

The Black Country Geological Society

NEWSLETTER NO. 140

APRIL 2000

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 in the Banquet Room (Dudley Suite) at the Ward Arms Hotel, Birmingham Road, Dudley. Phone: (01384) 458070. 7.30 p.m. for 8 o'clock start.

<u>MONDAY 17th APRIL</u> Dr Frank Moseley, "Military Geology in the Middle East." Dr Moseley was a WWII R.A.F. pilot, an athletics and rugby champion, Geologist at the Universities of Sheffield, Keele, Cambridge and Birmingham, and former Army Reservist. His assignments included East Africa, Libya, Yemen, Oman and Cyprus. Geological knowledge has always been important to army operations but hydrogeology was crucial to the campaigns of WWII in the deserts of the Middle East. Major Shotton (later Professor Shotton) was put in charge when "dousing" proved "inferior to chance". Since the war a dedicated group of army reservists has provided advice with engineering tasks mostly in Libya and Saudi Arabia

<u>THURSDAY 11th MAY</u> 10.00 a.m. - 12.00 noon. Walking with Trilobites. Guided walk organised by Dudley Planning and Leisure Department. Meet at Wren's Nest National Nature Reserve Wardens Base, Priory Road car park, Priory Road, Dudley. Contact 01384 812785.

<u>SUNDAY 21st MAY</u> Field Meeting: Black Country Geology Part 2. Leaders: Graham Worton and Alan Cutler. Meet at 9.45 am at the monument (which is a large metal cross) at the summit of Barrow Hill, Pensnett (NGR SO 915 895).

Here the views of the Black Country and the surrounding hills are magnificent. We will recap on the story described in the 'Introduction to the Black Country Part 1', that is from the Silurian to the Productive Coal Measures. We will then descend for a brief encounter with the Etruria Formation in the Barrow Hill dolerite quarries before moving on to Ketley Quarry at Kingswinford (NGR SO 898 893). At Ketley Quarry we will examine the change from the red marls deposited in Etruria Formation times to the yellowish cross-bedded sandstones and grey measures of the Halesowen Formation.

Lunch will be taken at the canal-side public house, 'The Samson and Lion' at Buckpool (NGR SO 900 869) where refreshments will be available.

Chairman G. J. Worton B.Sc., C.Geol., F.G.S., M.I.Env.Sci. Vice Chairman A. Cutler B.Sc., M.C.A.M., Dip.M., M.CIM. Hon Treasurer S. Fairclough B.A. PGCE Hon Secretary S. H. Worton B.Sc., PhD. F.G.S., Grad. M.Inst.W.M. The afternoon will be spent examining the geology of Buckpool as exposed in the roadside and in the fields and streams in the parkland opposite the 'Samson and Lion' public house. This is a classic site for Black Country Geology, being first figured in J. Beete Jukes memoir on the South Staffordshire Coal-Field in 1859. This area is the very edge of the exposed coalfield and the effect of large earth movements on the Western Boundary Fault are very well displayed here. The various exposures show the sequence of strata from the Enville Formation (uppermost Carboniferous), through the Clent Formation and Bridgnorth Sandstone Formation (Permian) to the Kidderminster Formation (Triassic). The site also features enigmatic landforms which introduce an element of the re-sculpting of the landscape during glacial and interglacial periods.

SATURDAY 10th JUNE 10.00 a.m. - 4.30 p.m. 'Over and Under Dudley'. Visit for the public organised by Dudley Planning and Leisure Department. An illustrated talk, a boat trip into the limestone caverns and a tour of the Wren's Nest National Nature Reserve. Bring a packed lunch. The trip involves walking 8 kilometres. Booking is essential. Cost Adults £5 Children and Pensioners £2-50 Contact: Alec Connah (Wren's Nest Senior Warden) on 01384 812785,

<u>SUNDAY 18th JUNE</u> Field Meeting: The Landscape of North West Shropshire. Leader: Gordon Hillier, Shropshire Geological Society. This is a joint meeting between Shropshire, Manchester and The Black Country Geological Societies. The aim of the excursion is to provide an overview of the geology, geomorphology and archaeology of the country around Oswestry - from the Ordovician to the Triassic (with a cover of glacial sediments). The variety of rocks, especially the Carboniferous, and their influence on the landscape and upon man's activities throughout the ages will be demonstrated.

