

McNeilage Conservation

Stone Plaster Wall Paintings

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St. Britius Church, Brize Norton

Condition Survey Report

August 2012

1. Introduction and brief

This report concerns the survey of the wall painting on the east wall of the chancel in St. Britius Church. The wall paintings on the east wall are suffering from severe detachment and delaminating of the paint layer.

Ruth McNeilage was commissioned by the church architect Andrew Townsend to undertake a survey of the paintings, with a view to putting forward proposals for their conservation.

A condition survey was undertaken on 13th June 2012. Samples were also taken and sent to Catherine Hassall for pigment and medium analysis. This report contains the results of the on site survey and pigment analysis and includes proposals for the treatment of the paintings.

2. Description and History

2.1 Building

The Church of St Britius has Norman origins, clearly evident in the beautiful carvings around the south door. The tower and north aisle were added in the 13th century.

By 1860 the church was dilapidated. A major restoration of the building was undertaken by G.E Street in 1868. The chancel was 'entirely rebuilt' in 1866 and the remainder (except the tower) was extensively restored in 1869 by Mr Grove of Milton to plans by G.E. Street (see Victoria County History)¹. Most of the walls were rebuilt, the roofs were replaced, and the north-east chapel was opened to the chancel. The floors were also lowered. The chancel was painted in the early 1880s and in 1893 C.E.G. Gray of Cambridge added the Annunciation, St Frideswide, and St Britius.

It is recorded in the Victoria County History that the south and north walls of the chancel were partially painted over in the late 20th century.

2.2 Wall paintings

1880 – This scheme consisted of a purely decorative design with no figures. The walls were painted a pale buff colour with masonry lines picked out in a dark pink. The masonry design was further embellished with central decorations of alternating *fleurs de lys* in deep pink and foliated crosses in pale blue and gold. This design covered the walls of the chancel above the dado. The dado band was decorated with a floral motif in sienna, painted onto a dark red background. The

¹ 'Brize Norton: Religious History', A History of the County of Oxford: Vol 15: Bampton Hundred (Part three)(2006), pp237-245

lower walls (dado) were painted dark red. It is thought that there was also a decorative scheme at dado level but this is not visible.

1893 -This scheme was applied directly over the earlier painting. St. Britius and St Frideswide are depicted on either side of the window. They are shown each standing in a gothic style niches with decorative pierced tracery canopies; the niches are set into a wall decorated with dark blue alternating *fleur de lys* and floral motifs. Below each saint is a chequered floor in blue and white with the inscription of their name beneath in Latin. Another Latin inscription runs above the saints. Standing on the south side, above St. Britius is The Virgin Mary with the lily in a pot and on the opposite side is the angel Gabriel. The background above them is also painted with *fleur de lys* and floral motifs and they stand on chequered floors.

St. Frideswide is the patron saint of Oxford. She was a princess who became a nun and founded a nunnery on the site of the present Christ Church, Oxford. St. Brice (Britius) was Bishop of Tours in France in the 4th century, and is usually represented either carrying burning coals in his hands or vestments. It is possible that this has been obscured by the later retouching. He carried burning coals to prove his innocence when he was false accused.

3. Paint Analysis

Samples were taken for analysis and these were sent to Catherine Hassall, who examined them under high magnification (see Analysis Report).

The results of the analysis revealed that the original decoration was painted in an oil-bound medium, applied to a wall that had already been sealed with a glue size. Two undercoat layers were applied, followed by the background colour made from a mix of lead white and vermilion. The blue colour on the crosses consisted of lead white and Prussian blue.

The second scheme was painted with soft distemper paint. The background colour was greenish yellow and contained chalk, yellow ochre and a small amount of French Ultramarine blue.

The samples for the flower motif of this scheme have not shown clear results.

The analysis revealed that there was a later retouching phase, probably undertaken using oil-based paint. These layers all contain lead white.

Only limited analysis has been undertaken so far. No samples were taken from the faces of the saints or the gilded haloes.

4. Condition

4.1 *Degradation and Loss of attachment of the paint layer*

The original decorative scheme, which is largely obscured by the second scheme, appears to have survived in relatively good condition. Areas where it has become visible show that the paint and gilding are generally stable. It does not even appear to have been affected by later moisture ingress on the south side, at the junction of wall and roof.

