Application and Research Based on Green Landscape Materials in Interior Design

HuiJuan Li
Wuhan software engineering Career Academy, School of Arts and media, HuBei 430000
disjill02@163.com

Abstract. Because indoor building materials are not environmentally friendly or the decoration methods are not reasonable enough, it poses certain harm to human health, and there are also problems such as waste of resources. With the proposal of the green economy and sustainable development strategy, the application of green building materials has gradually been valued. Nowadays, people pay more attention to environmental protection and health care. As a bamboo with low carbon and environmentally friendly materials, it is also the first choice for interior design materials. As an energy-saving and environmentally friendly material that can replace traditional building decoration materials, bamboo materials can not only improve the comprehensive utilization of resources and energy, but also reduce the pollution caused to the environment. Nowadays, bamboo fiber, bamboo charcoal and other health care materials have entered our lives, so the use of bamboo materials in interior design will have great potential for development. This paper analyzes bamboo functional materials as a case, and analyzes the advantages and disadvantages of bamboo artificial materials in modern interior design. From the perspective of design, it discusses how to exert the functional advantages of bamboo materials, and hopes to play the role of bamboo in the decoration industry in the future.

1. Introduction
The use of new high-quality energy-saving and environmentally-friendly materials in the interior design of construction projects not only can quickly improve the function of building buildings, but also improve the quality and comfort of the living environment. On the other hand, if materials with recycling characteristics are used in the interior design of construction projects, it can provide a platform for turning waste into treasure and recycling for various industrial solid wastes. In general, the promotion and application of various new energy-saving and environmentally-friendly materials in the interior design of construction projects can avoid the waste of energy and resources in essence, rapidly improve the utilization efficiency of energy and resources in China, and promote the construction field. Continue to develop the road[1].
The bamboo industry is an important part of the forestry industry. The development and utilization of bamboo resources and the production and trade of bamboo products have gradually increased the impact on forestry and local economic development, which has attracted more and more attention and recognition. Bamboo is widely distributed around the world and has a long history of use[2]. With the increasing environmental problems, the ecological concept is increasingly valued by people. Bamboo has re-entered people's vision with its good ecological adaptability. How to use this traditional material to rejuvenate it and become the current research problem.

2. Green design requirements for decorative materials

2.1. The meaning of green design

Green design is also known as "ecological design", "environmental design" or "environmental awareness design". Originated from the 1960s, an anti-consumer design movement in the United States led by environmental protection and sustainable development. The green design is essentially a design movement that protects the natural environment resources (as shown in Figure 1)[3] and prevents the pollution caused by industrial production from damaging the environmental balance. After the industrial revolution, people created an amazing material civilization, and it was followed that the living environment was also unimaginably destroyed[4]. Resources are heavily wasted and predatory, and the environment is heavily polluted. Therefore, the design thinking of many designers in the design world began to focus on environmental protection and ecological protection[5]. The green design reflects the reverse thinking of the contemporary civilization created by the human being on the natural environment and ecological destruction, and shows the rational thinking of the designers' professional ethics and social responsibility. At present, although the green design is still in its initial stage, it has pointed out an extremely important new trend for future development[6].

Fig. 1 Green design process

2.2. Green design requirements for decorative materials

2.2.1. Non-toxic, harmless and non-polluting. Green ecological design must adopt green ecological materials, that is, the materials used in the design can not cause any damage to human health and ecological environment, so that it is non-toxic, harmless, non-polluting, non-radioactive, no noise, and thus conducive to the ecological environment. Protection and human health. It is required that the decorative materials used in production will not produce or release toxic substances that can pollute the environment and destroy the ecological balance, and can reduce or effectively prevent adverse effects on the earth itself and the natural ecological environment, and even protect the environment.
and the ecological balance[7]. It plays a certain positive sense and can build a beautiful living space for human beings that is warm, sweet, comfortable, safe and healthy.

2.2.2. Recyclable. In order to save more energy and protect the global environment, we must seek ways to reuse it. This includes land resources, water resources, mineral resources, and the recycling of various materials. In the initial stage of product design, the company fully considers the various parts of the product and the feasibility of material recovery, and the value of recycling. A series of conceivable problems related to the recovery and subsequent solution, such as the method of recycling and disposal, the process of recycling and processing, etc., to achieve the maximum effective use of parts and materials resources and energy, and to design a scheme with the lowest pollution environment. Ideas and approaches.

