

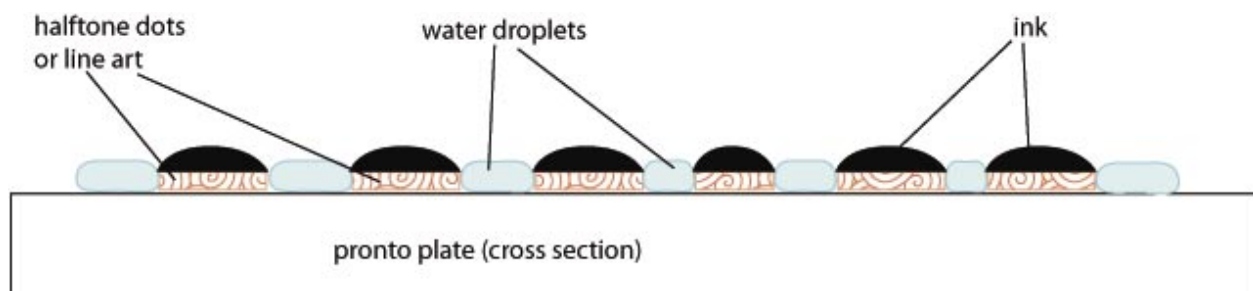
Pronto-Plate How-To

Based on "Pronto-Plate Lithography" by Kevin Haas (khaas@wsu.edu)

About Laser Printing

Using Adobe Photoshop and a laser printer, you can easily print images onto Pronto-Plates. A 1200 dpi laser printer such as an HP 5100 (as we have in the imaging studio), a GCC Elite XL or a Xante printer will work best. However, a few adjustments must be made to the print settings to make Pronto-Plates print easily and accurately on the etching press.

By default, most laser printers will print images at 110 lines per inch or higher. Lines per inch (lpi) is a measurement of how many lines of small varying sized halftone dots are used to create the illusion of a continuous tone image. Since printing these plates by hand requires more ink and pressure than offset printing, which is what they were intended for, we need to decrease the lpi to 75. If you did not do this, the ink sitting on top of all the very tiny halftone dots would quickly run together. To prevent this from happening we lower the lpi to maintain a balance between the amount of ink that is needed to print and the space around the dots to hold water that repels the ink.



Another good thing to keep in mind is the size of your image. Although the plate size may be 11x17" or 13x19", it can be difficult to ink an image that covers almost the entire plate. A good rule of thumb is to print no larger than a 9x15" image on an 11x17" plate, and an 11x17" on a 13x19" plate.

Printing onto Your Plate

1. From the "Print with Preview" screen in Photoshop, click on "Page Setup." Set the format to the printer you are using (HP 5100 PS, not PCL!) and the Page Size to match the size of the Pronto Plates (11x17 whole, 8.5 x 11 half). Orientation (Portrait or Landscape) should also be set at this time. Click OK.
2. Back in "Print with Preview," choose "Output" in the drop down box on the left hand side of the dialog box, just below the image preview.
3. Check "Emulsion Down." This will flip the image over as it prints the plate to allow it to print the correct orientation on paper. Note: if you cannot choose this, you have the wrong printer driver selected!! See Step 1.
4. Click on the "Screen" button. Uncheck "Use Printer's Default Screen" and enter "75" in the Frequency field. Remember, if you are printing the plates at 75 lpi you should be working at 150 dpi. Note: if your image is not in grayscale, you will get a drop-down box for each color. You will need to go back and change the image to grayscale.

For 4-color (requiring 4 separate plates) images, you will need to vary the angle on each of the four plates:

Black / Darkest Color: 45°

Cyan / Next Lighter: 15°

Magenta / Next Lighter: 75°

Yellow / Lightest: 90°

5. Set the image quality settings by click Print > Properties > Advanced. Under the heading “Graphic” change the print quality to 1200 dpi.
6. Load your Pronto-Plate into the manual feed tray on the printer and click print. You can print on either side of the plate. If you are printing a whole (11x17) plate, you can wait until the printer prompts you to load the plate. If you are printing half, you must have the half sheet loaded in the manual feed tray otherwise the printer will assign the job to one of the paper trays.

You’re done!

