



The  
Black  
Country  
Geological  
Society

## NEWSLETTER No. 160

### August 2003

The Society provides limited personal accident cover for members attending meetings or field trips. Details can be obtained from the Secretary. Non members attending society field trips are 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.**

**SUNDAY 28<sup>TH</sup> 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.

Please bring a packed lunch - strong shoes / boots are recommended.

**MONDAY 29<sup>TH</sup> SEPTEMBER 2003** Indoor meeting: "British Tertiary Volcanic Provinces' Lava Fields" - by Dr Ian Williamson of English Nature (formerly of the BGS) Ian will present 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. This talk will be illustrated using a powerpoint projector and 35mm slides.

Dr. Williamson graduated from Edinburgh University in 1974 and went on to do his Ph.D in Igneous Petrology at Durham in 1979. He has undertaken numerous geology projects throughout the U.K., and spent 1986-88 in Botswana studying the Karoo Basin (Dwyka Glaciation to Drakensburg volcanics). His current interest is in the lava fields of the Inner Hebrides.

*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.

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F.G.S.

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

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

**SATURDAY 11<sup>TH</sup> 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 where we can investigate the ice sheet geomorphology in the area. Wear strong shoes or boots depending on the weather! Lunch can be either a pub lunch in Pattingham or packed lunch if you prefer.

**MONDAY 27<sup>TH</sup> OCTOBER 2003** Indoor meeting: "A Volcanic Eruption and Outburst under the Myrdals Jokull, southern Iceland 1999." By Dr Andrew Russell, School of Earth Sciences, University of Keele.

**MONDAY 24<sup>TH</sup> NOVEMBER 2003** Members evening comprising 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. We already have a very full programme as outlined below. Should be a great evening!

**Part 1 Viking Visions** comprising:

- Getting to Iceland by sea - what the Vikings saw. 35mm slides of the south coast of the island - Vatnajokull, Oraefajokull, Myrdals Jokull, Vestmanna Isles, Reykjavik. By Gordon Hensman
- Slides of Iceland taken by Ananda Shamo on a recent trip.
- Short illustrated talk on Iceland by Alf Cole.

**Followed by:**

- Halesowen Coal Measure Nodules - by Laura Brazel.
- The Severn Sisters Caverns - a photographic record. By Peter Parkes.
- The changing face of geology examinations - by Bill Groves.
- Methane hydrates - what they are and where they can be found. By Chris Rochelle.

**Part 2 Quick preview of the new geological gallery** at Dudley Museum by our chairman and keeper of geology at Dudley, Graham Worton.

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 26<sup>TH</sup> JANUARY 2004** Indoor meeting: "You can take a cow to water.....the evolution of whales." by Dr Paul Smith, Lapworth Museum, University of Birmingham.

Paul is a long standing member of B.C.G.S. and has delivered many a fascinating lecture as well as leading several delightful and informative field trips. We very much look forward to this lecture on the evolution of an animal which is the subject of intense interest at the moment.

*Note this is a change to the previously advertised title of "Tropical Carbonates in Polar Climates"*

**MONDAY 29<sup>TH</sup> MARCH 2004** Indoor meeting: **7.30pm start** Annual General Meeting followed by "The geology of the Longmynd, Priors Holt and the Knills area" 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.

**SATURDAY 24<sup>TH</sup> 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. Further details to follow.

**JULY 2004 provisional - date tbc** Field Trip: "Journey into the heart of a geosyncline" Led by Mike Williams

This trip will take in the scenery and geomorphology of the Elan Valley, into the upper Yswyth valley and across Parsons Gorge to look at fossiliferous rocks and finishing in the turbidite sequences around Aberystwyth. More details to follow in due course.

## **EDITORIAL**

We take a lot for granted or on faith in the Earth sciences. All of our observations and deductions are based on what we observe as processes on Earth or what we can gain by geochemically analysing bits of things that drop on us from space. But what do we actually know about geological processes that happen on other worlds where the conditions are vastly different from ours? If you've been studying the news of late you can't have failed to notice that there have been two recent launches of exploration craft aimed at Mars as Mars comes to its closest point to us for 60000 years. Both missions are concentrating on discovering the whereabouts of water and being more selective about what is chosen for analysis.

I also know that there is a book being co-written by a good friend and long supporter of the Society, Andy Salmon which speculates about the first human visit to Mars. I have had some very interesting brain storming sessions with Andy about the practicalities of undertaking field work in the extreme conditions that are to be expected. But most interesting to me is what will really be discovered when we are able to get a really close look at the rocks and the things that they contain. Do surface sedimentary and igneous processes actually work the same when you only have a third of the gravity of Earth? What processes of diagenesis, lithification and erosion happen in a world where all water is in the solid phase, you have an inert atmosphere and freezing temperatures? Will there be mineralisation and crystal growth like we see on Earth? And will there actually be any recognisable signs of life on a planet that is not protected by a strong magnetic field and radiation belts?

