



# THE BLACK COUNTRY GEOLOGICAL SOCIETY

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J. E. GOLLEDGE, M.A.  
M. J. WOODS, B.Sc., M.Sc., F.G.S.

NEWSLETTER No. 16 - May 1979.

## Editorial

### Crowded scenery

Increasing membership and more field activity are very satisfactory aspects of the life of the Society, but even good things can lead to problems. Members will recall some very well attended field meetings. The venue for Peter Whitehead's Derbyshire field trip has been altered for this reason, but he is still willing to lead a visit to the roaches and Goldstitch Moss. He and committee members would like to hear members' views on the possibility that some field trips may in future need prior booking and an upper limit on numbers.

### Holiday scenery

Now that holidays are being planned, why not take a geological map or regional guide with you? The Secretary has some for sale or loan, and can order others if he has several weeks' notice. The average price for maps is £1-80. for 2½" maps; £1.45. for 1" maps.

### Annual General Meeting and Film Night - Feb. 15th.

Attendance at the A.G.M. and film night included several new members, and proceedings commenced with sherry, generously poured by Freda Tabberner. Alan Cutler then read the Chairman's Report.

Alan observed with satisfaction that membership was still increasing, and at the end of

May 10th. Informal meeting. Discussion to include final arrangements for the Dorset field trip.

May 18th, 19th, 20th. Weekend field meeting in Dorset. Leader from Southampton University.

June 7th. Informal meeting to discuss the geology of the Peak District.

June 10th. "Igneous Rocks of the Peak District" - Field meeting led by Dr. R. Ixer of Aston University. Coach departs from Dudley Library at 9am.

July 12th. Informal meeting to discuss the progress in conservation of sites in the Black Country.

July 15th. Field trip to local sites of interest for geological conservation. Depart Dudley Library at 10am.

Informal meetings all in Dudley Library at 7-45pm, with coffee at 7-15.

Field meetings - Packed lunch required for all of them.

Non-members always welcome.

1978 the total was 61. Both indoor and outdoor meetings had a good attendance, and for the first time a weekend field trip was organised. This Llangollen meeting was a success, so a further weekend meeting will take place this year, visiting the Dorset coast in May.

The conservation group has been particularly active, preparing a list of geological sites in the area, cooperating with the Nature Conservancy

\* See back page for list.

and district planners about these and also with the National Scheme for Geological Site Documentation.

Much work has also been done on sorting the geological collection at Dudley Museum, resulting in the rediscovery of several type specimens. Some of the specimens have been moved out of the cellars but housing of the collection is still not satisfactory.

Other unfinished activities include the lack of any further progress towards a permanent headquarters for the Society, and further delay in the production of the Journal. This is now typed and awaiting quotations. Aided by a small grant from Dudley Arts Council, publication is expected in the summer.

The book box present at indoor meetings has an increasing number of books, maps and other items for sale or loan, and members are using this service frequently.

Alan concluded his report by saying that clearly 1978 had been the Society's most active and successful year so far.

Three films completed the evening's programme. The first was an I.C.I. film on limestone, showing its uses in industry, chemicals, iron ore extraction, agriculture, and the treatment of sewage and other pollutants.

The second was about continental drift, and dealt with the plotting of Magnetic North, ocean trenches and ridges, and the work of the drilling ship "Glomar Challenger" on the analysis of ocean floor sediments with regard to the theory of sea-floor spreading.

The third film, "Legacies of the Ice Age", was about erosion and deposition, and the economic uses of glacial sands and gravels.

The Treasurer's report showed a satisfactory financial position. As the activities of the Society have increased, more postage and lecture fees have been incurred.

The cost of membership has not been increased since the Society was formed, and it is intended that the standards of the Society should stay as high as possible. After some discussion it was decided to increase subscriptions from Jan. 1st. 1980 to £4 for individual members, £5.50 for family members, and to make no change for junior and associate members.

Election of officers and committee.  
All officers were re-elected with the exception of Graham Hickman, who is currently pursuing his geology at university. Officers are:-

Chairman - Mr. Alan Cutler,  
Vice-Chairman- Dr. Peter Oliver,  
Hon. Secretary- Mr. John Gollidge,  
Hon. Treasurer- Mr. Maitland Woods,  
Committee members- Mr. Colin Mitchell,  
Mr. Peter Parkes,  
Mr. Timothy O'Mara.  
Hon. Auditor- Mr. David Richards.

