From Landscaping Techniques to Study the Feng Shui Geographical Thought in Chinese Garden

Yu, Wen-Dong* · Kang, Tai-Ho**

*Dept. of Landscape Architecture, Graduate School, Gyeongju Campus, Dongguk University
**Dept. of Landscape Architecture, Gyeongju Campus, Dongguk University

ABSTRACT

This study aimed to grasp Feng Shui Geographical Thought appears in layout, Axial symmetry, hierarchical planning, spatial composition and hidden design techniques of Chinese Garden, that is "Xue effect", "Long-Sha effect" and "Shuikou effect", and to study on expression in Landscape Space.

The Author selected the Chinese courtyard and the Nets Garden as the object to prove the Layout landscaping techniques; and selected Beijing in Ming and Qing Dynasties and the Forbidden City, A square design in Xuanwei as the object to prove the Axial Symmetrical and Hierarchical landscaping techniques, and also selected the Lingering Garden and the Gentle Waves Pavilion, Humble Administrator’s Garden in Suzhou, and Nanhu Park in Taian as the object to prove the Spatial Composition and Hidden design techniques.

The methods of this article is combined Literature survey and Field survey with Case analysis to draw the conclusions as follows: First, "Xue effect" of Chinese Feng Shui Geographical Thought is suitable for the layout of Chinese courtyard and the Nets Garden in Suzhou; Second, "Long-Sha effect" is suitable for the urban planning of Beijing in Ming and Qing Dynasty, and the layout of the Forbidden City, by the city square design in Xuanwei, we can see that it is also suitable for Chinese modern landscape design; Third, "Shuikou effect" is appeared in the Spatial Composition and Hidden design techniques.

Corresponding Author : Kang, Tai-Ho, Dept. of Landscape Architecture, Dongguk University, Gyeongju 780-714, South Korea.
Phone: +82-054-770-2232, E-mail: kth@dongguk.ac.kr
All of these landscape design techniques are commonly used in China’s modern landscape. It has been proved by the analysis of the Lingering Garden and the Gentle Waves Pavilion, Humble Administrator’s Garden in Suzhou, and Nanhu Park in Taian.

Key Words: Xue effect, Long-Sha effect, Shuikou effect, Landscaping Techniques

1. Introduction

1. Background and Purpose

Feng Shui is an ancient art and science developed over 3,000 years ago in China. It is based on the Taoist vision and understanding of nature, particularly on the idea that the land is alive and filled with Chi (氣), which contained in specific earth locations was described as finding the dragon and its lair, and natural formation where symbolic of animal shapes and energies, such as green dragon, white tiger, etc.

As Feng Shui is becoming more and more popular in countries far away from China or Chinese influence, it is worth looking at its theories such as the geomantic pattern. “Guanshi Geographic Guidance” (管氏地理指蒙) pointed out that the landscape selection of Feng Shui is all about “using the human’s will to speculate the mood of the landscape, and using the human’s feelings to speculate the feelings of the landscape.” Guo Xi (郭熙) “Shanshuixun” (山水訓) in Song Dynasty said that “Real landscape in the distance to appreciate its imposing manner and near to appreciate its texture.” “Big mountains have majesty and imposing manner, as the boss of the hills, ......” “Water as blood of the mountain and vegetation as hairs of the mountain.” All these methods and metaphors to appreciate landscapes are obviously derived from the Feng Shui geographical thought. The ancients use Feng Shui theory combined with beautiful landscape and artificially designed to build cities, palaces and gardens, to achieve the combination of natural beauty and cultural beauty, given the deep and timeless aesthetic temperament of Chinese architecture and gardens.

This study is an application research on landscaping techniques of Feng Shui geographical thought in Chinese Garden. It aims to reveal the use of Feng Shui “Xue effect” in Layout landscaping techniques, and “Long-Sha effect” in Axial Symmetrical and Hierarchical landscaping techniques, and “Shuikou effect” in Spatial Composition and Hidden design techniques.

2. Scope and Methods

The time scope covered is from Feng Shui originated to modern, with the development of urban planning and landscape architecture. And the spatial scope was focused on the Case analysis ground in this article, such as the Chinese Courtyard, the Nets Garden, Beijing and the Forbidden City. A square design in Xuanwei, the Lingering Garden, the Gentle Waves Pavilion, Humble Administrator’s Garden, and Nanhu Park in Taian.