Creating a Print from Your Pronto Plate

Materials:

Quality printmaking paper
Newsprint
Container with 1 qt.. Water
Litho sponge

Gum arabic
Inking Brayers
Litho inks
Modifiers

Setup

Begin by setting up your printing area. Have your printing paper torn down to the size you need and marked with registration marks if needed. Also tear down newsprint at least 1” larger than your paper.

Add about 1 ounce gum arabic to the quart of water to create your dampening solution. This will help reduce the pH of the water. Ideally, Pronto-Plates work best with a dampening solution between 5.5 and 4.5, but usually the small amount of gum arabic is adequate.

You can put T & Bar registration marks on the back of your plates with a ballpoint pen; the marks will be visible from the printing side. You can register multiple plates easily on the light table.

Remove the blankets from the press and, keeping them together, place them on a clean surface. Roll the press bed to one side to receive the first plate. Place 3 sheets of newsprint on the press bed, and have a fourth ready to cover the plate and paper. Set the press pressure to the proper

setting (see posted settings in lab for each press).

Mixing and Modifying Inks

Pronto-Plates print best with inks that are moderately stiff with a fair bit of length. True lithographic inks for hand printing are very stiff and moderately short. An ink such as Daniel Smith's Crayon Black is far too stiff for Pronto-Plates and should be modified by adding up to 50% transparent base to make it more pliable for printing. Color Litho inks, such as the Handschy line of inks, are designed for offset printing and have the opposite consistency, being far too soft and runny. However, you can still use this ink by adding Magnesium Carbonate. Slowly fold it into your ink until it is well mixed and then check the consistency to determine if it is correct. It should hold its shape as it sits on the slab rather than immediately relaxing into a blob.

Inking and Printing

Roll out your ink with a brayer so you have a satiny ink surface with a slight sizzle sound as you roll the ink. If you have too much ink, the surface of the ink will look velvety and make a loud sizzle-spatter sound. It's a good idea to have your brayer "charged" and ready immediately as you are done wetting the plate, to avoid dry spots where the ink might stick.

Using a sponge dipped in dampening solution, squeeze a small amount out onto the glass slab. Lay your Pronto-Plate on the wet glass slab, as the moisture will hold the plate in place. Wet the plate generously with even horizontal and vertical strokes, then wring out the sponge and repeat wiping to thin out the film of water on the plate.

Begin inking your plate using moderate pressure on the brayer while alternating your rolling pattern. Once you have rolled ink across the entire plate and back again, charge your brayer with more ink, dampen the plate again and complete another pass of ink from a different direction. After doing this about 6 or more times you can print a proof of your inked image on newsprint. You may find that you will need to alter your rolling pattern quite a lot and complete quite a few passes to have a fully and evenly inked image, especially if it's dark or a large image.

To print on the etching press, first lay down three sheets of newsprint, then your inked plate face up. Place your paper face down on the plate according to your registration marks and cover it with one more sheet of newsprint.

You may also print with the paper face up and position your plate face down on the press. This is a helpful technique for small, shaped plates or for a more free-form approach.

Based on the appearance of the newsprint proof you may want to add pressure, add ink, vary your inking pattern more, or continue as is before printing on good paper.

Continue inking and dampening 4-6 times for each print.

If your image is still light you most likely need to add ink to your slab. If it is too dark, scrape ink from your slab to reduce the amount of ink you are placing on the image.

Clean Up

To save a Pronto-Plate, print it several times without inking it to remove the excess ink. Next, sponge a small amount of gum arabic over the plate, working it around for 15-30 seconds. Rinse the plate with water and store between newsprint. The next time you want to print it, use it as you would any other Pronto-Plate.

To clean up your ink, scrape your excess off the slab and onto phone-book pages, or newsprint. Once the bulk of the ink is off, apply a small amount of vegetable oil to the slab, ink knives, and brayers, again using newsprint or phone-book pages to wipe the excess onto. Then, spray Simple Green on the brayers and wipe with a clean rag until no more ink comes off of the brayer. Pay special attention to the sides of the brayer and the underside of the handle.

Finish cleaning up by wiping down all surfaces (slab, ink knives, press bed) with Simple Green and a rag.

Be sure to leave the printing area and studio clean and tidy for the next person.