



Manchester Geological Association

President: Jane Michael
2016 Founded 1925
www.mangeolassoc.org.uk

CORRECTION

The trip to the Great Orme is on Sunday the 16th of July 2017

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QUICK DIARY

Outdoor Meetings

Sunday 16 July.	Location: Great Orme. Leader: Cathy Hollis.
Saturday 5 August.	Fred Broadhurst Memorial Field Trip. Location: Lud's Church and The Roaches – Joint trip with OUGS. Leader: Jane Michael.
Sunday 3 September.	Location: Castleton area. Leader: Lucy Manifold.

Indoor Meetings 2017/18 (Provisional List)

Wednesday 18 October 7.00pm	Prof Ernie Rutter; The Science and Engineering of Shale.
Saturday 18 November 1.30pm	Broadhurst Lectures Deep Earth Matters. Speakers: Prof Hugh Rollinson, Dr Jason Harvey and Dr Andrew Walker.
Saturday 9 December. 1.30pm	Some Aspects of Planetary Geology in the Solar System. Speakers: Prof David Rothery, Dr Rhian Jones, Dr Susanne Schwenzer.

2018

Saturday 13 January. 1.30pm	Flying Fossils. Speakers: Dr Stephen Brusatte, Dr Mark Witton, Elizabeth Martin.
Wednesday 7 February. 7.00pm	Annual General Meeting and President's Talk.
Date and speaker TBA. 6.30pm	Joint Meeting with Manchester Geographical Association.

Who's Who in the MGA Officers

President: Jane Michael BSc (Hons)

Vice-President: Dr Cathy Hollis

General Secretary: Sue Plumb BSc

Membership Secretary: Vacant

Treasurer: Niall Clarke MSc

Indoor Meetings Secretary: Vacant

Field Excursions Secretary: Brian Smith

Newsletter Editor: Lyn Relph BSc (Hons)

Webmaster: Peter Giles MSc

Other elected members of Council

Nicola Fowler BSc (Hons)

Jennifer Rhodes

Peter Gavagan

Penny Heyworth MPhil

Ex officio members of Council

The Immediate Past President, Manchester Geological Association: Dr Ray Burgess PhD

RIGS Representative: Chris Arkwright PhD

The Association's representative on the North West Geologist's editorial team: Peter del Strother MBE MPhil
President of the Student Geological Societies of the University of Manchester

MGA Archivist: Derek Brumhead MBE

MGA email addresses

To contact our President: president@mangeolassoc.org.uk

To contact our Vice-President: vicepresident@mangeolassoc.org.uk

To contact our General Secretary: secretary@mangeolassoc.org.uk

For membership enquiries: membership@mangeolassoc.org.uk

For field visit enquiries: outdoors@mangeolassoc.org.uk

For indoor meeting enquiries: lectures@mangeolassoc.org.uk

For newsletter correspondence: newsletter@mangeolassoc.org.uk

For other enquiries: info@mangeolassoc.org.uk

An invitation to a **free event** run by the Royal Holloway University of London based around Earth Sciences (specifically Geology).

Discovering the World
at the
Conference Centre – Museum of Science and Industry, Manchester
3rd July 2017

The day will include a series of talks and activities provided by our academics and is aimed at teachers and students in years 11 and 12; to increase interest in studying Geology.

For more information and to book, please visit: <https://earthsciences-discoveringtheworld.eventbrite.co.uk>

New Natural History Museum Fossil Explorer mobile app

The Natural History Museum in London has just released a new version of the free Fossil Explorer app; a field guide to the common fossils of Britain that helps identify fossils based on where they are found.

Whether seeking ammonites in Lyme Regis, marine reptiles in Whitby or trilobites in Girvan the beginner and more experienced collectors alike can learn about their finds and what else may be beneath their feet.

Through *Fossil Explorer* users have access to the combined expertise of the Natural History Museum and the British Geological Survey. It is based on information from the Museum's popular *British Fossils* book series; the app offers details about more than 1,200 fossil taxa as well as local geology.

