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An Analysis of the Production Process of Traditional Chinese Velvet Flowers

Tao JIANG¹, Chen YANG^{2*}

¹Hunan Vocational College of Science & Technology, No. 4291 Tianxin Avenue, Changsha City, China

²Jiangxi Institute of Fashion Technology, Jiangxi Centre for Modern Apparel Engineering and Technology, Lihu Middle Avenue 108, Nanchang City, China

*comradeyang@qq.com

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ABSTRACT

This study analyzes the production process of traditional Chinese velvet flowers and their cultural inheritance and innovative applications. Through literature review, case studies, and field research, it explores the historical evolution of velvet flower craftsmanship, its technical characteristics, and its application in modern design. The research shows that velvet flower craftsmanship has been revitalized with the help of intangible cultural heritage protection and modern design, demonstrating new vitality in the fashion and home decor fields. This paper proposes strategies for promoting the global dissemination and sustainable development of velvet flower craftsmanship, guiding the modernization of traditional handicrafts.

KEYWORDS

velvet flower craftsmanship, cultural inheritance, artistic innovation, cultural heritage, design

INTRODUCTION

As a treasure of traditional Chinese handicrafts, the art of velvet flowers has a long history and rich cultural connotations, deeply rooted in the cultural soil of the Chinese nation. Since the Han and Tang dynasties, velvet flowers, with their exquisite craftsmanship and unique aesthetic style, have become important elements of both court and folk decorations. From precious royal gifts to everyday decorations in common life, velvet flowers carry the meanings of "auspiciousness" and "good fortune," serving as an important medium for emotional expression and aesthetic pursuit in Chinese culture. However, with the development of society and the modernization process, velvet flower craftsmanship has faced challenges in its inheritance, especially during the industrialization wave in the mid-20th century, when the art of velvet flowers declined and nearly disappeared from the public eye.

In recent years, with the growing awareness of intangible cultural heritage protection and the revival of traditional culture, velvet flower craftsmanship has regained attention and revival. Thanks to government policy support, the efforts of intangible cultural heritage inheritors, and society's

collective effort, velvet flowers have been infused with new vitality. By integrating modern design concepts, velvet flower elements are now widely used in fashion, interior decoration, and other fields, injecting new life into this ancient craft and promoting its development on the international stage. For instance, Nanjing velvet flowers have appeared on international fashion runways and in modern home decor, proving the unique value and broad potential of traditional handicrafts in contemporary society. Against this backdrop, this paper systematically analyzes the production process of traditional Chinese velvet flowers and explores their dual value in cultural inheritance and artistic innovation. By delving into the historical evolution of velvet flower craftsmanship, its technical features, and its modern applications, this paper aims to propose practical strategies to support the modernization of traditional handicrafts and explore their potential for cultural exchange in a globalized world. As an important component of China's intangible cultural heritage, velvet flowers not only embody the cultural spirit and artistic pursuit of the Chinese nation but also demonstrate the adaptability and innovative potential of Chinese traditional culture in modern society.

Research Design and Methods

This study adopts multiple research methods to comprehensively analyze the production process of traditional Chinese velvet flowers and their role in cultural inheritance and innovation. Firstly, through a literature review, the historical evolution, cultural connotations, and status of velvet flower craftsmanship in the protection of intangible cultural heritage were systematically organized, clarifying the current research gaps and future development directions. Secondly, combined with case analysis, the research delves into the style characteristics, craftsmanship inheritance, and modern applications of velvet flower craftsmanship in different regions, providing a basis for revealing the diversity and regional variations of velvet flower techniques. In addition, through field investigations and in-depth interviews with intangible cultural heritage inheritors and velvet flower artisans, the study further explores the key technologies and technical challenges in the velvet flower production process, recording detailed operational steps of each procedure.

Furthermore, the study employs experimental methods to thoroughly document and analyze specific steps in velvet flower production, such as velvet strip creation and shape formation, aiming to reveal the core factors that influence the quality of velvet flower works. During the data analysis, a combination of quantitative and qualitative methods was used to visually analyze the differences in velvet flower styles in regions like Nanjing, Yangzhou, Beijing, and Suzhou, and to explore how different materials and techniques affect the final products. Additionally, by conducting market research and evaluating the effectiveness of cultural dissemination, the study examined the integration of velvet flower craftsmanship with modern fashion, home design, and other fields, analyzing its market response and social acceptance.

This study not only provides theoretical support for the protection and inheritance of velvet flower craftsmanship but also proposes practical strategies for cultural innovation and industrial development, aiming to promote the modernization and global dissemination of velvet flower techniques.

Literature Review

As an art form with a long history and unique craftsmanship, Chinese velvet flowers encompass extensive historical backgrounds, unique crafting techniques, profound cultural significance, and strategies for effective preservation and inheritance in contemporary society. Early literature primarily focused on the historical evolution, craft transmission, and the role of velvet flowers in traditional Chinese culture. Scholars have revealed the dissemination of velvet flower art from royal courts to the folk through historical document analysis and field research, elucidating their cultural connotations and social functions across different periods. These studies have provided valuable insights into understanding the historical and cultural value of velvet flower art. With a deepening appreciation of velvet flowers' value, researchers have begun to focus on their protection, inheritance, and innovation within modern society. On one hand, scholars have discussed the protection mechanisms for velvet flowers as an intangible cultural heritage, proposing resource utilization strategies and preservation recommendations, and providing theoretical support for the transmission and promotion of velvet flowers. On the other hand, researchers have explored modern applications and innovative paths from perspectives of modern design and the cultural creative industry, showcasing the broad prospects of integrating velvet flower art with modern design.

In recent years, as globalization accelerates and cross-cultural exchanges increase, the international dissemination and communication of velvet flower art have become hot research topics. Scholars have analyzed cases of velvet flowers presented and exchanged on international stages, exploring strategies for the international spread of velvet flower art and its potential for cultural exchange [1]. They have also focused on the modern transmission of velvet flower techniques, proposing models that combine traditional crafts with modern design principles, injecting new vitality into the transmission and development of velvet flowers [2].

In terms of interdisciplinary integration, researchers have begun to merge velvet flower art with other academic fields, such as design, materials science, and cultural studies. This interdisciplinary approach has not only enriched the theoretical framework of velvet flower art but also provided more possibilities for innovative applications. For example, analyzing the use of velvet flower visual elements in contemporary cultural creative product design has demonstrated the great potential of integrating velvet flowers with other disciplines [3]; the application of 3D visual perception technology in traditional velvet flower clothing design has provided technological support for modern applications; and studying traditional cultural elements in fantasy costume dramas has opened new avenues for the

international dissemination of velvet flowers [4]. Applying traditional velvet flower crafts to the design of cultural souvenirs has provided a new direction for the development of the cultural creative industry of velvet flowers [5].