In the months ahead as the new Mars probes reach the planet we may get answers to some of these questions but like so many areas of our science, they are bound to open up even more intriguing questions along the way.

## **REPORTS**

### **MONDAY 31st MARCH 2003 Annual General Meeting**

The twenty eighth annual general meeting of the Society was held on 31st March 2003 at Dudley Museum and Art Gallery. Twenty-eight members were present with apologies for absence received from Martin Normanton and Sarah Worton.

Minutes of the 2002 AGM had been distributed, taken as read and approved, proposed by Steve Hughes and seconded by Joy Duckworth. Sue Fairclough presented a statement of the accounts and treasurer's report. In this year the society had an excess of spending over income but we had funds in reserve to cover this. New members joining at the Rock and Fossil Festival in September have meant that the memberships levels have remained stable for this period. The society obtained new display materials for use at the various meetings attended this accounting for the overspend. The accounts and report were proposed by Peter Smith and seconded by Alf Cole.

The chairman, Graham Worton, then presented his Annual Report. Graham reported on an excellent year for the society. The committee had arranged and delivered a very varied and exciting programme and the wider membership united with Dudley Museum to stage one of only two national family rock and fossil events in the UK calendar. The society's website had received an overhaul thanks to Graham Hickman and David Miller. Membership levels had remained at similar levels to the previous year with an influx of new members joining at the rock and fossil fair. Society members had, once again, been involved in various conservation activities, including work at Barr Beacon, Barrow Hill Tansey Green and Turners Hill. The Chairman's report was proposed by Hilary Giltrap and seconded by Alan Cutler.

The following changes were made to the offices and the committee of the society. Sue Fairclough stood down as treasurer and was replaced by Mike Williams, proposed by Alf Cole and seconded by Sue Fairclough. Andrew Harrison joined the committee, proposed by Andrew Rochelle and seconded by Gordon Hensman. The remaining members of the committee agreed to continue in their posts and were proposed 'on-block' by Steve Hughes, seconded by Joy Duckworth. The 2003 members are currently:

Chairman:	Graham Worton	Vice-chairman:	Alan Cutler
Treasurer:	Mike Williams	Secretary:	Sarah Worton
Meetings:	Gordon Hensman	Field Meetings:	Andrew Rochelle
Members:	Barbara Russell	Andrew Harrison	Alf Cole
Auditor:	Martin Normanton		

Sarah Worton

## CONSERVATION COLUMN

### Wrens Nest Update



The engineering works began at the end of June. Progress has been very careful and rapid to provide safe tunnel access the northern gallery and assess the instability of the existing upper gallery.

*Fig.1  
View looking south to the edge of the Seven Sisters  
At the start of the works in June 2003. The viewing  
platform is further along and high in the trees to the left of  
the picture*

### WORKING PARTY UPDATE

Excavated materials from this first stage of works are now available for picking over to collect a comprehensive suite of specimens for the museum. These rocks are located in two separate compounds to the north and south of the site compound on the playing fields in the centre of the reserve.



*Fig. 2 View of one of the stockpiles near  
the site compound at Wrens Nest July 2003*

As such it is now time to begin looking over these stocks and salvaging what we can before they are reused and spread in the permanent works. I still need to find out with the engineers and contractors what the rules are to permit our access to these materials but I can now call for volunteers to help out on the dates and times shown below.

**First working party**      *Saturday 6<sup>th</sup> September 2003, 10am to 1pm*

**Second working Party**      *Saturday 20<sup>th</sup> September 2003, 10am to 1pm*

If you are able to help with this most important work, then please call me at the museum on **01384 815575** or email me at [graham.worton@dudley.gov.uk](mailto:graham.worton@dudley.gov.uk) to let me know how many will be coming so that I can make the necessary arrangements with the site. In both cases we will park in the car park of the Mons Hill College and walk along the access road up to the compound where the stockpiles are located.

## Dudley Museum Update - *Exhibitions*

International SpeleoArt. The exhibition has been put together by Steve Powell a well known local author of many books about the history of local mines and caves. He has many contacts with cavers and artists across the globe who have generously sent their artwork to the UK to stage this unique exhibition.

The exhibition also features specimens of fine minerals from the mines and cave formations collected in the early years of the geological collections at Dudley as well as paintings of Wrens Nest and other local mines from Dudley's fine art collections.

This is a rare opportunity to bring together international and local collections on a geological theme to celebrate both art and science in a place of great local history.

