



The Black Country Geological Society

NEWSLETTER No. 62 - April, 1987:

Editorial: New Members:

At the A.G.M. one of the items discussed was the welcome to new members. Quite a few enquiries are not followed up after the initial information package is sent. Most members present could recall the sense of awkwardness about joining a new group and feeling on the outside. All the other people seem to know each other, are usually chatting animatedly, and it is difficult to catch anyone's eye.

As the talk turned to what could be done about this, several people thought it would be a good idea if an individual welcome could be offered, perhaps by a member who lived nearby. A prospective new member would at least have someone to talk to, to show them which door to enter, and to introduce them to a committee member.

Comments as well as new members are welcome. We could have letters to the editor about it, or new members could take us up on it, or make a better suggestion.

Forthcoming Meetings:

Sunday - 12th April: Field trip to the Jurassic Exposures of Hook Norton.

Monday - 18th May: Informal meeting on Conservation of sites. NOTE CHANGE OF DATE

The June field trip has been CANCELLED (see inside).

Indoor Meetings are held at the Saracen's Head, Stone Street, Dudley: 7.30 p.m. for 8.00 p.m. start. Those who would like lifts for field trips, please contact Graham Worton (Dudley - 213207).

Chairman

*A. Cutler B.Sc., M.CAM.,
Dip.M., M.Inst.M.*

Vice Chairman

*P. G. Oliver B.Sc., Ph.D.,
F.G.S.*

Hon. Treasurer

*Anne Harrison B.Sc., M.B.,
Ch.B., F.F.A.R.C.S.*

Hon. Secretary

*P. D. Shilston M.A., C.Eng.,
F.I.E.E., M.I. Mech.E.*

Field Secretary

N.G. Bradley

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

Programme, 1987:

Sunday, 12th April: Field trip to the Jurassic Exposures of Hook Norton. Leader Mr. Brian Boneham of the Geologists' Association, Midland Group. Meet 11 a.m. on the A422 on the outskirts of Wroxton, west of Banbury. G.R. SP 409 417. This is at a guide-post monument.

Visits are likely to include a number of SSSI's, where there will be no hammering.

Monday, 18th May: Informal meeting on aspects of conservation. It is expected that there will be 20 minute talks by members of other organisations about their work, such as nature trails.

Revised June Dates: (evenings)

Monday, 8th June: Field trip to Wren's Nest. Leader Paul Shilston. Meet at car park of King Arthur pub at 7 p.m. - junction of Priory Road and Birmingham New Road.

Monday, 22nd June: Field trip to the Wordsley area. Leader Alan Cutler - to see the geology and natural history of the area. 7pm. White Swan Pub, Brierly Hill Road, Wordsley opposite Swan Lane.

Monday, 6th July: "Ecology of the Wenlock Reefs". Talk by Dr. Derek Gobbett. This is particularly about Silurian reefs, and he will use material from Birmingham Univ.

September: Talk by Professor Graham Westbrook of Birmingham University about accretionary processes in the formation of the Barbados ridge. This will include sedimentary processes near deep ocean trenches.

October: Field trip.

Monday, 16th November: Talk. Dr. R. Bradshaw "Geology & Philately".

December: To be arranged.

Visit to Wolverhampton Art Gallery.

As mentioned in the editorial of

October, 1986, Rosemary Roden is willing to be at the Art Gallery at 11.00 a.m. on Saturday 23rd May to show BCGS Members around the Fraser Collection, and the making of the gallery to house it. The original party thoroughly recommend the trip, which ended with lunch at the Park Inn. There is a limit of ten people because of the size of the basement. Please contact Hilary Giltrap, Lapworth (05643) 4114.

Coach trip to Manchester University/ Museum - Geology Department and Lindow Man exhibition. Saturday, 11th July. See page at end of newsletter for information.

"Tales of the River Bank." Talk by Dr. Lawlor, 19th January, 1987:

If this title conjures up lazy days of sunny river boating, and Ratty and Mole busy about their business, then you should have been at this lecture and found out about the really exciting things that do happen to river banks. Dr. Lawlor pointed out that he was a geographer, more particularly a fluvial geomorphologist, and not a geologist. He proceeded to give us a fascinating insight into his study of two rivers in South Wales. These were conveniently near the University of Swansea where he worked for his Ph.D. This was principally about bank erosion, why it happens and what can be done about it. This began with measuring and monitoring, and some ingenious methods were put into operation. These included small hinged cigar tins, about which he kept us guessing until the very end.

He asked questions about why rivers meander, why they had a particular course and flow, and why these changed. During flooding mass erosion takes place and deposits build up from the debris. Agricultural land is lost and boundaries alter, because these are often along rivers.

