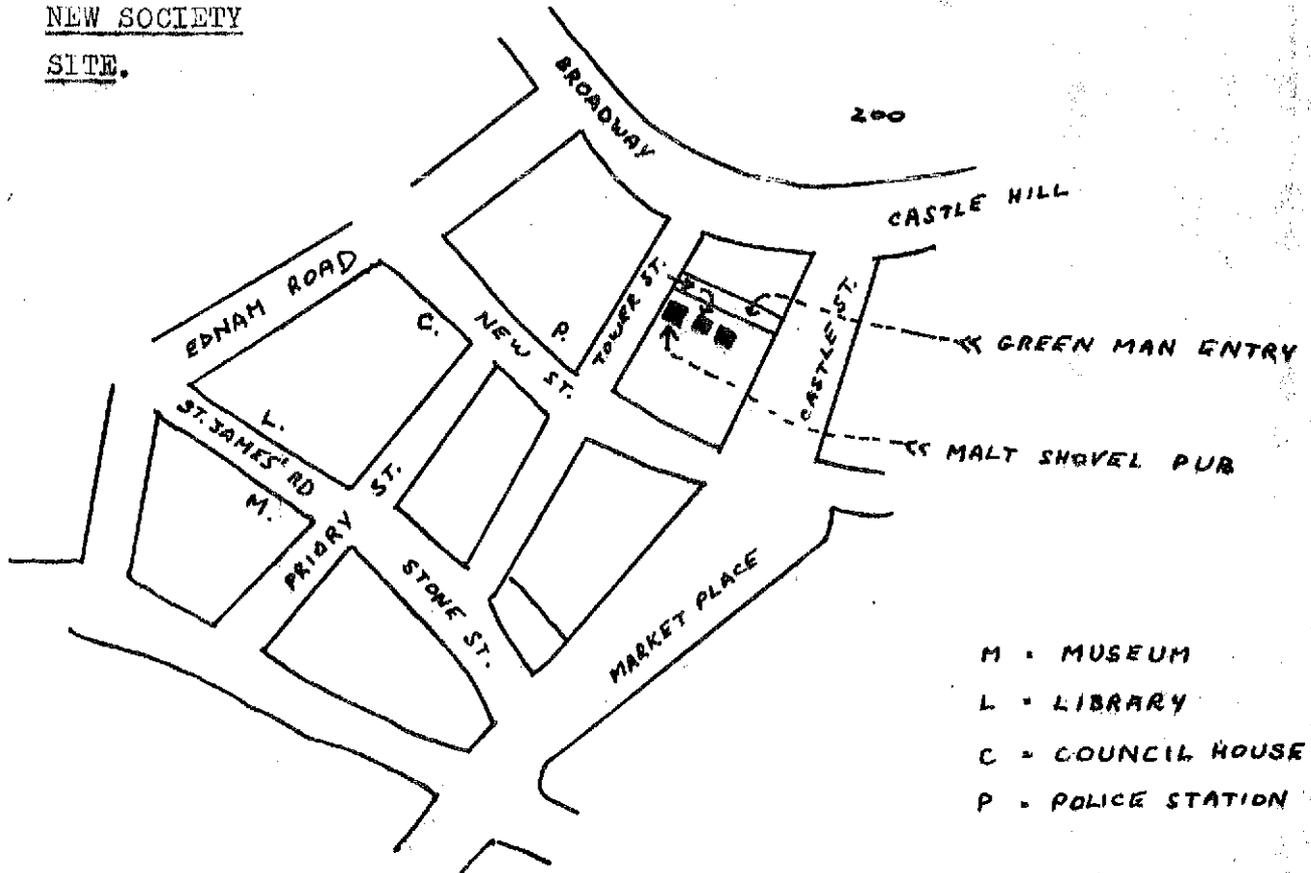


THE BLACK COUNTRY GEOLOGICAL SOCIETY

CHAIRMAN	A. CUTLER, B.Sc., Dip.M., M.Inst.M.
VICE CHAIRMAN	P. G. OLIVER, B.Sc., Ph.D., M.I.Geol., F.G.S.
HON. SECRETARY	P.D. SHILSTON, M.A., C.Eng., F.I.E.E., M.I.Mech.E.
HON. TREASURER	M. J. WOODS, B.Sc., M.Sc., F.G.S.

