



Role of *Rafugars* in Textile Repair and Recycling in India

Dolly Kumar

Associate Professor

Department of Leather Design

National Institute of Fashion Technology, New Delhi, India

Abstract: This paper focuses on the traditional textile repair technique of *Rafugari* in India, specifically in the context of antique Pashmina, Kani, and Jamawar shawls of Kashmir. It highlights the importance of these textiles as status symbols in society and the need for skilled textile repairers to maintain their value. The research aims to document the *Rafugars'* tacit knowledge and the *Rafugari* technique. The research seeks to establish the importance of the *Rafugars* and their needlework in the 21st century as an example of sustainability and recycling. This study employs a descriptive research methodology and conducts open-ended interviews with the *Rafugars* in Najibabad, Uttar Pradesh (India). The research findings demonstrate the significant role played by the *Rafugars* in the repair and recycling of traditional textiles in India. The study showcases the expertise of the *Rafugars* in employing traditional darning techniques, which makes the repair invisible and blends with the rest of the textile, thereby maintaining its value. Furthermore, the research highlights the importance of sustainability in the 21st century and presents *Rafugari* as an example of sustainable textile repair. This research contributes to the limited documentation of the *Rafugari* technique, which has been overshadowed by other traditional textile techniques. The study highlights the critical role played by the *Rafugars* in the preservation of traditional textiles and the need for their knowledge and skill to be documented and sustained for future generations. The data were collected through open-ended interviews conducted with the *Rafugars* in Najibabad, Uttar Pradesh. The gathered information was analyzed using a descriptive approach to understand the nature of the technique and the expertise of the *Rafugars*. This research aimed to answer the following questions: What exactly is *Rafugari*, and how does one practice it? What is the role of the played by *Rafugars* towards textile repair and recycling in India? How can we use *Rafugari* as an example of sustainability in the 21st century? In conclusion, the study highlights the need to preserve the *Rafugari* technique, which has been overlooked in the documentation of traditional textile techniques. The research highlights the expertise of the *Rafugars* in performing the darning technique and their importance in maintaining the worth and value of traditional textiles. Additionally, the research presents *Rafugari* as an example of sustainable textile repair in the 21st century, contributing to the discourse on sustainability and recycling.

Index Terms - Mending, Needlecraft, Rafugari, Recycling, Sustainability

INTRODUCTION

For centuries, people have valued the softness, warmth, and workmanship of the pashmina shawl from the Kashmir Valley of India as a luxurious material. The raw material for these shawls was derived from the downy undercoat of the high-altitude Tibetan goat (*Capra hircus*) fleece—locally known as *Pashm* (Nemati, 2003). These goats lived in the high, dry, elevated, and cold plateaus of the Himalayan Mountain Range and produced extremely soft, fine, warm hairs. This hair grows under the animal's ordinary coarse outer fleece, which is extremely fine in quality and equally challenging to extract (Nemati, 2003). The rare availability of the raw material, careful yarn extraction method, and fine workmanship during the weaving process made these shawls one of the prized possessions for centuries. The Mughal Emperor only permitted their immediate family to own and wear these exquisite and opulent shawls. (Nemati, 2003, p. 35). These shawls became famous for their softness, splendid designs, warmth, bright colors, and luxurious material [1]. Merchants exported these shawls to England, the Continent, and America during the 18th and 19th centuries due to their universal appeal [1]. The popularity of these shawls was so influential that they became a favorite article of female dress in England, the Continent, and America and were carried by the most fashionable women on the arms and shoulders [1, p. 31]. Soon these shawls and shawl cloths symbolized a status symbol for the most fashion-conscious families, who used them as decorative accessories in the home to drape them over furniture and pianos [1, p. 31]. According to Nemati, during this time, rare Kashmir shawls were sold in the best fashion houses in Paris, London, and New York for extraordinarily large sums (price range of 500–5000 French francs in 1873, each franc equal to an ounce of silver) [1, p. 31]. Thus, the Kashmir shawls have been a luxurious article throughout history and are cherished for their workmanship even today. Each shawl costs not less than INR 10,000 and can go up to INR 3 lakhs today. According to one of the online news reports, “The Prime Minister's fondness for expensive Pashmina shawls is well known. Politicians and businessmen alike have been commissioning shawls for Mr. Modi for the past

several years. The shawl, media reports suggested, cost Rs 1.25 lakhs and had taken six months to weave [2].

