

Innovation and Exploration of Knotting Art in Modern Clothing

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ABSTRACT

The weaving process has been crowned as a representative of decorative techniques and formal language in everyone's mind since ancient times, and it contains an unbounded vitality with an immeasurable future and beautiful spirit. It is a kind of art that appears in public life all the time and everywhere. In the current situation where clothing styles are changing rapidly with the development and needs of the times, there is an urgent need for a reasonable integration and innovation of traditional weaving art with modern clothing styles. The article compiles the characteristics of traditional weaving, its traditional application and history, including the characteristics of modern clothing and its future direction. In the modern information society, where mechanization is widespread and the speed of life is accelerating, it is necessary to perfectly match traditional weaving with modern clothing and to reasonably innovate and apply it in order to meet the aesthetics of contemporary clothing without losing the characteristics of traditional weaving. The article analyzes the foundation and characteristics of traditional weaving art and contemporary clothing style. It outlines the directions in which traditional weaving can be innovated and integrated in modern clothing and also makes some suggestions for the application of traditional weaving in modern clothing.

KEYWORDS: Traditional Weaving; Modern Clothing; Innovative Application

1. INTRODUCTION

1.1 Historical Development of Knotting

Chinese weaving technology has a long history. More than 100,000 years ago, people tried to use the stem skin of hemp and cotton plants to wind and weave into nets for fishing, long ropes for tying things, and wearable clothing. In many archaeological projects, many woven fabrics have been excavated, which are from the Neolithic Age. This also shows that the traditional weaving art of our country originates from fishnets and basket mats. With the development of time, the definition of weaving craft has become clearer and it represents those materials such as ropes, long threads, etc., with different approaches to knot, twist and wear each other to show the results of special texture. Traditional weaving techniques are divided into two categories: hand and mechanical. In the aspect of hand weaving, there are several different categories: hand needle knotting, hand crochet knotting and hand knotting. Because of their differences, each technology presents different artistic effects and application directions (Lu Yang & Guan Weijun, 2014).

The art of knotting in hand weaving has evolved slowly from the ancient technique of knotting nets. Between 1500 and 2000 BC, it was discovered in ancient Egypt and Northern Europe that the knotting process could be used to make decent clothes and dresses. And in the seventh century AD, a more advanced knotting technique emerged in Arabia. The people there, on a column or rectangular shelf, tied the nails in a circle and made alternating knots on each nail, in turn, to make different crafts as well as ornaments for people's lives. Later, with the advent of crochet, rod and other tools, a new world seems to have been created for people. At that time, the development center of knotting technology moved to Italy and France, while Britain also established factories for custom-made clothes only for the nobility. In 1950, the British invented the knotting machine, and since then, the traditional art of knotting has also moved towards mechanization. (Chen Chen, Feng Yuting, Wu Mengna, Yang Xuemei & Wang Mingyue, 2021).

The art of knotting has been passed down in China for a long time, and each era of knotting culture has its own different characteristics. It represents the living standard of the people in different times, the cultural heritage and living environment of the whole society, and the aesthetic changes of people in different times. (Gu Xiaoyan, 2015). The art of knotting has had an irreplaceable role in the life of the masses from the beginning of recording events with knotting. As time progressed, words and pictures gradually replaced the knot method of recording, but the art of knotting, which is always retained by the public, is also gradually turned to cloth and widely used (Chen Chen, Feng Yuting, Wu Mengna, Yang Xuemei & Wang Mingyue, 2021).

1.2 Research Status of Knotting Technology

Because of its long-term development, the knotting technique is often used in many brands of clothing. It is helpful to different costume designs in terms of national character, particularity, fashion and environmental protection. At the same time, knotting art also shows its new vitality through clothing as a carrier.

The application of knotting art in costume design makes every modern costume work more distinctive and eye-catching. It even includes some accessories that go with the costume, which can also be applied to knotting techniques, such as hats, schoolbags, shoes, collars, shawls, and so on. The design of each garment should not only consider its own practicality, but also consider its aesthetic attributes. The practicalities vary widely, leaving little room for play, but the aesthetic aspect is a display of individuality. The knotting art is combined with costume design, and different knotting techniques are used to show different costume effects, similar to common clothes in daily life. Some pay attention to texture, some to beauty, and some to touch, which fully demonstrates that the art of knotting is the crystallization of people's wisdom over the years (Wu Fan, 2021).

