

Product Design for the New Generation Using Taoyuan Embroidery

**Kong Sichen,
Noppadol Inchan and Apichaya Aungkavipat**

Srinakharinwirot University, Thailand
Corresponding Author, E-mail: kscbaiya@gmail.com

Abstracts

The purpose of this study is to design Taoyuan embroidery products for the new generation. The researchers collected Taoyuan embroidery works within Taoyuan County. And summarize the cultural connotation of Taoyuan embroidery by studying the existing products, patterns, pattern meanings and colors of Taoyuan embroidery. Then the researchers designed new products for Taoyuan embroidery according to the living needs of the new generation of consumers. Finally, Taoyuan embroidery culture is expressed through products.

In this study, the researchers collected 460 Taoyuan embroidery works and found that the themes of Taoyuan embroidery patterns mainly include three categories: mythical animals, real animals and fabrics. These patterns are used in clothing, bedding, and space beautification. In addition, Taoyuan embroidery colors are based on the traditional Chinese five colors, and the color matching is flexible and rich. According to the research results of Taoyuan embroidery, the researchers designed four kinds of bags for Taoyuan embroidery in combination with the life needs of the new generation of consumers.

Keywords: Taoyuan Embroidery; New Generation; Product Design; Cultural Heritage; Design Application

Introduction

Embroidery is an important part of traditional Chinese handicrafts, and showed in his research that the earliest record of embroidery in China began (about 4200 years ago) with the "Zhang Fu System" (Peng & Deng, 2022 : 87-95). Embroidery contains the ideological wisdom and cultural value of the Chinese nation, and is the spiritual wealth created by the people of all nationalities in our country in the long-term social life practice. However, the fast-paced development of modern society is no longer suitable for the development of traditional embroidery. In today's embroidery under the influence of the market economy, life-oriented decorative embroidery is not competitive (Cao, 2022 : 8-18). The main reason is that under the influence of the market economy, more decorative art "painting embroidery" has gradually occupied the consumer market, making embroidery practitioners more willing to produce decorative embroidery with higher collection value. This has led to a lack of purchasing power for the new generation of consumers when faced with embroidery products.

As the most representative traditional handicraft in Taoyuan Town, Taoyuan embroidery also faces the problems faced by all traditional handicrafts. As a product of the ancient farming period, traditional handicrafts' development model can no longer meet the social needs in the context of industrialization. Although Taoyuan embroidery has long been listed as an intangible cultural heritage of Changde City, Taoyuan embroidery heritage bases have been established in Zhengjiayi and Zhangjiang villages of Taoyuan Town, but the

¹Received: July 5 2023; Revised: July 10 2023; Accepted: July 13 2023

operation has not been successful. Although these measures have solved the inheritance problem of Taoyuan embroidery, the researchers found that Taoyuan embroidery still faces problems beyond inheritance.

First of all, Taoyuan embroidery has insufficient innovation ability and lacks a dedicated R&D team. The hosting, design and production are all undertaken by Luo Minghua, the successor of Taoyuan embroidery, which seriously restricts the development of Taoyuan embroidery.

Secondly, Taoyuan embroidery is a labor-intensive industry, and mass production is difficult. Although this problem can be alleviated by training a large number of practitioners, Taoyuan embroidery is a handicraft, and its relatively high price makes the Taoyuan embroidery market too small. Finally, it affects the promotion of the product.

Finally, the current Taoyuan embroidery products still use the traditional thinking mode to make products, which makes the products single, monotonous in form, separated from the consumption preferences of contemporary young people, and unable to satisfy/attract young people to consume.

Today's new generation of consumers are more willing to pay for personalized, customized, and original content, especially those products that combine traditional Chinese aesthetics, and it is easier for the new generation of consumers and brands to resonate emotionally. In order to make Taoyuan embroidery products more in line with the consumption needs of the new generation of consumers, researchers have studied and sorted out the patterns, techniques and culture of Taoyuan embroidery, combined with the consumption needs of the new generation of consumers, and carried out new product designs for the traditional handicrafts of Taoyuan embroidery.

Research Objective

1. To study and analyze the process and characteristics of existing products in Taoyuan embroidery industry.
2. To recreate Taoyuan embroidery design that is more in line with the consumption preferences of young people.

