Analysis of the Enlightenment of Wright's Organic Thought to Chinese Contemporary Architecture

Wang Lu
Institute of architecture, Nanyang Institute of technology, Nanyang City, Henan Province, 473004, E-mail 31356973@qq.com, China

Abstract: Frank Lloyd Wright is one of the most important architects in the United States in the 20th century. His idea of organic architecture has a great influence on the modern architecture of the world. The contents of "nature","organic" and "unity of nature and man" in organic architecture have been recognized and paid more and more attention all over the world. By analyzing the relationship between Lai's unique machine architecture thought and Chinese classical philosophy, the application value of organic thought to Chinese contemporary architecture has been found.

1. A Brief Analysis of Wright's Thought and Works
Wright's organic architecture theory also guides us to find a suitable form of architecture: it is not to find its own form and material from traditional forms and materials. It is a developing process to integrate all kinds of contemporary and future human life styles. Ecological architecture, super architecture, green city and "growing" city will become the development direction of organic architecture in China in the future, which will also be the more in-depth inheritance and development of Wright's organic architecture thought.

1.1 Brief Introduction to Wright and Organic Buildings
Frank Lloyd Wright (Frank Lloyd Wright 1867-1959) is a great architect, artist and thinker of the twentieth century. Wright created a large number of architectural works during his unusual 72-year career, publishing a large number of books, papers, speeches, both his architectural works and book papers reflect his organic architectural ideas, organic architectural ideas and have a great impact on the construction industry in the United States and the world, and to this day also has great guiding significance. Organic architecture English is the "organic" in Organic Architecture, architecture, which is a reflection of Wright's belief in natural pantheism. In biology, organic corresponds to organism. The so-called "organism" is the "nature of life in the organism, including people and all animals and plants... It shows a series of life phenomena through the movement form of metabolism. At the same time... Form a unity of opposites ,"[1][2][3]

Wright believes that the concept of organic architecture is the concept of "living ", which means

[1]Cheng Qingsong. Analysis of Wright's Architectural Design Concept and Viewpoint from Water Villa. J], 《 Shanxi Architecture ,2007.

[2]Ibid.

[3]Xiang Bingren. A Series of Foreign Architects-Wright. M], Beijing: China Construction Industry Press ,1992.
that architecture is similar to all organic life and uses the word creatively in architecture, meaning that part is the same as whole and whole and part. Here the so-called organic architecture is the living expression of human spirit, living architecture. Such buildings, of course, must be a true portrayal of human social life. He designed more than a thousand buildings in his life, but the "organic building ", which best embodies the structure and human nature as well as the environment, is the most remarkable. From the following data analysis chart, we can see that Wright's organic building is gradually established. (As shown in Figure 1)

![Increase in the number of Lai-specific buildings](image)

**Figure 1** Data Analysis Chart for Organic Buildings 1910–1960.

1.2. Organic architecture is "natural" architecture

Wright's idea of organic residential design is to be concise, and he also has his unique views on simplicity. Wright argues that "simple poverty is by no means simple ". Therefore, Wright is extremely opposed to the indiscriminate removal of expressive decorative behavior. Wright's brief introduction language of organic architecture fundamentally negates the concise theory of "less is more ", and replaces it with the development of structural structure in the true sense of" simplicity ". Wright is a romantic architect with passion for life, and romance has become one of the formal languages of his organic architecture. For example, Wright's famous water villa (As shown in Figure 2) is a classic architectural work that combines architecture with nature.

![Wright's famous water villa](image)

**Figure 2** Wright's famous water villa.
This flowing water villa covers an area of 380 square meters, and the outdoor balcony area has reached 300 square meters. The building is divided into three floors, the bottom floor is directly near the water, set up living room, dining room, kitchen and other space, a string of hanging ladders can make people pick up from the living room, direct to the water, local materials of stone wall simulation of natural rock texture masonry, just like Tiancheng.

The surrounding trees grow in the composition of the building, waterfall spring water flow down, natural ecology and artificial products as one and echo. Interior decoration is also a refined product. In order to get access to the inside and outside, Wright specially designed the vertical lattice window and the glass embedded in the stone seam. Wright's "romance" makes architecture poetic. From this, we can get the five principles of Wright organic building, as shown in the following figure 3:

![Figure 3 The five principles of Wright organic building.](image-url)

Wright's architectural works are full of natural flavor and artistic charm, the secret of which lies in his unique views on materials. The pantheistic view of nature determines Wright's respect for the natural properties of materials. He not only observed the strange ecology of the vast biological world in nature, but also studied the internal properties of materials, including morphology, texture, color, mechanical and chemical properties. Wright pays special attention to the proper use of materials in architectural design. He believes that the texture of materials in particular can make the form more meaningful and the design more magnificent. Therefore, fully expressing the internal potential and external form of materials is also an important part of his concept of organic architecture. Wright believes that the study of the properties of materials is the first important issue, and it is impossible to do things that are not understood at all. Therefore, it is particularly important to have a deep understanding of stone, glass, wood, clay, cement, steel, concrete, etc., and to know how to use these materials realistically and properly and skillfully.

