

Analysis of Spatial Symbols of Jiangnan Classical Landscape Architecture: Taking Zhanyuan Garden as an Example

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ABSTRACT

The architectural space of classical gardens in the south of the Yangtze River is centered on the functional needs of "traffic", "tour", "residence", and "view". Through various semantic symbolic designs, it forms an artistic conception in which buildings and garden landscapes are intertwined, integrated, set off, and compatible. The design of boundary symbols separated by virtual physicality and framed landscape symbols with decorative effects that transform virtual physicality have many reference values for modern spatial design innovation.

Keywords: *Symbol, Landscape, Architecture, Jiangnan.*

1. INTRODUCTION

As an outstanding representative of Chinese classical gardens, Jiangnan gardens are the embodiment of Chinese traditional literati's outlook on life and nature. They embody the sweat and wisdom of Chinese skilled craftsmen, and reflect the excellent traditional culture of China for 5000 years. Confucianism, Taoism, and landscape poetry are all integrated into them. In ancient times, people in the southern region of the Yangtze River had a different understanding of space and geometry, with a conscious concept of "those who go out will come back, because heaven and earth have boundaries", and focused on creating ever-changing spatial relationships and human flow lines. The setting of garden buildings proposed in "Yuanye" should be based on the concept of "complexity is the best", which is based on the ancient people's concept of space, creating a timeless sense of space. The architecture and landscape elements are intertwined, blending with interest, and achieving a spatial visual effect of "seeing the big from the small, owning a world".

2. "TOURING" SEMANTIC SYMBOL OF JIANGNAN CLASSICAL LANDSCAPE ARCHITECTURE AND ENVIRONMENTAL LAYOUT

Guo Xi, a painter of the Northern Song Dynasty, said in his "Lin Quan Gao Zhi", "The world believes that mountains and rivers are feasible, promising, tourable, and habitable..." Although it is a painting theory, it is also the legal purpose of the Jiangnan literati to manage water and build gardens in the spirit of Lin Quan. The most common and recognizable feature of Jiangnan classical landscape architecture and environmental layout is the symbolic nature of "touring".

The aesthetic elements of classical gardens include mountains, water, buildings, and plants. This three-dimensional space art is meticulously arranged according to law in terms of managing water, stacking mountains, and planting wood to build houses. Classical gardens emphasize the concealment of the beauty of artificial construction in nature to create an atmosphere of entanglement and blending of scenes in the streamline organization of garden scenery, the layout and planar dynamic planning of buildings, and the design of buildings in gardens or as foil and decoration, or as protagonists. Buildings and the environment complement, blend, and coexist. The

metaphorical human activities of architecture, as well as the association of related activities triggered by human visual architecture, make architecture full of spirituality, creating a calm and practical flat ground like "key stand" for human spiritual world and a shelter for the world of fireworks.

Taking Zhanyuan as an example (see "Figure 1"), Located in the core area of the Qinhuai Scenic Belt of the Confucius Temple in Qinhuai District, Nanjing City, Jiangsu Province, Zhanyuan Garden, as one of the oldest existing classical gardens of the Ming Dynasty in Nanjing and one of the "Four Famous Gardens in the South of the Yangtze River", is the most well preserved classical garden architectural complex of the Ming Dynasty in Nanjing. The entire Zhanyuan Garden faces south, with a depth of 127 meters and a width of 123 meters from east to west. It covers an area of 25,100 square meters, including a construction area of 9,600 square meters and a greening area of 15,500 square meters.

"Figure 1" shows the general layout of Zhanyuan Garden. The red part shows the winding path around the central water system of the garden. The building group is located on the east side of the garden, facing the south. The building is characterized by the combination and superposition of rectangular and square shapes. After entering the garden from the main entrance, there is a winding path formed by extending a fence. Both sides of the path are separated by plants, and different plant varieties bring different visual experiences. The combination of plants and rocks forms the first main landscape line, leading directly from the entrance to the central building area of Jingmiao Hall. Chinese classical gardens have always pursued close proximity to mountains and forests, seeing the big from the small. The twists and turns of mountains and stones serve this purpose. Through the cutting and organization of mountains and rocks supplemented by plants, it plays a role in dividing and guiding tourists, allowing visitors to enjoy an unlimited tour experience in a limited space.

