

Analyze the plant configuration in garden landscape design from an ecological point of view—taking urban wetland parks as an example

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Abstract: At present, the construction of conservation-oriented ecological gardens has been deeply rooted in the hearts of the people and has developed into the main development direction of modern urban gardens. With the increasing living standard of people, the requirements for the surrounding environment are gradually improving. At present, society pays attention to a conservation-oriented society. Because of China's large population base, small per capital area and limited living space for everyone, from the reality, we must pay attention to the combination of economy and ecology in the construction of ecological gardens. Starting from the planning of urban wetland park, combined with the related theories of dendrology, floral science and ecology, this paper comprehensively expounds the key points of plant landscape construction from the aspects of plant selection, overall and local landscape. In order to effectively protect resources, conservation-oriented ecological gardens have become the main direction of current construction. Through the construction of such gardens, the sustainable development of modern gardens can be promoted. In order to achieve the desired effect, landscape design and plant configuration must be carried out reasonably, so as to be scientific.

1. Introduction

Urban Wetland Park is a unique type of park. The (Trial) guidelines for the planning and design of Urban Wetland Park defines it as a park with ecological functions and typical characteristics of wetland, including ecological protection, popular science education, natural wild interest and leisure tourism. Since the reform and opening up, the rapid economic growth has not only created more material wealth, but also brought greater ecological damage and environmental pollution. This loss has largely offset the fruits of economic growth, and it has also brought damage to the city. Sustainability has brought a big test. Landscape design and plant configuration of ecological gardens are closely related to social development and urban construction. On the whole, the contents of conservation-oriented ecological gardens mainly include improving the ecological environment, saving energy and resources, and living in harmony with nature. In other words, in the process of economical landscape design, the least cost is applied to obtain the maximum ecological and economic benefits. In short, increasing the construction of energy-saving ecological garden not only reduces the cost, but also plays a vital role in protecting the ecological environment. In order to ensure the quality of energy-saving ecological garden construction, it is necessary to strictly control the landscape design and plant configuration, so as to enhance the effectiveness of energy-saving ecological garden construction.

Conservation-oriented urban gardens are "greening modes with the least land use, the least water use, the least financial allocation and the least interference with the surrounding ecological environment". In large cities with high population density, the most basic content of ecological construction is the construction and protection of water bodies and green spaces. Wetlands are referred to as the "kidney of the earth", together with oceans and forests, as the three major ecosystems in the world. It is a special transition type ecosystem that is different from water and land. It is an overlapping space area that extends and expands the interface of aquatic and terrestrial ecosystems. It is a precious natural resource on which humans and economic society rely for survival and development. It is also the most important living environment for mankind. Through the construction of conservation-oriented ecological gardens, it is conducive to harmonious coexistence between man and nature, and it also plays an important role in improving ecology and

conserving resources. Broadly speaking, energy-saving urban garden green space is not only an ecological urban green space, but also a sustainable green space. Such urban garden green space design becomes sustainable landscape design or ecological design.

2. Urban wetland landscape

2.1. Definition and classification of wetlands

The English original meaning of wetland is excessively wet land. The definition of wetland in Ramsar Wetland Protection Convention was amended on March 12th, 1982. The written expression is: "Wetlands refer to the natural or artificial, permanent or temporary marshes, peatlands or water areas, which are still or flowing, or fresh water, brackish water or saline water, including water areas with water depth less than 6 meters at low tide." Start from the narrow definition of wetland as much as possible. In the process of constructing urban wetland park plant landscape, we must start from the narrow definition of wetland everywhere, that is, the hydrogeographic environment of wetland, water-forming soil and wet organisms are the three basic characteristics of wetland. The conversion of natural wetland, quasi-natural wetland, and imitation natural wetland parks into waterscape parks should be avoided. It is generally believed that the conservation-oriented ecological garden plant landscape should have three connotations: first, it has the ornamental nature of the garden and can create a pleasant landscape; the second is sustainable development, improving the ecological effect of the environment, regulating the microclimate, and maintaining the ecology Balance: The third is the rationality of ecological structure, including reasonable time structure, space structure and construction structure, which can form a harmonious unity with the environment.

