Symbolic, architectonic and artistic decorations in structural elements in traditional architecture in Taiwan

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Abstract

Architectural styles and design concepts reflect socio-cultural background and technical achievements of the period when the building is constructed. Due to differences in location, periods, and building types, traditional architecture embodies distinctive features and artistic accomplishments. Some are notable because of their size, some because of their special exteriors, some because of their exquisite architectonic details, some because of their craftsmanship and some for cultural reasons. Affected by historical developments, traditional architecture in Taiwan before the mid-nineteenth century is basically Minnan (Southern Fujian) style. In Minnan-style architecture, almost every building reveals its unique design in formal, spatial, constructional and structural aspects. This paper will firstly introduce the basic aspects of Taiwanese traditional architecture and then illustrate how symbolic, architectonic and artistic decorations are expressed in structural elements in traditional architecture in Taiwan and become one of the main characteristics.

Keywords: symbolic decorations, architectonic decorations, artistic decorations, structural elements, traditional architecture, Taiwan.

1 Introduction: Traditional Minnan Style Architecture in Taiwan

Taiwan is a unique country in terms of its socio-cultural background. Its special geographical and climatic features also make Taiwan in many aspects distinguishable from other areas on the Chinese Mainland where most of the

Taiwanese people originated. In the past, architecture in Taiwan was one of the best illustrations of its culture. Affected by historical developments, historical architecture in Taiwan before the mid-nineteenth century is basically Minnan (Southern Fujian) style. Originated in Minnan culture, traditional architecture, from single-hall building to multiple wings and rows compounds; from the layout of city walls and gates, the orientation, the relationship between main hall and bedrooms in a house, to the structural and spiritual connection of the main hall and other complementary halls, either serves the practical functions of space or reveals a living philosophy and a world view.

In Minnan style architecture, almost every building reveals its unique design: roofs ranging from the double-eaves roofs used in formal structures to the ordinary canopy-style roofs used in common houses, and roof ridges ranging from pointed swallow-tailed styles to solid horse-back styles, all replete with colorful ornaments. The designs of the main structures, doors and windows have varied characteristics. In a standard urban temple, one can see the triple gate hall, the worship hall, the main hall and the back hall arranged according to etiquette and tradition so that they culminate in the main hall. The rolling skyline is an important traditional feature of temple architecture. Furthermore, differences in regional settings, ethnic groups, and schools of craftsmen produced variations that resulted in great variety (Figure 1).

Each architectural system is based on unique construction methods. The indigenous groups and early immigrants constructed their houses from available raw materials, the most common being bamboo, thatch, and clay. By the middle of eighteenth century, Taiwan was able to produce fine bricks, which became a major construction material, widely used in luxurious houses in which stone and wood were also used. A phenomenon has led to the multidimensional architectural expressions in Taiwan. Historical architectural of different periods and regions reveal architectonic beauty with such multi-material construction. Corallite walls, earth-filled double-brick walls, plastered bamboo-structured walls and brick-tile covered walls (also called fish scales wall) all exhibit attractive regional characteristics.



Figure 1: The skyline of a Minnan style temple.



Figure 2: The decorated ceiling of a Minnan style temple.

Besides basic architectural issues, craftsmanship expression exists in historical architecture. The craftsmanship displayed certain artistically distinguishing characteristics. In Minnan style architecture, traditional crafts included stone carving, wood carving, brick carving, cut porcelain inlay, Koji pottery, clay sculpture, and color painting. Green granite and *Quanzhou* white granite were the major stone materials mainly used in pillars, carved stone lions, stone drums (for fixing gate pillars and doors), column plinth, and carved wall panels. Wood carvings were adorned with wood elements Brick carvings were used as wall decorations, cut-porcelain inlays for roof decorations, and Koji pottery for walls (Figure 2). As to color paintings, in addition to the depictions of door gods, there were exceptional works on the beams and the walls.

