



**Circular 352
January 2004**

Registered Charity No: 50361

President: Ian Thomas

www.emgs.org.uk

WINTER PROGRAMME

INDOOR LECTURE PROGRAMME

Saturday 11th January 2004 - 6.30 pm

The Geology of Bottled Water

Speaker: Professor John Mather (Royal Holloway, University of London)

Saturday, 7th February 2004 - 6.30 pm

President's Evening Celebrating 40 years of the EMGS

To be followed by the Annual Dinner. Booking form enclosed.

Saturday, 13th March 2004 - 6.00 pm - AGM followed by Lecture at 6.30 pm

Recent Earthquakes in the English Midlands

Speaker: Dr Brian Baptie (BGS, Edinburgh)

Saturday, 20th March 2004 (2.00 pm)

Geological Hazards and Disasters

Speakers:

Nick Riley (BGS) who will speak about the geological sequestration of carbon dioxide and Phil Allen (Production Geoscience Ltd) who will speak about the Sole Pit impact structure – the only impact crater found in the British Isles area

Joint meeting with the Yorkshire Geological Society at the British Geological Survey, Keyworth

Saturday, 3rd April 2004 - 6.30 pm

The Life and Work of Alfred Wegener

Speaker: Dr Clare Dudman

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.

INDOOR LECTURE PROGRAMME - WINTER 2003

11th January 2004 - The Geology of Bottled Water

Almost all bottled water is groundwater derived from springs or boreholes. Groundwater comes in turn from rainfall with small contributions from formation waters preserved in pore spaces within water-bearing rocks such as the Chalk. This rainfall becomes mineralised as it moves through the soil and the underlying bedrock. The water-rock interactions which take place will be outlined and a range of bottled waters examined to trace their origins. They range from waters which are very close to rainfall in composition to mineralised waters such as Vichy and Badoit from France. Finally, in a more light-hearted vein, the marketing gimmicks employed by the bottled water industry will be reviewed.

7th February 2004 - President's Address Celebrating 40 years of the EMGS

The East Midlands, although the most difficult of all English regions to define, has now been formalised officially. Whereas the boundaries pay no regard to geology they do embrace tremendous geological variety. It is just this richness which endows the region with character in its landscapes and townscapes, in the inventiveness and industry of past generations, in its farming patterns, its continuing considerable contribution to the UK and even in its traditional customs. The Presidential Lecture will take an holistic perspective, examining how apparent disparate themes interrelate through geology.

The Society was founded in 1964 and we are hoping in this our 40th Anniversary Year that as many as possible of the past Presidents, Officers and members of the Society will be able to attend our special Celebration Dinner to be held at the University Club after the Presidential Address. A Booking Form and further details will appear in our next Circular to be published in early January 2004.

13th March 2004 - AGM & lecture Recent Earthquakes in the English Midlands

Over the last five years, three significant earthquakes have struck the English Midlands that were widely felt and caused significant public concern. These were the magnitude 4.2 ML Warwick earthquake in 2000, the magnitude 4.1 ML Melton Mowbray earthquake in 2001 and the magnitude 4.7 ML Dudley earthquake. Both the Warwick and Dudley earthquakes occurred within the Midlands Microcraton, a stable basement block of Proterozoic crust that dominates much of Southern Britain and generally exhibits low levels of seismicity. The Melton Mowbray earthquake occurred at the northeast margin of this block. Data recorded on the UK Seismograph Network operated by the British Geological Survey, had been used to determine accurate source parameters for these earthquakes and examine the relationship with local geology. Neither the Warwick nor Melton Mowbray earthquakes were followed by recorded aftershocks. The Dudley earthquake had only two small aftershocks, suggesting a near-complete release of the accumulated strain by these earthquakes. Earthquake source mechanisms for Warwick and Melton Mowbray, obtained using first motion polarities, suggest normal faulting along a northwest-southeast fault plane. The mechanism for Dudley suggests strike-slip faulting along either a north-south or east-west fault plane. Although it is difficult to map each of these earthquakes with causative faults, it seems likely that they can be associated with important, basin controlling faults that extend into the basement. The similarities in source depth for all three earthquakes provide evidence of larger earthquakes within the UK occurring at mid-crustal depths, near the base of a seismogenic zone.

ANNUAL GENERAL MEETING - 13th March 2004

AGENDA

1. Apologies for absence;
2. Minutes of AGM held on 8/3/2003;
3. Matters Arising from those Minutes;
4. Secretary's Report;
5. Treasurer's Report;
6. Appointment of Auditor;
7. Editorial Report;
8. Election of Officers for 2004;
(If there are no other nominations, it will be proposed from the chair that the following will serve:
President - Ian Thomas;
Vice-President - Tony Morris;
Secretary - (vacancy);
Treasurer - Mrs C Moore;
Editor - Dr Tony Waltham.
9. Election of Council for 2004;
10. Vote of thanks to retiring Council members;
11. Any Other Business.

