MATTEO DE' PASTI AND THE USE OF POWDERED GOLD

by Francis Ames-Lewis

In a letter written from Venice to Piero di Cosimo de' Medici in Florence sometime in 1441, "the least of [his] servants" Matteo de' Pasti discussed the production to Piero's commission of a series of Triumphs. 1 It is clear that these were representations of the Trionfi of Petrarch, since Matteo de' Pasti wrote that his depiction of the Triumph of Fame included, as in Petrarch's own description, four elephants drawing Fame's chariot. Unfortunately, though, Matteo did not specify what the work was that he was painting; but it is known that he was a manuscript illuminator before he turned to the craft of the medallist, for which he is better known, in about 1450. 2 It is therefore probable that in 1441 he was decorating a manuscript with the Trionfi of Petrarch for Piero de' Medici. If so, this manuscript would probably have been the first commissioned by Piero at the initial stages of the formation of his library 3; to have gained such a commission indicates that Matteo de' Pasti was already known and respected as an illuminator in Florence.

A Florentine manuscript of Petrarch, Canzoniere which almost certainly formerly belonged to Piero de' Medici is now in Paris, Bibliothèque Nationale MS ital. 1471. 4 The decoration of the first page of this manuscript is in the style of Filippo di Matteo Torelli's workshop (fig. 1): it has a decorated border characteristic of Florentine secular manuscripts around 1440, with an interlaced vinestem motif with spaces filled in with light blue, light apple-green and deep scarlet-carmine. Three fantastic birds with brightly coloured plumage and gold-painted beaks occupy the spaces inside the medallion-like Medicean diamond rings in the vertical borders, and the single stiffly-posed putto is strongly modelled with rich salmon-pink pigment. Unfortunately, the full-page illuminations of the Triumphs themselves, which are a standard feature of quattrocento Florentine Petrarch manuscripts, have all been cut out of Bibl. Nat. MS ital. 1471, and are now lost. It is not therefore possible to compare these with the discussion in Matteo de' Pasti's letter; but although no conclusive evidence is available, it seems probable that the Paris manuscript is the project on which Matteo was working in 1441.

Matteo de' Pasti discussed a technical question which was to have some importance in mid-quattrocento Florentine painting. It is not clear from his letter why Matteo was in Venice while working on the Petrarch manuscript, but it may seem that he had had to leave Florence due to some misdemeanour, for he wrote "... I warmly beg you to forgive me for what I have done, because you know I was forced to do so. Resolve the matter as you
wish ...". His sojourn in Venice was, however, positive in one respect, for he wrote that "... since being in Venice I have learnt something which could not be more suited to the work I am doing for you, a technique of using powdered gold like any other colour ...", and at the end of his letter he promised Piero de’ Medici "... that you may see a thing that has never been done like this before, embellishing with this powdered gold"

The technique of using "powdered gold like any other colour" was current in Venetian workshops of the early quattrocento. Deriving from a long tradition in North European manuscript illumination but apparently only recently introduced into the Veneto, it was rapidly taken up by panel-painters as well as illuminators there. It was known to Cennino Cennini, who included a short discussion of the technique in his Libro dell’Arte, and this passage suggests what may have been the particular application of powdered gold paint that probably most interested Matteo de’ Pasti. Cennini’s treatise was written in Padua in the 1390s, and not only sums up the Florentine techniques of the Giottesque tradition, perhaps for the benefit of painters in the Veneto, but also records technical pratices of the Veneto not known to him in Florence. The section devoted to the use of powdered gold comes in that part of the treatise concerned with "the art of illumination on parchment", and the tone of his comments suggests that it was still a novel technique in the Veneto at the time of writing. Matteo de’ Pasti may in fact have based his comments directly on Libro dell’Arte, for in his 1441 letter there are resonances of Cennini’s discussion of the technique. "... If you are doing leaves of trees", wrote Cennini, "mix with this gold a little very finely ground green, for the dark leaves. And in this way, by mixing it with other colours, you may make shot effects to suit yourself. By the use of this ground gold, or silver, or alloyed gold, you may also lace draperies in the antique style, and make certain embellishments which are not much practiced by others and do yourself credit". Matteo noted that in his work "... the foliage is all touched up with this powdered gold, and I have embroidered it over the maidens in a thousand ways". It may however simply be that both writers reflected in their remarks the ways in which the technique was then in use in the manuscript illumination workshops of the Veneto.

