

Exploring the Relationship of Form and Hierarchy from the Perspective of Architectural Space and Components Taking the Mandarin's House in Macau as an Example

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ABSTRACT: In Macau, China, there are still many traditional buildings built at the end of the 19th century. Among the traditional residential buildings with Lingnan style, the Mandarin's House is the largest, covering an area of 4,000 square meters. It consists of a number of buildings of different styles and open spaces. There are more than 60 large and small rooms. It is a rare family-style building complex in Macau. The building has a depth of more than 120 meters along the direction of Rua da Barra. The gate building, the servant room building and the two juxtaposed courtyard buildings behind the main gate building are arranged in sequence. In the 1950s and 1960s, the descendants of the Zheng family lived in different places and developed independently. Many spaces in the Mandarin's House were sub-leased, and at one time more than 300 people lived in it. The scene of "Seventy-two Tenants" appears. It is precisely because there are so many families and tenants living there that the size of the space, the architectural components and the details of the decoration can all reflect the hierarchical system still retained in the late Qing Dynasty.

Keywords: Mandarin's House, architectural space, Rua da Barra, traditional buildings, building class phenomenon

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INTRODUCTION

Macau, located on the west bank of the Pearl River Delta, is the southern part of Lingnan culture. There are not many existing Chinese-style houses. The famous ones are Lou Kau Mansion and Mandarin's House. They all have the distinctive expression of the Lingnan Garden genre, and at the same time, they absorbed the Western style of the Portuguese colonial era and made them unique in their artistic style(Chen, Y. 2019, June).

Besides, Mandarin's House is also part of the eight former buildings that make up the 22 buildings in The Historic Centre of Macau (Macau Historic Buildings). It is also the largest residential complex in Macau and it was included in the World Cultural Heritage List by UNESCO in 2005. Zheng Guanying, the owner of Mandarin's House, even proposed a modern thinker of the famous "commercial warfare" theory. After the Sino-Japanese War of 1894-1895, the "Salvation Good Medicine" and Shengshi Weiyan (Words of Warning in Times of Prosperity) were written in the Mandarin's House(Chen, Y. 2019, June).

