

# Approach to Optimizing Interior Design with Ecological Environment Materials

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**Abstract:** With the deterioration of the global ecological environment, the use of ecological environment materials to optimize the interior design for the protection of the ecological environment and industry development is of great significance. The selection of ecological environment materials in interior design should follow the basic principles and be applied scientifically and reasonably. However, there are still some outstanding problems in the materials and application of interior design. Interior designers should update their concepts to improve professional quality and ecological environment design ability. Thus, the application of ecological environment materials is helpful to achieve innovative development of interior design.

**Keywords:** ecological environment, material, interior design, way

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## 1. The connotation and significance of optimizing interior design with ecological environment materials

At present, the continuous improvement of the ecological environment and the conservation of resources are topics of common concern around the world. Interior design should comply with the needs of the development of the new era, and the selection of materials should follow the concept of ecological protection.<sup>[1]</sup> Traditional interior design materials often cause environmental pollution and waste of resources in the process of production and use. By comparison, ecological environment materials advocate natural affinity.<sup>[2]</sup> Ecological environment materials refer to materials that have satisfactory performance and excellent environmental coordination at the same time, or that can improve the natural environment.<sup>[3]</sup> Ecological environment materials contribute to the harmony and unity of materials and ecological environment, create a safe, healthy, natural and comfortable indoor environment, and meet people's pursuit and needs for a better life. Thus it can be seen that the use of ecological environment materials to optimize the interior design is of great significance.

### 1.1 The actual requirements of the development of the industry

From the point of satisfying needs, people not only prefer the styles and functions of the materials they used to be diverse, but also prefer the materials to be environmentally friendly so that they can obtain delightful natural environment. As a result, it's imperative to apply the ecological environment materials in the area of interior design. On the one hand, the ecological environment materials embody the concepts of respecting nature, preserving nature and being close to nature, which are more accessible to people nowadays. What's more, the ecological environment materials conform to people's requirements for living better and influence the integral structure of the interior design. On the other hand, the ecological environment materials emphasize on the natural quality without pollution, showing the features of purity, natural inspiration and integration of nature and human. They also reflect the specific styles of the interior design. The interior design can explore a road which is green, energy-efficient and beautiful through the ecological environment materials also that it can achieve the innovative development of the industry.

### 1.2 The macroscopic development requirement is to maintain the ecological environment

Throughout the history of the human development, the relationship between human and nature changed continually, from surrendering to nature, transforming nature to conforming to nature. At present, the ecological environment on which human beings depend for existence has been seriously destroyed, which also seriously threatens the existence and development of human beings. As a result, idea of interior design needs to change urgently, upholding the principle of green, natural and harmonious design, promoting the interior design materials to take the step to become scientific, ecological, economical and recycling.<sup>[4]</sup> Interior design can use ecologic environment materials, maintaining the relationship between human and nature, and meeting the requirement of environment protection. The ecological

environment materials with low pollution and high compatibility lay a solid foundation for the eco-environmental attributes of interior design and become the future development trend of interior design materials.<sup>[5]</sup> The future of interior design is becoming more and more wider, and a fashion trend. In addition, the innovation of various ecological environment materials mix will influence effects of interior design increasingly.

## **2. Selection and application of ecologic environment materials in interior design optimization**

People increasingly reject polluting interior design materials and pursue the protection of ecological environment and the conservation of natural resources.<sup>[6]</sup> In order to realize its own optimization and perfection, the selection of ecological environment materials in interior design needs to follow basic principles and be applied scientifically and reasonably.

### **2.1 Selections of ecological environment materials**

In the process of selecting materials for interior design, the suitability of materials and environment should be determined first. For example, in the low temperature northeast China and the high temperature South China, different ecological environment materials need to be selected to achieve the durability of interior design. Secondly, the suitability of the material to the human body should be determined. If some people are allergic to certain materials, interior design should be a comprehensive investigation, analysis of ecological environment materials, to prevent possible adverse effects. Finally, interior design should also take the durability of ecological environment materials into account to reduce the loss rate and replacement rate of materials, making it durable and easy to maintain to further achieve the goal of resource conservation, environmental protection, green and low-carbon.<sup>[7]</sup>

### **2.2 Types of ecological environment materials**

At present, the variety and quality of ecological environment materials are getting higher and higher, which has many advantages and provides more choices for interior design. For example, diatom mud is a new type of natural environmental protection wall decoration material, which has the advantages of fire prevention and indoor air purification. The environmental protection performance and decoration effect is also excellent. Besides, soft stone floor is a kind of new-style environmental protection adornment material made up of natural marble powder mixed with other macromolecule material. This material is both a natural texture pattern and a renewable resource. Thus it can be seen that the application of interior design to ecological environment materials is gradually in-depth and extensive which has a positive impact on the protection of ecological environment.

## **3. Outstanding problems in materials and application of interior design**

Environmental protection is closely related to life and directly affects the evaluation criteria of interior design. Although designers begin to pay attention to the environmental protection materials in interior design, there are still some outstanding problems in the specific application process.

