



## MANCHESTER GEOLOGICAL ASSOCIATION

President: Dr Ray Burgess

Founded 1925

March 2015

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

### ***Hello and Welcome to your March 2015 Newsletter!!***

A belated Happy New Year to all our readers!! The AGM has now taken place and I am pleased to announce that I am being released to go and work full time for Santa as Lyn Relph has been elected as your new Newsletter Editor. Lyn also currently edits the Open University Geological Society newsletter.

Talking of the Annual General Meeting where we had a very interesting talk by Ray Burgess on Mars, there are still vacancies on the MGA Council. Not to do any specific job (well apart from Indoor Meetings!) but just to help in the running of the Association. If you would like to find out what this actually means in practice, why not come along to one of the Council Meetings?

The next one is on Saturday 7 March 2015 at 10am at Manchester Museum. The following one is on Saturday 6 June, same time, same venue. If you would like to come along, then please let our Secretary Sue Plumb know by email or phone (her details can be found on the back page of the newsletter).

So it's farewell from your House Elf - thank you for reading my newsletter over the last 12 months. I am sure you will give Lyn your full support by sending her trip reports and other bits of geology related information.

NEWSLETTER EDITOR  
AKA THE HOUSE ELF

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#### QUICK DIARY

30 May 2015 (Saturday): Field Trip to Coal Measures Todmorden Moor led by John Knight, YGS President  
  
28 June 2015 (Sunday): Field Trip to the Wirral led by Hilary Davies  
  
28 July 2015 (Tuesday): Field Trip to Criggion Quarry led by John Peate, Hanson UK

## Forthcoming Outdoor Events

### The coal measures of Todmorden Moor Saturday 30 May 2015

The field excursion will be led by John Knight, President of the Yorkshire Geological Society and an expert on the Coal Measures.

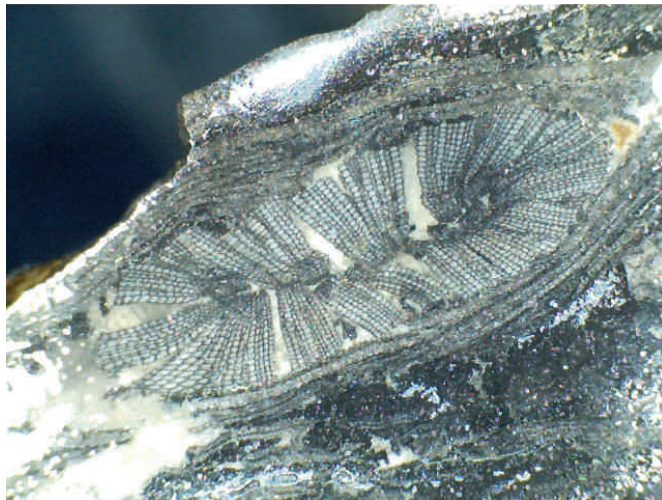
The first part of the day will follow the itinerary of the Todmorden Moor Geology and Heritage Trail. In a gully we will see a good exposure of the 6 Inch Mine. Immediately above this coal seam we will also see the *Gastrioceras subcrenatum* Marine Band, which marks the base of the Westphalian. The coal is underlain by a seat earth paradoxically containing some fossils, as yet not conclusively identified.

For more information see the following websites. You will need to type the first one directly into your browser. It will download a pdf copy of the trail guide. Alternatively just search for Todmorden Moor Trail and both these websites will appear on the first page.

[www.watershedlandscape.co.uk/index.php/download\\_file/1171/851](http://www.watershedlandscape.co.uk/index.php/download_file/1171/851)

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

We will also visit a sandstone quarry with spectacular sedimentary features and fossil tree fragments. A local tip contains “bullions”, carbonate concretions with well preserved goniatites and also occasional coal balls, well cemented nodules which preserve fossil plant matter in astonishing detail.



Section of *Stigmaria* from a coal ball found on Todmorden Moor.

