Original Research Article

Analysis of the application of green design concept in interior design

Qixin Sun
Suzhou Polytechnic College of Industry, Suzhou, Jiangsu, 215104, China

Abstract: With the continuous development and transformation of China's social economy and science and technology, the living standards, quality, and working environments of the Chinese people have been effectively improved. People now demand not only comfort but also aesthetics in their living spaces, while also contributing significantly to energy conservation and environmental protection. In interior decoration design, green design management has been frequently applied. The development of interior design must adhere to the direction of energy conservation and environmental protection for continuous innovation and improvement. This article proposes a new application analysis framework for green environmental design in interiors, while also providing a solid foundation for the future development of interior design.

Keywords: green design; interior design; application

1. Introduction

In recent years, with the continuous innovation and improvement of China's social economy, technical management personnel have increasingly embraced green and environmentally friendly approaches. In line with China's unique development path, the country has adhered to a people-centered development goal and vigorously implemented sustainable development requirements. In China's current architectural design philosophy, green environmental design plays a crucial role in interior decoration. Design and management personnel must develop more effective strategies and management systems based on actual development conditions to enhance the level of interior design and provide long-term goals for energy conservation and environmental protection in interior decoration.

2. Application principles of green design concept in interior design

2.1. Environmental coordination principle

During the development of urban housing construction, management personnel have gradually integrated construction environments with interior decoration design, incorporating energy conservation and environmental protection into the design process to further enhance urban residents' quality of life. In traditional interior design and decoration, aesthetics and comfort were prioritized over improving indoor environmental quality. To fully realize the green interior design concept, management personnel must conduct preliminary coordination and planning, establish management systems based on actual conditions, and better meet residents' practical requirements.

From certain perspectives, environmental protection requires strong public awareness and participation. People must first understand how to protect and cherish the environment, continuously enhance their environmental awareness, and acquire relevant knowledge to actively participate in this work. Various methods, including internet-based approaches, should be employed. Local governments need to promote environmental protection through management-level publicity and advocacy, enabling management personnel to develop reasonable environmental supervision systems and effectively carry out environmental engineering design and management.

2.2. People-centered principle

In the development and application of interior design concepts for residential buildings, the primary goal

of management personnel is to enhance residents' living quality and comfort. By meeting design environment requirements, people can enrich their spiritual enjoyment. Designers must maximize space utilization efficiency and ensure design rationality. Throughout the interior design and beautification process, design and management personnel adhere to a people-centered approach, improving service standards to better serve the public.

3. Application strategies of green design concept in interior design

3.1. Application of green materials

When designing and surveying residential interiors, design and management personnel must arrange raw materials rationally and scientifically control costs to improve energy efficiency. They should consider special conditions arising from the surrounding construction environment and plan green designs accordingly. Building materials and concrete insulation materials must be selected in a reasonable and scientific manner to reduce energy consumption and avoid environmental pollution.

Construction personnel should arrange work schedules based on actual conditions to prevent excessive waste of human and material resources and ensure cost-effective utilization. Designers must meet users' practical requirements, optimize space design in residential buildings to maximize usable area, minimize material waste, and thoroughly understand spatial details and data. Blind pursuit of high-end products should be avoided, with emphasis placed on energy-saving materials. Recyclable materials and decorations can be reused if undamaged, significantly reducing material waste.

During interior decoration and construction, waste materials generated by equipment must be rationally and scientifically adjusted for reuse. This approach not only reduces investment costs but also enhances resource conservation and overall space design quality.

3.2. Optimization of space layout

When designing interior spaces, designers should plan and adjust layouts in advance based on actual conditions to create more comfortable and aesthetically pleasing living environments for users, effectively improving residents' quality of life. Designers must use raw materials rationally and scientifically, understand green design principles, and optimize space design.

Technical management personnel must also address noise pollution during space layout and processing to avoid unnecessary disturbances in public spaces and private areas. Designers should allocate funds to purchase sound-absorbing and soundproofing materials to effectively isolate private spaces. Design administrators must analyze noise pollution sources and develop scientifically reasonable solutions to enhance control and management of noise pollution.

3.3. Integration of indoor spaces with natural elements

As China's social economy continues to develop and innovate, the scale of urbanization construction and engineering projects has expanded significantly. Government agencies prioritize speed in architectural design, often emphasizing large-scale and mechanized production management, which has hindered coordinated development among urban planning, architecture, and interior green design. This lack of integrated management has negatively impacted living and working environments.

China's government agencies have proposed improving and innovating the natural environment for residents, increasing demand for natural settings. In response, government agencies have promoted green construction management in interior design, effectively integrating indoor spaces with natural elements to create beautiful and sustainable indoor environments.

Technical management personnel emphasize green design concepts in interior design, such as entry gardens and sky gardens, avoiding blind pursuit of luxury and incorporating natural elements into indoor spaces. Homeowners also prioritize connections with nature by growing indoor plants and flowers, surrounding daily life with natural environments and creating healthier and greener living spaces.

3.4. Outdoor experience in interior design

With the continuous innovation and improvement of science and technology in China, people have raised higher demands for material living standards. Consequently, they increasingly focus on spiritual enjoyment

and have developed a stronger yearning for nature. However, against the backdrop of rapid urban development, the number of urban construction projects has surged, leading to declining forest coverage and greenery rate, persistently high AQI (Air Quality Index) levels, and polluted living environments that negatively impact people's physical and mental health and spiritual well-being.

To address these issues, designers have proposed renovating and optimizing indoor environments for residents, creating outdoor experiences within indoor spaces to allow people to enjoy the refreshing benefits of nature in their living environments.

3.5. Improving utilization of natural light

When designing residential spaces, design and management personnel must prioritize lighting and ventilation. By incorporating large windows and skylights, natural light can be maximized indoors. Indoor spaces should be rationally divided, and raw materials used efficiently to reduce reliance on artificial lighting, prevent excessive energy consumption, and enhance indoor air freshness.

4. Conclusion

In summary, design and management personnel have applied green design concepts to interior decoration, adhering to environmental coordination and people-centered principles. Based on actual indoor environment requirements, environmentally friendly green materials are used, space layouts are optimized, indoor spaces are integrated with natural elements, natural light utilization is enhanced, and outdoor experiences are created in indoor design. These efforts contribute to healthier and more comfortable living environments.

About the author

Qixin Sun(1971.10-), male, Associate Professor, Master (Nanjing University of the Arts), major in Environmental Design, Suzhou Polytechnic College of Industry.

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