

Murphy's Approach to the Revival of Traditional Architecture in the Design of Chinese Mission Schools in the Early 20th Century

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Abstract Henry Killam Murphy, an American architect in the 20th century (1877—1954), advocated the idea of adaptive architecture and the traditional renaissance design method, and believed that different countries and regions should have their own architectural art. He recognized and appreciated traditional Chinese architecture and used it in Chinese architectural design. Based on Henry Killam Murphy's design of Tsinghua University, Ginling College and Beijing Yenching University in China from 1914 to 1935, this paper discussed and probed into the construction of Murphy's creation concept and technique, and the selection of the *Architectural History of China* and Yang Bingde's *Blend of Chinese & Western Architectural Culture in Chinese Modern History*, and also compared to Murphy and Chinese architects of the 20th century, so as to demonstrate different design attitudes of Chinese traditional architectural culture and the western architectural culture during the fusion, and Henry Killam Murphy's impact and far-reaching significance on China's modern campus planning.

Keywords History of modern architecture, Revival of traditional architecture, Henry Killam Murphy, Mission school

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Architectural activities in modern China were complex and diverse, and architectural styles of this period, new and old, east and west, nationalization and modernization, inter-woven and collided with each other^[1-2]. In the history of modern architecture, western architects were the first to try to combine regional traditional architectural styles with western modern architectural techniques^[3]. Henry Killam Murphy, an American architect, made an active exploration and attempt in this field. Murphy, a graduate of Yale University in the United States, had been committed to the planning and architectural design of mission schools, and introduced the idea of western campus architectural planning to China, deeply explored the combination of eastern and western architectural cultures, and used traditional renaissance design in a large number of modern campus architectural designs in China^[4-5].

Murphy attended Episcopal Board of Missions and the Yale Foreign Missionary Society in 1914^[6], and traveled from New York to China to plan and design the campus of College of Yale-in-China in Changsha, Hunan Province. In 1918, he set up his own office in Shanghai to expand his design practice in China. Due to the need of his work, he visited China 8 times from 1918 to 1931 in order to complete his work for the architectural design affairs and the government in China. And then, he had a keen interest on Chinese classical architecture, the research of several representative palace building, he felt the charm of Chinese traditional architectural

culture, and developed the Adaptive Chinese Architectural Renaissance^[4], in Nanjing, Beijing, Shanghai, Fuzhou, Ningbo, Guangzhou, Wuhan, Tianjin and Shenyang, to design church schools with Chinese architectural style. For the national government invitation, he served as “the national government construction consultant” for the “planning” of the capital. In this paper, 3 representative mission universities were selected to explore Murphy's unique creative methods and design ideas as well as his profound influence on modern university campus planning in China.

1 Examples of Chinese architecture designed by Murphy

1.1 Tsinghua University

In 1914, Zhou Yichun, Vice President of Tsinghua University^[7], invited Murphy to preside over the expansion of Tsinghua University's campus. After discussions, the second person decided to turn the campus planning concept of University of Virginia^[4] into Tsinghua University. Later, the second person decided to locate 2 campuses in the Tsinghua College: a preparatory school in the east and a Tsinghua University in the west. The 2 campuses were centered on their respective auditoriums, forming a north-south axis layout and setting up large squares in front of the auditoriums. Of that, the campus construction of The Preparatory School for Studying in the United States basically realized the established planning and design. In 1916, Murphy designed the library, gymnasium, auditorium,

science museum and other buildings for the school district^[8]. However, the construction of comprehensive university campus failed to be implemented for various reasons (Fig.1).

Murphy designed 4 buildings for The Preparatory School for Studying in the United States that all adopted western classical architectural style^[4], symmetrical left and right, and used different methods to highlight the main entrance. Among them, the architectural design of the Great Hall mainly referred to the design techniques of garden hall villas, using a “+” font plane with an entrance in each direction and a circular dome at the top of the plane center. In order to highlight the main entrance, the plane was designed to be long in the north and south, short in the east and west, emphasizing the north-south axis, and the entrance adopted the Ionic Order. And the stadium had a Doric Order at the entrance and 3 large arched windows on the front. Plus, the library and the science museum emphasized the main entrance via elevating the intermediate block and projecting the facade, respectively.

