Hermit Saints Triptych

Hieronymus Bosch
c. 1495–1505

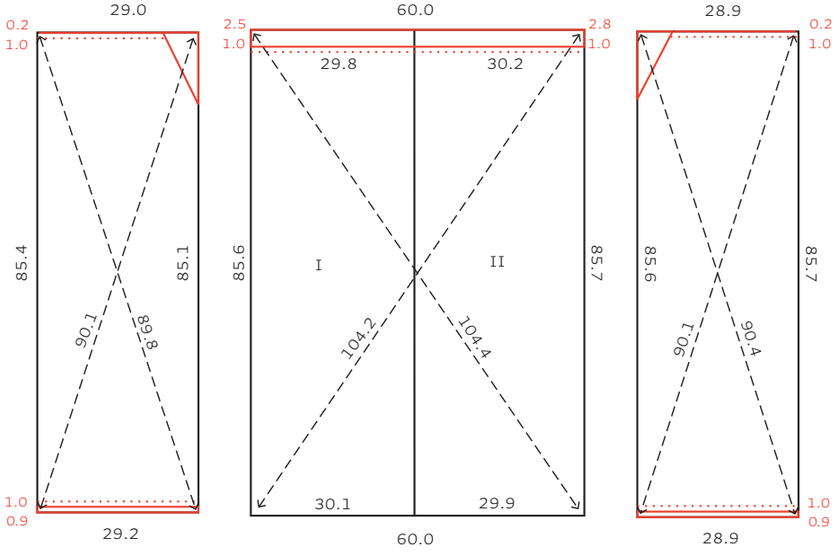
Oil (analysed) on oak (analysed) panel, left wing 85.4 × 29.2 cm, central panel 85.7 × 60.0 cm, right wing 85.7 × 28.9 cm. The original dimensions of all three panels were significantly altered.
Gallerie dell'Accademia, Venice

A full conservation treatment of the painting started in 2013, thus after the 2011 BRCP technical examination of the painting on which this report is largely based.
BRCP, *Catalogue Raisonné*, cat. 2; www.boschproject.org no. 2.

Inscriptions and labels
Central panel, bottom right: *Jheronimüs bosch.*[1]
Reverse: several texts, numbers and labels have been applied to the cradle and the thinned reverse. All three panels have the label *Gemälde Galerie des Allerh. Kaiserhauses N° 1851* and the same illegible two-word text in pencil;
Left wing: *101* and *X*, written in pencil.
Right wing: a small, square label with *Inv. N°. 25.(490)*. To match the wings with the central panel, the adjacent vertical cradle bars of each were marked with a large dot on one side and a *1* on the other side.
Central panel: in addition to remnants of old labels, there is an exhibition label of the Rijksmuseum Amsterdam and an inventory label just below that. At the top left, a number in red chalk is visible.

SUMMARY OF CONCLUSIONS

The Hermit Saints Triptych *in Venice depicting Saints Jerome, Anthony and Giles can easily be linked with other works in the core of the Bosch group with respect to its painting technique as well as the style and material of the phased underdrawing, although relatively little preparatory drawing was revealed on the wings. The compositions were significantly changed during the subsequent stages of production, which further points to extensive personal involvement of Hieronymus Bosch in that process.*
The central panel was originally arched at the top, over which the wings' half-arches would have closed. These rounded tops were cropped and the three panels made into rectangles.
The original positions of the wings in relation to the central panel were changed in this process: they are now positioned too low. The exteriors of the wings were stripped, but traces of a layer build-up indicate that those surfaces were originally painted a monochrome black, which might have served as the base of a dark grisaille. During the 2013–16 restoration treatment, a rigid metal framework and cradles were removed from the reverses of the three panels, allowing for the ensemble to function again as a folding triptych. The three panels were originally housed in engaged frames, now lost. Dendrochronology indicates that the triptych could have been painted from 1487 onwards, although a date after 1489 is statistically more probable. As further explained in BRCP, Catalogue Raisonné, *cat. 2, we date this work to around 1495–1505.*



2.1 Construction diagram (seen from the front), with later additions in red. The half-lap sections on the reverses are indicated by dotted red lines. In each pair of red numbers, the inner one represents the dimension on the reverse, the outer one that on the front.



RR 29

EXAMINATION DATA

14–25 November 2011 (Luuk Hoogstede, Matthijs Ilsink, Rik Klein Gotink, Jos Koldeweij, Ron Spronk). The triptych was examined in a studio of the Gallerie dell'Accademia. The panels were studied upright on an easel.

- ***Previous research and documentation available*** See the illustrated articles and reports published by Nonfarmale and by Rossi-Manaresi and Tucci in Limentani Virdis et al. 1992.

