**SWITHLAND SLATE INDUSTRY**

**GENERAL INTRODUCTION**

“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. The material extracted and known as Swithland slate is formed of compressed siltstone dating from Cambrian times, it has the same mineral alignment as Welsh slate but does not cleave so easily, it is virtually indestructible as a building material. The stone extracted from Woodhouse Eaves is technically not a true slate but a crystallithic tuff. The distribution of the “slate” is in a more or less horse shoe shape as shown in the map of *The Geology of Ancient Rocks of Charnwood Forest, Leicestershire, by W W Watts, based on his work for His Majesties Geological Survey 1860-1915. Pub 1947.* The main quarrying in the 18th and 19th centuries occurred around Groby, Swithland and Woodhouse Eaves with some occurring in the Bradgate estate. A useful map of extraction sites is shown in Annette McGrath’s article on The Rocks and Quarries of Charnwood Forest, Mercian Geologist 2006 16(4) 241-262.

A Companion to Charnwood Forest by John Spanton published in 1858 has a map showing several slate quarries in the area (see photos of cover and p1 and 2 of a Companion to Charnwood Forest 1-3).

**History of quarrying**

**Where did it take place?**

The main quarrying of Swithland slate took place in 18th and 19th centuries in Swithland, on the property still known locally as the The Brand, in Groby and in Woodhouse Eaves. (Annette McGrath – The Rock Quarries of Charnwood Forest)

 Many sites of slate quarries have been noted around Charnwood including the following:

 *Swithland*: (see picture 204 by S. Young showing Slate pits at Swithland from D A Ramsay- 1985 The Leicestershire Slate Industry leaflet) Within the woods the Great Pit was the largest of all the local slate pits, its flooded remains are still to be found in the woods today (see picture 203 in photos file) and it is now the site of an annual bluebell service (Parish Matters March 2017) Multiple sites within the woods were apparently used for extraction over time. The Old Shenton and Johnson quarry is on land beside the road junction known as the ‘Swithland Triangle’ (see photo 123 of 1813 Plan showing boundary line between the manor of Barrow and the manor of Swithland with working slate pit and worked area with sites for crane etc) (ref D99/157 Leicestershire county records office)

*The Brand*: in Woodhouse Eaves had 4 sites for extraction (picture 121 Map in Sales particulars for the Brand, Woodhouse Eaves, 1887. Leicestershire record office), now known as Trout Water, Perch Water and Tower or Pike water and the Brand [where slate was removed from an outcrop] (see map Annette McGrath -The Rock Quarries of Charnwood and photographs 211, 213 & 214 by S. Young 2016.)

*Nanpantan*: by Loughborough (a small disused quarry was noted in the Geology of Leicestershire, within the 1877 History, Gazetteer and Directory of Leicestershire p63)

*Woodhouse Eaves*: has 3 or more quarry sites, Hangingstone or Pocket Gate quarry and Forest Rock or Stone hole, (also known as Great Hill quarry in rocks below the church (Annette McGrath – The Rock Quarries of Charnwood Forest)

and a quarry now in the grounds of the Old Rectory (see photos 002b, 002c, 250 by S Young 2016). All these disused quarries are still visible, the Forest rock quarry having been only partially in filled, for safety, by the council many years ago when it was made accessible to the public.

*Hallgates*: was near the Swithland and Bradgate quarries and buildings were constructed with accommodation for stores and stables for the horses used in relation to the gins required to lift the water and slate carts out of the Swithland quarries. (1877 History, Gazetteer and Directory of Leicestershire p….)

*Beacon Hill*: the 1877 History, Gazetteer and Directory of Leicestershire indicates on p68 that the Herricks of Beaumanor Hall had their own private slate quarry at the foot of Beacon Hill, North of Woodhouse Eaves.

*Whittle Hill*: quarrying was superficial and mentioned in the 1877 History, Gazetteer and Directory of Leicestershire, p65 and 639. Hones and whetstones were produced, *“20 tons per annum being disposed of in their rough state at the rate of £7 10shillings per ton.”*

*Moorley Hill*: (1877 History, Gazetteer and Directory of Leicestershire p64) quarry had a *“coarse gritty slate”*

*Groby pits*: Great Groby slate Pits were noted beside the new A50 road from Leicester to Markfield in the 1877 History, Gazetteer and Directory of Leicestershire p68.

*Markfield*: A pit trap dyke was noted by Mr Jukes at the cross roads opposite Markfield Knoll in the 1877 Gazetteer p68.

