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Plate 3 Rubens, *The Watering Place* (No.4815). After cleaning and restoration.



Plate 4 Rubens, *The Watering Place* (No.4815). Detail of top right corner, before cleaning.



Plate 5 Rubens, *The Watering Place* (No.4815). Detail of left edge during varnish removal.

Rubens' 'The Watering Place'

Christopher Brown, Anthony Reeve and Martin Wyld

Introduction

Christopher Brown

Rubens' landscapes were the least public part of his work. Although some found their way, by sale or gift, into important collections during his lifetime, it seems unlikely that many were commissioned. It appears that in the midst of an extremely busy and successful professional life directing the activities of a thriving studio which was devoted to the production of large altar-pieces and mythological scenes, landscape painting was for Rubens a private and — at the risk of romanticizing — a therapeutic activity. In his Antwerp studio Rubens employed specialists like Lucas van Uden and Jan Wildens to paint the background landscapes.

None of Rubens' landscapes is dated but many were painted in the last ten years of his life after his purchase of the country estate of Het Steen between Antwerp and Malines in 1635. From then until his death in 1640, Rubens, often troubled by poor health, spent more and more time at Het Steen with his young family and in that rural setting, painted landscapes based on or inspired by the local countryside.

However, we know that Rubens painted landscapes earlier in his career from a description in the inventory of the collection of the Duke of Buckingham at York House, made soon after the Duke's assassination in

1628. The sequence of Rubens' landscapes has been worked out largely by stylistic analysis, although there are a few fixed points, for example the *S. George and the Dragon* in the Royal Collection was probably painted while Rubens was in England in 1629–30, and *An Autumn Landscape with a View of Het Steen* (No.66, Fig.1) presumably dates from shortly after 1635. On this basis *The Watering Place* (No.4815; Plate 3, p.26 and Fig.18) and the smaller, closely-related landscape in the National Gallery, *A Shepherd with his Flock in a Woody Landscape* (No.2924), have been placed among Rubens' earliest landscapes. At the conclusion of a lengthy discussion of their dating in the Gallery's *Flemish School Catalogue* (1970), Gregory Martin opts for the period 1615–22.

Many of Rubens' landscapes are painted on panel and these are often made up of many different pieces of wood. The *Landscape with Het Steen* is on twenty separate planks and the painting which is probably a pendant to it, the *Rainbow Landscape* in the Wallace Collection, is on nineteen. *The Watering Place* is painted on eleven separate pieces of wood and Anthony Reeve, who recently cleaned and restored the picture, has, in the course of his work on it, been able to establish the various successive stages in its physical construction and consequently in Rubens' creation of his painted landscape (see section below). In doing this he has been much indebted to the work of Gregory Martin and Joyce Plesters on the supports



Figure 1 Rubens, *An Autumn Landscape with a View of Het Steen* (No.66).

of Rubens' paintings in the National Gallery published in the Flemish School *Catalogue*. Reeve had far greater physical access to the panel as during the course of his work he removed all the battens on the back. However, his findings only differ from those of Martin and Plesters in two significant respects: firstly, misled by a split in the wood, they believed that plank 9 (see Fig.12) was made up of two separate pieces of wood, and secondly, Reeve has shown that the third stage in the painting of the landscape extended only as far as the top edge of plank 6 and not to the top of the panel as they believed.

The implications for Rubens' working practice of this type of complex support are difficult to assess. It has usually been said that he expanded his landscape compositions as he worked and indeed the close relationship between the *Shepherd with his Flock in a Woody Landscape* and *The Watering Place*, which repeats its central area, would seem to support this. However, it is far more difficult to apply this notion of his working practice to paintings like the *Landscape with Het Steen* or the *Rainbow Landscape* which have even more complex supports and yet seem, by the nature of their compositions and their *facture*, to have been designed and executed in a single campaign of work. Two observations about Rubens' procedures are relevant. In the first place, there are very few compositional drawings on paper for Rubens' painted landscapes which may suggest that he composed as he worked on his panels and canvases. Secondly, the oil sketch was his favoured method for working out his ideas for large projects: there are oil sketches, sometimes both *bozzetti* and more elaborate *modelli*, for the major paintings and series of paintings and tapestries undertaken in Rubens' studio. He was, therefore, very familiar with the technique of organizing his compositions in oil on panel and it may be that the early stages of a painting like *The Watering Place* (which can be reconstructed with the help of X-radiographs) served a function analogous to that of a *modello* for a history painting. However, no useful generalizations about Rubens' procedure in painting his landscapes can be made until more detailed analyses, of the type undertaken on the National Gallery paintings by Martin and Plesters and developed here by Reeve, are available.

The treatment of the picture Anthony Reeve

Of all the pictures in the National Gallery, Rubens' panels have been the cause of greater concern, because of their condition, than any other part of the Collection. The reason for this is well-known. Rubens frequently found it necessary to enlarge his pictures after he had started painting. When canvas was used as a support, additions could be sewn on without difficulty, and although the seams might eventually become very prominent, for instance if a lining pushed the stitches and turned back edges of the joins through the surface of the picture, the conservation problems are relatively simple. *Minerva Protects Pax from Mars (Peace and War)* (No.46) is a good example of this. However, Rubens' oak panels, often enlarged in several different stages, are amongst the most inherently unstable supports used by any artist [1].

There is a great difference between the oak supports which, although made up of many planks joined together, were not enlarged during the painting process, and those which were added to. Examples of the former type in the National Gallery include *The Rape of the Sabine Women* (No.38) (1.699 × 2.362 m), *The Judgement of Paris* (No.6379) (1.339 × 1.745 m), *Samson and Delilah* (No.6461) (1.85 × 2.05 m), the panels of which are made up of six, five and seven oak planks respectively. The grain of every plank, and hence the joins, are horizontal in these three pictures, and the planks are all roughly the same width. Although these large panels are sensitive to changes in relative humidity (RH), they provide a sound and permanent support if kept in a controlled environment, and not exposed to sudden changes in RH. Wood expands and contracts across rather than along its grain. The effect of wood shrinkage of the exposed back of the panel when all the planks are parallel is for the front to become convex, and perhaps slightly corrugated. This shrinkage may cause the joins between the planks to open, or splits to form at the end-grain, but treatment and stabilization are usually straightforward.

