Research on planning and design of rural characteristic landscape from the perspective of sustainable development

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Abstract. Purpose To study the planning and design of rural characteristic landscape from the perspective of sustainable development. Method This paper first expounds the current situation of the planning and design of rural landscape in China, then determines the objectives and principles of the planning and design of rural landscape in China, and finally proposes the design method of the planning of rural tourism landscape in China. Result From the perspective of sustainable development, the planning and design of rural featured landscape should follow the objectives and principles of design and promote sustainable development. In the planning and design of rural tourism characteristic landscape, we should not only highlight the characteristics, but also strengthen the protection of ecological environment. Conclusion Rural landscape is an important component of rural tourism in China. The planning and design of featured landscape should be able to create featured landscape, optimize layout and facilities, and strengthen ecological protection.

1. Introduction
With the continuous development of China's economy, while improving the quality of life, people began to pay attention to agricultural products safety, rural tourism and other featured agricultural projects. Safe, green agricultural products have become a new trend of consumption. In this process, rural tourism has gradually attracted attention and developed into one of the main tourist destinations for urban residents. On the premise of ecological civilization, how to realize the rational planning of rural tourism has become the key point for scholars to consider. Based on the goals to be achieved and the principles to be followed in the planning, this paper makes an in-depth analysis of the planning and design of rural tourism landscape based on the strategies of space optimization, feature building, facility improvement and ecological protection.

At present, China's urban construction has been developed, and the building of a new type of rural work in an orderly way. As a semi-artificial environment, traditional rural settlements are an important product of human and nature after a long period of harmonious coexistence, and the rural landscape presented by them is the most favorable proof. Rural landscape can not only provide the necessities of life, including food, but also provide the ideal living and leisure environment for human beings. More importantly, it plays an important supporting role in maintaining the ecological balance. In the course of historical development, the rural landscape has been constantly adjusted and improved to adapt to the development requirements of The Times, and then displayed contemporary cultural characteristics, thus becoming an important symbol of sustainable development. Against the background of...
accelerating urbanization, in the process of realizing sustainable development of rural landscape construction, we should adhere to the organic combination of traditional rural landscape resources inheritance and modern civilization, so as to promote further improvement of rural living standards and environmental conditions.

2. Objectives of rural landscape planning and design
From the perspective of sustainable development, the principle of harmonious development between human and nature should be adhered to in the planning process of rural featured landscape. When human beings transform nature, they should strictly follow the characteristics of ecological landscape and take the joint development of human and ecology as the ultimate goal of design. In order to achieve this goal, the planning of rural landscape should start from the three aspects of economy, society and ecology. In terms of economy, based on the guarantee of its stable development, according to the requirements of sustainable development, based on the relevant principles of landscape design, and in combination with the development characteristics of relevant industries, the short-term, medium-term and long-term goals are formulated accordingly. The planned development of landscape related industries will eventually drive the overall development of the economy. In the social aspect, the principle of inheriting history and culture and improving life connotation should be adhered to. While considering the impact of policies, the villagers should be motivated to identify with their environment. In terms of ecology, the sustainable development of the environment should be realized by planning the green space system, adopting vertical greening, recycling, new energy and biotechnology on the basis of the sustainable development of the ecosystem and the full understanding of the carrying capacity of the ecosystem.

3. Planning and design principles of rural landscape

3.1. Highlighting regional features
For rural tourism landscape, its characteristics are mainly reflected in its own regional, rural and cultural aspects. Therefore, it should follow the local characteristics of landscape as the principle when planning its design. We should not only make rational use of the unique resources of the landscape, but also maintain the local environmental characteristics and living characteristics. At the same time, on the basis of respecting local cultural traditions and folk customs, we should protect and inherit the excellent culture. It should make full use of cultural features and combine historical culture, legend and story with landscape resources. When designing the landscape, we should fully develop the corresponding cultural resources. While carrying forward the history and culture, we should constantly enrich the connotation of tourism and finally create a rural landscape with unique local characteristics.

