Research on the Regional Expression of Visual Elements in Modern Packaging Design under the Background of Modern Art

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Abstract: China has a vast territory and abundant resources. Especially in recent decades, with the development of economic globalization, commodity packaging design has become an inseparable part in the social market economy. In order to realize and reflect the value of goods and make consumers desire to consume, unique packaging is the best way to attract them. With the development of regional culture, packaging art design with regional cultural characteristics has gradually become the focus of attention. The regional expression of commodity packaging design gives the unique artistic charm and aesthetic value of commodity packaging, which can not only promote the inheritance and development of regional culture, but also meet the cultural psychological needs of modern people returning and seeking root and the spiritual aesthetic needs in the context of daily life aesthetic. Based on the background of modern art, this paper analyzes the future development trend of regional characteristics in products by the expression of regional characteristics in product packaging, which has certain theoretical and practical research value.

1 INTRODUCTION

In the process of continuous economic development, there are more and more goods of various categories, so each category of goods must be represented by packaging. China has a long history, and different places have different means of production, living habits and cultural characteristics. This opens a regional door for the current packaging design, and artistic treatment of these local unique materials as the basic elements of packaging can give people regional information and cultural communication, which is most easily accepted by people [1]. Culture is an indispensable witness of a country's history and achievements. China has always been famous for its long history, and its traditional culture is profound and can stand upright in the evolution of civilization, which is the best interpretation of its long cultural heritage [2]. The so-called regional culture mainly refers to the unique regional national culture such as different languages, cultures and values formed by different regions and nationalities under the restriction of different environments. Regional visual elements have their own historical and cultural background, reflecting the cultural form in the regional environment and representing the local customs and customs [3]. With the development of society and the progress of the times, the value and significance of packaging is no longer limited to the protection of commodities, but has merged the meanings of natural science and social science, and has become a kind of commerciality and marketability [4]. The new meaning of packaging makes it need more accurate market positioning and meet the market demand of more consumers, so as to continuously increase the sales volume of products [5].

As the carrier of cultural communication and promotion, commodity packaging design not only beautifies products, represents the value of products, but also gives more meanings, which plays a role in spreading culture and exerts a subtle influence on our lives [6]. Regional culture is a cultural complex with regional brand formed by the accumulation and precipitation of a certain region under the influence of natural conditions and natural conditions, with strong natural flavor, life flavor and local flavor [7]. In modern packaging art design, due to different regions, their respective cultural expressions are also different. Therefore, in order to achieve the purpose of safe circulation and convenient sales of modern commodities, reflecting the form and nature of commodities, commodity packaging will make modern packaging art design more humanized, green, branded and cultural through the integration of unique regional characters, graphics, colors and other arts and protection technologies [8]. If the visual elements with regional characteristics are applied to commodity packaging, consumers will directly understand the characteristics of commodities, associate with the cultural background related to commodities, and remember commodity information more directly and clearly, thus stimulating the desire to buy [9]. Based on the background of modern art, this paper analyzes the future development trend of regional characteristics in products through the expression of regional characteristics in product packaging, which has certain theoretical and practical research value.
2 PROBLEMS IN REGIONAL PACKAGING DESIGN

2.1 The regional characteristics are not obvious

Regional culture is a cultural complex with regional brand formed by the accumulation and precipitation of history under the influence of natural conditions and natural conditions, with strong natural flavor, life flavor and local flavor. Some packaging designs even have wrong regional symbols, which not only deviate from regional characteristics, but also hinder the long-term healthy development of local products to a certain extent. Regional characteristics have a strong degree of recognition, which is narrower and more unique than nationality. Applying the folk customs of this specific region and the local culture left over from history to packaging design can show the local culture and customs, and at the same time form distinct personality characteristics, which is a favorable weapon for commodities to occupy the market. An important component of China's splendid civilization is also an important element of commodity regional culture. In commodity packaging design, in different places, influenced by geographical environment, folk customs and so on, the combination of graphics and regional culture conveys different values. The regionality of packaging refers to the absorption of local, national and folk styles and various cultural traces left by the history of this region in design. To some extent, region is narrower or more specific than nationality, and it has strong recognition.

For local specialty goods, regional packaging is undoubtedly an important way to occupy the market, which can not only highlight the profound regional culture, but also bring strong visual effects to consumers, prompting them to purchase. As a visual symbol bearing information about regional culture and customs, different graphics have different artistic forms. From ancient times to the present, traditional patterns can last forever, and become the hottest design elements in contemporary design circles, with high appreciation value and cultural heritage [10]. The uniqueness of packaging design determines its position in the discipline. Compared with two-dimensional graphic design in the ordinary sense, packaging design is carried out according to spatial structure, involving the construction of three-dimensional structure and the treatment of two-dimensional structure. In the existing product packaging, Chinese traditional art is skillfully used as a design element, which can better reflect the special regional cultural characteristics. Reflect the regional characteristics of packaging in design, packaging, performance and creation.

