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FRONT COVER

Lorenzo Monaco, *The Coronation of the Virgin*
(NG 215, 1897, 216) (detail of Plate 1, p. 44)

TITLE PAGE

Carlo Crivelli, *The Dead Christ supported by Two Angels*
(NG 602; detail), after cleaning and restoration

The Restoration of Lorenzo Monaco's *Coronation of the Virgin*: Retouching and Display

PAUL ACKROYD, LARRY KEITH AND DILLIAN GORDON

THE ALTARPIECE OF THE *Coronation of the Virgin* in the National Gallery was painted by Lorenzo Monaco for the Camaldolese monastery of San Benedetto fuori della Porta Pinti, Florence, probably between 1407 and 1409 (Plate 1).¹ Its original appearance has over the years been drastically altered by at least three separate physical interventions suffered before it entered the Collection. In the recent programme of cleaning and restoration described below it was decided to attempt to address some of the distortions which were severely affecting its intended composition and hence its true visual impact.

Early History

The altarpiece, which has been reconstructed on the evidence of the analogous altarpiece now in the Uffizi, painted for the high altar of Santa Maria degli Angeli, Florence, by Lorenzo Monaco in 1414, is only partly complete.² The centre section (NG 1897) shows the Virgin being crowned by Christ, surrounded by seven angels. Each side panel (NG 215 and 216) contains eight saints arranged symmetrically in three diagonal rows. Saint Benedict, founder of the Benedictine Order, in the left panel is balanced by Saint Romuald, founder of the Camaldolese Order, in the right; Saint John the Baptist, patron saint of Florence, is balanced by Saint Peter; Saint Matthew the Evangelist is opposite Saint John the Evangelist; Saint Miniato, a patron saint of Florence, is opposite an unidentified saint in red holding a book; Saint Stephen balances Saint Lawrence, both deacons and Early Christian martyrs; Saint Paul is opposite Saint Andrew (?); Saint Francis, founder of the Franciscan Order, balances Saint Dominic, founder of the Dominican Order; a bishop saint, probably Saint Zenobius, another patron saint of Florence, is opposite Pope Gregory the Great.

The predella showed scenes from the Life of Saint Benedict, titular of the church. Below the left section were *Saint Benedict admitting Saints Maurus and Placidus into the Benedictine Order* (NG 2862), together with a panel in Rome, Pinacoteca Vaticana

(Inv. No. 193{68}), *A Young Monk tempted from Prayer* and *Saint Benedict raises a Young Monk*.³ Below the right section were *Incidents in the Life of Saint Benedict* (NG 4062) and the *Death of Saint Benedict* (NG L2). Recently it has been confirmed that the central scene had below it the *Adoration of the Magi* in the National Museum, Poznań, as first suggested by Eisenberg.⁴ The identity of the pinnacles of the altarpiece is less certain. Pudelko suggested that the *Annunciate Virgin* (formerly Vienna, Liechtenstein Collection, now Pasadena, Norton Simon Collection) had originally been the right-hand pinnacle,⁵ and this has been accepted by Eisenberg who suggests that by analogy with the Uffizi altarpiece Gabriel was in the corresponding pinnacle at the left side and in the centre was the Blessing Redeemer.⁶ The latter has been identified as the *Blessing Redeemer* formerly in the collection of Charles Loeser, now in a private collection.⁷ Kanter suggested an intermediary tier consisting of the *Four Patriarchs: Abraham, Noah, Moses and David* in the Metropolitan Museum of Art, New York.⁸ It seems to be impossible to ascertain whether the association of these panels with the altarpiece is correct or not. It has recently been suggested by Boskovits that a *Jeremiah* (New York, Richard Feigen Collection) came from one of the pilasters.⁹

The surviving constituent panels of the altarpiece in the National Gallery all have a different provenance and came into the Collection at different times (see below). The whole altarpiece was probably first dismembered in 1529, during the siege of Florence. Vasari, who saw the *Coronation of the Virgin* in Santa Maria degli Angeli in 1568, implies that the removal of the painting from San Benedetto to Santa Maria degli Angeli was occasioned by the siege, a recent event about which his information is likely to have been accurate.¹⁰ On 23 December 1442 a Bull of Eugenio IV had united the monasteries of San Benedetto and Santa Maria degli Angeli so that the monks could move from one to the other, and in 1530 after the monastery at San Benedetto had been destroyed in order to build fortifications



Plate 1 Lorenzo Monaco, *The Coronation of the Virgin with Adoring Saints* (NG 215, 1897 and 216), after cleaning and restoration, in modern frame. Panel, 217 × 336 cm.



Plate 2 *The Coronation of the Virgin with Adoring Saints* before recent restoration.

