

The Enlightenment of Chinese Traditional Creation View on Modern Design

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Abstract—In the context of the development of modern design, this paper takes the traditional creation view integrate into modern design as the starting point, analyzes many problems arising from modern design in the process of industrialization. Based on this, it focuses on the relationship between traditional creation view and material property, functional form, technical law and ecological harmony these four design elements; it is a positive enlightenment for inheriting traditional creation view and promoting the development of modern design.

Keywords—creation view; design; traditional culture

I. INTRODUCTION

Creation is the most important creation in the activities of human beings transform the world, the idea of creation is the source of design inspiration and the foundation of design development. In the scientific standpoint, the ancients achieved a harmonious unity of science and art during the long-term creation activities. This valuable insight is derived from the traditional creation view. For this reason, we must inherit and develop the excellent traditional ideas and values, and organically combine with modern design, in order to inherit the new design thinking in the new era.

II. THE FACING PROBLEMS OF CHINA'S MODERN DESIGN

In recent years, industrialization and informatization have brought earth-shaking changes in social life, and the rapid development of the economy has improved people's living environment. The social structure of the new situation, new social culture, and new materials emerge in an endless stream, and the use of new technologies has made the design behavior constantly adjusted. In order to pursue the expected effect, the normalization of design behavior is gradually reduced. As the social pressure increases, some designers are not concerned with how to deeply think about the true essence of design, but put energy on what kind of design could attract consumers. In order to maximize the commercial interests, the design behavior does not hesitate to pay the price, material waste, loss of function, ecological destruction, personal health are the price for the un-ordered design, completely forget the original essence of the design activity. Therefore, we need to inject new design ideas to re-regulate the creation activities and make the creation activities develop healthily. In my opinion, modern design faces the following problems:

A. Material Waste

Due to the increase in life pressure, some of today's designers are in a state of self-lost. Forced by the pressure of work or the pursuit of commercial economic interests, some toxic materials and disposable white plastic packaging bags are used, food tableware produces rubbish etc., which is continuously frittering away the moral principles that designers should have.

B. The Misplacement of Formal Functions

For example, during the holidays, the products in the supermarket are dazzling. What attracting consumers are not the practicality of the function of the products, but are whether the packaging of the products is exquisite and luxurious. Such products actually cause waste of resources and environmental pollution, distorting the appearance of modern design, and are contrary to design ethics.

C. Crude Production

In recent years, the emulational mobile phone has been made by blindly learning from foreign products and a large number of digital consumption products that are similar in appearance but with bad quality have been made. It consumes a lot of manpower and material resources, and also destroys the overall product market, no practical and innovative design at all.

D. Environmental Pollution

China is currently one of the most polluted countries in the world. In recent years, North China and even the entire northern region have often been covered by smog. The major media are concerned about the harm of PM2.5 to society and people. While we concerned about the sustainable development of the environment and resources, we must pay more attention to the development of the public's physical and mental health. Therefore, how to make people-product-environment coexist harmoniously is the main problem that designers faced today. This problem requires more in-depth design ideas, and changes the current unfavorable situation from the root.

In Chinese traditional culture, the ideology of Confucianism, Mohism, Taoism, Law, and Buddhism is broad and profound, which provides us with useful theoretical guidance. Among them, Laozi's "inaction", Confucius's

“benevolence”, Mencius’s “nature is good”, Mozi’s “non-musical use”, and Han Feizi’s “legal” are all concentrated expressions of ancient creation design ideas, and these creation ideas provide theoretical guidance for the development of contemporary design. The author will discuss and analyze it from material property, functional form, technical law, and ecological harmony four aspects, which may bring some enlightenment to solve the current problems.

III. INTERPRETATION OF TRADITIONAL CREATION IDEAS AND DESIGN ELEMENTS

A. *Studying the Material and Best Skill Is to Follow Its Nature — the Material Property of Design*

"Zhou Li·Kao Gong Ji" recorded: study the material, so that you are able to tell the five materials, to distinguish the civilian device, that is, master worker. Study the material, observing the situation, rectifying the five materials, making the utensils, so they can be called masters; among the country's six major occupations, master worker is one of them, along with royals, scholar-officials, businessman, farmers, women worker. Master worker made craftsmen, and today's so-called design, is within this category.

The workers created things, and the material is taken from nature. Treating the five materials of nature, "Kao Gong Ji" said: "Shen Qu Mian Shi", "Shen" means watch, "Mian" means the aspect; the "Qu" means the object shape, the "Shi" means the physical property. "Shen Qu Mian Shi" means watch and study the external appearance of the material to understand the intrinsic properties of the material. It includes texture, size, color, function, etc. Through these rigorous examinations, the most accurate estimation and judgment is made, both observation and imagination, which is it is necessary to respond to various factors and to have the ability to be flexible. The principle of "Shan Duo Cai" is also put forward in "Zi Ren Zhuan". The intention of using heart and wisdom to nature in creation, which reflect people's attitudes and concepts toward nature, constructed according to materials, design the shape based on the material so that to make the best of the material.