Research on traditional Chinese velvet flowers has expanded from solely focusing on craftsmanship and cultural aspects to modern applications, interdisciplinary integration, and international exchanges. By reviewing existing literature, we can see the current state and trends of velvet flower art research. This provides important references and insights for the in-depth study of this research. In subsequent studies, we will combine the outcomes of the literature review to further analyze the production process of traditional Chinese velvet flowers and explore their cultural value and innovative applications in modern society.

The History and Culture of Velvet Flowers

Velvet flower art occupies an irreplaceable position in Chinese history, with roots that can be traced back a millennium, embodying profound meanings of 'auspiciousness' and 'wishing for the best', which endow it with everlasting vitality. According to 'Zhonghua Ancient Annotations', during the reign of Emperor Qin Shi Huang, court ladies had a special affection for wearing velvet flowers. By the Tang dynasty, velvet flowers not only became a tribute item for the royal family but also gained immense popularity both inside and outside the palace during the reign of Empress Wu Zetian due to their vivid colours, meticulous craftsmanship, and convenience in wearing, and were revered as 'palace flowers'. The 'Hairpin Flower Maidens Painting' from the Tang dynasty depicts court ladies adorned with velvet flowers of peonies, peaches, begonias, cluster flowers, and jasmine (Figure 1). During the Ming and Qing dynasties, professional workshops for velvet flowers were established, and the custom of wearing hairpin flowers became popular among the common people, marking the flourishing period of velvet flower craftsmanship and entering its golden age. The prosperity of Nanjing velvet flowers began in this period, providing a rich traditional foundation for today's aesthetic and technical innovations in velvet flowers (Figure 2). By the mid-Qing dynasty, with social stability and the integration of ethnic cultures, velvet flowers were incorporated into the attire of Manchu women. During the Republic of China period, Nanjing velvet flower art became widespread and developed, moving away from the previous complex and splendid court style to a decoration style dominated by auspicious patterns. At that time, velvet flower shops could also customize velvet flowers according to customer requests. However, the art of velvet flowers came to a temporary halt during the social unrest of the Second Sino-Japanese War [6].



Figure 1. Velvet flower headpieces from the Tang Dynasty's Hairpin Flower Maidens Painting [7]



Figure 2. Traditional Chinese velvet flower styles collected by the Palace Museum [8]

In the mid-20th century, to revive this traditional Chinese handicraft, the Chinese government provided substantial policy support and encouragement. Famous velvet flower artisans, represented by Zhou Jiafeng, established professional velvet flower factories in places like Nanjing, innovating while preserving traditional velvet flower designs. This period saw the peak of velvet flower styles, which were sold overseas.

However, in the 1990s, due to business strategies that failed to adapt to market changes, the industry declined. In 2006, velvet flowers were recognized as an intangible cultural heritage of Jiangsu Province, and intangible heritage velvet flower inheritors were established, injecting new vitality into the craft and frequently appearing in the public eye (Figure 3). From the popular use of velvet flower headpieces

in the historical drama 'The Story of Yanxi Palace' (Figure 4), to luxury brands like Dior introducing velvet flowers to the international fashion stage (Figure 5), and their use in the Beijing Winter Olympics (Figure 6), velvet flowers have demonstrated their unique charm [9].



Figure 3. Intangible heritage velvet flower inheritor Zhao Shuxian [10]



Figure 4. Velvet flower headpieces in the drama 'The Story of Yanxi Palace' [11]



Figure 5. Dior fashion show velvet flower headpieces [12]



Figure 6. Velvet flower accessories at the Beijing Winter Olympics [13]

Velvet flowers are closely related to Chinese folk festival customs, becoming an essential decorative element in major celebrations. Chen Ningxin's research meticulously describes the special affection for velvet flowers in the Nanjing area: in celebratory occasions such as weddings, velvet flowers represent auspicious meanings; during festivals like the Spring Festival, 'Year of Plenty', Dragon Boat Festival, and Mid-Autumn Festival, velvet flowers also play a role in blessing. In regions like Beijing and Tianjin, the wearing customs of velvet flowers, such as the phoenix crowns loved by Manchu women (Figure 7), flag heads, and temple fair 'blessing' velvet flowers (Figure 8), convey aspirations for a happy life.



Figure 7. Velvet flower phoenix crowns [14]



Figure 8. Blessing velvet flowers

The traditional styles, wearing customs, and rich cultural connotations of Chinese velvet flowers are detailed in historical documents, not only deepening our understanding of velvet flowers' important status as cultural symbols in Chinese society but also revealing their unique cultural significance and aesthetic values in different historical contexts. The historical evolution and popular trends of velvet flowers not only reflect the adaptability and diversity of this art form but also showcase the innovative spirit of Chinese artisans in response to changing times. From the court to the common folk, and now to the modern international stage, velvet flowers, with their unique artistic allure and deep cultural heritage, bridge past and present, fostering a fascinating dialogue between Chinese traditional aesthetics and global culture.

Characteristics and Regional Differences of Chinese Velvet Flower Craftsmanship

The craftsmanship of traditional Chinese velvet flowers, which is recognized as an intangible cultural heritage, is renowned for its exquisite handcrafting skills and deep cultural significance. The production process involves several delicate and intricate steps, including silk dyeing, velvet strip creation, and shape formation, all of which demand a high level of skill and experience from the artisans. The precision of the silk dyeing process directly affects the colour performance of the velvet flowers, while the steps of splitting silk and fastening velvet strips influence the texture and aesthetic quality of the flowers. Particularly during the shape formation stage, the artisan must carefully control the details of each velvet strip during processes like flower formation and tip finishing to ensure the overall harmony and beauty of the design. Additionally, material selection and combinations are key factors that affect the quality of the finished velvet flowers. The combination of different textures and colours of silk, copper wire, and modern decorative materials adds to the artistic expression of the velvet flowers. However, the production process also presents many challenges, such as ensuring the evenness of the dyeing process, the fine detail in velvet strip production, and the complexity of shape formation. These challenges require artisans to possess deep handcrafting skills and aesthetic judgment. It is precisely

these intricate and detailed crafting steps that contribute to the unique charm of this traditional handicraft.

