

Conservation, Revitalization and Renewal of Modern Macao's Historic Architectural Heritage: A Case Study in the Site of St. Paul's College

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Abstract: As an essential member of the tangible cultural heritage, historic architectural heritage contains unique historical and social values. This paper describes the current state of conservation of historic buildings and the ways of conservation, revitalization and renewal by the Macao authorities, and draws on the Cathedral of the Merciful Jesus in Goa, India, and Coventry Cathedral in England, to provide suggestions for the conservation and restoration of the site of St. Paul's College in Macao. St. Paul's College is divided into three main parts: St. Paul's Church, the Seminary, and the Fortress, for conservation, revitalization, and renewal. The current conservation and renewal measures of the site are still inadequate. By analyzing the conservation strategies and the current situation, St. Paul's College needs the cooperation of the government and the public to value and improve the reuse value of the site and increase its visibility. At the same time, the use of rich restoration and renewal methods, combined with the current situation of society in the restoration and renewal of the site, can present valuable ideas.

Keywords: historic architectural heritage, the site of St. Paul's College, Macao

1. Introduction

After entering the 21st century, countries worldwide focused on preserving and developing their cultural heritage. As an important member of the tangible cultural heritage, the modern historical architectural heritage contains unique historical and social values. For example, the Forbidden City in Beijing is not only a witness to the excellent Chinese traditional culture but also carries the national memory and demonstrates the strength of Chinese culture.

As a crossroads of cultural exchange and integration between China and the West, Macao has preserved many modern and historical architectural heritage types, such as the Church of Our Lady of the Rosary. The Macao government has classified them according to their scale and historical

significance and has taken measures such as restoration and renewal to varying degrees, successfully allowing most of the historical architectural heritage to show its charm in the new era.

Among the historical buildings in Macao, the site of St. Paul's College is the most famous historical place, and the site of St. Paul's Church is now a landmark in Macao. Therefore, this paper selects the site of St. Paul's College in Macao as an example to describe the current situation and the way of conservation, revitalization, and renewal of historic buildings by the Macao authorities and proposes the conservation and restoration measures of historic buildings in Macao.

2. Background

2.1. Historical Heritage of Macao

Macao is rich in heritage resources, mainly in the form of architectural heritage. The Historic Centre of Macao was inscribed on the World Heritage List on 15 July 2005, making it the 31st World Heritage Site in China, with 25 cultural heritage sites, including 12 representative buildings [1]. The Macao government has divided historical heritage into four categories: monuments, buildings of architectural and artistic value, building complexes, and public areas.

Macao includes Macao Peninsula, Taipa and Coloane (Figure 1). The Peninsula has the largest and most diverse range of historical heritage, while Coloane and Taipa have less, and public areas dominate the Coloane.

