



Tie-and-Dye

The African, Indian, and Japanese words, adire, bandhana, and shibori, meaning to tie and dye, have been used for centuries. The words describe a method of fabric design that is called tie dyeing. In this process, parts of a piece of fabric are pulled into tufts which are bound with string or elastic bands. The material is then saturated with dye. Where the fabric is bound, it resists the dye; elsewhere, dye is absorbed.

Materials and Equipment

Fabric

- Suitable fabrics include cotton, burlap, silk, some rayon, linen and wool.
- Synthetic fabrics (nylon, polyester, acrylics) will not take a dye, so cannot be used.
- Permanent press finish on cottons will not allow dye to penetrate so choose untreated cottons.
- Dye intensity is determined partly by the tightness of the twist of yarns in the fabric. For example, burlap with its loosely twisted yarns dyes much more brilliantly than tightly twisted broadcloth.
- Wash the fabric first to remove sizing. If left in, the sizing or starch will prevent the dye from attaching to the fabric.

Bindings

- String, twine, cord, thread, and elastic bands can be used as binders.
- The finer the cord, the more lacy and delicate lines are produced.

Dyes

- Household dyes are satisfactory. They must be mixed stronger than the directions say.
- Generally for brilliant colors use one package dye to four cups boiling water and add one teaspoon salt to help make material colorfast. Keep dye hot but not boiling.

Newspapers (to protect the floor or work surface)

Rubber gloves

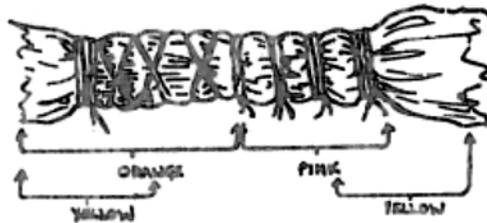
Wear old clothes, an old apron., or large garbage bag to protect clothes.

Rags (for cleaning up)

Methods

General Notes

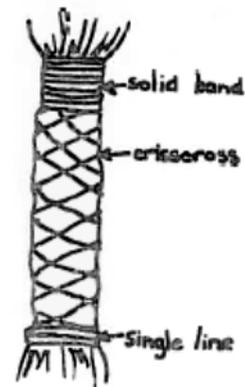
- Bindings must be wrapped and tied TIGHTLY to get good color variations.
- For consistent results the fabric should be damp when it is tied and when it is dyed.
- Fabric may be rinsed under cold water after dyeing. This gives a more hazy effect than unrinsed work.
- When dyeing with two or more colors, fabric may be dyed one color, then dried, then dyed the other color or may be dipped in one color immediately after the other. The latter method gives softer edges and a more evenly mixed color when the two colors overlap.
- Recycling Note: Save the binding strings after dyeing and use them for gift wrap ribbons or for making a yarn geometry picture.
- When dyeing several colors, dip just the part where you want each color to be - not the whole thing. (see diagram to left).



- Dipping into Dye: A quick dip into the dyebath means the dye has less time to penetrate and you get bigger white and light areas. A longer time in the dye (3 or 4 minutes) allows dye to penetrate more so you get more dark areas and less white and light areas. Lines from crisscross bindings are less noticeable in a longer dip than in a quick dunk. Dip small areas into the dye at one time or the background color will be splotchy from overcrowding.

Applying Bindings

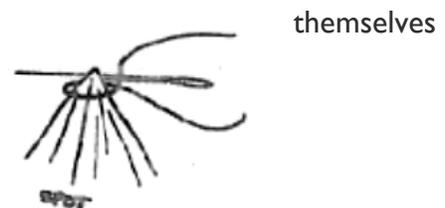
- For solid wide bands, wrap string around fabric several times.
- For a single thin line, wrap string around once or twice.
- For a lacey "spiderwebby" effect, wrap string up the fabric and back down again in a crisscross manner.
- To make sure no dye will penetrate in one area of binding, paint band of binding with thick flour and water paste.
- Leave some areas free from binding.



Binding Methods

Spot Technique

- Plan carefully where they are to go because the spots aren't too exciting.
- Pick up tiny piece of fabric with needle.
- Wrap sewing thread around directly below needle.
- Tie tight.
- Remove needle.
- Dip in dye.
- Remove thread.

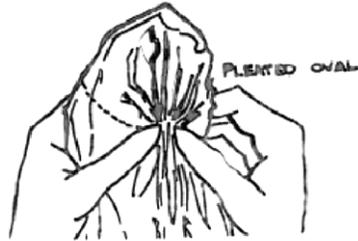
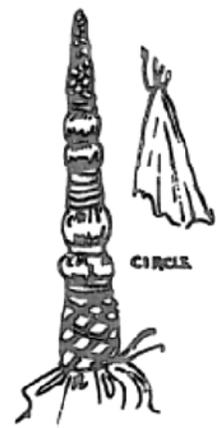


Circle Technique

- Pick up centre of circle and smooth folds formed from it.
- Bind, dye, untie, dry.
- Radius of the circle is determined by the distance from the point to the bottom of the bindings.

Square Technique

- Fold fabric lengthwise through centre.
- Fold crosswise.
- Bind, dye, untie, dry.

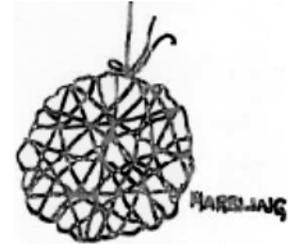


Pleated Oval:

- Fold fabric in half along centre line of oval.
- Using cardboard pattern of half an oval, trace outline on fabric.
- With fingers, pleat both thicknesses together along this line, forming a fan shape.
- Bind, tie, untie, dry.

