

DOCKING THE STRIP

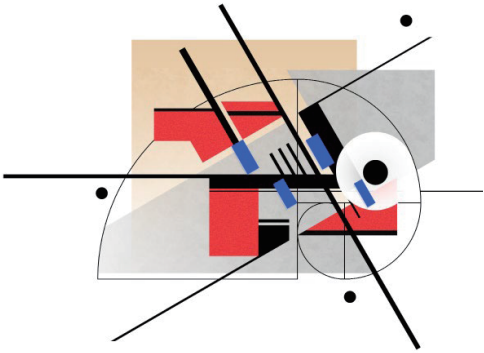
Hanyang Iron Plant Reconstruction Design

Site: Wuhan Hubei

Instructor: Yuhou Yang

Academy Year:2021 Fall

Collaborate Work:with Que Zhang



Collaborate with zhang que

Hanyang Steel Works is China's heavy industry production base in the last century. However, for decades, its operation has also caused great damage to the surrounding environment. The natural ecology has been irreversibly damaged. This design aims to implant biological systems into the ruins of abandoned industrial plants through human intervention, so that nature can regain the right to speak. While achieving ecological sustainability, by organizing spaces where nature and architecture intersect each other, it promotes the re-harmonization of man and nature.

In order to make it more adaptable to the needs of people in the new era, my strategy is to install a new structure to divide it into smaller and more intimate spaces, and introduce new markets and agricultural functions. To me, the design enriched the old factory and made it meaningful again to the city. By turning the historic building from a vulnerable group under urban renewal to a new urban complex, we were able to address urban complexity and make it less overwhelming.

First obtained the main transverse axis by strengthening the orthogonality of the steel mill itself. The existing quilting structure provides us with restrictions and enables us to obtain the original reference. After connecting the existing important features in the site, we got the operable secondary axis. And derive parallel lines to echo the original grid structure.



HISTORY ANALYSIS

Zhang Zhidong founded the Hanyang Iron Factory during the Westernization Movement

After the Sino-Japanese War, it established a factory and developed into the largest steel company in Asia.

During the Sino-Japanese War, the precious machinery of the Hanyang Iron Factory was packed and transported to Chongqing. Hanyang Iron Plant was demolished.

Wuhan Iron and Steel Company promised to meet all the steel needs of the Wuhan government, and took over the Hanyang Iron and Steel Plant.

Hanyang Iron Factory was abandoned and became an isolated island in the city...



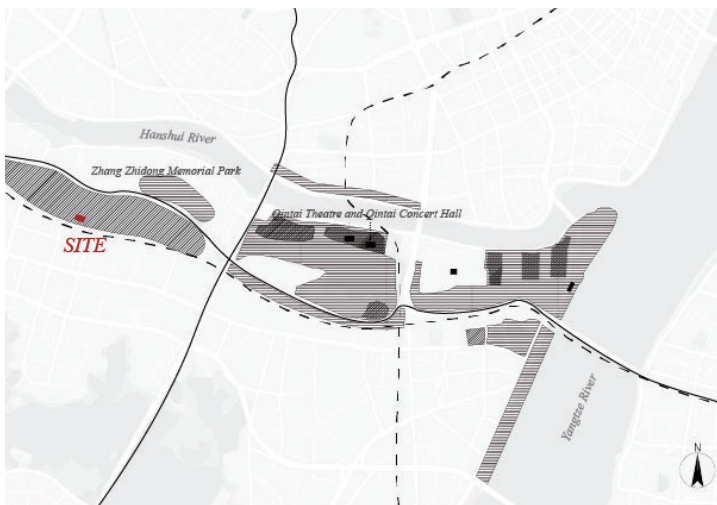
1891 1894 1896 1900s 1930s 1950s 1990s 2010 Current

During the Sino-Japanese War of 1894-1895, it turned into a government-run business

The Revolution of 1911 disrupted its production capacity. After that, due to the influence of the First World War and Japan's plunder of Haiti, it no longer had the capacity to operate.

The Wuhan government decided to build a new factory to solve the problem of steel shortage. The site is located in the old iron factory area.

