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Block and Fresh Leaf Printing on Khadi Fabric Printing

Fabric Printing by Prof. Bibhudutta Baral and Srikanth B. NID Campus, Bengaluru

Source:

https://dsource.in/resource/block-and-fresh-leaf-printing-khadi

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Introduction

NIndia is blessed with a heritage of diverse and rich textile tradition, possessing the immense potential to gather resources to make and decorate textile items. Here the geographical conditions and climate facilitate the production of plant fibers and dyes directly from nature, keeping the craft an unrivaled affair among other means, which includes synthetic fibers and harmful chemicals.

Tracing back to its history, the legacy of Indian textiles is believed to have originated from the Indus valley civilization. Their remains left marks of needles made of bones, wooden spindles, tools suggesting the production of cotton garments, etc. Fragments of woven cotton garments were unearthed from Harappa and Mohenjo-Daro sites. Ancient scriptures like Rig Veda, Ramayana, and Mahabharata, also carry chapters that refer to weaving and natural fibers, highlighting the varieties of fabrics produced in those times. India also shared great bonds with foreign lands based on trade links that exchanged textile items, making the country a binding option for their clothing needs, especially for countries like Rome, Egypt, China, and parts of Europe. With the shooting popularity of Indian textiles, the East Indian Company also chose to import Indian cotton and silk fabrics to their land, until Britishers colonized India. Then from the 19th century, the new political power and the advent of the industrial revolution, lead to the downfall of Indian traditional textiles. The exports were brought down and slowly machine-made goods from 'Lancashire' flooded the Indian market. Thus Indians were forced to buy them at higher prices. As a result, the traditional textile industry sunk, forcing the population to take up agriculture as a means for livelihood. In 1918, Mahatma Gandhi initiated a Khadi movement for rural self-employment and self-reliance, mainly to prevent the poor section of the society from unjust textile rules, thus making Khadi a symbol of the Swadeshi movement. This lead to Indians boycotting foreign clothes and cultivating cotton in their lands, sufficient for their needs. It was for economic, cultural, and social reasons and not merely political that Gandhi established the Khadi Movement.

Block printing is believed to have been discovered by Chinese artisans in the early 3rd century. Shreds of evidence of the technique were also excavated from places like Egypt, Europe, and some Asian countries. It is from these countries, it spread to other parts of the world. The materials used for block making included wood, porcelain, and metals, where the wooden block was the most preferred in ancient times and metal blocks are the new favorite in this modern age. In hand block printing, the wooden block is made out of a wooden piece chiseled and carved with an indented design, using a hammer, file, nails, etc. At times, linoleum blocks are also used for printing purposes.

Magan Sangrahalaya Samiti (MSS) based in Wardha, Maharashtra, is a non-governmental organization that started in 2003, which aims to empower the women community from the rural areas of the district while restoring traditional crafts of Indian culture. It supports self-help groups and micro-enterprises that rests on eco-friendly means, run by women. The institute runs a historical museum named Magan Sangrahalaya, the only museum

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in India founded by Mahatma Gandhi in the year 1938, dedicated to the artisans of India. Khadi making is one of the major occupations of the people employed here. MSS has been regarded for their development of new techniques of natural dyeing and recycling the effluents of a natural dyeing unit, by the Department of Science and Technology, Govt. of India, which has taken the unit a long way in their eco-friendly operations run. Hence the textile unit of MSS could replace the chemical dyes, a major health hazard for artisans working in the textile units and a potential environmental pollutant, with organic dyes of 200 hues derived from local forest produce. Also, they introduced a new technique of fresh leaf printing, as a low-cost alternative to block printing. This is practiced under the training and guidance of Mr. Mukesh Lutade, Director of Khadi and Natural Dyeing Department at Magan Sangrahalaya Samiti.



A photo of artisan Mr. Mukesh Lutade and his family, from the Magan Sangrahalaya Samiti, Wardha.

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A social reformer Acharya Vinoba Bhave.





A view of the Magan museum.

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A glimpse of the Spinning section at Magan Sangrahalaya Samiti.

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Organic dye-making area.