3.2. Pay attention to ecological protection
A good ecological environment is an important cornerstone for the development of tourism. Circular economy is ecological economy in nature, which requires it to adhere to the principle of ecological friendliness. In the process of realizing circular economy, the carrying capacity of natural environment should be fully taken into account to ensure that economic activities can reduce pollution in the process of development and then transform into ecological economic model. While protecting the ecological environment of the tourism area, we should strive to achieve a win-win situation of economic development and tourism area protection. In order to achieve this goal, we should adhere to the guidance of ecological protection, emphasize the protection of ecological environment, ecological resources and biological species in the tourism area, and ensure the smooth implementation of sustainable development policies. On this basis, tourists should be strengthened to protect the environment education, stimulate their awareness of environmental protection, so as to ensure the integrity of the ecosystem. At the same time, all kinds of infrastructure and tourism products in the landscape should highlight local ecological features and emphasize the concept of green environmental protection. In addition, green accounting system should be adopted in landscape
management, and specific indicators should be used to respond to various types of energy loss and environmental damage in the process of tourism resource utilization. In addition, an accurate understanding of the relationship between ecology and economy is needed to ensure the effectiveness of management.

3.3. Seek sustainable development
As an important part of society, countryside is an important existence that cannot be neglected in the process of economic development in China. However, due to the influence of economic environment, technological level, cultural quality and other aspects, there are many problems in the development process of rural economy, such as extensive management and unreasonable application, which have affected the development of rural economy to some extent. At the present stage, the Chinese government began to provide some technical support for the extensive development in rural areas. However, considering its long-term developability, we should give full play to the advantages of regional resources and promote rural economic development by improving the development structure. As an important part of rural construction, landscape planning also needs to adhere to the requirements of sustainable development. Therefore, local government departments should actively do a good job of publicity and make local people fully aware of the importance of realizing the sustainable development of resources by constantly changing their backward ideas. On this basis, natural resources should be treated correctly, processing methods should be improved, and technologies should be improved, so as to achieve the harmonious development of human and resources in the end, laying a foundation for building the rural landscape.

4. Planning and design method of rural tourism featured landscape

4.1. Optimize the spatial pattern of tourism landscape
The spatial pattern of rural tourism landscape is an expression of the pattern of rural tourism based on spatial form. It not only presents the visual effect, but also shows the rural ecological protection and even the carrier of cultural inheritance. At present, some rural tourism landscapes have problems such as unreasonable layout, chaotic spatial planning and lack of culture. According to the current situation, tourism destinations should combine the actual resource characteristics and cultural characteristics of the region, take landscape ecology and aesthetics as the basis, and reorganize the spatial elements for the purpose of realizing benefits, highlighting features and creating diversified landscape. When spatial layout is carried out, the relationship among the topography and landform features, activity projects, supporting facilities and regional features of the tourism destinations should be taken into account. It can be divided into such patterns as zonal layout, nuclear layout, multi-core group layout and "three-ring" layout.

![Figure 1. Functional zoning of landscape](image)

As an important foundation of rural landscape system, rural natural landscape determines the environmental situation of rural tourism landscape, so it should be fully protected. In the transformation of natural features, we should adhere to local conditions and rational use. Based on the "smart growth" theory, rural development space should be guaranteed when developing rural
landscape tourism projects. In other words, the scattered dwellings in rural areas are collected with the help of reasonable planning to ensure that natural landscape can be pieced together, which is the basis for building a good rural ecological landscape. Specific planning methods include: (1) landscape should avoid ecological sensitive areas such as farmland and rivers; (2) if landscape is to be arranged at the edge of the forest, the sight control of the building should be lowered; (3) maintaining the irregular shape of the garden itself; (4) visual obstacles should be solved as far as possible through pruning and selective tree removal.

4.2. Create the characteristic landscape of rural tourism
Similar to enterprises, rural tourism areas also have brand commercialization characteristics. Therefore, the theme image design should be carried out for tourism villages. In the process of design, a new image of rural tourism landscape that integrates natural, pastoral and folk customs should be created through accurate positioning of the tourism image based on local resources, cultural features and tourist sources. Finally, the attraction of landscape can be enhanced by determining the theme image. The generation of tourism image system is through the evolution of enterprise identification system. Its architecture is shown in the figure below.

