

ANDREA KIRKHAM CONSERVATION LTD

Conservator of Wall Paintings and Polychrome Decoration

St Bartholomew's Church, Brisley Norfolk



Condition Survey of the Wall Paintings Bats in Churches Project

November 2020

St Bartholomew's Church, Brisley, Norfolk

Bats in Churches Project: Condition Survey of the Wall Paintings

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1: SUMMARY

The nave and aisles of St Bartholomew's Church, Brisley, Norfolk are full of high quality, high value wall paintings, ranging in date from the late C14th-early C16th, as well as more fragmentary evidence for post-Reformation schemes. Extensive areas of wall painting are only partially uncovered and the Parish wish to progress a wall paintings project to clean and conserve the schemes. The partially exposed imitation textiles at the east end of the nave and the south aisle, and the imitation textiles on the nave piers are an unusual survival but, at present, their presentation is extremely poor. Uncovering and conservation would add significantly to the interior, for example, the textile at the east end of the nave would once again be seen as part of the rood screen ensemble.

An extensive survey of the materials and techniques of the wall paintings was carried out in collaboration with Catherine Hassall (paint analysis) in 2002. The paint investigation showed a range of complex paint techniques and a rich use of materials, notably an ostentatious use of azurite and gold leaf on the north St Christopher.

Ground water drainage needs addressing and will be reviewed in the forthcoming QIR (2021). The principal problem, however, is the bat activity as their excreta severely impacts on the wall paintings, as well as other high value furnishings and fabric. The Parish wish to have the bats excluded, in order to progress a wide range of projects and activities within the church.

2: INTRODUCTION AND SCOPE

I first carried out an inspection of the wall paintings in 2002 at the request of Michael Swash, Architect (Birdsall, Swash and Blackman). I produced a condition survey which included an extensive report on the materials and techniques of the paintings by Catherine Hassall. This new report significantly expands and upgrades the 2002 report. The paint analysis by Catherine Hassall has been scanned and is attached as Appendix 1.

The new report is carried out under the auspices of the Bats in Churches Project, as bats are a serious problem within the church. I carried out my inspections shortly after the first lockdown, on 23rd June, 2020 when Atthowe's Contractors were on site and provided portable tower scaffolding to access the painted timbers of the south aisle roof. A second site visit was made on 30th June. This investigation focuses on the exposed areas of wall painting. It is emphasised that no uncovering tests were carried out to discover further areas of painting as part of this investigation.

The visit to the church on the 23rd June showed the full extent of the problem associated with bats in the church. The wall paintings are affected by the bat excreta, especially St Christopher in the north aisle. At the time of the bat survey and report of 2017/2018, the Parish were unsure whether to contain the bats in one area or to exclude the bats (Preferred solutions and outcomes, p. 35). In discussion with members of the PCC, their preferred outcome is to have the bats excluded from the church.

| | |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Parish | St Bartholomew, Brisley, Norfolk |
| Diocese | Norwich |
| Architect | Ruth Blackman, Birdsall, Swash and Blackman Architects Ltd High House Farm The Street Beeston-next-Mileham King's Lynn, PE32 2NF Tel: 01328 701295 |
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| Date of Survey | 23 rd June and 30 th June, 2020 |

3: THE BUILDING

3:1: *Building History and Significance*

Figure 1: St Bartholomew's Church, Brisley, Norfolk (c1820s) by R Ladbroke (1803-1879), Image © NWHCM 1954.138.Todd21.Launditch.8

The following extracts are from the heritage statement by Richard Halsey (date of visit, 8th January, 2018) incorporated into the unpublished report, 'Bats in St Bartholomew, Brisley,'. For full details see pp. 21-24 of that report.

A grade 1 listed medieval church built in the late 14th and early 15th centuries, probably completed by 1460. Will evidence suggests the fine tall west tower was being built c.1450, and it remains a local landmark. The chancel is particularly interesting as having window tracery of both curvilinear and rectilinear styles. The interior retains many medieval fittings, some like the pulpit and pews augmented to suit post-medieval congregational practice. There are some good wall paintings and the likelihood of many more as the walls have not been replastered. It is a fabric of **high significance** with many internal features of **high significance**...

There are many medieval fittings and brass indents:

- The three-seated late-fourteenth century sedilia and piscine are very fine, with much carved decoration, including lions attacking dogs.
- The c.1400 octagonal font is quite plain with a twentieth century painted 'witches hat' cover.
- The nave has many fifteenth century low benches with simple ends augmented with crude plank straight backs, a few higher pews with animals to the arm rests, medieval pierced low backs and one with a book box.
- The fifteenth century octagonal pulpit with traceried panels, still on its original stem but incorporated into a post-medieval three-decker.
- The tall and rather finely carved rood screen is late fifteenth century, sadly badly repainted.
- Much coloured decoration ... [see description of the wall paintings below].
- Medieval indents run up the centre of the nave aisles, a few brass inscriptions, including that in English to Robert Markyate and Rose his wife of 1525. But the best brass is in the chancel, a headless priest in full Mass vestments identified as John Athorne, c.1531, rector of nearby Horningcroft.

There are also many post-medieval fittings and memorials:

- The pulpit with associated desk is an enlargement of the fifteenth century octagon, with c.1600 panelled desks and shelves (possibly associated with the box pew of 1590) and a big square eighteenth-century tester above.
- Eastern box pews in each aisle are late sixteenth century, one dated 1590; the remaining aisle pews are of eighteenth century date.
- * The canvas George II Royal Arms are dated 1753 but were 'cleaned and rep'd' by J B..ill' in 1834 (but not updated). The names of the churchwardens G Butler and F Frohawk are also recorded.
- The west gallery has an inscription dated 1848, which must make it one of the last to be erected in Norfolk – most churches were removing their galleries at that time – and an uncommon survival. It has a stained and panelled front to a raked platform, balanced on just two thin cast iron columns.
- The painted canvas Decalogue texts of the reredos is probably c.1850.
- Many blue slate ledgers of late-seventeenth to early-nineteenth century dates can be seen, the well-lettered King family examples near the pulpit in a good state of preservation. There is just one marble wall memorial in the north aisle, of late seventeenth century date, and two 1801/1838 in the chancel.

Twentieth century additions include the font cover, communion rail and metallic light fittings.

Significance: Brisley is a substantially medieval church with fine architectural details (like the window tracery and sedilia) which has had limited post-medieval changes. It also retains quite a lot of its medieval nave seating, octagonal pulpit (buried in later additions) and font as well as some wall paintings of good quality (and the prospect of many more being discovered under the limewashed walls and arcades). There are also a few indents and

brasses and a particularly interesting priest brass of 1531. The fabric is clearly **high architectural, archaeological, historical and artistic significance**, as are all the medieval features outlined above.

Amongst the post-medieval fittings, west gallery, box pews, Royal Arms, organ, reredos and the King family ledgers stretching over the whole eighteenth century with the late seventeenth century north aisle wall memorial are all **moderate to high significance**. The font cover is of **low-moderate significance**.

The church is at the middle of the village and seen by many on the B1145 road that runs around the north side of the churchyard. It is of **high townscape significance**.

3.2: *Additional Building Information and Context*

According to Dr Cotton, the earliest building campaign is likely to be around c.1370 when work began in the chancel. The tower is perpendicular and paid for by donations recorded from 1435-1453.¹ The north porch was provided by the 1453 will of a rector.² There was a further bequest in 1487 when John Athow left £10 to the 'reparation' of the church although it is not clear what work was carried out at this date.³ The nave roof has been repaired but the roll moulded purlins, principal rafters and cornices of the aisle roofs are C15th and largely intact.

Blomefield (1808) records in the church were the gilds of the Trinity, St Bartholomew, St Thomas the Martyr, St John the Baptist and that there were lights of St Mary, All Saints, St Nicholas and St Bartholomew.⁴

Dr Wrapson suggests that the screen is c.1470-90 because of 'The castellated and brattishing filled mason's mitre jointed transom suggests this date, as does the dado tracery and upper fenestration'⁵

3.3: *Condition of the Building and Recent Repairs*

The last QIR was carried out by Ruth Blackman in 2016. Repair work recommended then has almost been completed.

Work in 2016, overhauled the rainwater goods and carried out minor repairs to the roofs, including replacement of cracked and broken tiles; removal of all moss. New flashings were applied to: the nave, east flashing; south aisle, east flashing and associated repairs to flint work and rebed copings, etc. Gutters and downpipes were repaired, otherwise replaced.

¹ N Pevsner and B Wilson, *The Buildings of England, Norfolk 2: Northwest and South* (London, 1999) p. 219

² S Cotton, *The Architecture of St Bartholomew's Church, Brisley: A Chronology* (Leaflet, 1994) p. 3

³ Cotton, 1994, p. 3

⁴ F Blomefield, *A Topography of the County of Norfolk*, vol. ix, (London, 1808) p. 469.

⁵ L Wrapson, *Patterns of production: a technical art historical study of East Anglia's late medieval screens*. Unpub PhD thesis (St John's College, Cambridge, 2013), pp. 550-51

South chancel drain was rodded. Repairs to the porch, including replacement of failed wallpost.⁶ Full repairs to the north porch were carried out in 2017.⁷

The Parish have had the drains, gutters and downpipes checked and cleared of debris, etc recently. There is no ground water drainage. The next QIR is imminent (2021) and the drainage situation will be investigated by the church architect, Ruth Blackman.

Recent repairs in summer 2020 repaired leaks in the east end of the south aisle roof and replaced the drain at the north west side of the porch (plate 3).

Summary of past repair work:

Major repairs in the C20th. The lead roof of the nave was struck by lightning in the 1940s and was then replaced with asbestos cement sheeting before all the main roofs were renewed with interlocking concrete tiles in the late 1960s following the repointing of the top of the tower in 1964. Major repairs were made to the south aisle walls and windows in the early 1980s and to the tower and the first of the chancel windows in 1987.⁸

The nave heating consists of undesirable gas cylinder patio heaters (eg plate 40) which are due to be replaced imminently with an under pew electrical system and enhanced with moveable two bar radiators.

4: HISTORY OF THE WALL PAINTINGS

Extensive areas of wall paintings survive in the nave and aisles. It is emphasised that this report focuses on the existing, visible paintings on the nave piers, nave east wall, south wall of the south aisle, north wall of the north aisle, the east end of the south aisle and the south roof.

NOTE: There has not been any investigation for further areas of wall paintings which will be an issue if the Parish wish to redecorate or carry out plaster repairs (eg. at low level, see comments below).

1808: F Blomefield, A Topographical History of the County of Norfolk, vol ix, (London, 1808), p. 469

‘St Christopher is painted on the wall by the north door’

⁶ R Blackman, Brisley,: A specification for overhauling the rainwater goods and carrying out minor repairs to the roofs, 2016

⁷ R Blackman, Brisley: A Specification for repairing north porch roof (2017)

⁸ M Swash, The Parish Church of St Bartholomew, Brisley, Norfolk, 4th QIR, March 1992

1883: CE Keyser, A List of Buildings in Great Britain and Ireland having Mural and other Painted decorations (London, 1883), p.41; p. 303

'On S wall of the nave: St Christopher between SS. Andrew and Bartholomew'
Over S. door; the Ascension
The Assumption of the Virgin, and some consecration crosses
'By N door; St Christopher [1808, Blomefield]'

1911: JC Cox, Norfolk County Churches, I (London, 1911)

'On the south side of the nave is a defaced wall painting of St Christopher, discovered in 1843; also figures of Sts Bartholomew and Andrew, uncovered in 1848.'

1929: HC Waite, St Christopher in English Medieval Wall Painting (London, 1929), pp. 18-19

'One of the most interesting, though fragmentary, is this St Christopher which occurs between two windows on the wall of the south aisle of the church at Brisley. The saint wades towards the east end has the very unusual accompaniment of SS Bartholomew and Andrew, two Saints quite unconnected in legend. The triangular arrangement whereby one, more important, Saint is accompanied on each side by a lesser one, occurs in the Ante-Reliquary Chapel at Norwich Cathedral. Its occurrence at Brisley, in quite one of the earlier paintings of St Christopher, emphasises the importance attached to his representation. Also, there is sufficient similarity of style in the painting to those in Norwich to make it probable that it was inspired by them and of the same school. The painting is of fourteenth century style and certainly antedates the era of engravings...'

1955: EW Tristram: English Wall Painting of the Fourteenth Century (London, 1955), p. 143

'The South Aisle
Between two windows in the south wall, St Christopher, holding the staff in the right hand, and the Holy Child on the left shoulder; the Child and the head and feet of the Saint are much defaced, but part of the latter's mantle, swathed around the shoulders, and his knee-length gipon, belted at the waist and enriched with a delicate pattern, are clearly seen. To the left, a much smaller figure of a Saint, ?St Bartholomew, since there are traces of ? a knife, in the right hand; and to the right hand; and to the right another small figure, of St Andrew, carrying the titular cross in the left hand and a book in the right. c.1360'

1969: Eve Baker, unpublished report, 23rd June 1969

'...There is a great deal of painting still remaining, but the most important is a large St Christopher by the north door. I only uncovered the upper part of this, but it has an unusually wide range of colour – blues, greens, ochres, reds, both vermilion and earths. The saint holds the Christ Child on his shoulder, and there are still remains of the Child's gold nimbus. To the west side, I uncovered a small chapel – possibly the Hermit's chapel – and St Christopher's hand can be seen holding his staff. There is a charming background pattern of white flowers on a blue ground.

The wall is extremely damp, which makes uncovering very difficult but this painting should certainly be uncovered and treated when the work in the church is finished and the walls have dried out. It is of 15th century date.

On the south side is another St Christopher which had already been uncovered and has had some preservative treatment. Very little can be seen of the upper part of the Saint, but the nimbus of the Christ Child is just discernible. It is possible that the removal of the preservative would bring to light more detail. St Christopher is wearing a patterned tunic. On his west side is a very good painting of St Andrew with a beautifully drawn head, and on the east side, St Paul. Although Keyser says this is St Bartholomew, I very much doubt it as the figure bears a sword, but it is possible I could be wrong when cleaning has been completed.

Over the south door, beneath the Royal Arms, is a large area of painting which is far too damp to uncover at present. There is a consecration cross between two of the windows on this wall, and the remains of a very good cartouche, with Elizabethan ornament bordering it, between two other windows. The lettering has gone and, apart from a strip of the black and white ornament, it is doubtful whether any more of this could be recognised.

On the east wall, which seems to have been a chapel at some time, there is a great deal of white ornament on a red ground, consisting of rosettes and fern pattern. On each side of the window, however, is an area with no colour at all. At some time two kneeling figures, either of stone or wood, however, is an area with no colour at all. At some time two kneeling figures, either of stone or wood, have been set up against the wall, and the painting is a background for them.

On many of the piers in the nave, little red and black curtains are painted. Again, these seem to have been backgrounds for images, and on one of them it is possible to see where the image bracket had been dowelled in. They only appear on the west faces and this seems to have been a most interesting way of decorating the pillars. In some cases, the curtains have a rosette pattern.

In the north chapel there is a piece of earlier painting which could possibly be the Assumption of the Virgin, referred to by Keyser. It is possibly late 14th century and certainly was there before the present church was built, belonging to the same period as the chancel. This is a very strongly coloured painting and would be well worth treatment. There is a small area of cartouche on the north wall, but this is so broken it is not worth saving.'

1999: N Pevsner and B Wilson, *The Buildings of England, Norfolk 2: North-west and South* (London, 1999), p. 219.

'Much painting throughout the nave, and more to be uncovered. Decorative painting on the arcades, and a fine St Christopher of c.1360 on the S aisle wall, flanked by St Andrew and another figure. A later St Christopher by the N door, and an angel on the cut-away jamb of the E window of the N aisle wall.' [D Park]

2002: A Eijenholt Nichols, *The Early Art of Norfolk* (Michigan, 2002), p. 178

'Wallpainting S wall, damaged. c.1360. Flanked by smaller Andrew (R.) and Bartholomew (L.). Christopher nimbed, tree staff in RH, knee-length gown belted at waist, fish in lower register, also under feet of Andrew (eel) and Bartholomew. There are 2 representations in Dawson Turner 26: 113 and 53. 202 with the note "Upper part of the painting destroyed through carelessness of the white washer". The wall painting has been restored since the watercolours were made.'

5: DESCRIPTION AND SIGNIFICANCE OF THE WALL PAINTINGS

Please see attached plan for location of the paintings. Numbers in [] link to the numbering on the plan.

*North wall of the north aisle (west to east)**5.1: North Aisle St Christopher (plates 26, 29-37) [1]*

On the north wall of the north aisle, immediately east of the north door is a large scale late medieval St Christopher executed with an expensive range of pigments and gold leaf. Those sections exposed include the head of St Christopher and the Christ Child, and the hermit's hut. There is probably more of the scheme.

Christopher's face is strongly modelled in flesh tones, with flowing yellow hair and beard. He holds the staff in his left hand; the Christ Child sits on his right shoulder. The Child also had a richly modelled face, blue eyes and yellow hair. In addition, the Christ Child's halo, despite being badly damaged, was once richly patterned perhaps with a filigree design on a gold background. The Christ Child wears a bright blue robe. The background is patterned with blue/green leaflets and there is a building (hermit's hut) at the upper left side.

This scheme is materials rich and stylistically belongs to an important late medieval phase of wall painting in East Anglia (eg the late medieval Doom at Troston Church, Suffolk; St Christopher at Thurton St Ethelbert's). The schemes are boldly painted with an ostentatious, expensive use of colour. The painting is **high significance artistically, technically and for its group value**. It is extremely badly affected by bats and their excreta.

5.2: North Aisle post-Reformation Text (plates 38-39) [2]

The fragments of text and frame are located between windows N2 & N3. A fragment of a narrow border on the north wall of the north aisle contained repeat spherical motifs surviving incised into the plaster. Three letters in red – S R G appear to be all that remain of a text with a vertical scroll motif and a small 4-petalled floret.

5.3: North Aisle Angel and Floral Scrollwork (plates 40-49) [3, 4]

An angel is situated on a cut-away jamb, with a cross-circlet, standing on a pedestal, against a red background. This painted angel may have been associated with statuary, creating an ensemble group and is **high significance**. The appearance of the figure now is somewhat confused by discoloured pigments, microbiological growth (MBG) and bat excreta. The north-east corner (immediately right of the Angel) was replastered at a relatively early (post-Reformation) date (plate 47). This plaster wraps round into the reveal of the east window where it abuts an earlier medieval plaster. The earlier plaster carries the remains of a delicate scrollwork pattern with florets in red, probably C14th (plate 49). On the window

quoins (west face) are traces of two layers of green too fragmentary to be decipherable but may have been contemporary with the north St Christopher (plate 48).

5.4: *East Wall of the Nave (plates 50-59)* [15, 16]

(Note the arcade piers are discussed separately, see 5.5 below.)

The north and south responds are painted with red textiles ornamented with diaper patterns (see below, 5.7: South aisle, east end). Fragments are visible and there is clearly more to uncover. Paint unusually survives on the bases (see Hassall, p. 10) and on the capitals. There may have been more of this scheme above the capitals but there has not been any access to investigate the wall around and above the head of the chancel arch. The scheme links with the red textiles(s) seen at the east end of the south aisle.

This red textile formed the backdrop to the rood screen and rood figures. The screen still survives but needs attention (plate 52) and investigation to establish whether any original polychrome survives beneath the modern colour. The red textile is **high cultural and historic significance** for its symbolic meaning and association with rood screen at the east end of the nave.

The bat roost in the apex of east wall (see discussion of the impact of the bats below, pp. 24-25), seriously impacts on the screen and red textile and any proposed work to clean, uncover and conserve **high value cultural and artistic heritage** that cannot be moved. The bat roost must be removed.

5.5: *Arcade Piers (plates 60-77)* [12-14, 17, 18]

(Note, see east wall of the nave above for the responds, 5.4)

The decoration on the arcade piers is an unusual and important survival. Typically piers are stripped to the bare stone but at Brisley three piers retain much of their medieval polychromy with additional fragments on one pier and traces on another.

The painting represents textile hangings on the west faces of the piers. This is most clear on the south arcade (plates 72-77). One of the textiles was certainly a backdrop for an image supported on a bracket, destroyed at the Reformation and roughly filled once the bracket was removed (plate 68).

While imitation hangings are by no means unusual, their survival on the piers at Brisley is very uncommon. These textiles are **high significance** because they are an extremely rare survival in this context and are evidence of the layout of the pre-Reformation Church.

5.6: *Nave: Corbels (plates 78-81)*

At least two corbels supporting the wallposts retain their painted decoration. Black is used to enhance depth and shadows while red is used for cheeks, tongues etc. The whole effect is very theatrical and designed for clarity and emphasis when viewed from the ground. There

has not been a close inspection in 2020 but uncovering tests were carried out in 2002. There is more of the paint scheme to be uncovered and this again is another **rare survival**. Other medieval corbels may retain original paint and they must not be stripped. While many churches have corbels supporting wallposts, very few retain this form of medieval polychromy which aims to create a 'theatrical' effect (a close parallel of the concept is the wooden cornice angels at Cawston Church).

South Wall of the South Aisle (east to west)

5.7: *South Aisle, East End (plates 82-92)* [5-7]

Fragments of red and diaper patterns are randomly and roughly exposed, possibly by Mrs Baker in the 1960s. Those at the east end of the south aisle and the south return, including the piscina are associated with the archaeological evidence for the pre-Reformation setting in this area. Their current appearance is 'shabby' and partially covered over. The whole appearance is not helped by the low level cementitious render which is failing and with white paint flaking badly.

Close inspection shows that the red abutted a blank area of plaster at the left of the east window (perhaps the position of the altar?, plate 85). The red textile was a background to a substantial structure/pedestal supporting a statue in the southeast corner (plate 91). This is now filled with a large post-Reformation repair. On the south return (above the piscina), there is another blank area of medieval plaster (plate 92). This is not well-defined at present but the red curtain stopped, abutting some feature/fitting. All of this will become more legible if uncovering is carried out.

The extensive survival of red/diaper textiles is rare. They are typically shockingly badly treated, brutally uncovered, abraded and usually destroyed or covered over because they look 'untidy'. Yet their significance to the pre-Reformation ordering of the church is high. In this case, the red textile(s) are richly ornamented with floral motifs that links with the textiles on the responds and east wall of the nave (see discussion above).

From the few small fragments visible here, it is clear that the textiles formed a backdrop to the side altar and to statuary (not only the rood screen). It is therefore of **high archaeological and cultural significance**.

5.8: *Post-Reformation Fragment (plates 93-94)* [8]

A small fragment of post-Reformation ornament survives between windows S3 & S4 to the right side of window S4. This is the remains of a good quality post-Reformation design, probably part of a frame for a text. The motifs are reminiscent of the type of candelabrum motifs seen in some late C16th and early C17th domestic wall paintings.

5.9: South Aisle Consecration Cross (plate 95) [9]

Although Keyser implies a number of consecration crosses in 1883, only one appears to survive between windows S2 & S3. Originally, there would have been 12 crosses inside and 12 outside. Although damaged during uncovering and in a fragile condition now, this was once a good example of the type. Incised lines mark the outer edges of the cross. Traces of red and a blue are visible and it is possible that more of the cross survives beneath the overlying layers of limewash. (See also the diagram in the paint analysis by C Hassall, Appendix 1).

This is an unusually good, materials rich consecration cross in extremely poor condition.

5.10: South Aisle St Christopher and Flanking Saints (plates 96-105) [10]

An excellent quality late C14th St Christopher and Christ Child with flanking saints survives between windows S1 & S2 of the south wall of the south aisle. St Andrew (R) is easily identified by the cross saltire that he holds in his hand. It has been suggested that the less well-preserved figure east of Christopher is St Bartholomew, the dedicatory saint of the church. Conservation may clarify the identification of the figure.

The rich use of pigments, layering techniques, impasto and in an oil medium is reminiscent of work on St Agnes at Cawston Church, Norfolk.



Figure 2
F Sandys, Brisley Church Mural Painting
Undated. Watercolour
© NWHCM. 1951.235.1223.B175

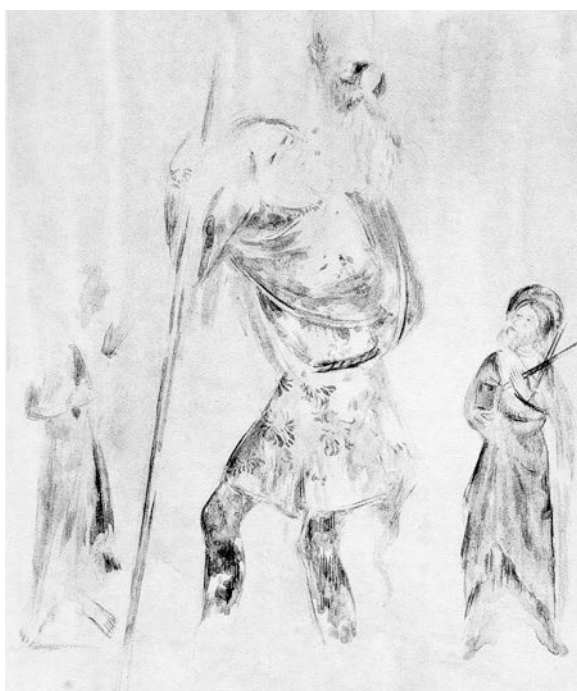


Figure 3
HC Whaite, St Christopher in English Medieval Wall
Painting (London, 1929), plate 5

Most of the upper part of St Christopher and the Christ Child appears to have been destroyed in the C19th. The Sandys watercolour suggests how the painting may have looked in the C19th (Figure 2). Despite the losses, the high quality is apparent from the surviving figures. Christopher holds the staff in his right hand. His robes are finely drawn and richly decorated with elaborate spiral leaflets in white on a red background. In those areas of drapery where the background is green, the spiral leaflets are red with white centres. The tunic finishes just above the knee. His legs appear brown now because of the discoloured lead pigment used to produce a flesh colour.

St Andrew is the most complete figure and the quality of the work shows here (plates 102-103). The face and hands are well-modelled. He holds the cross-saltire in his left hand and a book in his right. The head and shoulders of the figure to the left are destroyed but sufficient evidence survives to show that the drapery, hands and feet were very well painted.

The wall has an early repair, approximately in line with Christopher's head and the remains of an inscription in red is carried across the repair (plates 104-5).

The quality and technical sophistication of the medieval scheme is without doubt and of **high artistic and technical significance**. Could there be a workshop link with St Agnes at Cawston Church? Detailed investigation is required but if proven, then this will add significantly to our knowledge of painters' practice and workshops in Norfolk (see comparable work by Lucy Wrapson on rood screens; David King on painted glass). Bats are a major problem in the south aisle (bat survey report, 2017) and discussion below (pp. 24-25).

5.11: South Aisle above the South Door (plates 106-117) [11]

Potentially, there is a large area of painting over the south door and its outer borders (uncovered by Mrs Baker) are approximately demarcated. Keyser (1883) refers to a painting of the 'Ascension' in this area but too little can now be seen for the subject matter to be identifiable. The Royal Arms would have to be taken down for any stabilisation/conservation work. Whether the Royal Arms is relocated to another position in the church will have to be discussed. Bat excreta are clearly visible on the Royal Arms.

5.12: South Aisle Roof (plates 119-125) [marked in red]

An almost complete roof with roll-moulded timbers and cornice survives, probably C15th. Polychrome survives specifically at the east and west ends of the roof. This is another treasure in Brisley Church. It is not well known and difficult to see from the ground, nevertheless it is a rarity and an extremely important survival. The surviving elements do not reflect the original appearance and it would be worth considering a graphic reconstruction.

Paint is visible in the eastern bay and the two bays at the west end of the aisle (see church plan). The roof timbers have a double roll moulding. The outer roll has barber-pole painted decoration while the other roll has more complex painted ornament. The red wave motif (looking like heraldic vair) alternates with green. The same sequence is found on the

cornice. Red (vermilion, an expensive bright red pigment) is still visible but this alternated with another colour, probably green, a traditional colour combination. (Catherine Hassall suggests green or blue but the former is more likely). The green has faded now leaving only a 'greyish' stain. The black horizontal line painted between the two roll mouldings may be original. It would have created a shadowed effect.

On close inspection it is clear that the paint was seen with a textile stretched between the moulded timbers. The nails survive, occasionally with an odd thread from the textile (plate 123). The distinctive wavy edge associated with a textile nailed to timber can also be seen. This combination of fixed textile with painted elements is an immensely rare survival in an ecclesiastical context (though more often observed in domestic schemes at a later date). At Brisley, this must be a medieval arrangement which emphasises the eastern bay and the south entrance and is **high significance and an extremely rare survival**.

6: SUMMARY OF THE PAINT ANALYSIS

Detailed technical analysis was carried out by Catherine Hassall in 2002. See Appendix 1 for full details.

Summary of the pigments

| Subject | Pigments and Metals |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Consecration Cross | Vermilion, red iron oxide, azurite, white lead |
| Arcade Pier (with black and red textile) | Charcoal black, dark iron oxide red, limewash ground |
| South St Christopher & St Andrew | Lead white, ochre, verdigris, charcoal black, dissolved copper green, vermilion, red iron oxide |
| South, painting above south door | Red iron oxide, yellow ochre, grey (chalk and charcoal black), probably in an aqueous medium |
| South aisle roof | Vermilion, faded ?organic blue or green, charcoal black |
| East end, Red imitation textiles & diaper motifs | Red iron oxide, red lead, white lead |
| North Angel | Red & yellow ochre, lead white, calcium carbonate |
| North St Christopher | Red ochre, lead white, chalk, azurite, charcoal black, dissolved copper green, verdigris, vermilion, yellow ochre, gold |

The pigments, metal leaf and techniques identified during the 2002 investigation are striking and the schemes at Brisley are **artistically and technically significant**.

