

Restoration of St Giles' Church

A summary for the Stoke Poges News

By Simon McDowell, restoration project manager & churchwarden

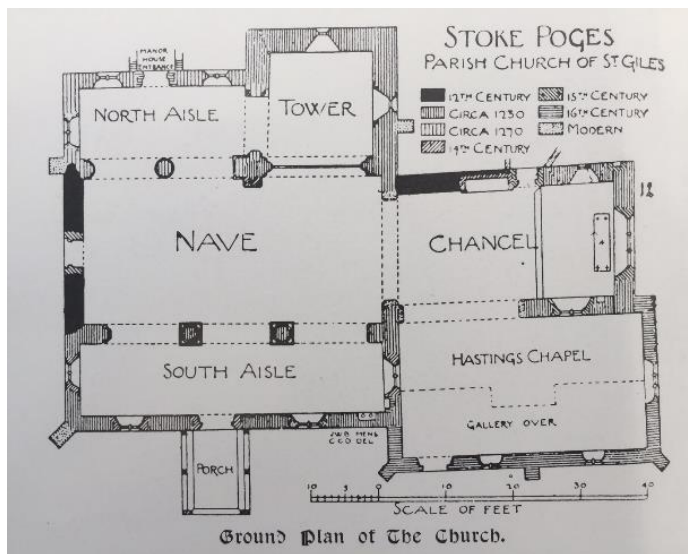
Introduction

During 2016 and 2017, the ancient parish church of St Giles' in Stoke Poges was subject to an extensive restoration.

The oldest parts of St Giles' were built in the 1100s. Over the centuries, the church has evolved and as part of this evolution, many generous people have given time and money to build, maintain, use and restore this church. We particularly thank the late Edna Mayer, who left a legacy in her will to fund this 18-month restoration project.

The restoration work scope grew significantly from the original plan. We are grateful to all those who worked on the project, but particularly the many skilled craftsmen and women from Cliveden Conservation.

St Giles – a brief history



The Plan here shows the construction of the church over the last 900 years – originally Saxon, then Norman churches here, the St Giles' contains elements of both.

In his guide to the church, the Revd Cyril Harris, vicar here from 1968-1998, describes the Norman church being rebuilt into the Nave, Tower and Chancel in about 1230; the South Aisle added about 40 years later.



This photo, taken during the works, shows the church today. From left to right: the Hastings Chapel (1558), Nave (behind the Chancel), Chancel, Tower (all around 1230) and Vestry (1907).

The Hastings Chapel, originally separate to the church, was constructed for the poor of the

parish who lived at a nearby Almshouse. Later linked to the Chancel, these two areas were the focus for the restoration.

Defined by Historic England as a 'building of exceptional interest', St Giles' Church is one of around 9,000 Grade 1 listed buildings in the UK, of which about ½ are churches. This listing means we have more regulations to comply with than a 'normal' building project.

The Quinquennial Inspection – why the works were needed

The Church of England requires each church in their parishes to have a building inspection, by a suitably qualified and approved architect, every 5 years: this is called the 'Quinquennial Inspection' or QQ. Our last one was in 2013 and produced a list of works to be done in an order of priority.

Our church stays on top of the 'urgent' items, mostly concerned with small areas of maintenance. The other items were more challenging – long-term issues with damp are to fix. Like other churches, some of these items had been deferred due to lack of funds and re-appeared in several QQ reports.

Restoration project – introduction

In 2015, we learnt from James Gladwell, of Barrett and Thomson Solicitors, that Edna Mayer instructed his firm to give money from her trust for St Giles'. The PCC decided to use it to fund a major restoration project on the church, to repair as many of the problems shown in the QQ report as we could.

We employed Neil Barr of DLK Architects to draft a schedule of works; Cliveden Conservation won the tender; in February 2016, the Oxford Diocese granted permission to start works (called a 'faculty').

The plan was to split the work into three broad sections:

1. Exterior Work – February – May 2016
2. Interior Work – planned for August – October 2016
3. Interior Painting – planned for May – June 2017

The exterior work, where we could see the problems, went very well.

Inside, where the problems required the removal of paint and plaster to get to them – it took a lot longer than planned and we had some unexpected surprises...

Exterior work

These works mostly used Cliveden's stonemasons and plasterers, who used lime plaster, rather than modern plaster. Lime plaster is the original construction material of the church and is porous, allowing the walls to 'breathe'. Modern plaster and cement, which had been used in previous repairs, locks in the moisture and creates damp patches inside, ultimately weakening the building.