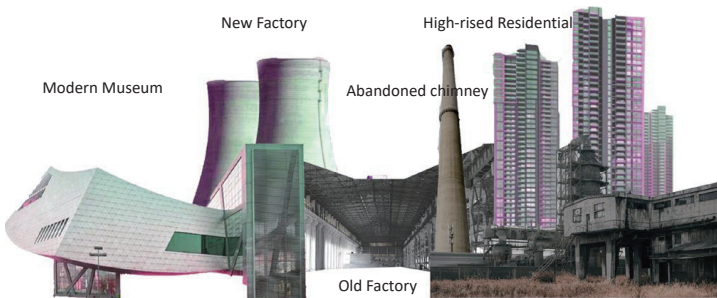
The company shut the plant down due to the outdated technology.



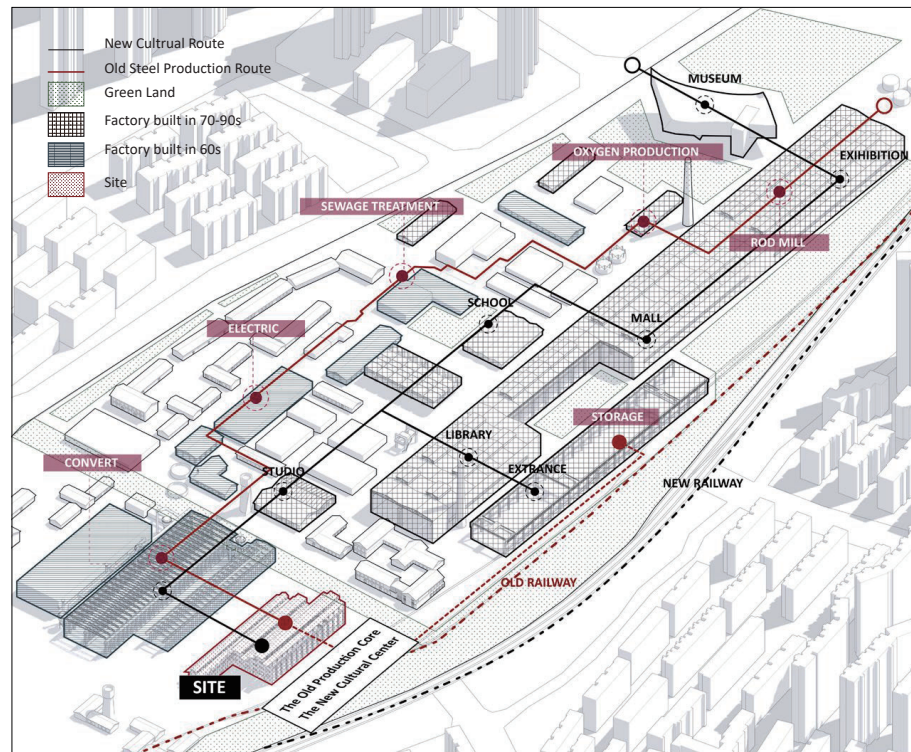
CONNECTION

Due to the abundance of historical relics and outstanding position, this area in Hanyang was clustered with cultural institutions for public, which leads to the proposal of a historical and contemporary art collection and exhibition center on this site.

Turned into an isolated island in the city...

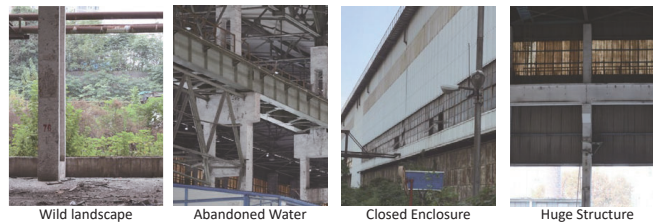


After the Hanyang Iron Factory was abandoned, high-rise residential and commercial buildings were built in the surrounding area, a new factory was built in Wuhan, and the old ruins became an **isolated urban island**.



SITE ANALYSIS

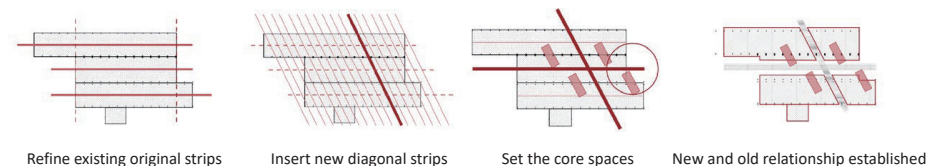
The renovation strategy of the site is to turn the steel mill into a cultural center serving the surrounding citizens; the renovated boiler plant, which was the core of the production process in the past, will be used as a cultural center after the renovation.



