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Series editor Ashok Roy

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FRONT COVER

The Master of the Story of Griselda, *The Story of Patient Griselda, Part III: Reunion*, NG 914, detail of PLATE 3, PAGE 6.

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The Master of the Story of Griselda, *The Story of Patient Griselda, Part II: Exile*, NG 913, detail of PLATE 2, PAGE 5.

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BALTIMORE MD. Walters Art Gallery: P. 23, PL. 25; P. 51, PL. 70; P. 53, PL. 74; P. 56, PL. 77. BLOOMINGTON IN. Indiana University Art Museum. Photo Michael Cavanagh and Kevin Montague: P. 22, PL. 23; P. 54, PLS. 75, 76; P. 55, FIGS. 38, 39. BORDEAUX. Musée des Beaux-Arts, photo Lysiane Gauthier: P. 106, PL. 9. BUDAPEST. Szépmüvészéti Muzeum. Photo: András Rázsó: P. 21, PL. 22; P. 57, PL. 78; P. 59, PL. 82. FANO. Chiesa di Santa Maria Nuova © 1997. Photo Scala, Florence: P. 102, PL. 5. FLORENCE. Galleria dell'Accademia. Courtesy of the Opificio delle Pietre Dure e Laboratori di Restauro, Florence: P. 86, FIG. 9. Museo Nazionale del Bargello. Courtesy il Ministero dei Beni e le Attività Culturali: P. 21, PL. 21; P. 57, PL. 80; P. 69, PL. 87. MILAN. Civica Raccolata della Stampe Achille Bertarelli: P. 74, FIG. 2. Museo Poldi Pezzoli: P. 22, PL. 24. PERUGIA. Galleria Nazionale dell' Umbria, courtesy the Soprintendenza BAPPSAD dell' Umbria: P. 75, PL 3; P. 100, PL. 2. Galleria Nazionale dell'Umbria, courtesy the Soprintendenza BAPPSAD dell' Umbria. Photo Alinari Archives, Florence: P. 100, FIG. 7. Galleria Nazionale dell'Umbria, courtesy the Soprintendenza BAPPSAD dell' Umbria. Photo Alinari Archives/Bridgeman: P. 104, PL. 6, 7. Galleria Nazionale dell'Umbria © 1997, photo SCALA, Florence – Courtesy of the Ministero Beni e Att. Culturali: P. 74, PL. 2; P. 75, PL. 4; P. 76, PL. 5; P. 87, PL. 18. San Severo, © 1990, Photo SCALA, Florence/Fondo Edifici di Culto -Min. dell' Interno: P. 88, PL. 19. Valentina R icci Vitani: P. 76, FIG. 3: ROME. Galleria Albani e Collezione Archeologica, Villa Albani Torlonia. Photo Archivio Fotografico Soprintendenza per il Polo Museale Romano: P. 101, PL. 4. SIENA. Pinacoteca Nazionale. Photo Fratelli Alinari Museum of the History of Photography-Malandrini Collection, Florence: P. 117, FIG. 2. Pinacoteca Nazionale $\mathbb O$ Foto LENSINI Siena: P. 116, PL. 7. Santa Maria dei Servi © Foto LENSINI Siena: P. 118, PL. 8. Santa Maria in Portico a Fontegiusta. Photo Alinari Archives-Brogi Archive, Florence: P. 116, FIG. 1. WASHINGTON, DC. National Gallery of Art. Image 2006 C Board of Trustees, National Gallery of Art, Washington, DC: P. 20, PL. 20; P. 23, PL. 26; P. 28, FIGS. 9, 11; P. 30, FIGS. 14, 15; P. 36, PL. 44, FIG. 18; P.37, PLS. 45, 46; P. 38, PL. 47, FIGS. 19, 21; P. 39, PLS. 49, 50, FIG. 22; P. 40, PLS. 51, 52, FIG. 23; P. 41, PLS. 53, 54, FIG. 24; P. 51, FIGS. 36, 37; P. 52, PLS. 71, 72, 73; P. 57, PL. 79.

The Master of the Story of Griselda and Paintings for Sienese Palaces

JILL DUNKERTON, CAROL CHRISTENSEN AND LUKE SYSON

THE STILL ANONYMOUS 'Master of the Story of Griselda' derives his designation from three gloriously entertaining panels in the National Gallery,1 retelling Boccaccio's tale from the Decameron (1348-51) of the marriage of the Marchese Gualtieri di Saluzzo to the peasant girl Griselda (PLATES 1-3).2 The personality of their painter was established by Bernard Berenson in 1931,3 building upon the research of Giacomo De Nicola in 1917.4 Nonetheless, the master's precise artistic and geographical origins, the identity of his patrons, the dates of his paintings, their relative chronology and his methods of collaboration with other masters (quite apart from his name) all remain matters of dispute.5 While a consensus has been reached that he was active in the period c.1490-1500, the question of whether his career was cut short prematurely by death or whether his pictures represent the juvenile (or possibly mature) phase of one or another better understood - preferably a named - painter is not resolved. A small group of panels is now unanimously assigned to him: the National Gallery pictures, the ex-Zoubaleff collection bacchic tondo last recorded on the Paris art market,⁶ and four of the series of Virtuous Men and Women that will be discussed below.⁷

The Griselda panels

The starting point for any investigation of this master remains the three London panels that give him his 'name'. In the first of the three (the first, that is, of the narrative sequence but not necessarily, as we shall see, the earliest painted), here entitled Marriage, the Marchese Gualtieri, out hunting, encounters the beautiful peasant girl Griselda (PLATES I AND 4) and announces that he will wed her on condition of her absolute obedience. Having obtained her father's consent (right background), he publicly humiliates her, stripping her bare to dress her again in her wedding finery (right). The wedding takes place at the centre of the picture, framed by a triumphal arch. In the second picture Exile (PLATE 2), which reads left to right, the now married Gualtieri tests his wife further by removing her newborn daughter and son and

pretending he has had them killed (left background). Underneath the loggia at the centre he then stages a bogus annulment of their marriage. Griselda returns her wedding ring and is once again forced to strip, though this time she is permitted to keep her camicia, in which she returns disconsolately to her father's house (right). In the final painting of the cycle Reunion (PLATE 3), the Marchese seeks out Griselda, who now believes her children murdered and herself divorced, and orders her to prepare his home for the arrival of a new bride (right background). Griselda inevitably - obeys (left background) and meanwhile, in the far background, the wedding procession of this new bride arrives in Saluzzo; the Marchese's supposed wife-to-be is in fact Griselda's long-lost, grown-up daughter, accompanied by her younger brother. Griselda is reunited with her children (right) and the Marchese reveals that her long ordeals have all been tests of her obedience, and that she has indeed proved herself a perfect wife. At the end of this troubling little tale, they embrace, an ideal couple at long last (left).

The pictures, of the type now generally classified as spalliere,8 may have been installed in a row, since they are all lit from the left. It is more certain that they were intended to furnish a principal camera of a patrician palazzo, perhaps placed above three cassoni or, given that the perspective angle of the architectural settings suggests that the viewpoint was intended to be low, they were installed higher up, conceivably as overdoors. A bedchamber location may be deduced not only by their size and shape, but also by their subject matter, which makes them particularly (and typically) appropriate for a nuptial chamber. The painter's style and technique will be seen to have evolved during the painting of these three works, but some aspects are consistent and distinctive and his works are characterised above all by a delicacy and lightness of touch. The pictures are populated by notably elongated men with long, well-formed legs and barrel-like thoraxes and women with tiny waists and flowing hair. The protagonists flounce and bounce on their toes, swaying and gesticulating with consummate elegance while high-stepping horses with frothy



PLATE I Master of the Story of Griselda, *The Story of Patient Griselda, Part I: Marriage* (NG 912), *c*.1493–4. Poplar, 61.6 × 157.5 cm.



PLATE 2 Master of the Story of Griselda, *The Story of Patient Griselda, Part II: Exile* (NG 913), 1493–4. Poplar, 61.6×157.5 cm.



PLATE 3 Master of the Story of Griselda, The Story of Patient Griselda, Part III: Reunion (NG 914), 1493-4. Poplar, 61.9×157.5 cm.

manes adopt almost balletic poses. Gesture is allimportant. He could also be immensely witty, and he is highly sophisticated in his approach to episodic narrative. Throughout, moments in the story are linked by a chattering commentary of bystanders, a feature of Boccaccio's tale, and the animals in the foregrounds mirror or satirise the behaviour, even the extravagant costume, of the human protagonists.

Date and patron

The provenance of the three London paintings is known only from the mid-nineteenth century. They are first recorded in the collection of Alexander Barker, in which they were examined by Gustav Waagen in 1854; Barker had attributed them to Pintoricchio.⁹ They were sold to the National Gallery in the Barker sale at Christie's in 1874 (lots 85–7), and were later catalogued as Umbrian School.¹⁰ However, their original patron has been a matter of speculation. Vilmos Tátrai's suggestion that they were commissioned by members of the Spannocchi family, lacking proof, has not always been accepted.¹¹

Tátrai linked the pictures with the wedding on 17–19 January 1494 of the sons of the late Ambrogio Spannocchi, papal banker to Pius II Piccolomini,

Antonio (b. 27 May 1474) and Giulio (b. 1475?), respectively to the Sienese Alessandra Placidi, and to a Roman bride, Giovanna Mellini.12 The wedding was celebrated with huge and extravagant ceremonies, by the performance of another of Boccaccio's novelle (IX.3) and, tellingly, given the inclusion of the arch in Marriage, by the erection of a temporary triumphal arch with on top four statues of famous men of arms.13 Tátrai's theory has recently been confirmed by their connection - established by heraldry and shared provenance - with two panels that can be seen at Longleat House, Wiltshire, accepted in lieu of tax in 2005 (but remaining in situ) by the Victoria and Albert Museum.¹⁴ This further pair of so-called spalliere, respectively 76×229.5 and 73.5×170 cm, came just before the Griselda pictures in the Barker sale (lots 83 and 82 - only divided by Pintoricchio's Penelope with the Suitors [NG 911], also of course with a Sienese provenance). The first panel depicts episodes from the life of Alexander the Great, the story taken from Plutarch's Parallel Lives (xx, 5-xxi, 5). The second shows Alexander's Roman parallel, Julius Caesar crossing the Rubicon, as told by Suetonius (I: xxxi-xxxiii). They were sold to the Marquis of Bath as works attributed to Pintoricchio. It has now been established



PLATE 4 Marriage. Detail of PLATE 1.

that a coat of arms painted on Alexander's tent is that of the Spannocchi family. The Piccolomini *stemma* is visible on the dexter (the family had been granted the right to incorporate Piccolomini arms with their own) and, severely abraded, the Spannocchi arms, with their three Spannocchi gold paired ears of corn (*pannocchi*), are seen on the red sinister side.

An attribution to the workshop of Domenico and Davide Ghirlandaio means that the pictures can now be linked with a regularly discounted passage in Vasari's 1568 life of Ghirlandaio: 'Domenico [Ghirlandaio] e Bastiano [Mainardi] insieme dipinsono in Siena, nel palazzo degli Spannocchi, in una camera, molte storie di figure piccole, a tempera.'15 One hand (there appear to be three in all) is certainly identifiable as that of Bastiano Mainardi and it should be noted that, even if no part seems likely to have been painted by Domenico himself, his brother Davide was active in Siena between April 1493 and about March 1494 (or possibly a little later).¹⁶ Davide (like his brother-in-law Mainardi) was still operating within Domenico's shop, and continued to run it even after Domenico's death on 11 January 1494. The dates of Davide's work for the Duomo operai give us a probable dating for the Longleat Spannocchi pictures of c.1493-4, probably commissioned just before Domenico's death and perfectly coinciding with the marriage of the Spannocchi brothers. A firm link is established between the two sets of pictures by the fact that servants garbed in the same liveries appear in both the Longleat Alexander painting and, accompanying the Marchese Gualtieri, in the first and third Griselda panels (PLATE 4). They are clearly therefore to be identified with the bridegroom in both instances. This is evidently a Spannocchi livery and the colours of their hose tie in precisely with those of the coat of arms: white (standing for silver), blue and a flash of gold on one leg (the Piccolomini dexter), red for the Spannocchi on the other.17 Since the Palazzo Spannocchi was an important focus for the wedding ceremonies, we can perhaps assume that the Griselda panels, like the Longleat pictures, were commissioned for the marriage and begun in 1493.

The problem remains as to what these pictures tell us of the master's artistic origins. Boskovits, most recently, has re-stated the canonical view that the Master of the Story of Griselda was a pupil, *creato* or assistant of Luca Signorelli.¹⁸ A superimposition of Signorelli's style can indeed be detected, but, as Kanter has pointed out, the Griselda Master's citations can almost all be explained by the presence of Signorelli's Bichi Altarpiece in the 1488 church of Sant'Agostino19 in Siena. The system of insistent shadowing, especially in Exile, is indebted to Signorelli and a number of subsidiary bystanders and servants in both Reunion and Exile are based on figures in two small panels from the Bichi Altarpiece, now in Toledo, Ohio. Beyond these local citations, the master makes almost no use of motifs from other non-Sienese phases of Signorelli's career, as might be expected from someone with access to drawings in the workshop.20 It should not be forgotten that Francesco di Giorgio had a key part to play in the decoration of the Bichi Chapel, responsible not only for the polychrome statue of Saint Christopher²¹ on the altar but also for the grisaille frescoes on the walls, which are also likely to have had some impact upon the Griselda Master. In fact, there are aspects of the Griselda Master's refined style, and of his technique, especially at the outset, that are quite unlike Signorelli's. Indeed, it is arguable that his understanding of Signorelli's approach became ever more profound during the course of his brief career, and that his style was formed at the start primarily by contact with native Sienese painters of the previous generation, and with Umbrian painters, above all Perugino and Pintoricchio.22

Indeed, the seamless blending of these two styles has led to the Griselda Master's ambiguous classification as 'Umbro-Sienese'; there can be no way of knowing whether he was born in Siena or Umbria. An Umbrian birthplace remains plausible, and may explain the painter's resolutely anonymous status in Siena (in addition, because he specialised in secular painting, he is unlikely to be identified by linking a name in a contract with a surviving work). Moreover, even if he were native to Siena (likely given that all his known works seem to have been painted there), there can be little doubt that the young painter spent some time in close contact with Umbrian masters; Angelini has even proposed, somewhat dubiously, that the Griselda Master may have been a member of Pintoricchio's huge équipe in Rome.23

Pintoricchio certainly provided a model for the Griselda Master's decidedly decorative landscape style. The Griselda Master also seems to have had some contact with Perugino's *bottega*, perhaps in Florence.²⁴ One of the male servants in *Reunion* adopts, rather wonderfully, the attitude of the attenuated Annunciate Virgin in the *Ranieri Annunciation*, probably a Perugino workshop product.²⁵ The dashes of paint that give texture and distance to his landscapes also probably derive from Perugino.

However, other elements in his paintings he could have learned only from Sienese masters. Zeri proposed a link between the View of an Ideal City in Baltimore, variously attributed, and the Griselda Master and, even if the Griselda Master is in fact very unlikely to have contributed to this panel, it is true that the architecture in Exile (which is markedly more sophisticated than in Reunion) is like an ideal city of the type surviving in Berlin and Urbino as well as in Baltimore, the first of these probably best attributed to Francesco di Giorgio or his shop.26 Indeed, the reiteration of a dancing statue and landscape features from Marriage and Reunion respectively in the background painted behind a polychrome terracotta Virgin and Child relief of c.1490-3, attributed to Francesco di Giorgio and a collaborator (formerly at the Pieve di San Leonardo a Montefollonico, now in the collection of the Museo Diocesano at Pienza), has suggested to Bagnoli that this element of the relief may have been delegated to the Griselda Master.²⁷ It therefore becomes possible that, after a first training in Umbria or Siena, the Griselda Master occupied a junior role in Francesco di Giorgio's workshop, starting as a specialist in landscape and architectural backgrounds, and only subsequently began fully to absorb the lessons of Signorelli's Bichi Altarpiece. It will be seen that these observations, based at this stage on the master's style, are borne out by his technique.

The panels

The three panels are constructed from substantial boards of dense, good quality poplar, 2.8 cm thick, and with the grain running horizontally (PLATE 5, FIG. 1). The panels for Marriage and Exile consist of two planks, joined approximately across the centre, while that for *Reunion* is made up of three narrower boards. In the case of the third panel, a fault at the left end of the central board was filled on the front face with an X-ray opaque putty, probably the same as that which appears in a gap between joins on the reverse at the opposite end. Other small knots and flaws, inevitable in planks of these dimensions, have also been filled with this putty, even on the reverse faces. In general, the panels are notable for their straight grain and for their stability. Woodworm damage is slight, but water stains on the reverses of all three panels indicate that, at some time, they may have been in contact with a damp wall.

Cut into each panel are two vertical channels, slightly tapering at alternate ends and with a dovetail profile, designed to hold battens. They are assumed to be original since no woodworm channels have been exposed by the cutting, and lines scored into the



PLATE 5 Marriage. Back.



FIG. 1 Marriage. X-radiograph.

wood approximately along the centre of the upper and lower sides of each panel were presumably made by the carpenter in order to establish the depth to which the channels were to be cut. Similar batten channels occur on other Tuscan furnishing panels of comparable dimensions from this period,28 but as none remain in situ it is not known whether the battens had a role in the installation of the panels or whether they were fitted simply to prevent the long panels from warping and twisting. The Griselda panels have at either ends borders of unpainted gesso, between one and two cm wide and demarcated by incisions; these must have been capped by vertical framing elements. The paint extends almost to the very edge along the upper and lower edges, however, and so it is possible that the ends of the battens projected above and below the panels, providing fixing points for their attachment to a frame or indeed a wall which could then be covered by horizontal mouldings or framing elements.

The underdrawing

It is reasonable to suppose that the panels were prepared with gesso at the same time. As is often the case with later fifteenth-century Italian panels, the surfaces are peppered with pits caused by air bubbles in the gesso. Many of the paint samples feature a translucent yellow-brown layer over the gesso; this was also visible in damaged areas before restoration and it may be an unpigmented priming layer, probably glue or a drying oil, applied to reduce the absorbency of the gesso.

The design of all three panels, and especially the distribution of the many episodes of Boccaccio's narrative, must have been worked out to a considerable extent in advance. Every detail that relates to the narrative was carefully underdrawn on the gessoed surface so that in the episode of the Marchese hunting in the left background of *Marriage*, the minute huntsmen, hounds and stag – figures that one would expect to have been painted on top of the completed land-



FIGS 2 AND 3 *Marriage*. Infrared reflectogram mosaic detail and X-ray detail of hound and stag.



FIG. 4 Marriage. Infrared reflectogram mosaic detail.

scape and sky – are in fact drawn and painted and the sky then brushed in around them (FIGS 2 and 3). As will be demonstrated, however, the paintings were probably executed one at a time and out of narrative sequence. Sets of painted furnishings commissioned for marriages were not necessarily finished in time for the ceremonies themselves,²⁹ but, in the context of such a commission, it would have made sense in this instance for the painter to try to complete the third in the set first, the one that depicts the feast celebrating the marriage (albeit a staged one) of the Marchese to his supposed new bride, and the happy ending brought about by female obedience.

In spite of the complex architecture of the structures that appear in this and in Exile, the painter made little use of incision, preferring to rule straight lines in ink (PLATE 6), perhaps using a quill pen, although elsewhere the underdrawing has clearly been executed with a brush.³⁰ Occasionally these lines extend into areas destined for figures (see FIG. 6). The only incision in the architecture occurs in the arcs of the arches in all three panels and in the vaulting and roundels in Reunion. Here the holes made by the point of the dividers used to inscribe the circles are clearly visible (PLATE 7). Inconsistencies in the incised curves of the vaulting of this panel suggest some uncertainty about the perspective of the construction. With the exception of the bridal procession and the episodes that take place at the back of the stage at the extreme left and right, the figures are symmetrically disposed in the shallow space established by the long table and the front of the loggia.

The positioning of the figures in Exile, on the other hand, is more complex and, while retaining an element of symmetry, is more subtly varied. For this more elaborate setting, the painter drew a perspective grid that allowed him to establish the correct spatial location for each figure (FIG. 5). Confirmation that this was the purpose of the grid is the fact that the lines can be seen in infrared to be running beneath the figures. In many areas of the foreground the perspective lines are clearly visible to the naked eye. The reason why infrared imaging enhances the legibility of the underdrawing only to a limited extent is that the drawing material used on all three panels consists principally of an iron-gall ink, perhaps with a small amount of carbon black.31 Where a line of underdrawing appears in a cross-section, it can be seen



FIG. 5 Exile. Infrared reflectogram mosaic detail.

to be surprisingly thick and dark (see PLATE 12). In the badly damaged gilded capitals of the loggia in *Exile* the brown-black lines of underdrawing are often all that has survived of the architectural detail (PLATE 6).

In Marriage, the copper-based pigments used for the grassy landscape reduce penetration of infrared, but a horizontal line and a diagonal, which lead to the vanishing point at the base of the arch, are visible with the naked eye beneath the blue-grey legs of the young courtier with his back turned in the right foreground of the central group. They may represent traces of a system to guide the positioning of these figures. Landscape elements were sketched in with long fluid lines (FIG. 4), but here the underdrawing tends to be more approximate and it was not always followed in the painting. A different underdrawn profile of the rocks on the left appears behind the heads of the waiting horses and their grooms (now beautifully set against the sky). Few of the tree trunks visible in the first and second panels were painted in their drawn positions, and the tree sketched in front of Griselda's parents' house on the right of Exile is now easily visible with the naked eye. X-radiographs confirm that trunks, branches and foliage were painted over the skies in all the panels. Because the positioning of the trees does not affect the telling of the story, the painter could re-arrange them at a late stage, unlike the figures with their important narrative role.

More differences between the three panels become apparent in the drawing of the figures. In *Reunion*, here proposed as the first to be executed, the figures are exceptionally tall and slender, even by the Griselda Master's standards, and their heads and feet are proportionally very small – indeed a figure's feet can be smaller than their expressively gesturing hands. Although the standing figures are usually posed with their weight on one leg in a way that suggests knowledge of works by Perugino and Signorelli, their legs



PLATE 6 Exile. Detail, after cleaning, before restoration.



PLATE 7 Reunion. Detail of PLATE 3.

are often stiff and their backs remain straight.³² In a figure such as the girl in pink who stands in front of the loggia on the left, the painter drew in the limbs beneath the fabric of her dress, which flutters out on





FIG. 6 Reunion. Infrared reflectogram mosaic.

both sides of the figure, the folds looping and coiling into distinctive shell-like spirals (FIG. 6).³³

Marriage was probably the second panel to be painted, although some overlap is always possible in that work may have begun on the next one before the first was completed. Here bulkier and more heavily draped figures in the manner of Signorelli have been introduced, notably those of the Marchese and Griselda at the centre and the bystander with his back turned to the left of them (FIG. 7). Signorelli's system of shadowing has been better understood. The bystander's cloak was to be painted with azurite and ultramarine blue, unmodulated by white, and so, after the folds had been drawn, they were reinforced by incising them into the gesso, roughly following the liquid lines of the underdrawing - in the infrared image the crisp sharp lines are the incisions. Other dark blue draperies in the series have been similarly



FIG. 7 Marriage. Infrared reflectogram mosaic detail.

incised. The practice is a traditional one, especially if black underpaintings were also to be employed, and is more usually associated with blue mantles worn by the Virgin. In the lower part of the same drapery small areas of fine parallel hatched shading can be seen in the bunched folds; similar areas of shading, always indicating areas of shadow rather than volume, occur in several places on all three panels.

By the time the painter drew the figures in *Exile*, their poses have become noticeably more varied and flexible. Although some still have the stiff-legged gait of the other panels, waists now bend and hips jut and sway to give the impression of dance that is so much a feature of this anonymous master. His way of representing fluttering draperies, on the other hand, has become a little less extreme, with the spirals replaced by slightly more credible zigzag folds. It can be seen in infrared that he eliminated a flutter of drapery which

he drew on the right side of the figure of Griselda in her shift (FIG. 8). This alteration better suggests the soft translucent nature of the fine fabric and enhances the sense of movement. However, it probably also marks the beginning of a tendency for the painter to curb some of his decorative flourishes and to reduce overcomplex contours, and to pursue a more naturalistic, indeed more Signorellian, impulse.

Not surprisingly, given the careful planning, there are few pentimenti and all are minor. In Exile, for example, the drapery over the shoulder of the courtier in the foreground on the far left was originally drawn extending further down than it was painted and the head of an extra bystander to the right of Griselda in the central episode of the mock divorce was eliminated for obvious reasons. In Reunion the head of the horse of the new bride in the background procession was repainted in a lower position. Small changes to colours include the replacement of a purple cap on the young man to the left of the central pillar in this panel with one of scarlet. The only features of the panels which were not planned at the underdrawing stage are the birds and animals that supply the humorous commentary on events taking place behind them. They are all painted over the foreground layers; the more thinly painted ones are now transparent and worn by past cleaning.

