



## Protection and Analysis of 37 Historical Buildings in Cantonese Traditional Villages of Cuiwei Village in Zhuhai

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**ABSTRACT:** With the rapid development of China's economy, the urbanization process is gradually accelerating, and there are a large number of traditional village spaces are abandoned and compressed, which has greatly changed the original pattern of ancient villages. Cuiwei village is an example of Zhuhai's typical Lingnan Cantonese traditional village evolving into a village in the city, which has experienced many changes in spatial pattern. This paper adopts the method of qualitative investigation to conduct a detailed investigation and analysis of the types of historical buildings in Cuiwei village, and focuses on the impact of historical buildings on people's spatial feelings. It puts forward planning suggestions to provide reference for the follow-up protection of the architectural heritage of Cantonese traditional villages.

**Keywords:** Cantonese traditional village; Cuiwei village; Architectural heritage protection

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## **INTRODUCTION**

At present, our city is promoting the application for a famous historical and cultural city, and it is suggested to designate a historical and cultural block in the area where the protection of cultural relics and historical buildings is relatively concentrated in the reconstruction project of Cuiwei old village into the protection plan. "Seven streets, seven Li, one lane, ancestral temples, temple like village capacity". Less than 10 kilometers south along the Phoenix Mountains is Cuiwei village. Speaking of it, the first impression of most Zhuhai people in the sea is the city village with dense population and narrow roads. Going back hundreds of years, it looks different. According to the annals, the history of Cuiwei village can be traced back to the Southern Song Dynasty more than 700 years ago, "seven streets, seven Li, one lane, ancestral temple like village capacity". In ancient times, it was a place of scholarly prosperity in education, and in modern times, it also enjoyed the reputation of "little Macao" because of the convergence of merchants. At this stage, the renewal unit has a good location, great development potential, poor internal living environment, and needs to be transformed and upgraded. The current public service facilities are imperfect and need to be upgraded. The road network structure and some municipal facilities need to be improved, and the historical and cultural resources are rich, which need to be reasonably protected. The renewal mode of Cuiwei village is demolition and reconstruction. The urban renewal is implemented by demolishing the original buildings in the urban renewal unit and re planning and construction. In the upper planning and development guidance, it is necessary to fully tap the historical and cultural value of Cuiwei village, combined with the construction of livable modern residential areas, improve the facilities, and make it a region with regional characteristics in the urban center.



Figure 1. Historical Relics of Cuiwei Village in Zhuhai (Photo source: Zhuhai Special Economic Zone News)



Figure 2 Historical Relics of Cuiwei Village in Zhuhai (Photo source: Zhuhai Special Economic Zone News)



Figure 3-4. Historical Relics of Cuiwei Village in Zhuhai (Photo source: Zhuhai Special Economic Zone News)

## 2. Research Object

Cuiwei village in Zhuhai is located in Qianshan District. The planning object is located in the central urban area of Xiangzhou District, Zhuhai City, Guangdong Province. It is adjacent to Mingzhu South Road (Urban Rail Mingzhu station) in the West and Renmin West Road in the north. It is the original site of Cuiwei old village. The land area of Cuiwei RI village is 300422.90 square meters. The total surveyed building area of residential houses in the old village is 561341.17 square meters (excluding village collective components), of which the building area of more than 5 floors is 514815.87 square meters. The building area above 5 floors is 46525.3 square meters. After confirmation, the total recognized building area is 420677.75 square meters, and the unrecognized building area below 5 floors is 95078.7 square meters. The construction area of the historical building protection area is about 1.14 square meters), and the converted gross floor area ratio is about 3.74. This project is an important demonstration project for the protection and renewal of old villages in Zhuhai. It is not only a simple demolition and reconstruction of old villages, but also another form of restoration and reproduction of the history of this area. This paper selects 37 buildings and structures in Cuiwei village as the comparative analysis objects, which are: Mei song Wu Gongci, Jingtang Yang Gongci, Yang Meinan's former residence; Renheli, zhongheli, dunmuli, tengfengli, yiguli, nanmingli menfang; Houses at No. 24, 31, 47, No. 10, Weishi, No. 7, Binlang street, No. 4, erheng lane, and No. 19, renheli, yiguli; I le, Yishan, Biyue, Desu, Huishan, jieweng, dunmuli Zhenyuan and Yishan Wu Gongci; Lunguo temple, cuiweidi garden, Nanyang temple and dabachi in the center of betel nut street.