II. RAFUGARI AND RAFUGARS.

The *Rafugars* have been associated with the *Kashmiri* shawls from the 19th century. The skill of these *Rafugars* was essential to the shawl-making industry of Kashmir during the 19th century, which witnessed a peak in shawl weaving due to high demand from the East [1]. During this time, they were known as needleworkers. These needleworkers were engaged in the later stage of the making process, where they would be required to assemble the small pieces of the shawls into one composite piece. Although the shawls are expensive, due to the availability of affordable fake versions, the *Kashmiri* shawl artisans are faced with serious threats, and so are the *Rafugars*. It is practiced by professional Muslim men in *Najibabad* (Bijnor, Uttar Pradesh), India, founded in the 1740s by a *Rohilla* Muslim warrior, *Nawab Najibud-Daula* [3]. En route from Kashmir via Punjab, some *Rafugars* settled in *Najibabad*, making it a repairing hub for the valued *Kani* shawl [4, p. 1]. The possible origin for these *Rafugars* is *Bokahra* [5, p. 75]. As mentioned by Mehra, these *Rafugar* belong to the Sunni Muslim community and have been settled in *Najibabad* for the last two hundred and fifty years [6]. Later, a few families from the neighboring villages of Bijnor arrived in *Najibabad* and engaged in the occupation of darning.

People specifically use *Rafugari* for mending Pashmina, *Kani*, and *Jamawar* shawls. It is an art that was once much sought after as people who valued their heirloom shawl or a precious new garment looked for reparation [7]. Pathak quotes *Rafugari* as having the ability to reassemble a frayed and tattered piece of textile using a simple needle [7]. These *Rafugars* meticulously repair the ancient *Kashmiri* shawls in such a way that the repairs are imperceptible to the untrained eye. The dexterity of this needlework is evident in the invisible mending work on the textile. However, these needleworkers always did not perform the mending work. Traditionally, they were involved in the joining of shawl pieces woven by different weavers on different looms. A classic *Kani* shawl would take two men and at least six to nine months to weave. To meet the increasing demand for the European market and accelerate the process of weaving, a single shawl was woven on as many as eight different looms, joined by the expert skill of the *Rafugari* [5, p. 57]. The border was skillfully joined to the body of the shawl by the *Rafugar*. As described by Moorcroft in his book, as many as eight looms were being engaged on a single shawl, and this number exceeded in the 19th century [8]. Moorcroft further describes that, according to one report, a shawl was assembled from 1,500 separate pieces using the *Rafugari* needlework [8].

However, as the demand for *Kashmiri* shawls decreased, the role of *Rafugars* also began to decline. According to Desai, these *Rafugars* of *Najibabad* started visiting the *nawabs* and *rajahs* to restore and refashion their shawls and also source tattered & frayed *kani* and embroidered *jamawar* shawls [9]. Slowly needleworkers of *Najibabad* became synonymous with *Rafugars* and *Rafugari* and *Kashmiris* started engaging them for the repair of shawls. Consequently, they began to specialize in repairing *Kashmiri* shawls. It is pertinent to mention that *Najibabad* is the hub of *Rafugars* who have been in this needlecraft for more than 50 years and learned the techniques from a very early age, unlike a regular *rafu* artisan employed at a regular dry-cleaner's shop.

Thus, in the 21st century, these needleworkers are paid money for doing invisible work on a fragmented textile, unlike any other decorative embroidered textile work that requires noted visibility. *Rafugars* restore all kinds of age-old textiles, including shawls (rectangles), *rhumal* (squares), *patka* (scarves), or a *jama* (robe) that belonged to various distinct styles and periods, once produced in *Kashmir* [6, p. 261]. Credit goes to these special *Rafugars* whose successful efforts have kept these exquisite pieces a part of circulation.

However, Mirani points out that the prime shawl-making industry often views the *Rafugars* as a lower class [8]. Mirani further mentions that the Handicraft department from *Kashmir* said that, "earlier during Maharaja's time, *Kashmiri* people knew 56 skills, but today only 26 skills have survived, and one among these 26 is *Rafugari* which is dying a slow death" [8]. The legacy of the traditional textile is maintained by the *Rafugars* who repair them to maintain their value. There has been a decline in the number of *Rafugars* over the last 30 to 40 years, which has become a cause of concern. In addition, though *Kashmiri* shawls have been extremely well documented in all aspects but there is a significant research gap when it comes to literature about these needleworkers.

