

## Research on Interior Art Design Based on Green Design Concept

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**Abstract:** In recent years, although the development of our country's economic ability has made people's life and travel mode more comfortable and convenient, it has also brought some environmental problems, which has a negative impact on the future development of human beings. Interior design is an important part of modern design, through the introduction of green design concept, not only will not affect the beauty of design, but also play a certain role in environmental protection, and enhance users' awareness of environmental protection. Based on this, this paper will discuss the study of interior art design based on the concept of green design.

### 1. The Design Principles of Green Concept in Interior Design

The stability of ecological environment is as important as the construction of social environment. In the face of the increasingly serious situation of environmental crisis, everyone should establish correct ecological values and enhance their sense of self-responsibility. Indoor green design is a new design concept, emphasizing the use of modern scientific and technological means, through the selection of environmental protection, suitable materials to build indoor green microcirculation, and give people a beautiful and comfortable feeling.

#### 1.1. Principle of Environmental Balance

Although the designer's main focus in interior design is on interior space, the designer should understand that no space is relatively independent, and consider its unity and balance with the whole urban environment even when doing interior design. If this principle is not followed, it will affect the sense of harmony of the design, and it is difficult to achieve the ideal effect.

#### 1.2. People-Oriented Principle

Because the main service object of the interior space is the user, the designer must give priority to the use effect of the person when carrying on the interior design, and try to enhance the comfort of the design work. And through the design skills, reasonable layout of indoor space, so as to maximize the quality of life of users. However, when using this principle, we should pay attention to the integrity of the whole design, design with a development perspective, extend the service life of some design points, rather than blindly meet the taste needs of users, waste design resources[1].

#### 1.3. Principle of Recycling

With the change of times, people's aesthetic standard and favorite style have also changed. Therefore, the design style in the early years can no longer meet the design needs of modern users. In the concrete design, the designer should not only combine the user taste demand, but also use some renewable resource material as much as possible on this basis. In the design of details, we can also transform some of the waste products of life, while ensuring the quality of life of users, through some detail design, to convey the concept of environmental protection. For example, in furniture selection, as far as possible choose wood or rattan furniture, not only can play the same use effect, but also help to create a fresh and elegant living environment, so that the design is full of natural feeling.

#### 1.4. Principles of Ecological Aesthetics

Some designers confuse the concept of "green" and "green" with the concept of "green" when using the concept of green, and arrange a large number of green plants in the interior space for interior decoration, which will not only affect the beauty of the interior, but also occupy a large amount of use space, affect the user experience, and bring some trouble for its later life. In following the principle of ecological aesthetics, we should try our best to make the design simple and generous, show the beauty of nature, and combine the space or use need to choose the green plant reasonably for embellishment, so as to play a good design effect[2].

## **2. Application of Green Idea in Interior Design**

Modern people's life rhythm is faster, life pressure is greater, so it is more necessary to improve the comfort of interior design. Through the integration of green concept, not only can help users save part of economic resources, but also help to create a warm and concise indoor living style, play a certain role in emotional transformation. Its specific application in the design, materials, technology three aspects.

### **2.1. Apply Green Concept to Space Design**

The interior space is the designer's main design object, when making the space plan, we should not only consider the practicability of the space, but also consider the emotional influence it brings to the user, and the psychological demand. Therefore, in the design of space, you can add some emotional elements, space seems more flexible and interesting, and can produce emotional interaction with users. The interior space has strong limitations, not like the outdoor space without too much decoration to give people more broad and comfortable feeling, so in the interior design can be through the indoor and outdoor environment ingenious fusion of the design concept to create a visual effect to increase the use of space. The floor-to-ceiling window design, as shown in the following figure, combines the interior space with the outdoor space, increases the indoor lighting area, improves the comfort of the environment by increasing the natural light, and turns the wall on one side into transparency, which also reduces the pressure on the space and improves the visual comfort[3].



Figure 1 Green concept

Of course, different indoor space also has different use functions, such as bedroom, study and other areas require space to have a strong sense of privacy as far as possible, so in the design should be as simple as possible, do not avoid too much useless space, so as to interfere with each other, affecting comfort. In addition to the floor-to-ceiling design and by choosing a comfortable color or placing mirror to create a visual sense of space and comfort.

