



**Circular 422
December 2016**

Registered Charity No: 503617

President: Vanessa Banks

www.emgs.org.uk

WINTER 2016/2017
LECTURE PROGRAMME

Saturday, 10th December 2016 – 6.00 pm

**Dr Tom Dijkstra, Loughborough University & British Geological Survey –
Geohazards in Central China; landslides in loess and the 2010 Zhouqu debris flow
disaster**

*(To be followed by our Christmas Cheese and Wine Evening £5.00 – please
remember to bring a glass).*

Saturday, 14th January 2017 – 6.00 pm

**Andrew Bloodworth, British Geological Survey – The secret life of your mobile
phone: metal supply and digital devices**

Saturday, 11th February 2017 – 6.00 pm

Dr Vanessa Banks, British Geological Survey

Presidential Address: Hydrogeology of the Peak District

*(The Lecture will be followed by the Society's Annual Dinner – Booking form
attached).*

Saturday, 11th March 2017 – 6.00 pm

AGM followed by

**Dr Adam Smith, Nottingham Natural History Museum – Swimming Plesiosaurs and
flying dinosaurs – vertebrate palaeontology at Wollaton Hall**

Saturday, 8th April 2017 – 6.00 pm

Dr Julie Prytulak, Imperial College, London – The Biggest Volcano on Earth

LECTURE VENUE

Indoor meetings are now held in the School of Geography on the Nottingham University campus which is in the Sir Clive Granger Building. Enter the University by the North Entrance, off the A52, and follow signs to the main Visitor Car Park. As you enter the car park, the Sir Clive Granger building is on your left.

The Society is indebted to the School of Geography at the University, who are sponsoring our lectures, for the use of these facilities.

Saturday, 10th December 2016 – 6.00 pm

Dr Tom Dijkstra

Geohazards in Central China; landslides in loess and the 2010 Zhouqu debris flow disaster

China is all too often in the news as a result of geohazards that have a severe impact on lives and livelihoods. The mountainous terrain of Central China is subject to frequent hazards of high intensity such as the 2010 Zhouqu debris flow that destroyed more than 200 buildings and killed more than 1,500 people. Rapid economic development brings with it expansion of urban centres and infrastructure networks, which not only increases the exposure of the population to natural processes of a dynamic environment, but can also lead to further strains on a landscape that is only marginally stable.

Frequent geohazard events have sparked much research in an effort to better understand processes and material properties that can be used to inform and implement effective strategies to mitigate against the negative consequences of these geohazards. Owing to their location along the eastern margins of the Tibetan Plateau the provinces of Gansu, Sichuan and Yunnan are particularly affected by geohazards. This tectonically active region is strongly affected by continuing uplift and, towards the east and NE, crustal stress release has resulted in the formation of some very large systems of NNE-SSW- and WNW-ESE-trending strike-slip and thrust fault zones. Differences in relative uplift and displacement along these faults have had a significant impact on the present physiography of Central China. Several important geohazard regions can be distinguished, and in this presentation geohazard issues will be highlighted for two regions: landslides in the loess plateau of the Lanzhou region and the debris flows in mountainous fringes along the north-eastern and eastern margins of the Tibetan Plateau.

Saturday, 14th January 2017 – 6.00 pm

Andrew Bloodworth, British Geological Survey - The secret life of your mobile phone: metal supply and digital devices

Up until the mid-20th Century very few metallic elements in the Periodic Table had any practical use. Since then mankind has broadened its pallet of useful metals enormously to take in so-called 'rare' or 'critical' or 'exotic' or 'technology' materials, including rare earth elements, platinum group elements and others, from beryllium to zirconium. This expansion has been pulled along by the development of new digital technologies and their almost magical appeal to billions of consumers across the globe.