*Copt Oak*: The 1877 Gazetteer on p68 notes a slate pit in a field at the back of Copt Oak Church

 **Origins of slate quarrying in Charnwood**

**Roman (100-400 AD):**

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. (Leicestershire Industrial History Society Bulletin 18 - D.A. Ramsey -Early Slate Quarries North West Leicestershire page7)

Late 2nd and early 3rd century Roman diamond shaped roof slates were excavated in Narborough (Archaeology of Leicestershire and Rutland 1983 by Peter Liddle, An excavation on Narborough (SK 531978) – interim report, Leicestershire Archaeology and hist. Soc. Transactions LV111 1982-83) Evidence of Roman slate use was also found in the Drayton Villa, (Archaeology of Leicestershire and Rutland 1991 interim reports: Drayton Villa (SP 817 918) Trans, Leicestershire Archaeology and hist. Soc., LXV1 (1992) by Richard Pollard)

Annette Mc Grath summarised the evidence for the Roman use of Swithland slate: “One structure that does appear to have been roofed at least partly with Swithland Slate was the Forum (the main administrative centre) in Roman Leicester or Ratae Corieltavorum, as it was then known. A site at East Bridgford, Nottinghamshire has also revealed Roman Swithland roof slates. A recent excavation at a Roman site in Rothley has also yielded a substantial assemblage of characteristically rhomboidal and diamond-shaped tiles of Swithland Slate (R. Clark, pers. com.). This could indicate that the slate quarries around Swithland were being worked during the late Roman period (D. Ramsey, pers. com.). It is thought that earlier in Roman times the slates were mainly extracted from the Groby area.” (The Rock Quarries of Charnwood Forest Annette McGrath MERCIAN GEOLOGIST 2006 16 (4))

**Medieval:**

A medieval slate capped drain was unearthed in Mountsorrel near Swithland, Leicestershire, during excavations. The origins of the slate were not indicated in the report but Mountsorrel is very close to Swithland. (Excavations in a medieval Market Town: Mountsorrel, Leicestershire by John Lucas, Transactions LX1 1987)

**Late 13th century:**

In documents pertaining to St Augustines Friary mention has been made of the use of slates (D A Ramsay- 1985 The Leicestershire Slate Industry leaflet)

**14th Century:**

There are written records which detail the use of slate in building work locally, from the Mayor of Leicester’s accounts entry 1305-6 (A McGrath, Mercian Geologist 2006 16 (4))

In **1315** Borough Records indicate slates were purchased for Leicester at 2s/2d (11p) per 100 carriage paid. (D. A. Ramsey, 2000 Newtown Linford notes and the Leicestershire slate industry. Bradgate and its villages series 4. Ramsey: Groby)

In **1343**, the Records for the Borough of Leicester (1103-1603 Mary Bateson (ed.)) there is reference to quarries at Swithland and Groby park. A chancery inquisition post mortem list, in property belonging to Henry de Ferrers of Groby (1303-1343) includes the quarries or “sclates” in Swithland and Groby park (refs; G F Farnham, Leicestershire Medieval Village notes, page 362, Chancery inquisitions post mortem, taken from A McGrath, Mercian Geologist 2006 16 (4))

**1377-1378** Work on repairs to Leicester Castle included 2000 slates bought from John Bareman with cartage from Swithland for 3s/1d a thousand (Fox, L. 1944 Leicester Castle. City of Leicester Publicity and Development Department taken from A McGrath, Mercian Geologist 2006 16 (4))

**1377-1378** Builders at Frith Lodge purchased 1,500 slates from Swithland at 3s 1d per 1000. (A McGrath, Mercian Geologist 2006 16 (4))

**15th Century:**

**1491-1510** Bradgate House on the Bradgate Estate, Leicestershire, (the ancestral home of the Grey family where Lady Jane Grey lived before her execution) was roofed with Swithland slate. (A McGrath, Mercian Geologist 2006 16 (4)) Slate is known to be present in more than one area of the estate and has been quarried in more recent times. Swithland slate was apparently also used to build drains and cellars at Bradgate.

**1480-84,** Kirby Muxloe Castle construction used Swithland slate cart loads from Groby Park [Transactions of the Leicestershire Archaeological and Historical Society. 11 (part 1): 87–90. Hewitt, F.; Langham, J. (1913–1914). "Kirby Muxloe Castle" (PDF). Transactions of the Leicestershire Archaeological and Historical Society. 11 (part 1): 108–114. Taken from A McGrath, Mercian Geologist 2006 16 (4)]

Leicester Guidhall, built in the 14th century still has a Swithland slate roof and is in accounts of sales for slate repairs from Swithland accounts in the 15th century (from Swithland church and estate by Bob Osborne and Rev Anne Horton 2011 page 229)

Excavations for Richard the Third’s grave in Leicester city centre Greyfriars area revealed several roofing tile slates that look like Swithland slates, with holes at the top. (These are on display in the Richard 3rd Museum, Leicester, as incidental archaeological findings when the King’s grave was unearthed below the museum, they are not dated in the display)

**Late 17th and early 18th century:**

Swithland roof with slates, rough hewn, and about 1.25inches thick was probably the rule rather than the exception for the larger houses of nobility and gentry in Leicestershire (ref. The pattern of English Building by Alec Clifton-Taylor ISBN 0571 09525 9 and A McGrath, Mercian Geologist 2006 16 (4)). Many of these buildings still carry Swithland slate tiled roofs.