Literature Review

Compared with ancient times, the lives of consumers in the new era have undergone earth-shaking changes. "Post-85s", "Post-90s" and "Post-00s" pursue spiritual life and ideal life. They will consider emotions, stories, and whether they like it when buying goods (Zhang & Zhao, 2022 : 6-8). Facing the emotional needs of the new generation of consumers, how to extract the cultural elements of Taoyuan embroidery is the focus of this research.

As an intangible cultural heritage, Taoyuan embroidery, a study pointed out that intangible cultural heritage contains cultural value that cannot be reproduced once lost, and the cultural attributes of intangible cultural heritage must be well recognized when designing derivative products (Yu Liang, 2021 : 62). Regarding the extraction of cultural attributes, a study pointed out that cultural factors are divided into outer, middle and inner layers (Bao Changjiang, 2022 : 47). Researchers can extract the cultural factors of Taoyuan embroidery from four aspects: application scene, pattern, color and meaning.

In terms of Taoyuan embroidery product design, A scholar pointed out that my country has entered the stage of high-tech and high-information development in an all-round way, and it is necessary for us to re-examine the relationship between arts and crafts and design creations

(Qian Yingying, 2018 : 260). In the research on the innovative design of Miao embroidery, a scholar shared his experience that Miao embroidery can solve the rigid and outdated pattern development of Miao embroidery through the design of circulation carriers (Zhang Bingle, 2016 : 120). This kind of experience can also be applied to the product design of Taoyuan Embroidery. By understanding the life needs of the new generation of consumers, we can design Taoyuan embroidery products that meet the life of the new generation of consumers.

Through the above research, the researchers decided to extract the cultural elements of Taoyuan embroidery by studying the four aspects of Taoyuan embroidery products, patterns, colors and meanings, and design Taoyuan embroidery products according to the life needs of the new generation of consumers. Finally, the extracted cultural elements of Taoyuan embroidery are applied to Taoyuan embroidery products.

Research Methodology

Study area selection

The research scope of this study is defined within Taoyuan County as the center, spanning 75 kilometers from east to west and 118 kilometers from north to south. Taoyuan embroidery is widely distributed in Taoyuan County, and there are many types. This research collects and records Taoyuan embroidery works in the form of field investigation. Extensive fieldwork can include more Taoyuan embroidery works.

Taoyuan Embroidery Collection

The researchers mainly collected image data of Taoyuan embroidery products through on-the-spot investigation and shooting, and recorded the works in Taoyuan embroidery Museum of Taoyuan County. Among them, 400 pictures were taken and collected, and 60 pictures were collected in the museum.

Analysis of Taoyuan Embroidery Products

According to the functions of Taoyuan embroidery products, Taoyuan embroidery products are classified. This classification method can intuitively express the application scope and design ideas of Taoyuan embroidery.

Table 1 Taoyuan embroidery products for clothing

| Name | Products | Pattern | Application |
|------|---|---|---|
| Hat |  | |  |
| Vest |  |  |  |
| Cuff |  |  | |

| | | |
|-------|---|---|
| Apron |  |  |
|-------|---|---|

Table 2 Taoyuan embroidery products for bedding

| Name | Products | Pattern | Application |
|-------------|---|---|---|
| Canopy |  |  |  |
| Pillow case |  |  |  |
| Pillow case |  |  |  |

Table 3 Taoyuan embroidery products for space beautification

| Name | Products | Pattern | Application |
|---------------------|---|---|---|
| Table circumference |  |  |  |
| Ceremony |  | |  |

Analysis of Taoyuan Embroidery Patterns

Culture is the core embodiment of cultural and creative products, and cultural and creative products are the carrier of cultural communication, and the two are integrated and harmonious (Zhang Yue, 2017 : 17). Therefore, by classifying and interpreting the patterns of the collected Taoyuan embroidery works, researchers can understand Taoyuan embroidery from a cultural perspective. And bring Taoyuan embroidery culture into product design.

