Leonardo da Vinci (1452-1519), *Portrait of a Young Woman in Profile*

Pen and brown ink and bodycolour, over red, black and white chalk, on vellum (laid down on panel); 330 x 239 mm

**TECHNIQUE AND STYLE**

This finished, coloured drawing on vellum shows a young woman in profile to the left, her hair descending in a single plait from beneath an elaborate head-dress or caul, wearing late fifteenth-century Italian costume. Based on its style and left-handed shading, it can only be one of two things—an original work by Leonardo da Vinci or a copy, pastiche or fake made to look like an autograph portrait by Leonardo.

The extremely high quality of this mixed media portrait and the evidence of scientific tests undertaken so far point resoundingly in favour of the first conclusion. According to carbon 14 tests, carried out by the Swiss Federal Institute of Technology, Zurich, the parchment support may be dated between 1440 and 1650 (dating with this technology is always given within a 200-year period). In the interests of preserving the integrity of the work, physical samples of the materials used in the drawing have not yet been taken, and an exact analysis of the materials and the relative order in which they were applied require further clarification.

Beyond first-hand examination of the *Portrait of a Young Woman*, an important starting-point for any serious consideration of its quality is the sequence of high-resolution digital scans made early in 2008 by Lumière Technology, a Paris-based company specializing in multi-spectral digital technology, which has had extensive experience of Leonardo’s work, having carried out detailed studies of the *Mona Lisa* and the *Portrait of Cecilia Gallerani (Lady with an Ermine)*. The scans of the new *Portrait of a Young Woman*, one of the most exciting discoveries in the field of Leonardo studies of recent years, may be consulted on their website ([www.lumiere-technology.com](http://www.lumiere-technology.com)). Their digital ‘slideshow’ also includes u-v, infra-red, false colour and raking light reflectographs, as well as an x-ray.

Introducing this formidable array of technological support is a remarkable colour scan of the whole portrait, which may be enlarged several times life-size, giving the viewer an opportunity to understand—better than with the naked eye—the exceptional quality of the drawing’s execution. Among the more noteworthy elements revealed in this way is the extent of the left-handed shading—the ‘signature feature’ and most visible testimony of Leonardo’s authorship—especially in the face and neck and in the left background along the sitter’s profile.

These areas of parallel hatching in pen in the background, behind the sitter’s face, are blocked in to give a contrast to the highlights of her flesh. Similar dense crosshatching is to be found throughout the artist’s drawings. Especially good examples of the type, also in pen, are found among Leonardo’s studies of anatomical subjects, for example the series of studies of the human skull in the Royal Library at Windsor Castle (inv. nos. 19058r & v, 19057r & v, and 19059r; Zöllner, 2007, nos. 257-61, all repr.).

The hatching strokes in the new portrait taper from lower right to upper left, just like the strokes defining the left background in the skull studies. Carlo Pedretti’s observation (Abstract of introduction to the monograph *Leonardo infinito* by Alessandro Vezzosi, published in July 2008, [available as .pdf on the Lumière Technology website](http://www.lumiere-technology.com))] that Leonardo’s strokes normally went from upper right to lower left applies to the shading on the right side of the skulls, not to the strokes to the left of the skulls. In other words, Leonardo wisely moved the pen from the object’s contour outwards into the background, avoiding any possible stray overlapping back into the finished object. It is thus not surprising that he would have directed the pen away from the sitter’s face and neck towards the upper left in the new portrait. Had there been background shading on the right side of the new portrait, one would have expected the lines to move from upper left to lower right. However, there was no need for any shading on the right side to set off the dark hair against the neutral light background.

In fact, all aspects of the shading of this portrait provide visual testimony of Leonardo’s theories of illumination, as expounded in his *Treatise on Painting*, a posthumous and somewhat random selection...
from his writings. The areas of mid-tone indicated by the crosshatching in the left background of the Portrait, which are seen at the woman’s profile and, to a lesser degree, at her neck and breast, are not cast shadows but local adjustments to the background to increase slightly its darkness. In his treatise (Dover reprint, Precept no. 200), Leonardo talks specifically about the need for the background to make the subject stand out or detach itself sufficiently, contrasting light with dark and dark with light. Without the visual foil of a mid-tone darker than the rest of the background, the lights of the woman’s forehead, nose, mouth and chin would not appear in such impressive relief as they do. The flesh of her neck immediately under her chin and her lower chest, being a darker tone than that of her face, has less of this misty shading in the adjacent background to act as contrast. Since her bodice is appreciably darker than the background, the area in front of it (like the whole right side behind her hair) has no such crosshatching.

Another feature of the portrait that is demonstrated in the Lumière Technology scan is the presence of several pentiments, especially in the profile of the face and where the line of the hair meets the background at the top of the woman’s head. Much attention was paid to the exact line of the nose, another key point in Leonardo’s theoretical discussion of ideal beauty in his treatise.

The first of the enlargeable scans also highlights the artist’s intense concentration on detail — from the minutiae of the facial features and the pattern of the woman’s dress to each knot of her caul. Such an obsessive quest to record even-handedly the appearance of everything within the artist’s view, seemingly down to the last particle, is a characteristic of Leonardo’s creativity.