**Late 17th century** the slate engraving industry developed with gravestones still to be found, very well preserved, (see 17th century gravestone photographs 210 and 211 by S. Young 2016) within most of the graveyards of Leicester and Leicestershire (including Leicester Cathedral and especially in the graveyards of the Charnwood area).

**The 17th/ 18th / 19th and 20th** centuries saw the Swithland slate industry develop, thrive and then fail as Welsh slate replaced it. Details of the industry over this period are expanded upon below. It is only possible to obtain recycled Swithland slate at this time (2017) and it has not been quarried for over a century.

**Owners and leaseholders of Quarrying Companies**

**The Earl of Stamford** owned land in the Charnwood Forest and Groby areas, in the 17th century he offered leases to quarry his land. In 1646 he granted a lease to **Thomas Heath**, **George Daft**, **William Hitch** and **Peter Bellamy** – for all slate pits, mines and quarries of stone in the forest of Charnwood and also Charley for £2.13s.4d yearly. (Lease between The Earl of Stamford, Thomas Heath, George Daft, William Hitch and Peter Bellamy, 1846 (Leics RO DE1982/16 1646) (record entered onto the system by Susan Kilby)

In 1665 20th Nov an indenture was signed leasing *“all slate pits, quarries of stone and mines”* from the Earl of Stamford for 53shillings and 4pence per year rental with *“40 loads of stone to the Earl and his wife”* as payment (Leics RO DE1982/18 ).

Various slate pit lease holders followed, some of these are better documented than others.

SWITHLAND and The Brand lease holders:

The name most closely associated with Swithland slate extraction is that of the **Hind** family. Henry Hind, Stephen Hind and John Bennet extracted slate in the Woodhouse Eaves and Swithland areas north of Brand Hill from 1700-1740 (from Swithland church and estate by Bob Osborne and Rev Anne Horton 2011page 231) the Hinds having bought out Bennet in 1706. The earliest involvement of the Earl of Stamford with Henry Hind is mentioned in a list of lease holders in 1622 with a piece of land described as *“Ladyland in the town and fields of Swithland” (D A Ramsey Newton Linford Notes and the Leicestershire Slate Industry. Bradgate and its Village series 4 Ramsey: Groby)* The Hind family quarried Swithland slate from 1688 to 1851. In 1787 an indenture was signed between the Rt Hon George Harry Earl of Stamford and Henry Hind of Swithland where Henry Hind is listed as a *“slate cutter”* (Leics RO DE1982/165). The Hinds apparently reopened ancient quarries which they worked from 1811 until 1849 (ref map by D. A. Ramsey, The Leicestershire Slate industry, pub 1985). A Charnwood Forest slate extraction lease between *Lord Grey and Mr Henry Hind,* dated 5th Dec 1738, gave him the right to *“dig, delve and get it out”* (Leics RO DE1982/22 original lease agreement). There is a record of *a* lease granted from the Earl of Stamford in 1764 to a Henry Hind, Thomas Hind and Robert Hind at Newton Linford (Leics RO DE1982/127 original lease agreement). Henry Hind by 1768 had also obtained a lease in Groby to extract slate from a quarry close to the Leicester to Ashby Road. There is an original document indicating from “*The Rt Hon The Earl of Stamford to Mr Henry Hind Snr Counterpart leases of two slate or stone Delphs in the Lordship of Groby and in Charnwood Forest”* (Leics RO DE1982/23 original lease document). The pits on the property known as the Brand were extracted from 1688 by the Hind family until 1851 when they were sold to John and Joseph Ellis. The Hinds took over the Groby quarry with a lease dated 27th February 1835 between *“The Earl of Stamford & Warrington* *and Mr. Wm Hind lease from year to year of Groby Slate Quarries.”* (Leics RO DE 1982/94). The Hinds sold the Brand and moved from the area, they withdrew from the Slate extraction industry in 1851 when they anticipated that Welsh slate was going to replace the locally extracted material. Welsh slate which was lighter, cheaper and also cleaved better, with the aid of an improved national transport infrastructure, did eventually replace the local heavy, thicker slate.

**John and Joseph Ellis** quarried the Brand sites from 1851 when they bought the Brand from the Hinds. They opened the Great Pit in Swithland Woods and extracted from it until 1887 (D A Ramsey – Leicestershire slate Industry 1985). Between 1860 and 1865 the Ellis’s installed a stone built tower housing a water pumping station at The Brand at Tower Water or Pike Water quarry because of flooding as the quarrying level dropped. (D A Ramsey – Newtown Linford Notes and The Leicestershire Slate Industry, Bradgate and its villages Series 4 Ramsey: Groby and verbal report from Col. R. Martin, current owner of the Brand). In a History, Gazetteer and Directory of Leicestershire and Rutland of 1877 on p225 within a list of the significant members of the Swithland population the following appears: *“Ellis, John and Sons, slate merchants and slate quarry proprietors, the Slate works and Leicester”.* The same document on p65 states that in 1877 there were 2 slate pits open in Swithland but *“only one is now worked, by the firm of Messrs. John Ellis and Sons. It is situated in a wood, and the depth is now not less than 150 feet…”. “As the pit has been deepened the quality of the slate has been found to improve, the cleavage is better, and much lighter roofing slates can be obtained.”* The Ellis family sold their land to Robert Martin in 1887 and finally stopped slate quarrying at Swithland in 1888.(Leicestershire Industrial Society Bulletin 18 – D A Ramsey Early Slate Quarries North West Leicestershire). The Martin family still live in the Brand in a house built of slate from the four, now disused, excavation sites on their land.

