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History of ancient Chinese architecture in the Qing dynasty

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Abstract

The paper explores the cultural heritage of ancient Chinese architecture, awakes social awareness of the protection and preservation of ancient Chinese architecture, and explores the theoretical significance of applying the essence of ancient Chinese architecture to the modern and future architectural design and creation. Through the study of architectural history of the Qing Dynasty, this research provides information in detail including the aesthetic characteristics, architectural composition, influencing elements, architectural achievements, materials used, design philosophy, the preservation status and future outlook of ancient Chinese architecture during the Qing Dynasty. Both from interaction with western culture, and internal historical development, the dynamic history and aesthetic underlining Qing architecture resists a simple narrative. The purpose of this paper is to contextualize and understand the role of Qing Dynasty architecture within contemporary Chinese society, paving the way for greater cultural awareness and preservations.

Keywords: Qing dynasty, architecture, Chinese history, cultural conservation, philosophy of design, aesthetic

Introduction

Overview of Ancient Chinese Architecture in the Qing Dynasty

The Qing Dynasty (1644-1912) had a rich and diversified history of Ancient Chinese Architecture that was greatly impacted by traditional Chinese culture and foreign influences. The Chinese built many constructions throughout this time, from palaces and temples to tombs, bridges, and gardens (Michaelson, 2019) ^[10]. These constructions were often embellished with symbols of power, wealth, and success in vivid colors and elaborate patterns. The architecture of the Qing Dynasty was heavily inspired by traditional Chinese culture and was distinguished by its magnificent size and attention to detail (Curtis, 2019) ^[2]. The blending of numerous components from different parts of China, such as the palaces of the Forbidden City, the gardens of Suzhou, and the bridges of Hangzhou, was the most conspicuous aspect of the Qing Dynasty's architecture (Xi, 2022) ^[18]. For example, the Forbidden City's Hall of Ultimate Harmony was erected utilizing the palace architecture of the Ming Dynasty, and its walls were painted with traditional Chinese art patterns. The Chinese rulers of the Qing Dynasty commissioned several spectacular constructions, including the Summer Palace in Beijing and the Grand Canal. The Summer Palace was established as a summer resort for the royal family with pavilions, bridges, and gardens (Han *et al.*, 2021) ^[5]. At the same time, the Grand Canal was a complex network of canals that linked the capital to other areas of the kingdom. These magnificent monuments were built to display the Qing Dynasty's authority and riches (Michaelson, 2019) ^[10]. The Qing Dynasty created some famous Chinese architectural elements and enormous constructions. For example, one of the most famous monuments in the world is Beijing's Temple of Heaven, which was designed to serve as a place of worship for the emperors (Xi, 2022) ^[18]. The temple complex has many buildings, including the Circular Altar of Heaven and the Hall of Prayer for Good Harvests.

The Great Wall of China is another renowned the Qing Dynasty's monument designed to safeguard the kingdom from foreign invaders. The wall was constructed from various materials, including stone, brick, and wood, and was embellished with elaborate carvings and sculptures (Huan *et al.*, 2022) ^[22]. The wall was extended to its present length of over 21,000 kilometers during the Qing Dynasty. The term "celebration" refers to celebrating a special occasion, such as a birthday or a wedding (Xi, 2022) ^[18].

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These gardens often had pavilions, ponds, bridges, paths, and a diversity of flora, wildlife, and sculptures. Suzhou's gardens are incredibly well-known and are regarded as among the most beautiful in the world.

Influence of Traditional Chinese Design Elements

The classical Chinese aesthetic had a profound impact on the architecture of the Qing Dynasty, and many aspects employed in the Qing Dynasty's architectural design may still be observed in contemporary Chinese architecture (Dai *et al.*, 2019) ^[4]. Curved roofs, ornate columns, and symmetrical patterns were all typical aspects of the Qing Dynasty's architecture, which may still be seen in current Chinese structures (Wang, 2020) ^[14]. Moreover, the use of elaborate lattice work and traditional Chinese materials is a frequent element of contemporary Chinese architecture, reflecting the influence of the classic Chinese aesthetic.

