



The Black Country Geological Society

NEWSLETTER No. 66 - December, 1987:

Forthcoming Meetings:

Indoor meetings are held at the Saracen's Head, Stone Street, Dudley - 7.30 p.m. for 8 p.m. start.

Those who would like lifts for field meetings, please contact John Easter - (0384) 274916

Monday: 7th December: South Greenland - Roots of an Ancient Volcano:

South Greenland contains some of the world's most spectacular and informative igneous rocks. 1200 million years ago, this area was part of a rift system similar to the present day East African Rift with magmas of various types extruded as lava flows and intruded to form dykes and larger bodies of igneous rock. Erosion has resulted in the roots of these volcanic complexes being exposed at the surface and recent glacial erosion provides a superb 3-D picture of the volcanic 'plumbing'. Study of these igneous complexes in South Greenland has helped geologists to understand the processes occurring in magma chambers, past and present.

In addition to the academic interest of these rocks there is a significant practical aspect to their study as they contain appreciable quantities of uranium and space-age metals such as tantalum and zirconium. Frequently these metals are contained in rare and unusual minerals found in few other places in the world.

Monday: 4th January: Mammoth remains in Shropshire: Dr. Coope of Aston University:

Remember this:

Mammoths are the best in the West!

The discovery of the remains of three mammoths in Shropshire was established as one of the most significant finds of its kind in the West.

Dr Adrian Lister, of Cambridge University, said the adult mammoth was 30 years old, stood about 10ft high and was still growing. The youngsters - one of each sex - were about five-years-old.

The female and two youngsters are considered the best examples outside Siberia.

Confirmation of the importance of the find near Shrewsbury came with the precise dating of the bones, at just under 13,000 years.

The skeletons are expected to go on display in Shropshire later this year.

then come and find out more at this meeting.

Monday: 8th February: 'Canyons in Utah and Arizona'. Illustrated talk by B.C.G.S. secretary Paul Shilston based on his recent geological holiday to the western U.S.A.

As well as having interesting geology the canyons of the Colorado plateau in Western U.S.A. make spectacular scenery. Paul Shilston's talk describing a geological trip last summer outlines the geology and includes photos of the area's attractions.

Chairman
Alan Cutler BSc M.CAM
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Hon. Secretary
Paul Shilston MA CEng
FIEE MIMechE

Field Secretary
John Easter BSc

These include the Grand Canyon, Arches and Bridges National Park, Bryce and Zion canyons, Petrified forest and not forgetting Monument Valley with its echoes of cowboy movies.

Saturday: 12th March: Society visit to the Chinese Dinosaur exhibition at the National Museum of Wales. Coach will leave the Saracen's Head in Dudley at 9.00 a.m. Return - leaves Cardiff at 5.00 p.m. Cost: Adult £5.25, students £3.95, child £1.25 + a small entry fee for the exhibition. The A.G.M. will be held in Cardiff during the day. Family and friends are welcome to this world-class exhibition. For the non-geologists there are plenty of attractions in Central Cardiff: excellent shopping centre; the restored Norman/Roman fort; Docks, as well as other department of the museum.

Sunday: 17th April: Field trip to the Abberley Hills in Worcestershire led by Dr. Peter Oliver, former vice-chairman.

Sunday: 8th May: Field trip to attend the Open-Day of the British Geological Survey, based at Keyworth, Nr. Nottingham. See October newsletter for further information.

Sunday: 12th June: Field trip to Carsington reservoir led by Dr. Aitken, Head of the B.G.S.

Those attending B.C.G.S. field trips should note that the Society does not provide personal insurance cover. You should arrange any insurance you feel to be necessary.

EDITORIAL:

I have been a member of B.C.G.S for several years now and have enjoyed the variety of field excursions, lectures and visits to places of geological interest that the society has provided. Great efforts are made by the Society's officers to provide such a programme and there is no greater reward than an overflowing meeting or a parking problem on our field trips. However, this has not always been the case of late and therefore I would like to take the opportunity of encouraging you to place our advance dates in your diary. I'm sure you won't regret it. Remember:

YOUR SOCIETY NEEDS YOU!

A second appeal I would like to make is to ask for any articles of geological interest, either written by yourselves or taken from local or national newspapers or journals to help in the task of keeping you informed. Together we must be able to cover a very broad spectrum of the press and continue to include an interesting 'from the papers' section.

Finally despite the arguments concerning future direction referred to by John in the October newsletter I feel confident that geology in the Black Country has a rosy future.

The recent museum open day was highly successful and B.C.G.S. can only benefit from any increased awareness amongst the local population. Let us continue by spreading the glad tidings of our new year's programme. Best wishes to all members for Christmas and the New Year.

Andrew Rig by:

Newsletter in Retrospect:

I am sure that many members will share with me some sadness at the news that Sheila Pitts has decided to retire as Editor of our Newsletter. She has presided over exactly fifty editions from No. 15 in February, 1979 to No. 64 last August and feels after her half century it's time for new blood and some relaxation from pressure of deadlines. We are all guilty at times of taking the newsletter very much for granted. After editing the available material and writing some if necessary then producing the first draft to check space, it goes for typing, thence to copying, collation, stapling and finally assembly, addressing and stamping and stuffing of envelopes - a real team effort.