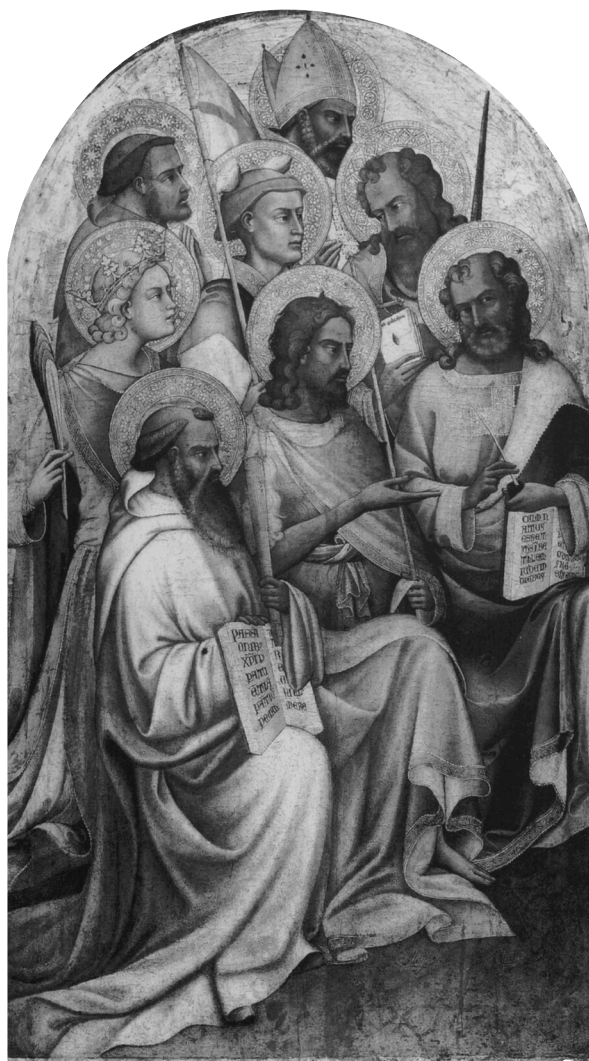


Fig. 1 *Adoring Saints* (NG 215), photographed 1932. Visual evidence of the panel's association with the other altarpiece sections, such as the truncated angel figures and the patterned floor tiles, was covered by an early restoration.



Fig. 2 *Adoring Saints* (NG 216), photographed 1932.

during the siege, the monks there moved to Santa Maria degli Angeli, together with their sacred objects and relics.¹¹ This is the likely time of the transferral of the altarpiece to Santa Maria degli Angeli where it was housed in the Alberti Chapel. It is not possible to estimate the extent to which the altarpiece was reconstructed in Santa Maria degli Angeli, but it seems likely that the main tier from which the three large National Gallery panels were taken remained intact, since all the main tier sections seem to have been similarly damaged along the base, probably due to the flood which Santa Maria degli Angeli suffered in 1557.¹² All three of the present sections suffered loss along the bottom and were at some stage trimmed, the outer panels (NG 215 and 216) by 15.6 cm more than the central section (NG 1897).

Such damage is not evident in the predella panels,¹³ which suggests that they had by then already become separated from the main tier.

At some unknown date the main tier, an image conceived, constructed and painted as a single unified panel, was separated into the three sections now in the National Gallery, resulting in the loss of two vertical bands of the composition each about seven centimetres wide between the present divisions. The panel with *Adoring Saints* (NG 215) is first recorded in the Fesch Collection in 1839,¹⁴ and the corresponding panel with *Adoring Saints* (NG 216) was purchased from J. Freeman in Rome at an unknown date by William Coningham,¹⁵ and presented to the National Gallery, together with NG 215, in 1848 (Figs. 1 and 2). The *Coronation of the Virgin* is last

recorded in Santa Maria degli Angeli in 1792,¹⁶ and came into the Gallery in 1902.¹⁷ The connection between the *Adoring Saints* and the *Coronation of the Virgin* had first been made by Crowe and Cavalcaselle in 1864, and then by Pudelko in 1938,¹⁸ but it was only when the side panels were cleaned in 1940 followed by the central panel that the fragments of the angels from the side panels were discovered, confirming the association;¹⁹ after this restoration the three separate sections were displayed together in a newly constructed frame, incorporating unreconstructed vertical strips in the place of the painted areas lost between the present sections as a result of the old dismemberment.

Condition of the Painting and its Early Restoration

The decision to begin the most recent restoration of this altarpiece was largely based on the consideration of its physical condition. By 1995, the date of the beginning of the project, the 1940s dammar varnish, while not particularly thick, had noticeably discoloured, and an experimental mixed medium used in the 1940s restorations had also proved unstable (Plate 2);²⁰ retouchings done then had generally darkened, although in some cases they had also blanched, or whitened, and the general effect of these changes was to create a messy and fairly incoherent image, significantly obscuring the legibility of the original paint. Lorenzo's image was compromised by the changes that had occurred in the mid-century restoration, and it became apparent that it would benefit from further restoration work.

Although many parts of the work were in very good condition, most notably the upper part of the central section, there were also extensive areas of considerable damage, both total loss and wearing or abrasion of original paint layers. It seems likely that the damage along the bottom edge, resulting in the trimming of the outer sections and extensive losses along the central bottom, was caused by the damp or flooding of 1557. Other extensive losses must have been the result of the decision to separate the originally continuous image into the three sections. Some damage must have occurred from the vibration of the actual sawing through of the altarpiece, but the crude attempts in centuries past to disguise this with extensive repaint, perhaps carried out through several cycles of reworking and harsh cleaning, also contributed to the current condition of the paint along either side of these cuts (Plate 3). At some unknown date the fragments of the side angels who overlapped



Plate 3 *The Coronation of the Virgin* (NG 1897), during recent cleaning.

both main and side panels, and therefore remained fragmentary in all three sections when the panels were separated, were painted out in an obvious attempt to make the three sections into independent and therefore more saleable paintings (Fig. 3). When Milanesi saw the *Coronation of the Virgin* in a chapel of a former Camaldolese abbey in 1830 or 1840, at Elmo or Adelmo, near Cerreto, the panels had already been separated, since he described only three angels.²¹ Likewise only three angels appear in the drawing of the *Coronation of the Virgin* in Frankfurt, inscribed *Di Lorenzo Monaco alla Badia virgo (? rubbed) Certaldo* (Fig.4), made by Johann Anton Ramboux (1790–1866) on one of his two Italian trips undertaken between 1818 and 1822 and between 1830 and 1843.²² In all three main tier panels the



Fig. 3 *The Coronation of the Virgin* (NG 1897), photographed 1939.

tiled floor was at some stage overpainted with red paint (removed in a previous cleaning), possibly to disguise the damage caused by flooding or to suppress the evidence of the original larger composition provided by the receding perspectival orthogonals. It is likely, although not certain, that this coincided with the painting out of the cropped angels.