During this time, the capital was moved between Beijing and Nanjing multiple times, and the architecture was tremendously inspired by the classic Chinese style. This was notably evident in the traditional Chinese characteristics of the Qing Dynasty's building design. Curved roofs, decorative columns, and symmetrical patterns were often used as design components (Michaelson, 2019) ^[10]. The Qing Dynasty's curving roofs directly alluded to the ancient Chinese roof design known as the "siheyuan," a sort of courtyard home. Siheyuan had four sides built around a central courtyard, with each of the four walls linked to a roof. This roof design was often utilized to provide a majestic entryway to a palace or temple, making a strong visual statement (Wang, 2022) ^[17]. The Qing Dynasty's curving roofs were often ornately adorned with bright porcelain tiles and exquisite sculptures. The term "electronic" refers to converting an electronic device, such as a computer, into a physical device.

Apart from curving roofs, decorative columns were a common feature of the Qing Dynasty's architecture. These columns were generally carved from wood and then brightly painted. They often included ornate carvings and motifs depicting events from Chinese mythology or history and lucky and protective symbols (Michaelson, 2019) ^[10]. Columns were often used in pairs to frame a building's entryway or support enormous constructions like pavilions and towers (Wang, 2020) ^[14]. Another prevalent aspect of the Qing Dynasty's architecture was symmetrical designs. This was particularly noticeable in the architecture of fabulous courtyards, which were often set out in a balanced manner. Courtyards were generally encircled by walls and ornamented with a variety of plants and trees (Ting *et al.*, 2022) ^[13]. The walkways linking the various areas of the yard were often planned out in a symmetrical form, and the walls were frequently ornamented with carvings and paintings. The courtyards were often utilized as a location to rest and for social gatherings.

The architecture of the Qing Dynasty used traditional Chinese materials in addition to curving roofs, ornate columns, and symmetrical designs. For example, stone, brick, and ceramic tiles were constantly used to construct building walls (Wang, 2020) ^[14]. These materials were often embellished with exquisite carvings and paintings, and their usage was a clear nod to the traditional Chinese aesthetic. Moreover, elaborate latticework, known as "muqi," was a common feature of the Qing Dynasty's architecture (Michaelson, 2019) ^[10]. This latticework was primarily employed to embellish building walls and often embodied

complicated geometric designs.

Notable Architectural Achievements of the Qing Dynasty

Throughout its time in power, the Qing Dynasty was renowned for its remarkable architectural accomplishments and the creation of many well-known buildings, including the Summer Palace and the Forbidden City in Beijing (Ting *et al.*, 2022) ^[13]. The Forbidden City, which can be found in the middle of Beijing, is often regarded as one of the most significant architectural accomplishments of the Qing Dynasty. It served as the Qing Dynasty's imperial palace and was also the emperor's and his court's residence during that time (Liu, 2017) ^[9]. Traditional Chinese architectural style and construction methods were used in the palace's construction, which was supposed to represent the emperor's power and authority. The Forbidden City is an enormous structure with over 9,000 rooms encircled by massive walls, gates, and pavilions (Ting *et al.*, 2022) ^[13]. In the interior, there are many historic palaces, temples, and magnificent gardens and courtyards.

Another illustrious building in Beijing that dates back to the Qing Dynasty is known as the Summer Palace (Wong, 2022) ^[17]. It was constructed in 1750 with the intention of serving as the imperial family's formal abode during the warm months of the year. The palace was planned to be a place of recreation and leisure and was constructed employing methods and styles of architecture typical in traditional Chinese architecture (Liu, 2019) ^[21]. Inside the palace's gates are several gardens, pavilions, and temples, and the building itself is encircled on all sides by a vast lake. It is widely acknowledged that the Summer Palace is one of the finest exemplifications of traditional Chinese architecture (Wong, 2022) ^[17]. The Qing Dynasty was responsible for several significant architectural accomplishments, including Beijing's Temple of Heaven. It is regarded as one of China's most influential and spectacular temples, and construction on the structure began in 1420 (Wong, 2022) ^[17]. The emperor was responsible for designing the temple, which is in the middle of a massive park with several gardens, pavilions, and other structures (Curtis, 2019) ^[2]. The inside of the temple has many antique sculptures and carvings, in addition to many altars and ceremonial rooms. Visitors may explore the interior of the temple.

Another magnificent building constructed during the Qing Dynasty is the Great Wall of China. The Great Wall of China was built between 220 and 206 BC to defend the northern boundaries of the empire from incursions by nomadic tribes (Liu, 2019) ^[21]. The wall is a system of fortifications, walls, and watchtowers that run from the east coast to the west coast of China and extends the whole length of the country. The wall is one of the most recognizable constructions in China and stretches for more than 5,500 kilometers in total length.

