

Printmaking Techniques

Here are summaries of the various processes that Rembrandt and his predecessors used adapted from the *Concise Oxford Dictionary of Art Terms* and the Morgan Library and Museum.

Woodcut:

The woodcut, one of the earliest printmaking techniques, became popular in Europe around 1400. Woodcuts are produced by carving an image into a block of wood, usually a hard fruitwood, cut parallel to its grain. Only the lines and shapes of the drawn design are left standing in relief; all other areas of the wood are carefully excised with sharp woodworking tools, such as gouges, chisels, and knives. A viscous ink, which would in Dürer's time have been composed of finely ground lampblack and oil, is applied to the raised surface by dabbing or by rolling with a brayer. The image is then transferred onto a sheet of paper, either manually, by rubbing it against the inked surface of the block, or, mechanically, by the use of a printing press. The image on the block appears in reverse on the page. The difficulty of cutting the woodblock and the likelihood that the lines would break down with repeated printings meant that early woodcuts were characterized by crude, thick lines without much shading or texture. Albrecht Dürer transformed woodblock printing through the use of fine, graceful lines, intricate details, and subtle gradations, efforts that could be achieved only through skillful and precise carving.

Engraving:

Engraving is the oldest method of intaglio printing. The design is made on the copper plate with the aid of a graver or burin. Held in the palm of the hand, it is pushed against the copper and cuts a V-shaped groove. The plate is then inked up and printed from, the ink retained in the grooves being forced out under the pressure of the printing process on to the paper. The technique was first developed in the early 15th century in Germany, probably by goldsmiths who wished to keep records of the designs they had engraved on their wares (designs had been engraved into metal as decorations since ancient times). From Germany the technique spread to the Netherlands. Slightly later it developed independently in Italy. The heyday of engraving was probably reached in the late 15th and early 16th centuries with the achievements of Albrecht Dürer in Germany and, in Italy, of the reproductive engravers such as Marcantonio Raimondi. Engraving continued to be used in the succeeding centuries, particularly for reproducing paintings in print form (for example prints after Rubens). Copper being a relatively soft metal and subject to wear, the plates often had to be reworked (thus different "states" of the plate). In the early 19th century steel plates were developed which could produce an unlimited number of impressions, and in 1857 the steel-facing of copper plates was introduced. The term 'engraving' is sometimes used loosely, and incorrectly, to cover all intaglio prints.

Etching

In etching the design is bitten by acid on to the printing plate. The technique was first adapted in Germany in the early 16th century from the practice of etching decorative designs onto metal, for example suits of armour. In the printmaking process the printing plate is first covered with a layer of acid-resistant ground made of various waxes, gums and resins. The ground is often darkened, usually with the smoke of lighted tapers; this aids the visibility of the process of drawing the design, which is done with an etching needle into the ground, thus clearing a path through to the printing plate, which is immersed in a bath of acid. The depth of the lines is determined by the strength of the acid and the length of time the plate is left therein. Plates can be wholly or partially 'rebitten' by further immersions. Parts of the design can be selected for further 'bitings' by covering over or 'stopping-out' those sections of the design considered to have been sufficiently bitten already. Once 'biting' has been completed, the acid-resistant ground is cleaned off and the plate is inked up and printed from. The more deeply bitten the lines the more distinctly they print. Some of the earliest etchings, such as those by Burgkmair and Dürer, were on iron plates which rapidly rusted; thereafter copper was used (though zinc has also been employed in the 20th century). Etching is often perceived as a more fluid technique than engraving, allowing the artist a greater range of expression. Its greatest masters have included Rembrandt and Piranesi. In the mid-19th century there was a revived interest in etching in France and England, where its most famous exponent was the American artist Whistler.

Drypoint

A technique of printmaking, often used in conjunction with etching, whereby the design is scratched on to the copper plate with a sharp round point, thereby throwing up a deposit of burr [a ridge of copper fragments] which attracts a rich inking when the plate is printed. Successive printings rapidly wear away the burr, therefore only the first few impressions are of high quality. Drypoint was most famously used by Rembrandt in prints such as the Three Crosses and enjoyed a later revival in the 19th century among the artists of the etching revival, including Whistler and Seymour Haden.