

# Eco friendly Block Printing of Bagh (M.P.)

## Abstract

India's rich heritage of ornamentation of textile fabrics dates back to the epic ages and the tradition has been kept alive by the artisans of Bagh. Bagh Printed Articles are unique, historical and traditional. The hallmark of the Bagh prints is the use of natural and vegetable dyes. The dyeing method used by the artisans/printers is an indirect dyeing method when the mordants applied during the course of printing with the blocks react with the dyeing compound (alizarin in this case) to give the final colours. It is quite evident that vegetable dyes can provide a vast range of colours and their combinations can be a larger source of different shades, colours etc.

The printed textiles of Bagh are the piece-de-resistance of hand block printing. Varieties of natural dyes are used in the printing units of Bagh, the most common ones are *Harda*, *Bahera* and *Anar Chilka*.

The use of vegetable dyes and azo free dyes by the artisans of Bagh is an important asset for the craft in view of the growing environmental conscienceless. People in the world have liked traditional fabrics and intricate printing done by hand and tremendous interest has been aroused in the consumers in the western markets for our traditional hand block printed textile products.

**Keywords:** Natural Dyes, Mordants, Printing, Block Printing.

## Introduction

Clothing being a primary need coupled with a desire for adornment, evolved the clothes of man from single covering of a bare body to one of the most widely used media for expression of creativity. Colour played a dominant role in the life of man since time immemorial. Even in the Pre historic days, when men lived in caves and used animal skin to cover and protect themselves against the fury of nature, they used to dye them with various natural dyestuffs and pigments that were available.

The art of dyeing was probably invented in India, as testified by the pieces of resist- dyed cotton materials recovered from the Indus valley excavations. The use of mordants was well known to the Indian dyers even 5,000 years ago. This form of dyeing which reveals mastery in the chemistry of dyeing was responsible for making India famous all over the world for its dyed and printed fabrics in ancient days.

Printing of the fabric by traditional methods occupies a unique place in the history of civilisation of a country. India's traditional hand printed textiles are the oldest and famous for the exquisite work and designs. These hand-printed textiles have always reflected our social and cultural heritage, providing a mode of livelihood to several artisans at the same time.

Block Printing is one of the printing methods, which is practiced all over India. The designs and the use of colour combination vary considerably from place to place. Bagh is a quaint little village in Kukshi tehsil of Dhar district in Madhya Pradesh situated near the bank of the river Baghni, a tributary to river Narmada and is known for two things- the 5<sup>th</sup> – 7<sup>th</sup> century caves and the hand printed fabrics. Hand block prints from Bagh have been famous and have occupied a prestigious place in the textile world, both nationally and internationally. These prints were originally the adornment of the tribal inhabitants of the surrounding villages. Varieties of natural dyes are used in the printing units of Bagh. These include Alizarin (Al-Ka-Rang), Manjeetha, Anar Chilka, Babool Chilka, Nasphal, Harda, Bahera, Dhawdi Ka Phool with Alizarin, Kachcha Thotha, Neel or Neela Thotha (Indigo), Haldi, etc. However the most common ones are Harda, Bahera and Anar Chilka. These dyes are mellow and lovely, even the fading is a graceful and an even process. There has been an increasing interest in natural dyes, with the public becoming aware of ecologically and environmental problems related to the use of synthetic dyes. Use of natural dye cuts down significantly on the amount of toxic effluent resulting from the dyeing process. Also they exhibit better biodegradability and generally

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have a better compatibility with the environment and they possess lower toxicity and allergic reactions than synthetic dyes.

All the traditional printers of Bagh belong to the 'Khatri Biradari' which has been associated with this craft since time immemorial. Most of the people have inherited this craft with a few exceptions.

### **The Printing Process**

Various printing techniques have been developed in our country including direct printing, resist printing and screen printing. Direct printing is practiced all over India where a bleached cotton or silk fabric is printed with the help of wooden blocks. First the outline block is printed, after which the blocks for filling in the colours are utilised with beautifully carved designs. If the background is to be of a light colour, the cloth is dyed after the printing has been completed. Normally, three to four colours are used.

The printers of Bagh predominantly practice the direct printing technique. However, some of them are well versed with the other techniques also. The complete printing process involves not only printing with blocks, but also several rounds of washing, drying, desizing, softening etc. The sequence of the steps of the whole process is as given below:

### **Desizing**

Desizing is basically developed to remove the gums used during the manufacturing process of the cloth. This is important so that the cloth regains its natural dimension and the same is maintained during the innumerable washing and drying cycles after printing with the blocks. This ensures that the printed motifs don't get disfigured subsequently.

### **Scouring**

Scouring is the process of removing all sorts of impurities in the cloth such as pieces of seeds etc. This ensures that the surface of the cloth is even and smooth, amenable to block printing.

### **Bleaching**

Bleaching is the process by means of which coloured or discoloured fabrics are made white. The main objective of this process is to remove stains, which do not respond to normal washing process. Bleaching also softens the fabric and facilitates in the block printing process.

