

GRADE : VIII



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COLLAGE OF PICTURES BLOCK PRINTING



FOREWORD

NEP 2020

IMPORTANCE OF SKILL EDUCATION

The national educational policy 2020 propagates experiential and skill-based learning.

It also recognizes the importance of soft skills such as communication, team work, problem solving, decision making, analytical thinking, resiliency, etc. as imperative life skills.

NEP 2020 has broken the shackles of subject choices being limited to the traditional domains of Science, Commerce and Humanities and allows to cross sectional course selection and gives students the opportunity to enhance their core skills. The inclusion of vocational training is also being supported strongly.

This skill education manual is also a series in this endeavour.

TAGORE INTERNATIONAL SCHOOL

MANSAROVAR, JAIPUR

CLASS: VIII BLOCK PRINTING

CHAPTERWISE LEARNING OBJECTIVES AND LEARNING OUTCOMES

Unit	Topic	Learning Objectives	Learning Outcomes
1. Introduction to weaving and The Idea of Block Printing Recommended stories/ videos/activities	1. Weaving and its process 2. Types of weaves 3. Textile fibre classification chart and various types of textile fibres 4. Idea of Block Printing 5. Reason behind the popularity of Hand Block Printing 6. Advantages of Block Printing 7. Traditional textiles of Rajasthan Yarn Counts of yarn * Learning paper weaving (Art) * Visit to “Weavers Centre” Jaipur * Traditional Indian weaving: Visit to Victoria and Albert Museum	1. Learners will explore and identify textile weaving and the idea of Block Printing 2. Learners will appreciate the efforts put in by craftsmen. 3. Learners will acknowledge the skill and concentration exhibited by craftsmen.	1. Learners will acquire knowledge the key steps used in the process of weaving and the idea of Block Printing. 2. Will appreciate the intricacies involved in the weaving process. 3. Will learn how to weave by doing the activity (art).
2. Introduction and Evolution of Block Printing Recommended stories/ videos/activities	1. Block printing and tools 1. (a) Types of Block painting 2. Steps of Block Printing * Block printing by using different vegetables	1. To comprehend the process of using block with inked impression. 2. To identify and explore specific block printing, textiles, designs and process. 3. To create awareness about the effect of places and climate on the style and colours of motifs and design.	1. Learners will be able to understand the basic requirements for Block Printing. 2. Learners will develop an interest and respect for the legacy of Block Printing.
3. Hand Block Print: Way of Textile Dyeing Recommended stories/ videos/activities	1. Dyeing and its objectives 2. Different methods of dyes (a) Natural Dyes (b) Synthetic Dyes * Fabrics of India movie to be shown * Handloom tour of all 28 states (Power Point Presentation)	1. To educate learners about the concepts and features hand block textile dyeing.	1. Learners will be familiar with the importance of natural dyes. 2. Learners will be able to compare natural and synthetic dyeing processes.
4. Block Printing Activity: How to create block patterns? Recommended activity	1. How to create block patterns? 2. Stepwise guidelines * Learner will follow the guidelines given in the manual to make hand block patterns.	1. Learner will learn the process of making hand block prints. 2. Learner will learn to apply block prints on the fabric.	1. Learner will be able to make a hand blocks with different patterns.
5. From Survival to Revival (Block Printing)	1. Gandhiji's contribution for revival of Khadi and self- reliance. 2. Problems related to block printing. 3. Organising cooperative societies. 4. Generating employment	1. Learners will study about the problems of labourers. 2. Will study about the hurdles/ obstacles that come in the upliftment of craftsmen. 3. Learners will learn the contribution of Gandhiji for the revival of Khadi and self reliance.	1. To develop respect towards dignity of labour. 2. To foster in opening of new vistas for art lovers. 3. To preserve the legacy by blending modern techniques with traditional ones.

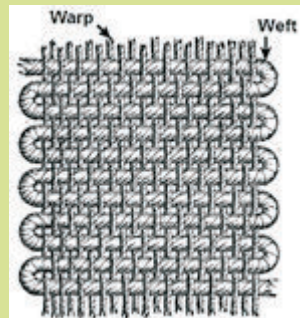
Unit	Topic	Learning Objectives	Learning Outcomes
Recommended stories/ videos/activities	<ul style="list-style-type: none"> * Panel discussion on blending of scientific innovations with traditional craft technique * Handmade in India(Movie) * All about Sanganeri Hand Block Printing (Documentary) * Interviews of Craftsmen at the work place * Celebration of National Handloom Day * Exhibition of artifacts and products prepared by the students during the academic year. <p>Proceeds from the exhibition to be used for welfare of the craftsmen.</p>		

UNIT 1 Introduction to Weaving

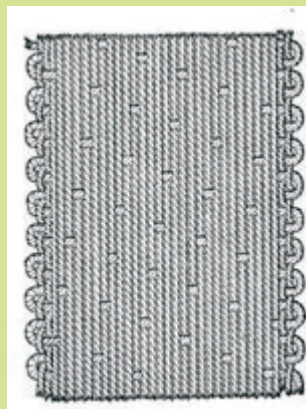
1.WEAVING AND ITS PROCESS

Weaving is a method of textile production in which two distinct sets of yarns or threads are interlaced at right angles to form a fabric or cloth. Other methods are knitting, crocheting, felting, and braiding or plaiting. The longitudinal threads are called the warp and the lateral threads are the weft, woof, or filling. (*Weft* is an old English word meaning "that which is woven"; compare *leave* and *left*. The method in which these threads are interwoven affects the characteristics of the cloth. Cloth is usually woven on a loom, a device that holds the warp threads in place while filling threads are woven through them. A fabric band that meets this definition of cloth (warp threads with a weft thread winding between) can also be made using other methods, including tablet weaving, back strap loom, or other techniques that can be done without looms.

The way the warp and filling threads interlace with each other is called the weave. The majority of woven products are created with one of three basic weaves: plain weave, satin weave, or twill weave. Woven cloth can be plain or classic (in one colour or a simple pattern), or can be woven in decorative or artistic design.



Warp and weft in plain weaving



A satin weave, common for silk, in which each warp thread floats over 16 weft threads

In general, weaving involves using a loom to interlace two sets of threads at right angles to each other: the warp which runs longitudinally and the weft (older woof) that crosses it. One warp thread is called an end and one weft thread is called a pick. The warp threads are held taut and in parallel to each other, typically in a loom. There are many types of looms.

