

Attribution	British school, early 17 th century	RECORD No.
Subject	Portrait of a Man	2238
Collection	Cambridge, Clare College	

EXAMINATION REPORT

Materials: Oil on canvas

Dimensions: 193.5 x 119.8 cm

Frame: ?

Inscriptions/labels:

Chalk writing on stretcher, horizontal cross bar: 'Feb 24-38'

Left hand vertical stretcher bar '...14-24'

Stamp on stretcher: '3 8 4 DV S S 3 GT'

Condition Report

Auxiliary Support:

The auxiliary support is a softwood stretcher comprising six members, approximately 10 cm in width. Joints are square mortise and tenon and are slightly keyed out. The stretcher may not be original, and could have been replaced when the painting was lined.

- All keys are present (12 in total), not tied in.
- The stretcher is in good condition, though dusty.

Primary Support

The primary support is a plain weave canvas, not machine wove. It has been lined and does not have original tacking margins.

- The canvas appears to be in adequate condition.
- Several small holes and tears are thought to be present, which have previously been repaired and retouched over.

Lining canvas

The lining canvas is a plain weave linen canvas. The lining adhesive is thought to be glue-paste and residues of a yellow adhesive are visible at the edges of the original canvas. The edges of the lining canvas are pasted to the back of the stretcher. Attachment is through iron tacks at 5-6 cm intervals.

- The tacks are rusting and the canvas is stained around the tack heads.
- Several tears and holes are present along the tacking edges, probably caused by scrapes to the edges. However, tears are small compared to the length of the tacking margins. The painting has had no frame in recent times, making the edges vulnerable to damage.
- The canvas along the top edge is starting to split where it turns over the stretcher bar near the corners. The canvas is also splitting and peeling away at the corners and breaking over the joints in the stretcher.
- The adhesion of the lining is satisfactory, tension is adequate.
- A small canvas patch is stuck to the back of the canvas to lower right of centre. The frayed edges of this are lifting.
- There is a bulge in the lower right corner (viewed from front) probably caused by a foreign object/dirt trapped behind the stretcher bar.
- The canvas back is very dirty. Cobweb material is visible behind the bottom stretcher bar.

Ground

The ground appears to be grey-brown in colour through scuff marks to the edges, though it is difficult to see if these damages go as far as the ground.

Paint

Oil, smoothly painted, though obscured by dirt and varnish layers. Impasto is used to describe the decoration on the costume in lace and brocade. The paint has a wrinkled appearance on the sitter's left hand.

Cracking:

- Fine age craquelure throughout. The cracks running horizontally are the most prominent, some having raised edges.
- Some drying cracks are present in the medallion.

Losses / flaking :

- Several previously restored losses (see below)
- Two small losses at the bottom edge.
- No flaking is apparent.

Abrasion:

- There are scuffs to the paint at the edges, probably due to the frame.
- There are a few small scrapes to varnish/paint on the left side of the figure.

Previous restoration:

- There are several areas of retouching paint, which may be over paint losses and tears/damages to the canvas. One larger area is over the canvas patch seen previously on the back of the canvas. Some areas of repaint are visible mainly due to their smoother surface compared to the aged, cracked original paint, others have a lumpy appearance.
- Old retouchings on the white parts of the costume have darkened considerably. These appear to be on top of the varnish, but it is uncertain what many of them cover.

Varnish

- The varnish is very yellowed and darkened and appears fairly thick, with a fine crazing on the surface. Examination under UV shows a thick, green-fluorescing layer, through which barely any of the image underneath can be seen.
- Some dark drips are visible which may be within the varnish or could be associated with the paint surface.

Dirt

- A layer of dusty dirt is present over the surface.
- Some white horizontal smears in the lower right area.

The image is extremely obscured by the thick dirt and varnish layers, making it difficult to judge the condition of the paint beneath and the extent of overpainting.

Treatment Proposal

1. Remove dirt and debris from behind bottom stretcher bar. Clean back of canvas and stretcher with brush and vacuum cleaner, followed by smoke sponge.
2. Clean front of painting.
3. Consolidate paint at edges of losses, where necessary.
4. Remove yellowed varnish.
5. Remove discoloured retouchings. Other retouching may or may not also be removed. On initial inspection the obscuring nature of the dirt and varnish layers make it difficult to assess this.
6. Remove patch from back of canvas, as this may start to become visible on the front. Some replacement form of repair may be necessary, depending on what is found under the patch.
7. Local repairs to the canvas of the tacking margins where split.
8. Apply initial varnish layer.
9. Fill and retouch losses.
10. Final varnish.