Walls

The major item here was a full rendering (covering in plaster) of the Chancel North Wall. This is how it would have been originally covered, but tastes change it was removed several hundred years ago. We only did the largely-unseen North wall so the iconic view of the church remains the same. The wall, which contained a lot of cement, was raked out.



Then the render was applied in successive layers, until it was 2-3 inches (50-75 mm) deep. The wall has now begun to weather and will soon look as if it has always been there.

Elsewhere, the entire East wall of the Chancel and various sections around the Hastings Chapel and Nave were re-pointed. Again, the old cement-based mortar was raked out and lime mortar put back in its place.

Cliveden's highly skilled stonemasons patched in a large new section of stone above the Hastings Chapel door, made repairs around the window on the West end of the Nave and carved a new cross to sit above the Vestry.



If you visit St Giles' do look at this door and see if you can spot the new pieces of oak patched into the 450-year-old door. There are 3 pieces – can you see them all?

Roof

The 'Roof' tasks included moss removal on the north facing roofs of the Chancel and Hastings Chapel and around the staircase to the Tower. We need to do this

as the moss can eventually crack the tiles.

Whilst we had the scaffolding up, all the guttering and downpipes around the church were redecorated with weather-resistant metal paint (similar to Hammerite).

The steep access stairs to the Tower, used mainly by the bell-ringers, had a couple of steps near the bottom that were showing signs of rust and heavy wear. The entire staircase was repainted, and the damaged steps replaced.

Medieval construction meets 21st century technology

The final roof task on the specification was to repair the cornices on the Tower. The cornices are the stone mouldings just below the top of the tower.

Access to this area was very challenging, it was impossible to safely come down from the roof of the tower, so we would need to use scaffolding. This would have to cover the full span of the Nave roof to access the South and West sides of the Tower and the scaffolding alone was going to cost 15x the cost of the actual repair!

Our 21st century solution was to perform an aerial survey of the cornices to see if they really did need repair, or if the faults seen from the ground were cosmetic.

Sky-Futures, who use drones to carry out industrial inspections, filmed the Tower using their powerful camera to allow a zoom right into the detail. This allowed our architect to determine that the repairs were unnecessary.

This shows the detail that the camera obtained – only one or two small cracks in the mortar between the stones and the cornices were bedded into the wall. Might a drone be used to repair the Tower in 50 years' time?



Other exterior tasks

Like the church itself, the pointing on the churchyard wall had come away. The areas around the Memorial Gardens gate were raked out and repointed with lime mortar. In the SW corner of the churchyard, the wall had partly collapsed, so was rebuilt.



The Lych gates are made of old oak timbers. The inner one needed repairing and we coated both sets of gates and the woodwork on the church with multiple coats of linseed oil, used as a wood preservative. Apparently, we used so much of the special 'double-boiled' linseed oil, there was (briefly) a national shortage!

We commissioned a new church door handle - look carefully at the inside of the door and you'll notice that the original nuts are 'castellated'. Our new nut matches this perfectly in design and looks like it has been there for centuries too.

This, to me, exemplifies the craftsmanship and attention to detail of Cliveden Conservation.

The work outside finished in July 2016, and we moved to the interior phase after the last wedding in mid-August.

Interior work

Introduction

The works inside were designed to continue the damp-prevention theme of the exterior works. The emulsion paint, modern plaster and cement would be removed and lime plaster to be added in its place. The work started by scaffolding the Tower, Chancel and Hastings Chapel to begin paint stripping.

What happened next changed the course of the project.

Discoveries in the Tower

5 September 2016: the team are working in the Tower, stripping the emulsion paint from the wall near the ceiling.

The project team are also at the church for one of their regular site meetings between the church, architect and contractor. These consist of a walk around the ongoing work and reviewing progress against the plan.



We were called over to see some red lines on the west wall of the Tower. "Interesting, but not that important", we thought and continued our review.

Half an hour later, we were called back. "You might want to see this":

Carefully removing fragments of flaking paint and plaster, there was more evidence of painting in the Tower and Chancel. Generally

small, these were not as detailed as the heads. As a result, Cliveden stopped work in the Tower and on the Chancel walls and we informed Historic England (formerly English Heritage) and the Society for the Preservation of Ancient Buildings.

What had we found? What did we need to do next?

Both questions required some consideration, time and resources. Fortunately, Cliveden had the right contacts - Paine and Stewart, specialised painting conservators.

They could answer the first question: these fragments date from 1290-1320 and are part of a series of high quality paintings that probably covered the Tower walls. These heads appear to depict scenes of the Apostles at the funeral of the Virgin Mary.

