Layers of sun printed fabric, left to right one through four layers of printing.

Layered sun printing

by Martha Wolfe

before turning to fiber art, I studied printmaking— relief printing was my go-to medium. Now, while I spend most of my time working with fabric, I continue to experiment with ways to lay down color that are analogous to printing.

"Sacramento River Chinook" • 24" x 30"

This series of prints shows how 4 layers of sun printing can create a rich and varied texture.

MATERIALS

- Fabric, several inches larger than desired final size (I used unbleached cotton muslin.)
- Liquid acrylic paint, several colors (I used Jacquard® Dye-Na-Flow®.)
- 1"–1½" bristle brushes
- Materials to print—foliage, hardware, coins, stencils, blocks, rice—anything that will lie flat on the fabric
- Plastic drop cloth
- Protective gloves and apron

In printmaking, there is always a certain excitement when you lift your block and reveal a new layer of ink. The addition of a new layer of color creates new patterns, emerging definition, and subtle dimension to a print. I wondered what would happen if I layered different colors of paint—applying some of these same principles to sun printing on fabric.

What is a sun print?

The best place to start is with a brief understanding of what a sun print is … and isn't. It turns out that what we have come to call a "sun print" is a bit of a misnomer. Historically, the term "sun printing" was used for a process called cyanotype, a photographic method of printing requiring toxic chemicals and UV light. Cyanotype was discovered by an English scientist in the mid-19th century and developed primarily for things such as architectural blueprints. The combination of chemicals and light produce the beautiful characteristic blue monochromatic print.

Conversely, what we fiber artists have come to know as "sun printing" can use non-toxic paints and doesn't require sunshine or even light to accomplish. The printing is accomplished by evaporation.

How does this process actually work?

The process begins with paint—as opposed to dye. While dye binds to the fibers in fabric, paint remains on the fiber surface and is therefore movable. The ability of the color to move on the surface of the cloth creates the sun print.

To create the print, fabric is painted and various materials are placed on top of the wet fabric. The exposed fabric

figure 1

figure 2

dries more quickly than the fabric that is covered, with or without sunlight. As it dries, it wicks the moisture (and with it, the painted color) from the covered area, ultimately leaving behind a negative print. (*figure 1*)

Often, this type of sun printing is done with one color, mimicking the appearance of a cyanotype. I prefer to use multiple layers of color to create deep, nuanced prints for more complex backgrounds or yardage for piecing.

DIRECTIONS

NOTE: If you live in a warm, sunny place and can work outside, the process goes more quickly; however, you will get similar results indoors.

Create a single sun print

1. Find a large, flat space protected from wind and free from cast shadows. Cover the surface with a plastic drop cloth to aid in evaporation and protect your surface.

2. Gather materials to print. Wet the fabric and gently wring out excess water.

3. Select the colors of paint and determine the order in which they will be added. Dilute each paint color with a little water.

4. Wearing protective gloves and an apron, spread the wet fabric on the work surface and paint it quickly with the first color.

5. Cover the painted fabric with printing material (this example shows leaves) creating a single layer. Gently press the leaves to make contact with the fabric. The better the contact, the sharper the image. (*figure 2*)

6. Allow the fabric to dry completely, including the areas under the leaves. Remove the leaves to reveal the negative print.

7. Heat-set the color using a hot iron.

Add layers of color & print

1. To add subsequent color to your print, re-wet your fabric with water. Wring it out gently and spread it on the work surface.

2. Paint the entire surface quickly with the next paint color you have chosen.

3. Place printing materials over the fabric as desired.
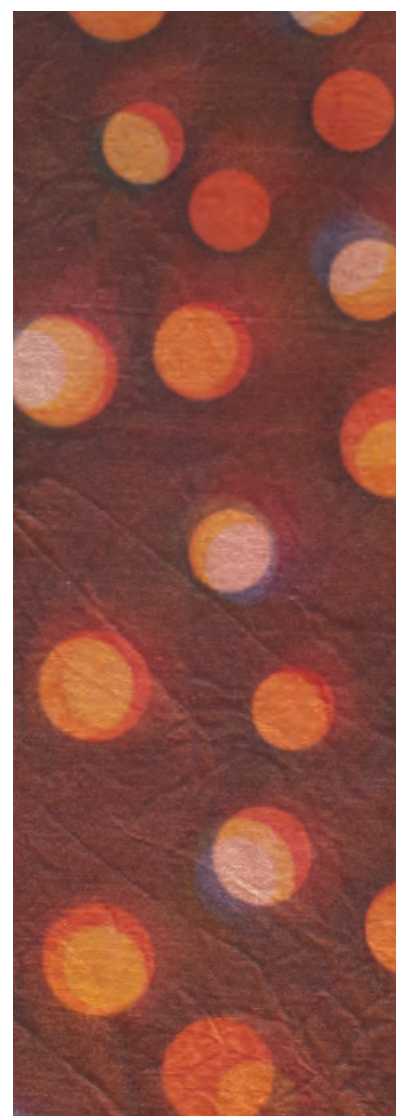
Sun printed fabric using pennies as the printing material.

"Stillness" • 24" x 39"

Martha's Tips for Successful Sun Printing

Set up the printing space on a flat surface—any folds, cracks or patterns will leave their mark on your print. Cover the surface with a nonabsorbent material (plastic painter's cloths, inexpensive party table cloths, or plastic bags for smaller projects). If working outdoors, find a space protected from wind and free of cast shadows. Put weights on the corners of the covering to keep it in place in the event of a breeze.

Make a small sample print on the fabric you will be using to visualize color blending and suitability of the material. Don't be constrained by the color of paint in the jars, consider gradients or other color blending in each layer.

The better the contact, the sharper the print. Items that are completely flat, like a coin, will create a sharper edge because they have full contact with the surface of the fabric. That said, printing a branch of leaves, where some make full contact and others don't, will produce areas with varying amounts of clarity that enhances the sense of depth in the print.

Resist the temptation to check your results. Be sure fabric is completely dry before removing materials—color can migrate back and make your print disappear.

A single branch can make a dramatic print, but using several branches for each layer will provide more opportunities for colors to blend or persist from layer to layer, leaving more discreet colors in the final piece.

NOTE: The printing materials do not need to be in the same position as the first print.

4. Allow the second print to dry completely.

5. Heat-set and repeat with additional colors.

Remember, you can control for parts of the outcome, but there will always a part that is serendipity—and that is the magic of printing! ❖