  Several IRR details and nearly complete XRS are kept at the offices of the Soprintendenza. Relatively low-resolution scans of the XRS were used for this report. Cross-sections of the painting were analysed with various techniques by the research laboratory Centro Cesare Gnudi in Bologna and published in 1992.[2]

- ***Previous treatments*** When the paintings from Venice entered the Vienna Gemäldegalerie in 1838, the *Hermit Saints Triptych* was listed with the same dimensions as those of the *Saint Wilgefortis Triptych*, although for the latter those are highly imprecise (see cat. 8, RR 21–26). The triptych was most likely intensively restored during its stay in Vienna (1838–1919), and the positions of the labels on the reverse suggest that the cradle was applied at that time as well. Although the 1878 annual report noted that the picture was highly damaged and needed a new cradle, it was only documented that the painting was in the conservation studio between 2 July 1894 and 17 August 1895 because of brown varnish. In the 1895 note in the conservation registry (*Evidenzbuch*), the current dimensions of the painting were first listed, indicating that the panels were probably cropped between 1878 and 1895.[3]

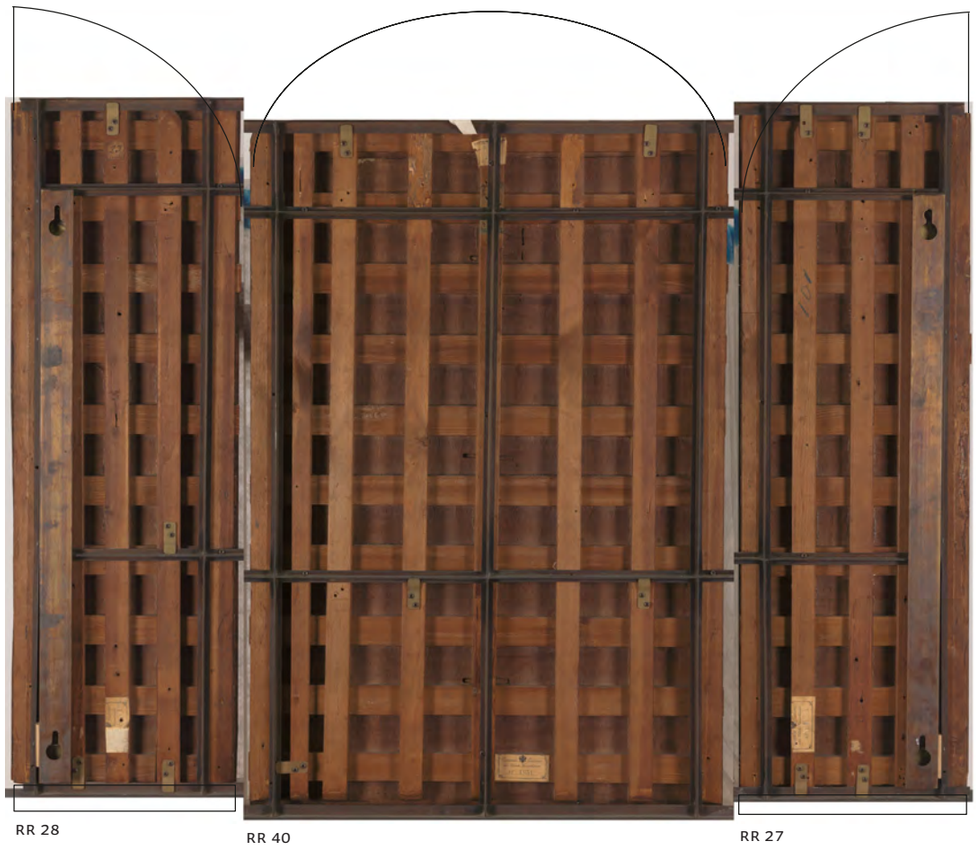
  In 1951, Mauro Pellicioli and assistants restored the triptych in Venice. The panels were treated again from 1990 to 1992 in a specially



RR 30



RR 31



Reconstruction of the panels' presumed original position. Black outlines indicate cropped sections.

created studio in the Palazzo Ducale. During that treatment, the older reinforcements on the reverse of the triptych were only cleaned, since the cradle did not cause concern at that time. Large losses and lifting paint were consolidated, and 'all later additions were removed in full', although many non-original remains are still evident – especially old, discoloured varnish residues. Fills were integrated using *rigatino* retouching, followed by a final matte varnish applied on both front and reverse of the painting.[4]

SUPPORT

- ***Panel*** Dimensions: see construction diagram (fig. 2.1). The wood, Baltic oak, was identified through dendrochronology. All three panels were significantly cropped at the top; the two wing panels were also cropped at the bottom (see below, *Altered dimensions*). Each wing consists of a single plank, and the central panel is made of two planks. The quarter-sawn planks are vertical in grain and laid vertically. The curvature of the wood grain indicates the beginning of a knot at the top left of the inner left wing.

  The two planks of the central panel were butt-joined, dowelled and glued. The three panels were cradled after being thinned. Only on the bottom edge of the central panel has a bevelling of 0.4 cm been preserved. Remnants of original paint and ground were observed at some edges.

- ***Dendrochronology*** The youngest heartwood ring of the central panel dates from 1476, which, with the added minimum of nine sapwood rings for Baltic oak, implies an earliest possible felling date of 1485 for the tree that produced the wood for that plank.[5] An earliest felling date of 1487 is statistically more probable, however, since that would cover 93 per cent of the range of possibly missing sapwood rings. Assuming at least two more years for drying and transportation, the triptych could have been produced from 1487 onwards, but a production date from 1489 onwards is statistically more probable.

GROUND

- ***Visibility*** The off-white to cream-coloured ground seems to consist of chalk (calcium carbonate – $CaCO_3$) bound in animal glue (not analysed).[6] The ground is present overall and visible under VIS and XR. The ground is only slightly evident in the interstices of the wood grain. It is almost completely covered by the paint layers but discernible at the outer edges (at the damaged barb), near some contours, in losses and in abraded craquelure. It shimmers through the paint surface in several areas, though, which must have been intended as part of the composition. Nevertheless, the ageing of paint layers will have further increased their transparency, and thus the visibility of the ground, especially in lighter areas.