The stresses which occur in panels enlarged by Rubens after he had started painting on them are very much more complicated and dangerous. Many of the new planks were added at right-angles to the original panel and subsequent additions were usually parallel to the original planks, and hence at right-angles to the first additions. *An Autumn Landscape with a View of Het Steen* (No.66) (1.312/1.318 × 2.292/2.299 m), commonly known as *The Chateau de Steen*, consists of three main groups of planks forming the middle part of the picture, with a larger horizontal plank running the whole length of the panel at top and bottom. Over twenty separate pieces of oak were used, of which three ran vertically and the remainder horizontally.

Until the opening of the National Gallery's Northern Extension in 1975, Rubens' pictures were of necessity hung in a non-air-conditioned room, where only the most rudimentary control of RH was possible. The more sensitive panels, including *The*

Figure 2
Rubens, *The Watering Place* (No.4815), before treatment.

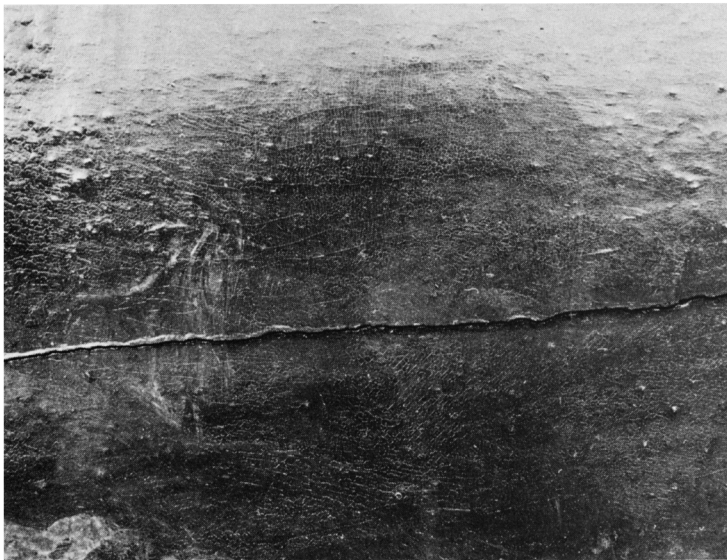


Figure 3
Detail of the split
in the middle of
the panel.

Chateau de Steen and Peasants with Cattle by a Stream in a Woody Landscape (The Watering Place), No.4815, were enclosed, with their frames, in glass-fronted boxes in the hope that this would to some extent reduce the effect of changes in RH. All of the panels thus enclosed had been added to by Rubens with planks at right-angles, and the shrinkage and movement of the wood had led not only to the original joints opening but to extensive and dangerous splitting. The planks most liable to split were those in which the end-grain

was glued to the side of another plank; any shrinkage or movement in either plank would lead to the glued end breaking away, or to splits forming, or in some cases, to both.

It has long been the custom at the National Gallery for the most fragile pictures in the Collection to be inspected weekly for signs of deterioration. This practice was continued after Rubens' panels were moved to air-conditioned rooms in the Northern Extension, and it was soon apparent that the air-conditioning was having the anticipated effect. The open joints and splits in the panels became much more stable, the controlled RH providing for the first time a safe environment for the pictures. However, the appearance of some of the panels in the better lighting of the Northern Extension was very disturbing. In the case of *The Watering Place* (Plate 3, p.26 and Fig.2) not only had many of the joints between the eleven constituent planks of the support [2] opened and many wide splits formed (Fig.3), but worst of all, there was a pronounced bulge in the middle of the picture (Fig.4) due to the stresses in the panel. Some information about the construction of the panel could be deduced by examining its back (Figs.6 and 7) though the many later repairs and additions were confusing. Some further knowledge was gained from the X-radiograph (Fig.5) and from infra-red photographs.