Then we came to the most exciting part, the formation of needle ice, or more correctly pipraks. This builds up crystals if there is a flow of moisture combined with a night temperature of - 1°C or - 2°C and causes tiers of ice.

to build up polycyclically. These include patches of dark bank material, and even pebbles incorporated in it, and so the whole surface material becomes very friable. It settles back on the bank as 'draping' and only a little falls in the river, but during heavy rain or floods it is easily eroded.

Dr. Lawlor measured bank erosion in his study of the River Ilston on the Gower peninsula by driving pins into the bank and monitoring the exposed length of the pins. Most of the erosion occurred during the winter months of November to February, and variations in the river flow had almost no effect.

With regard to the protection of river banks, we were shown a very explicit slide of the use of old cars, which had resulted in acceleration of bank erosion. A much better type of protection is given by walls built of boulders in vulnerable areas. Best of all are smaller stones in wire cages or gabions, set back one layer on top of another as in steps. A new technique has been developed using photogrammetry, in which a camera is mounted on a theodolite on the opposite bank, and degradation can be measured very accurately. This should assist scientists and engineers to understand the stages and courses of bank erosion.

The river studied had an equable climate, and average values for days of frost, and sediment size, so the findings could well apply to other rivers.

The evening was delightfully different and fascinating. Oh! Those cigar tins - I think Dr. Lawlor was sorry he ever took that photograph. The idea was that they should catch a measurable quantity of eroded bank material. It was a good idea, but it just didn't work!

Ivy Warren:

P.S. Thank you, Ivy, and best wishes on becoming a new member.

Talk by Sheila Pitts. 8th Dec., 1986.

This talk began with map demonstrations of the various parts of New Zealand as seen on a five week tour. A brief geological summary included New Zealand's plate margin location, with the Alpine transform fault passing between the active northern Benioff zone dipping to the west, and the less active southern zone dipping to the east.

The photographic tour began with the approach to New Zealand via Tahiti, where views from the plane showed atolls and fringing reefs. After landing at Auckland, friends met me and we travelled north to the Bay of Islands. This is one of New Zealand's most beautiful areas, full of basaltic islands, arches, columns and polygons. Further north we saw a dramatic mountain formed from a volcanic plug. Cape Reinga was the furthest north, from where we looked down on the surf breaking on Ninety Mile Beach. The coach drove along it, between the huge dunes and in and out of the waves.

Christmas was spent in the city of Auckland, among the craters and shield volcanoes of the area. Typical New Zealand trees included the scarlet pohutukawa, the ponga fern, and the delicate fronds of the Norfolk Island pine.

In the centre of North Island we explored the ignimbrite plateau of Lake Taupo, and the world's largest geothermal power station at Waikato. A bumpy Cessna flight over the nearby Tongariro National Park gave scope for spectacular photographs of snowy and smoking volcanoes. We later drove among them.

I crossed Cook Strait on New Year's Day and joined a very good South Island tour. From Nelson we could see Mount Dun of the ophiolite zone, where the high chromite areas had little vegetation. All around were typically steep 'razor back' mountains. Our route south was mainly along the Alpine Fault, across the mountains and down the Buller River gorge, passing Earthquake Hill. Here one of the many earthquakes had blocked the river, briefly, and cut the road imprisoning a Newman tour bus for some months. The passengers were lifted out by helicopter, and the incident is part of the way of life among such steep terrain. Road cuttings showed many miles of boulder beds.

We visited the horizontal limestone beds of the Punakaikai pancake rocks, and the coal and gold areas of the west coast. I enjoyed panning gold, and seeing the jade-carving factory at Westport. We visited Milford Fiord, via the road tunnel and the sandflies, and saw the glaciers around Mount Cook and the Lake District. Enormous hydro-electric dams and penstock channels are landscaped and adapted for multiple use of these very scenic areas. The tour went as far south as Bluff, then up most of the east coast. For the last week in New Zealand I re-joined my friends in North Island. We went to Rotorua thermal area and Napier, where miles of present farmland had been heaved above sea level in the 1931 earthquake. The talk ended with more dramatic aerial photographs from a helicopter flight over Mount Tarewara, and into the 1886 fissure, and left the audience hovering over the steaming town of Rotorua.

Sheila Pitts:

Twelfth Annual General Meeting:
16th March, 1987:

The meeting began with apologies for absence, and the minutes of the last annual general meeting. The statement of accounts showed that income and expenditure were satisfactory, and likely to be so for next year too.