- ***Barb and edges*** The original barbs and ungrounded and unpainted edges are partly intact on all six vertical edges of the three panels, as well as on the bottom edge of the central panel. This establishes that the panels were originally housed in an engaged frame. Barbs and ungrounded and unpainted edges are no longer present where the panels were cropped, i.e. at the three top edges and the two bottom edges of the wings.

- ***Application*** It is not certain how the ground was applied on the three panels, since it hardly registers in raking light and XRS. It might have been applied with a brush and then worked into a very smooth finish.

PREPARATORY LAYERS

- ***Underdrawing*** Very little underdrawing was revealed in the left panel, where ample carbon-containing paints were used. The right wing was better penetrated by IRR/IRP, but here, also, scant drawing was observed.

  Fairly extensive underdrawing was revealed in the central panel; it was used for contours and general modelling throughout, but much less for details. It shimmers through the paint in some areas (in VIS), but is better detected by IRR/IRP. Although the underdrawing locally

seems to play a role in the final composition as a darker undertone for shadows, its visibility in most parts appears unintended and is caused by abrasion and changes in refractive index due to the ageing of the paint film.

- ***Medium and application*** The detectable underdrawing was applied in at least two stages by using a brush and a thin liquid medium (resembling a watery dispersion of carbon, perhaps an ink) for both. The lines of the first stage were part of an early phase of the composition, in which a much larger figure was depicted in the central panel (see below, *Changes*). Some lines from this initial stage of the underdrawing are visible to the naked eye. A certain amount of hatching, indicating shaded areas, was also used at this time. In an IRR macro image (fig. 2.14), there are also traces of what might be a different (dry?) underdrawing medium, which would imply three separate phases in the underdrawing.

- ***Style*** The underdrawing is applied in a somewhat sketchlike manner, in lines that tend to be relatively short. The strokes of the first underdrawing stage are relatively broad, dark, fluent, and defined. Some minor parallel hatching, formed by short lines, indicates shaded folds in the robe of the underlying figure. The lines of the second-phase underdrawing tend to be thinner and softer, often more closely spaced, roughly indicating some darker, shadowed areas. Hatched lines are rare throughout the three panels. Ends of strokes are usually blunt or tipped, without hooks or loops, but some have a slight bend to them. Although the lines follow the drawn features, they are mostly straight.

- ***Revisions in underdrawing and differences from painting stage(s)*** Not enough underdrawing was revealed in the wings (RR 29 and 31) to observe any significant changes between the underdrawing and the paint surface, but IRR/IRP revealed several alterations in paint (see below, *Changes*).

  The central panel shows a much larger underdrawn figure beneath Saint Jerome, whose robe extends into the lower left part of the composition. This figure is not pointing to a crucifix but seems to be holding a large, diagonally placed, beam-shaped object, and his robe appears to be fastened with a thick cord tied into a bow. Since most of these elements were also executed in paint, the changes are described in further detail below (see *Changes*).

  Several painted features were not prepared in either stage of the underdrawing, such as the smaller creatures and other foreground elements. Apparently the entire circular structure to Jerome's right, including the tree that grows out of it and the column at the lower left, were not planned either. Extending from the lion, some underdrawing of the initial composition indicates a feature here, but the structure that rises out of the water behind Jerome was significantly altered. The small, semicircular section of the roof was underdrawn and therefore planned in this location. Between Saint Jerome and his hat, a book was underdrawn but not executed in paint.

PAINT LAYERS

- ***Paint application and painting technique*** The oil paint (not analysed)[7] covers the entire original surface of the three panels, extending onto the barbs where those are still present. It was applied wet-on-dry using a brush, mostly in two stages (not including highlights and shadows). Wet-in-wet phases can be seen in the dark lines on the stone floor. The white V shapes were painted after most of the underlying layer was already dry. Incisions were not observed, but the paint that was applied wet-in-wet often pushed the lower body of paint outwards.

  Paint application is mostly thin, but is thicker for paints containing lead white and azurite pigments. The predominantly fluid, glossy paints appear in both opaque and semi-transparent applications. A thicker paint was used for impastoes and the lead-white undermodelling of several areas with red lake (e.g., the robe of both the underlying and the final figure). Locally, thicker paints were also used for parts of the skin tones (especially for ears; see figs. 2.9 and 2.12) and for landscape (e.g., in the inner left wing bottom left), with the brushstrokes still being apparent. In some areas (e.g., the almost monochrome scenes around the altar-like surface inside the hollow, circular structure resembling a throne), the paint application appears very sketchlike, but in general, the paint layers were applied precisely as well as freely. Brushstrokes were used to render contours and volume in both the underlying and top layers, and are often visible, especially under raking light.

- ***Texture*** Most passages are not smoothly finished because of the frequent use of more or less impastoed paints. Textured brushstrokes are often visible. Besides impastoed highlights, texture is also used for modelling.

