

Individuality in Commonality: A Comparative Study of Su Embroidery and Gu Embroidery Based on Online Retrieval of Museum Collections

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Abstract

As traditional handicrafts in the south of the Yangtze River, Su embroidery and Gu embroidery are closely related to each other due to their geographical proximity, mutual exchange of embroidery techniques and similar cultural backgrounds. In recent years, there has been considerable research on the historical origins and relationship between the two, but no unified conclusion has been formed. Through the combination of quantitative statistics of online collections in domestic museums and qualitative analysis of literature records, following the idea of “deconstruction - research - recombination”, this paper studies the similarities, differences, and influencing factors of Su embroidery and Gu embroidery, and illustrates the relationship between them. Su embroidery and Gu embroidery are two independent embroidery categories, which showed the characteristics of “Individuality in Commonality” with the evolution of the historical process. Under the call to revitalize traditional handicrafts, it is beneficial for the protection and inheritance of Su and Gu embroidery to trace their historical origins, analyze their respective technical characteristics, and clarify their relationship.

Keywords: commonality and individuality, comparative study, Gu embroidery, museum collections, mutual relation, Su embroidery

1. Introduction

Similarities in geographical location, needlework techniques, and artistic style complicate the relationship between Su and Gu embroidery: Firstly, Su embroidery and Gu embroidery are similar in artistic style and technique. Su embroidery has fine stitching, elegant colors, and exquisite craftsmanship, characterized by flat, neat, thin, dense, even, smooth, harmonious and bright; Gu embroidery is famous for fine silks, delicate needles and esoteric color matching. Both inherited the mature needlework system since the Tang and Song dynasties. Su embroidery and Gu embroidery are based on famous paintings from the Song and Yuan dynasties, and can be embroidered with sceneries, landscapes, flowers and birds. Secondly, it is a mixed use of the two names. During the Ming and Qing dynasties, Su embroidery was called Gu embroidery, and most of the products circulating in the market were sold under the Gu name. In the middle of the Qing Dynasty, as the Su embroidery industry developed, the Gu Gong Temple and the Jin Wen Public House were built to worship Gu Mingshi, the founder of Gu embroidery and the ancestor of the embroidery industry. In addition, the Gu embroidery python robe presented by Suzhou Weaving was recorded in the *Archives Collection of the Interior Building Office of the Qing Palace* (清宮內府造辦處檔案總匯), and the “Gu embroidery belonging to Su” 「苏属之顾绣」was published in The Times in the third year of the Republic of China (Xue, Tang, & Yang, 2001), which made the relationship between Su and Gu embroidery closer.

Currently, there is no consensus on the relationship between Su embroidery and Gu embroidery. Scholars have focused on their historical origins, geographical culture, embroidery techniques and artistic styles, as well as studies of modern and contemporary inheritors. Gu embroidery significantly influenced the revival of Su embroidery (Lu, 1988). Though located in Shanghai, Luxiang Garden is the source of the flourishing Su embroidery industry (Suzhou History Museum, Jiangsu Normal University, & Nanjing University, 1981). According to some scholars, Gu embroidery belongs to Su (Wang, 2013). However, others consider Su embroidery and Gu embroidery as two different categories (Xu, 2016).

For this issue, this paper combines quantitative statistics of online collections in museums with qualitative analysis of literature records, follows the idea of “deconstruction - research - recombination”, studies the

similarities and differences of Su embroidery and Gu embroidery in product types, raw materials, stitching techniques and artistic styles, and analyzes the influencing factors.

2. Quantity, Distribution, and Types of Su and Gu Embroidery Collections

In recent years, the improvement and enrichment of electronic resources in domestic museums has facilitated the development of related research by providing scholars with convenient methods of collection retrieval and 3D visualization for research perspectives. In this paper, the collection in major domestic museums (mainly in historical periods) are searched online. Considering the geographical location of the museums and the quantity and quality of the collections, nine museums are retrieved: The Palace Museum, the National Museum of China, the Nanjing Museum, the Shanghai Museum, the Zhejiang Provincial Museum, the Liaoning Provincial Museum, China National Silk Museum, the Suzhou Museum and the Suzhou Silk Museum. Due to the large distribution of the collections, in addition to the aforementioned museums, domestic museums such as Nantong Museum, China Museum of Embroidery and Taipei Palace Museum, as well as overseas museums such as the British Museum, Metropolitan Museum of Art and others also have collections of Su and Gu embroidery. Due to the limited scope of this article, only the online collections of the above nine representative museums are used as samples.

Two principles should be followed in the “deconstruction - research - recombination” of collections:

- 1) Statistical analysis of the number, distribution, and variety of collections: wide and extensive. Using the collections available online at the nine museums as a sample reflects the comprehensiveness of the retrieval and does not require the completeness of the collected information. In this paper, only embroidery categories, times, and names need to be extracted.
- 2) Statistical analysis of the raw materials, stitching techniques, and themes of collections: refined and specialized. Based on principle (1), the accuracy, completeness, and professionalism of sample information are required. The collection should be equipped with pictures and textual descriptions, including the name of the collection, time, materials, patterns, colors, techniques and other information, similar to the information extracted from the eleven-sided Tang Ka of Su embroidery in the Palace Museum. (Figure 1)



Figure 1. The information extracted from the eleven-sided Tang Ka of Su embroidery in the Palace Museum
Note. (a) (b): Information is used from <https://www.dpm.org.cn> The Palace Museum. Beijing. China (c): Extraction of the name, period, size, base material, thread, stitches, and themes of the collection.