The mordant gilding

The three paintings owe much of their decorative effect to the use of gold leaf. It is, however, always used illusionistically in the sense of being applied to surfaces that are represented as golden and with careful attention to lighting effects. The figure of the Marchese is identified throughout the story (no matter how small he appears) by his cloth-of-gold tunic and gold chain (PLATES 8 and 9). At her marriage, and until her divorce, Griselda wears a dress of a matching fabric. Over an unmodulated orangebrown base colour, consisting of an orange earth pigment with a little vermilion and lead white in oil, small pieces of gold leaf were affixed to a mordant painted onto the parts of the textile that catch the light. The shadowed areas were shaded with hatched strokes of black and then the red velvet part of the pattern added using a red lake glaze. The Griselda Master was not unusual in late fifteenth-century Siena in attempting to use real gold for cloth of gold without compromising the volume, structure and lighting of the draperies to be depicted.³⁴

At their wedding, the Marchese and Griselda also wear sumptuous red mantles, the edges bordered with gilded patterns and the folds highlighted with tiny



FIG. 8 Exile. Infrared reflectogram mosaic detail.

flecks of gold leaf. In *Exile*, the dark blue parts of the costumes of several figures are treated in the same way. The technique appears in paintings by Pintoricchio and Signorelli but also in works by Sienese masters such as Neroccio, although seldom used on a scale as small as the figures in these panels.³⁵ The rocks behind the figure of the peasant Griselda encountering the Marchese on the left of *Marriage* (PLATE 4) are lit with diagonal hatched lines of gold leaf.³⁶ Other gilded details that suggest the miniaturist tendencies of this painter are the wine cups and dessert dishes at the wedding feast in *Reunion* and, in *Marriage*, the sword hilts, horse bits and harness, and even the eyes of the dogs on the right who witness Griselda's first test of obedience.

The most extravagantly gilded panel is *Reunion* with its blue and gold loggia, but here too attention was given to the direction of the lighting: gold leaf



PLATE 8 Marriage. Detail of PLATE 3.



PLATE 9 Marriage. Detail of PLATE 1.

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was applied only to the facets of the capitals and bases that catch the light and to the convex surfaces of the beaded moulding around the arches, each bead picked out individually with a highlight of gold (PLATE 7). The base for the mordant gilding is the same orangebrown paint layer that was used for the cloth-of-gold fabrics (PLATE 10). The mouldings and the reliefs of antique subjects in the roundels were painted over the gold with black and translucent brown pigments. More mordant-gilded patterns were applied over the azurite and ultramarine blue in the spandrels and on the pillars in this and in *Exile*. Here the gold appears less lustrous because of the rough surface of the underlying pigment.

In Exile, the panel that seems to have been painted after the other two, the orange-brown underlayer was omitted from the capitals and gilded bands on the cornices of the central loggia and the buildings to the left. Instead the mordant was applied directly onto the gesso (over the detailed underdrawing in the case of the capitals). The gold leaf is much abraded on this panel and so during the recent restoration the translucent yellow-brown mordant was visible (PLATE 6). The same mordant was used for the other areas of gilding on the three panels, and also features on Alexander the Great, one of the panels by the Griselda Master from the Virtuous Men and Women series (p. 44). Analysis has shown that the unpigmented mordant contains gum ammoniac, a gum resin exuded from the stems of a plant of the Apiaceae family Dorema ammoniacum D.Don, native to Iran and India. Gum ammoniac is partially soluble in water, alcohol, vinegar and dilute alkali, flows easily from a brush or pen and dries rapidly to a transparent glossy finish that can be gilded immediately or reactivated later with hot breath. The identification of gum ammoniac in the mordant here and on the panel by Giannicola di Paolo discussed in this Bulletin (p. 96) represents its first reported occurrence as a mordant for gilding on panel paintings.³⁷

The paint layers: pigments and media

The panels were painted predominantly in oil, but egg tempera was used in some areas for specific reasons related to particular pigments or effects of colour and texture.³⁸ Opaque paints containing lead-based pigments such as the skies, painted with ultramarine and lead white, and the light warm grey platforms that form the foregrounds of the two panels with architectural settings are all bound with walnut oil. The paint has a stiff texture, retaining the marks and direction of the brushstrokes as the painter worked carefully around the contours of the figures and other important features. Often a ridge can be seen at the



PLATE 10 *Reunion.* Cross-section of a sample from the gilding on the arches. There is an orange-brown underpaint of yellow earth pigment, with some vermilion and lead white, lying on the gesso ground. Above is the translucent unpigmented yellow-brown mordant for the gold leaf. Photographed at a magnification of 500×. Actual magnification 440×.

junction between sky or foreground and the more thinly painted figures. Away from the figures, the paint application becomes broader and long sweeping brushstrokes can be seen in X-radiographs, including in the landscape foreground of Marriage (FIG. 1). Here most of the grassy slopes have been underpainted with mixtures of verdigris, lead-tin yellow, lead white and sometimes a little black. Curiously, the only costume in all the panels to be painted using lead-tin yellow is that of the black servant holding the white palfrey saddled ready to carry the bride. The slightly gritty, almost lumpy texture characteristic of lead-tin yellow paint films that have formed lead soaps is very apparent.³⁹ Other areas of yellow on the panels are painted with a bright ochre, with some vermilion and black in the shadows.

In most of the samples where the type of oil could be identified, it was found to be walnut oil, the most commonly used drying oil in Italy at this period. However, in the bright green hose of the young man who stands in front of the table towards the right in Reunion the mixture of verdigris and lead-tin yellow is bound with linseed oil; the paint has a particularly rich glossy surface which may be attributable to this choice of oil. The green glazes based on verdigris that occur over most of the landscapes have almost certainly discoloured to some extent. The short horizontal dashes of paint used to represent grass - a technique originating perhaps with Perugino but turned almost into a signature feature by this anonymous master - consist of verdigris in oil in Marriage and Reunion (PLATES 4, 9 and 14). They have probably darkened and so stand out against the lighter underpaint. In Exile the system is reversed with pale flecks containing mainly lead white scattered over the green and brown slopes (PLATE 18).

One area of landscape is painted with a completely different technique. The dark green grass



PLATE 11 *Marriage*. Cross-section of a sample from the dark green grass on the rocky outcrop in the left background, showing coarsely ground malachite in a matrix of discoloured binding medium. Photographed at a magnification of 500×. Actual magnification 440×.



PLATE 12 *Reunion*. Cross-section of a sample from the pinkish-red robe of the girl in the left foreground. The gesso ground is missing from the sample; the lowest brownish-black layer is the iron-gall ink underdrawing, which has cracked before the paint layers have been applied. An intense red kermes lake pigment can be seen in the paint layers. Photographed at a magnification of 500×. Actual magnification 440×.

of the rocky outcrop on which the Marchese is shown hunting in the left background of Marriage consists of a green-blue mixture of a coarsely ground malachite mineral pigment, bound not in oil but in egg tempera (PLATE 8). The common reaction between this copper-containing pigment and the egg medium has resulted in considerable discoloration - in paint samples the lighter green of the mineral is still apparent (PLATE 11). There is no obvious explanation as to why the grass in this area alone should have been painted with malachite in tempera (a rather old-fashioned technique by the late fifteenth century, but also found in the landscape of Claudia Quinta from the Virtuous Men and Women - see p. 37), but at least it demonstrates a consistent distinction between media. since any areas painted with the closely related blue pigment, azurite, are also bound in egg.40

Ultramarine was used with lead white for the skies and as a glaze to finish areas of dark blue such as the spandrels, the costumes and the striped hose of the servants wearing the Spannocchi livery, but the principal pigment for blue areas was azurite. It usually occurs in two layers, the first of finely ground pigment and the second of coarser and more intense colour. Often there is a considerable proportion of malachite present as well. The impurities present in the mineral azurite and malachite in the Griselda

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panels have also been found in these pigments in other Sienese, Florentine and Umbrian paintings of this period, and it has been suggested that they were sourced from the copper and silver mines of Schwaz in the Tyrol.⁴¹ No lead white was added to the upper layers and the pigment particles are exceptionally large; before the darkening of the egg medium the colour must have been rich and brilliant, especially in the large areas of blue on the vaults of the loggia in *Reunion*.

It might be thought that some of the other dark colours on the panels are the result of discoloration, but in fact several figures wear mantles and tunics painted with black pigment, often given a slight bluish cast by the addition of a little lead white; others are dressed in shades of maroon and purple, all based on mixtures of red lake, vermilion, ultramarine, black and lead white. A similar mixture, but with more white and a little yellow ochre, supplied the colour of Griselda's ragged peasant dress (PLATE 4). Together with the brown, white and steel grey of the horses, these more muted hues provide a foil for the brilliant reds that are distributed across the surfaces of all three panels.

Exile features only the warmer reds based on vermilion, mixed with a little red earth or red lead and often shaded with black pigment to give brownish shadows. The medium is probably oil. Bright vermilion reds appear on the other panels as well, but these panels also include draperies painted with a colder bluer red, for example the mantles worn by the Marchese and Griselda in Marriage (PLATE 9) and the pink dresses of the new bride (actually their daughter) and the girl in the left foreground of Reunion (PLATE 12). They are painted with a red lake prepared from kermes, the most expensive red dyestuff and in this instance probably extracted from clippings of silk textiles dyed with kermes.42 The lake is of exceptional quality. The medium was found to be egg tempera, a surprising result since in Italian paintings of this period when both oil and tempera were often used on the same picture, oil is commonly found in areas of red lake even when the rest of the work was executed mainly in egg. The Griselda Master was perfectly capable of using oil, and the identification of powdered glass containing manganese in some of the other colours indicates that he knew about adding driers to assist the drying of the paint, especially important in the case of red lakes.43 Therefore it seems that he chose to display the purity of the pigment by applying it in the less optically saturating medium of tempera.

Other instances of his selection of the egg medium for specific purposes include the fine white



PLATE 13 Marriage. Detail of PLATE 1.



PLATE 14 Reunion. Detail of PLATE 3.

lines of the damask weave table-cloth in the wedding feast, even though the off-white base colour is in oil,⁴⁴ and the stone buildings in *Exile* where the surface is mottled with two tones of grey, the effect probably achieved by dabbing the paint on with a small sponge or something similar (PLATE 15). Magnification of the surface reveals minute craters formed by burst air bubbles in the paint. The tendency for egg-based paints to foam would be exacerbated by application with a sponge; craters can often be seen in the fictive coloured marbles that appear in many fifteenth-century Italian tempera paintings.⁴⁵

The most unusual and perhaps significant use of the two media occurs in areas of flesh painting. In *Marriage* and *Reunion*, the heads and hands were first blocked in with the layer of green earth that is associated with traditional tempera painting (PLATES 13 and 14). Analysis has confirmed that it was applied in egg. Although it was becoming less common by the 1490s, green earth underpainting for flesh was still used by technically conservative painters in Siena, and also in certain Florentine and Umbrian workshops.⁴⁶ Over



PLATE 15 Exile. Detail of PLATE 2.

this underlayer the Griselda Master began to model the hair and features, still in tempera, using thin and rather translucent strokes that allowed the green underlayer to remain visible. The flesh tones, for example on the cheek of the girl in profile who is a guest at the wedding feast, are a warm brownish pink, as are the lips (PLATE 17). On this figure, so close to the blond Sienese beauties painted by Neroccio de'



PLATE 16 Exile. Macrophotograph of the head of Griselda.



PLATE 17 Reunion. Macrophotograph of a wedding guest.



PLATE 18 Exile. Detail of PLATE 2.

Landi and Francesco di Giorgio, as well as on several of the other women in this panel, most of the white highlighting of their features and locks of rippling hair also has the appearance of tempera, the open brushwork a miniature version of the hatched technique to be seen on Francesco di Giorgio's *Scipio Africanus* (see PLATE 39).

Final touches, however, were added in paint of a different colour and have a distinct texture when seen under magnification. It is a cooler, almost grey pink, and is characterised by a gritty appearance, indicative of the formation of lead soaps in a drying oil, confirmed by analysis as walnut oil. On the girl in profile, only a few strokes of this paint are visible, for example under her eye and down the side of her nose, but most of the figures in Reunion and Marriage were extensively worked over with these flesh colours in oil. It is possible that the original intention was to paint all the heads and hands entirely in egg, but the fact that this dual use of egg and oil appears on both these panels, probably painted in sequence rather than simultaneously, suggests that it was a deliberate technique. Yet another indication that Exile was almost certainly the last to be painted is the presence of a thin wash of translucent yellow-brown as the underlayer instead of green earth (PLATES 15, 16 and 18). This is followed by a full modelling of the faces using the cool pink and white flesh tints with the greyish undertones to be seen in the final stages of the other panels. Under magnification the granular texture resulting from the formation of lead soaps is again apparent. It can also be seen how the modelling is more evenly blended, even on such small-scale figures, and how the mouths are picked out with touches of crimson.

In the course of painting these three panels, therefore, the anonymous master, who can be assumed to have been young and quick to learn, was still adapting and refining his technique as well as his figure style. As will be demonstrated, parallel changes, almost certainly interlinked with those in the panels from which he takes his name, occur in his contributions to the cycle of Virtuous Men and Woman.

The Virtuous Men and Women

The second sequence of secular panels (PLATES 19-26) associated with the Griselda Master, and similarly painted for a Sienese palace, has a more complex history.47 It is generally agreed that, though divided since at least 1820,48 the images of four men -Alexander the Great, Joseph of Egypt (also sometimes identified as Eunostos of Tanagra), Scipio Africanus and Tiberius Gracchus - and three or possibly four women - Judith (or Tomyris, Queen of Scythia), Artemisia, Sulpitia and Claudia Quinta - heroes and heroines of the ancient world, once formed a continuous sequence (the Judith panel discussed here, now in Bloomington, has not always been included in the series).49 They depict classical (and it is generally thought two Old Testament) exempla posed on pedestals - some of which have since been cut off - as if they were polychrome statues (ones rather like Francesco di Giorgio's Bichi Saint Christopher) that had been brought to life. In the paintings that retain their fictive plinths, inscriptions supported by paired putti identify the subjects and give an account of the conjugal or, more broadly, familial virtues that lay behind their selection. Their landscape backgrounds contain episodes from the stories that had made them famous - amplifying the iconic figures by their exemplary narratives - and most of them, like saints, hold attributes essential to their stories. It is now almost unanimously agreed that four of these seven panels were executed in their entirety by the Griselda Master.⁵⁰ Two of them are clearly identified: Alexander the Great, now in Birmingham, and Tiberius Gracchus, now in Budapest. Alexander was selected for his magnanimous (and chaste) behaviour towards the women of the family of the defeated Darius. His type is close to the Alexander and Julius Caesar in the Ghirlandaio workshop paintings at Longleat (see pp. 6-7). However, his stance is most like that (reversed) of Publius Scipio in Perugino's Collegio del Cambio series of Famous Men painted in c.1498-9, although Perugino's painting almost certainly postdates the Griselda Master's panel, so it may be that Perugino had the chance to see this work by a lesser known painter or that the Griselda Master had the opportunity to study Perugino's preliminary drawings (or indeed that they had a common source, probably in Donatello's celebrated bronze David).51 The proportions and draperies of the background figures suggest that the stylistic trajectory started by the three Griselda panels has been continued and that the Alexander panel should be dated at the same moment as, or slightly after, Exile.

The inclusion of *Tiberius Gracchus* was prompted by the story recounted by Plutarch and Valerius Maximus. Tiberius was said to have been particularly devoted to his wife, the virtuous Cornelia, daughter of Scipio Africanus. When a pair of snakes was found in their bedchamber, soothsayers advised that he should neither kill them both nor let them both escape, adding that if the male serpent were killed Tiberius would die, and if the female, Cornelia. Tiberius chose to dispose of the male snake, and let the female escape; and, just as predicted, he expired soon after, leaving behind his 'constant and noble-spirited' widow. In pose, he has much in common with Signorelli's Saint Catherine of Alexandria (reversed), once again from the Bichi Altarpiece.

The two other pictures by the Griselda Master are now lacking their fictive plinths and inscriptions. The third figure painted by him, in Washington, has been variously identified – first tentatively as Joseph of Egypt,⁵² then more firmly as Eunostos of Tanagra,⁵³ and recently, as Joseph again.⁵⁴ It will be suggested below that this latter identification should still be treated as uncertain, and that the former theory may have more merit than is now usually supposed; for the sake of convenience, however, this picture will here be called Joseph, the title by which it is best known today. Of the Griselda Master's works, this picture is the most indebted to Perugino. Although the stress on contour is alien to Perugino, Joseph's facial type, with his rounded, rosy cheeks, is close, for example, to the kneeling Saint John the Evangelist in Perugino's Uffizi Pietà.55 His pose, moreover, reverses almost exactly that of Cato in the Collegio del Cambio, though here again the relative priority is difficult to determine. As will be demonstrated, Joseph seems to be the earliest of the paintings in the series for which the Griselda Master had full responsibility. The young man fleeing the embraces of the would-be seductress on the right repeats the turned-back pose employed by Francesco di Giorgio in his Uffizi drawing of Hippo.⁵⁶ The drapery arabesques, stiff-kneed figures and landscape are still close to those in Exile and even in Marriage.

The image of a virtuous woman painted by the Griselda Master - the painting now in Milan - can almost certainly be identified as Artemisia by the chalice she carries, containing the ashes of her dead husband Mausolus mixed with her tears, and by the unfinished mausoleum (incomplete at her death) under construction in the background. In the scene on the right Artemisia leans towards a woman dressed in pink and white, with another woman in attendance. On close examination (see PLATE 69) she can be seen to be weeping into the cup containing her dead husband's ashes; the ladies with her are perhaps maidservants, one in a pose which seems to denote suffering.⁵⁷ Whereas Perugino may have been the primary inspiration behind Joseph, here the Griselda Master in pursuit of greater naturalism, has once again turned first to Signorelli. As has often been remarked, Artemisia's pose and gestures are taken from Signorelli's Bichi Magdalen. So too is the strong shadow on her left wrist. That is not to say that the impact of Perugino has significantly diminished. Her face is far removed from those of Signorelli's heavyjawed maidens and is much closer to Virgins by both Pintoricchio and Perugino; a good comparison can be found in Perugino's Madonna del sacco in the Uffizi of the mid-1490s.58 The figures in the background of Artemisia have become weightier, the draperies entirely free of the frills and furbelows that have become so familiar. The landscape, without the Master's system of little dashes, is the part that has perhaps changed most, and the bushes with their



PLATE 19 Master of the Story of Griselda, *Alexander the Great, c.* 1493–4. Poplar, 106×51.3 cm.Bir mingham, The Barber Institute of Fine Arts, The University of Birmingham, INV. 51.4.

sparkling highlights and the bluer overall tonality seem closer to those in the Perugino *Madonna* mentioned above.

The other three panels (PLATES 21, 25, 26) that retain their inscriptions have been attributed, though by no means straightforwardly, to three other painters. The *Scipio Africanus* (PLATE 21) has an especially knotty attributional history. The background illustrates the legendary tale of Scipio's magnanimity – when he allows the Carthaginian maiden Lucretia, whom he had been given as a prize of war, to marry her



PLATE 20 Master of the Story of Griselda, *Joseph of Egypt* or *Eunostos of Tanagra, c.* 1493–4. Canvas (transferred from panel), 85.5 × 52 cm. Washington, DC, National Gallery of Art. Samuel H. Kress Collection, INV. 1952.5.2.

betrothed, the prince Aluceius. Critics are agreed that this panel derives from the workshop of Francesco di Giorgio, from around the time he was employed in the Bichi Chapel (his grisaille frescoes were certainly finished by 1494). In recent years, however, it has been argued that the figure of Scipio himself was executed by an assistant, sometimes identified as the so-called 'Fiduciario di Francesco', rather than by Francesco di Giorgio himself.59 This theory has led Kanter to suggest that this was the same assistant, to be identified as Lodovico Scotti, who (with Bernardino Fungai) worked up Francesco's designs for the Tancredi Altarpiece in San Domenico in Siena.60 Most scholars, however, have realised that, whether or not the main figure can be considered autograph, the plinth with its putti and the background with the tale



PLATE 21 Francesco di Giorgio and the Master of the Story of Griselda, *Scipio Africanus*, c. 1493–4. Poplar, 104.6×51 cm. Florence, Museo Nazionale del Bargello, INV. 2023 CARRAND.



PLATE 22 Master of the Story of Griselda, *Tiberius Gracchus*, *c*.1493–4. Poplar, 107.2×51.2 cm. Budapest, Szépmüvészeti Múzeum, INV. 64.

of Scipio's magnanimity are by another hand, almost always agreed to be that of the Griselda Master.⁶¹

No such uncertainty is attached to the attribution of the Washington painting of Claudia Quinta (PLATE 26, p. 23), or her plinth, both painted by Neroccio de' Landi.⁶² Coor reasonably suggests a date of 'in or about 1494', and Boskovits persuasively argues that the picture 'is from a stylistic point of view closer to the panel of Montepescini of 1492 (Pinacoteca Nazionale, Siena) than to the Montisi altarpiece of 1496'.⁶³ Claudia's figure is large in scale compared to the other heroines, with Neroccio creating spatial uncertainty – further confusing the distinction between painted image and living heroine – by having her step forward beyond the front edge of the plinth, almost as if he had not anticipated including it. The sway of her figure is gentler than those by the Griselda Master, her grace relying on her flowing blond locks and elegantly elongated fingers. Her costume seems closer to contemporary fashions than those worn by the others in the series. Claudia Quinta proved her chastity, that (because of her generously

Jill Dunkerton, Carol Christensen and Luke Syson



PLATE 23 Matteo di Giovanni, *Judith with the Head of Holofernes* or *Tomyris of Scythia*, c.1493–4. Poplar, 56×46.1 cm (height includes 7 cm false extension at lower edge). Bloomington, Indiana University Art Museum. Samuel H. Kress Study Collection, INV. 62.163.

applied make-up and, tellingly, sumptuous dress) had been doubted, by pulling to shore a heavy ship with the statue of Cybele, 'the mother of the gods', after all the strapping male youth of Rome had failed, simply by tethering it to her sash (Ovid, Fasti, 315-48; Boccaccio, LXXVII). Neroccio had been Francesco di Giorgio's partner from c. 1468 to 1475 and their partnership had perhaps been temporarily revived for this project. Although there is critical unanimity as to the autograph status of the main figure, the authorship of the landscape and background figures is subject to dispute.64 Despite its manifest dissimilarity to Neroccio's own landscapes (which feature only rarely in his works, but which are seen in the predella scenes with the story of Saint Benedict in the Uffizi perhaps from 1481, the female portrait in Washington from his mid-career, and - a tiny area - in the late Virgin and Child with Saints John the Baptist and Andrew in the Pinacoteca Nazionale, Siena⁶⁵), Kanter believes that the whole painting was executed by Neroccio working alone, contradicting the long-held view that here too the Griselda Master was involved. This proposition will be tested below. Nevertheless, remembering the example of the Montefollonico Virgin and Child relief (see p. 8), it might provisionally be proposed that the Griselda Master's first involvement with the



PLATE 24 Master of the Story of Griselda, *Artemisia*, *c*.1493–4. Poplar, 87.5 × 46 cm (not including added strip at lower edge). Milan, Museo Poldi Pezzoli, INV. 1126.

Virtuous Men and Women series was as a background painter for Francesco (and also for his erstwhile partner), painting the landscapes and narratives in the pictures of *Scipio Africanus* and *Claudia Quinta*.⁶⁶

The *Sulpitia* in Baltimore (PLATE 25) was for many years attributed to Giacomo Pacchiarotto, until Angelini's momentous discovery that many paintings, such as this one, traditionally considered to belong to Pacchiarotto's early career should properly be attributed to Pietro Orioli.⁶⁷ Sulpitia, the wife of Fulvius Flaccus, was an unusual subject, chosen for the series because she herself had been selected as the 'chastest of the enormous number of women abounding in Rome at that time' to dedicate (according to Valerius



PLATE 25 Pietro Orioli, *Sulpitia, c.* 1493–4. Poplar, 105.8 × 47.7 cm (measurements are without added edge strips). Baltimore, The Walters Art M useum, INV. 37.616.



PLATE 26 Neroccio de' Landi and the Master of the Story of Griselda, *Claudia Quinta*, *c*. 1493–4. Poplar, 104×46 cm (trimmed slightly at left edge); panel 3.5 cm thick, width of painted area 45.2 cm. Washington, DC, National Gallery of Art. Andrew W. Mellon Collection, INV. 1937.1.12.

