



Chamba Embroidery: Stitch Analysis of Traditional Technique

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Abstract

Chamba state of Himachal Pradesh was known for distinctive embroidery in form of coverlets and hangings generically known as 'Chamba rumals. Chamba rumals were usually elaborate compositions on cotton fabrics embroidered with untwisted silk yarns in gay and harmonious colors. The early designs were folk and later with development of pahari miniature paintings, the embroidery in miniature style developed which was widely practiced. The pictorial qualities of these coverlets had been much studied by several scholars. But its technical study, which was the focus of this paper, had not got much attention. The main focus was on different types of stitches used, its variations, stitch direction and outline stitches. Secondary information was obtained through review of literature and a detailed study of old rumals which were sourced from various museums, libraries and government organizations. Primary information was obtained through exploratory field survey of Chamba town and its periphery areas. Several interesting and important aspects of embroidery tradition of Chamba rumal have come out in this study. It was found that most of them were no longer being used by artisans. Intervention with the artisans was carried out by conducting interactive workshops and follow up field visits to Chamba. Interventions through workshops helped in capacity building of the artisans and proved invaluable. They helped the artisans to reorient themselves towards sustenance of the traditional form of craft.

Keywords: Traditional technique, technical characteristics, embroidery stitches, stitch direction, outline stitch, intervention.

Introduction

The Chamba embroidery was characterized by spontaneity and rhythm rooted in the soil of Himachal Pradesh. It was believed that Chamba region witnessed the tradition of embroidery from early times. Probably the tradition of embroidery started with basic line work, simply human figures and limited subjects known as folk style. Later on, the nice composition, soothing colours, fine stitch work was carried out. With time the addition of varied subjects made it so popular that by the mid of 18th century the art of embroidery was patronized by the rulers of the Himalayan region. Once royalty started taking an interest in Chamba rumal, its popularity reached new heights. In terms of the difference in selection of subjects, line drawing, use of soft colours with good composition and variety of themes was evident in these classical style coverlets¹. In fact such coverlets were often reminiscent of the pahari style of miniature painting.

The distinctiveness of Chamba embroidery lies in its double satin stitch which was dorukha. The fabric used was unbleached muslin and threads used were untwisted silk dyed in myriad and mellow colours. The most fascinating aspect of classical style rumals was the depiction of vast subject theme which was based on miniature paintings. In folk style the simplest of designs purely according to the imagination of embroiderer were seen. Chamba embroidery was not only confined to rumals but was also seen on religious textiles, apparel and other utilitarian household objects.

Chamba rumals were being made till the early part of 20th century but thereafter, this craft began to languish. The technique of administering stitches, unavailability of raw material and replacement of natural dyes with synthetic dyes were some of the deviations that from the original craft. Moreover, embroidery was no longer inspired by the original patterns and trainers were untrained as the revival seems to be more of the stitch rather than of the embroidery in the traditional form. There was a need to resuscitate the craft under the changed circumstances and to explore the possibilities for the sustenance of the languishing craft in consonance with its traditional spirit. Hence, it was imperative to find the traditional ways of practicing the craft of embroidery. The present study was undertaken with the following objectives: i. To classify various types of stitches and their variations used in embroidery. ii. To analyse different types of direction of stitches used in embroidery. iii. To study various types of outline stitches and colors used in embroidery. iv. To create awareness amongst the craftsperson with respect to traditional technique in terms of stitch type, direction and outline stitches.

Methodology

The aim of the present study was to identify the original features of craft and the changes that had taken place in order to revive the craft in its conventional form and character. The following methodology was followed in order to achieve the objectives of the study.

Area of study: According to the review of literature, this kind of embroidery was practiced not only in Chamba but also in other districts of Himachal Pradesh and neighbouring areas. The area of study was very vast, therefore, for the present study District Chamba and neighboring areas like Kangra, Basholi, Guler and Nurpur were identified. i. However, in a study of the data obtained from the various government agencies it was found that. ii. The craft of Chamba embroidery was no more practiced in the areas of Kangra, Basholi, Guler and Nurpur. iii. The craftspeople were available mainly in Chamba town, its periphery and other parts of the District Chamba namely Chamba, Sarol, Sidhkund, Badiyankothi, Mangla, Murara, Mehla, and Chowari. Therefore, the study was conducted in the above regions.