The afternoon itinerary is not yet fixed but the general plan is to visit part of Green's Clough, to the north-west of the Todmorden Moor Trail; here we will hope to see a rather lower succession of latest Namurian age.

Boots, waterproof clothing and a packed lunch will be required. The trail is especially exposed to easterly winds.

**Field excursion to Wirral  
Sunday 28 June 2015  
Leader: Hilary Davies**



Irish Sea Till at Thurstaston



Granite erratic in cliff

This excursion will visit a number of sites on the west coast of Wirral in West Kirby, Hoylake and Thurstaston to examine a variety of Triassic exposures and a thick layer of Irish Sea Till, which is being eroded by the sea, revealing a variety of erratic boulders.

It will be necessary to travel by car between locations using as few cars as possible. Extra cars can be left in the pay and display car park at the start, which is also the finishing point.

Packed lunches are preferable, although there are cafes and pubs in the area.

**Criggion Quarry  
TUESDAY 28 July 2015  
Leader: John Peate, Principal Geologist, Hanson UK**



Criggion Quarry, located south of Oswestry, produces aggregates for use in ready-mix concrete, asphalt production and the construction industry. The quarry works an olivine dolerite intrusion, forming Breidden Hill. Originally the intrusion was thought to be laccolithic but it is now believed to have a more discordant 'plug' shape. Drilling to 274 metres failed to reach the base of the intrusion. The Breidden Hills inlier is a SW-NE trending igneous complex consisting

of the shales, tuffs and conglomerates of the Breidden Volcanic Group, the Caradoc andesitic intrusion of Moel Y Gofa, and the olivine dolerite Criggion intrusion

Geological features include the relationship between the Breidden Hill doleritic intrusion and the Ordovician shales and tuffs, the mineralogy and porphyritic texture of the olivine dolerite and alterations to the underlying shales at the contact with the dolerite.

It will also be possible to investigate geological structures such as joint sets related to grain size, fine grained chilled margin dolerite on the edge of the intrusion being well jointed, becoming more massive and coarser-grained towards the centre (the area currently being worked); shales and tuffs close to the intrusive contact near the western base of the hill along the quarry haul road have a consistently steep dip to the west; a zone of major faulting between the 'old' quarry and the present quarry, with two NW trending faults; a zone of block faulting, perpendicular to the margin, occurs along the western edge of the intrusion.

Aspects of engineering geology including problems due to the relationship between the joint sets and quarry faces, and the potential for toppling and planar failure can be illustrated. For those with an interest in geomorphology, scree development can also be examined.

It is proposed to link this visit with one to Llanymynech a few miles north of Criggion, led by Peter del Strother and Jennifer Rhodes. This area is an extensive country park with the restored remains of a Hoffmann lime kiln set in the quarries which supplied the limestone. (An article by Peter about Hoffmann kilns can be found in North West Geologist No 19)

The Criggion quarry visit will be in the morning, after which the party will drive to Llanymynech, where packed lunches can be eaten (alternatively there are cafes, pubs and shops in the village) before exploring the area.

**Bosley Cloud**  
**Leader: Paul Aplin**  
**Date to be arranged but probably August**  
**Joint Trip with OUGS**

Further details to follow

**Fred Broadhurst Memorial Field Trip**  
**Building Stones of the Trafford Centre**  
**Lead by Jane Michael**  
**Sunday 18 October 2015 (Morning: half day trip)**

This trip will be based round Fred Broadhurst's leaflet produced for the Trafford Centre in 2000. It is an ideal low-mobility trip as it is on the flat and although we will be visiting both floors of the Trafford Centre, lifts are available for participants.

Further details will be available to participants and numbers are limited, so book early.