- North St Christopher. There is a notable use of expensive azurite blue pigment on the north St Christopher (as well as the consecration cross C15th?). Azurite is found in a number of late medieval wall paintings (Kirkham) and rood screens (Wrapson) in East Anglian Churches, suggesting good availability of the pigment (and typically, it is good quality azurite). Hassall notes the 'extravagant' use of the expensive azurite and this with the gold leaf on the Child's halo is ostentatious. The north Christopher painting technique was complex with a build up of layers, underpainting and ending with intricate detail. Underpaint was used for the blue and also for the glaze of dissolved copper green used for green vegetation. Remains of red (red lead) survive on the lower edge of the cornice, providing a border for Christopher.
- South St Christopher. The technique for the late C14th south St Christopher is also elaborate and sophisticated but in a very different 'taste'. There is no azurite blue in this scheme rather it uses a rich range of reds and greens probably in an oil medium seen on many high quality wall and panel paintings in the period. Some pigments have discoloured distorting the impact of the original polychrome and this probably led Mrs Baker to suggest that there is a 'preservative' on the painting. The elaborate original technique involves several superimposed layers and the decoration of the costume is ornate. Similar distinctive rich textiles were observed on the St Agnes painting at Cawston Church. It is tempting to speculate that there is some workshop link (?).
- Imitation textiles. Analysis has shown a sequence of imitation textiles at the east end. What appears to be the earliest of the rich red textiles at the east end of the nave (responds) and east end of the south aisle around the piscina would have been elaborate and colourful. The red was diapered with white rosettes alternating with bright orangey red rosettes. This same scheme can be identified on the responds and the around the piscina. However, another scheme was also identified and can be seen on the east wall, next to the south respond which includes 'fleur de lys' motifs on a black ground. It is worth considering graphic reconstructions of the schemes.
- Angel. Perhaps the least technically sophisticated figure painting is the angel in the north east corner of the north aisle. This painting is in poor condition with discoloured pigments and badly affected by mould, salts and bat excreta. Its original colouring is now distorted and looks brownish, largely because of the mould.

7: CONDITION SURVEY AND TREATMENT PROPOSALS

It is emphasised again that the condition survey focuses on the existing, visible areas of wall painting. No investigation has been carried out for further wall painting which may survive elsewhere in the church

All the paintings need at least some conservation work to secure detaching plaster and delaminating paint layers. All would benefit greatly from cleaning, removal of overlying islands of limewash overpaint and some areas could be uncovered (the nave piers for example). It will be difficult to justify carrying out this expensive work if the bats remain in the church.

Mrs Bakers' comments in the 1960s that the church was very damp have largely been addressed but there are issues at low level. There is MBG on the floors, especially the north aisle (plates 23-25). The PCC have recently rodded and cleared the drains/downpipes and gutters. There is no ground water drainage (apart from the new one installed in 2020). The next QIR is imminent (early 2021). Furthermore basic regular maintenance must be carried out. The new drain on the west side of the porch, for example, was blocked by moss when I arrived in October 2020 (now cleared). The current heating system is about to be changed.

The major problem is the impact of bat defecation on the wall paintings, fixtures and fittings in the church (see discussion below).

7.1: *North Aisle St Christopher*

Condition

This painting is extremely badly affected by bat excreta. Microbiological growth (MBG) associated with bat urine occurs notably at the upper west side (plate 35) with many bat droppings evident on the adjacent limewash further west (plate 30). More seriously, bat droppings are evident on the exposed areas of painting.

This painting has had a history uncovering. Blomefield described the scheme in 1808, yet Mrs Baker says that she uncovered the painting in the 1960s. It suggests that the painting was re-covered in between those dates – by no means unusual treatment of wall paintings. The problem is that each time it is uncovered more damage occurs. The visible fragments are damaged as a result of poor uncovering. Limewash overpaints remain, obscuring parts of the painting (upper half), muddling the appearance. A small island of exposed medieval painting is visible near the bottom edge of the painted area (plate 37). It suggests that more St Christopher remains to be uncovered, though its extent is not known without more invasive investigation.

There is a large repair in the middle, running diagonally from Christopher's chest to the window. The repair in the top right corner above Christopher's head is modern pink bonding plaster. A crack runs diagonally through Christopher's face, following the outer edge of the repair in his chest (plates 31, 36). A small area of plaster is detaching on the eastern edge of the window jamb (plate 34) and other small losses are visible.

Treatment

- Remove the pink gypsum-based repair and fill with a plaster of lime putty and washed sharp sand, 1:3. The same lime/sand mix will be used for all cracks and small repairs.
- Modify the historic repair in the middle of Christopher and fill the crack.
- Secure detaching plaster with a grout of lime putty and sand.
- Remove overlying limewash overpaints where possible to reveal more of the upper part of the painting, using small handtools. Investigate and consider uncovering the remaining painting, if appropriate (It might not survive very well lower down or might not uncover well).
- Clean all surfaces. Remove loose dust and bat faeces with soft brushes. Removal of MBG with soft brushes if possible, or with small swabs of water if necessary.

- Readhere delaminating ground layers carrying the painted scheme with diluted limewash after pre-wetting with Isopropyl alcohol (IPA) in water 1:4.
- Delaminating paint layers can be fixed with Lascaux 1476 diluted in water. Tests on site will establish the proportions.
- Apply a toned limewash to new and old repairs.

7.2: *North Aisle Post-Reformation Text*

At present, no work is required. It will be worth investigating the surrounding areas for more of the scheme at a later date.

The remnants could be 'tidied' by removing overlying limewash and 'squaring' the area with exposed decoration.

7.3: *North Aisle Angel and Floral Scrollwork*

Condition

The angel painting is in poor condition but could be much improved with cleaning and conservation. Its appearance is muddled by paint losses, overlying islands of limewash, MBG and bat excreta.

The window reveal containing the floral scrollwork could be uncovered to show more of the scheme.

Treatment

- Fill gap between the medieval plaster and the post-Reformation repair in the northeast corner, using lime/sand plaster as above.
- Remove overlying limewash overpaints where possible using small handtools. Uncover the window reveal with small handtools
- Clean all surfaces. Remove loose dust and bat faeces with soft brushes. Removal of MBG with small swabs of water from painted surfaces. It may be possible to use a solution of ammonium carbonate in those areas without sensitive pigments. Tests on site will establish the solution and will be followed by small swabs of water.
- Readhere delaminating ground layers carrying the painted scheme with diluted limewash after pre-wetting with Isopropyl alcohol (IPA) in water 1:4.
- Delaminating paint layers can be fixed with Lascaux 1476 diluted in water. Tests on site will establish the proportions.
- Apply a toned limewash to new repairs and losses in the white background of the scrollwork decoration.

7.4: *East Wall of the Nave*

Condition

More of this scheme survives under limewash overpaint. The limewash overpaints are delaminating (eg plates 58, 59). The red background is poorly bound and has 'smudged'. The indications are that the red textile both here and at the east end of the south aisle will be slow, difficult and time-consuming to uncover but rewarding, if successful. There are two options 1) allow sufficient time to uncover the scheme slowly but stop the work if it proves too damaging to continue; or 2) improve the appearance of the existing areas by carrying out limited, localised uncovering and removal of detaching limewash overpaint. Uncovering includes the bases of the responds. If it can be uncovered successfully, then it could look very good and provide a backdrop for the rood screen, as seen pre-Reformation.

Treatment

- The work focuses on the responds and includes the bases. It does not include any potential work above the capitals as this area has not been investigated.
- Remove failed repair between the base and the rood screen and fill with lime putty/sand as above.
- Uncovering the scheme, if possible with small handtools.
- Consolidate powdering paint with Paraloid B72 in acetone, if necessary. Tests on site will establish the appropriate solution.
- Readhere delaminate ground layers with diluted limewash.
- Tone white losses in the background to blend with the red textile colour using artist's quality watercolours.

7.5: *Arcade Piers*

Condition

The piers are partially uncovered and their appearance will be vastly improved with uncovering.

N1: has traces (plates 61-62)

N2: has good remains of the painted textile, largely hidden by limewash overpaint (plates 63-64)

N3: has a fragment that will be worth uncovering as part of the sequence (plates 65-66)

S1: has good remains of the painted textile with evidence for the former bracket (plates 68-70)

S2: has the best surviving imitation textile in black with red 'braiding' (plates 71-77).

Treatment

- It is recommended that N2, N3, S1 and S2 are uncovered, cleaned and conserved. The scope of uncovering on N2, S1 and S2 is the column only from the top of the base to the bottom of the capital, whereas N3 is only a fragment. Uncovering will be with small handtools.
- Exposed areas of painting are delaminating at the edges and will be readhered with dilute limewash to secure the ground carrying the painting.

- Some reintegration of paint losses will be necessary, especially on the black textile, using toned limewashes and artist's quality watercolour. The aim is not to make the imitation textiles look new but to improve their legibility.

7.6: *Nave: Corbels*

The medieval corbels should be uncovered. This is more likely to be a project associated with redecoration of the nave when scaffold access will be available (?).

These corbels must be uncovered to reveal the original colouring by a specialist accredited wall paintings conservator.

7.7: *South Aisle, East End*

Condition

More of this scheme survives under limewash overpaint. The limewash overpaints are delaminating. The red background is poorly bound and has 'smudged'. The indications are that the red textile at the east end of the south aisle will be slow, difficult and time-consuming to uncover (as will the east end of the nave). There are two options 1) allow sufficient time to uncover the scheme slowly but stop the work if it proves too damaging to continue; or 2) improve the appearance of the existing areas by carrying out limited, localised uncovering and removal of detaching limewash overpaint. There are large areas of historic repairs that must be retained as they provide the archaeological evidence for pre-Reformation statuary, etc. There is possibly a large repair higher up the east end of the south wall (? see plate 87) but red paint is visible through lacunae in the overpaint immediately west, next to the window jamb (plate 87). Detaching plaster in and around the piscina is being stabilised as a separate small project (completed 2020). The Parish should be aware that that uncovering will reveal blank areas of the wall which are an important part of the original arrangement.

Treatment

- Remove failed repair between the base and the rood screen and fill with lime putty/sand as above.
- Uncovering the scheme, if possible with small handtools.
- Consolidate powdering paint with Paraloid B72 in acetone, if necessary. Tests on site will establish the appropriate solution.
- Readhere delaminate ground layers with diluted limewash.
- Tone white losses in the background to blend with the red textile colour using artist's quality watercolours.

7.8: *Post-Reformation Frame*

Condition

This appears to be a fragment but it will be worth investigating the plaster between the two windows for more of this, or any other scheme. The visible fragment is good quality and urgently need stabilisation as ground layers are detaching, especially at the edges.

Treatment

- Readhesion of the delaminating ground layers with dilute limewash.
- Small plaster losses will be filled with lime putty/sharp sand as described above (1:3)
- A toned limewash will be applied to new plaster repairs if necessary.

7.9: *South Aisle Consecration Cross*

Condition

There are plaster losses and detaching plaster associated with the losses. The consecration cross is in very poor condition. The black vertical 'smudge' in the middle is possible a taper burn and must not be removed.

The cross is partially covered with limewash overpaints and losses to the plaster surface contributing to the muddled appearance of the cross. Essential conservation will stabilise and improve the appearance. However, most of the colour has been lost and it will not look like the reconstruction by Catherine Hassall in the paint analysis report.

Treatment

- Secure detaching areas of plaster with by injecting a lime putty/sand grout behind the loose area. Pre-wetting the area to be secured with IPA in water (1:4).
- Fill plaster losses with a lime/sand plaster as above.
- Remove any overlying limewash overpaint with small handtools. Remove limewashes from around the cross, to 'square' the area and to provide a perimeter for future church decorators.
- Apply toned limewash to new plaster repairs if necessary.

7.10: *South Aisle St Christopher*

Condition

Unfortunately, the upper and lower part of St Christopher has been lost since the C19th Sandys watercolour (Fig 2). The remaining painting is high quality and extremely badly presented with patchy white limewash surrounding the painting. White paint drips and islands of limewash overpaint disfigure the painting. There is a plaster loss in the upper part of the eastern flanking figure.

Treatment

- The scope of the work area is between the windows, up to the springing of the windowheads. Removal, or adjustment of the limewash surrounding the painting will greatly improve its appearance.

- Remove any islands of limewash overpaint from the figures and surface clean with small swabs of water where possible.
- Modify older lime-based repairs if necessary and fill plaster losses with a lime putty/sand plaster.
- Consider leaving the darker plaster surface visible rather than relimewash when the current white paint is removed. Otherwise, relimewash with a limewash toned with earth pigments to blend better with the figure painting.

7.11: South Aisle above the South Door

Condition

Most of this painting is hidden by the Royal Arms and access was not possible during the condition survey. It is not known how well the painting survives, if at all, behind the Royal Arms. All that could be seen were strips surrounding the Royal Arms. Patches of painting have been randomly exposed (approximate area visible in plate 106). The southwest corner has been badly affected by water ingress from a leaking roof (now repaired) evidenced by staining and MBG. It would be worthwhile for a wall paintings conservator to conserve the plaster beyond the obvious painted area to the west corner (plate 107) and continuing downwards (area marked in red, on plate 106). The low level areas need re plastering by contractors (subject to investigation by the wall paintings conservator beforehand).

Treatment

- Removal of accumulated dust and debris from the surface with soft brushes.
- Removal of limewash overpaint with small handtools.
- Any delaminating ground layers carrying the painting can be fixed with dilute limewash.
- Diluted Lascaux 4176 may be used for any delaminating paint layers, if necessary.
- Remove inappropriate or failed plaster repairs and fill with lime putty/sand plaster.
- Secure any detaching edges of historic plaster with a lime putty/sand grout.
- Final presentation of the painting will have to be decided once cleaned and conserved. However, a toned limewash will be applied to new repairs and losses in the paint layer.

7.12: South Aisle Roof

Condition

Mortar between the rafter ends is failing in some areas, notably at the western end. There is no obvious sign of flaking paint on the polychrome timbers but there are water stains, especially the southwest corner. Dust and debris have accumulated on the upper edges of the timbers. Grey undercoat applied to metalwork has been smeared over onto the paint surface (plate 122).

Treatment

- The aim is to carry out as little treatment as possible. However, I did not have access to all areas of painted timber and if any localised paint fixing is required, then diluted Lascaux 4176 might be applied.
- Replace failing mortar between the rafter feet with lime putty/sand.

- Tests can be carried out to see if the stains can be thinned/removed with water applied through lens tissue on cotton wool swabs.

8: BAT ISSUES AND IMPACT ON THE WALL PAINTINGS

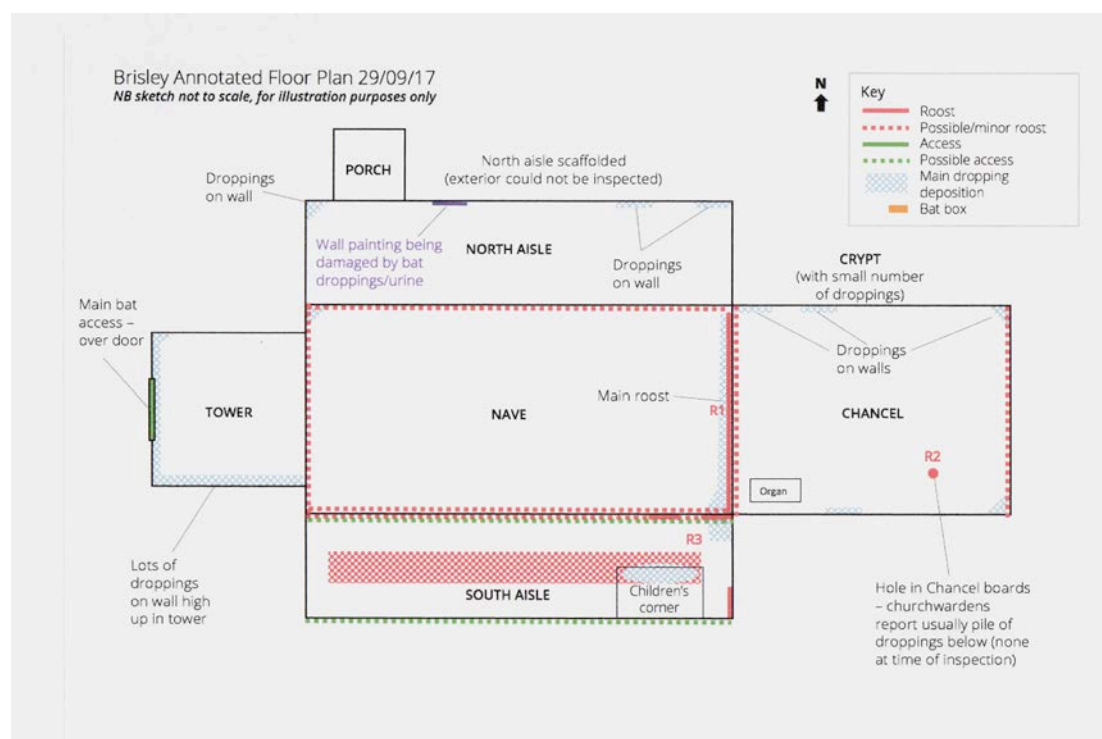


Figure 4: Bats in St Bartholomew, Brisley: Insight Ecology plan of Bat Activity, Annotated Floor Plan, 29/09/17

Figure 4 indicates the bat activity in Brisley Church, as surveyed in 2017. The report acknowledges a serious problem with bats and the impact their excreta has on the furnishings, fittings and wall paintings within the church. When I visited the church shortly after the first lockdown, 23rd June 2020, the amount and spread of excreta was shocking (plates 7-20, 25). The situation is so extreme that the Parish have to put coverings on the floor to collect the worst of the bat mess and issue warning signs to members of the public (plates 7-9). This is not excreta accumulated during lockdown but represents a depressing ongoing and serious problem at Brisley. Bat droppings are the readily visible evidence of bat activity but it should be remembered that urine is extremely damaging and less obviously visible on porous surfaces (such as high value wall paintings). Cleaning is extremely onerous for the parishioners who care for the church. In normal years, they are cleaning daily, clearing sheets and generally sweeping other areas at the height of the season. The older, more vulnerable members of the community typically carry out cleaning and they are particularly concerned about the health and safety issues when cleaning urine.⁹

⁹ Email communication, 18th November, 2020

The 'Bats, 2017' report recognises the impact the bats have on the wall paintings,¹⁰ especially St Christopher in the north aisle (plates 30, 32-35). Unfortunately, the report recommends a deflector board and/or curtain as a possible solution to the bat problem. Neither curtains nor deflector boards are in anyway acceptable options in Brisley, or any church. Curtains, for example, create a microclimate and physical damage to the wall painting will occur as they are opened and shut. Nor is it acceptable to fix either a curtain or a deflector board to historic fabric which is also high value. St Bartholomew's is a special church crammed with cultural heritage that charts changing values and 'tastes' of parishioners pre-Reformation and reflects their responses to State-enforced ideological change at the Reformation and the post Elizabethan settlement. Wall paintings should be seen and many visitors come to the church to see the wall paintings, the furnishings and fabric, and not to view an interior scarred by ugly deflector boards and curtains.

The Parish care about the cultural heritage in their stewardship and have a range of ambitious projects planned for its long-term preservation, as well as routine maintenance work including internal render repairs and redecoration. The cleaning, uncovering and conservation of the high quality and extensive wall paintings is a major project in the pipeline. This involves all areas of wall painting, including the east end of the nave and south aisle, so the bat roost above the chancel arch must be removed. Removal of the roost will also stop the accumulative deleterious effects of excreta on the rood screen, for example, below. Conservation of the wall paintings is expensive work that will be ruined if bats continue to defecate and urinate in the church.

The Parish wish to develop the children's corner which is badly affected by excreta in the south aisle (plates 19-22, Fig. 4), as well as other activities and events in the church. These include school services, assemblies and concerts; also as part of their commitment to the community the church wish to continue to host events which involve food and drink such as coffee mornings, lunch gatherings, wine and cheese for concerts plus the usual meet and greet coffee and cakes after services. All these activities aim to bring people into the church for religious or other reasons such as fund-raisers. To help with these activities the PCC have just installed a sound and loop system and are planning for some new heating in 2021. As a result of the bats defecating and spraying urine it is no longer possible for the church to continue all of the activities which include food and refreshments.¹¹

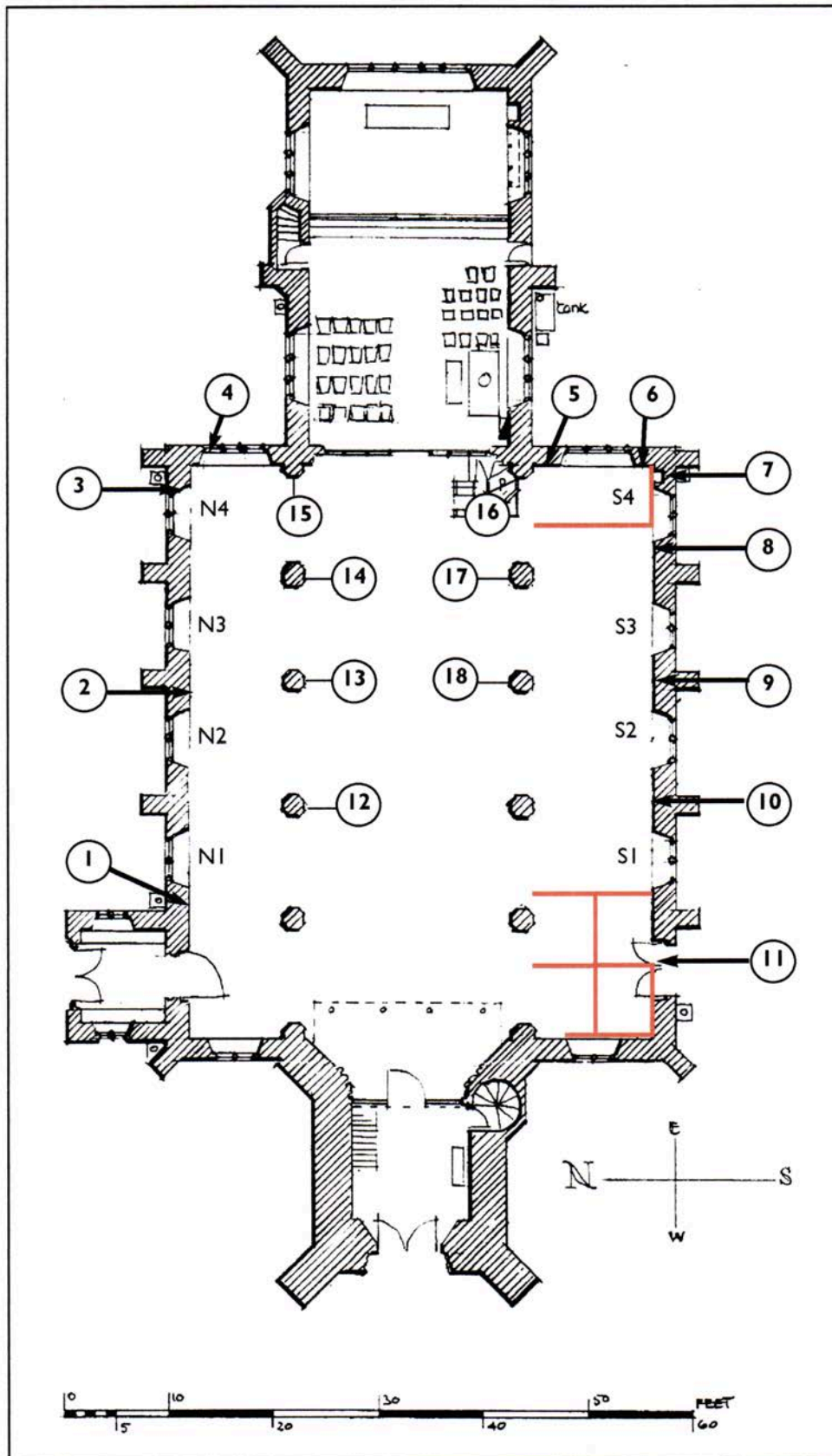
The bats are a serious obstacle to the plans and aspirations of the parishioners who work hard to keep the church alive and in good repair. When asked their preferred solutions and outcomes in 2017, the Parish said they were '*Unsure – contain bats in one area/exclude from interior?*'¹² The Parish have had time to reflect and reconsider their options. In recent discussions, they agree that the only solution and outcome to the problems at Brisley is to exclude the bats from the church.

Dr Andrea Kirkham ACR, FSA

¹⁰ 'The BiC will work with the PCC to install a deflector to protect the wall painting, provide advice and support for other coverings,' p. 4.

¹¹ Email communication, 18th November 2020

¹² Bats in St Bartholomew, Brisley, 2017 Report, p. 35

**KEY**

- 1: St Christopher
- 2: Lettering
- 3: Angel
- 4: Fragment of vine scroll
- 5: Remains of diaper pattern
- 6: Red
- 7: Piscina
- 8: Fragment of border
- 9: Consecration cross
- 10: St Christopher & St Andrew
- 11: Fragments of unidentified painting
- 12: Remains of polychrome
- 13: Remains of polychrome
- 14: Traces of red
- 15: Remains of diaper pattern
- 16: Remains of diaper pattern
- 17: Remains of polychrome
- 18: Remains of polychrome

— Polychrome roof timbers, as surviving

Ground plan by Michael Swash (2001), adapted A Kirkham 2020



Plate 1

Top left: view of the north side of the church, east to west



Plate 2

Bottom left: detail of the north side, by the porch

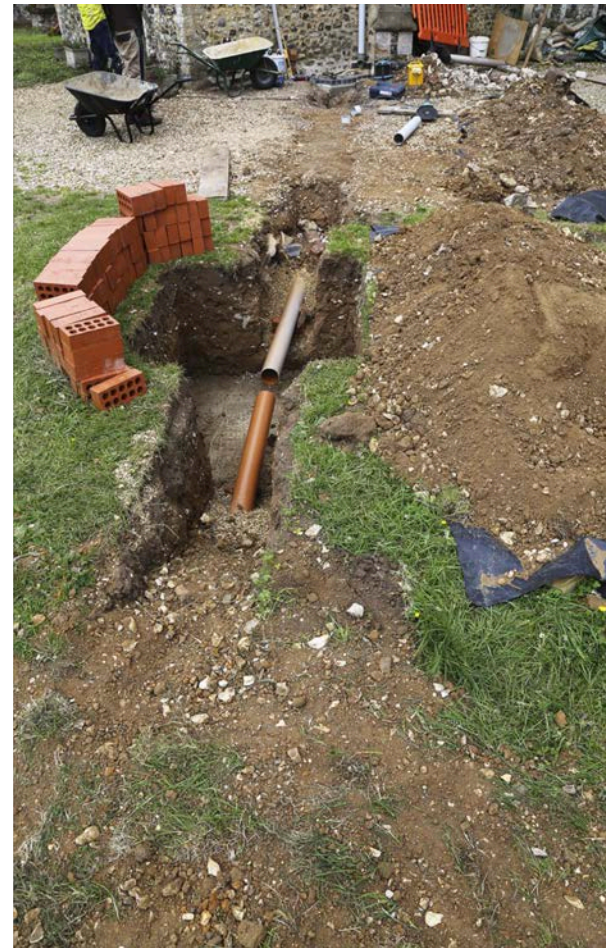


Plate 3

*Left: drain work at the west side of the north porch, summer, 2020
(All photos © A Kirkham 2020)*



Plate 4

Far left: view of the south side of the church



Plate 5

Bottom left: detail of the east end of the south aisle



Plate 6

Left:: detail of the east end of the south aisle

(All photos © A Kirkham 2020)



Plate 7

Far left: notice at the rood screen warning of the bats roosting above

Plate 8

*Left: view of the bat mess in 23rd June 2020, the mess had recently been cleaned. The church has to be cleaned every couple of days by parishioners because the bats are such a problem. This is **not** mess accumulated during lockdown*



Plate 9

Below left: detail of plate 8 showing the bat mess (All photos © A Kirkham 2020)



Plate 10

Top left: detail of the impact of bat excreta/mess on the rood screen

Plate 11

Left: detail of the bat mess on the pulpit steps

Plate 12

Above: detail of bat mess on the north side of the church, east end of the south aisle by the angel wall painting

(All photos © A Kirkham 2020)



Plate 13

Far left: bat droppings on the west gallery



Plate 14

Left: gas heater hoods covered with bat urine and droppings



Plate 15

Far left: detail of droppings on the Royal Arms, south aisle



Plate 16

Left: detail of a ledger with bat droppings and urine

(All photos © A Kirkham 2020)



Plate 17

Top left: chancel: detail of the altar, bat excreta

Plate 18

Bottom left: detail of a chair, bat excreta

Plate 19

Above: detail of a ledger, bat excreta. Note the urine stains.

