



The Black Country Geological Society

NEWSLETTER NO. 24 - DECEMBER 1980.

EDITORIAL.

Behind The Scenes.

Members will realise that work is involved in the organising of society events, but may not realise all the other activities which are less obvious. Of these the conservation work is probably the best known, and members of this group still need information about any temporary exposures noticed by members in building sites or roadworks. Their preparation of lists of sites is particularly time consuming.

Another activity which is still expanding is that of leading the Countryside Commission guided walks. Site-clearing also happens fairly often, and co-operation with many other organisations, one of which resulted in the recent evening class at Dudley. These are all detailed elsewhere in the newsletter. A special feature this time contains information about geological holidays and meetings.

PROGRAMME.

Dec. 8th. Mon. "South American Journey". Talk by Sheila Pitts about a five month journey, with two months in the Patagonian Andes. Starting in Brazil and finishing in Canada. Illustrated with slides and maps.

Jan. 12th. Mon. Meeting before field trip.

Jan. 18th. Sun. Field trip to the Walsall area, led by Mark Chamberlain, commencing 10 a.m. A local meeting point in Walsall will also be arranged at 10.30 a.m. It is expected to visit Silurian and Barr limestones at Hay Head and Linley Wood, where there is also a Carboniferous unconformity. Daw End railway cutting shows crog ball and patch reefs, and on Barr Beacon there is Hopwas breccia, and also Bunter pebble beds.

Non-Members Welcome.

Meetings are held in the Allied Centre, Green Man Entry, off Tower Street, Dudley (behind the Malt Shovel pub) Indoor meetings commence at 7.45 p.m. with coffee and biscuits at 7.15 p.m. Field meetings will commence from the car park outside.

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

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Field Secretary
T. J. O'Mara B.A.

For details of meetings : Tim O'Mara, Kingswinford 3701.
: John Easter, Kingswinford 4916

TO MEMBERS AND VISITORS ON FIELD TRIPS :-

The Society does not provide personal accident insurance cover for members or visitors on field trips. You are strongly urged to take out your own personal accident insurance cover to the level which you feel appropriate. Schools and other bodies attending field trips should arrange their own insurance cover as a matter of course.

FUTURE PROGRAMME.

- Feb. 23rd. Lecture by Mr. Basil Poole, based on his work as an expert in mine surveying.
- March 16th. Annual General Meeting and film night.
- April 6th. Meeting about next field trip.
- April 12th. Field trip to the Malverns.
- May 8th-10th. Weekend field trip to North Wales - Dolgellau area.
- May 18th. Member's night. Several short talks.
- June 8th. Meeting before field trip.
- June 14th. Field trip to the Cotswolds.

September 11th.

Silurian Fossils. Lecture by Dr. I. Strachan.

This first meeting of the winter programme was a lecture given by Dr. I. Strachan of Birmingham University, who has a special interest in the Silurian period. He began by placing the Silurian in the context of the other periods of the Palaeozoic era. The name 'Silurian' was introduced by Sir Roderick Murchison early in the 19th. century to describe the series of rocks he was studying in South Wales and the Welsh Borders. At about the same time Professor Adam Sedgwick was classifying the older rocks of North Wales and to these he gave the general name 'Cambrian'.

As the work of classification progressed it was found that there was some overlap between those two designations, with certain strata being assigned to the Lower Silurian or to the Upper Cambrian. The dispute between the two points of view became somewhat acrimonious and eventually a new period, the Ordovician, was proposed to describe the rocks between the Cambrian and the Silurian. Although the name Ordovician was suggested towards the end of the 19th. century, it was only as recently as 1960 that it received official international recognition. The modern Silurian is therefore only the upper part of Murchison's original classification.

Silurian rocks occur mainly in the Welsh Borderland, the Lake District, southern Scotland and Ireland. Over much of this area there were deep water conditions with a rapid accumulation of sediments, mostly shales and mudstones, and the fossil fauna consists largely of graptolites. However, in the Midlands, including Dudley, there was a shallower sea condition - the 'Shelf Sea' - with at first sandstones and shales being formed, then later in the period limestones also appeared. The fossil fauna of the Shelf Sea is more interesting and varied than in the deep water area, for besides graptolites there is a wide selection of trilobites, crinoids, corals and brachiopods.

Dr. Strachan described many of the Silurian fossils to be found locally, and illustrated his lecture with a number of slides. He called trilobites the 'most collectable' fossils of these strata, and included among his illustrations some slides showing the compound eye of a trilobite under high magnification, with its myriad of tiny lenses.

