


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

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.



The
Black
Country
Geological
Society

Forthcoming Meetings:

Sunday: 29th October: Field Meeting to the Wrekin. Leader Dr. Alan Wright of Birmingham University. Meet at 10.30 a.m. at the entrance to the old quarries at Buckatree Glen, opposite Buckatree Hotel on the west side of the Ercall. To get there, leave the M54 at its end (exit 7), turn left, then sharp left at the Forest Glen Cafe.

It is many years since the Society last visited this classic pre-Cambrian inlier of the Welsh borderlands. Thus this is an opportunity for our long-standing members to renew and refresh their memories of the Wrekin succession and for first-timers to acquaint themselves under expert guidance.

Like the Malverns, Nuneaton Ridge and Hope Bowdler, the Wrekin-Ercall area is one of the international sections for the boundary between the pre-Cambrian and Cambrian. Dr. Wright has been working on this boundary and is publishing a paper on his results. He will be able to up-date members on his findings.

Monday: 4th December: Lecture on gold "Very precious metals in the British Isles" by Dr. R. A. Ixer of Birmingham University. Gold - if we take proven sites and rumoured occurrences, then gold has been found in many parts of the British Isles from Wadesbridge in Cornwall (see from the papers) to the Mendips, Malverns, Mid and North Wales, Carrock Fell in the Lake District, Leadhills in the Southern Uplands and in the remoteness of Helmsdale in Sutherland. The subject has periodic bursts of activity and recently the Speny Mountain discoveries in Northern Ireland, admirably described by Colin Reid, and the present exploration in West Cornwall have surely made the late 1980's one of such periods. I'm sure Dr. Ixer will bring us up-to-date on these findings.

Bob Ixer is an old friend of the Society. He is very supportive of our activities and has given us several lectures and led field meetings over the years. His speciality is minerals and ore deposits, and his work on gold and precious metals will be the subject of this lecture.

Monday: 15th January: Lecture by Spencer Mather "Minerals and their environment in Southern Norway".

Spencer comes from the West Midlands but he spent over 20 years as a mining engineer/geologist in Norway. He is calling his lecture "minerals and their environment" to stress that minerals are related to their environment, and cannot just be considered in isolation like hand specimens in a lab.

His lecture will use many examples from Norway and other parts of the world, to illustrate minerals in the field, how they come to be where they are, and take the form they do.

He has an extensive mineral collection, and hopes to bring many of his best specimens for his lecture

Chairman

A. Cutler 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.

Monday: 26th February: 7.45 p.m.
Annual General Meeting followed at 8 p.m. by illustrated talk "Geology and Wildlife in Kenya" by Sheila Pitts. Sheila was in Kenya in December 1988, when she visited the Rift Valley, the Southern National Parks, Mombasa and the Indian Ocean Reef.

Sheila is a founder member of the society, and has already given several talks to the society on her visits to Argentina, the Antarctic and New Zealand.

Monday: 26th March: Lecture "Geology and mineralogy of the Caldbeck Fells in Cumbria" by Dr. R. J. King.

The Caldbeck Fells are in the northern Lake District, and have always attracted geologists. Although near to Skiddaw, they are composed of Borrowdale Volcanics, while nearby Carrock Fell has an igneous complex with varied mineralogy, including veins of tungsten ore.

Dr. King is Curator of the John Moore Museum, Twekesbury and was formerly with the National Museum of Wales. He is a well-known authority on minerals, and many members will be following his continuing series of articles in GEOLOGY TODAY "Minerals Explained".

April: field meeting: details to be advised.

May: Lecture on the Birmingham West Geological Mapping Project by Dr. John Powell - British Geological Survey.

WEEKEND FIELD MEETING 11th-13th May:

Based at Hunstanton, Norfolk, to study the coast of North Norfolk, in particular cretaceous and quaternary deposits, with related coastal features. The area has interesting stratigraphy from the lower greensand and chalk horizons, and these are overlain by glacial melt deposits showing a range of erratics and complex structures. This visit will be a good opportunity for members to see geological forms and strata they do not meet in normal field meetings.

Arranged jointly with University of London. Leaders: Michael Bamlett - University of London and Peter White - Polytechnic of North London.

B.C.G.S. will be taking a stand at the Open Day at Dudley Museum in St. James's Road (just down from The Saracen's Head). Saturday the 21st October.

EDITORIAL:

This month's newsletter includes a report on this year's field weekend in Slapton Ley, South Devon. Most years the society's programme includes a weekend field meeting, to visit places too far to be reached in a single day's visit. Venues have included Llangollen, Dorset, Anglesey, the Lake District, Gower peninsula, and Bristol Avon gorge, as well as this year's visit to Devon.

For 1990 a weekend has been arranged in conjunction with University of London to visit the north Norfolk coast. With its cretaceous and quaternary strata, this will give quite different ideas of geology from those members are used to, and should make an interesting contrast with other places we have visited.