### **2.2. Apply the Green Concept to Material Selection**

Green material refers to some ecological materials or environmental protection materials, which will not pose a threat to human health, no pollution and radioactivity, and under the processing of some special technology, it also has good heat insulation, noise reduction and other effects, which is very suitable for indoor selection.

In the interior design, after the completion of space planning to do is material selection, but the designer to understand that even under the application of green concept, any material selection will bring some harm to the environment, so try to choose some low chemical composition, easy to maintain the material. The next step is to take into account the adaptability of the material to the environment, not to deform or deteriorate easily, and not to emit harmful substances over time, threatening the health of the user. Thirdly, according to the actual situation of material selection, some of the more important decoration parts can be properly selected some of the better materials, showing grade of materials, for some of the unremarkable parts can be appropriately reduced standards mainly for practical purposes[4].

### **2.3. Apply the Green Concept to the Technical Application**

Good construction technology can also well reflect the "green sense" of interior design, and play a certain role in saving resources and reducing pollution. As shown in figure 2, some interior designers will put solar panels on the roof of the house to solve some of the indoor energy supply problems, and this design will not occupy too much indoor space, by absorbing solar energy to achieve the principle of reuse of resources, fully demonstrate the designer's concept of environmental protection.



Figure 2 Green concept

## **3. Application of Green Concept in Creating Indoor Physical Environment**

### **3.1. Indoor Ventilation**

The growth of all things can not be separated from breathing function, so ventilation design is particularly important in building indoor physical environment. And the number of users in different indoor scenes is not the same, and the demand for fresh air is also different, so the designer should combine the needs to do a good ventilation design without affecting the overall design.

Under the green concept of environmental protection and simplicity, ventilation design mainly revolves around the theme of absorbing natural wind as many as possible, and its vent has become the key point of design. The most common vent is the window, through the reasonable distribution of window position, not only can play a certain role in noise reduction, but also can effectively improve the indoor air quality, and reduce the use of indoor temperature control equipment to achieve the effect of energy saving. As shown in figure 3, germany's parliament building has cleverly used its windows in its ventilation design, and the glass dome design and the remaining parts of the mirror glass meet the lighting requirements of the conference hall in great condition.

The "air-pulling channel" design and the other tuyeres have formed an efficient ventilation system to exert the application of the green concept to the extreme.



Figure 3 Green concept

### **3.2. Rational Application of Natural Light and Artificial Light**

Visual experience is the user's most direct experience of a building's interior design, and all this needs to be done by changing light. And the bright light also often gives the person comfortable feeling, invisibly increases the designer's interior design level.

The composition of indoor light is divided into two kinds of natural light and artificial light, among which the natural light is bright and healthy, which can effectively improve the indoor comfort, but it is limited to the stage use, and the artificial light is relatively stable, no change will occur, only the long-term use will have a certain impact on human health. Therefore, the interior design should fully consider the advantages and disadvantages of the two kinds of light, and play a better green effect on each other. As mentioned above, in the use of natural light, we can increase the window area or increase the mirror design to introduce natural light as much as possible, in the use of artificial light, we can follow the following principles.

The first is to set a reasonable illumination, different from the natural light will change with the change of the environment, artificial light is relatively stable, people in the long-term under the condition of too bright or too dark light will produce visual fatigue, so for different indoor space, use needs should choose different light level to improve comfort. Second, the use of intelligent lighting control system, with the development of modern science and technology, people's awareness of electric energy is also gradually weak, waste phenomenon is serious, through the selection of appropriate energy-saving control system can effectively reduce the consumption rate of electric energy, play a green role.

## **4. Summary**

With the change of modern people's way of life, their awareness of green environmental protection is constantly increasing. Through the introduction of green design concept in interior design, it can effectively improve space utilization and reduce the harm of decoration materials to human health. In addition, in the design of physical environment, by effectively changing the light source and vent, it can also directly improve the utilization rate of natural resources and play an effective energy saving role without affecting the overall design.

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