

Hello everybody,

I've met a lot of you before but for those that don't know me I'm Meriel and I have the best job in the CCT as I get to fix beautiful ancient things and make them happy, beautiful and useful again. I'm a conservation accredited, chartered building surveyor and I built the project team that repaired this church. This consisted of our appointed architect, Rebecca Harrison, contractor, Jonnie Starr of Specialist Stonemasonry near Truro ably assisted by Pete, Alan and Charlie. The specialist work to the stained glass was undertaken by Heritage Stained Glass of Newton Abbot and though Bob isn't here I think that Sue and June are here (give us a wave?). The monument repair was undertaken by Sally Strachey Historic Conservation and the re-plastering by Jethro Marsh & team from The Natural Plaster company from Penryn. The scaffolding by Jon Quinney of Boom Scaffolding was excellent as were Rob Gray's team from R.G Carpentry Design and Build along with the Delabole slate roofers.

We've also sent the Charles I coat of arms to Humphreys & Jones who are the conservators who do all the work for Westminster Abbey and St Paul's cathedral to conserve the important panel painting. Only the finest for North Hill!

Without master craftsmen and women we wouldn't be able to undertake repairs like this and there is a skills shortage across the country so if you have any teenagers wondering what to do with their lives then there are apprenticeship schemes that we can discuss with them.

So, what did we do?

Many of you will remember a cold damp church with green microbiological growths growing on the dark grey granite. We've helpfully left the porch for you to see the before and the after, although as soon as we get consent from Cornwall Council we'll finish repairing that for you! These green microbiological growths indicate that the relative humidity of the church was too high and the resultant condensation allows these organisms to thrive and colonise the stone. The roofs of the tower and Rodd vault also needed re-designing as the north aisle east wall for example had become so saturated with water that a beautiful fernery was growing on the inside face of the wall. The key to preventing all of this is regular maintenance. And ... as cleaning out gutters and maintenance is possibly one of the most exciting subjects dear to my heart I will come back to this at the end of this talk.

We first visited in 2020 with our architect and put together a costed condition report, which was approved by our Trustees and sent on to the Church Commissioners for their consideration. We don't get to choose which churches come to us. There is a specific allocated one off repair budget and they look at our costings and decide which ones to vest with us.

Luckily, they decided to fund the repairs to St. Torney's and it was vested with the CCT on Monday 4 April 2022.

Looking back at the site notes we held a pre-contract meeting in September and then scaffolded the tower so we've been on site for exactly 2 years. And a big mention to the scaffolder here Jon and Sophie Quinney at Boom Scaffolding who did an amazing job in exceptionally difficult family circumstances.

The first stage of the project was to grout the tower. You'll imagine that the tower walls are extremely thick. Towers are usually built with an outer and inner skin of good quality stone and then they chuck in all the offcuts and anything left lying around to fill the core of the wall. This usually gets washed out by wind driven rain over the next 500 years and potentially leaves huge voids. These can hold water like a header tank on an old fashioned toilet which gradually works its way down through

the crevices inside the tower saturating it with the result that the internal walls go green. To try to fill these voids, the stone mason drilled **552 holes** in the mortar joints of the tower and pumped **4000kg of lime grout** into it. Now you can't see any of this work, I appreciate it's a bit like the Emperor's new clothes, but this was a phenomenal effort and expense to ensure that the tower is consolidated, safe, dry and robust enough to withstand all of the weather that is thrown at it at such a great height.

The four pinnacles at the top were also grouted and as it's a gravity fed pump so the large bin of lime slurry has to be higher than the pinnacle it's a logistical nightmare so I'll leave you to imagine how that was achieved.

The slate tracery in the window openings at belfry height are particularly finely and beautifully carved. These were conserved and iron bars removed that were rusting and expanding potentially breaking the slate.