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Tools and Raw Materials

Following are the tools and raw material required for block and fresh leaf painting:

- Blocks: It is used to transfer the dye and the designs on to the fabric.
- Fresh Leaves: It is used as a block to print the shape of the leaf.
- Natural Dyes: These are the ones, which creates the design pattern and colours on to the fabric.
- Khadi: It is a hand woven cotton cloth on which the block printing is done.
- **Printing Table:** Lengthy table used to accommodate the lengthy cloth during the printing.
- Colour Sieve: The container used to hold the colour during block printing.
- Paper: It is used to cover the area on the fabric which is not to be dyed or printed.



Blocks carrying varied patterns being arranged on a shelf.

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Types of machinery used for the dyeing process.

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Cotton thread spinning wheel.



Handloom weaving.



Knot dyed thread.

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Cotton thread after spinning.



Organic ingredients used for making dye.

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Madder root (Rubia cordiafolia).



Equipment used to fold the clothes.



The machine used to iron clothes.

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The machine used to dye the clothes.



The brush is used to make Kasim line printing.



Regulator to operate the spinning machine.



Terminalia bellirica (baheda) used for making natural dye.

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Thread rollers.



Different coloured threads are used for stitching and weaving.



A shuttle is used in the weaving machine, which runs horizontally with the thread.



Organic herb to obtain red colour dye.

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Making Process



Dye Preparation



Block Printing



Leaf Printing

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Dye Preparation

The dye for fabric printing is prepared in the traditional style using all-natural ingredients. The colour Black is a result of a combination of iron, jaggery, and water, set through a particular processing technique to achieve the colour. Here the mixture is fermented for fifteen days in an earthen pot. After fermentation, it is added with tamarind seed paste and blended to a particular consistency to gain a brown colour residue. This mixture, when it comes in contact with the fabric, which is dyed with Beleric Myrobalan, a chemical reaction takes place and thus the brown colour turns black, giving a black colour design over the fabric.

Flow Chart

- 1. Black colour is obtained by mixing iron, jaggery, and water.
 - 2. The mixture is fermented for fifteen days in an earthen pot.
 - 3. Then, the mixture is added to tamrind seed paste and blended well. This paste appears brown in colour and ready to use.
 - 4. A fabric is dyed with beleric myrobalan before printing.
 - While printing with brown paste, it turns into black colour when it comes in contact with dyed fabric.

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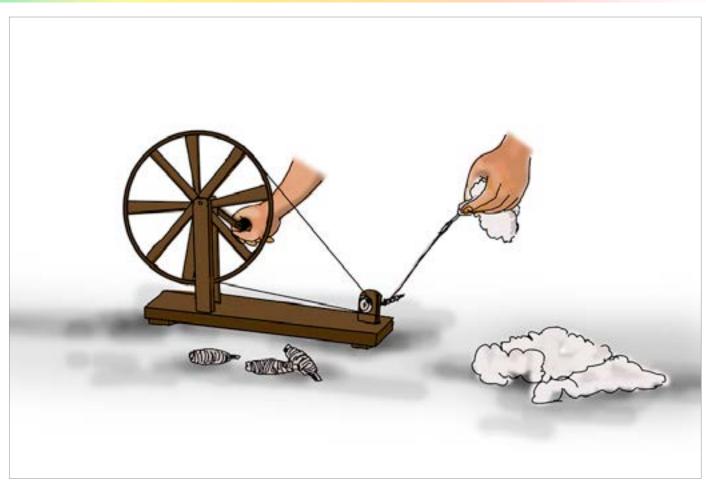
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A glimpse of the yarning process where the cotton fiber is turned into threads

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Female employees working on the spinning of threads, An artisan tying the spin thread for wrapping. where thicker versions are made out of thin threads.





A view of the small rollers that receive the thread.



Khadi Weaving process.

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Organic ingredients being added to boiling water during the preparation of the dye



The mixture for natural organic dye comprises iron, jaggery, organic herbs, and water.







