# Application of Ecology and Environmental Protection Concept in Environmental Art Design

DOI: 10.23977/aetp.2021.57009

ISSN 2371-9400

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*Keywords:* Environmental art design, Ecology, Environmental protection

Abstract: At present, China vigorously advocates the concept of sustainable development, and integrating ecological concept into environmental art design is an inevitable requirement of the development of the times and an inevitable choice for the sustainable development of human society. With the change of people's life style and ideas, they are increasingly dependent on environmental art design, especially the instillation of ecological and environmental protection concepts, which makes environmental art design face great challenges. In order to effectively improve people's quality of life, we must constantly improve the feasibility of environmental art design, in order to continuously improve the superiority and social value of environmental art in body double. In environmental art design, it is necessary to uphold the concept of ecological protection, save unnecessary waste of resources, clarify the main working principles, and strengthen the effective application of natural materials and environmental protection design concepts. This paper mainly analyzes the application of ecological and environmental protection concepts in environmental art design, and discusses its main contents and specific application measures.

#### 1. Introduction

Under the background of the rapid development of global economy, ecological concept is also gradually rising in environmental design. With the rapid development of modern society, the application of ecological concept in environmental art design is an inevitable trend. Only by analyzing the traditional environmental problems, promoting the transformation of the traditional development model and guiding the combination of environmental art design and ecological concept, can we meet the requirements of sustainable development [1]. The environment has a great impact on people's life. Therefore, improving the design of environmental art can improve people's quality of life and truly realize the value of environmental art design [2]. The ecological concept in environmental art design refers to the design of environmental space on the premise of maintaining people's normal daily life. Excellent environmental art design can improve people's aesthetic standards, and the quality of environmental design is directly reflected in people's daily life [3]. When applying the concept of ecological environmental protection to environmental art design, it is necessary to clarify the main characteristics and main application principles of ecological concept in environmental art design [4]. In addition, relevant designers also need to improve their own design level and design concept, fully consider the applicability of ecological and environmental protection

concept in environmental art design, and improve their own design level and design quality [5].

The concept of ecology has penetrated into all walks of life, and people have more and more views on the word ecology. These views have different explanations with different industries [6]. In the process of environmental art design, the ecological concept is to follow the laws of nature and carry out environmental design according to these laws. As the ecological problems become more and more serious, the state and society gradually recognize this and constantly think about what to do to restore the ecological environment as much as possible [7]. The goal of environmental art design is to realize the harmony between man and nature, not only to make the experienced people feel the harmony, but also to realize the importance of harmony between man and nature [8]. Because the environment has a subtle spiritual impact on people, the quality of the environment is directly reflected in people's lifestyle and work. Therefore, in order to effectively improve people's quality of life, we must constantly improve the feasibility of environmental art design, so as to constantly replace the superiority and social value of environmental art [9]. In order to improve people's quality of life and continuously improve the feasibility of environmental art design, this paper analyzes the application of ecological concept in environmental art design, so as to promote the sustainable development of China's resources and reduce the damage to the ecological environment.

# 2. The Necessity of Applying the Concept of Ecological Environmental Protection to Environmental Art Design

With the increasingly severe ecological situation, people's awareness of environmental protection is getting stronger and stronger, and their requirements for environmental art are getting higher and higher. Therefore, in environmental art design, interest and humanity have become the main requirements of people. Therefore, in the design process, designers should think and design from an ecological point of view, so as to better meet people's needs. In order to ensure that the concept of ecology and environmental protection can play its due value and effect in environmental art design, it is necessary to fully realize the necessity of applying the concept of ecology and environmental protection in environmental art design, so as to lay a solid foundation for the follow-up work. Because of too many commercial factors, designers neglect the art design, which makes the environmental art design monotonous, which is not conducive to the long-term development of environmental art design in the new era. Therefore, it is very important to integrate ecological and environmental protection concepts into the current environmental art design. In the process of China's urbanization, the destruction of urban ecology often occurs, which seriously affects the integrity of the city, which brings a lot of inconvenience to people's daily life and work [10]. Therefore, in order to meet people's needs and requirements for the surrounding environment, it is necessary to pay more attention to the environmental art design work, and fully integrate the concepts of ecology and environmental protection, and organically link the urban ecosystem to build a perfect ecological city system. The ecological concept in the field of environmental art and design refers to the rational allocation of environmental space resources under the normal operation of daily life and social production, so as to improve the utilization efficiency of resources and promote the balance of ecological system. Figure 2 shows the cognitive structure system of environmental art design images.

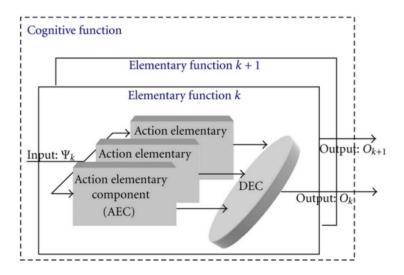


Fig.2 Image Recognition Structure System

In today's environmental art design, the concept of ecology and environmental protection is not optimistic in the practical application process, which shows neither innovation nor characteristics. Moreover, some designers can't correctly grasp the regional cultural content and historical factors in the application process, which makes the original design ideas have no characteristics in the implementation process. When applying ecological and environmental protection concepts to environmental art design, it is also helpful to build a good ecological environment and living environment, so that people can enjoy the beautiful environment of the city and at the same time achieve the effect of pleasing both body and mind. And the eco-friendly environmental art design can also play a sustained role in promoting the urban economy. According to the ecological concept, human beings and the ecological environment should develop in a balanced way and coexist harmoniously, and the ecological concept should be implemented in environmental art design, so as to create a complete ecological system. Designers should optimize the space environment according to the concept of sustainable development, and then improve the regional living environment. Applying ecological and environmental protection concepts to environmental art design can bring different design effects into play and promote the stable development of environmental art design. Therefore, the relevant staff should strengthen the understanding and interpretation of ecological and environmental protection concepts, combine the requirements and standards of environmental art design, and carry out daily work in a more orderly manner, so as to promote the stable development of environmental art design.

