



Exploring the Sustainable Practices in the Indian Durrie Craft: Agra Chindi Durries

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Abstract: India is famous for its indigenous crafts in the world; it is also a centre of textile products, generating the maximum number of jobs after the agriculture industry. However, the Fashion and textile industry generates a lot of waste and add it to landfill. Using modern technology to combat these challenges is essential, but so is tapping into the wisdom of traditional practices and local knowledge based on ancestral communities. India has been using the concept of sustainability for many decades by recycling, reusing, or up-cycling garments and other textile products. Once a garment or fabric survives its function, it transforms into a new product, but with an artistic twist, such as saris/dhotis into blankets and textiles, and clothing into bags and other consumer products. Agra district of Uttar Pradesh is world-famous for its monuments, handicrafts & handloom. Among many, Durrie crafts is one of the popular crafts practiced in a small town known as Fatehpur Sikri. Cluster is famous for producing two types of durries: Panja durries and Chindi durries. The Chindi durries named as the weft strips created by shredding cotton fabric, or leather strips termed chindi. A striking feature of the Durrie is warp cotton yarn, while the weft is unspun cotton (Chindi), giving Durrie a striped look. The Chindi durries are identifiable by their characteristic stripes in bold solid red, blue, green, and purple colours. The ethnography research approach has been followed for this study, researchers conducted field study in the cluster's location to understand the indigenous process of chindi durrie craft being followed and practiced by the artisans. It also involves the study of the tools and techniques used in the process based on primary and secondary data collected from the field, which further concludes with how this can help in developing more varieties of products by using the Chindi craft and its future scope.

Keywords: Craft, textile waste, sustainable practice, weaving, chindi craft

I. INTRODUCTION

India is one of the largest producers of apparel and textiles. The Indian textile and apparel industry contributes approximately 2% to the country's GDP. In terms of overall textile and apparel exports, India is sixth globally. Textiles, apparel, and handicrafts contribute 11.4% of the total exports. The world's 95% of hand-woven textiles come from India. The textile and apparel industry is also one of the most polluting industries in the world. The textile industry generates waste at each stage, from producing fibers to dyeing to the final manufacturing of the end product, making it the third most waste-generating industry. Ever-changing trends and the role of apparel and textiles, from being basic human needs to the expression of social status and superiority, have neglected over-production, resulting in over-flowing of our wardrobes, which are no more in our use. Humans have been busy with materialistic growth and neglected the damage being done to the coming generation. Technological advancement has promoted production, which in turn resulted in over-consumerism. There are baskets full of waste that end up in landfills.

Modern technologies, sagacity of indigenous craft practices, and local knowledge of ancestral communities are essential to combat challenges. There are traditional crafts uses the concept of recycling and upcycling to develop sustainable textiles and apparel of premium qualities.

Chindi-Durrie craft, Agra, is one of such crafts well known for its recycling and upcycling techniques. Durrie is a native term used for a hand-woven floor textile. They have attractive geometrical designs. The most commonly used designs are bold colored stripes. Rural India has a vast industry of Durrie weaving, and the varieties depend on their place of origin. States like Rajasthan, Uttar Pradesh, and Madhya Pradesh are the front runners in this craft.

II. HISTORY

The epic poem "Mahabharat" is where Agra Durrie first appeared. It is thought that in the past, the residents of Agra decorated the ground to welcome Lord Krishna to the nearby town of "Shauripur." Later, when the Great Mughal Emperor Akbar ruled India in the sixteenth century. He wanted to invite his Persian carpet weavers to join him because he was dissatisfied with the lack of comforts and missed his Persian rugs from home. These weavers rapidly established workshops and collaborated with the locals. As a result of the industry's success, India's carpet-weaving sector was established. All kinds of rugs were soon produced, the most expensive of which was made of cashmere and featured expensive jewels and gold thread.

Later in the century, the durries included images of the local flora and fauna. In his "Ain-e-Akbari," the famous writer of Akbar's era Abul Faizal, describes the Agra flooring business. The carpet factory in the Agra fort during that time is described in the book. According to what he wrote, "His majesty has caused durries to be made of marvelous types and exquisite textures; he has appointed skilled workers who have created countless wonders. During this time, a thriving industry was supported by the settlement of weavers of all stripes. In every city, but particularly in Agra, Fatehpur (now Fatehpur Sikri), and Lahore, these are practiced.

