NORTHAMPTONSHIRE – COUNTY OF SPIRES

Charles Hiscock

Northamptonshire is not famed as one of the UK's holiday hotspots. In fact, when I said that we were going to the east of the county, two separate couples who hail from Northamptonshire looked askance at me and asked why were spending a holiday in the area – there was nothing to see or do. However, one of the reasons for going was that, when I did art and architecture at school (a long time ago!) the churches of Northants (to give it its 'short 'name) featured in my textbook, Cox and Ford's "The Parish Churches of England (1963) of which I still have a copy. Northamptonshire is called "The County of Spires" and indeed, it must have more spires than any other county. The other attraction of Northants was the varied geology and the extensive ironstone workings centered on Corby. Most of the ironstone deposits were worked out by the mid-20th century, leaving large deep excavations, many as lengthy trenches weaving their way across the countryside. Few remain, most having been landfilled but there are some still exposed. We had parked our caravan in a site near one of these old sites – from 7am to 4pm every weekday, lorries-full of waste from all over the Midlands entered full and left empty. An (unofficial) foray into the site after hours did not enable me to see much but a lump of ironstone from the Corby Ironstone Member demonstrating the 'boxstone' form was found. The name 'boxstone' derives from the formation of tough layers of goethite around softer cores of yellow, fine sandstone. A highly fossiliferous block containing as well as bivalves, the abundant brachiopod *Kallirhynchia Sharpi* (Fig 1) named after the noted local geologist, Samuel Sharp who lived near Northampton and wrote detailed accounts of the geology of the county published by the Geological Society of London in 1870 and 1873. The specimens were in the quarry but derived from the Blisworth Limestone which lies higher in the sequence.

One of the features of Northants that immediately became apparent was its similarity to the Cotswolds to the east of the western scarp. The villages are built from similar oolitic limestone with many cottages being thatched or roofed with Cottesmore tilestones. The land is extensively

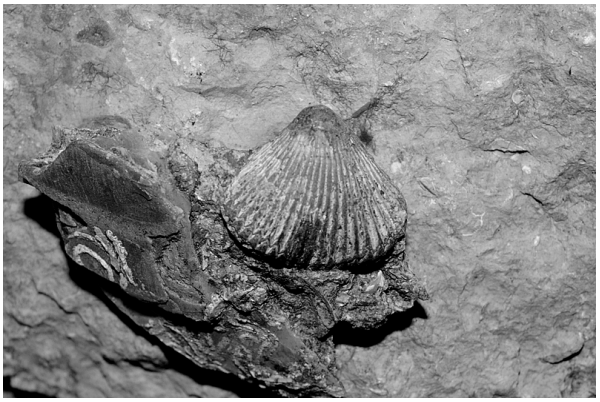


Fig 1: Kallirhynchia Sharpi

arable with large areas sown with cereals, mainly wheat and barley. The soil contains a high proportion of clasts of the underlying rocks which give good indications of the immediate geology. The other features we saw emphasised the differences from the Cotswolds in that the topography is gently undulating with none of the sudden steep sided coombes that give the Cotswolds those secret and hidden spots we are familiar with in this area. The types of stone used in the buildings is much paler yellow, almost greyish-cream, and yet the Northampton Sand Formation (which includes the Duston and Corby Limestone members) are dark yellow to brown ferruginous sandstone, much with limonite layers forming boxstones. Frequent fossils such as belemnites and bivalves can be found in the buildings. Locally, these building stones are called 'gingerbread stone' and they impart a unique attractiveness to the villages and towns such as Wellingborough, Rothwell and Rockingham (Fig 2) to name but three. It ought to be pointed out that a similar stone can be seen in the Cotswold scarp area called the Marlstone Rock and this can be seen extensively in the west of Northants. Like the Corby Ironstone and Duston members of the Northampton Sandstone Group, the Marlstone Rock Formation is also a calcareous ironstone with a similar fossil fauna.

Fig 2: Rockingham

A feature which is frequently seen in the Cotswolds – exposures of rocks in fields and on commons, hills and in the many old quarries is almost completely absent in Northants. Most that existed have long since been filled, overgrown or destroyed by the ironstone workings, so examining the geology in the field was a case of looking at the stones in the buildings. The abundance of local stone has meant that whole villages, particularly the buildings constructed up to the end of the 19th century, were built from the local pits or quarries. Therefore, the buildings can be used to identify the underlying geology particularly in areas where the pits and quarries have disappeared.

