
Ecological Design Concept of Traditional Architecture

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Abstract

Architecture is the cell of the city. The organic composition and shape of the cell determine the quality of the entire city, and the ecological design strategy is the key factor. The concept of ecological design of traditional Chinese architecture with distinctive regional features is a long and tortuous development path for the predecessors, and they are formed in harmony with nature and complement each other. Its main line is "feng shui", its essence is: all forces can be combined with each other, this eliminates the rise: The essence of the Chinese architecture is that: the shape of God is prepared, with the industry students. In view of the current state of the strong, chaotic, blind, and disorderly nature of sustainable ecological design in the field of architecture, the paper has raised the banner of Chinese traditional architecture to promote the traditional Chinese architectural culture and inherited and developed the traditional architectural ecological design concept. In order to lead the best match between traditional ecological culture and modern life, explore the starting point and basic model of contemporary Chinese architectural ecology. This paper takes traditional Chinese architecture, especially local traditional architecture, as the research object. It focuses on the use of traditional ecological design concepts and techniques in modern architecture. It is based on field research materials and personal design practices, and combines materials collected from other sources. Into a comprehensive analysis, detailed interpretation, and strive to make the arguments are justified, there is blood and flesh, so shipped to this intention accurate, clear theme, full and informative writing goals.

Keywords

Traditional architecture, ecological concept, ecological environment.

1. Introduction

1.1 The Practical Significance o The Study o Chinese Traditional Architectural Ecological Technology

1.1.1 The Need to Adapt to the Situation

Due to the increasing shortage of energy resources, the actual utilization efficiency is low and the environmental pollution is increasing. At the same time, the proportion of building energy consumption in China's total energy consumption has gradually increased to more than 30%. Building energy efficiency has become the mainstream of energy conservation in China. one. Under the guidance of the scientific outlook on development, building a conservation-minded society is the development trend and objective law requirement of our time, and it is an urgent need for the development of the national economy. Its mountain stone can attack jade. In order to achieve sustainable development, the international community is vigorously promoting green construction.

Moreover, this is a system of national system. It is not only a problem that the industry itself should pay attention to. The role of the government cannot ignore the fact that the government departments and related functional departments in western developed countries are paying more and more attention to the ecological protection strategies brought about by sustainable green buildings. The contents of the content contained in the special report of the United States Vice President Al Gore in the "Global Environment Plan" on construction technology can be seen as follows:

Improve design and reduce energy consumption:

The consequences of designing new buildings from the perspective of energy consumption are surprising;

Improve the insulation and thermal insulation performance of the enclosure structure;

Install snow-proof windows and passive solar technology to reduce heating costs;

Plant trees to block buildings to reduce air conditioning requirements:

Semi-basement buildings need to improve the wall insulation performance;

Pay attention to the design of doors and windows, the use of natural light and the lighting of the four seasons;

The relationship between wall thickness and the design of the buildings own system and energy conservation;

A new type of energy-saving light bulb can save one ton of coal during its life cycle;

Strengthening the construction of industrial efficiency standards including construction - etc.

In fact, many of our predecessors' building energy-saving and ecological technologies coincide with the above-mentioned content. The research on traditional building energy-saving technologies will inevitably advance to the appearance of a building-type system with Chinese characteristics, which is also inevitable in the development of the times.

2. Analysis of Ecological Design of Chinese Traditional Architecture

2.1 Ecological Philosophy of Traditional Chinese Architecture

When we carefully ponder the poetic environment of "The West Wind Boundaries, the Han Family's Mausoleum", "The Edge of the Green Tree Village, and the Qingshan Guochao", when you linger indefinitely under the wreckage of the vicissitudes of the ancient buildings, When you stroll around in the "Taitai Terraced Greenery, Fei Geliu Dan, Small Bridge Flowing Water", experience the winding streets and green clear pools, the traditional architecture is devoted to people's emotions and reflects the humanities. All of these are the highest pursuits of sustainable thinking, and all of them are all deeply aware of China's ancient "harmony between man and nature".

2.1.1 Integration of Heaven and Man and Ecological Architecture

In essence, the biggest difference between traditional architecture and modern architecture is that the former is the natural control of the built environment and the latter is the artificial control of the built environment. As everyone knows, today's trendy architectural vocabulary is ecologically green, and it has its own ecological attributes as early as the construction of the building. It is not a new idea. It is only because of the "second nature" of human society that it gradually separates itself from nature and seeks quick success and benefits. "People and people are divided" and they are confronted with each other, forcing people to go to the bottom and forcing them to return to nature, so as to put forward an urgent appeal for the creation of ecologically sustainable buildings. Therefore, ecological buildings are not deliberate products but are naturally included in the history of architecture. Among them, the nesting homes dating back to the primitive society, the drywall buildings along rivers, the arcades in rainy towns, the caves on loess slopes, the Hakkas Dragon House, etc. are all closely related to the ecological environment and all show obvious natural adaptation. The feng shui studies of China, "negative yin and yang, back-mountain surface water, and Tibetan-style wind gathering", are all in line