1.2 Ginling College

Western mission schools sprang up throughout China in the late 19th and early 20th centuries, advocating gender equality and hoping that Chinese women would get out of their homes and into society^[9-10]. Against such a social background, Laurence Thurston, an American missionary, founded Ginling College in 1913 in the Former Residence of Li Hongzhang in Nanjing. With the expansion of the school,

she bought more than 100 mu of land in Taogu of Nanjing to build a new campus, and commissioned Murphy to plan and design the campus to reflect the characteristics of Chinese architecture (Fig.2).

In view of the irregular land use, large height difference and deep depression along the east-west direction of the new campus, all buildings on the campus were connected by corridors, forming courtyard spaces of different scales^[3,11]. The whole design adopted Murphy's consistent square axis planning method, centering on the museum, western open square space was arranged in the front and Chinese garden space in the back, hoping to combine Chinese and Western culture harmoniously through this space setting. The architectural form of Ginling College embodied the renaissance of Chinese classical architecture. Murphy adopted reinforced concrete structure and new materials, with the imitations of Chinese classical architecture and the fusion of Chinese and western culture, for example, as much as possible on the facade, he followed the forms and characteristics of Chinese classical architecture, and the color of Chinese classical architecture performance method, Chinese traditional grille door window was used to strengthen the overall architectural style.

1.3 Yenching University

The predecessor of Yenching University was Beijing Huiwen University, North China Union Women's University and Tongzhou Union University^[12]. In 1919, the 3 schools merged and the first President was Stuart Leiden, also the American Presbyterian missionary and diplomat. In 1919, Murphy was appointed by

the then President to complete the planning and design of Yan Yuan. In the summer of 1926, Yenching University was basically completed and 88 buildings were built in the park, creating a campus with the largest scale, the highest quality and the most beautiful environment in modern China^[8]. It finally merged with Murphy's many practices and became an important Chinese architectural renaissance in the history of modern Chinese architecture. The architectural style of Yan Yuan was traditional in China, and the appearance of the houses needed to have "beautiful cornice and gorgeous colors, which undoubtedly preserved the most valuable things in China's inherent civilization, as a symbol of the essence of Chinese culture and modern knowledge"^[11]. It was built using the same technique that Murphy had repeatedly emphasized: reinforced concrete (Fig.3).

Like other foreign architects, Murphy believed that large roof was an essential element of traditional Chinese architecture^[11]. However, considering that roof should not only be decorated, he preferred gable and hip roof^[11]. In this way, vertical side Windows could be opened at the position of gable walls on both sides of the roof to increase the utilization rate of roof space. Taking the library as an example, the Chinese-style architectural form somewhat restricted the function. The library looked grand in appearance, but the actual available space was very few. The first floor was a public space, so it was tall and open. The second floor had a courtyard with a corridor (reducing the usable area). This floor also had a reading room and an office. The first floor of the office building

was for office use, while the roof space of the top floor was for the auditorium. Gable and hip roofs were also adopted to provide light to the auditorium, and the gable side Windows were also used for the Red Building complex (Fig.4).

2 Murphy's architecture design features

Murphy's campus planning in ancient China basically followed the planning model of modern American mission schools^[6], taking the University of Virginia as an example. First, an open park square was arranged in the center of the campus. Then, the main building was arranged along the axis of the park, and other buildings on both sides of the axis to form a "concave" font or "product" font space. Among them, Tsinghua University used "凹" font layout. Influenced by the garden space in the South of China, Ginling College was designed in the form of "品" ^[13]. With the main building as the boundary, the front teaching area was decorated with western open park space, while the back living area was decorated with Chinese garden-style courtyard space, which also reflected Murphy's love and respect for Chinese architectural culture. Mission school buildings basically followed the design techniques of American modern mission school buildings, that is, a large number of elements such as pitched roof, arch, western column and etc.. The architectural form mostly adopted symmetrical composition. The design of the main building took the form of "Quasi-Gothic" architecture, which lifted the intermediate block upward to highlight the central axis of the park.

