

Application of the Overall Ecological Architecture Concept in the Ecological Architecture Design

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Abstract: Nowadays, China's population base is gradually increasing, and the development of urbanization is getting faster and faster, China's ecological environment is facing great challenges. Ecological imbalance must affect the quality of buildings. Therefore, in order to maintain the harmonious coexistence between buildings and the ecological environment, it is necessary to deeply implement the concept of the overall ecological architecture.

Keywords: Overall ecological building view; Ecological building; Design

1. Overall ecological architecture view

1.1 Definition of the overall ecological architecture view

The overall ecological building refers to the architectural designers design, the actual needs of the building as the premise, from the perspective of energy conservation and environmental protection design, to better improve the quality of the building. At the same time, in the design of the project, the staff should also combine the knowledge of ecology, architecture knowledge, according to the environment of the building location climate to design the energy saving and consumption reduction of the building structure.

1.2 Basic principles of ecological building view

China proposed that the purpose of ecological building management is to establish and protect the ecological environment and maintain the sustainable development of the society. We will establish the beautiful mountains and rivers of the motherland mainly through controlling soil erosion, planting trees and building ecological agriculture. When applying the "overall ecological building view" in the ecological building design, the following principles should be followed:

Protect the environment: Protecting and respecting nature is the concept that we have long adhered to. But in the actual design process, some enterprises in order to reduce costs, often "say one set to do one set". Therefore, when applying the overall concept of architectural ecological architecture, we should implement the concept of harmonious development with nature, protect the environment, and minimize the negative impact on the surrounding environment in the construction process.

Save resources: In the process of construction, a lot of non-renewable resources will be consumed, so in the early stage, the construction technology and preliminary design should be optimized, so as to reduce the dependence on non-renewable resources and improve the utilization rate of energy.

Aesthetic principles: In the process of architectural design, we should always pay attention to the latest international architectural modeling, and understand the recent relevant cultural connotation and hot topics. Create a comfortable and rich ecological architecture.

1.3 The significance of the overall ecological architecture view in the ecological architecture design

At present stage, the overall ecological architecture plays a key role in the field of construction, not only can improve people's living experience, but also can achieve the purpose of saving resources, the most important is to let the environment and construction coordinated development, now universality is very high, specific significance has the following: first, can improve people's quality of life and health level. In today's society, there are still many people with low quality of life. Therefore, the application of overall ecological building concept in ecological building design can change the status quo, meets people's requirements, meets the requirements of modern architecture, and promotes the sustainable development of the industry^[1]. Second, the use of the overall ecological building concept to improve the comfort of the living environment, and play a role in beautifying the buildings, providing people with an economic objective and green and energy-saving environment, which is also the future development trend in the construction field. The most important thing is to reduce the pollution and damage to the environment and maintain the ecological balance.

1.4 Overall analysis of the overall ecological building view

There are very clear provisions for the management of material flow and energy in the ecosystem, combining the path of each element flow and the source of elements. From the origin to the ecosystem and the building system, the conversion system should be analyzed. Understand the environmental requirements in the ecosystem based on the source of the elements. Poor design and inefficient

technology may damage the ecosystem when undergoing flow path conversion, so the energy consumption analysis is needed to improve its advantages. Architectural design should always pay attention to the process of the architectural system, make good use of the existing resources in the ecosystem, pay attention to the multi-elements of the system, and do a good job in the analysis of the overall ecological building view.

2. Interactive analysis of building systems and ecosystems

2.1 Relationship between building system and ecosystem

Combining the current practical application mode and the category of development technology, the type of technology needs to be clearly defined in the whole process. When in the stage of sustainability, the artificial environment may be less systematically inclusive. In addition, designers can make accurate and reasonable evaluation according to the inclusiveness of the environmental system, and analyze it in advance according to the actual needs of the network environment or automatic control, so as to make the existing material flow network more perfect.

2.2 Open nature of the building system

Normally, architects see the building system as a static and immutable entity. In terms of systematic design, the building system has the advantages of openness and dynamics, and clarifies the system category when applying the system. In addition, one of the core members of the biosphere is the construction system, which conducts a centralized analysis of the ecosystem energy and material in phased management, and benchmarks the predetermined mode to achieve the reuse of material. In addition, as an independent system, the building system needs to do a good job in liquidity analysis, combined with the source and elements of the building system, to clarify the actual path.

3. Application of the overall ecological architecture concept in the ecological building design

3.1 Reasonable use of green water features

In order to improve the overall environment around the building, we should also reasonably use the green water features to create a comfortable high residential environment. However, in the process of design, some buildings will pay too much attention to the greening effect, resulting in a low building level and reducing the quality of the living environment. Therefore, in order to truly use green waterscape, it must be changed to the traditional building structure, combined with the surrounding environment and the actual situation, reasonably allocate existing resources, in the construction of green waterscape structure to the greatest extent, to achieve the goal of energy saving and consumption reduction. For example, in the process of building a green waterscape, try to choose the local green vegetation, which can not only reduce the transportation costs but also improve the survival rate of the vegetation.

3.2 Sunshade and lighting design

The quality of buildings is also related to shading and lighting. Reasonable lighting and shading design can effectively improve the quality of people's living environment. Therefore, when making the use of the overall ecological building view, we should do the best in the shading, lighting design link. First of all, in the preliminary preparation stage, detailed analysis and calculation should be carried out, statistics and characteristics of airflow around the building, prepare the above data, and design the most suitable scheme for local people. Secondly, the local seasonal characteristics should also be considered when designing shading and daylighting. Therefore, the design scheme should also have flexibility, so that the building to achieve the effect of four seasons, improve people's living experience.

3.3 Reasonable use of the wind environment

In architectural design, in order to give full play to the highest value of the overall ecological building concept, we should pay attention to the main of wind environment and make reasonable use of wind environment to obtain high-quality living effect, which can also deeply reflect the thought of ecology. The following conditions should be followed for the rational use of the wind environment. First, design the overall layout of the building scientifically and reasonably, fully understand the airflow characteristics around the building during the layout, improve the application effect of the wind environment in residential areas; second, pay attention to the building ventilation design in the building. Ventilation is the core step in architectural design. Reasonable ventilation design can achieve the best effect of the applied wind environment, but also meet the economic needs of residents. It is the most obvious effect in the whole design link.

4. End language

To sum up, with the improvement of national comprehensive strength, the scale of construction is also rapidly increasing, people's demand for building design is more and higher, designers in addition to present the living effect of building, also to deeply implement the overall ecological building concept, not only can achieve the goal of energy conservation and environmental protection, but also can meet the economic needs of most people, maintain the sustainable development in the construction field of our country.

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