

Research on the Protection and Renewal of Urban Historic District—Taking Cuiwei Village in Zhuhai City as an Example

Junzhang Chen and Yile Chen

EasyChair preprints are intended for rapid dissemination of research results and are integrated with the rest of EasyChair.

Research on the Protection and Renewal of Urban Historic District—Taking Cuiwei Village in Zhuhai City as an Example

Junzhang Chen^{1*} and Yile Chen²

- 1 City University of Macau, Faculty of Innovation and Design, Taipa, Macau SAR, China 2 Macau University of Science and Technology, Faculty of Humanities and Arts, Taipa, Macau SAR China
- * Corresponding Author, Email: U19091105192@cityu.mo

Key words: Cuiwei Village; Historic District; Protection; Renewal

Abstract:

Urban villages are important carriers of cultural heritage and settlement spaces with strong regional characteristics. Certain historical districts have obvious regional characteristics. Cuiwei Village in Zhuhai City is now a typical urban village. The village has a long history and a prosperous business background, and its layout presents natural morphological characteristics. This article analyzes and explores the current situation of Cuiwei Village, and combines field investigations to analyze the problems faced by the historical district. Using qualitative theoretical analysis methods, suggestions are made in terms of village protection strategies and the effective use of historical resources. The streets and lanes of Cuiwei Ancient Village are restored to life, and the streets and historic buildings are reshaped, protected and revitalized. Realize the healthy development of the village and the organic renewal of the ecological environment, providing a feasible reference for policy formulation. Thus, for the economic development of the entire Qianshan area, the historical streets in the traditional villages contribute to the protection, development and organic renewal.

1. RESEARCH BACKGROUND

Since the reform and opening up, Zhuhai has been steadily promoting the transformation of old factories, old towns and old villages. As early as 2000, Zhuhai had the action of "transforming the old villages in the city and building civilized communities". Through the method of demolishing and rebuilding the whole village, Zhuhai has been carrying out the transformation of old factories, old towns and old villages, Carry out the old village reconstruction project; In the second half of 2018, the Hong Kong Zhuhai Macao Bridge will be opened to traffic. In the face of the people's demand for a better material life, the clarion call for Zhuhai's urban renewal has been sounded. Cuiwei village, a representative ancient village in Lingnan area, is selected as the research area. Due to the influence of multiple factors, its spatial layout around mountains and near water has almost disappeared with the development and change of economy and society. At the present stage, its layout is chaotic, its infrastructure is old, and its natural environment has gradually deteriorated with the passage of

time, The development of Cuiwei village is far behind the pace of urban development.

2. CURRENT SITUATION OF VILLAGE INTERNAL ENVIRONMENT

With the development of society, the people's economic level continues to improve. Due to factors such as the construction of urban road administration facilities and changes in the geographical environment, the spatial layout of the villages surrounding mountains and water has been destroyed. Due to the lack of guidelines for planning and construction, early villagers spontaneously illegally rushed for construction, privately built and disorderly construction, etc., which caused the original "seven streets, seven miles and one lane" structure to be seriously damaged. Because the village is in the street and lane system, the original streets, lanes, and lanes basically exist in the form of "segments" at this stage. Except for Yangzi Lane, which still retains the complete stone road and traditional streets and lanes, none of them are preserved intact. The terrain of the village is low, and floods are prone to occur in heavy rain.

With the gradual increase in the number of migrants, it has reached several times the population of the village, and the personnel management is relatively chaotic. The migrant tenants gathered in the rental house have become a better umbrella for criminals, and gradually have problems in public security, fire protection, sanitation, and transportation.

Due to the lack of long-term supervision, people are even more reckless and build houses privately, which occupy the original public space, which not only has an adverse impact on fire safety, but also deprives people of places of activity. The villagers even rented out the ancestral halls and temples that were used as entertainment venues to out-of-town populations in order to make profits. The buildings are arranged in disorder, there are many illegal constructions, and there are no signboards. People entering the village are like walking into a maze, and the phenomenon that they can't find their house number often happens. The chaotic arrangement of the buildings creates more corners. The cultural value of Cuiwei Village

The historical buildings preserved in the original site include: yangmeinan's former residence, Yanggong Temple of Jingtang, Wugong Temple of Meisong, dunmulimen square, yigulimen square, tengfenglimen square, No.4 folk house of erheng lane of Binglang street, xinlunguo temple. One immovable cultural relic is preserved in the original site, and 11 historical buildings are rebuilt in the original site, including 9 historical buildings and 2 protection clues. 23 historical buildings were relocated, including 3 historical buildings, 15 pre protection clues and 5 clan ancestral halls (as shown in *Table 1*). The distribution of historical buildings is shown in *Figure 1*.



