Landscape construction of urban wetland park based on ecological aesthetics research

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Abstract: According to the relevant theoretical research of landscape ecological aesthetics, landscape construction in urban wetlands will be analyzed. The ecological aesthetic framework constructed on this basis can be used to understand the development status and research significance. By combing the relevant concepts, theories about the major ecological aesthetics will be part of the concern. These will be used to construct a theoretical framework for landscape construction. Proceed from the awakening of ecological aesthetic consciousness to explore the beauty of natural ecological balance and the construction of human ecological beauty. On this basis, it puts forward a harmonious view of ecological aesthetics and looking for various connections between people and landscape elements in ecological aesthetics. These will be used to emphasize the complexities of natural aesthetics and the construction of urban wetland landscape ecological aesthetics.

1.Introduction
With the increasing awareness of environmental protection, people's understanding of the function and value of wetlands is also constantly improving. Aesthetic value and aesthetic research are also regarded as one of the important sectors[1][2][3]. Compared with the more and more artificial landscapes that gradually surround our city, the wetland park landscape is well known by people for its unique natural landscape, rich biological species and original ecological landscape aesthetic. The conclusion will also be used to guide the development of wetland landscapes and the maintenance of later sustainable development. Based on the urban wetland park, this article studies the aesthetic significance, components and aesthetic construction of the wetland park from the perspective of ecological aesthetics theory. In this way, the inherent aesthetic value and cultural attributes of the urban wetland park are explored. This will enhance the attractiveness of urban wetland landscape and cultural character.

2.Development status of the urban wetland park landscape
Wetland is an important special ecosystem. However, the advancement of urbanization has made the ecological destruction and the environment worsens. In this case, the "International Convention on Wetlands" came into being. The Convention looks forward to that through cooperation among governments around the world to protect the wetlands and their biodiversity, especially waterfowl, and their survival environment[4].

"Ecological Aesthetics" (Xu Hengol 2000) elaborate on ecological aesthetics in detail. By establishing the aesthetic value of the ecosystem as the object, the article unfolds the aesthetic research on human life activities, living environment and living conditions. On the platform of the unity of ecology and aesthetics, it constitutes a theoretical horizon different from the traditional aesthetics. These
became the basis of the existence of ecological aesthetics\cite{5}. Yu Song (2010) proposed the PPC model based on RAGA in the evaluation system of urban parkland landscape aesthetics, and then convert the high dimensional data into a low-dimensional subspace. He seeks the optimal projection direction and the value of the projection function to realize the ecological aesthetic evaluation of the urban park green space landscape\cite{6}. Studying the ecological aesthetics of the urban wetland park landscape has guiding significance for the urban wetland park landscape design, management and protection.

3. The Construction of Ecological Aesthetic Theoretical Landscape of Urban Wetland Park

Under the guidance of the theory of ecological aesthetics to explore the natural beauty and ecological balance of the construction of the US human ecology from the perspective of ecological aesthetic consciousness. Then put forward the harmonious view of ecological aesthetics and ecological aesthetics to find linkages between human and landscape elements. The complexity of natural aesthetics will be emphasized. The landscape construction of urban wetland landscape ecological aesthetics will be constructed. (Table 3-1)

Table 3-1. The Construction of Ecological Aesthetic Theoretical Landscape of Urban Wetland Park

| The Construction of Ecological Aesthetic Theoretical Landscape of Urban Wetland Park |
|-----------------------------------|
| Awakening of ecological aesthetic consciousness | Take the natural ecological balance as beauty |
| Ecological Aesthetics and Harmony | Harmony between the park and the external urban environment |
| | Harmonious landscape elements in the park |
| The relevance of ecological aesthetics | The role of people |
| | The relevance of landscape elements |
| Emphasis on complex natural aesthetic | Theoretical complexity |
| | The complexity of various ecological elements |
| | Compound landscape ecological pattern |

3.1 Awakening of ecological aesthetic consciousness

Urban wetland landscapes are not just plain and boring as a surface of the water, but should be prosperous, scattered, and different in shape. Many China verses describe the ecological beauty of the unique reed community in the wetland. The ancients still had poetic views on the beauty of wetlands, and the awakening of modern ecological consciousness inevitably caused everyone to think about aesthetic perception.

