

Scientificity and Rationality of Chinese Traditional Classical Fengshui Theory

YU Yan^{[a],*}; YANG Zaijun^[a]

^[a]College of Life Science, China West Normal University, Nanchong, China.

*Corresponding author.

Supported by Project of Sichuan Provincial Department of Education (16ZB0183).

Received 6 January 2017; accepted 1 March 2017
Published online 26 March 2017

Abstract

Chinese traditional Fengshui theory was the fundamental basis, norm, and guiding ideology for site selection, planning, design, and building of residences in the ancient times. Based on the main classical theories of Chinese ancient Fengshui theory and the classical Fengshui model which is suitable for the planning and design of space field, this paper discusses and analyzes the Chinese traditional Fengshui theory from the multidisciplinary perspectives of hydrology, climatology, geology, topography, landscape ecology, environmental psychology, with an aim to demonstrate its scientificity and rationality, thereby, promote correct understanding and reasonable application of it. The conclusion is that Fengshui is based on multidisciplinary knowledge, especially contains a large number of geological geography knowledge, and reflects the distinct principles of environmental ecology and sustainability. It is a comprehensive and systemic theory of planning and designing environment and architecture from the perspective of the modern scientific theory. The paper also aims to corroborate that Chinese traditional classical Fengshui theory is not only a culture or latent science, but also a comprehensive and interdisciplinary geography and environmental science with rich humanistic connotation. Therefore, it can and should be used extensively in the land-use policy, urban planning, landscape restoration, environmental protection, etc, and should be spread from China to Asian countries with similar cultural heritage, and even to the rest of the world.

Key words: Fengshui; Classical Fengshui model; Harmony; Ecology; Scientificity; Sustainability; China

Yu, Y., & Yang, Z. J. (2017). Scientificity and Rationality of Chinese Traditional Classical Fengshui Theory. *Canadian Social Science*, 13(3), 55-65. Available from: <http://www.cscanada.net/index.php/css/article/view/9341>
DOI: <http://dx.doi.org/10.3968/9341>

INTRODUCTION

The emergence of Fengshui, which literally means wind and water, was gradually over thousands of years. It was first employed in the site selection of houses in ancient China; took shape in the Han–Jin period; developed in the Tang, Song, and Yuan dynasties; and approached perfection in the Ming and Qing dynasties (Yu & Yang 2016). Chinese traditional Fengshui theory, which was the oriental traditional environmental theory, was commonly used in the site selection of ancient capitals, cities, villages, towns, houses, and graves. Fengshui was also a practical technique in ancient China, which aimed at creating harmonious living conditions by thoroughly investigating all aspects of the natural environment and moderately transforming and making use of nature (Yang 2005). It involves the examination of the geographical conditions of mountains and waters before selecting favorable conditions and proceeding with the construction to achieve the ideal of “unity between heaven and humans.” Fengshui represents the traditional Chinese architectural theory for selecting favorable sites and the theory for planning cities and designing buildings (Lee 1986). The scientific theoretical essence of Fengshui is revealed in the site selections of the remaining ancient capitals (e.g., Beijing, Chang’an, and Luoyang) (Yi et al. 1994), imperial mausoleums (e.g., Tomb of Emperor Zhu Yuanzhang, Eastern Qing Tombs,

and Western Qing Tombs) (Wang, 2008; Cheng, 2010; Wang & Fu, 2007), and human settlements (e.g., Xidi village and Zhang Guying village in southern Anhui) (Yao & Liu, 1998; Zhang, 2003).

However, the number of intellectuals who believed in Fengshui decreased with the introduction of Western sciences to China after the 19th century. Most of the old cultures, including Fengshui, were destroyed and forbidden during the mid-20th century Cultural Revolution. Although Fengshui originated from China, its practice is currently less common in the People's Republic of China because it is often considered a superstition unsupported by science (Chen, 2013).

Fengshui contains numerous scientific, aesthetic, and philosophic components when several of its superstitious contents are excluded. Thus, a strong belief in Fengshui still exists covertly. Fengshui remains strong in Chinese communities outside of China. It is practiced everywhere in East and Southeast Asia. Fengshui also prevailed in the West. Western researchers were faced with the global eco environmental crisis and realized that the Chinese Fengshui theory contains elements of science and is an effective approach to handling the crisis (Chen, 2013). In recent years, many researches have also confirmed that Fengshui implies a wealth of landscape ecology and sustainable development principles (Hong et al., 2007; Yuan & Liu, 2009; Mak & Ge, 2012; Chen, 2013; Er, 2014). Fengshui has been recognized by the international academia.

Joseph Needham, a famous British scientist, reputed that Chinese Fengshui contains a kind of aesthetics that is beneficial to the Chinese. Ieoh Ming Pei, a Chinese American architect, believed that Fengshui is a kind of potential science with a great future. From the modern scientific theory perspective, Fengshui is a comprehensive and systemic theory of planning and designing the environment, which includes a variety of science fields, such as astronomy, hydrology, climatology, geology, topography, landscape ecology, environmental psychology, architectonics, aesthetics, ethics, and human life informatics. This paper intends to discuss and demonstrate the scientificity and rationality of the traditional Fengshui theory based on the above perspectives, thereby corroborating that it is not only a kind of culture or latent science, but also a comprehensive and interdisciplinary science of the environment.

