

Traditional Chinese Culture in Modern Product Design

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Abstract

This paper describes the sources and features of traditional Chinese culture. It also discusses the aesthetic thoughts of Chinese traditional culture. Chinese traditional culture has been illustrated broad and far-reaching impact on design since ancient time. In the context of globalization and the rapid development of science and technology, the difference between traditional design and modern product design should be explored. Chinese traditional culture cannot be totally absorbed. It is important to inherit the traditional culture with critical thinking. There is a need of explanation for the relationship between traditional Chinese culture and modern product design. On this basis, the article will elaborate how traditional Chinese culture can be applied to modern product design and how Chinese traditional culture can be inherited and carried forward in modern product design. Further explore how to integrate Eastern and Western culture, and promote the development of modern product design.

Key words: Traditional culture; Product design; Inspiration; Hybridization

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INTRODUCTION

Traditional culture has something relative to do with product design. Chinese traditional culture has great effects on product design. At present traditional culture can bring some inspiration to design. It seems that multiculturalism can generate creative design.

1. THE ORIGIN OF TRADITIONAL CHINESE CULTURE AND ITS FEATURES

Traditional Chinese culture is known as one of the world's oldest and complex culture. The culture mainly covers a large geographical region in eastern Asia with customs, nations and traditions varying greatly between countries, provinces, cities, and even towns. As a whole, the main origin of Chinese culture thoughts comes from three parts: Confucianism, Taoism and Buddhism. Figure 1 shows the main origins of Chinese cultural thought.



Figure 1 The Main Origins of Chinese Cultural Thought

Over 2000 years of Chinese feudal society, Confucian has dominated the field of official ideology legitimacy which has had an extensive impact on Chinese traditional culture. It is said, Confucian was the mainstream of traditional Chinese culture. The most important thoughts of Confucian were the "ritual". It emphasized the order of politics and society. The core of Confucius aesthetics was moderation. Confucius argued that the world must be harmonious. He believed that human beings can achieve harmony by ritual with music. People can be moved and educated by the arts. He placed an emphasis on the ideas of aesthetics and kindness. In fact, Confucian has greatly affected Chinese traditional psychological structure and behavior patterns. In addition, Taoist has attempted to combine people's minds with spirits. Taoist has taught people to be aware of variables and adapt to variables and changes. One of the most important theory of Taoist was that human should be an integral part of nature. There were two opposing principles "vin" and "vang" in nature. Taoist regarded nature and human as one. It can be said Taoist main aesthetic thought is nature. Next Buddhism entered China during the Han dynastic. It has been developed and rooted over thousands of years of Chinese history. As a result, it has become an important part of Chinese feudal society. Buddhism had very strong moral principles. Buddhism considered life as bitter. Therefore, the biggest dream of life was to pursue liberation. Buddhism has put up a series of theories and moral principles to eliminate the evil and follow the good. Buddhism also has formed a framework of religion and ethics thoughts. Buddhism believed everyone can become a Buddhist and be perfectly blessed in their lives. The main Buddhist aesthetics is simple. Confucianism, Buddhism and Taoism constitute a complementary system of traditional Chinese civilization. "Under the influence of these faiths, Chinese culture has generated a rich and profound system of values. The concepts of "man and nature must be in balance," the five cardinal virtues of benevolence, righteousness, propriety, wisdom, and faithfulness (r are all products of these three religions' teachings. These principles have constantly played out over China's 5,000-year-long history."

Culture is the essential tool to promote natural, social humanities. Chinese traditional culture is not an exception. Confucian, Taoist and Buddhism have experienced a long historical development stage. They have created an integral part of the cultural system. Chinese traditional culture has had the three following features: Firstly, Chinese traditional culture was the internal cohesion culture. The basic spirit of this culture focused on harmony. It emphasized the harmonic relationship between the individual and the others as well as with the nature. Secondly, Chinese traditional culture was not just a closed system, even in ancient time China was limited foreign relations in geography, and there has always been an open attitude to exterior Buddhism. Therefore, inclusiveness is an important characteristic of Chinese traditional culture. During long time Chinese traditional culture has promoted the development of natural, human and society. Thirdly, Chinese traditional culture is the science of statecraft. Confucian is prominent study of Chinese traditional culture. The aim of Confucian is to investigate universes as a starting point. The main foothold of Confucian is to cultivate one's morality, governing a country, ruling the world. Chinese traditional culture always tries to achieve perfect statecraft in the real world and realize its value in the realistic society. In fact Chinese traditional culture has not only affected the Chinese people's psychological structure, behavior patterns, but also, affected the Chinese people's aesthetic psychology.