While it is not possible to know with precision either the number of restoration interventions associated with the dismemberment and dispersal of the altarpiece, or their dates, it is clear that they resulted in considerable damage throughout the image. Before the nineteenth century restorers did not generally have access to organic solvents, and were therefore obliged to use less easily controllable acidic or alkaline reagents, the results of which were often decidedly



Fig. 4 *The Coronation of the Virgin*, drawing by Johann Anton Ramboux. Frankfurt, Städelches Kunstinstitut.

uneven and sometimes disastrous. The white robes of the two outer kneeling saints, Benedict and Romuald, had at some stage been repainted into dark grey habits; possibly these panels had been moved to a different monastic foundation.²³ This repaint was very old, but clearly made long after the original execution of the work, as examination of samples taken from remaining traces of the grey repaint showed that it had been carried out in oil paint,²⁴ unlike the egg tempera used by Lorenzo and his contemporaries. This later grey paint was itself removed well before the paintings were acquired by the Gallery, certainly before any known photographic documentation. Its removal was disastrous for the original painted white habits, as it left considerable traces of the grey overpaint and also greatly eroded and abraded the original beneath, thus creating enormous difficulties in retouching (Plate 4).



Plate 4 Detail of Saint Benedict's robe, from NG 215, during cleaning, showing traces of old grey repaint and abrasion of original.



Plate 5 Detail of doorway cut into central panel, showing parts of several earlier reconstructions of the missing section.

The last noteworthy damage is that caused by the cutting of a lunette-shaped door into the bottom centre of the central panel, resulting in total loss of the original surface and panel in that area. The doorway would have opened into a space such as a cupboard or tabernacle in which would have been placed either the host or a relic; the Lorenzo Monaco altarpiece now in the Uffizi had a similar but larger doorway as an original element,²⁵ although that doorway was changed and enlarged at a later date. There is no evidence that the doorway of the National Gallery painting was an original feature of the construction, and the lunette-topped shape of the doorway incision would be an atypical, anachronistic design for the beginning of the fifteenth century. The existence of several superimposed reconstruction attempts over the replacement wood also points to its later date (Plate 5). The blue pigments used in the reconstructions of the missing drapery of the central organ-playing angel, itself painted with lapis lazuli ultramarine, echo the history of the use of blue pigments through the subsequent centuries. There are at least three clearly discernible restorations and the oldest one appears to date from around the seventeenth century, judging from circumstantial evidence of the azurite and smalt pigment mixture used to make the drapery colour. The reconstruction over that contained the pigment Prussian blue in its drapery and thus must date from sometime after its invention in the early eighteenth century, and over that were the modifications made during the mid-twentieth-century restoration, using both Prussian blue and artificial ultramarine pigments.

Cleaning

The cleaning itself was generally straightforward, as both the varnish and the retouchings were for the most part fairly recent and not difficult to remove.²⁶ The general effect of removing the yellowed layers was to enhance the cooler, more blue end of the colour spectrum, giving a more correct impression of the intended interplay between the various colours, even with the loss of intensity of some of the red lakes through fading.²⁷ Photographic and X-ray documentation undertaken during earlier restoration work provided a clear and unambiguous record of the extent of loss and damage to the original work as cleaning progressed. After cleaning, the picture presented a variety of types of retouching problems: abrasion and small losses, larger areas of total loss, and whole missing sections both at the edges and through the centre of the image. This variety of

damage could not be readily resolved by a single consistent approach to the retouching, but demanded a more flexible application of existing methods. The need to compensate for large losses in the painting also raised a number of ethical issues that are central to the debate over modern attitudes to restoration, and it was therefore useful to evaluate past approaches to restoration in the particular context of the *Coronation of the Virgin*.

Past Approaches to Retouching

In general a policy of deceptive or invisible retouching has been adopted at the National Gallery since the nineteenth century. It was the policy adopted in the 1940s restoration of the *Coronation of the Virgin* for all the losses apart from the two vertical additions and the missing sections at the bottom of the outer panels. Henry Merritt, a nineteenth-century connoisseur and a participant in the 1853 Select Committee on restoration at the National Gallery, succinctly describes the objectives of invisible retouching: 'the artist proceeds to sketch and colour the parts to match those adjoining in form and colour, accomplishing this so accurately in tint and texture that the keenest eye may never after discover where the injuries have been.'²⁸ By today's standards a good deal of imitative restoration from previous centuries would be considered excessive, and there are well-documented instances, most notably during the mid-nineteenth century, where restorers indiscriminately repainted undamaged areas of paintings with little respect for the original in order to satisfy the sensibilities and tastes of their own particular age.²⁹ Attitudes have since changed, and there are now important differences between nineteenth- and twentieth-century practice. In general, nineteenth-century aesthetic concerns tended to concentrate almost exclusively on the painting as an image, disregarding the naturally occurring evidence of age, such as cracks, which were frequently concealed. By contrast, over the latter half of this century a more historically informed approach to restoration has evolved, giving greater consideration to paintings as aged objects as well as aesthetic images. The current aims of restoration, therefore, are to preserve many of the naturally occurring traces of time on paintings, by retaining the visible presence of craquelure and the inevitable fading and discoloration of certain colours, while at the same time re-establishing the legibility of the image. Imitative retouching attempts to satisfy both of these aims by ensuring that the viewer's attention is not distracted by dam-

ages or by the visible presence of the restoration.