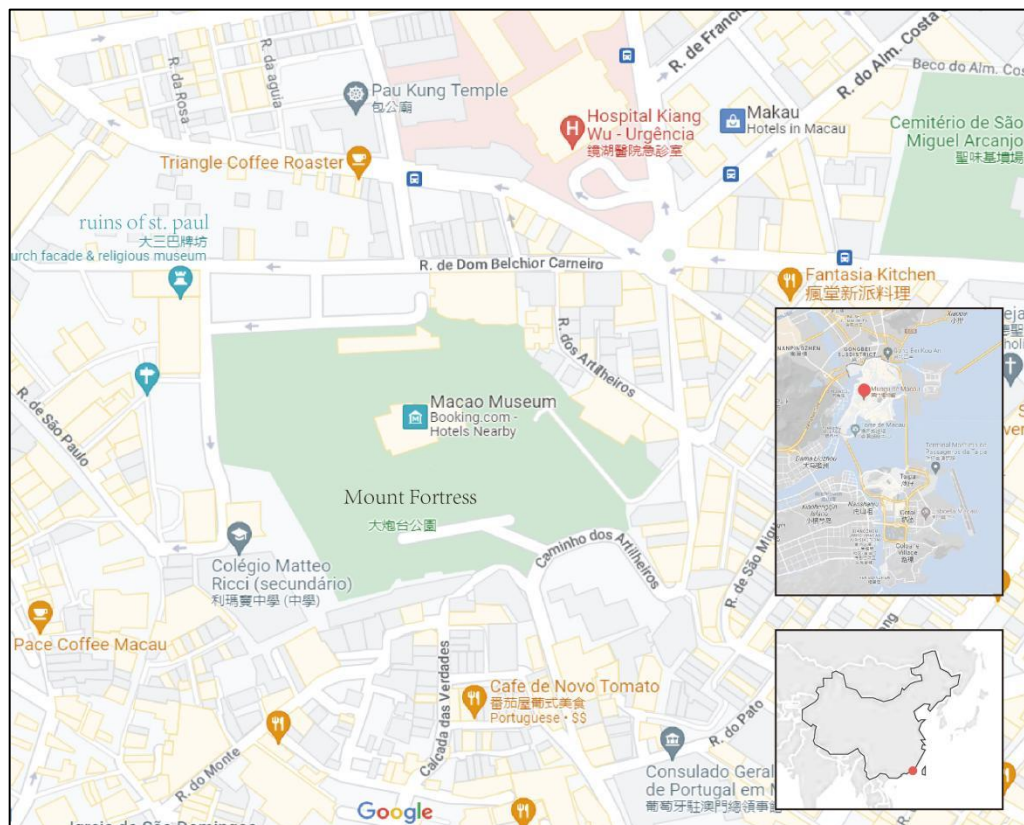


Figure 1: Location of Macao.

2.2. Background of St. Paul's College

In the history of colonization, missionary work was a very important part of the colonial process. For example, in the Portuguese colonies (e.g., Goa and Macao), their cathedrals, monasteries, and forts

occupied the highest parts of the cities [2]. On 10 November 1541, members of the Congregation of the Holy Faith of Good found a seminary, renamed St. Paul's College, which became the Jesuits' most important cultural and educational institution in India. The college reached its peak of glory, producing many religions from different countries that went on to preach in different countries. Later, the College fell into disrepair as Portugal began to implement an anti-Jesuit policy and regarded the Jesuits as enemies of the state [3].

In another Portuguese colony, Macao, China, the colonists also established a St. Paul's College, with the same purpose as that of St. Paul's College in Goa. St. Paul's College in Macao is a complex of buildings with St. Paul's Church and various seminary facilities at its core. St. Paul's College was the first official university in Macao in those days and the first Western-style education in Chinese history and the Far East.

St. Paul's, one of the churches, was laid in 1602 and fully completed in 1637. It has survived three major fires and has been built over and over again. Today, only the church's front wall is still intact, and it has become the famous Ruins of St. Paul's. The fort was built in 1616 during the reign of the Ming emperor, initially owned by the Church, to protect the clergy in St. Paul's Church from pirates. It was later turned into a military installation. The fort is also home to some monuments and historical buildings, such as the old tower on the fort, which was one of the Jesuit meeting places.

In 1835, a fire destroyed much of the College, which had been seized and closed to rubble, leaving only the church's front wall, the stone steps in front of it, the bell tower, and most of the foundations. In the twentieth century, the dilapidated bell tower was demolished to open St. Paul's Sloping Lane and High Park Street, and this move cut St. Paul's Church and the College apart.

3. Existing Site Conservation and Regeneration Revitalization Strategies

The Macao government reorganized the roads and landscape architecture around the site in response to the city's development. Certain parts of the site have caused severe damage to the integrity of the present St. Paul's College site. It was subsequently restored and renewed in St. Paul's Church, the Monte Fort, and the College Heritage Area.

As the only remaining symbol of the College's splendor, the front wall and the front steps of St. Paul's Church have been a priority for conservation within the area. As early as 1926, the Portuguese Government of Macao protected the church site as an 'architectural site' [4]. In addition to the daily restoration, the surrounding area was maintained, and laws and regulations such as the Law on the Protection of Cultural Heritage were established to support the church's restoration. Before the return of Macao, the Portuguese Government of Macao had already carried out an archaeological study of the Church of St. Paul's and developed a complete restoration and reuse project. It succeeded in transforming the church site into a museum of the ruins of St. Paul's in five years. Based on the results of the archaeological study, through the intervention of a new architectural form that preserves and maintains the original structure and presents the spatial layout of the church, the site became a religious place again [5].

Instead of rebuilding the church, the designers have created a detailed restoration and conservation plan based on the original layout of the site. Firstly, for the church's front wall, an observation deck of the same height as the choir in the original church was built at the rear to support and protect the front wall and its only remaining parapet soil and regain the view of the choir. The spatial layout of the main body of the church is displayed in the form of an open piazza, with a new stone floor added to the old stone floor in situ, using traditional green stone slabs to fill the gaps between the slabs instead of the original wooden flooring [5], building up the flooring pattern of the original church with a combination of new materials and the original remains. The original part of the church side porch, where the remains were stored in the cellar, has been replaced by a glass display case by uncovering the original floor. While the space on the west side, in the Church of Jesus and St Francis,

displays the foundations and walls of the site in a semi-open format [5]. In the place of the church's main altar, the architects created a semi-subterranean crypt to display the ruins and the martyrs' remains, while the western side was transformed into a museum of Catholic art displaying Catholic sacred objects. The whole of St. Paul's was thus reborn, constructed by the designers using new contemporary techniques to retain maximum authenticity and integrity.

