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The Integration Method of Ceramic Arts in the Product Design

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Abstract. As one of the four ancient civilization countries, the firing technology of ceramic invented by China has made a great contribution to the progress and development of human society. In modern life, even the development of technology still needs the ceramics, there are large number of artists who take the ceramics as carrier active in the field of contemporary art. The ceramics can be seen everywhere in our daily life, this paper mainly discusses the integration means of ceramic art in the product design.

1. Introduction

The ceramic art is one typical artistic feature in our country, it has a long history. It is the combination of technology, materials and art, many elements of it is of great significance for modern product design, especially the integration of ceramic material characteristics, decorative patterns and modern product design, which can effectively improve the quality and cultural connotation of it. As ceramic art has its own charm and value, artistic quality and cultural connotation, so this requires modern designers to inherit and develop, avoid copying the elements and features of ceramic art entirely, but to combine them skillfully.

There is a deeper connection between ceramic art and product design, the household porcelain of ceramic belongs to the industrial design, the excavation and application of ceramic culture which can reflect out traditional culture would make modern product design filled with ethnic characteristics and Chinese characteristics, promote Chinese design better.

2. The ceramic art

Just like Chinese calligraphy and painting, the ceramics are one of Chinese favorite arts. It has brilliant achievements with thousands of years' history in China, its unique linguistic form and abundant expressiveness has developed its particular aesthetic value. From ancient times to now, the ceramic arts has been peoples' collection items [1]. We can see the aesthetic value of ceramic from those poems left by ancient literati, the Tang Dynasty poet Meng jiao had wrote "after drinking Mengshan Tea, the lotus leaves in Yue kiln are empty "Song dynasty poet Li Qingzhao had also wrote "in the bedstead, the cool saturate the pure pillow", it is praise for bluish white porcelain of Jingdezhen,; Su Dongpo has wrote" the tea after decoction poured into the white gazed tea set, which carved decorative pattern ", the poems have praised the caramel glazed porcelain and black glaze of Ding kiln and Jian kiln. It is observed that the ceramic has always been the aesthetic objects among Chinese.

The ceramic as an art, it is not common. Ordinary people would take it as a household tool, maybe a decoration. In the art world, it doesn't have high value. For ones with good appearance, practical and durable are meet their needs. They never appreciate it purposely. Therefore, the problem is on what kind of people does it want to attract. I am not saying that appreciating the ancient items is bad, after all the highbrow will end our further ways. As a quintessence, I think the ceramic art should be



entered into the market and introduced to our life, the art root in the life, but also need to serve for the life. The art that can be appreciated by most people would be filled with vitality in the modern life, which with the development of market economy.

3. The state of ceramic art in the product design

3.1. The high plagiarize rate

Because of the imperfection of patent protection system at the present stage, as people's increasing material and cultural needs and economic condition have a great demand for ceramic products, this unequal relation had led to the emergence of plagiarism in producing ceramic products [2]. It's common that when a designer of a brand or manufacture complete a product, at the beginning of it is put on the market, the product must be plagiarized by other manufactures, over time, it is hard for the original designers to find motivation and confidence to keep on creating, this disorder phenomenon had the negative effects for the long- term development of market.

3.2. The crudeness of design

In the process of combining the ceramic art with product design, we often ignore artistic attribute of ceramics, we just think that the blue and white stand for the whole ceramic art, and then design a product by slavishly copied. Hence, the later ornamental value and aesthetic of products must be greatly reduced. So we must pay attention to the integration of two elements in the products design.

3.3. A lack of connotation

The connotation is the sum of essential attribute that reflects an object's concept, the connotation of product design is the embodiment of designers' sour reaction and thinking consciousness, it is hard to convey the connotation in the assembly production, the consumers can not feel the artistic aesthetic that through the ancient and modern, we have to admit this is an inevitable products in the industrial era.

3.4. The rough craftsmanship

According to the field lists and investigation, it is not difficult to find that there are lots of ceramics in the supermarkets and markets, although the widespread application of ceramics is gratifying, some disadvantages are brought by it. With the essence of economy is for profit, in the economical production, very few people would think by its artistry, so the most of ceramics in the market are with uneven glazing, scratch and rough surface. This roughness highly kill our affection to ceramics, this has obstructed the development road of ceramics in product design.

In conclusion, I think there are five points should be noticed in designing household ceramics: at present, domestic household ceramics often put artistry as the first consideration rather than practicability; whether household ceramics or artistic ceramics, its artistry should be first considered; consider its scientific and material attribute; both of them should be particular about its sales; both of them should pay attention to economic benefits.

4. The application of ceramics art properties in the product design

4.1. The mental feelings and product design of ceramic materials

Due to the difference of culture, quality and history environment of materials, adopting different materials would bring various feelings, for ceramics, when its firing temperature differs from matching, rematching other materials would produce different mental feelings, this kind of mental feelings can be effectively applied in the modern product design.

4.1.1. The application of rustic mental feelings in the modern product design. Because the surface color of ceramic is white and slippy, so it can make people associated with the era of the ancestors, afterwards a sense of warm would arise spontaneously. Therefore, it is mostly used in households for presenting a kindness.

