three-dimensional urban model of this area (Figure 8)

1 Central railway station
2 Stadskantoor cityhall office building
3 Jaarbeurs square
4 Beatrix cinema
5 Croeselaan avenue
6 cinema
7 Jaarbeurs convention center
8 casino
9 westplein square
10 Leidsche Vaart river
11 Smakkelaarsveld area
12 development over rail (partly cancelled later)
13 stationsplein square(added in 2012)
14 Hoog Catharijne shopping mall
15 Nieuwe Stationsstraat avenue
16 Vredenburgplein square
17 the old city
18 Catharijnesingel river
19 Moreelsepark
20 Nieuwegroord
21 bus station
22 tram station
23 Moreelsebrug skywalk(added in 2012)
24 motor vehicle ring proposed in 1989 (cancelled later)
25 Lombok block

Figure8. Utrecht Central Station area in different times

Calculating the visibility map

From the results of the analysis, we can see that after the urban renewal in the 1960s and 1970s, along with the decline in building coverage, the visibility of public spaces has also decreased significantly. In different periods, the total Visual Monitoring Rate in the area averaged differently: 1961: 82.37%, 1992: 76.67%, 2030: 80.07%.

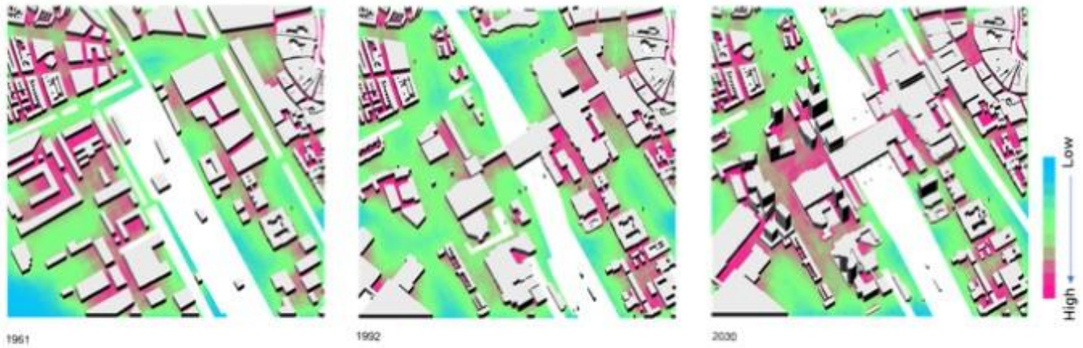


Figure10 Visual Monitoring map of utrecht central station area in different times

Space quality identification by machine – the axis in the Utrecht

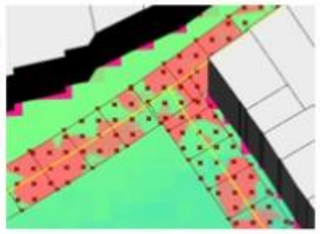
In the second urban renewal plan formulated in 2003, an urban axis connecting the east and the west was planned (Figure 11). In the implementation of the 2030 version of the plan, the axis was not obvious to the naked eye in terms of architectural form or spatial form. However, through the map, we can clearly recognize that the quality of view on this axis is consistent and uniform, which is significantly higher than that of the surrounding area (Figure 12)

Figure 11 The City Axis and the Greening Axis in the second plan of city renewal

Figure12 Axis, sapce, Visual Monitoring

Data standardization

Collect the data from 2D map to the street central lines, to draw the visibility map in the following figure13. so that we can overlap the visibility map with the accessibility map, and endows visibility the potential to overlay with other space quality analysis based on road or block network.



Collect the data from 2D map to the street central lines to draw the visibility map in the following figure13

Overlap accessibility and visibility

Use "Spatial Design Network Analysis" software (sDNA) to calculate the accessibility, and converted the 2D visibility map into line map so that we can have the unified format of data for further analysis.

After the two maps are overlapped, we can evaluate the quality of street space: which spaces have high accessibility but with no satisfactory visibility, and which spaces have high visibility, while the accessibility needs to be improved, etc

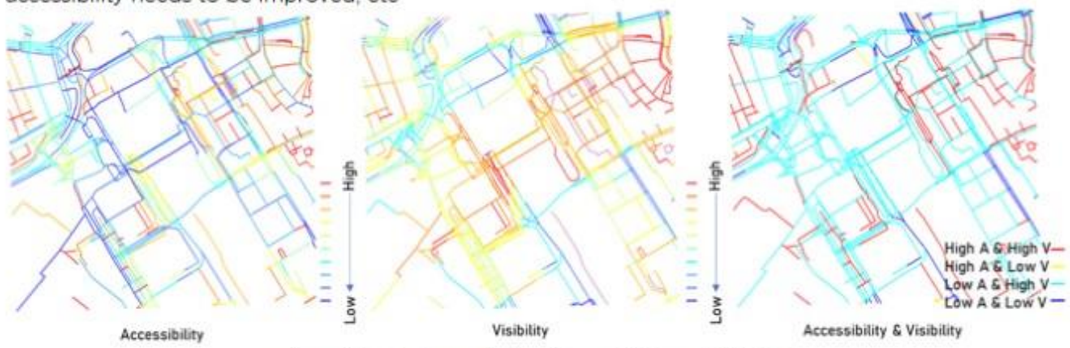


Figure13 Overlay analysis of Accessibility and Visibility

SHAKEHOLDERS & ELEMENTS

—— research on the station-city integration procedure of Utrecht central railway station

Abstract: Utrecht's station area renewal is a typical case in the Netherlands. Over the past three decades, participants have played a long game and successfully renewed the original deteriorating station area by reorganizing the city elements. By studying related Dutch official website materials and papers, this research demonstrates the driving forces behind the development and their impact on physical space.

The history of the Utrecht railway station area development

Years	Events	Participants changes	Relevant plans	Background policies
1984	Freight company moved			
1986	Hospital moved		Klunder plan、kat&jong plan，DROarea list	
1987	Façade Renewal plan Station building update			
1988	Tentative joint development statement	the municipality、NS、ABP、JB		VINO
1989	Atelier work studio		"UCP Future Vision"	
1990	Established the official UCP development platform		NGO group BOCP is established	The second national transportation planning New Key Project
1991				VINEX
1993		ABP、JB withdrew	93 master plan	
1994	Established UCP B.V.	Three major developers joined		
1995			Conceptual plan of space function	
1996	Established UCP administrative Platform and piggy bank model Riek joined	ABP、JB rejoined		
1997	Government promised 2.4 billion subsidy "Livable Utrecht" party established		"Temporary Urban Design" VSO "Final Urban Design" DSO	
1998	"Livable Utrecht" became one of the three major political parties			
1999	Lobbying the state government			
2000	UCP disintegrated "Restart plan" , got cancelled later "Livable Utrecht" becomes the largest political party	JB、ABP withdraw		
2002	referendum, option A was selected The project restarts as CU2030	ABP、JB rejoined	Option A, Option 1	
2004			04 masterplan	
2005	UPL survey recommendations			
2006			Structural Plan	
2014	Selected as a smart sustainable district			
2018	NS above track development intention			

The history of the Utrecht railway station area development

There are many parties involved in the development of the Utrecht station area: the municipality, the NS (the dutch national railway company) , ABP Development Company (the owner of the Catharijne Shopping Center and surrounding plots②), Jaarbeur Company (the owner of the Jaarbeur Convention and Exhibition Center and surrounding plots), the BOCP (a non-governmental organization), the state government, etc.

The element interaction

In the development of urban design theories, different scholars have tried to summarize its elements. However, the various elements of a city are not parallel and isolated, but are intricately constrained.

Figure 4 the interaction of different city elements during the development

Interests priorities

Residents and local governments pay more attention to regional housing and space quality, while developers are pursuing the commercial vitality and office rental and sales income. Railway companies focus on macro-level transportation efficiency. The central government focus on the overall urban and station synergy (Figure 4).

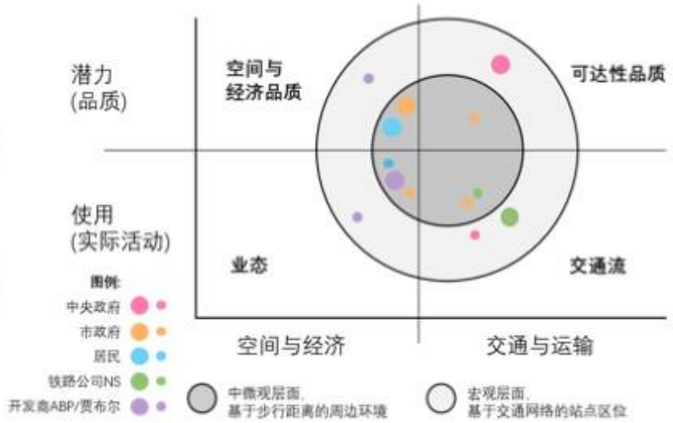


figure 5 different stakeholders and their main interest. illustrated based on the Dutch Nod-Place theory.

The history line of the Utrecht railway station area development

Different stakeholders and users tried to pursue their own interests in the development progress, which can be reflected on different aspect of city elements.

Stakeholder	Main demands	Public space and architecture	Transport	Function	Landscape	History/culture
Residents	Livable/Walk-friendly	Update/Newly built community square/Mosque	Pedestrian bridge/Station city corridor Urban corridor axis/transformation of motor vehicle lanes to tunnels	Housing	Park restorations Boulevard New canal	restoration of moat building height control
Passengers Commuters Tourists	Convenient transportation/City recognizability/Consumer experience	Building integrity/Street wall control	Station integration Central Avenue Axis	Hotel/Theater/Casino		Artistic Creation
Developers	Commercial benefits	Office plaza	Two-story platform	Office/commercial/above track development (in planning)	Residential building along the river	
Government	Security/city status		"Railway Port"	Mixed-use/Hospitality		

Common appeal: Improving safety, and the element organization

the Utrecht station area was updated in the 1960s and 1970s with space separated by traffic and functions isolated from each other. It soon became unsafe due to cars on the ground and insufficient pedestrian.

So in 04 plan, the 11 sub-areas all equipped with residences for "street eye" monitoring, and 4 areas near the station are planned to set up shelters.

Three pairs of main contradictions, and the element organization

Contradiction 1: Residential qualities vs Development benefits

Solutions: the mixed-use, developing on the track, adding Community facilities, etc.

