

# **St Mary and All Saint's Church, Droxford Wall paintings in the north chapel**

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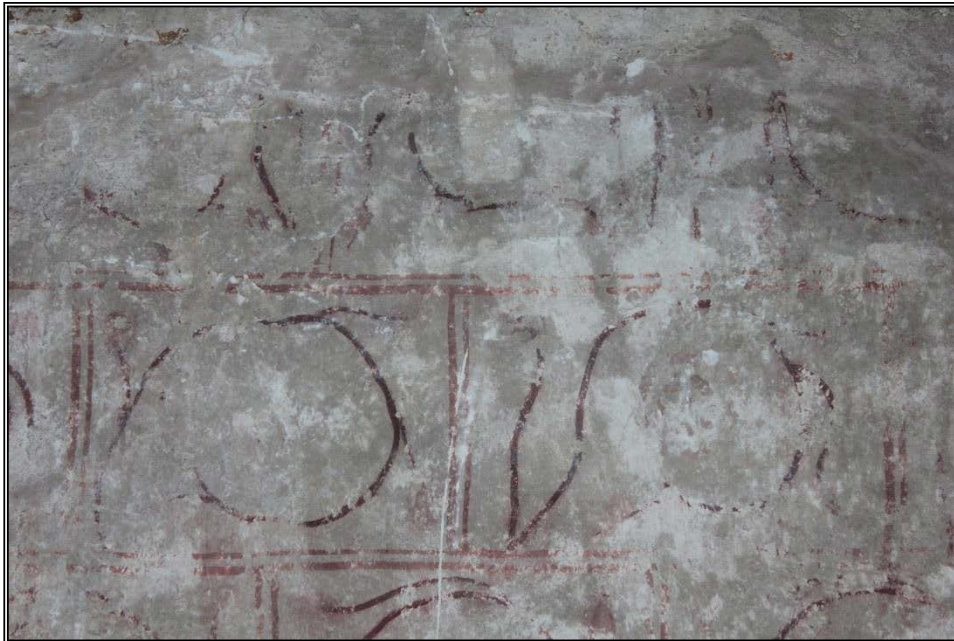


**St Mary and All Saint's Church, Droxford**

Diocese of Portsmouth

**Wall paintings in the north chapel - Detailed Condition Report**

Commissioned by the Parish of St Mary and All Saints Church



C14 masonry line decoration on the south wall of the north chapel

April 2015

# St Mary and All Saints Church, Droxford, Hampshire

Diocese of Portsmouth

## Wall paintings in the north chapel – Detailed Condition Report

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### Distribution list

- The PCC of St Mary and All Saints, Droxford (Matthew Hill)
- The architect to the church (Julian Livingstone)
- Portsmouth Diocesan Advisory Council
- English Heritage (Robert Williams)
- The Church Buildings Council, London (electronic copy only)
- Courtauld Institute of Art, Wall Paintings Department (David Park)

### Acknowledgements

I thank the PCC of St Mary and All Saints, Droxford for commissioning this report and associated investigations. I too thank Julian Livingstone (architect to the church) for his generous assistance throughout. My thanks also are due to staff at the Church of England Record Centre for access to archive material, and Robert Williams (English Heritage). Finally I am very grateful to Catherine Hassall for undertaking the analysis of the paint samples.

This report is also supplied in electronic form with full digital photographic files

*Peter Martindale, April 2015*

## **1. Preliminaries**

### **1.1 Brief**

The brief is to document in this report the results of a detailed survey of the wall paintings in the north chapel of St Mary and All Saint's church, Droxford, alongside supporting information gathered from historical research and the analysis of paint samples.

### **1.2 Summary**

Two schemes from the medieval period survive on the east and south walls. The first is fictive masonry dating from the C14: whilst the second is an addition or embellishment to the first, comprising a simple bold border design, possibly dating from the late C15 or early C16.

These all paintings are stable and not subject to on-going deterioration; but aspects of their present condition require attention so as to secure them for this and future generation. This need is heightened by the proposed external work to the exterior of the chapel. There are very welcome proposals to improve the rainwater disposal system and the drainage with regard to the north chapel, and these should be implemented.

Consideration is given in this report to proposals regarding screening off the north chapel in order to provide the Parish with a smaller meeting room.

### **1.3 Introduction**

This report and associated investigations were commissioned by the Parish of St Mary and All Saints, Droxford through their architect Julian Livingstone. A preliminary inspection was undertaken by Peter Martindale on 8<sup>th</sup> October 2014 during which a brief inspection of the wall paintings in the north chapel and elsewhere was made. The main survey was carried out on 19<sup>th</sup> February by Peter Martindale; on that day Julian Livingstone (architect to the church) met with Peter Martindale to discuss the wall paintings, and aspects of the building fabric and drainage.

### **1.4 The wall painting and planned works to the church**

Interest with the condition of the wall paintings has been heightened as a result of proposals to make improvements and repairs to the fabric of the church, rainwater disposal and drainage. Some repairs are due to be carried out to the east wall of the north chapel upon which there are wall paintings. In particular those repairs are concerned with the stonework of the east window. The arch of the window has dropped and there are a number of cracks internally in the wall, some joints in the stone tracery have opened: see illustration 3 and photos 1, 2, 3 & 7.

The Parish too are considering screening off the North Chapel so that it might be used for small meetings. Discussions with regard to how that might be achieved are on-going at present, and the opinion of the author has been sought. This matter is discussed in the appendix to this report.

## **2. Historical background**

Within this section the following have been referred to:

- Quinquennial Report 2010 (The Hunt Partnership, Southsea, Hampshire)
- Files at the Church of England Record Centre, London
- National Monuments Record, English Heritage
- A History of the County of Hampshire: Volume 3; on-line copy, originally published by Victoria County History, London, 1908
- N Pevsner, Hampshire (The Buildings of England), Clowes & Sons Ltd, 1967

## 2.1 St Mary and All Saint's church

St Mary and All Saints church is Grade 1 listed; and from the 2010 Quinquennial Report, it is noted that *'The first church on the site probably dates from the period of the Royal Charter from King Egbert in 826 granting land to the monks at Winchester. The oldest parts of the present structure date from the Norman period, probably 1150-60, and mostly survive in the remaining walls of the present Nave and Chancel'*. See illustration 1.

According to the English Heritage listing the north aisle and chapel date from c.1200, with the south aisle and chapel being C13. At the beginning of the C14 the north chapel was rebuilt, probably on a larger scale<sup>1</sup>. Later, in the C15 (or early C16<sup>2</sup>) the aisles were rebuilt. The west tower dates from 1599, and in the C18 the church was fitted with new roofs and ceilings, and the clearstory windows of the chancel remodelled. In 1903 there was a noted restoration of the church.

## 2.2 Wall Paintings

There are two schemes of decoration in the north chapel. The first dates from the C14, but the date for the second (which is limited in extent) is not known: it may however be C15 or early C16.

### 2.2.1 First scheme - C14

Wall painting from this period is fictive masonry line decoration ornamented with floral forms. Bedding joints and perpends of the masonry line decoration comprise twin light red lines; whilst the floral decoration comprises curving deep red lines for the stems, lighter red for the leaves and dull yellow for the flowers, see photos 8 - 11. The masonry lines, stems and leaves are painted freehand, whilst the flowers are stencilled. It is possible that the upper extent of this scheme was defined with a border, perhaps a looping light red line, as indicated by trace remains of paint, photos 20 & 21.

### 2.2.2 Second scheme - (possibly C15 or early C16)

This limited scheme can be seen at the top of the east and south walls and around the east window; it comprises a bold foliate border, see photos 17 - 20. On the walls the border is painted yellow, whilst around the east window it is black.

## 2.3 Wall paintings - tabulated history and conservation history

<i>date</i>	<i>notes</i>
826	Likely date of the first church on the site.
1150 - 60	The oldest parts of the present structure probably date from this period.
Circa 1200	North chapel built.
C14	North chapel enlarged and rebuilt. The date of fictive masonry line decoration embellished with floral motifs.
Possibly C15 or early C16	An embellishment of the C14 scheme; possibly required as a result of plaster loss from the original scheme.
C18	The church was fitted with new roofs and ceilings.
1903	Recorded restoration of the church.