The general layout of Zhanyuan Garden is organized around water, which is called "no garden without water". The size and connectivity of the pool deeply affect the spatial layout of the garden. The pool in Zhanyuan Garden runs from Jingmiao Hall to the north of the garden. The mountains adhere to the side with the flow of water, and the water flows around the mountains; Visitors travel northward from the entrance, with a landscape line

extending from mountains to water. Mountains, rivers, and plants complement each other and are distributed around the garden buildings, forming a trend of stars and moons. The surrounding buildings are either surrounded by water and trees, or surrounded by rocks and mountains, in contrast to the unconventional and diverse nature. The five major water management methods of "digging ponds," "digging rivers," "using springs," "making waterfalls," and "building pavilions" also adopt different collocation methods based on the changes in mountains, rocks, and plants to create an endless stream of artistic interests.

The symbolic nature of such zigzag and winding paths, the dignified effect of building squareness, and the intertwined planar layout of water, stone, plants and buildings are precisely the symbolic characteristics of the planar layout of garden buildings.

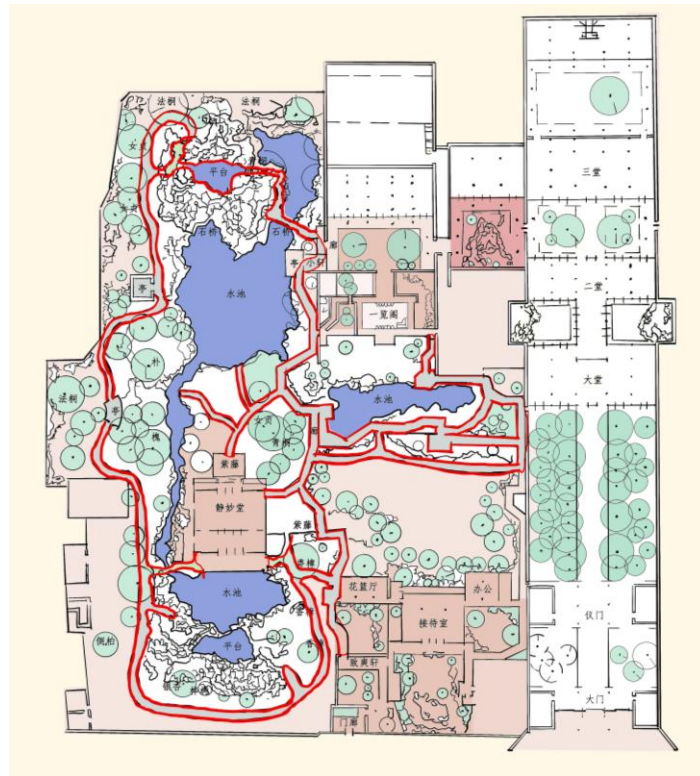


Figure 1 General building plan of Zhanyuan Garden (Self drawn).

3. BOUNDARY SYMBOLS FOR SPACE DIVISION OF CLASSICAL GARDEN ARCHITECTURE IN JIANGNAN

The interactive relationship between people and garden landscapes cannot be separated from the assistance of architecture. Traditional gardens in the south of the Yangtze River feature an architectural layout characterized by "alternating phases". There are approximately two ways to divide the indoor and outdoor environmental space: virtual cutting and physical cutting. While garden architecture and the environment blend harmoniously, the boundaries of architectural space are clear. Common boundary symbols such as beams, columns, walls, roofs, doors, and windows cooperate with different forms of garden architecture to form a physical or virtual spatial division between the building and the landscape.