In reality, however, successful deceptive retouching of large areas of loss can be difficult to accomplish. Extensively abraded passages, for example, are practically impossible to retouch in an invisible manner without the area appearing over-restored, and a compromise has to be reached between increasing definition of form and accepting some appearance of damage. The invisible reintegration of large areas of complete loss can also be problematic, not only because of the ethical issues involved, but also because it may be impossible to reproduce the spontaneity of the original paint handling. This may be due to the simple fact that the restorer cannot handle paint in the same way as the original artist, but the constraints imposed by most modern retouching media also play a part. This latter problem is more acute when dealing with later periods of oil painting where individual brushwork plays a more prominent role; the retouching of large losses in early Italian paintings such as the *Coronation of the Virgin* tends to be less difficult since the original finely hatched egg-tempera technique is more akin to modern retouching methods.

Visible restoration employing a so-called 'neutral' style of retouching has been carried out on several paintings in the National Gallery Collection where the damages were considered too extensive to attempt full reconstruction (Plate 2).³⁰ The uniform grey colour used in the 1940s restoration of the missing sections of the *Coronation of the Virgin* is one such example of this approach. The intention here was to apply a colour, normally over an untextured fill and similar to a dominant colour within the picture, but often paler in tone than the surrounding original so that the losses appeared to recede behind the picture plane. A variety of different types of 'neutral' restoration were first devised in Germany in the 1920s, and were in effect compromises between deceptive retouching and other proposals made at that time for leaving damages totally unrestored.³¹

Helmut Ruhemann, restorer at the National Gallery from 1934 to 1972, spent his early career working in Germany, and although an early advocate of neutral restoration his opinions on the subject changed. Writing in 1968 he commented: 'Retouching in a neutral tone is frequently recommended. This may appear to be a good idea, but in practice impossible; for, however grey a tinge may be in itself, the neighbouring or surrounding colour will give it, by contrast, a more colourful hue.'³² Now little practised on easel paintings, this form of 'neutral' restoration is still widely employed for the reintegration of losses in wall paintings.

Retouching and Display

The question of how the missing sections should be dealt with was probably the most important and interesting aspect of the National Gallery restoration, and is certainly a fundamental issue in decisions behind the painting's current display. The Gallery had previously shown the altarpiece with fictive reconstructions for the missing sections on the edges, that is, the bottom strips of the outside sections and the central reliquary door, but the two missing vertical strips on either side of the central section were left unreconstructed and simply toned-in in what was intended to be a neutral and unobtrusive colour. This solution had the clear advantage of eliminating any doubt on the part of the viewer as to the general state of the actual work, but at a significant price – the legibility of the original image, its composition and the intended illusion of depth and recession were greatly compromised. The presentation of the vertical losses simply toned-in gave a very misleading impression of the original composition, implying the traditional tripartite organisation of many fourteenth- and fifteenth-century polyptychs, and disguising the effect of the original unified painted surface.³³ The intended sweep of the semicircle of angels around the throne was completely flattened by the unreconstructed vertical losses, greatly reducing the impact of the image. To suggest that original composition in the most recent restoration was therefore an important goal.

The reconstruction deemed necessary to regain the sense of the original required careful consideration. Although the ideal goal would be both to preserve paintings as historical objects and also to maintain the essence of their intended aesthetic content, finding the appropriate balance between these aims is a subtle and often contentious issue, with no single solution being correct for any one picture, much less for pictures in different sorts of physical condition. While some reconstructions are relatively straightforward, for example spanning a continuous simple form like a single drapery fold or regular tiled floor pattern across a loss, other damages require more invention on the part of the restorer. 'Invention' in a restoration context should be firmly grounded in study of the original artist's technique and style in other paintings or drawings – in other words it must start from a highly educated hypothesis. Most restorers therefore search for some sort of compromise where the compositional integrity of the original is restored, but in a way that gives the viewer information or visual clues that some of what is now visible is in fact restoration. This can be a fine balancing act,



Plate 6 Duccio, *The Transfiguration* (NG 1330), 1311. Panel, painted surface 44 × 46 cm. The missing section of the bottom central figure has been reconstructed no further than the underdrawing stage.

and different types of solutions have been used in different cases throughout the world and indeed within the Gallery. An intermediate solution between neutral toning and full reconstruction can be seen in the restoration of Duccio's *Transfiguration* (Plate 6). The damage to the central apostle was considered both too large to invent the complex missing drapery folds with enough certainty to do a full reconstruction, and also too spatially important to simply tone in a flat colour. The solution, carried out by Ruhemann in 1952, of developing a plausible reconstruction only so far as the drawing stage completes the composition, greatly reducing the visual disturbance of the loss, and still allows some understanding of the painting's condition.

The specific timing of the *Coronation* restoration project was also influenced by the fact that contemporaneously the Uffizi version of the *Coronation of the Virgin*, painted by Lorenzo Monaco in 1414, was being restored at the Opificio delle Pietre Dure e di Restauro in Florence. This provided invaluable opportunities for collaborative work between restorers and curators in London and Florence during the course of the respective campaigns.³⁴ Since one of the key concerns of the restoration was to rethink the way in which the altarpiece was presented as a whole, which in turn raised numerous issues concerning retouching and reconstruction relevant for both altarpieces, this kind of interaction was particularly useful.