3.1.1 Take the natural ecological balance as beauty. Taking the natural ecological balance as beauty contains two meanings, such as "One produced two, two produced three, three produced all things. The dialectical logic of the development of things and the universal connection will be explained accordingly." The balance of nature is an important condition for human survival. According to Marxist epistemology, the essence of beauty is the unity of human practice and the regularity of objective nature. The harmonious balance between construction and nature is thus reflected. Another level mainly refers to the balance of various landscape elements in the construction of the wetland landscape. This kind of balance is mainly based on the perception of sight, hearing, smell, touch, feeling, etc.

3.1.2 To build humane ecology as beauty. China is an ancient civilization with five thousand years of history. From the original natural environment to the evolution of today's metropolis, it has its personality and cultural connotation. The way of displaying historical humanities through ecological wetlands is often used. Then the urban wetland park is naturally included in the planning of urban civilization construction. The humanistic connotation will enhance the internal aesthetics of the wetland park ’s ecological aesthetics, and infiltrate the wetland aesthetics from the inside.
3.2 Ecological Aesthetics and Harmony
The harmonious view of ecological aesthetics mainly emphasizes the internal and external unity of the aesthetic subject and the harmonious symbiosis with nature. Aesthetics is not the projection of the subject's emotions, but the fusion of the soul of the aesthetic subject and the lifetime value of the aesthetic object\[7\]. There are two main meanings: One is the harmonious coexistence of the urban wetland park and the external urban environment. The integration of the boundary and the radiation of the service range constitute a harmonious view of the boundary effect of ecological aesthetic. Secondly, the harmony of the landscape subjects in the urban wetland park, which is expressed in the harmony between creatures and people. It also includes the direct and indirect participation of non-biological factors, destroying or consolidating harmony. People's internal and external stimuli such as spatial contrast, spatial comfort, spatial timing, and spatial security will trigger different aesthetic experiences.

3.3 Relevance of ecological aesthetics
The ecological aesthetics of the wetland park emphasizes the interrelated effects of people and other things. In these internal relations, first of all emphasize the interaction between man and nature. However, inside the urban wetland park, it emphasizes the display of the entire life cycle of biological animals and plants from birth to extinction. Any biological community will continue to change and develop over time in among. Due to changes in the environment, and human activities affect the interaction between species caused the community succession.

3.3.1 The role of people. Generally speaking, the basis for aesthetic modeling is based on the human perception of space. Edward T. Hall divided the space into four types (Table 3-2). When people appreciate things, space can be divided into three levels of space, which are physical, psychological and artistic space. As the main body in space, the man directly affects the attributes of internal space and the guidance of internal relations.

| Table 3-2 Space division based on human perception |
|-----------------------------------------------|
| **Spatial characteristics** | **characteristic** | **Environmental requirements** |
| Intimate space | Privacy | Enclosed, safe, comfortable, artistic, anti-interference |
| personal space | Independence | Enclosed or semi-open, safe, comfortable, quiet, special, |
| Social space | Equality | Semi-open, safe, tasteful |
| public space | Publicity | Open, safe, barrier-free, and cultural |

3.3.2 The impact of urban wetland park landscape elements. In an ecological wetland, the aesthetic experience should be complete, not limited to a certain space or node. The landscape elements of water system, biology, culture, etc. as the basic elements of wetland landscape composition, their internal connections are very close\[8\][9]. The aesthetic experience of each period is displayed in the form of the life cycle in the entire ecological chain (table 3-3). Everything in spring recovers and green plants sprouts; in summer there are lush reeds and moonlight in lotus ponds; in autumn there are waves of autumn and the waves are cold and smoky; in winter there are snow and snow, and the recklessness ... These seasonal changes change in a silent cycle.

