

Research on the Application of Architectural Decoration Materials in Interior Design

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Abstract: As an important part of the interior design, the architectural decoration materials can effectively improve the effect of the interior design, and make the interior design to meet people's aesthetic needs. Based on this, the study analyzes the application of architectural decorative materials in interior design. Firstly, the paper introduces the common types of architectural decorative materials, such as metal materials, non-metallic materials, composite materials, etc. Secondly, analyzes the artistic attributes and characteristics of decorative materials; finally, analyzes the specific application of architectural decorative materials in interior design.

1. Introduction

Against the backdrop of rapid development of science and technology and continuous innovation in interior design, people are increasingly paying attention to both aesthetic and functional aspects of architectural interior design, making it increasingly difficult for designers to grasp the use of architectural decorative materials in interior design. Therefore, from the perspective of architectural decorative materials, it has become crucial for interior design^[1]. At present, there are differences in research on interior design and decorative materials between foreign countries and China. Interior design in foreign countries has formed an independent development direction from the beginning, and the application of decorative materials has gradually shifted from a single modernist style to today's diversified style, forming a solid research foundation. In foreign countries, some architects and interior designers are more inclined towards personal style, hoping that their designs can have their own logos, so some designers pay more attention to material research^[2]. In the research of materials, they constantly innovate the expression form of a certain material, enrich its design connotation, and make this material a special symbol of their own design. For example, when it comes to concrete, it's easy to think of Tadao Ando. When it comes to bricks, Bota comes to mind. Although research on a specific material has been comprehensive abroad, there are not many articles on horizontal comparison and comprehensive exploration of indoor space performance based on building decoration

materials. In China, interior design has only existed for several decades and the development time is relatively short^[3]. In the 1950s and 1970s, modern architecture gradually formed, and interior design and architectural design gradually separated during this period. At present, research on the relationship between interior design and decorative materials in China mainly focuses on the application of spatial materials, decorative language of decorative materials, and cultural connotations. In the process of material selection, excessive emphasis is placed on the orientation of form and cultural value, and there is a lack of rational thinking on the issue of architectural decorative materials. Theoretical exploration is not deep enough^[4].

Based on this situation, this article explores the application of building decoration materials in interior design.

2. Category and types of common architectural decoration materials

Architectural decorative materials refer to a type of material laid inside and outside a building, whose main function is to beautify the building. Internal decorative materials are mainly used for decorating walls, roofs, floors, etc. Through the characteristics of these decorative materials, the interior can present a decorative effect. Common building materials can be divided into metal materials, non-metallic materials, and composite materials, as shown in Table 1.

Table 1. The Basic Properties of the Materials

metallic material	ferrous metals	Iron, steel
	nonferrous metal	Copper, aluminum, lead, zinc, titanium and other alloys
	lithotome	Granite, limestone, marble

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non-metallic material	inorganic material		and other decorative stone
		Burning products and glass	Brick, tile, ceramic, glass
		cementing material	Air and rigid adhesive material: lime, gypsum Hydraulic cementing material: all kinds of cement
	organic material	Artificial stone based on a cemented material	Concrete, mortar, silicate construction products, etc
		natural polymer	Protein: animal skin, hair fiber: wood, bamboo, cotton and hemp rattan Others: natural rubber, natural resin
		synthetic macromolecule	Plastic, synthetic fibers, synthetic rubber, synthetic resins, coatings, etc
composite		Metal one non-metallic material, non-metallic one metal material, inorganic one organic material, organic one inorganic material	

3. Artistic characteristics and attributes of common interior decoration materials

3.1The artistic characteristics of architectural decorative materials

3.1.1Color Characteristics

After applying decorative materials to interior design, the effect of the decorative materials will affect people's senses, and the colors of the decorative materials can reflect the corresponding visual art. In addition, under the influence of lighting, decorative materials will exhibit different visual effects, thereby attracting people's attention. For example, applying red decorative materials to interior decoration can create a passionate effect for people^[5].

3.1.2Muscular characteristics

In some decorative materials, the texture characteristics of the material will reflect the corresponding beauty, part of this texture is naturally formed, the other part is due to artificial creation. If these muscles are reasonably applied

in interior decoration, you can improve the beauty of interior decoration. For example, marble texture, wood grain, etc. For the artificial texture, this is due to the innovative artificial modification on the surface of the material to have the texture characteristics.