The second painted scheme, which includes the figurative detail, has suffered from severe detachment of the paint layer - particularly on the section of wall between the dado and the springing of the arch. In this area the paint is curling back in large sections. This is particularly severe on the red background colour around St. Frideswide's head, which has a thick build of up later paint layers (see analysis). Large areas of painted detail have been lost around St. Frideswide. There is also significant loss of attachment of the size-bound layer around St. Britius.

A significant amount of poor quality retouching has been undertaken over large areas of the second scheme. The main areas that have survived untouched are the faces of the figures, the architecture around St. Britius, the letters of the inscriptions and some of the background decoration. Much of the rest has been poorly retouched at various times.

St. Britius' halo is gilded. Unfortunately most of the other haloes have been retouched over the gilding with a dull coloured paint.

The results of the analysis have revealed that the second scheme was initially painted with a water-based size medium and was then retouched - probably after some initial loss of adhesion - with an oil-based paint. The application of a size-based medium onto the original oil paint would have not been compatible and it is evident that this painting must have failed in some areas, particularly those exposed to sunlight. These areas that had failed were then repainted with oil paint. This second oil-bound paint layer would have a very weak attachment to the size layer, which is high in chalk content. The film forming uppermost layer has now contracted and is pulling away dramatically from the first layer, taking the weaker size-bound layer with it.

In the original paint scheme, the ashlar around the windows was left exposed. The second scheme however, was painted to the arris of the reveal. It is noticeable that in the areas without the earlier scheme below, the second paint scheme has survived much better. This clearly shows that the main reason for the failure of the second scheme is the incompatibility with the first decoration.

4.2 *Accumulation of superficial dirt and organic coatings*

The surface is generally covered with a layer of superficial dirt consisting of soot and dust. This gives the whole scheme a dull appearance.

Analysis has revealed that there was an organic coating applied in some areas. This may explain the apparent discolouration on the leaves of the lily flower beside the Virgin Mary and the dark colour of some of the hands and faces.

4.3 Moisture ingress

There is evidence of moisture ingress on the south side of the roof, at the junction with the wall painting. Water runs are visible at the edge of the painting and in these areas there has been some loss of the second scheme.

There has been some rising damp on the internal north wall at low level.

The plaster surface is quite hard and the interior of the church is noticeably cold. It would therefore seem possible that condensation could form on the surface of the wall, which would have deleterious effects on the size-bound paint layer.