TYPES OF WEAVES



Photo by: Fashinza.com

The art, science, skill, and talent with which threads are interlaced to create magical fabrics has had all of us intrigued and charmed every time. Yarns or threads are braided, bonded, knitted, crocheted, woven, and spun to get the end result: the fabric.



Photo by: Fashinza.com

There are 18 **types of weaves** that can be used for styling:

1.Plain Weave This is the most common and the most durable of them all. This is created by the simple interlacing of warp and weft threads. This weave produces very strong, durable, and very quality fabrics.

- 2. Rib Weave-** This technique is a variation over the previous method. The warp and weft threads of different weights are used here. As a result, there is an appearance of prominent ribs in the horizontal direction on the fabric.
- 3. Basket Weave-** This weave produces a very beautiful textile. Two or more warp threads interlace two or more weft threads. The pattern uses the over-over under-under technique to create the fabric, which has a matt finish and is much looser than the **plain weave**.
- 4. Twill Weave-** Here, one or more warp threads are repeatedly woven over and under one or more weft threads. This produces a self-design look on the cloth. The resultant fabric is soft yet very strong.

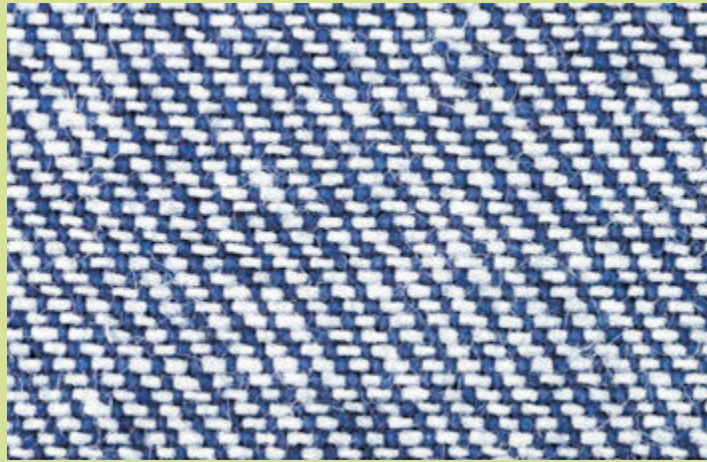


Photo by: Fashinza.com

- 5. Satin Weave-** This is a variation of the twill weave. Here, the warp yarn is continuous. The weave produces a fabric that is smooth and lustrous, which is also capable of snagging easily.
- 6. Sateen Weave-** This yarn uses both satin and cotton. The floats in the direction of the weft are continuous, with a few interruptions of the warp threads. The resulting fabric is not as lustrous as satin but is more durable.
- 7. Leno Weave-** The warp threads here are not parallel but are twisted over adjacent weft threads. This produces an open weave fabric that is very durable and strong.
- 8. Oxford Weave-** Two thin threads are woven with two thick threads in the weft direction. The thin yarns leave holes. This fabric is extremely soft and fine.
- 9. Honeycomb Weave-** The end result of the fabric looks like a honeycomb and hence the name. The weft and warp threads are interlaced so that they produce regular small square-like ridge patterns and hollows in the textile.
- 10. Pile Weave-** Soft pile fabrics are created using this technique. These are extremely absorbent and insulating. As the threads are uncut, they form loops on the surface. Ground and additional threads are used to create this fabric.

- 11. Herringbone Weave-** In simple words, this technique produces a weave that leaves a zig-zag pattern with right and left twills appearing alternately. The fabric thus produced is very strong and steady.
- 12. Jacquard Weave-** Intricate and colorful threads are woven into the loom. These fabrics can be made of one color or a mix of several colors, and some very intricate designs could be created here. The backside of the fabric has a mirror image of the design on the front.
- 13. Dobby Weave-** The weave is such that it displays a **plain weave** with small geometrical patterns. Special dobby machines create this weave. Some warp threads are raised, and some are suppressed with the help of a dobby card. The woven fabric is fine and flat.
- 14. Crepe Weave-** This type of weave also requires a special technique and high twist yarns.
- 15. Lappet Weave-** Warp threads are used to create machine-made embroidery-like figures on the fabric. The fabric looks very similar to one that has been hand embroidered.
- 16. Tapestry Weave-** Hand looming techniques are used here to weave the fabric. Very elaborate designs are made out of a single repeat. The intricacy of the designs comes through the numerous colors formed by weft and warp yarns.
- 17. Stripped Weave-** This weave replicates a pinstriped weave using a single thread resembling a straight line.
- 18. Double Cloth Weave-** Two fabrics are held together with another set of threads to produce this type of weave.

TEXTILE FIBRE CLASSIFICATION CHART AND VARIOUS TYPES OF TEXTILE FIBRES

CLASSIFICATION OF TEXTILE FIBRES:

Textile fibres can be classified in the following main categories:

- Natural fibres.
- Man-made fibres.
- Re-generated fibres.

NATURAL FIBRES:

“Textile fibres directly obtained from nature are called natural fibres”.

These fibres can not be produced by any type of chemical process. Natural fibres further can be classified into two categories according to their source of generation.

1. Animal fibres: wool, silk spider silk, rabbit hairs, camel hairs, goat hairs, yak.
2. Vegetable fibres: cotton, linen, jute, hemp, banana, kopok, kenaf, remie, raffia, sisal, coir, etc.

