

Art Werger
Etching Processes
Stage Bite Aquatint with White ground

The following documentation is to describe the techniques used in making the etching "Ebb and Flow" 2016. "Ebb and Flow" is printed from two copper plates, each 33" x 24" in size. The resulting diptych is approximately 33" x 48" when printed.

The primary method used in this etching is aquatint. In the aquatint process, a very fine rosin powder is melted onto the copper plate. This acts as a dot screen to help create value, not unlike the halftone used in commercial printing processes. Once the plate is coated with rosin, it is drawn on with acid resistant materials and repeatedly placed in a bath of acid. This is done for each value (usually five or six times in total) in a process known as "stage biting".

Stage Bite Aquatint : Stage 1



The plates are protected with acid resistant materials only in the brightest high light areas. The white substance is White Ground, a semipermeable resist that allows for some acid to get through as it deteriorates throughout the stage biting. The black material is greasy lithography crayon. The plates are submerged in acid for 1 minute. Note: The image is drawn mirror image so that it will print in the proper orientation. Note: The camera angle is off so the plates appear angled.

Aquatint: Stage 2



Additional litho crayon is drawn across the surface of the plate to build texture and to create continuous tones between the acid bites. Without this, the jumps in value would be obvious. The plate appears dull after the first acid "bite". The plates are bitten for 2 minutes each.

Aquatint: Stage 3



The entire surface is redrawn with litho crayon. A more solid block out, asphaltum is used in the sky to totally protect this area from any additional darkening. The image is now taking on the appearance of a negative with the light areas blocked from further acid biting. The plates are bitten for 4 minutes each.

Aquatint: Stage 4



This is a major stopping out stage. At this point most of the ocean is blocked out with asphaltum to keep the water in the light half of the value scale. The blue color is another acid resistant stop out, a Sharpie Paint Pen. The figures continue to be redrawn with more litho crayon at each stage. The plates are bitten for 6 minutes.

Aquatint: Stage 5



More asphaltum is used to protect the background areas and more litho crayon is used within the figures. Red Paint Pen is used so that the different stage bites are color coded. The Asphaltum is quite reflective. The copper plates are bitten for 9 minutes.

Aquatint: Stage 6



At this point there really isn't much left. The only place you can see the copper is where the acid will bite the plate to a solid black tone. The plates are bitten for 15 minutes. That means that the total time these black areas were exposed to acid is 37 minutes. This is the predetermined time established for this acid.

The Final Etching “Ebb and Flow”



After the final acid bite, all of the drawing materials and the rosin are carefully cleaned off the plate. Ink is pushed down into the acid bitten grooves of the copper plate and the surface is gradually wiped clean. After it is carefully wiped, the plates are run through a printing press to transfer the ink onto a dampened sheet of paper. The process can be repeated, although the plates must be re-inked and wiped for each new impression. The result is to see (for the first time in its proper orientation) the complete image. The image is rich with texture and subtleties because it was actually drawn six times!