The technique has particular qualities which clearly differentiate it from the standard method of embellishing in gold, known as oil-gilding or mordant gilding, and by which it can be recognised with a fairly high degree of certainty. Mordant gilding was in general use in Tuscan painting of the 14th and 15th centuries for laying fine patterns in gold leaf over a paint layer: it can be found, for example, in the gilt fold-pattern on Christ’s blue robe in Duccio’s Transfiguration from the Siena Maestà of 1308-11, and now in the National Gallery, London, and in the thin-line haloes and gold-embroidered fabric pattern in paintings by Perugino. The design to be reproduced in gold-leaf was painted on in pigmented goldsize (a drying-oil, perhaps linseed oil, mixed with a hard resin such as copal or sandarac) with a fine brush; while this design was still tacky leaves of gold were applied. The surplus gold-leaf was brushed away once the design was dry. The delicate lines of continuous gold could then be polished by gentle rubbing with cotton. This results in a specifically different appearance from the character of powdered gold pigment: it "gives a more metallic effect than shell-gold [i.e. powdered gold] which ... is applicable to smaller, sharper details than gold sizes ...". Powdered gold is simply gold-leaf ground to a powder on a porphyry slab, or in Theophilus’ account in a complex mill constructed of bronze. This powder is applied to the paint-surface with a standard medium, such as gum arabic for working on parchment. It may well be on account of the greater fineness of detail encouraged by this method of embellishment than is the case with mordant gilding that the technique developed in illum-
nators' workshops before becoming current also in panel-painting; but it is also less expensive, because there is none of the waste of gold-leaf involved in mordant gilding. However, the gold line is not continuous and was seldom burnished: its appearance is consequently usually relatively grainy and matt. As Cennini suggested, it can be added to other pigments to produce a sparkly effect, or it can be very finely painted on to produce a shot effect in drapery highlights, as Matteo de' Pasti seems to have done.

Many examples of this powdered gold pigment can be found in Venetian manuscripts of the early quattrocento. The most elaborate and sophisticated example known to me is in the figure of St. Maurice (fig. 2) on f. 34 v of the wellknown Passio Mauriti et sotiorum ejus in Paris, Bibliothèque de l'Arsenal, MS 940. Powdered gold was here used with great accomplishment to pick out the draperies "in the antique style", as Cennini termed it: very delicate highlights of gold paint bring up the folds in the plum-coloured fabric worn by St. Maurice beneath his skirt. Further highlighting in gold picks out the leaf pattern on his breastplate and all the other detail on his armour, the detail of the grass at his feet, and the lights in his martyr's palm; and gold paint, clearly distinguishable from the burnished gold-leaf used for the lettering of his name, was used for the background in the saint's shield and in his halo. The Arsenal MS 940 is datable to ca. 1452-53, but for at least half a century before that powdered gold had been in regular use in manuscript decoration. It can be found, for example, in the earliest datable manuscript decoration by Cristoforo Cortese, London, British Library Kings MS 321, a manuscript of Petrarch, Canzoniere copied in Venice in 1400. The background to the portrait of Laura on the first page of this manuscript (fig. 3) has an arabesque pattern delicately painted in gold pigment with a fine brush on an ochre ground; and in the border decoration powdered gold was mixed with other pigments for the decoration of flowers, notably on the undersides of deep red leaves. Such decorative forms can often be seen in the illuminations of Cortese: a good example of his use of painted gold arabesques is in the background of his only signed miniature, of the Death of St. Francis (Paris, Wildenstein Collection), datable to the 1420s. It may well be that the introduction of powdered gold as a pigment in Venetian illumination was associated with new developments in technique found in Paduan manuscripts in the 1380s and 1390s when "the use of wash and watercolour was gradually replaced by a more densely opaque polychrome technique which in time evolved towards further density and volume by the introduction of impasto ...". This development would coincide with the impression given by Cennini, writing in Padua during the 1390s, that it was still an unusual technique, not yet used by many illuminators. Like other features of the technique of painters of the Veneto at the turn of the century, this probably had transalpine origins: Theophilus' discussion shows that the use of powdered gold was known to German illuminators as early as the 11th century, and developments in Paduan illumination at the end of the 14th century evidently owed much to French art.

