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# Value Addition Of Handloom Fabric Using Handicraft Skills

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## Abstract

The majority of India's rural population receives their income from one of the nation's most significant cottage industries: handlooms and handicrafts. Weaving with natural fibres like cotton, silk, and wool is a common hand looming practice in India. India's majority of villages rely on the handicraft and handloom industries either directly or indirectly for their livelihood. This industry proudly displays the timeless beauty that is a part of India's priceless cultural legacy. The objective of this work is to create new handloom curtain materials employing handicraft techniques. In this work, we created curtain material by block printing and using palm fibres for weft insertion in addition to other handicrafts like embroidery.

**Key words** Cottage industries, weaving, handicraft and handloom, cultural legacy, handloom curtain, palm fibres, embroidery

## 1. Introduction

A handicraft, which is often more specifically referred to as an artisanal handicraft or handmade, is any of a large number of different sorts of work in which functional and decorative things are entirely created by hand or using only basic tools. It is a traditional core branch of craft and covers a broad range of artistic and design pursuits connected to producing things with one's hands and talent, such as working with fabrics, moldable and rigid materials, paper, plant fibres, etc.

Typically, the phrase is used to describe conventional methods of producing goods that are both functional and aesthetically pleasing, whether they are for personal use or as products. Handcrafted industries are those that manufacture goods by hand to satisfy local demand. There is no utilisation of machinery. Handcrafting has its origins in the rural crafts that provided ancient civilizations with the material goods they needed to survive. Many specific crafts have been practised for centuries, while others are modern inventions or popularisations of crafts that were first practised in a specific geographic area.

### 1.1 Literature Review

#### 1.1.1 History of Indian handicrafts

India's handmade heritage has a long history and has developed over the years, leaving a legacy of Indian culture that promises everything: beauty, dignity, form, and style.

A wide selection of items is available, from traditional stone carvings to contemporary handicrafts made with glass flints and mirrors.(1)

The most well-liked crafts are metalwork, earthenware, pottery, and sculpture. woodwork, hand-printed clothing, shawls, zari products, stone carvings, embroidered and crocheted items, and counterfeit jewellery.

In India, there are numerous art and craft traditions that are influenced by social, economic, and regional considerations. The vibrant history and heritage of Indian crafts are largely responsible for the sector's current state. The majority of traditional crafts are still in demand today thanks to their practical qualities, accessibility to the general public, and success on both local and international markets.(2)

### 1.1.2 Indian handicraft Industry

India is a significant source of handicrafts for the global market. The Indian handicrafts industry is a cottage-based, highly labor-intensive, decentralised sector that is dispersed throughout rural and urban areas of the nation. Many artisans work in the crafts industry part-time. Over six million artisans (including those in the carpet trade) are employed by the sector, many of whom are women and members of the socially disadvantaged groups. (3)

India's exports of handicrafts from the major centres in Uttar Pradesh are Moradabad also known as the "Peetalnagari" (City of Brass), Saharanpur for its wooden articles, Ferozabad for Glass. The North Western state of Rajasthan has to offer the famous Jaipuri quilts, Bagru and Sanganer printed textiles and wooden and wrought iron furniture from Jodhpur. The coastal state of Gujarat comes with embroidered articles from Kutch. Narsapur in Andhra Pradesh is famous for its Lace and Lace goods. The craftspeople show their creativity using a variety of media. Textiles, precious and semi-precious metals, wood, valuable and semi-precious stones, ceramics, and glass are just a few materials that showcase the diversity of handicrafts. (4)

## 2. Materials and Methods

### 2.1 Materials

#### 2.1.1 Palm fibre

Palm fibre is a hair-like strand of material. It is flexible and can be spun or twisted for weaving, breaking, knotting, crocheting, etc to make desired products. Natural fibres have been used in all cultures for making millenarian products. Different parts of the plant are used. Fibres can be extracted palm stem & palm leaf. In some places of our curtain material, this fibre serves as the weft.

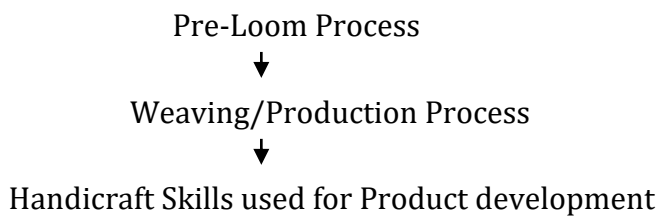


**Fig. 2.1 Palm Fibre**

### **2.1.2 Cotton yarn**

Cotton yarn is used in both the warp and weft directions in this creation. In accordance with the product specification/design, several counts (2/17<sup>s</sup>, 6<sup>s</sup>, 0.5<sup>s</sup>) are employed in various sections.

## **2.2 Methods**



### **2.2.1 Pre-loom process**

Scouring & bleaching



Dyeing of raw material



Bobbin and pirn winding



Warping



### Drafting and denting

**Scouring:** To remove natural impurities of essentially hydrophobic character (oils, fats, waxes, etc) as completely as possible and leave the fabric in a highly absorptive condition without undergoing significant chemical or physical damage.