These weekends have proved quite popular as they allow a less arduous and more relaxing study of the geology of an area than some of our longer day visits. They also combine the benefits of a mid-term weekend break with an opportunity to visit or re-visit areas of exciting geological interest. Please check your diaries for the Spring of 1990 and keep the 11th-13th May clear for a break in Hunstanton.

continued
Slapton Ley field weekend.

Weekend visit to Slapton Ley Field Study Centre. 12th-14th May. Leader Dr. Keith Chell - Warden:

We congregated in penny numbers during the Friday evening. Those fortunate enough to arrive in time had a short walk up to a view point (location 1) overlooking the Field Study Centre Nature Reserve and Shingle Bar that encloses a fresh water lake. We could see a previous raised shingle beach that formed a ridge behind the present-day bar. As one might expect, the present-day bar in one of the local hosteleries proved to be just as fascinating an end to the day.

SATURDAY: The plan for the day was to look at the Hercynian Tectonic effects on the Marine Devonian on the East and West coasts of the Prawle Peninsula. Our first location (location 2) was the North end of Yarmouth Sands where we saw Lower Devonian Marine Beds. They were clearly low grade metamorphosed shales, now slates, showing clearly parallel/sub-parallel cleavage. There was some debate about whether a buff-coloured bed was a dyke or a sedimentary rock, but as there was no evidence of contact metamorphism, we decided that it was probably a sandstone.

The beach consisted of pebbles of micaceous schist, flint from the erosion of chalk beds out at sea, and an assortment of sandstone from the overlying Permian Beds. Further along the beach we saw evidence of faulting with drag folds, and here the cleavage seemed to be at 45° to the bedding planes.

In the bay was a dyke of probable Hercynian age showing exfoliation. Around the corner still within the slate outcrop we found some interestingly distorted fossils whose origins were of great debate. Some specimens looked like crinoids or corals but we found this difficult to accept in the anaerobic conditions which would have prevailed for the deposition of the black, pyrites shale, as in the presence of H₂S the CaCO₃ would have dissolved.

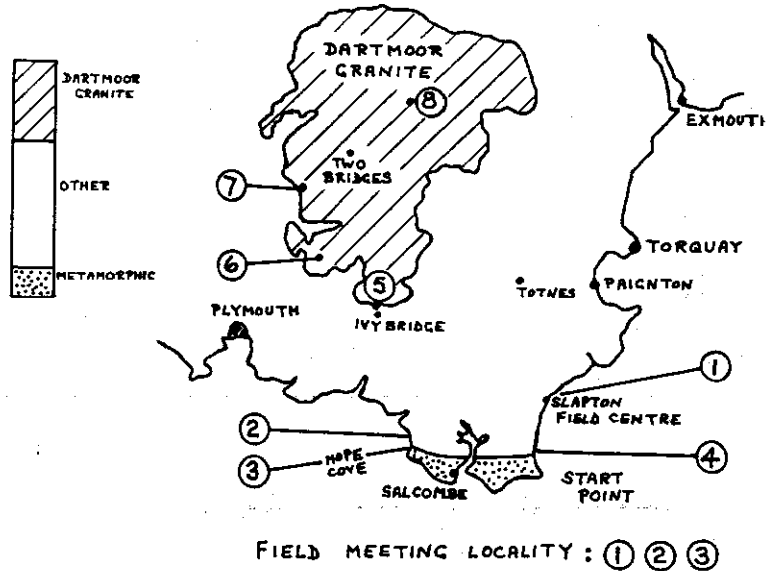
In the next bay (at Thurlestone Beach) we saw the Unconformity between the metamorphosed Devonian and the New Red Sandstone of the Permian. These beds incorporated boulders and sub-angular clasts of quartz and quartz-micaschist. Research has shown that the orientation of the long axes of the incorporated material indicate the probable source

to be around the Exeter area. These beds may have been layed as a deep channel deposit or as several flash flood deposits. They also formed an interesting arch out in the bay and we wondered why this had not been eroded at the same rate as the rest of the deposit.

A walk along the coastal path brought us to Hope Cove (location 3). Here we found the slate to be harder, with more quartz veins and tension gashes, indicating that we were supposedly getting nearer the source of the metamorphism.

Into the next cove we saw a marked change in the schist, which was green and reputedly contained hornblende, but there was no evidence of an igneous source for this. From this we moved to the East coast of the Prawle Peninsula and at the North Hallsands we looked at the same succession of rocks.

