

ARCASIA COMMITTEE FOR **GREEN AND SUSTAINABLE** ARCHITECTURE

Jaipur, India

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Member ASC

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Architectural Society of China



中信建筑设计研究总院有限公司
CITIC General Institute of Architectural Design and Research Co., Ltd

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➤ The 13th five-year plan for the Chinese Architecture

industry

➤ Brief introduction to our sustainable renovation project

2016-2017 China Green Building Development

Achievement In The 12th five-year plan period

- Finish residential building energy saving reconstruction 990 million square meters.
- Finish public building energy saving reconstruction 44.5 million square meters.
- Renewable energy sources are more common used in architecture industry.



Goal In The 13th five-year plan period

- All new civil buildings in town meet the energy efficiency standards, which is 20% higher than in 2015.
- By 2020, urban green buildings accounted for 50% of new buildings.
- Entire decoration residential building account for 30% of new residential buildings.



Goal In The 13th five-year plan period

- Green building materials application ratio reached 40%.



- Prefabricated construction area account for 15% of newly built construction area.



Major task In The 13th five-year plan period

Promote the modernization of the construction industry.

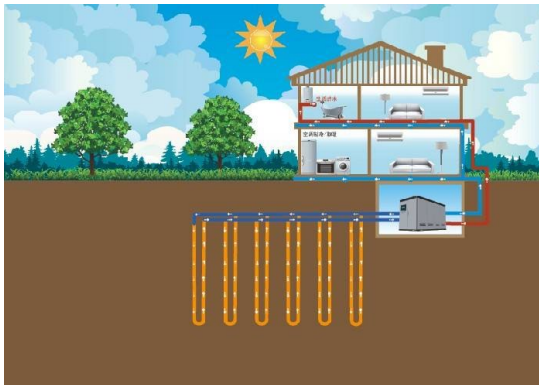
- Promote smart construction and prefabricated construction.
- Strengthen the guiding effect of technical standards.
- Strengthen the support of key technology research.



Major task In The 13th five-year plan period

Promote building energy efficiency and green building development.

- Raise the level of building energy efficiency.
- Advertising building energy saving technology .
- Complete supervision and management mechanism.



Sustainable renovation project

Sustainable renovation project

Project 1:

Planning of Xiedian Traditional Village Protection and Regeneration

- Geographic location: Xiedian Village is a traditional old village, surrounded by mountain and water. It is located in Songbu Town, Macheng City, Hubei Province. Adjacent to magnificent Weidou Lake, Xiedian Village is like a wonderful lost world waiting to be discovered. Advertising building energy saving technology .



Sustainable renovation project

Design concept:

- Principle of “minimal intervention”: Respect the original style of the village, conform to the space texture, keep the place memory



Sustainable renovation project

Design concept:

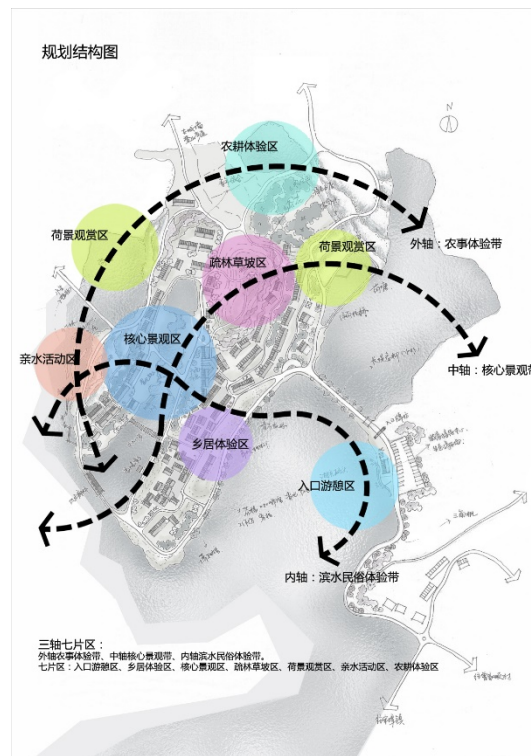
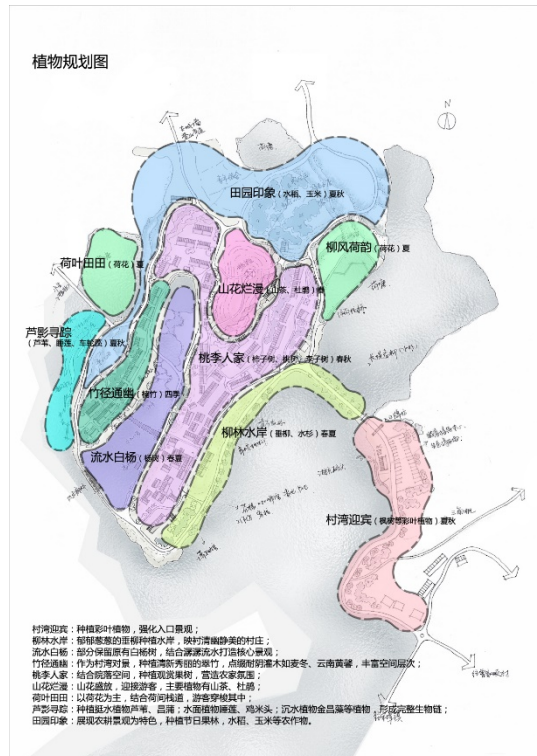
- Give priority to local plants and materials so as to reduce cost of transportation and labor.



