

Analysis on Cultural and Creative Product Design Based on Traditional Ceramic Craft*

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Abstract—With the significant improvement of mass consumption level and the change of consumption concept, cultural and creative products have become more and more acceptable and gradually become mass daily consumer goods. Under the background of the development of cultural creative industry, the traditional ceramic craft has its unique humanistic value and economic value. Based on the hierarchical division of product design and application of traditional ceramic craft, this study proposes design concepts and principles, and analyzes representative ceramic cultural and creative products in the market, so as to further clarify the feasibility of contemporary design innovation of traditional ceramic craft, and promote the contemporary productive protection of traditional Chinese ceramic culture and craft.

Keywords: *ceramic craft; cultural and creative products, design concept, design principles*

I. INTRODUCTION

With the comprehensive advancement of the research on the inheritance and development of Chinese traditional culture, the influence of ceramic crafts on the design innovation of contemporary products has received much attention. In addition, the consumption of cultural and creative products has continued to increase with the overall improvement of the national economy and the substantial improvement of residents' consumption capacity, and ceramic products with a certain artistic taste have gradually changed from being the enjoyment of a few people to being owned by the public. To a certain extent, consumption is out of the creative jurisdiction of artistic elites, and it leads to the space close to the public life, which has transformed the consumption of art into the consumption of lifestyle goods.

II. CURRENT STATUS OF ACADEMIC RESEARCH

Ceramic culture must be continuously creatively transformed in accordance with the new era, and the value of traditional ceramic craft culture must be re-evaluated and measured. In recent years, national social science and art projects such as "Research on the Social Transformation and Development of Traditional Crafts and Fine Arts",

"Comparative Research on the Four Famous Chinese Ceramic Crafts", "Research on French Heritage Examples of Non-Heritage Ceramic Crafts", etc. study and solve the problems of contemporary innovative development of Chinese design thinking and traditional ceramic craft. In addition, in view of the research on the design method of traditional ceramic craft, the current situation of the intersection of aesthetics, art, psychology, computer and other disciplines has emerged. Wang Weiwei (2014) established a traditional ceramic cultural design element model by using map analysis and analytic hierarchy model; Feng Qing (2014) proposed Yaozhou porcelain decoration and product design strategy; Meng Lei (2017) made a analysis on the attribute of contemporary creative ceramic products in China from the perspective of life aesthetics in terms of the corresponding changes in the intensity of participating groups; Zhao Decheng (2017) introduced the quantification of decorative symbols of colored pottery into the whole process of design by means of calculation software.

In foreign countries, the research on traditional ceramic craft is mainly applied to the interdisciplinary fields of human engineering, cognitive psychology, ergonomics, and perceptual engineering. For example, Shih-Wen Hsiao (1995) used "semantic difference (SD)" to analyze the product design of traditional ceramic craft; Michael A. Mullens et al. (2009) proposed the design decomposition method of traditional process by using network partitioning algorithm, and minimized the interaction between partitions by appropriate weights; MC Julio Cesar Jiménez (2007) analyzed the development of traditional Mexican ceramic tourism souvenirs from a design perspective; Kida Takuya (2010) developed branding of traditional ceramic crafts in Kansai, Japan; Rohini Arora et al. (2017) constructed the feasible transformation approach of traditional ceramic craft and design based on the observation method of folk style and micro style.

At present, the research on the design of traditional ceramic craft mainly include two aspects: one is the research on the innovation system based on the overall design of economic data statistics; the second is the research on practice and promotion of mining traditional craft as a contemporary product design, which provides solutions and practice basis for the research.

*Fund: The Shaanxi Provincial Social Science Foundation — "Research on the Design Method and Contemporary Promotion and Application of Ceramic Craft of Yaozhou Kiln in the central Shaanxi plain" in 2019 (Project number: 2019K029)

A. Status of social development

The growth of consumption capacity has satisfied the mass material needs, and at the same time, it has formed a diversified consumption that focuses on spirit and ecology. The consumption attitude has changed from blindly following the trend of consumption to being symbolic, personalized, rational, joyful and developed, which is a compound concept of consumption. This has promoted the development of traditional ceramic craft and the promotion of local and national ceramic products to a certain extent. Traditional ceramic craft also seems to have found a way to combine art with the market, and it has become a typical representative of aesthetic culture penetrating into the field of daily life in modern consumer society. Cultural and creative ceramic products not only change the way people use things in daily life, but also enrich people's daily life experience. It can be said that cultural and creative products based on traditional ceramic craft as a whole have broken the unity of their presentation form, changed the public's understanding of ceramic craft, and expanded the creative space of artists and designers. Art and craft are gradually being introduced to the public.

