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Reproduction and Development - Design of Grant Hall of 'Zha Cang' in Songzanlin Monastry

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Abstract: Ganden Songzanlin Monastery is a famous Tibetan Buddhist monastery in China, and Songzanlin Monastery is in fact a restored ancient architecture. This paper analyzes the architectural design of Songzanlin Monastery from the perspectives of historical and cultural heritage, and discusses the core and highlights of its architectural design.

Keywords: Ancient architecture, Songzanlin Monastery,

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1 Introduction

Ganden Songzanlin Monastery is the largest Tibetan Buddhist monastery in Shangri-La County, Province of Yunnan. It is also one of the famous monasteries in Kangding District. It plays an important role in the entire Tibetan area.

Five kilometers towards north from city, a large group of buildings can be seen scattered on southern slope of Ruizao Mountain (Figure 1). It is one of the 'Thirteen Tibetan Forests' built by Emperor Kangxi and Dalai Lama V during the Qing Dynasty. It is the largest Tibetan Buddhist monastery in Yunnan, and is one of the most famous monasteries of the Gelu Sect in Tibet. Because of its appearance and layout resemblance to Potala Palace, it is also known as 'little Potala Palace'. Emperor Yongzheng of the Qing Dynasty named it as Guihua (naturalization) Monastery. The Great Hall of 'Zha Cang' is located at the top and in the center of the entire monastery. 'Zha Cang' means a lamasery, a place where all monks study classical doctrine. It is the tallest

main building of Ganden Songzanlin Monastery.

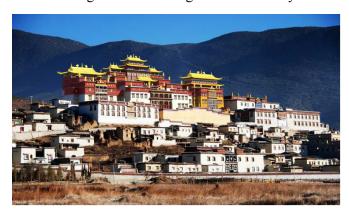


Figure 1. Panorama of Gadan Songzanlin Monastery

Historically, Great Hall of 'Zha Cang' was destroyed during Cultural Revolution. The 'Zha Cang' Hall was rebuilt in the early 1980s and has been used till today. Between the periods, there was no large-scale maintenance and repair carried out. Due to restoration at original site and insufficient investment during restoration period, there were partial wall fracture, subsidence of foundation and serious leakage of roof, which resulted in great potential safety hazards. At the same time, Zongkaba Great Hall and Zhukang Great Hall on both sides had been rebuilt, their height and area exceeded Zha Cang Great Hall which subsided its central position but had optimized the space layout. With approval from the Diging Tibetan Autonomous Prefecture Committee, state government and the State Development and Reform Commission, it is decided to demolish and conservatively rebuild the Zha Cang Hall of Songzanlin Monastery in order to provide safe religious site for monks and religious followers in the Diging Prefecture, to embody continuation and heritage of Tibetan Buddhist culture, and to continually enhance the international renown of Shangri-La.

2 Structure of 'Zha Cang' Great Hall of Gadan Songzanlin Monastery

The new Great Hall of 'Zha Cang' of Songzanlin Monastery is rebuilt at the original site. It is a seven-storeys Tibetan sculpture building with a total floor area of 6312.78m2 and building height of 41.5m. The great hall faces south. Its upper tier houses prayer halls with gilded copper roof tiles and cornice-figure of beasts, which conform to characteristics of Tibetan Buddhist architecture and also its original architectural style. After historical restoration of Songzanlin Monastery, the overall architecture exhibits very prominent sense of tradition which better reflects the architectural characteristics and unique beauty of Tibetan Buddhist monastery.

Each floor covers an area of 2052.02m², and is mainly used for religious assembly, Buddhist activity, chanting and lecturing, and also for pilgrimage of pilgrims. At north side of the main hall, there are Buddhist shrine and stupa dedicated for Buddha statue. The remaining walls are covered in exquisite murals. The statue of Buddha is more than thirty-feet high, as high as three floors. There is a front hall outside main entrance of the great hall, door with access to main entrance of the great hall is usually not open. Passage is available only when there is Buddhist activity or religious assembly. There are two side doors at east side of the great hall for daily passage and connection with the surrounding kitchen. East and west walls are 'shelves of ten thousand volumes' of Tibetan Buddhist scriptures. There are 108 pillars in the great hall; the hall can accommodate 2,000 people for meditation and chanting of Buddhist scripture. There are 18 magnificent threestoreys-high 'sky-piercing pillars' at the center of the building, which provide great support and stability for the building itself (Figure 2).