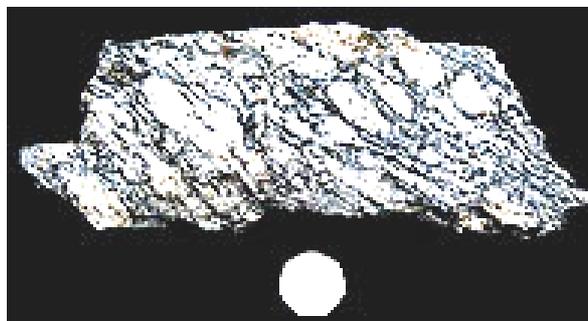
## Dudley Museum Update - *Collections*

When a catalogue of the original collection was made in 1913 for the Dudley Corporation, it was concluded that it was a very fine collection of local fossils and had some fine mineral specimens but was very wanting in rock specimens to represent the local area and beyond. This had remained the case up until the point that I took over its care in February 2000. Since then, with the help of the society the collection has accrued a few hundred petrological specimens which include fine representative examples of the local geology but also many very fine examples of rocks from much further afield. These rocks have been donated by well travelled amateurs and professionals who live and work in this area and most have a story attached to them.

One of the best selections now in the care of the museum is that of one of the society's founding members, Sheila Pitts, which was donated to the museum following her death in 2000. Many members will remember Sheila for her love of rather exotic geotourism and her wonderful lectures that she gave when she returned from her travels. The several hundred specimens, maps and texts that she left are a wonderful legacy for earth scientists here in Dudley and form a wonderful memorial to one of the society's most enthusiastic members.

As the months and years unfold I aim to continue the selective collection of fine petrological specimens such that any future review of the Dudley Collection will never again find us wanting in this aspect.

*Fig. 3  
Piece of Norwegian Gneiss from Sheila's bequest*



## Rock and Fossil Surgeries;

If you have any specimens that you would like identified then please make a note of the dates and times below and come along and join us.

Thursday September 18 <sup>th</sup>	11.00am to 1.00pm
Saturday October 25 <sup>th</sup>	10.00 am to 12.00 noon
Thursday November 20 <sup>th</sup>	11.00am to 1.00pm
Saturday December 13 <sup>th</sup>	10.00 am to 12.00 noon

## Notice of the 6<sup>th</sup> UKRIGS Annual Conference

This will be held at Oatridge Agricultural College, Broxburn, West Lothian between the 24<sup>th</sup> and 26<sup>th</sup> October 2003.

The outline programme is for reception and meal on the Thursday evening, Good practice presentations, workshops and field visits on the Friday, and further presentations on geodiversity and RIGS and the National Trust followed by the AGM on the Saturday. The conference concludes with field visits to Stirling and the Lothians on the Sunday.

For more information contact Mike Brown 0131 650 0289 or email [labrigs@bgs.ac.uk](mailto:labrigs@bgs.ac.uk)

Until next time.....Graham W

## GEOBABLE

This newsletter's geobabble items come from Bill Groves who wrote;

'What a good idea to have a favourite geology word spot in the newsletter. There are so many possibilities, and so many variations. Do you say Dynamic or Cataclastic metamorphism? How do you pronounce Augite, or Breccia?

A favourite word of mine however, is PENECONTEMPORANEOUSLY. Perhaps not a technical term, but an adverb that I have only see used in a geological context. Indeed, I have only seen it used in one situation and that is to describe the formation of Dolomite on the sea floor. In a calcite mud the CaCO<sub>3</sub> minerals are replaced by dolomite soon after deposition, i.e. penecontemporaneously. It means; 'pene' - almost, and 'contemporaneously' - at the same time as, so it describes very early diagenesis. \*

But this is not the only merit with this word. It is very useful in long word contest having 21 letters. It can also come in handy if you have young children; "If I beat you at hangman, you go to bed!" \*Maurice Tucker: Sedimentary Petrology (Second edition): p148.

.....  
It is not just words, what about technical terms. Every subject or organisation seems to have to change the terminology for no particular reason, except perhaps to confuse. Education is particularly bad at this: your are in year 9 instead of the third year, and there is now an examination 'specification' instead of a syllabus. But geology cannot be excused entirely from this. Having learnt a host of fossil genera in the sixties, I now find that they have mostly been revised, I am sure, for perfectly good reasons. But I miss some of the old names; the big rugose coral in the Wenlock will always be *Omphyma subturbinata* to me, a tough sounding name that has been replaced by the weak *Ketophyllum subturbinatum*. Likewise the brachiopod *Conchidium knighti* is now *Kirkidium knighti*. However, the one we really should be campaigning about -letters to your MP etc- is another brachiopod *Gypidula galeta*. Its old name was *Pentamerus dudleyensis*!!