The area of the Monte Fort has also been well preserved and reused and is open for use as the Monte Fort Park and the Macao Museum, a three-dimensional park consisting of a ground level, a hillside level, and a hilltop level, which allows for the full use of public space in both vertical and horizontal dimensions in the context of intensive land use [6]. The Macao Museum, a reconstructed building based on the fortress, has two levels above and below ground and is now one of the tourist destinations and a base for the transmission of Macao's history and culture.

The other areas of St. Paul's College have undergone the most significant transformation compared to the church and the fortress. As parts of the seminary have become wasteland and ruins, protecting the remaining ruins in patches is no longer possible, so measures have been taken for the difference remains. Parts of the seminary have been converted into buildings of various functions, most of them residential houses with corresponding educational facilities, and the front steps of the church have been transformed into the Jesuit Memorial Square. The Pai Fong Square Shopping and Tourism Centre was also established to enrich the tourism value of the front wall of St. Paul's Church, a landmark of Macao, and to connect the shopping resources of the Largo do Senado, not far from the College site.

Combining museum-like historical sites with commercialized streets has maximized Macao's tourism resources and attracted many tourists to visit and spend money first, and it has become the most crowded area on the island. However, it is noted that the restored and renewed site of St. Paul's College has not been restored to its original integrity, the conservation and revitalization strategies are not integrated, and the visual landscape lacks interplay with the surrounding area.

4. Discussion

4.1. Analogies of Conservation and Regeneration Revitalization Strategy in Other Churches

The Cathedral of Our Lady of Mercy in Goa, India, is of great Christian importance and belonged to the same Portuguese colony as St. Paul's College in Macao. In addition, Coventry Cathedral in England is also a significantly damaged church, and the ruins were preserved and built near the site, sharing the same destruction-restoration experience as St. Paul's College in Macao. These two churches have been put back into use after restoration and renewal, and have become bright spots in the city. Therefore, considering both the colonial context and the restoration of the sites, this paper selects these churches as references to analyze their restoration and renewal strategies and to provide ideas for the subsequent development of the St. Paul's College site.

4.1.1. Case Study of Goa, India

The "Churches and Convents of Goa" World Heritage Site is located in the old city of Goa in the North Goa district of the Indian state of Goa, which was once the capital of Portuguese India. The architectural style of Goa is not homogeneous, and the region was heavily influenced by Portuguese architecture. The Portuguese colonial period lasted about 450 years until 1961, when India regained its sovereignty by force.

During the occupation of Goa by the Portuguese merchants, the constant suppression of the Hindus and Muslims led to the conversion of a large part of the population to Catholicism, thus making Goa a center for the spread of Christianity. As the capital of Portuguese India and the center of the spread of Christianity, Old Goa has a concentration of churches and monasteries, and there are more than 60

churches of all sizes in the city of Goa. From a religious and historical point of view, it has an important place as a witness to the history of the spread of Christianity to Asia.

The Cathedral of Mercy Jesus is the most prestigious church in the old city of Goa. The church was built in 1695 and is a typical baroque building. Its Christian importance is mainly because it houses the remains of the great historical missionary, St. Francis Xavier [7]. The church is the richest in the whole of Goa, with marble floors and inlaid stones, but apart from the extremely fine altar, the church's interior is minimalist. The church's second floor has an art gallery displaying local Goa artists' works. There is also a small museum with paintings of scenes taken from the sabbath and some sculptures. The Cathedral of the Merciful Jesus is still open and is free for visitors, with English Masses every Sunday. The church, which has been preserved as much as possible, is one of the most treasured aspects of the entire natural heritage, and it is only thanks to the protection of the faithful and the state that it has been preserved so well.

Because of the historical and religious significance of the churches in Goa, the Indian government attaches great importance to the preservation of the churches in Goa, and more importantly, the spontaneous preservation by the faithful, so that there are more than ten churches that are well preserved and still in use, not only for missionary purposes but also as a special tourist attraction in Goa, promoting the domestic economy. The preservation and reuse of the churches in Goa are conducted with the consideration of the characteristics of each church, not by applying a single model of restoration and blindly rebuilding and restoring, but by preferring to preserve the traces of its history for renewed use.

4.1.2. Coventry Church, England

Coventry, England, an important area for the production of military equipment in Britain during the 20th century, was extensively bombed by the Nazi Luftwaffe on 14 November 1940 during World War II. In addition to heavy casualties and property damage, Coventry Cathedral (referred to as the Cathedral) [8] was the only Anglican church completely destroyed during the Second World War.