Contradiction 2: Tourist Experiencing vs Commercial Value

Solutions: channel the obstructed passage, enhance City identification, etc

Contradiction 3: Slow traffic vs Locomotive traffic

Solutions: restrict cars, promote public transit.

U01 **“EXERCISABLE” CITY**

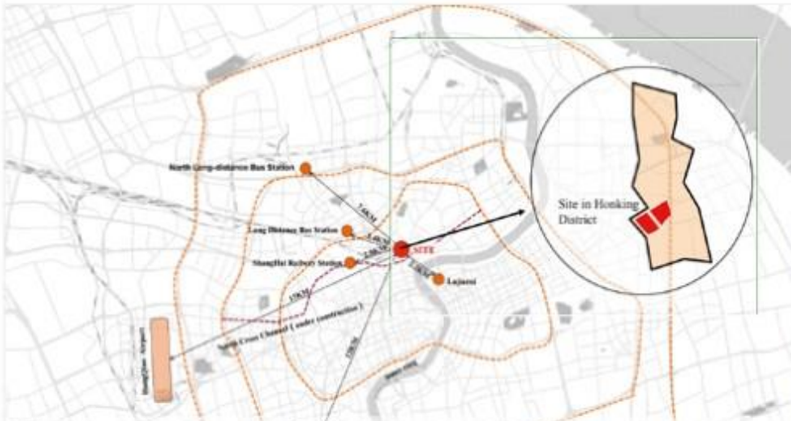
A residential districts design

Year: 2018
Location: Shanghai, China
Type: urban design
Category: Academic projects
Role: collaborative work, as the leader of 4 members

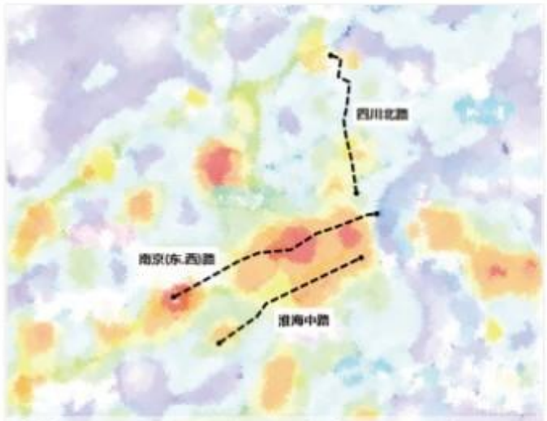
This is a district with historical building, subway station, and is adjacent to one historical street and one main traffic street. Concerning these elements, we start off from the area revitalization, setting this district as an “exerciseable” city where every important spot is connected with the two loop, one on the ground and one in the sky.

Commercial decline

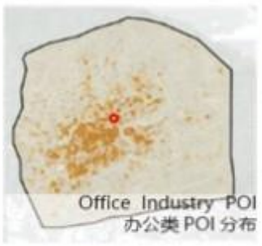
While in a key location at Shanghai, Sichuan North Road has declined as one of the previous three major commercial streets. The vitality here is far more less than the other two now.



The site is in the core area of Shanghai Inner Ring, close to main hubs and core districts in Shanghai metropolis. It's around 2.2km from Lujiazui central business diatrict, 15 minutes drives to Hongqiao Airport through North Ring Road which in the city planned construction.

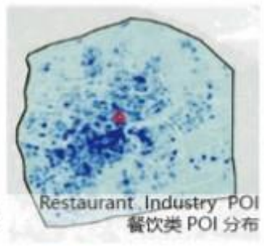


Sichuan North Road on which our site located shows poor performance as one of the "three major commercial streets in Shanghai", with decreasing popularity and declining urban vitality.

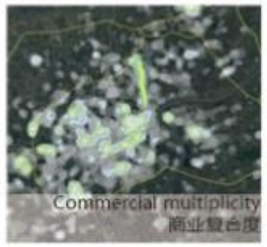


Office Industry POI
办公类 POI 分布

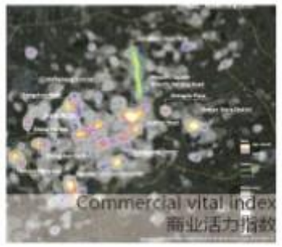
Retail Industry POI
零售类 POI 分布



Restaurant Industry POI
餐饮类 POI 分布



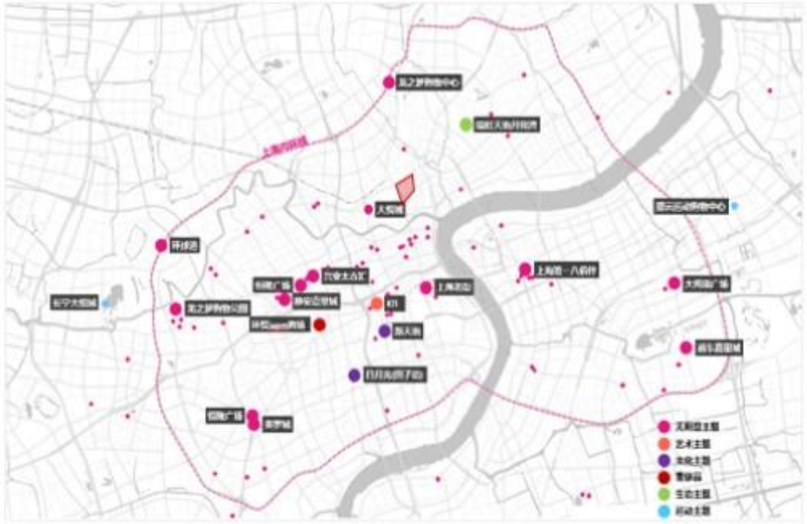
Commercial multiplicity
商业复合度



Commercial vital index
商业活力指数

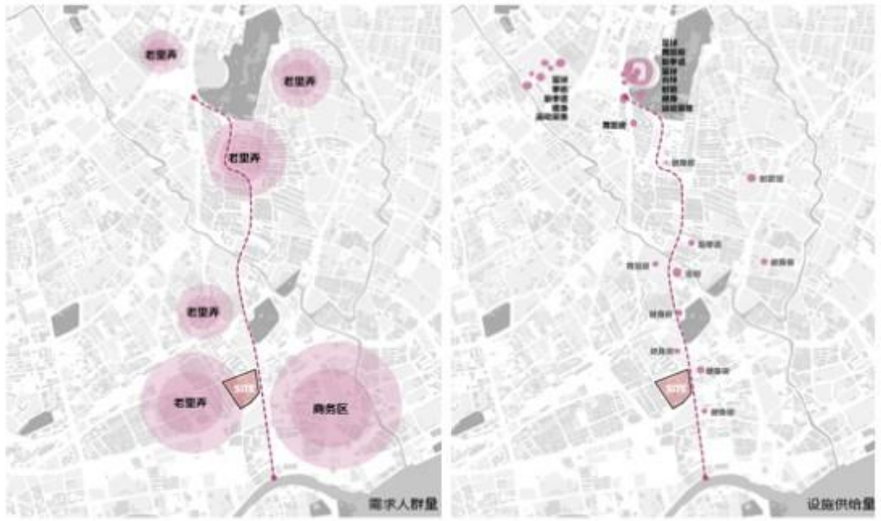
A mall with sports theme

Potential components in the shopping mall commercial shows that sports theme would be a better choice.



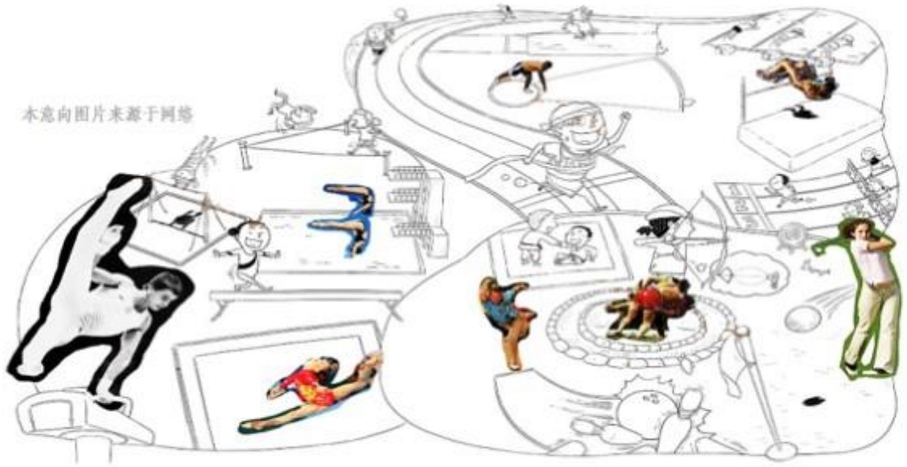
Be a facility to the community

The site should be combined with surrounding facilities to support residence nearby to maximize the resources and bring vitality to the local area.

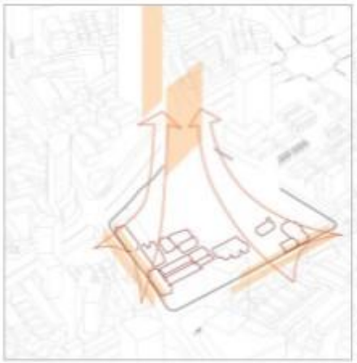


The Sports Loop

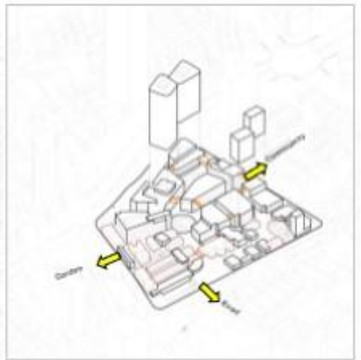
Attract different age groups, with various social roles to this area, bring plenty of energy to this region. Improve and optimize people's life philosophy, promote healthy urban civilization.



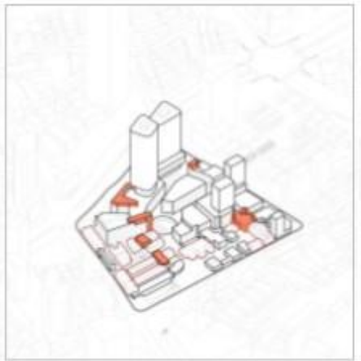
Sept1: Set heights regarding to the urban interface



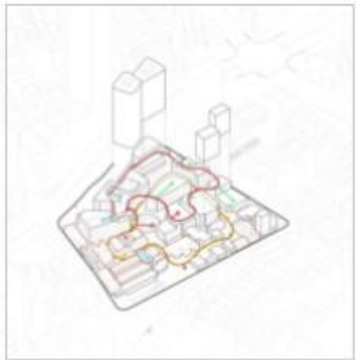
Sept2: Link three roads and gardens to the site



Sept3: Insert several sports facilities in to the block



Sept4: Link all entrances and facilities with two main loops



Placemaking

There are two main loops linking all the facilities together, we want to create small landmarks which are both identical and functional. The existing elements inspired the newly-built ones, by mirroring and duplicating.

