



# The Black Country Geological Society

NEWSLETTER No. 43 - FEBRUARY, 1984:

An Appeal from the Chairman:

Despite the fact that conservation of geological sites was the principal reason for its establishment, the Society has lost momentum in this sphere. I am keen to see new projects undertaken and a greater involvement by members in this type of activity, and I believe that the re-establishment of the post of Conservation Secretary would be a significant step forward.

Many new members have joined the Society since this post lapsed, and they may have the interest and willingness to contribute in this way. Interested members who would like to discuss this in more detail (without obligation!) please telephone me - Alan Cutler, Brierly Hill 77869 - before the Annual General Meeting.

Alan Cutler:

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Next Meeting:

February 20th: Annual General Meeting and Film Show.

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Will members please note!

There are some changes to the programme for 1984. These are marked with an asterisk, so please check your diaries.

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Meetings are held in the Allied Centre, Green Man Entry, Tower Street, Dudley, behind the Malt Shovel pub. Indoor meetings commence at 8 p.m. with coffee and biscuits (no charge) from 7.15pm. Field meetings will commence from outside the Allied Centre unless otherwise arranged. Those who would like lifts, please contact Nigel Bradley.

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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 insurance to the level which you feel appropriate. Schools and other bodies should arrange their own insurance as a matter of course.

*Chairman*  
A. Cutler B.Sc., M.C.A.M.,  
Dip. M., M.Inst.M.

*Vice Chairman*  
P. G. Oliver B.Sc., Ph.D.,  
F.G.S.

*Hon. Treasurer*  
M. J. Woods B.Sc., M.Sc.,  
M.I.Geol., F.G.S.

*Hon. Secretary*  
P. D. Shilston M.A., C.Eng.,  
F.I.E.E., M.I. Mech.E.

*Field Secretary*  
N.G. Bradley

Programme for 1984:

February 20th: A.G.M. and film show\*.

March 19th: Informal meeting to discuss field trip, and talk by Sheila Pitts on the Antarctic landscape.

Saturday March 24th: Field trip to the Forest of Dean. Leader Martin Bragg.\* Meet at the Wilderness Field Centre, Plump Hill, Mitcheldean, at 10.30 a.m. Grid Ref. SO 663 173. The Centre is on the A4136 road, one mile west of Mitcheldean. See map sketch.

April 2nd: Informal meeting to discuss field trip, and talk by Anne Harrison on the rocks of N.W. Scotland.\*

Sunday April 15th: Field trip to Warwick and Nuneaton. Leader Tristram Besterman of Warwick Museum.\*

May 14th: Lecture by Dr.R.Ixer of Aston University. "The Origin of Some British Mineral Deposits; Recent Thoughts."

Monday June 4th: Field trip to the Eastern Boundary Fault, Walsall. Leader Peter Whitehead. Meet 7pm. at Three Crowns pub, Sutton Road, Walsall.

Monday 25th June: Evening field trip to the Lickey Hills. Leader Paul Shilston.

Sunday 1st July: Field trip to Charnwood Forest. Leader John Armitage.

Monday 23rd July. Informal meeting to classify rocks and fossils.

Monday September 17th\*  
Informal meeting.

Sunday September 23rd \*  
Joint field trip to Ludlow and Leintwardine, with the Shropshire Geological Society. Leader Professor W. Dean.

Monday October 15th\* Lecture by

Dr. Ian Fairchild of Birmingham University. "The Balmy Shores and Icy Wastes of the Late Precambrian."

Monday November 12th: Informal meeting and talk on borehole drilling by Maitland Woods.

Sunday November 18th: The B.C.G.S. exploratory borehole will be sunk.

Monday December 3rd: Lecture by Professor A. Hallam of Birmingham University. "Mass Extinctions in the Fossil Record."

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Cotwall End Geological Trail:

Cotwall End valley has a most interesting and varied geological succession in a comparatively small area, and has been the scene for Society field trips and "walks for the family." Within the last twelve months there has been a resurgence of interest in the Nature Centre by the local authority, and the making of new footpaths for nature walks. The suggestion for the establishment of a geological trail with the eventual publication of a trail guide, has been enthusiastically received by the Warden, Paul James. This new Society project should appeal to many members with or without specialist knowledge or experience, but with a willingness to get sleeves rolled up if and when the occasion demands. The project will be tackled on selected Sunday mornings, meeting at 10.30 in the Nature Centre car park.