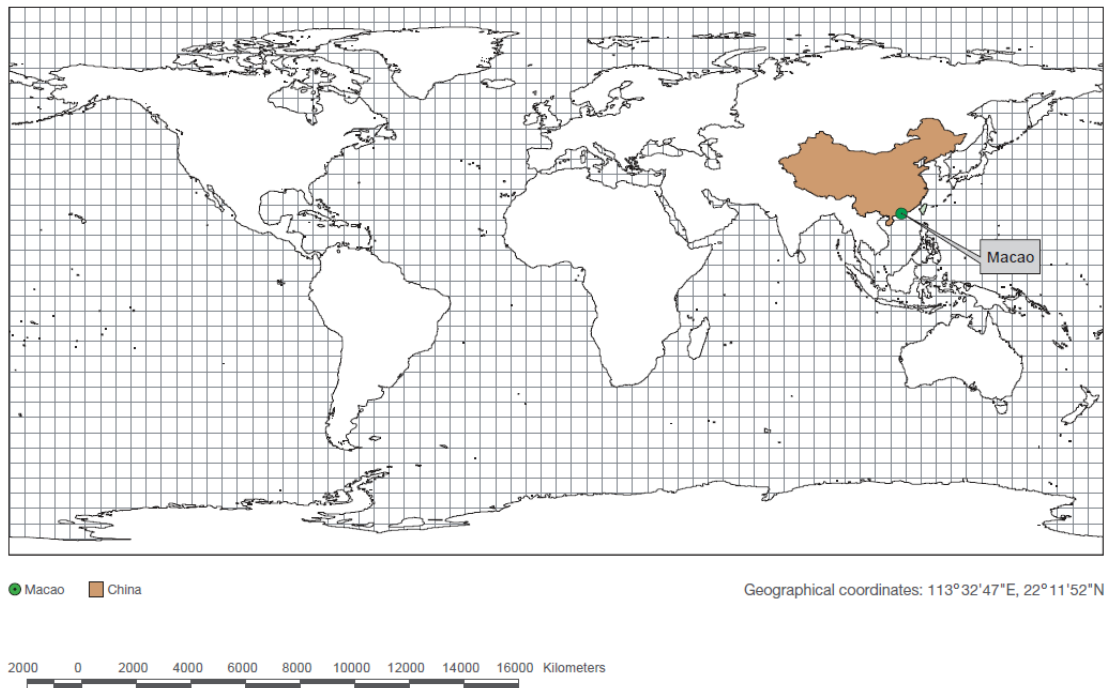


Figure 1. Map of the geographical location of the city of Macau (Image Source: The Historic Monuments of Macau)

Therefore, Mandarin's House has extremely important reference value and significance for studying the Macau's modern history, the history of urban construction and even the history of modern Chinese revolutionary revolution.

Mandarin's House, also known as "Casa do Mandarim" during the period of the Macau Portuguese government, is located at No. 10, the left side of Travessa de António da Silva, in front of the Largo do Lilau. At that time, Zheng Wenrui, Zheng Guanying's father, initiated the building of the Mandarin's House. His exact date of construction was not well documented. However, at present, it can only be judged according to the date of the

settlement of the couplets in the Mandarin's House. The date of completion of the construction can be traced back to the eight years of Tongzhi in the Qing Dynasty, that is, 1869. Mandarin's House has experienced the process of "Establish-build-Damage-Repair-Open-Protection-Promotion" (Chen, Y. 2019, November).



Figure 2. Map of the boundary of protection zones and buffer zones of The Historic Monuments of Macau (Image Source: The Historic Monuments of Macau)