The commerce volume in this project is estimated and calculated in several ways to ensure that it will has sufficient costumers.

Courts on the roof 1

Lanes under roof 1

Courts on the roof 2

Lanes under roof 2

Typical road type designs

Underground spaces, Green spaces, Development volume, Logistics

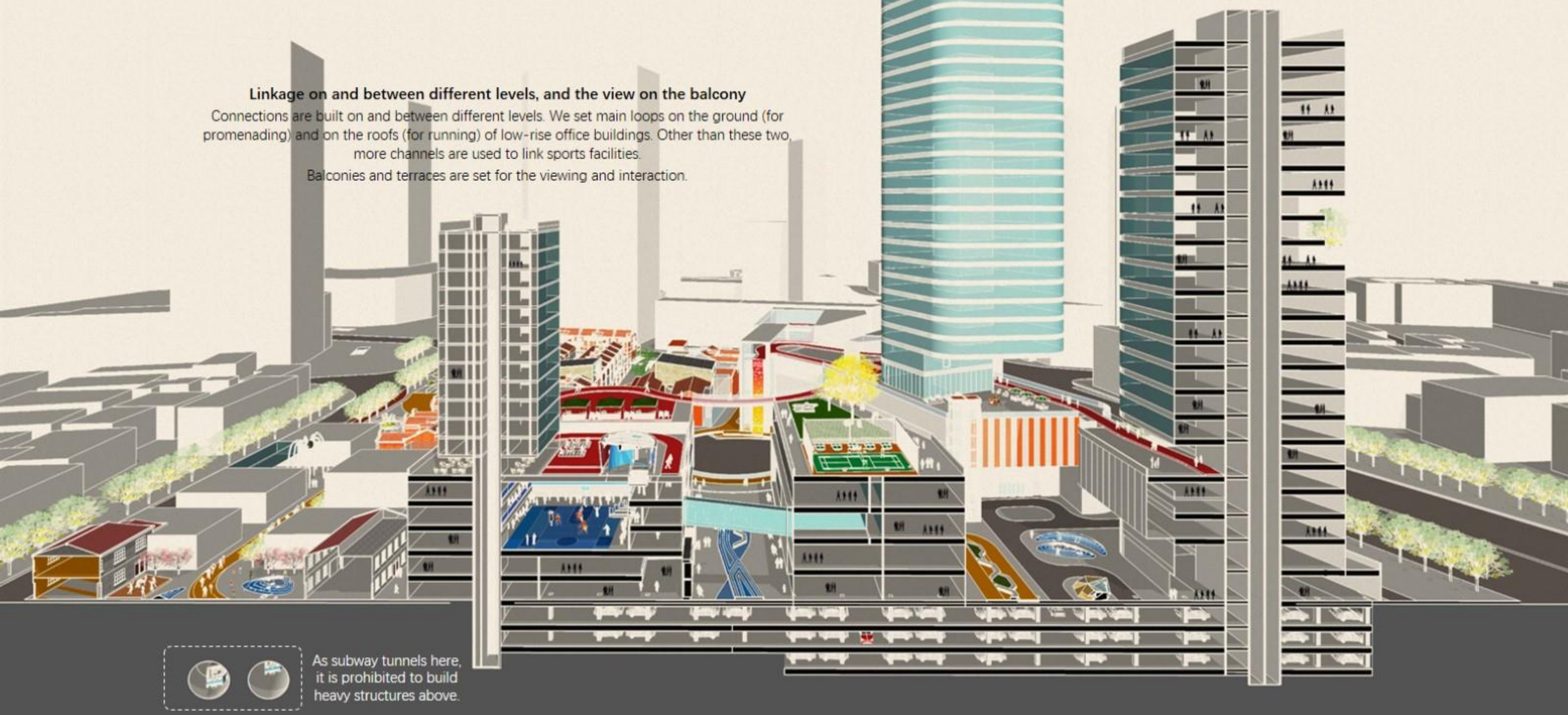
This "Yihongyuan" building is an elegant and historical one, but currently is been surrounded with all the freely constructed buildings. We "save" it from this cram, and enhance its identification.

The bridge between buildings can be seen as a modern transformation of the old gate in Shanghai "lining" . It promotes connection between buildings, and also enhance the enclosure feeling of the space.

Linkage on and between different levels, and the view on the balcony

Connections are built on and between different levels. We set main loops on the ground (for promenading) and on the roofs (for running) of low-rise office buildings. Other than these two, more channels are used to link sports facilities.

Balconies and terraces are set for the viewing and interaction.



As subway tunnels here, it is prohibited to build heavy structures above.

U02 **LINKAGE & PLACEMAKING:** the next generation of railway station (area) in China?

Urban Design of X City Railway Station Area

Year: 2018-2020
Location: (confidential currently)
Type: urban design
Category: Real Projects
Role: collaborative work, responsible for research and placemaking work, as well as scheme design.

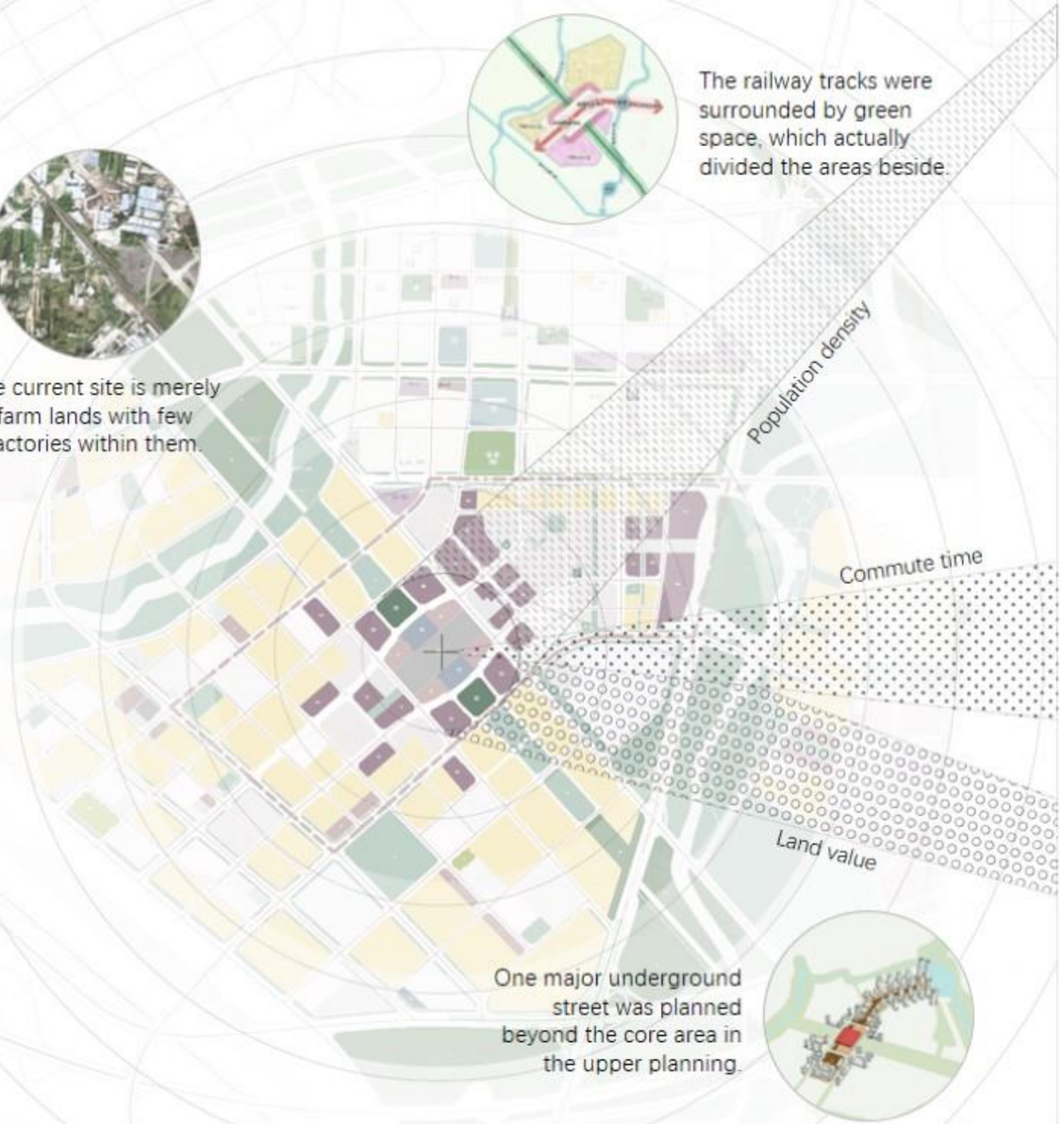
Railway station areas are often isolated from the city context due to the traffic segregation, oversize buildings and square in China. This project uses practical strategies to link all the elements, to downsize the space, to create a human friendly atmosphere, hence puts forward a new typology for station area practice.

Site context

The current site is merely farm lands and has few elements and constraints, so the main challenges here turned to be dealing with railway station typology. Great potential should be released regarding to the advantage of mobility, land value after the station being built.

The railway tracks were surrounded by green space, which actually divided the areas beside.

The current site is merely farm lands with few factories within them.



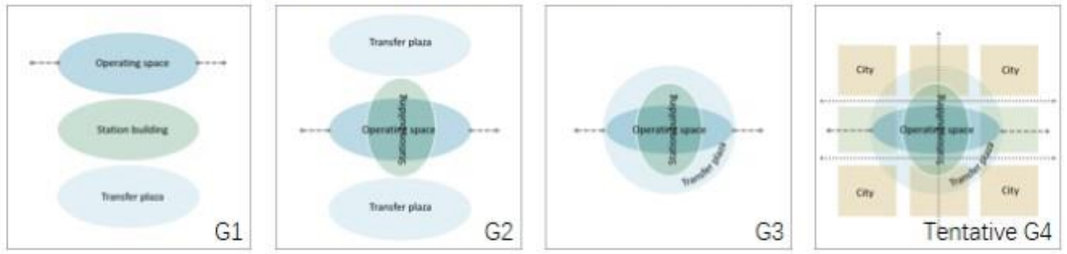
One major underground street was planned beyond the core area in the upper planning.