### 3 analysis results and discussion of historical building system

#### 3.1 historical cultural protection evaluation

As shown in Table 1, the historical buildings preserved in the original site in the ancient construction area include: Yang Meinan's former residence, Jingtang Yang Gongci, Mei songwu Gongci, dunmuli gate square, yiguli gate square, tengfengli gate square, folk house No. 4, erhengxiang, Binlang street, and xinlunguo Gongci. One immovable cultural relic is preserved in the original site, and 11 are rebuilt in the original site, including 9 historical buildings and 2 protection clues. 23 sites were relocated, including 3 historical buildings, 15 pre protected clues, and 5 clan ancestral halls. The most representative architectural heritages in Cuiwei historical block include Sanwang temple, Rongzhai Wu Gong temple, and Meisong Wu Gong temple. The value investigation and evaluation table is shown in Table 1.

Table 1. List of Elements for the Protection of Historical Buildings and Cultural Heritage in Cuiwei Historical Block

Building type	Serial number	name	Owner	Building type	Protection mode	Area /m <sup>2</sup>
Identification of immovable buildings by cultural relics protection units	1	Webster Mansion	Wei Ziqiang, Wei Guozhi, Wei Zhaoxiong, Wei Songtai, Wei Zhanhong, Wei Zhanpeng, Wei Qihua, Wei YingYuan, Wei Rongjin, Wei Rongxian, Wei Shoujing, Wei Shoujing	Folk houses	Original address reservation	
	2	Wu Gongci in Rongzhai (the first batch has been announced)	Transportation Group	ancestral hall	Demolition and construction	390
Historical architecture	3	Beibao Sanwang Temple (the second batch, announced)	Olympic Garden	ancestral temple	Demolition and construction	294.94
	4	Yanggongting (the second batch, announced)	Olympic Garden	a gatehouse	Reconstruction of original site	24.42
	5	Wu Gongci of Meisong (the second batch, announced)	Housing security center	ancestral hall	Reconstruction of original site	220.65

	6	Yang Gongci in Jingtang (the second batch has been announced)	Olympic Garden	ancestral temple	Reconstruction of original site	469.93
	7	Yangmeinan's former residence (the third batch, pending)	Yang Tiesong, Chen hongben, Yang Tiezhen	Folk houses	Reconstruction of original site	348.64
	8	Renhelimenfang (the third batch, to be considered)	Olympic Garden	a gatehouse	Reconstruction of original site	18.34
	9	Zhonghelimenfang (the third batch, to be considered)	Olympic Garden	a gatehouse	Reconstruction of original site	13.95
	10	Dunmulimenfang (the third batch, pending consideration)	Olympic Garden	a gatehouse	Reconstruction of original site	13.50
	11	Tengfenglimenfang (the third batch, pending)	Olympic Garden	a gatehouse	Reconstruction of original site	11.32
	12	Yigulimenfang (the third batch, pending)	Olympic Garden	a gatehouse	Reconstruction of original site	10.82
	13	Nanminglimenfang (the third batch, pending)	Olympic Garden	a gatehouse	Reconstruction of original site	/
Clues to pre protected historical buildings	14-17	No. 24, 31 and 47 residential houses in yiguli	Wei Zhaoying	Folk houses	拆建	180、200、206.48
	18	Wechsler residence, No. 10, grade III stone	Weber Zhao	Folk houses	Demolition and construction	243.21

