

Product Development Using Block And Batik Printing

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Abstract: This work explores the traditional techniques in textile printing as means of promoting the traditional craftsmanship of artisans. The trend in fashion is dynamic and influential and the people's choice for fabrics keeps changing. Therefore, this article gives awareness to people and to explore about the traditionally printed fabrics. Field study gave wide knowledge about the block and batik printing and it reveals that if the existing traditional printing techniques are taken and creatively used, they could give interesting results in printed textile designs that could provide unique handcrafted printed fabrics to consumers in the form of home textiles and apparels products.

Keywords: Traditional printing, Batik, Block, Product Development, Home Textiles, Appare

I. INTRODUCTION

Printing is a process of reproducing images or designs from a template to the substrate. Printing started in 3500 BCE, where cylinder seal made of clay were used by Persian and Mesopotamian civilizations to print the fabrics. (VanrednoIzdanje, 2016) India is known for its dyed and printed cloth since 12th century. According to records, the printing centers were present all over India. The earliest block printing Centers were located in Andhra Pradesh and Gujarat. Then the craft was spread gradually with the migration of craft workers. Centers such as sanganer in Rajasthan, rose in 18th century and other Centre's such as serampore developed later, and it became the hub of block printing in West Bengal (Indian Express).

A. BLOCK PRINTING

Textile Printing is a discontinuous process where the color is applied on to the fabric in specific patterns or designs by using natural and synthetic dyes. According to (Debojyoti

Ganguly,2013), Hand Block Printing is a method where the wooden blocks which are carved to specific design, covered with dyes are repeatedly pressed onto the fabrics. It was originated in China towards early 3rd century. More to that (Gillow, 2005) claims that there were samples in the fourth century A.D from burial site in Egypt. And the printing blocks, were used in India during fourth century B.C. In the 8th Century, wooden blocks were generally used for printing on paper and later on they were used for printing on textile materials. In India, the art migrated from Gujarat to Rajasthan and eventually to West Bengal. The blocks are classified into wooden and metal blocks. Wooden blocks are hand carved by craftsmen. On the bottom face of the wood are the motifs carved. Each block has wooden handle and two to three cylindrical holes for free air passage. To soften it, after carving it is soaked in oil for 10 to 15 days. Since different colors occupy different shapes in the design, separate blocks had to be carved for each other. Metallic sheets are beaten by hand and made thin. They are then cut into strips of even length. The design is drawn on the wooden block and then the sheets are pressed onto it. Brass blocks are used in case of

very fine designs. British designers in 1800's found inspiration in Indian floral motifs, of which paisley pattern is commonly loved. They used elaborate geometrical, animals, birds, dancing women, god motifs and contemporary motifs (VanrednoIzdanje 2016).

B. BATIK PRINTING

Batik Printing refers to the art of fabric dyeing, by using wax resist technique (Stephen T.F. Poon; 2017). The word "batik" was derived from Javanese word meaning wax writing. The ancient method of applying designs were made by resisting the woven fabric using melted wax, rice, paste and some non-water dissolve substance. The fabric is later submerged in dyes or painted. The batik is known to be existed for over 35,000 years, used mostly among Austronesian communities living in Southeast Asia. Moreover (Dunsmore,1996) further explained that the earliest known batiks dated to 4th-5th century AD, in Egypt done on linen cloth with white patterns. It was first practiced by the Egyptians but reached its high development in Java. Resist dyeing has a good geographical distribution, historically found in all continents except the Pacific island and Australia (Boehike 2005). Batik is applied in all formal and informal wears. In Malaysia, clothing such as Bajukurung, Baju Kedah, Bajukebaya and Bajumoden are evening dresses with batik in silk. Batik gowns both long and short are popular formal wear for Malays and non-Malays. Batik lends beautifully to casual wear such as wraparound sarongs, dresses and tops, lose palazzo pants, kaftans and headscarves. Nowadays, contemporary batik artists work equally in linen, denim, wool, leather, paper, wood and ceramics in addition to cotton and silks. Batik rapidly became a versatile yet affordable decoration material for interior designers and in home and furnishings of cotton or silk. (Suleiman Sunkanmi Oparinde, 2012).