Sample selection: A variety of people including master craftsmen, embroiderers, artists, trainers and art historians from different groups involved with the craft were selected for holistic insights. The details of master craftsmen achieving national and state awards in Chamba *rumal* and miniature paintings were obtained from the Office of the Development Commissioner for Handicrafts, Kullu. The details of number of embroiderers engaged in the craft were procured from Himachal Pardesh State Handicrafts and Handloom Corporation Ltd., Shimla. However, no information was available on the population of miniature artists in Chamba town. The samples selected for survey of field were given below:

Master craftsmen: The total population of artisans comprised of 4 master craftsmen in Chamba *rumal* embroidery and 3 master craftsmen in miniature painting. Using census sampling technique, 7 master craftsmen were included in sample for conducting interviews.

Trainers: Trainers imparting training in government and non-government centers in Chamba were selected using purposive sampling technique. There was no specific number of trainers available although master craftsmen in embroidery were giving trainings in their own centers. Some experienced and trained embroiderers were located who were either state awardees or instructors in schools. Six of them were identified and selected for the study.

Embroiderer: The total population of female embroiderers in 15 self help groups was 183, where each self help group on average consisted of 10-14 embroiderers. Using random sampling technique, five artisans were selected from each self group. The total sample size included 70 female embroiderers.

Miniature artists: Master craftsmen in painting were approached to locate miniature artists as no information on total population of miniature artists was available in government records. 8 miniature artists were selected using purposive sampling technique.

Scholars: On the basis of purposive sampling technique art historians working in the area were identified. 10 of them were consulted and interviewed.

Data collection: The initial archival material on traditions of Chamba embroidery, design repertoire, craft process, local dynamics was collected through literary material, museum material and field study. The information was sourced from museums, books, NGOs and people associated with the craft. The sources of information were given below: i. Bhuri Singh Museum, Chamba. ii. Calico Museum, Ahmedabad. iii. Crafts Museum, New Delhi. iv. Delhi Crafts Council Center 'Charu', Chamba. v. Himachal State Museum, Shimla. vi. Indian Museum, Calcutta. vii. National Museum, New Delhi, viii. Personal collection of various people engaged in the craft.

Identification of traditional embroidery characteristics: There were many facets of the craft that remained unnoticed. They were observed in a detailed study of old *rumals* in collection of various museums across the country as well as networking with the craftspeople in the area of the study. The important features of embroidery were divided as technical and decorative characteristics. Technical characteristics were the primary components while executing the embroidery like stitch direction, variations of satin stitches, outline stitches and colours. For the present study technical characteristics were discussed in detail.

Intervention with the artisans: Intervention was taken up for addressing these problems by conducting workshops and follow up field visits. Four workshops were coordinated in span of two years, supported by Delhi Crafts Council. Each workshop lasted for a week. 8-10 artisans participated in each workshop. Follow up field trips to Chamba were also made. During workshops, embroiderers were introduced to traditional embroidery characteristics used in earlier times. Embroiderers were given two similar motives for each characteristic. The first motif was made by embroiderers as per their own choice where as second motif was executed as reference sample which was based on museum piece.

Results and Discussion

The study was carried out to identify different types of stitches used, analysis of direction of stitches as well as outline stitches used in earlier times from museum pieces. The scope of work also included various factors resulting in stitch variations and intervention with artisans. The detailed analysis of museum material revealed the traditional ways of practicing the craft. The following features were identified and discussed below: i. Execution of the craft, ii. Identification of stitches used traditionally, iii. Analysis of direction of stitches, iv. Types of outline stitches, v. Factors resulting in stitch variations, vi. Intervention with artisans.

Execution of the craft: The embroiderer generally preferred to work seated in a relaxed position on the ground, holding the work in his hands. Chamba embroidery was carried out without using any hoop. The fabric was held under the knees to keep it stretched. To avoid entanglement of untwisted yarns, their length was kept short during embroidery. Sharp pointed needles were used for embroidery. The medium length needles with large eyes were used. There was minimum pull or tension on the yarns as they were too delicate and break if handled with force. It was very important to execute embroidery at right tension so that the finished result would be neat and even on both sides of the fabric. There were basic steps to start the embroidery which were as follows: i. To secure yarn at the start of stitching- Needle was taken horizontally towards the starting point in a running stitch securing 1 inch of yarn under the stitches to be laid down. This method would prevent knotting on the reverse side of the fabric. ii. To secure yarn at the end of stitching- Slide the needle beneath 1 inch of laid stitches on the back side of the fabric and then cut the yarn. This would prevent knots on the reverse side of the fabric and embroidery would appear reversible from both the sides.

