



THE FOLLOWING IS A RECORD OF observations made by a team of conservation, curatorial, scientific, and other professionals who studied sixty-five Netherlandish panel paintings that either currently function or are thought to have originally served as part of a diptych. This research project was initiated, organized, coordinated, and administered by Ron Spronk, associate curator for research, Straus Center for Conservation, Harvard University Art Museums. The other core members of the research team were Catherine A. Metzger, senior paintings conservator, National Gallery of Art; Catharina Van Daalen, Theodore Rousseau Intern, Harvard University Art Museums (2003–2005); and Adriaan Verburg, Foundation Arcobaleno, Antwerp. We typically had infrared documentation and x-radiographs at hand when studying the paint surface with the microscope. Large numbers of photographs, macrographs, and micrographs were digitally captured for later reference. We traveled with digital cameras, infrared equipment, and computers owned by Harvard University's Straus Center but used microscopes provided by local institutions.<sup>1</sup> We are deeply grateful to colleagues who allowed us unparalleled access to research facilities and works of art in their care, sometimes for weeks at a time (in Antwerp, Berlin, and Maastricht). In other locales we worked under greater time pressure; in Bruges, for example,

we examined and documented two full diptychs (cats. 26 and 31), both uniquely well preserved, in a single day. Peter Klein, of Hamburg University, performed new dendrochronological analyses for us and provided findings from his earlier examinations. Paint samples for the project were taken by Melanie Gifford and Catherine Metzger of the National Gallery of Art and Narayan Khandekar of the Harvard University Art Museums, then analyzed by Gifford at the National Gallery and Khandekar at Harvard.

Research materials were processed and archived at Harvard's Straus Center, largely by Catharina Van Daalen.<sup>2</sup> X-radiographs were digitized at high resolution and assembled into composites where necessary.<sup>3</sup> Assemblies were produced from digital infrared reflectograms and macro-photographs in the visible and infrared ranges of the spectrum. Files were superimposed, allowing for close comparison between technical documents. Our observations and documentation were entered in a relational database; and documents (about 75,000 files totaling around 200 gigabytes) were renamed to facilitate archiving and later accessibility.<sup>4</sup> It is our hope that all these materials will at some point become accessible on the Internet.

This technical appendix is excerpted from *Prayers and Portraits: Unfolding the Netherlandish Diptych*, Copyright © 2006 Board of Trustees, National Gallery of Art, Washington, available November 2006.

## Abbreviations

### INSTITUTIONS

HUAM	Harvard University Art Museums, Cambridge, MA
KMSKA	Koninklijk Museum voor Schone Kunsten, Antwerp
MNP	Museo Nacional del Prado, Madrid
MTB	Museo Thyssen-Bornemisza, Madrid
NGA	National Gallery of Art, Washington, DC
PMA	Philadelphia Museum of Art
RTE	Rijksmuseum Twenthe, Enschede
SMB	Stedelijke Musea Brugge
SMBG	Staatlichen Museen zu Berlin, Gemäldegalerie
SRAL	Stichting Restauratie Atelier Limburg, Maastricht

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## Cat. 3. Albrecht Bouts

ECCE HOMO and MATER DOLOROSA wings: THE ANGEL GABRIEL and THE VIRGIN ANNUNCIATE Suermondt-Ludwig-Museum Aachen, inv. no. GK 57 Examined at SRAL: 15–27 September 2003 by CM, MR, RS, CVD, AV, UV

### Documentation and analyses

2003 at SRAL: Phase One visible and IR as well as Inframetrics IRR by CVD, AV; binocular microscopy by CM, RS; x-radiography by AT; dendrochronology by PK; cross sections by CM 2005 at NGA: cross section analysis by MG

ECCE HOMO (db no. 23.45)

**FRAME:** Integral. Regilded. Exterior profiles were probably cropped, as the inner profile is wider in places than the exterior, and the width of the flat outer profile is slightly wider at the top of the arch. The frame on the *Mater Dolorosa* is generally wider, and its flat outer profile has an even width throughout, but the overall widths and heights of the two framed panels are similar. This suggests that the frame of the *Ecce Homo* was trimmed to match that for its companion panel. Several holes in the top may be traces of former hanging devices. A large insert at the back of the top edge reinforces this area of damage. Grooves in the sides allow the panel to be fit into the secondary frame.

**SUPPORT:** Oak, 45.5 × 31. Two planks, vertical grain. Left plank is 27.1 / 27.3 cm wide; right plank is 4.3 cm wide at the bottom. Reverse is painted reddish brown over a dark underlayer and over paper scraps securely dated to 1804 (see entry), indicating that the coating and inscription on the reverse were added after 1804.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1483; earliest possible creation date: 1485; statistically more plausible production date: after 1499 (assuming 10 years for seasoning and transportation).

**PREPARATION OF SUPPORT:** Chalk, with an intermediate layer that has little pigment in cross section. It does not register in the x-radiograph (striations visible in the x-radiograph register the paint layer on the reverse). Traces of the intermediate layer are visible in IRR, notably in the face, near the eyes and nose, as thin dark diagonals. These may be residues from brushing away a powdery dry underdrawing material that was trapped in a ridged surface.

The x-radiograph is generally less opaque than that of the *Mater Dolorosa*, though the paint layers appear thicker in the *Ecce Homo*. This contradiction may be explained by a difference in the preparation layers on the two paintings. In cross section the layer immediately under the

gold leaf here has a butter-yellow autofluorescence like that immediately under the gold on the frame (see below), possibly a mordant or a bole layer.

The frame has a different buildup of preparation layers. Over a ground layer similar to that on the panel, two colored layers are present: the first is gray; the second is a thin yellow-tan with a butter-yellow autofluorescence also seen in upper layer on the panel under the gold leaf. The top two layers in cross section are 1) dirt and 2) traces of repaint with an orange autofluorescence like that on the top layer of the composite frame.

**PREPARATORY DESIGN:** Two stages of underdrawing are readily visible in IRR; a prior stage, possibly brushed away, is implied by residues of a powdery material in striations of the intermediate layer. The medium of the revealed underdrawing appears to be liquid, with both thin and bolder washlike lines. Thin pale gray lines visible in IRR were probably traced over now-removed material of an initial underdrawing to define contours. The final underdrawing was apparently executed in a heavier, more washlike material to prepare areas of shading.

Compared to the underdrawing in the *Mater Dolorosa*, this was more organic, fluid, assured, and free. Paler, thinner contours were applied with confidence, often using several lines for a single contour. Darker lines added shading with crisply parallel hatching. In some places (i.e., the back of the left hand where a tangle of thinner, lighter lines goes in different directions) the drawing is difficult to interpret. The contours of the left hand were redrawn in the darker line used elsewhere for hatching.

The crown of thorns is completely drawn but not carefully followed in the paint stage (thorns were painted where none were drawn, and vice versa). The fingers on the left hand were painted longer than they were underdrawn so that they appear to rest on the frame. The right hand was changed in both underdrawing and paint stage: it appears to have been drawn with the thumb higher, but the hand and fingers placed farther to the right and more horizontal.

**PAINT LAYERS:** The paint was applied with confidence and economy, working up to the lightest and generally thickest areas. Red lake glaze was used in the shadows, especially in the crown of thorns. The painting technique is comparable but less elaborated than in the Cambridge pair (cat. 4), resulting in an effect of less volume and lower quality.

The gilding of the background is original (unlike that of the frame). A translucent red glaze was applied in rounded

dots over the gold, trailing off to the upper left from the body of the dots. Although the dots appear to have been applied in lines from bottom right to top left, no effort was made to standardize the pattern, so an overall speckling is produced rather than regimented rows.

In the first paint stage the right hand was more horizontal, with the fingers starting farther to the right and the little finger slanted downward. In the final painted position the knuckles are higher. Both the x-radiograph and IRR show increased density of paint in this hand. The rope was painted over the robe rather than left in reserve, as were the hair and hands, implying that it was a late addition.

MATER DOLOROSA (db no. 23.46)

**FRAME:** Integral. Regilded. The flat outer plane is the same width throughout, unlike that on the *Ecce Homo*. X-radiography revealed a metal element at the top, probably a remnant of a hanging device.

**SUPPORT:** Oak, 45.3 × 31.1. Single plank with vertical grain and shallow bevels on the reverse, wider at the top. The reverse is covered with reddish brown paint that is thinner than the paint on the reverse of the *Ecce Homo*, and it has no dark underlayer. This paint lies over paper scraps securely dated to 1804 (see entry), indicating that the coating and inscription on the reverse were added after 1804.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1509; earliest possible creation date: 1511; statistically more plausible production date: after 1517 (assuming 2 years for seasoning and transportation).

**PREPARATION OF SUPPORT:** White, coated with an intermediate layer that is difficult to see in the x-radiograph but is also present under the gold leaf. A slight indication of striated lines across the nose and at the chin is visible in IR as well as in surface texture at the chin. A cross section shows that the layer immediately beneath the gold is a dense orange gilding preparation, which differs from that in the *Ecce Homo*.

The preparation layers on the frame are not the same as those on the panel. A black layer lies over a thin light-colored layer that may be the ground. Over these is a thick yellow-tan gilding preparation (with whitish autofluorescence), then gold leaf. The layers above this appear to be restoration and consist of (from bottom to top): a dark layer, a gray layer, a fragment of gold leaf, and a dark transparent heterogeneous layer with orange autofluorescence similar to topmost layer on frame of the *Ecce Homo* and on the composite frame.

**PREPARATORY DESIGN:** Two stages. The initial underdrawing was executed in a combination of thicker and thinner lines, with the thin lines having the mechani-

cal quality of a tracing. The hatching and crosshatching from the second stage were done in a liquid medium and are very regular, marking zones of shadow. They do not always follow contours precisely (i.e., at the nostrils). We did not observe the powdery underdrawing seen in the *Ecce Homo*, and we found this underdrawing generally more rigid and schematic than that for its mate.

Several minor changes were made between underdrawing and the paint stage: the mouth was underdrawn slightly open with a dip in the center, but it was painted straight across; and the fold in the veil at the top center is painted slightly narrower than it was underdrawn.

**PAINT LAYERS:** The paint was so thinly brushed that the underdrawing is visible, seeming to lie atop the intermediate layer and directly beneath the paint. The paint follows the underdrawing fairly closely, and hatching shows through to create midtones. An unusual system of shading, using clusters of tiny thin strokes of brownish red (i.e., at the bottom of the chin and nose), adds color to shadows. Forms are painted with slight gaps between the color areas so that the effect is flat and lacks the vitality of the more richly developed technique in the *Ecce Homo*.

wings: THE ANGEL GABRIEL and THE VIRGIN ANNUNCIATE (db nos. 23.118–119)

**FRAME:** None. Illusionistic painted frames. One edge of each panel is hinged directly to the composite frame enclosing the *Ecce Homo* and *Mater Dolorosa*. The wings have frames later added by the museum at the top, bottom, and nonhinged edges.

**SUPPORT:** Oak, 52 × 38.2; and 51.9 × 38. The *Angel Gabriel* comprises two planks, 1.4 cm thick, with vertical grain. The left plank is 26.7 cm wide; and the right is 11.4 cm wide at the bottom, 11.6 at the top. The *Virgin Annunciate* comprises two planks, also 1.4 cm thick. The left plank is 10.7 cm wide at the top, 11.3 cm at the bottom; the right is 27.2 cm wide at the top, 26.3 cm at the bottom. The wings were originally a single painting that was cut in two.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1480; earliest possible creation date: 1482; statistically more probable creation date: after 1496 (assuming 10 years for seasoning and transportation). Narrow boards of each originally formed a single plank.

**PREPARATION OF SUPPORT:** White. No evidence of an intermediate layer in cross section, IR, IRR, or visible light, though some brush strokes not related to the image are visible in x-radiography (prob-

ably related to the painted underlayer of the inscriptions on the reverses).

**PREPARATORY DESIGN:** Multiple campaigns. Perspective lines for the architecture were defined before the rest of the compositions. Parallel lines of hatching and crosshatching in a liquid material indicate zones of shadow. The style and method of underdrawing are not comparable with that of the *Ecce Homo* or *Mater Dolorosa*. The top and bottom frame elements were drawn farther into the image than painted. A single line marks center of each bench leg.

**PAINT LAYERS:** The paint is opaque, with textured brush marks. The application was direct and simple, with little blending or glazing. The technique in the landscape used the striated red brown intermediate layer, more typical of the sixteenth or seventeenth century than of the fifteenth. Trees in the landscape were summarily brushed with swirled strokes of color to form a general mass. The bench at the back of *The Virgin Annunciate* had a lobed design leading to the central leg, taken into the first paint stage but changed to simple arches. Studied under the microscope, the far right edge of the window opening at the right side of *The Angel Gabriel* shows a fine sliver of light-colored paint, probably from the landscape at the left edge of *The Virgin Annunciate*, which was originally part of the same panel. The edges of the illusionistic frames are incised, with lines of incised paint in the framing elements continuing across the cut that divided the panels.

**REVERSES** (db nos. 23.122–123): No isolation layer is evident. The preparatory design consists of a simple contour line, possibly executed in a liquid medium, that describes the architecture surround, including scrollwork on the flat faces, profile heads in the roundels, and swags with hanging rings. The drawing was followed only approximately in paint, with many deviations especially in the scrollwork. The paint was thinly and efficiently applied. Major color areas (brown, gray, and black) were quickly brushed in a thin, striated layer. Slightly more opaque paint was then summarily applied to indicate smaller features such as the highlights, berries, leaves, etc. Mordant under the lettering is x-ray opaque.

Secondary Frame (db no. 23.138)

**Documentation and analyses** 2003 at SRAL: Phase One visible by CVD, AV; binocular microscopy by CM, RS; x-radiography by AT; dendrochronology by PK; cross sections by CM 2005 at NGA: cross section analysis by MG

Not original to the paintings.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1592; earliest possible creation date: 1594; statistically more plausible production date: after 1604.

Cross sections taken from two locations show a layered structure corresponding to diverse decorative schemes. At the upper surface, over a layer of dirt, a dark translucent heterogeneous layer with orange autofluorescence is similar to the topmost layer on the frames of the *Ecce Homo* and *Mater Dolorosa*.

**Summary** Altarpiece was assembled long after the death of Albrecht Bouts, using paintings that may have originated in the Bouts workshop. Dendrochronology suggests that the central panels were painted some twenty-five years apart, while parts of the secondary frame can be dated to the seventeenth century. The wings were originally a single panel that was cut in half. These disparate parts were combined within the painted and gilded secondary frame, perhaps as late as 1804, the *terminus post quem* for application of paint on the reverses of the panels.

Evidence that the *Mater Dolorosa* and *Ecce Homo* have different restoration histories further implies such a late pairing. The sample from the background of the *Mater Dolorosa* shows a structure with two layers of different varnishes. The sample from the background of the *Ecce Homo* does not include these layers. Likewise, the finish of the engaged frame of the *Mater Dolorosa* was revised repeatedly: over the black paint layer lies a yellow-tan mordant and gilding layer, followed by a thin dark layer, a thin gray layer, and a fragment of additional gold leaf. The frame of the *Ecce Homo* shows little evidence of changing decorative schemes. Only in the top layer on the engaged frames do the samples show a similar, dark translucent coating, but this was applied over the several layers on the frame of the *Mater Dolorosa* and over dirt and damage on the frame of the *Ecce Homo*. The same coating is present as the final layer in a sample taken from the secondary frame, suggesting that the coating was applied only after the panels were assembled as an altarpiece. This sparsely pigmented layer has an orange autofluorescence, which is typical of a toned shellac coating and was probably applied to unify the appearance of the present triptych.

### Cat. 4. Albrecht Bouts

MAN OF SORROWS and MATER DOLOROSA Harvard University Art Museums, Fogg Art Museum, inv. nos. 2001.170, 171 Examined at HUAM: 3–7 March 2003 by CM, AP, RS; and 9–13 May 2005 by CM, RS

**Documentation and analyses** 1998 at HUAM: visible light by RS; Phase One IR by HL, RS; Inframetrics IRR by AP; binocular microscopy by RS; x-radiography by EF, RS; analytical microscopy by EF 1999 at HUAM: dendrochronology by PK 2003 at HUAM: cross sections by CM 2005 at HUAM: Phase One visible and IR by CVD; binocular microscopy by CM, RS 2005 at NGA: cross section analysis by MG

MAN OF SORROWS (db no. 25.49)

**FRAME:** Not original.

**SUPPORT:** Oak, 37.5 × 26.7. Single plank, c. 5–6 mm thick, with vertical grain. Trimmed at top and possibly on left edge. Reverse was thinned, flattened, and cradled. The cradle, with broad softwood members, is analogous to that for the *Mater Dolorosa* (see below).

**DENDROCHRONOLOGY:** Earliest possible felling date: 1476; earliest possible creation date: 1478; statistically more plausible production date: after 1492. Analysis produced these dates for this panel, but because it came from the same tree as that for the *Mater Dolorosa*, the slightly later dates for that plank must be taken into account here.

**PREPARATION OF SUPPORT:** The whitish calcium carbonate ground was applied in multiple layers and continues to the edge of the panel. The translucent uppermost layer seems to be a single glue-rich layer with a well-defined border rather than irregular staining caused by medium that has soaked down from the paint layers. A slight ridge in the preparation occurs along the bottom edge, but a true barbe is not present. There is a thin whitish isolating layer of irregular thickness. The ground has an unusual pattern of cupped, diagonal craquelure, which runs from the top right to the bottom left.

**PREPARATORY DESIGN:** The scarce underdrawing that appears in IRR defines the eyes, the hollow on the upper lip, the contours and hollows in the neck, and the contours of the fingers. Some features are underdrawn with thin, grainy lines. Contours do not describe volume, and there is no hatching to establish light and shade. The only areas where some

volume was indicated are the bags under the eyes, which were underdrawn with a broader line of gray material resembling a wash. Slight changes in the hands include especially the thumb and the tips of the fingers of the left hand; the fingers of the right hand were lengthened in paint and shifted slightly to the right.

**PAINT LAYERS:** In the initial paint stage red “dots” were applied over gold leaf in the background in a distinct left-to-right diagonal orientation. The dots vary in size, density, and degree of completion; they are linear, teardrop-shaped, or amorphous; they are not organized on a regular grid. This differs markedly from the companion panel. Next, the flesh tones were laid in, using an overall warm beige (visible near Christ’s hairline), over which fine strokes of lighter and darker paint were blended. The painting of the skin tones was meticulous, with red paint defining shaded areas. Surface details like bruises, blood, and thorns were applied with similar care. Cross sections show an unpigmented layer between the basic flesh tone and subsequent layers. For the eyes, the lids were first modeled with warm skin colors, then the whites with a bit of blue as well as strokes of bloodshot red, and then the irises and pupils. The glistening highlights and the stroke of shadow marking the bottom of the upper lid completed the eyes, and only after this were eyelashes and tears added (with fully described volume, spilling over the bottom lid). The base color of the hair and the garment were painted next. Finally, a border at the edge of the panel was executed in red lead and lead-tin yellow over vermilion, identical to the border on the *Mater Dolorosa*.

The artist increased the size of the fingers on Christ’s proper left hand and shifted them slightly to the right, except for the index finger, which was extended to the left. The entire thumb was also enlarged, from its tip to the base of the palm. The middle finger on Christ’s proper right hand was made larger, and that index finger smaller, while the little finger was shifted to the right in a second paint stage, with final touches of light flesh tones added over the paint of the garment. The position and size of pupils changed, possibly in relation to the pairing with the *Mater Dolorosa*.

MATER DOLOROSA (db no. 25.50)

**FRAME:** Not original

**SUPPORT:** Oak, 37.5 × 26.7. Single plank, trimmed at top and possibly the right. Reverse is thinned to 5–6 mm, flattened, and cradled. The cradle, with broad softwood members, is analogous to that on the *Man of Sorrows*.

**DENDROCHRONOLOGY:** Earliest possible felling date 1478; earliest possible creation date: 1480; statistically more plausible production date: after 1494. The plank came from the same tree as that for the *Man of Sorrows*.

**PREPARATION OF SUPPORT:** The whitish calcium carbonate ground was applied in two layers and continues to the edge of the panel. The particles are coarser in the initial layer than in the final one. A red brown isolation layer was then applied, containing lead white, chalk, and red ocher. This panel does not have a ridge in the ground at the bottom edge.

**PREPARATORY DESIGN:** This panel has three stages of underdrawing. The first shows frontally oriented eyes, a nose shaded on the right side, two reference lines that cross at a dot on the Virgin’s chin, and broad straight lines at the bottom and both sides that appear as a gray material. The initial underdrawing is highly schematic (for instance, the shading of the nose is achieved with evenly spaced hatching). The second stage of underdrawing has been largely removed but remains visible as scattered dark specks in the IRR and occasionally where the final drawing does not cover it, such as at the top of the left eyelid and on the forehead under the headcloth. We infer that the second stage was done in a dry, powdery material, which was traced in a dark liquid at the third stage of drawing, then brushed away, leaving only faint traces in the porous surface of the ground. Too little of the second underdrawing is visible to describe its style accurately. The final underdrawing, made with a heavily loaded brush, is clumsy and insecure, with contours broken into multiple short strokes and hatching that is irregular in scale and direction.

Several small changes occurred after the final underdrawing. The Virgin’s veil had a more sharply pointed fold at the forehead in the second stage drawing than in the painting. Her thumbs were underdrawn much longer than painted. A long diagonal line went through the thumbs, parallel to the index finger, but it is not clear what it delimited. The blue headcloth was painted larger at the crown of the head and at the right than indicated in the drawing.