Murphy saw Chinese architecture as a grand but

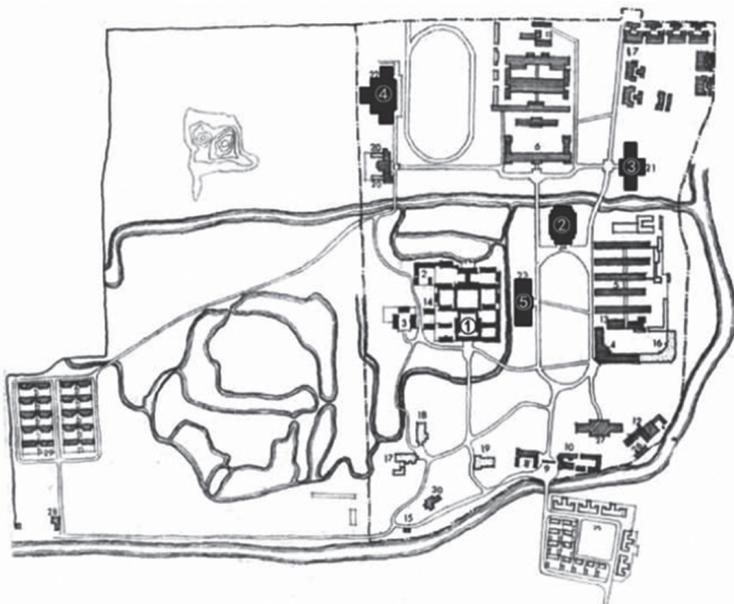


Fig.1 General Plan of Tsinghua University

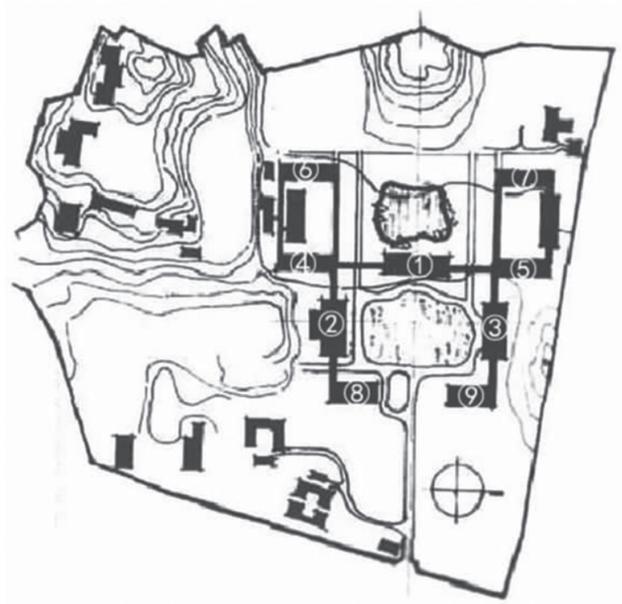


Fig.2 General plan of Ginling College

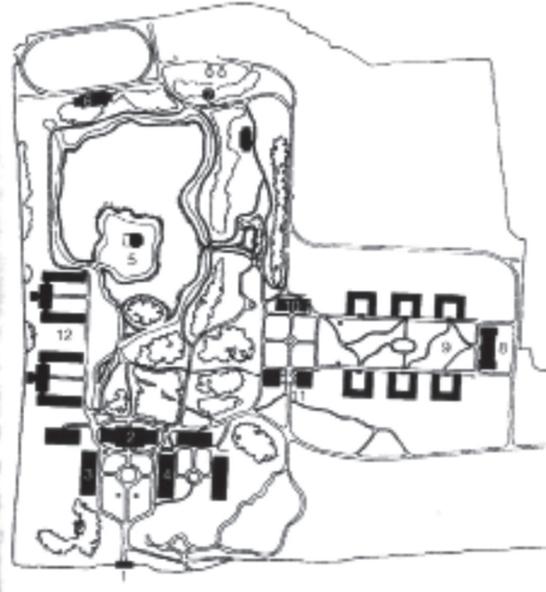


Fig.3 General plan of Yenching University



Fig.4 The gable side windows at the Red Building complex

under-appreciated branch of the world architecture system^[4]. He thought that making the building itself pleasant and pleasant showed the possibilities of preserving Chinese architectural heritage in a complex that embodied America's most modern design and construction philosophy. At present, it was also a kind of "collage" art of architectural symbols^[14]: buildings (materials) were modern and met modern functions, but followed traditional styles, campus scale was modern, reflecting the needs of modern transportation, but was supported by the traditional Chinese garden model. The core of this design idea was harmony, so to speak, the harmony of Chinese and western architecture, the harmony of traditional and modern culture, the harmony of new and old styles. In this way, the continuity of urban and architectural space can be preserved, not to cut off the historical context.

3 Chinese architects' comments on Murphy's design

Amid evolution of Chinese architecture form in the conflict between Chinese and western architectural cultures at the end of the 19th century, Murphy interpreted his understanding of Chinese traditional architecture with unique perspectives and techniques, and well grasped this opportunity to make a foreign architect's "Chinese work" immortal^[15]. In this paper, 2 architectural theories, *A History of Chinese Architecture* and *The Combination History of Sino-west Architectural Culture in Modern Time of China*, were selected to discuss Murphy's traditional revival of architecture activities in China from different research perspectives and

interpretation methods (Fig.5-6).

3.1 A History of Chinese Architecture

The spatio-temporal relationship between modern Chinese architectural form and architectural thought was complex. In Chapter 14, "Architectural Forms and Architectural Thoughts", the author discussed the diversity and complexity of architectural forms and architectural thoughts in modern China, and held that the architectural features presented in China in the past 100 years had both the synchrony aggregation of the "International Architectural

Exhibition" and the diachronic concentration of the "modern lap joint"^[16]. Hou Youbin highly approved of Murphy's influence and saw the latter as a "Chinese-style" architecture in the later period. As for Murphy's work, the author had a positive comment as below.

In the campus planning of Yenching University, he made full use of the lake island, mounds, winding paths and abundant water to plan the campus into a garden-like environment^[16] based on the advantageous condition that Haidian was located in the ruins of classical gardens. T-shaped

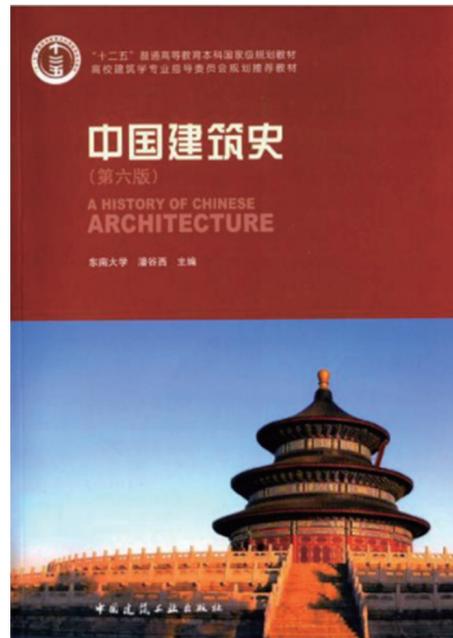


Fig.5 A History of Chinese Architecture

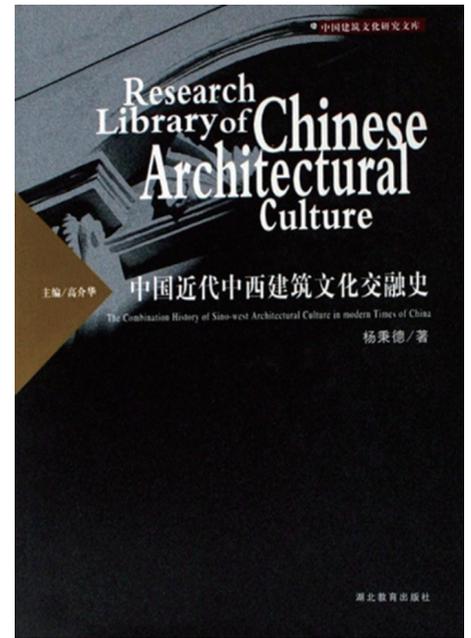


Fig.6 The Combination History of Sino-west Architectural Culture in Modern Time of China

