



Circular 355
October 2004

Registered Charity No: 503617

President: Ian Thomas

www.emgs.org.uk

INDOOR LECTURE PROGRAMME - 2004/2005

Saturday 16th October 2004 - 6.30 pm

Volcanoes of the Inner Hebrides

Speaker: Dr Ian Sutton

**** PLEASE NOTE THIS LECTURE IS A CHANGE FROM THE PREVIOUSLY ADVERTISED PROGRAMME. DR CHRIS SALISBURY'S LECTURE HAS BEEN POSTPONED TO A LATER DATE****

Saturday 13th November 2004 - 6.30 pm

The Building Stones of Northamptonshire

Speaker: Dr Diana Sutherland

Saturday 11th December 2004 - 6.00 pm

Extension Tectonics in the Afar Triangle

Speaker: Dr Tony Waltham

Followed by Christmas Buffet - *please remember to bring a wine glass*

Saturday 8th January 2005 - 6.30 pm

Ice Age Art at Creswell Crags - Its Relevance and Context

Speaker: Ian Wall (Creswell Heritage Trust)

Saturday 5th February 2005 - 6.30 pm

Presidential Address - Details to follow

To be followed by the Annual Dinner

Saturday 5th March 2005 - 6.00 pm - AGM followed by

The Dating Game - One Man's Search for the Age of the Earth

Speaker: Dr Cherry Lewis (University of Bristol)

INDOOR LECTURE PROGRAMME - AUTUMN 2004

Saturday, 16th October 2004

“Volcanoes of the Inner Hebrides”

In the early Tertiary, the last volcanic activity to occur in the British Isles took place along the western seaboard of Scotland. Volcanoes erupted from a number of centres and basaltic plateau lavas were widespread. Linked to the volcanic centres, much intrusive activity has left behind an array of plutons, ring dykes, cone sheets, sills and quite famous dyke swarms. The aim of the lecture is to explain the reasons for this volcanism and to take you to the area in the springtime to enjoy the beautifully displayed geological features and a little of the natural history.

Saturday, 13th November 2004

“The building Stones of Northamptonshire

Stone villages across Northamptonshire display a surprising variety of Jurassic building stones, from rusty ironstones to pale limestones. Village stone is found to be very local and can be read like a geological map. Geological exposures may be rare but the widely available building stones facilitate an appreciation of the changing palaeogeography of the region. Ironstone occurs at more than one geological horizon, but the Lower Jurassic Marlstone Rock often contains fossils which distinguish it from ironstone of the Middle Jurassic Northampton Sand. The latter formation also includes ferruginous sandstones, widely used as building stone. Several different limestones occur in the Middle Jurassic, recognisable by their textures and regional distribution; among the various rocks were some that provided freestones, transported further afield for elegant houses. Lincolnshire Limestone from Weldon and King's Cliffe went to build Cambridge colleges; the well known Collyweston Slate comes from the base of that formation in northern Northamptonshire. Wellingborough Limestone from the Rutland Formation is continuous with the Taynton Limestone Formation of the Cotswolds and yielded the historic Helmdon Stone. The Blisworth Limestone was a common building stone along its outcrop and a source of freestone at Cosgrove, Raunds and Oundle.

Saturday 11th December

“Extension Tectonics in the Afar Triangle”

Where the African Rift Valley meets the Red Sea, the triple junction of divergent plate boundaries has constructed the Afar Triangle, now occupied by parts of Ethiopia and Djibouti. The barren desert terrain displays some fine features of divergence tectonics and volcanism. Active rift valleys enclose the Lake Assal depression, Ardoukoba volcano and the Lake Abhe basin with its myriad tufa towers. The Danakil depression is floored by salt lakes far below sea level, around the basaltic Erte Ale volcano which contains a small active lava lake; a journey to it is a minor epic.