**PAINT LAYERS:** The paint was applied with finesse and skill. The red dots on the gilded background were completed first. These dots are very different from those on the *Man of Sorrows*, with each carefully executed so that all are round (or rounded) and regularly spaced in neat vertical lines. The flesh was painted next. A cross section shows that the flesh tones were applied on a translucent brown layer lying directly on the ground, with an overall medium tone over which fine strokes of lighter and darker paint built up the form of the face. One unusual aspect of the technique is the use of a thin line of red paint atop the flesh tones to outline the shadowed areas (seen in a cross section from the proper left side of the Virgin’s face). The hair and garment were painted after the flesh tones and lie over a translucent isolating layer that fluoresces brightly. A studio assistant may have been assigned to paint hair and drapery after the master had painted the face, veil, and hands. Finally, details such as tears, individual strands of hair, trim on the garment, and cool scumbles on the flesh tone were added. The band of red and yellow paint at the edges, which gives the impression of a shadow, was a last touch, here as on the companion panel.

The Virgin’s head covering was changed after the underdrawing, as described above. In addition, it was first painted in white and black with a diagonal section over her forehead, then repainted in white and blue extending farther over her forehead in its present configuration.

**Summary** These high-quality panels were painted around the same time by the same hand, but the markedly different method and style of the underdrawing point to the possibility that they were created in an active workshop with various hands participating in production. The initial underdrawn composition of a frontally oriented face on the Virgin panel was abandoned before painting began, and the final underdrawing appears to have been traced. It is possible that the *Man of Sorrows* was adapted from an autonomous image. This might explain the discrepancies in organization of the background dots. Pairings such as these might never have functioned as a folding diptych, as none has a painted verso. Instead, they were probably displayed as pendant paintings.

### Cat. 5. Robert Campin

CHRIST BLESSING WITH THE VIRGIN IN PRAYER (db no. 1.1) Philadelphia Museum of Art, inv. no. 332 Examined at PMA: 20–24 October 2003 by CM, RS, CVD

**Documentation and analyses** unknown date at PMA: x-radiography by JM

1993 at PMA: dendrochronology by PK 2003 at PMA: Phase One visible and IR by CVD; binocular microscopy by CM, RS

**FRAME:** Not original.

**SUPPORT:** Oak, 28.4 / 28.6 × 45.4 / 45.3. One plank, with horizontal grain. Small piece of conifer added at the lower edge is not original. The panel is trimmed at the top and slightly at the bottom and is thinned and cradled.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1408; earliest possible creation date: 1410; statistically more plausible production date: after 1424.

**PREPARATION OF SUPPORT:** White ground with no isolation layer visible in either x-radiograph or visible light.

**PREPARATORY DESIGN:** The drawing appears to include at least three stages: first the contours, then the shading in robust descriptive liquid lines, and lastly a fine, dense network of diagonal hatching. The initial shading included zigzags and described the general contours and volumes of the forms. The final stage was more uniform and indicated the fall of light through increased line density, creating a tonal field, not a wash. The modeling of the pouch beneath the Virgin’s eyes ignored an earlier underdrawn placement of the eyes.

The underdrawing is more visible in the hands than in the faces, perhaps because less lead white was used in the hands, or because only the first two drawing stages, which appear darker in IRR, were used there. The third drawing campaign codified the shading and modulation of flesh tones in the faces. This drawing was followed carefully in the paint, while there are deviations from the first and second drawing campaigns. Christ’s eyes were drawn lower than they are painted, with dark irises. The Virgin’s eyes were initially drawn lower, but completely redrawn in the third stage. The ring on the Virgin’s finger was painted lower than underdrawn, and the fingers of both figures were slightly altered. A curl at the top center of Christ’s forehead was underdrawn but not painted. Changes were also made in the Virgin’s hair and in the attire of both figures.

**PAINT LAYERS:** Haloes were incised in the gold, and the x-radiograph shows the interior contours as white lines and the outer contours as dark; the latter must have been done after paint was applied. Paint application was direct and sparing, and the technique was straightforward. Colors were mixed on the palette and applied adjacent to one another, blending the edges. The final details, such as eyelashes, tiny touches of red paint on the upper eyelid, and highlights on eyes and fingernails, were meticulously added with a fine brush. The paint is thin enough that underdrawing can be seen through it, yet it gives an impression of solid volumes. The jewels adorning the haloes received the most elaborate treatment, worked wet-in-wet with minute flecks of color. Another example of incised line is seen in the hair above Christ’s right hand, where the brown paint was scratched through while wet to create separate strands of hair.

**Summary** This painting is not a diptych but was part of our study because it influenced the development of the Netherlandish diptych tradition. Campin’s technique suggests the possibility of collaboration between the master and workshop assistants. The first two stages of underdrawing are confident, while the third is almost overly explicit. The paint closely follows the third stage of drawing wherever it is present, while changes are common in the areas described only by the first two stages of underdrawing. It is possible that the third underdrawing was intended to provide unambiguous direction to a studio assistant in the application of the paint on the faces.

## Cat. 8. Jan van Eyck

THE ANGEL GABRIEL and THE VIRGIN ANNUNCIATE (db nos. 3-4–5) Museo Thyssen-Bornemisza, Madrid, inv. nos. 1993.11.1–2 Examined at MTB: 13–21 September 2004 by CM, RS, CVD, AV

**Documentation and analyses**

2004 at MTB: Phase One visible and IR as well as Inframetrics IRR by CVD, AV; binocular microscopy by CM, RS; x-radiography by RayXArt Madrid

**FRAMES:** Semi-integral; top and bottom pieces are secured to the fronts of the panels with three pins each. The pins on the bottoms are evenly spaced but not exactly centered, while the center pin on the tops is offset to the right. The frames are jaspered red on the front and halfway around the sides. There are no frames on the reverses. Traces of nail holes in the right side of the Gabriel panel align with similar holes on the left side of the Virgin panel, marking the former location of hinges. The x-radiograph also reveals nail holes where hanging devices were attached at the tops and a closing device on the left side of the Gabriel and right side of the Virgin.

**SUPPORTS:** Wood not identified. Each panel comprises a single plank, the Gabriel measuring 38.8 / 38.7 × 23.3 / 23.4, and the Virgin, 38.8 / 38.7 × 23.5 / 23.4. The reverses and halfway around the sides are painted with a primarily greenish black marbling.

**PREPARATION OF THE SUPPORTS:** White. No intermediate layer was observed.

**PREPARATORY DESIGNS:** Densely spaced fine lines model the forms, with hatching and crosshatching used to show the fall of light on each surface and to create nearly sculptural volumes. The border on Gabriel’s sleeve was drawn with two bands on either side of a series of circles. The pedestal’s base was drawn with a straight rather than a stepped-in profile and seen from eye level rather than from above. The brooch at Gabriel’s chest was sketched with fewer lobes than were painted. His proper left thumb was bent in the drawing. The loose fold of his robe was changed between drawing and the paint stage.

The drawing of the pedestal base in *The Virgin Annunciate* changed in the same way as in the Gabriel, though there is no double line at the panel’s upper corners where the lintel meets the supporting columns. The Virgin’s cape originally had a round clasp at the tie end on the left side. Binding cords on her book were under-drawn but not painted.

**PAINT LAYERS:** The paint was expertly applied in a painterly manner, incorporating or departing from the underdrawing as desired. The handling is masterful, with confident strokes of thick white used to pull out highlights and adroit strokes of black to push the deepest shadows back over a structure partly modeled by the densely hatched underdrawing seen through the thin paint.

Subtle but significant changes in the architectural elements at the top and bottom affected the perspective, bringing viewers closer to the picture plane. A thin horizontal brown line beneath the present join between the lintel and uprights in the Gabriel (partly under the white paint, partly over it) shows that the point of view shifted from eye level to below the lintel. Similarly, the pedestal had been flush with the frame and now appears to overhang it slightly (the latter was also observed in *The Virgin Annunciate*). These two changes ensure that viewers focus on the subject of the panel, looking up at the lintels and down at the pedestals. Short horizontal lines across the pedestal reflection and in the white paint of the pedestal itself were incised through wet paint and are discernible on the surface, but their function is unclear.

The reflection on the black marble to the right of Gabriel was painted narrower than first planned (the change is visible in both IRR and x-radiograph). The initial paint stage followed the underdrawing, but the form of the pedestal in the reflection also changed to the stepped-in profile. The fold at the lower right was blocked in as free hanging, then painted over the underpaint to connect it to main body of the garment.

In *The Virgin Annunciate* the dove seems to have an ocher underlayer (not seen under the Virgin), which was used with a scumble of white at the back edge of the wings to create a soft outline appropriate to the depiction of feathers. The Virgin’s robe was finished after the background, overlapping it in places, and the contour of her book was changed from curved to straight by painting the top left side over the background.

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**Summary**

This diptych shows evidence of thoughtful planning for its use. Changes made in the reflection behind Gabriel and in the angle of the lintel join above him probably indicate that this panel was painted first. These changes reflect Van Eyck’s active concern with the construction of a viewing angle for the diptych (see entry). The jaspering of the sides and reverses indicates that these elements were meant to be seen, and together with the lack of a frame on the reverse, this creates a strong association with books of the time. The change in the bases of the pedestals so that they appear to overhang the frame and the painting of the lintels as if viewed from beneath intimates that the viewer should see these elements as though enclosed by them. The diptych seems to have been designed for use as a book.

## Cat. 14. Quentin Massys and/or Jan Massys

VIRGIN AT PRAYER and CHRIST AS SAVIOR, 1529 Museo Nacional del Prado, Madrid, inv. nos. 1562 and 1561 Examined at MNP: 13–21 September 2004 by CM, RS, CVD, AV

**Documentation and analyses**

2004 at MNP: Phase One visible and IR as well as Inframetrics IRR by CVD, AV; binocular microscopy by CM, RS; dendrochronology by PK 2005 at MNP: cross sections and cross section analyses by MDG

VIRGIN AT PRAYER (db no. 48.95)

**FRAME:** Not original.

**SUPPORT:** Oak, 44.8 / 44.6 × 35.4 / 35.3. Single plank, slightly thinner at the edges than the center. Trimmed on all sides. The left edge (seen from the back) is cut into a tongue the length of the panel. The reverse is painted with a predominantly yellow marbling.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1519; plausible creation date: after 1521. Has twenty sapwood rings.

**PREPARATION OF SUPPORT:** Chalk/glue ground continues to the edges of the panel. The x-radiograph and cross sections show a thin intermediate layer of lead white with a small proportion of calcium carbonate applied overall. Striations visible in x-radiograph are diffuse, and the intermediate layer does not texture the surface paint.

**PREPARATORY DESIGN:** A simple contour line marks the edges of forms in the hands, such as the fingers and palms. The white cloth at the neckline was also delimited. There is little underdrawing in the facial features, and no clear evidence of a line between the lips. The little underdrawing that exists is followed closely in the paint.

**PAINT LAYERS:** Oil paint. The paint was smoothly blended with little surface texture. The analysis shows that the blue was mixed with calcium carbonate. The composition was laid out with reserves left in the underlying paint for the figure, which overlaps the background slightly. The paint was used with fluid blending for large areas and liquid flourishes in the details. The blue of the robe at the left was

painted after the underlayer of hair, then final strands of hair were added as a finishing stage. This working back and forth is seen elsewhere, such as at the thumb and finger, where a reserve was left in the background, then the flesh was painted, and finally the background was brought back over the flesh. Final touches in the hair (in black and in white) were applied in a very liquid medium, breaking up into tiny beads. This technique was also observed in cat. 15.

The Virgin’s little fingers had contour changes visible in IR but painted out, with a reserve left in the underpaint and the finger in front painted over the one in back. More of the pupil originally showed in the right eye, and the eyelid was painted over the top of the iris. The white veil behind the Virgin’s head was made more voluminous than the reserve left for it, and the shadow in the blue robe behind her head is completely transparent in IRR.

CHRIST AS SAVIOR (db no. 48.96)

**FRAME:** Not original.

**SUPPORT:** Oak, 44.6 / 44.8 × 35.6 / 35.4. Single plank. Top, bottom, and right sides have been trimmed. The reverse is painted with a predominantly yellow marbling, except for a thin margin along the right side as seen from the reverse.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1507; earliest possible creation date: 1509; plausible production date: after 1515. This panel was planned and executed with the *Virgin at Prayer*, and its later dendro-chronological dating should be taken into account.

**PREPARATION OF SUPPORT:** Chalk/glue. There is a barbe on the left side and traces of one at the bottom right edge. On other edges the (presumed) barbe is trimmed off. Cross section analysis finds a thin intermediate layer of lead white in oil with an admixture of calcium carbonate.

**PREPARATORY DESIGN:** Scant and hard to determine. The most readily visible line of underdrawing is at the separation of the lips. The broad gray drawing material can be easily confused with paint, as many finishing touches in paint are seen in IRR. One small line slightly left of the nose is discernible, and there may be a thick line at the left side of the painting.

**PAINT LAYERS:** Oil paint. The paint was applied efficiently in broad masses, beginning with the background and leaving a reserve for the figure. Blending and surface details were handled with great care. In the painting of the inscription, for example, a first underlayer of yellow ocher was followed by maroon, then (tiny) pink strokes perpendicular to the maroon, then lead-tin yellow. A dash of blue/green, perpendicular to the underlying mauve, was painted in the yellow at the top and bottom of the inscription.

Finishing touches in a very liquid black and white, which break up into tiny beads, were applied with a fine brush to adjust contours and add individual strands of hair. As in the companion panel, the edges of the fingers are redefined with background paint.

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**Summary**

These two paintings are by the same hand and were planned and executed as a pair. Although they are missing their original frames, the identical treatment of the reverses shows that they probably functioned as a diptych. The artist seems to have been working from a familiar prototype, as very little preparatory drawing was required. The paintings exhibit a high degree of finish.

## Cat. 15. Quentin Massys

VIRGIN AT PRAYER and CHRIST AS SAVIOR Koninklijk Museum voor Schone Kunsten, Antwerp, inv. nos. 241–242 Examined at KMSKA: 11–22 November 2003 by CM, RS, CVD, AV

**Documentation and analyses**

2003 at KMSKA: Phase One visible and IR as well as Inframetrics IRR by CVD, AV; binocular microscopy by CM, RS 2004 at KMSKA: dendrochronology by PK

VIRGIN AT PRAYER (db no. 35.69)

**FRAME:** Not original. Frans Francken II’s *Banquet in the House of Burgomaster Rockox* shows the painting as a diptych in a red-dish frame. Traces of red paint on the barbes under the surface paint may be residues of the original frame paint.

**SUPPORT:** Oak, 40.9 × 30.6 / 30.4. Single plank, with slight bevels on the reverse. The original red and brown marbling on the reverse is overpainted with lead white (fig. 1).

**DENDROCHRONOLOGY:** Earliest possible felling date: 1496; earliest possible creation date: 1498; statistically more plausible production date: after 1504. Has four sapwood rings.

**PREPARATION OF SUPPORT:** White with a barbe on all four sides. The right unpainted margin has a barbe, and an incised line at the bottom has a ridge of ground beyond it, then unpainted wood. For other reports of ground applied prior to framing and manipulated while still wet, see Stroo et al. 1999, 145, 162 n. 12. No intermediate layer was observed, but the lead white paint on the reverse impedes x-radiography.

**PREPARATORY DESIGN:** A spare but broad liquid contour defines larger forms such as the right cheek and chin. The face and other details are not underdrawn in a medium that registers in IRR, but microscopy suggests the use of a red drawing material in these features, which recalls the painted contours in cat. 17. The IR and IRR show the Virgin wearing a large cloak over her robe and a white head covering wrapped around behind her neck and falling onto the far shoulder. The blue cloak was painted with a large collar or hood behind the Virgin’s neck. The white head covering was later finally changed to a translucent fabric with her hair showing through.

**PAINT LAYERS:** The paint stops at the barbe, showing that the panel was framed prior to paint application. The paint was smoothly applied and blended, with texture evident only in the crown, the mordant-gilded halo, and the gold embroidery on the Virgin’s cloak. The major forms were quickly laid in with broad brushwork, as seen in the IR of the back of the Virgin’s head. Subsequent paint layers were added with care and attention to detail. Short strokes of black paint over a midtone foundation were used to model the flesh, with brighter flesh colors brushed over it so that the black established shading. Fine points include the way the white of the eye was brought over the lower part of the iris and the eyelashes were painted with intermingled black and flesh tones, layered over each other. Black strokes of the bottom eyelashes bead over the flesh paint. Similar beading is seen in the strands of Christ’s hair. The use of what appears to be an aqueous material over the oleaginous base for final touches can also be observed in cat. 14.

The halo was completed first in yellow paint, possibly lead-tin yellow, with mordant and gold leaf applied afterward. Additional lines of gilding, usually shorter and with less rounded topography, are interspersed amid the longer rays. A whitish gray paint in the crown, scumbled over the underlying paint, is similar to whitish paint in the part in Christ’s hair and may represent a last refinement of the images.

The contours of the cheek and chin were first painted wider following an underdrawn line, and the collar of the Virgin’s original robe reached that preliminary line. But the final flesh tones describe a slightly smaller contour, and adjustments were made in the background elements as well. Several details illustrate the care taken with the ultimate appearance of the painting: the ring finger on the Virgin’s proper left hand was painted slightly narrower than the reserve left for it, and the fingers in front were painted longer than the reserve left for them. The pupil of Virgin’s proper right eye was underpainted slightly to the right of the final position, then repainted with black finishing touches.

CHRIST AS SAVIOR (db no. 35.70)

**FRAME:** Not original. No traces of red paint on the barbes of the panel (as observed in the *Virgin at Prayer*).

**SUPPORT:** Oak, 40.8 / 40.9 × 30.8 / 30.7. Single plank, cropped at an angle on the left edge, possibly reduced by c. 2 cm on that side. Original green and black marbling on the reverse is overpainted with lead white.



**DENDROCHRONOLOGY:** Earliest possible felling date: 1450; earliest possible creation date: 1452; statistically more plausible production date: after 1458.

**PREPARATION OF SUPPORT:** White. In contrast to the *Virgin at Prayer*, the ground layer here was evidently applied prior to framing, as it extends to the edge of the panel at the top, right, and bottom; the left side was cropped at an angle, forming a beveled area that resembles an unpainted margin. The top may also have been trimmed slightly at the perimeter. The first ground appears to have dried before a barbe-like ridge was created (perhaps only out of paint). An incised line runs through the ground at the limit of the painted image.

**PREPARATORY DESIGN:** The scant underdrawing includes a line near the lower left pearl on the medallion, another at the right side of the opening of the robe, and a horizontal line along the bottom

edge of the painting. Lines of red glaze define the hands of Christ, with lighter flesh tones applied following their guide. These red lines may be comparable to the red drawing material used in the features of the Virgin (see description above). The underdrawing for the scepter lies over the paint of the robe and was carefully followed in paint. The underdrawing in the brooch is higher than seen in the paint.

**PAINT LAYERS:** The painting was started before it was framed, then finished following framing. The hands and scepter were added later, only after the red glaze was put on the robe and strands of hair were defined. They were conceived together, for the staff of the scepter is encircled by the fingers but not painted under them. The IRR shows some suggestion of eyes just to the left of the painted ones, which seem to have been completed, including the whites. For these eyes to be centered, the panel would have to be two 2 cm wider at the left—where it has clearly been trimmed.

The pupils were enlarged late in production, using a paint that absorbs more IR than does the original paint. The new paint also appears to have been used to add strands of hair and eyelashes, and it often beaded up, like aqueous material on an oleaginous surface (a peculiarity also seen in cat. 14). The additional hair had the effect of increasing the height and moving the part and the side of the head to the right. The new part in the hair was later painted over with a scumble of white that may correspond to the whitish gray in the Virgin's crown. The halo was first painted with lead-tin yellow rays, after which the additional strands of hair were completed; a rounded mordant was then applied, carefully following the painted rays and avoiding the new hair, and these lines of mordant were gilded.

**Summary**  
These two panels are depicted as a diptych in the background of Francken's *Banquet in the House of the Burgomaster Rockox*. But it appears that the image of Christ might have been begun as a Holy Face, which was trimmed at the left, altered to create a Christ as Savior by the addition of hands and a scepter, and framed with the panel of the Virgin. Original paint was observed beyond the barbes in some locations, indicating that painting occurred both before and after framing. The Virgin appears to have begun as a Mater Dolorosa but was transformed into a Queen of Heaven during the painting process. Final touches of paint, in a watery black and a grayed white, plus the gilded haloes, were added to unify the images.

### Cat. 16. Quentin Massys

DESIDERIUS ERASMUS and PETER GILLIS

DESIDERIUS ERASMUS  
Galleria Nazionale d'Arte Antica,  
Palazzo Barberini, Rome, inv. no. 1529  
Not examined.

PETER GILLIS (db no. 107.132)  
Koninklijk Museum voor Schone Kunsten,  
Antwerp, inv. no. 198  
Examined at KMSKA: 11–22 November  
2003 by CM, RS, CVD, AV

**Documentation and analyses**  
2003 at KMSKA: Phase One visible and IR  
as well as Inframetrics IRR by CVD, AV;  
binocular microscopy by CM, RS  
2004 at KMSKA: dendrochronology by PK

**FRAME:** Not original.

**SUPPORT:** Oak, 61.3 / 61.4 × 47. Two boards, the left measuring 24.7 cm at the top, 25.9 cm at the bottom; the right measuring 22.3 at the top, 21.1 at the bottom. The edges are cut into a tongue to slide into the frame. The reverse was coated with a modern layer of lead white but appears to have been left untreated originally.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1506; earliest possible creation date: 1508; statistically more plausible production date: after 1514.

