

# Analyze of Traditional Settlement Patterns in the Southern Part of Shaanxi Province

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**Abstract:** This paper took the ancient town Qing mu chuan in the southern part of Shaanxi Province as the research subject and explored its space form, space layout and street space of traditional settlements here with a lot of in-depth field investigations and the application of such emerging theories as space interface, architecture culture and environmental psychology. It also analyzed the interrelations of space form, specific geographical environment, social environment and regional culture. It has summarized the layout patterns depending on the geography, orderly space sequence, street space with pleasant scales, various intercourse space, and constructing experience, which has provided information and reference for the new rural construction and contemporary relocation work in the southern part of Shaanxi Province.

**Keywords:** Qing Mu Chuan, regional culture, space sequence, the traditional settlement.

## 1. RESEARCH STATUS

The research focused on the traditional settlements in the larger regional division and major cultural watershed, in terms of case analysis and theoretical discussion. Specifically from natural conditions, rural settlement, single plane, building construction, decoration, functions were discussed [1, 2]. "Northern folk architecture" "Sichuan ancient buildings," and so on. Another technology-based research study of traditional houses of ecological change [3], The law of development from traditional houses to the regional architecture. Single representative discusses "From traditional houses to the regional architecture" and so on. There is a tendency to study how to protect, exploit the transformation of traditional houses, such as "The Life and Death of traditional architecture", as well as updating a large number of historic inner city neighborhood transformation and so on. But for the study of traditional settlements in Southern Shaanxi less [5]. Overall, the settlement traditional settlement studies focused on the micro (buildings, houses) level, in view of the lack of Probe (morphology village) level, and also to explore the lack of development of the traditional settlement area under certain conditions [7]. This paper from the perspective of spatial composition of traditional settlement Qing Mu Chuan analyze not only helps compensate for the lack of the meso-level research in Southern traditional settlement, but has some theoretical significance for the large-scale relocation of rural Southern community building.

## 2. THE SPACIAL LAYOUT WITH A RIVER BETWEEN HILLS AND SEPARATING SETRRT

From a macro-planning perspective, Qing Mu Chuan Ancient Town is located on a rather plain land in a mountain. The town is separated into two parts by the Jin Xi River.

Streets are mainly arranged along the river and roads in or out of the town to the south-north direction, forming a corresponding state with an old and a new street on both sides of the river. The western side of the river is relatively narrow, closely following the foot of the mountain while the eastern side of the river is relatively flat, but the middle gradually rises to both sides, thus a river between two hills is naturally formed. The remaining old and the new street are built along the Jin xi river. The old street is located on the eastern side, the new street being on the western side. Before liberation, the old street had been an economic and cultural center of Qing Mu Chuan [5]. With the economic development, population's expansion and reconstruction of transit roads, the new street has been built and also has weakened the function and status of old street day by day. Till today, the spatial layout with a river between two hills and separating two streets has been set up in Qing Mu Chuan Ancient Town.

## 3.FEATURES OF THE STREETS SPATIAL STRUCTURE

### 3.1. H-Shape with "An Old Thing, a Bridge and a New Thing"

"An old thing" refers to an old street on the coast of Jinxi River in Qing Mu Chuan Ancient Town. The Old street, about 1 kilometer from south to north with few corners, is built on the north side of Fenghuang Mountain and arranged with an inverted U-shape layout.

Buildings in the old street mostly are two-story shops, where the front parts are halls and the latter parts are for sleep. Courtyards are also different in size according to terrain and family needs. Overhanging eaves are rather deep, open and magnificent. Due to the unified style and various forms, architecture in the old street makes a full display to affinity and inclusiveness of the villagers here [6].

"A bridge" refers to Fengyu Bridge to connect the new street and the old street. In terms of its landscape effect it can

be considered to be a tool of mutual view-borrowing and spatial exchange of the old and the new street. Meanwhile, it is also embodied with practical function. It is quite thriving on every fair day, which becomes a sign of being positive and optimistic of villagers.

“A new thing” refers to the new street. It is finished with lack of a unified schedule of the local government in late periods, so it shows relatively modern architectural style, which is in great contrast with the old street. However, it has lost the connotations of classical heritage like the old street.