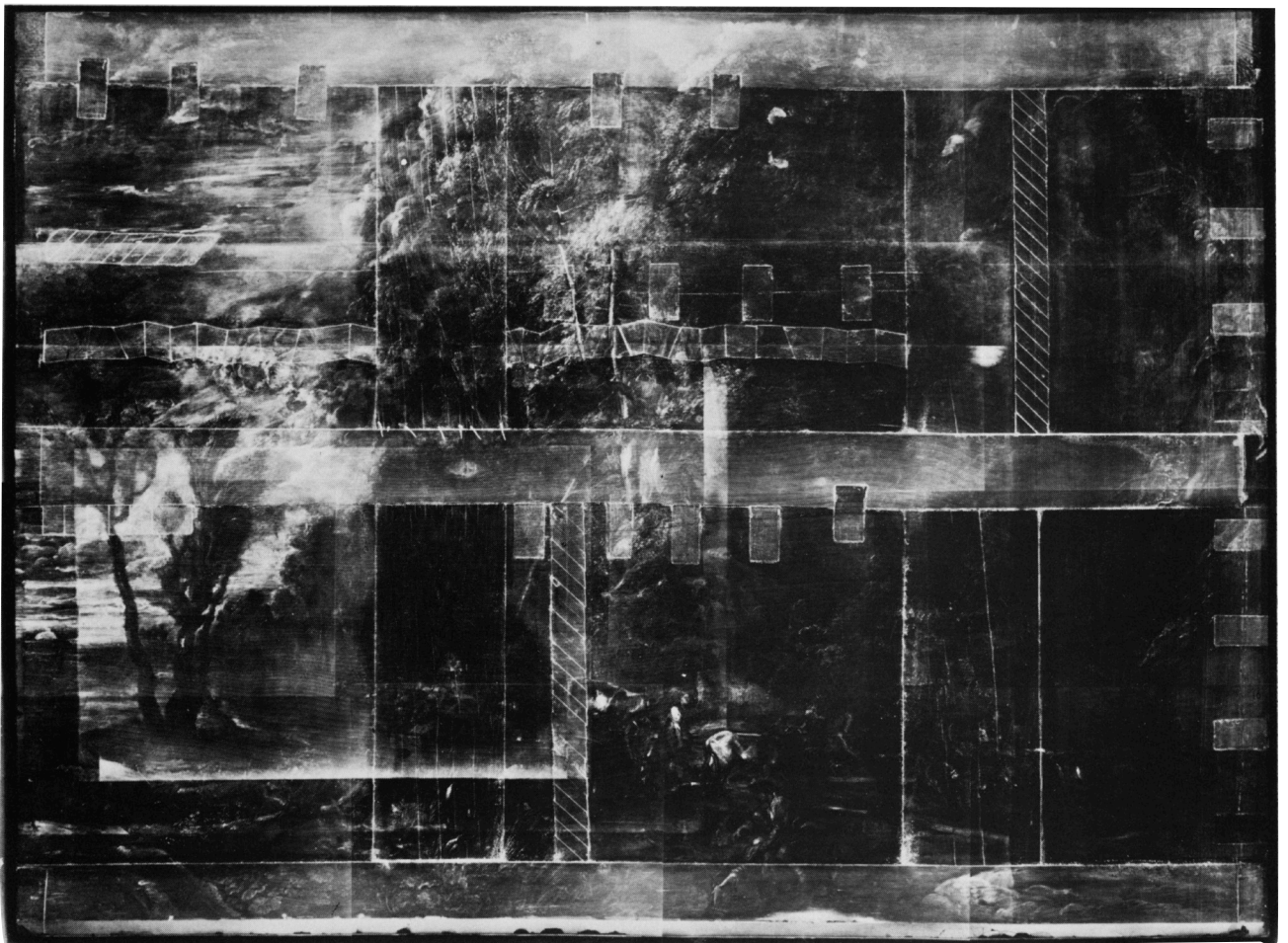
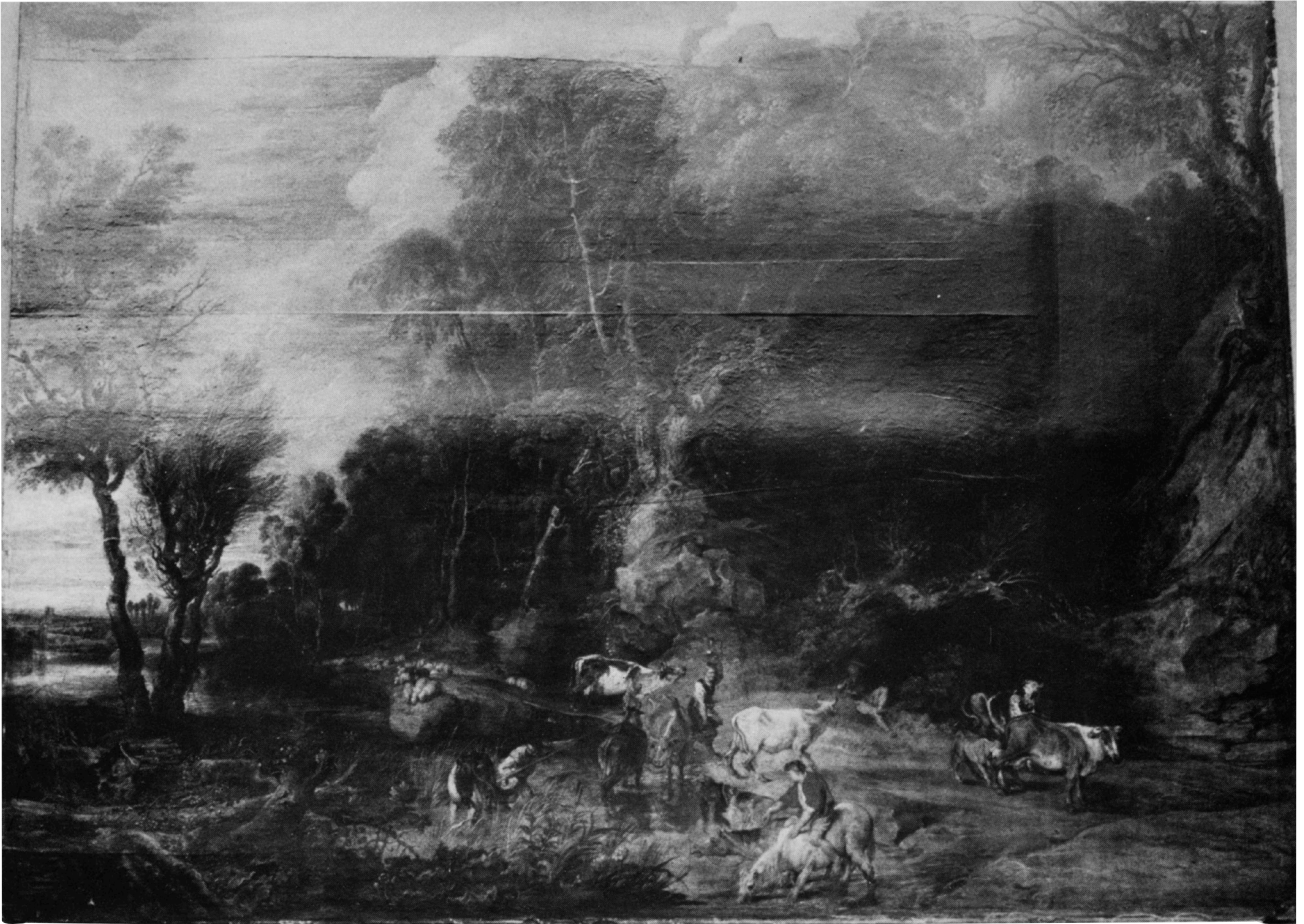


Figure 4 (Left) The whole before treatment in raking light, showing the bulge centre right and some of the surface irregularities.

