

## Architecture Feature Study of Traditional Pawnshop in Macau

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**Abstract.** Macao is the intersection of Chinese and western culture. The development of the special background makes the city buildings there display the characteristics of both cultures, which can also be reflected by the traditional pawn buildings. As the witness of Macao's financial history and epitome of the pawn industry in Macao and even Guangdong area, traditional pawn buildings are precious cultural heritage no matter in architectural form or in cultural value. The main objective of this study is to explore the forming conditions of traditional pawn buildings and their detail preservation. This paper will deal with the morphological types of traditional pawn buildings in Macao and contribute to the heritage of the world cultural legacy.

### Introduction

Commercial buildings are rich in types, and occupy an important position in Macao urban architecture. At the same time, these commercial buildings bear the operation of Macao's economy, and have the most sensitive and detailed reflection on the new economic development of Macao. As a type of commercial building, Macao traditional pawnshop is a unique architectural cultural heritage in Macao. In the history of Pawnshop is seen as "profiteering industry", so the pawnshop has become coveted goal philistine looting extortion. For the sake of security, many old pawnshop buildings adopted the strong characteristics of military fortress buildings, which became a landscape of Chinese commercial architecture history (Fig.1).

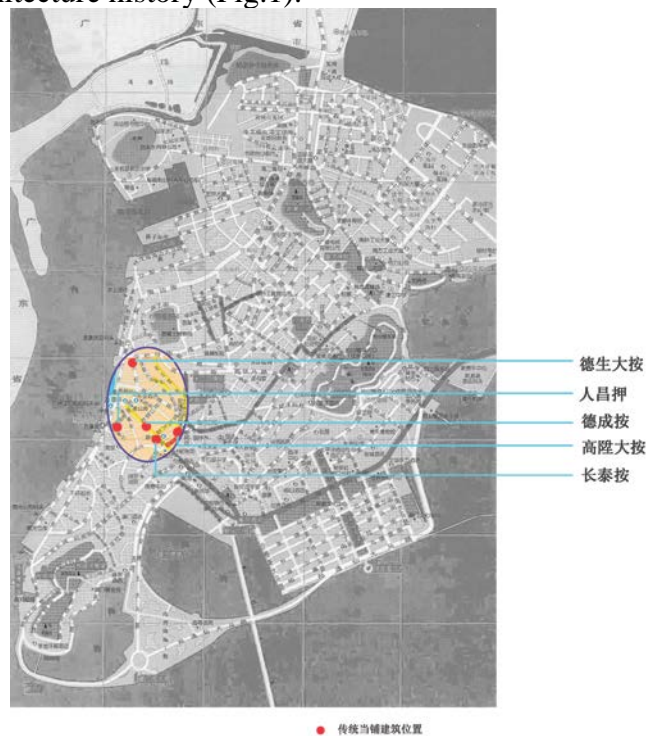


Fig.1 Location map of traditonal pawnshop in Macau main island.

## **Architectural Form Types of Traditional Pawnshop in Macau**

**Formation Factors of Traditional Pawnshop in Macau.** Macao as a bridgehead for East West exchanges, the western advanced architectural technology quickly introduced into Macao. The first is the Western brick masonry technology as the beginning, and then introduced the western developed in nineteenth Century some new technology, the introduction of western architectural technology, mainly for building construction and other links.

Macao traditional pawnshop building materials the basic use of the exterior wall of granite brick, the bluestone brick is more economical, beautiful, durable and suitable for the local rainy climate special materials, practical technology of production structure and material and construction etc.. In addition, the construction production system has changed accordingly, including design and sign. Building at the bottom of stone, more strong. The roof will usually use the wooden structure, but with the construction of the transformation, and at the time of the western advanced materials and technology makes the pursuit of Macao traditional building materials in the late stage of the pawnshop reinforced concrete, so the construction of the Macao traditional pawn shops have changed. For example, those 1920 press, founded in 1910. The roof of the building uses a reinforced concrete flat roof, the use of reinforced concrete will make the building performance more solid and solid.

The special identity of Macao makes the entry of foreign culture necessarily embodied in the architecture. Architectural modeling directly reflects the influence of foreign culture on Macao traditional pawnshop building. The traditional pawnshop building in Macao is also influenced by Portuguese architecture and south of the Five Ridges architecture, forming a unique architectural form. Especially in the traditional architecture of the pawnshop building in Macao. The goods belong to the typical building towers of architectural form. The watchtower was built defense bandits plunder, the inevitable and the pawn goods have a common feature in defense building. At the same time, the foreign culture also displays in the populace's life aspect. The entry of western culture will make the public have some changes in consciousness, but people absorb foreign culture at the same time, but also unconsciously into the traditional culture. For example, according to the original owners of big promotion, is born in keeping overseas Chinese in the United States, but the building was built by native engineering designer. The building belongs to the Chinese and Western shape building, with obvious Portuguese architectural style, but also in the structure of reinforced concrete.