**PREPARATION OF SUPPORT:** White. Unpainted margin with a barbe on all sides. The striated brown intermediate layer over the ground was used with a glaze to create the background color.

**PREPARATORY DESIGN:** A fine, lightly sketched contour was redrawn in some areas with a coarser, heavier line (i.e., in the proper right hand). The underdrawing was not followed closely in paint, with small adjustments frequently made in the outlines (i.e., the outside of the left hand and the right edge of the book).

**PAINT LAYERS:** The paint is thin and was used in a liquid manner, with texture created by feathered brush strokes rather than a buildup of material. The contours of the right hand and paper were painted over the surrounding dark paint, while the fingers on the left hand were restrengthened with dark lines over the lighter flesh colors.

**Summary**  
Although several copies of the original pairing commissioned by Erasmus and Gillis for Thomas More exist, the similar dimensions of these paintings—both replicas—suggest that they were made as a pair. The slight deviations from the underdrawing in the Gillis and the substitution of a rolled-up rather than a flat sheet of paper suggest that the artist felt free to make creative changes, which may imply Massys' involvement in this copy. None among the group of paintings is known to have original paint on the reverse, which suggests they probably functioned as pendants rather than as folding diptychs.

### Cat. 17. Quentin Massys

SAINT MARY MAGDALEN and SAINT MARY OF EGYPT (db nos. 39.77–78)  
Philadelphia Museum of Art, inv. nos. 366–367  
Examined at PMA: 20–24 October 2003  
by CM, RS, CVD

**Documentation and analyses**  
unknown date at PMA: x-radiograph by JM  
2003 at PMA: Phase One visible and IR as well as Inframetrics IRR by CVD; binocular microscopy by CM, RS; cross sections by MT  
2005 at NGA: cross section analysis by MG

**FRAMES:** Not original.

**SUPPORTS:** Vener of oak (est.). *Mary Magdalen* is 31.1 / 31.2 × 21 (total width, including the lateral added strips; the width from barbe to barbe, measured from the x-radiograph, is 19.2 cm). *Mary of Egypt* is 31.2 / 31.1 × 21.2 / 21.1. Top and bottom edges were cut, and both panels were cradled. Lateral margins are obscured by overpaint, so it is not possible to determine if they were originally unpainted and the original panels veneered. The extensive losses suggest a complete transfer during which any original unpainted edges were lost. Exploratory cleaning would be required to resolve this question. The poor condition of the paintings may reflect multiple structural treatments.

**DENDROCHRONOLOGY:** Not possible with no exposed edges.

**PREPARATION OF SUPPORTS:** White. A randomly brushed intermediate layer seen in the surface of the *Mary Magdalen* across the chin and folded hands is also visible in x-radiograph and IR. Cross section analysis shows a similar layer in *Mary of Egypt*. The IR suggests that it is a lightly pigmented layer. Although originally interpreted as a paint layer corresponding to the landscape (because of the presence of a few particles with properties of malachite), the buff-colored layer immediately above the ground in the samples could be this layer. Samples from *Mary of Egypt* reveal large individual black particles. It is unclear if these particles are integral to the ground or perhaps to a layer of black between two layers of ground.

**PREPARATORY DESIGNS:** The scant underdrawing for *Mary Magdalen* consists of a few contour lines in the face near the figure's proper right eye and through her left foot and her thighs, indicating only the general layout. Contours appear around the figure in the IR and IRR, but they seem to be underpainting rather than underdrawing, as they define shadow rather than form. The figure may have been planned more in profile, but the drawing is too cursory to be certain. For *Mary of Egypt* the under-

drawing is restricted to a line placing the thighs and knees as well as two lines that mark the top and bottom of the fingers (in a slightly lower position). The briefly sketched thigh shows it wider and may depict the figure in profile.

**PAINT LAYERS:** The painter worked relatively freely but accurately, capturing the facial features in only a few brush strokes. He used zones of umber-colored paint to establish shading in the flesh, followed by scumbles of lighter colors to create midtones. The final shadows were defined with more umber. The reddish outlines around the figures, umber as well, recall the underdrawn red contours in cat. 15. The panels are extensively restored, not just the backgrounds but also the scumbles in the flesh.

Cross sections were taken from two points in the foreground landscape, where a passage of light green seems to extend from the right side of the *Mary Magdalen* onto the left side of the *Mary of Egypt*. Cross sections analyses determined that the layer structure in these two samples is very similar. Though definite conclusions cannot be drawn based on a single sample from each painting, both cross sections included two green paint layers above a buff layer with almost identical pigment mixtures and a yellow green highlight layer over a midtoned green layer. In *Mary of Egypt* these pigments were mixed in a proportion that yielded slightly darker and less yellowish paint layers.

In *Mary Magdalen* the reserves in the underlying paint were generalized and did not include the jar. During the painting process the proper right thigh was lengthened (lowering the knee) and extended to the right. Contours of the left leg in x-radiography match the paint surface exactly, although the reserve was lower and straighter than the final rendering. In *Mary of Egypt* the loaves were not left in reserve.

### Summary

The continuing landscape elements, especially the diagonal formed across the two panels, point to an original function in contiguous format, either as a diptych or as the exterior wings of a triptych. Yet the structural treatment(s) make it impossible to describe the format with certainty. The cut edges at top and bottom indicate that the pictures were once taller, though it is not clear by how much. The similarity of paint type and structure in the cross sections suggests synchronous creation.

### Cat. 18. Master of the Benson Portraits

PORTRAIT OF A MAN and PORTRAIT OF A WOMAN (db nos. 47.93 and 47.94)  
Museum Mayer van den Bergh, Antwerp, inv. no. 368  
Examined at KMSKA: 11–22 November  
2003 by CM, RS, CVD, AV

**Documentation and analyses**  
2003 at KMSKA: Phase One visible and IR as well as Inframetrics IRR by CVD, AV; binocular microscopy by CM, RS; x-radiography by AT

**FRAMES:** Integral. This diptych is made in the form of a book. Four raised bands are carved on the outside right edge of *Portrait of a Man* and the outside left edge of *Portrait of a Woman*, so they resemble the spine of a book when the diptych is closed. The outer part of the face of each frame is painted black, while the inner elements are covered with gold leaf and strokes of red and green paint to imitate gilt and marble-edged book pages. Two holes in the flat black margin at the left side of *Portrait of a Man* match holes on the right side of *Portrait of a Woman* and were likely intended for tying the diptych closed. Three rectangles of paper and parchment now serve as hinges, but these are not strong and probably do not represent the original situation. This diptych may have had a leather binding that held the wings securely together, with the present panels as bookplates.

**SUPPORTS:** Unidentified wood. *Portrait of a Man* is 11.2 × 7.35 / 7.4. *Portrait of a Woman* is 11.2 / 11.35 × 7.3 / 7.4.

**PREPARATION OF SUPPORTS:** White (est.), with a striated white intermediate layer visible in the x-radiograph.

**PREPARATORY DESIGNS:** The composition for *Portrait of a Man* was underdrawn with thin red lines, which did not register in IR or IRR but are visible through the paint under the microscope in the fur collar, the eyes, the hands, and the cuff of the right hand. The red drawing material can also be seen on the surface at the back of the ear and was used for shading in the final image. The man's costume was drawn with pleated folds radiating from his neckline but is painted with a flat front. His eyes were slightly lower and looked to the right in the underdrawing. The red line underdrawing in the *Portrait of a Woman* does not show in IR or IRR but can be glimpsed beneath the paint with a microscope in the sitter's eyes.

**PAINT LAYERS:** The paint was handled in broad masses. In *Portrait of a Man* reserves were left for the sitter's head and hands, the ruffle at his cuffs, and his fur collar (the reserve for the collar had a somewhat different shape on the left side). The edges

**FIG. 1**  
Micrograph from the reverse of the *Virgin at Prayer*, showing 1) the original marbling and 2) white overpaint

of forms were clarified at a late stage by repainting adjacent contours. Details were applied in linear fashion, with thin strokes of paint used to embellish the fur, eyebrows, and hair. The x-radiograph shows the original position of the irises, carried into paint, which were directed toward the female sitter. It also shows lines of small dots following the neckline and center front opening of the man’s jacket, which correspond to the black trim. The highlighted areas of pleats were blocked in with paint following the initial underdrawing. Uneven densities in the lower portion of the x-radiograph may result from the first jacket being painted out.

In the *Portrait of a Woman* reserves were left for the hands, dog, face, and collar. Details such as the eyebrows, hair, and the fur on the dog were applied in thin lines, while red contours define the outlines in the hands and face. The woman’s eyes, like the man’s, were changed in paint, with her gaze shifted to the right, away from the man.

Detail of the hands and dog.

**Summary**

This pair was conceived and executed as a folding diptych. The diptych was designed to appear, in both opened and closed positions, as a book, with imitation gilded and marbled page edges and with raised bands on the spine. It is possible that it was bound in leather, or had a leather spine, now replaced by the parchment and paper hinges. The changes in both sitters’ gazes away from each other are unexplained but might suggest a possible intervention of the patron. The painting technique, with a red underdrawing and opaque layered paint used with linear detail, is not typically Netherlandish.

### Cat. 19. Master of the Female Half-Lengths

SAINT PETER and SAINT PAUL (db nos. 29.57–58) Museum Mayer van den Bergh, Antwerp, inv. no. 369 Examined at KMSKA: 11 – 22 November 2003 by CM, RS, CVD, AV

**Documentation and analyses**

2003 at KMSKA: Phase One visible and IR as well as Inframetrics IRR by CVD, AV; binocular microscopy by CM, RS; x-radiography by AT

**FRAMES:** Original. Semi-integral, with the vertical members carved out of the same panel as the support. Old nails visible in the x-radiograph show the original hinges were larger than the present ones. No traces of a hanging device were observed. The nail that secures the hook now used to close the wings appears to be modern, but two nail holes to its right on the x-radiograph of the *Saint Peter* might be remnants of an original closing device. These holes penetrate the thickness of the panel and correspond with a single hole on the right edge of the reverse of the *Saint Paul*. A closing device attached in that way would cross two single planes, as the wings of a triptych (which close like window shutters), rather than lock the edges of the panels as in a diptych (which close like books). The gold leaf is not original. The reverses were originally painted but were later stripped bare. The bole for the gold leaf lies over residues of original ground and paint in the wood grain on the reverse, indicating that the gilding took place after the reverse was stripped.

**SUPPORTS:** Unidentified wood. The *Saint Peter* is 18.9 × 7.8; the *Saint Paul* is 18.9 / 19.1 × 7.8. Single planks with vertical grain. The reverses are flat, without a bevel. Microscopic traces of ground and blue paint remain in the grain of the reverses, especially around the outer edges.

**PREPARATION OF SUPPORTS:** White. No intermediate layer evident.

**PREPARATORY DESIGNS:** A thin spare line in the *Saint Peter* describes the contours of the flesh tones, while those for the drapery and attribute are heavier. Some of the thicker lines may be in a liquid material. The key was drawn in a more vertical position than it was painted. Very little underdrawing was revealed in the *Saint Paul*, although the sword was drawn at more of an angle than it was painted, with its point closer to the saint.

**PAINT LAYERS:** The paint is thin and was applied in opaque blocks, working back and forth across boundaries. In the *Saint Peter* the sky was painted first, then the figure, and finally the landscape. The foot was painted over the background at the bottom, however, and the hand was painted over the robe. At the end, edges were sharpened, bringing the landscape over the figure or vice versa, and a black contour was added to delimit the flesh tones. Small touches of bright paint give a sense of the fall of light. In the *Saint Paul* the blue robe was first painted red, then changed to blue, and finally glazed with red (now significantly abraded). Final contours in the shaded areas were reinforced with black.

Detail of the hands and dog.

**Summary**

We believe that this pair were originally the wings of a disassembled triptych, with the holes through the thickness of the panels being traces of an original closing device. Additional arguments against the original format being a diptych are the tall, narrow dimensions of the panels and the fact that the saints gaze into the middle distance and appear to be looking toward a missing central scene rather than toward each other.

### Cat. 20. Master of 1499

THE ANGEL GABRIEL and THE VIRGIN ANNUNCIATE (db nos.102.107 and 102.106) Staatliche Museen zu Berlin, Gemäldegalerie, inv. no. 548 Examined at SMBG: 22 July–1 August 2003 by CM, CS, RS

**Documentation and analyses**

2003 at SMBG: Phase One visible and IR as well as Hamamatsu IRR by CS; binocular microscopy by CM, RS; x-radiography by GS

**FRAMES:** Integral. The thickness of the closed diptych is 2.7 cm. The butterfly-shaped hinges, which are attached with modern screws and are not original, are relatively large and fully x-ray opaque, obscuring the area in which evidence of original hinge nails might exist. The hanging devices at the top of the reverses are also modern, but the hole above each might be a remnant of original hanging devices. The closing device may be original, judging by the appearance of the nails in the sides opposite the hinges. The x-radiograph also shows the remains of two filled holes in the bottom edge of each panel. The gold leaf is not original, and the x-radiograph reveals brush strokes in the interior profile of the frame, which suggests that it was originally painted. In addition, a loss in the arched top of the Virgin panel is visible in the x-radiograph but not in the gold-leafed surface.

**SUPPORTS:** Each wing consists of a single board with vertical grain. The two panels are the same size and format— 18 × 11.5, arched at the top—and are evidently unaltered. The sides and back have dark paint directly on the wood (without a ground layer).

**DENDROCHRONOLOGY:** Not possible.

**PREPARATION OF SUPPORTS:** White. An intermediate layer is visible in the x-radiograph as a randomly applied striated layer. No such intermediate layer was observed in the Master of 1499’s diptych in Antwerp (cat. 21).

**PREPARATORY DESIGNS:** Spare liquid contours describe the compositions of both panels and their most important features. The underdrawing for Gabriel uses hooked lines to signal folds in his robe. The drawing for the red drapery over his arm is readily visible in IRR, with hatching that denotes the shadow in the fold below his hands. The underdrawing differs in style and execution from that in cat. 21. The painted draperies usually follow the underdrawing closely, though the contours of the robe are often softened in the paint compared to the drawing. Gabriel’s face is painted larger than it was drawn, with his mouth placed slightly lower.

No hatching was observed in *The Virgin Annunciate*, but the underdrawing for her face is fully comparable with that for the angel. Her features are indicated with short brush lines, all underdrawn somewhat higher than painted. Contours of folds, only faintly visible, are drawn in the Virgin’s blue robe. The shoes were not underdrawn. There was a change between drawing and painting in the chest at the lower right, but it is not clear whether the drawing depicted a cloth that was to go over the chest or the front of the Virgin’s robe.

An elaborately prepared perspective system was revealed in *The Virgin Annunciate*, with a single vanishing point in the door to the Virgin’s chamber at the top left of the panel. X-radiography revealed a pinhole here, probably from a small nail used to construct the perspective lines. IRR also revealed a plumb line that runs through this point, from the top center of the arch above the hall leading to the Virgin’s chamber through the floor in the foreground. Incised lines were used to define the perspective in the tiled floor, all converging at the vanishing point. Incisions for the chest at the lower right also follow the perspectival schema. Other incisions mark straight lines in the architecture, and those on the wooden ledge of the prie-dieu at the lower right continue under the Virgin’s robe where it folds over this ledge at the knee (such a carefully constructed perspective system is not evident in any part of cat. 21). In contrast, the floor tiles at the bottom of *The Angel Gabriel* were incised in wet paint, but the perspective lines do not converge in a single vanishing point as in the Virgin panel, and the incisions were

not followed precisely in the application of subsequent highlights and shadows on the tiles.

**PAINT LAYERS:** The paint is full-bodied so that brush strokes are textured. It is economical in application. The lower paint layer describes form with adjacent strokes of highlights and darks. Over this the artist used glazes, often with the same brush stroke enhancing the depth of shadow adjacent to a middle tone. This is true in *The Angel Gabriel* not only of the green and red garments but also of the blue robe, which is underpainted using white with a small admixture of blue and completed with touches of pure blue. The reddish tan intermediate layer is used as a midtone in the flesh as well as showing through the green draperies.

The dove was left in reserve from the textured paint around it. Incised lines through the wet paint of the dove to the warmer color of the intermediate layer define the head and the bottom contour of the right wing. The gold leaf was applied over this reddish tan intermediate layer, as shown by the streaks in the x-radiograph that continue under the gilded areas. The gilded rays under the dove were applied over a tan mordant. The edges of the composition are hatched with a red glaze, which created shading and a sense of depth. The folds of red robe behind the angel were slightly altered from a first paint stage to the final one. The tips of the angel’s wings lie over the gilding.

The technique of *The Virgin Annunciate* resembles that of the companion panel in its economy of means and in the texture of the paint. The blue of the Virgin’s robe is conventionally constructed, with a lower quality azurite under higher quality azurite. Yet an echo of the unusual painting technique used for the angel is seen in the white curtain and the wooden vault behind the Virgin, where red lake serves as the underlayer to indicate shadow. The reddish brown intermediate layer is used as a middle tone throughout the Virgin’s face, and as the shadow under the chin, under the lips, and around the eyes. As in the Gabriel panel, the incised lines in the floor at the foreground are not always followed in the paint. The painting technique does not make use of the underdrawing (as seen in cat. 21).

In the space between the two columns to the left of the Virgin, a third column can be seen in the x-radiograph that was decorated with a diamond pattern (see entry). The painter left reserves for the

flower vase, the ewers to right of the Virgin’s head, the pillow, and the prayer book. Only the smallest or most elaborated forms were added over previous layers of paint, including the orange and the tumbler on the windowsill, the lilies, the paper scroll hanging off the edge of the cabinet, the candle, and the lock and handle. The x-radiograph also shows that the line for the curtain rod across the nave was first painted slightly below its present position. The ewer to right of the Virgin’s head was initially shorter and had straight sides, then was heightened and given the present profile.

Detail of the hands and dog.

**Summary**

Although the original hinges have been lost, these two paintings were most likely conceived as a diptych and executed by the same hand. The artist made small changes in the paint stages from a design that was well understood in the drawing stage. The pinhole at the vanishing point in the Virgin’s chamber door and the plumb line through it prove the artist’s concern with the proper construction of the point of view for this interior. The gold leaf on the frame is probably not original. The x-radiograph suggests that a painted surface lies under the present gold leaf, although samples were not taken to verify this. As there is no underlying ground, it is not clear that the paint on the sides and reverse is original. The diptych may have been intended to hang from a chain attached to the apex of each arched panel, as in the background of the Christiaan de Hondt diptych attributed to the same master (cat. 21). In such a display, it may not have been necessary to paint the reverse. It is likewise possible that the present black paint may have been applied to the reverses after the removal of a deteriorated original decorative treatment.

### Cat. 21. Master of 1499

VIRGIN IN THE CHURCH with reverse: SALVATOR MUNDI, 1499, and ABBOT CHRISTIAAN DE HONDT with reverse: ROBRECHT DE CLERCQ Koninklijk Museum voor Schone Kunsten, Antwerp, inv. nos. 255–256 (reverses 530–531) Examined at KMSKA: 11 – 22 November 2003 by CM, RS, CVD, AV

**Documentation and analyses**

2003 at KMSKA: Phase One visible and IR as well as Inframetrics IRR by CVD, AV; binocular microscopy by CM, RS; x-radiography by AT 2004 at KMSKA: dendrochronology by PK

VIRGIN IN THE CHURCH (db no. 2753)

**FRAME:** Integral. The gilding, which has a bright white layer under it, is not original, and the black line demarcating the interior border may not be original. The inscription on the bottom section of the frame is probably not original. X-radiography shows nails and traces of nails at the right edge in line with similar marks at the left edge of the adjoining panel, where they once secured hinges. It also reveals the location of an original closing device at the left edge, with matching evidence at the right edge of the donor panel. Fills at the top in both panels indicate that they once had hanging devices.

**SUPPORT:** Oak, 37.1 × 20.1 / 20.4 (including frame). Single plank, with two-sided integral frames. *Salvator Mundi* is painted on the reverse.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1467; earliest possible creation date: 1469; statistically more plausible production date: after 1475. The plank is from the same tree as that for *Abbot Christiaan de Hondt*.

**PREPARATION OF SUPPORT:** White. No intermediate layer.

**PREPARATORY DESIGN:** The precise, detailed underdrawing in a liquid material was begun with finer drawn lines, some of which may have been in a dry material. Fold lines were later reinforced and the drawing worked up with hatching and crosshatching. The artist consistently drew the shadows rather than the highlights. Most of the drawing is secure and definite, but there are restruck contours in the floor tiles and at the Child’s head. The drawing was used under thin scumbles of light-colored paint for shading in the architecture and for a midtone in the flesh. It is sometimes difficult to distinguish the underdrawing from paint strokes in red lake—the paint is indicated by the presence of clumped black particles and is generally darker in the IRR than are the



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underdrawn lines. There are scattered guidelines for arches near the altar.

The urn with flowers at the lower right was not included in the underdrawing. The Virgin's crown was drawn wider, as in Jan van Eyck's *Virgin in the Church* in Berlin. No jewels were drawn in the Virgin's bodice, and the Christ child's proper left hand was underdrawn with a wider knuckle span and the thumb lower than painted.