Maximus and Boccaccio, *Famous Women*, chapter LXVII) a statue and also (according to Ovid and Petrarch) a temple to Venus Verticordia.⁶⁸ Orioli was one of the most celebrated painters then working in Siena, whose premature death was an occasion of public mourning; his reputation there may be enough to explain his participation if one of the aims of the

project was to demonstrate the individual talents of Sienese painters. However, it is worth pointing out that a connection with Francesco di Giorgio is established by Orioli's subsidiary role in painting the grisaille frescoes in the Bichi Chapel.⁶⁹

The inclusion of a fourth image of a woman (therefore an eighth panel) by yet another artist,

Matteo di Giovanni, usually identified as the Old Testament heroine Judith, now in Bloomington, Indiana (PLATE 23), has sometimes been queried.⁷⁰ Although he included the panel, its cut-down state was misunderstood by Gilbert - he thought the now half-length image complete, made as an overdoor.71 Doubts have also been also expressed as to what kind of message the redoubtable but not primarily conjugal Judith might bear within the series.⁷² Nonetheless, her putative presence has been thought to support the identification of the figure in the Griselda Master's Washington picture as Joseph of Egypt, assumed to be her Old Testament pair. Much serious work has been undertaken by scholars, led by Caciorgna, on the literary sources for these panels, and it has been shown that, while ancient texts were certainly consulted, in particular Valerius Maximus, later mentions and accounts by Boccaccio and Petrarch⁷³ are likely to have been equally influential. However, no serious attempt has hitherto been made to reconstruct the sequence of these panels, although an assumption that they were arranged as four couples, a heroine for each hero (an ideal bride for every groom, as it were), seems to have underlain their discussion (and usually their illustration).74 Thus it has been assumed that we have one Old Testament pair, one ancient Greek pair and two Roman couples (or sometimes other combinations). However, Jon Caseley has suggested Tomyris, Queen of Scythia, as an alternative identification to Judith. Tomyris' virtue lay in her bloody revenge of her son's death at the hands of Cyrus, king of Persia. This unnamed youth had been tricked into a drunken stupor in Cyrus's temporarily abandoned encampment, then slaughtered in his sleep. After defeating the Persian king in her turn, Tomyris sought out Cyrus's corpse on the battlefield and had him posthumously decapitated.75

The date and patron of the Virtuous Men and Women are not known. The presence of what seem to be Piccolomini gilded crescents on the plinths has been much stressed.⁷⁶ Tátrai thought the series a part of the same Spannocchi commission as the Griselda panels (and, as we now know, the Ghirlandaio shop paintings of Alexander and Julius Caesar), and the inclusion of Piccolimini heraldry would not contradict this theory. The setting-up of the images of four famous men-of-arms on the ceremonial triumphal arch might further support his idea. It would perhaps have been odd to have repeated the story of Alexander (though, given that there were two brothers, the pictures may have been included in different suites) and there is no sign in any of the scenes of the colours associated with the Spannocchi. There are,

however, some coincidences of condition between both sets of panels that might suggest that later on, if not originally, they shared a common provenance (see p. 58). Bartalini has argued instead that they were made as part of the preparations for the marriage between Silvio di Bartolomeo Piccolomini and Battista Placidi of 18 January 1493, the year before the double Spannocchi nuptials.⁷⁷ The Griselda Master's initial subordinate role in the Virtuous Men and Women group might support this date, but the stylistic considerations outlined above and the technical data to follow suggests that, if this was the event that inspired the commission, its completion must have been delayed.⁷⁸

There has been no accord as to how this commission was managed. It has sometimes been suggested that it was first given to Signorelli, who delegated it to an assistant (the Griselda Master), and that the other artists were brought in only afterwards.⁷⁹ Here, however, we will propose that it was Francesco di Giorgio who is most likely to have had overall control at the outset, even if one of the initial aims of the project may have been to obtain specimens of the work of all of Siena's leading painters (as they had already been represented, for example, in their designs for Sibyls - rather equivalent figures - on the floor of the Duomo). The length of time it took to complete the series has been similarly much debated. Some critics state that the commission had to be rushed through in time for a wedding, the several painters joining together for the sake of expediency; others argue that the production of the panels was more prolonged.⁸⁰ Secure termini ante quem for some of the pictures are provided by the death dates of those painters whose names are known: Matteo di Giovanni in 1495, Orioli in 1496, Neroccio in 1500 and Francesco di Giorgio in 1501. Kanter has even entertained a theory whereby the division of labour can be explained by the successive deaths of these masters, one painter taking over the commission from another.⁸¹ However, the chronology of the series is best established by thorough examination of the panels and their mode of preparation, by their stylistic and technical relationships with one another, and by, in the cases of the panels executed wholly or in part by the Griselda Master, their stylistic affinities with each of the National Gallery Griselda panels. In the absence of any secure evidence regarding the exact circumstances of the commission, it is on these last factors that the sequential dating of the project's realisation primarily depends.

The panels: structure and original order

Of the eight panels, only three, Alexander the Great, Scipio Africanus and Tiberius Gracchus are uncut and of their original thickness. Among the women, Claudia Quinta is trimmed a little along the left edge, but the panel has not been thinned; nor has that of Artemisia, although the latter has been cut at the bottom, losing the pedestal and inscription, while the arch has been truncated and slightly reshaped and pieces of wood added to make up spandrels. The panel of Sulpitia has been trimmed marginally and fillets of wood added around all the edges; in addition, it has been planed down to a thickness of 2.1 cm and three inset horizontal battens fitted. The most drastically altered supports are those of Joseph of Egypt, cut at the bottom and transferred from the original wood to canvas, and Judith, which has been reduced to less than half its original height, a new piece of wood added at the bottom for the painted parapet, and the whole structure thinned to one cm and fitted with a cradle (see Appendix for conservation history, p. 70). In spite of these mutilations, a careful examination of all eight panels has supplied enough information for a proposal as to their original order (thereby clarifying the identity of two of the figures), as well as suggestions as to how they may originally have been framed and displayed.

Each figure was painted on a panel consisting of a single vertical board of poplar. The boards that have escaped thinning are between 3 and 3.75 cm thick, and so are substantial relative to the dimensions of the panels.⁸² The timber is of good quality, tangentially sawn like all poplar planks but, on the evidence of the unaltered panels, cut from close to the heart of the log so as to reduce the potential for warping.⁸³ If, as seems likely, all the panels were made of planks of this cut, this was an extravagant use of timber since only two boards could be cut from each length of trunk. Certainly the intact panels are in very stable condition with only the slightest of warps.

The wood includes some small knots, but, unlike those in the panels for the *Story of Patient Griselda*, they were not filled by the carpenter.⁸⁴ Horizontal marks made by the chisels used to level the backs of the planks can be seen on *Alexander*, *Tiberius, Artemisia* and *Claudia Quinta*, but the panel for *Scipio* (PLATE 27) has a notably smoother finish. The horizontal line scored across the upper part of this panel, immediately below the row of three gouged-out areas (PLATE 28), continues around its sides.⁸⁵ Since the incision coincides exactly with the diameter of the circle of the arch, it was probably made to guide the carpenter in cutting out the arch. Starting at the corners of the



PLATE 27 Scipio Africanus. Back.



PLATE 28 Scipio Africanus. Detail of back.

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rectangular piece of wood (indeed the top of the arch is slightly flattened, confirming that this was the upper edge of the plank⁸⁶), the carpenter gradually chiselled away the wood to obtain the arch, the incision at the side ensuring that he did not carve wood from below the spring of the arch. On this panel and that for *Tiberius*, the faceted edges that result from this way of cutting arches are particularly evident (PLATES 29 and 30). Once this prototype had been made, the other panels could be shaped to the same pattern. Confirmation that the arched shape is original and not a later alteration is supplied by the dribbles of gesso which have run down the edges both around the arches and along the straight edges of the uncut panels (PLATES 31 and 32).

This laborious cutting of the arches would not have been undertaken if the frames were of tabernacle construction with an entablature, since rectangular panels could then be used and the corners framed out with spandrels. The upper mouldings of the frames must therefore have had an arched profile. It is most unlikely that these relatively small panels were framed individually, and so, on the evidence of three similarsized *Chaste Women* attributed to Cozzarelli, and still in their original frame (private collection, Siena), and also a later Sienese frescoed grisaille cycle of Famous Men and Women by Vincenzo Tamagni at Montalcino,⁸⁷ it seems likely that they were framed together in some way, rather as if they were a secular altarpiece. However, this does not necessarily mean that they were all completed at the same time; rather the evidence points to their having been delivered one by one, and framed only afterwards, once all were painted.⁸⁸

The first clue as to how they were grouped comes from the fact that the panels for the Women are all slightly narrower. Although they have been more affected than those for the Men by cutting and alterations the crucial measurement, that between vertical lines incised into the gesso a centimetre or so in from each edge to denote the areas that were to be covered by the sides of the frames, has survived, and shows that the width of the painted area was between 45.4 and 46.3 cm on all four. The uncut panels for the Men average at 51 cm wide with a distance between incisions of 49.2 and 50 cm (none is absolutely parallel). Given this disparity in width, it is difficult to envisage a frame design in which the Men and Women could have alternated, either as pairs or in a long row. Equally unlikely are triptychs with one wider male figure and narrower females on either side, in which case four panels would be missing. The Men, there-



PLATES 29 AND 30 Scipio Africanus and Tiberius Gracchus. Details showing tool marks on the sides of the arches.



PLATES 31 AND 32 Scipio Africanus and Tiberius Gracchus. Details showing dribbles of gesso on the sides of the panels.

fore, were in one group and the Women in another (appropriately, for exemplars of continence); the panels for the Women are narrower probably because the space into which they were to be fitted was slightly smaller.

Throughout the process of design and execution, Scipio seems to have been the test panel on which the model for the rest of the series was to be based, and some details of the framing seem to have been worked out only once there had been considerable progress in the painting of this panel. At the upper left edge, just below the spring of the arch, are two sets of curves, apparently scored into the wet paint of the sky rather than into the gesso and using a relatively blunt-ended tool, perhaps the end of the brush (PLATE 33).⁸⁹ These appear to be trial profiles to determine how much of the picture surface would be covered by projecting elements of the frame pilasters. The slightly higher profile, with a cornice and then a second projection for a moulding below, is the one that was adopted, and was scored using a similarly blunt tool into the gesso of the panel used for Sulpitia for example (PLATE 34). There seems to have been some uncertainty, however, since the other more curving profile was incised with a sharper point into the gesso of Claudia Quinta (FIG. 9). It is just possible that the first profile to be drawn was that on Claudia Quinta and the revision was made on Scipio, but since the latter appearss always to have been the trial panel this seems less likely. The best indication of the profile eventually selected appears in the X-radiograph of Judith (FIG. 10), where, in addition to the incisions, the areas to be covered by the frame were left in reserve when painting the sky. Similar reserved areas (slightly inside the incisions) appear in the X-radiograph of Joseph (FIG. 11), although not in the other three panels painted

entirely by the Griselda Master. In these the frame projections were either sharply incised, as in the case of Artemisia, or summarily indicated in iron-gall ink and the areas covered with the paint of the sky, as in Alexander the Great and Tiberius Gracchus. In addition, on these two panels there are arcs incised approximately 2.5 cm below the arched tops of the panels, with the gesso above left unpainted since it was to be covered by the frames. These arcs also appear (sometimes only as fragmentary traces as a result of later alterations to the panels) on Joseph, Judith, Artemisia, Sulpitia and Claudia Quinta.90 There is no incised arc, however, on Scipio, and the paint of the sky seems to have extended to the edge of the panel all around the arch (the gesso has flaked from the very top, and the area is now filled and retouched); this is further evidence in support of the argument that the latter was painted before the details of the frame had been resolved.

All eight panels, even those much altered by later cutting and radical conservation treatments, have evidence of the attachment of two horizontal cross battens (PLATE 27). Most unusually, they were nailed to the backs of the panels from behind. In the fourteenth and early fifteenth centuries, when it was still common practice to fix battens to panels with nails, the battens were usually attached by hammering the nails through from the fronts of the panels before the application of gesso, gilding and paint layers - even when the battens are long gone, the heads of the nails remain visible in X-radiographs. The fitting of battens in advance avoided the risk of damage to the paintings. By the late fifteenth century, however, in Siena as in Florence, it was no longer usual practice to fix battens with nails. Instead they were inset into channels with dove-tail profiles (as in the case of the



(left) PLATE 33 *Scipio Africanus*, detail of PLATE 21. Rakinglight detail showing capital incisions in wet paint. (centre) PLATE 34 *Sulpitia*, detail of PLATE 25, showing capital incision in gesso.

(right) FIG. 9 Claudia Quinta. X-ray detail.



FIG. 10 Judith or Tomyris of Scythia. X-radiograph.

Griselda panels), or they ran through rows of *ponticelli* (little bridges), carved wooden loops attached to the backs of panels.⁹¹ Both were systems that allowed a degree of flexibility in the structure provided that the battens were not too heavy and rigid.

The oblong chiselled depressions in the backs of the unthinned panels (PLATE 28) were made during eventual removal of the battens, almost certainly when the paintings were split up and dispersed. Most proba-

bly the first marks were caused by attempts to lever off the battens, gouging holes in the wood.92 Once the battens were removed it was possible in some cases to pull out the protruding nails or to cut them level with the back of the panel, but more often the gouges were enlarged and the remnants of the nails bent back into them. The nails have the square profiles characteristic of hand-beaten nails and the heads of two of them are still present in the panel for Artemisia (PLATE 35); they originally projected by at least 2.5 cm and so the battens must have been of this depth. Their width can be determined by the lighter areas, about 7-8 cm wide, to be seen on some of the panels. Traces of glue and horizontal splinters from the battens on Scipio and Alexander indicate that they were glued as well as nailed, again an unorthodox practice in the construction of panels for altarpieces.

Furthermore, it can be demonstrated that the painted panels were in fact damaged by the fitting of the battens. In most of the X-radiographs (FIGS 12-15) sections of the pointed ends of the nails are visible; the point of the upper left nail in the panel of Scipio, however, has clearly bent over. Once a nail has bent in this way it cannot continue to penetrate the wood from behind and so this would normally be taken as evidence that the battens were fitted first, on the assumption that the nail came through the front face of the panel and was hammered flat before the application of the gesso. In this instance the point must have come through the front of the panel but only after it had been painted, causing the area of damage visible on the surface and subsequently restored (PLATE 36). Similar raised lumps and areas of damage appear on some of the other panels where the nails have been hammered in too far, notably on Alexander (PLATE 37); here two large splinters of wood have been pushed up above and below the emerging point of the nail.

If the battens were not attached by the skilled craftsman who carpentered the panels, then questions



FIG. 11 Joseph of Egypt or Eunostos of Tanagra. X-ray detail.



FIG. 12 Scipio Africanus. X-radiograph.



FIG. 13 Alexander the Great. X-radiograph.

arise as to when and why they were fitted and who was responsible. The manufacture of the nails and other pieces of evidence such as the lighter marks left by the removal of the battens indicate that they were very old and probably 'original' to the complete structures of panels and frames. Given the considerable thickness and relatively small dimensions of the panels themselves, there was no need to add battens to restrain them from warping. It is likely, therefore, that they were associated with the fitting of the completed panels in their frames and that, given the crude method of attachment, this task was assigned to the frame maker or another carpenter. If the groups of panels were arranged like those of a polyptych, the use of continuous battens nailed to both frame and



(left) PLATE 35 Artemisia. Detail of nail from batten. PLATES 36 (centre) AND 37 (right) Scipio Africanus and Alexander the Great. Details of surface disruption caused by nails from battens.

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FIG. 14 Sulpitia. X-radiograph.

panel might improve the stability of the whole piece of furniture (which is how it should be considered). This might have been particularly necessary in this case because a row of arched tops would not have had the structural rigidity of a rectangular top with an entablature as in the three *Chaste Women*.⁹³ Moreover, the panels for the Virtuous Men and Women are remarkably heavy for their size because of the unusually dense poplar employed in their construction.

That common battens were indeed used is suggested by the fact that the nail holes in all four panels for the Women are at the same height. The lack of a nail hole at the left end of *Judith* might even indi-



FIG. 15 Claudia Quinta. X-radiograph.

cate that the upper batten was slightly too short, and so did not extend to the very edge of the construction (assuming that this panel was on the far left); it is equally possible that a shorter nail was used (the panel is no longer of its full thickness) or that the carpenter omitted to insert a nail at this point, fixing the end of the batten into the frame alone. Of the panels for the Men, those for *Scipio* and *Tiberius Gracchus* had battens at the same level as the Women; on *Alexander* and *Joseph*, however, the upper batten was positioned slightly lower and the lower one a little higher. When the battens came to be removed the gouge marks on *Alexander* (and also the damage on *Joseph*⁹⁴) indicate



FIG. 16 *Alexander the Great*. Infrared reflectogram mosaic detail of inscription on reverse.

that both battens were levered up from below, whereas on the others the upper batten was approached from above, and the lower from below. The Men, therefore, may have been framed as two pairs, perhaps because they were divided by an architectural feature; alternatively, there was insufficient timber of suitable length and so the Men were fitted with two sets of shorter battens. Indeed the upper batten from *Scipio* and *Tiberius* may have extended some way into the next panel, explaining the need for the upper batten of the first pair to be levered off from below since access from above was blocked by the overlapping length of wood.

Confirmation that the panels were divided by the sex of the subjects represented, and almost certainly in groups of four, is the discovery of indications as to their probable original order painted on the backs of some of them in large letters and in a hand probably of the late eighteenth or early nineteenth century,⁹⁵ that is, shortly before they are likely to have been dispersed. It cannot be excluded that they had been taken out of their frames and reordered before they were numbered, but, if they were fixed in the secure way suggested by the nails and battens, it was probably not considered worthwhile to dismantle the structure until each painting came to be perceived as having an individual value, most probably in the early nineteenth century.

Of the heroes, the panels with numbers are Alexander, where the word 'primo' is clearly legible in infrared (FIG. 16), Scipio, which has traces of the word 'terzo', now difficult to read even with infrared reflectography because of water runs down the back of the panel,96 and Tiberius Gracchus, numbered as 'quarto' and legible with the naked eye because of the clean state of the wood (PLATE 38). The transferred Washington panel would, therefore, be second. This order seems to have been dictated by the historical chronology of the figures, the Greek Alexander first, Scipio third, quite correctly followed by his son-inlaw, Tiberius Gracchus. Although we cannot be sure that painters and patron were consistent in their adherence to a chronological sequence, this may make the identification of the second figure with Joseph less



PLATE 38 Tiberius Gracchus. Detail of inscription on reverse.

likely, since in most chronologies adopted in the fifteenth century, Joseph was supposed to have lived very much earlier than Alexander the Great,97 and so a panel which represented him is more likely to have been placed first. The identification of the figure as Eunostos of Tanagra, who as a Greek might have been temporally associated with Alexander, is therefore worth revisiting. Caciorgna argues that the three episodes represent the wife of Potiphar's first amorous approaches to Joseph (centre left), her second more violent attempt to seduce him when she grabbed his cloak (right) and his subsequent (cloakless) arrest (left), as laid out in Genesis 39.98 This interpretation seems at first sight to be correct, but the events can also be made to fit Eunostos' story, especially since, in the absence of an established iconography, the painter may have amplified the short account in Plutarch's Moralia by reference to the better known Joseph legend, which had already been painted in Siena. As Parri proposed, the first scene (which does not appear in Plutarch) would represent a first encounter between Eunostos and his cousin Ochne (centre left), with Ochne's failed seduction of Eunostos on the right, while, on the far left, he is ambushed and killed by her three brothers, Echemus, Leon and Bucolos.99 Although explained by Caciorgna as merely a menacing gesture, the murderously raised sword of one of these heavily armed figures, whose number may be significant, might be thought excessive if this were merely the arrest of the unarmed servant Joseph. The question should remain open.

Of the Women, there may be traces of a reverse inscription on *Artemisia*, now sadly illegible even in infrared, since a more recent label has been glued over part of it, and possibly similar inscription remnants, seen in an equivalent position, on the *Claudia Quinta*, but these too are quite unreadable.¹⁰⁰ Since Artemisia, Sulpitia and Claudia Quinta all appear in Boccaccio's compendium of Famous Women, *De mulieribus claris*, and in that order, the identification of the Bloomington panel with Tomyris of Scythia, who also appears in Boccaccio's book (chapter XLIX), and preceding Artemisia (chapter LVII), becomes more possible.¹⁰¹ This theory would supply two heroines from Greek antiquity and two from Roman history to match the two pairs of men. Moreover, Tomyris, as the conqueror of a Persian army, would have made an appropriate counterpart to Alexander and, given her maternal role, might also be thought more suitable than Judith. In this order, the poses of the putti on the pedestals of both Men and Women, or at least on those that survive, alternate between having legs open or crossed. There may even be a pattern in the cutting of panels: marked damp stains are visible at the lower edges of Alexander and Scipio and it is possible that the panel between them, Joseph or Eunostos, was so badly affected by damp and rot that the pedestal was cut away. Similarly with the Women, the most cut panel, Judith or Tomyris (whose left end position has already been indicated by the absence of a nail hole on the left), is next to one that has lost its pedestal, Artemisia. The Women, however, are unlikely to have been on an opposite wall to the Men, since then their order would have to be reversed so that Tomyris, if it is she, could face Alexander and so on. Instead they should probably be imagined as being placed above cupboards or other large pieces of furniture, either on the same wall as the Men and perhaps divided from them by a door or chimney-piece, or at right angles to one another.

Technique, attribution and collaboration

Although there is general agreement as to the identity of the five painters who worked on the Virtuous Men and Women, we have already seen that opinions diverge as to the reasons for the collaboration, the timescale of the project, and the precise division of labour. So as to gain a better understanding of the possible sequence of execution, detailed technical examinations have been made of the panels. Methods employed have included infrared reflectography of all eight, X-radiography of all but one (Tiberius Gracchus) and the taking of paint samples for analysis from Alexander the Great and the four panels in collections in the United States, which were brought together for examination at the National Gallery of Art, Washington.¹⁰² Many of these samples have been mounted as cross-sections for the investigation of layer structures; pigments have been identified by microscopy, supplemented by EDX analysis in the scanning electron microscope; sources of red lake dyestuffs established by HPLC; and binding media investigated by FTIR, GC-MS and histological staining of cross-sections.¹⁰³

In the following discussion the eight panels have been divided into three groups: the first consists of the two panels in which the main figures were painted by Francesco di Giorgio¹⁰⁴ and Neroccio de' Landi, and the landscapes and small figures by another artist, here identified as the painter of the Griselda panels; the second is made up of the four panels executed entirely by the Griselda Master; and the final two panels are those painted by Pietro Orioli and Matteo di Giovanni, who may have worked more independently from the other painters.

Scipio Africanus

The argument presented in the previous section that Scipio Africanus (PLATE 21) was a prototype for the others extends to the underdrawing and painting of the picture. Infrared reflectography reveals that the main figure was drawn on the panel with a technique of astonishing boldness (FIG. 17). Using a brush and liquid black ink or paint the artist established the figure's contours with a heavy fluid line, the control and confidence most evident around his calves and feet, and on the arm and hand holding the sword (although here some of the black lines are in the upper paint layers). The features were drawn with a similar heavy line, the nose slightly shorter than in the final painting and the upper lip fuller and a little higher. His writhing curls were indicated with rapid squiggles of the brush, which at his hairline stand up stiffly in the shape of a lyre. Most remarkable of all is the underdrawing of the billowing cloak, brushed in with wide sweeping strokes and areas of broadly hatched shading which merge to form solid areas of wash. Underdrawing of similar breadth, and also making extensive use of washes for shading, has been found on parts of Francesco di Giorgio's Coronation of the Virgin of 1472-4 for Monteoliveto Maggiore (now in the Pinacoteca Nazionale, Siena).¹⁰⁵ The underdrawing of the extraordinary foreshortened figure of God the Father in his whirling vortex is particularly close to that of Scipio, and the shading of the scoopedout folds of the ultramarine mantle of the female martyr saint (perhaps Santa Giustina) on the right is directly comparable. The deep shading to establish the concave form of the folds is exactly as would be expected in the underdrawing of a painter who was also a sculptor and wood-carver.

Compared with the *Coronation* altarpiece, however, the underdrawing on Scipio's cloak is notably freer and more improvised. Many alterations and deletions were made while working on the underdrawing and at the painting stage. The exceptionally broad strokes for the fabric that puffs out from his left shoulder and curves around to be gathered in his hand were reduced, the painted contour actually following the heavier darker line immediately



FIG. 17 *Scipio Africanus*. Infrared reflectogram scan.

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PLATE 39 Scipio Africanus. Detail of PLATE 21.



PLATE 40 Scipio Africanus. Detail of PLATE 21.

above the tent, which in the infrared image appears suspended, unlinked to the rest of the folds. Additional broad lines encroached into the area now occupied by the figures in front of the tent, and the hanging folds of drapery between and to the right of his legs were never painted; the decision to dispense with them was probably taken at this early stage since underdrawing is present for the revised arrangement with the fabric pulled up around the back of the leg. The strange leafshaped marks visible even with the naked eye on the figure's right calf may also be connected with this phase of the underdrawing and are perhaps accidental splashes of wash - there is no logical reason why a large plant, for instance, should have been drawn in this area, especially since the outlines of the legs had been so firmly established. Indeed, the only part of the setting that may have been indicated at the same time as the principal figure is the horizon line at the left with the two broadly drawn intersecting hills, neither of which was followed in the painting. Although, on the evidence of those paintings to have been examined by infrared, it was Francesco di Giorgio's usual practice to make relatively complete underdrawings, that for Scipio, with the figure set in his space and the draperies so fully, if roughly, modelled, very much suggests a demonstration piece, setting out the general design of the series, perhaps for the patron or, more importantly, for the other artists involved in the project.

