

Research on Packaging Design of Cultural and Creative Products Derived from the Intangible Cultural Heritage of Gold Foil

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Abstract: With a focus on the development dilemma faced by the industry of gold foil as the intangible cultural heritage in China, the innovative packaging design is blended into the gold foil technology and the product design based on the cultural creation of the intangible cultural heritage to form a new model of packaging design of cultural and creative products. In light of the status quo and problems of packaging of cultural and creative products derived from gold foil in Nanjing, this study is to analyze the outstanding packaging design of cultural and creative products at home and abroad so as to extract the design methods that are locally applicable. Furthermore, this study aims to explore the innovation path of packaging design of cultural and creative products derived from gold foil in Nanjing through practice, and then to provide valuable reference for the establishment of national brands and the inheritance of skills.

Keywords: cultural and creative products, packaging design, gold foil, intangible cultural heritage, innovation

1. Intangible Cultural Heritage Gold Foil Background

Longtan, Nanjing is the home to gold foil. Since the Eastern Jin Dynasty (317-420), the production of gold foil has had a history of more than 1,700 years. In Longtan, there are foil craftsmen in every household. There are plaques of “the Immortal Ge’s spirit tablet” enshrined in many old craftsmen’s homes. The Immortal Ge is the pioneer of forging gold foil. According to Heavenly Creations (Tian Gong Kai Wu, or “天工开物” in Chinese), “In the process of forging gold foil, after a thin gold sheet is made, wrap it in a piece of glossy black paper, then beat it hard with a metal stick (gold forging stick, with a short handle, about 8 catties in weight) and finally the gold foil is formed.” This is the process of gold foil forging. The resulting gold foil is as thin as a cicada’s wings, as soft as silk, and as light as feathers, with a thickness of approximately 0.12 microns. 1 gram of gold can make 0.5 to 0.8 square meters of gold foil. Nanjing’s gold foil forging technique was listed in the first batch of national intangible cultural heritage by the State Council in 2006. The application of gold foil is best characterized by its combination with various industries such as arts and crafts, cosmetics, food and other cultural and creative products, as well as different aspects of basic necessities of life like medicine and architectural ornament.

2. Present Situation and Problems of Packaging of Cultural and Creative Products Derived from Gold Foil in Nanjing

In the last decade, a large number of cultural and creative products have emerged in China. Such products not only have practical functions, but also can become the carrier of cultural and art, which have received wide attention from all walks of life. Although gold foil has a long history in Nanjing, according to the survey, most of the new generation do not know much about gold foil derived products and the products have not yet been popular in the market. In order to explore the reasons, the author collected relevant literature and works at home and abroad, and conducted in-depth research and practice in front-line factories. Then the current situation at home was analyzed and a comparison with the foreign countries was made to find the differences, thus pinpointing the problems.

2.1. Present Situation of Packaging of Cultural and Creative Products Derived from Gold Foil in Nanjing

Until 2009, there were more than 180 enterprises engaged in gold foil industry in Nanjing^[1]. In the summer of 2019, the author visited Longtan Street, Qixia District and Jiangning District, Nanjing. During the past decade, a group of enterprises and individual workshops have shut down, while Jinling Goldfoil Co., Ltd. has enjoyed a stable development. In addition to the reason that its gold foil production capacity accounts for 40% of the world's total output, another important reason lies in the fact that it has independent department of design and R&D for cultural and creative products derived from gold foil. In 2019, the author learned from the study of "Cultivation of Innovative Talents for Gold Foil Techniques" project initiated by Jiangsu Fine Art Fund that in recent years, the online and offline stores of Jinling Goldfoil have launched a number of cultural and creative products. Compared with the gold foil products five years ago, today's gold foil products are being transformed from traditional "luxury gold" handicrafts to fashionable cultural and creative products. A small number of cultural and creative products derived from gold foil which are created by designers have fine packaging design. Most of the products and their packaging are not recognized by consumers. Compared to highly creative packaging design of various industries, there is still plenty of room for design improvement in the packaging of Nanjing's cultural and creative products derived from gold foil.

