

Conservation of Baicaiyuan, Nanjing Republic China architectural style areas

Conservation and Management of Historic Buildings Advanced International Training 2009-2010

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Abstract

Republic China architectural Style buildings are one of feature of Nanjing , it is more importment to Nanjing's historic and cultural features. In recent years, Nanjing's protection of historic buildings was not limited to single buildings, but also extended to historic and cultural protection areas, so that the historic and cultural features that are still existing can be protected from all aspects. Besides these, how to properly reuse historic buildings while protecting them, and make the protection sustainable, it is one of the most importment researching points to Baicaiyuan conservation project .



1. BACKGROUND

Nanjing is situated in the east part of China, about 250 KM away from Shanghai. It is in the most developed Yangtze River Delta city group. Nanjing has a history of more than 2400 years. It had been the Capital of China for 10 dynasties. The Nationalist Party also made Nanjing the Capital of China, hence Nanjing has a large number of typical Republic China Style buildings, which is a specific feature of Nanjing's History. Nanjing is one of the most famous four Capital city of China, and the first batch of famous historic and cultural city.

Due to repeated wars in history, although Nanjing has a long history, the survived and still visible architecture style mainly fall into two types. One is classic architecture style of Ming and Qing dynasty, another is Republic China architecture style developed at the beginning of Republic China.

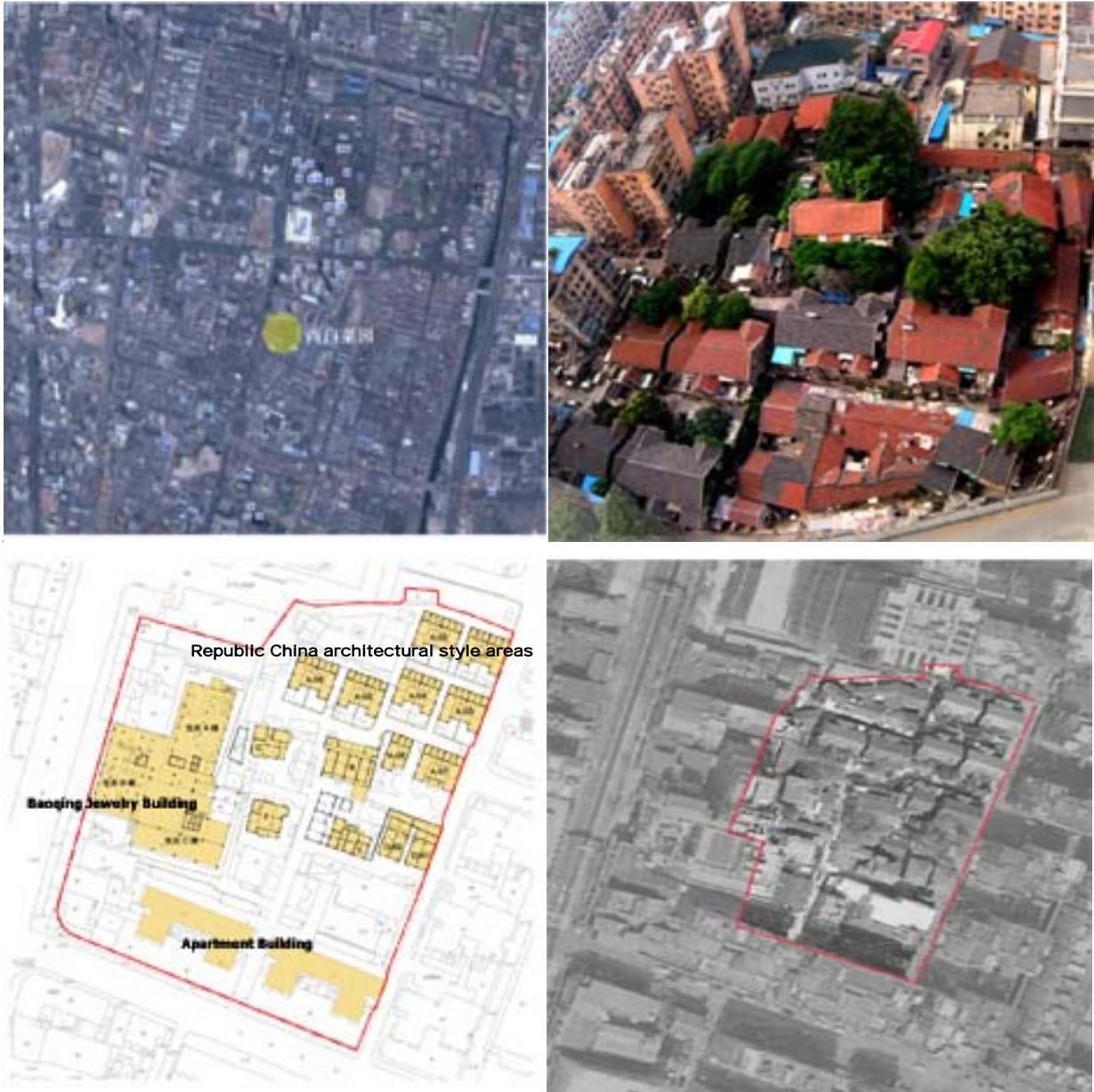
In the recent two decades, Nanjing has undergone great changes with the high speed development of economy. Streets become wider. Infrastructures such as subway and high speed railway have developed rapidly. Housing and living environment have also improved greatly. But many historic and cultural buildings in the old city were demolished and replaced with modern high buildings due to lack of knowledge on historic and cultural values. Nanjing's historic and cultural features are disappearing. In recent years, more and more people become aware of the importance of history and culture protection. Historic and Cultural Protection Act was passed and Historic and Cultural Protection Expert committee was set up. Financial allocation was granted for protection every year. The protection of historic buildings was not limited to single buildings, but also extended to historic and cultural protection areas, so that the historic and cultural features that are still existing can be protected from all aspects.

