

“Swithland slate” and St Paul’s Church, Woodhouse Eaves.

By Sue Young

Introduction:

The slate roof tiles, some of the flooring and the boulder stone used in the walls to build this iconic Victorian church are from local sources. The stone from these local quarries has at times been labeled, loosely, as “Swithland slate”. These materials are a strong architectural feature in the Charnwood area and typical of those popularly being used in Victorian times to build many local buildings, looking around the village many buildings incorporating them can be seen today.

A brief history of Swithland slate:

“Swithland slate” has been extracted from pits and outcrops of rock in multiple sites around the Southern borders of Charnwood over thousands of years since Roman times.¹ Evidence of Roman use of Swithland slate roof tiles has been found in local archaeological excavation sites including a recent site in Leicester where slates, probably from the Groby area, were found.²

The main quarrying took place in 18th and 19th centuries in Swithland, The Brand, Groby and Woodhouse Eaves (*photo 1*).³ Production ceased at the end of the 19th century although some, already quarried, material was still being sold locally on a small scale, at the turn of the century.⁴

¹ D. A. Ramsey, *The Leicestershire Slate Industry* (Leicester: 1985).

² D. A. Ramsey, ‘Early Slate Quarries, North West Leicestershire’, *Bulletin of the Leicestershire Industrial History Society* (Bulletin 18).

³ A. McGrath, ‘The Rock Quarries of Charnwood Forest’, *Mercian Geologist*, Volume 16 (4) (2006).

⁴ ‘Swithland slate slabs for sale’, *Nottingham Guardian*, Saturday September 22nd 1900.



Photo 1- Picture of Stone Hole and St Paul's church in Woodhouse eaves, courtesy of British Geological Survey (Supplied under EA 18-030)

At one time skilled craftsmen were employed specifically at some quarries to craft roof tiles and other slate products; roof tiles being the most important product sold by the Swithland quarries (*photo 2*). Only one set of accounts has ever been discovered, from 1852/1853, for the Swithland and Groby Quarries. Discovered at Enville Hall, Staffordshire, former home of the Earl of Stamford, they indicate much higher sales of roof tile slates from Swithland as compared to Groby.⁵

⁵ D. A. Ramsey, 'Early Slate Quarries, North West Leicestershire', *Bulletin of the Leicestershire Industrial History Society* (Bulletin 18).



Photo 2 - Swithland Village memorial to slate workers, showing a pit, barrow, church and slate workers

Swithland slate roofs were purchased by local wealthy owners for their manor houses etc and were very fashionable in the 1600's, 1700's and early 1800's and they can still be seen on many old buildings including churches in Leicester (*photo 3*) and adjacent counties and towns. In the Late 17th and early 18th century roofing with Swithland slates, rough hewn, and about 1.25 inches thick was probably the rule rather than the exception for the larger houses of nobility and gentry in Leicestershire.⁶ Many of these buildings still carry Swithland slate tiled roofs. So William Railton chose the best of local materials for our church roof.

⁶ A. Clifton-Taylor, *The Pattern of English Building* (London: 1987); A. McGrath, 'The Rock Quarries of Charnwood Forest', *Mercian Geologist*, Volume 16 (4) (2006).



Photo 3 – Roof on outhouse buildings, Belgrave Hall, Leicester

Woodhouse Eaves has evidence of slate workers and the workings around it still with the beautiful slate workers cottages in the centre of the village (*photo 4*). Local roof slate production was expensive and the tiles were heavy to distribute and work with so it was superseded when the lighter and better cleaving Welsh slate started to arrive in the area, by canal. Nowadays any retrieved Swithland slate tiles are expensive to buy (over £400 per ton – from an internet search 18th February 2018) and after purchase these tiles will often need manual sorting into graded sizes before they can be used.



Photo 4 – Slate workers cottages, Woodhouse Eaves

St Paul's architect's designs and plans and the materials specified for the building:

The first church building was built, in 1837, with the expensive but extremely durable Swithland slate tiles on its roof, to the design of William Railton, they were also used for the Chapels and extended Chancel, all added in the later 1800's to the design of Ewan Christian. St. Paul's was initially built without skimping on costs and excellent basic building materials were used throughout, as evidenced by the state of the body of the church to this date.

When St Paul's church was commissioned as a "Chapel" William Railton specified that it was "to be built with the best materials of their respective kinds and finished in a substantial and workmanlike manner under the direction of Mr Railton" For the roof he specified that it should be "covered with Swithland Slate laid to a twelve inch gauge".⁷

St. Paul's flooring:



The church was designed by William Railton to have "paving to be of Swithland Slate on dwarf walls".⁸ The flooring under the aisle carpet is apparently still made of local slate and the sill at the main entrance to the church is of local slate (*photo 5*).