II. MATERIALS

A. BLOCK PRINTING AND BATIK PRINTING

a. COTTON FABRIC

- ✓ Plain Weave with the yarn count of 30'sNe where EPI is 64 and PPI is 55 with GSM of 65 and Kota Weave is used.

b. CHEMICALS

- ✓ Binder (SLN) is the film forming substance made up of long chain macro molecules which, when applied to textile together with the pigment, produce a three dimensionally linked network.
- ✓ Sodium Hydroxide is used as a fixing agent to improve the colour fastness of the dye on the fabric.

c. DYES

- ✓ Indigo is the oldest dye that is traditionally which is

derived from indigofera tinctorial. It is commonly known as Vat Dyes.

d. WAX

- ✓ Paraffin Wax is a soft colourless solid, derived from petroleum, coal or shale oil, consists of a mixture of hydrocarbon molecules which resists the dye in the fabric.

e. TOOLS

- ✓ Wooden Block, Dye pad, Weighing Machine.

III. METHOD

A. PRODUCT 1 - WALL HANGING

a. DESIZING

A cotton fabric was taken and de-finished to remove the starch so that the dye could easily penetrate into the fabric and retain well. It is dried for one day under natural lighting and air.

b. DYEING

Then the fabric was dyed using diamond yellow VAT dye in the required quantity. Since we needed a light shade 0.5 % (2.5mg) of the dye stuff was taken and vatting was done. Then the fabric was dipped into the dye bath for a few minutes and the fabric was oxidized. Then it was allowed to dry completely for 2 days to prevent the spreading of the dyes while printing. The fabric was allowed to relax for a few minutes and then stretched on either direction to achieve original shape.

c. PRINTING PREPARATION

The fabric is placed on the table and then the creases are removed with the help of a scale. Then the fabric was pinned onto the printing table tightly without any creases or wrinkles. Once the pinning is done, the blocks are chosen and arranged on the fabric in the required areas. The nayanmargal mural blocks were chosen. Then the filling colours are chosen and prepared.(peacock green, yellow, red). Black is used for the outline. Now the outline block is printed on the fabric and allowed to dry for a day. Then the first filling colour was filled using blocks followed by the second and third colours each after the other is dried.



Figure 1: Pinning of fabric

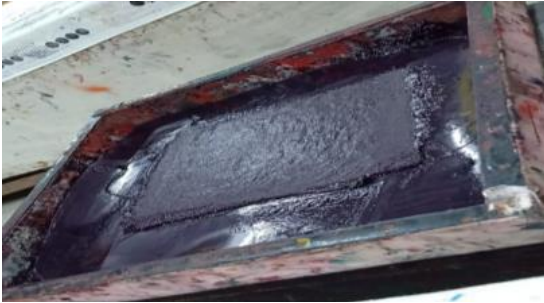


Figure 2: Dye Pad



Figure 3: Outline



Figure 4: Filling

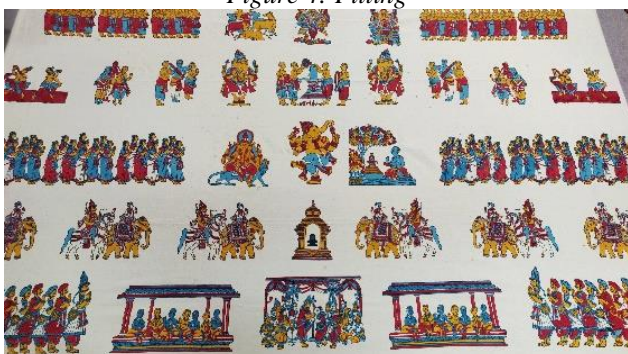


Figure 5: Final Design

B. PRODUCT 2 – SAREE

a. DE-FINISHING

A saree of size 6m was taken and de-finished to remove the starch so that the dye could easily penetrate into the saree and retain well. It is dried for one day under natural lighting and air. The saree was allowed to relax for a few minutes and then stretched on either direction to achieve original shape.

b. PRINTING

The saree was placed on the table and then the creases are removed with the help of a scale. Then the saree was pinned onto the printing table tightly without any creases or wrinkles. Once the pinning is done the blocks are chosen and arranged on the fabric in the required areas. The nayanmargal mural blocks were chosen. Then the filling colours are chosen and prepared. (Peacock green, yellow, and red). Black is generally used for the outline. Now the outline block is printed on the saree as a border and on palu as per our design and allowed to dry for a day. Then the first filling colour was filled using blocks followed by the second and third colours each after the other is dried.