- ***Build-up and palette*** The paint was generally applied from light to dark, and often a midtone was followed by a highlight and/or a shadow. However, in several places the paint was built up from dark to light – for example, in the foliage and in other meticulously detailed areas. Part of the composition seems to have been painted from foreground to background; specifically, the main figures were painted before sections of the landscape. Other parts, such as the deer in the right wing, were left in reserve from the background and then painted, thus from back to front. Several figures in the bottom of the left wing were not left in reserve but were painted on top of the background. This is also the case with the smaller frogs and salamanders, which are quite similar throughout the three panels.

  For the background of the central panel and the right wing, the sky was painted first with lead white, gradually making a transition to a blue (azurite) paint layer at the top of the panel. In the right wing, the top left part of the landscape was extended upward after the sky was laid in. The fire in the background of the left wing appears painted with vermilion, lead-tin yellow and red lake, and was applied over a brownish background, with some local blue-grey accents. The fire was only painted after the building was completed. The radiating light of the blaze is reflected in the trees, which were in turn done using a grey base followed by lead-white (and some lead-tin yellow) highlights. The wings of the creature at bottom centre of the left panel were executed in lead-tin yellow, whereas the tail, whiskers and antennae were done in lead white, the latter also having an initial black-grey layer. Glazes were applied in red (e.g., in the fire in the background of the left wing, and in Saint Jerome's robe and hat in the central panel) and possibly green, since remnants of a green glaze seem to be visible at the top right edge of the centre panel. A purplish colour is visible on the small beetle at the lower left edge of the central panel. Contour lines – for instance, those around the fingers – were executed in a dark, reddish brown. The meticulous yellow-brown monochrome scenes on the 'altar' were painted wet-in-wet, with yellowish-brown paint and lead-white highlights, partially mixed with blue. A similar blue-white paint was applied to the adjacent, bluish monochrome scene.

  One of the two previously published cross-sections gives additional insight into the layer build-up and materials used. In the cloak of Saint Giles, only a thin layer (10 μm) containing brown earth, black and lead white was applied on the slightly yellowed ground.[8] The signature was executed in lead-tin yellow.

- ***Changes*** In the left wing, the figure of Saint Anthony appears to have initially been placed lower. An earlier placement of the tau cross, the T revealed by XR at the saint's proper right elbow in the current paint surface, seems to confirm this (see figs. 2.8, 2.10 and 2.15). Right above that is another T, which belongs to the final position of the saint, but currently non-original brown residues cover this feature (see below, *Visibility …*). There is no clear evidence that Anthony, like Jerome and



2.2–3 RR 29, VIS and IRR



2.4–5 RR 31, VIS and IRR



2.6–7 RR 30, VIS and IRR



Giles, was originally painted larger. However, a bigger jug was left in reserve in the area that currently appears brown at the bottom left of the tent cloth. Anthony's robe is locally cropped at his back. The landscape in front of the saint was also changed, as diagonal areas are visible in XR and IRR/IRP that do not relate to the current composition (e.g., above the spoonbill; see figs. 2.3 and 2.8).

In the central panel, under the current figure of Saint Jerome, there was first a much larger painted figure that had also been prepared in the underdrawing. This underlying figure is visible in IRR/IRP and XR because of the lead-white underpainting of its robe (figs. 2.7 and 2.8). It is also discernible with the naked eye; both its underdrawing (figs. 2.11 and 2.18) and its paint shimmer through the paint surface that now covers it. The underdrawing for this earlier form seems to have been completely finished, outlining a significantly larger figure. His hands (which are considerably more sizeable than those of the present figure) are together, one atop the other, and placed well below their current position. This figure's much larger head is visible in IRR/IRP and XR, around the current head; the XR also shows the first painted position of the ear. The robe is also much greater in size and extends well into the lower left section of the composition, from the base of the column at left to the bricked wall lower centre. Atop the lead-white undermodelling of this first, larger robe, a red lake was applied, implying that the garment was fully completed or very close to completion when it was changed. The larger saint holds a long, beam-shaped object that was underdrawn and left in reserve from the earlier robe, extending from around the initial position of the hands towards the left foreground. Since the painted crucifix was not underdrawn, perhaps a large cross was originally planned here; some lines perpendicular to the longer beam were indeed observed in the circular structure in front of the saint, and might have indicated its cross-beam. The figure's foot was underdrawn to the right of where the beam-shaped feature ends, and XR indicates that it was left in reserve during the earliest paint stage.

The figure seems to have been set in a much different background. At centre left, horizontal brushstrokes of an underlying layer are visible (in VIS) above the heron. This radio-opaque area, as well as the radio-transparent one below, extends to the right, up to the first placement of the saint's back. Above that, the XR shows a line that suggests rolling hills running through the roof of the hermit's dwelling. In the small dome here, brushstrokes of an underlying layer are also apparent. The dome itself was apparently underdrawn atop the initial landscape. The bluish hills at the horizon in the left part of the panel extended further upward in the initial composition, but can still be seen shimmering through the paint. For the second composition, the background was substantially repainted, probably after the large structure of the hermit's shelter was underdrawn. Several smaller alterations are also discernible within the current composition; in the thumb of Saint Jerome, for example, which was shifted a little to the right, and in the red hat, which was reduced in size.