2 . INFORMATION OF THE PROJECT

2.1 DATA OF THE PROJECT

The lot of the project is located at the center of Baixia district, between two big commercial centers of Nanjing. It is 1000 meters from Xinjiekou and 1760 meters from Fuzimiao, and it has very good business potential. At the east of the lot is South Taiping Rd., which has evolved into an important jewelry business street. The lot is surrounded many government agencies, schools, super markets, restaurants, banks, hospitals and shopping centers. It has excellent business environment.

The lot is 170 meter from south end to north end, and 130 meter from west end to east end, occupying about 17100 square meters. It currently has 14 buildings in need of protection. Each building has one or two families. The total number of families in the lot is 68, its construction area is about 7000 square meters. In the west of the lot is Baoqin Jewelry Building; in the south and in the east side are residential areas. On the west side is one of the main business street : S.Taiping Road. On the north of the lot is the government building of Baixia district;



2.2 LEGAL PROTECTION

The Chinese Cultural Relics Protection Law, enforced in 2002, emphasizes on the protection of single cultural relics in the protection list. But after further understanding of historic heritage protection, the protection trend has evolved from protecting a single memorial building to protecting the whole historic environment. Those city blocks that have building collections and architecture style that represent the tradition of certain historic periods, minority and local cultures etc can be protected as historic, cultural protection areas.

According to item three of the Near-Modern Building and Near-Modern Architecture Style Area Protection Act of Nanjing, published in Oct. 2006, important near-modern architecture refers to architectures and constructions built between 1850s and 1950s, and are put in the protection list according to protection law. Near-Modern architecture style areas refers to area of near-modern architecture collection with architecture style and constructions representing characteristics of the local area and/or local culture, and are put in the protection list according to the protection law.

ⁱⁱNow Nanjing is making Nanjing Famous Historic and Culture City Protection Acts. Item 22 requires “keeping traditional scale, texture and style when protect historic and cultural city blocks; and encouraging exhibition, cultural and leisure activities in these blocks”.

The lot of interest was a demolition and rebuild area, and was put in the fifth near-modern architecture style protection list after the new protection ACT was enforced.

2.3 THE OWNERS AND THE USERS

The eight buildings in the north of the area are owned by the provincial government; and were leased to two families the other buildings belong to the Property Bureau of Nanjing and were leased to multiple families, most of whom are poor..

MAINTENANCE PROGRAM

3. VALUES & THREATS ANALYSIS

3.1 CULTURAL VALUES

Republic China Architecture Style is a kind of transition from classic Chinese architecture style to modernism architecture. It reflects early architects’ exploration into modernism architecture while keeping traditional architectural style, and demonstrates their aesthetic and architectural trend. The project aims to restore the Republic China architectural style which shows no specific characteristics individually, but makes up a unique Republic China architectural style when put together. It is also one of the few still existing, characteristic city blocks. Now a days, more and more high buildings are constructed in Nanjing, the characteristic city style is disappearing. So this area is a treasure to the specific culture of Nanjing.

