

Research on the Design of Plant Landscape in Wetland Park

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Abstract: Wetland parks are an important part of the urban green space system, which plays an important ecological role, including improving people's living environment and maintaining ecological biodiversity. In the planning and design of urban wetland parks, the design of plant landscape is an important content. In the process of wetland park construction planning, the selection of plant materials, the functional allocation of plant materials, and the maintenance management in the later stage of construction all require scientific plant landscape design. The article mainly summarizes the connotation of plant landscape planning and design in wetland park, analyzes the principles to be followed in the design of wetland park plant landscape, and proposes some specific plant landscape design measures.

1. The Connotation of Plant Landscape Design in Wetland Parks

The so-called plant landscape refers to the use of the forms of plants and plants in nature to provide a good living environment for people to feel the beauty of nature and the beauty of life. The plant landscape commonly used in wetland parks includes terrestrial plants and aquatic plants. Common aquatic plants include rattan branches, flowers, grasses, shrubs, and arbores. Aquatic plants include lotus, duckweed, and algae. Different plants present different shapes, colors and extensions, and have different ecological functions. For example, the large plants of the leaves can play a shadow, the bright flowers can attract more insects, and the plants with developed rhizomes can maintain The role of water and soil, and so on. As China's urbanization process continues to accelerate, the ecological role of wetland parks is becoming more and more prominent. Specifically, the main functions of wetland parks include the following aspects: first, conserve water and soil, maintain good groundwater circulation; second, purify the air. To improve urban air quality; once again, to enrich species diversity, wetlands can provide habitat for a variety of flying animals and climbing activities, which greatly protects biodiversity; finally, the wetland system contains rich ecological resources, such as Plant residues and excretions can improve soil fertility. Wetland-rich water resources can effectively complement the groundwater system. In addition, the plant landscape is also of great ornamental value, which can improve the urban landscape and enhance the aesthetic taste of residents [1].

2. Wetland Park Plant Landscape Design Principles

The plant landscape of the wetland park includes a variety of terrestrial plants and aquatic plants. It not only has different shapes but also different living habits. It must follow scientific design principles to achieve harmonious symbiosis and achieve the goal of truly protecting the ecological environment. Specifically, the wetland park plant landscape design must follow the following principles:

Wetland park plant landscape design should follow the principles of protecting biodiversity, protecting the natural transition of ecosystems and surrounding environment, and protecting the functional integrity of wetlands. Among them, the protection of biodiversity is the most important. When designing plant landscapes, we should minimize landscape design to biodiversity. The impact of sex provides sufficient ecological space for the survival of animals and plants, and promotes the development of biodiversity of wetland park systems while avoiding the invasion of alien species.

Wetland Park is not an independent ecosystem. It is inextricably linked with the surrounding environment. Therefore, in the process of vegetation design, we should protect the natural environment of the wetland park ecosystem and the surrounding ecological resources based on the macroscopic perspective, and realize the wetland park and its Good communication around the ecological environment. In addition, the integrity of the wetland park's own wetland function must be protected, and the basic functions of the wetland park cannot be destroyed for plant landscape design [2].

The so-called suitability principle is to ensure that the plant landscape design of the wetland park should be properly utilized, that is, the plant landscape design should not only give full play to its ornamental value and ecological value, but also develop the economic value of the plant landscape within an appropriate scope; The role of water resources and biological resources in wetland parks provides a good place for leisure for urban residents and tourists. In addition, wetland parks can be used in popular science education bases to educate urban residents and tourists on the popularization of ecological knowledge.

The principle of coordination and unification is an important factor to ensure the stable development of wetland parks. Therefore, when designing plant landscapes, attention should be paid to the coordination of plant landscape styles and the ecological characteristics of wetland systems to ensure that plant landscapes and wetland ecosystems promote each other, integrate and develop each other; The design style of the wetland park not only highlights the regional characteristics, but also coordinates with the unique style of the city. In addition, the wetland park plant landscape design materials should be based on eco-friendly, and the construction methods are also environmentally friendly to ensure wetlands [3].

3. The Wetland Park Plant Landscape Design Focus

This paper mainly designs the plant landscape of the wetland park according to the site type, as follows:

The main function of water plants is to enrich the garden waterscape and expand the waterscape space, making the wetland park more interesting. For wetland parks, the water plant landscape design is the key content. The design should be based on the actual conditions of the water quality, water depth and water area of the wetland park. For example, aquatic plants with more ornamental value can be planted in the place where the tourists are concentrated, and the role of the body and beauty can be fully demonstrated; When configuring a variety of plants, avoid mutual inhibition between plants. Specifically, the design points of the water plant landscape include the following aspects [4]:

First, water plants are set for different water bodies. The open water body can be configured with large and continuous plants, with a small amount of water, which can create a landscape of aquatic plants, which makes people feel the beauty of the plants; and a small amount of single water plants can be arranged on the wide water surface, which can make people feel simple and clear. . If the water area is small, it is necessary to highlight the individual beauty of the plant, reasonably match the plant posture, color, height, etc., to minimize the plant species, select plants with a small volume, natural configuration, and make full use of the water surface mirror effect. Secondly, according to the water body depth and reasonable design, usually the water, floating water, floating plants are suitable for shallow water, the viewing effect is better; the deeper water body can use submersible, floating plants, can purify the water, pay attention to sinking Water and floating plants should not grow too vigorously, otherwise they will easily pollute the water body, so they should be salvaged regularly. Finally, plants can be set according to the state of the water body, usually submerged, floating plants are suitable for use in a still water environment, while emergent plants are suitable for running water.

