

An Analysis of Inheritance and Innovation of Cultural Heritage in Industrial Design Education

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Abstract: Industrial design is an emerging and comprehensive application-oriented major in China, which includes industrial product design, visual communication design, environmental art design, new media design, human-computer interaction and interface design, and other new disciplines, which play a vital role in the future economic development of China. Therefore, in industrial design education, attaching importance to the inheritance and innovation of cultural heritage can not only integrate Chinese traditional cultural heritage into the industrial design, but also improve people's patriotic enthusiasm, as well as enable more and more people to understand our traditional cultural heritage, so that our cultural heritage can be better inherited and innovated.

Keywords: the Major of Industrial Design; Teaching; Traditional Culture; Inheritance and Innovation

Introduction

“Design” has become an important bridge connecting technology and culture, which has extremely rich spiritual emotions and cultural connotations. Therefore, people expect that “design” can not only provide excellent and practical functions but also express a more humanistic culture and values. This is also an important way for each country to express its own cultural heritage. By integrating Chinese traditional cultural heritage into the product design, and through the creation and design of Chinese national brands with cultural heritage and flamboyant individuality, the world can reacquaint itself with China from all aspects, which will be the only way for Chinese design to go worldwide. Therefore, integrating traditional Chinese cultural heritage in industrial design has become an important part of industrial design education^[1].

1. The significance of infiltrating cultural heritage in industrial design education

China is one of the four ancient civilizations in the world with a long history of more than 5,000 years. After going through continuous development, some civilizations in the world had disappeared and some have not yet been discovered, while the Chinese nation has always existed. Simply because the Chinese traditional cultural heritage was formed after 5,000 years of ups and downs. It is the accumulation and epitome of China's civilization for thousands of years. And it has profound historical implications and human emotions, reflecting the people's folk customs and aesthetic tastes. Meanwhile, it is also the product of a spiritual culture with great national characteristics and flavors. The inheritance and innovation of Chinese traditional culture is an essential part of our cultural construction and industrial design and is also the basic law of our cultural development and prosperity. Thus, in industrial design education, teachers should pay attention to the infiltration of traditional cultural heritage, so that students can establish a unified knowledge system for traditional culture, improve their mastery of traditional culture, and can design products with Chinese cultural heritage. With the rapid development of industrial design in China, it is of great practical significance to integrate Chinese traditional cultural heritage into industrial design education, which can enhance students' self-esteem, self-confidence, and national pride. Besides, it can also enable the effective inheritance of Chinese traditional cultural heritage, so that the world can better understand and fall in love with China.

2. Inheritance and innovation of cultural heritage in industrial design education

2.1 Developing a teaching plan for industrial design

In terms of industrial design education, teachers can help students better understand and comprehend the traditional culture and its significance by developing a teaching plan for industrial design^[2].

Firstly, prior to the class of industrial design, teachers can ask students to collect information about the cultural heritage. Meanwhile, teachers can also give some pre-class assignments for students, requiring them to better combine the industrial design with the traditional cultural heritage, which can improve their design; secondly, teachers can guide students to integrate the traditional cultural heritage into the industrial design by adopting various teaching methods, which can help students better carry out industrial design and creation. Finally, after the class of industrial design, teachers can suitably assign some homework to help the students consolidate what they have learned, so as to better infiltrate the rich traditional cultural knowledge into the industrial design, making the students understand the importance of Chinese traditional cultural heritage to industrial design. Hence, in the teaching of industrial design, teachers should know how to tailor their teaching to the students' needs and learn to set learning goals, so as to help students better integrate industrial design with traditional Chinese cultural heritage.

2.2 Directly drawing on the elements of traditional culture

In industrial design education, in order to make products with the characteristics of our traditional cultural heritage and distinctive national features, we can directly draw on relevant traditional cultural elements in the design, so as to create a product with traditional cultural characteristics and heritage.

First of all, teachers can guide students to know what is the Chinese traditional intangible cultural heritage, which includes paper-cutting, Chinese shadow puppetry, Peking Opera masks, tie-dye, as well as Chinese mulberry silk weaving techniques, four treasures of the study(writing brushes, ink sticks, paper, and inkstones), etc. Because these traditional Chinese intangible cultural heritages are not only the accumulation of the development of the Chinese nation but also the precious wealth with Chinese characteristics created by the Chinese working people. Thus, incorporating the traditional intangible cultural heritage into the design of modern industrial products is a must for every designer. Secondly, teachers can also help students to know how to apply cultural heritage in industrial design by the presentation of actual cases. For instance, "Si Nan Spoon Compass" is a mechanical apparatus used in ancient China to identify the direction. Designers can summarize and conclude the shape and structure of this apparatus, and apply it in their product design by using a bionic design (Figure 1). Finally, after class, teachers can assign students to conduct market research, so that students can make a new positioning of the product by determining consumer groups, product functions and prices^[3].