The painting of the figure seems to have proceeded in advance of the rest of the picture, and probably before any decisions had been taken as to the treatment of his surroundings. From an examination of the surface it seems likely that it was executed entirely in egg tempera, although the addition of a little oil for some colours cannot be excluded.¹⁰⁶ The area for his head, including his hair, was underpainted with a flat pale green, almost certainly green earth with lead white. This is now easily visible, especially in the hair, because of the damaged condition of the upper paint layers (PLATE 39). The face was modelled with short intermeshed strokes of greenish-brown verdaccio in the shadows, blending into a warm coral pink for the cheeks and lips, and crisp highlights of almost pure lead white on his brow, eyelids, nose and especially the curves of the upper lip. The further side of his face, and also the hands, were outlined with black. The technique is not particularly refined, and the brush seems to have been loaded with a rather thick tempera, containing relatively little water, so as to obtain maximum coverage with each stroke. The impression of rapid execution is confirmed by the free painting of the hair with the curls indicated with



PLATE 41 Exile. Detail of PLATE 2.







PLATE 43 Scipio Africanus. Detail of PLATE 2I.

flourishes of white, interspersed with a pale pinkish brown and a darker brown.

The breastplate and cuirass were laid in with a yellow brown, probably based on an ochre, and the detail of the ornament shaded with strokes and washes of black and dark brown and lit with touches of yellow and lead white, similar to those in the hair (PLATE 40). More highlights of gold leaf were then applied. The true colour of the red lake and white cloak is difficult to judge because of the discoloured yellow varnish, but it seems likely to have been a relatively cool pink, the hatched strokes indicating that it was probably painted in egg tempera, although some oil may have been used. In the X-radiograph (FIG. 12) it can be seen that because of the poor covering power of red lakes, the heavy black underdrawing was first partially obliterated with rapidly brushed-in lead white paint, including in the areas where the underdrawn folds had become redundant. This lead white layer over the drawing can now be seen in the area of the tents as a result of the loss of the original gilding. The light orange of the hose continues down to the feet - in the underdrawing there is a suggestion of some form of sandal. The pale blue boots were painted over this, enlarging the projecting right foot slightly beyond its underdrawn contours. A similar pale blue paint, flat and without body, was also used for the sword blade.

The consistency of the blue paint of the sky is very different. Again the discoloured varnish and scumbles of restoration obscure its colour, but it probably contains lead white and ultramarine. The texture is stiff and sticky, with very evident brushmarks, indications that the medium is very likely to be oil. The colour was worked quite carefully around the contours of the figure but an aggressive cleaning, probably with an aqueous reagent, has tended to erode the areas painted thinly in tempera more than those in oil, resulting in a somewhat disturbing cutout effect, particularly around the head and hair. The painting of the rest of the landscape is also strongly brushmarked, indicative of oil, while the details, notably the plants and tree stumps, the horizontal flecks for grass, and above all the style and character of the little figures, reveal that Francesco di Giorgio delegated the completion of his panel to the painter of the Griselda panels.

The figures are squeezed in rather awkwardly, and indeed the reduction of the drapery folds on the right may have been to allow more space for them. It is possible that the decision to include small narratives to illustrate the acts of continence and devotion for which the Men and Women were celebrated was taken only after the main figure had been drawn. A stimulus for this idea may have been Luca Signorelli's Berlin Portrait of a Man, with its groups of small-scale figures on either side of the subject.¹⁰⁷ The little figures on Scipio are underdrawn with a finer line than the main figure, and the legs of Aluceius, who on the left departs with his betrothed, are shown complete beneath the folds of his tunic. His stiff-legged gait is typical of figures by the Griselda Master (PLATES 41 and 42), and the exaggerated proportions of the figures and the spiralling folds of the girl's dress are perhaps closest to those in Reunion, almost certainly the first of the Griselda panels to be painted. The



PLATE 44 Claudia Quinta. Detail of PLATE 26.



FIG. 18 Claudia Quinta. Infrared reflectogram mosaic detail.

figures on the right are delightfully expressive, but are much compromised by the poor condition of this area (PLATE 43). The tent was mordant gilded in the same way as the tents in *Alexander* (PLATE 19), but now only traces of gold leaf remain at its very edges. The distant view on the other side is also badly damaged, but it is still evident that the underdrawn hills were replaced with the glimpse of sea or lake that was to become a feature of the landscapes in all the panels.

The paint of the pedestal is worn but brushmarks characteristic of oil paint remain visible. It was clearly applied after completion of the figure, including the addition of the blue boots, since it goes around the enlarged contour. The further line of the top of the pedestal, however, may have been drawn at an early stage since in infrared it can be seen to pass under the blade of the sword. In addition, two short horizontal lines appear just below the underdrawn outline of the boot. This suggests that Francesco di Giorgio indicated roughly the edges of the platform in his underdrawing. No other lines for the pedestal register in infrared because they have been drawn using a red lake paint, as have the little putti who support the inscription panels. Since red lake underdrawing also features on the pedestals in Alexander and Tiberius Gracchus, both attributed entirely to the Griselda

Master, and the putti in the former were clearly drawn from the same flipped cartoon as those in the *Scipio*,¹⁰⁸ it is reasonable to assume that the *Scipio* pedestal was also gilded and painted by him, probably according to a design first sketched by the senior artist. The question of responsibility for the inscription (repainted and regilded in this instance) is discussed on p. 56.

Claudia Quinta

Neroccio's underdrawing of the main figure in the panel of Claudia Quinta (PLATE 44 and FIG. 18) could not be more different from the bold underdrawing to be seen in the Scipio. His lines are fine and delicate, contours are sometimes indeterminate and in places the line becomes hesitant and wavery, for example that around her right breast for the plunging neckline of her dress.¹⁰⁹ The veils around her head are indicated with broken scratchy lines, slightly wider than the painted veils, and her necklace with a chain of little scribbled loops, just above the painted pearls (these are surprisingly dark in infrared, which suggests that the highlights and lustre were painted over an unusually dark grey base colour). The columnar drapery folds are all carefully drawn and shaded with generally short lines of diagonal hatching, the spacing between the parallel lines varying from area to area (FIG. 21). Although the painted details do not always follow exactly the underdrawn lines, as in the veil and necklace, and also the sandals, there are no real pentimenti in the underdrawing or in the earlier stages of painting of the figure.

The whole head, including the hair, and the hands and feet were underpainted with a flat layer of green earth and lead white. The colour is fairly pale but enough green earth is present for the areas of flesh to appear characteristically dark in infrared images. The flesh tints, confirmed as painted in tempera, are composed essentially of vermilion and lead white, but the presence of chalk and dolomite as well suggests that they may have been added as extenders to reduce the opacity of the colours.¹¹⁰ In his flesh painting, and especially when painting women, Neroccio made much use of the opalescent effects to be obtained by hatching dilute and translucent scumbles of pink and white over the cool green of the underlayer. Tonal variation was achieved largely by subtle variation of the thickness of the upper layers. The thinness and delicacy of this technique have tended to make his flesh tints vulnerable to damage by harsh cleaning methods such as the abrasives used in the past, but in this instance the areas of flesh are relatively well preserved.

The sleeves and the bodice visible at the neckline were painted probably with azurite in egg tempera, now darkened, and decorated with flecks of gold leaf applied with a mordant. On parts of the sleeves the flecks are aligned vertically and on others they run horizontally around the arms. Their application and also the decoration of the hem line take no account of whether the fabric is catching the light or whether it is in shadow, by this date a rather old-fashioned approach to gilding on textiles. The rich warm red of the dress is painted with red lake and vermilion over a local imprimitura of lead white bound in tempera (PLATE 45). Analysis indicates that the medium of the red paint above, however, contains both egg and oil, probably in the form of a tempera grassa.¹¹¹ Neroccio modelled the folds by hatching and cross-hatching exactly as when working in tempera; the oil may have been added to increase the translucency of the red paint.

The pedestal has the appearance of having been painted in tempera – there is no sign of brushmarks like those to be seen in the stiff oil paint of the pedestals painted by the Griselda Master, and in the X-radiographs the application has the fluidity of an aqueous medium. Neroccio had some difficulty with the pedestal since his figure is considerably taller than the others in the series, suggesting that she had been



PLATE 45 *Claudia Quinta.* Cross-section of a sample from the red dress of the large figure, showing an underpainting of lead white over the gesso ground, and then a thin layer of red lake with a little vermilion. Photographed at a magnification of 320×.



PLATE 46 *Claudia Quinta.* Cross-section of a sample from the dark green grass in the foreground, showing coarsely ground malachite and a little lead-tin yellow in a matrix of discoloured binding medium applied directly over the gesso ground. Photographed at a magnification of 320×.

drawn and painted before the measurements and design for the pedestal were supplied to him. He tried to make the pedestal fit by pushing its base down to the very bottom of the panel - the other panels which still have their pedestals have an unpainted border of approximately 1.5 cm at the lower edge but even then Claudia was left poised precariously with only her heels on the plinth. Her foot hangs over the head of the putto on the right, with presumably unintentional comic effect. Although the pose of the putti with their crossed legs is the same as those on Tiberius Gracchus, Neroccio's are more upright than those of the Griselda Master and so he must have drawn his own little cartoon, which was then flipped for the opposite figure. The underdrawing of the putti is in black and therefore it registers in infrared; since no pounce dots are visible, it is assumed that the design was transferred by tracing.

These problems with fitting in the pedestal suggest


PLATE 47 *Claudia Quinta*. Detail of PLATE 26.



PLATE 48 *Reunion*. Detail of PLATE 3.



FIG. 19 *Claudia Quinta*. Infrared reflectogram mosaic detail.

FIG. 20 *Reunion*. Infrared reflectogram mosaic detail.

that the main figure of Claudia was executed at a very early stage in the whole project, perhaps even simultaneously with the panel of *Scipio*. This might explain why the incisions for the capital profiles follow the alternative version incised into the paint on *Scipio*, and not the design adopted for the other panels. It also reinforces the supposition that the first artist that Francesco di Giorgio would call on for assistance in this undertaking would be one with whom he had previously worked in partnership. Whether it was always part of the plan to use the painter of the Griselda panels, perhaps still an assistant in Francesco's workshop, for the landscapes and subsidiary figures of the *Claudia Quinta* is less certain.

It has been argued recently that Neroccio was responsible for the whole painting, including the background figures.¹¹² As with the little figures in

Scipio, however, there are many similarities with those in the Griselda panels: for example, the way that forward motion of a group of men is indicated by tilted bodies and long stiffly strutting legs that interlace in triangles (PLATES 47 and 48). They wear the same little red caps and their features, although much abbreviated, appear similarly earnest and animated. The underdrawing for the figures is also directly comparable. The figures and landscape details in the Claudia Quinta are drawn with a firm fluent line¹¹³ very unlike the delicate and somewhat tentative drawing in the main figure. The construction of the fluttering draperies and the drawing of the limbs of the little figure of Claudia towing the ship with the image of Cybele are close to those of figures in Reunion, especially the supposed new bride who greets Griselda (FIGS 19 and 20). The sketching of the distant view of hills, water and overhanging crags (FIG. 21) can be compared with similar landscape elements in Marriage (FIG. 4). A cross-section has confirmed that the underdrawing for the background lies directly on the gesso and there is no sign of any earlier landscape drawn in the manner of the main figure. This does not mean, however, that this underdrawing was neces-



FIG. 21 Claudia Quinta. Infrared reflectogram mosaic detail.

sarily executed at the same time as that for the main figure, which, if it was painted simultaneously with *Scipio*, could have been begun before firm decisions had been taken as to the treatment of the backgrounds. Moreover, in common with *Scipio*, the narrative elements fit somewhat uncomfortably and there is not much sense of a continuous landscape space.

The painting technique of the landscape also supports the attribution to the Griselda Master, especially in the way that the choice of medium was determined by which pigments were to be used. The sky, therefore, was painted with ultramarine and lead white in walnut oil,114 but malachite was chosen for the dark green of the patches of grass in the foreground and so the medium is egg tempera (PLATE 46).115 This is exactly as in the hill on the left in Marriage and the colour has almost certainly darkened in a similar way.¹¹⁶ Over the lighter greens of the middle distance there are the familiar horizontal dashes, this time lighter than the base colour. The men are dressed in combinations of scarlet, ultramarine, ochre and green, but for the little figure of Claudia (PLATES 49 and 50) the Griselda Master chose his favourite bluish pink based on red lake, ignoring the



PLATE 49 Claudia Quinta. Detail of PLATE 26.

warmer red of the main figure. As on the Griselda panels – and indeed, on *Alexander* – the medium for the red lake is egg tempera. The gold leaf for the statue of Cybele in the ship was applied with a mordant laid over the paint of the water and shaded with black in the same way as the gilding on the Griselda panels (the figure in the ship held by the large Claudia is almost entirely a modern restoration). Although the horses on the gateway to Rome on the left have highlights of yellow paint rather than the



FIG. 22 Claudia Quinta. X-ray detail.



PLATE 50 Claudia Quinta. Detail of PLATE 26.



PLATE 51 Joseph of Egypt or Eunostos of Tanagra. Detail of PLATE 20.



PLATE 52 Joseph of Egypt or Eunostos of Tanagra. Detail of PLATE 20.



FIG. 23 Joseph of Egypt or Eunostos of Tanagra. X-ray detail.

gold leaf of the very similar horses on the triumphal arch in *Marriage*, gold leaf was used on the landscape, just as in that panel. Here the gilding is in the form of highlights on bushes and the Griselda Master's typical horizontal dashes on the cliff tops behind Claudia towing the boat.

Neroccio's part in making the painting was not complete, however, for once the landscape and small figures were in place he seems to have returned to paint the gauzy veils that start from Claudia's headdress, come down over her dress and then float out in front of the little narrative on the right. That he was responsible for the veils is suggested by their wispy character and technique, almost certainly tempera, which is particularly well suited for the rendering of translucency. The veil painted by the Griselda Master on the little version of Claudia is by contrast solid and full of movement. In addition, on the main figure there is a suggestion of a shadow cast by the edge of the veil on the skirt, executed in a paint that appears to be identical to that of the final glazes of the rest of the dress and therefore likely to have been added by Neroccio himself.

In the X-ray and infrared images it can be seen that originally another piece of veil billowed out from Claudia's upper arm (FIGS 21 and 22). This was eliminated by adding a further layer of sky paint, resulting in extra opacity in the X-radiograph - this is particularly clear at the junction with the less dense area where the edge of the veil that was not suppressed slants up between the cliff and Claudia's arm. That the alteration was made by the Griselda Master and not Neroccio is indicated by the technique, a stiff oil paint, and by the fact that a now meaningless piece of veil remains wound round the upper arm where it was painted over the blue and gold outer sleeve. If, as was surely the case, the Griselda Master was still the most junior member of the team working on the Virtuous Men and Women, this alteration to a work by one of the leading painters active in Siena at the time would indicate a notable increase in his involvement. It also provides further evidence that the artist responsible for directing the project was Francesco di Giorgio, with whom the young Griselda Master was almost certainly associated at this stage in his career.

Joseph or Eunostos of Tanagra

If, as seems likely, the two panels assigned to other painters, *Judith* and *Sulpitia*, were produced at a relatively early stage, it was only once the set was half finished that the Griselda Master took control of the project. By then, he must have proved his competence with the completion, or near completion, of the Griselda panels. Perhaps the patrons had also become aware of the somewhat discordant consequences of employing for the main figures four very distinctive painters, of different generations and with different techniques. To the modern eye at least, the group of Men, with three figures by the Griselda Master and the fourth by the painter who was probably his master, is better balanced and visually more satisfactory than the Women.

Confirmation that Joseph or Eunostos (PLATE 20) was the first of the large-scale figures to be painted by the Griselda Master is supplied by the fact that the paint of what remains of the pedestal was applied around his feet (FIG. 23). On the other three panels the paint of the top of the platform very clearly passes under the feet, draperies, and details such as serpents, spears and scimitar tips (FIG. 13). It may have been decided that it would be faster and more efficient to paint the platforms of all four at the same time, even if the drawings for the other three figures were not yet finished, or, more probably, it was necessary to do so because the bases of the whole set of panels had to be ready for the application of the lettering by a separate craftsman (see p. 56). Furthermore, the background details in this panel have much in common with the Griselda panels, and especially Marriage and Reunion: the draperies of the two figures (Joseph and Potiphar's wife or Eunostos and Ochne) in the scene on the right billow and coil in similarly improbable folds, and the woman's spiralling scarf in the episode on the left is even more exaggerated than the white scarves of the bystander on the right of Marriage and the servant in Reunion. The trees, with their ornamental twisting branches, are also comparable.

Unlike the Griselda panels, however, Joseph has a priming of lead white, bound probably in egg tempera,117 applied over the gesso ground (not removed when the painting was transferred to canvas). It is present in paint samples from every colour area (PLATES 53 and 54) and so is distinct from the lead white underpainting of the red draperies of Scipio and Claudia Quinta. By the 1490s, the application of primings containing lead white and other pigments was common practice when painting in oil, and it was not so unusual to use the quick-drying tempera medium in a priming.¹¹⁸ Since the underdrawing lies over the priming it is just possible that the priming had already been applied when the Griselda Master received the panel (Matteo di Giovanni used such a priming for Judith – see p. 55); alternatively, if the Griselda Master developed his oil-painting technique in response to his study of Signorelli's works in Siena, he could have picked up the use of primings from that workshop;¹¹⁹



FIG. 24 Joseph of Egypt or Eunostos of Tanagra. Infrared reflectogram mosaic detail.



PLATE 53 Joseph of Egypt or Eunostos of Tanagra. Cross-section of a sample from the dark green foliage in the foreground showing a layer of verdigris and lead-tin yellow over a lead white *imprimitura* applied to the gesso ground. Some discoloured old varnish is visible on the surface and in the crack. Photographed at a magnification of 320×.



PLATE 54 Joseph of Egypt or Eunostos of Tanagra. Cross-section of a sample from the red tunic, showing a layer of red lake over a lead white *imprimitura* applied to the gesso ground. Photographed at a magnification of 320×.

another source might have been contact with Perugino and his associates.¹²⁰ Although there is no priming on *Alexander* – the gesso was sealed with glue in the same way as the Griselda panels – there is a possibility that lead white primings are present on the two panels that have not been sampled, *Tiberius*

Gracchus and *Artemisia*. One reason for not applying a priming to *Alexander* (and the Griselda panels) might be that some of the colours were to be bound in tempera to achieve particular effects, and tempera generally works best when applied directly to the gesso; analysis of samples from *Joseph*, on the other hand, indicates that it was painted entirely in oil.¹²¹

On the main figure liquid underdrawing applied with a brush is evident along the edges of forms, and in the red robe a few schematic curves and some short widely spaced diagonal strokes of hatching are visible with the naked eye (PLATE 52). These disappear, however, when the painting is viewed in infrared, an indication that parts of the drawing were probably made in an iron-gall ink. Only one relatively minor change can be seen, the shortening of the index finger on the proper right hand (FIG. 24). When the Griselda Master became responsible for the whole design, the background figures could be better integrated, with more space allowed for the narrative element. Here the drawing is free and lively, with several alterations. This drawing material presumably contains carbon since it registers clearly in infrared. The landscape at the left originally consisted of two underdrawn bluffs that were replaced in the painting stage with a landscape of water and, beyond, a ramparted city with low hills behind. Other changes in the left background occur in the figures. The foot of one of the assailants was repositioned to a wider stance, and the underdrawing shows several positions for the female figure's splayed fingers in the adjacent episode.

As far as the painting technique is concerned, the most notable difference from the panels by Francesco di Giorgio and Neroccio is in the areas of flesh (PLATE 51). There is no green earth underpainting; instead the flesh tints of lead white and red earth (with the addition of some green earth in the mid-tones - the sample was taken from the figure's foot)¹²² - were modelled directly over the imprimitura. The sky was painted with the usual mixture of ultramarine and lead white, the application perhaps less obviously brushmarked than on some of the other panels as a result of being applied over a priming, although the smoother surface can also be attributed to flattening in the process of transfer to canvas. The dark green of the foreground (PLATE 53) contains verdigris rather than the malachite employed in Claudia Quinta and was completed with copper-containing green glazes as in similar passages in the Griselda panels. Although the medium of the red robe is oil, the folds were shaded with the discrete brushstrokes of the tempera technique (PLATE 52). This may have been partly an attempt to create some uniformity with the earlier

figures in the series, but it may also be that when working on a larger scale the painter preferred to construct his forms using the hatched application familiar from his presumed original training in tempera and fresco.¹²³ As in standard oil technique, the relief was achieved by building up the thickness of the dark areas with red lake (PLATE 54), finished in the deepest shadows by fine hatched lines of black, while leaving the lighter areas more thinly covered, allowing the white imprimitura to reflect through. These thinner glazes have faded appreciably, and the whole drapery probably now has a warmer, more orange cast than it did originally. It should probably be imagined as close in colour to the mantles of the Marchese and Griselda in Marriage and, in common with them, highlighted with threads of gold, now rubbed and indistinct.

More gold leaf, applied to a mordant probably of the same composition as that on the Griselda panels, appears on the hem of the robe, now much restored, and on the blue-green sash, which is better preserved. Here the patterns were painted with a yellow-brown paint and the gold leaf then applied to the parts of the design that catch the light. As a result of the damage to the gilding, this figure has lost some of the splendour that would have allowed him to compete with his neighbour, *Alexander the Great*.

Alexander the Great

As befits his status in Greek antiquity, Alexander the Great (PLATE 19) was the most magnificent and ornate panel of the series. By this stage in the execution of the series the general design was well established and so, although the picture field was established by incision of the sides, base and arch, the areas to be covered by the capitals of the frame were indicated in a cursory way with lines drawn in an iron-gall ink. They are visible only because cracking of the ink has caused the paint above to wrinkle and in places to flake away (the losses could be mistaken for shallow incisions).124 An iron-gall ink also seems to have been used for the underdrawing of the main figure. Some faint outlines can be detected in infrared, together with a few lines to indicate the anatomy of the knees, for instance. The simplicity of the underdrawing on all four of the main figures by the Griselda Master and the lack of major alterations suggests that he had made careful studies in advance and possibly even fullscale cartoons. There is no evidence of pouncing, but cartoons could have been transferred by some form of tracing. Since it was the intention to paint Alexander's breastplate with coarsely ground blue mineral pigments, lines defining the contours and structure of his torso were incised into the gesso, just as in the





(top row, left) FIG. 25 *Alexander the Great*. Infrared reflectogram mosaic detail.

(top row, right) PLATE 55 *Alexander the Great*. Macrophotograph of PLATE 19, showing the red lake underdrawing on the pedestal.

(centre row, left) FIG. 26 *Alexander the Great.* X-ray detail.

(centre row, right) PLATE 56 Alexander the Great. Detail of PLATE 19. (bottom row, left) FIG. 27 Alexander the Great. Infrared reflectogram mosaic detail.

(bottom row, centre) FIG. 28 *Alexander the Great.* X-ray detail. (bottom row, right) PLATE 57

Alexander the Great. Detail of PLATE 19.











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Griselda panels (FIGS 25 and 7). The pedestal, painted in advance of the figure, was underdrawn with the same red lake paint evident on the pedestals of *Scipio* and *Tiberius Gracchus*, and presumably also used for *Eunostos* and *Artemisia*. The ruled lines and the outlines of the putti and decorative patterns were all drawn with this red lake (PLATE 55).

There are no evident pentimenti in the main figure, but the landscapes and subsidiary scenes of this panel were extensively revised. Having first sketched in a horizon line (at the same height as that of the other panels, albeit slightly tilted), the painter then drew the conical tops of three tents on the left and one on the right (FIGS 26-8, PLATES 56-7), all at a higher level than in the final painting, and exactly at the same height as the similar tent in Scipio. If the small figures in front of the tents were ever underdrawn, the areas that they would have occupied are now covered by the gold of the present tents; where the gilding is damaged, however, there is no sign of any drawing. The painting of the sky (with the same combination of ultramarine and lead white in walnut oil used for the other backgrounds by the Griselda Master) and the landscape, complete with bushes, was well underway before the decision was taken to move the tents down to their present position, which allows



PLATE 58 Alexander the Great. Detail of PLATE 19.

more space for the narrative episodes. The dots and dabs of the obliterated foliage appear in the X-radiographs and in places on the picture surface. As part of the alterations, the colour of the grass in the middle distance was also lightened by applying a layer of pale yellowish green, mainly lead-tin yellow, lead white and verdigris, over a darker green, which contains a higher proportion of verdigris.¹²⁵ In the dark green of the unaltered foreground, black pigment was added to the mixture, while the grass of the further slopes was completed with the usual horizontal dashes of verdigris. The medium for all these layers of green was walnut oil.

The gold leaf for the tents - reduced to two on the left – was then applied over the underlying layers, either paint or bare gesso, depending on the alterations, and using a mordant identical in composition to that on the Griselda panels, which has been identified as containing gum ammoniac.¹²⁶ Only once the tops and sides of the tents were gilded (but not yet shaded with black hatching) were the figures painted in, some of them partly over the gold. For a painter who had been so careful to underdraw and reserve areas for the smallest of figures in the Griselda panels, this seems surprising and suggests either hurried working or some uncertainty as to what was to be included in the Alexander narratives. Some of the figures may have been sketched with a dilute paint; faint lines for the buttocks and shoulder blades of the soldier with his back turned in the group on the right can be seen in infrared, but no further drawing can be distinguished because of the gilding and multiple paint layers in these areas. The painting of the figures - in oil - appears rapid and direct, and the impression of haste is reinforced by the accidental omission of the arm and red sleeve of the figure of Alexander on the left. Details of Alexander's armour that are picked out in gold on the main figure are all rendered with yellow paint in the small versions.