### **Softening of the Fabric**

Softening of the fabric is required for preparing it for the primary process. This is achieved by applying a mixture of Linseed oil, 'Sanchora' (a natural salt) and faeces of goat on the fabric and leaving it soaked in this mixture for at least 12 hours. Subsequently, the cloth is washed and dried for 'Harda' treatment.

### **Harda Treatment**

In this process, a paste of harda powder is applied on the scored, desized and bleached fabric

and then the fabric is left to dry, so that the fabric may absorb harda. The yellowish tinge resulting from the treatment is essential for the brightness of the black as well as the red colours of the Alizarin dyes.

### **Block Printing**

This is the main process and involves a synergy between the wooden blocks and the deft hands of the printers. The fabric is placed on the wooden tables and the printer squats in front of the table for printing. Small trays contain the dyestuff mixture and the block is dipped in it and subsequently stamped on the fabric with a solid thud of the side of the palm. The printed fabric is left to dry for about seven days so that the dye is fully absorbed by the fabric, making the colour fast and the effect rich.

### **Washing**

After printing of the fabric with blocks and subsequent drying for about seven days, it is washed in free flowing water so as to remove harda from the fabric completely. This makes the fabric white once again and makes it ready for the application of any direct dyes that need to be put on it and subsequent Alizarin dyeing. The washing process is repeated after subsequent dyeing operation as explained in the following paragraphs.

### **Dyeing**

The hallmark of the Bagh prints is the use of natural and vegetable dyes. The dyes used can be classified into the following:

1. Alizarin dye.
2. Indigo dyes- Blue.
3. Dhawdi flowers/ pomegranate peel- Yellow.
4. Other vegetable dyes.
5. Azo free dyes- for background dyeing in addition to vegetable dyes.

Alizarin is a red dye originally obtained from the root of the common madder plant, *Rubia tinctorum*, in which it occurs with the sugars glucose and xylose. The cultivation of madder and the use of its ground root for dyeing by the complicated "Turkey Red Process" were known in ancient India, Persia and Egypt, the use spread to Asia Minor about the 10<sup>th</sup> century and was introduced into Europe in the 13<sup>th</sup> century. The same method is being used by the artisans/printers of Bagh. The dyeing method used by the artisans/printers is an indirect dyeing method when the mordant applied during the course of printing with the blocks react with the dyeing compound (alizarin in this case) to give the final colours.

Once the fabric is dried it is put into a large utensil on a "bhatti" and the process of dyeing is carried out. The alizarin powder and dhawdi flowers are added in the water and boiled for a few minutes. Subsequently the temperature is lowered and then the printed cloth is immersed in the liquid. It is important to mention here that the process of indirect dyeing needs a lot of expertise in

ascertaining the correct temperature ranges for a desired particular shade of the colour. Any change in this, results in a too dark or too feeble colour and spoils the fabric.

The Alizarin powder reacts with the iron rust to give a bright black colour and with the alum solution to give a bright red colour. The dhawdi flowers or the pomegranate peels impart yellow colour. Thus, at a time three colours can be printed on the fabric. Any further colours to be added, are deployed by using Azo - free direct dyes, indigo or other vegetable colours. Some of the vegetable colours and their sources are-

Ratanjot	–	light green
Manjistha	-	pink
Turmeric	–	yellow
Catechu	–	chocolate brown
Henna	–	red
Heera kashish	–	black.

That, it is quite evident that the vegetable dyes can provide a vast range of colours and their combinations can be a larger source of different shades, colours etc.

#### **Washing and Drying**

The fabric is finally dried, washed and again dried once the dyeing is over. This is the final phase of this laborious process and results in the final product.

#### **The Advantage of Natural Dyes Used in Bagh Printing Process**

The following properties of natural dyes are often considered advantageous:

- No health hazards.
- They are easily harmonised with nature.
- Lot of creativity is required to use these dyes.
- Uniqueness of design as the article is produced manually
- Practically no or mild chemical reactions are involved in their preparation.
- No disposal problem.
- They are obtained from renewable resources.

In order to keep up with the demands of the market, new products have been added to the range of Bagh Printed Articles viz., table linen, bed linen and made-ups like cushion covers, bags, scarves, etc. The traditional articles like sarees, odhins and dress material continue to remain popular among the buyers. Although, the raw material base of this industry, which has changed a little over the years, is quite strong, printing is now being done on georgette, crepe and jute. However, the artisans continue to practice the traditional printing technique with the use of wooden blocks. They print the classical designs by using intricately stylized and traditionally popular motives such as 'amris', floral and vine motifs, geometrical patterns and tiny florets and buds.

People in the world have liked traditional fabrics and intricate printing done by hand and tremendous interest has been aroused in the

consumers in the Western markets for our traditional hand block printed textile products. The pleasure and immense satisfaction on owing a unique and traditional item at the back of minds of the foreign buyers of Bagh Printed Material gives it a distinctive position in the melee of fast changing fashion textiles.

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