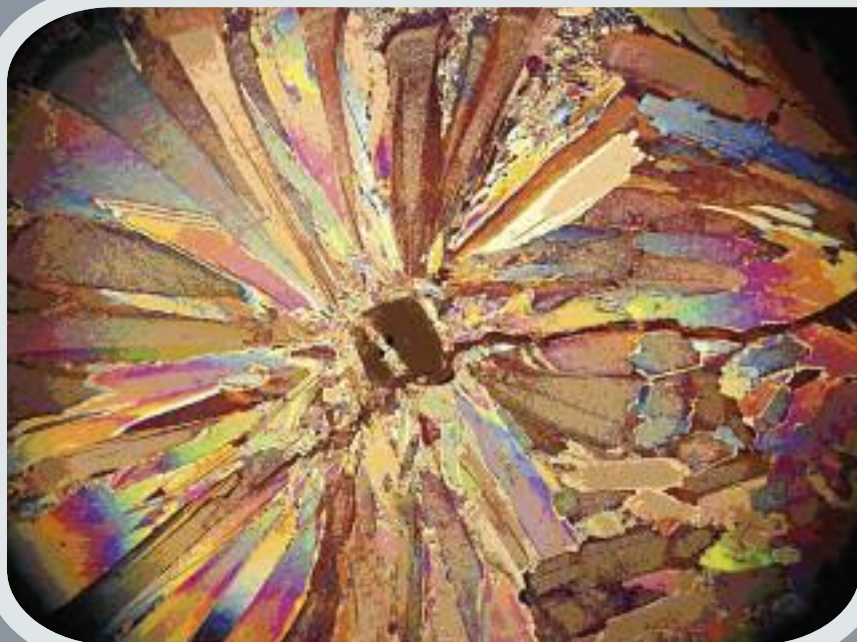


# YORKSHIRE GEOLOGICAL SOCIETY

President: Dr Noel Worley



## PRESIDENT'S DAY AGM & PRESIDENTIAL ADDRESS

Presidential Address I - Hot Times in Cumbria:  
The Evolution of a Late Permian Evaporite Basin in North West England  
Dr Noel Worley

14.30 - 19.30 Saturday 3rd December 2011  
Weetwood Hall, Otley Road, Leeds LS16 5PS

Mince Pies & Tea/Coffee available from 14.30



# PRESIDENT'S DAY - AGM & PRESIDENTIAL ADDRESS

14.30 – 19.30 Saturday 3rd December 2011  
Weetwood Hall, Otley Road, Leeds LS16 5PS

- 1) **Minutes of the last General Meeting** held in the Department of Geography, University of Hull, Hull on Saturday, 29th October 2011.
- 2) **Change to rules 9 & 11** (See pages 6-7 for the exact change of wording).
- 3) **Annual Reports**  
General Secretary's report, Treasurer's report and Balance Sheet
- 4) **Election to Membership**
- 5) **Election of Officers and other members for the 174th Session, 2012.**  
Council's nominations are given below. The President, Noel Worley, should receive additional nominations, except for the Offices of President and Vice-Presidents, no later than Thursday, 1st December 2011.

## Officers of the Society

President	Noel Worley PhD
Vice-Presidents	Professor Patrick Boylan Professor Paul Wignall
General Secretary	Paul Hildreth BSc
Treasurer	Professor Patrick Boylan
Web Editor	Awaiting Appointment
Programme Secretary	John Knight PhD
Editor	Stewart Molyneux PhD

## Officers appointed by Council

Circular Editor	Keith Park BSc
Membership Secretary	Christine Jennings-Poole BSc

## Members of Council

Ken Dorning BSc	Jonathan Ford MSc
Claire Foster PhD	Rebecca Levell MSc
Trevor Morse PhD	Bill Paley MSc
Helen Reeves PhD	David Turner PhD
Alison Tymon BSc	Will Watts BSc
Martin Whyte PhD	

- 6) **Presentation of the Sorby Medal to Professor Jane Francis**  
The Sorby Medal is awarded by the Council of the Society not more frequently than biannually as "an acknowledgement of either: distinguished contribution to geological knowledge of Yorkshire and the North of England, or distinguished contribution to geological knowledge by a person associated with Yorkshire and the north of England by birth, training or locus of research"