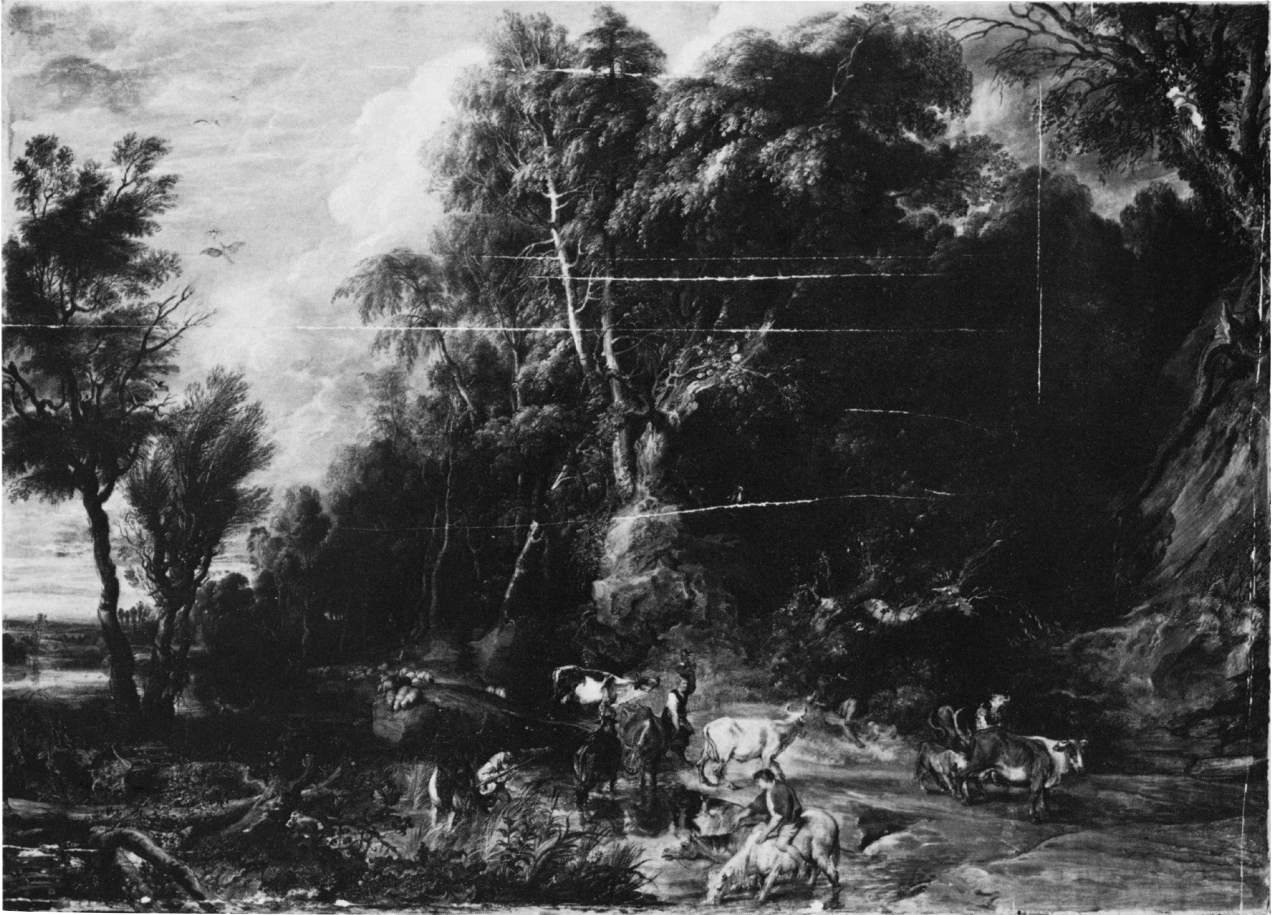


Figure 6 The back before treatment.



Figure 7 Detail of the middle of the back before treatment, showing the unsuccessfully repaired crack, the central horizontal batten, part of the left vertical batten, and many of the mahogany blocks.

Figure 5 (Left) X-radiograph of the whole before treatment. All the joints between the planks are visible, as are the horizontal and vertical battens and the mahogany repairs. The filler at the chamfered lower edge of the first plank shows clearly, as does the different density of the thin strip at the bottom, which may not be original.



The construction of the panel

The Watering Place had been purchased by the National Gallery in 1936, the condition of the painted surface then being regarded as excellent. Holder, an eminent restorer who worked for the National Gallery from time to time, remembered that he had cleaned the picture in 1921 when it belonged to the Duke of Buccleuch. Holder had 'removed a good deal of varnish, but not all, and mended some holes'. In 1980 it was decided to treat both the panel and the paint surface, which was covered with a very yellow varnish. Many of the joins and splits and been filled and crudely restored, the original paint being covered in many places. Cleaning was relatively straightforward (Plate 5, p.26), and it was essential that the fillings along the joins were removed before any panel work was done. The varnish layer proved to be thicker and more discoloured over the darker parts of the landscape, suggesting that during a previous cleaning more of it had been removed from the sky and foreground, which was a common practice in the past.

Turning now to the condition of the panel, Fig.8 shows the picture cleaned of varnish and re-touchings. The splits and joins which show in Figs.8 and 9, can be related to the structure of the panel visible in the photograph of the back before treatment (Fig.6) and in the X-radiograph (Fig.5). The picture was put face-down on a table first padded with felt and then covered with Melinex. The edges of the panel were taped down to prevent debris getting underneath.

Fig.4 shows both the complexity of Rubens' original panel construction and the various attempts at repair. All the small rectangular blocks of wood at the left, right and top edges, along the central horizontal plank, and the zig-zag lengths above it, are mahogany repairs made at various times to fix either splits or loose original joins.

It is not within the scope of this article to discuss the relationship between *The Watering Place* and the earlier version of the central part of the composition, *A Shepherd with his Flock in a Woody Landscape* (Fig.10) and the implications for Rubens' working habits. However, during the panel-work carried out on *The Watering Place*, some new information about the panel construction emerged. The various stages of construction seem to have been as follows:

1. A single oak panel, the grain horizontal (0.359 × 0.567 m) was used for the smaller repetition of No.2924. The painting on this plank is thicker and more complex than any other part of the picture. In Fig.12b, this first plank is numbered 1.
2. The addition of planks 2,3,4 and 5, all of which have a horizontal grain. The bottom edge of plank 1 was chamfered; the X-radiograph shows a coarse filler bringing its edge up to the level of plank 5.
3. Planks 6,7 and 8, at the top, bottom and left edges were added, again all with a horizontal grain. Simple butt joints were used for all the additions, and all the planks were between 7 mm. and 12 mm. in thickness.
4. Planks 9 and 10 were added, of which 10 was vertical, the only plank to have a vertical grain. The

join between planks 9 and 6 was, as before, a butt joint. The right edge of the panel before the addition of plank 10, that is plank 7 and the ends of planks 9,6 and 8, was chamfered, and plank 10 overlaps it by between 3 and 5 cm.

5. The front of the panel, with the exception of the thin strip at the bottom (plank 11) was now complete. It seems likely that the two thin, broad vertical battens reinforcing the back (see Fig.6) were added before the back of the panel was coated with chalk and glue filler. A final layer of ochre and charcoal, probably in oil, had been applied on top of the chalk filler. The practice of priming the back of the more complex panels was common, though by no means universal, in Rubens' workshop. Further reinforcement, in the form of three thick horizontal battens, was also considered necessary.