Meet at 10.00 a.m. at Mile End Tourist Information Centre car park on the by-pass just outside Oswestry, located at the major roundabout at the intersection of the A5 and A483. It is easily recognised by the presence of the Esso station, Little Chef and travelodge, NGR SJ 309 285 (OS Landranger 126 1:50000).

Please bring usual field trip gear, especially strong walking boots, shoes or wellingtons if it has rained recently. There is not a lot of walking involved. Please bring a packed lunch.

Black Country Geological Society 25th Anniversary Weekend

FRIDAY 30th JUNE Black Country Geological Society Conversazione to be held at Dudley Museum at 7.30 p.m.

SATURDAY 1st JULY Field Meeting to the Lickey Hills. Leader: Paul Shilston - Black Country Geological Society. Please meet at 10.30 am at the Lickey Hills Visitor Centre, Warren Lane, (Grid Ref.998 754)

Paul Shilston writes "The Lickey Hills provide an interesting group of geological exposures which also relate the physical features of hills and valleys to the underlying geology and include the Lickey Gorge, a glacial overflow channel. They also provide good view points to look at the general geology of the wider area.

Exposures visited will include the Lickey Quartzite (Ordovician) which forms the main body of the Lickey Hills, Keele Clay with sandstone beds (Upper Carboniferous) forming the low level area of the golf course, and also evidence of Clent Breccia (Permian) and the Kidderminster Formation (formerly described as the Bunter Pebble beds) (Triassic). Finally we shall visit the celebrated unconformity at Rubery between Rubery Sandstone (Silurian) and Lickey Quartzite (Ordovician).

There will be a lunch stop at the Visitor Centre where there are picnic tables and a snack counter, alternatively at the nearby 'Poacher's Pocket' at the roundabout (GR 000759).

<u>SUNDAY 2nd JULY</u> Field Visit to Cotwall End. Meet at the Nature Centre off Catholic Lane, Sedgeley at 10.00am.

EXHIBITION: Tracking Dinosaurs 27th MAY TO 2nd SEPTEMBER at Dudley Museum We can learn a lot about the biology and behaviour of dinosaurs from their footprints. Did they walk on two legs or four? Did they hop like kangaroos or crawl through the prehistoric earth's sludge or slime? Were they sociable or solitary? This is a touring exhibition organised by the National Museums and Galleries of Wales.

HISTORY OF GEOLOGY GROUP OF THE GEOLOGISTS' ASSOCIATION - FRIDAY 13th OCTOBER - SUNDAY 15th OCTOBER

The Dudley Gathering: A celebratory Event to Discuss and Relive Dudley's Role in the History of Geology.

Friday 16th October: Informal Gathering in Dudley Museum to view the Historical Collection.

<u>Saturday 17th October</u>: 10.00 am - 4.00 pm. A series of talks at Dudley Museum. This will be followed by a visit to the Black Country Museum, a boat trip through the canal tunnels and the re-enactment of Murchison's talk underground. in darkness, followed by food and drink.

Sunday 18th October: Field visit to Wrens Nest.

REPORTS

MONDAY 31st JANUARY 2000 "Brains Trust"

This innovation proved a very successful evening enabling a wider membership to take an active part in the proceedings. The 'Brains' were Alan Cutler, Society Chairman, Graham Worton, Vice-chairman, Spencer Mather, Mineralogist and Dr Paul Smith of Birmingham University, Gordon Hensman taking the Chair. The questions submitted beforehand embraced a wide range of topics. Who was Herr Blumenbach? We still don't know! Plate tectonics, the nature of extrusive igneous activity in the Black ountry, jade in the British Isles, sources of carbon to form diamonds, the future for gas and oil reserves, uses to be made of subduction zones and spreading ridges, man's and planetary influence on geologic processes were among the many topics raised. This part of the evening closed after members of the panel were asked to reveal their 'magical geological moments'. Spencer found an emerald, Graham, aged 13, found a perfect Neuropteris in Saltwells claypit, Paul Smith, in 1994 in Colorado, found the sixth Ordovician fossil fish in the world and Alan reported the finding of a complete trilobite at Wrens Nest and the existence of the first Dudley Geological Society in an 1842 'Birmingham Gazette'.