2.1 Collection Quantity and Museum Distribution

2.1.1 Results: Total Amount is Equal, Su Embroidery is more Widely Distributed

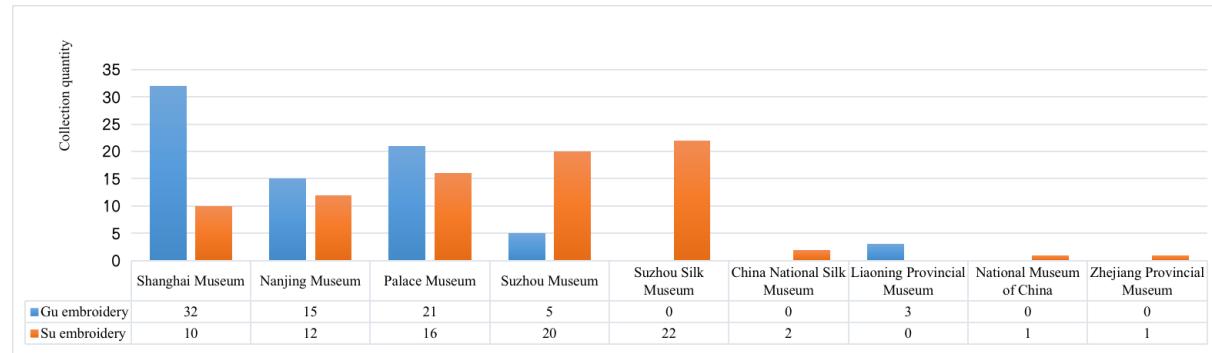


Figure 2. The quantity and distribution of Gu embroidery and Su embroidery among the museums

There are 84 pieces of Su embroidery and 76 pieces of Gu embroidery in the collection, with little difference in the number of pieces. The collection of Su embroidery surpasses that of Gu in number and distribution. (Figure 2)

2.1.2 Reason: Differences in Geography and Influence

The reasons for this phenomenon are as follows: (1) The influence of geographical location. Both Su embroidery and Gu embroidery have the largest collections in their localities. (2) The difference in influence. As the head of the four famous embroideries, Su embroidery enjoys a great reputation at home and abroad. It is more extensive than Gu either in the number of collections or in the geographical location.

2.2 Collection Quantity and Time Distribution

2.2.1 Results: Ming Dynasty as the Boundary, Homologous Development, and Different Ups and Downs

Based on the search results and the development of embroidery, the statistical interval of historical periods is divided into six periods: pre-Song (before 960AD), Song (960-1279AD), Yuan (1271-1368AD), Ming (1368-1644AD), Qing (1644-1840AD), and modern times (1840-1949AD). (Figure 3)

According to the records in *Gusu Zhi* (姑苏志) (1506-1521AD) and *Songjiang Fu Zhi* (松江府志) (1631AD), the embroidery products belonging to the geographical scope of Su embroidery and Gu embroidery before the Ming Dynasty were regarded as the remains of their homologous development, and the collections of Ming Dynasty and later belong to Gu embroidery and Su embroidery. Few collections of pre-Ming embroidery exist. Suzhou Museum has five fragments of embroidery from the Song Dynasty that were used in Buddhism. The National Museum of China contains fragments of dragon designs from the Yuan Dynasty.

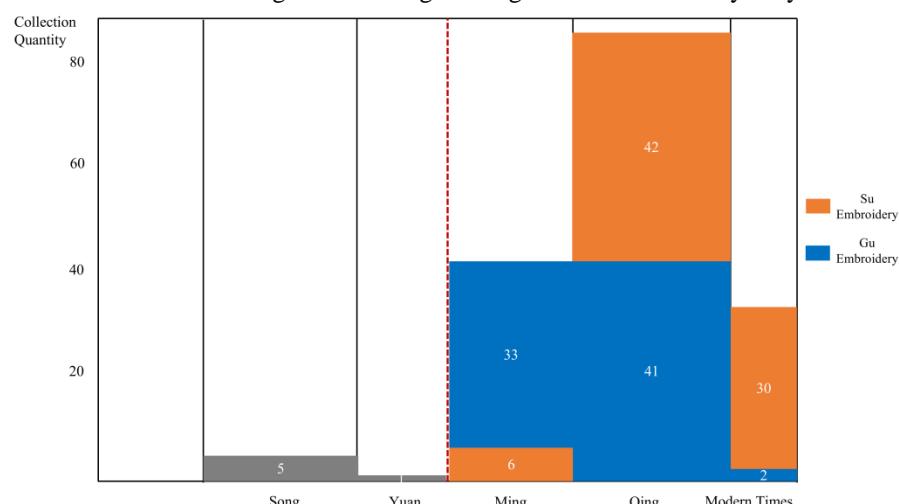


Figure 3. The quantity and time distribution of Gu embroidery and Su embroidery collections

Su embroidery collections have increased during the Ming Dynasty, with three pieces in the Shanghai Museum, two in the Suzhou Museum, and one in the Suzhou Silk Museum. There are 42 pieces of Su embroidery from the Qing Dynasty. During the Republic of China, 30 pieces were collected. The development period of Su

embroidery was from the Song to the Yuan Dynasty, with the Qing Dynasty being its peak period. During the previous period in the Republic of China, the number of collections declined at a slower rate. Gu embroidery first appeared in the Ming Dynasty and were abundant. Five pieces from the Shanghai Museum, 13 from the Nanjing Museum, 11 from the Palace Museum, one from the Suzhou Museum and three from the Liaoning Provincial Museum; by the end of the Qing Dynasty, the collection reached 41 pieces, mainly in the Shanghai Museum and the Nanjing Museum. Between the end of the Qing Dynasty and the establishment of the Republic of China, the number of Gu embroidery pieces in the collection declined dramatically, with only two pieces remaining in the collections of the Suzhou Museum and the Nanjing Museum. Gu embroidery has a relatively short history of development. It was founded in the Ming Dynasty, reached its peak in the late Ming and early Qing dynasties, and gradually declined after the middle of the Qing Dynasty.

2.2.2 Reason: Differences in the History of Embroidery and the Difficulty of Collecting

Differences in the historical evolution of Su embroidery and Gu embroidery, as well as difficulties in obtaining or collecting embroidery products, have led to differences in the number of collections at different periods. The similarities and differences in the origin, development, prosperity, and decline of the two have been discussed in detail in *Su Embroidery in Wu Region* (Sun, 2009), *History of Chinese Embroidery* (Sun, 2007), and *Research on Gu Embroidery* (Xu, 2004), and will not be repeated in this study.

The longer the history of embroidery, the more difficult the embroidery could be found and preserved. It can be seen that the number of collections in the Song, Yuan, and Ming dynasties is less than that in the Qing Dynasty and modern times; ornamental embroidery is better preserved and easier to collect than practical embroidery. Most of Gu's collection is ornamental embroidery, which is more convenient to preserve, while some of Su's utilitarian products are not well preserved.