<sup>1</sup> On-line copy of the Victoria County History, Hampshire, Volume 3, 1908; p 284 – 288.

<sup>2</sup> Ibid. p 284 – 288.

1908	Fictive masonry line decoration in the north chapel is recorded in the Victoria County History, published in 1908.
2010	Most recent Quinquennial report.
February / March 2015	Condition survey by Peter Martindale and this present report.

### 3. Detailed examination - introduction

#### 3.1 General

As part of the in-situ technical examination five paint samples were taken and sent to Catherine Hassall for analysis. The results from the analysis were not known until after the in-situ examination was completed. Both the paint sample form and paint analysis report are presented in the appendix.

Two medieval schemes remain in the north chapel on the east and south walls; see photos 8, 9, 16 & 17. Although as yet undetected, it is possible that further areas of medieval painting may remain on the walls of the north chapel under later layers of plaster and paint. This is something which needs to be born in mind in the future.

#### 3.2 The C14 scheme

##### 3.2.1 Nature and extent

What remains today shows this scheme to comprise fictive masonry decoration elaborated with floral motifs. The support for this scheme is lime plaster over which a lime ground has been applied. Photos 8 – 10. It extends across the east wall and along the eastern part of the south wall, but it is prominent at the top of the eastern part of the south wall.

Twin pinkish lines define the fictive bedding joints and perpendes of the masonry design; this colour is made from red ochre and white chalk. The fact that chalk white was used suggests an aqueous binding medium, because when bound in oil chalk becomes transparent and has no colouring or toning effect.

Within the fictive blocks there are red stems, pink leaves and the petals of flowers. The red stems are easily recognised, the pigment is red ochre bound in a thick layer of organic medium: whilst the pink leaves may well be a combination of red ochre and chalk like the fictive bedding joints. Petals of the flowers today appear dirty yellow, and are not readily obvious because they blend into the dirty background; photos 10 & 11. The pigment used for the petals is lead white mixed with yellow ochre; and in view of the lead white not having discoloured it must be well bound. An idea of the original shape of the flowers, which are stencilled, is shown on the second page of the paint sample form in the appendix.

Important traces of the decoration remain on the stones forming the east window, in particular the lower stones of the south window reveal, see illustration 3.

Some of the decoration lies over an area of repair plaster; see illustration 4, photo 13. This shows that some repairs to the internal walls of the chapel, which predate the wall paintings, were required in advance of painting.

### 3.2.2 Condition and cleaning

Illustrations 3 & 4 map aspects of the condition of the wall paintings on the east and south walls. Of most concern are areas of detached plaster where consolidation is required. The most significant area at risk is highlighted in illustration 3 (photo 16) where there are a number of cracks in the plaster. Other areas of concern are at the top of east wall, north end (photo 17); and around the vertical or near vertical cracks on the south wall.

Where the surface of the painted plaster is broken or damaged there are small fragile areas and edges. These need to be secured with lime slurry and small plaster repairs. Turning to the paint layer, where it is broken or damaged, there are instances where flakes of paint are not secure and at risk of loss. These need to be secured using lime slurry or Plextol B500.

The surface of the painting is dirty. Cleaning tests indicate that the dirt is on the surface and not ingrained, and that it can be removed using methods at the 'gentle' end of the cleaning spectrum: see photos 9 & 12. In this case those methods include using soft artist's brushes<sup>3</sup> (watercolour mops) and Wishab™ self-abrading sponges; along with some use of a dilute ammonia solution (2% in water, v: v), applied via small cotton wool swabs on swabsticks.

### 3.3 The second scheme (possibly C15 or early C16)

#### 3.3.1 Nature and extent

Evidence of this scheme, a bold interlacing foliate border, can be seen at the top of the east and south walls of the north chapel and where the reveal of the east window meets the east wall; photos 17 – 20. In preparation for applying this decoration, areas of the C14 fictive masonry line scheme were overpainted with two layers of white limewash. The border at the top of the east and south walls is yellow, and the pigment used is yellow ochre; whilst the border around the arch of the east window is black, and the pigment used is a mixture of carbon black with some yellow ochre.

Interestingly, an organic coating was identified over the black pigment which makes the mixture of black and a little yellow ochre appear black as opposed to a deep olive colour. There was, however, no such organic layer over the yellow sampled. One wonders whether this is an original feature or a later treatment to strengthen the appearance of the black.

Another interesting aspect of the decoration on the east wall is that some lies over plaster repair at the south end of the east wall; see illustration 3, photo 16. This suggests deterioration and loss of the original scheme, rectified before implementing the second scheme.

At the western end of the decoration on the south wall there is a vertical black line. It seems likely to form part of the second scheme; see illustration 4, photo 8. This matter warrants further consideration.

#### 3.3.2 Condition and cleaning

Observations regarding the condition and cleaning of this second scheme are identical to the C14 decoration: detached plaster needs to be secured, cracks filled, instances of paint flaking secured and cleaning.

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<sup>3</sup> Loosely adhering dirt and dust would be directed into the nozzle of a vacuum cleaner using the soft artists' brushes.

### 3.4 Other medieval painting

#### 3.4.1 The Ambry (north chapel, south wall)

Vestiges of red medieval paint (like red ochre) can be seen on the carved moulded stonework. It is important that they are retained. The internal left side of the ambry retains some unpainted plaster which appears to be medieval, and there is red medieval paint on the canopy; photos 22 – 24.

#### 3.4.2 The Piscina (north chapel, south wall, west of Ambry)

The back wall of the piscina retains much original plaster upon which there is red medieval paint (like red ochre); photos 25 & 26. As with the ambry, it is important to retain this decoration. Loose edges of plaster need to be secured.

#### 3.4.3 Western facing wall at west end of north chapel south wall

Traces of fictive masonry line decoration lie here, see illustration 1 for location; photos 27 & 28. It is an indicator as to how widespread medieval painting was within the church.

#### 3.4.4 North face of arcade between south nave aisle and nave, by the south porch

A delightful survival of floral decoration can be seen on the north face of the arcade between south nave aisle and nave. The location is shown on illustration 1; photos 29 & 30.

## 4. **The church building**

### 4.1 The building envelope

The arrangement for the disposal of rainwater from the chancel and north chapel roofs is of particular importance to the wall paintings in the north chapel. The construction of the chancel roof is complex; effectively two pitched roofs side by side aligned east/west, with another at right angles to these at the eastern end running north/south. See illustrations 1 & 2; photo 1. Between the pitched roofs a valley gutter discharges via an internal pipe to a shoot which in-turn flows onto the roof of the north chapel. In addition to the shoot, two downpipes also discharge rainwater from the chancel roofs to the north chapel roof. The north chapel roof therefore, gathers rainwater water from around two thirds of the chancel roofs, as well as rainwater that falls on it directly. This combined volume of water discharges to two plastic downpipes at the west and east ends of the north chapel wall. From here is not entirely certain where the water drains to but there are proposals to improve these arrangements<sup>4</sup>. The shoot will be exchanged for a hopper and downpipe. The two downpipes from the north chapel roof will discharge to a new drainage system which will flow to a soak-away 5 metres to the east of the south east corner of the Lady Chapel (south of chancel). These improvements are very welcome, and should be implemented.

On the exterior north and east walls of the north chapel there are patch areas of cement plaster, see illustration 2, photo 2. These are to be removed and the underlying fabric made good with lime based mortar. Structural work is due to be carried out to the stone fabric east window. Four gravestones set against the east wall of the chapel are to be removed and relocated, again see illustration 2 and photo 2. All these practical measures are welcomed.

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<sup>4</sup> From discussions with Julian Livingstone at the church on the day of the detailed survey.