4.4 Solar gain

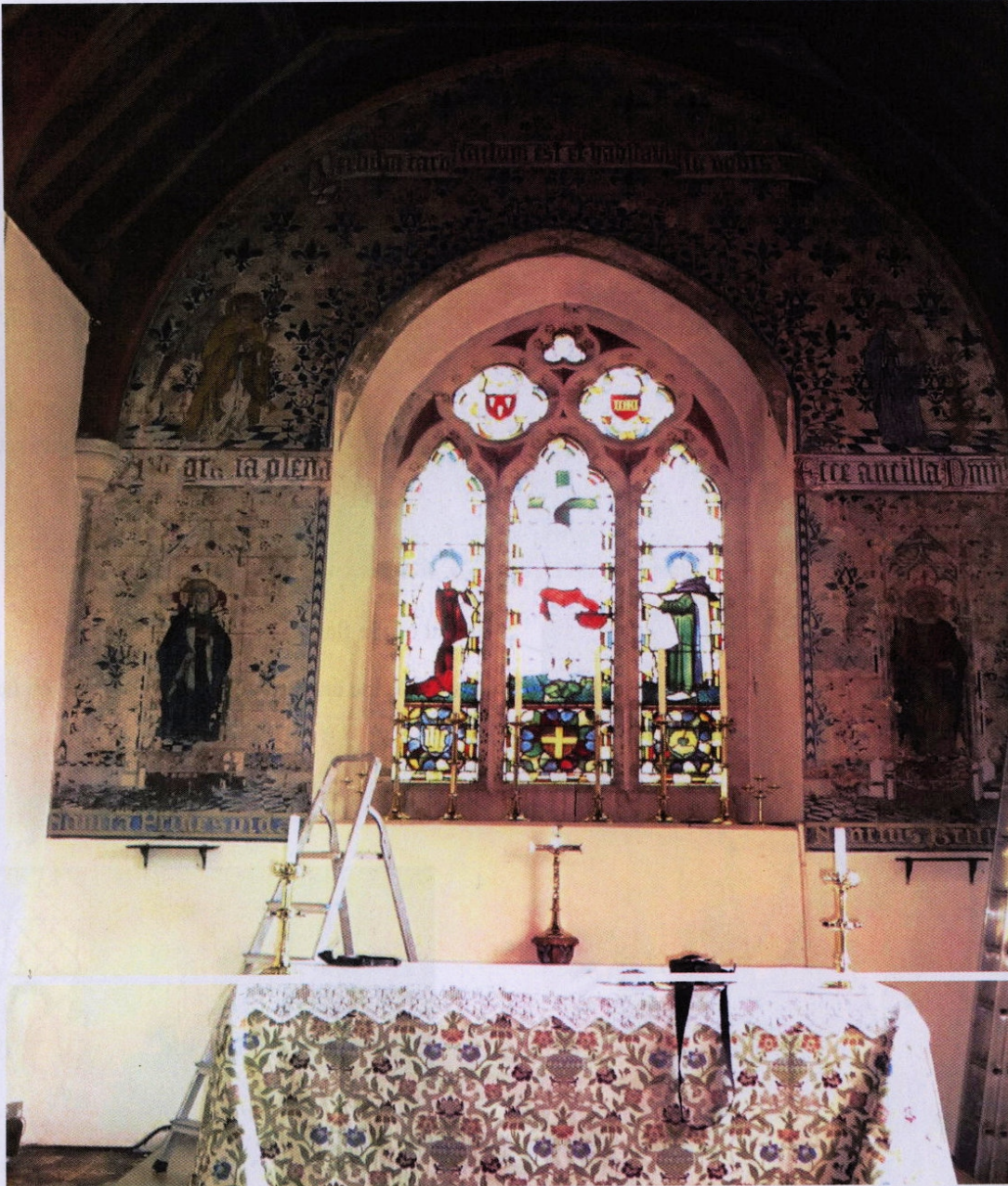
During the examination it was noted that the sun was shining through the south window and it is possible that when the sun is lower in the winter it may shine directly on to the north wall. This would explain the accelerated decay of the paint layer in this area. Solar gain would lead to the break down of the size paint medium and the contraction of the film forming oil bound paint layer.

5. Analysis of the causes of decay

On site investigation, supported by microscopic analysis of the paint layers, has revealed that the main reason for the deterioration of the paint layer is the incompatibility of the different paint media that have been applied over one another. There is no indication of failure of the plaster support and only minimal damage has been caused by moisture ingress. The weak bond between the paint layers has been further exacerbated by solar gain from the south window. It is also possible that there has been condensation forming on this hard plaster surface which would have further weakened the size-bound paint layer. Finally, the painted surface has accumulated layers of soot from candles and incense, as well as superficial dirt and dust.

6. Photographs detailing the condition of the paintings

1



View of the east wall

2

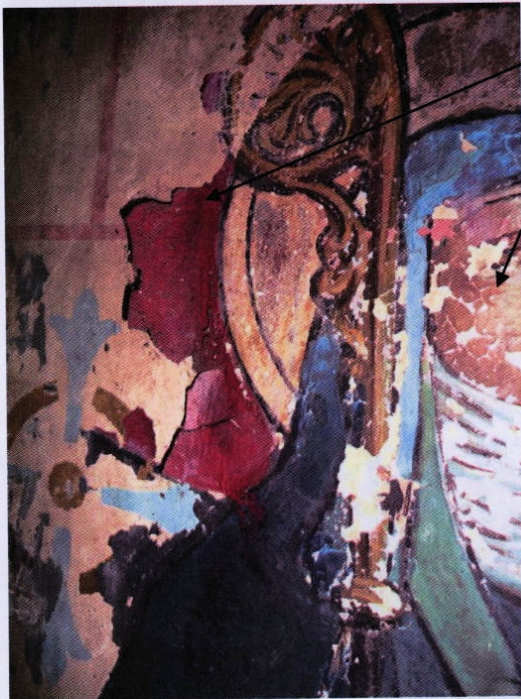


Detail showing St. Frideswide. Note the curling back of the red background colour which has been over painted with oil paint.

The remaining paint on her face also appears to be discoloured and may have an organic coating.