2.2 Lack of local cultural heritage

As a cultural medium, packaging can reveal regional cultural characteristics and inherit local cultural context by exploring and extracting beneficial regional cultural elements. In particular, those inherent cultural elements hidden under the appearance can be summed up and designed differently by reasonably drawing on their colors, graphics and patterns, modeling structures, etc., which can completely become the carrier of regional culture and continue the value of regional culture. Traditional graphics are rooted in the local culture of origin in commodity design, which is the combination of culture, information transmission, practicality and convenience, emotion and aesthetics. Many packaging designs do not highlight the regional cultural characteristics and express the regional cultural connotation when displaying local characteristics, and sometimes the phenomenon of using wrong visual symbols due to improper understanding also occurs. To solve this problem, the packaging design of local characteristic goods should not only fully draw lessons from regional characteristic elements, but also further extend its cultural connotation, transform limited space into infinite imagination, and continuously expand consumers' cultural psychology and aesthetic psychology. After the founding of the People's Republic of China, especially since the reform and opening up, China's economic level has been rapidly improved, and the trade between commodities has also been continuously improved. In order to meet the needs of people's spiritual life, people have created folk art with their own characteristics in different geographical environments. Although the packaging design of many local specialty goods is of good quality, it lacks innovation and cannot meet people's aesthetic needs and their psychology of pursuing fashion and individuality. If the products are not improved in time, they will be difficult to occupy an important position in the market even if they have distinctive local characteristics.

3 THE RELATIONSHIP BETWEEN REGIONAL CULTURE AND MODERN PACKAGING ART DESIGN

There are many kinds of cultures in the world. There are different cultural characteristics and differences every few kilometers away, and different cultural changes will occur every few years. In these cultural changes, regional factors and characteristics of the times play a very important role. As a culture expressing people's behavior symbols, people's inner life can be gradually externalized through design. Although packaging art designers mainly design for products, the packaging they designed embodies the concept of culture-oriented and life-oriented. On the one hand, regional culture can reflect the cultural nature of commodities, on the other hand, the characteristic culture contained in commodities is also a key point to attract consumers. Regional characteristic culture is generally the starting point of design thinking, which can convey unique information and distinguish it from similar commodities. Packaging art design is the sublimation of packaging in the sense of the times, which breaks through the original ideas and values, and makes the existing commercial guarantee more attractive to consumers. Packaging art design should fully display the advantages and image of goods, convey information accurately, be attractive and guide consumption.

Based on the packaging design of regional culture, it can become a new social driving force, and it is also a
manifestation of a new form that won’t cause memories of history. There is no monopoly in any scientific research methods, but there are commonalities. Figure 1 shows the general law of regional cultural development. Topology reliability optimization simulation pairs are shown in Table 1.

### Table 1. Performance parameters of optimized topology of packaging design before and after optimization

|                      | Before optimization | After optimization |
|----------------------|---------------------|--------------------|
| Number of rows       | 31                  | 35                 |
| Number of columns    | 13                  | 22                 |
| Monitoring points    | 403                 | 770                |

If a three-layer network is designed, it has C input units and M output units. For layer 3 networks, there are:

\[ f = \frac{\alpha P}{\pi d^2} \frac{ch}{sh} \left( \frac{L_x}{d} \right) - \frac{4R_j}{\pi d} \cdot x \]

(1)

Calculate the activation value of the output layer unit:

\[ S = S_m = \frac{4P}{\pi dE \alpha} \frac{ch}{sh} \left( \frac{L_z}{d} \right) \]

(2)

Use the following formula to convert the input and output values of samples:

\[ f_0 = \frac{\alpha P}{\pi d^2} \frac{ch}{sh} \left( \frac{L_z}{d} \right) \]

(3)

Because of the rapid circulation of commodities, it is impossible to occupy the market by relying solely on the advantages of commodities themselves. We should skillfully apply the regional culture to the packaging art design, combine the modern science and technology level with the basic expression form of modern design, and design the brand packaging of goods with times and personality. Only in this way can it be beneficial to the future sales and circulation of goods. In modern packaging design, design is an important bridge for communication and integration between different cultures, and most packaging embodies the spiritual and cultural connotation of products. Packaging actively draws lessons from foreign culture while maintaining the dominant position of local culture. This packaging style is not only the "trendsetter" but also the "selfish departmentalist" design. Regional culture plays an important role in packaging design, mainly because packaging designers can inspire their creative inspiration according to the unique cultural characteristics of different regions. In other words, regional culture can play a leading and guiding role in packaging design.

