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FRONT COVER

Georges Seurat, *Bathers at Asnières* (NG 3908),  
detail of PLATE 4, page 7

TITLE PAGE

Giulio Romano, *The Birth of Jupiter* (NG 624),  
detail of PLATE 1, page 38

# The ‘*Two Tax-Gatherers*’

## by Marinus van Reymerswale: Original and Replica

PAUL ACKROYD, RACHEL BILLINGE, LORNE CAMPBELL AND JO KIRBY

THE PAINTING of ‘*Two Tax-Gatherers*’ (NG 944) in the National Gallery is usually attributed to Marinus van Reymerswale (PLATE 1). Another version of the composition, of almost exactly the same dimensions, is in the Louvre (PLATE 2). Comparison of the infrared reflectogram mosaic of the London picture (FIGS 3 and 4) with infrared photographs of the version in Paris (FIGS 1, 2, 5 and

6) had led us to believe that the Paris picture must have been executed before the London panel. By a happy coincidence, when the National Gallery painting was being cleaned, the Paris picture, previously inaccessible in a government office, was put on exhibition in the Louvre. Having decided to investigate further the relationship between the two paintings, we received much help from our



PLATE 1 Workshop of Marinus van Reymerswale, ‘*Two Tax-Gatherers*’ (NG 944), 1540s? Oak, 92.0 × 74.6 cm.

colleagues in Paris and from Dr Adri Mackor, a Dutch art historian who, by a second happy coincidence, is making the first detailed study of Marinus and his work. It rapidly became clear that the London picture is a replica of the Louvre painting; we have endeavoured to establish how and by whom the replica was made and to find out more about the working practices of Marinus and his collaborators. The detailed examination of the London picture has revealed an interesting use of pigments – for example madder and kermes lakes.

### Marinus van Reymerswale

Nothing is known for certain about Marinus' life. He signed several almost identical paintings of *Saint Jerome in his Study*, several nearly identical pictures of *The Banker and his Wife* and two very similar

paintings of *The Lawyer's Office*. Usually he signed simply 'Marinus' but the *Saint Jerome* in the Real Academia de Bellas Artes de San Fernando in Madrid is inscribed 'Opus Marini de Reymerswale a° 1533',<sup>1</sup> while on the versions of *The Banker and his Wife* in Copenhagen, the Escorial and Munich the word 'Reymerswale' precedes 'Marinus'.<sup>2</sup> The dates on the signed pictures range between 1533 and 1545.<sup>3</sup> Some unsigned pictures are so like the signed paintings that they have been attributed with confidence to Marinus: among them are the *Virgin and Child* in the Prado, of which no other version is known;<sup>4</sup> the 'Two Tax-Gatherers' in the National Gallery, the subject of this article,<sup>5</sup> and the nearly identical picture in the Louvre.<sup>6</sup>

Many of these paintings include representations of manuscripts and deeds. The writing is frequently, perhaps always, legible and in the texts many refer-



PLATE 2 Marinus van Reymerswale, 'Two Tax-Gatherers', 1540s? Oak, 94.1 × 77.0 cm. Paris, Musée du Louvre, on loan from the Ministère de Finances. © RMN Paris.

ences have been found to the town and inhabitants of Reymerswale, which has disappeared beneath the waters of the Ooster Schelde. It was once part of the island of Zuid-Beveland, west of Bergen-op-Zoom and south of the island of Tholen. After the Saint Felix Flood of 1530, Reymerswale became a separate island, which was abandoned in 1631 and later totally submerged.

In about 1500, Reymerswale was reckoned to be, after Middelburg and Zierikzee, the third most important town in Zeeland. At that time salt-refining was an important industry in Zeeland, centred around Reymerswale, Zierikzee, Goes and other towns – the salt sack of Zeeland was to become the dominant measure, over that of Flanders – and sea-salt was an important item of Reymerswale trade. Zeeland was, however, most renowned for the cultivation of madder. Until the rise of the French madder industry during the second half of the eighteenth century, Zeeland was the principal madder-producing region for north-western Europe. Trade in madder was well established in the fourteenth century and references to its cultivation and processing in Zierikzee, Reymerswale and other parts of the region occur from quite early in the fifteenth century. That the Zeeland madder industry was highly developed and sophisticated by this time is demonstrated by the Reymerswale madder regulations of 1480. From these it is clear that, for example, different grades of madder root were available; the amount of earth that each grade was permitted to contain was defined; and drying of the root in the *stoven* was permitted only between 15 August of one year and 1 May of the next. Madder, like salt, was among the goods regularly exported from the town.<sup>7</sup>

In Reymerswale, the painters and sculptors were members of the carpenters' guild.<sup>8</sup> Marinus probably spent much of his life there and must certainly have maintained contacts with the town. Van Mander mentioned 'Marinus de Seeu Schilder van Romerswalen' (Marinus the Zeelander, painter, of Reymerswale), who was a contemporary of Frans Floris (1519/20–1575) and whose works were once numerous in Zeeland.<sup>9</sup> No certain reference to Marinus in contemporary sources has been published.<sup>10</sup> His work has many affinities with that of Quinten Massys and his son Jan Massys.

### The London painting and its versions

The National Gallery painting entered the collection in 1876 as part of the Wynn Ellis bequest

(PLATE 1); the picture in the Louvre is the only known version that is nearly identical (PLATE 2). Simplified versions are in Antwerp<sup>11</sup> and Warsaw;<sup>12</sup> there exist a very great many versions, further simplified, of the already simplified Antwerp and Warsaw composition.<sup>13</sup>

Both the London and the Paris pictures show, behind the two men, a wooden cupboard on top of which are piled documents, an oval deed-box, a ledger, a turned wooden sand-box and a brass candlestick; across its base lies a pair of snuffers. The folded document above the head of the man on our right is a deed issued, according to the inscription, in 1515 by two aldermen of Reymerswale. The name of the first is concealed by the folding of the document; the second, Cornelis Danielsz., was indeed an alderman in 1514–15.<sup>14</sup> The man on the left is writing in his ledger an account of the income of a town over a period of seven months – from the excise duties on wine and beer, the 'fish-bridge', the weigh-house, the 'hall', the ferries, fees for deeds, charges raised for specific expenses, loans and the civic mills. It is clear that the town was Reymerswale, where there were a 'fish-bridge' – a fish-market on a bridge – a cloth-hall and a butchers' hall and from where ferries ran to Venusdam on Tholen and to the mainland at Bergen-op-Zoom and Antwerp. The mills were water- and wind-mills.<sup>15</sup> It would seem that Marinus owned a copy of the interim account of the Reymerswale excise duties. One of the papers in the background of the Escorial *Banker and his Wife*, signed and dated 1538, is inscribed with the beginning of a very similar text.<sup>16</sup> In the Paris picture, the fifth item in the account is the *byerberye* – the barrow from which beer was sold: this entry does not occur in the London account. In the London ledger but not in the Paris ledger, *die fijne* – another tax – is entered as the ninth item, between the *ommeslach* – a tax levied to meet specific municipal expenses – and the *molerije* or fees for milling. Otherwise there is an almost exact correspondence between the inscriptions on the Paris and London paintings.<sup>17</sup> The inscription on the half-concealed recto page of the same ledger concerns someone called Voxen, whose first name is hidden but who would have been a member of the prominent Voxen family of Reymerswale.<sup>18</sup> This inscription duplicates part of the writing on the folded deed resting behind the candlestick, which appears to be a list of annual charges, perhaps annuities, payable by the town.

