

Technique of the Month

Sun Printing

by Vicki Welsh

Sun printing (or sun painting) is a very simple technique for imprinting images on fabric. The basic technique is to paint an entire piece of fabric, position the shapes (masks) and place the fabric in the sun to dry. As it dries the areas under the mask are the last to dry so the heat from the sun draws the wet paint from under the mask toward the dryer parts of the fabric. The result is that there is no paint left under the image.

Since the fabric has to be moved outside after it's painted and the mask is placed, it's important to have some portable boards to use as your work surface. I save large appliance boxes, cut them into various sizes and then cover them with heavy plastic. I use clear shower curtain plastic. The heavier plastic makes the boards reusable many times because the plastic surface can be wiped down between uses. It's also important that the surface be very smooth because any wrinkles will cause the fabric to dry unevenly and the wrinkles will show in the final fabric. If you are only doing this a few times you can easily get away with thick plastic from dry cleaner bags.



Supplies

Acrylic fabric paints – I used Jacquard Dye-Na-Flow paint for these samples, but any acrylic fabric paint will work. Even thicker paints can be watered down enough to work for this technique.

Cotton fabric – Plain white will give the best contrast but light colored fabrics also work well.

Brushes

Small cups for mixing the paints (plastic applesauce or yogurt containers work well)

Plastic-covered boards to hold the fabric while it is printing

Masks – foliage, buttons, foam shapes, pasta, hardware—anything that you want to use for your print



Make sure the piece of plastic is larger than the cardboard. Wrap the edges to the back of the cardboard and tape the plastic so that it is pulled taught across the front. Of course, you can use anything you want. If you already have large rigid sheets of plastic, or other washable surface, then you don't need to use cardboard boards.

Put one of the boards on your work surface, smooth plastic side up, and spread a piece of fabric over it. I am using fat quarters for my examples. Spritz it with water and smooth the fabric out very flat. Some people advise ironing the fabric before painting but I have found that if I get it quite wet and I smooth it well with my hands then I do not need to iron the fabric. Make sure there are no air bubbles under the fabric.

Prepare your paint colors. I mix Dye-Na-Flow and Setacolor paints about 50/50 paint to water. Thicker paints will require much more water. Use one brush for each color. It does not matter what type or width of brush you use.



I like the effect of multiple colors and I often use three or more colors on one piece of fabric. Paint some areas with your first color.



Add the other colors in random marks across the fabric.



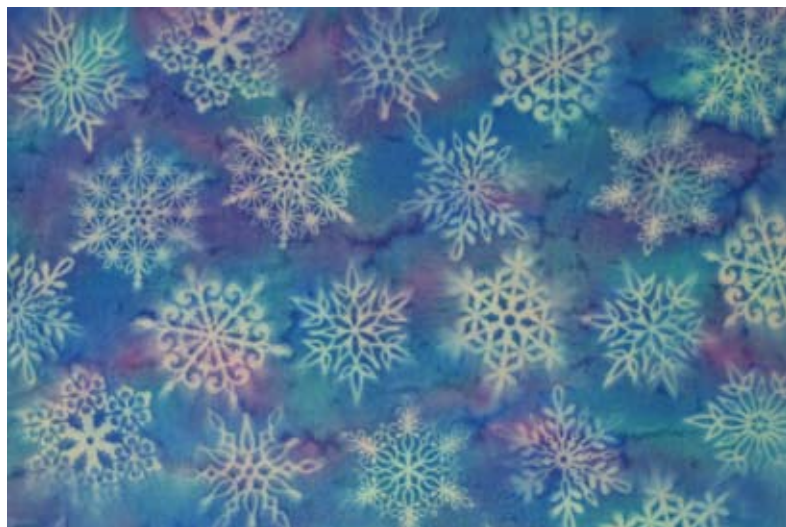
Because the fabric is wet, the colors will blend together as the fabric sits. Continue adding paint until you get the coverage and depth of color that you want.

Position your masks. In this example I am using one of my favorite sun printing masks. These are wood snowflake ornaments that a friend gave me. If you think you are going to be using your fabric as an all-over design fabric, make sure that you spread the images out all the way to the edge. I usually make sure that there are some that lay off the edge.



Place the fabric on the board in the direct sun for the best result. Once the fabric is dry you can remove the masks, heat set the paint following the manufacturer's directions and use the fabric in your project. Heat setting is very important if you are going to use the fabric in a washable project or on a washable garment. These paints will fade considerably if not heat set.

Here's the fabric created from the snowflakes. You can see areas where the snowflake images are not as sharp. Those are areas where the mask was not touching the fabric.



