

# *The Construction of Contemporary Architectural Aesthetic Significance*

Zhang Yi

Tongji University, Shanghai, 200092, China

zhangyi3521@163.com

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**Abstract:** Architecture is an artificial environment created by people in order to meet the needs of social life, using the material and technical means they have mastered, and applying certain scientific laws, cultural concepts and aesthetic rules. At present, the world is facing another change in the mode of social development from industrial civilization to ecological civilization. With the development of human practice and the progress of material technology, the aesthetic value of architecture has been paid more and more attention, and the significance of exploring aesthetic thoughts and their evolution in architectural design has become increasingly prominent. The connotation of architecture is rich, and the architectural forms are different in different periods, different regions and different cultural backgrounds. Different architectural structures show the beauty of architecture with different styles. From the perspective of structuralism, this paper probes into the reasons why things form beauty, and expounds the significance of architectural aesthetics to the development of ecological architecture. Through the analysis of architectural structure, we can better grasp the beauty of different styles of architecture.

## 1. Introduction

Architecture is an artificial environment created by people in order to meet the needs of social life by using the mastered material and technical means and certain scientific laws, cultural concepts and aesthetic rules [1]. Architecture is an indispensable part of people's daily life. It provides necessary living space for human beings. The idea embodied in the process of architectural design can find a theoretical basis in philosophy. Mankind has never stopped exploring and pursuing beauty. Since breaking away from the ignorant era, mankind has consciously participated in various practical activities of discovering beauty, creating beauty and exchanging beauty [2]. Ecological thinking has gradually become a new architectural thinking mode. With the enhancement of global awareness of ecological environment protection and people's ardent expectation for social sustainable development, this new thinking mode will further have a profound impact on the whole planning, architecture and even human settlements [3]. The new model of contemporary architectural aesthetics, in its philosophical essence, has gone beyond pluralism on the basis of negating dualism, and then pursued a complete non dualism [4]. The connotation of architectural beauty is rich, and the architectural forms are different in different periods, regions and cultural backgrounds. The difference of its manifestation depends on the difference of architectural

structure, and different architectural structures show the architectural beauty of different styles [5].

Today's worldwide architectural and ecological problems make people increasingly deepen their thinking and attention to the ecological environment. Many planners, architects, landscape designers and public managers, and even some sociologists, humanistic history and geographers have discussed the connotation of architecture and landscape from the humanistic perspective of human settlement and Architecture [6]. When people enjoy the great achievements brought by economic development and urban construction, they should also pay attention to the damage of urban modernization to the original structure of the city [7]. Compared with the narrative art of painting and sculpture, decorative art is an act of transformation and integration, an abstract and stylized expression of the objective world, and belongs to a higher level of artistic refinement and creation [8]. Architecture is the art of three-dimensional space. It is not only the integration of functional components, but also the centralized display of a national painting, sculpture and other plastic arts [9]. In the process of urban modernization, we should protect the original structure of the city, achieve mutual coordination between new buildings and original buildings, and can not blindly pursue landmark buildings and non personalized buildings, so as to ignore the original structure of the city [10]. Based on this, this paper analyzes the reasons for the beauty of things from the perspective of structuralism, and expounds the significance of architectural aesthetics to the development of ecological architecture.

## 2. Building Structure and Its Concept

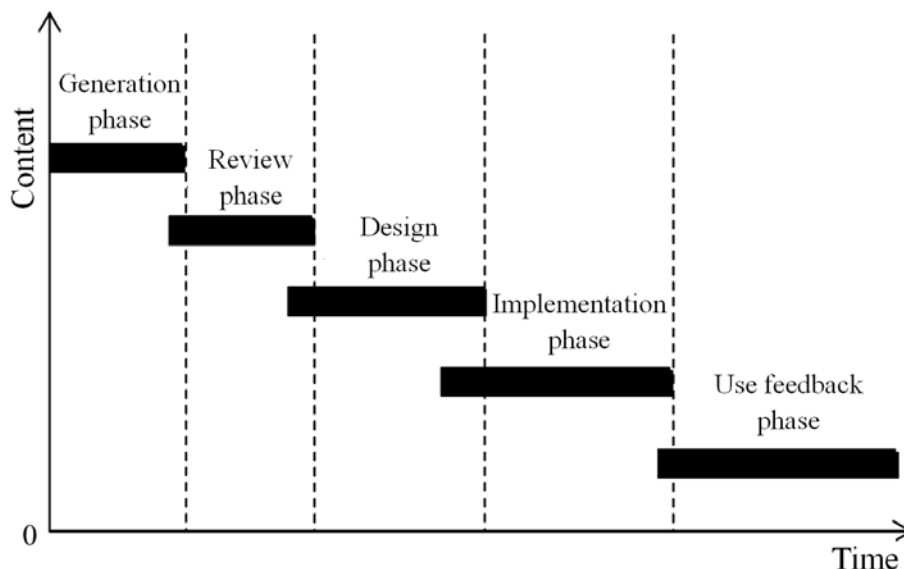
As a kind of beauty, architecture must meet the requirements of beauty before it can be called beauty and art. And any kind of art, or any piece of art, must rely on some appropriate means of expression to express its intrinsic meaning. The expression means it uses must also conform to the artistic laws, so as to conform to the meaning of expression and highlight the effect of expression and its deep meaning. In architecture, it is a functional system formed by integrating various materials, which plays the role of skeleton and provides support for architecture. Therefore, the designed building structure often gives people a safe and strong psychological feeling. With the progress of science and technology and the continuous improvement of the performance of building materials, the change of architectural structural forms is dizzying. Contemporary bionic architecture applies the rational structural forms in nature to the structural system of buildings, providing a broader space for architectural creation [11]. It is the early introduction of rhythm. People can grasp the aesthetic elements of music and other arts through rhythm, and then produce a deeper aesthetic experience. This aesthetic experience is a kind of body odor, that is to say, besides the perceptual experience, there is also a spiritual feeling.

