



The
Black
Country
Geological
Society

NEWSLETTER NO. 84 DECEMBER 1990

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.

FUTURE PROGRAMME:

MONDAY 14TH JANUARY 1991

Lecture : "Britain underground". Caves, caving
and geology

by : John Smith, Dudley Caves Rescue Team.

This talk will cover cave systems in many parts of
Britain, including South Wales, the Mendips, Forest
of Dean, Derbyshire and the Yorkshire limestone
country. It will also describe the extensive
underground stone mines near Bath, the source of
much of the building stone for that city.

The talk is particularly timely because various
conservation bodies, including the Nature
Conservancy Council, have just realised how valuable
caves are in the national scene. They are asking
questions like: why is this cave where it is? How
have its features been formed? What is its history?
How do its streams fit into the underground drainage
scene?

John Smith is an enthusiastic caver with over 30
years experience. He is an accomplished cave
photographer and will show some of his best photos.
He might even answer some of the questions.

MONDAY 25TH FEBRUARY

7.45pm Annual General Meeting.

ANY NOMINATIONS FOR SOCIETY OFFICERS OR COMMITTEE
MEMBERS SHOULD BE SENT TO THE SECRETARY OR CAN BE
DECLARED AT THE AGM.

Followed at 8.00pm by "Geology in paradise" a talk
on the Hawaiian Islands by Paul Shilston.

Chairman
A. Cyster B.Sc., M.C.A.M.,
Dip.M., M.Inst.M.
Vice Chairman
J.E. Gollidge M.A.
Hon. Treasurer
Mrs J. Shilston
Hon. Secretary
P.D. Shilston M.A., C.Eng.,
F.I.E.E., M.I. Mech.E.

continued....

Paul was in Hawaii in 1989 and will describe the Hawaiian Islands with their stunning scenery as well as their fascinating geology. Situated above a 'hot-spot' they enable geologists to look deep into the asthenosphere, the relatively stable region below the plates.

Since the islands are on a moving plate, they also show the whole range of volcanic features from active eruptions to old cones eroded down to sea level.

MONDAY 25TH MARCH

Lecture: "Abandoned limestone mines in Dudley - progress and structural geology"

Joint presentation by: Alan J.R. Evans, Consulting Engineer,
Adrian Collings, Ove Arup & Partners.

Alan Evans and Adrian Collings have been involved with abandoned limestone mines in the Dudley area, in particular with the investigation and treatment of old workings now in a dangerous condition.

The lecture will review the progress made and the issues to be faced in the future. It will also outline the geological background to this area of the Black Country.

SUNDAY 15TH APRIL

Field meeting to North Staffordshire.
Leader: Mr. John Armitage.

SUNDAY 19TH MAY

Half day field meeting to Saltwells local Nature Reserve.
Meet 2.00pm at Saltwells Inn, Netherton.
Leader: Alan Cutler.

MONDAY 3RD JUNE

Lecture: "Earthquakes" by Dr. I.G. Stimpson, Keele University.

FRIDAY 14TH - SUNDAY 16TH JUNE

Weekend field meeting to North Devon coast.
Based at Barnstaple.
Leader: Michael Bamlett, Birbeck College, University of London.

The field meeting will examine coastal rocks and scenery between Westward Ho! and Baggly Point.

Cost £20 (not including accommodation) for Friday evening to Sunday. An additional whole day with the leader for a surcharge of £5.

FURTHER DETAILS AND BOOKING FORM WITH THE FEBRUARY NEWSLETTER.

MONDAY 24TH JUNE

Evening field meeting - "The building stones of Birmingham".

A guided walk in the city centre, looking at the building stones used, including recent buildings and the new Convention Centre.

Leader: Paul Shilston.

Meet: 7.00pm at the Hall of Memory, Broad Street, Birmingham.

SUNDAY 22ND SEPTEMBER

Field meeting to Cross Hands Quarry, near Chipping Norton, Oxfordshire.

Leader: John Crossling, Keeper of Geology, Warwickshire Museum.

EDITORIAL

With the Gulf crisis entering a phase of ever more heightened tension and oil prices set to approach \$35-\$40 a barrel, already the oil companies have turned their attention to expanding production in other areas. One of the main areas on interest at present is the West Africa/Gulf of Guinea region. Here, states such as Nigeria, Cameroon, Gabon and tiny Guinea Bissau have seen dramatic increases in output. New exploration licences have been issued and there has been fierce competition for the favoured areas both on and off-shore. Major finds are predicted.

Further west in Guinea and Sierra Leone a similar increase in oil industry activity has been noticed. It is to be hoped that a substantial proportion of the revenue from these new and future discoveries will be retained in the host country and used to the benefit of the nation as a whole and not for the exclusive enrichment of local chieftans, dictators (or emirs) or to create a surge in massive multinational oil company profits, and hence such crises avoided. One hopes that the new year will bring news of new discoveries of oil and hitherto unknown geological features in these regions and not of imminent war in the Gulf.

Another hope lies in the change of personnel in government. Maybe a gentler approach could produce benefits in the conservation/environmental management issues that have become of increasing concern in the last few years.

For those of you looking for a change of career a story of private enterprise of a geological nature may give you hope.

Reported in the Times recently:-

Two ex oil company geologists purchased a disused drift mine in Dyfed producing 100 tons of coal per week. Later expansion enabled them to push production past 1000 tons per week and recent negotiation has brought the purchase of other drift and open cast mines in S. Wales. With the forthcoming privatisation and break-up of British Coal there must be scope for a BCGS coal company (perhaps under Merry Hill Centre!).

