Using an Aquatint Screen with Solarplates

An Aquatint Screen is an 80% stochastic screen covered with tiny dots of random sizes, shapes and distribution. Aquatint Screens are used to prepare Solarplates for intaglio printing. The plates are first exposed to the screen so they are partially hardened. When they are exposed to the art work and developed, areas that were blocked from the light will still have enough photopolymer to hold the ink when it is applied, eliminating open areas or deep grooves that hold too much ink. The resulting print will show a wide variety of tones including rich, deep blacks. And by manipulating exposure times, you can increase or decrease the tonal range of your prints.

Aquatint Screens are not used when making relief plates because you want the areas that are blocked out to wash away completely.

Keep the Aquatint Screen as clean as possible. If ink gets on it, clean the screen with 100% isopropyl alcohol and a soft rag. Start in the center of the screen and work out toward the edges. Fingerprints usually are not a problem unless your hands have ink on them.

The screen has a shiny side and a dull side. The

dull side is the emulsion side and is placed face to face against the surface of the Solarplate.

Begin by exposing the Solarplate first to the Aquatint screen, and then to the artwork, for the same amount of time. If you plan to expose the plate to the art work for 2 minutes, first expose it to the Aquatint Screen for 2 minutes. In other words, you double the total amount of time that the plate is exposed.

To increase the richness of blacks, darken your image and retain more detail, try *reducing* the time of each exposure. Alternatively, if you have problems with grooves holding too much ink, or if there is too much polymer washing away, or you want to lighten your image, try *increasing* the exposure times.

Testing on small strips of Solarplate material until you reach the right exposure times is more economical than testing on full-size plates.

After the second exposure, develop the plate in water, dry it, harden it by exposing it again, and print.