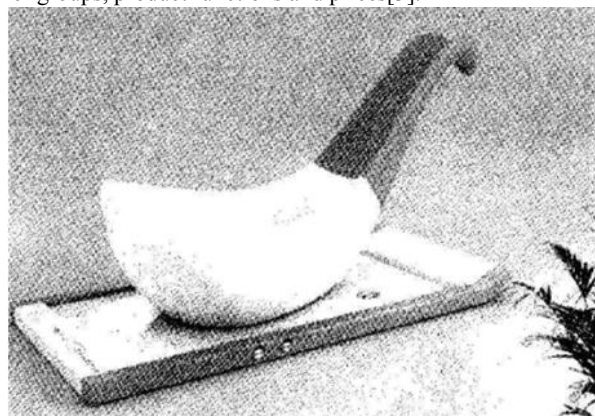


Figure 1 *Direction* (the design of a bathtub)

2.3 Integrating the cultural characteristics and emotional colors contained in the intangible cultural heritage(ICH) into the product design

China is an ancient country with 5,000 years of cultural history, and the charm of the Chinese nation is not only reflected in the specific form of traditional culture, but also in its cultural awareness and emotions. Therefore, the cultural characteristics and emotions of cultural heritage can be incorporated into the design of products, so that the world can feel the charm and temperament of the Chinese culture.

For example, "tie-dye" can be integrated into industrial design. As China's intangible heritage, "tie-dye" has been very popular among people with its unique artistic charm. With the development of science and technology, a wide range of tie-dye techniques have proliferated, most of which are complex and have great Chinese characteristics. They can provide designers with various inspirations to design "tie-dye" works with both oriental aesthetics and modern personality and innovation. For example, they can design handicrafts using tie-dye techniques(Figure 2).

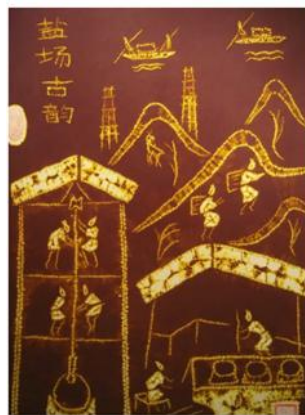


Figure 2 *The scroll painting on Ancient Charm of Saltworks –*

Tie-dye in Zigong, the award-winning work by Xu Renjie

2.4 Expanding Chinese traditional customs to arouse design inspiration

Chinese traditional cultural heritage is not only characterized by its inheritance and stability, but also with distinct contemporaneity and prominent local ethnic characteristics. Therefore, teachers can infiltrate the Chinese traditional culture into the education of industrial design, and fully extend the traditional culture into the education in and out of class, thereby guiding students to recognize and appreciate the traditional Chinese cultural heritage, as well as further stimulating their design inspiration.

For example, teachers can use multimedia to present relevant traditional festivals and customs for students, such as admiring the full moon and eating moon cakes on the Mid-Autumn Festival, or eating Yuanxiao(rice glue ball) and watching lanterns on the 15th day of the first lunar month. In the meantime, teachers can also ask students to conduct group discussions based on these traditional festivals, so as to deepen students' impression of traditional festivals, and thus help them to inspire their future industrial design and realize the profound Chinese Traditional Culture.

2.5 Comprehending traditional culture and designing the Chinese way of life

The 5,000-years of ideological and cultural elements of China, such as the ideological culture and life philosophy, are the origin and lifeblood of the traditional Chinese cultural heritage, which are deeply imprinted in the lives of the Chinese people and are reflected in people's lifestyles and behaviors. Therefore, in the daily industrial design education, teachers can make students combine tradition with modernity by deeply comprehending and digging up the traditional Chinese cultural heritage, as well as by integrating these traditional cultures into the product design. In addition, students can also show the Chinese concept of life, Chinese thinking and behaviors in a lively and modern manner. Only in this way can we inherit and innovate the traditional Chinese cultural heritage in a more profound and concrete way.

For instance, the "tea ceremony" and "the art of Chinese chess" in the traditional Chinese culture can be integrated into the industrial design, in order to design a "tea set" with national culture (Figure 3). Thus, people can better appreciate the charm of Chinese traditional cultural heritage.



Figure 3 *Jinpin Tianxia* (the design of a tea set)

Summary

In short, with the rapid development of China, an increasing number of enterprises have begun to realize the importance of industrial design, as well as the significance of self-owned brands to the healthy development of enterprises. Therefore, preserving and innovating the cultural heritage in the industrial design can make craft products designed with both oriental aesthetics and with modern personality. Apart from that, it allows more and more people to understand the charm of the Chinese nation.

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