

UPDATED

Lithography Lab Manual



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overview



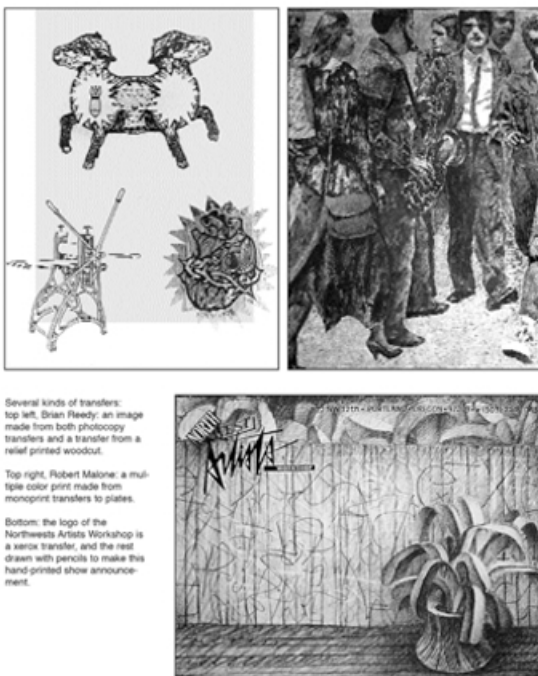
A short visual overview: 1) The margin of the stone or plate is gummed, and the image is drawn in reverse. The gum darkens the margin area, isolating the image area as a lighter rectangle. 2) The whole plate or stone is gummed and etched, turning the whole plate the same darker color. The gum protects the non-image areas, the etch converts the drawing to become ink receptive. 3) The drawing materials are removed with litholine (leaving the gum stencil untouched.) 4) The image area of the plate or stone is rubbed up with asphaltum, to help attract the ink, through which you should be able to still see the image. 5) The asphaltum is lifted off the non-image areas when the plate or stone is sponged with water, at which point you will see a light asphaltum-colored (brown) version of your drawing. Oil based ink is applied with a roller after sponging the stone with water, and 6) The stone or plate is printed, yielding an image that is the reverse of the original drawing.

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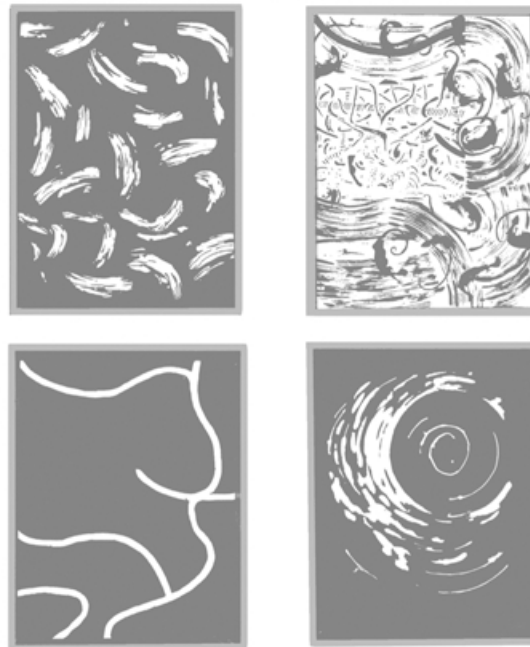
Separation proofs for *On the Beach*, 5 color lithograph printed at Brandyrine Workshop in Philadelphia. Top left is the first two colors together. All the plates were drawn on mylar and made into positive plates. The drawing materials were crayons, tusche washes, stabilo pencils, and a rubbing made from one of my collagraph plates. 30 x 22 1/2 inches.

transfers



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The white areas are open screen, where the ink will pass through; the gray areas are screen filler surrounded by a taped border that goes to the edge of the wooden screen frame.



Four silkcreens from two recent projects. Top left was the initial screen for *Intrusion* and was made with drawing fluid to get positive brushstrokes: I used a printout on paper of the first litho color, which was a positive plate, underneath as a guide. The alignment didn't have to be too exact. Top right is a screen that I traced from the first two litho colors printed together; this one needed to be much more exact and was used for one color on the central drawing and another for the area surrounding it. Bottom left is the screen for the stripes: I traced it from the lithograph and used Screen Filler as the blockout. Bottom right is the final yellow screen from *Late One Night*. I traced some general locating lines with a marker and then used drawing fluid.

rolling up with ink



One of the reasons to proof a litho first on newsprint is to establish a rolling pattern that will evenly ink the work, which is more of an issue when printing an image much larger than the roller's roll out length. For the situation above, the third "charge" of ink will need to start in the middle of the stone.

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rub tone

Rub-tone (or rubbing ink) looks like a large fat greasy crayon, as big around as the body of a magic marker. Although it is not especially designed for use as a crayon, it makes fantastic large, bold marks should you decide to use it that way.