• MAN-MADE FIBRES OR SYNTHETIC FIBRES:

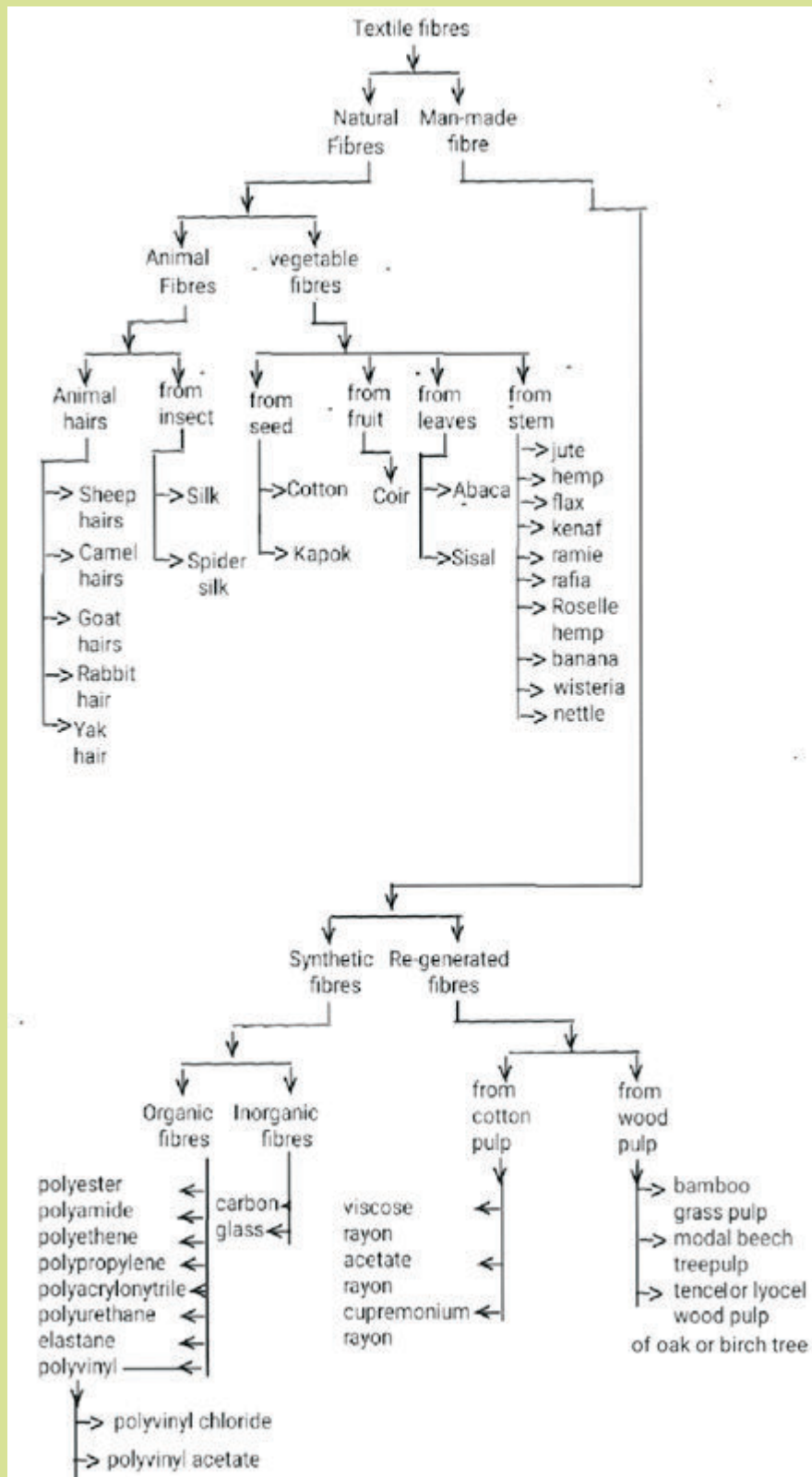
“Textile fibres produced by humans through one or more types of chemical process are called man-made or synthetic fibres”. These fibres are produced in laboratories and in industrial manufacturing units. These fibres are produced by the polymerization of a monomer of chemical compounds.

Few common examples are polyester, nylon, acrylic, polypropylene, elastane, polyvinyl acetate, polyvinyl alcohol, polyvinyl chloride, polythene, poly urethane etc.

• RE-GENERATED FIBRES:

These fibres can neither directly found from nature nor can be produced by using chemicals. “These fibres are re-generated from natural material using some chemical process”. Monomers are obtained by treating natural materials with chemicals. Common examples are rayon, bamboo fibres, modal, lyocell etc.

CLASSIFICATION CHART OF TEXTILE FIBRES:



Idea of Block Printing

Block printing is the art of transferring beautiful, artistic patterns carved on handmade wooden blocks onto fabric or paper. These patterns are inspired by nature, birds, animals, and popular motifs from around the world.

Said to have originated in China and dating back to 220 AD, this technique of printing artistic and symmetric patterns on the fabric traveled the world and was adopted in many countries. It spread through Japan, Korea, and the middle-eastern nations. After the 16th century, it flourished in India's Bombay (now Mumbai) and Punjab regions. This artwork reached its peak during British rule.

The Dutch merchants bought the printed cloth and other items from India and sold them in Europe. Persian and Mughal influences can be noticed by the use of ornamental creepers, animals, birds, and flowers.

Block printing is an intricate task and is still loved and admired by many around the world. It has not only flourished but thrived in India since then. Even today, entire districts are dedicated to the printing of these patterns. Prints are known from the name of the districts they're made in, as Bagh print comes from Bagh district in India, Sanganer, and Bagru from the same district namesake.

Reason behind the popularity of hand block print?

Hand block print is something so beautiful that everyone compels to take a look. There are so many reasons behind its popularity that you will surprise to know.

The first reason is the simplicity of the design that holds a separate place in the fashion industry. The fine detailing of the hand block print is something unique as the sharpness and accuracy of the motifs are extraordinary.

When the designers assemble different types and colors of designs on a large canvas of fabric like saree or shawl, then it can uplift the look too surreal beauty. With expertise, the artisans can easily create new blocks of design. Though there are metal and stone blocks are also available, the wooden one is the most popular for the capability of sharp detailing of any complicated design.

Advantages of Block Printing

The benefits of block printing include the following:

- The creative process of block printing allows you to make your own designs and patterns
- You may block print multiple textiles with one block, but because it is printed by hand, each textile would be different from another - making it special and unique
- Block Printing is a sustainable practice
- Block Printing with Natural Dyes is an eco-friendly process. It does not harm the environment
- This process supports the handmade community and their traditions that are passed down from generations. Block printing is not just work for Artisans, it is their way of life from generations. Supporting them - keeps their way of life flowing.

Traditional Textiles of Rajasthan

Famous Textiles of Rajasthan's Textiles are the product of centuries of fabric exploration, and handicraft skills. These woven textiles, which have been honed with finesse and intent, are the culmination of an oral tradition that has been passed down over generations. It's always a good idea to "buy local" - that is, to buy products made in our own communities of India.

Instead of shopping in urban shopping malls, we must go to small villages where we can find fabric, weaving, and embroidery that we won't find anywhere else in the country.

Famous Textiles of Rajasthan.



