



The
Black
Country
Geological
Society

NEWSLETTER No. 159

JUNE 2003

The Society does not provide personal accident cover for members or visitors on field trips. You are strongly advised to take out your own personal accident insurance to the level you feel appropriate. Schools and other bodies should arrange their own insurance as a matter of course.

Leaders provide their services on a purely voluntary basis and may not be professionally qualified in this capacity.

The Society does not provide hard hats for use of members or visitors at field meetings. It is your responsibility to provide your own hard hat and other safety equipment *(such as safety boots and goggles/glasses) and to use it when you feel it is necessary or when a site owner makes it a condition of entry.

Hammering is seldom necessary. It is the responsibility of the hammerer to ensure that other people are at a safe distance before doing so.

FUTURE PROGRAMME

**Lecture meetings are held at Dudley Museum, St James's Road, Dudley. Phone (01384 815575)
7.30 for 8 o' clock start unless stated otherwise.**

SATURDAY 28TH JUNE 2003 Field Trip: A Day Trip to Ludlow.
Led by Mike Williams.

A day in Ludlow can be a wonderful day out. The castle, the architecture, pubs, shops and fossils makes this venue a great regional attraction.

We will meet at the new library and museum at 11 00 am. There is parking. A visit to the newly refurbished museum and study of the fossil collection will then follow. After lunch there will be a riverside walk, following a marked geological trail. Fossils can be observed in situ.

No hammers please. Please wear strong shoes and bring a waterproof.

Chairman

*G.J. Worton B.Sc., C.Geol.,
F.G.S.*

Vice Chairman

*A. Cutler B.Sc., M.C.A.M.,
Dip.M., M.CIM.*

Hon Treasurer

M Williams

Hon Secretary

*S.H.Worton B.Sc., PhD.,
F.G.S.*

Meetings Secretary

*G.W.J. Hensman B.Sc.,
F.R.Met.S.*

Field Secretary

*A. Rochelle B.A. Hons.,
Tech.RICS.*

SUNDAY 27th JULY 2003 – Field Trip: Wrens Nest Re-visited. Led by Graham Worton

Meet at 10am at the main Wrens Nest Car Park off Priory Road (opposite the King Arthur Pub on the A4123). This is a re-visit to the classic geology of the Wrens Nest. This site has been a National Nature Reserve for nearly 50 years because of its outstanding geology. Over that 50 years many changes have occurred in and around the site and this is an opportunity to update the picture about the reserve and the detail of the geology and human history that it holds. We will also review the engineering works that are occurring in order to ensure the next century of heritage at the site.

Graham has a special expertise and interest in the area and will appraise the party of future plans for development of education and visitor attractions.

SUNDAY 28TH SEPTEMBER 2003 Field Trip: Trevor Rocks – Llangollen, North Wales - a joint meeting with the Mid Wales Geology Club. Led by Tony Thorp.

Limestone exposures with fossils.

Meet at 11 00 am at OS ref SJ234 432. Turn right by a phone box and pub on the main road at SJ 242 424 and continue uphill to a very tight turn at SJ232 432 and in 100 m there is a parking place for a few cars. If you reach the double hair pin you have gone too far.

The alternative access is via Castel Dinas Bran.

While in the area why not visit the world famous Pontcysyllte Aqueduct over the River Dee and the Chirk Aqueduct over the River Ceiriog.

Take a packed lunch and wear strong shoes.

MONDAY 29TH SEPTEMBER 2003 Lecture: "The Geology of the British tertiary volcanic provinces" - a review of the volcanic rocks that were erupted and injected into the shallow crust of the UK when the Atlantic ocean began to open some 50 million years ago. by Dr Ian Williamson of the BGS Keyworth.

SATURDAY 11TH OCTOBER 2003 Field Trip: "Erratics, ventifacts and ice sheet debris". Led by Andrew Rochelle

Meet at Pattingham Church at 11.00 am.

