

The Application of the Wisdom of Chinese Characters in Product Design*

Jun Zhou

School of Design Arts
University of South China
Hengyang, China 421001

Xiangyu Qu**

School of Design Arts
University of South China
Hengyang, China 421001
**Corresponding Author

Peijin Huang

School of Design Arts
University of South China
Hengyang, China 421001

Abstract—Chinese characters are the most important cultural form in Chinese traditional history and culture. It is a tool for daily communication and a bridge for understanding the past; it has extraordinary cultural significance and value. Chinese character construction and product design have the same effect on the method. The integration of Chinese character construction method into product design can display the charm and value of Chinese character culture, enhance the cultural connotation of products, shape the culture value of product, and bring users a new multicultural experience. Based on the structural characteristics of Chinese characters, this paper analyzes the basic features of strokes, parts, and whole character of Chinese characters, as well as the relationship with product design. Combining the three aspects of Chinese characters, such as "shape", "context" and "meaning", the paper takes different Chinese character elements as the prototype and conduct a series of practical product case exploration, analyzes the feasibility of product design of Chinese characters, provides a new design idea for the productization of Chinese character construction wisdom.

Keywords—Chinese character construction; wisdom of Chinese character; product design

I. INTRODUCTION

Since ancient times, people have used Chinese characters to express images, communicate hearts, exchange ideas, and spread culture. The Chinese characters carry the profound traditional cultural spirit and thinking of the Chinese nation and show their tenacious vitality [1]. They have evolved a rich form of expression in the long river of history, providing creative sources for designers to create artistic creations, so it has aesthetic value. [2] Today, when the multiple design concepts meet, the value of this aesthetic function has been paid more and more attention by Chinese and foreign scholars. However, the product variety of Chinese characters in the three-dimensional level is relatively simple, so the

product design of Chinese characters has become an important topic of discussion in the design field. At present, modern Chinese character products are gradually showing a trend from functionalization to emotional pursuit in consumer demand. The artistic aesthetics contained in Chinese character products have become a key factor in enhancing product competitiveness. The author starts with the construction wisdom of Chinese characters and explores its relationship with product design. From the three aspects of "shape", "context" and "meaning", it focuses on how to use construct wisdom of Chinese characters to provide new design ideas for the productization of Chinese characters.

II. THE CONSTRUCTION WISDOM AND ENLIGHTENMENT OF CHINESE CHARACTERS

A. Structural Features of Chinese Characters

In the "Shuowen Jiezi" (Origin of Chinese Characters), written by Xu Shen from the Eastern Han Dynasty, it summarized the characteristics of Chinese character structure into "six categories of Chinese character", namely, Xiangxing Zhishi, Huiyi, Xingsheng, Zhuanzhu, and Jiajie. It is roughly divided into three categories; the first category is "Xianfxing" and "Zhishi", which mainly express meanings based on visual image. The second category is "Huiyi" and "Xingsheng", mainly relying on the reader's "imagination, association" and the logical relationship to express meaning. The third category of Zhuanzhu and Jiajie are all belong to the rules of the character. Each form of Chinese characters is standardized by the evolution of Xiangxing, Zhishi, Huiyi or phonetic characters. From the composition system, the structure of Chinese characters can be divided into three systems: strokes, parts, and whole character. Among them, the stroke system is the most basic element in Chinese character construction, because parts and the whole character are all composed of strokes; the parts can also form a whole character according to different structure combinations. Every stroke of Chinese character is very fascinating. They

*Fund: Hunan Science and Technology Plan Project (provincial key research and development plan) Project No.: 2016SK2040.

have single linear and directional characteristics on the plane; they are continuous and sequential in time and space. It is the linearity and order of strokes to make the visual form of Chinese characters clear and stable and easy to identify.

B. Enlightenment of Chinese Character Construction Wisdom on Product Design Method

As a long-established and mature national culture, Chinese characters have profound enlightenments for product design. There are three specific enlightenments:

The first is the enlightenment of the thinking mode of Chinese character construction on product modeling. Based on the form of natural objects, Chinese characters construct the whole character through stroke abstracts. The basic strokes of Chinese characters are Dian, Heng, Shu, Pie, Na, Ti, Zhe, Gou 8 kinds, but there are hundreds of variant strokes. The method of separation, connection and intersection also provides rich design elements for product design, and brings more abstract and symbolic enlightenment for product design. [3]

The second is the enlightenment of the layout of Chinese characters on the functional layout of product. The structure of Chinese characters integrates Confucian neutralism into themselves, mostly they are compromise, the pattern is just and even, and the block is well-balanced, showing a kind of calm and stable beauty. [4] Reasonable stroke component layout in Chinese characters guides products to focus on scientific human-machine scale; various layouts of Chinese character components have different meanings of the whole characters, similar to product components can produce multiple functions through different combinations, in order to adapt to different usage scenarios.

