NEWSLETTER NO. 137
OCTOBER 1999

The Black Country Geological Society

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. Phone (01384) 458070. 7.30 p.m. for 8 o'clock start.

MONDAY 25th OCTOBER "The Quaternary of the Isle of Man and the Northern Irish Sea Basin" by Dr. Roger Dackombe, Senior Lecturer in Environmental Science at Wolverhampton University. He has lectured to us on the Environmental Geology of Finland. His geological interests are Quaternary sediments and Applied Engineering Geology while his particular research interest is in the Isle of Man. He has researched glacial sediments and till sequences in the Isle of Man. He is Geological Consultant to the Manx Government for environmental questions and works with Liverpool University studying Manx archaeology in its geological context.

MONDAY 15th NOVEMBER "The Ice Age Fauna and Flora of Britain" by Dr Charles Turner of the Department of Earth Science at the Open University.

During the last 2 million years the British Isles have been subjected to alternate cold and temperate oscillations of climate, the so-called glacial and interglacial Stages of the Quaternary. This has also caused rapid changes in the faunas and floras involving long distance migrations and extinction, occasionally accompanied by evolution of new taxa. Evidence for these changes is fragmented but contained in ancient lacustrine and fluvial deposits as macro and micro fossils such as pollen and spores.

PROGRAMME 2000

MONDAY 31st JANUARY 2000 "Brains Trust" An opportunity for you to bring along your queries, specimens, problems etc. to our panel of

Chairman
Alan Cutler B.Sc., M.C.A.M., Dip. M., M.CIM

Vice Chairman
G.J.Worton B.SC., F.G.S., A.M. I Geol., M.I. Env. Sci.

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

Hon.Sec.
Ann Nicholds B.A., B. Phil. Ed. (V.I.) Dip. COT. SROT.

experts. Written questions submitted in advance to the Secretary will be welcome. If you have 1-4 particularly interesting transparencies bring them along and we can arrange to show them during the evening. Non-members welcome.

MONDAY 28th FEBRUARY 2000 Annual General Meeting at 7.30 pm. followed by ."Canadian Appalachians - Ocean Closure and Links with the British Isles" by Dr John A. Winchester, Department of Earth Science, University of Keele

MONDAY 27th MARCH 2000 Dr Hugh Torrens, Society Member, "James Ryan of Dudley (1770 - 1847) and the problems of introducing new ideas (both scientific and technical) in British mines in the early nineteenth century". Dr Torrens of the Department of Earth Sciences, University of Keele, writes that James Ryan settled in Dudley by 1808 and died there in 1847 and it is about time that the spotlight was shone on his achievements as he is so little known.

MONDAY (Date to be rearranged) 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.

EDITORIAL

The first week of July in the year 2000 will mark the 25th birthday of BCGS. The inaugural lecture took place in September and we hope to celebrate in style the anniversary of our foundation. Meanwhile I hope you will help to further the success of the Society. Throughout BCGS' existence we have depended on a very active membership. We must not let this tradition die. We have been working with a new committee from which our Treasurer has resigned and the Secretary finds herself, reluctantly, unable to continue in post. The Society is also going to greatly miss the input of Colin Reid, Keeper of Geology at Dudley Museum, who has departed for a new post in Hartlepool, and, what a loss, a job outside Geology! The committee has managed to plug the gaps to tide us over but we do urgently need more active participation. If you are able to help, please make yourself known to a member of the committee.

Here is something we can all do! For January we intend to hold a Brains Trust. Please submit questions to the Brains Trust via the Editor or any member of the committee. (Why are Dinosaurs so big? Why does Turkey have earthquakes?) If you are willing to bring a specimen to provoke interest at the meeting, please get in touch. Or have you 1-4 slides of geological interest that you would be prepared to talk about? Obviously we must plan ahead and cannot lay on such an evening simply hoping that material will turn up. Please let us know in advance that you will contribute.

(At the September lecture meeting I was greatly cheered by offers of help from a number of new and relatively youthful members. The Society must not let these offers of help go unacknowledged and ignored. With your help we will celebrate a Golden Anniversary in 2025!)

REPORTS

Field Meeting -"Protected Geological Sites within the Black Country " Leader Graham Worton. Sunday 20th June 1999

The day started at 10.30 am, meeting on Sutton Road, Walsall with a walk along the route for a geological trail at Hay

Head Quarry SSSI. Graham spoke about conservation issues and difficulties relating to such a site, i.e. footpaths, types of footpath materials and vandalism. Information boards and posts were made out of old posts.
The Hay Head SSSI was part of an abandoned quarry where several bentonite horizons can be seen in amongst the Ludlow shales.
After lunch we moved on to Pinfold Lane Quarry, which is a second tier site (a site of importance for Nature Conservation) to look at the Permo-Triassic Red Sandstone deposits. Graham discussed the problems associated with the rapid erosion of the sandstone outcrops and the need to conserve them for the future.
An informative and educational trip was had by all and left us with a better view of the issues involved in conserving sites for the future.
Phil McNerney
Student , University of Sunderland

Field Meeting to Clearwell Caves, the Royal Forest of Dean's Iron Mining Museum, Cinderford, Leader - Catherine Eales. Sunday 25th July
The Clearwell Caves have been mined for over 2500 years. A natural cave system which partially filled with iron ore, the caves have been tunnelled into over many centuries to become a mining complex of over 600 caves, containing thousands of caverns with many miles of passageways.
The day started warm but cloudy. Members of BCGS were joined by members from the South Western Geological Society. We met our guide, one of the miners, by the entrance to the mine, which marked the point where the miners followed the iron ore underground, following the ore downwards through the Crease Limestone. The mine is still registered as a working mine now only producing a few tons of ore per year for samples and experimental use.

