

# *On The Green Development of Industrial Design in China*

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**Abstract:** With the continuous development of China's economy and science and technology, Chinese enterprises have gradually copied from the model of copying foreign companies' products in the past to independent innovation and development. By analyzing the design models of domestic and foreign products and the innovative ideas of enterprises, this article analyzes the green road of Chinese enterprises and product design from a macro perspective.

## **1. Introduction**

The rise of the industrial revolution, humans began to use a large number of mechanical equipment to produce products, and design activities have entered a new stage, that is, design itself has entered a new stage-industrial design stage.

With the rapid development of China's economy, the competition in the sales market is becoming more and fiercer. The factory needs to use a large number of machines to reduce costs and enhance competitiveness. At the same time, the importance of design is becoming more and more obvious. Taste. The role of design in the market becomes more important as people's consumption level and appreciation level increase. With the improvement of living standards, people have higher and higher demands on design.

In today's commodity society, at the same price, what kind of product is what we buy as long as the reason, what factors determine the standard of our purchase of goods, and what kind of products can stimulate our desire to consume Is the design of the product.

What is design and what is industrial design? Industrial design is to integrate aesthetics into products on the basis of the existing manufacturing level. With the continuous improvement of economic level and manufacturing level, the development trend of industrial design tends to be art, emotion, personality and green.

## **2. Green design concept in industrial design**

### **2.1 The emergence of green design**

The concept of green design first appeared in Japan's green plan in 1991. The growing global population and limited resources have become two problems that many countries need to overcome. With the gradual popularization of national energy conservation and emission reduction and the concept of sustainable development, how to maximize the rational use of industrial resources and reduce the burden and damage caused by industry to the environment has become a major

consideration in many countries.

In the case of increasingly prominent environmental problems, the green design of the product is the green concept born from this outstanding problem. This concept mainly emphasizes the protection of the ecological environment and the establishment of an environmentally friendly and resource-saving industrial chain. In the existing product design, the performance of the product is generated by the design link, and the product performance of the product in the product design is determined by the design link of the mechanical manufacturing process, so the core of the green process is its green design.

## **2.2 Concrete concepts of green design in industrial design**

Green design means that in the cycle of product design, production, sales, use, maintenance, and recycling, while meeting the performance guarantee, economic practicality, safety, and reliability that the product should have, it also takes into account the rational use of products and environmental impact of resources, and follow the three basic principles of "rational resource allocation, recycling, and advanced technology".

"Green design" is a new concept, a new point of view, a new idea, a reflection of mankind in the face of the destruction of the ecological environment, a new attitude towards nature. After entering the 20th century, product designers gradually realized that industrial design should not be over-commercialized. Because of the design itself, people are attracted to buy a lot of products that they do not need, which is likely to cause excessive consumption of resources. At the same time, in order to stimulate consumption, excessive packaging of products will cause various environmental pollution. Industrial design has changed the production and lifestyle of human beings, but at the same time has accelerated the consumption of energy and resources on the earth, further deepening environmental self-purification and sustainable pressure; therefore, in terms of environmentally friendly improvement and effective governance, industrial design should also be fully recognized. The implementation of the "green design" concept is a scientific method. To realize the concept of "green design", we should improve and develop from two aspects.

First, start with the designer. The designer is the leader of industrial products. The shape and function of a product need to be designed and created by the designer. From the perspective of "green" design and environmental sustainability, the designer determines the specifications and production of this product. How much materials need to be consumed, what kind of manufacturing materials are used, what kind of manufacturing processes are required, how to organically link the design concept with reality, how to deal with the waste after production, whether it is recyclable, etc.; the designer can also decide how to influence the product, and how to promote consumption or produce rational consumption.

Second, start with the product. Industrial design is the key to dominating the investment value of a product. Measuring whether a product has market value is essentially putting an industrial design into the market environment for testing. In addition to the attributes such as color and material, the product itself is more of design attributes, such as functions and ideas. If a product is positioned on the concept of "green", then it is inevitable in the industrial design process. Will be integrated into the connotation of sustainable development.

## **3. The development trend of China's industrial design**

### **3.1 Specialization trend of industrial design**

In the early days of industrial design, it was mainly concentrated on some daily commodities such as home appliances. With the advancement of technology and economic development, the

design scope of industrial design gradually expanded, and it turned to large tools such as cars and aircrafts. To design such products also means the author has higher requirements for designers and more solid professional knowledge. The field of industrial design has gradually expanded from a small area, the audience has become more and more international and professional, and companies have gradually changed from the simple pursuit of quantity in the past to the requirement of quality.

### **3.2 Build your own brand**

With the rapid development of China's economy and science and technology, more and more enterprises have gradually changed from the original foundry for the world to independent innovation, to create their own brands and create their own product lines. Countries and enterprises also recognize the various disadvantages of being foundries, such as cheap labor and lack of enterprise autonomy. Some forward-looking enterprises have realized the importance of innovation for enterprises.

### **3.3 Rising demand for innovation**

Driven by economic globalization, especially since the country's accession to the WTO, the country's development has merged into the international orbit, new opportunities and challenges ushered in by Chinese enterprises. In the current market economy, enterprises not only facing the pressure brought by market competition, it is necessary to compete with the same type of enterprises in developed countries, but this is still a good era, an era full of development and opportunities. For enterprises to stand out in an open market, they must continuously innovate their products and improve their creativity and competitiveness. Through the development in recent years, China's innovation and creativity in industrial design has greatly improved. Many companies have gone from mechanical imitation to step-by-step innovative design, and many companies have even embarked on a unique enterprise road that promotes China's traditional culture.

## **4. The current situation and existing problems of China's industrial design**

The rapid development of China's economy, under the premise that companies attach importance to industrial design, many companies have developed vigorously horizontally and vertically, and their designers have designed many excellent products. Many industrial products have successively won the "Red Dot Award", and even won international design awards. The development of industrial design in Beijing, Guangzhou, Shenzhen, the Pearl River Delta and other places is very good. At the same time, it has led the design direction of Chinese products in industrial design. However, there is a certain gap in the design field between our country and the developed countries. Therefore, our national enterprises need to constantly sum up experience, check for gaps and fill in gaps, and at the same time support enterprise employees to exchange learning with excellent foreign companies and strive to catch the international design train.

### **4.1 Insufficient recognition of the impact of industrial design innovation**

Green design has been constrained by innovative ideas for a long time. The key to the transformation of the industrial development model lies in the innovation of the industrial production process. The actual refinement of the process is to consider all aspects of product design, including materials, recycling and other issues. This is also the key to promoting sustainable economic development. Limited by the level of socio-economic development and insufficient openness, some regions have insufficient influence on industrial design innovation and development

awareness, and have not given too much technical support to industrial design innovation. The huge effects and effects brought about are not well understood.

#### 4.2 Restrictions on market factors

The market environment is very important for the development of enterprises. Industrial design is an emerging industry in recent years. Most enterprises do not have independent intellectual property rights and core technologies. As a company, if there is no core technology, such enterprises are replaceable. Development is not sustainable. Now many designers often do not think about the impact of design products on the future development of enterprises from the overall situation of industrial development, but start from the current interests and seize the hot products of other companies to "copy" and "copycat".

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