axes in the east-west direction and south-north direction were organized in the general plane. Courtyard Patterns were formed in the campus buildings, forming the organic combination of orderly courtyard groups and winding lake and island environment. Such planning and design reflected the combination of modern western material civilization and China's inherent spiritual civilization at that time.

In conclusion, Hou Youbin believed that Murphy's understanding and application of Chinese architectural characteristics in the aspect of integrating Chinese and western architectural culture, as well as its promoting role in the development of modern Chinese architecture. Murphy had been involved in many Chinese urban planning projects, and the assistants he taught in China, such as Lu Yanzhi, Dong Dayou and Li Jinjiu, etc., all of which extended Murphy's influence and had a great influence on the traditional renaissance in the architecture creation of Chinese architects in the 1930s.

3.2 The Combination History of Sino-west Architectural Culture in Modern Time of China

Yang Bingde placed the history of Chinese modern architecture in the social, economic and cultural background of the drastic changes in modern China^[2], and examined the emergence and development of Chinese modern architecture as a result of the changes in the social, economic and cultural background of modern China^[6,17]. As for the early exploration of western architects in the field of missionary university building, Yang Bingde first paid attention to the social and humanistic background of the establishment and development of missionary university. He brought a social and humanistic perspective to Murphy's research and believed that Murphy's opportunities in China were closely related to the humanistic and social background of China at that time. The New Culture Movement which began in 1915 marked that China entered the later stage of cultural transmutation in the field of ideology and culture^[18]. The great changes in Chinese society attracted the attention of the church, and the church decided to take contingency measures to start the construction of mission schools.

Yang Bingde held that Murphy's merit was that he used the form elements of traditional Chinese architecture^[17] made of reinforced concrete in the schoolhouse^[4] building of missionary university. Murphy, however, who had little knowledge of traditional Chinese architecture, described the form elements of traditional Chinese architecture in his pen, which were equally

plausible. Yang Bingde discussed the rationality of Murphy's design from the perspective of social and cultural background, and recognized Murphy's enlightening role in the national form of Chinese architecture, but he thought it was restrained and lacked creativity. For example, he commented on Beijing Yenching University as below.

There were also doors imitating Qing Dynasty mansions and water towers imitating from Miyan tower^[17,19] in Liao Dynasty, which can be described as a complete variety. However, this kind of Chinese ethnic form of missionary university building was still only a slight shoulder imitation interpretation, there was no new creativity. Yenching's success had more to do with Yenching's natural location and Murphy's protective use of that location. As for Yenching University's buildings, they were still repetitions of Murphy's old pattern. Although there was a variety of roofs, there was not much creativity, and the form of water towers with Miyan Tower was not at all suitable.

4 Conclusion

As an important foreign architect in Chinese recent architectural history, Murphy had produced many high-quality designs in China. Among them, mission campus planning and architectural design was the most typical. As a western architect, Murphy had borrowed the design concept and way of campus planning from European and American universities, which made his work have high architectural group value. Since these architectural works played a certain exemplary role in the planning of modern university campuses in China, moreover, they became an important carrier to introduce western modern architectural concepts into China, played an important role in the development history of modern Chinese architecture, and still had a far-reaching influence to this day. As a primary explorer of the revival of modern Chinese traditional architectural art, Murphy advocated the "Revival of Chinese classical architecture", which made the modern western architectural thoughts and the concept of nationalization beautifully combine in architectural culture, which accumulated experience for the exploration of modern Chinese architectural culture at the level of innovation. Today, Murphy's design ideas and creative methods, coupled with the courage to innovate traditional culture, are worth learning for contemporary architects.

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