Photo 5 – Slate door sill, St Paul's Church

St. Paul's walls:

William Kirk, the builder of the original Chapel was instructed that he must acquire, as William Railton considered necessary, ".....all manner of Stones (except the Forest Stones which the said William Kirk shall be allowed to get and take from and out of the land adjoining the site of the said Chapel and the property of Ann Christiana Watkinson).....".⁹ (*photo 6*).

⁷ 'General Description of the design for a Chapel about to be directed at Woodhouse Eaves in Charnwood Forest in the County of Leicester – 1836' - *copy held by the church*.

⁸ 'General Description of the design for a Chapel about to be directed at Woodhouse Eaves in Charnwood Forest in the County of Leicester – 1836' - *copy held by the church*.

⁹ 'Agreement between Trustees appointed by virtue of the Charnwood forest Inclosures Act for the Building a Chapel within the said forest...at Woodhouse Eaves date 6th May 1836', Leicester Record Office: DG9/2163.



Photo 6 – Boulder stone walls

The church stands on top of a rocky outcrop above the Charnwood Village of Woodhouse Eaves, overlooking the Soar Valley, the main stone used as small boulders to build its walls was locally quarried (*photo 7*). This stone, of volcanic origin, does not cleave well and does not naturally form flat sections when split, it is not therefore suitable for roofing although it was often referred to as “slate”. There are 3 stone extraction sites still visible near the church today, 2 surface quarries in the Old Rectory garden and the Stone Hole quarry underneath the rock on which the church stands. The Stone Hole was certainly quarried beyond the time of the church construction and it is not clear from which pit the stone for the Chapel was extracted (*photo 8*).

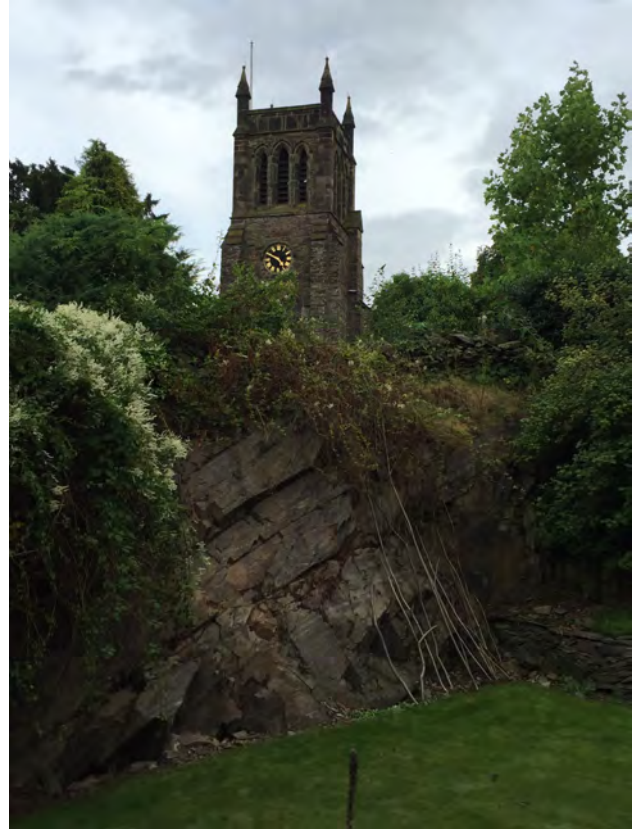


Photo 7 – St Paul's above the stone hole quarry today (left)

Photo 8 - Stone quarries in the old vicarage garden, beside St Paul's church (right)

During the 2017 Chancel repair works the walls and structures of the chancel and vestry were drilled through to allow 23 steel rods, "Cintec Anchors," to be inserted through the channels (primarily horizontally) followed by an adhesive penetrating material to fix the rods in place and prevent further subsidence of the chancel. The stone walls were drilled with a diamond tipped drill and copious volumes of water were injected around it to cool the tip. During this process multiple round "cores" of stone were extracted from the very hard Woodhouse Eaves "slate" boulders through which the drills passed.

Gravestones:

Many of the oldest and best preserved gravestones in St Paul's churchyard are made from Swithland slate which can lend itself to very elaborate and long lasting carving and inscriptions (*photo 9*) (*photo 10*), when compared to adjacent gravestones made of other materials. Swithland slate is extremely durable and has stood the test of time when compared to stones of softer stone of a similar date.



Photo 9- St Paul's gravestones, flaking softer stone on the right, Swithland slate on the left.



