

Sustaining the Landscape Design based on the Local Cultural Heritage Characteristics for the Zhengzhou Industrial

Hongyu Lu, Nadia Binti Mohd Nasir

City Graduate School, City University Malaysia, Kuala Lumpur, Malaysia

ABSTRACT

Based on the characteristics of local cultural heritage, the sustainable landscape design of Zhengzhou Industrial Park aims to integrate traditional culture with modern design to create an industrial space with both historical deposits and in line with modern aesthetic needs. The design deeply excavates the rich cultural heritage of Zhengzhou, integrates its unique elements and symbols into the landscape, and makes the industrial park become an important window to display the local culture. At the same time, we will pay attention to ecological and environmental protection and sustainable development, adopt green building materials and energy-saving technologies, optimize the greening system and the utilization of water resources, and create a green, low-carbon and recyclable industrial park. Such a design not only improves the environmental quality of the park, but also provides a comfortable and healthy working space for enterprises, which helps to promote the sustainable development of Zhengzhou's industrial economy.

KEYWORDS

Local Cultural Heritage; Zhengzhou Industrial Park; Sustainable Landscape Design; Cultural Integration.

1. INTRODUCTION

The sustainable landscape design of Zhengzhou Industrial Park based on the characteristics of local cultural heritage aims to explore a new landscape design mode that respects the historical context and conforms to the trend of The Times. Zhengzhou, as the birthplace of the Central Plains culture, has a rich cultural heritage and profound historical deposits. As an important part of the urban development, the landscape design of the industrial park should not only meet the functional needs, but also become an important carrier for inheriting and carrying forward the local culture. The concept of sustainable landscape design emphasizes ecological priority and green development, and the integration with the local cultural heritage characteristics of Zhengzhou can not only highlight the cultural characteristics of the park, but also improve the environmental quality of the park, and realize the harmonious coexistence between man and nature. This design will dig deep into the essence of Zhengzhou's local cultural heritage, and integrate it into the landscape through innovative design techniques, so that the industrial park will become a new window to display the local culture, and inject new vitality into the urban development of Zhengzhou. At the same time, pay attention to the application of the concept of sustainable development, optimize the greening system and water resources utilization through scientific and reasonable planning and layout, to realize the low-carbon, green and circular development of the park. Through this design, we expect to explore a new path of sustainable landscape design in industrial parks based on the characteristics of local cultural heritage, so as to provide useful reference and reference for the future urban planning and landscape design[1].

2. ANALYSIS OF LOCAL CULTURAL HERITAGE CHARACTERISTICS IN ZHENGZHOU

2.1. An Overview of the History and Culture of Zhengzhou

Zhengzhou, as the capital of Henan Province, has a long history and a splendid culture. Since ancient times, Zhengzhou has been the political, economic and cultural center of the Central Plains, carrying a rich historical and cultural heritage. The history of Zhengzhou can be traced back to the Xuanyuan Huangdi era about 5,000 years ago, and it is one of the important birthplaces of Chinese civilization. In the long history of thousands of years, Zhengzhou has given birth to many cultural heritages with local characteristics, which are not only the spiritual wealth of Zhengzhou people, but also an important part of Chinese national culture^[2].

Its historical and cultural characteristics of Zhengzhou are manifested in many aspects. First of all, Zhengzhou is one of the important cradles of Chinese civilization. There are many ancient cultural sites here, such as the hometown of the Yellow Emperor in Xinzheng and Dengfeng Songshan Culture. These sites have witnessed the evolution of the Chinese nation from ancient times to modern society. Secondly, Zhengzhou is the cultural center of the Central Plains. It has a profound cultural heritage and rich artistic traditions, such as Henan Opera, paper cutting, clay sculpture and other folk arts. These art forms show the wisdom and creativity of the people of Zhengzhou. In addition, Zhengzhou is also an important political and military location in Chinese history. There, many major historical events have occurred here, leaving many precious historical relics and cultural relics^[3].

2.2. Refining of Local Cultural Heritage Elements

Zhengzhou's local cultural heritage elements are rich and diverse, including material cultural heritage and intangible cultural heritage. Material cultural heritage mainly includes ancient buildings, ancient sites, ancient tombs, etc., such as Zhengzhou Mall Site, Songshan Shaolin Temple, etc. These cultural heritages have become the cultural name cards of Zhengzhou with their unique architectural style and historical value. Intangible cultural heritage includes folk art, traditional crafts, festival activities, such as Henan Opera, paper cutting, Zhengzhou temple fair, etc. These cultural heritage attract people's attention with their unique artistic charm and cultural connotation^[4].

