

# THE BLACK COUNTRY GEOLOGICAL SOCIETY

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CHAIRMAN

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HON. TREASURER

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## NEWSLETTER No. 7 - FEBRUARY 1977

### Next Lecture - Thursday February 17th

The Society will be honoured to welcome Colin Knipe who will lecture on "Faults and Folds of the South Staffordshire Coalfield". The topic is obviously of considerable interest to all members and the information to be provided will no doubt colour future work.

Dudley Library.....7.45 pm.

Tea and Biscuits.....7.15 pm.

### Subscriptions

Members and intending members are reminded that subscriptions are now due. These are unchanged for 1977 and are as follows:-

Individual Membership... £3.00

Family Membership..... £4.50

(Husband, Wife and children under 18)

Junior Membership..... £1.00

(Members under 18 years of age)

Associate Membership..... £10.00

(Companies & other approved bodies)

New Individual and Family Membership applications must be accompanied by a 50p entrance fee in addition to the above. Please pay subscriptions to The Honorary Secretary, 98, Browswall Road, Sedgely, Dudley.

### Change of Addresses.

The Honorary Secretary's new address

is:- 98 Browswall Road,

Sedgely, Dudley.

Telephone Sedgely 5811

and the librarian's address is:-

176, Vardon Way,

Kings Norton,

Birmingham B33 8AH

Telephone 021-459 6949.

### Annual General Meeting

The Annual General Meeting will take place at Dudley Library on March 10th at 7.45 pm. Nominations for officers should be sent to the Honorary Secretary as soon as possible.

### Programme 1977

March 10th. Annual General Meeting, Dudley Library. Tea and biscuits 7.15pm

March 20th. Local Field Trip. The new sections at Wren's Nest and Moss Hill. Meet Dudley Library - 10 am. Please bring a packed lunch.

April 21st. Film Night at Dudley Library.

May 12th. Informal Meeting - Dudley Library.

May 22nd. Field Trip - "The Ludlow Anticline" led by W.J. Norton F.G.S.

June 9th. Informal Meeting - Dudley Library.

June 18th. Saturday field trip led by P. Whitehead. "The Castleton Area".

July 7th Informal Meeting - Dudley Library.

July 17th. Field Trip. "Aust Cliff and the River Severn - Leader - A. Mathieson.

August 4th. Informal Meeting - Dudley Library

August 14th. Field trip to the Cotswold Hills.

September 4th. Field trip (morning only) Birch Coppice Opencast.

September 22nd. Lecture by T. Pettigrew, formerly of The British Antarctic Survey, now with Sunderland Museum.

October 6th. Informal Meeting - Dudley Library.

October 9th or 16th. Possible field trip to Charnwood Forest.

November 17th. Social Evening.

December 8th. Members Evening - Dudley Library.

## The History of Tectonics

At the Society's meeting on the 9th December, Doug Badson gave an illustrated talk on the development of tectonics. The general theme could have been taken as "There is nothing new under the sun", indeed, it may have surprised many members to learn that as early as 1958 men were discussing continental drift.

The talk started with early man's ideas of the structure of the earth and how their beliefs were inextricably entwined with their gods. It appears that the first man to write about the Earth using scientific argument was Aristotle and that his teachings, combined with those of Ptolemy were rewritten in the early 5th century so as to conform to biblical teachings. These writings by St. Augustine and Cosmas were accepted by the Church of Rome as dogma and so remained valid for more than 1000 years. The reformation saw a resurgence in scientific thought and Gilbert's discovery of the Earth's magnetism and Newton's calculations showing the shape of the Earth were given as examples.

Wegener's Continental Drift hypothesis was discussed at some length as were Holmes's and Toit's contribution to the theory. The evidence of rock formations, fossils and climate supporting the separation of the old and new worlds in the Cretaceous was explained and illustrated. The rest of the talk related to the separate phenomenon that collectively we call plate tectonics. Vine and Matthews sea-floor spreading, Benliff's deep earthquakes and trench systems, Wilson's transform fault theory, Heezen's mid-ocean ridge systems, magnetic reversals and several other discoveries that led to Pichon's, Morgan's and McKenzie's Plate Tectonic Hypothesis were all discussed.

