



DYEING WITH NAPHTHOLS TO DEVELOP TIE DYE ARTICLES FOR APPAREL AND HOME DECOR

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Abstract:

Tie and dye with Naphthols is a very simple method of decorating the fabric, hence it can be practised in every household as a delightful hobby as well as a gainful employment to supplement the income. Different cultures have different names for this technique. In India it is called Bandhani. The Bandhani form of tie resist dyeing is a complicated and sophisticated method of decorating cloth with a little practice anyone can learn this skill and become entrepreneur. The advantage of this technique is that it has flexible schedule. A women entrepreneur can turn her personal vision into a lucrative business. In the present study experimentation of tying the fabric with various techniques and dyeing with naphthol was done to achieve excellent color fastness properties. It was the endeavour of the investigator to try and find simple methods using some existing techniques which could be easily used by non professionals without having much technical knowledge to make tie dye articles. Naphthol colors are used for dyeing cellulosic fibers when comparatively good wet fastness combined with brightness of shade is required at a reasonable cost. The tie dye technique involves various methods of folding fabric tying and binding them and dyeing the fabric in a dye bath. Parts of fabric do not receive the dye because of their binding and in this way designs are created. To know the preferences of articles short questionnaire was formulated. All the articles were appreciated by the respondents. They considered it as home based business which may help to solve a good part of the problem for those women who have skills to create their own career.

Keywords: Tie-dye, Naphthols, Apparel, Home decor

Introduction:

In every civilization from ancient times to the present day, mankind has shown a great liking for coloured garments and household articles. In the earlier stage of civilization however, coloured fabrics of famous varieties were produced as a home craft by painting, dyeing and printing with vegetable dyes and simple tools and techniques. This craft of tie dyeing is one of the oldest in the world for making coloured designs on fabrics.

In India, the tie-dye fabrics developed long before the Christian era in the form of "BANDHANI or CHUNARI, LAHERIYA and PATOLA and acquired special significance for its superb articles work in the use of colours and designs.

The process of tie and dye is the same for Bandhani or Patola. But they differ in the sense that in bandhani, the cloth is tied and dyed whereas in Patola and Ikat the warp and weft threads are tied and dyed according to the design required on the fabrics.

Tie and dye is different from all other printing methods in as much as the fabric is directly dipped in the desired colour bath by hand and multiple patterns of coloured ornamentation depend on trials and chance observations. It process requires dextrous use of fingers for arranging the resist and not resist areas in the cloth before dyeing.

There are several ways to conduct the dyeing process. Dyes are divided into classes according to the types of fibers. They are most compatible with Naphthol dyes are employed for cellulosic fibers. They create bright shades of color with varying fastness to light.

However they have good fastness to washing and perspiration. Naphthol dyes are not found in readymade form. These are produced by a reaction of two components. Naphthol dyes are cold dyes and generally used for Batik and tie and dye.

Because of high degree of brightness, ease of application and excellent fastness properties except (rubbing fastness which can be improved by using certain auxillaries) azoic combinations (Naphthol and base) are widely used in printing of cellulosic fibers.

Objectives of the study

- 1.To experiment with the different ways of forming designs on the fabric by tie and dye technique for apparel and home decor.
- 2.To find out the preferential inclination for household articles made by Naphthol dyes.

Limitations of the study

- 1.The study was limited for the use of cellulosic vegetable fibers namely cotton and jute.
- 2.Easily available Naphthol dyes were used.

Methodology:

The aim of the investigator in under taking this work was to experiment the various

techniques of tying and dyeing different fabric and finally to produce articles suited to home use. The study was carried out in the following order.

1. Review of literature which was relevant for the present investigation
2. Pre-test for the present study to see the feasibility of the work.
3. Final preparation of the articles.
4. Preferences for the articles regarding colour and design.

The investigator visited many places to observe the techniques and the dyeing process used for tie and dye.

The various technique of tying the fabric was experimented to avoid chances of errors during the actual work. Poplin, mulmul, muslin, cambric, jute, voil, georgette and mattee cloth were selected for the study.

Fabrics were purchased according to their use for apparel and home décor. Fabrics were first scoured and pressed. Design and colour combination accordingly to the texture of fabric were planned and various techniques of tying were applied.