March 11th. Recce part one.

March 25th. Recce part two.

Alan Cutler:

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Nov. 11th, 1983:

"Geology and Wine in Western Europe." Lecture by Dr. G. Trésise of Merseyside Museum followed by cheese and wine.

Beginning with the post-glacial gravels of the Rhône, which give us the famous Chateaufneuf du Pape, we travelled a fascinating journey, well illustrated by colour slides, back in geological time.

The Pleistocene gravels of Bordeaux and the Rhine valley are a rich source of good wines. From Bordeaux in France we get predominantly red wines, known in England as Claret but also some well known white wines such as Sauterne, which owes its sweetness to the "Noble Rot." Although the geology of the Rhine valley in Germany is similar to that of Bordeaux, the Rheingau wines, known in England as Hock, are invariably white. From the Oligocene marls of Jerez in Spain, comes the fortified wine, Sherry. Thus the Tertiary marine invasion of continental Europe played a very important part in the geology of wine.

In the Champagne district of France the vineyards are confined to the belemnite rich Campanian chalk, which is overlain by a thin topsoil of Eocene sediments. It is this unique combination of lignite rich topsoil and chalk subsoil, which accounts for the restricted distribution and special properties of the Champagne vineyards.

The same chalk which produced Champagne is responsible for Cognac, but in this case distillation is necessary to produce a drinkable "wine".

On the Upper Jurassic rim of the Paris Basin lies the town of Chablis, where under Appellation laws, the vineyards must be situated on the Kimmeridgian Oyster marls, and it seems fitting that when dining on oysters Chablis wine is traditionally served.

The Burgundy area of France produces

some of the finest wines in the world from a strip of land known as the Côte d'Or. In one section of the Côte d'Or known as the Côte d'Nuit the vineyards run along a scarp following a marlstone outcrop of middle Jurassic age, capped by oolitic limestone of Bathonian age. By itself the marl would be too rich a soil but mixed with the soil which has been washed down the slope from the limestone above, the mixture of the two is admirably suited to vines. The finest red wines come from this area and include the famous Nuit St. George and Chambertin, perhaps the most famous of all.

The Jurassic rocks continue southwards to a district known as Maconnais. Here Jurassic oolites overlie Liassic marlstones and the lime rich soils produce the Mâcon wine, the most famous of which is Poilly-Fuisse. In Germany the Moselle cuts a steep sided valley through the Devonian rocks of the Rhine Massif.

Geologically the Moselle valley consists of the Hunsruck shale, a grey Devonian slate. This weathers to give a thin soil through which rain soaks immediately with no surface run off. From this soil come the superb Moselle wines, such as Bernkastler Doctor.

Finally we reach "rock bottom" with the Precambrian schists and granites of northern Portugal which produce the slightly sparkling Vinho Verde and Mateus Rose wines and the fortified wine, Port.

Throughout our journey back through 600 million years, igneous, metamorphic and sedimentary rocks have all been represented. About the only thing they have in common is that the soils are too infertile to grow anything else. Vines grow best on poor soil.

It is one of the cliches of wine lore that the best wines come from the poorest soil. What is usually forgotten is that the nature of the soil depends upon the geology, and that for any specified wine, the geology remains constant.

Following the excellent lecture by Dr. Tresise, some 25 members of the Society sampled a fine selection of European wines and cheeses. The wine selection well reflected the areas mentioned in the lecture and included from Bordeaux the red Mouton Cadet and white Sauterne, Chateau la Borie from the Rhône, Cotes de Beaune from Burgundy, Beaujolais, Baden a Rheingau and Oppenheimer Krotenbrunner, a Moselle from Germany, and Rosé d'Anjou.

The countries of Western Europe were again well represented by the cheese selection, and included Winkase from Germany, Roumillat from France, Windsor red from England, Caroc from Scotland, Dolcelatte from Italy and Gruyere from Switzerland. The evening finally closed just before midnight.

Many thanks and congratulations to Anne Harrison for her excellent choice of wines and cheeses and her valiant work in keeping a constant supply of bread and biscuits going as the evening progressed.

Chris Jowitt:

July 9th, 1983:

Visit to Kingswood opencast site and Cannock Chase:

In the morning, sixteen members of the Society visited the 578 acre opencast coal site and were impressed by the welcome shown by the NCB staff and by the size of the "hole" itself.