After a break three members showed slides, this section presided over by Paul Shilston. Andrew Rochelle demonstrated the power of ice with a slide demonstrating freeze thaw, a pingo 200 ft. high in the McKenzie delta amid patterned ground, and the effect of freeze thaw on a church in Dawson City. Nearer to home we saw relict patterned ground between Telford and Wolverhampton. Anne Sutcliffe gave us the benefit of her experience as a photographer by showing us dinosaur footprints in the Bay of Fundy and Valencia in Ireland substantiating her advice to take your pictures early morning or late evening, use diagonal lines and be aware of the third/two thirds rule. Rocks are best photographed in the wet and avoid the distraction of light in the corner of a photograph. Paul Shilston treated us to petrified monkey puzzle trees very well preserved by volcanic eruptions, complete with tree rings and insect borings and slides from Monument valley, USA.

Then a number of members and at least one non-member brought specimens for identification including a 'fossilised foot' brought in by a local quarryman and zebra stone.

Those present felt that the evening had been very successful and that the format should be repeated at a later date.

Kate Ashcroft and Colin Marriott.

Annual General Meeting

The twenty fifth Annual General Meeting was held on the 28th February 2000 at the Ward Arms Hotel, Dudley. Forty five members were present with apologies for absence received from Douglas and Ivy Warren, Ann Nicholds, Stan and Beryl Budd and Joyce Jones.

Minutes of the 1999 AGM were distributed, taken as read and approved, proposed by Graham Worton and seconded by Margaret Collins. A statement of the accounts and Treasurer's report was presented by Sue Fairclough following which the Chairman, Alan Cutler, presented his Annual Report.

The Chairman reported that, despite a slight drop since 1998, membership levels generally were healthy. This had been evidenced throughout the year by enthusiastic attendance at meetings. The list of activities, projects, advice given and representation made by the Society in 1999 had once again been impressive, with conservation work taking a leading role. The Chairman's Report and Statement of Accounts was proposed by Paul Shilston and seconded by Kate Ashcroft.

Alan Cutler stood down as Chairman of the Society and proposed Graham Worton as his successor, seconded by Catherine Eales. Sarah Worton proposed Alan Cutler as Vice Chairman, seconded by Paul Shilston. Ann Nicholds and Joan Savage had been unable to continue in their posts as Secretary and Treasurer during the year. We would like to thank them both for their service over the past few years. Sue Fairclough was proposed as Treasurer by Colin Marriott, seconded by Hilary Giltrap. Sarah Worton was proposed as Secretary by Catherine Eales, seconded by Alan Cutler. The two meetings secretaries were re-elected, proposed by Alf Cole and seconded by Martin Normanton. Suc Fairclough was replaced as a member of the committee by Andrew Rochelle, proposed by Kate Ashcroft and seconded by Martin Normanton.

At the end of the meeting Graham Worton paid tribute to Alan Cutler, who had stood down as Chairman after 25 years service. He told the meeting that Alan had been the driving force that established the Society 25 years ago and had seen it go from strength to strength. No one had done more for the conservation of the local geological sites, or to point out the importance of the Black Country in the history of the development of geology as a science. Alan was congratulated by all present.

Sarah Worton

Alan Cutler - Chairman of the BCGS 1975-2000

When Alan retired as Chairman of the BCGS at this year's AGM it marked the end of an era. From modest beginnings as a local group of friends interested in geology, the Society has developed under his chairmanship into one of the best known amateur societies in the country.

It began in a fairly casual way. Several people had attended a number of geology evening classes over the years and had got to know each other, and they decided to see if they could form a geological society to continue their interest. The class tutor, Dr Peter Oliver, was sympathetic and an exploratory meeting was held in Dudley Museum on 3rd July 1975, attended by about 25 people. Alan was elected Chairman with Dr Oliver Vice-chairman. The inauguration of the Society was announced in local papers with an invitation for any interested members of the public to come along to the next meeting.... and it moved along from there.

