

Manchester Geological Association

Newsletter ~ June 2008



www.mangeolassoc.org.uk

President: Joe Macquaker PhD

Dear Member,

Enclosed with this issue is this year's **North West Geologist**; our thanks to Fred Owen for his efforts in coordinating with Liverpool GS and the editor, Wendy Simkiss.

The **Local Heroes** weekend, when we celebrated the Carboniferous was an outstanding success, so much so that we had to refuse some applicants as we were **FULL!** We have had many congratulatory comments from visitors and members and hope to stage a similar event in the future. Our thanks to Joe and Chris who did most of the organising, to John Pollard for a magnificent display of fossils, and to all who helped on the day.

The full write up and field notes of the recent super **field weekend near Shap** will be published in the next edition of the NWG.

The MGA visit to **Germany** led by Dr John Nudds was really great! Notes follow on page 3.

Bookings for the field trip to the **Isle of Man** in October are now well under way. If you want to go please contact **Jane Michael** before **June 21st**. See page 7 for more details.

Jim Spencer is currently finalising a splendid programme of lectures and seminars for the autumn. The first lecture is on **Wednesday October 1st at 7 pm**. **Professor David Siveter** (Leicester University) will give a talk entitled "**Silurian Soft-bodied Sensations: The Unique Window on the Evolution of Life**". Details and dates of the rest of the programme will be in the September newsletter and on the website.

We are sad to report that our present President **Dr Joe Macquaker** is leaving Manchester University this autumn for a post teaching Petroleum Geology at the Memorial University of Newfoundland, St John's, Canada. He tells me that he's already been invited to be join the Newfoundland and Labrador Section of the Canadian GA; maybe a possible twin society? We wish him all the best in his new life and look forward to an MGA field trip to Canada in the future!

Dr Christine Arkwright, our VP, will take over as President until 2010.

Mary Howie newsletter editor

PS Some members are already signed up to electronic newsletters.... You can have this in glorious

Technicolor if you wish, just let me know, by email. MDH

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Quick Diary

12 July	Marsden Area ~ field trip
21 September	Ingleton and White Scar Cave ~ low mobility field trip
1st October	Lecture 7 pm Prof David Siveter "Silurian Soft-bodied Sensations!"
10 / 13 October	Isle of Man Weekend visit
19 October	Liverpool Urban Geology ~ field trip

Greater Manchester RIGS Group

Our display at Bramhall Library seems to have aroused little interest probably due to the cramped positioning of the display in the children's library. However, the librarians in Stockport library reported keen interest and we have recruited two volunteers. Our thanks to John Price who supported us there.

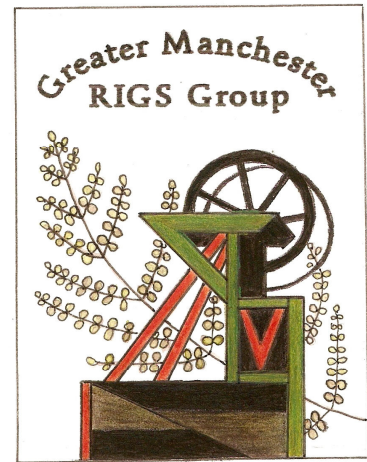
On 23rd. April I attended a meeting at Manchester University with Natural England and the Greater Manchester Geological Unit concerning the revised Local Geology Action Plan. GMGU stated that they would bear the cost and distribution of the revised LGAP to interested parties.

I attended the North West Regional Geodiversity Partnership meeting at Natural England's Office in Wigan on 9th May, along with representatives from Lancashire, Cheshire and Cumbria RIGS Groups, Mandy North from Natural England and Keith Ambrose from BGS. Among the topics discussed were funding, Merseyside RIGS data and status, update of NW Region LGAPS, management of records and site selection criteria. The next Partnership meeting is to be held on Tuesday, 2nd. September 2008, at Natural England Offices, Wigan.

We now have six sites ready for designation as RIGS. They are - Poise Brook, Stockport; Arden Bridge Quarries, Tameside; Park Bridge, Oldham; Rochdale Cemetery; Woodside Quarry, New Hey, Rochdale and Haigh Plantations, Wigan.

Our new logo, we hope, reflects the geology of the Greater Manchester area. The plant is a copy of a fossil of *Neuropteris rarinervis*, (ref.LL879) found in the Carboniferous Westphalian A above the Quarter Mine and is from Coney Green Colliery in Radcliffe. We would like to thank Phyllis in the Manchester Museum Resource Centre for providing us with a selection of plant fossils to copy..