Operations on the site were described by Mr. R. Blowers, Resident Engineer, and Mr. A. Digby, Geologist, who also gave a conducted tour of the site in the NCB land rovers.

Work on the site commenced in 1978 and an estimated five million tonnes of coal will be removed at a rate of 15,250 per week. After six years from the start of the operation, the site will be restored to agricultural use. The coal is sent via an internal haulage road to a preparation plant, where it is crushed and screened before going by rail to local power

stations, or to Lea Hall Colliery for blending. The coal is good quality, with the Brooch seam having 1.8% ash, the Charles seam 5% and the upper seams 10%. The moisture content is 17%, and the chlorine content is 0.03% as compared with 1% in deep mined coal. The source of the chlorine is controversial, but may be from percolating ground water. Sulphur is low, but is present in the form of pyrite. We were shown some fossils, including clubmoss, Calamites, and lamellibranchs. The excavation itself is 102 metres deep, and consists of the stepped removal of overburden to expose the coal seams, coal removal into lorries, then back filling followed by soil reclamation. A wide variety of mechanical equipment is used, from sophisticated hydraulic excavators to drag lines and 100 ton dumper trucks. The site is relatively dry, as surface water drains into the underground workings of the old Mid-Cannock colliery. The temporary roads used by the lorries are sprayed with water to keep dust to a workable level.

The geological structure is in the form of a trough, lying between the Leacroft fault, which runs N-S about 300 metres west of the coal area, and a second major fault complex which runs NE-SW towards the eastern boundary of the site. The seams dip generally NW varying from 1 in 20 to 1 in 4. The outcrops of the seams run SE to NW but are interrupted by minor faults and drift channels.

The strata between the coal seams are mainly grey mudstones and siltstones. There are a number of sand horizons which vary considerably in persistence, thickness and hardness. Fireclay of marketable quality underlies many coal seams.

The Upper Carboniferous coal measures are overlain by thick drift deposits, up to 30 metres. An interesting layer of volcanic ash outcropped one third of the way down the face, making a useful time horizon.

After visiting the face, we were taken to see how reclamation left the area

better for agriculture than it was before coal extraction.

In the afternoon we were taken by the Ranger to see parts of Cannock Chase which used to be RAF Hednesford. Apart from three huts and a few roads all trace of Air Force occupation had been removed. The Ranger explained the difficulty in encouraging vegetation on the poor Bunter Pebble Bed surface. The Chase, which has been hunting or amenity ground since Medieval times, is being carefully restored to its former state by Staffordshire County Council. There is a Visitors' Centre where a film shows the history of the Chase, and where guides to the walks may be purchased.

The day was very enjoyable despite the heat, and our thanks are due to Nigel for organising the trip.

John Easter:

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Committee Dates:

All on Mondays at 8 p.m. at The Park Inn, Sedgley.

March 5th.

May 7th.

July 9th.

Sept. 10th.

Nov. 19th.

Geology Holidays:

1. University of Leicester, Dept. of Adult Education, Vaughan College, St. Nicholas Circle, Leicester LE1 4LB.

(a) High Atlas of Morocco. £550. Oct. 5-19. Geology, scenery, natural history.

(b) Iceland as above. £507. July 21st-Aug. 4th.

(c) Southern Spain. as above. £420. April 21st-5th May.

(d) Spanish Pyrenees, as above. £405. June 2-16.

(I will bring these interesting leaflets to the AGM so please ask to see them)

(e) Icelandic Landscapes. One day course, March 17th. £7. Leicester as above.

(f) University of Birmingham - Extra Mural weekend course. Geology of the Church Stretton area. 11-13 May.

Apply to Ms. C. Marshall, Department of Extra Mural Studies, University of Birmingham, P.O. Box 363, B15.

7.00 Tuition.

30.00 Accommodation.

10.00 deposit.

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For Sale:

Customatic combination cutting, grinding, sanding and polishing unit, including electric motor. For use with a diamond saw (saw not included) Also rock tumbler. Total price £65. Phone Mrs. Rolling 021 706 9140 evenings between 6 p.m. and 7.30p.m.

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Field Secretary:

Nigel Bradley,  
11 Leicester Close, Warley,  
West Midlands, B76 5NJ.  
Tel. 021-429-8833.