Table 1. protection elements of historical and material cultural heritage in Cuiwei historic district

Data source: according to the summary of renewal planning (2019) of Cuiwei old village reconstruction project in Xiangzhou District, Zhuhai City, the author can get the following information

Figure 1. Distribution of historical buildings in Cuiwei Village Figure Source: author's own photo

3. PROBLEMS IN THE DEVELOPMENT OF VILLAGES

3.1 Industrial Development

At present, the industrial development is facing the following main problems: the low popularity of historical districts. The main scenic spots of Cuiwei historical district are small in scale and chaotic in layout.

Due to the lack of systematic publicity and development of the village, the tourism image of the district is not prominent; There is a lack of service facilities. At present, Cuiwei historical district basically has no tourism reception capacity, and the traffic conditions are poor. In terms of external traffic, the traffic flow line leading to Cuiwei village needs to be improved, and there are no public facilities and large parking lots. At present, there are no professionals in the reception and explanation of tourists, only members of Cuiwei village committee occasionally make simple comments on Cuiwei's history or cultural heritage, and do not make too much publicity; The development level is low.

At the present stage, the development of the village has a shallow excavation of its cultural connotation, and the development is not enough, and many farmland in the village is idle; In order to solve the contradiction between tourism development and historical relics protection, effective guidance and development must be carried out.

3.2 Housing quality

The current housing quality problems in Cuiwei Village are mainly concentrated in:

- (1) All merchants have not verified the safety of the house structure;
- (2) A large part of the houses are still in use beyond the service life;
- (3) The structural foundation and building walls are subject to weathering Gradually loosened;

(4) Some walls in the building appeared cracks, water seepage and ash, the stairs and railings inside the house began to loosen, and the roof truss began to rot. In Cuiwei Village, the supervision function is absent, the quality of the building renovation is not good, and the house itself has many hidden safety hazards.

During the renovation process, there is no government policy to provide reasonable guidance. It is inevitable that the villagers' current level of awareness will There are major defects in the rural land in the Cuiwei Historic District, and there are historical contradictions in the work of ownership confirmation. Most of the land in the district is owned by the original villagers themselves. As the process of urbanization continues to accelerate, the villagers' land-conscious property rights and legal property rights have gradually become blurred, and there has been a contradiction between the two.

4. UPDATE STRATEGY

4.1 protection and renewal strategy of historical buildings

For key protected buildings, such as No. 35, No. 51, No. 7, No. 8, No. 6, Tengfengli No. 5 and No. 13, Yiguli No. 47-50, and Changshui Street No. 36, physical surveying and mapping are adopted. Three-dimensional modeling, and numbering all components, and then dismantling them, transporting them to the interior of the retro commercial pedestrian block, reconstructing them according to the numbering and drawings, and repairing the damaged components to restore them as much as possible.

Meisong Wu Gong Ancestral Hall, Jingtang Yang Gong Ancestral Hall, Yang Meinan's Former Residence, and No. 4 Residential House at Erheng Lane, Binlang Street, are low in original terrain and difficult to drain. In order to preserve their original historical marks, they are guaranteed to remain on the original site after reconstruction. Inside the ancestral hall, repair and refurbish the window frames, walls, columns, door and window frames, etc. of the ancestral hall. In the external square area of the public ancestral hall and former residence, focus on protecting the integrity of the architectural style. Considering that there are modern buildings separated by a wall, the exterior adopts landscape The technique of green space buffers the visual impact of modern architecture and the square. It can be divided into three levels. The square keeps open space as much as possible to provide walkable space for related parades and tourists who come to watch performances during different festivals.