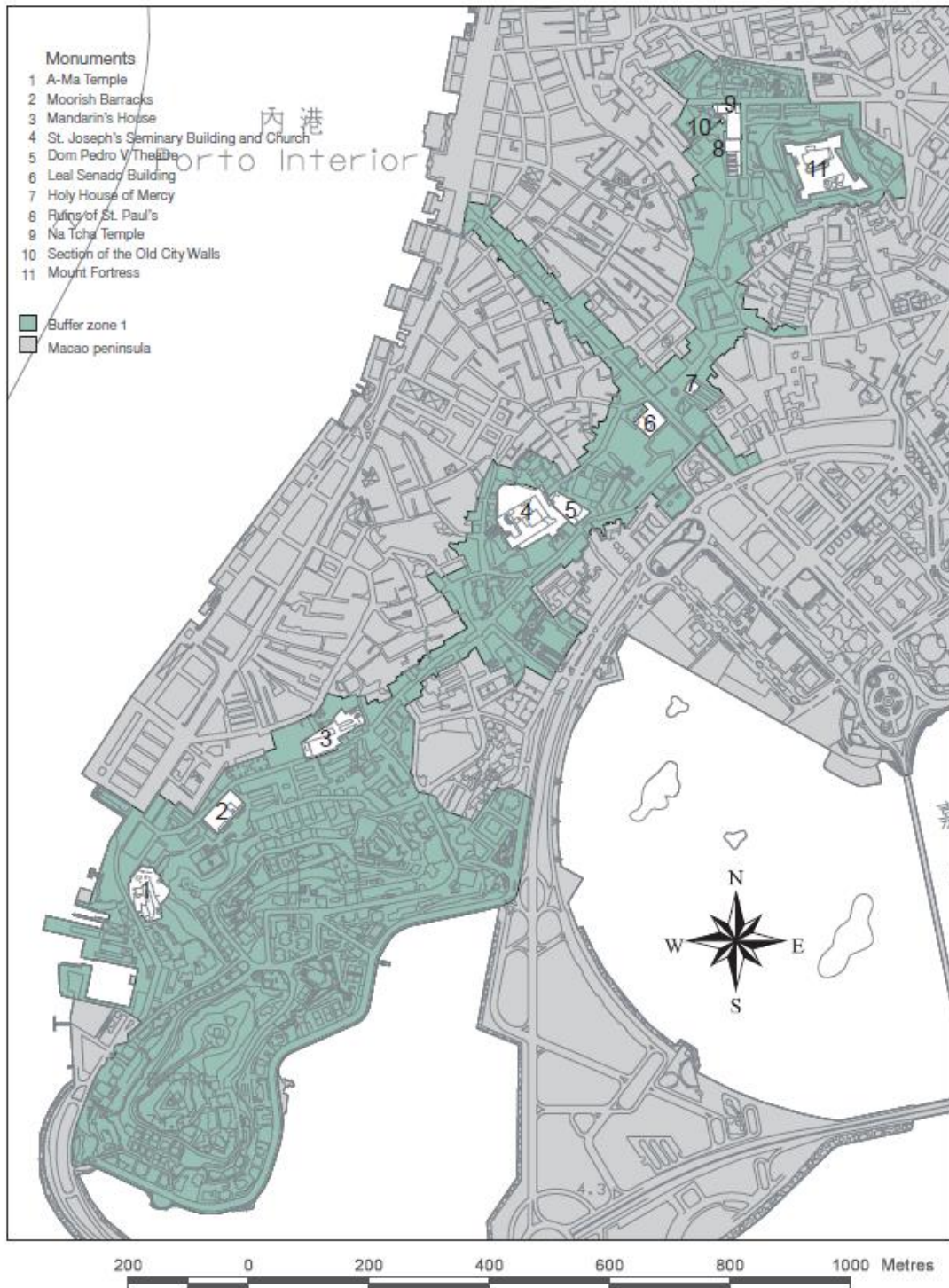


Figure 3. Map showing the location of the nominated property (Image Source: The Historic Monuments of Macau)

MANDARIN'S HOUSE

Year of construction and location

The Mandarin's House was built in around 1881. The entrance to the Mandarin's House compound is through a gate-way, which is oriented to the northeast and located on António da Silva Lane. This is a two-storey structure 13 metres wide and 7.9 metres deep, which is independent of the main building cluster. It has projecting roof eaves, windows on the upper floor and an arched entrance gateway on the lower floor. The eave boards are painted with typical Chinese decorative motifs, while the ceiling of the entrance hallway features Western plaster decorations. A shrine of the Earth God is set into one of the walls in the hallway. A flight of granite steps leads down from the entrance through the hallway into the compound at a lower level. The individual entrances to the series of houses in the compound are all oriented in the same direction, facing northwest. The different orientation of the main entrance and the house entrances distinguishes the Mandarin's House from the typical Chinese dwelling. A continuous spacious forecourt fronts the series of houses, in the middle of which is a gateway leading into a large courtyard that separates the master's quarters from the servants' quarters and the outer garden.



Figure 4. Mandarin's House

Located in the inner part of the compound are the master's quarters, which consist of two traditional enclosed courtyard houses of three bays in width and three halls in depth, separated by a drain. The buildings are built on foundations of granite slabs, and the friezes on the external walls are decorated with relief ornamentations sculpted from clay. Like the entrance to the compound, the surrounding walls of each house entrance are recessed from the main wall plane.

A granite frame around the house entrances further emphasizes its importance as the gateway into the house. The interior layout of the houses is in accordance with traditional design, except that the main living room is located on the upper floor of the main hall instead of the usual ground floor. The main hall is of timber post-and-beam construction.