Hon. Secretary:

Paul Shilston,  
16 St. Nicolas Gardens,  
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Tel. 021-459-3603.

Editor:

Sheila Pitts, 17, The Pear Orchard,  
Northway Farm, Tewkesbury, Glos.

From the Papers - the Old and the New:

1. "There's a Hole in Them Thar Hills". Express & Star 20.1.83.

West Midlands County Council waste disposal chiefs are poised to make compulsory purchase orders on holes in the ground for refuse disposal. Nearly a dozen giant craters in the Rowley Hills, Aldridge-Brownhills and Dudley have already been earmarked.

2. Blueprint to Extract Minerals in the County. Express & Star 1.3.83.

Officials of Staffordshire County Council Planning Department say that a mineral extraction plan is needed for the County to ensure that future works do not have an undue effect on the environment. Public and interested organisations are being asked for views before a final scheme is drawn up next year.

3. Caverns to be Fenced Off: Express & Star 1.3.83.

Caverns under Castle Hill, Dudley, are a danger to the public, says Jim Dean of the Leisure and Recreation Department. The Land Committee have approved £3,300 scheme, using derelict land grants to fence off some caverns.

4. Mineshaft is Building Snag: Evening Mail 28.3.83.

A missing mineshaft is holding up work on a new Tividale housing estate. According to records there should be three old shafts but only two have been found. A search is in progress.

5. Couple Escape as Footpath Caves in: Evening Mail, 28.3.83.

A newly-wed couple fell 12 feet into a hole which suddenly appeared in a Walsall street late on Saturday night. The hole is thought to be part of an old limestone quarry.

**DUDLEY HERALD**

**THURSDAY, JANUARY 5, 1984**

# New jobs in £15m plan to fill caverns

The massive programme to fill in Dudley's crumbling limestone caverns will cost more than £15 million, council engineers have revealed.

The Government-backed project will create new jobs for the work-starved Black Country engineering services director, Mr. Alan Evans, said.

The new work will be mainly for technicians and skilled engineers but a limited number of posts will be created for manual workers.

In addition "spin-off" employment could be created at specialist manufacturing firms where in-filling equipment is made.

All of the money to finance the in-filling work - which extends throughout areas of Dudley, Wolverhampton, Sandwell and Walsall - will come from Government Derelict Land Grants.

Work is already underway to fill in Dudley's Shirts Mill cavern with thousands of tons of sand,

and similar work is due to be undertaken at a cavern beneath Dudley Sports Ground next summer.

