

Research on Industrial Design Integrated with Cultural Industry

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Abstract. Industrial design is a practical way to effectively promote the development of cultural industries with regional characteristics. Culture is a characteristic resource that can be used in design innovation, and it can quickly improve the quality and level of industrial design. The integration of the advantages of industrial design and culture can promote the development of related industries. This article focuses on the integration and innovation of industrial design and cultural industry, and analyzes the advantages of cultural resources and design innovation, the transformation of industrial design innovation of cultural resources, and the coordinated development of cultural industry and industrial design industry, and discusses the industrial design industry and cultural industry, and the interaction between the two and the relevant practical value of integrated development. This paper can provide some innovative development ideas that can be referred to and used for industry development and academic research in related fields such as cultural industry and design industry.

Keywords: Industrial design; cultural industry; integrated innovation.

1. Introduction

In recent years, our country vigorously promotes the development of cultural and creative industries, organizes cultural and creative design competitions, builds cultural and creative industry parks, and vigorously promotes the local cultures. China has a long history and vast territory, as well as unique regional cultures after long-term development and inheritance in various regions, it provides abundant resources for development and application. Design has great influence on economic development, especially in the field of industrial design directly related to industry. It is important to the economic development of a country or region. Industrial design innovation has the attributes and functions to drive the generation, prosperity and promotion of cultural products and cultural services and experiences. Industrial design can create new cultural products, new forms of cultural services, and new cultural formats on the basis of existing regional cultural industries through innovative methods and technologies [1]. Therefore, based on the future development of industrial design and cultural industry, it is necessary to study the integration and innovation of the two, so as to explore the new contemporary value of regional culture and explore new development methods of modern industrial design.

2. Advantage Integration of Cultural Resources and Design Innovation

Design innovation based on cultural resources has become an important part of the current development of cultural industries, design industries and other related fields. Although cultural resources and industrial design are two different aspects, based on the integration of the two, it is a development model that integrates advantages and represents the current overall trend of economic, cultural, and design development. From the perspective of the overall development of society, in-depth study of the inclusive development of traditional culture and modern economy, mastering the interactive relationship between culture, regional economy and social development, and inheriting and promoting traditional culture as the driving force for industrial development is to promote local economy and an important way for the overall development of society [2]. Integrating Chinese cultural heritage into product design, publicizing individuality, inheriting culture, creating Chinese national brands, and letting the world know China is also an important way for Chinese design to go global. At the same time, inheriting and innovating Chinese

traditional cultural heritage is also an important issue in the industrial design industry [3]. Integrating cultural resources with design innovation can let more people know the source of culture and its meaning, and attract people's interest in buying. This will not only promote economic development, but also let more people know about our traditional culture. To a large extent, traditional culture can be developed better, and traditional cultural elements can be spread more widely.

Design is a bridge connecting science and technology and human culture. It is full of spiritual emotion and cultural connotation is one of the characteristics of excellent design works. People hope that the design can provide better functions and express more human affection and personality, they also hope that the design can contain more humanistic value. Integrating cultural resources and design innovation can effectively explore the products and industrialization innovations introduced into regional culture. By combining traditional cultural characteristics and modern design innovation characteristics, we can set targeted cultural creative content, and summarize cultural resources and design Cultural and creative strategies and methods that combine innovation. There are all kinds of designs in people's daily life, and they are one of the very good carriers for the spread of regional culture in the new era. Through in-depth research on the integration of cultural resources and industrial design innovation, it is possible to explore the industrialization path of cultural design in a broad sense, and promote the inheritance and development of traditional culture.

3. Industrial Design Innovation and Transformation of Cultural Resources

The culture of the Chinese nation is broad and profound. The five thousand years of history and culture of China have been integrated and permeated in all aspects and fields of people's lives. Traditional culture is an element that never goes out of style, which can provide designers with inexhaustible and inexhaustible inspiration [4]. Integrating traditional cultural elements into product design can increase the connotation of the product, improve its recognition, and the overall quality of the product. And culture involves a lot of content, including history, folklore, life, art and other aspects of the development of human society. Therefore, for further research on cultural elements from the perspective of industrial design, it is necessary to carry out classification research on their external manifestations, make a deep analysis and extraction of the typical characteristics of cultural elements, so as to effectively match them with related product forms.