The costume of the main figure was originally even more splendid than it appears today. The breastplate and cuirass are now much darkened. Just as in the Griselda panels, paint samples have shown that, although these areas were underpainted with azurite, the top layer consists of coarsely ground ultramarine, probably with some red lake (PLATE 59). In the crosssection, the ultramarine particles themselves are an intense blue but they are embedded in a brown matrix of discoloured egg medium.¹²⁷ The coarse texture of the expensive mineral pigment and the fact that it was used unmixed with white indicate that the painter sought maximum intensity of colour, and therefore chose egg tempera instead of oil, which would have made the colour darker and more saturated. Moreover, it is difficult to paint with such coarsely ground pigments in oil, especially without any lead white in the mixture. The colour of Alexander's armour has to be imagined, therefore, as closer to a pure lapis blue, appearing more purple in the shadows where shaded with red lake. This would have balanced beautifully the still intense pink of his sleeves and hose (PLATE 58), painted with high-quality red lake derived from kermes (PLATE 60), and applied in egg tempera to retain the purity of colour, just as in the Griselda panels.¹²⁸ Despite the medium being egg, which has to be applied with some form of hatched stroke, the approach to colour modelling is that of oil painting, with an upper layer of pure red lake applied over an underpainting of red lake and white. As in oil painting, the glaze was built up to its greatest thickness in the shadowed areas, which were then deepened further by hatched shading with black.

The orange-brown base colour of the open-toed boots and the larger areas of fantastic metalwork on the armour (some of it left in reserve, and other parts laid in over the blue) is a mixture of vermilion, red earth and possibly some red lead (PLATE 61); the finer patterns were painted with a more yellow brown containing lead-tin yellow and earth pigments, including some haematite (crystalline iron oxide). The parts of the design that catch the light were then picked out with gold leaf, applied with the usual mordant, and the shadowed areas hatched with black, again as in other panels by this painter. In places, the transitions between gilded highlights and more shadowed areas were refined by toning down the gold leaf with brown glazes. The Griselda Master's use of gold leaf is notably more consistent and systematic than Francesco di Giorgio's on the similar armour of Scipio with its highlights of both paint and gold. Scipio's very plain sword can also be compared with the elaborate gilded ornament on the black scabbard of Alexander's scimitar. Although the contrast between scabbard and armour is diminished as a result of discoloration of the blue pigments, the sword belt, painted with a bright azurite blue, with a thin ultramarine glaze, seems to have retained much of its original brilliance.

The gilding technique for the patterns on the pedestal is the reverse of that on the main figure in that the gold leaf was laid over the mordant applied directly onto the gesso (as in the architecture of *Exile*), the areas to be gilded having first been designated with the red lake underdrawing. The lilac-grey paint of the pedestal, a mixture of lead white, red lake and azurite (see PLATE 61), was worked around the



PLATE 59 Alexander the Great. Cross-section of a sample from Alexander's blue breastplate. Some intense blue particles of ultramarine are visible in the uppermost layer, in a brown matrix of discoloured binding medium and colourless associated minerals. Below is the azurite underpaint and the gesso ground. Photographed at a magnification of 500×. Actual magnification 440×.



PLATE 60 Alexander the Great. Cross-section of a sample from Alexander's pink hose. The paint contains an intense pink kermes lake pigment similar to that used in the National Gallery panels. Photographed at a magnification of 500×. Actual magnification 440×.



PLATE 61 Alexander the Great. Cross-section of a sample from the gilding on Alexander's open-toed boots. The gesso ground is missing from the sample; the lowest layer is the lilac-grey paint of the pedestal, which runs beneath the boot. The orange-brown base colour of the boot consists of vermilion, red earth and possibly some red lead. Over this is the translucent yellow-brown unpigmented mordant for the gold leaf. Photographed at a magnification of 500×. Actual magnification 440×.



FIG. 29 Tiberius Gracchus. Infrared reflectogram detail.



FIG. 30 Tiberius Gracchus. Infrared reflectogram detail.



FIG. 31 Tiberius Gracchus. Infrared reflectogram detail.



PLATE 62 Tiberius Gracchus. Detail of PLATE 22.

gilded parts, and indeed the execution of the pedestals was so rapid and efficient that the shadows cast by the putti were painted in a single application directly onto the ground, and not as a glaze over the principal paint layer as might be expected. Only the lines of the mouldings and the inevitable little horizontal flecks on the vertical face were added at a second stage, together with the black detailing on the gilded parts. The blue ground for the inscription consists of two or possibly three layers, the first lighter one based on azurite with a little white, and the upper ones of pure azurite with some ultramarine; all are applied in an egg medium, now darkened.

The flesh tints are essentially of the same composition as those of *Joseph*, but since the samples came from lighter areas some vermilion is included in the mixture. Details and outlines are generally defined with a warm brown colour, but sometimes a contour is picked out with touches of a relatively bright pink. Although the flesh is painted in oil, unblended highlights of lead white applied with distinct hatched strokes are a reminder of the painter's likely origins in a tempera-based tradition. In its combination of tempera and oil techniques, and also in the extent of the gilded decoration, *Alexander the Great* is perhaps the closest to the set of panels from which the Griselda Master takes his name.

Tiberius Gracchus

The Griselda Master's increasing command of the drawing of larger-scale figures and their placing within the arch-topped format of the panels is demonstrated by the supremely elegant composition of *Tiberius Gracchus* (PLATE 22). The underdrawing of the main figure is close in technique to that of *Eunostos* and *Alexander*, consisting mainly of outlines that tend to be almost as visible to the naked eye as with infrared, an indication that they are probably drawn with an iron-gall ink. A few small differences between the underdrawing and the painted contours are apparent,

for example the fingers of the hand holding the spear were shortened slightly (as were those of Eunostos), the elbow of that arm was drawn slightly lower, the bunched drapery on the right bulged out below and his rippling curls extended further to the right (FIGS 29 and 30). These changes indicate a tendency to reduce contours, moderating some of their extravagance, which is also evident on *Exile*.

As with the other panels, the underdrawing of the landscapes and the small figures of Tiberius and Cornelia is more obviously improvised: the legs of the little figure of Tiberius who discovers the serpents in his house were repositioned and tree trunks were sketched behind the arches of the loggia but never painted (FIG. 31 and PLATE 62). These are very like the underdrawn trees in Marriage and Exile, and an even closer association with those panels is suggested by the two sculpted figures on the roof of the loggia that appear in the underdrawing - partially visible with the naked eye because the lines of iron-gall ink have caused the paint above to crack (PLATE 63 and FIG. 32). Their dancing movement is typical, but the decision not to paint them is perhaps another indication of a tendency towards restraint by the painter - in addition, they would have been in competition with the sculpture of Apollo (representing the soothsayers, who according to Plutarch, foretold Tiberius' death) on the right, and therefore important in the telling of the story.

In each episode the figures of Tiberius and Cornelia were painted very quickly, with mid-tones, shadows and highlights juxtaposed or partly blended wet-in-wet; the spiral swirls that highlight Cornelia's breasts in the scene showing the discovery of the serpents could only be oil paint (PLATE 62) and it seems likely that the whole painting, with the exception of the blue background for the inscription, was painted in oil. The rich brown of the robes of the main figure is probably similar to the orange browns in Alexander and based therefore on mixtures of earth pigments with vermilion, red lake, black and lead white. The lining is a dark glazed green. At a relatively late stage the painter seems to have decided that the figure needed more red to bring it into line with the other panels, and so added the red scarf over the completed neckline of the tunic (PLATE 64). The scarf is decorated with a pattern of dark green paint rather than the gilding that one might expect from the other panels, and the use of gold leaf is generally more restrained, appearing only on the parts of the decorated hem of the robe that catch the light, the statue of Apollo - mordant gilded over the paint and then shaded with black, exactly as in the sculpture of Cybele in Claudia Quinta - and on the point of





FIG. 32 *Tiberius Gracchus.* Infrared reflectogram detail.



PLATE 64 Tiberius Gracchus. Detail of PLATE 22.

Tiberius' spear (see PLATE 78). The shaft of the spear was painted a dark green, following ruled incisions into the paint of the sky (a rare use of incision for straight lines in the work of this painter). The decorative fringe above the point of the spear and the lace tied half way up the shaft introduce further touches of red, which together with the drops of blood from the dead serpent and Cornelia's red dress in the background result in a pleasing distribution of colour across the picture surface.

In spite of extensive losses from the brown robe, *Tiberius Gracchus* is arguably the best preserved of the



FIG. 33 Artemisia. Infrared reflectogram scan detail.

eight panels, and especially in the areas of flesh paint. With the exception of an area of restoration at the near corner of the mouth, the head of Tiberius is in almost perfect condition, and so displays the painter's command of the structure of the head and neck, carefully modelled with even transitions from gleaming highlights through pink mid-tones to cool greyish shadows. On close inspection it can be seen that the stiff opaque oil colours were shaded with hatched strokes, without any attempt to suppress the brushwork by blending. Nevertheless, at normal viewing distance the impression is of a highly refined version of the technique used by Signorelli to achieve the strongly sculptural but smooth and polished flesh, almost like marble, which is a feature of his paintings towards the end of the fifteenth century.

Artemisia

In May 1857, Otto Mündler, the National Gallery's travelling agent, recorded in his Travel Diary that 'March^{se} Poldi has lately purchased of Baslini a single figure of Saint Barbara, called Perugino, but decidedly by L. Signorelli, exquisit [sic]'.¹²⁹ This is the panel now identified as *Artemisia* (PLATE 24). The dependence of the general design of the figure on that of the Magdalen in Signorelli's panels for the Bicchi Chapel has been noted, but the previous attribution to Perugino is also telling, and an indication of how far and how rapidly the Griselda Master had changed



PLATE 65 Artemisia. Detail of PLATE 24.

style and technique towards the more modern ways of painting that were being introduced to Siena by painters such as Signorelli. Indeed, given that this chameleon master had, as Coor realised (though misunderstood),130 once again altered his landscape style, it becomes all the more important to demonstrate its technical continuity with the Griselda Master's other panels. The underdrawing in the upper part of the figure appears at first sight to be more extensive than on the other three large-scale figures, but this may be a false impression created by the greater visibility of the drawing material (probably not, in this case, an irongall ink) and because - typically - the underdrawn lines and contours tend to be more exuberant than the painted forms. The broad liquid lines that indicate her collar bones, neckline and tendrils of hair are brushed in with great confidence (FIG. 33) and the right side of the figure was drawn slightly wider than in the final painting. The abbreviated arc that indicates a fold in the projecting part of the veil on the right resembles the annotations for folds visible in the costume of Joseph (PLATE 52), and similarly comparable widely spaced parallel hatched strokes of shading can be discerned in the lining of her cloak. However, detection of underdrawing in the folds of her cloak is made impossible because of the amount of black pigment in the paint layers above and also because of the present compromised condition of the painting. There are fairly extensive paint losses, especially in the





FIG. 34 *Artemisia*. Infrared reflectogram scan detail.

PLATE 66 Artemisia. Detail of PLATE 24.



PLATE 68 *Artemisia*. Macrophotograph of PLATE 24 showing the builders of the mausoleum.

The green of her dress, which has the glossy surface of a green based on verdigris rather than malachite, may also have darkened and so the figure now seems drab when compared with the pink and red costumes of the other women in the series. She must always have seemed very different in her sculptural solidity and heavy drapery folds. Nevertheless, the Griselda Master still managed to introduce some of his customary animation with her expressive hands and the fluttering twists of veil, as well as decorative details such as the scalloped edges of her cloak. All the gilded decoration on the borders of the robes has been renewed by Molteni, with little regard for the



PLATE 69 *Artemisia*. Macrophotograph of PLATE 24 showing Artemisia weeping into the cup of ashes.



FIG. 35 *Artemisia*. Infrared reflectogram scan detail.



PLATE 67 Artemisia. Detail of PLATE 24.

cloak, and a recent partial cleaning of the painting has retained most of the extensive retouchings made by the Milanese painter and restorer Giuseppe Molteni in 1857, when the panel was bought by Gian Giacomo Poldi.¹³¹ Unfortunately, Molteni's restorations, which often cover areas far larger than that of the damage, tend to become greyish and opaque with age. This, together with the patchy residues of the earlier varnish, obscures the true colour of the cloak, which is almost certainly a cool greyish purple, probably containing red lake, vermilion, lead white and azurite or ultramarine (as do similarly coloured areas on paintings by the Griselda Master) as well as a black pigment that is apparent in the infrared image.

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fall of light (PLATE 65 AND 67). Only a few scraps of original gilding can be seen at her neckline where the decoration is covered by the veil. The gilded cup is also his restoration (but following the original shape) and must originally have been mordant gilded and modelled with black in the same way as other gilded details on the panels. In the X-radiograph the brushstrokes of the sky can be seen to go around the area of the cup, an indication that the area was reserved and the gold leaf attached to a mordant applied directly onto the gesso as in larger areas of gilding on the other panels.

In general, however, the painter seems to have been less meticulous on this panel about reserving areas that had been demarcated in the underdrawing. When painting the sky, with the usual sticky brushmarked colour based on ultramarine and white, he allowed his brushstrokes to encroach well into the area reserved for the back of Artemisia's head, leaving only a very approximate reserve for the protruding knot of her scarf (PLATE 65).

This is even more noticeable in the landscapes on either side (PLATES 66 and 67). The only underdrawing visible in infrared is the thick bold line to indicate the level of the horizon (FIGS. 34 and 35), exactly as in Alexander. Also in common with that panel is the fact that no drawing can be detected in the little figures, although it could, of course, have been executed in a material transparent to infrared such as the red lake used on the pedestals. Mostly their positions seem to have been predetermined, since approximate reserves were left for them when brushing in the landscape elements. However, the speed of painting means that the thick sticky landscape colours often extend well under the figures. Abrasion has reduced legibility of the figures, and the girl on the left of the group now appears to be wearing a mob cap, in reality the ends of the strokes for the water. Had the mouth of the little figure of Artemisia who weeps into the cup of ashes (PLATE 69) not been rubbed away, it would be more immediately apparent that she is sister to the banished Griselda in Exile (PLATE 16).

In the landscape on the left (PLATE 66), the nymph-like woman in pink was painted over the mausoleum, already decorated with its relief sculptures; she plays no part in the recorded story and so, despite her apparently meaningful pointing gesture, she may have been added to supply an area of pink to balance the other side, and also to echo the large areas of that colour on the other figures in the series. As in the *Alexander* panel, the narrative content seems to have been less clearly defined in advance than was the case with *Eunostos* and *Tiberius*. This may have been in part the result of pressure to finish the series, and further evidence of haste is suggested by the painting of details such as the tools of the mausoleum's builders while the paint of the sky was still soft (PLATE 68).

Sulpitia

Since Neroccio was clearly brought into the project of painting the Virtuous Men and Women at an early stage, it seems likely that it was then that Francesco di Giorgio also turned to another painter with whom he had collaborated recently, Pietro Orioli. The many differences between Orioli's *Sulpitia* (PLATE 25) and the panels produced by Francesco di Giorgio and the Griselda Master suggest that Orioli took his panel to his own workshop, and that supervision was no more than occasional.

Infrared examination has revealed a spectacular underdrawing (FIG. 36), applied directly on the ground and typical of those on Orioli's larger-scale works in the amount of detail and in the drawing of the figure with long fluid lines made with a loaded brush and extensive shading with evenly spaced parallel hatched lines.¹³² Even the structure of Sulpitia's head is modelled by shading, and on the draperies the drawing is notably sculptural in that the angle of the hatching often varies according to the planes being described, so that in places the strokes overlap as crosshatching. In the deepest shadows of the dress, however, some of the shading that registers in infrared is actually in the upper paint layers where black pigment was added to darken the tone of the red lake.

There are several differences between the underdrawing and the final painting. Originally Sulpitia's long hair was more loosely dressed, so that it curved out to the left of her neck (here hatching is replaced by a wash), and with the ends of the strands blowing out to the right. The veil around her shoulders billowed out more widely to the right than in the painting, and another piece of veil fluttered around her hips on the left. Her neckline was lowered slightly and given a less severe line in the final painting. In its complex contours the drawn figure has much in common with the figure of Christ in Orioli's Ascension of 1492 (Siena, Pinacoteca Nazionale), and therefore close to the probable date of Sulpitia, but in general he seems to have preferred intricate but more contained drapery shapes that emphasise the figure beneath as in the final painting. The more flamboyant underdrawing may have been in part a response to Francesco di Giorgio's Scipio, which Orioli then toned down, partly perhaps because unbound hair might



FIG. 36 *Sulpitia*. Infrared reflectogram mosaic. (below) FIG. 37 *Sulpitia*. Infrared reflectogram mosaic detail. (bottom) PLATE 70 *Sulpitia*. Detail of PLATE 25.



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PLATE 71 *Sulpitia*. Cross-section of a sample from a dark green bush in the landscape on the left. Over the gesso there are three layers containing lead white, ultramarine, azurite and red lake (probably underpainting for the landscape, and perhaps the building behind the bush), and then a layer of black, which serves as an underpainting for the coarsely ground malachite of the foliage. Photographed at a magnification of 640×.



PLATE 72 *Sulpitia.* Cross-section of a sample from the red dress. Over the gesso is some carbon black underdrawing and then layers of vermilion, red lake, lead white and some ultramarine. This is completed with a glaze of red lake. Photographed at a magnification of 640×.



PLATE 73 *Sulpitia*. Cross-section of a sample from the flesh of the putto on the left side of the pedestal. Over the gesso is a layer of lead white with a little black (the pedestal), followed by a layer of green earth with some malachite, lead white and bone black and then a layer of vermilion, red earth and lead white. Photographed at a magnification of 320×.

have been considered inappropriate in a depiction of an exemplar of sober female virtue. The temple that she holds as an attribute was improvised freely in the underdrawing with repeatedly sketched lines for the edge of the roof and a different shape for the top.

A similarly spontaneous drawing appears in the landscape, with on the left lines of distant hills, then a

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town, complete with spiky little figures in the piazza, but only followed roughly in the underdrawing, and closer to the foreground a pastoral scene with cattle, including an extra cow, probably also painted, but now obscured by a bush. On the right in the underdrawing (FIG. 37) are some hill-top towns and a little temple of the same design as the drawn version held by the main figure, and with the same rounded top to the oculus. It is unmistakably a complete structure. In the painting, on the other hand (PLATE 70), it is shown lower down and in the process of being built, with on the steps the little red figure of Sulpitia, accompanied by several female figures. This introduces a narrative element, previously absent, and it is tempting to suggest that Francesco di Giorgio in his supervisory capacity inspected the underdrawing and asked for the change. Alternatively it is just possible that the change was Orioli's idea and that this triggered the introduction of the subsidiary episodes in the other panels. Either way, the figures cannot have been easily legible at the height that the panels were probably displayed, and the rest of the detail seems to be entirely incidental to the main figure. Moreover, the scale and the bird'seye viewpoint of the landscape are very different from the Griselda Master's backgrounds to the other panels.

The sky is painted with ultramarine and white as in the rest of the series, but it is more intense in colour (originally it was even more so, but is now rather rubbed). The other skies graduate evenly to a pale horizon, but here the blue extends down further. The sky glows pale yellow above the hills, and is streaked with pink, orange and grey clouds, some with touches of gold leaf. The distant hills must also have been painted with ultramarine, and a pale blue underpainting extends down into the landscape, appearing as the lowest layer - but with the greener blue of azurite instead of ultramarine - in a paint sample from a bush at the left end of the bridge on the left (PLATE 71). In the sample there are then layers containing more blue, and also red lake. These can probably be associated with the pinkish bridge - Orioli often introduced touches of bright, slightly unreal colour in his landscapes and architecture - and then above is a thin layer of black pigment. The trees and bushes in the middle distance appear very dark in infrared and it seems that here Orioli reverted to an old tradition of using black as an underpainting for malachite greens. The character of the particles of mineral malachite, now embedded in a darkened matrix of medium, indicates that it was probably from the same source as the pigment seen on the other panels.¹³³

The multiple layer structure of the sample from the landscape is the result of superimposition of details, but a cross-section from the figure's red dress (PLATES 72 and 74) demonstrates a technique of some complexity, and yet another variation within this series on the combination of different pigments and media for areas of pink and red. In a sample, from the shadowed left edge, there is no white underpaint or priming as in many of the other panels; instead, over the black underdrawing are several thin layers containing lead white, red lake, red iron oxides and a little black. Lighter areas obviously contain a much higher proportion of lead white. The underlayers appear to be in egg tempera, but the final glazes of red lake, either alone or with black in the deepest shadows, are bound in oil. In common with the other painters working on the panels, Orioli tended to retain the hatched application of tempera when working in oil, and it may be that this use of oil was a new departure for him.134 His altarpieces all have the appearance of being in tempera; moreover, he seems to have preferred to leave them unvarnished and some may have remained in that state.¹³⁵

Above all, it is in the painting technique of the pedestal (see PLATE 77) that the separation of Orioli's panel from the main group becomes apparent. Evidently he received instructions as to the pedestal's dimensions and general design, but he not only painted it a different colour, a very pale grey consisting of lead white with a small amount of carbon black, but he also applied this base colour over the entire area of the pedestal (PLATE 73). In the X-radiograph (FIG. 14), it can be seen that, unlike the other panels, no areas were reserved for the blue background of the inscription, let alone for the putti and the gilded decoration. The putti conform to the openlegged type, but have their arms differently posed, and are without wings. Their cast shadows imply that they are fully three-dimensional, whereas on the other pedestals the putti are clearly relief sculptures, although there seems to be some teasing ambiguity as to whether they might be living flesh. The technique for painting the flesh of the Orioli putti appears to be the same as that of the main figure, and the dull semitranslucent green layer on top of the pale grey of the plinth in the paint sample, taken from the putto on the left, contains mainly green earth. It is clearly an underpainting for the flesh tints of lead white and vermilion and red iron oxides. Green earth absorbs infrared and so the even tone and the relative darkness of Sulpitia's face, hands and feet in the reflectogram indicate that this traditional underpainting for flesh tints in tempera is almost certainly present there as well.

The gilded decoration of the plinth follows the set pattern only in the volutes and little crescents held by



PLATE 74 Sulpitia. Detail of PLATE 25.

the putti; the jewelled ornament suspended beneath the inscription tablet seems to be Orioli's invention. The hair of the putti and their sashes are picked out with touches of gold, and delicate highlights of gilding are scattered across the landscape – on the blades of grass around the plinth, on the bushes and buildings and streaked across the mountains and sky – and on the figure, including the temple that she holds as well as her hair, brooch, veils and the borders of her dress. In spite of its extent, the discreet nature of the gilding leaves the impression of a less richly decorated surface than most of the other panels.

Judith or Tomyris of Scythia

Matteo di Giovanni belonged to the same generation of painters as Francesco di Giorgio and Neroccio, and his fame would have made him an obvious candidate in any attempt to show off the skills of all the leading artists of Siena.¹³⁶ He, like Neroccio and Francesco, had contributed designs for the Duomo pavement Sibyls. Moreover, he had actually been Orioli's master, providing another route for the younger painter's cooption. It seems possible that he was involved at an early stage, but the cutting of the panel and the loss of most of the background with its narrative elements make it more difficult to estimate its place in the chronology of the series. Stylistically the painting seems to belong to the very end of Matteo's career. The panel may have been cut partly because the lower part was in poor condition, as was probably the case with its neighbour, *Artemisia*, but it is just possible such a drastic reduction may also have been an attempt to convert the image of Tomyris into the more saleable Judith. The iconography of both is likely to be consistent: the figure brandishing her weapon and holding a severed head by the hair – the head in this case is noticeably undersized and must be to some extent emblematic.

In addition to the identifying inscription, the cutting has eliminated episodes which would have further defined the figure. The story of Judith is wellknown. The widowed Queen Tomyris, having defeated Cyrus, the invading Persian king, dipped his severed head in a wineskin of blood. The row of tents on the right implies a military encampment -afeature of both stories. The likelihood that these episodes were painted on a scale similar to the background of Sulpitia is suggested by the small size of these tents when compared with those in Scipio and Alexander. In front of the tents are remnants of little figures but in the infrared reflectogram (FIG. 38) it can be seen that only the head of the horse and its rider are original - the rest is restoration relating to the added parapet (see Appendix, p. 70). The reflectogram also shows the helmeted head of a soldier that was drawn but not painted, as well as a building between two of the conical hills.

On the left of the main figure Matteo sketched an elaborate walled city with the tops of the towers rising almost to the level of the areas that were to be covered by the frame capitals (FIG. 39). The greater density of the paint of the sky in this area in the X-radiograph (FIG. IO) suggests that he first covered it over with a hill, perhaps with a tower, and then brought the horizon line down to make it more consistent with that on the right, as well as with the other panels. Again it is possible to imagine Francesco di Giorgio's involvement in the alterations.

The main figure was drawn in great detail using a brush and a liquid medium, and with extensive shading in the form of parallel diagonal lines, which occasionally intersect as cross-hatching. Every drapery fold is shaded and the structure of her head and that of her victim are carefully modelled with shorter hatched lines (although some of those visible in infrared on the latter are in the final paint layers).



PLATE 75 Judith or Tomyris of Scythia. Detail of PLATE 23.