Identification of stitches used traditionally: In the review of literature it was studied that satin stitch was used for embroidery. In satin stitch, parallel or radiating stitches were worked together, completely covering the ground material both back and front⁴. On the analysis of the old museum pieces various types of embroidery stitches were discerned for different styles of embroidery. At present the stitch commonly used by the artisans in Chamba was long and short stitch. However, three more variations of this stitch were observed. Other than

this kind of stitch, two variations of satin stitches were also observed i.e. encroaching stitch and brick stitch which were no longer used by the artisans (table-1). They were discussed in details under following categories: i. Long and short stitch-small length, medium length and long length. ii. Encroaching satin stitch. iii. Brick stitch

Long and short stitch: It was a filling stitch made by long and short stitches worked alternately, interleaving the longer stitches into the spaces left by the shorter ones. The stitch was similar in type to brick stitch and shaded satin stitch². With overlapping stitches of various lengths and colours an extremely delicate effect of shading could be achieved like that of needle painting. The direction in which long and short stitches fall was very important for achieving desired effect³.

The long and short satin stitches can also vary according to their length. In small length, the method of administering the stitch was same. The stitch length varied from 0.2cm to 0.4 cm. The stitch length was small resulting in uniform appearance due to closely packed yarns (figure-1a). In medium length, the stitch length was medium ranging from 0.5cm to 0.6cm (figure-1b). In long length, the stitch length was long ranging from 0.8cm to 1 cm or even bigger, resulting in snagging of yarns and wavy appearance (figure-1c). In samples with long length stitches overlapping of yarns was seen. If filling was done with single strand and yarns were loosely spaced then background fabric was more visible. Conversely, when yarns were compactly packed and high number of strands was used for embroidery then background fabric was completely concealed.



a. Small length stitch



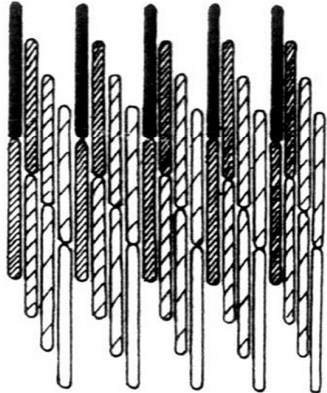

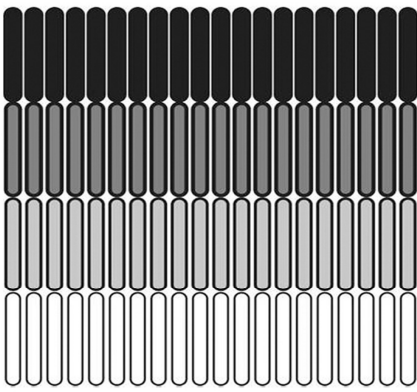

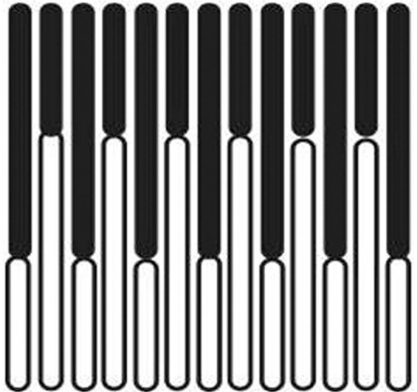

b. Medium length stitch



c. Long length stitch

Figure-1
Variations of long and short stitch

Table-1
Analysis of stitches used traditionally for Chamba Embroidery

Stitch type	Line drawing	Old specimen
1. Long and short stitch		
2. Encroaching satin stitch		
3. Brick stitch		

Source: Calico Museum, Ahemdabad, Acc. No. 2845, Source: National Museum, Source: Calico Museum, Ahemdabad, Acc. No. 643

Encroaching satin stitch: Encroaching satin stitch was formed by layers of closely joined short straight stitches. Several rows of vertical satin stitches were worked to give an almost woven effect⁴. The yarn tension was loose thus, giving raised and glossy appearance.