| Table 3-3 Expression form of wetland landscape elements |
|-----------------------------------------------|
| **Landscape composition** | **Form of constitute** | **Manifestations** | **Attached natural human landscape** |
| Water landscape | Wetland waters | Swamps, ponds, waterfalls, streams, fountains, etc. | Natural meteorological landscape, treading snow, enjoying the | |
| | Wetland revetment | Tidal flats, dry creeks, revetments, etc. | | |
The formation of patches in the urban wetland landscape has natural texture characteristics. The transformation of this texture into a human perspective is mainly reflected in the change of the visual experience brought about by the contrast between the compact and dense spaces, the contrast between tall and low, and the contrast between open and closed. These all reflect the spatial variability of urban wetland parks. If there is a contrast, it can optimize the sensory experience. This experiential improvement runs through the entire landscape experience process.

3.4 Emphasis on the complex nature of nature

3.4.1 Theoretical complexity. The landscape aesthetics of the wetland park is centered on the relationship between man and nature. The general thinking in many aspects of the theory of natural beauty, ecological beauty, social beauty, artistic beauty, and much other aesthetic theory and philosophy, sociology, psychology and so on. Landscape ecology theory holds that the urban wetland landscape is formed based on the urban wetland natural ecosystem. This theory has multiple functions such as ecology, economy, culture, aesthetics, etc. One of the most basic functions is an ecological function. Therefore, in the design of an urban wetland landscape, landscape ecology theory should be fully utilized to exert its natural ecological function[10].

3.4.2 Complexity of ecological aesthetic perception. As the subject of ecological aesthetics, people can perceive different environments through sight, hearing, smell, taste and touch. This will create different aesthetic sensory experiences. However, traditional Western metaphysics is to highlight the nobleness of the soul. Environmental aesthetics has initially broken the traditional Western hierarchy of sensations, such as Carlson has noticed the role of smell, taste and touch in environmental appreciation. It is what he said, "the skin feels, the nose smells, and maybe even the tongue tastes". Environmental aesthetics and body aesthetics together highlight the important role of the body in aesthetic activities and are jointly contributing to the aesthetic perception complex[11][12].

3.4.3 Complex ecological landscape pattern. With the continuous development of an ecological aesthetic landscape, the analysis of landscape spatial pattern is widely used in many aspects such as nature protection, regional planning, land use, land remediation, etc. Then the composite analysis of the ecological pattern in the wetland landscape is still in the initial development stage[13]. According to the principles of wetland landscape classification and landscape ecological classification in the Wetland Convention[14], patches, corridors, substrates, heterogeneity, and boundaries are several important concepts of ecological wetland landscape patterns. The landscape is dominated by one or several dominant patch types and combined with the analysis results of the heterogeneity of the landscape type, the conclusion of the systematic analysis of the landscape is finally obtained.

4 Conclusion

At this stage, urban wetlands are an important part of the urban green space system. How to better protect and use urban wetlands is an eternal topic of wetland construction. This article attempts to
explore how to protect and repair this ecosystem that is still being damaged and how to make this ecologically elegant ecological environment bring people more ecological beauty experience. Through combing the current development status and research significance and related concepts, the main theories about ecological aesthetics are grasped, and the theoretical construction of landscape construction is summarized. Starting from the awakening of ecological aesthetic consciousness, explore the beauty of natural ecological balance and build the beauty of human ecology. Then put forward the harmonious view of ecological aesthetics. And looking for various connections between people and landscape elements in ecological aesthetics. Emphasis on the complex type of natural aesthetics. It is hoped that it can provide some suggestions or references for the ecological aesthetic construction and landscape construction in the urban wetland landscape.

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