From the beginning Alan had three objectives in mind:

- * to revive, in some form, the old Dudley & Midlands Geological Society, founded in 1842 and long since defunct,
- * to run a viable modern geological society with a lively programme of lectures and field meetings,
- * to be a recording and conservation body for the West Midlands.

All these objectives have been successfully achieved.

In addition, under his leadership the Society has continued to pay an active part in the geological life of the region and beyond. Activities have included assisting at events of the British Association, Earth Science Teachers' Association, Dudley Rock and Fossil Fair, Geological Curators Group and RIGS Conferences, while members have also given talks with a geological theme to other groups and Societies - and even spoken on the radio.

So thank you Alan for all your hard work over the last quarter century, and we're glad you'll continue to serve the BCGS as Vice-chairman - for another 25 years!

Graham Worton - Keeper of Geology for Dudley Borough.

The post to which Graham has been appointed has been redefined as the need to 'ensure that Dudley's many important geological sites are protected and developed for the community at large', 'to promote this heritage both inside and outside the borough', 'to develop the quality and size of the borough's geological collections', and to develop improved information systems for the borough's geology as a whole.

The brief also includes the drafting of a strategy for the sustainable development of the geology of the borough and the active pursuit of World Heritage and Geopark status.

The job has become more field oriented. Graham brings to the post a wealth of experience, knowledge and enthusiasm and the Society rejoices that the post is in such caring hands.

CONSERVATION COLUMN

The Trials and Tribulations of UKRIGS.

You may or may not know that there are now 57 RIGS groups in the UK. They range from long-established bodies (though very few, like the BCGS with its 25 years of geological conservation) to those who've just set up and have only one solitary individual! It is very important therefore that the groups get together to brainstorm ideas and worries that will pull the parties together and help to conserve sites more readily than would otherwise happen. It is also of vital importance that the UK association of RIGS groups (UKRIGS) is seen to be a unified and strong body who have impact, can attract funding and influence those in authority. As those of you who have attended the national RIGS conferences will know, this desired unity has sadly been lacking and this is to the detriment of all. A series of regional RIGS workshops has however begun. On Wednesday 23rd February 2000 the first UKRIGS regional meeting was convened at Dudley Muscum and Art Gallery. The focus of this meeting was to openly discuss the future direction of the RIGS movement by establishing a strategy document setting out the overall short, medium and long term priorities and objectives.

Representatives of 11 RIGS groups were in attendance as well as members of the executive committee and officers of the Royal Society for Nature Conservation (RSNC). As you may imagine, bringing together 57 different RIGS groups across the UK to establish common objectives is not the easiest of tasks and even among the groups of Midlands region some differences of opinion were eloquently and passionately expressed during the Dudley meeting. The principal questions to be tackled by the strategy were identified as:

- * What are the fundamental objectives (irrespective of status of the individual groups)?
- * What should the role of RSNC be in the drafting of the strategy for the RIGS movement?
- * How are we to ensure that the RIGS movement speaks with a unified voice with a common set of priorities and objectives?
- * What funding can be obtained to help those groups with the least experience and infrastructure to get up to speed with those who are already well established?

This was a very important meeting for many reasons. It gave an opportunity for views to be openly stated and for issues raised to be examined openly, warts and all! All present were able to participate in selecting the options that were perceived to be best for the majority, or at least were able to hear from the executive why certain things could not be done in the ways that individual members may have wished. The open floor discussion established objectives that all groups seemed to concur should be adopted as first priorities, namely:

- * The identification of potential sites within an area.
- * The recording of these sites to an agreed minimum standard.
- * Selection of sites which are of truly justifiable special local significance.
- * The notification of those sites with respect to criteria that are already accepted within the local planning authority regime.

The interpretation of sites, setting up trails and so forth were logically seen to be things that should come later and only when knowledge of the range of sites actually out there is known. The day concluded with a very poignant and useful talk by RSNC's head of fundraising, James Marshall, who advised the groups on how to target potential funders and get results.

Alan Cutler chaired the second of these meetings in London on 9 March 2000. The London meeting has a somewhat different structure to that of the Midlands principally being formed of well-established groups. The outcome was apparently very similar with the above set of objectives and priorities also identified. Don't forget that the date of the next RIGS conference has been set as 31 August to 2 September 2000. This year it will be held at Penrith in the Lake District.

