Possibilities with Dye

Anita Andrews

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Possibilities With Dye

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POSSIBILITIES WITH DYE
Anita Andrews
Extension Specialist in Clothing

Dye offers many opportunities for the clever housewife to introduce color into her home. Old fabrics may be freshened or their color changed by the use of dye. A new and interesting bit of home decoration may be added by a tied-dyed pillow or a small piece of batik.

Dyes may be obtained now that do not stain vessels, or permanently stain the hands. This new feature makes dyeing a pleasure to many who formerly considered it an irksome task. The woman who takes the time to make a study of the factors and principles involved in successful dyeing, will find she can do many interesting things. With a few colors and a knowledge of color theory, shades not listed on the color card may be obtained.

The Color Wheel

A study of the color wheel reveals the fact that secondary colors are mixtures of equal parts of the primary colors, red, yellow and blue.

Intermediate shades and tints may be obtained by adding more of the primary color to this secondary color.

Theoretically, all colors could be produced with these primary colors. Pigment used in dyes, however, is not always pure color so that it is difficult to obtain some shades.

The following is a list of colors that may be obtained by mixing the primary colors:

- red + blue = violet
- red + violet = red violet
- red + yellow = orange
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red + orange = red orange
yellow + blue = green
yellow + orange = yellow-orange
yellow + green = yellow-green
blue + red + yellow = brown
yellow + brown = golden brown
blue + violet = blue-violet
blue + green = blue-green

Complementary colors when mixed together gray each other; e.g., red may be grayed by the addition of green. Tans are grayed yellows. Violet added to yellow will give a gray yellow or tan.

Whether dyes are mixed in the bath or whether an over-dyeing is attempted, the original color in the cloth will affect the final color in just the same way as if dyes were mixed in the bath. For example, if green is desired on material which is already yellow, it should be dipped in blue dye and green will be the result.

Dyeing Old Fabrics

Preparation—Before the dyeing process can begin it is necessary, if the material is old, to have it thoroughly clean. This can be done in soap and water and in some case it is well to dry clean it. Soiled spots will not take the dye stuff the same as the rest of the material, tending to cause a spotted appearance after the material is dyed.

Material that is to be re-dyed should be tested to see if it will stand boiling. Silks that have been weighted with metals to make them appear heavy and lustrous will many times break down during the dyeing process. This is due to the weighting rather than the dye. Silk fibers are delicate and care should be taken not to boil them at any time very vigorously or handle them roughly.

Selecting the Dye—The kinds of dyes on the market vary considerably. There are acid or alkaline, powder, liquid, or soap dyes. As a rule any dye can be used as a tint if it is used cold. Dyestuffs can be mixed to produce shades and tints, but the same make of dyes must be mixed. A nice variety of colors can be secured this way. Mixing primaries to secure other colors is not always satisfactory. Red in a great many dye-stuffs is not pure red, hence resulting purples, oranges, etc. are not true. All dye companies print new directions every spring and fall for combining dyes to produce the popular colors of the season. These may be secured at the dealers or direct from the companies.

The color in the old material that is to be re-dyed must be considered. Certain colors cannot be dyed over others (See Chart). A light color cannot be put over a darker shade. One complement cannot be put over another, because they will neutralize each other. If the old color is faded and streaked in the old material it is wise to remove as much of the color as possible. This may be done by boiling in a mild soap solution or by using commercial dye removers. Long boiling is injurious to both silk and wool.

It is advisable, if the color is dark, and the old material is quite bright, to neutralize it with its complement before attempting another color, e.g. if one wishes to dye black over red, green should be added to the dye bath to neutralize the red hue.
The color of the dyed fabric may be ascertained before it is dry by holding it to the light. This gives practically the same color as the material will be when it is dry. If a sample is dyed first, a small amount of dye should be removed from bath and the sample added to it. If it is not the desired color, the dye bath should be weakened or strengthened, or other dye added. Any color which appears too bright, as many dyes do, may be grayed by adding a small amount of the complement. This gives a softer color, and is usually more attractive than the pure dye color.