	19	Wu Gongci Temple	Olympic Garden	ancestral hall	Demolition and construction	245
	20	Yishan Wu Temple	Olympic Garden	ancestral hall	Demolition and construction	278.93
	21	No.7 folk house in Zhonghe Lane	Yang Tingfeng, Yang Jianfeng	Folk houses	Demolition and construction	199.12
	22	Lunguo temple in the center of betel nut Street	Olympic Garden	ancestral hall	Reconstruction of original site	305.87
	23	Cuiweidi Garden	Guochengfang	Folk houses	Demolition and construction	169.46
	24	Biyue Wu Temple	Olympic Garden	ancestral hall	Demolition and construction	390
	25	Desu Wu Temple	Olympic Garden	ancestral hall	Demolition and construction	260
	26	Nanyang Temple	Olympic Garden	ancestral temple	Demolition and construction	106
	27	Renheli No. 19 residence	Wei Chao, Wei Qizheng	Folk houses	Demolition and construction	335
	28	Folk house, No. 4, erheng lane, Binlang Street	Wu naitong	Folk houses	Reconstruction of original site	500
	29-31	Caibo temple, Guandi temple, Jinhua Temple	Olympic Garden	ancestral temple	Demolition and construction	669
	32	Daba pool	Not determined	Gujing	Reconstruction of original site	351.04
Clan ancestral hall	33	Wu's great ancestral temple	Olympic Garden	ancestral hall	Demolition and construction	1876
	34	Wu Gongci in Huishan	Olympic Garden	ancestral hall	Demolition and	1876

					construction
35	Jie Weng Wu Gongci	Olympic Garden	ancestral hall	Demolition and construction	
36	Dongmuli Zhenyuan Wu Gongci	Olympic Garden	ancestral hall	Demolition and construction	244.47
37	Yishan Wu Temple	Olympic Garden	ancestral hall	Demolition and construction	52.68

Table 2. Investigation and Evaluation Table 1 of Architectural Heritage Value of Cuiwei Historical Block

Serial number	Contents of investigation and evaluation	Investigation results / evaluation conclusions
1	name	Beibao Sanwang Temple
	place	Located in North Street of Cuiwei community
	Administration	Zhuhai natural resources bureau and Zhuhai Municipal Government
	Original designer	Unknown
	information sources	Zhuhai natural resources and Planning Technology Center
2	background	Sanwang temple is located in Cuiwei village, Qianshan District, Zhuhai, and in the North Street of Cuiwei community. The overall architectural structure and decorative style reflect the typical architectural characteristics of Cantonese area. It is an important physical remains for the study of Zhuhai temple culture.
	Start time	Built in the Tongzhi period of the Qing Dynasty (1644-1911)
3	space	The plane pattern is three rooms with two entrances, which is composed of a head gate, a patio, two corridors and a main hall. There is a square in front of it and a single bay auxiliary house on the north side. The two are separated by Qingyun lane. Walking into the three kings temple, the main hall of the building uses melon column beam lifting wooden beam frame, and the overall depth is 14.
	Structure and materials	The whole building is of brick and wood structure, with hard top and gable of official cap. The shape of the official hat gable is similar to that of the ancient official hat, which is generally made into three levels, implying "three levels in a row". Guanmao gable is rare in Zhuhai and is of great research value.
4	Quantity on hand	1

5	Overall evaluation	<p>The building sits in the northeast and southwest dynasties. The rich and colorful folk beliefs and sacrificial activities mostly take the traditional altar temple as the space and material carrier. The head door of the temple is in the form of open couplets, with twelve deep frames and two vertical Dougong jumps. There is a moon beam under the eaves. The beam head of the cross frame has the pattern of water bouquet flowers and plants, the pier is painted with auspicious patterns, and the lintel is decorated with colored paintings, with landscape flowers and birds, and the stone columns, column bases and cornices are beautifully carved; It is worth mentioning that under the corridor on the right side of the temple patio is inlaid with an inscription titled "inscription on the newly built auxiliary house of the three kings ancient temple", which is an important identification of the ancient temple and records the history of its construction.</p>
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Table 3. Investigation and Evaluation Table II of architectural heritage value of Cuiwei historical block