Figure 2. Eighteen 'sky-piercing pillars' in the 'Zha Cang' Great Hall

At second and third floor, there are five Buddha statues at north side and 'sky-piercing pillars' surround cloister at the center. The hall is surrounded by prayer wheels. There is also Great Golden Buddha Hall at the second floor.

At the fourth floor, there are two-storeys-high guardian halls. The fourth and fifth floors mainly house daily living space of monk, chanting room and living Buddha's meditation room. They are mainly used by monks to study Buddhist scripture, play musical instrument and practice Buddhism. At south end of the fourth floor, there is Bell and Drum Tower. Drum is struck every early morning, noontime and dusk for time telling, and the sound can be heard from ten miles away... This is also a unique architectural design feature of Songzanlin Monastery. Many people thus intuitively regard Songzanlin Monastery as a holy site for pilgrimage and spiritual practice.

Main function of the sixth and seventh floors is monastery management. There are office, management room and meeting room for living Buddha, Khenpo and Eight Monastic Organization. The topmost of the seventh floor is double-eave gilded rooftop. The seventh floor is equipped with Tibetan Buddhist scripture hall which centrally manages all scriptures of the monastery and a management room for monks to borrow and read. Only certain people have access to the top area, it is also a meditation place for living Buddha. Functional buildings at the sixth and seventh floors are generally not open to the public. In addition, management scope of management personnel is distinct and different management functional areas are also precisely allocated^[2].

3 Key designs of Ganden Songzanlin Monastery

3.1 "Protection is priority, rescue first"

The design focuses on protection and rescue of existing cultural relics of Songzanlin Monastery. The design takes full consideration, extracts and respects architectural features and religious connotations of 'Zha Cang' Great Hall of Songzanlin Monastery, as well as takes demand and request from monks and religious people into consideration.

The design process is especially important for us non-Tibetan cultural designers to learn and understand. Through reading and studying the existing building and interactive communication with living Buddhas, monks and the local Tibetans, we have developed simple understanding about this building. Due to limited Chinese language proficiency and cultural level of local craftsmen, we have to try figuring out religious connotations and Tibetan cultural characteristics of the building based on some detailed structure and other similar buildings.

For example: Dongzhulin Monastery in Benzilan Disctrict of Deqin County has well-ordered architecture. Looking from afar, walls are aligned in rows, brown windows are arranged densely together, and flat-top buildings are arranged in order manner like fish scales and comb teeth. The Great Scripture Hall located at the center is a four-storeys civil structure with 82 thick columns arranged in dense mesh manner. The ground floor is scripture chanting site for all Lamas, with the front area dedicated to Buddha and Bodhisattva statues. The second and third floors house scripture halls, Buddhist shrines and meditation rooms in which Khunpu (president) chant scriptures and live in. Sculptures, Thangka and statues inside the monastery are stunning. Sangpiling Monastery in Sichuan County is a monastery which is highly recommended by living Buddhas. It is built half way up of mountain. It has double courtyards with clear structure. Its interior space is charming, all wooden carvings are gorgeous. Each time of reading and experience makes us feel religious conception more deeply, especially those architectures influenced by religious culture and ideology. They seem to be greatly similar but each has their own distinct unique beauty. Different monasteries often have different architectural style, and architectural design focuses are not similar too.

At all times, traditional religious architectures often represent the highest architectural achievement of the region. Religious architectures are very rigorous, especially during era with relatively lower level of scientific technological development. Despite that design involves certain religious elements, actual manpower and material support for religious architectures have been abundant. These architectures can be easily achieved using modern technology. However, in the past, construction of such large and high buildings using traditional Tibetan construction ramming technology indeed embodies the religious status of the architectures in Tibetan culture. Religious characteristics of interior space are representative. Many exquisite decorations pleasantly express Tibetan Buddhist elements to people. Number, height, thickness and delicacy of 'sky-piercing pillars' at the center

of great hall traditionally symbolize the status and wealth of rights of Tibetan cultural architecture. At the same time, these fully demonstrate the rigorousness of architectural design. Architectures surrounding the 'sky-piercing pillar' area create light environment, which is also a prominent religious architectural feature of traditional Great Hall of 'Zha Cang'. Inside the dark hall which glitters with oil lamps flame, building space dramatically rises at the central 'sky-piercing pillar' area. Natural light from side high windows projects into the hall like a mirage, these enhance mysterious religious atmosphere and also ingeniously supplement interior lighting. Based on the above understanding and functional and traditional requirements, architectural design and structural plan have been revised for numerous times and this scheme is given rise finally. This also shows that design scheme is very important and is not simple to implement throughout the dynamic process of reproduction of Songzanlin Monastery. A mature design scheme determination often requires thorough consideration of many aspects of architectural design.