## 4.2 Environmental assessment

St Mary and All Saints church is heated; the system comprises a boiler which delivers hot water to radiators set against the walls of the church. One of these radiators is in the north chapel on the south wall at the east end, directly under the best preserved area of wall painting. Radiators are known for accelerating dirt deposition on wall surfaces and artefacts set above them. Here in the north chapel the deleterious effects of the radiator are mitigated by a shelf above which deflects currents of warm air away from the wall, photo 5: but the location of the radiator poses a long term threat to the wall painting and should be decommissioned and removed.

## 4.3 Screening off the north chapel

The parish would like to section off the north chapel so as to make a smaller space within the church for meetings. There are concerns with the proposal because such an intervention is almost certainly going to alter the environmental conditions in the north chapel such that the wall paintings could become subject to deterioration mechanisms.

From discussions with the architect a number of proposals are being considered at present. These range from full screening off using glass partitions to partial screening, again with glass. In the appendix to this report the matter of screening off is considered and should be referred to at this point.

## 5. **Deterioration of the wall paintings**

During the course of these investigations no evidence of on-going deterioration of the wall paintings was noted, so in that sense they are stable. Despite being stable, their physical condition requires attention.

The medieval wall painting is briefly described in the Victoria County History, published 1908. That description notes 'floral sprays in each block'. Today the flowers are not that distinct, and possibly there has been some deterioration or loss since 1908. If so, it is difficult to quantify that loss without photographic evidence; but assuming there has been loss, what reasons might there be for it? One answer is historic problems with the building fabric and the environment within. It too could be the result of human intervention, accidental damage from dusting down the walls in the north chapel. Painted decoration is fragile, and if the walls had been dusted down in an insensitive manner then paint may well have been lost.

## 6. **Aesthetic considerations**

It is possible to clean the wall paintings as described in sections 3.2 above. It would be advantageous to do this, for in doing so detail will be revealed to the viewer.

There are a number of darker plaster repairs within the areas of wall painting, see photos 8 & 16. Their darker tone detracts from the overall appearance, something which could be overcome by toning them using coloured limewash which matches the background of the wall paintings.

## 7. **Conclusions**

### 7.1 The medieval wall paintings and their condition

The radiator set at the east end of the south wall is a threat to the wall paintings and should be decommissioned and removed. Radiators should not be located below or close to wall paintings.

Investigations have shown that the wall paintings are stable and not deteriorating. There are, however aspects of their present condition which are of concern, and of these the most significant are areas of detached plaster as shown in illustrations 3 & 4. This is of particular concern in view of the work proposed to the exterior of the chapel; removal of cement and structural repair to the east window. Areas of detached plaster need to be secured using a lime slurry or lime based grout.

Cracks in the plaster, and joints in the window tracery should be filled with lime mortar, and that mortar toned to match the surrounding areas.

Small fragile areas, where the surface of the plaster is broken or damaged, need to be secured with lime slurry and small plaster repairs.

Localised instances of paint flaking need to be secured using either lime slurry or a solution of Plextol B500. It would be advisable to use the former where paint and ground are detached, the latter where paint only is detached.

It is possible to improve the aesthetic appearance of the wall paintings by cleaning, a matter which is not essential, but desirable. Similarly it is desirable to tone out dark plaster repairs to the background colour and tone of the surrounding wall painting.

## 7.2 Scheduling the conservation programme

With work being proposed to the external fabric of the north chapel the interior work should be undertaken in two phases.

### 7.2.1 Phase 1 – before external works to the north chapel are commissioned

Secure areas of the wall painting at risk of damage or loss from the proposed external works. In particular this includes for securing areas of detached plaster in need of consolidation, but should include for all areas of detached plaster so that their condition is not worsened. Included in this should also be the securing of localised areas where paint and plaster is in a fragile condition.

### 7.2.2 Phase 2 – after external works to the north chapel are completed

Complete the programme of conservation; ensuring that all plaster is secured, and consolidating all fragile paint. It too would be desirable to clean the wall paintings, and tone out distracting fillings.

## 7.3 The wall paintings and the proposed work to the rainwater disposal

All the proposed work to the rainwater disposal is welcomed. It will contribute to the long term survival of the wall paintings so that they might be enjoyed by this and future generations.

## 7.4 Sectioning off the north chapel

A discussion document in the appendix of this report considers this matter and should be referred to at this point.

## 7.5 Conservation of the wall painting – longer term view

Two years after this programme of work in the chapel is complete the condition of the wall paintings should be assessed by a trained and competent wall paintings conservator. The findings of that investigation should be recorded in a document.

## 8. Recommendations

### 8.1 Practical conservation measures

To undertake the following practical measures a fixed scaffold will be required. Before erecting the scaffolding protective measures will need to be implemented to prevent damage to fixings and furnishings in the chapel.

#### 8.1.1 Necessary items

- Decommission the radiator on the south wall and remove it.
- Secure areas of detached plaster where treatment is necessary (see illustrations 3 & 4) using lime slurry or a lime based grout.
- Fill cracks and open joints with lime mortar, and tone to match their surroundings.
- Secure small localised areas where plaster is vulnerable, and where paint is flaking.

#### 8.1.2 Desirable items

- Secure areas of detached plaster where treatment is desirable (see illustrations 3 & 4).
- Surface clean the wall paintings.
- Tone out dark previous plaster repairs to blend with their surroundings.

### 8.2 Scheduling

Undertake the programme of conservation in two phases. The first phase before external works are carried out, the second upon completion of the external works.

### 8.3 Documentation

The programme of practical measures should be documented in an illustrated report, with copies of the report sent to the Parish, the architect, the Diocesan Advisory Council (Portsmouth), the Church Buildings Council (London) and the Courtauld Institute of Art, Wall Paintings Department (London).

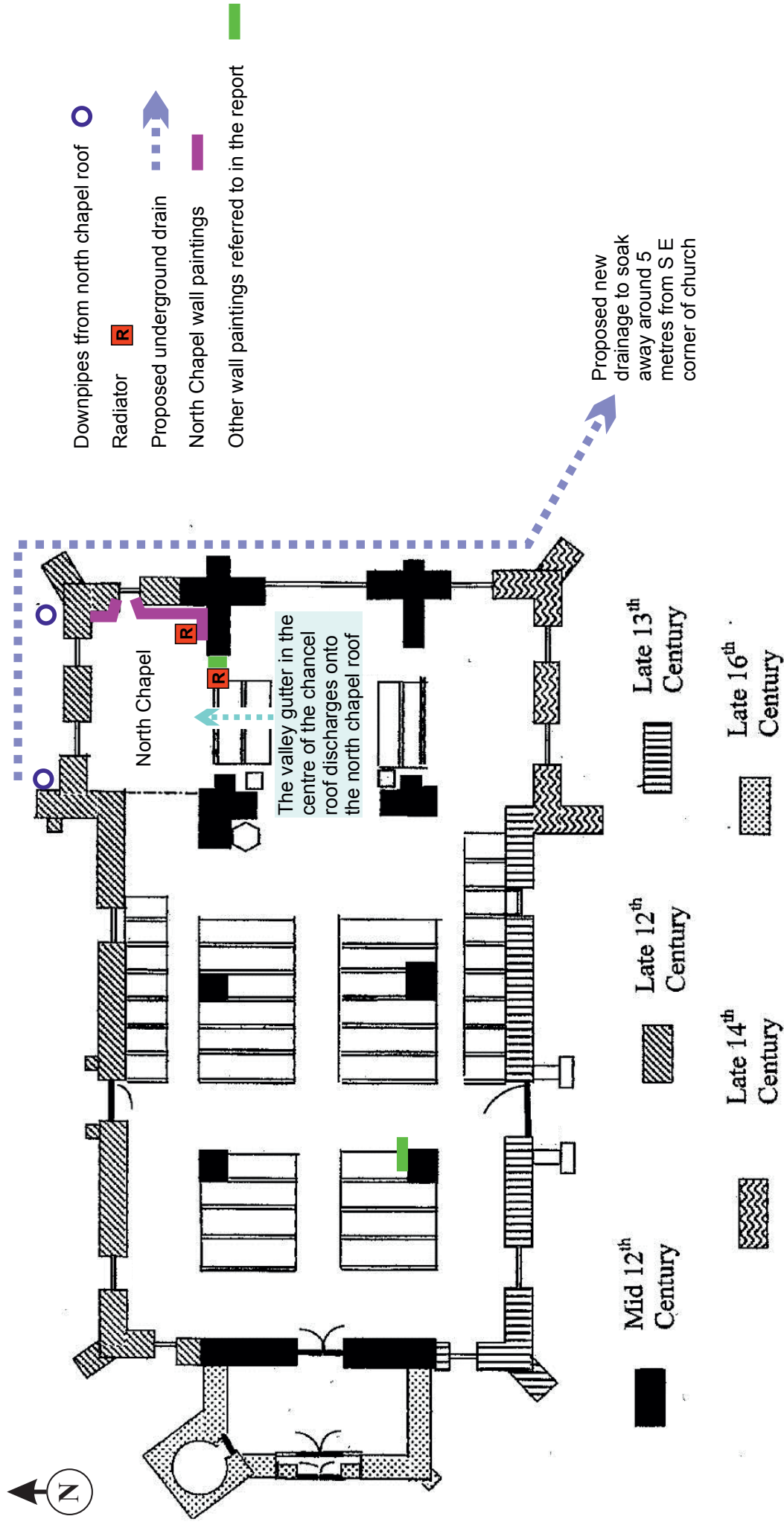
## 9. Proposed scheduling for conservation programme