Consequently Sheila probably produced the newsletter a month before it drops on members' doormats and at times she has been so conscientious to have produced them even further in advance when holidays or one of her famous travels has been on the horizon. In fact on those very rare occasions when the newsletter has been "late", the fault has always been with printing. Looking back at issue No. 15 I see that the problem of extracting contributions from anyone "new" was no different then but over the page amazed to see that a party of 76!! visited the Church Stratton area. Issue No. 20 in April, 1980 was the first of the

bi-monthly newsletters (previously quarterly) which obviously increased the work load by 50%. I remember some editions being particularly exciting but I suppose No. 50 must be my favourite of all.

However, we must look forward and with our grateful thanks to Sheila goes the knowledge that she will now be able to enjoy meetings without having to take notes!

The November newsletter was edited jointly by John Colledge and Andrew Rigby has kindly agreed to take over and we wish him well.

Alan Cutler:

11th October - field trip - new sites in the Malvern Hills - Dr. Bullard:

A small band of enthusiastic Shropshire and Black Country geologists met on a rare sunny day at the Clock Tower in Malvern to follow the guidance of Dr. Bullard through some of the new sites in the Malvern Hills.

The Malvernian rocks represent a sequence previously buried 4-5 kms. down. At the time of formation a subduction zone lay to the NW causing several magma chambers to feed surface volcanics in the area. Later shearing and faulting preceded uplift in the late Pre-Cambrian. The later Cambrian and Silurian transgressions affected the area and Hercynian movements created the structures we now see.

Our first call was at Broomhill quarry (764466), a hidden, disused quarry where Malvernian diorite is exposed cut by a large dolerite intrusion. Here a trench section has been cut enabling the faulted Silurian/pre-Cambrian junction to be seen. A wedge of down-faulted Silurian lies between Malvernian diorites.

After a short visit to Dingle Quarry to view the dolerite-intruded, foliated granite, we decided to climb to the ridge to take advantage of the good visibility. The view from Clee to Bredon spans much of the geological record.

Brockhill quarry (756439) allowed us a glimpse of the sedimentary Downton Castle sandstone dipping 30° to the West. These fluviatile, limonite-stained sandstones overlie Ludlow shales which yielded several brachiopods. Dr. Bullard pointed out the position of the Ludlow Bone bed but alas no bones!

Hollybush quarry (758371) provides a spectacular view of the Pre-Cambrian/Cambrian unconformity. The diorite here has provided roadstone for the M5 and has excellent skid-resistant properties due to its biotite, chlorite and muscovite - not quite as expected. In a cutting between two parts of the quarry a clear vertical wedge of Silurian sandwiched between Cambrian strata demonstrates the tensional slippage that has occurred. Our final halt of the day was at White-leaved oak quarry (761360) where the two-phase foliation can be demonstrated. At the upper limit of the quarry was Dr. Bullard's 'piece de resistance' but he asked us not to mention it! You'll have to wait for the N.C.C. guide book next year.

Many thanks to Dr. Bullard for a most enjoyable day.

Andrew Rigby:

B.C.G.S. News:

On the 4th of October, the B.C.G.S. organised a field trip to Doulton's Clay pit and Wren's Nest for the East Midlands Geological Society visit. The trip was greatly enjoyed by their members who have sent a letter of appreciation to the B.C.G.S. leaders.

Mineral Specimens:

Details have been received from two suppliers of specimens - they are:-

- (a) Richard Taylor Minerals, Byways, Surstead Close, Cobham, Surrey, KT11 2NL. Tel: (0932) 62340, who enclose a comprehensive list from Actinolite to Soisite. Should any member be interested, please contact the editor.
- (b) Gregory, Bottley and Lloyd, 8-12 Rickett St., London, S.W.6 1RU. Tel: 01 381 5522, who have sent a list of their 'recent acquisitions', offering spectacular specimens from Leaf Gold (£750) to Bismutotantalite from many parts of the world. Again contact editor for details.

Books, Guides, Journals:

Several pamphlets have been received detailing recent publications:-

(a) The Holiday Geology Guides - These are concise field guides to the following areas:-

- 1. Beer and Seaton 75p + 25p p & p.
- 2. Lake District £2.95 + 55p p & p.
- 3. Snowdonia " "
- 4. Weald " "

They are available from Holiday Geology Guides, 13 Tydfil Place, Roath, Cardiff CF2 5HP, Wales.

I have used 2 and 3 during recent excursions and can thoroughly recommend them. They contain general descriptions of the area, itineraries to follow, diagrams, maps and photographs. They are suitable for student, amateur geologist and interested walker, and fit nicely into an anorak pocket!.

(b) The Geology Society has published a series of around 20 new titles published by Blackwell Scientific Publications Ltd., Osney Mead, Oxford, OX2 0EL. Full list available from editor.

(c) The Northeastern Science Foundation Inc. of PO Box 746, Troy, New York 12181 has sent details of a new journal "Carbonates and Evaporites" published twice yearly: details from editor.

(d) The Nature Conservancy Council is publishing a new twice yearly journal for geologists and geomorphologists entitled "Earth Science Conservation" annual subscription £1.50. Details from Dept CK, Publications, Nature Conservancy Council, Northminster House, Peterborough, PE1 1UA. The first issue is free!

Courses for the Public:

University of Bristol Extra-Mural Dept., Wills Memorial Building, Queen's Road, Bristol BS8 1HP.

Field Trips:

- 1. Carbonate Geology in Mallorca. 29th Feb-5th March, 1988. To study some of the best exposures of carbonate sequences in Europe related to the evolution of southern European region. £225. Early application advised. Editor has application forms.
- 2. Ullapool and Harris, Scotland. 5th-15th June, 1988.
- 3. Corsica. 25th June-July 1988.

4. Santorini, Crete. 2 weeks September, 1988.

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From the papers - see pages 5 and 6.