2.2. Economical Ecological Garden Landscape Design

With the continuous development of society, people's living standards are gradually improving, and the process of urbanization is also gradually accelerating, but the environmental problems of the city are getting more and more serious. Therefore, relevant departments have begun to strengthen the construction of urban gardens and save gardens. Construction has also become an aspect that people pay attention to, and some ecological garden landscapes have been established to provide people with a comfortable environment. Ecological design is to build a diversified landscape, carry out ecological and reasonable allocation of the overall greening space, increase natural ecological elements as much as possible, and pursue a sound landscape ecological structure of overall productivity. Green quantity is the basis of ecological function of urban green space. When constructing the plant landscape of Urban Wetland Park, whether it is artificial transformation or creating a new plant landscape, we should start from the whole community, not simply from a species. Emphasize the preservation of key species in the community, and caution should also be taken when introducing non-native species in order to create a beautiful and relatively stable plant landscape. Similarly, according to functional areas and pollution, select pollution-resistant and anti-pollution plants to play the role of green space in covering, absorbing and assimilating pollutants, reducing pollution and promoting urban ecological balance. In addition, we should also pay attention to the exertion of other ecological functions of plant landscape, such as the direct function of strengthening human body and eliminating diseases, plant bacteriostasis, creating fresh air and releasing health care substances, so as to build health care plant landscape in a specific environment, improve living environment and benefit physical and mental health.

2.3. Plant configuration method

The first is the principle of hierarchy. In the process of landscape design, for the layered configuration and color matching of various landscapes, the principle of hierarchy must be used to display, that is to say, it is necessary to ensure that the landscape design can arrange plants of different flowering periods in each of the years. The time period guarantees the functionality of the ecological garden. In the plant configuration, different characteristics of height can be used to

ensure the creation of a sense of hierarchy. For example, the corridor between the pavilion and the pavilion can be connected by different plants, so that While highlighting the level of landscape design, it also allows visitors to enjoy beautiful plants. We should improve variety awareness, strengthen the screening and domestication of zonal plant ecotypes and varieties, and build a green landscape with regional characteristics and urban personality. At the same time, we should carefully and moderately introduce foreign characteristic species, focusing on the fine varieties originating in China but cultivated and improved. Ecological design mainly refers to the construction of diversified landscape and the rational allocation of the overall ecological space for greening. In the allocation process, some ecological factors should be added as much as possible, and the landscape ecological structure should strive to improve the productivity. As a complex of ecology, art and function, urban wetland park involves the intersection of multiple disciplines. In addition to the concept of landscape design, it also depends on the relevant theories of ecology, recreation and aesthetics to form a multi-disciplinary theory of sustainable development.

3. Plant configuration of ecological garden landscape in energy-saving city

3.1. Ecological perspective

The plant landscape construction of urban wetland park should be based on the detailed investigation and analysis of the existing hydrology, geography, soil, animal and plant resources in the planning area, and protect and create an ecological environment suitable for the growth of wetland plants, which is a good foundation for building the plant landscape of Urban Wetland Park. The plant configuration of a conservation-oriented urban ecological garden landscape is an important aspect of maintaining and shaping the city's customs, culture and characteristics. It should be based on natural ecological conditions and zonal vegetation, and integrate folk customs, traditional culture, religion, and historical cultural relics. In urban landscaping, the urban green space system has regional and cultural characteristics, and produces recognizability and characteristics. In the planning and design of plant landscape, wetland vegetation shall be planted according to the requirements of the existing vegetation types and overall layout of the Wetland Park, on the premise of retaining the existing vegetation as much as possible, not only to ensure the diversity of wetland habitat, but also to create wetland plant landscape with different seasonal and forest changes, Make the park wetland ecosystem diversity and landscape diversity fully displayed. In view of the distance between these plants, make arrangements for density and frequency to ensure that they will not compete with each other to cause the ecological garden to lose its ornamental and functional properties. While healthy growth, ensure the basic stability of the ecological garden plant community structure. In order to obtain the maximum coordination between plants and plants, plants and the environment.