**Component Factors and Spatial Form of Traditional Pawnshop in Macau.** The traditional pawnshop building in Macao is mainly composed of two parts: the first floor and the second floor. This is a typical form of architecture in traditional pawnshop buildings. This form of composition can meet the operation process of pawn industry on the one hand, and on the other hand, it can achieve the function of theft prevention and security.

When the building is the base of the pawnshop, it is the main place for business and office. Through the door into the lobby, the lobby is the main business space, to provide customers with trading venues. When the building is the office space inside the pawnshop, the front hall is separated by the high cabinet and the iron gate, and the entrance and exit is the iron gate on the left side of the iron fence, and the ingenious iron gate can only be opened with the lead wire inside. The concept of atrium is well used in the lobby design. So that there is a sense of circulation in the space, and not because of the separation of iron grid feel oppressed. In addition, the large windows on the two floor provide a good ventilation and natural lighting for the front hall.

The building is the place where the collateral is deposited at the pawnshop. The main structure of the goods is mostly large granite for building foundation, load-bearing brick wall structure. In addition to satisfying the function of storing large quantities of goods, the cargo building plays a more important role in the external type. In five, sixty years ago, up to more than 20 meters of cargo floor, in many bungalow, always seem to stand head and shoulders above others. Internal goods floor is usually wooden structure, in order to better protect the wooden bucket and various items stored, so the requirements of indoor ventilation, reduce air humidity and temperature, there can be a lot of sunshine straight into the room (Fig.2).

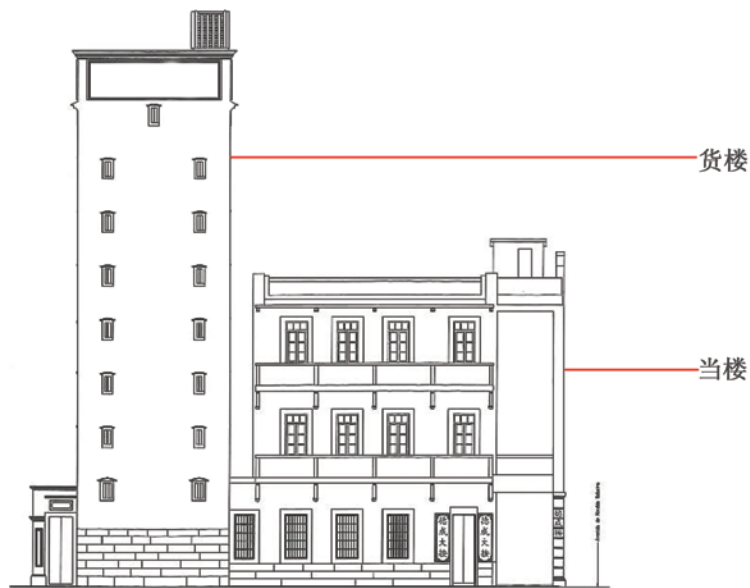


Fig.2 Composition Description Chart of traditional pawnshop in Macau

**Architectural Form of Traditional Pawnshop in Macau.** The traditional architectural style, structural modeling, artistic features, decorative techniques and other tangible assets of Macao traditional pawn shop reflect the inherent cultural temperament and social change process of Macao. Although the form of pawnshop architecture is diverse, the traditional form of pawnshop construction in Macao is mainly based on two types of traditional peace table, and the traditional style is mostly.

The traditional pawn building simple, the whole closed type, upper part of the building without balcony and terrace, some goods building four corners with a convex corner. The traditional pawn the appearance of a building the vast majority of Chinese traditional architectural elements, using the traditional slope roof, gable triangle, also used the traditional wok ear gable wall common brick, rammed earth or stone walls, occasionally some pawn building windows or gable has western architectural decoration elements. For example, Tecsun large press, originally built in the early Qing Dynasty, was named the world heritage is a heritage building, the overall shape of the building belongs to the typical traditional architectural form, the overall architectural style simple and elegant, magnificent appearance.

The platform building pawnshop characterized not raised at the top of the building's roof, but with a flat roof parapet, other is open. This building stands out in a pawnshop often with one or more of the platform, a pick Taiwan, shape change rich parapet, highly decorative flowers, neat and concise building doors and windows body elements constitute concise generous platform type pawn building. For example, on the rise in nineteenth Century, and was named the world heritage is a heritage building, the building is simple and elegant, affordable, effective expression of the characteristics of Western architecture

### Elements and Features of Detail Decoration of Traditional Pawnshop in Macau

**Modeling and Decoration Features of Roof Components.** The traditional roof of the traditional pawnshop building in Macao adopted the traditional roof in the early stage, and then added some Western elements in the development process. From the material, most of the traditional pawnshop buildings in Macao adopted the wooden roof, and at the same time, influenced by the western culture, the herringbone truss roof was adopted in the form. The herringbone truss roof is simple, practical, less consumable and stable in structure. At the same time, the traditional roof of the pawnshop is influenced by Chinese traditional architecture. In its form, the western style herringbone truss roof is similar to the Chinese sloping roof. Thus, there is a facade in the west of the traditional pawnshop building in Macao, with a truss supported pitched roof behind it. This roof often appears in the roof of a building. In addition, Macao traditional building roof and flat roof, the single slope roof, flat roof, cornice and parapet gable top.