2.3 Collection Types Distribution

2.3.1 Results: Su Embroidery Has More Varieties Than Gu Embroidery

Based on the different makers, users, artistic styles, and product uses, collections of Su and Gu embroidery from historical periods are divided into two categories: court embroidery and folk embroidery, which includes boudoir embroidery, household embroidery and commercial embroidery. (Table 1)

Table 1. Characteristics of court embroidery and folk embroidery

	Court embroidery	Folk embroidery		
		Boudoir	Household	Commercial
Definition	In feudal society, various types of products are embroidered to meet the extravagant lifestyle of the court and to consolidate the needs of the central government.	Embroidery made by upper-class socialites for their entertainment.	Daily life embroidery is produced by ordinary working women in urban and rural areas for the main purpose of satisfying the consumption of their livelihood.	Embroidery products are made by ordinary folk embroiderers or embroidery workshops for the circulation of goods.
Makers	Women in official embroidery, workshops and folk villages	Ladies from upper-class socialites	Ordinary working women in urban and rural areas	Folk embroiderers Embroidery workshops
Users	Royal family Bureaucratic class Gentile aristocracy	Upper-class socialites Royal family	Common people	Common people Workers in particular industries Bureaucrats Landlords
Artistic styles	Elaborate Luxuriant Status symbol	Elegant taste Strong artistic	Practical Decorative Auspicious meaning	Auspicious meaning Simple and popular Decorative
Product usage	Riding and carrying ceremonial articles, upholstery and quilts, apparel	Decorations or gifts in the study or boudoir	Wedding products, daily necessities, religious products, furnishings	Daily dress, costumes, furnishings

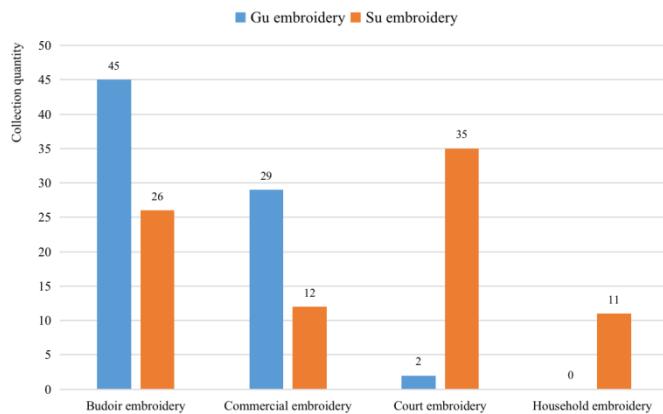


Figure 4. Types distribution of Gu embroidery and Su embroidery collections

Both Su and Gu have collections of folk embroidery and court embroidery. The majority of Gu embroidery collections are folk embroidery (97%), and there are only two court embroideries, namely The Heron Hibiscus (一鹭芙蓉图) and Diamond Sutra Pagoda Axis (金刚经塔轴) in the Palace Museum. Gu embroidery also appeared in the documents of the Qing Dynasty as an imperial tribute (Yang, Tang & Su, 2011). Boudoir embroidery is the main type of Gu embroidery, but the change in the usage of Gu embroidery in the late Ming Dynasty gradually increased its proportion in the market. The collection of Su embroidery is diverse, including court embroidery (42%), boudoir embroidery (31%), household embroidery (14%), and commodity embroidery (13%). (Figure 4)

2.3.2 Reason: Differences in the Use of Embroidery

By comparing the two, Gu embroidery is dominated by boudoir embroidery and commodity embroidery, while Su is rich in boudoir, commodity, household embroidery and court embroidery. Su embroidery was originally developed as a utilitarian product, so household embroidery in folk has always existed. Gu embroidery has been appreciated from the beginning. At the end of the Ming Dynasty, due to the decline of the Gu family, the stimulation of the commodity economy, and the change of inheritance mode, commodity embroidery was developed. In addition, Suzhou as one of the local weaving bureaus (Suzhou Weaving and Dyeing Bureau) for official weaving in the Ming and Qing dynasties, “The imperial dress and four seasons clothes, the palace, and the prince and princess’s court clothes, are handed over to Jiangning, Suzhou, Hangzhou Weaving following the standard style of the Etiquette Department.” 「御用礼服及四时衣服、各宫及皇子公主朝服衣服，均依礼部定式，移交江宁、苏州、杭州三处织造恭进。」 (Kungang, 1976) According to the style, color, and material given by the Ministry of the Interior, they made clothes, ceremonial articles, interior decorations, coverlets, etc. As a result, court embroidery in Su was proportionally larger than that in Gu.

3. Raw Materials for Su Embroidery and Gu Embroidery

3.1 Base Material Distribution of the Collection

3.1.1 Results: Similar Varieties of Silk, Differences in Preference for Duan, Ling, Sha, Luo

Based on the completeness and accuracy of the retrieval results (Note 1), 53 pieces of Gu embroidery and 56 pieces of Su embroidery can be analyzed through online retrieval from nine museum collections. (Table 2)

Table 2. Statistic of the base material of Gu and Su embroidery

Category	Gu embroidery/ pieces	Su embroidery/ pieces
Duan	18	32
Ling	32	7
Chou	2	6
Juan	1	-
Sha	-	6
Luo	-	5
Total	53	56

Su embroidery and Gu embroidery are made from silk fabrics including Ling, Duan, Sha, Luo and others (Note

2). According to the statistical results, the base materials of Gu embroidery are Ling (60%), Duan (34%), Chou (4%), and Juan (2%). The order of Su embroidery is Duan (57%), Ling (12%), Chou (11%), Sha (11%), and Luo (9%). Gu embroidery mostly uses Ling, while Su embroidery is dominated by Duan. In addition, Su embroidery uses Sha and Luo fabrics.

3.1.2 Reason: Requirements for Embroidery Purposes, the Combination of Stitches and Base Materials, the Differences in Popular Varieties

Silk is preferred to be used as the base material for Su and Gu embroidery, with its advantages in strength, luster, aesthetic degree, cultural and spiritual influence. Other factors, including the requirements for embroidery purposes, the combination of stitches and base materials, and the differences in popular varieties in historical periods also affect the selection.

1) Requirements for embroidery purposes: Gu embroidery, which is mainly used for ornamental hanging screens, table screens, albums, decorations, etc., requires a high degree of luster and aesthetic, but does not require a high degree of practicality in the embroidery base material. Ling (綾) is the most common base material in Gu embroidery. *Shiming* (释名) said: "Damask, Ling also, its pattern as ice damask." It is generally considered that damask is a silk fabric with twill or varying twill as the basis. In addition, silk fabrics with varying amounts of satin or irregular weft floating on the surface of the twill can also be called damask (Zhu, 1997). Due to the relationship of floating lines, the appearance of Ling has a bright and dazzling ice luster, and the aesthetic and luster meet the requirements of Gu embroidery as an ornamental product.