When refining the elements of Zhengzhou's local cultural heritage, we need to pay attention to its uniqueness and representativeness. First of all, select those cultural heritage elements with distinctive local characteristics, such as the rammed earth wall of Zhengzhou Mall site and the martial arts culture of Songshan Shaolin Temple. These elements can highlight the historical and cultural characteristics of Zhengzhou. Secondly, we should pay attention to the representativeness of cultural heritage elements, and choose those elements that can reflect the essence of Zhengzhou's history and culture, such as the singing of Henan Opera, paper-cut patterns, etc^[5]. These elements can make people deeply feel the unique charm of Zhengzhou culture.

2.3. The Value of Cultural Heritage in Landscape Design

It is of great value and significance to integrate Zhengzhou local cultural heritage elements into the landscape design. First of all, cultural heritage is an important source of inspiration for landscape design. By excavating and refining cultural heritage elements, it can provide rich materials and creativity for landscape design, and make landscape works have more cultural connotation and artistic value. Secondly, the application of cultural heritage elements can enhance the regional characteristics and cultural identity of landscape design, make the landscape works coordinate with the surrounding environment, and form a unique regional style and cultural atmosphere. In addition, to inherit and carry forward the cultural heritage through landscape design, more people can understand and

understand the history and culture of Zhengzhou, and enhance their cultural confidence and national pride^[6].

When applying cultural heritage elements in landscape design, we need to pay attention to its rationality and innovation. On the one hand, appropriate cultural heritage elements should be selected according to the theme and style of landscape design to coordinate them with the overall design; on the other hand, innovative ways and methods of the use of cultural heritage elements to avoid simple imitation and copying, so that the landscape design works have both local characteristics and rich sense of The Times.

3. CONCEPT AND PRINCIPLE OF SUSTAINABLE LANDSCAPE DESIGN

3.1. Definition and Connotation of Sustainable Landscape Design

Sustainable landscape design, as the name suggests, is a landscape design concept that pays attention to ecological environment protection, rational utilization of resources, cultural inheritance and harmonious development of society. It emphasizes that the carrying capacity of the natural environment is fully considered in the design process, and the landscape space and the natural environment coexist harmoniously through scientific planning, reasonable layout and ecological technology, so as to realize the coordinated development of human activities and the natural environment^[7].

Sustainable landscape design not only focuses on the beauty and functionality of landscape, but also emphasizes the ecology and sustainability of landscape. It requires respecting the natural laws in the design process, making full use of natural resources, reducing the negative impact on the environment, while paying attention to the integrity and stability of the ecosystem. In addition, the sustainable landscape design also emphasizes cultural inheritance and social participation. Through the excavation and inheritance of local cultural characteristics, the regional and cultural identity of the landscape are enhanced, and the participation and interaction of community residents are encouraged to promote the harmonious development of the community.

In terms of connotation, sustainable landscape design reflects human beings' respect for and care for the natural environment^[8]. It advocates a green, low-carbon and circular way of life, and promotes the development of human society to a more civilized and progressive direction. Through sustainable landscape design, we can create a more beautiful, livable and healthy living environment, and leave a better home for future generations.

3.2. Basic Principles of Sustainable Landscape Design

Sustainability landscape design needs to follow a range of basic principles to ensure the feasibility and effectiveness of design practices. First, the principle of ecological priority is the basis of sustainable landscape design, which requires the full consideration of the balance and stability of the ecosystem in the design process, and gives priority to the protection of the natural environment and ecological resources. Secondly, the principle of resource conservation emphasizes the rational use of resources in landscape construction, reduce waste and pollution, and improve the efficiency of resource utilization. At the same time, the principle of cultural inheritance requires the excavation and inheritance of local cultural characteristics in the design process, so that landscape works have unique regional and cultural value. Finally, the principle of public participation emphasizes the openness and democracy of landscape design, and encourages community residents to actively participate in the design process and jointly shape a beautiful home^[9].

These principles are interrelated and complementary, and together constitute the core concept and practical framework of sustainable landscape design. In practical application, we need to flexibly

apply these principles, according to the characteristics and needs of specific projects, in order to realize the sustainability and ecology of landscape design.

3.3. Application of Sustainable Landscape Design in Industrial Parks

As an important carrier of urban economic development, the landscape design of industrial park is of great significance in improving environmental quality and promoting sustainable development. The application of sustainable landscape design in industrial parks is mainly reflected in the following aspects:

First of all, in terms of planning and layout, sustainable landscape design emphasizes the rational use of land resources, optimization of spatial structure, and ensuring the functional and ecological coordination of industrial parks. Through the scientific planning of the layout of roads, green Spaces and building elements, to create a comfortable, safe and convenient park environment^[10].

Secondly, in terms of greening system, sustainable landscape design pays attention to the rational allocation of plant communities and the construction of ecosystem. By selecting adaptable plant species, create diversified green landscape, and pay attention to the combination of green space and water body, to improve the ecological quality of the park.