1. BASIC TENETS OF FENGSHUI

Fengshui was divided into two main schools, namely, "Form School" and "Compass School." Form School focuses on the distinct physical features of the surroundings to assess and interpret the landscape and

ecological values, whereas the Compass School entails the use of astrology, numerology, and cosmology to anticipate future events (Chen, 2013). The Form School is recognized and widely accepted by Fengshui researchers because it employs scientific bases in the analysis of architectural environment (He, 1990; Wang, 1992; Cheng & Kong, 1993; Mak & Ng, 2005). In this paper, the author underlines the classical theory of Form School and its methods.

Unity between heaven and humans is the basic principle of Fengshui. It means harmony between the universe, earth, and human energy. Energy is valued in both physical and invisible forms, known as "Qi" (vital natural energy flow and breath of life) in the traditional Chinese Fengshui culture (Mak & Ng 2005). Two basic criteria are followed to organize Qi, that is, its diffusion by wind and collection by water (Gu 1995). Therefore, Qi, wind, and water are the inseparable concepts of the Form School.

The ancient Chinese believed that everything has two opposing parts: Yin and Yang. Yin represents the passive elements in nature, while Yang represents the active elements in nature. Yin and Yang are about balance and harmony within a space.

According to Fengshui, everything in the world is part of the five elements: metal, wood, water, fire, and earth. The five elements are related to colors, times, seasons, directions, and forms. These elements create and destroy each other according to a specific order (Er, 2014) (Figure 1).

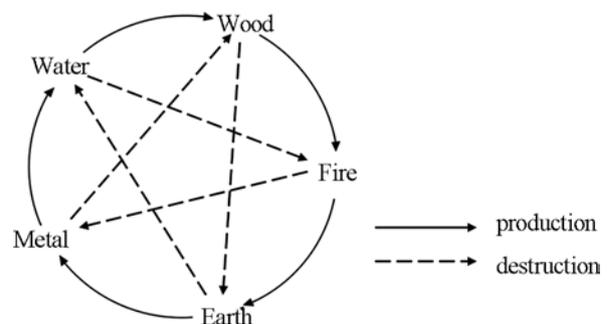


Figure 1
The Productive and Destructive Cycle of the Five Elements (Yi, et al., 1994, Author Self Drawing)

The four emblems theory was derived from the discoveries in ancient Chinese astronomy, which is the foundation of the spatial structure of the Form School of Fengshui. The four emblems are also known as the four animals, which include the Blue Dragon, Red Phoenix, White Tiger, and Black Tortoise (Er, 2014), because of their shapes. The four emblems represent the East, South, West, and North, respectively (Ren, 2000) (Figure 2). The Chinese used the theory of four animals to define directions and landforms on earth.

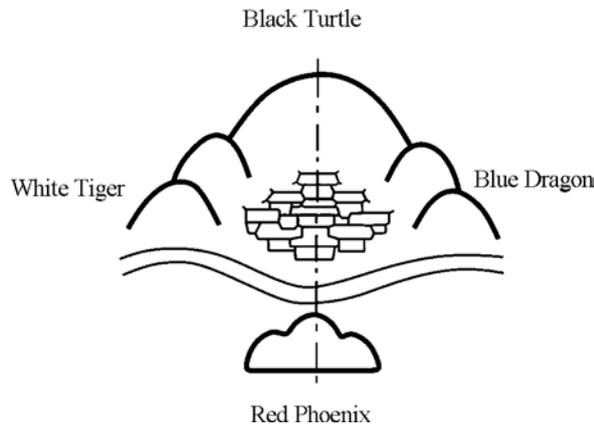


Figure 2
The Illustration of the Four Emblems Concept (Ren, 2000, Author Self Drawing)

2. CLASSICAL FENGSHUI MODEL

The Form School of Fengshui is based on the investigation and analysis of the physical configuration of mountains and watercourses surrounding sites and buildings (Mak &

Ng, 2005). The factors comprising the basis of the Form School approach are known as the “five geographical secrets,” namely, dragon, sand, water, cave, and direction (Lip, 1979). On the bases of the “five geographical secrets” and the four emblems, the Form School created a classic Fengshui model. This model can be summarized as “facing the sunny side with the shadowy side at the back and fronting water with hills at the back.” It has been interpreted in the spatial organization diagram of auspicious mountains and watercourses in most of the classic Fengshui literature (Shang, 1992; Yi et al., 1994). Initially, a site should be backed by dragon vein and face the desk and facing hills, while the site should be supported by protective hills on the left and right sides. All the mountains and hills are covered by flourishing plants. Second, the best direction for the site is toward the south, and at the south of the site should be a crescent pond or winding river. Third, the site is in the middle of the landscape, and its landform is flat terrain with a certain slope. The ideal Fengshui model should possess certain landforms (Figure 3).

