

## Engraving

In ceramics, engraving is the general term for a variety of processes by which cuts or impressions are made into a small sheet of copper known as a copper plate. From these impressions transfer prints can be produced to decorate pottery and porcelain.

**Engraving, also called line engraving** is done with a burin or graver – small mushroom shaped handles are fitted with cutting tools with various sizes of V-shaped cutting tips. With the mushroom head in the palm of the hand, the burin is applied to the soft copper plate. The point of the burin is forced into the surface of the copper then, pushing away from himself, the engraver scoops out a sliver of metal. The copper plate usually rests on a leather pad, and to achieve a curved line the engraver turns the pad and the copper plate rather than alter the direction of the burin. The result is a steady considered line with crisp edges where the burin has cut through the copper. The line is often pointed at both ends where the burin dips down into the copper to begin the cut and lifts up to end it. Scoops dots and cross-hatching give some ability to create depth but the engraver really uses the varying thickness of parallel lines to achieve a 3-D or sculptural quality.



**In etching** you use acid in place of the burin to create the “cut” lines. The copper plate is heated and coated with a thin layer of wax. Once it cooled and hardened, this surface is impervious to acids. Using a pointed metal tool called an "etchers needle", the etcher draws the design through the wax exposing the surface of the copper plate. Once the design is complete, the plate is immersed in acid which "bites" into the copper plate where it is exposed, producing lines and crevices that correspond to the image drawn. By renewing the wax resist, making further drawings with the needle and re-immersing in acid, lines of different depth, and hence tone can be created to build up the final result. Because the etcher has only to draw the design through wax, rather than wield a tool with sufficient force to cut into metal, it is possible for the work to "flow" much more easily than with engraving. The easy strokes of the needle, and the softness of line resulting from the work of acid, go together to produce an appearance and tone in the finished print that bears resemblance to a fine pencil drawing.



**Stipple engraving** is a method of creating tone in a design by means of dots grouped more or less closely together. More dots closer together result in a stronger darker effect, fewer dots further apart produces a lighter effect. Whereas in line engraving the burin is held at a low angle to the copper plate, in stipple engraving the punch tools with one or more dots are held perpendicular to the copper plate and tapped with a small hammer producing the indentations that create the design.



**Combining different engraving methods** produces the most sophisticated results. In combinations of *line engraving and etching*, etching is often used to create foliage either for trees or as a foreground. When *engraving and stippling* are used the stippling gives tonal range and was most useful in the development of the underglaze blue earthenware patterns.

