

Creating an aquatint

In an exclusive extract from their new creative printmaking book, Intaglio, Robert Adam and Carol Robertson show you how to make the perfect aquatint print

The technique of aquatint is used to create highly controllable, creative and predictable etched, reticulated structures on the plate surface. These fine networks hold the ink and, depending on their structure and depth, print as a range of tonal effects.

The process can be used in a number of ways. An aquatint may be laid as an initial stage: for example, an etched tonal image created by spit-biting, stage-biting, scraping and burnishing, or painting on collagraphic media. Alternatively, the aquatint may be applied at a later stage in the development of an image and may be used in conjunction with any other resist such as a photoresist, hard resist, wash resist or soft resist. Some types of resist such as wash resist and the lift solution method are dependent on the application of an aquatint.

To create an aquatint the artist first applies a multitude of tiny separate dots of acrylic resist to the prepared surface of an intaglio plate. A toothbrush, a diffuser, a simple powered airbrush or an airbrush can be used to apply the resist. A toothbrush or diffuser will generate large and irregular dots, whereas a powered airbrush or

airbrush will produce smaller, closely spaced dots. The airbrush can be used to produce modulated tonalities, for example cloudy effects, tonal ranges, soft lines and blends. Stencils made from paper and lift solutions can also be used to enable the

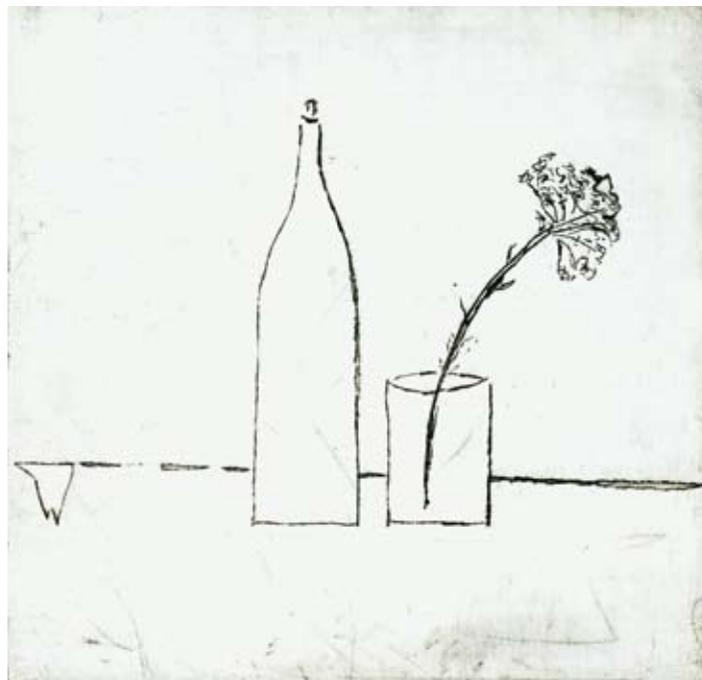
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rapid assembly of complex patterns or images.

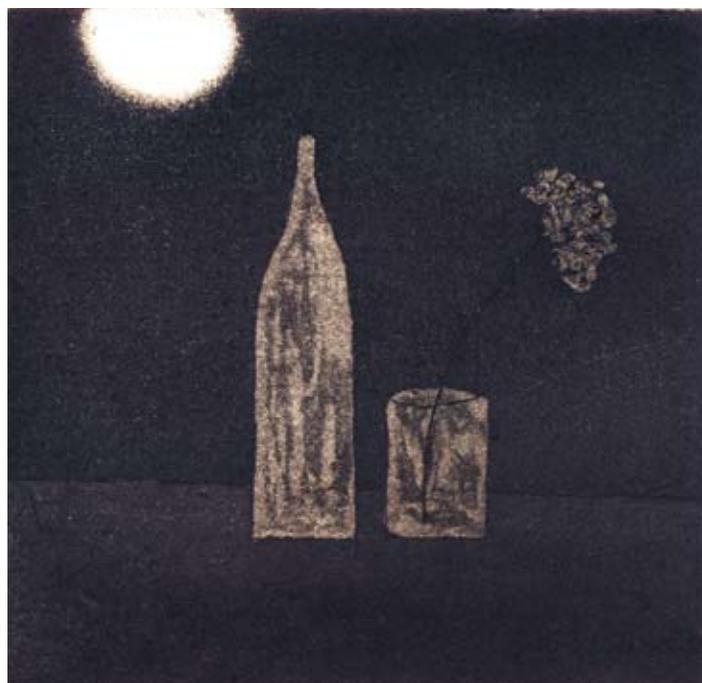
Acrylic resists are generally coloured so that the tiny dots are visible on the plate surface. These acrylic motes maintain their shape, dry very quickly and become waterproof and acid resistant.