- Core urban design area
- Railway station
- Residence
- Greenery
- Office and commerce

This site locates at a place with great mobility in the whole road network of Zhengzhou city.

Stations Generations in China

Stations got compacted during the former generations, while we believe that, in the next generation, them should integrate with cities.

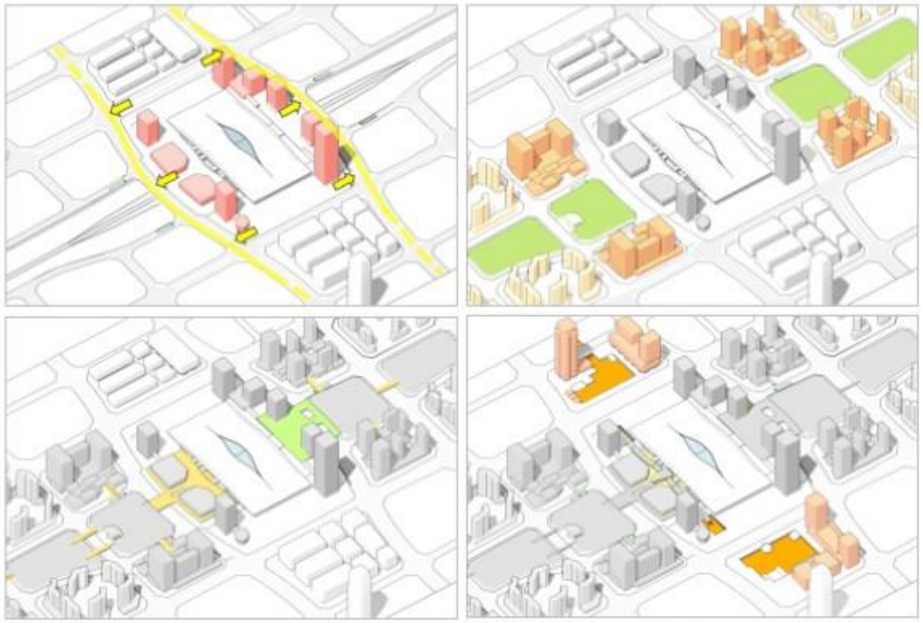


Common issues for Chinese stations

Oversize squares with no vitality. Oversize station buildings block the flow. Mono-functional space with poor quality

Chinese complexity: Social Context

Chinese railways are planned for long distance transfer, hence passengers often travel with plenty of luggage causing congestion, especially in holidays



Strategies

1.bend the road to get more space for inner pedestrian-friendly development

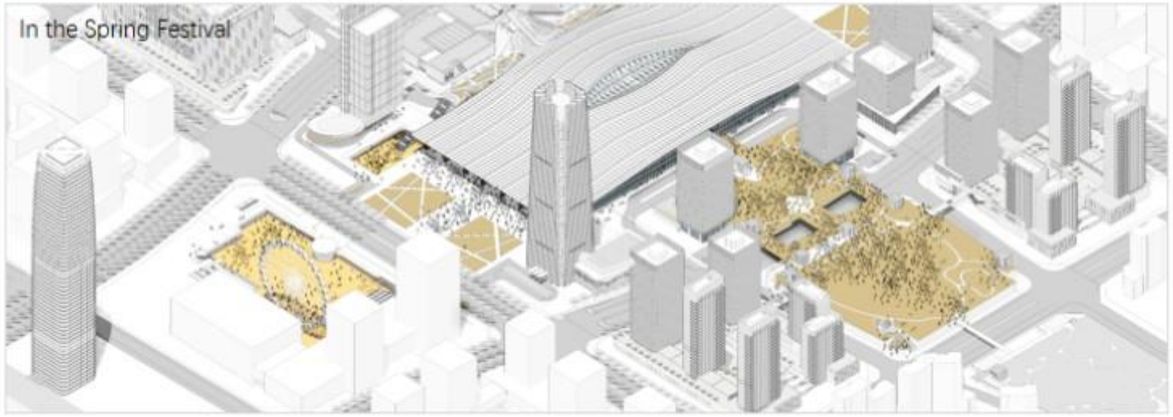
2.Build garden above track and submerge fast traffics

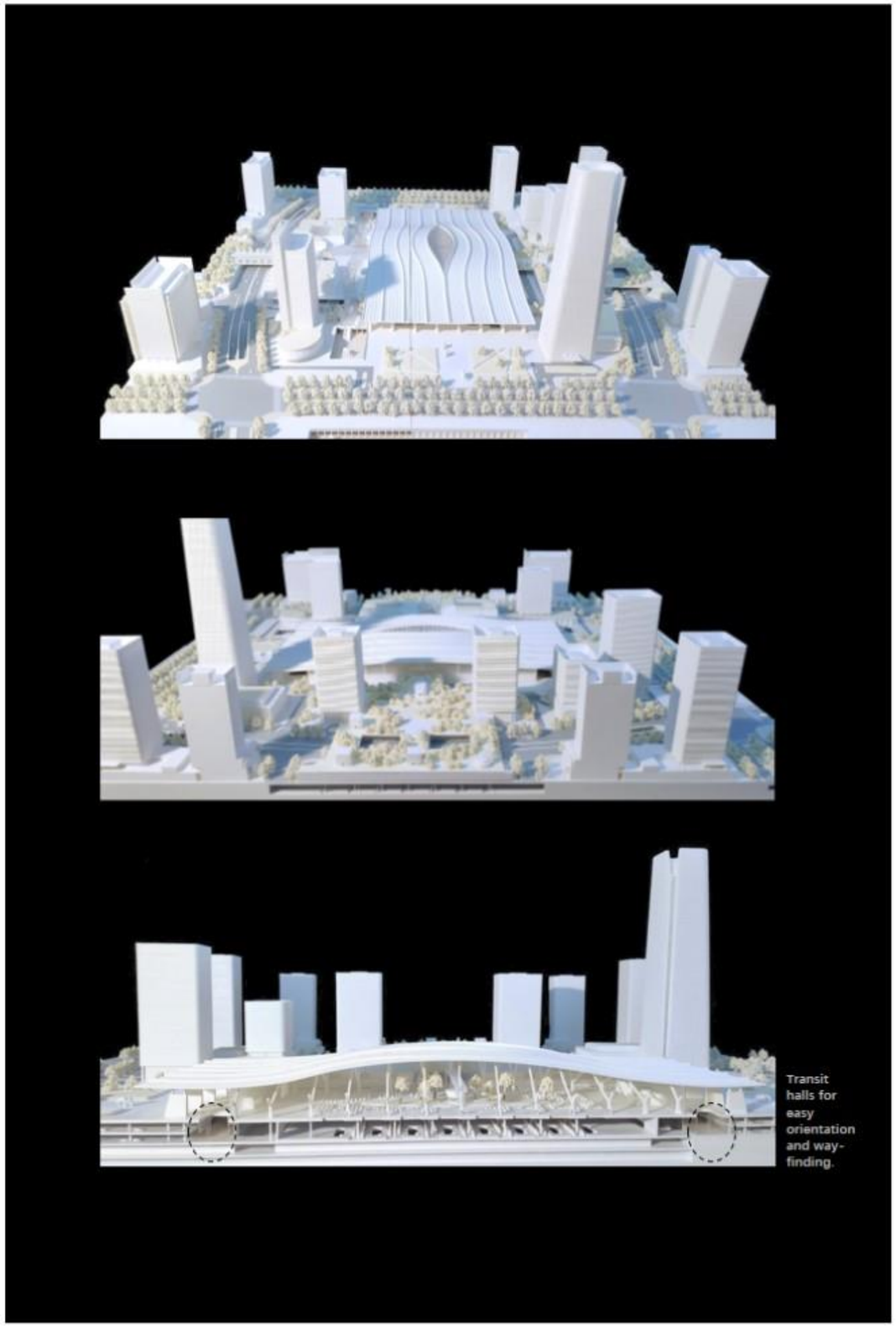
3.Link all the districts surrounded

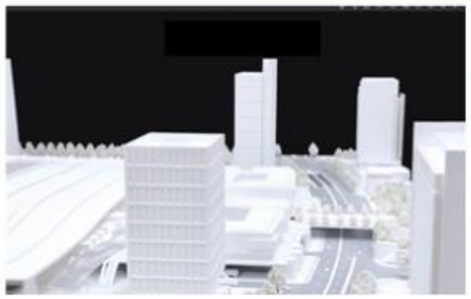
4.Use underground streets and plazas for to connect the city

Station areas for the normal and the holiday

In China, there is extreme high passenger flow during holiday like the spring festival, station area should be capable of this and should also be utilized in the ordinary time. The on-track gardens are places that can be used for the surround offices and residences, and for the holiday stranded passengers.







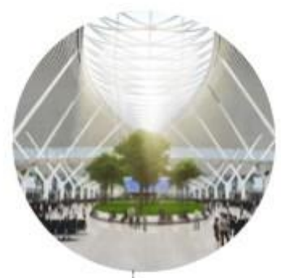
Linkage & Level Changes

Linkages are created within and between different elements, with level changes.
It brings not the convenience for movement, but also diversified experience in the space.

Bridges above the roads for pedestrians.

Walking commercial streets. Shopping when waiting for the train.

Provide more shaded places in case of the congested flow of passengers in holidays



The center hole on the roof lets in sunlight, and is visually identical

the drop off area is equipped with retails like coffee shop to kill time when waiting

The roof of parking plot will be developed as gardens.

Linkage & placemaking

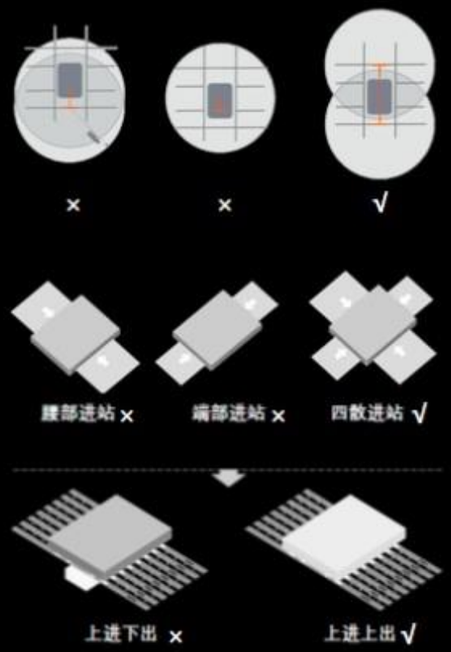
The linkages elements like bridges and platforms can be integrated into the space to crate memorable landmarks and places.

