Explore the Effective Application of Waterscape in Landscape Design

Guiyan Deng

Sichuan university of arts and sciences, Dazhou, Sichuan, 635000, China

Keywords: Waterscape, Landscape garden, Design.

Abstract: Waterscape, rocks and plants are the key elements in landscape design. In landscape architecture, waterscape has the function of sublimating design beauty and embellishing the whole landscape, which can not only make the landscape more spiritual, but also make people feel relaxed and happy. Therefore, in the entire landscape garden design, the design of the waterscape plays an important role. In view of this, this paper focuses on the role of water features in landscape garden design, and introduces the effective application of water features in landscape gardens, hoping to provide some reference value for waterscape design work.

1. Introduction

In our life, water is so important that people's lifestyle and living environment are closely related to it. Since ancient times, China has had idioms such as "shuiguang Shanse" and "Shanming Shuixiu" to praise the water, and to some extent, it has shown the important role of water in people's living environment. In the process of designing the landscape, the design of the waterscape is also extremely important. Whether it is domestic or foreign landscape design, the good design of the waterscape is indispensable. Throughout the world, we can see a lot of waterscape design with certain connotation. In the design process, we attach great importance to its artistry. This is a question worthy of our reference and exploration.

2. Types and actual effects of waterscape design in landscape gardens

Water is diversified. In the landscape design, the cultural compatibility and the inclusive features of water make the whole design full of possibilities. Among many garden landscape designs, ecological waterscape design is always what we strive to pursue. It well embodies the good integration of natural ecological characteristics and human ecological characteristics, and shows infinite charm, which can not be described by words. In our views, water makes human life continue. Therefore, in the water landscape design, we need to highlight its humanistic and ecological characteristics. The fluidity and purity of water are symbolic and represent the long history of life. Based on this, in the water landscape design of many garden views, it has many implications and characteristics.

2.1. Types of waterscape design in landscape gardens

In modern landscape architecture, the design type of waterscape can be distinguished from different levels, for example, according to the owner, or according to the function. In general, the types that are distinguished according to functions are more common. Here, the types of waterscape design that are distinguished according to functions are mainly introduced. Therefore, in such a design concept, an ornamental landscape garden is created. This waterscape design emphasizes the profoundness of artistic accomplishment, and encourages the design staff to divergent thinking and dare to associate. It's better to be able to make the waterscape design have profound connotation, unique conception and creativity, so that the viewers can leave a deep influence in their mind after appreciation, and at the same time, people can have unlimited associations.

In addition, the waterscape design of life and leisure type is also a kind of landscape waterscape design. This type of design is based on people's own perspective, which is a place for people to establish for leisure and entertainment. In this design, the indoor leisure and entertainment activities

DOI: 10.25236/ICHCAD.2019.069

are transferred to the outdoor to create a quiet, warm and peaceful atmosphere for the courtyard, which is of great benefit to the effective relief of people's mental pressure and the good growth of physical and mental health.

There is also a convalescent type of waterscape, whose main function is for people to play and rest. For example, the design of hot spring waterscape in some hotels is a design that integrates recuperation, rest, viewing and play, which brings people more safety and comfort experience, and creates a good landscape environment. No matter what type of waterscape design in landscape architecture, they can achieve a good integration with the natural environment of landscape architecture. It not only has a certain ornamental, but also let people fully contact the natural environment, and have more experience on waterscape. In conclusion, waterscape design in landscape architecture can not only relieve people's mental pressure, but also benefit people's physical and mental health. Waterscape design realizes the double standards of material and spirit, which makes people's actual needs be met correspondingly and shows the strong functional characteristics.

2.2. Actual effects of waterscape design in landscape gardens

Waterscape design plays a variety of roles in landscape architecture, specifically as follows:

2.2.1 Basal function

It uses a large pool as the bottom foundation of the overall waterscape, and focuses on the function of the base to contrast the overall waterscape landscape elements, laying a solid foundation for some large-scale waterscape scenes.