**William Perkins**, **John Lovett**, **Henry Lovett** and **John Hackett** quarried in the southern area of Swithland Woods from 1700 to 1811. (Bob Osborne & Anne Horton – Swithland Church and Estate 2011 page 23)

**Shenton and Johnson** were actively quarrying slate from their quarry near the “Swithland triangle” to the West of Swithland village around 1813 when their pit was mapped (See photograph 123 of 1813 Map of slate pit Leics RO DG99/157)

GROBY slate quarrying leases:

1773 – 1829 Groby land tax records show three quarries in this area

1. Groby slate quarries, north of Grey Lodge by Alder Spinney
2. Two earlier quarries one close to Bradgate Hill Farm and the other, the Groby Old Slate Quarry, was close to the current A50. (Ramsey D.A. Newtown Linford notes and the Leicestershire slate industry Bradgate and its villages series 4 Ramsey: Groby)

The height of activity for Swithland slate was 1833 when **Parsons & Gill**, Leicestershire architects and surveyors, opened a new slate quarry at Groby on land owned by the Earl of Stamford (D A Ramsey – The Leicestershire Slate Industry 1985). After Gill died in 1834 **Hind** took up a new annual lease (see above). Later **Ellis** took over this lease. In 1866 the Ellis’s were leasing both Groby and Swithland slate quarries. (Leicestershire Industrial History Society 18 – D A Ramsey – Early Slate Quarries North West Leicestershire page 53.) In Kelly’s Directory of 1881 p524 under a description of Groby it states –“*Here are slate and granite quarries worked to a considerable extent: the stone is a true syenite, being composed of pinkish feldspar and green partly decomposed hornblende: since the formation of the new company, the quarries have been more extensively worked.”* In the list of important local people at the end of the article on Groby (p525) *“Groby Slate Quarries (John Ellis and sons, proprietors)”* is listed.

WOODHOUSE EAVES quarrying:

The Hangingstone or Pocket Gate quarry outside Woodhouse Eaves and Forest Rock or Stone Hole quarry in the village centre were owned by the Herrick Family of Beaumanor Hall. A number of tenants ran the slate quarries, leased from the landowners, and paid a commission on every tonne of slate sold.

As mentioned previously the stone extracted here is not truly slate as it belongs to the Precambrian Maplewell Group of the Charnian Supergroup, it is a deep purple slate used locally as a building stone. Because it did not cut so well as slate from Swithland and Groby it was not used as widely.

Examples:- Slate pit workers cottage in Woodhouse Eaves. St Paul’s Church, Old School and Vicarage from Great Hill Quarry now known as Stone Hole. Abandoned in 1877. (see photographs 001, 002a, 002b, 004, 008 by S. Young 2016)

(Annette McGrath Mercian Geologist 2006 16 (4))

The pit now found in the grounds of the Old Vicarage in Woodhouse Eaves is reputed to have been used to extract stone for the vicarage or St. Paul’s church beside both of which it lies. Pit visited in 2016 by S. Young, courtesy of the current owners of the Old Rectory, Woodhouse Eaves.

There was a private slate quarry at the base of Beacon Hill beside Woodhouse Eaves owned by the Herrick family (1877 History, Gazetteer and Directory of Leicestershire indicates on p68)

**Swithland slate markets and uses:**

Markets and products:

The 1877 History, Gazetteer and Directory of Leicestershire mentions on p65 that *“The fine new Midland Railway Hotel, near St Pancras Station, is roofed on one side with Swithland and on the other with Groby slates. St Marks church, in Leicester, is roofed with the same material, the church itself being built of blocks of slate from the late Mr Perry Herrick’s private quarry at the foot of Beacon Hill.”* P68 indicates that *“The pavement in front of the hotel above mentioned is of Groby and Swithland slabs.*

In the 1877 History, Gazetteer and Directory of Leicestershire p68 records that *“The Groby Slate Pits are on the left-hand side of the road leading to Markfield. The grain of the slate is not as fine as at Swithland, but it yields excellent slabs, into which it is sawn up by steam.”* It also records that *“In the steps leading to the Albert Memorial, in Kensington Gardens, the blue Groby slate has been largely used, forming an admirable contrast with with ….”*

On the same page the 1877 History, Gazetteer and Directory of Leicestershire states that *“The new Gas Offices at Sheffield, the chancel of St Paul’s Church, Leicester…… are roofed with ‘Groby grey’ slate and its tint is much liked by the architect Sir Gilbert Scott”.*

The pit at the cross roads opposite Markfield Knoll *“which varies from a coarse conglomerate to a slate, which is extracted for road-metal”* is mentioned in the 1877 History, Gazetteer and Directory of Leicestershire p68.

