

The technique of printmaking in the 15th and 16th centuries

The appearance of engraving was a crucial phenomenon for the history of Western art. The technique emerged in the Germanic world at a date that remains uncertain, probably around the turn of the 14th and 15th centuries, providing a rapid and inexpensive method for the circulation of images, and consequently artistic models, on a large scale all across Europe.



Hans Baldung Grien, *Lamentation over the Body of Christ*, 1514, woodcut

Woodcuts

The woodcut belongs to the category of relief printing techniques. The design to be printed is obtained by cutting away all the areas not to be inked around it. When printing, the areas in relief emerge in black, the areas where material has been removed with deep cuts stay white, and the less deeply cut areas produce variations ranging from black to white. The image is carved into a block cut along the grain of the wood. The process is typified by a fairly bold, simple composition, with relatively thick lines that use the visible grain of the wood to render certain effects.

This fast and cost-effective process had the advantage of allowing images to be printed with a typographic press, and was rapidly adopted by printers to replace illumination.



Upper Rhine, *Christ Falling under the Weight of the Cross*, c. 1470 – 1480, coloured woodcut

The images in woodcuts were essentially religious subjects (scenes of the Passion, the lives of Christ and the Virgin, or figures of saints) and were either sold at fairs and pilgrimage destinations as objects of devotion or used to illustrate manuscripts.

Intaglio engraving on metal

Intaglio engraving appeared in around 1430 in the Upper Rhine region, between Strasbourg and Konstanz. This very complex technique first developed in goldsmiths' workshops and requires precision and lengthy training, which explains why engravers were often goldsmiths or the sons of goldsmiths, such as Martin Schongauer and Albrecht Dürer.



Martin Schongauer, *The Crucifixion with Four Angels*, between 1475 and 1480, engraving

The process requires a material that is easy to engrave but can withstand the effect of a powerful press: brass, zinc and soft iron are used, but mainly copper. Before use, the plate is hammered, polished and then oiled in order to create a mirror-like surface.

Before starting to engrave, the artist roughly sketches the composition on the plate, sometimes using a drypoint needle. The burin is then held in the palm of the hand, whilst the other hand moves the plate, which rests on a cushion or a rotating board. The burin is a blade with a square or rectangular section and a bevelled end that creates a clear, sharp “v” shaped groove, which often swells towards the middle and narrows at the ends. The pressure exerted by the hand regulates the depth of the cut and therefore the density of the printed line: a deep cut produces intense black lines, whereas a light scratch produces grey lines.



Albrecht Dürer, *Melencolia I*, 1514, copper-plate engraving

Once the matrix has been cut, the engraved areas are inked using a fabric pad or a soft roller, after which, the surplus ink is removed with a muslin cloth and then the palm of the hand. This cleaning process is a delicate but necessary operation that removes the coating of ink on the flat surfaces of the engraved copper plate so that it will not be transferred to the print itself.

The image is printed by putting the plate through an intaglio press consisting of two cylinders. A sheet of paper is placed on the matrix, having previously been moistened in order to allow the paper to take up the ink from each groove. As the sheet is generally larger than the copper plate, the plate will leave an indentation

on the paper, known as the platemark, when it passes through the press. When removed from the press, the image will be an inverted version of the composition engraved on the plate.