



**Circular 354  
July 2004**

Registered Charity No: 503617

President: Ian Thomas

[www.emgs.org.uk](http://www.emgs.org.uk)

## **FIELD PROGRAMME - AUTUMN 2004**

**Saturday 18<sup>th</sup> September - PLEASE NOTE CHANGE OF DATE**

Day Excursion to The Charnwood Area  
Leader: John Carney (BGS)

## **INDOOR LECTURE PROGRAMME - AUTUMN 2004**

**Saturday 16<sup>th</sup> October 2004 - 6.30 pm**

**Recent Geoarchaeological Work in the Trent Valley: Prehistoric Lakes at Aston on Trent**  
Speaker: Dr Chris Salisbury

**Saturday 13<sup>th</sup> November 2004 - 6.30 pm**

**Building Stones of Northampton**  
Speaker: Diane Sutherland

**Saturday 11<sup>th</sup> December 2004 - 6.00 pm**

**Ethiopia**  
Speaker: Tony Waltham  
Followed by Christmas Buffet

### **LECTURE VENUE**

Meetings will take place in lecture theatre B3 of the Life Sciences (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 Life Sciences building is at the right hand side of the rear of this car park.

## **FIELD PROGRAMME**

### **Day Excursion to The Charnwood Area - Saturday 18<sup>th</sup> September**

This excursion will examine a wide variety of rocks that formed in different settings within the late Precambrian Charnian volcanic arc system. The morning visit will be to the 'old' Cliffe Hill Quarry. This is one of the very few places where 'Markfieldite' (South Charnwood Diorite) can be demonstrated to intrude the main Charnian volcanoclastic sequence. The volcanoclastic strata themselves show an interesting range of sedimentary structures, mainly attributed to their deep-water, turbidite-fan environment of deposition.

The afternoon visit will be to Whitwick Quarry, which exposes highly porphyritic dacites and dacite breccias of possible subvolcanic to intrusive origin. This quarry is now the only place where the Peldar Dacite Breccia can be examined, save in the walls of the nearby Mount Saint Bernard Monastery. This is a most unusual lithology, of possible peperite origin (ie formed by the injection of dacite into wet sediment). The northern part of the quarry demonstrates a complex belt of ductile shear zones, exhibiting both a lineation and a foliation. Across this tectonic contact, the Grimley Andesite is brought in and then, after another major ductile shear zone, the Sharpley Porphyritic Dacite. It will be seen that in early Triassic times one of the shear zones was preferentially eroded into a valley, subsequently filled by Mercia Mudstone strata which show calcretisation; we may be lucky enough to also find copper mineralisation near the base Triassic unconformity.

The Itinerary for this is as follows:

9.30 am        Meet at New Cliffe Hill, Midland Quarry Products Ltd reception offices, Battlefield Lane, Ellistown, Leicestershire (SK 4761 1024)

                  Move in MPQ vehicles to Old Cliffe Hill (to view in particular the eastern and northern faces)

LUNCH        Please make your own arrangements.

After lunch    Move to Whitwick Quarry - from entrance, along western side round to northern face. (SK 4504 1538).

**The numbers for the quarry visits are strictly limited, so it is advisable to book as early as possible.**

**Where a member has to cancel a booking it is requested that they contact Ian Sutton (0115 951 6516) as early as possible.**

### **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 sometimes required in working quarries. High visibility tabards can be obtained from GA Enterprises, 126 Fleetside, W. Molesey, Surrey KT8 2NQ at £4.70 incl. pp. 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.

## **INDOOR LECTURE PROGRAMME - AUTUMN 2004**

### **Recent Geoarchaeological Work in the Trent Valley: Prehistoric Lakes at Aston on Trent Saturday, 16<sup>th</sup> October**

The Trent flood plain between Kings Mill and Weston Cliff in Derbyshire is only 1.1 km wide. Immediately below this constriction, the plain widens to 11 km to accommodate additionally the discharge of the Derwent and the Soar. In the Neolithic/Bronze Age, or possibly earlier, part of this area was occupied by an extensive area of open water and swamp. A group of narrow lakes, about 0.5 km wide, lay between the modern Trent and the Aston Brook, and extended downstream from Kings Mill for about 2.5 km.

These lakes would have been a dominant feature in a unique prehistoric landscape, and may explain the concentration of ritual and sepulchral monuments on the north bank, including the Aston cursus, the Shardlow multiple ring ditch and a profusion of round (and possibly square) barrows. To the south, on the site of the Castle Donington power station, Bronze Age settlement is known. Moreover, the lakes would inevitably have formed a meeting place for travellers coming from the Upper Trent and its Tame and Dove tributaries, and those journeying further inland from the Derwent, Soar, Humber and ultimately from the North Sea. This suggests a regional significance for the site which forms a junction between lowland and highland Britain.