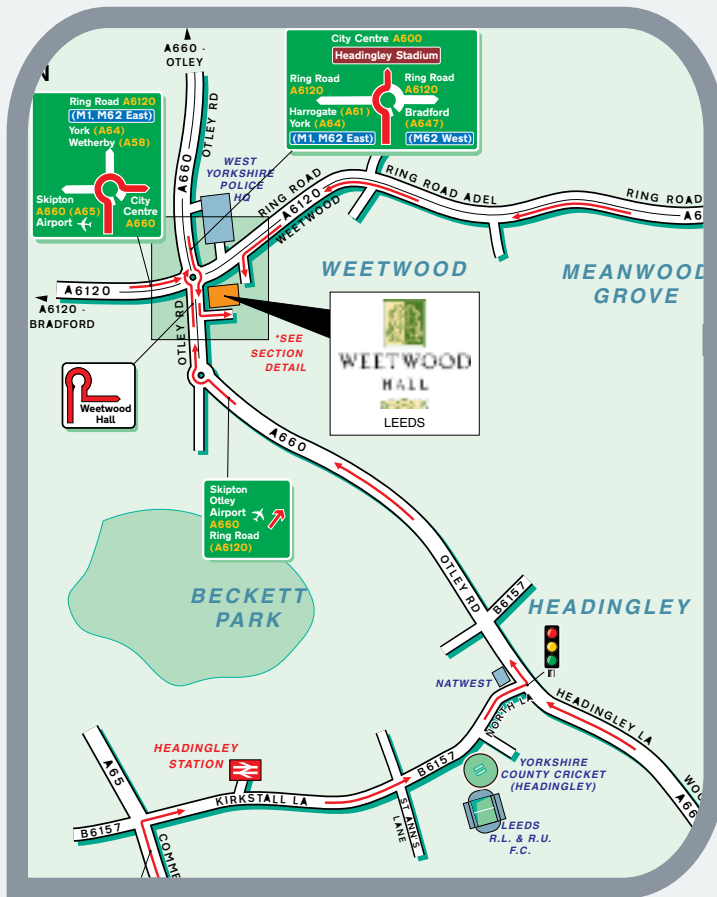
# PRESIDENT'S DAY - AGM & PRESIDENTIAL ADDRESS

14.30 – 19.30 Saturday 3rd December 2011  
Weetwood Hall, Otley Road, Leeds LS16 5PS

## 7) Presidential Address I

Hot Times in Cumbria: The Evolution of an Upper Permian Evaporite Basin in North West England  
Dr Noel Worley

## 8) President's Reception and Buffet at Weetwood Hall, Otley Road, Leeds



## CONTINUOUS PROFESSIONAL DEVELOPMENT

This meeting counts as 3 hours of Continuous Professional Development under the Geology Society's CPD Scheme



## GETTING TO WEETWOOD HALL

14.30 – 19.30 Saturday 3rd December 2011  
Weetwood Hall, Otley Road, Leeds LS16 5PS

### BY CAR

By M1 - M1 Leave at J43 for M621 then leave J3 for City Centre - follow signs for 'All Loop Traffic'. Keep on the loop until you see signs for Leeds University / A660. Continue past University for 3 miles, Weetwood Hall in on right before a large roundabout opposite Lawnswood School.

By M62 East - Leave at J29 onto M1 (north / Leeds City Centre) - follow signs for 'All Loop Traffic'. Keep on the loop until you see signs for Leeds University / A660. Continue past University for 3 miles, Weetwood Hall in on right before a large roundabout opposite Lawnswood School.

By M62 West - Leave at J27 onto M621 then leave at J3 City Centre - follow signs for 'All Loop Traffic'. Keep on the loop until you see signs for Leeds University / A660. Continue past University for 3 miles, Weetwood Hall in on right before a large roundabout opposite Lawnswood School.

By A1 - Follow the signs to Leeds / Bradford Airport into Leeds on either A63, A58 or A61. When you reach the A6120 ring road follow the signs for Leeds / Bradford Airport. Weetwood Hall is on the left opposite Weetwood Police Station immediately prior to the roundabout. There is plenty of free car parking at Weetwood Hall.

### BY PUBLIC TRANSPORT

By Rail - Nearest mainline railway station is Leeds City Station (approx 5 miles from Weetwood Hall).

By Bus - disembark at Lawnswood School.

From Leeds City railway station

Bus No. 1 from Infirmary Street disembark at Lawnswood School. Times (according to Metro\*) departing Infirmary Street 1322 1352 arriving Weetwood 1355 1425. From Weetwood 1958 2028 2058 arriving Infirmary Street 2029 2059 2129.

Bus 95 from Leeds Train Station disembark at Lawnswood School. Times (according to Metro\*) departing Leeds Train Station 1315 1325 1344 1354 From Weetwood 1937 1949 2007 arriving at Leeds Train Station at 2006 2018 2036.

Infirmary Street is about a 4 minute walk from the front of the railway station.

\*Please confirm times before travelling



## YGS ACCOUNTS

Traditionally a summary of the accounts has been published in this circular prior to the AGM. This has not been possible for the financial year ending 31st August 2011. A full set of audited accounts will be presented to the AGM in Leeds and published as part of the Society's annual report.



## SUBSCRIPTIONS

Subscriptions are due on 1st January 2012 and are as follows

Ordinary	£30.00	Associate	£10.00
Over 65	£20.00	Students	£12.00

For those members who paid by cheque this year, a 'CH' appears in the top right hand corner of the address label of this circular as a reminder to send your 2012 subscription cheque to Chris Jennings-Poole (address on the inside back cover of the circular) in January. If you would like to pay by direct debit, forms are also available from Chris, as are Gift aid forms.

Gift Aid is free money for the Society. Should you have recently changed your payment method from cheque to direct debit, there is a small chance this has not filtered through the system and CH will still appear on your label. If this is the case, please don't worry we will update your method of payment shortly. If you pay by Direct Debit you need take no further action unless you have changed your bank details. Members paying by standing Order should check they are paying the correct amount.

Because of administrative time lag, would those members who pay by Direct Debit and are thinking of resigning from the Society next year, please let the Membership Secretary know in plenty of time: i.e. before the end of November, that they wish to cancel their DD, and we will our utmost to amend the BACS data before the annual run.



At the Council meeting held on 29 October 2011, in Hull, a proposal was made to introduce two (minor) changes to the Society Rules at the soonest opportunity. This requires that a Special General Meeting (SGM) shall be held (Rule No. 21) the full text of the proposed additions or alterations shall be announced in the Circular calling the meeting. At the Hull meeting the Council members present agreed unanimously that the changes should be introduced and that if possible the corresponding SGM shall be held in conjunction with the AGM to be held at Weetwood Hall, Leeds, on 3 December 2011.

### **THE PROPOSED CHANGES:**

#### **Rule 9:**

##### **Currently reads -**

The management of the Society shall be vested in a Council of 22 Members who shall include the President, two Vice-Presidents, the General Secretary, General Treasurer and the Editors. Council may from time to time appoint other officers or assistant officers (who need not be council members).