Best wishes for Christmas and the New Year.

Sunday 23rd September: Field meeting to Dovedale, Derbyshire
Leader: Dr Paul Bridges

The limestone areas of north Staffordshire and Derbyshire were formed in early Carboniferous times. Hercynian earth movements to the north caused extension and deformation, forming basins and platforms which were flooded by warm seas allowing sedimentation to occur at a range of depths.

The steep-sided hills surrounding Dove Dale were for a long time thought to be coral reef formations. Work in the past ten years has shown that corals are largely absent and the hills are in fact carbonate mud-mounds whose present day shape is closely similar to their original form when they were laid down in the Chadian (early Visean) age 340-350 million years ago. The area was then about 10° north of the equator.

Dr. Paul Bridges of the Derbyshire College of Higher Education led the meeting and took us first to the windy summit of Thorpe Cloud where the mound core facies were exposed. The rocks displayed shelly fossils and weakly laminated textures. Polished sections show foraminifera, echinoderum etc remains. The fossils are surrounded by fibrous calcite cement. It is believed that bacterial action concentrated and precipitated calcite in the form of fine peloids which quickly consolidated the muds allowing steep-sided mounds to form.

Descending 100m of Thorpe Cloud we found fissures in the mound core flank filled with crinoidal debris which had been later cemented. From the lower slopes of Thorpe Cloud, on the far side of the river, we could see weakly bedded mound flank facies on Bunster Hill, the dip showing Bunster Hill to be a mud-mound distinctly separate from Thorpe Cloud.

We then walked up the little known Thorpe Dale where strongly bedded exposures of intermound fill could be seen providing clear evidence of a palaeo valley at least 15m deep which had been gradually filled with sponge and crinoid debris etc.

After lunch we took cars to Milldale, 4km north, and walked to Ravens Tor which marks the northern boundary of the mound complex. The bare face of Ravens Tor shows the passage of mound cove facies into mound flank (fine and coarse) close to well developed intermound beds. From Ravens Tor, a steep climb up the grass covered scree took the survivors of the party to a fine view point above Hall Dale looking along the length of Dove Dale to Thorpe Cloud at the southern end. The view takes in the whole mud mound complex.

At the time the mounds were formed, there appeared to be a world-wide sudden decline in coral growth. Bacterial action took over, including precipitation of fibrous calcium carbonate which quickly cemented the muds and fossil fragments to form the steep, 120m high mounds. This probably took place at a water depth of around 50m. The positions of the mounds were presumably related to nutrient rich under-sea currents. Similar mounds have been identified in similar aged rocks in the Dinant region of Belgium but present day formation of mud mounds has not yet been identified although the Caribbean area appears to afford a suitable environment.

This was one of the more energetic of BCGS field trips. Few of us were able to keep apace with Dr. Bridges who finally disclosed an earlier interest in fell running! We are grateful to him for his enthusiasm and clear explanations and not least for introducing us to little known, beautiful features of Dove Dale.

JOHN BROWN

Dudley Museum - Geological Open Day - Saturday 27th October

Colin Reid, Keeper of Geology at Dudley Museum, organised another successful geological open day at the Museum on Saturday 27th October.

There were stands and displays from British Geological Survey, showing their recent surveying activities in the Black Country, and from various local bodies. Among these were Dudley Canal Trust, Trigon Mineral Services, Dudley Cave Rescue, Rocky Rex Enterprises, and Johnson Poole & Bloomer.

Our own stand created much interest and sales of our Christmas cards, Wrens Nest guide-books, journals and sweat shirts raised over £50. Society members Judith Shilston, Chris Jowitt, Steve Hughes, Alan Cutler, Graham Worton and Paul Shilston helped on the stand during the day.

The busiest stand was the one where people could bring their specimens for identification. There was a queue at the stand all day, while volunteers bravely tried to identify things they had never seen before.

The public came in large numbers throughout the day, showing how much interest there is in geology, and it is a tribute to Colin Reid's hard work that it was so successful.

B.C.G.S. NEWS

1. GEOLOGY TODAY Magazine

Members who subscribe to the magazine GEOLOGY TODAY are reminded that when renewing for 1991, members of the BCGS get 20% discount on their magazine subscription. Members should state on the renewal form that they are members.

2. University of Bristol

- (a) Dayschool - "Current Research on Santorini: The End of Atlantis?"
Saturday 15th December 1990. Chemistry Department,
Cantocks Close, Clifton, Bristol. 10.00am until 5.00pm,
£10.
- (b) Geology in western Ireland. 29 April - 11 May 1991.
£500.
- (c) Geology in north-west Scotland, based Ullapool.
1-8 June 1990. £75.
- (d) Dinosaurs and geology in western Canada.
Around 10-24 July 1991. £1500.
- (e) Ice and Fire, geology and scenery in Iceland.
18 August - 1st September 1991. £1150.
- (f) Santorini: living with a volcano. 10-24 September 1991.
£550.

Details and booking:

Dr. P.G. Hardy
Dept of Continuing Education
Wills Memorial Building
Queens Road
Bristol BS8 1HR

telephone: 0272 303622/303624.

3. Exhibition

"The Great Gloucestershire Dinosaur Discovery".
Gloucester City Museum from 20th October - 26th January 1991.
Open Monday to Saturday 10.00am to 5.00pm. Admission Free.

4. Subscription Details

See attached sheet.

5. Society Members

Graham Worton and Paul Shilston have given geological talks to local bodies. Graham talked to Codsall and District Civic Association on Black Country Geology, while Paul's talk was to Wolverhampton Ramblers on "Rambling and Geology".

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From the Papers:->