Source by: embroiderymaterial.com

After agriculture, the textile industry is India's oldest and largest industry. According to studies, the people of Harappan Civilisation knew how to weave and spin cotton, and references to this can be found in Vedic literature. Rajasthan, in the western part of India, is known for its ancient textile art, which employs fabrics such as cotton, Silk and wool are mixed to produce magnificent patterns and textures with vibrant colours. **Handmade textiles** decorated with wonderful designs and vibrant colours crafted by skilled craftsmen can be found at **Rajasthan Textile**. Rajasthan Textile is located in Jaipur, the heartland of Rajasthani textile, and offers a wide range of rajasthani textile. It is specialise in producing high-quality **fabrics**, the most valuable of which is the "**Tie & Die**" job, also known as bandhni in the area. In the form of vibrant **bandhej, laheria sarees and safa**, tie and dye work is common all over the world.

Rajasthan Textile is the "**Heartland of Hand Block Printing**" and represents the true essence of block printing, with the majority of the work being done by hand. The process is associated with home furnishings as well as cloth for personal wear. **Sanganer and Bagru** are the major block printing centres in Jaipur.

Rajasthani fabric is available in a wide variety of ornamented embroidery work for use in home decor and ethnic wear.

Rajasthani embroidery work designs include **khambadia**, **zardozi**, and **mirror work**, which can be seen on wall hangings, bed covers, and ethnic wears. This adds to the allure and modernity of the Jaipur textile around the world.



Source by: embroiderymaterial.com

Block Printing

Block printing is an ancient Rajasthani art that has been practised since the dawn of time. In Block Printing, natural colours are used. Rajasthan is famous for the art of block printing, which is still widely practised there today. Block printing has been common since the 12th century. When it was granted royal patronage by the kings of the time. Block Printing is done on cotton fabrics. Famous Textiles of Rajasthan is an important center in India where block printing has gained a good prominence and the designs of the block printing that originated in Rajasthan are considered the most popular and best of all other designs.



Source by: embroiderymaterial.com

Bandhani is a tie-dye fabric embellished by plucking the cloth with fingernails (derived from the Sanskrit word bandh, which means to bind and tie). Yellow, red, blue, green, and black are the primary colours used in Bandhani. Only natural colours are used in the tie-dye process, which allows for a wide range of patterns, such as Chandrakala, Bavan Baug, Shikari, and so on. The Bandhani work has been exclusively carried out by the Khatri community of Kutchh and Saurashtra. A meter length of cloth can have thousands of tiny knots known as 'Bheendi' in the local language ('Gujarati'). These knots form a design once opened after dyeing in bright colours.

LEHERIYA

Practiced exclusively in Rajasthan, Leheriya is a tie-dye technique which results in a glistening cloth with distinguishing patterns. Done on thin cotton or silk cloth, the lengths of Leheriya are usually appropriate for sarees & turbans. Usage of Indigo is prominent for coloring Leheriya. Giving a dazzling look to the fabric.

BAGRU

Named after the town they are popularly produced in, Bagru cloth is created by natural dyeing & using an interesting hand block printing method practiced exclusively by the Chipka community. Known for its zigzag patterns, bagru printing is done using vegetable & Indigo colours.

KOTA DORIA

The most famous cloth manufactured in the Kota region is the Kota Doria. Popular features of this textile are the checkered square designs & lightweight feel. Onion juice in addition to rice mush are applied during the weaving process of this garment, ensuring the durability of the material.

SANGANERI



Source by: saree.com

Exercises to do:-

1. Define weaving process and its various types.
2. Give a brief description of Block Printing and its advantages.
3. Throw some light on the textiles of Rajasthan with examples.

Suggested Activity

- Learning Paper Weaving (Art)
- Visit to “Weavers Centre” Jaipur
- Traditional Indian Weaving: Visit to Victoria and Albert Museum.

Sanganeri, a kind of block printing that originated in Rajasthan, adorns home decor materials as well as apparel. A hand printing technique which involves laying out of the material on tables and then printing using blocks with intricate designs. The fabric is marked before, so that symmetry of design is maintained. Beautiful floral designs with buds, flowers, leaves, mangoes and even jhumkas sometimes are part of the detailed designs on the blocks.

Unit 2 : Introduction and Evolution of Block Printing

1. Block printing and Tools



Source by: www.shutterstock.com

India has always been revered for its richness, variety and quality of its handloom industry. The world looks up to India for its rich weaves, unique textiles, and legendary prints. One of the shining examples of Indian handloom industry is ***Indian Block Printing***.

Block printing is a method of dyeing and colouring a fabric using wooden block. Wooden or metal blocks are used to create beautiful designs which are then imprinted on the fabric. Different materials like wood, linoleum and rubbers are used to create blocks. It is also known as 'relief printing' as it leaves a raised texture on the paper.

Background

Block Printing has been in India for thousands of years. Evidence suggests that it has been in India for as long as 3000 BCE, even in the times of Mohanjodaro, an ancient city of the Indus Valley Civilization. While it flourished around 12th century under the patronage of the rajas, it was only around the 17th century this design gained popularity as an art.



Source by: www.cityonpedals.com

Process of Block Printing

The process of block printing is not easy. Apart from skill and team work, it also demands perseverance. It starts with a wooden block. Wood carvers cut the block to design different shapes and sizes. To allow air to pass and dye to squeeze out, every block has two to three cylindrical holes. Next comes the arrangement of fabrics. Twenty four layers of jute taut is stretched over a rectangular table which is used to secure the fabric by pinning the fabric to the jute pad. The jute also serves as a pad to provide resiliency to the printing surface. When it finally comes to printing, we can select three approaches.

Types of Block Printing

Discharge Printing: Here the fabric is dyed first and the dye is removed from the portions of the cloth which is to be designed using the printer. Finally, the bleach section is treated and the dye is re-applied to create a block print design.

Direct Block Printing: First the cloth is bleached and then dyed. With the background colour remaining constant, the printer is used to design the dyed fabric using wooden blocks.



Source by: www.shutterstock.com

Resist printing: Here the block is used to apply an impermeable resist using clay, wax or resin. Now, when the cloth is dyed, the portion covered by the resist doesn't take the dye. Finally, when the resist is removed, the design is already created in reverse.