3.1.3Textured characteristics

The texture characteristics of decorative materials can also improve the effect of decoration, so that people can feel different visual experience^[6]. Different materials have different texture, some rough, some smooth, some hard, some soft. For example, stone is a decorative material, after applying it to interior decoration, people will feel very atmospheric, and wood brings people is a gentle feeling.

3.2Properties of common interior decoration materials

The attributes of building decoration materials include both physical attributes and chemical attributes. After analyzing the relevant materials, we can summarize the basic attributes of building decoration materials into the following aspects, as shown in Table 2 for details.

Table 2. Basic properties of building decoration materials

Basic properties of building interior decoration materials	physical property	Ontology: density, compactness, and porosity Mechanics: Strength, plasticity, fragility, and hardness
	durability	To physical, mechanical and chemical action. Resistance to biological action: including weather resistance, weathering resistance, aging resistance, durability, corrosion, etc.
	Hot work	Thermal conductivity, fire resistance, and melting point
	Acoustic	Sound absorption, sound insulation

In the construction of decorative materials and glass products, the sound insulation effect of glass can be calculated by using the following formula.

$$R = 13.5 \log m + 13 \quad (1)$$

In R represents the sound insulation of the single-layer glass structure; m represents the surface density of the component

4. Application and innovation of building decoration materials in interior design

4.1 Pay attention to the collocation of decorative materials

In terms of the properties and functions of decorative materials, traditional interior design still has corresponding problems in terms of materials themselves and construction techniques, leading to a lack of innovation in practical application and being easily influenced by various factors. Therefore, improving traditional construction techniques is crucial. Designers can combine materials based on existing ones, fully reflecting the properties and application value of decorative materials, and further increasing their practicality^[7]. For example, in interior design, when using stones for a long time, designers can mix different colors with the stones to enhance their texture through rendering, or add patterns to the stones through carving to enhance their aesthetic appeal. Under the influence of these matching methods, the decorative effect has been effectively improved, while also increasing the application value and scope of decorative materials, promoting the transformation of traditional decorative materials to modern styles. In addition, in the current context of diversified decorative materials, design should keep up with the development of the times, continuously strengthen research on the properties of decorative materials, and fully explore the plasticity of different decorative materials. This can effectively improve the decorative effect of interior design. For example, when decorating shops in ecological scenic areas, designers can use bamboo as a substitute for traditional materials, and use the flexibility and plant texture of bamboo itself to enhance the connection between the store and the ecological scenic area, adding a natural atmosphere to the interior^[8].

4.2 Selection of decorative materials in interior design

4.2.1 Adapt to the functional nature of the indoor use space

Laydecorate indoor environment according to different environment requirement, make whole design atmosphere is different, at the same time corresponding building materials color and material should also choose according to the actual situation. For example, when the environment is better, or more dignified, you can choose materials, color of different decorative materials to improve^[9].

4.2.2 Application of the natural form of decorative materials

In the process of modern interior design, designers often integrate the natural elements into the interior design, and

under the rendering of the natural elements, people can feel the visual color brought by nature. When introducing the natural form into the design, designers can reflect different decorative effects through the exemplary entities in the nature. Through reasonable use and processing, the building can be more integrated into the overall design of the house, so as to meet people's needs^[10]. At the same time, under the rendering of plants in nature, the indoor aesthetic effect is further improved. When designers are using the natural form, they must pay attention to its form to be integrated with the whole of the interior, and not to make the interior appear too monotonous, as shown in Figure 1. Therefore, in the process of design, the designer must have a strong design ability, so that the indoor natural show the elements of nature, will not lead to too many indoor plants, thus forming a crowded feeling. In addition, when putting the natural plants, also do not put them at will. In the process of decoration and design at the present stage, the designer's simulation of the natural environment only stays in the primary stage, and did not deeply realize the effect of visual communication, resulting in indoor and natural elements have a sense of violation. Therefore, in this respect, designers need to further improve their own design ability, to be higher and better to integrate the natural elements into the interior design, and to give full play to the role of natural form rendering^[11].

