

Meetings are held at The Saracen's Head, Stone Street, Dudley 7.30 for 8 o'clock.

Forthcoming meetings:

Monday 13th February: A.G.M. at 7.45 p.m. followed by Paul Shilston on "Yellowstone and Yosemite - two great national parks."

Yellowstone and Yosemite are probably the two most attractive national parks in the U.S.A. and they offer interesting geological contrasts, as well as breathtaking scenery.

Yellowstone is on one of the earth's "hot spots" and shows an amazing range of geothermal features:- geysers, hot springs, fumaroles and mud pots.

The Upper Geyser Basin has the largest concentration of geysers in the world, over 25% of the world's total, including Giant Geyser which erupts over 200 ft. high and, of course, Old Faithful.

The hot springs include Mammoth Terraces, a series of lime-rich springs which have developed beautiful pools edged with travertine of delicate blues and pinks.

Yosemite is quite different. It is a large granitic area which was heavily glaciated during the ice age and shows spectacular landforms caused by glaciation and weathering. The 3,000 ft sheer cliff of El Capitan and the celebrated Half Dome with its distinctive shape are only two of these features to be seen.

Paul visited these parks in 1987 and will illustrate his talk with some of his slides.

Monday 13th March: Lecture - "The Channel Tunnel." by R. G. Rainford of Tarmac construction.

Tarmac construction is one of the partners in the Eurotunnel Consortium and this lecture will outline some of the geological and civil engineering aspects of the tunnel project and will update members on the current progress of tunnelling.

Mr. Rainford's talk will be split into 3 main sections:-

- (i) History of the tunnel since 1801.
- (ii) The integrated transport system.
- (iii) Tunnel construction today.

He will also cover the local geology and will describe its effect on tunnel location, design and construction. He will also bring us up-to-date with progress and with problems encountered.

Sunday 30th April: Field trip "Murchison's Dykes" and Grins Hill building stones. Leader Dr. David Thompson. Meet at Elephant and Castle pub car park in Grins Hill village, 9 kms NNE of Shrewsbury at 10.00 a.m.

Monday 8th May: Lecture "The Morcambe Gas Field" by Dr. Alan Levison, Manager of Development Geology, British Gas, London.

The gas field in the Irish Sea off Morecambe is one of the U.K's most important fields; production began in January,

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* newsletter originally issued as 72. by mistake.



1985 and it now produces some 10% of daily consumption, with an expected life of 40 years. The field was surveyed and located by geologists of British Gas Exploration Dept. and represents a major triumph of applied geology.

Dr. Levison played a major role in this achievement, and we are particularly pleased that he is coming to describe his work to the Society.

His talk will describe the gas field and its geology, and the way it was located and then developed. The gas is held in sandstone strata of Permian and Triassic age, and the other two requirements - a source of gas from Upper Carboniferous coal seams, and a strata of sealing rock above to prevent escape of the gas - were both believed to be present.

Wells were drilled and gas was found. How easy to be wise afterwards, but one can imagine the anxiety during the exploration.

Members may have seen his article on this subject in the May/June 88 issue of GEOLOGY TODAY.

May 12th-14th: Weekend field meeting at Slapton Ley Field Centre, Devon. Led by the Warden Dr. Keith Chell.

This is an attractive seaside centre on the south coast of Devon, near Dartmouth. Accommodation will be at the centre, at the very reasonable cost of £30, and there may be an extra charge for local transport. This is a joint meeting with the Shropshire Geological Society. Booking should be made without delay using the booking form with this newsletter, direct to Sue Gibson, Walford, New Road, Ludlow SY8 2LS. Telephone (0584) 5167.

Monday 19th June; Evening field trip to Uffmoor Wood. Woodland, wildlife and geology. Leader Alan Cutler.

Monday 3rd July: Barbecue at Oldswinford Hospital, Stourbridge. Good food, a bar and good music and with your help, good company. See booking form in this newsletter. Can you help? Please contact Editor.

Sunday 17th September: Field meeting to Warwickshire - Southam Quarry and Burton Dassett Hills.

Leader: John Crossling, Keeper of Geology at Warwickshire Museum. Meet 10 a.m. at the Market Place, Warwick at the rear of the Warwickshire Museum.

The meeting will start with a short tour of the museum and an introduction to Warwickshire geology.

Southam quarry is a few miles east of Warwick and is in the Blue Lias (Lower Lias). Its interbedded limestones and clays are worked for cement.

Burton Dassett Hills are Middle Lias and include the Marlstone Rock bed, a ferruginous limestone which forms a distinctive outcrop due to its relative hardness. It was quarried in the area for iron-making.

John Crossling promises that both sites are VERY GOOD for COLLECTING FOSSILS.

Monday 2nd October: Lecture - "The Age and Nature of Glaciation in North Wales: a modern Interpretation." by Dr. Ken Addison.

