Research on the Application of Traditional Architectural Decoration Elements in Modern Architectural Design Based on Image Drawing Method

Gaoling Duan
Xi’an Aeronautical University, Xi’an, Shaanxi, 710077, China

ABSTRACT. In today's China, economic development and social needs have brought unprecedented opportunities to modern architectural design. With the development of modern society, modern architectural design must meet people's material and spiritual and cultural needs. Under the impact of foreign culture, it is very difficult for modern architectural design to maintain its unique charm and characteristics, and it is very difficult to inherit its own unique style while inheriting it, but it always insists And achieved excellent results. Therefore, this article attempts to study the application of traditional architectural decorative elements based on image drawing methods in modern architectural design.

KEYWORDS: Application, Traditional architectural decoration elements, Modern architectural design, Image drawing method

1. Introduction

China has a long history, a vast and profound culture, and various colors. With the evolution of history, traditional architectural decorative elements have gradually emerged under the birth of ancient civilizations, with their distinctive features and splendid civilizations, leaving great art treasures for the world. In the long river of history, various decorative elements have been created in the hands of countless skilled artisans, from pottery, bronzes, lacquerware, portrait tiles, ceramics, furniture, etc. to batik, paper cutting, shadow play, painting, wood carving, and a wide range of content topics, And the national characteristics, traditional styles, and creative spirits presented are very rare in the decoration history of the entire world. The typical national characteristics possessed by Chinese traditional decorative elements, both in terms of content and form, are generally utilitarian, have rich social connotations, and represent local cultural practices, beliefs, and will, etc., art and life The combination of elements is well reflected in traditional decorative elements, and has great research and application value for current architectural design.

Modern architectural design styles, facing the trend of internationalization and
globalization, there have been various styles and coexistence of different countries. The traditional cultures of the original nations seem to be a bit swaying ... However, with the increasing number of domestic designers As they matured, designers began to reflect on how to reflect the internationalization of design. Instead, they believed that design should be rooted in local culture, combined with actual conditions, and fully reflect regional and humanistic care.

In recent years, the design community has paid more and more attention to the exploration and innovation of tradition, and has actively used it in practice, and it has become more and more extensive. With the improvement of people's living standards, people's requirements for architectural design have gradually increased from comfort and beauty to spiritual pursuit. The profound traditional Chinese culture contained in traditional decorative elements requires our further research. By digging its inherent cultural connotation, the contemporary architectural design is raised from a material basis to a new height in the humanistic spirit. Therefore, the research on the use of Chinese traditional decorative elements has historical significance, not only a heritage of tradition, but also an innovation of modern multiculturalism.

2. Related Research Based on Image Rendering Methods

As a traditional and widely used geometry-based drawing technology, it mainly focuses on two aspects of graphics modeling and real-time graphics rendering. Graphic modeling focuses on the geometric constraint relationships between the scene entities and the modeling of ambient lighting. Real-time graphics rendering is mainly concerned with geometric reduction, real-time blanking, and geometric element simplification. The advantage of geometry-based rendering technology is that the geometric model is comprehensive and can meet the needs of flexible and changeable perspective changes. However, the complexity of the modeling process increases dramatically with the expansion of the scene and the deepening of the details, and it increases the user's workload and the requirements for the computing power of the device. In order to make up for the shortcomings of geometry-based rendering technology, it is proposed to use real images to replace geometric relationships that are difficult to manipulate in scene details, that is, based on geometric hybrid image rendering technology. Although the hybrid drawing technology can reduce the complexity of traditional geometry-based drawing technology, it still cannot fundamentally solve the problems of low efficiency, large amount of calculation, poor real-time performance, and high requirements for graphic display equipment when supporting large scene generation, while increasing The workload caused by the adjustment of the matching relationship between geometry and image. Eventually, image-based rendering techniques based purely on image-based elements emerged. As a new research and application topic, image-based rendering technology has been developed rapidly in recent years. It is mainly used in medical image display, remote sensing moving entity tracking, military simulation scene display, digital museum system, product display, virtual manufacturing and other fields. It is understood from the implementation approach
that image-based rendering is a technology that uses the existing multi-view target scene images to generate virtual images under new perspectives and comprehensively uses computer graphics and computer vision and other fields of knowledge.