**MANCHESTER GEOLOGICAL ASSOCIATION**

**ACCOUNTS for the YEAR ENDED 31 Dec 2014**

**INCOME & EXPENDITURE**

INCOME		EXPENDITURE	
	£		£
GENERAL FUND			
Subscriptions 2014	2,090.00	Indoor Meetings	961.91
Subscriptions 2015	20.00	Building Stones Guide 2013 ed.	1,997.55
Interest & donations	133.09	Field Trips	48.37
Gift Aid Tax Refund	0.00	Newsletters	509.02
Mcr Building Stones 2008 ed.	22.00	Affiliation & Insurance & Misc	289.10
Publications	752.50		
Secretarial Support	130.21		
	<b>2,265.09</b>		<b>4,688.66</b>
		Surplus to Funding A/cs	-2,423.57
			<b>2,265.09</b>

**BALANCES ON FUNDING ACCOUNTS**

**GENERAL FUND**

Brought Forward at 1 Jan 2014	War Stock	60.00
	Natwest Reserve A/c	1,958.84
	Natwest Current A/c	3,888.25
	unpresented cheques from 2013	0.00
	to income & expend a/c	-2,423.57
<b>TOTAL FUNDS at 31 December 2014</b>		<b>3,483.52</b>

**ASSETS & LIABILITIES**

	War Stock	60.00
	Natwest Reserve A/c	1,979.83
	Natwest Current A/c	1,863.17
	unpresented cheques @31/12/2014	-419.48
<b>TOTAL ASSETS &amp; LIABILITIES at 31 December 2014</b>		<b>£ 3,483.52</b>

## Cobbles acquire Museum Accession Status at Knutsford Heritage Centre

Members may recall that the MGA supported the creation of a display of eleven geologically interesting cobbles, recovered from the redevelopment of the Royal George yard, Knutsford, in 2004. They are glacial erratics comprising fine examples of a variety of intrusive and volcanic rocks from the Lake District and sedimentary rocks from the region south towards Knutsford. They are set in a bed of the pure glacial sand, used to make glass, taken from a quarry near to Jodrell Bank. The display was unveiled by Fred Broadhurst in 2006 in the presence of John Price, the then President as you can see in the photo. The information poster was revised to the new house style in March 2013. The display replaces Location 7 in my Geology of Knutsford's Building Stones and Cobbles trail.

The Heritage Centre is aiming to achieve Museum Status and so the cobbles and sand have been assigned Accession Numbers, KHC/2014/1288/1-11 as they will become permanent objects in the museum. Is this a first for some lowly cobbles and sand? It is surprising how dirty and unkempt such a simple display can become with atmospheric dirt, moss and weeds. I give it some TLC twice a year and have to remove and wash the top 5 cm of sand every two years to keep it looking attractive.

The display can be seen at the Knutsford Heritage Centre, 90A King Street, Knutsford, WA16 6ED. For opening times, phone 01565 650506 or go to [www.knutsfordheritage.co.uk](http://www.knutsfordheritage.co.uk).

This is also the home of the well known Knutsford Millenium Tapestry triptych and is well worth a visit.  
Fred Owen



## **Black Country Geological Society**

### **Monday 16 March 2015 (Indoor meeting, 7.00 for 7.30 start):**

AGM followed by 'Minerals and Gems of the Cairngorms'. Speaker: Roy Starkey.  
Venue: Abbey Room at the Dudley Archives, Tipton Road, Dudley, DY1 4SQ

**Sunday 22 March (Geoconservation day):** Barnt Green Road Quarry, Lickey Hills

**Monday 20 April (Indoor meeting):** 'Dawn of the giants: how dinosaurs rose to dominate the Triassic world'. Speaker: Dr Richard Butler, University of Birmingham.