The velvet flower craftsmanship in different regions of China displays unique styles due to differences in historical backgrounds and local cultures. Nanjing velvet flowers are known for their bright colours and soft textures. Their exquisite craftsmanship and rich cultural connotations make them stand out in Chinese velvet flower art. Yangzhou velvet flowers, on the other hand, emphasize simplicity and naturalness, with soft colours and simple shapes, often used in everyday decorations, reflecting the local culture's simplicity and elegance. Beijing velvet flowers, deeply influenced by Manchu culture, are often used in festive and ceremonial settings. They feature bright colours like red and gold, and their style is grand and complex, reflecting a unique celebratory atmosphere. Suzhou velvet flowers, influenced by Jiangnan culture, exhibit a refined and elegant artistic style, with delicate shapes and subtle colours that reflect the gracefulness and beauty of Jiangnan culture. These regional variations in velvet flower styles not only demonstrate the diversity of Chinese velvet flower craftsmanship but also highlight the unique contributions of different local cultures to the inheritance and innovation of traditional handicrafts. These regional differences are not only a rich interpretation of Chinese traditional culture but also provide continuous inspiration and motivation for the transmission and innovation of velvet flower craftsmanship [15].

MATERIALS FOR MAKING VELVET FLOWERS

Main Raw Materials

Silk and copper wire are the primary materials for traditional Chinese velvet flower production. Silk is used to create the 'flesh' of the velvet flower, while copper wire serves as the 'skeleton.' The selection of silk is primarily based on properties such as colour and quality. The copper wire needs to undergo annealing treatment to soften it, facilitating subsequent velveting and shaping.

Types of Silk for Making Velvet Flowers (Figure 9)

- (1) No-twist thread: An improved version of Su embroidery thread, which eliminates the need for splitting the thread. It is easy to retrieve and can be combed after being fixed. It is a material discovered and invented by modern velvet flower enthusiasts as a substitute for traditional boiled silk.
- (2) Hunan embroidery thread: Relatively thick and easy to retrieve, modern processing has eliminated the need for thread splitting. It is a popular choice among modern velvet flower enthusiasts.
- (3) Su embroidery thread: Comes in a complete range of colours, but splitting the thread can be time-consuming, and the tail tends to curl and tangle during combing. (Gradually being replaced by no-twist thread)

- (4) Raw silk: Silk that has not undergone any processing after being reeled is called raw silk. Compared to boiled silk, raw silk is slightly harder and can be used to make raw silk balls, birds, and animal products. It is resistant to deformation.
- (5) Boiled silk: Raw silk is boiled with baking soda to remove gum and transform it into boiled silk. It is the raw material for traditional velvet flowers. Due to the need for thread splitting and the difficulty in controlling the amount of velvet, it is currently only used by some experienced craftsmen. However, its lustre, velvet feel, and colour transition are irreplaceable by other materials.

Silk type used for velvet flowers									
Silk Name	Silk Image	Silk Name	Silk Image	Silk Name	Silk Image	Silk Name	Silk Image	Silk Name	Silk Image
Untwisted silk thread		Hunan embroidery thread		Suzhou embroidery thread		Raw silk		Boiled-off silk	

Figure 9. Classification of Silk

Materials for Making the Skeleton of Velvet Flowers (Figure 10)

- (1) Brass wire: Brass wire is used to make velvet flowers, but due to its insufficient toughness, it needs to undergo annealing (heating the copper wire to a red heat) before use. The annealed brass wire becomes softer and more ductile, making it easier to tie the velvet.
- (2) Color-retaining copper wire: Mainly used to make the branches, stamens, or filigree of velvet flowers.
- (3) Velvet yarn: Used to tie velvet strips to form velvet flowers. Because of its inherent lustre, it is very suitable for winding and tying velvet flowers, giving a more advanced feel.

Framework material					
Material name	Material Image	Material name	Material Image	Material name	Material Image
Orichalcum wire		Color preserving copper wire		Silk thread	

Figure 10. Materials for Making the Skeleton of Velvet Flowers

Tools Related to Traditional Chinese Velvet Flower Making

Hook scissors (also known as dragon flower scissors), pointed scissors, copper wire scissors (ordinary steel/iron scissors), bristle brush, tweezers, wire rubbing board, magnesium powder, ruler, and weights (Figure 11).

(1) Hook scissors (Dragon Flower Scissors): Mainly used in the step of hooking strips (cutting the tied velvet strips from the velvet row). The scissors have a blade length of about 18 cm, which can cut most of the velvet strips. The blade is sharp and thin, allowing for quick and clean cutting of the velvet strips.

(2) Pointed scissors: Mainly used for pointing (trimming velvet strips to achieve the desired shape). The scissors have a blade length of about 8 cm. The short and sharp blade allows for better trimming of the velvet strips. The scissors are small and lightweight, and the handle is designed to fit modern grip strength, making the operation more effortless.

(3) Copper wire scissors (ordinary steel/iron scissors): Mainly used to trim excess copper wires. The blade is thick and sturdy, suitable for trimming copper wires.

(4) Bristle brush: Made of stiff hairs from the back of a pig, mainly used for combing velvet (smoothing and aligning the floating velvet and fine silk of the velvet row). The bristle length is about 10cm, and the dense bristles can comb most of the velvet rows.

(5) Tweezers: Mainly used to fix velvet strips and adjust their shape. The fine tip of the tweezers allows for precise picking up of smaller velvet strips and copper wires, enabling better shaping and creation.

(6) Wire rubbing board: Used to tighten the copper wire, making the velvet strips denser. The rubbing board consists of a hard, friction-producing bottom made of bluestone, measuring about 20cm in length and 6 cm in width, which facilitates tightening the velvet strips. The upper part is a piece of ginkgo wood, which is slightly thicker and longer for easier gripping.

(7) Magnesium powder: Used during the step of tying velvet (clamping the copper wire to the velvet row) to increase friction.

(8) Ruler: Used to measure the length and width of the velvet strips, ensuring consistency in their dimensions and making the finished velvet flowers more refined.

(9) Wooden clip: Mainly used to fix the velvet row, with a length of about 25 cm, suitable for most velvet rows.

(10) Weights: Can be filled with iron or stone, wrapped in cotton fabric, and used to fix the combed, measured, and organized velvet rows on the table

Basic tool									
Tool name	Tool Image	Tool name	Tool Image	Tool name	Tool Image	Tool name	Tool Image	Tool name	Tool Image
Hook scissors		Poured scissors		Copper scissors		Mane brush		tweezers	
Tool name	Tool Image	Tool name	Tool Image	Tool name	Tool Image	Tool name	Tool Image	Tool name	Tool Image
Thread rolling plate		Magnesium powder		Ruler		Wood splint		pressing plate	

Figure 11. Basic Tools for Making Velvet Flowers

THE TRADITIONAL PRODUCTION PROCESS OF VELVET FLOWERS

The production of Chinese velvet flowers is a traditional handicraft that combines artistic expression with technical skill, consisting of three main stages: silk dyeing, velvet strip creation, and shape formation.