(All photos © A Kirkham 2020)





Plate 19

Far left: detail of the dated (1590) panelling that forms the eastern side of the box pew, used as children's corner, eastern end of the south aisle

Plate 20

*Left: view of the children's corner covered with bat excreta (this image was taken in October)
(All photos © A Kirkham 2020)*



Plates 21 & 22

*Above left and right: pew seats in the children's corner showing the impact of bat defecation, photograph taken in October
(All photos © A Kirkham 2020)*



Plate 23

Top left: north aisle showing Microbiological growth (MBG)

Plate 24

Bottom left: north aisle showing MBG and bat droppings

Plate 25

Above: north aisle, under the eastern window, north wall of the north aisle. The worst area of MBG in the south aisle

(All photos © A Kirkham 2020)





North aisle from west to east

Plate 26

Far left: view of the west end of the north wall of the north aisle. St Christopher to the east of the north door

Plate 27

Top left: view of the north wall of the north aisle

Plate 28

Bottom left: north-west corner at low level

(All photos © A Kirkham 2020)





Plate 29

Far left: view of the north St Christopher



Plate 30

Left: detail of bat defecation to west of St Christopher

While bat droppings are the visible evidence of bat activity, urine is an enormous problem



Plate 31

Below: view of the upper part of St Christopher, showing the area to be conserved

(All photos © A Kirkham 2020)



Plate 32

Above: detail of the painting towards the top left corner, showing bat faeces on the wall painting and the plaster repairs



Plate 33

Top middle: detail of bat faeces on the wall painting. Bat faeces are visible but the urine soaks into the absorbent plaster



Plate 34

Far right: detail of localised area of detaching plaster on the window jamb

(All photos © A Kirkham 2020)



Plate 35

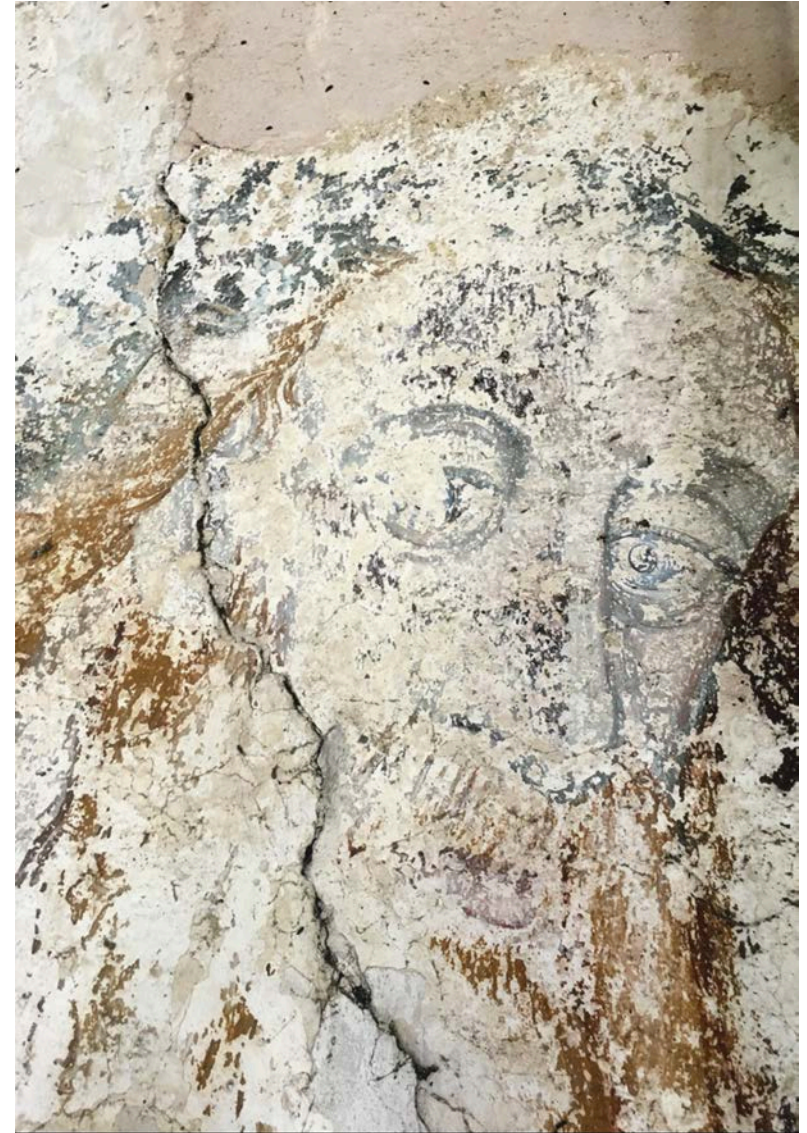
Left: the effects of bat excreta are visible

Plate 36

Right: detail of Christopher's head

Plate 37

*Below: detail showing further fragments of painting at the bottom edge of the scheme
(All photos © A Kirkham 2020)*



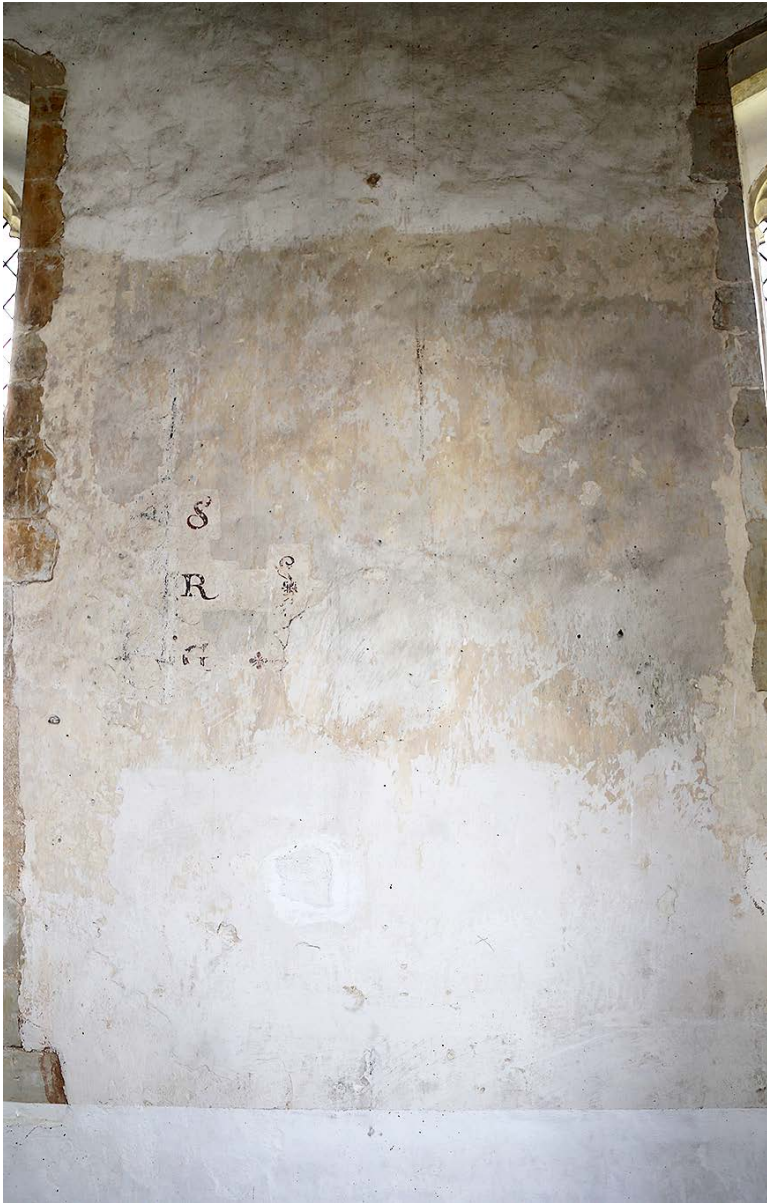


Plate 38

Left: view of the fragments of post reformation text on the north wall of the north aisle between windows N2 & N3

Plate 39

Above: detail of plate 38

(All photos © A Kirkham 2020)



Plate 40

Above: view of the north aisle towards the east end. Patio gas heaters are to be replaced soon

Plate 41

Top middle: view of the northeast corner with angel on the cut-away splay

Plate 42

Far left: view of the angel
(All photos © A Kirkham 2020)

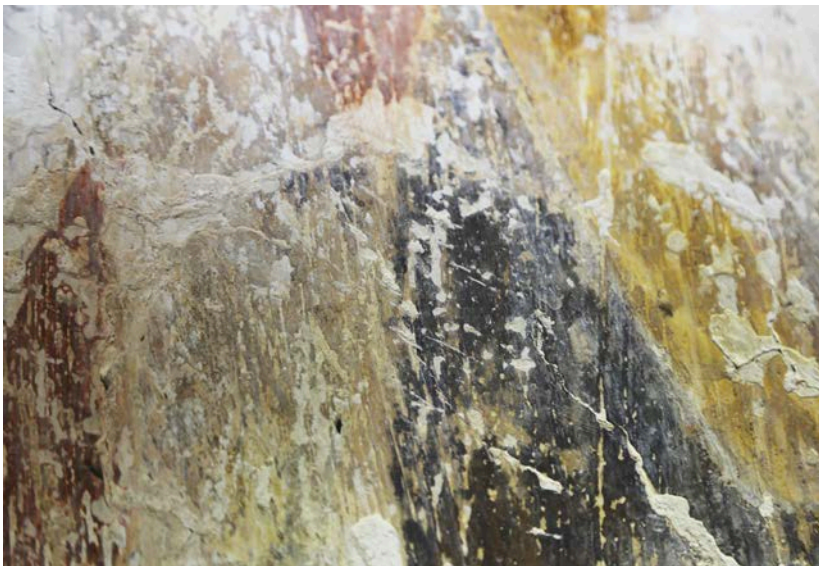


**Plate 43**

Far left: detail of the angel in the northeast corner of the north aisle. The appearance of the painting is muddled by overlying islands of limewash

Plate 44

Bottom far left: detail of the angel showing paint losses, overlying limewash and bat droppings.

**Plate 45**

Top left: detail of the lower half of the painting showing the later plaster repair at the right.

Plate 46

Left: detail of the bottom of the painting, still partially covered with limewash. Note the numerous bat droppings on the pedestal. While bat droppings are the visible evidence of defecation, urine is an enormous problem



Plate 47

Top left: detail of the north east corner, showing the plaster repair. The earlier plaster carrying the floral scrollwork is partially visible in the window splay.

Plate 48

Top middle: detail of the green paint

Plate 49

Top right: detail of the floral scrollwork. (All photos © A Kirkham 2020)

**Plate 50**

Above: view of the east end of the nave. Bat roost in the apex above the screen, the wall paintings and the three-decker pulpit. The bat problem is so severe that sheets have to be laid out to help the parishioners who have to clean the mess.

(All photos © A Kirkham 2020)

**Plate 51**

Above left: detail of the north east respond

Plate 52

Left: detail of the sill of the rood screen and damaged stonework

**Plate 53**

Above: detail of the north east respond. Medieval paint just visible. MBG at the base

(All photos © A Kirkham 2020)

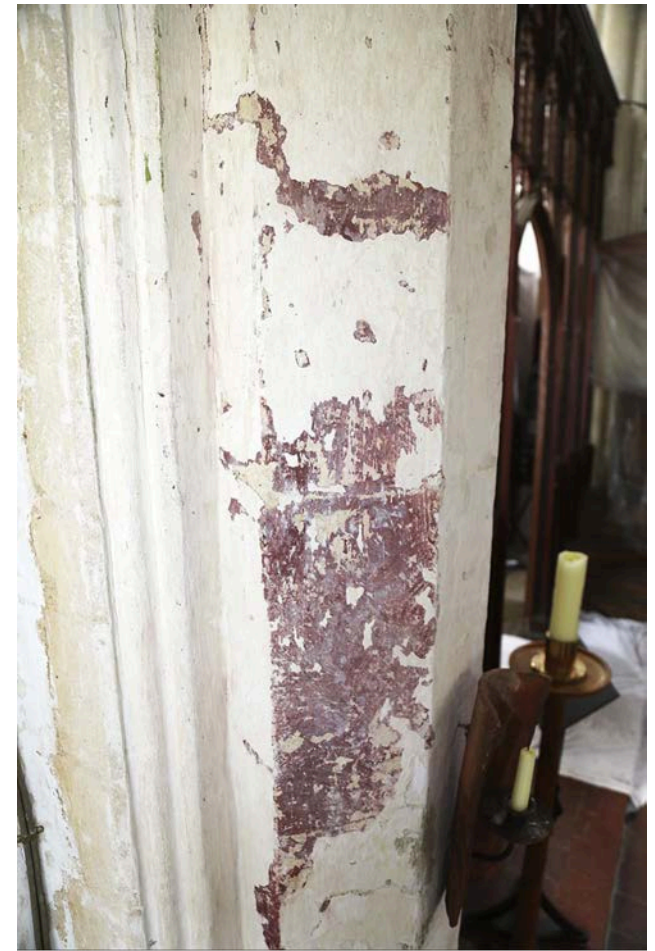


Plate 54

Top left: northeast respond, from the north

Plate 55

Middle: detail of plate 54

Plate 56

Top right: detail of plate 54 (All photos © A Kirkham 2020)



Plate 57

Far left: view of the northeast respond and return onto the east wall, viewed from the south

Plate 58

Left: detail of plate 57

Plate 59

*Below: detail of delaminating overpaint layers
(All photos © A Kirkham 2020)*





Plate 60

Above: view of the north arcade

Plate 61

Middle: view of N1

Plate 62

Left: detail of traces of red on N1
(All photos © A Kirkham 2020)

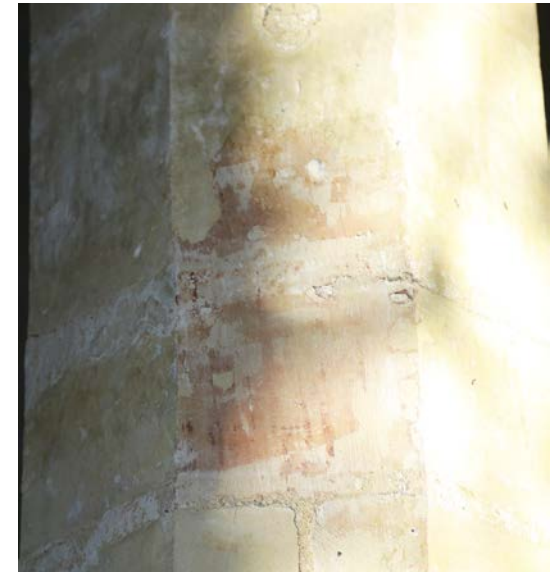




Plate 63

Far left: North arcade, N2, the most complete imitation textile on the north side, viewed from the north



Plate 64

*Left: North arcade, N2, viewed from the south west
(All photos © A Kirkham 2020)*



Plate 65

Above left: view of N3 with partial remains of a painted textile



Plate 66

Above right: detail of N3

(All photos © A Kirkham 2020)



Plate 67
Above: view of the south arcade

Plate 68
Right: detail of S1, showing the location of an image bracket

Plate 69
Middle right: view of S1 from the nave aisle

Plate 70
Far right: view of S1 from the south-west
(All photos © A Kirkham 2020)





Plate 71

Above left: view of the south arcade

Plate 72

*Above right: view of the S2 from the north
(All photos © A Kirkham 2020)*



Plate 73

Above left: view of S2 from the south west

Plate 74

*Above right: view of S2 from the south
(All photos © A Kirkham 2020)*



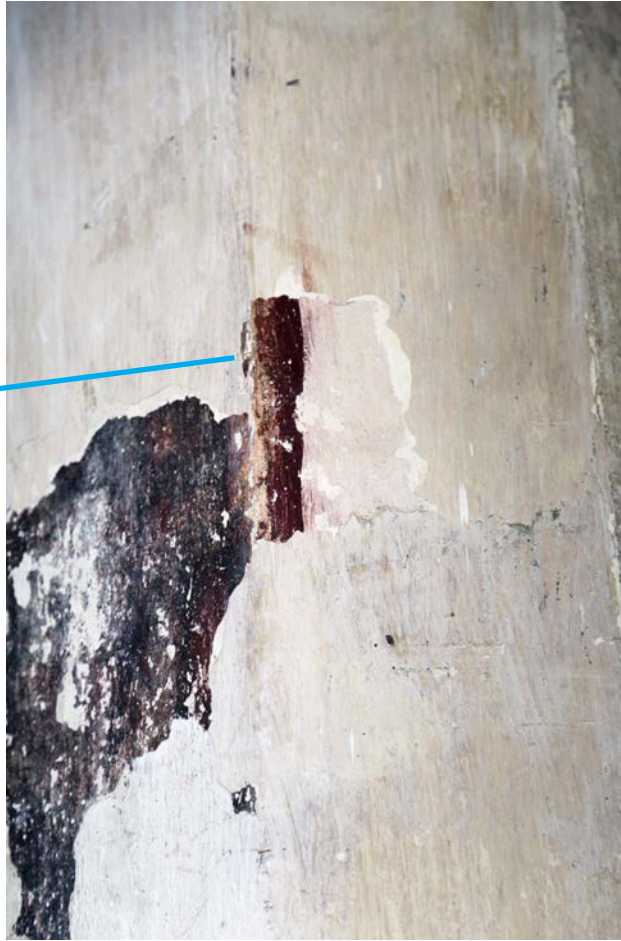


Plate 75

Far left: view of S2 from the south

Plate 76

Middle: detail of plate 75 showing the painted edge of the textile

Plate 77

*Above: detail of plate 75 showing the top of the textile hanging
(All photos © A Kirkham 2020)*



Plate 78

Top left: view of the nave roof

Plate 79

Left: view of the painted corbels, south side

Plate 80

Above left: detail of a painted corbel

Plate 81

Above right: detail of a painted corbel (All photos © A Kirkham 2020)

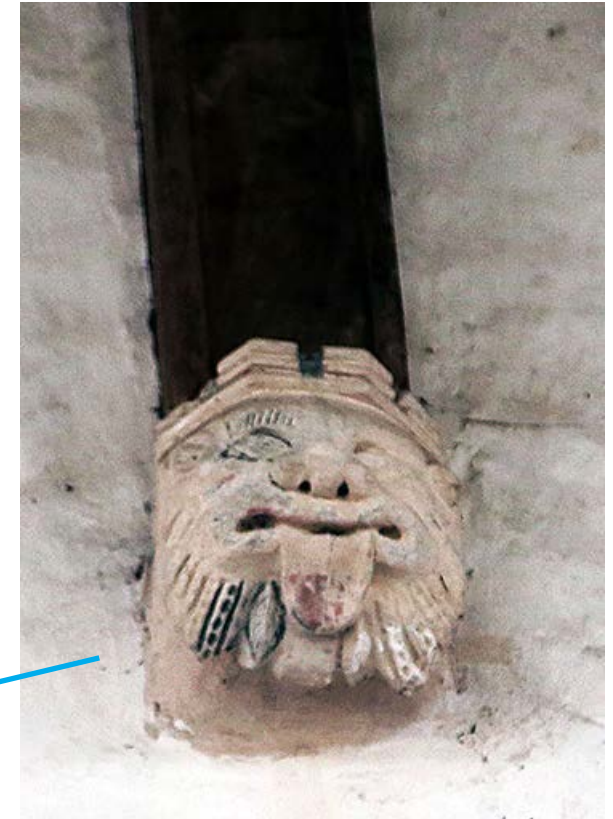




Plate 82

Above: detail of the south respond and east return. Traces of paint are visible on the capital

Plate 83

*Right: view of the painted textile(s)
(All photos © A Kirkham 2020)*





Plate 84

Top left: detail from the west face of the south respond



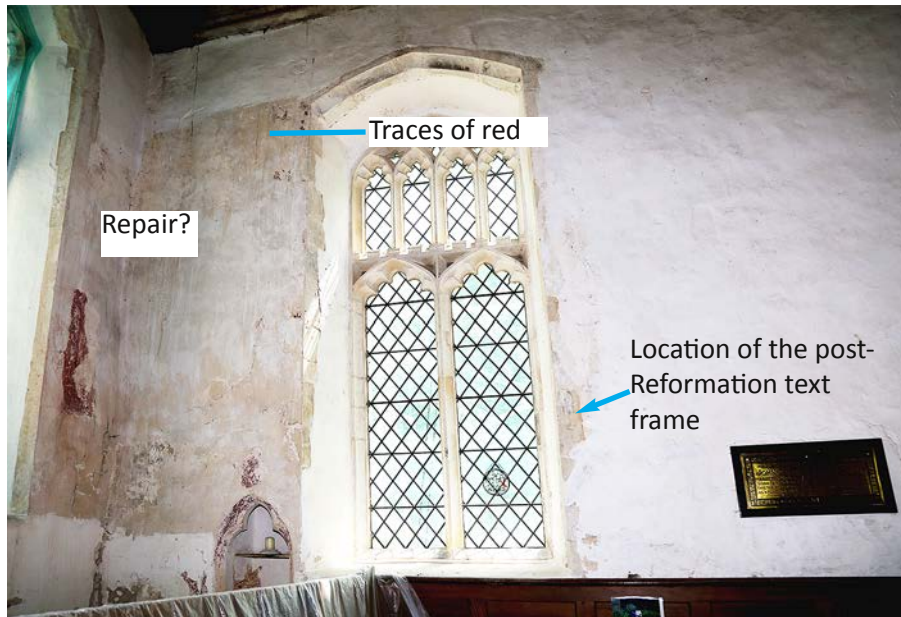
Plate 85

Top middle: detail, south respond and east return



Plate 86

Top right: detail of the east return, the scheme linking to the south respond (All photos © A Kirkham 2020)



South Aisle from East to West

Plate 87

Above: south wall of the south aisle, eastern end

Plate 88

Right: detail of red paint 'grinning' through the overpaint

Plate 89

Far right: view of the southeast corner showing the condition of the the low level render

(All photos © A Kirkham 2020)



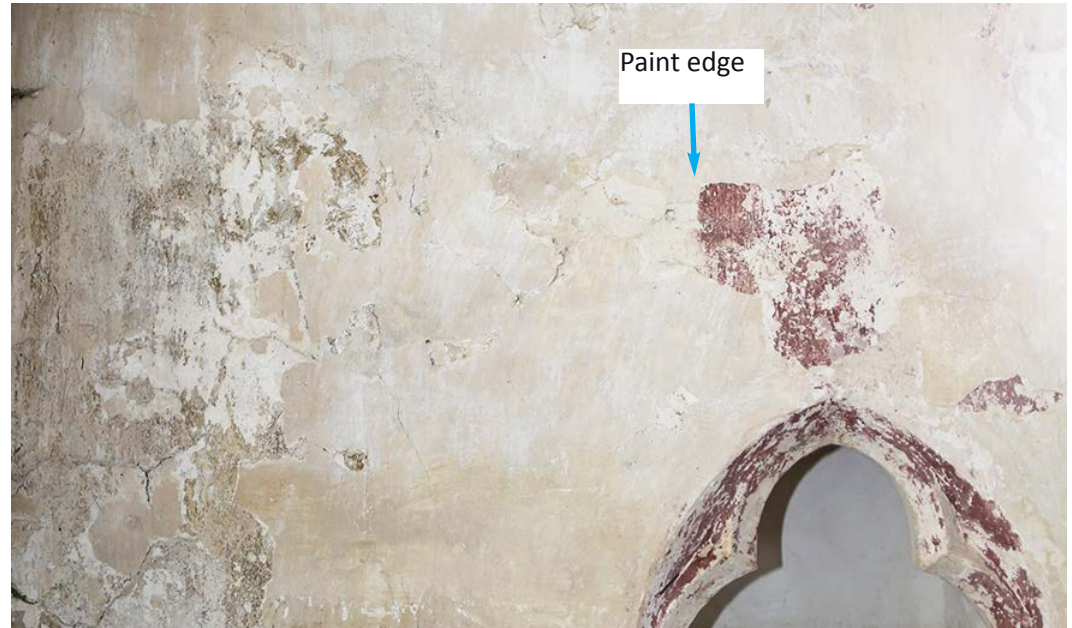


Plate 90

Top left: view of the southeast corner

Plate 91

Left: detail with a large post-Reformation repair

Repair associated
with the removal
of a ?pedestal

Plate 92

*Top right: detail above the piscina showing a paint edge
(All photos © A Kirkham 2020)*



Plate 93

Far left: view of the southeast window, location of the post-Reformation text frame



Plate 94

Left: detail of the good quality text frame

Plate 95

*Below: Consecration cross, in poor condition
(All photos © A Kirkham 2020)*





Plate 96

Far left: view towards the south aisle

Plate 97

Bottom left: view of the south aisle showing the location of the south St Christopher

Plate 98

*Left: view of St Christopher and flanking saints
(All photos © A Kirkham 2020)*





Plate 99

Above: detail of Christopher's tunic



Plate 100

Top right: detail of Christopher's tunic

Plate 101

Right: detail of plate

(All photos © A Kirkham 2020)





Plate 102

Left: view of St Andrew

Plate 103

Above: detail of St Andrew

Plates 104 & 105

*Top and bottom right: detail of a fragment of text
(All photos © A Kirkham 2020)*





Plate 106

Left: southwest corner of the south aisle

Plate 107

*Above: detail of the upper part of the southwest corner. The moulded roof timbers are painted
(All photos © A Kirkham 2020)*



Plate 108

Far left: view of the south door with painting above

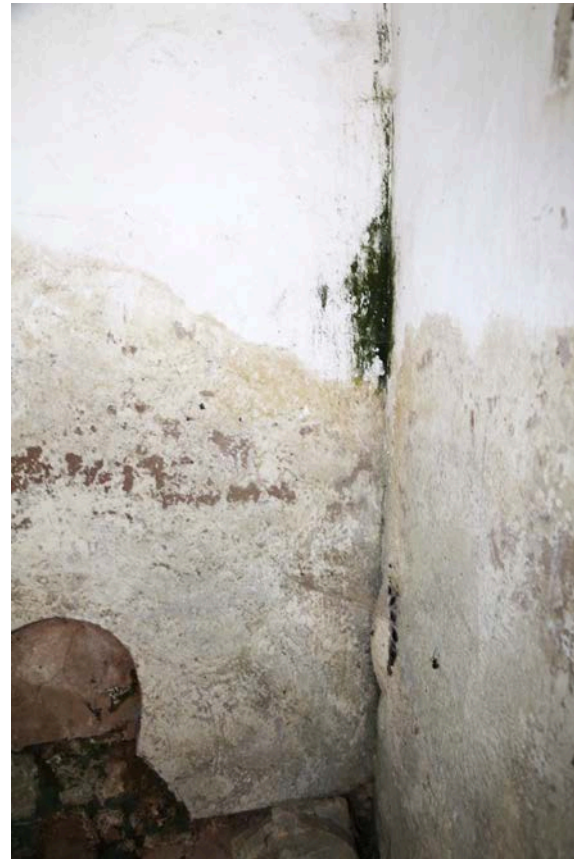


Plate 109

Left: detail of low level problems with damp ingress

Plate 110

Below: failing low level repairs

(All photos © A Kirkham 2020)





Plate 111

Top left: view above the Royal Arms, towards the west end

Plate 112

Left: view above the Royal Arms towards the east. The Ascension is said to be located in this area?

Plate 113

Above: detail showing staining from past water leaks, now repaired
(All photos © A Kirkham 2020)





Plate 114

Above: detail to the east of the Royal Arms, showing the possible eastern edge of the wall painting?

(All photos © A Kirkham 2020)



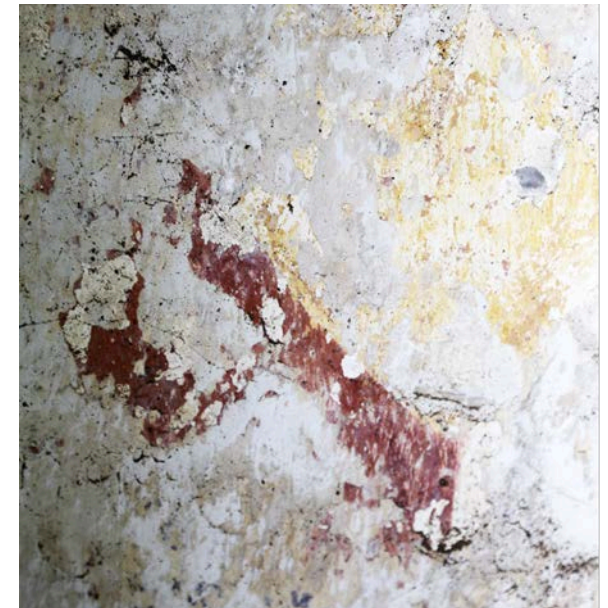
Plate 115

Right: detail to the west of the Royal Arms, showing patches of painting

Plates 116 & 117

Below and below right: details of plate

(All photos © A Kirkham 2020)





South Aisle Roof Timbers

Plate 119

Far left: view of the south aisle, from east to west where there is a severe problem with bat defecation

Plate 120

Above: Painted roof timbers of the two western bays

(All photos © A Kirkham 2020)



Plate 121

Above: detail of a painted timber showing the wavy paint edge and nail fixings for a textile

Plate 122

Top right: detail of the scheme, showing the remnants of ?green barberpoling

Plate 123

Bottom right: detail of the wavy paint edge associated with a fixed textile.

Threads occasionally survive

(All photos © A Kirkham 2020)





Plate 124

Top left: eastern end of the south aisle roof. Leaks in the roof were fixed in summer 2020

Plate 125

Left: detail of the painted timbers with the red barberpoling alternating with a colour that has now faded

Plate 126

Above: only the eastern bay above the altar is painted
(All photos © A Kirkham 2020)



ST BARTHOLOMEW'S CHURCH, BRISLEY

A technical examination of the painted decoration

Contents of report

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| 5 | St Christopher on south wall |
| 10 | Piers of chancel arch |
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St Bartholomew's Church

Building took place over an extended period, starting with the Chancel at the end of the fourteenth century, followed by the nave, and finally by the porch in c.1435. The long building period probably means that even the earliest decorations were added incrementally.

The first paintings are the red schemes on the chancel arch, and on the aisle columns, as well as the St Christopher on the south wall, and the consecration cross.

Later paintings include the angel painted on the reveal of the fifteenth-century window at the east end of the north wall, and the painted cornice and roof timbers over the south door, which are contemporary with the fifteenth-century roof. On the wall above the south door is a painting that was limewashed over in the nineteenth century.

The St Christopher on the north wall is stylistically fifteenth, or sixteenth-century, and this is probably the last of the pre-Reformation paint schemes to have survived in the church. Fragments of green decoration, very similar to paint used on that north St Christopher were found in the NE window, signifying that there were other paintings that are now lost.

Post-Reformation paintwork consists of the remains of texts on the north and south walls.

Earliest appearance of the church

At the east end of the church one can see patches of red paint on many surfaces. These represent the remains of at least four different schemes. The earliest was a plain, red iron oxide which was used to cover a very large area of the church. It was painted onto the chancel arch, the aisle columns, the east wall of the south aisle [and the north aisle] and it may even have been painted on the arches linking the columns [it was not possible to check this].

Most of the red was a flat, uniform colour, but it incorporated what looks like a fictive hanging on the west face of the south aisle central column. The painting of St Christopher on the south wall is likely to have overlapped with this extensive red scheme.

Later appearance

The plain red may have remained for some time on the columns, but at the east end of the church it was replaced with a patterned decoration. Lead white and red lead flowers over a dark red background were painted onto the chancel arch, while a black background with fleurs de lys in lead white [and perhaps also vermillion] was painted onto the east wall of the south aisle.

This patterned decoration may have overlapped with the introduction of decoration of timbers on the fifteenth century roof, and with the angel painted into the NE window reveal.

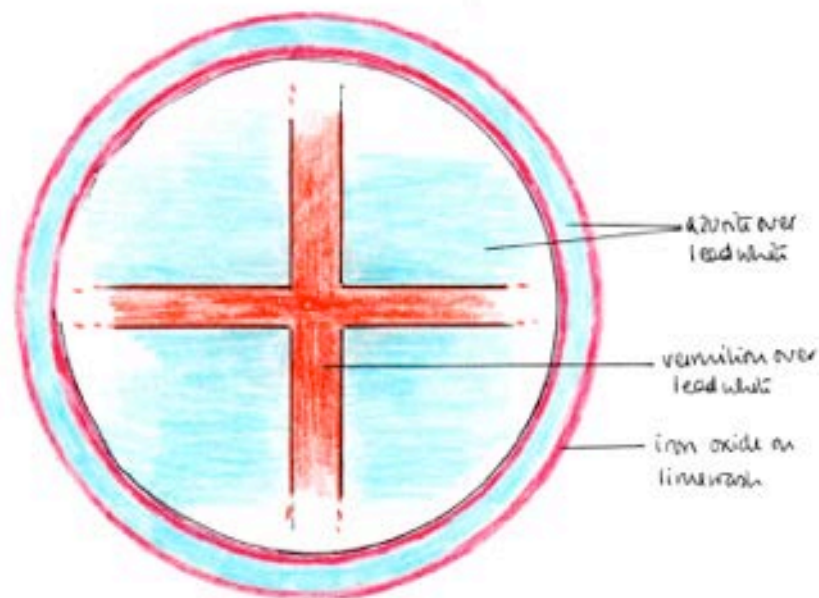
By the time the St Christopher was painted onto the north wall, one can no longer guess how the rest of the church was being painted, although it seems that the NE angel may have been obliterated by a painting of similar type to the St Christopher. The east end of the church may have been covered with white limewashes, or painted with the final black and red scheme.