The development of modern building technology has broken the limitation of traditional building structural materials, which makes the building structural design capable of acting as a load-bearing system and at the same time showing its characteristics of lightness, femininity, stiffness and straightness. The abilities of architectural designers and engineering structural designers are interrelated. As far as architecture is concerned, the so-called rhythm means that we do orderly movements with the deduction of time on the basis of space, so that architecture has become a well-known art of combining time and space. The rhythm embodied in architecture is produced by combining the elements of each part of the space with the spatial changes of architecture from outside to inside and then to outside in this time and space crisscross. Different from being able to grasp the rhythm of music directly by hearing and appreciate its rhythm, it is a deeper experience to gain rhythm and rhythm in the process of appreciating architecture, which requires the appreciator not only to have certain architectural knowledge, but also to have rich imagination and comprehension.

### 3. Structuralism in Architectural Aesthetics

Architectural beauty, as a kind of beauty, is as common as other types of beauty, but it also has its particularity. When we combine the beauty of architecture with the viewpoint of structuralism, the beauty of architecture can be more fully reflected. Contradiction and unity in architecture means that there is a certain conflict in form and function among all elements of architecture, but this conflict is relative, not absolute. All elements should serve the main purpose, function and form of architecture. Under the guidance of this main purpose, various elements in the architecture which are in conflict with each other are merged together and become the organic composition of the organism of architecture. Ecological aesthetics is based on the harmonious coexistence between man and nature, and starts from the harmonious state of natural ecological circulation system to comprehend the inherent characteristics, ecological characteristics and value characteristics of natural beauty, which embodies the inclusiveness and openness of modern aesthetics in multicultural society. Traditional anthropocentrism emphasizes that the essence of aesthetics should be human being as the main body, and aesthetics should take human world outlook and values as the main body value standard, while the value orientation of ecological aesthetics is to pay attention to the harmony and unity of human being and nature, and the mutual integration and symbiosis of subject and object, and strive to improve the spiritual realm and aesthetic taste of human being while constantly exploring the universal aesthetic value of nature [12].

Modern architecture should adopt an open and continuous way of dividing the whole space, and truly unify the indoor and outdoor space, so that the building has a sense of wholeness, instead of treating the building as a separate entity, so that the building and the surrounding environment can complement each other and develop harmoniously. For an architect, it can't be ignored to create a building with functional and formal beauty. The architectural form should conform to the function, while the function should create the form, so as to achieve the unity and harmony between functional beauty and formal beauty. Figure 1 shows the temporal relationship among the various stages of construction technology.



*Fig.1 The Relationship in Time between the Various Stages of Construction Technology*