The writing man wears an elaborate heart-shaped hat of a kind worn by fashionably dressed

women in the mid-fifteenth century. It may be relevant that Bruegel's personification of *Avarice* in his drawing of 1556 (British Museum) is a woman wearing a heart-shaped hat.<sup>19</sup> The hat worn by the writing man is 'dagged' or cut in the style of the early fifteenth century as it might have been misunderstood by someone used to the slashed clothes of the mid-sixteenth century. The man on the right wears a hat similarly 'dagged' but of a shape fashionable for men during the first half of the fifteenth century.<sup>20</sup> His sneering grimace and the grasping fingers of his left hand must indicate the extent of his avarice. In the lower left corner are a pen-case and ink-well. The coins in the lower right corner include French *écus d'or au soleil* and two *Joachimsthalers*, silver coins minted from 1519 by the Counts Slik (Schlick) at Jachymov (Joachimsthal) in Bohemia.<sup>21</sup> The man on our left is a municipal official (in the Warsaw version his ring is ornamented with the coat of arms of the town of Reymerswale).<sup>22</sup> He is writing an account of the revenues from various imposts put out to farm. He may be the Treasurer or Tax-Collector of Reymerswale and his companion may be one of the other collectors or tax-farmers. Alternatively the writing man may be the 'Counter-Book-Keeper', employed to keep a check on the activities of the Treasurer.<sup>23</sup> Their extraordinary clothes remove them from reality, though the legible documents assert a connection with everyday life in Reymerswale.

It is not easy to date the London and Paris pictures but they are connected with and probably later than Marinus' paintings of *The Banker and his Wife*, the signed versions of which are dated 1538, 1539, 1540 and 1541.<sup>24</sup> Exaggerated facial expressions, such as that of the man on our right, are not found in Marinus' pictures of the 1530s but become more apparent in the two signed examples of *The Lawyer's Office* dated 1542 (Munich)<sup>25</sup> and 1545 (New Orleans).<sup>26</sup> Perhaps during the 1540s Marinus was becoming more inclined to depict the grotesque extremes of facial expression. For such reasons, it seems plausible to suggest that the London and Paris pictures were painted in the 1540s.

Many of the simplified versions seem to have been painted in Marinus' workshop. In several of them (for example those in Antwerp, at Hagley Hall (near Birmingham), formerly in the Mautner von Markhof collection in Vienna, and in Munich and Warsaw), the texts in the ledgers were copied from the same account that was reproduced in the Paris and London pictures; but slight variations were – apparently capriciously – introduced.<sup>27</sup> In the

Hermitage version, however, the text in the ledger records payments of annual charges and corresponds with a text that reappears in the Escorial *Banker and his Wife*, signed by Marinus and dated 1538.<sup>28</sup> The still lifes in some of these versions of the 'Tax Gatherers' include objects, for example candles and candlesticks, which reappear in the same form in some of Marinus' pictures of the *Banker and his Wife* but which are different in the Paris and London paintings.<sup>29</sup> The artists who produced the simplified versions seem to have had access to Marinus' pattern drawings and other reference material. They would have found such things in his workshop or perhaps with his heirs and successors if, after his death, they continued to run his business. The simplified versions are difficult to date but one of the latest of them, 'The Misers' in the Royal Collection, was executed after 1548, perhaps before 1551 and certainly before 1563.<sup>30</sup> Various of these simplified versions, including 'The Misers', bear inscriptions in French rather than in Dutch. Two at least of the inscriptions concern 'La Gabelle de lan 1549' – a tax for the year 1549 – and were presumably painted in or after 1549.<sup>31</sup> Marinus' successors may have been supplying an international market; or perhaps one or two of them moved south into the French-speaking areas of the Low Countries. All this would indicate that versions of Marinus' design continued to be produced during the ten or fifteen years after his presumed death around 1545–6. Many other versions, some of them of abysmal quality, may be very much later, manufactured at times when one or two of the earlier versions, like 'The Misers', enjoyed unmerited notoriety under false attributions to Quinten Massys.<sup>32</sup>

### Interpretations of the original and the versions

Many of the objects depicted in the London picture reappear in the various signed versions of *The Banker and his Wife*. The banker himself looks like a rejuvenated twin of the writing man in the 'Two Tax-Gatherers': they wear very similar hats and clothes and are seated at similar tables in similar interiors. In the 'Two Tax-Gatherers', however, the man on our right twists his features into a grotesque sneer and advances his claw-like left hand in a very much more aggressive way than the banker's wife, who splays her talon-like fingers in a similar but more elegant gesture. The two men, dressed in their ridiculous clothes, are criticised for their bureaucratic and legalistic greed. It must not be forgotten



FIG. 1 Infrared photograph of Marinus van Reymerswale, 'Two Tax-Gatherers', Paris. © Laboratoire de Recherche des Musées de France. Photo: Marc de Drée.



FIG. 3 Infrared reflectogram mosaic of Workshop of Marinus van Reymerswale, 'Two Tax-Gatherers' (NG 944).



FIG. 2 Infrared photograph of Marinus van Reymerswale, 'Two Tax-Gatherers', Paris. Detail showing the head of the man on the left. © Laboratoire de Recherche des Musées de France. Photo: Marc de Drée.



FIG. 4 Infrared reflectogram mosaic detail of Workshop of Marinus van Reymerswale, 'Two Tax-Gatherers' (NG 944), showing the head of the man on the left.