The practical products of Su embroidery put forward certain requirements on the mechanical properties of base materials. Satin, also known as Duan (缎) or Zhusi (緞丝) (Wu, 1984) is a smooth and shiny fabric with long floats. On the one hand, the sheen of the Duan gives it a luxurious look; the stiffness, on the other hand, makes it suitable for everyday use. Compared with other fabrics, Duan is thicker and more tightly woven in warp and weft. When embroidering on Duan, the traction and pulling of the needle and thread on the embroidery ground has less effect. Most of the clothing embroidery in Su's collection uses plain satin or floral satin as the base material, such as The Pale Green Satin Embroidered Robe with Ancient Floral Patterns (浅绿色缎绣博古花卉纹裕袍), and The Blue Satin Plain Gold Embroidered Robe with Cloud Dragon Patterns (宝蓝缎彩绣平金云龙纹朝袍) (Qing, The Palace Museum).

2) The combination of stitches and base materials: The most representative is the matching relationship between Nasha (纳纱), Chuasha (戳纱) stitches and Sha (紗), Luo (罗). Sha is a light, thin, plain woven fabric with a small diameter warp and weft, sparsely arranged, and a uniform distribution of holes on the fabric surface. Luo twists each other to form pepper holes in the fabric's surface, giving it a thin, light, transparent appearance. Nasha and Chuasha use a straight vertical needle, to embroider groups of patterns on the ground of a square-eyed base material (Sha or Luo) in the way of a multigrid. While the Nasha needs to be embroidered all over, the Chuasha can only be embroidered with patterns that leave the ground. Representative collections include The Moon White Diameter Nasha Embroidered Garment with Floral Patterns (月白直径地纳纱花卉单衣) (Qing, The Palace Museum) and The Nasha Embroidered Purse (纳纱绣花荷包) (Qing, Suzhou Silk Museum).

3) Differences in popular varieties: Most of the foundation material of the Han Dynasty were Juan (绢) and Qi (绮). During the Tang Dynasty, Ling was the dominant material in embroidery. The base material for Song embroidery was preferred to the Luo, which can be confirmed by the five pieces of embroidery from the Northern Song Dynasty in the Suzhou Museum. During the Ming and Qing dynasties, Ling and Duan were the main products. Advances in silkworm breeding, reeling, spinning, and weaving contributed to the rise of new silk varieties. Moreover, the development of weaving looms provided a guarantee for the craft. Chinese looms have experienced the evolution of cross-stitch machines, pole-weaving machines, multi-hedged rod machines, multi-hedged and multi-lever machines, beading machines, weft machines, and Zhang velvet machines. Special divisions of the loom made Jin, Duan, Qi, Ling, Sha, Luo, and other varieties more elaborate.

3.2 Embroidery Thread Distribution

3.2.1 Results: Both are Based on Silk Thread, with Different Choices of Gold and Silver Thread, Rice Beads, Hair

Based on the completeness and accuracy of the retrieval results, 76 pieces of Gu embroidery and 90 pieces of Su embroidery can be analyzed through online retrieval from nine museum collections. Gu embroidery uses large quantities of silk thread, gold and silver thread, plied thread, hair, and horse hair for specific purposes; Su embroidery is mainly composed of silk thread, with gold and silver thread accounting for a large proportion. In addition, it also uses rice beads, knitted thread (Note 3), and horse hair. (Table 3)

Table 3. Embroidery thread statistics of Gu embroidery and Su embroidery

Category	Gu embroidery/ pieces	Su embroidery/ pieces
Silk thread	65	70
Plied thread	2	-
Gold and silver thread	6	15
Knitted thread	-	1
Rice beads	-	3
Horse hair	1	1
Hair	2	-
Total	76	90

3.2.2 Reason: The Quality of Silks is Excellent, and the Embroidery Especially Demands the Material

Silk thread, the basic thread used in Gu and Su embroidery, is soft and clean, has a good sheen, and can be split as required for embroidery products. The decorative effects of gold and silver thread and rice beads are strong, and when used, the embroidery products appear gorgeous and noble. They were widely used in Su's palace embroidery to meet the demands of aristocratic luxury and to highlight the psychology of hierarchy. Hair embroidery refers to a style of embroidery that uses human hair as thread instead of other materials. The natural color of the hair and the characteristic fine and soft smoothness are used to show the effect of simplicity and purity, as in line drawing. Qixianglou Hair Embroidery Figure (七襄楼发绣人物) and Maitreya Buddha Figure Axis (弥勒佛像图轴) (Ming, Liaoning Provincial Museum) were the fine works of Gu hair embroidery in the Ming Dynasty. The basic stitching method for Qixianglou Hair Embroidery Figure is to stitch with a needle and then nail the hair firmly. The lines are well blended by the method of splitting the hair, the embroidery manuscript is faintly visible, and the appearance of the eyebrows, beard, hair, and dress patterns of the figures is meticulous. (Figure 5)



Figure 5. Qixianglou Hair Embroidery Figure (left) and Maitreya Buddha Figure Axis (right)

Image is used from <https://www.lnmuseum.com.cn> The Liaoning Provincial Museum. Shenyang. China

4. Stitches of Su Embroidery and Gu Embroidery

4.1 Results: Similarities in Stitch Names and Systems, Differences in Application Proportions and Selection of Special Stitches

Through online retrieval of nine museum collections, 71 pieces of Gu embroidery and 72 pieces of Su embroidery can be analyzed according to the completeness and accuracy of the retrieval results (Note 4). There are 26 widely used stitches in Gu embroidery, such as overlap stitch, roll stitch, plain stitch, stitch with borrow or complement color, split stitch, etc. Su embroidery mainly uses 32 stitching techniques, including overlap stitch, plain stitch, roll stitch, split stitch, block shading stitch, etc. (Figure 6)