Plate 7 Detail from *Adoring Saints* (NG 215). An irregular line shows where the recent reconstruction of the missing bottom section joins the original.

Reintegration of the Altarpiece

Given the uniqueness of each reconstruction problem it is not surprising that ultimately an approach different from either the flat tones left in the earlier restoration of the *Coronation*, or the partially executed reconstruction of the National Gallery Duccio, was decided upon. The outside bottom strips were redone much as before, with the floor patterns and step reconstructed along the lines clearly suggested in the remaining sections, although with no attempt to simulate either the uneven surface or the crack pattern of the original. The actual horizontal dividing line between restoration and original is visible as the shadow made by the slight differences in level which has been reinforced with a faint dark painted line (Plate 7).

The vertical strips were also reconstructed to a very high degree, the decision to do so being based on several factors (Plate 8). First, the width of the losses could be precisely calculated because of the continuation of the exactly circular haloes across the missing span of the losses. Secondly, much of the required reconstruction demanded little more than linking compositional elements extant on either side of the loss across the missing section. Finally, where more invention was required, for instance in the details of physiognomy or hairstyle, it was possible to make reconstructions which were entirely plausible because of the numerous examples both within the *Coronation* panels themselves and in other paintings by Lorenzo. Another important aspect of the vertical strip reconstructions was the fact that they were not physically joined to the panel fragments themselves, but were painted directly onto the untextured dividing structural members of

the modern frame.³⁵ This meant that the restoration could be taken to a highly finished and detailed level of reconstruction, imitating the original paint build-up and style of handling as closely as possible, but still leaving strong visual information that it was not original – such as the actual physical separation and the smooth and uncracked surface of the new restoration (Plate 9).

The reconstruction of the damage around the bottom central door required a slightly different approach. While the door incision was itself a perfectly symmetrical arch-top shape, the associated paint loss around its edges was jagged and irregular (Fig. 5), so that any attempt to provide a different surface texture or painted division line looked intrusive and distracting. The area of the damage itself, which cut irregularly into the main panel at just about eye level when the work was exhibited on its plinth and was therefore an area of great spatial and compositional significance, meant that a high level of finish was required in its restoration. Here the reconstruction was carried out on a surface which had been textured with raised cracks in imitation of the original surface (Plate 10). The figure of the angel, which is slightly different from the previous reconstruction in the disposition of its drapery and the inclusion of the foot, was more plausibly developed from a similar figure of the Annunciatory Gabriel in Lorenzo Monaco's Monte Oliveto Altarpiece (Fig. 6). Clues were still left, however, to indicate its status as restoration: the pattern of mordant gilding used to suggest embroidery on the blue fabric was not continued across the damage, although its regular symmetry meant that it would have been easy to do so. In general, however, the doorway reconstruction is less easily discernible than that of the vertical strips as a result of its imitative surface texture; this more visually integrated solution was considered appropriate given the central position of the damage and its intrusion into the main image (Plate 11). The censer held by the angel to the right of the organ-playing angel had been almost completely destroyed, with only fragments of its handle and chain remaining. The earlier reconstruction was therefore almost entirely conjectural, and there was no good existing evidence on which to base a feasible reconstruction (the base of the well-preserved censer depicted to the left of the central angel is entirely obscured by that angel's wings). Because the right censer was of no great importance in the larger aim of re-establishing the recession of the depicted compositional space, it was decided to leave it in its fragmentary state.



Plate 8 Details of reconstructions of the missing vertical sections between the outer and central panels, carried out on structural elements of the modern frame.



Plate 9 Raking light detail of the vertical reconstruction between NG 1897 and 216. No attempt has been made to imitate the surface texture of the original paint.



Fig. 5 Detail of the loss associated with the insertion of the central doorway. The loss has been filled and textured in imitation of the surface of the surrounding original paint.



Plate 10 Raking light detail of retouching over textured fill for the central doorway loss.



Fig. 6 Lorenzo Monaco, *Annunciatory Gabriel*, detail from the Monte Oliveto Altarpiece, 1407–10. Florence, Accademia.



Plate 11 Detail of the restored central doorway.



Plate 12 Lorenzo Monaco, *The Coronation of the Virgin*, 1414, after recent restoration. Panel. Florence, Galleria degli Uffizi.

In comparison with the National Gallery version the main panel of the Uffizi *Coronation of the Virgin* is in an excellent state of preservation, the only significant loss being in the area of the tabernacle door (Plate 12). The Florentine restorers were faced with a damage left by the replacement of the original door with another, somewhat larger, door which had itself been lost, leaving a large loss in the same location as that of the National Gallery panel. Notwithstanding a more conservative tradition regarding reconstruction in Florence, the restorers of the Uffizi *Coronation* opted for an approach which, although different in execution, had the same general aim: both to complete the composition and to make it identifiable as a reconstruction. They made a reconstruction of the musician angel on a separate board which was placed onto the original panel in an easily removable manner (Plate 13).³⁶ The reconstruction itself was painted in a very finely hatched technique best understood as a

practical evolution of a theory of visible retouching – the so-called chromatic selection and chromatic abstraction techniques – developed from the late 1960s by Umberto Baldini and Ornella Casazza.³⁷ In practice these retouching techniques, essentially consisting of finely hatched colours that are discernible as retouching upon close inspection but merge into a more integrated effect from normal viewing distance, are very close to the finely hatched egg-tempera technique of Lorenzo Monaco himself. It is interesting to note that the Opificio and the National Gallery reconstructions, each in some way the product of quite distinct restoration traditions, are in fact broadly similar in result; both sought to reintegrate a key missing compositional element in a restoration technique that is both highly deceptive in painting execution but at the same time readily discernible through differences in texture, structural separation, or other visual clues.