2. TRADITIONAL CHINESE CULTURE AND ANCIENT CHINESE DESIGN

It is undeniable that ancient Chinese design has been affected greatly by traditional Chinese culture. Philosophical thoughts and the aesthetic thoughts of Chinese traditional culture have deeply influenced the designer. Thereby, traditional artifacts also brought designers with design inspiration. For example, the Dragon is the totem of Chinese culture. Figure 2 shows the image of golden dragon. During the long years of farming, the most important thing people were looking forward to be good weather. The dragon is God of storm. Chinese people regarded Dragon as the master of the world in ancient time. The Emperor used to call himself a dragon. Chinese people are descendants of the dragon. Therefore, image of the dragon is often used in product design. Ancient Chinese ceramics are the embodiment of which Chinese culture stresses integrity, perfection and harmony. Under the infiltration of Chinese traditional culture, numerous outstanding products have been produced in China. Figure 3 shows a white and blue ceramic vase with dragon patterns on it. For instant, during the period of northern and southern Dynasties, there was a vase with advanced artistic design, also known as Yang-covered lotus porcelain statue. Figure 4 displays a beautiful porcelain craft bottle.



Figure 2 Image of Golden Dragon



Figure 3 White and Blue Ceramic Vase





The bottle is a novel. The Centre of the body is the abdomen. There are upper and lower ornaments, each of which faces three layers of lotus petals, layer by layer. The bottle end is also molded lotus petal-shaped. There are seven layers in total. There are ears on the Shoulder. There are a bird and a dragon on the neck. This statue is 66.5 cm in height, 19.2 cm in diameter. It is displayed at the Beijing Palace Museum.



Figure 5 Youlihong

Youlihong is an important invention of the Yuan Dynasty Jingdezhen kilns. Figure 5 displays Youlihong porcelain. Youligong is under glaze color porcelain. The bowls are painted with red copper painting decoration materials in the bowl, which covered with a transparent

glaze, placed at 1,200-1,250°C high temperatures for firing. It is inspired by Song Jun ware are has purple spots under the glaze. Lots of ancient Chinese porcelain designs are full of the charm of traditional Chinese culture. Chinese traditional culture is reflected in products which are used in daily life. For example, Chinese ancient bronze varies from Ding, Jues. Dings and Jues were used as ritual vases and cooking utensils. Figure 6 shows the Si Mu Wu square Ding. Figure 7 shows jue. These bronzes are made by using losing wax method. They were produced 2000 years ago. These bronzes were designed for both aesthetic and functionality. The excellent ancient Chinese products have brought Chinese culture to all over the world. It is believable all these ancient Chinese products are messengers of East-West cultural exchange. This is to say, the famous Silk Road had spread Chinese traditional culture to the west.



Figure 6 Si Mu Wu Square Ding





3. THE DIFFERENCES BETWEEN TRADITIONAL DESIGN AND MODERN DESIGN

In the context of economic globalization and the rapid development of science and technology, the relationship between Chinese traditional culture and modern product design has been changed greatly. There are many differences between modern design and traditional design. It is very important to list the features of traditional design and modern design in the following table and compare them. Table 1 lists the differences between traditional design and modern design.