Thanks to an interactive geological map, *Fossil Explorer* suggests likely fossil matches based on where they are found, giving a list of fossils known to occur in rocks of the same age. Introductory facts and illustrations help beginner fossil hunters get started while additional information enables more experienced fossil collectors to delve deeper.

New functionality in this release allows users to create and share lists of fossils they have found and set wish lists for future discovery.

We hope the app. will encourage budding citizen scientists around the country, inspire a new generation of explorers and get people thinking differently about the natural world.

The app. is available for iOS and Android. More information and download links are available on the Museum's website at www.nhm.ac.uk/fossilexplorer.

[I loaded this app. onto my Android system, but sadly I could not get it to run. Looking at some of the comments it appears that other people are having the same problem. Editor]

Congleton Edge and Mow Cop

9 April 2017

By Penny Heyworth

We met at the lay-by on Congleton Edge where Eileen Fraser (our leader for the day) talked us through the geology and associated history of the area before we looked at specific locations.

Congleton Edge (GR 868687)

The Romans were the first to take limestone from the area; to make mortar. However, more recently the older limekilns are near the top of the hill, but later ones are nearer the railway in the valley. Before the railway was built the canal was used for transport. Small coal seams were mined for the steel industry in Stoke-on-Trent, but volcanic intrusions and faulting made coal extraction difficult.

The well line is marked by the location of houses and farms. Some of the house names tell of their origins Limekiln Farm, Beacon House, Millhouse Farm and Brook House.

We walked down to a quarry (Fig. 1) (GR870589) in the Chatsworth Grit (cf Teggs Nose above Macclesfield) where the beds dip at 60°. From here we could see the Red Quarry on Bosley Cloud and the glacial sediments on its flanks, which are much unconsolidated. Bosley Cloud is at the apex of a southerly, plunging, asymmetric syncline on a large scale anticline. Our next stop was at GR873592 (Fig 2); here too the sediments are unconsolidated. So is the outcrop by the quarry waste or glacial? It is of angular, broken up material and is the correct height for a glacial deposit.



Fig. 1 the quarry at GR 870589.



Fig. 2 inspecting the waste at GR873592.

However, nothing was found that was not local and there is a large quarry just over the top of the hill. So we decided it must be quarry waste that had been tipped over the edge. We then walked a short way along the footpath at the top of the quarry, which is in massive sandstone and by the footpath the bedding is very steep to vertical.

Mow Cop (GR 856572 for parking)
(Search on Mow Cop for sites and more general information)

Eileen talked us through the regional picture. Namurian delta systems were coming in from the north, but are the sediments here from the Wales Brabant system to the south? The nearby Roaches are from the south so theory is

that the Lower Chatstone is from the south, but the Red Rock above is from the north.

The nose of the Mow Cop (Fig.3) anticline is just beneath the castle/folly. The bedding is difficult to see and to interpret in the small quarry though the beds clearly dip and slickensides are present; the faulting pre-dates folding.

Very coarse grained querns were extracted from the quarry as were needle-like barytes, which could still be seen. There are more pebbles here than at nearby Bosley Cloud.



Fig. 3 a general view of the Mow Cop quarry,

To finish we had a look at the Old Man of Mow (Fig. 4). This is a 65ft high, un-quarried stack of rock dating from about 1530. Why? One theory is that it was poor quality stone because it is on the edge of the Mow Cop fault. Another is that it was left to support machinery.

Over towards Biddulph we could see more evidence of historic coal mining.

This was a very interesting day relating the geology to its changing exploitation over time and, therefore, to the presence of settlements. The trip also added to previous MGA trips to Teggs Nose and Bosley Cloud.



Fig. 4 the Old Man of Mow

OTHER SOCIETY EVENTS

Black Country Geological Society: bcgs.info

Saturday 22 July (Field meeting): Huntley Quarry Reserve and Hobbs Quarry, Gloucestershire: led by John Moseley, Geowarden for the Gloucestershire Geology Trust. This is a joint meeting with the Lickey Hills Geo-Champions.

Saturday 12 August (Field meeting): Wren's Nest: led by Graham Worton. Meet at 10.30 at the Warden's office adjacent to the former Mons Hill college site, approached along the access road leading into the new development adjacent to the Caves Pub on Wrens Hill Road. Finish around 1.30.