The Chairman's report commented on the slight decline in membership, and the number of events and speakers over the year. In the field of conservation, after ten years of lobbying, the post of geological curator at Dudley Museum was approved, and Colin Reid was appointed, and attended the meeting to say a little about it.

Sites of Special Scientific Interest are being re-notified under the National Parks and Access to Countryside Act, and two may not meet the new requirements. Castle Hill and Rubery Road cutting are of local importance, and have been proposed by Alan Cutler to be brought into the

scheme for Sites of Importance for Nature Conservation. These proposals have been welcomed, and if successful locally, they may be extended nationally.

The meeting proceeded to the election of officers. Graham Worton is retiring as Field Secretary, with considerable reluctance, because of additional commitments and the likelihood of having to work away from the West Midlands shortly. He wants to continue as an ordinary committee member. John Easter was elected to succeed him as Field Secretary.

Hilary Giltrap has retired as a committee member, also because of extra commitments, but will continue to be involved with typing the newsletter. The vacancy is likely to be filled shortly by a co-opted member. All other officers were re-elected.

Newly Preserved Geological Site:

On 21st November, 1986, a site was "opened" in the Corley Conglomerate part of the Enville Formation. This is located at Wickes Building Supply Store, on the Radford Road section of the Coventry Ring Road. Grid Ref. SP3316 7955. This is one of the largest exposures of Corley Conglomerate pebbles at their maximum development, indicating the existence of an upland area east of Coventry then. The pebbles, mostly limestones, have yielded marine fossils of Silurian age. Also, it shows the overlying sandstones, as all the strata dip westwards. Details from: J. Crossling, Warwickshire Museum.

Courses for the Public:

University of Bristol, Dept. of Extramural Studies, Wills Memorial Building, Queen's Road, Bristol
BS8 1HR. Tel: 0272 303030, ext. 4633.

1. New Liassic exposures - Ilminster bypass. Sat. 13th June. £7.00.
S86 0021 SJ.
2. Liassic Geology of the Gloucester area. Sat. 15th May. £7.00.
G86 0009 SJ.

- 3. Wales-England Borderland. 5th-7th June. £20.00. D96 H004 SJ.
- 4. Introduction to Geology of North Wales. 13-20th June. Approx. £200.00.
- 5. Massif Central. Excursion led by Dr. Reg Bradshaw. 17th-30th September. To see Hercynian schists, gneisses, migmatites and granites. Tertiary to Recent volcanics. Oligocene to Pleistocene sediments. Price less than £450.00.

Losehill Hall. 9th-11th October. Minerals, rocks and fossils. Peak National Park Centre, Castleton, Derbyshire. S30 2WB. £56.00.

Caves of the Peak District. 25th-27th September. £56.00.

Earth Legends Tour schedule, 22 Heathend Road, Alsager, Stoke-on-Trent, Staffs. Tel: 09363 77744. Weekends and weeks to Dorset, Devon, Snowdonia, Sky, Kenya (3 weeks £1,892.00).

From the Papers:

Express and Star,
9.8.86.

£85,000 for fossils research

British and U.S. scientists will use a £85,000 grant from the New York Power Authority to study fossils found in New York state.

The fossils have pushed back the time when animals were first believed to have left the seas in that area.

The team of botanists and geologists will represent the British Museum of Natural History, and American universities.

The fossils, discovered by two American biologists in the Catskill Mountains, are said by experts to be some of the earliest land animals to inhabit the Americas.

Express & Star, 8.11.86.

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Search is on for lost skull

Shropshire's mammoth hunters are going back on site for another dig.

They hope to find the adult mammoth's missing skull.

And they are appealing for volunteers to dig through the massive pile of earth in which it could be buried.

Meanwhile, talks are continuing to keep the remains — said to be the most important outside Russia — on permanent display in the county.

The mammoth hunt started just over a month ago when workmen at an ARC sand and gravel quarry near Shrewsbury uncovered some bones during excavations.

Experts, after washing and sorting dozens of bones, discovered that they had about 80 per cent of two

skeletons — a mother and a two or three-year-old calf.

County museums and arts officer Mr Geoffrey McCabe said the only major bone still missing was the skull of the adult.

A second dig was therefore being held on November 15 and 16 to try to find it — and about 50 volunteers were needed.

"It's not going to be a picnic," he said.

"We are looking for adults with their own spade and rake, prepared to put in several hours of hard slog."

They would be working in two shifts — from 8am to noon and from noon to 4pm.

Shropshire County Council's leisure activities chairman, Councillor Tony Freudmann, said the desire of virtually everyone involved with the find was to keep the remains — which legally belong to ARC — in Shropshire.