3.2 OTHER VALUES

● Historic Value

Republic China is an important period in near-modern Chinese history. As the capital of Republic China, the Republic China buildings in Nanjing are important historic records of that period of history.

Several buildings have obvious Japanese style both inside and outside the buildings.

These buildings were said to be used by Japanese in the World War II. During world war II, Japanese killed more than 300,000 civilians in Nanjing, which is an unforgettable history of Nanjing. The Japanese style of this buildings proved that those buildings have been used and changed by Japanese’s.

● Value of Business Location

The area is located inside the old city of Nanjing, between two business circles (1000 meters and 1760 meters from the two business circle). It has very good business environment. On the east of the area, a main street has already developed into a jewelry street of scale. Surround this area, there are plenty of government agencies, schools, restaurants, banks, hospitals and shopping centers. And it is full of potential customers. The city government hopes to increase the business value of this area and

promote local economy through the renovation of the buildings.

3.3 THREATS

● Serious Weathering To The Building

This collection of buildings is brick and concrete structure, having not been repaired for many years. Most of the bricks and concrete are seriously weathered. Many areas on wall are not waterproof; some places even have moss growing. The steel framework in some parts are exposed to open air and become rusty. After more than 70 years' use, they have lost their strength.

● Human Damage

The buildings were originally designed for single families, but were split for two or even more families. So the inside layout was greatly affected. The families are low income families which also caused the layout changes of the buildings.

4 . GOALS

4.1 MAINTENANCE GOALS

The aim of the restoration is to protect the architectural style of the area, especially the front facade of the old buildings, hence the characteristic historic and cultural style. According to the restoration plan, some of the buildings will be demolished and then rebuilt with the old building material from the old buildings themselves. All the old building materials will be labeled to facilitate reuse, so that the major features of the buildings will be protected.

4.2 OTHER GOALS

● Change The Function of Old Building

Many practical issues need to be considered besides protection issue of the historic buildings, such as how to properly reuse historic buildings, how to fully make use of them while protecting them, and make the protection sustainable. Not all historic buildings can be exhibited to the public. Many Republic China buildings can only be used as function change so that protection and development can be implemented at the same time. According to the geographical location of the area, the residential function of the area will be changed to business function. Due to the function change, those buildings interior space, structure and layout will be modified. It is planned to construct steel framework on the bases of concrete foundation to facilitate using of space.

● Promote Development

To the east of the area is Baoqing Jewelry Building which has a history of more than 200 years. It is one of the four most famous jewelry buildings in China, and one of the first batch of intangible cultural heritages of Jiangsu Province. It is famous for gold and silver processing. Based on the history and background of this area, the 14 Republic China buildings will be renovated into brand name gold and jewelry base, receiving VIP customers, exhibiting stored treasure and master jewelry pieces. The outside space will be used to publish new products and celebrate festivals. The goal is to build it into the center of jewelry industry and promote the business value of the

whole area.

● **Improve Residence Life**

This area is in need of maintenances. Facilities are not complete and have leaking problem. The space is over crowded. The living condition is poor. Due to their poorness, the residents are not able to purchase houses. The renovation will relocate the residents and reimburse them according to the area of their house so that they will be able to purchase low cost subsidy apartments provided by the government.

5. DESCRIPTION OF SPECIAL MAINTENANCE

REQUIREMENTS

According to physical measurement, the front façade of the old buildings are the most important part of protection, especially the cyan bricks and gray tiles, hand-made wooden doors and windows and the iron parts on them; and wood eaves, and interior stone ground. Due to using removal and reconstruction method, and to fully use original building material, all original material will be labeled, dismantled and processed with anti-corrosion method, then rebuild according to the labels. This method is used to protect important historic features.

6. HISTORY OF THE BUILDINGS

These buildings were constructed in 1930s, before the Japanese invasion of Nanjing. Those buildings were of typical Republic China style, built by high ranking officers of the Republic China government, and richest capitalist. After the new China was established, these buildings were purchased by the provincial and city governments, and leased to city residents. There have been no renovation before.