### 3.2. Space Constitution of the Old Street

Linear space of the old street consists of four elements: side interface, upper interface, ground interface and terminal interface

#### (1) Side Interface-Old Houses on the Street

Among the four interface elements, side interface plays a dominating role. The height, the style and the color of a building are restrictive to the space of a street. Generally speaking, buildings on one side are less restrictive to the street than buildings on both sides of the street like the old street in Qing Mu Chuan Town. Those buildings here, in fact, have a great limitation to the width of the street.

(2) Most buildings in the old street are one-story or two-story buildings. Each story is about 2.5 to 3.6 meters high (usually, houses in rural areas are high). communication space of such height is just within the range of public space (Fig. 1). Edward has clearly given a definition of common distance scale in the book of “the Hidden Dimension” and also put forward a specific Figure 3.75 as a reference modulus. Therefore, the street in Qing Mu Chuan town is generally 4 to 7.5 meters wide or so. Houses on both sides of the street have limited linear space, which can better highlight the public space of fairs and transitions. Moving through the street, people can feel it strongly. In terms of spatial sequence, the transition of side interface is more natural from the street to the veranda of houses and then to the inside of a single building. Public space, semi-public space and private space have undergone gradual and natural transition, extending inwards. Such spacial sequence perfectly reflects the spatial spirit of “action without action” advocated by Laozi, a philosopher of ancient China, best known as the author of the Tao Te Ching.

#### (3) Upper Interface---the Building Skyline

Upper interface, as an extension of side interface, is generally defined as the cornice and the roof which are restrictive to top space of a building to some degree [7]. The skyline they sketch becomes an outline of the top over the street. Then, the differences in both depths of cornice overhang and intervals between buildings can make a change to linear space of the street. This change makes the level of space more rich and vivid. The “virtual” space is corresponding with “change” in Qing Mu Chuan Town, which thereby strengthens the exchange between side interface and upper interface. Qing Mu Chuan Ancient Town employs cornices and lines as its basis and makes a complement with timber frame and gable wall to show scattered skylines. It is just the spacial effect of upper interface as an extension of the side interface.

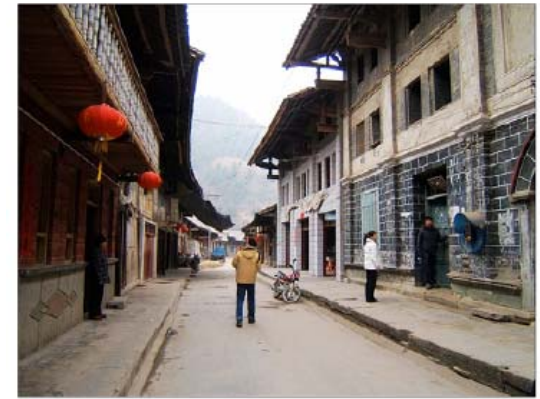


Fig. (1). Interface relationship of the old street.

#### (4) Ground Interface---Ground

It is ground interface that has a straight contact with a construction. In terms of function, it mainly plays a role in transportation communication. Paving texture, to some extent, embodies cultural characters of linear space of a street.

Being one of major features, ground pavage of the old street in Qing Mu Chuan Town mainly makes use of blue stone boards nearby. Stones employed are not uniform in size but retained with original shapes. Those various and scattered stones add more fun for people when they are moving through the street. Formation of the street has not had unified schedule or design but naturally made by building residential houses according to functional requirements rising from the realm of unconsciousness. So it further reflects a philosophical concept of “Wu Wei”(literally non-action or non-doing). Doing trade, transportation links and communication of neighborhoods are rolled into this street [8]. Such function is fundamentally uniform with those in other ancient towns of china and even the world.