Saturday 16 September (Geoconservation Day): Wren's Nest. Directed by the reserve wardens.

Monday 18 September (Indoor meeting): 'On the move in pursuit of "black gold"; highlights from three decades of international oil and gas exploration. Speaker: Graham Hickman.

Sunday 1 October (Field meeting): The South Malverns: led by John Payne. Joint field visit with the Open University Geological Society, West Midlands branch. Details tbc.

Monday 16 October (Indoor meeting): 'The Corsi Collection of decorative stones: where geology meets the arts.' Speaker: Monica Price, Head of Earth Collections, Oxford University Museum of Natural History, <http://www.oum.ox.ac.uk/corsi/>

Saturday 4 November (Geoconservation Day): Barrow Hill. Details tbc.

Monday 20 November (Indoor meeting): 'Cave Development': Speaker: Tony Waltham.

Saturday 2 December (Geoconservation Day): Saltwells LNR. Details tbc.

Monday 11 December (Indoor meeting): Members' Evening.

OUGS <http://ougs.org/branches/index.php?branchcode=nwe>

July 22nd 2017 (Saturday) The Pennine Escarpment and High Cup Nick. Leader: John Rodgers (CGS). Location: Dufton in N. Cumbria

August 5th 2017 (Saturday). Rocky Ramble around the Roaches in the Dark Peak. Leader: Jane Michael (MGA and OUGS)

Leeds Geological Society <http://www.leedsga.org.uk/>

Thursday 12th October. Rupert Beckett Lecture Theatre (Michael Sadler Building). 'The Aberfan Disaster: Learning From The Past. Speaker: Dr Helen Reeves BGS.

North Staffordshire Group of Geologists Association

<http://www.esci.keele.ac.uk/nsgga/>

Thursday 13th July (Evening Walk) Tegg's Nose, Macclesfield. Meet at the Tegg's Nose car park at 18:00.

Sunday 13 August. Monsall Head: Quaternary features and hydrology. With EMGS. Meet at the Monsall Head Car Park at 10.15am.

Sunday 17 September

Clee Hills. Meet at the car park in Clee Village at 11:00.

North Wales Geology Association <http://www.ampyx.org.uk/cdgc/rhaglen.html>

MGA Outdoor Events

Date **Sunday 16 July**

Location **Great Orme**

Leaders Cathy Hollis

Notes This one day fieldtrip will examine the spectacular outcrops of Lower Carboniferous limestone that are exposed on the Great Orme, Llandudno. The sediments were deposited on a shallow water carbonate platform that extended from the Llandudno area, southwards to a palaeo-landmass (St George's Land). The sediments show a well developed cyclicity, forming packages that are tens of metres thick and capped by palaeo-soil horizons, providing evidence that the platform periodically became emergent. The field trip will examine these cycles and also spend time (tide-permitting) discussing the importance of faults to dolomitisation and mineralisation of the succession. Walking will mostly be on well-made paths.

Contact Field Excursions Secretary

Date **Saturday 5 August. Fred Broadhurst Memorial Field Trip**

Location **Lud's Church and The Roaches – Joint trip with OUGS**

Leader Jane Michael

This trip which is based on Walk 8 in Fred Broadhurst's book Rocky Rambles in the Peak District, will visit both Lud's Church cleft and also wonderful sedimentary structures on The Roaches ridge. We will see the Goyt Syncline also. The walk is approximately 8km (5 miles) long and has around 360m (approx 1200 ft) of ascent. Some of the ascent is fairly steep though generally the paths are good. A full Risk Assessment and Handout will be sent to attendees nearer the time. Please note that this trip is joint with the OUGS and therefore places are limited (10 to each society). The MGA places are nearly all booked. Once this is the case, a waiting list will be set up and any 'spare' places allocated nearer the date.

If you have any other questions or wish to book your place, please do it through me (NOT outdoors@mangeolassoc.org.uk) as I am co-ordinating both the MGA and OUGS bookings.