Before crafting the velvet flowers, a detailed design plan is essential. Artisans preconceive the shape, colour coordination, and decorative elements of the velvet flowers based on their type, size, colour, and intended use. This study analyzes the production process of traditional Chinese velvet flowers using peach blossoms as an example.

Silk Dyeing Stage (Figure 12)

Step 1: Soaking. The silk is soaked in warm water at about 60 degrees Celsius to thoroughly wet and soften it for more even colouring, then wrung out.

Step 2: Dye Mixing. Appropriate dye (either plant-based or chemical) is mixed into warm water and stirred until homogeneous. The silk is then submerged and agitated to ensure even dye application.

Step 3: Wringing. The silk is wrung out from the top to remove excess water.

Step 4: Drying. The silk is spread evenly and hung on a bamboo rod to dry.



Figure 12. Silk Dyeing Process

Velvet Strip Creation Stage (Figure 13)

The production of velvet strips in traditional Chinese velvet flower crafting involves the following ten steps:

Step 1: Fixation. The silk is knotted and secured to the workstation with cotton thread.

Step 2: Splitting. The silk is pinched at the base and teased apart in one direction.

Step 3: Combing. Wrapped silk threads and loose fibres are combed to enhance lustre, smoothness, and clarity.

Step 4: Layering. Two colours of silk are layered one on top of the other and adjusted for even thickness.

Step 5: Softening. The organized silk is wrapped in a semi-damp towel for two minutes to make it more pliable.

Step 6: Velvet Fastening. One end of a copper wire is twisted and straightened, threaded through the silk, and clamped at the other end to secure the silk in place.

Step 7: Cutting. The velvet strip is cut to the desired width using scissors.

Step 8: Hooking (Aligning). The wire is adjusted to the right position, and the silk is cut from underneath with scissors.

Step 9: Hooking (Twisting). Both ends of the velvet strip are held taut, aligned horizontally, gently rolled to align properly, and then twisted in the opposite direction to form a spiral.

Step 10: Hooking (Rolling). The velvet strip is placed over a twining board; one end is pinched tight while the other end is pressed with a wooden bar and rolled forward until the wire is tight.

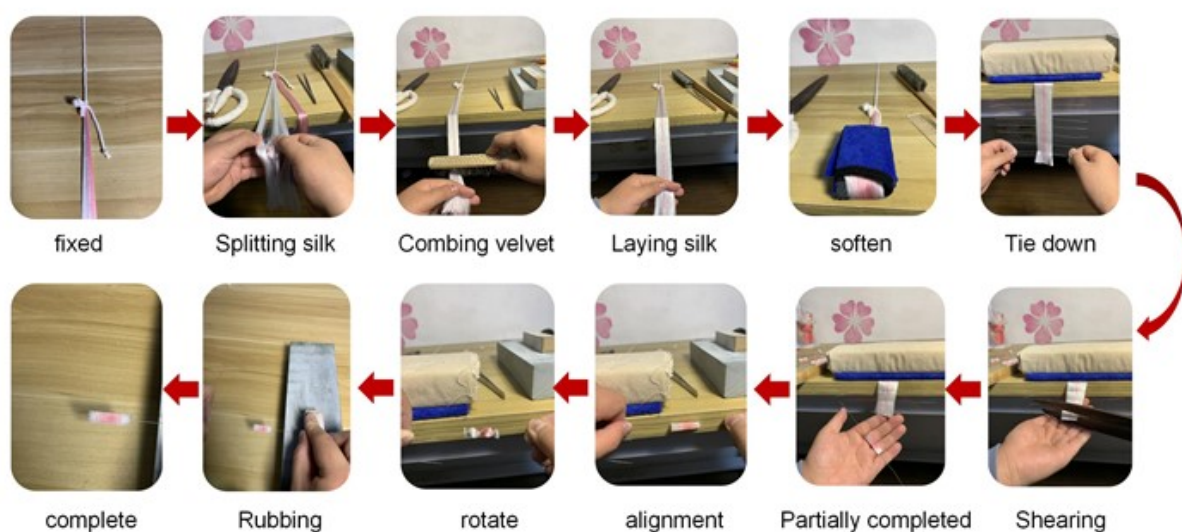


Figure 13. Velvet Strip Creation Process

Shape Formation Stage

Step 1: Pinching. Using large sharp scissors, the velvet strips are shaped into the required form to facilitate further molding. Pinching styles generally include double-ended pinching, half-pinching, and spherical pinching, with peach blossoms requiring double-ended and spherical pinching. Double-ended Pinching (Figure 14). Half Pinching (Figure 15). Spherical Pinching (Figure 16).