Serial number	Contents of investigation and evaluation	Investigation results / evaluation conclusions
1	<p>name Administration Original designer information sources</p>	<p>Mei song Wu Gongci Zhuhai natural resources bureau and Zhuhai Municipal Government Unknown Zhuhai natural resources and Planning Technology Center</p>
2	background	<p>Built in the Qing Dynasty, it is the ancestral hall of the Wu family of Cuiwei, with exquisite architectural structure and decoration techniques, reflecting the architectural characteristics of the typical Cantonese area. It is an important physical relic for studying the ancestral hall culture of Zhuhai and the development history of the Wu family of Cuiwei.</p> <p>Start time Built in the Qing Dynasty</p>
3	space	<p>The building faces west and covers an area of about 200 square meters. The overall pattern is three rooms and two entrances, consisting of a front door, a patio, two corridors, and a main hall. The building is of brick and wood structure, with green brick walls and rolling tiles in the front and back, and the main ridge is of Bogu style.</p>
4	Quantity on hand	1
5	Overall evaluation	<p>The head door of the building is in the form of open couplets, ten frames deep, shrimp bow beams are set under the eaves, the ridge pier is in the</p>

pattern of flowers and plants, the horizontal frame is a Bogu beam frame, and the rest of the column bases, sparrows, beam heads, cornice boards and other exquisite shapes. The main hall of the building is deep into three rooms and twelve frames. The melon column lifting beam type wooden beam frame is used, and the front eave three frames are used as the porch. The Bogu beam frame is used, and the carving is complex and detailed. The overall pattern of Meisong Wu Gongci is complete, with some additional rooms in the main hall. The preservation condition is general, and it is now used as a folk house.

Table 4. Investigation and Evaluation Table III of Architectural Heritage Value of Cuiwei Historical Block

Serial number	Contents of investigation and evaluation	Investigation results / evaluation conclusions
1	name	Ancestral temple Rongzhai
	Administration	Zhuhai City
	Original designer	Unknown
	information sources	Zhuhai natural resources and Planning Technology Center
2	background	Architectural culture and the development of Wu people in Zhuhai.
	Start time	Built in the Qing Dynasty
3	space	Sitting in the northeast and facing the southwest, it covers an area of about 380 square meters. The building is 38 meters deep and 9.6 meters wide. The plane pattern is three rooms and three entrances, which are composed of the head door, patio, two entrances and three entrances hall.
4	Structure and materials	Brick and wood structure
	Quantity on hand	1
5	Overall evaluation	The building is one story high, with rubble plinths, green brick walls, and a hard Hill roof made of rolled grey tiles. The front door of the building is a common open Ying style in Lingnan area. It is three rooms wide and eleven frames deep. Shrimp bow beams and stone carved humps are set under the eaves, and hump brackets and wooden beams are used. The second entrance hall of the building is three rooms wide and thirteen frames deep. The wooden beam frame is melon column lifting beam type, with three-step beams in front and back. The architectural form of the three entry hall is the same as that of the two entry hall, with a

Source: drawn by the author

### **3.2 development dilemma and planning method of ancient architecture system**

Nuclear density analysis from geospatial system is mainly used to calculate the density of different elements in their surrounding fields. In this case, after obtaining the ancient building surface, road and commercial POI data of Cuiwei village, convert the surface building data into points, and then conduct nuclear density analysis. The analysis shows that Cuiwei village is a combination of belt shaped villages and radial villages. The core morphological characteristics of belt shaped villages are interrelated with the extension of belt shaped axis. The scale of Cuiwei village is smaller than that of other villages inside and outside the province, with a single core of settlement and radial settlement. The spatial form of the core image has a certain stretching effect along the axis of village development, and its association with the spatial form of the village is relatively clear. Due to the long-term influence of complex landscape patterns, Cuiwei village also presents the characteristics of multiple different axis spatial sequences. The area with the highest distribution of ancient buildings is in the middle of Cuiwei village, and the higher ones are the lower middle area, the northern area and the lower northern area, which spread from the middle to the surrounding area and gradually decreased. The author believes that the transformation, protection and organic renewal of Cuiwei village should concentrate the ancient buildings in one area for centralized protection rather than single repair. At this stage, the quality of village buildings is poor. Due to the relocation of Aborigines and the occupancy of outsiders, the core public space in Cuiwei village is basically occupied by residential construction. Only a few of the existing ancient buildings are well preserved, and most of them have been damaged to varying degrees. The illegal construction in Cuiwei village is serious and the building density is high. The "handshake building" can be seen everywhere in the village, which can not meet the sunshine needs of villagers, causing fire hazards in all aspects and seriously affecting the quality of life. There are a large number of dilapidated and empty houses in Cuiwei village. On the one hand, it has a serious dislocation with the land value of the local block; On the other hand, it causes a lot of potential safety hazards.