In the 17th century, Persian themes like landscapes and animals started to appear more frequently, along with richer patterns and styles on Indian rugs. Rugs were made during this time using beautiful silks, with the most intricate having 2,000 unique knots per square inch. It can take up to 15 years to complete these rugs. Indian rugs and carpets gained international fame for their high quality, attention to detail, and innovative designs in the years that followed. They were widely used in opulent homes and palaces and exported all over the world. Globalization caused a decline in both the quantity and quality of Indian rugs later in the 19th century. Around the world, imitations of Indian designs began to appear, which led to the appearance of lower-quality carpets and rugs manufactured of synthetic materials. The rug-making industry started to expand once more in 1947, the year India attained freedom. According to a 1958 survey, there were 14 factories with 350 looms and 80 cottage units with 800 looms in rural areas.

The Chindi Durrie, also known as a rag rug, sets the weight of the rag rug by using waste cloth (Chindis) to create a weft strand. It was initially made from scraps of old apparel, the warp being the stout cotton thread, but the scraps have now changed and come in bulk, right out of the garment manufacturing units. The chindi durrie comes in every color of the rainbow because of this. Leather scrap durrie is a new take on the same idea. With the growing leather industries in Agra, Kanpur, and other locations, leather waste is not a problem and is turned into beautiful and unique rugs. A new range of ideas in terms of sizes, colors, styles, and forms opened new vistas in the export market for the Chindi durries. Over the past few decades, the Chindi durries have been impressively influenced by the designer's intervention. Geometric patterns are a favorite of artisans, who work ardently on them—beautiful borders with every color imaginable complement the designs. Block printing, another old-school technique is also visible on the edges.

III. RESEARCH OBJECTIVE

The main objective of this study is to explore and document the indigenous chindi durrie craft of Agra. Understand the history, Artisans, making process and motifs and patterns of the craft which is sustainable in its nature and distinguished this unique durrie craft from other traditional durrie making crafts.

IV. RESEARCH METHODOLOGY

This includes the method of data collected for the study, considering the objectives both the primary and secondary data collection methods have been followed. Secondary data collected from digital resources like articles, research paper and journals etc and for primary data collection, ethnography study has been adopted. The approach for this study is qualitative in nature.

V. WEAVER'S COMMUNITY

The best carpet weavers from Persia arrived in the bustling Indian city of Agra, thanks to Akbar, who was inspired by his wandering and beauty-loving grandfather. These weavers immediately established a thriving, high-quality carpet business while teaching their trade to the locals, who instilled local sensitivities into their designs. The rest of the globe soon noted the skill and love of color that distinguish so many Indian artefacts. Despite a long period of decline, the Indian carpet business was revitalized in the 19th century while the British ruled the country. According to some historians, Akbar ordered the inmates of the jails at Agra to learn weaving. By doing so, he could make use of a (supposedly) large and obedient labour pool while also providing the inmates with a talent they could employ to improve their own lives and the homes of local and foreign nobility after they were released.

In the present scenario, most of the artisans are followers of the Muslim religion. Hindus typically do not think it is an excellent career; hence very few artisans work in this field and typically come from scheduled caste communities. However, it has been noted that Muslims who belong to the higher socioeconomic classes are progressively entering this field as chindi durrie-weavers and suppliers. Chindi durrie is actually a brand-new product in the durrie craft industry. It has substantial export potential and is now a source of foreign exchange revenue. Agra's weaving industry has been prospering as a cottage business for ages and employs thousands of people. Chindi durries require highly competent laborers who can creatively express themselves. By repurposing textile waste, these artists are engaging in a sustainable activity that is valued by people all over the world. They are doing an excellent job in this field.

VI. ATTRIBUTES

Agra Chindi Durrie is a heap of thick flat woven stripes available in various designs and sizes. Stripes going from one end to another, rectangular areas, and multicolor designs are commonly available attributes of Chindi durrie. These Durries are available in multiple patterns and color combinations to meet the requirements of every household and can be used on any occasion.

Chindi durrie uses a weft-faced simple weaving technique. Chindi Durrie is hand woven by skilled Kamgars on traditional pit looms. Durries of various sizes are made using spun cotton yarns for warp and fabric stripes of jersey, denim, and leather for weft. These weft stripes of fabrics are called Chindi, hence the name. Designers' influence in Chindi Durries has developed a new range of designs in sizes, shapes, and colors, forming a new panorama for the export market.

6.1. Colors

These Durries can be easily recognized by their varied thick horizontal stripes in bold green, red, blue, and purple colors. Communities of Agra durrie craft also use various organic substances like turmeric, pomegranate skin, madder root, Rust, and kicker tree leaves to get the colors mild yellow, dull yellow, red, green, and brown.

6.2. Motifs

The artisans commonly use geometric motifs and patterns in the designs of these Durries. The beautiful borders complement these patterns using all the possible colors. These designs are inspired by the surrounding flora, fauna, and architecture. The most prominent designs and patterns are stripes and medallion patterns. Kiln (Bricks) designs can also be replicated. Chindi Durries are available in rectangular and circular shapes.