Turn waste into new

Use defects to discover the characteristics of old plant components and re-value them.

STRIPS GENERATION

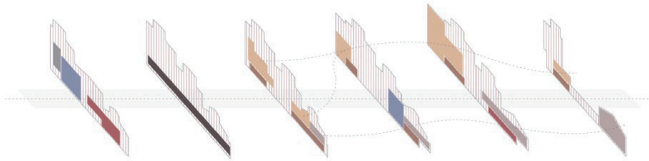




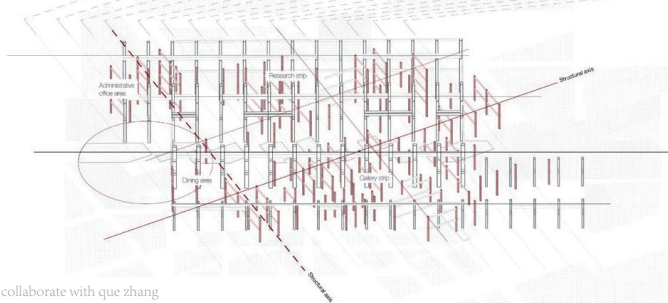
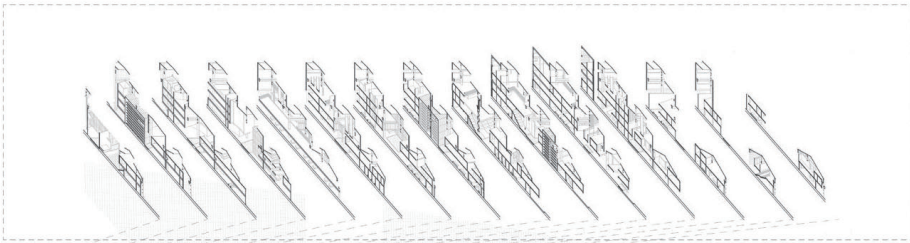
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FUNCTION STRIPS

The ground floor is used as a public space for residents, the north side of the second floor is the exhibition hall, and the south side is the Agricultural Research Institute



- administrative office
- restaurant
- greenhouse
- corridor
- market
- research strip
- gallery strip

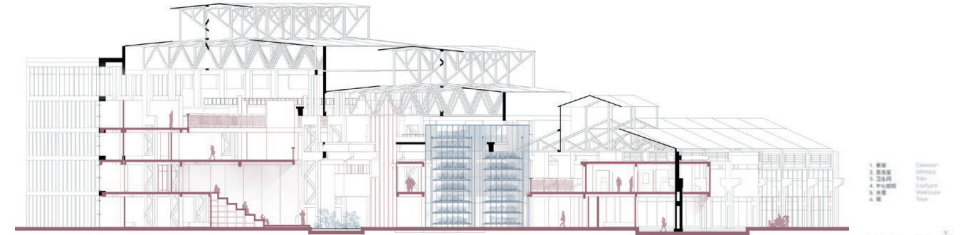


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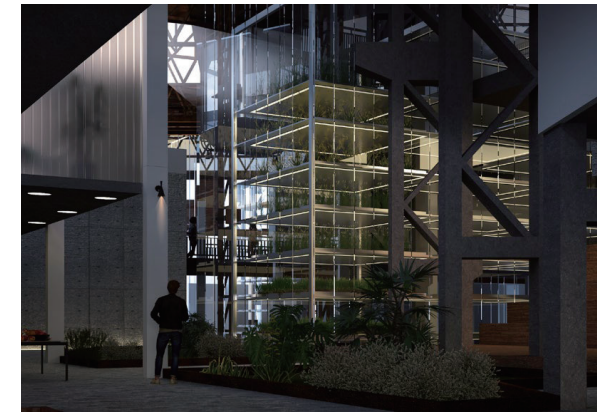
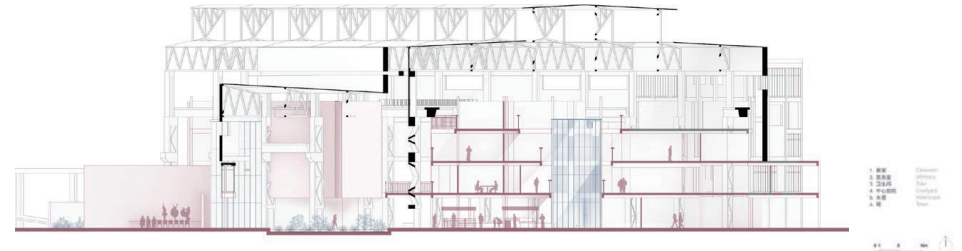
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1-1 section

