



12. Infrared photographs: a) left half NIR false colour image (near infrared with the wavelengths – red 1650 nm, green 1300 nm, blue 1050 nm), generated from the hyperspectral image cube. The other underdrawings on Mary's face and in the brocade pattern of her gown become visible, azurite in the brocade pattern (yellow) and malachite on the sleeve cuff (red-brown). Data collection and analysis by John Delaney and Francesca Gabrieli, National Gallery, Washington, D.C., Scientific Research Department; b) IRR-photograph, Simeon's delicately handled curls become visible, as does the collar of his cloak, which were overpainted later with the headscarf; IRR. Staatliche Museen zu Berlin, Gemäldegalerie

13. X-ray photograph. Staatliche Museen zu Berlin, Gemäldegalerie



ground preparation. The frame strips presumably had a somewhat heavier grounding and formed the stronger edge of ground.

One wonders what the setting of the profile frame might have looked like. There are no gold remnants on the edge of ground. Since the painted marble frame, from which the cushion and the Virgin Mary's elbow appear to jut out, is designed more to frame the picture and not as a window or – as is the case with Giovanni Bellini – as a parapet or altar table, a continuation of the marble on the frame strips was certainly conceivable.

The IRR image uncovers the outline of an underdrawing. Grey lines are visible which are drawn with a ruler and pencil in order to mark out the frame (fig. 12 b). On the lower edge, the inner line runs down without any mitring to the lower right-hand

corner and indicates the height of the frame, which the paint initially overlaps, but which nevertheless was painted over again and corrected later. A further underdrawing with a brush is easily visible on Mary and Simeon's hands. Apparently, the Virgin Mary's forearm was also initially turned downwards (fig. 12 a). The very fine shading on Mary's face apparently stems from the hatched application of colour and does not point to a similarly heavy underdrawing as with the Giovanni Bellini piece (fig. 23).<sup>30</sup> As a rule, Mantegna prepared the drawing and underdrawing in his paintings meticulously, like, for example, in his painting *The Agony in the Garden* at the National Gallery in London (c. 1458–1460, see the contribution by Campbell in this book, fig. 1).<sup>31</sup> In our painting he gave some attention to the development of the drawing of the brocade pattern on the Virgin

Mary's garment which is made a lot clearer with the false-colour infrared image (fig. 12 a). At first, a different feathered pattern was planned. It is surprising that Mantegna carried out large-scale spontaneous changes to the paint support. On Mary's face, we can make out two different outlines of an underdrawing. The lines which become apparent on the forehead come from an initial drawing of the face which was clearly then drawn further to the left and so high that Mary and Child faced each other at eye level some distance apart. It was only later that Mantegna brought Mary and Child back together so they were touching each other.

The X-ray photograph is with respect to the genesis of the painting even more significant (fig. 13). The first steps in the painting involved applying probably a dark grey, white lead-based paint in the back-

ground which only left the heads of Mary, the Child and Simeon blank. The other three figures in which one sees the self-portrait of Mantegna to the right, his wife Nicolosia, Giovanni Bellini's sister, to the left and Joseph in the middle were not planned at the outset. There would have been no room for Nicolosia behind the Virgin Mary's head either, especially as the picture surface was smaller to begin with and the frame on both sides, left and right, was intended to be moved around 1.5 cm in the way. Above Mary's head, a blank space is apparent for a foreshortened aura. Simeon's head was also envisaged in the blank space to be higher and larger<sup>32</sup>. Then Mantegna painted the priest's head in fine detail below the Virgin Mary's eye level with his curly, white hair, a kippah-like head piece, his ear showing and a high, vermilion red raised collar on his chasuble with a leaf