2.2. Comparison of Packaging of Cultural and Creative Products Derived from Gold Foil between China and Japan

The gold foil industry of Japan's Kanazawa has gone through a history of more than 400 years for its technique development and a history of over 40 years for its industrial development. Although its history is not as long as that of China, the gold foil industry in Kanazawa can create an annual output value of 20 billion yuan. So it is worthwhile for us to learn from its design mode of packaging of its cultural and creative products. The largest company of gold foil in Kanazawa is Hakuichi. The packaging of gold foil crafts, cosmetics, food and other cultural and creative products designed and produced by Hakuichi is both delicate in workmanship and exquisite in design. The idea of packaging design permeates the R&D process of gold foil products. In the recent 10 years, the cultural and creative products derived from gold foil produced by Hakuichi have been developing in full swing, and its brand is well-known around the world. In contrast, the cultural and creative products derived from gold foil in China has grown slowly due to the historical, economic, cultural and policy factors. There is still a relatively considerable gap in commodity category, cultural and creative design, packaging design and brand planning between the gold foil products of Nanjing and those of Japan. However, over the past decades, China's design industry has gained a rapid development. Today, there is no lack of excellent design in China. Therefore, there is a good opportunity for Nanjing's gold foil products to achieve design transformation.

2.3. Problems of Packaging of Cultural and Creative Products Derived from Gold Foil in Nanjing

Jinling Goldfoil now has developed a group of cultural and creative products derived from gold foil. Good products need good packaging. The packaging in recent year has got rid of outdated style, but compared with the innovative and fashionable packaging of other cultural and creative products in the market, the packaging of cultural and creative products derived from gold foil is still has a huge gap in its design. The specific problems are as follows:

First of all, the packaging of Jinling Goldfoil's cultural and creative products mainly adopts universal versions of the design. In view of economy and time, universal versions of the design is more practical, but the universal packaging is disconnected from the products so that a consistent mode of cultural and creative industry based on gold foil has fail to come into being. In addition, the universal design only has brand logo and name without commodity name design. Uniform design cannot distinguish the individual characteristics of different products, so there is no differentiation in packaging among different products.

In the second place, there are obvious basic problems in the visual elements of packaging. The character design of brand image is simple, and the graphic design lacks artistic expression. All of the colors of packaging are golden, which is difficult to break through the yellow color gamut and other color forms of gold. The visual elements have not grasped the attributes and characteristics of cultural and creative products derived from gold foil, which fails to fully reflect the cultural connotations of gold foil and thus is difficult to shape the national brand image^[2].

Furthermore, the material texture and structural modeling of gold foil packaging is relatively

monotonous, lacking serial packaging concepts and festival theme design.

As a result, according to the positioning and market demand of gold foil products, it is necessary to re-examine the packaging design methods of cultural and creative products in order to seek innovative development path.

3. Packaging Design Methods of Cultural and Creative Products Derived from Gold Foil

Given the above problems of packaging of cultural and creative products derived from gold foil in Nanjing, the author believes that both the product design and the packaging design cannot be neglected. The overall idea of “packaging design of cultural and creative products” is the fundamental method to solve the problems.

3.1. Suggestions for Packaging Design of Cultural and Creative Products

After the research and analysis of a large number of relevant literature, no experts or scholars has now given any guidance on the methods of “packaging design of cultural and creative products”. In the present research stage, the author thinks that “packaging design of cultural and creative products” is different from “design of cultural and creative products” and also different from product packaging design. It is based on the concept of cultural and creative design, using the combination of product design and packaging design as a whole, as a method to together inherit tangible cultural heritage and intangible cultural heritage. In terms of “packaging design of cultural and creative products”, it is about devising the overall packaging design of cultural and creative products while planning the products. For the design of cultural and creative products, packaging design is the first step of consumers’ visual experience, but packaging cannot be designed independently; instead, it should be integrated into the product concept in order to reflect the cultural connotations. It can be said that packaging design is the “exterior” and that product design the “interior”. And it is exactly the integration of the “exterior” and the “interior” to be the ultimate appeal of “packaging design of cultural and creative products”. The cultural and creative products of the Forbidden City and Made in Natural at home, as well as foreign Pentawards award-winning works and the cultural and creative products derived from gold foil of Japan’s Hakuichi have all struck the right balance between the relationship of packaging design (the “exterior”) and product design (the “interior”).