7. PRESENT SITUATION

Research on existing old architectures

The 14 old buildings were carefully measured. They were built in 1930s, two to three-story high, brick wall with a few anti-earthquake pillars. The outside is typically cyan bricks with gray tile roof. Some have red wall bricks with red tile roof. Some have porch and/or garble. Decoration includes architraves and carvings. The majority of the buildings are in good condition, but the inside layouts were changed greatly. Some buildings (such as B type and E type) show styles that belong to Japanese decoration styles and signs of modifications. These buildings were said to be used by Japanese, and the West Cabbage garden were said to be used as comfort state for Colonel-ranked Japanese.

Survey indicated that there was no historic events happened in this area, nor had famous person ever lived in this area.



- **Current Status of The Roofs**

The roofs are traditional gray tile roof. The tiles and the roof itself were seriously damaged, and very easy to fall down, which not only lead to leaking, but also caused safety issue; the eaves are seriously worn out, and causing the inside component exposed, and in turn, accelerate the aging of the house.

- **Exterior Wall Status**

Natural factors: due to the age issue, many parts of the walls are seriously damaged. Large area of the walls is not waterproof anymore. Water signs spread to every direction. Moss grows out from some places.

Human Factors: The most hazardous activities is heedless changes. Various kinds of pipelines and wires spread like a web, and exposed in the open air without any safety measures. Illegal structures were built around the buildings; residents' stuffs are blocking the fire lanes, which increased fire disaster possibilities. Air conditioners were mounted without any regulation and affect the appearance of the façade.

- **External Drainage Pipelines**

External drainage pipelines were mounted without any plan, and many old pipelines become rusty. Some screws are loosen. Many pipelines do not have safety feature; some safety features are broken and not

working.

- **Doors And Windows Status:**

original paint has disappeared and they are covered with dust. Many wooden windows are decomposed and lost any safety function. Some windows were changed with different color and material; some windows have become holes. All these seriously affect the visual effect and safety of the buildings.



8. DESCRIPTION OF INTERIOR

The interior mostly used wood floors. Part of the public space used patterned terrazzo floor. Some buildings have elegant interior wall decorations. Most buildings have narrow interior space and the distance between buildings are not wide enough for business purpose.