Consecration Cross

The circle with its central cross was painted on a single coat of white limewash.

The perimeter of the circle was marked out with two concentric bands of dark red iron oxide, painted directly onto the white limewash.

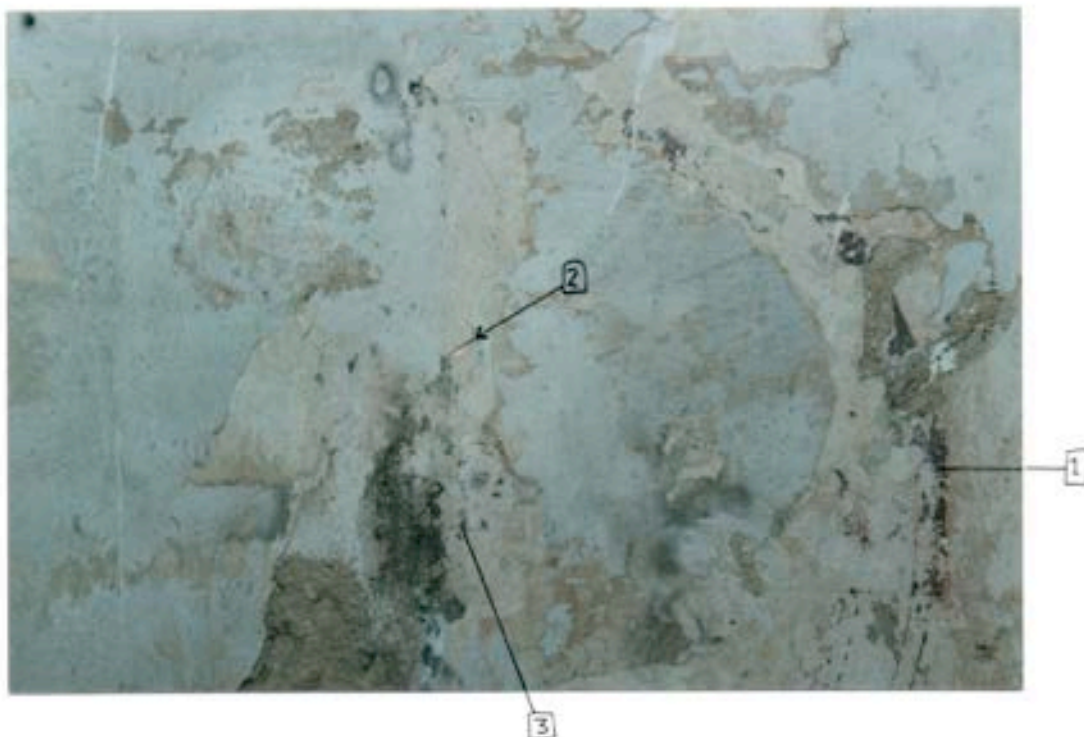
The circle was then given a ground of pure lead white, over which was painted the scarlet cross, using vermilion. The white areas were filled in with pure blue azurite.



Both the lead white ground, and the vermilion have now largely blackened, and patches of later limewash obscure some of the remaining traces of azurite.

CONSECRATION CROSS

The central cross was a scarlet vermillion, the outer border a purplish red iron oxide, and the quadrants a bright blue azurite. The central section was given a ground of lead white, but the outer border was not.

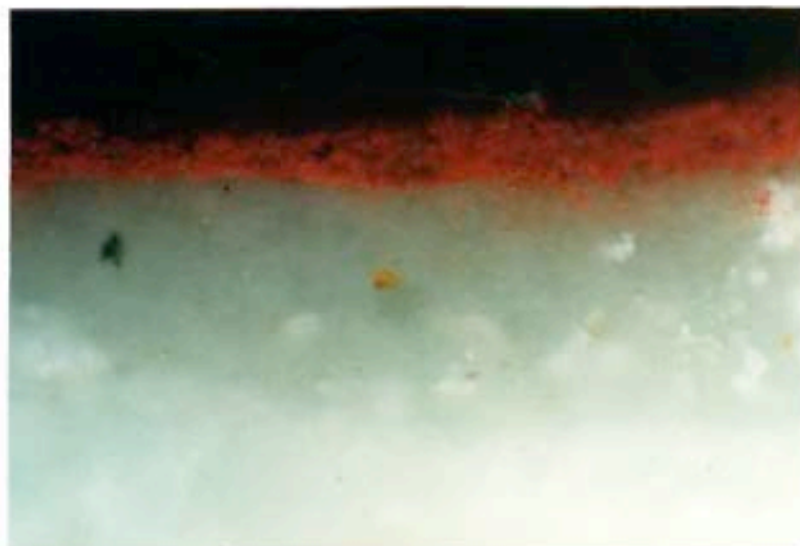


SAMPLE X1

Outer border

Pure red ochre

[x500]

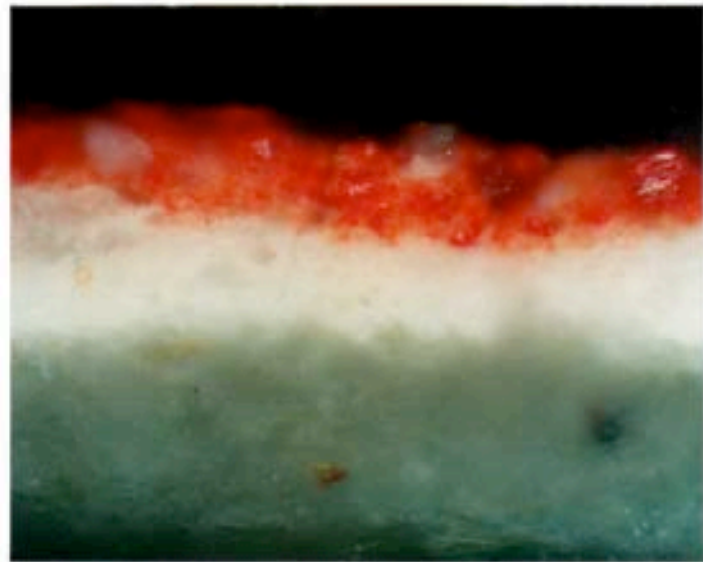


SAMPLE X4

From a bright patch of red
at the centre of the cross

Vermilion over a lead white
ground

[x500]

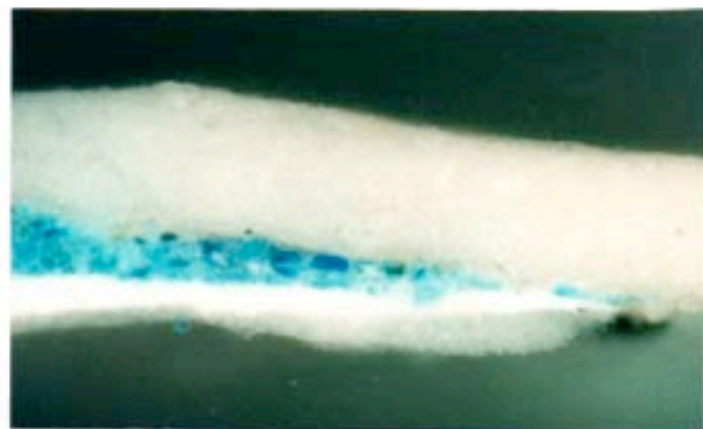


SAMPLE X2

From the upper right
quadrant.

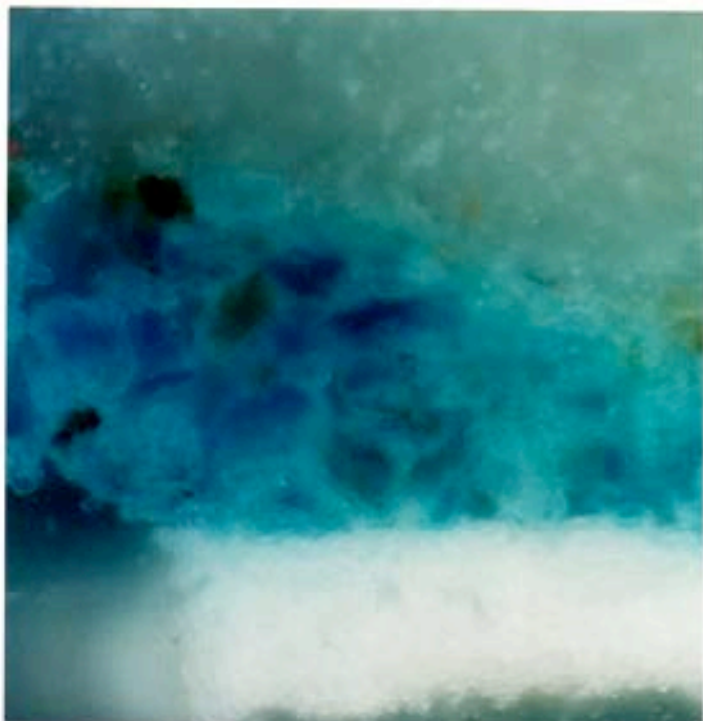
Azurite over a lead white
ground. In this fragment
the blue is still covered by
later limewash.

[x200]



Detail of the azurite, which
is of excellent quality.

[x500]



South wall St Christopher

The figure is painted over a single layer of white limewash.

The painting technique is elaborate, involving several superimposed layers, and the decoration of the costume is ornate. No organic analysis was carried out, but the binding medium may be oil because the figure has an underpaint layer contains lead white, and because of the green glaze of copper dissolved in oil and resin [p.7].

Green parts of costume.

This was first underpainted with a buff-coloured coat of lead white and ochre [p.6]. The fabric was then marked out with a green made up of verdigris, charcoal black, ochre and lead white [p.6]. The painter did not lay on a flat green colour, but by varied the amounts of pigment in the mixture, to create light and dark shades in order to model the folds. A dissolved copper green glaze was brushed over the green [p.]. It is not clear if this covered all the green, or was just used for the darkest fold lines and for the flowers. The flowers, which were painted with pure vermilion, were the final detail [p.7].

Twisted belt.

This was laid over the main green colour. The background colour was pure lead white, and the twists were painted over the top with dark grey mixture of charcoal black and lead white. The underlying white and the overlying grey layers blend together, and the paint seems to have been worked 'wet-in-wet' [p.6].

Red parts of costume.

Like the green parts of the costume this built up in more than one layer. The undercoat consisted of pure red iron oxide, the top coat was the modelling layer which was executed in shades of vermilion and lead white [p.]

Flesh tones of legs.

The legs are now black, due to discolouration of lead pigment [p.7]. The pigment was presumably lead white rather than red lead, as the legs will have been bare. Although lead white was used in almost all the colours on this painting, the legs are the only part to have discoloured.

St Andrew

This is contemporary with St Christopher, and only one sample was taken.

The green of his costume was examined to see if it was the same mixture as that found on the main figure [p.9]. Although the green looks more drab than the green of St Christopher's robe it is based on a similar set of pigments, i.e. verdigris, lead white, ochre and charcoal black . The dull colour comes from discoloured lead white.

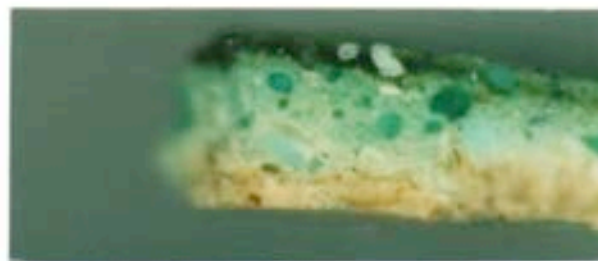
SOUTH ST. CHRISTOPHER



SAMPLE A5
Green of tunic

A good example of the yellowish
ground of lead white and ochre

[x200]

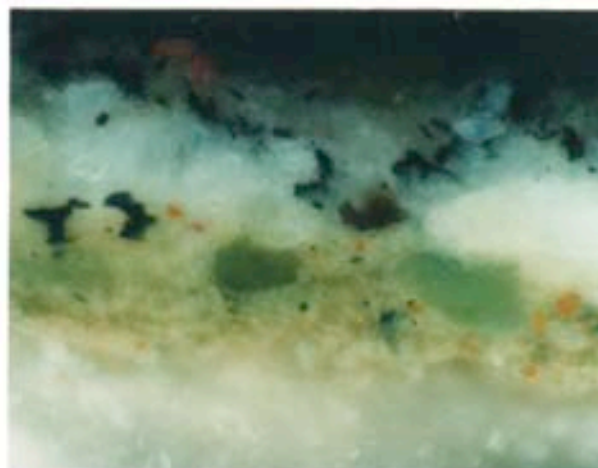


yellowish-buff
ground

SAMPLE A1
Modelling on belt

The belt is modelled in grey and
white over the green of the tunic
[verdigris, ochre, white and black].

[x500]



grey
beading

white

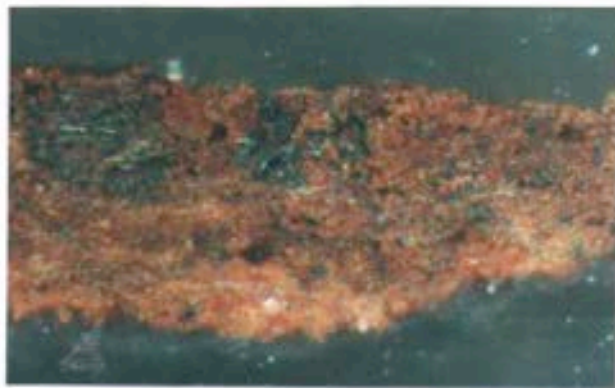
green
tunic
ochre

SAMPLE A6

Blackened legs

Discoloured lead pigment -
This must include the lead
white in the ground.

[x500]

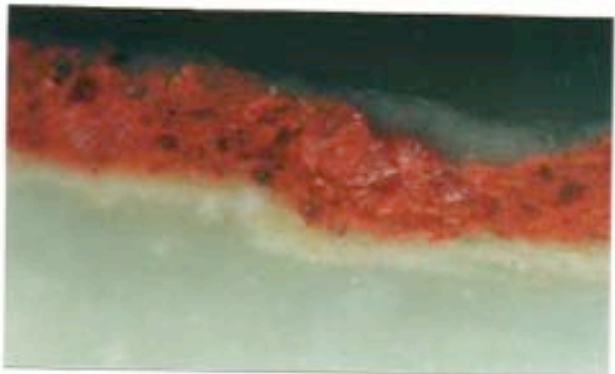


SAMPLE A2

Dark red background colour
of robe

Red iron oxide.

[x500]



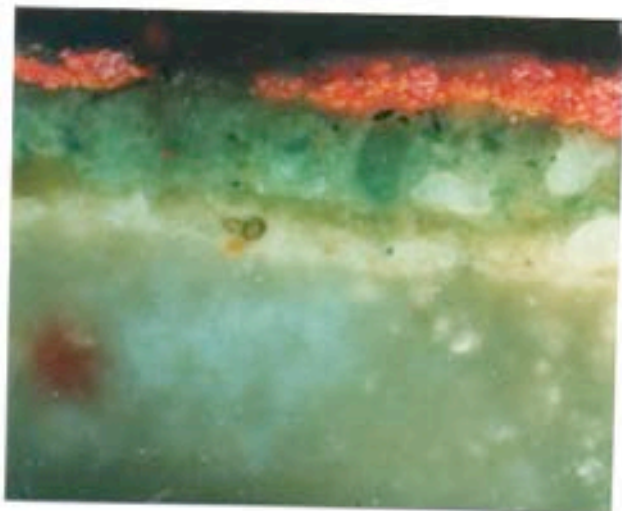
SAMPLE A4

Red on 'black' - petal pattern
on green tunic.

Very little of the copper glaze
which is the 'black' [see A5 below].

Vermilion over the green mixture
of verdigris ochre and black.

[x500]

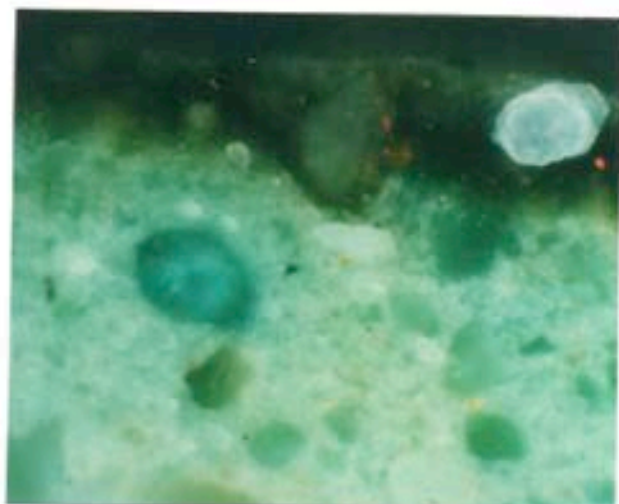


SAMPLE A5

Green robe

A good example of the
copper green glaze, that now
looks almost black.

[x500]



SOUTH ST CHRISTOPHER - MODELLING ON RED & GREEN

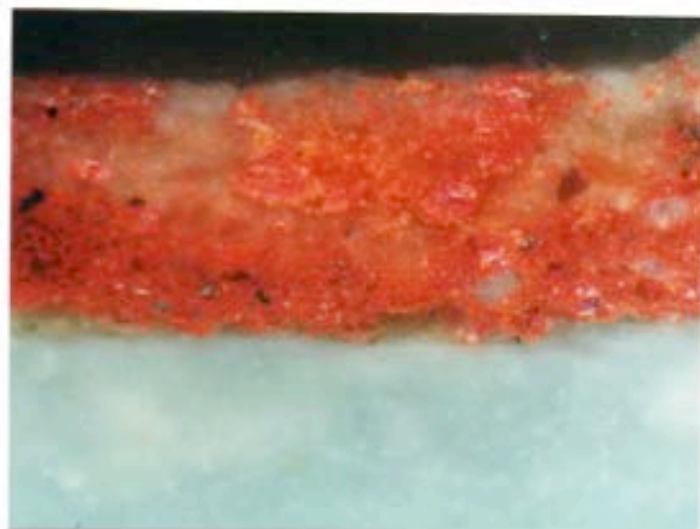


SAMPLE A3

Paler fold line on dark red.

Vermilion and lead white over the red iron oxide of the undercoat.

[x500]

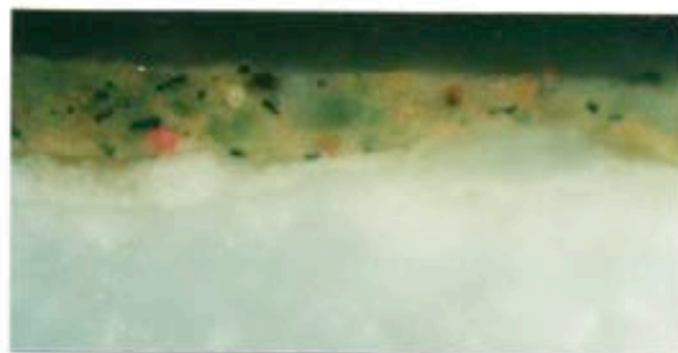


vermilion
+ lead
white
← red ochre

SAMPLE A8

Paler fold line on dark green

Green and lead white, over darker green. [x500]



SOUTH ST CHRISTOPHER - FIGURE ON RIGHT

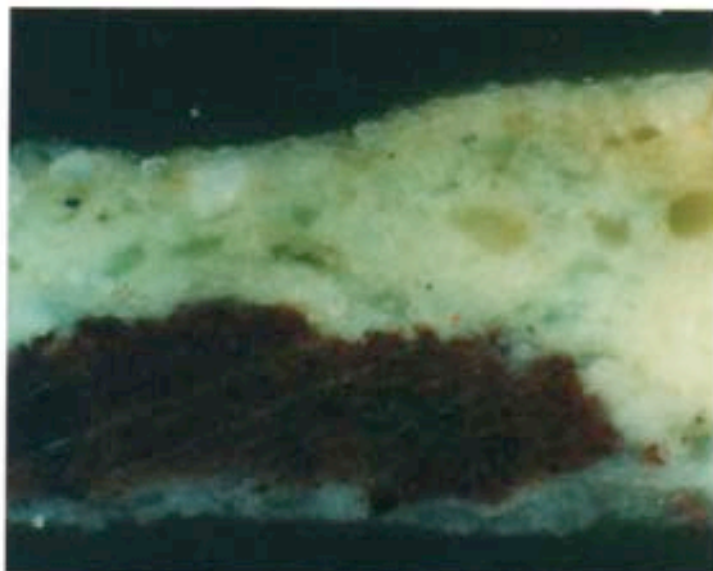


SAMPLE A7

Dull green of robe

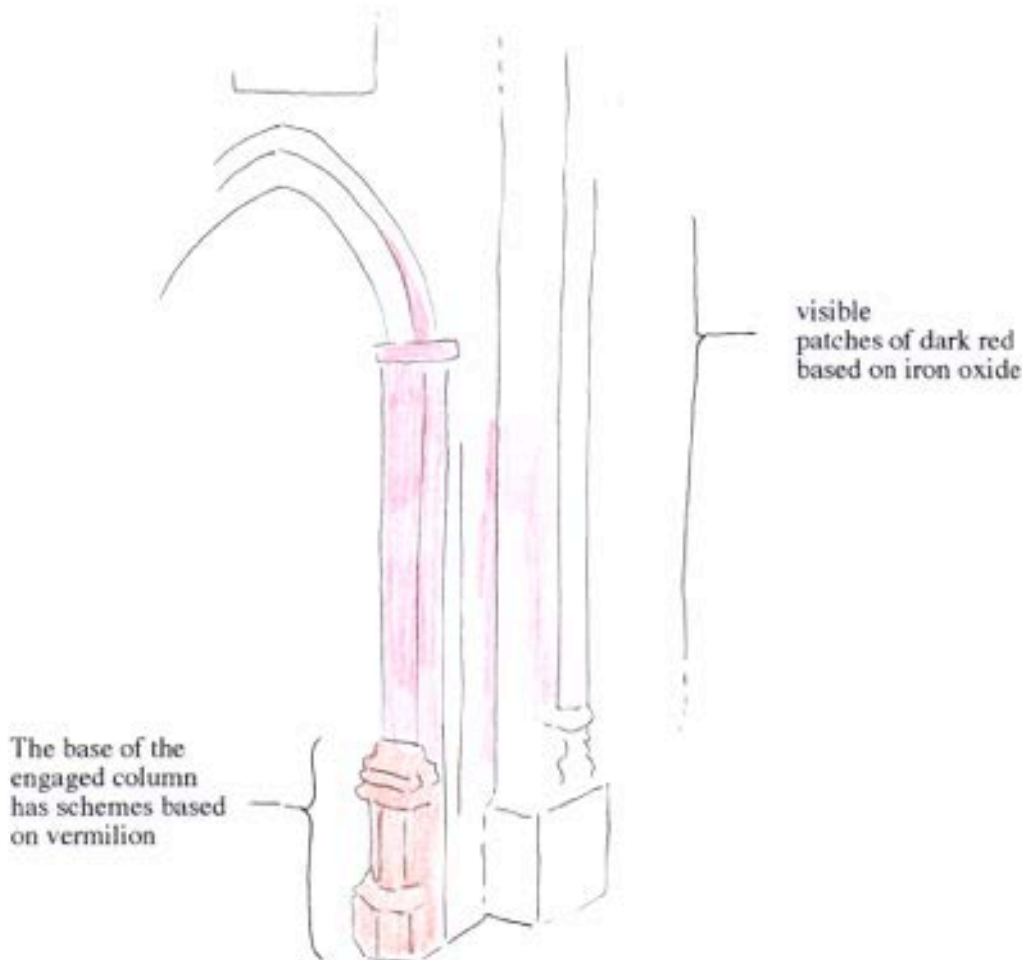
Verdigris, ochre and black are the pigments, as on St Christopher himself. The dark lump is blackened lead white, and this is what gives the brownish tone to the costume

[x500]



Pier of chancel arch

Patches of red decoration can be seen extending from the floor, right up the column. It apparently even extends onto the first of the aisle arches [however this was observed only from the floor, and no samples were taken from higher levels]. Samples taken from examples of south and north aisle columns identified the same early red [pp.23 & 25], and the decoration extended widely around the church.



The first paint layer found over the stone is a peach-coloured limewash which occurs also on the aisle columns. It is tinted with yellow ochres and a few particles of red ochre. Where paint has flaked off it is visible to the naked eye. Over it is a pure white limewash ground.

It is clear that there are at least two superimposed schemes on the pier columns. What is puzzling is that the two vermillion-based paint schemes used on the base of the engaged columns are different from the two red iron oxide-based schemes used on the upper part. Perhaps these sets of paint layers are not contemporary.

The dark red iron oxide used on the upper part is convincingly original, with a clear stratigraphy down to the stone, but the bright vermillion found on the bases may belong to later decorations, as the samples did not pick up the usual peach-coloured limewash. Examining the paint at the interface of base and column might sort this out.

Upper part of pier [p.12]

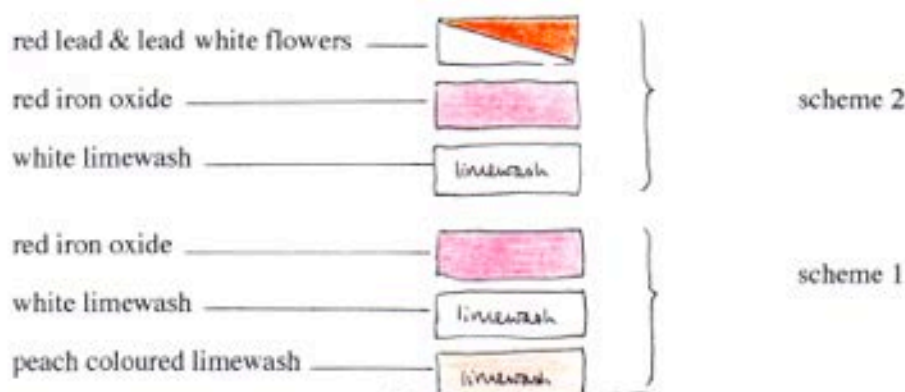
Original decoration

A layer of pure red iron oxide. No patterned decoration was found over the top of this, and it seems to have been a simple, uniform red.

Second decoration

A fresh white limewash ground was used to cover the original red. This was followed by another layer of pure red iron oxide, similar in colour to the first, but slightly darker. On top of this was painted a pattern of red and white flowers. The red flowers were painted with red lead which has now turned black [p.14], and the white flowers with lead white [p.13].

[The pigment of the blackened flowers is certainly lead-based. It is assumed that it was red lead, because the lead white flowers have remained unchanged].



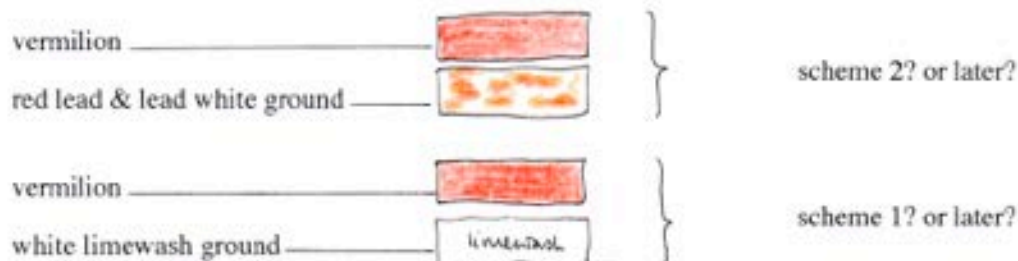
Base of pier [p.15]

First decoration

A white limewash ground, followed by pure vermillion [p.16].

Second decoration

A pink ground of lead white mixed with red lead, followed by pure vermillion [pp.15 & 16]. On top of the last vermillion decoration are the remains of up to fifteen layers of white limewash, so this red must have been the last coloured scheme on the chancel arch pier.

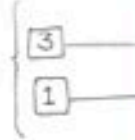


CHANCEL ARCH - LEFT PIER

The upper part of the pier has two dark red schemes, the second one with white flowers.

The base of the pilaster has a different set of pigments that may relate to later schemes

petals and
background of
white flower
from second
scheme

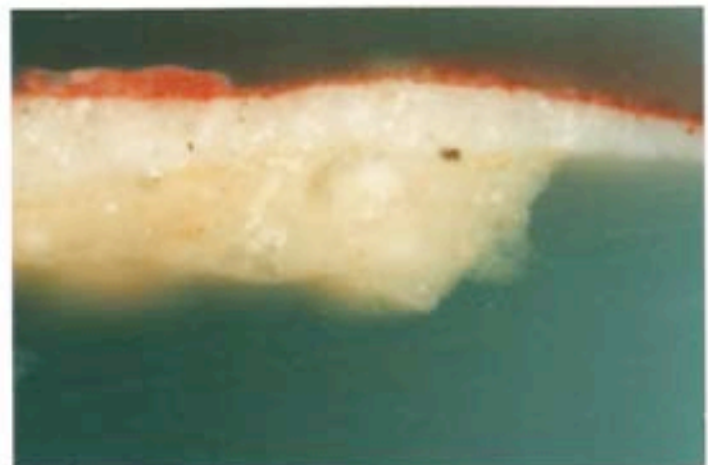


SAMPLE P1

Background red of first scheme

Pure red iron oxide, over white limewash, over ochre-tinted ground.

