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Plate 8 Altdorfer, *Christ taking Leave of His Mother* (No. 6463). After cleaning and restoration.

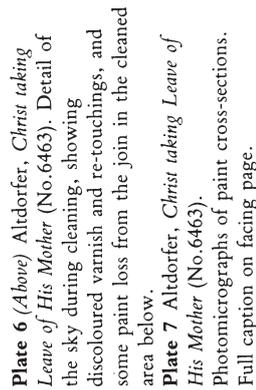
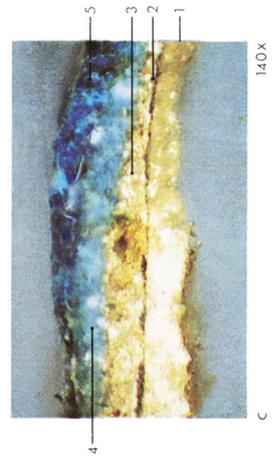
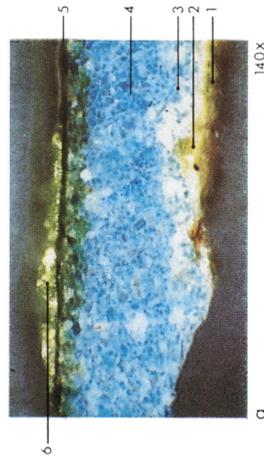


Plate 6 (Above) Altdorfer, *Christ taking Leave of His Mother* (No. 6463). Detail of the sky during cleaning, showing discoloured varnish and re-touchings, and some paint loss from the join in the cleaned area below.
 Plate 7 Altdorfer, *Christ taking Leave of His Mother* (No. 6463).
 Photomicrographs of paint cross-sections. Full caption on facing page.

Altdorfer's 'Christ taking Leave of His Mother'

Alistair Smith and Martin Wyld

A note on historical references

Alistair Smith

The National Gallery acquired this painting from the Wernher Estate in October 1980 (see Plate 8, p. 50). Immediately after the completion of the negotiations, the painting was put on display in the Gallery and thus some months were available for its examination prior to treatment being commenced. The treatment is described by Martin Wyld in the section which follows. This note undertakes to make some comment of an art-historical nature on the infra-red photographs and X-radiographs which were employed in the technical examination of the painting. More lengthily it discusses the possible date at which the picture was executed [1].

Before the removal of the layers of old varnish, indeed while the painting was still at Luton Hoo, I had noticed on a column in the background what I took to be three numbers, unmentioned by previous commentators (Fig. 16, p. 64). These were recorded in photographs taken before the removal of the varnish. Warily I made no publication of these characters, important though I thought them to be, since it was possible that they might have been added to the

painting at a later date. They did not, however, disappear, as did late re-touchings, during the cleaning process and are now understood to be part of the original autograph structure of the paint.

I take the figures, although they are rather blurred by wear, to be 520 (the last floriated), and I presume that they are meant to indicate that the painting was executed in 1520. It was common practice at the time for parts of inscriptions, when the meaning of the whole was self-evident, to remain hidden in a fold of drapery or, as in this case, to lurk around the curvature of a column. In short, the figure '1' of 1520 is to be thought of as being out of sight.

There are objections to the total acceptance of these characters as an autograph date – the floriated nature of the 0, the curved shape of the 2, the hidden 1 – these are not wholly characteristic of the dates inscribed on Altdorfer's work. Nevertheless, it is perhaps correct to offer the possibility for consideration by other scholars, and to make some summary of previous opinions on the date of the painting.

The earliest recorded mention of the painting occurs in a manuscript preserved in the Staatsbibliothek, Munich. In it are gathered Halm's extensive notes under the title *Materialien zur Bayerischen Kunstgeschichte* [2]. His section on Albrecht Altdorfer includes a list of works by him which could still be seen in Regensburg in 1809. The first to be enumerated are those in the collection of Celestin Steiglehner, Prince-Abbot of S. Emmeram, and heading them is *The Epitaph of a Family of Regensburg Citizens* (Fig. 1). The description runs as follows:

Shortly before His Passion, the Saviour takes leave of His Mother and the 4 Holy Women. The action takes place in a landscape furnished with trees.

Maria lies swooning in the arms of her companion – Christ blesses her – somewhat behind stand Peter and John. In the right foreground kneels the family for which this painting was destined, father, mother and 5 daughters [see Fig. 17, p. 64].

At the left edge one foot up from the bottom, the monogram with date:  1522.

On wood, in oil, 4½ foot high, 3½ foot wide.

There is no doubt that Halm is describing the painting now in the National Gallery. Even if the provenance of the painting were not continuous onwards from the Steiglehner collection, the details given by Halm are astonishingly precise – even the measurements accord. Yet the painting now displays no monogram and no date of 1522 is visible one foot from the bottom edge. Further, the inscription is not recorded by any other commentator on the painting. Neither is it visible on the earliest photograph of the painting [3], and it seems certain that it had disappeared by

Plate 7 Altdorfer, *Christ taking Leave of His Mother* (No. 6463).

Photomicrographs of paint cross-sections, photographed in reflected light at 250× magnification; actual magnification on the printed page shown beneath each photomicrograph.

(a) Mid-green foliage of tree, top edge.

1. Trace of chalk ground.
2. Thin lead white underpaint, containing scattered aggregate particles of red lead (lead tetroxide, Pb₃O₄).
3. Sky paint: azurite + lead white.
4. Darker tone of sky: as layer 3, with a greater proportion of azurite.
5. Dark foliage: thin 'copper resinate' glaze. The layer seems to have partially permeated the sky paint beneath.
6. Highlight spot on foliage: lead-tin yellow ('type I').

(b) Thick, yellow-green highlight on foliage of tree.

(Chalk ground and underpaint (?) missing from sample.)

1. Sky paint: azurite + lead white.
2. Dark foliage or branch: 'copper resinate' glaze containing some opaque material, including a black pigment.
3. Foliage highlight: lead-tin yellow ('type I') + verdigris.

(c) Dark blue edge of the Virgin's robe over paint of the foreground.