Compared with the traditional geometry-based rendering technology, image-based rendering technology does not require complicated geometric modeling, so it can use less computing resources; the source image it relies on can be a real digital image taken, or it can be the virtual image generated by computer geometric modeling or a mixture of the two requires less basic information and is easier to obtain; since it is only based on image analysis and processing, its operation complexity will not change due to the change in scene complexity; It mainly depends on the working efficiency of the processor and does not require additional hardware acceleration equipment.

3. Overview of Traditional Architectural Decorative Elements

As a form of artistic expression attached to Chinese history and culture, Chinese traditional decoration not only has the general characteristics of traditional Chinese decorative elements, but also forms complex and diverse arts according to different regions and environments, different art styles, and different aesthetic tastes. Form. Traditional architectural decoration elements have occupied an important place in architectural design since ancient times. Its dignified and generous charm, rich and gorgeous literary style, traditional design and ingenious layout are the characteristics of the eastern culture and the country of etiquette. And as people pay more and more attention to the living environment, it not only carries the spatial theme of interpretation of architectural design, but also entrusts people with certain expectations of space. Therefore, the significance of decorative elements in architectural design will be more profound.

Decoration and religion are important cultural phenomena. If decoration is to grasp the world in a visual way, religion is a special reaction of the interrelationship between man and real life in human social consciousness. Its generation and development have always been accompanied by the development of human civilization, which is its era. A reaction at the ideological level. Religion, as a unique cultural phenomenon, gives the decoration a rich life and vitality, its infinite original life and unspeakable religious emotions, which makes art and religion have a closely related isomorphism and Unity.

One party supports one person, and one party supports one culture. China is a vast country with many ethnic groups, but its culture is relatively uniform and stable, manifested as a sense of unity. Pursuing the aesthetic consciousness of “the elephant is invisible” and “generous and immaculate”, and emphasizing the complete and symmetrical modeling rules are the aesthetic ideals pursued by many artists. Such as the magnificence and solemnity reflected in the shape of the large bronze chimes unearthed from the tomb of Zenghou Yi, the grandeur displayed by the Terracotta Warriors and Horses of the First Emperor Qin Shihuang, as well as the wood plank
New Year painting “Daily Hall” in Shandong, and the Huishan clay figurine “Da Afu” The life scene not only effectively used the characteristics of craftsmanship that emphasized symmetry and perfection, but also black and white. It also began to use narrative painting for the decoration of utensils, thus creating a new aesthetic taste and ideal, and expressing people's desire to break away from mysterious religious fans The mad restraint on life and the affirmative aesthetic trend of real life in the world represent a new artistic style of decorative art.

Decoration as an independent art form is different from pure painting. It is a comprehensive art of decorative symbols and decorative properties, a combination of material technology. Under the requirements of various standardizations, beautify things to achieve a form of beauty that is closely related to human life and unified with human aesthetic ideals. Decorative art has the visual characteristics of image and form beauty. It perceives the beauty of shape, color, and form through human vision. Symmetry, balance, rhythm, and harmony are important rules of formal beauty. In addition, the decoration has the aesthetic characteristics of beauty, rhythm and craftsmanship. From simple and primitive painted pottery to mysterious and majestic bronze objects; from dignified and vivid portrait bricks and stones to elegant and romantic six-dynasty murals; from thin and elegant Song and Yuan porcelains to exquisite Ming and Qing furniture; from the calligraphy scrolls to magnificent architectural decoration, for thousands of years, the extensive and profound decorative art has formed its own unique decorative style in the shape of the organization. Achievement of spiritual aesthetic transcendence in chords. Obviously, this is different from simple decoration and decoration, but a normative force. Through transformation and innovation, a new integrated method is generated. The artistic form and artistic means of decoration show the static characteristics and dynamic structural characteristics of the decoration, respectively, and they complement each other to achieve the life spirit of decorative arts.

