

SHORT COMMUNICATION

Development of Resist Dyeing Techniques For Batik Work

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The resist dyeing is one of the oldest means of embellishing fabrics. It is basically a technique of patterning in which a part of fabric surface is covered or reserved prior of dyeing.

The art of resist dyeing is becoming popular worldwide and is being recognized as an creative medium. Now a day's resist dyeing has captured the interest of artists and the consumers. Artists use these techniques to translate their own ideas into patterns, designed for dress material or decorative articles, etc. the traditional batik has evolved into an individualistic mean of expression with unlimited scope.

All types of resist dyeing techniques can be classified into chemical and mechanical techniques. In the chemical method the resist material renders dye fixation difficult by chemical means. In the mechanical process, the penetration of dye is restricted by preventing the dye liquor from wetting the fiber by purely mechanical means.

The mechanical resist dyeing techniques are classified mainly in two categories batik techniques and tie and dye techniques. Batik techniques are again of two types wax and non-wax batik. Non wax batik involutes of starches, gums, clay etc. The main types of tie and dye techniques are stitch resist dyeing yarn resist dyeing knotting object teeing etc.

The study was conducted with the following objectives:-

1. To evolve new techniques of resist dyeing.
2. To evaluate the evolved techniques
3. to evaluate the mechanical resist dyeing

Mechanical resist dyeing.

1. Paste resist dyeing
2. Tie & dye

(1) Pastes

- (A) Cold wax
- (B) sugar syrup
- (C) Jaggery syrup
- (D) Plaster of paris

(2) Starches

- (A) Guar flour
- (B) Bengal gram flour
- (C) Kuttu flour
- (D) Cold water starch

(3) Clays

- (A) Mari (Chikni mitti)
- (B) Fuller's chalk (Multani mitti)

(4) Adhesive tapes

- (A) PVC electrical insulation tape
- (B) Fabric base medicated tape
- (C) Edge binding tape (Cello tape)
- (D) Transparent surgical tape

Experimentation on explored resist materials:-

- (a) The fabric was rinsed thoroughly, dried and ironed.
- (b) The cold wax used as such. Sugar and jaggery were cooked with water to make syrups. Plaster of paris, cold water starch and marl were mixed with water to make creamy pests. Guar flour,

Bengal gram flour and kuttu flour were sieved through a Muslim cloth, mixed with water and used cooked as well as uncooked. Fuller's chalk was powdered, sieved and mixed with water to form a creamy paste.

- (c) Each of the paste was applied on separate fabric samples on both the sides with the help of a brush as per design.
- (d) First the parts was applied on the under side of the sample by placing the upper side on the newspaper than the paste was applied on the other side.
- (e) The samples were than allowed to dry by hanging with the help clothes pegs to avoid spoiling of the paste.

Application of adhesive tapes:-

- (a) Each of the selected adhesive tapes were cut and pasted on one side of the samples according to the design.
- (b) Than the outlines of the adhered tape were traced on the other side and the tape was parted as per the outlines drawn to achieve proper resistance to dye penetration. Than tape was pasted on the other side of the sample.
- (c) After dyeing the fabric was gently rinsed in cold water and left for drying under shade. The resist material were removed by appropriate methods (starching rubbing, brushing and peel off). The left over resist material were removed by washing in plain water and allowed to dry under shade. Finally the sample were ironed.

(2) Tie & dye:-

Exploring new techniques of tic and dye:-

1. Rings of different sizes of create circular pattern
 - (A) Iron rings (B) Rings with threads in inner circum ference (C) Plastic rings (D) Other metal rings.
2. Cold drink bottle lids
3. Josephine knot (a macramé Knot)
4. Metal chain
5. Plaiting
6. Lopping to make a chain

Tieing of the samples

- (A) Tieing the rings:- The central point of the square sample was picked up and smoothened down like a closed umbrella and than drown through the rings of different sizes as per design requirement until they become too tight to resist the penetration of dye.
- (B) Sample was folded into quarters and then across to from a triangle and again folded in half to make a smaller triangle. The bottle lids were fixed on the triangle according to design with the help of clothes pegs.
- (C) Sample of size 12X24" was gathered up into a roll and little twist was given. Then Josephine knot was formed of the fabric itself.
- (D) The sample was folded into quarters and again folded into quarters to from a smaller square and then folded in half across. Than metal chain was wrapped around and fixed with clothes pegs.
- (E) Sample was gathered up into a roll/rope and little twist was given. A string or rope was bound in the centre of the gathered sample to obtain three strings for plait and then plait was macdle.
- (F) Sample was gathered up into a roll/rope and twisted a little. Than a chain was formed by making loops after tops of the fabric itself just like chain stitch. These tied samples were dyed.

The results obtained in this study can be summarized as follow:-

1. It was evident from the visual inspection test that all the designs in the samples batik and tie & dye. All the batik resist materials were easier to remove the wax. PVC tape was easier resist material to work with an no preparation and drying was required but could produce only straight line designs. All the resist material required less time in the whole process (Preparation, application, drying and removal) than wax.
2. Kuttu flour and PVC tape produced coarse crack effect Bengal gram flour created comparatively finer crakes. While plaster of Paris produced finest cracks like waxed sample.
3. Plaster of Paris samples samples had maximum aesthetic appeal and sharpness of outlines while kuttu flour had the least aesthetic appeal and sharpness of outlines of plaster of Paris samples was at par (Comparable) with wax sample.
4. In the case of tie and dye techniques the sample tied with cold drink bottle lids had the highest aesthetic appeal followed by those tied with metal chain, rings Josephine knot, looping and plating.

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