Continuing into the mine using the level entrance, we soon entered the first cavern surrounded by flowstone formations of calcium carbonate. There were pools where miners collected drinking water. The next cavern was Bat Chamber where both common and endangered species of bats hibernate for the winter. Around the walls of the mine pickaxe marks clearly showed where the miners had worked the iron ore. From here is a short descent leading past the miners' storage area into the Old Churn which is an area where the vein of ore thickened out and partially filled a cavern in the limestone. In this cavern in particular were good examples of the Crease Limestone formation into which the mine is run. The next cavern on the tour was the Chain Ladder Churn so called because during exploration an old chain ladder was found which had been used by the miners to descend to the lower levels of the mine. Within this cavern areas of the roof are still covered in ash and soot, evidence of 'fire setting' by the miners, a method of loosening rock before the use of gunpowder.
At the end of the Chain Ladder Churn you stand approximately 31 metres below the surface. This is the deepest point open to the public but the workings extend for another 166 metres.
The next large cavern is called Barbecue Churn. Originally a vast area of iron ore, it was later used for dumping the rocks from other parts of the mine. The area is now used for functions, usually candle lit. Fancy dress barbecues are held each Halloween. The large flat floor is composed of Whitehead Limestone, referred to as the 'lidstone' because it forms the roof of most of the caverns. The route to leave the Barbecue Churn was along a new roadway driven in 1885 to allow the ore remaining in the cavern to be reworked. The next cavern was called the Pillar churn after a large column of stone in the centre. A reservoir in the cavern controls the water that seeps through a disused shaft in the roof. The last chamber is Pottery Pocket where recent excavations revealed a wealth of bones, glass and pottery, some dating back to the fifteenth century. This area was originally open to the surface and was used by the local inhabitants as a convenient rubbish dump.
The underground world of Clearwell caves used to be the sole domain of Freeminers whose charter dates from the thirteenth century. Freeminers are males born within the hundred of St. Briavels who are over 21 years old and have worked in a mine for a year and a day. There are still approximately 150 freeminers and they have the right to dig for minerals anywhere in the Forest of Dean area except beneath church yards, orchards and gardens.
An extremely enjoyable and informative tour was had by all Several members have requested that a future trip be run to the deeper mined levels soon so watch this space! Catherine Eales.

CONSERVATION COLUMN

Well, we survived the catastrophic predictions centred around August's solar eclipse, so we'd better get back to the business of saving the world!

Hay Head Geological Trail

I'm very happy to report that footpaths have been created, seats installed and we've almost finalised the text for the interpretive panels that will be put up any time now. This project reaches completion this month (October 1999) and will be officially opened shortly. Murchison would be very proud.

Worcester Conference and UK RIGS.

September saw the second national conference of RIGS (Regionally ImportantGeological /Geomorphological sites) groups and BCGS members attended, chaired sessions and provided large displays at the poster session concerned with site conservation, building stone, graveyards and the ORIGINS proposals. Alan Cutler, BCGS Chairman, was elected to the newly formed UKRIGS Executive (the body who will take forward the UK Rigs groups). The first meeting was held in September at Dudley Museum.

Museums and Collections

Colin Reid has left us to become Director of the Keys Museum at Hartlepool. While in his post as Keeper of Geology at Dudley Museum, his considerable talents in combination with his infectious enthusiasm and personality have done a huge service for the promotion and conservation of the Geological Heritage of the Black Country. He will be sorely missed. I have no doubt that the aspirations for World Heritage / Geopark status for Dudley will be pursued and the recent additions to the storage and cataloguing (database) facilities for the collection will be completed. We do not know who will be replacing Colin or what the nature of the new post will be. Our thoughts and very best wishes go with Colin and his family as he takes up his new position. Graham Worton

Colin organised a series of magnificent Rock and Fossil Fairs for Dudley and some inspirational exhibitions. He combines the talents of Geologist, Exhibition Promoter and Communicator to a remarkable degree. He also had a courtesy which was much appreciated. Whenever I left a message for him at the Museum he never failed to ring me back. Thanks, Colin. Kate A.

NEWS IN BRIEF

Welcome to new member

Scott O'Neil -Gwilliams of Dudley

The Geologist's Directory 1999 contains :A Who's Who of chartered geologists,

A Buyers Guide to plant, equipment, products and consulting, contracting and other specialist services.

