



**Circular 395
February 2012**

Registered Charity No: 503617

President: Tim Colman

www.emgs.org.uk

SPRING 2012
LECTURE PROGRAMME

Saturday, 10th March 2012 - 6.00 pm

Annual General Meeting, followed by:

New Zealand's Earthquakes

Speaker: Ian Sutton

Saturday, 21st April 2012 - 6.00 pm

Members' Evening

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.

SUMMER FIELD PROGRAMME 2012

Sunday, 20th May

Wren's Nest, Dudley and the Saltwells Local Nature Reserve

Leader: Graham Worton

Wednesday, 23rd May

Alstonefield area – evening walk.

Leader: Albert Benghiat

Wednesday, 20th June

The Rock Cemetery, Nottingham – evening walk

Leaders: Tim Colman and Neil Turner

Saturday 14th/Sunday 15th July

Weekend to the Mendips.

Lesder: Andy Farrant

Day Field Trips to be finalised

Lincolnshire Wolds area

Derbyshire with Peter Gutteridge

INDOOR LECTURES

Saturday, 10th March 2012 - 6.00 pm

ANNUAL GENERAL MEETING

A G E N D A

1. Apologies for absence;
2. Minutes of AGM held on 12th March 2011;
3. Matters Arising;
4. Secretary's Report;
5. Treasurer's Report;
6. Annual subscriptions;
7. Appointment of Auditor;
8. Editorial Report;
9. Election of Officers for 2012;
If there are no other nominations, it will be proposed from the chair that the following will serve:

President	- Brian Jones;
Vice-President	- Tim Colman;
Secretary	- Janet Slatter;
Treasurer	- Colin Bagshaw;
Editor	- Tony Waltham.
10. Election for Council 2012
Re-election - Keith Ambrose, David Bate, Sue Cotton, Gerry Shaw
New Members – Vanessa Banks, Albert Benghiat, Richard Hamblin, Sue Miles plus 2 vacancies;
11. Vote of thanks to retiring Council members;
12. Any Other Business.

The Minutes of the last AGM and the Treasurer's Report will be distributed at the meeting, followed by:

New Zealand's Earthquakes (6.30 pm)

New Zealand's early settlers first experienced a major earthquake with the magnitude of 7.5 in the 1848 Marlborough Earthquake. This caused much devastation in the developing settlement of Wellington. Soon after this, in 1855, the 8.2 magnitude Wairapa Earthquake with an epicentre in Palliser Bay just to the south-east of Wellington also caused much destruction in the capital. Since then over 20 earthquakes of greater than 7 magnitude have occurred. Each year many thousands of minor tremors occur in New Zealand.

The plate tectonic setting of New Zealand will help to explain the reasons for the abundant tectonic activity and many of the major historic earthquakes will be reviewed, including the 2010 Christchurch Earthquake and its aftershocks.

In September 2010 a 7.3 magnitude shallow focus earthquake shook Christchurch causing considerable damage. From then and throughout 2011 a vast number of aftershocks have occurred, none more destructive and with a major loss of life than the 22nd February 2011 event. This had a magnitude of 6.3 but the severity of this earthquake on Christchurch can be explained by the epicentre on the outskirts of the city and at a very shallow focal depth.