Among the more readily observed passages of pen-and-ink drawing, even with the naked eye, are the slender contours defining the young woman’s profile, her shoulders and costume. Such a delicate, subtly modulated outline is encountered in other examples of Leonardo’s head studies, for example, as Prof. Alessandro Vezzosi first observed, the metalpoint Head and Shoulders of a Woman (c. 1488-92) in the Royal Library, Windsor Castle, where the sitter is similarly viewed in profile, but this time with her head facing right (inv. no. 12505r; Zöllner, 2007, no. 187, repr.). Another close stylistic parallel, though later and probably a pricked cartoon for a painted portrait, is the black and red chalk Portrait of Isabella d’Este (c. 1499-1500) in the Louvre (inv. no. 753; Zöllner, 2007, no. XXI, repr.). All of these examples, but especially the present work, since it is technically the most akin to a painting, satisfy Precept no. 194 (‘Of the Beauty of Faces’) from Leonardo’s Treatise on Painting, which states that: ‘you must not mark any muscles with hardness of line, but let the soft light glide upon them, and terminate imperceptibly in delightful shadows; from this will arise grace and beauty to the face’.

Drawn with an even finer line are the areas of dense parallel hatching that model the sitter’s face and neck. These passages of penwork are readily apparent in the Lumière Technology scan, but they are mostly covered by the delicate cream, light-pink and white passages of bodycolour of her face, which create a smoky grey sfumato effect that is typical of Leonardo.

The drawing of the woman’s hair is among the most beautiful and spontaneous of all the details in the Portrait, as well as the most complex in its colouration. Here Leonardo was not ashamed to mix his media in what for him seems to have been the most unusual combination of brown ink and brown-red wash over black, red and white chalk. Nevertheless, the range of textures and colours suggested by the different media enabled him to convey the velvety sheen of hair, and to distinguish subtly between those parts that are relatively loose and in the light, at the top of the head, and others in shadow, at the back, with some of the hair held in place by the mesh of the caul and the rest bound tightly together in the plait.

The pen lines flow in rivulets down her head. Together with the darker, even more broadly indicated strokes of the brush and wash, they represent the descending strands of hair that are brought together into the single thick braid that hangs down the middle of her back, and is cut off by the bottom of the composition. Both the underdrawing in chalk and the lines in both pen and wash are spaced further apart at the top of the woman’s head, allowing the parchment ground to show through. This creates a highlight in the hair that establishes the crown of her head, the form of which continues beautifully the curve of her brow. At the side of her head the tresses of hair are parted even more subtly to indicate the shape of the ear beneath.

There are few surviving drawn portraits with which to make technical comparisons, and it is not easy to find parallels for the more intuitive drawing in mixed media of the hair in other works by Leonardo. In
**Study of a Winged Figure; Allegory with Fortune** (c. 1480-81), in the British Museum, London (inv. no. 1895-9-15-482; Zöllner, 2007, no. 387, repr.), the freedom of both the penwork and its accompanying brown wash do, however, approximate to its rhythmical movement and show the same indifference to neatness. Moreover, the use of pen and brown wash in combination with bodycolour does occur in one category of Leonardo’s drawn oeuvre, those of maps and plans, of which several have survived, although these are without exception done on paper.

**SUPPORT**

Also apparently unprecedented is the use of vellum or parchment as a support for the new portrait. Being so far in advance of his time as a painter, draughtsman and thinker, it is not surprising that Leonardo was also a technical innovator. For the making of drapery studies, he pioneered drawing with the brush and bodycolour on linen, showing that he was prepared to experiment when it came to finding the right support for different types of representation. Although no other work by him exists on vellum, this alone does not exclude his authorship. Prof. Alessandro Vezzosi has pointed out that Leonardo, in his *Treatise on Painting*, recommended the use of vellum as a support for drawing: ‘take some skin of a goat, soft and well prepared, and then dry it; and when it is ready, use it for drawing, and then you can use a sponge to cancel what you first drew and make a second attempt’ (quoted from Vezzosi, not apparently in Dover edition of the *Treatise*). The artist has successfully exploited the pitted texture of the material in his rendering of the figure’s flesh and clothes. It would be interesting to establish whether or not the vellum used as the support for the Portrait is indeed from goat.

**DATING**

The Portrait has been dated around 1481/82, that is in the time shortly after Leonardo’s transfer to Milan from Florence. (This probably took place during the course of 1482, sometime after the last recorded payment in Florence in September 1481.) There are two strong points in favour of such a dating — the drawing’s style and the sitter’s dress. From the point of view of the style, the legacy of Florence is clearly to be seen in her facial type, with its echoes of heads by Andrea del Verrocchio, Lorenzo di Credi (who trained together with Leonardo in Verrocchio’s workshop) and others. The purity of the woman’s silhouette set against the light background, suggestive of a paper cut-out, recalls the equally uncompromising but more complex outline of the *Warrior with Helmet and Breastplate* (c. 1472), in the British Museum (inv. no. 1895-9-15-474; Zöllner, 2007, p. 11, repr., and p. 365, no. 191, repr.). Although dissimilar in actual detail from the Warrior in almost every respect, it is interesting to note that the structure of his eye and eye-lids are close to those of the woman in the Portrait. The British Museum drawing has been interpreted by some critics as a copy, or adaptation, after a work by Verrocchio representing *Darius*.