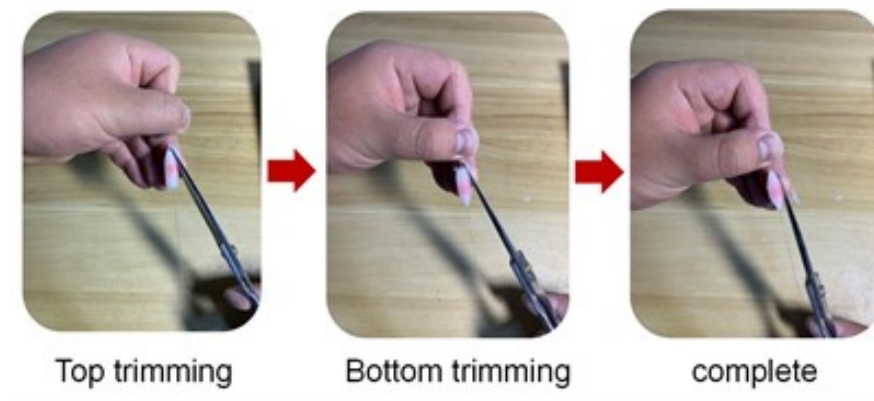


Figure 14. Double-ended Pinching Process

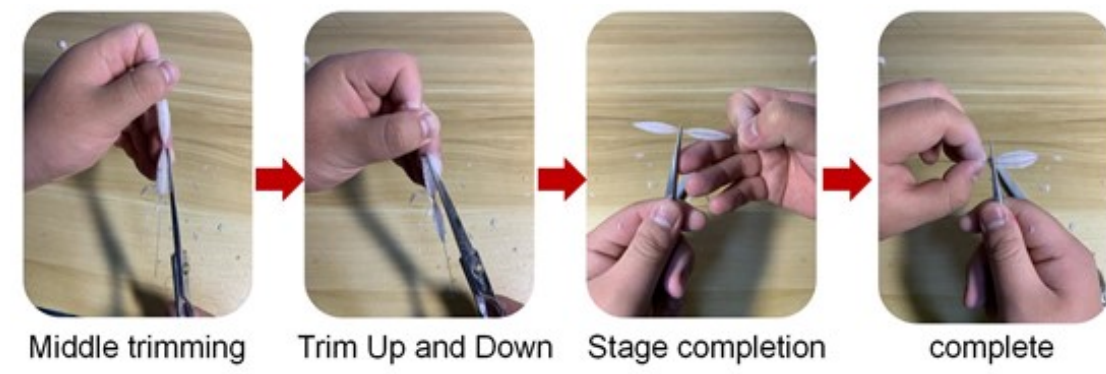


Figure 15. Half Pinching Process

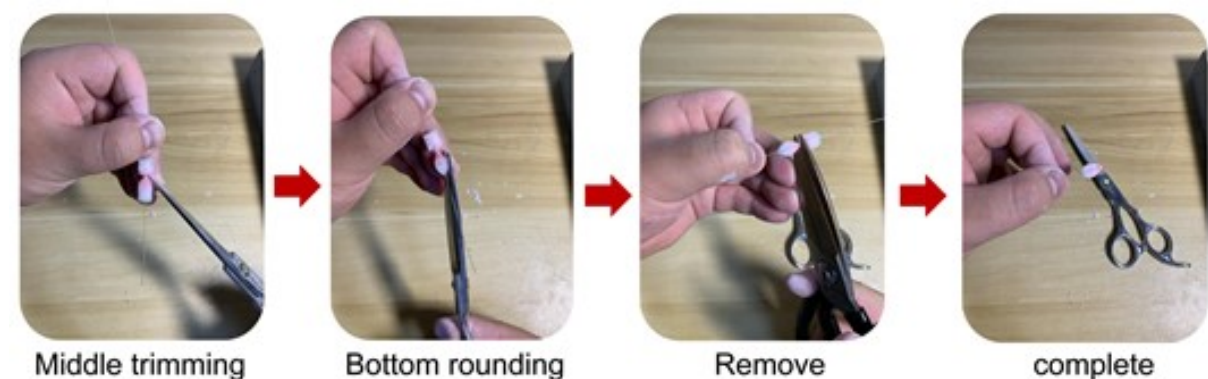


Figure 16. Spherical Pinching Process

Step 2: Passing the Flower. Using tweezers, the pinched velvet strips are shaped and combined with various auxiliary materials to create the desired style (Figure 17).

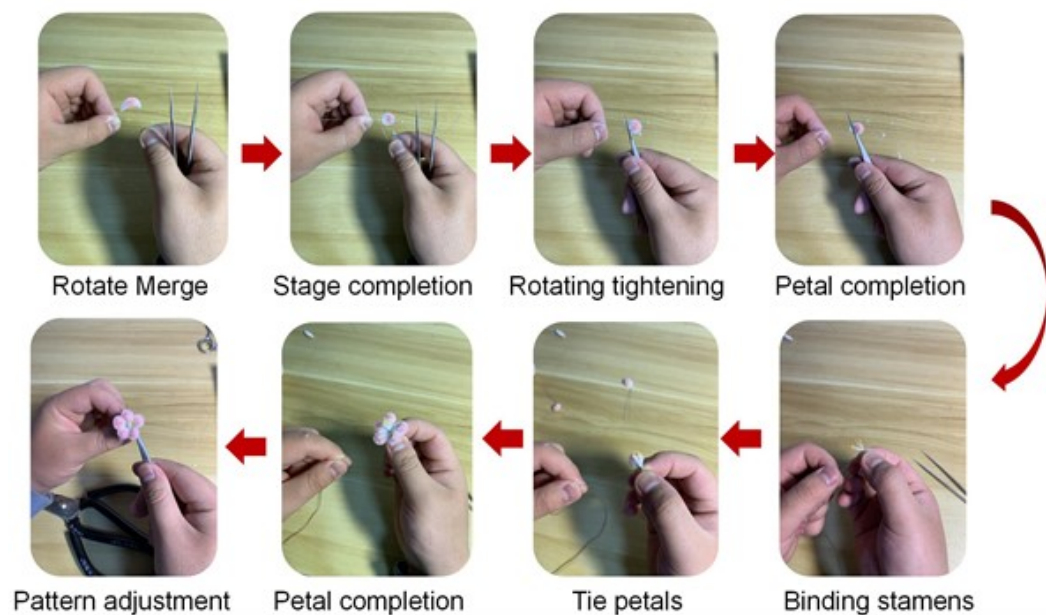


Figure 17. Passing the Flower Process

Step 1: Assembly. The various shaped materials are bound and assembled using silk thread (Figure 18).

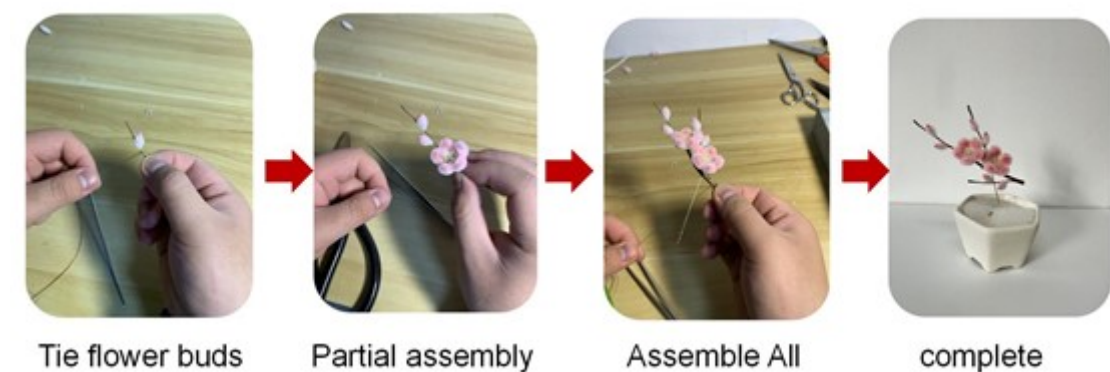


Figure 18. Assembly Process

Through these three meticulously executed stages, the entire traditional Chinese velvet flower production process is completed—from design to dyeing to the final product, each step showcasing the craftsman's skill and artistry.

CRAFT CHARACTERISTICS AND INNOVATIONS

The production of traditional Chinese velvet flowers is a refined art form that leverages natural materials like silk, relying on the rich experience and exceptional skills of craftsmen. This involves a

series of unique handcrafting processes such as silk refining, dyeing, hooking, pinching, and flower passing, creating velvet flower works that are both lifelike and artistically rich. The complexity of its production process, deep cultural significance, rich artistic expression, and the craftsmanship of the artisans make it a rare artistic treasure in Chinese handicrafts.