Cennini indicated that his powdered gold technique could be used "... if you want to work with gold on panel, or on parchment, or on wall, or anywhere else ..."; and it is probable that early in the 15th century Venetian panel-painters adopted the illuminators' technique. Until more scientific research is carried out to isolate and analyse gold pigments in panel paintings, it will not be possible to demonstrate conclusively when and where powdered gold was used in place of mordant gilding for fine decorative details. Meanwhile the evidence of the eye, based on the differences in appearance of gold pigment and gold-leaf discussed above, must suffice. Recent work at the National Gallery has, however, shown that early in his career Giovanni Bellini applied powdered gold for highlighting purposes, and it is likely that this usage conforms with a workshop practice learned from
Jacopo Bellini, and by him from Gentile da Fabriano. The recent cleaning of Giovanni Bellini’s *The Blood of the Redeemer* permitted an analysis which demonstrated that “the reliefs [on the balustrade] are painted partly in gold powder”; and scientific investigation also found “... scraps of vermilion and gold powder at the edges” of the clouds which were revealed in the cleaning." Joyce Plesters has described the character of this gold powder: “Microscopic examination of a sample from the gilding on the left-hand classical
relief confirmed ... that the small amount of gilding on the picture is not laid on as leaf, as is usual in easel paintings, but is powder gold. Under the microscope it appears as irregular small flat flakes suggesting that it was made by the method of grinding gold leaf. The medium or mode of attachment of the flakes of gold to the underlying paint could not be ascertained. The same sort of powder gold was also found on the Bellini The Agony in the Garden as highlighting on drapery ... and on the Barber Institute's St. Jerome. Inspection with a hand lens of the surface of the two pictures by Mantegna in the National Gallery, the large Altarpiece on canvas (no. 274) and the same artist's version of The Agony in the Garden (no. 1417) strongly suggests that Mantegna also sometimes used the same type of powder gold”.34

If it is correct to believe that powdered gold pigment is superior to mordant gilding for the rendering of very fine detail or gold embellishments, it seems probable that it was the technique preferred by Jacopo Bellini and before him by Gentile da Fabriano, learning perhaps on his arrival in Venice from the manuscript workshop techniques current there at the turn of the century. The delicacy with which gold is handled in paintings such as the Valle Romita Coronation of the Virgin polyptych (Milan, Brera), for the brilliant highlighting of the hair and draperies of the music-making angels beneath the Coronation group
for example, suggests that gold paint was applied here with a very fine brush, as in the technique described by Cennini some fifteen years earlier.\textsuperscript{15} The dotted flecks of gold on the robe worn by Christ in this altarpiece, and on the lining of the robe of the Virgin in the Berlin \textit{Madonna and Child with SS. Nicholas and Catherine} of ca. 1407-08, and the rain of fine dots stippled into the surface of the Virgin’s robe in Jacopo Bellini’s Louvre \textit{Madonna and Child with a Donor} (fig. 4), also all appear to be painted in powdered gold rather than mordant gilt.

Apparently unbeknownst to Matteo de’ Pasti, Domenico Veneziano (who was almost certainly trained in Gentile da Fabriano’s workshop) also used the technique of highlighting with gold pigment seen in the Valle Romita \textit{Coronation of the Virgin} angels, to generate a halo of golden curls on the head of the Christchild in his Bucharest \textit{Madonna and Child},

\footnote{Jacopo Bellini, \textit{Madonna and Child with a Donor}, detail, robe of Madonna. Paris, Louvre.}
painted (it is now generally agreed) in Florence in the late 1430s. But it was not until the 1440s, and especially the 1450s, that the decorative value of the powdered gold technique began to be exploited in Florence, perhaps due in part at least to its use in the illuminations for the manuscript of Petrarch, *Canzoniere* which presumably reached Piero de’ Medici soon after Matteo de’ Pasti wrote in 1441. Since the principal illuminations of that manuscript are missing, the evidence of his use of gold paint in the ways that he described is lost. In the surviving decorated border, however (fig. 1), powdered gold was used for the first time that I have come across in Florentine manuscript decoration: the beaks of the fantastic birds were painted in gold pigment, which was possibly mixed with a light ochre. The resulting textural and luminous effects are in striking contrast with the burnished gold-leaf of the Medici diamond rings through which the birds thrust their elongated beaks.