The former lakes are now infilled with mud, silt and sand deposits. Quarrying, which has already removed half the lake fill, has revealed two Middle Bronze Age logboats and fragments of a pile and brushwood causeway on a foundation of Bromsgrove Sandstone hardcore. One logboat is already on display in Derby Museum. Discoveries include wooden artefacts and evidence of quarrying and transport of massive stone blocks. So far 12 bronzes, including axes, spears and rapiers, have been recovered from the lake beds and accurately provenanced. They date from the Middle to Late Bronze Age. Bog-oaks give dates of 2942-2272BC. Radiocarbon estimations of small, round-wood samples from lake infill give dates ranging from 4720-915BC, and there is stratigraphical and sedimentary evidence of recurrent scouring of the lake beds by major flood events.

## **EAST MIDLANDS FIELD GUIDE**

Copies of the Society's **East Midlands Field Guide** (published jointly with the Geological Association) are still available, although they have been selling fast.

Members of EMGS may purchase these at a discount price of **£6.00**. To non-members the price is **£8.00**.

Copies are available by post on application to Ian Sutton at University of Nottingham Adult Education Centre, 14 Shakespeare Street, Nottingham NG1 4FQ. (**Please** add a postage and packing charge of £1). Copies are also available for sale at the Centre, from the Secretary or other Council members, or at the Society's Indoor or Field Meetings.

## **NOTTINGHAM UNIVERSITY - DEPARTMENT OF CONTINUING EDUCATION**

Programme of Geology Courses - Winter 2004.

### **Geology and Scenery**

Albert Horton

**University Adult Education Centre, Shakespeare Street**

Monday 4<sup>th</sup> October 2004

7.00 pm – 9.00 pm

15 meetings

**Landscapes**

Albert Horton

**University Adult Education Centre, Shakespeare Street**

Tuesday 5<sup>th</sup> October 2004

10.00 am – 12.00 pm

15 meetings

**Aspects of Practical Geology**

Ian Sutton

**Radcliffe on Trent: Methodist Church School Room, Shelford Road**

Monday 11<sup>th</sup> October 2004

7.00 pm – 9.00 pm

10 meetings

**Geology of Central and Eastern England**

Ian Sutton

**University Adult Education Centre, Shakespeare Street**

Friday 8<sup>th</sup> October 2004

10.00 am – 12.00 pm

15 meetings

**Extinction**

Gerry Shaw

**Jubilee Campus**

Tuesday 5<sup>th</sup> October 2004

7.00 – 9.00

15 meetings

**Rocks & Landscapes**

Lesley Dunn

**Newark Town Hall**

Thursday 14<sup>th</sup> October 2004

10.00 am – 12.00 pm

15 meetings

**Lectures & Field Courses of Other Organisations**

The Circular Editor has contact details for the representatives of other local Geological Societies who organise field trips and indoor meetings. Please ask her for details.

**New Members**

Dr Ted Blecher, Wollaton, Nottingham

Mr Alex Taylor, Chellaston, Derbyshire

Andy Smith, Allestree, Derby

## **Geological Journals**

One of our members, Bob Brown, has various geological journals which he no longer has storage space for. The ones available are as follows:

Quarterly Journal Geological Society 1950 – present;  
Proc Yorks Geol. Soc 1958 - present;  
Scottish Journal of Geology Volume 1 to present;  
Trans. Edinburgh Geological Society 1952 - 1963;  
Geology Today - Volume 3 to Volume 19

Please could you telephone or e-mail Bob (telephone number: 07866 689285 - e-mail address: [ROBERTEBROWN16@aol.com](mailto:ROBERTEBROWN16@aol.com) ) if you are interested in these and are prepared to collect them from Bob.

## **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](mailto: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 September/October 2004.**

**The next Council Meeting will be held on Wednesday 22<sup>nd</sup> September 2004.**

**Secretary:** Mrs Janet Slatter, 100 Main Street, Long Whatton, Loughborough, Leicestershire LE12 5DG  
e-mail: [j.slatter@zoom.co.uk](mailto:j.slatter@zoom.co.uk).

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

**EAST MIDLANDS GEOLOGICAL SOCIETY**

**BOOKING FORM - FIELD EXCURSIONS**

Please book me/us for the following excursion:

**Saturday, 18<sup>th</sup> September 2004 - full day excursion to the Charnwood area**

**Name(s):** .....

**Address:** .....

.....

**Tel:** .....

**e-mail address:** .....

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

**Please send completed booking forms to the Field Secretary,  
Ian Sutton, at University of Nottingham, Department of Continuing Education,  
14-22 Shakespeare Street, Nottingham NG1 4FQ  
Tel. No: 0115 951 6515. e-mail – [ian.Sutton@nottingham.ac.uk](mailto:ian.Sutton@nottingham.ac.uk)**

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