Although the traditional crafting of velvet flowers is predominantly manual, technological advancements have led to the mechanization of certain preparatory processes such as silk dyeing and copper wire softening. Additionally, modern materials like pearls and sequins are being incorporated for embellishments, and some traditional procedures are being simplified through the use of hair straighteners for ironing and flattening, and white glue for setting (Figure 19), showcasing an innovative direction in the fusion of traditional craft and modern technology.

Tool innovation			
Tool name	Tool Image	Tool name	Tool Image
Hair straightener		Hair gel	
Clamp flat		stereotyping	

Figure 19. Tool Innovation

The evolution of Chinese velvet flower craft lies in the modernization of traditional techniques and its integration across different fields, which not only preserves and promotes its artistic essence but also aligns with modern aesthetic and practical demands, specifically as follows:

(1) Application of Innovative Materials

While silk remains the traditional primary material, the introduction of new synthetic materials in modern processes has enhanced the durability and diversity of velvet flowers, such as the use of environmentally friendly materials like twist ties. Although these materials do not provide the same texture as silk, they enhance the sustainability of the flowers (Figure 20). The use of hair straighteners and spray adhesives in conjunction with traditional wire pinching techniques to create flattened styles of velvet flowers also exemplifies material innovation (Figure 21).



Figure 20. Twist tie-made faux velvet flowers



Figure 21. New technology crafted flattened velvet flower products

(2) Integration of Modern Technologies

Digital Design: Utilizing computer-aided design tools, such as Blender software, allows for the initial design and creation of 3D velvet flowers (Figure 22), enabling quick previews of the final product outcomes, significantly improving design precision and efficiency, and providing designers with a broad creative space.

3D Printing Technology: While it cannot fully replace traditional handcrafting, 3D printing assists in the construction of complex structures, improving the precision and production efficiency of velvet flowers.

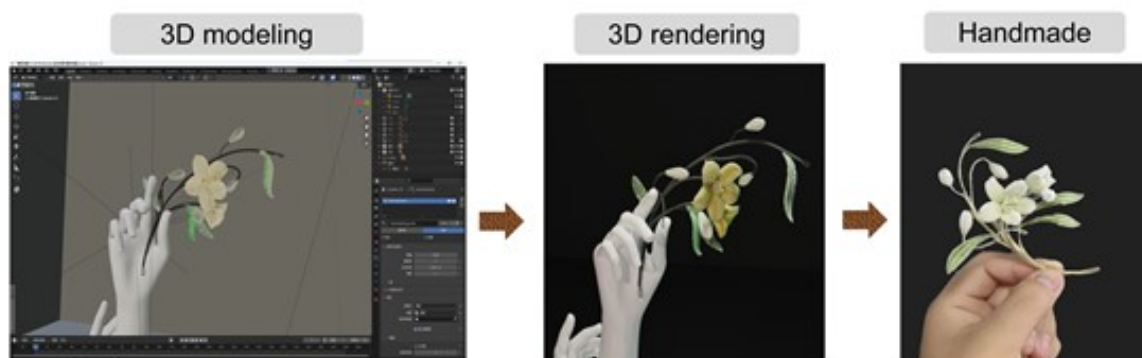


Figure 22. Design and creation process analysis using Blender software

(3) Cross-Industry Collaboration and Application Expansion

Collaborating with fashion and home brands to launch co-branded products featuring velvet flower elements can quickly enhance market awareness and the commercial value of velvet flowers. For example, working with renowned fashion brands to design accessories like velvet flower brooches and

hairpieces, or partnering with home brands to create decorative paintings and ornaments, perfectly combines traditional craftsmanship with modern design, meeting the aesthetic demands of contemporary consumers.

The SHANG XIA brand has combined traditional velvet flower craftsmanship with modern fashion to create a series of velvet flower brooches. These brooches are based on Chinese traditional velvet flower techniques, using handmade silk petals and brass stems to present elegant and lightweight floral shapes inspired by Chinese ink paintings. Each velvet flower brooch is meticulously handcrafted, displaying different colours and forms, and incorporating elements of Oriental culture, such as magpies and pandas, giving each piece a unique cultural meaning. These brooches have not only gained popularity domestically but also appeared on the runways of Paris Fashion Week, bringing Chinese traditional craftsmanship to the international fashion stage (Figures 23-24).



Figure 23. Velvet flower brooch [16]

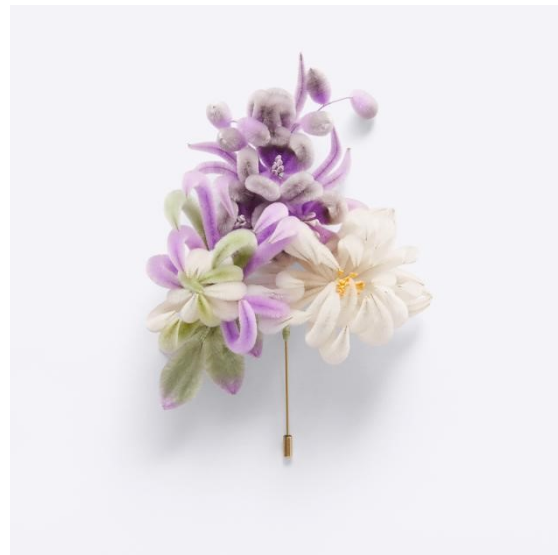


Figure 24: Modern fashion design velvet flowers [16]

Velvet flower art has been innovatively integrated into interior decorations, such as ornaments or wall paintings, creating vivid and lifelike indoor art pieces. These decorations are crafted using traditional velvet flower techniques, with carefully handmade, realistic floral shapes, paired with simple and elegant porcelain vases or frames, achieving a perfect blend of traditional craftsmanship and modern home aesthetics. These pieces not only serve as decorative elements but also carry cultural meanings of auspiciousness and longevity. In modern interior decor, such velvet flower decorations are widely popular, enriching the artistic ambience of spaces while advancing the modernization and cultural dissemination of velvet flower craftsmanship (Figures 25-28).



Figure 25. Home decor velvet flower chrysanthemum

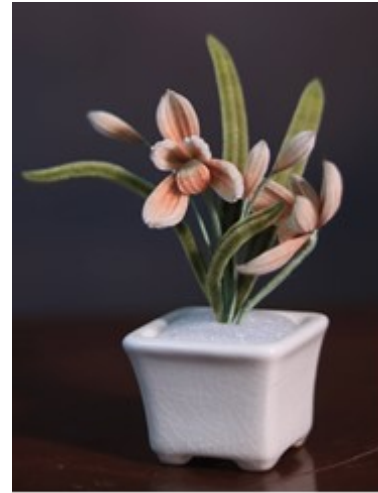


Figure 26. Home decor velvet flower orchid

Figure 27. Home Decor Velvet Flower Wall Art -
ChrysanthemumFigure 28. Home Decor Velvet Flower Wall Art - Plum
Blossom and Bird

(4) Integration of Traditional Craftsmanship with Contemporary Design

Combining traditional velvet flower craftsmanship with contemporary design principles not only creates innovative products that appeal to modern consumers but also effectively preserves and transmits cultural heritage.