**PAINT LAYERS:** The paint application is highly detailed and decorative. A reddish brown first layer was used throughout the Virgin's face as a middle tone and as the shadow under her chin, below her lips, and around her eyes. Over this, liquid white paint was lightly scumbled to create a transition to the illuminated parts of the face. The paint was applied in complex, multilayered sequences. For the Virgin's crown (fig. 2), dark brown paint came first, followed by pink, jewel colors, highlights, and finally the brightest dots of light and darkest areas of shadow. Light from the windows was painted in two stages: first pink, then a lighter white. Tiny touches of blue on the mullions at the sides of the windows suggest light coming through blue glass. The embroidered edge of the Virgin's red cloak was painted with three underlying colors and two colors of "jeweled" dots. Such attention to surface detail distracts from the overall sense of light and shade and diminishes the illusion of depth in the scene.

Reserves were left for the vase at the bottom right and for jewels in the Virgin's bodice, neither of which was underdrawn or part of Van Eyck's composition. The Virgin's crown was initially painted so that it extended down the back of her head, as in Van Eyck's original. The change was made before the final surface details of the crown were completed. Incised lines, which were used minimally, can be seen in the divisions between brown floor

FIG. 2  
Macrograph of the crown from the *Virgin in the Church*

tiles. The tiles in the nave at lower left were painted with a shallower perspective than was drawn. The text board on the fluted column at the left was not left in reserve (that is, the column was completed). The Child's proper left hand was changed so that it is now more closed than it was in the first painted position, where the fingers were spread wider and the thumb bent lower.

ABBOT CHRISTIAAN DE HONDT (db no. 2754)

**FRAME AND DENDROCHRONOLOGY:** Same as for *Virgin in the Church*.

**SUPPORT:** Oak, 37.5 × 20.2 / 20.3 (including frame). Single plank, with two-sided integral frames. *Robrecht de Clercq* is painted on the reverse.

**PREPARATION OF SUPPORT:** White. No intermediate layer was observed.

**PREPARATORY DESIGN:** See *Virgin in the Church* (above). The underdrawing was carefully followed in the paint for the most part, although De Hondt's hairline was shifted up compared to the drawing, and there are fewer beams in the ceiling and wider spacing between them; the perspective of the beams also seems to have been changed.

**PAINT LAYERS:** The paint application is as considered and elaborate as in *Virgin in the Church*. The jewels on the miter were painted using the multilayered technique seen in the jewels on the Virgin's crown. The abbot's hands and the architecture are worked in the same technique as similar features in the companion panel, with a white scumble over the underdrawing, although white paint was not used to model the contours of the donor's face. The fire in the fireplace was depicted with white and red painted flames over which

the artist applied gold leaf, followed by a light-colored paint scumble. The donor's face has more color than the other flesh tones, and there is a reddish brown paint under the pewter vases, the snuffed-out candle, and the abbot's staff. The oranges on the mantle were left in reserve, and the cross depicted in the hanging diptych in the background was incised into wet paint—first the vertical, then the horizontal stroke. As in the floor tiles for the facing panel, cracks between foreground planks in the floor here were incised into the wet paint.

The placement of the socle with the abbey's coat of arms changed slightly from underdrawing to paint. Also, De Hondt's coat of arms has the hounds in the lower left and upper right quadrants, whereas the position is reversed in the *Salvator Mundi*. The abbot's proper left thumb was bent in the underdrawing and first paint layer, then finally painted flat against his hand. The artist painted over the portion of the robe immediately to the right of the miter using a different arrangement of folds.

SALVATOR MUNDI (db no. 27129); reverse of *VIRGIN IN THE CHURCH*

**FRAME:** Integral.

**PREPARATION OF SUPPORT:** White. An intermediate layer with diagonal striations is visible on the paint surface and is confirmed with x-radiography. This layer is not apparent on the front of the panel.

**PREPARATORY DESIGN:** See *Virgin in the Church*. The underdrawing is not visible through the paint layers as readily here as elsewhere, probably because the intermediate layer lies over it; the underdrawing is, however, visible under the red lake and in the shadows of the flesh tones. Inscriptions (on the globe and at the top of the background arch) were underdrawn significantly larger than painted (and "et" was underdrawn "e"). The foremost interior ribs with columns were not underdrawn.

**PAINT LAYERS:** The paint was handled in a similar manner to that on the front of the panels, except that it is generally thicker. Christ's flesh was modeled with pink paint, rather than white, and the pink paint has more body than the white used for the final touches in the Virgin and De Hondt images. The thickness of the paint may be due to the anticipated wear on an exterior surface.

Christ's hair, the book, and the orb under his feet were all left in reserve, while the edge of the pedestal and divisions in the floor tiles were incised in wet paint. Late additions include the forward interior arch and columns and the page turning in the center of the book. Two other changes may be related: the smaller type for the

inscription in the background arch and the corresponding reduction in the size of the arch. On this image the candle is glowing rather than completely snuffed out. A reddish brown underpaint defines the candle and the gold trim on the robe, as on the fronts of the panels.

Sometime after the diptych was completed, the coat of arms of Robrecht de Clercq was painted over the coat of arms of the abbey Ter Duinen at the bottom left. This was done without taking care to paint out the abbey's coat of arms, which is still visible through the De Clercq arms.

ABBOT ROBRECHT DE CLERCQ (db no. 27128); reverse of ABBOT CHRISTIAAN DE HONDT

**FRAME:** Integral. The blue-green trim with rosettes appears to be a late addition, probably dating to the time the portrait of Robrecht de Clercq was added.

**PREPARATION OF SUPPORT:** White. No intermediate layer was observed.

**PREPARATORY DESIGN:** No underdrawing observed.

**PAINT LAYERS:** Marbling was applied in multiple layers of paint. Transparent and translucent overall layers were intermingled with splatter-applied opaque paint, creating an illusion of shallow depth. The paint for the portrait of De Clercq, which is thick and buttery, with brushmarks evident, registers more clearly in the x-radiograph than the paint depicting De Hondt. Nonetheless, the marbling is visible, especially through the flesh. The painter completed only the foreground corner of the base of the prie-dieu, leaving the marbling as the shadow. On the bottom ledge, the abbey Ter Duinen's coat of arms and two sets of initials "CH" were painted out but are visible because they project from the surface (see entry).

#### Summary

The original diptych was by a single artist with access to a linear copy of Jan van Eyck's *Virgin in the Church*, but without knowledge of the painting itself. The underdrawing on the left panel faithfully followed Van Eyck's composition, although some aspects—especially the distant choir and angels—were not fully understood, and revisions were already planned in the first paint stage. This rendering emphasizes detail and explicit description over volume and form. After Robrecht de Clercq became abbot of Ter Duinen, his portrait and coat of arms were painted by a different artist on the reverse of the previous donor's portrait, with rosettes added to the frame to match the original decoration on the *Salvator Mundi*, facing this portrait when the diptych is opened.

#### Cat. 22. Master of the Lille Adoration

THE TRINITY and SAINT JEROME (db nos. 49.112–113)

Private Collection, on long-term loan to Harvard University Art Museums, Fogg Art Museum, inv. nos. 6.2005.1–2  
Examined at HUAM: 1–5 March 2003 by CM, AP, RS; and 5 February 2005 by CM, RS, CVD

#### Documentation and analyses

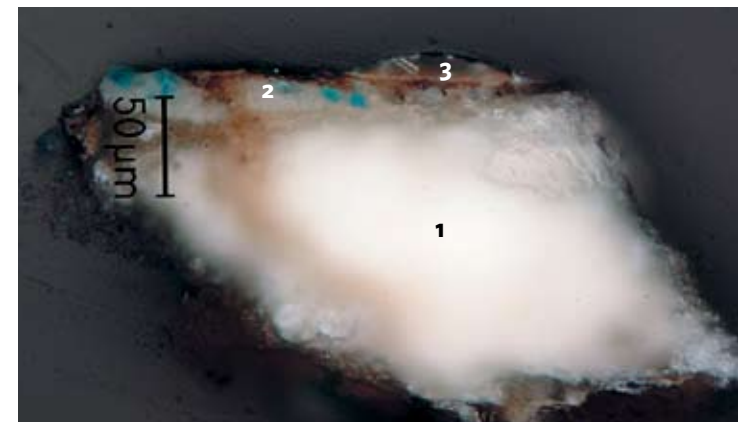
2003 at HUAM: Phase One IR and Infrared metrics IRR by AP, RS; binocular microscopy by CM, RS; x-radiography by HL  
2004 at HUAM: dendrochronology by PK  
2005 at HUAM: Phase One visible and IR by CVD; cross sections by CM  
2005 at NGA: cross section analysis by MP and MG

**FRAMES:** Not original. The panels were painted outside the frames.

**SUPPORTS:** Oak. *The Trinity*, 42.8 × 31.4 / 31.7, comprises two planks with vertical grain, glued and doweled together. The reverse was thinned and had a cradle, now removed. Five blocks of wood were inserted across the seam from the reverse. Thin strips of wood are attached to the lateral edges. *Saint Jerome*, 41.9 / 41.7 × 31.8 / 31.9, is single plank with vertical grain. Possible original adze marks appear on the reverse. Strips of wood were attached to the left and right edges. Numerous small blocks of wood were inserted into the reverse, and the surface was thinned at the left and bottom right edges.

**DENDROCHRONOLOGY:** For *The Trinity*: earliest possible felling date: 1522; earliest possible creation date: 1524; statistically more plausible production date: after 1530. For *Saint Jerome*: earliest possible felling date: 1500; earliest possible creation date: 1502; statistically more plausible production date: after 1508.

**PREPARATION OF SUPPORTS:** White. There is an unpigmented oil intermediate layer on top of the ground that fluoresces brightly when examined in cross section. A randomly applied striated layer is visible in IRR.



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**PREPARATORY DESIGNS:** The underdrawing appears to have been done in a dry material, which may have been soft, for the lines are broad in places. In cross section the underdrawing forms an irregular layer with dispersed particles that seem to have some medium incorporated. The drawing lies over an isolation layer. The contours for *The Trinity* were drawn freehand, and a number of changes between the drawn and painted stages, especially in the hands and in the putti, suggest that this was the first of several painted versions. Single lines define the eyelids. Parallel hatching was used to establish shading but was angled in various directions, not necessarily following the volume depicted.

The underdrawing provided a rough rather than a specific guide for the painted forms, so small deviations can be seen between drawing and painting. The putto on the right was drawn with a larger head than finally painted, although the first paint stage followed the underdrawing. Christ was underdrawn with the left nipple higher, and the first paint stage retained that placement. The close adherence of the underpaint to the underdrawing may suggest that the workshop blocked in the underpainting.

The contour drawing in *The Trinity* is comparable to that in the *Saint Jerome*, but the latter has no hatching. In the *Saint Jerome* numerous changes in the background landscape, such as the hills and the bridge, occurred between drawing and painting, and the book pages were underdrawn higher than they were painted, again implying that this was the first of several versions of the composition.

FIG. 3  
Cross section from upper left corner of *Saint Jerome*, showing 1) the ground, 2) original blue paint, and 3) brown overpaint

underdrawing and generally higher finish of the paint surface may suggest that the master completed this entire panel. The finishing touches were handled with the same finesse as on *The Trinity*.

#### Summary

Despite the discrepancy in the dendrochronological dates, these panels share a working method that ties them closely together. The evidence for blue clouds originally spilling from *The Trinity* into the upper left corner of the *Saint Jerome* irrevocably links their compositions as well. The panels were also prepared in the same way, with a fluorescing intermediate layer applied over the ground prior to underdrawing. The drawings were done in the same material and a similar style. The first paint stage of *The Trinity* may have been executed by the workshop, given its reliance on a more extensive and detailed underdrawing and the less skillful handling of the putti and the background. The master must have completed the figures of Christ and of God the Father as well as the entirety of the *Saint Jerome*. There is no evidence of paint on the reverses of these panels, nor on the reverses of the other versions, which indicates that they were probably pendants rather than a diptych.

**PAINT LAYERS:** The paint in *The Trinity* was applied efficiently in a few thin layers. Because the underdrawing did not articulate every detail, the reserves were only generally defined. The painter worked in a controlled manner, but not fastidiously. Eyes, noses, and mouths were executed in a few brush strokes, rapidly but accurately. Although the background and secondary figures were painted in more cursory fashion, God the Father and Christ were reworked with additional paint layers, including delicate highlights and shadows as well as umber for shading areas of the flesh. Scumbles of light paint over these areas created midtones. The final defining darks and the outlines were added with more umber (est.). Lines incised through wet paint revealed the sky beneath and also defined the separate feathers in the upper left putto's wing.

At some point, presumably following the separation of the two panels, blue clouds that originally filled the upper left corner of the *Saint Jerome*, visually linking it to *The Trinity*, were painted over with brown (the blue paint is still visible beneath the brown in micrographs and cross section: fig. 3). The skull was painted larger than the reserve left for it. Incised lines define the tabletop, both side and back, and possibly the edge of one book. Horizontal lines in the background architecture were also incised, though these do not continue into the upper left corner. The less explicit

Cat. 23. Master of the Magdalen  
Legend and unknown French  
artist

VIRGIN AND CHILD and WILLEM VAN BIBAUT, 1523, with reverse: THE FIVE WOUNDS OF CHRIST Private Collection Examined at SRAL 15–27 September 2003 by CM, RS, CVD, AV

**Documentation and analyses**

2003 at SRAL: Phase One visible and IR as well as Inframetrics IRR by CVD, AV; binocular microscopy by CM, RS; x-radiography by AT; dendrochronology by PK

VIRGIN AND CHILD (db no. 42.83)

**FRAME:** Integral. Regilded, with outer edges painted black. The inscription lies over the new gold and is thus not original. The hinges have old as well as more recent nails. The top frame member has four partly filled nail holes at center, possibly remnants of a hanging device, and two at the right.

**SUPPORT:** Oak, 30.4 / 30.5 × 20.6 / 20.7. Single plank, c. 19 mm thick (including the frame). The surface of the reverse is flat overall and painted black.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1474; earliest possible creation date: 1476; statistically more plausible production date: after 1490.

**PREPARATION OF SUPPORT:** White. Faint traces of an intermediate layer appear to be present in the x-radiograph, especially in the head and the sleeves of the Virgin.

**PREPARATORY DESIGN:** Thin, fine lines describe the major contours of the composition without hatching. This drawing is only faintly visible and can be seen best where the paint diverges slightly from the indicated contour. The paint follows the contours of the underdrawing fairly closely.

**PAINT LAYERS:** Thin, superimposed translucent layers are worked from light to dark. Shadows under the nose and chin and the definition of features like the fingers are achieved with linear strokes of translucent brown paint. Similar translucent strokes of gray are used in modeling the Christ child’s white drapery. The paint surface generally shows little texture, with three exceptions: the blue paint of the Virgin’s drapery (a result of the coarse pigment used to obtain the desired blue color); the gold embroidery on the Virgin’s garments; and the raised red dots that decorate the gold background. A wash of red glaze shades the left and top near the frame and creates a shadow to the right of the figures. The red glaze of the shadowed area is different from the color used for the dots.

WILLEM VAN BIBAUT (db no. 42.84)

**FRAME:** Integral. Regilded, with outer edges painted black. The top frame member has at least three partly filled nail holes at the center, possible traces of a hanging device. The inscription lies over the new gold and is thus not original. X-radiography reveals empty nail holes with traces of corrosion in the locations of the present hinges as well as modern screws and nails. The shaft of an old corroded nail appears at the center of the right frame member, under the present nail securing the current hook.

**SUPPORT:** Walnut, with left frame member of oak. Overall the panel is 30.4 × 20.2 / 20.4, and the oak strip at left is 2.5 cm wide. A butt join attaches the oak and walnut sections. Remnants of old, repaired damage appear at the left edge of the walnut plank, especially at the top left corner. X-radiography revealed two modern metal staples in the walnut, one at top and one at bottom, securing a check in the wood; they are not visible to the naked eye. The *Five Wounds of Christ* is painted on the reverse.

**DENDROCHRONOLOGY:** Not possible.

**PREPARATION OF SUPPORT:** White. No intermediate layer observed.

**PREPARATORY DESIGN:** Underdrawn lines are visible in the face and in the folds of the foreground sleeve. The face was drawn with restruct lines for the crease at the right of the mouth, and the lips were outlined with the mouth slightly opened. The left edge of the cowl was underdrawn behind the ear, to the right of its present location. The ear was underdrawn but never painted. The lines in the sleeve and face are generalized, and the paint does not deviate significantly from their design except where the edge of the hood was shifted. The lines in the donor’s hands, visible through the paint of his cassock, are painted, not underdrawn.

**PAINT LAYERS:** The painting technique does not compare well with that of the companion panel, nor with early Netherlandish painting in general. The buttery paint preserves marked brushwork, especially in the donor’s white habit. Modeling of the garment was accomplished with wet-in-wet blended strokes. A reddish brown paint defines the deepest folds. The flesh tones have an orange underlayer, with the planes and features defined using opaque white scumbles and fluid high-lights. The donor’s garment was extended in several places over the red dots and gold background, notably at the back of the cowl, the shoulders, and in the lower left corner. The hands were first painted with dark contours in a slightly higher position, readily visible through the present surface.

THE FIVE WOUNDS OF CHRIST (db no. 42.104); reverse of WILLEM VAN BIBAUT

**FRAME:** Integral.

**PREPARATORY DESIGN:** The underdrawing consists of sparse outlines and restructed contours, similar to that on the front of the panel. The heart, the “INRI” sign, and the right wooden brace at the foot of the cross are painted smaller than underdrawn. Three pins were drawn in the cross, but only two are painted.

**PAINT LAYERS:** The paint has a buttery texture that captures brush strokes. Colors are opaque and superimposed from dark to light. The haloes around each of the five wounds have a tan mordant under the now mostly missing gold leaf. Changes between the first and final paint stages include the horizon at the right side, the larger skull at the base of the cross, and the smaller braces that secure the base of the cross.

**Summary**

These two panels were not originally part of the same diptych. The underdrawings and painting techniques are quite dissimilar, and the use of two support materials in a single diptych, much less a single panel, is unique, to our knowledge. We believe that the oak section (the entire left wing and the left frame member of the right wing) came from one diptych, and the walnut (most of the right wing) from another. What may be insect damage at the left edge of the walnut section suggests a reason for this intervention.

The nails that initially attached the hinges to the right panel were replaced with modern materials, while the nails on the left panel are original. The paintings might have been joined at the same time the modern staples were attached in the donor panel, though joining possibly preceded structural treatment. The dendrochronological analysis of the left wing and the date on the portrait indicate that the former predates the latter. The portrait may have been painted near Grenoble (where Bibaut was abbot at the Grande Chartreuse) instead of the Low Countries. The area between Grenoble and Avignon was one of the few where walnut was used as a support for panel paintings.

Cat. 24. Master of the  
Saint Ursula Legend

VIRGIN AND CHILD and THREE DONORS, 1486 Koninklijk Museum voor Schone Kunsten, Antwerp, inv. nos. 5004–5004bis Examined at KMSKA: 11–22 November 2003 by CM, RS, CVD, AV

**Documentation and analyses**

unknown date at KMSKA: cross sections by Susan Farrell 2003 at KMSKA: Phase One visible and IR as well as Inframetrics IRR by CVD, AV; binocular microscopy by CM, RS; x-radiography by AT; cross section analysis by Susan Farrell and MG 2004 at KMSKA: dendrochronology by PK

VIRGIN AND CHILD (db no. 19.38)

**FRAME:** Integral. Thickness 2.5 cm. Hinges and nails possibly original. Corrosion traces of an empty nail hole at the center of the left frame member marks the location of a now-missing closing device. Two partial old nails in the top of the arch may have secured a hanging device.

Cross sections show the inner frame was originally finished with gilding over a yellow-tan layer, and the outer frame with red and black marbling. The frame is regilded, with a restoration history identical to that on the donor wing. A dark autofluorescent layer lies over the original finish layers, followed by an even-textured dark red layer, a yellow-tan layer, and gold leaf.

**SUPPORT:** Oak, 33.2 × 25 / 25.3. Single plank with vertical grain. The reverse was carved with a simple recessed frame and painted with a crucifix under a trefoil arch. The latter does not appear to be original. The original surface can be seen in a small cleaning test that shows reddish brown paint.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1474; earliest possible creation date: 1476; statistically more probable production date: after 1482.

**PREPARATION OF SUPPORT:** White. The integral frame has a chalk ground followed by two white intermediate layers, as shown in cross section. Cross section analysis of the paint layers also reveals a chalk lower ground followed by two intermediate layers of lead white, separated by a thin layer of dark material, suggesting that the panel and frame may share the same preparation layers. The intermediate layers are visible in the x-radiograph.

**PREPARATORY DESIGN:** There are two stages of underdrawing. In the first (not visible to the naked eye as it probably lies under the intermediate layers), zones of parallel dashes model the Virgin’s drapery, zigzags indicate folds in the curtain near the



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angels, and contour lines have a slightly “wavering” quality. This drawing is comparable in handling and execution to that in the donor panel but has a sketchier quality. The second stage of underdrawing, especially notable in the angels and in the Virgin’s hand but also found sporadically throughout the composition and consistently visible through the paint to the naked eye, is fairly free, with the image being worked out on the panel to some degree. The angels were drawn on top of curtains defined in the first stage. The Virgin’s proper right hand was first underdrawn with straight fingers pointing diagonally down to the right, then with curved fingers and a tighter grip on the Child, and finally painted with longer fingers, particularly the little finger. A red brown paint that registers in the IR and IRR and outlines forms should not be confused with the underdrawing.

