

Exploration on Environmental Protection Packaging Design of Nixing Pottery Artworks

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Abstract: This paper takes Nixing pottery as the research object, and discusses the environmental feasibility of its packaging design through the traditional ceramic arts and cultural characteristics of the product. This paper describes the production process characteristics and artistic value of Nixing pottery, and clarifies the importance of environmental packaging design to the development of Nixing pottery. The development status of environmental protection packaging design was analyzed, and the main problems and solutions were pointed out. Aiming at the environmental protection packaging design idea of nixing pottery, the corresponding solutions are put forward, including material selection, structure design and so on. The environmental protection packaging design of Nixing pottery needs to consider the environmental protection, practicability and protection of Nixing pottery, and pursue the combination of environmental protection and practicality. Finally, the article summarizes the positive significance of environmental protection packaging design in the development of Nixing pottery, hoping to provide reference for the study of environmental protection packaging design.

Keywords: Nixing Pottery; Environmentally Friendly Packaging; Arts and Crafts; Packaging Design; Arts and Crafts

1. Introduction

As one of the four famous pottery in China, Nixing pottery is deeply loved by people because of its unique modeling characteristics and cultural value. However, with the increasingly prominent environmental problems, its packaging design needs to be improved and optimized urgently. The design of environmentally friendly packaging is not only related to the protection of products, but

also carries the concept of sustainable development, which is an important factor affecting the choice of consumer brands [1]. For the characteristics of Nixing pottery products, environmental protection packaging design needs to focus on the performance characteristics of packaging materials. For example, the selection of packaging materials adopts biodegradable materials, such as polylactic acid and pulp molding. Polylactic acid has good formability and adaptability to complex climate. Pulp molding can reduce carbon emissions and meet the requirements of environmental protection. Related studies have shown that the degradation time of polylactic acid is half a year, which has better environmental protection advantages than plastics. In terms of packaging structure, it is recommended to adopt a modular design method, which is conducive to standardized production [2]. The folding structure can be used in the design process, which is beneficial to reduce the volume during transportation. According to relevant data, the use of folding packaging design can save storage space and reduce transportation costs by one-third compared with traditional packaging structures [3]. In terms of visual perception, environmental packaging design needs to pay attention to the application of aesthetic design, so as to attract the attention of consumers. The designers use natural materials to print the packaging, which can show the cultural characteristics of Nixing pottery [4]. The labeling method of Nixing pottery product information is very important. By adding environmental protection design elements to the packaging, consumers' desire to buy can be improved. Through the integration of QR code or smart label in the design process, the product can enable consumers to obtain real-time environmental protection-related information, guide consumers to continue to pay attention to the development of Nixing pottery, and establish a sense of environmental

protection consumption. Nixing pottery manufacturers carry out online marketing by combining social media platforms to show the cultural connotation, stories and legends contained in Nixing pottery environmental protection packaging design, enhance the value of products and enhance competitiveness. The transformation of environmental packaging design needs to consider its economic characteristics, so as to take the road of sustainable development in environmental packaging design. The inheritance and development of environmental protection packaging and Nixing pottery traditional culture is a mutual promotion and common development relationship. Nixing pottery traditional culture can be used as a cultural communication carrier to spread local regional culture, cultural characteristics and national customs. At the same time, the design and application of Nixing pottery environmental protection packaging can promote the inheritance and development of its culture.

2. Overview of Nixing Pottery

Nixing pottery is one of the four famous pottery in China. It originated in Qinzhou City, Guangxi Zhuang Autonomous Region. It is famous for its unique mud and exquisite craftsmanship. The main raw material of nixing pottery is loess, which is rich in minerals. It is easy to form in the process of production. After firing, the ceramic products have good air permeability and water retention, which are suitable for making decorations, tea sets and so on. Its characteristics originated from the simple and natural ceramic style. There are many ways to make it. It shows a profound cultural heritage through manual kneading, knife carving and carving. The production process of nixing pottery can be roughly divided into: mud making, forming, repairing, drying, decorating and firing. In the mud making stage, the yellow mud is screened and kneaded to remove impurities to ensure the uniform distribution of the elements of the mud. The forming process adopts manual or mold-making methods, and the commonly used forming tools include blank-repairing knives, molds, etc. The main function of repairing the blank is to repair and correct the defects existing in the process of drawing, so that the shape of Nixing pottery products can meet people's aesthetic needs. When the blank