This talk uses the ubiquitous mobile phone to illustrate the importance of these metals and to explore issues around supply security and 'criticality'. This will include a look at ideas related to metal supply from geological and other sources and may challenge some commonly held assumptions relating to non-renewable mineral resources and physical scarcity. It will also look at the human factors that influence metal availability and the environmental limits to our conspicuous consumption of these vital raw materials.

Saturday, 11th February 2017 – 6.00 pm
Dr Vanessa Banks, British Geological Survey
Presidential Address: Hydrogeology of the Peak District

Groundwater systems can be thought of in terms of catchments that incorporate recharge, through-flow and discharge. This approach can be applied at a range of scales, i.e. local, intermediate and regional flow systems. This presentation will consider the underpinning geological factors in these models and assess their relevance to River Basin Management Planning and of the value of the water resources in the Peak District for supply, leisure and ecosystem services.

Transport Help Needed

We have several long standing members of the Society who can no longer attend meetings due to transport difficulties. If anyone would be prepared to offer help with this, please could they let the Secretary have their details.

New Members

Mr John & Mrs Lorna Richardson, Nottingham
Mr Andy Gaunt, Lincolnshire

Society Publications

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

Copies available by contacting the Secretary or at Indoor Meetings.

Mercian Geologist – Back numbers

Do you need any back numbers of the Mercian to fill a gap in your collection?

The scanning of every single issue of the Mercian Geologist that the Society has published is now complete. As soon as they are all accessible through the Society's website the stocks of back numbers that the Secretary currently holds will be disposed of although a complete set of hard copies will of course be kept for archive purposes. So please contact the Secretary Janet Slatter at secretary@emgs.org.uk or on 01509 843297 if you have any gaps that you want to fill

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.

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 the huge task of diligently scanning and preparing copies of all the back issues has now been completed thanks to the hard work of David Bate. These will soon, if they are not already, all be accessible through the Society's website.

The other is the archive of papers and reports in the more recent issues. These will go into the webpage one year after they appear in the paper issues of the Mercian. All papers 2000 to 2014 are already in the online free archive.

Costs of the Circular

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@freeths.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 January 2017.

The next Council Meeting will be held on 17th January 2017.

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

53rd Anniversary Dinner **11th February 2017 at 7.45 pm**

The 53rd Anniversary Dinner will be held at Bramleys Brasserie in the Orchard Hotel on the University Campus after the Presidential Address. The hotel is very close to the lecture venue and there is ample parking and easy level access. There will be a complimentary drinks reception before the meal and a three course dinner with tea or coffee to follow. The price for the meal will be **£28.00** per person.

MENU

Starter

- A. Goats Cheese on Toast, Truffle Honey. Hazelnuts (v)
- B. Crayfish Salad, soft boiled egg, Marie Rose Sauce (G)
- C. Pork, Apricot and Green Peppercorn Terrine, Bramley Apple Chutney

Main Course

- A. Beef, Oxtail and Ale Stew, Sage and Onion Dumplings
- B. Roast Salmon, Orzo Pasta, Chorizo and Pesto
- C. Moroccan Spiced Falafels, warm Date and Almond Couscous Salad (V)

Dessert

- A. Sticky Toffee Pudding, Salted Caramel, Banana Ice Cream
- B. Cinnamon Rice Pudding, Caramelised Apples (G)
- C. Whisky Egg Nog Brulee, Vanilla Shortbread

Tea and Coffee

(V) – suitable for vegetarian

(G) – gluten free

Also if you have any particular allergies, please mention this on the attached booking form.

Please indicate your choice of starter, main course and dessert below.

Booking form for 53rd Anniversary Dinner

Please reserve places

My/our choice of three courses are as follows:

Starter(s):

Main Course(s):

Dessert(s):

Name(s) & Tel. Nos:

.....

.....

Cheque made payable to EMGS enclosed for £

Please send to: Ian Sutton at 30 Alford Road, West Bridgford, Nottingham NG2 6GJ

Tel. No: 0115 923 2360. E-mail: ian.sutton035@btinternet.com