Different ways of working of this kind of stitch were observed i.e. covering motif with single small stitch (figure-2a) or dividing the space in two halves and filling in two rows of stitches (figure-2b) or either divide space in multiple rows of short straight satin stitches (figure-2c). The stitch size was

sometimes even or uneven. When satin stitches of equal length were worked parallel to warp or weft of the ground material it forms straight lines (figure-3a). While, uneven length stitches create unequal row of stitches (figure-3b). Further, more variations can be produced by closely spacing or widely spacing the stitches (figure-4a and 4b) and by varying number of strands i.e. if single strand was used background fabric was visible as compared to double or triple strand which covers the base completely. It was observed that most of the times, encroaching stitch was combined with medium length long and short stitch. (figure-5)



Figure-2
Different types of encroaching stitch

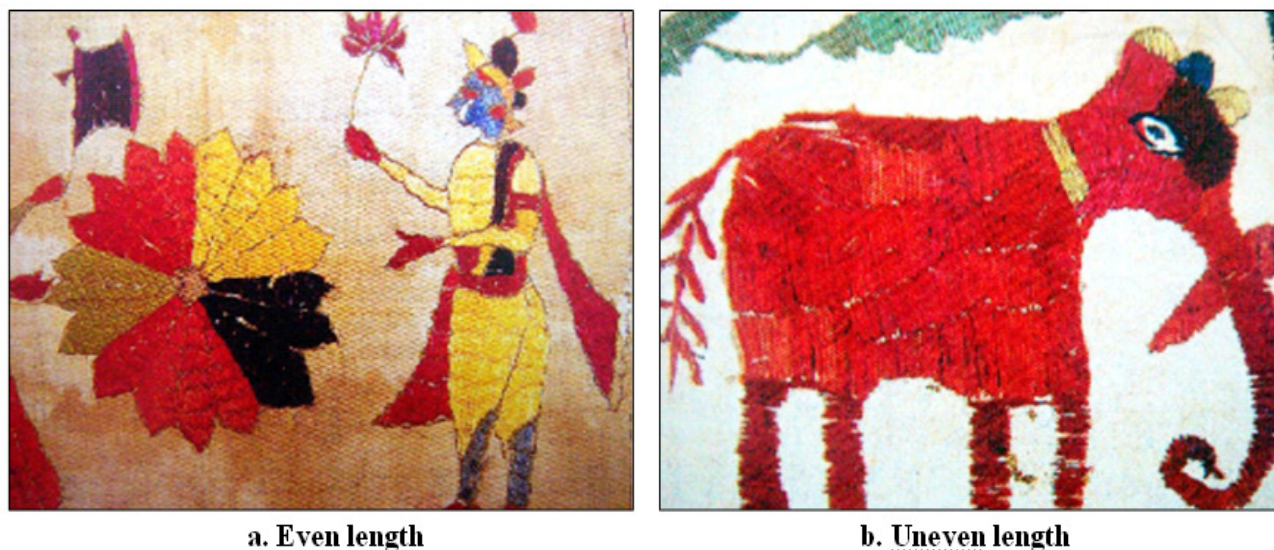


Figure-3
Variations of encroaching stitch