The author reviewed Chinese landscaping techniques and Feng Shui Geographical Thought, then investigated the following relationship between them (Figure 1). In order to reveal the landscaping techniques of Feng Shui geographical thought in Chinese Garden, the author read some books and thesis of Feng Shui theory on Chinese landscaping techniques. From April 2009 to September 2011, the authors have investigated the Nanhu Park in Taian, Classical gardens of Suzhou, Yandun (燕墩) and the Forbidden City and Jingshan Park in Beijing. During this period of the survey, a lot of information and photos have been harvested. In May 2012, the authors made a further supplementary investigation on the Forbidden City and Jingshan Park in Beijing. Through this investigation, the layout of the Forbidden City and...
Jingshan Hill, and the Feng Shui relationship between them, had been understood in a better way. And also a lot of case analysis has been used to elaborate the application of Feng Shui geographical thought in landscaping techniques of China.

Ⅱ. Theoretical Study

Feng Shui is a primary science on environment in China. "To live in a place facing the sun and water, and Back-facing mountains" is the ideal pattern of Feng Shui, with what is called Chinglong (青龍, Green Dragon) on the left, Baihu (白虎, White Tiger) on the right, Zhuque (朱雀, Red Phoenix) at the front, and Xuanwu (玄武, Black Turtle) at the back (Figure 2). What we usually call "Geography Four Division" (地理四科), that is, the Feng Shui theories of "Long", "Sha", "Shui", "Xue" in the choice of environment, are clearly reflected in Feng Shui pattern.

From the eighties of last century to now, the research on landscaping techniques of Feng Shui geographical thought in Chinese Garden has a certain development. Yu kongjian (俞孔堅, 1990) from an ecological perspective, explaining the "enclosure and scale effect", "edge effect", "isolation effect", "gap and corridors effect", which are evolved from the Feng Shui theory; Yang bin (楊斌, 2006) explained the location and layout of scenic from the tourist perspective; Chen xingyan (陳星艷, 2006) researched the application of Feng Shui theory in modern residential quarter planning; Hu haiyan (呼海燕, 2008) researched the Feng Shui of Chinese Classical Garden and its application in modern landscape on site selection, road design, plant arrangement.

The above research are from different perspectives, such as ecology, plant configuration science, tourism, modern residential quarter planning, etc. In this study, the Author researched the Feng Shui geographical thought in Chinese garden on the perspective of landscaping techniques, to reveal the use of Feng Shui thought on layout, Axial Symmetrical and Hierarchical design techniques, and Spatial Composition and Hidden design techniques.

Ⅲ. Results and Discussion

1. Xue effect (穴效應)

"Xue is a fusion place of Yin(陰) and Yang(陽), where there are mountains and water. It is an ideal place of residence." The choice of the hole lies in a place, where it must be warm enough for growing lives, and the mountains surrounding forms a good ecological environment. As a result, we know that the essence of "Xue" is surrounded (Figure 3).
This is what we are talking about places or node space. On one hand, “Xue” with the surrounding enclosure to resist sand and cold weather can form an ecological climate; on the other hand, all the surrounding enclosure landscape imagery, like mountains and water, are important elements of the landscape, which can give the richest feelings and mood sustenance.

Enclosure as the main feature of the “Xue effect” is not only reflected in the form of Chinese classical gardens’ layout and general building space combinations, but also reflected in the Chinese people’s behavior, psychology, and even the traditional habits and character of the entire nation. In terms of ancient Chinese, as the Oriental people, who were in long-term detention of the legitimate system of feudal clans, have gradually formed a kind of national character, that is, enclosure, as the main feature. It permeates almost every aspect of people’s life, one most obvious of which is the architectural layout form. Take the traditional residential buildings in China as an example, despite the various forms: the most common type is the form of courtyard layout (Figure 4), which is one of the most typical forms of enclosed layouts. Its main feature is that all buildings are back outwards and facing the inner court, it forms a pattern, that is, an inner court as the center.

Small Ancient Chinese private gardens often build in this formation, the most typical of which is the classical gardens of Suzhou, such as the Nets Garden (Figure 5). Its feature is that buildings, corridors, pavilions are all back outwards and facing inward, arranged along the surrounding of the garden. Thus it forms a large centralized courtyard space.