Saturday 8th January 2005

Ice Age Art at Creswell Crags - Its Relevance and Context

The recent discoveries of Ice Age rock art at Creswell Crags, the only British example of parietal art from this period, took the archaeological world by storm in 2003. Since these initial finds, the research team have continued to add to the range and number of depicted figures leading to the claim that Creswell Crags now contains one of the most significant sculptured cave ceilings in the world. This lecture explores the background and results of this fascinating research programme and the archaeological context of these earlier discoveries.

Saturday 5th February 2005
Presidential Address

Details to follow.

Saturday 5th March 2005
AGM followed by
The Dating Game - One Man's Search for the Age of the Earth

The lecture recounts the story of Arthur Holmes' life, from the terraced house in Gateshead where he grew up, through Gateshead High School, to his time studying physics at the Royal College of Science in London. From the work of Kelvin and the discovery of radioactivity that gave the lie to Kelvin's age for the Earth, the lecture will follow Holmes' pioneering research on the development of dating methods, documenting the setbacks as well as the successes. Through the application of contemporary cutting-edge analytical work, Holmes demonstrated the great antiquity of the Earth, providing a basis for the now familiar timescale. The lecture will also give an insight into his personal life and troubles, such as the problems that beset him when prospecting for minerals in Mozambique, the tragedy that befell him in Burma, and his long-term relationship with Doris Reynolds, who eventually became his wife.

EAST MIDLANDS FIELD GUIDE

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

Copies are available for sale from the Secretary or other Council members, or at the Society's Indoor or Field Meetings.

Lectures & Field Meetings of Other Organisations

The Secretary or the Circular Editor have contact details for the representatives of other local Geological Societies who organise field trips and indoor meetings. Please ask one of them for details.

New Members

Mr Keith Jervis, Mickleover, Derby.

William Smith's Map

EMGS members may like to know that William Smith's great map of the Strata of England and Wales is now available in two forms. First published in 1815 it was compiled at a scale of 5 miles to 1 inch from 15 hand-coloured sheets, mounted on linen (a separate 16th sheet gave the stratigraphic column) variously available rolled, mounted on battens, folded or in atlas form. Several hundred (about 400 according to some researchers, less according to others) were produced over a period of four years, with revisions to individual sheets at intervals meaning that the final compilations differ somewhat, and boundaries and colours do not always match at sheet joins. The original measured 8 feet 6 inches by 6 feet 2 inches.

The British Geological Survey have published a roughly half-size version, available for £15 from the Sales Desk at Keyworth.

For those with access to a good colour printer, the set of 15 sheets is available on the Web, with the full compilation on a separate sheet, and the stratigraphic column also on a separate sheet. The historian of geology, Cecil Schneer of the University of New Hampshire, USA, has added a few pages of commentary.

Compilation map on [http:// www.unh.edu/esci/map/jpg](http://www.unh.edu/esci/map/jpg)

Stratigraphic table on [http:// www.unh.edu/esci/graph.jpg](http://www.unh.edu/esci/graph.jpg)

With explanation on [http:// www.unh.edu/esci/tableexplan.html](http://www.unh.edu/esci/tableexplan.html)

Commentary on [http:// www.unh.edu/esci/mapexplan.html](http://www.unh.edu/esci/mapexplan.html)

Map sheets on [http:// www.unh.edu/Schneer/01sm.jpg](http://www.unh.edu/Schneer/01sm.jpg) with 02, 03 15 for the other sheets.

William Smith's memoir on *Strata identified by Organized Fossils* (1816) is also available on the Web with commentary from Cecil Schneer. The original was issued in four parts ranging from the Crag (Pliocene) down to the Oolites and Fullers Earth (Middle Jurassic). A projected further three parts were never published. Each stratum is covered in two or three text pages with a hand-coloured plate of typical fossils. Each unit is done separately on the Web - start with [http:// www.unh.edu/esci/Schneer](http://www.unh.edu/esci/Schneer) followed by various numerals for individual web sites. There are about 50 pages in total, about a dozen in colour.

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 December 2004.

The next Council Meeting will be held on Wednesday 24th November 2004.

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