However, there are still many problems in the transformation of ceramic cultural and creative products. First of all, the research on traditional ceramic crafts mostly starts from archaeology, fine arts, sociology, etc. It pays more attention to the influence of crafts on modeling, decoration, aesthetics, culture, etc., and lacks the research on the use function, production environment and living context. Even though the cultural and creative products embody the craft culture, they are mostly copied in the modeling and misappropriated in the patterns, which are not innovative in design. Secondly, due to the lack of research on traditional Chinese ceramic design methods, the existing advanced design concepts and methods have little influence on the product design innovation of traditional ceramic craft. Therefore, a large number of copies and imitations of related foreign products have appeared. Based on the characteristics of traditional ceramic craft, this topic divides the application level based on the principle of product design adaptability. Based on this, it proposes the design concepts and principles of ceramic cultural and creative products. Combined with the representative cultural and creative products in the market, the case analysis is carried out to further clarify the feasibility of contemporary design concept to the innovation and inheritance of traditional ceramic craft.

III. CULTURAL AND CREATIVE PRODUCT DESIGN CONCEPT BASED ON TRADITIONAL CERAMIC CRAFT

A. Product design application level

The corresponding levels of traditional ceramic crafts in product design can learn from the hierarchical division of utensils by Leong, Lin Rongtai, and others when studying cultural utensils. They are the outer tangible level and the middle behavior level and inner intangible level [1] ("Fig. 1"). In addition, Zheng Yumei proposed a model of combining traditional culture and product design in the study

of traditional Chinese cultural elements [2]. Based on existing research, traditional ceramic crafts can be divided into the following aspects: external visual layers include color, texture, modeling space, surface decoration, lines, and modeling and other components, that is, the most direct appearance of the product; middle behavior includes elements such as function, operational sense, practicality, safety, and the combination of modeling components; internal thought layer includes attributes such as the cultural connotation, story characteristics, and emotional characteristics, among which the weight of cultural image is far greater than the weight of its use [3].

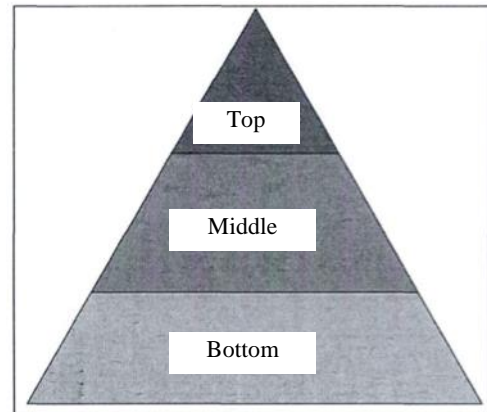


Fig. 1. Hierarchical division of cultural artifacts proposed by Leong.

Therefore, the design of cultural and creative products of traditional ceramic craft should be based on the expression of traditional craft on the external visual layer of the product, and adopt explicit, exaggerated, and emphasized expressions with techniques that are easy to highlight the uniqueness and aesthetics of the product. Second, the corresponding use environment, function, and scene of traditional ceramic craft have changed in contemporary society. Based on the use needs of contemporary society, especially the needs of the daily life of the masses, the functions that can be achieved and possibly achieved by traditional crafts are correspondingly expanded. Finally, the internal thought layer should be mainly based on the combination of the external visual layer and the behavioral use layer. It is necessary to choose explicit symbols and well-known functions that are more familiar to the contemporary public and can reflect the symbolic meaning of traditional Chinese spirit. Therefore, the design concept and principles of ceramic cultural and creative products should focus on the analysis of the application level of traditional ceramic craft design and the content and characteristics of each level.

B. Product design concept

Contemporary cultural and creative products have formed a process in the creative design motivation. They have gone through the process of gradually detaching from traditional arts and crafts to seeking expression of personality, from seeking market integration to transforming into creative products. In terms of artistic style, it has formed a process of seeking a breakthrough in concept and form to return to the

local consciousness with the goal of catering to popular aesthetic tastes. That is, when cultural and creative products really enter the mass consumer culture, consumers' feedback on the aesthetic value and functional use of living ceramic directly affects the design concept of ceramic cultural and creative products. Among them, the promotion of interesting aesthetics, practical functions, and highlighting cultural elements has become the basic design concept of cultural and creative products based on traditional ceramic craft.