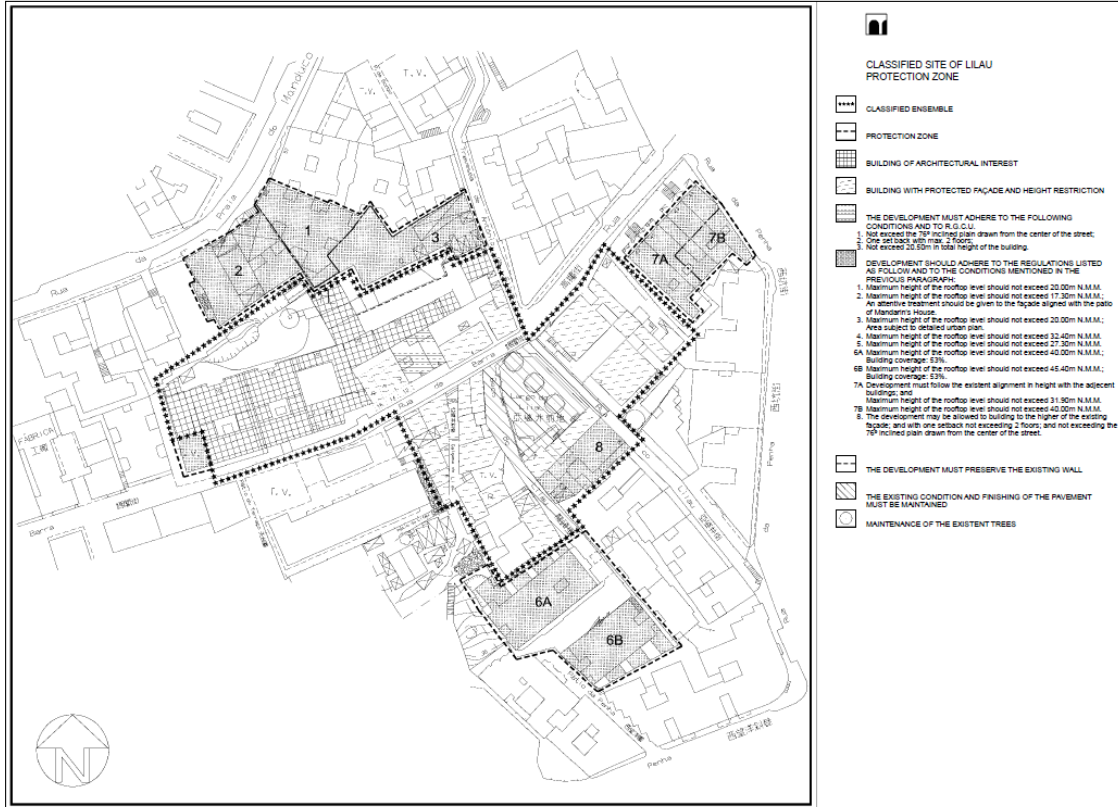


Figure 5. Numbers 1 to 3 are the location of the Mandarin's House (Image Source: The Historic Monuments of Macau)



Figure 6. General plan of the Mandarin's House (Image Source: The Historic Monuments of Macau)

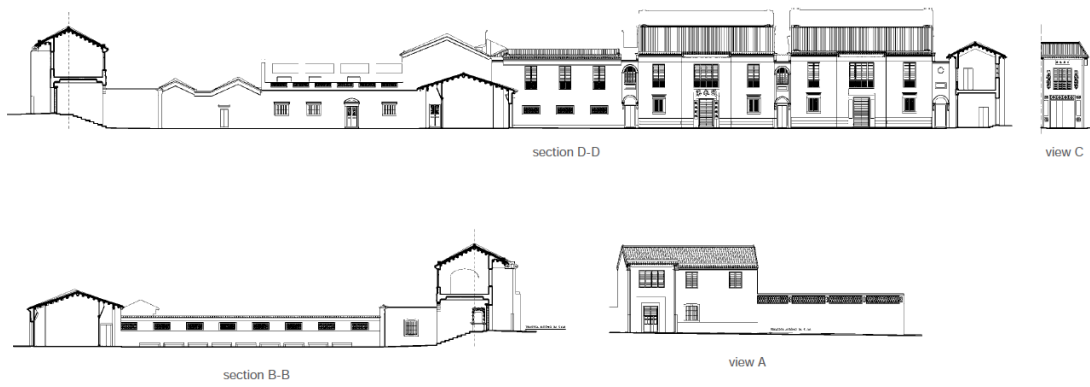


Figure 7. Section view of the Mandarin's House (Image Source: The Historic Monuments of Macau)