In traditional Chinese crafts, the use of materials is based on the characteristics of the product design. For instance, Ming-style furniture gives us a good example. The overhead structure of wood is the main structural form, with a unique uniform, simple and beautiful shape. Ming-style furniture not only has the beauty of the material itself, but also uses the color and texture of the wood to form the distinctive characteristics of the furniture, which makes the Ming-style furniture look immortal and atmospheric in “Fig. 1” The enamel structure is adopted in the production, the whole circle chair has no nails, craftsman does not add lacquer during the production, and makes full use of the natural color and texture characteristics of the wood. Functionally, the Huanghuali circle chair conforms to the basic principles of ergonomics, even if it is a tough material that is comfortable and solid to sit on. In form, it presents the natural beauty of natural carving, the design concept of perfect combination of shape and quality of Ming-style furniture has a profound impact on modern and contemporary furniture design.

The basic guarantee of the natural form or artificial form and even the existence of the material world are all based on materials. The material has an important influence on the form beauty of the design. The use of different materials, including its color, quality, texture and other elements, will generate different sensory and psychological differences to the user, such as the flexibility of the leather, the warmth of the wood, the hardness of the metal, and so on. In product design, all kinds of materials are not only the attachment of internal functions, but also the medium for communication between people and products, at the same time it also greatly satisfied people's aesthetic needs. For example, the ASUS S6 has successively launched leather laptops, in “Fig. 2” and bamboo material laptop. Due to the physical and chemical properties of these materials, a unique texture and effect have been added; the unique features and beauty of the materials are fully displayed in the design, which has become an indispensable condition in modern design.



Fig. 1. Huanghuali circle chair in the Ming Dynasty.



Fig. 2. ASUS S6 pink leather laptop.

B. *Beauty and Kindness, Simplicity and Decoration — the Form and Function of Design*

Confucius said: "If simplicity is more than decoration it will be rough, if decoration more than simplicity it will be superficial. Simplicity and decoration should be balanced so a person can be called Junzi". The organic unity of form and content in design is the unity of "beauty" and "kindness", "simplicity" and "decoration". From the design point of view, "wen" is the appearance and form, "zhi" is the content and function, Confucius advocates the theory of balance, and rejects the two-sided tendency of "simplicity wins decoration" and "decoration wins simplicity", only to achieve a gentle balance, that is, the unity of simplicity and decoration, so that it can be described as a good design. The unity of simplicity and decoration is the unity of beauty and kindness, that is, the

unity of form and function, aesthetics and practicality. That is, the harmony of emotional needs and moral rationality, in line with the state of "decoration" and "use" of creation.

From the relationship between beauty and kindness, simplicity and decoration, Mozi also put forward the emphasis on the aesthetics, that is, the relationship between form and function: "Only after we often feel full, then we will start to pursuit delicate food,; only after we often have enough clothes to wear, so we will start to pursuit beautiful clothes; only after we often have place to live, then we will start to pursuit live happily. So we must first go for simplicity then toward the decoration". It place material needs in priority position and aesthetic needs after that, which is appropriate. Wang Chong, a materialist thinker in the Eastern Han Dynasty, also proposed "the unification of the outside and inside, so that it will match", achieve the unity between emotion and poem, the unity between form and function, all reflect and the connection between beauty and kindness, between simplicity and decoration. "Beauty and kindness, between simplicity and decoration" is the best ideal state for designing products, which in line with people's functional needs and aesthetic enjoyment of objects.

The creation ideas of "Beauty and kindness, simplicity and decoration " made the ancient Chinese design and production proceed in a reasonable and orderly manner, thus realizing the exchange of human relations and the exchange of things and nature, such as the Silver inlay copper cattle lamp in Han Dynasty in "Fig. 3", and "Fig. 4". The structure is reasonable, consisting of four parts: lampshade, duct, lamp body and base; the function is practical and scientific, adopting the Siphon principle, not only it has the basic function of lighting but also protects the air quality. Because the ancient copper lamps mostly use grease as the wick, a large amount of smoke will cause a certain pollution when burning, but a semi-circular cattle-shaped lamp chimney is bent upward and connected with the lamp cover, the chimney has both practical function as a handle, but also it can also be used to suck the smoke and exhaust passage with an environmental protection effect. The smoke guiding pipe is connected with the water storage cattle belly, so the smoke can be directly melted into the water to ensure the cleanness of the air; For decoration, the silver copper cattle lamp body is in the shape of S, the cattle's head is slightly low and the face is dignified, the overall shape is strong and powerful; For craftsmanship, it is exquisite and gorgeous. The carcass is inlaid with silver silk, full of patterns, using various techniques such as gold and silver inlay, lacquer painting, openwork carving, gilding, etc. It has both functional utility and aesthetic value of external beauty, in order to achieve the perfect combination of form and function.