Jane Michael

president@mangeolassoc.org.uk

07917 434598

Date **Sunday 3 September**

Location **Castleton area**

Leader Lucy Manifold

Notes This excursion will examine the sedimentology of the northern margin of the Derbyshire Platform, focusing on the Castleton area. In the Lower Carboniferous this region was located on the margin of a steeply dipping carbonate platform. Present day exposure within disused quarries and along public footpaths allows a cross section of facies from the platform top, across the platform margin and into the basin, to be examined. The trip will involve walking on rough, but well-marked, paths between Castleton, Cave Dale and Pin Dale.

Contact Field Excursions Secretary

Date **Autumn (date tba)**

Location Rostherne kettle hole and building stones in Rostherne Church

Leader Rupert Randall (Warden of the National Nature Reserve at Rostherne Mere) and Fred Owen

Contact Field Excursions Secretary

INDOOR MEETINGS 2017/18

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Speakers: Prof Hugh Rollinson, Dr Jason Harvey and Dr Andrew Walker.

Saturday 9 December 1.30pm Some Aspects of Planetary Geology in the Solar System.

Speakers: Prof David Rothery, Dr Rhian Jones, Dr Susanne Schwenzer.

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Saturday 13 January 1.30pm Flying Fossils.

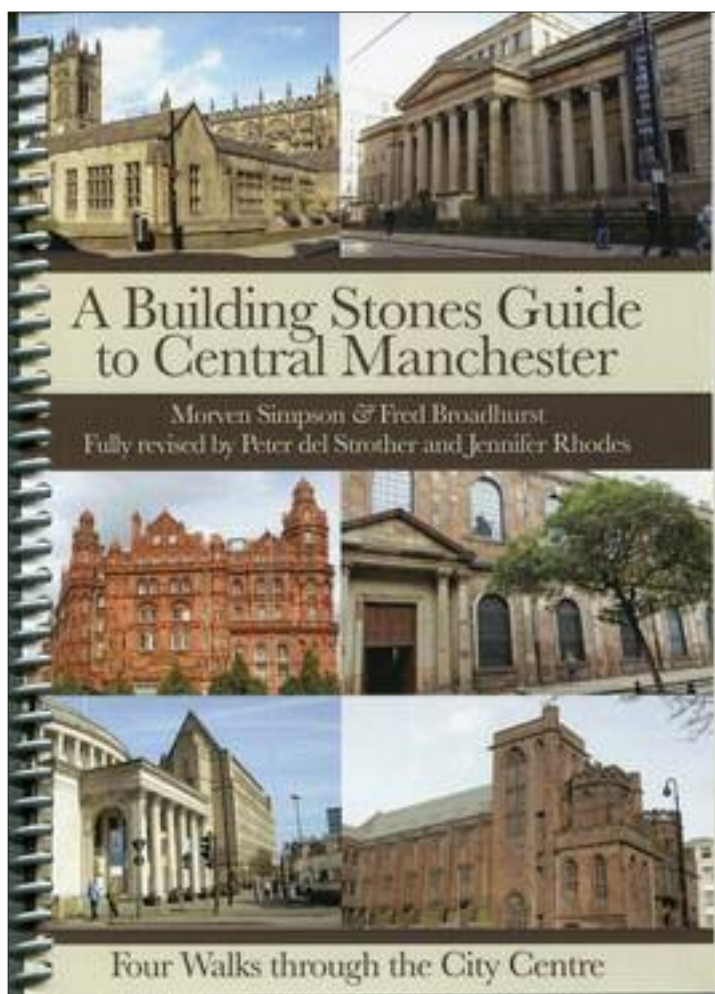
Speakers: Dr Stephen Brusatte, Dr Mark Witton, Elizabeth Martin.

Wednesday 7 February 7.00pm Annual General Meeting and President's Talk.

Date and speaker TBA 6.30pm Joint Meeting with Manchester Geographical Association.

Meetings from October to February inclusive will be held in the Lecture Theatre in the Williamson Building, Oxford Road, Manchester.

Full details of the speakers and their titles will be circulated nearer the time of the meetings.



To purchase the new edition of *A Building Stones Guide to Central Manchester* at £6 per copy + £2.50 p&p, please email your requirements and details to lgga.info@gmail.com.