

# Research on mountain-type rural landscape design under the perspective of environmental aesthetics

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**Abstract:** Under the perspective of environmental aesthetics, mountain-type rural landscape design is of great significance to enhance the rural ecological environment and promote the sustainable development of the countryside. This paper firstly analyzes the problems existing in mountain-type rural landscape design, and then puts forward the corresponding strategies, in order to provide theoretical reference for mountain-type rural landscape design.

## 1. Introduction

With the rapid development of social economy and the improvement of people's living standards, more and more people begin to pay attention to rural tourism and rural vacation, which makes mountain-type rural landscape design gradually become a hot spot for research. However, in the current mountain-type rural landscape design, there are still many problems. Such problems include the rural landscape characteristics not being obvious, prominent ecological environment problems, unreasonable rural spatial layout, and insufficient rural cultural heritage and protection. In order to solve these problems, this paper from the perspective of environmental aesthetics, the mountain-type rural landscape design in-depth study, aims to put forward some practical strategies for the mountain-type rural landscape design to provide theoretical references, and promote the sustainable development of the countryside.

## 2. Environmental aesthetics perspective of mountain-type rural landscape design problems

### 2.1 Rural landscape features are not obvious

In the current context of rapid social development, more and more out of the pressure of urban life, seeking rural eco-tourism and vacation, which makes the mountain-type rural landscape design has become a topic of great concern. However, in reality, many villages are overly pursuing urbanization and modernization, while neglecting their traditional culture and natural characteristics. This approach is one-sided, leading to homogenization and lack of distinctive features in rural landscapes. In the pursuit of urbanization and modernization, many villages have begun to imitate the architectural style and lifestyle of the city, while missing their own unique traditional culture and ecological environment, leading to the homogenization of the rural landscape. This makes people feel that no matter where they are, they are all in the same environment, unable to feel the uniqueness of each place, and unable to learn anything valuable from it<sup>[1]</sup>.

### 2.2 Outstanding ecological environment problems

In mountainous rural landscape design, there are a number of problems leading to serious damage to the rural ecological environment. First of all, over-development is a major problem, many villages in order to meet the demand of the tourism market, disregard the ecological environment, large-scale development and construction, resulting in the waste of land resources and the destruction of the ecosystem. This over-development has caused the originally natural and beautiful mountain landscape to be replaced by high-rise buildings and artificial structures, and the countryside has lost its unique landscape characteristics. Secondly, indiscriminate logging is also a common problem. In order to obtain economic benefits, some rural residents or developers indiscriminately cut down

forests and trees in the countryside, leading to the destruction of ecosystems, pollution of water sources, reduction of plant and animal species, and even triggering disasters such as soil erosion and landslides. Such destructive behavior not only damages the ecological environment of the countryside, but also negatively affects the lives of local residents and the sustainable development of society. In addition, the lack of scientific planning and management is also one of the reasons for the deterioration of the rural ecological environment. The lack of comprehensive environmental assessment and planning in rural landscape design leads to uncoordinated rural development and the lack of reasonable spatial layout and ecological protection measures. The lack of scientific management also makes some environmental pollution problems not solved in time, such as indiscriminate dumping of garbage, sewage discharge, etc., which further aggravates the deterioration of ecological environment<sup>[2]</sup>.

### **2.3 Rural spatial layout is unreasonable**

In mountainous rural landscape design, some villages have the problem of lack of scientific and reasonable spatial layout, which has a negative impact on the overall beauty of the rural landscape. First of all, the chaotic layout of rural housing is a prominent problem. Due to the lack of planning and unified design standards, the location and form of houses built by countryside residents themselves vary greatly, resulting in a patchwork of houses in the countryside without a unified style and coordinated overall layout. This kind of chaotic residential layout not only affects the aesthetics of the countryside, but also may cause problems such as waste of resources and inconvenient transportation. Secondly, there are also problems with the layout of farmland. The division and allocation of farmland in some villages lacks science, leading to inefficient utilization of agricultural land. In some areas, farmland is heavily fragmented and no contiguous farmland zones have been formed, resulting in inconvenient crop cultivation and inefficient agricultural production. In addition, there is a lack of reasonable cross-layout between farmland and other functional areas (e.g., residential areas, public facilities, etc.), making it impossible for farmland to give full play to its ecological, agricultural and landscape functions. In addition, the unreasonable layout of public facilities is also a problem. The lack of scientific planning and design in some villages has led to problems in arranging the location of public facilities. For example, the distribution of public facilities such as education, medical care, culture and recreation is not balanced, with some areas having insufficient facilities while others have an excess of facilities. This unreasonable layout not only affects the quality of life of rural residents, but also destroys the harmony and unity of the entire rural landscape.