# 3. Application of Ecological and Environmental Protection Concept in Environmental Art Design

### 3.1 Adhering to the Concept of Sustainable Development

One of the basic concepts of environmental design is the concept of sustainable development. Therefore, it is necessary to apply the ecological concept to the process of environmental art design, so as to ensure the balanced development of the ecological environment, protect the natural species in the ecological environment and promote the sustainable development of existing resources. From the actual situation at this stage, the work of environmental design is often faced with the situation that the resource consumption is too serious in the actual process. In addition, the energy will release various degrees of pollution in the process of extracting energy, which has caused serious

damage to the whole natural environment. As people's awareness of protecting the environment is constantly improving, designers pay more attention to applying ecological concepts to environmental art design, so as to protect the ecological environment and achieve coordinated development of the ecological environment. In the process of practice, designers must regard environmental protection as the core of target design, and actively penetrate ecological concepts, and actively respond and pay attention to policies such as resource conservation and environmental protection, so as to better promote the sustainable development of the environment. Environmental protection refers to related policies or practical actions designated by human beings to solve realistic or potential environmental problems. In order to ensure the normal operation of the ecosystem, strengthening the design and protection of the ecosystem is to reduce the impact of human factors on the environment. In environmental art design, the natural environment should be taken as the basic guarantee, and the space environment design should be reasonably optimized, so as to highlight the core idea of people-oriented. It is necessary not only to prevent unnecessary damage to the natural landscape, but also to create a comfortable and comfortable space environment as much as possible.

## 3.2 Pay Attention to the Restoration and Development of Ecological Environment

In the process of environmental design, designers must actively use some natural materials, which can not only effectively save resources, but also minimize the damage to the surrounding environment. Ecosystem is a circular system, and under normal circumstances, it has certain self-regulation ability. Once the degree of environmental damage exceeds the tolerance of the ecosystem, there will be loopholes in the system, which means that the ecosystem has been destroyed. The basic principles of ecology provide guidance for environmental art design. Therefore, environmental art design embodies the characteristics of ecological concept, and the key to achieve this goal is to select and utilize natural materials. Environmental art design needs to know the specific uses and natural characteristics of different natural materials, and give full play to the advantages of various materials in the design process. Designers should pay attention to energy saving and reuse methods while redeveloping by using the properties of various raw materials. If the useless energy can be reused for people, the energy crisis can be alleviated to some extent. The environment itself has various functions such as automatic restoration and pollution purification. However, due to the long-term violation of the ecological environment by human beings, overloaded pollutants are put into the natural environment, which leads to the gradual reduction of the self-purification capacity and speed of the natural environment, and the restoration speed is difficult to keep up with the destruction speed.

## 3.3 Pay Attention to the Development and Utilization of Resources

Ecology and environment are two different fields. As a branch of ecosystem, environment is an important standard to measure the stability of ecosystem. The diversity of species leads to the diversity of ecosystems, so that in order to maintain the balance of ecosystems, it is necessary to design corresponding ecological conditions for effective protection and reduction of ecological damage. Ecological compensation is an institutional arrangement that takes the protection and sustainable utilization of ecosystem services as the purpose and mainly adjusts the interests of stakeholders through economic means. The environmental art design can help restore the balance of the ecosystem through ecological compensation and scientific and reasonable compensation measures such as clean energy. The highest realm of environmental design is to meet people's needs and improve the efficiency of resource utilization. Therefore, existing resources should be recycled in environmental art design. In the process of environmental art design, one of the biggest problems

is how to use and treat the wastes correctly. Only by recycling the wastes and existing resources can the balanced development of the ecological environment system be ensured. When combining environmental design with ecological methods, we should not only consider saving and reusing, but also consider high technology as much as possible. Science and technology can reduce the consumption of non-renewable energy, and at the same time greatly improve the utilization rate of renewable energy, thus ensuring the habitability of modern environment.

#### 4. Conclusions

The application of ecological and environmental protection concept in environmental art design conforms to the standards and requirements of environmental protection, and is consistent with the goal and purpose of taking the road of sustainable development. With the gradual development of the times, environmental designers also need to follow the pace of the times and begin to examine and integrate the ecological environment. The previous industrial design has caused serious harm to the ecological environment. The ecological concept is integrated into the environmental art design to improve the ecological environment and waste of resources, and to strengthen the attention and understanding of the ecological environmental protection concept. In the design process, respecting the natural order and ensuring the harmonious development between man and nature are the most basic principles, and also the expression method of the special relationship between man and environment in the new period. In environmental art design, it is necessary to fully integrate the concepts of environmental protection and ecology, so as to play a good supporting role for practical work. Designers need to realize the importance and necessity of ecological concept for environmental protection, realize the coordinated development between man and nature, and infiltrate the concept of ecological environmental protection into all aspects of art design. Environmental designers need to pay attention to the sustainable development of the natural environment in the design process, and follow some principles, so that the ecological concept is widely used in environmental art design to meet people's needs at a higher level.

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