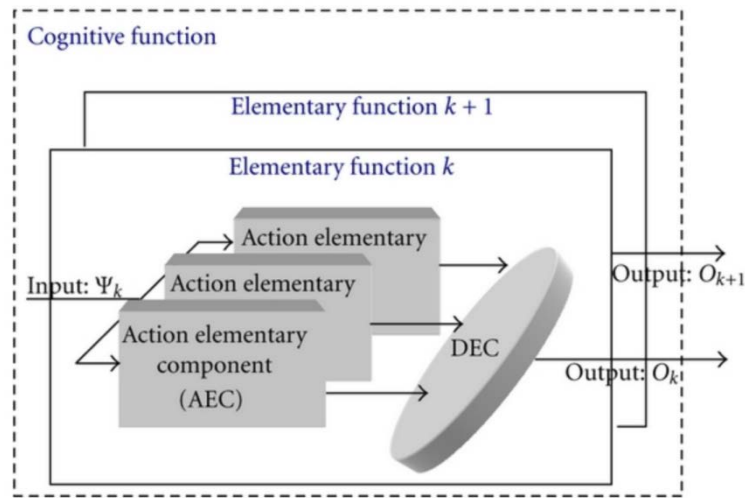
Any architectural space is aimed at people, which is necessarily purposeful, so the attribute of safety has become one of the inherent essential attributes of architecture. This necessary attribute is combined with the structure and space of the building, which complement each other and bring out

the best in each other, thus forming the balance and harmony between the space and security of the building. In essence, the balance and harmony between the space and safety of buildings means that the spatial structure of buildings can provide the necessary guarantee for the safety of buildings. Safety is relative to people's safety, and is intrinsically related to people. This determines that the safety of natural space is only an accidental phenomenon for people. With the development of architectural technology, besides supporting the architectural system, architectural structure plays a more diversified role in architectural design. The exploration of architectural structural aesthetics can not only enrich the types and forms of architectural modeling, but also provide more possibilities for aesthetic development. When the architectural structure shapes the purposeful architectural space, that is, when the architectural structure and the architectural space reach harmony and balance, the beauty is reflected. Giving beauty is not only a kind of formal beauty, but also can rise to a higher level on the basis of visual formal aesthetics.

#### **4. Thoughts on Contemporary Architectural Aesthetics and Architectural Technology**

##### **4.1 Multi Element Infiltration of Architectural Aesthetics**

With the abundance of material resources, buildings not only provide shelter for human beings, but also are endowed with more meanings. It has also become the pursuit of modern people to highlight the art of buildings. We can see that more and more buildings with artistic flavor have been built, while buildings in the war years a hundred years ago are rarely rich in artistic flavor. Architects must place buildings in the natural environment, and take the relationship between buildings and environment and between buildings and people as the primary goal in the aesthetic process, so as to have aesthetic comprehensiveness. With the development of economic globalization, the architectural design in many countries embodies the fusion of western culture and oriental culture, which can not only show the firm belief that the city is in line with the world, but also retain the architectural design style left behind by the influence of traditional culture. With the continuous deterioration of ecological environment, human beings must consider their own healthy development and the improvement of natural environment as a whole. At first, ecological architecture came into being and developed just because of solving a series of major problems threatening human health and survival, such as environmental degradation and lack of resources. Architectural aesthetic theory also holds that ecological architecture serves human beings and aims at harmonious coexistence with nature. Looking at the ancient buildings in western countries and China, the aesthetics and technology of every building are closely related to people's aesthetic concepts and architectural means at that time. Figure 2 shows the cognitive structure system of aesthetic images.



*Fig.2 Aesthetic Image Cognitive Structure System*

Judging from the great buildings preserved in history, all architectural arts called miracles are the best combination of aesthetics and technology. Scientific and technological progress has greatly enriched the use of building materials, and the structural materials of buildings have also broken through the boundaries of traditional bamboo, wood and stone. Excellent ecological buildings should also meet the physiological and psychological needs of users, which is the health characteristic of ecological buildings. This requires us to strive to create a positive, healthy and progressive building and environment, so that human beings can feel the innocence and tranquility of nature in their living places. Architectural aesthetics not only emphasizes the subjective initiative of human beings in the aesthetic process, but also does not deny that the cognition of beauty requires the existence of an object. The beauty of ecology is based on the aesthetic standard of harmony between human beings and natural ecological environment. Under the goal of maintaining the common vision of social sustainable development, this aesthetic standard will be more and more in line with contemporary public aesthetics, and will certainly be more and more in line with human requirements for livability of environment and architecture.