Although this layout situation and courtyard houses both belong to the enclosed layout forms, as a landscape architecture to avoid dull and monotonous, the layout situation not only takes full advantage of the changes in the layout of the buildings to form a “Xue” (a large centralized space) shape with more twists and turns, but also strives to have a natural taste, such as water diversion, piled-up hills and planting. Here in particular, it needs to emphasize the role of water diversion. As Feng Shui pays attention to the “Xue”, it must have water to run through, in order to block the wind and gathered air. For an enclosed garden, if it uses a big centralized water as the center, surrounded the water by arranging buildings, corridors and pavilions, the cohesive feeling can be exceptionally strong, and at the same time, it plays the role of expanding space. It shows that water is usually one of the important factors, through which the enclosed layout can broaden the effect of the setting.

This layout pattern of water-centric “Xue effect” has a profound influence on the modern landscape planning and design. For example, Figure 6 is the basic model of China’s modern landscape, we can see that there are trees around the garden boundary as a barrier, and in the garden center, there is a bigger water, around the water, there are some green and road. This layout seems to have a large gap with classical gardens, in fact, both have the same purpose in the layouts,
First, both are enclosed layouts, but only the enclosed materials are in different. The space of Chinese classical gardens enclosed with buildings, and the China’s modern landscape enclosed with plants.

Second, both have a large centralized space. Chinese traditional garden generally centered on the water, but in the modern landscape, due to scarcity of water in some areas, water landscaping is very difficult, so it often uses a square or other forms of higher concentration of larger space to replace the water.

2. Long–Sha effect (龍砂效應)

“Long” refers to the base address leaning against the mountains, called Zhushan(主山, The main mountain). “Sha” reflects a concept of mountain groups in Feng Shui, which refers to the surrounding mountains of “Xue”, it collectively refers to Chinglong, Baihu, Zhuque, Xuanwu, Anshan(案山), Chaoshan(朝山), Shuikoushan(水口山).

“Long–Sha effect” in Chinese garden is mainly reflected in two aspects:

First, to constitute an Axial Symmetrical Landscape (Figure 7). The longitudinal axis is Zhushan - Xue - Anshan - Chaoshan, Chinglong and Baihu are for the two wings, so it forms a symmetrical landscape pattern.

Second, to constitute a Hierarchical landscape(Figure 8). “Green capsule Cape”(青囊海角經) said that “Long kings, Sha courtiers; monarch must be located above, the minister must be located in the inferior place……”8 We can see that the main mountain as the main landscape and ‘Sha’ as the secondary landscape in the pattern of Feng Shui. Major landscape is tall and beautiful, forming a unique emphasized landscape in the entire pattern; winding, low and surrounded by sentient, ‘Sha’ is vacant of forcing pressure.

The most typical of this two landscape types reflected in “Long–Sha effect”, is the planning of Beijing and the Forbidden City in Ming and Qing Dynasty.

Beijing, the capital city of China since the Yuan dynasty is always been said to have the best Feng Shui as a capital. On the north side of Beijing is Jundushan(軍都山), which is ‘Zhushan’ of Beijing, where there is the Juyongguan Great Wall(居庸關長城); In the west of Beijing is Xishan(西山) as the white tiger, which belongs to the Taihang Mountains(太行山); and in the northeast, it is the Yanshan Mountains(燕山), which is as the Green dragon; The south is the Mingtang(明堂), which is a vast expanse of fertile land(Figure 9)9. But from the Figure 9 we can see that there is no significant 'Zhuque' on the south of Beijing, so the prince of the Ming dynasty Yongle(永樂) placed one Feng Shui cures when he selected Beijing as the capital city, he place Yandun(燕墩) outside the YongdingMen(永定門) as Anshan(Figure 10). The prince of Yongle wanted to use the Chi (氣) of Beijing’s geography, while also repeal the Yuan dynasty wang residual Chi. The Feng Shui master was adopted to move the palace axis to east, making Yuan dynasty palace axis fall to the west, based on the location of “white tiger” in Feng Shui; and also Cut off the original okimichi panlong stone(盤龍石) on the central axis, annuls Zhou Chiao(周橋), construction of artificial Jingshan(景山). In this way, Zhushan(Jingshan) - Xue-the Forbidden City) - Anshan (燕墩, Yandun) Feng Shui Axial formed again(Figure 11)10.