3.2 "Fully respect and embody traditional Tibetan religion and culture"

'Zha Cang' Great Hall is located at the core position of Songzanlin Monastery. Traditional materials, crafts and techniques are used as much as possible to build 'Zha Cang' Hall into a fine Tibetan Buddhist building in line with Tibetan Buddhist architectural form. Usage of traditional material, craft and technique is mainly to allow restoration of Songzanlin Monastery to its original state. However, there is serious art lost of Tibetan Buddhist architectural technique, which leads to great difficulties for restorative architectural design^[3].

Design and construction process largely combines traditional technique and art of local traditional craftsmen. The whole process requires communication and cooperation with local traditional old craftsmen. The new form of seven-storeys building is heritage and evolution of the original five-storeys building. At the same time, this better establishes its headship position among the building complexes. Modification of the original five-storeys building into seven-storeys building takes into major consideration of functional possession of the new main building of Songzanlin Monastery. The first to fifth storeys are high degree restoration of the original Songzanlin Monastery. The sixth and seventh storeys are meditation site and office

place for living Buddhas and monastery managers.

3.3 Tibetan style and religious characteristics

Steady slope of exterior wall, decoration and symbol with tribe and religious characteristics, traditional wooden craft, decorative color, sculpture, Buddha statue, mural, Thangka and other traditional Tibetan architectures reflect very strong sense of Tibetan style and religious characteristics. Interior pillar, exterior gilded rooftop and interior wall decoration are decorative essences of 'Zha Cang' Hall. All pillars are carved and painted. The gilded rooftop is decorated with prayer flags, prayer wheels, Dhavajas, Chatras and other flag-like and bronze carvings. The interior walls are mainly decorated with religious murals and Thangka. Decorations of main hall door include Ruyi, Jiao Yunzi, copper door rings and pine lattice doorframes and etc. Window panes, window sheaths and lintels are all built in accordance to traditional Tibetan architectural decoration technology (as shown in Figure 3). Construction, detailed design and handling of wood components also condense wisdom from various professional designers and craftsmen. Many details and structures have been constantly refined and revised, in endeavor to achieve a slim balance between modern and tradition.



Figure 3. Tibetan traditional architectural decoration technology

"Combination of modern technology with traditional culture". Through design of the Great Hall of 'Zha Cang', we can abundantly understand how traditional architectures inherit and develop in the contemporary era and how to combine them with modern technology in the context of specific historical and natural condition, religious belief and cultural background.

History is in progression and technology is in development. Construction of new religious buildings must take step to use modern architectural design method and construction measure; and safe, reliable and sensible modern structure to carry out necessary seismic fortification, fire safety, lightning protection and other safety designs and facility/equipment installation. These 'must' inevitably are in conflict of interest with traditional Tibetan architectural culture. With these conflicts and contradictions, traditional religious architectures are also changing and evolving. This is a tortuous and unclear path. This is also our bold attempt to design and build Tibetan Buddhist architecture using modern technology.

On the basis of respecting the opinions of monastery monks, we attempted to retain only exterior wall structure but to suspend interior floors using steel truss in order to maximize the space for Tibetan traditional decoration. However, its construction is difficult that integration with wooden beam work is not easy, thus finished construction drawing is abandoned. The second set of drawing adopts more traditional form of framework, which has high acceptance from the local public and can thus be implemented smoothly. Equipment design conceals various vertical pipeline designs within thick external wall, while horizontal pipelines are assimilated with decorative color of interior ornaments to achieve aesthetics as much as possible. In this project, every designer of our project has worked extremely hard to design this unique regional style building. However, the architecture is also secular and belongs to the public. Successful completion of this architecture process involves numerous modifications, compromises, and concessions (Figure 4).



Figure 4. Gandan Songzanlin Monastery after completion

4 Conclusion

In the context of heritage and development of traditional culture, some ancient architectural concepts and classic architectural styles need to be inherited with better approach. Reproduction of ancient building through technical means is not merely about heritage of history, but also a development of history. With the continuous development of science and technology and increasing level of architectural design, it is anticipatable that predominant benefits of restoration and repair of ancient buildings will become more prominent. However, it is also essential for us to incorporate some modern architectural design concepts especially fire protection and seismic technology, to ensure better extension of

service lifespan of the building itself.

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