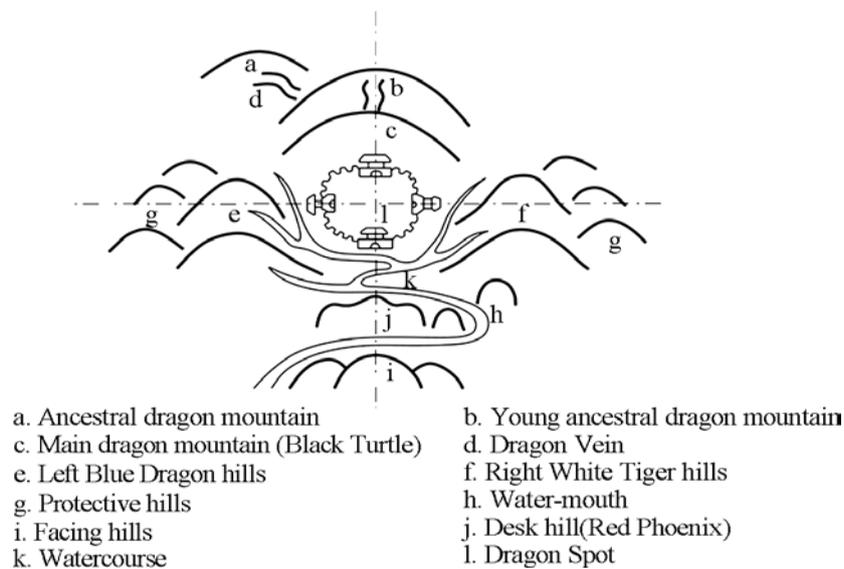
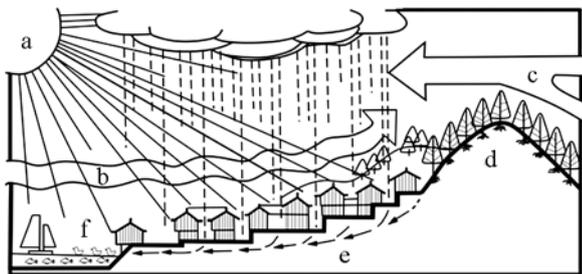


Figure 3
The Classical Fengshui Pattern (Ren 2000, Author Self Drawing)

The classical Fengshui model is the fundamental principle and ideal pattern in the site selection of the architectural environment. A natural environment with such conditions is easy to imagine, and a relatively closed space is advantageous in forming a good ecological environment and local microclimate. According to the model, the best direction for the structure is facing south and in the north should be mountains. This model blocks the frigid wind from the north in winter and welcomes the sunlight and cool wind from the south in summer. Another important requirement is that all the mountains and hills are covered by flourishing plants, called Fengshui forest. On the one hand, dense vegetation is a symbol of good

living conditions, such as fertile soil, abundant rainfall, and suitable climate. On the other hand, Fengshui forests formed by thick trees are significant in terms of ecological and biodiversity conservation, soil and water conservation, adjusting microclimate, livelihood, and forming a part of landscaping and architectural development of settlements (Liu, 2007; Zhong & Boris, 2007; Zhu, 2007). A crescent pond or winding river in the south near the site should be present according to the size of pattern. This contributes to the production of moisture and provides convenience in water transportation, living, irrigation, and developing aquaculture. An appropriate slope would prevent waterlogging disaster and be conducive to drainage.

The classical Fengshui model facilitates the creation of a good ecological environment and a favorable microclimate that promotes good ecological cycle in agriculture, forestry, animal husbandry, sideline, and fishing because of ecological sustainable development (Figure 4). Langzhong, an ancient city in Sichuan Province, is a representative Fengshui city in the Southwest of China. The geographical environment of the ancient city has an almost perfect pattern according to Fengshui classical model (Figure 5).



- a. Good sunshine
- b. Welcome the summer cool wind
- c. Stop the winter cold current
- d. Soil and water conservation and microclimate regulation
- e. Good drainage
- f. Convenient water transportation

Figure 4
The Site Selection of Fengshui and the Ecological Relationship

Source: Internet, Author Self Drawing.



- a. Black Turtle: Panlong Mountain (the Dragon Vein)
- b. Left Blue Dragon: Bashan Range
- c. The Red Phoenix: Jinping Hill
- d. Right White Tiger: Jianmen Range
- e. City in Han Dynasty
- f. Dragon Spot: ancient city
- g. Jialing River

Figure 5
The Fengshui Pattern of Langzhong Ancient City (Author Self Drawing)

3. FIVE FENGSHUI ESOTERIC TEACHINGS

The effect of the site on buildings can be considered in two ways based on the perspective of modern Western scholars. The first deals with the physical nature of the site—its slope, type of rock or soil, run-off, vegetative cover, microclimate, and so on; the second considers the symbolic, religious, or cultural values of the site and their consequences (Rapoport, 1969). Some people believe that Fengshui only values the cultural symbolic significance of the environment, while the scientific significance of the real environment is neglected. On the contrary, the shapes, forms, and locations of mountains, roads, trees, rivers, and pools are valued and considered more in Fengshui because these have different effects and consequences. These elements can be summarized as the dragon vein, surrounding hills, watercourses, spot, and direction that comprise the basic concepts of the Form School of Fengshui and are known as the “five Fengshui esoteric teachings” or “transmitted teachings” governing the choice of a site (Zhao, 1786). The investigation of the physical nature of the above elements includes five steps, namely, seeking the dragon, observing the sands, looking at the water, pointing out the spot, and deciding on the orientation (He & Luo, 2000).