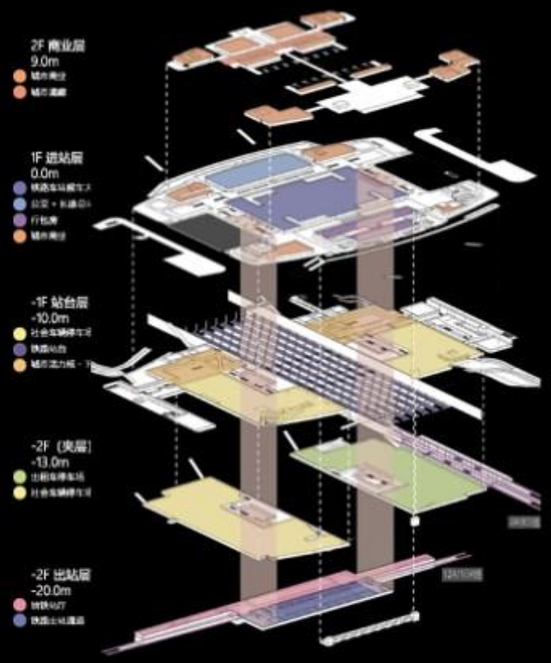
Section A-A'

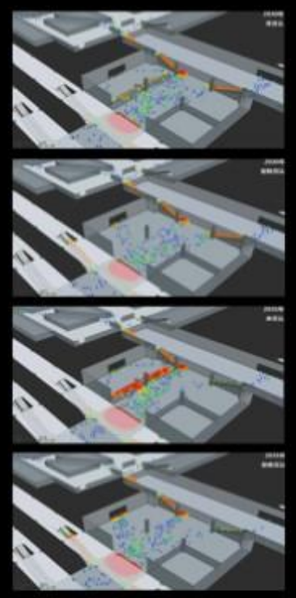
Station building optimization

Optimization are conducted in terms of functions, circulations, considering the relationship between subway stations and the railway station, the entrance of the railway station, and the logistics and flows in the stations, etc.

we provide more city facilities and property than normal for better station-city integration







The flow simulation for the transit center hall area

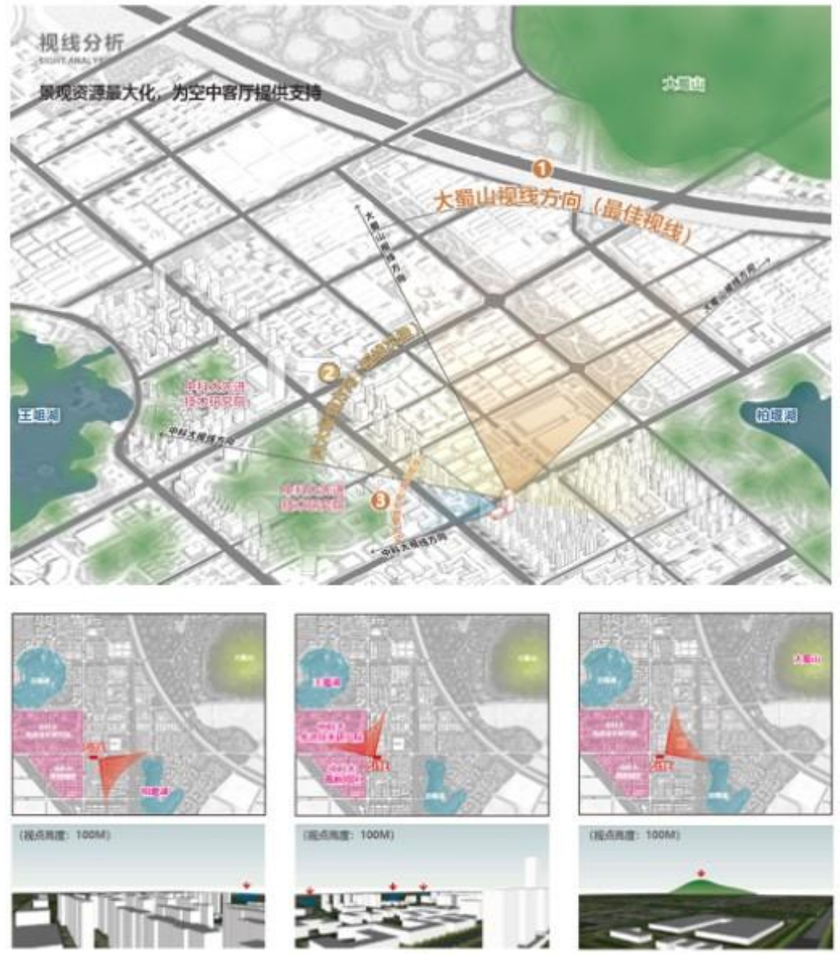
A01 **SEE & BE SEEN**

An office building design in Hefei

Year: 2017
Location: Hefei, Anhui, China
Type: architecture design
Category: Real Projects
Role: collaborative work as leader of 3 members

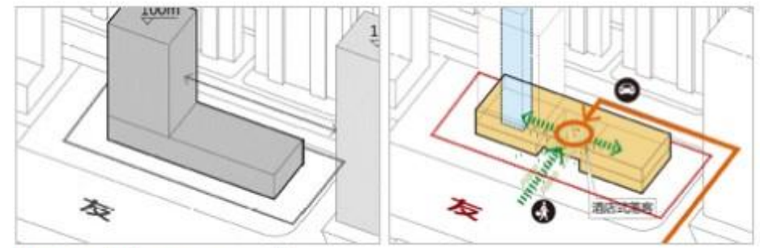
In this project, building is shaped by the surrounding buildings with which the street skyline is structured continuously. To maximize the view for the office building itself, several open space is insert for sharing. Efforts have also been done to provide the roof of the low-rise part building to the nearby residential district as a compensation for the occupying of its' original green land.

Be seen
building is shaped by the surrounding buildings with which the street skyline is structured continuously.

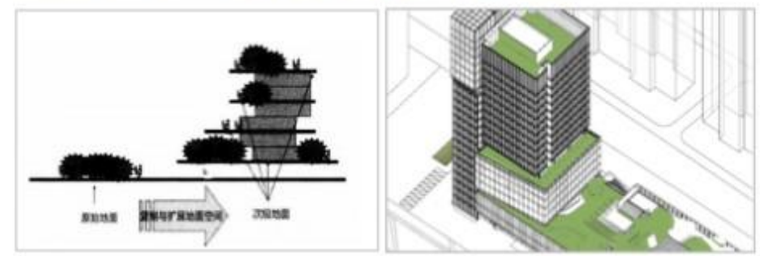


See
To maximize the view for the office building itself, several open space is insert for sharing.

Compensate the green land
Open the roof to the public as a compensation for occupying their previous green land.



Channel the street wall
Separate the low-rise part into two to make it more accessible for pedestrians, as well as to easy the ventilation of logestic.

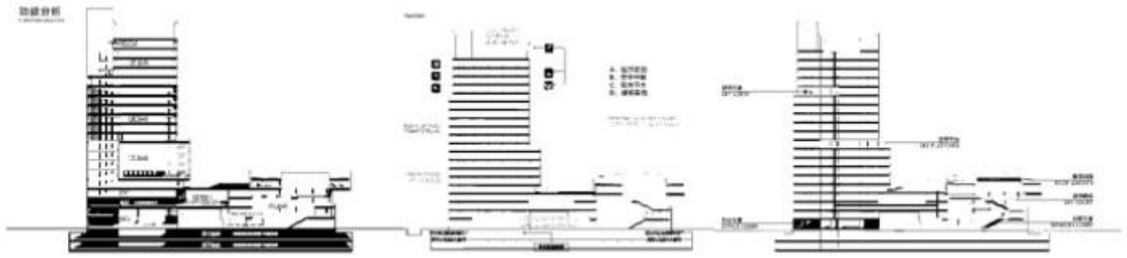


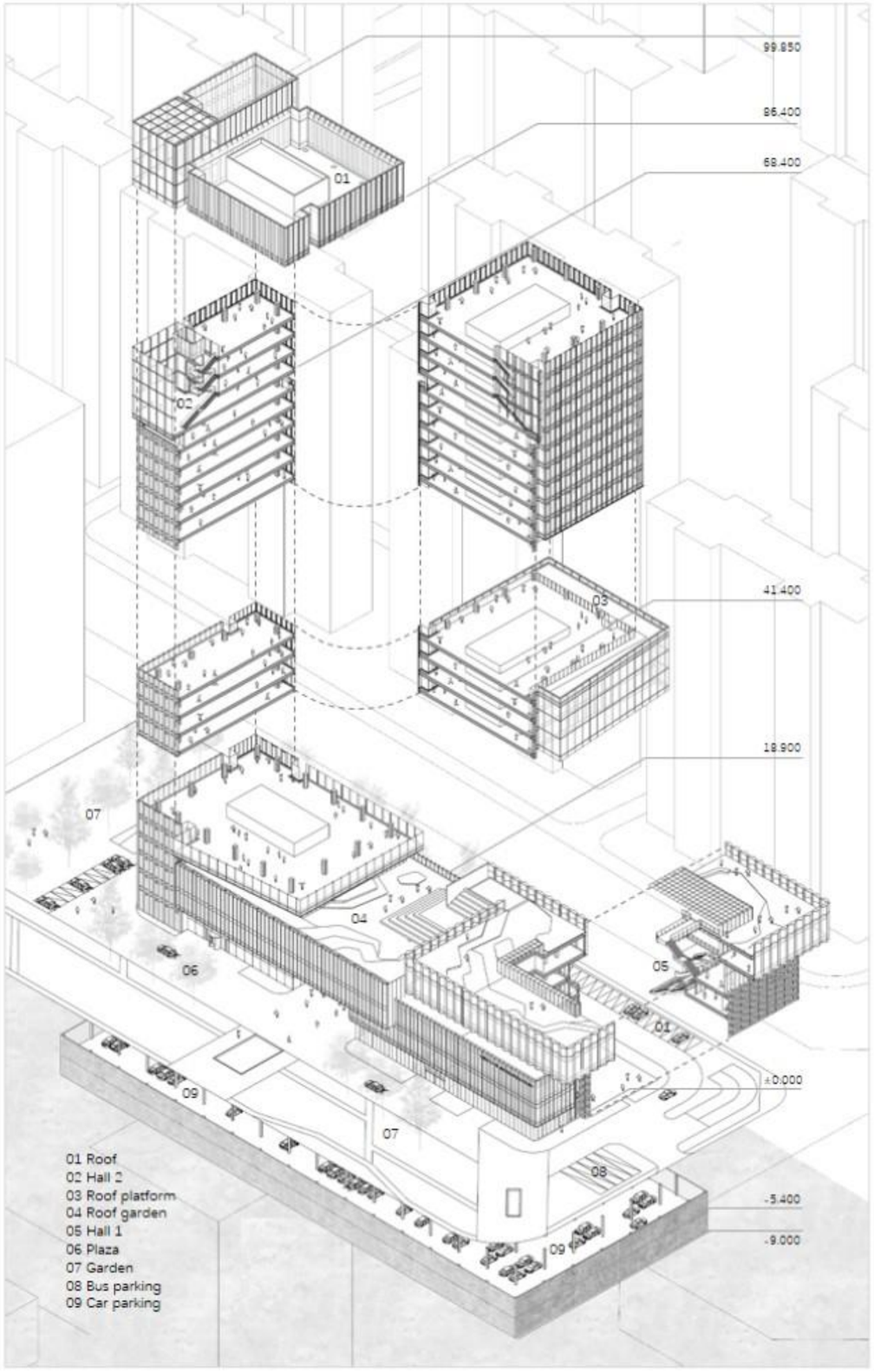
Provide "Secondary floor" in the sky for the office
Make it feels like living and working on the ground, where nature is nearby.