2.2.2 Link function

In the current landscape garden construction, the moldability and variability are important features that it needs to have. Therefore, in the design and planning, these two characteristics need to be highlighted, so that the waterscape landscape can be effectively integrated into the landscape garden, its main function is to guide the order and direction of landscape nodes, and make full use of waterscape landscape. In fact, such a link functional form can effectively ensure that the overall design of the landscape garden is more distinct, especially in the creation of a more orderly waterscape landscape design, achieving a good spatial integration and unification of the waterscape landscape and the landscape garden as a whole.

2.2.3 Guide space function

Small and flexible is the biggest feature of waterscape landscape design. Usually, waterscape design combines the important elements of landscape architecture such as rocks, plants and sculptures to form a small-scale waterfall or fountain landscape, which adding value to the overall design of landscape architecture. If the linear waterscape design is implemented, in general, the combination of living water and fountain will be adopted, so as to achieve better results. The flat straight and straight parallel type is the main extension method. It can form the guiding effect on people's sights in the process of people enjoying the landscape garden, and also clearly divides the boundaries of landscape gardens.

2.2.4 Focus function

In the design process, the focus form of waterscape design is widely used. This form of has strong adaptability, which can realize the design needs of various landscape gardens, and has corresponding focus function, which can successfully form an effective attraction for tourists [3]. This shows to a certain extent that the waterscape has always been attractive to people. Therefore, in the waterscape design of the landscape garden, it is necessary to give full consideration to reasonable division and distribution of functional contents between the landscapes. It can lay out the corresponding waterscape in each section of the garden landscape, thus creating some different landscape focus content.

2.2.5 Water environmental function

In the process of landscape design of waterscape, it is necessary to design according to the specific situation, change the technical methods and creative means used in the past, and explore various relevant elements of waterscape design from multiple levels. For example, the specific design content of the waterscape landscape and the shape of the water body are analyzed. After comprehensive consideration of various factors, corresponding waterscape landscape is created to better demonstrate the artistic beauty of waterscape and the key role of the overall landscape.

3. Application of waterscape in landscape design

3.1. The application of light and shadow art

Combining the characteristics of natural light and artificial light, the reflection of the landscape and architecture above the water surface under the action of light reflection is the so-called light and shadow art. On one hand, the water surface shows a variety of water surfaces, such as flowing dynamic water, sparkling exciting water and still water reflection, which can create various forms of water surface light and shadow effects, and contrast with the water surface effect of lake light and canvas shadow, so that the scenery presents a more elegant beauty. In addition, different reflections can be presented to make them more stereoscopic because of the varying speeds of the ripples, the differences between the scenes, and the viewing angles. On the other hand, because in the real situation, the wave reflection will produce various light and shadow art effects, therefore, the relevant staff can use the difference of the lighting position of the garden landscape and the difference of the light reflection angle combined with the specific characteristics of the sunlight and the water surface, and properly use the reflection and refraction of the sunlight to creat lakes and mountains, clear water and sky and other artistic effects, truly applying the important role of natural light and shadow to the design of water features in landscape gardens, and it allows visitors to feel the beauty of waterscape.

3.2. Waterscape shape design

In landscape architecture, waterscape has different design forms, and different water structures make them behave in various forms, so that landscape architecture shows different effects, so that visitors can get more diverse experience.

3.2.1. Still water form design

The still water design is a stable form, specifically refers to the pooling of lakes, lakes, etc. into a water surface. Under normal circumstances, in the design of rocks or buildings, there is a finishing touch, and the area will be larger, or some small-scale still water design can be incorporated into it. However, the empty waterscape can not attract more tourists. Generally speaking, some ornamental aquatic plants, such as lilies and lotuses, can be incorporated into this design, and trees such as metasequoia can also be used. Plants are laid on the shore of this design, which not only enables people to visually create a beautiful enjoyment, but also allows people to experience the quiet and peaceful inner peace. It also scientifically divide the space, so that the entire garden landscape is more layered and distinct, which greatly improves the artistic beauty of garden landscape. In addition, ornamental fish such as koi and goldfish can be added to this design to make it more dynamic. In the static design, the static elements are combined with the dynamic elements, which achieves a good fusion of motion and static, and the space effect is also very obvious.