3.1 Classification and In-depth Study of External Element Forms

Cultural elements, as an important carrier of culture, express and carry abstract concepts such as cultural unique artistic characteristics and artistic spirit. Cultural elements reflect the lifestyles and survival attitudes of regional people, and their forms and colors have strong regional cultural characteristics. The forms, structures, materials, etc. displayed by cultural elements have all become innovative resources that can be fully borrowed and used in product design. However, it is important to note that there are many aspects of culture, and their expressions are not the same. Moreover, after long-term development, China has formed many traditional cultural elements with regional characteristics of the times. These cultural elements reflect various characteristics, rather than the same pattern. Therefore, when embedding cultural elements into product design, we must first conduct in-depth classification research on the form of external elements, including a targeted analysis of the important components of external forms such as shape, color, texture, material, structure, etc. for better understanding the cultural elements. For example, modeling, as a typical representative of cultural elements, not only contains rich and colorful cultural connotations, but also an important carrier for designing and expressing cultural characteristics. For another example, color is an important form of expression of regional culture. It can assist in modeling elements and give products a more cultural and historical sense. The most typical ones are the five colors of blue, white, yellow, red and black in the traditional Chinese color system. The five colors contain a heavy sense of history and a sense of national culture.

3.2 Induction and Extraction of Typical Characteristics of Cultural Elements

The ideological and cultural elements of China's five thousand years of ideology and culture and life concepts passed down from generation to generation are the source and lifeline of Chinese traditional culture. They are deeply imprinted in the lives of Chinese people and are reflected in people's lifestyles and behavior habits [5]. In recent years, the rise of traditional cultural elements has also made the public full of interest in traditional elements. Cultural elements include not only concrete formal language, but also abstract ideas. The connotation of regional culture in different regions is not the same, and people's aesthetic trends changes in different times. Therefore, when creatively using cultural elements, it is necessary to dig deep into the local connotation spirit of cultural elements, refine their typical characteristics, combine them in line with today's aesthetic trends, and apply them to modern product design. When refining design elements, it is necessary to deeply understand its cultural connotation, and extract distinctive formal elements, such as appearance, color, or composition structure, so that consumers can recognize and understand them. In addition, pay attention to the detailed differences of the formal elements when extracting the cultures of different regions. Because the regional culture is part of the entire Chinese culture, there will be some similar parts, but when you carefully analyze the details, you can still find that the cultural elements of each region have their typical characteristics.

3.3 Incorporate Part of the Product to Match the Form

For incorporating cultural elements into products, in addition to the analysis of cultural elements and the extraction of typical features in the early stage, the most important thing is to develop effective applications in the later stage. The key to this process is how to find a suitable design carrier in the product's function, shape, color, material and other content to integrate regional culture, especially in a very clever way to expand form matching and innovative applications. In order to design products that can effectively convey regional culture and meet product characteristics, it is necessary to study the key content of the product's shape, function, structure, etc., compare and combine cultural elements and product parts, and then develop targeted matching. The appropriate use of cultural carrier elements and spiritual connotations in industrial design will help realize the effective integration of modern products and cultural resources. In this process, the first step is to comprehensively sort out the culture, determine the core content of each regional culture, find the appropriate representative of cultural elements, and then compare the differences between the cultural elements of the region and other regional cultural elements, and give a sense of the representativeness. Effective extraction of elements, followed by in-depth understanding of modern people's lifestyles and product performance, can help find product integration points that can be integrated with regional culture. Based on this, the external form of the product and the cultural expression elements are well carried out. The matching, as far as possible from the inside to the outside, reflects the effective integration of innovation.

4. Coordinated Development of Cultural Industry and Industrial Design Industry

Industrial design is a high-tech productive service industry and a link between advanced culture and modern manufacturing. It is of great practical significance to use industrial design to drive the development of characteristic cultural industries and to promote the upgrading of cultural industries. It can help complete the transition from "Made in China" to "Created in China". In the current global environment of nationalization and localization dedicated to design, incorporating local cultural characteristics into products can quickly enhance the value of design. Culture is a characteristic resource with typical characteristics. Incorporating it into the design can highlight the taste of the design and enhance the brand image of the product. The integration of cultural resources and design innovation can bring huge benefits to the cultural industry and design industry, and promote the benign coordinated development of the two industries. The coordinated development of

the cultural industry and the industrial design industry refers to the excavation of historical, modern, and national cultural elements from traditional culture, and the establishment of an interdependent relationship with the industrial design industry that integrates, absorbs, and develops together. Through the introduction of design media, we integrate culture and industrial design, comprehensively and deeply understand and grasp the interaction between culture and industrial design, understand the influence on design from regional environment, cultural atmosphere, cultural spirit, etc., and integrate cultural industry with the design industry as a system. When using design as a medium to explore the unity of culture and industrial design, it is necessary to focus on researching and looking for the conditions of symbiosis and interaction development between cultural industry and industrial design industry, and analyze the interaction and promotion effect between them.