In this Feng Shui Axial, The most classic Feng Shui design is the Forbidden City, which is located in the center of Beijing. The palace complex exemplifies traditional Chinese palatial architecture, and has influenced cultural and architectural developments in East Asia and elsewhere. Prior to the construction of the Forbidden City, there was no water and hill in the palace originally and then emperor Yongle decided to create water and hill in the palace. Thus, he ordered his people to create a hill at the back of the palace which is at the North, called Wansuishan(萬歲山, Later renamed as Jingshan) . Water was brought in from the North West of the palace which according to the theory of the later heaven bagua(八卦) is the sector of the King or Master Chian(乾) or heaven. The water flows from the North West to South East of the palace, South East is the sector of wind(巽), It means the water is the rain from the sky(heaven) and evaporates as air(wind).
The formation of hill and water in the Forbidden City is according to the theory of front red phoenix and back lack turtle (前朱雀，后玄武). There is a support at the back and in front of the palace is ample of space which means bright hall (明堂). In some Feng Shui study on the Forbidden City, Jingshan Hill is as the 'Zhushan' of The Forbidden City, and the Delivery Thai Temple is "Xue" of the Palace, and the Wumen is "Zhuque" (Zhuliangcai, 2008; Liuyue, 2009). There is no exact papers about the position of Chinglong and Baihu in the Forbidden City, but according to the pattern of Chinglong on the left and Baihu on the right, we can infer that the left side of Zhonghai (中海) is Baihu (Figure 12), while the right side of the Nine Dragon Wall (九龍壁) is a Feng Shui cures as Chinglong (Figure 13).

The overall layout of the Forbidden City which adopts the form of axial symmetry, spatial sequence expanded in accordance with the in-depth development axis. The important buildings are sequentially arranged in the central axis, and other buildings are symmetrically distributed on both sides. This axis extends from the south through TiananMen Square to TiananMen, and to YongdingMen, Taihe Dian, the Delivery Thai Temple, and to the north, it extends through Jingshan Hill to the Bell and Drum Towers (Figure 14).

Jingshan Hill is immediately north of the Forbidden City, and it is the commanding heights of the center of Beijing and also well known as a Feng Shui Hill, which is the "Zhushan" of The Forbidden City. From Figure 15~Figure 17, we can see that the Jingshan hill, as the main landscape, is tall and beautiful, forming a unique emphasized landscape in the entire pattern; and the whole Forbidden City is under it, winding, low and surrounded by sentient, it constitutes a Hierarchical landscape.

The two landscape types do not usually exist in isolation, but rather in mutual penetration and are mutual backgrounds.
to each other. Axial symmetry is often to highlight the themes and priorities; prominent theme and focus are more conducive to strengthening the control of the axis.

Figure 18. A Square Design in Xuanwei

This two landscape types are frequently used in modern landscape planning and design. For example, Figure 18 is A square design in Xuanwei, Yunnan (雲南省宣威市), we can see that its layout is along the axis of the square to organize space sequence. It forms a symmetrical landscape pattern. And at the end of the axis is reviewing stand, it is the main landscape of the whole space sequence, like the Jingshan hill in the whole space sequence of the Forbidden City. All the line of sight will eventually converge at this point.

3. Shuikou effect (水口效应)

"Shuikou", also known as the Shuikoushan(水口山) or Shuikousha(水口砂). "There needs to be mountains on both sides of the flowing water and there cannot be vacancies. It makes water directly outflow and the mountains on both sides to overlap." In fact, the Shuikousha is a natural door, so Chinese Feng Shui is called "ground window" and is highly recognized. It needs to be strategically located and beautiful scenery to make it spectacular. So people usually plant trees and build bridges, towers and Temple near it (Figure 19).

Good Feng Shui depends on the Chi gathering by Mingtang, and Mingtang whether to gather the Chi together depends on Shuikou whether to close. So, in general, Shuikou is very narrow, and Mingtang is very spacious. Thus, the comparison of the space size has been produced by Shuikou (Figure 20). The "Shuikou effect" mentioned in this article, is much like the section depicted in Tao Yuanming’s "Peach Blossom Spring": "When approaching the source of the water, he saw a mountain. The mountain has a small entrance which seems brightly. He abandoned the ship and entered from the entrance. The space of the beginning part is very narrow, which only fits one person to pass. However, once you go in further, it suddenly becomes broad and bright.” Shuikoushan as an obstacle landscape makes the inside and outside of the base address form an isolation and spatial contrast. When entering the base address, you can suddenly see a light and amazing landscape. "Shuikou effect" in traditional Chinese garden is mainly reflected in two aspects:

First, to form a spatial contrast landscape:
Second, to form a hidden landscape, which avoids a straight view to the point and only allows a glance.