The batten at the bottom edge (see Fig.6) incorporates plank 11, suggesting that the three horizontal battens are original additions, the ground on plank 11 being similar to, though thicker than, that on the adjacent plank. The chalk filler which covers most of the back of the panel had been scraped away from where the three horizontal battens were placed, and grooves had been cut to accommodate them. However, there is no trace of the filler layer either underneath or on top of the two vertical battens. It is possible that when Rubens had nearly completed the painting, the panel began to warp or exhibit signs of instability and the three horizontal battens were added as a final reinforcement.

The exact dating of the additions to the back of the panel is difficult to establish. The nails which secure plank 11 at the bottom edge, and which attach the central horizontal batten to the left vertical batten are unlikely to be part of the original construction. The sequence of joins opening, splits forming, warping and bulging of individual planks will never be known. Any oak panel consisting of ten horizontal and one vertical plank, of a great variety of shapes and sizes, with three horizontal and two vertical battens laminated to its back, is unlikely to remain stable for long.

The most interesting feature of the panel construction is that the first three vertical planks added, numbers 2,4 and 7, have a horizontal grain, though their shape would naturally lead to the grain running along, rather than across their length, and hence being vertical. It is most unusual in panel construction, or for that matter any kind of joinery, for rectangular pieces of wood not to be cut with the grain running parallel to the side of greater length. Perhaps it is not unreasonable to suppose that Rubens, or his panel-maker, had already discovered the unsatisfactory nature of panels in which planks were joined with the grain at right-angles, and tried to avoid such joins. Plank 10, which is the only plank with a vertical grain, is just under one metre in length (the height of the panel) and so considerably longer than the width of any single oak plank could be.

It might be suggested that a panel-made up of many pieces of wood varying greatly in size, though the

Figure 8 (Left)
The whole after cleaning and before restoration. The worst splits and repaired joins show clearly.

Figure 9 (Left)
Detail after cleaning and before restoration. This detail is of the area where the panel had bulged due to its internal stresses, and two cracks had formed.



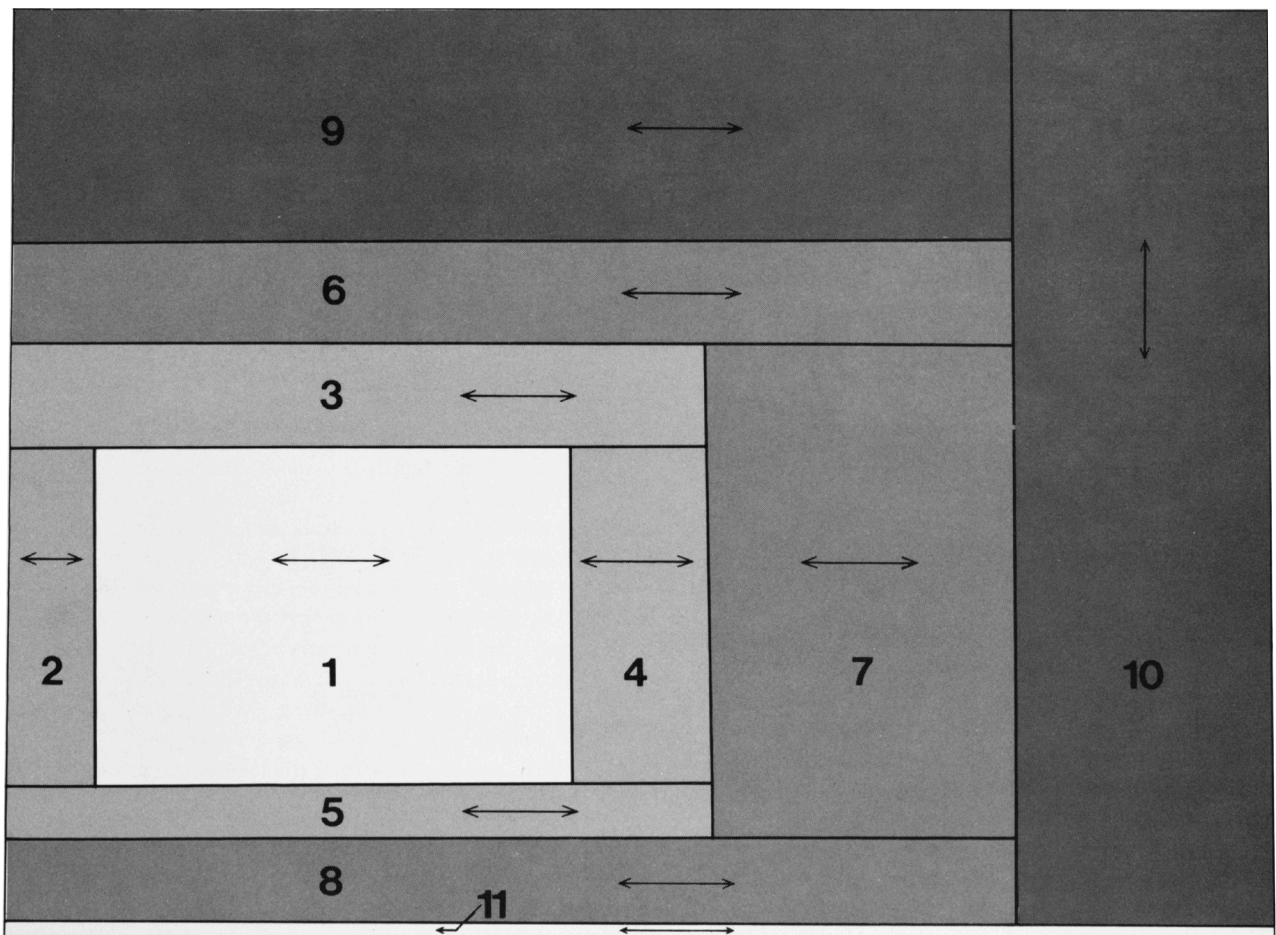
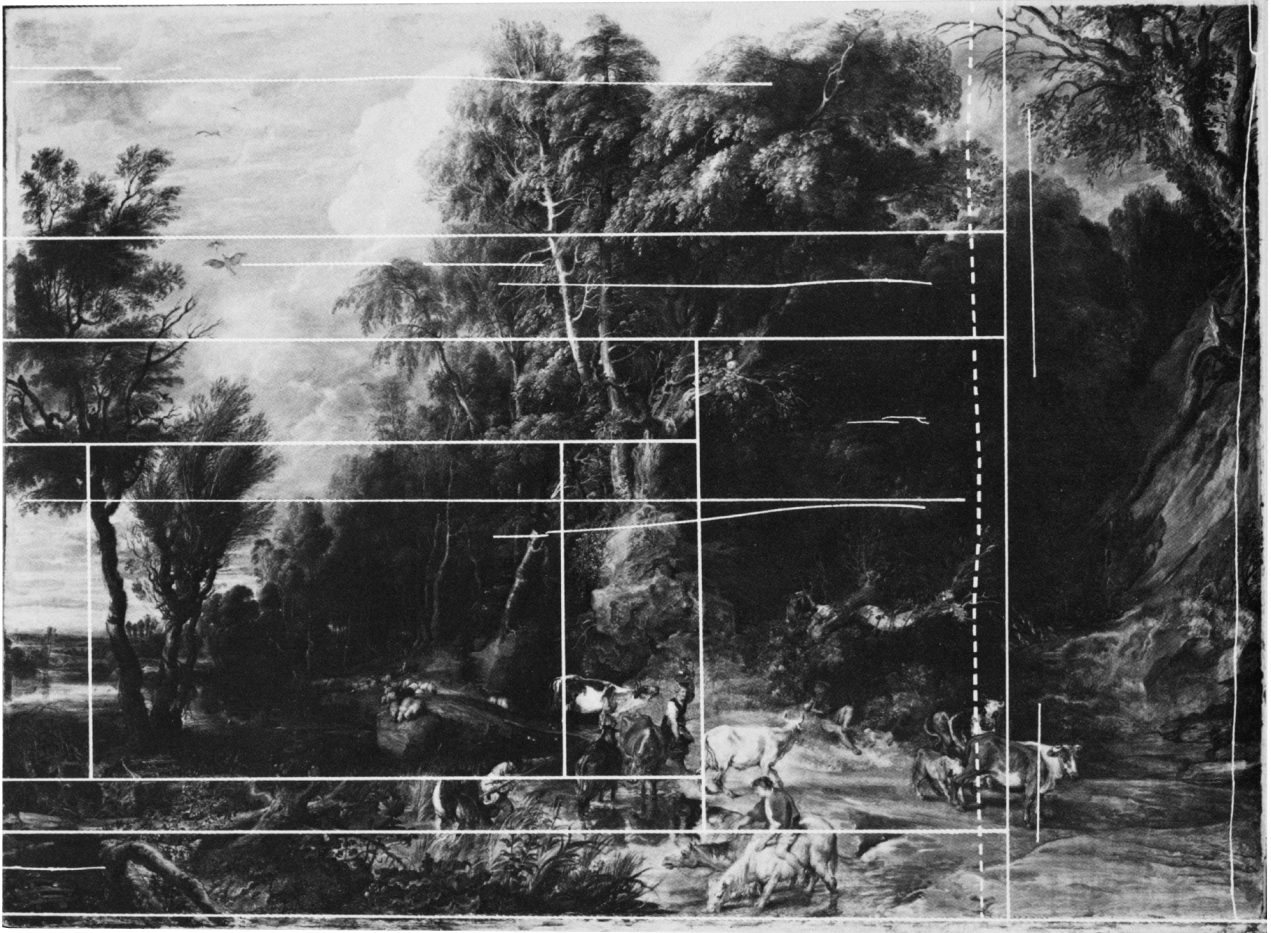
Figure 10 (Above) Rubens, *A Shepherd with his Flock in a Woody Landscape* (No. 2924), (0.639/0.644 × 0.943 m). Painted before *The Watering Place*, the first stage of which is a reduced repetition of No. 2924.