Whittle Hill quarry in the 1877 History, Gazetteer and Directory of Leicestershire, p65, was *“quarried for hones which were ground on the spot. These are the ‘Charley Forest’ oilstones, which are noted throughout England”* made from *“a fine compact siliceous greyish slate, tinged with green”*. Whetstones were also produced here.

In the indenture of 23rd February 1835 (Leics RO DE 1982/94) relating to the Groby slate quarries with quarrying rights on Groby Lodge Farm and other localities leased to William Hind by the Earl of Stamford and Warrington there is reference to the *“extra squaring of slates for roofing commonly done by slaters”*. It also mentions, in terms of partial payment of the profits from sale of the items to the Earl of Stamford, the *making and sale of cheese presses, sinks and steps, milk slates, salting stones, cheese presses, coping stones, chimney pieces, sills, cornices and the engraving of sawn slate. Common slabs, soughing and wall stones, chippings, curbing, flagging, tile draining and slate chips for tile draining, roofing slates, sawn unpolished and polished slates*. (see photographs 006, 104, 107, 109, 112, 115, 116, 117, 118, 207, 208, 303, 304, 324 by S. Young 2016)

Kelly’s Directory of 1881 under ‘Swithland’ remarks on “*the valuable quarries of blue slate”* and that *“almost all the buildings in the neighbourhood are covered with this material, and it is much used for tombstones, land draining, wall building, and is converted into many articles of utility”.* Headstones for graves are still very much in evidence in nearly all the Leicestershire graveyards, they were very expensive but have lasted incredibly well, carving at first being done by the slaters who had extracted the stone by hand and then engraved the stones themselves. Most Swithland slate gravestones are rough hewn on the back and, especially from early times may show a previous early attempt at an inscription on the reverse of the final decorated aspect. As time went on the gravestones became increasingly more elaborate with relief and engraved carvings created by expert craftsmen. (see photographs 209-217 and 350-355 by S Young 2016)

Roof slates were sent all over the local area and into Nottinghamshire, Derbyshire and Lincolnshire. Dressed and undressed slate was used to build houses etc, roof slates of great durability could only replace thatch once wood for roofing and structures strong enough to hold the weight of slates were available. Only 1/3rd of each slate is exposed and slates are sized and graded with the smallest at the top of the roof progressing in size towards the bottom row, to distribute the weight safely. The slates are held in place with wooden pegs. (Lott, G. 2001 Geology and Building Stones in the East Midlands, Mercian Geologist 15 87-122 from A McGrath, Mercian Geologist 2006 16 (4)) (see photographs 001a, 004, 005, 008, 102, 205, 119, 321, 322, 323, 356 by S. Young 2016)

Towards the end of the Swithland slate industry headstone production and engraving was a particularly important product for the pits. Many slates were also required for the building of the local Cropston reservoir completed in 1871 (Cropston Conservation area character appeal 13/2/2014)

**Products** were more specialised from certain sites but some of the items produced included, (many already indicated above);

roof slates (see photographs 001a, 004, 005, 008, 102, 205, 119, 321, 322, 323, 356 by S. Young 2016)

building stones for houses and other buildings (001, 002b, 004, oo4b, 005, 008, 101, 102, 108, 110, 120, 120a, 205.)

wall stones (see photographs 006, 120a, 120b by S Young 2016)

culvert and drain linings (see photograph 115 by S. Young 2016)

gate and fence posts (see photographs 118b and 118d by S. Young 2016)

paving and flooring flags (see photographs 208, 304 & 305 ),

decorative stone steps (see photographs 007,106a, 112, 324, 304, 305 by S. Young 2016)

bridges from slate slabs (see photographs 104, 112 by S. Young 2016)

hones (see Whittle Hill quarry above),

rubble for roads (see Markfield quarry, above),

milestones in local slate (ref J Lee and J Dean Leicestershire Historian Millenium Edition, Leicestershire archaeological and Historical society)

sundials (Bob Osborne & Rev Anne Horton Swithland Church and Estate – 2011)

clock faces (Bob Osborne & Rev Anne Horton Swithland Church and Estate – 2011)

kerb edging (as seen recently in London near St Pancras station)

datestones (see photograph 208 by S. Young 2016)

fireplaces (see photographs 303 by S. Young 2016)

troughs (Bob Osborne & Rev Anne Horton Swithland Church and Estate – 2011)

sinks (see photographs 116, 117, 118a by S. Young 2016)

milk cisterns, dairy cupboards, cheese presses and other dairy items (see photograph 118, a dairy tray with a drain hole by S. Young 2016)

meat slabs

rockery and ornamental stones (see photograph 120e by S. Young 2016)

dog grave headstone (see photograph 120d by S. Young 2016)

follies (see photograph 120 by S. Young 2016)

dovecotes (see photograph 108 by S. Young 2016)

lintels (see photograph 120f by S. Young 2016)

ice houses (Bob Osborne & Rev Anne Horton Swithland Church and Estate – 2011)

garden seats (see photograph 109 by S. Young 2016)

vermin trap stones (1852/53 accounts of the Swithland and Groby quarries) The Leicestershire Industrial History Society Bulletin 18 D A Ramsey – Early Slate Quarries North West Leicestershire pages page 60)