Table 4 Mythical animal patterns in Taoyuan embroidery

| Name | Products | Pattern | Meaning |
|---------|--|--|--|
| Phoenix |  |  | Happy love, happy life |
| Kirin |  |  | Auspiciousness, wealth, peace, and family prosperity |
| Pixiu |  |  | Wealth |
| Lion |  |  | Rights, protections |

Table 5 Animal patterns in Taoyuan Embroidery

| Name | Products | Pattern | Meaning |
|-----------------|---|--|-----------------------------|
| Golden pheasant |  |  | Success |
| Crane |  |  | Purity, holiness, longevity |
| Mandarin duck |  |  | Love, marriage |
| Peacock |  |  | Happy love, happy life |
| Bat |  |  | Luck |

| | | | |
|--------|---|---|-----------|
| Monkey |  |  | Longevity |
| Rabbit |  |  | Marriage |

Table 6 Floral patterns in Taoyuan Embroidery

| Name | Products | Pattern | Meaning |
|--------------|---|---|---------------------------|
| Peony |  |  | Wealth |
| Hibiscus |  |  | Wealth, family prosperity |
| Lotus |  |  | Love |
| Plum blossom |  |  | High moral standing |

| | | | |
|---------------|---|---|---------------------|
| Chrysanthemum |  |  | High moral standing |
|---------------|---|---|---------------------|

Extraction and Redesign of Taoyuan Embroidery Patterns

According to the research and study of Taoyuan embroidery products, the patterns of Taoyuan embroidery are selected, extracted and redesigned. The extraction and redesign of the patterns revolves around the three aspects of Taoyuan embroidery patterns, colors, and culture. According to the theme of Taoyuan embroidery patterns, the researchers selected a pattern from each theme pattern for design. This can display Taoyuan embroidery patterns more comprehensively.

Table 7 The Extraction of the Taoyuan Embroidery pattern theme

| Mythical animal | Animal | Floral Patterns |
|---|---|---|
| Pixiu | Golden pheasant | Hibiscus |
|  |  |  |

Product Design of Taoyuan Embroidery

Products must have higher applicability in order to allow traditional handicrafts to truly integrate into modern social life and affect the cultural experience and cultural perception of wider social groups (Wu & Huang, 2019 : 23). So the researchers used the most commonly used bags as a basis to design new products for teens. In this section researchers categorize package pair types according to how they are used. According to the classification of bag types, the main bag types are extracted and bag design is carried out. First, collect the types of bags available.

Second, classify the bags according to the parts of use

Third, according to the classification of bags, select the representative bag type

Fourth, carry out bag design according to the selected bag type

The research framework is as follows

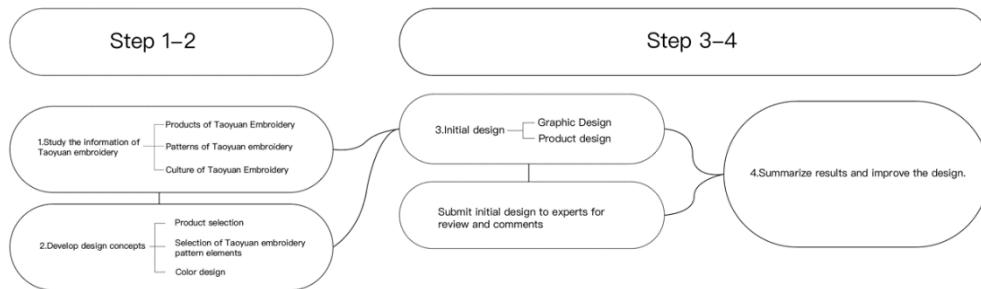


Figure 1. Research framework

Research Results

1. There are many kinds of Taoyuan embroidery, with a wide range of applications, but it still revolves around the behavior of life, and it has both practical functions and a beautiful appearance at the same time. Taoyuan embroidery involves all aspects of people's life. According to the use, researche have roughly divided Taoyuan embroidery into three categories: clothing, bedding, and space beautification.

The application of Taoyuan folk embroidery in daily life embodies the fusion and unity of practicality and decoration, and is widely used in clothing, bedding and other utensils. Clothing and decorative products are mostly colored embroidery, with rich colors; practical embroidery such as bed sheets, door curtains, etc. are mostly monochrome. This shows that Taoyuan embroidery has fully considered practical scenarios in the production process, and adopted corresponding embroidery techniques for different practical scenarios.

2. Taoyuan embroidery has strong regional characteristics, so most of the patterns and themes come from Taoyuan, and the themes are constantly enriched through the re-creation and flexible combination of Taoyuan locals. Based on field investigations and combined with literature, the researche sorted out and summarized the themes of Taoyuan embroidery patterns, and divided the themes of Taoyuan embroidery patterns into four categories: mythical animals, realistic animals, flowers and trees.