<i>Timescale</i>	<i>Description</i>
As soon as is desirable / required	De-commission the radiator and arrange for its removal.  Convene a meeting at the church to arrange for the conservation of the wall paintings, protective measures and scaffolding. The following should be present: a member of the parish, the architect, the scaffolder and the wall paintings conservator.  Once the scaffold is constructed and protective measures put in place commission Phase 1 of the conservation programme.
Upon completion of the external works to the north chapel	Commission Phase 2 of the conservation programme.
Upon completion of the conservation programme	Remove scaffolding and protective measures.  Conservator to prepare a report documenting the treatment programme.

**St Mary and All Saints church, Droxford**

**Church plan**

**Illustration 1 - annotated plan**



# St Mary and All Saints church, Droxford

Exterior view looking west

Illustration 2 - rainwater disposal



The north chapel roof gathers water discharged from most to the chancel roofs, some via two downpipes, but some from a shoot. The shoot is due to be replaced with a hopper and downpipe to the north chapel roof.

Water from the north chapel roof discharges to the ground via two downpipes. There are proposals to gather water from these roofs into a drain which flows to a soak-away around 5 metres from the south east corner of the Lady Chapel (south of the chancel). This is important work to carry out in view of the significance of the wall paintings in the north chapel.

Cement render on the east and north walls of the chapel is due for removal, that on the east wall is shown here.

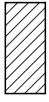
The four gravestones set against the east wall of the north chapel are going to be moved away from their present location. They are shown here outlined with a dotted purple line.