Chinese knotting technology has a long history, and it has a gorgeous and indelible luster throughout the world's history. With our country's emphasis on culture, many of our cultures have gradually spread to other countries, allowing the world to see the characteristics of traditional Chinese ethnic art. What's more, some ethnic art has become the mainstream of the world's artistic expression today. At present, traditional Chinese knotting art and modern clothing have done some simple integration, inheriting and carrying forward the essence of the traditional craft, but at the same time, it also innovates the expression form and visual impact of the traditional braid technology. It is one of the tasks that many practitioners are paying attention to and trying to solve to better combine the traditional Chinese knotting art with the current actual situation and actively extract more excellent techniques from both sides (Liu Lu, Xu Yumei & Wu Ping, 2015).

The art of knotting is now widely used in high-end clothes and gowns. Because of its unique craft, more people hope that it can be used in everyone's daily clothes, or other accessories, such as belts, hats, bags, and so on. And more ordinary people hope that traditional art can be carried forward and integrated into today's fashion by fashion designers (Liu Lu, Xu Yumei & Wu Ping, 2015).

At present, most Chinese clothes are in line with international fashion, but they have never abandoned traditional Chinese national characteristics. Many designers will carry out an innovative applications through traditional technology, so that international fashion clothes will have traditional Chinese pastoral, environmental protection, primitive and other characteristics (Gu Xiaoyan, 2015). With the continuous development of globalization, a lot of new foreign concepts have flooded China, and Chinese aesthetics have changed a lot. In order to prevent some local traditional arts from being discarded, Chinese people also actively hope to combine traditional knotting craft with modern clothing (Liu Lu, Xu Yumei & Wu Ping, 2015).

1.3 Research Significance of Knotting Technology

Along with the development of the Times, our cultural thoughts are also progressing, but at the same time, many traditional handicraft skills and those craftsmen, are gradually out of everyone's vision. In recent years, the combination of traditional handwork and modern clothing has returned to everyone's vision, and those ancient crafts and craftsman spirit handed down have also penetrated into the design of modern clothing. In modern society, the value of many traditional crafts has been transformed and enhanced. With today's innovative ideas and new inheritance and development, traditional craft has greater advantages and significance, and can be better integrated into today's fashion design (Wu Zhichun, 2021). Nowadays, traditional elements keep penetrating the modern fashion circle and further into everyone's life. It slowly starts to occupy a more important position and has an incalculable potential (Yang, X., 2022).

Nowadays, the Chinese clothing industry not only attaches importance to the outside fashion trend, but also absorbs international fashion tastes constantly. At the same time, China has never stopped promoting costume art and decorations with Chinese traditional cultural characteristics to the world. Tens of thousands of fashion designers and folk craftsmen are innovating and applying knotting technology through their own efforts so that each product can highlight the traditional characteristics of China while conforming to the current aesthetic. In this context, it is more necessary to conduct an in-depth analysis of traditional art, reasonably combine the design concept with Chinese characteristics, perfectly combine traditional aesthetics with modern clothing, and find a new direction for the development of Chinese clothing in the future, which is also the goal of the combination of knotting technology and clothing in China (Luo Mi, 2018).

2. OVERVIEW OF KNOTTING

2.1 The concept of knotting

The knotting process has experienced tens of thousands of years. From ancient times, people have been recording things through knotting. Later, in the Stone Age, people learned to use vines to make many tools for life, such as hanging baskets and fishing nets. As the times changed and developed, the art of knotting no longer appeared in life tools but gradually became people's clothing and some crafts for decorating through designers. (Chen Yugang, 2015).

Knotting is a method of bending, twisting, crisscrossing, interweaving and interspersing one or more slender rope-like items. There are countless artifacts that can be made with different raw materials and different knotting methods. Its history dates back to 100,000 years ago, which can be said to be one of the oldest human crafts. Hemp plants are processed into ropes, and then woven into supplies that can meet the needs of survival (Wei Yulong, 2013).

To put it simply, the art of knotting consists of two aspects. The word "weave" is used to take thin strips and twist them together in different ways or to organize them according to certain rules. The word "knot" refers to the use of a person or other band to form a lump. Therefore, knotting is a broad overview of the two different forms of weaving and knotting, which also makes the processing products made by the art endow a lot of characteristics and display ways (Chen Chen, Feng Yuting, Wu Mengna, Yang Xuemei & Wang Mingyue, 2021).

