

MCNEILAGE CONSERVATION

Weeks Farm | Talaton | Exeter EX5 2RG | T: 01404 822076
enquiries@mcneilage-conservation.co.uk | www.mcneilage-conservation.co.uk

Partners: Torquil McNeilage ACR | Ruth McNeilage ACR
VAT No. 736 7680 95

St. Sylvester's Church, Chivelstone

Additional investigation of the plaster and wall decoration



March 2022

1. INTRODUCTION AND BRIEF

The PCC of Chivelstone Church have recently completed an NHL funded project that involved, among other works, the complete repointing of the exterior walls, repairs to the roof and installation of a new cast iron rainwater system.

Once the interior walls have dried out, the PCC are hoping to commence repair and conservation work on the interior walls. This will include the uncovering and conservation of the wall paintings (*see McNeillage report – Condition survey of the wall paintings and plaster October 2019*).

As part of the planning process for the work on the wall paintings McNeillage Conservation were requested to undertake further investigations in order to gain a more complete understanding of the areas involved. An inspection was also made of the area of wall painting at the east end of the south aisle where some later modern plaster is being removed and the walls are to be replastered.

This report should be read in conjunction with the Condition survey report (McNeillage 2019) that covers the description and history of the building in more detail.

2. DESCRIPTION

2.1. THE WALL PAINTINGS

The results of the survey undertaken in 2019 revealed that paintings of alternate oval and rectangular text panels with wide ornamental borders filled the upper half of the walls between all the windows in the nave. The use of a large cursive script and the style of the decorative borders would date these paintings to the late 17th/ early 18th century.

This recent survey has revealed an unusual painting of a flower included in the border design of the central panel on the north wall. The flower is probably a lily but it also shows some similarity to the popular late 17th century depictions of tulips that were found in sgraffito fireplaces in Topsham and Lympstone.

The text of the east panel on the north wall is taken from Jeremiah 13:23 (King James bible).

'Can the Ethiopian change his skin, or the leopard his spots? then may ye also do good that are accustomed to do evil.'

3. SURVEY

3.1. NORTH WALL

The inscription panels and cartouche on the north wall are generally considered to be in better condition, so for the purpose of this brief survey the work was concentrated on the central and east areas of the north wall.

Uncovering trials were undertaken using a scalpel with the aid of a magnified head lens. For the central cartouche, which was more delicate, the overlying limewash layers were dampened with water to soften them. The brittle overlying limewash were then carefully removed using a scalpel with a small hammer, slowly working through the layers.

Areas of powdering paint were consolidated with a 5% dispersion of Primal B60a applied through Japanese Tissue. No plaster consolidation was undertaken during this phase of work.

Further investigations were undertaken on the text panel between the two windows at the east end of the north wall and the cartouche in the centre of the north wall.

East panel

The area that includes the lower border of the painting had clearly been replastered prior to the application of the painting. Here the painting is applied directly onto the plaster and there is a visible joint along the line of the border. The upper part of the painting was applied to an older plaster that was already covered with a number of limewash layers.

In most of the lower half of this wall it was relatively easy to separate the later limewash layers from the painted surface. The build up of later limewash layers varied in thickness. In some areas it was almost 10mm and in other areas there were only one or two layers of about 1mm.

The condition of the paint beneath was variable. In some areas, particularly on the lower east side salts had formed on the painted surface and the paint had lost cohesion and was largely lost. However, the majority of the areas uncovered had retained the decoration. Much of it had lost some cohesion and was powdering but it was still adhered to the surface.

The main issue with this painting is the deterioration of the plaster support. Significant voids were detected. In areas where the plaster has deteriorated the painting is largely supported by the limewash layers which have become remarkably hard and brittle. In some areas there is some movement of the of the limewash layers that support the painting and the situation is precarious.

There is a later repair on the upper west side of the panel and in the upper area some detachment of the limewash layer.

Central cartouche

Further investigations were also undertaken on the wall between the two central windows on the north wall. The plaster here appears to be contemporary with the wall painting. It is generally extremely weak and has lost cohesion. The uncovering process is slow due to the delicate nature of the plaster and the weak adherence of the limewash layer that supports the painting.

3.2. SOUTH WALL

The south wall of the south chapel, that contains the organ has in the past been partially rebuilt and replastered. This plaster continues onto the east end of the south aisle where it overlaps the area of wall painting discovered in 2019. The later plaster has extremely poor adherence and is generally pulling away from the wall. There have been concerns that this later plaster may pull the earlier plaster that supports the wall painting away from the wall.

Access was made possible to the lower half of the wall painting and the most precarious areas of later plaster adjacent to the wall painting were removed. Any areas that require grouting were faced up with Japanese tissue applied with a 2% solution of Tylose MH300 (hydroxymethyl cellulose).

A further examination of the areas of text at the east end of the south wall revealed that this wall painting appears to have been partially uncovered in the past, possibly at the time when the monument was installed. Unfortunately, the surface has been covered with a relatively hard coating which would be difficult to remove.

Fig. 1 Careful removal of overlying paint and limewash layers using a scalpel with the aid of a magnified head lens.



Fig. 2

Application of the consolidant in areas of powdering paint (through Japanese tissue).



Detail showing the east panel on the north wall that was partially uncovered during this survey. Note the unusual flower (lower left) and the very large text.



Fig. 4

North wall – central panel. Detail showing the surface of the wall in raking light. The plaster support in this area was weak and crumbling making the uncovering process much slower.



Fig 5.