**PAINT LAYERS:** The paint is thin and was applied in a straightforward manner. A white intermediate layer provided the foundation for flesh tones, with strokes of thin lead white as a last campaign. The curtain was laid in before the angels, leaving areas in reserve so that the edges of the angels’ wings overlap a layer of dark green; a lighter green then extends up to the tips of the feathers. The treatment of the mouths, with a dark line separating the lips, is identical in both panels. A tan-colored paint was used to create the body of the throne, while light scumbles and dark paint later established zones of light and shadow. The Virgin’s eyes were first painted open, then made to appear half-closed. The original irises became the pupils in the second version, so the new irises had to be enlarged.

THREE DONORS (db no. 19.127)

**FRAME:** Integral. Both the inner and outer parts of the frame were originally painted rather than gilded: the inner frame was reddish, and the outer frame blackish. This frame has a restoration history identical to those for the companion panel. See the *Virgin and Child* (above) for the hinges, closing device, and hanging device. The bottom frame member initially included the ages of the donors in mordant gilding. This mordant is x-ray opaque but also visible beneath the present surface in raking light. The painted frame was later gilded, and the ages inscribed in black paint over the gilding, but the male donor was mistakenly identified as “30” instead of “50.” The size and shape of the numerals also changed, and comparing the “6” in the date 1486 at the top of the panel with the new “6” in the age of the older woman on the frame shows they are not by the same hand. There are stars, also prepared with mordant, before and behind each number (as in the date at the top of the panel).

**SUPPORT:** Oak, 33.1 × 25 / 25.25. Single plank with vertical grain. The reverse was carved with a simple recessed frame. The original marbled finish (fig. 4) is now covered by more recent paint depicting a chalice under a trefoil arch.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1475; earliest possible creation date: 1477; statistically more probable production date: after 1483.

**PREPARATION OF SUPPORT:** Chalk in several layers and (possibly) a single layer of lead white upper ground, as suggested by cross section analysis. If lead white was used for an upper ground, it differs from the intermediate layer on the facing panel, as it is not evident in the x-radiograph and it does not mask the underdrawing.

**PREPARATORY DESIGN:** Most of the panel was drawn in a single stage, with contour lines delimiting large shapes, some with the slightly “wavering” quality seen in the first stage of underdrawing in the *Virgin and Child*. Large shadows are indicated with long parallel hatches, smaller ones with short, dashlike hatches or with zigzags. The deepest shadow at the far right edge of the male donor’s torso is the only occurrence of crosshatching in the entire diptych.

A second stage of underdrawing was confined to the young female donor at the far right. This drawing lies over a previous, different portrait. Prior to the redrawing, a layer of paint was apparently applied to block out the original donor. A single line from the underdrawing of the first donor’s portrait can possibly be seen in the present donor’s hair, parallel to the contour of the underlying black headdress.

The underdrawing was followed in paint except for the redrawn figure of the young woman, whose face was underdrawn higher, whose body at the right was thinner and more curvaceous, and whose veil on the right was drawn higher, farther right than the painted contour across her bosom, and lower and straighter across the forehead. Her hand and the cuff of her sleeve were also drawn lower and to the right.

**PAINT LAYERS:** The paint handling is similar to that in the *Virgin and Child*. The hair under the young woman’s veil was apparently worked wet-in-wet, then the veil was scumbled over it. Final surface details in the flesh tones, such as the red coloration on the older female donor’s cheek and the male donor’s stubble, were not achieved with a glaze or a mix, but with scumbles of opaque lines.

The x-radiograph and IRR both show thicker, more opaque paint in the area depicting the young woman than elsewhere in the composition. The layer that blocked out the first donor in this position stops in the middle of the present donor’s hair. The x-radiograph has a slight indication of a higher, smaller set of eyes (in

the present donor’s forehead); indications of the bottom edge of a head veil, which came low over the previous donor’s forehead, similar to that of the older female donor; and faint indications of the folds of a different headdress. There may also be a suggestion of fingers below the present donor’s hand.

The fur trim on both female donors’ garments was a late addition. An earlier stage showed the wrists and the entire backs of the hands, whereas the fur cuffs now cover the backs of the hands. The young woman’s hands were part of the original portrait, and a reserve was left that corresponded to the drawing, but this was not followed in the final painting. The male donor’s hair was changed after the first stage of painting, and his chin was lowered compared to the underdrawing. The older female donor’s head veil also changed at this stage, when it was painted lower over her face at the right, but not as low as indicated in the drawing. The numerals at the top of the panel were painted rather than applied in gold leaf.

**Summary**

This diptych may have been produced in a “phased” production process. The different preparation of the frames and panels and the late alteration of the Virgin’s gaze suggest that an existing *Virgin and Child* was adapted to fit a commissioned donor panel. As the position, gaze, and gesture of the Christ child were not changed, the panel was clearly conceived as the left wing of a diptych. The two stages of underdrawing in the Virgin panel may point to workshop participation. The redrawing of the young donor appears to have been done by the same hand as the initial drawing of the other two donors and of the *Virgin and Child*. Thus both the underdrawing and the paint application are comparable, and only the initial preparation differed. The reverses were originally marbled. The present images on the reverses are most likely not contemporary with the creation of the diptych.

**FIG. 4** Macrograph from the reverse of the *Three Donors*, showing original red and brown marbling beneath surface paint



## Cat. 25. Hans Memling

SAINT JOHN THE BAPTIST AND SAINT VERONICA

SAINT JOHN THE BAPTIST (db no. 12.23) with reverse: SKULL IN A NICHE Alte Pinakothek, Munich, inv. no. 652 Not examined, but x-radiograph made available. Dendrochronology by PK, 2005 in Munich

SAINT VERONICA (db no. 12.22) with reverse: CHALICE OF SAINT JOHN THE EVANGELIST National Gallery of Art, Washington, inv. no. 1952.5.46 Examined at NGA: 19–23 May 2003 by CM, AP, RS; 31 March–2 April 2005 by CM, CVD

**Documentation and analyses** unknown date and operator at NGA: x-radiograph 1986 at NGA: dendrochronology by PK 2005 at NGA: Phase One visible and IR as well as Inframetrics IRR by CVD; binocular microscopy by CM

**FRAME:** Not original.

**SUPPORT:** Oak, 31.2 × 24.2. Single plank with vertical grain. Top edge is unevenly trimmed.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1467; earliest possible creation date: 1469; statistically more plausible creation date: after 1483. This panel came from the same tree as that for *Saint John the Baptist*.

**PREPARATION OF SUPPORT:** White. No intermediate layer evident.

**PREPARATORY DESIGN:** The underdrawing has the appearance of being an accurate copy of an earlier composition. It was executed in a material that makes a uniform thin line, with occasional skipping and grainy areas (as in the hands). Shading was established with hatching and crosshatching. The background landscape is minimally indicated, with lines for the hills and rough approximations for the placement of the trees. Veronica's blue mantle extends farther to the left and closer to the foreground in the underdrawing than in the painting. Her right hand was drawn in a cursory manner and not followed in the paint. The painted folds in the mantle likewise bear little relation to the drawing, and the painted landscape adheres to the drawing only generally.

**PAINT LAYERS:** The paint was applied conscientiously. Primarily opaque mixtures were layered and blended to form smooth transitions in the figure. The foliage was painted with small strokes of light green over a darker green base, suggesting individual leaves and veining in the fore-

ground plants. As was the case with *Saint John the Baptist* on the companion panel, *Saint Veronica* was originally adorned with a nimbus, for which the rays were incised in the wet paint. The ring finger of Veronica's right hand was lowered after an earlier paint stage. Her red robe overlaps the green of the landscape, beyond the reserve left for it, at the lower left.

CHALICE OF SAINT JOHN THE EVANGELIST (db no. 12.141); reverse of SAINT VERONICA

**FRAME:** Not original.

**PREPARATION OF SUPPORT:** White. Barbes on all four edges. No intermediate layer apparent.

**PREPARATORY DESIGN:** A free, loose, unrestrained sketch, apparently executed in two distinct stages, with varied line width that skipped over irregularities in the support preparation. Contours were restruck. Broad hatching and zigzag strokes indicate generalized zones of shadow. The underdrawing was apparently not meant to be followed exactly, and the painting reflects a more tightly controlled technique than the drawing. The painted shadow of the chalice is smaller than the drawn one, and the snake was shifted. The triangular shape above the chalice marks the convergence of perspective lines for the niche, which were corrected more than once.

**PAINT LAYERS:** The painting technique is controlled and exact. Opaque mixtures of paint were cleanly applied without hesitation. The straight lines in the lower left corner of the niche were incised in wet paint. The highlights were added as short, precise strokes over the darker underlayers. No reserve was left for the snake.

### Summary

The figure of *Saint Veronica* was probably copied from an existing composition, while the chalice might have been designed on the panel. The painting technique on both front and back is comparable. The x-radiograph of the Munich panel shows a similar use of incisions in the wet paint for the nimbuses and the architecture of the reverse.

## Cat. 26. Hans Memling

VIRGIN AND CHILD, 1487, and MAARTEN VAN NIEUWENHOVE *Musea Brugge, Hospitaalmuseum Sint-Janshospitaal, Bruges*, inv. no. OSJ 178.1 Examined at SMB: 29 September 2003 by CM, RS, CVD, AV

### Documentation and analyses

2003 at SMB: Phase One visible and IR as well as Inframetrics IRR by CVD, AV; binocular microscopy by CM, RS; x-radiography by AT

2005 at NGA: cross section analysis by MG

VIRGIN AND CHILD (db no. 13.24)

**FRAME:** Engaged, original. Upper joins are half-miter, half-overlap without nails or pins; lower joins have vertical tenons held in place with one pin each (see Verougstraete-Marcq 1989, 151, for a diagram). The hinges are original. In the top frame member there are corrosion residues at the left from at least three removed nails and a hole in the center that appears to have been drilled. Two pairs of holes in the left frame member were drilled from back to front. The reverse of the frame is flat.

**SUPPORT:** Single plank, 52.5 × 41.5, with vertically oriented grain. Dark overpaint currently covers the original red and black marbling on the reverse (fig. 5).

**DENDROCHRONOLOGY:** Not possible because of engaged frame.

**PREPARATION OF SUPPORT:** White, barbes on all four sides. An intermediate layer was not observed in the x-radiograph, but the underdrawing seems to skip over a rough surface, which may signal the presence of an unpigmented intermediate layer.

**PREPARATORY DESIGN:** The underdrawing appears to have been made with both liquid and dry materials. It consists of contour lines with intermittent hatching used to indicate shading. Incised lines in the architecture, which do not breach the figural elements, were probably made after the drawing was complete.

The IRR and x-radiograph show that the Virgin's fingers holding the apple were repeatedly repositioned, both in underdrawing and in paint. Her ring finger was drawn closer to the apple without touching it, then painted touching the apple, and finally repainted farther back from the apple than it was underdrawn. Her little finger was drawn farther away from the apple than painted. The Christ child's fingers were underdrawn closer to the apple than painted.

**PAINT LAYERS:** The paint is thin and was applied with skill and care. The flesh tones were built up with delicate liquid strokes

of lighter and darker paint over a smooth medium-tone foundation. Final touches of warm brown glaze complete the modeling of the cheeks. Both highlights and reflected color on the bottoms of the jewels were described with separate strokes of various colors over a base tone. The red glaze of the Virgin's robe was applied in dashes and dots in many of the shadowed areas, giving a sense of texture to the fabric. Light scumbles were used to indicate illuminated areas on the robe, and the rays of the halos were added in an x-ray opaque paint, probably lead-tin yellow.

The x-radiograph revealed that the window to the left of the Virgin originally matched the one to the right, with a cross-shaped division through which sky and a continuation of the landscape could be seen. The coat of arms added later in the present left window was revised during a second paint stage using a lighter gray blue, then the arches and the grid of leading were incised into the still-wet paint. Under a microscope, a more intense blue, possibly from the earlier sky, can be seen under the coat of arms. The convex mirror also appears to have been a later revision, for the right edge was painted after the red lake surface of the Virgin's robe, and the left edge overlaps the background landscape. Moreover, the reflection in the mirror indicates that Maarten van Nieuwenhove is kneeling beside the table at which the Virgin is seated, but the situation was different in the underdrawing of the portrait (see below).

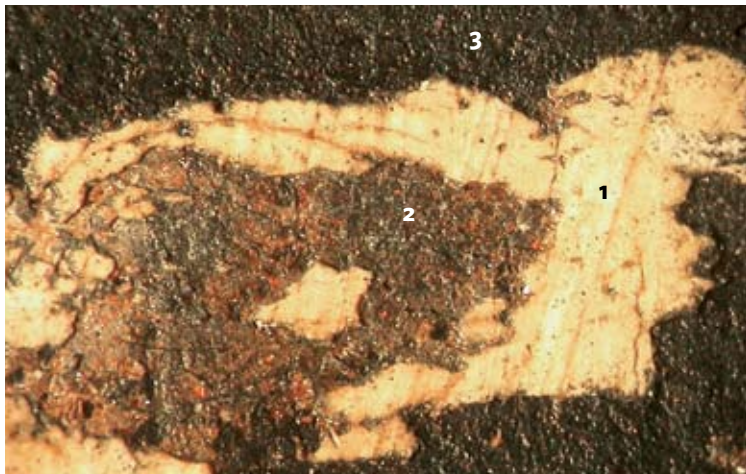
MAARTEN VAN NIEUWENHOVE (db no. 13.25)

**FRAME:** Comparable to the frame for the *Virgin and Child*, except that the reverse is beveled on the interior edge of the bottom frame member. The joinery is similar, and the top frame member has a straight-sided hole in the center and corrosion residues from two removed nails as well as remnants of a modern screw to the right of center. Two pairs of holes in the right side roughly correspond to the holes in the left side of the *Virgin and Child*, also drilled through the thickness of the frame.

**SUPPORT:** Single plank, 52.3 / 52.5 × 41.6, with vertical grain. Unpainted margins are recorded in the x-radiograph. The reverse currently has dark overpaint obscuring the original red and black marbling.

**PREPARATION OF SUPPORT:** As in the *Virgin and Child*, a slight gray striation is visible in places in the IRR (i.e., in Maarten's hands), and the underdrawing skips periodically, suggesting the presence of a striated intermediate later.

**PREPARATORY DESIGN:** The underdrawing is unusually elaborate and was probably created in separate campaigns. The perspective system of the architecture was established with a series of straight



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lines, which continue through the figure of the donor and lead to a single vanishing point in the facing panel. The drawing for the figure is free and full of overlapping curves. The sitter's proper right eye was drawn slightly lower than it was painted. Memling apparently first laid out the contours of the portrait, including a wider stained-glass window at the left side (without shutters), but then developed a complex perspective system to correct the rendering of the windows. It is not clear if the drawing was made with a dry or liquid material.

In the underdrawing two stained-glass windows originally appeared to the left of the donor (like those to the right of the Virgin), with roundels seen from an angle. A crossbar beneath these roundels was at the same height as the crossbar bearing the coat of arms in the companion panel. The room was drawn significantly lower, with ceiling beams and the junction of the ceiling with the wall visible above the donor's head. In the left foreground a stone parapet was underdrawn, as in the right wing of Memling's *Triptych of Benedetto Portinari*. The tip of the Virgin's red cloak in the lower left corner was not planned in the underdrawing. The book was apparently also not part of the original composition. A change in the donor's thumb, which was drawn smaller than it was painted, also reflects the Portinari portrait. The inner edge of the fur-lined outer garment at the donor's proper right was underdrawn at more of an angle than it was painted.

**PAINT LAYERS:** The paint handling is comparable to that in the *Virgin and Child*. The imitation wood grain behind the donor's head was created by incising into wet brown paint, revealing a lighter brown layer beneath. The torso of the sitter was depicted without notable changes in the

paint stage, but the height of the horizon shifted and the stained-glass window with *Saint George* was a late addition, probably coinciding with changes in the window to the left of the Virgin.

Other elements in the composition were also revised during the painting process, possibly in relation to the donor panel in the *Triptych of Benedetto Portinari*. The column at the right was originally painted on a wider circular base instead of an octagonal one, as in the Portinari portrait panel. The donor's brown cloak was changed extensively from an earlier paint stage, with the entire section under the foreground arm added, covering portions of the carpet and the sitter's torso that had been completed as well as landscape and architectural elements at the right. The prayer book was painted over a reserve that had been left for a parapet, following the underdrawing. The book was less sharply foreshortened a later paint stage.

### Summary

In several details this diptych for Van Nieuwenhove was initially closely related to the central panel and right wing of the *Triptych of Benedetto Portinari*. Memling might have used the same pattern drawings for both works, but the large number and nature of the late changes here imply the donor's close involvement in the work's final appearance. Van Nieuwenhove's coat of arms may have intended for the exterior of the diptych. It was suggested in Verougstraete-Marcq and Van Schoute 1989, 151, that this might have been a stationary diptych, with the portrait on the moving wing. The donor panel's elaborate perspective system, the bevel of the lower member on the reverse of its frame, and the presence of marbling on both reverses do suggest different handling for each wing, but the frame construction indicates a standing diptych, not a hanging one.

## Cat. 28. Jan Mostaert

CHRIST APPEARING TO HIS MOTHER IN LIMBO AND KNEELING FEMALE DONOR WITH THE REDEEMED OF THE OLD TESTAMENT

CHRIST APPEARING TO HIS MOTHER IN LIMBO (db no. 40.79) Rijksmuseum Twenthe, Enschede, inv. no. 13

Not examined, but infrared documentation and x-radiograph provided by RTE

### Documentation and analyses

unknown date at RTE: Art Innovation Musis 2007 used for infrared documentation (spectral responsivity extended to 1550 nm through coupling with photo-cathode tube) 2003 at RTE: dendrochronology by PK

**FRAME:** Integral, outside profile cropped.

**SUPPORT:** Oak, 26.7 cm × 18.8 cm. Single plank with vertical grain. Possibly thinned, with a modern veneer applied to the reverse.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1427; earliest possible creation date: 1429; statistically more plausible production date: after 1445.

**PREPARATION OF SUPPORT:** White (est.).

**PREPARATORY DESIGN:** From the available images, it appears that the underdrawing describes all primary elements in the composition, possibly in a liquid medium, and its free handling is comparable to that of the companion panel, but with diagonal hatching and restruck, looping contours. Figures in the foreground may have been redrawn in a darker liquid medium, but not the bearded figure behind *Eve* or background figures such as *David* and the people surrounding him: the face of *Eve* is drawn over the legs of *David*, and her features as well as the left contour of her face seem to have been completed in the darker medium.

The wound in *Christ's* hand does not appear in the underdrawing, while the nipple and wound in his side were painted in slightly different positions than they were drawn. The angel above *Christ's* head was more upright in the drawing than in the painting. *Saint Michael the Archangel* initially had a large wing to his proper left, which was underdrawn and partly painted but later blocked out. His banner was drawn with an opaque horizontal band slightly higher than the current red band

and with three “tails” beginning somewhat higher. Figures not present in the underdrawing include the four individuals behind *Saint Michael* and *Christ* and the smaller figures at the far right.

**PAINT LAYERS:** The paint was freely applied. Although no longer readily discernible, different hues were used for *Mary's* garments: the sleeve and bodice are penetrated by IRR, but the cloak is not. The angels and the background figures were painted over the reddish background, with the latter serving as the shadow tone. The left side of *Christ's* robe was higher in an earlier paint stage and was shifted to make room for *Michael's* hand and a partly obscured face. The figure to *Michael's* right was added where the archangel's wing had been painted out, and the angel entering from the far left was painted over the staff of *Michael's* banner.

KNEELING FEMALE DONOR WITH THE REDEEMED OF THE OLD TESTAMENT (db no. 40.80)

Museo Thyssen-Bornemisza, Madrid, inv. no. 1930.76 Examined at MTB: 13–21 September 2004 by CM, RS, CVD, AV

### Documentation and analyses

2004 at MTB: Phase One visible and IR as well as Inframetrics IRR by CVD, AV; binocular microscopy by CM, RS; x-radiography by RayXArt, Madrid

**FRAME:** Integral, outside profile cropped. Non-original strip nailed on all four sides. Regilded.

**SUPPORT:** Single plank, 26.9 / 26.6 × 18.9 / 18.7, with vertical grain. Possibly thinned with a veneer applied to the reverse. The veneer has been partly removed.

**DENDROCHRONOLOGY:** Not possible.

**PREPARATION OF SUPPORT:** White (est.). Striations from an intermediate layer can be seen.

**PREPARATORY DESIGN:** The composition is fully underdrawn, possibly in a liquid material, and the manner is free and assured, though more controlled for the donor. The underdrawing is comparable in style, method, and conception to that in the companion panel. Foreground figures were redrawn in a darker liquid medium, as apparently in the facing panel, but there is little hatching. Broad, curved, widely spaced, skipping lines mark the position of cast shadows on the wall at the right. Similar lines appear above the wainscoting. The floor tiles were underdrawn.

The donor and prie-dieu were planned in underdrawing, but not until after the overall composition was laid

out. This is illustrated by the elbow of the middle-ground figure in the donor's nose and cheek and the underdrawn gown of the redeemed figure in the center of the prie-dieu.

