The Construction of Environmental Art Design Thinking Based on Hand Drawing and Computer Drawing

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Abstract. With the continuous development and innovation of human artistic thinking, they have higher requirements for their own living environment. In this case, environmental art design has become a very important design subject. As a way of expression of environmental art design, effect drawing has been paid more and more attention. Environmental art design should be established on the basis of natural environment to determine its design commonality. It can not only protect people's physical and mental health and improve people's work efficiency, but also strengthen the artistry and practicability of the natural environment. Hand drawing and computer drawing have their own advantages and disadvantages. The combination of the two can make the environmental art thinking get the best expression.

Keywords: Hand Drawing, Computer Drawing, Environmental Art

1. Introduction

Environmental art is the art produced by the interaction between human beings and the surrounding environment. Dober, a famous environmental theorist, said that environmental art is a unique art. It is greater than architecture[1]. It's broader than the art of planning. It is more emotional than engineering art. It is an art that pays attention to actual effect. It is a kind of art that attracts the public's attention. The practice of environmental art can improve the quality of human living environment and the decoration level of human living space.

The expression of environmental art is realized by effect drawing. Effect drawing is a static performance drawing which is drawn by hand or built by computer software with the help of designer's design thinking. The renderings can accurately express the design scheme. It allows designers and non-professionals to clearly see the effect of the completed project. Therefore, the visual effect of renderings can facilitate the communication between designers and owners[2].
2. An overview of environmental art design

2.1. Definition

What is environmental art? The environment includes indoor environment and outdoor environment. Compared with the outdoor environment, the privacy of the indoor environment is very strong. Environmental art design should combine indoor environment and outdoor environment organically and carry on unified conception and layout. Japan's environmental design habit is to use natural creatures in interior design. Therefore, garden style Japanese style home often appears[3].

2.2. The relationship between environmental protection and environmental art design

With the rapid progress and renewal of society, environmental pollution has become a very serious social problem. Each country invests a lot of human and financial resources to reform and manage the environment. People like beautiful and comfortable environment. People want a good working and living environment. The emergence of environmental art design brings hope for environmental governance.

2.3. The expression of environmental art

Nowadays, on the basis of building renewal, environmental art has developed for a long time. The combination and division of environment is more practical and aesthetic. More and more environmental landscapes are closely combined with the architectural layout[4]. They form a beautiful landscape and increase the beauty of nature. It can be seen that the spatial characteristics of environmental art bring people different feelings and feelings. An example of visual effect of hand drawing in environmental design is shown as Figure1.
Figure 1. An example of visual effect of hand drawing in environmental design

3. Shared space and environmental art of environment

With the gradual occupation and division of nature by people, there are large-scale public buildings in society. They form a large number of shared space. In fact, in a large number of modern public buildings, shared space has become an important part of people's work and life. Constantly accepting the stimulation and challenge of new things makes modern people's psychology and thoughts always in a state of constant renewal. In modern life, people do not want to live in a closed space[5].

Environment breeds the living conditions of human beings, and architecture serves the living space of human beings. Environmental art reflects the change of landscape effect. It makes the connection of each region full of cultural connotation. It sublimates the taste of modern life to a more rational realm of environmental art. Generally speaking, the improvement of environment has become the trend of social development. The continuous innovation of environmental art also needs the coordination and contrast of environment[6].

4. Characteristics of hand drawn renderings

4.1. Characteristics of thinking mode

Hand drawing effect picture is a kind of design way of graphic thinking. Freehand sketch design is a kind of visualization way of thinking. It is a comprehensive application of visual thinking ability, imagination ability and painting ability. The purpose of this process is not the image effect but the flexible interaction between brain and hand. There is no doubt that the ability of freehand painting is an effective way to cultivate and develop the ability of innovative thinking. An example of visual effect of computer drawing in environmental design is shown as Figure 2.

Figure 2. An example of visual effect of computer drawing in environmental design
4.2. Characteristics of picture effect

Hand drawn renderings are vivid and implicit. It's dynamic and expressive. There are a variety of painting methods for hand-painted renderings. Use a pencil to sketch. With a pen, you can draw a picture with light colors. Use the watercolor pen to draw the colorful watercolor effect picture. The marker can draw a strong rendering.

5. Computer graphics is a double-edged sword

The wide application of computer technology in design discipline has brought about the change of design method and design concept. It has become a new trend of environmental art design. The effect drawing of computer design has the characteristics of intuitiveness and accuracy. It can accurately reflect the texture of space materials. It can satisfy the design needs of different customers. It is very convenient to modify the computer design drawing. In a short period of time, computers can provide people with many kinds of designs.

However, it is the same as other high-tech. There are also many negative effects in the application of computer technology in the design discipline. Although the design of computer technology is very expressive, people's design ideas are very few. In the process of environmental design, people spend more time on the performance of computer effect than the time of designing scheme. At the same time, the limitations of computer technology and the level of operators will also affect the thinking of designers. It can kill the design inspiration in the design process of the scheme unilaterally. Therefore, the combination of computer drawing and manual drawing can design a perfect environmental design scheme.

6. Conclusion

In today's information society, the design concept of closed and backward interior private space is quickly washed away. Generally speaking, computer graphic design as a popular means of design has injected vitality into the design space. It provides the possibility for the design process and the optimization process. However, the uniqueness of manual drawing can not be replaced by computer drawing technology. Therefore, only the combination of the two can add new impetus for the future development of environmental design.

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