

Manchester Geological Association Newsletter ~ March 2009



www.mangeolassoc.org.uk

President : Christine Arkwright PhD

Dear Member,

At a very well attended AGM on February 18th a few changes were made to the Council. Nick Snowden and Kathleen Mais (the General and Minutes secretaries) have resigned from their posts, due to the pressure of work, and were thanked for their service.

Dr Christine Arkwright was endorsed as this year's President (she took over from Joe Macquaker when he went to Canada last year).

Dr Tony Adams is to be our new Vice President: we give him a hearty welcome. **Jane Michael** is our new General Secretary, **Marjorie Moseley** is the new Field Secretary and **Sue Plumb** will take the Council minutes. Other posts are as before (see page 8). The Council were all thanked for their efforts.

We welcome three new members to the Council : Lisa Abbott, James Jepson and Chantal Johnson.

After the business meeting Christine gave us a fascinating talk on her work on the **Mam Tor landslip** and recent developments there.

We have a splendid programme of outings for this season starting on **Saturday 2nd May 2009**, when we go to the Apedale Heritage Centre, Newcastle-under-Lyme, a museum and mine visit.

June takes us to Frodsham where Duncan Woodcock will show us the sandstones of Overton Hill .

In **July** we have an exciting day at Styal Mill. (see page 3). Details of the August and September trips will be in the June newsletter.

Please remember to **book in** with Marjorie for all our outings (See pages 7 & 8 for details).

Our **Biennial Presidential Dinner** is on 26th September this year at Styal Mill. Your invitation is on page 9. Put the date in your diary **now!**

With best wishes for a successful outdoor season see you on the rocks..soon!....

Mary Howie newsletter editor

Quick Diary 2009

Saturday	2nd May	Apedale
Sunday	7th June	Frodsham
Sunday	19th July	Styal Mill
Sunday	9th August	Healy Dell
18th — 20th Sept	Lakes Weekend	
Saturday 26th September ~ MGA Dinner		
Saturday	10th Oct	Man University stones

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PS You can have this publication by wire in glorious technicolour if you let me know by email :-

newsletter@mangeolassoc.org.uk It will save the MGA postage and paper!

Greater Manchester RIGSs Group

We held our Annual General Meeting on Saturday, 14th February and are pleased to welcome Chantal Johnson to the group.

On 16th February, Sue Plumb and I attended the North West Geodiversity Partnership meeting and workshop in the Grosvenor Museum, Chester. The workshop, led by Kathryn Riddington, was to help NWGP members to handle the UKRIGS data base efficiently and proved to be very useful.

Peter Longbotham, Head of the Local Nature Reserve, Park Bridge, asked GMRIGS to assess the physical condition of their geological sites with a view to their future management. On Tuesday, 19th February, Dr. Chris Arkwright, Chantal Johnson, Peter Longbotham, members of the Park Bridge staff, Alan Bamford, Peter Bamford and I spent an enjoyable and interesting day. Chantal showed us three very exciting sites at Fennyfield Bridge and one rather precarious one opposite Bright Mill – wellingtons essential! After lunch, we visited the Rocher Vale sites to assess them. Chantal and I would like to thank Chris for her kind support and the Park Bridge staff for their interest and enthusiasm.

Sue Plumb and I spent Monday 9th March at Healey Dell, Rochdale, accompanied by Stephen Taylor, a local resident, who kindly showed us three interesting new sites.

Work on the audit of sites for the local authorities is progressing well thanks to the cooperation of the Manchester Museum Staff.

Cheshire Region launched their Local Geodiversity Action Plan on Tuesday, 10th March, at the Grosvenor Museum, Chester and an enjoyable evening was had by everyone. A copy of Cheshire Region's LGAP will be kept alongside GMRIGS's documents in the Manchester Museum Resource Centre after Wednesday, 25th March. If you wish to read this interesting and informative document please contact Phyllis.stoddart@manchester.ac.uk
Marjorie E. Mosley, Secretary, Greater Manchester RIGS Group



Away-day Geology in Shropshire ~ Bill Maddocks lets the train take the strain!

He tells me that he gets the train to Church Stretton in the morning, has a pleasant pub lunch, and then walks up across the Long Mynd to the Stiperstones.Great!!