Examined by: Joanna Russell
Supervisor: Mary Kempinski
Date: 26th October 2005

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TREATMENT REPORT

Cleaning verso

The painting was turned upside-down and the foreign object caught behind the stretcher at the bottom right corner was eased out using a palette knife. This was found to be two pieces of gilded gesso moulding from a frame. The back of the canvas was brushed to remove loose dirt and a smoke sponge was used to remove the more engrained dirt. A low-suction vacuum cleaner was used to remove the loosened dirt.

Surface cleaning recto

The front of the painting was cleaned using ammonia solution at approximately pH 8.5. This removed a fair amount of greyish dirt, but the appearance of the painting was still very dark after surface cleaning.

Varnish removal

Varnish removal tests were carried out using a mixture of IMS and Shellsol T. An area of the white cloak at the left hand side of the image was chosen for the tests. A 1:8 ratio mixture was found to slowly remove the uppermost varnish layer and also brought away a large amount of dark material. From this it appears that the top varnish covers a layer of dirt. The removal of this dirty varnish resulted in a marked brightening of the colours and had a far greater cleaning effect than the surface cleaning had done. However, the surface was still yellowish in appearance and it was clear that another varnish was present beneath the top varnish and dirt layers. Further cleaning with the same solvent mixture removed this yellow varnish layer, revealing a truer picture of the colour beneath. The overall cleaning effect of removing both varnish layers was very marked, showing how obscured the image had been previously (see Figure 1, left).

The cleaning test was expanded into the area of shadow below the sitter's right arm, which revealed that this area had been extensively overpainted with brown paint. This paint was readily removed with the solvent, revealing a continuation of the grey shadow of the cloak. Extending the cleaning test still further uncovered an area of black paint with a curved boundary (see Figure 1, right). From this small uncovered area it appeared that some alteration had been made to the composition.

Infrared examination

The area near the sitter's right arm was examined using an infrared vidicon. This revealed a dark shape under the arm covering the area where the tassels are painted. Subsequent examination in normal light showed a slight texture difference between this dark object and surrounding paint, making it possible to see this rounded shape. The red paint in this area, when examined more closely, was observed to be more orange and opaque than the red paint elsewhere, with a less brittle appearance and fewer cracks.