Historic England deemed the discovery of these paintings as of 'national importance' – there are very few still in existence and of this quality.

Work could not restart on the Tower or Chancel whilst investigations continued. The eventual delay was 4 months, moving our re-opening date from Remembrance Sunday, then to Christmas, and finally to Easter 2017!

Permissions and repainting the walls

Several visits from Paine and Stewart, Historic England and Tobit Curteis, environmental consultants, to review the paintings, their current condition and their environment, took place from September to December 2016.

These specialised teams were under pressure: to make the *right* decision on the paintings and to make a *quick* decision to allow us to have an idea of schedule and cost. We had to leave the scaffolding up a lot longer than anticipated, at a high weekly cost.

The solution was to leave the paintings of the four faces and the single figure on the North wall of the Tower uncovered. The remaining paint fragments would be covered with Japanese tissue paper, smooth on one side to protect the paintings, then a thin layer of plaster and lime paint applied on top.

No further paint would be stripped from the Tower and the upper Chancel walls, meaning that some of the emulsion paint would be left on the walls. This would be covered by lime paint and we hope that the amounts stripped off allow the walls to breathe.

Hastings Chapel

The focus of work moved to the Hastings Chapel, where the scope included removal of emulsion paint and plaster repairs.

Walls



This was the easier part of the work in the Hastings Chapel. The picture above, looking West during the works, shows the plaster scraped off the walls on both sides and partly replaced on the right-hand side.

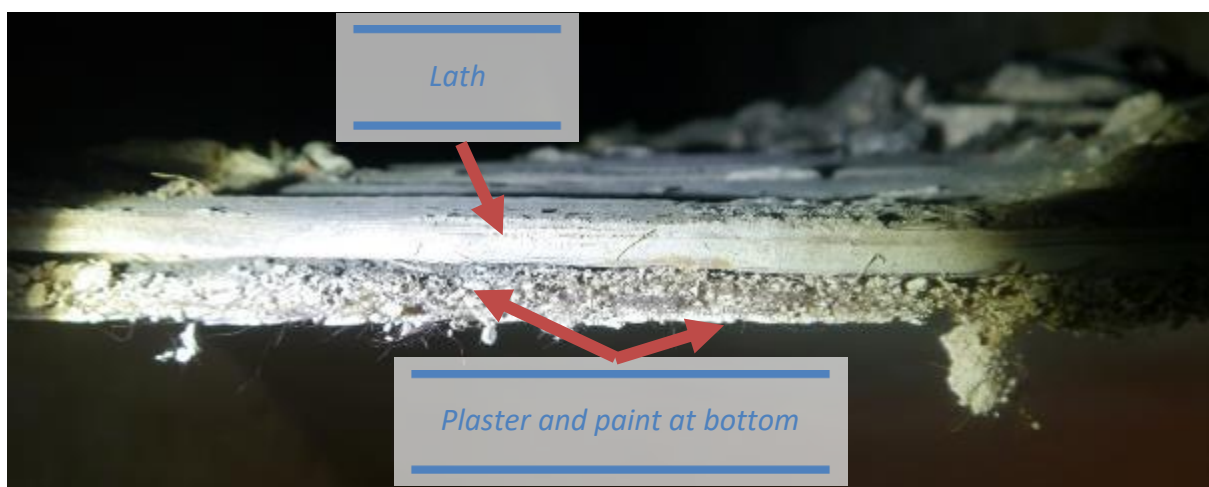
Also visible are the repairs we did beneath the window to the Chancel, as we discovered loose brickwork and had to partly remove the wall before rebuilding it to support the window lintel properly.

We found evidence of a previous repair – a rusting iron grille and a piece of oak panelling within the wall, but it is unclear whether these were from the 1947 restoration or earlier.

Ceiling

It is difficult to see the need for repairs to the ceiling without getting up to the same height. Before work started, we believed that there was some minor damage and we also wished to investigate under a board that was covering the ceiling above the organ.

The ceiling in both the Hastings Chapel and the Chancel is of the same construction, despite the 300 years separating them. The ceilings are made of thin wood laths covered in plaster, forced between the laths to form 'nibs' to hold the plaster on – this is a cross-section:



On removing the board, we discovered the ceiling condition might be worse than feared.

We would have to spend time and money to investigate the damage, so decided to open test areas.



Opening up the ceiling, for possibly the first time in 400 years, was a messy process – there was centuries' worth of dirt, pieces of tile, plaster and wood piled in the ceiling. Cliveden removed dozens of sacks full of rubble.