[x500]

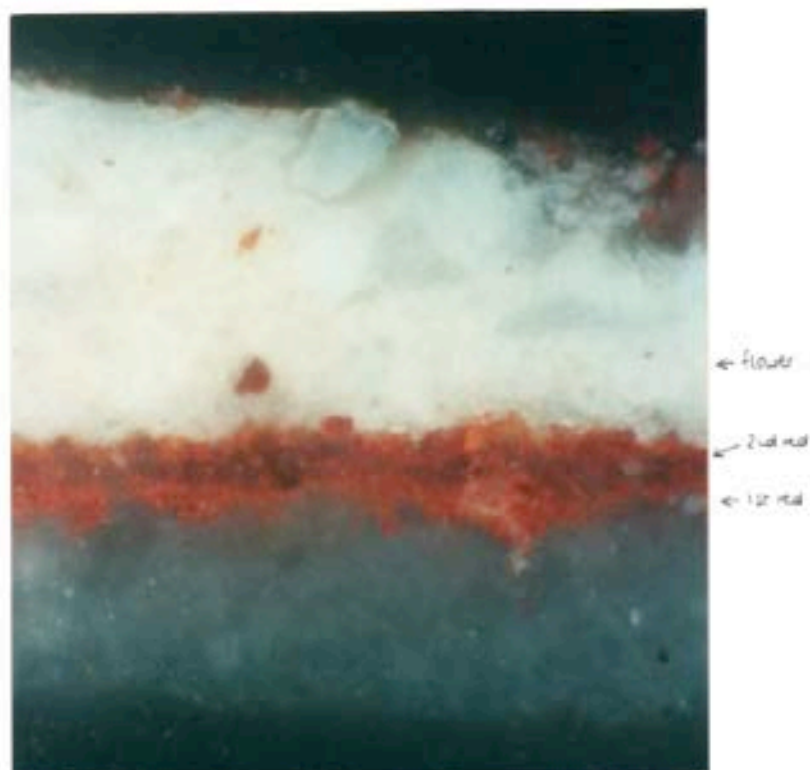


SAMPLE P3

From the white flower of the second scheme.

Showing two superimposed red schemes - the upper one is slightly darker, with less finely-ground particles. The white of the flower is pure lead white.

[x500]

**SAMPLE P5**

Background red of the second scheme

Here a thin layer of white limewash separates the two reds.

[x500]



Higher up the pilaster, above the white flower shown in sample 3, is a black flower that was once red lead.

This once-red flower and the white flower are both part of the second scheme.



SAMPLE P6 'Black' petal

The black is discoloured lead pigment. This must be red lead because the lead white used for the white flowers is unaltered.

[x500]



4. 'black'

2nd red

1st red

3rd red

BASE OF PILASTER

Patches of brighter red are visible at this lower level. They are the remains of two vermillion schemes.

The vermillion schemes were not found on the upper part of the pilaster, and the red ochre schemes were not found on the lower part. It is conceivable that the pilasters had vermillion on the bases and red ochre on the upper parts.



SAMPLE P7 - (i) Bright red speck

Vermilion, over an undercoat of red lead and lead white.

[x500]



SAMPLE P7 (ii)

The upper vermillion with
overlying limewashes,
including a buff-coloured
layer.

[x200]



← white
limewash
← buff limewash
← vermillion

SAMPLE P7 (iii)

Both vermillion schemes.

The earlier vermillion is
over a white limewash
ground

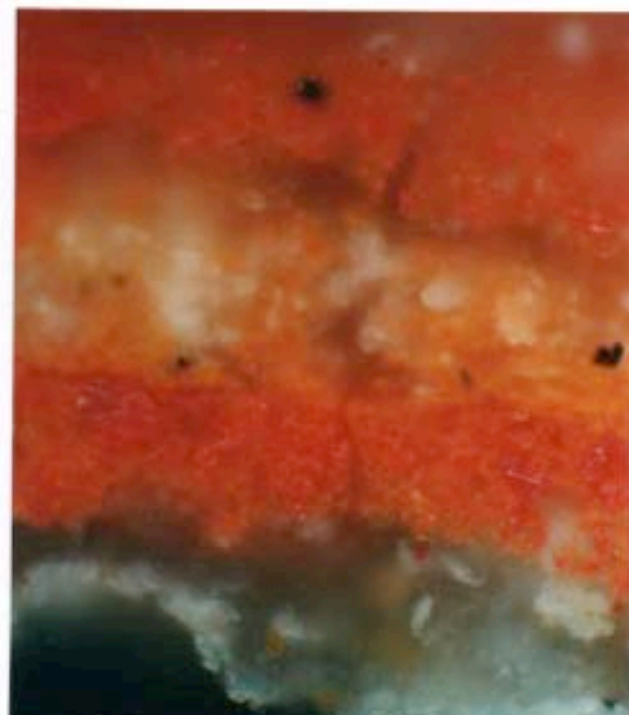
[x200]



← later
limewash
← vermillion 2
← vermillion 1
← white limewash

Detail of the two reds

[x500]



← vermillion
← ground of mixed
lead white and
red lead
← vermillion
← trace of white
limewash

East wall of south aisle and right pier of chancel arch

The two areas were apparently not always treated the same: the second decoration from the chancel arch piers - the one with flowers - was not found on the east wall. However, as so little has been uncovered, it is impossible to be certain of this.

Original, plain red decoration on east wall and on right side of chancel arch

Peach coloured limewash, followed by white limewash ground, and then a coat of pure red iron oxide [p.18].

Second decoration on right pier of chancel arch, only

White flowers over a red background [p.21]. The flowers are the same design as those painted on the left chancel arch pier, however only white ones were found [none of the ones with blackened red lead]

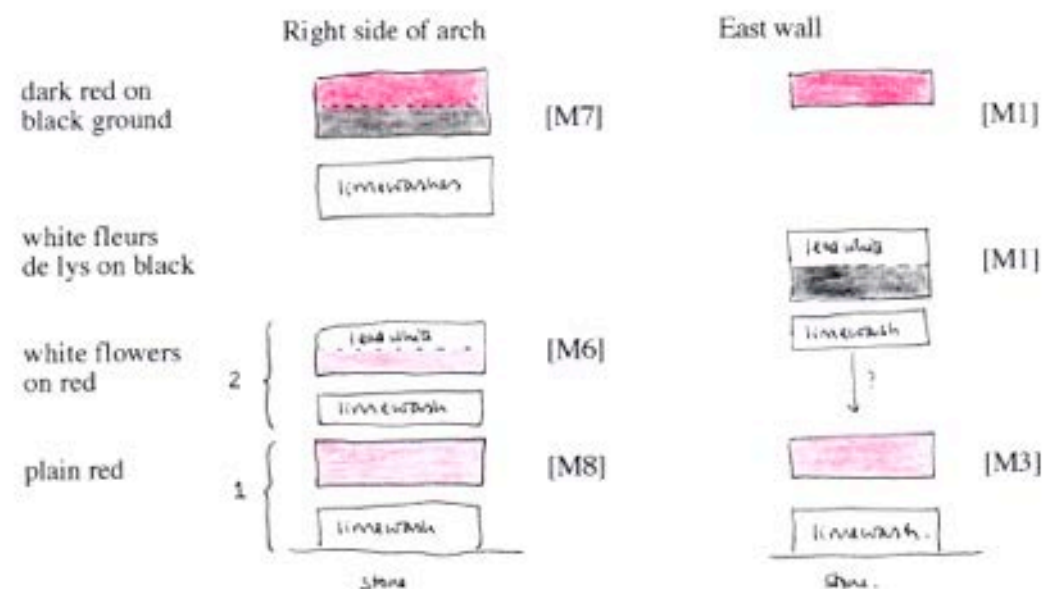
Second decoration on east wall, only

White fleurs de lys over black [p.19]. It is impossible to say if this is contemporary with the white flowers over red.

The scheme is painted over a white limewash ground. The black background is solid charcoal black. The fleurs de lys are painted with lead white, but there may have been other colours because one sample shows some pure vermilion painted over the black [p.20], and another shows a few particles of copper green caught up in the lead white [p.19], suggesting that green was being used elsewhere.

Final decoration

Dark red pattern over black. This was picked up on the east wall [p.19] as well as on the right side of the chancel arch [p.21]. The chancel arch sample shows the black painted over three lots of limewash, which suggests there was a long interval before the scheme was painted on.



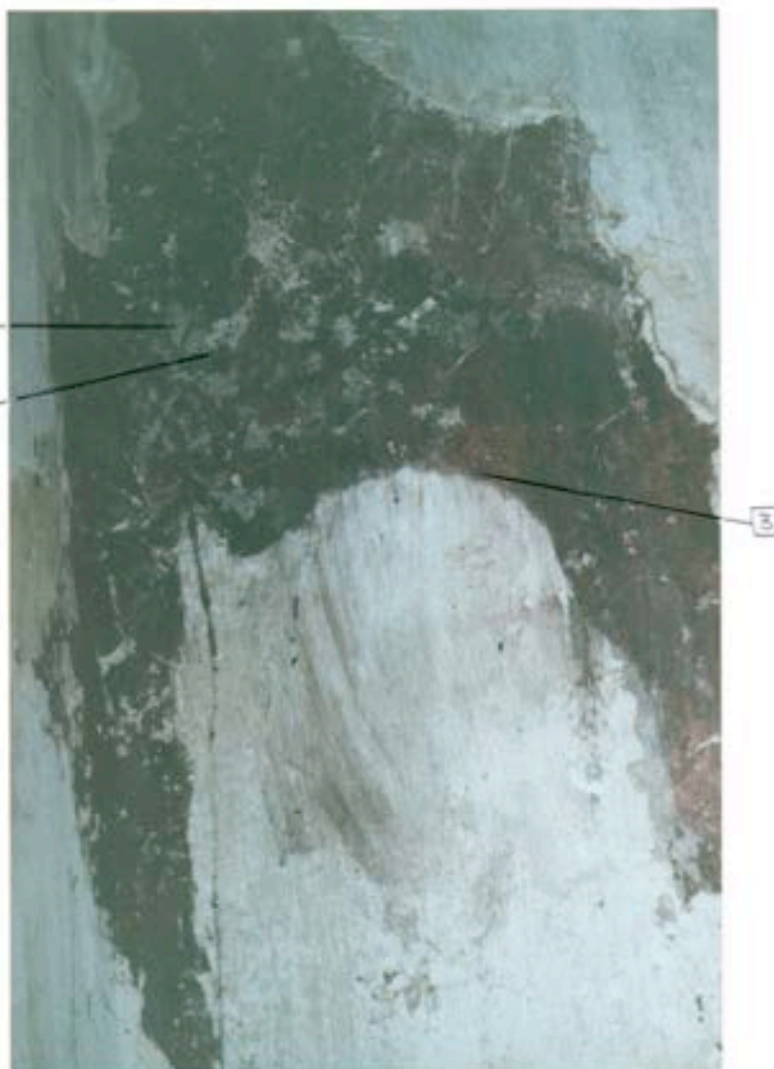
EAST END OF SOUTH AISLE

The wall at the end of the aisle, and the angle it forms with the chancel arch, share some of the paint used on the arch itself, but has some later, darker schemes on top.

This shows a white fleur de lys over black, which belongs to one of the later schemes.

1
white fleur
de lys

black 2
background

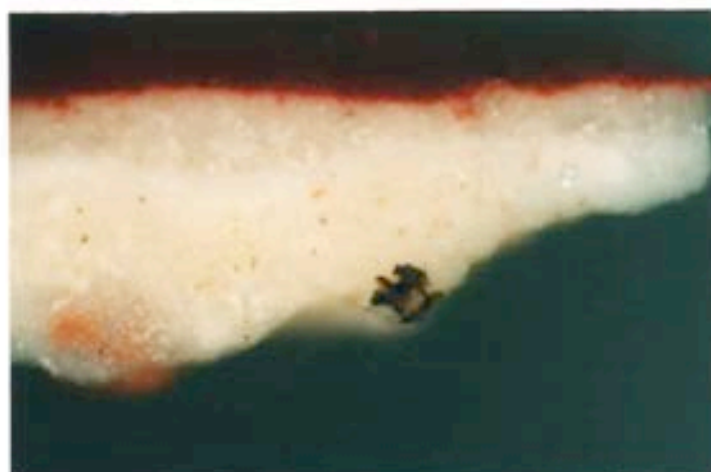


SAMPLE M3

The earliest scheme is a dark red.

The red is resting on white limewash, over an ochre-tinted ground.

[x200]

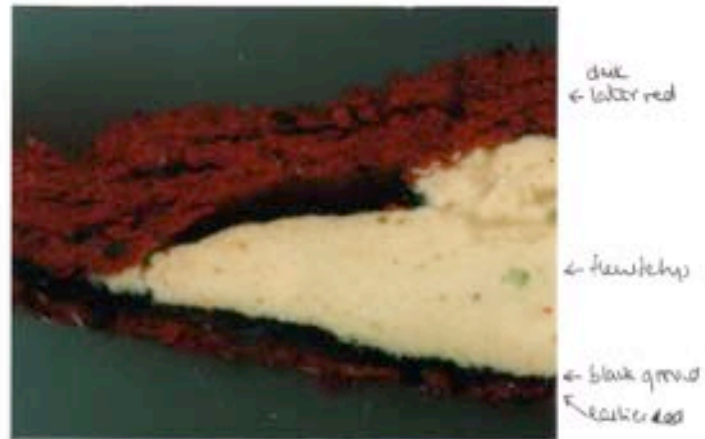


SAMPLE M1

White fleur de lys - left end
of cross-section

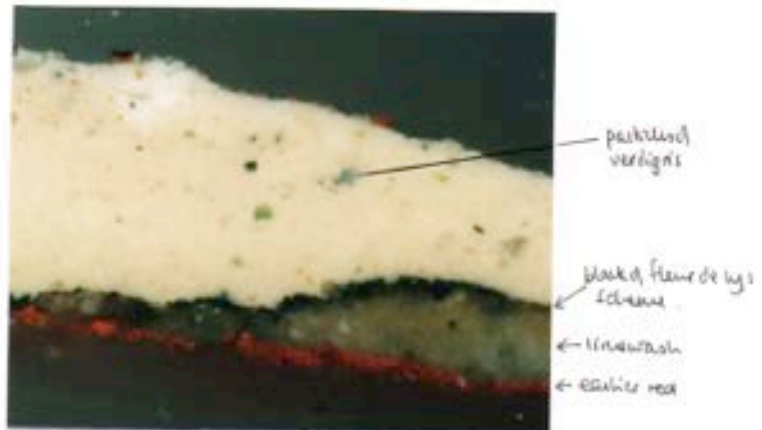
Showing the lead white of
the fleur de lys under a later,
purplish red scheme.

The white itself is over a black
ground.



Right end of section, showing
the limewash ground between
the earlier red scheme and the
fleur de lys scheme.

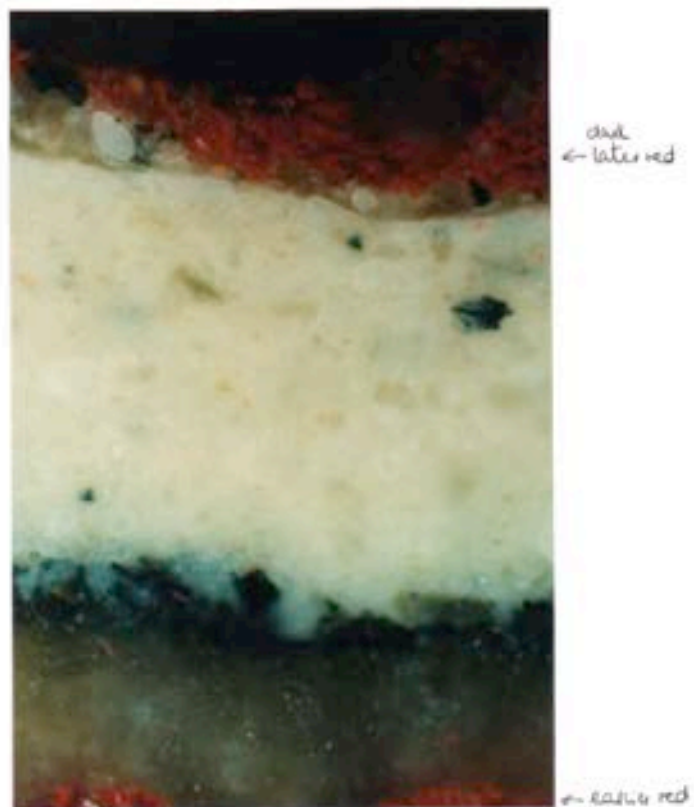
[x200]



Detail of the layers.

The black is coarse-ground
charcoal black; both reds
are iron oxides.

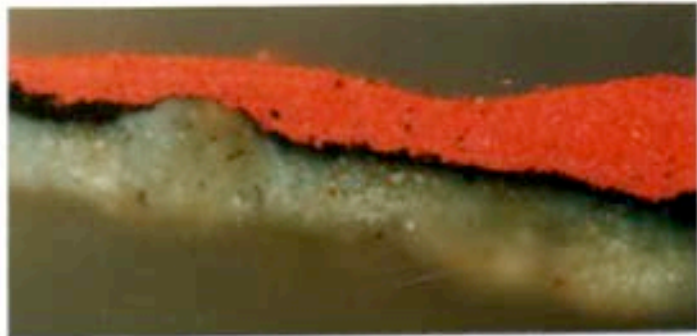
[x500]



SAMPLE M5

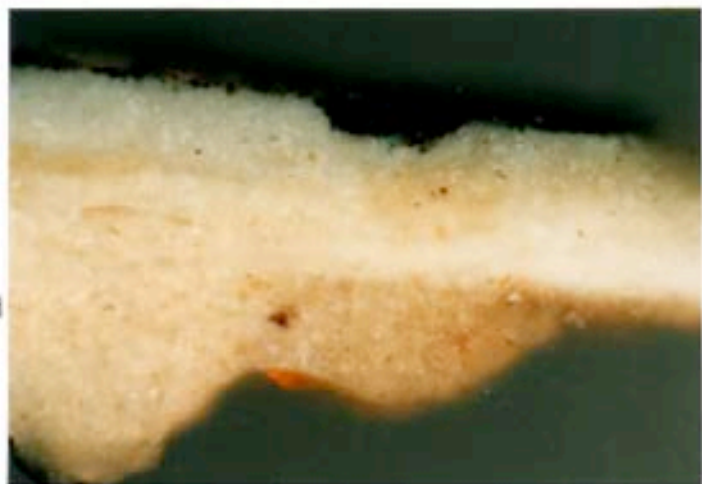
A patch of bright red further up the wall than the fleur de lys, shows vermilion over black. This must be part of the fleur de lys pattern.

[x200]



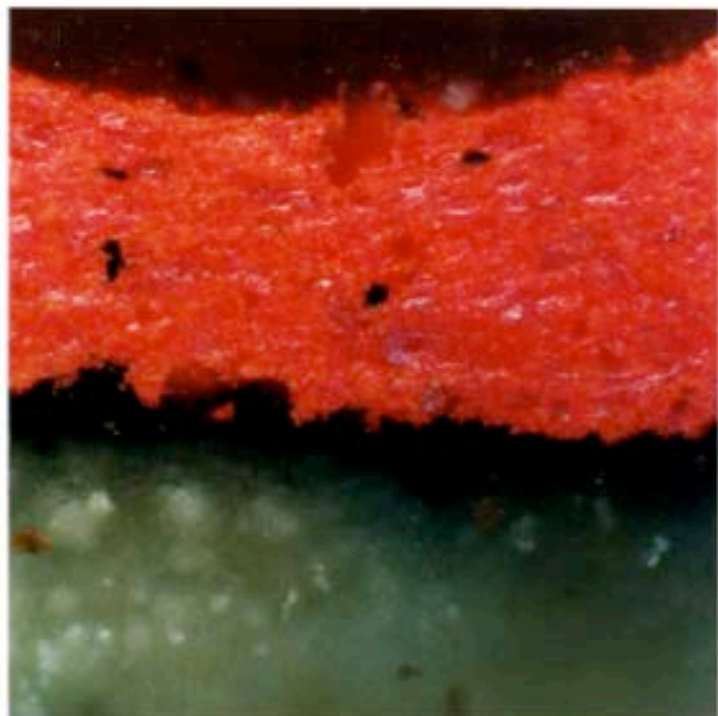
Another fragment with the black only. This has the ground layers and there appears to be no scheme under the black. The earlier, dark red scheme found lower down the wall is missing

[x200]



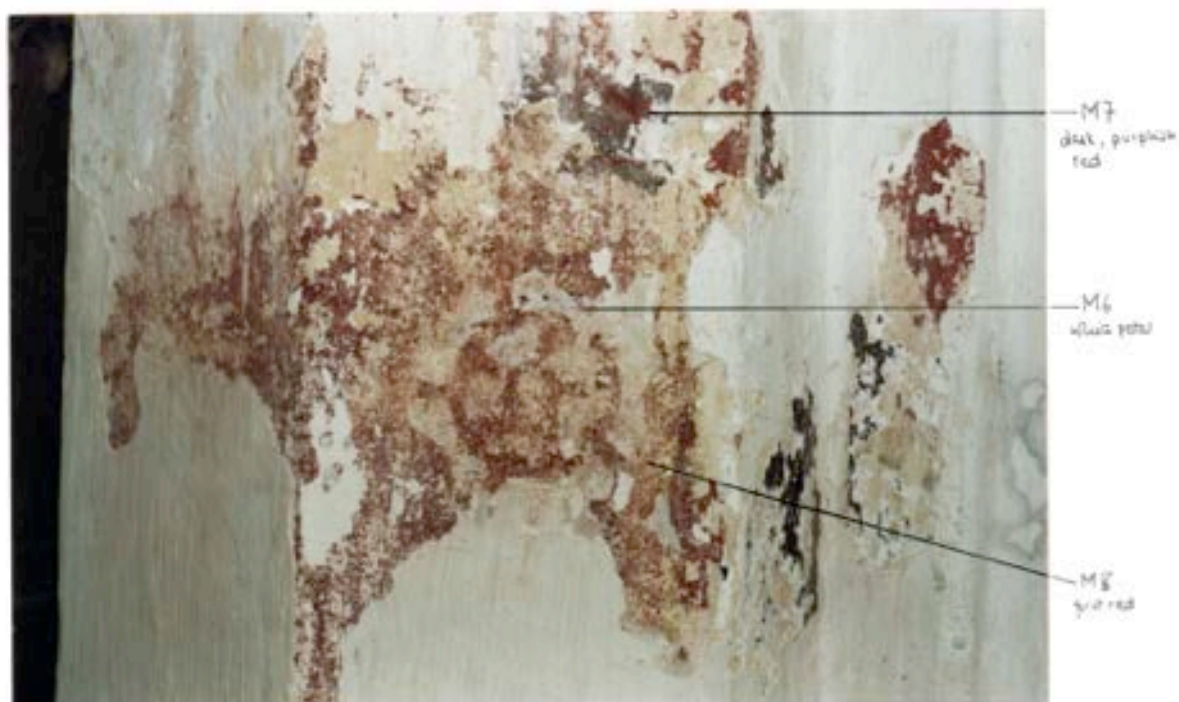
Detail of the vermilion

[x500]



SOUTH SIDE OF CHANCEL ARCH

A corner where the black schemes from the south aisle end wall connect with the red schemes on the chancel arch. No overlap was found.

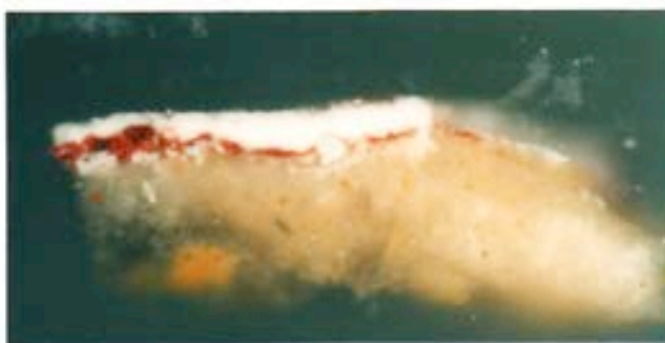


SAMPLE M6

From the white rose

[x200]

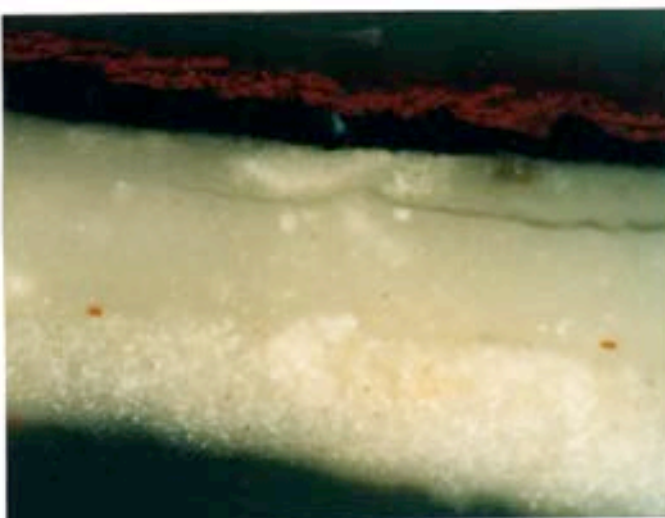
Lead
white
rose



SAMPLE M7

From the later layers. A
purplish red over the black,
over several coats of
white limewash.

[x200]



later, dark
purplish
red

black of
floor etc
light
scheme

Aisle columns

Column at east end of north aisle [p.23]

The original decoration on this column is the same plain red that was found on the central column of the south aisle, on the piers of the chancel arch, and on the east wall of the south aisle. It consists of iron oxide over white limewash, over a peach-coloured limewash ground

The plinth of the column does not have the red, instead the first scheme on this lower part is a dark grey limewash. The grey gives the stone its blackish colour today wherever later paints have been scraped back. The grey is resting directly on stone, without the usual peach and white ground layers, so it may not be the original decoration, though it must be early. Perhaps the for that original plain red scheme, the bases were bare stone.

A similar grey limewash occurs on the base of the central south aisle column that was examined [see below]. On top of the grey are just layers and layers of pure white limewash.

Column in middle of south aisle [p.25]

The original decoration on this column included the usual plain red over ground layers of peach-coloured limewash, followed by pure white. However, unlike the other columns, what appears to be a black fictive hanging was painted on the west face. Below this black one can see a narrow horizontal band of the plain red [p.25].

The black 'hanging' is based on charcoal black [p.26]. The black paint rests directly on white limewash, rather than on the plain red, so a space must have been left in the red for the hanging. The black is clearly part of the original scheme.

There are patches of a dark iron oxide red over the black. As there is no interleaf of limewash, between the two, it suggests that they are contemporary rather than two separate schemes, and perhaps the black had a red pattern painted over the top.

A sample taken from white limewashes overlying the main red background colour [p.26] shows no evidence of later coloured schemes, and the plain red, with its black and red hanging, may have been the only coloured decoration ever painted on the column.

NORTH AISLE COLUMN

Samples were taken from patches of red on the column shaft, and from the dark grey/black layers of the plinth.

On the column shafts one can see the same ochre-tinted ground as on the chancel arch, and the red itself is also similar.

ochre-tinted ground

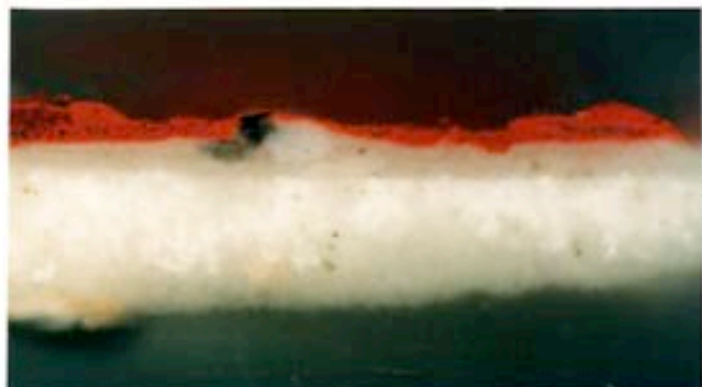


1
original
hole

SAMPLE D1

Pure red ochre, over white limewash over ochre-tinted ground.

[x200]



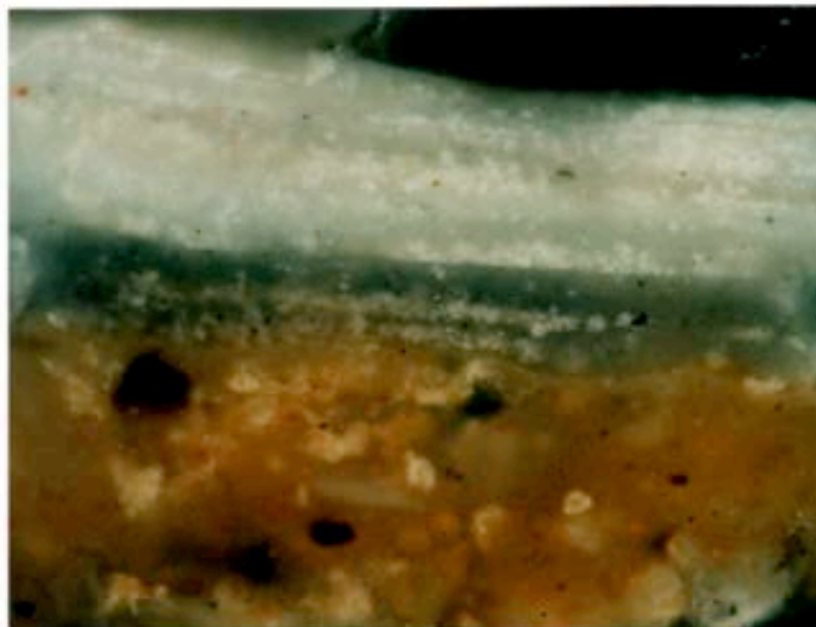
white
limewash
ochre-tinted
ground

SAMPLE D2

From the plinth

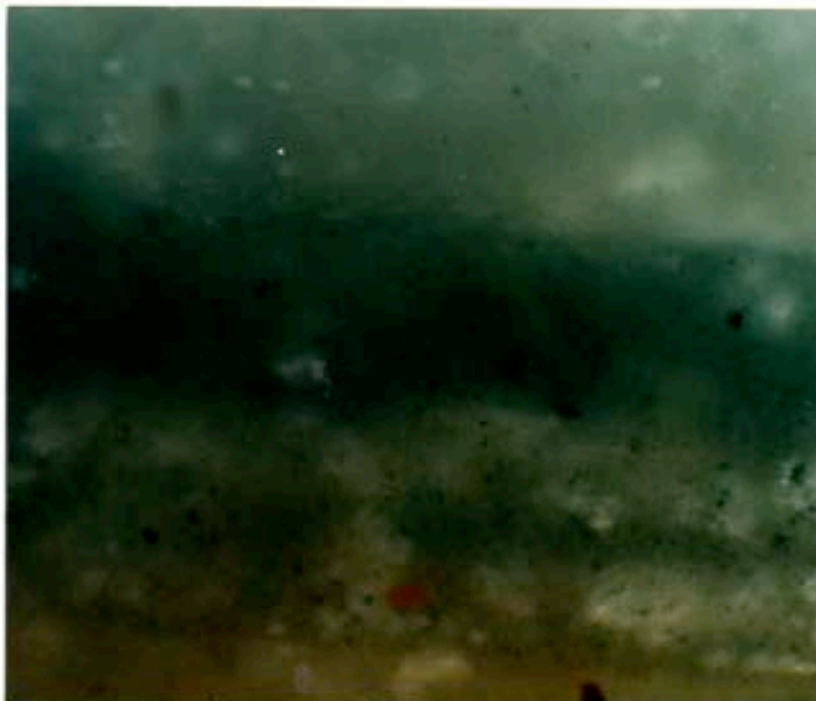
Stone, followed by grey limewashes, then numerous white ones. No trace of the ochre-coloured gound or of any red, and the column pliths may have always been a neutral colour when everything else was red

[x200]



Detail of the greys. These are tinted with very finely-ground charcoal black.