Downpipes

Water shoot from internal gutter



Proposed underground drain



Cement render due for removal

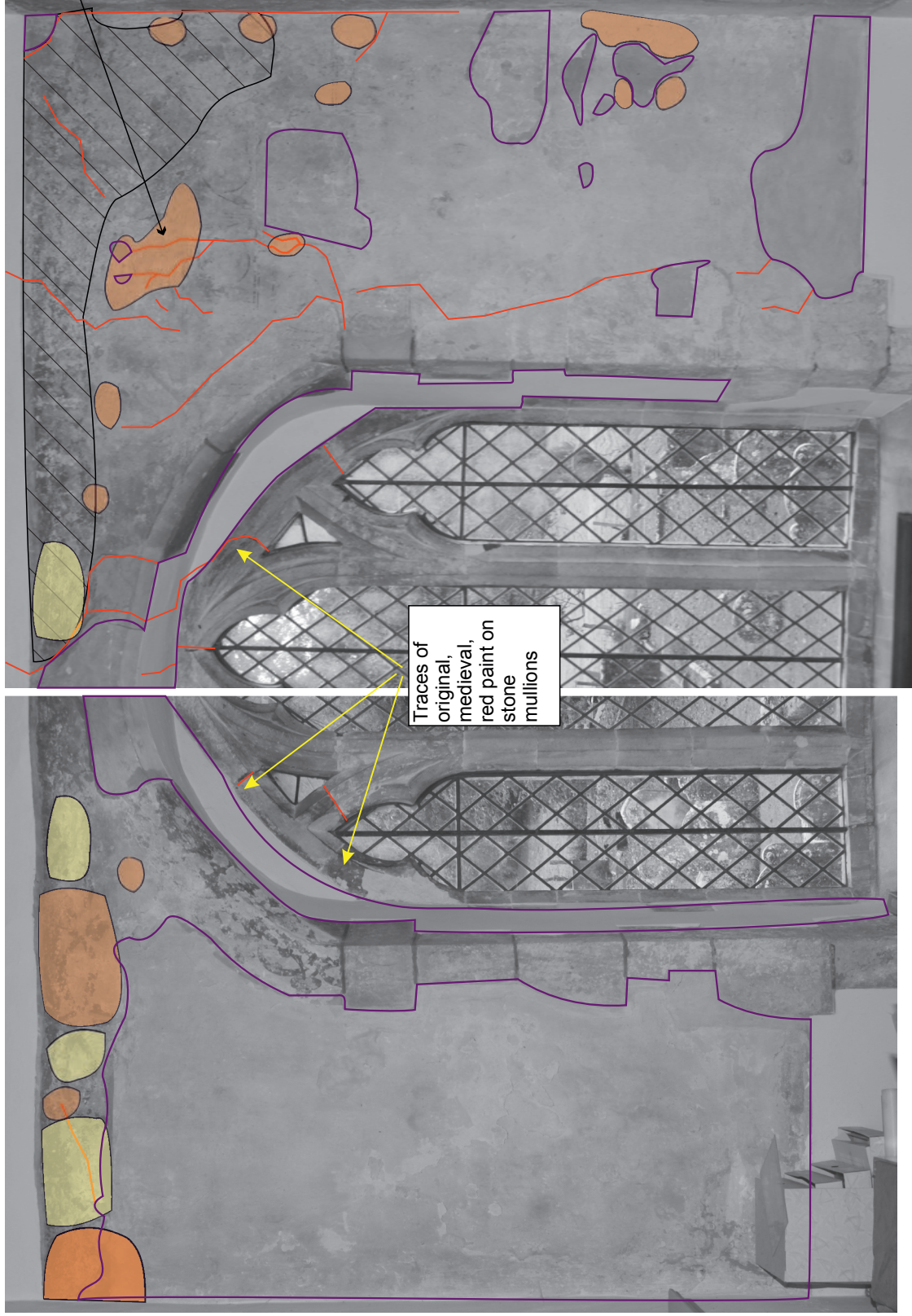
**Peter Martindale** Conservation

1 Green Drive, Fovant, Salisbury, Wiltshire. SP3 5JG Tel 01722 714 271

**St Mary and All Saints church, Droxford**

**East wall, north chapel**

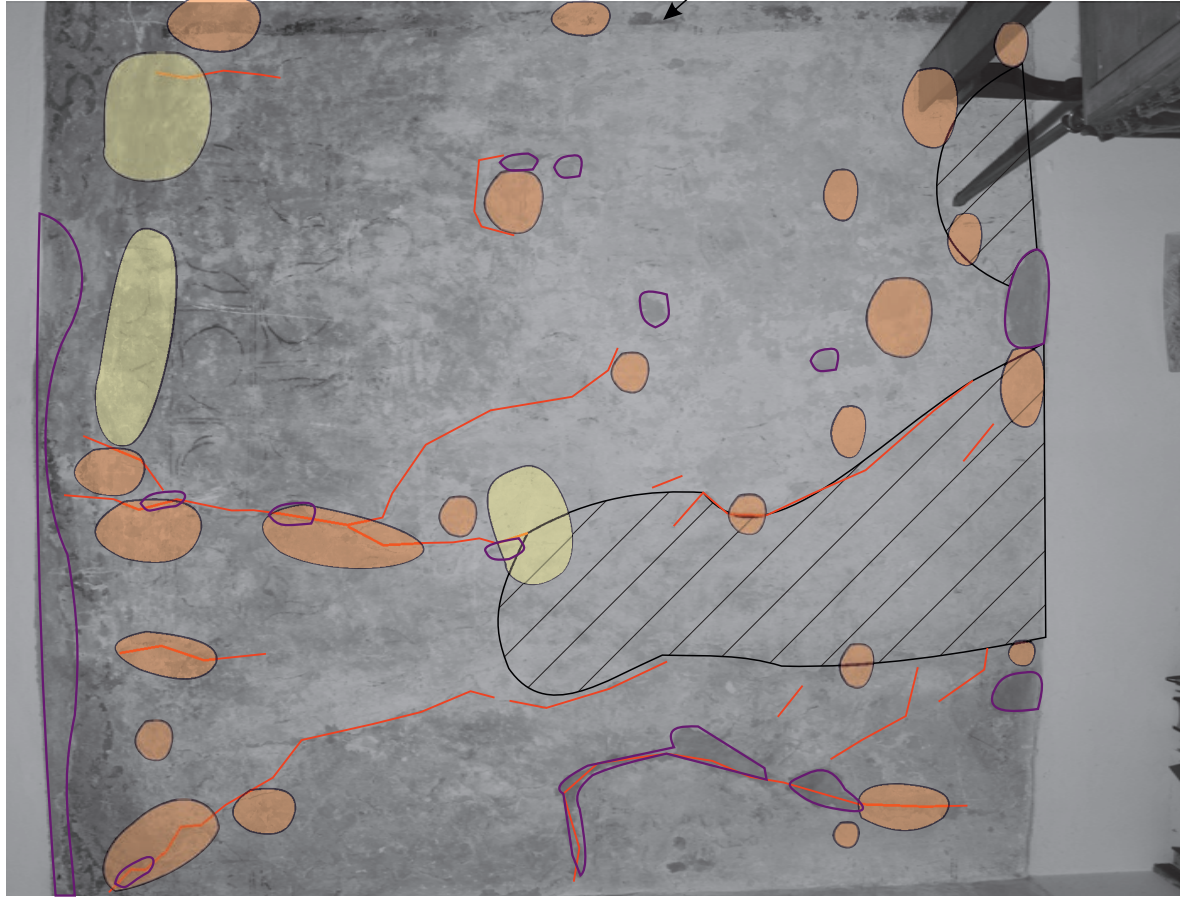
**Illustration 3 - condition wall paintings**








**St Mary and All Saints church, Droxford**

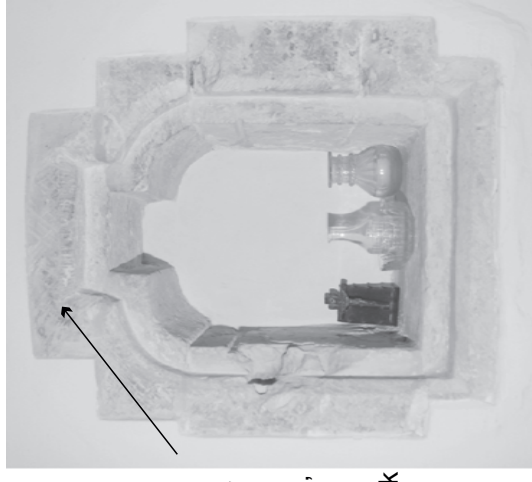
**South wall, north chapel; aumbry and piscina**

**Illustration 4 - condition wall paintings**



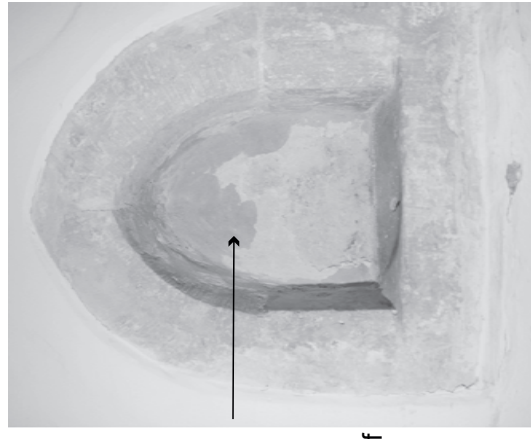
**Key**

-  Repair plaster
-  Cracks
-  Detached plaster requiring treatment
-  Hollow sounding plaster treatment desirable
-  Earlier plaster repair upon which the C14 masonry line decoration has been applied



**Aumbry**

Traces of medieval paint, red, on moulded stonework



**Piscina**

Traces of medieval paint, red, on the plaster at the back of the piscina.



1 - Above, the eastern end of St Mary and All Saints Church; also see illustration 2.

2 - Below, the north chapel. Patch repairs with cement render can be seen on the upper parts of the east and north walls; four gravestones have been set against the eastern wall of the chapel.





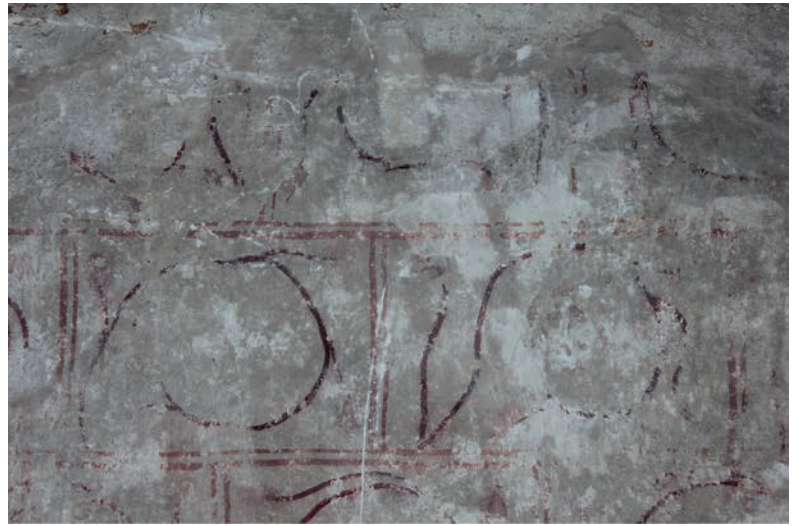


3 - Left, the internal east and south walls of the north chapel where there remains medieval wall paintings.

4, 5 and 6 - Below, show the north chapel from floor level. It is used as a vestry and space within is limited. A radiator is located at the east end of the south wall (photo 5), it is obscured by the desk and shelving above.



7 - Left, the upper part of the east window. Traces of medieval paint (red) are especially apparent toward the top of the window tracery. There are a number of open joints in the tracery, indicating structural movement.



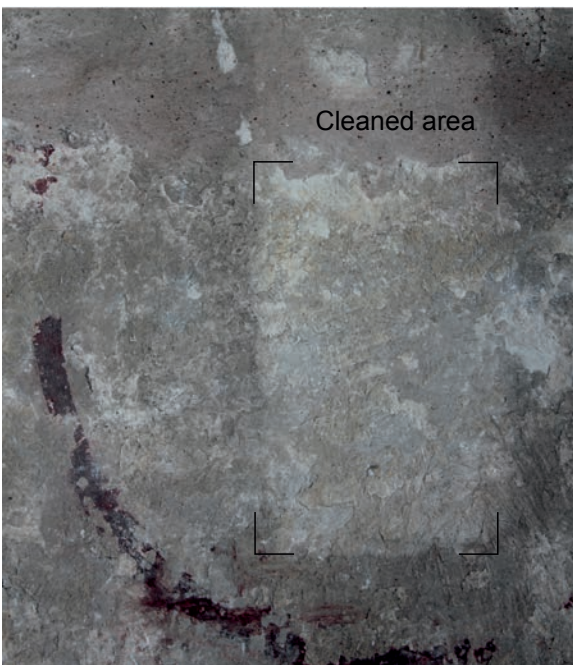
8 - Left, the eastern end of the south wall where the best area of C14 fictive masonry line decoration remains. Part of a vertical black line remains at the western end of the area of wall painting. A radiator is located below it at the eastern end.