1. Chalk ground.
2. Layer of drawing: probably charcoal.
3. Mid-brown of foreground: lead white mixed with earth pigments, and some red lead (lead tetroxide, Pb₃O₄).
4. Mid-blue of Virgin's robe: azurite + lead white.
5. Deepest shadow of robe: pure, coarsely-ground azurite.



Figure 2 Wooden tablet as published by Winzinger [8]. S. Emmeram Sacristy, Regensburg.

1835 when the first volume of Nagler's *Künstler-Lexicon* was published [4]. Here we read:

In the estate of the last Prince-Abbot of St. Emmeran [sic] were nine pieces which the municipality of Regensburg haggled over with the Catholic parish administration and the heirs of the Prince. The choicest of these is *Christ taking Leave of His Mother*, painted in 1538; therefore Altdorfer's last painting.

It seems to have been impossible for even an encyclopaedist of the romantic era to resist the temptation to postulate a direct relationship between Altdorfer's life and his art – the bridge was built between Christ's farewell to his mother and Altdorfer's farewell to the world.

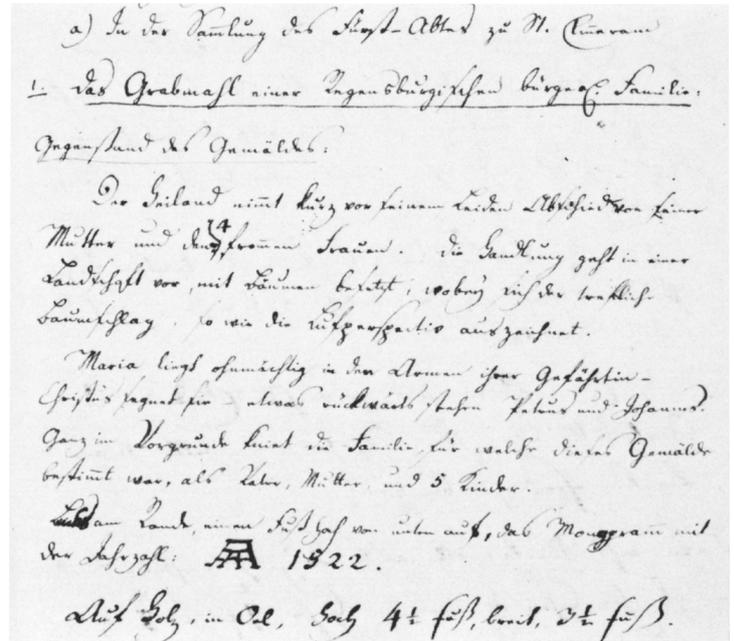
This presumption was repeated by some, but not all, later scholars. Both Sidney Colvin [5] and T. Sturge Moore [6], joined the group of the unwary.

Others took up the problem created in Halm's reference. Endres [7], for example, tried to explain away Halm's assertion in an ingenious but, I feel, unacceptable manner [8]. In the sacristy of S. Emmeram is preserved a piece of wood measuring 107 cm in width and which is thus close in size to the painting (111 cm wide). It bears the inscription ALBERTVS ALTDORFER/PICTOR RATISBONENSIS FECIT, MDXXII (Fig.2). Endres presumed that Halm was referring to this piece of wood. Yet Halm's description is extremely precise in its details both of the position of the inscription and its form. The monogram was used and the date was given in Arabic numerals. This differs significantly from the inscription on the wooden tablet where Altdorfer's name is written in full and the date rendered in Roman numerals. Thus Halm could scarcely be describing it.

The evidence of the X-radiograph is of interest in this respect. If the inscription really did exist on the painting when Halm saw it, then it disappeared soon afterwards. The most likely cause of this postulated disappearance is that it was removed during treatment by a 'restorer'. The X-radiograph (Fig.4), however, shows no area of damage 'at the left edge one foot up from the bottom' which might suggest the loss of a significant area of the original paint containing the monogram and date.

There are two alternative deductions that one might make from the observations:

1. That the monogram and date seen by Halm were not original. Thus they could have been removed during an unrecorded bout of restoration in the nineteenth century without leaving evidence of removal on the original paint layer.



2. That Halm never saw the inscription and was either confused in his notes (which is highly unlikely), or was indeed referring to the tablet now in the sacristy.

Figure 1 MS. of 1809 describing the painting. Staatsbibliothek, Munich.

Both these tentative conclusions leave the painting without any authoritative dating. They do, however, leave the way open for a consideration of what I suggest might be the until now unnoticed date sited above the relief showing the *Flagellation* on the column in the background (Fig.16). As stated above, it is possible that this documents the execution of the painting in 1520. This accords reasonably well with the general force of scholarship, for the tendency has been to remark upon the similarity between *Christ taking Leave of His Mother* and the altarpiece for the Collegiate Church at S. Florian near Linz [9], and to found a dating of the former upon the more precisely ascertainable date of the latter. The sequence of execution of the S. Florian paintings is open to discussion; yet their commission is known to have been given in 1509, and one of the pictures (the *Resurrection* from the predella) carries the inscription 1518. Thus the *Christ taking Leave* has been dated variously in relation to these paintings from 1513/14 to 1518/19.

General correspondences are easily seen. Architecture, handling and colour are all similar. Even the characterization of Christ is comparable, as is the precise colour of shift he wears. Certainly, there is nothing to suggest that a dating of 1520 would be impossible. Indeed, since the subject of *Christ taking Leave of His Mother* does not appear within the S. Florian altarpiece, one might deduce that Altdorfer had originally prepared a design for the altarpiece

which was never used, but which he worked up on a slightly larger, but similarly proportioned panel, at a slightly later date.

An examination of the X-radiographs and infra-red photographs allows us an insight into Altdorfer's working method. A few comments might help to introduce Martin Wyld's description of technique. In the infra-red (Fig.10), Christ's features are considerably more delicate and refined than in the completed painting, in which his head is enlarged and forehead broadened. This is the general tendency in the execution of most of the figure areas. In the final execution feet and hands expand beyond the contours originally drawn.