[x500]



SOUTH AISLE COLUMN

Second column from the east end.

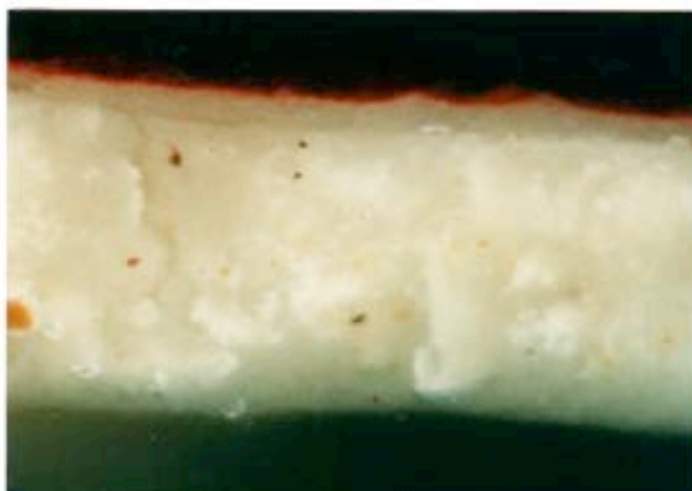
The plinth is the same as the one examined on the north aisle, but the upper part of the column shaft has black decoration as well as the usual red.



SAMPLE E1 - (i)
Red lower part

The usual ochre-tinted ground followed by white limewash then the red ochre.

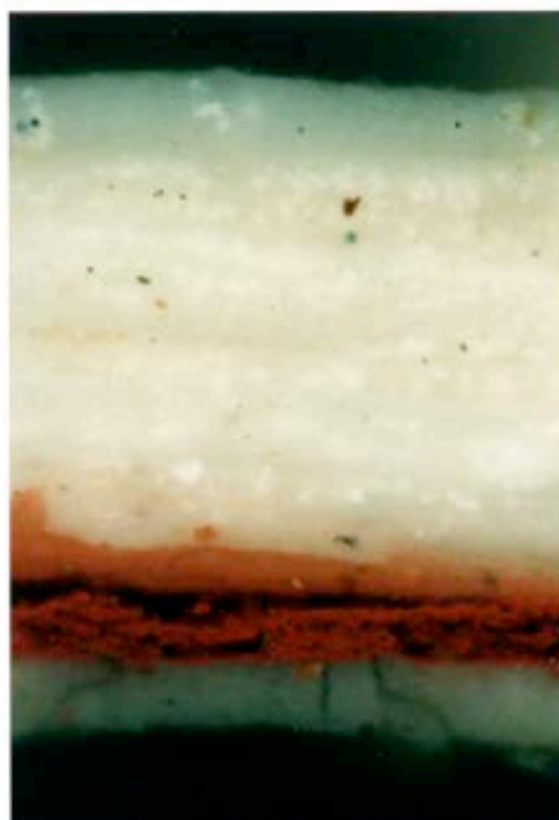
[x200]



SAMPLE E1 - (ii)
Red and later limewashes

The first white limewash picked up red paint, but there was clearly only one red scheme

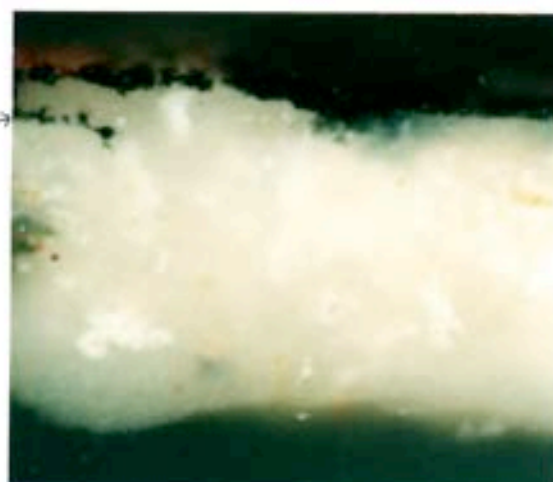
[x200]



SAMPLE E2
Black lower part

Charcoal black

[x500]



SAMPLE E3
Red over black.

The red overlaps the black, without any interleaf of limewash. It is impossible to tell if it is the first red, or a later one.

[x500]



Angel in north window reveal

The painting is in poor condition, as it has been badly affected by mould and the effect of salts. The salts were analysed and found to be mostly calcium with a little sulphur. The mould forms a greenish brown film over many parts of the painting, but the cross-sections also show amorphous, dark brown organic matter, infiltrated between the limewash layers and under the paint.

The angel was painted with quite thin washes of colour. The palette was simple, and seems to have consisted mostly of red and yellow ochres and some lead white.

Lead white was used for upper parts of her robe, and for highlights on fold lines. It has now discoloured to shades of grey and black [p.29].

The skirt looks a pale pinkish colour, but when this was examined it was found to consist solely of calcium carbonate. An organic pigment may have been used, and has since faded, but the cross-section suggests that the paint layer has in fact flaked off and what we see is the stained limewash ground.

The yellow ochre scroll which falls from her hand has a discoloured surface [p.28]. This was examined to see it was caused by blackened lead, but iron oxide only was identified, and as ochre is a stable pigment, the darkening must be due to mould.

One sample [W4] with particularly thick mould-growth shows a layer of clear organic material over red ochre [p.30]. The organic layer has a bright fluorescence in UV and appears to be a resin varnish or glaze. Any such layer is unlikely to be associated with the angel itself, but may have been a splash from a later scheme as specks of a richly glazed fifteenth, or sixteenth-century scheme were found in the window jamb [see below].

Later paint on window jamb [p.31]

A sample of bright green from the window jamb, shows two sets of green layers, both thick, dissolved copper green glazes. The technique and the pigments are so different from those used on the angel, that they are clearly unrelated.

The first green glaze is over a lead white ground containing a few particles of red iron oxide, the second is over an opaque green mixture of copper green and lead white. These appear to be from two different schemes, but there is no limewash layer between them, and the second lot of green could perhaps be repainting, or early restoration.

The first of the greens looks similar to the greens on the north St Christopher which also has a thin pink ground, and the two paintings may have been contemporary.

EAST WINDOW IN NORTH AISLE

The angel is affected by mould and this is responsible for much of the brownish colour on all the paint.

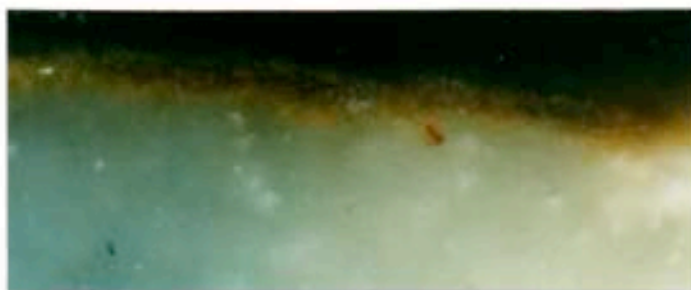
The black of the robe is discoloured lead pigment.

**SAMPLE W1**

Yellow scroll

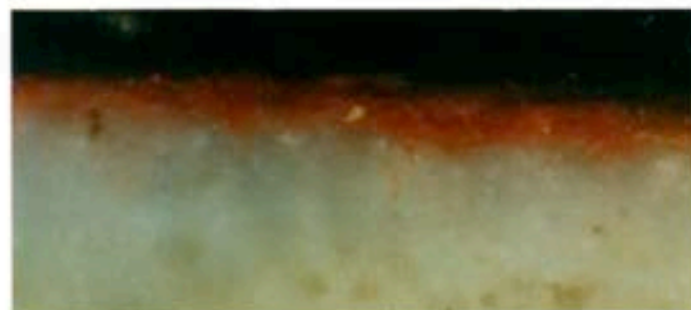
Yellow ochre with discoloured upper layer

[x500]

**SAMPLE W2**

red background

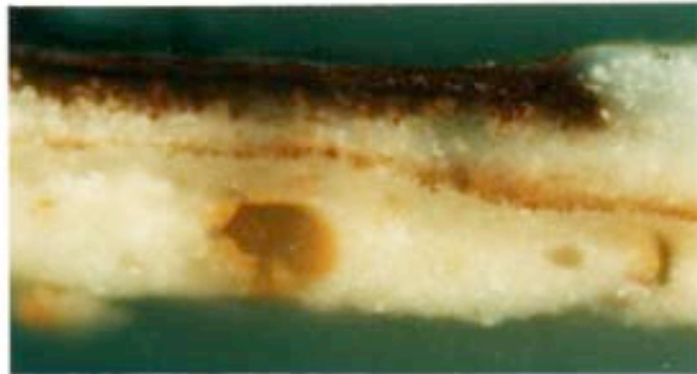
Red ochre [x500]



SAMPLE W3

"Black" fold lines on
lower robe

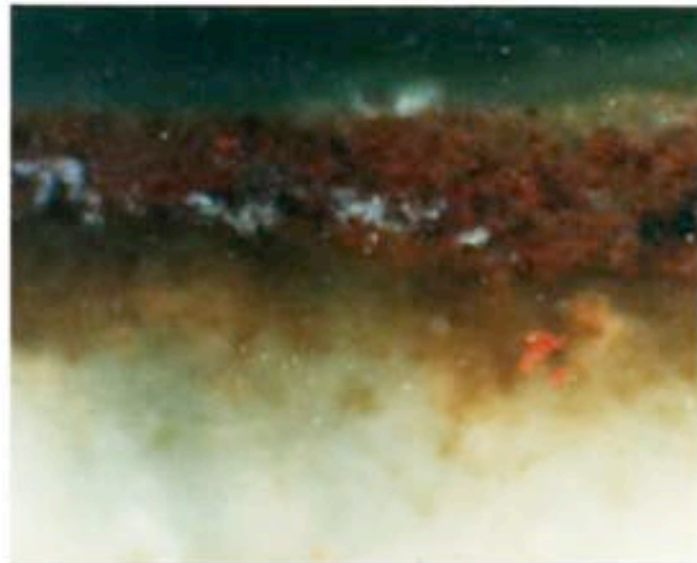
The staining between the
two layers of limewash is
organic and must be due
to mould.



upper
← limewash
ground
← mould
staining
← lower limewash
ground

The dark brown on the
surface is blackened lead
pigment.

[x500]



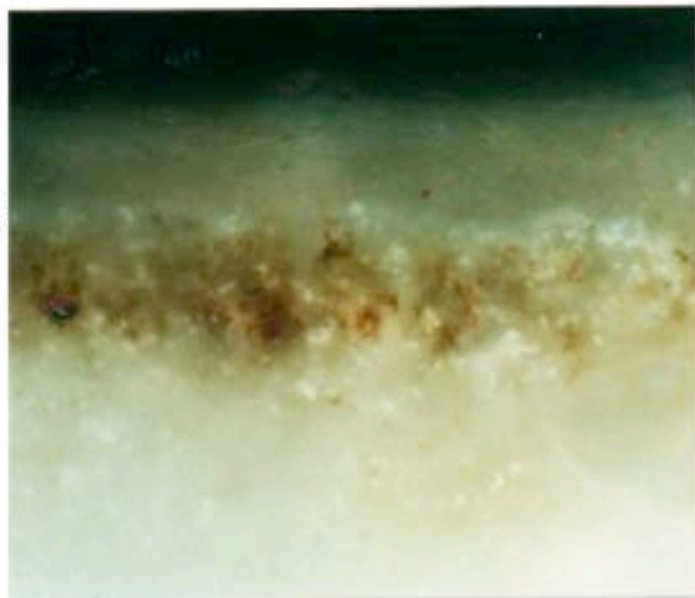
} blackened
lead
← mould
staining

SAMPLE W5

Main pinkish grey colour
of lower robe.

Comparing this with W3 above
we can see that the pigment
has flaked off and what we see
is mould-stained limewash

[x500]

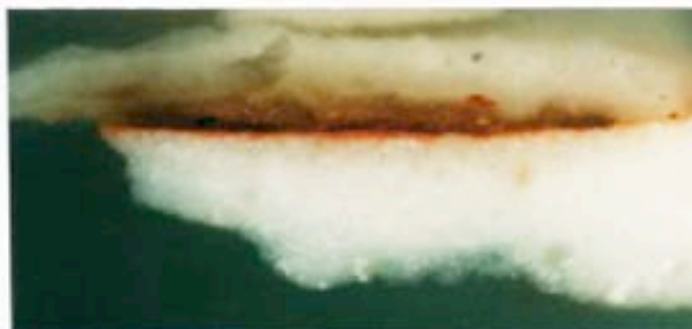


← limewash
ground

SAMPLE W6

From left edge, with
overlying limewash.

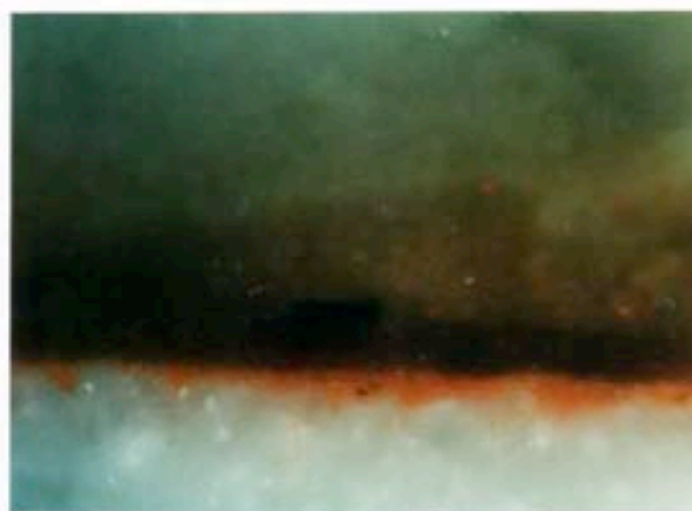
[x200]



later
limewashes

The mould layer on the
red has stained the
underside of the later
limewash.

[x500]



← stained
limewash
← organic layer
← background
of angel

SAMPLE W8

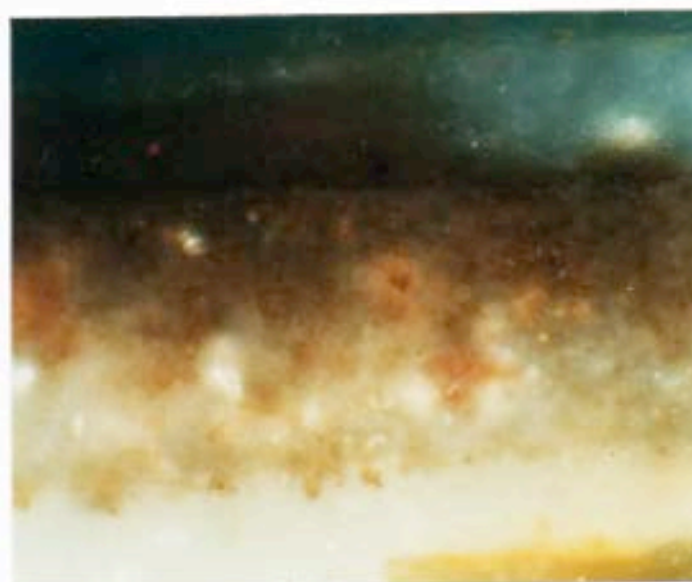
Mould sample, from near
window

[x200]



[x500]

organic
layer →
upper
stained
limewash
ground →
lower limewash
ground →



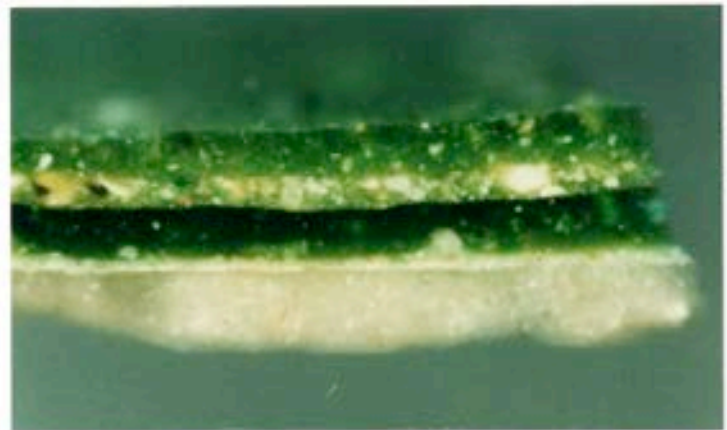
← scuffs

SAMPLE W9

Green adjacent to angel, on window jamb. From a different scheme

Two lots of copper green, superimposed.

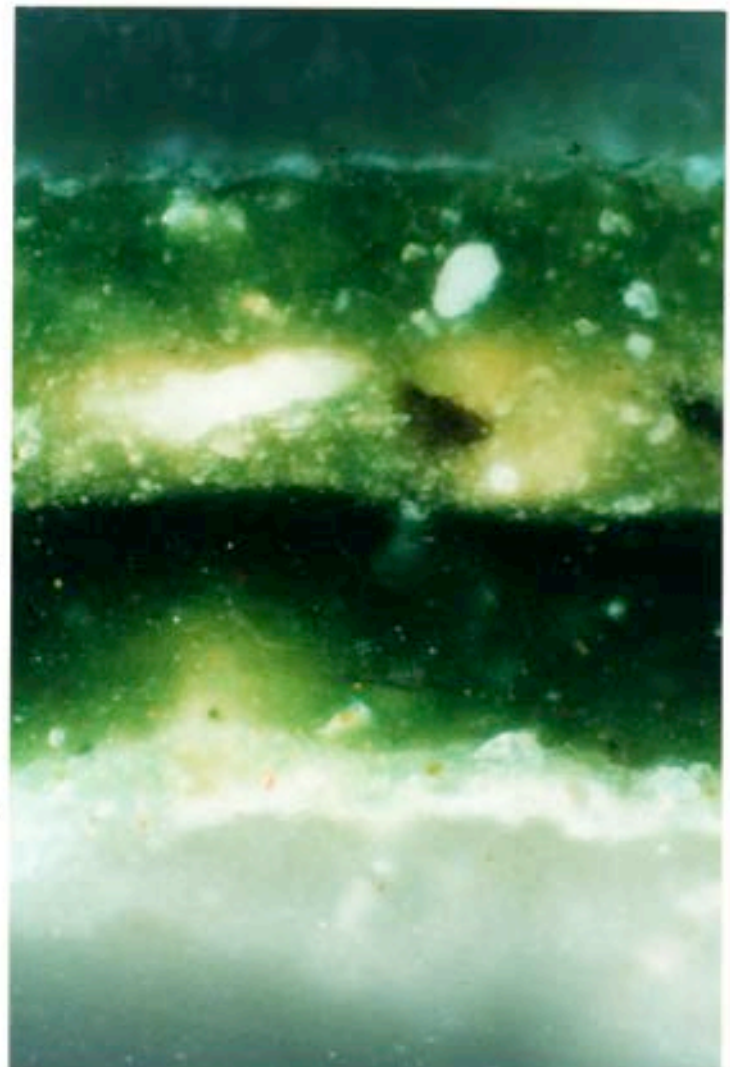
[x200]



This is a completely different technique from that used on the angel, and is clearly from a different scheme, probably a later one.

The use of copper green glazes and what looks like a thin pink ground, may mean that this is contemporary with the northern St Christopher

[x500]



Over south door

Cornice and painted roof timber

The wood was given a single, thin ground of white limewash, then painted with a pattern of wavy, diagonal lines. On the cornice the lines are all red, but on the roof timber the red alternates with a paint that now appears grey

The red lines was painted with pure vermilion. Where the red looks darker, it is because the vermilion has blackened on the surface. In patches where paint has flaked off one can see the original scarlet colour showing through [p.34].

The 'grey' lines on the roof timber were probably an organic blue or green. The paint is mostly chalk and a bit of charcoal, but at the bottom of the layer there is a greenish hue [p.36]. [It is unlikely to have been indigo, as some particles would be visible, and indigo rarely fades so completely].

The black horizontal line painted between two of the roll mouldings on both cornice and the roof timber, is pure charcoal black. As there is no limewash ground between it and the reds it could be contemporary with the red diagonal pattern, though it looks very crude. Alternatively, the black may belongs with one of the later black and red schemes seen at the east end of the church.

Wall below cornice

The painting in this area has been described as the Ascension [Keyser 1883; 41], but too little is visible now to safely identify the subject. Most of it is covered with limewash, but patches of red, yellow and grey can be seen. These are painted over a single layer of white limewash, laid over a cream-coloured ground.

The red is pure iron oxide [p.33].

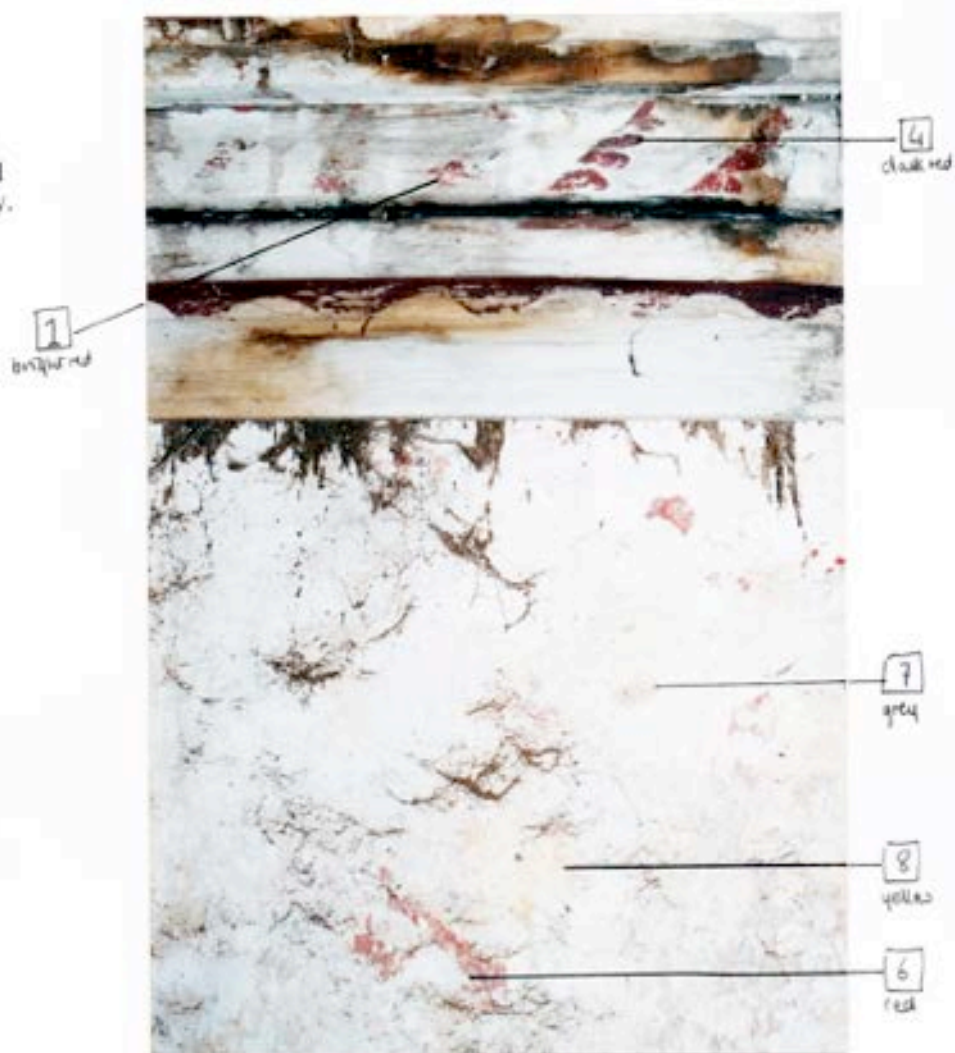
The yellow is finely-ground yellow ochre [p.33].

The grey is a chalk and charcoal black mixture [p.34]. This is different from the 'grey' painted on the roof timbers, as it contains much more charcoal black, and does not have the same greenish tone in the cross-section. It was intended to be grey.

As the white pigment mixed with the charcoal black is chalk, this decoration will have been executed in an aqueous medium, rather than in oil.

CORNICE OVER SOUTH DOOR

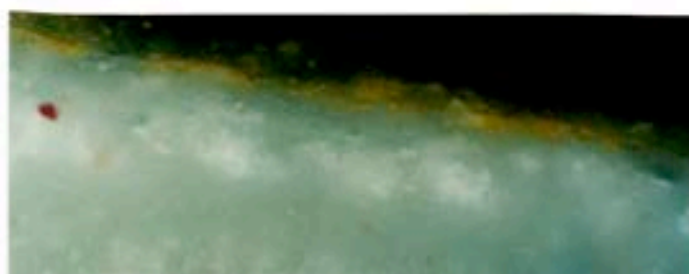
The cornice must be contemporary with the new roof, installed in the fifteenth century.

**SAMPLE G8**

Yellow on wall

Yellow ochre

[x500]

**SAMPLE G6**

Dark red on wall

Red ochre

[x500]

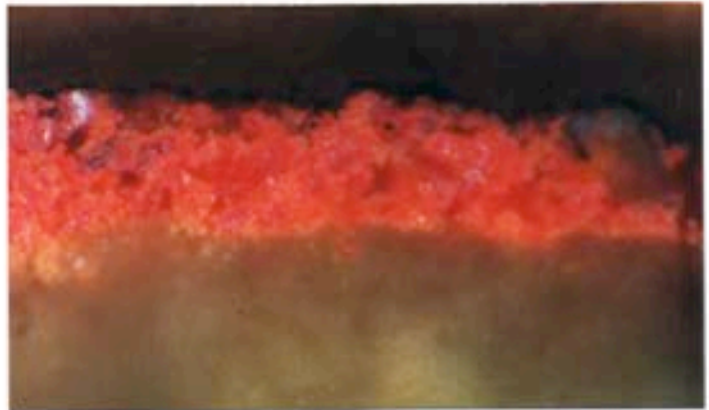


SAMPLE G4

Dark red on cornice

Vermilion with blackened surface

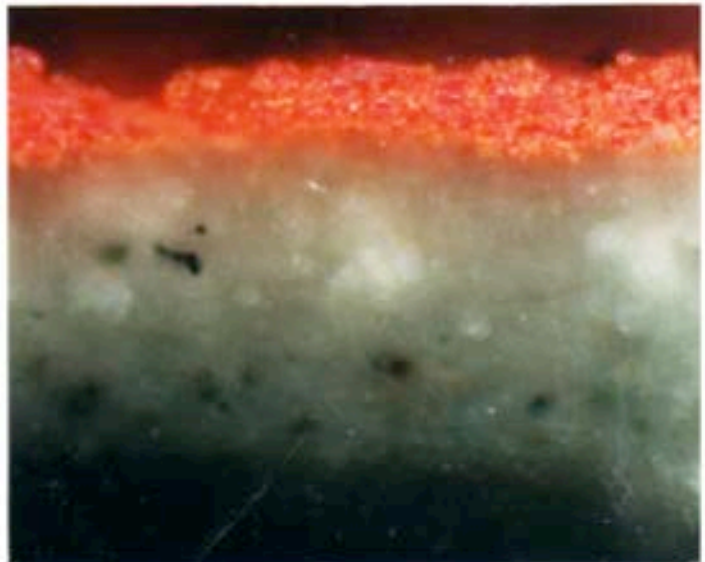
[x500]

**SAMPLE G1**

Bright red patch on cornice

Vermilion with blackened upper surface flaked off.

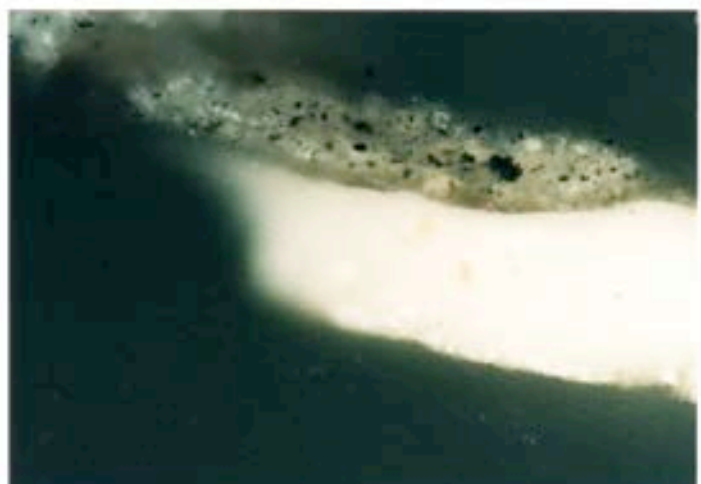
[x500]

**SAMPLE G7**

Grey on wall below cornice

Calcium carbonate and charcoal black.