The donor's portrait may have been transferred from another source (see entry), as this drawing is less spontaneous than that seen elsewhere in the panel. The dark contours defining the donor's hat, visible in IR and IRR, are a painted black outline, not drawing. Changes in the donor's attire include her head veil, which was underdrawn shorter, falling just below her jawline, and continued at this length in an earlier paint stage (forms to the left and right of her neck are x-ray opaque). A wide necklace was drawn over her chest and shoulders, and the bottom border of her bodice was lower. The x-radiograph revealed that the garment was left in reserve from the rest of her attire. An underdrawn line indicates the end of her nose, which may have been shifted higher in paint, and another marks her mouth.

The figure at the left holding a staff was drawn with horns, implying that he was intended as Moses, and sketchy lines near his knee may have represented the Tables of the Law. His staff was moved from his hand to his elbow. Underdrawn lines near the leftmost cupid at the top may have established the position of his knees, while lines in the lower left corner suggest an earlier design for the floor tiles.

**PAINT LAYERS:** The painting technique in the figural group is very free. The floating figures were executed with fluid, confident strokes over the dark background, which serves as a shadow tone. The garment and red hat of the foreground figure were left in reserve, as were the donor's book and Moses's cloak. Final touches of gold leaf were applied over the donor's necklace and embroidered neckline. A fingerprint was observed at the tip of the presumed Moses's staff.

The donor was painted more precisely, but she seems to have been part of the original plan, as her figure does not overlap other elements. Initially she was drawn wearing a white veil without a hat, but the latter was added in paint. She wore a wide, rounded necklace, which was replaced at paint stage with a sheer v-necked bodice; the heavier brocaded garment was drawn with deeper décolleté than painted. Her

book was smaller and thinner, like a prayer book, but was enlarged in a second paint stage and her fingers extended over the edge. The donor's hands were first painted with bent fingers, then painted longer and over the earlier book, then the book was repainted to clarify the contour of her fingers.

The figure in the upper group at the far left may have had his head turned in the opposite direction in an earlier paint stage. The foot and leg of the Moses figure were shifted slightly to the left in a second paint stage, after the staff had been painted, and the cloth on the prie-dieu overlapped this leg. The female profile face in the back and the faces behind Moses, both of which enhance the visual connection between the two panels, were not added until a second paint stage.

The IRR assembly reveals that a sky or possibly a landscape was originally painted above the wainscoting at the top right. Shapes suggestive of clouds and hills, now painted over with deep blue, appear to have been retained in an earlier paint stage. The floor tiles at the lower left were changed from the underdrawing and again in paint; ruled diagonal and horizontal lines at every third join in the floor tiles at the lower right mark the location of larger, lozenge-shaped floor tiles.

#### Summary

These panels were obviously conceived as a pair. Traces of hinges were not observed, perhaps because the outer profiles of the frames were cropped. The similar treatment of reverses and frames imply an intervention before the panels were separated. Numerous changes during the underdrawing stage and between underdrawing and the final paint stage make clear that these compositions were not copied from an existing prototype but were worked out on the panels. The drawings were done with confidence and accuracy in multiple stages, though the foreground figures were developed more completely than those in the background, and several airborne figures may not have been drawn at all. An area of uncertain size was left for the donor in the initial layout, which was apparently filled later with a portrait taken from another source. Both underdrawing and painting display similar skill. Late changes and additions, especially in small figures along the edges, seem calculated to strengthen the visual relationship between the two panels. Some changes in the donor's attire suggest an interest in modesty and decorum.

### Cat. 29. Netherlandish Artist

LENTULUS LETTER and PORTRAIT OF CHRIST (db nos. 106.120–121) Museum Catharijneconvent, Utrecht, inv. no. BMR 52 Examined at SRAL: 15–27 September 2003 by CM, RS, CVD, AV

#### Documentation and analyses

2003 at SRAL: Phase One visible light and IR as well as Inframetrics IRR by CVD, AV; binocular microscopy by CM, RS; dendrochronology by PK 2004 at NGA: cross section analysis by MG

**FRAMES:** The applied frames are original and attached to the edges of the supports with hand-forged nails, hammered from the reverse. Nearly all of the original ground and gold leaf has been stripped from the frames, but traces of both remain in the corner joins. Wear patterns in the top center of the upper frame member reflect long-term use of the hanging device.

The present hinges are modern and attached with screws. The residues of corrosion from old nails show the original location of the hinges, above and below the present upper and lower hinges. Similar traces of a nail on the left frame member of the *Lentulus Letter* and the shaft of a nail in the right member of the *Portrait of Christ* indicate that the diptych had a closing device, which is now lost. Hand-forged nails close the mitered joins at the top.

**SUPPORTS:** Oak, single planks: the *Lentulus Letter* is 36.4 / 37 × 26.7 / 26.5; the *Portrait of Christ* is 36.9 / 37.1 × 26.7 / 26.5. The reverses have rounded edges and traces of red paint applied directly on the wood, as confirmed by cross section analysis.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1491; earliest possible creation date: 1493; statistically more plausible production date: after 1499. The planks for both panels are from the same tree.

**PREPARATION OF SUPPORTS:** The front of both panels has a thin whitish ground layer. Each work has barbes present on all four sides. No intermediate layer is visible in microscope examination or on the x-radiograph.

**PREPARATORY DESIGNS:** For the *Lentulus Letter* no drawing was observed with IR, IRR, or in visible light. For the *Portrait of Christ* the contours of the composition were underdrawn in a liquid material. Deviations between the underdrawing and the paint surface include the side of Christ's mouth, shifted to the left, and the mustache, which was slightly raised.

**PAINT LAYERS:** The *Lentulus Letter* was painted black, with the text in a yellowish, x-ray-opaque mordant on which gold leaf was applied. A red glaze might have been applied to the background.

Paint on the *Portrait of Christ* was applied in a relatively direct and simple manner. The background was laid in first, then the flesh, followed by facial details and hair. Finally, the contour of the profile was expanded from that left in reserve—the lip, nose, and forehead. There is a large area of damage in the lower left corner of the *Portrait of Christ*.

### Cat. 30. Netherlandish Artists

VIRGIN AND CHILD and TWO DONORS (db nos. 26.51–52) Koninklijk Museum voor Schone Kunsten, Antwerp, inv. nos. 517–518 Examined at KMSKA: 11–22 November 2003 by CM, RS, CVD, AV

#### Documentation and analyses

2003 at KMSKA: Phase One visible and IR as well as Inframetrics IRR by CVD, AV; binocular microscopy by CM, RS 2004 at KMSKA: dendrochronology by PK

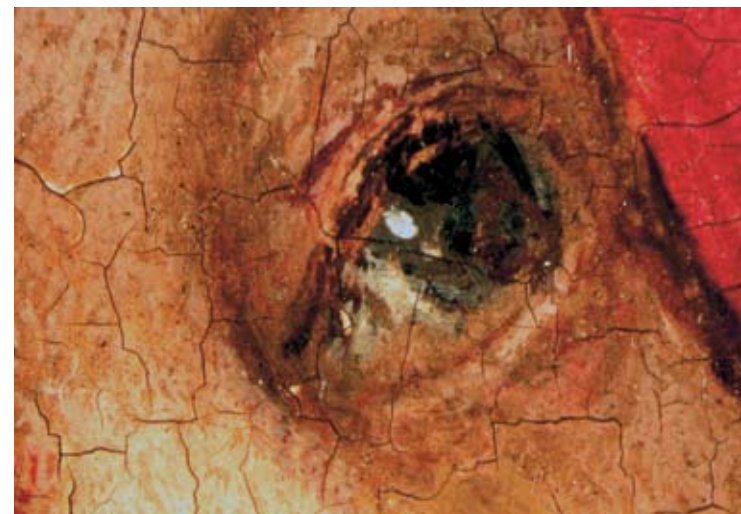
**FRAMES:** Integral. Partly original, but altered. The two panels, which now share a single central frame member, no longer fold. This narrow central strip was inserted where hinges would have been, obliterating evidence of the original hinges. The insert, measured on the x-radiograph, is 16 mm wide at the top, 19 mm at the bottom. The reverse of the frame's outer molding is cut into a rebated lip, which fits into a surrounding non-original entablature. The inner lip of the frame for the *Virgin and Child* is slightly narrower than that for *Two Donors*. The paint on the lower inner bevel is cracked and appears original. The frames are regilded.

**SUPPORTS:** Oak, single plank. Both panels are 35 × 23.4. The reverses are coated with lead white, obstructing x-radiography.

**DENDROCHRONOLOGY:** For the *Virgin and Child*: earliest possible felling date: 1460; earliest possible creation date: 1462; statistically more plausible production date (assuming ten years for seasoning): after 1477. For *Two Donors*: earliest possible felling date: 1491; earliest possible creation date: 1493; statistically more plausible production date (assuming two years for seasoning): after 1498.

**PREPARATION OF SUPPORTS:** White (est.). No intermediate layer observed.

**PREPARATORY DESIGNS:** The drawing for the *Virgin and Child*, in both dry and liquid media, is spontaneous, free, and angular, with zones of parallel hatching. Many of the folds were struck with double lines, some with a hooked end. Zigzags indicate shading in the draperies. The faces of the *Virgin and Child* were each defined with a single broad contour, but the *Child's* elbow was drawn repeatedly. The *Virgin's* drapery was also altered, especially at the right. Her proper right eye was painted higher than it was drawn, her breast made larger, and the fingers on the hand holding *Christ* were shortened (the drawing showed them almost curved around the *Child's* belly). The *Child's* hand and the pomegranate were drawn on his forward knee but painted on his back knee, while his elbow and forward leg were painted lower.



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The underdrawing for *Two Donors* is more schematic and less complex than that for the *Virgin and Child*. It consists largely of liquid contour lines, with little elaboration of the drapery. Multiple contours were used to position the female head covering, and no hatching was observed. There were slight changes in the male donor's fingers and in the left contour of his face. The female donor was underdrawn with a round collar.

**PAINT LAYERS:** The *Virgin and Child* was executed from light to dark, with reserves left for the figures. Following the painting of the composition, the fingers and faces were outlined in reddish brown, and the final contours were delicately brushed on with a lighter paint. Cross section analysis shows that the blue background lies over black particles typical of surface dirt and crosses a crack that extends through all lower layers. The blue background was possibly painted at a later date, perhaps at the time the donor panel was attached, with the intention of visually uniting the two images.

The gaze of the *Christ child* was at some point shifted upward (fig. 6). The change in the placement of the pomegranate was accomplished in successive paint stages. The *Christ child's* head was left in reserve following the larger underdrawn image, then painted smaller. His hand was painted over the *Virgin's* little finger, and his chest was painted farther to the right, closer to his hand and to the *Virgin's* breast, but was narrowed and shaded in the final painting.

*Two Donors* was painted more tightly (paint conformed more closely to the outline), but the final touches that refine the flesh tones of the *Virgin and Child* are not seen here. Reserves were left for the heads and faces of both donors, although that allowing for the hair of the male donor was not a specific shape. The blue

FIG. 6 Micrograph of the proper left eye of the *Christ child*, showing the repainted iris

background paint lies directly on the paint layers below, without intermediate grime.

IRR revealed that the female donor's head covering was changed from the first paint stage, when it was larger and deeper. Her attire was also changed, from a rounded neckline to the present white-edged black collar, and the lower edge of the black collar was first rounded rather than square. The upper contour of the male donor's thumb was enlarged in paint over his costume, which had been blocked in without great care for delimiting the fingers. His shoulders were raised and widened, and his hair was extended to the right.

#### Summary

These two panels, although they form a diptych, do not seem to have been produced simultaneously but paired at a later date. They have different dendrochronological dates, different underdrawing techniques, and different painting techniques. The inner profiles of the integral frames are slightly different. The *Virgin's* background is more opaque in IRR and more transparent in x-radiography than that behind the donors, and cross sections show the final layer of blue on that panel lies over dirt and continues into old losses. The change in the direction of the *Child's* gaze, from outward to looking up at the *Virgin*, and the position of the *Christ child's* right hand, normally the blessing hand but here grasping the *Virgin's* finger, both might indicate that this painting at some point functioned as an autonomous panel rather than as part of a diptych. The ensemble probably represents a phased-production pairing of uncertain date. The interventions to the frame suggest that a much later assembly—perhaps in the nineteenth century—cannot be excluded at this time.

### Cat. 31. Jan Provoost

CHRIST CARRYING THE CROSS, 1522 (db no. 41.81), with reverse: IMITATION PORPHYRY; and PORTRAIT OF A FIFTY-FOUR-YEAR-OLD FRANCISCAN (db no. 41.82) with reverse: SKULL IN A NICHE Musea Brugge, Hospitaalmuseum Sint-Janshospitaal, Bruges, inv. no. OSJ 191.1 Examined at SMB: 29 September 2003 by CM, RS, CVD, AV

#### Documentation and analyses

2003 at SMB: Phase One visible and IR as well as Inframetrics IRR by CVD, AV; binocular microscopy by CM, RS; x-radiography by AT

**FRAMES:** Original engaged frames. The corners are mortise-and-tenon joined with horizontal tenons. Each joint is secured with a pin. The gold leaf has been repainted, but the rebus on each is original, as is that on the reverse of the donor panel. The hinges and the closing device are also original. Partly filled holes from earlier hanging devices are visible in the x-radiograph. The reverses of the engaged frames are carved with a simple beveled recess, but original paint on the flat surfaces imitates a recessed frame.

**SUPPORTS:** Single planks with vertical grain. *Christ Carrying the Cross* is 49.9 / 50.1 × 39.5 / 40.3; the donor panel is 50.05 / 49.9 × 39.8 / 40.3. Unpainted margins are visible in the x-radiograph.

**DENDROCHRONOLOGY:** Not attempted because of the engaged frames.

**PREPARATION OF SUPPORTS:** White (est.). No intermediate layer was observed. Each panel has a barbe along all four edges.

**PREPARATORY DESIGNS:** An elaborate drawing for *Christ Carrying the Cross* defined all forms with both straight and zigzag lines. There are contours as well as hatching that suggests volume. Shading was described with parallel hatching as well as some crosshatching in the deepest shadows. It is difficult to be certain about the underdrawing medium; in some places it was clearly liquid but in other places the very fine line could have been dry. The underdrawing style is consistent throughout the diptych and is fully comparable with that of other paintings by Provoost (see Spronk in exh. cat. Bruges 1998, 1:184; 2:31–48).

The thorns in Christ's crown were drawn larger than they were painted, additional curls of hair were drawn at Christ's temple and ear, and the inner ear shell was not defined in the drawing. Several folds in Christ's robe were changed in the paint stage, and the rope was painted in a different position. Auxiliary figures were also altered: the head of Saint John at the upper left was drawn farther right than it was painted and might have been depicted more in profile, while the top of Mary's head (just below) was drawn higher than it was painted, with a veil that crossed her forehead in a straight line but was painted with a peaked fold. The figure with the bulging eyes in the upper center was not prepared in underdrawing; and the soldier in the top right had curls in his hair, a larger mustache, and a different helmet decoration. The face in the center to the right of Christ was painted slightly wider, with the nose made thinner and the mouth larger, while the large mustache was indicated by only single lines in the underdrawing.

The underdrawing for the donor panel is fully comparable in execution and style. Some of the contours are double lines, such as the nostril. The thickly painted green background, which covers much of the underdrawing for the left eye and the outer contour of the face, is not penetrated by IRR. The donor was initially depicted within a fully furnished room, but the green background makes it difficult to establish if details of the interior (such as windows, kettle, and fireplace) were underdrawn as well as painted. Among the deviations between underdrawing and painting, the head of the donor was drawn farther to the left, his proper left hand was drawn at a different angle, and the fingers were drawn longer. What looks like a looped rope appears behind the donor's thumbs in the underdrawing, perhaps representing a belt for his habit, but echoing the rope around Christ's wrists and the rebus at the top of the Christ panel; this rope might have continued down to the lower left corner in the drawing, further connecting the wings of the diptych.

**PAINT LAYERS:** The paint for the Christ panel was applied economically in opaque layers. The artist employed wet-in-wet blending in describing larger volumes, adding detail with small, distinct opaque brush strokes. Christ's fingers and the back of his hand were painted larger than they were drawn, emphasizing the pictorial link with the donor panel. But there

had been an opening between the index and middle fingers in the drawing that revealed the back of the other hand, and when the fingers were painted longer and wider, they obscured the back of that hand. The collar of Christ's lavender robe was first painted following the underdrawn diagonal fold between the button and the sleeve at the right, and then changed to the present configuration in a second paint stage. The cross was painted with a wider plank, covering part of Mary's face, and the new contour was incised into the lower paint layers. Mary's head covering, which was underdrawn with a different contour, appears to have been painted in different positions as well. A more significant change was the shortening of Christ's right sleeve in a second paint stage, which may have related to the changed position of the rope: in the underdrawing the rope bound Christ's sleeved rather than bare arms. This probably has iconographical meaning because of the rebus on the frame (see entry).

The paint handling for the donor panel is comparable, but a significantly larger number of changes were observed here between subsequent paint stages. X-radiography revealed that the donor was initially painted within a fully finished interior, with windows to his right, a hearth to his left, and a kettle over a fire. These elements, some of which can also be recognized in the IRR assembly, were later painted out with a thick layer of green background paint. The donor's head was originally painted farther to the left, following its underdrawn position, but the face was moved to the right in a second paint stage, and, perhaps in a third stage, the head was enlarged at the crown over the green background. The neckline was painted lower than drawn, and the cowl was initially painted larger and slightly lower. The hands were made smaller with shorter fingers. In a final stage of painting a thin line of gray was added over the flesh tone of the hands to efficiently indicate that they are separated.

IMITATION PORPHYRY (db no. 41.124); reverse of CHRIST CARRYING THE CROSS

**FRAME:** Flat face with plain beveled recess. Painted with gray marbling.

**PREPARATION OF SUPPORT:** White (est.). No intermediate layer apparent.

**PREPARATORY DESIGN:** None visible with IRR.

**PAINT LAYERS:** Wet-in-wet and splattered red and black paint.

SKULL IN A NICHE (db no. 41.125); reverse of PORTRAIT OF A FIFTY-FOUR-YEAR-OLD FRANCISCAN

**PREPARATION OF SUPPORT:** White (est.). No intermediate layer apparent.

**PREPARATORY DESIGN:** The underdrawing is consistent with that on the fronts of the diptych panels. The right contour of the skull was redrawn to the present configuration, and it appears the shading in the forehead was redrawn to fit the new contour. This would imply that a later drawing campaign was executed over an underpainting of the skull. The original underdrawing depicted a loose stack of books supported on a pillow under the skull. The pedestal was redrawn over an underpaint layer. A tooth halfway back behind the jaw in the underdrawing was not painted.

**PAINT LAYERS:** The paint was handled in a similar manner to the other images in the diptych. Lead white was used sparingly so that it only registers in the x-radiograph at the brightest highlights. A reserve was left for the pillow under the stack of books. The lower right book was brought to a beginning paint stage but not completed.

#### Summary

This diptych, with its original hinges and original closing device, is in remarkably good condition. A large number of changes occurred late in production, suggesting possible intervention by the donor. Several changes seem to have had iconographical significance. Revisions in the Christ panel, including the additional figure at the top and enlargement of the cross and Christ's hands, increase the sense of crowding and of Christ's suffering. Major changes in the donor panel—painting out the original interior setting, enlarging the man's head, and moving him toward the center of the panel—appear to emphasize the donor's devotion.

#### Cat. 32. Bernard de Rijckere

ADRIAAN VAN SANTVOORT AND HIS SONS GUILLAUME AND ADRIAAN, 1563, and ANNA VAN HERTSBEEKE AND HER DAUGHTER CATHARINA AND SON JAN BAPTISTE with reverse: COATS OF ARMS OF THE VAN SANTVOORT AND VAN HERTSBEEKE FAMILIES IN A NICHE Private Collection Examined at SRAL: 15–27 September 2003 by CM, RS, CVD, AV

**Documentation and analyses** 2003 at SRAL: Phase One visible light and IR as well as Inframetrics IRR by CVD, AV; binocular microscopy by CM, RS; x-radiography by AT; dendrochronology by PK

ADRIAAN VAN SANTVOORT AND HIS SONS GUILLAUME AND ADRIAAN (db no. 51.97)

**FRAME:** Original rabbeted box frame. Shallow indentations where now-missing hinges were originally attached are filled with thin blocks of wood, and x-radiography shows the remains of six nails for the top hinge and five for the bottom. A wooden hanging device is possibly original but may date from the seventeenth century. The x-radiograph and wear on the frame surface suggest that there was once a closing device. X-radiography also shows foliate scrollwork that once adorned the face and roundels at the centers and corners of each frame member, now painted black. The painting is now held in place with a wooden batten attached with screws to the reverse, but originally it was secured with nails along the panel's perimeter.

**SUPPORT:** Oak, 84.3 / 84.1 × 65.1 / 65.4. Two boards: the left is 32.7 cm wide at the top and 32 cm at the bottom; the right is 32.6 cm to 33.2 cm. An old split on the right was repaired with fabric and lead-white adhesive. The panel retains its original dimensions. The verso has a 1–2 cm wide bevel along the lateral edges and wider curved bevels at the top and bottom that measure 2 cm in the corners but increase to 5 cm in the center.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1544; earliest possible creation date: 1546; statistically more plausible production date: after 1552. Planks are from the same tree as the companion panel.

**PREPARATION OF SUPPORT:** White (est.). There is no unpainted margin. A yellow-brown intermediate layer is broadly applied. The intermediate layer is visible in both IRR and x-radiography.

**PREPARATORY DESIGN:** Very little underdrawing was revealed in this panel.

Adriaan's proper left hand was carefully outlined with a thin dry contour line, and there is a hint of a similar line on the inside of his right thumb. Underpaint, as in the eldest boy's right hand, can easily be mistaken for underdrawing.