This will be a walk over farmland. The purpose of the trip is to study ice sheet geomorphology in the area. Further details will follow in the August Newsletter

MONDAY 24TH November 2003 indoor meeting: Members evening. Your chance to have a guided tour of our meetings venue, Dudley Museum, followed by a series of short talks etc. given by Society members. This will be open to anyone who would like to share something of interest, whether it be some rock or fossil specimens collected on holiday or a short talk accompanied by a few

slides. The more people that contribute the better so please fill in and return the slip at the end of the newsletter or email us with your suggestions so we can put as interesting and varied a programme together as possible.

Please note that due to the experience of previous years we are making an earlier start this year and will be gathering at 7.00pm for a 7.30pm start

MONDAY 24TH January 2004 Indoor meeting: "Tropical Carbonates in Polar Climates"
lecture by Paul Smith of the Lapworth museum of Birmingham University

MONDAYTH March 2004 Indoor meeting: AGM and lecture "The geology of the Longmynd, Priors Holt and the Knills area" lecture by Mike Williams and Andrew Rochelle. This evening will preview the geological history of the area in readiness for the field trip in the following month.

SUNDAYTH April 2004 Field Trip: "The geology of the Longmynd, Priors Holt and the Knills area". Led by Mike Williams and Andrew Rochelle.

This trip will look at the exotic landscape of the pre-cambrian created by the sedimentary and pyroclastic rocks of the district and will conclude with a visit to the Silurian shoreline exposed at the southern end of the Longmynd.

EDITORIAL

Have you ever wondered why a subject of almost limitless physical boundaries and imagination like geology, so fundamental to the wealth of the UK and which has inspired the greatest of artists and scientists alike, seems to have so little general public profile?

A few of us have and some of us have spent a lot of our energies trying to evangelise about the geological wonders that hide in full sight all around us every day. All this has of course been done in the hope that we might engender some respect and support for this heritage and as a result, maintain and protect some of the sites and opportunities for those who follow us. We also feel that it is important to recognise the considerable contribution that both professional and amateur geologists down the centuries have made geo-opportunities that we enjoy in our time. But we still seem to be a Cinderella subject hidden in the cellar and only called to mind when something goes wrong. Are we tackling the PR for our subject in the wrong way?

English Nature have begun a back-to-basics research project with the University of Aberystwyth to actually find out what people on the streets really think about geology and how much value they actually assign to it in their everyday lives. This should give us a focus for our collective efforts. I have had the pleasure of attending one of the first focus groups for this research here at the museum. This was with a group of people who had been found in and around Dudley who had no formal knowledge or interest in the subject at all. The discussion that flowed at this preliminary group was absolutely fascinating and in many ways not what I had been expecting.

Questions like what do you think geology is? What is a typical geologist like? How important is geology to your daily life? What value or pleasure do you personally derive from it? And how would you feel if opportunities to 'do some geologising' ended? are good ones to ask of ourselves as well as the un-initiated.

Here's a challenge for the membership; What do *you* think was said about geology and geologists by 'the average person in the street' group who does not know our subject?

Is anyone out there sporting or brave enough to suggest what you think might have been said, please drop us a line or an email and we'll summarise (anonymously of course!) what the membership imagines to be the attitude and opinion of the geologically unenlightened masses of the UK (or Dudley at least).

I'll summarise what was actually said in the August edition of the newsletter where we can then compare the memberships thoughts to what actually came out of first focus group.

GW

REPORTS

MONDAY MAY 19th 2003 Lecture 'KA MCHATKA VOLCANOES A REMARKABLE GEOLIDAY FOR VULCANOLOGISTS' Lecture by Dr Tony Waltham of Nottingham Trent University

Until quite recently the Kamchatka Peninsula, in eastern Siberia was totally inaccessible to Westerners because of the Cold War. Until 1995 Petropavlovsk was a top-secret former Soviet nuclear submarine base in the Pacific Ocean. Indeed some of Tony's slides of the town not only showed buildings in typically Soviet style; some of which had been reinforced in piecemeal fashion, as an afterthought?, in this very earthquake-prone region. I wondered if this applied to the military installations! Not surprisingly much of the accommodation was relatively spartan, but this didn't seem to have had any adverse effect on the enthusiasm of the 20+ hardy participants.