Major changes were also noted using IRR/IRP and XR on the right wing, where Saint Giles and his dwelling were significantly altered. The head of the saint was reduced in size, and his robe was taken in at the back. He was initially prepared larger, with his robe extending further to the lower right (as seen in IRR), and was apparently in a kneeling position, with one foot close to the right edge (see XR). Giles's hands and the arrow were first painted somewhat lower than they are now, and a book was prepared to the saint's right. An open window and doorway were depicted in the wall behind him, which was apparently made of bricks. The XR shows that the window was initially both wider and higher, and that a large patch of radio-opaque paint was used there, as well as in the doorway. A bit of blue paint in the window and spots of greenish blue in the doorway have become visible again through abrasion. Considering that this panel was originally positioned higher in relation to the central panel, it seems likely that the blue and greenish blue represented distant landscape. A face peeking through the window was left in reserve from the blue paint in the left part of this window. The face was shifted to the right when the window was repainted smaller, and the blue was painted out. The doorway was also painted out. The figure of the saint was thus initially placed in front of a dilapidated man-made structure. To his right, possibly some form of pillar was painted, and the walls to his left were designed narrower. The XR shows that the table continued almost to the left edge of the panel and IRR shows that more of the deer's body (which was slimmer) was visible towards the left. The roof of the decaying structure was changed, and the whole space initially extended further towards the foreground, where several parts of the landscape were also adjusted.



2.8 XR, during treatment
(images Davide Bussolari)

FRAME

The original, engaged frames have been lost. The panels are currently unframed.

A recent auxiliary framework, consisting of a metal grid of T and L profiles, connects the three panels. This auxiliary frame, which extends slightly above and below the painting, is applied with messing clamps that are attached to the cradle members with screws, blocking some of their movement. (Both the metal mounting frame and the cradles were removed during the 2013–16 treatment.)

CONDITION

The painting was restored in 2013–16, thus after the 2011 BRCP technical examination on which this report is largely based. For a brief discussion of that treatment, see BRCP, *Catalogue Raisonné*, Chapter IV.

Support

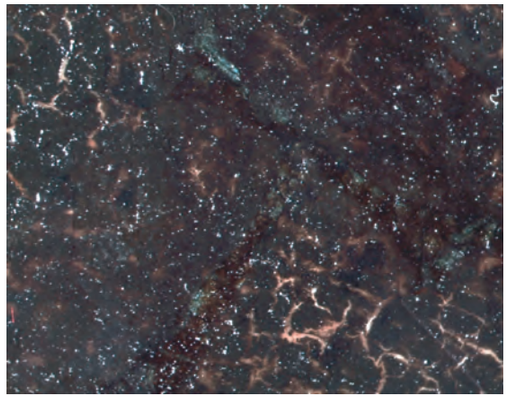
- ***Altered dimensions*** The original format of the panels was significantly altered. The absence of original edges on the top of the three panels indicates that they were all cropped there. Two triangular inserts are present at the top inside corners of the open wings (see figs. 2.1 and 2.17), indicating that these originally had quarter-round arched tops.[9] The bottom edges of the two wings were also cropped. On all five cropped edges, wooden strips were added with a half-lap join, thus removing more original material from the reverse. The reverses of the three panels were thinned considerably to reduce warping and to flatten the painting before applying the cradle. As a result, the three regularly spaced original dowels between the two planks of the central panel became exposed. The flattened shape is maintained by a cradle, apparently applied during the triptych's stay in Vienna. The reverses of the wings were originally painted black directly on the ground and may have had a grisaille composition.