A Company Data section and an Earth Science information section. Available at £79 per copy plus 10 % post and packing from Unit 7, Brassmill Enterprise Centre, Brassmill Lane, Bath, BA1 3JN

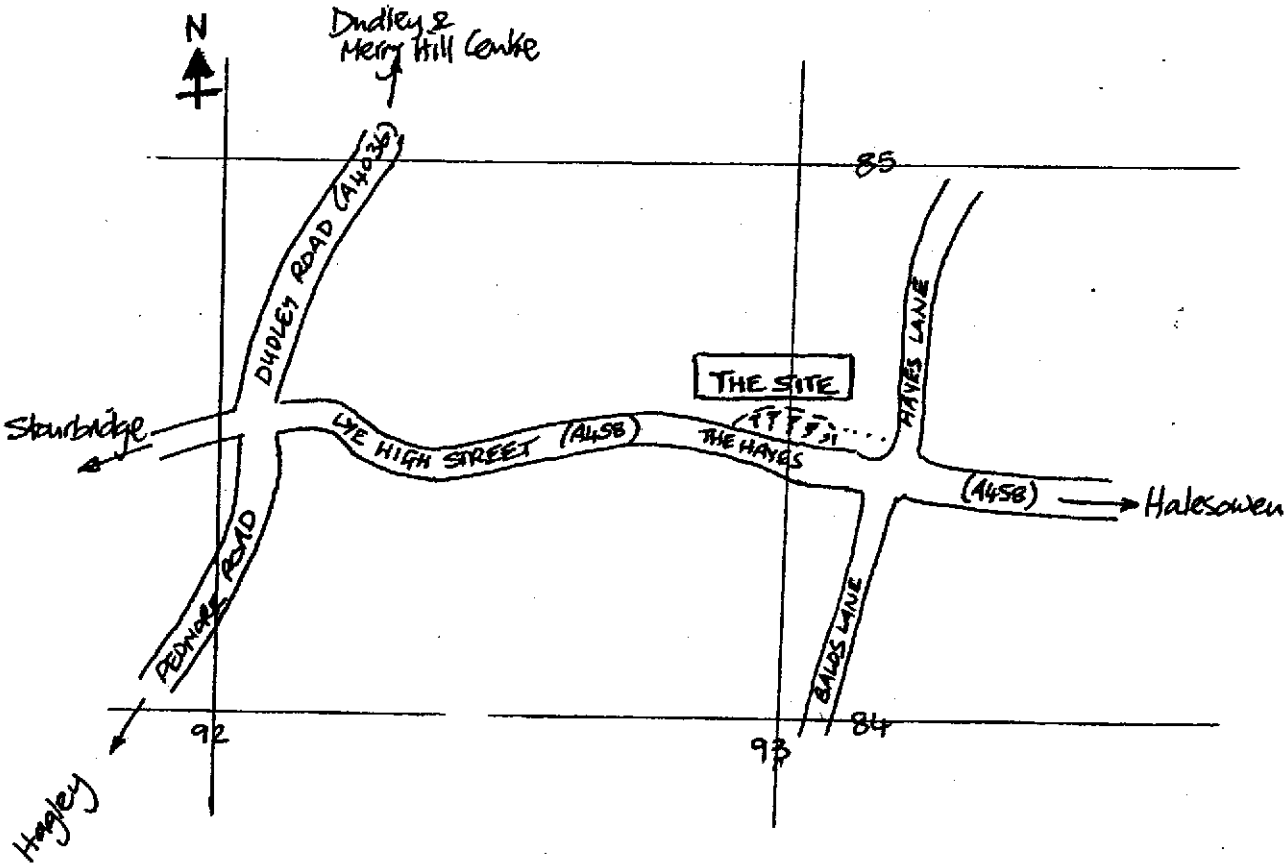
BLACK COUNTRY SITES NO.3 Hayes CUTTING LYE (SINC)

Hayes Cutting is a roadside exposure on the side of the A458 at Lye. This is a classic locality which has been featured in numerous publications including the Dudley and Bridgnorth Memoir of the BGS and Murchison's Silurian System.

In the rock face easterly inclined beds of shales and limestones of the Whitcliffe Formation (The Upper Ludlow Shales) containing marine fossils grade upwards into yellow sandstones of the Downton Castle Sandstone Formation. These show a transition from a warm tropical silty sea to a river or delta environment.

At the right hand side of the cutting boulder beds and coarse conglomerates (pebble beds) cut across the steeply inclined sandstone beds. This is the base of the Coal Measures (Coal bearing) strata of the area and marks the turbulent onset of tropical swamp forest conditions. This site is particularly important as it is the only location in the South Staffordshire Coalfield where the Coal Measures rest unconformably on the Downton Castle Sandstones below.

BLACK COUNTRY SITES N°3 - HAYES CUTTING LYE (SINC)



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MONDAY 31st JANUARY 2000 "Brains Trust"

My question(s) for the Brains Trust is (are) as follows-

I am willing to bring a specimens (Rock, mineral or fossil) to be identified / discussed.

I am willing to bring **no more than 4** slides of geological interest to discuss at the meeting.

I have a further item which may be of interest.

Name
Address

Phone

Please return to the Editor of BCGS Newsletter. 48 Worcester Lane, Sutton Coldfield, B75 5NB