 Table 1

 The Feature of Traditional Design and Modern Design

Item	Traditional design	Modern design Team work			
designer	Single design, craftsman				
Method of getting information	Less ,slow	Much ,quick			
material	Raw material	man-made materials			
technology	Hand made	Machine made			
Produce	Single produce	Mass production			
user	Ruling class	everyone			
Life style	Close, slow, stable	Open, quick ,variable			

It is obvious that modern lifestyle has been changed dramatically. Meanwhile modern design is also very different from traditional design. These changes are caused by the cultural factors. People try to design a product can be used by anyone who has a difference cultural background. Modern designers try to show fashion style. Therefore, people should combine traditional Chinese culture with modem design to seek for more profound connotation of the performance style, forming the modem design of a lingering charm of Chinese culture (Wu et al., 2008).

4. CHINESE TRADITIONAL CULTURE AND MODERN PRODUCT DESIGN

Traditional design differs from modern design in many ways. However, both of traditional design and modern design are inextricably linked with culture. Chinese traditional culture still has a great influence for product designers and consumers. For this reason, designers can not completely abandon the traditional culture. Furthermore, Chinese traditional culture cannot be rigidly applied to impose modern design. For Chinese traditional culture, people should keep its essence, to its dregs. How Chinese traditional culture can be used in modern design? Chinese traditional cultures have great potential for enhancing design value and becoming recognized as in the global market. Evidence has shown very high prospects for Chinese traditional cultures to become crucial cultural elements in future design applications. In fact, if a product has Chinese characteristics, then the product will be popular in the world market. Traditional cultural factors in design do not only strive to make advanced technologies more appropriate for their social context, but also to make better use of traditional culture itself as a resource for innovation. Accord to Rung-Tai Lin, cultural product design includes three main phrases: the conceptual model, the research method, and the design process. The research method phrase is consists of Identification, Translation and Implementation (Lin, 2007). From ancient times, there are many ways to transmit cultures. Storytelling is a good way to pass information. Therefore designers learn from storytelling in the application of traditional culture to modern products. In a practical design process, four relative steps are used to design a cultural product, namely, investigation (setting a scenario), interaction (telling a story), development (writing a script), and implementation (designing a product) (Lin, 2007). Firstly, Chinese traditional culture must be understood. It is well known a product is the carrier of the culture. The designer's ideas have been conveyed to consumers through products. Products can be accepted and loved by consumers, inseparably from a certain cultural background. Designers can communicate better with consumers with a Chinese traditional culture background. With the development of economic globalization, the cultural product design is a bridge between different cultures. Chinese traditional philosophy thoughts have guided the designers for modern design. For example, well-tuned is important to modern design. Plug sockets below obtained an IF award for design products. Figure 8 shows plugs sockets set. In the design philosophy, CONTINUE function continuously reflects the continuation of the idea, which comes from the Chinese concept of traditional luck patterns "Eight Trigrams." This pattern means: negative and positive can be inter-converted to make life continue. It is also the origin of the name and function of this design. When Continue occupies a socket also provides a plug or plugs for anything else space. At the same time, to convey a spirit of mutual cooperation. This design reflects the traditional Chinese culture in a mutually caring spirit.



Figure 8 Continue (Plugs, Sockets Set, IF award)

Chinese traditional painting freehand technique can be applied to product design and product advertising. Modern design is an exchange tool of Chinese traditional culture and Western culture. It seems that hybridization is a good way to obtain successful design. Several products design reflects Chinese traditional aesthetics. Figures 9-11 show modern products have Chinese traditional aesthetics. Chinese traditional culture should keep pace with the times, revitalize and combine Chinese elements with contemporary elements. These lamps in Figures 9-10 are made by modern material and technology. But they have the traditional Chinese Art Deco charm. The first lamp styling was inspired by traditional lanterns. There are bamboo patterns on a second lamp. Wishbone chairs, are also known as Y-shaped chair, which draws styles of chair in Ming Dynasty. All components of this chair are made of batch processing machine. All examples can prove that hybridization is a good way to inherit Chinese traditional culture. According to Rosaldo (1995) hybridization is a tautology, and globalisation has brought about nothing more than the hybridization of hybrid cultures (Georgette et al., 2005).