**Fibers and Their Affinity for Dye**

Materials differ in their affinity for dye. The way the cloth takes the dye depends very definitely on the kind of fiber used. Rayon has the greatest affinity for dye, silk next, wool next, mercerized cotton next, then cotton and lastly linen. Linen is the least satisfactory when dyed. Colors are richer and have more depth in rayons, silks, and wools. It is this that makes these fibers more suitable for the tied-dyeing or wax resist process.

**Tied Dyeing**

Tied dyeing is an interesting way of adding color to your surroundings. Very clever lounging robes, pajamas, neck scarfs, table scarfs, pillows, piano throws, and handkerchiefs may be made with the process. The process consists of tying up parts with a cord to prevent the dye from reaching those parts of the fabric.

Patterns may be made by just tying up parts in a hit and miss fashion, or the material may be folded and a regular pattern followed. Marbles, pennies, etc., tied in corners give a variety of effects. Sometimes, designs are basted in. Basting makes a more accurate design. The material should be folded several times and basted on the pattern line. The basting in then drawn tight, and the cord wound around parts between basting.

Colors Suitable for Tie Dye —One hue harmonies are nice for tied-dyed work. A weak dye is used first and the dye is strengthened as the process proceeds. Other harmonies may be used, but the over-dyeing
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Illustrating method of tying for diagonal design.

chart must be consulted. One complement cannot be dyed over another with success, unless the grayed color is desired. A green over red in full intensity is not possible in an over dipping process.

If material is new it should be washed to remove any sizing or weighting. The material should be wet, before any tying is done. This insures a tighter tying. If material is tied very tightly, little or no dye will penetrate; if it is desired that some dye penetrate, the tying is done more loosely. Nice effects may be obtained by knotting. Unless cold water dyes are used, the material should be boiled to give a fast color, especially in any garment that will be washed. Tied-dipping may be done, if the piece made can be dry cleaned, but this method is not as satisfactory. The material should be thoroughly rinsed after each process. The piece should then be shaken until dry if possible. This will prevent any running of dyes. Never roll up to dry.

Batik or Wax Resist Process

Batik is a Javanese word, signifying the use of printing with wax. It is a very old process that has been practiced by these people for centuries. The principal garments of both men and women in Java are made of batik. They use few colors, usually indigo, golden brown, and white. The crackle effect seen in so much batik is considered by the Javanese to be poor workmanship.

Batik or wax resist process has a wide range of uses. Very nice scarfs, hangings, handkerchiefs, pillows, etc., may be made. Good batik is expensive to buy, but can be made successfully at home if care is given to the process.

Choosing the Dye—The essential requirement is the dye, and it must conform to the following requirements:

1. It must be easily used.
2. It must be used cold, as the wax melts and destroys the design if the dye is hot.
3. The colors must be sufficiently fast to allow the wax to be removed without injury to the color.
4. The colors must not fade in light or sun.
Regular batik dyes are on the market and give the most satisfactory results, as they are cold water dyes.

Materials—Materials used will, of course, depend on the use to be made of the batik. The design is more easily applied to thin material and it takes the wax better, although velvet, duvetyn and other pile fabrics may be used if waxed on both sides.

Wax Resist Frame—A wooden frame is necessary for the batik process. This should be firm, but of soft wood, so that the material may be easily thumb-tacked to it.

Designs—Wax resist designs should not be too fine, until the worker is accomplished. Designs may be transferred in a number of ways. It is not wise to use carbon paper. Best results may be obtained on heavy material by blacking the back of the design with a pencil and then tracing it. The design should then be gone over and made true. Do not make lines too heavy, for if the dye is not dark they are hard to remove. The design can be retouched after the first dipping, if necessary. If the material to be used is thin, the design may be outlined in black ink and tacked to the frame under the material and the design followed as the waxing is done.