3.1 Virtual Cutting Boundary Symbol

Virtual cutting means that visitors can see through the space where they are located and penetrate into another space. The promenades across the banks, waterside pavilions, and mountainside terraces in gardens all have this

function. The ways are all manifestations of virtual cutting, such as the interior space of a building in a garden is opened or partially opened, such as through windows, screens, and partitions, as well as the layout of the interior and exterior spaces echoing and looking at each other. Virtual cutting emphasizes a sense of transparency and distance. Therefore, natural objects such as water, trees, mountains, and stones have become necessary elements of virtual cutting inside and outside the building, while the openness and transparency of the building itself, with its ability to accommodate any external disturbance, are necessary elements of virtual cutting, such as the Yiran Pavilion in Nanjing Zhanyuan Garden ("Figure 2").

The Yiran Pavilion, which has the functions of rest and sightseeing, connects the waterside veranda and the water cave. The pavilion is a semi open space form with fences as virtual cuts, which is both separated from and blended with the natural environment. The curve drawn by the angled cornices like bird wings makes the pavilion's posture flexible, echoing the virtual cut form of a semi open space. In a virtual space, the placement of people not only includes the placement of human physiological needs, but also includes human psychological needs. Therefore, various types of decoration, especially those that meet the

penetration of human vision, have become a necessary element of design. The satisfaction of



human spiritual needs is the "view", the view of emptiness and tranquility, and the view of freedom.

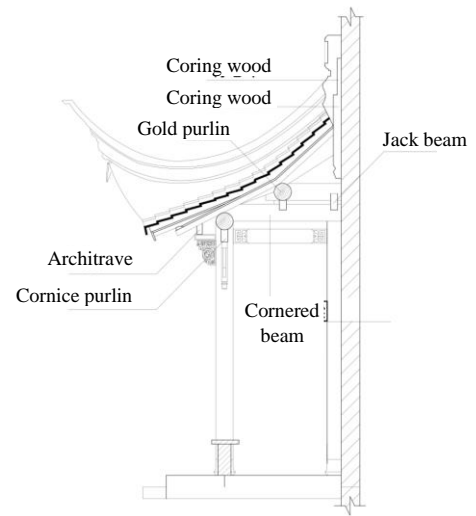


Figure 2 Zhanyuan Yiran Pavilion and facade.

3.2 Physical Cutting Boundary Symbol

The virtual cutting of garden buildings is usually achieved in the vertical plane, and buildings require physical boundaries after all. In garden buildings, independent buildings, such as study rooms and bedrooms, mostly use physical cutting. As the name suggests, physical cutting refers to the complete division of indoor and outdoor spaces, using walls, windows, and other architectural techniques to divide them. This is also the most commonly used method of modern space division.

The intuitive element of physical cutting is the wall, with or without doors and windows. About the "tour" routes in gardens, in addition to the practice of laying bricks and stones or grass steps, there is also a form of architecture: a corridor. The corridor in a garden is not only an important element of spatial correlation, but also an important method of spatial segmentation. Common corridors in Jiangnan gardens include double-sided empty corridors, single-sided empty corridors, complex corridors, straight corridors, curved corridors, and so on. Zhanyuan Garden is mainly composed of single sided empty corridors (see "Figure 5"). A single sided corridor refers to a gallery with columns, walls, or buildings on one side. The column side generally faces an empty landscape and is a fictional frame, while the wall or building side is a virtual cutting. The columns on both sides of the double-sided empty corridor are empty and transparent, giving a considerable view of the double-sided landscape. The compound corridor is

a combination of two corridors, separated by a partition wall with flower windows in the middle, and the scenery permeates each other. The fictional vertical frames of various types of corridors focus on echoing the natural landscape outside, while the plane shape varies with the terrain, either straight or curved or folded, delicately connecting various parts of the garden. In "Yuanye", there is a statement that "if it is appropriate to bend and grow, then it will be nice." The long corridors in gardens "bend with the shape, and bend with the potential." The combination is free and changeable, forming the soul of space, providing necessary shelter for the tour, and also being the physical boundary of the planar layout in garden layout.

