

Periodic Research

Dyeing and Printing at Tarapur: Use of Natural Dyes



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Abstract

Old art of Dyeing fabrics was one important reason for popularity of our textiles, this art of textile dyeing and printing is still an art of high demand because of its unique prints colours and textures and most unique feature is that, in this process the dyes used are mostly natural dyes so they are highly environment and eco friendly.

In this study for the preparation of dyes, process of dyeing and printing fabric, with special reference Tarapur had been studied in which it is found that the products used for preparing dyes are all natural. Fabric used for dyeing and printing is prepared after degumming by dipping the fabric whole night in T.R.O. (Turkey Red Oil) added water, then after treatments are done for increasing the brightness and fixing of colours. Improvement in wash and light fastness is also achieved with suitable chemical post-treatment. To cover the whole process, survey and interview methods are used, by these methods data's are collected randomly. For results, Chi square test is applied and the significant level is checked.

Keywords: Dyeing Process, Tying, Dyes, Natural Dyes.

Introduction

Tarapur a place near Jawad tehsil headquarter of Neemuch District in M.P. from time since princely rule is renowned for its textile dominance. The success of this village for dyeing and printing works attributes to the moderate climate; also it is situated on the plains so it is very helpful for drying cloths on it. People do not have to search place for their material to be dried. The main occupation of this village is dyeing and printing. From last many centuries this work was followed by the villagers. Mainly two caste of this village do this work –

1. Chippa people – which are of Namdev religion.
2. Nilgar (Muslim) people- also do this work, previously only indigo dyeing was done by the people of this caste that's why they are called Nilgar. This village is famous for its "Nandara" and "Chundri" production. The dyeing and printing production of this village has a speciality that the "Nanra" print done here is not done at any other place in India.

"Nandana" is a type of fabric of lahenga used by tribals. The use of nandana is done by the tribal's of M. P. Nandana's method of printing is completely eco-friendly. From treating the base cloth with Fuller's earth (multani mitti), soaking it in turmeric (haldi), to stamping the cloth with beautifully patterned blocks of wood using natural dyes of earthy hues, these prints are epitome of eco-friendly textiles and printing practices. Added to that, natural coloring agents such as alum, turmeric, pomegranate, dried flowers, indigo, etc are used to add colorful designs and motifs to the fabric. Blue from indigo, green from indigo mixed with pomegranate rinds, red from madder root and yellow from turmeric.

The art of Bandhani is highly skilled process; it is very popular handy craft all over India. After processing Bandhani work results into a variety of symbols including, dots, squares, waves and strips. The technique involves dyeing a fabric which is tied tightly with a thread at several points, thus producing a variety of patterns like Leheriya, Mothra, Ekdali and Shikari depending on the manner in which the cloth is tied.

The main colours used in Bandhani are natural. In fact all colours in bandhani are dark. At present, Rajasthan and Gujrat in India are largest centers of tie and dye textile. Each state has particular areas and each caste and each tribe has its special design. This process is completed by tying the fabric and then dyeing it with colours.

Objective of Study

To study the products used, preparation of dyes, fabric, process, after treatments and effect of fashion.

Reviews

Karth Keyan, Bangalore (2008) study about "Indian hand block prints" – in which she had told about the blocks we use for our printing. All blocks are hand carved. Carving is very fine and advanced. The delicacy of the lines is phenomenal. Blocks are quite deliberately designed to be slightly non- quite regular and practised all over India.

Jeff A. Hardy, Dec 6 (2009) wrote the article "Bandhani-the tie and dye process", that bandhani is the most widely accepted and traditional method. Most of the Bandhani produced in India is made in Kutch, Saurashtra and in other neighboring districts. Perhaps, the most important traditional handiwork of Kutchi people, 'Bandhanis' are very closely associated with deep rooted social customs. Discovery of dyed cotton fabric dating back to the Indus valley civilization shows that the art of dyeing using penetrating was well known to the dyers about 5000 years ago. He also wrote about the material used for this art and the process of production. Tie & die is quite time consuming and tedious process.

Mansoor Iqbal, Feb 14 (2009) article "Dyes and Colour" he showed the importance of colour and dyes, that a dye is a coloured organic compound that absorbs light strongly in the visible region and can firmly attach to the fiber by virtue of chemical and physical bonding between group of the dye and group on the fiber. To be of commercial importance a dye should be fast to light, rubbing and water.

Chakraborty, May 11 (2009) article about the "Application of Eco-friendly Vegetable Dyes on Cotton fabric". It showed the origin of mankind can be justified by the use of natural dyes. With the advent of synthetic dyes-stuff in abundance, a wide range of colours of remarkable fastness properties made its way making natural dyes a past. In the research work cotton fabric was pre-mordanted with different mordants and then dyed with 4 natural vegetable dyes to get different colour. They were Kamala for yellow colour, Kutch for brown colour, Indigo for blue colour and alizarin for red colour. The basic fastness properties were checked by changing the style of mordanting i.e. pre mordanting, simultaneous mordanting and post- mordanting the fastness properties can be improved.

Kunal Lodhia, Dec 19 (2011)

"For the first collection (Spring 2011)", he traveled to a village in the Kachchh region of Gujarat known for its intricate tie-dyed fabrics called Bandhani (derived from the Sanskrit word "to tie"). He experimented with techniques, and their relatively unorthodox methods were fully welcomed by the artisans of the Khatri community who had been accustomed to creating only classic patterns and prints. The first step towards the success of the collection was choosing fresh colour swatches and bold patterns. The second was allowing the heavily patterned natural fabrics to speak for themselves, in cuts of dresses and tops that may never have seen Bandhani before. No two pieces are alike and the story of the artisan villagers of Kachchh is now donned by those who discovered nor black nor white (NBNW) early on. The first collection opened the

villagers' eyes to the infinite possibilities of reviving age-old traditions that are fading in light of new age textiles and machine prints. {Me} longings, Jan 17 (2012) wrote an article about the "Block printing". He wrote about the method of block printing and the equipments required for doing this printing. He found it very interesting. He wrote that much of India's famed block printing takes place in the northern state of Rajasthan. The printing motion is quick and simple – which executed by placing the wood block on the fabric and by hitting the top of the block as a karate chop – like chop/tap. They repeat this motion as they move around the two, 18-foot long printing tables.