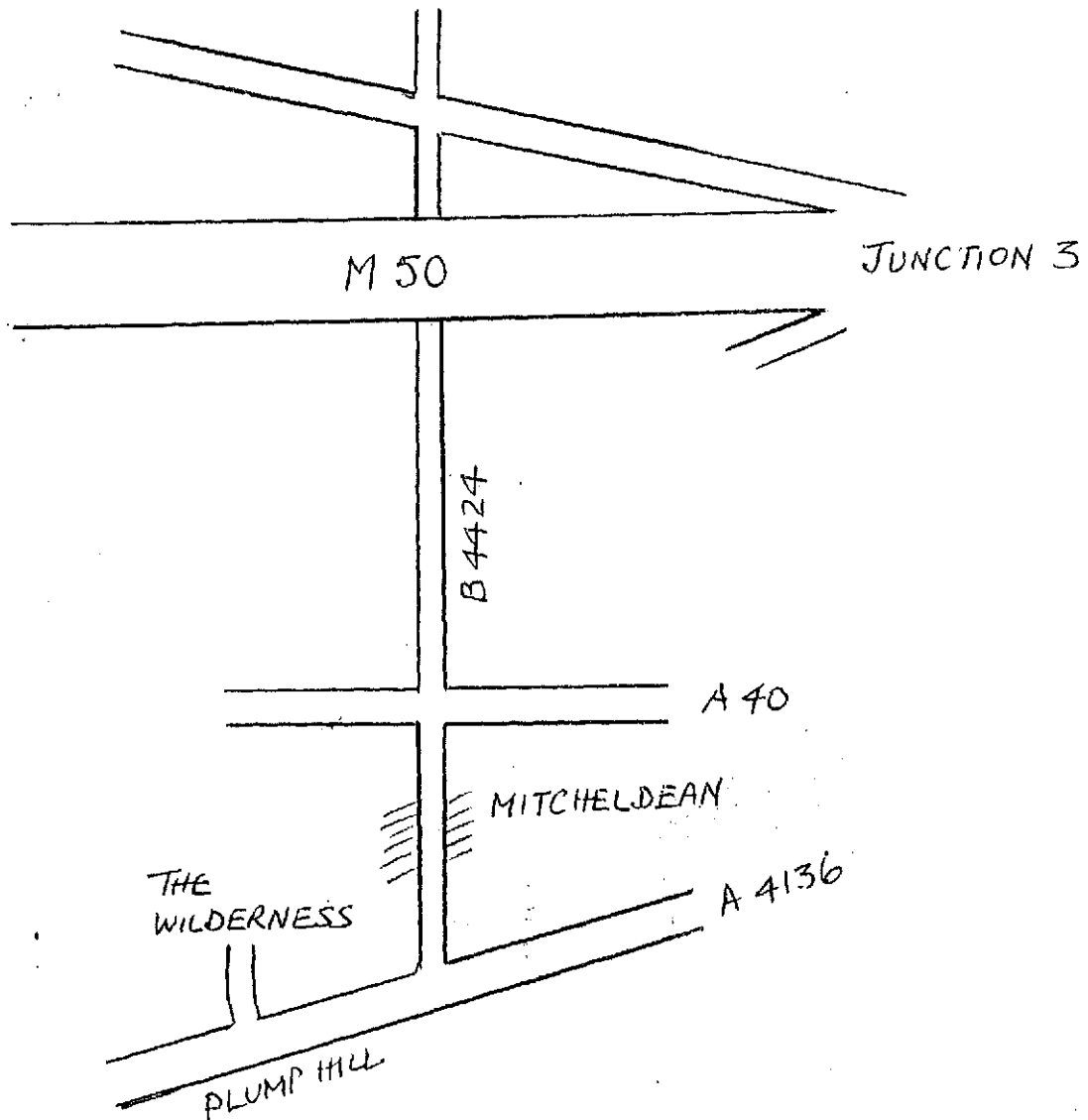
Mr. Evans issued a "don't panic" plea to residents living near sites where boreholes are to be sunk - mainly in the Castle Hill and Wrens Nest areas.

A special housing welfare officer is to be appointed to advise and reassure tenants and home owners affected by monitoring work.

Mr. Evans said: "The total cost of the Black Country limestone work will be probably between £40 and £50 million and I expect about a third of this to be spent in Dudley.

"The work will create employment for technicians but there is also likely to be a limited number of jobs for manual workers and spin-off posts."

Forest of Dean:



Meet 10.30 at the Wilderness Field Centre, Plump Hill, Mitcheldean.  
It is one mile west of Mitcheldean.  
Allow about one and a half hours driving from Dudley.  
Sites to be visited include Devonian and Carboniferous exposures in  
East Dean, and Silurian at May Hill.

Notice is hereby given that the ninth Annual General Meeting will be held on Monday 20th February 1984 at 8pm in the Allied Centre, Dudley.

AGENDA.

1. Apologies for absence.
2. Minutes of the AGM held on 14th March 1983.
3. Statement of accounts and Treasurer's report.
4. Chairman's annual report.
5. Election of officers and committee.
  - (a) Chairman
  - (b) Vice-chairman
  - (c) Hon. Secretary
  - (d) Hon. Treasurer
  - (e) Conservation secretary.
  - (f) Field secretary.
  - (g) Three committee members.
  - (h) Hon. auditor
6. Any other business.

The retiring officers and committee are :-

Chairman	A. Cutler
Vice chairman	Dr. P.G. Oliver
Hon. Secretary	P.D. Shilston
Hon. Treasurer	M.J. Woods
Conservation Secretary	----
Field Secretary	N.G. Bradley
Committee members	J. Easter    P. Knight M.P. Coles    Mrs. H. Logan

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## Subscriptions 1984

MEMBERSHIP SUBSCRIPTIONS are now due, and should be paid to the Hon. Treasurer :  
Mr. M.J. Woods  
132 Mount Road,  
Penn, Wolverhampton.

Subscriptions can also be paid at any meeting.

SUBSCRIPTION RATES ARE AS FOLLOWS :

Individual membership	£6.00 per annum.
Family membership	£8.00    "
Student membership	£2.50    "
Associate/group membership	£15.00    "