Photo 10 - Carved Swithland slate headstone at St Paul's

Carving of the slate, for example for gravestones, was at first done primitively by the original slate pit workers who had extracted the stone, this improved with more sophisticated hand tools and professional stonemasons employed to do the work, some working in the quarries. The skilled craftsmen were able to produce decorations and carving in relief as well as by incision in the slate, these carvings have withstood time and weather extraordinarily well (*Photo 11*). The stones were unpolished in early production, later being polished and inscribed or decorated on one side although often leaving a rough hewn back. The Swithland slate is resistant to lichen growth as well as the effects of weather.



Photo 11- Carving detail on Swithland slate gravestone St Peter's Church, Belgrave, Leicester

Swithland slate roof tiles:

Swithland slate roof tiles are extremely hard wearing, dense and resistant to break down by weather or lichens etc. (*Photo 12*). They are beautiful materials with a wide variety of colours in the stone and they are unlikely to ever need replacing due to wear or spontaneous cracking and, as such, are a valuable asset to the church (*photo 13*).



Photo 12 - Loose slates in piles before being re-fitted to St Paul's chancel

Photo 13 - St Paul's chancel roof

Each tile is overlapped at its top edge by the two tiles lying above it on the roof. If the tiles do not have this significant overlap then they will apparently leak (*photo 14*) To use the quarried slate economically the tiles were made in steadily increasing sizes and were sized and shaped by holding the cleaved slate in a frame and chipping off the edges of the slate to the required size (The 2017 chancel repair contractors indicated that this technique is still used sometimes today during roof repairs). (*Photo 15*)



Photo 14 - Overlapping tiles on chancel roof, each one partly under the 2 above



Photo 15 - Detail on Swithland slate grave in St Leonard's churchyard, Swithland, showing slate roof tiles being made, note the ladder to the roof of the house under construction

Some of the St Paul's slate roof repairs:

Having been fitted in 1836 the Swithland slate roof tiles have needed to be re-laid or replaced on more than one occasion since.

In **1839**, less than 3 years after the church was completed, the windows and roof of St Paul's suffered severe storm damage. The most likely cause was a storm that hit Ireland during the night of Sunday, 6th and Monday, 7th January. Known as the 'Night of the Big Wind', it was the most violent storm in living memory and after causing havoc in Ireland it moved eastwards across Britain.¹⁰ Slate tiles had to be replaced and new ones were supplied and fitted by Thomas Shaw, a stonemason.¹¹

Wright's Directory of Leicester and fifteen miles Round 1883-84 records that **after** the enlarged chancel was built in around **1871**,¹² "Some further alterations have been since completed (including the addition of two transepts and the re-roofing of the vestry), at an expense of nearly £1500."

During the chancel repair roof works in **2017** the roof tiles of the chancel were removed in 4 areas during the repairs and the old batons to which they were nailed, as well as the very old insulating tar based material lining the vaulted roof, were in good condition and did not need to be replaced (*photo 16*). The removal of the tiles revealed the green tinged copper nails used to hang the tiles in Victorian times (*photo 17*), when the tiles were replaced they were again nailed in place with copper nails. The tiles are removed with a special tile remover (*photo 18*), the tip slides under the tile and hooks over a supporting nail then is sharply knocked to remove the nail from the wood baton, this is repeated with the second nail and the tile is removed. The tiles are stacked in a particular order for ease when replacing them. The tiles removed from the chancel roof had to be replaced with small gaps under some of them, just as they were before they were removed, so that the bats that over-summer there can crawl back under the tiles and never know they have been moved!



Photo 16 – St Paul's chancel roof, exposed batons and roof lining

Photo 17 – Old copper nails removed when tiles were taken off the roof

¹⁰ L. Shields and D. Fitzgerald, 'The "Night of the Big Wind" in Ireland, 6–7 January 1839', *Irish Geography*, vol. 22, issue 1 (1989) pp. 31–43. Available online at https://www.met.ie/cms/assets/uploads/2017/08/Jan1839_Storm.pdf.

¹¹ 'Receipts for repair work carried out on St Paul's Church, Woodhouse Eaves, spring, 1839', Leicester Record Office: DG9/2163 (35).

¹² C. N. Wright, *Commercial and General Directory of Leicester and Fifteen Miles Round. Seventh Edition, 1883-84* (Leicester: 1884).

Building completion dates and payments similarities between 1836 and 2018:

The first builder of St Paul's was required to ...”complete and finish the same Chapel on or before the first day of January next ensuing (accidents by fire storm or tempest only excepted) and in all things agreeably and conformably in every respect to the specification or description” [2] This meant that the building was due to be constructed in less than 7 months from the date of the agreement (6th May 1836). The indenture [2] states the stages of the works that will need to be completed before specified amounts are paid to the builder for his work. This is the same as the way that the Chancel repair works have been paid for in stages, 180 years later!



Photo 17 – Swithland slate tile removing tool, note the nails lying on the boards by the tool