Analysis of Historical Background and Current Situation of Yiqingli - Qingdao Liyuan

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Abstract. As a unique architectural form in Qingdao, the inner courtyard is an important part of Qingdao's history and culture, and also one of the important architectural types in Qingdao, which enjoys the reputation of "International Architecture Exhibition". After the baptism of history, the Liyuan buildings have been damaged to some extent. This paper will start with Yiqing Li, one of the longest Liyuan buildings in Qingdao, and make an analysis of the historical background and current development of Qingdao Liyuan buildings using document analysis, consulting a large number of documents, surveying, mapping, etc., and discuss the current protective development strategies related to it. The suggestions for protective development are put forward, and the culture of Liyuan can be passed on better through commercial operation. Through the in-depth analysis of Yiqingli, this study extends to the study of the architectural value, historical value, and commercial value of Qingdao Liyuan, which is of great significance to the overall protection and utilization of Qingdao Liyuan.

Keywords: Yiqingli, architectural features, historical background, current situation.

1. Introduction

This study focuses on the unique architectural form of Qingdao-Liyuan, taking Yiqingli as a typical case, in-depth investigation and analysis of the historical background of the architectural form of Liyuan, Yiqingli's past and present, and combined with the investigation and analysis, put forward suggestions for protective development. This study is mainly carried out from eight aspects, namely, architectural form, historical evolution, Yiqingli background, designers, architectural status quo, value analysis, protection and renewal, and commercial utilization of Liyuan. The literature analysis method is used to search and read relevant materials and documents. The advantage of this method is that the analysis cost is low. The basic data and information can be obtained through systematic analysis of the existing literature and materials related to the inner courtyard, which is of high efficiency and conducive to the research [1]. The final research goal of this study is to systematically study the architectural characteristics of Yiqingli and put forward strategies and suggestions for protective development. To achieve the goal, a large number of documents and materials have been consulted, many site surveys and surveys have been carried out, and building surveying and mapping have been conducted. Relevant experts from the Qingdao Planning Institute and some original residents of Yiqingli have been visited.

2. Architectural Form of the Inner Courtyard

Liyuan is a distinctive regional traditional residential building form in Qingdao, similar to Beijing Siheyuan, Shanghai Lane Hall, and Fujian Tulou. Liyuan is a unique architectural form formed by the ingenious combination of Western-style houses and Siheyuan [1]. In the 1920s and 1930s, Liyuan once existed as a residential form for middle and lower-class citizens in Qingdao. It is not only a shelter for the old Qingdao people, but also a witness to the history of Qingdao.

1922 "*Qingdao Summary*" called it "Huayang folding Chinese style" architecture. Most courtyards are built parallel to the street, and their external outline is determined by the direction of the city street. They are usually square and close to each other, forming a large courtyard in the center, with two or three stories, mostly commercial use on the ground floor and residential use on the second floor and

above. This kind of Liyuan is different from the traditional Chinese layout, and similar Chinese Lifang is generally much larger than the Qingdao Liyuan, Lifang has a closed wall, and the basic needs of life can be solved in the square, but the Liyuan is generally small, there is no wall in the courtyard, there is no barrier between each other. The layout of Liyuan block is also different from the traditional Chinese neighborhood, which consists of streets divided into long strip sections, each of which is connected by several courtyards. The arch aisles and doors and Windows of the inner courtyard facing the street in the north section of Zhongshan Road are obviously also designed with reference to the style of European architecture. From the point of view of the layout, this kind of courtyard is a typical Western modern planning mode, but the courtyard and its internal composition in each neighborhood have the characteristics of Chinese architecture, which is more humane than Western collective housing. Each apartment is mostly a single room, there are a few suites. The entrance of the courtyard is often covered by a traditional Chinese screen wall. In order to adapt the Chinese to Western high-rise buildings, wooden arcades placed on one side of the courtyard were connected with outdoor stairs. In this way, even for the second and third floors, it can be done like the traditional Chinese buildings with courtyard houses, with a passage that allows each room to directly connect to the outdoors [2].

Most of the Liyuan buildings were built in the 1920s and 1930s, which belong to the courtyard courtyard-type living courtyard. Most of them have two floors, and a few have three or four floors. They are built according to the topography of Qingdao, with different heights sizes, and different shapes. As a unique combination of Chinese and Western architecture, the first floor of the house facing the street is large, and often used for opening shops, and the upper floor has several small single rooms for living. According to the statistics of the Qingdao Social Bureau in 1933, there were 506 Liyuan in the city, 16,701 rooms, and 10,669 households.