NEWSLETTER No. 23 - October 1980.

NEW SOCIETY
SITE.



Address:- Allied Centre, Green Man Entry, off Tower Street, Dudley.

NEW SOCIETY SITE.

The suitability of Dudley Library as a meeting place for the society has been of much concern to the committee over recent months, particularly as the Museum is no longer available for this purpose. Leisure and recreation department have offered alternative accommodation in a recently refurbished room on the first floor of the building lying to the rear of the Malt Shovel pub in Tower Street, Dudley.

Access is via Green Man Entry, which is wide enough for cars with ample parking at the rear. Unfortunately Thursdays are not available, and the committee has decided that of the alternatives offered, Monday nights are the only generally acceptable substitute. It is felt that the greater freedom of access and headquarters potential, coupled with central location substantially outweigh the short term inconvenience of a change of meeting night.

REVISED PROGRAMME.

ALL FUTURE MEETINGS will be held at, or commence from, the new address.

Oct. 27th. Monday. Meeting before field trip.

Nov. 2nd. Sunday. Field trip to Lickey Hills. Leader, Mr. W. Hardy of Birmingham University. Precambrian volcanics, Cambrian quartzites, and a range of later formations including Silurian, Keele Beds, Lunter Pebbles and Clent Breccia.

Nov. 21st. Friday. Social evening. Black Country Night Out. Faggots and peas and traditional entertainment at Robin Hood Inn, Merry Hill, Quarry Bank.

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

Indoor meetings at 7.45pm with coffee and biscuits at 7.15pm.

Lickey field meeting commences at 10am.

Non-members welcome.

SOCIETY WEDDING.

Anne Sutcliffe and George Harrison, both society members, were married on August 9th. We would all like to send them our very best wishes for their future happiness.

BOOKING FORM - SOCIAL EVENING - BLACK COUNTRY NIGHT OUT.

Please reserve..... places at £2-00 each. Total enclosed £.....

Return to Tim O'Mara, 81 Market Street, Kingswinford, Dudley, West Midlands. Tel. Kingswinford 3701 for help with transport or other information.

Name:-
Address:-

Social Evening.

Nov. 21st. Friday.
Black Country Night Out.
Robin Hood Inn, Merry Hill, Quarry Bank.
Arrive between 7.30 and 8.00pm.
Please book before Oct. 18th because arrangements must be completed with regard to numbers.
Cost £2-00 per person, to Tim O'Mara at 81 Market Street, Kingswinford, Dudley, West Midlands.

EVENING CLASSES IN GEOLOGY.

Sutton Coldfield College of Further Education:- (Kate Ashcroft)

- 'O' Level, Mondays 7-9pm.
- 'A' Level, Tuesdays 7-9pm.

Dudley Central Library, St. James' Rd.

Igneous rocks, classification, volcanic and plutonic processes, economic ore deposits.
Tuesdays 7pm.

Bilston College of Further Education, Westfield Rd., Bilston, Wolverhampton.

'O' and 'A' Level, Thursdays 6.30 - 9pm.

Sharmans Cross Evening Centre, Solihull Rd., Shirley.

History of Life on Earth.
Wednesdays 7.30pm.

Polytechnic, Wulfruna St., Wolverhampton.
Geology, Life and Fossil Record.
Wednesdays 7.30pm.

Geology Dept. Birmingham University.
Introduction to Geology and Palaeontology.
Thursdays 7.30pm.

Geology Dept. Birmingham University.
Introduction to Geophysics.
Tuesdays 7.30pm.

FIELD VISIT TO EAST MIDLANDS
JURASSIC. Leader, Dr. R.G.
Clements of Leicester University
June 8th. 1980.

A relatively small group from the society attended this trip, which turned out to be an interesting and enjoyable day in an area largely unknown to the majority of us. Two sites were visited, both showing good sequences in the Lower and Middle Jurassic. The thin rock units seen were essentially biostratigraphical units characteristic of shelf deposition with both marine and non-marine beds.