1) *Extensive use of aesthetic taste:* Cultural and creative products based on traditional ceramic crafts must not only meet the functions and efficiency of the products, but also focus on creating a good operating experience. The external visual layer unique to traditional craftsmanship is closely integrated with the use behavior layer to improve the operating experience and aesthetic taste [4]. Donald Norman proposed in the emotional design that the design could be divided into three levels: the instinct layer, the behavior layer, and the reflection layer. The "human-object" interaction at both the instinct and reflection layers can create an experience, and the experience is a beautiful feeling at the emotional level, physical level, intellectual level, and spiritual level [5].

2) *Continuously improving practical functions:* The development of contemporary ceramic cultural and creative products has achieved functional and practical improvements and expanded product categories from the perspectives of product performance, human-machine parameters, and innovations in operating methods. The enhancement of functions includes two aspects of use efficiency, including performance and utility. The expansion of product categories is to meet and lead the new life style of contemporary people. It separates ceramic craft from traditional uses and concepts and is applied to more other types of products.

3) *Highlighting traditional cultural elements:* Ceramic cultural and creative product design can not only create instinctive pleasure for users through the shape, quality and color of the product, but also stimulate people's ideological thoughts and convey the product information, culture and utility. In the existing research results, the external visual layer avoids the cultural layer expression only through the simple transplantation of traditional symbols [6]. Through the study on the interactive situation of cultural products and product semantics, the values reflected by internal culture can be better reflected in the middle behavior layer [7].

IV. DESIGN PRINCIPLES OF CULTURAL AND CREATIVE PRODUCTS BASED ON TRADITIONAL CERAMIC CRAFTS

A. Deconstruction and crossing of external visual symbols

Ceramic cultural and creative products are a kind of symbolic language, an important way to present and inherit ceramic culture, craftsmanship, and history. It can also promote the expression of traditional Chinese ceramic

culture and increase the comprehensiveness and novelty of cultural symbols. The use of Chinese-style symbols in traditional culture and customs conforms to the ritual law of the times and social reality, and has strict rules of use. However, due to the fundamental change in the cultural context conveyed by traditional symbols, the existing rules have lost their original value to modern people. For example, serious symbols that have special meanings and use scenarios are a kind of carrier, and the true rule of use has been diluted. Therefore, the communication and understanding of ideology is more about the identification of its attributes than the expression of its rigor and integrity. As a result, many cultural and creative products use symbolic comprehensive collocation to highlight traditional culture and meet mass cultural consumption through overlapping. Although inaccurate, they have contemporary identity and strong consumption attraction. For example, the "Zhuanyuan Cup" designed by Edenus ("Fig. 2") is inspired by the image of the traditional champion hat, in order to bless the number one scholar. This product uses the upper cup and lower pot design, which meets the beautiful meaning while increasing the portability of use.



Fig. 2. Edenus Ceramic Tea Set — "Zhuanyuan Cup".

Therefore, the contemporary ceramic cultural and creative products mainly express their ideas with symbols. Through the deconstruction and crossover of external visual symbols, the traditional culture and ideological contents are broken, listed and superimposed. The established rules and formats of its expression are relatively vague, but the rearrangement and composition are more in line with the general ideological understanding of the contemporary public. This has escaped the art-centered approach to a certain extent, advocating the placement of beauty in the daily world of human beings. From paying attention to art, environment, and then to life and returning to life, it has led to a philosophical shift in cultural thinking and endowed aesthetic experience with a broader meaning.

B. Promotion and application expansion of the middle behavior layer

The lifestyle and usage scenarios of modern people are expanding and changing. The original product types and functions can no longer meet the needs of users. According to the currently visible obstacles to use and the digging of potential needs, the creators actively create and expand the practicality of ceramic objects in order to match richer use scenarios and inspire and guide the use methods. For

example, drinking tea has evolved from a traditional fixed behavior to multiple types of behavior, and its scene has also changed. Then, the modern tea set should be redesigned with ease use according to the use environment and occasion. Secondly, the application of ceramic cultural and creative products has also expanded from single tableware to more categories, such as lamps, stationery, accessories, and various home products. The process of expanding the application scope is to use the physical characteristics and technological advantages of ceramics to take more products as the object of development of ceramic cultural and creative products. In this way, the development is becoming more

and more niche, and the pertinence is richer. Not only considering more use scenarios, but also considering more users, the range of people covered by product development has been expanded. Such as the "one-person food" series of life ceramic design of Fine Thing Wow, the design of the bowl is inspired by the Jianzhan in the Song Dynasty, and refined to make it consistent with modern aesthetics, simple to use. The size of the bowl feet is exactly the size of the palm, and it uses a rare flat bottom design. When holding, the bowl foot just falls on the palm of the hand. And it is stable and elegant ("Fig. 3").

