



Analysis on the Characteristics of Guanzhong Traditional Residential Courtyard --- Take Tang Courtyard in Xunyi County as an Example

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Abstract

In this paper, a lot of countryside surveying, mapping, measuring and on-the-spot drawing are conducted to obtain a wealth of first-hand information. In addition, the methods of entity dissection and regional comparison are employed to explain the causes for the formation of Guanzhong traditional residential courtyards and to analyze and summarize the form, structure and spatial pattern of Tang Courtyard as a typical example of Guanzhong residential courtyards in order to further research the form of these courtyards, to pass down and protect intangible cultural heritage and to offer some beneficial references for the planning and design of modern vernacular architecture.

Keywords: Guanzhong in Shaanxi, Traditional folk houses, Courtyard form, Tang Courtyard

1. Introduction

In his book *Research on Chinese Folk Houses*, Dazhang Sun classifies folk buildings into different types according to their forms. Architectural form characteristics can be manifested in spatial organization, horizontal arrangement, structure, composition forms as well as surface decoration. Spatial organization, referring to the spatial form of folk buildings arranged according to social institutions, family organization, beliefs and ideas, life styles and other social human factors, should be given priority to when classifying buildings due to its bright characteristics of the society and the age.

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2. An Introduction to Guanzhong Traditional Folk Houses

Lying on the alluvial plain of Wei, Jing and Ba rivers, Guanzhong has a rolling landscape. Piled eolian soil has changed

its former landscape into endless layer of loess. Accordingly, there are many types of folk houses in Guanzhong due to its complex changes in landforms as well as its long history (Figure 1).

Generally, with its plain appearance and rich outline, Guanzhong traditional folk houses display a mild image, its high and thick walls separating the houses from the outside world. Inside the houses are thick walls and mild raising-and-expression; its rammed-earth walls covered with the mixture of stalk, earth and lime, its framework of grey bricks and pine and some brick or wooden carves display its neme style and rich changes in decoration and color (Figure 2).

3. Spatial Organization of Guanzhong Traditional Residential Courtyards

Courtyards are enclosed by surrounding buildings. Chinese folk architectural culture characterized by groups attaches great importance to the techniques of spatial organization and regards courtyards as the soul and core of Chinese traditional folk buildings, which reflects Chinese special sense of time and space (Liu, 2007). Courtyard houses are the most typical architectural representative here ,which serve as places to live in and where their soul lies(Li, 2007).

The organization form of Guanzhong folk houses is closely related to their people's closed ideas (Huang, 1990). Houses tend to be higher with the longitudinal extension of courtyards, among which the gatehouse is the lowest, the lounge is the second lowest and the principal room is the highest dominating the whole courtyard. With the height and functions of houses combined with the functions of courtyards, a complete set of ethical orders is manifested, which is an reflection of the sense of hierarchy and center (Wu, 1999) (Figure 3).

Influenced by social propriety system, the architectural form of folk houses is of obvious hierarchical identity, conforming to the order of political and social relations with its tight order of architectural forms. Obviously, there are deeply-rooted sense of hierarchy and strict hierarchical disparities embodied in Chinese traditional folk houses, which are special outcomes of Confucianism on social propriety system (Zhu, 2002). Hierarchy is reflected in the layout, structure and scale of traditional folk houses. As for a family, the rule cannot be broken that the older generation lives in the principal room, the younger generation lives in the wings and servants live in the inferior room; women cannot go out of the courtyard freely and guests cannot enter the inferior courtyard without permission (Zhang, 1999) (Figure 4).

Large courtyard houses in Guanzhong embody more obvious ideas of feudal propriety as well as stricter hierarchical system compared with ordinary ones. Tang Courtyard in Xunyi County of Xianyang City is a striking case, which has some differences from ordinary folk houses as a courtyard house prepared for officials.

4. Form Characteristics of Tang Courtyard

Located in Tang Village about 7 kilometers northeast of Xunyi Country, Tang Courtyard lies on a cliff edge and faces a gully. According to geomantic omen, its location conforms to the rule of submitting to yin and embracing yang. It has a clear outline, including 87 courtyards and over 2700 rooms in its peak period (Ruo, 2009). Now among all the restored courtyards, only three two-hall ones can be visited

4.1 Characteristics in Organization

All the three existing courtyards in Tang Courtyard have a transversely-attached layout with an obvious hierarchy system and clearly-divided functions. There is a door between each two courtyards and all the three courtyards have their own entrances. The main courtyard is five bays wide and the two side ones have a width of three bays, creating a declining width from west to east. Therefore, standing at the entrance, one can judge the hierarchical status of all the courtyards as well as the order in their spatial functions according to their widths (Figure 5).