OLD STRUCTURE
NEW STRUCTURE

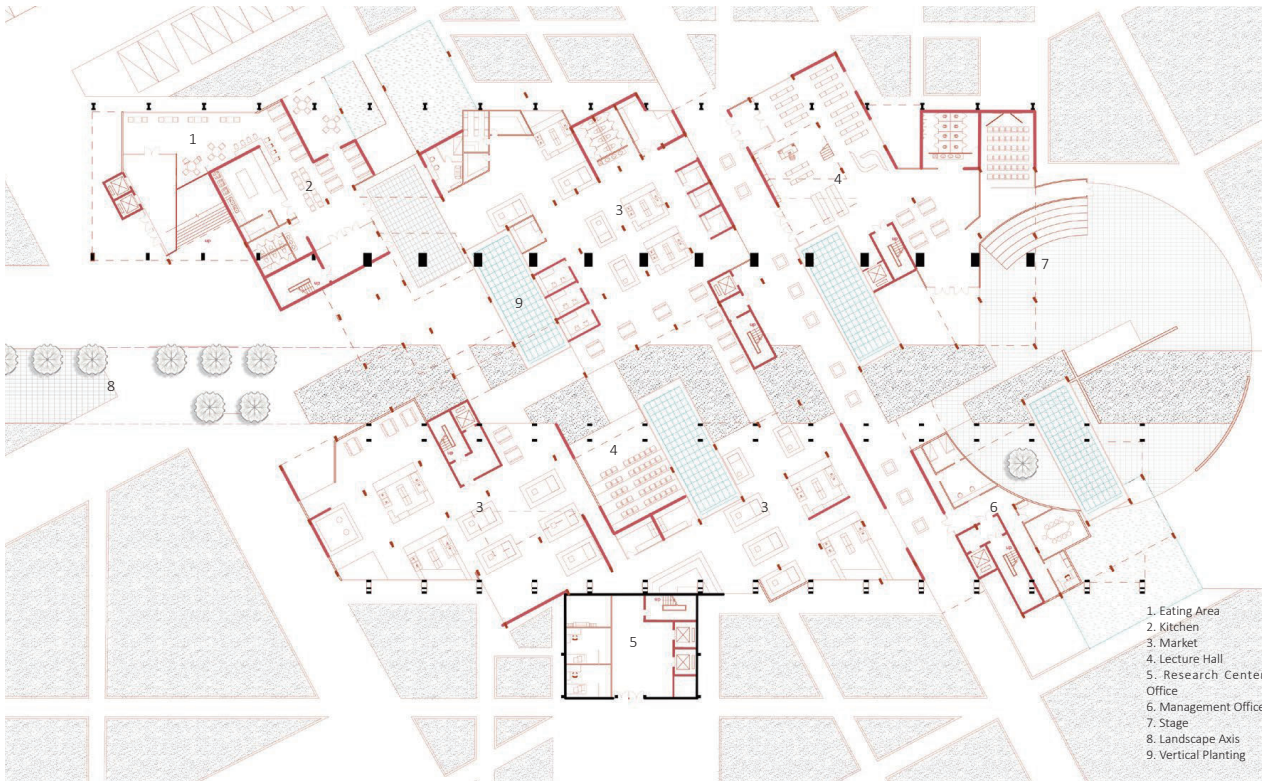


2-2 section



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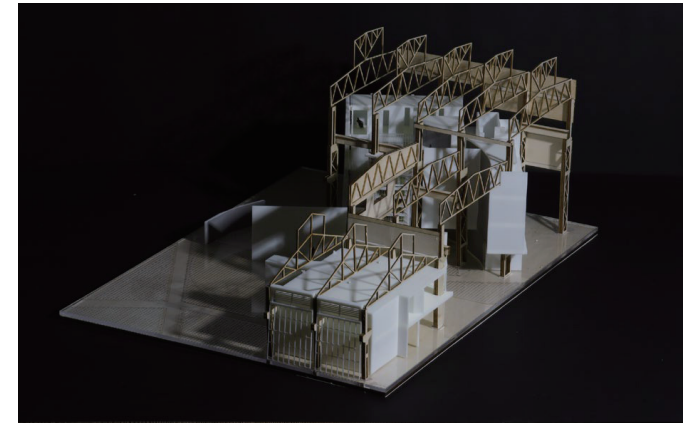
The first floor is composed of market space and some service-oriented commercial spaces, such as restaurants, bookstores, gift shops, management offices, etc., which are mainly open to the public. There is a landscape axis in the middle, which reinforces the old architectural system.



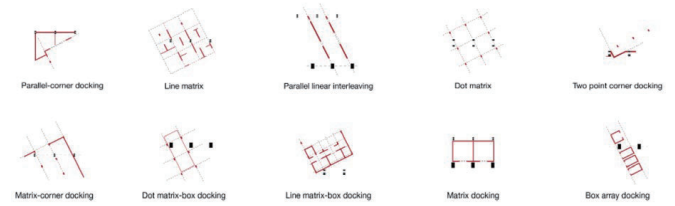
- 1. Eating Area
- 2. Kitchen
- 3. Market
- 4. Lecture Hall
- 5. Research Center Office
- 6. Management Office
- 7. Stage
- 8. Landscape Axis
- 9. Vertical Planting



- 1. Exhibition Entrance
- 2. Exist/Shop
- 3. Exhibition
- 4. Office
- 5. Experimental Display
- 6. Dining Area
- 7. Kitchen
- 8. Agricultural Research Center
- 9. Research Office
- 10. Lecture Hall
- 11. Administration
- 12. Sharing corridor



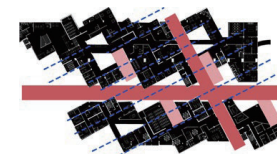
INTERSECTIONS



These spaces are given different functions according to the different characteristics of the form. The interaction between the new and the old system can create a lot of interesting spaces.