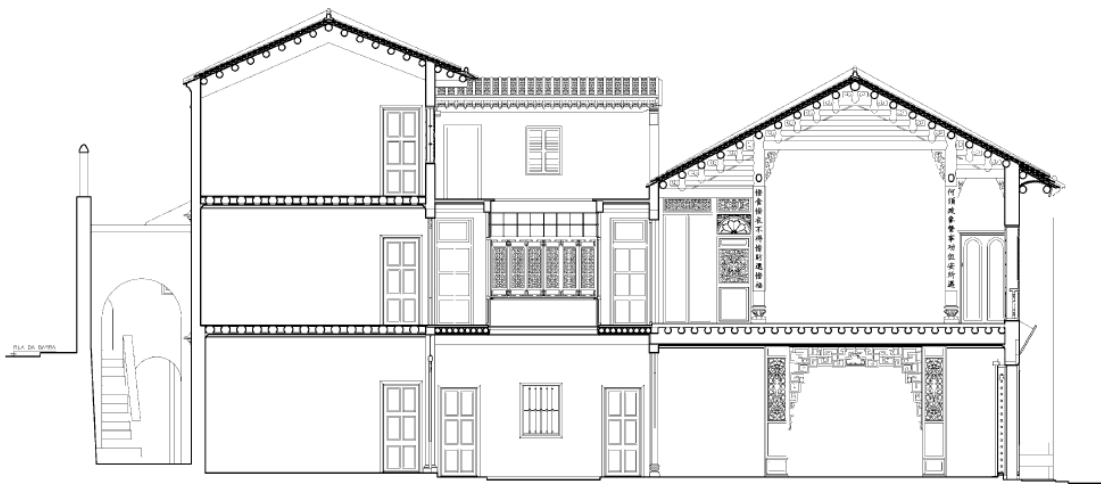


Figure 8. Section of patial building (Image Source: The Historic Monuments of Macau)

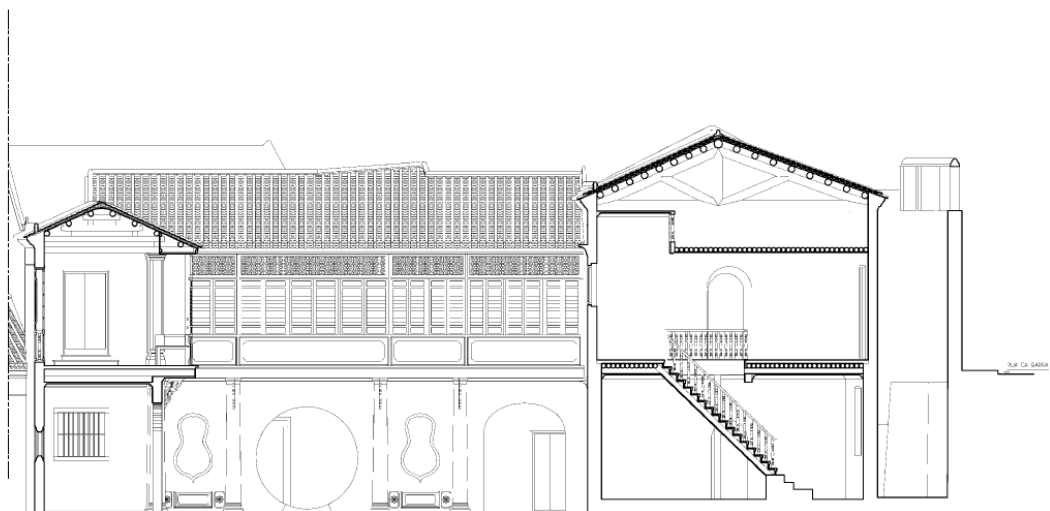


Figure 9. Section of patial building (Image Source: The Historic Monuments of Macau)

Although the Mandarin's House is a traditional Chinese building in form, it features a combination of Chinese and foreign elements in its details. The Chinese tectonics is expressed in the roof, the house super-structure, the building materials and the painted and relief ornamentations on the friezes, the pattern of the windows, and the design details of the main entrances and the traditional timber sliding shutters. Western and other foreign influences are evident on some of the interior ceilings, the archway over the door and window openings, the architrave along the roof eaves, the mother-of-pearl window panels of Indian origin and the plasterwork on the external walls.