Stone has been used for building in the county since Roman times. Little now remains from before Saxon times but Northants can boast two of the finest Saxon churches in the UK. At Earls Barton (Fig 3) the 60ft high Saxon tower is built from Wellingborough Limestone with a pilaster framework of Barnack Ragstone.The latter was brought from quarries at Barnack near Peterborough and was used almost exclusively for Peterborough Cathedral during the Norman period. The other Saxon church is at Brixworth (Fig 4) north of Northampton and is completely from the period 750 – 850. Its construction shows extensive use of local sources of stone but also much recycling of materials from earlier Periods and outside the county. Many of the local stones are varieties of Northampton Sandstone and

Fig 3: The Saxon Tower at Earls Barton

Fig 4: The Saxon Church at Brixworth

Lincolnshire Limestone from the north-east end of the county, giving the church a beautiful honey-coloured hue. But, on looking closer at individual stones, one is in for a surprise. Forming the round arches of doors and the arches over the windows (originally entrances to the 'side aisles') are Roman bricks roughly set in lime mortar. Amongst the stones, particularly of the tower, can be seen igneous rocks. Their crystalline nature makes them stand out – pink and green diorites, granites and tuffs. Grey slates are also present as are Triassic sandstones. So, the conundrum presented to me was – where had all these 'exotics' come from? During our walks I noticed in the field brash round pebbles of quartzite, some flints and a few small fragments of igneous rocks but none similar in type or size to those found in Brixworth church. Northants has no igneous, metamorphic or Triassic rocks so one has to look further afield. My limited knowledge of that area of the Midlands told me that they had come from the Precambrian area of Leicestershire – Charnwood Forest and the Swithland area. Later, when reading the information leaflet on the church, my guess was confirmed. However, the archaeologists had found that these stones had been used previously in Roman Leicester – hence the widespread use in the church of Roman bricks, purloined from the ruins of the town

The Normans were particularly active in Northhamptonshire, having built many churches that have survived in part, with Holy Sepulchre, Northhampton being one of only two round Norman churches in England. Built in brown Northampton Sandstone, it is in the style of the Holy Sepulchre in Jerusalem as seen by the Crusaders. The other Norman church in the town is St Peter with very finely carved arcading.

The title of this article calls the county 'The County of and Spires'. Stand on any high ground (if you can find any) look around – you will see spires in all directions. All date from the Early English (1170-1300) or Decorated period (1300-1350) with notable examples at Higham Ferrers (Fig 5) and Oundle, both built in Blisworth Limestone but less ornate towers and spires are spread across the county.

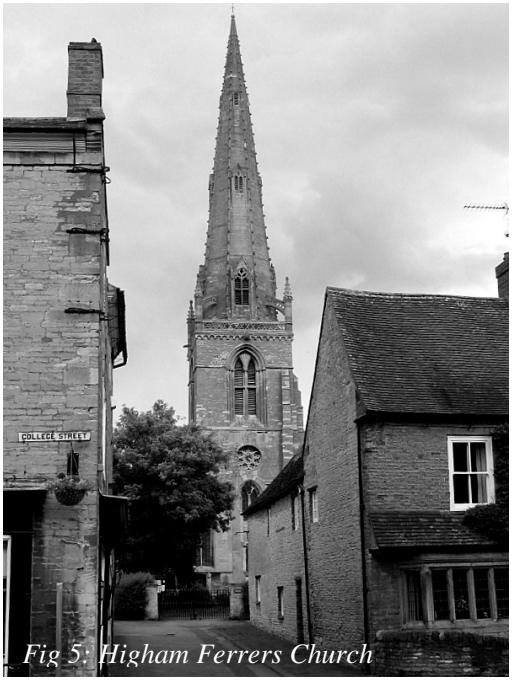


Fig 5: Higham Ferrers Church

One example of superb stonework is the Eleanor Cross at Geddington (Fig 6). When Queen Eleanor, wife of Edward the First, died in Lincolnshire her body was taken to London for burial in Westminster Abbey. The procession


Fig 6: Eleanor Cross, Geddington

stopped about every 30 miles and, at each town or village, a commemorative cross was erected. Only two remain in Northants - the other being in Northampton. The cross at Geddington is a supreme example of Early English carved tracery from Weldon Stone from near Corby and Stanion Stone, and is remarkable in its detail since it was erected in about 1295.