##### **Proposed changed version -**

The management of the Society shall be vested in a Council of up to 22 Members who shall include the President, two Vice-Presidents, the General Secretary, General Treasurer and the Editors. Council may from time to time appoint other officers or assistant officers (who need not be council members).

#### **Rule 11:**

##### **Currently reads -**

Election to the office of President shall be for one year and no President shall hold office for more than two successive years. The Vice-Presidents shall serve in the first instance for one year but shall be eligible for re-election. The President, Vice-Presidents, Officers and other members of Council shall be nominated by the retiring Council. The list of nominations shall be sent to all members of the Society with the Circular calling the Annual General Meeting.

Members may make other nominations, except for the office of President and senior Vice-President, in writing, to the General Secretary not later than two days before the meeting. The new Council shall contain at least four members who were not members of the Council during the preceding year.

##### **Proposed changed version -**

Election to the office of President shall be for one year and no President shall hold office for more than two successive years. The Vice-Presidents shall serve in the first instance for one year but shall be eligible for re-election. The President, Vice-Presidents, Officers and other members of Council shall be nominated by the retiring Council. The list of nominations shall be sent to all members of the Society with the Circular calling the Annual General Meeting.



## RULE CHANGE - RULES 9 AND 11

Members may make other nominations, except for the office of President and senior Vice-President, in writing, to the General Secretary not later than two days before the meeting.

*Please Note: Council discussion reflected the concerns that there should be adequate turnover of membership of Council and the opportunity to introduce new members to Council. Council have requested that the Governance Sub-committee should review and make proposals regarding the appropriate size, composition and renewal mechanism for membership of Council.*



## QUATERNARY RESEARCH ASSOCIATION AND BRITISH CAVE RESEARCH FIELD MEETING

Thursday 21st June to Sunday 24th June 2012

Cave archaeology and karst geomorphology in North West England

**Background:** This three day field meeting will consider recent research into cave archaeology and aspects of karst geomorphology in Cumbria and the Yorkshire Dales, where the latest results are informing us about glaciations since MIS15 or earlier; the later stages of the Devensian glaciation, and human influences since the Late Glacial.

**Thursday eve** Registration and introductory talks

**Friday am** The Quaternary development of Kingsdale. *Leader: Tony Waltham*

Drumlins at Ribbleshead and the Wherside glacier. *Leader: Wishart Mitchell*

**Friday pm** Archaeology, sediments and speleogenesis at Jubilee Cave and Victoria Cave.

*Leaders: Tom Lord and Phil Murphy*

**Friday eve** Exhibition about Victoria Cave at the Museum of North Craven Life, Settle.

*Leader: Tom Lord*

**Saturday am** Archaeology of caves at Grange-over-Sands in Cumbria.

*Leaders: Hannah O'Regan and Ian Smith*

**Saturday pm** Lowland limestone pavements and grike erratics in the Arncliffe and

Silverdale AONB: Hale pavement and Gait Barrow. *Leaders: Peter Standing and Helen Goldie*

**Saturday eve** Talks and videos

**Sunday am** Cosmogenic dates and pedestal studies from Norber and OSL dates from

loess at Winskill. *Leaders: Peter Wilson and Helen Goldie*

**Sunday pm** Recent palaeoecological and archaeological work in the Settle area.

**Booking, Costs and Accommodation details are available from the joint co-ordinators Dr. Hannah O'Regan and Dr. Trevor Faulkner by contacting them at: [H.J.O'Regan@ljamu.ac.uk](mailto:H.J.O'Regan@ljamu.ac.uk) and [trevor@marblecaves.org.uk](mailto:trevor@marblecaves.org.uk)**

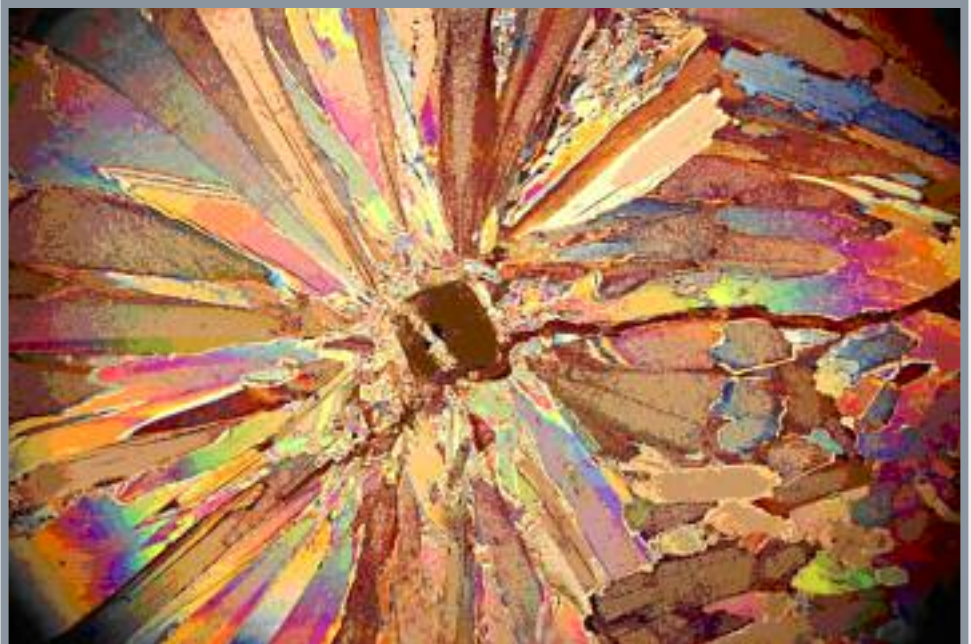
PRESIDENTIAL ADDRESS I:  
HOT TIMES IN CUMBRIA: THE EVOLUTION OF A LATE PERMIAN  
EVAPORITE BASIN IN NORTHWEST ENGLAND

Dr Noel Worley



It is the privilege of a president to review the stock of knowledge of some part of the Society's activities with which by long association he has a special or personal interest. I have been occupied in commercial geological investigation of evaporites throughout Europe, but the area that has held greatest personal fascination is Cumbria. Therefore my first address will concern a review of the Eden Valley Permian evaporites and will include fresh evidence collected over many years obtained during sub-surface exploration of the district.