Matteo de’ Pasti evidently believed, to judge from the excited tone of his letter, that the effects he could obtain using powdered gold would appeal to Piero de’ Medici. This indeed appears to have been the case; and it may not be an overstatement to suggest that Mediccan patronage in the 1450s so far popularised the technique that it became widespread in late quattrocento Florentine workshops. The method of mixing powdered gold with another pigment was used in the manuscript workshops in which books commissioned by

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Piero and Giovanni de’ Medici for their libraries were decorated in the 1450s, in particular for producing a lively glint in the hair of the putti who swarm in and out of the vinestem in the manuscripts’ borders. In manuscripts decorated by Ser Ricciardo di Nanni, who worked closely with Filippo di Matteo Torelli over a long period, powdered gold pigment was used in much the same manner as earlier by Gentile da Fabriano and by Domenico Venetiano, to highlight the curls of the putti’s hair. The technique likewise came to be used by Florentine painters working for Piero de’ Medici, notably in the decoration of the Chapel in the new Palazzo Medici. A drawing from garsone models for angels in the apse fresco by Benozzo Gozzoli has traces still of the gold paint which originally highlighted the figures’ draperies to demonstrate faithfully the effect intended in the finished fresco; and indeed, gold embellishments are unusually liberally applied to the wall-surface, presumably in gold pigment painted a secco. These embellishments are often applied as stippled dots of gold on the hat of the Young King, for example, or randomly all over the doublets worn by the three young pageboys who follow in the retinue of the second King. This technique of applying a rain of fine gold dots, used earlier by Gentile da Fabriano and Jacopo Bellini, reaches its ultimate finesse in Fra Filippo Lippi’s Adoration of the Child altarpiece for the Cappella Medici: the transparent tongues of flame which shoot down from the Dove of the Holy Spirit to surround the recumbent Christchild are generated from a myriad of minute but brilliant specks of gold (fig. 5).

The powdered gold technique precisely described by Cennini had been used in Venetian workshops for four decades or more before Matteo de’ Pasti wrote to Piero de’ Medici of his discovery. This timelag appears at first sight surprising, but it may be that the staunch faithfulness of Florentine painters to time-honoured traditions of technical practice retarded the adoption of a new method emanating from North Italy. On the other hand, it may be a sign that it was patronal interests new to Florence which surfaced in the 1440s which encouraged painters to exploit the delicate decorative potential of powdered gold. By the time that, as has been shown by scientific analysis, Giovanni Bellini was using powdered gold pigment in his first independent paintings, this essentially Venetian and Paduan technique was current also in Medicean Florence.
NOTES


3 For the early history of Piero di Cosimo de’ Medici’s library, see F. Ames-Lewis, The Library and Manuscripts of Piero di Cosimo de’ Medici, New York 1984, chapter III, pp. 91-138.

4 E. Pellegrini, Manuscrits de Pétrarque dans les Bibliothèques de France, Padua 1966, pp. 177-178, and Ames-Lewis (n. 3), pp. 336-337. The decoration includes the Medici wing device (for which, see F. Ames-Lewis, Early Medicean Devices, in: Warburg Journal, XLII, 1979, pp. 122-143) and an erased ex-libris inscription on the last page which is in exactly the position and, as far as it can be assessed, in exactly the form that was standard in Piero de’ Medici’s ex-libris; for this, see again Ames-Lewis (n. 3), pp. 44-48.