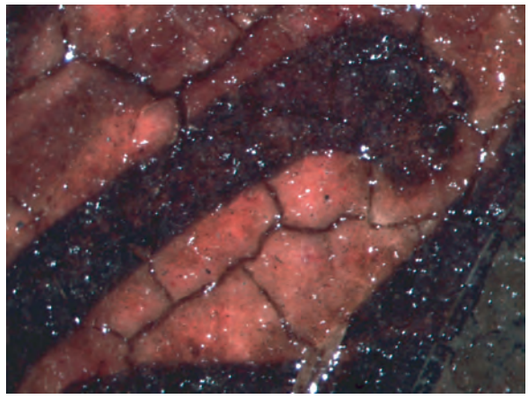




2.9 30MICGBM001, raking light



2.10 29MICGBM001



2.11 30MICGBM003



2.12 31MICGBM001, raking light

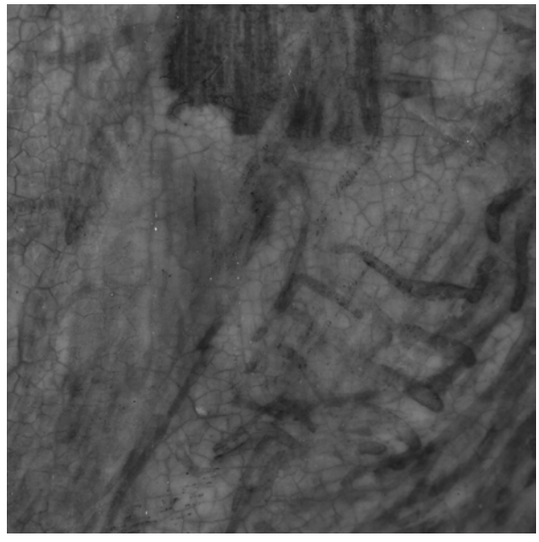


2.13 Mapping of micrographs reproduced here (2.9–12)

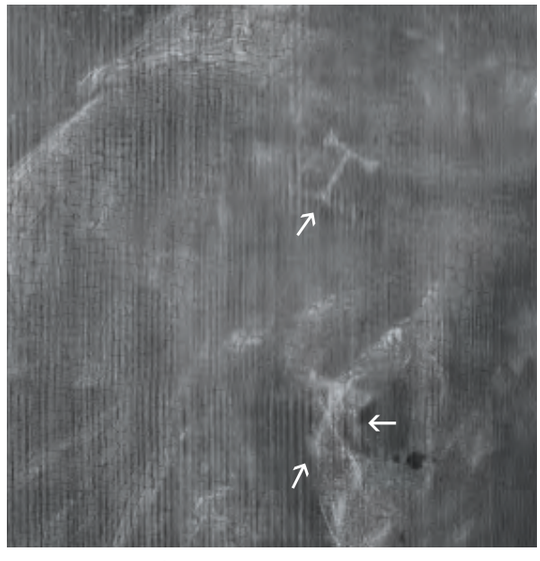
It remains challenging to determine the precise nature and sequence of these structural interventions. When the two Venetian Bosch triptychs entered the Vienna Gemäldegalerie in 1838, they were presented as three separate panels in a single frame and listed with roughly similar dimensions. At some point both triptychs were thinned and cradled. At the time, the horizontal cradle members of the *Hermit Saints Triptych* most likely continued at the same level over the three individual panels, which is no longer the case. Possibly in 1895, the panels were altered again to their current rectangular shapes. Several members of the cradle were partially sawn off at their extremities, while new cradle sections were added at the reverses of the triangular inserts. Also, a number of cradle members of the wings have a bevel that appears to follow the onset of the arched tops (see fig. 2.16). We may assume that all top and bottom ends of the vertical cradle members were bevelled, since these have also been preserved at the bottom of the central panel. The rounded top of the central panel was cropped, but a similar intervention in the right wing would have intersected the hill depicted there. The slight lowering of the wings relative to the central panel enabled the preservation of the hill and sky and made it possible to remove a smaller section at the tops of the wings. At least 6 cm seem to be missing from the wings' longest dimensions. Additionally, a comparison with the bottom edge of the central panel suggests that about 2.4 cm are missing from the bottom edge of the left wing, and about 3.3 cm from the bottom edge of the right wing.[10]

The bottom left corner of the interior of the left wing is slightly damaged, and the right edge of the interior right wing was not sawn straight. There are several nail holes in the unpainted edges of the panels, which seem to relate to a previous framing.

- ***Additions*** A cradle was attached to the reverses of the three panels in their original formats (with half- and quarter-rounded tops), most likely in Vienna. In a (perhaps only slightly) later intervention, wooden strips were added to the cropped top edges of all three panels and to the cropped bottom edges of the two wings. As in the original sections of the panels, the grain of the added horizontal strips runs vertically. During this intervention, two triangular inserts (both with a similar blue underpainting) were added to the top inside corners of the open wings, and the cradle was adjusted (fig. 2.16). At a later stage, in Venice, the auxiliary metal mounting frame was applied.[11] (The cradles and the mounting frame were removed during the 2013–16 treatment.)
- ***Cracks*** At the bottom left of the left wing, a minor crack with a slight surface level difference can be observed running parallel with the wood grain. At the top of the central panel, there are four cracks in the added strip of wood, two of which seem to continue, with a small step, into the original panel. These cracks are a direct result of the cradle's blocking the natural movements of the panel. The clamps of the metal framework also inhibit the movement of the panel to some extent. In the centre top edge of the right wing, a crack extends a few centimetres.
- ***Deformations*** Over time, the attached cradle (possibly abetted by the metal framework) has produced an undulating surface in the panels.
- ***Joins*** The join in the central panel remains almost completely closed, but a slight difference in level is visible, especially near the top and bottom of the panel.
- ***Coated reverse*** A (spray) coat of a somewhat matte varnish was applied to the reverse of the thinned panels.[12] There are also some traces of apparently original ground and black paint near the bottom of the wings. A cross-section from a paint sample of the left wing reverse has been analysed.[13] It has a chalk (calcium carbonate – $CaCO_3$) and animal glue ground, on top of which is a black layer that contains carbon black and some chalk and aluminium-silicate.
- ***Biological damage*** Old woodworm damage is apparent at the top of the reverse on the left wing; an exit hole seems to be present at the top



2.14 RR 30, IRR macro



2.15 RR 29, XR, during treatment



2.16 RR 28, VIS: the bevelled top of the second-to-right vertical cradle member; at the far right is the added vertical member.

of the foreground tree in the front of that panel. At the lower right corner of the central panel's front, there appears to be another exit hole.