3.1 Seeking the Dragon

The first of these “esoteric teachings” is called “seeking the dragon.” The dragon represents the whole location of the site but refers particularly to the mountain ridges and land formations. In a mountainous area, the dragon is of great importance and receives more attention than any other elements because it symbolizes the forces of nature (Fuechtwang, 1974). It is claimed to either make or destroy the fortune of men. Fengshui masters differentiate the three trunk (great) dragons through the four rivers of China. The South Dragon is in the south of the Yangtze River. The Middle Dragon is between the Yangtze and Yellow Rivers. The North Dragon is between the Yellow and Yalu Rivers. The three great dragon veins originate from the Kunlun Mountain. Every trunk dragon comprises of a remote ancestor mountain, an old ancestor mountain, a young ancestral mountain, and the main mountain, which branches out to many bough (small) dragons (Yi et al., 1994)

The behavior of a dragon vein is assessed by its distance, size, vegetation coverage, and contour. Fengshui insists that the further and bigger the dragon vein is, the better it is. According to the research findings in modern geological science, the mountain formation system must go through a long process of growth. Therefore, the bigger the mountain is and the longer mountain range is, the more stable and solid the formation process becomes. In Fengshui, the quality or suitability of a dragon vein can be assessed according to its shape and appearance. A dragon

vein is good when its contour is meandering, fluctuant, gliding, and lush. In contrast, that whose contour is inflexible, bald, and barren is a bad and dead dragon.

Natural mountains have various and complex shapes. For easy judgment, Fengshui manuals classify mountains into five elements according to their shapes and conditions (Figure 6). The star of fire represents mountains that have sharp and cutting edges like flames; the star of wood represents mountains that are bold and straight like the trunk of a tree; the star of earth represents mountains that have square-shaped contours; the star of metal represents mountains that are smooth and round; and the star of water represents mountains with an undulating wave-like pattern (He & Luo, 2000). According to Fengshui, among the five elements, metal and water are the best and luckiest shapes, followed by the earth, while wood and fire are the worst and unluckiest shapes. Moreover, the mountains that comprise dragon veins must be arranged according to the principles of the production of the five elements. Importantly, the metal-mountain must be placed in the first position, which is occupied by the main mountain. Thus, metal-water-wood-fire-earth is the order followed.

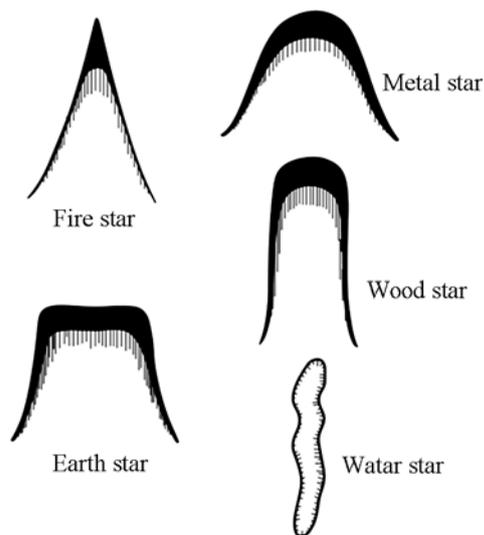


Figure 6
Five Elements and the Shape of Sand Dune (Yi et al., 1994, Author Self Drawing)

The ideals and arrangements seem to focus only on the cultural symbolic significance, whereas the experience that ancient scholars summed up reflects sound scientific evidence. According to the soil mechanics theory, the natural inclination angle of soil is about 30°. Mountains and hills whose natural inclination angles do not exceed this angle are relatively stable. On the basis of the analysis of the contour of mountains, the angle of the mountain described as metal or water is usually equal to or less than 30°. Moreover, it is smaller than that of the mountain belonging to wood, fire, or earth. Huge and steep-angled mountains are disadvantageous to the residences and

lives of the people because these mountains are prone to collapse during earthquakes and landslides or mud-rock flow during heavy rains. Hence, the mountain near the site should not belong to wood, fire, or earth. According to the geology theory, the mountains described as metal and water are always round and composed of deep soil, whereas the mountains belonging to wood, fire, and earth are steep and composed of stones. The former is conducive to the formation of complex animal and plant communities, which are beneficial to human living. In contrast, the latter are naked mountains or usually barren lands, which are also called bare hills in Fengshui, and are not beneficial to human living.

In the ancient city of Langzhong, the dragon vein escorted by the Jialing River comes from the northern part of the city. It is grand and has abundant vegetation. Wenchuan County is in the Northwest of Sichuan. Most of the mountains surrounding Wenchuan are precipitous, cliffy, and rocky compared with mountains surrounding Langzhong. The mountains are very close to the city because of terrain constraints. As a result, thousands of people were killed, wounded, or missing in the magnitude 8 earthquake that occurred in Wenchuan in 2008 (Figure 7).

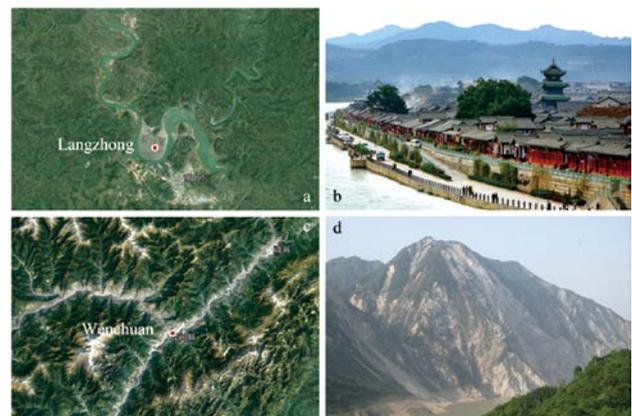


Figure 7
The Satellite Map and the Mountain Shape of Langzhong (a and b) and Wenchuan (c and d)
 Source: Google Earth Map and Internet.

3.2 Observing the Sands

The second “esoteric teaching” is called “observing the sands.” Sand means earth or alluvium. In Fengshui, sands refer to the mountains and hills surrounding the site, called “four emblems,” which are located in the four directions of the site in the classical Fengshui model (Figure 3).