III. ROLE OF RAFUGARS TO PRESERVE TRADITIONAL TEXTILES

Traditional heirloom textiles are not only valuable but also bear cultural and emotional significance. They are a part of family tradition, passed on as personalized gifts, and maintained with pride and dignity. Kopytoff mentions that articles rise to the status of "decommodification" when they are non-saleable, incomparable, exceptional, singular, and not exchangeable for anything else [10, p. 73]. People regard such articles as priceless treasures. According to Kopytoff, "such *non-commodities* exist on polar planes, ranging from things that are uniquely valuable, such as heirlooms, to those that are uniquely worthless" [10, p. 73].

The *Kashmiri* shawls discussed in the paper bear the same status of 'decommodification' as more often, they not only represent family heritage but cost a lakh to even eighty lakh rupees. Should one dispose of such heirloom shawls in the event of damage, whether from insects or unexpected tears? Given their high cost and status as a symbol of pride, it is not appropriate to simply discard these shawls [8]. At this point, the *Rafugars* rescue these shawls and repair them to their original condition. Over some time, these *Rafugars* also possessed old shawls that may have been acquired cheaply as 'rejects,' unfit for further use [6, p. 2]. As written by Mehra, "With their skill and ability to mend and restore these priceless, tattered, discarded rags, the *Rafugars* would restore, transform, and renew these rejects for further sale to new patrons and collectors having this expensive taste" [6, p. 2].

Based on the open-ended interviews conducted with the *Rafugars* of *Najibabad*, they revealed that the clients who know them and their proficiency often approach them with damaged shawls for repair purposes. The *Rafugar* further disclosed that every time a shawl comes for repair, the types of damages are different. There may be holes, cuts, frays, broken embroidery due to weak thread, minor holes, or even major tears where the shawls are completely tattered. Each type of repair necessitates a unique approach, based on an analysis of the damage intensity and fabric material. They assess the condition of the shawl, its pattern, and its colour, among other factors, before defining their work boundaries. Repairs may take 6–8 months to a full year to restore shawls to their original condition with motifs and a complex weaving structure.



Fig 1. Rafu work in the central region
(Image courtesy: Najibabad Rafugar)



Fig 2. Tattered shawl to be repaired
(Image courtesy: Najibabad Rafugar)

One needleworker can complete the *rafu* work, or depending on time consumption and financial benefit, three or four may be involved. While the more complex *rafu* work is dealt with by the master needleworker, the simple one is given to the less experienced *Rafugars* over which the master *Rafugar* does the final finishing.

The special darning skills have been responsible for keeping these exquisite pieces alive and rescuing a substantial number of these priceless shawls from deterioration. *Rafugari* has kept them in circulation and continues to use them to date under different circumstances. Thus, these *Rafugars* play a significant role in the maintenance of these priceless shawls through the highly intricate and laborious work of restoration and renewal.

IV. RAFUGARI AND ITS TACIT KNOWLEDGE

Mending, in general, is the practice of repairing any kind of impairment or fault that may appear in fabrics using the skill of needlecraft. It involves the actual repair of defects in a missing warp or weft yarn with a hand-sewing needle to repair tears or holes. It may be performed at home for minor defects or done by highly skilled professionals [11, p. 2]. Thus, *Rafugars* are the specialized professionals involved in the practice-based phenomenon of mending that requires dexterity and experience. An extremely thin needle, some yarns of the same textile that require repair, adequate experience, and knowledge are the key tangible and intangible ingredients of this needlework.

However, the technique of *Rafugari* remains unexplored and extends a mysterious perception to the end-user. As quoted by Durrani, the majority of the studies on garment mending have been based on short-lived workshops to examine why people do not mend and not how they mend. [12, p. 25] The dexterity and acquired experience of these needleworkers are the results of consistent practice over some time. Understanding practices as a type of routine behavior includes several interconnected parts, such as ways of doing things with your body and/or mind, things and how they are used, and background knowledge in the form of understanding, know-how, emotional states, and motivational knowledge [12, p. 249].