Figure 9 Lantern Lamp Figure 10 Bamboo Pattern Lamp

Traditional folk craftsmanship provides us with a wealth of design elements. People can learn a lot from the decorative arts and design handmade folk art. Designers should be in-depth and comprehensive understanding of traditional culture. Not only learn from the traditional art form, but also to understand the cultural meaning of modeling. Modern designer would inject modern product design that is full of vitality Chinese elements. This is a Zhouzhuang souvenir design. Figure 12 shows the belt. Zhouzhuang is a place where Shen Manzo is a very rich man, but also he lived. Shen Manzo is a Wealth spokesperson. People have dreamed of travelling to Zhouzhuang and taking "fortune" to home. The design offers a sense of "wealthy" to meet the tourists' psychological needs for "wealthy". Belt buckle has a shape of ancient Chinese coins to symbolize wealth. Wealthy belt can also be used either as a memorial that can bring wealth to the user.



Figure 12 Wealthy, a Souvenir Product



Figure 11 Wishbone Chairs

Modern product design is deep-rooted in the culture. It has features of diversity and colorful. It is very necessary to combine traditional art with modern technology. Traditional arts can bring designer with art inspiration (Lu &Yang, 2010). Modern designers can use more flexible approach to the design of modern art products. For example, Beijing opera face-painting is made with different colors according to the performing characters personality and historical assessment. Figure 13 shows Beijing opera face-painting.



Beijing Opera Face-Painting

Roughly red-painted face shows the loyalty, uprightness and intrepidity of the character's personality and characteristics such as Guan Yu who was the general of Su Kingdom under the leadership of Liu Bei. Guan Yu is a Liu Bei's brother. Black-painted face indicates the character is upright, honest, brave even impertinent such as Bao Zheng who was the greatest clean-handed and respectable official in Song Dynasty. He was called "arbiter" by people. White-painted face means the performing character is the evil man or illicit official such as Cao Cao. He was the commander of Wei in the Three Kingdoms was a traitor image. Face-painting of Beijing Opera is directly from stage performance. Because of its unique beauty, it has been penetrated for outside decoration or advertising promotion of big buildings, varieties of ceramics and the clothes people wear each day. Its influence is beyond the opera performance and reaches to the corners of people's daily life. Beijing Opera Face-Painting is well appreciated by massive opera lovers. It is an important branch of Chinese opera culture. Beijing Opera Face-Painting is getting popular at home and abroad and has become one of the signs to show Chinese traditional culture. Beijing Opera Face-Paintings are often applied to some products by Chinese designers. Figure 14 shows some Beijing Opera Face-painting products.



Figure 14 Beijing Opera Face-Painting Products

Secondly, traditional culture can be combined with modern technology. It is necessary to integrate the East-West cultural in the product. What is important to modern product design? They are both modern culture and traditional culture. Let us take the Chinese characters for example. The Chinese characters are pictographs characters. It is also a kind of design. The Chinese characters are with square shape. Chinese character design method is a good reference for modern design. In generally, they are composing of sound, shape and meaning. Figure 15 shows some Chinese characters.



Figure 15 Chinese Character

Chinese calligraphy is one of wonderful traditional culture. It is usually written with ink brushes. Chinese characters are composed of a series of strokes. During the long years, the Chinese art of calligraphy has gradually formed diversities style. Indeed, there is a minimalist set of rules of Chinese calligraphy. Calligraphy was the mediums by which scholars could demonstrate their thoughts and teachings for immortality, and as such, represent some of the more precious arts that can be found from traditional Chinese culture. Figure 16 shows a Chinese character clock. This is a very interesting clock. The hour needle is a Chinese character strokes. When the needle refers to a certain number, it constitutes a complete figure.