Saturday, 21st April 2012 - 6.00 pm

Members' Evening

Title: BRITPITS – The BGS Mines and Quarries Database

Speakers: D G Cameron, G Nixon and E Raycraft, BGS Keyworth

Abstract: A national database of mine and quarry information has been part of the Geological Survey since its earliest days. In 1845, at the invitation of Sir Henry De la Beche, Director of the Geological Survey of Great Britain, Robert Hunt went to London and took up the post of Keeper of the Mining Records of the Survey. When the Government School of Mines was established in 1851 he was made a Lecturer on Mechanical Science and then Lecturer on Physics. Part II of the *Mineral Statistics of the United Kingdom of Great Britain and Ireland for the Year 1858* 'Hunt's Statistics' was produced in 1860. This attempted to be '*Embracing Clays, Bricks &c., Building and Other Stones with Sundry Earthy Minerals*'. In a Notice at the beginning the then Director Roderick Impey Murchison said '*The present publication is the result of a first attempt on the part of Mr Robert Hunt to collect returns of the produce of the Clay Works and Quarries of the United Kingdom. Though a large amount of useful information has been obtained, it must be admitted that this branch of our Mineral Statistics is, as yet, far from complete. Let us hope, however, that the work now issued may lead many persons who have withheld information, to render the next edition more worthy of public attention.*' This was based on figures gathered in 1858 for production by each commodity, and the complaint of the Director has been echoed by compilers down the years.

As was the norm in those days, the 'database' resided in a series of books, listing active workings, published yearly, firstly by the Geological Survey and later by the Inspectors of Mines - a List of Mines and a List of Quarries. The List of Quarries continued until 1948, although lists were produced by HSE and other bodies. The List of Mines was taken over by the Colliery Managers Journal and published as Guide to the Coalfields which lasted until the 1990s. In 1984, BGS decided to publish a Directory of Mines and Quarries (DMQ), listing some 2,500 active mineral workings and their operators, together with, for the first time, the body of rock worked at the site.

The DMQ has subsequently been produced initially Bi-annually, and latterly tri-annually, up until the latest edition covering 2010. At the same time steps were taken to design a digital database (BRITPITS) to store the data. At first this was just the active sites, however it was seen that holding records of ceased operations would assist to some degree the minerals planning process, especially when the database could be incorporated in a Geographic Information System. At the present moment the BGS BRITPITS database holds around 152,000 records covering mineral workings in the UK. The database has been used to provide baseline information for mineral resource maps for planners, and is currently used by the English Heritage Strategic Stone Study project to locate Building Stone Quarries. BGS makes some of this data available through its website, and in the future all of these sites will be visible on the web. Data collection is still continuing and, once there is a baseline coverage of the country, it is hoped that revision of the data will allow early records to be brought up to the standard of those collected today.

Title: The Legacy of Mining at Alderley Edge, Cheshire

Speaker: Geoff Warrington

Abstract: Alderley Edge is the main site in the Cheshire Basin where base metal mineralisation occurs in Triassic Sherwood Sandstone Group (SSG) rocks. It is a Geological SSSI where the SSG occurs in a horst that is an exhumed structural trap formerly covered by a seal of younger Triassic (Mercia Mudstone Group) deposits. The mineralisation and its host rocks may be studied in unweathered 3D situations in over 15 km. of disused mine workings. These are in three parts that from East to West give access to host rocks of different facies at successively higher levels in the SSG. Voids left by mining reflect the influence of both structure and facies on the nature of the ore bodies that formed from migrating fluids. By analogy, they aid visualization of the influence of these factors on other migrating fluids, such as hydrocarbons – affording the opportunity to ‘step inside a reservoir’.

Title: The Upper Greensand of the Haldon Hills

Speaker: Richard Hamblin

After graduating from Durham I worked for Exeter University for three years, on a contract from the Natural Environment Research Council to re-survey the Teignmouth 1” geological sheet for the Institute of Geological Sciences (later British Geological Survey). I mapped the Haldon Hills, formed from the Teignmouth Breccias (Permian), Upper Greensand (Cretaceous) and Haldon Gravels (Palaeocene). I did a PhD concentrating largely on the Haldon Gravels, but I also carried out a seismic survey of the Upper Greensand. This revealed quite remarkable variations of thickness of the formation from 16m to 84m, and I explained these as the result of down-folding of the basement during deposition of the Upper Greensand. This theory was not widely believed at the time, but was confirmed later by measurement of temporary sections formed during the building of the new A38 and A380 roads. The story then moves forward 40 years and in 2010 I was asked to lead the Quaternary Research Association on a field trip to examine the Haldon Gravels. Whilst there I discovered a further interesting fact about the Upper Greensand! I have since found out why the QRA wanted to look at gravels which were formed 60,000,000 years before the start of the Quaternary, but the interesting fact about the Upper Greensand is still unexplained