**Number of Workers**

It is very difficult to obtain a true picture of the workforce involved in this industry.

In Swithland Parish Registers in 1790s there were “two slatepitmen and a slate cleaver”.

The Census returns from Swithland from 1841 until 1871 average seven slate workers each decade and in 1881 one worker. Agriculture, domestic service and framework knitting was the main employment. ( Bob Osborne & Rev Anne Horton Swithland Church and Estate – 2011 page 234)

The Woodhouse 1851 Census lists 9 slate workers living along Brand Road. ( Bob Osborne & Rev Anne Horton Swithland Church and Estate – 2011 pages 233/234)

In the first published full list of mines and quarries, 1897, Groby and Swithland are each listed as employing one person. None appear thereafter in the 1898 or 1899 lists. The owners in 1897 are ‘Trustees of the Earl of Stamford and Warrington, Agent is C T Garrett, Newtown Linford. (Personal communication Jennifer Hillyard, Librarian, North of England Institute of Mining and Mechanical Engineers)

In 1833 at the new Groby Works there were about thirty men employed, however, slate extraction was stopped at the Works in 1858 after the steam saw burst and there was extensive damage to the lessee, Thomas Rudkin’s, property. (Leicestershire Industrial History Society Bulletin 18 - D.A. Ramsey -Early Slate Quarries North West Leicestershire page 43). In the 1877 History, Gazetteer and Directory of Leicestershire and Rutland the record regarding Groby includes, under the list of important local people, Ellis John and sons, slate merchants and slate quarry proprietors, The Slate works, and Leicester. It also records the name of Wilson Samuel, slate quarry manager. The people recorded as being the “clerk of quarries” and “quarry foreman” may have worked for the slate or granite quarries both then active in Groby.

**Housing**

The Swithland slate industry started as a very local concern that developed and evolved gradually to become much bigger. This was shown by each quarry having the need for a storage and workshop area as well as nearby housing for its workers.

In 1788 the Swithland slate workers needed housing and William Clarke built three dwellings for them in an area known as Forest Gate in Swithland. By 1800 ten dwellings had been built at Forest End. In 1819 William Johnson the Younger bought five of the cottages from Clarke and changed them to make nine cottages so that there were fourteen dwellings in Forest Gate. These fourteen houses, built mainly of slate, brick and thatch had just one room downstairs and one upstairs (See photograph 205 by S. Young 2016) (Bob Osborne & Rev Anne Horton Swithland Church and Estate 2011 page 233).

In the local 1851 Census it was recorded that the Hinds had built cottages along Brand Road for their nine workers (ref Bob Osborne & Rev Anne Horton Swithland Church and Estate 2011 page 234). A pit manager’s cottage still exists on the Main Street near Tower Water quarry in the Brand.

Hostelries were built for and frequented by the slate workers and the Slatesplitters Arms still exists as the Wheatsheaf public house today, on Brand Hill, Woodhouse Eaves. (See photograph No 005 by S Young 2016). There is reference in the History, Gazetteer and Directory of Leicestershire and Rutland 1877, p640, to a George Bishop, victualler, Slate Pit Inn in Woodhouse Eaves.

There is a record of John Pollard having a workshop on the corner of Town (now Main) Street and Beacon Road in Woodhouse Eaves opposite the Old Bull’s Head (Leicestershire Industrial Society Bulletin 18, D. Ramsey, Early slate quarries North West Leicestershire page 40) this may have been used in connection with the slate from the nearby Pocketgate or Hangingstone Quarry (See photograph 250 by S. Young)

A terrace of 6 slate workers cottagers belonging to the Herrick family of Beaumanor Hall, Woodhouse, was built in 1850 on Maplewell Road, Woodhouse Eaves, and they are still a notable feature in the village. (See photograph No 008 by S. Young 2016)

The Hind Family built a house adjacent to their slate quarries at The Brand, this was later demolished by the Ellis family, reputedly because it was haunted (personal communication Colonel R Martin, current owner of the Brand), the new house at The Brand was built by the Ellis family on a new site using materials (much of it slate) recycled from the demolished building with additional slate being obtained from the Brand quarries as required (personal communication Colonel R Martin, current owner of the Brand). (See photograph No 101 by S. Young 2016)