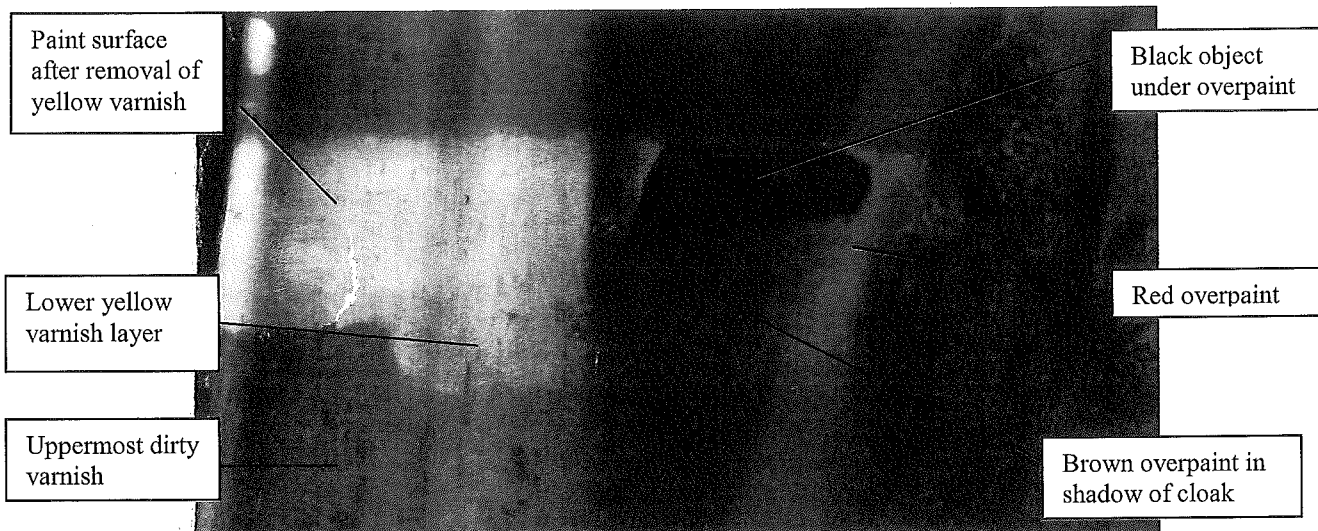


Figure 1. Area under right arm showing cleaning tests. On the left the marked effect of removing the varnish layers can be seen, while on the right the cleaning test is extended through the brown and red overpaint, revealing a dark shape underneath.

X-radiography

X-rays of the area revealed the same shape as observed under IR, but also showed a badge or medal of some kind was present on the black object (see Figure 2). The badge consists of a circular design topped with some plumes. The shape of the dark object suggests a hat, or possibly a purse or pouch. If this object does prove to be a hat, it is possible that the hat the sitter is wearing was added at the same time that this alteration was made, as it is unlikely for him to be carrying one hat and wearing another. Another point of interest is that the garter chain does not show up in the x-ray, while the decoration on the glove does. This shows that different pigments were used for the badge under the overpaint and glove decoration (probably lead-containing pigments) than for the garter chain.

In the x-ray several damages are visible in the area covered by the hat shape which cannot be detected from the surface in the overpaint. These damages must therefore be in the paint of the hat itself, and have subsequently been covered by the overpaint. This shows that the portrait had already suffered damage before the overpainting occurred, suggesting that this change was made some time after the portrait was finished.

Further cleaning tests

Looking again at the tassels it appears that one is more crudely painted than the other and it was thought that possibly one of these was added later over the red repaint. Cleaning tests in fact showed that both tassels were painted on top of the red paint, so that the whole of this area has been painted later on top of the black object. Presumably the cord from which the tassels hang would also have been added at this time.

Cleaning tests were then carried out on the garter medal. Using a 1:2 mixture of IMS: Shellsol T, the paint of the medal began to break up. The paint was removed partly through the undercutting of an intervening varnish layer, as well as softening of the paint itself. Cleaning tests on the hat displayed a similar phenomenon. This evidence suggests that both the garter chain and hat are later additions, painted over an intervening varnish layer.