![Figure 2. Tourism Image System](image)

Similar to enterprises, rural tourism areas also have brand commercialization characteristics. In the process of building rural landscape, we should not only make reasonable use of local unique natural resources, but also protect and inherit local excellent cultural traditions. When designing landscape forms, we should deeply explore the local cultural connotation. Culture is not only an important factor for the development of rural civilization, but also an important data for the study of human history. It is of great significance to maintain social stability and promote the further development of culture. For tourists, they will experience the local cultural characteristics more directly through the local landscape. Therefore, when creating rural tourism landscape, we should not only pay attention to the shaping of landscape, but also fully use local landscape to develop local culture, so as to meet the cultural requirements of tourists.

4.3. Improve rural tourism environment facilities
For rural tourism, whether the supporting environmental facilities are perfect or not will directly affect the service quality and reception capacity of the tourism industry in the region, and even have a profound impact on the future tourism development of the region. Therefore, the construction of environmental facilities is also considered to be the main component of rural tourism landscape planning. In fact, perfect supporting facilities can not only meet the use needs of tourists and enhance the attraction of landscape, but also facilitate the further display of rural landscape and local culture. The construction of environmental facilities in line with the requirements of ecological civilization planning must be able to enhance the connotation of the landscape. As an important aspect of rural landscape planning, the traffic road is not only an important link connecting various landscapes, but also an important guarantee to ensure the daily communication and communication between villagers and the smooth tourism of tourists. Smooth traffic will bring convenience for visitors' sightseeing activities and help improve tourists' sense of travel, thus driving the sustainable development of regional tourism. In planning traffic roads, the conflict between them and the natural landscape should
be minimized to avoid possible damage to the ecosystem. As the most important building to serve tourists, the tourism service center is mostly located at the entrance of the landscape, and the interior is divided into information consulting center, exhibition hall and other service areas. In addition, rural tourism environment facilities should also be equipped with a certain organization, evacuation function of the safety zone. With the development of market economy, some tourists may also have business negotiation requirements on the way of tourism. In order to meet such requirements, the landscape should also plan the meeting place and provide corresponding office facilities according to the local actual conditions.

4.4. Ecological conservation strategies

First, highlight the patch control. As the main place for tourists to travel and consume, plaque is the central attraction composed of scenic spots and surrounding environment, which contains natural landscape and cultural landscape. In the rural tourism landscape, patches are usually closely related to the regional diversity of species. When planning the rural landscape, the landscape with local characteristics can be used for ornament, or the radiation effect can be used to protect the diversity of ecological landscape. Taking the intra-plaque corridor system as an example, the building of the patch network will help to achieve the stability of the ecosystem settlement. Second, focus on corridor construction. For the ecosystem, corridor is the energy flow and material flow channel, which plays an important role. By building corridors and creating a protective ring between urban and rural areas, it will not only help alleviate pollution, but also withstand floods and waterlogging and play a role in protecting the ecology. In planning rural landscape, the maintenance of ecological corridor should be emphasized. Taking the river system landscape as an important part of the rural landscape, the construction of its corridor can adopt the way of steps according to different water levels, and through planting plants such as metasequoia glyptostroboides, it can beautify the environment while playing the role of fighting against flood and waterlogging disasters. Third, protect the matrix landscape. As the key part of the eco-tourism landscape, the ecological matrix is also the lifeline of the whole ecosystem of the region. Its essence lies in highlighting the natural features of forest land and farmland. At the present stage, when planning farmland, there exist some problems such as one-sided attention to industrial layout and neglect of its potential ecological value. In fact, when planning rural landscape, we can use the experience of woodland landscape for reference.

To sum up, from the perspective of ecological civilization, the rural tourism landscape is analyzed from the perspectives of space optimization, feature building, facilities improvement and ecological protection through the planning and design concept. Then, a rural tourism brand with distinctive characteristics will be formed. With the help of constantly improving the appreciation of natural landscape, the sustainable development of rural tourism will be promoted finally.

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