Progress on Geoparks We are still awaiting information concerning how to proceed with the Geoparks application for Dudley's Wren's Nest and Castle Hill area. The process appears at the moment to be ensnared in politics regarding wherewithin the UNESCO structure the initiative should fit. At the moment the suggestion is that it would come under 'Man and the Biosphere'. We still hope to hear from them in the spring and I will keep you informed of progress.

Geology on the Roadside In an area like the Black Country, many of our best geological opportunities occur along our road networks. English Nature since 1995 have been looking at ways to carry out geological conservation along Britain's roads. A pilot project was set up in Devon which has now almost run its course. This has identified and will tackle some very difficult planning and health and safety issues. A report should be produced some time in the summer and I will give you an update then.

<u>Hay Head Geological Trail</u> I am delighted to announce that by the time this issue of the BCGS newsletter lands on your doormat, the Hay Head Geological Trail should be open. I have been fortunate enough to preview and comment upon the work done by Alf Cole and Walsall's Countryside Services and I can tell you that they've done a wonderful job. The interpretive boards are very attractive and highly informative and fuse geology and botany beautifully. We will arrange an evening visit to the site as part of the summer programme. In the meantime, if you have a spare few hours to kill then I can highly recommend the trail!

Dudley Borough Geological Trail Leaflet

Alan Cutler has been approached by Dudley MBC to work alongside officers of the authority in the production of a new 'walk through geological time' trail leaflet which makes use of the borough's network of geological sites. It is hoped that the text will be completed by May 2000, and that an attractive, waterproof leaflet will be available shortly after this.

Change of RIGS Staff at RSNC

I am sorry to report that Vicky Mason, the RIGS Development Officer for the Royal Society for Nature Conservation will be moving to a new position on an environmental enhancement programme in the south east. She has been the key co-ordinator for the RIGS Groups and is the prime mover on the production of the 'RIGS Handbook' which will undoubtedly become the universal reference for those undertaking RIGS work. Her dedication and enthusiasm for the RIGS movement, particularly in more troubled times of recent years of the movement, are very much appreciated and will be greatly missed. We wish Vicky every success in her new position.

BCGS website

We would love to hear from you. The BCGS website has been slowly evolving under the guidance of Amir Kanwar. As part of this it would be great to have some feedback from you regarding our conservation activities. Please e-mail any ideas or concerns that you may have concerning the geological sites in your area. If you notice any cuttings or excavations appearing in your neighbourhood please drop us a line, even if it's just to provide a street name and the fact that there is some rock exposed. This is your website so have your say!

Until next time...... Graham

NEWS IN BRIEF

1. Welcome to new members

David C Baker, Stourbridge Helen Georgiou, Bearwood

2. Copies of "The Dudley Limestone Mines" by Steve Powell are available to society members at the special price of £5.95. A display copy should be available at meetings. Please place orders with Sue Fairclough.

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New Web site: http://www.bcgs.org.uk

April 2000

BLACK COUNTRY SITES NO 5 : NORTON COVERT

Dudley's only permanent exposure of Drift occurs beneath the canopy of mature trees which comprise Norton Covert. This was formerly a sand and gravel quarry and is located to the west of the Norton Road, Stourbridge at NGR SO 887 822. Exposures are limited to loose sand and gravel faces near to the tops of the remaining quarry edges. The site is excavated within the edge of a large mound of sand and gravel which extends into fields across the road (to the east and south of the road) where it was not worked. This deposit gives rise to a unique 'hummocky' topography in these fields which is characteristic of many fluvioglacial sand and gravel deposits of better known glaciated areas of Britain. These deposits are not associated with till (boulder clays) and are thought to represent the dumping of glacial outwash materials in banks by rivers flowing to the south of the limit of the glacial ice front. They are probably of Devensian age when the climate was mainly cold with occasional temperate phases. The woods are a haven for wildlife and spring is a very good time to visit the site for both the wildlife and prior to the onset of full summer vegetation.

Norton Covert is best approached on foot from the Norton Road which runs immediately adjacent to the site where there are a number of footpaths into the woods