4. Application Principles of Traditional Building Components in Modern Building Design

From the analysis of the application rules of the traditional architectural component decorative elements and the visual element system of modern architectural design and design art, it can be seen that the traditional architectural component elements have both the gap between image and connotation, and the commonality of visual elements. This situation arises because it and the art of modern architectural design and design both originate from different historical backgrounds and cultural environments and cannot be directly applied to the modern architectural design environment. Therefore, the application of traditional building components in modern building decoration design should follow the following three principles:

The specific requirements of the architectural decoration environment of modern urban people are completely different from the traditional aesthetic concepts of the ancients. We should inherit and carry forward the spirit of Chinese traditional
elements. The application of traditional building components in modern building design faces a problem of interpenetration and integration between tradition and modernity. Therefore, the application of traditional building components must be consistent with the current aesthetic standards, harmonious lifestyle, and suitable building environment to achieve harmony. However, coordination is not only an external manifestation, but also an internal demand. It is concretely reflected in the following two points: 1. It is unified with the architectural design style: For example, it is more appropriate to apply traditional components in the design of modern Chinese architectural space, but it will make people feel out of place in the design of western classical architectural space. Nowadays, people often use small traditional building components to decorate the space in order to pursue the satisfaction of personality. The effect is also very good. Mainly, the appearance, materials, and colors of these traditional components are fused with the overall design style, which means that there is a certain correlation between them. 2. Harmonious with the color of the space interface: As an important component element of the spatial pattern, the building component has an obvious position. If the color of space is too different from the color of components, those scenes will be more noticeable. Therefore, it also pays more attention to its color requirements. It cannot be too different from the space, nor can it be used too much to identify its artistic value, role, and significance.

With the improvement of production technology and the development of social life, people's aesthetic requirements for building space are getting higher and higher. The applicability and practicality of architectural space are mainly reflected in the reasonable division of space structure, careful arrangement, and proper use of components. The aesthetics of architectural space must be combined with practical functions to meet people's needs. Therefore, in the application of modern architectural design, traditional building components must adapt to the principle of harmonizing artistic and functional practicability. Its artistic quality refers to the habitants' appreciation and use of these components and the comfort and joy generated by their deep cultural heritage, thereby forming spiritual communication. Its functional applicability refers to the basic use requirements of the component itself. If artistry is an emotional requirement, and functional practicability is a life requirement, the two are indispensable. Only when the two are closely combined can traditional architectural components shine in the modern architectural environment design.

The “shape” includes two aspects of traditional building components and various design styles of space design. “God” refers to the traditional artistic expression of the cultural connotation to be conveyed by the traditional building components, as well as the space environment decoration and display skills. Only by coordinating the two can a good design and decorative effect be achieved. In modern architectural design, if traditional building components are to be inherited and carried forward, only by combining these ancient and traditional artistic design expressions and cultural connotations to form new design concepts and create unique art forms, We must deeply understand “form” and “meaning”, and achieve both form and spirit, and design works with folk customs and regional characteristics, and make them
flourish.

5. Conclusion

With the development of economy, the increase of social demand and the change of people’s aesthetic taste, architectural decoration design is facing unprecedented challenges. At present, people are full of expectations for architectural decoration design, but they are also dissatisfied. There are many works around us that are usually involved in low-level interpretation of traditional elements. At the same time, some designers have begun to incorporate traditional elements in modern design. At the same time, they are also trying to break the original design concept of traditional decoration and re-create a design style that includes Chinese flavor, and based on the image drawing method played a key role.

References