Most of her robes have been heavily retouched

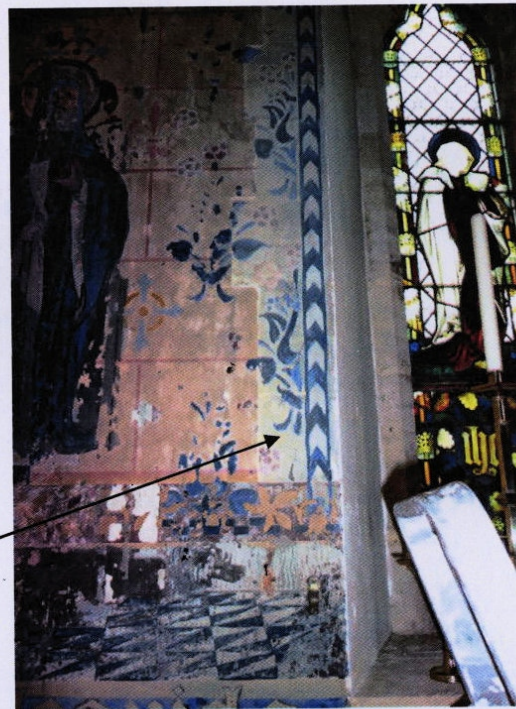
3



Detail of the flaking red paint.

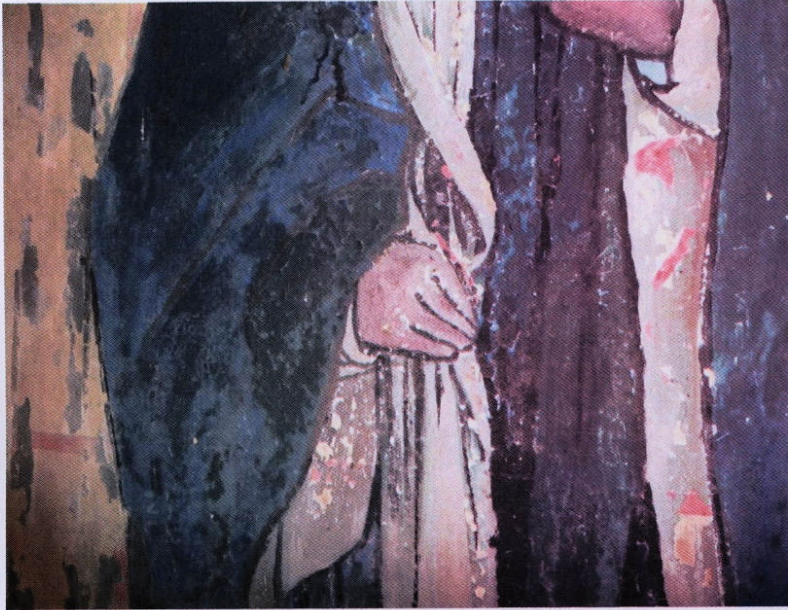
Also note the cracked surface of the paint on her face.

4



Detail showing the background of the second scheme painted on the area which was left unpainted for the first scheme.

5.



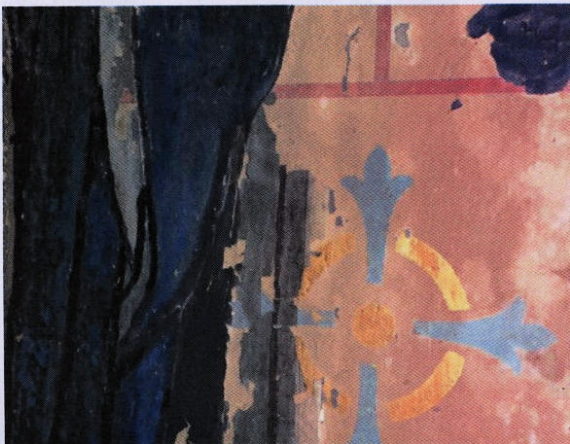
Detail of St. Frideswide's robes. The darker areas are later retouching.

6.



Detail showing the dado border of the first scheme which is exposed.

7.



Detail showing the foliated cross decoration from the first scheme.

8



Detail showing the remains of the background decoration of the second scheme. The pink fleur de lys is part of the first scheme.

Note the dirt on the surface

9.



Detail showing the lower half of the angel's robes. Much of the chequered floor has been retouched.

10



The Angel Gabriel. Much of this surface is covered with a coating of dirt and soot. The yellow cloak and the top end of the wings have been retouched.