4.2 Form Characteristics of the Main Courtyard

The western courtyard is the main one with the largest width of about 1500cm as well as the depth of 3700cm. In addition to the residence for the host, this courtyard also serves as the place for weddings, funerals and sacrifices. Different from other traditional residential courtyards in Guanzhong which cannot exceed the width of three bays, the main courtyard in Tang Courtyard is five bays wide due to the high rank of this family, hence preserved well before the Republic of China. It is of greater importance for the protection and perfection of Tang Courtyard that researchers investigated the historical backgrounds of Tang Family, the architectural hierarchy and functions of Tang Courtyard and made vivid waxen images to restore its architectural functions in simulated situations, hence making it easier to distinguish the hierarchical features and functions of the whole courtyard (Figure 6).

Chinese traditional architecture puts great emphasis on symmetrical layout, especially the enhancement and employment of the axis wire, due to their strong "center-worship" sense. The internal space of the main courtyard belongs to vertical double-hall layout, strictly following social institutions. That is, the front view room at the entrance leads to the hall across the front courtyard and to the principal room across the backyard. There is an obvious axis vertically and a symmetrical structure transversely. The main buildings, such as the front view room, the hall for receiving guests and weddings and the principle room for the older generation, are arranged on the central axis wire while the side rooms for the younger generations as well as kitchen are arranged on the sub-axis, on which rooms are

arranged according to the principle of public places coming ahead of private ones, rooms for younger generations coming ahead of those for older ones and the principal room higher than the side ones. That is to say, the rooms for those distant relatives or servants are arranged in the front courtyard, the backyard is dwelt by the host and the immediate family members, the front courtyard must be lower than the backyard, the eaves of the principal room must be higher than those of the side ones and the height of both the buildings and the groundwork is higher along the axis. Obviously, the spatial order of rooms serves the ethnic order in that the symmetrical arrangement, the clearly-distinguished front yard and backyard and the rooms themselves compose the internal network. Such a combination of insufficiency and excessiveness as well as yin and yang forms a clear hierarchical order including the superior and the inferior, the principal and the subordinate as well as the old and the young, reflecting profound sense of social institutions (Figure 7).

4.3 Spatial Layout of the Main Courtyard

A two-storey front view building, lying in the middle part of the whole structure, can reflect the high rank of the host. This building has a width of five bays, among which four bays on both sides are 270cm wide and the one at the entrance is 320cm. Two bays on the western side are for the steward and the two ones on the eastern side are used as the financial office. This front view building is the second highest one in the whole courtyard with its height of 700cm. There is a lookout deck on the second floor and a corridor on the first floor facing the inside courtyard. In addition, there is a screen door between the entrance and the front yard, leaving only two paths on both sides for passage. Such a layout allocates passages reasonably as well as guarantees the privacy of the hall and the side rooms. Once entering the courtyard, family members step from the bluestone board between the foundation of the front view building and the wings to the foundation of the wings below the hanging roof, and then to the space covered by the extended eaves. In this way, the grey space created by the hanging roofs is reasonably employed to prevent the family members from getting wet and dirty when it snows or rains. The screen door is open only at meetings, weddings, funerals and receptions for distinguished guests to show respects for them as well as to make it convenient for guests to get through (Figure 8).

Two wings with a lean-to roof face each other behind the front view building. The wing rooms between the hall and the principal room has the same width of 600cm. Because they are mainly used for receiving guests, the wing rooms are lower than those in the backyard and are actually the lowest ones surrounding the main courtyard. The embedded entrance of the wing rooms increases the spaciousness of the bedroom and reduces the area of the internal hall, making them having more closed space.

As the main reception area, the hall in the main courtyard has the greatest depth in the whole main courtyard. In addition, the screen door is employed to separate the front hall from the lounge, creating a decent reception area and double-passage space.

There is no other connection between the back wing rooms and the hall with connected eaves and deep extended eaves, hence forming the long and narrow backyard as a more private space for family members' life.

The hall in the very end, having the highest status among all, is mainly for the older generation and the middle three bays are taken on as the middle hall for sacrifices. Therefore, the bedrooms at both ends are quite small. There are stairs on one side leading to the second floor, which is dedicated to the memorial tablets of the ancestors.