The new building fully respects the integrity of the overall landscape of the plot, and is supplemented and reconstructed according to the building volume, facade, roof color, and street texture space layout of Cuiwei Village. The height of the building changes from disorderly growth to organic growth. The height of the newly-built building should not be too high, otherwise it will affect the appearance of the street. In the design of the building, architectural symbols such as pot ear walls, sloped roofs, doors and windows, and colorful decorations of Cantonese-style houses are selected to reproduce the traditional style of Cantonese-style villages. In terms of elements, the traditional architectural elements of Cuiwei are adopted. The

color of the facade retains the regional cultural characteristics of Canton as much as possible. The main color is light. The main color of the wall and roof is white, gray, and cyan, and the jumping degree should not be too large. The facade of the building uses gray bricks and carved eaves to show the charm of Lingnan architecture.

In the activation and utilization of ancient buildings, cultural relics, historical buildings, and buildings with certain cultural and historical value are protected, and they are better integrated with new planning and construction, and the original neighborhood pattern is restored. The existing historical buildings are organically integrated and reasonably protected, trying to find the old form of urban space memory. The ultimate goal of the plan is not only to protect the historical spatial memory of the village, but also to connect the style and features of the original historical area with the trend and trend of the city in the modern city master plan and future development.

Through the effective combination of in-situ protection and relocation, reconstruction and reorganization of protection, the original site is retained, carefully repaired, repaired as old, and historical records are preserved. The relocation of buildings in different places introduces new functions, The new elements add new vitality to the building and make people feel the accumulation of history and culture in today's environment. Respect the original texture of streets and lanes, move into relocation buildings protected in different places, and ensure the orientation of the ancestral halls and temples.

The independent architectural plaza space and streets together form the village system. The renewal of the spatial interface allows the entire public space to be regenerated, and the village public space system is radiated with new vitality. The Temple of Three Kings originally used local residents, and the original space was used for meetings and sacrifices. The original intent was the main place for local residents to worship gods and discuss matters. The square can be planned in three parts, with the step elevation of the Sanwang Temple as the main ceremonial area. The square is re-laid with bluestone slabs and forms a space echo with Cuiwei North Street. The transition area is set up with residents' rest space, and the control value of this area is relatively high. A viewing platform can be added to provide a viewing platform for residents and tourists during the folk art parade.

The restoration and reconstruction of ancient buildings can be carried out by workers who are specialized in cultural relics protection. During this process, the staff can record videos of the repair and reconstruction process to record the repair and reconstruction bit by bit, save the craftsmanship and technology of the construction workers, and show them to visitors in the form of animation. And find relevant people who are interested, who originally intended to promote the craft and technology, and teach them hand in hand, so that they can continue to pass on the traditional craftsmanship. For temple buildings, different protection measures can be formulated according to the differences in the overall village caused by different functional conditions and floor space.

First, the internal streets and alleys and external spatial elements (gate towers, wells, land shrines) are preserved. There is no parking lot outside the historical building, and no vehicles are allowed to enter, or shared bicycles are parked to avoid destroying the original road and historic sites. Due to the small internal scale and irregular parking methods for pedestrians, it is easier to obstruct people's passage and cause unnecessary traffic accidents. In the process of its activation, it can be considered to coordinate with the

surrounding residential environment and link the development of the surrounding historical relics. The interior of the building should maintain its original quiet features, and should not incorporate too many commercial functions. The Bureau of Cultural Relics Protection can set up special jobs here and hire relevant people to take care of it. The stone tablets and statues in the temple are preserved by special protection agencies to reproduce the historical glory.