During the Perpendicular period (1350-1539) church architecture became increasingly elaborate and ornate. The parish church at Fotheringay (Fig 7) near Oundle is spectacular .It can be seen for miles and the tower is topped by an octagonal lantern – a smaller version of the lantern of Ely Cathedral. The church is all that is left of a much larger collegiate building, all constructed from a variety of limestones from reasonably close to the village.

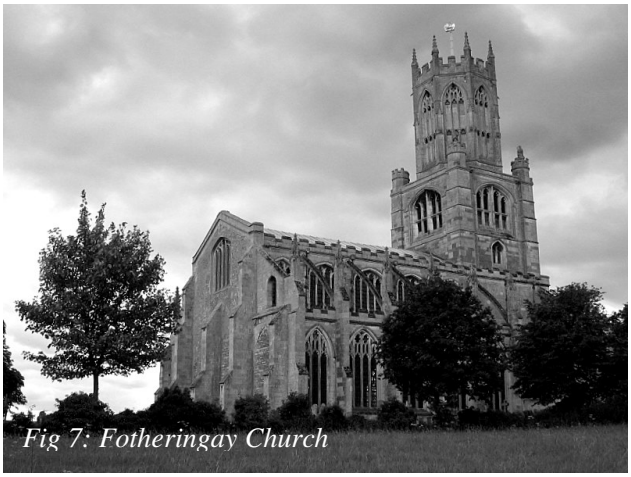


Fig 7: Fotheringay Church

Away from the churches, important buildings demonstrate the use of local stone throughout the centuries. A most unusual example is Triangular Lodge at Rushton, (Fig 8) North West of

Fig 8: Triangular Lodge, Rushton

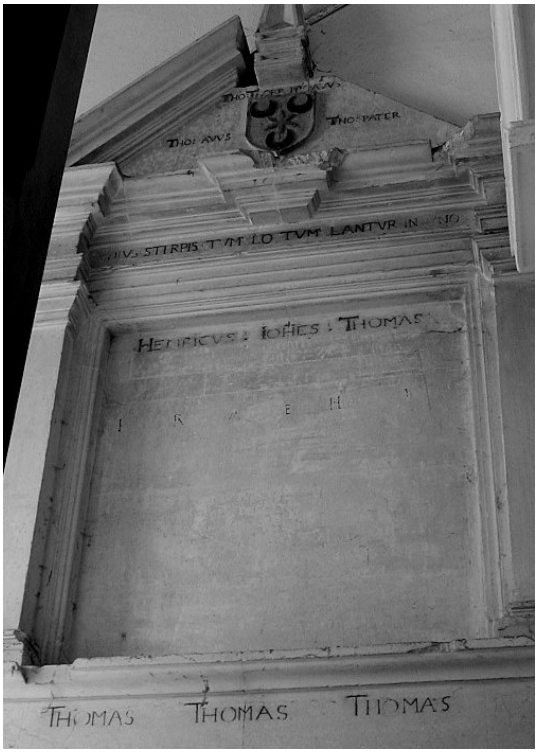
Wellingborough. Built from local Lincolnshire Limestone, ironstone and Weldon Stone, the floor plan is triangular with carved images, shapes, windows etc. all based on the triangle, referring to the Trinity in the Roman Catholic liturgy. The builder, Thomas Tresham, constructed it between 1594 and 1597 after he had been converted back to Roman Catholicism. At this time, to be a Roman Catholic was punishable by prison or death so he employed all his guile to incorporate references to the Trinity in the images on the lodge, some of which are still not understood. Considering he built it as a lodge for his warrener (keeper of rabbits) it is incredible that so much imagery was used in its construction. The fervent following of his faith governed so much of his life and this continued in his family. His son, Francis Tresham, was one of the Gunpowder Plot conspirators and was executed for his involvement. Another of Thomas Tresham's buildings is Lyveden New Bield (Fig 9) which is a

Fig 9: Lyveden New Bield

grand mansion with extensive landscaped grounds, this time built in the shape of a cross. When he died in 1605 after 11 years in prison, the construction stopped as the family was bankrupt through the immense fines that he had had to pay for following his faith. The house is built from Weldon stone the carved and dressed portions while the walls are of Blisworth Limestone, quarried near Oundle. After 400 years the house is in remarkably good condition. Again, references to the Trinity and his faith can be seen in the decoration.