November - to be announced - Field trip to the Wrekin area led by Dr. Alan Wright of Birmingham University

EDITORIAL:

In this month's newsletter several things for those new diaries. First of all our programme for 1989. Notice one or two changes from the previous list - new lecture in May, weekend field meeting and a change of venue for our September field trip with the Wrekin hopefully transferred to November.

The committee is constantly on the search for new areas to visit, suitable leaders and lecturers. If any member has a suggestion in any of these areas, their ideas would be most welcome.

Secondly, included in the newsletter is a list of the BBC's Open University programmes in geology for the February-October season.

Monday 5th December, 1988: Lecture: "The Racecourse Colliery Mine" by Nigel Chapman, of Friends of the Black Country Museum (Mining Group).

The Mining Group are 5 or 6 enthusiasts, who spend all their spare time recreating Black Country coal mining as it used to be. Their aim is to produce displays of typical old-style mining practice, including aboveground machinery, to give the public an idea of the way coal used to be mined in the Black Country. How successful they have been, and still are, was described to us in Nigel Chapman's interesting talk.

There several old mineshafts on the museum site, identified from old records, and they chose one of these for the first development - called Racecourse Colliery No. 1. The shaft was renovated and made safe, pit-head gear was found and installed, a steam winding-engine was obtained from a local site and put into working order, and a rail track with mining tubs was built up.

All this involved studying old records and photographs, and talking with old miners, as well as finding out how things were done in the old days using old tools and materials. Their next project was to create a second mineshaft - Racecourse No. 2 - also made out of an old existing shaft and working. This involved deepening the shaft and renovating some of the brick lining, a complicated job requiring the existing lining to be supported while new bricking was carried out below. All these techniques had to be learned the hard way.

They had hoped to be able to produce an underground display for the public, but because of mining and safety regulations this proved too difficult. Instead they are now embarked on another ambitious project, the underground mining display, showing several mining scenes just below the surface, entered by horizontal passages and giving the feel of a mine.

The underground mining display should be ready for next summer, and combined with the two Racecourse Colliery installations, it will make a really worthwhile addition to the Black Country Museum's features.

"Those Incredible Limestone Mountains of South China", October lecture.

Tony Waltham gave us a most interesting talk and slide show on all aspects of life in China off the beaten track and showed us some spectacular and breathtaking views of these truly incredible features. The lecture began with a view of a typical inland chinese city - something akin to the worst parts of Birmingham and Oldham in rainy weather - and one picturesque

pagoda. Pollution was widespread, both atmospheric and noise/congestion. The streets were clearly for people not cars, with thousands of bicycles per mile of street. A meeting with the university staff required 38 cups of tea and a visit to the local market turned the stomach as small dogs, cats and birds were for sale (live) only to be slaughtered on purchase. This market visit explained the lack of birds in the area. The geology shows continuous limestone deposition from Ordovician-Upper Triassic. The fossil caves were 80m high. The exploration of these caves brought much interest and curiosity from the local peasants who had never seen westerners. Peasant life seemed akin to the middle ages in the Yorkshire Dales - widespread poverty. In the valleys a severe problem of sink holes resulted from the covering of solution fretted limestone by alluvium. Once a lowering of water-table by industrial water extraction took place an increase in downward erosion resulted in new sink holes opening up - 1,000 of them!

The cave systems were explored and mapped. Dr. Waltham's party had several notable exploration successes despite the hazardous nature of the work. Some caves have clouds forming inside them where cold and warm air mixes; others show clear evidence of past habitation. The sheer size and volume of these cave systems left a lasting impression.

The towers were even more spectacular. Dr. Waltham showed us many views of the variety of shapes including some which rise sheer from the centre of the towns. Later he ventured into an explanation:-

1. Valleys formed by surface erosion.
2. Flow concentrated in dolines - chaotically dissected cone karst.
3. River erodes to base level.
4. Water re-appears producing alluvial plains.
5. Lateral movement of valley floor water erodes sides of hills producing notches and the cones consequently steepen into towers.
6. Hills eventually removed but with tectonic uplift base level fall at a rate greater than the evolution of the towers and thus
7. Towers enlarge as valley floor falls.

Thus the origin is a balance of erosion rates, uplift rates, climate, hydrology acting on a great thickness of limestone.

Some further life observations - clay brick manufacture, needing 30-50 years to dry! The chinese toilets and use of human faeces as manure which then leaches into streams used for cooking water. The local delicacy - cooked rat.

All this and yet apparently no 'digestive' problems - these geologists/cavers must have

iron constitutions!

Andrew Rigby:

B.C.G.S. News:

Courses:

Bristol University: Department of Extra-mural Studies, The University, Wills Memorial Building, Queens Rd., Bristol BS8 1HR.