Mr. Timothy O'Mara was particularly welcomed when he volunteered to serve on the committee, since he is one of the Society's newest members.

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#### OTHER RECENT EVENTS.

February 15th.

Pleistocene Palaeontology & Climate.  
by Keith Moseley of Birmingham University.

Ten hardy and well insulated geologists braved one of the worst nights of the winter to hear an illustrated talk by this most interesting and enthusiastic speaker. He brought a wide selection of specimens, including some particularly beautiful butterflies and moths.

Pleistocene deposits cover two thirds of Britain, and they have great economic importance. Much sand and gravel is extracted, and the deposits are a common cause of building works disasters. We heard how a slip on the M6 caused a bill for £10million, and how a frost wedge so thoroughly swallowed a heavy bulldozer that it was at first assumed to be stolen.

Techniques for studying the deposits

include examination of the contained fauna and pollen, these collectively revealing the particular type of climate. Foraminifera contain a radioactive isotope of oxygen (18), the concentration of which is sensitive to temperature change. Pollen analysis reveals the proportion of tree pollen to non-tree types. Bivalves and gastropods can be compared with the habitat of related species which are alive today.

Insects are frequent from late Tertiary times. They now amount to half the total species in the world, and half of those are beetles. Beetles are sensitive to temperature, found in sands as well as peat, are easily separated from vegetation by the use of alcohol and water, so are particularly useful in Quaternary studies.

The evening ended with comments about the causes of ice ages, especially astronomical ones including variations in the tilt of the Earth's axis in relation to the sun. In the last 30 years average temperatures have dropped by 1°C. No previous interglacial has exceeded 10,000 years, which ours has now reached. The speaker had held the attention of his audience so completely that they were all reluctant to leave, and not just because the ice of the Dudley advance was lapping at their heels. S.P.

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March 4th.

Igneous Rocks of the Black Country Field trip led by Dr. R. Ixer of Aston University.

The preliminary discussion for this postponed field trip had been held on 18th January. It was led by Alan Cutler who also produced useful summaries. On the 4th March there was a break in the weather and a good attendance.

The first visit was to Witnells

End near Shatterford (O.S. 138 - S0797817) where a small exposure in a field was examined. Dr. Ixer observed that all West Midlands igneous intrusions had been a matter of debate among geologists since the eighteenth century, and there was still room for research into the age of the basalts. This particular exposure had been altered soon after emplacement, and it was also very weathered. Whilst freshly exposed dolorites were normally dark grey, here the introduction of later aqueous fluids had caused alteration to green minerals. Examples of columnar jointing were demonstrated, and also their weathering.

The area showed igneous material in the Coal Measures, probably of Upper Carboniferous age, but the dates of these rocks are uncertain. In old quarries on the south west corner of Coldridge Wood, examples of unweathered nodules of a coarser grained basalt were seen.

The party dispersed for lunch, re-assembled in Dudley, and proceeded to New Rowley Road, Dudley (OS 139 - S0954891) where the old quarry to the north of the road was examined. This was an area not previously visited by Dr. Ixer. He therefore took the opportunity of demonstrating to the less experienced members the methods used by a geologist in "reading" an exposure. Massive dolorites, calcite veining and fine conglomerates at the top of the face were pointed out, as was the late stage introduction of calcium silicates in solution.

Our last visit was to an old quarry to the south west of Dudley golf course and approached from Oakham Road (OS 139 - S0962589). Several members hoped that a further field trip would be possible to learn more of the igneous rocks of the Rowley Hills. D.W.

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"The Wolverhampton & West Midlands Magazine" took photographs of our Social evening in November and these have appeared in the January 1979 issue of the magazine.

THE CONSERVATION COLUMN

by Colin Mitchell  
& Peter Parkes

A two day national conference entitled "The Future Development of Geological Conservation in the British Isles" was held at the Geological Society of London on 19th and 20th March. As the main themes of the conference were closely allied to many of our Society's aims, it was felt essential that representatives should attend.

Many subjects were discussed in addition to conservation itself. These included site documentation on a national level, an increase in suitable teaching sites, curbs to restrict the 'rogue' collector and dealer, health and safety legislation, and the role of museums and the Nature Conservancy Council.