**Bleaching:** Bleaching is a process by which the natural colouring matter is removed from the natural fibres or process discoloration is removed from the man-made fibres. For example, scouring of cotton removes all of the natural impurities except the natural colour of the fibre. This colour is of no harm to the fibre except that it reduces fibre whiteness.

Dyes can be said to be coloured, ionising and aromatic organic compounds which shows an affinity towards the substrate to which it is being applied. It is generally applied in a solution that is aqueous. Dyes may also require a mordant to better the fastness of the dye on the material on which it is applied.

#### Reactive Dye

Dye Stuff used: For Red Colour - Red M8B-5%

For Green Color - Blue MR+ Yellow MGR

**Bobbin Winding:** Bobbin is the example of flanged package in this type of package the yarn as with drawn to the sides of the package and itself rotate while withdrawing the yarn from package. 20 bobbins are winded for warping purpose.

**Pirn Winding:** A well dressed hank of yarn is placed over the swift and spread well with the help of leasing twines. All the seven leas are spread well. The leading end of hank tied with leasing twine is properly located and taken for winding. Break the leasing twine. A bobbin or pim is placed on the spindle. Attach heading end of the thread to the bobbin or pirn and start winding. The handle is rotated with right hand and the thread is guided on the package with uniform traverse and winding is completed.

**Warping:** The objective of the warping systems is to present a continuous length of yarn to the succeeding process with all the ends continuously present and with the integrity and elasticity of the yam as wound; fully preserved.

**Drafting:** Drafting or drawing-in is the process of passing the warp ends through, heald or heddle eyes. In this development skip/broken draft is used, the order of drawing ends through the healds is not in direct order (1, 3, 2, 4). This system of drafting helps to reduce friction between adjacent warp threads ends closed when during shedding.

**Denting:** Warp ends during weaving are spaced out across the width of the warp sheet according

to the desired density by the wires of the reed. The most frequent order of density is one, two, three, four ends per dent. Here denting order used in body is 2/dent and selvedge is 4/dent.(6)

## **2.2.2 Handicraft techniques adopt for product development**

### **2.2.2.1 Weaving Process**

Table loom is used for product sampling. This loom having 10 harnesses, which is suitable for weaving samples. The breast beam is 13 cm above table height when on the loom on the table. By using the floor stand, can weave comfortable with a chair of ordinary height. The loom is equipped with a beater that slides along two metal rods. In this way the reed is always vertical and beating goes in the best way. Table loom is equipped with metal healds of 24 cm.

The levers (in front of the loom), can obtain a perfect, progressive shed: i.e. the harnesses at the back rises higher than those on front, so in front of the reed the rising warp threads are in the same plane. Two different weave structures are adopted for product development. Maximum heald arrangement for the above purpose is four. For the insertion of Palm fiber, 1/3 twill is selected and results better prominence. For embroidery, block printing and fabric painting portion cotton construction with plain structure are selected.

### **2.2.3.1 Wood block printing**

It is the process of printing patterns on textiles, usually of linen, cotton or silk, by means of incised wooden blocks. It is the earliest, simplest and slowest of all methods of textile printing. Block printing by hand is a slow process. It is, however, capable of yielding highly artistic results, some of which are unobtainable by any other method.

Printing process:

The printer commences by drawing a length of cloth, from the roll, over the table, and marks it with a piece of coloured chalk and a ruler to indicate where the first impression of the block is to be applied.



**Fig. 2.2 Printing of Fabrics**

### **2.2.3.2 Embroidery**

It is the handicraft of decorating fabric or other materials with needle and thread or yarn. This craft made on the cloth lasts long and make the fabric look attractive. Stitches play an important role in the way embroidery might look.

Steps for Hand Embroidery

1. Obtain fabric, an embroidery hoop, an embroidery needle (largish eye for your heavier thread) and some embroidery floss or yarn. A loose weavable fabric is a good choice for your first projects.
2. Stretch the fabric taut using the embroidery hoop. An unstretched fabric will wrinkle and become difficult to work with as snug down the stitches.
3. Cut floss, yarn, or heavy thread to a length of approximately 25 inches (63.5 cm). This is long enough to make some nice stitches and short enough so that it will not tangle easily.
4. Thread the needle.
5. Tie a knot in the end of the thread/floss/yarn.
6. Poke the needle through the fabric from the back side. From here on out, it's a matter of placing stitches where want them so that they form an outline or shape that is pleasing.



