



NEWSLETTER NO. 89 OCTOBER 1991

Lecture meetings are held at the Saracens Head, Stone Street, Dudley, 7.30pm for 8 o'clock start

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 accident insurance to the level you feel appropriate. Schools and other bodies should arrange their own insurance as a matter of course.

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### FUTURE PROGRAMME

#### MONDAY 14TH OCTOBER

Lecture: The mass extinctions controversy  
by Professor A. Hallam of Birmingham University.

Professor Hallam is an authority on the subject of mass extinction and will outline the present controversy between different points of view.

Mass extinction events have always interested geologists. Why did dinosaurs die out at the end of the Cretaceous? What is the explanation for the other well-documented mass extinctions in the late Devonian, at the end of the Permian, at the end of the Triassic, and so on? Various theories have been put forward, but none have been completely accepted.

Professor Hallam is Lapworth Professor with the School of Earth Sciences, Birmingham University. His main research interests are in mass extinctions, sea-level changes and evolution.

#### SUNDAY 27TH OCTOBER

Field meeting to study Upper Carboniferous Rocks in the Black Country.

Leaders: The British Geological Survey Team.  
Dr John Powell - team leader  
Dr Brian Glover  
Dr Colin Waters

Meet 10.00am in the main car park at Baggeridge Country Park (grid ref 898931). This is midway between Sedgley and Wombourne.

John Powell and his colleagues from the BCGS are engaged on a geological survey project of the Black Country, which involves creating new maps and reinterpreting some of the local geology. They have already given us a lecture, and led a field meeting, in this theme, and we are grateful that they are leading another field meeting for us.

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### Itinerary

The excursion will examine the controversial stratigraphical and lithofacies relationships of the Upper Carboniferous and Permian rocks of the South Staffordshire coalfield. The party will visit selected exposures in the Keele, Enville and Clent formations, starting in the Baggeridge area, and finishing in the Clent Hills.

Hard hats may be required - bring your own if you have one, otherwise the Society's stock of hats will be available.

### MONDAY 2ND DECEMBER

Lecture: Gold deposits of Southern Africa by Malcolm Callow.

The lecture will describe the pre-Cambrian gold deposits in southern Africa, and their importance for gold mining. It will also cover the greenstone belts and other sedimentary deposits.

Malcolm Callow, who is a member of this Society, studied geology at London University, taking his MSc in structural geology and rock mechanics. This was followed by several years in South Africa - with the Geological Survey, then at the University of Witwatersrand carrying out research on gold mining, and finally as lecturer at the Vaal Triangle Technikon.

### WEDNESDAY/THURSDAY 4-5TH DECEMBER

Geological Curators Group AGM and Conference in Dudley. This will be an event for geological museum curators from all over Britain.

With this conference there will be a seminar entitled "*Mining the heritage seam, a case study: promoting and conserving the geological and industrial legacy of the Black Country*". This seminar, which is open to interested parties, will highlight the recent changes and look at some of the exciting new developments planned as Dudley's geological collection approaches its 150th anniversary. The meeting includes field-trips including a mine experience "Into the Thick" and a narrow boat trip into the limestone caves.

Details from Colin Reid, Dudley Museum and Art Gallery, St. James's Road Dudley DY1 1HU. Tel: Dudley (0384) 453574.

### SATURDAY 7TH DECEMBER

Geological open-day in Dudley Museum. Held at Dudley Museum and Art Gallery, St. James's Road, Dudley 10.00am - 5.00pm.

This is an event for everyone. There will be stands and demonstrations by the British Geological Survey, by local companies and societies, a "bring your own specimens for identification" stand and other displays.

### MONDAY 18TH JANUARY 1992

Lecture: W.J. Harrison (1845-1908). Birmingham geologist and photographer. A historical lecture illustrated by Harrison's own photographs.

Lecturer: Peter James, local studies archivist, Birmingham Central Library.

William Jerome Harrison was an important figure in Midlands geology, a friend of Professor Lapworth and other eminent Victorian geologists. His name was given to Lake Harrison, the glacial lake which formed during the ice age and covered a wide area of the Midlands, being some 50 miles across.