Since architecture is related to the people that create it, objects directly reflect the accomplishments of both owners and craftsmen. Furthermore, many elements of built form and spatial organization have specific and special connotations. An excellent example is the principles of human relations and the norms of social intercourse inherent in the traditional courtyard buildings. Beyond that, tablets attached to the buildings presented direct philosophical and moral teachings which served to remind people of their origins. When family members passed government tests and were appointed positions in government, wooden tablets were hung above the lintel to glorify family and ancestors. In temples, wooden tablets and couplets usually praised gods or were reminders of good deeds. Examples are the "Be a True Man" (Da Zhang Fu) tablet in the Official Martial Temple (Suu-Tien Wu Maio) and the "Here You Come" (Er Lai Liao) warning in the Prefectural City God Temple (Fu Cheng-Huang Miao). Couplets in the Hall of Edification (Ming-Lung Tang) indicate the importance of knowledge and order. On the side walls, single Chinese characters denote loyalty (Zhong), obedience to parents (Xiao), moral integrity (Jie) and justice (Yi) (Figure 3). Certainly, the octagonal windows, hexagonal floor titles, bat ornaments, vase ornaments and "tong-tian tong" (also named "books hiding tube") all have profound symbolic meaning. The vase-shape door has meaning of "peace" since the Chinese characters of vase and peace have the same pronunciation.

When Taiwan opened to foreign trade in the middle of nineteenth century, its architecture came under intermittent influence by architectural trends of the West. When Western missionaries came to Taiwan, they brought not only their religious beliefs, but also their church architecture. Furthermore, they even attempted to add indigenous Taiwanese features to their buildings as an accommodation to the local inhabitants. This marked the beginning of the Minnan-Western Eclectic style. Taiwan became Japanese Colony in 1895 and Taiwan's history entered the so-called Japanese Period. Western historical styles which the Japanese learnt from Western countries after the Meiji Restoration were introduced into Taiwan. Many buildings continued to be built in Minnan style. Basically, the buildings constructed in Minnan and Minnan-Western Eclectic styles were termed by the architectural historian as "traditional architecture".

2 Constructional Systems of Traditional Architecture in Taiwan

Generally speaking, a large proportion of traditional architecture in Taiwan was constructed in a wood framing system. As buildings in China and Japan, the using of wood framing system in traditional Taiwanese architecture has lasted for a long time. According to the categorization by various scholars, there are several distinguished constructional methods in traditional Taiwanese architecture. Tailiang and chuandou are two distinct framing systems. Tailiang system, or the beams-in-tiers structural system, is a system of pillars and beams. This structural system is formed of columns standing on the floor with beams placed across them in the depthwise direction. Short vertical posts are placed on the beams, with additional beams placed across these until they reach the ridge of the roof. When the decorated blocks or dou are used instead of short vertical posts in a tailiang system, the system may also be named the diehdou system. Chuandou system, or the column and tie-beam structure system, is a system of pillars and transverse tie beams. In this type of system, columns are placed in the depthwise direction, at fairly close intervals. The columns have no beams across them. Instead, the purlins are placed directly on the top of the columns. The frame is created by using several rows of tie-beams, which go through columns and connect them. In some cases, tailiang and diedou systems might be mixed together in a single building.

In comparison to rigid triangular truss system which provides a triangular shape roof profile, both *tailiang* and *chuandou* systems offer greater possibilities to the roofline which is one of the most beautiful parts in traditional Taiwanese architecture.





Figure 3: Chuandou construction.

Figure 4: Diehdou construction.

3 Symbolic decorations of structural elements in traditional Taiwanese architecture

When the sacred manifests itself in any hierophany, there is not only a break in the homogeneity of space; there is also revelation of an absolute reality, opposed to the nonreality of the vast surrounding expanse. The manifestation of the sacred ontologically founds the world [3, p21].

In traditional societies, the symbolic significance of buildings is fundamental to man's relationship to the world of inner and conscious experience. The sacred qualitities of totally cohesive traditional communities lie party in the summation of the symbolic values of the culture which are embodied in the buildings created out of the resources of a particular region.

Under the influences of traditional societies, traditional architecture in Taiwan is rich in symbolism. As for the structural elements, most common decorations are the dragon on the columns located at the corridor below the eave and the lion located between two beams and function like a tou (bearing block). In contrast to the Western counterpart, dragon in Taiwan is a good-natured and benigh creature [2, p83] It is also a combination of all sorts of mythological and cosmological notions. Consequently, the columns were decorated with dragon to signify the sacredness of the building. The lion we see on the wood structure bears very little resemblance to the real animal. But, lions are treated as guardians for the house as those in front of a building. The lion-shaped wood blocks can also be substituted by other animals having symbolic meanings such as the elephant and the crab (Figure 5 and Figure 6).