Sands can be observed in many ways. The general principle is “xuanwu (black tortoise and snake, the dragon mountain) drooping, red phoenix (the desk hills) dancing, blue dragon (hills) winding, and white tiger (hills) taming” (Guo Eastern Jin Dynasty). First, the sands are distinguished from the dragon vein. The dragon is the principal host, while the sands are secondary. Second, the sands on the right part (west) of the site (the white tiger)

should be slightly lower than those on the left part (east) of the site (the blue dragon). Third, the sands in the south should have a graceful and gentle contour; for example, the shape of a saddle, a console table, or a penholder. Other common and detailed standards are used to judge the sands; for example, sand that is round, regular, and full in shape is likely to bring fortune, whereas sand that is irregular and defective will do the opposite. The above approaches reflect the Chinese traditional hierarchy culture and aesthetic standard. Moreover, the spatial pattern surrounded by mountains and hills from the four directions that form a central basin terrain is conducive to the formation of suitable local microclimate and implies modern environmental psychology requirements, such as the sense of domain, security, and the sense of belonging.

The sands can also be classified by five elements according to their shapes or profiles. The key points of identification and selection have been stated previously according to the principles of production or destruction of the five elements.

3.3 Looking at the Water

The third “esoteric teaching” is called “looking at the water.” Water depicts all watercourses near the site. It is an essential element for site selection. Fengshui theory insists that there must be watercourses in the lucky site. Fengshui even suggests that “looking at the water” should be prior to “observing the sands” and that the site is

inappropriate if only mountains without watercourses are present (Yi et al., 1994). Developing water transportation and setting up defense is beneficial because water is regarded to bring fortune and living Qi. Water has many other important functions, such as agricultural irrigation, developing sideline and fishing, and adjusting the local microclimate. In addition, in flatlands or lands abounding in rivers and lakes, water becomes the most important factor and possesses the status of a “water dragon” like the “mountain dragon” in a mountainous area.

Water being in front of the site is also known as red phoenix (Guo Eastern Jin Dynasty). If the water is a pool, lake, or swag, then “red phoenix dancing” suggests that it is clear and clean. If the water is a river or a stream, then it refers to being winding and smooth. “Red phoenix crying” infers that the water is feculent chaotic or the river is blusterous and runs straight and torrentially. According to the *Water Dragon Book* (Jiang Qing Dynasty), the water bodies described in Figures 8 (a, b) are promising. The water bodies described in Figures 8 (c, d) are adverse. These descriptions can be summarized in three aspects: current velocity, topographical feature, and water quality. The water’s sound, color, taste, and headwater are also considered. A good water should be beautiful and elegant, limpid and pure, and peaceful and gentle to bring good fortune. Otherwise, the situation would be less than ideal and might be described as torrential, blusterous, chaotic, or muddy.

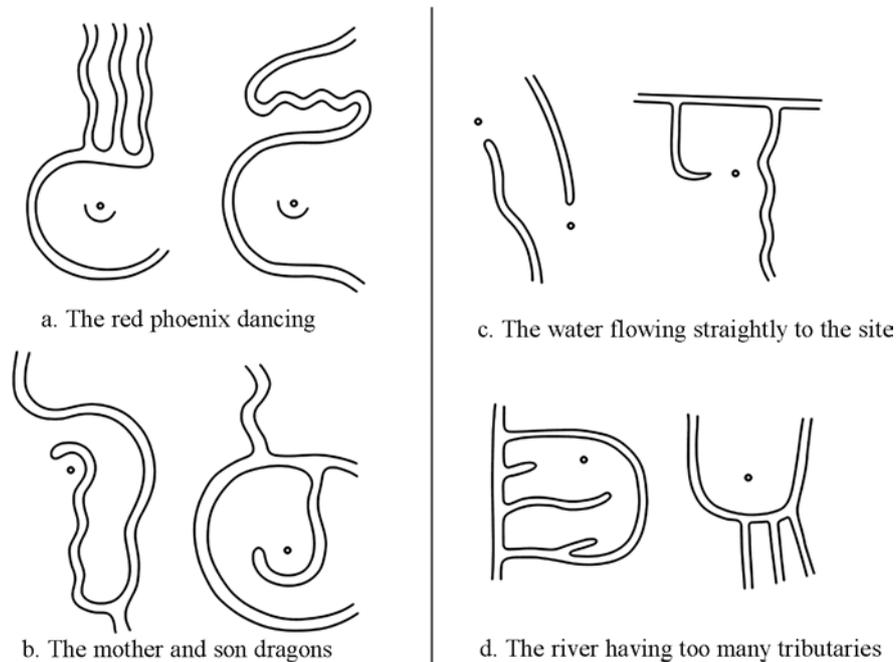


Figure 8
The Pattern of the Propitious Water (a and b) and the Dangerous Water (c and d) (Jiang Qing Dynasty, Author Self Drawing)

The following focuses on the influences of the different shapes of watercourses on the site. Like the mountains and hills, the watercourses may also be

classified by five elements according to their planar shapes. As shown in Figures 9 (a, c), the good and lucky water should be in metal-water and water-water patterns.