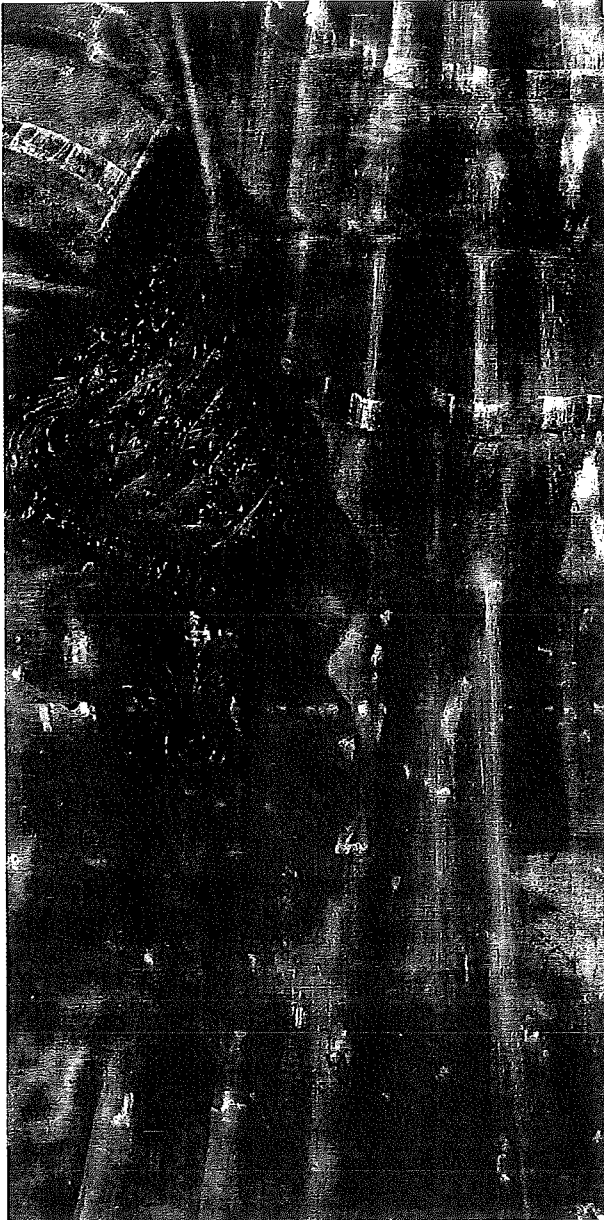


Figure 2. X-radiograph of the left hand section of the painting, showing the outline of a rounded object under the gloved hand. A detail of the badge found on the object is shown above.

The sitter's left hand, which had previously been observed to have a wrinkled paint texture was also tested. This was found to have a readily soluble overpaint layer under the dirty varnish, underneath which was a yellow-brown varnish. Continuing the cleaning test through this second varnish layer revealed a paler flesh-coloured paint, which appeared to be in good condition despite the wholesale overpainting of this area (see Figure 3). It is possible that the hand was overpainted to disguise the extremely discoloured varnish coating, which gave the hand an orange appearance. This was probably an easier procedure than the removal of this discoloured coating.



4. Original flesh paint

3. Yellow varnish

2. Flesh-coloured overpaint

1. Dark varnish

Figure 3. Detail of sitter's left hand, with cleaning test showing painting layers (1= uppermost layer)

A cleaning test on the left glove decoration revealed the grey paint of the pearls to be readily soluble, while the lighter braiding and pearl highlights were stable. Closer examination of the grey paint of the pearls showed that they were painted on top of dark cracks in the red paint beneath (Figure 4). From this it was uncertain whether the glove decoration was also a later addition or whether the pearls had been strengthened during a previous restoration.

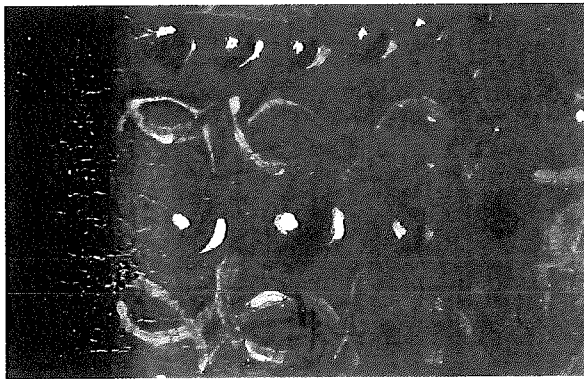


Figure 4. Detail of left glove decoration. The dark cracks in the red paint can be seen running underneath the translucent grey paint of the pearl

Cross sections

Samples were taken from different areas of the painting at the site of cracks or damages:

1. Pearl on left glove

The cross section appeared to consist of a grey paint with a highlight on top, over a varnish layer. Beneath this was an incomplete red glaze and red paint. This shows that the pearl was added over a varnish layer, therefore is likely to be a later addition. The incompleteness of the red glaze and lack of clear boundary between this and the varnish above suggests that the area was aggressively cleaned in the past, removing part of the red glaze. It is unclear whether or not the pearls were part of the original design and were possibly removed or damaged at the same time as the cleaning, then touched back in, or whether they were added later as an embellishment at the same time that the other alterations were made.

2. St. George medal on garter chain

The cross section has white, yellow and grey layers over a thick varnish, on top of the red layers of the robe. This again provides evidence that the medal was a later addition, as the paint layers are on top of a thick varnish, which appears to consist of several layers. The red paint beneath appears to consist of two orange-red layers with a red glaze between. In UV this layer has a pinkish fluorescence, suggesting a madder lake.

4. Top of tassel, over area of overpainted badge and hat

A tracing was made of the x-ray showing the badge, and the tracing was matched to visible features on the painting. The tracing was used to pinpoint the location of the badge on the painting. An area corresponding to the outline of the badge on the x-ray was chosen for sampling, in the hope that a sample of the badge paint could be identified in a cross section.

The cross section has two layers of varnish on top, over a mustard coloured paint from the tassel, over red/brown paint layers from the red overpaint of the robe. A thin varnish layer beneath this is visible in UV, followed by a white paint which is thought to be from the highlight on the badge. This paint probably contains lead white, causing the badge to show up on the x-ray. Underneath this layer is a black paint, which would correspond with the dark hat/bag seen through the cleaning tests.