The first locality visited was Tilton railway cutting in Leicestershire, a disused cutting with a great deal of Middle Lias marlstone rockbed exposed. The bed consisted of ironstone, which is basically limestone with a high content of ferrous minerals such as chamosite and siderite. Unweathered the rock had a green appearance but weathered to a reddish brown colour.

The origin of the ironstone in the East Midlands is still largely a mystery. The marlstone was fossiliferous with two brachiopod beds, and the brachiopods occurring in the lower band were found in clusters known as 'jacks' or 'nests'. Overlying the marlstone rock bed was a transition bed of shales lying between the Upper and Middle Lias. This was particularly fossiliferous and members found ammonite fragments, mainly *Dactyloceras*, and also gastropods and belemnites.

After lunch Cowthick Pit was visited. This was a particularly interesting site and it is a great pity that it will be filled in, with the closure of the Corby steelworks. A good sequence of the Middle Jurassic was exposed including more low grade ironstone in the Northampton Sand formation.

A layer of Pleistocene chalky boulder clay lay unconformably upon the Jurassic rocks. A channel fill of Lincolnshire limestone in the Lower Estuarine Series was seen which was quite distinctive. Another interesting feature was a post-glacial fault associated with mass movement in the glacial period, and the fault caused a distinctive drag fold. The site was particularly fossiliferous, with bivalves, brachiopods and belemnites in all the marine beds, and rootlets in the estuarine beds, and derived fossils in the Pleistocene beds.

This was a very enjoyable day in which the weather stayed fine, and our thanks go to Dr. Clements for his leadership.
M.C.

INTRODUCTION TO BLACK COUNTRY
GEOLOGY - Part One, The Coal Measures.
Leader Alan Cutler.
January 13th. 1980.

The geology of the Black Country is the geology of the southern part of the South Staffordshire coalfield, more exactly the Dudley coalfield or Thick Coal district. The majority of the rocks exposed belong to the 'Coal Measures' of the Upper Carboniferous Period.

The Lower and Middle Coal Measures were the productive measures, yielding iron ore, coal and fireclays. The Upper Coal Measures are largely barren, the only economic product being brickclay, although thin, impersistent coal seams do occur in them.

Regrettably very few Lower or Middle Coal Measures exposures remain today, but we are fortunate that Doulton's Clay Pit at Saltwells, the first stop of the day, is a Nature Conservancy site of special scientific interest. We were able to examine almost all the different lithologies encountered in the Coal Measures, the shales, coal, sandstone, clays and ironstone. Some members managed to find a few fragmentary plant fossils. From Saltwells we made our way to Bensnett to examine a brick clay pit where the

Lurania Marl, the lowest part of the Upper Coal Measures is displayed. Several of the typical grits (espleys) were seen as well as the red, purple and yellow clays.

Our next stop was at Wollescote where sandstones of the Halesowen Series outcrop. The sandstones and clays of this group contain thin coal seams and limestone bands, but they never assumed any real importance. A fault at the northern end of the exposure brought the green sandstones into contact with red and white clays of the Lower Coal Measures. Lunch was taken at the nearby Horse and Hounds Pub.

After lunch we made our way to West Bromwich and walked for half a mile or so along the cutting of the former G.W.R. Wolverhampton to Birmingham railway. The cutting affords one of the best exposures of Keele Beds, the topmost beds of the Upper Coal Measures. These partly red calcareous sandstones were formed in arid terrestrial conditions and marked the beginning of the desert facies to be experienced in various ways to the end of the Triassic period.

The last site of the day was Barnfield Park, Oldbury to see a fine example of a calcarean conglomerate belonging to the lowest part of the Enville Beds. These rocks are grouped with the Coal Measures locally but may in fact be partly Permian in age. Fossils are extremely rare in the Enville Beds and those found do not give any conclusive evidence about the problem of their correct age.

We had had a fine sunny day but as the frost began to form again we all wished for just a little of those desert conditions experienced so long ago.

A. C.

INTRODUCTION TO BLACK COUNTRY
GEOLOGY - Part Two. Before the Coal Measures.