The water flowing along the three sides of the site is called “embraced by the metal city” (Figure 9 (a)) and is the most auspicious. The bad and unlucky water is just like the pattern depicted as wood, earth, or fire (Figures 9 (b, e, f)). The situation corresponding to Figure 9 (f), which is called “anti-bow brake,” is very bad according to Fengshui. The situations illustrated in Figures 9 (g, h) are similar to it. Thus, the good shape of water is not the only important consideration, but also the location. The site should be in the inner part of the bend of a watercourse. According to the theories of river dynamics and river evolution, the scientific component is apparent. Based on the curve circumfluence of the river dynamics

theory, the centrifugal force produced by the current in the bend section enables the surface current to flow to the concave bank and make the bottom current run to the convex bank. The current forms closed transverse circumfluence in the cross section (Figure 10 (a)). In the concave bank, the current flows from top to bottom swiftly. The situation in the convex bank is completely the opposite. The concave bank is prone to bank collapse because it is continuously eroded by both the transverse and longitudinal currents. The sediment among the underflow is deposited in the convex bank and forms an alluvial, shallow, and slow-flow shoal because of gravity (Figures 10 (b to d)).

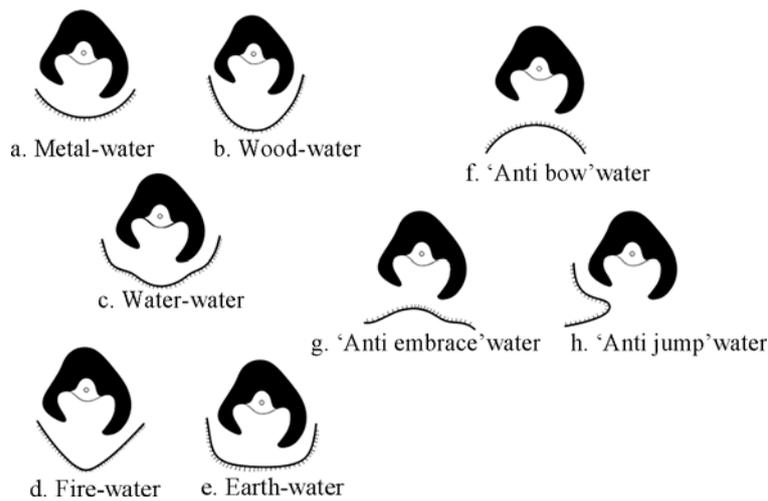


Figure 9
Five Elements and the Shape of Water (Refer to Yi et al., 1994, Author Self Drawing and Appropriate Adjustment)

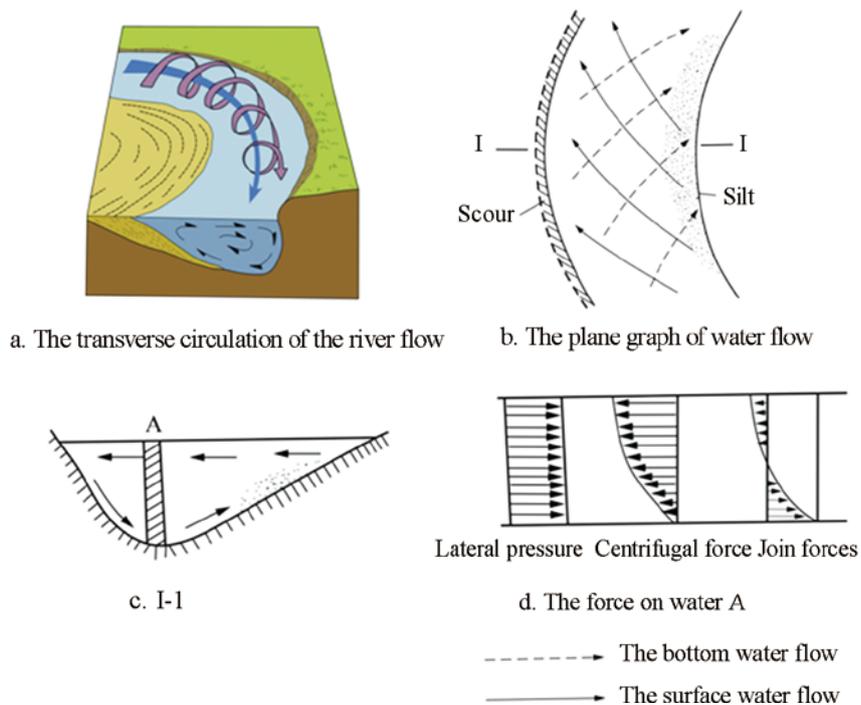


Figure 10
The Principle of the River Flow in the Bend Reach
 Source: Internet, author self drawing.

On the basis of the above analysis, the location of Langzhong ancient city is scientific and rational. Jialing River, one of the anabranches of the Yangtze River, embraces Langzhong on three sides (Figure 5). This pattern denotes the so-called Fengshui idea of “thousands of watercourses constitute a city wall” and “embraced by the metal city.” Thus, Langzhong is considered a geomantic treasure ground. The current layout of the ancient city of Lanzhong is a reservation and inheritance from the Tang and Song dynasties, during which the theory and technologies of Fengshui developed maturely. According to the old county records of Langzhong, the city, which was located in the northwest and just on the concave bank during the Han dynasty, was usually eroded by the Jialing River and thus had to be migrated to the present location.

Water quality is judged through the simple methods of observation and tasting. Water quality is closely related to human health because it is influenced by

the hardness of water, the content of minerals, and the level of bacteria in the water. The basic requirements of water in terms of quality are as follows: clear, pure, colorless, no peculiar smell, and slightly sweet. The water in Langzhong is excellent. The “baoning vinegar” of Langzhong, a famous vinegar in China, benefits from the good water quality.