11



Upper section of the wall. The second scheme has generally survived better in this area. Unfortunately there has been some crude retouching on the scroll. Some of the leaves and flowers have also been retouched with a slightly darker colour.

12



Upper area showing the poor retouching at the south end of the scroll.



13



Detail showing area damage by water runs. The green on the lily leaves has a darkened appearance as though it may have a coating applied.

14



← St. Britius.

Detail showing the saints face and gilded halo that have survived.

15

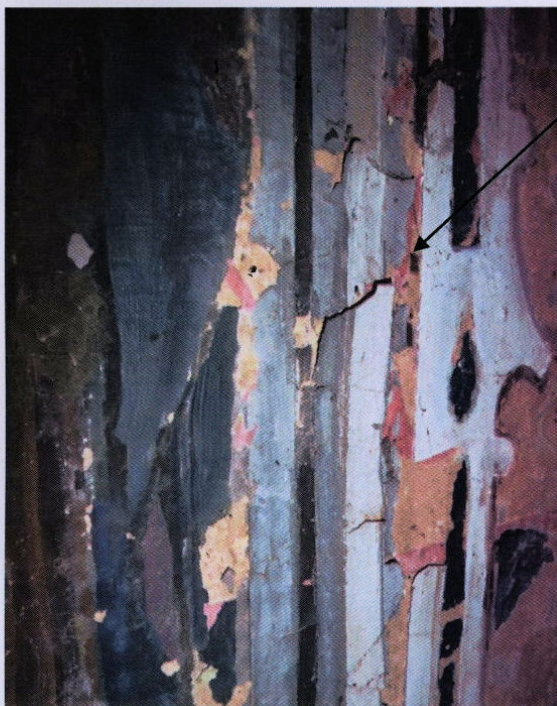


16



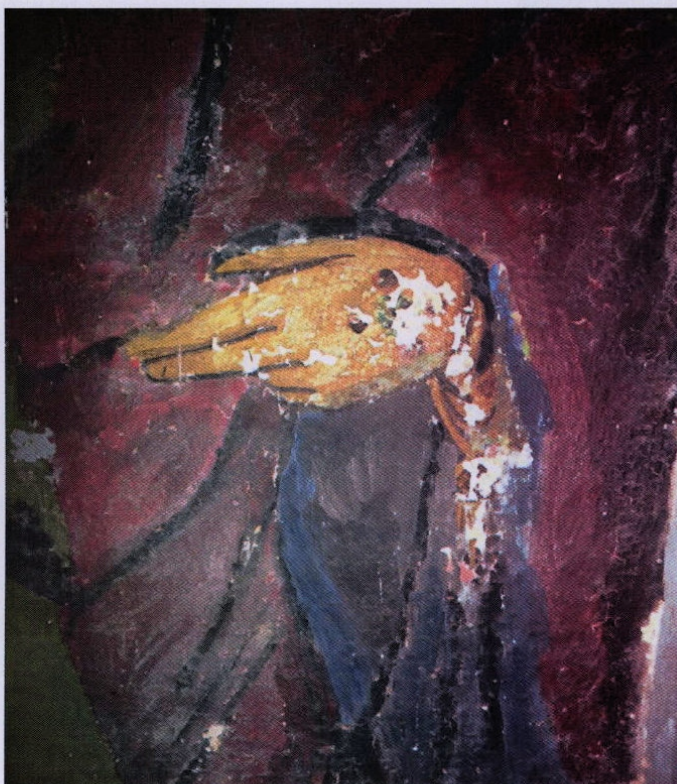
Detail showing severe loss of attachment and flaking of the painted decoration.