A large number of the houses and cottages, many churches and even a lot of the town houses are roofed in Collyweston Slate from the Lower Lincolnshire Limestone of the north east of the county. In general, the slates follow the Cotswold pattern – small, square or rectangular ones near the ridge of the roof, gradually getting bigger towards the bottom edge. However, in contrast to the Stonesfield Slate of the Cotswolds, the Northants variety is much neater and flatter while the Cotswold roofs have a rougher and more rustic look.

In following our trail around Northamptonshire, it was interesting to see the gravestones of three of the many stonemasons who worked in the county. In the graveyard of Harlestone church, the chest tomb of James Whiting can be seen with the coat of arms of the Masons' Company carved on one end and, nearby, the gravestone of Tubalcain Lumley who died in 1749, one member of the Lumley family which operated in the area for over 250 years. In the north transept of Kingscliffe church the memorial to three generations of Thorpes, all called Thomas, can be seen. Carved and installed in 1623, it is curious that most of the inscription has been obliterated, leaving one line at the bottom which reads 'Thomas Thomas Thomas' with a line of latin script along the top and another within the pediment. It appears that the bishop (at what date is not known) had all but these three lines erased – were the Thorpes secretly or openly Roman Catholic? A fascinating question. Clearly, like the Lumleys of Harlestone, the Thorpe family was important for many generations.



Memorial to the Thomas Thorpes

Northamptonshire is rich in the diversity of building stones and this is reflected in their wide use across the county in the ecclesiastical and civic buildings of the villages and towns which have suffered least from modern development.

Sadly, most of the quarries have disappeared, many in the expansion of the ironstone industry which itself has now all but closed down. Our 'geology trail' was instigated by finding, in an Oundle bookshop, "Northamptonshire Stone" by Dr. Diane Sutherland (published 2003) which we used as our guide and source of information. Without the book, we would not have seen or appreciated the detail and background of the geology and building stones of the county. All the photographs are my own but the locations of many were taken from Dr. Sutherland's book.

On the title page of "Northampton Stone" is quoted John Morton from his "The Natural History of Northamptonshire" (1712) which is worthy of repeating because I cannot think of another county which surpasses Northamptonshire for the variety of stone used in the buildings. He wrote in 1712 " And no county in England affording a greater Variety of Quarry-Stone than this, or exceeding this in Goodness and Plenty of it, upon that account it deserves a more particular consideration." Sadly, this no longer applies to the quarries but the diversity, beauty and sumptuousness of the buildings bear witness to its past richness, in stone and in wealth. I thank Dr. Sutherland for providing such a readable and interesting source of facts which added so much to our stay in Northants.

It must be said that there are other attractions in the county that can add to holiday pleasures. The bird watching is very good on the River Nene marshes – walk down river from Irthlingborough Bridge to where large lagoons formed from dug-out gravel pits support a large number of bird species. In the east of the county one can catch a steam hauled train to Peterborough on the Nene Valley Railway which also has the largest number of continental rolling stock in the UK. If birds or trains are not your thing, visit Rothwell and its parish church where, for a small fee, you can climb down into the crypt to view the skulls and long bones of 3000 individuals of the 13th and 15th centuries. Their remains were dug out of the churchyard when it was decided that the ground was full and new space was needed. So, they were sealed in the crypt with the permission of the Pope of the time who ruled that only the skull and long leg bones need be re-interred. The county is also good for walking – no long steep hills but with an excellent footpath system. If you need other attractions, the bigger towns are full of interest, shops and eating places while threading their way across the county are canals such as the Grand Union. Go and see for yourself and maybe, stray over the county boundary into Leicestershire and visit Charnwood Forest and the Precambrian of the area.

Stratigraphy and Building Stones of Northamptonshire

Stage		***Building Stones***
Callovian	*Oxford Clay*	
	Kellaways Beds	
	Upper Cornbrash	
Bathonian	*Lower Cornbrash*	
	Great Oolite Limestone Group	*Blisworth Clay*
		BlisworthLimestone
	Rutland Fmn.	*Taynton Limestone*
		Wellingborough Limestone
		Stamford Member
Bajocian	*Lincolnshire Limestone Fmn.*	*Upper Lincolnshire Limestone*
		Lower Lincolnshire Limestone
	Grantham Fmn.	
	Northampton Sand Fmn.	*Duston Member*
		Corby Ironstone Member
Toarcian	*Whitby Mudstone Fmn.*	*(bricks)*
Pliensbachian	*Marlstone Rock Fmn.*	
	Dyrham Siltstone Fmn.	
	Charmouth Mudstone Fmn.	