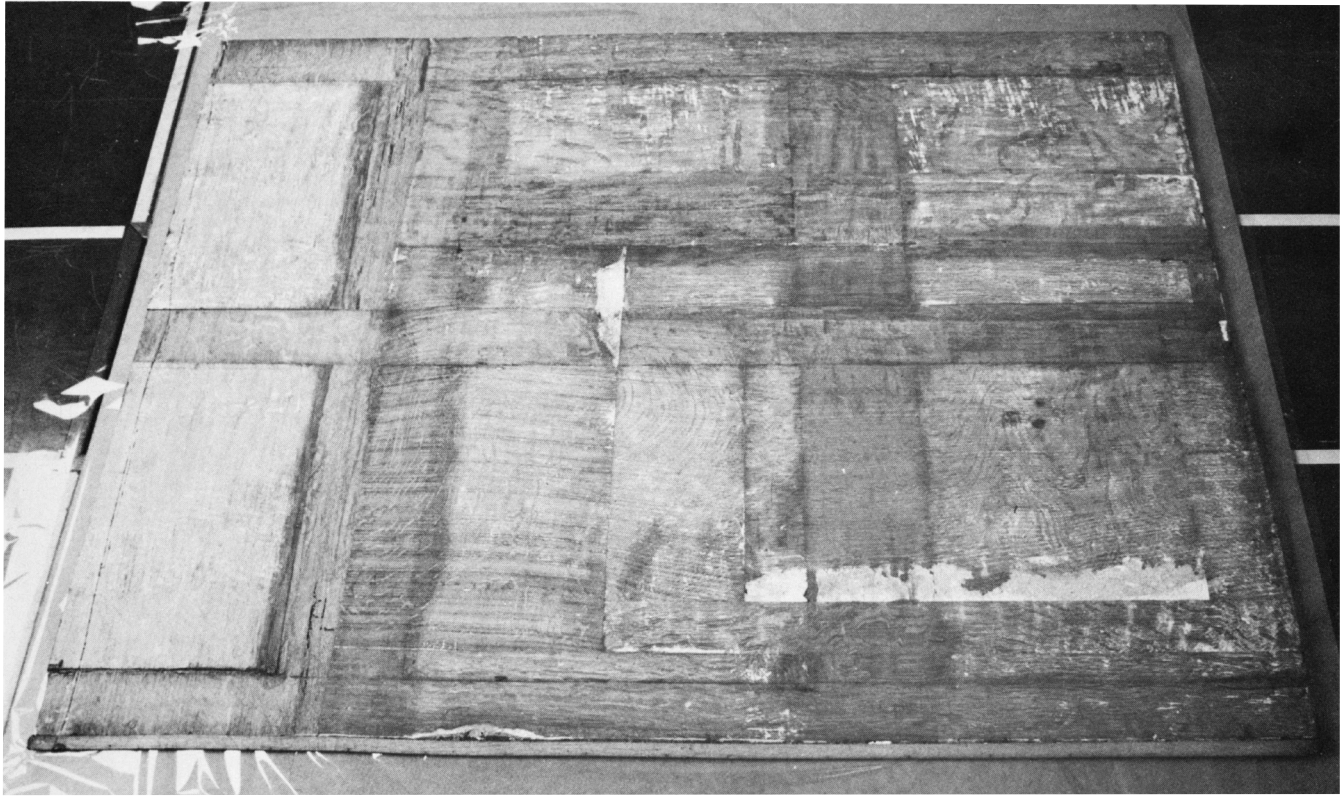


Figure 11 Rubens, *A Shepherd with his Flock in a Woody Landscape* (No. 2924). Diagram of panel construction. The first stage of the painting was confined to the single central panel, as with *The Watering Place*. Additions were made to all four sides for the second stage. Unlike the additions to *The Watering Place*, the planks at either end have a vertical grain, at right-angles to the first plank.