9 - Above, detail from the upper part of 8. Showing the twin lines of the masonry line scheme and floral decoration within each fictive block.



10 - Above left, close up from 9. The dark stems of the floral decoration are very apparent, from these sprout light red leaves and stencilled flowers.

11 - Above right, close up from 10 showing what remains of a stencilled flower, and this is one of the best examples. Each block would have contained one stencilled flower as shown here. Please also see paint analysis sample form in appendix.



12 - Detail from 9 showing the result of surface cleaning.



13 - Far left, area of replastering carried out before the C14 scheme was applied. See illustration 4.

14 - Left, traces of the C14 scheme on the stones forming the east window reveal. For location see 15 below.

15 - Below, the southern end of the east wall; a context shot for both 14 and 16.

16 - Below, detail from 15 showing painted decoration from both the C14 and the later scheme (C15 or early C16?). The condition of the plaster in this area is poor, there is much detachment. Evidence for the detachment can be seen in the number of cracks in the plaster. Please also see illustration 3.





17 - Above, close up from 18 (to the right). This area of the east wall retains best example of the second and later scheme in the north chapel. The second scheme comprises a bold interlacing foliate border in one of two colours only; either a dull yellow or black. The dull yellow forms a border at the top of the wall, the black forms a border to the east window reveal.

18 - Above right, context shot for 17, showing the north end of the east wall.



19 - Above, detail from 17 showing part of the second scheme, in black.

20 - Above right, detail from 17 showing part of the second scheme, in yellow.

21 - Left, close up from 20 showing traces of the C14 scheme (light red looping line) where parts of the subsequent scheme have been lost.





22 - Above, the Ambry in the south wall. Vestiges of medieval paint and plaster remain associated with this furnishing.



23 - Above right, detail from 22 showing traces of red paint on the outside of the Ambry.



24 - Right, detail from 22 showing vestiges of red paint on the canopy of the Ambry, and traces of plaster on its' east wall.



25 - Left, the Piscina, in the south wall of the north chapel, to the west of the Ambry. As with the Ambry some medieval paint remains on this furnishing.

26 - Above, detail from 25 showing original painted plaster at the back of the Piscina.



27 - Above, the return wall at the west end of the north chapel south wall. Feint traces of fictive masonry line decoration remain here.



28 - Right, detail from 27 showing feint traces of medieval red paint.



29 - Above, the south arcade, north face by the south door.



30 - Right, a charming area of medieval polychrome decoration, flowers set into a delicate scroll.

Job title –

St. Mary's and All Saints church, Droxford. Wall paintings in the north chapel.

Sample nos. – 1 - 5

Date taken – 19 February 2015

Description of object –

The five paint samples accompanying this paint sample form are from the north chapel in St. Mary's and All Saints church, Droxford. The building fabric dates to circa 1200, but the chapel was re-built in the C14. In the C18 the chancel underwent restoration, and in 1903 the church as a whole was restored.

On the walls of the north chapel there is evidence of two schemes. The earliest, C14, portrays a fictive masonry line scheme elaborated with floral decoration such that there was a stencilled flower in the centre of each block. The masonry lines are shown with twin light red lines, the curving stems to the flowers are shown with dark red lines and the flowers appear to be in a dull yellow. When the paint was viewed in ultra violet light and the dull yellow fluoresced bright golden yellow. A sample of each of these colours was taken.

There is a scheme, or part scheme, subsequent to the first. The date of this is not known. It comprises boldly represented interlacing floral forms which form a horizontal border at the top of the wall and a frame to the stonework of the inner reveal of the east window. At the top of the wall the decoration is in yellow, which varies in brightness from dull to quite bright. The black, from the window reveal is uniform in colour and sits on an earlier olive coloured layer. A sample of each of these colours was taken; in the case of the yellow the underlying red from the fictive masonry line was included in the sample too.

No apparent coating, other than dirt, was noted on either painted scheme.

List of paint samples –

Five paint samples. Please refer to the enclosed illustration showing the location of the paint samples.

South wall

- 1 – Pink red from the C14 fictive masonry line scheme – twin line fictive masonry.
- 2 – Dark red from the C14 fictive masonry line scheme – the stem to the flowers.
- 3 – Dull yellow from the C14 fictive masonry line scheme – the stencilled flower.

East wall

- 4 - Dull yellow from scheme subsequent to C14 fictive masonry line scheme. Incorporated with this is red paint from the C14 scheme beneath it.
- 5 – Black from the scheme subsequent to the C14 from the reveal to the east window. The black lies over an olive coloured paint layer.

Purpose of samples –

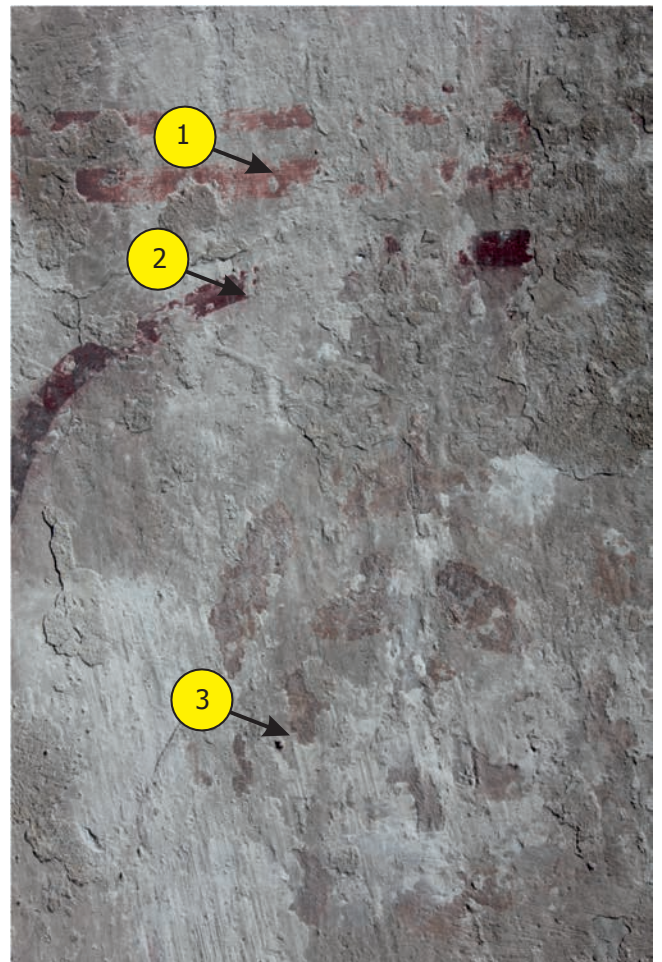
- Generally please identify the pigments used and paint stratigraphy.
- If possible, please comment on the potential binding media used.
- Is it possible to make an informed comment about the possible date of the second scheme (samples 4 & 5) please?
- If there is reason to do so, please comment on the dirt layers.



Samples 1, 2 and 3 were taken in close proximity from the south wall of the north chapel.

The decoration is C14 twin line fictive masonry ornamented with foliate forms. The twin lines, defining the bedding planes and perpendes are shown in a pink red (sample 1), whilst the curling stems of the foliate forms is in a darker red (sample 2). Within the centre of each fictive masonry block it is possible to make out the vestiges of a flower form (sample 3).

When the decoration was viewed in ultra violet light the floral forms fluoresced a bright golden yellow and were far more apparent than in normal light. Below is an impression of what the floral form would look like if complete. It was applied to the wall using a stencil.