17



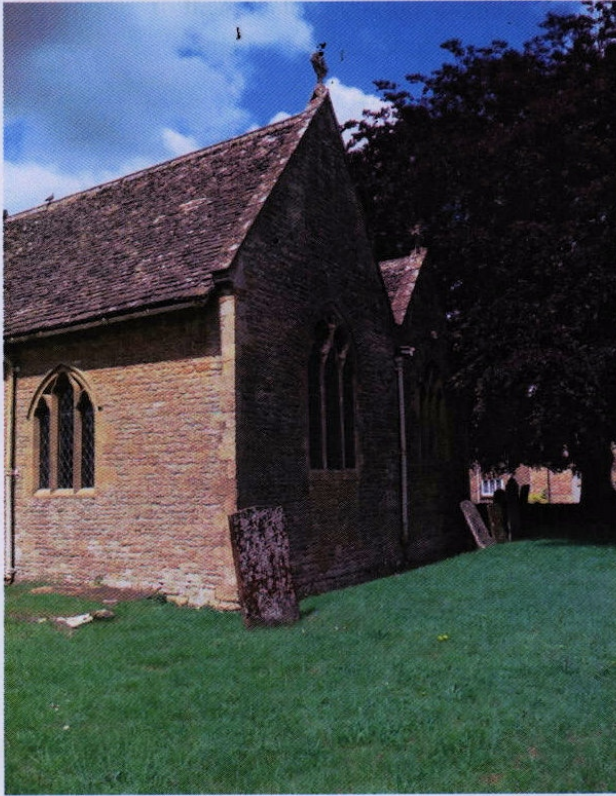
Detail showing detachment of the second painted scheme.

18



Detail showing St. Britius' hand. The purple colour of his robe has been fairly heavily retouched

20



21



Detail of the south east corner of the exterior east wall showing an area that requires pointing.

7. Treatment

Prior to any work being undertaken on the wall painting it is important that all necessary exterior repairs to the building have been carried out, to ensure that there is no moisture ingress at the junction between the roof and the east wall.

It would also be advisable to reduce solar gain from the east window. This can be undertaken following advice from the architect.

Analysis

It would be useful to undertake some further analysis of the second scheme particularly in the area of the faces and haloes which are likely to have been painted in a different medium due to the gilding.

Plaster repair

The plaster appeared to be sound. Once a proper scaffold is in place, fine cracks in the plaster may be revealed. These should be filled using a lime mortar mix of lime putty, sand and stone dust. The aggregate should be appropriately sieved according to the size of the fill.

Cleaning

Loose dirt and cobwebs can be removed from the surface using a soft brush and a vacuum cleaner. Care will be taken to avoid any areas where the paint has become detached. Most of the cleaning of the surface will need to be undertaken in conjunction with the fixing of the paint layer. Some of the superficial dirt can be removed using Wishabs (synthetic crumbling sponge). For more ingrained dirt the surface can be cleaned by applying de-ionised water on cotton wool swabs. In some areas it may be considered appropriate to use a 5% solution of tri-ammonium citrate applied with a cotton wool swab that is gently rolled over the surface.

Paint fixing

Tests will need to be undertaken to find a suitable consolidant. The problem in this situation is that the paint will be re-adhered directly onto the earlier painted scheme and should therefore be reversible. Trials will be undertaken using an acrylic dispersion such as Lascaux Plextol B500 or Isinglass (gelatine). Although Isinglass has been found to work extremely well as a consolidant for both size and oil bound mediums it may however not be suitable in this situation due to the possible presence of condensation since it can be affected by high humidity levels.

Areas where the paint is detaching should be faced up with Japanese tissue applied with Tylose (hydroxyl propyl cellulose). Once the tissue is secure the consolidant can be injected behind the flakes which are then gently pressed flat using a cotton wool pad wrapped in Melenex. Where necessary the paint can be softened using radiant heat before being pressed flat.

For powdering size-based paints (which can be water sensitive) the consolidant can be applied through Japanese tissue. This is then removed once the consolidant has soaked into the paint layer.

Treatment of areas with later retouching

Some of the later retouching is extremely disfiguring to the painting and it would be appropriate to remove it. The areas that particularly stand out are:- both ends of the upper scroll (see plate 11&12); the green on the front of St. Britius' robe (see plate 15) , the blue on the headdress of St. Frideswide (plate 2) and some of the retouching on her gown.

Trials will also be undertaken to reveal any areas of gilded haloes that may survive beneath the later retouching of the second scheme.

Aesthetic presentation

The existence of the two wall paintings applied directly over one another presents a problem for the presentation of this painting.

Once the painting has been cleaned and the most disfiguring areas have been removed it is hoped that the scheme should come together. A very limited amount of retouching may be considered appropriate to help the legibility of St. Frideswide's face. This would only involve the toning in of the background flesh colour so that the surviving detail is less distracted by the lines of the earlier scheme. It may also be considered appropriate to paint out the dark brown area of dado from the first scheme that has been exposed beneath St. Frideswide.

Documentation

All of the work will be recorded photographically, both before, during and after treatment. This will be included in an illustrated report documenting the treatment of the wall paintings.