According to Lord Stamford’s rent books of 1764 a Hind was leasing Bradgate Lodge house and yard (now known as Hallgates) which is near to the Great Pit of Swithland Woods. Buildings still stand that were the former Hind home, workshop, storage area and stables (The Leicestershire Industrial History Society Bulletin 18 - D.A. Ramsey -Early Slate Quarries North West Leicestershire 2007 page 38) (photo 320 by S. Young 2016)

Circa 1833/1834 two cottages were built at the new Groby slate quarry followed by six more at a cost of £64.10.0d and, later, a larger house for the quarry manager. There were apparently around 30 men employed in the quarry at this time. (Leicestershire Industrial History Society Bulletin 18 - D.A. Ramsey -Early Slate Quarries North West Leicestershire 2007 page 43)

**Working of Slate and its Technical Development**

CARVING:

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 carving have withstood time and weather extraordinarily well. (See gravestone Photographs 209-217 by S Young 2016). The stones were unpolished in early production, later being polished and inscribed or decorated on one side although often leaving a rough hewn back. A carved slate memorial to the slate workers of Swithland was erected in that village in the year 2,000 (see photograph 206 by S. Young 2016)

 TRANSPORT:

Initially slate was brought from the working faces by slate workers with wooden **wheel barrows** and used locally. (see detail on Danvers tomb photograph 217)

A **horse and cart** was the early method of transportation to more distant sites. When the Hind Family had a workshop at Hallgates circa 1740 they stabled many horses there, not only for delivering slate in the County, by horse and cart, but also to be used for the gins or whim gins. (Leicestershire Industrial History Society Bulletin 18 - D.A. Ramsey -Early Slate Quarries North West Leicestershire 2007 page38)

Later a local **canal** network (at the end of the 18th century) and **railways** were used to transport the slate but these also brought in the lighter and cheaper Welsh slates that eventually brought the Swithland slate industry to a close.

EXTRACTION:

In early times slate was dug out of the quarries in the winter by hand with pickaxes etc and then sprinkled with water and exposed to frost, in the spring and summer it was manually cleaved into slates. (Bob Osborne & Anne Horton – Swithland Church and Estate 2011 page 231)

**Around 1740 horses were employed to operate gin or whim gins at Swithland** Great pit using a mechanism that enabled a horse turning in circles to turn a drum thus **raising slate carts or pumping water**. (Leicestershire Industrial History Soc, bulletin 18. D. Ramsey, Early Slate Quarries Northwest Leicestershire 2007 page 38)

**Gunpowder** was an innovation introduced by the Hind family to facilitate the blasting of the rock from the quarry, allowing much deeper excavation of the rock. This probably occurred in around 1740. (Bob Osborne and Anne Horton – Swithland Church and Estate 2011 page 231)

In 1802 a quote from Nichols describing the Brand quarrying says that ‘the slate pits are very deep, extensive and employ a great many hands’. He continues that the blue slate is raised as block, first **blasted** from an almost seamless rock, this was known as **Drilling**. The blocks are then **cut with hand saws** and kept in proper state for the operation of sawing with constant supplies of sand and water’ (Photograph 105, 106 and 107 showing the blast protection area for workers and the slate face from which blasted material was removed. S. Young 2016) (Bob Osborne & Anne Horton – Swithland Church and Estate 2011 page 231)

The Groby works in 1833 had a **steam driven saw** that was used for window sills, doorsills and lintels as well as squared gateposts until in 1858 it exploded and caused a great deal of damage to Thomas Rudkin’s property. A **weighing machine and powder house** were also mentioned in a description of the Groby works at this time (Leicestershire Industrial History Society Bulletin 18 - D.A. Ramsey -Early Slate Quarries North West Leicestershire 2007 page 43). A replacement steam cutting machine was presumably obtained as the 1877 History and Gazetteer and Directory of Leicestershire and Rutland p68 says that the Groby Slate Pits slate…….yields “excellent slabs, into which it is sawn up by **steam**”

There is an original map drawn by John Iveson on 11th August 1813 showing Pollards Slate Quarry, Swithland (across the road from The Brand) showing that **cranes** were in use on the site. (ref D99/157 Leicestershire county records office See Photo No 123 by S. Young 2016) More recently at the same quarry **old winding gear** was found. A **45 degree ramp** had been cut into the quarry so heavy materials could be pulled from the bottom of the quarry to the top of the rim. (Leicestershire Industrial History Society Bulletin 18 - D.A. Ramsey -Early Slate Quarries North West Leicestershire 2007 pages 41/42)

In 1851 John and Joseph Ellis bought the Brand quarries from the Hinds and continued working for slate, they built **a steam water pump** in the tower at the Pike or Tower Water Quarry (see photo of the old tower where the pump was housed, photograph 110 by S.Young 2016). A **winch** was also installed on an extremely high platform built up the side of the quarry to enable the slate to be lifted to the quarry rim as the Tower pit got deeper. Flooding was to finally force this particular pit to close.