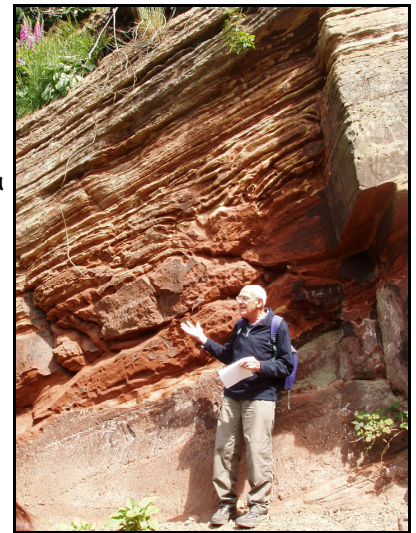
They are well worth a visit if you've never been ~ Ordovician quartzite from the Arenig series, heavily frost shattered in the Quaternary and some fantastic views. They are accessible by road for the fainthearted. You can see more of Bill's photos in colour on our website

Styal Desert?

A special MGA day at Quarry Bank Mill, Sunday 19th July

We have teamed up with the National Trust at Quarry Bank Mill, Styal Country Park, for a day of geological fun, frolics and fossils on Sunday 19th July. The theme for the day is the Styal Desert?, reflecting the arid, fluvial setting which the underlying geology tells us existed where the Park is now located. There will be a MGA gazebo in the main yard, furnished with appropriate displays of the local geology, activities to interest youngsters and lots of other things to promote geological interest for the public.

Central to the day is a series of six short walks, being lead by Fred Broadhurst and myself, around the newly renovated Secret Garden and a section of my Styal Country Park geology trail along the River Bollin. The walks, lasting about an hour, have easy access and are suitable for accompanied children. The NT will charge £3 for adults (children free) and will take bookings in advance to Jayne Gudgeon on tel: 01625 445845. For safety and access reasons a maximum of 20 persons/walk will be allowed. Please see the enclosed NT leaflet of walks for more information



Fred B explains dewatering structures in the Secret Garden

Put the date in your diary now and tell all your friends about it - it's at the start of the school holidays.

It will be a great family day out.

Please help us make this new venture a huge success.

Volunteers needed!

Although we have a small organising group, on the day, we will really need assistance of other people. We are not asking folk to give up the whole day but just maybe a couple of hours. We need to cover from about 10.30 am to 5.00 pm and are looking for about a dozen helpers to man the display, answer queries and cover breaks. If you are interested and would like to get involved in this brilliant event, which will give the Association lots of publicity, please could you let Jane Michael know either by email (jane.michael1@tesco.net) or telephone 0161 366 0595 as soon as possible.

Thanks very much. Fred Owen

The next newsletter will be in **June**. Copy to me by end of **May** please.

Mary Howie -

newsletter@mangeolassoc.org.uk or Snail Mail to Kinder View, 118 Glossop Road, Marple Bridge, Stockport SK6 5EL.

Tel: 0161 427 2965 Views expressed in the Newsletter are not necessarily those of the Association or its Council.

Book Review from Chantal Johnson

One book I would definitely recommend is

'Mining Disasters in Tameside' by Norman Bamforth.

The book is a culmination of years of research by Norman. What I like about the book is the way the geology of the coal mines is linked with the human story of the men and children who worked there, in such terrible conditions. You'll find many an eye-opening story. It also reminds us how lucky we are and the sacrifice these men and children made towards helping our region's industrial prosperity.

It would be great if such terrible working conditions were a thing of the past but around the world they continue. In 2002 I visited the silver / tin mines in Potosi, Bolivia. Boys of 12 were working there in dangerous conditions. Their fathers don't live far beyond 40, most dying from damaged lungs. The mines are owned by an Anglo-American company.

Norman is also a member of MGA. His research was invaluable when I was researching and writing the text for the Heritage Lottery funded exhibition on geology and coalmining at Park Bridge.

Some of you may know him from his expert flora walks around Greater Manchester. Norman and his brother Alan have put in years of voluntary work around our region. One of their favourite places is Werneth Low near Hyde. Norman is intrigued by the amount of spring water emerging from many locations around Werneth Low and would like to know if any of you could shed any light on the source of all this water. (*any ideas?? ed*)

As it happens my Granddad used to live on Werneth Low as a child, close to the village of Greave. Their water source was a well which never dried up in all the time his family lived there, even during very dry spells.

You can get a copy of the book from Norman Bamford, 1 Cooperation Road, Audenshaw, Manchester, M34 5LY. The book costs £6 including postage.



Snipe Colliery- Audenshaw

Other Societies

MGA members are welcome guests at other Geological Societies events, some outings below. Ring the contact given below for further details or look on their websites via links from ours.