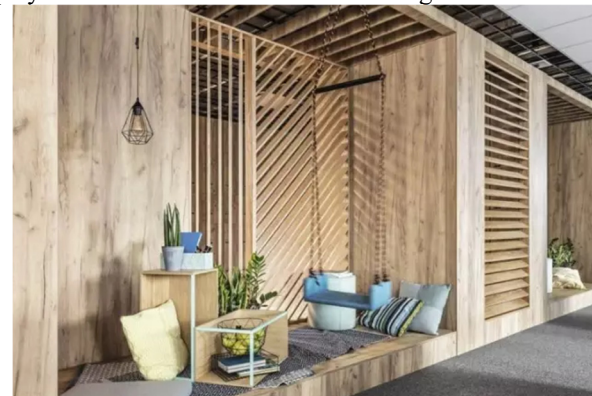


Figure 1 Decoration style with natural elements



Figure 2 Decoration of organic materials

4.2.3 Reproduction of organic materials

Nature contains more substances that can be used in decoration, and organic materials are one of the most typical ones. When the use of organic materials in the interior design, let is the indoor effect is more soothing,

at the same time, the selection of organic materials can also protect the environment, reduce the cost of decoration, so that the indoor more natural atmosphere. Secondly, under the application of organic materials, people are more integrated into the nature, fully reflecting the harmony between man and nature[6]. At present, the use of organic materials is still very extensive, in the indoor kitchen, toilet and other places can be shown in Figure 2. Because this kind of material has good mechanical properties, moderate density, convenient installation, low decoration requirements, it is an essential decorative material in interior design.

4.3 Rendering with multiple elements

In the process of design, in order to make building materials give the effect of interior design innovation, designers should jump out of the independent thinking, strengthen the cognition of materials, familiar with the structure of the interior, clear indoor environment, so as to ensure that the material and indoor clever fusion together, in order to realize the aesthetic and practicality of the material[7]. Therefore, in the interior design, all kinds of materials can be organically combined through the light and shadow means, to play a greater aesthetic effect. Because different materials have different properties, as long as the innovation on the basis of its characteristics, then there will be an unexpected effect, to add more color to the indoor space, for the interior design to give a broader display space for people.

5. The Practical Application of Architectural Decoration Materials in Interior Design - Taking the Interior Design of a Certain Hotel as an Example

5.1. Project Overview

A certain hotel mainly creates a resort style, with a total design area of 3692 square meters and a 2-story building. The design core is mainly to use a large amount of local natural materials, extract local materials, and create spaces by exploring their design elements, analyzing, deconstructing, and creating the characteristics of natural materials. This also coincides with the leisure and relaxed tourism atmosphere of local resort hotels, while reflecting local characteristics^[12].

5.2. Design Concept and Positioning

This project fully combines the local natural landscape and resources, respects and protects the local culture and regional characteristics, and applies natural materials to the interior space interface and interior decoration of resort hotels. In the interior design of resort hotels, we adhere to the design principles of "nature and leisure", understand the pursuit of vacation tourists to relax and experience nature, and appropriately integrate the space created by raw ecological materials with the indoor and outdoor natural landscapes. In the selection of interior

design materials, local natural materials such as teak, rubble, bamboo, rattan, hemp, natural marble, bark, leaves, thatch, as well as indoor decorations, furnishings fabrics, and plant landscapes with a strong tropical atmosphere, are mainly used to create a natural atmosphere. Under the objective premise of creating functional and comfortable vacation hotels, combined with natural environmental landscapes and regional advantages, create a leisure indoor space atmosphere. The natural environment of the project site is beautiful, surrounded by coconut forests and facing the sea, attracting a large number of tourists who come here for vacation. Therefore, the service object of this project is to provide catering and accommodation services for tourists and nearby residents who come here for vacation. To meet the needs of tourists, it is necessary to design the guest room floor, dining area, entertainment and leisure area, and supporting facilities, as detailed in Table 3.

Table 3. Design of Each Functional Area

Functional area	Ratio of the total design area
Room floor	53%
Catering area	11%
Entertainment and leisure area	9%
supporting facilities	27%

6. Conclusion

To sum up, decorative materials can not only improve the effect of interior decoration, but also make the interior design to meet people's aesthetic needs. Therefore, in the process of material selection, it is necessary to combine the actual situation of interior design, strictly control the quality of materials, and then give full play to the value of decorative materials.

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