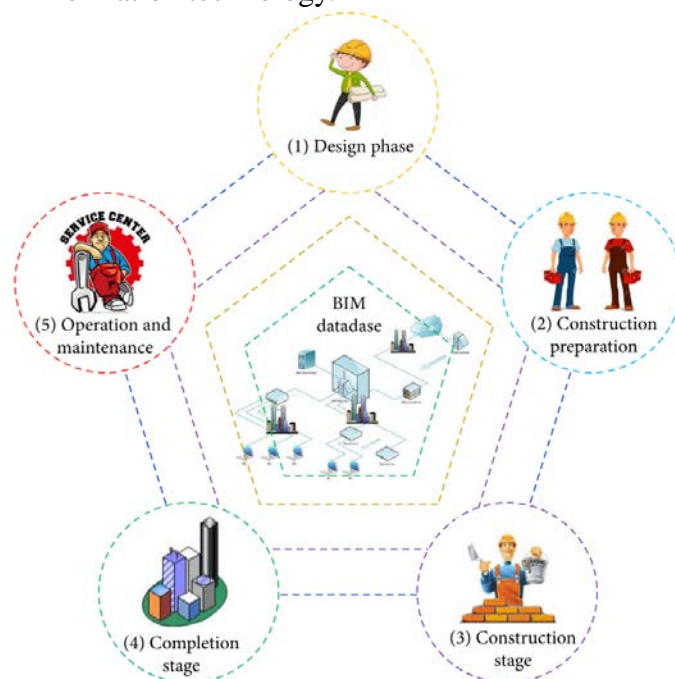
#### **4.2 Innovation and Development of Building Technology**

Architectural aesthetics is precisely because it has its unique ecological aesthetic standards and ecological aesthetic characteristics in line with the scientific concept of development, which will attract more and more people's attention and play an increasingly important role in ecological architecture and social development. The progress of architectural technology not only promotes the development of architectural art, but also often becomes the premise and basis for the development of architectural art. On the one hand, if the development of architectural art lags behind the progress of architectural technology, the inherent concept of architectural art can easily be transformed into a conservative force. On the other hand, if the development of architectural technology and art can't match, the expression of architectural art will fall into an embarrassing situation. The development of human society should be based on the premise of not endangering the balance of the earth's ecosystem and on the limit of not exceeding the supply of resources. To solve the contradiction between human demand for natural resources and the restriction of resources on human development, human beings must cooperate well with nature. The harmonious feature of architecture refers to the harmonious balance between the functional needs of human life and production and the support of natural resources, which not only meets the use needs, but also

maintains regeneration and forms a virtuous circle. By analyzing architectural beauty with structuralism, we can get the artistic rules of architectural beauty and understand the internal relations between architectural structure and material properties, information forms and environment. These theories have played a very important role in analyzing the influence of building structure. Architecture not only guides the construction of values in our thinking level, but also shows the humanistic and ecological concepts in architectural design.

### 4.3 Integration of Aesthetics and Technology

A good ecosystem must follow the natural material circulation and energy conservation, which is also the basic requirement of sustainable development of human society. In fact, the basic spirit of sustainable development is just the above coordination and permanence. Cultural diversity will lead the style of architectural design to be different. Compared with traditional design concepts, modern architectural design pays more attention to the strangeness and novelty of architecture. If you want to turn these architectural designs into objective architectural entities, you need certain technology as support. The present situation of contemporary architectural development is mainly manifested in the integration of nationality and characteristics of the times. Although architects have different understandings of nationality, they integrate national culture into contemporary architectural design according to their own experiences and opinions and in combination with different situations. Therefore, although there are many contemporary buildings around the world, we can still get a common feeling from the most representative works in each country through different styles and appearances. If the building design and construction process destroys this harmony, the material circulation and energy conservation of the ecosystem will be broken, thus destroying the conditions for the continuous existence of life. Figure 3 shows the data source of the building information database based on modern information technology.



*Fig.3 Data Source of Building Information Database*

Ecological architecture pays attention to the compatibility and coordination between human development and nature, so it has the permanence of development. Science and technology have duality at any time, but there are no obvious advantages and disadvantages in itself. The key lies in

how humans use it. As far as architectural art is concerned, only the progress of architectural technology can drive the development of architectural science, thus creating higher achievements in architectural art.

## 5. Conclusions

Chinese contemporary architectural design is in a new period of development, that is, it gradually gets rid of the blind worship and application of western foreign design forms, and begins to pay attention to the national cultural psychology and aesthetic pursuit. In the era of pluralistic and open globalization, foreign technology and art are facing unprecedented fierce collision with local culture, and how to absorb and inherit it is an important issue before us. The core of traditional aesthetics lies in the unique way of observing the objective world and visual psychology, as well as the unique understanding of nature, place and even life, instead of just misappropriating specific cultural symbols. In today's era of pursuing individuality and fashion, discordant and disunity elements such as being unconventional and seeking novelty by novelty can make people feel thrilling and interesting. All these are worthy of serious consideration by contemporary Chinese architects and design theorists. The perfect combination of new architectural technology and art can create a new technical aesthetics system, and the new technical aesthetics can create an architectural form as humane as traditional architecture. This unique design not only fully demonstrates the superb technical level of contemporary architecture, but also makes us realize that the future development direction of architecture should be the perfect combination of highly rational technical system and strong expressive force.

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