Marjorie E. Mosley, Secretary, Greater Manchester RIGS Group. June, 2008.



MGA field trip to Shap/Orton May 10 & 11th 2008

Jane Michael writes:-

The trip to the Shap/Orton area led by Christine Arkwright in May was very interesting and most enjoyable. The weather was generally good apart from a thunderstorm (complete with forked lightning in the distance) during the last couple of locations. We saw some very interesting geology: limestone, dolomite, Shap granite, rhyolite, springs tainted by sulphur and Triassic sandstones, together with plenty of fossils. We also got to look round Brough Castle - up close and personal with the rocks.

We had a lovely picnic in the sunshine watched bemusedly by sheep (they obviously have never met the sheep on Mam Tor or would have mugged us!!) A detailed report has been prepared and will be submitted to the NW Geologist. Photos of the event will appear on the website shortly.

Membership Matters

The 2008 membership renewals are now complete.

We are sorry that nine members decided to leave us, but are delighted that eight new members have joined us this year. Please continue to encourage your friends and acquaintances to come to our events - and maybe they'll join too!

Fred Owen

May 2008 MGA visit to the
Lagerstätten of South-West Germany

WOW! What a week!! 1117 kilometres, 7 museums, 4 quarries, 1 meteorite crater, a trip on the Rhine (15 minutes) and a cable car ride, plus a lot of cream cakes and sausages, all in 7 days. We were 7 MGA members led by Dr John Nudds (Manchester University) and Dr Cindy Howells (Cardiff Museum) all in a big mini bus going to look at 4 sites of exceptional fossil preservation.

Mary Howie Members experiences:-
Saturday 17th May 2008

Darmstadt ~ Tourism

Our party of nine met at 8 am at Manchester Airport, where John Nudds provided us with a superb illustrated booklet which detailed our plans for the week.

In Darmstadt we visited the Mathildenhöhe , an Artists' Colony, which was designed for an exhibition in 1901 in the Jugendstil or Art Nouveau style. We admired the gold-decorated Russian chapel, went up the Wedding Tower for a view over the town, and wandered amongst lots of outdoor art including large stone sculptures and pollarded plane trees. Coffee and cake featured here for the first but not the last time and we tried out our non-existent German language skills. We then drove to the Rosenhöhe and strolled in the rose gardens and flower meadows. No geology today, but a very pleasant and relaxing introduction to Germany for those of us who had not been there previously. Sue Plumb



Propaleotherium parvulum

Sunday 18th May 2008. **Grube Messel**

~ Eocene Oil Shale ~ 49 Ma

After a good night's sleep at the friendly, family run Schnecken-Schroeder Hotel, a very early start was made by John and Mike who went for a run through the woods. Fortified with an excellent breakfast, we all headed off to the Messel Pit where Dr Mike Walker gave us a stimulating 3 hour tour of the pit, explaining the history and the many fortunate circumstances which enabled this area to be designated a World Heritage Site yielding a continuing supply of Eocene fossils. A rare combination of circumstances 49 million years ago allowed the



John Nudds sampling 8000 year old water

preservation soft tissue in a range of fossils. The steep sides of the pit prevented the animals from getting out and anoxic bottom water prevented decomposition.

Until recently the accumulated oil shale was mined to produce oil. Plans to use the pit as a refuse dump were vigorously opposed, but only after vital water pumping had been installed, this meant the pit was left in good condition as a continuing source of fossils. The fossils are very fragile and need to be kept wet until they can be prepared and encased in resin. Recent deep boring has confirmed the origin of the site as a Maar volcano followed by sedimentation. The bore also provided an artesian well providing 8,000 year old water for Dr Nudds et al to sample!

We had a typical German Sunday lunch in Messel village before visiting the nearby Messel museum to view the pit's fossils including plants, insects, amphibians, birds, bats, horses, fish and reptiles. The pit's most famous fossils are the ancient horses. One of the species, *Propaleotherium parvulum* had a shoulder height of only about 30cm and was a browser of leaves and seeds, existing at a time before the establishment of grasslands. The day's outing was rounded off with ice cream and a walk round a nearby lake then beer on the hotel terrace and another sensational supper at the hotel. Michael and Joyce Cunningham

Monday 19th May Rothenburg ob der Tauber, Nördlingen & the Ries Crater ~ 50 Ma

Monday was a traveling and sightseeing day as all museums are closed. We drove to Rothenburg, and arrived in the market square of this mediaeval walled town as the clock in the



Rathaus clock ~ 12 noon

Rathaus struck twelve and the little windows each side flew open to reveal the Mayor downing 3 litres of wine watched by Count Tilly! After lunch and a wander round the town we went on to Nördlingen, another walled town, in the Ries impact crater. Here we climbed the tower of St Georg Kirche, seven



storeys high, for a wonderful panorama and a close study of the impact breccia, the suevite of which the tower is built.