3. History of Qingdao Liyuan

In 1897, after the German colonists sent troops to Qingdao, they signed the *Jiaoa-Macao Concession Treaty* with the Qing government and occupied Qingdao forcibly. Since then, Qingdao entered a special period of historical development.

In 1899, when the typhus plague was rampant, the German government ordered the division of Huayang in Qingdao, dividing the old city of Qingdao into Qingdao District for foreigners to live in and Baodao District for Chinese to live in. Among them, the Chinese district of Dabao Island gradually formed the characteristics of Liyuan. In 1912, after the continuous development and construction of the block, the Bao Island Chinese area entered the Liyuan era [3].

After World War I in 1914, the Japanese invaded Qingdao and developed parts of Dabao Island, building most of the courtyard buildings that remain today.

In 1928, after the Northern Expedition War, the National Government of Nanjing took over the ruling power of Qingdao, and a large number of refugees moved into Qingdao. To meet the population living problem, the national government of Nanjing carried out a large-scale transformation of the inner courtyard building. After 1936, Qingdao Liyuan architectural culture reached its heyday, known as the "Bund" of Qingdao [4].

After the founding of the People's Republic of China, Qingdao Liyuan continued the function of finance and trade zone; Later, due to the relocation of the port to the west and the center to the east, the location advantage of the Liyuan declined and the central position was lost. In addition, due to the disrepair and lack of proper management planning, coupled with the large family population at that time, great safety risks were caused and fires occurred frequently.

4. Background

Wuding Road: From Shanghai Road in the south to Baotou Road in the north, with a total length of 629 meters and a width of 14.7 meters, it is one of the first 75 roads built in Qingdao City [5]. It was an important road in the early stage of Qingdao's urban construction. During the German

occupation period, with the construction of the port and the Jiaojia-Jinan Railway, a new block was built in the area between the originally planned Big Bao Island and Small Bao Island, including Wuding Road, Gansu Road, and Enxian Road.

Lingxian Road, Ningbo Road, Guantao Road, Laizhou Road, Shanghai Road, and Wuzhou Road, these nine roads. The original name is Oselin-August Street, named after the German Queen, so it is also called Queen Street and Queen Avenue, and its importance can be seen from the road name alone. It was the main channel from Qingdao District to Dagang in the early days, through the present Jiangsu Road, Shanghai Road, Wuding Road, Baotou Road, and to the port. After the Japanese occupation of Qingdao in 1914, the road was renamed "Hualian Town" [6]. In 1922, the Chinese government reclaimed Qingdao and officially named the road "Wuding Road". This area is mainly the South Island port period, especially for the port and railway supporting warehousing, freight, and trade zones, but also an important hub of the old Qingdao foreign economy.

The historical and cultural district of Wuding Road, which was built around the 1920s, is the earliest area of modern port trade development in Qingdao. It was initially used as the commercial center extending north of the city and the living area of Japanese expatriates, and then gradually formed a foreign financial and trade gathering area dominated by Japanese banks and companies. Along the main streets, there are a large number of historical public buildings, and the interior of the neighborhood is dominated by courtyards and villas.

Yiqing Li is located at No. 3-7 Wuding Road, "Yiqing" means "leaving a clean and honest reputation". It is one of the longest Liyuan in Qingdao [7]. The building is built of three-story brick and limestone, and the whole Liyuan is 62 meters long and 24 meters wide [8]. The main structure of the building is reinforced concrete, which is very rare in the era when the common building material was stone cement, indicating that the architect carried out innovation in building materials and application forms when designing Yiqingli. The facade is simple in shape. The bottom of the building facade is a stone skirt, and the middle is plastered with yellow rough and thin surfaces. The roof is flat and the Windows are vertically rectangular [9]. Most of the facade Windows and doors have been transformed into aluminum alloy plastic steel Windows, and a small number of historical window sashes in the inner courtyard are well preserved. The wall between the Windows is fine plastered with yellow sand cement mortar, and the wall of the window sill is brushed with coarse plastered mortar. The facade is undecorated and simple in shape. The interior of the building is constructed with reinforced concrete and brick walls. The building plan is a zigzag unit layout, and each unit household is composed of an entry corridor, a kitchen, a guest room, a living room, a bedroom, and a bathroom. The traffic flow is organized by a courtyard porch and an outdoor staircase [10].