<u> </u>	三	四	Ŧī.	六	七	八	九	+	+-	+=
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			-	٠,	-	-	1			
										 二 三 四 五 六 七 八 九 + + 2 3 4 5 6 7 8 9 10 11

Figure 16 Chinese Character Clock

Thirdly, sustainable design can be improved with Chinese traditional culture. In traditional Chinese culture, harmony between man, nature and society has been placed great emphasis on. It is considered that human beings and nature constitute a whole; human beings are an integral part of nature. Instead of viewing aesthetics as a direct aim, it can also be regarded as the outcome of an approach to product design that has different objectives. Product design can then focus on the meanings of material culture and thus develop and evolve. Let us talk about story of bamboo. Bamboo is one of the fastest-growing plants on Earth, with reported growth rates of 250 cm (98 in) in 24 hours. It is a good sustainable material. Chinese people love bamboo very much. A famous bamboo poet is written by Shi Su. It has written that: "Rather eat no meat, cannot live without bamboo. No meat is thin, without bamboo is vulgar, Fat people thin still, who

cannot be vulgar doctors." In ancient times Chinese people used bamboo to produce a lot of daily necessities. Nowadays designers combined China's traditional culture with modern advanced technology. A new eco-friendly material has been developed. Bamboo charcoal is made from bamboo growing for many years as raw material. It has been baked nearly at 1,000°C. It has structure of honeycomb by special technology. It's molecular fine porous, with a strong absorption capacity, and produce negative ions and far infrared release. Therefore, it can be used for fresh air, clean water, moisture mould, eliminates odors, block electromagnetic radiation. It also can be used to absorb sweat and dehumidify when contacting with the body. It has the function of promotion blood circulation and metabolism, relieving fatigue. Because charcoal has the above advantages, it can be made into many varieties of products, such as home purification ,series of gifts, home textiles ,car series, beauty care series, health and lifestyle series. Another sustainable design is from Taiwan. Yii is a famous furniture brand. "Chair 43" is the representative of this brand. The market value of "Chair43" reached €5,000, which is successful product to combine Eastern craft and Western design. The Chair has more than one hundred orders per year on the exhibition. This is the technologist Gaoming Chen with German fashion designer Konstantin. Greic cross-border cooperation, to create the world's first bamboo streamline cantilever chair .Chair 43 is consists of Moso bamboo hand-woven pieces. It will take three months to finish a chair. Figure 17 displays Chair 43. The chair is made of bamboo. The production process is handmade, so this chair is a model of sustainable development design. By design, this chair is reflected in the material pursuit of real materials, or can best embody the essence of CMF (ie, colors, materials, surface treatment) design. The pursuit of authenticity and handmade materials is consistent with the traditional Chinese intellectual's mutual harmony with the natural thinking. Meanwhile, in the chair design, people draw on the Nordic simple shapes. The chair becomes mutual integration of Eastern and Western cultures crystallization. Several of the above examples proved that Chinese traditional cultural are helpful to sustainable design.



Figure 17 Chair 43

CONCLUSION

In conclusion, Modern product design is originated from culture. Culture is the basis of forming products. It needs to be applied to life. Traditional Chinese culture has a long history. It is very broad and profound. One of the ways of development of traditional Chinese culture is eclectic. People must Inherit and carry forward traditional culture so that they can improve modern product design. Designers come to realize that the difference is beautiful. Diversity is valuable for design. Traditional Chinese culture cannot be inherited mechanically. Chinese traditional culture should be applied with critical thinking. People should absorb the idea and artistic essence of traditional Chinese culture to promote social progress. Meanwhile people should remove the backward feudal dross of traditional Chinese culture. Nowadays, with the advanced science and technology, modern product design jumps into the view and makes its foundation on commercialization of large-scale production. (Wu et al., 2008) Especially in the situation of globalization, designers should not abandon the Chinese traditional culture. The development trend of modern aesthetic is mixing the eastern aesthetics with western aesthetics. People are no longer blindly place particular emphasis on China or the west side. Whereas people try to find a way to merge differences aesthetic deeply into integration. This also means that people do not use a lot of superficial Chinese elements. All designers should strengthen the East-West cultural exchanges, learn from each other. The elements of traditional Chinese culture can be put into products to make product charm. As a result, the value of cultural product can be increased in the international market. Chinese traditional culture should combine with advance technology. A successful modern product design should embrace both ancient and modern. Designers should have an open mind to different culture. Hybridization is an important method to thrive the Chinese traditional culture. The modern product design is the carrier of cultural exchange between east and west. At last the most important thing is the reflection of the harmony between human beings and nature with modern way. What people should do be not only learning and transferring of traditional Chinese culture, but also developing and promoting Chinese modern product design to the worldwide. Designers can get inspirations from traditional Chinese culture to modern product design. (Lu & Yang, 2010) The contemporary design is an important tool to bring local values and forms into global products. It seemed that hybridization is a good method to modern product design in the globalisation background.