The slate quarries at Swithland never had mechanical saws. (Leicestershire Industrial History Society Bulletin 18 - D.A. Ramsey -Early Slate Quarries North West Leicestershire page 44)

In 1859 the Ellis’s re-opened the operations at the quarry in Swithland Woods using **‘modern methods and machinery’**. As the slate bed was almost vertical and 5m wide the quarry was worked to a depth of 60 metres hence the name ‘The Great Pit’. Once the blocks had been extracted, they were split, sawn and polished. (Annette McGrath Mercian Geologist 2006 16 (4))

**Annual Output**

# It is difficult to assess annual output in the early years of slate quarrying.

# As was mentioned previously, from the 17th Century there were landowners who offered leases to quarry on their land and the revenue claimed was often based on the reported tonnage quarried (see above).

# In 1807 the Earl of Stamford asked Robert Wyatt of Barton-under-Needwood to establish the genuine value of the Swithland and Groby slate produced by Henry Hind. He is quoted as saying:- ‘..it is extremely difficult to obtain a correct account of either the expenses or receipts, without working at the quarry for some time, as interested parties will not disclose them.’ At that time Wyatt considered £156 a fair rent including the slate quarry, Hind’s house and the land he was using. Hind responded that he would give back the property and then offering £100, which was eventually agreed. (Bob Osborne & Rev Anne Horton Swithland Church and Estate – 2011 pages 235/236)

# Accounts:

# Only one set of accounts has ever been discovered, from 1852/1853 for the Swithland and Groby Quarries. They were discovered at Enville Hall, Staffordshire the former home of the Earl of Stamford. (Reproduced, in their entirety, in The Leicestershire Industrial History Society Bulletin 18 D A Ramsey – Early Slate Quarries North West Leicestershire 2007 pages 54-77)

# From these accounts:-

# Swithland Slate Quarry sales show the main product being sold, primarily in the locality to Beaumont Leys, Thurcaston and other villages, as roadstones. Slabs and roadstones were the main quarry outputs from Groby.

# “Slate” sales were second only to the roadstone and slab sales at Swithland and Groby, we assume that these were roofing slates. From Swithland there were 98 sales of “slates”, from Groby only 12. These slates appear to have gone to private purchasers all around Leicestershire such as Pochin of Barkby Hall and Sir F Heygate of Roecliffe Manor.

# Other sales from the 2 sites included items such as slate slabs, ornamental stones, walling stones and soughing stones, cheese presses, cattle troughs, gate posts and there is even mention of a vermin trap stones for the Earl of Stamford! Sales recorded from Groby included ‘18 foot of stone for gravestones’ for Newtown Linford.

# Sources of Capital

# There have probably been, as detailed above, many quarries extracting “Swithland slate” over the centuries and it is possible that the majority were exploited for a time purely to meet a local need until around the 17th century. As one looks at the landscape today there seem to be many signs of small quarries in the local landscape. From the 17th century local Charnwood landowners started to lease the mineral extraction rights of their land and it appears that some families, such as the Hind and Ellis families, made good by taking and exploiting these leases. It was probably often those who worked in the slate mines who managed to accrue enough capital who then took a lease on a quarry, sometimes as a group, buying and selling part shares in the lease as time went by. A family such as the Hinds were involved for generations and so over their one hundred and sixty years of quarrying for slate generated their own wealth as attested by their tombstones and the records of local historians.

# Anecdotal:

# “Use Swithland slate to provide a fitting monument to king”

By [Leicester Mercury](http://www.leicestermercury.co.uk/people/Leicester%20Mercury/profile.html)  |  Posted: March 25, 2013 by Robert Parker, Wolverhampton.
Read more: <http://www.leicestermercury.co.uk/Use-Swithland-slate-provide-fitting-monument-king/story-18510670-detail/story.html#ixzz4AQiE91q8>
Follow us: [@Leicester\_Merc on Twitter](http://ec.tynt.com/b/rw?id=avcTPGh6er4411acwqm_6r&u=Leicester_Merc) | [leicestermercury on Facebook](http://ec.tynt.com/b/rf?id=avcTPGh6er4411acwqm_6r&u=leicestermercury)

 Here are a few more musings on Richard's monument-to-be.

I was just wondering if there would be any possibility of obtaining a sufficiently-sized slab of Leicestershire's glorious Swithland Slate.

I know that the famous quarries are now disused and reverting to nature, but the material would be so appropriate for his monument.

It was much used in the 18th and 19th centuries, not only for a superior roofing material, but also for thousands of beautifully-engraved monuments in the city and numerous Leicestershire churchyards.

I even seem to remember a story my mother told me of a Leicestershire saying: "You can pay for your funeral by selling your grandmother's gravestone", so highly was Swithland slate prized!

Read more: <http://www.leicestermercury.co.uk/Use-Swithland-slate-provide-fitting-monument-king/story-18510670-detail/story.html#ixzz4AQhzkhWt>