While maintaining the essence of traditional velvet flower craftsmanship, bold attempts are made in new colour combinations and form designs. For instance, integrating modern popular colours into velvet flower creations or drawing inspiration from modern sculpture and architectural design concepts to create more contemporary velvet flower pieces (Figure 29). These innovative works not only capture the attention of young consumers but also demonstrate the unlimited potential of velvet flower craftsmanship.



Figure 29. Large Velvet Flower Installation [16]



Figure 30. Velvet Flower Night Lamp

Apart from being decorative art pieces, velvet flowers can be explored for applications in more settings and functions. For example, incorporating velvet flower elements into everyday products, such as velvet flower phone cases or bookmarks; or integrating modern technology to develop smart velvet flower products, like velvet flower night lamps with LED lights (Figure 30). These innovative applications not only expand the market for velvet flowers but also increase public awareness and appreciation of this traditional craft.

(5) Innovation in Education and Dissemination

Integration into Educational Systems: Conducting intangible cultural heritage activities in schools, and regularizing the classroom dissemination of velvet flower-making, aims to cultivate students' handicraft skills, enhance their understanding and respect for traditional culture, and nurture new forces for the inheritance of traditional arts (Figures 31-32) [17].

Digital Display and Interactive Experience: By utilizing Virtual Reality (VR) and Augmented Reality (AR) technologies, a digital platform for showcasing velvet flower craftsmanship can be created, allowing viewers to immerse themselves in the production process and cultural charm of velvet flowers. For example, using VR goggles, users can virtually visit velvet flower workshops from home and closely observe the detailed work of artisans; AR technology can overlay virtual velvet flower elements in physical exhibitions or retail spaces, enhancing viewer engagement and enjoyment [18].

Social Media and Online Communities: Social media platforms such as Xiaohongshu, Douyin, and Instagram have become essential channels for promoting velvet flower craftsmanship. By sharing short videos, tutorials, and live interactions about velvet flower making, a large number of young users can be attracted. Additionally, establishing online communities for velvet flower enthusiasts encourages the sharing of creations and exchanges of ideas, further expanding the influence of velvet flower culture



Figure 31. Intangible cultural heritage velvet flower activities in Yueyang City Pearl Mountain Primary School



Figure 32. Intangible Cultural Heritage Velvet Flower discussion

Through the innovative application of modern communication methods and the deep integration of traditional craftsmanship with contemporary design, velvet flower craftsmanship not only gains new vitality in modern society but also serves as a bridge between the past and the future, conveying the unique charm of Chinese culture.

APPLICATION AND INHERITANCE OF VELVET FLOWERS

Velvet flowers transcend their traditional roles, shining in various contemporary life aspects through their broad applications in fashion, interior decoration, and international exchanges, showcasing the vibrant life of velvet flower culture. As decorative elements in modern fashion design, velvet flowers infuse apparel with vitality through their unique texture and rich colours. From haute couture to everyday outfits, the integration of velvet flowers adds a touch of gentle Eastern aesthetics. Designers blend velvet flower shapes and colours with modern fashion innovatively, bridging tradition and modernity [19]. Similarly, the application of velvet flowers in interior decoration is diverse. Whether as tabletop floral art for home decor or artistic installations in public spaces, velvet flowers bring unique aesthetics and cultural ambience [20]. Their natural texture and the warmth of craftsmanship add elegance and comfort to modern living; internationally, as representatives of Chinese traditional culture, velvet flowers are increasingly cherished. By participating in international crafts exhibitions and cultural festivals, velvet flower art transcends borders, showcasing the aesthetics and innovation of Chinese traditional crafts [21].

Furthermore, the transmission and protection of velvet flower-making skills have become vital components of cultural heritage efforts. Challenges in velvet flower-making skills' transmission include insufficient educational training and ageing artisans. To further advance the innovation and development of velvet flower art, several strategies can be adopted: firstly, encouraging artists and

craftsmen to explore new materials, technologies, and design ideas to enrich the diversity and modern appeal of velvet flowers, meeting market and consumer demands; secondly, by engaging in cross-industry collaboration with fashion, interior design, and digital media, expanding the application scope of velvet flower art and enhancing its cultural impact [22]; thirdly, by utilizing international exhibitions and cultural exchanges to amplify the global promotion of velvet flower art, fostering global cultural understanding; and finally, by hosting velvet flower-making workshops and exhibitions, increasing public understanding and participation, cultivating more enthusiasts and future inheritors. These measures aim to stimulate the innovative vitality of velvet flower art, ensuring its continuous development and transmission in modern society, and conveying China's traditional aesthetic principles and exquisite craftsmanship to a global audience. Not only do these efforts promote the spread and influence of velvet flower culture globally, but they also pave new paths for the modern transformation and innovative development of traditional crafts. The story of velvet flowers serves as a bridge linking history with the future, tradition with innovation, and the East with the West, narrating the unique charm of Chinese culture and the universal values of world cultures [23].

In conclusion, the protection, transmission, and development of velvet flower art constitute a long-term and systematic task requiring the involvement and support of governments, society, academia, and the public. Through continued efforts, not only can this precious cultural heritage be preserved, but also new possibilities for innovation can be unlocked, allowing velvet flower art to flourish in global cultural exchanges. These endeavours not only enhance cultural understanding and respect among global communities but also significantly contribute to the diversity of human cultures and the protection of cultural heritage.

CONCLUSION

This study systematically analyzes the production process of traditional Chinese velvet flowers and their cultural inheritance and innovative applications. Through the analysis of the historical evolution and modern development of velvet flower craftsmanship, the study reveals its significant value in cultural preservation and artistic innovation. The research shows that although velvet flower craftsmanship experienced a decline in the mid-20th century, it has gradually regained vitality through the efforts of intangible cultural heritage protection, inheritors, and various sectors of society. The art of velvet flowers has integrated into modern design, especially achieving notable success in the fields of fashion and home décor.

The study also suggests that by combining velvet flower craftsmanship with modern design and digital technologies [24], its global dissemination and application can be further promoted. At the same time, in response to challenges in the transmission of velvet flower craftsmanship, such as the ageing of

inheritors and insufficient educational resources, the study proposes strategies such as strengthening education, cross-industry collaboration, and international promotion.