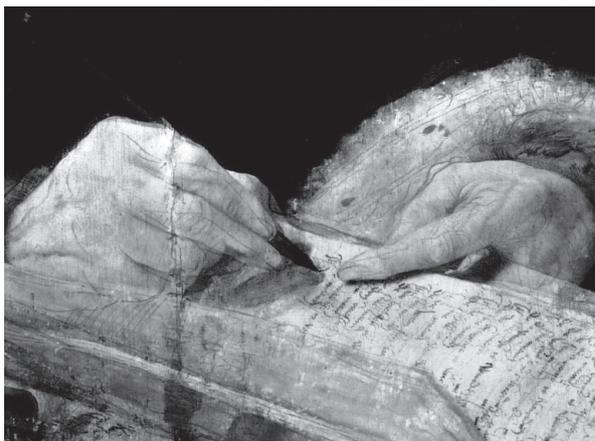


FIG. 5 Infrared photograph of Marinus van Reymerswale, 'Two Tax-Gatherers', Paris. Detail showing the hands of the man on the left. © Laboratoire de Recherche des Musées de France. Photo: Marc de Drée.



FIG. 6 Infrared photograph of Marinus van Reymerswale, 'Two Tax-Gatherers', Paris. Detail showing the head of the man on the right. © Laboratoire de Recherche des Musées de France. Photo: Marc de Drée.

that tax-collectors, who were paid percentages of the revenues that they collected, had many incentives to extort every last mite from the tax-payers. According to a popular rhyme of the period,

Een woekereer,  
Een meuleneer,  
Een wisseleer,  
Een tolleneer,  
Zijn de vier evangelisten van Lucifer.

(A usurer, a miller, a money-changer and a tax-collector are Lucifer's Four Evangelists.)<sup>33</sup>

The very large numbers of versions show that the composition was highly successful.<sup>34</sup> The fact that the texts in the ledgers change from version to version must indicate that they were interpreted in different ways. In at least two of the versions (Florence, Museo Stibbert, and formerly Paris, Cailleux collection), the French texts in the ledgers are warnings against avarice, which may be freely translated: 'The avaricious man is never sated with money... Have no care for unjustly gained riches, for they will be of no profit to you on the day of reckoning and vengeance. Be therefore without avarice ...'<sup>35</sup> The clothes worn by the two men are archaic in style in all versions but only in the Paris, London, Antwerp and Warsaw pictures does the writing man wear a woman's hat. In the Warsaw painting and in many other, later, versions, he wears spectacles – perhaps as a sign of spiritual myopia or blindness.<sup>36</sup> All the versions of the 'Two Tax-Gatherers' may be interpreted as attacks on avarice.

## Technical examinations of the London and Paris paintings

### Panel construction

The materials and construction of both panels are typical for panel painting production in the Netherlands in the sixteenth century. Both panels are formed from three vertical oak boards. The London panel measures 92.0 × 74.6 cm while the Paris panel measures 94.1 × 77.0 cm.<sup>37</sup> The difference in size is due to the fact that the Paris panel retains unpainted borders, where it was fitted into its original frame, while these have been removed from the London panel up to the edges of the paint. The image size of the Paris picture is 91.5 × 74.8 cm, almost identical to that in London. Apart from the trimming of the edges, the London panel is virtually in its original condition: the reverse shows rough marks of tooling suggesting that it has not been thinned; it varies in thickness from 5 mm at the edges where it is at its thinnest to about 10 mm in the middle. The only conservation work carried out on the panel has been the re-gluing of the right-hand join, which took place at some time before the painting was bequeathed to the Gallery. By contrast the Paris panel has been thinned to approximately 3 mm; a 4 mm veneer of oak has been attached and a

cradle then applied.<sup>38</sup> The London panel has been examined by the dendrochronologist Peter Klein, who found that the oak is from the Baltic/Polish region. All three boards are from the same tree; the measured heartwood rings were formed between 1335 and 1513. This would suggest that the painting was created in or after 1530.<sup>39</sup> No similar examination has been made of the Paris painting.

### *Preparation and underdrawing*

Like most Northern paintings of the period, both pictures have white grounds, identified as chalk on the London panel.<sup>40</sup> Cross-sections from the London painting have shown that a thin pinkish-grey priming (containing lead white, a little vermilion and black) was applied over the ground. No similar samples are available from the Paris picture.

Infrared examinations reveal extensive underdrawings in both versions, though they are very different in character. The underdrawing in the Paris painting is freehand (FIG. 1). Contours are defined in a loose, sketchy way and there is much hatching. Diagonal lines give generalised indications of areas of shadow, for example in the door. The structure of the red hat is defined in terms of light and shade by hatching and cross-hatching; while scribbled, curving lines give approximate suggestions for the dagging. The older man's face is fully outlined; the contour of the fur collar against his neck is indicated by a wavy line (FIG. 2). Hatching suggests the structure of his near eye socket and the shadows cast across his face by his hat and by his nose. The infrared photographs and examination with infrared reflectography reveal a great many differences between the underdrawing and the final painting. Some of these are relatively small: the horn of the hat over the left eye of the writing man was made a little higher and broader during painting; a small area of cupboard which showed between the back of the man's head and the scarf of his hat was concealed behind dagging; the man's ear was enlarged over the dark paint of his hair; the positions of his hands and the arrangement of the pages of the book were adjusted (FIG. 5); and several elements of the still life above his head were altered. The paper inserted between the pages of the book on top of the deed-box is a late addition; in the underdrawing there is something, probably another folded document, under the top cover which would have helped to hold it open. The figure on the right has undergone more significant changes. These are

more difficult to follow and interpret, partly because the green paint used for his hat is not easily penetrated by infrared and much of the drawing is hidden or difficult to see. What is clear, however, is that the younger man's head has been completely repositioned. The green paint of the hat in its first position remains under the surface paint (although it may have been partly scraped away in places) and shows dark in the infrared photographs (FIGS 1 and 6). The first hat seems to have extended much further towards the middle of the painting and up into the area where the papers now project from the cupboard; a scarf hung across what became the man's left eye, cheek and ear. It has not been possible to identify any underdrawing for the face which would have been under the hat in this first position. All the changes, both large and small, were made during painting, without further underdrawing. The only exception to this is the face of the man on the right which does have basic underdrawing for the new positions of the eyes, nose and mouth, perhaps necessary to establish how the new face would relate to the first hat and whether areas of green paint would need to be scraped away. The freehand nature of the underdrawing, and the presence of alterations, show clearly that the Paris picture is not a copy – the artist is perfecting his composition as he paints.

In contrast, the underdrawing revealed by infrared reflectography of the London picture is very careful and precise (FIGS 3 and 4).<sup>41</sup> There is virtually no hatching: only outlines are indicated, though every detail in the red hat is delineated. Examined closely, the lines, drawn with brushes, look continuous; occasionally it is possible to see faint traces of other lines defining the same contours. These are signs that the underdrawing has been reproduced from a tracing. The artist has then 'fixed' the traced lines by going over them in a liquid medium. The underdrawing is faithfully followed in the painting. There are a few, very minor, changes in the shapes of the cut decorations on the hat worn by the writing man; in the bundle of papers above his head, the drawing for the loop formed by the string is smaller than, and further to the left of, the painted loop.