2. Analysis of Problems in the Development of Contemporary Chinese Architecture

The proportion of construction industry in various industries of national economy is second only to industry and agriculture, which plays an important role in the development of our economy. The China Construction Industry Association issued the Statistical Analysis of Construction Industry Development in the First Half of 2020, which showed that the number of construction enterprises and labor productivity increased by 10.76% and 4.78% respectively, while the output value and the area of completed housing decreased by 7.84% and 12.57% respectively. The data show that in the first half of 2020, Jiangsu still leads the construction industry in all regions of the country. The total output value of the construction industry continues to exceed 1 trillion yuan, reaching 1242.868 billion yuan,
accounting for 12.33% of the total output value of the national construction industry. As shown below figure 4:

![Figure 4: Output value of construction industry by region in the first half of 2020.](image)

It is not difficult to see from the above data analysis chart that the blind expansion of contemporary Chinese architecture and the excessive growth of personnel lead to the separation from the natural environment and even the serious destruction of the natural ecological environment in the process of construction to completion. Especially in the construction process of residential buildings, the neglect of the construction site makes the construction practice tend to mechanization, that is, the construction site is recklessly leveled with machinery, and everything is unreserved for the construction site. After the completion of the building, artificial imposition of some so-called "nature" that does not belong here is bound to cause the separation of the building from the natural environment and destroy the original natural ecology. In recent years, some rich people's consciousness of natural ecology has been "improved", so they blindly try to find ways to the suburbs of the city, rural areas, to build "natural", "ecological" "private housing, these buildings are often isolated from the surrounding natural environment, no protection of nature, some even to the natural ecology, natural beauty have caused a broken ring. Other public officials, in order to meet their needs, occupy good farmland to build villas, which not only destroyed the environment, but also caused the loss and waste of good farmland in the country. There are more blind construction of resorts, sanatoriums and so on, but also "green" and "ecology", completely ignoring China's own natural environment.

On the one hand, the form of architecture is simple reproduction and "take-in doctrine", but in the urban development and humanistic environment, it pursues the avant-garde development of urban form too much and neglects the humanistic environment of architecture. In the early stage of reform and opening up, some large and medium-sized cities, including special economic zones, were building buildings on a large scale, and a large number of unstyle "square box" houses were built in pieces. In recent years, although many real estate developers have realized the importance of architectural design, they often build "shanzhai" versions of some European and American residential buildings, or developed properties in southern cities. Get other cities or use the same drawings to build again. Such architecture has no personality, resulting in the lack of architectural form in this era of our country, a large number of garbage buildings without style and aesthetic sense. On the contrary, many architectural designers go in another direction, paying too much attention to the formal design of architecture and neglecting the function. Because few people are willing to admit that they do not understand, so like the emperor's new clothes, majestic. The study of deconstruction, postmodernism, minimalism and other architectural styles abroad is also a little understanding, so we should understand the classification of modern architectural styles, as shown in the figure 5:
Most of the above modern architectural styles do not understand, because of the lack of architectural history and basic knowledge to learn its surface and ignore the inner, think that the more strange the shape is deconstruction architecture, The random overlap of architectural styles is called postmodernism architecture, and many ugly buildings have been built.

Revelation of Wright's Organic Architecture Thought to Chinese Contemporary Architectural Design

The classical philosophy of our country often regards "advocating nature", "the unity of nature and man", the combination of architecture and nature as a characteristic of Chinese traditional architecture different from western architecture, and the organic architectural thought put forward by western modern architect Wright also embodies such philosophical thought content, which is the result of the collision and fusion between Chinese classical philosophy thought and modern architecture. In Laozi’s philosophy, man is a part of nature, that is, heaven and earth, and man should learn from nature. In fact, it is the earliest theory of "the unity of nature and man" in ancient China. Heaven and people are a whole, and only in harmony can they achieve long-term coexistence. This whole design thought of "harmony between nature and man" has a profound influence on ancient Chinese architecture and even western architecture.

Wright’s theory of organic architecture is the combination of Taoist thought and modern architectural design. He advocates nature and regards nature as the land where his architecture grows. He should unify nature with human living environment, and his architectural works become the best combination point for him to advocate the unity of nature and man. His architectural style tends to naturalize, pays attention to the harmony between nature and man, emphasizes the internal whole relation between modern architecture and natural form, skillfully uses natural scenery and house structure, uses the intermediary of house to close the relationship between man and nature, and makes people feel the affinity of nature more strongly.

 Nowadays, the Chinese architectural circles actively absorb the new culture of architecture in the world, and make certain achievements in the exploration of organic architecture, and reflect certain organic architectural ideas and design methods. Since the evaluation and marking of organic green buildings was carried out in April 2008, up to December 10, 2015, the total number of green building marking projects issued by the Ministry of Housing and Construction has been 3636, of which 1098 items have been added in 2015. A record high in the same period. As shown in the chart below figure 6: 

---

[4] A Brief Analysis of the Application of Taoist Design Ideas in Organic Architecture. Journal of J], 《 Liaocheng University, No.3, 2006.