Ground and paint layers

- ***Stability*** The cradle (and perhaps the metal framework) is causing the entire paint surface to undulate. The adhesion of ground and paint layers appears good and stable overall. Some paint blisters are present in the non-original triangular insert in the left wing. Most craquelure is caused by natural dimensional changes of the panels, but in certain areas (predominantly where thick azurite paint with more binding medium was used), broader drying cracks have formed. The larger overpainted figure in the central panel did have some effects on craquelure formation, but youth cracks (drying cracks caused by medium-poor over medium-rich paint application) have not been found.
- ***Losses*** There are many losses to the paint layers of all three panels, but predominantly in the central panel. In a small number of these, the ground is damaged as well. Traces of fire damage, as mentioned by some authors,[14] were not observed. It appears that most of the paint losses occurred around cracks. This, combined with the overall abrasion of the paint surface, suggests that the triptych was at some point subjected to a relatively harsh cleaning. The cleaning agent could have leached and damaged original paint material, progressing from the open cracks in the paint surface.
- ***Abrasion*** The painted surfaces are quite abraded overall, with larger sections of the top paint layers missing, particularly in the sky area of the central panel. Another example is the severely worn face of Saint Anthony. In the left wing, the bottom part of the drapery hanging from the tree also shows serious abrasion. Most of the top layers are missing here, resulting in the now largely light brown area, but there are still remnants of original surface paint. The impastoed highlights have been abraded (for example, in the ear of Saint Jerome), as well as the highest points of other raised areas of paint. Additional mechanical damage is present in the form of scratches, and in the bottom centre of the right wing a slight dent can be detected.
- ***Discoloration and increased transparency*** Copper-green paints have discoloured, resulting in a browner appearance of the landscape. In addition to being abraded, the red lakes also seem to have faded over time. The paints containing lead white have become more transparent, which has caused a greater visibility of the underlayers and the underdrawing (see fig. 2.18). This result of ageing is an unintended alteration. Ageing has also resulted in the darkening of the already dark paint of the vault in the lower right of the central panel, as revealed in IRR/IRP. At the top edges of the left wing, the slightly cooler tone of the background is still evident.
- ***Filling, retouching and overpainting*** Extensive *rigatino*-style retouching can be discerned fairly easily on all panels.[15] Losses were filled and inpainted, and ample retouching was applied on areas of general abrasion. These retouchings stand out quite strongly – some through discoloration and others because the colouring doesn't precisely match. They were mostly applied in short, separate dabs and strokes that, together with the numerous remaining spots of old and severely discoloured varnish residues, result in a disturbingly vibrant effect. This is most strikingly apparent at the top part of the central panel. The sky has been retouched extensively, covering original paint in many places, but in other areas damage has not been retouched, resulting in a rather unbalanced impression of the paint surface.

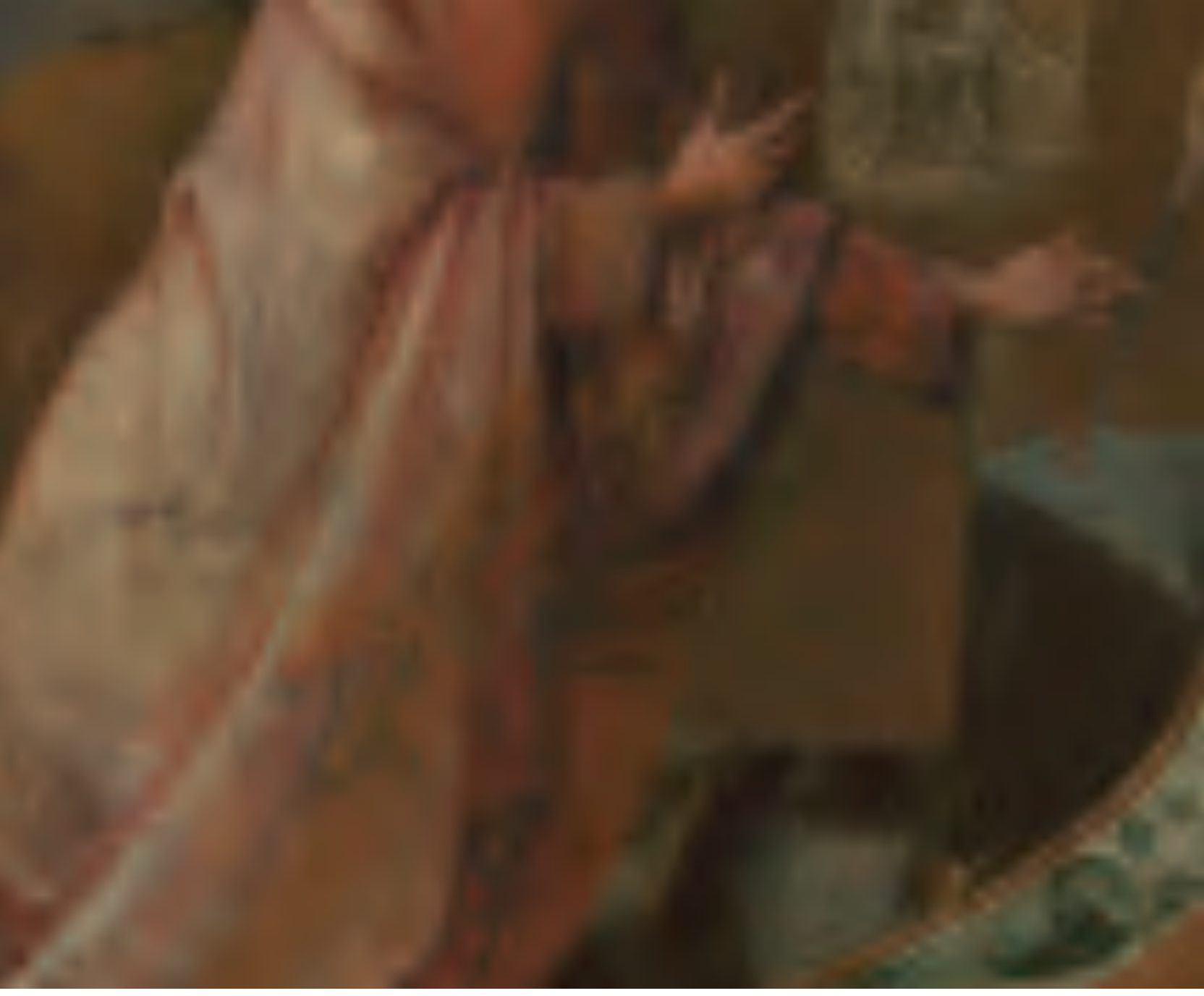
  At some point in time, an infrared-absorbing greyish surface layer appears to have been applied to predominantly lighter areas of the paint surface.[16] The greyish surface layer seems distinct from the more transparent resin or the glue-like, brownish residues that are present in many other areas of the painting. It seems that the latter are part of a pigmented toning layer, possibly applied during the 1951 Pellicioli treatment.[17]