Figure 12a (Right, top) Diagram of the panel construction, omitting the battens on the back. The thinner lines show the worst of the splits; the broken line indicates a chamfered edge.

Figure 12b (Right, bottom) Diagram of the panel showing the sequence of construction (see p. 33), and direction of wood-grain.





grain of each piece runs in the same direction, is not necessarily more stable than a panel in which the planks are joined with the grain at right-angles. It is significant that there were no splits or loose joints at the left edge of *The Watering Place*, whereas all the most serious splits, and the bulge, occurred near the join of the main part of the panel and the single vertical plank on the right.

The treatment of the panel

The first step was to remove the many mahogany blocks, some of which had already been loosened by the movement of the panel and by the opening and closing of the splits they were intended to secure. Presumably the zig-zag blocks used over the horizontal join between planks 3 and 6, and the many small diagonal pieces over some of the other joins (see Figs.6 and 12) were designed to be more flexible than a single piece of wood. The splits and joins were carefully cleaned of glue from both back and front; the chalk layer on the back of the panel had been scraped away from the splits before the blocks had been glued on. Although it is customary for pictures to be given a protective facing of Eltoline tissue before panel-work is done, in this case the precision of the work — chiefly the cleaning and re-aligning of the edges of the splits — made facing inappropriate.

The technique used for the re-alignment of the splits varied from place to place. Some of the splits and joins had already been glued together but not correctly aligned. Some of these repairs were still securely joined, and it was not possible to loosen all of them, particularly those in the more fragile parts of the panel, there being too great a risk of causing further damage. However, the majority of the incorrectly

glued splits were loosened, and re-glued with a urea di-formaldehyde adhesive. The edges of the splits were made level by the application of pressure from both above and below. The use of complicated systems of blocks, clamps and weights was necessary to bring the edges of the splits level with each other along their whole length. Pressure from the side of the panel, which was applied with great care, was used where possible to close the gaps between the fractured edges of the wood. At times, moisture was used to soften small areas of the panel in order to achieve the necessary re-alignment.

The glueing of the splits occupied several weeks, the majority of the time being spent in removing the old glue and in preparing the clamping systems so that pressure could be applied both from above, below and from the side. The central bulge in plank 7 was considerably flattened and stabilized by the treatment of the splits in it. All the panel-work was done in the Conservation Workshop, an air-conditioned room on the ground floor of the National Gallery, and hence not subject to solar heat gain. The panel was kept covered, and variations in temperature and RH were small (temperature: 67–70°F, RH: 52–57%), but the stresses inherent in a panel of such complex construction were revealed by even the slightest change in the environment. Slight convex and concave warps, both horizontal and vertical, occurred, bringing the danger of more splitting. With great reluctance a decision was made to remove the two vertical and three horizontal battens, the former being certainly part of the original construction, and the latter probably original as well. The battens also prevented proper treatment of some of the splits and of the fracture which ran all the way up the right edge (see Fig.8).

Figure 13 The back after the removal of the battens.

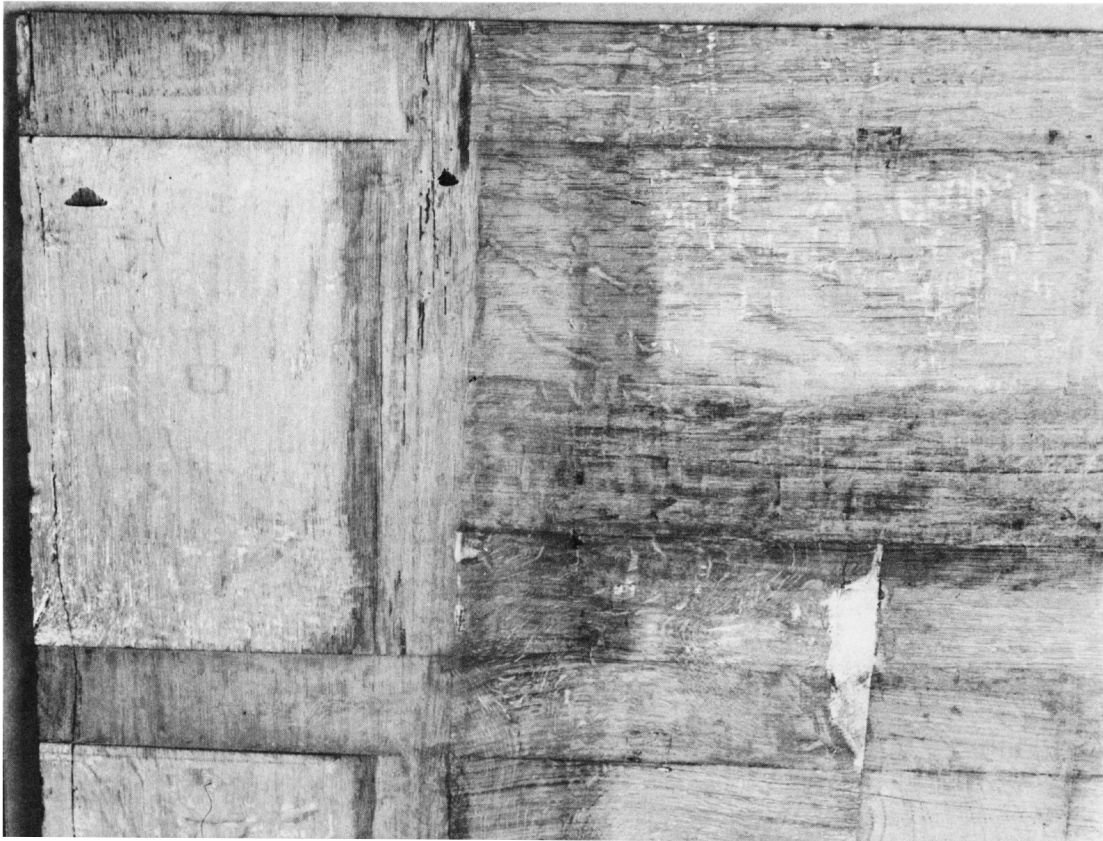


Figure 14 The top left corner of the back after the removal of the battens. The channels which were cut for the horizontal battens can be seen.