### 4 APPLICATION OF REGIONAL CULTURE IN MODERN PACKAGING DESIGN

#### 4.1 Focus on regional elements

In modern packaging art design, the outstanding design works have condensed the unique regional culture and become the focus of attention of the audience. Therefore, packaging art design strives to combine traditional culture with modern culture, eastern culture and western culture to express. In today’s increasingly rich material age, if we want our products to stand out among many products, we must have good ideas. The key to the packaging design of arts and crafts is to improve the technical level of arts and crafts industry, integrate arts and crafts into modern life, and give full play to convenience and emotional comfort. Figure 2 is the internal structure of ceramic bowl package.
After people struggle with nature for a long time, different cultural systems are formed in different environments. The application of regional culture in modern packaging art design mostly absorbed the style and culture of local nationalities and folk customs, as well as the cultural traces left by regional history. Today, with the rapid development of design discipline, the value of goods increases rapidly after packaging. Product market positioning, sales objects, selection and positioning of methods are all factors that producers should consider. At the same time, they should know more about the living habits and traditional taboos of the people in the place where the products are sold before they can be comfortable [11]. There are a lot of excellent cultural traditions in China, and these fine traditions often have better meanings, all of which imply the people's longing for a better life in the future. Designers' inspiration in packaging design mainly comes from regional culture, which not only has the individuality and culture of traditional commodities, but also can influence consumers' choice of commodities. In a good packaging design, the main emphasis on positioning is that the performance should be multiple, so that people from different regions and different nationalities can have different objective living conditions. In China's long history and culture, some words and patterns carry beautiful meanings and people's longing for a better life. If these elements are integrated into the packaging design process of products, the products designed will surely give people a bright feeling.

4.2 Focus on regional color

When consumers choose products, they are often attracted by different colors of products. Good product packaging design colors can attract consumers' desire to buy to the greatest extent. Color is closely connected with our life, which originates from and blends with life. Regional color culture vividly reflects the unique customs and human feelings of the region and the improvement of material and spiritual civilization. In different cultures, people have different psychological and physiological feelings about color, which is related to the symbolism of color given by different regional cultures. In packaging art design, striking colors can fully imply and symbolize people's emotions about culture. As an auxiliary tool for writing, graphics vividly endow words with vivid characteristics, especially those with regional cultural characteristics, which make packaging more symbolic, custom and peculiar through different regional landscapes, costumes and other patterns. From the psychological point of view, color can stimulate people's senses strongly, and then indirectly affect people's psychological reaction. Therefore, the unique design of product packaging color can significantly increase the purchase quantity of consumers and produce different effects.

The logo of Mah children's milk powder is designed in consideration of children's cognitive and psychological characteristics. Through the change and combination of graphics and characters, the brand, product name and the use of cute cartoon images of products are clearly expressed.

Figure 3. Logo design of Mah children's milk powder

People's visual perception of color is a true representation in psychophysiology, which is different from the conceptual theory of color in physics or chemistry. Psychophysiological truth is the color expression effect that people really see with their eyes, and the color entity and color effect will be consistent only under the condition of harmonious multi-tones. When consumers observe the color expression in packaging design, the color entity and commodity attributes will change into a new visual effect at the same time. Therefore, people feel the effect of color through visual expression, which is the physiological and psychological efficiency reflection of visual subject images. With the continuous development of commodity packaging design, the value of color in regional culture and its application in displaying the commodity packaging design of regional culture reflect the spiritual and cultural connotation of origin, which is of new significance for exploring the color culture presented in the commodity packaging of origin.

5 CONCLUSIONS

Regional culture plays an increasingly important role in product packaging design. By introducing China's unique regional cultural elements, regional colors and natural materials into packaging design, it can not only greatly enhance the cultural heritage of products, but also embody the inheritance of China's long-standing traditional culture. If we want to integrate regional visual elements into modern packaging design, we can extract regional characteristics, national characteristics, history, culture, local customs, etc. to endow packaging design with overall visual expression. As a new generation of designers, it is an unshirkable responsibility to carry forward the cultural elements with regional characteristics. With the continuous development of China's economy and society and the further precipitation of excellent cultural heritage, the application of regional culture to modern packaging design can better sublimate the product characteristics and achieve better sales results and far-reaching cultural significance. With the rapid development of social economy, the combination of packaging and regional characteristic culture can make modern packaging design
have deeper meaning and rich visual experience.

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