**Saturday 25 April (Field meeting):** Broadway Quarry, Worcestershire, led by Steve Birch

**Saturday 23 May (Field meeting):** Droitwich, Worcestershire, led by Andy Harrison

**Saturday 13 June (Field meeting):** The Wrekin & Ercall Quarries, led by Andrew Jenkinson

To attend, please contact Andy Harrison, Field Secretary, 01384 370 188

Mob: 07973 330 706 Email: [fieldsecretary@bcgs.info](mailto:fieldsecretary@bcgs.info)

For other information please see the website [www.bcgs.info](http://www.bcgs.info)

## **North Staffs GA Events**

### **WINTER LECTURE PROGRAMME 2014/15**

Lectures are held in room WS0.06 William Smith Building, Keele University

Thursday 12 March at 7:00pm : AGM & 'Tunisian Tales Part II'

Speaker: Dr Patrick Cossey (Chair's Address)

### **Summer Field Programme 2015**

April: National Stone Centre & Black Rock

May: West Wales Weekend

May/June: Congleton Edge

July: Bonsall

For further information please see the website [www.esci.keele.ac.uk/nsgga](http://www.esci.keele.ac.uk/nsgga)

## **Liverpool Geological Society**

17 Mar – Richard Chiverrell on Irish Sea Ice-Sheet.

18 Apr – Meeting at Thurstaston.

21 Apr – Icelandic Eruption 2014 by Chris Hunt and Icelandic Tour 2016 Hazel Clark.

For further information, please visit the website: [www.liverpoolgeologicalsociety.org](http://www.liverpoolgeologicalsociety.org) - please note new web address.

# **Stones and Bones Exhibition Discovering 600 million years of Midlands History**

**The Library of Birmingham 12 February - 17 May  
The Gallery, Level 3, Admission Free**

This exhibition is presented by the Library of Birmingham in partnership with the Lapworth Museum of Geology (University of Birmingham) during the temporary closure of the Museum for refurbishment. Visit the Stones and Bones exhibition and take a trip through time! At different times the Midlands was like the Mississippi delta, the Bahamas and the Sahara desert. More recently, the area was a cold glacial landscape with mammoths and woolly rhinos, separated by warmer periods when hippos and lions roamed the area.

Come and discover more about the early history of the Midlands and how that history was uncovered, recorded and told by prominent local geologists and scientists. The Stones and Bones exhibition will explore what impact these discoveries had on the region, culturally and industrially and what these investigations can tell us about our world today.

The exhibition will have a strong family focus with interactive workshops, family events and talks. Don't miss the Great Dinosaur Egg Hunt or the Exploding Volcanoes Workshop!

**Monday 16 February 2.00 - 3.00: 'Survivors of the Ice Age'.**

Speaker: Professor Alice Roberts in the Studio Theatre. Tickets £3.00.

**Stones and Bones Curator Tours** led by one of our expert curators:

Saturday 7 March 2.00 - 3.00

Thursday 19 March 6.00 - 7.00

Saturday 11 April 2.00 - 3.00

Tuesday 28 April 2.00 - 3.00

Tickets available from The Box: [www.birmingham-box.co.uk](http://www.birmingham-box.co.uk) Tel: 0121 245 4455

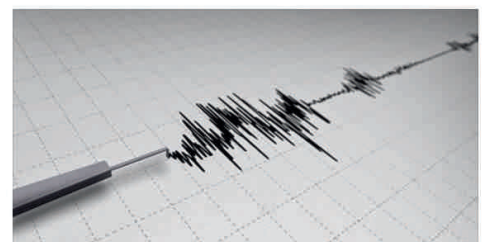
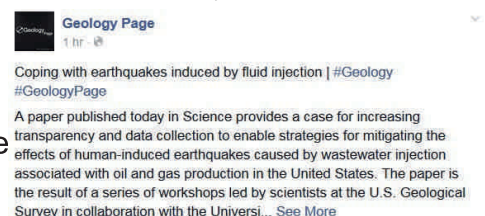
For more information go to: [www.libraryofbirmingham.com/event/1318252723775](http://www.libraryofbirmingham.com/event/1318252723775)

## **Geo Web Watch**

Most of us have access to the web either via our own computer or using our local library. There are many geo-themed websites out there and so your Editor thought it might be useful to highlight some of these each quarter. If you have any favourite sites which you use, please let me know via [newsletter@mangeolassoc.org.uk](mailto:newsletter@mangeolassoc.org.uk) and I'll be pleased to include them next time.