Mythological animals occupy a large proportion in Taoyuan embroidery. These mythical animals are the concrete manifestation of Taoyuan people's idea of pursuing a better life. There are various images of mythical animals in Taoyuan embroidery. Through field investigation and literature research, the researche divided the images of mythical animals in Taoyuan embroidery into phoenix, Kirin, Pixiu and lion.

The animals referred to in this part are animals that exist in reality, and these animals also have different meanings. There are many images of animals in Taoyuan embroidery. The researche collected Taoyuan embroidery works, classified and sorted the animal images in the works, and divided the animal images in Taoyuan embroidery into tow categories: birds and mammals.

There are many flower patterns in Taoyuan embroidery, and most of them are based on the common flower species in Taoyuan area. Among them, hibiscus is the most.

By collecting and arranging the graphic patterns in Taoyuan embroidery, the practices of Taoyuan embroidery can be divided into three categories: mythical animals, animal patterns, and plant patterns. And these four types of graphics intuitively show the beautiful pursuit of

love, wealth, family, and life of the Taoyuan people. In line with the folk traditions of the Chinese people. In addition, the most memorable thing in Taoyuan embroidery is various mythical beasts, which are highly recognizable.

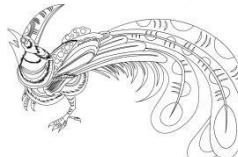
3.The colors of Taoyuan embroidery come from the five traditional Chinese colors, which are blue, red, yellow, white and black. Among them, blue refers to two colors of green and blue. These five colors also correspond to the "five elements" in Chinese culture. According to the traditional Chinese five-color theory, the researchers redesigned the colors of Taoyuan embroidery patterns.