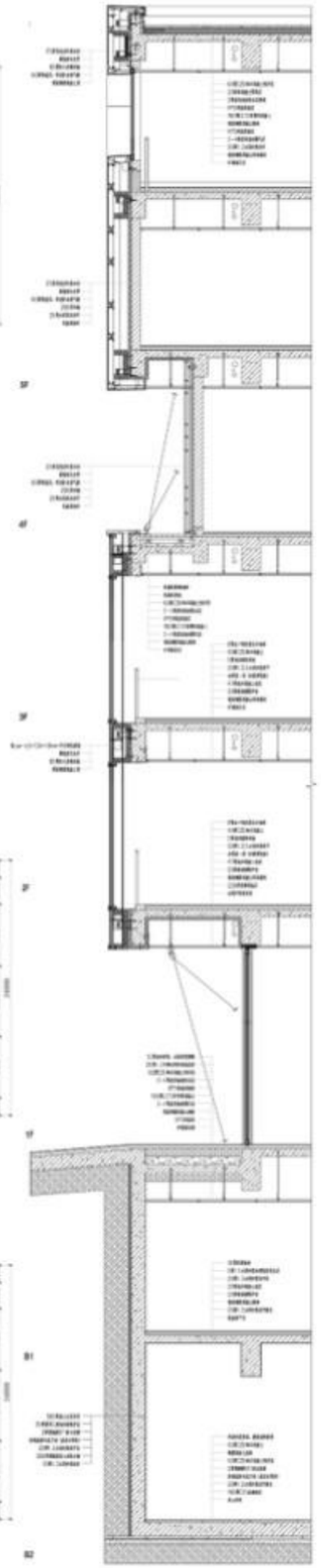
Community-friendly
Facades are design with human-scale sizes and diversity. A grand stair is set to make the roof garden accessible to the public. Several memorable places are designed for interaction and fun.

Public spaces as energizers

We set three main public space which is resulted from view analysis, to augment the charm these three spaces bring, activities and experiences are further designed and refined.
New technologies for sustainability are used.




99.850
86.400
69.400
41.400
18.900
±0.000
-5.400
-9.000
01
02
03
04
05
06
07
08
09
01 Roof
02 Hall 2
03 Roof platform
04 Roof garden
05 Hall 1
06 Plaza
07 Garden
08 Bus parking
09 Car parking



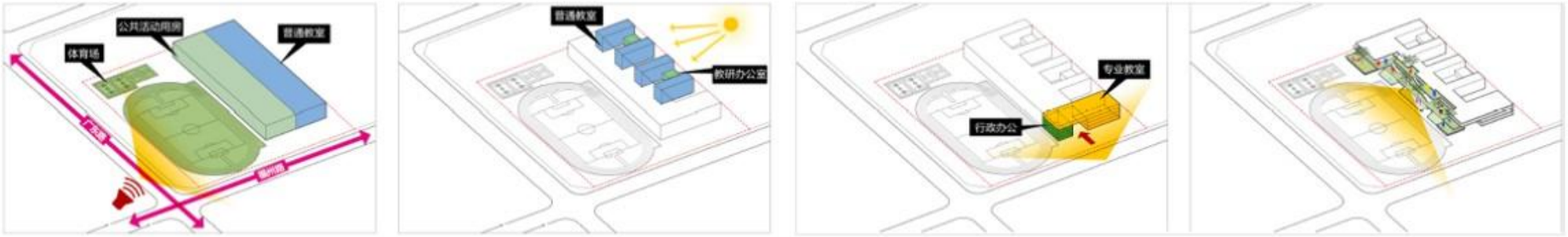
A02 **PLATFORMS & COURTYARDS**

A secondary school design

The first prize in this project design competition

Year: 2018
Location: Hefei, Anhui, China
Type: architecture design
Category: Real Projects Competition
Role: collaborative work, as the leader of 3 members.

For a school, we want provide as much nature as possible to the students, especially when nowadays children are kept in the building all day. So we created the platforms. They can be used as grandstand, terraces for class breaks, and place for communication, etc. the building also got it landmark vision through this.



Step1: set the playground, avoiding noise from the traffic.

Step2: set courtyards, letting the sunlight in.

Step3: set the office building and practice classrooms as the gate of the school.

Step4: set the multiple activity room roofs as the public space.

Multiple usage of the platforms

The stairs and platform can be the grandstand when there is a sports meeting, can be the out space when students can breath the fresh air and feel the nature without go down to the ground during class breaks, and can be a "book mountain" where they exercise physically. This is a place full of diversity and possibility.

Stadiums are constructed with some well-design big structure, we use these as the interior decoration.

Platform planted with trees can be a place like the ground. Children feel the nature here.

The long corridor is an open public space for students in different grades to communicate.

The library isn't only about books. It has stair, big roof, and small boxes where children can read and play.

Courtyards within platforms let the sunlight in, and the shadows play. Make platforms places of viewing.

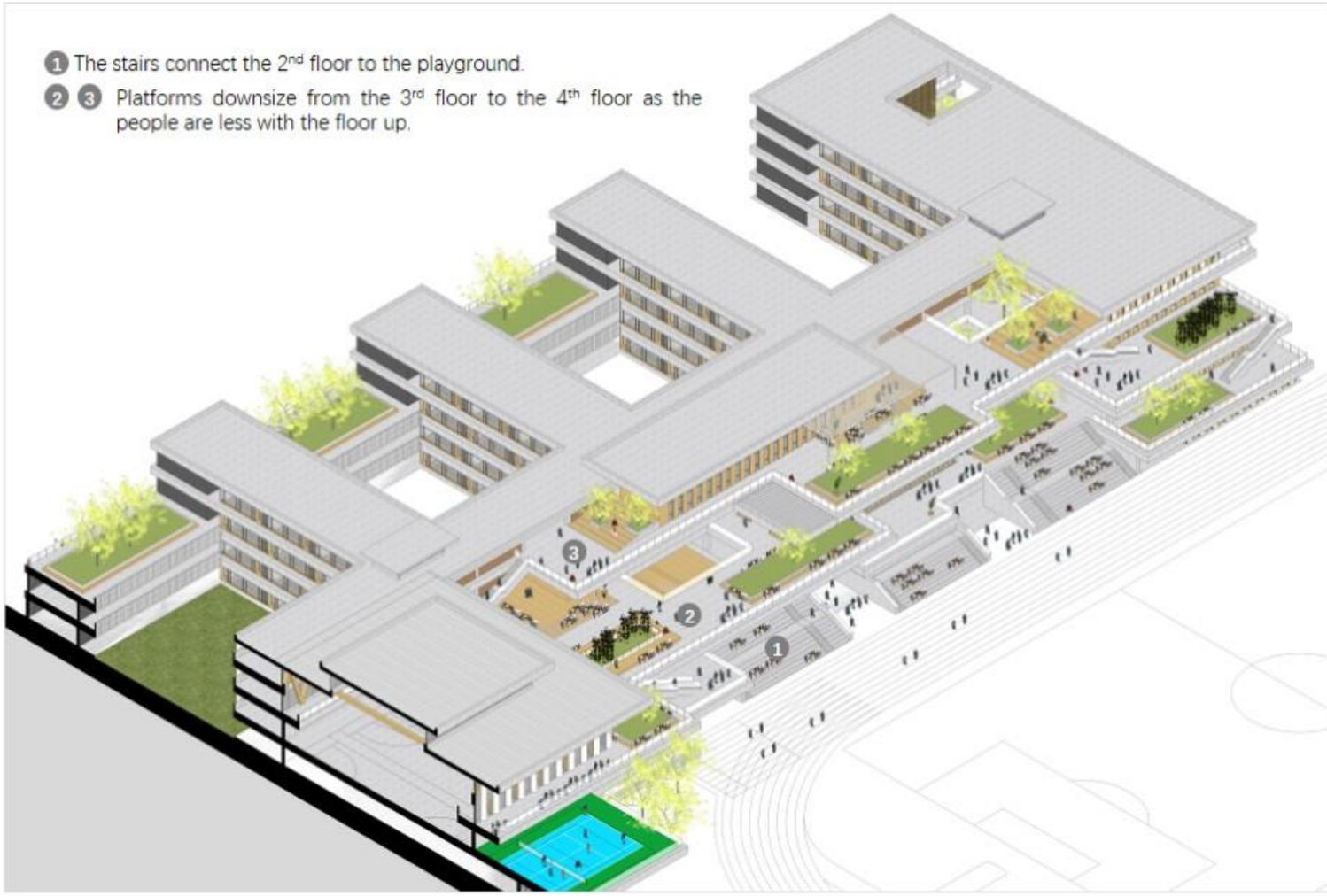
The building stands like a gate. The space under the big roof is both interesting and functional. It can be the place for parents waiting their children, or the stairs that children sit on and play with.