Reckwitz's idea of practice became evident when the *Rafugars* revealed it during an open-ended interview with four *Rafugars*, who said that they mastered the skill by sitting each day for 6–8 hours for more than 25 years to acquire the proficiency required. They started at 6 or 7 years old and learned *Rafugari* from their father and grandfather. Desai quotes that, "*Rafugari* requires tremendous discipline and patience" [13]. They are required to sit on the floor with folded knees in broad daylight. They also clarified that the extremely thin needle they use for the work is only prominently visible during daylight hours. Further to this, the needleworker added that the broken yarns and weave structure of the fabric are vivid on a sunny day. As quoted by one of the *Rafugar*, "We match the thread and finish the product in a way that it is difficult to find any traces of repair." However, the irony is that there are only a handful of such experienced professional needleworkers, and there is a dearth of documentation on how they do what they do. The tacit knowledge of these *Rafugars* that is acquired through years of experience has somehow missed the attention of research scholars, resulting in a major gap in the available literature.

Michael Polanyi describes tacit knowledge as "knowledge people carry in their minds and is, therefore, difficult to access and share" [14, p. 308]. Nonaka and Takeuchi (1995) explain that "tacit knowledge is highly personal and challenging to formalize, making it difficult to communicate or share with others. It is deeply rooted in an individual's action and experience as well as in the ideals, values, or emotions s/he embraces". Nyström (2004) mentions that "tacit knowledge develops as the result of a long experience, and it is shown outside as a skillful activity [14, p. 309]." Experts also refer to it as artistry, which manifests in their occupational know-how. It develops as a result of a long practice. It is shown as a skillful, intuitive action, and it is completely dependent on its holder. (Schön 1983, according to Järvinen et al. 2002) [14, p. 309]. techniques used for mending. Non-participant observation was done in an attempt to understand the different types of *rafu* techniques that include *Leher daalna*, *Chashme-bulbul*, *Bajaji rafu/tar-todh rafu*, *Pachchi rafu*, *Rang-a-mezi rafu*, *Chunai*, *Syahi daalna*, *Nakhen daalna*, *tak-maki ka jod*, *Saada jod*.

Leher daalna: It is a precise technique of weaving with a fine needle to cover the holes, imitating the design as present in the plain *pashmina* or *kani*.

Chashme-bulbul: It is specialized weaving design (*leher*) to cover the hole using one diagonal square inside another.

Bajaji or taar todh rafu: It is the most difficult darning and can only be performed by a master *Rafugar*. It is invisible to the naked eye, takes the maximum time and, that makes it expensive as well. One can only detect this *rafu* if loose threads are left as it is without snipping-off on the reverse side of the material. Mainly done on plain fine *toosh* or *pashmina*, the yarns of these materials

are extremely soft and fine. At times, the yarns may even be weak if its an age-old shawl. In this scenario, the *Rafugar* carefully pulls-out one thread at a time and replaces fresh one from the same shawl end or material. Attention has to be given to the fact, that the threads inserted in the warp and the weft of the damaged section are required to equal in number as in the overall material, and of the same thickness to imitate the weave. Once the *rafu* work has covered the damaged space, the ends of the threads are snipped off to merge the *rafu* with rest of the material

Pachchi rafu: This is a simpler and less complex version of Bajazi rafu and appears like a grill.

Chunai: It is yet another rafu technique, and only a few Rafugars can accomplish the task. It is used for a shawl where the entire silk warp has weakened and requires to be reconstructed. This is primarily used in the high-end dorukha shawls.

Rang-a-mezi rafu: This technique applies to patterned kani or jamawar shawls. The rafu work is done in the identical weave and color as present in the original design of the material to imitate the weave, motif, and color. Complex motif design and more than two colors make the task challenging.

Syahi daalna: This type of rafu work inserts black thread outlines to highlight motifs that have faded over time.

Nakhen daalna: It provides support to the borders of shawls whose warps have deteriorated due to time and aging. Lines of small running stitches are inserted between the threads at specified distances to give support and strength to such borders.

Saada jod is a technique for repairing and joining tears and pieces of shawls together. In this, pieces to be joined are placed side by side, and threads move back and forth in a triangular fashion. The Rafugar maintains the stitch length and tension, which contributes to the joint's beauty.

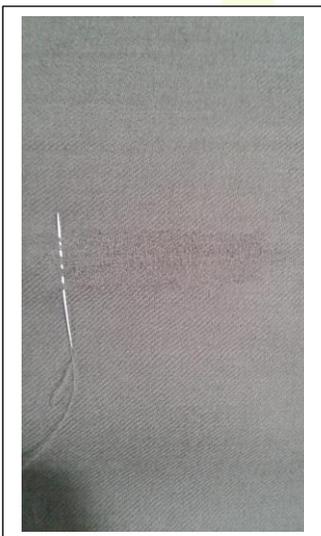
Tak-maki ka jod: It is yet another beautiful joining technique where parts of the shawls are joined with such finesse that the joint is difficult to detect from the right side.