3.2. Packaging Design Path of Cultural and Creative Products Derived from Gold Foil in Japan

The design aesthetics of Japan is similar to that of China, both belonging to the cultural circle of Chinese characters. At present, the packaging design of cultural and creative products derived from gold foil in Japan takes the lead in the world. By analyzing the packaging design path of cultural and creative products derived from gold foil in Japan, it can be more quickly and effectively to extract the design methods suitable for China. Through investigation and analysis, there are three paths to the packaging design of cultural and creative products derived from gold foil in Japan. First, it is the fusion of local culture and innovation: Japan’s white spirit with gold foil, gold foil pastry and gold foil crafts are permeated with symbols such as sakura and Mount Fuji. The use of symbols is not limited to graphics, colors and shapes, but is creatively integrated into the products and interactive details, thus fully reflecting Japan’s ethnic aesthetic spirit. Second, it is the combination of tradition and modernity, the East and the West: after a long time of accumulation, the packaging design of cultural and creative products derived from gold foil has learned from the western design concept while carrying forward the traditional handicrafts and design styles, and has employed the modern materials and techniques, thus forming an aesthetic standard combining the ancient and the modern with the coexistence of the East and the West. Third, it is the connection between functionality and humanity: given the influence of geographical environment, Japan value simplicity and plain living with a preference for small and multi-functional products, and Japanese love nature. So, the materials used in the packaging of cultural and creative products in Japan are eco-friendly and recyclable. Moreover, the exquisite structural modeling can also be reused. Designers attach great importance to details. Regardless visual sense, materials or modeling functions, every aspect can reflect the warmth of human nature.

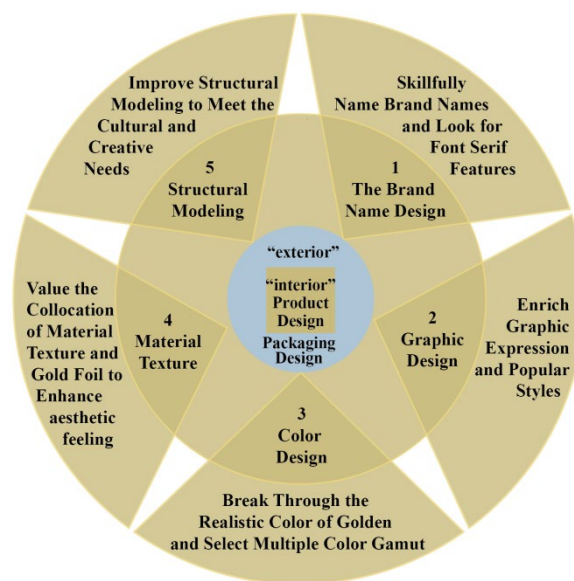
3.3. Locally Applicable Design Methods

China’s packaging design of cultural and creative products derived from gold foil needs to learn from the experience and methods of excellent designs at home and abroad, especially to study and learn from

Japan's packaging design of cultural and creative products derived from gold foil whose expression form is not only novel and unique, but also can present the modern charm of Japan's classic culture. Therefore, it has high research value for the design methods that are applicable to China. In view of the current situation of the development of China's packaging of cultural and creative products derived from gold foil, firstly, it is necessary to explore the innovative design of tradition symbols based on the forging techniques and historical culture of gold foil, especially the innovation in fonts, traditional patterns and modeling. Secondly, it is necessary to make a breakthrough in the current packaging modeling. Through combing the traditional utensil modeling and modern packaging structures, special crafts and skills that are suitable to the theme is to be sought. Thirdly, packaging forms and products contents should be designed in a consistent way, and the cultural and creative ideas should also be embodied in every element of gold foil products, individual packaging and series packaging. Finally, it is advisable to utilize gold foil in an ingenious manner. An in-depth study of the inherent colors of gold foil should be conducted. Apart from using the inherent colors and the material itself, the physical properties, forging techniques and historical culture also need to be explored and then expressed in the packaging design of cultural and creative products.

4. Innovations of Packaging Design of Cultural and Creative Products Derived from Gold Foil

Through the study and analysis of domestic and foreign excellent packaging designs of cultural and creative products derived from gold foil, the author contends that the awareness of innovation should be strengthened to enrich the expression form and to enhance effect of packaging design of cultural and creative products derived from gold foil. When it comes to innovation, five aspects are involved, that is, brand name design, graphic design, color design, material texture and structural modeling (Figure 1).



Author: Minna Sun

Figure 1: Innovation in Packaging Design of Cultural and Creative Products Derived from Gold Foil.