Crinoids are also common, as are corals although these rarely form reefs. The chain corals such as Halysites are in fact vertical sheets of tubes which appear as chains when seen in section.

Two other aspects of fossils touched on in the lecture were microfossils, and communities of fossils. Microfossils are fossils of very small creatures and they are of particular importance in drilling for oil, where, due to the requirements of rapid drilling progress, the material is not brought to the surface as a solid core but as a continual stream of broken particles. Large fossils are destroyed in the process, but microfossils survive and can be recognised under the microscope. If the parent rock is limestone, this can be dissolved away by hydrochloric acid, leaving behind the microfossils for identification and analysis.

The study of communities of fossils is a relatively new interest and its significance is not yet clear. The idea is to see if certain species are often found in association, forming a recognisable community and to investigate if different types of community are typical of various types of environment, such as depth, temperature or salinity.

A selection of fossils from the Dudley Museum was on show for the lecture, including of course, Calymene blumenbachii, the 'Dudley locust' which appears both on the Dudley coat of arms and this Society's heading.

P.S.

NATURE CONSERVANCY COUNCIL.

The programme of geological walks for the general public run for the N.C.C. by the B.C.G.S. had a successful season in 1980. A total of ten walks at Cotwall End, Wrens Nest and Saltwells were led by Society members, and some 300 members of the public joined in. The profits from these walks have been donated to the Society's funds. It was noticeable how much more interest there was in the walks compared with last year.

September 7th.

N.C.C. Guided Walk to Doulton's Claypit. Leader - Alan Cutler.

Fifty people met at the Chainshop in Mushroom Green, for this guided walk concerned with history and geology. The restored Chainshop is open to the public on summer Sundays, and since this was the first Sunday in the month, real chainmaking was to be seen.

Heat the middle of the metal bar on the hearth, bend, heat the ends, overlap them around the previous link, flatten them, round them off, finish with a spring hammer, quench splash water on to the fireguard to cool it, mop brow, return to move number one, repeat ad infinitum - but it was time to walk.

A leafy glade along the line of an old mineral railway led to the present Saltwells Inn, near the centre of the Netherton anticline. Here we heard about brine baths, using a well in salt-bearing Downton Castle sandstone.

Within sight of Round Oak Steel Works, the line of the Thick coal seam was shown by depressions of collapsed bell pits, some dating from the 14th century.

The Claypit itself is a huge quarry, formerly used for fireclay from about 1870 - 1920. It is now a site of special scientific interest because of having the best exposures of Coal Measures in the Midlands. At the top is a resistant band of ironstone, then shales, coal seams and finally massive sandstone at the base of extensive cliffs.

It was an ideal sunny afternoon for a walk, and people whose ages ranged from one to seventy all appeared to enjoy it.

S.P.

LYE SITE OF SPECIAL SCIENTIFIC INTEREST.

We have been asked by the N.C.C. to assist them in clearing the locally important geological exposure at the Hayes Road cutting at Lye, in preparation for its designation as an S.S.S.I. This exposure is 150 metres long, and shows part of the Lye Inlier, Silurian comprising Ludlow beds and Downton Castle Sandstone, overlain by Coal Measures. A party of society members planned to carry out this work on November 30th, clearing away undergrowth, grass and weeds.

GEOLOGICAL PROCESSES.

The autumn course on the formation of igneous rocks, held at Dudley by Dr. Ixer, is about to end. It was well attended, especially by society members. Since many members have already attended several evening classes on geology, it was of particular interest in extending their studies further. Perhaps something of a comparable standard could be arranged in the future.

GEOLOGICAL HOLIDAYS.

We give here some suggestions and addresses which members might like to consider for their own future plans for holidays or study courses.

1. B.C.G.S. member Peter Knight writes :-

'In addition to the excellent B.C.G.S. field trips this year, I have also been on several individual trips to my favourite part of the country - the Dorset coast, I have spent a total of 16 days there this year, the latest of ten years of study of the coast and immediate inland sites. In April I covered the Lyme Regis and Bridport coast, and in July the Weymouth area. In October I made a trip to Durlstone Bay and Swanage. I am already planning trips for next year and if anyone would like to partake of one with me, I would welcome the company. I usually go first in May, and stay in pubs or in a tent. If anyone would like to discuss Dorset specimens or anything else, please see me at meetings, or telephone 021 - 565 - 1588 after 6.30 p.m.'

2. Dorset Coast.

A weekend study based at Swanage, May 16-17th. Apply to Mrs. S. Buchanan, Dept. of Extra-mural studies, University

of Birmingham, P.O. Box 363, Birmingham B15 2TT.