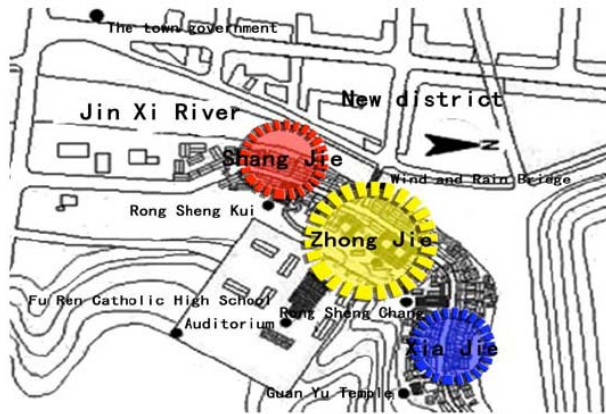
### 3.3. Spatial Division of the Old Street

Formation of the old street can be attributed to historic reasons, location as well as special terrain characteristics. In the last millennium, the old street has risen from Shang Jie, thrived in Zhong Jie, reached out to the world in Xia Jie (Fig. 2)

#### (1) Shang Jie: Outreach to the World.

In the whole space of the old street, Shang Jie, depending on its convenience of outreach, is mainly concentrated with residential houses and shops. For instance, there was a famous firm named “Rong Sheng Kui”with architectural

unique style and crafted design. It was known as “the Land Boat House”, a famous entertainment place at that time.



**Fig. (2).** Spatial division of the old street.

#### (2) Zhong Jie: an Economic and Cultural Center

Zhong Jie, namely, in the middle of the old street, is mainly concentrated with clans in Qing Mu Chuan Town including village office (village government), a firm “Rong Sheng Chang” as well as “Wind and Rain Bridge ” to connect with the new street. All of these have contributed to the prosperity and flourishing of Zhong Jie.

#### (3) Xia Jie: Rising of the Old Street

Many of shops and firms was formed earlier in Xia Jie in the northern end of the old street like Tobacco houses and Guan Gong Temple. Those social products promoted the economic development. Then, the old street develops gradually from north to south, and eventually to a one -thousand-meter street that we have witnessed today.

### 3.4. Functional Continuation of the Old Street

Although the old street is not more prosperous than before, its function remains. On every fair day, villagers in the surroundings will come here to do trade. Frequently, the old street is quiet. Three or five persons often play chess or cards under eaves; sometimes people stand on the street for a chat. If holiday is coming, some tourists will experience life and bring fresh air to here. People living in the old street are refreshing and happy[8]. Ease and coziness they own are what people in metropolis yarn for endlessly. Maybe less pretentiousness in cities and more peacefulness in rural areas are what the true life means. The old street will continue to welcome the coming of every day and play an important role, whether it is brilliant or dull[3].

## 4. ANALYSIS OF THE PATTERNS OF HUMAN SETTLEMENTS IN QINGMUCHUAN

The pattern of human settlements of “a river between two hills and separating two streets” in Qing Mu Chuan are not formed with one-step but day by day over hundreds of years of history. The main factors can be shown as following.

### 4.1. Natural Factors

In terms of site selection, ancients advocated that being with a hill and a stream nearby was beneficial to select build-

ing materials and made daily life convenient, and also played a defensive function. Besides, they cared for the harmony between humans and nature. Although there has been an increasing awareness of improving the partial environment with the development of human beings, on the whole, compliance with nature is the precondition of buildings. “Guan Zi . Chen Ma” has given a definite point on the site selection of a city. It says that a city is usually built either at the foot of a hill or on a flat ground. Building a house on a piece of higher ground must take sufficient water into account, while building a house on a piece of lower ground must take flood control and drainage into consideration [9]. Therefore, it is necessary to follow geographic conditions and not to rigidly adhere to certain formal requirements. Those theories has brilliantly expounded the basic principals for the ancients’ site selection.

The region of Qing Mu Chuan is abundant in stones and woods. The building structures on the old street are basically wooden. Foundation and paving have employed stones in the local place. Especially, the street is paved with blue stone boards locally, thus, paving hardness and the wooden structure are perfectly corresponding with each other. “To make a living with the local advantages” has been brought to a full display. So it can ben seen that the impact of local materials on the styles of residential houses, with underdeveloped productive abilities, is remarkable.