4.1 The Promotion of Industrial Design to the Cultural Industry

The essence of industrial design is innovation, and innovation is the fundamental attribute of industrial design. Industrial design can drive the development of characteristic cultural industries through continuous innovation. It can use the "cultural products" and "cultural services and experiences" generated by innovation as media and premises, and continue to promote the healthy development of the entire cultural industry, including: the expansion of scale, the improvement of industrial structure, the improvement of industrial efficiency, etc. [1]. Of course, industrial design has its particularity. It not only includes visual factors such as shape, color, and texture, but also must meet the needs of modern life in function. At the same time, there are also factors such as production and manufacturing constraints. This also requires that when launching industrial design innovation for the cultural industry, it is necessary to implement the innovation of cultural products, cultural services and cultural industry models through the use of its complete design thinking and methods, rather than a specific design process based on a certain part. To help solve some typical problems in the entire cultural industry, such as the lack of innovation driving force and insufficient docking of new technologies, and to drive the development of the cultural industry through industrial design, it is necessary to focus on the application of innovative ideas to achieve the influence and penetration of the cultural industry concept. What is clear is that in the process of innovation, industrial design can correspond to the relationship between the "demand, manufacturing, circulation, and use" links of cultural industry development, and provide systematic methods and approaches for industrial development. Industrial design can systematically optimize and integrate the resources of the cultural industry chain, maximize the advantages of the regional cultural industry, integrate high-tech into cultural products and services, promote the upgrading and innovation of the cultural industry, and increase the driving force for the development of the cultural industry. In general, industrial design is an effective way to drive the development of the cultural industry.

4.2 The Promotion of Culture to the Industrial Design Industry

The development of industrial design innovation based on the cultural perspective can examine the design from a higher position and realize the overall improvement and differentiated development of the industrial design industry. Using culture to guide industrial design, design innovation will have a unique cultural connotation and aesthetic appeal, which is very different from the design produced under the guidance of other ideas. China has many types of traditional cultures, and cultural resources in various regions are very rich. These unique cultures contain many traditional elements, aesthetics, family concepts, etc., and cultural awareness and value connotations have long been rooted in people's thinking. In areas with lots of cultural heritage, different cultural resources such as traditional customs and folk crafts with a large number of local characteristics have been concentrated in particular. It is an effective and feasible way of design innovation and development, to integrate traditional culture with modern industrial design, as well as the emotional color, value connotation, and traditional cultural characteristic elements of culture into the industrial

design process, to excavate new cultural values with regional characteristics, and develop modern design with regional characteristics. China's existing rich cultural elements and resources can carry out personalized innovation and differentiated applications for the industrial design industry, and provide a massive library of high-quality materials. Compared with developed countries in design, industrial design industry in China still lags behind in many aspects. In order to seek rapid development and diversified development, it is necessary to combine Chinese local culture to achieve design innovation and the overall level of design industry improvement and differentiated development from a cultural perspective. Through the introduction of culture and the use of culture to carry out targeted industrial design innovations, culture can be transformed into an operable method. It is worth exploring a characteristic development model suitable for design innovation in China.

5. Summary

From the perspective of the global cultural industry and industrial design innovation development, in addition to technological innovation around science and technology, we need to focus on innovation and integration around local culture. China is rich in cultural resources and has a high-quality design material database that can be fully utilized. Based on cultural inheritance and development, the introduction of industrial design innovation and the development of a strong combination of advantageous resources can not only bring a large number of innovative processes and practical applications to the cultural industry, break the existing industrial development pattern, but also construct a multifaceted phase. It is an industrial development model that integrates financing, innovation, resource sharing, and diversified development models. Integrating the cultural industry with the industrial design industry, and launching effective targeted innovation, can apply the characteristic elements of traditional culture to industrial design, and carry out more dynamic inheritance and innovation of traditional culture. Innovatively reflecting cultural heritage in industrial design can make works have national characteristics, and can make national brands reveal unique temperament and charm from inside to outside. It is a design method and strategy worth promoting.

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