When a tracing on acetate of the London painting was laid over the Paris picture, all the main compositional elements corresponded exactly in size and layout. It was necessary, however, to move the tracing to match each element (see PLATES 3–6). In PLATE 3, the tracing has been placed so that the face of the man on the left, his shoulders and most of his

False coloured overlay of the Paris picture with a tracing of the London painting.



PLATE 3 Position 1, the face and hat of the man on the left are aligned.

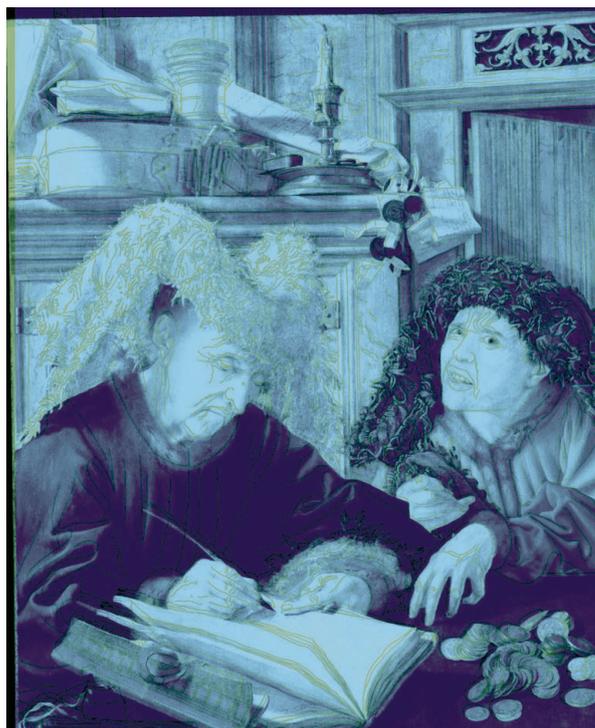


PLATE 5 Position 3, the face and hat of the man on the right are aligned.



PLATE 4 Position 2, the hands and book of the man on the left are aligned.



PLATE 6 Position 4, the hands of the man on the right, and the coins, are aligned.

hat are perfectly aligned; but his hands and the book are higher in the tracing, the face of the other man is further to the left and his hands and the coins are both higher and to the left. PLATE 4 shows the tracing repositioned so that the hands and book match perfectly; the face of the writing man is now too low in the tracing, as is the face of the other man, which is also too far to the left. His hands now line up well in the vertical dimension but are still displaced to the left. PLATES 5 and 6 show the tracing positioned over the man on the right, first aligning his face and then his hands, revealing the same exact correlations of the heads and hands and similar related displacements. The exact correlations confirm the hypothesis that a tracing of the Paris painting has been used to make the London picture. The slight displacements of the different elements could have been caused by the slipping of the tracing; but the consistent way in which the displacements match in horizontal bands suggest that they are not entirely random. It is likely that the tracing was on several separate sheets of paper and that these were slightly misaligned as each new sheet was used. A slight overlap between two sheets, one bearing the tracing of the head on the left, the other the head on the right, could explain why the two faces in the London painting are slightly closer together than their counterparts in Paris. Though we cannot know whether the slight contraction of the composition was intended by the copyist or an accident of the method used to transfer the design, the artist may have been forced to use several sheets. He is unlikely to have had a single sheet of paper large enough for a tracing of the whole painting.

### Paint layers

The recent cleaning of the London painting has revealed that it is in remarkably good condition: there are no significant areas of paint loss; small losses are confined to the right-hand join. There is evidence that the red lake glazes have faded a little and the greens have suffered some discoloration. The Paris picture, on the other hand, is less well preserved. There are more extensive paint losses, especially along the joins; the paint surface appears more abraded; and consequently more retouching has been necessary. There is less evidence, however, of fading of the red glazes or discoloration of the greens.

The range of pigments and the medium used in the London picture are typical for late fifteenth- and early sixteenth-century Netherlandish paintings.

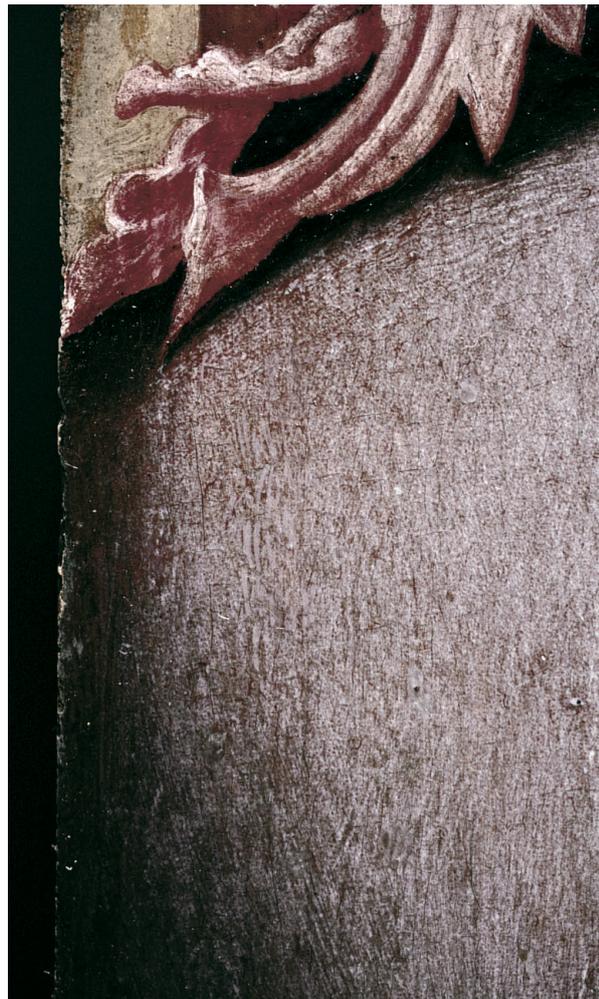


PLATE 7 Workshop of Marinus van Reymerswale, 'Two Tax-Gatherers' (NG 944). Photomicrograph of purple drapery on left. At the edge, where the red glaze has been protected from light by the frame, it is a more intense colour.