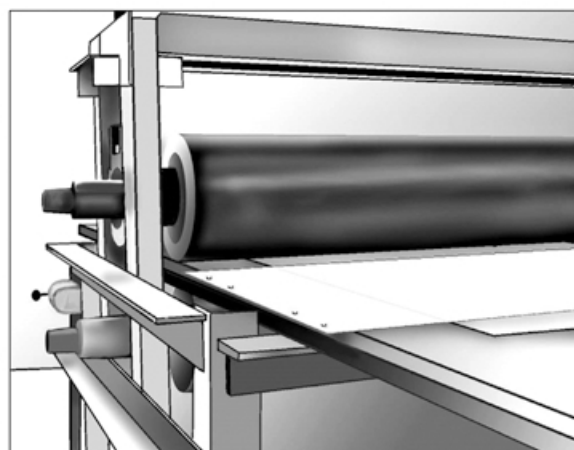
Very soft, graded effects can be achieved with rub-tone by using your finger through a soft but durable cloth (like a chamois) against the side of the stick and then rubbing the plate or stone with it. The rub tone can be gradually built up from very light tones (which will not burn out due to the greasiness of the rubbing ink) to extremely dark areas.

I do not suggest using your finger directly on your plate with this process — not only will you be adding an indefinable amount of grease from your skin to the drawing, but you will also wear the skin off the end of your finger against the grain of the plate or stone!

Rub tone can be used in combination with other drawing materials. If you plan on working in the darker range of tones, I would use a stone which you can hot-etch, but this process works very well on plates, also.



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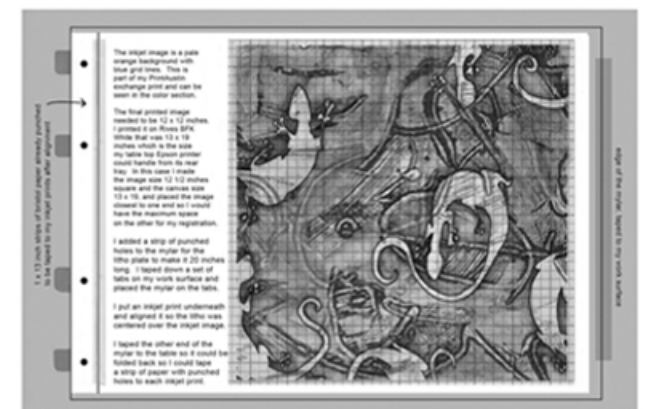
An etching press set up with hole punch registration on the side; with this method the pins pass in between the drum and the frame and don't come under pressure.

you're printing ink off the surface of the plate, not pulling it out of incised lines.) Set the pressure as tight as you can. I do not allow students to sponge and ink on the etching press bed as the water will promote rust on the metal bed, but you could cover the bed with plexi or some other water-resistant substance if you wanted to do this. More than one person can be printing on the same press if you don't have them ink right on the press bed, too, though care has to be taken to maintain the water and ink levels on the plate if you are having to wait while someone else is printing. Filling in is also a possibility if you have to wait around too long between prints.

There will be water on the back of the plates so make sure there is at least a couple sheets of newsprint on the press bed to keep the water off it, and change these out regularly when they become damp. Sometimes, to get the sharpest impressions, I find it necessary to either print the plates face down so that it is printing against the hard press bed rather than the pusher blanket. If this isn't practical (perhaps because you have a registration system set up) you can insert another plate in between the print paper and the blanket instead. Some prints don't need this and will work fine with just the blanket, though.

If you want to use the hole punch registration system on an etching press, you have two choices. One is to add a long tail onto your prints so that you can print the plate and then reverse the press and go back over the plate again rather than running over the pins. The attached piece with the holes can be used for other editions, if you're concerned about paper cost. There are of course times when you don't want to double print a plate, but the process does work quite well. Other presses, like my Wash U Press in the diagram above, have a space in between the drum and the frame, and you can have the pins on the side of your plate and they'll pass in between the drum and frame without coming under pressure. For larger prints I would consider pre-stretching the paper before using this system.

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Cosmographia is a 15 x 11 inch silk screen over an inkjet print on Rives BFK Tan. Different media than litho, but the same overall registration issue. The inkjet area is the map and the shadow under the lizard, so I needed the lizard screen to always print on the exact same spot each time.

The stripes were one screen, reduced, and weren't a problem to line up to the larger image, as long as the two colors lined up together: hole punches made that easy. The lizard screen was next, and was reduced four times.

I used the same method of taping the holes to the inkjet print after they had been printed, lining the inkjet up to the film image I had of the lizard — it was a reduction print but the first color was made from a photo silk screen. Positives can be very useful in the registration process! The boat image is a photo silk screen on white paper that was collaged to the larger sheet as the last element of the print.



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