1) Space Contrast (空間對比)
The use of space contrast is quite common in classical Chinese gardens. Arrange two significant differences in the adjacent space to highlight the respective characteristics through the contrast between the two. For example, make the size of the gap between the two big spaces connected. When going from the small space to a large one, people will have some hallucinations that the room is actually bigger due to the contrast and repression of the former. Private traditional gardens in China are mostly built in the cities, which often face the problem of limited spacing. In order to make it looks bigger despite the fact that the space is limited: people often apply the spatial contrast technique. For that reason, spatial contrast is frequently applied in Chinese architectural design.

Several small spaces are consciously arranged before one’s entering the main space of the park. The purpose is to highlight the major scenic spots of the park by the contrast between the two. For example, the Lingering Garden (留園) in the use of compared space leaves people a deep impression. Its entrance part is especially impressive with the space
combination being abnormally tortuous, closed, long and narrow. People inside have extremely compressed visual fields, and even dreary and repressed feelings. But when coming to the end and going into the main part of the garden, they will eventually have a clear eyesight of the garden (Figure 21).

2) Hidden(藏而不露)

In traditional gardening art, it’s held that exposure seems superficial while hiding appears to have flavor. In order to avoid superficiality and obtain deep artistic conception, people often make it hidden without fully exposing to hide some wonderful landscape in the deep serene place such as in the rocks and trees. Classical Chinese gardens, despite their size, try their best to avoid being straight to the point and make it to be viewed at a glance. Designers always do everything possible to partially cover up the landscape to make it flickering.

Entrances of classical Chinese gardens are generally designed in compact, simplicity and elegance. It is a taboo to be gorgeous and public. For example, When you enter the gate of the Gentle Waves Pavilion(沧浪亭), there is a rockery place as a barrier to block the eyesight, making people unable to see the whole park. Therefore the garden seems deep and serene to arouse people’s probing taste(Figure 22). Another example is the Pavilion in Lotus Breezes(荷風四面亭) in Humble Administrator’s Garden(拙政园). Because of being hidden among weeping willows and lotus, the pavilion seems implicative and profound (Figure 23).

The design techniques of Space Contrast and Hidden are frequently used in modern landscape planning and design. For example, Figure 24 is The Entrance of Nanhu Park in Taian, Shandong, we can see that there are two spaces in the plan view, a small one is the entrance of the park, and the big one is the park, between them there is a big landscape wall standing at the entrance. We can imagine that when going from the small entrance to the large park space, we will have some hallucinations that the park space is actually bigger due to the contrast and repression of the former. And because of the existence of the landscape wall, it blocks our line of sight, so that we know nothing about the park space which is behind the wall, so that we generated curiosity, through which we will want to have a closer look into the park. That is the effect produced by the design techniques of Space Contrast and Hidden.

IV.

Conclusions

This study through the analysis of “Xue effect”, “Long-Sha effect” and “ShuiKou effect”, combined with the actual case, revealed the landscaping techniques of Feng Shui geographical thought in Chinese Garden. The results are as follows:

1. “Xue effect” is elaborated as an enclosed pattern, which is enclosed by Green Dragon, White Tiger, Red Phoenix and Black Turtle. The enclosed layout is the most common form in Chinese classical gardens. By analysis of its own characteristics as well as the basic layout of China’s modern landscape design, we summed up the common features between Chinese classical garden and basic layout of modern landscape design.
landscape design, that is both of them are enclosed layouts, with a large centralized space.

2. Through the analysis of Beijing and the Forbidden City, we can see that “Long-Sha effect” in traditional Chinese garden is mainly reflected in two aspects: the first is to constitute an Axial Symmetrical Landscape, and the second is to constitute a Hierarchical landscape, the two landscape types do not usually exist in isolation, but rather in mutual penetration and are mutual backgrounds to each other, and by the actual case of modern square design in Yiwei, we can see that the landscaping techniques of Feng Shui geographical thought has a frequently used in modern landscape planning and design.

3. By the analysis of Lingering Garden, Gentle Waves Pavilion and the Pavilion in Lotus Breezes in Humble Administrator’s Garden, we can see that “Shuilou effect” in Chinese garden is mainly reflected in two aspects: the first is to form a spatial contrast landscape, which can arrange two significant differences in the adjacent space to highlight the respective characteristics through the contrast between the two, and the second is to form a hidden landscape, which avoids a straight view to the point and only allows a glance. Through the analysis of the Entrance of Nanhu Park in Taian, we can get that the design techniques of Space Planning and design.