Some might find it worthwhile to have a look in an atlas and notice how close this region of high volcanic activity is to Japan, the Kurile & Aleutian island arcs with a well defined kink roughly at Kamchatka, Alaska, & the western seaboard of the USA. Part of the "so-called Pacific Ring of Fire". However in the great sell-off for \$7.2M in 1867, the USA was not interested in purchasing Kamchatka as well, wolves and polar bears there may be, but not enough gold perhaps!

Kamchatka is to the west of a piece of rapidly (7-8 cm/y) obliquely subducting Pacific ocean crust (the Kurile Thrust), causing much vigorous volcanic activity. The K&A kink probably reflects an earlier, rather sudden, change in the direction of relative plate movements. There are numerous volcanoes seemingly in different stages of evolution, younger at the southern tip of the peninsula with mainly Strombolian-type lavas being erupted in the north. Centrally, closer to Petropavlovsk the group climbed Koryaksky (very steep, insecure, much steam with a very "rusty" collapsed cone- possibly indicating an explosive nature, and could have given a forewarning for Mt St Helens perhaps had it been known and studied before. Now a newer cone is gradually building up on the collapse debris and Avach, a smaller volcano (with evidence of many much smaller eruptions

and debris held at a high angle of rest) which remarkably had a live phone in the very rudimentary meteo-hut !. Bezymianny had also erupted violently in 1956.

Kamchatka has few roads so access would have been impossible but for the initiative of a local entrepreneur who had apparently "bought" a "redundant", huge, robust, multi wheel, ex-military all-terrain troop carrier which had used a glacial melt-water river bed as well as the local tundra surface for one of the longer expeditions. Helicopters had to be used for the longest trip northward to the "valley of geysers"-nearly as good as Yellowstone!; as well as a biological nature trail located in a vast caldera.

Other splendid items seen on this remarkable trip included;-meltwater rivers, a super evolutionary sequence of kames and ox-bow lakes, many unclimbed peaks and unvisited glaciers, crater lakes (one a brilliant blue colour) vigorously steaming mud pools, steaming rusty red vents, lots of lava flows of varying types, pyroclastic blocks greater than 1m in size (relicts of particularly violent eruptions), valleys of geysers.....sausers are continuous geysers....if you didn't know by the way.

Besides the all-pervading sulphurous aroma, the particular novelty for me was Tony's attempt to measure the depth of a crater lake by dangling a hammer from a rope until it stopped. It got stuck, temporarily, in a "pool" of molten sulphur melting point of 386K, presumably due to superheated water at the pool bottom, . The eventually retrieved "ball" of a black allotrope of sulphur now resides in the local museum.

Alf Cole

[CONSERVATION COLUMN](#)

Wrens Nest Update

The first stage of works to investigate the northern gallery of the Seven Sisters mine complex at Wrens Nest was delayed while the details of the contract were being sorted out and actually begins on the 30th of June 2003.

WORKING PARTY UPDATE

As stated in previous newsletters, excavated materials from this first stage of works will be available for picking over to collect a comprehensive suite of specimens for the museum in July and for a few months following this. Again as previously reported, when it becomes clearer in the negotiations exactly when this will be and what the rules are to permit this, I will call for one or more working parties of BCGS members to help so that we are able to maximise the benefits from this work. Given the timing of the works and how they relate to our publication deadlines, I expect that I will have to make a special circular unless works mean that we would not be



able to gain access until after August, in which case I will make the necessary announcement in that edition of this newsletter.

Dudley Museum Update - *Exhibitions*

'Fantastic fossils and magic minerals' exhibition. I am currently conspiring with the new exhibition officer for the museums service (Adrian Durkin-who some of you may remember was the keeper of Dudley Castle until he was made redundant earlier this year) to put in place a new ground floor temporary geological gallery. What we would like to do with this is put on display some very fine material that is currently in private collections and would otherwise never see the light of day or be appreciated by anyone but a chosen few. I intend that this will feature stunning collections of trilobites, Coal Measure animal and plant remains, Stunning Ammonites and glorious minerals and much more.