The Qing Dynasty made significant contributions to several remarkable architectural accomplishments, including the Grand Canal (Xue, 2019) ^[19]. It is an artificial river with the most excellent length in the world, and its primary function was to connect the northern and southern regions of the empire (Curtis, 2019) ^[2]. More than 1,100 miles in length, the canal was constructed during the time of the first emperor of the Qing Dynasty and was completed during his reign. The canal serves as a significant transit channel and is used to move commodities across many areas in China.

In China, the Qing Dynasty was a period when the completion of architectural feats that had never been done before could be seen. During its time in power, the Qing Dynasty oversaw the building of many of China's most recognizable landmarks, including the Forbidden City, the Summer Palace, the Temple of Heaven, the Great Wall of China, and the Grand Canal, among others (Curtis, 2019) ^[2]. These constructions are still some of the most iconic and visited landmarks in China today, and they serve as a tribute to the magnificence and power of the Qing Dynasty.

The Use of Natural Materials

The ancient Chinese architecture of the Qing Dynasty was distinguished by a remarkable synthesis of the conventional Chinese architectural style and the nomadic architectural styles of the region (Liu, 2019) ^[21]. The Buddhist religion, which was widespread throughout this period, was also a significant contributor to the development of this style. As a result of this, the use of natural materials in the building process was considered to be a means of establishing a more congruent connection between humans and their natural surroundings (Xue, 2019) ^[19]. The use of raw materials was also viewed as a means to represent the distinct cultural character of the Chinese people. Therefore this was another reason why they were favored.

Wood, bamboo, stone, mud, and clay were some of the natural resources that were put into use throughout the Qing Era. Wood was prevalent since it was readily available during this period and was simple to manipulate (Xue, 2019) ^[19], which contributed to its widespread use. In addition to that, bamboo was used because of its durability and portability (Curtis, 2019) ^[2]. Since stone is more long-lasting than other building materials, it was chosen for significant buildings like palaces, temples, and tombs. Mud and clay were often used to construct less significant buildings like residential homes.

Throughout the Qing Era, the most common building material was wood. Construction was a primary industry. The structures' structural components and the decorative elements found within were crafted out of wood. Fir, cypress, pine, and elm were the most commonly used wood types. Certain types of wood were selected not merely for their strength and longevity but also for their aesthetic features (Li, 2018) ^[7]. The wood was often treated with specialized oils before being lacquered, painted, or both in order to shield it from the effects of the environment. During this period, bamboo was also often employed in building construction. As bamboo was both lightweight and robust, it could be utilized not only for the framework of buildings but also for embellishing such structures (Liu, 2019) ^[21]. In addition, it was used to produce furniture and several other minor products. While bamboo was not nearly as prevalent as wood, it was often employed in places where wood was not readily available.

Important buildings like palaces, temples, and tombs were almost always built of stone. Because of its resilience, the stone was the material of choice, and it was often carved into beautiful shapes. Granite, marble, and sandstone were the three types of rock that were most commonly used. During the Qing period, mud and clay were frequently used in the building industry (Li, 2018) ^[7]. Silt and clay were often used to construct less significant buildings like residential homes. These materials were selected because of their low cost and straightforward application. In addition, they were used to produce adornment components such as

sculptures, carvings, and wall paintings.

Throughout the Qing period, the use of natural materials in the building was an essential component of expressing the distinct cultural identity of the Chinese people. This was especially true regarding architecture (Li, 2018) ^[7]. These materials were selected due to their aesthetic features, as well as their strength and durability. These resources also established a harmonious connection between man and nature, an essential component of the Buddhist religion. As a result, the use of natural materials was considered a method to build structures that were reflective of the culture and beliefs of the Chinese people.

The Development of Building Structures

The Qing Dynasty (1644-1912) in ancient China was known for its lavish palaces, enormous temples, and beautiful gardens. Yet, the Qing Dynasty (1644-1911) was a time of innovation and revolution in Chinese architecture, in contrast to the Ming Dynasty's (1368-1644) lavishness and detailed features. During the Qing Dynasty, many ethnic groups of China and the governing Manchu court significantly impacted the architectural styles that were popular at that time (Li, 2018) ^[7]. The Qing Dynasty's architecture was thus distinguished by its hybridization of classical Chinese aesthetics with cutting-edge Manchu building practices. The imperial palaces of the Qing Dynasty were among the most magnificent buildings ever constructed. The Forbidden City, a fortified area of Beijing and the imperial capital during the Qing Dynasty, was where these palaces were most often found (Michaelson, 2019) ^[10]. Courtyards of various sizes joined to form the Forbidden City around the imperial court. To support the royal family's needs, the main palace was surrounded by a network of smaller linked buildings. The architectural styles of the buildings in the Forbidden City were a fusion of classical Chinese and Manchu traditions, and they were characterized by ornate embellishment, vivid colors, and complex detailing (Liu, 2019) ^[21]. Many massive temples were also built during the Qing Dynasty, in addition to the royal residences. These religious structures were typically constructed in the classical Chinese style. However, they often had unique Manchu touches (Michaelson, 2019) ^[10]. The courtyards of these temples were often filled with splendid halls and pavilions. The tops of ancient temples were decorated by colorful dragons, phoenixes, and other legendary animals.