Another intuitive element of physical cutting is the roof. The boundary symbols are most prominent on the roof ridge, such as the boundary lines of the eaves and corners of the Yiran Pavilion like the wings of a bird, and the horse head wall. The black and white gray tone of the horse head wall forms a virtual and physical relationship in color, and the outermost black tile outline of the wall has a clear boundary relationship with the sky ("Figure 3"). In addition, there are various types of roof ridge decorations, which are elegant and elegant, forming a unique style ("Figure 4"). The restrained and rigorous but raised cornices at the corners of the wall form a solid boundary with the sky, giving the building a dynamic and graceful shape, as if dancing with the wind like grass and trees.



Figure 3 Horse head wall of Jiangnan buildings.

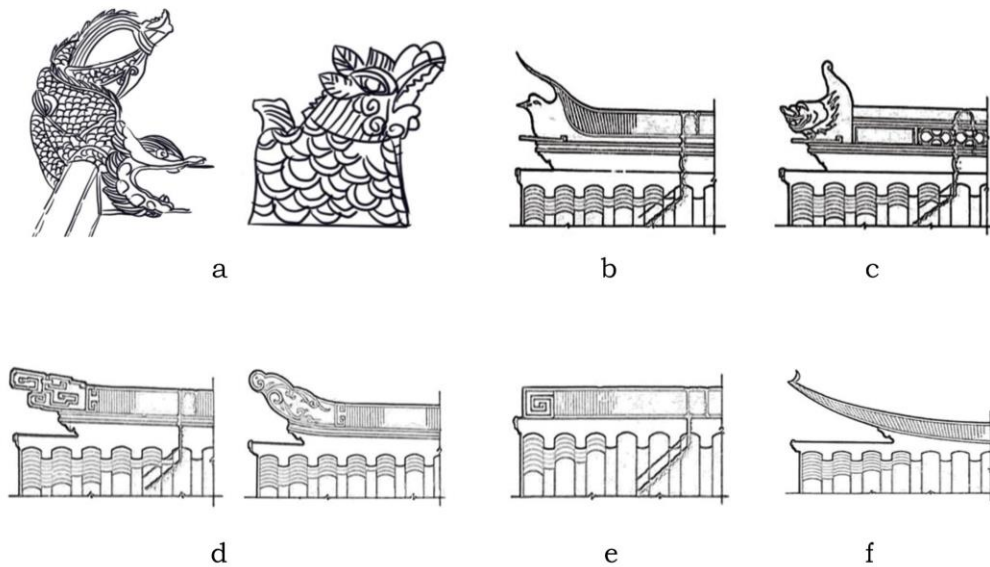


Figure 4 Roof ridge (a. Dragon mouth ridge b. Chicken ridge c. Dragon ridge d. Striped head ridge e. Sugarcane ridge f. Female hair ridge).

4. THE POLYSEMIOUS SYMBOLS OF CLASSICAL JIANGNAN GARDEN ARCHITECTURE

One of the distinctive polysemious symbols in Jiangnan classical gardens is the window. The division of the building from the external environment, as well as the division of indoor space, includes not only walls, but also doors and windows. In garden buildings, doors and windows

need to integrate a broader landscape, using a division method that blends virtual and physical. The window on the wall is an important means to achieve using the virtual to realize reality and using reality to present the virtual.

As an important decorative component in ancient architecture, there are various types of windows, such as wall windows and perforated windows. The difference between a wall window and a perforated window is that a window is a

complete void in which bricks, tiles, and other plastic materials are used to create various transparent patterns. Both are relatively common in

ancient garden buildings in the south of the Yangtze River, and the characteristic of Zhanyuan is a perforated window ("Figure 5").



Figure 5 Single sided corridor and perforated windows in Zhanyuan (self-photography).