**Fig. 2.3 Fabric Embroidery**

#### **2.2.4 Curtain Sewing**



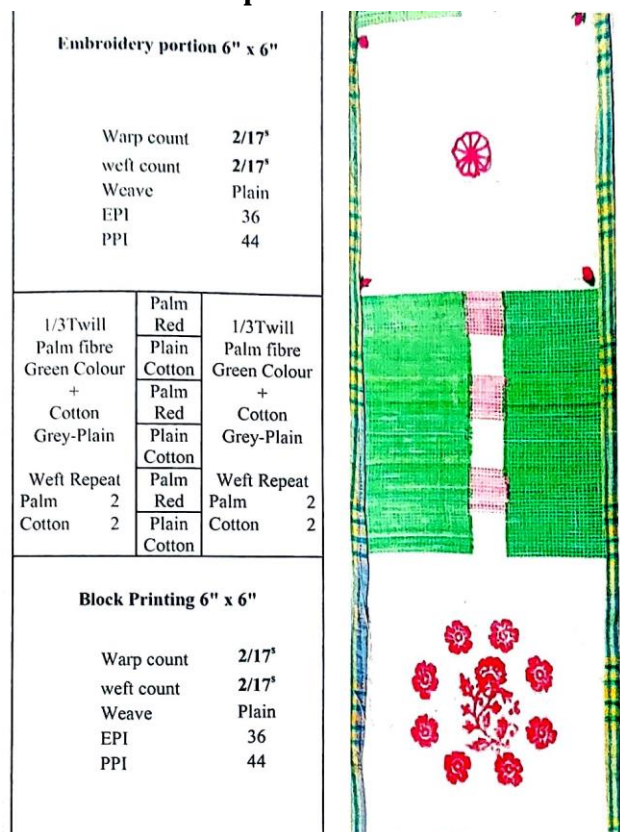
**Fig. 2.4 Curtain stitching**

### **3. Construction details for curtain Fabrics**

Warp count :  $2/17^S \times 2/17^S$   
Weft count :  $2/17^S \times 6^S$   
Reed Count :  $40^S$   
Reed width :  $1''+5''+1''$   
PPI : 36

Total ends : 640  
 Body/Selvedge :1/3Twill  
 Drafting Order :1.3.2.4  
 Denting Order :2/dent  
 Width : 8"  
 Length : 132cm  
 Warp colour : White  
 Weft colour : Red, Green, White  
 Item : Curtain  
 Material : Warp-Cotton  
 Weft-Palm fibre, Cotton

### 3.1 Schematic representation of Curtain sample



**Fig. 3.1 Schematic representation of Curtain sample**

### 4. Fastness Test



#### **4.1 Colour fastness test-palm fabric portion**

Principle: A specimen of textile in contact with piece of specified adjustment fabric is mechanically agitated in soap solution rinsed & dried. The changing colour of the specimen & staining of the adjustment fabric are assessed with grey scale.

Apparatus: Washometer

Procedure: The sample is cut at a size of 10x4cm. Two adjustment fabric of the same size is made. One of the same kinds of the fibre as that of the tensile to be tested. The second piece of the fibre as indicated.

Standard-1

MLR - 1:50

Soap - 5 gm/litre

Time - 30 min

Temp - 40 degree

Place on the composite specimen in a contain & added to it necessary amount of soap solution (5gm /litre) previously heated to 40 degree to give MLR 1:50 heat the specimen in cold water and than in cold running tap water and squeeze it and dry it.

Result:-

1. SDC standard grey scale value for assessing change in colour
2. SDC standard grey scale value for stain colour 4

#### **4.2 Light fastness test-palm fabric portion**

Apparatus: Light fastness tester blue wool standard grey scale

Principle: The essences of the test is two expose the sample under to the light source together with eight wool reference standards. The sample and blue wool standards are partially covered so that some of the material fused and some is left unfaced. The rating is given to the sample which is the number of reference standard which is the number of reference standard which shows a similar visual contact between the exposed and in exposed portion as the specimen This means that the specimen will be given a grade between one poor light fastness, highly, & highly resistant of fading.

Procedure: Economical in the case of blue wool light fastness standard and permit a large number of place stripe of the blue standards in the correct numerical order one above the other in one rectangular cell. Place the specimen in other rectangular cell or in a cylindrical cell which even are available.

In rectangular cell the controlled area or each standards or specimen is automatically covered by the frame work and numerical unexposed to light. Expose to light until blue standards on fades to a contrast equal to grade 3 on the grey scale. Compare the change in colour of the test specimen

with the change which have accord in the standard the light fastness of the specimen to the number of the standard which show similar changes in colour

Result:-

Numerical rate of change in colour in grey scale - 3/4

Numerical rate of blue wool standard - 3/4 (10)

## 5. Conclusion

The goal of this initiative is to "Add Value to Handloom Fabric Using Handicraft Skills." We endeavoured to realise our vision. The items made from palm fibres in this research were woven into strands as fine as human hair. Customers were drawn to the gorgeous wall hangings we produced because of the flexibility and strength that Palm fibre provides. We learned that every palm trunk that satisfies their standards is treated by submerging it in water, followed by arduous beating, to yield the highest-quality fibre.

One of the integral textile items is cloth made on a handloom. Instead of using additional capabilities, we use handicraft abilities to boost the market value of our handloom cloth. We point out that handicraft skills are used in handloom fabrics to enhance the fabric's worth. The usage of natural fabric in the decorative motifs adds to the product's allure. With the help of this successfully completed project, anyone can comprehend the idea of handicraft expertise adding value to handloom cloth.

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