There was a proliferation of government buildings, libraries, and theaters under the Qing Dynasty. These buildings' elaborate ornamentation and vivid colors were typically a fusion of traditional Chinese and Manchu styles (Liu, 2019) ^[21]. During the Qing Dynasty, the imperial government also started building gardens, which were often walled off to introduce the exquisite scenery. These gardens were a symbol of the royal court and a popular spot to relax and unwind.

The jianzhu, or "furniture-like" architectural style, also emerged throughout the Qing Dynasty (Michaelson, 2019) ^[10]. Wood, bamboo, and many other materials were used in this architectural style. Smaller constructions, such as bridges and pavilions, were often constructed in the jianzhu style. The buildings were generally brightly colored and decorated elaborately.

Another distinctive architectural form, the siheyuan (literally "courtyard house"), emerged during the Qing Dynasty. Typically, these buildings had four wings from a

central courtyard (Michaelson, 2019) ^[10]. Passageways generally linked the houses, and their roofs were often adorned with fantastical animals. Homes in the siheyuan style were popular among the period's affluent households and were thus commonly constructed.

The Architectural Themes in Art and Literature

Traditional Chinese architectural concepts and characteristics such as symmetry, balance, and natural materials were used by Chinese architects throughout this period. They also integrated features typical of European and American genres like Baroque and Neo-Classical into their work. An original style of architecture, combining the best of Western and ancient Chinese design principles, was the product of this fusion (Wang, 2020) ^[14]. The Qing Dynasty also witnessed the development of recurring architectural motifs in Chinese literature and art. More specifically, the perspective of "living in nature" was very popular then. The idea behind it was to introduce nature cues to create a harmonious lifestyle (Liu, 2019) ^[21]. Pavilions, towers, and temples were often used to symbolize this concept, and they were designed to look like the objects found in nature, including mountains and trees (Michaelson, 2019) ^[10]. The architecture of this period also reflected the ideal of "harmony between man and nature." This movement was rooted in the philosophy that people should treat the natural world with reverence and seek ways to coexist with it. Curved walls and roofs were commonly used to convey this idea since they were intended to evoke the organic shapes of a mountain or a tree.

In the Qing Dynasty, the literary and artistic expressions of "harmony between man and nature." was vividly demonstrated. Metaphors, allegories, and symbols were often used to convey the concept of eco-friendly living (Wang, 2020) ^[14]. For instance, a mountain was frequently used to symbolize cooperation between humans and the natural world. The tree picture was also constantly employed to illustrate the concept of eco-friendly living. The architecture of this period represented the ideal of "harmony between man and nature." In addition, the cues from the surrounding landscape were often adopted in architecture (Wang, 2020) ^[14]. Such examples include roofs shaped like mountains or trees and walls resembling water flow.

The Preservation of Ancient Architecture

Preserving old buildings was an essential component of the Qing Dynasty's legacy. The Qing Dynasty's emperors enormously appreciated the beauty of traditional Chinese architecture and sought to ensure that it was preserved for future generations to enjoy (Curtis, 2019) ^[2]. For this purpose, they took various measures to maintain and preserve the old buildings of that period.

During the Qing Dynasty, one of the methods used to conserve historic Chinese architecture was the creation of a construction material tariff system. This approach was designed to discourage the use of non-traditional Chinese architectural materials. This technique was implemented to guarantee that the materials used in constructing ancient Chinese structures were of the most excellent quality and would stand the test of time (Xue, 2019) ^[19]. Another action taken during the Qing Dynasty to conserve traditional Chinese architecture was developing a system of laws for constructing historic structures. These laws were executed to guarantee that the old architecture was built in accordance

with stringent quality and safety standards. Similar laws were also enforced to ensure that the historic buildings remained intact and could survive over time.