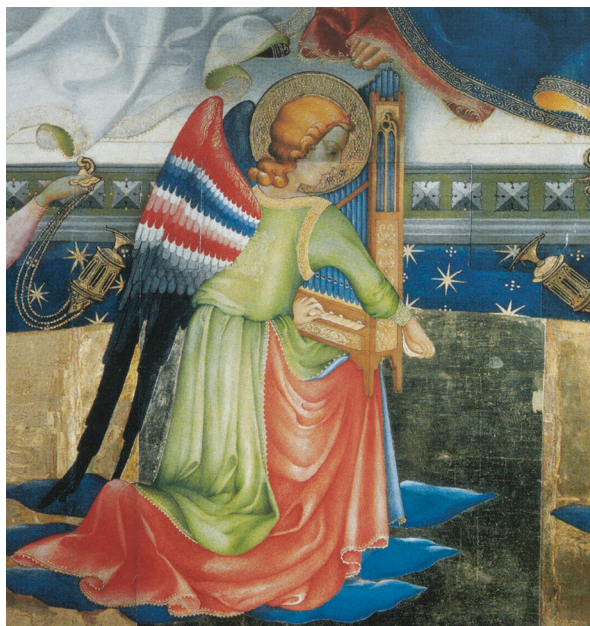


Plate 13 Detail of the reconstructed doorway of the Uffizi altarpiece.

Conclusion

The *Coronation of the Virgin* by Lorenzo Monaco in the National Gallery has, like most Renaissance altarpieces, suffered drastic changes to its appearance over the centuries. The cleaning and restoration of the altarpiece were undertaken to redress some of the damage. The solutions were arrived at after intensive discussion between curators and conservators, and consultation with colleagues, taking into account not only the evidence of the surviving parts of the altarpiece itself, but also contemporary altarpiece design, and the need to provide a coherent image without in anyway deceiving the viewer. It is important to note that the exact extent and nature of the work have been documented in detail during the course of the restoration, and the reconstructed areas have also been clearly signalled on the label in the Gallery, although it is intended that the National Gallery reconstructions are understood as such from the visual evidence of the painting itself. All materials used for the retouching have undergone rigorous scientific testing and several decades of accumulated collective empirical experience; all the evidence suggests that they will age well and remain stable.³⁸ That same testing and cumulative experience have also shown that the restoration can easily be removed in the future, for however strongly held the rationale behind the present work, the history of taste and aesthetics shows that it cannot be assumed that in future decades the present solution will weather aesthetically as well as

it may be presumed to do physically. The resulting restoration is necessarily a compromise, since it will never be possible to recover the altarpiece as a whole. But it is a solution which it is hoped goes some way towards restoring to the viewer the glory of the original image while not compromising its integrity.

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- 4 Eisenberg 1989, cited in note 3, pp. 141 and 161–2; Maria Skubiszewska, *Italian Painting before 1600. Catalogue of the National Museum in Poznań Collection*, Poznań, 1995, vol. 4, pp. 128–34. Skubiszewska gives the provenance as the collection of Samuel Festetics, Vienna, before it was purchased by Atanazy Raczyński in 1863. It entered the Museum in 1903.
- 5 G. Pudelko, 'The stylistic development of Lorenzo Monaco', *Burlington Magazine*, 73, December 1938, p. 247. He wrongly stated that NG 215 and 216 were in the Liechtenstein Collection in Vienna; Eisenberg, cited in note 3, p. 158.
- 6 Eisenberg, cited in note 3, p. 141.
- 7 See L. Kanter in the exhibition catalogue, *Painting and Illumination in Early Renaissance Florence 1300–1450*, Metropolitan Museum of Art, New York 1994,