2.2 Basic Technique of Knotting

The technique of knotting is the most direct means to change the shape in the garment industry. The use of different techniques can make the structure, texture, shape, texture, effect, and even material of the work have very obvious changes. In addition, the knotting process itself contains the unique charm of adding texture and layering, which makes it better integrated into modern clothing design. Nowadays, techniques such as picking and pressing, braiding, twisting, and spiraling are mainly used. (Wei Yulong, 2013). The styles and types of knots are also more complex, divided into single knots, combination knots, and so on. Single knot refers to a very basic single knot, which is very common and simple to use. A combination knot is a knot made of two or more single knots in various arrangements and combinations, which gives it more possibilities and variations because there are multiple combinations (Zeng Huaqian & Zhou Honglei, 2021). Designers in this field must have a good understanding of various braid methods, and express them with various patterns, including colors and patterns, to realize the presence of the theme and artistic conception of the final product (Wei Yulong, 2013).

2.3 Artistic Characteristics of Knotting

The art of knotting is mainly using different colors, means, shapes and shaping effects in the process through different raw materials to show the natural, simple and fresh artistic characteristics (Jiang Rui & Liu Fengxia, 2018). The beauty of the art of knotting is the result achieved by every producer who completes it with his own hands, using the unique characteristics of the rope to express his own emotions. Throughout history, an innate sense of identification with materials such as rope and thread has been formed. Each craftsman can weave imaginative and life-affirming products from a single thread. Those finished products are integrated into our daily lives, adding new colors to our life. (Liu Fanling, 2019).

2.4 The Cultural Value of Knotting

As an indispensable part of our national culture, traditional knotting technology contains the essence of our culture. The inheritance and innovation of knotting technology have an indelible significance to our whole clothing culture and even traditional culture (Zhang Yan, Ge Ai & Tang Baoping, 2011). Art carries a strong national identity and is a treasure of traditional Chinese culture (Pan Ying, 2017). As a traditional Chinese handicraft, knotting refers to the craft of interweaving one or more ropes in the form of intertwining. The long history and cultural connotation of the art make it a special symbol throughout its long history (Liu, Xiaoqian, 2022). Reasonable innovative use of knotting techniques not only shows the traditional Chinese culture to the

world but also reflects the diversified development concept of modern clothing (Liu Jingjing & Yin Wei, 2012).

3. INNOVATIVE APPLICATIONS OF WEAVING ART IN MODERN CLOTHING DESIGN

3.1 The Application of Weaving Art in Clothing Silhouette

One of the important features of clothing shape is the clothing silhouette, which is the basis of whether the style of a piece of clothing can be popular in the market. The outer shape of the garment is divided into four types according to the letter A, B, H and X. Certainly, and geometric figures, such as triangles, squares, circles, etc can also express it. And most of our current clothing designs are H-shaped clothing, because such clothing is loose and simple, comfortable, and also make the clothing elegant, elegant and natural. (Jiang Rui & Liu Fengxia, 2018).

In modern clothing, the use of traditional weaving techniques can also change the woven silhouette, to design a new style of clothing. For example, straw woven material can change the common style of sun visor and make the style of a knight's hat, giving it an elegant and graceful form. And using the metal material to weave the heel, and the leather material to weave the upper, can also make the traditional thick boots show a light, hollow sense (Luo Chunyan, 2011).

The knot is an easy way to express the structure and silhouette. Thinking about the knot in terms of both material and technique can create a lot of different silhouettes. When designing garment silhouettes, it is possible to think from the aspects of similar plants or creatures and then combine knotting techniques with realistic elements through the diversity of materials and techniques to make unique garment pieces (Liu, 2022).

3.2 Innovative design of Weaving Art in Pattern Decoration

In woven clothing, one of the most common design methods is pattern decoration, which relies on the richness of weaving techniques and the different characteristics brought by different woven materials. And the method enables woven garments to enjoy a large display space in pattern decoration. In the design of those patterns, random arrangement and combination of rope color, material and different weaving techniques can make the woven patterns have their unique style, which can improve the aesthetics and creativity of clothing (Liu Yi, 2016).

