

THE ART OF NATURE PRINTING

Directly printing forms found in the natural world has been used for centuries by scientists, naturalists and artists to preserve the ephemeral beauty of nature. This presentation explores a variety of processes to create prints on paper with fresh and dried plant materials.

BOTANICAL CONTACT PRINTS WITH NATURAL DYES

This a process for transferring color from plant material onto paper using heat from a simmering dye bath. There are various methods for obtaining beautiful contact prints but I will be showing a method of creating bundles of paper wrapped around pipes to immerse into the hot liquid.

Australian natural dyer, India Flint, first used the term “Eco-printing” for her process of ecologically sustainable dye processes on textiles with plants. I learned this process from mixed media artist Leslie Marsh.

YOU WILL NEED: A pan large enough to completely submerge the bundles
Heat source
Plant material, dried or fresh, flattened and not bulky
Natural dyes (such as black walnut hulls)
White distilled vinegar
Alum
Watercolor, mixed media or printmaking paper
PVC, dowels or metal pipes or straight sticks
String
Disposable gloves

Results vary depending on the quality of the local water, types of plant material and type of the paper used. I use an electric turkey roaster or deep canning pots in my studio and have learned to duplicate my results fairly reliably by trial and error.

The pan is filled with plain water combined with natural walnut hulls, iron water and distilled white vinegar. The resulting dye bath is brought to a simmer over heat.

Lightweight watercolor paper is soaked or dipped in an alum solution. This mordant helps draw the dye out of the plant material and affix to the paper.

Soak, if dry, or dip the plant material in cool water—plain or with distilled vinegar added.

Next the paper is laid out on a flat surface and covered with clean plants, leaves, flowers, grasses, even onion skins. I've had the best luck with flat leaves that contain tannin, like oak leaves. But anything goes as long as it's not too bulky and makes direct contact with the paper surface. Using several sheets, creating a paper-plant-paper-plant-paper stack. Then roll the stack tightly around a length of pipe, I use PVC but straight sticks, dowels or copper pipes work as well. Wind the string around the length of the paper and tie securely.

The bundles are placed in the simmering dye bath for an one-and-a-half to two hours.

Once the bundles have been removed from the pan and allowed to cool, unwrap them and reveal the miraculous results. Some people like to leave the bundles unwrapped for days to cure but personally I can hardly wait for them to cool!

The spent leaves can be composted or discarded, don't try to reuse them. Save the string for your next batch.

PLANT PRINTING IN THE GYOTAKU STYLE

Gyotaku is a Japanese method of printmaking that traditionally utilizes fish, sea creatures or similar subjects as printing "plates" in its process. The literal translation of the word is "fish rubbing."

I will be showing a similar technique to print plants on washi paper developed by Robert Little, botanist, author and artist. I first learned this method in a workshop at Hiromi Paper in Los Angeles. The result is an exact replica of even the most delicate of specimens.

YOU WILL NEED:

Fresh clean plant material
Soft rubber brayer
Tweezers
Black oil-base block printing ink
Ink palette or freezer paper
Palette knife
Thin washi paper such as Sumi-e, Hosho, Unryu, or Mulberry

With a brayer, roll out a thin, even coat of ink on the palette. Move the brayer in one direction, lifting at the end of each sweep. Change directions, top to bottom then side to side. The ink patch should be bigger than the specimen being printed.

Place the plant vein side up on the rolled-out ink. Holding the stem with tweezers, gently roll the inked brayer over the specimen starting with the stem in one direction. Reload the brayer and angle it to cover any side veins until it is evenly coated. Lift the leaf and turn it over to lightly ink the other side.

Place the inked specimen inside a folded piece of washi paper. Try not to move it once it hits the paper, that could produce a blurred print. Carefully lower the top of the folded paper. Place two fingers along the stem to anchor the plant. With the other hand apply gentle but even pressure with your fingertips over the entire specimen. If your fingers can't apply sufficient pressure, a wooden spoon or baren can be used but the results are better if you use your fingers.

Open the folded paper and lift the plant with clean tweezers. What you will see is a detailed print of both sides of the specimen. Evaluate your print to see if more ink or pressure is needed.

DIRECT BOTANICAL MONOPRINTS WITH BRAYERS

This method of botanical printing is playful, quick and produces exciting and often unexpected results. It was developed by printmaker, collage and mixed media artist, and longtime instructor Bee Shay.

YOU WILL NEED: Water soluble block printing ink, various colors
Fresh, supple plant material, such as green leaves
Several soft rubber brayers
Freezer paper or glass inking palette
Tweezers
Dry printmaking or drawing paper

Put a small amount of ink on a palette and load the brayer by rolling in one direction, lifting at the end of each sweep. Change directions, top to bottom then side to side. Once the brayer is fully covered move to a different place on the palette and move the brayer back and forth until the brayer is completely covered and the ink is smooth.

