



**Circular 387
September 2010**

Registered Charity No: 503617

President: Tim Colman

www.emgs.org.uk

FIELD PROGRAMME
AUTUMN 2010

Sunday, 17th October - Guided Visit to the National Coal Mining Museum at Wakefield

There are still places available for this visit. If you have already booked and are unable to go please will you let Ian Sutton know

The essential information about the visit is as follows

Finding the museum. The Museum is located on the A642 between Wakefield and Huddersfield. The suggested route from the M1 is to leave the M1 at junction 38 Take the A637 towards Huddersfield for approximately 5 miles and at the junction with the A642 turn right towards Wakefield and the museum is situated a short distance along this road. Brown sign posts can be followed from the M1. For those of you using Sat Navs the postcode is WF4 4RH.

Arrival. Please arrive at the museum by 12.30pm. We will have a conducted tour underground which we expect will commence about 1pm. It is easy going in the mine – it has disabled access. On our visit underground we will be accompanied by a guide and also Paul Guion who has much expertise and experience as a geologist working in mines.

Lunch. A café is available and serves snacks and meals.

Clothing. The temperature is 56F underground so bring suitable clothing. A helmet and lamp will be provided, but please ensure you wear stout shoes.

Length of visit. We expect that you will wish to spend a total of at least 3 hours at the museum as there is much of interest on the surface as well as underground. The Museum opening hours are 10.00 am to 5.00 pm.

Sunday, 31st October - Afternoon Visit to Chatsworth House

Leader: Ian Thomas

Those attending should please assemble at the North Entrance Gates at 1.00pm. We aim to finish the visit by 5.15pm. **Please note:** there is a **car parking** charge of **£2.00** and group entry charges will apply. New applicants should please indicate whether they are Adults/OAPs/Students/Children.

We have a full complement already booked into this visit, but you may apply to go on the waiting list and you will be contacted if a place becomes available.

PLEASE COMPLETE THE ATTACHED BOOKING FORM FOR THE FIELD TRIPS AND RETURN TO IAN SUTTON

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.

Any non-members attending field excursions will have to pay a temporary membership fee of £2.00 and all participants are reminded that they must comply with any instructions from excursion leaders or, for example, quarry managers or their employees on Health & Safety issues.

WINTER 2010/2011
LECTURE PROGRAMME

Saturday, 23rd October 2010 - 6.30 pm

Going Underground: in search of Carboniferous coal forests

Speaker: Howard Falcon-Long

Saturday, 20th November 2010 - 6.30 pm

The Jurassic Coast: a walk through time

Speaker: Sam Scriven

Saturday, 11th December 2010 - 6.00 pm

(to be followed by the Christmas Buffet)

The Earth after us

Speaker: Jan Zalasiewicz

Saturday, 15th January 2011 - 6.00 pm

Britain in the Freezer - a long term perspective of Quaternary Ice Ages

Speaker: Jonathan Lee

Saturday, 12th February 2011 - 6.00 pm

(To be followed by the Society's Annual Dinner)

The last 50 years of Mineral Exploration in Britain

Speaker: Tim Colman

Saturday, 12th March 2011 - 6.30 pm

Multiphase in Volcanoes

Speaker: Barry Azzopardi

Saturday, 16th April 2011 - 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.

INDOOR LECTURES

Saturday, 23rd October 2010 - 6.30 pm

Going underground: in search of Carboniferous coal forests.

The development of coal forests during the Carboniferous is one of the best-known episodes in the history of life. Although often reconstructed as steamy tropical rainforests, these ancient ecosystems were a far cry from anything we might encounter today. Giant club mosses, horsetails and tree ferns were the dominant plants, not flowering trees as in modern rainforests. At their height, coal forests stretched all the way from Kansas to Kazakhstan, spanning the entire breadth of tropical Pangea. Most of what we know of their biodiversity and ecology has been learned from two centuries of coal mining; without coal mining, our knowledge would be greatly impoverished. Over the past few years we have been exploring underground coal mines in the United States, where entire forested landscapes have been preserved intact over huge areas. Never before have geologists had the opportunity to walk through mile upon mile of fossilized forest.

Saturday, 20th November 2010 - 6.30 pm

The Jurassic Coast: a walk through time

Sam Scriven grew up only a few miles away from the Jurassic Coast and it is where he developed his interest in geology and fossils. After gaining a Masters in Geology from the University of Plymouth, he worked as an assistant warden and geologist at the Charmouth Heritage Coast Centre for four years. The experience he gained there in geological interpretation led him on to the position of Earth Science Adviser for the Jurassic Coast. He has always been determined to work in geological conservation and interpretation and feels privileged to be able to work along the coastline that he loves and that inspired him to study geology in the first place. As the Earth Science Adviser, Sam helps develop interpretation for the team and its partners and co-ordinates input into several events along the World Heritage Site. Sam's work also takes him away from the coast where he assists in the monitoring and interpretation of important geological sites inland.