Leader, Alan Cutler.
July 13th. 1980.

Most of the pre- Coal Measures rocks form the sub-coalfield basement, and we rely on faults and folding for surface exposures. The two principal structural axes, the Sedgley-Lickey anticline and the Netherton anticline are responsible for the famous Silurian-Old Red Sandstone areas of Wrens Nest, Castle Hill and Netherton. Apart from small exposures of Cambrian and Precambrian at Rubery and Lickey (not really Black Country) all the pre-Coal Measure rocks belong to the Silurian and Old Red Sandstone (Downtonian) Periods.

Luck was with us again for we had a really fine summer day with no mist and we had an excellent view from the top of Oakham in the Rowley Hills over all the Black Country. The high ground at Oakham is part of the Rowley dolerite intrusion into the Coal Measures and lies centrally on the Sedgley-Lickey axis.

From Oakham we went down to the canal cutting at Netherton where the basement beds of the Coal Measures may be seen resting on the rocks belonging to the red Downtonian Series. A few fragmentary fossils of that hardy brachiopod *Lingula* were seen in the Downtonian beds.

We next moved back into Dudley to the far end of Castle Hill where in Castle Mill Basin we were able to see fine exposures of the Wenlock Limestone. The canal basin was cut in the nineteenth century as part of the limestone excavations, and lies at the junction of the Dudley and Wrens Nest tunnels. Several reef masses were examined and we were able to see and identify many different corals. After pausing to wave to the surprised party of trippers on the canal boat 'Electra' from the Black Country Museum, we set off to look at the Gornal Grit in Lower Gornal.

Much of the Gornal Grit, once extensively

quarried as a building stone, was originally mapped as part of the Coal Measures. Following the discovery of fish fossils in the late 1940's it was assigned to the Downtonian Castle sandstone group.

For lunch we drove to the top of Sedgley Beacon and enjoyed a well earned rest in the hot sunshine. It was interesting to look from a different vantage point over the surrounding area. The high ground of the beacon is formed by the Sedgley (Aymestry) limestone of the Ludlow Series. We did not find the limestone exposed but were able to examine outcrops of the Upper Ludlow Shales which immediately succeed it.

We quickly made our way back to the cars and drove down to Cotwall End Nature Centre to pick up a party for a B.C.G.S.- Countryside Commission Walk. (You get value for money on B.C.G.S. field trips!)

Fortunately the geology of Cotwall End valley fitted the field trip theme admirably and exposures of Enville Beds, Coal Measures (shales, sandstones and ironstones) and Upper Ludlow shales were seen, and also Wenlock Limestone which should not have been there and was probably brought recently from Castle Hill. Perhaps the best exposure was that along the line of the western boundary fault.

At half past five our by now weary band managed to get back to the car park just as the rain came, ending a glorious and enjoyable day. A.C.

ACHANARRAS QUARRY: CAITHNESS.

A request to give information about this SSSI has been received.

This quarry in the Old Red Sandstone is famous for the Achanarras Band, a hard limy flagstone which has yielded an abundant fish fauna. The British Regional Geology Guide to Scotland, the Northern Highlands gives an impressive list of these fish on page 74 and there is a sketch map on page 72.

Extract from letter:-

The Nature Conservancy Council has an agreement with the owner and tenant to control access to the site. No collecting of specimens is allowed without a permit, and then is restricted to loose rock. Anyone found contravening the regulations will be liable to arrest and prosecution. The site is regularly warded. The stringent nature of the regulations is essential to prevent damage to this internationally recognised site of scientific interest.

Application forms may be obtained from Nature Conservancy Council, Old Bank Road, Golspie, Sutherland. They should be returned at least six weeks before the date requested.

Hon. Secretary, F. Shilston,
16 St. Nicolas Gardens,
Kings Norton, Birmingham B38 8TW.

Hon. Field Secretary, T.O'Mara,
81 Market St. Kingswinford,
Dudley, West Midlands.

Tel. queries:- J. Easter, Kingswinford
4916. T.O'Mara, Kingswinford 3701.

Editor, Sheila Pitts, 4 Siskin Road, Stourbridge, West Midlands, DY9 7HU.