

# Leonardo's materials

Like all artists of the period, Leonardo had access to only a small range of drawing materials, but he used those with unparalleled inventiveness. His early drawings, in the 1470s and 1480s, were executed in either metalpoint, mostly for drawings from life, or the looser medium of pen and ink, for sketches from the imagination.

## Metalpoint

Involves drawing with a stylus, usually made of silver, on paper coated with a preparation of finely ground bone, often with pigment added.

The stylus leaves a grey trace on the slightly abrasive coated paper. Varying the pressure on the stylus does not change the character of the line, and the mark cannot be erased.

Metalpoint thus demands control and discipline, and was the standard medium for training young artists in 15th-century Italy.

It largely fell into disuse after 1500 following the introduction of chalks.



## Chalk

In the early 1490s Leonardo began to use natural red and black chalks, which soon supplanted metalpoint in his drawings.

He often used toned papers or coloured grounds for his chalk drawings, thereby restricting the tonal range to allow the most subtle modelling.

## Pens

These were cut from a goose's wing feather.

The ink was made by mixing iron salts with tannic acid from oak galls (oak apples) to give a thick black ink called 'iron gall ink'. Over the centuries the ink has mellowed to a warm chestnut colour.

Experimental

The years around 1510 were marked by Leonardo's increasingly experimental use of all available media. He layered black, red and occasionally white chalks with liquid media (such as ink, wash or water) on a red ground, to give a richness to studies of hair, drapery and atmospheric landscapes.

## Paper

All Leonardo's drawings are executed on paper (usually white, but occasionally blue) made from clothing rags of hemp or linen.

The book-printing revolution of the 15th century had led to an expansion in the manufacture of paper throughout Europe. The price of paper was falling relative to that of parchment, and during Leonardo's lifetime paper became an everyday commodity, encouraging artists to use it more freely and experimentally.