1. A petrological miscellany - Reg Bradshaw Ph.D.
2. The Geology and Natural History of the Hawaiian Island Evolution in Action - S.Swanborough BSc.
3. Insects and Spiders in the coal swamps near Bristol - E. Jarzembowski Ph.D.
4. The Great Sea Dragons - M.Taylor Ph.D and A.Cruikshank Ph.D.
5. Geology of the Dorset Coast - J.W.Cope Ph.D, F.G.S. - weekend course.
6. Geology in Brittany - Reg Bradshaw Ph.D.
7. Geology of the West Dingle Peninsula and Blasket Islands - B.P.J.Williams B.Sc, Ph.D - one week 15/9-24/9.
8. Geology of the Lleyn Peninsula - Reg Bradshaw Ph.D. 15/4-22/4.
9. Geology and Archaeology in Orkney and Cathness.A.N.Insole Ph.D. 17/7-1/8.
10. Santorini - 2 weeks study tour September, 1990.
11. Field Geology in Shropshire - weekend course by T. Barklem B.Sc., F.R.G.S , F.G.S.15-16/4.
12. Geology and Archaeology in S.W. U.S.A. 17/6-1/7, 1989.
13. Geology in the Cantabrian Mountains, NW Spain, 2/9 1989.
14. Geology of Cornwall, 13-20/5, 1989.

Field trips by Shropshire Geological Society. B.C.G.S. members are welcome.

Wednesday 14th June, 1989 - evening meeting to see Ludlow bone bed at Ludford.

Saturday 15th July - visit to open cast site at Telford.

Details from Sue Gibson - Ludlow (0584) 5167.

University of Nottingham:

Geological Study Tour to the Cascades and the Hawaiian Islands. A 3 week tour in July-August 1990. Cost £1,400-£1,500. Deposit £50. to University of Nottingham, department of Adult Education, 14-22 Shakespeare Street, Nottingham NG1 1FJ, from whom further details can be obtained. Tel: (0602) 483838.

As above but to Iceland 29th July-12th Aug. Cost £780. Details from above address.

U.K. courses to:-

- a) N. Somerset 21/4-23/4. £60.00.
- b) Isle of Skye 27/5-2/6. £187.00.
- c) Lake District 6/10-8/10. £62.00.

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.

From the Papers:



The
Black
Country
Geological
Society

JOINT WEEKEND FIELD MEETING
WITH SHROPSHIRE GEOLOGICAL SOCIETY.

IN DEVON.

12-14TH MAY 1989.

A joint weekend geological field meeting for our two societies has been arranged at Slapton Ley Field Centre, Kingsbridge, Devon. This is an attractive seaside centre, on the south coast of Devon near Dartmouth, run by the Field Studies Council.

The warden of the centre DR. KEITH CHELL used to be a member of the Shropshire society, and is running the weekend specially for us, so it is sure to be a really worthwhile visit.

Accommodation and food from Friday evening to Sunday breakfast will be provided at the Field Centre at the very reasonable cost of £30, and there may be an extra charge for local transport.

PLEASE BOOK DIRECT TO SUE GIBSON AT LUDLOW,
USING THE BOOKING SLIP BELOW.

Sue has asked that bookings are given soon, preferably by 10th January, so that the weekend can be confirmed with the Field Centre.

Paul Shilston

FIELD WEEKEND MAY 12/13/14 SLAPTON LEY FIELD STUDIES CENTRE, DEVON
LEADER DR. KEITH CHELL

Accommodation and food will cost £30 from Friday evening to Sunday breakfast. There may be an extra charge for transport.

Please book places on the field weekend.

I enclose a deposit of £10.

Signed: Phone number:

Address:

Please return to S. Gibson, Walford, New Road, Ludlow SY8 2LS

by January 10th

I have provisionally booked 20 places but do need to know numbers as soon as possible!

BCGS
SUMMER
BAR-B-Q



MONDAY 3RD JULY AT 7.30 PM

£ 4-50 PER PERSON

- * STEAK BARBECUE.
- * STRAWBERRIES & CREAM.
- * FREE GLASS OF WINE.
- * BAR AVAILABLE.
- * LIVE MUSIC.

IN THE GROUNDS OF OLDSWINFORD HOSPITAL SCHOOL
HAGLEY ROAD, OLDSWINFORD,
STOURBRIDGE.
(GRID REF. 903836)

CUT
HERE

BLACK COUNTRY GEOLOGICAL SOCIETY

SUMMER BARBECUE --- MONDAY 3RD JULY 1989

I/we enclose £ _____ for _____ places @ £4.50 per place.

NAME :

ADDRESS :

Hand in at any meeting, or return to : Judith Shilston
16 St. Nicolas Gardens
Kings Norton
Birmingham B38 8TW.