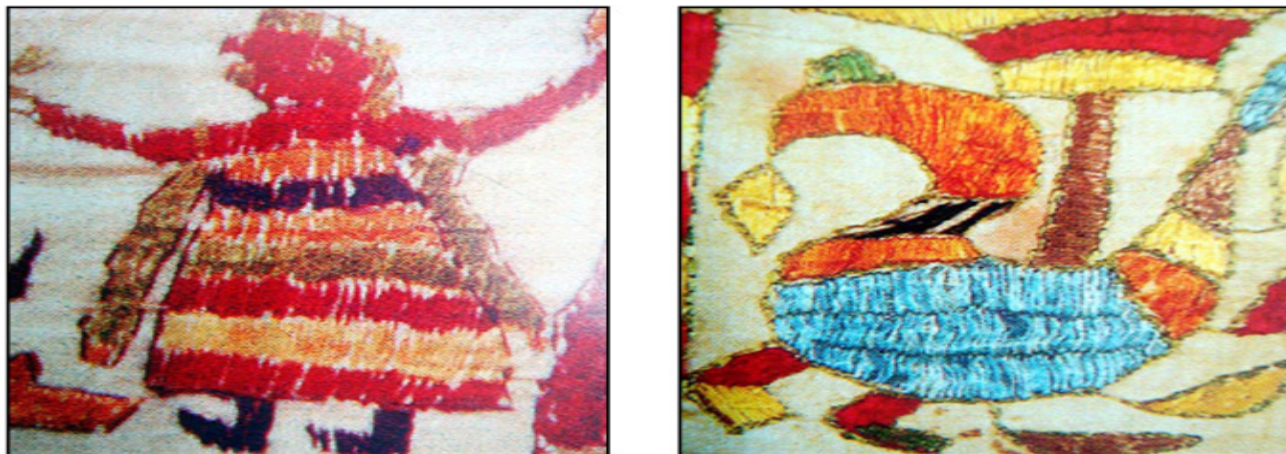


Figure-4
Variations in spacing of encroaching stitch

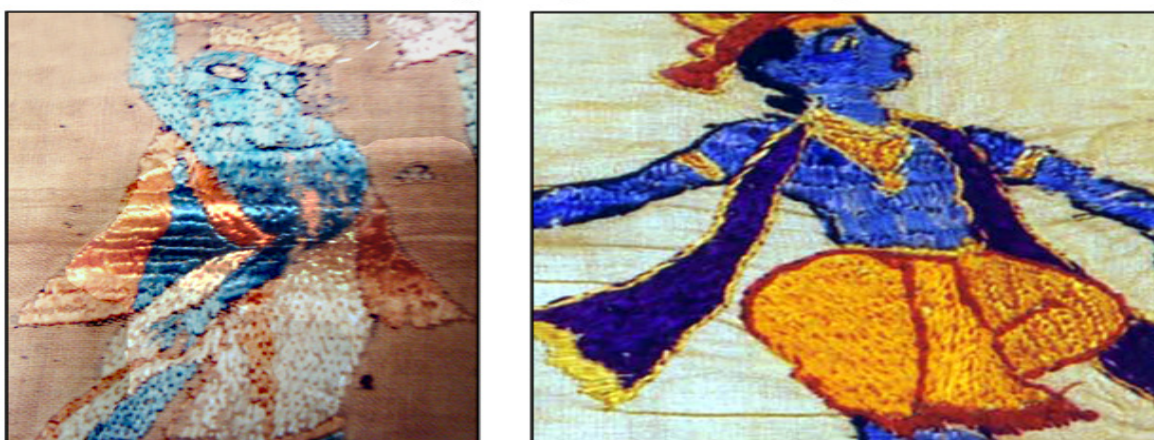


Figure-5
Combination of medium size long and short stitch and encroaching stitch

Brick stitch: Further, more variations of satin stitch was observed where stitches were offset, like bricks, singly or in groups of two or three⁴ known as brick stitch.

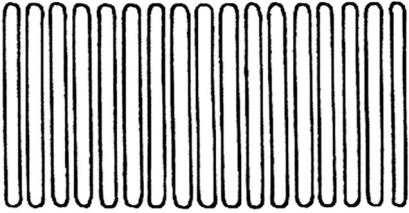



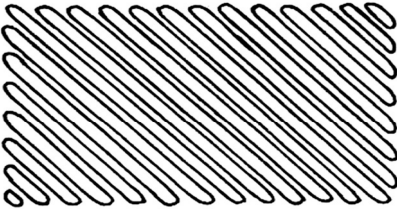

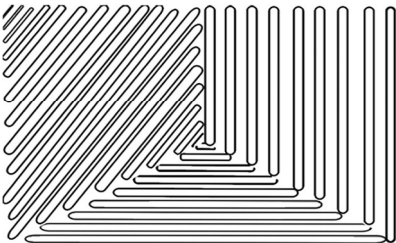

Analysis of direction of stitches: An important aspect of satin stitching was the direction in which the stitches fall within a design⁴. The rich colour effect was achieved from a comparatively small range of embroidery threads. The embroiderer instinctively place stitches to gain the fullest richness of colour from the play of light over the sheen of the silk. So that even embroideries executed in only one colour give an impression of several shades of threads through the juxtaposition of vertical, horizontal and diagonal stitches².