The embankment mainly plays a transitional role. It connects the two different ecological environments of the water surface and the land. Therefore, the embankment landscape design involves many types of water plants, shrubs and shrubs. In the actual plant landscape design process, on the one hand, the embankment can be configured by planting different types of plants in the form

of planting or grouping, and adopting the principle of proper density when planting, visually creating a high and low staggering effect. Reserve a certain vista line and set a soft and stretched forest edge line and canopy line; if planting the same plant, it can create a grand momentum. If planting different kinds of plants, it should be reasonably matched, and the primary and secondary points should be clearly defined. Usually, herbaceous flowers and ground cover plants are planted in the lower layer, such as pampas grass, dwarf pampas grass, *P. sylvestris*, broad-leaved *Ophiopogon japonicus*, fine-leaf awns, flower awns, silver-leaf awns, yawn awns, and small rabbits, *A. chinensis*, etc., can play a role in extending the ornamental period of woody plants; in the treatment of shore marsh plants into the water and waterside plants should pay attention to form a complete water-land interlaced zone to enrich the landscape effect of plants. Commonly used plants for planting embankments include cattail, canna, water hyacinth, reed, calamus, aquatic iris, lycopodium, and weeping willow [5].

On the other hand, since people feel the most profound changes in the seasons of the waterside plants during the tour, the plant configuration of the embankment should be balanced with each season, and different flowering and leaf color can be arranged in layers: spring can pass pink Willow green creates a spring flower landscape, such as cherry trees, peaches, purple leaves, sea otters and other trees, or yellow thorns, forsythia, spring and other shrubs; in summer, a lot of aquatic plants can be used to create lush landscapes, such as weeping willow, Eucalyptus, national carp, bitter buckwheat, triangular maple, eucalyptus, etc.; in autumn, the landscape colors can be enriched by plant leaves of different colors, such as five-pointed maple, scutellaria, ginkgo, paulownia, weeping willow, or some persimmon trees. The result plants such as firethorn and hawthorn are considered to provide abundant food for birds; in winter, winter landscapes can be created through pine and cypress green, such as pine, pine, eucalyptus, and cypress, making the entire embankment distinct.

Although the terrestrial plants in the wetland park are all in inland areas, they also need to have strong water-resistance ability. It is required that the plant roots can adapt to the higher groundwater level, follow the principle of adapting to local conditions and adapting to the time, and comprehensively utilize various land. Plants create a natural, beautiful and harmonious plant community landscape, not only to fully play the ecological functions of plants, but also to take into account their ornamental characteristics. During the planting process, the plants are mainly planted in groups and planted in groups. The different positions are distinct and distinct. The trees, shrubs and ground cover are used to form a complex layer, and a rich community landscape is created by using abundant vertical vegetation layers. It is also important to pay attention to the design of the plant landscape of the park. The park road plays the role of dividing the park space and guiding tourists. Therefore, the plant landscape of the wetland park road should be set according to the fluctuation of the terrain and the distance from the water surface. In order to highlight the momentum of the main road in the wetland park, the method of determinant is adopted. The branch road is flexible and pleasant, and the natural planting method can be adopted to better adapt to the characteristics of the branch road, and the waterfront road must Leave a corresponding water surface through the horizon, suitable for gathering, and highlight the plant's appreciation in terms of volume, posture, color, etc. at the node of the road to form a sharp contrast [6].

Other spaces include sparse forests, sunny lawns, plaza spaces, under-bridge spaces, etc. Among them, sparse forests are dominated by tall trees, and then with shrubs or herbaceous plants, they can be used as protective forest belts. Commonly used plants are oil pine and thousand. Sunshine lawns are mainly large lawns, which provide visitors with an open and spacious leisure space. The lawn plants are mainly planted with bluegrass and dogtooth roots, and partially planted tall trees; square space can be combined with tree pool seats. Flower beds and other plants are arranged to break the excessively large pavement area. The space under the bridge is the first choice for yin-resistant and anti-barren plants, so as to better adapt to the under-lighting and poor soil environment under the bridge, such as octagonal gold plate [7].

4. Conclusion

In short, wetland parks are an irreplaceable and important part of the urban green space system. Their main role is to improve the urban ecological environment, improve urban biodiversity, create a more livable living environment, and promote sustainable human development. Therefore, the plant landscape design of the wetland park should strictly follow the principles of protection, suitability and coordination, fully respect the topography of the original wetland, and carry out landscape design with ecological priority as the core, so that both ecology and aesthetics can be achieved to achieve human and nature. Of course, the plant landscape design of the wetland park integrates the knowledge and technology of many subject areas, which is complex system engineering. Therefore, in the actual design process, the landscape designer should rationally configure the plants according to different site types and landscape requirements of the wetland park.

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