He was also an enthusiastic photographer, and Birmingham Library has some 600 of his negatives. He arranged to take his holidays near good geological sites - Dorset, Yorkshire coast - so while his family played on the beach he went off with his plate camera.

Peter James, the lecturer, has selected some of Harrison's best geological photos. He will outline Harrison's work and methods, and describe the geological interest. It will make an unusual and interesting evening.

Peter James not only located the collection of Harrison's negatives held in Birmingham, but also started a countrywide search for a national collection of some 9000 other negatives that was believed to exist. As a result of his initiative, this major collection of photographs was found, unrecognised, in a box at Southampton University; it has now been transferred to the Geological Survey archives, and forms a unique record of British geology.

#### FRIDAY 17TH JANUARY - 150TH ANNIVERSARY

This date marks the 150th anniversary of the Dudley and Midland Geological Society. The BCGS will be marking this event during 1992 - watch this space.

#### MONDAY 24TH FEBRUARY

Annual General meeting followed by a talk "Mount St. Helens - ten years on" by Paul Shilston.

Mount St. Helens blew its top on 18th May 1980. Paul was there in the summer of 1990 - ten years later - and will describe the history of the volcano over that period, together with other geological features in the Cascade Mountains of Oregon and Washington states.

#### MONDAY 23RD MARCH

Lecture: "Geology and the nuclear industry" by Nigel Monckton, UK Nirex Ltd.

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### EDITORIAL

So many of the editorials of this newsletter have addressed the problems of conservation but few have touched on the need for reducing consumption. Graham Worton's lecture on waste disposal reminded us of many of the problems created by our throw-away society. The lecture on the Morecambe Bay gas field stressed the high expenditure required to supply the nation in a short period of high demand. I recall some of the Society's early work recording the dolerite of Pouk Hill before it all but disappeared under a sea of rubbish. All geological resources are non-renewable and recycling uses energy. What can we do to reduce waste?

The Society was formed by a group from a Birmingham extra-mural class. Members have taken part in many classes, locally, nationally and overseas. This newsletter offers another selection of courses demonstrating the width and variety of our subject.

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### REPORTS

#### Monday 24th June, Evening field meeting "Building Stones of Birmingham"

Looking at building stones in the city centre is another way of pursuing the study of geology, for Birmingham buildings show wide variety in their use of stone. This evening field meeting was a guided walk in the city centre, looking at some of the best examples.

Starting at the Hall of Memory, there were many examples of Portland stone, a Jurassic oolitic limestone from Dorset, much used for important building in Britain for several centuries. Baskerville House, and much of the dwarf walling in the new Centenary Square is in Portland stone, showing many of the important fossils - particularly Camptonectes and Protocardia.

Also prominent in other buildings was the use of Larvikite, a syenite (coarse-grained igneous rock) quarried at Larvik, near Oslo in Norway. It has a particularly attractive appearance due to its crystal structure, and is commonly used for the fronts of shops and Building Society offices.

The offices of the Bank of Credit & Commerce International (BCCI) on the corner of Colmore Row and Waterloo Street showed both these types of stone, with Portland stone above and Larvikite at street level. It was unfortunate that the Bank was not as well-founded as the building, for the Bank (not the building) collapsed a couple of weeks later.

Other interesting examples were the Bank of England with its facing of highly-fossiliferous Portland stone, showing many fossils including the "Portland Screw" Aptyxiella Portlandica, and the TSB offices faced with travertine (a limestone deposited from solution around lime-rich spring) and with the attractive rapakivi granite from Finland, showing spherical pink orthoclase feldspars in a matrix of black ferro-magnesian "mafic" minerals.

Several buildings had fronts or floors of breccia, which had been polished and showed clearly the variety of brecciated fragments making up the whole. Some almost looked like artificial stone, but they are all believed to be of natural origin.

Finally to the new International Convention Centre, which is faced on the outside with two types of granite - black and white granite, and red and black granite from Sicily. The interior of the ICC is largely faced with artificial stone, and so is not so interesting geologically.

The meeting ended, not on a geological note, in the "James Brindle" pub at the Gas Street canal basin, which is being attractively renovated as part of Birmingham history.