Source by: www.shutterstock.com

Hand block printing and India- The Rajasthan Connect

Anokhi Museum of Handblock Printing at Jaipur, Rajasthan, has a huge collection of hand block printed textiles, blocks, tools, images and a live demonstration of wood block carving and hand block printing from the artisans.

Tools of Block Printing



Source by: www.shutterstock.com

More than one hundred fifty block carvings exist in Sanganer. They use different types of flowers as design elements which are displayed in the form of a border or 'bel', in a stylized manner. Flowers used in design range from common ones like roses, lotuses, sunflower, lily to some locally known varieties such as '*susan*' and '*javakusum*'.

In Bagru style, design is mostly derived from the flora and fauna of the region. From flowers, birds, tendrils, to figurative and geometrical shapes, one can find different types of designs in Bagru style. The chief difference between Bagru and Sanganer printing is that while Bagru prints are printed on an Indigo or a dyed background, Sanganeri print is usually done on white background.

2. STEPS OF BLOCK PRINTING

The art of hand block-printing has been practiced for centuries in India. A process that requires steady movement and careful hand-eye coordination, this traditional technique of fabric printing involves the use of carved wooden blocks that are dipped in dye to recreate gorgeous designs. Block printed fabrics usually showcase a palette of colours that bring these designs to life.

Block printing is said to have originated in China. In present-day India, *Bagru* in *Rajasthan*, is a key hub of hand block-printing. Certain forms of hand block-printing make use of natural and vegetable dyes, setting this printing technique apart from the rest. Let's have a more detailed look at the technical **Block Printing Process**.

Step 1: Block Carving

It is the Chhipa Community (Rajasthan) that possesses a majority of block carvers, dyers and printers in India. Block carving is the first step in the block printing process and like many other crafts in India, has been in existence since time immemorial. The block-carving artisans make use of tools such as small hammers, chisels and drills to be able to carve elaborate patterns into wooden blocks.

After the carving process, these blocks are dipped in mustard oil and allowed to rest for at least a week. This helps prevent cracking of the blocks upon exposure to dry conditions. The carvers also drill miniature holes into the wooden blocks to allow the wood to breathe. This also extends the life of a wooden block by upto a few decades.

Step 2: Application of Dye

After the carving process, dye is applied to the wooden block surface with the help of a 'sieve'. The wooden block is gently pressed onto the palette of dye before being applied against the fabric

Step 3: Treatment of Fabric

The chosen fabric for block printing is first washed to remove all the starch. Fabrics such as saree lengths usually require dyeing. This is done before the printing process begins. For hand block printing, the craftsman will lay the fabric on a printing table, stretching it across the entire length and hold it in place with tiny pins.

Step 4: Printing

Block printing has a special technique that needs to be followed in order to get the desired results. Printing always begins from left to right. A plank of wood is used to even out the colour on the tray. The craftsman dips the block into a dark outline colour and applies it to the fabric. This is done repeatedly along the length and breadth of the fabric.

Step 5: After Treatment

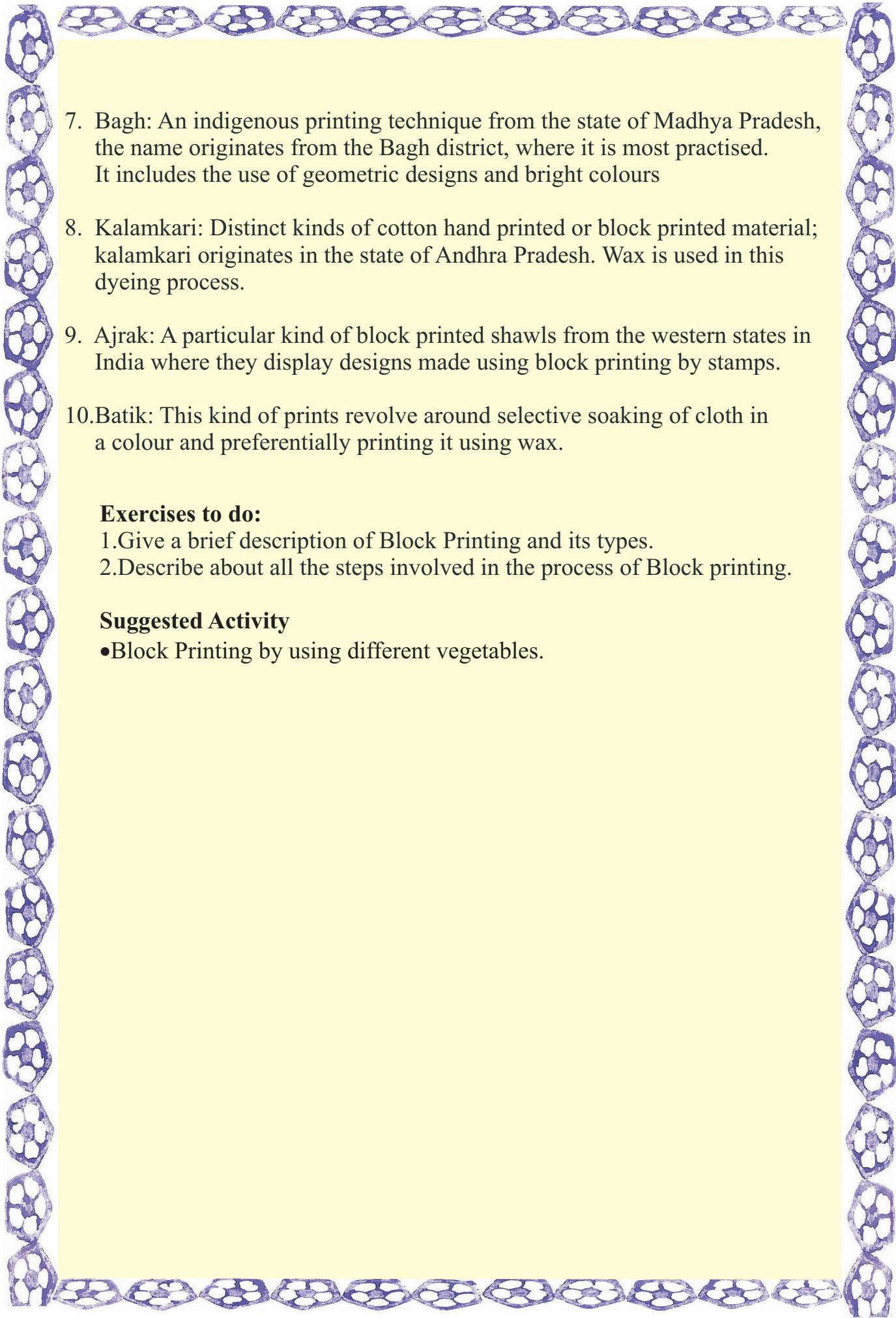
Once the hand block-printing process is complete, the craftsman scatters some fine saw dust onto the wet dye to prevent smudging of the design. The fabric is then left to dry out in the Sun. Different dyes may be used for block printing on cotton and silk fabrics. Some of the common cotton dyes include indigo sol, pigment dyes and rapid dyes. The traditional colours used for block printing are red, black, brown, mustard and orange.