The basic technique is traditional in its dependence on modelled opaque underlayers finished with translucent glazes. The medium is linseed oil, without heat bodying and without the addition of any resin.<sup>42</sup> Pigments identified include lead white, vermilion, red lakes, azurite, a copper green (probably verdigris), lead-tin yellow, various earths and black.<sup>43</sup> In the purple coat of the man on the left, the underlayer is based on mixtures of azurite and lead white, the amount of azurite increasing according to the depth of shadow. A small amount of red lake is added to the mixture only in areas of deep shadow. The modelling of the robe is thus broadly conveyed by these lighter and darker underpaint layers. The purple colour has been achieved by applying a red lake glaze evenly over the entire drapery. In areas of deep shadow at least, this glaze consists of a thin layer of a translucent orange-red

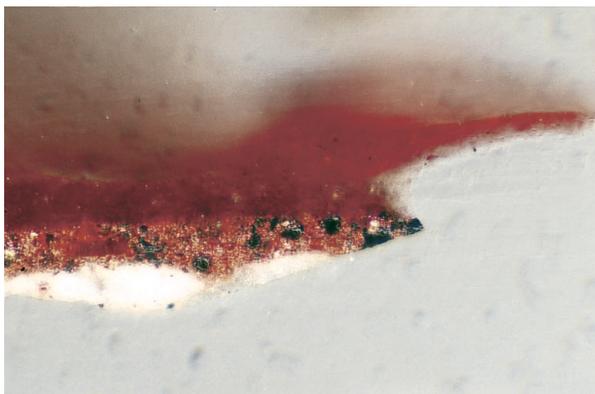


PLATE 8 Workshop of Marinus van Reymerswale, 'Two Tax-Gatherers' (NG 944). Cross-section of a sample from the red garment of the man on the right. Two layers of red lake glaze are visible. Original magnification 500×, actual magnification 440×.

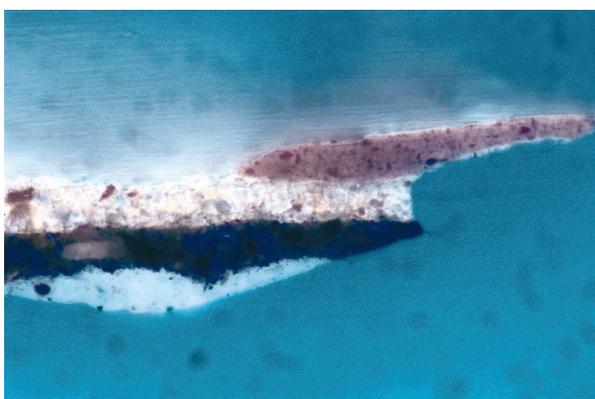


PLATE 9 Cross-section in PLATE 8 photographed in ultraviolet light. Two different red lake pigments are visible, one of which consists of madder and has a characteristic orange fluorescence. Original magnification 500×, actual magnification 440×.

lake, over which is applied a thin layer of a rather deeper red. Where the purple robe has been protected by the frame rebate and therefore has not faded, the glaze is a stronger red (PLATE 7). Originally, this drapery would have been a richer, redder purple.

Close examination of the London painting reveals a degree of sophistication in the selection of pigments and their use, particularly in the reds. At first glance the opaque red of the coat of the man on the right seems to have a typical opaque vermilion-based underlayer with a thin red lake glaze. In the X-radiograph, however, the left sleeve appears much darker than the rest of the red, which shows that this particular area is not absorbing X-rays and indicates a lack of vermilion or lead white (FIG. 7). Samples have confirmed that the lit areas of red – the upper body and shoulder (which appear light in

the X-radiograph) – do indeed have an underpaint consisting mainly of vermilion. In the shadowed part of the arm, the area which looks dark in the X-radiograph, the underpaint is mainly red earth, with only a little vermilion, plus coarsely ground black. As in the purple robe, the tonal contrasts of the red garment are thus already defined in the underpaint. Both underlayers are then glazed with a red lake, slightly orange and not very strong in colour. Areas of deeper shadow have a further glaze applied on top, a lake of a stronger, darker colour (PLATE 8). It is easier to see this under ultraviolet illumination (PLATE 9) where the upper layer appears pink while the lower layers are a pale fluorescent orange, with small amounts of the darker lake mixed in (and showing pink in the plate). Analysis shows that two different dyestuffs have been used to prepare the lake pigments: the lower layers contain madder dyestuff, while the top layer contains the dyestuff from the scale insect kermes (*Kermes vermilio* Planchon).<sup>44</sup> The madder lake is in fact a very suitable colour for use alone as a glaze over the mid-toned areas of the robe, reserving the darker, more intensely coloured kermes lake for the deeper shadows. A similar use of two different red lakes is seen in the red hat of the man on the left. Here an opaque underpaint consists of white and the stronger-coloured red lake; several layers of red lake lie over this, the uppermost deeper red layer containing kermes dyestuff, while the lower layers contain madder.

The madder lake is very typical of those identified on other Northern European paintings of the fifteenth and sixteenth centuries in its translucency and rather low dyestuff content. The pigment is best described as translucent, rather than transparent, as, although the substrate of the lake contains hydrated alumina, there is a great deal of calcium-containing siliceous material present. This, too, appears to be quite common in lake pigments, quite frequently madder-containing, from this period.<sup>45</sup> It seems probable that this lake was cheaper than that prepared from the expensive kermes dyestuff and the use of a lake with extender beneath one without, or of a madder lake beneath a kermes lake, whether for reasons of colour or economy, is not uncommon.<sup>46</sup>

A simple technique of opaque underlayers and transparent glazes is given a further degree of sophistication in the green hat of the man on the right. Microscopic examination of the surface and analysis of cross-sections reveal a complicated layer structure. A monochrome undermodelling of lighter



FIG. 7 Composite X-radiograph of Workshop of Marinus van Reymerswale, 'Two Tax-Gatherers' (NG 944).

and darker shades of grey establishes the structure of the hat. Over this is applied a dark transparent green glaze, probably containing verdigris, to give the overall green colour. On top of that is further modelling, consisting of mainly azurite for the darks and mixtures of lead-tin yellow, verdigris and

white for the highlights. All this is covered by a final unifying green glaze (PLATE 10).

No samples were taken from the flesh, but an examination of the surface under a stereo-binocular microscope has shown varying mixtures of lead white, vermilion, red lake and black, with scattered



PLATE 10 Workshop of Marinus van Reymerswale, 'Two Tax-Gatherers' (NG 944). Photomicrograph of an area of the green hat of the man on the right. The complex layer structure here is discussed on pp.59–60.



PLATE 11 Workshop of Marinus van Reymerswale, 'Two Tax-Gatherers' (NG 944). Detail showing the fingers of the right hand of the man on the left.

azurite particles – more noticeable in the hands of the older man.