It is hoped that this talk (the 4th by a member of the Society) gave background interest following the Society's recent excursion to the Geological Museum's London Exhibition.

### Book Review

Doug Badson has taken over the "Book Review Spot" this month and writes:-

You want to be able to identify rocks? Well the Society has a petrological

microscope and the following book will tell you (right from the beginning) how to use the instrument:-

### MINERALS & THE MICROSCOPE

Written by H.G. Smith and published by Thomas Murby @ £1.75.

The first chapter describes the petrological microscope and how to adjust the optics, stage and illumination. The second chapter describes the optical properties of minerals followed by the effects of plane and polarised light (all in non-technical language). The nature of rock-forming minerals is explained and the rest of the book deals with the identification of minerals. There are photographs taken through a microscope of most of the common igneous and metamorphic rocks. A very good book indeed and don't forget, the Society has plenty of suitable microscope slides (thin sections) for you to practice.

A more advanced book (and much more comprehensive) is:-

### THE PRACTICAL STUDY OF CRYSTALS, MINERALS AND ROCKS.

Written by Cox, Price and Harte and published by McGraw Hill @ \$3.45 This book starts with an introduction to crystals which is very similar to "Minerals and the Microscope" although the microscope itself is not described and there are no operating instructions. The second chapter is devoted to stereographic projections, the standard way of documenting crystals. Chapters 3 and 4 deal with crystal morphology and characteristics respectively. The remainder of the book describes in great detail and with superb photographs and graphs, rocks in thin sections. Sedimentary rocks are included in this book (they are not in "Minerals and the Microscope") and this is an advantage especially to the Black Country Geologist.

### For Sale

A second hand rock tumbler/polisher (240 volt) complete with 1 3lb barrel and 2 1 1/2lb barrels. Total capacity of machine - 3lbs of gem material.

£5.00

Proceeds of this sale go to the Society's equipment fund.

INCOME & EXPENDITURE ACCOUNT

FOR THE YEAR ENDED 31.12.76

INCOME

MEMBERS SUBSCRIPTIONS	121.50
MEMBERS ENTRANCE FEES	5.00
RECEIPTS FROM FIELD TRIPS	112.68
RECEIPTS FROM CHRISTMAS SOCIAL	50.75
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	289.93

EXPENDITURE

PRINTING	34.23
POSTAGE & STATIONERY	54.94
INSURANCES	35.00
HIRE OF ROOMS & EQUIPMENT	6.50
EXHIBITION & BLACK COUNTRY MUSEUM	11.35
LECTURERS FEES	10.00
COACH HIRE	60.00
DUDLEY CANAL TRIP	25.00
COST OF CHRISTMAS SOCIAL	38.17
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	275.19

BALANCE BEING EXCESS OF INCOME OVER EXPENDITURE  
FOR THE YEAR 14.74

BALANCE SHEET AS AT 31.12.76

GENERAL FUND

BALANCE AT JANUARY 1ST 1976	79.06
<u>ADD EXCESS OF INCOME OVER EXPENDITURE</u> FOR THE YEAR	14.74
	<hr/>
	93.80

ASSETS

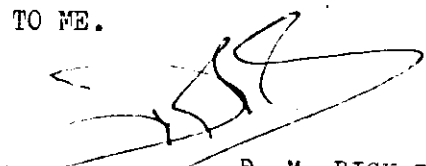
CASH AT BANK	68.23
WINES	7.57
HAMMERS	5.00
MICROSCOPE AT COST	16.50
	<hr/>
	97.30
<u>LESS</u>	
SUBSCRIPTIONS PAID IN ADVANCE	3.50
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	93.80

REPORT OF THE AUDITOR

I HAVE AUDITED THE ABOVE BALANCE SHEET DATED THE 31ST DECEMBER 1976, AND THE INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST DECEMBER 1976. IN MY OPINION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE SAID ACCOUNTS ARE CORRECTLY DRAWN UP IN ACCORDANCE WITH THE BOOKS AND VOUCHERS OF THE SOCIETY AND ACCORDING TO THE INFORMATION AND EXPLANATIONS GIVEN TO ME.

17 WHITTINGTON ROAD,  
STOURBRIDGE.

7TH MARCH 1977

  
P. M. RICHARDS