**PAINT LAYERS:** The painting technique is assured and efficient, and the relatively fluid paint was thinly applied in several layers. The flesh tones were blocked in using a tan color, and areas of shading were added in a dark underpaint that shows through the lighter-colored top layers, as in the nose and corner of the mouth of the older boy. IRR revealed that the garments were underpainted to leave reserves for the hands and fingers. The reserves were smaller than the final painted forms throughout: as seen in the apple held by the younger boy, the puff of fabric on Adriaan's proper left shoulder, and the hands of the older boy. The left hand of the youngest was underdrawn without the thumb.

The paint was masterfully manipulated, with traces of the brush having been dragged through wet paint to create feathered ends in several details. The color of the intermediate layer was efficiently used as a middle tone, as can be seen in the left side of Adriaan's face through the thin surface paint. The gray brocade pattern on the garments was completed with a paint that has more body than the surrounding black paint and is visible in IR but is x-ray transparent. Despite the evident assurance with which the portraits were painted, some small changes were found with IRR and x-radiography. The older son originally looked to the left, and his lower right jaw was enlarged with the final light flesh tones. A rectangle behind Adriaan's head is relatively opaque in IRR and x-rays, but faint indications of folds are discernible, implying that he was initially depicted against a backdrop of fabric. A similar rectangle can be seen behind Anna's head with IRR but not in x-radiography. These areas are no longer visible with the naked eye. The finials on the chair back were painted round, though the reserves were egg-shaped, and they were originally painted without a square upright. The left arm of the chair was not painted in the first stage. The final paint layer was used to refine other shapes as well. The corner of Adriaan's sleeve trailer at the lower left (under the older son's proper right elbow) was defined with paint that is x-ray opaque but later covered with background color, which is opaque in IR. The right side of the sleeve ruffle on the older child's left arm was overpainted with black, and his purse was shortened. Adriaan's beard was painted freely and larger at the left, with the white collar added over it.



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ANNA VAN HERTSBEEKE AND HER DAUGHTER CATHARINA AND SON JAN BAPTISTE (db no. 51.98)

**FRAME:** Although this box frame is also original, it differs from that on the companion panel in that a second face was attached to the reverse with nails and pins. See above for a description of the hinges, hanging and closing devices, and original decoration.

**SUPPORT:** Oak, 84.6 / 85 × 66 / 65.5. Two boards. The reverse is painted with the family coats of arms. Earlier reports that the coats of arms were painted on a separate panel could not be confirmed (see entry, note 2)

**DENDROCHRONOLOGY** (measured from x-radiographs): Earliest possible felling date: 1544; earliest possible creation date: 1546; statistically more plausible production date: after 1552. Planks are from the same tree as the companion panel.

**PREPARATION OF SUPPORT:** White (est.). X-radiography shows that the paint and ground continue to the edge of the panel, with no unpainted margin. Over the ground a yellow-brown intermediate layer was broadly brushed that is visible in both IRR and x-radiography.

**PREPARATORY DESIGN:** Unlike the companion panel, underdrawing here defines the fur, chair, and shadows in the lower right corner, but there are no careful contours that describe the hands. Like the Adriaan van Santvoort, though, there is no underdrawing in the faces. The drawing may be

in a dry medium, for it appears to skip over the intermediate layer. The underdrawing at the lower right is surprisingly free, with zigzags and long diagonals roughly indicating zones of shadow. The drawing is intended to give a general indication rather than precisely locate forms, and it is largely followed in the paint.

**PAINT LAYERS:** Comparable to the Adriaan van Santvoort in the wet-in-wet painting and the rendering of the gray brocade. The buildup of thin color layers is especially visible in Anna's temples near the hairline. Also like the companion panel, the reserves were often smaller than the painted forms, as seen in Anna's fingers, while the chair finials were egg-shaped in the reserves but painted round atop a square base. Anna's eyes, like those of her oldest son, initially looked to the left (fig. 7). The daughter's fingers were defined with underpaint that looks like underdrawing, but they were originally extended, not holding the ties encircling the mother's waist. The painted reverse complicates the reading of the x-radiograph, which does not show the rectangle behind Anna's head that is seen in IRR. It is possible that this form was not as fully worked as the area behind her husband in the companion panel.

COATS OF ARMS OF THE VAN SANTVOORT AND VAN HERTSBEEKE FAMILIES IN A NICHE (db no. 51.98); reverse of ANNA VAN HERTSBEEKE

**FRAME:** The frame has a flat profile with a stepped inner rim. It does not seem to have had the roundels and foliate decoration observed on the front.

**PREPARATION OF SUPPORT:** White (est.). The lack of an unpainted margin is evident in the x-radiograph. Evidence of an intermediate layer is present in IR and IRR.

**PREPARATORY DESIGN:** The main contours of the composition were cursorily sketched on the intermediate layer with a soft dry material, such as a soft black chalk. The underdrawing is assured but not precise, and it might be a freehand transcription of a model at hand. The underdrawn date at the bottom was more compact than the painted date.

**PAINT LAYERS:** The paint application was more summary than for the portraits, with less modeling and blending of the paint. Pictorial elements are flatter (i.e., the incision and restruck delineation of the "v" in the banderole). The forms of the numerals here differ from those used for the ages and dates in the portraits, especially the "6" and "3." Because the underdrawn numerals resemble those of the painted date, it is possible that a different hand painted the inscriptions here, following the underdrawing of the master.

#### Summary

The panels were planned and executed as a diptych by a highly skilled painter. The construction of the panels and frames, the sparse underdrawing, and the style and method of painting are typical of the later sixteenth century. The right wing was meant to be opened and closed over the stationary left wing, as confirmed by the painted reverse of the right panel. The originally hinged pictures would have been displayed either fully opened or fully closed. Probably in the seventeenth century the frames were divested of hinges and ornamentation, and the folding diptych was altered into two pendant paintings. It is possible that the wooden hanging devices were added then as well, but this is uncertain.

FIG. 7 Micrograph of the proper left eye of Anna van Hertsbeeke, showing the earlier position of the iris

### Cat. 33. Jan van Scorel

VIRGIN AND CHILD and PORTRAIT OF A MAN

VIRGIN AND CHILD
Kartinaja Galeria, Tambov, inv. no. 13
Not examined.

PORTRAIT OF A MAN (db no. 44-88)
with reverse: LUCRETIA
Staatliche Museen zu Berlin, Gemäldegalerie, inv. no. 644B
Examined at SMBG: 22 July-1 August 2003
by CM, CS, RS

**Documentation and analyses**

2003 at SMBG: Phase One visible and IR as well as Hamamatsu IRR by CS; x-radiography by GS; binocular microscopy by CM, RS

2004 at SMBG: dendrochronology by PK

**FRAME:** Not original.

**SUPPORT:** Oak, 66.1 × 45.4. Two boards. The arch is slightly flattened at the top.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1498; earliest possible creation date: 1500; statistically more plausible production date: after 1506. Both boards for this painting are from the same tree.

**PREPARATION OF SUPPORT:** White (est.), with unpainted margins beyond the barbes on all fours sides. There is a striated white intermediate layer applied in random manner.

**PREPARATORY DESIGN:** The panel was underdrawn with a loose, freehand sketch featuring expressive contours with zig-zag shading in the landscape elements. Zigzags were not observed in the figure of the donor, in contrast to the Virgin on the companion panel (see exh. cat. Utrecht 2000, 82–89). Scribbles behind the knuckles of the proper right hand are comparable to marks on Lucretia’s hand on the reverse.

Scorel made several adjustments to the portrait from the drawing to the paint stages. The donor’s forehead was moved forward but his chin kept in the same position so that he appears to incline his head more toward the other panel, and his neck was widened in the first paint stage. The proper left elbow was underdrawn larger than it was painted. The book at the lower left was not included in the underdrawing, and when it was added in paint, the fingers on the sitter’s left hand were changed to spread across the book more convincingly. The landscape, which was more fully drawn than the portrait, was also altered in several respects. A tree underdrawn at the left was not painted, and the arch in the rocks at right was drawn lower, then painted enclosing two tones of sky.

**PAINT LAYERS:** The paint application was free, efficient, thin, and exact. The paint was put down quickly in a single layer except in the sky, where a light-colored initial layer provided a foundation (seen in micrographs of the barbe). Many minor adjustments were made in a second layer of sky paint. The cloud behind the donor’s head was added only after completion of the hair and a small figure at the right (apparently damaged by overcleaning and now largely disappeared). The cloud delimits the curls of hair, which were then brought back over the cloud. Reserves in the sky were left for the small figure, rocks, and tree branches at the right, though a reserve for the tree trunk was not left in the rock. Changes in the sitter’s collar meant that his chin was painted over an area blocked in as sky.

It appears from the x-radiograph that the sky was laid in first, following the underdrawing; the sitter’s head was painted slightly larger than the reserve left for it; then the cloud was brought to the edge of the newly painted contour of the head; and details such as the curls of hair were added at the back of the head. The painting was harshly cleaned at some point, and much of the ultimate outline was damaged. A restoration was carried out with the goal of reinstating the artist’s intended image, and retouching can be seen to the left of the donor’s forehead, at his lips and chin, and along the top of his head.

LUCRETIA (db no. 44.110); reverse of PORTRAIT OF A MAN

**PREPARATORY DESIGN:** The underdrawing is loose and free, with contours defined and sketched lines visible through painted skin tones. Dark squiggles at Lucretia’s knuckles echo the underdrawn treatment of the donor’s knuckles and may have been meant to establish shading. Another zig-zag appears on her abdomen.

**PAINT LAYERS:** The painting technique is efficient. Wet-in-wet scumbles drag paint across color boundaries, with the curtain modeled by red lake scumbled over white and vice versa. With the exception of the figure of Lucretia, the paint is not as x-ray opaque on this side as on the donor’s.

**Summary**

This diptych shows the working methods of a single master using various models. Although the language of all three under-drawings is the same, the *Virgin and Child* (which was not examined for this project) seems to be more fully worked out. The quality of the painting is reportedly very high, which does not suggest any major workshop involvement. The underdrawing for Lucretia is looser and more summary, while that for the portrait is less elaborated. Given the thin, efficient painting technique throughout, it is possible that the underdrawing was meant to show through the paint, defining shadow. Late paint changes involved the greater incline in the donor’s head toward the Virgin and the addition of a cloud behind the donor, both of which may have been made to strenthen the visual relationship between the panels. The reverse of the *Virgin and Child* apparently remained unpainted, which implies that these relatively large paintings functioned as a stationary dip-tych, with the portrait as the moving wing.

### Cat. 34. Michel Sittow

VIRGIN AND CHILD and DIEGO DE GUEVARA (?)

VIRGIN AND CHILD (db no. 38.75)
Staatliche Museen zu Berlin, Gemäldegalerie, inv. no. 1722
Examined at SMBG: 22 July-1 August 2003
by CM, CS, RS

**Documentation and analyses**

2003 at SMBG: Phase One visible light and IR as well as Hamamatsu IRR by CS; binocular microscopy by CM, RS; x-radiography by GS

**FRAME:** Not original.

**SUPPORT:** Oak, 33.1 × 25.5 / 25.7. A single piece of wood with a crack through the entire height. The original panel, with vertical grain, was inserted into an auxiliary panel and cradled; the present unpainted margins are part of the auxiliary panel.

**DENDROCHRONOLOGY:** Not possible because of altered support.

**PREPARATION OF SUPPORT:** White. There are remnants of a barbe at all four edges, proof that the painted surface has not been cut down. Technical examination revealed a thin, lightly pigmented intermediate layer, creating vertical striations.

**PREPARATORY DESIGN:** A dry material was used for a sketch that was developed further in a liquid medium. The drawing is free and searching, with both contours and hatching. Numerous deviations occurred between drawing and painting. The Child’s body was drawn facing upward and painted facing out toward the viewer. His face also shifted, with his gaze moving from the Virgin toward the donor panel. The Virgin’s eyes were likewise adjusted so that they look more directly down at the Child, while her ear was painted lower than it was underdrawn.

**PAINT LAYERS:** The paint handling was masterful and assured, despite the large number of changes. The artist employed both thin washes of color and touches of thicker paint, with fine details defined in the highlights on the hair, the filaments of the lips, and the lace edging

of the headcovering and chemise. The brush stroke and consistency of the paint are manipulated to distinguish various textures, from the bird’s feathers to the Child’s flesh and the wooly surface of the carpet. The changes in the Child’s pose and gaze were made in successive paint stages, without intermediate drawing. The Virgin’s eyes appear to have been painted twice, judging by the x-radiograph. The change in the placement of her ear was made in the first paint stage.

DIEGO DE GUEVARA(?) (db no. 38.76)
National Gallery of Art, Washington, inv. no. 1937.1.46
Examined at NGA: 19–23 May 2003 by CM, AP, RS; 30 May-1 April 2005 CM, CVD

**Documentation and analyses**

1983 at NGA: dendrochronology by PK
1988 at NGA: x-radiography by Kristin Casaletto
2005 at NGA: Phase One visible and IR as well as Inframetrics IRR by CVD; binocular microscopy by CM

**FRAME:** Not original.

**SUPPORT:** Oak, 33.6 × 23.7. Single plank, with vertical grain. Substantial non-original additions on both lateral edges. The additions are not rectangular. The piece added at the left measures 4.4 cm at its widest and 0.6 cm at its narrowest. That on the right is 2.5 cm at its widest and 1.5 cm at its narrowest.

**DENDROCHRONOLOGY:** Dating not possible, but oak was identified.

**PREPARATION OF SUPPORT:** White (est.). Traces of a barbe at top and bottom. No intermediate layer observed.

**PREPARATORY DESIGN:** The lines in the hands appear to be have been made in both liquid and dry media. Elsewhere the underdrawing material appears to have been dry. The drawing was sparse, barely indicating the main contours. Shading was not indicated. The left side of the fur collar was also drawn narrower than painted, and the sitter’s eyes may have been drawn in a different position than they are now painted.

**PAINT LAYERS:** The paint was handled with skill and confidence. Over a smoothly blended base that expressed dimensional contours, small touches of feathery brush-work define subtle detail. The fur collar was painted wet-in-wet, with incisions through the wet paint that uncovered a tan underlayer, which then functioned as a midtone. The artist changed several elements here: the sitter’s eyes were painted in at least two earlier positions; his proper right cheek was narrowed after the first paint stage; while the top of his brocade doublet was originally lower, and the white shirt was wider and had a lower neckline. Late additions include the fur collar, which was painted over the white shirt; and the cross of the Calatrava, which was painted over the brocade and was originally gilded with red lake embellishment.

**Summary**

The presence of original barbes at the top and bottom of both panels proves that the heights of the two panels are within a half-centimeter of each other. The paintings are by the same artist, and the continuation of the carpet across the two panels links them visually. The reworking of the Christ child results not only in a greater connection with the donor but with the viewer as well. Sittow often shifts the positions of eyes in his paintings (see entry), which makes it difficult to interpret the importance of changes in the donor’s and Virgin’s gazes.

### Cat. 35. Jan Cornelisz Vermeyen

CARDINAL ÉRARD DE LA MARCK and THE HOLY FAMILY
Examined at SRAL: 15–27 September 2003
by CM, RS, CVD, AV

**Documentation and analyses**

2003 at SRAL: Phase One visible and IR as well as Inframetrics IRR by CVD, AV; binocular microscopy by CM, RS; x-radiography by AT; cross sections by CM; dendro-chronology by PK
2005 at NGA: cross section analysis by MG

CARDINAL ÉRARD DE LA MARCK (db no. 45.89)
Bonnenfantenmuseum, Maastricht, on loan from Rijksmuseum, Amsterdam, inv. no. A4069

**FRAME:** Not original.

**SUPPORT:** Oak, 62.8 × 54.35 (not including added strips). Two planks, with vertical grain, with strips added on all edges. The left plank is 25.3 cm wide at the top and 24 cm at the bottom (without the added strip). Thinned, backed with a cradle.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1511; earliest possible creation date: 1513; statistically more plausible production date: after 1519.

**PREPARATION OF SUPPORT:** White. Peach-colored intermediate layer visible in cross section.

**PREPARATORY DESIGN:** Scant underdrawing includes some contours in a liquid medium but no shading. Though the drawing is most complex in the cardinal’s wrists and hands, this should not be confused with painted outlines that also register in IRR. It is possible that the same material was used for both the paint and the underdrawing, for many of the painted lines and washes appear similar to the drawing in IRR. It is unclear if, and to what degree, earlier restoration materials register in IRR. The underdrawing lies over the peach-colored intermediate layer. Among changes that occurred between drawing and painting, the little finger and ring finger of the proper left hand were shortened, and the top right angel was not followed exactly in the paint. These observations should be confirmed after the present cleaning of the painting.

**PAINT LAYERS:** The painting method was direct, beginning with thin washes of dark underpaint to block in shadow areas and continuing to work out the composition in successively lighter paint layers, with lead white used for modeling applied last. Vermeyen used fine, feathery brush-work in the final surface throughout both panels. This painterly handling of the fur collar has been more visible in IR than in natural light owing to the darkened varnish. Cross section analysis and additional

examination of the paint surface with binocular microscope confirm that the green drapery was executed with identical paint mixtures and layer structure as on the companion panel.

Various changes appear to have been made during the painting process, but our observations were made before the over-paint from two restorations was removed in 2006. The following findings should be confirmed after treatment. The reserve for the angel at the upper left had a more horizontal contour at the top of the wings, whereas they were painted upright. Several folds in the sitter’s proper right sleeve were repainted in a different configuration. The fringed edge of the curtain was added over highlights from the first paint stage that depicted a clean edge. Also, the little finger and ring finger on the proper left hand were more curled in the reserve, then extended in the final paint, while the thumb and little finger were lengthened and the index finger on the right hand was made larger. The most x-ray-opaque areas of the fingers are in the top layer (the areas of change). By contrast, it was the first painting of the cardinal’s hat that used denser pigment, and the hat was altered using a paint more transparent to x-rays. This change may represent later overpaint, for the initial form of the hat (as seen in the x-radiograph, which shows more forehead) resembles one Vermeyen depicted on De la Marck in an etching now in the Bibliothèque Nationale, Paris. Yet the present hat was copied in a version of the portrait that was in the Arenberg collection in 1905 (see Lejeune 1948, 110).

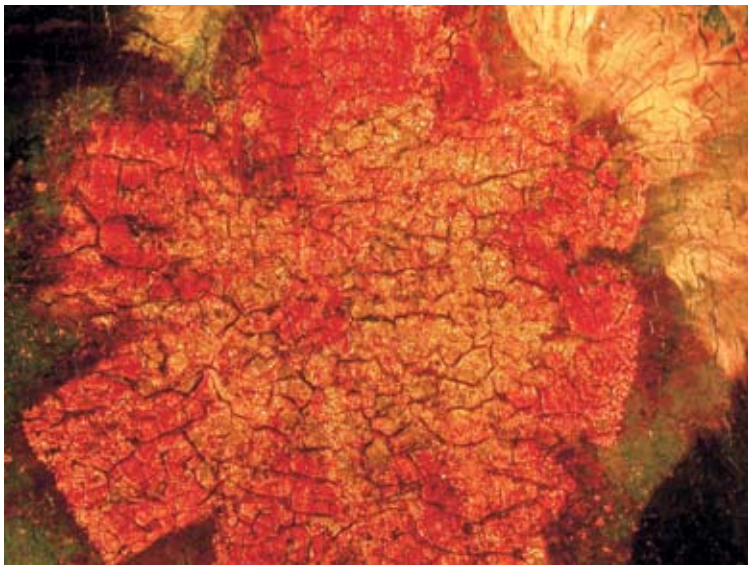
In addition to the usual retouching of edges and joins, some damage appears to have been inflicted deliberately. Repeated scratches through the left eye suggest that the panel might have been damaged by iconoclasts.

THE HOLY FAMILY (db no. 45.90)
Frans Hals Museum, Haarlem, inv. no. 683; on loan since 1948 from the Rijksdienst Beeldende Kunst, inv. no. 05 75–328

**FRAME:** Not original.

**SUPPORT:** Oak, 64.3 × 54.6 / 54.5. Two planks with vertical grain. The reverse is unpainted and may have always been so. Three horizontal battens were once attached to the reverse at the top, middle, and bottom, but squared inserts now span the join, likely applied when the battens were removed. The join is 27.5 cm from the left at the top, 27.2 cm at the bottom. The bevels on the reverse are distinct at the lateral edges, but barely noticeable at the top and bottom.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1520; earliest possible creation date: 1522; statistically more plausible production date: after 1528.



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**PREPARATION OF SUPPORT:** White, extending to all edges. Cross section analysis established the presence of a peach-colored intermediate layer like the one observed on *Cardinal Énard de la Marck*.

**PREPARATORY DESIGN:** The underdrawing was relatively summary, though more elaborated than in the portrait. Areas where the style and method of drawing can be best seen in the IRR are in the blue drapery under Christ's feet and in Joseph's sleeve, which was drawn farther down into the white garment on the Virgin's shoulder.

**PAINT LAYERS:** The paint handling was fully comparable to that in *Cardinal Énard de la Marck*. The green background draperies are identical across the two panels, as seen in IRR, and the structure and composition of the paint is the same. The finishing brushwork was similarly fine and feathery, as in the Virgin's white sleeve at the proper left shoulder, where a blended scumble of gray was carefully worked with wet streaks over the white. The mordant for the gold leaf is mostly white, with some blue and black particles, and the center of the red carnation is gilded, with a red glaze over the gilding (fig. 8).