The character of the underdrawing itself resembles more closely the style of some of Altdorfer's prints rather than his beautifully rhythmic brush drawings. The drawing is free, yet the major areas of dark and light drapery, for example, are marked out and followed in the final painting. Changes in detail are, naturally, visible. Areas of foliage above Christ's head have been suppressed. There are changes in the construction and detail of the architecture. Compositional alterations can also be seen – the scale of the peaks above Christ's blessing arm has been diminished; the youthful standing woman was originally placed to the left of her present position. The most important narrative change concerns the hand of Saint John the Evangelist which seems to have assumed its present position only at a post-drawing stage. The infra-red shows only a thumb and forefinger raised in a gesture of exposition. The final gesture is a perfect claw-like echo of Christ's own hand raised in benediction.

Notes and references

1. As such, these comments constitute part of a longer article, now in preparation, dealing with several aspects of the painting including its sources, iconography and provenance. The painting is also to be the subject of an 'Acquisition in Focus' exhibition at the National Gallery late in 1983.
2. MS. cod. germ. 5126, Vol. 1, previously referred to in the Altdorfer literature but never reproduced or transcribed.
3. A photograph which describes the painting as *Le Christ guérissant les malades* was published by Braun et Cie in 1910. An example was kindly shown to me by Mr J. Urwick Smith, curator at Luton Hoo, to whom I am grateful for this and many other useful details.
4. *Neues allgemeines Künstler-Lexicon bearbeitet von Dr G.K. Nagler* (Munich 1835) p.80. WINZINGER (see ref. 8) points out that this date was already given in brackets in the inventory of Steiglehner's estate.
5. COLVIN, S., 'Dürer and the Little Masters – Albrecht Altdorfer', *The Portfolio* (London 1877), p.140.
6. STURGE MOORE, T., *Albrecht Altdorfer*, 1900.
7. ENDRES, I.A., *Kalendar Bayerischer Kunst*, 1908, p.8.
8. Endres' view is also accepted in the modern monograph, WINZINGER, F., *Albrecht Altdorfer, Die Gemälde* (Munich 1975), p.83.
9. WINZINGER, *op. cit.*, nos.9 – 24.

The treatment of the picture

Martin Wyld

The condition on acquisition

Altdorfer's *Christ taking Leave of His Mother* (No.6463) was examined by the National Gallery Conservation Department before its acquisition in October 1980 (Fig.3). As is customary, X-radiographs and infra-red photographs were taken (Figs.4 and 10 – 12) and the picture was studied with the infra-red vidicon system and under ultra-violet light. The information gained by these methods, and by examination with a low powered stereoscopic microscope, confirmed that the condition was good. The paint could be seen to be well-preserved, and the examination also produced a considerable amount of information about the artist's technique and the structure of the picture. Altdorfer had used a panel (later identified as lime wood [*Tilia* sp.]) of six planks joined vertically. With the exception of the right-hand plank, which was 5.4 cm wide, the planks were between 17.9 cm and 22.8 cm in width, adding up to a total of 1.11 m. All six planks ran the full length of the picture (1.41 m) and all four edges had an unpainted wooden border of roughly 1 cm.

There was no indication of the original thickness of the panel; it had been planed-down to about 6 – 8 mm and cradled (Fig.5). Clearly, many of the joins between the six planks had at some time separated and been re-glued. The repairs had been done inaccurately, leading to different levels on the paint surfaces either side of the joins. Additionally, parts of the left-hand and central joins had opened since the repair, though this condition was not dangerous.

The X-radiograph (Fig.4) gave a very clear guide to the amount of paint which had been lost. Some paint had flaked away in the trees near the top edge at the right, and the bottom edge was similarly affected. The loosening and repair of the joins had led to some thin strips of paint loss along them, most prominently in the sky. Otherwise, the surface of the paint was exceptionally well-preserved apart from slight wearing in the sky.

At least two previous restorations could be seen. The two left-hand joins, which had suffered the most from paint loss, were crudely covered by oil paint re-touchings very much wider than actual losses. These re-touchings were not close to the perceived colour of the original paint through the varnish, over which they had been applied (Plate6, p.50). Information was received later which established that the picture had been restored c.1947, but had not been cleaned at the same time. The losses along the joins and at the top and bottom edges, and the wearing in the sky, had been more accurately re-touched at an earlier date, and these re-touchings were not obtrusive. The varnish layer was thick and considerably, though not markedly, discoloured.

Cleaning

It is National Gallery policy for an important new acquisition to be put on display immediately, unless it

is in a dangerously fragile state or is so dirty that its appearance is seriously distorted or obscured. Neither of these conditions applied to Altdorfer's *Christ taking Leave of His Mother*, although some concern was felt about the fragility and thinness of the panel and the effect of the massive cradle (Fig.5). The painted surface was a little obscured and its colour distorted by the yellow varnish, and the recent (c.1947) re-touchings were rather obvious (Fig.10), but the picture was exhibited immediately.

Towards the end of 1981, nearly a year after acquisition, the Gallery's Trustees gave their approval to the treatment which was felt to be necessary to put the panel into sound condition, and to allow the picture to be seen free of disfiguring old varnish and re-touchings.

After detailed photographs had been taken to record the condition before cleaning, some small tests were made. The crude re-touchings over the varnish were easily soluble, and so was the varnish layer itself. The earlier layer of re-touchings, which were more or less confined to the losses, could be softened and scraped away without difficulty. Plate 6 (p.50) illustrates the change in the colour of the sky when the varnish and re-touchings were removed, and also shows the poor quality of the more recent layer of re-touching.

One alteration had been made to the picture by a previous restorer, perhaps at the same time as the losses had first been restored. The left foot of the figure supporting the prostrate Virgin had been altered by being partly overpainted with red drapery of roughly the same colour as that of the surrounding robe. It is not clear why this was done; the foot is well-preserved and the alteration produced an implausible effect.