VII. PROCESS

Chindi Durrie craft of Agra involves various processes-

7.1. Pre-Production: This process involves all the steps required to prepare the raw materials; cotton yarns for warp, chindi stripes for weft, and loom preparation.



Fig. 1: Chindi (raw material)

7.1.1. Dyeing: The procurement of the yarns and Chindi (Fig.2) is done by the unit owner or the exporter from the local market, Kanpur, Delhi, Ludhiana, and Dhaka (Bangladesh). After finalizing the designs, patterns, and colors, the yarns are dyed accordingly. If the Chindi is in the required color, it is used directly. Chindi of Denim and leather is used directly. The women artisans cut Chindi into the uniform stripes of the fabric/leather (Fig.3). Fabrics/ Chindi is segregated as per the type of their yarns. Different types of yarns are dyed differently. In order to dye already colored-cotton Chindi stripes, firstly, large pools are filled with boiled water, bleach, and Chindi stripes are put into it to remove the color (Fig.4). Secondly, the Chindi stripes are washed and put in large pools filled with azo dyes in boiled water. A spinning wheel is used to provide uniform penetration of colors. After dyeing, these stripes are placed in open areas for sun drying (Fig.5).



Fig.2: Women artisans cutting the Chindi (raw material)

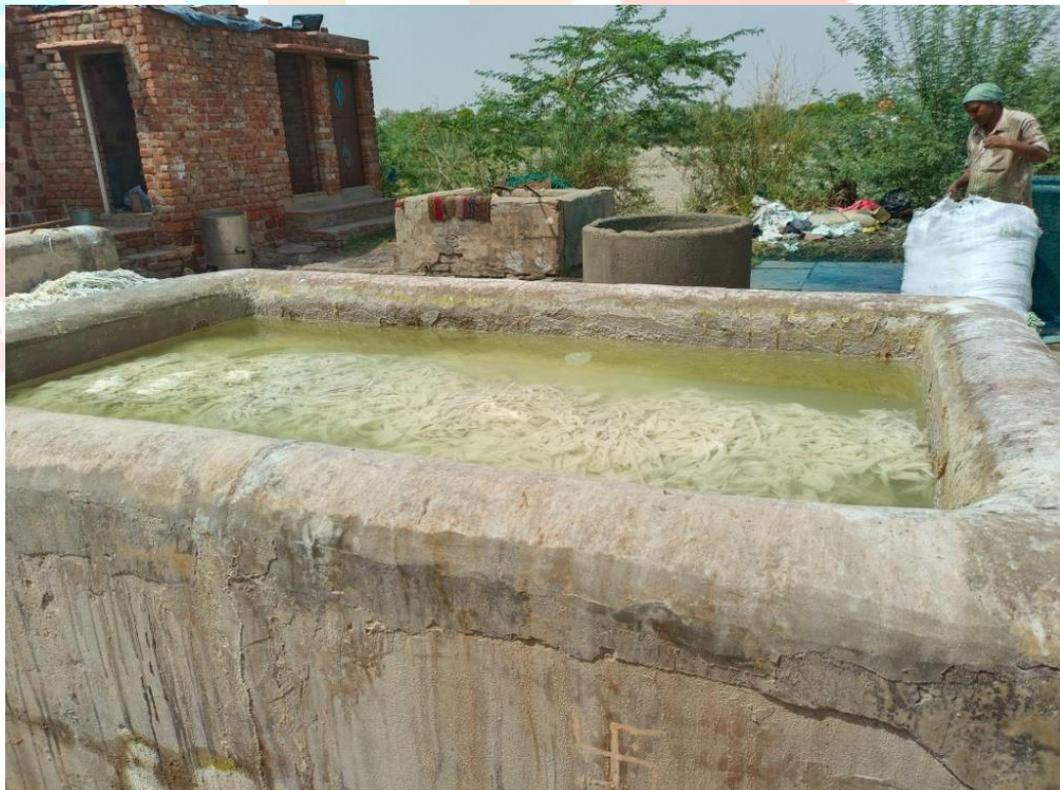


Fig. 3: Bleaching of the Chindi (raw material)



Fig. 4: Drying the Chindi (Raw material)

7.1.2. Warping: Spun yarns from spools are transferred using Charkha (fig.5) to smaller bobbins of the yarn; then, these yarns are converted into a linear form called Taana (warp). Taana provides the length of the fabric. The warp threads are wind around a sizeable octagonal frame known as a warp machine. As per the required color combinations and length, threads are arranged on this structure. Later, these yarns are transferred to the warp beam and given to the weaver for the loom set.