[x200]



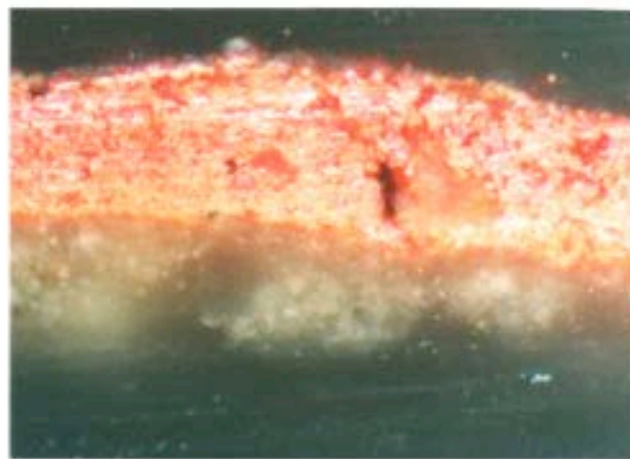
ROOF TIMBER OVER SOUTH DOOR



SAMPLE G4
Dark red diagonal pattern

Pure vermillion over white
limewash ground

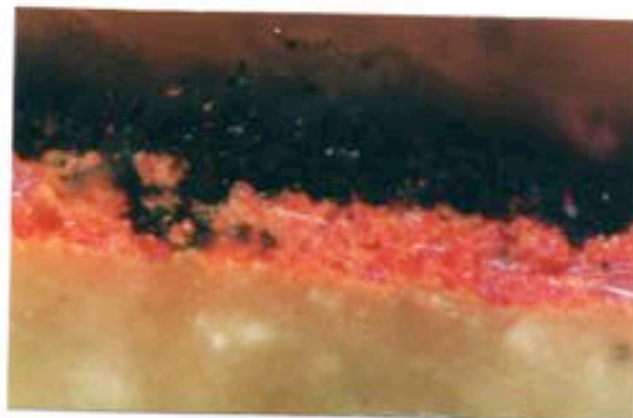
[x500]



SAMPLE G3
Black horizontal band

Charcoal black over original
vermilion.

Charcoal black schemes were
used in the later stages of the
church's history, and this may
belong to that time. [x500]

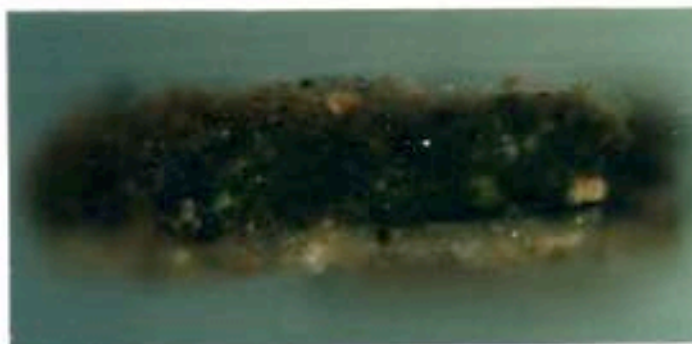


SAMPLE G5

Grey 'shadow' pattern between the red lines

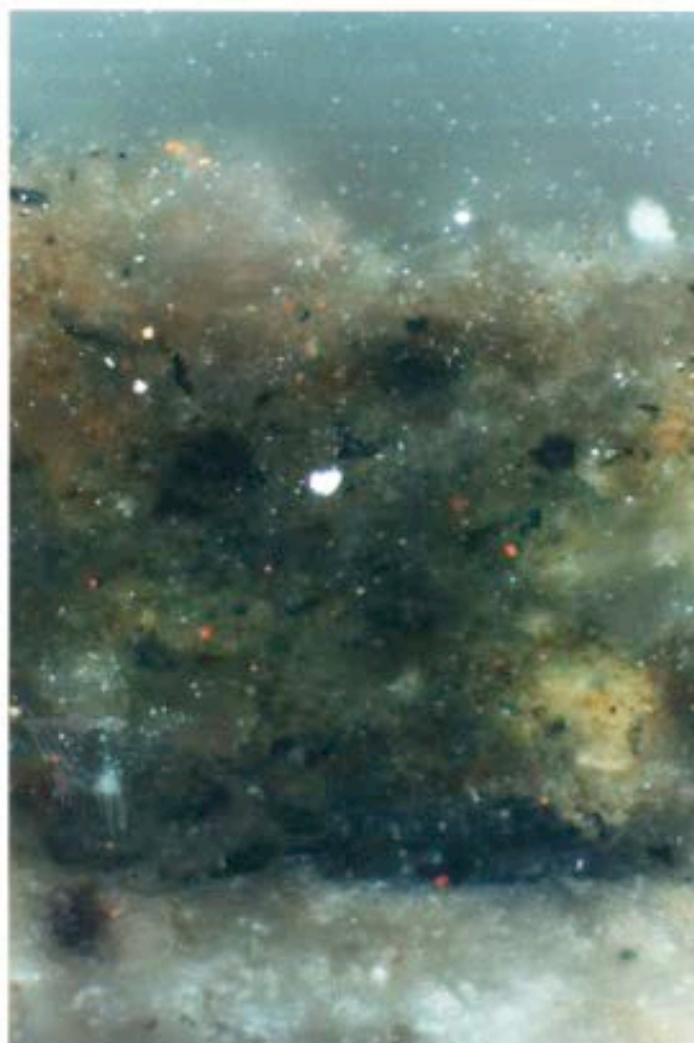
There is black and chalk in the mixture but there must also have been an organic pigment that has now faded. The paint layer is quite thick, and so the 'shadowy' appearance is clearly not a result of paint having flaked off.

[x200]



All organic pigments fade to a yellowish brown, and the upper part of the layer illustrates this. The lower part of the layer has a greenish hue and the original colour could have been blue or green.

[x500]



North St Christopher

The saint is painted over just two layers of limewash, and any earlier paint schemes must have been scraped off. The first limewash was pure white, the second one was tinted a cream-colour by adding a little ochre.

No organic analysis was carried out, but the use of lead white in the ground, and the presence of copper glazes, points to the painting having been executed in an oil medium.

The painting technique was complex, with an extensive use of underpainting and ending with intricate detail. The costume and background were painted first, then finer details, such as strands of hair, were painted over the top [pp.39 & 40]. Looking at the detail we can see that the painter used a range of brush sizes, with broad ones to block in the main colours and extremely fine ones for the final outlines and highlights.

An extravagant use of the costly pigment azurite means the painting must have been a prestigious, and expensive, commission. Azurite was used on its own for the sky [p.42], was added to red to make purple [p.40], was mixed into most of the greens to create turquoise colours [p.40], and was even added to pink for the shading and modelling of flesh tones [p.43].

Pink ground [e.g.pp.42 & 44]

A very thin layer of red ochre, lead white and chalk underlies the whole painting. This was presumably brushed on to seal the limewash in preparation for the oil paint layers, and was not intended to be seen. It is not visible anywhere, and the red pigment must have been added so that the painter could see that the surface was covered properly.

Black drawing and underpaint [e.g.p.47]

Dense black lines of charcoal black were used to mark out the design. The drawing stage must have included a lot of detail, because even the pattern on the halo was marked out at this preliminary stage [p.41].

Black was found under the blue of the sky [p.42] and the green of the vegetation. Dark grey is commonly used as an undercoat for blue, but black is unusual. The patches of black visible today in the upper background, are areas where the blue has flaked off, revealing the underpaint.

Blue background [pp.41 & 42]

Pure blue azurite was used for the 'sky'. Just below the cornice, horizontal lines of lead white can be seen brushed over the top, perhaps indicating clouds.

Green vegetation [p.44 & 46]

Like the blue, this was also underpainted with charcoal black.

The green is a glaze of dissolved copper green. There are no particles of verdigris or lead white in the mixture and the very dark colour may be partly due to the black undercoat showing through.

Hermit's hut [pp.46 & 47]

The main shape of the hut was underpainted with azurite and lead white. The finials and roof timbers were first marked out with a combination of ochres and lead white, then a dark brown mixture of red ochre and charcoal black was used to do the shading.

Saint's costume [p.]

The green ?shawl [or turban] was painted with verdigris and lead white [p.39].

The red collar of his costume was painted with vermilion and lead white, then shaded with azurite [p.40].

The blue/green parts of the costume were painted a mixture of verdigris, lead white, vermilion and charcoal black, and then shaded with azurite [p.40].

Hair

This was first blocked in with a pale, yellowish mixture of ochre and lead white [p.40], then the fine strands of hair were painted over the top with red ochre, and black [p.44].

Face [p.43]

A pale, pinkish mixture of lead white tinted with vermilion and azurite was used to cover the whole face area. The base coat was modelled and shaded with the same mixture but with a little added charcoal black, ending with pure azurite for the darkest shadow. The last touch was outlining the eyes and nose with a purple mixture of vermilion and azurite.

Child's halo [p.41]

This was first outlined and drawn with black, then yellow ochre was brushed over the entire area, presumably obliterating the drawing. Gold leaf was laid over the ochre. There is no evidence of an oil size, and the gold must have been placed onto sticky paint. Finally the red and black pattern was painted on with thin lines of vermilion and charcoal black.

Staff

A dull yellow/brown mixture of ochre with a little added vermilion [not photographed]

Wooden cornice above north St Christopher. [p.42]

Most of the paint has gone, but a patch of bright red on the lower edge, just above the saint, was found to be red lead. No red lead was used on the St Christopher painting itself, and this red lead may therefore date to an earlier period.

ST. CHRISTOPHER - TURBAN, HAIR & COLLAR

**SAMPLE C24**

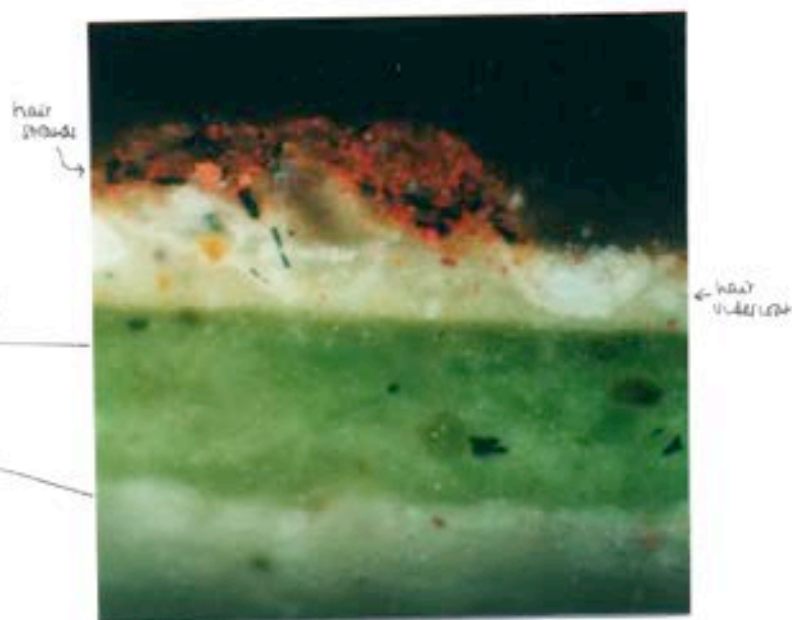
Brown hair overlapping
green turban - left of face

The pale yellow tone of the hair
[white and ochre] was painted first,
then the dark brown strands drawn
in red ochre and black.

Green of turban - verdigris and lead
white.

Pink ground.

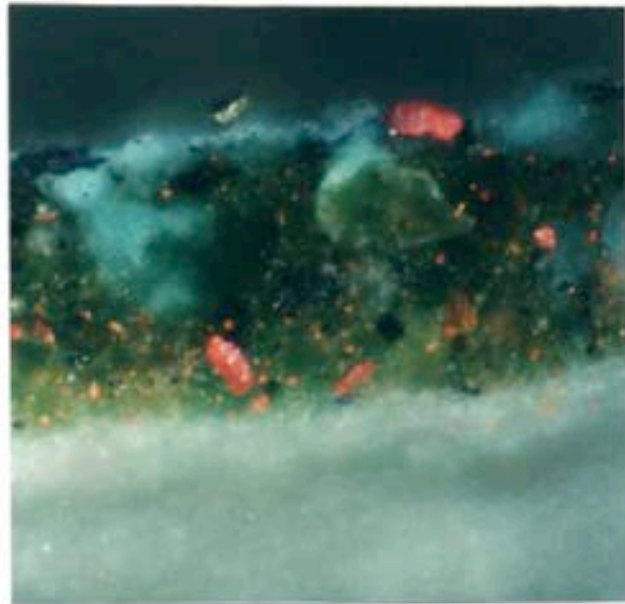
[x500]



SAMPLE C11
Blue/green of collar

Azurite, verdigris, black, vermillion and lead white.

[x500]

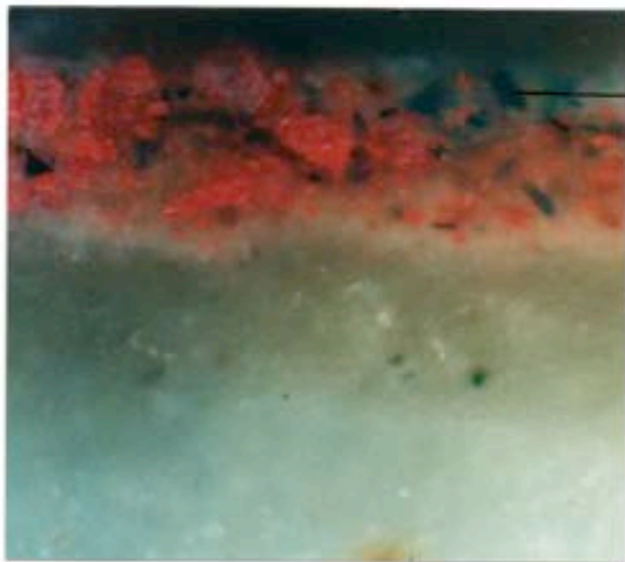


← pink ground

SAMPLE C10
Red of collar

Vermilion and charcoal black, shaded with azurite

[x500]



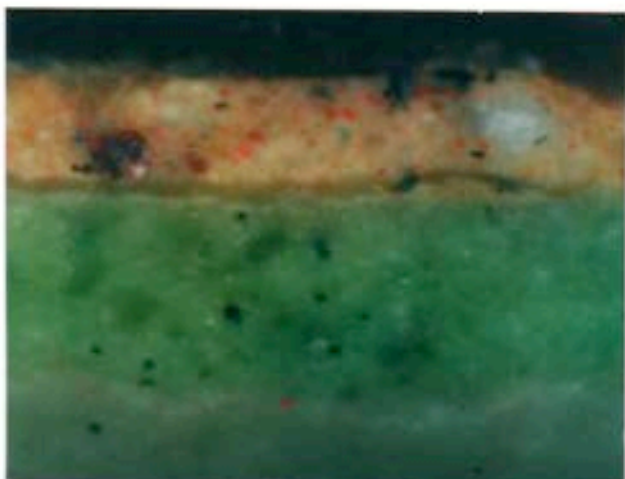
← azurite

← vermillion

SAMPLE C9
Hair over green of turban
left of face

Mid tone of hair - the same pigments as in C24 [previous page] but with added white.

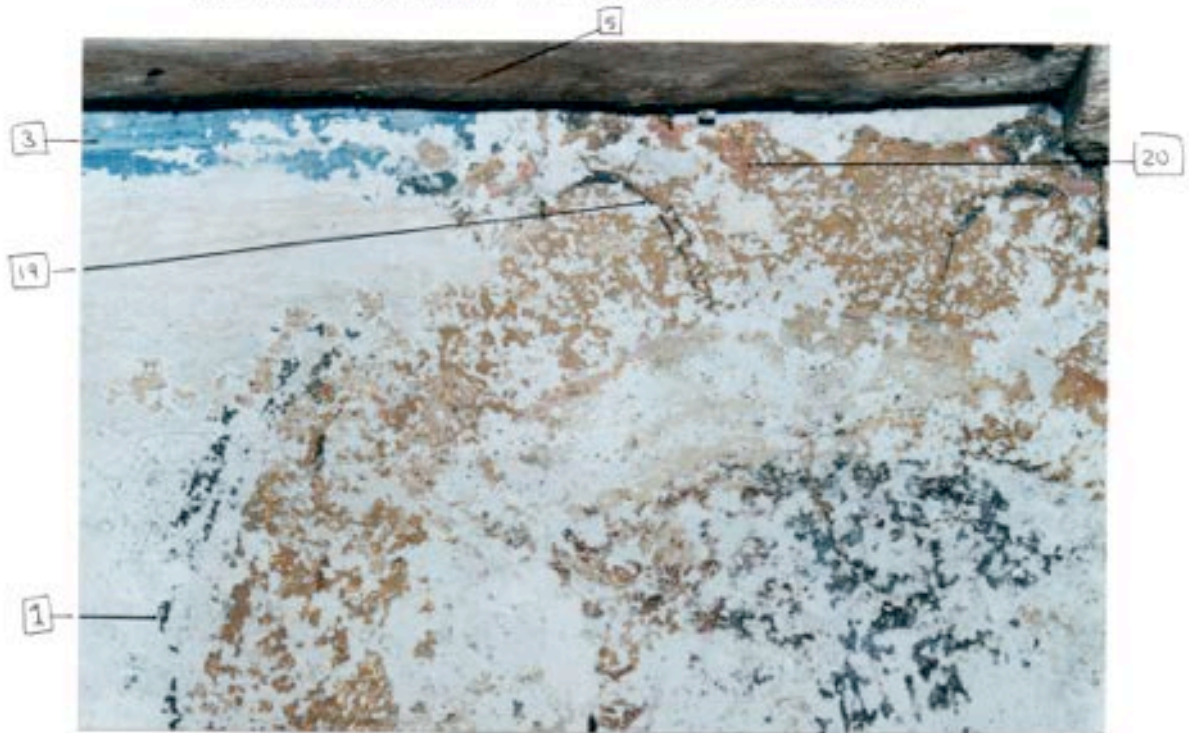
[x500]



← hair

← verdigris
+ lead white of
turban

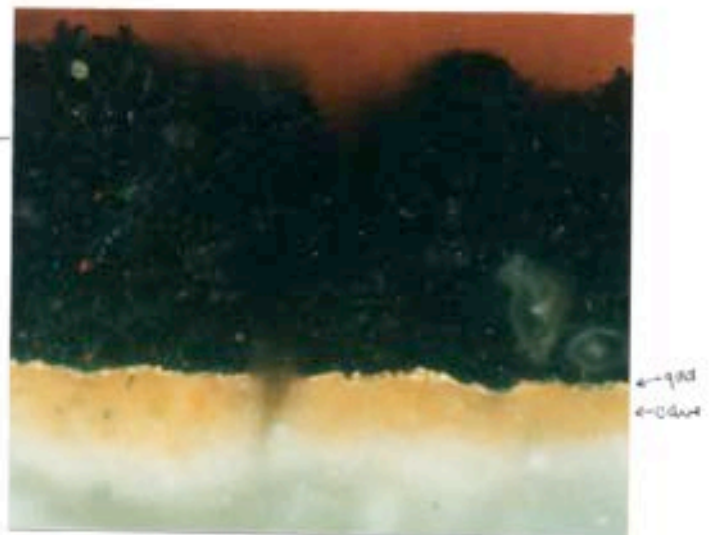
ST CHRISTOPHER - HALO & BACKGROUND

**SAMPLE C19**

Black on gold halo

Pure charcoal black

[x500]

**SAMPLE C20**

Red on gold halo

The red is vermilion. The black under the gold must be a drawing line.

[x500]



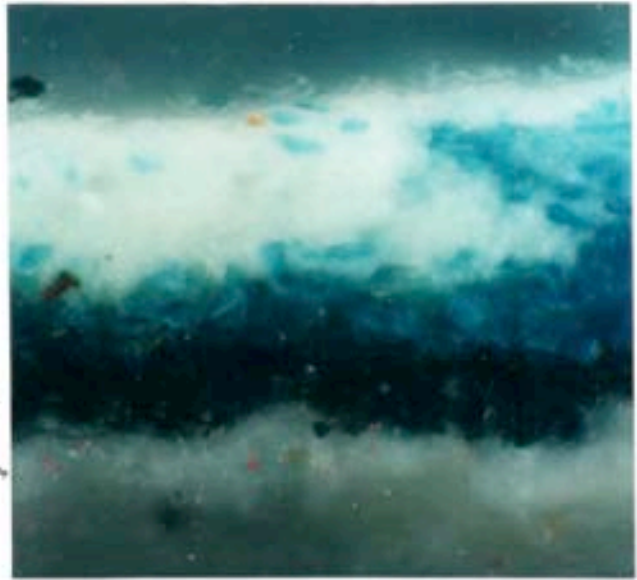
SAMPLE C3

Blue background, below cornice

Azurite and lead white over a black undercoat

[x500]

black
undercoat →
pink
ground →

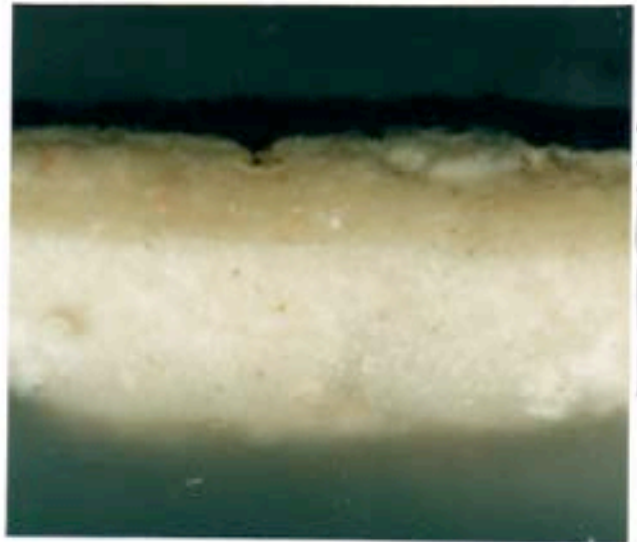
**SAMPLE C1**

Black outline of halo

A good example of the
limewash ground layers,
followed by the pink 'ground'

[x500]

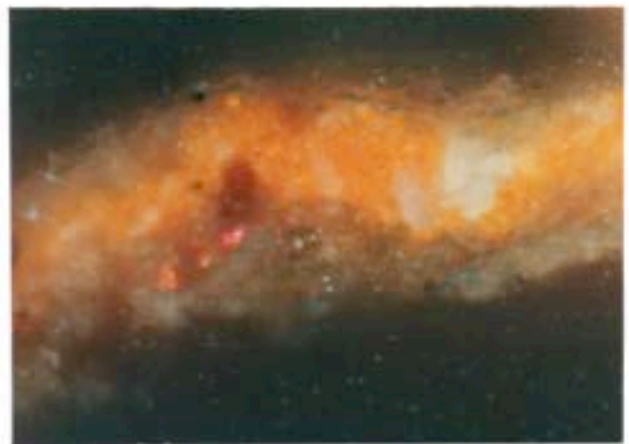
black
pink
limewash

**SAMPLE C5**

Red on wooden cornice.

Red lead. This is the only red
lead found in the church, apart
from an undercoat to a vermilion
scheme on the chancel arch

[x500]



ST CHRISTOPHER - FACE & BACKGROUND

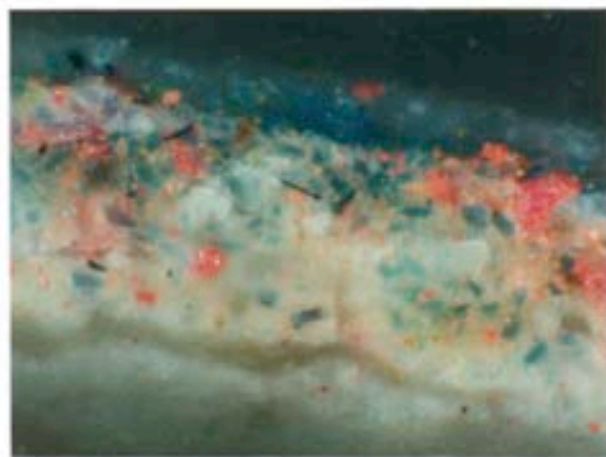
**SAMPLE C23a**

Shading around eye

Pure blue shading over violet
shadow tone of azurite, vermillion
and lead white

pink ground

[x500]



← pure
azurite

SAMPLE C 23b

Outline of eye

Dark purple mixture of
vermillion, black and azurite,
plus one particle of red lake.



← vermillion

← red
lake

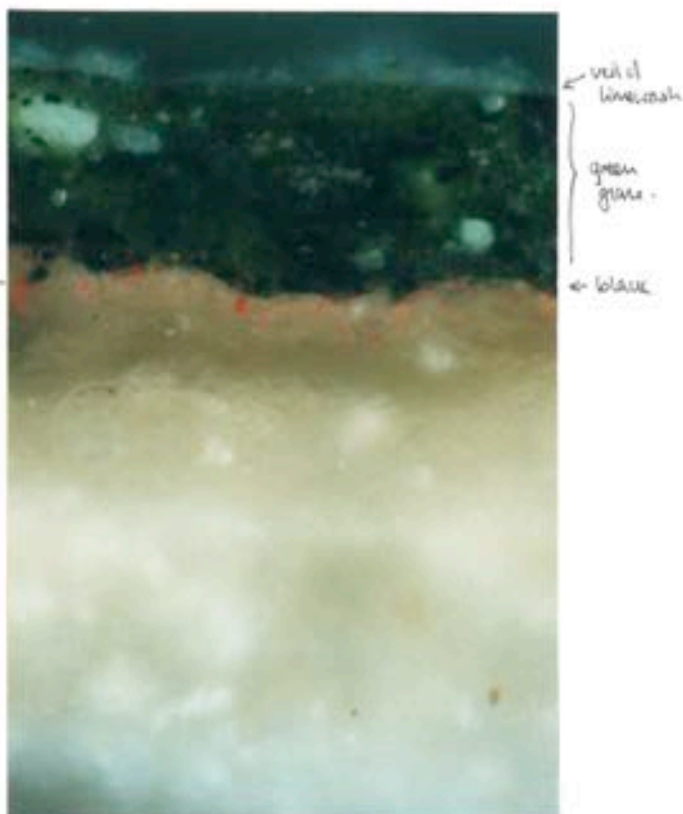
SAMPLE C13

Green tree

Copper green glaze over black.

A good example of the pink 'ground' of lead white and red ochre

[x500]

**SAMPLE C15**

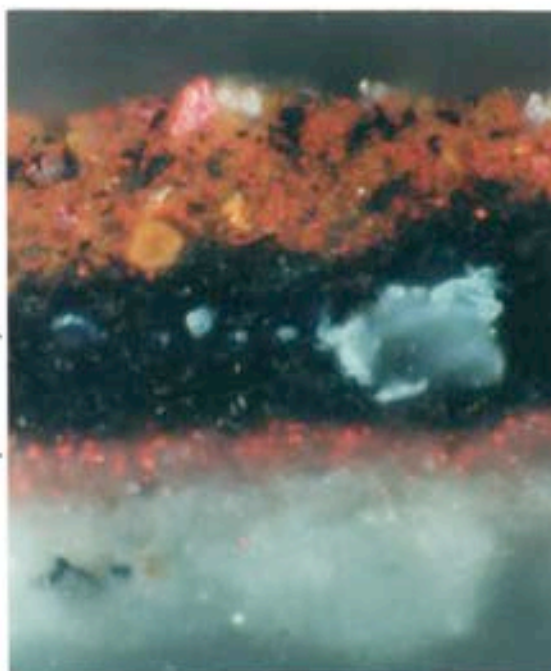
Brown hair over background

Mostly red iron oxide and black but with some added vermillion.

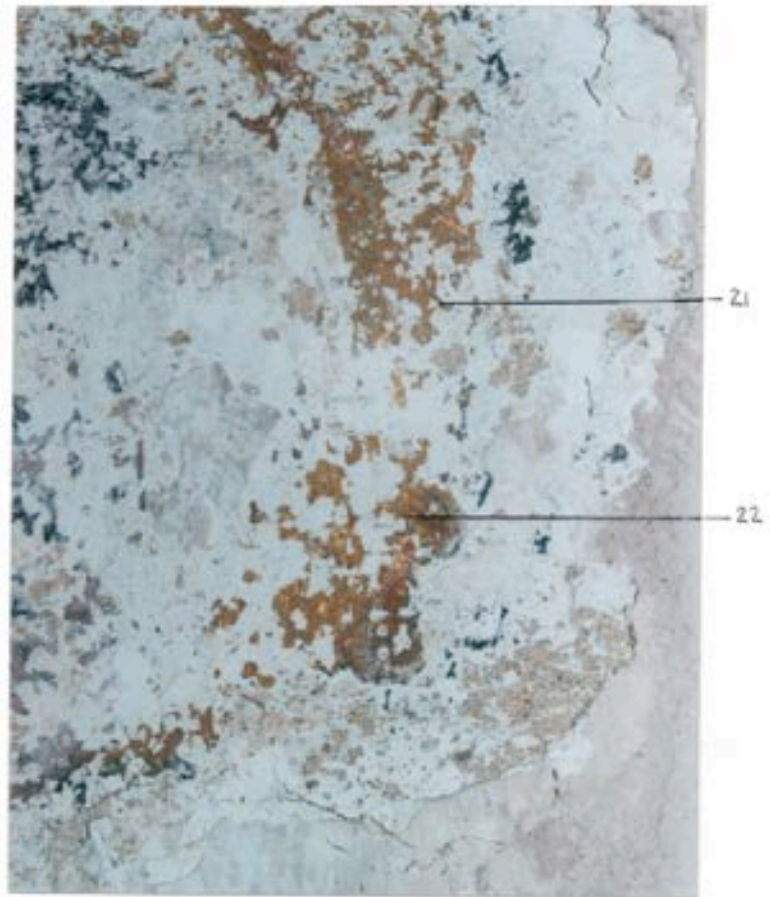
The hair colour is brushed over the usual background black

'pink' ground

[x500]



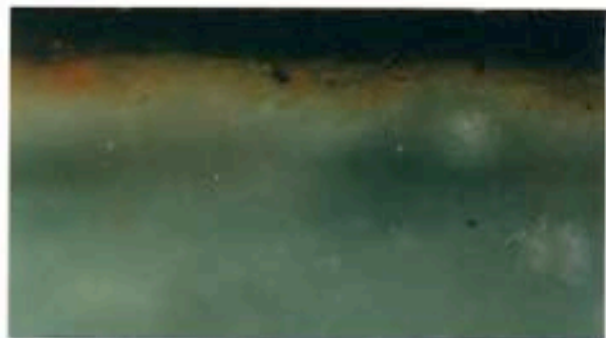
CHILD'S HAIR & HALO

**SAMPLE C21**

Background yellow of halo

A layer of ochre. The gold is laid directly onto this, presumably when it was still sticky.