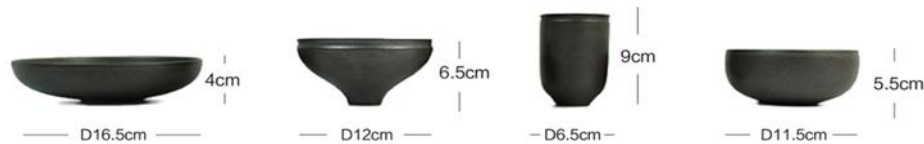


Fig. 3. The "one-person food" series of life ceramic design of Fine Thing Wow.

After the availability of ceramic cultural and creative products is realized, the main performance is to optimize the usability in terms of man-machine size, morphological language, physical structure, material use, color, and texture processing. The improvement of psychological habits and characteristics is mainly improved from operational cognition and psychological feelings. The visual language of cultural and creative products can not only provide users with intuitive psychological feelings, but also provide certain operation instructions, which belong to the modeling language category of products. The most direct is the use of shape, color, material and texture to create visual differences in the operating area and clear operational orientation. The smooth operation experience and interesting operation mode of the product can arouse the positive psychological feeling of the user and enhance the psychological pleasure of the use process.

C. Fun of internal thoughts

The cultural ideology in ceramic cultural and creative products is the re-application of established and systematic ideas. In the final analysis, it is to eliminate the boundary between art and daily life, and turn the study of aesthetic methods to the study of life. In Chinese history and culture and traditional aesthetics, beauty is an interesting, blessed, and joyful form of living. It is a personality ideal (Confucianism) and a state of life (Confucianism) that is directly related to the consideration of "people living better". There is no doubt that this traditional spirit, which unites aesthetic mood and life pleasure, is very similar to the modern life aesthetics though different in academic theory.

The cultural and interesting expression of ceramic cultural creative products can be expressed through the four main aspects of shaping interesting image, interesting situation transplanted, interesting visual perception grafting, and interesting visual perception interaction. For example, the image imitation design using animal and plant

shapes directly enhances the product's aesthetic expression language and also adds product life interest. The fun situation transplanted is more oriented to create an intuitive or storyline imagery scene. In the process of transplanted, it cannot be a burden or impediment to practicality. On the contrary, it must conform to or improve the functional expression of the product. For example, the design of "Swordsman" Cruet with the martial arts image uses the martial arts scene to convey with the symbol of bamboo hat ("Fig. 4"). The symbol of bamboo hat will give people a color situation such as "fishing alone along the cold river", "traveling thousands of miles alone", or "a lonely fisherman". The designer will generalize and interest the symbols of situational memory, allowing people familiar with the culture to judge and develop associations based on experience. These groups are happy to integrate the artistic conception with certain Chinese cultural symbols into the scenes of family life, creating a pleasant mood of use. If the grafting of interesting images, situations, and perceptual characteristics is static, the interaction of interesting visual perception emphasizes a dynamic process experience. At this stage, life ceramics has begun to create an interesting "people-object" interactive experience from the perspective of modeling structure, material texture and operation methods.



Fig. 4. "Swordsman" Cruet.

Of course, with the continuous expansion of ceramic cultural and creative products, fusion with other traditional and modern processes has emerged, and creative products combining ceramic materials with lacquer, wood, and metal processes have been formed. For designers who use traditional craftsmanship to make product design, traditional porcelain craftsmanship is the channel for them to get involved in the public's appreciation of taste and cultural expression, and they pay more attention to the design service for the contemporary public's life needs, so the fusion effect of multiple crafts is more rich and varied.

V. CONCLUSION

Ceramic arts and crafts are a symbol of oriental culture and nationality, and also an important economic asset for the development of creative economy. To understand the value of arts and crafts in the sense of the history of Chinese civilization, it is by no means an outdated product simply eliminated by the machine industry, but an important cultural element and aesthetic carrier. It is the most unique creativity of Chinese nation. However, with the rapid development of industrialization, the understanding of traditional ceramic handicraft often stays in the stage of industrial processing instead of cultural, philosophical and spiritual recognition. Therefore, it is necessary to construct a design image belonging to traditional craftsmanship, break away from constructing aesthetics based only on the fine arts, and promote the beauty of the masses and craftsmanship. The beauty of craftsmanship can make up for the shortcomings of the beautiful human society created by technological progress to a certain extent, and can make up for the lack of human spirit and aesthetic construction in the development of industrial society. The product design concepts and principles put forward through the analysis of traditional ceramic craft at the product design application level can deeply understand the value concepts, basic processes and modeling forms contained in arts and crafts in a cultural sense. It is necessary to further construct its connection with contemporary life and creative industry, and promote the contemporary design innovation of Chinese traditional craft.

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