



**Circular 372**  
**September 2007**

Registered Charity No: 503617

President: John Travis

[www.emgs.org.uk](http://www.emgs.org.uk)

## **FIELD PROGRAMME** **SUMMER 2007**

### **29<sup>th</sup> September 2007 – Day trip to Stanage Edge**

**Leader: Fred Broadhurst**

**Location: Millstone Edge, Stanage Edge**

**Meet 10.00 am at Surprise View car park on A625 (charge to be paid) grid ref: SK252 801.** Please note that there are no toilets here, the nearest toilets are in Hathersage just over 1km to the west down the A625. We shall return to the car park for lunch and there will be time then to drive down to Hathersage.

**Please remember to bring a packed lunch.**

The meeting will comprise two walks. A short morning walk (about 2.5km), and a longer afternoon walk of about 10km. Participants are welcome to attend both, or just one of the walks!

The morning walk will start at about 10.00 am, the afternoon walk about 1.30 pm. The meeting should finish about 5.00 pm.

Both (easy) walks will visit outcrops of the Namurian Chatsworth Grit. Depositional and post-depositional features of this formation will be discussed with reference to bedding, lithology, plant fossils, carbonate concretions, and jointing. The topographic control by geology will be pointed out. Numerous millstones will be seen and we shall walk through the Iron Age fort of Carl Wark. There are plenty of photographic opportunities.

### **BOOKING**

If any members who have not already booked wish to join this excursion, they should contact the Field Secretary, Ian Sutton, on 0115 923 2360.

### **CANCELLATION**

If a member has to cancel a booking, please can they similarly contact Ian Sutton, as early as possible on the above number.

### **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 usually required in working quarries. High visibility tabards can be purchased from the Society at a price of £3.00 (please see booking form for details). 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.

## **INDOOR MEETINGS** **AUTUMN/WINTER 2007**

**Saturday 13<sup>th</sup> October 2007 - 6.30 pm**

**The History of Scafell Caldera: a dramatisation**

**Speaker: Professor Peter Kokelaar (University of Liverpool)**

**Saturday 17<sup>th</sup> November 2007 - 6.30 pm**

**Geodiversity and Education in Leicestershire and Rutland**

**Speaker: Keith Ambrose (BGS Keyworth)**

**Saturday 15<sup>th</sup> December 2007 - 6.00 pm**

**Ultimate Quaternary - the Geology of Hawaii**

**Speaker: Dr Richard Hamblin (ex BGS Keyworth)**

**(to be followed by the Christmas Cheese & Wine evening)**

**Saturday 12<sup>th</sup> January 2008 - 6.30 pm**

**Marie Stopes: Sex, lies and fossil plants**

**Speaker: Dr Howard Falcon-Lang (University of Bristol)**

**Saturday 9<sup>th</sup> or 16<sup>th</sup> February 2008 (date to be confirmed in next Circular) 6.00 pm**

**The Foundation Lecture followed by the Annual Society Dinner.**

**Saturday 8<sup>th</sup> March 2008**

**Members Evening**

**Saturday 19<sup>th</sup> April 2008**

**Midlands Influences on William Smith**

**Speaker: Peter Banham**

## 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.

### AUTUMN/WINTER 2007 INDOOR MEETINGS

**Saturday 13<sup>th</sup> October 2007 - 6.30 pm**

#### The History of Scafell Caldera: a dramatisation

**Speaker: Professor Peter Kikelaar (University of Liverpool)**

Scafell caldera volcano, in the Ordovician Borrowdale Volcanic Group of the English Lake District, is almost uniquely well exposed in 3-D. The rocks reveal a complete cycle of continental volcano evolution, from early emplacement of lavas and sills, through escalating explosive activity accompanied by several caldera-collapse events, and ending with caldera-lake sedimentation punctuated by further dramatic explosive activity. Detailed fieldwork has led to this ancient caldera volcano becoming perhaps as well known as any, and it certainly has provided insights into volcanic processes that are not well recorded or accessible to study elsewhere. Some phenomena deduced at Scafell hint that the past may have been, at times, even more exciting than at present!

**Saturday 17<sup>th</sup> November 2007 - 6.30 pm**

#### Geodiversity and education in Leicestershire and Rutland

**Speaker: Keith Ambrose (BGS Keyworth)**

The term 'geodiversity' will be defined, drawing on several definitions that have seen the meaning broaden considerably. We shall then go on to look at the wonderful geodiversity that Leicestershire and Rutland have to offer, much of which can be seen today. Starting 600 million years ago in the Precambrian, when Charnwood Forest was part of an island arc with explosive volcanoes, we move on through the quiet Cambrian seas, through the Caledonian Orogeny when Charnwood was turned into a mountain range and then into the Carboniferous, when the area was lapped by tropical seas followed by rain forests. During the Triassic, there were arid conditions; the area was initially washed by a major northward flowing river system, but then became a large desert with deposition of mainly windblown dust. In the following 140 million years or so (Jurassic and Cretaceous periods), Leicestershire and Rutland were almost continuously submerged by a warm sea. Following the mass extinction at the end of the Cretaceous, the area saw much uplift and erosion but with one final twist - the Pleistocene ice ages. During the Anglian, the two counties were completely submerged by ice which left behind large tracts of glacial deposits. By contrast, during the last (Devensian) ice age, no ice covered the area but the associated permafrost and glacial meltwater helped shape the present landscape. The final part of the talk looks at the geodiversity work that has been undertaken in the two counties during the last four years, with a variety of projects focussed mainly on education at all ages. These include the installation of interpretation boards, creation of education packs, geological walks and the making of two DVD's from which you will see clips.