[5] Ibid.
Figure 6: Ministry of Housing, People's Republic of China
Green Building Evaluation Marking Year by Year Project Statistics.

From the statistical data over the years, we can see that the number of organic green building evaluation and marking projects is increasing year by year, and the number of high-star projects is increasing year by year. Green building will become a necessary design option, the number of green building logo projects will increase significantly in the next few years. On the whole, the theory and practice of organic architecture in contemporary China is still in its infancy, and the experiment and exploration in practice are still in the process of development, which requires us to try and discover constantly. Find a suitable development model for yourself. Since the reform and opening up, although it can not be said that the Chinese architectural industry has formed the design school of organic architecture, Wright's organic architecture thought has given great guidance to the Chinese architectural industry. In recent years, one successful building after another has been built from China, whether it is a local designer or a western architect, the building built in our country contains the concept of organic architecture. The sense of space comes from the objects of nature itself. He imitates the characteristics of plants to create different levels of space sense, combines the house with one tree and one tree in nature, and he achieves the free use of nature and man-made space. It should be pointed out here that Laozi's nature is not equal to Wright's nature, Laozi's nature is a kind of concept including specific natural environment, and Wright's nature refers to specific nature. But both started from nature and finally settled on "use ", which made them unify the concept of space and organic architecture.

Wright's organic architecture thought makes our classical philosophy thought be used and embodied in modern architecture, so organic architecture thought should be used by us, so that Chinese contemporary architectural design can meet the requirements of "Tao ". Build more harmonious architecture with nature and human beings, but also make our architecture more traditional philosophy.

3. The Development Trend of Organic Architecture in China
China's Green Building Depth Analysis and Development Planning Advisory Recommendations 2016-2020, The national green building marking projects are distributed as follows according to the type of building, 48.6 per cent; A total of 1840 public buildings, 50.6 per cent; A total of 30 industrial buildings, 0.8%, At present, there are few green industrial construction projects in the country, Only seven new industrial buildings were added in 2015. The green building marking projects are distributed as follows by region: Jiangsu, Guangdong, Shandong, Shanghai, Hebei, It accounts for
nearly half of the total number of projects in the country. As shown in the figure 8:

![Figure 7](chart2020geographicaldistributionofevaluationmark.png)

**Figure 7** Chart 2020 Geographical Distribution of Evaluation Mark for Organic Green Buildings.

The ideological wisdom of "the unity of nature and man" and "the nature of Taoism" in China has been in a weak position in the course of the development of modern Chinese architecture. The concept of organic architecture makes Chinese contemporary architecture raise such ideological wisdom to a new height. In order to introduce greening into indoor space and satisfy people's visual appreciation, it can effectively improve indoor air quality and improve "artificial space ". Ecology is not just green.

China is currently at an unprecedented rate of urbanization development. In the face of the worsening environment and the increasingly crowded city, the urban residents yearn for the prosperous life at the same time, more and more eager to return to the traditional simple life and close to the living environment of nature. The future city will be closer to nature, re-establish a balance between greening and architecture, and create more "green space ". The construction of urban network greening system similar to road system in crowded cities can provide people with green places with functions such as activities, communication and so on, and establish a new kind of "primitive human nature space ". A large area of green space can beautify the environment, purify the air, and provide a "natural" venue for people to meet with family, friends or sports. For mountain cities, more creative is to combine urban architecture with mountain form, create a "terrace" type of green city, so that each building wants to grow from the mountains, sloping land. Every stage of the development process of Chinese cities should selectively retain historic representative buildings, so that our cities can leave visible "growth" traces in the process of development, accumulate dots in the process of urban development, The process of "organic renewal" of the old city to the new city is recorded in the form of architecture.

4. Conclusions

Lai's unique machine architecture theory has played a great guiding role in different fields of architecture in China, such as architectural design, old urban reconstruction, interior and exterior design of buildings, and has been fully reflected in the architectural works of our country. And our architects have not only limited to Wright's organic theory, but also think and develop it. The natural and organic factors in the thought of organic architecture are also one of the essence of Chinese traditional culture, which is very worthy of reference by contemporary architects in China. If Wright's organic architecture thought can be more widely understood and applied in our country, it will be a
better development of my contemporary architecture, and will also reduce the unimaginable architecture on our land. More importantly, the natural ecological environment is protected, the historical context of the city continues, and the contemporary architecture of our country is more harmonious and sustainable.

Acknowledgments
Thanks to the staff of the meeting for their help and encouragement, as well as the editor's patient guidance, can be completed.

References:
[1] Liu Xianjue.(1996), New Trends in Bionic Architectural Culture. J. World Architecture, pp .55-59.
[2] Pan Haixun. (2006),Architectural Curve and Group Design, J.World Architecture.
[3] Zheng Qingsong. (2007),Analysis of Wright's Architectural Design Concept and its Viewpoint from Water Villa. J.Shanxi Architecture.
[4] Tang Lina. (1998) On Wright's Organic Architecture. Journal J. Guangxi Institute of Technology. pp .22-25.