with the ancient people's emphasis on "the time of day, geography, and human harmony." The environment is undoubtedly the ideal place for construction and space construction. The so-called "heritage, geography, and people's" use of Hegel's exposition is "a unified creation of climate, environment, status and natural scenery and freedom. At the same time, we must realize that with the rapid development and gradual maturity of human civilization, those simple ecological environmental concepts gradually become aesthetics and arts. The components of the mindset spontaneously guide human activities in practice, and the expression of the traditional Chinese architecture as a material form of social culture clearly reflects the viewpoint of "Tao Nature", such as the private garden that contains the essence of traditional Chinese culture, and the combination of natural elements is extremely ingenious, forming a multilateral, multi-layered space effect with mutual occultation. This unique form of Chinese gardens with a natural relationship has a strong lyrical nature, and is most classic with Chen Cong Zhou's description; Famous gardens are focused on word formation; they are deep in thought, and they are wonderfully eclectic, not just civil engineering." Of course, today's so-called "ecological architecture" is the upgrading and even leap of modern technology and the current aesthetic level. However, we tend to be confused in the actual work, and we are eager to pursue some unrealistic means or even bad experimental waste. We don't know, our ancestors are giants, we stand on the shoulders of giants. We just don't have to dig and absorb the essence and heritage of the giant. For example, including the ancient Chinese architecture Such as Xu Fei Sri Lanka, "the anti-Alice houses, gave the West into a mysterious cult roof curve, in fact, is the only structure on the performance to adapt to nature, it is the harmony of function and aesthetic.

2.2 Ancient Chinese Environmental Concept

2.2.1 Overview

The classical Chinese architecture, especially the Han architectural system, is not only in its various architectural types, complete architectural techniques, distinctive architectural styles, wide geographical distribution and huge regional influence, but also has an ethical symbol. Group consciousness, harmonious and natural environmental consciousness, and the spatial consciousness of artistic conception are three unique manifestations. The harmonious and natural environmental awareness has greater and more guiding significance for our modern architectural creation.

2.2.2 The Basic Features of China's Traditional Ecological Environment

1. China's ecological environment has inward ecological characteristics: ancient China was mainly centered on the rich and central population of the Central Plains. Its surrounding condition is far worse than that of the region, and it is precisely because of this geographical characteristics that it gradually formed its inward direction. Consumed system.
2. The vast geographical scope and abundant and diverse natural resources can achieve a natural balance: People's natural ideas are non-conscious, but they have a deep ecological balance effect.
3. The survival and reproduction of people suitable for the model of agricultural social structure: Many features of agricultural production are linked to benign ecosystems and are mutual cause and effect.

It can thus be seen that some of the intrinsic characteristics of ancient Chinese environmental thinking have something in common with some of the internal principles of modern western philosophical thoughts and environmental theories, such as attaching importance to the integrity, regulation and transformation of the structure, and paying attention to ecology and environment. The quality of life and the significance of the environment as well as the protection of the natural environment, the transformation of the man-made environment, the coordination of natural and man-made environments, and so on. All of this is to enable humans to better survive in the environment, make nature better serve humanity, enable humans to protect the natural environment more effectively, and make the relationship between man and nature more harmonious and harmonious.

3. Ecological Design of the Building

The so-called ecological design of the building means that the architect should consider and deal with the relationship between the building and the ecological environment when formulating the architectural blueprint, and try to avoid adverse ecological consequences. This requires architects to first have ecological ideas and apply ecological design techniques in architectural design to achieve coordination between architecture and the environment. This includes, first of all, the integration of people and the environment inside the building, and the fusion of the building and its external environment, so that the completed building becomes a “polluted and energy-efficient building”

Energy-saving building. From the perspective of use value, the structure of the building Need energy saving, use, convenience and comfort. The pollution-free energy-efficient building can achieve perfect coordination between the building and the environment, and integrate the building into the environment, which has gradually become the worldwide trend and trend of the future architectural culture. Any architectural design task is the user's living and demand. The extent of the decision. It is the level of need and use that determines the design components of the building form, service system, technical factors and environmental factors at the initial stage. And any successful architectural design creates a unique form and style, and has the characteristics of diversity, particularity, multi-level, multi-style and multi-color, which makes the architecture and environment of the whole system be orderly and harmonious, thus forming a perfect Artwork, an important criterion for architectural design.

Ecology is called "the science of the beauty of the earth", the adaptation of biology and the environment in the ecosystem, and the infinite diversity of the relationship between biology and the environment are the main characteristics of ecological aesthetics. If more architects apply the principles of ecology to the unity of the subject and the environment, achieve communion, coexistence, symbiosis, and re-understand the traditional architectural ecological concept in the development, design the coordination of architecture and environment, the coordination of architecture and nature. , then it will create more beauty for the artificial ecosystem on the planet.

Today's society is an information-oriented society. Architecture itself has become a kind of information. However, it is a wrong tendency to emphasize only this aspect of architecture or to focus on how to attract people's attention. Architecture must face a more fundamental nature. The issue must be fully considered in relation to people and nature, and between people and culture. The new century has arrived, and how human beings can develop in harmony with nature has become the topic of the times. For contemporary architects, the revelation of nature is inexhaustible. Its rich and extraordinary imagination, the deep understanding of the laws of nature will become a source of aesthetics that is incomparably rich and at the same time inspiring. The times call for us to establish a comprehensive view of architectural nature.

The ecological concept in architectural creation is that under the guidance of ecological theory, the architect consciously follows the basic principles and laws of ecology in the process of architectural creation, applies ecological design methods or introduces ecological construction techniques to minimize the energy consumption of buildings. Thereby completing the conceptual process of architectural creation.

4. Conclusion

From the detailed analysis results and practical experience of the paper, it is clear that promoting new energy-saving technologies suitable for China's local environment and vigorously developing energy-saving and land-saving buildings are the concrete manifestations of the scientific concept of development in the construction industry, and also the only way for national sustainable development. . Drawing on the advanced and advanced experience of developed countries, combined with the actual characteristics of different regions and types in China, we will adopt targeted one or several energy-saving technologies and measures to apply new energy-saving buildings or old buildings to

energy-saving reconstruction and supplement them. It is entirely possible to guide and continuously improve the level of operation and management, significantly reduce building energy consumption, and achieve sustainable development of Chinese architecture.

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