PLATE 76 Judith or Tomyris of Scythia. Cross-section of a sample from the red dress showing a layer of red lake and lead white over a lead white *imprimitura* applied to the gesso ground. Photographed at a magnification of 640×.

Heavily shaded underdrawings have been discovered on other works by Matteo,¹³⁷ but this one is of exceptional elaboration and refinement. Moreover, it was mostly followed with precision in the painting, the only divergences being a slight change to the edge of her scimitar to make it fit better into the arch, a



(right) FIG. 38 *Judith* or *Tomyris of Scythia*. Infrared reflectogram mosaic.

(below) FIG. 39 *Judith* or *Tomyris* of *Scythia*. Infrared reflectogram mosaic detail.

narrowing of the decorative band around her neckline, and the shortening of a few locks of hair.

The whole painting appears to have been executed in egg tempera,¹³⁸ but rather surprisingly the gesso and underdrawing were first covered with a substantial *imprimitura* of lead white with a little chalk, also in egg (PLATE 76). Such primings are not necessary when working in tempera and they are not always present on other paintings by Matteo.¹³⁹ It may have been used here to reduce the visibility of the underdrawing; egg tempera has relatively poor coverage and so there must have been a danger of the drawing being too visible, especially in the figure's fair flesh tones and blonde hair (PLATE 75).

The flesh paint, consisting of lead white tinted with vermilion and red iron oxide, was applied directly over the white priming, without any green earth or verdaccio underlayer.¹⁴⁰ The sky is painted in ultramarine and lead white as are the others in the series but instead of brushmarked oil paint, the individual strokes of tempera are visible and the sky now appears thin and rather streaky. The dress was modelled by typical tempera hatching over the white



imprimitura with layers of red lake, mixed with varying amounts of vermilion, red iron oxide and lead white. Her cap is probably ultramarine and the dark green scarf or shawl wound around her must be a copperbased pigment, probably malachite, judging by its dark appearance in infrared. The reflectogram also confirms that a triangle of pale blue sky was painted over the green scarf immediately under her arm on the right, reducing the width of the scarf and connecting the figure better to the landscape. The costume is bizarre and not always logical: a strip of blue fabric decorated with patterns in gold leaf runs down the centre of the dress, almost as if it were exposed by an opening to an underskirt, although such rich textiles can surely never have been worn in this way. It is an addition over the red, made perhaps to increase the exoticism of her costume and the amount of gilding in order to echo the richness of her probable male counterpart, Alexander. Matteo, when depicting cloth-of-gold textiles in his Assumption altarpiece in the National Gallery, did so using yellow paint rather than gold. Although he is likely to have been responsible for the gilded patterns on the scarf and headdress, it is just possible that this extra strip of textile was added at a very late stage, perhaps even by the painter who apparently finished the series, the Griselda Master.

The pedestals and inscriptions

The differences between Orioli's *Sulpitia* and the other panels (PLATES 77 and 78) would appear to extend to the lettering of the inscription which, though the individual letter forms are analogous, is perhaps rather more elegant in its line-spacing than

that on the pedestals in Tiberius Gracchus and Alexander the Great, even allowing for the fact that the inscriptions on these last are less well preserved.¹⁴¹ The inscriptions on the other two panels that have retained their pedestals, Scipio and Claudia Quinta, have both been repainted and regilded. A cross-section from the latter (PLATE 79) shows the same layer structure for the blue base as Alexander; above it is the gold leaf of the original lettering, and then the new blue ground, painted with a more finely ground blue pigment - this time just natural ultramarine with lead white and in an oil medium instead of the tempera of the original - and finally the gold leaf of the new inscription. In places, the old letters are just visible on this and the Scipio inscription; it can be seen that the spacing between the rows is closer to that of Alexander and Tiberius than Sulpitia, but unfortunately the letters are insufficiently clear to determine whether the inscriptions have been changed; if that were so, it might imply that they were re-gilt, perhaps at a relatively early date, in order to correct errors rather than because they were damaged.

In the repainting of the inscriptions on *Scipio* his name was obscured by the new base colour, but can still be made out when the panel is viewed in raking light. On all the panels (except *Claudia Quinta* whose name appears as the first words of her commentary), these names are almost certainly additions themselves, squeezed in above the main inscription. On the *Sulpitia* in particular, the larger, somewhat more clumsy epigraphy of the letters in the name (as opposed to the main inscription) is marked and their different appearance is emphasised when this area is



PLATE 77 Sulpitia. Detail of PLATE 25.

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viewed in infrared (FIG. 36). It seems possible that the names were added when the panels were set up in their final position, presumably because the inscriptions were not considered adequate to explain the identity of some of the lesser-known figures. The question of who was responsible for the lettering of the inscriptions is an open one, but it should not necessarily be assumed that it was always the responsibility of the painters of each panel. Certainly the names appear to have been delegated to a single one craftsman and it is even possible, notwithstanding the difference of organisation between Sulpitia and the others, that another executing hand was responsible for the commentaries. Indeed it has already been suggested that the Griselda Master may have had to paint the pedestals of his panels before he had designed and underdrawn the figures, because they needed to be ready for application of the lettering, perhaps by this other craftsman.

The issue as to who may have devised the contents of the inscriptions has been discussed by Caciorgna, and may also be connected with whoever commissioned the panels.¹⁴² Although the crescents (closer to a full ring in the case of Neroccio's pedestal for *Claudia Quinta*) have often been taken to indicate a Piccolomini commission, the crescent is, as Kanter has pointed out, omnipresent in Sienese heraldry. A feature not previously noted on the pedestals painted by the Griselda Master (who, if he were working under the direction of Francesco di Giorgio might be expected to be better informed than the other artists) are the cartwheels seen from the side which hang from the ends of the leafy garlands looped through



PLATE 79 *Claudia Quinta.* Cross-section of a sample from the blue background for the pedestal inscription showing two layers of azurite and then a little gold leaf from the original inscription. Over this is a layer of natural ultramarine and lead white and more gold leaf from the later reworking of the inscription. Photographed at a magnification of 320×.



PLATE 80 Scipio Africanus. Detail of PLATE 21.



PLATE 78 Tiberius Grachus. Detail of PLATE 22.

the lower parts of the volutes. Each has two objects dangling from them; they are clearest in *Scipio* – despite its abraded condition – where they appear to be shaped like spoons or perhaps drop pearls (PLATE 80). On *Tiberius* they appear more like rods. It is just possible that these objects – hardly a standard element of such ornament – might also be treated as heraldic clues. A *cassone* in the Bagatti-Valsecchi Collection in Milan, with a processional scene, has two coats of arms, Piccolomini on the left and another, yet to be properly identified, including a wheel seen full-face on the left, possibly of the Santi family.¹⁴³ This connection would not, however, explain the other elements dangling from the wheels. A solution remains to be found.

Conclusion

If the trajectory of the career of the Griselda Master, as set out in this article, is taken into account, the field or range of possible patrons is narrowed. Given that the Griselda panels themselves can now be dated with some security and if, as seems to be the case, the Master's first contributions to Francesco di Giorgio's Scipio and Neroccio's Claudia Quinta were painted before the Griselda panels, then it can be argued that the project of the Virtuous Men and Women was initiated before the end of 1493. This date would fit with the widely accepted association with the marriage of Silvio Piccolomini and Battista Placidi in January 1493, but it cannot be entirely excluded that this series too was linked to the celebrations of the double Spannocchi wedding, since the two projects appears to have been chronologically intertwined. It is certainly a curious coincidence that the small flags carried in the procession in the background of *Reunion* and the flags that top the tents in *Alexander* and *Scipio* have all been defaced by scoring with a cross (and there is no evidence that there were ever heraldic features which might have been removed if ownership changed) (see Appendix, PLATES 85–87). These scored damages are old enough for the lines to have been filled with varnish residues and repaint that go back at least to the nineteenth century. This would suggest that both sets of panels had, for a time a least, a shared ownership, perhaps as the result of the bringing together of family collections, their purchase by a single collector, or even, conceivably, because they had in fact been originally executed for the same palace setting.

It therefore seems that halfway through the painting of the Virtuous Men and Women (assuming that the panels by Orioli and Matteo di Giovanni were begun at a relatively early stage), the Griselda Master was assigned the panels from which he takes his 'name', a commission that may well have come to him via Francesco di Giorgio. In the course of the execution of the Griselda panels, he developed rapidly as a painter, gaining in confidence as he designed the figures, their anatomies and their architectural and landscape settings, and becoming ever more sophisticated in his approach to narrative. At the same time he gradually shifted his technique away from the tempera-based tradition of the older generation of Sienese painters towards a more modern oil method, derived in part from his study of works in Siena by Signorelli (and perhaps also through looking hard at the achievements of Perugino). On completion of the Griselda narratives, and perhaps as the result of their undoubted accomplishment, he was promoted within



PLATE 81 Marriage. Detail of PLATE 1.

the Virtuous Men and Woman project and given sole responsibility for the four remaining panels.

Even within this sequence, the stylistic and technical evolution of this young painter was still very fast. He continued to exploit iconographic and figurative motifs taken from Signorelli and Perugino, but whereas in the *Joseph* he continued to make reference to older Sienese masters, by the time he painted *Artemisia* he had fully absorbed the lessons of these two most admired painters and combined them in a way that was stylistically more thoroughly unified. The face of Tiberius, for example, is modelled in a manner closely akin to that of Signorelli, but his features are actually more refined than those by the older painter. The background figures in this picture, though they retain their characteristic elegance and bounce, display the increasing naturalism associated with *Exile*, while the architecture is more restrained and the trees and foliage have a new feathery freshness, which is also more true to nature (PLATES 81 and 82). There is evidence, especially in the *Artemisia*, of some haste in finishing the series – perhaps at the behest of an impatient patron – but the Griselda Master's confidence in undertaking the project is remarkable. By its end he had achieved a blend of styles that had become uniquely his. We can only wonder what he might have accomplished next.

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PLATE 82 Tiberius Gracchus. Detail of PLATE 22.

Table I Summary of the pigments in	paintings by the Master	of the Story of Criselds and in	n the Virtuous Men and Women Series
Table 1. Summary of the pigneties in	i paintings by the Master	of the story of Griscida and h	i the virtuous wich and women series

Artist, Painting and location	Master of the Story of Griselda, <i>The Story of</i> <i>Patient Griselda: Marriage, Exile</i> and <i>Reunion</i> (NG 912, 913, 914), National Gallery, London.	Master of the Story of Griselda, <i>Alexander</i> <i>the Great</i> , Barber Institute, Birmingham.
Blue	Sky: ultramarine and lead white. Blue trousers of figure at far left: ultramarine over azurite. Blue paint on arches: ultramarine over azurite with associated greenish minerals containing Cu,	Sky: ultramarine and lead white. Blue of tunic: ultramarine with a little red lake over azurite. Blue of sword belt: thin layer of ultrama- rine over azurite with associated greenish
	Sb, As and Zn.	minerals containing Cu, Sb, As and Zn. Blue of inscription panel on pedestal: thin layer of ultramarine over azurite with asso- ciated greenish minerals containing Cu, Sb, As and Zn and dolomite impurities.
Red	Opaque bright red hose of servant: vermilion with a little red earth or red lead. Red of servant girl's dress: red lake (kermes) and lead white (see p. 15).	Alexander's red hose: red lake (kermes) and lead white.
Flesh	<i>Marriage</i> and <i>Reunion</i> (NG 912 and 914): green earth underpaint covered by a layer of lead white, vermilion and black. <i>Exile</i> (NG 913): yellow-brown underpaint beneath a pink layer.	Flesh from Alexander's hand: lead white, vermilion, yellow earth and a little black.
Green	Translucent deep green hose of man (NG 914): verdigris and lead-tin yellow. Grass (NG 914): verdigris, white, lead-tin yellow and black over a layer of lead white and azurite. Green leaves of tree: verdigris, lead-tin yellow, lead white. Dark green on hillside: malachite with associated copper minerals containing Cu, Sb, As and Zn and dolomite impurities.	Green landscape: verdigris, lead-tin yellow, lead white, perhaps a little yellow earth, sometimes mixed with black.
Gilding	Mordant-gilded pattern on the arches: gold leaf over a translucent yellow-brown unpigmented mordant.	Mordant gilding on the shoes, the tents in the background landscape, and the plinth: gold leaf over a translucent yellow-brown unpigmented mordant.
Yellow and orange	Orange-yellow paint beneath mordant gilding on the arches: lead white, vermilion, yellow earth pigment containing a little zinc. Yellow tunic of standing servant (NG 914): yellow earth, a little vermilion and black.	Orange paint of shoes: earth pigment rich in iron oxide (small amount of manganese), mixed with vermilion and possibly a little red lead.
Grey and black Grey of Griselda's habit: lead white, coarse black, vermilion, red lake, yellow earth. Grey paint of horse: coarse carbon black, lead white, colourless manganese-containing glass.		Lilac-grey paint of the pedestal: lead white with a little azurite and red lake.

Neroccio de'Landi and the Master of the Story of Griselda, <i>Claudia Quinta</i> , National Gallery of Art, Washington.	Master of the Story of Griselda, Joseph of Egypt or Eunostos of Tanagra, National Gallery of Art, Washington.	Pietro Orioli, <i>Sulpitia</i> , Walters Art Gallery, Baltimore.	Matteo di Giovanni, Judith or Tomyris of Scythia, University Museums, Bloomington, Indiana.
Sky: ultramarine and lead white. Blue of inscription panel on pedestal: azurite with associated minerals containing As, Cu, Sb, and Zn and dolomite impuri- ties.	Sky: ultramarine and lead white.	Sky: ultramarine and lead white.	Sky: ultramarine and lead white.
Claudia's red robe: red lake (insect source?) with some vermilion.	Red of robe worn by Joseph: red lake (insect source) and lead white.	Sulpitia's red robe: red lake (insect source) and lead white over a layer of vermilion, red lake (insect source?), lead white and some ultramarine.	Red of robe worn by Judith: red lake (insect source?) and lead white.
Flesh from Claudia's left foot: pale green layer (green earth and lead white) covered by a thin layer of vermilion, lead white, chalk and dolomite.	Flesh of Joseph: green earth, lead white, red earth and some red lake (insect source?).	Flesh of putto: green underpaint (green earth, malachite, lead white and bone black) covered by a layer of vermilion, red earth and lead white.	Flesh of Judith: vermilion and lead white.
Green from foreground: mala- chite with associated minerals containing Cu, As, Zn and Sb, dolomite impurities and lead- tin yellow.	Foreground foliage: verdigris and lead-tin yellow.	Dark green foliage: malachite with associated minerals containing Cu, As, Zn and Sb and dolomite impurities.	
Mordant gilding: gold leaf over a translucent yellow-brown unpigmented mordant.			
		Pale grey paint of the pedestal: lead white and carbon black.	

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Notes

- M. Davies, National Gallery Catalogues. The Earlier Italian Schools, rev. edn, London 1961, pp. 365–7.
- 2 Boccaccio, *Decamerone*, X,10. The last of the sequence. Although it was very well known, this does not appear be have been an especially common subject in Italian quattrocento painting. But see, reconstructed in the Castello Sforzesco in Milan, the late fifteenth-century detached grisaille frescoes originally from the so-called Sala of Griselda, Castello di Roccabianca, near Parma, and a pair of Florentine *cassoni in Bergamo attributed to Pesellino (see P. Schubring, Cassoni. Truhen und Truhenbilder der italianischen frührenaissance*, Leipzig, 1923 III, p. LXI) with a very simplified rendition of the story. For the subject see S.S. Allen, 'The Griselda Tale and the Portrayal of Women in the *Decameron', Philological Quarterly*, LVI, 1977, pp. 1–13. We should not forget Petrach's version: 'De insigni obedientia e fide uxoria' (*Seniles*, XVII, 3).

- 3 B. Berenson, 'Quadri senza casa: il Quattrocento senese, II', Dedalo, Anno xi, III, 1931, pp. 735–67, esp. pp. 750–3.
- 4 G. De Nicola, 'Notes on the Museo Nazionale of Florence IV: Fragments of Two Series of Renaissance Representations of Greek and Roman Heroes', *Burlington Magazine*, XXXI, 1917, pp. 224–8.
- The Griselda Master has been identified as the mature Bartolomeo della Gatta by A. Marini, 'The Early Work of Bartolomeo della Gatta', Art Bulletin, XLII, 1960, p. 141; as the young Baldassare Peruzzi by Laurence Kanter and Michael Miller, see M. Miller, ' "Alcune cose in Siena, non degne di memoria" - Baldassare Peruzzi's Beginnings', Allen Memorial Art Museum Bulletin, XLVI, no. 2, 1993, pp. 3-16, esp. pp. 10-13, 15 note 42; as Rocco Zoppo by C.E. Gilbert, 'Griselda Master' in The Dictionary of Art, XX, London, 1996, p. 684; and as possibly the same painter as the one now called the Maestro dei putti bizzari by A. Angelini, 'Intorno al Maestro di Griselda', Annali (Fondazione di Studi di Storia dell'Arte Roberto Longhi, Firenze), II, 1989, pp. 5-15; alternatively to be cautiously identified with Girolamo di Domenico in id. in L. Bellosi, ed., Francesco di Giorgio e il Rinascimento a Siena 1450-1500, exh. cat., Sant'Agostino, Siena 1993, pp. 424-7; or with Pietro d'Andrea da Volterra in id., 'Pinturicchio e i pittori senesi: dalla Roma dei Borgia alla Siena di Pandolfo Petrucci' in M. Caciorgna, R. Guerrini and M. Lorenzoni, ed., Studi interdisciplinari sul Pavimento del Duomo d Siena: iconografia, stile, indagini scientifiche. Atti del Convegno internazionale di studi (Siena, Chiesa della SS. Annunziata, 27 e 28 settembre 2002), Siena 2005, pp. 83-09, and id., 'Pintoricchio e i suoi: dalla Roma de Borgia alla Siena dei Piccolomini e dei Petrucci', in Angelini ed., Pio II e le arti. La riscoperta dell'antico da Federighi a Michelangelo, Siena 2005, pp. 483-553, esp. pp. 497-9. None of these solutions is entirely satisfactory.
- 6 C. de Carli, I deschi da parto e la pittura del primo rinascimento toscano, Turin 1997, pp. 178–9. This was first attributed to the anonymous master by De Nicola 1917 (cited in note 4), p. 227, note 9. See note 22 below.
- 7 The attribution of another group, the female personifications of the three theological virtues, to the Griselda Master does not appear to be correct. See L. Vertova, 'Cicli senesi di virtù: inediti di Andrea di Niccolò e del Maestro di Griselda' in M. Natale, ed., Scritti di storia dell'arte in onore di Federico Zeri, Milan 1984, pp. 200–12, esp. pp. 205–12, supported in part by L.B. Kanter in K. Christiansen, L.B. Kanter, C.B. Strehlke, Painting in Renaissance Siena, 1420–1500, exh. cat., Metropolitan Museum of Art, New York 1988, pp. 344–51, cat. 75 a–c; id. 'Rethinking the Griselda Master', Gazette des Beaux-Arts, CXLII, February 2000, pp. 153–4, esp. pp. 469–7, note 5. Rejected by M. Boskovits, 'Master of the Griselda Legend' in M. Boskovits and D.A. Brown, Italian Paintings of the Fifteenth Century: The Collections of the National Gallery of Art. Systematic Catalogue, Washington 2003, pp. 496–504, esp. p. 496, note 5.
- 8 A.B. Barriault, Spalliera Paintings of Renaissance Tuscany: Fables of Poets for Patrician Homes, University Park, Pa. 1994, pp. 118–19, 148–9, cat. 9.
- 9 G.F. Waagen, Treasures of Art in Great Britain: being an account of the chief collections of paintings, drawings, sculptures, illuminated mss., IV, London 1857, p. 75. Waagen writes, rather touchingly, 'Besides this, Mr. Barker possesses several more pictures of a frieze-like form, which he also attributed to Pinturicchio. As my mislaid notices refer to these, my memory only serves to state that two of them [probably two of these paintings] represent scenes from a tale with which I am unacquainted, that they are full of animated and often very graceful motives, unequal in execution, sometimes careful and sometimes sketchy. Generally speaking the proportions are of a length, compared with the small heads, such as I have never seen in the authentic pictures by Pinturicchio.'
- 10 Catalogue of the Renowned Collection of Works of Art formed by that distinguished connoisseur, Alexander Barker, Esq. ... Christie, Manson and Wood, 8 King Street, London, 6,8–11 June 1874, p. 17, lots 85–7.
- 11 V.Tátrai, 'Il Maestro della Storia di Griselda e una famiglia senese di mecenati dimenticata', Acta historiae artium Academiae Scientiarum Hungaricae, XXV, 1979, pp. 27–66.
- 12 For the Spannocchi brothers and their wedding see A. Lisini, Medaglia d'Antonio Spannocchi, Milan 1908; U. Morandi, 'Gli Spannocchi: piccoli proprietari terrieri, artigiani, piccoli, medi e grandi mercanti-banchieri', in Studi in memoria di Federigo Melis, III, Naples 1978, pp. 91–120.
- 13 This information and the most detailed account of the wedding ceremonies is given in I. Ugurgieri Azzolini, Le Pompe sanesi, o' vero, relazione delli huomini e donne illustri di Siena, e suo stato, Pistoia 1649, p. 323-4. He evidently based his account on a family chronicle: 'per quanto si legge in un antico manuscritto, che è nelle mani del dottissimo Pandolfo Spannocchij, e in alter croniche della nostra città.' Confirmation for the existence of the temporary arch comes in the account by Allegretto Allegretti, Ephemerides Seneses ab anno MCCCCL usque ad MCCCCXCVI italico sermone scriptae, in L. Muratori, ed., Rerum Italicarum Scriptores, XXIII, Milan 1733, p. 840: 'Adi 17. di Gennaio 1493 [i.e. 1494]. Venne in Siena

Donna di Giulio d'Ambrogio Spannocchi con bella compagnia, & entrò alla Porta Tufi, e uscì alla Porta Nuova, e scavalcò al Palazzetto dell' Erede di Miss. Francesco Tolomei a Maggiano ... e la mattina adì 19. in Domenica fu gran freddo, e gran vento; e questo dì fanno le Nozze. E menò Donna Antonio e Giulio Spannocchi con grandissimo trionfo e onore, e con grande spesa, e con un grande Difizio d'un'Arco Trionfale alla Porta delli Spannocchi, che costà più che 100. Ducati.'

- See B. Berenson, Italian Pictures of the Renaissance. Central Italian and North Italian Schools, I, London 1968, p. 252: 'Longleat (Wilts.). MARQUESS OF BATH. Two cassone fronts with Roman subjects (also listed Bartolomeo di Giovanni).' For Bartolomeo see most recently, N. Pons, ed., Bartolomeo di Giovanni: collaboratore di Ghirlandaio e Botticelli, exh. cat., Museo di San Marco, Florence 2004. For the Longleat panels, see L. Syson in B. Santi and C. Strinati ed., Siena e Roma. Raffaello, Caravaggio e i Protagonisti di un Legame Antico, exh. cat., Santa Maria della Scala, Palazzo Squarcialupi, Siena 2005, pp 199–203, cat. 2.18–20.
- Vasari-Milanesi, III, p. 275. See J.K. Cadogan, Domenico Ghirlandaio: Artist and Artisan, New Haven and London 2000, p. 288, no. 73 (under 'Lost Works'). 16 Ibid., pp. 374-5, doc. 43.
- Thus Tátrai's suggestion that when, in 1625–6, Fabio Chigi listed 'In casa 17 Spannocchij, ivi Alisandro Botticello' among the paintings to be then found in Siena, he might have been looking at the Griselda paintings with their Botticelli Venus-like female nude, becomes highly plausible. See Tátrai 1979, p. 61 (cited in note 11).
- 18 Boskovits 2003 (cited in note 7), pp. 496–504, esp. p. 496: 'For the moment Signorelli remains the central point of reference for the anonymous master. Not only does the latter imitate Luca's free and easy brushwork, he also re-proposes the gravity of gesture and elegance of pose seen in Signorelli's work along with his dark, gloomy shadows. The fact, too, that the Master of Griselda, while borrowing Signorelli's compositional formulas with such easy confidence, modifies and over-emphasises them, seems to point to a long acquaintance with the master's style. It is very likely that in the years around 1490 the Master of Griselda was in Signorelli's workshop and received his training there.'
- 10 Kanter 2000 (cited in note 7), p. 153.
- 20 E Sricchia Santoro, 'Francesco di Giorgio, Signorelli a Siena e la capella Bichi' in Bellosi ed. 1993 (cited in note 5), pp. 420-3; L.B. Kanter and T. Henry, Luca Signorelli: the Complete Paintings, London 2002, pp. 20-1, 168-72, cat.12-6. One of these also appears in his Court of Pan (ex-Berlin, destroyed).
- Other relevant works such as the lost Court of Pan and the Berlin Portrait of 21 a Man (see Kanter and Henry 2002, cited in note 20, pp. 26, 172-3, 174, cat. 18, 20) may also have been painted in Siena. The Annunciation in Volterra seems to be the only certainly non-Sienese painting that may have had some impact upon the Griselda Master, who seems to have used the arcade in which the Virgin stands as the model for his architecture in Reunion.
- Certainly in his bacchic tondo, probably the Griselda Master's earliest surviving independent work (see note 6), most recently sold by Galerie Canesso in Paris to a private collector, the figure style shows little sign of non-Sienese influence and almost nothing of Signorelli (even if an iconographic model might have been the destroyed Court of Pan canvas). Instead the elongated figures have more in common with those by Benvenuto di Giovanni and, in particular, those in drawings by Francesco di Giorgio.
- 23 Angelini 2005 (cited in note 5), p. 91.
- Where he may also have seen works by Botticelli. It is hard to imagine 24 that the female nude in Marriage could have been painted without seeing Botticelli's mythologies.
- V. Garibaldi, F.F. Mancini ed., Perugino, il Divin Pittore, exh. cat. Galleria 25 Nazionale dell'Umbria, 2004, pp. 236–7, cat. 1.33.
- 26 F. Zeri (Italian Paintings in the Walters Art Gallery, I, Baltimore 1976, pp. 135-8) said of the diminutive figures seen throughout the Baltimore picture that 'these reveal a hand very close to the anonymous painter called the Master of the Griselda Legend', an intriguing association, even if they are not in fact the same.
- A. Bagnoli in Bellosi ed. 1993 (cited in note 5), pp. 410-13, cat. 87. 27
- At the National Gallery, these include the two panels by Botticelli from the Saint Zenobius series (NG 3918 and 3919) and Piero di Cosimo's A Satyr mourning over a Nymph (NG 698).
- See, for example, the paintings comissioned by his father for the marriage 29 of Pierfrancesco Borgherini to Margherita Acciainoli in 1515, a series to which Pontormo is thought to have made the last contribution in c. 1517-18. See J. Sheerman, Andrea del Sarto, Oxford 1965, II, p. 233.
- In Francesco di Giorgio's Annunciation (Siena, Pinacoteca Nazionale) the straight lines of the architecture are also ruled in ink instead of being incised; see L.L.Bellosi, 'Il "vero" Francesco di Giorgio e l'arte a Siena della seconda metà del Quattrocento' in Bellosi ed. 1993 (cited in note 5), pp 19-89, esp. p. 37, fig. 30.