### **2.4 Insufficient cultural heritage and protection**

In mountainous rural landscape design, the inheritance and protection of traditional rural culture has not been given enough attention, which leads to the problem of gradual loss of rural cultural characteristics. First of all, due to the lack of in-depth understanding of traditional culture, some rural landscape design ignores the unique history of the countryside, folklore and traditional architecture and other elements. In the process of renewal and reconstruction, a large number of traditional buildings have been dismantled or transformed into modernized architectural styles, and the unique features of the countryside have gradually disappeared, failing to accurately reflect the original cultural connotations of the countryside. Secondly, there is a lack of protection and inheritance of traditional skills and rural intangible cultural heritage. Traditional rural handicrafts and skills are an important part of rural culture, such as traditional weaving, wood carving, pottery, etc., which are gradually lost in modern society. However, rural landscape design often fails to integrate these intangible cultural heritages into the landscape or provide corresponding protection and inheritance mechanisms, resulting in these valuable cultural treasures facing the danger of being lost. In addition, some rural landscape designs pursue fashion and modernization too much, neglecting the historical deposits and cultural connotations of the countryside. In the construction process, they may be more inclined to introduce large-scale commercial facilities and theme parks. These modern elements make the countryside lose its original humanistic atmosphere and characteristics. It becomes utilitarian and homogenized, failing to truly show the unique cultural charm of the countryside.

### **3. Environmental aesthetics perspective of mountain type rural landscape design research strategy**

#### **3.1 Focus on rural landscape characteristics**

In the design of rural landscapes in mountainous areas, natural, historical and cultural features should be taken into account in an integrated manner, emphasizing sustainable development. Designers should have an in-depth understanding of the local natural environment, climate, landforms and other characteristics, and respect the natural landforms and landscapes, utilizing local materials and technologies to harmonize architecture with the natural environment. At the same time, it is necessary to pay attention to the protection and utilization of traditional architecture and folk customs in the countryside, so that tourists can feel the unique historical atmosphere of the countryside, and deepen their cognition and emotional resonance of the countryside. Designers can also organize traditional folk activities to create a strong local cultural atmosphere. In addition, they can cooperate with local residents to incorporate specialty handicrafts, specialties and food into landscape design to provide tourists with a real rural experience and enhance communication and understanding between urban and rural areas.

#### **3.2 Protect and improve the ecological environment**

The principle of ecological priority is crucial in mountainous rural landscape design. This principle emphasizes minimizing the interference with the natural environment during the construction process and maximizing the maintenance and improvement of the rural ecological environment. The specific points are as follows. First, we should protect the original mountains, water sources, and natural landscapes to avoid destroying natural resources. We can achieve this by implementing scientific planning to reduce the amount of land use, thereby avoiding environmental pollution and ecological damage while improving land use efficiency. Second, it is essential to use suitable vegetation to increase biodiversity. By selecting locally adapted plants and implementing soil cultivation measures, we can prevent soil erosion and restore the ecosystem in the rural landscape. Third, we should prioritize the use of green materials and emphasize ecological low-carbon practices in the construction process. This means adopting sustainable design concepts that ensure building materials are environmentally friendly and renewable. Additionally, leveraging advanced ecological water treatment technology will facilitate water purification and reuse, enabling economic and environmentally friendly water resource management. Finally, we need to focus on publicity and education to improve public awareness of environmental protection. Through engaging and informative eco-education activities, we can leverage the natural resources and humanistic characteristics of the countryside to promote environmental protection knowledge and cultivate environmentally friendly and civilized habits among the local population<sup>[3]</sup>.

