



**Circular 370
April 2007**

Registered Charity No: 503617

President: John Travis

www.emgs.org.uk

INDOOR PROGRAMME **SPRING 2007**

Saturday 21st April 2007 - 6.30 pm

Geology and disease

Speaker: Professor Gerard Slavin

FIELD PROGRAMME **SUMMER 2007**

6th May 2007 - Day trip to Ketton Quarry

Meet 10.30 am

Leader: Alan Dawn

13th June 2007 - Evening Trip to the Hemlock Stone

Meet 6.45 pm

Leader: Gerry Shaw

11th July 2007 - Evening trip along the Manifold Valley

Meet 6.30 pm

Leader: Colin Bagshaw & Ian Sutton

15th July 2007 - Day trip to Cloud and Breedon Quarries

Meet 10.00 am

Leader: Keith Ambrose

1st-2nd September 2007 - Weekend trip to East Anglia

Leader: Richard Hamblin

29th September 2007 - Day trip to Stanage Edge

Meet 10.00 am

Leader: Fred Broadhurst

LECTURE VENUE

Indoor meetings will take place in lecture theatre B3 of the Biology building at the University of Nottingham. If you require to use the lift to B3, please speak to the security attendant who will assist you. B3 is equipped with induction loop hearing assistance. If you are attending meetings or joining a coach at the University of Nottingham, enter from the South Entrance on University Boulevard. Cars should be parked in the car park on the bend in the road just beyond the security point after Science Road. The entrance to the Biology building is at the right hand side of the rear of this car park.

Saturday 21st April 2007 - 6.30 pm

Geology and disease

Speaker: Professor Gerard Slavin (Barts & The London Hospitals Medical College)

Human sickness and death are clearly seen in association with geological catastrophes such as earthquakes or vulcanism, but these overt effects may also be felt at great distances from the event and the cause is not immediately apparent to those affected. More covert, but of major significance, persistent health effects occur reflecting geochemical environments with, for example, anomalies in the availability of essential biological trace elements or the presence of toxic elements in the food chain or groundwater supply. Such effects, in isolated communities, are often geographically localised and may be overcome in part by improved communications with a food supply drawn from a wider area. However, anthropogenic major distortions of the environment have occurred especially through industrialisation of manufacturing processes which amplify geochemical anomalies and these have resulted in public health disasters on epidemic scales in the 19th and 20th centuries.

FIELD PROGRAMME

6th May 2007 - Day trip to Ketton Quarry

Meeting point: Pit Lane Ketton at the geology trail Car Park at 10.30 am

Please remember to bring a packed lunch AND it is essential you have hard hats, strong waterproof boots and high visibility jackets/tabards.

Ketton has long been famous for an oolitic limestone, one of England's finest building stones. Stone production continues but the very extensive quarry workings are mainly for cement production (Castle Cement Ltd) from the Lincolnshire Limestone and overlying clays. A new extension to the quarry has exposed a virtually continuous succession of the highly fossiliferous Middle Jurassic. The higher units have been brought down by a series of faults whose geometry we hope to demonstrate.

13th June 2007 – Evening trip to the Hemlock Stone

Meet at Bramcote Leisure Centre, off A52 at 6.45 pm (Map OS Explorer 260 – ref: 455380)

A 3km walk along paths, with some uphill walking, for the purpose of examining Triassic outcrops and environs of our enigmatic Hemlockstone. Walk should finish about 9pm when we will retire to a local pub for revival! (Read Mercian Geologist 2002/15(3) and EMGS guide)

11th July 2007 - Evening trip along the Manifold Valley

Meet at SK 095581 at 6.30 pm

(From the village of Hartington take the B5054 towards Hulme End and at SK 106593 turn right onto the minor road, and after 200 yards or so at SK 105589 turn right again. Proceed to the road junction (SK 102587) and keep to the right. After 0.7 miles exactly park alongside the road in ample lay-by spaces at SK 095581).

For this easy evening walk we will follow the River Manifold from Apes Tor towards Wettonmill. This walk is situated along the western margin of the Derbyshire Dinantian massif and along the valley we will

encounter both the marginal facies of the platform and the deeper water basin facies. Adding to this the proximity of the Ecton Copper mines, the spectacular folding and the natural history delights of this part of the world in summer should allow us to have an enjoyable evening.

15th July 2007 - Day Trip to Cloud and Breedon Quarries

Meet at 11.30 am at Breedon Quarry - please remember to bring a packed lunch AND it is essential you have hard hats, strong waterproof boots and high visibility jackets/tabards.

