



# The Black Country Geological Society

NEWSLETTER No. 44 - April, 1984:

Editorial:

Over the years, pen poised over blank paper, I have sometimes had a wicked urge to write an editorial on the problems of writing an editorial. For this issue I was asked to consider something on the low attendances at a few recent meetings, and this would have been a sad topic. In the meantime we have had two meetings with large attendances, further renewed subscriptions, and various other problems solved. This leaves your editor much happier, and quite willing to ask you all to keep it up!

This issue has been devoted mainly to the two long articles on the local limestone and its problems, so for this time the feature "From the Papers" is omitted.

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Next Meeting:

Sunday April 15th: Field trip led by Tristram Besterman to Warwick and Nuneaton. Meet 10.00 a.m. at the Museum, Market Place, Warwick. The Museum will be open, allowing us to see the geological displays, some of the reserve collections, and the Geological Locality Record Centre. This will be followed by a visit to a quarry exposing the Bromsgrove Sandstone (Middle Triassic). In the afternoon it is proposed to visit the Nuneaton district to examine the Precambrian-Cambrian geology, and to see examples of site conservation.

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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 7.15 p.m. Field meetings will commence from outside the Allied Centre unless otherwise arranged. Those who would like lifts, please contact Nigel Bradley.

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

*Vice Chairman*  
P. G. Oliver B.Sc., Ph.D.,  
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*Hon. Secretary*  
P. D. Shilston M.A., C.Eng.,  
F.I.E., M.I. Mech.E.

*Field Secretary*  
N.G. 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.

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Programme for 1984:

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

Monday June 4th: Evening field trip to the Eastern Boundary Fault, Walsall. Leader Peter Whitehead. Meet 7 p.m. at Three Crowns pub, Sutton Rd., Walsall.

Monday 25th June: Evening field trip to the Lickey Hills. Leader Paul Shilston. Meet in car park, Lickey Hills Municipal Golf Course, Old Birmingham Road. 7 p.m. Grid Ref. 996759.

Sunday July 1st: 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.

Saturday November 17th: (Note CHANGE OF DATE). The BCGS borehole will be sunk. At lunchtime there will be a social with buffet at the Park Inn, Woodsetton.

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

January 23rd 1984: Black Country Limestone Mines." Lecture by Adrian Collings.

The limestone mines are a relic of the industrial revolution, and still cause problems due to subsidence. Following a particularly large event in Wednesbury in 1978, a major study was carried out to establish the extent of the problem and offer some solutions. Some of the geological and historical information gathered in this study were presented in the talk.

The geological extent of the limestone strata were first considered. In the southern part of the South Staffordshire Coalfield, Productive Coal Measures unconformably overlie Silurian strata within which limestone horizons occur. The limestone strata, in descending stratigraphic order, are:- a thin impure limestone towards the top of the Ludlow age strata, equivalent to the Aymestry Limestone of the Welsh Borderland; a thick limestone at the top of the Wenlock age strata, equivalent to the Wenlock Limestone of Wenlock Edge; and a thin limestone towards the base of Wenlock age strata, possibly equivalent to Woolhope Limestone and known locally as Barr Limestone. The Wenlock Limestone is by far the most important economically, and is divided into Upper and Lower Beds of pure workable limestone separated by impure nodular limestone. A map illustrating the sub-Carboniferous floor of the coalfield was shown illustrating the gentle dip westward of the Silurian, and the subcrop of the Wenlock Limestone. A major NNW trending fault to the SW of Dudley was considered to be a Precambrian lineament which has moved repeatedly since then. The structures of the Dudley anticlines were then shown. These periclinal structures bring the Wenlock Limestone to the surface, and are largely responsible for the extensive limestone exploitation in the Dudley area. These structures are considered to be the result of lateral movement on the major NNW fault during late Carboniferous - Hercynian earth

movements, causing local folding of the Carboniferous and Silurian strata in the Dudley area, north east of the fault. The talk then moved to the historical development of the limestone industry, pointing out many uses of lime before and during the industrial revolution. Much historical information was brought together by the study of old mine plans, newspapers, maps and other documents. A graphic account of a collapse in Walsall in 1828 was read out. The existence of this mine was unsuspected since no plan had survived, and there was no legal responsibility on mine owners to deposit plans of abandoned mines before the Mines Act of 1873. A series of maps were shown of the development of the limestone industry at Daw End, Walsall, and at Dudley where canal transport was so important. Finally the features of Wenlock Limestone as revealed by bore-hole investigations were considered, and the changes in lithology discussed. The pure Upper and Lower Limestone beds contain little ferruginous material, but the nodular beds between contain an appreciable amount. Thin clay partings due to volcanic ash occur. The Wenlock Limestone varies little in thickness from Dudley to Walsall, but shows significant changes in lithology. Evidence was given for shallowing of the sea at the top of the Wenlock Limestone unit, leading to local emergence and erosion of coral reefs in the Dudley area. The talk concluded with slides illustrating the dramatic character of the remaining accessible limestone caverns under Dudley.