The IRR assembly suggests that the Christ child's proper left hand was not planned in this position, for it overlaps the paint used for Mary's shoulder. There appears to be underdrawing for the present placement of the hand, but this may be an example of the painter's characteristic use of painted outlines. The Virgin's robe was extended in this location, probably to separate the hand visually from Joseph's drapery. Christ's right foot was painted with more space between the toes, then

repainted narrower. The contour of the little finger on the Virgin's right hand departs slightly from the original, and her eyes were lower and smaller in an earlier paint stage. A change in the contour of the blue drape to the left of the Virgin creates a broad diagonal band of highlight leading to her hand and reinforcing the triangular composition while emphasizing the green drapery in the background. As in the portrait panel, these observations should be confirmed after the present treatment.

#### Summary

These two paintings were recently identified as subjects mentioned in the inventory of Margaret of Austria (see entry). Strong iconographical, compositional, material, and technical indications do support their having once formed a pair. The sizes of the panels are virtually identical, and differ from all of Vermeyen's other extant portraits. The preparation layers are fully comparable, including the same peach-colored intermediate layer beneath the underdrawing. The underdrawing of the cardinal's hands, being more developed than the rest of the panel, may imply the artist's reuse of sketches of hands that he had prepared independently. The underdrawing of the hands is similar to that seen in *The Holy Family*, which may also use such sketches. The pigment mixture, layers, and painting technique in the green draperies are the same in both panels. The paint handling throughout both panels relies on underpainting and direct modeling with many small adjustments, most of which enhanced the relationship of the panels to one another. The works appear to have been pendants, but because the reverse of the portrait was thinned and cradled, it cannot be excluded that they formed a stationary diptych.

### Cat. 36. Rogier van der Weyden

SAINT GEORGE AND THE DRAGON and VIRGIN AND CHILD

SAINT GEORGE AND THE DRAGON (db no. 4.6)

National Gallery of Art, Washington, inv. no. 1966.1.1  
Examined at NGA: 19–23 May 2003 by CM, AP, RS; 31 March–1 April 2005 by CM, CVD

#### Documentation and analyses

unknown date and operator at NGA: x-radiography  
2005 at NGA: Phase One visible and IR as well as Inframetries IRR by CVD; binocular microscopy by CM

**FRAME:** Not original.

**SUPPORT:** Panel, 15.2 × 11.8. Original support with vertical grain has been trimmed, thinned, set into vertically grained panel, and marouflaged to horizontally grained panel. A crack extends from the bottom up through the dragon's tail and the horse's foot to the height of the horse's flank.

**DENDROCHRONOLOGY:** No longer possible because of the altered support.

**PREPARATION OF SUPPORT:** White (est.). Hints of an upturn in the ground along all four edges suggest the support was trimmed at the barbe.

**PREPARATORY DESIGN:** The composition was drawn freehand with a liquid material, possibly executed with a pen. The dragon, horse, and Saint George are fully described, as are the major hills, towers, and wall in the background. The underdrawing is visible to the naked eye in some locations. The female figure does not appear to have been part of the original plan, as the line of the hill on which she kneels continues through her face, and all the lines in her attire and features that are visible in IRR can also be seen on the surface. The horse was drawn with a smaller head and rump and with a wide band across his withers, shoulders, and chest.

**PAINT LAYERS:** The paint was applied in thin, opaque layers, using painstaking brush strokes to build up form, volume, and detail. The astonishing degree of detail must have required the use of a magnification device, for magnification is required to see some of the most distant figures. A diagonal depression along the right side at the top of Saint George's lance may be an incised line, for the craquelure is primarily rectilinear, yet this line does not continue the full length of the lance. As is illustrated in the IRR, the female figure appears to have been painted over the completed hill on which she kneels. The x-radiograph also shows a continuous area of increased density from the light green hill behind her head.

VIRGIN AND CHILD (db no. 4.7)  
Museo Thyssen-Bornemisza, Madrid, inv. no. 1930.25

Examined at MTB: 13–21 September 2004 by CM, RS, CVD, AV

#### Documentation and analyses

2004 at MTB: Phase One visible and IR as well as Inframetries IRR by CVD, AV; micrographs by CM, RS; x-radiography by RayXArt, Madrid

**FRAME:** Not original.

**SUPPORT:** Panel, 15.8 × 11.4, with vertical grain, which has been thinned, inset into an auxiliary panel, and cradled. The visible unpainted edges are part of the secondary panel and thus not original. There are two cracks extending from the bottom through the right side of the Virgin's robe: the one on the left extends the entire height of the panel, the one on the right only halfway.

**DENDROCHRONOLOGY:** Not possible because of the altered support.

**PREPARATION OF SUPPORT:** White (est.). No intermediate layer evident. The bottom edge has a faint hint of a barbe. Losses and exposed ground at right and left suggest that the ground was upturned at the edges, implying that the painted surface remains largely intact in these places.

**PREPARATORY DESIGN:** The arch, its columns, their bases, and the trelliswork inside are incised, and a spare outline places the architecture, its carved embellishments, and the figures. The underdrawing is schematic, with the Virgin's eyes indicated with circles and her mouth and nose with short upcurved dashes. The

drawing material may have been liquid. The Virgin's face was drawn higher than it was painted. A second column with a carved figure on top was drawn on the left side, nearer the Virgin, but not carried into a paint stage, while the lower right corner of the architecture was drawn smaller and narrower than it was painted.

**PAINT LAYERS:** The paint handling is comparable to that in the *Saint George*. The paint is very thin and was applied with precision. The larger background shapes were blocked in first using a monochrome layer, then modeling and detail were added with thin washes and liquid lines. The Virgin's blue robe was executed with the thickest paint. As in the *Saint George*, detail is extraordinarily fine, with two colors used for each jewel in the Virgin's crown.

#### Summary

These two works were most likely the front and back of a single panel, which was divided and the two sides marouflaged onto individual supports. When the paintings are viewed back-to-back, the crack in the *Saint George* aligns perfectly with the lower part of the left crack in the *Virgin and Child*. The Virgin suffered further damage following the separation of the two paintings, with the first crack extending the height of the panel and a new crack having formed. The intimate kinship of the underdrawing material and type, the painting technique (including incised lines), and the precision of the paint application points to their execution by the same hand.

### Cat. 37. Rogier van der Weyden

VIRGIN AND CHILD with reverse: DOUBLE PULLEY and JEAN DE GROS with reverse: COAT OF ARMS OF THE DE GROS FAMILY

VIRGIN AND CHILD (db no. 5.8)  
Musée des Beaux-Arts, Tournai, inv. no. 481  
Examined at SRAL: 15–27 September 2003 by CM, RS, CVD, AV

#### Documentation and analyses

2000 at Tournai: dendrochronology by FK  
2003 at SRAL: Phase One visible and IR as well as Inframetries IRR by CVD, AV; binocular microscopy by CM, RS; x-radiography by AT

**FRAME:** Not original.

**SUPPORT:** Oak, 38.7 × 28.5 / 28.6. Two planks, vertical grain. The left plank is 3.5 cm wide at the top and 3.2 cm at the bottom; the right is 2.5 cm at the top and 2.4 cm at the bottom. There are shallow bevels on the reverse at all four edges. The paint on the reverse is not original.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1453; earliest possible creation date: 1455; statistically more plausible production date: after 1469. One of the planks is from the same tree as one used for *Jean de Gros*.

**PREPARATION OF SUPPORT:** White (est.). There is a barbe on all four sides. Faint, horizontal striations from an intermediate layer are visible in the x-radiograph. Photomicrographs suggest the intermediate layer may be flesh-colored.

**PREPARATORY DESIGN:** An assured contour line in a liquid material describes the main contours (where there is original paint). No hatching was observed. The parts of the painting that are original follow the underdrawing closely.

**PAINT LAYERS:** The painting had been severely damaged and was largely reconstructed by restorer Joseph-Marie (Jef) van de Veken in the late 1930s (see Verougstraete and Van Schoute 2001, 7–28; and exh. cat. Bruges 2004–2005, 62–77, no. 3). Still-original portions include the forehead, eyes, and nose of Christ, the hair, head, and neck of the Virgin with the exception of three large losses through the nose and mouth, the left cheek and forehead, and the left side of the neck. The Virgin's upper hand is largely original, as are the Child's lower abdomen, shins, and forward foot.

The flesh paint has a pinkish tonality, softly modeled with a translucent reddish brown. The underdrawing for the upper lid of the Virgin's proper right eye is faintly visible through the whites and serves as a shadow of the eyelid. A small admixture of blue pigment shades the lower portion of the eyeball. The small portion of brocade sleeve that is original shows a sophisticated mixture of red lake glazes over broader masses of opaque red with highlights placed as precise lines and dots of lead-tin yellow.

JEAN DE GROS with reverse: COAT OF ARMS OF THE DE GROS FAMILY  
The Art Institute of Chicago, inv. no. 1933.1052a-b  
Not examined.

#### Summary

This diptych has suffered tremendously from damages and restorations. The donor panel had the back separated from the front, and only about a third of the *Virgin and Child* is original. Yet sufficient evidence of the hand of Rogier van der Weyden remains to accept the work as his, and the fact that the main boards of each panel are from the same tree adds weight to the evidence provided by the nearly identical dimensions (known to be original thanks to the presence of a full barbe on both paintings) for these panels to be considered two wings of a folding diptych.

### Cat. 38. Rogier van der Weyden

VIRGIN AND CHILD and PHILIPPE DE CROÿ with reverse: COAT OF ARMS OF THE DE CROÿ FAMILY

VIRGIN AND CHILD (db no. 6.10)  
Masonite, transferred from canvas, originally on panel, 50.8 × 33  
(treatment record, Mark Leonard, May 1994)

The Huntington Library, Art Collections, and Botanical Gardens; The Arabella D.Huntington Memorial Art Collection, inv. no. 26.105  
Not examined.

PHILIPPE DE CROÿ (db no. 6.11)  
Koninklijk Museum voor Schone Kunsten, Antwerp, inv. no. 254  
Examined at KMSKA: 11–22 November 2003 by CM, RS, CVD, AV

#### Documentation and analyses

2003 at KMSKA: Phase One visible and IR as well as Inframetries IRR by CVD, AV; binocular microscopy by CM, RS; x-radiography by AT; dendrochronology by FK  
2005 at NGA: cross sections and cross section analysis by MP

**FRAME:** Not original.

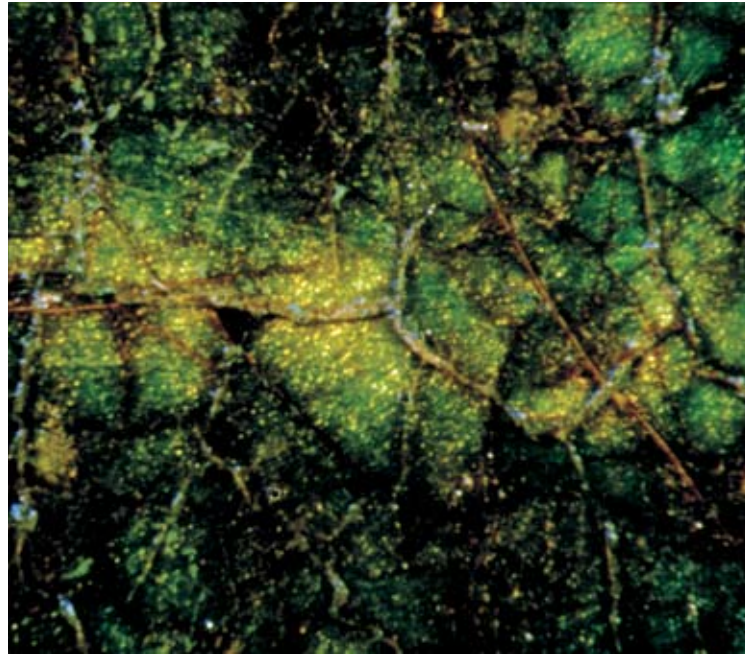
**SUPPORT:** Oak, 51.5 × 33.6 / 33.45. Two boards. The original support is 27 cm wide at the top, 26.7 at the bottom, with an added modern strip on the right side. The reverse is painted with the donor's coat of arms.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1449; earliest possible creation date: 1451; statistically more plausible production date: after 1465.

**PREPARATION OF SUPPORT:** White. There is a barbe on the top, left, and bottom. No intermediate layer is evident in the x-radiograph or IRR, but cross section examination reveals a fawn-colored layer under the paint overall, and a second, lighter layer over it in the area of face.

**PREPARATORY DESIGN:** An expressive outline describes the outer contours of the face and neck, the upper line of the sleeve, and the hand. The join of the lips is underdrawn, and there are faint indications of the arc of the eyelids and curve of the nose. The shading under the proper left cheekbone is indicated with a cluster of fine lines. Thin, possibly ruled lines mark folds in the green cloth background. The hand and the end of the sleeve were drawn farther to the left, then redrawn after the first paint stage had been applied.

FIG. 8  
Micrograph of the carnation in the *Virgin and Child*



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**PAINT LAYERS:** The painting method is deliberate, thoughtful, and assured. Folds in the background cloth were rendered with successive applications of green glaze. Underneath the entire cloth lies a reflective base of silver leaf (fig. 9; confirmed by x-ray fluorescence spectroscopy [XRF] analysis). The flesh was blended wet-in-wet, with defining lines of reddish umber in shadowed areas. The underlying fawn-colored paint was used as a middle tone in the fingers. The gold necklace was built up using three colors of paint, each lighter in hue, superimposed dot upon dot. Each bead of the rosary was described with at least four colors, and the small crucifix at its end was shaded with red. Highlights on the velvet garment, which was painted with a mixture of red lake and azurite, were achieved with strokes of white paint brushed while wet to create feathered contours. The monogram in the upper left was executed in paint, rather than in mordant gilding. The hand was left in reserve following the first drawing, and the first paint layer of the sleeve ended at the point indicated in that drawing. The hand and sleeve were repainted after their position was redrawn.

**FIG. 9**  
Micrograph from background of the *Philippe de Croÿ*, showing silver leaf under the green surface paint

**COAT OF ARMS OF THE DE CROÿ FAMILY** (db no. 6.134); reverse of **PHILIPPE DE CROÿ**

**PREPARATION OF SUPPORT:** White. A pinkish brown isolation layer lies over the preparation.

**PREPARATORY DESIGN:** There may be a layout of the contours in a broad curving line, but it is difficult to distinguish underdrawing from the linear application of black paint on the surface.

**PAINT LAYERS:** The helmet and swirling ribbons were underlaid with gold leaf, and the wings and shield were underlaid with silver leaf. The red, white, and green vertical panels were painted around the shapes defined in metal leaf, which created sharp silhouettes in the x-radiograph. The areas of gold and silver leaf (confirmed by XRF analysis) were articulated with linear shading and decorative jewels, and patterns were applied with a sure hand. The inscription was painted with yellow paint.

#### Summary

The studied but masterful handling of paint is typical of Rogier, as is the adjustment in the positioning of the sitter's hands. Both silver and gold leaf were used in the depiction of De Croÿ's coat of arms, and the presence of silver leaf in the background of the donor portrait and gold leaf in the background of the *Virgin and Child* may support the concept that these two panels originally formed a folding diptych.

### Cat. 40. Follower of Rogier van der Weyden, Unidentified artist, and Follower of Gerard David

**VIRGIN AND CHILD** and **JOOS VAN DER BURCH AND SAINT SIMON OF JERUSALEM** with reverse: **EPITAPH AND COATS OF ARMS OF JOOS VAN DER BURCH AND KATHELINE VAN DER MERSCH** Harvard University Art Museums, Fogg Art Museum, inv. no. 1906a-b Examined at HUAM: 3–7 March 2003 by CM, AP, RS; and 9–18 May 2005 by NK, CM, RS

#### Documentation and analyses

1930s at HUAM: x-radiography and stereo-x-radiography (right wing only) by Alan Burroughs  
1996 at HUAM: Hamamatsu IRR by RS  
2003 at HUAM: Inframetrics IRR by AP, RS; Phase One IR by RS  
2004 at HUAM: strati-x-radiography by HL, RS  
2005 at HUAM: Phase One visible and IR by CVD; binocular microscopy by CM, RS; binocular microscopy by NK, RS; cross sections and analysis by NK

**VIRGIN AND CHILD** (db no. 9.17)

**FRAME:** Not original.

**SUPPORT:** Transferred twice, first from panel to canvas on oak, then to a composite board of redwood blocks, 56.6 × 36.8 / 37. There is no evidence of a join in the surface.

**PREPARATION OF SUPPORT:** White (est.). Extensive treatment has made it difficult, without cross sections, to determine if there is an intermediate layer. Despite the many interventions, a barbe can be seen at all edges, proof that the original dimensions are retained.

**PREPARATORY DESIGN:** The underdrawing was fluid and confident. It laid out all important elements of the composition accurately and without hesitation (i.e., the hands, including fingernails, were described with single smooth contours). No hatching was observed. The only area with multiple lines is in the hair. The drapery folds were completely defined. No notable changes were made from the underdrawing to the paint stage.

**PAINT LAYERS:** The paint is thin and was smoothly applied, with careful attention to linear description. Features such as lips and eyes were rendered with flat planes of color, while details like fingernails, the space between the lips, individual strands of hair, and the stream of milk from the Virgin's breast were painted with precision. Eyelashes were created with short lines of wet paint from the iris pulled over the flesh tones. The brocade pattern was painted with multiple layers of glaze, as were folds in the red drapery. The landscape is thorough but lacks Rogier's scrupulous touch.

The coat of arms in the window was painted over a completed image of Moses. It is difficult to prove without cross sections whether this paint is contemporary with the image of the Virgin, but with microscopy the paint of the coat of arms appears to cross over underlying cracks. This, as well as evidence that the panels were painted by different hands, suggests that it was added slightly later, when the wings were joined.

**JOOS VAN DER BURCH AND SAINT SIMON OF JERUSALEM** (db no. 9.16)

**FRAME:** Not original.

**SUPPORT:** Oak, 56.2 / 56.0 × 35.6 / 35.8. Single board, vertical grain. All four edges have a shallow bevel. Epitaph and the donor's coats of arms are painted on the reverse.

**DENDROCHRONOLOGY:** Earliest possible felling date: 1477; earliest possible creation date: 1479; statistically more plausible production date: after 1493.

**PREPARATION OF SUPPORT:** White. In a cross section, four layers of ground could be distinguished, three relatively coarse layers and a finer top layer. There is a continuous barbe around all four sides. No intermediate layer is apparent.

**PREPARATORY DESIGN:** The original donor portrait and Saint Simon were drawn with a coarse dry material that skipped over the texture of the ground. The drawing includes both contour lines and parallel hatching. It is descriptive without being exact. Zones of hatching define the shadow. The present donor portrait (see below) is not underdrawn. The lines of drawing for the first donor's face are visible only intermittently, at the eyes, nose, and midline of the mouth. No drawing was revealed in the landscape.

**PAINT LAYERS:** The paint was used in opaque as well as transparent layers. Colors mixed on the palette were laid adjacent to one another, sometimes with wet-in-wet blending of edges. Glazes were used in the green and red.

The current donor portrait was painted over the larger face and shoulders of an original donor, who had been depicted more in profile. X-radiography and IRR reveal the first donor's eyes and nose. The final head was painted with soft modeling, at which time the painter also extended the landscape over the first donor's hair. These elements have now darkened.

The painted architecture in the background, which has suffered considerable damage, appears to have been largely overpainted. A layer of darkened blue overpaint was found in two places in the bishop's bright blue garment at the right edge of the panel (to the right of the orphrey). A cross section from this area established that some of the overpaint (a medium-rich mixture of azurite with red and some black particles) leached into the original paint (a less rich layer of azurite without any visible admixtures), implying that the original layer was cleaned before the overpaint was applied. A large area behind the donor's shoulder, starting at the lower left corner of the clasp of the bishop's robe, was also overpainted.

**EPITAPH AND COATS OF ARMS OF JOOS VAN DER BURCH AND KATHELINE VAN DER MERSCH** (db no. 9.179); reverse of **JOOS VAN DER BURCH AND SAINT SIMON OF JERUSALEM**

**PREPARATION OF SUPPORT:** White. In a cross section two layers of ground could be distinguished. No intermediate layer is apparent.

**PREPARATORY DESIGN:** None.

**PAINT LAYERS:** The coat of arms was painted directly over a different coat of arms without blocking it out. The rest of the reverse—including a large helmet and red crest that embellished the initial coat of arms—was covered with a dark overpaint on which the letters for the epitaph were applied in mordant gilding. A cross section from an area of the red crest shows an earlier paint layer, most likely of marbling. Both that layer and the red were coated with varnish before further paint was applied.

#### Summary

The production history of the donor wing is highly complex. The original reverse was most likely marbled. The helmet and red crest on the coat of arms of the first donor were painted atop this marbling. Later, the current epitaph was painted over the helmet and red crest and the coats of arms were changed. The present portrait replaced that of the previous donor, presumably at the same time—shortly after 1496 (see entry). Concurrently, Saint Simon of Jerusalem and much of the background architecture appear to have been blocked out with a dark paint layer. During a subsequent intervention the overpaint was removed from the bishop saint, leaving the second donor's portrait largely intact but confusing the contours of the first and second donor's shoulders. This intervention probably also necessitated repair of damaged paint surfaces, as in the rich blue garment of the bishop at the far right and in the background architecture.