After cleaning it was clear that the majority of the losses along the joins were not the result of paint flaking away. After the rather unskilful repair of the joins between the planks had left differences in level between the adjoining paint surfaces, the paint, ground and in some places a thin layer of wood had been scraped away to eliminate the steps between the planks. The upper part of the two left-hand joins, where they run through the sky, had been scraped down the most. The losses caused by this treatment were between 3 mm and 8 mm wide in the worst parts of the two left-hand joins, although the losses from the three right-hand joins were negligible. Apart from these losses, the flaking at the top and bottom edges and some slight wearing in the sky and in the blasted tree silhouetted against it, the picture had suffered no significant damage.

The treatment of the panel

Fig.5 shows the back of the panel as it was on acquisition, and Fig.6 is a detail of the cradle at the top left corner. Though the planed-down original panel was stable, and apparently had not warped or shrunk since it had been cradled, the left-hand and central joins had become partially separated. All five joins were, as is usually the case, covered by the fixed vertical members of the cradle, which prevented any repair being made



Figure 3
Altdorfer,
*Christ taking
Leave of His
Mother*
(No.6463),
on acquisition.

to the insecure parts. Some small splits at the endgrain of the original planks at the top and bottom were also in need of repair. Since the principle of cradling is for obvious reasons unsound, it was decided that the cradle should be removed and the necessary repairs made for the sake of the future stability of the panel.

After the picture had been cleaned, and photographed again, it was faced with Eltoline tissue, placed face down on Melinex covered felt and lightly clamped to a solid flat board. The fixed vertical members of the cradle were sawn through to within 1–2 mm of the back of the panel and gouged away in sections, thus releasing each of the oak crossbars in turn. This process revealed that the middle part of the panel was thicker than the edges, there being a step 2–3 mm in height about 10 cm in all from all four edges (Figs.7 and 8). The thinner borders of the panel had been made up to the same thickness as the middle (c.1 cm) with additional strips of wood before the main cradle had been glued on. The spaces cut out for the six butterfly keys securing each join (except the right-hand one) had been reduced in depth to 2–3 mm when the panel was planed. No trace of the original keys remained, but the shallow spaces were filled with the same softwood as the strips at the edges.

It is unlikely that the steps at the edges were part of the original panel construction. Although some German panels of this period have channels at or near the endgrain of the planks in order to accommodate battens which were fixed to the frames, the channels



Figure 4 X-radiograph of the whole, before the removal of the cradle. Note the very broad brushstrokes used to apply the sky paint, which extends under the trees on the right.

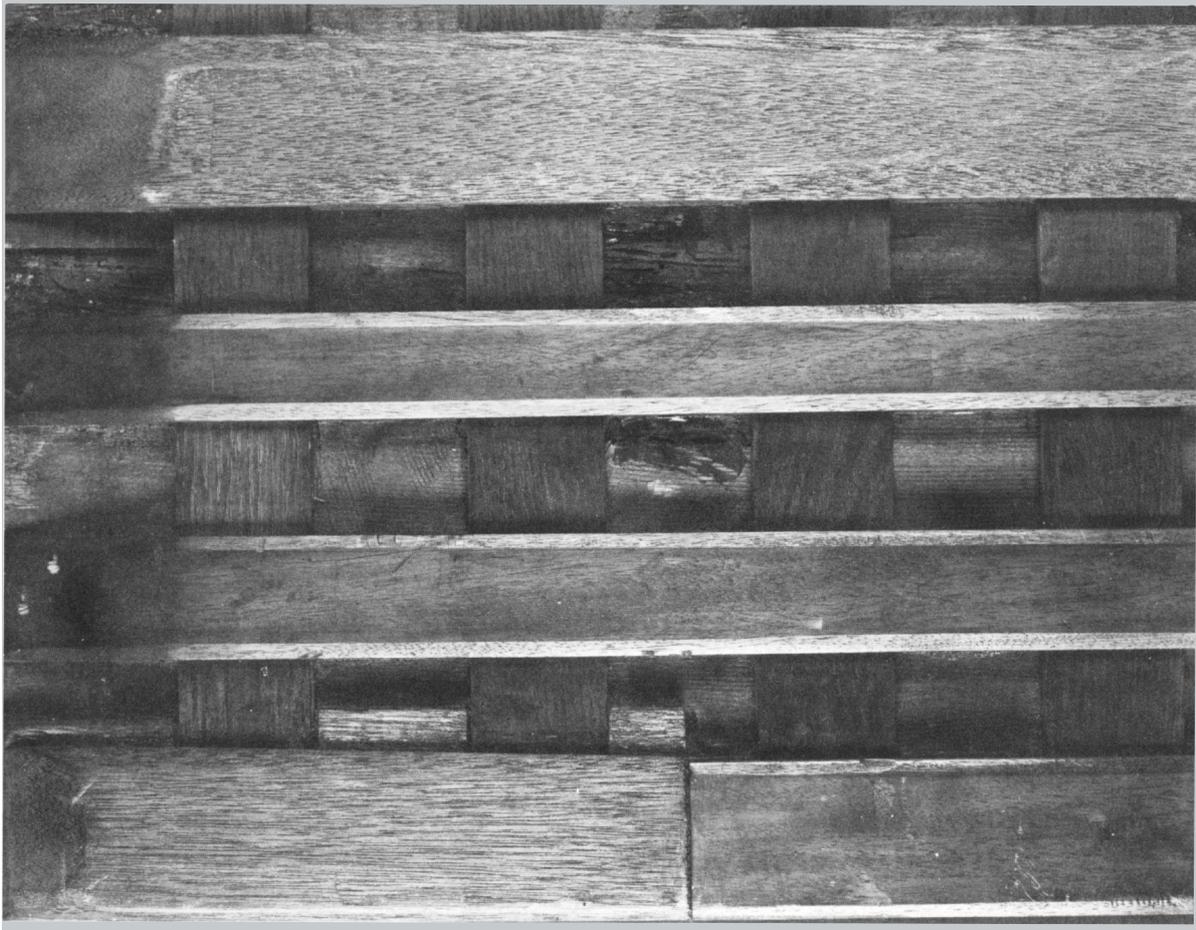


Figure 6 Detail of the top left corner of the cradle on acquisition. The cradle consists of oak cross-members; the fixed vertical parts are mahogany.