Through the method of weaving, the clothing pattern enjoys more possibilities and innovative designs. In modern clothing, patterns and decorative shapes have been pulled from a two-dimensional plane to a three-dimensional through the art of weaving. It also offers more colorful patterns and technical support, making the modern clothing feature a unique style, and meet the personalized aesthetic and demand of the public.

3.3 Application of Weaving Art in Garment Edge Shape

The art of weaving is very important for decoration in clothing design. It can not only use the techniques of inlaying, embedding and rolling in clothing cuffs and seams for decoration and also decorate some small rhinestones, sequins and other subtle ornaments in a very simple way, to add highlights to the entire clothing. Of course, it is also possible to use simple knotting to add a decoration, such as string to the garment to give the finishing touch to the whole garment (Ye Hailian & Lou Lijuan, 2011).

In women's clothing, the application of the edge shape has more decorative. It often uses embroidery or some woven rolled strips for different embellishments, and the embellishment style will be adjusted according to the whole garment and used to produce different effects. The design of some woven fabrics is more innovative in the hem, skirt, bottom, cuff, waist, shoulder, neck and other parts of the garment, making a three-dimensional edge, which can increase the overall sense of layer and enrich the mechanism (Jiang Rui & Liu Fengxia, 2018).

Because woven garment fabrics often have the problem of roll hem, the edge cuffs of woven garments are designed with some materials that are different from other ordinary fabrics. Generally, some edge cuffs are shaped at the cuffs, neck, shoulders, etc., so that they contain the basic closing function in addition to making the garment more layered and decorative (Liu Yi, 2016).

3.4 The Creative Design of Knotting Art in the Shape of Accessories

For the design of accessory modeling, it is necessary to make it play a role in enhancing the beauty of the corresponding clothes, completing the sense of design and reflecting its style characteristics. Each designer should reasonably and accurately use different accessories to better play the role of embellishment and improve the quality of clothes (Fan Yinghui, 2018). Now most people have visual fatigue for some traditional jewelry products. And for those artworks that return to simplicity and have rich value, they have unlimited enthusiasm (Xu Yumei, 2015). In this regard, it is the general trend to use the traditional braiding technology in today's jewelry to carry out innovative cooperation. Fine threads of different materials and colors extracted from nature can be used for dyeing treatment to make chic shapes so that people can feel the infinite charm brought by the combination of traditional technology and modern fashion art (Liu Lu, Xu Yumei & Wu Ping, 2015).

Many knotting techniques are now commonly used in accessories. In clothing accessories, they are more often used in earrings, bracelets and other accessories. The more three-dimensional, smaller button knots are more often used in combination with decorative items. The size of the knot can be changed with the thickness of the rope, and the combination of sizes can give it a new visual tension and more vitality. The coiled knot, on the other hand, has a flat appearance and usually consists of a single arrangement of knots. It is often combined with other auxiliary tools for different shape variations, and in the design of earrings and bracelets, it is more often used to give a new effect to the whole through color variations (Liu Lu, Xu Yumei & Wu Ping, 2015).

As for the application of weaving art in different clothing items, flower ornaments are one of the clothing items where weaving art is applied more often. In common cases, people often wear certain woven ornaments on their heads, necks, wrists, and other parts of their clothing to achieve overall beauty (Zhao Min, 2018). The art of weaving is also commonly used on other external decorations such as our daily shoes and backpacks. This method can not only greatly enhance their aesthetic appeal, but also cope with the hot weather in summer so that the shoes have a more cool feeling, and improve their practicality. On the other hand, the leather strip can be changed by weaving, so that the gloss of the leather itself can be more displayed, showing a more urban style. If the leather material is simply adjusted and replaced with abrasive leather, it will enhance its sense of granularity. By analogy, changing woven fabric into cotton, hemp and other fabrics can also reflect a kind of national characteristics (Zhao Min, 2018).

4. THE APPLICATION VALUE OF KNOTTING ART IN CLOTHING

4.1 Enriching the personality characteristics of garments

Fashion design is about innovation. And when designing, only to be bold in imagination, to explore and find new expressive themes (Liu Yaping & Li Ling, 2017), styles, and unique themes, to constantly innovate the techniques used, to be more flexible in the use of different materials and tools, and to integrate new technologies, can we do unique clothing works (Liu Jingjing & Yin Wei, 2012).