We thought that the tower grouting was the biggest unknown in the project as you can't predict how much grout is going to be needed because you can't see inside the core of the tower stonework but little did we know what the Victorians had done when they last opened up the aisle roofs which was to be one of those surprises that you can do without on a project like this!

This church has a surprising number of roofs. We've renewed the Tower, Porch and Rodd vault in sheet metal roofing and alarmed them. In the next month we'll finish the boiler house roof and We've also re-slatted the both sides of the enormously long north and south aisles. The nave roof doesn't need re-slating now as it is in a reasonable condition but it would be sensible to start fundraising so it doesn't come as a shock in 20 years time as it's a big roof.

The CCT has a policy of using the natural local building materials that the church was originally built of so Cornish granite, lime, timber and Delabole slate. These materials have stood the test of time and are known to last 100's of years. We salvaged two thirds of the slates from the roof and supplemented them with **1,400 new Delabole slates** but as they were an unusually large size we had to wait half a year for the quarry to find a large enough seam so that they could work that size. This will be an issue in the future as it is a finite seam. We also installed a breathable roof felt with new treated battens beneath to act as a second line of defence.

When we stripped the aisle roofs, and this included a couple of asbestos slates that some helpful person had used for previous patch repairs, we unexpectedly found that about one hundred and fifty years ago, the roof had been stripped and someone had found that the original Medieval timbers were in a really bad condition. Instead of fixing these timbers they'd just left them and built a rickety new roof structure over the top of them. Who knew! This is not ideal and came as a bit of a surprise. Luckily, at extremely short notice a carpentry team was able come on site and work methodically on each timber truss, one by one, with each having decayed in a different way and needing a different repair. They so skilfully and beautifully fitted all the new timber to the old timbers that we saved every single last inch of the Medieval roof structure that hadn't been eaten by some extremely hungry wood boring insects 200 years ago. Timber can only be eaten by wood worm and death watch beetle if it becomes damp so that it is soft enough for them to munch on. Regular maintenance, clearing out gutters and replacing slipped slates will ensure that this does not happen again.

We've dug out and removed bag upon bag of vegetation and soil build up around the gutters at the perimeter of the church to expose the rainwater drainage at ground level and in the next couple of months we'll improve the perimeter and below ground drainage and repair and overhaul all the rainwater goods.

Gutters and downpipes are one of the most important parts of the building to get the rainwater away before it rots everything. Remember that if left these traditionally constructed buildings will gently decay back into the earth as all timber has all the active decay mechanisms of the wet and dry rots in them waiting to be activated when it reaches more than 14% relative humidity.

At St. Torney's we commissioned a climate change resilience report which looks at the figure of predicted climate change for 30, 50 and 80 years time. Instead of sizing our gutters to the current building regulations we are making sure that they are able to cope with the shorter heavier rainfall that is overwhelming and overflows saturating the walls and leads to decay. Did you know that the prevailing wind direction will be subject to change in this village in 80 years time. Fascinating stuff but also extremely important for the management of an estate of 357 historic buildings so that we can look to make adaptations to the building stock to increase resilience.

To this end, we've re-pointed the tower masonry and all of the stonework of the body of the church with a beautiful permeable lime mortar.

One of the beautiful features of the stonework of this building is the beautifully carved crocketed finials on the outside of the crenelated parapet, just above the windows. It turns out that all of these were loose, waiting to fall off. We've re-fixed them all to the building plus several of their rectangular bases.

One of the highlights of this masonry work was rediscovering the original tracery of the top of the window behind the Spoure monument which had survived hidden behind a later mortar since the 1690's and it peeped out at us when we came to repair the external face of the south aisle east wall so we can tell what the window would have looked like before the monument was installed and what St Torney's windows would have looked like when it was first built.

About a hundred thousand pounds has been spent just on the repairing the funerary monuments. The beautiful slate monument to Thomas Vincent that shows his wife and children and an amazing skeleton and vine pattern was taken down, the core re-built to stabilise it all and then put back up with an air gap behind it.