The dried plate can be examined and checked with a magnifying glass and then etched. The mordant attacks the unprotected metal which surrounds each separate dot of acrylic resist and a fine network of fissures is etched in the surface of the plate. When the plate is inked up, these interwoven crevices hold the ink. The tone and appearance of the print is controlled by the size of each of the particles of resist, the distance between the particles, the pattern in which the motes of resist have been applied, and the depth to which the network of unprotected metal has been etched (the stage-biting process may be used). For example, large irregular dots will create a tone with spots of sparkling white, whereas a multitude of evenly sized, tiny dots positioned close together will provide a smooth deep tone with no noticeable light spots.

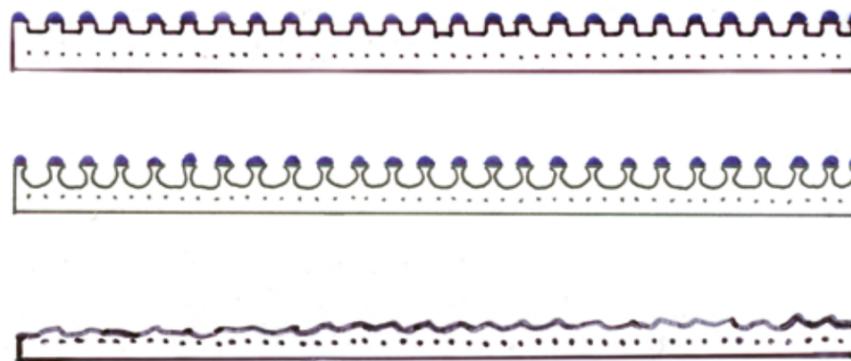
Light areas can be created by stopping-out shallowly bitten sections during the etching process. Dense velvety tonal effects may be achieved by repeating the entire aquatint process several times with increasingly small particles. An aquatint test strip should be made and printed for each type of aquatint and mordant to determine how the different depths of bite will hold ink and print. >



ABOVE Gabriela Seiler (Switzerland), 2005. The artist drew into Lascaux Hard Resist, etched, then stripped and proofed the plate to create this linear image.



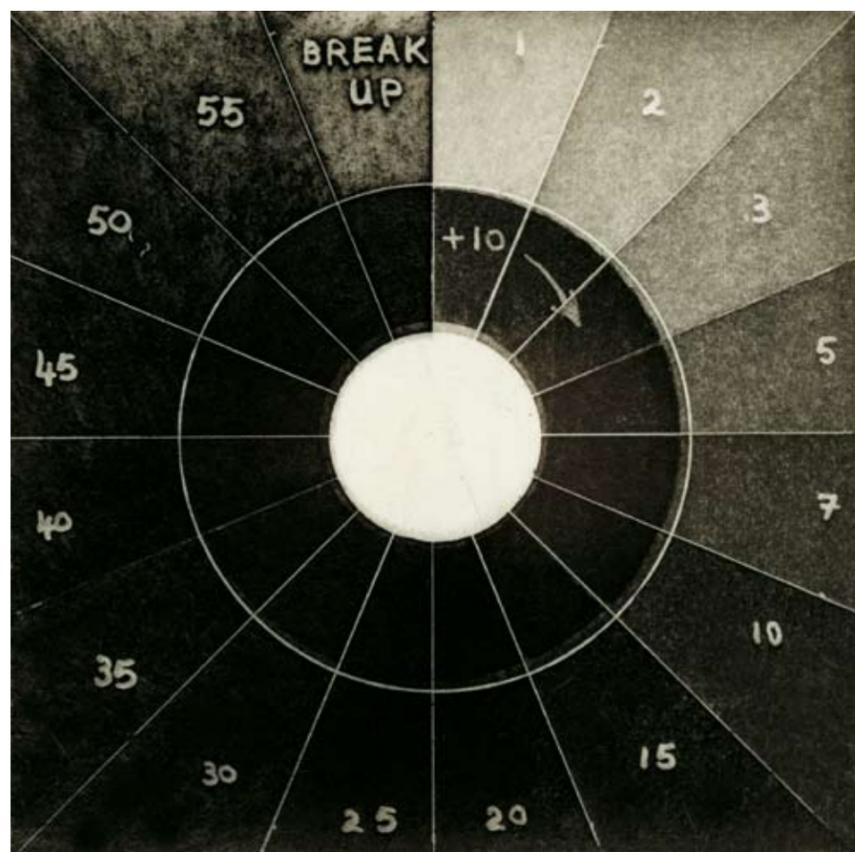
ABOVE Seiler then applied uniform aquatint to the entire plate and stopped out some areas. The plate was stage-bitten, interesting lines with ragged edges. If there are clearly visible stripped and proofed, transforming the image from linear to tonal.