Therefore, in the direction of historical building planning, apply for urban renewal of demolition and construction, that is, the transformation method of "overall demolition and construction + local protection", delimit the scope of historical building protection area, with a land area of about 29000 square meters (including the municipal immovable cultural relics Wechsler

mansion), and consider the planning strategy of combining original site reconstruction and relocation protection to plan the historical buildings in Cuiwei village. Based on the original and ancient spatial context of "seven streets, seven Li and one lane", For example, through the complete restoration of these historical context clues through the landscape, road system and other elements, and then through the setting of the core blocks of historical buildings, the important historical buildings will be centrally protected and repaired, and be activated and utilized, so as to rejuvenate the vitality, so that the traditional culture and modern civilization are highly integrated. At the same time, fully consider the demands of contemporary villagers, meet the needs of modern residence, and create a comfortable and first-class one-star residential community.

The overall planning concept is to respect history, restore texture, activate the block and improve supporting facilities. In cities with daily congested roads, a good road planning system can greatly improve the quality of a region. The chaotic road network layout of the original villages makes the traffic in the already congested urban core area bear greater pressure. In the future, the planning object plans to create a vertical and horizontal vehicle road network to separate and connect the whole old reconstruction area. Among them, the central street is the main east-west road in the future, connecting Mingzhu South Road in the West and cuiqian North Road in the East. The street is relatively wide. With both sides of the road, the whole village land block is divided into North and south areas at the same time. The north area is dominated by financing plots, the south area is dominated by relocation plots, and the core area of ancient buildings is located in the center. The height limit of buildings in the historical building protection area is 12 meters; The construction height of the project financing development and resettlement relocation plot is limited to 150 meters, and the local plot can reach 180 meters.

At the same time, it reproduces the traditional context of "seven streets, seven miles and one lane" in ancient Cuiwei village, and maximizes the preservation of the original street texture of Cuiwei village with the historical buildings preserved at the original site as the core. The new betel nut street is reproduced on the texture of the original betel nut street. As a north-south road running through the land, betel nut Street connects the restored dunmuli, tengfengli, yiguli and the newly-built holy hall, and reproduces the original texture of Cuiwei. The new betel nut street is reproduced on the texture of the original betel nut street. As a north-south road running through the land, betel nut Street connects the restored dunmuli, tengfengli, yiguli and the newly-built holy hall, and reproduces the original texture of Cuiwei. An entrance square is set at both ends of Binlang street as the landmark entrance of xincuiwei. In

terms of the relationship with the surrounding roads, the main roads near the north side are set with two entrances at one time, and at the same time, the road intersection is also set with open space to facilitate the introduction of people and improve the regional value.

Preserve and restore the cultural and natural landscape elements of traditional villages, and set up a memorial archway square at the entrance of the village as the entrance of the village and the display of new image style. Set up a temple cultural area as a place for temple fairs, folk worship and spiritual sustenance. In the core of the village, the ancestral hall will be relocated, Feng Shui pond will be set, and ancient trees will be planted to reproduce the ancestral hall public cultural center of the village. The restored gate house on the original site is used to reproduce the scenery of the ancient villages. The architectural design selects architectural symbols such as the pot ear wall, sloping roof, doors and windows, colored decorations of Cantonese folk houses to reproduce the traditional style of Cantonese villages.

## CONCLUSION

Cuiwei village is a typical Cantonese traditional village, which connects different historical buildings and creates a public activity space combining modern and traditional. Through the analysis and comparison table of 36 historical buildings in Cuiwei village, we can take the buildings reconstructed and preserved in the original site as the objects of the first phase of key reconstruction, and activate and improve the design in human perception. First, respect history. Respect the history of Cuiwei village, repair the old as it is, and complete the inheritance and development of Cantonese culture; Secondly, restore the texture. Reproduce the village texture, make the ancient village revitalize and activate the block in the new urban development; Finally, activate the block. Inject new vitality into the region and create new active spots in the city. That is, the coexistence of new and old elements, the integration of tradition and modernity, and a vibrant and livable living area.

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