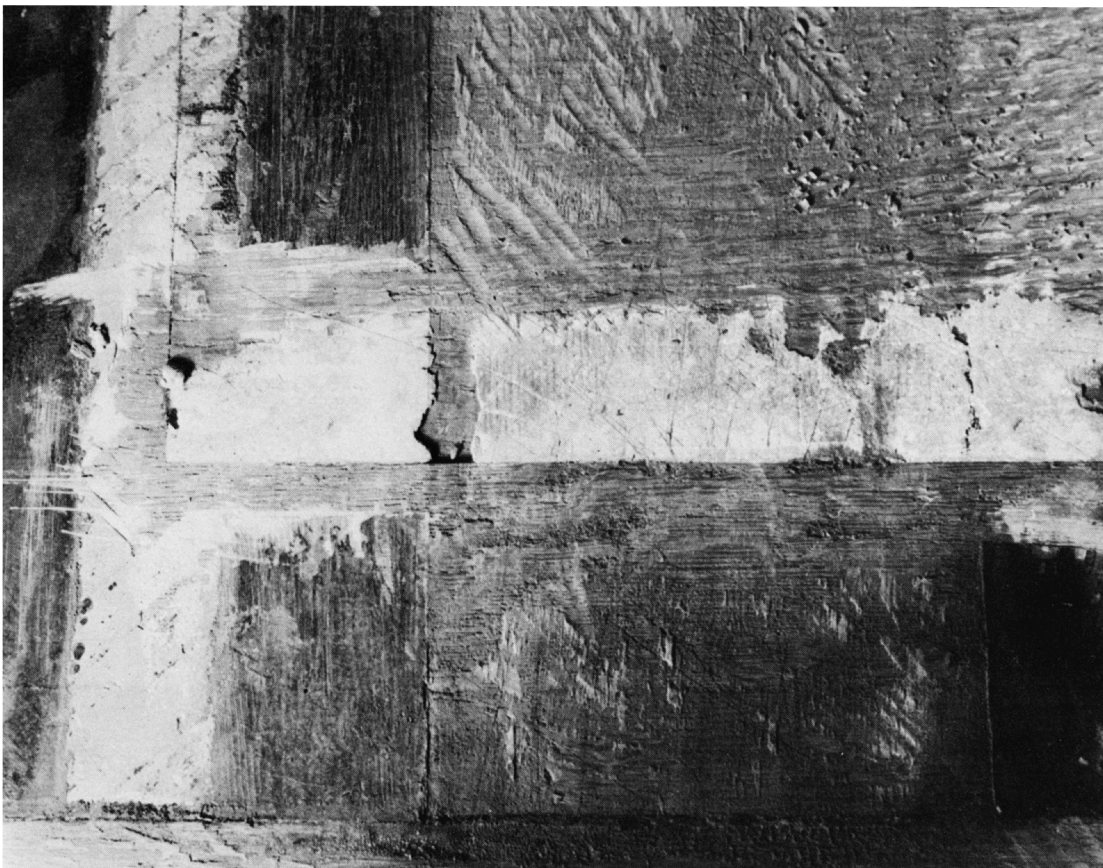


Figure 15 Detail of the bottom edge of plank 1, and parts of planks 4, 5 and 8 (see Fig.12) after the removal of the battens. A filler has been used to bring the chamfered edge of plank 1 up to the level of plank 5.



Figure 16 Infra-red detail of the left edge. The join between planks 1 and 2 is visible.



Figure 17 Infra-red detail of the bottom right corner. The joins between planks 4 and 7, and between 7 and 10, are visible.



Figure 18
The whole after cleaning, panel-work and restoration (see also Plate 3, p.26).

Figs 13,14 and 15 show the back of the panel after the battens had been removed. Although the removal of part of an original panel construction is very much a last resort, it was thought to be justified in this instance. Had the battens been allowed to remain in position, it is likely that the panel would still have been inordinately sensitive, whatever form of protection or reinforcement had been applied to the back.

The method described in the previous issue of this *Bulletin* for a panel by Cossa [3] was used to reinforce the Rubens oak panel. Briefly, two layers of balsa wood planks were attached with a wax-resin adhesive. The main principles of this method are firstly, that it is very easily reversible, and secondly, should any movement occur in the panel, the wax and balsa wood will break away, allowing the panel to warp rather than causing it to split.

The paint surface

The very good state of preservation of the paint surface can be seen in Fig.8. The infra-red photographs (Figs.16 and 17), show the differing thickness of the paint and ground between the different planks, and the comparative thinness of the paint on plank 10, the last to be added. Plank 2, the vertical plank at the left edge, is also more thinly painted than plank 1, the first support used. The position of the sun in the composition was moved to the left, presumably after

the first stage of expansion when planks 2,3,4 and 5 were added. The landscape on plank 1 is essentially a smaller version of No.2924 (Fig.10), which was itself painted in two main stages, with many alterations in the landscape. The panel of No.2924 which has a simpler construction (Fig.11) is being treated at present, and its paint surface has also proved to be in exceptionally good condition.

Notes and references

1. MARTIN, G., *National Gallery Catalogues: The Flemish School* (London 1970), pp.200 and 205.
2. MARTIN, G., *The Burlington Magazine* (1966), pp.180-83. Martin misconstrues some minor details of the panel construction. Firstly, there is one less horizontal join in the planks that make up the main upper part of it; the top horizontal join in the diagram in the 'Appendix' to the *Flemish School Catalogue* does not exist in the panel. Secondly, the thin strip which extends along the whole length of the bottom edge is probably, but not certainly, original. Thirdly, only the right hand vertical join is an overlapping join, the three smaller vertical joins on the left are butt joins.
3. SMITH, A., REEVE, A. and ROY, A., 'Francesco del Cossa's "S. Vincent Ferrer"', *National Gallery Technical Bulletin*, 5 (1981), pp.47-54.