Surface finish

- ***Varnish*** The appearance of the varnish is uneven and speckled because of a spray application of a somewhat matte surface varnish. Especially in the left wing, but elsewhere too, there is an uneven gloss with varnish drips and several matte areas. The thick varnish layer has yellowed, but the numerous older, severely discoloured varnish residues are especially disturbing. This causes, for example, the dark green spots and the overall greenish appearance of the sky, which was originally blue.
- ***Surface dirt*** There is only a small amount of surface dirt present on the painting, although several brush hairs are trapped in the varnish layer.
- ***Visibility of the original surface*** The saturation of the paint surface varies from reasonable to poor. The sprayed varnish has resulted in a speckled, slightly matte, and generally dull-looking surface. Additionally, there are several unsaturated matte spots, especially in the left wing. The yellowed varnish, and particularly the highly yellowed older varnish residue, causes reduced legibility of the original paint surfaces and a strongly altered perception of the work, notably in the sky, which now appears greenish. This altered perception is strengthened by the ample greenish retouchings and overpaintings of the sky, especially in the central panel. The numerous partial, not precisely colour-matched and/or discoloured retouches and overpaintings greatly distract from the original paint surfaces. The poor state of the original paint surface in general has not been brought into balance by its last treatment. Also, remaining well-preserved areas are currently obscured by later additions. A striking example of this is the original tau cross on the shoulder of Saint Anthony. It is almost indistinguishable with the naked eye at the moment but can be seen through the stereomicroscope and in the XR (see figs. 2.10 and 2.15).



2.17 RR 29 and 31, VIS, raking light: inserts in upper corners of wings (photos Claudio Franzini)



2.18 RR 30, VIS: visibility of the underdrawing

[1] The diacritic mark above the *U* (*ü*) is executed in paint identical in colour and brushstroke to the other letters.

[2] See Rossi-Manaresi and Tucci in Limentani Virdis et al. 1992, 200–01.

[3] The BRCP is very grateful to Alice Hoppe-Harnoncourt for archival research at the Kunsthistorisches Museum in Vienna.

[4] Nonfarmale in Limentani Virdis et al. 1992, 187. This one-page text discusses the treatment of the three Venetian ensembles without referring to specific paintings.

[5] Klein 2001, 125. The youngest or last-preserved ring on each of the two planks of the central panel dates from 1476 and 1473, respectively. The wings were apparently not examined.

[6] Rossi-Manaresi and Tucci in Limentani Virdis et al. 1992, 201 fig. 45.

[7] A cross-section taken earlier from the right wing includes the ground, but its composition was not analysed at the time. Rossi-Manaresi and Tucci in Limentani Virdis et al. 1992, 183–86, 200–01.

[8] Rossi-Manaresi and Tucci in Limentani Virdis et al. 1992, 201 fig. 45. A second published cross-section, fig. 46, shows the relatively thick (100 µm) lead-white undermodelling.

[9] Compare with *Christ Carrying the Cross* (cat. 12, RR 9–10), where a similar insert was found.

[10] Marijnissen's suggestion that the panels were once profiled at the top (similar to that of the Prado *Epiphany*), with an original height of c. 110 cm, seems less likely. Marijnissen 1987, 210.

[11] Three rectangular pieces of Perspex with blotting paper were screwed to the reverses of the panels (on the cradle), but museum staff removed these (24 November 2012).

[12] Nonfarmale in Limentani Virdis et al. 1992, 187.

[13] Analytical report by Enrico Fiorin, 11 April 2015.

[14] For example Marijnissen 1987, 210.

[15] The retouchings have a tempera base (in either watercolour or egg yolk), followed by a pigmented resin glaze. Nonfarmale in Limentani Virdis et al. 1992, 187.

[16] The exact nature and composition of this layer have yet to be determined, but it seems similar to the grey layer found in the *Saint Wilgefortis Triptych* (see cat. 8, RR 21–26).

[17] Mauro Pellicioli often used glue as a patina and as medium for retouching. Paintings conservator Giulio Bono and head of conservation Maria Chiara Maida, oral communication.

2.19–21 **Reverses after treatment** (photos Matteo De Fina, Venice)









2.22–24 **VIS, after treatment** (photos Matteo De Fina, Venice)


Theronimus Bosch