The Permian saw what is believed to be the largest or giant evaporating basin the Zechstein. During this time along the western length of Britain evaporites formed in a series of fault-bounded basins developed in response to Variscan extensional tectonics that collectively led in the northwest to the formation of the Irish Sea – Solway Basin. Sedimentary sequences were deposited in continental and marine settings.



*Photomicrograph taken with crossed polars of thin slice through fibroradiate selenitic gypsum or daisy beds that are common in A Bed. The selenite crystals have nucleated around ankerite. © Noel Worley*

# PRESIDENTIAL ADDRESS I: HOT TIMES IN CUMBRIA: THE EVOLUTION OF A LATE PERMIAN EVAPORITE BASIN IN NORTHWEST ENGLAND

Dr Noel Worley

The Eden Valley is a half-graben satellite basin formed alongside the western margin of the Lake District massif. Rapid subsidence during the Lower Permian (Rotliegendes equivalent) produced a marginal sequence of flash flood alluvial fan and wadi conglomerates (brockrams) which pass laterally into aeolian dune facies of the Penrith Sandstone. As much as 1 km of clastic sediments accumulated in the depocentre.

Siliclastic deposition largely ended during the Late Permian and 3 significant periods of evaporite deposition are recognised that have been correlated on sparse palaeontological evidence with better known Zechstein counterparts in the northeast England. The representatives of the first A Bed evaporite cycle took place in a geographically restricted area within a fault-controlled subsiding shallow basin. Evaporite deposition occurred by initial filling of localised sags and irregularities with relatively thick cyclical sequences in shallow water. Gypsum was precipitated within a saline lake and accumulated in 10 to 30 cm beds. Evaporitic conditions alternated rhythmically with thin beds of shale reflecting changing levels of aridity. Bed thickness progressively decreased up the sequence and became characterised by gypsum - shale couplets at sub-millimetre scale deposited episodically, a characteristic feature of a lacustrine environment.

The shale components are crowded with phytoclasts of terrestrial origin transported by fluvial action from a catchment area where a conifer dominant flora developed. These contain uncompressed three dimensional pyrite petrifications that have also preserved exquisitely a microbial flora. Gypsum primarily was deposited in shallow water as crystal mush and is often associated with algal stromatolites.

A further two periods of evaporite deposition took place B / C Bed and D Bed. Both are geographically more widespread and can be traced almost the full

*Image of the dune field in the Namib-Naukluft National Park, Namibia. western Hardap Region in south west Africa. Ephemeral rivers flow through the sand dunes feeding the endorheic evaporite pans which are water filled about once in a decade. It is believed that the A Bed may have formed in a similar setting.*  
© <http://en.wikipedia.org>





## PRESIDENTIAL ADDRESS I: HOT TIMES IN CUMBRIA: THE EVOLUTION OF A LATE PERMIAN EVAPORITE BASIN IN NORTHWEST ENGLAND

Dr Noel Worley

length of the Eden Valley and into the adjacent Carlisle Basin. The sequence of sediments overlaying the evaporites comprises mainly fluvial siltstones and sandstones of the Cumbrian Coast Group that are geographically more extensive reflecting more uniform subsidence conditions and filling of the basin. Subsidence continued throughout much of the Mesozoic and maximum burial occurring towards the end of the Cretaceous. During this time conversion of primary gypsum to anhydrite took place a process that altered many of the original petrofabrics and was accompanied by thermal alteration of the organic material to vitrinite.

Regional thermal uplift during the Tertiary affected northern England and has continued to the present day removing as much as 2500 m of Mesozoic rocks. The present level of erosion has brought the evaporites to outcrop and has facilitated the re-conversion of anhydrite to gypsum by penetration of meteoric water. The rate of penetration is controlled by the permeability of the evaporites and full conversion rarely extends deeper than 25 m; however the presence of the Penrith Sandstone beneath A Bed has uniquely caused hydration to take place to depths of over 250 m. The shales within the A Bed contain extensive secondary gypsum mineralisation that includes the daisy beds and satin spars. The latter form a series of flattened semi-ellipses and constitute as much as 30% of the rock by volume. This is interpreted as occurring by hydrofracturing or 'fracking' of the weak shales by formation water confined within the underlying sandstone. The 'fracking' was caused by a reduction of the vertical stress component when progressive removal of overburden commenced during the Tertiary inversion.