5. Badge on hat (on head)

A thick yellow paint is seen in the cross section, intermingling at the top surface with a fluorescing varnish. The yellow from the badge is over a black paint layer from the hat. Several varnish layers are present under the black paint, separating this from a grey paint underneath, which may be from the sitter's hair. This provides evidence that the hat is also a later addition, as several varnish layers were applied over the grey paint before the black of the hat was added. It seems probable that the sitter was originally bare-headed and carried a hat. The present hat would therefore have been added over the original hair.

Removal of top varnish layer

It was decided that the top layer of dirty varnish should be removed from the surface of the whole painting to facilitate further investigation. The removal of this highly obscuring layer made it easier to judge the status of the paint beneath. As this layer was on top of the major areas of overpaint it could be removed before deciding how the overpainted areas should be treated. The varnish was removed using a 1:5 mixture of IMS and Shellsol T. The varnish underneath was affected quite slowly by this mixture, meaning the top varnish could be removed with a fair degree of selectivity.

Removal of this very dark layer made it much easier to see the boundary between the original paint and the overpaint below the sitter's right arm. It also revealed some awkwardness in the way the additions were painted, making them seem of inferior quality to the original painting. For example on the left

shoulder a Garter motif appears which stops short of the edge of the shoulder and also bears little relation to the folds beneath. The hat on the head also appears unconvincing in the way the outline sits over his head and hair.

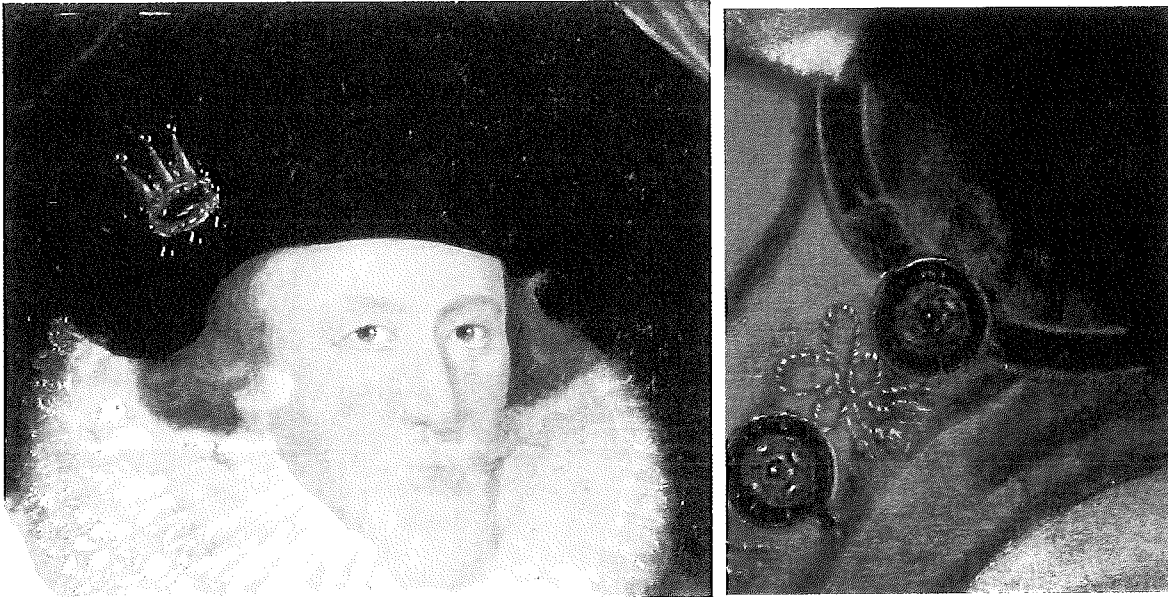


Figure 5. Details of hat and left shoulder after initial cleaning, showing how the additions appear to be painted with less care and skill than the original.

Having discovered the alterations, a decision had to be made as to how the portrait should now be presented. The additions could either be removed to take the portrait back to how it might have originally appeared, or they could be left as a historical curiosity. This decision was principally left to the owners of the portrait.