This quarter I am going to introduce you to the Facebook site Geology Page, a science website which can be found at <https://www.facebook.com/geology.page>.

You can look at this page but to delve further you do need to log into Facebook. Geology Page puts all sorts of interesting information on the Facebook site every day.





# Where In the World

Have a look at the photos below and see if you know or can guess 'where in the world' they are - and what they are too!

These are your Editor's photos this issue but I do hope you will send your pictures for inclusion in the next edition.

Answers can be found on Page 12.



**A**

**B**



**C**

**D**



## **MGA INDOOR MEETINGS 2015 - 2016**

The programme of Indoor Meetings for 2015/16 has not yet been finalised.

Details will appear in the next Newsletter so watch this space!!!

### **News from the Geologists Association**

#### **Geolab**

The GA is launching its new venture Geolab which aims to take geology to a wider audience. The first Geolab meeting is scheduled to coincide with British Science Week and you view the flier by clicking the link below. If you know of anyone in the vicinity of Seaford who might be interested in attending do please forward. The format is expert talks and workshop in the morning and a Field visit to Hope Gap with local guides in the afternoon. We are hoping that our Local and Affiliated Groups elsewhere may be interested in hosting similar events.

Do please email me [admin@geologistsassociation.org.uk](mailto:admin@geologistsassociation.org.uk) with any proposals and I can forward to the Membership Team for consideration and further discussion.

[https://gallery.mailchimp.com/b3ea23a6951bcf5950bddd925/files/Geolab\\_poster\\_2.pdf](https://gallery.mailchimp.com/b3ea23a6951bcf5950bddd925/files/Geolab_poster_2.pdf)

#### **Portugal Field trip 11-19 May 2015**

Following on from David Bridgland's highly successful trip to Turkey he has kindly organised an exciting field trip to Portugal. A full itinerary and costs are on this link

[https://gallery.mailchimp.com/b3ea23a6951bcf5950bddd925/files/Portugal\\_Field\\_Trip\\_2015.doc](https://gallery.mailchimp.com/b3ea23a6951bcf5950bddd925/files/Portugal_Field_Trip_2015.doc)

We need a critical mass to assure that this trip runs and also take advantage of cheap flights, we need to know by 15th March.

#### **The University of York**

##### **New, part-time, online Postgraduate Diploma in The Geology of Yorkshire and Northern England**

The exciting programme is aimed at individuals with an interest in Geology looking to gain skills in advanced palaeoenvironmental analysis and science communication. The programme is taught wholly online for maximum flexibility of learning, yet it is extremely interactive where you will be part of an active online community, with optional residential weekends in York for the opportunity to meet your fellow students and staff, engage in discussion and share your knowledge of Geology.

Students will obtain a regional geological understanding with which to interpret larger-scale Earth processes and structures. Students will also assess Yorkshire and Northern England's importance to current controversies in Earth sciences, from fracking to climate change, and acquire an understanding of the region's vital role in the history of Geology.

Starts September 2015, two years part-time, taught wholly online, six distinct modules, highly interactive programme, optional residential weekends and supportive environment

For further information contact Amanda Pauw, Postgraduate Online Courses Administrator [amanda.pauw@york.ac.uk](mailto:amanda.pauw@york.ac.uk) or visit <http://www.york.ac.uk/lifelonglearning/geology/>

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## ARE YOU GOING ANYWHERE GEOLOGICALLY INTERESTING THIS YEAR????

Now is the time when many people are thinking about their annual holidays (indeed some of you may already have booked them!). If you are going somewhere geologically interesting - perhaps Sicily (history and geology there), Iceland, The Alps or even further afield, how about sharing your experiences with other members. You can do this by sending a photo or two of where you have been. Or maybe you might feel up to writing a short paragraph about the location - it doesn't have to be much- just a taster.