The news was not good: we found that the massive oak beams running the full length on both sides of the roof were both rotten at one end.

Worse, we found holes in the roof supporting timbers, both in the Hastings Chapel and the Chancel, requiring further specialist advice.



Environmental Building Consultants Ltd found woodworm and Death Watch Beetle had been present, but importantly, moisture content in the wood at 12-15%, was too low for a current infestation. We have the tiled roof replacement of 1968-9 to thank for that.

With the positive news that we did not have the dreaded Death Watch Beetle (at least not alive ones), we could start planning the repairs.

Several of the roof tie-beams were out of alignment and we wished to fix these as well as the oak beams ('wall plates') at the base of the roof. These repairs were far beyond the scope of the initial specification and the permission ('faculty') from the Oxford Diocese.

The roof repair plan included: 4 metres of oak wall plate in two sections and weighing 750 kg in total, to be lifted into place, whilst supporting the roof to allow the replacement to be fitted.



The southern end, visible externally – it is a tight fit. Here, the shorter Northern section has been added and jointed to the remainder of the existing plate.

Also in the roof repairs were the addition of new tie-beams with the help from Conisbee engineers to improve the strength of the roof and support the existing ones.

Finally, we would replace the worst areas of the lath and plaster ceiling, where the laths had been coming away from the rafters. The plaster was added to the ceiling in layers with 2-3 weeks' drying time between each layer as this was done during winter 2017.

It is common for tradespeople to complain about the techniques used by 'the previous lot', but amusing to hear Cliveden's expert plasterer, who uses the same techniques and mostly the same tools as had been used in the original construction, complaining about the poor workmanship in the Hastings Chapel 400 years ago!

These ceiling and roof repairs were the most expensive and time-consuming part of the renovation.

Chancel

Walls

Having rendered the outside wall, we wished to make the same plaster repairs as elsewhere in the church. This was compromised by the discovery of paint fragments as described above, but Cliveden did work lower down, where there had been recent changes to the fabric.



In this photo, from the North wall, the untouched white wall can be seen at the top, the middle section is freshly re-plastered and the bottom, normally hidden behind the choir pew, has been scraped out and re-pointed.

Similar work was done on the East wall around the altar and the de Molyns monument, or Easter Sepulchre (seen behind the boarding on the extreme right of this photo) was repaired.

Finally, all the windows, monuments and hatchments in the Hastings Chapel and Chancel were given a deep clean.

Ceiling

The 13th Century ceiling in the Chancel was in far better condition than its 16th Century counterpart in the Hastings Chapel.

Having found the damp, woodworm and Death Watch Beetle infestation in the Hastings Chapel, we cut two access holes in the Chancel ceiling to investigate here.

Fortunately, there were few other problems with the Chancel ceiling so we decided to redecorate without stripping the paint, as doing that in the Hastings Chapel had destabilised the laths.

Conclusions

What has this renovation project taught us?

Always expect the unexpected!

The discovery of the paintings was an exciting find – the damage to the Hastings Chapel ceiling and roof less so.

In setting the budget and scope for this project, the PCC allowed for a large contingency sum in case we found the need for additional expenditure.

As Project Manager, I tried to balance the costs, desire for extras and schedule. With the schedule delayed by the paintings and roof, I needed to ensure we did not waste money and to keep the community informed of when we would be finished. Happily, the first wedding couple of 2017 managed to have their ceremony on 29 April, just three weeks after completion.

Conservation should not be rushed, and it has been a huge pleasure to work with Cliveden Conservation and their highly skilled, knowledgeable, friendly people, who have always been willing to share and explain.

I have learnt far more about St Giles' and medieval construction techniques than I thought I ever would. I have also learnt patience and to be grateful for the patience of the church community, who had the 'white wall' across the entrance of the Chancel for much longer than expected.

What do we need to do next?

The next stage is to review the options for the paintings in the Tower – we need to consult with the heritage bodies to determine what we can do.

For the moment, we will leave the two paintings visible to all and will work on understanding more about the overall paint structure.

I would like to finish with two thoughts:

Firstly, this is a living building, and it changes over time, despite its age. The postcard below dates from the early 20th Century and shows a mezzanine level above the Penn pew in the Tower that is no longer there.

Sensitive changes to the church should be embraced, but made with a view to both the past and the necessary future needs of the church community and we give thanks to the generosity of those that make this happen.



Secondly, this is a living Church, built for, and enduring for, the worship of God. The PCC prays that this may continue in this building for centuries more.

Thanks all those involved in this project