Adrian Collings:

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Comments on:-

"Policy Considerations arising From a Recent Study of Limestone Workings in the West Midlands."

A 28-page A4 sized study by the Steering Group of the Black Country Limestone Study.

The degradation of old limestone workings - note that they are not caves or caverns - is nothing new. Indeed it is many years ago that the limestone workings under Dudley Freightliner Depot were supported. It is over 20 years since the former County Borough of Dudley accepted the first tender for the infilling of workings under Birmingham Road, the Midland Red Garage and some 26 council houses adjacent. At that time there was no Government grant available, so the Midland Red, the Statutory Undertakers, the various Committees of the Council and the Dept. of Transport bore the cost. Consequently the problem of persuading these organisations that the work was necessary was that much harder. Indeed I believe that the contribution of 75% of the cost of infilling three of the tunnels under Birmingham Road by the Dept. of Transport was a 'first'. The cost of infilling Wrens Nest was borne mainly by the Housing Committee who had to spread it over the 28,000 tenants. Councillors and tenants living some miles away were not amused, and seemed quite illogically to blame me! It was not until the Local Government, Planning and Land Act 1980, that the Dept. of the Environment was empowered, under Section 117, to make grants to prevent land from becoming derelict following the working of minerals other than coal. This act and the Derelict Land Act 1982 make it much more likely that local authorities will now take action in such areas. The attitude of Courts to building regulations is now changing, so that local authorities have to accept some liability for buildings which contravene the regulations to the degree that the building is damaged or persons are injured.

In my opinion four courses of action are required by the Government:-

- (a) revision of the Planning Acts to make it clear that old mine workings are a planning consideration requiring the applicant to satisfy the local planning authority as to site stability.
- (b) revision of the Building Regulation D3 similarly, with regard to safety of buildings,
- (c) Provision of an Act authorising local authorities to render safe workings under land in multiple ownership.
- (d) action to reimburse owners who suffer damage arising from subsidence from mineral workings made by operators who can no longer be traced.

The civil liabilities of the landowners are very heavy. Indeed the local authorities of the Black Country and other landowners have been fortunate that no death or serious injury has occurred since reorganisation in 1974. It is sad that about £500,000 has had to be spent on the recent study in order to convince people that work has to be done. Much of the information in the study has been well known for a quarter of a century, and it would have been better if it had been possible to spend some money concurrently on infilling some of the more urgent areas. The Black Country local authorities are trying to spend £1 million on investigative and infilling works before the end of March 1984. A recent issue of "New Civil Engineer" - the weekly magazine of the Institution of Civil Engineers - states that the Government is allocating £2 million for treatment works in the year beginning April 1st, 1984.

The public will need to bear in mind that all the old workings in the area are unlikely to have been discovered. A significant

sum could usefully be spent to monitor the condition of workings, both to establish the priority of infilling works and to indicate those for which infilling could be delayed or omitted.

If one considers that the evils of continuous urban sprawl such as Manchester and Glasgow are to be avoided, then it is necessary to consider limestone workings in relation to the conurbation as a whole. In our part of the country the main planning problems are to avoid building on every piece of vacant land, and to secure the reclamation of all land so that it is safe for appropriate use. This will require strong minded men without vested interests.

17.1.84.

D. S. Warren:

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Committee Dates:

All Mondays at the Park Inn,  
Sedgley, 8 p.m.

April 30th (note change).  
July 9th.  
Sept. 10th.  
Nov. 19th.

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Guided Walks Programme 1984:

All guided walks are on Sundays at  
3 p.m.

Doulton's Claypit:

June 3rd.  
July 8th.  
August 5th.

Meet at the car park of Saltwells  
public house, off Saltwells Road,  
Mushroom Green, Brierly Hill.  
Grid Ref. SO 934869.

Wrens Nest:

June 17th.  
July 15th.

August 19th.  
Sept. 16th.

Meet at the car park of the King Arthur public house, corner of Priory Road and Birmingham New Road (A4123) Grid Ref. SO 943922.