Lyn, your new Newsletter Editor would really appreciate it, I'm sure!!



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### MANCHESTER GEOLOGICAL ASSOCIATION Council 2015-16

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President: **DR RAY BURGESS**

Vice President: **JANE MICHAEL**

General Secretary: **SUE PLUMB**

*Address: 20 Ridge Crescent, Marple, Stockport SK6 7JA*

*Tel: 0161 427 5835*

Membership Secretary: **NIALL CLARKE**

Treasurer: **NIALL CLARKE**, *Tel: 07785778250*

Indoor Meetings Secretary: Vacant

Field Meetings Secretary: **PENNY HEYWORTH**

Newsletter Editor: **LYN RELPH**

Archivist: **DR DEREK BRUMHEAD MBE**

Website: **PETER GILES**

GMRIGS group: **CHRIS ARKWRIGHT**, *Email: gmrigs@hotmail.com*

Past President: **PETER DEL STROTHER MBE**

Other Council Members: **NICOLA FOWLER, JENNIFER RHODES, NORMA ROTHWELL**

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#### EMAIL CONTACT:

To contact our **President** - [president@mangeolassoc.org.uk](mailto:president@mangeolassoc.org.uk)

To contact our **Vice President** - [vicepresident@mangeolassoc.org.uk](mailto:vicepresident@mangeolassoc.org.uk)

To contact our **General Secretary** - [secretary@mangeolassoc.org.uk](mailto:secretary@mangeolassoc.org.uk)

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For **field visits** - [outdoors@mangeolassoc.org.uk](mailto:outdoors@mangeolassoc.org.uk)

For **indoor meetings** - [lectures@mangeolassoc.org.uk](mailto:lectures@mangeolassoc.org.uk)

For the **newsletter** - [newsletter@mangeolassoc.org.uk](mailto:newsletter@mangeolassoc.org.uk)

For **General queries** - [info@mangeolassoc.org.uk](mailto:info@mangeolassoc.org.uk)

## OTHER SOCIETIES AND EVENTS

### **Black Country Geological Society (www.bcgs.info):**

Contact: Andrew Harrison –  
andrew\_harrison@urscorp.com

### **Cumberland Geological Society (<http://www.cumberland-geol-soc.org.uk/>)**

### **Lancashire Geological Association (www.lancashiregeologists.co.uk):**

Contact: Jennifer Rhodes – s\_j\_rhodes@hotmail.com

### **Leeds Geological Association (www.leedsgeolassoc.freeserve.co.uk):**

Contact: Anthea Brigstocke –  
anthea.brigstocke@zen.co.uk

### **Liverpool Geological Society (www.liverpoolgeologicalsociety.org.uk):**

Contact: Joe Crossley – 0151 426 1324

### **North Staffs Geological Association (www.esci.keele.ac.uk/nsgga):**

Contact: Eileen Fraser – frasers@netfraser.me

### **Oldham Geological Society:**

Contact: Jo Holt – 01457 874 095

### **Open University Geological Society North West Branch (www.ougs.org/index.php?branchcode=nwe):**

Contact: Jane Schollick – 01704 565 751

### **Russell Society (Mineralogy) (<http://www.russellsoc.org/nwbranch.html>):**

Contacts: Alan Dyer – Aldilp@aol.com or Harry Critchley – 01204 694 345

### **The Manchester Museum:**

Website: <http://www.museum.manchester.ac.uk/whatson>

### **Wilmslow Guild (www.wilmslowguild.wikidot.com):**

Contact: Wilmslow Guild 01625 523903

## Answers to 'Where in the World'

A: Torridonian on the Stoer Peninsula, North West Highlands

B: Ordessa Canyon, Spanish Pyrenees

C: Thor's Cave, Dovedale, Derbyshire

D: View west-north-west from and including the top of Schiehallion

Manchester Geological Association members are welcome guests at other societies' events

For more details on any of the societies listed please check their websites