Figure 6: Outline



Figure 7: Filling 1



Figure 8: Filling 2



Figure 9: Filling 3



Figure 10: Final Design

C. PRODUCT 3 - WALL ART

a. DE-SIZING

- ✓ A plain white poplin cloth was taken and de-finished to remove the starch.

b. WAXING

- ✓ Choose the blocks for waxing the fabric according to the design required. Prepare the table for waxing the fabric. Using the batik block (maple leaf design), the waxing was done all over the fabric as required.



Figure 11: Designing Using Waxing

c. DYEING

- ✓ Then the fabric was dyed with yellow color and dried for more than two hours under the sun.



Figure 12: Dyeing

d. WAXING

- ✓ Using the dragon fly block the yellow fabric was waxed in the required places and let it dry for 1hour.

e. BLEACHING

- ✓ Then the fabric was bleached to remove the yellow color except the waxed areas.

f. DYEING

- ✓ This bleached fabric was again dyed with orange color to fill the background areas and let it dry under the sun.

g. DE-WAXING

- ✓ After this the whole fabric was de-waxed to remove the waxes and let it dry.



Figure 13: Final Design

D. PRODUCT 4 – SHAWL

a. DE-SIZING

- ✓ A plain white stole was taken and de-finished to remove the starch.

b. WAXING

- ✓ Choose the blocks for waxing the fabric according to the design required. Prepare the table for waxing the fabric.

c. DYEING

- ✓ The fabric was dyed with green color and dried for more than two hours under the sun. Using the leaf block the green fabric was waxed from one corner to the other diagonally and let it dry for 1hour.

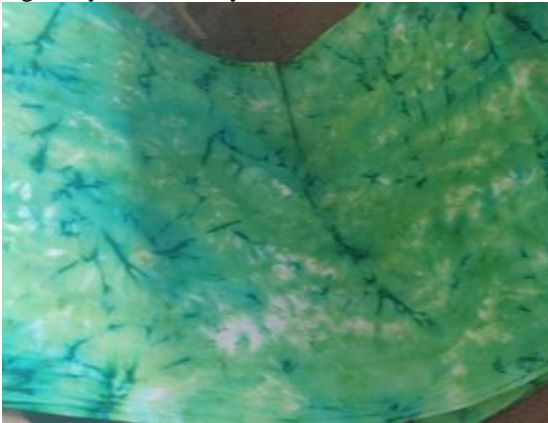


Figure 14: Dyed Fabrics

d. BLEACHING

- ✓ Then the fabric was bleached to remove the green color except the waxed areas.

e. DYEING

- ✓ This bleached fabric is again dyed with multi colors.

f. WAXING

- ✓ And in this fabric waxing was done using the butterfly blocks in the random places and allowed to dry for half an hour.



Figure 15: Waxing

g. BLEACHING

- Then this fabric again bleached to remove the multicolor in the unwanted areas and dried under sun.

h. DYEING

- ✓ This fabric was again dyed with pink color to fill the background areas and let it dry under the sun.

i. DE-WAXING

- ✓ After this the whole fabric is de-waxed to remove the waxes and let it dry.



Figure 16: Final Design

IV. RECOMMENDATION

Creating awareness among people about the traditionally printed fabrics may turn this to a trend to move towards the ancient ethnic arts of the country. As a result of which block and batik printed fabrics will become popular day by day. Workshops and clusters can be conducted for the unskilled labors in the interior of the village to promote block and batik printing which helps them to come out of the poverty line.

V. CONCLUSION

In the recent years the traditional methods are coming into fashion day by day. One of the important factors in the development of a country is to make people to know about the country's culture, so that they can help in sustaining their traditional arts. Analysis of this field work helps us to develop the products in home textiles and apparels such as wall hanging, saree, wall art and shawl.

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