Sustainable renovation project

Design measures:

- Restoring building, repairing path, renovating courtyard, enriching vegetation, Soften the revetment.



Sustainable renovation project

- Principle of “minimal intervention” make the village thrive by showing its original beauty.



Sustainable renovation project

Project 2:

Zhongshan Avenue reconstruction

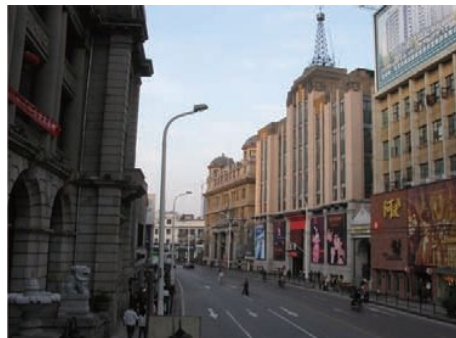
Wuhan Zhongshan avenue, built in 1906, is the most significant commercial road. It goes through the entire central district of Hankou, with the total length of 8445 meters.



a. The beginning of the 20th century



b. Late 1930s



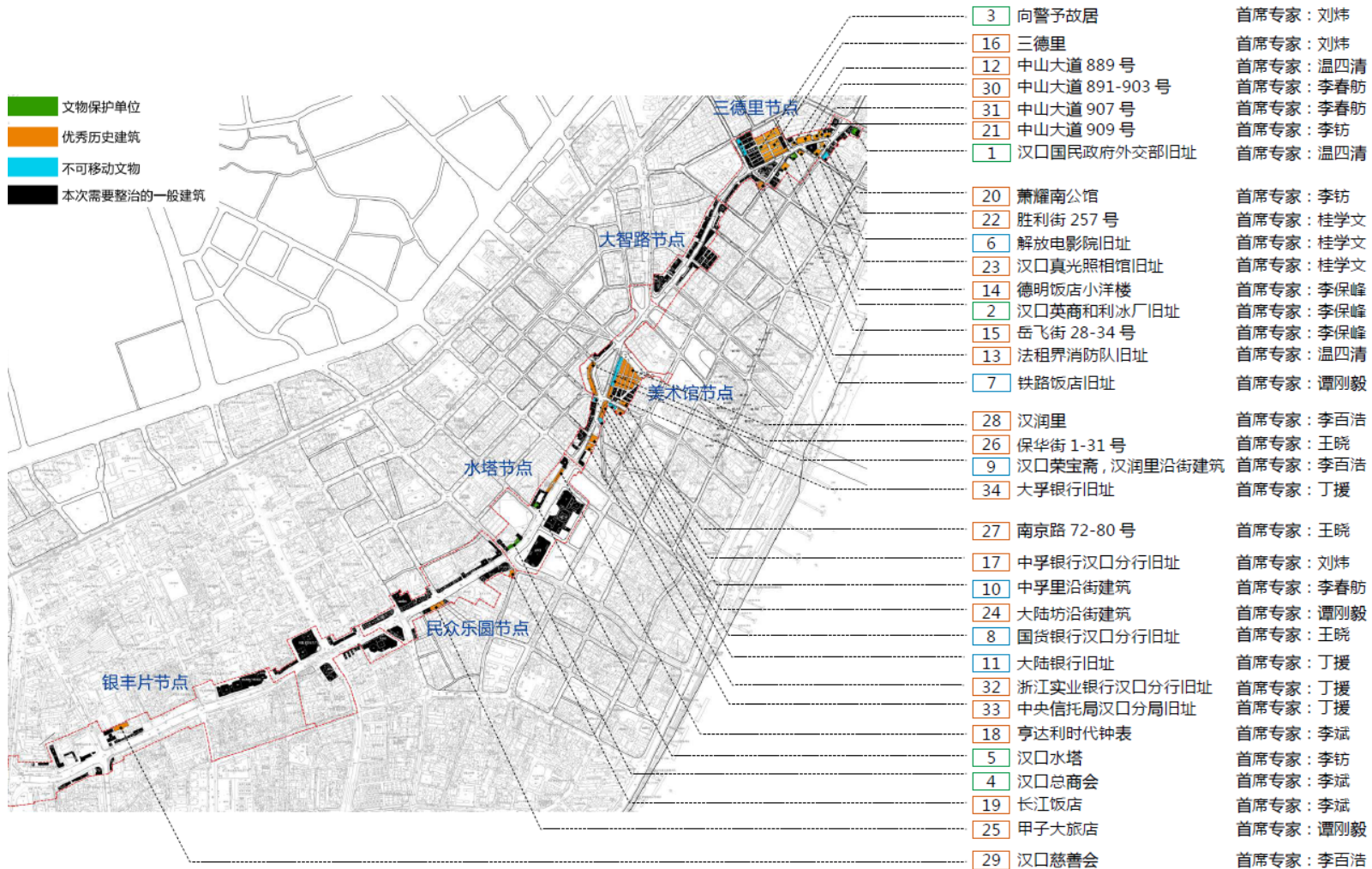
c. March 2006



d. September 2015

Sustainable renovation project

Many distinctive historic buildings were built along the Zhongshan avenue.



Sustainable renovation project

The building renovation