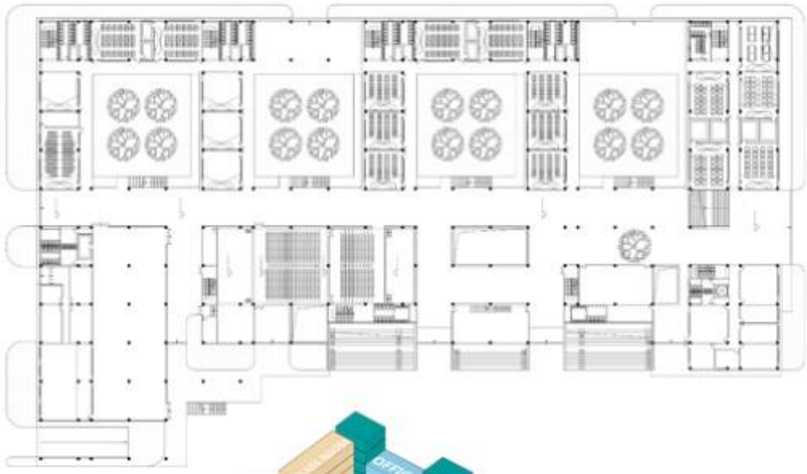
A traditional painting series "梅兰竹菊" is used as the theme for the courtyard. It enhance the atmosphere of art, education, and culture.

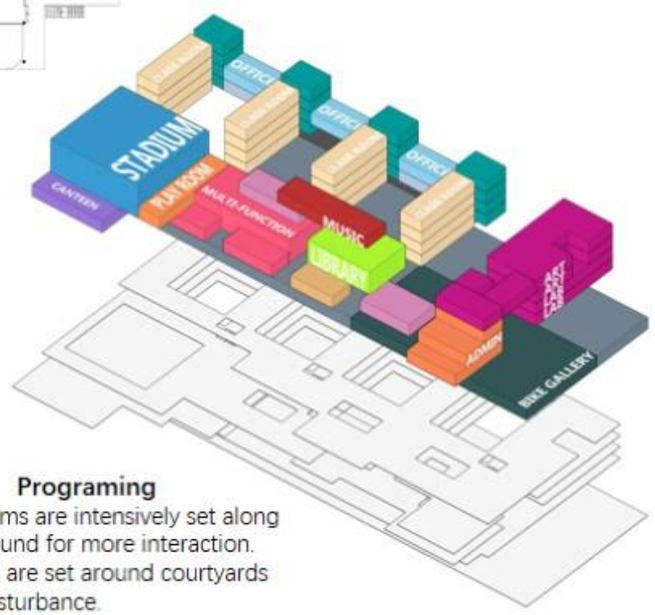
We set a stair behind the auditorium as a public space and lift the roof. The form change in height is a hint of space hierarchy. And the level change brings activities of seeing and be seeing.

❶ The stairs connect the 2nd floor to the playground.

❷ ❸ Platforms downsize from the 3rd floor to the 4th floor as the people are less with the floor up.







Programing

Activity rooms are intensively set along the playground for more interaction. Classrooms are set around courtyards avoiding disturbance.

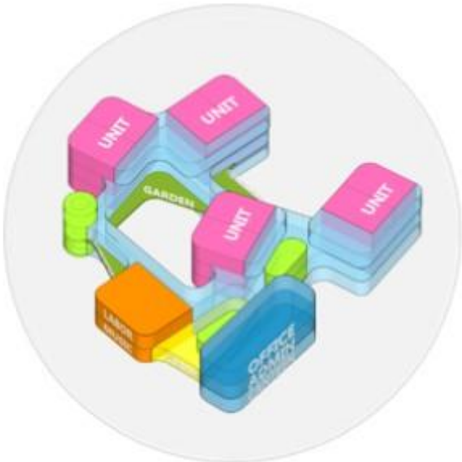
A03 **BUBBLES & RINGS**

Kindergarten

The second prize in the real project competition

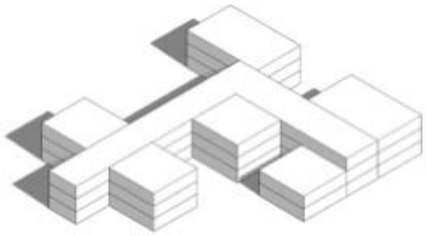
Year: 2018
Location: Hefei, Anhui, China
Type: architecture design
Category: Real Projects Competition
Role: collaborative work, as the leader of 3 members.

Inspired by the children's mischief, we tried to provide imaginative space and form in this projects through some twisting and transformation. Without fundamentally changing the layout, interesting terraces are created here. Some nods as a stimulus are also added and connected in the relatively narrow site.

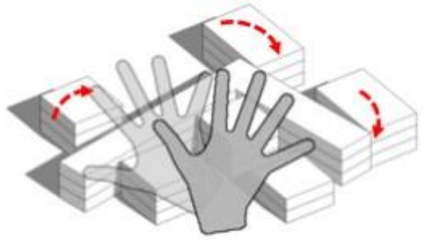


Transformation for diversity

We mimic a child's naughty action of twisting the model, and get interesting terraces and corridor space.



step1. A regular layout considering the sunlight, fire codes.

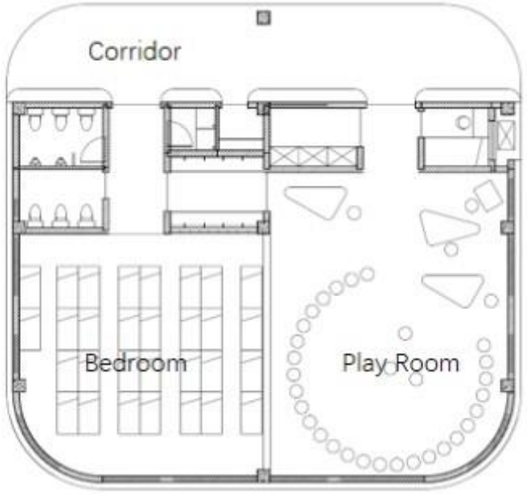


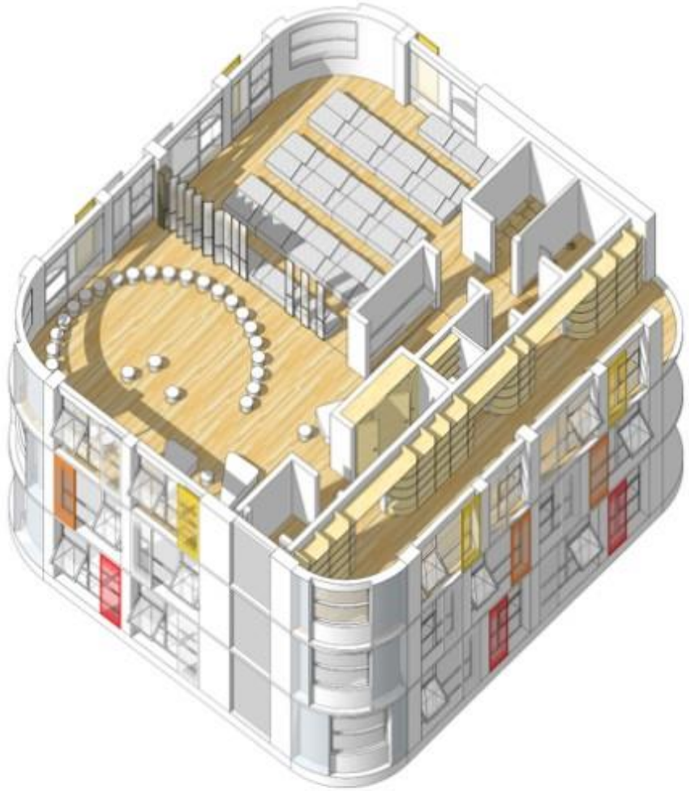
step2. When a kid twists the model

step3. After the twist, some interesting terraces occur

step4. Add some interesting nods and connect them with a loop

The twist of corridor not only brings diversity to the space, but also intrigue children to explore everywhere of the whole building, as every corner is different from each other, and you can't see through the building at the corridor.





Unit design

We set curtains between the play room and the bedroom so that these two space can be combined when necessary. The corridor wall is been used as the case and showcase for children's work. With woods around, this place is more like home than school.

O01 **BOXES & TERRACE**

A shopping mall and retail district design

Year: 2018-2019
Location: Jimo, Shandong, China
Type: architecture design
Category: real projects
Role: collaborative work as one of 5 members, involved in all the phases

Shop malls are normally huge with boring appearance in China. So we divided the whole mall into several boxes, and provided terrace as an adaption to the landscape. Hence made it fit into surroundings with diversity and activity.

O02 AESTHETICS

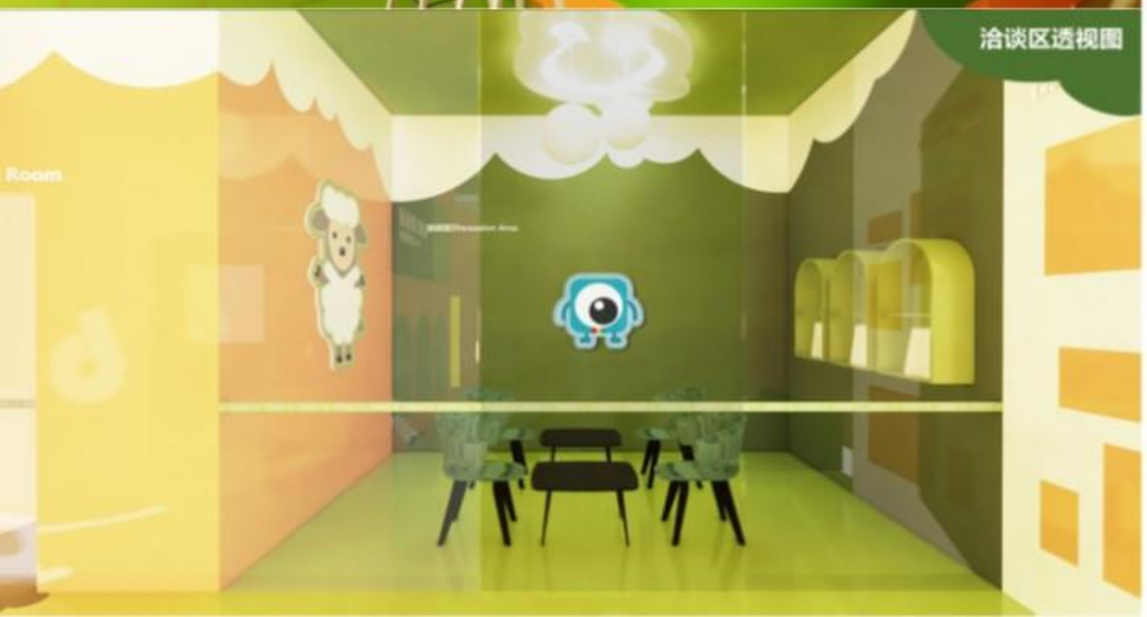
A residential districts design

First prize in the real project competition

Year: 2017
Location: Hainan, China
Type: architecture design
Category: real projects
Role: collaborative work as one of 3 members, responsible for all the facades and the landscape axis.