The Jurassic Coast was given World Heritage Status in 2001 because of its unique record of Mesozoic strata. We will look in detail at this astonishing record covering 185 million years of Earth's history following the environmental changes, the resulting sediments deposited and the fossils that give testimony to the evolution of life through the Triassic, Jurassic and Cretaceous. We will finish by looking at how the coast is managed and the impacts of the World Heritage Status.

Saturday, 11th December 2010 - 6.00 pm

The Earth after us

What traces will be left of human civilization, in the far geological future? There may be little of our handiwork left, then, at the surface. But the Earth's history is a 4.6 billion narrative that can be teased out, forensically, by the geologist from many clues preserved in the strata of this planet. It is a story of glaciations and global greenhouses, of the rise and destruction of mountain belts, of the evolution of life-forms both enigmatic - as the *Charnia* fauna, say - and familiar. Within this enormous history, what position can the brief history of humans have? This talk will consider the evidence, and the story, that might emerge as alien visitors explore the Earth, one hundred million years in the future.

Saturday, 15th January 2011 - 6.00 pm

Britain in the Freezer - a long term perspective of Quaternary Ice Ages

Previous research has demonstrated that Britain was glaciated on several occasions over the past 500,000 years. Prior to 500,000 years ago, comparatively little is known about the scale and frequency of glaciation, or indeed, whether we really had glaciers in the British landscape. However, there is good evidence from Scandinavia and the Nordic Seas that northern Europe was glaciated frequently during this time interval. Why does our record here in Britain appear to be different? Does it reflect differences in the climatic response of Britain to other areas of northern Europe? Within this talk, we examine new evidence for the long-term glacial history of Britain and compare it to the record of other areas of northern Europe to attempt to answer these questions.

Saturday, 12th February 2011 - 6.00 pm

The last 50 years of Mineral Exploration in Britain

Mineral exploration in Britain faces unusual challenges: privately owned mineral rights whose ownership is frequently unknown, no Ministry of Mines, with mineral developments being administered by a variety of Ministries, and a small island where every hectare is precious to somebody!

Nevertheless over one hundred UK and overseas companies have carried out exploration projects for a variety of metals and deposit types in Britain over the past 50 years. Several have resulted in mines and there are currently at least five projects which may soon develop into mines for gold, tungsten, tin, copper or zinc.

The talk will describe how the exploration focus changed from uranium and lead in the 1950s to copper and tin in the 1960s then to nickel and fluorspar in the early 1970s before a hiatus in the mid to late 1970s. Gold has been the main target from the 1980s to the present day.

Saturday, 12th March 2011 - 6.30 pm

Multiphase in Volcanoes

The behaviour of volcanoes is driven by gas/magma mixture within it. A simple description was given by Bonney more than 110 years ago. However, it is only recently that disciplines with multiphase flow expertise have been drawn into the field. The work at Nottingham focuses on two aspects of volcano behaviour. In the first, there is the recent observation that volcanoes emit infrasound. Though this is not audible, it can be recorded and analysed. However, though volcanoes have different signatures, there is not the knowledge base to interpret this. To provide that knowledge base we have set up columns with

viscous liquids through which we bubble gas. I will report on what we are observing. The second activity relates to those cases where, as well as the main vent emitting magma, there is a side vent. We have proposed an explanation and have carried out modelling studies which predict the field observations well.

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.

We are still looking for volunteers please in the Leicester area to help in distributing the Leicester Building Stones Guide. If you can help, please contact the Secretary (details below).

EMGS Website

A plea for past EMGS Field Trip Photographs please for a gallery on the website. Pictures can be e-mailed to website@emgs.org.uk or sent to the Secretary.

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 November 2010.

The next Council Meeting will be held on 4th November 2010.

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 2010

Please book me/us for the following excursions:

Sunday, 17th October - Guided visit to Coal Mining Museum, Wakefield

Sunday, 31st October - Afternoon Visit to Chatsworth House
(application for a place on the waiting list)

(Please delete those you will NOT be attending)

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 30 Alford Road, West Bridgford, Nottingham NG2 6GJ
Tel. No: 0115 923 2360 e-mail – ian.sutton@idsgeo.demon.co.uk