The opening address was given by the Dudley MP, Dr. Colin Phipps, who is a professional geologist. Among several interesting topics, he mentioned the damaging of the Lower Ludlow Shales at Wrens Nest and the state of the Dudley Museum geological collection. Many other speakers included those from the Nature Conservancy Council, Local Government, National Parks, National Trust, landowners, the quarrying industry, universities, museums, dealers, The Association of Teachers of Geology, The Institute of Geological Sciences, The Committee for Geological Site Documentation and The Geological Curators Group.

The National Scheme for Geological Site Documentation was an important theme within the conference. Dr. R.G. Clements, Chairman of CGDS spoke of the work already done in the setting up of recording centres throughout the country. The hopes of our Society for a recording centre at Dudley do not appear great at the moment. Without a Geological Curator at Dudley Museum, the

best that we could expect is that a local recording unit may be set up, attached to the nearest recording centre which is at Stoke.

The Society's conservation and recording programmes were brought to the attention of the conference, and we received several compliments for our list of possible conservation sites, and good wishes for our future work in this field. This work will take a considerable amount of time and effort, for which offers of assistance would be appreciated. Further details of the conference will appear in the next Newsletter.

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Geology and the Law.

Teachers and lecturers may remember the letter published in our Nov. 1978 newsletter by Peter Whitehead, who drew attention to increasing legal and insurance difficulties in gaining access to quarries. The Society has circulated this letter to West Midlands MPs. Several have replied expressing concern, and have taken up this problem with the Depts. of Employment and of Education & Science.

We now need to collect evidence of problems caused by the Health & Safety at Work Act and the Unfair Contracts Act. Any teacher or lecturer who has found access to quarries or works becoming more difficult or impossible should write to the Hon. Sec. with details or a copy of the refusal letter, or write to their MP. A coordinated approach would probably be more effective since MPs have many problems.

MPs do sympathise and some of them are very much concerned with education. For example Geoffrey Edge, MP for Aldridge-Brownhills is a geography lecturer and readily appreciates the problem. J.G.

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Alan Cutler gave a talk on the Society and its activities to the Wolverhampton (Penn) Townswomen's Guild, in February. This was highly successful, and the audience was very interested to hear how relevant geology is to modern life as well as being a hobby.

Aldridge - Brownhills  
District Plan

This has recently been issued by the West Midlands County Council. Since the Society submitted information and opinions for this plan, we have received a copy of the Summary Report of the Survey. This is available to members at meetings or from the Hon. Sec. on the usual terms (£1 deposit). Being a summary it does not go into detail, but anyone interested in the area should find the information on population, services required, and travelling habits quite interesting.

BOOK REVIEW.

Introduction to Geological  
Structures and Maps G.M. Bennison  
£1.20.

This is the best book on geological maps that I have seen. It takes the reader through from the very simple to the most complex structures in easy stages. Every step is fully described and the reader is not "blinded with science"! Where a technical term is used, it is explained and illustrated, and there are 25 maps showing every situation from a simple fold to a complicated nappe. A geological map is not merely a plan of exposures, it is a geological history of the area, and this book tells you how to interpret what you see. I have only one criticism. I would like to have seen sections of the maps used, perhaps at the end of the book. It would enable the reader to assess his progress and understanding of this fascinating subject.

Douglas Bedson.

Events of Other Societies .

University of London, Extra-mural Dept.  
Castleton, Derbyshire, May 11th - 13th. Field visit.  
Newton Abbot, Devon, July 28th - Aug. 5th. Summer school on the rocks and minerals of Devon.  
Newton Abbot, Devon, Summer school on geology and scenery.  
South Staffordshire Mineral and Gemstone Society - monthly programme is available.

FUTURE PROGRAMME.

Sept. 27th - "The Geology of the Dumfries Area"- talk by Graham Hickman.  
Oct. 11th - Informal meeting to discuss the next field trip.  
Oct. 14th - Field trip to Derbyshire, the Manifold Valley. Leader Peter Whitehead.  
Nov. 16th - Social Evening.  
Dec. 13th - "Mineralisation". Lecture by Dr. Barnes of Swansea University.