- p. 260, and M. Boskovits, 'Su Don Lorenzo Monaco, pittore camaldolese', *Arte Cristiana*, LXXXII, 1994, p. 353 and Fig. 8. Eisenberg 1989, p. 198, does not accept the attribution of this panel to Lorenzo Monaco.
- 8 Kanter in his review of Eisenberg's monograph on Lorenzo Monaco cited in note 3 above, *Burlington Magazine*, 135, 1993, p. 633. For a discussion of these panels see Eisenberg pp. 151–3. In a letter dated 27 February 1995 Kanter adds to his catalogue entry the evidence of 'slivers of wood adhering to the backs of three of the panels,...vertical in grain, which would have been used to fix the patriarch panels to the subjacent panels.'
 - 9 New York exhibition catalogue, 1994, cited in note 7, p. 261, no. 32b.
 - 10 G. Vasari, *Le Vite* (ed. G. Milanesi), 1878, II, p. 19 (not in the edition of 1550).
 - 11 G. Farulli, *Istoria Cronologica del Nobile ed Antico Monastero degli Angioli di Firenze*, Lucca 1710, p. 286, and F. Masetti, *Teatro Storico del Sacro Eremo di Camaldoli*, Lucca 1723, p. 258 and p. 280. See also J.B. Mittarelli and A. Costadoni, *Annales Camaldulenses Ordinis Sancti Benedicti*, Venice 1762, Vol. II, p. 207; the union was confirmed in 1474 'ut congregatio nova fieret' (*ibid.*, p. 291).
 - 12 See *Annales Camaldulenses*, Vol. V, 1760, p. 395. According to Luca Landucci (ed. I. Del Badia), *Diario Fiorentino dal 1450 al 1516 di Luca Landucci. Continuato da un Anonimo fino al 1542*, 1883, pp. 309–10, the altarpiece of the *cappella maggiore* of San Benedetto had two holes made in it by lightning on 13 June 1511, but there is no evidence of this on the surviving parts of altarpiece, although there may have been on the lost sections.
 - 13 Although A. Conti, 'Quadri Alluvionati 1333, 1557, 1966', *Paragone*, no. 215, 1968, p. 13, also saw evidence of flood damage in the craquelure of the predella panels.
 - 14 Inventory of 1839, Cat. no. 15385; p. 93, no. 2283; and Sale Catalogue, *Galerie de Feu S.E. Le Cardinal Fesch*, designed for 22–25 March 1844, and taking place in Rome, March–April 1845, p. 242, lot 990–2283. It was bought together with NG 216 in 1848 (both as by Taddeo Gaddi). See D. Thiébaud, *Ajaccio, musée Fesch. Les Primitifs italiens. Inventaire des collections publiques françaises*, Paris 1987, pp. 5–43, and p. 182 for the inventories of 1839 and 1841.
 - 15 Letter from William Coningham, 14 October 1848, in the Gallery archives.
 - 16 Follini-Rastrelli, *Firenze Antica e Moderna*, IV, 1792, pp. 83–4. Caution is needed because of the tendency for guide books to copy each other.
 - 17 The painting was seen in the Landi Collection by Crowe and Cavalcaselle (J.A. Crowe and G.B. Cavalcaselle, *A History of Painting in Italy*, I, 1864, p. 554) and was purchased shortly before 1900 from the Landi family by M. Galli-Dunn of Florence who sold it to the National Gallery.
 - 18 Crowe and Cavalcaselle, *ibid.*, p. 554. The association was denied by O. Sirén, *Don Lorenzo Monaco*, Strasbourg 1905, pp. 63–8, and by R. Van Marle, *The Development of the Italian Schools of Painting*, The Hague 1927, IX, p. 164. See also Pudelko 1938, cited in note 5, pp. 247–8.
 - 19 M. Davies, 'Lorenzo Monaco's "Coronation of the Virgin" in London', *Critica d'Arte*, XXIX, 1949, pp. 202–8.
 - 20 According to the 1940s written record of the conservation dossier his medium was a combination of gum tempera (presumably egg tempera with gum arabic) and glazed with wax and dammar (presumably in a mixture).
 - 21 Milanese in Vasari, *Le Vite* (ed. Milanesi), 1878, II, pp. 19–20, note 1, described it in 1830 as being 'in una cappella della già Badia Adelmi, poco distante dall'altra di Cerreto, ed una volta appartenuta anch'essa ai monaci camaldolensi di Firenze . . . questa tavola è stata adatta ad un moderno ornamento . . . colla Incoronazione della Vergine, accompagnata da soli tre angeli inginocchiati dinanzi a lei'; in the Le Monnier edition of Vasari, II, 1846, p. 211, note 1, in 1840, see p. 210, note 1.
 - 22 The inscription was kindly confirmed by Mr Michael Kollod at the Graphische Sammlung who also provided the information that the volumes of drawings are inscribed by Ramboux with these dates. Ramboux also drew the Uffizi *Coronation of the Virgin* when it was in San Pietro, Cerreto (Cecchi in eds. Ciatti and Frosinini 1998, cited in note 2, p. 31 and Fig. 2).
 - 23 Possibly a black Benedictine monastery. The links between the Camaldolese (who followed the Rule of Saint Benedict) and the black Benedictines were close, as demonstrated by the fact that the Abbey of Rosano was black Benedictine but subject to the Camaldolese San Giovanni Evangelista, Pratovecchio. See *Annales Camaldulenses*, Vol. IV, p. 196, and G. Raspini, *I Monasteri nella Diocesi di Fiesole*, Fiesole 1982, pp. 253–67.
 - 24 As identified by Raymond White of the National Gallery Scientific Department using gas chromatography–mass spectrometry (GC–MS).
 - 25 See eds. Ciatti and Frosinini 1998, cited in note 2, pp. 82–6.
 - 26 The varnish was removed with mixtures of acetone and white spirit; a component of the 1940s retouching medium remained water soluble and therefore could be removed with saliva and acetone. For a study of some detailed aspects of the cleaning see R. White and A. Roy, 'GC–MS and SEM studies on the effects of solvent cleaning on Old Master paintings from the National Gallery, London', *Studies in Conservation*, 43, 3, 1998, pp. 159–76, esp. pp. 167–9, 172–3.
 - 27 For a full account of the composition and fading of Lorenzo's lakes see A. Burnstock, 'The Fading of the Virgin's Robe in Lorenzo Monaco's "Coronation of the Virgin"', *National Gallery Technical Bulletin*, 12, 1988, pp. 58–65, J. Kirby and R. White, 'The Identification of Red Lake Dyestuffs and a Discussion