4.1. Skillfully Name Brand Names and Look for Font Serif Features

The brand image characters are the major part of the packaging of cultural and creative products derived from gold foil, which occupies the priority position of vision. When the consumers are engaged in the commercial activities, the brand image characters are the first element of the visual order. The brand image characters in most types of packaging of cultural and creative products derived from gold foil in general do not need to be redesigned. This is because the brand name and logo of the enterprise have been determined and what requires redesigning is the brand name, which is the key aspect in the packaging of cultural and creative products derived from gold foil. Since most of the cultural and creative products derived from gold foil are new products, it is better to pick a name that are easy to call and remember. The design of brand names should be unique and novel so as to promote the hot sale of new products. In the packaging design of gold foil transparent soap guided by the author, the brand is named "Jing" Soap (Figure 2). The ingredients of gold foil transparent soap include gold foil and natural plants, as "Jing" means clean, fresh, and transparent, "Jing" and "Jin"(gold) are homophonic, sounding like "gold

soap". During the design of "Jing" font, many font design styles were tried. The final scheme was based on the sans serif font, combined with a leaf shape representing plant ingredients, and decorated with circles representing foam, one of which was filled with gold dots, representing the gold foil ingredients.

In practice, the author suggests that the brand names of the cultural and creative products derived from gold foil should adopt a serif font by combining Chinese calligraphy, fonts during the Republic of China in Nanjing or fashionable fonts and finding the design direction with contemporary Nanjing characteristics, so as to reflect the features of the birthplace of gold foil, historical culture and the atmosphere of a modern city.



Author: Wang Yi
Instructor: Minna Sun

Figure 2: "Jing" Soap Naming and Font Design

4.2. Enrich Graphic Expression and Popular Styles

According to the author's research and analysis, the proportion of graphics and characters in the packaging of cultural and creative products derived from gold foil is opposite to that of other industries. The proportion of graphics and characters in the general packaging is 78:22, with graphics accounting for the major part, while the proportion of characters in the packaging of cultural and creative products derived from gold foil is more than 80%, with graphics accounting for less than 20%. In Japan's packaging of cultural and creative products derived from gold foil, the designers seldom use graphics, but instead prefer to use the Japanese as the brand image characters in the graphical form in order to fill the sense of graphics. In some designs, the logo graphics are directly used as the main graphics, but they occupy a small area; the auxiliary decorative graphics are less used, which are generally abstract graphics as the packaging background; In order to highlight the graphics and colors of gold foil products, transparent materials are selected for packaging in Japan. At present, most of graphics on the packaging of cultural and creative products derived from gold foil are mainly graphical characters without rich graphic types. The author has never collected the graphic packaging of the current popular styles such as philosophy, illustration and cartoon. These graphic expressions are just the missing part in the packaging of cultural and creative products derived from gold foil and also the types that need designers to focus on. In order to explore the graphic expression, in the packaging of the student's work "Pure Skin" as a skin care product derived from gold foil (Figure 3) directed by the author, concrete linear decorative graphics are used to show the fashion sense of skin care products derived from gold foil. Innovative practice shows that rich graphics can bring distinct and unique visual experience, fully reflecting the characteristics of cultural and creative products.



Author: Chen Jie

Instructor: Minna Sun

Award: Accepted in the finalist of Hiiibrand Awards

Figure 3: "Pure Skin" Packaging Design of Gold Foil Skincare Products

4.3. Break Through the Realistic Color of Golden and Select Multiple Color Gamut



Author: Chen Nanyu

Instructor: Minna Sun

Award: Academy Award of College

Figure 4: Jinling Gold Foil Folding Fan

The color of packaging of cultural and creative products derived from gold foil is the organic unity of the realistic color and the decorative color. The color of packaging must be based on the color of gold foil products, but it is not restricted and bound by the color of gold foil products. It can be summarized and refined on the basis of the color of gold foil products. It can also be possible to select colors in accordance with the needs of decorative aesthetics, thus endowing the commodity packaging with specific emotions and connotations^[3]. The realistic color of packaging of cultural and creative products derived from gold foil is directly affected by the inherent colors of gold foil. It is the most fundamental method to design the colors of packaging according to the inherent colors of the commodity^[4]. More than 90% of the packaging employs the inherent color of gold foil as the design color^[5]. In design practice, metal color is easy to match with any color, and color symbols should also be considered in the selection of decorative colors. For example, as shown in the cultural and creative packaging of the student's work

“Jinling Gold Foil Folding Fan” (Figure 4), the black and gray background color symbolizes the glossy black paper used for foil making, which is contrasted with the golden color to achieve the expected color effects and demonstrate the symbolic connotations.