Photographs by Charles Hiscock

ANOTHER HOWLER

Why would geologists study the tide before excavating*?*

• *They would have to predict when it is best to excavate so parts of the tunnel are not above water (i.e. between low tide and high tide).*

CLOSE ENCOUNTERS OF A BOVINE KIND

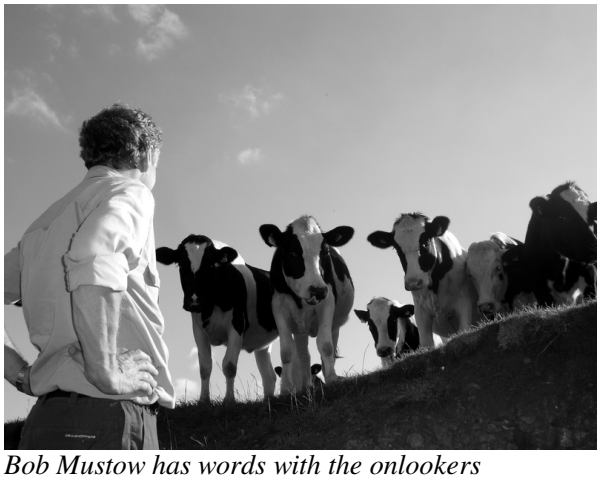
DORSET FIELD TRIP SEPTEMBER 2007

Unusual hazards encountered whilst hunting for fossils!

Linda Drummond-Harris

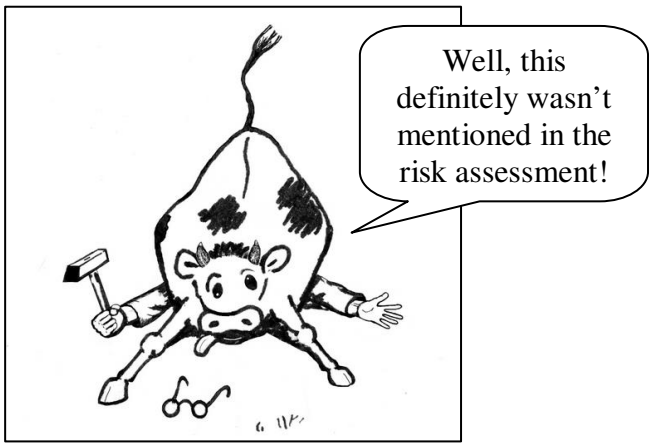
"The Bath Geological Society takes the safety of its members extremely seriously. The field-meeting leader is responsible for carrying out an assessment of significant risks and an Officer of the Bath GS committee for advising participants accordingly. Of course, participants are also accountable for their own safety and the safety information that is provided for each field meeting is designed to highlight this responsibility." *(Extract from the BGS safety assessment form)*

It isn't always possible to predict what one might encounter on a field trip, but this was a first for us. Bob Chandler took us to Louse Hill as part of the Dorset Field Trip weekend. In the middle of a field was a steep bank which had obviously been somewhat (illicitly) excavated, creating a slight overhang. We set to investigating the exposure and then became aware that we were being observed – by a herd of Friesian cows! These inquisitive creatures were standing on the edge of the bank looking down on us and, try as we might, we could not persuade them to move away. How the bank withstood their weight I do not know, but one could surmise on the wording of the local newspaper headline should the worst have come to the worst – FOSSIL-HUNTING GEOLOGIST FLATTENED BY FALLING COW, maybe?



Bob Mustow has words with the onlookers

Roger Southgate takes a chance



Photographs and illustration by L Drummond-Harris

YET MORE GEOLOGICAL HOWLERS

How could a landslide be stabilised on Mam Tor?

- *Spray –crete the face of Mam Tor*
- *Build a large granite wall to prevent it slipping into water which could potentially cause a tidal wave.*
- *Use graben baskets or large wire MESS netting*
- *Monitor the landslide with a seismometer which doesn't only record earthquakes but all seismic activity.*