The form of stairs in Yiqing Li courtyard is also unique, adopting a symmetrical layout, which increases the sense of form and logic of the whole courtyard, so even if the atmosphere of life makes the architectural scene become chaotic, the shape of the building still maintains a subtle sense of order. The outdoor corridor connecting each home and the landing of the staircase form a space for communication and entertainment, where residents meet and talk. Due to the needs of daily life, Yiqingli residents generally tie clotheslines to the handrails on both sides of the corridor, and dozens of orderly clotheslines are suspended in the courtyard, forming a unique life scene [11].

5. Current Situation of Yiqingli

After a site survey, the west facade was rebuilt in the later period. Most of the wooden doors and Windows have been rebuilt or damaged, and the external walls have many holes and are damaged. There is a large area of late mortar smear on the wall. The facade rain hose missing or damaged. Equipment pipelines are cluttered.

After a site survey, the east facade was rebuilt and constructed in the later period. Most of the wood doors and Windows have been rebuilt, constructed, or damaged. The outer wall has many holes and is damaged. Part of the wall surface of the cement mortar is peeling.

After a site survey, the north facade was rebuilt and constructed in the later period. Most of the wood doors and Windows have been altered or damaged. There is a large area of late mortar smear on the wall. Equipment pipelines are cluttered.

6. Analysis of Architectural Value in Yiqing Li

6.1. Overall Position Value Analysis

The building is located at the intersection of Wuding Road and Shanghai Branch Road, with three floors on the ground and a reinforced concrete flat roof structure. The building plane is composed of two rectangles, each rectangular volume is divided into three, built according to the terrain. Some basements are located in the middle of the two rectangular volumes a rectangular courtyard is arranged in the middle of the courtyard and stairs are arranged at both ends. The entrance of the site is the entrance of the arcade on Wuding Road on the south side, which enters the inner courtyard through the laneway; The underground courtyard in the east was built and constructed more. The overall pattern is well preserved.

The building is oriented east-west, with three floors on the ground and a basement and courtyard on the east side. The plan is two rows of row buildings to form a unit layout, each row has 6 units per floor, and each floor has 12 units, a total of 36 units. Each unit is divided into access, kitchen, toilet, guest room, bedroom, living room, field layout, and the east unit has a balcony. The traffic flow is organized through the outer porch and three outdoor staircases. The outer corridor, stairs, and courtyard have more construction and reconstruction, and the layout is more complete.

6.2. Value Analysis of Facade Parts

The west facade is the main facade, with three floors on the ground, and the terrain is higher in the south and lower in the north, so the building is arranged in a three-level platform according to the terrain, with a height difference of about 1.6; The facade is simple and undecorated, with a flat roof at the top and a chimney protruding from the roof; The west facade has two arcade entrances and eight entrance doors, and the entrance has stone steps; The Windows were originally double casement Windows with wooden frames, and the doors were originally wooden casement doors. At present, most of the doors and Windows have been rebuilt or damaged, and are poorly preserved.

On the east facade, there is an arcade step leading to the basement and underground courtyard. There are more additions in the courtyard, and the architectural form of doors and Windows is the same as that of the west facade. At present, most of the doors and Windows have been rebuilt or damaged. The east facade has 12 balconies, iron railings, and more additions and constructions; The Local residual pottery downspout, preservation state is normal.

The east facade of the inner courtyard is simple and undecorated. The bottom is a square stone skirt, and the middle is a gray cement mortar skirt and a white plaster wall. The top is a flat roof, with a chimney protruding from the roof; The Windows used to be double casement Windows with wooden frames, and the doors used to be wooden casement doors. Most of the doors and Windows have been rebuilt or damaged, and there are a large number of additions and constructions in the Windows and corridors. Local residual pottery downspout. The save status is normal.

The west facade of the inner courtyard is simple and undecorated, with a square stone skirt at the bottom, a grey cement mortar skirt, and a white plaster wall in the middle. The top is a flat roof, with a chimney protruding from the roof; The Windows used to be double casement Windows with wooden frames, and the doors used to be wooden casement doors. Most of the doors and Windows have been rebuilt or damaged, and there are a large number of additions and constructions in the Windows and corridors. Local residual pottery downspout. The save status is normal.

The bottom of the north facade was originally a square stone wall skirt, and the middle was originally a cement mortar brushed and fine plaster finish, which is now covered by gray cement mortar. The top is a flat roof, with a chimney protruding from the roof; The Windows were originally double casement Windows with wooden frames, and the doors were originally wooden flat doors,

most of which have been rebuilt or damaged. More balconies and underground courtyards are added and constructed; The safety status is normal. The roof is not flat, because the terrain height difference is three steps; 24 chimneys are located in the center of the roof, protruding from the roof; The roof has parapet walls, which are not covered, and one side of the courtyard is reinforced concrete eaves; Access ladders to the roof on the east and west gables. The storage status is good.