## YGS - NEW MEMBERS

Application for Ordinary membership

Mr Philip Atkinson                      Pickering

Dr Adrian Bancroft                      Ruabon, Wrexham



## AGM & PRESIDENT'S DAY RECEPTION

Saturday 3rd December 2011

This year we have carefully chosen a menu to try to meet every member's dietary needs, as shown on the menu below. (v = suitable for vegetarians, vg = suitable for vegans, w = wheat free, n = may contain nuts)

### Menu

Mini steak and ale pie  
Roast chicken skewers (w)  
Baked salmon and pesto (w)  
Warm cheese and onion foccacia (v)  
Feta cheese and roast pepper tart (v)  
Buttered new potatoes (v/w)  
Coleslaw (v/w)  
Mixed salad (v/vg/w)  
Assorted dressings and sauces  
~  
Assorted dessert selection served with cream. (v/n)

Rooms are available to book in advance for those wishing to stay the night. Rates for B & B are £85.00 Superior Double, other room types are available on application. Please contact Weetwood Hall directly on **0113 230 6000** for reservations.

#### TICKET SALES DETAILS FOR THE PRESIDENT'S RECEPTION ARE AS FOLLOWS:

Tickets are priced at £25.00 per person (a slight reduction from last year) and are required for the reception, but not to attend the AGM and Presidential Address. So, the programme up to 17.00 is free to YGS members, after 17.00 it will cost you £25.00 per person.

Tickets can be purchased from Keith Park (Circular Editor), 24 Ings Lane, Guiseley, LS20 8DA (the usual address inside the back cover of the circular). Cheques only please (payable to Yorkshire Geology Society). Please remember to enclose your name and address with your cheque.

**Closing date for applications is Monday 21st November 2011.** We have based numbers attending on previous years' attendance, and tickets will be sold on a first come basis, therefore book now rather than later to avoid disappointment



## GEOEXPOSURES -

AN OPPORTUNITY FOR YGS MEMBERS TO GET LOGGING WITH THE  
CITIZEN SCIENCE WEB SITE HOSTED BY BGS

John Powell\*, Gemma Nash and Patrick Bell: British Geological Survey, Keyworth

\*BGS and Geological Society Stratigraphy Commission

*jhp@bgs.ac.uk*

### HERE TODAY—GONE TOMORROW

The geological community in the UK has long recognised that scientifically important information revealed in temporary exposures of bedrock and superficial Quaternary deposits is frequently 'lost to science'. This is largely due to the ephemeral nature of the exposures and the inability of the geoscience community to respond at short notice. This will be very apparent to YGS members, especially in northern England.

The Geological Society Stratigraphy Commission has for many years recognised that geological information seen in temporary exposures may provide highly valuable information that is not recorded, archived and made available to all. In discussions at the Commission, we recognised that a vehicle was needed to expedite recording and storing information observed in pipeline trenches, shallow excavations, road cuttings and embankments. This initiative was taken forward at the British Geological Survey (BGS). Our geological imperative coincided with the wish of the BGS web development team, Patrick Bell and Gemma Nash, to develop a citizen science web site – GeoExposures (Figure 1). It is powered by the new Ushahidi crowd-sourcing software that was developed to assist with communicating events during major emergencies such as the Haiti earthquake ('ushahidi' is Swahili for 'testament').

GeoExposures (<http://www.bgs.ac.uk/citizenScience/geoexposures.html>) is concerned only with the recording of temporary exposures and is not aimed at documenting natural exposures (e.g. inland and coastal cliffs; disused quarries etc.) nor with the conservation of geological sites (for further information see Natural England (<http://www.naturalengland.org.uk/>), Scottish Natural Heritage (<http://www.snh.gov.uk/>), Countryside Council for Wales (<http://www.ccw.gov.uk/>) and the GeoConservationUK (<http://wiki.geoconservationuk.org.uk/>). The BGS Citizen Science web site (<http://www.bgs.ac.uk/citizenScience>) also incorporates reporting of landslides, flood events and soils.

Using the GeoExposures web site, amateur and professional geologists will be able to locate a temporary exposure on a Google map, briefly log the site geology on a pro-forma, and upload .jpg photo images to the web site either via a smart phone or from their home or office computer. Some users may prefer more traditional methods to map, log and record - using notebook, hard copy Ordnance Survey maps or BGS geological maps - and subsequently upload at their convenience from a computer. The essential ingredients will be accurate descriptions and good quality digital photographs as a permanent record. To assist recording,



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**British Geological Survey**  
Applied geoscience for our changing Earth

HOME REPORTS SUBMIT A REPORT CONTACT US GEOEXPOSURES ABOUT

### Exposure in foundations for William Smith Building, May 2008

01/12/2010 13:25:11 Exposure in foundations for William Smith Building, May 2008

**Description**

Worked face on the south east-west side of the construction site for the new William Smith Building. The 2.5 m high vertical exposure red-brown mudstone is bedded with only sporadic sandstone. This thick sequence is overlain by a thin bedded sandstone, becoming horizontal to the north east (Photo 1: GGS\_0209). The interval is overlain by approximately 3.25 m of white sandstone, consisting of an angular aggregate. The upper part of the exposed section is tilted, possibly a result of glacial cryoturbation although there are also indications of non-tectonic tilting to the south of the site (Photo 2). In detail (Photo 2: GGS\_02106) there are four beds of red-brown mudstone between 3.25 m and 3.65 m thick, which bedded with fine to bed to medium grained mudstone between 0.25 and 0.35 m thick, the latter containing small but subangular orthoquartzite. Sandstones between the beds are unbedded, the boundary between the higher grained mudstone bed and the lower red mudstone bed is highly contorted (Photo 2) probably as a result of cryoturbation during Quaternary glaciation. There is no Quaternary deposits present.