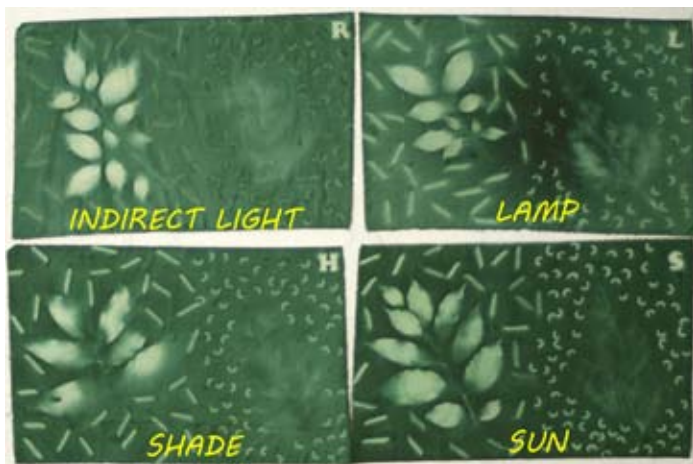
There is often confusion about the need for sun for sun printing. The name certainly implies that the sun is required—but it's not!

You can print using a light bulb in your home or work space. In this example, I clamped a light to a table and put my board under the light.



But, let's take it one step further to see how much light really has to do with it. In this example I prepared four fabric boards with the same paint and masks. I used some large leaf foliage, a fine leaf foliage, elbow pasta and a tube pasta. I placed one sample in direct sun, one in shade, one under the light and one in a room with no direct light.

This experiment proves that we aren't really "sun" printing. Instead we are "mask drying" with heat. In all four examples, the broad leaf shapes and the pastas show up clearly. The images are sharper in the sun and lamp samples and the indirect light samples produced the palest images from the pasta masks. The fine leaf shape is sharpest in the sun and lamp samples.



Without doubt, the sun sample is the clearest. The sun heats and dries the fabric evenly and draws the most paint out from under the masks.

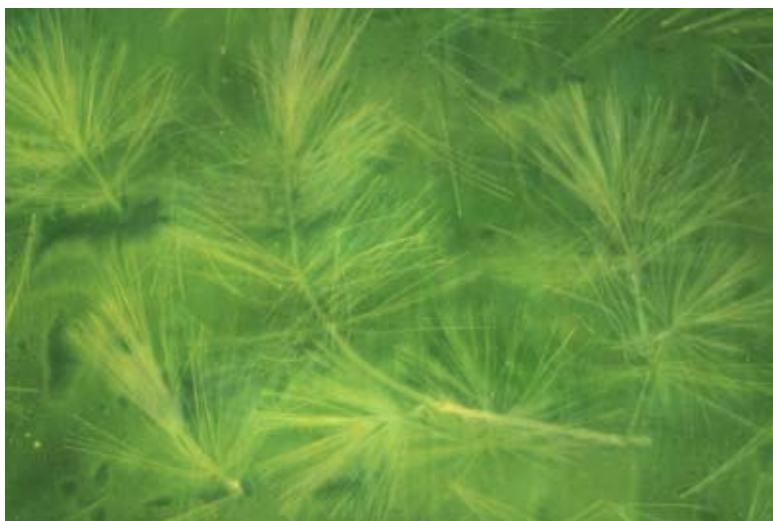
The shade example is quite clear. It was a very hot and dry day when I did this. It's clear that the shade did not perform as well for the fine leaf sprig but the pastas are very clear.

On the lamp dried version notice that the center of the fabric is much darker than the edges. That's because the heat from the lamp was concentrated in the center. That area dried first so the wet paint was drawn from the edges to the center. If you are going to lamp dry your fabrics, try to set up multiple bulbs and have them about 10" above the surface of the fabric.

The indirect light sample is the least clear. It obviously makes a difference how quickly the fabric dries. With the indirect light there was no catalyst to dry the exposed fabric first except under the larger leaves where the mask would keep that area wet longer.

This experiment is presented to encourage you to experiment to figure out the best sun printing set up for your own applications.

This next sample is included to show you that sun printing on a colored fabric can also be effective. This yellow fabric was painted dark green and then sun printed with pine boughs. The pine yields a foggier image because most of the pine needles sit above the fabric surface.



Don't let this dissuade you from trying for fine images. You can get some very fine images but the mask must lie directly on the fabric. You can get a very strong image from thread drizzled on the fabric.

Other things to consider for sun printing masks:

- Pasta – I arrange pasta into different designs on the fabric combining two or three different pasta shapes. You don't have to throw out the pasta after one use either. I keep zip lock bags and have been using the same pastas for about three years.
- Buttons – one of my favorite masks is buttons. Look for ones in different shapes and sizes.
- Gears – My asthma inhaler has lots of gear parts. When I finish an inhaler I take it apart and take out all of the little gears and cogs. They make great images.
- Foam letters and shapes – Take one fat quarter of fabric, spell out a name in the middle, add some pasta

shapes around the edges and you have a whole cloth custom placemat . Sun print it on heavy fabric and all you will need to do is hem the edges!

- Hardware – Washers, nuts, bolts, screws, keys, etc. Look around, there are lots of great masks in the hardware store.
- Salt – Sprinkle salt crystals around the fabric after you have placed the masks and you will get some interesting background textures. This works best with strong images. The salt will distort very fine images.

Here are a few projects from the Three Creative Studios Free Project page that are great for sun printed fabrics:

Padfolio

Droid/iPhone case

Pouch Bag

Fat Quarter Placemats – the project example was made with pasta sun printed fabric.