6 other monuments were taken down as they were built with iron fixings which can rust, expand and jack the monuments off the wall blowing the stonework. Some of you may remember the Victorian monument to ??? on the south wall. This was made of an oolitic limestone, probably a Bath stone which is just not capable of withstanding the humidity of Cornwall and both decorative corbels had decayed. Both of these have been re-carved which you can see over there.

All of the window surrounds were consolidated and repaired and then the stained glass is undergoing a phased programme of repair by Heritage Stained Glass. The first one to be completely removed and repaired was the huge tower west window, last year. This year the north aisle east window was completely removed and overhauled and we'll be continuing to repair the south aisle windows over the next few months so don't worry if you see one boarded up and removed to the workshop. I'm sure that all of you know this but Herbert Bryans was the artist who made the beautiful stained glass in the south aisle and his makers mark is a very elegant black greyhound or lurcher which if you look very carefully he's hidden in all 3 windows so see if you can spot all 3 of them at lunchtime.

It took us over a year of listening to hold music for hours on end to get an electricity supply established to the building as according to the network distributor there had never been electricity to this building before. The existing lights and the plugs were obviously an elaborate hoax designed

to frustrate us but eventually we managed to get a new supply in in the north aisle and we've put in a new lighting scheme and some plug sockets. If you need a few more let us know in the next couple of months while we're still on site before the budget closes.

Some of you may have noticed that the vestry has been dismantled as the timber had decayed. We've put in a new timber floor and as there is a piscina in the wall this was a side chapel and most likely a Lady chapel.

The Churches Conservation Trust operates on a minimum intervention philosophy. We follow the words of William Morris and John Ruskin who advocated saving every last piece of authentic historic fabric as evidence of our past not restoring it and trying to make it look new. Just loving the patina and every worn flagstone that our ancestors have trodden on showing the wear patterns of their use and love of this building.

This building is ancient and beautiful and has lasted hundreds of years and we are just here to maintain it. However, the constant high relative humidity levels in this church had caused the walls to be colonised by green microbiological growths. This building was designed to have lime plastered walls. 150 years ago when the plaster was stripped this left cold grey granite surfaces that were both impermeable and caused condensation. We have taken the decision to re-plaster parts of the building. Not the chancel because this is an architectural set-piece designed by Sedding and very Victorian in character but the aisle walls have been re-plastered so that the lime layer can act as a moisture buffer, a sponge in effect to absorb excess water in the colder months and evaporate it in the warmer months. It's an experiment to see if this can help to regulate the humidity and we'll see how this effects the climate of the church in the coming years. We've had data logging moisture monitors in the church recording for the last three years and we'll leave them in. They're about two inches long and yellow so please leave them in place!

So now back to maintenance. The money from the church commissioners for its one off repair has now been allocated and spent. It would be so sad if St Torney's became cold and unused again. It can now be taken off Historic England's Buildings At Risk list. From a conservation perspective two things need to happen. Firstly, annual maintenance and our appointed maintenance contractors will come and clean out the gutters and undertake basic maintenance tasks twice a year. They will also undertake the compliance testing of the lightning conductor and electrics. We're installing a hatch from the parvis (the room above the porch accessed by the hidden staircase by the door) to make access onto the roof easier to make sure we catch any slipped slates quickly and replace them.

But we need you to both use the building and fundraise for it's upkeep. The church commissioners will not be giving it any more money. A church of this size needs about £5-6 thousand pounds spending on it every year and by organising concerts and events to fundraise we hope that you'll both enjoy using this space but also fundraise to keep it looking this good. We also need you to think about long term planning and start putting aside a small amount each year as a fighting fund for the nave roof so it doesn't come as a big shock. There's at least 20 years in it but it will need some slates replacing during that time.

St Torney's held its final service before closure on 17th March 2020 and I'm really excited to be here today on 19th October 2024 to help to launch it on it's next 500 year path serving the community of North Hill and being the useful community building that it was built for.

Thank you.