Be Protected Building Mapping Diagram



01-06栋南立面图1: 150



保护范围建筑类型A之01-06栋平立面图



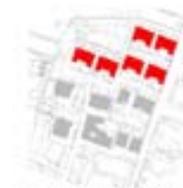
07栋南立面图1: 150



保护范围建筑类型A之07栋平立面图



01-07栋西立面图1: 150



保护范围建筑类型A之01-07栋平立面图



01-07栋剖面图1: 150



保护范围建筑类型A之07栋平立面图

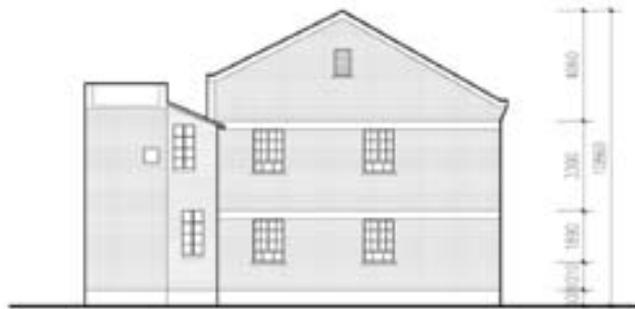




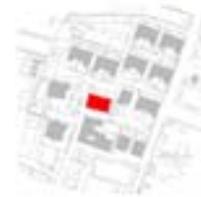
南立面图1: 150



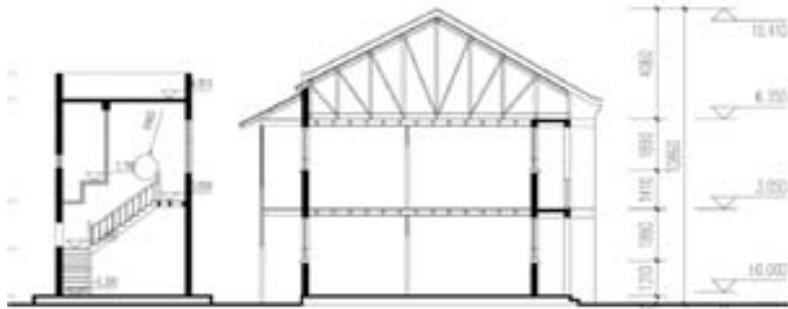
保羅花園建築設計之中庭剖面



西立面图1: 150



保羅花園建築設計之中庭位置



剖面图1: 150





1-1剖面图1: 150
1-1 Profile 1: 150



保留民国建筑原貌 C 之外立面图
Keep Republic China Architectural Style C Facade

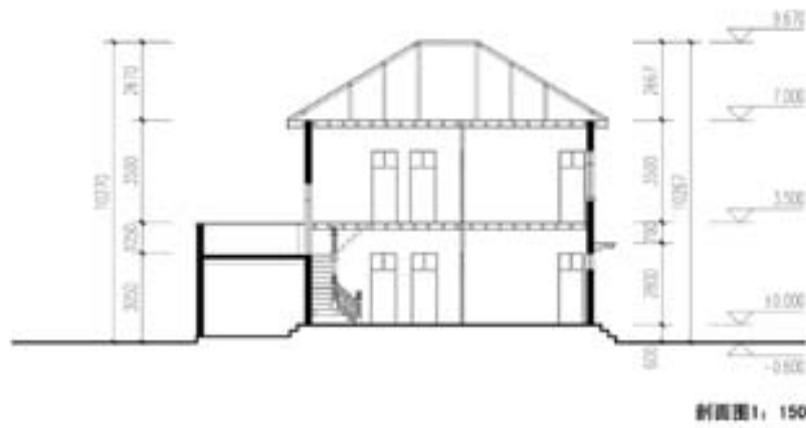


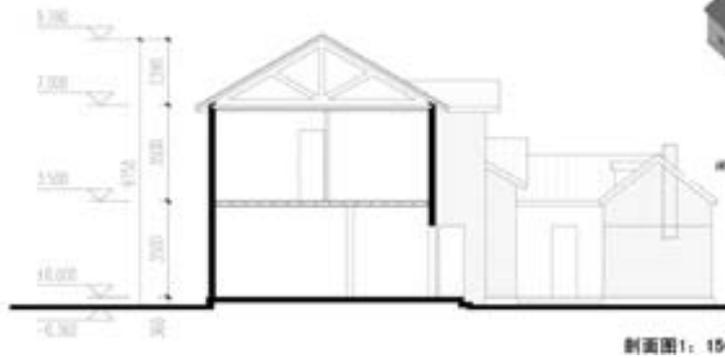
保留民国建筑原貌 C 之平面位置
Keep Republic China Architecture Style C Plan



2-2 Profile 1: 150

2-2剖面图1: 150





MAINTENANCE PLAN

9. WORK PLAN & TIME SCHEDULE

We plan to relocate all the residents in the 14 buildings, change the function of the buildings from residential to commercial, and build this area into a famous gold and jewelry business sector. Lease each building to a famous enterprise for the purpose of receiving VIP customers, and exhibiting stored treasures and master piece jewelry.

The public spaces outside each building will be built to fit for large scale gold and jewelry public promotion place, and suitable for celebrating important festivals.

The timeline for the project is as follows:

2010 -- 2011 relocate all residents

2011 – 2013 implement renovation. According to the general plan, some building will use remove and rebuild technology;

2014 complete the renovation and attract enterprises

10. RESOURCES NEEDED

The project will be implemented under the guidance of architecture professors from Nanjing University. According to the restoration plan, some buildings will use remove-rebuild technology. This technology will fully use original building materials such as cyan bricks and wood components etc. The original materials will be labeled to facilitate reuse, so the major features of the buildings will be protected. To keep the original brick wall facades and deco rational wood sculptures, a number of manual bricklayers and carpenters are needed. In the south east part of Suzhou, there are plenty of such craftsmen and factories that manufacture outside wall bricks.

11. BUDGET

The area has 68 families. Its architecture area is about 7000 square meters. Relocation cost is about ¥ 130,000,000 , renovation cost is about ¥ 70,000,000. Total

investment is ¥ 200,000,000. The investor plans to demolish two six-story buildings to the south of the area and build a 24-story apartment building. The renovation fund will be raised by selling the apartments of the 24-story building. The maintenance expense will come from the lease of the protected buildings.



¹All drawings and pictures are come from professor Chen Zhao, Nanjing Univisity.