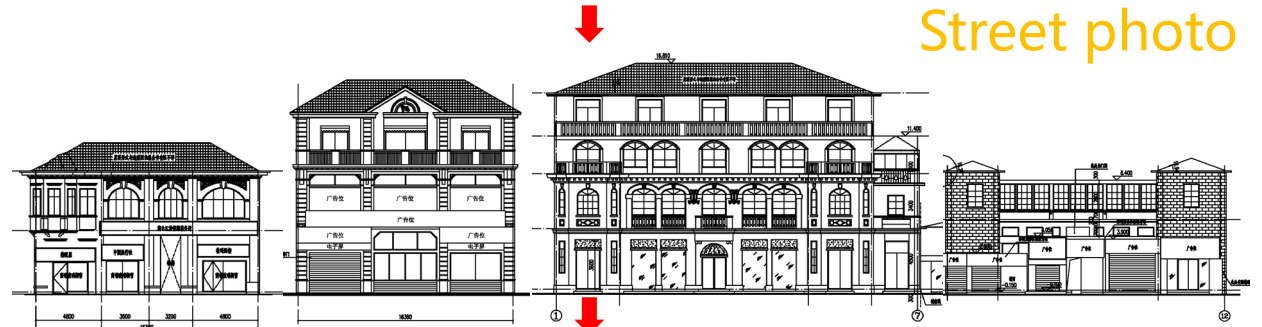
include six parts:

1. Demolition;
2. Roof renovation;
3. Wall renovation;
4. External wall cleaning;
5. Façade door and window renovation;
6. Energy saving reconstruction

Renovation example



Street photo



Mapping facade



Renovation facade

Sustainable renovation project

Energy-saving windows on the facade



Sustainable renovation project

Energy-saving windows on the facade



Sustainable renovation project

Shading system on the façade.



Sustainable renovation project

LED nightscape lighting system.



Sustainable renovation project

Project 3:

Industrial plants reconstruction

The plants, built in 1990s, were basically 4-floor frame structure.

Location

It's located in economic development zone , Wuhan, China



Sustainable renovation project

Project 3:

Design concept: Combining its industrial feature with cultural creation industry.