5 See Cennini-Brunellesco, cap. CLX, pp. 167-168; and pp. v-x for the most recent discussion of the history of the trade. Quotations here are taken from Cennino d’Andrea Cennini, The Craftsman’s Handbook, trans. D. V. Thompson Jr., New Haven 1933, p. 102. There is a lengthy discussion of the preparation and use of powdered gold in the 11th-century treatise of Theophilus Presbiter, De Diversis Artibus, for which see Theophilus, On Divers Arts, trans. J. G. Hawthorne and C. S. Smith, Chicago 1963, pp. 34-37. It is not, however, mentioned in the 14th-century De Arte illuminandi, which was almost certainly written by a Roman or Neapolitan illuminator of the 14th-century; see S. M. Alexander, Medieval Recipes describing the Use of Metals in Manuscripts, in: Marsyas XII, 1964-65, pp. 34-51 (I am much indebted to Cathy Reynolds for this and other references). D. V. Thompson Jr. and G. H. Hamilton, An anonymous fourteenth-century treatise: De Arte illuminandi, New Haven and London 1933, p. 37 n. 50, state that “this omission is quite exceptional”, but it may indicate that the technique was at that time specifically North European, and was not yet known in late Gothic Italy. For a general discussion of this question, see F. Brunello, De Arte Illuminandi e altri trattati sulla tecnica della miniatura medievali, Vicenza 1973, pp. 169-70; and on p. 31 for recent consideration of the problem of the date and provenance of the treatise. This treatise was also discussed by A. Lecoy de la Marche, L’art d’enluminure, manuel technique du XIVème siècle, Paris 1887, and by L. Dimier, L’art d’enluminure traité du XIVème siècle en Latin, Paris 1927. It may be noted that powdered gold is briefly described in the 1462 Ricette of the Sienese Ambrogio di Ser Pietro: see D. V. Thompson Jr., The ‘Ricette daffare piu colore’ of Ambrogio di Ser Pietro da Siena, in: Archeion, XV, 1933, pp. 339-347.

6 For this discussion of gilding techniques I am deeply indebted to the characteristically enthusiastic and generous help of Miss Joyce Plesters of the National Gallery, London.

7 See Thompson/Hamilton (n. 5), p. 60, nn. 142-143.

8 For this MS, see M. Meiss, Andrea Mantegna as Illuminator: An Episode in Renaissance Art, Humanism and Diplomacy, Glückstadt and Hamburg 1957, pp. 1-29. With respect to the miniature of the Dialogue between Venice and Jacopo Marcello on f. 39, Meiss notes (p. 18) that “the touches of dull gilt in the Ducal Palace and in the dress of Venezia [contrast] with the burnished gold of the inscription”. Further on the illumination of Arsenal MS 940, see L. Moretti, Di Leonardo Bellini pitore e miniatore, in: Paragoni, 99, 1958, pp. 58-66, where the use of gold pigment for highlighting is also noted, and G. Mariani Canova, Per Leonardo Bellini, in: Arte Veneta, XXII, 1968, pp. 9-20.

9 For the career and stylistic development of Cristoforo Cortese, see most recently C. Huter, Cristoforo Cortese in the Bodleian Library, in: Apollo, CXI, 1980, pp. 10-17.

10 For this miniature see especially M. Levi d’Aunque, Miniature venete nella collezione Wildenstein, in: Arte Veneta X, 1956, pp. 25-36 and p. 29, fig. 21. See also N. E. Land, Cristoforo Cortese


12 Hüter (n. 11), p. 10: “... during the last decade of the Trecento ... MS decoration in Padua achieved a new comprehensiveness ... for this achievement Paduan illumination doubtless owes much to French art ... ”, and Hüter (n. 9), p. 13: “Cortese’s link with the Novella Master during [the first decade of the century] brought him also within the orbit of the Master of the Brussels Initials whose influence is clearly impressed upon Cortese’s art”. For the Master of the Brussels Initials, see M. Meiss, French Painting in the Time of Jean de Berry: the late XIV century and the Patronage of the Duke, London 1967, pp. 229-246. That the technique was well known to late Gothic French illuminators is clear from references to it in technical treatises such as the De Diversiss Coloribus of Anthonio de Compendio, recorded in 1398 by Jehan Lebegue and published by Mrs Merrifield, Original Treatises dating from the XIth to the XVIIth centuries on the Arts of Painting ..., London 1849, pp. 280-321. It appears from this treatise, for example, para. 310 “To write or paint with gold” (Merrifield op. cit. pp. 296-7) that the technique was adopted by illuminators from scribes’ practise (see also Alexander [n. 5], p. 37). Like the De Diversiss Coloribus, the Experimina de Coloribus (Merrifield, op. cit., pp. 46-7) “has several powder recipes, suggesting that the fifteenth-century French manuscripts were favouring the use of metal powder” (Alexander [n. 5], p. 51). Like these French treatises, the Strasbourg Manuscript also has a discussion of powder gold pigment (see V. and R. Borрадайт, The Strasbourg Manuscript, London 1966, p. 29). These technical descriptions are reflected in practice in the extensive and very delicate use of gold powder in major manuscripts like the Duc de Berry’s Belles Heures and Très Riches Heures, and the Rohan Hours (see for example J. Longnon, R. Cazelles and M. Meiss eds., Les Très Riches Heures du Duc de Berry, London 1969, p. 25 and plates passim).