Fig.5: Artisan winding the Bobbins from the spools



Fig.6: Octangular frame for Warping

7.1.3. Setting the loom: Loom is selected based on the design, the Durrie size, and the material to be used. Once the design is finalized, the number of warp yarns (Taana) is selected per the required color combination. Warp yarns are passed through the two heald shafts (harness), reed, and tied to the cloth roll. All the yarns are pulled uniformly to tighten them. Each yarn is individually passed through the heald eye. Once all the yarns are tied with the uniform tension, the pit loom is ready, and the artisan starts the weaving.

7.2. Production: Once the loom is ready as per the design, the lifting order of Taana is analyzed and tested. The pedals are used to lift the headles, which make a shed by lifting the yarns passing through it. Once Taana yarns form a shed, Baana is passed through it (fig.7). In order to get the finished textile, a reed is used to put the Banaa in place. This complete process is done manually and repeated till the product is complete. Artisans also use braiding techniques in circular durries (fig.8 and fig.9).



Fig.7: Artisan making the Chindi Durri using Pit loom

7.3. Post-Production

After completion of weaving, the product/Durri is checked for any defects which includes loose threads, unwanted knots, or any spot. These are altered by the women artisans and take approximately 15 -30 minutes. In case there is any specific wash required to finish the product, it gets completed by the artisans.



Fig.8: Artisan making the circular Chindi Durri with braided rope.



Fig.9: Circular Chindi Durri made with braided rope.

VIII. TOOLS AND EQUIPMENT

Heald- The warp yarn is passed through the Heald. The Heald wires are attached to a thick piece of wood or bamboo, known as shafts. There are two shafts in a basic loom. It maintains the sequence or order of the warp threads. The Heald shaft determines the warp thread density in a fabric, i.e., the number of heald wires per inch determine the warp thread density per inch

Pit Loom- Artisan of chindi durrie craft uses one of the primitive looms known as pit loom. It is a type of loom that fits over a pit, and peddles lie in the pit and the weaver sits on the ground while weaving the Durrie. The artisan makes the rug through pedals, usually the base of the pitloom is more robust than the handloom & can go without using latex.

Charkha- A wheel that is used to wound small bobbins from the yarn spools or loose thread rolls, which further arranged on a large octangular frame as per the required colour combinations and length. Later these are transferred to the warp beam.

Naav- Shuttle, which is known as Naav locally, is used to insert the weft yarn. It is made up of either bamboo or sal wood.

Hasiya- Women artisan uses this tool which is in an arc shape with sharp edge for cutting the chindi fabric as per their requirement, depending upon the size and design of the Durrie.

IX. STRENGTH OF THE CRAFT

The cost of sourcing the raw material is relatively low, which provides an extra edge to this craft. Agra Chindi Durrie craft has flourished in the export market and diversified in various product segments. The product range includes Durries for floor covering in every shape and size and for every occasion, home furnishing accessories like cushion covers, curtains, coasters, bedding and & wrapping, bags, and hats (fig.10, fig.11, fig.12). The community has the highest number of skilled laborers who want to incorporate new technologies to enhance the quality of the products. The products are eco-friendly, and pocket-friendly; hence could be afforded by every segment of society.



Fig.10: Circular Chindi Durri products



Fig.11: Chindi Durrie

X. FUTURE OPPORTUNITIES

India's crafts sector was one of the worst hit sectors of the Indian economy during the COVID-19 pandemic. However, as lives are slowly limping back to normalcy, it is not surprising to sense new and exciting avenues that arise for this sector at this unprecedented time. The pandemic has resulted in expeditious lifestyle shifts which have redefined business ways. Hence, this is an appropriate time to introspect business models and collaborate in newer ways. India's handloom and handicraft sector is the second-largest employment provider after agriculture. Agra chindi durries, a GI craft, has much potential to cover the market demand and fulfill the need of conscious consumer groups by providing a sustainable product that is unique in nature.



Fig.12: Chindi Durrie Products

XI. CONCLUSION

In the present scenario when the western world is discussing being sustainable, India has already followed this concept for many decades. Many Indian crafts traditionally follow an environmentally friendly process and the concept of recycling, reuse, and upcycling, for example, Kantha of West Bengal, Wall hanging of Ghazipur, appliqué work of Gujarat, Paper Mache of Kashmir, etc.

Agra chindi durrie plays a pivotal role by turning textile waste materials into a utility product with its indigenous process and techniques. It is gaining much popularity among conscious consumer groups. Also, this unique craft is benefiting the artisans in maintaining their livelihood and playing an essential role in the saving the earth mission. If promoted well, this craft can be a niche category catering to many consumers. If the artisans provide training in product design & development, this craft can be diversified into multiple product groups.

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