- 31 In a paint sample that includes underdrawing in the layer structure, iron was detected by EDX analysis. This, together with the appearance of the drawing in infrared and also the distinctive cracking of the drawing material and of any paint applied over lines drawn with it, suggest that it is iron-gall ink. For other examples of cracking in underdrawings executed with iron-gall ink see J. Kirby, A. Roy and M. Spring, 'Materials of Underdrawing' in D. Bomford, ed., Art in the Making: Underdrawing in Renaissance Paintings, London 2002, pp. 26-37, esp. pp. 31-2.
- 32 In their stiffness of pose they are close in style to the bacchic tondo, probably his earliest independent known work; see notes 6 and 22.
- The source for these spiralling folds, more extreme than any by Francesco di Giorgio, is possibly the draperies of Liberale da Verona and Girolamo di Cremona, for instance those of the figure in Graduals 21.6, 32.1A from the Piccolomini Library. See C. Del Bravo, Liberale di Verona, Florence 1967, pp. LXX-LXXV.
- 34 See D. Bomford, A. Roy and L. Syson, 'Gilding and Illusion in the Paintings of Bernardino Fungai' in this Bulletin, p. 111.
- Neroccio's Saint Benedict predella (Florence, Uffizi) includes relatively small-35 scale figures with draperies ornamented in this way (see note 65 below).
- 36 Rocks in the background of the Longleat panel showing Scenes from the Life of Alexander the Great are similarly highlighted with gold. Their morphology, and the somewhat screen-like distribution of the trees, suggest an association with the Griselda panels.
- See C. Higgitt, M. Spring, A. Reeve and L. Syson, 'Working with 37 Perugino: The Technique of an Annunciation attributed to Giannicola di Paolo' (in this Bulletin pp. 96-110 and esp. note 12). Until many more paintings have been examined, it is not possible to determine how widespread the use of gum ammoniac was.
- For publication of the results of medium analysis in the form of tables see 38 C. Higgitt and R. White, 'Analyses of Paint Media: New Studies of Italian Paintings of the Fifteenth and Sixteenth Centuries', National Gallery Technical Bulletin, 26, 2005, pp. 89, 99-100.
- For an account of this phenomenon see C. Higgitt, M. Spring and D. Saunders, 'Pigment-medium Interactions in Oil Paint Films containing Red Lead or Lead-tin Yellow', National Gallery Technical Bulletin, 24, 2003, pp. 75-95.
- There are many instances of azurite and also malachite being used in oil, especially in northern European paintings, but nearly always mixed with some white or lead-tin yellow pigment. It is extremely difficult, however, to apply coarsely ground mineral pigments such as those on the Griselda panels in oil if they are used alone - they do not flow easily from the brush and have poor coverage. Pure azurite and malachite are more amenable in water-based media. In addition, the less saturating medium of egg tempera would have shown off better the intrinsic properties and colours of the pigments.
- Associated with the azurite is a small amount of a distinctive yellowishgreen complex copper mineral (EDX analysis detected Cu, Sb, Zn and As), together with some dolomite, both of which may be indicative of the source of the mineral pigment. Azurite with impurities of this composition occurs in Austrian paintings from the late fifteenth century and it has been suggested that it is a secondary mineral originating from the Fahlerz found in Schwaz in the Tyrol at the historic copper and silver mines that reached their peak in the sixteenth century; see H. Paschinger and H. Richard, 'Blaupigmente der Renaissance und Barockzeit in Österreich', Naturwissenschaften in der Kunst, Beitrag der Naturwissenschaften zur Erforsching und Erhaltung unseres kulturellen Erbes, Herausgegeben von Manfred Schreiner, 1995, pp. 63-6. Other Sienese panels in the National Gallery painted with azurite containing these impurities include Matteo di Giovanni's Saint Sebastian (NG 1461) and Benvenuto di Giovanni's Madonna and Child (NG 2482). Since similar impurities were found in the mineral malachite in the Griselda panels, it may therefore come from the same source. They were also found in the malachite in Matteo di Giovanni's Saint Sebastian (NG 1461), Orioli's Nativity (NG 1849), as well as in works associated with Botticelli's workshop. Occurrences of malachite with this distinctive mineral composition are fairly widespread, and so cannot be said to be characteristic of Sienese paintings; see also E. Martin, A. Duval, M. Eveno, 'Une famille de pigments verts mal connue', Techne, 2, 1995, pp. 76-9. We are grateful to Marika Spring for providing the information in this note.
- EDX analysis showed that the red lake pigment is relatively high in phosphorus, which is usually indicative of an insect source for the dyestuff. The dyestuff from the kermes insect was identified by HPLC. For phosphorus in insect-derived dyestuffs and the extraction of kermes from silk see J. Kirby, M. Spring and C. Higgitt, 'The Technology of Red Lake Pigment Manufacture: Study of the Dyestuff Substrate', National Gallery Technical Bulletin, 26, 2005, pp. 71-85.

- 43 For the use of powdered glass as a drier see A. Roy, M. Spring and C. Plazzotta, 'Raphael's Early Work in the National Gallery: Paintings before Rome', National Gallery Technical Bulletin, 25, 2004, pp. 4–35, esp. p. 11, and M. Spring, 'Perugino's painting materials: analysis and context within sixteenth-century easel painting', Postprints of the workshop on the painting technique of Pietro Vannucci, called il Perugino, organised by INSTM and LabS-TECH, Perugia, April 14–15 2003, Quaderni di Kernes, 2004, pp. 17–24.
- 44 A much later example of the use of egg tempera to achieve bright white highlights on a damask table-cloth in a work painted otherwise in oil is Caravaggio's Supper at Emmaus (NG 172); see L. Keith, 'Three Paintings by Caravaggio', National Gallery Technical Bulletin, 19, 1998, pp. 37–51, esp. p. 22.
- 45 The technique is more commonly associated with painters from Northern Italy, including Mantegna, Schiavone, Zoppo and especially Carlo Crivelli. It also appears in paintings by Fra Angelico and his followers, including Benozzo Gozzoli, and in Umbria in works by Benedetto Bonfigli, but does not appear to have been widely used by Sienese painters. The marbling on Francesco di Giorgio's Saint Dorothy and the Infant Christ (NG 1682) and Benvenuto di Giovanni's Virgin and Child with Saint Peter and Saint Nicholas (NG 909), to take two examples from Sienese paintings at the National Gallery, is quite clearly painted in streaks with a brush.
- 46 They include Francesco di Giorgio, Neroccio de' Landi, Pietro Orioli and Benvenuto di Giovanni. In Florence the most important workshop still using green earth underpaintings for flesh was that of the Ghirlandaio brothers. Some of the Umbrian followers of Perugino (although not, it seems, Perugino himself) also employed the technique: see C. Higgitt, M. Spring, A. Reeve and L. Syson (pp. 96 of this *Bulletin*).
- 47 For the most compelling account of these pictures, see R. Bartalini in Bellosi ed. 1993 (cited in note 5), pp. 462–9, cat. 103.
- 48 When the *Tiberius Gracchus* is first recorded in the Esterházy Collection.
- 49 It has sometimes been thought that two other paintings in Boston and Tours and another group of three by Girolamo di Benvenuto and an artist close to Genga in private collections were also part of the series (for the former see B. Berenson, 'Les peintures italiennes de New York et de Boston', Gazette des Beaux-Arts, ser.iii, Vol. XV, 1896, pp. 195–214, esp. pp. 205–7 (attributed to Peruzzi); P. Hendy, The Isabella Stewart Gardner Museum. Catalogue of Paintings, Boston 1931, pp. 333–5; A.S. Weller, Francesco di Giorgio, 1439–1501, Chicago 1943, p. 295; for the latter see R. Longhi, 'Un intervento Raffaellesco nella serie "eroica" di Casa Piccolomini', Paragone, 175, 1964, pp. 5–8 – opinions now rightly and universally excluded.
- 50 See M. Natale, Museo Poldi Pezzoli Dipinti, Milan 1982, pp. 149-51, cat 184.
- 51 P. Scarpellini, 'Pietro Perugino e la decorazione della sala dell'Udienza' in Scarpellini ed., Il Collegio del Cambio di Perugia, Milan 1998, pp. 67–106, esp. pp. 97–105.
- 52 L. Venturi (trans. C. van den Heuvel and C. Marriott), *Italian Paintings in America*, vol. II, 1933, pl. 280, accompanying text.
- 53 First proposed by H. Comstock, 'Suggested identification for Signorelli's classical figure', *Connoisseur*, 94, October 1934, pp. 258–60, with a source in Plutarch's *Moralia (Quaestiones Grecae*, 40). Followed by most commentators subsequently. See especially L. Parri, 'Eunosto di Tanagra: un "eroe" Greco sconosciuto nel ciclo tardo-quattrocentesco senese denominato "Spannocchi-Piccolomini", *Bollettino senese di storia patria*, XCVIII, 1991, pp. 287–98.
- 54 M. Caciorgna, 'Da Eunosto di Tanagra a Giuseppe Ebreo. Un dipinto del ciclo "Piccolomini" a Washington', *La Diana*, I, 1995, pp. 235–58. Followed, for example, by Boskovits 2003 (cited in note 7), p. 502, n. 6.
- 55 P. Scarpellini, *Perugino*, Milan 1984, p. 82, cat 43.
- 56 Bellosi ed. 1993 (cited in note 5), pp. 308-9, cat. 58.
- 57 The panel was first tentatively identified as Artemisia by Coor (G. Coor, Neroccio de' Landi, 1447–1500, Princeton 1961, p. 95, n. 331), although she noted that 'the scene in the right middle distance, in which the main protagonist appears for the third time, remains unexplained'. This identification was accepted by Tátrai 1979 (cited in note 11), pp. 37–8, and subsequently by Caciorgna. Caciorgna, however, misidentifies the woman in pink and white in the scene on the right as Artemisia.
- 58 Scarpellini 1984 (cited in note 55), p. 101, cat. 106; Garibaldi and Mancini, ed. 2004 (cited in note 25), pp. 234–5, cat 1.32.
- 59 See R. Toledano, Francesco di Giorgio Martini, pittore e scultore, Milan 1987, pp. 106–8, cat. 40.
- 60 Kanter 2000 (cited in note 7), pp. 150-1.
- 61 This collaboration was first proposed by De Nicola 1917 (cited in note 4), p. 227, and has been almost uniformally accepted since.
- 62 Though the putti were in fact once thought by Berenson to be the work of the Griselda Master. See Berenson 1931 (cited in note 3).
- 63 Coor 1961 (cited in note 57), p.95; Boskovits 2003 (cited in note 7), p. 538.
- 64 Kanter 1988 (cited in note 7), p. 344; id. 2000 (cited in note 7), pp. 148-50.

Followed by Boskovits 2003 (cited in note 7), p. 538.

- 65 Coor 1961 (cited in note 57), pp.167-8, 187, 191-2, cat 17, 55, 63.
 - See De Nicola 1917 (cited in note 4), pp. 227-8. Although, this is Kanter's theory in relation to the Scipio, he denies the Griselda Master's involvement in the latter picture, 1988 and 2000 (cited in note 7), p. 344 and p. 150. R.L. Mode, 'Ancient paragons in a Piccolomini scheme' in R. Enggass and M. Stokstad, ed., Hortus imaginum: Essays in Western Art, Lawrence 1974, pp. 73-83, esp. p. 77, dated the Scipio to c.1494-5, believing that 'the Griselda Master was the ultimate reconciler of scenic disparities during the successive phases of the uomini famosi project'. Gertrude Coor had a still more complicated theory whereby the 'whole series was commissioned to Signorelli' but the main figures in three of the eight (i.e. Alexander, Eunostos and Tiberius Gracchus) and all of the Artemisia were executed by one of two assistants assigned to the project (one of his sons). while the Griselda Master, whom she considers another Signorelli assistant, was responsible for the backgrounds of the three heroes painted by Signorelli's son and those in the paintings by Francesco di Giorgio and Neroccio. By these complicated means, she explains the undoubted disparity between the Artemisia landscape and background figures and those in the other panels. See Coor 1961 (cited in note 57), pp. 94-5.
 - 7 A. Angelini, 'Da Giacomo Pacchiarotti a Pietro Orioli', *Prospettiva*, 30, 1982, pp. 72–78; id. 'Pietro Orioli e il momento "urbinate" della pittura senese del Quattrocento', *Prospettiva*, 30, 1982, pp. 30–43.
- 68 M. Caciorgna in M. Caciorgna, R. Guerrini, La Virtu Figurata. Eroi ed Eroine dell'artichità nell'arte senese tra Medioevo e Rinascimento, Siena 2003, pp. 333-5.
- 59 Bellosi ed. 1993 (cited in note 5), pp. 444-7.
- The inclusion of this panel was first proposed in 1941 and argued more 70 fully by Coor 1961 (cited in note 57), p. 94, note 329. This suggestion has been credited by a majority of critics. See Longhi 1964 (cited in note 49), p. 7; F. Rusk Shapley, Paintings from The Samuel H. Kress Collection, 1, Italian Schools, XIV-XV Century, London 1966, pp. 157-8; Mode 1974 (cited in note 66), p. 76; Zeri 1976 (cited in note 26), I, pp. 135-7; Tàtrai 1979 (cited in note 11), p. 38; E. S. Trimpi, 'Matteo di Giovanni: Documents and a Critical Catalogue of his Panel Paintings', PhD diss., University of Michigan 1987, p. 114, cat 14; C.E. Gilbert, 'On Castagno's Nine Virtuous Men and Women: Sword and Book as the Basis for Public Service' in M. Tetel, R.G. Witt and R. Goffen, eds, Life and Death in Fifteenth-Century Florence, Durham and London 1989, pp. 174-92, 242-6, esp. pp. 190-2; Bartalini 1993 (cited in note 70), p. 462; Barriault 1994 (cited in note 8), p. 151; Gilbert 1996 (cited in note 5), p. 684; M. Caciorgna, 'Temi profani e tradizione classica nella bottega di Matteo di Giovanni. L'esempio di Clelia' in D. Gasparotto, S. Magnani, eds, Matteo di Giovanni e la pala d'altare nel senese e nell'aretino, 1450-1500, pp. 189-97, esp. p. 190. More recently, it was challenged by M. Natale 1982 (cited in note 50), p. 150; A. De Marchi in F. Sricchia Santoro, ed., Da Sodoma a Marco Pino. Pittori a Siena nella prima metà del Cinquecento, Siena 1988, p. 85; Boskovits 2003 (cited in note 7), p. 502, note 11.
- 71 Gilbert 1989 (cited in note 70), pp. 190–92.
- 72 Though, as Bartalini 1993 (cited in note 70), p. 462, points out, she appears elsewhere with other famous women of classical derivation.
- 3 Coor points out that Artemisia, Sulpitia, Tiberius Gracchus, Scipio Africanus, Alexander and Judith all appear in Petrarch's *Trionfi*. See Coor 1961 (cited in note 57), p. 95, note 331. Judith, 'casta e forte', perhaps crucially, is included among a series of classical heroines, though none of these in the procession of the Triumph of Chastity. We should not forget that the story of Judith is included among the scenes on the Duomo pavement, the cartoon almost certainly furnished by Francesco di Giorgio, with a city on the left and an encampment on the right, as in the underdrawing of the Bloomington panel.
- 4 See Mode 1974 (cited in note 66), p. 75, who considered 'the first pair in the series' Judith and Scipio Africanus. It is sometimes thought that further panels may have been painted. Gilbert, for example, suggests that a panel of Hippo may be missing, Gilbert 1996 (cited in note 5), p. 684. Trimpi 1987 (cited in note 70), p. 115, points out that E. Romagnoli saw 'due fatti eroici' by Matteo in the Palazzo Spannocchi before 1835, perhaps indicating the presence of another picture. However this description is unlikely to refer to the Judith.
- 75 The subject had already been treated in Siena in the 1470s in the workshop of Liberale da Verona. The subject of a *cassone* panel displayed in New York in 1988 was not identified at the time of the exhibition (see K. Christiansen in Christiansen, Kanter, Strehlke 1988 [cited in note 7], pp. 297–8, cat 58), but the mount annotated by Elizabeth McGrath in the photo collection, Warburg Institute, London, notes that it depicts the assassination of the son, still feasting in this scene. She appears as one of Castagno's famous men and women from the Villa Volta di Legnaia (now

Uffizi), albeit without the head of Cyrus. Mentioned by Valerius Maximus, IX.10, ext.1. It is just possible that the heroine brandishing a sword and a decapitated head at Montalcino (see note 87 below), who is missing her inscription and has similarly been identified as Judith, is also Tomyris, since there too she would be the only Old Testament figure in a row of Greek and Roman worthies (however, admittedly David and Joshua are represented elsewhere in the room and the presence of Judith here might support her identification in Matteo's panel).

- 76 Mode considered the most likely patron Giacomo di Nanni Piccolomini. See Mode 1974 (cited in note 66), p. 75.
- 77 See Bartalini 1993 (cited in note 70), pp. 462-9.
- 78 Bartalini has suggested that the Joseph panel may have inspired Girolamo di Domenico in his frescoed figure of Saint Sigismond at the Oratorio di San Rocco, Seggiano, finished by mid-1493. Kanter and Boskovits, however, did not find this comparison compelling, and indeed the similarity seems generic rather than specific.
- 79 This view was first posited by Berenson 1931 (cited in note 3), p. 753, supported by Coor 1961 (cited in note 57), p. 94, and has been restated most recently by Boskovits 2003 (cited in note 7), p. 503, note 24: 'The close affinities between the Master of Griselda's and Signorelli's styles on one hand, and the unknown artist's relative isolation in the Sienese cultural context on the other, makes it very probable that he received this prestigious commission through Signorelli. The limited number of contributions of his Sienese colleagues seems to indicate that their collaboration was not planned from the beginning, but was instead the result of a decision taken after the work had begun.'
- 80 The theory of a lengthy commission was based in the past partly on the assumption that the *Sulpitia* was the work of Pacchiarotto and partly on a supposed date of 1498 for Signorelli's Bichi panels, in which the Magdalen has correctly been identified as the source for Artemisia. See e.g. Coor 1961 (cited in note 57), p. 94, note 329, who wrote 'Matteo di Giovanni's death date, 1495, furnishes a *terminus ante quem* for the beginning of the series of Virtuous Men and Women. The *Judith* was probably the first painting of this series, closely followed by the *Claudia Quinta, Scipio Africanus, Eunostos of Tanagra*, [sic] *Tiberius Gracchus* and *Alexander the Great.* The last painting from Signorelli's shop seems to have been the *Virtuous Woman* in Milan [not yet identified] ... This figure is compositionally and stylistically close to the Mary Magdalen in the left panel of Signorelli's altarpiece wings of 1498 [sic] for the altar of St. Christopher in Sant'Agostino, Siena ... The last painting in the whole series, Pacchiarotto's *Sulpicia* ... is usually dated close to c.1500.
- 81 Kanter 2000 (cited in note 7), p. 151. Mode 1974 (cited in note 66), p. 74, also believed that the project was 'carefully carried out in stages, not pushed to completion'. Earlier theories of a lengthy gestation for the project were founded in part by the belief that Pacchiarotto was responsible for the Baltimore *Sulpitia*, and the painter's supposed birth date (not before 1474). Ludwin Paardekooper has recently challenged Erica Trimpi's assertion that Matteo died in 1497, preferring Romagnoli's date given as 1 June 1495. See L. Paardekooper, 'Matteo di Giovanni e la tavola centinata' in D. Gasparotto and S. Magnani (eds), *Matteo di Giovanni e la pala d'altare nel senese e nell'aretino, 1450-1500*, Montepulciano 2002, pp.19–37, esp. p. 31.
- 82 Sienese panels of this period often seem to have been of exceptionally solid construction: a *Virgin and Child* by Benvenuto di Giovanni in the Collection (NG 2482) measures only 61.5 × 42 cm, yet the panel is four cm thick.
- 83 We owe this and many other points concerning the manufacture of the panels to our discussions during the examination of *Scipio* with Ciro Castelli of the Opificio delle Pietre Dure, Florence.
- 84 X-ray opaque putties are visible in some of the radiographs, especially those of *Alexander the Great* and *Sulpitia* (FIGS 13 and 14), but these were applied later, often to fill the holes made by attempts to remove the nails from the battens.
- 85 Since scored lines to guide the carpentry are also present on the Griselda panels, it could be argued that both sets of panels were made by the same carpenter. However, such incisions are probably relatively common.
- 86 The top of *Claudia Quinta* is also similarly flattened, and probably for the same reason rather than a later trimming of the panel as has usually been supposed. A piece of wood one cm high (not original) is now attached to the top of the arch with nails and screws.
- 87 The Cozzarelli panels are illustrated in Siena e Roma: Raffaello, Carvaggio e i protagonisti di un egame antico, exh. cat., Santa Maria della Scala, Palazzo Squarcialupi, Siena 2005–6, cat. no. 2.15, pp. 194. For the Tamagni frescoes, see R. Guerrini, Vincenzo Tamagni e lo scrittoio di Montalcino, Siena 1991, p. 31.
- 88 A parallel case might be the piecemeal execution and delivery of the Mercanzia panels (also arch-topped) painted by Piero del Pollaiuolo and Botticelli, although these panels (much larger than the Virtuous Men and

Women) were almost certainly at least at first framed individually see A. Wright, *The Pollaiuolo Brothers: The Arts of Florence and Rome*, New Haven and London 2005, pp. 228–30 and 241.