SECOND FLOOR PLAN

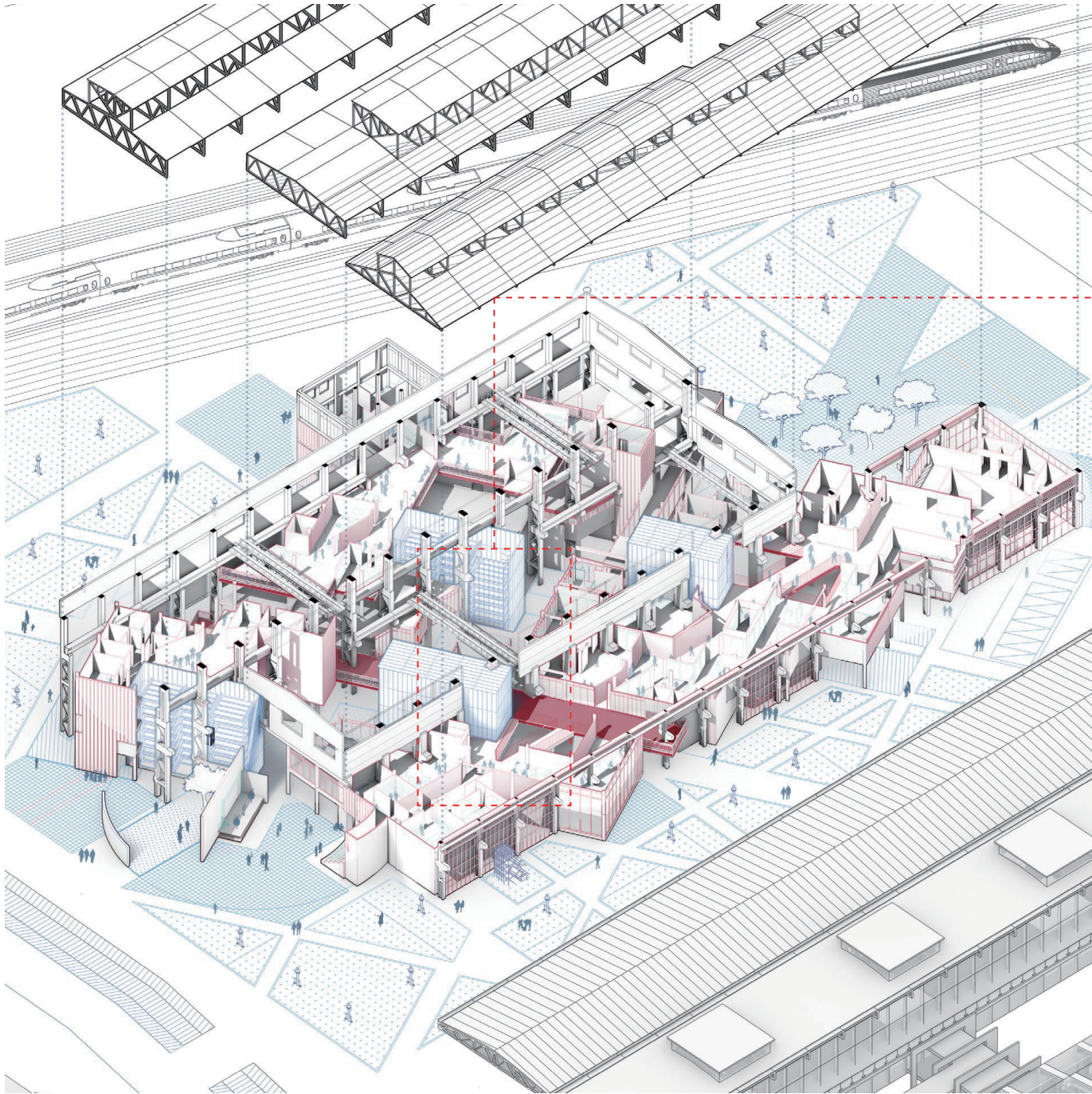
The north side of the second floor is used as an exhibition space, the south side is used as a research space, and the middle part is separated by a high-rise atrium. The arrangement of walls and column nets conforms to the new axis, while the central atrium and inner corridors follow the old building axis.



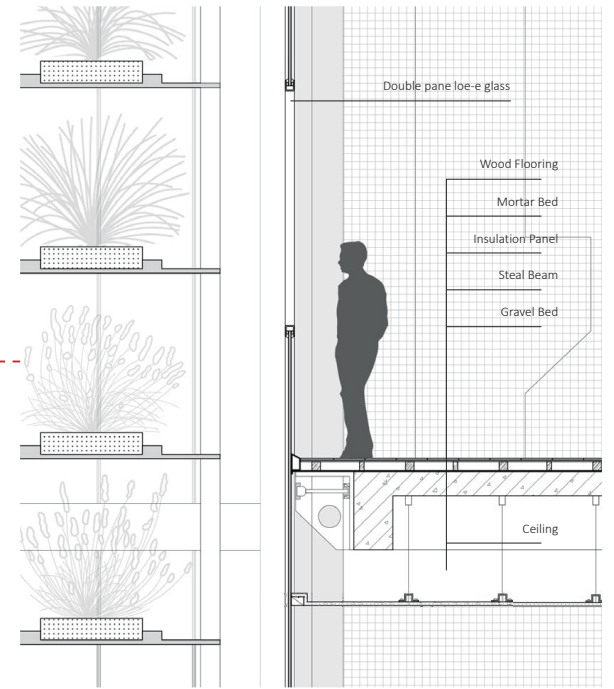
GROUND FLOOR PLAN

The first floor is composed of market space and some service-oriented commercial spaces. There is a landscape axis in the middle, which reinforces the old architectural system.





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The VERTICAL PLANTING

There are four vertical planting areas inside the building, and glass boxes are interspersed between the areas, breaking the old boundaries. The sight line of the corridor in the middle part can intersect with it, and the planting green plants inside the box also brings a healthy new green to the old industrial factory.



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