3. We take bamboo materials as an example to analyze the application of green materials in interior design

3.1. Characteristics of bamboo materials

(1) Natural features. Bamboo is a one-time, one-time flowering plant that belongs to the family Poaceae. Bamboo has the characteristics of easy planting, easy harvesting, fast growth, short material production time and good output value. It is the fastest growing plant on the earth, and the slowest growing period can grow up to twenty centimeters per day and night. Thirty centimeters, the period of rapid growth can even grow from 150 to 200 centimeters per day and night.

(2) Physical characteristics. Bamboo has the unmatched performance of ordinary wood: the difference between the length difference after drying and the length before drying, with strong splitting, high-quality elasticity and toughness, and its good compressive strength and tensile strength. In addition, the absorption of moisture and moisture by bamboo and the absorption of external heat are far superior to wood, and it has the ability to resist the corrosive damage of surrounding media, the ability to avoid loss due to friction or use, and it is easy to produce material deformation ability, it is harder and denser than wood, and it has more advantages in compression resistance and flexural strength. Its surface texture can be elegant and elegant, and it can also adjust the moisture in the air spontaneously according to the space environment. It has high moisture resistance and high thermal conductivity, so it has excellent characteristics of warm winter and cool summer

(3) Cultural characteristics. Bamboo has been loved by people since ancient times in China's history. China has the history of the world's oldest bamboo research, cultivation and utilization. Reflecting on the profound significance of China’s long history and cultural development and the formation of spiritual civilization, it is not difficult to see the long history of cultural relations between bamboo and Chinese chess and painting and classical garden construction. 3) and the close connection between bamboo and people's daily lives. Therefore, China has been praised by the world as "a country with bamboo civilization." Among the civilizations passed down from generation to generation in China, bamboo symbolizes tenacious life, flexibility, health, harmony and spiritual guidance. Bamboo, delicate and elegant, graceful and graceful, delicate and beautiful, four seasons green, reflecting the youthful and young state; bamboo, natural and generous, upright and towering, beautiful and novel, unconventional, with ordinary and noble style; bamboo itself The structure is hollow inside, symbolizing humility, not boasting of your ability or value, and character can be self-control. The characteristics of bamboo are not bent, but they are constantly folded. The symbolic softness also contains the strong principle of doing things for others. The top-notch Lingyun, Lingshuang proud rain, and the shackles, the bamboo sticks are exposed, the bamboo branches are towering, and the metaphors and behaviors are high; The character is noble and not vulgar. The appearance of bamboo grows with bamboo knots, and it is also praised as a symbol of integrity.
3.2. Application of Bamboo Materials in Interior Decoration

(1) Floor laying materials. Bamboo flooring brings a new green and refreshing experience to the building materials market with its natural and natural characteristics and many good properties after processing into finished products. Bamboo flooring has the natural texture of bamboo itself, which is refreshing and elegant, giving users a different kind of natural, noble and elegant feeling. It has a lot of special features. Firstly, it replaces the traditional wooden floor with bamboo flooring. It not only has the original characteristics of wood, but also uses the quality of the national leading standard in the processing of bamboo flooring. Adhesive glue can effectively reduce the production of harmful substances such as formaldehyde and reduce the harm to the human body. In addition, the production equipment and technical means used in bamboo flooring are in the leading position in the world, and more than 20 processes are processed in the production process. The finished bamboo flooring obtained not only has the natural feeling of the log floor but also has the firmness and firmness of the ceramic floor tiles.

(2) Wall materials. The bamboo raw material is processed into bamboo pulp and then processed. Bamboo fiber, such as bamboo, bamboo, and bamboo, is used as the main raw material, and the bamboo fiber is processed and the shape and length are between wood and grass fiber. Easy to apply glue, bamboo pulp is a kind of pulp with suitable fiber length, fine and has good softness. The bamboo pulp is diastolic and thick, has high tear strength, and has low burst strength and tensile strength. Has a high mechanical strength. The surface of the wallpaper made of bamboo pulp is elastic, and has sound insulation, heat insulation, good heat preservation performance, and soft and comfortable hand feeling. The biggest feature of bamboo wallpaper is that it does not release poison gas, no harm, no special smell, good ventilation performance, and paper type stability. It can be scrubbed at any time after being contaminated, and the service life is more than twice that of ordinary wallpaper. Therefore, this new type of wallpaper is more and more popular in the market and consumers, and will become the "dominant series" of the decorative materials market in the near future.