**Additional Data**

State of the observation:	Excavated face on south east/west and north northwest side of
County or district:	Camden, London Greater London
City or district:	Holborn/Whitehall
Ordinance Survey Street no:	129 Strand near 150 ft
National Grid Reference(s):	GR 6216 3180
OS 1:50k sheet no:	142 Middle Street

**Additional Reports**

- Today 08:00: Exposure on South side of BNC11 in position under bridge at 150 ft near 129 Strand, Greater London
- London of Stratford House, North Holborn: 01/05/2010 08:00:00
- London in Camera, November 2008: 01/05/2008 08:00:00

Figure 1. GeoExposures web page: [britishgeologicalsurvey.crowdmap.com](http://britishgeologicalsurvey.crowdmap.com)

the web site provides the user with links to background information on the geology and stratigraphy of the UK such as digital BGS geological maps ([http://maps.bgs.ac.uk/geologyviewer\\_google/googleviewer.html](http://maps.bgs.ac.uk/geologyviewer_google/googleviewer.html)), the BGS Stratigraphical Lexicon (<http://www.bgs.ac.uk/Lexicon/home.html>) and the BGS Timechart (<http://www.bgs.ac.uk/discoveringGeology/time/timechart/home.html>). In addition, there is a converter (<http://www.bgs.ac.uk/data/webservices-convertForm.cfm>) to transfer latitude-longitude locations gleaned from a Google image to British National Grid. The pro-forma site description can be supplemented by additional information such as a site sketch map and geological log - these can be drawn freehand, and submitted as scanned .jpg images.

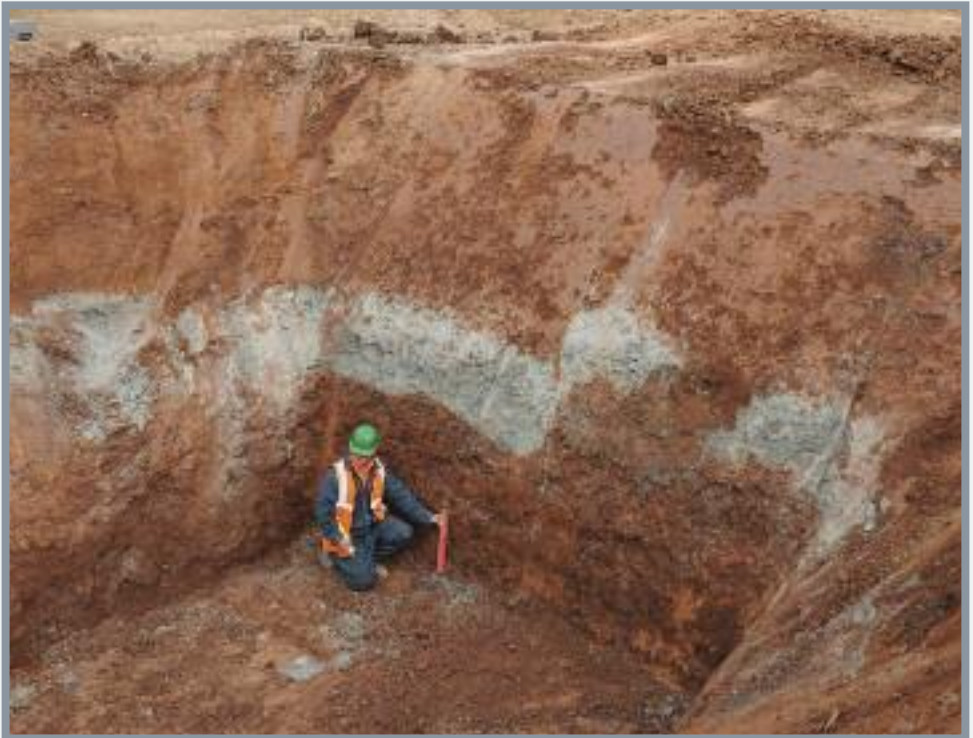


## GEOEXPOSURES -

AN OPPORTUNITY FOR YGS MEMBERS TO GET LOGGING WITH THE CITIZEN SCIENCE WEB SITE HOSTED BY BGS

### First response

During development of a 'beta' test site we received an e-mail from Andrew Hunn, an archaeologist, who was logging a pipeline trench near Tirley, Gloucestershire. Andrew's images and site description became the first external GeoExposures record (Figure 2.) Coincidentally, the faulted Mercia Mudstone (Upper Triassic) exposure is the same age and formation as our example site based on exposures of the foundations of the William Smith Building at BGS Keyworth (Figure 3). We hope the 'Father of English Geology' would approve of the latest format for recording geological information. Andrew Hunn reports that he has 14 years of pipeline records that may be of interest!



*Figure 2. The first GeoExposures record submitted by Andrew Hunn showing minor faults in the Upper Triassic Branscombe Mudstone Formation recorded in a pipeline trench near Tirley, Gloucestershire (Worcester Graben).*



## GEOEXPOSURES -

AN OPPORTUNITY FOR YGS MEMBERS TO GET LOGGING WITH THE  
CITIZEN SCIENCE WEB SITE HOSTED BY BGS



*Figure 3. GeoExposures web site example showing the Upper Triassic Branscombe Mudstone Formation exposed in the excavations for the William Smith Building, BGS, Nottingham in 2008.*

We are keen to see this as a geoscience community web site and not an official BGS site – our vision is to deploy the software in a useable format for common access and as such Geoexposures is made available under a Creative Commons licence. We hope that professionals in the civil engineering and quarrying industries will also be keen to submit records of short-lived exposures at their sites. BGS will monitor submissions for improbable records such as 'dinosaur footprints found in Cambrian rocks', but we do not intend to rigorously verify the records. There is an opportunity to send in comments and suggestions and we hope Geoexposures will generate vibrant discussions. We envisage any scientific publications arising from GeoExposures records will duly acknowledge the source material.