Ultimately, the Qing Dynasty took measures to safeguard and preserve the old architecture of that period. This included enacting rules against the demolition of old structures as well as making it unlawful to modify or destroy any ancient architectural structures (Curtis, 2019) ^[2]. Moreover, the Qing Dynasty established rules prohibiting specific materials from being used in constructing old structures, such as those unsuitable for traditional Chinese architecture (Wei, 2022) ^[16]. The preservation of old buildings was critical to the Qing Dynasty's survival. Using these different procedures to conserve and preserve these old constructions ensured they would stay intact for future generations. The preservation of these old buildings was essential to the sustainable prosperity of the Qing Dynasty and its heritage.

The Impact of Foreign Architecture

Ancient Chinese architecture in the Qing Dynasty was heavily influenced by foreign architecture, including the use of various building materials, the inclusion of various aesthetic aspects, and the production of large-scale public works (Wei, 2022) ^[16]. The migration of Manchu people from the north of China to the south during the Qing Dynasty brought their unique architectural style, which resulted in the beginning of a new period in the history of Chinese architecture (Wei, 2022) ^[16]. A novel architectural technique emerged due to the interaction of these non-Chinese influences with the conventional Chinese aesthetic. Western construction materials were one of the aspects of foreign influence on the Qing Dynasty's architecture that is most readily seen. Stone, bricks, and tiles were the preferred building materials of the Manchus and were used to create walls, gates, and roofs (Curtis, 2019) ^[1]. The Manchu people were responsible for the introduction of many innovative architectural practices, including the use of buttresses and arches in the construction of massive buildings. This new technique enabled architects to create far more extensive and intricate structures, such as the Forbidden City in Beijing.

Adding a distinctly Manchu-styled aspect to Chinese architecture is another achievement brought by the Manchus. The Manchu style was easily recognizable because of its significant reliance on geometric patterns and vivid colors. These components and traditional Chinese characteristics like curving roofs and painted walls were blended to produce a visually distinctive design (Liu, 2019) ^[21]. This style was evident in the building of the Summer Palace in Beijing, where traditional Chinese components and Manchu features were combined to produce an aesthetically magnificent structure.

The development of large-scale public works during the Qing Dynasty exhibited the foreign influence on architecture prevalent throughout the Qing Dynasty (Curtis, 2019) ^[2]. The Manchus constructed canals, bridges, and highways across the country to increase transportation and communication throughout China (Wei, 2022) ^[16]. In addition, they built huge palaces and temples to serve as their society's administrative and spiritual hubs. The Forbidden City, the Summer Palace, and the Temple of Heaven in Beijing are all excellent examples of colossal constructions completed during the Qing Dynasty.

The impact of foreign architecture on Chinese architecture

during the Qing Dynasty was immense and had a long-lasting impact on the country's architectural tradition. Several factors, including the use of novel construction materials, the adoption of various aesthetic components, and the execution of extensive public works, greatly influenced the development of Chinese architecture. The Manchu people brought a distinctive style of architecture that combined traditional Chinese components with their own culture. This resulted in the creation of a one-of-a-kind kind of architecture that is being used today. The Qing Dynasty was a time of enormous change in Chinese architecture, and the foreign influences of the Manchus had a permanent impact on the way that Chinese architecture was built and constructed. This impact can still be seen today.

The Future of Ancient Chinese Architecture in the Qing Dynasty

The architecture created during the Qing Dynasty had a significant impact and will continue to have such an impact in the years to come. Several buildings in China, such as the Forbidden City and the Summer Palace, were constructed in the Manchu style of architecture (Curtis, 2019) [2]. Numerous historic homes and temples around the nation are still intact, making it possible to see the traditional Chinese architectural style in various sections of the country. With the advancement of China's modernization process, many of the country's historically significant architectural forms are disappearing. On the other hand, there is a rising movement to conserve and repair these older structures. In recent years, the government of China has undertaken measures to preserve and promote the preservation of traditional architecture, such as the restoration of the Forbidden City in Beijing. One example of these initiatives carried out by the government is the phrase "traditional architecture." The architecture prevalent during the Qing Dynasty will continue to inspire architects (Curtis, 2019) [2]. The fusion of Manchu and traditional Chinese design is an exciting and distinctive mix that has the potential to serve as an excellent basis for contemporary building. For instance, the curved eaves characteristic of Manchu architecture can produce exciting and dynamic roof lines. The five elements of wood, fire, earth, metal, and water can also create a sense of equilibrium and harmony.

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