3.4 Pointing Out the Spot

The fourth “esoteric teaching” is called “pointing out the spot.” In Fengshui, the dragon spot indicates the site of a city, a village, or a building, which is the concentrated center and the place of comprehensive balance among the dragon vein, sands, and watercourses. The purpose of pointing out the spot is to select a harmonious place for the settlement of the people. The common method is called the “twelve stick methods” (Figure 11), which was created by Yang-Junsong, a famous Fengshui master during the Tang dynasty.

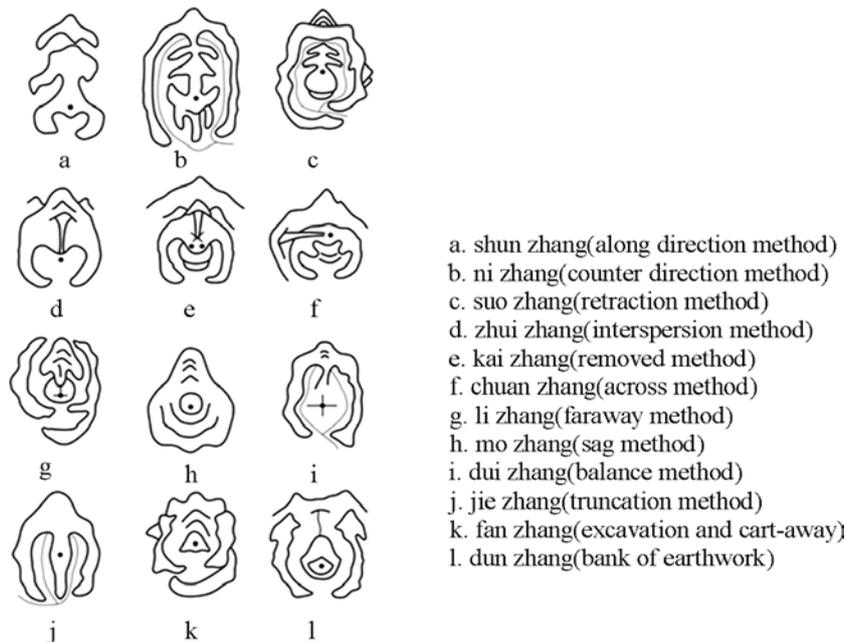


Figure 11
The Illustration of the “Twelve Stick Methods” (Yang Tang Dynasty, Author Self Drawing)

“Shun zhang” refers to the spot in front, along the dragon vein. This spot usually locates the foothill of the dragon (main) mountain with a regular appearance, which is neither mighty nor puny. Looking at the main mountain from the site, the angle of elevation is about 30°, which will not produce a sense of oppression. In addition, the facing and desk hills welcome the site from a distance; the dragon and tiger hills protect the site from the sides. This situation is the most ideal condition, hence, adopt “along direction method.”

Adjustment and dodge or remedy can be used to achieve the relative ideal state when a less ideal situation is encountered. The adjustment and dodge method is used

in Figures 11 (b to i), and the remedy method is used in Figures 11 (j to l). For example, “zhui zhang” refers to the spot on the stretching branch of a mountain similar to the button on a dress. If the dragon vein is of great momentum and the main mountain is tall and steep, then, to avoid being repressed, the site should be far away from the piedmont and located where the dragon vein is going to end but not end yet. “Dun zhang” refers to the remedy method. If the dragon vein is unclear and only one very tall and steep mountain exists, then a small artificial hill should be built first between the spot and the main mountain, and the spot in front of it is selected. Tailing, one of the Ming Dynasty Tombs, adopted the “dun zhang” method.

The twelve methods are required to investigate all the aspects of the natural environment and moderately use and transform nature. They not only seek protection from the natural environment, but also try to avoid its oppression and restraint. This must be made to balance the requirements of the two rival motifs. The “twelve stick methods” embody the planning principle of “design integrating with nature” and the dialectical ideology of materialism.

In the classical Fengshui model, the spot is the core of a spatial structure where there are many mountains around and watercourses flowing. As a spatial theory, the principles of Fengshui are similar to the concepts of landscape networks formed by mountains, streams, residential areas, and urban blocks. In view of the modern

landscape ecological theory, the size, shape, orientation, spatial arrangement, and connectivity of patches in a landscape matrix may influence the climate, soil conditions, biodiversity, and ecosystem function (Hong et al., 2007). A place surrounded by mountains, as in Figure 12(a), represents a compact and less fragmented landscape with complicated boundaries, which are beneficial for wildlife conservation. However, the fragmented landscape (Figure 12(b)) has no significant ecological benefits for biodiversity conservation. The surrounding situations of the sites pointed out by means of the “twelve stick methods” have the same or similar spatial pattern illustrated in Figure 12 (a). Thus, the traditional Fengshui theory is in agreement with the western landscape ecology theory.