3. Flatford Mill Field Centre.

- a) Rocks, Minerals and the Microscope. Feb. 27th - Mar. 1st. Minerals in hand specimen and thin section. Chance to make own thin sections. Fee £36.00
- b) Rocks and Microscope. Mar. 6th - 10th O.U. Tutor. Hand specimens and thin sections. Formation and distribution of rocks. Fee £54.00
- c) Rocks, Identification and History. Mar. 13th - 17th Microscopic study, especially metamorphic. Fee £54.00

Write to F.J. Bingley,
Flatford Mill Field Centre,
East Bargholt, Nr. Colchester,
for details.

4. Peak National Park Study Centre.

Losehill Hall, Castleton, Derbyshire S30 2WB.
Various weekend and week long courses centred on the Peak National Park.

5. University of Bristol.

- a) Field excursion to Connemara May 22nd - 30th. Based at Roundstone. Dalradian metamorphic, ultrabasics, granites, fold structures. Fee £12.00 plus about £90.00 travel expenses.
- b) Bay of Naples, based at Sorrento, geology and archaeology, May 6th - 27th if still possible after recent disaster.
- c) Fieldwork sites in Forest of Dean. Teachers' residential course, Littledean, April 6th - 8th. Total fee about £25.00
- d) Building stones of Gloucester. One day Mar. 7th. Details not yet available.
- e) Crystallography. Jan. 17th - 18th. Symmetry, systems, Miller indices. At university. Fee about £4.20

Some other details from Hon.Sec. or Editor. Apply to :-
Staff Tutor in Geology Dept. of Extramural Studies, 32 Tyndall's
Park Road, Bristol BS8 1HR.

6. Field Studies Council.

These centres provide a variety of courses including geology. General enquiries to :- Education Officer, Field Studies Council, Preston
Montford, Montford Bridge, Shrewsbury SY4 1HW.

Other Centres :-

- a) Malham Tarn Field Centre, Settle, Yorks. BD24 9PU.
- b) Drapers Field Centre, Rhyd-y-Crenau, Bettws-y-Coed, Gwynedd. LL24 0HB.
- c) Slapton Ley Field Centre, Slapton, Kingsbridge, Devon. TQ7 2QP.
- d) Orielton Field Centre, Pembroke, Dyfed. SA71 5EZ.
- e) Dale Fort Field Centre, Haverfordwest, Dyfed. SA62 3RD.
- f) Juniper Hall Field Centre, Dorking, Surrey. RH5 6DA.
- g) Leonard Wille Field Centre, Nettlecombe Court, Williton, Taunton, Somerset. TA4 4HT.

7. Holiday Fellowship Limited.

Includes special interest holidays. 142 Great North Way, Hendon, London. NW4 1EG.

8. Nationwide Geology Club.

Summertime geological holidays. 25 Hornbeam Close, Chapelton, Sheffield, S30 4PS.

9. National Institute of Adult Education.

19B De Montfort Street, Leicester. LE1 7GE. publishes a comprehensive list of residential courses.

Nov. 21st. Social Evening.

Black Country Night Out.

This year the Society again sought pastures new for its annual social evening. It took the form of a 'Black Country Night Out' at the Robin Hood Inn at Quarry Bank. The function was held in the well appointed 'Citizens Theatre', part of the pub, complete with stage and bar.

We were treated to an evening's very professional entertainment, consisting largely of down-to-earth Black Country humour and folk singing, by performers who were masters (and mistresses) of their craft. During the interval we regaled ourselves with excellent faggots and pees, a traditional dish at such functions. About a hundred attended and greatly enjoyed the function, which was very good value for money.

N.P.

Editor :- Sheila Pitts, 4 Siskin Road, Stourbridge. DY9 7HU.

BLACK COUNTRY GEOLOGICAL SOCIETY

CHRISTMAS CARDS

BCGS Christmas cards are available now. Each card is a re-production of a pen and ink sketch of the Seven Sisters at Wrens Nest, Dudley. The cards are printed on top quality board size 8" x 6".

Prices including envelopes are as follows:

<u>Quantity</u>	<u>Price</u>
1 - 9	20p each
10 - 24	18p each
25 - 49	16p each
50 or more	15p each

The Christmas cards will be on sale at the December 8th meeting or may be obtained post free from -

Alan Cutler,
21 Primrose Hill,
Wordsley,
Stourbridge.

Tel: Brierley Hill 77865

BCGS CHRISTMAS CARD

ORDER FORM

Please send me Christmas cards

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Address

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