REFERENCES

Altamirano, C., et al. (2004). Strategies for fed-batch cultivation of t-PA producing CHO cells: Substitution of glucose and glutamine and rational design of culture medium. *Journal of Biotechnology*, 110(2), 171-179. Chow, C. W., Shields, M. D., & Wu, A. (1999). The importance of national culture in the design of and preference for management controls for multi-national operations. *Accounting, Organizations and Society, 24*(5), 441-461.

- Computer-Aided Industrial Design & Conceptual Design (CAIDCD). (2010). IEEE 11th International Conference on. *IEEE*, 2, 968-971.
- Ehrenfeld, J. R. (2008). Sustainability by design: A subversive strategy for transforming our consumer culture. Yale University Press.
- Georgette, W., et al. (2005). *Globalization and hybridization in cultural products: The case of Mulan and crouching tiger, hidden dragon.* Retrieved from http://ics.sagepub.com/ (Accessed: 14 Aug 2014)
- Julier, G. (2013). The culture of design. Sage.
- Krause-Jensen, J. (2011). *Flexible firm: The design of culture at Bang & Olufsen*. Berghahn Books.
- Lin, R. T. (2007). Transforming Taiwan aboriginal cultural features into modern product design: A case study of a cross-cultural product design model. *International Journal* of Design, 1(2), 45-53.
- Lu, M. Y., & Yang, J. (2010). *Inspiration of Chinese traditional* culture to modern industrial design.
- Maldini, I. (2014). Design and the global structures of common difference: The extinction of the SUN in Uruguay. *Design and Culture*, *6*(1), 111-124.
- Martin, Y., & Vermette, P. (2005). Bioreactors for tissue mass culture: Design, characterization, and recent advances. *Biomaterials*, 26(35), 7481-7503.
- Moalosi, R., et al. (2005). *Integration of culture within Botswana* product design. 2005 International Design Congress, 1-4 Nov, National Yunlin University of Science and Technology-Yunlin, Taiwan.

- Moalosi, R., et al. (2006). Culture: A source of product innovation. Proceedings Design Research Society-Wonderground International Conference.
- Orr, D. W. (2002). *The nature of design: Ecology, culture, and human intention*. Oxford: Oxford University Press.
- Retrieved from http://www.shenyun.com/learn/article/read/item/ uXrrqgyDZPo/introduction-traditional-chinese-culture.html An Introduction to Traditional Chinese Culture (Accessed: 28 Nov 2014)
- Sparke, P. (2013). An introduction to design and culture: 1900 to the present. New York: Routledge.
- Wu, .P, et al. (2008). The study and heritage of traditional culture in modern design //Computer-Aided Industrial Design and Conceptual Design (pp.1154-1157) . CAID/CD 2008. 9th International Conference on. IEEE.
- Zammuto, R. F., & O'Connor, E. J. (1992). Gaining advanced manufacturing technologies' benefits: the roles of organization design and culture. Academy of Management Review, 17(4), 701-728.
- Retrieved from http://www.shenyun.com/learn/article/read/item/ uXrrqgyDZPo/introduction-traditional-chinese-culture.html An Introduction to Traditional Chinese Culture (Accessed: 28 Nov 2014) Picture sources:
- Available at: http://www.travelchinaguide.com/intro/arts/beiJingopera/.html (Accessed: 17Aug 2014)
- Available at: http://www.lewuxian.com/(Accessed: 3 Dec 2014)
- Available at: http://www.ijdesign.org/ojs/index.php/IJDesign/ (Accessed: 17Aug 2014)
- (Author unknown) (2014) The successful experience of Taiwan Yii brand: to transform the process into the East West Furniture Available at: http://www.aiweibang.com/ yuedu/2408384.html (Accessed: 3Dec 2014)