It seems to have been during his first Florentine period (1472–c. 1482) that Leonardo was in the habit of experimenting in the drawing of different human profiles, mostly the contrasting types of the stern warrior and a handsome, amenable youth. This activity seems to reflect ideas then in vogue in Verrocchio’s workshop. Most of these profiles are rapidly drawn sketches on paper, while others, such as the British Museum drawing just mentioned, are more deliberate in their execution. Whatever its date, the present Portrait depends heavily in mood and appearance on these preoccupations and Leonardo’s early Florentine experience.

**COSTUME AND ICONOGRAPHY**

The convention of young women wearing their hair in a robust, single plait is a late fifteenth-century Lombard fashion, as is also that of encircling the head with a narrow band worn at, or just above, the forehead. Both these features appear in Leonardo’s *Portrait of Cecilia Gallerani (Lady with an Ermine)* (1489/90), in the Muzeum Narodowe, Czartoryski Collection, Cracow (inv. no. 134; Zöllner, 2007, no. XIII, repr.). She was the mistress of Ludovico II Moro. The same type of head-dress is also found in Ambrogio de Predis’s *Portrait of a Young Woman in Profile* (c. 1490[?]), in the Ambrosiana, Milan (inv. no. 100; Zöllner, 2007, p. 98, repr.), where the ornamental border of the sitter’s sleeveless jacket is decorated at the shoulder in a similar way to the border around the cut-out opening at the top of the sleeve. So specific is the connection between this Milanese fashion for a particularly laborious but nonetheless extremely elegant hair-do that it seems more likely that the work was carried out in Milan. It is also within the realms of possibility that the sitter may have been either from Milan or Lombardy.

In his recent book, Alessandro Vezzosi identified this type of portrait as a *ritratto nuziale* (‘marriage portrait’). He postulated that it may represent the young Bianca Maria Sforza (1472–1510), the
daughter of the Duke of Milan, before her marriage in 1494 to the emperor Maximilian I (1459–1519). Her husband later praised her beauty rather than her character. The sitter’s facial features conform to what Leonardo describes in his Treatise as the ‘perfectly illumined visage’, showing grace, since the shadows do not appear ‘cutting, hard or dry’ (Dover reprint, Precept no. 196). Such a function—a portrait sent for approval to a prospective groom—would explain the drawing’s unusual media, support and high degree of finish.

CONDITION
In my view, most of the drawing defining the features of the figure and the decoration of the woman’s costume is in pen and was drawn by Leonardo; it is handled with such finesse that it is quite simply beyond the competence of a later retoucher. A few later additions do nevertheless occur, but they are mostly in the pigmented areas and were made to replace losses in the colouring, mainly in the face and hair (see Lumière Technology, u-v reflectograph, false colour reflectographs and pigments and restoration study).

ATTRIBUTIONAL HISTORY
Since its re-emergence in 1998, this work has carried only two attributions. When sold in that year by Christie’s, New York (sale, 30 January 1998, lot 402, as the property of a lady), it was catalogued as 19th-century German school, and the sitter was described as being clothed in ‘Renaissance Dress’. The second attribution, to Leonardo, was proposed by myself and others in 2008 and has received varying degrees of support. Among those fully in favour are Professore Alessandro Vezzosi, Mina Gregori, Carlo Pedretti and Cristina Geddo.

As has been pointed out by Dr. Cristina Geddo, who has worked extensively on the ‘leonardisti milanesi’, the rejection of Leonardo’s authorship in favour of an attribution to one of his many Milanese followers — for example, Giovanni Antonio Boltraffio, Ambrogio de Predis, Francesco Melzi, Bernardino Luini and others — would be unfounded, since none of these artists was left handed or skilled enough to produce such a subtle portrait.

PROVENANCE
The provenance of the work before 1998 remains a complete mystery. The appearance of what seem to be early twentieth-century French customs stamps on the back of its wooden panel implies that, at the very least, it made a passage through France. Whether or not it was exiting or entering remains to be established. Perhaps it was hidden for generations in some French château, although this is pure guesswork. The only hint discovered so far of its possible earlier existence is to be found in two references, both brought to attention by Prof. Alessandro Vezzosi. He has noted that in an inventory taken in the early 1480s of Leonardo’s effects there are two works that might correspond to the newly discovered Portrait, ‘Una testa in profilo con bella cappellatura’ (‘A head in profile with beautiful hair’) and ‘Una testa di putta con trezie rannodate’ (‘A head of a young lady with plaited locks’). It could in theory be either of these.

CONCLUSION
Not only does this remarkable drawing by Leonardo fit in stylistically to his oeuvre as a painter and draughtsman, it also conforms to his theories of figurative representation, as set out in his Treatise.

This report is based on research commissioned from me by the owner’s agent at my standard daily freelance rate; I have no commercial interest in this work.

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