The stitches were named by the different arrangements of threads in different directions (table-2). The vertical satin stitch covers the design area with long, straight stitches placed closed together which runs vertically across the design. The horizontal satin stitch runs horizontally from one side of the design to the other. The slanting satin stitches slants up or down from left to

right, generally at an angle of 45 degrees⁴. In multiple direction satin stitches, it was found that motif was divided into smaller portions, and then each portion filled in by using stitches in different direction. This kind of stitch creates an optical illusion resulting in shade variation by using single colour yarn as well as added texture and visual appeal to simple looking motif. It was observed in study conducted that at present vertical, horizontal and diagonal directions were still used. However, multiple directions used in earlier times were no longer used by artisans.



Types of outline stitches: Through review of literature it was studied that the commonly practiced stitch for outline was stem stitch. However, it was observed in majority of earlier samples that the back stitch was used for outline (table-3). It was used for highlighting, separating and defining designs and motifs used in embroidery. Also, variations of back stitch were seen which was created by varying the length of stitches (figure-6a and 6b). Sometimes both stem stitch as well as back stitch was used in same composition.

Table-2
Analysis of Stitch Direction

Stitch direction	Line drawing	Old specimen
1. Vertical Direction	 A line drawing showing a series of vertical, parallel, slightly curved lines, representing the stitch direction for a vertical pattern.	 A photograph of an old embroidery specimen showing a yellow thread forming a stylized animal, possibly a bear or a similar creature, with vertical stitching used for its body.
2. Horizontal Direction	 A line drawing showing a series of horizontal, parallel, slightly curved lines, representing the stitch direction for a horizontal pattern.	 A photograph of an old embroidery specimen showing dark thread forming stylized leaves or floral motifs, with horizontal stitching used for the main body of the leaves.
3. Slant Direction	 A line drawing showing a series of parallel lines slanted at an angle, representing the stitch direction for a slanted pattern.	 A photograph of an old embroidery specimen showing a purple thread forming a stylized horse or animal, with slanted stitching used for its body.
4. Multiple Direction	 A line drawing showing a complex pattern of multiple directions of stitching, including vertical, horizontal, and slanted lines, representing the stitch direction for a multi-directional pattern.	 A photograph of an old embroidery specimen showing a yellow thread forming a stylized object, possibly a vase or a similar shape, with multiple directions of stitching used for its body.

1,2,3,4 Source: Folk Embroidery, S. Aryan

Table-3
Types of outline stitch used traditionally for Chamba Embroidery

Outline stitch	Old specimen
1. Stem stitch	
2. Back stitch	

Source: Calico Museum, Ahemdabad, Acc. No. 3788, Source: Folk Embroidery, S. Aryan

Mostly, outline was carried out using single strand of yarn to give delicate effect to the patterns in black colour. Often, colours used for outline were in contrast to the colours used in the figures. This was done to emphasize particular parts and make the figures stand out clearly against the background. Subdued colours were also used that merged with the figures to achieve harmonious blending of the entire composition. According to the review of literature, similar kind of effect was also seen in Chamba paintings of 1664-90. One of the peculiarities of Chamba painters was their preference for Indian red, carmine or light grey colours for outlining the figures and other details⁵.

Factors resulting in stitch variations: The various factors that resulted in stitch variations for the stitches used were as follows: i. Method of administering the stitch. ii. Stitch size, iii. Spacing between the stitches. iv. Number of strands of yarns used for embroidery

Method of administering the stitch: Different deviations were seen by using types of stitches for different style of embroidery such as long and short satin stitch, encroaching stitch, brick stitch.

Stitch size: The size of the stitches could be even or uneven. The even length stitches resulted in clear straight rows of stitches. While uneven length stitches created unequal row of stitches. This was most commonly observed in encroaching stitch. Moreover by varying the stitch length, different variations in long and short stitch were achieved such as short length, medium length and long length. Each of these variations had distinctive visual characteristics.

Spacing between the stitches: The variations can be produced by closely spacing or widely spacing the stitches.

