

First Etch Process

- 1 Michael Pellettieri placed the stone on the bed of the press, as shown in the photo. Lithographic stones (and plates) are always drawn leaving a margin 2 to 3 inches wide all around to provide adequate start and finish spaces when the stone goes through the press. Pellettieri marked the location of the stone's front margin (where the stone will first go under the press's pressure) by placing a narrow strip of masking tape on the press frame and another, matching strip of tape on the side of the press bed. The location of the stone's back margin (where the image will stop printing) was also marked as well with masking tape.
- 2 Tomomi Ono then applied a mixture of talcum and rosin powder over the entire surface of the drawing and wiped off the excess with a paper towel. Talcum powder protects the image from being washed out with water and helps the etch solutions sit evenly on the stone's surface; rosin protects crayon work from being burned by corrosive nitric acid.
- 3 Pellettieri and Ono then did the first etch. Usually, the etching solution used in stone lithography is a combination of gum arabic and drops of 70% nitric acid, but at the Art Students League the nitric acid for stone lithography is diluted to 35%, for safer and more subtle etches. The technique the artist has used when drawing on the stone affects the etching process: For example, overlays of multiple washes may look delicate but may require a stronger etch. Unlike intaglio, in which a plate is usually submerged in an acid bath, lithography requires that the surface of the stone (or plate) be etched locally with different strengths of acid, depending on the character and amount of drawing medium(s) on each area of the image. The photo shows Ono checking the pH of etch mixtures with litmus paper.
- 4 Etching solutions of various strengths were prepared in advance, and areas of the stone were tested. The photo shows notes Pellettieri made on the margin of the stone regarding strengths to be used in various areas. Usually, an etching table—based on the particular

image and the experience of the artist or master lithographer—is devised to help determine the ratios of acid to gum arabic for crayons of differing grease content. In general, a weaker etch is used for less greasy crayons, and a stronger etch for greasier crayons. Dark and scratched areas must also be strongly etched to ensure that very small areas between crayon marks do not fill with ink during printing.

- 5 Ono starting etching the sky areas. The lightest etching solution is first applied to the entire stone. For a #1 crayon, 15 drops of nitric acid are added to 1 ounce of gum arabic. The printmaker applies the etch with a soft wide brush and uses the brush to keep the solution moving on the surface for 4 minutes. The stone is then buffed and dried with clean soft cheesecloth.
- 6 The medium-strength etching liquid was then used to spot-etch scratched areas and areas with medium tone (in between the lightest and the darkest tones). For a #1 crayon, 18 drops of nitric acid are added to 1 ounce of gum arabic.
- 7 As shown in the photo, Ono applied a local etch of 17 drops of acid mixed with 1 ounce of gum arabic on parts of the tusche area. (This spot-etch is applied with paper towels.) The strongest etching solution was then used on areas with the darkest tones. For a #1 crayon, 20 to 25 drops of nitric acid are added to 1 ounce of gum arabic; the solution is kept on the stone for 2 minutes before blotting and drying.
- 8 Finally, Ono applied gum arabic to the whole surface of the stone to even it out and to replace the etch prior to inking. The stone was then buffed and set aside overnight to “settle” the stone, letting it fully absorb the etch. (When working on an aluminum plate, the resting time is only 45 minutes.)



Photos in this series courtesy of Michael Pellettieri.