LEFT Sections of an aquatinted intaglio plate with evenly sprayed dots of resist (blue colour) at different stages of biting.

1. Shallow etch.
2. Deep etch: the mordant is starting to undercut the dots of resist.
3. The dots of resist have been undercut and have floated free from the plate: this is now flattened and has a non-ink-holding (open-bite) surface.

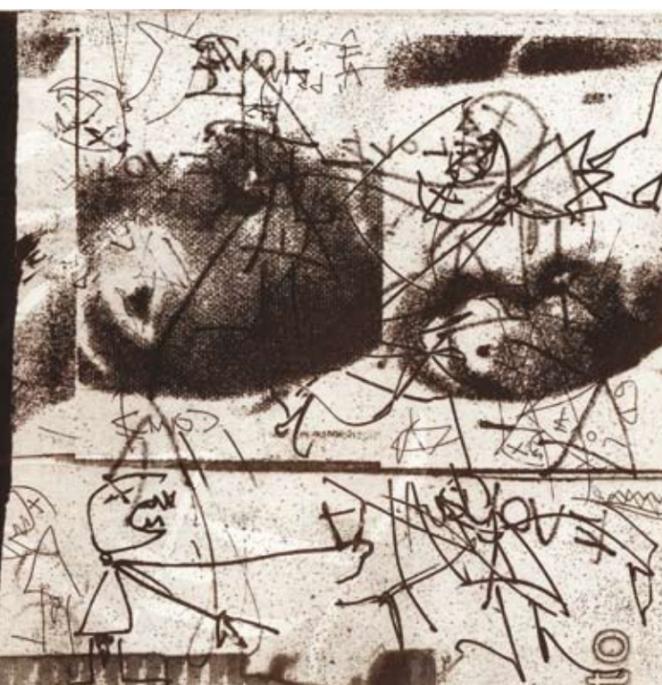
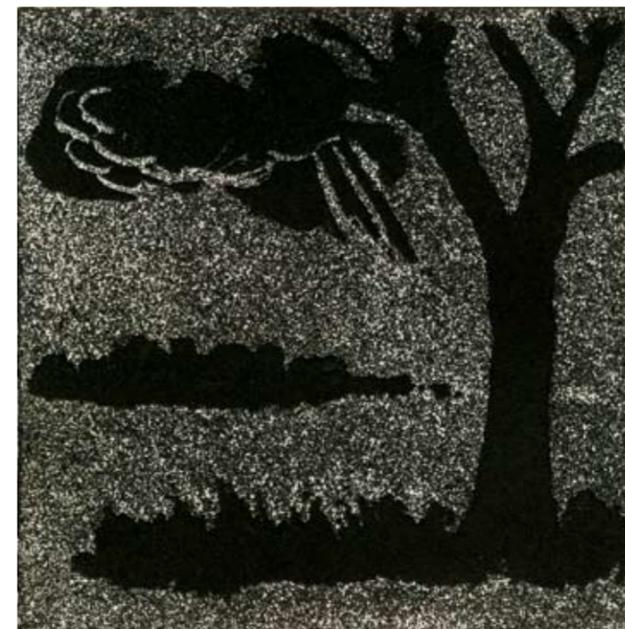
BELOW LEFT This stage-bitten aquatint test print was stopped out in timed segments (the number of minutes etched is written in marker-pen resist). The point at which the tiny dots of resist are undercut by the mordant can be seen (the artist predicted this and wrote 'break-up'). A second aquatint was applied to the inner ring, and this was etched for another 10 minutes, creating a further tonal complexity.