SUBSCRIPTION RATES FOR 2012

Please note the subscription rates are now as follows:

Ordinary member - £18.00

Joint member - £22.00

If you have not yet done so, please let the Treasurer have your subscription as soon as possible, and if you pay by standing order please make sure that you have asked your bank to increase the payment.

Other Events

Nottingham Geotours - Programme for 2012

Cretaceous and glacial geology of North Norfolk

23rd - 26th April 2012

Geological tour of the North West USA

5th - 25th June 2012

Geology of Angus and Fife

23rd - 28th September 2012

Further information from Ian Sutton on 0115 923 2360 or ian.sutton035@btinternet.com

New Members

Mr Joshua Peake, Braunstone, Leicester

Information for Other Societies

We hold information of lectures and field meetings for other local societies such as the NSSGA, Black Country Geological Society and Leicester Lit & Phil Society. If you would like details of any of these, please contact the Secretary.

Society Publications

- (1) **Leicester Building Stones Guide;**
- (2) **East Midlands Field Guide;**
- (3) **Sandstone Caves of Nottingham** (new full colour edition)

Copies available by contacting the Secretary or at Indoor Meetings.

EMGS Website

The publications page on the Society website (www.emgs.org.uk) has been tidied up and updated. It now includes links to two archives:

One is the archive of the early Mercian Geologists where scanned copies of complete issues are being diligently prepared thanks to the hard work of David Bate. This is still being added to (with successive volumes) and will eventually reach volume 12 for 1991.

The other is the archive of papers and reports in the more recent issues. These will go onto the webpage two years after they appear in the paper issues of the Mercian. Currently only the 2009 material is online, but files will be extracted and posted, working backwards as far as 1992, and this takes time. Files for 2010 onwards are already prepared and will go online on their second birthday.

Marketing the Society's Publications

We are still in need of a volunteer to promote the marketing of the Society's publications such as the East Midlands Field Guide, Leicester Building Stones Guide and the Sandstone Caves of Nottingham books. If you have any expertise in this field, or even if you haven't but would like to volunteer to help, please contact the secretary or any other member of Council.

The National Stone Centre

Are looking for volunteers for guiding and other activities on the site at Wirksworth. If you can help, please contact Ian Thomas on 01629 824833 or ian@nationalstonecentre.org.uk

e-mail addresses

To minimise postal costs and photocopying charges which amount to approximately £4.00 each year for every member who still receives their Circular by post, 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 early May 2012.

The next Council Meeting will be held on 28th February 2012.

Secretary: Mrs Janet Slatter, 100 Main Street, Long Whatton, Loughborough, Leicestershire LE12 5DG e-mail: janet.slatter@btinternet.com . tel. no. 01509 843297.

Treasurer: Mr Colin Bagshaw, 150 Scalpcliffe Road, Burton-on-Trent, Staffordshire DE15 9AD, e-mail: Colin.bagshaw@yahoo.co.uk tel. no. 01283 564520

EAST MIDLANDS GEOLOGICAL SOCIETY

BOOKING FORM - FIELD EXCURSIONS 2012

Please book me/us for the following excursions:

Sunday, 20 th May	Day Excursion to Wren's Nest, Dudley
Wednesday, 23 rd May	Evening Walk – Alstonefield Area
Wednesday, 20 th June	Evening Walk – The Rock Cemetery, Nottm
Saturday/Sunday, 14 th - 15 th July	Weekend to the Mendips
Date to be arranged	Lincolnshire Wolds area
Date to be arranged	Derbyshire with Peter Gutteridge

(Please delete those 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.

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.sutton035@btinternet.com