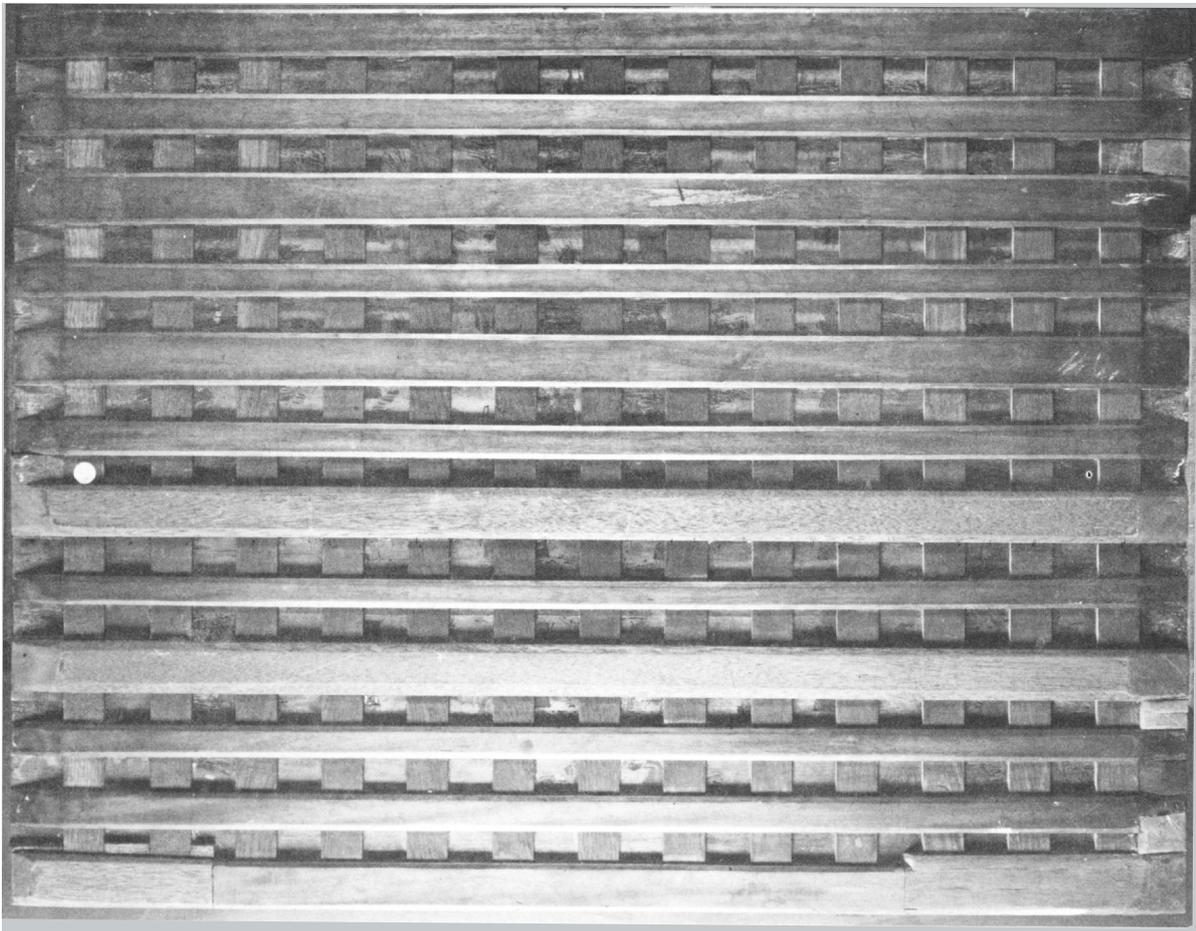


Figure 5 The back of the panel on acquisition.