7. Protection and Update Suggestions

The objective of conservation and renewal is to enhance building safety, improve the built environment, and inject new vitality into historic buildings based on preserving the original historical buildings and the construction and materials in their original state.

Compare the architectural status and historical drawings, and carefully study the style characteristics of the Riyuan. Many of the building's historical original has been missing, and the missing or modified historical original should be restored as much as possible, and the historical features of the inner courtyard facade should be restored according to the historical drawings and the traces retained on the site. At the same time, the added brick-concrete structure of the outer corridor is retained, the outer corridor is restored, and the historical marks of different historical periods in the courtyard are preserved.

For components that are seriously damaged and must be remade, raw materials, original processes, and original styles should be used to restore the historical status quo.

Stone: mainly cleaning, a small number of defects should not be repaired as far as possible, and stone with serious defects should be repaired with the same material.

Mortar wall: mainly repair, hollow drum serious area for a small number of updates, to ensure that the new and old walls with the same color at the same time have a certain color difference, highlighting the new 1-day boundary of historical traces.

Facade doors and Windows: due to serious damage, it is necessary to re-make, and the new doors and Windows are made of raw materials, original style, and original technology, to restore the historical status quo.

Roof tiles: retain the original roof tiles as much as possible, redo the roof insulation and waterproof after removal, and then re-lay the old tiles, replace the old tiles with serious defects, and arrange the new tiles as much as possible in the unimportant building facades.

The original historical appearance of the building should be restored as far as possible, and the original non-historical content should be dismantled and restored to the historical status quo. Such as the construction of the building in the hospital, the non-historical original aluminum alloy doors and Windows, the newly added door and window openings, the newly added non-historical eaves gutter, and other contents. As for the brick-concrete structure construction of the first floor of the inner courtyard, which seriously affects the style, it is removed to restore the pattern of the inner courtyard. The whole added brick-concrete exterior corridor and stairwell are preserved and properly repaired, retaining traces of different historical periods. For the outdoor floor, the practice of dry ground concrete or SLATE paving is used to coordinate with the historical style, and because it is not the inherent practice of the local, it is recognizable, marking its non-historical original.

Add fire extinguishing equipment, fire alarm, emergency lighting, evacuation stairs, and raise handrails in corridors to improve safety. Increase barrier-free facilities, garden landscaping, lighting, improve the sign system, and study the feasibility of installing external elevators to improve building comfort.

8. Commercial Utilization Proposal

In combination with the current urban development ideas of Qingdao to build a "youth city", the relevant departments of Qingdao have a preliminary plan to build this area into a "center of youth, youth and culture". To Yiqing Li "leaving a clean and honest reputation" as the idea and inspiration,

the overall planning, and the overall update of the function, the cultural format experience integration and innovation and create a new experience of a better life, so that cultural relics and historical buildings more public, get a better display, play the social value.

Liyuan cultural thinking: An experiential humanistic space integrating local literature and books, literary curation and exhibition, reading and sharing, painting and calligraphy exhibition, and cultural salon, integrates tradition and contemporary, experience and sharing to create a high-quality cultural space.

Food culture thinking: Combined with the special historical background of the Wuding Road area, the essence of Eastern and Western catering culture is gathered, from classic traditional food to fresh and modern creative special flavors, to create a gathering place for tea, coffee, dessert, and wine to meet the needs of different guests. Create a slow culture of catering, integrate the concept of "culture and inheritance" into creative cuisine, and create a Michelin restaurant with Qingdao culture.

Building based thinking: Build a characteristic luxury hotel by referring to Shanghai Capelle Jianye Hotel's model of transforming traditional Shanghai Shikumen Linong residences into a luxury hotel.

9. Conclusion

The research result of this study is that Yiqingli has the conditions for renovation, upgrading and reuse in terms of geographical location, historical value, characteristics of the building itself, and opportunity for reconstruction. Thus, the research conclusion is further drawn that Yiqingli is in urgent need of moderate transformation to restore the old as the old, increase the vitality of the building, and play a greater social price and historical value. This study provides a lot of valuable reference significance for future research in this direction. It mainly has a positive impact and promotion on the architectural form, structural characteristics, and future conservation development and utilization of the remaining courtyard buildings in Qingdao. Future research should focus more on an in-depth exploration of the overall conservation development and utilization direction of the courtyard buildings.

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