**Saturday 15<sup>th</sup> December 2007 - 6.00 pm**

**Ultimate Quaternary – the geology of Hawaii**

**Speaker: Dr Richard Hamblin (ex BGS Keyworth)**

This talk follows a visit to Hawaii last February organised by Nottingham Geotours. The Hawaiian Islands group lies in the middle of the Pacific Ocean, 2500 miles from the nearest continental landmass. The islands are created within the Pacific Plate above a hot spot in the mantle, but as the hot spot remains stationary and the Pacific Plate moves to the north-west, each island moves away from the hot spot and a new island is created. As the islands move, they also sink and become eroded. The result is a string of islands and submerged sea-mounts extending as far as the Aleutian Trench to the north. Here the seamounts are subducted, after a life of around 50 million years.

There are eight main inhabited islands concentrated at the south-east end of the group. The newest island, currently situated over the 'hot spot', is the 'Big Island' of Hawaii, and the geology here is spectacular. Kilauea is the world's most active volcano, Mauna Kea is the tallest mountain on Earth, rising almost 32000 feet from the floor of the ocean, and Mauna Loa is the biggest mountain on Earth, having a volume greater than the whole of the Sierra Nevada mountain range. The rocks are all varieties of basalt, resulting from continuous eruptions of generally fluid lavas giving rise to huge 'shield' volcanoes. The basalts do however vary in composition, largely as a result of mineral settlement within the magma, and the more acid magmas can give rise to quite violent eruptions, particularly if circulating groundwater comes into contact with the magma. Fortunately during our visit the eruptions were quiet and continuous and we were able to walk close to the flowing molten lava. We also saw evidence of massive landslides that occur where the basalts become unstable around the coast, and these landslides give rise to tsunamis on a grand scale.

The island of Maui is the second youngest of the main islands, and comprises two distinct volcanoes joined by a low isthmus. The oldest basalts above sea level are nearly two million years old, and the youngest erupted around 1790 AD, so more eruptions are expected. We also visited the island of Kauai, which is the oldest and most deeply eroded of the inhabited islands. It is the most heavily vegetated island and generally considered to be the most lovely; it has been the setting for many films including South Pacific and the Jurassic Park series. It was built up as a single shield volcano, 5 to 6 million years old, but since much modified by erosion and massive landslides.

**Saturday 12<sup>th</sup> January 2008 - 6.30 pm**

**Marie Stopes: sex, lies and fossil plants**

**Speaker: Dr Howard Falcon-Lang (University of Bristol)**

Marie Stopes (1880-1958) requires little introduction. She was one of the most flamboyant and influential figures of the twentieth century and, in 1999, Guardian readers voted her Woman of the Millennium in recognition of her pioneering work on birth control. Far less well known is the fact that Stopes trained as a geologist, and her work in palaeobotany remained her life-long passion. Although Stopes has been the subject of four previous biographies, none of these works address her geological career. In this talk I uncover the secret life of Marie Stopes and rediscover her major contributions to Earth sciences.

**MEMBERS EVENING - MARCH 2008**

The first Members' Evening in March 2007 was considered to be a great success. We are therefore proposing to have another Members' Evening following the AGM next March.

Presentations should last for a maximum of 15 minutes. PowerPoint, 35mm slides or overhead projection may be used. Topics will be diverse; they might include descriptions of some holiday geology, some local or regional study that you have made, or something geological that has caught your interest. Contributions will be welcome from both amateur and professional geologists, as befits the mixed membership of the Society, but will be particularly welcome from members presenting project work.

If you are interested in contributing to the Members' Evening in March 2008, please contact:  
*Gerry Slavin, 28 Normanhurst Park, Darley Dale, Matlock DE4 3BQ.*

### **Subscriptions**

Subscriptions were due on 1<sup>st</sup> February 2007. The rates remain the same as last year. Members who do not pay by Standing Order could please consider doing this as it eases the administrative load. 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.

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

### **Leicester Building Stones Guide**

This has now been published and copies are available from the Secretary at a price of £3.50. We are looking for volunteers please in the Leicester area to help in distributing the 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](mailto:website@emgs.org.uk) or sent to the Secretary.

### **Mercian Geologist**

The 2007 issue (volume 16, part 4) has just been printed, but its distribution has been delayed to await a supplement on the Hines of Brassington. This is a joint publication with the Peak District Mines Historical Society, and has run behind schedule in their printing process. The new Mercian, with its supplement, will therefore be mailed to members and subscribers at the end of October. The Editor apologises for the delay.

Also, if any members have back issues of the Mercian which are now surplus to requirements, please could you contact our Secretary Janet Slatter as we frequently get requests for back issues which we are now unable to supply. Any help would be appreciated.

### **Marketing the Society's Publications**

We are 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.

## **Walk around Nottingham University Campus - Sunday 23<sup>rd</sup> September – 2.30pm-4.00pm**

On Sunday 23<sup>rd</sup> September Gerry Shaw will be leading a walk around the University Campus on behalf of the Friends of the University.

Meet at the Pay & Display in the main Visitor Centre Car Park at 2.30 pm.

**Please note:** this is not an EMGS event and is open to members of the general public.

### **New Member**

Mr John Young, Birchwood, Lincoln.

### **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](mailto:ian@nationalstonecentre.org.uk)

### **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](mailto: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.**

**The next Council Meeting will be held on 1<sup>st</sup> November 2007.**

**Secretary:** Mrs Janet Slatter, 100 Main Street, Long Whatton, Loughborough, Leicestershire LE12 5DG  
e-mail: [j.slatter@zoom.co.uk](mailto:j.slatter@zoom.co.uk) tel. no. 01509 843297

**Treasurer:** Mrs Christine Moore, The Steading, Main Road, Elvaston, Derby DE72 3EQ tel. no. 01332 573065.