Hypothesis

There would be continued traditional use of products, natural dyes, preparation of dyes, process, effects and after treatments being carried out at Tarapur.

Methods

The samples were selected from Tarapur. The samples of this study were selected through purposive sampling method 100 samples of the place were selected.

The printing technique follows the old traditional methods without use of any modern technical equipment and procedure which were relevant years back when produced from these places have captured market.

Data Collection is an important aspect of any type of research study. Inaccurate data collection can impact the results of a study and ultimately lead to invalid results. Data collection methods for impact evaluation vary along a continuum.

After the hypothesis had been formulated the second step is to test validity. This requires observation of facts and collection of data. In this respect the first thing to decide is the nature of information that would be necessary to establish the validity of hypothesis and where the collection data form. We can collect our own data. After making the questionnaire before finalizing them, they are provided to five experts and the experts' opinions are taken. Then according to them the questionnaire is finalized. When the questionnaire is prepared, for its pre-testing we fill it by asking the questions to five workers. For this we went to Tarapur. In this way pre-testing is completed.

There are two methods used for this purpose

Interview Schedule

Field Observation



Result and Discussion

- 46 workers of Tarapur belonged to age group 31 to 50.
- After this survey, the result of education of persons who are doing dyeing and printing. In Tarapur the illiterate persons working is 10, the graduates are 4, higher secondary persons are 22 and primary and middle educated persons are 38 and 26 resp.
- 62% of male and 38% of female are involved in dyeing and printing work in Tarapur. Ladies are less involved and those who are involved do not want to continue this work, because they could not get enough salary for their work.
- The persons doing this work almost belong to joint family. In Tarapur 86% people belongs to joint family and 14% are from nuclear family.
- As illustrated in table no. 1,
- 11 workers used Pomegranate peels, 28 use Dhavari wood, 8, 12, 15, 17, 9 workers used, Tamrind seed, Palash flower, Rust iron, Alizerine, Catchew respectively.
- As shown in table no. 2-
- about 45% of vegetable dyes are used in Tarapur, Direct and Naphthol, 26% and 11% are used in Tarapur and 18% vat dyes are used there.
- As represented in table no.3- For dyeing and printing 58% cotton was used, 31% of silk, 9% of synthetic fabric and just 2% of wool was used in Tarapur.
- In Tarapur 46% does block, 28% of batik, 15% of bandhage and 11% of the total workers do screen printing, shown in table no. 4.
- Today also people follow the traditional machines and equipments. Their percentage is 87%.
- Floral and geometrical and linear designs were used. Now a day's floral, geometric and figurative designs were used. A geometric design also gives a good effect. These were liked by people, 23 people used floral and 45 geometric at Tarapur.
- To fix the colour on the fabric some treatments are necessary. Drying is the common operation used to prevent the colour from spreading. Fixing is the operation used to fix colour by passing fabric through the salt solution. As shown in table no.8- the total workers were 100, of which 33 workers used Drying, 28 of them used Ageing, 21 used Dunging and 18 workers used Fixing as the after treatment for colour fixing.

Table 1- Products Used

Products used	Number
Pomegranate peels	11
Dhavari wood	28
Tamrind seed	8
Palash flower	12
Rust iron	15
Alizerine	17
Catchew	9
Total	100

Table 2- Dyes Used

Dyes used	Number
Vegetable	45
Direct	26
Vat	18
Naphthol	11
Total	100

Table 3- Fabric Used

Fabric Used	Number
Cotton	58
Wool	2
Silk	31
Synthetic	9
Total	100



Table 4- Methods Used

Methods	Number
Bandhage	15
Batik	28
Block	46
Screen	11
Total	100

Table 5- Machine and Equipments Used

Equipments	Number
Traditional	87
Modern	13
Total	100

Table 6- Marketing According to Patterns

Patterns	Number
Floural	23
Figurative	32
Geometric	45
Total	100

Table 7- Job Satisfaction

Jobs	Number
Govt. jobs	36
Self employed	64
Total	100

Table 8 – After Treatments

Process	Number
Dyeing	33
Ageing	28
Dunging	21
Fixing	18
Total	100

Conclusion

As an outcome of work done during the research it has been observed that the the process of dyeing & printing of fabric on Tarapur of Malwa region, textile used basically is cotton due to cotton's ability to absorb applied dyes easily to its fibers hence making it the optimal selection amongst the various fabrics available. Secondly silk is also used as next option of choice for the process. As both cotton and silk are fibers obtained from natural sources they have good absorption properties so they can easily be treated with the dyes and undergoes printing process very conveniently, enhancing the good bright colours and designs which the crafts persons wants to highlight.

The most prominent feature observed at the place was that the process of dyeing and printing completely is been done by the crafts person by hands using various hand dyeing and hand printing techniques. The dyes mostly used are natural (Vegetable Dyes) non-chemical dyes which are non-hazardous , non-allergic to the crafts persons while the processing as well as to the user wearing or using these fabrics, making the products from this place desirous and demanding amongst quality and comfort loving peoples. Because the process is hand crafted by crafts persons so as compared to the chemical based machine dyed and printed synthetic (mainly) or natural fabrics, the finished products of these places have a limited amount of production.

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