Fig. 3. Silver inlay copper cattle lamp in Han Dynasty.

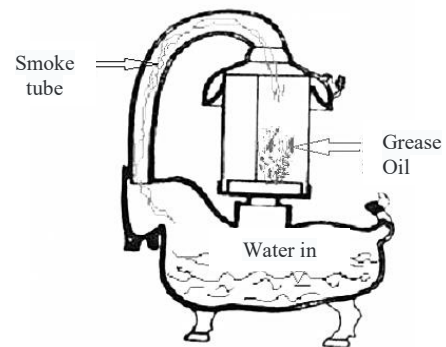


Fig. 4. The Siphon principle of the Silver inlay copper cattle lamp above.

In fact, the design philosophy of "Beauty and kindness, simplicity and decoration" plays a huge role in regulating modern design. First of all, the correct understanding of form and function, it deepened the content of modern and contemporary design ideas in China. The reference to Western design concepts has affected the inheritance of China's ancient excellent design ideas to a certain extent, the development of rationalism has gradually turned into modern formalism, inadvertently losing the ancient Chinese aesthetic standards, resulting in the inability to correctly understand the true meaning of art and craft, and the weakening of practicality make some products flashy. The study of the ethical thoughts of "Beauty and kindness, simplicity and decoration" is conducive to rethinking design activities, grasping the social normative nature of creation behavior, and also conducive to the display of products with Chinese characteristics. Secondly, re-learning the design philosophy of "Beauty and kindness, simplicity and decoration" could prevent the deliberate pursuit of design products with superb surface, slick, and shoddy. It will help to deepen the designer's ideological understanding, establish correct moral concepts and ethical concepts, and help to standardize design behavior.

C. Craftsmanship Beats Nature and Understanding the Truth of Things Will Handle Affairs Successfully Accordingly — the Technology and Law of Design

"Tian Gong Kai Wu" is taken from two idioms, "Qiao Duo Tian Gong" and "Kai Wu Cheng Wu". "Qiao Duo Tian Gong" means that the artificial skill is more flexible than the nature,

describing the skill of the art. "Kai Wu Cheng Wu" means that you can handle all kinds of affairs according to the laws of things and the correct methods. It can be seen from "Tian Gong Kai Wu" that only by constantly enriching and improving one's knowledge and skills, mastering the law of development of things, and supplementing with perseverance, one can create a variety of beautiful and practical utensils. Wei Yuan, a thinker of Qing Dynasty said: "Technology can be close to Tao, art can be like God". When the craft reaches its peak, it can be closer to the "Tao". According to the law of development, the "Tao" can be summarized. Therefore, on the basis of mastering the technology, following the objective laws and exerting its subjective initiative, is the only way to become a wonderful artwork

In the "Zhuangzi · Nei Pian · Yang Sheng Zhu", the story of "Pao Ding Jie Niu" provides us with some inspirations. In the practice process of Pao Ding, at the beginning, the whole cow was in his eyes, three years later, there was no cow in his eyes, and the cow was no longer a complete whole in his eyes. When he dismembered the cow, it was all from his heart, no need to use senses but only rely on the spiritual activities. The dismember movements follows the structure, obeys the law, and it is easy to dismember, just like dancing. In the past 19 years, Pao Ding had dismembered more than a thousand cows, but the blade is still as sharp as always, this is the freedom of craftsmanship for the unity of law and purpose. "Tao" means transcending the level of "skill" and reaching the realm of beauty. "Tao" is the sublimation of "skill". By using or borrow "skill" as a way, you can reach the realm of "Tao" with a high degree of freedom.

The unification of technology and regularity is a necessary condition for excellent design works. Modern design quietly changes people's lifestyle and quality of life. Designing finished products is a materialization process of technology and law. Designers must master certain knowledge and experience reserves and professional skills, on the basis of grasping the rules, apply the techniques, so that such designing products will be more in line with people's life and social development. From the point of view of some current design products, due to the mechanized mass production, under the guidance of the idea of producing for the quantity of profits, a large number of innumerable and inferior products have poured into people's lives, resulting in design products falling down, bringing many inconvenience to people. For example, the design of the wall-in socket in "Fig. 5", the two sockets cannot be inserted at the same time because the interval space is too small; the design of the couplet switches without any sign in "Fig. 6" on the same row of switches make it impossible to know which switch correspond to which lamp; the data line in "Fig. 7" is not possible to successfully connect the computer. Most of the domestic sewer manhole covers are on the blind road, and some even set up electric poles, block pillars and other obstacles on the blind road. Such design makes the blind people more inconvenient, etc. These designs neither reflect the technical advancement or the deep grasp of regularity. In view of this, designers should design according to technology and laws, and the products should be designed in a regular manner, rather than anti-human design. Designers should adopt comfortable, humanized and more reasonable

living styles as one of the standard of design. It can be seen that correctly grasping technology and laws plays an important role in understanding the essential characteristics of modern design.