Place fresh, dry leaf down in the ink on the palette and gently roll the inked brayer over it, effectively inking both sides.

With tweezers, carefully lift the plant from the ink and place it on the bottom of the printing paper, with the thinnest portion, such as the tip of the leaf, near the lower edge.

Run the brayer through the ink several times to even out the ink coverage. Then starting at the bottom, just off the edge below the leaf, firmly run the brayer over the leaf all the way to the top of the paper without hesitating. Often, the leaf will be picked up by the brayer and multiple ghosts will appear.

As long as the leaf can be removed from the brayer without damage it can be used over and over.

For book pages, print the right half of the sheet and turn around to print the left half. Allow the ink to dry and then the back of the sheet can be printed

For two color prints, use two different brayers inked up with different colors. Use one color to ink the leaf and the second brayer to roll the background.

Different ink colors can be blended on the palette to create gradations on either the leaf or the background or both.

BOTANICAL MONOPRINTS WITH AN ETCHING PRESS

Botanical prints made with an etching press have a different look than those printed by hand. The even and heavy pressure of the press results in sharp, uniform prints. This method was developed by amateur naturalist, book artist and photographer John Fass (1890–1973).

YOU WILL NEED: An etching press (or “walking” press)
Felt blankets
Monoprint plate
Newsprint
Dampened printmaking paper
Akua intaglio inks
Freezer paper or glass inking palette
Tweezers
Soft rubber brayers
Dried and pressed plant material

Adjust the etching press to apply sufficient pressure to the monoprint plate. Apply an even ink layer with a brayer to the surface of the plate. With a different color, ink up one side of the plant material.

On the press bed assemble the printing sandwich. First place a piece of clean newsprint marked for registration of the plate and paper on the press bed. Center the inked plate in position on the newsprint. Carefully place the inked plant material with either the inked or uninked side on the plate. Uninked plants will produce a white silhouette. With clean fingers, center and lower the dampened printing paper on top of the plate. Cover with a clean piece of newsprint. Carefully lay down the blankets, making sure that there are no wrinkles.

Slowly roll through the press continuing until the plate, paper and newsprint are free. If there is too much or not enough resistance, adjust the press.

Pull back the press blankets over the roller and remove the top newsprint. Starting diagonally from one corner, slowly peel the print paper up off the plate.

A “ghost” or second print from the same inking is possible.

SERIAL MONOPRINTS

This is a variation of the original John Fass method that allows a series of two or more modified “ghost” prints.

YOU WILL NEED: An etching press
Felt blankets
Monoprint plate such as Akua Printmaking Plate (.030 PETG transparent plastic)
Newsprint
Dampened printmaking paper
Akua intaglio inks
Freezer paper or glass inking palette
Tweezers
Soft rubber brayers
Dried and pressed plant material

Ink one side of the plate and both sides of the plant.

Pull a print of the inked plant specimen on the inked plate.

With the inked plate, still in the press bed, carefully pick up the plant with clean tweezers. Replace the plant, inkiest side up to a different spot on the plate, but not directly over the outline of the original print.

Pull a second print.

With clean tweezers, carefully lift the plant material. Select the side that still has ink on it and place it, inkiest side up elsewhere on the plate.

Pull a third print.

If there is still wet ink on the plant, you can try for a fourth print.

These are not true ghost prints as the position of the plants and the composition have changed. Be sure and number the sequence of prints and note the variations from print to print.

WATERCOLOR PAINTED LEAF PRINTS

In this simple technique, you literally paint the leaf with watercolor paint, allow it to dry and print on dampened paper.

YOU WILL NEED:

Watercolor brushes
Watercolor paints, in pans or tubes
Dampened printmaking paper or washi that has been misted with water
Pressed plants or leaves
An etching press
Felt blankets
Newsprint

If the plant material is very dry, allow to sit in between damp newsprint to reconstitute slightly.

Select the side of the leaf you wish to print; the underside usually has the most detail. Place it on a piece of clean newsprint or freezer paper. Load a brush with as much pigment as possible. Avoid watery paint, use white to make color lighter.

Paint the leaf with multiple colors. Allow to the paint to dry. When it's dry it will appear matte, not shiny.

Place the plant on clean newsprint in the bed of the etching press. Place dampened printing paper on top. Add another piece of newsprint, cover with the felts and print. A print can also be made with a nipping press and felt, although it lacks the detail and clarity of a print made in an etching press.

When the print is dry, you can retouch it with watercolor and a small brush.

If printing on colored paper be sure to add opaque white or gouache to the paint.

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