Number of strands of yarns used for embroidery: The number of strands used for embroidery would affect the final

outcome. If single strand was employed, embroidery would be fine as compared to two or more strands. Also, the background fabric would be more visible in contrast to double or triple strands.

Intervention with artisans: The characteristics of embroidery discussed above were worked by the embroiderers during the workshops. Two same motifs were worked by artisans for stitch type, direction and outline stitch. This helped in comparison of embroiderers' sample with the reference sample which was carried in traditional style. It enabled craftspeople to reinvent more variety and finesse in technique used in earlier times. It further familiarized them with original features of embroidery. In sample 1 embroiderer sample was worked in long and short stitch though neat in workmanship. The direction used by them was vertical and no outline stitch was used. For working of reference sample a photograph of museum piece was given showing the motif in its original form. The stitch used was long and short stitch, multiple direction was used which produced light variation and back stitch was used for outline. These traditional ways of working embroidery enhanced the visual appeal of simple looking motifs. The similar results were seen in sample 2 also. The following work was shown in the (table-4).

Discussion: In the photographs of old museum pieces kinds of stitches were discerned for different styles of embroidery. In the analysis of classical style of embroidery, long and short stitch along with its variations was used. In superior quality of

rumals, close filling of long and short stitch in short length was used.

In folk style embroidery encroaching stitch was observed. Though long and short stitch was also seen in folk style but in medium length and yarns were loosely spaced. Encroaching stitch was used in *rumals* that bear resemblance with Phulkari. Sometimes different type of stitches was combined in same sample as per the convenience of embroiderer. Thus, it can be concluded that variations in stitches due to stitch size, spacing of yarns would vary with each individual embroiderer.












However, brick stitch was seen in few classical style samples as compared to long and short stitch. This could be perhaps due to the fact that brick stitch required more expertise on the part of embroiderer. It requires closely filled and structured arrangement of stitches. It was also observed that long and short stitch was worked very similarly to brick stitch, but there was more stitch blending. The stitch size of long and short stitch was longer as compared to brick stitch. So that they overlap each other and layer of stitches were tightly knitted together. While brick stitch was a type of satin stitch with a texture like that of a brick.

Intervention was taken up for addressing above discussed characteristics by conducting workshops and follow up field visits. This would help in revitalization and promotion of traditional craft. It would provide opportunities for capacity building of artisans to provide them with wider avenues.



Figure-6
Back stitch

Table-4
Workshop Samples

Sample no.	Type of activity	*Embroidery Sample	**Reference Sample	
Sample 1	Stitch type	 Long and short stitch	 Encroaching stitch	
	Stitch direction	 Vertical direction	 Multiple direction	
	Outline stitch	 No outline	 Back stitch	
	Sample 2	Stitch type	 Long and short stitch	 Brick stitch
			Stitch direction	 Vertical direction
		Outline stitch	 Stem stitch	 Back stitch

*Embroiderer sample was worked by artisans as per their choice.

**Reference sample was based on museum piece.

Conclusion

Technical characteristics of embroidery were identified from old museum pieces. These were primary components while executing embroidery which included, stitch type, direction of stitches and outline stitch. In traditional samples, three variations of double sided satin stitches were observed viz. long and short stitch, brick stitch and encroaching stitch. However, presently only long and short stitch was being used and other stitches like encroaching stitch and brick stitch were no longer used. In old museum pieces four different directions of stitches were observed such as vertical, horizontal, diagonal and multiple directions. Stitches executed in multiple direction created optical illusion, texture and added visual appeal to simple looking motifs. Currently, artisans were using stitches in vertical and horizontal direction only. Earlier, outlining of motifs had a specific purpose and was used for highlighting, separating and defining specific areas. In majority of old museum pieces, back stitch was observed for outlining in contrasting colors for emphasis or subdued colors for harmonial blending. However, stem stitch was also observed, but it was rarely seen. Presently, outline was made all over the design using stem stitch in black color.

The variations in the stitches as well as detailing that were observed in traditional samples were seen in very few samples. These factors were contributing towards the decline in the aesthetic appeal of the products made in present times. It can be concluded that exploratory field survey helped in identifying various traditional aspects of the craft which were no longer being used in embroidery. Keeping these traditional aspects in mind, the study was carried out and these features were

incorporated by intervention with artisans which helped in capacity building of artisans.

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