The third is the enlightenment of the symbolic meaning of Chinese character construction on the symbolic concept of product. The construction of Chinese characters has the characteristics of symbolization and graphics, and the connotation always maintains implied meaning. The so-called "Device to carry the meaning", the product can have a symbolic effect, and the symbolic meaning implied by some Chinese characters is very similar. The symbolic role of the product is produced after the status division in the process of material social development, and is a symbol of status, lifestyle and personal taste. For example, ancient people carved symbolic patterns on the Ge to express their understanding of life and the pursuit of a beautiful vision. Whether it is the symbolic role of the product or the symbolic role of Chinese characters, it is the transcendence of function in the material layer and thus to achieve the sublimation of cultural value.

The structural characteristics of Chinese characters show the aesthetic way of Chinese traditional creation to a certain extent, which greatly affects the design thinking and aesthetics of products. In product design, if we can extract the directional elements with cultural meaning and use them, we can integrate Chinese characters and product design reasonably, and it will be a great inspiration on unified form

and function of product design, embody national characteristics, conform to national lifestyle and aesthetic taste.

III. PRODUCTIZATION EXPLORATION OF CHINESE CHARACTER CONSTRUCTION WISDOM

Chinese characters are an important carrier for connecting past cultures, the evolution of Chinese characters is extremely inclusive and stable. At different stages of development, the culture of Chinese characters can naturally be integrated into modern life in a more intimate way. The changes in modern life habits have also continually enriched the evolution of Chinese characters, showing the unique cultural charm of Chinese characters with the times. The characteristics of Chinese characters changing from time to time give more possibilities to Chinese character design innovation. The SIX studio where the author is working for has also carried out some product exploration of Chinese characters in the three aspects of Chinese characters, such as "shape, context and meaning".

A. The Form Beauty and Function Beauty of Chinese Character Product

Chinese characters were originally evolved from the visual impression of the material world. The strokes that make up the Chinese characters are all based on the form of the object, so they have their specific position and meaning. Each stroke is a part of the Chinese character, they also bear the content of information, and the proportion between the components is coordinated, the layout of the whole character is firm and balanced. The development of Chinese characters into modern times has become more abstract and concise, but still we can find the shadow of objects, such as the character "Ji" of Cha Ji (Tea table).

The way of constructing Chinese characters contains the ancients' views on things and the expression of aesthetic concepts. This type of construction is a reflection of Oriental philosophical thinking, which makes Chinese characters both aesthetic and functional. The works "Double chair of 'Mu'" ("Fig. 1") is from the author's studio.

Inspired by the mutual companionship between the mother and the child, the pictogram "Mother" character is selected as the prototype, the original strokes was broken up and reorganized in order to cleverly combine the form function of the product with the Chinese character structure, so that it has seat function and also meets the modern aesthetic needs. Each stroke structure of the character "Mother" in the overall shape is around the force generated by the user's sitting, providing functional support, in which the stroke "Heng Zhi Gou" is continuous in the writing process, and in this product, the stroke acts as a force transmission. Open the character "Mother", embed the cloth into it, and transform it into the seat plate of the chair. It can be used by both the mother and the child. It redefines the furniture form of the mother and child chair, and at the same time, it can be well stored after the cloth was removed.



Fig. 1. "Double Chair of 'Mother'" (Original design from author's SIX studio).

B. Implication Beauty of Chinese Character Products

As the tangible symbol of Chinese civilization, [5] Chinese characters evolved from figurative to abstract, express emotions through symbolic means, symbolize auspicious blessings, convey cultural or spiritual connotations, and display a social and cultural value. For example, the Chinese character "Fu" embodies all the good wishes of the Chinese nation for the secular, from ancient times to the present, it is still the desire of modern people to live a happy life. The product design evolves from the logic of the object to the moral and spiritual connotation beyond the pursuit of function. The pursuit of product emotion and symbolic cultural value has increasingly become a factor that designers pay attention to. The symbol can effectively convey the values, ideas and emotions of product design. [6] The Chinese characters are rich in content and profound in meaning. The innovative integration of Chinese character culture and products is conducive to strengthening the aesthetic image and emotional meaning of products, thus triggering the psychological resonance of users. Such as the design of author's studio " 'Horse' Chair" ("Fig. 2"): It combines Chinese character culture together with zodiac culture, the shape of the character "horse" combined with the shape of chair, formed the style of Ming Dynasty's minimalist aesthetics. It shows an elegant and simple beauty and the auspicious wish of riding horse in the year of horse. The design of the tableware in the author's studio, "The table manner of Yan, the beauty of simple instrument" ("Fig. 3"), it is inspired by the shape, image and meaning of the Chinese character (Jinwen) construction method; It combined the formal connotation of bronze object with Jinwen's arrogance and singularity, split and reconstruct the Chinese character (Jinwen), redesigned through symbolic language, thus creating a simple and light environment while maintaining the heavy beauty of Jinwen and bronze culture, and presenting an extreme modern Oriental Aesthetics. At the same time, the tableware is engraved with the standard of ceremonial rituals, expressing a yearning for "Fu", presenting a quaint ceremonial cultural beauty.