And finally - permission to enter onto sites is entirely the responsibility of the individual, as is your and others' health and safety. So, please give it a go - and get logging!



## CORRESPONDING SOCIETIES

Contact society representatives for the latest information

### **CRAVEN & PENDLE GEOLOGICAL SOCIETY**

Contact: Paul Kabrna, tel: 01282 813772; e-mail: paul\_kabrna@msn.com or [www.cpgs.org.uk/](http://www.cpgs.org.uk/)  
Venue: Rainhall Centre, Barnoldswick.

**Members Evening**

**Friday 9th December**

**Life and death at high latitudes: marine biodiversity,  
environmental change and extinction in latest Cretaceous Antarctica**  
James Witts, University of Leeds

**Friday 13th January**

### **CUMBERLAND GEOLOGICAL SOCIETY**

Contact: Rosemary Vidler, tel: 017697 79326 or [www.cumberland-geol-soc.org.uk](http://www.cumberland-geol-soc.org.uk)

**If you ever visit New Mexico.....**

**Wednesday 23rd November**

John Rodgers

**Members Evening**

**Wednesday 7th December**

### **EAST MIDLANDS GEOLOGICAL SOCIETY**

Contact: Janet Slatter, tel. 01509-843.297; e-mail: [sec@emgs.org.uk](mailto:sec@emgs.org.uk) or [www.emgs.org.uk](http://www.emgs.org.uk)  
Venue: Lecture Theatre B3, Biological Sciences Building, University of Nottingham

**The Galapagos Islands**

**Saturday 19th November**

Colin Bagshaw

**Great Stratigraphical Myths**

**Saturday 10th December**

Robin "Bill" Bailey

### **EDINBURGH**

Contact: Sarah Bailey, tel: 0131 466 9653; e-mail: [sarah1bailey@hotmail.com](mailto:sarah1bailey@hotmail.com)

**Continental Collision and How the Crust Deforms: early ideas  
from the Scottish Highlands to active deformation in the Himalayas**

**Wednesday 30th November**

Prof. Rob Butler; University of Aberdeen

**Fellows Night and Social Evening at BGS, Murchison House**

**Wednesday 14th December**

### **HUDDERSFIELD GEOLOGY GROUP**

Contact: Julie Earnshaw (Secretary). Tel: 01484 311 662 or e-mail: [earniehome@ntlworld.com](mailto:earniehome@ntlworld.com)

**Annual General Meeting**

**Monday 5th November**

**The Relationship between Geology and Archaeology  
at Boston Spa**  
Malcolm Barnes

**Monday 9th January**



## CORRESPONDING SOCIETIES

Contact society representatives for the latest information

### HULL GEOLOGICAL SOCIETY

Contact: Mike Horne. Tel: 01482 346 784 or e-mail: [m.j.horne@hull.ac.uk](mailto:m.j.horne@hull.ac.uk) or [www.go.to/hullgeolsoc](http://www.go.to/hullgeolsoc)

Venue: Department of Geography, University of Hull, at 7.30pm.

**Which came first: the dinosaur or the egg?  
Dinosaur eggs from a Chinese perspective.**

Dr Martin Whyte, University of Sheffield

Thursday 17th November

### LEEDS GEOLOGICAL ASSOCIATION

Contact: Anthea Brigstocke (General Secretary). Tel: 01904 626013. Email: [lga@brigstocke.myzen.co.uk](mailto:lga@brigstocke.myzen.co.uk)

Venue: Rupert Beckett Lecture Theatre, Michael Sadler Building, Leeds University at 7:15pm Website: [www.leedsga.org.uk](http://www.leedsga.org.uk) for directions.

**AGM and Conversazione**

Thursday 8th December

**Glaciers, Volcanoes and Outburst Floods:  
examples from Antarctica, Greenland and elsewhere**

Dr Jonathan Carrivick, University of Leeds

Thursday 26th January

### LEICESTER LITERARY & PHILOSOPHICAL SOCIETY SECTION C (GEOLOGY)

Contact: Mark Evans, 0116 225 4904, [mark.evans@leicester.gov.uk](mailto:mark.evans@leicester.gov.uk) or Publicity Officer Joanne Norris, 0116 2833127, [j.e.norris@ntlworld.com](mailto:j.e.norris@ntlworld.com)

**Parent Body Lecture, New Walk Museum, Leicester  
The star crossed stone: the archaeology, mythology and folklore  
of fossil sea urchins**

Dr. Kenneth McNamara, Dept of Earth Sciences, University of Cambridge

Monday 28th November

**Ash, planes and volcanoes**

Prof. Nick Petford, Vice Chancellor, University of Northampton

Wednesday 30th November

### MANCHESTER GEOLOGICAL ASSOCIATION

Contact: Jane Michael. Tel: 0161 366 0595, e-mail: [outdoor@mangeolassoc.org.uk](mailto:outdoor@mangeolassoc.org.uk) or [www.mangeolassoc.org.uk](http://www.mangeolassoc.org.uk)

Venue: Williamson Building, Department of Geology, University of Manchester

**A Look at the Triassic Cheshire: An Overview**

Fred Owen, Manchester Geological Association

Saturday 10th December

**The Alderley Edge Mines**

Nigel Dibben, Derbyshire Caving Club

**Chirotherium and the Triassic Environment**

Dr. Geoff Tresise, National Museums, Liverpool



## CORRESPONDING SOCIETIES

Contact society representatives for the latest information

### **The Fossil Hunters**

**Saturday 14th January**

*Mary Anning (1799-1847) and Thomas Hawkins (1810-1899):  
two very different 'monster' fossil hunters*