After, a nationwide call for proposals for the reconstruction of the Cathedral was launched. It requires that entrants must be British citizens born before 1925 who had lived through the Second World War and experienced the brutality and impact of war on people's lives. Finally, Basil Spencer's proposal was eventually adopted. The restoration of the cathedral was a priority to restore the city, and the idea of "peace and reconciliation" put forward by Prelate Howard was the first to be applied to the reconstruction of the cathedral, with three architectural fixtures from the ruins being chosen to be tied together to form the cross. The Dean of the Cathedral designed the crucifix to evoke the crucifixion of Jesus and, in a deeper sense, to be a symbol of great trials and tribulations[9]

The new cathedral was rebuilt next to the original destroyed one in 1956, and a garden was created in the open space next to the church. The new church contains many modern architectural features, including the chapel donated by the King of Sweden, which reflects the spatial mix of modern architecture with its large glass windows and porticoes detached from the main building [10]. The main façade of the new church is made of red sandstone, a local material, and the body of the building is made of modern materials, such as glass and steel. The interior of the church, with its concrete veneer and deep recessed windows, the "Life and Death" corroded glass, the complete chapel recess with air conditioning, and the imperceptible gentle slope of the drainage, is also a reflection of modern architecture. It is also a reflection of modern architecture. The cathedral was completely rebuilt in 1962. The square in front of the church currently hosts regular fairs, concerts, and open-air films.

The concept of "peace and reconciliation" was not only applied to the rebuilding of the cathedral but involved in the development of peace by Coventry City Council and the cathedral. The promenade linking the old and new churches symbolizes the sacrifice of the past leading to the rebirth of the future, and the porch as a link also represents how this process must take place.

4.2. Recommendations

Based on the above two successful cases of site conservation and restoration concepts and tools, and taking into account the characteristics of St. Paul's College, we propose the following recommendations:

4.2.1. Value and Enhance the Reuse of the St. Paul's College Site

Goa's policy of preserving churches encourages the rational use of space inside churches by transforming some unuseful areas into exhibition halls, cultural centers, art galleries, etc., thereby increasing the vitality and attractiveness of churches. St. Paul's College. Macao can also be used to improve the public's understanding of the history of St. Paul's College and raise awareness of the preservation of the site by creating a history museum, art gallery, etc.

Goa's policy of preserving its churches is dedicated to promoting cultural tourism and attracting more tourists to visit and learn about Goa's history and culture. For example, frequent cultural and artistic events are organized to attract tourists and local residents. Therefore, the Macao government can encourage residents to develop small commercial and artistic activities around the church by issuing permits and providing the necessary support to provide more tourism services and products, such as cultural tourism products that can be developed to attract more tourists to visit and learn about the history and culture of Macao.

4.2.2. Adopt a Rich Approach to Restoration and Renewal

The restoration concept of Coventry Cathedral in the UK, "Peace and Reconciliation", has been adopted. Through this concept, Coventry Cathedral played a significant role in the cause of peace during the Second World War and thus gained a high profile. The community supported its subsequent restoration, which greatly accelerated its reconstruction.

Accordingly, St. Paul's can also present valuable ideas to promote and protect the building of St. Paul's in a new era, thus increasing its popularity and social support. This will allow for better governmental attention to St. Paul's and provide better protection and use of the church. For example, the government could encourage the local population to take an active part in conservation work by providing the necessary training and financial support to better understand historic buildings' conservation and maintenance techniques and take an active role in the relevant work.

5. Conclusion

This paper describes the current state of conservation of historic buildings in Macao and its current conservation, restoration, revitalization, and renewal measures, and provides suggestions for the future conservation and restoration of the site of St. Paul's College in Macao.

Currently, the site of St. Paul's College is divided into three parts for conservation and renewal. The St Paul's Church Heritage Museum has been restored in different sections, and the site has been appropriately decorated for public display. For example, the Church of Jesus and the Church of St. Francis of Assisi on the museum's west side have a semi-open space to display the foundations and walls of the site, and the cellars of the side porch have been replaced with glass display cases. The Fortress area has been transformed into two parts: the Fortress Park and the Macao Museum. The former is a three-dimensional park consisting of a ground level, a hillside level, and an upper roof level, and later is a new building within the site that is now a famous attraction on Macao Island. The Seminary area has changed the most and has become a residential and commercial area with the erection of many new buildings, such as the Matteo Ricci Secondary School and the Pai Fong Square shopping and tourist center.

However, the current measures for the conservation and renewal of the site are still inadequate, and two proposals are made in this paper. The first is to value and enhance the reuse of the St. Paul's College site by integrating the site with new-age urban development. For example, it is suggested to develop a cultural center and art gallery to increase its vitality and attractiveness and invest the site in cultural and tourism promotion for a new multifunctional and diverse place. Secondly, it is important to adopt a rich and more advanced approach to restoration and renewal, to invest new ideas in the restoration and renewal of the site in the context of the current social situation, and to obtain the support of many parties, so that the site can be truly integrated into society and the lives of people.

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