3.2. Plant configuration method

In the process of plant configuration, it is necessary to ensure that the types of plants are suitable for the local ecological environment and humanistic construction, and that the flowering period and color of the plants are in line with the local urban characteristics. It is necessary to continuously improve species awareness, select some zonal plant species, and construct green landscapes with regional characteristics. At the same time, we must carefully select foreign species and focus on the original species in my country. In the process of ecological garden construction in energy-saving cities, we should not only design the landscape, but also scientifically configure plants, so as to ensure the quality of ecological garden landscape in energy-saving cities. During the plant configuration, the factors such as combined composition and color season should be fully considered. These factors can be infiltrated into the plant configuration to organically integrate buildings such as mountains and rocks and water bodies to ensure the optimization of plant configuration. In the design of urban energy-saving garden landscape, the plant configuration must consider the combination and composition of plant species, color season, garden artistic conception, and the mutual collocation between garden plants and other garden elements such as mountains,

rocks, water, buildings, etc. Various landscape elements at different spatial levels, such as distant mountains, water surfaces, and ground covers, should be used to create a rich plant landscape. It can be imagined that with the distant mountains as the background, the willow trees on the embankment are the middle scene, the scattered planting outlines the rich skyline; the reflection of the willow trees in the nearby water surface is just like a beautiful watercolor painting, giving the beauty of the combination of reality and reality; where visitors can see Everywhere you can enjoy the beautiful scenery brought by the ground cover and roadside plants.

3.3. Plant configuration method

In the process of plant configuration, we must pay attention to the color matching and seasonal changes between plants, because plants will show different seasonal landscape changes according to the four seasons of the year. Urban Wetland Park is not the superposition of urban wetland and park. The construction principle of Urban Wetland Park is closer to that of scenic spot than that of urban park. The protection and utilization of the original habitat is more important than the transformation and reconstruction of the original habitat. In the process of landscaping, the use of native plants for landscaping is a basic method for constructing gardens with local characteristics. It makes full use of trees, shrubs, and herbaceous plants, and uses corresponding artistic methods to combine the lines of these plants. Colors and other beauty are brought into full play, and on this basis, a plant community landscape with local colors is formed. In addition, it must be combined with regional culture to give full play to the role of native plants. Before the plant landscape construction of the Urban Wetland Park, the landscape types of the base should be investigated and analyzed, and the priority should be established according to the importance of different plants to the urban wetland park landscape, so as to avoid damaging the more important wetland landscape when building a landscape.

4. Conclusions

Corpus Among the wetland parks, the urban wetland park is particularly important. It is an important part of the urban green space system and plays an irreplaceable role in improving the urban ecological environment and biodiversity. When people are familiar with artificial garden landscape, the appearance of urban wetland parks undoubtedly brings a sense of freshness to people, which not only enriches the types of urban parks, but also makes citizens feel the infinite charm of wetlands as the kidney of cities. With the accelerating pace of urban ecological environment construction, urban wetland park, as an important part of urban green space system, not only greatly enriches the types of urban parks, but also plays an extremely important role in improving urban ecological environment and urban biodiversity. Economical ecological landscape design can fully express the concept of sustainable development in landscape design. In the new era, economical landscape design highlights its important role in the whole society. It is impossible to build a conservation-oriented garden without chanting slogans. We must proceed from the strategic and overall development perspective, change the old traditional concepts, start from me, start from now, start small, and fully understand the construction of conservation-oriented gardens. The importance and urgency of greening, earnestly grasp the implementation and execution of various tasks, establish and improve laws and regulations related to conservation-oriented garden construction, and protect the environment and resources for future generations, so as to realize the sustainable development of the city in the future.

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