Prof. Hugh Torrens, University of Keele

**James Powrie**

Bob Davidson, University of Aberdeen

**James Frederick Jackson (1894-1966): boy genius and extraordinary geologist**

Dr. Cindy Howells, National Museum of Wales

### **NORTH EASTERN GEOLOGICAL SOCIETY**

Contact: Judy Harrison, 28 St Ann' Quay, 4 St Ann Street, Newcastle upon-Tyne NE1 2DJ

Tel: 0191 261 1494. Email: jaharrison.102@btinternet.com

### **The Lusi mud volcano disaster, Indonesia. Why and what next?**

**Friday 16th December**

Prof. Richard Davies, University of Durham

### **NORTH STAFFORDSHIRE GROUP OF THE GEOLOGISTS' ASSOCIATION**

Contact: Eileen Fraser Tel: 01260 271505 email: fraser@fraserco.co.uk or www.esci.keele.ac.uk/nsgga/

Venue: School of Earth Sciences and Geography, University of Keele

### **Christmas Social with geology quiz and talk on: 'Gold and the Klondike'**

**Thursday 8th December**

by Peter Floyd

### **Ediacara: The evolution of Earth's first complex life**

**Thursday 12th January**

Dr. Michael Montenari, University of Keele

### **ROTUNDA GEOLOGY GROUP**

Contact: Sue Rawson. Tel: 01723 506502, e-mail: suerawson@yahoo.co.uk

Venue: Quad 4, Scarborough Campus of the University of Hull, Filey Road, Scarborough. 7.30pm

### **Extinctions Past and Present**

**Thursday 1st December**

Prof. Peter Rawson, Dr. Sue Hull and Will Watts (RGG Member)

### **WESTMORLAND GEOLOGICAL SOCIETY**

Contact by E-mail: mail@westmorlandgeolsoc.org.uk, westmorlandgeolsoc.org.uk/

Venue: Shakespeare Centre, Kendal

### **Members Night and Jacobs Join**

**Wednesday 14th December**

### **Latest News from the Icelandic Volcano**

**Wednesday 18th January**

Dr. Dave McGarvie, The Open University



### SUBMISSION OF PAPERS

Manuscripts for publication in the Proceedings should be submitted to 'The Editors, Proceedings of the Yorkshire Geological Society, Geological Society Publishing House, Unit 7, Brassmill Lane Enterprise Centre, Brassmill Lane, BATH, BA1 3JN'. Typescripts should be prepared using the updated instructions for authors given on the inside back cover of the latest issue (Volume 58 Part 4, November 2011).

Publication of manuscripts may be expected in the next, or next but one part, following acceptance. The Proceedings will be abstracted and/or indexed in, GeoArchive, GeoRef, Geobase, Geological Abstracts and Mineralogical Abstracts, Research Alert and Science Citation Index Expanded (SCIE).

### COPY FOR CIRCULAR

Copy deadline for Circular 570 is 10th December 2011

Copy deadline for Circular 571 is 1st February 2012

### NEXT YGS INDOOR MEETING

28th January 2012 - Foundations of the Northern Pennines: Rookhope 50 years on, Hancock Museum, Newcastle

25th February 2012 - The Anthropocene - A new geological age?

### CONTACTS

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#### ASSISTANT GENERAL SECRETARY

**Awaiting appointment.**

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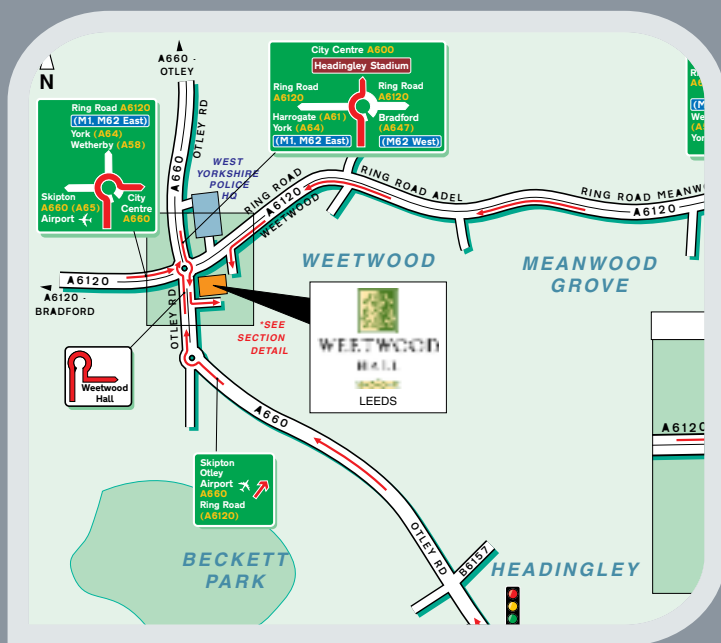
# PRESIDENT'S DAY AGM & PRESIDENTIAL ADDRESS

Presidential Address 1 - Hot Times in Cumbria:

The Evolution of an Upper Permian Evaporite Basin in North West England  
Dr Noel Worley

14.30 - 19.30 Saturday 3rd December 2011  
Weetwood Hall, Otley Road, Leeds LS16 5PS

*Please Note: Articles and opinions published in the YGS Circular reflect the view of the individuals writing those parts of the Circular and in no way necessarily reflect the view of Council or of the Society as a whole.*



Front cover: Photomicrograph taken with crossed polars of thin slice through fibroradiate selenitic gypsum or daisy beds that are common in A Bed. The selenite crystals have nucleated around ankerite. © Noel Worley