The different types of techniques used by these needleworkers facilitate the restoration of age-old textiles. However, merely learning these skills is not enough and requires regular practice to attain the fineness that only lies in the magical fingers of these handful of Rafugars.

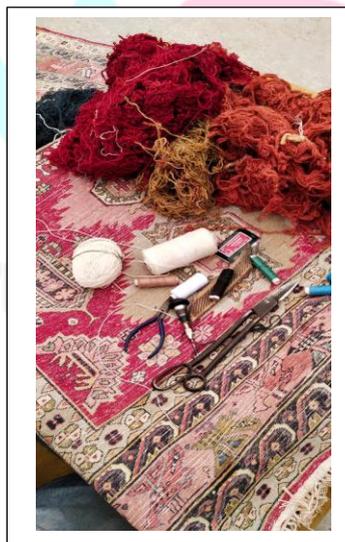
V. RAFUGARI: AN APPROACH TO SUSTAINABILITY

We are at a critical juncture where we must actively heal the world to ensure its sustainability for the future. The repair of the ecosystem not only requires alternate practices at a global level but also at an individual level. People are embracing needlecraft mending practices as a positive approach to sustainability. According to Souza, mending of clothing has globally witnessed a revisit and is considered one of the solutions to an initiative into a positive move towards sustainable fashion [15]. According to Souza, a considerable number of artists, designers, photographers, and craftspersons are using mending in their creations to generate awareness about the alarming concern of overproduction, overconsumption, and waste generation [15, p. 464]. There is a growing awareness about mending in the global context. The Upanishads believe that “thread links this world to the next and all beings to one another,” quotes Souza. [15, p. 462]. Disseminating more awareness about general and specialized mending can redefine the theoretical and practical aspects of sustainability.

According to Fletcher (2008), “recycling is not always the best use of resources, and other approaches should be developed in parallel [16, p. 356].” Apart from the decorative needlecraft practices, Mengersen mentions a fourth category of needlecraft called "resourceful" that can be introduced in the textile industry as a utilitarian solution for garment repair in the form of invisible mending like darning [16].



*Fig 3. Rafugari needle
(Image courtesy:
Najibabad Rafugar)*



*Fig 4. Raw material for Rafugari
(Image courtesy:
Najibabad Rafugar)*

Rafugari is a living example of utilitarian needlecraft bearing the potential of reconditioning and repairing textiles and equally contributing towards the idea of reuse or longevity. During the entire process of this practice, not even a single yarn is wasted. The threads for the repair are carefully extracted from the same material that has to be repaired. Similarly, they maintain any leftovers from damaged materials for future use instead of carelessly discarding them. The entire practice follows the concept of saving for the future, optimum use of material, and keeping the textile alive as far as possible. The *rafugars* have diligently applied these concepts of sustainability for generations.

Needlecraft skills for repair, *such as rafugari*, can significantly contribute to sustainability. Thus, *rafugari*, as an extremely specialized form of invisible mending practice, can surely serve the textile industry and become a part of the mainstream garment industry in parallel to the context of restoration. As quoted by Mengersen, the humble needle (Schoesser, 2003) can play a vital role as new approaches to creative sustainable thinking and innovative design development are being continuously explored in the realm of the fashion and textile industry.

VI. CONCLUSION

India has been practicing *Rafugari*, a resourceful and utilitarian needlecraft practice, for centuries. While globally, textile practitioners are constantly exploring the means to provide alternate solutions to sustainability, *Rafugars* have already been practicing the same for ages by restoring the valued textiles. Professional needleworkers are not only experts in techniques that are rarely known by textile professionals but also possess the skill of extending the longevity of the textile. We urgently need to attend to and document the tacit knowledge these *Rafugars* possess in response to the growing concern about sustainability. Globally, there is a trend toward returning to needlecraft as an alternative solution, but in India, these *Rafugars* are the trailblazers who can serve as a valuable resource for teaching the world about repair practices. They deserve acknowledgment, appreciation, and means of sustenance on a global platform. A community-based mending approach to create awareness about *Rafugari* among consumers can prove to be effective in combating global concerns about our ecosystem. By fostering a greater understanding of these traditional techniques, we can inspire individuals to embrace mending as a viable option rather than discarding items. This shift not only honors the craftsmanship of *Rafugars* but also encourages a more sustainable lifestyle that benefits both the environment and local economies.

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