In addition, in terms of resource utilization, sustainable landscape design emphasizes energy conservation, emission reduction and resource recycling. Reduce energy consumption and carbon emission of energy saving building materials in the industrial park, and realize recycling of water resources through the construction of rainwater collection system and promotion of reclaimed water reuse.

Finally, in terms of cultural inheritance, the sustainable landscape design fully excavates the historical and cultural connotation of the industrial park and integrates it into the landscape design. By setting up cultural landscape nodes and displaying industrial heritage, inheriting and carrying forward local cultural characteristics and enhancing the cultural identity of the industrial park.

To sum up, the application of sustainable landscape design in industrial parks has extensive and far-reaching significance. It can not only help to improve the environmental quality and ecological quality of industrial parks, but also can promote the sustainable development of industrial parks and the improvement of economic and social benefits.

4. LANDSCAPE DESIGN STRATEGY BASED ON LOCAL CULTURAL HERITAGE CHARACTERISTICS

4.1. Integration Method of Local Cultural Heritage and Landscape Design

The integration of local cultural heritage and landscape design is not a simple pile-up of elements, but a deep cultural integration and re-creation. First of all, designers need to conduct in-depth research and analysis of the local cultural heritage, and extract their core cultural elements and symbols. These elements and symbols are not only the representation of cultural heritage, but also the embodiment of their spiritual connotation and cultural value.

In the process of integration, designers need to pay attention to the originality and innovation of cultural elements. Originality means the respect and inheritance of cultural heritage, while innovation is the modern interpretation and re-creation of traditional culture. Through the use of modern design techniques and materials, the traditional cultural elements are skillfully transformed and reconstructed, so that they have a sense of The Times, and do not lose the cultural heritage.

In addition, the fusion method also needs to consider the integrity and coordination of landscape design. Local cultural heritage elements should be regarded as an important part of landscape design,

and should be coordinated with the overall design style, spatial layout and plant configuration, etc., so as to jointly create a landscape space with regional characteristics and cultural atmosphere.

4.2. Specific Application of Cultural Elements in Landscape Nodes

Landscape nodes are an important part of landscape design and a key part of the application of cultural elements. In the landscape design of Zhengzhou Industrial Park, we can skillfully integrate the local cultural heritage elements into each landscape node.

For example, in the design of the entrance square, traditional architectural elements in Zhengzhou, such as sloping roof, dougong, can be used to reproduce through modern materials and technologies to form landscape structures with local characteristics. These structures are not only identified, but also allow people to feel the cultural atmosphere of the park in the first time.

In the design of garden road, we can learn from the traditional pavement forms of Zhengzhou area, such as green stone, pebbles, etc., to form a rhythmic sense of garden road landscape. At the same time, according to the functional needs of the park, some cultural sketches, such as sculpture, landscape wall, etc., are set up to show the historical and cultural stories of Zhengzhou.

4.3. The Construction of Cultural Characteristics and the Shaping of Landscape Space

The construction of cultural characteristics is a key link in landscape design, which involves the overall atmosphere and style of landscape space. In the landscape design of Zhengzhou Industrial Park, we can create cultural characteristics through a variety of means.

First of all, in terms of spatial layout, the geographical environment and climate conditions of Zhengzhou should be fully considered, and the functional needs of the park should be combined to form a spatial sequence with opening and closing and rich levels. Through clever space division and combination, we create a landscape space with both modern sense and traditional charm.

Secondly, in the use of color, we can draw lessons from the traditional color system in Zhengzhou area, such as green gray, brick red, etc., to form a color collocation coordinated with the overall design style. At the same time, the change and contrast of color are used to highlight the key points and characteristics of landscape nodes.

Finally, in the material selection, we should pay attention to the texture and texture of the material, and choose those materials that can reflect the local characteristics, such as stone, wood, etc. Through the combination and collocation of materials, the landscape effect with rich texture sense and hierarchy is formed.

5. CONCLUSION

The sustainable landscape design of Zhengzhou Industrial Park based on the characteristics of local cultural heritage not only improves the environmental quality of the park, but also highlights the unique charm of local culture. By deeply excavating the rich historical and cultural elements of Zhengzhou and skillfully integrating them into the landscape design, the park space is both modern and full of historical charm. At the same time, the application of the concept of sustainability makes the landscape design of the park reach a new height in terms of ecological environmental protection and resource utilization. This is not only reflected in the wide application of green vegetation and the construction of ecosystems, but also reflected in practical actions such as energy conservation, emission reduction and resource recycling. This design strategy is not only conducive to the sustainable development of the park, but also provides a comfortable, beautiful and cultural leisure space for local residents and visitors. Therefore, the sustainable landscape design based on the

characteristics of local cultural heritage is an inevitable trend of the future development of Zhengzhou Industrial Park, and also an important measure to promote the local cultural inheritance and ecological civilization construction.

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