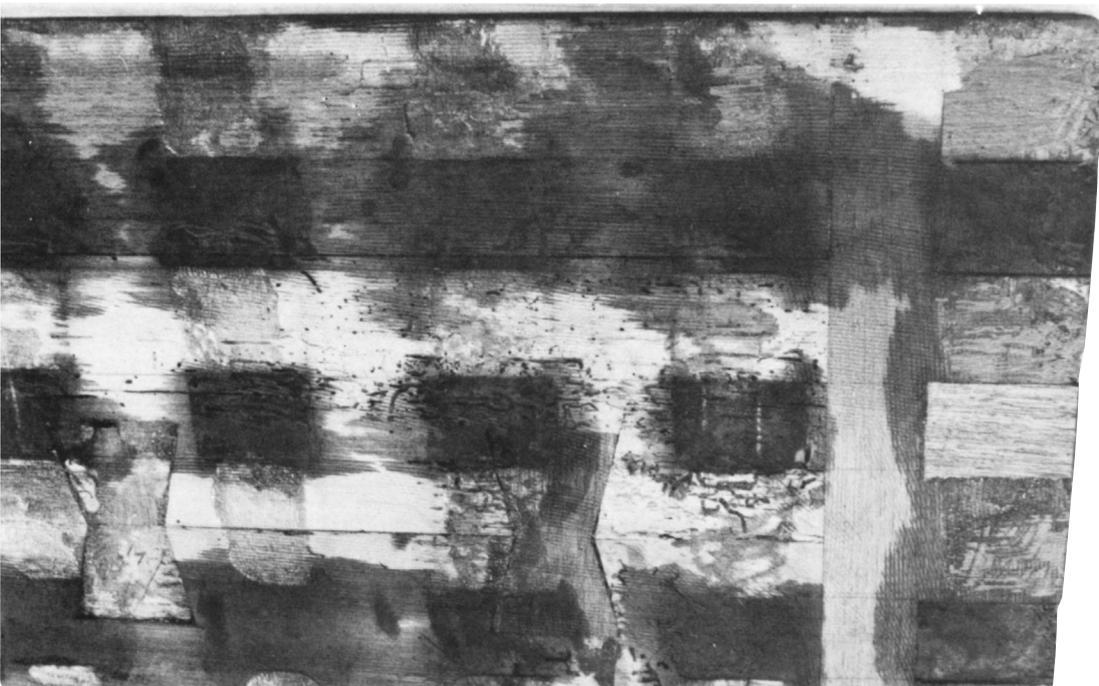
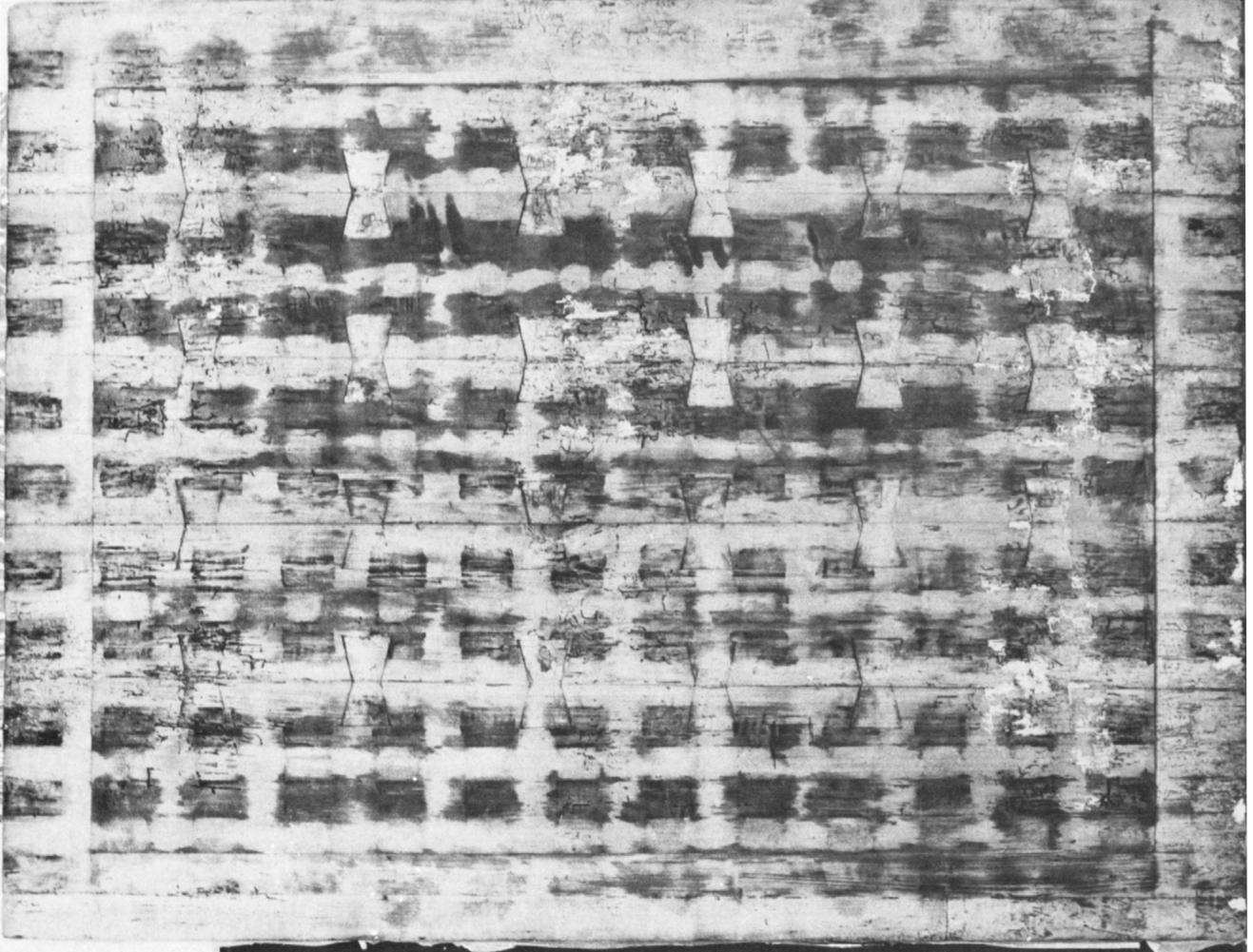


Figure 7 (*Above*) Detail of the bottom right corner of the panel during cradle removal. The main part of the cradle has been removed, leaving the 10 cm wide strips of wood at the edges, and the similar wood filling the butterfly key spaces. **Figure 8** (*Right*) The back of the panel after the removal of the cradle and of the strips at the edges. The steps at the edges and the joins in the panel can be seen. The right-hand plank (here on the left) was only 5.4 cm wide and the join was not reinforced with butterfly keys, as the other four were.



Figure 9
The whole after
cleaning and
restoration.

are seldom to be found on all four sides. In addition, a lime-wood panel would be considerably weakened by having 10 cm wide strips at its edges which were only 5–7 mm thick. By contrast the use of butterfly keys is consistent with the period of the picture. The worm channels are not an infallible guide to the status of the butterfly keys. If two pieces of wood which have been attacked by woodworm whilst glued together (as might happen with a butterfly key and the adjoining part of the panel) are then separated, the worm channels appear the same as in a solid plank which has been worm-eaten and then planed-down. Thus it is possible that the spaces for the butterfly keys were cut

after the woodworm attack and so may not be part of the original construction of the panel. It should be mentioned that there was no sign, in the remaining part of the original wood, of the use of dowels to join the planks together.

After the removal of the cradle and the thin strips of wood at the edges and in the spaces cut for the butterfly keys (Fig.8) the panel was turned over and the uneven joins between the planks were examined to assess the feasibility of re-aligning the surface of the picture by breaking and re-glueing. The most uneven parts of the joins were the lower half of the left-hand join and the part of the central join above Christ's

Figure 10
 Infra-red of the
 whole on
 acquisition.
 The re-touchings
 done in 1947 show
 clearly in the two
 left-hand joins,
 particularly in the
 sky.



head. It appeared that all the joins, with the exception of the right-hand one, had become at least partially unstuck and been re-glued after the panel had been planed-down. The re-glueing had been careless; excess glue was spread over the back of the panel, and the unevenness of the paint surface either side of the joins had led to the drastic treatment of scraping away the paint from the edges of the planks. The fragility of the panel due to worm damage, and the quality and strength of the glue used in the re-joining, led to the decision that there would be an unjustifiable risk in attempting to break and re-align parts of the joins.