4.4 The Form Characteristics of the Side Courtyard

As the supplementary part of the main courtyard, two courtyards connected with the main one are mainly for the younger generation or servants. The three courtyards are connected with each other through doors. Two entrances are located between the front view building and the wing rooms as well as the principal room and the wing rooms.

The buildings in the eastern side courtyard have similar height and depth to those in the main courtyard. With the width of 1000cm, the main buildings in its axis have the width of three bays. Here, the principal room and the wing rooms are the younger generation's bedrooms and the second floor of the principle room is for those unmarried daughters. The hall is for meetings of family members or sometimes for weddings as well (Figure 9, Figure 10).

The buildings at the very eastern end are not so high and deep as those in the other two courtyards, mainly for servants, handymen and craftsmen. Therefore, they have more flexible functions for divide spaces and use function.

5. Conclusion

The spatial form of courtyards embodies a lot for exploration and appreciation as the soul of Chinese traditional architecture. In spite of its simple form, Chinese traditional courtyard architecture exerts its advantages with its multi functions (Liu, 2007). As a typical representative of Guanzhong traditional courtyard houses, Tang Courtyard has the following characteristics: having a centripetal layout; each courtyard composed of indoor space, outdoor space and grey space. In addition, Tang Courtyard and all the other typical residential houses in Guanzhong are characterized by strict hierarchical order, definite axis relations, narrow and long courtyard space as well as the longitudinal changes in space.

Tang Courtyard, an important part of Guanzhong residential houses, provides important references and investigation subjects for studies on the architectural form, courtyard form, door and window form of Guanzhong traditional residential houses and offers precious materials for our learning of architecture, culture, sculpture, painting and folk custom in Ming and Qing periods. Based on our investigation and comprehensive analysis on Tang Courtyard and the folk houses in Guanzhong, we intend to offer first-hand materials for our studies on Guanzhong residential buildings and folk culture, to provide references for the creation of new courtyard patterns and vernacular architecture conforming to the geographic features of Guanzhong Plain and actively promote the local special features of modern architectural design and cultural lineage in the current situation of creating new socialist countryside.

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Figure 1. Guanzhong Landform
(taken by the author)



Figure 2. Guanzhong Residential House (taken by the author)



Figure 3. The Facade of Guanzhong Residential House
(taken by the author)



Figure 4. Guanzhong Residential Courtyard
(taken by the author)



Figure 5. Tang Courtyard
(taken by the author)



Figure 6. Tang Courtyard
(taken by the author)

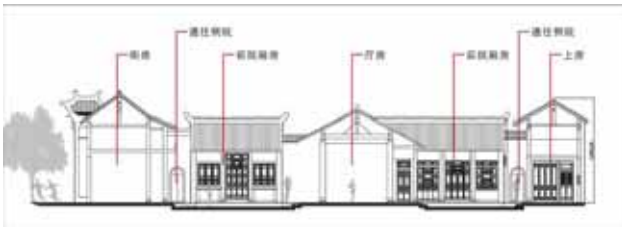


Figure 7. The Side Face of Tang Courtyard
(drawn by the author)

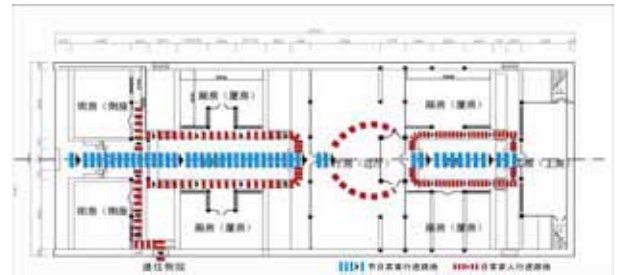


Figure 8. The Traffic of the Main Yard of Tang Courtyard
(drawn by the author)

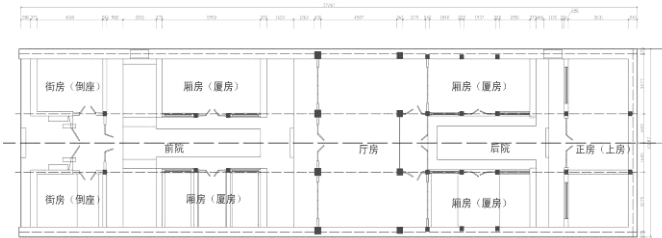


Figure 9. The Spatial Organization of the Side Yard of Tang Courtyard
(drawn by the author)



Figure 10. The Side Yard of Tang Courtyard
(taken by the author)