The intention is to provide a geological gallery of sumptuous beauty and curiosity, rather than to tell any particular story (as that is the remit of the new upstairs galleries in the museum refit scheme). This exhibition should run for about a year and should open mid-December.

Dudley Museum Update - *Collections*

The Dudley Collection is relatively small, numbering perhaps 15,000 specimens. But small is beautiful and it is a superb resource of Much Wenlock limestone fossils and also Middle Coal Measures plant and animal remains from the local coalfield. Of this material, much research work has been done on the limestone material but little recent work has been done on the Coal Measures material. This is about to change. Paul Smith and team of the Lapworth Museum of Birmingham University have initiated a PhD project about a year ago to look at the Coseley fossils which belong to the Middle Coal Measures. This research is being undertaken by a student called Laura Braznell and will use the collections and other field evidence to help us to understand much more about these wonderful fossils and the world from which they came.



The Coseley 10 foot measures is a very famous fossil horizon as it yielded some rare beasts like *Eophrinus* (the Coseley spider) which are preserved in fine ironstone nodules which replace the soft tissues and record very fine anatomical detail indeed. This deposit is therefore known as a fossil lagerstätten and is very very important in world palaeontological terms. It is comparable to the Mazon Creek deposits of the USA but has by comparison had little work done on it.

This project stands to vastly broaden our understanding of the Coseley deposits as it will look at the species diversity, the style and controls on preservation and the palaeoenvironment. It will give a real boost to the interest in these fossils and

provide more information that can be used to argue for greater protection of any future exposures in the coal measures that may be created.

Rock and Fossil Surgeries;

The next one is this coming Saturday, so if you have any stuff that you would like identified then make a note of the dates and times and come along and join us.

Saturday June 28th 10.00 am to 12.00 noon

Thursday July 24th 11.00am to 1.00pm

Saturday August 16th 10.00 am to 12.00 noon

Thursday September 18th 11.00am to 1.00pm

I will add more dates to the schedule for the autumn and winter period as school term and holiday dates dictate.

Until next time.....Graham W

GEOBABLE

In connection with this newsletters theme of public perceptions of geology and geologists I thought it would be a good idea to introduce a new column into the newsletter called 'geobabble'. This is where we can do our own glossary of tricky geology techno-speak. I'll kick off with a term that I must confess that even as a professional geologist who has used the term in the past, when called to discuss it recently, frankly I couldn't. My term is [TAPHONOMY](#).

Thanks to my old notes and, as luck would have it, this latest edition of Geology Today, which featured a whole article about this by Steve Donovan, I know this to be a broad term meaning something along the lines of all of those processes which act on an organism following its death to its becoming a fossil. That is, things like its transport and burial through to its mineralisation and if the process goes that far to its metamorphosis and possible destruction by earth processes. Cor!

OK, one term sorted. Now I can't be alone in struggling with some of the bigger words used in modern geology-speak so write in and let us know your favourite word or phrase that we can pass on to our membership in the plain speaking version. Or set us a challenge of something to define.

[We await your letters and emails with bated breath.](#)

[OTHER NEWS](#)

No other news has been received .

[CONTACT US](#)

Hon. Secretary:
 Sarah Worton
 158 Oakham Road
 Oldbury
 B69 1QQ
 Tel 01384 235946

Editorial Team
 Dudley Museum and Art Gallery
 1 St James' Road
 Dudley
 DY1 1HU
 Tel 01384 815574
 Or email:
graham.worton@dudley.gov.uk

BCGS Website now at www.bcgs.info

Call for Your Contributions to the 2003 members meeting which is shaping into as varied and fun an event as last year's.

Members Meeting 25th November 2002	
Yes, I / we would like to contribute to the meeting Name (s) Address Phone	
Please complete and return (by 1 Oct if poss please, end Oct latest) to the meetings secretary: Gordon Hensman 10 Parkway Road Dudley DY1 2QA <u>OR</u> email Gordon: GWJHENSMAN@aol.com	Approx. time needed