# The Geology of Snowdonia and Llŷn:

## An Outline and Field Guide

Brinley Roberts (*Birkbeck College, London*)

This book describes the Precambrian to Tertiary geology of the classic area of Snowdonia and the Llŷn Peninsula, and is accompanied by a unique 1:70 000 geological map of the entire area, with illustrative sections. This area is geologically important in the study of orogenetically disturbed rocks and has particular interest for palaeo-vulcanologists. The first part of the book summarises the geological history and structure of the region and represents a considerable advance on the material available elsewhere. The second part comprises 31 itineraries, giving a comprehensive coverage in terms of both geology and area. Each itinerary is illustrated by a geological excursion map (except those falling entirely within the IGS Geological Special Sheet, Central Snowdonia). The book is intended primarily for use on undergraduate courses and fieldwork and by organisers of pre-university field courses. It is also a useful guide for post-graduate research and should prove of great interest to amateur geologists. Owing to the large number of maps and panoramic photographs, the book is produced in a large 'landscape' format. The illustrated cover is sealed into a transparent vinyl sleeve to provide durable but flexible protection during outdoor use.

May 1979 x+183pp 215 x 305mm  
26 maps 25 photos 8 diagrams 7 tables  
with separate 1:70 000 geological map  
Cataloguing in Publication data  
flexicover ISBN 0-85274-290-8 £15.00

Orders  
to Hon.  
Secretary.

Institution of Geologists:-  
May 24th at 6.30pm. Field trip to Kingswood Opencast Site, Staffs.  
East Midlands Geological Society:-  
May 11 to 13th. Yorkshire field visit. *Date changed!!*  
July 1st. Field trip to Wrens Nest Dudley.  
University of Bristol, Extra-mural dept. field visits:-  
Anglesey - May 18th - 21st.  
Brittany - May 28th - June 1st.

## BOOKS FOR BORROWING

### British Regional Geology Guides:

Northern England  
London & Thames Valley  
Central England  
Yorks & Lincs  
Wealden District  
Welsh Borderland  
South West England  
Hampshire Basin  
East Anglia  
South Wales  
North Wales  
Pennines  
Bristol & Gloucester.

### G.A. Guides:

1. Birmingham area  
17. South Wales  
22. Dorset (Poole & Chesil)  
27. South Shropshire

### Geological Survey Maps:

10m/1" - Scotland  
          - England & Wales  
1m/1" 121 Wrexham  
       137 Oswestry  
       141 Loughborough  
       152 Shrewsbury  
       153 Wolverhampton  
       154 Lichfield  
       155 Atherstone  
       166 Church Stretton  
       167 Dudley  
       168 Birmingham  
       169 Coventry  
Special Bristol/Mendip  
1m/2½" - Church Stretton  
          - Craven Arms  
          - Wenlock Edge  
          - Ludlow/Leintwardine

### Books:

Geological Structures & Maps;  
Geology & Scenery;  
Geology of Church Stretton area;  
Model of the Isle of Purbeck;  
Guide to Assynt District;  
Palaeogeography of the Midlands;  
Ice Ages - Ancient & Modern;  
The Earth - Rocks, Minerals  
          & Fossils.  
British Fossils;  
Genesis & Geology;  
Minerals of Jersey;  
Observers Book of Geology;  
Fossil Collecting;  
The Earth;

British Palaeozoic Fossils;  
British Mesozoic Fossils;  
British Caenozoic Fossils;

### Reports & Journals:

Journal of the Geological Society;  
Mercian Geologist Vol.5;  
Welsh Geological Quarterly 1966-9;  
N.C.C. Geol. Circular 1968-79;  
Newsletters of the Black Country  
          Museum Mining Group;  
Newsletters of East Midlands G.S.;  
Report of Survey - W.M. County  
          Structure Plan;  
- " - Sandwell Wedge Plan;  
- " - Aldridge/Brownhills Plan;  
The Endless Village - the ecology  
          of the West Midlands;

THESE ARE AVAILABLE FROM  
HON. SECRETARY.  
Postage extra.

### ITEMS FOR SALE

Geological Hammers	£2.75
Safety Helmets	£1.50
Geol. Handbook, Wrens Nest	20p
Geol. Trail Guide, Wrens Nest	15p
Geol. Trail Guide, Ludlow (Mortimer Forest)	15p
Walsall Geol. Excursions	30p
The Endless Village.	£1.00
Chart of Geol. Ages	25p
British Palaeozoic Fossils	£1.25
British Mesozoic Fossils	£1.25
Br. Regional Geol. Guide (Central England)	40p
10m/1" Geol. Map, Scotland	90p
- - England & Wales	90p
25m/1" Geol. Map, British Isles	55p
1m/1" Geol. Maps	£1.45
1m/2½" Geol. Maps	£1.80
- Church Stretton	
- Craven Arms	
- Wenlock Edge	
- Ludlow/Leintwardine	