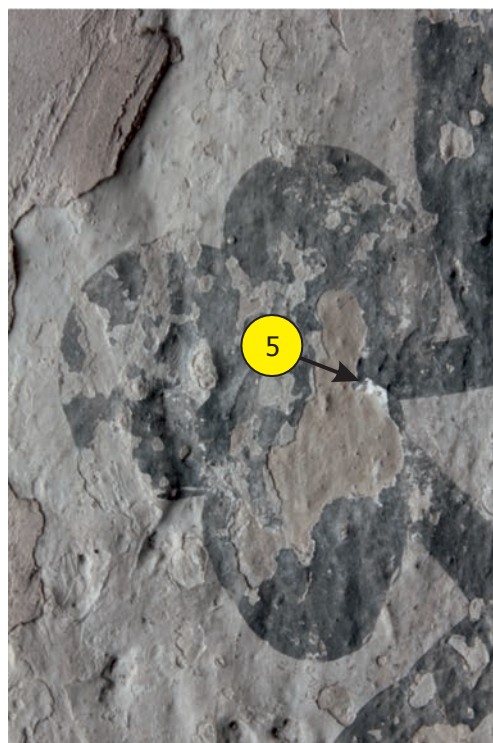
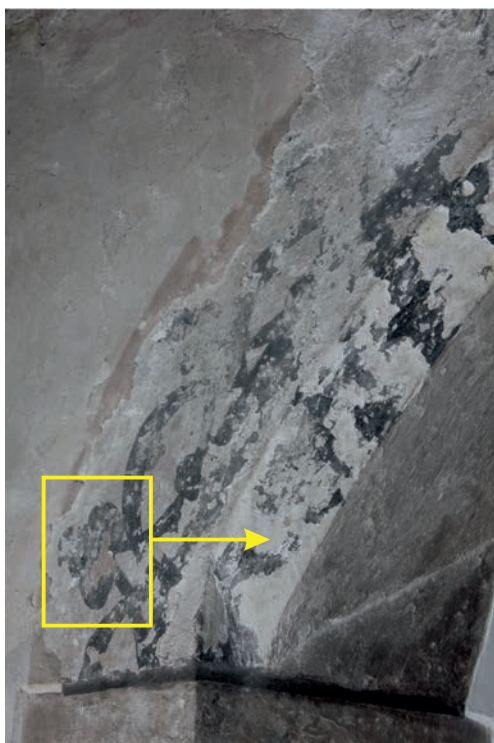






Samples 4 and 5 were taken from the east wall of the north chapel.

Sample 4 comprises both red from the underlying C14 fictive masonry line decoration and dull yellow from a subsequent scheme of interlacing foliate forms. Overall those forms of the subsequent scheme linked together form a horizontal border.



Sample 5 from the stone on the inner reveal of the window is black from the subsequent scheme over an olive coloured layer.

# ST MARY & ALL SAINTS

Droxford

Five paint samples were taken from the North Chapel by Peter Martindale, as marked on photographs in his report:

- South wall, C14th scheme
- 1 pink/red from masonry line
- 2 dark red from stem to flowers
- 3 dull yellow from flower
  
- East wall - later scheme over the C14th scheme
- 4 Dull yellow of later scheme over red of C14th scheme
- 5 Black on olive coloured layer of later scheme

## **Examination**

The samples were examined under low magnification and then the pieces were mounted as cross-sections in cold-setting polyester resin.

The sections were viewed at high magnification and the layers compared.

The pigments in the coloured layers were identified in dispersion, using a polarising light microscope. A chemical test for lead was carried out on cross-section 3.

## RESULTS

### **Fourteenth-century scheme**

The painting is the original scheme because it is resting directly on the plaster. The plaster has a limewash layer, or a fine skim coat, on the surface, and the decoration was painted onto this.

The dark red used for the foliate scroll pattern was painted with a layer of pure red ochre.

The pink used for the masonry lines was the same red ochre as found in Sample 2, but mixed with some white chalk.

The yellow of the flower petals was lead white mixed with some yellow ochre. The lead white does not appear to have discoloured at all. The lead white would explain why the flower has a bright fluorescence when viewed in UV.

The use of chalk to create the pink suggests that the medium was an aqueous one. The fact that the lead white has not discoloured must be because the paint was richly bound. In fact, when the cross-section made from Sample 2 was lit from behind, it showed that the red particles are suspended in a thick layer of the organic medium.

## **Later decoration**

A fresh white ground, in the form of two coats of white limewash, was laid over the fourteenth-century scheme.

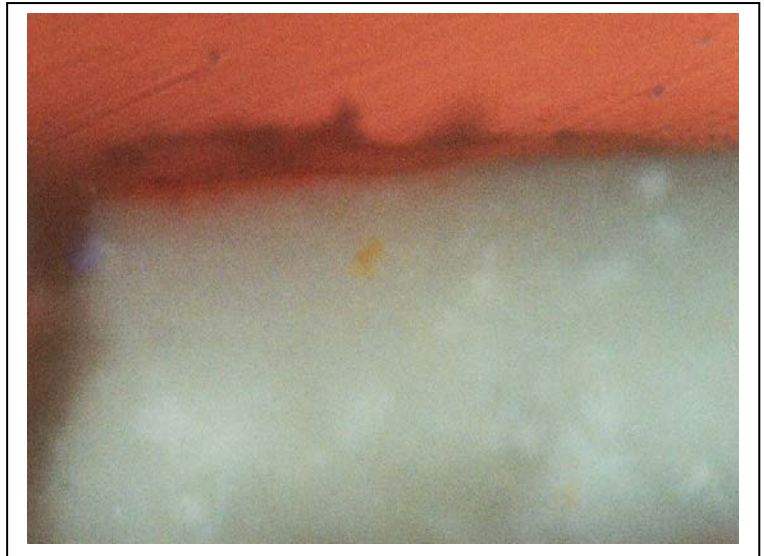
The yellow in Sample 4 was a yellow ochre.

The dark paint in Sample 5 was a fine-particled carbon black, mixed with a few particles of yellow ochre. On the wall, there appear to be two layers: a black over an olive coloured one, but in the cross-sections the paint seems to be a single mixture of black and yellow particles. Above the paint layer is a very thin coat of clear organic material. It may be this which makes the olive green paint look black.

A similar organic layer was not found over the yellow, but the fragment came from an area of light yellow paint, and the layer may only occur over dark areas.

**SAMPLE 1**

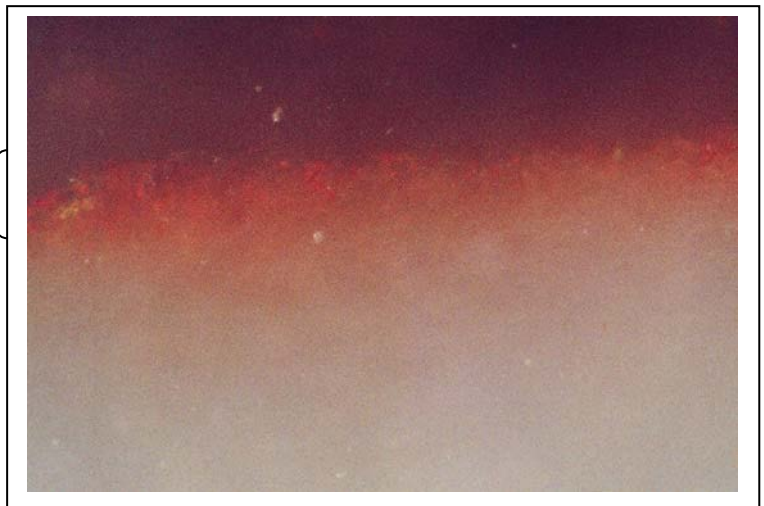
South wall, C14th scheme  
[x200]