Although both men are wearing clothes of the same colours in the Paris and London pictures, only the red of the costume of the younger man actually looks similar in the two finished paintings. In the Paris picture, the purple coat has been painted with a mixture of black and red, rather than the blue and red of the London painting. The use of black and red has resulted in a dark, rather brown colour. Although these two garments look dissimilar now, they would probably have been closer in hue when first painted.<sup>47</sup> The red hat in the Paris picture is more simply painted than that in the London version. It does not appear to have an opaque undermodelling; this is particularly apparent in the deeper shadows, where the red lake glazes seem to have been applied directly onto the preparation.

Generally, the paint in the London version is applied fairly thickly. Raking light shows pronounced ridges of paint at the contours where the artist has meticulously followed the underdrawing. There is a strikingly strong correlation between the London painting and its X-radiograph (FIG. 7), due to the way in which the modelling is achieved and the care with which shapes are separated, often by minute areas of exposed priming. The close attention to outline, especially in the folds of the drapery and the creases and wrinkles in the men's faces, tends to produce convoluted surface patterns. The detail has been over-emphasised, particularly in the teeth and in the veins and wrinkles of the hands (PLATE 11). In contrast, less attention has been given to modelling, which is lacking in subtlety and is dependent on the application of simple linear highlights that give the forms a hard appearance.

Purely from a visual inspection, the paint layers in the Paris version appear to be more thinly and freely applied, perhaps with less reliance on the multiple layering of colours than in the London picture. Because of an economical use of the white ground to provide luminosity in the glazed shadows and a more discreet use of highlights, a finer and more realistic modelling is achieved in the Paris painting. One of the most disconcerting features of this picture, however, is the pink-orange colour of the flesh of both figures. This is probably the original colour, which does not appear to have altered significantly and which must always have differed from the flesh colours of the London painting.

### Conclusions

The Paris picture is the original from which derive all the versions. The London painting is a replica, made from a tracing of the finished Paris picture and corresponding fairly exactly in colour. Presumably it was Marinus himself who was responsible for the important changes made during the execution of the Paris painting. Many of the versions are by artists who had access to patterns used by Marinus in his signed works. These artists were probably under the direction of Marinus and employed by him. In the case of the London picture, the tracing process required a very direct connection with the Paris painting but it differs so greatly in technique from the Paris painting that it must be largely by a second artist, presumably an assistant working under Marinus' supervision.

A valuable contribution to this area of study would be the examination of more paintings attributed to Marinus, particularly those with signatures,

to try to establish the distinctive characteristics of a painting by Marinus himself. Until more is known about Marinus' life, until more paintings by him, his collaborators and imitators have undergone intensive technical examinations, and until more can be discovered or deduced about his assistants and their working practices, the circumstances surrounding the creation of the London painting and its relationship with the rest of Marinus' work must remain elusive.

### Acknowledgements

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### Notes and references

The abbreviation Friedländer stands for M.J. Friedländer, *Early Netherlandish Painting*, trans. H. Norden, 14 vols, Leiden and Brussels 1967–76.

- 1 Friedländer, vol. XII, No. 162g; J.M. de Azcárate y Ristori et al., *Guía del Museo de la Real Academia de San Fernando*, Madrid n.d., p. 120.
- 2 Friedländer, vol. XII, Nos 170c, 170, 170a.
- 3 The date 1533 is on the *Saint Jerome* in the Academia de San Fernando; it is often read as 1535 but see A. Mackor, 'Marinus van Reymerswale: Painter, Lawyer and Iconoclast?', *Oud Holland*, CIX, 1995, pp. 191–200, p. 200 n. 24. The date 1545 is on *The Lawyer's Office* in New Orleans: see A. Monballeu, 'The Lawyer's Office by Marinus van Reymerswale in the New Orleans Museum of Art', *Jaarboek van het Koninklijk Museum voor Schone Kunsten, Antwerpen*, 1972, pp. 101–41. A signed *Saint Jerome* in the Prado (No. 2100) is dated 1521 but the signature ('Mdad') has been altered and the date, which seems to have been retouched, may originally have been 1541 (see Friedländer, vol. XII, No. 162; Mackor, cited above, p. 199 n. 6). Another almost identical *Saint Jerome*, also in the Prado (No. 2653), is often claimed to be dated 1547 but the last digit is more convincingly read as 1 and the date is once again 1541 (Friedländer, vol. XII, No. 162a; Mackor, cited above, p. 199 n. 6). A third signed version in Antwerp is without any question dated 1541 (Friedländer, vol. XII, No. 162c).
- 4 Friedländer, vol. XII, No. 161.
- 5 Friedländer, vol. XII, No. 168; M. Davies, *National Gallery Catalogues, The Early Netherlandish School*, 3rd edn, London 1968, pp. 83–5.
- 6 R.F.1989–6; sold at Sotheby's, Monaco, 2 December 1988, lot 618.
- 7 G.A. Fokker, 'De oudst bekende keur op het bereiden van en den handel in meekrap in Zeeland', *Archief: Vroegere en latere mededelingen voornamelijk in betrekking tot Zeeland*, II, vi, 1866–9, pp. 317–28; C. Wiskerke, 'De geschiedenis van het meekrapbedrijf in Nederland', *Economisch-Historisch Jaarboek*, XXV, 1952, pp. 1–144, esp. pp. 10–22; W.S. Unger and J.J. Westendorp Boerma, 'De steden van Zeeland, IV. De steden van de Bevelanden en van Tolen', *Archief: Vroegere en latere mededelingen voornamelijk in betrekking tot Zeeland uitgegeven door het Zeeuwsch Genootschap der Wetenschappen*, 1957, pp. 1–42, esp. pp. 1–5 and references; H. van der

Wee, *The Growth of the Antwerp Market and the European Economy*, The Hague 1963, Vol. 1, pp. 96, 288–95. For examples of goods exported from Reymerswale to London see H.S. Cobb (ed.), *The Overseas Trade of London, Exchequer Customs Accounts 1480–1*, London 1990, pp. 22, 44, 58–9, 98, 136, 141. Apart from salt and madder, other items exported included teazles, bricks, paving tiles and hats.