- of their Use', *National Gallery Technical Bulletin*, 17, 1996, pp. 56–80, esp. p. 70, and D. Saunders and J. Kirby, 'Light-induced Colour Changes in Red and Yellow Lake Pigments', *National Gallery Technical Bulletin*, 15, 1994, pp. 79–97, esp. p. 80. For an account of the technique of the construction and painting of the altarpiece see P. Ackroyd and L. Keith, 'The Restoration work on the National Gallery's *Coronation of the Virgin*', in eds. Ciatti and Frosinini 1998, cited in note 2, pp. 151–7.
- 28 H. Merritt, *Dirt and pictures separated, in the works of the old masters*, London 1854, p. 18.
- 29 For examples of the different nineteenth-century attitudes to restoration see J. Anderson, 'Layard and Morelli', *Austen Henry Layard Tra l'Oriente e Venezia (Atti del Simposio a cura di F.M. Fales e B.J. Hickey)*, Venice 1987, pp. 109–37.
- 30 In 1952 Ruhemann carried out a 'neutral' restoration in a large damage through the central figure in Duccio's *Transfiguration* (NG 1311). In this restoration the missing parts of the figure were redrawn and the lost sections of the background, drapery, neck and hand were retouched in colours close to the original but lighter in tone. A number of other 'neutral' restorations have been carried out on paintings in the Gallery's Collection, for example, in 1972 the large losses in two panels by Ugolino di Nerio – *Isaiah* (NG 3376) and *Saints Simon and Thaddeus* (NG 3377) – were restored using unmodulated colours corresponding to the surrounding original (see D. Gordon and A. Reeve, 'Three newly-acquired panels from the altarpiece for Santa Croce by Ugolino di Nerio', *National Gallery Technical Bulletin*, 8, 1984, pp. 36–52). Similarly, in 1982 the damages along the bottom section of Duccio's *Annunciation* (NG 1139) were reintegrated with a uniform warm grey colour.
- 31 V. Bauer-Bolton, 'Sollen fehlende Stellen bei Gemälden ergänzt werden?' in *Verlag der Technische Mitteilungen für Malerei*, Munich 1914, and M. Von der Goltz, 'Is it useful to restore paintings? Aspects of a 1928 discussion on restoration in Germany and Austria', *Preprints to the ICOM Committee for Conservation, Twelfth Triennial Meeting*, Lyon 1999, pp. 200–5.
- 32 H. Ruhemann, *The cleaning of paintings: problems and potentialities*, London 1968, p. 257.
- 33 For a discussion of the unified picture surface in Florentine painting from the end of the fourteenth century see Eisenberg 1989, cited in note 3, pp. 122–3, and *idem*, *The 'Confraternity Altarpiece' by Mariotto di Nardo. The Coronation of the Virgin and the Life of Saint Stephen*, The National Museum of Western Art, Tokyo 1998, pp. 51–5.
- 34 See eds. Ciatti and Frosinini 1998, cited in note 2.
- 35 The reconstructed gilding of the missing halo and background sections was done by Isabella Kocum of the National Gallery Framing Department. The frame itself was constructed by Arthur Lucas in connection with the National Gallery 1940s restoration of the altarpiece. While the frame is misleading in many aspects of its design, most notably the curvature of the three upper sections, the difficulties associated with incorporating only some of the known predella panels and the ambiguity surrounding the design of the altarpiece's upper sections have meant that a more correct framing has not been introduced.
- 36 For a fuller account of the Florentine reconstruction see eds. Ciatti and Frosinini 1998, cited in note 2, pp. 68–9 and 114–15; for discussion and documentation of the original doorway see pp. 82–6.
- 37 At the Fortezza da Basso studio of the Opificio delle Pietre Dure e di Restauro in Florence a policy of deceptive retouching was applied prior to the 1960s. During a period of crisis caused by floods in the city in 1966 a more visible type of restoration was formulated by Umberto Baldini, Director of the Opificio delle Pietre Dure from 1970 to 1983, who provided the theoretical framework while his colleague Ornella Casazza devised the practical means of implementation. The Florentine approach owes much to the '*tratteggio*' method of visible retouching developed in Rome from the 1940s by Cesari Brandi, then Director of the Istituto Centrale, working closely with his colleagues Laura and Paolo Mora. '*Tratteggio*', now little practised outside Rome, is a rather rigid formula intended to reduce the opportunity for the conservator to make subjective decisions during the course of restoration. The method consists of vertically hatched brushstrokes of colour, applied over untextured fills that when seen at normal viewing distance blend into a coherent effect, thereby rendering the losses invisible, but on close inspection are immediately legible as additions. The visual effect is not unlike that achieved by pointillism. The Florentine methods of visible retouching for large losses, proposed by Casazza, can be seen as more flexible and often more finely worked adaptations of the '*tratteggio*' technique, employing a similar hatching method using a limited range of colours that optically mix to match the surrounding original at normal viewing distance. For further reading see U. Baldini, *Teoria del restauro e unità di metodologia*, Florence 1978; O. Casazza, *Il restauro pittorico nell'unità di metodologia*, Florence 1981; C. Brandi, *Teoria del restauro*, Rome 1963; and M. Ciatti, 'Cleaning and retouching: an analytical review,' *IIC Brussels Congress: Cleaning, Retouching and Coatings*, London 1990, p. 61. For a wider survey of historical attitudes toward the restoration of early Italian painting see C. Hoeniger, 'The Restoration of the Early Italian "Primitives" during the 20th Century: Valuing Art and Its Consequences', *Journal of the American Institute for Conservation*, 38, 2, 1999, pp. 144–61.
- 38 Retouching was carried out using dry powdered pigments and Paraloid B-72 resin. For a study of the resin's ageing characteristics see R.B. Feller, 'Standards in the evaluation of thermoplastic resins', *Preprints to the ICOM Committee for Conservation, Fourth Triennial Meeting*, Zagreb 1978, pp. 78/16/4/4.