**Detail of the red**

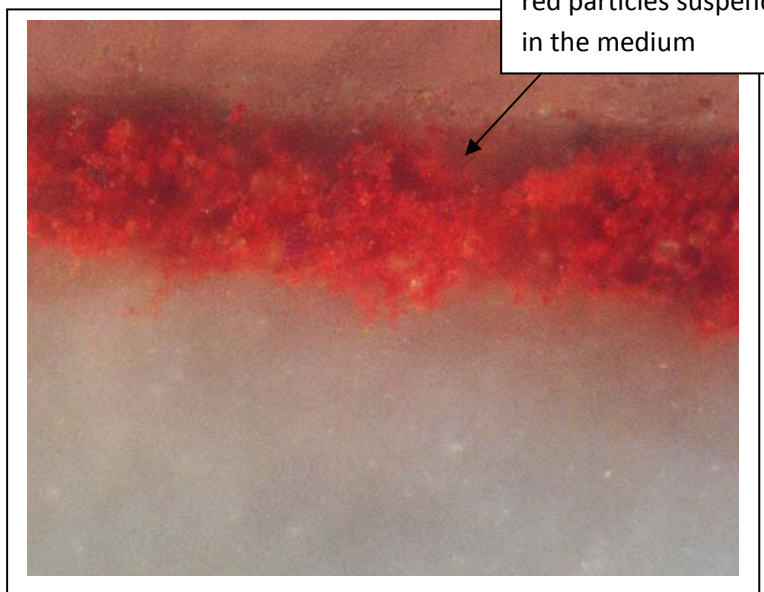
[x500]

chalk + red ochre



**SAMPLE 2**

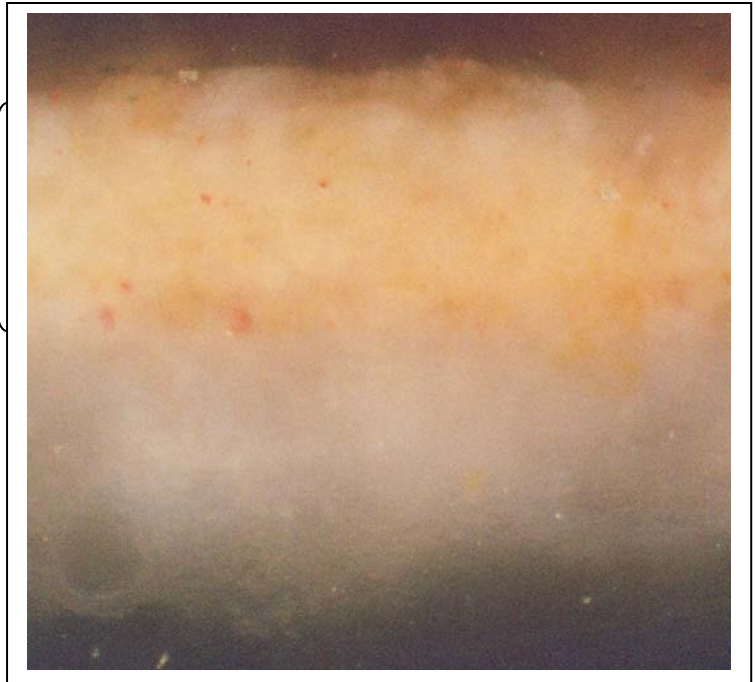
South wall, C14th scheme  
dark red from stem to flowers



**SAMPLE 3**

South wall, C14th scheme  
dull yellow from flower  
[x500]

lead white + ochre

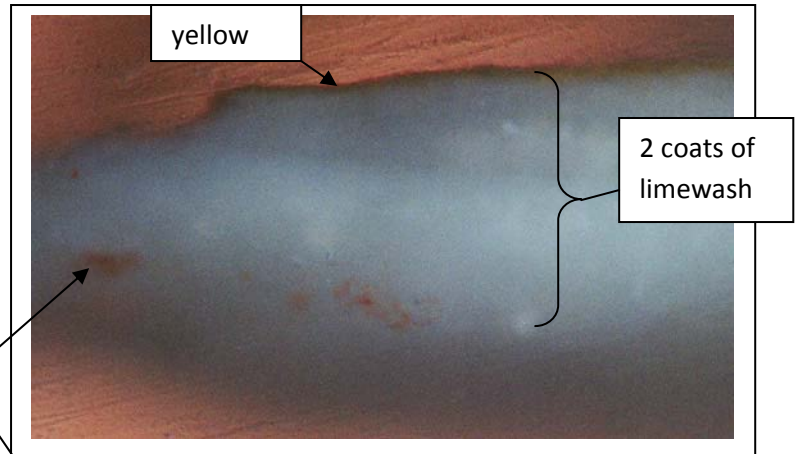


**SAMPLE 4**

East wall - Dull yellow of later scheme over red of C14th scheme

**Fragment (i)**

Upper layers  
[x200]



red ochre of  
C14th scheme

**Fragment (ii)**

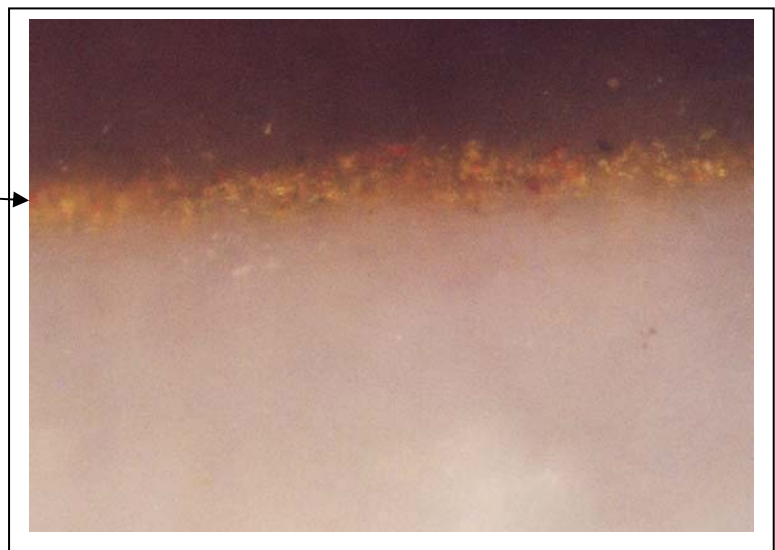
Lower layers  
[x200]



**Detail of the dull yellow of the later scheme**

[x500]

yellow ochre  
in a rich medium



**SAMPLE 5**

East wall - later scheme - Black on  
olive coloured layer of later scheme  
[x200]



Paint layer lit from behind  
[x500]

organic layer  
black layer



## Appendix

### **Considerations with regard to proposed sectioning off the north chapel for meetings**

- Present condition of the wall paintings

At present the condition of the wall paintings is stable and there is no indication of on-going deterioration; although some remedial measures need to be implemented.

- Why is it desirable to section off the north chapel?

It would appear to be the most suitable and straightforward area for sectioning off.

- What is the concern with sectioning off the north chapel?

If the north chapel were sectioned off environmental conditions within would be affected. When in use, people radiate heat and give off moisture; heating when used would raise the temperature. Together these factors will lead to fluctuations in the environmental conditions.

Swings in environmental conditions may cause liquid moisture based deterioration mechanisms to become activated. An example of such a mechanism is soluble salts which can change state with the variations in humidity. When crystallised these salts exert pressures on their surroundings, when in solution those pressures are released. This can lead to paint flaking and paint loss, and can damage the underlying plaster support.

- If sectioned off what factors would lower the risk of potential of damage to the wall paintings?

If the walls and ceiling of the north chapel are porous, their porosity would act as a buffer to fluctuations in humidity. If the walls are not porous is it possible to remove the impervious layers and regain porosity?

Use the necessary minimum of heating. Encourage people attending meetings to wear warm clothing during the colder half of the year. People attending meetings in the north chapel should remove wet clothing before entering the screened off section. Umbrellas should not be brought into the north chapel; indeed it would be better to leave them in the porch.

The frequency of use, in particular over the colder half of the year, will affect the number of fluctuations in environmental conditions.

Screen of the north chapel, but do not seal it off. This approach is being considered, and there are proposals under consideration. One is to screen off the lower walls, but leave the upper parts open. Another suggestion is to use sliding sections of screen which are by default left open and only closed for meetings.

Introduce humidity buffering materials into the north chapel, like a carpet. Is it possible to put in a raised floor in the chapel? This floor could be made of wood (a humidity buffering material) and the underside open for ventilation.

- Suggestion

Consider the items in the above section and arrange for discussions.

- Future monitoring if the screening off is commissioned

Two years after the work to the chapel has been completed commission a survey the wall paintings by a trained and competent wall paintings conservator to inspect the wall paintings for any sign of deterioration.