Sustainable renovation project

Program:

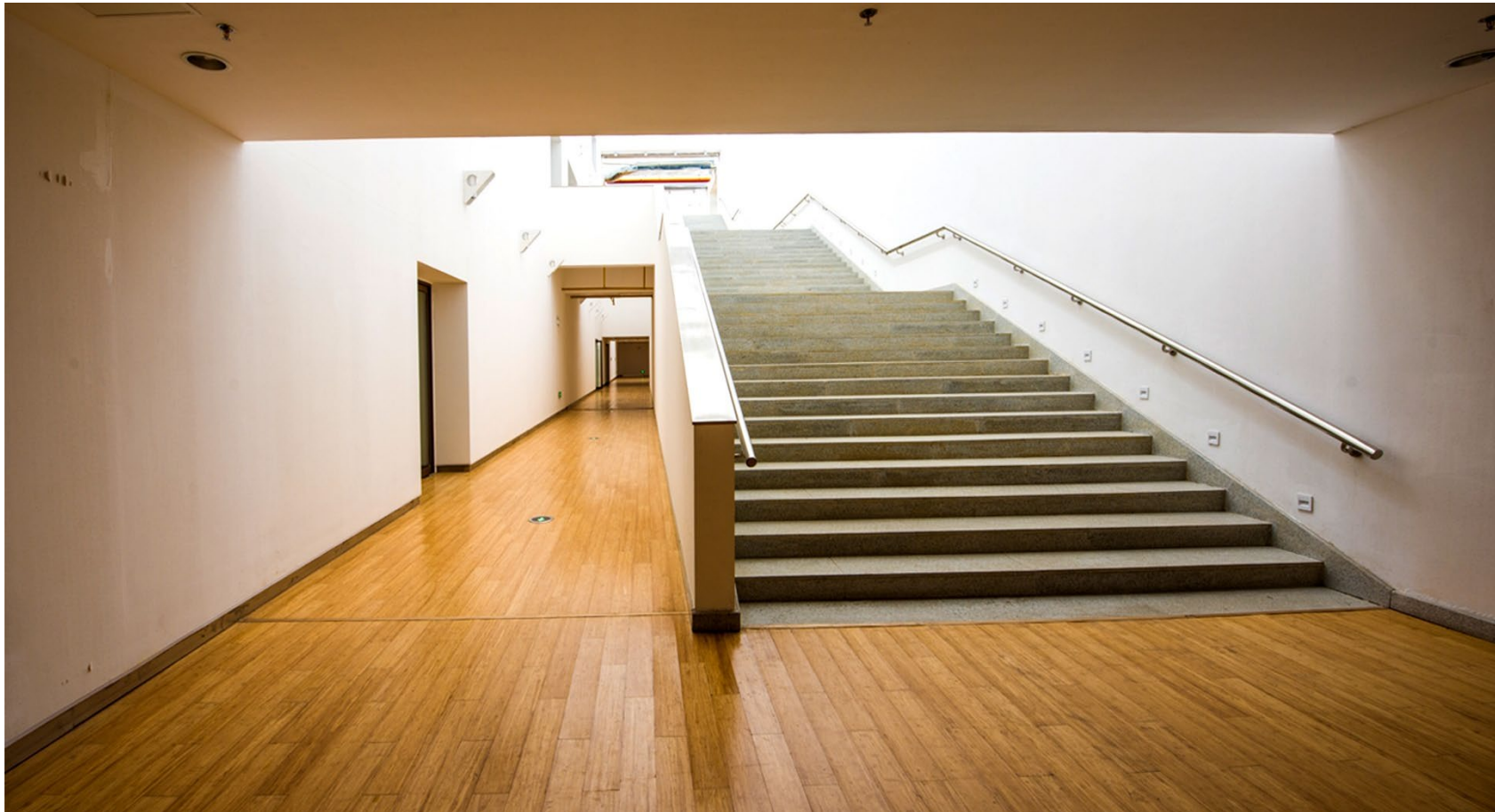
We set gallery and art auction center as the core program, with some matching business, offices, studios.