.....  
The most ridiculous use of a geological term I came across was related to me by a geologist specialising in geomorphology. He said that he was struggling through a paper by an American Earth Scientist that was written in the most convoluted language possible, using the maxim; 'never use one word when six will do the job'. He started to come across the expression; 'the free air interface', and after a while he realised that the writer was referring to the ground! Keep your feet on the free air interface!!

.....  
Geology has always been striving to standardise its terminology so that we are all using the same language, and this has been accepted as being generally worthwhile and sensible. We have seen 'felspar' become 'feldspar', 'barytes' replaced by 'barite', and there are many others. Sometimes a revision can be problematical. Sedimentary rocks were described using the standard terminology, mudstone, sandstone, conglomerate etc, with adjectives used in a random way. So you could have a 'quartz sandstone', 'feldspathic sandstone' and 'calcite mudstone'. As the study of sedimentary rocks moved away from the purely descriptive a new set of terms emerged, so a calcite mudstone would be a 'micrite' or a 'calclutite'.

You could describe the grain sizes using, lutite, arenite and rudite, for mudstone, sandstone and conglomerate respectively, and instead of the adjective use a prefix. Siliceous rocks could have 'sili' on the front, and the limestones could have 'calci' as a prefix. So we now have standard terms such as calciclastic, calclutite, calcarenite and calcirudite. The siliceous rocks, however, proved to be more of a problem, siliclastic is widely used, but sililutite and siliarenite are not so accessible, and as for silirudite, there was no future.

Bill Groves

*We await further letters and emails with bated breath – ed.*

## **OTHER NEWS**

### **New Society Insurance**

For the eagle eyed amongst you may have noticed a slight change to the front of this month's newsletter. From 31<sup>st</sup> July 2003 the society now benefits from a new insurance package negotiated by the Geologist's Association for local groups and affiliates. In addition to the public liability insurance which the society has had up till now, we now also benefit from personal accident and member to member insurance. Very briefly this means that our members are covered should they sustain bodily injury by accident or assault whilst engaged on business activities, including commuting. Member to member is an extension to our public liability insurance to cover each individual member of the organisation. It allows members to claim against each other under the same policy.

The Geologist's Association negotiated a very competitive deal with the issuers, Zurich Municipal Insurance Company, which your committee felt was too good to pass up. If any members would like further details please drop me a line at the address at the end of the newsletter.

Sarah Worton, Hon Secretary.

### **Public Perception of Geology and Geologists**

You may recall in the editorial of the last newsletter I discussed what peoples impression of our subject in the non-specialist focus group was and also asked people to send in their ideas of what may have been said. Well one of our more far-flung members Alex Dent from Essex wrote

'Isn't a geologist a 50ish slightly over weight ruddy faced bearded weirdy wearing a sun hat and combat shorts and wielding a hammer in most peoples imagination?

While this is intentionally humorous its not far off what people said at the focus group.

One of our more local members Paul Trower from Stourbridge College noted in a recent communication to me that 'In the last edition of the BCGS newsletter, you touch on a point that has been occupying me for some time - the public profile of geology. All the television programmes with fantastic footage of disasters grab the attention and attract comment but seem to be divorced in the public mind from geology as a discipline. It has an impact on me directly, since attracting students to A-level geology is difficult. Once they are in, of course, they stay and continue with the subject (18 of the 25 A-level geologists who have just left us intend to study a geology-related subject at university; this is the best percentage in the college, I think - and will be no surprise to you.

How, then do we attract youngsters. You are clearly doing wonderful work at the museum and the trips. Are the heads of science in the 11-16/18 schools aware of the subject? Our feedback is that geology is perceived by the science teachers as not a proper science. This infects their students who see the subject as dry - all dusty rocks and fossils.

*Any further views on this subject? – we'd love to hear from you – ed.*

### **Geologist's Association Database of Field Trip Leaders**

The GA are hoping to put together a database of field trips / leaders that groups like ourselves can benefit from when arranging field meetings programmes. The creation of such a database relies on volunteers coming forward so we're hoping some of our members may like to help. The GA are hoping to include all types of field trips on the database, for beginners through to advanced, day trips and longer trips at home or abroad. Subjects could include pretty much anything providing it has a geological aspect. The database will be managed by the GA who will issue it on request. Obviously leaders will not have to commit to fulfilling all enquiries. If you think you could help please contact Sarah Stafford, the GA's Executive Secretary at:

The Geologist's Association  
Burlington House  
Piccadilly  
London W1J 0DU  
Email [geol.assoc@btinternet.com](mailto:geol.assoc@btinternet.com)

On the same theme, if you have any suggestions for field trips you'd like the BCGS to organise, whether or not you feel you could lead the trip, please see Andrew Rochelle (field meetings secretary) or any of the committee at the next meeting, or contact the editorial team/secretary – see below.

## *CONTACT US*

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**BCGS Website now at [www.bcgs.info](http://www.bcgs.info)**