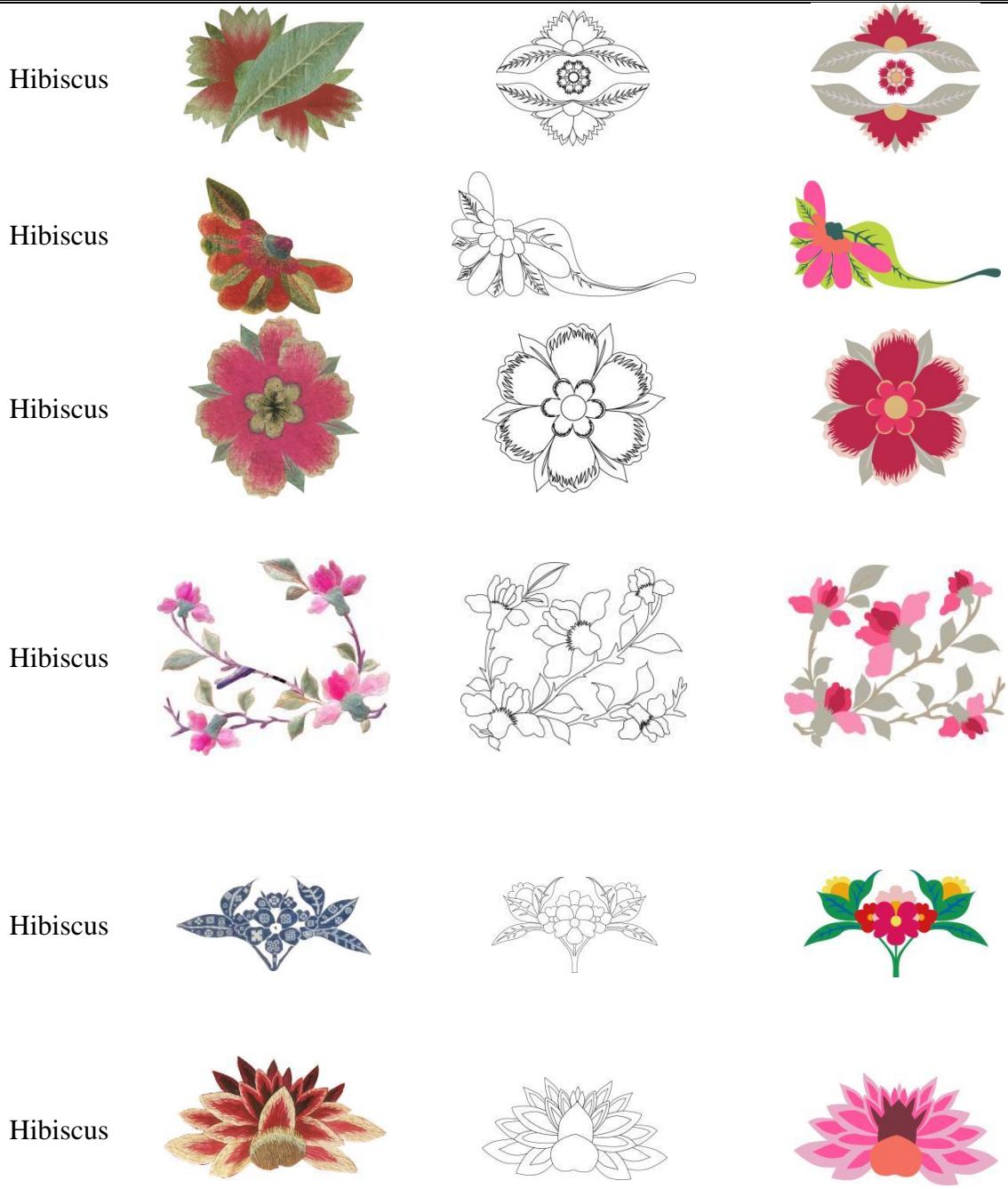


Figure 2. Five Elements Diagram

4. According to the classification of Taoyuan embroidery pattern themes, the researchers decided to choose one pattern for each of the three pattern themes of mythical animals, animals, and flowers as the main pattern of the pattern design. In the process of pattern selection, the researchers selected three patterns of Pixiu, golden pheasant, and hibiscus flower for design according to the three criteria of uniqueness, cultural meaning and quantity. Pixiu is a traditional Chinese mythical animal, which symbolizes wealth. It is more numerous in Taoyuan embroidery and has rich shapes. The golden pheasant pattern is evolved from the unique local birds in Taoyuan County, which has a strong regional representativeness. Hibiscus is the most common flower pattern in Taoyuan embroidery, and the Taoyuan area belonged to the Furong Kingdom (now Hunan Province) in ancient times, which has a strong cultural representative attribute. The researchers believe that these three patterns can express the characteristics of Taoyuan embroidery in terms of pattern modeling and cultural expression.

Table 8 Taoyuan Embroidery pattern extraction and redesign

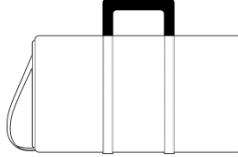
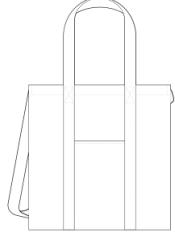
| Name | Pattern | Design diagram | Color |
|-----------------|---|---|---|
| Pixiu |  |  |  |
| Golden pheasant |  |  |  |



is the most common flower pattern in Taoyuan embroidery, and the Taoyuan area belonged to the Furong Kingdom (now Hunan Province) in ancient times, which has a strong cultural representative attribute. The researchers believe that these three patterns can express the characteristics of Taoyuan embroidery in terms of pattern modeling and cultural expression.

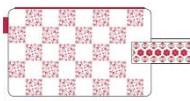
5.Taoyuan embroidery is mostly used to decorate daily necessities. These daily necessities include four categories of people's clothing, food, housing and transportation. The researchers chose the mobility category for product design. The researchers found that the new generation of consumers has a great demand for bags when traveling, so they decided to use bags as the product design direction. In the process of researching bags, the researchers found that bags are mainly classified according to the different parts of the wear, which can be roughly divided into three categories: clutch bags, waist bags (chest bags), and shoulder bags. Therefore, based on this, the researchers designed four types of bags, namely Clutch, Waist bag, Duffel bag, and Tote Bag.

Table 9 Taoyuan Embroidery product design

| Clutch | Waist bag | Duffel bag | Tote Bag |
|---|---|--|--|
|  |  |  |  |

6. According to the results of Taoyuan embroidery pattern extraction and redesign, the researchers combined four bag types and used modern design methods to complete the design of the handbag series.

Table 10 Taoyuan Embroidery bag design

| Clutch | Waist bag | Duffel bag | Tote Bag |
|---|---|--|---|
|  |  |  |  |



Discussion

Application of Taoyuan Embroidery

The development of Taoyuan embroidery is related to the times, and the benign development of Taoyuan embroidery is all the mainstream products attached to the times, and these products are also daily necessities used by people in that era. The products of Taoyuan Youth should pay attention to the current color and fashion trend, and design products that are more in line with the life needs of the new generation of consumers.