North wall – central panel. Detail showing incisions made in the plaster to sketch out the design prior to painting.



Fig. 6.

View showing the central panel on the north wall after uncovering investigations.



Fig. 7.

South wall – east end. View showing the edge of the wall painting exposed after the removal of the later plaster.



Fig 8.

Detail showing the upper area of the above where the later plaster can be seen to overlap the earlier wall painting.



4. ANALYSIS OF THE TRIALS

The results of the surveys undertaken in 2019 and again in 2022 revealed that a scheme of late 17th/early 18th century text panels still survives on both the north and south walls of the Nave. These text panels are all extremely large and fill the wall space between the windows.

The church has already undertaken a considerable amount of work to stabilise the exterior structure in order to achieve, as far as is possible a stable interior. Once the walls have had a chance to dry out it will be possible to work on the interior surfaces.

The wall paintings are generally covered with numerous layers of later limewash followed by thick modern vinyl-based paints applied in the 20th century. The modern paint layers that are incompatible with the limewash layers beneath are beginning to pull away from the surface.

The survey has revealed that the supporting plaster is particularly weak in many places and will need to be consolidated if these paintings are to survive.

It is imperative that these wall paintings should be stabilised and conserved prior to any further major redecoration programmes being undertaken in the church.

4.1 PROPOSALS

The results from the surveys undertaken to date indicate that the wall paintings on the north wall are generally more intact and it is suggested that these should be uncovered first. It is not recommended that the wall painting at the east end of the south wall should be uncovered due to the presence of a relatively hard coating that is extremely difficult to remove.

The following course of action is proposed:

- the inappropriate later modern paint finishes applied more recently should as far as is possible be removed from the areas of wall that retain paintings including the areas over the windows where the later paint has lost adhesion. These later layers are generally impermeable and stronger than the lime washes beneath. It is also clear that in some areas the presence of these impermeable layers has prevented the moisture from passing out through the surface leading to salt crystallisation within the plaster and subsequent loss of cohesion of both the plaster and painted decoration. This work should be undertaken by a wall painting conservator due to the presence of wall paintings beneath.
- The later limewash layers should be carefully removed from the wall paintings. The treatment and stabilisation of the paint and plaster support will need to be undertaken in conjunction with the uncovering process. The removal of the later limewash layers will reveal not only the full extent of these wonderful paintings but also the condition of the plaster and paint layers.

The wall paintings are far less likely to be damaged if they are visible. In addition, the visibility of these paintings will be a great asset to the church who have shown a considerable interest and support for their historical treasures.

4.2. TREATMENT METHOD

It is recommended that the initial uncovering and consolidation work should concentrate on areas where the overlying paint and lime-wash layers are unstable. However, all areas of wall painting will need to be stabilised prior to any redecoration work.

The proposed method of treatment would be as follows:

4.2.a Removal of the later limewash layers partially detached from the surface

This work involves the painstaking removal of the later limewash layers using a combination of scalpels and fine spatulas with the aid of a magnified head lens. As the overlying limewash layers are removed care is taken to ensure that these later layers do not themselves support text schemes.

4.2.b Consolidation of the painted surface

The decoration showed some evidence of loss of cohesion in the areas that were exposed. Powdering areas of paint will need to be consolidated as the work progresses. This can be undertaken through Japanese tissue by applying a 5% dispersion of a thermoplastic Acrylic polymer such as Primal B60a.

If areas of flaking paint are revealed during the process, these can be reattached using a solution of dispersed lime putty or acrylic dispersion, as appropriate to the situation.

4.2.c Consolidation of the plaster support.

The consolidation of the plaster will have to be undertaken in conjunction with the stabilisation of the paint layer that it supports. Prior to consolidation of the plaster, unstable areas of wall painting will be faced up with Japanese tissue applied with a 2% solution of Tylose MH300.

The plaster can be re-attached using a lime-based grout such as nano lime or lime putty and Trass as appropriate. Where necessary, fresco presses can be applied to exert pressure while the grout sets.

Areas of crumbling and powdering plaster that have lost cohesion can be consolidated using Syton X30 (colloidal silica) or Calosil Nanolime¹. This can be injected into exposed edges or applied to the surface through Japanese tissue as appropriate.

Once the uncovering work is complete all lacunae in the plaster will be filled with a lime mortar consisting of lime, sand and stone dust with colours chosen to match the original plaster.

4.2.d Aesthetic presentation

There will be no reconstruction of missing areas since this would jeopardise the authenticity of the original. However, areas of loss can be toned using watercolours, so that they do not distract the eye from the original work.

Once the work has been completed it may be considered appropriate to apply a coat of lime-wash to the fills to tone them in with the surrounding area.

4.2.e Treatment of areas with no wall paintings

The modern finishes are generally pulling the underlying limewash layers away from the surface. Where they are starting to lift these later layers should be carefully removed from the surface. The walls can then be repainted with a limewash.

It is recommended that an off-white colour similar to the background colour in the paintings is used for the limewash rather than a stark white. An off-white colour will enhance historic features such as monuments and wall paintings.

¹ Nanolime consists of artificially made, nano-sized particles of calcium hydroxide suspended in alcohol.

5. ESTIMATE

Removal of the overpaint from the areas of walls bearing wall paintings. £1400

Uncovering and conservation of the wall paintings

North wall

East panel £4200

Central panel £8400

West panel £7000

Expenses £3,000

Total £24,000

Plus VAT@20%

South wall

Central panel £7000

Expenses £1000

Total £8,000

Plus VAT@20%