- 8 R. Fruin, *Het Recht der stad Reimerswael* (Werken der Vereniging tot uitgave der bronnen van het oude vaderlandsche recht gevestigd te Utrecht, Tweede reeks, No. 7), The Hague 1905, pp. 54–7; R. Huybrecht, 'Rechtsbronnen der stad Reimerswael', *Stichting tot uitgaaf der bronnen van het Oud-Vaderlandse recht, Verslagen en mededelingen*, nieuwe reeks, I, 1978, pp. 47–143, esp. pp. 96–102. No registers of the guild or other lists of members' names have survived.
- 9 C. van Mander, *Het Schilder-Boeck*, Haarlem 1604, fol. 261v.
- 10 The biography constructed for him by H. Hymans, 'Marin le Zélandais, de Romerswael', *Bulletins de l'Académie royale des sciences, des lettres et des beaux-arts de Belgique*, 3e sér., VII, 1884, pp. 211–20, has been shown to be largely fictitious (see Mackor, cited in note 3). Dr Mackor followed Hymans in identifying Marinus as the 'Moryn Claessone, Zeelander' who was apprenticed in 1509 to a glass-painter of Antwerp; Mackor further equated him with a 'Marinus Nicolai de Romerswalis' who matriculated in 1504 at the University of Louvain. Dr Mackor has recently discovered, but has not yet published, evidence that from 1540 Marinus lived at Goes (like Reymerswale on the island of Zuid-Beveland) and that he died there in about 1546.
- 11 Friedländer, vol. XII, No. 167.
- 12 Reproduced and discussed in A. Mackor, 'Are Marinus' Tax Collectors collecting taxes?', *Bulletin du Musée National de Varsovie*, XXXVI, Nos 3–4, 1995, pp. 3–13.
- 13 They are classified in L. Campbell, *The Early Flemish Pictures in the Collection of Her Majesty The Queen*, Cambridge 1985, pp. 115–17.
- 14 M.P. Neuteboom-Dieleman, *Reymerswale, Burgemeesters en Schepenen 1513–1631* (Nederlandse Genealogische Vereniging, Afd: Zeeland, Prae 1600 Club, Werkgroep voor de Studie van Middeleeuwse Genealogische en Historische Bronnen), Goirle 1989, p. 5.
- 15 Compare the transcript of the 1573 account published by M.P. Neuteboom-Dieleman, *Reymerswale, De stadsrekening van 1573* (Nederlandse Genealogische Vereniging, Afd: Zeeland, Prae 1600 Club, Werkgroep voor de Studie van Middeleeuwse Genealogische en Historische Bronnen), Goirle 1990.
- 16 Behind the man, hanging from the shelf, on our right: *En[de] ... e.../ Item den byer e.../ toe zeve[n] mae[n]den/ Item den wijn .../ is waerd...* Adri Mackor generously gave the authors of this present study a copy of his transcript of the Escorial inscriptions.
- 17 Similar inscriptions are found on the Antwerp picture and on a version sold in Vienna (Dorotheum), 16 December 1919, lot 39, and afterwards in the Mautner von Markhof collection in Vienna, but both differ from the Paris and London pictures in placing the revenues from beer before those from wine. Like the London picture, the Antwerp and Vienna ledgers include in fifth place the revenues from the 'hall'; whereas in the Paris painting, the fifth item in the ledger is the income from the beer-barrow.
- 18 B.F.W.v.B. Fock, 'Uitgestorvene Zeeuwsche geslachten – Het geslacht Vocxen te Reimerswale', *Maandblad van het Genealogisch-heraldiek genootschap De Nederlansche Leeuw*, VII, 1889, pp. 5–6, 9–10. Jan Adriaensz. Voxen was Treasurer of Reymerswale in 1534.
- 19 N.M. Orenstein, ed., *Pieter Bruegel the Elder, Drawings and Prints* (exh. cat., Museum Boijmans Van Beuningen, Rotterdam, and Metropolitan Museum of Art, New York), New York 2001, p. 146 (No. 42).
- 20 Compare the clothes represented in the 'Devonshire Hunting Tapestries': G. Wingfield Digby and W. Hefford, *The Devonshire Hunting Tapestries*, London 1971, plates 9, 22, etc.
- 21 The coins were issued in the names of Louis II (died 1526) and Ferdinand I, Kings of Bohemia; Ferdinand himself took control of the mint in 1527: see E. Fiala, 'Das Münzwesen der Grafen Schlick', *Numismatische Zeitschrift*, XXII, 1890, pp. 165–264; XXIII, 1891, pp. 195–288. The reverses of the coins, showing the lion of Bohemia, are not accurately enough represented for the legends to be deciphered or for the coins to be allocated to Louis or Ferdinand and so dated. By an ordinance of February 1542, *Joachimsthalers* were banned from circulation in the Low Countries: see *Liste chronologique des édits et ordonnances des Pays-Bas, Règne de Charles-Quint (1506–1555)*, Brussels 1885, p. 257. If, as seems likely, the Paris and London pictures were painted in about 1540, it may be relevant that *Joachimsthalers* were evidently suspect coins.