Refreshed with cakes and tea we moved on to Otting where, in a disused quarry, Mary's hammer was put to good use chipping

out samples of suevite. Finally we reached Eichstätt and rounded off a busy day with an excellent meal at the Ammonite Restaurant.

Bess Barry

Tuesday 25th May Eichstätt and Solenhofen Upper Jurassic Limestone 150 Ma



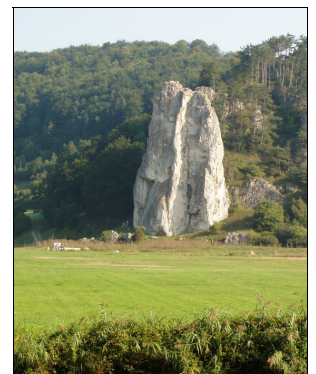
"What big teeth you have?"

No, we didn't find *Archaeopteryx* number 11, but we did see 4 real specimens and casts of most of the rest at the 2 museums we visited.

First, the Jura museum, housed in the

Willibaldsberg Schloss, Bishop Willibald's summer palace, built high above the Altmuhl valley.

Here were wonderful specimens from the Solenhofen Plattenkalk all beautifully preserved in the honey-coloured, lithographic limestone. Ferocious fish, huge crocodiles, horseshoe



Altmuhl valley ~ limestone tower

crabs, insects..... So many.. and of course a couple of real

Archeopteryxs or is it *Archeopteryxi*.

No time for coffee, but off up the Altmuhl valley, past huge limestone bluffs composed of sponge remains, to the Burgermeister Müller museum, more



Archeopteryxi, crabs and fish. Upstairs was an exhibition of the old printing process when the polished

Solenhofen limestone was used as the basis for the

first lithography, today it is quarried for flooring and wall cladding.

Lunch was taken on the terrace of the Alte Schule Gasthof, more sausages, sauerkraut, bread and beer with a lovely view over the valley.

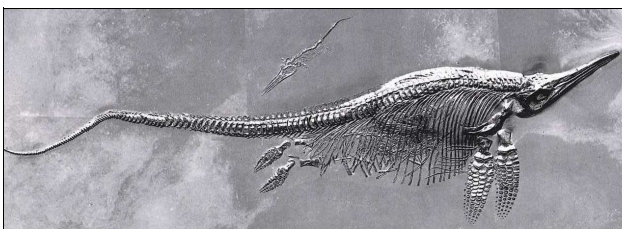
Then, armed with hammers and chisels, hired from the museum, we were off to the Haardt quarry (where the first *Archeopteryx* were found) ... hoping for *Archy* number 11. No, sadly no luck, but we found 3 small fish, some floating crinoids and bits of ammonites. Grubby, but happy, we drove back to Eichstätt for Kaffee and Kuchen.

Mary Howie

Wednesday 25th May Holzmaden and Ohmden Quarry ~ Lower Jurassic Shales 180 Ma

We drove to Holzmaden to visit the Hauff Museum. Bernard Hauff Snr brought Holzmaden to the attention of the scientific world in 1892 when he exposed the outline of the body of a fossil ichthyosaur complete with its skin. The preservation of the soft tissue in Hauff's specimen proved the presence of a triangular dorsal fin and an upper lobe to the tail, neither of which had skeletal support and which were previously unknown. The museum is now managed by Rolf Hauff, grandson of Bernard Hauff Snr.

The geology in this area is the Lower Jurassic, Upper Lias, Holzmaden shales, which extends over a depth of only about 6 metres. There is a stunning display in the museum where this sequence of the Holzmaden Shale is laid out as a series of large shallow steps, with each level featuring large characteristic fossils in situ.



Pregnant Ichthyosaur *Stenopterygius crassicosatus*
310 cm long, Hauff museum, Holzmaden

There are also many excellent fossils on display including ichthyosaurs, plesiosaurs, crocodiles, turtles, fish, ammonites, belemnites, pterodactyls, and a 12 metre long sea lily or crinoid attached to a floating log, which is well displayed on the wall of one gallery.

In the afternoon we drove to Ohmden quarry and, armed with hammers and chisels, attempted to find our own



Ammonite hunting at Ohmden

specimens. The Wilderschiefer beds near the top of the Holzmaden shales are exposed here and these contain many pyritised ammonites. The quarry was full of families on school holidays who were hammering merrily away, with none of the health and safety concerns which are usually prevalent in these situations in the UK. We all found plenty of ammonites and so became rather blasé about them by the end of the afternoon.

Sue Plumb

Thursday 22nd May Stuttgart Museums

On Thursday we travelled to the very fine Löwentor Museum Stuttgart. This houses a beautiful collection from the Devonian to the Pleistocene including specimens from each site we had visited. A notable specimen was the skull of the Placodont *Cyamodus rostratus*, a marine reptile of the Triassic. This has simple tablet teeth in the upper jaw suitable for crushing thick shells of molluscs & brachiopods. On through the galleries past pregnant Ichthyosaurs, Woolly Mammoths, Primeval Horses and much more: for sheer elegance a huge Crinoid display dominated two storeys of wall. A comprehensive collection with many favourites. Still reeling from such a plethora

and fortified with coffee and kuchen, a walk through charming parkland lead to the Natural History Museum in the Rosenstein palace Then off to Bad Kreuznach, a spa town full of holidaymakers enjoying the Corpus Christi national holiday.

Barbara Hey

Friday 23rd May The Hunsrück

Devonian Slates 390 Ma

Our final day was spent in the beautiful Hunsrück Mountains visiting the Herrenberg Slate Mine, where our museum guide greeted us with the Miners' daily greeting of "Gluck Auf" (Good Luck) before showing us round the second level of this old mine. After viewing the old workings of vertical slates, we were then invited to view the adjacent museum, which houses a small, but fine collection of Herrenberg fossils: - starfish, brittle-stars, fishes, etc.



Fossil preparation at Bundenbach



A brittle star, *Furcaster paleozoicus* preserved in pyrites.

A leisurely lunch at the museum was followed by a practical session of fossil preparation led by a local palaeontologist,

Wouter Súdkamp, in

which we all laboriously scraped away at locally collected slates to slowly reveal our very own Devonian fossils beautifully preserved in pyrites. Wouter then escorted us to his house, where, following a virtuoso demonstration of how to round off slates for roofing, he showed us his fine collection of fossils, mostly from the Hunsrück, which included some type and figured specimens

Jim Spencer

Saturday 24th May

Home via Rudesheim am Rhine

Having failed to organise a wine tasting, I thought that at least we could see the vineyards and the bends in the river. So we encouraged John to drive to the car ferry across the Rhine and we had our 15 minute boat trip to Rudesheim am Rhine, another very touristy medieval village. Today it was heaving with Harley Davidson bikers.... hundreds of them having a Bike Fest! We escaped up the cable car, swinging over the vines, to the huge Germania monument, celebrating the victory over the French in 1871, had our last cup of *Kaffee mit Kuchen*, then off to Frankfurt airport and home.

On the way back John asked me which was the best bit - I couldn't answer.. It was all great - 4 fantastic Lagerstätten, fossil hunting in quarries, fossil preparation, amazing fossils in fantastic museums, medieval walled towns, plus a crater and some superb suevite: a great week with very congenial companions!

Mary Howie

PS John Nudds and Paul Selden are talking about a trip to the American Lagerstätten next summer.. I'll keep you informed MDH

If you want to know more about the Geology — read Paul and John's super book :-

Evolution of Fossil Ecosystems (2004), by Selden & Nudds ISBN 1-8476-041-9

http://www.manson-publishing.co.uk/science/sci_titles/SeldenNudds.html

Manchester Geological Society



Remaining OUTDOOR EVENTS 2008

DATE **Saturday 12 July**

Venue: Castleshaw Moor and Pule Hill, Marsden

Leader: Joe Macquaker and Fred Broadhurst

Time: TBA

Description: The field trip involves a visit to Castleshaw in the morning and Pule Hill in the afternoon, with a pub lunch in between. Namurian marine bands will be examined to demonstrate the value of goniatites for dating and to discuss the conditions under which the marine bands and associated sediments were formed.

Contact: Jane Michael

DATE **Sunday 21 September 2008**

Venue: Ingleton and White Scar Cave Joint with OUGS

Leader: Norma Rothwell and Jane Michael + White Scar Cave Guide

Time: Probably 10am - 4pm

Description: Whilst this is a Low Mobility Excursion to the Ingleton Area, all are welcome. The aim is to view Ordovician metamorphosed basement rocks from the viewpoint of Ingleton Quarry and secondly to observe Carboniferous Limestone features including weathering, spring-line settlements, an unconformity and industrial use. Ending with an overview of the landscape of the area. Very easy walking on tarmac paths or level ground. Distance is only about 100m from the cars. Sensible shoes required. After lunch we will be taking a guided tour of White Scar Cave (fee payable).

Contact: Jane Michael

DATE **Friday 10 – Monday 13 October 2008**

Venue: Isle of Man

Leader: John Barker

Description: Itinerary not yet finalised.

Time: Travel to Isle of Man Friday, field trip Saturday and Sunday, returning to Manchester on Monday.

Accommodation : Single rooms £45 pp/pn BB; £55 pp/pn DBB.

Costs: Double/Twin £35 pp/pn BB; £45 pp/pn DBB.

Transport: Car ferry either from Liverpool or Heysham, depending on if you want to have Monday on the Isle of Man and return to Heysham in the evening or want to come back to Liverpool on Monday morning. Approximate cost for one car and driver is £132; Foot passengers are £31 return. Car sharing possible.

Contact: Jane Michael before 20th June for further details and to book on this trip

DATE **Sunday 19 October 2008**

Venue: Urban Geology in Liverpool

Leader: Alan Diggles

Time: 10.30am - 4pm

Description: To view some natural outcrops and building stones in the City Centre. The itinerary of 4km on flat terrain will include St Georges Hall, Everton Gardens, the Metropolitan Cathedral and the Anglican Cathedral.

Contact: Jane Michael

Booking with Jane Michael is essential for all of our outings

For Field Excursions contact Jane Michael email outdoors@mangeolassoc.org.uk

Further information about the MGA from the Hon. Gen. Sec. Nick Snowden, 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 2007~2008

President	Dr Joe Macquaker	
Vice President	Dr Christine Arkwright	
General Secretary	Nick Snowden	
Membership Secretary	Fred Owen	
Treasurer	Niall Clarke	
Indoor Meetings Organiser	Jim Spencer	lectures@mangeolassoc.org.uk
Field Excursions Organiser	Jane Michael	outdoors@mangeolassoc.org.uk
News Letter Editor	Mary Howie	newsletter@mangeolassoc.org.uk
Web Site	Sue Plumb	www.mangeolassoc.org.uk
RIGS Group	Marjorie Mosley	gmrigs@hotmail.com
Ex President	John Price	
Minutes Secretary	Kathleen Mais	
Archivist	Derek Brumhead	
Other Council Members	President Manchester University Geol. Society (ex officio)	

To contact our President or either of our Secretaries email info@mangeolassoc.org.uk

**Open University Geological Society ~
North West Branch**

Pottering in Pembroke

Saturday 23rd to Tuesday 26th August 2008

Leader: Diana Smith, OU Tutor & one-time Chairman of OUGS.

Rocks around the Pembrokeshire Peninsula from
Pendine Sands to St. David's.

Staying in the Lord Nelson Hotel, Milford Haven B & B

Booking deadline 30th June

For more details contact Jenny Elsworth
jenny.elsworth@btinternet.com

ESTA, the Earth Science Teacher's Association are holding their 41st Annual Course and Conference in Liverpool between the 12th and 14th September 2008.

Keynote Speakers :-

Professor Bill Maguire

Professor Jim Marshall

Further details and booking forms can be found on www.esta-uk.org

MGA members are welcome guests at other NW Geological Societies activities . Contact them via links from our website to their websites

Leeds GS

Contact **Anthea Brigstock**
28th June Cretaceous Geology of the East Yorkshire Coast
13 July Cow Green and Cauldron Snout, Teesdale
30 August Depositional environments in the Huddersfield White Rock of the Golcar area, Huddersfield

Liverpool GS

Contact **Joe Crossley**
21 June National Coal Mining Museum

North Staffs GA

Contact **Gerald Ford,**
20 July: Crummack Dale, Austwick, Yorkshire.
16 August Peak District., Manifold valley or Roaches

Oldham GS

Contact
22 June
25 June
12 July
23 July

Jo Holt

Runswick Bay, North Yorks 10 am
Castle Hill, Almondbury, Huddersfield, 7.30 pm
Formby foreshore, 11 am
Gorpley Clough, nr Bacup 7.15 pm

Open University G S North West

Contact **Ian Barrow**
22 June Carrock Fell field trip
23 -26 Sept "Pottering in Pembrokeshire " (see above)

Shropshire GS

12 July Bull Farm, Kenley pm
23 August Forest Glen geotrail, Wrekin Hills,

The next newsletter will be **early September** Copy to me by the **end of August** please. Mary Howie - newsletter@mangeolassoc.org.uk .

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