Major Hubs of Hand Block Printing in India

India is known for its intricate hand block-prints. In India, most of the hand-block printing takes place in the areas of Bagru, Ahmedabad, Pethapur, Farukhabad and Sanganer. These areas are part of Gujarat and Rajasthan.

TYPES OF BLOCK PRINTING AND TIE DYING OF INDIA

1. **Lehariya:** Lehariya is the basic dyeing which results in striped or rippled textiles with contrast bright colors.
2. **Bagru:** In bagru dyeing technique, blocks are placed from left to right and slammed hard on the fabrics.
3. **Dabu:** Dabu originates in Rajasthan and is a beautiful mud resist block printing. But it is quite complicated as it takes number of washes and a lot of laborious work.
4. **Gold and Silver block painting:** Dust of precious metals like Gold and Silver are used to block print on already printed fabrics, as it only involves work on the surfaces. A gum paste is squeezed in a pattern on the fabric first and then the metal dust is sprinkled on the top of it.
5. **Sanganeri:** Fabrics are placed on the tables and then printed using blocks of different designs.
6. **Bandhani:** Bandhani is the most preferred patterns of tie and dye in Rajasthan. The patterns are generally floral or geometric. Apart from these the 'Shikari bandhani' includes human and animal figures. The one with geometric patterns is known as 'Ekdali bandhani'.

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7. Bagh: An indigenous printing technique from the state of Madhya Pradesh, the name originates from the Bagh district, where it is most practised. It includes the use of geometric designs and bright colours
 8. Kalamkari: Distinct kinds of cotton hand printed or block printed material; kalamkari originates in the state of Andhra Pradesh. Wax is used in this dyeing process.
 9. Ajrak: A particular kind of block printed shawls from the western states in India where they display designs made using block printing by stamps.
 10. Batik: This kind of prints revolve around selective soaking of cloth in a colour and preferentially printing it using wax.

Exercises to do:

1. Give a brief description of Block Printing and its types.
2. Describe about all the steps involved in the process of Block printing.

Suggested Activity

- Block Printing by using different vegetables.

UNIT 3: HAND BLOCK PRINT: WAY OF TEXTILE DYEING

1. Dyeing And Its Objectives

Dyeing is a method that imparts beauty to the textile by applying various colors and their shades onto fabric. Dyeing can be done at any stage of the manufacturing of textile- fiber, yarn, fabric, or a finished textile product including garments and apparel. The property of color fastness depends upon two factors- selection of proper dye according to the textile material to be dyed and selection of the method for dyeing the fiber, yarn, or fabric.



Source by: www.theculturemap.com

Dyes

Dyes are used for coloring the fabrics. Dyes are molecules that absorb and reflect light at specific wavelengths to give human eyes the sense of color.

There are two major types of dyes- natural and synthetic dyes. Natural dyes are extracted from natural substances such as plants, animals, or minerals.

Synthetic dyes are made in a laboratory. Chemicals are synthesized for making synthetic dyes. Some of the synthetic dyes contain metals too.

MAJOR TYPES

Natural Dyes

It is the most common approach to apply a color pattern to fabric. If done on colored fabric, it is known as overprinting. The desired pattern is produced by pressing dye on the fabric in a paste form. To prepare the print paste, a thickening agent is added to a limited amount of water and dye is dissolved in it.

Objective: We use natural dyes for fabric because we want something non- carcinogenic and not harmful to our environment. Natural dyeing is gradually making its way in the global market and the production of naturally dyed eco-friendly textiles itself is a boon to save the environment from hazardous synthetic dyes. Here's a list of colors and the plant material that will give you shades in that color.

- **Orange:** carrots, gold lichen, onion skins
- **Brown:** dandelion roots, oak bark, walnut hulls, tea, coffee, acorns
- **Pink:** berries, cherries, red and pink roses, avocado skins, and seeds (really!)
- **Blue:** Indigo, woad, red cabbage, elderberries, red mulberries, blueberries, purple grapes, dogwood bark
- **Red-brown:** pomegranates, beets, bamboo, hibiscus (reddish color flowers), bloodroot
- **Grey-black:** Blackberries, walnut hulls, iris root
- **Red-purple:** red sumac berries, basil leaves, daylilies, pokeweed berries, huckleberries
- **Green:** artichokes, sorrel roots, spinach, peppermint leaves, snapdragons, lilacs, grass, nettles, plantain, peach leaves
- **Yellow:** bay leaves, marigolds, sunflower petals, St John's Wort, dandelion flowers, paprika, turmeric, celery leaves, lilac twigs, Queen Anne's Lace roots, mahonia roots, barberry roots, yellowroot roots, yellow dock roots

Synthetic Dyes



Source by: www.dyecellsindia.com

Synthetic dyes are classified based upon their chemical composition and the method of their application in the dyeing process. According to their nuclear makeup, dyes can be anionic or cationic. Some types of synthetic dyes include:

- * **Acid:** Acid-based dyes are used mostly on nylons and wool.
- * **Sulfur:** These dyes are combined with caustic soda and water to color clothing, but they lighten quickly.
- * **Reactive:** These dyes only dye clothing as a reaction to certain fibers, and are best used on silk, wool, and acrylics.
- * **Azoic:** Lighter colored dyes that fade quickly but are cheap to use.
- * **Oxidation:** These dyes start off without color and are combined with specific chemicals to create new colors. This type of dye is used a lot for hair coloring.
- * **Mordent:** This is a chrome based dye that has to be blended with different types of acid to color wools and cotton.
- * **Solvent:** This dye is usually used in organic dyeing processes because it can be used with organic compounds.
- * **Vat:** These dyes require four steps of processing, starting off in a vat, and then being combined with certain chemicals.