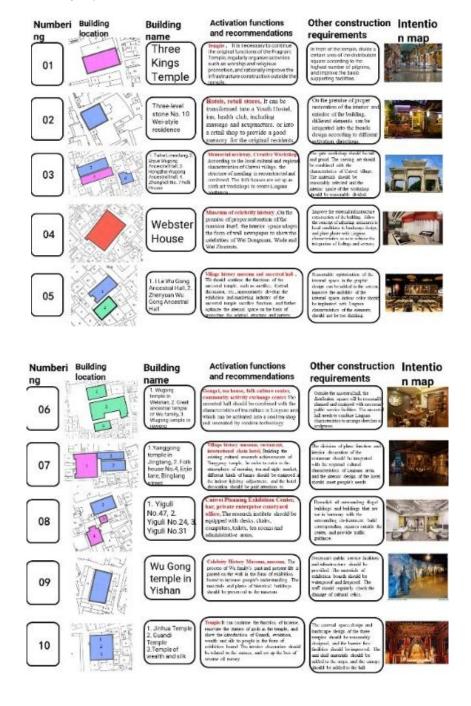


Figure 2. direction of architectural activation in history

Image source: self-painted by the author

In the revitalization of temples, ancestral halls, and squares, ancestral halls can be transformed into museums, cultural halls, exhibition halls, art studios, exhibition halls, galleries, and intangible cultural heritage research centers. The interior is divided into roundabout and revolving spaces, and wall posters are used for publicity. To show people the history of Cuiwei Village from ancient times to the present, the screen at the end can produce related films for visitors to watch. An urban research center can be set up to give designers another office location, and facilities such as tables, chairs, air conditioners, and computers can be configured according to relevant requirements. If conditions permit, Yiguli residences can also be transformed into youth hostels, homestays, studios, inns, youth hostels, small hotels, cafes, western restaurants, etc. It can provide living and dining for visiting tourists. The Sanwang Temple, Guandi Temple, etc. need to continue the original functions of the Fragrant Temple, regularly organize pilgrimages, religious propaganda and other activities, rationally improve the infrastructure construction outside the temple, and can set up tables, chairs, and sketches. Wu's Ancestral Hall and Wugong Temple can vigorously develop entertainment functions. Based on the traditional culture of Cuiwei, integrate the functions of piano, chess, calligraphy and calligraphy, creative workshops, etc., and further optimize the internal space on the basis of protecting the original structure and pattern, and then retain The historical memory of Zhuhai makes the rich historical memory and historical culture tangible. (figure 2).

In terms of cultural heritage, there is a lack of systematic development and publicity for Cuiwei village. Its image is not prominent in people's minds, and its influence is small. It is only limited to the original villagers of Cuiwei village and the residents who live in Qianshan. Moreover, the corresponding planning, management and construction are relatively lacking. The historical block has rich cultural resources such as ancestral halls, public ancestral halls and temples, At the present stage, the depth of cultural connotation is not enough. In the face of visitors from other places, there is no professional to introduce and answer them, and the lack of protection funds. The historical development process of Cuiwei village, folk culture, village renovation and other related data can be recorded and integrated by the relevant departments set up by the functional units, The group can also sign a relevant agreement with the TV station to set up a program of "protection and cultural heritage of ancient villages in Zhuhai - let's walk into the past and present life of Cuiwei village" and invite well-known historical experts, scholars, cultural relics protection and management personnel and representatives of Cuiwei village through "focus interview", Let people know more about the history and culture of the village and the future development direction. In the process of historical and cultural protection and organic renewal of villages, it is necessary to develop industries with local cultural characteristics. Taking this as the starting point and guidance, to promote the common development and progress of the original architecture and industry, new housing and Commerce in Cuiwei historical district. Secondly, we need to extract the Lingnan Characteristic Elements and scenery of Cuiwei village. In the future, they can launch special products and snacks to the guests who come to visit. The original villagers should cooperate with the enterprises and functional units to carry out publicity and promotion, develop the production of online stores, increase publicity, regularly update the contents of the platform, and improve the popularity of Cuiwei ancient village, More well-known entrepreneurs and businesses at home and abroad will be attracted to visit and invest in the financial services and professional market business circle integrating folk custom, antiques, commerce, culture, artistic creation, cultural experience and business leisure.

The following is the overall landscape map of the street before and after the renovation. For the old buildings, in the process of renovation, the old buildings are integrated with modern elements, and compared with the traditional elements, so as to organically renew their texture. The streets and lanes are integrated with commercial elements, and some of them are treated with modern design techniques. For the historical buildings, the street and lane are integrated with commercial elements, At the same time of renovating its internal structure and painting its external facade, it combines the external square with the building itself. Ancient trees hundreds of years old in the square are used to build large steps and form a square space for people to rest in the shade of the square space in summer (*Figure 3-8*).