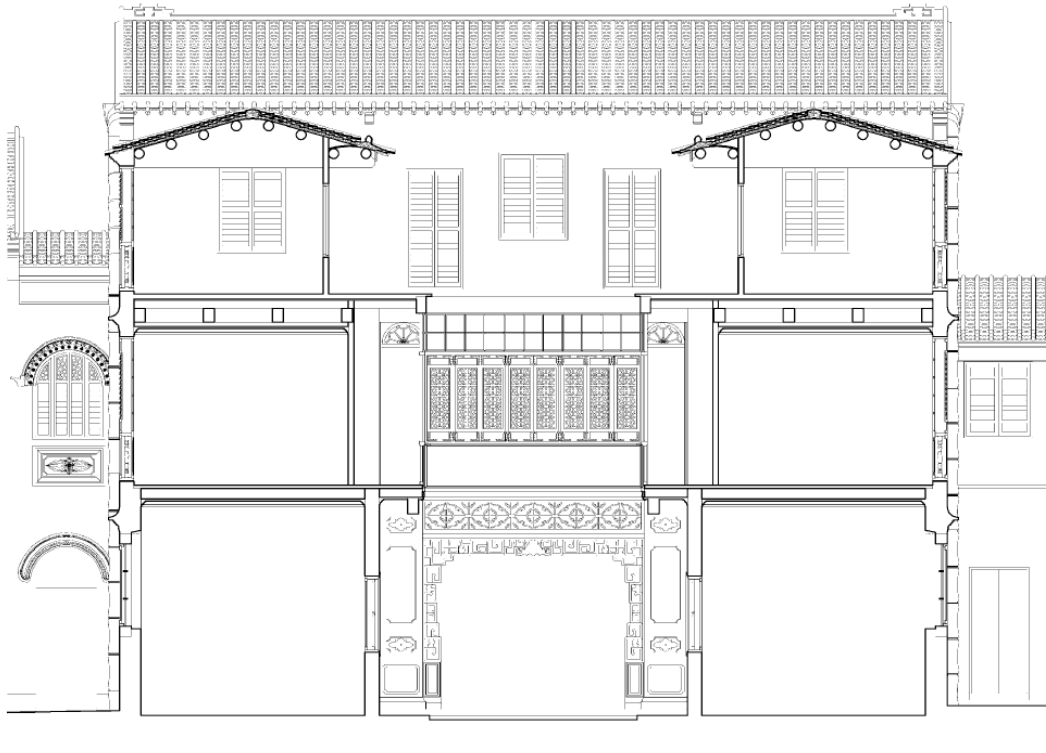


Figure 10. Section of patial building (Image Source: The Historic Monuments of Macau)

Master-slave partition and space size

From the completion of the Mandarin's House until it was taken over by the government for renovation, the photos provided to the Macau Archives by Mr. Li Yutian, a well-known local photographer in Macau, show that until the 1970s, descendants lived there, and there were entertainment activities such as playing cards.

As shown in Figures 11, it is now marked as the space parallel to the "reception" and the sedan chair. It used to be the living area of the servants of the Mandarin's House, and is separated by the entrance hall where the plaque of Rongludi is located. The size of the main building in the east of the Mandarin's House is in sharp contrast. And because Zheng's father and son have official positions, when visitors come to visit, they will get off the sedan chair and enter the Rongludi by walking, while the sedan chairmen and entourage who come with the visitor are in this space. Waiting, has a strong tendency to use space under the hierarchy. Nowadays, the society advocates

harmony and equality, without the restrictions of the old concept of hierarchy, and the space here is also open to the public after the restoration of the Mandarin's House. The servant room area of the former Mandarin's House is now used as an exhibition hall, and now it is used to display the life stories of Zheng's father and son.