Source by: www.dyecellsindia.com

Methods of Block Print Dyeing

- A.A.Bale Dyeing
- B.Batik Dyeing
- C.Beam Dyeing
- D.Burl or Speck Dyeing
- E.Chain Dyeing
- D.Cross Dyeing
- E.Jig Dyeing
- F.Piece Dyeing
- G.Random Dyeing
- H.Raw Stock Dyeing
- I.Solution Dyeing
- J.Yarn Dyed

Exercises to do:

- 1.Mention all the objectives of the dyeing process.
- 2.Enumerate about the methods of dyeing with examples.

Suggested activities

- ❖Fabric of India movie
- ❖Handloom tour of all 28 states

UNIT 4: BLOCK PRINTING BASICS:

ACTIVITY ON HOW TO CREATE BLOCK PATTERNS?

Block printing also called linocut and lino printing. With a few tools and a little practice, you can create designs from simple patterns to layered illustrations. Use linocuts (because the design is cut in a block of linoleum) for different patterns and different illustrations.



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MATERIALS USED FOR BLOCK PRINTING

- LINOLEUM BLOCKS (GET SOFT CUT LINOLEUM OR SPEEDBALL “SPEEDY CARVE”), 2” x 2” and larger.
- RUBBER BRAYER
- WATER SOLUBLE BLOCK PRINTING INK
- RUBBER STAMP CARVING TOOLS
- **SPEEDBALL BLOCK PRINTING STARTER KIT** (AN EASY WAY TO GET ALL OF THE ABOVE)
- PALETTE PAPER
- PAPER OR FABRIC TO PRINT ON
- TRACING PAPER
- PENCIL

For the first half of the workshop, we designed 2” x 2” repeating patterns. It's kind of like cutting paper snowflakes - Cut one design, and then see how the shapes play together when it unfolds. The repeating patterns make something completely different.

HOW TO CUT YOUR LINOLEUM BLOCK

First, come up with a simple design for your 2” x 2” square. Sketch out a few ideas in pencil on tracing paper. Don't be too intentional - let accidents happen. A few things to think about as you make your linocut design:

- Play with organic and geometric lines and shapes.
- Make sure lines and shapes go of the sides of the square if you keep them contained in the box, they won't join to make new shapes.
- Remember your design will be a mix of solid and empty spaces, depending on the parts you decided to cut or leave.
- Keep it simple.



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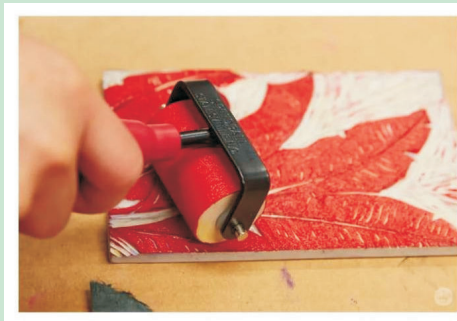
Once you're happy with your sketch, flip it over and place it upside down on the linoleum block. Rub over the lines with a pencil so the lead on the other side transfers to the rubber.

- Now you'll use the cutting tools to remove some of the rubber.



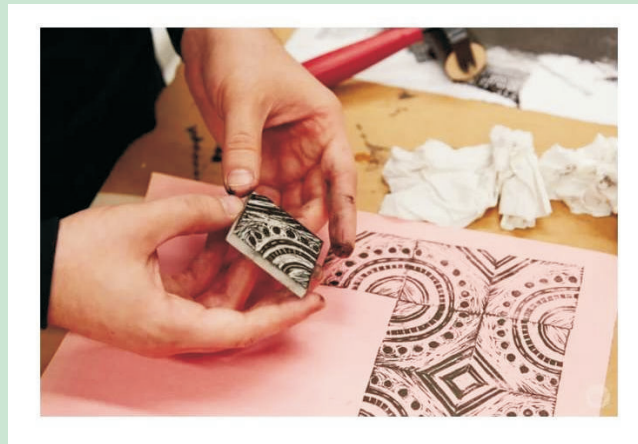
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Now squeeze a little bit of ink onto your palette paper. Using the brayer, roll out the ink so there are no blobs or bubbles. Then get a thin, smooth layer of ink on the brayer, and roll it across the cut side of your printing block. To print, place your block on the paper or fabric, ink side down, and press



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Once you've printed one block, re-ink your stamp and rotate it clockwise. That means you'll use the lower-right corner of your original print as a "pivot" and print a new block to the right of the first. Then rotate the lino block clockwise again, pivoting around the same corner, and add a new square below that one. Finish up with another pivot and a final square on the bottom left. By using this technique you can create many block designs of your choice.



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UNIT - 5 FROM SURVIVAL TO REVIVAL (BLOCK PRINTING)

1. GANDHIJI'S CONTRIBUTION FOR REVIVAL OF KHADI AND SELF-RELIANCE

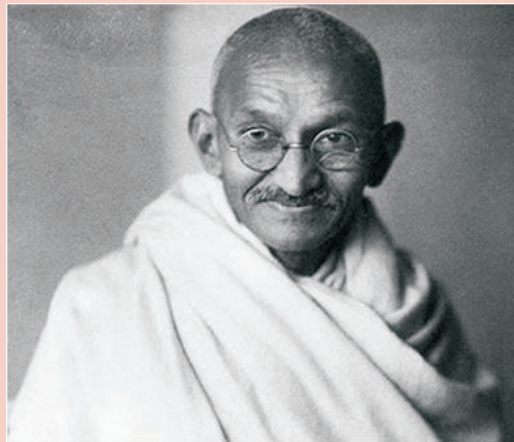


Image Courtesy: Sabrang India

2nd October, marks the birthday of the wonderful Mahatma Gandhi. Born in 1869, Gandhi achieved many great things in his lifetime, famously freeing India from British rule through peaceful protests and inspirational movements that united the nation..To people across the globe, Gandhi has become an icon of peace, inclusivity and sustainability, thanks to his revolutionary attitude that led India and its people to economic freedom and independence. To this day, Gandhi's wisdom and perspective still resonates with those of us who choose to hear and act on the lessons he taught. One of Gandhi's most amazing achievements is his '**Khadi Movement**'. It is a movement that continues to live on in Indian culture and will forever connect fashion with freedom in its truest form.