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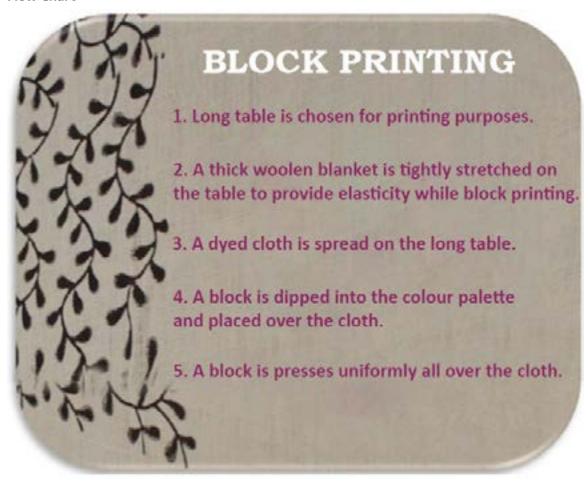
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Block Printing

A long table is chosen for block printing, spreading the dyed cloth over it for comfortable printing. On the table, a thick layer of the woolen blanket is tightly stretched to provide the required elasticity to the block and thus achieve better impressions. The block is dipped into the colour palette and the coloured block is placed on the cloth. Then after steadily placed, the block is pressed on its back for a uniform impression. The second impression similarly took place considering the first print. This helps in joining two prints exactly and the pattern is continued without a break. This process goes on until the length of the cloth is fully printed in an intended manner.

Flow Chart



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Ink or dye is poured into a pallet.



The block is dipped into the colour palette to absorb the ink.

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Block being pressed on the cloth.



The block is placed over the cloth, as per the indented pattern and style.

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The block is hammered twice or thrice for a firm good impression.



Block being lifted free.

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This block printing technique gave a beautiful design on the cloth.

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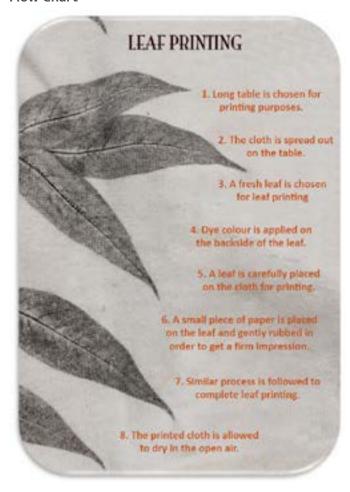
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Leaf Printing

A fresh and supple leaf is selected for leaf printing. Here dried ones are not preferred as they crumble during the process, affecting the flow of patterns. The chosen leaf is first applied with dye colour on its rear side and is carefully placed on the fabric to be printed. Then placing a small piece of paper over the leaf, it is gently rubbed to achieve a firm impression on the fabric. This is repeated for every pattern to be printed and the cloth is then allowed to dry in the open air. Using a single leaf more than 200 motifs can be printed. For an aesthetically attractive set of designs, a combination of differently shaped leaves and patterns is also stamped to the same fabric.

Flow Chart



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A dye colour is applied on the rear side of the fresh leaf Another cloth is kept over the leaf and pressed. placed on the cloth.

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Slowly the leaf is removed.



This is a simple but effective procedure to make beautifully printed handlooms.

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After the printing process, the cloth is sent to the tailoring section where the fabric is shaped into the desired product ranges by a tailor.

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Products

The block and leaf printed products at MSS include sarees, shirts, bags, curtains, handkerchiefs, etc. The price of the saree range starts from INR 2500, bags at around INR 450, and shirts cost INR600 onwards.









Different types of fresh leaf prints.

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Fresh leaf prints with different textures and designs.



Types of prints in two different frames.



Block prints with unique desi impression.



Kasim line technique designs.

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Various designs are made from the Kasim line technique.



Finished products from block printing, Kasim line technique printing, and leaf printing, being arranged in an array for sale.

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Fresh leaf prints on T-shirt, suitable for all the genders.

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Video



Handloom Khadi Weaving Process



Dye and Block Printing Process



Leaf Printing

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Contact Details

This documentation was done by Professor Bibhudutta Baral and Srikanth B. at NID, Bengaluru.

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