The Garter chain could have been added when the original sitter was created a knight of the Garter having previously been a Baron, however the evidence suggested that the additions were made much later:

1. The solubility of the overpaint in low-polarity solvents
2. The presence of several varnish layers between the overpaint and the original paint.
3. The damages in the paint of the overpainted hat, visible in the x-ray
4. Dark cracks underneath the overpaint of the pearls

After discussion with the owners, it was decided that the remaining yellow varnish and later additions should be removed in order to present the portrait in its original form. The evidence gathered strongly suggested that the alterations were made at a much later date than the portrait itself. It is also unlikely that the Garter collar belonged to the man in the original portrait, due to various inaccuracies in the depiction of the Garter regalia (see Research section). Cleaning tests indicated that the painting beneath was of higher quality and appeared to be largely undamaged. It was also hoped that revealing the original portrait might help to identify the sitter.

Further cleaning

A thick layer of dirty varnish still covered the whole portrait, even after the initial cleaning. A 1:1 mixture of Shellsol T and IMS was used to remove the varnish. Pure IMS was used in some places where the varnish was thicker or more tenacious. As found earlier, this solvent mixture was powerful

enough to remove the large areas of overpaint as well, which lay between two of the varnish layers. The overpaint forming the hat on the man's head, the Garter chain and tassels was removed in this way. Small areas of overpaint were also removed throughout the painting, covering small previously filled losses. Quite a lot of overpaint was also removed from the background, mostly covering areas of abrasion.

The overpaint forming the tassels and garter chain was in some places quite thick, where impasto had been used to make the outline of the rose medallions and the texture of the woven top of the tassel. In these cases islands of overpaint remained after the rest of the paint was removed. These thicker patches were lightly abraded using a glass engraving tool to remove the bulk of the material and avoid the need for repeated application of solvent on these areas.

A black hat with a badge on it was revealed underneath the overpaint below the sitter's right hand, as had been suspected from the x-ray. The badge is painted in red and yellow and had some areas of damage and surrounding abrasion. An area of abrasion was also found at the left side of the sitter's head in an area previously covered by the other hat. This damage may have contributed to the decision to overpaint these two areas, however this seems a rather drastic treatment as the damage is not that severe and would be relatively easy to disguise. It is uncertain why these areas have suffered in this way. The area around the uncovered badge seems the worst affected, making it seem as though the area might have been deliberately abraded in an attempt to obliterate the badge. Small areas of white can be seen on the badge, which might originally have formed the highlights of jewels, but if this is the case the colours of the jewels themselves appear to have been lost.

The pearls on the gloves were previously found to be soluble in the same solvent as the rest of the overpaint, and these were again examined to confirm if they were entirely added later. The pearls did appear to be entirely overpaint, as dark cracks could be seen underneath through the grey paint of the pearls, and a yellow-brown varnish appeared to cover the whole of the glove, also running underneath the pearls. Cleaning tests through the pearls did not reveal any older residues which might indicate that the gloves were originally decorated in this way and that the later paint was merely strengthening. Instead, the silver brocade pattern on the gloves was made more prominent through the cleaning and was revealed to be a fine decoration in its own right.

The removal of the dark, yellowed varnish layer resulted in a much improved appearance, revealing the modelling in the drapery and flesh. However, some dirty residues remained in the texture of the paint and in some cases a slightly cloudy appearance was visible over the surface. Inspection in UV showed that a thin fluorescing varnish layer still remained over the portrait, which was not removed with the Shellsol T/IMS mixture or with pure IMS. This appears to be a very old varnish layer, likely to be highly polar. An ammonia solution, pH 10 was used to remove this thinner yellow-brown varnish layer, again resulting in a brightening of the colours.

Examination of the portrait again in UV confirmed that further alterations had been made to the sitter's face. Strokes of repaint were clearly visible which had been used to change the shape of the beard and lengthen the moustache, covering the sitter's upper lip (see Figure 6). Spots of paint covering areas of abrasion on the face were also made visible. It is uncertain whether these changes resulted from the same campaign as the other alterations. If this is the case it is possible that they weren't removed during the previous cleaning step due to the higher lead white content of this overpaint, making it more stable than some of the other colours. This overpaint was removed using the Shellsol T/IMS mixture again in combination with some mechanical action from the glass engraving tool.



Figure 6
Detail of face in ultraviolet light showing alterations made to beard and moustache.