Leeds Geological Society

Contact anthea.brigstocke@zen.co.uk
Sat 6 June Carboniferous Johnson's Wellfield Quarries, Crosland Hill, Huddersfield, Leaders Quarry Management and Nicola Bullas
Sun 14 June Jurassic Runswick Bay
Professor Paul Wignall, University of Leeds
Sat 27 June Cretaceous Chalk succession in Lincolnshire
Paul Hildreth

Liverpool Geological Society

Contact **Joe Crossley** 0151 426 1324
Sun 5 Apr Field Meeting to Cheddleton and The Churnet Valley Railway, North Staffordshire with Joe Crossley.
1-4 May West of Ireland with Bettie Higgs.
Thur 21 May Visit to British Gypsum Mine near Penrith.
Sat 13 Jun Calton Hill and Ashford with Fred Broadhurst.

North Staffs GA

Contact **Gerald Ford**, 01630-673409
Wed 22 April: The Potteries Museum, Hanley.
Sat 27 June: Brymbo Fossil Forest, nr Wrexham (jointly with the BCGS). Leader: Dr Jacqui Malpas

Oldham GS

Contact **Jo Holt** 01457 874095
Sunday April 26th Alderley Edge
Saturday 16th May Scunthorpe area, museum and quarries

Open University Geological Society, North West

Contact **Ian Barrow** 0161 969 6229

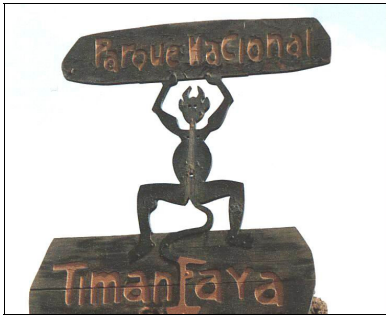
Sun April 19 Ingleton Mapping field trip for beginners and others (low and high mobility) (contact Alan Diggles 01772 423397).

Sat June South Cumbria: The Geology of White Scar and Witherslack with Mike Dewey (contact Martin Elsworth 01524 732533).

Holiday Geology... Ann Phillips “finally made it back to UK”

Lanzarote is the furthest east of the Islands known as the Grand Canaries and lies some 60 miles off the coast of North Africa and is part of the modern Spanish province of La Palmas.

I travelled with my nephew’s family, so not much hill walking was done. On the first day we drove from Puerto del Carmen to the National Park of Timanfaya, passing through the town of Yaiza where we glimpsed a dromedary train which takes tourists up and down a gritty steep mountain slope for a 25 minutes ride.



My first impressions of the landscape of the Timanfaya National Park were of barrenness and the striking resemblance to the volcanic outflows in the Cascades of Oregon State in the USA.. I am sure the experts among your members of the MGA will say the two lava flows are completely different but I was constantly reminded by the same jagged black lava skyline pushing right up to the manmade road which enables one to see the landscape without the struggle of actually walking on the sharp basalt outcrops.

John and Margaret Goulding give this description in their Windrush Island Guides

“Lanzarot’s unique landscape was created by a series of geologically recent volcanic eruptions leaving a first impression of a moonlike surface. There is a stern and silent grandeur where the light plays over the volcanic fields in unexpected colours and tinctures, punctuated by grotesquely contorted lumps of lava. In 1730 eruptions began which lasted over 6 years and devastated one of the most fertile regions on the island. Ten villages and some 420 houses were engulfed. When the lava finally cooled it covered an area of about 200 square kilometres. The once fertile cereal fields were transformed into a sea of ash and clinker, and 32 new craters were thrust up forming a new mountain range known as the Montanas del Fuego de Timanfaya.”

We ate lunch of grilled chicken in a restaurant on top of an outcrop on the Timanfaya volcano called Isolate del Hilario. The meat is grilled directly over the heat from a deep volcanic vent. The temperature inside the volcano is 600 C and just below the surface is a cool 100 C. I have a short video of one of the guides pushing dried grass into a crater on a long stick, and watching it burn : it’s like supping with the devil! The other trick is to place a metal can over a vent, pour in water and wait the odd 20 seconds for it to swoosh into the air as it rapidly boils away ~ rather like a geyser erupting.



El Golfo

I finally made it back to UK!

It was not as warm as I hoped in Lanzarote but we did manage to take in the Volcanic Park at Timanfaya, and to El Golfo, where the sea has cut into a volcanic crater and exposes layer upon layer of ash and lava. The lake is bright green with algae!

Please take a picture and write a paragraph for our newsletter when you go somewhere exciting this summer... ed

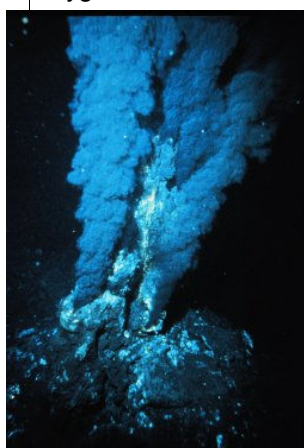
Sue Plumb went to Liverpool University to the Herdman Symposium

Herdman Symposium 2009 – Beginnings of the World

This was a day of talks organised by the Earth and Ocean Sciences student society at Liverpool University on Saturday 28th February 2009. It is an annual event and is always very interesting.