- 22 Mackor 1995 (cited in note 12).
- 23 This is the opinion of Mackor in the article cited in note 12.
- 24 Friedländer, vol. XII, No. 170.
- 25 Friedländer, vol. XII, No. 169.
- 26 See Monballieu's article cited in note 3 above.
- 27 See Campbell 1985 (cited in note 13), pp. 115–17, and, for the Mautner von Markhof picture, note 17. Adri Mackor has been kind enough to send copies of his transcripts of many of these inscriptions.
- 28 For the Hermitage picture, see N. Nikulin, *Netherlandish Paintings in Soviet Museums*, Oxford and Leningrad 1987, plates 150–1; Adri Mackor kindly sent copies of his transcripts of these inscriptions.
- 29 In the Warsaw picture, for example, the candle and the candlestick resemble those in the Escorial and Prado paintings of *The Banker and his Wife*.
- 30 The exchange rates noted in the ledger came into force on 11 July 1548 and were superseded on 16 December 1551; a boxwood relief dated 1563 derives from 'The Misers' or from the closely related composition now in Moscow. See Campbell (cited in note 13), pp. 116, 118.
- 31 Campbell 1985 (cited in note 13), p. 116.
- 32 Campbell 1985 (cited in note 13), pp. 114–15, 117.
- 33 Quoted in C. Huysmans, 'Een onuitgegeven hekelschrift van het einde der 16<sup>e</sup> eeuw', *Tijdschrift voor Nederlandsche taal- en letterkunde*, XVI (n.r. VIII), 1897, pp. 44–70, p. 50.
- 34 Campbell 1985 (cited in note 13), pp. 115–17.
- 35 Campbell 1985 (cited in note 13), p. 116. The Cailleux picture is discussed and reproduced by L. van Puyvelde, 'Un portrait de marchand par Quentin Metsys et les percepteurs d'impôts par Marin van Reymerswale', *Revue belge d'archéologie et d'histoire de l'art*, XXVI, 1957, pp. 3–23; the Stibbert picture is reproduced by L. Collobi Raghianti, *Dipinti fiamminghi in Italia 1420–1570*, *Catalogo*, Bologna 1990, p. 95 (No. 167).
- 36 Spectacles, however, were one of the attributes of Temperance: compare Bruegel's drawing of *Temperance* dated 1560 (Rotterdam), reproduced in Orenstein 2001 (cited in note 19), p. 190.
- 37 The dimensions of the London panel are 92.0 × 74.6 cm. The joins (measured at the top edge) are at 23.9 and 51.3 cm giving three planks of widths 23.9, 27.4 and 23.3 cm. The Paris panel measures 93.9 cm at the left edge, 94.1 cm on the right × 77.0 cm. The joins are at 25.0 and 48.8 cm giving three planks of widths 25.0, 23.8 and 28.2 cm. The joins in both panels have been reinforced with wooden dowels visible in the X-radiographs.
- 38 The date of this treatment is uncertain but certainly predates the acquisition of the painting by the Louvre in 1989.
- 39 Report dated 29 August 1997 in the Gallery files: 'Regarding the sapwood statistic of Eastern Europe an earliest felling date can be derived for the year 1522, more plausible is a felling date between 1526...1528...1532 + x. With a minimum of 2 years for seasoning an earliest creation of the painting is possible from 1524 upwards. Under the assumption of a median of 15 sapwood rings and a minimum of 2 years for seasoning a creation is plausible from 1530 upwards.'
- 40 Calcium carbonate confirmed by EDX
- 41 Infrared reflectography was carried out using a Hamamatsu C2400 camera with an N2606 series infrared vidicon tube. The camera is fitted with a 36mm lens to which a Kodak 87A Wratten filter has been attached to exclude visible light. The infrared reflectogram mosaics were assembled on a computer using an updated version of the software (VIPS ip) described in R. Billinge, J. Cupitt, N. Dessipris and D. Saunders, 'A note on an improved procedure for the rapid assembly of infrared reflectogram mosaics', *Studies in Conservation*, 38, ii, 1993, pp. 92–8.
- 42 Organic analysis using FTIR spectroscopy and GC–MS was conducted by Raymond White and Jenny Pilc. In samples from four different areas linseed oil was found, with no indication of the presence of resin. In three samples the oil was not heat-bodied but in the red lake glaze on the coat of the man on the right it was apparent that the oil had been heat-bodied.
- 43 Inorganic pigments were identified microscopically and by EDX analysis by Marika Spring;
- 44 High performance liquid chromatography (HPLC) was used for analysis of the lake pigment dyestuffs. For details of the equipment and method see L. Campbell, J. Dunkerton, J. Kirby and L. Monnas, 'Two Panels by Ercole de' Roberti and the Identification of "veluto morello"', *National Gallery Technical Bulletin*, 22, 2001, pp. 29–41, esp. pp. 32, 38 and 39, n. 13. The gradient conditions used were slightly different to those published: starting concentration of the acetonitrile eluent (B) 5%; 5–30% B in 100 mins; 30–45% B in 45 mins; 45–75% B and flow rate reduced from 20  $\mu\text{l min}^{-1}$  to 16  $\mu\text{l min}^{-1}$  in 140 mins, then held for 30 mins; 75–95% B and flow rate restored to 20  $\mu\text{l min}^{-1}$  in 10 mins and held for 20 mins; 95–5% B in 10 mins.
- 45 See, for example, 'Methods and materials of Northern European painting in the National Gallery, 1400–1550', L. Campbell, S. Foister and A. Roy, eds, *Early Northern European Painting*, *National Gallery Technical Bulletin*, 18, 1997, pp. 37–8 and n. 142, p. 51.
- 46 The use of a red lake from an insect dyestuff over a madder lake has been observed in works by Lorenzo Lotto, Raphael and Garofalo (see, for example, J. Dunkerton, N. Penny and M. Spring, 'The Technique of Garofalo's Paintings at the National Gallery', *National Gallery Technical Bulletin*, 23, 2002, pp. 20–41, esp. pp. 34, 36 and 41). The madder lake is also typical in that little, if any, alizarin is present in the dyestuff: the principal constituent is pseudopurpurin. (Pseudopurpurin is 1,2,4-trihydroxyanthraquinone-3-carboxylic acid, from which purpurin may be formed by, for example, decarboxylation over time: if the ground root is left exposed to the air for a period, perhaps. The fact that very little purpurin is present in many fifteenth- and sixteenth-century madder lakes examined, including those identified here, suggests that the root may have been used relatively soon after it was ground, or it was packed in such a way that air was largely excluded. Very little purpurin, either free or as a glucoside, is itself present in the root of *Rubia tinctorum* L. madder.) The apparent lack of alizarin is a common feature of madder lakes in both northern European and Italian paintings of the fifteenth and sixteenth centuries, but why it should be so is not clear: it may be connected with the temperature at which the dyestuff was extracted, but there are several other possible explanations. This point is discussed further in J. Kirby, 'Observations on some Aspects of Medieval and Renaissance Lake Pigment Technology', paper presented at the 21st Meeting of Dyes in History and Archaeology, Avignon, October 2002, in course of publication. Similar results were obtained some years ago from the analysis of red lake pigments in several German paintings using thin layer chromatography at the Instituut Collectie Nederland (formerly the Centraal Laboratorium voor Onderzoek van Voorwerpen van Kunst en Wetenschap), Amsterdam: Dr Judith H. Hofen de Graaff, personal communication. Other parameters to be considered include the amount of alizarin precursor (the glucoside ruberythric acid) in the original root, its successful hydrolysis to give alizarin and the relationship between the pigment and the dyed textile. With all the possible variables and the presence of a sophisticated madder industry, the postulation of the use of wild madder, *R. peregrina* L., which has a very low alizarin content, seems unnecessary.) Unlike madder lakes, where the link between their preparation and the textile dyeing industry is presumed rather than definite, it is clear that scale insect dyestuff lakes, such as those prepared from kermes, were usually prepared from shearings of dyed textile or other textile waste rather than directly from the insect. The principal constituent of the kermes dyestuff is kermesic acid, with a variable amount of flavokermesic acid, but kermes lakes from the fifteenth and sixteenth centuries frequently have a high kermesic acid content with little, if any, flavokermesic acid and the indirect method of preparation may be one explanation for this (Kirby, cited above). The lake used in the London version of the 'Two Tax-Gatherers' is, however, unusual in that it contains some flavokermesic acid and an unexpectedly substantial amount of sulphur and potassium, as well as aluminium, in the substrate. Lakes with a similar substrate pattern and dyestuff profile have been identified in other sixteenth-century paintings and it is possible that the connection between the pigment and the textile bath is rather different, and possibly more direct, in these cases (Kirby, cited above; Dunkerton, Penny and Spring 2002, cited above, p. 34 and n. 33 p. 39, referring to a madder lake with a similar substrate profile).
- 47 The use of black and red for deep purples was not unusual in the sixteenth century. See L. Campbell and J. Dunkerton, 'A famous Gossaert rediscovered', *Burlington Magazine*, CXXXVIII, 1996, pp. 164–73.