- 89 Since the lead-containing paint of the sky has been removed in incising the profiles they appear dark in the X-ray image. In the X-radiographs of *Claudia Quinta* and *Sulpitia*, for instance, the incisions are mostly filled with the sky paint and therefore show as white.
- 90 On Sulpitia and Claudia Quinta the incised arcs are complete but they and the originally unpainted gesso above have now been covered by later repainting.
- 91 At the National Gallery large Sienese panels of this period with their original carpentry include Matteo di Giovanni's Assumption of the Virgin (NG 1155), which has wide shallow battens set into dovetail channels, and Orioli's Nativity with Saints (NG 1849) which has two horizontal battens running through ponticelli.
- 92 This suggestion was made by Roberto Bellucci during discussion of the panel of *Scipio* and is supported by the presence of jagged gouge marks in the wood of *Alexander* where the chisel seems to have slipped in the effort of levering up the battens.
- 93 There is no obvious provision for the fitting of the Cozzarelli panels (see note 87) in their frame; nor does there seem to be any indication as to their original fitting. They are now held by metal straps across their corners. We are grateful to the owner of these pictures for giving us access to them.
- 94 The loss that can most clearly be associated with the removal of the battens is the oval one to the right of the figure and level with the frame projections. The two very large losses from the sky are more likely to be associated with the transfer from the original panel. There is a smaller loss at the expected level in the figure's chest, while the absence of any sign of a nail on the left can be explained by the likelihood of it not having been hammered through the full thickness of the panel not all the nails have caused disruption of the surfaces of the panels.
- 95 We are grateful to Giorgia Mancini for her dating of this script.
- 96 All the letters can just be made out, the most distinctive being the tail of the 'z'; the final 'o' is partly covered by a label.
- This issue is by no means straightforward. Various attempts at a chronology unifying sources from Antiquity and the Old Testament were made in Italy and elsewhere in Europe during the fifteenth century, and there also existed independent visual traditions such as the Neuf Preux, known in Italy. The most relevant are likely to have been Giotto's sequence commissioned by Robert d'Anjou for his Castelnuovo in Naples, nine men (and perhaps the nine women whom their accompanying inscriptions condemned), two from the Old Testament (Solomon and Samson), two from ancient history (Alexander and Julius Caesar) and five from ancient myths who may have been regarded as properly historical. We do not unfortunately know their order. Still more relevant was the vast cycle commissioned by Cardinal Giordano Orsini for his palace on Monte Giordano, Rome, of which there survive manuscript copies and written descriptions. This placed Joseph in the 'Third Age', Alexander in the 'fifth', followed by Scipio in the same age. Neither Tiberius or Eunostos were included. Judith appears at the beginning of the 'Fifth Age', post-dating Lucretia, who who might be held to stand for the Roman Republican heroines in the 'fourth'. See R.L. Mode, 'The Monte Giordano Famous Men Cycle of Cardinal Giordano Orsini and the Uomini Famosi Tradition in Fifteenth Century Art', PhD. diss., University of Michigan 1970, passim; A. Amberger, Giordano Orsinis Uomini Famosi im Rom: Helden der Weltgeschichte im Frühhumanismus, Munich and Berlin 2003, passim. Cozzarelli's heroines in the Chigi Zondadori triptych show a Greek (Hippo), followed by an Etruscan (Camilla) and a Roman (Lucretia). This matter requires further research.
- Caciorgna 1995 (cited in note 54), pp. 243-4. She also states that the staff that the main figure holds is a baton of command which she links to Genesis 41: 'And Pharaoh said unto Joseph, Forasmuch as God hath shewed thee all this, there is none so discreet and wise as thou art: Thou shalt be over my house, and according unto thy word shall all my people be ruled: only in the throne will I be greater than thou. And Pharaoh said unto Joseph, See, I have set thee over all the land of Egypt. And Pharaoh took off his ring from his hand, and put it upon Joseph's hand, and arrayed him in vestures of fine linen, and put a gold chain about his neck; And he made him to ride in the second chariot which he had; and they cried before him, Bow the knee: and he made him ruler over all the land of Egypt. And Pharaoh said unto Joseph, I am Pharaoh, and without thee shall no man lift up his hand or foot in all the land of Egypt.' If a reference to this passage was intended, it might be thought odd that no ring or chain is depicted. The staff is perhaps explained as a symbol of princely status: Eunostos after all was the son of Elieus, king of Tanagra.

- 99 L. Parri 1991 (cited in note 53).
- 100 It is possible that these are accidental marks, some of them derived from water stains or related to the woodgrain, and that the Women were not numbered.
- 101 See Bocaccio, *Famous Women*, ed.V. Brown, Cambridge, MA, and London 2003.102 The opportunity to examine the four panels together was immensely
- valuable and we are particularly grateful to all those who made it possible.
- 103 The mounting and examination of paint cross-sections was carried out by Marika Spring at the National Gallery of London and Michael Palmer at the National Gallery of Art, Washington. Jo Kirby performed HPLC analysis of red lake samples from the British paintings. In London the medium analysis by FTIR and GC–MS was undertaken by Catherine Higgitt and in Washington GC–MS was executed by Suzanne Quillen Lomax. Michael Palmer also carried out staining tests on the crosssections since these can give indications as to the presence of different media in the layer structure. In addition Lisha Glinsman carried out XRF analysis on areas of white in *Tomyris* to confirm the different composition of the lead white pigment on the added parapet.
- 104 The idea that the *Scipio* and a high proportion of the other paintings traditionally given to Francesco di Giorgio were actually painted by an anonymous assistant, the so-called 'Fiduciario di Francesco' (Toledano 1987 [cited in note 59] and Bellosi ed. 1993 [cited in note 5], p. 262, cat. 103), seems to us unsustainable, and especially in the case of *Scipio*, which, as will be shown, was executed with a boldness and degree of creative improvisation that seem characteristic of a master developing a project rather than a faithful executor of his instructions.
- 105 Reproduced in Bellosi ed. 1993 (cited in note 5), cat. no. 56, pp. 300–4. On a smaller scale, the Annunciation in the Pinacoteca Nazionale has similar underdrawing, as does the Nativity, now shared by the National Gallery of Art, Washington, and the Metropolitan Museum, New York.
- 106 Saint Dorothy with the Infant Christ (NG 1682), admittedly an early work, is in egg tempera, as is the Washington/New York Nativity and most of Francesco's panel paintings have the appearance of, and are described as, tempera paintings. The Nativity with Saints Bernard and Thomas Aquinus (Siena, Pinacoteca Nazionale) is reported as having final touches in oil (see Bellosi ed. 1993, cited in note 5, cat. no. 61. p. 314).
- 107 Kanter and Henry 2002 (cited in note 20), p. 174, cat 20. Comparison with Francesco di Giorgio's medal suggests that he might be identified as Jacopo Petrucci, which would mean that the portrait was accessible to Sienese painters
- 108 This was confirmed by overlaying and flipping tracings of a putto, in this instance from *Alexander*, but the same process was carried out on the other panels to confirm that designs had been reversed.
- 109 Similar thin and rather tentative underdrawing features in Neroccio's Portrait of a Lady in Washington, although here the outline of the face has been transferred from a cartoon by pouncing. The underdrawing on the much larger altarpiece of The Virgin and Child with Saints, also in Washington, is bolder, but the lines of underdrawing have been made with a remarkably fine brush for the size of painting, and the lines of hatched shading tend to be irregular in length and spacing.
- 110 The pigments were identified by EDX analysis of the cross-section. Medium analysis was by GC–MS. A small amount of oil was found as well as the egg, but this could well have come from a subsequent varnish layer.
- 111 GC–MS analysis of samples at both Washington and London found both egg and oil; but staining tests and FTIR seemed to indicate that egg was used for the lead white underpaint. Both media were identified in the red lake and vermillion layer, the samples varying in the amount of oil present (confirmed as walnut). On balance, therefore, the paint is probably a *tempera grassa* rather than an egg layer contaminated by later oil varnishes. Significant amounts of phosphorus were detected throughout the red lake layer, an indicator of an insect source for the dystuff (see note 42).
- 112 See note 64.
- 113 The lines of drawing are more visible in infrared than is usually the case with paintings by the Griselda Master; presumably the ink has a higher carbon content.
- 114 Confirmed as walnut oil by GC-MS analysis in Washington and London.
- 115 EDX analysis identified the same impurities in the malachite as those found in the malachite from the Griselda panels. See note 41.
- 116 The foreground dark greens are covered with insoluble nineteenthcentury repaint, not removed in the recent restoration (see Appendix). It does not, however, appear significantly different in colour from the original paint beneath it.
- 117 Indicated by results of staining cross-sections with amido II stain.
- 118 An example of this period at the National Gallery is Michelangelo's Entombment (NG 790). See M. Hirst and J. Dunkerton, Making and Meaning: The Young M ichelangelo, London 1994, pp. 108–9.

- 119 Of the two Signorelli altarpieces of the 1490s in the National Gallery, *The Circumcision* (NG 1128) of about 1491 does not have a priming, but a layer of lead white, almost certainly in oil, is present in samples from *The Adoration of the Shepherds* (NG 1133), painted in about 1496.
- 120 For white or off-white primings in paintings by Perugino see Spring 2004 (cited in note 43), p. 21, for similar primings in works by Raphael see Roy, Spring and Plazzotta 2005 (cited in note 43), p. 5.
- 121 Identified by GC–MS analysis. The oil is probably walnut oil, as in the other panels by the Griselda Master, but the palmitate/stearate ratio is affected by the small amount of egg in the samples (coming from the white priming layer) and so it is not possible to be certain.
- 122 No vermilion could be detected in the sample, but it may be present in lighter areas and on the figure's cheeks, for example. Vermilion was found in the flesh paint of *Alexander*.
- 123 Perugino (and subsequently Raphael) sometimes used hatched or crosshatched strokes in the shadows of draperies painted with red lake, or purple mixtures containing red lake, even when working in an oil medium. This is a faster way of achieving an impression of depth of tone than the layering of glazes, when each application needs time to dry before the next can be applied.
- 124 See note 31.
- 125 In a sample from a tree at the right edge the lowest green layer contained ultramarine mixed with lead-tin yellow. Perhaps this was a case of using up surplus ultramarine that had been ground in oil and would have been wasted if not used before it dried.
- 126 See note 37.
- 127 The cause of discoloration is not clear, but analysis by FTIR microscopy detected a relatively high amount of calcium oxalate both within the film and on the surface of the layer, which may be linked with the deterioration; the oxalate-type crust would add to the disfiguring effect of the discoloration of the binding medium. See Higgitt and White 2005 (cited in note 38), pp. 88–104, particularly the Appendix, p. 93.
- 128 See note 42.
- 129 C. Togneri Dowd, ed., 'The Travel Diary of Otto Mündler', *The Walpole Society*, 51, 1985, p. 154. Mündler clearly mistook the mausoleum for Saint Barbara's tower.
- 130 See note 66.
- 131 In August 1857 Mündler observed that the painting, this time described as 'a small whole-length figure of Saint Lucia, by Luca Signorelli', was 'much restored by Cavalre Molteni'; see Tognieri Dowd (cited in note 129), p. 162. It is possible that Molteni was responsible for the slight recutting of the shape of the arch in order to give it the same curvature as that of a *Saint Catherine of Alexander* by Bergognone; the two panels are identically framed as pendants. For Molteni's work for Gian Giacomo Poldi see A. di Lorenzo, 'Molteni restauratore per Gian Giacomo Poldi Pezzoli' in *Giuseppe Molteni e il ritratto nella Milano romantica*, exh. cat., Museo Poldi Pezzoli, Milan 2000, pp. 69–75. The subject was also identified in the past as Saint Barbara.
- 132 Underdrawing very similar in extent and character can be found in Orioli's altarpiece, *The Nativity with Saints* (NG 1849), and, on a smaller scale, on another late work *The Adoration of the Shepherds*, ex-Kinnaird Collection, once on long-term loan to the National Gallery.
- 133 See note 41. It might be expected that the top layer of pure malachite, and indeed the other layers in this sample, would have been applied in egg tempera. As with the other paint samples from this panel, analysis by GC–MS also indicated the presence of oil (see note below).
- 134 In the sample of red drapery it was possible to distinguish use of the two media in the different layers. When the other three samples were stained for identification of protein the paint layers tended not to stain. This can be an indication that they are in another medium (oil), but these results contradicted those of earlier staining tests carried out at the Walters Art Gallery by Elizabeth Packard in 1966–7, which indicated layering of oil over egg (report in the Conservation File at the Walters Art Gallery). The more reliable technique of GS–MS analysis found egg and oil in all the samples, but the situation is further complicated by the presence of residues of an old oil-based varnish. Porous tempera layers can absorb oil from varnishes, giving ambiguous results. On balance, it seems likely that *Sulpitia* was painted in egg tempera, but that some areas were completed in oil.
- 135 Analysis of samples from his altarpiece in the National Gallery (NG 1849) by GC–MS and FTIR found egg tempera. Gum ammoniac was found in the areas of mordant gilding. The three altarpieces in the Pinacoteca in Siena, *The Virgin and Child with Saints Onofrio and Bartholomew, The Ascension of Christ* and *The Visitation*, all appear not to have been varnished. Leaving tempera paintings without a varnish seems to have been a particular practice in Siena in the later fifteenth century; in the National Gallery collection two panels by Matteo di Giovanni and one by Benvenuto di

Giovanni remain in this state: the smaller *Virgin and Child with Saints* in the Ashmolean Museum, Oxford, has a similarly unvarnished surface.
136 Only Benvenuto di Giovanni is missing.

- 136 Only Benvenuto di Giovanni is missing.
- 137 For other elaborate underdrawings by Matteo, see R. Bellucci and C. Frosinini, 'Un "modello" per la diagnostica integrata', *Kermes*, 53, January–March 2004, pp. 29–38, esp. pp. 32–3.
- 138 The medium of all the paint samples was found to contain egg alone.139 No priming is present in paint samples from Matteo's Saint Sebastian (NG
- 1461) and Christ Crowned with Thoms (NG 247).140 The two paintings cited in the previous note, both late works, do not have
- green earth underpaintings either.141 The gilding of the inscription on *Tiberius* is slightly worn and there are losses from the blue in the centre; that of *Alexander* is more damaged and
- is the blue in the centre; that of Alexander is more damaged and with large losses from the blue towards the left side.
- 142 She suggests the Marchigian poet and humanist Benedetto da Cingoli. See M. Caciorgna, "Mortalis aemulator arte deos". Umanisti e arti figurative a Siena tra Pio II e Pio III' in Angelini ed. 2005 (cited in note 5), pp. 151–81, esp. pp 157–9. She notes (M. Caciorgna, 'Immagini di eroi ed eroine' in R. Guerrini, ed., *Biografia dipinta, Plutarco e l'arte del Rinascimento,* 1400–1550, La Spezia 2001, p. 299, note 274) that the metre of the inscription of *Claudia Quinta* is different from the others, confirming the suggestion that it was altered.
- 143 See S. Chiarugi in C. Pirovano, ed., *Museo Bagatti Valsechi*, 1, 2003, pp. 94–6, cat 29. The wheel is also an element within the Urgurgieri stemma. Possible marriages between these families remain to be researched. Caciorgna 2005 (cited in note 142), p. 178, note 50, points out that since only the Piccolomini crescent has been identified, the commission might not have been connected with a wedding in the family for which the stemma of each family would be normal.

Appendix on condition and restoration history

Master of the Story of Griselda, The Story of *Patient Griselda* (PLATES 1-2)

Apart from minor cracks in *Reunion*, the supports of all three paintings are in very good condition, retaining their original thickness and dimensions.

The most recent cleaning and restoration (by Jill Dunkerton) took place in 2003-4. The only previous documented restoration is that carried out by a Mr Bentley (not one of the restorers regularly employed by the National Gallery) in 1874, the year that the National Gallery acquired the panels. After 130 years the varnish had become very discoloured and many of his retouchings had altered, especially where he used bronze powder to restore damaged gilding. In addition, at that time it was thought that the episode in Marriage in which Griselda is stripped naked was not suitable for public display and so Bentley was asked to paint draperies over the naked figure (recorded in the Manuscript Catalogue and Conservation Record). He also changed her right arm and hand, presumably because the pose was thought to be indecorous. Xradiography confirmed that the original naked body was still present underneath the nineteenth-century draperies; the overpainting was therefore removed, restoring the original intention of both painter and writer (PLATES 83 and 84). There are relatively few losses from this first panel, mostly flake losses in areas of wood faults, woodworm exit holes and some abrasion, mainly in the dark blue-green draperies and also in some of the flesh tints, especially the naked figure of Griselda where the upper layers (executed in oil) have not adhered well to the underpainting in egg tempera.

The other two panels, on the other hand, have been extensively abraded by a past cleaning, almost certainly with an aqueous cleaning material which penetrated cracks in the paint and began to erode the vulnerable gesso ground. Residues of an old and possibly original oil varnish are present on all the panels and the damage is likely to have been caused during its removal - almost certainly at an earlier date than the restoration of 1874. Why the first panel should have escaped this damage is a mystery, since they have always been together and indeed even Marriage appears to have been cleaned at some time with a powerful solvent or reagent for a dribble has removed the upper glaze layers in the area immediately above the dog lying in the foreground. The most badly eroded areas in the damaged pictures are the skies and foregrounds, and also the table-cloth in Reunion, although many of the figures are affected as



PLATE 83 Marriage. Detail before cleaning.

well, especially those dressed in costumes containing vermilion or earth pigments which can be vulnerable to cleaning damage. The gilding on the architecture is also damaged, especially on *Exile*, and needed extensive restoration in order to give some semblance of unity of condition across the three panels.

All the red and green flags carried in the procession in *Reunion* have been damaged by scoring with a cross (PLATE 85). The amount of dirt and varnish in the incisions indicates that this damage is likely to have occurred some time before the nineteenth century when the paintings left Siena.

Master of the Story of Griselda, Alexander the Great, Barber Institute, Birmingham (PLATE 19)

The panel retains its original thickness and dimensions and is in good condition apart from some woodworm damage and damp stains along the lower edge. The nails used to attach the battens have caused disruption of the picture surface.



PLATE 84 *Marriage*. Detail of PLATE 1 after cleaning and restoration.

The most recent cleaning and restoration (by Jill Dunkerton) took place at the National Gallery, London, in 2005-6. There is no record of treatment since acquisition by the Barber Institute in 1951 and so the previous restoration must date from before then, perhaps while it was in the Cook Collection. The varnish layers were only moderately discoloured but the surface was disfigured by blanching of retouchings that contained zinc white. The condition of the paint surface is uneven: some colours, for instance the pink sleeves and hose, are in very good condition; other areas are eroded by cleaning in a similar manner to Exile and Reunion, and residues of a very old varnish are also present. Areas affected by flaking and erosion include Alexander's head and crown, his cuirass, parts of the sky and landscape, and the gilded tents. The worst damage is in the pedestal where there has been extensive flaking of paint from gesso as well as abrasion. The flags flying from the tents have been vandalised by score marks (PLATE 86) in the same way as those in Reunion.



PLATE 85 Reunion. Detail, after cleaning, before restoration.

Master of the Story of Griselda, Joseph of Egypt or Eunostos of Tanagra, National Gallery of Art, Washington (PLATE 20)

The painting has been cut around all the edges, and the entire lower part of the pedestal with the inscription has been lost. According to records of the Kress Collection, the painting had been transferred onto fabric before 1940. On acquisition by the National Galley of Art the transfer canvas was relined and then stretched around a blind stretcher. The transfer may have occurred as part of a restoration in the 1930s (a reproduction published in 1930 shows the picture with darkened retouchings not present by the time it was acquired by Kress). The panel was probably cut down at an earlier date, however, since stepped edges at the junctions between arch and capitals also appear on Artemisia (see below), which has been similarly truncated at the base. Both may have been cut perhaps because of severe damage - when the panels were dispersed for sale.

A yellowed varnish and darkened retouchings were removed during treatment (by Carol Christensen) in 2004–6. There are two large losses in the sky on either side of the figure's head, which may have been caused during transfer, and further losses from the remains of the pedestal. The paint texture has been flattened by the transfer and is now uncharacteristically smooth. There is general wearing, especially in the background, including the small figures on the right, and to areas of gilded decoration.

Francesco di Giorgio and the Master of the Story of Griselda, *Scipio Africanus*, Bargello, Florence (PLATE 21)

The panel retains its original thickness and dimensions and is in good condition. The nails used to



PLATE 86 *Alexander the Great*. Detail, after cleaning, before restoration.



PLATE 87 Scipio Africanus. Detail of PLATE 21.

attach the battens have caused some disruption of the picture surface.

The painting has not been cleaned recently and so a discoloured greyish-yellow varnish results in a muted appearance. Moreover, the sky, which is evidently abraded, has been extensively scumbled over with retouching. The gold leaf of the tents has been rubbed off (except at the very edges) and left unrestored, and the distant landscape on the left is much damaged. The pedestal has not been affected by the extensive flaking evident on *Alexander* and *Tiberius Gracchus*, but it has been drastically overcleaned, losing most of the gold around the inscription tablet and almost of all the glazes and fine detail from the painted areas. The blue ground of the inscription has been repainted and the letters reapplied in gold leaf. In the X-radiograph (FIG. 12) scattered flake losses and scratches can be seen, mainly in the sky and around the edges. Although the main figure is rather better preserved, erosion of the upper surface of the hair, for example, contributes to the cut-out effect of the head against the sky.

The green flags on the tents have been scored with crosses (PLATE 87) similar to those in *Reunion* and *Alexander the Great*.

Master of the Story of Griselda, *Tiberius* Gracchus, Szépmüvészeti Múzeum, Budapest

(PLATE 22)

The panel retains its original thickness and dimensions and is in good condition. There is some disruption of the picture surface as a result of the attachment of the battens.

In the cleaning and restoration carried out by Györgyi Juhász in 1991, a discoloured varnish, retouchings and fillings of various ages and composition were removed (a similar miscellany of fillings was found on Alexander, suggesting that some may date from when the panels were still together). Tiberius is arguably the best preserved of the Griselda Master's contributions to the series and, especially in the flesh tints, it is less eroded by previous cleaning than most of the other panels. Nevertheless, there are extensive and sometimes large flake losses, including from the near corner of his mouth and from either side of his neck, as well as from both hands and the last three toes of his right foot. A long wide scratch runs through the building and figures on the left, and there are more large flake losses from the red scarf and the fictive pedestal. The most extensive damage is to the brown tunic where the paint appears to have crumbled away in large areas, particularly in the shadowed parts of the folds.

Matteo di Giovanni, Judith or Tomyris of Scythia, Indiana University Museum of Art,

Bloomington (PLATE 23)

Only the upper half of the painting survives. The lower part may have been lost because of damage, or alternatively, it may have been cut to remove details associated with the story of Tomyris and Cyrus (if indeed this is the original story), turning it into the more easily recognised subject of Judith. A poplar strip, 7 cm wide, upon which the false parapet is painted, has been attached with a half-lap join along the bottom edge. The use of poplar and the presence of lead white in the paint suggest that the parapet was added while the painting was still in Italy, probably in the nineteenth century. The arch has been trimmed irregularly. In 1938, while still in the Kress Collection, the panel was planed down to a thickness of I cm, waxed on the back, and cradled by Stephen Pichetto.

The present varnish was applied following restoration by Mario Modestini in 1955. The paint layer is unevenly preserved. The figure is in generally good condition but there is heavy retouching in the sky, which appears somewhat worn. At the junction between the original panel and the addition there is extensive retouching, extending well into the original; most of the little horse and rider, and the figure to the right of them, are modern restorations. The extent of the restoration is evident in infrared (FIG. 38).

Master of the Story of Griselda, Artemisia, Museo Poldi Pezzoli, Milan (PLATE 24)

The panel retains its original thickness but the lower part with the pedestal and inscription has been removed. The edges have been trimmed slightly, as has the wood of the arch. The spandrels that make the panel into a rectangle are a later addition. The crescent of unpainted gesso, visible at the tops of the unaltered panels, has here been scraped away, together with the top surface of the wood, exposing the woodworm channels. The shape of the arch has been altered slightly, resulting in a stepped edge at the junction between arch and capitals similar to that on Eunostos. Some alterations may date to the division of the panels; others from a restoration by Giuseppe Molteni in 1857. He may have cut the arch back further in order to turn the panel into a pendant to a painting by Bergognone in the same collection (see note 131). The metal crosspieces set into the back were fitted by him (similar ones have been found on panels in the National Gallery that he is known to have restored).

The surface received a light cleaning (by Nuccia Comolli Chirici) in 1993. The heavily discoloured varnish was thinned to some extent, but because of the extensive retouching and regilding by Molteni (see main text, p. 49) it was decided that the cleaning should not proceed further. The appearance of some of the discoloured retouchings, mainly on the face and in the sky, was improved and a final matt varnish applied.

Pietro Orioli, *Sulpitia*, The Walters Art Gallery, Baltimore (PLATE 25)

The panel has been thinned by about 1 cm, judging from the thickness of intact panels in the series, and the back coated, filling the exposed woodworm channels. The three inset battens on the back are not original. The wood around the arch may have been trimmed slightly but this cannot be confirmed since none of the edges is visible because of a narrow wooden collar fitted around the panel. This appears to have been added at two separate stages; the wood on the sides and bottom was cut with modern machine tools and is attached with modern nails, while the collar surrounding the arch appears somewhat older (a few nails securing it are of the old square-headed type, with an uneven taper). It is possible that the collar on the arch was added when the paintings were dispersed, while the present edge strips may be replacements for ones applied at the same time as that on the arch.

The painting was cleaned and restored by Eric Gordon at the Walters Art Gallery in 1992–3. It is one of the best preserved in the series, but there are retouched flake losses in the sky, in the figure's throat, the middle fingers of her left hand, and down the shadowed side of her dress. Residues of a darkened old varnish are present (as on many of the other panels); past efforts to remove this have resulted in some abrasion (but without erosion of cracks), especially to the sky. There is extensive retouching around the edges and over large losses on either side of the pedestal. Later repaint extends the pedestal at the lower edge, covering the original border of unpainted gesso.

Neroccio de' Landi and the Master of the Story of Griselda, *Claudia Quinta*, National Gallery of Art, Washington (PLATE 26)

The panel has retained its original thickness. It has been trimmed slightly at the left edge with the result that the arch now starts at a higher level. A small segment of wood has been attached with nails at the top to complete the curve of the arch, but the top of the panel may originally have been flat (see main text, p. 25).

During the cleaning and restoration carried out by Carol Christensen in 2004-5, some old repaint was left: for instance the extension of the sky over the gesso border of the arch, originally unpainted as in the other panels, and also some dark green overpainting of the grass in the lower part of the picture which does not, however, appear significantly different in colour to the original paint beneath it. The inscription on the pedestal has been repainted and the lettering redone, probably at a relatively early date. A large loss in the sky on the left also includes part of the ship held by Claudia and almost all of the figure of Cybele. The old regilding of this figure was left in the recent restoration. There are many scattered losses and scratches in the sky and on the main figure's dress, and the surface is generally abraded with the mordantgilded patterns worst affected - some of this gilding has been renewed in the recent restoration. The flesh tints, on the other hand, are mostly well preserved.