The first speaker was Dr Phil Bland, Imperial College London, on 'From dust and gas to the first planetesimals: the early history of the Solar System'. Phil explained that the analysis and dating of meteorites can give an indication of how planets have been formed elsewhere. He showed a computerised simulation of star formation and the subsequent accretion of dust into planets.

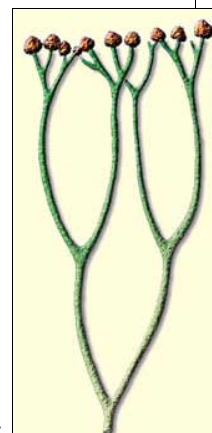
The second speaker was Dr Nick Butterfield, University of Cambridge, on 'From the top down: animals, oxygen and the Ediacaran transition'. Nick described the stratified nature of the Proterozoic oceans and the subsequent Ediacaran species explosion in terms of levels of atmospheric oxygen, and linked this to the evolution of zooplankton. The zooplankton ate the cyanobacteria, and so the cyanobacteria had to evolve other, larger forms to survive. His mantra was 'big fish eat little fish'. The first attempts at larger, organ-grade animals followed.



Black Smokers

The last speaker of the morning session was Professor Joe Cann FRS, University of Leeds, on 'Ocean floor hot springs, strange animal communities and the origin of life'. These hot springs are found where plates split apart, and may be associated with either volcanoes or faulting. Joe explained how the earliest life is thought to have been powered by chemical energy derived from these black smokers, and showed some excellent deep sea photos.

After a buffet lunch, the day continued with a talk by Professor Dianne Edwards FRS, University of Cardiff, on 'Plants that changed the world'. Land plants had to evolve methods of obtaining water and transporting it through their cells. One of Dianne's main research interests is *Cooksonia*, a small plant which was widespread in the late



Cooksonia sp.

Silurian and early Devonian, and was thought at one time to be the first land plant. She described the constraints on its development and explained that the evolution of roots, and then the biochemical evolution of lignin enabled the development of trees and eventually flowering plants.

The next speaker was Professor Mike Searle, Oxford University, on 'Evolution of the Himalaya – Karakoram and Tibet: analogue for crustal growth since the Proterozoic?' Stunning aerial photos of the area enabled us all to sit back and marvel at the landscape. Mike had marked thrusts and folds on many slides and these gave a good indication of the massive forces involved. Field trips to this area involve horses, yaks, climbing and the help of many local people.

The final talk of the day was by Professor Mark Sephton, Imperial College London, on 'Organics matter: Life and its distribution in the solar system'. Mark is European Team Leader for the Urey life detection instrument which has been selected as part of the Exo Mars mission, planned for 2016, the aim of which is to explore the Martian surface for traces of life. The instrument will take Martian soil samples and analyse them for biological molecules, and also meteorite and life amino acids, which differ in various respects such as chirality. Watch this space!

Our heads were buzzing by now with all the information which had been so well presented by excellent speakers. It was a super day, well worth the journey to Liverpool. Sue Plumb

I'll try to remember to put a notice of this event in next December's newsletter ... ed.

Manchester Geological Association



OUTDOOR EVENTS Spring - Summer 2009

DATE **Saturday 2 May 2009**

Venue: Apedale Heritage Centre, Newcastle-under-Lyme

Leader: Jane Michael

Time: 10.30am - 4pm

Description: This trip will encompass a guided tour of the Museum (1hr) followed by a guided tour underground into Apedale Mine (1hr) plus the opportunity to visit other exposures within the Community Country Park. There is a cafe on site which offers a wide range of hot and cold snacks (tea in mugs!). The Heritage Centre makes a charge of £5 per adult and £2.50 for children and concessions which we will have to pay but this will be well worth it. By going on a Saturday we will also benefit from the Mosley Railway Trust work being available to visit.

Contact: Marjorie Mosley

DATE **Sunday 7 June 2009**

Venue: Sandstones of Overton Hill, Frodsham

Leader: Duncan Woodcock

Time: 10.30am - 2pm

Description: During the 19th century the sandstones along the scarp face of Overton Hill were extensively quarried to provide building stone. This excursion will look at the mixed fluvial-aeolian(?) facies exposed in the disused quarries and natural exposures available. If time and enthusiasm allow, it may be possible to look at the aeolian facies exposed in the centre of Frodsham. About 2 Km on easy footpaths.