The Macao traditional buildings usually selecting granite stone and brick walls, the choice of this wall, more adapt to the humid weather in Macao. Rock and granite are the most widely distributed in Macao, and masonry is usually used in masonry. The selection of brick masonry, do paint. The use of brick requires hard and crisp sound, angular, high hardness, low water absorption rate. The masonry is orderly and small in size In addition, there are stone foot, to ensure good wall moisture proof effect. According to the different position of Macao traditional building walls will be built on some pawnshops, some will build the parapet gable.

Gable shape mainly has "herringbone" and "wok ear shape", usually most people choose "herringbone" gable shape is relatively simple and practical, low economic cost. The use of "ear shaped" gable is affected by the south of the Five Ridges building. In the construction of residential houses in south of the Five Ridges are be used in wok ear shaped gable shape, the shape of the gable sleek, change "herringbone gable shape, modeled on the ancient hat shape building, more is to play the function of building decoration. The parapet is often built in the housing wall high short wall roof. It is also a way to connect the roof and the exterior wall, as a measure of the roof railing or house shape processing. In the production method, usually the top of the building line or curve shape, most of the walls have more sculpture or paste plastic pattern decoration, play the role of roof railing, and can prevent rainwater falling directly.

**Modeling and Decoration Features of Architecture Components.** The window is the most abundant form of change in architecture. It is different in both usage and scale, especially in the traditional pawnshop buildings in Macao. Traditionally, the demand for windows is more stringent in the pawnshop building, and the windows of the building and the cargo building are also often used in order to ensure the safety of the goods. However, the window of Macao traditional pawnshop is influenced by western culture, and its structure is different. For example, the window of the traditional pawnshop building in Macao usually adopts Portuguese blinds. The advantage of the shutter is that it can be ventilated, inside and outside cannot see, privacy is very strong, is a very practical window. The cargo floor window set is very exquisite, it plays an important role in the building of the goods.

The door is connected with the size of the door, depending on the actual needs of the human body, and its height should be suitable for the whole building volume. The familiar gates in the traditional pawnshop buildings in Macao include Portuguese semicircular arches, cast iron doors, ordinary push and pull iron gates, folding doors and the traditional cage used in Guangdong traditional dwellings". Semicircular arches must be under the influence of western culture on the decorative form change, it is also the upper concave molding layers, it is along the semi-circular arch door form made of 1/4 circular curve shaped, carved on the door into the three parts, each department is carved into a vertical blinds. This kind of construction was popular in the late twentieth Century and early nineteenth Century, and it was generally used as the door of the building. However, the entrance of the cargo building is generally made up of two iron gates. The iron gate outside is made of cast iron. It is about three meters high and ten centimeters thick. The inner door is an ordinary flower push and pull iron gate. Such as when the building entrance is composed of three doors. The first door is made up of folding doors. The doors are inlaid with wood carvings and the upper part is semi permeable. The decoration is more practical than that of the doors. The second gate is the "cage" gate used in Guangdong traditional houses. The "cage" door is made of good wood, and its function is like the iron gate of today. It has the function of theft prevention, ventilation and lighting. A door in the door is a traditional construction. There are door bolts in the door, very strong, also the role of anti-theft.

A typical balcony is usually made up of stone, platform and railing, and it has various styles. However, the balcony of the traditional pawnshop buildings in Macao is relatively single, and the platform is singled out rarely. It is mainly for the wall column to decorate the window to provide a reasonable base for the prominent wall. Railings play a decorative role in the building, the material is diverse. For example, in the traditional pawnshop building in Macao, Germany and Europe have adopted the European roll type cast iron railing on the railing of the balcony, which is very elegant. According to the large and high balcony railing used most widely used for the Macao stone railing, balustrade rotated outwards, in order to make the baluster shape and their void balance, often will

increase the thickness of the baluster, therefore, baluster will look thick very much, but the gap between the baluster showing the beautiful outline, simple and generous.

### **Closing Words**

The traditional pawnshop building in Macao is an empirical heritage and an important symbol of the historical civilization. It is also the precious wealth to study the human civilization and economic development. The construction of Macao traditional pawnshop should have the right attitude, not only see the emergence and development of the social background and causes, and certain historical significance and its positive role at Macao City, which is on the cultural continuity and succession. Macao existing traditional pawnshop although few, but its long history, unique architectural type, contains the history of the construction technology and aesthetic attitudes and cultural connotations, in order to be able to continue to pass this kind of building, the need for research and development from the angle of law, technology, economic development and etc.. According to the Macao traditional pawn building on surveying and mapping, found with the construction of modern city, many buildings have disappeared, in addition to Literature inquiry, no research on building ontology, brought a lot of regret. Protection of these precious architectural heritage is of great significance to the construction of a harmonious society and the sustainable development of urbanization.

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