### **3.1 Lack of the concept of ecological environment materials**

Many interior design materials are harmful and seriously damage human health. However, some interior designers are limited by traditional ideas or economic interests, can not scientifically and reasonably choose ecological environment materials, specifically, these interior designers in the use of sound insulation materials, often use rubber, plastic panels and other materials, including formaldehyde, vinyl chloride and other harmful substances.<sup>[8]</sup> Therefore, serious indoor pollution often occurs in the process of decoration, which is not conducive to the safe living and normal life of households. The introduction of the limit of harmful substances in interior decoration and decoration materials shows to some extent the harm severity of interior design material pollution.

### **3.2 Disengagement in the application of ecological environment materials**

Some interior designers lack the accumulation of humanistic knowledge and professional abilities of environmental attainment and disable to design materials according to the ecological application, which results in their interior designs breaking away from the natural life. For example, nowadays people prefer to enjoy a pure, natural and cozy family environment confronted with too much competitive pressure in the society. However, the designers will fail to satisfy people's requirements for family emotions if they choose materials like steel, glass and so on. Further research indicates that it is not suitable for the elderly and children to live in the environments isolated from the nature because it not only affects the elderly's freedom of action and physical and mental health but also affects children's growth and development

of their intelligence.<sup>[9]</sup> Therefore, the interior design will restrict its own development if neglecting the ecological environment materials.

### **3.3 Some mistakes in the choices of the ecological environment materials**

Some interior designers have some mistakes in the choices and use of the materials and lack due professional standards because they are unfamiliar with the categories and functions of the ecological environment materials. Specifically, these interior designers consider that the natural materials are absolutely safe and reliable. Actually, although most of the materials are natural indeed like stone, organic cotton and so on, they will produce pollution after secondary processes. Moreover, the danger of the interior design materials is easy to be neglected so that the residents' health will be injured. What's more, some interior designers haven't learnt knowledge of the botany at all. The designers are not familiar with the categories and features of plants and they place the plants casually and blindly. As a result, it will be harmful to people's health.

## **4. Ways to optimize interior design with ecological environment materials**

Such an important role does ecological environment material play in achieving sustainable development goals that on the basis of which interior design can clarify the concept of environmental protection and enhance the professional ability of applying ecological environment materials to better provide people with a safe, healthy, green and harmonious ecological environment.<sup>[10]</sup>

### **4.1 To strengthen the concept of ecological environment and improve professionalism**

To achieve its own optimization, the application of ecological environment materials in interior design primarily requires the clarification and keeping running throughout of the concept of environmental protection and ecology. Under which circumstances, not only closely keeping track of the policy concerned, but strictly abiding by the government regulatory in terms of the use of interior design materials as well as purging the chaotic scenes of indiscipline and lawlessness turning up within industry are indispensable for interior design industry. To be more specific, the professionalism of interior designers is to be improved, which requires them to devote sufficient time and effort to learning extensive range of expertise and mastering the characteristics, types and standards of use of ecological environment materials so as to endow interior design with more environmental-protection-related elements. For example, interior designers can reduce the usage rate of finished adhesives as well as the degree of contamination by means of drawing on the experience of ancient Chinese craftsmanship. They can also pay attention to the low carbon properties of materials, agree with the core and spirit of ecological aesthetics, as well as full consideration of the integrated application of the materials which is harmonized with inside and outside count a great deal for the interior designers.<sup>[11]</sup> Spontaneously, starting with a clear concept of environmental protection and pinning down a certain interior design plan and then via choosing energy-saving and low-carbon materials, the ecological environment materials realizes the optimization of interior design and achieves the effective improvement of the living experience of residents where ultimately human beings live in accordance with the nature harmoniously.

### **4.2 To improve ecological environment design capabilities and create green spaces**

Interior design should implement the "people-oriented" concept and start from human sensory experience so as to create a green space through green and environmentally friendly materials, and provide residents with a cozy living experience, whose practical needs could spontaneously be met up with. Primarily, in terms of design style, interior designers can cut down on ornamental materials, by means of which a simple, textured, relaxed and quiet interior design style can be offered exposure to. For instance, natural materials such as fast growing bamboo, hemp, shrub can be chosen by designers to carry out the processing and put into production of emerging ecological environment materials to produce rustic and vivid green decorative materials so as to realize the reenactment of natural scenery.<sup>[12]</sup> Second, in terms of the specific design performance, a scientific and proper selection of ecological environment materials and a simultaneous avoidance of secondary pollution should be given priority to by interior designers; in the second place, the option of material and location of the furniture as well as the appliance of ecological environment materials do a good job in the interior space design; in the next place, designers need to think about the selection of proper green plants and have their eye on air circulation so as to do a good job of indoor ventilation design. Ultimately, the combination of light and shadow and application of ecological environment materials require keeping the interior designers' eyes open on, namely interior lighting design should be focused on by them. With the above approaches conducted, economizing on resources, reducing on contamination can be achieved to the greatest extent so that a green space is to create.

## 5. Conclusion

In summary, optimizing interior design with ecological environment materials meets the requirements of the current situation, meets people's yearning for a better life, and has a good development prospect. Of course, there are still many problems in the application of ecological environment materials in interior design. We need to base ourselves on the development and use of ecological environment materials, cultivate the concept of environmental protection, improve professional capabilities and accomplishments, and jointly create a green space, so as to achieve a balanced development of protecting the ecological environment, saving resources, social economy, and people's quality of life.

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