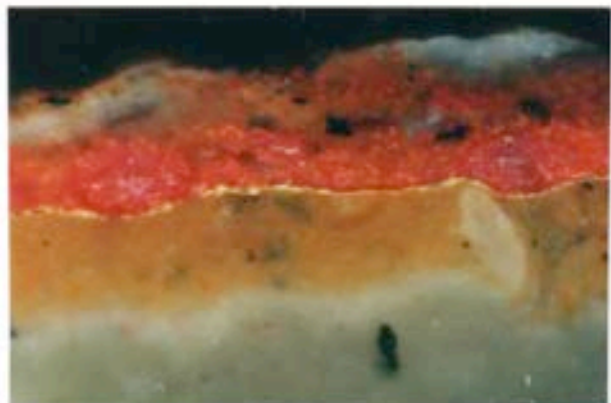
[x500]

**SAMPLE C22**

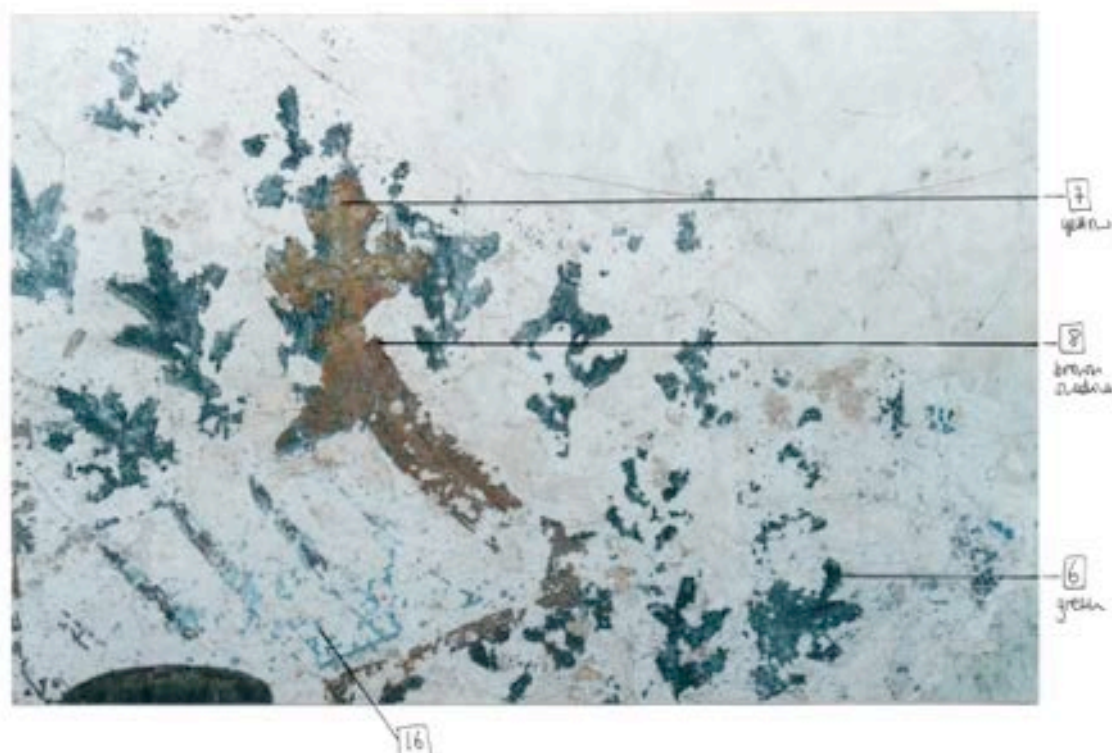
Hair over red design on halo.

The dark hair colour is red ochre and black

[x500]



ST CHRISTOPHER - HUT & TREES

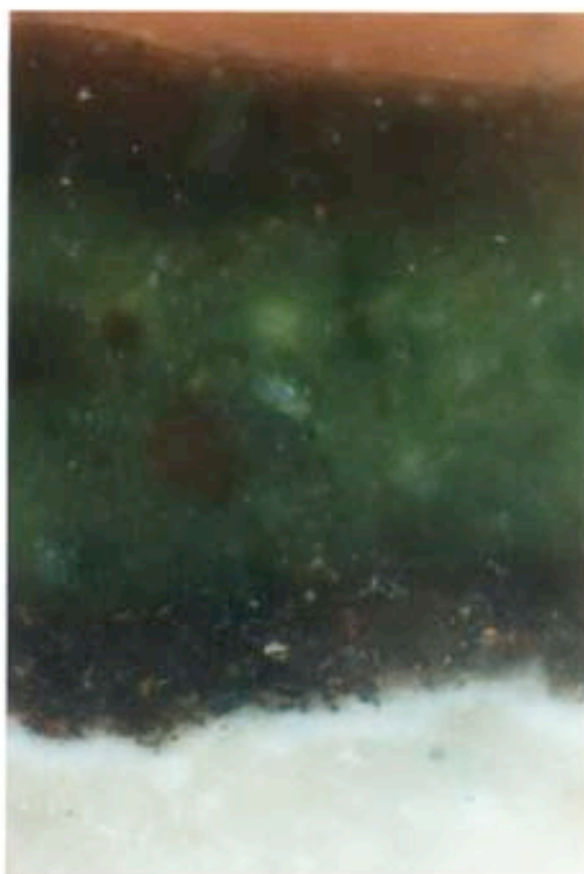
**SAMPLE C6**

Dark green foliage

Copper green glaze, over
verdigris in a glaze medium,
over black undercoat.

The black appears to have
been painted under all areas
that were to be blue or green
in the background, and may
therefore have covered the
whole area

[x500]



SAMPLE C8

Brown shading of hut

Red ochre and black, over black background, [or drawing].

[x500]



← red ochre and black

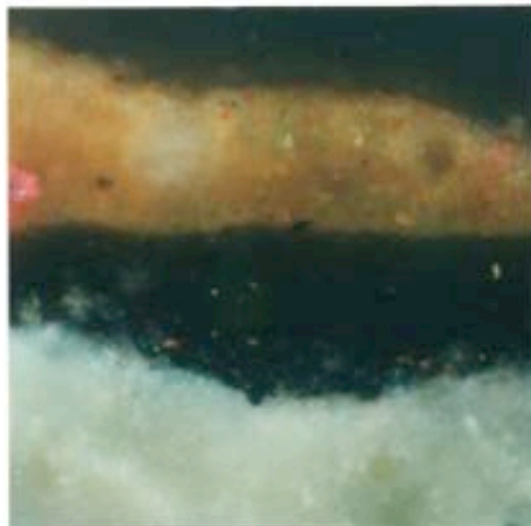
← black drawing

SAMPLE C7

Yellow finial of hut

Yellow ochre over the usual black.

[x500]



← ochre

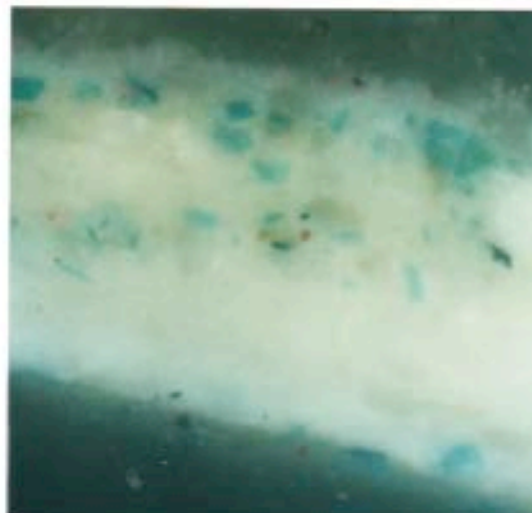
← black drawing

SAMPLE C16

Blue on roof of hermit's hut

Azurite and lead white [lower layers missing]

[x500]



SAMPLE C8

Brown shading of hut

Red ochre and black, over
black background, [or
drawing].

[x500]

← red ochre
and black← black
drawing**SAMPLE C7**

Yellow finial of hut

Yellow ochre over the
usual black.

[x500]



← ochre

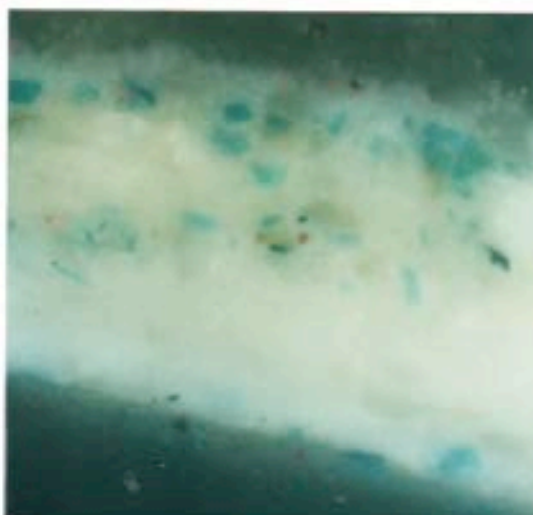
← black drawing

SAMPLE C16

Blue on roof of hermit's hut

Azurite and lead white
[lower layers missing]

[x500]



Post-reformation texts

Text on north wall, between windows N2 and N3 [p.49]

The letters were first drawn in black, then outlined in a dark brown mixture of red iron oxide and black. The text is painted over at least four layers of white limewash.

Red letter to left of H, above south St Christopher [p.49]

The reddish brown paint is a mixture of red iron oxide and a little black. These are the same pigments as used for the north wall text, but the ratio of black to red is different, and in section the paint layers do not look similar.

Ornamental border on south wall, between windows S3 and S4 [p.50]

The lines of the ornamental border look like grey shadows. There are also a few patches of dark brown paint associated with the shadow lines.

A sample taken from one of the grey shadows shows a few particles of carbon black on the limewash surface, however these are not really enough to produce such clear lines, and they may just be dirt.

The limewash does not look stained in section, but a sample from one of the overlying brown patches was found to contain lead, and the explanation for the lines must be that when the original lead-based paint underwent chemical change this affected the limewash and created the faint shadow. Almost all of the original lead-based paint has now flaked off.

The pigment in the paint is not likely to have been lead white, and so the border was almost certainly once painted with a bright red lead.

TEXTS ON NORTH & SOUTH WALLS

NORTH WALL

Brown initials and a black border design.

Sample 4, taken to include the underlayers, shows at least three limewash coatings under the black paint.



SAMPLE H1

Brown from letter G

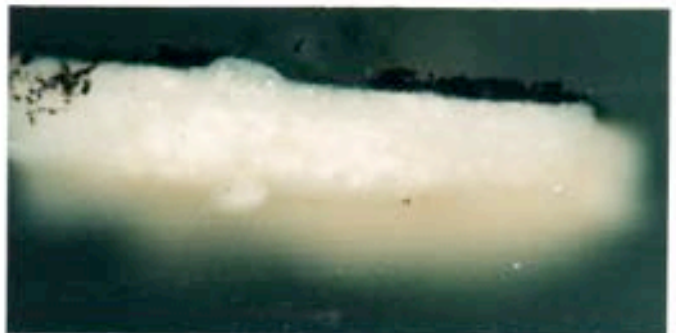
A mixture of brown iron oxide and carbon black



SAMPLE H3

From the black shadow to the left of the letter G. The black seems to belong to an earlier scheme. Unlike the G which is on a yellowish limewash, this is on pure white.

[x200]



SOUTH WALL

SAMPLE A10

Letter above St Christopher

A mixture of iron oxides, most of them reddish brown, plus a very little charcoal black. [x500]



ORNAMENTAL BORDER ON SOUTH WALL

The pattern survives as a grey 'shadow'.

Samples from the grey revealed a thin film of carbon black particles, but not enough to account for the colour.

The occasional patches of dark brown were found to be blackened lead pigment, and the 'shadows' are probably where lead paint has flaked off, leaving its mark on the limewash.

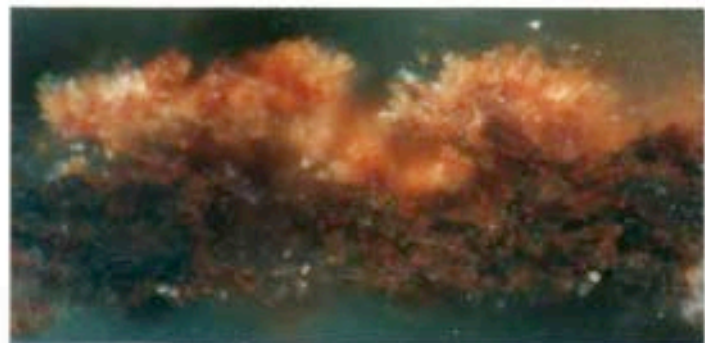


SAMPLE K2

Brown patch.

Discoloured lead paint, with discoloured lead salts on its surface.

[x500]

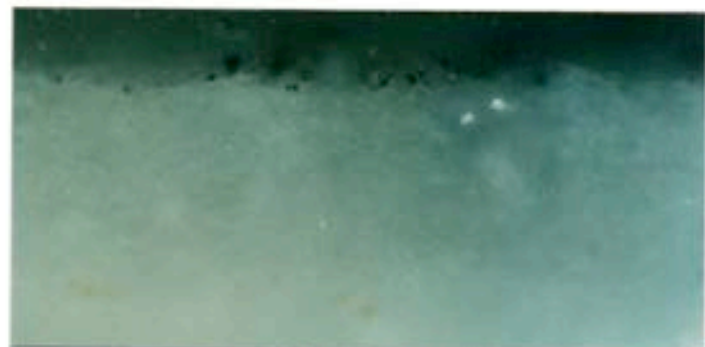


SAMPLE K1

Grey 'Shadow'

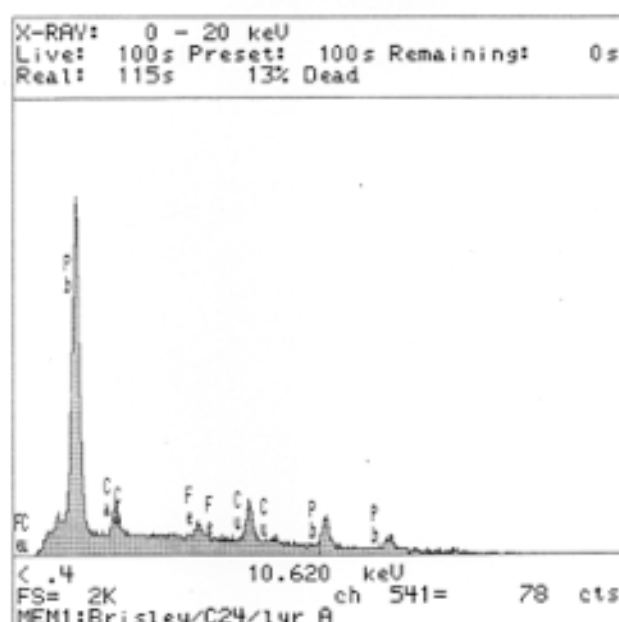
A few black particles, perhaps from drawing

[x500]



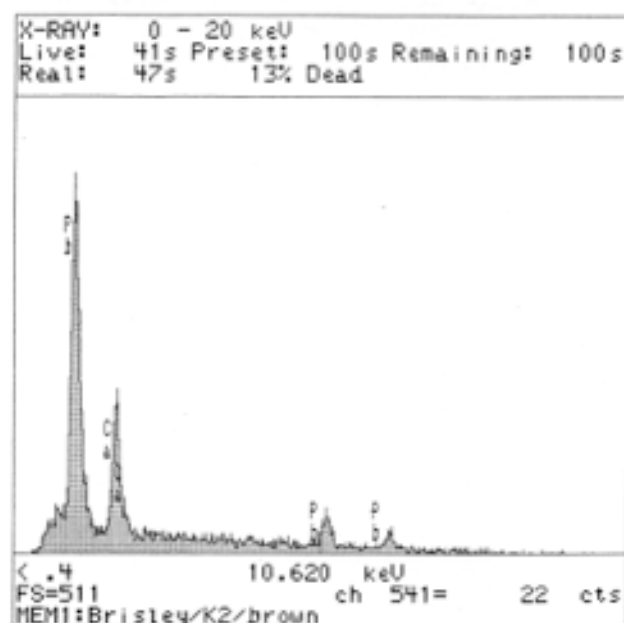
SEM Analysis of Sample C24-Lyr A
N.St.Chris. - pale hair colour

Lead [Pb] from lead white, copper [Cu]
 from the verdigris below and iron [Fe]
 from the ochre



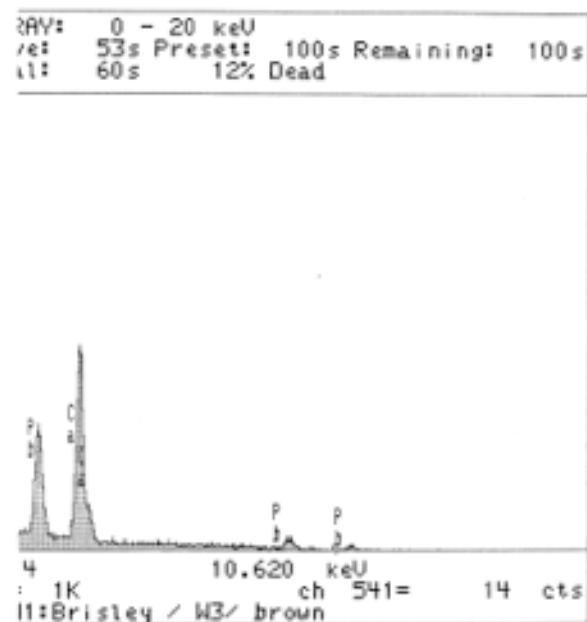
SEM Analysis of Sample K2
Scroll border on S.wall - brown

Lead[Pb] from lead pigment, and calcium



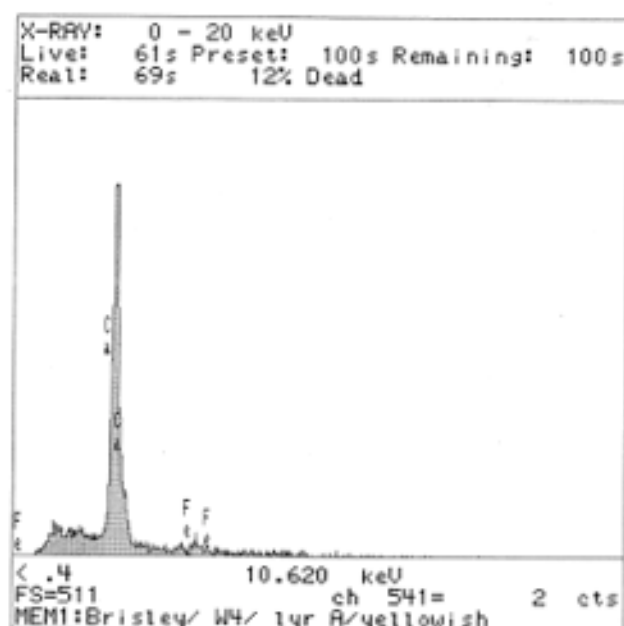
SEM Analysis of Sample W3
Angel. black fold line

Lead [Pb], calcium and sulphur



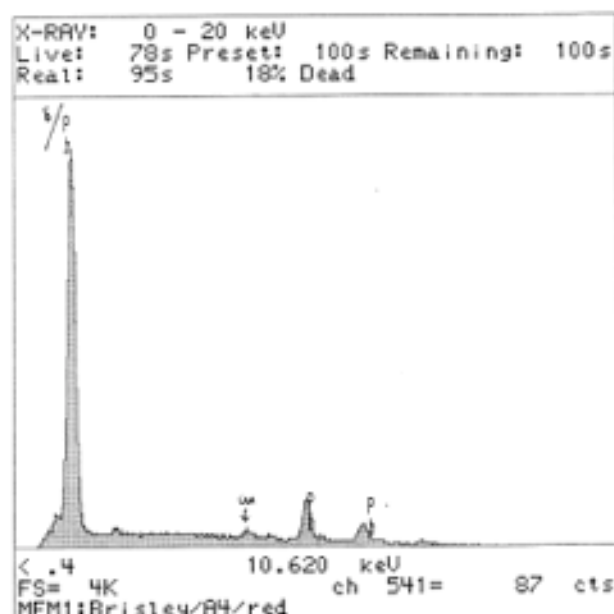
SEM Analysis of Sample W4
Angel. discoloured yellow

Calcium [Ca], and iron [Fe] from ochre



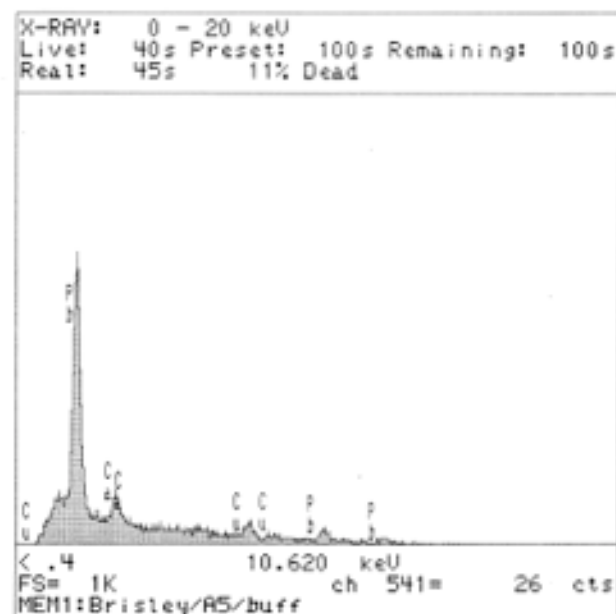
SEM Analysis of Sample A4
S.St.Chris. - red

Lead [Pb] from lead white. The lead features obscure those of sulphur & mercury [from vermilion]. No iron present



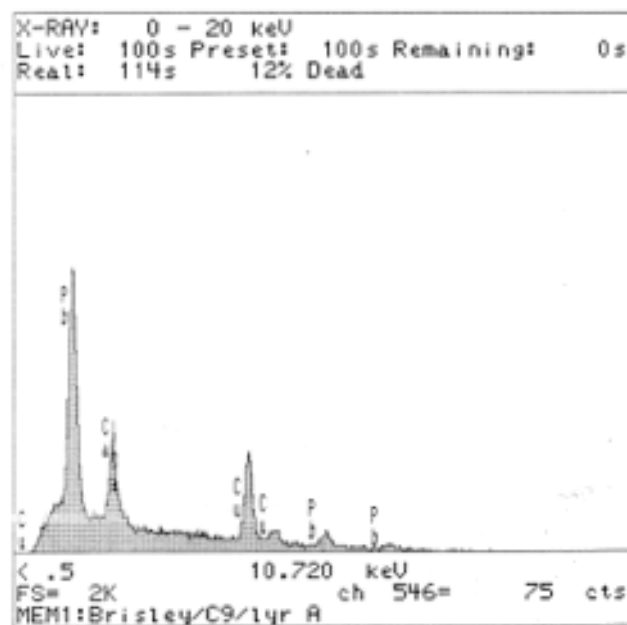
SEM Analysis of Sample A5
S.St.Chris - yellowish ground

Mostly Lead[Pb] from lead white. Some copper from the overlying verdigris



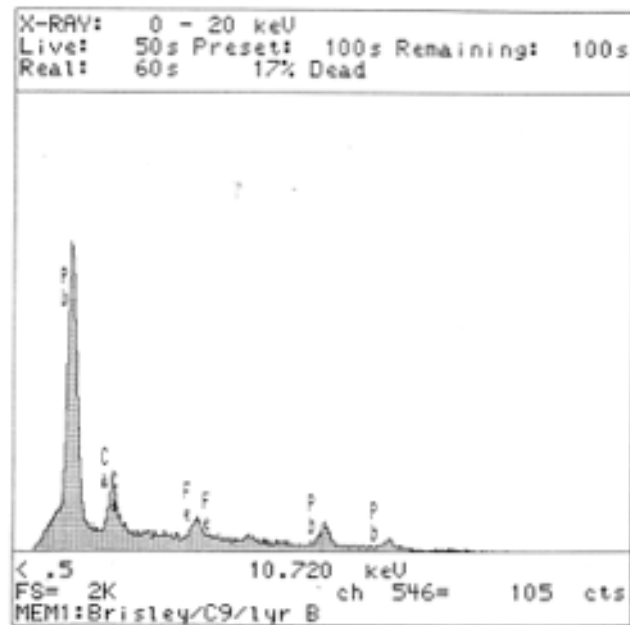
SEM Analysis of Sample C9 - Lyr A
N.St.Chris. - green turban

Lead [Pb] from lead white, copper [Cu]
 from verdigris, and calcium



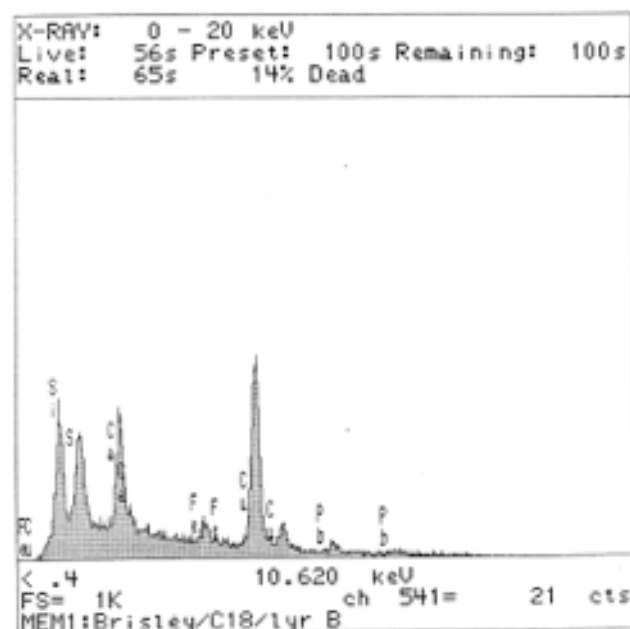
SEM Analysis of Sample C9 - Lyr B
N.St.Chris - hair over turban

Lead[Pb] from lead white and iron [Fe]
 from ochre



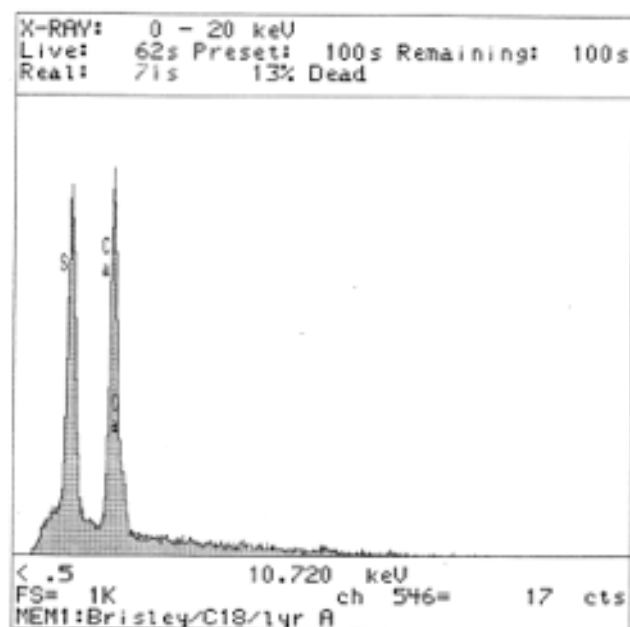
SEM Analysis of Sample C18 - lyr A
N.St Chris. pink ground

Led [Pb], calcium and sulphur



SEM Analysis of Sample C18 - lyr b
N. St.Chris. blue robe of child

Copper [Cu], lead [Pb], calcium [Ca]
 sulphur [S] and silicon [Si]



Examination

The samples were examined under low magnification, then mounted in resin to be cut and polished as cross-sections. The pigments were identified by polarised light microscopy. The presence of lead in key layers was checked using a scanning electron microscope [SEM].

SAMPLES

St Christopher - north wall

- C1 black outline of child's halo
- C2 gold of child's halo
- C3 bright blue below wall plate
- C4 purple/black background below blue
- C5 red border on lower edge of wall plate
- C6 'trees' above hermit's hut
- C7 yellow finial of hut
- C8 brown shading of hut
- C9 green 'turban' of St.C. with strand of brown hair over
- C10 pink left hand collar
- C11 blue/green lining
- C12 pink r. hand cheek
- C13 green leaves r.h. side
- C14 ochre staff
- C15 dark red hair, r.h. side of head
- C16 blue ?over or ?under reddish brown shading on hermit's hut
- C17 background below blue sample 3, & below blackened area
- C18 blue of child's robe
- C19 black loop on halo
- C20 red ?on gold of halo
- C21 background ochre - right side of halo
- C22 lower right side of halo - strand of ?hair over red
- C23 shading around eye
- C24 light hair over green of cap

North window - Angel in east reveal

- W1 ochre scroll - left hand side
- W2 red background colour
- W3 'black' fold lines of lower robe
- W4 yellow of plinth + greeny surface
- W5 pinky grey colour of robe
- W6 later paint layer, from l.h. edge
- W7 salts
- W8 mould
- W9 copper green from window jamb

North pilaster of chancel arch

- P1 red background
- P2 white petal
- P3 white petal
- P4 pink lower layers under 3
- P5 darker red over 3
- P6 later 'black' flower, from higher up
- P7 traces of brighter red on pilaster base - ?a second scheme
- P8 peach coloured 'ground'

East column of north aisle, west face

- D1 dark red on white on peach - c.1.5m up
- D2 near top of plinth - dark layers, partially scraped off
- D4 base of plinth - darker overpaint

Column in south aisle - 2nd from east

- E1 dark original red under limewashes, over white, over peach-coloured limewash
- E2 reddish black higher up
- E3 paler band of black, with skim of red

St Christopher on south wall

- A1 grey over white belt
- A2 dark red of robe
- A3 white on red fold line
- A4 red on black petal pattern on ?green tunic
- A5 green ground
- A6 blackened legs
- A7 dull green/yellow colour of St Andrew
- A8 white fold line on green

Consecration cross

- X1 outer red border
- X2i blue with overlying limewash layers
- X2ii layers under blue
- X3 patch of brighter red on cross in centre
- X4 blackened area in lower right hand quadrant

Over south door

- G1 bright red on wall plate
- G2 dark red on wall plate
- G3 black line in horizontal groove [later]
- G4 dark red on EW roof timber
- G5 grey ?shadow on EW roof timber
- G6i bright red uncovered in cleaning trial on wall - red plus white limewash
- G6ii creamy ground
- G7 grey uncovered in cleaning trial, with streaky black on top
- G8 yellow

Text on north wall, between windows N2 and N3

- H1 reddish brown of letter
- H2 black of border
- H3 shadow of black to left of letters. ?drawing
- H4 limewash layers under

Ornamental border on south wall, between windows S3 and S4

- K1 grey/black 'shadow' near upper edge of revealed area
- K2 dark red/brown
- K3 limewashes
- K4 pinkish colour under dark red/brown

East end of south aisle

- M1 white fleur de lys
- M2 black background to fleur de lys
- M3 example of dark red
- M4 yellow on right pier of chancel arch
- M5 bright red blob higher up east wall
- M6 right pier of chancel arch - white rose on red
- M7 later black scheme above and to the right.
- M8 original red