During the evening we visited South Hallsands (location 4) where $\frac{3}{4}$ of a million tons of shingle had been dredged from out of the bay in 1904 to make Devonport Harbour. As a result the sea had reaped its revenge on the village of Hallsands, and had



removed the shingle beach from its roots during a storm in 1907. The village, built on a wave-cut platform, had collapsed. We stood with tears in our eyes and lumps in our throats as we listened to the sad tale of the Trout family of four hardy sisters, who fished for a living from their rowing boats off shore, dug $\frac{1}{2}$ mile ditches to give themselves a water supply and saved a negro sailor whose ship was wrecked by a torpedo. He turned out to be a wealthy American who provided money for the four sisters to build a new home at North Hallsands after the destruction of their village. As the sun sank slowly and the gentle rain

freshened the earth, we strolled along the road to Start Point lighthouse amidst banks of bluebells and primroses. The air delicately perfumed, gave a perfect end to a full day.

SUNDAY: The plans for this day were to look at the granite of Dartmoor and its effect on the country rock.

The first location (location 5) was at Ivybridge where we gathered at the viaduct to walk upstream by the river Erme. Here at first we were on the country slates that we'd seen the previous day, only they seemed less shattered and more compact. As we moved upstream, we found a sharp contact between granite and the country rock. We walked up hill through the woodland, passing an area of metamorphosed mudstones containing good crystals of high pressure, low temperature chialstolite.

Onwards and upwards, we came to a quarry that had porphyritic hornblende biotite granite. This had been used to build walls, houses and the viaduct in the area.

Our next location (location 6) was the China Clay quarries at Lee Moor (GR. 567633) where we saw the kaolin being washed out with high pressure water cannons. The slurry being pumped to settling tanks.

At the next quarry at Burrington Reservoir (locality 7) we saw the same granite as before but the large feldspar crystals were aligned indicating flow pressure.

Our final location (locality 8 - GR. 680810) was on top of the moors looking along the line of former tin mining excavations, which followed veins from the intrusions.

From here we bid our farewells and thanked Dr. Keith Chell for a most enjoyable and interesting weekend.

Sally Crowton.
Janet Meakin.

BOGS News:

1. Birmingham University extra-mural classes:-

Rocks and Fossils: Tutor C.H.S.Sands, B.Sc. Ph.D. A course suitable for beginners, including 2 full day field excursions. 3 Thursdays at 7.30 p.m. from 5th October at School of Earth Sciences, University, B15. £22.

Earthquakes and Volcanoes: The Geology of Earth Movements, Tutor Susan Childs, B.Sc. A study of these phenomena plus the evolution, structure and geological history of the Earth. Wednesdays, 10 meetings at 7.30 p.m. from 4th October at John Willmott School and Leisure Centre, Reddicap Heath Road, Sutton Coldfield. £15.

The Hills and Mountains of Snowdonia: Tutor Les Harvey B.Sc., B.A., M.Ed., M.Sc. Snowdonia's natural history, geology and scenery; its flora and fauna. Human and cultural aspects of the region including literature - course includes a winter weekend walking on the mountains. Wednesdays 24 fortnightly meetings 7.30 p.m. from 27th September. Venue - Compton Grange Adult Education Centre, Compton Road West, Wolverhampton.

2. WYVERN - a company selling crystals, minerals, designer jewellery. Includes stones for self-healing and meditation! Open any Tuesday 2 p.m. - 9 p.m. at 6 Teasdale Way, Stourbridge, West Midlands. Tel: (0384) 422838. It is run by Chris Ashman and Lesley Brooks. They are members of British Lapidary and Mineral Dealers Association.

3. Bristol University Courses - Study tours.

Geology of the Carmathen Area, J.W.Cope B.Sc., Ph.D., D.Sc., F.G.S. 20th-22nd April, 1990. £25.

Geology of Cyprus: R. Bradshaw M.Sc., Ph.D. and P. G. Hardy B.Sc., Ph.D., April-May, 1990. A tour in conjunction with local Greek University staff - includes the Troodos Mountains. Details later.

Field Geology in Ribblesdale: T. Barklem, B.Sc., F.R.G.S., F.G.S. 2nd-3rd June, 1990. £25.

Paris-Les Musees Geologiques de Paris: A weekend visit to some collections in Paris, R. Bradshaw, M.Sc., Ph.D., 22nd-25th March, 1990.

Santorini - Living with a Volcano: E. Aston, B.A., F.S.A., F.I.S.A., P. G. Hardy, B.Sc., Ph.D. 6th-20th September, 1990.

Details from Department of Continuing Education, Wills Memorial Building, Queen's Road, Bristol, BS8 1HR.

4. Quarterly Magazine: Marine and Petroleum Geology edited by Dr. D. G. Roberts and Dr.

D. W. Scholl of B.P. and the U.S. Geological Survey respectively. It includes papers on marine geology, petroleum geology, geophysics and geochemistry. It gives details of latest events, conferences and reports and also has reviews of the latest publications.

Available from Anne Kidson, Butterworth Scientific Ltd., P.O. Box 63, Westbury House, Bury St., Guildford, Surrey, GU2 5BH. Tel: (0483) 300966.

FROM THE PAPERS:
