

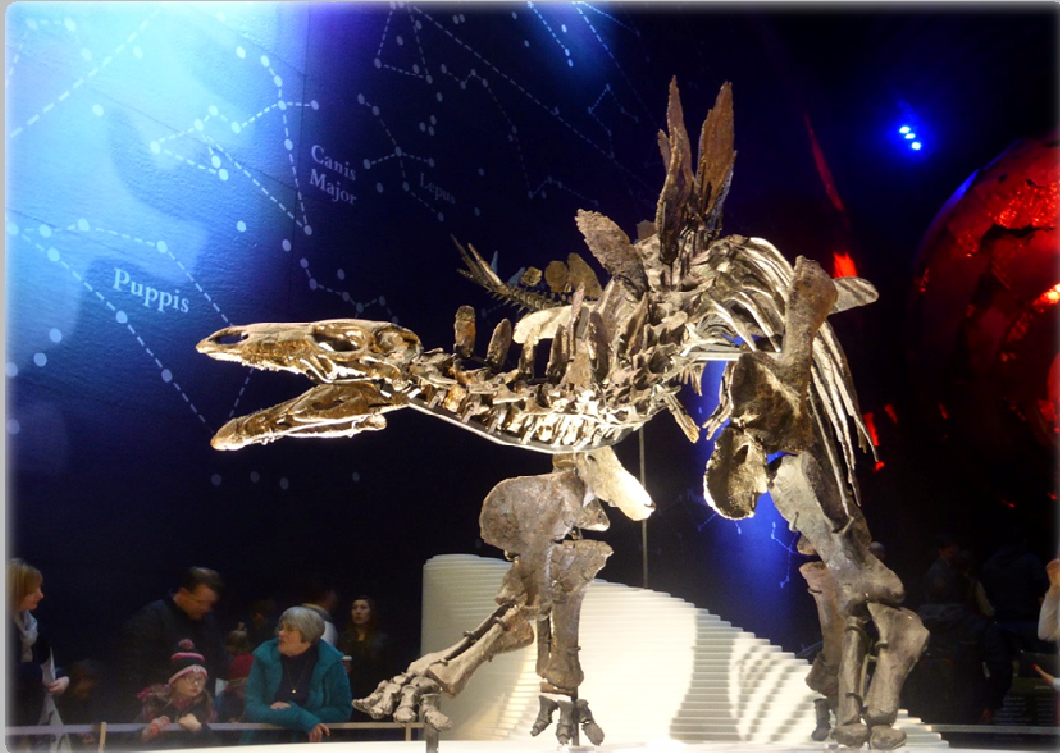


The
Geological
Society

North West Regional Group

Newsletter

Autumn 2015



Your guide to Geological Society events in the North West - 2015/16

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Committee News

We welcome you back to the regional group for a new season of lectures and fieldtrips. We are pleased to welcome Martin Lucas in to the fold of the committee.

Our current Committee comprises:

Chair: Malcolm Henderson

Secretary: Nik Reynolds

Treasurer: Mark Parkin

Outreach Officer: Dr Katherine Harrison

Dr Laurance Donnelly

Andrew Moore

Laura Ward (nee Pender)

Martin Lucass

Catherine Kenny

Robert Hunt

Looking Back at 2014/15

I hope you all enjoyed our previous season of lectures, and judging by the numbers of members attending, we seem to be doing something right! It seems we are tempting more and more members from their armchairs to attend the lectures we put on which is good news as a lot of hard work goes into organising these events.

We have continued with the joint ventures with our regional Geological Association groups and these have proved to be successful events. These lectures are not associated with a professional discipline, rather a traditional geological lecture which is not based on subject matter relevant to most of our '9 to 5' professional lives. If you have not had opportunity to attend these talks, I would strongly recommend that you take the plunge! These are based in Chester University (North Wales Geological Association) and John Moores University (Liverpool Geological Association).

We unfortunately had a few problems with field trips last year and a few trips fell through which left no time to get replacements.

We have also undertaken several new initiatives to involve members/potential members which have been largely successful.

A-Level Revision Event

Our initial intention for inclusion for A-Level students, which previously had involved the occasional keen student coming to a field trip, was to run a region wide series of lectures based on difficult subjects from the A-Level syllabus. As our region covers from Carlisle to Keele, and Bangor to Buxton, the area to ensure inclusion was significant. It was considered that each of the regional universities hosted a lecture which could be accessed by schools within that area, and possibly schools who were prepared to travel. Due to the distance schools were to travel to Bangor, an additional bolt on field trip was to be organised on Anglesey. This was aimed to introduce students to university style lectures, the regional universities as well as hear a subject explained by a specialist in the field.

The inaugural A-Level lecture was held at Manchester and was presented by Professor Kevin Taylor. The subject was sequence stratigraphy and we had an audience of 100 students and teachers. The talk was very robust and discussed the methods of assessing sequences, mistakes in sequence stratigraphy as well as presenting several good examples/case studies. The response of the lecture was generally very good, however as students were financing their travel, it was decided that rather than tour the universities, it would be better to bring all the students to one venue for 1 combined event. This involved significant rescheduling and revision to the programme.

On 27 March, the revised/rescheduled event was run where 2 large lecture theatres were run in tandem housing 3 lectures each for both upper and lower 6th form groups. The subjects comprised metamorphism, plate tectonics, mass movement, the Milankovitch Cycles, a case study of the Triassic aquifer as well as a mapping lecture for Mam Tor. Manchester, Liverpool, Bangor and Keele universities were represented, with the Environment Agency speaking on the Triassic aquifer. We had over 160 students and teachers for this event, with several groups coming from outside the region, such as Reading.

Feedback of the half day A-Level event was excellent and there was definitely a strong appetite to continue this for 2016. We presented the proposals to the Geological Society Professional Council just after the inaugural lecture as well as following the second event, and it is likely this will be copied throughout the regions.

We will be looking at changing several aspects of the lecture series for the next event, such as reducing lectures from 1 hour to 40/45 minutes with possible challenges to take back and discuss in class following the event.

On the back of this event, we have also re-invited Dr Ian Stimpson to discuss the new assessments for mantle convection and the identification of Bridgemanite to our members in October. At the end of the A-Level talk, the head of Earth Science Teaching Association (ESTA) had to remind the students that the many new discoveries in mantle convection were not known to exam writers and that this was literally hot off the press!!!!

Undergraduate Student Chapter

We have noted over many years that the attendance of undergraduate and graduates who are studying at universities very rarely attend lectures or events we organise. We have had a strong contingent from Edge Hill attending lectures, however this has wavered over the last 12 months.

The Society has attempted to improve membership of undergraduates by offering "cash back" offer whereby the university societies get the token fees (£40 over the duration of the whole undergraduate degree) back to fund socials etc. This had a relatively poor take up and different approaches were being considered.



One of the considerations when reviewing the low turn out was the negligible numbers of academics (junior and senior) for becoming a member of the Society. There are a very limited number of lecturers who were members of the Society, never mind a chartered member of the Society. There is pressure by the Society to increase the number of fellows within academia via the accredited courses, however other paths are also being sought.

Dr Katherine Harrison from Manchester University is currently looking into the introduction of student chapters. These chapters work with existing student societies, however are linked with Geological Society. The aim of the chapter is to bring the societies from different universities to organise their own lecture series, with a potential annual conference and organise interuniversity social events. This will be light touched managed by the regional groups/Burlington House and is currently going through consultation with the Professional Council.

Regional Fossil

Earlier in the year we polled the regional members on what we should consider the regional fossil to be for the North West. We were staggered with the enthusiasm of our members in suggestions!!!! Of the 800+ members, we had 9 people who responded! Of those 9 e-mails, coral and lingual had 1 No. vote each, trilobites and spirifer had 2 votes each, and the dinosaur footprints from the Cheshire Plain receiving 3. By a massive margin of votes, we are considering the footprint as the the regional fossil (but may be swayed should we receive a significant volume of e-mails suggesting something else)! The dinosaur/reptile footprints which are area specific to the Northwest have been illustrated below and is currently the logo for the Liverpool Geologist Association.

The dinosaur footprint also gave me an idea for the front of the newsletter, with Sophie the Stegasaur from the National History Museum in London as this is a spectacular example of a (near enough) complete dinosaur being exhibited in our museums.

Stop Press... before I receive a hefty number of e-mails, I appreciate our footprints are Triassic age and Stegasaur were wandering around during the Jurassic!



The Cheshire dinosaur/reptile is called *Chirotherium* (hand animal) as its footprints resemble that of a human hand. This has been identified in Alderley Edge, Lymm Daresbury and the Wirral.

The final design for the regional fossil will be confirmed soon.

Photographic Competition

We are also pleased to be working with the West Midlands, South Wales and Black Country regions in the annual regional photographic competition. This competition is only open to those who live in the postcodes serviced by these groups and there are some seriously great prizes to be won. The photographs have to be either of the geology of the British Isles or of applied geology in the British Isles. The 1st prize is £200, plus £150 special publication gift voucher, a William Smith map and an accompanying memoir. There are a further 9 other prizes to win!

Each entrant is allowed up to 4 entries and the closing date for entries is 1 December 2015.

The poster has been attached to the end of this newsletter.

Careers Afternoon

Our annual careers afternoon was held in March at Manchester University. Numbers this year were noticeably lower than previous years. Having discussed this with lecturers from the university it was noted that the students who were attending this were the first year where student fees were being charged at £9,000/yr.

We had a great series of talks for the students comprising:

- Lucy Thomas (RSK - environmental geology)
- Rachel Stringer (Atkins - geotechnical engineering)
- Paul Woodman (BP - petroleum exploration)
- Rob Goddard (SRK - mineral exploration)
- John Booth (Geotechnics - careers and interview advice)
- Dr Bill Gaskarth (Geological Society)



The talks lasted approximately 10 minutes and discussed what is associated with the speakers field of geology, and the career path the speaker took. This was not to be used as an advert for the speakers company, rather a frank talk about what time after graduation is like.

Each of the speakers had a stall outside the lecture theatre where vacancies were discussed and merchandise was distributed. We also had a stall from Wardell Armstrong.

If you and or your company would wish to be associated with this event, please contact us to express your interest.

The afternoon was followed by a very well attended (28 No. members) chartership talk given by Dr Bill Gaskarth in the Williamson Lecture Theatre in the evening. As usual, Bill gave great advice to prospective Chartership candidates who wish to apply for this qualification.

Lecture Series 2014/15

Our **first talk** of the season was in **September** by **Celtic Technologies** and **Ramboll** regarding the remediation of the northern bank for the second road crossing of the River Mersey. The northern bank area had a significant historic industrial legacy. A robust investigation was undertaken by Ramboll which noted significant mobile and low mobility contamination. The main receptor for contamination on this site was the River Mersey. A thorough risk assessment allowed the design of a product recovery system and oxidation programme to mitigate concentrations on site permitting development to commence. This was an excellent case study which allowed an important infrastructure project to commence.

The venue chosen for this event was the Catalyst Centre in Widnes, which was literally round the corner from the site in question. This was a new venue and one we will consider in the future, however there was an issue with a heavy background noise associated with the servers for the centre. Attendance for this lecture was 35 members.

In **October** we ran 2 lectures, one for A-Level students and one for ordinary members.

The **A-Level lecture** was taken by **Professor Kevin Taylor** at Manchester University and we attracted 100 students and teachers to this event. The lecture discussed what **sequence stratigraphy** is, and how sedimentary cycles can be linked through unconformity boundaries. These cycles are associated using chronostratigraphic framework and is complex subject which is difficult to compress to a 1 hour lecture. Professor Taylor completed this excellently and gave many handy case studies to assist students.

The following day, we welcomed **Simon Firth** from Society of Brownfield Risk Assessment (SoBRA) to discuss the ongoing project to determine threshold values for **acute risk to human health of contamination** with our

ordinary members at Manchester University. SoBRA are the Society of Brownfield Risk Assessors and the talk allowed our members to keep abreast with recent advances in risk assessment. As usual with Simon, this was a very dynamic lecture, which was quick paced and dispensed plenty of worked examples for the audience to consider. Attendance was 40 for this lecture.

In **November**, we ran a joint talk with the North Wales Geology Association in Chester University. **Professor Taylor** from Aberystwyth University discussed the amazing **petrified forest which was found at Brymbo**, on the outskirts of Wrexham. The talk discussed how the forest was found, the industrial setting of the area, as well as the preservation of the fossil trees. There was a detailed discussion of the Carboniferous environment and the ecological background to the forest. Having worked and seen many examples from Brymbo, this was a very good lecture, however it was unfortunate that only 27 members from both societies ventured to this talk.

The **Environment Agency** completed our **Christmas lecture** with a discussion on the **Water Framework Directive**. **Laura Pender** (from the committee) presented an excellent discussion on the advances the Agency have made over the last 5 years and what is likely to be in store for release from the Agency in the foreseeable future as well as detailed project case studies on nitrates. 39 No. members attended this lecture at Manchester University.

Our **January** lecture was presented by **David Norbury** and explained the forthcoming (at the time) reissue of the ground investigation 'bible', **BS5930 and where Eurocode** is in relation to ground investigation. This talk was well paced and discussed the Eurocode framework and how this should be used currently within the ground investigation sector, as well as the time framework for future released of updated guidance and standards. This was our largest audience of the year with 100 members attending at the Centre, Birchwood.

The second joint meeting with a Geological Association was held in **John Moores University**, Liverpool in **February**. **Dr Gerry Lucas** from Edge Hill University gave a very well rounded lecture on a geological fieldtrip/holiday he had in Namibia. The lecture discussed the stratigraphy of Namibia with the tour starting from the oldest provinces through to the more geologically recent units. The economic situation of the Namibia was key to Gerry's lecture, with many areas out of bounds due these being potentially diamond rich! Again, the numbers to this lecture were rather lower than we were expecting (29 No. members from both Societies), however those that did come to the lecture had a very entertaining lecture which reminded us why we studied geology.



Julian Hughes from Ground Investigation and Piling Limited (GIP) presented a lecture at Manchester University on **lessons that can be learnt from site investigation in slope stability assessments in March**. This was a very frank lecture about how to best design a ground investigation for the geology present, and considerations associated with the made ground, drift and bedrock. This does sound like 'grandma sucking eggs', however the examples shown illustrate that a full appreciation of the site characteristics are not always undertaken. This drew a very healthy audience of 65 members.

Our **April** lecture was given by **Andrew Moore** from WSP/Parsons Brinkerhoff on the **investigation and assessment of historic lead mining on Halkyn Mountain**. This was very interesting and discussed the geological setting of North East Wales and assessed different methods of characterising mining risks on this vast site. The talk was given at Chester University and was very well attended with 60 members present. Further to this talk, we were offered several opportunities to investigate this area and have organised an above ground fieldtrip of the Mountain and common, followed by an underground trip to Hendre Spar in September 2015.

Our final lecture of the year was a discussion of the **Light Non-Aqueous Phase Liquids (LNAPL) and Fate in the Subsurface handbook** by **Jim Wragg**, Geosyntec Consultants on behalf of CL:AIRE at Manchester University. This was attended by 41 members.

We put on lectures for all of our members, as well as any willing member of the public, and we try to please the majority where possible as this allows us to request for funds to put these talks on. There are few things free these days, and our talks at the moment are one of those.

Many of the talks presented last season usually have a high ticket value when presented as part of a conference, and it is an ideal opportunity to hear the speaker, to gain up to date information of the subject, to learn new subjects, to gain CPD points as well as to network and meet your peers.

What's Happening in 2015/16

The committee have been very busy this summer arranging the new programme for 2015/16. The programme this year is broad with pure geological talks which bring us back to why we studied geology in the first place, contamination, geotechnical engineering, industry guidance and much more!!

Our first event will comprise a **fieldtrip to North East Wales**. Rachael Jones, ranger of **Halkyn Common and Mountain** will be taking our members across the estate showing the geology, ecology and mining history of the area. This light walk will commence at 10am on Sunday 13 September. In the afternoon, a local caving club have

allowed 15 members the chance to go into **Hendre Spar** and explore the feldspar mine.

The first lecture of the session will be held at **Chester University** on the **22 October** and will be a joint event with the North Wales Geology Association. **Dr Ian Stimpson**, Keele University will be discussing recent **advances in mantle convection and the discovery of the most abundant mineral in the Earth, Bridgemanite**. It should be noted that Bridgemanite has only been seen by a few geologists and has only just been synthetically created (hence been permitted a name) with the last year. This will be a great lecture for those interested in plate tectonics!

In **November**, **Dr Julian Meckleburgh** from Manchester University will be discussing the **geology associated with shale gas**. This lecture will follow on from a major conference entitled Geomechanical and Petrophysical Properties of Mudrock's which will be held in Burlington House the week prior, so much of this lecture will be hot off the press. Julian will be discussing how shale gas is formed, and the mechanics for release. It should be noted that Julian does not work for the major shale gas companies and is a researcher at Manchester University.

Lucy Thomas, RSK will be presenting our **Christmas lecture** to be held at the Centre, Birchwood. This talk will discuss the **risk of asbestos to persons working with soils**. This lecture will discuss the findings of the recent reports issued by SoBRA and well as tying in the JIWG work which is currently ongoing. This will be a must for all those engineers working in the brownfield sector either working directly with soils in the field, or directing those in the field.

In **January**, we are pleased to welcome **Dr David Schofield** from the BGS who will be discussing the importance of William Smith, as well as how the BGS has progressed over the intervening period, and where the BGS is taking mapping for the future. It should be noted that even though Anglesey has a 3D fly through geological map, there are still 3 No. grid sheets in Wales which have not been mapped since the mid 19th Century! This will be held at Manchester University and will be a must for all geologists!

February is our traditional joint meeting with the Liverpool Geological Association. This year we are privileged to have **Dr Richard Worden**, Liverpool University who will be discussing the **Formby Oil Field**. This is a fairly little known oil field which had been exploited adjacent the airport over a very limited period of time. This is currently within the larger Bowland Basin and hence has Shale Gas implications. This is also a potential source of contamination (ground gas and hydrocarbon leaks) which is largely unknown to most ground investigation companies. We strongly recommend this lecture.



We are looking into organising a conference in February 2016 for the issuing of the much anticipated replacement to CIRIA 32 'Construction over Abandoned Mine Workings'. This document is still not finalised, however it is hoped this will be completed for everyone's Christmas stockings! Our thoughts are that this will run with lectures by the authors and the Coal Authority in the morning on how the guidance works, with work shops in the afternoon where we can put the guidance into action and see what is actually needed to undertake assessments for mining legacy. I know the lecture we held 2 years ago was the largest audience we have had to date, and hope that this conference will be equally popular. We will keep you informed regarding this event.

Ted Nield, editor of *Geoscientist* will be returning to home territory (**Manchester**) on 17 **March** to talk about his latest book, *Underlands*. This book looks into our industrial heritage especially our dependence on local building materials, which has in most places now ceased with foreign imports taking over our natural resources. Ted is a very entertaining speaker and his lectures are always well worth attending!

On 14 **April** we will have **Paul Berry** from **Atkins** to discuss the Crag End Landslide, Rothbury. This is a finalist for the 2015 Ground Investigation Project of the year and was a joint venture with Volkerstevin and Boskalis Westminster.

We will announce our May lecture in due course.

We are also proposing another careers day with the opportunity for members who are in the job market, or will be entering the job market to hear from many key speakers on their varied experience in the geological world. We will be looking for companies who have active permanent job openings to be present for discussion with members at stands. This event is to be held at Manchester University.

We look forward to seeing you at the events we provide during this season.

Autumn Social

We will be hosting a Autumn Social at Manchester Museum, with a tour of the museum provided by the museums curator, David Gelsthorpe. This will be followed by a drink in a local pub. We hope that you can take advantage of this opportunity to explore one of our local museums and have to chance to meet your peers in a social environment! The date for this is to be confirmed, however this will be held on a Friday at 4pm!!! Please e-mail me if you are interest to confirm numbers.

Caveat Emptor

As ever the programme may vary from that which we have planned. With all our best endeavours, there may be

occasions when venues need rearranging, speakers may need to be changed due to unforeseen events, or dates may need slightly amending. I will be sending out fliers well in advance of the meetings and these will be the confirmation of the event. Please ensure you keep your e-mail details current with both myself as well as the Fellowship Services Manager – Mohammed Jahangir.

If you have any comments or questions regarding the events organised by the North West Regional Group please feel free to make contact using the details provided below.

We wish to thank again all the speakers who made our programme last year and hope you enjoy the programme for the up and coming year.

Best regards to you all on behalf of the Committee.

Nik Reynolds
**Secretary to the Geological Society
North West Regional Group**

Social Media

Just a reminder that we also have an active Facebook and LinkedIn webpage which we encourage you to visit. We try and keep these sites up to date with information regarding meetings and other relevant interesting geological bits and bobs we find!!!

We have found that although members appear to have joined the LinkedIn service, no one is contributing or appears to see posts which have been made. We will post information regarding up and coming lectures, but will be keeping the Facebook page more up to date.



<https://www.facebook.com/groups/geologicalsociety.northwest/?ref=ts>

and

http://www.linkedin.com/groups?gid=2737408&trk=hb_side_g



Chartership

This year sees the 25th anniversary of the CGeol award. For a reasonable period of time this award had been seen as the poorer relative of the CEng, however over the last 5 to 10 years has become a comparable qualification. Chartership is good benchmark to which indicates your ability as a geologist in the professional world. It is a challenge to gain chartership, and to maintain this (through significantly greater amounts of CPD than other societies), however the rewards are well worth the effort!

Usually gaining chartership sets the candidate on a path for a greater pay scale, and also opens the door to gaining further professional qualifications such as:

CL:AIRE Qualified Person for the Definition of Waste:
Code of Practice
RoGEP
SiLC
SQP (proposed)
SoBRA Registered Risk Assessor (proposed)

We had a great response to the last lecture given by Dr Bill Gaskarth following our Careers Afternoon. This year we have had a very kind offer from Stephen Fryer to run a Chartership event. This would be run as a group mentoring event to assist potential candidates through problems they are having with the process of gaining chartership. Stephen is a scrutineer and is in a very good position to assist candidates with the progress of their application. We will be confirming the venue and date for this event in due course.

We would strongly recommend that our members look to progress with their chartership application, and remind existing CGeol'ers that it is important to maintain a healthy CPD record.

Good sources of CPD are our lectures, lectures by other societies which are relevant to your job and geology. It should be noted that the Geological Society have a great resource of lectures on their website at:

<https://www.geolsoc.org.uk/pastmeetingresources>

There are also lectures run by the British Geotechnical Association and the ICE which can be watched online.

There are no tricks, no old school ties or other boundaries preventing members becoming chartered, however an element of hardwork is needed. The process is not overly simple and members are not guaranteed to become chartered, which I am sure most members would want as Charterships don't fall out of your Corn Flakes pack (other breakfast cereals are available and nope, I've checked, these don't have any either!). Click on the link below, download the forms and get filling them in!

<http://www.geolsoc.org.uk/Membership/Join-the-Society/~//link.aspx?id=CA074320D21E46C588DABED4BF67BD06&z=z>

If there are any members who have been chartered and wish to become mentors, please contact me and I can pass on your details to Bill/Geolsoc HQ.

We are also keen to hear from people who would like to put on a fieldtrip within the region (North Wales and North West England). We could even look at setting up a walking group to shed those summer and Christmas lb's whilst looking and trampling over our spectacular geology if there is interest!

Our Friends in the North West

Manchester Geological Association

www.mangeolassoc.org.uk

Formed in 1925 to bring together professional and amateur geologists in and around Manchester, the Association is actively concerned in the conservation of key geological sites in the area. The Association organise field excursions during the summer to places such as the Lake District, Scotland, Peak District and North Wales. In the winter monthly lectures are held by expert speakers at the School of Earth, Atmospheric and Environmental Sciences at the University of Manchester. Quarterly newsletters giving full details of trips and other news are mailed to members.

Liverpool Geological Society

www.liverpoolgeologicalsociety.org.uk

Formed in 1859 the Society still flourishes, and is still composed overwhelmingly of ordinary people who have an interest in geology in all its many aspects - from volcanoes to floods, deserts and seas, mountains and glaciers, minerals and rocks, and fossils. Ever since the Society's first open meeting, on 10th January 1860, The Liverpool Geological Society has invited the knowledgeable and famous to come and tell all those interested in the wonders of the world and its even more amazing history, beginning some 4,600,000,000 years ago. All LGS indoor meetings are held the modern James Parsons Building at Liverpool John Moores University, Byrom Street Campus. The LGS offers programme illustrated practical sessions and field trips.



North Wales Geology Association
www.ampyx.org.uk/cdgc/cdgc

The North Wales Geology Association was established in 1994 to act as a focus for geologists in the North Wales area, to focus attention on the geology of North Wales and to promote the understanding of Geology within North Wales. The Association draws upon the rich international experience of members, both amateur and professional, to create a wide-ranging programme of events. It is a branch (Local Group) of the Geologists' Association, an organisation that has existed for almost 150 years promoting the cause of the informed amateur geologist. Meetings are held along the North Wales Coast area on a monthly basis, indoors during the Winter and outdoors as appropriate during the Spring and Autumn. The Association also co-operates closely with the North Wales branch of the Open University Geological Society, whose meetings are primarily field-based.

North West Branch of the Open University Geological Society

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

The North West Branch is the largest OUGS branch, in terms of membership, with 219 members at the end of 2013. The branch covers a large geographical area from North Wales to the Scottish Border and includes the Isle of Man. However, the majority of the branch members live in the central urban region, around Liverpool, Greater Manchester and Preston.

This is an active group, organising monthly field trips from late February to October and lectures and/or social events during the winter months. If you are new to geology, one of the best ways to gain experience is to come along to the field trips where you will see how geology determines the landscape and study rocks in situ. You will also meet and learn from other members. If you are a more experienced geologist we look forward to any input you are able to give. Over the past years their field trips have taken them to many parts of the British Isles (Outer Hebrides in 2009, Devon in 2013) and they have also had the opportunity to visit more exotic geological areas worldwide such as Iceland, Italy (Island of Elba in 2010), France (Corsica in 2012) and Hawaii. As well as providing interesting, enjoyable trips we hope to provide useful practical experience for those involved with geological studies.

University of Manchester, School of Earth, Atmospheric and Environmental Sciences

www.seaes.manchester.ac.uk

Geology and related Earth Sciences have been studied at Manchester since 1851. Today the School is one of the largest Earth Sciences teaching and research centers in the UK, with around 30 academic staff and a similar number of specialist researchers and support staff. Research in the Department is funded by most of the major research councils (NERC, EPSRC, STFC, BBSRC), by the Royal Society, and by the petroleum, mineral and nuclear industries.

The Department is housed in the Williamson Building on Oxford Road, at the centre of the campus, where the excellent facilities include lecture theatres, library-reading room, computer suites and laboratories for teaching and research. The latter include newly refurbished laboratories for isotope geochemistry, and for petroleum geoscience and (as part of the interdisciplinary Williamson Research Centre) new laboratories for high P/T work, geomicrobiology, geochemical kinetics, mineral and surface analysis, solution analysis and rock and mineral sample preparation.

University of Liverpool, Department of Earth and Ocean Sciences

www.liv.ac.uk/earth

The Department is highly rated for both teaching and research. In the most recent Research Assessment Exercise (Dec 2008) the department is rated as having 75% of academic staff as world leaders or of internationally recognised excellence in research. The department consistently achieves the highest ratings in government evaluations of teaching quality.

North Staffordshire Group of the Geological Association

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

The NSGGA is the regional group of the Geologist Association in North Staffordshire.

Lecture meetings are held monthly during the autumn and winter, at 7.30pm in the William Smith Building at Keele University, ST5 5BG. Field meetings are held at approximately monthly intervals over the spring and summer.



Combined Programme for 2015/16

13/09/15	Halkyn Mountain field trip (am) Hendre Spar Mine (pm)	Rachael Jones Tim Watt (caving club)	NWGS	Rhes-y-Cae School, CH8 8JQ
16/09/15	Is Groundwater at risk from shale gas exploration?	Jenny Lightfoot (Arup)	ICE	University of Central Lancs. Preston
17/09/15	Mersey Gateway Update	Paul Sanders and Darren Kimberley	ICE (Cheshire & N Wales)	Mercure Hotel, Chester, CH3 5QL
14/10/15	Fleming Award 2015 - Victoria Station Upgrade Northern Tunnels	Peter Ruddy and Craig Prangley	ICE	Manchester Conference Centre
22/10/15	Mantle plumes and the discovery of Bridgemanite	Dr Ian Stimpson	NWGS	Chester University
23/10 to 03/11 Autumn Half Term - may vary slightly with schools				
11/11/15	BS8081(2015) Code of practice for grouted anchors.	Dr Caesar Merrifield	ICE Geotech	Jacobs, 5 First Street, Manchester
26/11/15	The geomechanics of Shale and the production of shale gas	Prof Barry Thomas (Aberystwyth Uni)	NWGS/NWG A	Manchester University
04/12/15	Asbestos in Soils	Lucy Thomas	NWGS	The Centre, Birchwood
19/12/12 - 05/01/13 Christmas Holidays - may vary slightly with schools				
21/01/16	William Smith and the future of Geological Maps	Dr David Schofield	NWGS	Manchester University
25/02/16	The Formby Oil Fields.	Dr Richard Worden	NWGS/ LGA	Liverpool John Moors, Lecture Theatre 137.
tbc	CIRIA Seminar on the document to replace CIRIA 32 'Construction over Abandoned Mine Workings'.	CIRIA	NWGS/CIRIA	tbc
13/2 to 23/2/14 Spring Half term - may vary slightly with schools				
17/03/16	Underlands	Dr Ted Nield	NWGS	Manchester University
25/03 to 10/04 Easter Holidays - may vary slightly with schools				
14/04/16	Crag End Landslide, Rothbury	Paul Berry	NWGS	The Swan, Newton- le-Willows
___/05/14	tbc	tbc	NWGS	Williamson
28/05-12/06 Whitsun Half Term				

NWGS - Northwest regional group of the Geological Society of London

Lecture start: 6:30pm unless otherwise stated!

There were no further dates available from any of the regional geological association groups as of 7 September 2015



Venue Information

Northwest Regional Group of the Geological Society

Williamson Building, Oxford Road, Manchester M13 9PL (Building 52 on the below map).
This building is situated opposite the Manchester Museum.

Birchwood Centre, Birchwood Park, Warrington WA3 6YN
<http://www.thecentreatbirchwoodpark.co.uk/location.aspx>

The Swan, Golborne Road, Winwick, Warrington, Cheshire, WA2 8LF
<http://www.chefandbrewer.com/pub/swan-winwick-warrington/c1916/>

Lecture Theatre 137, James Parsons Building, John Moores University, Byrom Street, Liverpool L3 3AF
<http://www.liverpoolgeologicalsociety.org.uk/lgslocation.php>

Beswick Lecture Theatre, Chester University, Chester CH1 4BJ
<http://www.chester.ac.uk/sites/files/chester/Open%20Day%20Campus%20Map.pdf>

North Wales Geology Association (all events usually start at 7:30pm)

Pensychnant, Sychnant Pass, Conwy, North Wales LL32 8BJ
<http://www.pensychnant.co.uk/page7.html>

Llandrillo Technical College, Llandudno Road, Rhos-on-Sea, LL28 4HZ
<http://www.llandrillo.ac.uk/the-colleges/coleg-llandrillo/rhos-on-sea/contactfind-us/>

Treborrh Botanic Garden Laboratory, University of Bangor, Bangor, Gwynedd LL57 2RQ

Northwest Regional Group of the Institute of Civil Engineers

Renold Building, University of Manchester M1 3BB (Building 12 on the following map)

John Dalton Building, Manchester Metropolitan University, All Saints Campus, Oxford Road, Manchester M15 6BH

Foster Building, University of Central Lancashire, Preston PR1 2HE

James Parsons Building, John Moores University, Byrom Street, Liverpool L3 3AF
<http://www.liverpoolgeologicalsociety.org.uk/lgslocation.php>



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CONTACT DETAILS

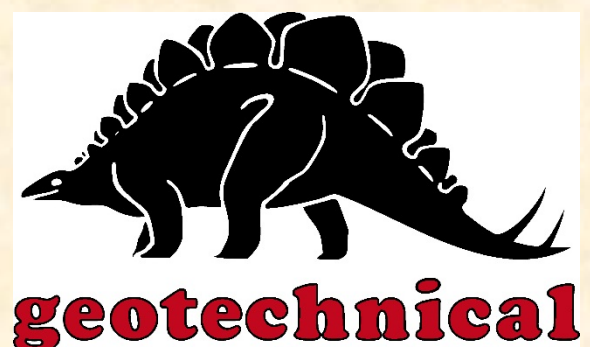
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North West Regional Group

Fieldtrip

Sunday 13th September 2015

Halkyn Mountain and Hendre Spar

Explore above and below ground in North East Wales!!!



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Following the very well received lecture presented by Andy Moore in Chester earlier this year, we are very lucky to have been offered a tour of Halkyn Mountain common by the Ranger in charge of this spectacular area of open countryside. The walk will last between 1 and 2 hours, and although Rachael is not a geologist, her knowledge of the industrial processes and ecology which have populated the landscape is second to none.

The geology of the Halkyn plain is generally dominated by Carboniferous Limestone of Visean Age which had hydrothermally mineralised. The limestone is a good source of fossils, and gangue minerals may be collected (within reason) however it is prudent to ask first as this is a site of special scientific interest (<http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030163>).

On the walk you will see the numerous mine entries, with the specific local manner of capping shafts.

Halkyn common and Mountain are wild, open landscapes with spectacular panoramic views over the Dee Estuary set against the backdrop of the Clwydian Range. A great place for a family walk!

People have lived and worked on the mountain for over 2,000 years. Today it is hard to imagine what it was like when the limekilns were in peak production and lead prices were high, pushing men further underground in the quest for rich veins.

Halkyn was one of the largest lead producers in Britain, producing over 21,000 tonnes of ore at its peak in 1934. The last mine closed in 1987 but beneath the mountain lies a vast network of over 62 miles of tunnels.

Shafts often lie in straight lines as they were dug at intervals along the veins of lead. Many shafts were sealed in the 1980s with stone 'bee-hive' or 'Clwyd' caps while others are now just a circular depression in the ground. Close by are the lead washing areas where little vegetation grows even today because of the high lead residues.

Limestone outcrops or piles of waste rock near the shafts are good places to look for fossils but always take care. Brachiopods and crinoids are the most common, remains of sea creatures that lived 340 million years ago. Few rocks containing galena or lead ore are left as the spoil heaps would have been re-worked several times but rocks with calcite, a white mineral often found with galena, are still quite common.

The high quality limestone is also a valuable resource and was traditionally used for building or burned to make lime. The impressive limekilns at Waen y Brodilas produced hydraulic lime that sets under water, essential for building docks, bridges and lighthouses





The
Geological
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North West Regional Group

Fieldtrip

Sunday 13th September 2015



Should we have a significant number of people interested in going into the cave system, we will try and arrange a second visit, or possibly a third, depending on numbers.

As I expect (from previous fieldtrips) that there will be many people wanting to go underground, this will be available on a first come first served basis. Should people not be able to attend once they have expressed interest, we must be informed immediately to reallocate places.

We recommend that everyone brings stout footwear for both the over ground and the underground trips, with possibly wellies for the underground trip as it can get wet underfoot. For those going underground, it is also recommended that old clothes or possibly overalls are worn as it is likely you will get dirty!!!

People going down the mine will be covered under BCA Insurance and all cavers will be appropriately qualified.

The Gwysaney Arms Hotel is situated approximately 4 miles from Halkyn Mountain and serves pub grub and Sunday lunch. I have been told it is prudent to pre-book if you fancy a meal following the walk. The contact number is 01352 741247. This establishment has just reopened at the start of August and a website is not available yet. Other pubs (i.e. Blue Bell, Halkyn and White Horse, Cilcain) are located in the area and may be worth a quick search to get some lunch.

Start time:

Halkyn Mountain: 10am from the car park of the closed Rhes y Cae School.

(nearest post code CH8 8JQ).

Donation: Adult £3, Children - free

Hendre Spar: 2pm from the car park of Y Dderwen (The Oak) public house (not open during the day). (NGR: SJ188 677 - nearest postcode CH7 5QE)

£5 per person

(Booking essential)

Organised by the North West Regional Group of the Geological Society of London.

For further information please contact the Group Secretary, Nik Reynolds at:

geologicalsociety.northwest@gmail.com

In the afternoon, the local caving club have kindly offered to take our members down into the caverns beneath Halkyn Mountain and common! This is a very rare opportunity to take a trip like this and well worth undertaking. This will be limited to 15 No. people due to the torches available to the caving club. I have been informed that the tour is circa 1 to 1.5 hours and does involve some ladder work (ladders similar to those in B&Q) with the mine being located over a number of levels.

If you suffer from claustrophobia or have health problems where slight to moderate exertion is involved, and uneven ground is present, we would recommend not undertaking this section of the fieldtrip.