PAUL SHILSTON

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### B. C. G. S. NEWS

1. Congratulations to Giles Smithson on his excellent 'A' level results and gaining a place to read Geology at Birmingham University. Giles, a deaf student, has a great enthusiasm for geology. We hope he will find time to make a contribution to the Society's activities and we wish him a great future in geology.

2. Welcome to new member: Stephen Rule - Edgbaston

3. Courses

a) BIRMINGHAM UNIVERSITY. Details from School of Continuing Studies, University of Birmingham, Edgbaston, Birmingham B15 2TT. Phone 021 414 5607.

- Weymouth Bay to Lulworth Cove - a classic geological section. Weekend 15-17 May 1992, based at Weymouth.

b) BIRKBECK COLLEGE, UNIVERSITY OF LONDON. Details from Centre for Extramural Studies, University of London, 26 Russell Square, London WC1B 5DQ. Phone 071 631 6633.

- Geology of Jersey, Channel Islands. One week field meeting 22-29 April 1992. £50 plus travel and accommodation.

- Geological study tour - Brazil. Late September/early October 1992. Estimated cost £1850.

c) UNIVERSITY OF BRISTOL. Details from Dr. P.G. Hardy, Dept for Continuing Education, Wills Memorial Building, Queens Road, Bristol BS8 1HR. Phone (0272) 303624.

- Geology of the Malverns. Dayschool 19th October 1991. Fee £11. At Art Gallery & Museum, Clarence Street, Cheltenham.

- Geology of the Weymouth/Portland area. Weekend field course, 25-27th October 1991. Fee £28. Based at Weymouth.

- Rift basins and vanishing seas. Dayschool 16th November 1991. Fee £11. At Art Gallery & Museum, Clarence Street, Cheltenham.

- Sedimentology in petroleum exploration and production. Dayschool 16th November 1991. At Bristol University. Fee £11.

- Introduction to crystal optics and the polarising microscope. Weekend course 7-8 December 1991. At Bristol University. Fee £20.

- Metamorphic rocks under the polarising microscope. Weekend course 8-9 February 1992. At Bristol University. Fee £20.

- Geology of Eastern Purbeck. Weekend field course 28 Feb-1 March 1992. Based at Wareham, Hants. Fee £28.

- Geology of the Northumberland and Tweed basins. Study tour 7-10th May 1992. Based at Alnwick. Fee (including accommodation) £130.

- Field geology in the Woolhope Dome (south-eastern Welsh borderland). Dayschool 14th June 1992. Fee £12.

- Field geology in south Shropshire. Weekend field course 27-28 June 1992. Based at Church Stretton. Fee £28.

- Geology of the Isle of Mull, Scotland. Residential course on the Isle of Mull, 28 June - 4 July 1992.

- Geology and archaeology in Brittany. Residential course in Brittany, 5-14 September 1992.

#### 4. Local Classes

a) Birmingham University - School of Continuing Studies.

- Geology of Britain. Peter Toghil PhD. Tuesday mornings beginning 1st October. Winterbourne.

- Geology of the British Landscape. D. Gobbett PhD. Tuesday evenings from 1st October. School of Earth Science.

- Understanding geological maps. C. Sands PhD. Thursday evenings from 26 September. Winterbourne.

- In Dinosaur's Footsteps. S. Howe & A. Crickshank. Sat 12 October/26 October. First meeting at Winterbourne and the second in S. Wales. Advance enrolment essential.

- Dawning of the Dinosaurs. Saturdays 11/25 April. Winterbourne and Leicestershire Museum. Advance enrolment essential.

- Famous Midland Fossils. Fossils of Lapworth Museum. Saturday 2nd November. School of Earth Science. Advance enrolment essential.

- Exceptional Fossil Preservation. Saturday 29th February. School of Earth Science. Advance enrolment essential.

- Geology and the World of Minerals. John Armitage. College of Adult Education, Wolverhampton. Tuesday afternoons from 24th September.

b) W.E.A.

- Geology, Resources, Energy and the Future. John Armitage. Monday evenings starting in January. Jaffray Centre, Fentham Road, Erdington.

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From the papers:-