Cultural Extraction of Taoyuan Embroidery

Researchers systematically organized and analyzed Taoyuan embroidery, including classification and patterns. The patterns, colors and meanings of Taoyuan embroidery works. This method can better help designers extract the cultural elements of Taoyuan embroidery. Let the new generation of consumers understand Taoyuan embroidery culture more easily.

Product Design of Taoyuan Embroidery

Compared with ancient times, the lives of consumers in the new era have undergone earth-shaking changes. Traditional craftsmen should stand in the modern life world and stare at the needs of modern life (Liang Guangyan, 2019 : 121). This requires Taoyuan Embroidery to understand the behavior and needs of the new generation of consumers from the perspective of modern life. If Taoyuan embroidery can be better integrated into modern times, it will be accepted by more new-generation consumers.

Designers can choose patterns corresponding to different meanings to design according to the emotional needs of the new generation of consumers. But it should be noted that the meaning of some patterns in Taoyuan embroidery does not meet the emotional appeal of young people, which requires designers to choose for the new generation of consumers in the process of pattern selection.

Conclusion

First of all, Taoyuan embroidery has three main uses: clothing, bedding and beautifying space, which makes Taoyuan embroidery very decorative.

Second, there are many kinds of embroidery patterns in Taoyuan, with unique shapes and exaggerated postures. Mainly including mythical animals, realistic animals, flowers and plants, these four patterns also represent the people of Taoyuan's pursuit of a better life, including wealth, love, career, family and longevity.

Third, use traditional Taoyuan embroidery patterns and shapes, combined with more popular colors and design trends. While retaining the traditional culture of Taoyuan embroidery, and considering the consumption behavior needs of the new generation of consumers, four different bag products were designed for Taoyuan embroidery.

Recommendation

Recommendation for traditional craft workers

In the process of collecting Taoyuan embroidery works, the researchers found that the existing Taoyuan embroidery works were not well classified. This has brought great difficulties to the analysis of Taoyuan embroidery works.

In order to solve this problem, the researchers provided a model, which can be classified according to the scope of application of Taoyuan embroidery and the theme of works, which can organize Taoyuan embroidery works more systematically, and also help the spread of Taoyuan embroidery culture, and Taoyuan embroidery embroidery Innovative design of products.

Recommendations for Designers

Designers design works that meet the needs of the target group based on the usage scenarios of contemporary people.

In addition, designers need to have a deep understanding of Taoyuan embroidery culture, focus on product design to show Taoyuan embroidery culture, and attract more new-generation consumers through Taoyuan embroidery culture.

References

Peng Zeyu & Deng Kehui. (2022). An Analysis of the origin of embroidery. *Apparel Guide* (04), 87-95.

Cao Xiaou. (2022). Embroidery: Art or craft?—— The History of Chinese Embroidery and its Contemporary Issues. *Art Review* (08), 8-18.

Zhang Lei & Zhao Xuehong. (2022). Research on Brand Building and Communication. Innovation of Traditional Embroidery of Intangible Cultural Heritage. *Long-established brand marketing*, (13), 6-8.

Yu Liang. (2021). *Research on the derivative design of embroidery products in northeast*. Gan. Master dissertation. Jiangxi Normal University.

Qian Yingying. (2018). *Transformation of Traditional Arts and Crafts in Cultural and Creative Industries*. Master dissertation. Nanjing University of the Arts.

Zhang Bingle. (2016). *Innovative Application of Miao Embroidery in Luggage Design*. Master dissertation. Tianjin Normal University.

Wu Nan & Huang Xiong. (2019). Re-understanding of the design thinking of traditional Chinese handicraft products. *Shanghai Arts and Crafts* (04), 23-25.

Zhang Yue. (2017). *Innovative Research on Traditional Chinese Handicrafts in Cultural and Creative Product Design*. Master's Thesis. Beijing University of Civil Engineering and Architecture.

Bao Changjiang. (2022). *Research and Application of Chinese Factor Extraction Method and Design Symbol Transformation Technology for Cultural and Creative Product Design*. Master's Thesis. Inner Mongolia University of Science and Technology.

Liang Guangyan (2019). From concept to practice: "life world" and life inheritance of Intangible cultural heritage. *Ethnic Art Studies* (05), 121-129.