is dried, there are certain requirements for the ambient temperature. If the temperature is too high, the water evaporation of the blank is too fast to cause damage to the blank, so the drying of the blank needs to be carried out in a cool and ventilated place. The firing molding of Nixing pottery products also has certain requirements for the firing temperature. Generally, the firing temperature is appropriate at 850-1150 °C. The Nixing pottery products fired in this temperature range will be strong and durable. In addition to the control of temperature, the firing of Nixing pottery has a great influence on some other factors, such as the use of oxygen-reducing flame method in the firing process can make the heating of ceramics more uniform and the color of firing is better. The decorative techniques of Nixing pottery are also varied. Due to the characteristics of Nixing pottery, its decoration usually adopts sculpture method. Carving is divided into flat carving, relief carving and through carving, which play an important role in the inheritance of traditional culture. After the carving is completed, the colored mud will be added to the carved lines. After firing, the colored mud will show the natural and simple effect. Because the development and inheritance of Nixing pottery is based on the small-scale peasant economy in the long historical development process, the utensils are mostly decorated with flowers, trees, insects, fish, birds and beasts, reflecting the development history of Nixing pottery. With the continuous development of the times and the country's emphasis on intangible cultural heritage, the firing techniques of Nixing pottery have been included in the national intangible cultural heritage. The development of society. The richness of people's lives is that Nixing pottery has entered thousands of households. It is also widely used in interior decoration, home decoration, life tea supplies, etc. The continuous development of industrialization has made the awareness of environmental protection deeply rooted in the hearts of the people. On the basis of retaining the traditional aesthetics, the Nixing pottery gradually turned to the production concept of sustainable development. The importance of environmental protection packaging design of Nixing pottery, and people's development and utilization of it will implement the concept of sustainable development in people's lives.

3. Environmental Protection Packaging Design Status

The development of the times has promoted the environmental protection packaging design of Nixing pottery to be deeply rooted in the hearts of the people [5]. The improvement of people's awareness of environmental protection has put forward higher requirements for designers. Designers have made profound explorations in packaging, materials and structure, hoping to innovate on the basis of preserving the cultural connotation of Nixing pottery products. In recent years, people's use of environmentally friendly materials, such as biodegradable plastics, recycled paper, natural fibers, etc., has shown an upward trend. The application of environmentally friendly materials can not only reduce the ecological burden but also make full use of its physical properties. The structure of environmentally friendly packaging adopts the design method of modularization and simple disassembly, which helps to improve efficiency. The structure of simple disassembly is convenient for waste recycling station to classify and recycle Nixing pottery packaging and improve the recovery rate. The packaging waste recovery rate of the product with simple disassembly design was increased by 35 %. Nixing pottery environmental protection packaging needs to pay attention to its use function when designing, but the function of cultural inheritance cannot be ignored. How to achieve a balance between them requires the rational use of materials and the control of the form of artistic expression. In the design, natural dyes and waterborne coatings can be used to ensure the environmental protection performance of the materials. At the same time, the decoration of Nixing pottery can be combined with the local regional culture to highlight the local cultural characteristics. Through the method of carving, the sense of hierarchy of cultural display is increased, and the aesthetics of product packaging is improved. The product packaging of Nixing pottery needs to be printed with relevant information on the materials used. Since the materials used in the environmental packaging design of Nixing pottery are relatively green and environmentally friendly, the composition description of the packaging materials is a window for consumers to understand the

product design of Nixing pottery. Such a design method can meet the needs of consumers for environmentally friendly products, and also imperceptibly improve consumers' awareness of participating in environmental protection. Industry stakeholders pointed out that in the product packaging logo environmental information, can make the product in the sales process to increase sales, from the side reflects the people's love for environmental protection products. For different consumer groups, we can also adopt different sales strategies. Only by conducting differentiated sales models can we meet different consumer groups. For example, for young people, designers can introduce creative packaging design to cater to the aesthetic needs of young people, and at the same time make the concept of environmental protection design imperceptibly infected among young people; for the high-end market, designers should pay attention to the uniqueness of product packaging to meet the aesthetic needs of high-end people. Therefore, for different levels of consumer requirements, we can not adopt a one-size-fits-all approach. We need to study the differences and commonalities between them in a targeted manner, so that we can grasp the development requirements of the market. In the packaging and design of Nixing pottery products, specific problems are analyzed in detail, and products that meet the needs of consumers are designed to meet the needs of consumers.

4. Nixing Pottery Environmental Protection Packaging Scheme

The concept of environmental protection packaging design of Nixing pottery is sustainable development, which realizes environmental protection while inheriting and developing traditional culture. In order to achieve this development concept, biodegradable materials such as polylactic acid and pulp molding materials can be used in the selection of packaging materials. They are pollution-free and can reduce environmental pollution. [6]. Environmental pollution-free product packaging design is deeply loved and welcomed by people. In today's world, various regions and countries are very keen on the design and research of environmental protection related product packaging, which has a very positive effect on the design and

development of environmental protection packaging. The following will be analyzed and studied through the case of Nixing pottery product packaging.