Figure 11. Daily activities in the servant area of the Mandarin's House in the 1970s (Image Source: Photography by Li Yutian, kept in the Macau Historical Archives, file number: MNL.01.01.030.F)

Decorative distinctions on the window lintel

According to the visit and investigation, the decoration on the window lintels on the facade of the servant area of the former Mandarin's House was relatively simple. At present, only white plaster lines can be seen, and there are no complicated decorations. Starting from Rongludi, which divides the master-servant space, the main buildings of the big house, such as Yuqingtang and Jishan Hall, not only have white plaster lines on the window lintels, but also decorated the gray sculptures of traditional Lingnan buildings above. Then it is a simple window made of wooden boards, but a combination of shutters or shutters and oyster shell windows.

The oyster shell window is made of marine shells that are polished into translucent sheets, inlaid on the wooden frame and processed into windows. The light reflects colorful brilliance (not obvious), and it also has the effect of being warm in winter and cool in summer.

The characteristics can also reduce the damage caused by the direct sunlight entering the indoor furniture, so it is mostly used in the households of Lingnan mansions and gardens, and it is a traditional architectural decoration with regional cultural characteristics in the coastal area of Lingnan.



Figure 12. Contrast of the "Servant's Quarter" and the lintel of the Tongfengdi area

In addition, Lingnan was also known as the "Land of the Southern Barbarians" in the past. The land road was not developed, and it was difficult for people in a little inland to eat ingredients from the upper coast, and the cost of using it in construction was even higher. In the Ming and Qing dynasties, the use of oyster shell windows to decorate the windows of buildings can highlight the wealth of the homeowners, and it is also a symbol of expressing their wealth and status. Most of the oyster shell windows in Yuqingtang, the main building of the Mandarin's House, are the common pattern of aniseed gold plates in Lingnan. However, because the craft of oyster shell windows is on the verge of being lost, the materials are difficult to find, and the manufacturing process is more complicated. The oyster shell windows in the house are relatively old. Old dark yellow, some stains, more serious weathering.

Design of attic and roof

On the second floor of Jishan Hall, the main building of the Mandarin's House, there is a hidden attic design. Since Jishan Hall was built by Zheng Guanying's younger brother, the hall is smaller than the Yuqingtang hall of Zheng's father and son, with rooms on both sides. Moreover, the descendants of the Zheng family have been living in Jishan Hall and are responsible for the rent collection and management of the big house. There is a very hidden attic in the room, which shows that the design of the big house also considers some special security needs.



Figure 13. Design of attic and roof



Figure 14. Main building interior layout (Image Source: <https://banbi.tw/mandarin-house/>)

It can be seen from the on-site observation that the floor slab of the attic is a gypsum line ceiling that appeared in the Republic of China, and it is designed with ventilation holes. However, in the servant area of the former Mandarin's House, there was no attic design and no ceiling design. Part of it had a flat roof and was only one storey high. The appearance showed the hard top herringbone gables and simple gables that are more common in Lingnan

residential buildings. Black and white curlicue decoration. Most of the main buildings are two-storeys high, and sometimes there are three-storeys. The roofs have bogu ridges and are decorated with colorful gray sculptures.

The difference between indoor paving

The difference in grades can also be seen from the interior floor of the servant's room in the Mandarin's House and the master's room in the main building. The floor of the servant's room area (now the exhibition hall) is tiled, mainly I-shaped paving, and the side length of the bricks is short, reaching 36-37cm, without caulking. In the main building Yuqingtang, Jishantang hall and master bedroom, the side length is longer, reaching 47cm.

The amount of bricks used is more than that of the servant's room area, and the inclined paving method at an angle of 45 degrees is mostly used, mainly herringbone paving, and some parts are treated with caulking. From the perspective of space and visual comparison, slanted tiles can give people a sense of extension in space, and they can deeply feel the width and size of the main building's main room; while tiled tiles appear more rigid and narrow in space, which is also incompatible with the Zheng family at that time. The identity of the master and servant of the big house corresponds to each other.

FURTHER STUDY

The Mandarin's House in Macau is a traditional building, and there are many places worthy of in-depth study of the Chinese life history. In the future, further exploration and research can be carried out in the field of Chinese society.

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