Contact: Marjorie Mosley

DATE **Sunday 19 July 2009**

Venue: Styal Mill and Quarry Bank Gardens (see also page 3)

Leader: Fred Owen

Time: 10.30am - 4pm

Description: This is an event aimed at the public visiting the National Trust property at Styal Mill but all members are welcome. There will be guided walks round the garden and part of the Styal Trail, together with displays and activities for children.

Contact: Marjorie Mosley

Please book with Marjorie for all our outdoor events... times and dates sometimes change.

Field Excursions Organiser

Marjorie Mosley

0161 432 4343

DATE Sunday 9 August 2009

Venue: Healy Dell, Rochdale
Leader: Marjorie Mosley/Jane Michael
Time: TBA
Description: TBA
Contact: Marjorie Mosley

DATE Friday 18 September to Sunday 20 September 2009

Venue: Southern Lake District
Leader: Chris Arkwright
Time: Arrive Friday evening, leave Sunday afternoon
Description: To come
Contact: Marjorie Mosley – **Booking Essential**

DATE Saturday 10 October 2009

Venue: Building Stones of Manchester University and its environs
Leader: Norma Rothwell
Time: To be advised
Description: TBA
Contact: Marjorie Mosley

Full details of the last three events will be in the June Newsletter

Further information about the MGA from the Hon. Gen. Secretary Jane Michael
tel. 07932 927040, or email info@mangeolassoc.org.uk or go to our website www.mangeolassoc.org.uk

VISITORS ARE ALWAYS WELCOME

Who's Who in the MGA Council 2009

President	Dr Christine Arkwright	
Vice President	Dr Tony Adams	SAES University of Manchester
General Secretary	Jane Michael	22 St Giles Drive, Godley, HYDE, Cheshire SK14 2ST 0161 366 0595
Membership Secretary	Fred Owen	
Treasurer	Niall Clarke	
Indoor Meetings Organiser	Jim Spencer	
Field Excursions Organiser	Marjorie Mosley	
News Letter Editor	Mary Howie	
Web Site	Sue Plumb	www.mangeolassoc.org.uk
RIGS Group	Marjorie Mosley	gmrigs@hotmail.com
Minutes Secretary	Sue Plumb	
Archivist	Derek Brumhead	
Other Council Members	Chantal Johnson, Lisa Abbott and James Jepson	
President Manchester University Geol. Society (ex officio)		

MGA email addresses :- To contact our President or either of our Secretaries email info@mangeolassoc.org.uk
for Jane Michael and field visits - outdoors@mangeolassoc.org.uk
for Jim Spencer and indoor meetings - lectures@mangeolassoc.org.uk
for Mary Howie and the newsletter - newsletter@mangeolassoc.org.uk

Manchester Geological Association



President's Dinner Saturday 26 September 2009 at the National Trust's Quarry Bank Mill in Styal Country Park



I have great pleasure in inviting you to this delightful venue for the President's Dinner.

The MGA has close connections with Quarry Bank Mill due to the work done by members over the years to interpret and publicise the interesting geology found on the Styal Estate. More recently, Fred Owen and Fred Broadhurst have created a geology trail in the newly-restored gardens and will be leading short geology walks as part of the MGA's day in July, *The Styal Desert*.

The National Trust has kindly allowed us free access to these gardens for a pre-dinner geology walk, led by Fred and Fred. Then, after dinner Alan Knapper, the Head Gardner, will tell us more about the garden's history and restoration. The reception and dining areas at Quarry Bank have recently been refurbished and a lift to the upper floors installed. Also, the restaurant is gaining an excellent reputation since the arrival of a new manager and chef. See below the details of our selected menu and evening programme.

I hope you will decide to come, and do please bring along your family and friends, too.

Chris Arkwright President of MGA

Pre-dinner walk at 6.00 pm Dinner 7.00 pm for 7.30 pm Carriages at 10.30 pm

Menu: Carrot and Butter Bean Soup; Roast Sirloin of Beef with Yorkshire Pudding and Seasonal Vegetables; Homemade Apple Pie and Cream; Tea or Coffee and Mints.
(Vegetarian option available)

Booking forms & cheques to: Chris Arkwright, 28 Highgale Gardens, Lostock Hall, Preston PR5 5YT

MGA President's Dinner Saturday 26 September 2009 Cost £20 per person

NAME(S)

No. of people booked Cheque Enclosed £..... (payable to MGA)

Address

.....e-mail
(address or e-mail needed to send a receipt & location map)

Special dietary requirements