Fig. 5. Wall-in socket.



Fig. 6. Couplet switch.

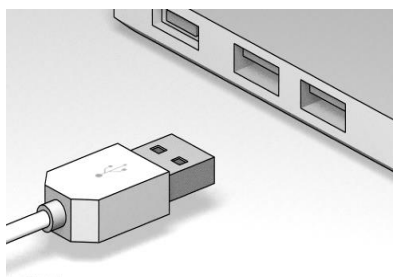


Fig. 7. USB Data line interface.

D. Oneness of Heaven and Human — Ecological Harmony of Design

The philosophical view of "Oneness of heaven and human" is the core of the ancient Chinese philosophy and it is a philosophy of existence. The ancients profoundly understood that human beings are not the masters of nature, but they should maintain the balance of the ecosystem, emphasize human consciousness and self-discipline, and emphasize the ecological philosophy of interdependence, mutual promotion and symbiosis between human and nature.

The ecological harmony thought of "Oneness of heaven and human" also affects various philosophical schools. In Taoist thought, Lao Zi thinks that "human follows the earth, earth follows the heaven, heaven follows the Taoism, and Taoism follows the nature". This is to try to explain the connection between the laws of heaven, earth, and people, it

advocate the nature of heaven, and to emphasize people as a part of nature, should be in harmony with nature and integrate with all things. This undoubtedly contains the wisdom of exploring a harmonious society and the heavens and the earth. Later, Zhuangzi proposed in the "Qiwu lun" that "The heaven and the earth are born with me and everything is the same as me", which further develops Lao Zi's view of heaven and humanity and shows the importance of ecological harmony.

Japanese design is at the forefront of the world in the field of design culture. Japanese designers focus on technology, think about culture, value nature, care for the future, and handle the subtle relationship between man and nature properly in design. Japanese famous designers such as Masayuki Kurokawa and Issey Miyake all praise eco-design. In the "20th Century Design Proposal — the Future Archaeology of Design", Masayuki Kurokawa proposes that the 21st century design is an era of returning to nature and integrating with nature, he believes that the future design will eventually be a fusion of humanity and natural spirit. Starting from the design concept of "new environmental protection", he integrates the idea of ecological harmony into design creation, endows material with life and emotion, and conveys the aesthetic concept of oriental people who paying attention to the communication between human and nature. His designed works are simple, elegant and emotional achieving a high degree of harmony between man and nature. In his design of 'NIRVANA' teapot in "Fig. 8", "Fig. 9", and "Fig. 10", when people touch this artwork, they will feel the ancient and natural, simple and authentic atmosphere. The birth of this tea set will undoubtedly become the work of encounter between modern design and traditional craftsmanship, which awakens people's beautiful memories of traditional lifestyle, which is the true state of natural return.



Fig. 8. Masayuki Kurokawa's "NIRVANA" Iron tea set.



Fig. 9. Part of the "NIRVANA" Iron tea set.



Fig. 10. Part of the "NIRVANA" Iron tea set.

The ecological concept of harmony between man and nature is the harmonious integration of man and nature, and is the ideal state of human design. In modern design, the integration of nature and labor will be the future goal of the designer. The future of mankind will be the future of design, design is the main path for mankind to the future, when we have entered the stage of ecological civilization, and the development of ecological design is of great significance. The understanding of ecological harmony in the traditional concept of creation provides valuable enlightenment for modern design.

IV. CONCLUSION

China's current and future design careers are inseparable from the support of ancient creation design ideas. Scientifically drawing on the traditional design ideas of the nation is the only way to nationalization of design identity. Simply adding traditional color symbols, or copy traditional shapes, such design products have no depth and breadth. By summarizing and analyzing the material property, functional form, technical law and ecological harmony in the traditional concept of creation, this paper may provide a useful supplement for the development of contemporary design. We should seriously study the ancient Chinese creation design ideas, comprehend and grasp the true meaning of it, apply the ancient Chinese excellent creation ideas to modern design, and better serve the modern design, so as to correctly grasp the direction of design and realize the overall harmony of human-product-environment, thus making the design behavior and design results standardized.

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