3.2.2. Fallen water design

There are many different forms in this design, such as waterfall, falling water and overlapping water, in other words, let the water fall from a high place. In the process of fallen water design, it is necessary to consider many factors, such as the drop and the original geomorphic characteristics, to create a suitable terrain structure, and to integrate the spatial effect and the design of falling water. Falling water means that water falls from a high place to a low place in a step like manner. In this

kind of landscape, the causes of water drop include water storage and running water. The water storage is in plane form, and the water flow is in three-dimensional form. For water drop landscape, in the process of designing facade and plane effect, the proportion relationship between them should be designed according to the overall relevance of landscape environment, and the relationship between the main position and the secondary position should be scientifically distinguished. If the water drop has a large rise and fall, it can form a waterfall landscape. By controlling the background texture and strengthening the performance of water surface details, it can create a variety of waterfall landscapes. The main form of water drop landscape is water facade.

3.2.3. Spray pattern design

This kind of design refers to that the water passes through the nozzle and is sprayed out under the pressure, which can make the water form a specific shape for people to watch. When designing water spray, if only a single nozzle is used for water spray, the amount of water spray will be limited to a certain extent, but if multiple nozzles are used to spray water together, various forms of water spray can be formed. In fact, the complexity of the spray design process is not very high. In the design and construction, only the sufficient water source is needed to form a very good spray effect. For this reason, some landscape gardens that are not suitable for still water design and fallen water design can use this design method to achieve the desired effect. Apart from this, in the water spray design, music, dome of water and other elements can also be integrated into some small water column, so that the design effect is more novel and unique, so as to achieve the perfect effect of attracting people's attention and stopping to watch.

3.2.4. Flow pattern design

In the design of water flow, the ground slope is different, and the water flows down the river, which is presented in front of tourists in the form of streams. The gradient of water flow mainly depends on drainage requirements and geographical environment. In the graphic design, it is necessary to ensure the degree of separation and retraction, so as to form a water surface with different sizes and widths. Usually, elements such as small bridges, point stones, and beaches can be added to the design. By using the characteristics of water mobility and wave light, and appropriately strengthening the design of the flowing water, the landscape garden can be more aesthetic. It is also possible to create a layered sense of difference in the same flow design process, so that the landscape can be displayed in a variety of styles. What's more, it is appropriate to increase the width of the water, so that the flow of the stream is more tortuous, while laying some loose stones or stones on the bank of the stream, and incorporating some aquatic plants or wetlands into it, weakening the feeling of artificial landscaping makes the natural scenery feel stronger, and it can also make the garden landscape more impactful, so that it has higher ornamental value.

4. Conclusion

All in all, the waterscape design has important functions such as focusing and setting off in the landscape garden. Scientific application of waterscape can not only enhance various application functions of landscape gardens, but also make landscape gardens more aesthetic in general and give people a spiritual enjoyment. In the process of waterscape designing, it is important to combine the actual situation, use the existing conditions to carry out the reprocessing process, and use the reflection of light, plants and rocks to assist, so as to make the sense of hierarchy of landscape garden clearer and more connotative.

References

- [1] Shuang Liu. Analysis of Effective Application of Waterscape in Landscape Architecture Design. Xiandai Horticulture, 2018(05): pp. 123-125.
- [2] Nan zhou. Analysis of Effective Use of Waterscape in Landscape Garden Design. 2019(02): pp. 81.

- [3] Yongsheng Zhuo. Analysis of Effective Application of Waterscape in Landscape Architecture Design. Sichuan Building Materials. 2019,45(04): pp. 202+205.
- [4] Li Zhu. Analysis of Effective Application of Waterscape in Landscape Architecture Design. Jushe, 2019(18): pp. 123.
- [5] Junlu Liu. Design and Construction of Pools and Fountains in Garden Waterscape and Analysis of Plant Collocation. Sichuan Cement, 2018(12): pp. 94.
- [6] Yunyan Hu. Study on the Traditional Water Features of Chinese Landscape Architecture. Modern Horticulture, 2018 (18): pp. 143.