4.1 Frame Scenery, Venting the Scenery

The significance of windows in garden architecture is to fully express the spacious and abstruse scenery, realize the spatial hierarchy of seeing the big from the small, and create an implicit and dreamy realm. On the side walls of walls and corridors in Jiangnan gardens, the main function of various shaped landscape windows and perforated windows is to "vent the scenery", also known as frame scenery. The perforated windows in the garden fully consider the landscape and spatial factors, and set windows according to the landscape, including the location, shape, material, etc. of the windows. The perforated window in Zhanyuan has a rich and varied pattern in the window core, and the scenery behind the window is appeared and hidden, creating an implicit realm of "holding the lute and half covering the surface". The hazy and illusory nature of "leaking view" can evoke the interest of seeking seclusion and exploration, which is precisely the uniqueness and charm of Chinese classical gardens. Of course, the shaping and formation of these leaky landscapes can be achieved not only through landscape windows and leaky windows, but also through the processing of elements such as railings, flower walls, transparent partitions, stone peaks, and mountain forests.

4.2 Decoration

The dominant value of a leaky window is its patterned decorative effect. The various patterns of perforated windows are one of the important tools

for visualizing regional symbol elements. In "Yuanye", the perforated window is referred to as the "leaky wall", which means "leaking the space and light". "The Source of the Creation Method" referred it as "flower wall hole". "Flower" mainly refers to its beautiful pattern and shape, "wall" refers to the location on the wall, and "hole" refers to the transparent and unobstructed interior and exterior. A perforated window is a window that is opened at a suitable position on the wall where people's vision can be unobstructed. It is generally based on the height of people's vision, which is about 1.1-1.3 meters high. The design forms of the perforated windows in Jiangnan gardens are rich and diverse, with only the zigzag multiple corridors and long single sided corridors of Canglang Pavilion in Suzhou. According to incomplete statistics, there are hundreds of types of perforated windows. The perforated window corridor of Zhanyuan also plays an important role in connecting the indoor and outdoor spatial layout of gardens, and it is one of the important means to connect buildings and buildings.

In the decoration of doors and windows in ancient buildings, various symbols with meanings are very rich, such as the patterns of the Four Gentlemen (Plum Orchid, Bamboo Chrysanthemum) and the Three Friends of Winter (Pine, Bamboo, and Plum), the patterns of flowers and birds, fish, rattan bottles, as well as the text grid and various geometric patterns of doors and windows ("Figure 6", group of drawings). The seemingly casual, free and flexible door and window frames create a

corresponding effect of virtual reality in the "leakage" and "frame". The symbolism of location, shape, scale, and window core pattern forms carries a beautiful meaning. The hollow and exquisite

shape and the integration of indoor and outdoor make the space smooth and the architectural posture more charming.