Tying was done with simple aids like

- The cloth was bunched inside the polythene bag and twisted round several times, pierced all over with a pin for the dye to penetrate. Rubber bands were tied in all direction.
- Cloth was pushed inside the hair curler
- Cloth pegs were put along the folded edges of the fabric
- Cloth was screwed up into a ball or sometimes gathered and tied by rubber band or safety pins.
- Cloth was swirled around the plastic pipes.

Also pleating, knotting, stitching, folding etc methods of tying were used.

Naphthol dye Preparation

The following were some dye mixtures used for dyeing the articles.

Naphthol base : AT, ASBS, MN, MN + AT, ASGR, ATAS, BS

Developing Salt : Scarlet R, Blue B, Orange GC, B ardeaux GP, Blue BB

Proportion of Dye Bath (For one meter cloth)

Naphthol base	-	5 gms
Developing salt	-	10 gms
Caustic Soda	-	5-6 Pallets
Common salt	-	10 gms
Dispersing Agent	-	-10 ml

(Turkey Red Oil)

Water - enough to dip the fabric

Tied fabric was wetted and entered in Naphthol colour solution with continuous stirring. The fabric was kept fully in the dye for 30 minutes. It was then removed from the Naphthol solution. Pressed softly to remove excess solution. Cloth was opened and dipped in developing salt solution for 30 minutes.

Finally cloth was rinsed in cold water till no excess dye was left and dried and untied the fabric.

Results :

Following are the designs formed by various techniques

Polythene bag	-	Marble effect
Binding object	-	Various shape according to the type of object
Knotting technique	-	Broad striped
Hair curler	-	Marble effect
Sewing technique	-	Geometrical patterns
Pleating technique	-	Striped broad or narrow
Fabric rolled	-	Diagonal lines

Findings

Preferences from the 50 respondents were to be taken and so these articles were displayed. A few questions were formed to note the preferences for colour combination and design and to see the suitability of texture. 50 respondents were asked to give their preferences. The data was coded, tabulated and analysed. By using the ranking method rank were given to each of the article and the preferences for the colour and design were studied.

The findings regarding the preferences for colour combination and design were as per the table 1.

As regards the suitability of the texture of fabric for the prepared articles all the respondents like tie and dye, and would like to use tie and dye, and articles for their homes. Five out of fifty respondents felt that fabric four curtain and sling bag should have been more thicker. Georgette fabric for scarf was not liked by 6 respondents as they thought it would not give an protection in winter. Rest of the articles were liked for the texture of the fabrics, which were used to prepare the articles.

Table 1

Colour Combination		Design	
Name of the article	Rank order	Name of the article	Rank order
Kurta, churidar, Dupatta	1	Cushion covers	1
Saree	2	Kurta, Churidar, Dupatta	2
Cushion covers	3	Saree	3
Curtains	4	Bed spread	4
Table mats	5	Table mats	5
Bed Spread	6	Curtain	6
Tray Cover	7	Scarf	7
Scarf	8	Table cloth	8
Table cloth	9	Baby quilt	9
Dutches set	10	Dutches set	10

Conclusion

All the respondents like tie and dye and would like to use tie and dye method to make articles for their apparel and home décor. Because they found that no machinery is used and the only appliance needed are tubs, buckets, gas or stove gloves etc. investment for which is not considerable. The major items for which working capitals is necessary are cloth, colours, chemicals. They considered it as home based business which may help to solve a good part the problem for those women who have skills to create their own carrier.

Bibliography ;

1. Fay, Anderson, To Colour Book of Tie Dye and Batik, Octopus Book Ltd. PP. 15
2. Maile, Anne, "Tie-Dye made Easy", Oxford Book and Stationary Co, Seindia House, New Delhi.
3. Prond Nora, "Textile Printing and Dyeing", B..T Batsford Ltd., London, PP-40.
4. Robinson Stuart, "A history of dyed textiles" Pub. By Studio Vista Ltd, London 1969, PP 78-80.
5. Russ Stephen, "Fabric Printing by Hand", Studio Vista, PP. 96-97.