14 Joyce Plesters, A Note on the Materials, Technique and Condition of Bellini’s ‘The Blood of the Redeemer’, in: National Gallery Technical Bull., 2, 1978, pp. 22-24 especially p. 24. Miss Plesters has since suggested to me that in Giovanni Bellini’s technique gold powder was not in fact applied bound in medium, but was “strewed on the underlying paint” in a manner more closely resembling mordant gilding.

15 For good colour plates, see E. Micheletti, L’Opera completa di Gentile da Fabriano, London 1982, pp. 87-90 (the Valle Romita Polyptych, dated ca. 1410-12) and pp. 84-86 (the Berlin altarpiece).

16 See H. Wohl, The Paintings of Domenico Veneziano, Oxford 1980, pp. 118-120: “the Child’s [hair] is near black streaked with gold”. I am very grateful to Joanne Wright for confirming for me that gold paint was used in the Bucharest painting.

17 Examples are Florence, Biblioteca Laurenziana 63, 31, Aelius Spartanus, and Bibl. Laur. 51, 7, Varro, De Lingua latina (1456 dated); for these see Ames-Lewis (n. 3), pp. 286 and 275 respectively.

18 Examples are Bibl. Laur. 48, 8, Cicero, Orationes, copied for Piero de’ Medici ca. 1455 and Bibl. Laur. 66, 9, Josephus, De Bellum Judaicum, copied for Giovanni de’ Medici ca. 1460; for these see Ames-Lewis (n. 3), pp. 264 and 305 respectively.


20 For illustrations, see A. Busignani, Benozzo: la Cappella Medici (Forma e Colore 56), Florence 1965, pl. 2, 17. Another example of the use of gold powder in a different context at about this time is the glazed terracotta decoration on the monument to Bishop Benozzo Federighi (now in Sta. Trinita, Florence) by Luca della Robbia: “... the ground within the ovals and outside each bunch of flowers was covered, before firing, with gold powder or gold paint and was then glazed”; see J. Pope-Hennessy, Luca della Robbia, Oxford 1980, p. 47 (the monument was made between 1454 and 1456).
RIASSUNTO

Matteo de' Pasti, benché meglio conosciuto come medaglista, in una lettera scritta da Venezia a Piero di Cosimo de' Medici nel 1441, discusse una tecnica pittorica — nuova per lui — che comportava l'impiego di un pigmento dorato in polvere. A quell'epoca l'artista stava lavorando ad una serie dei Trionfi del Petrarca per Piero de' Medici, serie identificata in questo saggio per mezzo di un manoscritto mediceo a Parigi, Bibl. Nat. MS ital. 1471. Esso risulta stilisticamente databile intorno al 1440. Descritta da Cennino Cennini nel suo Libro dell'arte, la tecnica dell'oro in polvere viene messa in relazione con le miniatures dei manoscritti a Venezia e nel Veneto all'inizio del Quattrocento e può essere rintracciata nella pittura fiorentina della metà del secolo. Sembra che tale tecnica sia stata particolarmente appoggiata da Piero de' Medici per le sue possibilità decorative, come aveva predetto Matteo de' Pasti nella sua lettera, e che sia stata usata nella decorazione della cappella del nuovo Palazzo Medici intorno al 1460.

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