Lickey Hills:

Sept. 2nd.

Meet at the car park of Lickey Hills Municipal Golf Course, Old Birmingham Road. Grid Ref. SO 996759.

and the others were all re-elected. Anne Harrison returned to an active role in the Society by being elected as Treasurer.

Roy Prigg became the new Conservation Secretary.

It was resolved that Steve Hughes be co-opted onto the committee at the next meeting.

The meeting ended with a film on glaciation.

Since the A.G.M. there have been new members and a renewal of old members.

This is most encouraging, and the committee are already undertaking more publicity work.

Sheila Pitts:

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Ninth Annual General Meeting.  
Feb. 20th, 1984.

The meeting began with the Treasurer's report, giving the news that for the first time the Society had made a loss. This was £142 mainly due to a loss in subscriptions, and a loss from the guided walks because of the lack of publicity about them. There is still £280 in stock, and hope for income from guided walks this year when we will do our own publicity, so the position is not serious, but we would like to produce another Journal. Various possibilities for savings were suggested, but there was a strong feeling that this was a temporary problem. The Chairman's report was circulated, proposed and accepted. Methods of retaining membership and increasing advertising were discussed. It was felt that there were no problems of variety with the programme, but that more social events might be welcomed. School subscriptions were down, and this was probably due to their own economies. All officers were willing to stand for re-election except the Treasurer who was retiring,

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Welcome to new Members:

M. & J. Drilling Services Ltd.,  
Dudley (M. J. Woods).  
Peter Smith, Oldbury.  
Paul Banks, Balsall Heath.  
Steven Miller, Bournville.

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Geological Courses and Holidays:

University of Manchester, Dept. of Extramural Studies.  
Geology of the Lake District.  
Leader, Dr. Paul Selden. Sept. 7/9th.  
£30. Details from Lynn Palethorpe, Extramural Dept., The University, Manchester M13 9PL.

University of London, Dept of Extramural Studies, 26 Russell Sq., London WC1B 5DQ. Apply Michael Bamlett, Staff Lecturer in Geology.

April 28th-May 5th. Arran: Tuition £15, Board and local Transport, £125.

May 25th-27th. Castleton: Derbyshire. £8 and £40.

June 21-24th. Dartmoor: Tuition £10. Transport £15.

July 5-8th. St. David's: Tuition £10. Hotel £23 night.

21-28th July. Westonbirt,  
Cotswolds and Malverns. Tuition  
and Board £125.

28th July-4th August. Bognor  
Regis: Tuition and Board £125.

16-18th Nov. Rogate, Sussex:  
Tuition £10. Board cheap.

University of Birmingham:

Apply C. Marshall, Dept. of  
Extramural Studies, University  
of Birmingham, PO Box 363,  
Birmingham B15 2TT.

Geology of the Gower Peninsula:  
23-24th June. Tuition £10.  
Hotel £12.50 dinner, bed,  
breakfast.

Geology of Llandrindod-Builth  
Wells: 16-17th June. Fee £7.  
List of Hotels.

Geology of Church Stretton:  
11th-13th May. Deposit £10.

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Book Publishers:

Pergamon offer "Glacial Geology,  
an Introduction for Engineers  
and Earth Scientists". for  
£7.95 instead of £9.95 to the  
Society. Due late 1984. Soft  
cover.

Wiley offer 20% discount off a  
purchase of three books from:  
Dictionary of Petrology, at  
£49.50.  
Igneous Rocks of British Isles,  
£57.75.  
Andesites, £62.50.  
Metallisation Associated with  
Acid Magmatism £22.05.  
Exercises in Sedimentology, £11.50.

(Think what you can save, so  
long as you can afford it!)

From the Natural Environment  
Research Council, a booklet has  
been received on the care of

geological specimens, and will be  
put in the book box.

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Exhibition - New Look at the  
Dinosaurs.

At Yorkshire Museum, York. 4th  
April-28th October. Entrance £1.00.  
for adults.

A major exhibition in association  
with the British Museum of Natural  
History.

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17 The Pear Orchard,  
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Glos. GL20 8RG.

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PS.

Cotwall End Valley Project

Reccé trip No 3 concentrating on  
the Silurian (Ludlow series) will  
be held on Sunday April 29th  
commencing 10am at the Nature Centre  
car park (finish approx 12.30).

Members of the first two recces have  
already been rewarded with two new  
exciting exposures in the coal  
measures.

Please support this worthwhile project.