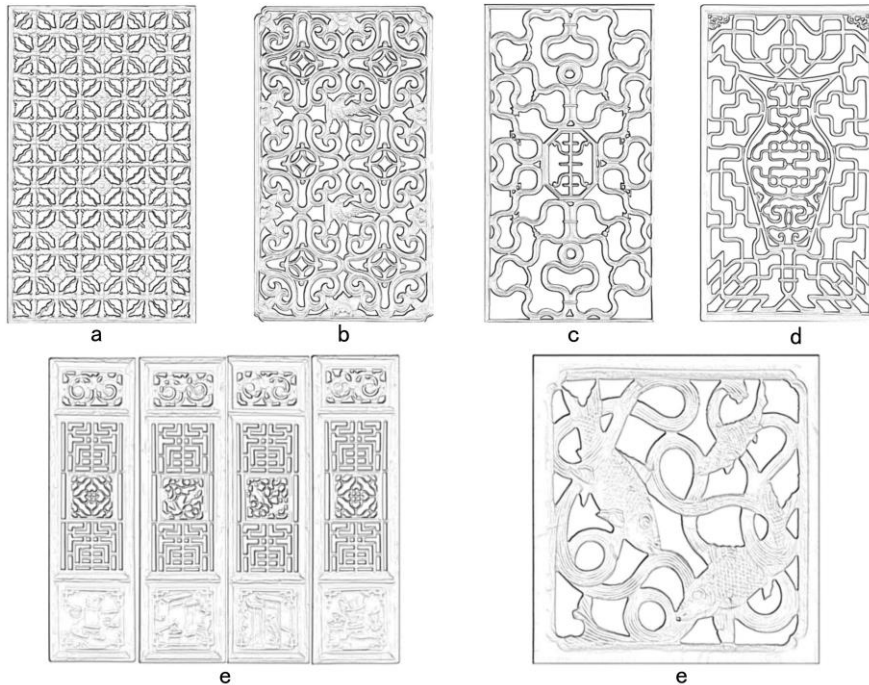


Figure 6 Door and window patterns (a. Flower pattern b. Flower and bird pattern c. 寿-shaped pattern d. One vine bottle pattern e. Fish pattern).

5. COLOR SYMBOLS OF CLASSICAL GARDEN ARCHITECTURE IN JIANGNAN

Architectural color and texture are important symbols of a city, which are influenced by many aspects such as region, climate, and culture. The beautiful and harmonious colors of some ancient buildings in the south of the Yangtze River, such as Nanjing Zhanyuan Garden and Suzhou Gardens, are extremely charming ("Figure 7"). The seemingly simple color composition of Jiangnan gardens, such as pink walls, black tiles, vermilion windows, brown doors and columns, gray

pavement, and rockery green plants, is rich in connotation, making it unique throughout the ages, setting off the infinite scenery of the garden. Color has three major attributes: hue, lightness, and purity. It is also related to two factors: the presence of light, and the perception of the eye. Taking Nanjing Zhanyuan as an example, the visual effects of colors displayed in different weather conditions also vary greatly. Under the light of the blue sky, the walls will appear blue-green, showing a cool color tone, while under the sunlight of a sunny day, the walls will appear yellow-green, showing a warm color tone.



Figure 7 Ancient landscape architecture and environmental color card.

Garden buildings are often painted by black and white and reddish brown. Black is mostly used for the roof ridges of buildings, and the facades of buildings, including windows, are mostly white. Wood frames, such as beams and columns, are mostly reddish brown. In traditional Chinese culture, five colors correspond to five elements, with black representing water, white representing gold, red representing fire, yellow representing soil, and green representing wood. The perfect integration of architecture and garden scenery, with the five elements all in place and complementing each other, perfectly interprets the natural outlook on life. Analyzing with modern color theory, and identifying the color language of Jiangnan garden buildings with the help of color rings, black RGB (0,0,0), white RGB (255255255), red RGB (255,0,0), yellow (255255,0), and blue (0,0255) are in contrast, complementary, and harmonious.

6. INSPIRATION OF SPATIAL SYMBOLS IN JIANGNAN CLASSICAL GARDEN ARCHITECTURE ON MODERN DESIGN

The symbolic analysis of classical garden architecture has important implications for modern design.

First of all, virtual cutting is a design technique that is worthy of reference in modern architectural interior space design. The geometric characteristics of modern architectural forms are clear, and the outer contours of buildings have very real certainty. However, the transition design from outdoor to indoor spaces, as well as the design of spaces such as balconies and terraces, and the secondary creation design of indoor spaces, using virtual cutting design techniques, are more in line with human environmental behavior and psychological characteristics.

Secondly, traditional garden buildings, such as bridges, pavilions, and pavilions, have an affinity for the environment, as well as isolation due to trees, mountains, and stones. This approach can be used for reference in modern indoor and outdoor environmental design, such as introducing traditional garden design techniques into shared space design and incorporating small bridges, pavilions, and other buildings, juxtaposing virtual cutting and physical cutting.

Finally, modern indoor spaces, especially those in high-rise buildings, have significant spatial

homogeneity and rely more on indoor lighting. Therefore, in design, a rich spatial effect can be formed through the design method of "using reality to present the virtual", with the aid of artificial light and shadow design.

7. CONCLUSION

In short, the spatial symbols of Jiangnan classical garden architecture form a rich spatial connotation in both the external environment and the internal space of the building, increasing the charm of traditional architecture.

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