(3) Structure and decorative materials. The screen is a form of furniture used to block the wind in ancient buildings. The so-called "screen is also windy." Screens are an important part of traditional furniture and have been around for a long time. The screen is an important piece of furniture and decorations in the ancient Chinese home interior. Its production form, surface pattern texture and text contain a lot of cultural information, which can not only express the elegant sentiment of the literati, but also contain people praying for happiness. The far-reaching significance. The various forms of screens also condense the wisdom and skill of the craftsmen to gather ideas. The screen is generally placed in an obvious position in the room, which serves as a function of separating space, beautifying the environment, shielding the wind and wind, and coordinating the environment. It echoes with traditional Chinese furniture, interacts with each other, and is inseparable. It becomes an indispensable part of home decoration, and presents a harmonious and beautiful beauty, quiet and peaceful beauty.
The word "screen" gives people a feeling of poetry and painting, which creates a quiet space that seems to be divided into non-points and breaks.

(4) Decorative materials. Bamboo is used as a raw material for handicrafts, and then various paintings, sculptures, and other artistic themes are performed on the surface, and bamboo crafts are obtained. Compared with ordinary wood crafts, the bamboo craft has a much longer shelf life than wooden crafts. This is determined by the special processing techniques such as cooking and drying during the processing of bamboo. Also, due to the strong and unyielding characteristics of bamboo in its natural form, it has been praised by people who know the book and can be noble in character since ancient times (as shown in Figure 3), so with the art of wood. The comparison of bamboo art is more accepted by people and is more popular.

![Fig. 3 Bamboo jug and bamboo carving incense burner](image)

4. Cases of bamboo in interior design

4.1. Shanghai World Expo
The biggest "bamboo" highlight of the Expo Vanke Pavilion lies in the materials used on the ground. The floor materials used in the entire pavilion are made of high-resistance bamboo flooring. The high-resistance bamboo flooring is the heavy bamboo flooring or silk bamboo flooring that we often say. It has firmness and hardness. It has the advantages of high density, wear resistance and no insects. The bamboo floor of the Expo Vanke Pavilion uses an unusual arrangement of curved and radial equipment in the paving method. The distinctive materials and the designer's ingenious laying method make the entire venue visually visual. It has been one of the bright. In addition, the materials selected in the theme of the venue are the building materials made of wheat mustard that can be recycled and reused. The combination of two new green materials reflects a very strong environmental awareness.

4.2. Vietnamese Bamboo Wings
The entire bamboo wing is an open space of twelve meters long. Its wing-shaped structure is not designed with a column support (as shown in Figure 4), creating a wide, unobstructed space. In this space, weddings, social gatherings, live concerts and many other events can be held. The reason why bamboo is selected as the main building material is because bamboo is a new type of ecological building material, which has low cost, high tensile strength and elasticity which cannot be compared with steel. The bamboo used after scientific and technical means can reach the service life. About thirty years. In addition, Vietnam is located in the south of the Tropic of Cancer. It has a tropical monsoon climate, with hot climate and abundant rain. The bamboo winged roof also makes the whole building extremely ventilated, which can effectively reduce the frequency of air conditioning and reduce the consumption of natural materials. Bamboo Wing is a successful building in terms of building bamboo as a building material. In addition, it also expressed another message to all countries with bamboo planting area, that is, bamboo will be used as a new type of ecological material in the construction field. It is gradually replacing traditional materials as a popular development direction.
5. Conclusion
Due to the very close relationship between the use of building decoration materials and the ultimate energy-saving effect and the immediate interests of the occupants, the use of energy-saving and environmentally-friendly materials for building decoration has become a hot topic and has received extensive attention from consumers. Decorative materials occupy a large proportion in the environmental labeling products formulated by the China Environmental Labeling Products Certification Committee. Before carrying out the interior design work of architectural engineering, it is necessary to fully grasp the basic characteristics of various decorative materials and the energy saving and environmental protection effects. Under the premise of aesthetic safety requirements, the materials with the best energy-saving and environmental protection effects are selected to meet the potential environmental and health needs of residents.

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