Marbling

- Makes a beautifully hazy background for other media such as stitchery and block printing.
- Squash fabric up into a ball.
- Bind in all directions until it is fairly hard.
- Dip in dye, remove, untie, dry.
- For second and/or third color, repeat bunching and binding, trying to get cloth not already colored close to the surface.

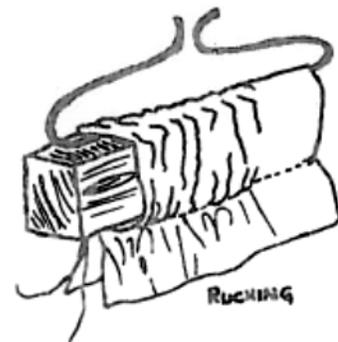


Lines of Stripes

- To make irregular stripes, randomly (not carefully) pleat or fold fabric lengthwise, crosswise, or diagonally.
- Bind, dye, untie, dry.

Ruching

- Fold fabric along centre of stripe.
- Place a line of machine stitching below fold, forming a casing, only large enough to slip a ruler or piece of wood through.
- Slip casing over wood and gather all the fabric up at one end of the stick.
- Bind and dye.
- Remove binding and machine stitching (and the ruler!).



Little Boxes

- Accuracy in folding is most important.
- Fold fabric once in direction of stripe.
- Accordion pleat at right angles to the first fold.
- Pleat in opposite direction to pleats just made.
- Bind and dye.
- Open unbound ends during dyeing to let dye reach inner folds.



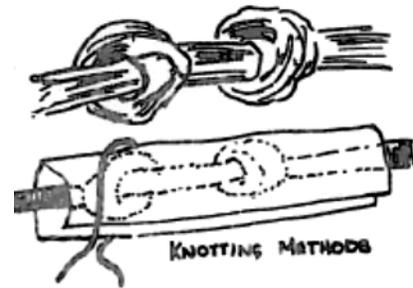
k) Lattice

- Accordion pleat in one direction.
- Bind at even spaces, and dye; untie and dry.
- Accordion pleat in opposite direction.
- Bind in the same way, dye, untie, dry.
- Beauty of this method is its accuracy.



l) Knotting

- Use fine fabric for these. Burlap and other heavy fabrics won't tie well.
- Roll or fold up fabric into a string, then tie it into knots and dye.
- An alternate method is to tie a thick rope into knots and roll or fold cloth around it.
- Bind to the rope and dye.



m) Rope Technique

- Fabric may be rolled, twisted, or bunched into a rope.
- Add bindings, dye, untie, let dry.

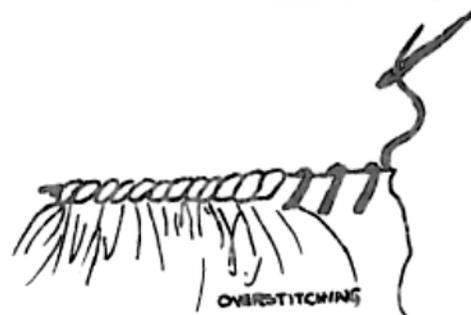
n) Trituk

- Begin with a design of simple lines.
- Use strong sewing thread and make a big knot in the end.
- Follow the outline with small running stitches. Gather the fabric very tightly on these threads and secure with a big knot.
- Dip quickly in and out of dye.
- Remove threads, dry.



o) Overstitching

- Fold fabric where design is to be.
- Taking deep stitches into the fabric, sew over top of the folds.
- Draw thread so tightly that it straightens out and the fold coils around it.
- Dip in dye; remove thread, let dry.



Dyeing

- To prepare the dye bath, calculate how big a pot you need to accommodate the fabric – big enough so that the material is not crowded.
- Fill the pot with hot water; then add the dye mixing according to instructions on the dye packet.
- **Follow the instructions on the packet or tin of dye that you have bought. Read this carefully before you do this activity because some dyes need salt and some cold fix. And make sure that you have enough time to do this - some dyes require things to be soaked for 3 hours, some for only 1/2 an hour.**
- After the fabric has soaked for the required time, remove it from the pot. Without removing bands, etc., rinse the fabric under cool running water until all excess dye has been washed away. When the water runs clear, remove the resist materials and rinse the fabric once more, again until the water runs clear.
- Hang up to dry but keep out of direct sunlight. Put plastic on the floor under it to avoid stains. Hand launder tie-dyed garments several times, or machine wash them separately in cool water, before you wash them with other clothes.

IV. Evaluation

- Is it made correctly into something that doesn't have to be washed?
- Is the color combination pleasing, without some areas standing too far out from the others? (This could happen if one color was too dark.)
- Is the fabric used in a way whereby the design shows off to advantage? (eg: a round article for a large circle; a rectangle for stripes, etc)
- Is there a good variation in value and intensity in each color? (eg: very dark areas, medium areas, and white areas)
- Is the pattern fairly definite? (wishy-washy patterns are caused by not binding tightly enough)

Project Resources:



Pinterest – The Visual Discovery Tool

Pinterest is a social media bulletin board for you to virtually pin pictures of things that interest you to your own personal boards – Pin-Explore-Discover! 4-H Manitoba has a Pinterest account. Each project series has a board full of fun and interesting ideas. There are also boards for 4-H Awesome, Community Service,

Volunteers, Communications and Building Blocks. Check it out at

www.pinterest.com/4hmanitoba/.

Sections of the Tie-and-Dye Fact Sheets were adapted with the permission of MAFRD from the publications *Creative Craft Techniques* - Manitoba Department of Agriculture and the Manitoba 4-H Project: *Crafts Around the World* - 2004.

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