Sustainable renovation project

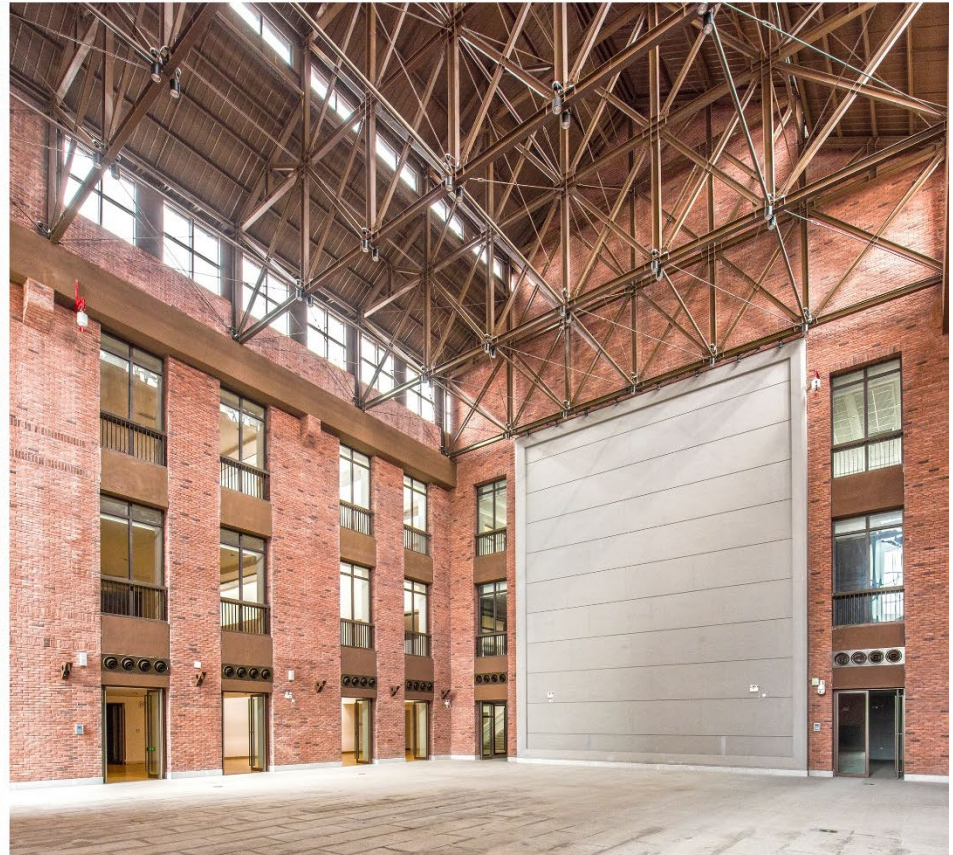
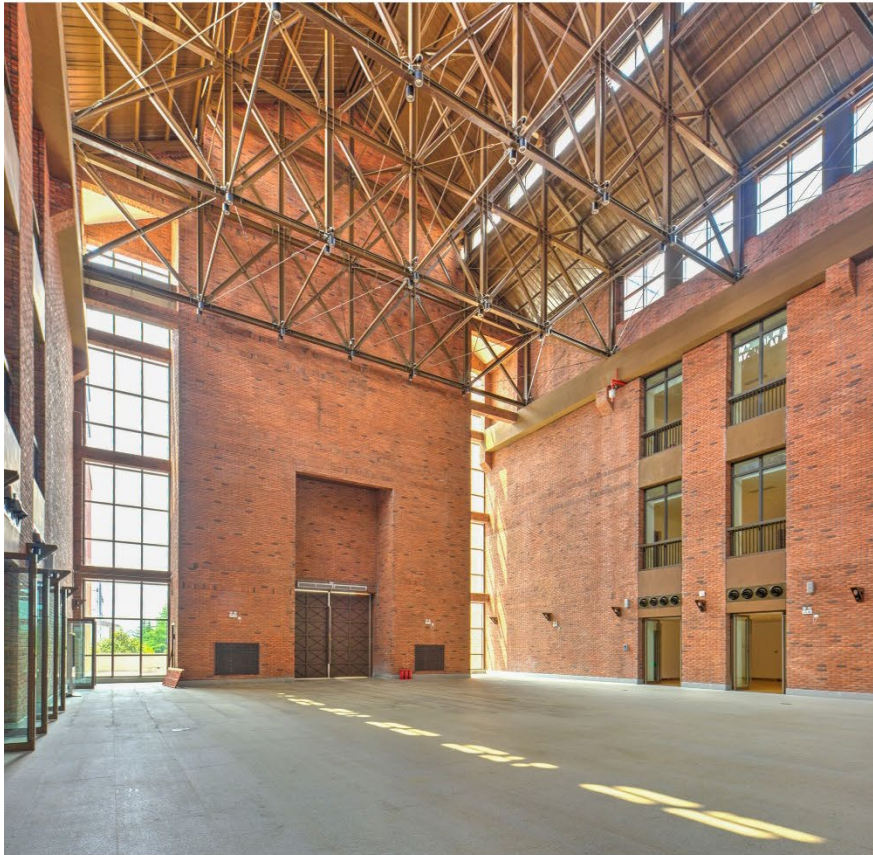
Sustainable designing measures

Take advantage of natural lights in the exhibition space.



Sustainable renovation project

Utilizing prefabricated steel component.



Sustainable renovation project



Sustainable renovation project





THANKS !

2017.5.23