The insecure parts of the left and central joins at the bottom of the panel, and some small splits corresponding with the edges of the vertical members of the cradle, were repaired with 'Cascamite' a urea-formaldehyde adhesive. The panel, though thin and fragile, was stable, and displayed no tendency to warp or distort, although it was of course kept in a controlled environment while the work was carried out. The steps at the edges, and the spaces cut for the butterfly keys, were brought up to the level of the main part of the back of the panel with a stiff cement of sawdust and wax, which was also used for



Figure 11
Infra-red detail of
the group of
figures and
architecture on
the left.

strengthening the worm-damaged areas. The back of the panel was then built up with two layers of balsa-wood secured with wax and protected by linen [1].

The different woods used in the cradle were identified as oak, mahogany and spruce but gave no real indication of when or where the cradle might have been made. Cradling is so much an English vice that there must be a strong probability that the picture was planed-down and cradled after its purchase by the Rev. John Fuller Russell in 1851.

Restoration

After the treatment of the panel had been completed, the facing was removed and the picture thinly varnished with Ketone-N. The National Gallery's approach to restoration is undogmatic and flexible. The guiding principles are that lost or damaged areas should not be so prominent that they overwhelm the remainder of the picture, that no invention should be attempted if a substantial part of a picture is missing, and that no original paint should be covered by the re-touching. The damage to Altdorfer's *Christ taking Leave of His Mother* was slight but distracting. The fine

Figure 12
 Infra-red detail of
 Christ, S. Joseph
 (in the
 background) S.
 Peter and S. John
 the Evangelist.



lines of paint loss along the joins destroyed both perspective and atmospheric recession within the picture, and it was decided that they should be re-touched. The re-touchings were done as far as possible in the same paint layers as used in the picture. The materials used were, of course, different, in order to prevent the re-touchings becoming discoloured or hard with age. Watercolour was used for the main opaque paint layer, which was generally smooth and thin except in the foliage, and Paraloid B72 with powder pigments was used for the glazes. A thin final varnish of Ketone-N was sprayed on the picture which was returned to exhibition with the Trustee's approval in June 1982 (Fig.9 and Plate8, p.50).

The technique of painting

The lime panel was given a thin ground of chalk bound in glue. The drawing-in was done with a brush directly on top of the ground, using some form of carbon black. The thinness of the drawing layer (see for example, Plate7c, p.50) made medium analysis impossible, but probably oil was used. Much of the drawing-in is clearly visible in the infra-red photographs (Figs.10 – 12) and it is most detailed in the figures and architecture. It is not known how much detail was used in the drawing-in of the trees and landscape (neither infra-red photography nor the infra-red vidicon system penetrates the thick copper-

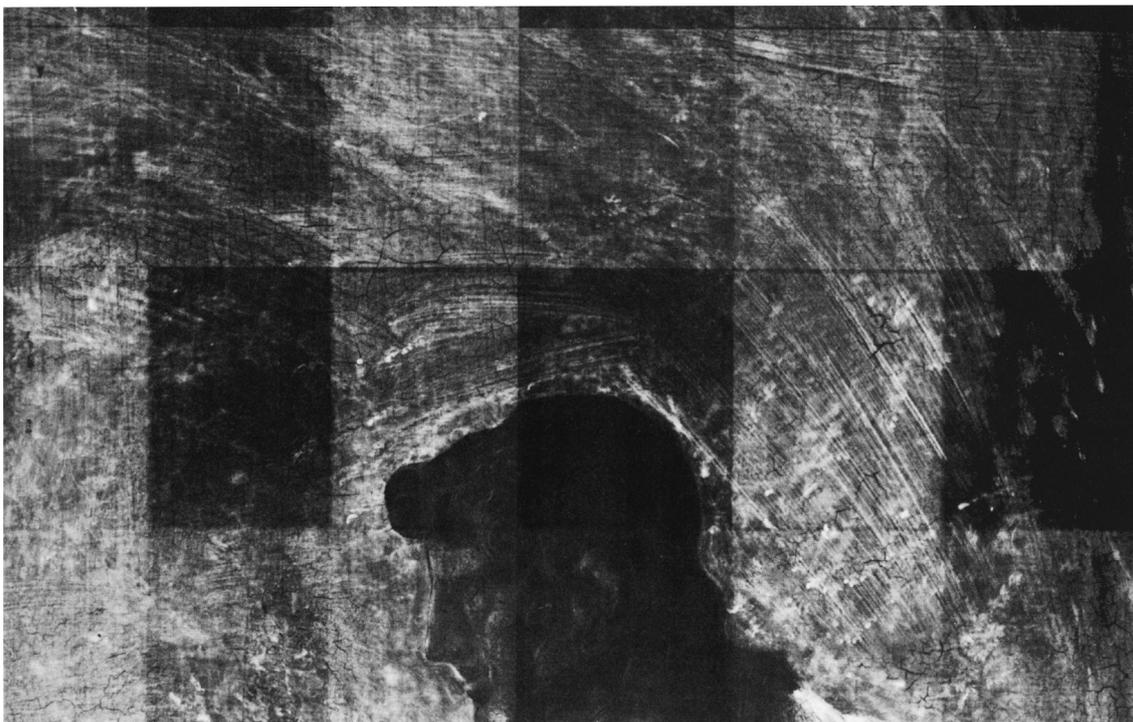


Figure 13 X-radiograph detail of the head of S. John the Evangelist, showing the brushstrokes of the sky around the head, and some of the thicker paint of the foliage.

containing paint of the foliage). A very thin layer of lead white, containing a few red lead particles, covers the chalk ground under the architecture, figures and foreground. This preparatory layer is so thin that it is semi-transparent and the drawing-in can be seen through it. After these preparatory layers, the sky was vigorously painted in one main layer (with the deeper tones laid on top), and follows the drawing-in lines of the architecture on the left, the mountain on the horizon near Christ, and very precisely round the areas where the heads of Christ, S. John and S. Peter had been drawn (Figs.13 – 15). The sky paint extends over the whole of the upper right part of the picture where the trees were later painted (see Plate7a, p.50). The X-radiograph (Figs.4 and 13) clearly shows the breadth of the brushstrokes, which end at the tree-trunk at the right edge of the picture.