With the in-depth research on the packaging colors of cultural and creative products derived from gold foil, the color design can gradually break the limitation of “golden” color and expand the yellow color gamut with different lightness, purity and color tendency. In addition, “green” gold, “red” gold or colored gold can also be selected in order to enable people to know the inherent colors of gold foil due to the different metal ratio and forging methods in the making process, which thus countless colors and categories of colored gold of gold foil can thus be produced. Rich inherent colors provide more color choices for the packaging of cultural and creative products derived from gold foil. Through color design, the public can better understand the properties of gold foil and the forging techniques as a kind of intangible cultural heritage.

4.4. Value the Collocation of Material Texture and Gold Foil to Enhance aesthetic feeling

Currently, the packaging materials of cultural and creative products derived from gold foil in Nanjing mainly consist of paper, plastic, glass and other man-made materials. Foreign countries pay more attention to the collocation of natural materials and gold foil. For the study of material texture, the selection of packaging materials should not only consider the characteristics, functions and costs, but also take into account the aesthetic feeling and value brought by the materials and texture to the packaging appearance. Cultural and creative products and packaging materials are a unity, which are an important part of packaging of cultural and creative products. Therefore, whether it is narrow packaging materials (individual packaging, series packaging or outer packaging materials) or broad packaging materials (materials of cultural and creative products like containers), it is necessary to value the color, quality and texture effect produced by the collocation of gold foil and materials. In exploring the design, gold foil is extremely easy to match with various materials, so only the change of texture can achieve the effect of highlighting the brand [6]. The packaging of the student’s work “Beela” packaging of gold foil beauty product (Figure 5), in the practice of design innovation, stick gold foil on cement material, wonderful material texture brings unexpected effects.



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Instructor: Minna Sun*

Figure 5: “Beela” Packaging of Gold Foil Beauty Product

4.5. Improve Structural Modeling to Meet the Cultural and Creative Needs

The structural modeling of packaging of cultural and creative products derived from gold foil is dominated by the lid-and-tray box and the clamshell box. Although these structures are convenient, economical and practical, and have protective functions, the visual aesthetic, information transmission, environmental protection and terminal sales are not well taken into consideration. For the sake of visual aesthetics, it is feasible to adopt irregular-shaped and special structures. If information transmission is emphasized, the open-window and display structures can be used. In order to reuse the package and

expand its functions, an elaborate design is needed. For the structural modeling design of terminal sales, all factors need to be balanced. Given the overall status quo of cultural and creative products derived from gold foil, the open-window structure can meet the general demands. The most prominent feature of this structure is to directly display the contents or interior packaging so as to provide consumers with authentic visual information.^[7] In the gold foil packaging of candies, a work named "Qianquan" designed by the student of the author (Figure 6), the packaging design of a single candy cherry blossom is an open-window structure, with gold foil candy embedded like gemstones through the cherry blossom window structure.. The series packaging of the different structures satisfies all kinds of needs.



Author: Sun Mengjiao

Instructor: Minna Sun

Award: Excellence of Hiiibrand Awards

Figure 6: "Qianquan" Packaging Design of Gold Foil Candy

5. Conclusions

The packaging design of cultural and creative products derived from gold foil is an effective way to facilitating the productization of gold foil techniques, the marketization of gold foil products and the development of cultural and creative packaging branding. The innovative methods of cultural and creative packaging design can directly and effectively permeate the overall design process of products and packaging, thus offering the products an appearance in line with their internal spirit^[8]. On the basis of weighing various factors and following the principles of scientificity, reliability, aesthetics and economy, this study probes deeply into the innovation of various elements in the packaging design of cultural and creative products derived from gold foil. Through strengthening the national expression of brand font and graphics, reconciling the use of realistic and decorative colors, enriching the collocation of gold foil in various materials and designing the structural modeling of cultural and creative packaging with clear objectives, the intangible cultural heritage gold foil can be effectively inherited, thus boosting the development of China's gold foil industry.

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