4.1.2. The application of technologically sophisticated mental feelings in the modern product design.

The high-tech ceramics often give the spectators a feeling of science and technology, the difference of production mode would make the shape of products differ from each other. Modern production modes often improves the accuracy of ceramics, in the application of it in the modern products design, the elaborate design, size, structure and appearance will become the symbolization of its science and technology.

4.1.3 The application of mental feelings with white in modern product design. A lot of ceramics with white and clean surface would bring people a sense of holiness, one reason is that its texture is clear, the other reason is its bright surface represents clean and holy, and its chemical properties are relatively stable. So lots of high-class restaurants would select ceramics as tableware.

4.2. The physical property of ceramic material and modern product design

It is well known that ceramics are featured as high temperature resistance, high hardness and easier to clean, these properties are consistent with modern products on the pursuit, hence it is widely applied in modern product design. For example, the dishes, spoons and vases in our life are all the important embodiment of ceramic art.

4.2.1. The application of high hardness in modern product design. Compared with traditional handicraft era, after precise matching, the hardness of ceramic has improved significantly, just because of this, the ceramics can be effectively and widely used in modern product design, at the end of the last century, Japan has developed ceramic tools, for its hardness is higher than half of that of steel, so the tools remain popular among consumers. And the hardness of Chanel ceramic watch are ten times than traditional watch, but its weight is lighter, so it is favoured by users and designers.

4.2.2. The application of easy-clean in modern product design. With the boringness of surface, high hardness of ceramic, it is easy for cleaning, this characteristic has been widely used in the field of kitchen utensils and bath appliances, for the hand washing sink, teapot. About small appliances, some microwave oven or induction cooker which are easy to be dirty are all use the ceramic as the panel, the reason to this is because of the characters of easy-clean of the ceramic. What's more, it can be a plus for the ceramic products, such as the ceramic watch, it is not susceptible to rust than traditional watch, even though the watch is in dust, it is easy to clean.

4.2.3. The application of high temperature resistance in the modern products design. The ceramic materials not only being hard, but also endure the high temperature. Because the ceramic is produced in the temperatures of thousands of degree, it has high temperature resistance. In modern products design, many designers have modified the technology to make the ceramics can be used in the modern kitchen, we put food into the ceramic products to cook, that is good for people to digest the food nutrition. Hence, the characteristic of the ceramic itself owned has been adopted by many modern designers, many modern kitchen appliances also have applied the ceramic elements.

5. The application of ceramics artistic decorative patterns in the product design

For ceramic decorative patterns, it can effectively embody its artistry, the level decorative pattern may well determine the level of ceramic art, and a number of ceramics artists have spent a large amount of time and efforts in the decorative patterns [3]. There are mainly plants patterns and geometric patterns in the traditional ceramic decorative pattern, these patterns can be used in modern product.

5.1. The application of plant patterns in modern product design

In plant patterns, the curve of Tang pattern is seductive and of high degree of freedom, its composition mainly derived from the trees and branches, according to the plant's crimp shape and its transformation, or some wavy pattern based on it, to create the regular and creative Tang pattern. For a complete set of tableware with Tang pattern, it often has a light and elegant characteristics, if people have dinner by ceramic tableware, that add a special flavor to food. What's more, some plants have

been widely used because of its special symbolic meanings, for peony pattern represents rich, the lotus pattern represents holiness, the wintersweet represents haughty etc, precisely because of this connotation, the plant patterns get richer meanings. In modern product design process, the plant pattern is always used in household decoration, it is also used for decorating dressers, because plant patterns are more popular for women, so it is more appropriate to use and adorn the plant patterns.

5.2. The application of geometric pattern i modern product design

The geometric patterns of ceramic decoration mainly include the “palindromic pattern” and “eight treasures pattern”, for the latter, it mainly points to the pattern surrounded by eight auspicious treasures or utensils, the true eight treasures patterns are complex and cockamamie, many artists or designers focus on the use of “shape” in the process of designing modern products, at the same time to give consideration to its allegoric and spirits extension. So-called shape is to recreate on the basis of origin, and integrate other related materials to make related elements perfect. For the former, a geometric pattern “Hui” formed by surrounding backwards and forwards, the palindromic the ceramic is being used as the assistant pattern in the process of designing modern products, for example, all the expression of luxury would use the palindromic.

6. Conclusion

Above all, for ceramic art, it has a greater variety of contents, it represent the glorious development of our national craftsmanship to some extent, although the ceramic art itself has a certain limitation on the design concept and craftsmanship, however, there also has its own charm, value, artistic aesthetic and cultural connotation, this requires designers to inherit and develop its advantages, cannot blindly copy the elements and features of ceramics, we should subtly combine both of them, take the essence and discard the dregs, utilize its advantages, and combine the aesthetic characteristics and life style which are peculiar in the modern society, make the ceramics be widely used in our life and production, promote the modern products design towards an innovative road with Chinese characteristic.

Reference

- [1] Cai K Z 2016 *Pack. Eng.* **37(18)** 118-20.
- [2] Sun T S 2014 *The Applied Research Based on the Ceramic Design in the Product Extension*. Shenyang Ligong University.
- [3] Tu Y X, Yu Y J 2015 *Beaut. Time (First)* **12** 110-2.