The foreground and landscape were painted in one main layer, with local highlights and details on top. The layer structure of the trees is more elaborate. The trunks and branches are again in one main layer with local details, but the foliage consists of many layers. The yellow highlights are almost pure lead-tin yellow containing traces of green, probably verdigris (Plate7b, p.50). Under the highlights are various green layers, based principally on ‘copper resinate’ and all to some extent translucent.

The architecture, most of which was painted before the figures, has an opaque warm light brown underlayer containing red lead and traces of vermilion. The architecture is completed and the shadows and details defined by a translucent umber-coloured glaze.

The figures were the last part of the picture to be

painted. Christ’s red drapery has been identified as kermes lake over a lighter underpainting [2]; a red lake glaze over vermilion underpaint is used for the red drapery of the figure supporting the prostrate Virgin. All the blues in the picture are azurite, either used pure as in the Virgin’s robe (see Plate7c, p.50), or mixed with lead white in the sky and the robe of the kneeling figure. Ultramarine does not occur anywhere. The robe of the standing figure on the left has a main layer of lead-tin yellow glazed with ‘copper resinate’. The flesh paint (which was not sampled) is generally thin, and so slightly transparent, but must consist mainly of white lead.

Notes and references

1. SMITH, A., REEVE, A. and ROY, A., ‘Francesco del Cossa’s “S. Vincent Ferrer”’, *National Gallery Technical Bulletin*, 5 (1981), pp.47–54. The article contains a detailed description of the technique used.
2. Identified by thin-layer chromatography. The same means was used to show the red glaze of S. John’s drapery is also a kermes lake. The spot patterns on the thin-layer plate of the unknowns were compared with reference standards run concurrently.



Figure 15 Detail of the head of Christ after cleaning and restoration.

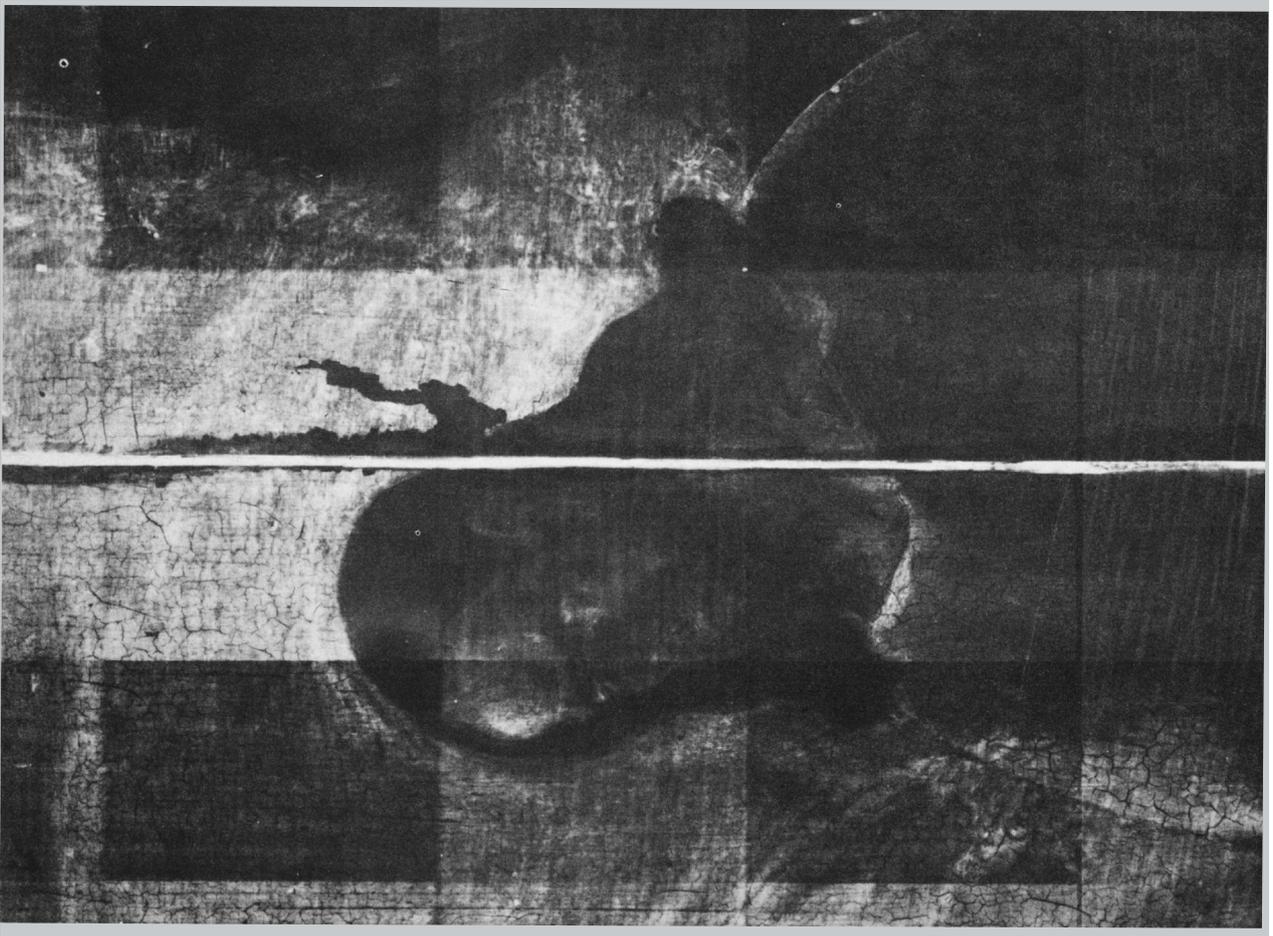


Figure 14 X-radiograph of the head of Christ, showing some paint loss and filling along the join.



Figure 16
Detail of the date.



Figure 17
Detail of the donor's family in the bottom right corner.