The common stitches are overlap stitch, plain stitch, roll stitch, and split stitch. Su embroidery has a higher proportion of satin stitch, seeded embroidery, lock stitch, plain gold embroidery, and coiling stitch with golden thread compared to Gu embroidery, which uses borrow or complement color stitch, long and short stitch, overlap stitch, split stitch, sparse stitch, and scaling stitch. Three blue embroidery, simulation embroidery, random-stitch embroidery, void and solid stitch, clip and paste embroidery, and striped embroidery with knitted thread are the characteristics of Su embroidery, while counting stitch, brocade stitch, lattice stitch, and ice pattern stitch

highlight the artistic style of Gu embroidery. (Table 4)

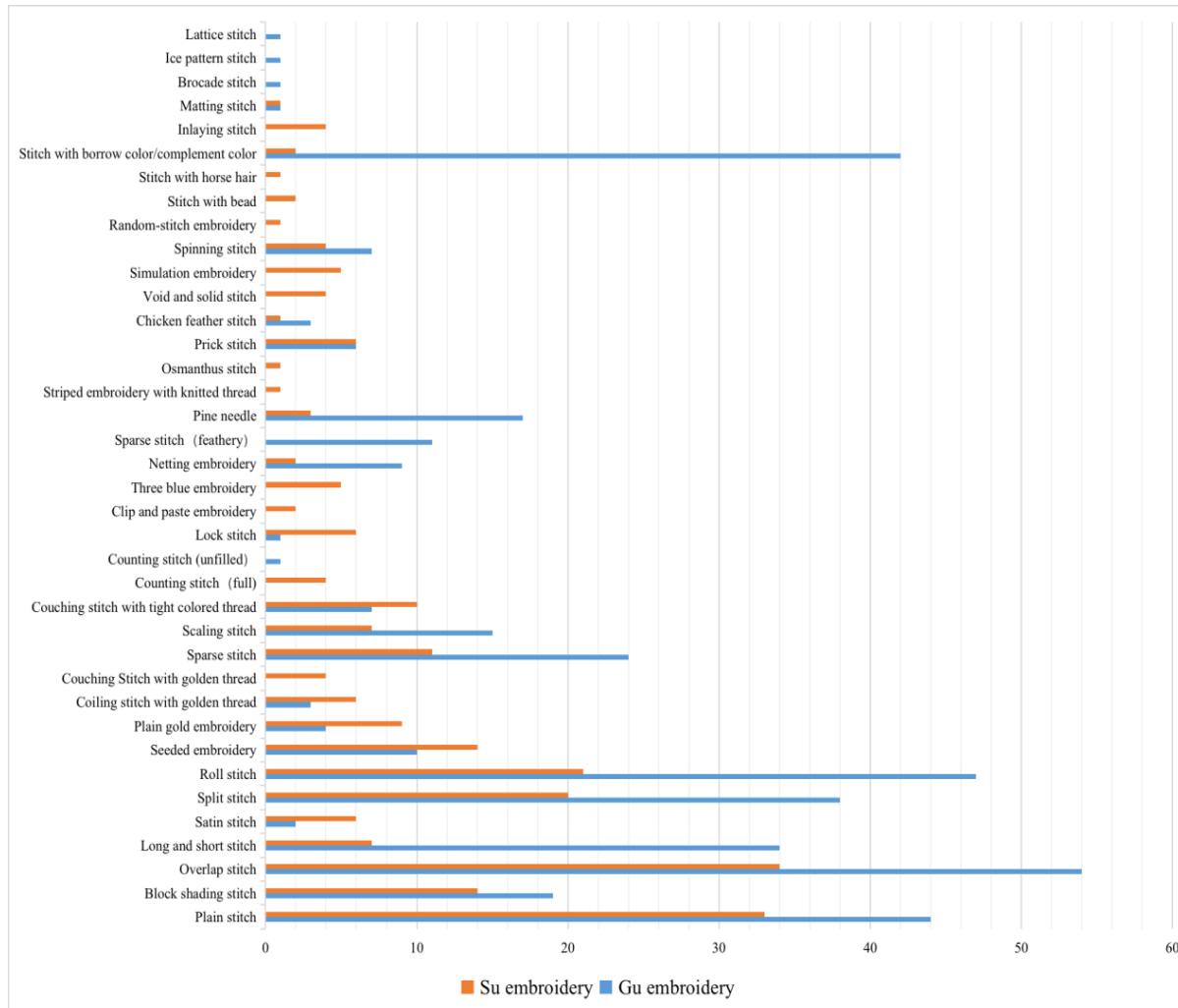


Figure 6. Stitches distribution of Gu embroidery and Su embroidery

Table 4. The application proportion and special stiches of Gu embroidery and Su embroidery

	Gu > Su	Su > Gu
Application proportion	Plain stitch, block shading stitch, overlap stitch, long and short stitch, split stitch, roll stitch, sparse stitch, scaling stitch, sparse stitch (feathery), netting embroidery, pine needle, chicken feather stitch, spinning stitch, stitch with borrow color/complement color	Satin stitch, seeded embroidery, plain gold embroidery, coiling stitch with golden thread, couching stitch with tight colored thread, lock stitch
Special stitches	Counting stitch (unfilled), brocade stitch, lattice stitch, ice pattern stitch	Couching stitch with golden thread, counting stitch (full), clip and paste embroidery, three blue embroidery, striped embroidery with knitted thread, osmanthus stitch, void and solid stitch, simulation embroidery, random- stitch embroidery, stitch with bead、stitch with horse hair, inlaying stitch

Note. Due to the limited retrieval capabilities of the authors, the proportion of statistics and special stitching techniques are limited to the samples in this paper.

4.2 Reason: A Continuous System of Stitches, Differences in Performance, Artistic style, and Production Time

4.2.1 Performance in Use

The choice of needlework is varied due to the different performance requirements of practical and ornamental embroidery. Plain stitch, roll stitch, and couching stitch are fine, layered, and solid, and are suitable for everyday use. Such stitching methods are widely used in practical products of Su embroidery, like The Blue Satin Embroidered Clipped Robe with Colorful Clouds and Golden Dragon Patterns (蓝色缎绣彩云金龙夹朝袍) (Qing, The Palace Museum), The White Ground Embroidered Collar with Eight Immortals (白地绣八仙领饰) (Qing, Suzhou Silk Museum). According to the artistic effect of embroidery products, long and short stitch, overlap stitch, void and solid stitch, random-stitch embroidery, and other needles are mostly applied in Gu embroidery and Su ornamental embroidery. Typical collections are Shen Shou Embroidered Flower and Bird Screens (沈寿绣花鸟屏) (Qing, Shanghai Museum), Image of Zhong Kui (钟馗像) (Qing, Shanghai Museum).