Figure 5: Decorated dragon of the column

Figure 6: Lion-shaped wood block in a diedou structural frame.

4 Architectonic decorations of structural elements in traditional Taiwanese architecture

Painting only developed its own peculiar values where it emancipates itself from the tectonic; for architecture, the abolishment of the tectonic scaffolding would be equivalent to self-destruction [9, p149].

Architecture can be looked upon as a grammar by which the recognizable language of forms is composed into a meaningful and proportionally harmonious piece. Even the most gifted craftsmen needs to rely on his familiarity with such a

grammar – and its inherent order and logic – in order to express genius. Architectonics enables a building to manifest itself more explicitly.

Architectonics is very essential to architecture. Without its existence, a building would no longer certain to architecture, but would become a mere object. In most traditional Taiwanese architecture, every component is clearly expressed. In order to express the principle of the structural behavior, many structural elements are decorated in an architectonic way. In many cases, human figures are used instead of posts to support beams or purlins. For instance, a strong male figure with a pair of angel-like wings is used in the wood frame of Piyun Monastery. Similar decoration can also be seen in Beiji Temple. Such human figure can be used to replace the *que-ti*, a carved triangle support element between beam and post (Figures 7-9)







Figure 7: Human figure Figure 8: Human figure Figure 9: Human figure post at Piyun post at Beiji triangle support Monastery. Temple.

In traditional Taiwanese architecture, the space covered by hanging eaves are very unusual in terms of construction in which a traditional wooden roof frame and front corridor columns are combined together. These columns are sometimes stone carved in dragon shape or columns with Western classical order capital. How to combine these two systems is also an architectonic issue, especially when different materials are applied. In many cases, a short wooden is placed on the top of the column's capital. Then a beam will rest on this column on one end and on the wall of the front wall of the building on the other end. Besides, decorated elements will cantilevered from this post and support the purlins. Hanging baskets (*diao-tong*, short hanging pillars, often carved in flower shape) are the most common elements.

Generally speaking, the use of materials in traditional Taiwanese architecture emphasized their tactility rather than visual appearance although artistic expression played an important role. Another important aspect of the use of the materials is that the same material is rarely applied to a large area. Different materials are used for different components which have different functions so that the architectonic quality is explicitly expressed (Figure 10 and Figure 11).



Figure 10: The combination of traditional wood frame and the column with classical order.



Figure 11: The architectonic expression of a traditional wood frame on the top of a column with classical order

5 Artistic decorations of structural elements in traditional Taiwanese architecture

The unique way in which art was applied in traditional Taiwanese architecture can be seen from the entire exterior of a building to a single beam. In addition to the symbolic and architectonic decorations, many structural elements in traditional Taiwanese architecture are also artistically decorated. In many cases, beams of the traditional wooden frame are painted by skillful painter with various themes. For example, the theme of pa-hsieh (the eight Immortals) and other religious themes or themes from folk stories are also very common. Animals and flowers are also popular themes of the artists to paint the wood structural elements (Figure 12 and Figure 13).



Figure 12: A religious figure painted on the lintel of a building.



Figure 13: A pair of crane painted on the lintel of a building.

6 Conclusion

When compared with European nations and Japan, the preservation and conservation of Taiwanese traditional architecture is relatively late. The "Cultural Properties Preservation Act" was not enacted until 1982. Since then, people in Taiwan have started to realize that buildings of different period are all parts of the whole history and elements of various styles in a building can enhance its historical and cultural diversity. Up to 2003, 551 buildings or sites had been designated as legal cultural monuments and 343 buildings listed as legal historical buildings. Among them, many are built in the traditional Minnan style. However, symbolic, architectonic and artistic decorations in structural elements in traditional architecture in Taiwan were neglected in many projects' restoration.

The construction process of traditional Minnan -style architecture is a much more comprehensive process in a traditional society than in a modern one. It is not just a utilitarian activity aimed at materially practical end, but one that contributes to its social, religious and symbolic aspects. Structural elements in traditional Taiwanese architecture are not merely supporting elements. They are part of a total scheme in which human touch of traditional thoughts of the people and craftsmanship of the builder are expressed. During the process of the restoration, these elements should be valued as one of the important parts of a historic buildings and more attention should be paid to.

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