What was the Khadi movement?

Khadi means handspun and handwoven cloth, but unlike your average cloth, Khadi holds a very special place in India's history of freedom and independence.

In 1918, Mahatma Gandhi used Khadi cloth as a key part of the Swadeshi Movement, a movement designed to boycott the use of imported products and materials. Doing this would help to lift India out of poverty by creating industry and jobs locally. It would also free India from its reliance on expensive, imported goods which were being imported into the country from Britain even though the raw materials originated in India.

Gandhi knew that it was crucial for the people of India to take back what was theirs, using their own produce and skills to create their own wealth. Khadi cloth became the heart of this strategy when Gandhi asked every man and woman to plant and harvest their own materials for the yarn needed to create Khadi fabric. He also asked everyone, whether rich or poor, to spend time each day spinning Khadi. This country-wide initiative helped to bring unity through shared labour. People of all classes came together to do as Gandhi asked, and their efforts helped the country in its bid to become self-sufficient. Entire villages adopted the movement, weaving their way to economic freedom through fashion.

"THERE IS NO BEAUTY IN THE FINEST CLOTH IF IT MAKES HUNGER AND UNHAPPINESS." - MAHATMA GANDHI

Khadi cloth and Sustainability

Gandhi was extremely conscious of sustainability and our carbon footprint. A forward-thinking man, he realised well ahead of his time that protecting the planet meant acting responsibly.

"EARTH PROVIDES ENOUGH TO SATISFY EVERY MAN'S NEED BUT NOT ANY MAN'S GREED." - MAHATMA GANDHI

Khadi was a perfect textile for sustainable manufacturing so it's no wonder that Gandhi harnessed its power as part of the revolution. Handwoven by people in rural villages across India using natural, biodegradable fibres, Khadi is traditionally made from cotton. Other natural fibres such as silks and wools can also be used. Whatever the fibre, there are no factories, machines or emissions involved in the spinning and weaving stages, just pure people-power and skill. The resulting fabric is a comfortable and versatile textile which is warm in winter and cool in summer.

Khadi still has a very low carbon footprint and its continued production marks the survival of an important part of India's culture and history.

In fact, Khadi cloth is so deeply rooted in India's identity that it is used in the making of the country's national flag.

2. Problems Related to Block Printing

A KPMG study for the National Skill Development Corporation (NSDC) (2013-17, 2017-22) had estimated that approximately 7.3 million people depend on handicraft and allied activities for livelihood.

Indian craftsmen belong to the third largest segment among the poor tribes of India.

In a growing technology run and industrialised world, people are increasingly forgetting the traditional crafts and moving towards the new innovation. Due to this artisans are moving to alternative income generation methods, for instance daily wage labour and farming: and art is losing its grip.

Before the pandemic, **Indian craftsmen** used to earn around a regular minimum income of Rs. 4000-7000. Recently, they are struggling to sustain livelihood due to a few looming challenges.

PROBLEMS FACED BY HANDICRAFT ARTISANS

- * Unorganised Structure
- * Lack of education
- * Low capital investment
- * Poor exposure to new technology
- * Absence of market intelligence
- * Poor institutional framework.



Source by: www.istockphoto.com

- * Little visibility in the nation-wide market
- * Lesser know how of latest market trends
- * Lack of knowledge of potential market
- * Diminishing physical exhibitions and trade fairs
- * Migration to other jobs
- * Reluctance to use new technology

3. ORGANISING COOPERATIVE SOCIETIES

Rural artisans having limited means can join hands together and get them associated in an industrial cooperative society to protect interest of themselves. According to International Cooperative Alliance, "The Cooperative Society is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise".

Though the whole world is on the path of industrial development and globalization today, the rural handicraft artisans are an inseparable and very important section of our society, as they enhance our aesthetic life by providing us beautifully crafted products. Handicraft artist not only produce product for market, but involve their psychological vibrations, inherent logic and sensations. Thus, such artisans are not only economical contributors to the national income, but also thought of national wealth to be preserved with respect and care. But in today's situation, the rural handicraft artisan is found helpless and in search of alternative employment. There are so many reasons responsible for the handicrafts being languished gradually from the market and from the rural families; one of them is being unorganized and so vulnerable. Hence, cooperative sector can be a blessing for such artisans which can give them collective identity, strength to bargain in the market and grab the opportunity of various development schemes and programmes confidently.

Cooperative society is one of the best forms of business organisations for rural handicraft artisans, as it is based on the following principles.



Source by: www.researchgate.net

If these principles are truly implemented with idealism and good management, there is no doubt that equality among members of co-operative organization can be established which can bring fruitful results.

4. GENERATING EMPLOYMENT

Small and Micro Entrepreneurs, especially those of rural areas, form the backbone of economic and employment generating activities of the Indian economy. The Five year plans and the Annual budgets of the Union and State government have always given priority for developing small industries and tiny units of unorganized workers and artisans.

Block-level Associations and independent Societies have now emerged and are taking initiatives for various projects are approved.

Overall Government and Cooperative joint efforts have opened new paths of development for micro and small artisans.

Programs Like “HunarHaat” of the Union Government is one of the successful and meaningful campaign to provide opportunities to artisans and craftsmen from different parts of the country for the protection, preservation and promotion of their tradition and ancestral heritage.

Exercises to do:

1. Write a short note on Gandhiji’s journey for Khadi to become self-reliant.
2. Enumerate about the problems faced by the handicraft artisans in Indian.
3. Describe about all the steps to find out the solutions for the uplifting of the artisans

Suggested Activity

- * Panel discussion on blending of scientific innovations with traditional craft technique
- * Handmade in India (Movie)
- * All about Sanganeri Hand Block Printing (Documentary)
- * Interviews of Craftsmen at the work place
- * Celebration of National Handloom Day
- * Exhibition of artifacts and products prepared by the students during the academic year.
- * Proceeds from the exhibition to be used for welfare of the craftsmen.

BIBLIOGRAPHY

<https://www.thinkmakeshareblog.com/block-printing-basics/>

<https://www.angelajey.com/blog/hand-block-prints/>

<https://www.ichcha.com/blog/block-printing-process/>

www.blockposter.com

www.blockprintcompany.com

www.tinyworkshops.com

www.yehaindia.com

www.thedesigncart.com

www.handprintingguiderrajasthan.in

www.homesciencejournal.com



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