4.2.2 Artistic Style

Based on different artistic styles, embroidery is abstract, decorative, and aesthetic. Plain stitch, block shading stitch, and lock stitch are smooth and have strong abstract and decorative effects. With a strong gradient effect, long and short stitch, overlap stitch, sparse stitch, and split stitch are suitable for decorative and artistic embroidery products. The magnificence of plain gold embroidery, coiling and couching stitch with golden thread, and beading embroidery can satisfy the requirements of special effects. One of the features of Gu embroidery is the picturesque embroidery, which makes it possible to apply stitch with borrow or complement color to supplement the deficiencies of the needle.

As a result, due to the diverse artistic styles presented by Gu and Su embroidery, their preferences for stitching methods differ. Gu embroidery tends to be more artistic with long and short stitch, overlap stitch, sparse stitch, scaling stitch, and satin stitch. At the same time, Su embroidery uses plain stitch, overlap stitch, lock stitch, plain gold embroidery, and coiling stitch with golden thread to form abstract and decorative styles.

4.2.3 Production Time

The production time affects the choice of stitches by the embroiderer. Commodity and household embroidery in folk embroidery are made by common urban and rural women or women in embroidery workshops, requiring a short process time and quick completion for use or trade. Exquisite and fine stitching is not suitable for this type, whereas strong performance and short production times are more suitable for plain stitch, block shading stitch, seeded embroidery, clip and paste embroidery, chain embroidery, and inlaying stitch. This type of stitches is often used in Su's household and commodity embroidery. Boudoir embroidery and court embroidery emphasize the artistic effect and fineness of the embroidery product, with no particular requirements on the use of time, so they are often used to complete fine stitches such as long and short stitch, overlap stitch, satin stitch, etc. The picturesque Gu embroidery and Su court embroidery take a long time to produce.

4.2.4 Special Stitches

In addition, three blue embroidery, stimulation embroidery, random-stitch embroidery, and void and solid stitch in Su embroidery were the innovative methods during the late Qing Dynasty and modern times. The striped embroidery with knitted threads is found in The Bright Yellow Satin Embroidered Robe with Eight Phoenixes Holding Golden Shou Figure (明黄缎绣八团双凤捧金寿字纹袷袍), which is in the Palace Museum collection. The embroidered robe uses a wrapping thread as hard as iron wire to embed the outline of the pattern, enhancing the three-dimensional sense of the design. Three blue embroidery uses a variety of different shades of blue thread to embroider at certain levels and proportions, and the embroidered pattern is fresh and elegant, like The Stone Green Satin Embroidered Gown with Melon and Butterfly (石青色缎三蓝绣瓜蝶绵女褂) (Qing, Suzhou Silk Museum). The brocade stitch, ice pattern stitch, and lattice stitch in Gu embroidery are used for special decorative patterns, for example, Dongshan Map (东山图) of Ming Dynasty collected in Shanghai Museum (brocade stitch), Flowers, Birds, Grasses and Insects (花鸟草虫图册) of the Qing Dynasty in the Palace Museum (ice pattern stitch), and embroidered pieces of the Damo Statue (达摩像) of the Ming Dynasty in Nanjing Museum (lattice stitch). (Table.5)

Table 5. Examples of special stitches of Gu embroidery and Su embroidery

	Special stitches	Representative collections	Application	Picture
Su	Striped embroidery with knitted thread	The Bright Yellow Satin Embroidered Robe with Eight Phoenixes Holding Golden Shou Figure	Collar edge group: longevity grain	
	Three embroidery blue	The Stone Green Satin Embroidered Gown with Melon and Butterfly	Fabric pattern: melon and butterfly	
Gu	Brocade stitch	Dongshan Map	Saddle blanket	
	Ice pattern stitch	Flowers, Birds, Grasses and Insects	Dragonfly wings	

5. Themes of Su Embroidery and Gu Embroidery

5.1 Results: Su Embroidery is Abundant in Subjects, Gu Embroidery is Based on Painting

Through online retrieval of nine museum collections, 71 pieces of Gu embroidery and 72 pieces of Su embroidery can be analyzed according to the completeness and accuracy of the retrieval results. (Table 6)

According to the content, embroidery themes can be divided into individual or combined patterns that express auspicious meanings, such as plant, animal, geometric, and implement patterns; characters, landscapes, flowers and birds, story scenes taken from paintings or photographic works; other types. Gu embroidery is based on story scenes (42%), flowers and birds (37%), characters (34%), landscapes (15%), and others (1%) in paintings or photographs. The themes of Su embroidery are widely distributed, including plant (47%), animal (46%), geometric (25%), and implement patterns (18%), as well as characters (33%), flowers and birds (8%) and landscapes (7%) taken from paintings or photography.

Table 6. Theme statistics of Gu embroidery and Su embroidery

Theme	Gu embroidery/ pieces	Su embroidery/ pieces
Plant patterns	-	34
Animal patterns	-	33
Geometric patterns	-	18
Implement patterns	-	13
Characters	24	22
Landscapes	11	5
Flowers and birds	26	6
Story scenes	30	10
Others	1 (Diamond sutra)	2 (Regular script, running script)
Total	71	72

5.2 Reason: The Expression of Auspicious Meanings and the Influence of Different Painting Schools

Su embroidery covers a wider range of subjects than Gu embroidery. In addition to landscapes, characters, flowers, birds, and story scenes, Su embroidery also employs a significant proportion of auspicious motifs, which are presented in Su embroidery for practical purposes as individuals or in combinations. Those patterns are elegant, bright, and lovely, containing people's expectations for a better life, like The Embroidered Purse with Double Lion Snowball Patterns (双狮滚雪球绣花荷包) (Qing, Suzhou Silk Museum).