#### **3.3 Optimize rural spatial layout**

The core of mountainous rural landscape design is to scientifically and reasonably plan the spatial layout of the countryside in order to improve the aesthetics and practicality of the rural landscape. In the design process, it is necessary to fully consider the topography, natural resources and socio-economic conditions of the countryside, and at the same time, combine the local history, culture and humanistic characteristics to create a unique landscape that is integrated with the rural environment. Topography and geomorphology is an important foundation for mountainous rural landscape design. Mountainous areas have undulating terrain and intertwined mountains and water, so natural elements such as mountains and rivers should be fully utilized in the planning and layout to create a unique landscape. Through terrace layout, mountain forest belt, river valley landscape and other technical techniques to show the magnificent flavor of the mountainous countryside. Secondly, the rational development and utilization of natural resources should be fully considered. The rich natural resources in mountainous areas, such as forests, grasslands, lakes and so on, provide valuable materials for the rural landscape. The design should reasonably utilize these natural resources to create a green landscape. The sustainable development of rural landscape is realized by protecting the natural landscape and adopting renewable energy. Socio-economic conditions are also important

considerations for design. In the design of mountainous rural landscapes, it is necessary to combine the local socio-economic conditions and focus on the development of rural industries to improve the income level of farmers. By creating leisure resorts, developing specialty agricultural products, and promoting rural tourism, it can promote the development of the rural economy and bring more employment opportunities and economic gains to the countryside.

### **3.4 Strengthen rural cultural heritage and protection**

Mountain-type rural landscape design is a comprehensive work with a long history, rich cultural connotation and harmonious coexistence with the natural environment. In this work, full attention should be paid to the inheritance and protection of traditional culture in the countryside, and the traditional cultural elements of the countryside should be integrated into the landscape design to create a rural landscape with cultural connotation and aesthetic value. First of all, the design of mountain-type rural landscapes should be led by rural culture. By incorporating local traditions, customs, and historical elements into the design process, we can create a harmonious blend of modern elements and the authentic rural atmosphere. This approach will help preserve the original humanistic atmosphere and characteristics of the countryside, allowing it to showcase its unique cultural charm while embracing sustainable and environmentally friendly practices mentioned earlier. Rural culture is the spiritual soul and foundation of the countryside, and is an important basis for rural development and construction. Therefore, when carrying out mountain-type rural landscape design, it is necessary to fully excavate and protect the traditional culture of the countryside, such as architectural style, decorative patterns, folk activities, etc., as well as historical monuments and cultural heritage related to it, so that it can become an important element and kernel of landscape design. Secondly, it is necessary to pay attention to the integration of traditional cultural elements. In rural landscape design, traditional cultural elements can be skillfully integrated into the design to form a unique cultural landscape. For example, sculptures, stone carvings, colorful paintings and other cultural elements can be set up in roads, squares and other public places, and ancient and novel cultural elements can be integrated into the landscape design. This can enhance the awareness of rural cultural inheritance and protection, and promote the development of cultural inheritance. In addition, the inheritance and protection of architectural style should be emphasized. Rural architecture is an important part of rural culture, and its style and characteristics represent the uniqueness of history and region. In mountain-type rural landscape design, it is necessary to pay attention to the inheritance and protection of rural architectural style. The diversity and spiritual connotation of rural architecture can be demonstrated through the design of different styles of buildings, so that the culture, history and art of the countryside can be shown to the fullest. Finally, cultural education and tourism development need to be strengthened. Through cultural education and tourism development, the traditional culture of the countryside can be further inherited and carried forward, making the rural landscape more colorful. It is possible to build cultural museums, cultural squares and other public places to carry out cultural theme activities, and at the same time, it is also possible to create rural tourist attractions and drive the development of the local economy through tourism. This can realize the win-win situation of culture and economy, and promote the sustainable development of mountain-type rural landscape.

## **4. Conclusion**

Under the perspective of environmental aesthetics, the design of mountainous rural landscape should focus on highlighting the characteristics of rural landscape, protecting and improving the ecological environment, optimizing the rural spatial layout and strengthening the rural cultural heritage and protection. Through the implementation of these strategies, it helps to enhance the aesthetic and ecological value of mountain-type rural landscape and promote the sustainable development of the countryside.

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