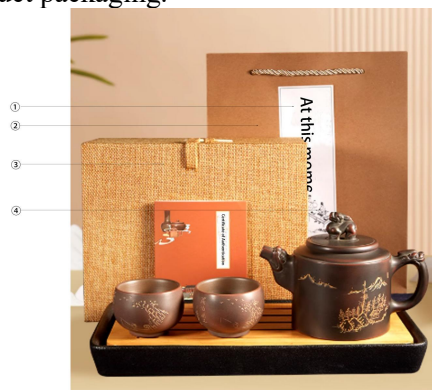


Figure 1. Environmental Packaging of Nixing Pottery

In the design of packaging modeling, it is necessary to consider the separation of product parts to ensure the safety of products during transportation. [7] Considering the possible waste of materials, mold production can be used to reduce unnecessary waste by one-time molding of packaging design products. For the current popular detachable bracket we can also refer to the reference, the material selection of ecological fiber materials, so that different specifications of Nixing pottery products can be adjusted to reduce the damage caused by movement (as shown in Figure 1-③). Natural vegetable oil and water-based coatings can be used as packaging design materials for Nixing pottery products. Because they are environmentally friendly and have no harmful substance elements, it is feasible to choose them (see Figure.1-②). Because the products of Nixing pottery are mainly ceramics, it has certain fragility. In order to solve the damage caused by the transportation of Nixing pottery products, designers should design an anti-collision buffer layer to reduce the damage caused by the transportation process [8]. The use of recycled pulp, through the design of a reasonable thickness can increase its buffer effect to slow down the impact force, to protect the Nixing pottery products. Water-based ink is used in the text design outside the packaging box, because the environmental protection of water-based ink is more in line with the design requirements (as shown in Figure.1-④). The characters and patterns in the instructions of product packaging design can be personalized

designed to meet the aesthetic needs of different consumers [9]. Product packaging can also print two-dimensional code, and users can obtain product-related information after scanning to enhance the interactive experience with consumers. Since product packaging involves environmental protection, the recycling of product packaging has become the focus of designers' attention. Labeling the recycling logo outside the product packaging encourages consumers to classify the used packaging and contribute to environmental protection [10]. The author conducted a questionnaire survey through environmental packaging design and found that environmental packaging design can effectively enhance consumers' desire to buy. Although environmentally friendly packaging also increases costs, by reasonably apportioning costs, products can maintain a competitive advantage in the market. The research and development and design of environmentally friendly packaging are largely in line with people's consumption needs, because with the continuous improvement of people's living standards, people's consumption is more inclined to be environmentally friendly. Now many environmental protection organizations are deeply rooted in the hearts of the people for the promotion of environmental protection concepts, so that consumers will first consider the product in the invisible. An environmental performance is not very concerned about a change in the sales price of a product. Therefore, the design and application of environmental protection packaging will not increase the difficulty of product sales, but will play an important role in promoting the inheritance and development of Nixing pottery culture.

5. Conclusion

The concept of environmental protection packaging design of Nixing pottery products lies in sustainable development, achieving the goal of environmentally friendly and economic virtuous cycle. The selection of environmentally friendly materials can effectively reduce the environmental pollution caused by product packaging. The design adopts the whole process design method, from its design, use to the final product packaging waste can be effectively recycled to achieve

the design requirements of environmental protection packaging. The whole process design method is helpful to reduce carbon emissions and improve resource utilization. In the key point of environmental protection packaging design is the use of mold design, which can effectively improve the utilization rate of resources, reduce environmental pollution. Through the whole process of design process to reduce the use of materials, but also can reduce the weight of the packaging, is conducive to the transportation of environmental protection packaging structure needs to consider the compression and seismic resistance, because of the fragile characteristics of your family name pottery products, packaging of seismic and compressive can improve the safety of product transportation to reduce damage. The design of color and pattern of packaging appearance is also a part that we can not ignore. The inheritance and development of traditional culture and even sales are crucial to the beauty of pictures. Combined with the cultural connotation of Nixing pottery products, the elegant ink style is more in line with its temperament, and it also helps to convey the cultural connotation of the products and improve consumers ' recognition of the products. Through the implementation of various processes of environmental packaging design, it will be able to effectively promote the innovative application of Nixing pottery in the field of environmental packaging design.

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