Wax—Pure beeswax is most frequently used, and is very successful. If the crackle effect is desired, paraffin mixed with the wax or paraffin used alone will crackle more easily.

The wax is applied with a brush. A small Japanese paint brush or water color brush may be used. The temperature of the wax is very important. Practice will acquaint the worker with the correct temperature. The wax should penetrate through the fabric, but should not spread. If it is too hot it spreads and is too thin, if too cold, it will not penetrate. Heavy fabrics should be waxed on both sides. The brush should be held in the wax long enough to heat it through thoroughly so that the wax on the brush will stay warm longer.

The dye should be slightly warm to prevent cracking of the wax, but should not be hot. If cracking is desired, cold dye will make wax crack more easily.

The Process—True batik is a dipping process, i.e., the entire piece is dipped in each color of dye used. This insures a blending of color which is not always possible if painting is done. Sometimes, however, if a bright spot of color is desired, it may be painted in with a brush. Outline the design with wax before painting. This will prevent the dye from running into the remainder of the material. The original color of the material will be the color of part of the design or of all the design, if only one dye is used.

After the design has been transferred to the material, and the material fastened to the frame, the waxing process begins. Cover with wax all parts of the material that are to remain the original color. Then dip in dye. The dye should be weak and the vessel large enough to prevent crowding. Allow the material to absorb all the dye and if the color is not the desired shade, remove the batik and add more dye. In this way, the desired shades may be obtained. Remove from the dye, rinse, and dry. It is best to dry by shaking as pressing between towels, etc. is apt to break the wax.
If another dipping is desired, mend any broken wax, wax new parts of the design and dip in dye. Remove from dye bath and rinse in warm water and then in cold. This will remove part of the wax. The remainder of the wax may be removed by ironing between newspapers. It should then be dipped in gasoline which will brighten it and remove all traces of wax.

References
Gertrude Lewis—First Lessons in Batik
Charles Pellew—Dyes and Dyeing
Booklets on Dyeing—Commercial Dye Companies

GUIDE CHART FOR RE-DYEING

<table>
<thead>
<tr>
<th>Present Color</th>
<th>Colors That May be Obtained*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rose</td>
<td>Deep red, wine, brown, dark blue, dark green, purple, black</td>
</tr>
<tr>
<td>Scarlet</td>
<td>Deep red, wine, brown, black</td>
</tr>
<tr>
<td>Dark Red</td>
<td>Dark brown, black</td>
</tr>
<tr>
<td>Light Blue</td>
<td>French blue, old blue, navy, burgundy, dark green, dark brown, purple, black</td>
</tr>
<tr>
<td>French Blue</td>
<td>Navy, purple, dark brown, black</td>
</tr>
<tr>
<td>Deep Blue</td>
<td>Navy, purple, brown, black</td>
</tr>
<tr>
<td>Yellow</td>
<td>Bright red, deep red, wine, light green, dark green, light brown, dark brown, black</td>
</tr>
<tr>
<td>Sand</td>
<td>Tan, brown, scarlet, wine, green, navy, black</td>
</tr>
<tr>
<td>Orange</td>
<td>Brown, dark green, black</td>
</tr>
<tr>
<td>Tan</td>
<td>Brown or black</td>
</tr>
<tr>
<td>Brown</td>
<td>Darker brown or black</td>
</tr>
<tr>
<td>Light Green</td>
<td>Darker greens, dark brown, black</td>
</tr>
<tr>
<td>Lavendar</td>
<td>Wine, purple, dark blue, dark green, dark brown, black</td>
</tr>
<tr>
<td>Gray</td>
<td>Bright blue, navy, light green, dark green, dark grey, wine, brown, purple, black</td>
</tr>
</tbody>
</table>

*Any color may be re-dyed its same color or a deeper shade of the same color, or black.