Fig. 2. "Horse' Chair" (Original design from author's SIX studio).



Fig. 3. "The Table Manner of Yan, the Beauty of Simple Instrument" (Original design from author's SIX studio).

C. The Beauty of Artistic Conception of Chinese Character Product

Chinese characters have 26 kinds of basic strokes, and the clever structure combination forms a huge Chinese character library. People use the "shape" of the Chinese character to transmit information, and through the understanding and extension of the "shape" of Chinese character into "meaning" [7], from shallow to deep, express meaning with shape, combine shape and meaning together to convey a rich cultural conception. From characters to phrases, from phrases to sentences, from sentences to paragraphs, Chinese characters present different pictures and contexts in different contexts. The combination of Chinese characters is applied to products to adapt to diverse life situations and make beautiful associations for users.

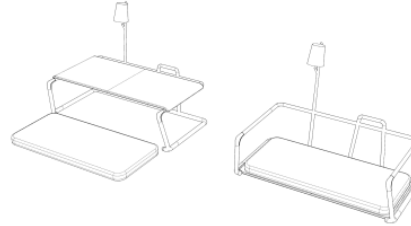
The design of the author's studio "Xi' Chair" ("Fig. 4"): I was inspired by the combination of Chinese characters, the ancient indoor activities before the Tang Dynasty were mostly sitting on the ground, combined the concept of sitting with the character "xi" and then simplified the character, only retaining its general form, combining lines in space and ergonomics in modern design methods, to construct a seat

shape with stable structure, which has similar shape with the character "Xi". The character "Xi" conveys a dynamic and full-fledged situational image. The design subtly follows the structure of the Chinese character. The simple reorganization transforms the whole seat into a desk. The combination of wood and cloth conveys a simple and elegant sensory experience and the relaxed mood of life. The wooden vertical rod naturally forked like a branch, to meet the function of



Fig. 4. "Xi' Chair" (Original design from author's SIX studio).

hanging object. At the same time, the vertical rod can also serve as a bracket for the lamp. The design takes into account the needs of the function, while taking into account the transformation of a variety of scenarios, creating a leisurely and free mood of "close to nature, relax the mind, live a healthy life", which is also a healthy lifestyle under the ancient Chinese philosophical thinking.



IV. CONCLUSION

"The beauty of meaning can touch heart, the beauty of sound can touch ear, and the beauty of shape can touch eyes". Chinese characters are intuitive and varied, and also they are profound and meaningful, it combines integration, variability, signification and systematicness these multi-dimensional characteristics together, the method of Chinese character construction and the product design method have the same effect. Chinese characters provide a continuous supply of design nutrients to enhance the cultural meaning and content of products. Through the design cases, the author integrates the form beauty, structure beauty and artistic beauty of Chinese characters into product design from different perspectives. The product is the combination of Chinese characters form and structure function of product form, the enlightenment of Chinese character form aesthetics in product form design, and furthermore, it relies on the inherent cultural connotation of Chinese characters to give the product a moral meaning, to enhance the intrinsic character of the product. Users can subtly understand the cultural heritage of Chinese characters from things in daily life; they can experience the poetry and painting nature behind the product, and thus trigger the emotional resonance.

Human beings live in the constant inertia, the nature of humanity changes very little, but the times always show new life and vitality with new attitudes. Based on contemporary multi-design thoughts, the application of Chinese characters in product design is a new possibility of cultural exploration from multi-perspectives. It not only enriches the new content of Chinese character culture, but also displays the charm and value of Chinese character culture, and enhances the cultural connotation of products, creates cultural value of products, and brings a new multi-cultural experience to the users.

REFERENCES

- [1] Wang Yuhong. Innovative Application of Chinese Characters in Logo Design [J]. Packaging Engineering, 2019, 40(02): 99-103. (in Chinese)

- [2] Wang Ru. The Aesthetic Function of Chinese Character in Art Design [J]. Packaging Engineering, 2016, 37(06): 14-16+36. (in Chinese)
- [3] Zhang Xuetao, Liu Zichuan. Chinese character construction and furniture design art [J]. Decoration, 2005 (04): 122. (in Chinese)
- [4] Sheng Haohan, Feng Lei. Research on the Structure of Chinese Character and Emotional Design [J]. Design, 2019, 32(14): 122-125. (in Chinese)
- [5] Jin Shuaihua. Exploring the characteristics of creative products with Chinese character as the media [J]. Art Panorama, 2018(12): 100-101. (in Chinese)
- [6] Michela Deni, Salvatore Zingale. Semiotics in Design Education. Semiotics by Design [J]. The Design Journal, 2017, 20(sup1).
- [7] Chen Yuanchuan. The Form and Meaning Blending of Modern Chinese Character Logo Design [J]. Packaging Engineering, 2011, 32(24): 25-28+48. (in Chinese)