Compared to the bulk products produced by modern machines, garments made entirely by knitting techniques, or with a part of knitting (Wei, Yulong, 2013) are more likely to remind people of their own life experiences and create a more intimate and vivid sense. With the advancement of time and technology, people's living standards have also gradually improved. And the widespread popularity of mechanization makes clothing and emotions made by human hands step more into everyone's aesthetic concept. With the continuous broadening and deepening of mechanical materials and technology, the passion and inspiration brought by handcrafted skills will better express the individuality of each garment. The art of knotting is reasonably used in the outline of clothing to give the best help to the personalized embodiment of the entire garment. As the art of fighting with the current industrialized products, knotting has become the material carrier for most designers to express their feelings and ideas. It inherits the stories and innovative design concepts brought by the times, making every piece of clothing like a work of art, which can better touch people's hearts with emotion and be more liked by consumers. This is exactly the new era of combining machine and handwork to show higher quality and artistry in the current era of mechanization (Wei Yulong, 2013).

4.2 Comply with the Concept of Environmental Protection

Since 1980, most countries in the world have begun to attach great importance to environmental issues, such as low-carbon environmental protection, resource conservation, and earth protection. This feature in most of the country based on agriculture and animal husbandry fiber handicraft is more prominent. The materials used in the knotting process are closely related to the natural environment, agriculture and animal husbandry. With the meaning of protection of the human body, under the background of energy conservation and environmental protection, knotting handicrafts have become the symbol of nature and of harmonious coexistence between humans and nature (Wei Yulong, 2013).

In today's environment where mechanization is so popular, the production style of modern clothing is mostly mechanical, while the art of traditional knotting, which is mainly produced by hand, is more able to reduce the impact of industrialization on the global environment. The traditional knotting process can match or even surpass the effect of mechanization, which also expresses the perfect combination of modern technology and the natural environment.

4.3 Carrying Forward the Application of Traditional Culture in Modern Fashion Design

No matter what art or skill it is, if it is to be preserved, the best means is to make it continue to innovate and develop to adapt to the times, to develop new vitality and vigor, so as to make it more durable and effective to pass on to the world (Chen Lei & Song Wanling, 2021).

In countries and cities with mechanized industries, a "dual-track" approach is used to resolve the conflict and relationship between tradition and modernity. While trying to develop modern technology, the preservation and inheritance of traditional culture is a constant concern. The long history of braiding art itself and the elements appearing in the new era of modern clothing can be integrated to produce a very striking visual effect, presenting a distinctive three-dimensional shape. In this, we can intuitively feel the connotation of tradition and the concept of ecology. Design is a visual representation of a country's national and aesthetic outlook. Today, with such rich trends and rapid changes in fashion styles, how to integrate the art of knotting more subtly into modern styles, so that it can be more powerful in broadening ideas and developing thoughts is a question that we are all looking for. At the same time, designers are also looking for ways to create clothing design styles with national cultural connotations (Wei Yulong, 2013).

Nowadays, the rapidly developing society is undergoing general globalization. Not only economically, but also the garment industry has gone global. A large number of foreign dresses are being introduced into China, and some Chinese dresses are flowing to countries such as Europe and America. The combination and presentation of knotting art in clothing allows our traditional culture to be better integrated into the world and helps more foreign friends to understand (Yanyi, 2017) and feel the unique charm of Chinese culture so that they can visualize the beauty of China, and also provides a new direction and concept for modern clothing design (Yanyi, 2017).

5. CONCLUSION

By studying and discussing the art of knotting, the paper introduces its connotation source of it, summarizes the reasons why it has become the current fashion trend, and presents some profound thoughts on the current fashion innovation and its research significance (Liu Xiaoqian, 2022). Through the art of knotting, a sense of cultural self-confidence and honor with Chinese characteristics is also established. And on the basis of inheriting traditional Chinese culture, we are determined to carry forward the deep connotation of traditional culture and combine it more with modern technology (Chen Lei & Song Wanling, 2021).

Knotting art has a long history of culture, which is worth our continuous inheritance and development. The unique style of knotting culture can be integrated into modern clothing design, so that it can combine the characteristics of the times and current trends, and continue to maintain its strong vitality in the field of art (Liu Xiaoqian, 2022). What we are pursuing now is to promote diversified development, enhance the overall beauty of clothing with knotting art, and find the balance and harmony between art and fashion (Zhao Min, 2018). In the process of combination, traditional Chinese craftsmanship, as well as cultural characteristics, are integrated into modern clothing with the traditional knotting technique, so that nowadays, although the clothing keeps changing with the aesthetic changes of everyone, the traditional Chinese style and culture is never lost. In the process of seeking balance and integration, the traditional knotting process will continue to be inherited but also show a new and distinctive beauty.