The boudoir embroidery, some of the commodity embroidery in Su embroidery, and Gu embroidery all use Chinese paintings as manuscripts, which vividly show characters, landscapes, flowers and birds, and story scenes. Remarkable aesthetic effects are a common feature of both embroideries, but there are differences: Firstly, the composition of Su embroidery is splendid, orderly, and delicate, imitating the "Wumen Painting School" (吴门画派) represented by Shen Zhou, Wen Zhengming, Tang Yin, Qiu Ying, and Zhang Hong. Under the deep influence of meticulous painting, Su embroidery mainly focuses on characters, story scenes, flowers and birds, and landscapes. Secondly, Gu embroidery seeks the rendering effect of traditional Chinese painting, learning from nature and spirit. Influenced by the "Huating Painting School" (华亭画派) represented by Dong Qichang in the late Ming Dynasty, Gu embroidery takes ancient famous paintings as sketches and draw from the story scenes, flowers and birds, characters, and landscapes.

6. The Inheritance of Commonality and the Manifestation of Individuality

Based on the above statistical analysis of Su and Gu embroidery collections, and combined with relevant literature records, this paper summarizes the similarities and differences between the two in terms of historical development, embroidery types, selection of raw materials, technical characteristics, and artistic styles. (Table 7)

Table 7. The similarities and differences between Su embroidery and Gu embroidery

	Similarities	Differences	
		Su embroidery	Gu embroidery
Historical development	Originated from Jiangnan embroidery, developed in the Qin and Han dynasties, perfected in the Tang and Song dynasties, and formed in the Ming Dynasty	First recorded in Shuo Yuan (557BC-532BC) Named in Gusu Zhi (1506AD-1521AD)	Named in Songjiang Fu Zhi (1631AD)
Embroidery types	Court Folk	Court embroidery; Folk embroidery (boudoir, household, commercial)	Court embroidery; Folk embroidery (boudoir, commercial)
Raw materials	Silk fabric as the base silk thread for the main embroidery thread, gold and silver thread, horse hair	Ling, Duan, Chou, Sha, Luo silk thread, gold and silver thread, rice beads, horse hair, and knitted thread	Duan, Ling, Chou, Juan silk thread, gold and silver thread, plied thread, hair, and horse hair
Technical characteristics	Point, line and surface stitch system; Consistency of stitch names	Focus on the effect of stitching Block shading stitch, seeded embroidery, plain stitch, stitch with bead, long and short stitch, split stitch, overlap stitch, simulation embroidery, void and solid stitch, random-stitch embroidery, etc.	Attach importance to the combination of painting and silk embroidery Long and short stitch, split stitch, roll stitch, sparse stitch, plain stitch, overlap stitch, block shading stitch, sparse stitch, stitch with borrow color or complement color, etc.
Artistic styles	Elegant	Elegance and simplicity coexist; Artistic, decorative, practical	Elegance; Artistic, decorative
		The fainting of the middle color and the fading of the base color	The fainting of the intermediate color outside the base color
	Auspicious patterns; Characters, landscapes, flowers and birds, story scenes taken from paintings or photographic works	Characters, landscapes, flowers and birds, story scenes taken from paintings or photographic works	Characters, landscapes, flowers and birds, story scenes taken from paintings or photographic works
	Chinese paintings as manuscripts	Wumen Painting School	Huating Painting School

7. Conclusion

Su embroidery and Gu embroidery were selected as the first representative projects of China's intangible cultural heritage in 2006, injecting new vitality into their protection, inheritance and innovation in modern society. Tracing the historical evolution, analyzing their stylistic characteristics and mutual relations can provide a theoretical basis for their protection and inheritance. Through online retrieval of the collections in nine museums, combined with the literature records, this paper conducts a study of “deconstruction-research-recombination”, and draws the following conclusions:

- (1) Su embroidery and Gu embroidery showed the characteristics of “Individuality in Commonality” with the evolution of the historical process. Both were located in the southern part of the Yangtze River, inheriting a well-established needlework system from the Tang and Song dynasties, and were influenced by Wu culture. The embroidery style shows part of “Commonality”.
- (2) Su embroidery gradually developed into a fine and elegant style over more than 2,000 years. 400 years of ups and downs make Gu embroidery emerge the characteristics of elegant and pleasant. Su embroidery and Gu embroidery are characterized by their historical development, embroidery types, raw materials, technical features and artistic styles. Differences in history, social culture, textile technology, use of embroidery products, and producers shape the “Individuality” of Su embroidery and Gu embroidery. Uniqueness and individuality separate them into two independent embroidery categories.

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Notes

Note 1. Chapter 3.4.5. performs a statistical analysis based on the raw materials, stitches, and themes of the collection. Sample selection principles follow (1) (2), so the number of samples is less than in Chapter 2., and the number of samples is different according to the statistical items.

Note 2. An explanation of ancient Chinese silk fabrics. Ling (綾), damask also, various single-layer floral and plain fabrics based on twill or twill variations. The appearance of damask has a dazzling ice-like gloss due to the

relationship between the floating lines. Duan (缎), or satin, a variety of floral and plain fabrics based on satin. The warp and weft are denser, the texture is thicker, and the surface of the floating long lines is longer and more lustrous. Chou (绸) was an important type of silk fabric in ancient China, and was particularly popular during the Ming and Qing dynasties. It uses plain or twill weave to form plain silk without patterns or woven silk with patterns. It has a fine, thick texture and better thermal properties. Juan (绢), plain fabrics with a light, thin texture have a simple, elegant appearance with less variation in color. By taking advantage of the difference in thickness and density of warp and weft silk, combined with different weaving techniques, it is possible to form a variety of different style characteristics, such as light, thin, fine, thick, coarse, surface wrinkled, flowery. Sha (紗), light and thin plain fabrics, with small diameters of warp and weft, are sparsely arranged, and the surface of the fabric shows a uniform distribution of holes. Luo (罗) twists each other to form pepper holes in the fabric's surface, giving it a thin, light, transparent appearance. Qi (绮), a floral fabric developed on a plain ground, woven in twill and then dyed, has a simple construction, soft sheen and touch. Jin (锦), also known as brocade, is a multicolored silk fabric with a double weave, using a double warp or weft organization, with rich color variations, mostly above two colors. It can be divided into warp brocade with changes in longitude and weft brocade with changes in latitude.

Note 3. Knitted thread, also known as the dragon-post thread. It is made by twisting two strands of silk, one of which is strengthened to form a uniform grain, which is used to show the edge contours of a dragon's fin or beaded embroidery pattern.

Note 4. Table of explanations of stitches in Su Embroidery and Gu Embroidery.