OPPOSITE PAGE:
TOP LEFT The tree and clouds were formed on this plate using several applications of a modulated aquatint in conjunction with two sequential lift-solution paintings (using Lascaux products).

TOP RIGHT Lascaux Lift Solution was painted onto the plate in the form of the tree and clouds. The plate was sprayed with a uniform aquatint of slightly diluted Lascaux Aquatint Spray Resist (this increased the dot size). The lift solution was removed and a second uniform aquatint (of undiluted Lascaux Aquatint Spray) was sprayed over the plate. This provided a fine dot and therefore the dense tone which can be seen in the tree and clouds.

BOTTOM Giuseppe De Giacomi (Switzerland), *Untitled*, etching, 12x23cm, 2005. This print is from a copper plate etched in Edinburgh Etch. Lascaux hard resist, soft resist, aquatint spray resist, stop-out resist, plate-backing resist and a screenprinted resist (defining the photographic elements) were used to generate the image. The pale areas in the left panel were created using collagraphic methods.



Equipment and materials required

Work at the workstation for spraying. Wear an apron, gloves and a mask which is suitable for aqueous mists.

- A prepared, dry etching plate
- A bucket of warm soapy water, sponges and clean drying cloths
- The selected resist
- Several sheets of newsprint cut to the correct size
- A powered spray gun or airbrush

Principle: tiny dots of resist are sprayed onto the plate and dried; the area around the dots is then etched to form a reticulated ink-holding surface.

Spraying technique and theory

Practise on clean newsprint (placed on the backboard of the spraying unit) in order to develop spraying skills, to explore the different image-making methods and to observe the results. Try spraying serpentine shapes passing over the plate at different speeds, with relaxed and tense body positions, and compare the positioning of the dots. Practise adjusting the tool to deliver fine, medium and coarse mists, and take into account that the density of the aquatint is also determined by the distance between the airbrush and the plate (the greater the distance, the further apart the dots). Spray different types of consistent, even coatings and experiment with stencils and making a sprayed image. Consider the fact that if the plate is sprayed too densely, little or no etching will be able to

take place. Consider also that any parts of the plate which are not sprayed at all will etch as open-bite unless stopped out.

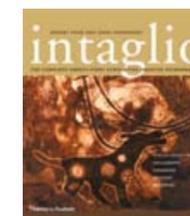
The sprayed paper can be examined with a magnifying glass (note that if the paper is over-sprayed it will absorb the resist, whereas if the metal is over-sprayed the dots of resist will flow together, creating dribbles or closing the area).

After experimenting and gaining confidence on paper, some test plates can be made. Place a clean sheet of newsprint on the backboard and position the plate upright on the shelf, leaning it back slightly against the paper-covered board. Test the airbrush on the

newsprint, away from the plate, before spraying on the metal. When the metal has been sprayed and the resist has been dried, it should be examined carefully with a magnifying glass to check that there is a network of uncovered metal between the dots of resist. Dots made

from Lascaux Spray Aquatint Resist are strongly coloured and clearly visible but other types of resist may be harder to see. In these cases plates can be flash-bitten to darken the areas around the dots.

Keep a sample of the sprayed newsprint to compare with the final printed tone. A collection of these samples with spraying details and biting times can be kept for future reference.



This is an extract from *Intaglio - The Complete Safety-First System for Creative Printmaking* by Robert Adam and Carol Robertson. Published by Thames & Hudson, RRP £19.95.