REFERENCES

1. Liu Fenling.(2019). Analysis on the Application of Traditional Chinese Knitting Art in Modern Fashion Design. *Western Leather* (11),98-99.
2. Chen Yutang.(2015). On the Art of Weaving in Modern Fashion Design. *Textile Reports* (04),66-68.
3. Luo Chunyan.(2011). PRODUCTION OF RASCHEL LACE EDGE. *Chemical Fiber Textile Technology*

- (01),44-47.
4. Ye Hailian & Lou Lijuan.(2011). Research on Innovative Design of Knitwear. *Journal of Silk* (02),50-52+61.
 5. Jiang Rui & Liu Fengxia.(2018). The Innovative Application of Weaving Art in Modern Clothing Design. *Modern Marketing* (Chuangfu Information Edition)(11),71-72.
 6. Gu Xiaoyan.(2015). Effective Application and Innovation Analysis of Knitting Art in Costume Design. *Art Education Research* (18),53.
 7. Lu Yang & Guan Weijun.(2014). The Application of Weaving Technology in Fashion Design. *Science & Technology Vision* (08),195+297.
 8. Yang X. (2022). Research on the Application of Knitting Art in Clothing Design. *Light and Textile Industry and Technology* (02),19-21.
 9. Chen lei & Song Wanling. (2021). The Inheritance and Innovation of Weaving Art—Taking Crocheting Art as an Example. *Masterpieces of Nature* (09), 38-40.
 10. Liu Lu, Xu Yumei & Wu Ping.(2015). Innovative Application of Weaving Art in Clothing. *Liaoning Tussah Silk* (01),11-12.
 11. Wu Fan.(2021). Analysis on the application of weaving art in the design of clothing accessorie. *Shoes Technology and Design* (05),14-16.
 12. Luo Mi.(2018). Application and Innovation of Weaving Art in Clothing Design. *Fine Arts Literature* (08),128-129.
 13. Zhao Min.(2018). Effective application and Innovation Analysis of Weaving Art in Fashion Design. *Public Literature and Art* (01),128-129.
 14. Pan Ying.(2017). Analysis on the application and innovation of weaving art in costume design. *Artists of China* (10),127.
 15. Yan Y. (2017). The Value and Application Countermeasures of Knitting Handicraft in Modern Fashion Design. *Art Science and Technology* (07),143.
 16. Wu Zhichun.(2021). Research on the Application of Traditional Hand Knitting in Modern Fashion Design. The Guangzhou Academy of Fine Arts.
 17. Liu Yi.(2016). Analysis on the application of Weaving Art in Modern Fashion Design. *Appreciation* (04),38.
 18. Fan Yinghui.(2018). Innovative Application of Weaving Art in Modern Fashion Design. *Art Science and Technology* (09),98.
 19. Zeng Huaqian & Zhou Honglei.(2021). Application of Knotting craft in Creative Clothing Design. *Wool Textile Journal* (08),55-59.
 20. Chen Chen, Feng Yuting, Wu Mengna, Yang Xuemei & Wang Mingyue.(2021). Knitting Art and Modern Clothing Design. *Leather Manufacture and Environmental Technology* (20),21-22+24.
 21. Zhang Yan, Ge Ai & Tang Baoping.(2011). Inheritance and Development of Chinese Traditional Journal of Liaoning Economy Vocational and Technical College (01),41-42.
 22. Liu Xiaoqian.(2022). Innovation and application of knotting art in modern clothing design. *Light and Textile Industry and Technology* (06),127-129.
 23. Wei Yulong.(2013). The application of knitting handicraft in modern fashion design. *Popular Literature and Art* (08),131-132.
 24. Liu Jingjing & Yin Wei.(2012). Application of knotting handicraft in clothing design. *Shandong Textile Economy* (08),62-64.
 25. Xu Yumei.(2015). Innovative application of knotting art in costume accessories design. *Liaoning Tussah*

Silk (02),26-27.

26. Liu Yaping, and Li Ling. The Plastic Art of the Knot Button of Traditional Chinese Clothing. *Journal of Clothing Research*.04(2017):338-342.