

## **SOLARPLATE NOTES Barbara Mason, Instructor**

**Please Bring:** Drawings or photographs sized 4in x 5in. These need to be copied or drawn onto Acetate. They must be in grayscale. This can be done at a local copier, or printed off your printer. Please feel free to email Barbara if you have any questions.

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SOLARPLATE is a steel backed polymer printing plate used by artists who draw, paint, make marks or use photography. The process was developed in 1970-71 by Dan Welden, Master Printmaker and pioneer of 'safer' printmaking techniques, after which he co-authored "Printmaking in the Sun" with Australian artist Pauline Muir.

Originally I wanted to use this process for viscosity monotypes, since the color is stable, unlike color **change with metal plates**. Of course, **Solarplate generated it's own excitement** and the process took on its own life. I went on to make hundreds of Solarplates and began sharing and teaching others. The process soon became obvious that Solarplate was easier and more consistent to use than other types of polymer printing techniques.

**There are four things that make this process work:**

**An opaque image on a transparent film**

**Contact between the image and the plate**

**Exposure to UV light**

**Water wash**

As you can see, there is no need for the toxic grounds, solvents and acids used with traditional etching techniques.

You can Xerox, draw or print onto clear Mylar or acetate can be exposed onto a Solarplate. Xeroxes onto Mylar or acetate work well. Film Positives out-put from a camera onto film are good.

Digital photographs printed through your computer onto transparent film can have excellent results. They are all however, reliant on the quality of your printer. Many artists experiment and explore possibilities with two transparencies sandwiched together. India ink, oil pastels, oil bars, china markers, etching ink and many marking pens work well and can draw well on Mylar or acetate. Many markers also work well by drawing directly on the Solarplate. Caution: do not use water soluble marking materials directly on the Solarplate.

You can expose many translucent materials as well as varied objects and obtain excellent results; you need to shorten your exposure time if the image is delicate. This is backwards thinking but very important. The less time you expose, the darker the image will be. The longer you expose, the lighter it will be.

These drawings are done using china marker, oil bar (the rust color), oil pastel (the purple color) and black etching ink. The color is only for demonstration to tell the mediums apart, as the opacity of the drawing media is the critical thing, so any color will probably work.

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**Once the drawing is to your satisfaction, use baby powder to “dry” the ink and crayon,** sprinkle it all over the Mylar with a soft cloth or paper towel and then rub it off gently. At this point you can hold the drawing up from the back to see how it will look when printed.

IMPORTANT be sure there are no lumps or ridges on your original that will keep you from getting good contact between the plate and the acetate.

The easiest way to get Solarplates the right size is to order the size you need.

A big paper cutter will work for cutting custom size plates, but you need to hold it very securely and pull the arm toward the plate as you cut. Use very firm, consistent pressure. It takes a bit of practice. Never put your hands or fingers directly on the plate, since it will mar or leave fingerprints. Use protective covering and take safety precautions. The part that is cut off will have a lip that is bent up, I immediately cut this off because if one forgets to do so, it will not give you good contact when you are exposing. In a normal room with fluorescent lighting you have a minute or two before the plate starts to expose, if there is any sun coming through windows, cover the plate with black plastic as soon as possible.

Since Solarplates expose in UV light, you can use the sun. Since I live in Oregon where daily sun is iffy, I use the Solarplate Exposure unit available through [www.solarplate.com](http://www.solarplate.com) which is the least expensive manufactured unit available and made specifically for the process. It is pretty heavy with the box, but this extra weight gives you better contact. You need at least ¼ inch plate glass, do not use window or picture glass unless you test it first. Most Plexi-glas has a UV inhibitor in it and will not work.

You would lay the plate face up on a thin foam or clean felt cushion. Next, place the artwork transparency face down on the plate. Add the piece of glass on top, creating a sandwich. Finally, place the exposure unit on top of the glass. I usually expose the plate for about 15 seconds and the screen for 35 seconds.

#### PROCESSING THE INTAGLIO IMAGE

To make an intaglio plate you need to use a two step process. In order to keep the blacks, one must use a random pattern aquatint screen (stochastic screen). This should be done prior to exposing the artwork and is ALWAYS 30 to 35 seconds with the exposure box. The second exposure to make an intaglio plate is done by laying your image face down, or emulsion side down on the plate and exposing it a second time. Use careful handling with the screen since dents can create poor contact and unwanted blemishes in the plate. Remember to remove the plastic coating from the plate, grab a corner and pull off fast.

You are burning out the whites, eliminating any possible tone from the unwanted areas and at the same time, the blacks and greys are unaffected. Do not look at the light. UV light is dangerous and damaging to your vision.

There may be some trial and error when you first learn to do this process. I recommend using **very small pieces of scrap plates to figure out the exposure times...it will save your sanity and your money.** If you have trouble you can email me at [barbaramason45@yahoo.com](mailto:barbaramason45@yahoo.com)