Figure 3. Before and after the partial update of Webster's Mansion





Figure 4. Before and after the partial renewal of Meisong Wugong Temple





Figure 5. Before and after the renewal of the residential building No. 4, Erheng Lane, Binlang Street





Figure 6. Before and after the update of the Three Kings Temple





Figure 7. Before and after the renewal of Webster's Mansion





Figure 8. Before and after the old tree update Image source: Self-photographed by the author on the left and self-drawn on the right

4.2 Protection and organic renewal strategy and mode of historical streets and alleys

The protection and renewal of historical blocks include the control of the facade of historical buildings, the planning of streets and the design of landscape. The facade design, protection and repair of the building, as well as the selection of different materials and the overall modeling style are effectively controlled. It is necessary to protect the "seven streets, seven Li and one lane" in the form of segmentation and scattered distribution in the village at the present stage, so as to restore and regenerate the original context as far as possible, and not to destroy the original street form. The village should be reconstructed and designed by the way of overall demolition and local protection. The movable buildings Sanwang temple and the immovable buildings Weishi mansion are separately divided into one area for protection. The movable temples, ancestral halls, dwellings and ancestral halls are classified according to the name of Li, which are organically combined with the newly built houses and businesses nearby, Create a public activity space combining modern and traditional (Figure 9-10)

In terms of style control of historical blocks, the inner core area of the block is the centralized protection area of historical buildings, which can adopt the form of retro pavement. The enclosed wall separated from the outer core area can have the same color and material as the former Shanzhai wall. The color of ancient buildings can restore its original color as much as possible, and strictly respect the authenticity of old shops, The new building

height with commercial function in the core area is not only similar to the protected historical buildings such as Weishi mansion, Wu's ancestral hall and xinlunguo ancestral hall in height control, but also similar to the surrounding historical buildings in color matching, so the jumping degree should not be too large.

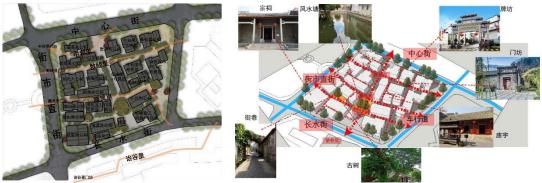


Figure 9. Historic building protection method-centralized protection
Figure 10. Guangfu Cultural Value SU Modeling Map
Image source: self-painted by the author

5. CONCLUSION

Cuiwei historic district contains rich market culture, changing the original single residential function and the main business forms of clothing, fixed-point drugstores, convenience stores, food shops, restaurants, dentistry along Cuiwei North Street, jieshizhi street, Dafang street and other streets. There are more historical buildings in the district. Therefore, we need to dig out its cultural heritage, and inject multi-cultural functions into the huge scale effect and cultural form catalyst function under the mutual stimulation of the two. With the existing historical buildings as the focus, we need to vigorously develop cultural and creative industries, and integrate commercial culture, traditional dwellings and Qianshan residents' strong sense of experience consumption and other multi-functional ways, To enhance the sense of experience of residents in the area, let more people participate in it, create a business model with compatible formats, make full use of the function bearing capacity of Cuiwei Historical District, implant modules in commercial development, and determine the functions of formats and the area of commercial forms. It can be determined that there are department stores, mobile tablet stores, cultural and entertainment infrastructure, restaurants, hotels, commercial banks with financial services, book reading rooms, display newspapers and other basic business forms, The development of mixed use can not only improve the quality of life and living standards of urban residents, improve the vitality of the block and the attraction of the city, help to form a diversified mixed community, and carry forward the traditional folk customs such as textile industry, but also make it more dynamic while inheriting the Cuiwei historical context.

REFERENCES

W.Li,Research on spatial integration strategy of Cuiwei village in Zhuhai under the background of urban renewal,D.Hunan University, 2018.

- Y.Yin,Research on spatial morphology of egret historical and Cultural Village Based on spatial syntax,D.Jiangxi University of technology, 2018.
- Y.R.Hu,The application of spatial syntax in the study of historical villages,D. Guangdong University of technology, 2017.
- S.S.Hu,Street space analysis of Qingdao historical district,D.Qingdao University of technology, 2014.
- Z.Tian,H.He,Method of protection and renewal on Nanyang Historical Street District—An example on town hall historical street district in the center of Nanyang town hall. Trans Tech Publications, J. Applied Mechanics and Materials. (2014) 584-586.
- L.Zhao,L.LOU,The Road of Complexity,The Road of Rehabilitation Discussion of Detailed Planning for Protection and Renovation of the Southeast Area in the Ancient City of Liaocheng, J. Applied Mechanics and Materials.(2012)2440-2446.
- R.Zhang,H.Y.Li, L.Bi,J.Q.Cui.Research on Conservation and Regeneration of Historic District in the Background of Fast Urbanization Case Study of Xi'an Sanxue Alley Historic District, J. Applied Mechanics and Materials. (2014) 584-586.