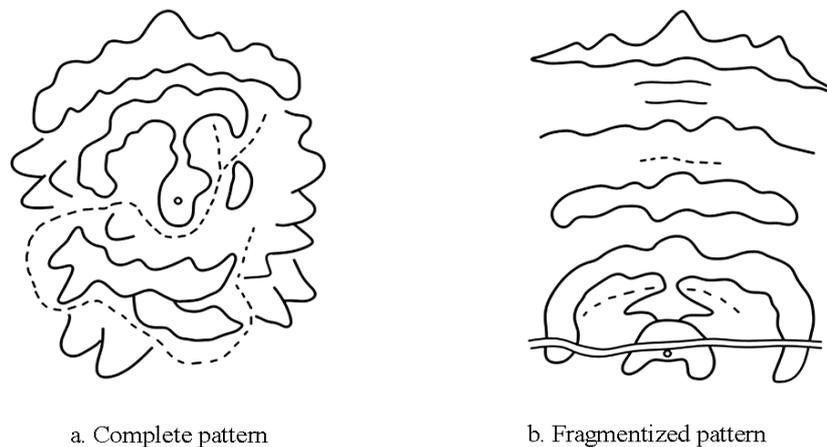


Figure 12
The Spatial Pattern and Fragmentation of Two Different Situations (Hong et al., 2007, Author Self Drawing and Appropriate Adjustment)

3.5 Deciding the Orientation

The application of the esoteric teachings forms a holistic site survey, which determines the suitability of an area for building. The orientation of buildings is decided by the fifth esoteric teaching. If the other four factors satisfy the Fengshui principles, then Fengshui experts will decide the ideal and final orientation of the site. Subsequently, a map of the whole situation of the village or the city is produced. In Fengshui, the best direction for a site is facing south. The dragon vein and the main mountain are all in the north, and the pool or river is in the south of the site. This enables the site to block the frigid wind from the north in winter and welcome sunlight and cool wind from the south in summer. When the actual situations of the esoteric teachings conform to the classical Fengshui model, the other directions are also accepted occasionally. China is in the Northern Hemisphere, thus facing south, east, or southeast is acceptable. The northwest cold monsoon prevails in winter and the southeast cool monsoon prevails in summer because of the sub-tropical

monsoon climate prevailing in most parts of China. Therefore, the orientation of Fengshui is based on modern Meteorology, which is scientific and rational.

In Langzhong, the overall orientation of the city is facing south. This is beneficial to day lighting and ventilation. For every household to have good sunlight, airflow, and the opposite landscape, the overall arrangement of a city and its individual buildings are considered when deciding on the orientation. Usually, the orientation of the axis line of a house is in accordance with the direction of the entrance door. However, making the households face south, that is, beside the south side of the streets pointing east-west is difficult. To solve this problem, the sapient Fengshui experts and architects designed an advisable building model called “opposite-entrance housing.” The entire pattern and the main axis of this type of building are the same as those of the ordinary courtyard. The only difference is adding a lane and changing the direction of the entrance (Figure 13). Every detail of the Fengshui theory is the crystallization of science and wisdom.

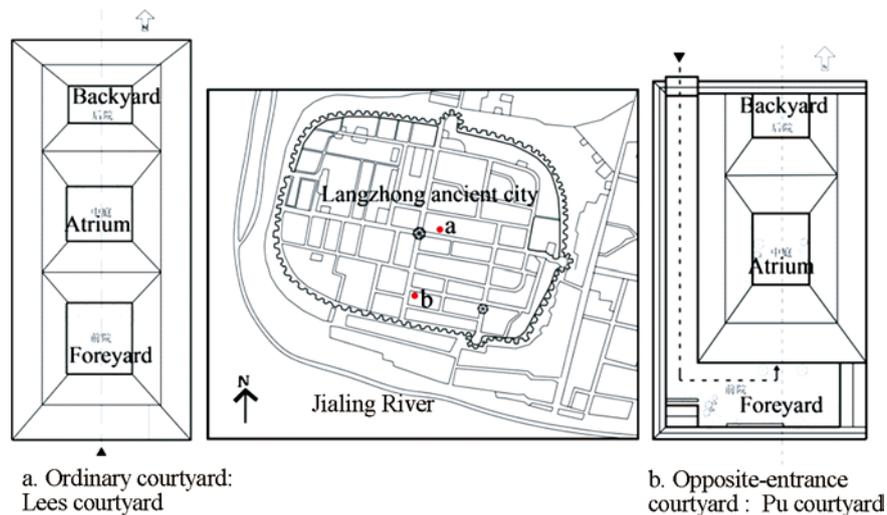


Figure 13
The Orientation of the Ancient City and Its Courtyards in Langzhong (Author Self Drawing)

CONCLUSION

Chinese traditional Fengshui theory emphasizes maintaining and developing ecosystems in the design process and reflects distinct landscape ecological planning principles and the sustainable development theory. Therefore, in the process of urban and rural development and construction, the fundamental principle of designing with nature should be followed, that is, adequately investigating and respecting nature and moderately making use of and transforming nature. The concrete content supports the following points: first, protect natural ecological environment and preserve the original landscape topography as far as possible; second, commendably protect and manage the original vegetation, especially the urban forest; third, absorb and draw lessons from multi subject knowledge and make scientific and rational planning and design; and lastly, integrate culture, philosophy, and aesthetics to provide a rich connotation and beautiful form.

The environment is destroyed, ecosystems are damaged, and landscapes are disturbed with the continuous growth of world population, acceleration of global urbanization, and irreversible large scale industrialization. Developing and maintaining an ecological and sustainable environment have become one of the most challenging and imperative tasks for scientists, planners, and stakeholders of all sorts (Chen, 2013). To accomplish this task, Fengshui theory can and should play a critical role. To improve the living environment, the Chinese traditional Fengshui theory can and should be used extensively in the land-use policy, landscape restoration, and urban planning in China, Korea, Japan, and other Asian countries with similar cultural heritage. However, it should also be applicable to other parts of the world.

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