The white cloak still had quite a yellow appearance after cleaning with ammonia and still appeared to have a yellow-brown coating layer. Areas of grey overpaint were also visible covering damages. A solution of alcoholic caustic (10g NaOH, 115ml water, 435ml IMS) was used to remove this yellow layer and some of the spots of discoloured overpaint.

Varnish also remained on the curtains, giving them a green appearance. A combination of 3% triammonium citrate with ammonia was used to remove this varnish. Cleaning on the curtains removed the yellowish appearance, making them blue rather than green in colour. The traces of red glaze remaining at the edges of the picture were made more apparent, giving a better idea of the original colour of the curtains, which would have been a rich purple made by applying a red glaze over the deep blue folds. Several areas of old retouching paint over damages also had a purplish colour.

The cleaning steps revealed many small damages which had previously been filled and retouched over. The more recent of these had been filled with a white, water soluble putty, probably made from chalk and gelatine. Some of these fills were slightly raised above the picture plane and had a noticeable texture difference from the surrounding paint. In these cases the fill material was removed using a damp swab. In some cases the putty covered small dents to the canvas with no associated loss and appeared to have been used to flatten out these small distortions. With further cleaning, more damages were revealed with an older yellow-orange fill material. This was much harder than the white putty and may have been oil paint-based. The texture of these fills was generally better matched to the original, so these fills were not removed. Some small lumps in the fill material were abraded down using a glass engraving tool to give a smoother surface.

Strengthening the tacking margins

At the top two corners the tacking margins were starting to split along the top edge where the canvas turns over the stretcher from the front of the painting. The tacks were removed from the stretcher in these two corners to gain access to the underside of the canvas in the areas of the splits. The tacking margins had been firmly pasted to the stretcher, presumably during lining. The canvas was dampened to soften the glue and enable it to be loosened from the stretcher. The glue remaining on the canvas was removed using a damp swab.

A fine nylon gauze was prepared with Beva film by using a heated spatula to bond the two together. A patch was cut to cover the area of the split, overlapping onto the front of the picture by about 1.5 cm and covering the full width of the tacking margin. The Beva gauze was fed underneath the corner of the stretcher and was secured to the tacking margin using a heated spatula set to approximately 90°C. The painting was then turned face-up and heat applied through the face of the painting to secure the rest of the patch so that it bridged the split area. The original canvas does not extend all the way to the edge of the stretcher at the top edge, meaning there is a margin of lining canvas on the face of the painting along the top edge. This meant that a second patch of the Beva gauze could be applied on top of the canvas, helping to hold together the split edges of the canvas, preventing them from becoming scuffed and detached. Both the upper corners were treated in this way. Where tacks had been removed the tack holes were reinforced with further pieces of the Beva gauze. The canvas was then reattached to the stretcher using new copper tacks, but using the pre-existing holes in the canvas and stretcher. The tacks were applied through a white cotton tape to facilitate their removal in the future and to give further support to the canvas of the tacking margins.

In the two lower corners the canvas was also becoming scuffed and damaged over the stretcher corners. The two tacks closest to each corner were removed, and patches of Beva gauze were applied on top of the canvas, spanning the corners to prevent further damage. New copper tacks were applied through a small piece of cotton tape over each corner. Small patches of the gauze were also applied over several small holes and tears in the tacking margins at the sides of the stretcher.

Filling

The losses were filled with a chalk and gelatine putty. The fills were textured by brushing and stippling on thinned-down putty to imitate brushstrokes, and by scratching in crack patterns. The fills were sealed using a solution of shellac in IMS.

Varnishing

The painting was varnished using MS2A brush varnish.

Retouching

The fills were first toned back to reduce the bright white colour of the chalk, using a thin layer of MS2A with raw umber and ivory black pigments. The ground colour, a warm grey, was then mixed in egg tempera and painted over the fills. Two layers of this colour were applied in most places to get a uniform opaque layer. A layer of MS2A varnish was applied on top to saturate the colour. Further layers of egg tempera and MS2A glazes were used to build up the colour to match the original.

Joanna Russell

Ian McClure

July 2007

The painting was received after retouching had been begun. Retouching was continued using MS2A resin ground with dry pigments.

A spray coat of MS2A varnish was applied.

A new frame was constructed at the Fitzwilliam Museum and the painting refitted using brass strips.

Jenny Rose

November 2007