As an important component of China's intangible cultural heritage, velvet flower art demonstrates the profound heritage and modern innovation capacity of traditional handicrafts, providing ample space and direction for future inheritance and development.

Author Contributions

Conceptualization – Jiang T, Yang C; Methodology – Jiang T, Yang C; Formal analysis – Jiang T, Yang C; Investigation – Jiang T; Resources – Jiang T; writing-original draft preparation – Jiang T, Yang C; writing-review and editing – Yang C; visualization – Yang C; supervision – Yang C. All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

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REFERENCES

- [1] Zhou S. Research on Cultural Connotation and Decorative Design of Nanjing Silk flower [Master's thesis]. Nanjing University of Aeronautics and Astronautics. 2017.
- [2] Hu W, Yang X. The inheritance of intangible cultural heritage velvet flowers from the modern perspective. *Arts Studies and Criticism*. 2022; 3(1):61-65.
- [3] Han X, Zhan Y. Research on the Application of Visual Elements of Intangible Cultural Heritage in the Design of Contemporary Cultural and Creative Products: A Case Study of Nanjing Velvet Flowers. *Highlights in Art and Design*. 2023; 3(3):71-75.
<https://doi.org/10.54097/hiaad.v3i3.11234>
- [4] Fan L. Application of 3D visual perception-driven design of velvet flowers in traditional dresses. *Applied Mathematics and Nonlinear Sciences*. 2024; 9(1).
<https://doi.org/10.2478/amns.2023.2.00987>
- [5] Li R. The Application of Traditional Chinese Cultural Elements in Fantasy Costume Drama - A Case Study of 'Love Between Fairy and Devil'. In: *SHS Web of Conferences*. 2023; 159. p. 02004.
<https://doi.org/10.1051/shsconf/202315902004>
- [6] Chang A, Wu Y. The new inheritance of traditional craft in the form of cultural and creative souvenirs: Taking A Thousand Miles of Rivers and Mountains as an example. *Highlights in Art and Design*. 2022; 1(3):138-141. <https://doi.org/10.54097/hiaad.v1i3.4150>
- [7] Zhou F. Appreciation of a Famous Painting: "Ladies with Hairpins and Flowers" [Internet]. 360 Personal Library; 2024 [cited 2024 Nov 07]. Available from:
http://www.360doc.com/content/24/0625/17/50120487_1127122946.shtml
- [8] Apparel Culture Database. Appreciation of a Famous Painting: "Ladies with Hairpins and Flowers" [Internet]. Little Red Booklitter; 2023 [cited 2024 Nov 07]. Available from:
<http://xhslink.com/a/nTT8r5R2o6hZ>
- [9] Hu W, Yang X. The inheritance of intangible cultural heritage velvet flowers from the modern perspective. *Arts Studies and Criticism*. 2022; 3:61-65.
- [10] Ji C. "Craftsmanship Guardian" Zhao Shuxian: Looking Forward to the Branding and Industrialization of Handcrafted Silk Flowers [Internet]. Xinhua News Network; 2019 [cited 2024 Nov 07]. Available from: http://www.yunnangateway.com/html/2019/datu_0916/41244_2.html
- [11] Fashion Magazine. The romantic beauty of intangible cultural heritage [Internet]. Little Red Booklitter; 2024 [cited 2024 Nov 07]. Available from: <http://xhslink.com/a/BLTJMXdru8hZ>
- [12] DOLA Fashion Network. When Intangible Cultural Heritage Meets Dior: An Opportunity for Silk Flowers to Go Global [Internet]. Financial Headlines; 2024 [cited 2024 Nov 07]. Available from: <http://cj.sina.com.cn/articles/view/6313849535/17855b2bf001014esg>

- [13] Meng H. Beijing's Intangible Cultural Heritage: Velvet Flowers 'Fly' onto Winter Olympics Award Ceremony Dresses – An Unveiling of the Dozens of Craftsmanship Processes Behind [Internet]. CNTV; 2022 [cited 2024 Nov 07]. Available from: <http://finance.sina.com.cn/jjxw/2022-01-15/doc-ikyamrmz5312620.shtml>
- [14] Rukeye. Everlasting velvet flowers, unceasing intangible cultural heritage [Internet]. 360 Personal Library; 2023 [cited 2024 Nov 07]. Available from: http://www.360doc.com/content/23/1125/23/83099150_1105302366.shtml
- [15] Ying Y. Protecting the velvet flowers in Nanjing. Art & Design. 2007.
- [16] Shang X. Shang Xia Presents an Immersive Art Exhibition Entitled "The Art of Lightness" [Internet]. BANG; 2023 [cited 2024 Nov 07]. Available from: <http://www.bangcity.cn/index.php/shangxiashangxiachengxianqingyingzhiyichenjinshiyishuzhan/>
- [17] Yi-Yi XU. The inheritance of intangible cultural heritage and the obligations of higher education. Journal of Xuzhou Institute of Technology (Social Sciences Edition). 2010.
- [18] Deng Y, Mo Z. The application of new media technology in the safeguarding of intangible cultural heritage. Applied Mathematics and Nonlinear Sciences. 2024; 9(1). <https://doi.org/10.2478/amns-2024-2267>
- [19] Li Fan. Application of 3D visual perception-driven design of velvet flowers in traditional dresses. Applied Mathematics and Nonlinear Sciences. 2024; 9(1). <https://doi.org/10.2478/amns.2023.2.00987>
- [20] Zeng W. The art of Nanjing velvet flower application in interior decoration design research [Master's thesis]. Nanjing Forestry University; 2019.
- [21] Yan WJ, Li KR. Sustainable cultural innovation practice: heritage education in universities and creative inheritance of intangible cultural heritage craft. Sustainability. 2023; 15(2):1194. <https://doi.org/10.3390/su15021194>
- [22] Su M. Application and Research of New Media Technology in Nanjing Velvet Flowers Heritage [Master's thesis]. Wuhan University of Technology; 2019.
- [23] Ott M, Dagnino FM, Pozzi F, Tavella M. Widening access to Intangible Cultural Heritage: Towards the development of an innovative platform. In: Universal Access in Human-Computer Interaction. Universal Access to Information and Knowledge: 8th International Conference, UAHCI 2014, Held as Part of HCI International 2014, Heraklion, Crete, Greece, June 22-27, 2014, Proceedings, Part II 8. Springer International Publishing. pp. 705-713. https://doi.org/10.1007/978-3-319-07440-5_64
- [24] Meng M. Exploring the communication strategy of intangible cultural heritage in the new media context. SHS Web of Conferences; 2023; 155:01017. <https://doi.org/10.1051/shsconf/202315501017>