Stitch	Name	Introduction
Plain stitch	qizhen 齐针	Embroider a design in a straight line from one end of the pattern to the other.
Block shading stitch	qiangzhen 抢针	A stitch in which a pattern is layered with a short plain stitch.
Overlap stitch	taozhen 套针	Different shades of color are interleaved and interlaced from front to back, so that the shades of color harmonize and transition naturally.
Long and short stitch	changduanzhen 长短针	Long and short lines are intermingled, the latter stitched more than the middle of the former, with uneven edges, and a diffuse embroidery from the inside to the outside.
Lock stitch	suoxiu 锁绣	A chain of loops. The embroidery pattern is full of three-dimensional sense, the visual effect is thick, and the embroidery products are strong and durable.
Satin stitch	puzhen 铺针	Use a long straight needle to embroider the pattern, allowing the thread to lie flat on the embroidery surface before applying or cutting over it as necessary.
Split stitch	jiezhen 接针	Short needles with equal threads are connected back and forth for continuous embroidery.
Roll stitch	gunzhen 滚针	The second needle is punctured (not from the middle) at the third of the first needle next to the embroidery thread of the first needle, and the stitches are hidden under the first needle.
Spinning stitch	xuanzhen 旋针	With split or roll stitch roundabout rotations and embroidery, the whole line is rotated like this.
Seeded embroidery	dazixiu 打籽绣	The embroidery thread is wound in a circle on the needle, forming a small keloid knot in the near-root prick below, with points forming the surface.
Plain gold embroidery	pingjinxiu 平金绣	The gold thread is the spreading thread, the silk thread is the nail thread, and the nail thread between the rows are separated from each other in the shape of an osmanthus flower, until the embroidery is full.
Coiling stitch with golden thread	panjinxiu 盘金绣	Based on a silk embroidery pattern, one or two strands of gold thread are looped back and forth together and added to the edge of the embroidered or unembroidered pattern to form a definite pattern, and the edge is pinned with nail thread.
Couching stitch with golden thread	dingjinxiu 钉金绣	Embroidery is made by stitching gold and silver threads to the surface of silk with another silk thread, which is tied to the gold thread to form a pattern.

Couching stitch with tight colored thread	dingxianxiu 钉线绣	A technique in which thicker threads (single or double threads) are fixed with thinner threads to highlight patterns on the ground of embroidery. The fix line is called the nail line; the fixed line is called the heald line.
Sparse stitch	shizhen 施针	The needle is used on top of other needle methods, which are sparse but not dense, with forked, flexible, non-uniform, and other features.
Scaling stitch	kelinzhen 刻鳞针	Use long and short stitch, or overlap stitch or block shading stitch and prick stitch to represent feather scales.
Sparse stitch (feathery)	shimaozhen 施毛针	Use the sparse stitch to embroider hair-like patterns.
Chicken feather stitch	jimaozhen 鸡毛针	The lines are arranged in herringbone or cross shape, and are mainly used for embroidery of flat flowers, leaves and chicken feathers at the tip.
Prick stitch	zhazhen 扎针	The first layer is embroidered with a plain stitch, and then a short needle is run through the plain stitch, like a tie, and finally tied into the pattern of a bird's claw.
Counting stitch (full)	nashaxiu 纳纱绣	Using a straight vertical needle, to embroider groups of patterns on the ground of a square-eyed base material (sha or luo) in the way of a multigrid. It needs to be embroidered all over.
Counting stitch (unfilled)	chuoshaxiu 戳纱绣	Using a straight vertical needle, to embroider groups of patterns on the ground of a square-eyed base material (sha or luo) in the way of a multigrid. Usually only embroidery patterns, leaving the ground.
Clip and paste embroidery	tiexiu 贴绣	Cotton, satin, and damask are cut to the desired shape according to the pattern, and then nail together to form the pattern, thus giving it a three-dimensional appearance.
Inlaying stitch	xiangxiu 镶绣	During embroidery, the holes are trimmed according to the pattern, and various patterns are embroidered in different ways in the holes.
Matting stitch	dianxiu 垫绣	To make the embroidery three-dimensional and raised, first cushion the bottom with cotton thread, cloth, cotton or hemp rope material, and after the cotton is fixed, embroider.
Striped embroidery with knitted thread	jixianxiu 缉线绣	Use the knitted thread as the embroidery thread, and then use another kind of thread to nail the knitted thread flat on the base material, or hook the edges, or embroider.
Stitch with bead	chuanzhuxiu 穿珠绣	The details of the embroidery are decorated with pearls, coral beads, wide pieces, and other decorative materials, which serve as finishing touches.
Stitch with horse hair	mazongxiu 马鬃绣	Embroidery with horsehair as a special material.
Three blue embroidery	sanlanxiu 三蓝绣	Three blue embroidery uses a variety of different shades of blue thread to embroider at certain levels and proportions, and the embroidered patterns are fresh and elegant.
Stitch with borrow or complement color	jiese/ buse xiu 借色补色绣	Borrowing the color of an embroidery material to reduce embroidery work is known as borrowed color embroidery; integrating the use of embroidery and painting techniques is called complementary color embroidery.
Void and solid stitch	xushizhen 虚实针	Depending on the brightness of the light, embroider separately with a solid needle. The dark side of the object must be sufficiently embroidered, that is, with the solid needle; When bright, it is embroidered with short stitches. The rows are sparser, the lines are thinner, the colors are lighter and the brightest spots are unembroidered, that is, with the void needle.
Simulation embroidery	fangzhenxiu 仿真绣	The work is endowed with a strong sense of substance through the density configuration of the stitching, the increasing order of the layers and the collocation of the colors.
Random-stitch embroidery	luanzhenxiu 乱针绣	Based on traditional embroidery, it uses a random-stitch embroidery method with crisscrossed stitches, following the principles of Western painting, such as brushwork and perspective.
Netting embroidery	wangzhen 网针	There are three types of stitch organization: horizontal, straight, and oblique. Continuous geometric schemes such as triangles, diamonds, and hexagons are formed by embroidery in different directions, and then

		various patterns are embroidered in the geometric scheme by interlocking.
Pine needle	songzhen 松针	Embroidery patterns as a pine tree.
Osmanthus stitch	guihuazhen 桂花针	Embroidery patterns as an osmanthus.
Ice pattern stitch	bingwenzhen 冰纹针	Embroidery patterns like ice.
Lattice stitch	gejingxiu 格景绣	Embroidery patterns as a lattice.

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