The Minutes of the last AGM and the Treasurer's Report will be distributed at the meeting.

3rd April 2004 - The Life and Work of Alfred Wegener

The theory of Continental Drift, one of the most important revolutionary ideas of the twentieth century, is well known, but the extraordinary life of its chief proponent, Alfred Wegener, remains much more obscure. Apart from defending his theory from widespread ridicule, Alfred Wegener was a versatile scientist, developing theories in other scientific fields which were subsequently also accepted. But during his life time, he was more famous as an Arctic explorer and aeronaut. He was almost fatally wounded in the First World War and died heroically on the Greenland ice sheet in 1930 aged just 50.

This illustrated talk will be a journey through his life with particular emphasis on the development of his theory of continental drift and his struggle for its acceptance. The speaker will use both Wegener's and her own photographs which she took as she followed in his footsteps as research for her novel based on his life: *Wegener's Jigsaw*.

Insurance

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! Suitable hard hats can be obtained from many Builders' Merchants, Wickes, B&Q Warehouse etc. for about £4. Where a member has to cancel a booking it is requested that they contact Ian Sutton (0115 951 6516) as early as possible.

Subscriptions

Subscriptions are due on 1st February 2004. The rates remain the same as last year. Members who do not pay by Standing Order will find a payment slip enclosed and a suggestion to pay by this method if you are a tax payer. 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. Again, a Gift Aid form is enclosed.

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

New Members

Mr C Marshall, West Bridgford
Mr R J Clarkson, Allestree, Derby
Mr & Mrs B Armitage, Allestree, Derby
Mr S D Rice, Shepshed, Loughborough
Mr Peter Beastall
Mr Richard Mabe
Mrs Dawn Churchill

EAST MIDLANDS FIELD GUIDE

The Society's **East Midlands Field Guide** published jointly with the Geological Association is now on sale.

Members of the 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. Copies are also available for sale to members in person at the Centre, or from the Secretary or other Council members.

(Please note: there will be a postage and packing charge of £1 for posting if this is requested - please add the appropriate amount to your cheque)

Copies will also be available for sale to members at Indoor Meetings and on sale at various other outlets including the National Stone Centre at Wirksworth.

Other Notices

Lectures & Field Courses of Other Organisations

STAMFORD

Stamford Geological Society

Wednesday, 13th January 2004 - Dr Michael Crow, formerly of BGS "Sumatra, and the break-up of Gondwanaland"

Wednesday, 11th February 2004 - Dr Tony Waltham "Aralsk to Huanglong - geological treats across Central Asia".

LEICESTER

Leicester Literary & Philosophical Society

Monday, 12th January 2004 - Dr Jane A Evans of NERC Isotope Geosciences Lab, BGS, Keyworth: "You are what you eat... isotope studies and migration".

Wednesday, 14th January 2004 - Dr Graham Weedon, Dept. of Environment, Geography and Geology, University of Luton: "From climate change to time scales: examples from the Jurassic in England".

Wednesday, 28th January 2004 - Dr Diana Sutherland, Mears Ashby, Northampton: "Geology above ground in Northamptonshire".

WEST MIDLANDS

The Black Country Geological Society

Monday, 26th January 2004 - Dr Paul Smith, Lapworth Museum, University of Birmingham: "You can take a cow to water the evolution of whales".

Monday, 29th March 2004 - AGM followed by Mike Williams and Andrew Rochelle "The Geology of the Longmynd, Priors Holt and the Knills area".

FIELD TRIPS

University of Nottingham Field Study Tours 2004

9th to 14th May - Pembrokeshire
11th to 13th June - North Wales
3rd to 24th August - Alaska, the Yukon and British Columbia

For details, please contact Ian Sutton at University of Nottingham Adult Education Centre, 14 Shakespeare Street, Nottingham NG1 4FQ, telephone number: 0115 951 6515.

e-mail addresses

If you have not already let us have your e-mail address, please consider doing this so we can send your Circular by that means. The format is exactly the same whether you receive the Circular by post or by e-mail. It would be of great benefit to the Society (and the Circular Editor!) if more members would be prepared to receive their Circular this way. Please, therefore, could members send their e-mail addresses to the Circular Editor, Sue Miles at sue.miles@freethcartwright.co.uk.

It would be helpful if you could also confirm your name and address with your e-mail address so we can correlate these details with our membership listing.

The next Circular will be published in early April 2004.

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