### 4.2. Social Factors

Any kind of human settlement and residential culture must be based on the social culture, therefore, a systemic and comprehensive understanding of the latter has become a must to grasp the overall culture of the former. Residents in Qing Mu Chuan Ancient Town mostly assemble and live together, mainly associated by consanguinity and geographical relationships

#### 4.2.1. Caused by Wars

The government has a less strong power to take control of Qing Mu Chuan area which is quiet remote. In late Ming and early Qing Dynasty, wars broke out continuously. To avoid the wars, clans far from here migrated to this region. Also, they assembled and lived together in order to unite all forces and strengthen protection. With the natural economy at that time, residents here had limited productivity and a small range of activities[8]. As population increases day by day, the newly-established small households still live together with big ones or nearby them. thus, human settlements with assembling life that we have witnessed today have been formed after reproduction or separation of human beings over several generations, even dozen generations,

#### 4.2.2. Intermariages Between Clans Also Promote stability in this Region

Stable social environment, being a prerequisite for the rapid development and growth of clans, at that time is a fundamental economic force to operation of the land. Clans in the local place twists with each other by intermarriage to form powerful forces. Meanwhile, depending on their strong power, they expand their lands and donates shared properties in this region, aiming at intervention in a variety of local affairs. Thus, local clans, resorting to the special location,

not only take control of politics and economy but also have a great impact on the social and living forms by means of their own thinking and behaviors.

#### 4.2.3. Cultural Factors

##### (1) Confucian Impact

Most of traditional clans in Qing Mu Chuan are based on consanguinity. Such consanguinity relationship follows Confucian rituals first, caring for hierarchical order, stressing respect of elders and family loyalty. Under the rule of thousands of Feudal society, Confucius had been existing in people's life as a social ideology[3]. It requires that people must strictly abide by it without any exception in order to assure long-term stability of society. Such concept can also be reflected in the Chinese traditional houses like Beijing Courtyard.

Traditional residential houses in Qing Mu Chuan Town has undergone constant evolution and development from rooms to buildings, eventually to shaped courtyards. It is obvious that all the houses here lay great emphasis on axis symmetry and sequence of longitudinal space, showing great compliance with Confucian rituals which can not be converted at free will.

##### (2) Taoist Impact

Lao zi elaborates the relationship between architecture entity and space with dialectics. He explains that a wall is one key element encompassing all space. Lack of the wall makes it difficult to limit space. For people, the potential utility resides in the tangible wall, but the true usefulness is space encompassed by the wall. This concept has given an instructive suggestion to the ancient and even modern buildings in china[3][5]. Lao zi also stresses the concept of respect for nature and harmony with nature. Most of the traditional human settlements in Qing Mu Chuan Ancient Town have embodied the concept of "harmony between human beings and nature" on geomantic omen and their layouts also conform to the terrain.

##### (3) Impact of Geographical Culture

According to geographical location, Hanjiang River is close to Bashu in Sichuan Province to the south, while the local language is close to Qinshu dialects to the north. So Hanjiang River culture is characterized by northern and southern styles and also it includes local dialects in Qin Shu. Cultures in the north and south conflict with each other. [3] Qing Mu Chuan is mainly influenced by them. The reasons can be explained as follows. On the one hand, it is located in a special place; on the other hand, culture has been spreading in the process of migration. There are several large-scale population movements in the history, which has a great impact on the cultural construction of upper reaches of Hanjiang River, promotes the reconstruction and integration of social culture, and also contributes to the development of economy to a certain extent [9, 10].

## CONCLUSION

Southern traditional settlement process is to continually adapt to the evolution of the geographical environment of the process of development and change, Southern Qing Mu Chuan traditional settlement adapt to the special conditions

of the mountain, along with social and economic development, forming a unique "two mountains a river, a water two street" space layout mode. By Qing Mu Chuan case analysis, spatial characteristics of traditional settlements in Southern region under special conditions can be summarized as follows:

- (1) In terms of location, "water door edge, mountain on the potential;"
- (2) Adapt the plane form "Chuan" shaped space farming system development;
- (3) Traditional spatial sequence variation on the street space node "retractable orderly";
- (4) On the streets interface, proportional relationship between each other and to the side of the interface, the interface will create a "pleasant scale";
- (5) A wide variety of "communicative space" internal settlement enrich people's lives. More than five summarizes the spatial characteristics of areas Qing Mu Chuan traditional settlement of old town, which features a universal and representative for Southern guide the development and construction of traditional settlement has a positive meaning.

## CONFLICT OF INTEREST

The author confirms that this article content has no conflict of interest.

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