The quarries are in Dinantian limestones almost entirely dolomitised. The rocks dip steeply to the west and are locally folded and overturned in Breedon quarry. Three formations are represented: the Early Chadian Milldale Limestone; the Holkerian to Asbian Cloud Hill Dolostone Formation and the Brigantian Ticknall Limestone Formation. Major unconformities separate the formations and we will be able to look at these. That between the Milldale Limestone and Cloud Hill Dolostone (about 10m years) saw a period of uplift and tilting which is well seen by differing dips in the two formations. The lower two formations are predominantly storm deposits and the carbonates are commonly separated by thin mudstone partings. The Ticknall Limestone is characterised by common emergent conditions with the development of palaeosols. In both quarries we can see massive mud-mound reefs. That in Breedon, in the Milldale Limestone, is assumed by analogy to Derbyshire, to be a Vaulsortian reef which formed in relatively deep water of around 250m depth. In Cloud Hill the reef is in the Cloud Hill Dolostone and formed a fringing reef to the carbonate platform, probably forming in water no greater than 100m depth. The rocks are fossiliferous and hopefully we will see a variety including brachiopods, crinoids, corals and possibly ammonoids and nautiloids. We should also see evidence of mineralisation in the form of calcite and galena. The calcite commonly occurs in voids and caves that are best developed in Breedon quarry. Also of great interest is the Triassic unconformity that is well seen in both quarries. Mudstones, sandstones and breccias overlie the unconformity and both quarries show caves that have been infilled with Triassic sediments. The one in Breedon is particularly spectacular. A second phase of mineralisation is associated with the unconformity with mainly copper minerals occurring.

29th September 2007 - Day trip to Stanage Edge

**Meet 10.00 am at Surprise View car park (charge to be paid) grid ref: SK252 801.
Please remember to bring a packed lunch.**

This is a circular walk via Millstone Edge and Higger Tor to Stanage Edge and back by Carl Wark. The distance is about 9 miles. The walk is generally easy but with some short steeper or rougher stretches. End of meeting about 4-5pm. Please take a packed lunch.

The geology includes features of the (Namurian) Chatsworth Grit, including fossil plants, cross-stratification, concretions, jointing and the development of tors. There is an Iron Age fort on the summit of Carl Walk. Numerous abandoned millstones will be seen.

Insurance and Safety

Members are reminded that the Society has only public liability insurance and that personal accident insurance is a matter for individual members to arrange as they consider necessary. Up to date hard hats are obligatory for all field excursions involving quarries or cliff faces and strongly recommended for all trips. High visibility clothing is usually required in working quarries. High visibility tabards can be purchased from the Society at a price of £3.00 (please see booking form for details). Members without suitable hard hats may be refused access to certain sites! Hard hats can be obtained from many Builders' Merchants, Wickes, B&Q Warehouse etc. for about £4.

Other Events

PRESS RELEASE

'Rock on' in the North Pennines AONB & Geopark

Northern Rocks 2007, running between 19 May and 3 June, is the fourth annual festival of North Pennines geology and landscape. The two weeks are packed with over 40 events and activities to help local people and visitors discover the geological heritage and stunning landscapes of the North Pennines AONB. Contact the AONB Partnership on 01388 528801 (or visit www.northpennines.org.uk) for a copy of the newly released programme.

Subscriptions

Subscriptions were due on 1st February 2007. The rates remain the same as last year. Members who do not pay by Standing Order could please consider doing this as it eases the administrative load. Please also consider paying your subscription by way of a Gift Aid declaration. It costs you nothing but benefits the Society considerably and helps to keep our subscription rates down.

Subscription rates are: £12.00 ordinary
 £15.00 joint membership
 £ 5.00 student membership

New Member

Miss Vanessa J Banks
Keyworth, Nottingham

EMGS Website

A plea for past EMGS Field Trip Photographs please for a gallery on the website. Pictures can be e-mailed to website@emgs.org.uk or sent to the Secretary.

Mercian Geologist

If any members have back issues of the Mercian which are now surplus to requirements, please could you contact our Secretary Janet Slatter as we frequently get requests for back issues which we are now unable to supply. Any help would be appreciated.

e-mail addresses

We would very much like to send you your Circular by e-mail. If you have not already done so, please send your e-mail address to the Circular Editor, sue.miles@freethcartwright.co.uk.

Please can you also confirm your name and address when sending your e-mail so we can correlate these details with our membership listing.

The next Circular will be published in July.

The next Council Meeting will be held on Tuesday 1st May 2007.

Secretary: Mrs Janet Slatter, 100 Main Street, Long Whatton, Loughborough, Leicestershire LE12 5DG
e-mail: j.slatter@zoom.co.uk. tel. no. 01509 843297

Treasurer: Mrs Christine Moore, The Steading, Main Road, Elvaston, Derby DE72 3EQ tel. no. 01332 573065.

EAST MIDLANDS GEOLOGICAL SOCIETY

BOOKING FORM - FIELD EXCURSIONS 2007

Please book me/us for the following excursions:

- Sunday, 6th May - Day trip to Ketton Quarry
- Wednesday, 13th June - Evening trip to the Hemlock Stone
- Wednesday, 11th July - Evening trip to the Manifold Valley
- Sunday, 15th July - Day trip to Cloud and Breedon Quarries
- Saturday/Sunday, 1-2 September - Weekend trip to East Anglia
- Saturday, 29th September - Day trip to Stanage Edge

*(Please delete the trips you will **NOT** be attending)*

Name(s):

Address:

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Tel:

e-mail address:

I/we do/do not have a car available.
I/we would be prepared to offer transport.

I/We would like to purchase High Visibility Tabards at a price of £3.00 each – PLEASE ENCLOSE A CHEQUE for the appropriate amount made payable to “East Midlands Geological Society”

Please send completed booking forms to the Field Secretary,
Ian Sutton, at 30 Alford Road, West Bridgford, Nottingham NG2 6GJ
Tel. No: 0115 923 2360 e-mail – ian.sutton@idsgeo.demon.co.uk