Designing residential districts can be extremely boring in China. There is not much left for architects to create when real estate developers see these house as products only designed for easy construction and sale profits.

But in this projects, I fond my own interests in the aesthetics of the facade, trying to make it looks as elegant as possible, which turned out to be a successful outcome as the aesthetics brought commercial value to the "products".



O03 COLORS

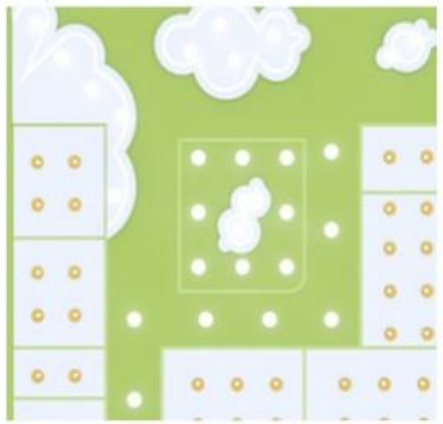
A template Preschool Shop design

Year: 2019
Location: Shanghai, China
Type: interior design
Category: real projects
Role: individual work

A preschool education TINKAMO wants to set a template shop for its franchisees. There are two practical issues here, one is the visual identification of the brand, another is the design scheme which is supposed to be highly adaptable for different building plans. So here I use 4 colors to make distinct from other shops. And the form constitute is been made mainly on the surface: the walls, the floors, and the celling, which are free from the plan layout.

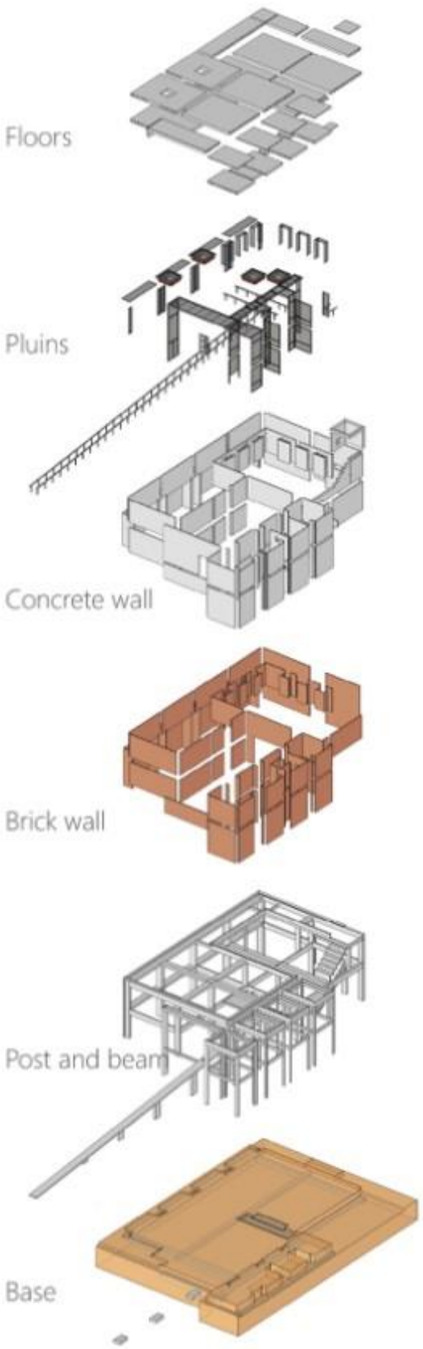
Plan

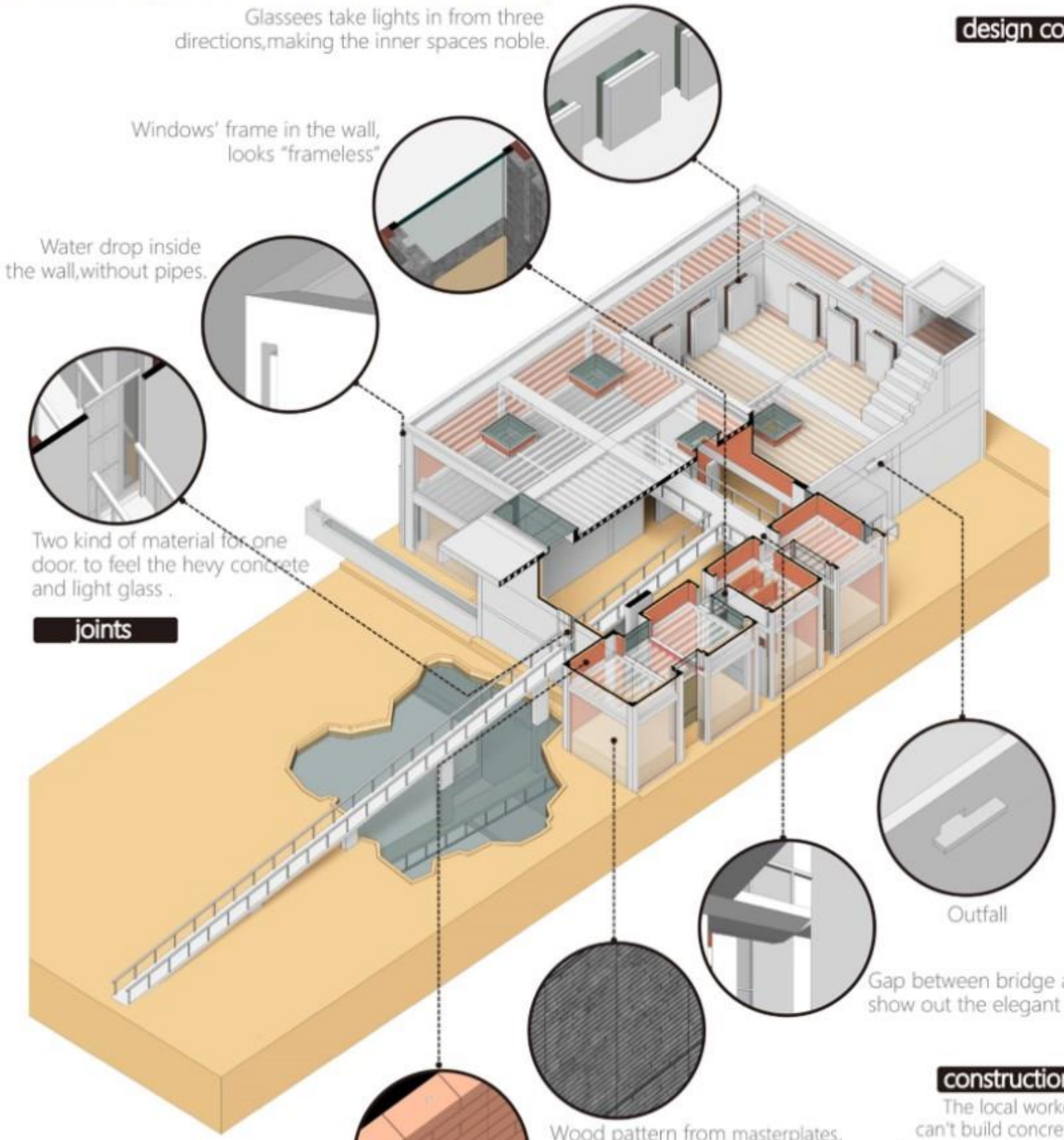
Celling



O04 CRAFTMANSHIP An Analysis of Architecture Craftmanship

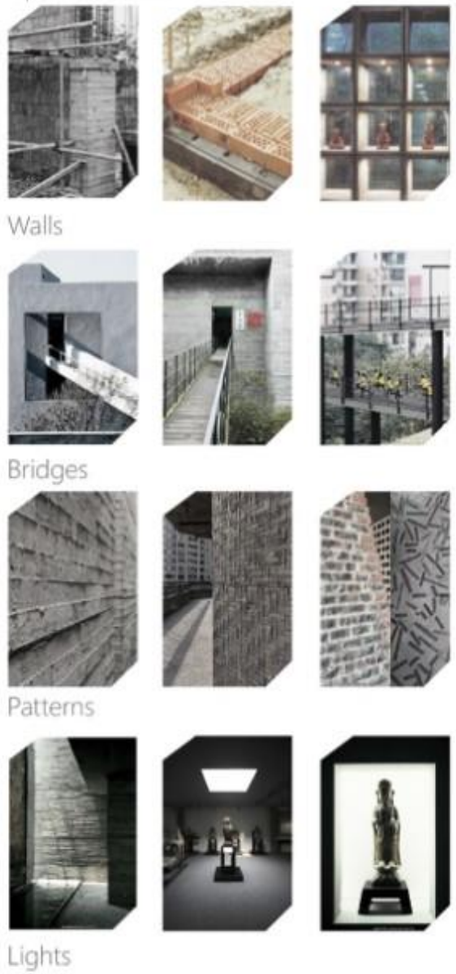
structure





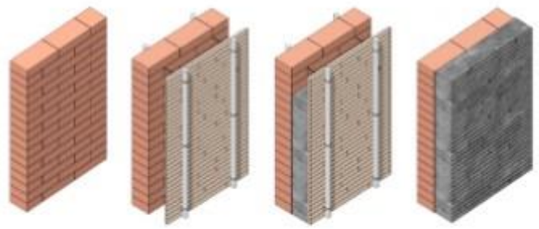
design continuity

Avioding being too casual, liu always use similiar crafts and architectonic details in his different projects ,and update them.



construction

The local worker can't build concrete wall vertical engough, but can build brick walls well, so liu decided to set brick walls first as masterplate



LUYEYUAN Stone Sculpture Art Museum

Designed by Liujiakun. Chengdu. 2002

Name: Chenenshan (陈恩山) nationality: Chinese Student ID Number:1832199