

## EAST MIDLANDS GEOLOGICAL SOCIETY

### SECRETARY'S REPORT FOR 1982

The membership of the Society during its 19th year remained around 500, with some 20 per cent of the non-Institutional members taking an active part in field and indoor meetings. There were 6 indoor, 1 full day Joint meeting with Matlock Field Club, 1 week-end, 1 week, 5 day and 1 afternoon field excursions. As usual leaders and speakers maintained the high standard we now expect.

The Annual General Meeting on 6 March in the Swinnerton Laboratory, was attended by around 50 members. Dr T.D. Ford was elected by the Council as the new President, Mrs Morrow having completed 3 years in that office. During the meeting the proposed restrictions on fossil collecting at Charmouth were brought to members' notice and they were urged to write in protest to protect the site for students' use. The Treasurer was pleased to report that a forecast deficit of £400-£500 was instead, a surplus of £50, for which he blamed an increase in the number of subscriptions, a boost in sales of the Journals, Bank Interest remaining high, reduction in the price of printing the Journal and finally, everyone in their efforts to reduce costs. There were no adverse comments at the meeting which proceeded smoothly, finishing at 7.00 p.m. It was followed by the *Collector's Meeting* at which members wishing to mount an exhibit had set out their displays before the AGM including the popular "Bring and Buy" stall run by Mr J.H. SYkes, making £43.00, which he generously donated to Society funds. There were several new members who not only attended but also exhibited.

The exhibitors and their displays were as follows:-

A.E.G. Allsop	Having a closer look at pebbles England's green and pleasant land Photographs of the Carsington Reservoir Project Hammering with a camera in Norway
Mr & Mrs J. Beaumont	The Darkness beckons - Underground in the Limestone of Yorkshire
Mr & Mrs T.F. Bridges	Minerals in Cardiff
The Editor	The Complete Mercian Geologist
T.I. Fairgrieve	Collection from Ravenscar Peak Fault
L. Grundy	Cornish Minerals
Mr Oakland	Lapidary
Miss E.A. Ramsell	Petrified Wood
The Secretary	Leaflets and Information sent to the Society Two polished specimens of ammonites from Whitby
Dr F.M. Taylor	Two Blue Minerals

Saturday 20th March was the occasion of the Joint Meeting with Matlock Field Club, the subject being "Slope Stability in Derbyshire" given by Mr Steve Penn of Trent Polytechnic, Nottingham. The meeting began with a lecture attended by 30 people in the Peak District Mining Museum, Matlock Bath. After lunch, the effects of landslip, at Mam Tor and especially on the now closed A625 were examined. The ascent of Mam Tor was made in a snowstorm, but luckily the descent was in sunshine. It was shown that no amount of road repair could prevent the landslip, and in fact aggravated the situation.

The last indoor meeting of the session on 24th April, was given by Dr P.R. Ineson of the University of Sheffield, a prolific contributor to the *Mercian Geologist*, who spoke on the "Igneous Horizons of Derbyshire and why they are studied". He enlarged on his previously published paper in the *Journal* about the poor exposures giving little clue to the extent and depth of igneous material in the area.

The May week-end excursion from 21-23, was spent in the Malverns and led by Dr R.J. Aldridge of the University of Nottingham. The headquarters was the Thornbury Hotel in Great Malvern which accommodated 24 members, several others joining each day's excursion. On the Saturday, the Precambrian in the large quarries adjacent to the Clock Tower were examined. Sunday's locations concentrated on the Cambrian and Silurian

strata and fossils of the area. Following the excursion, several members rang the Secretary to say how much they had enjoyed the week-end. A reminder to the membership that constructive criticism is also welcomed.

Mr W.S. Moffatt of Loughborough University, with Dr R.J.O. Hamblin of British Geological Survey at Keyworth, took 26 members to Ironbridge for Industrial Archaeology as well as its geology on 13th June. The party first visited Blists Hill Museum, a fascinating reconstruction of life in the 19 century, with its cottages, shops, chapel and machinery. The afternoon, led by Dr Hamblin, who had surveyed the area, was spent looking round the town, the Bridge and the slope failures which have occurred in recent years. The Ironbridge itself helping to keep the two sides of the Valley apart.

On Sunday 18th July, the "Jurassic Scarplands" excursion was led by Sir Peter Kent, the coach party meeting the car contingent at the summit of Ab Kettleby Hill for a vantage point view of the Scarp. The Nature Reserve at Holwell was then visited for the Middle and Upper Lias, Harlaxton Quarry, and then after lunch at Great Ponton, a quarry with shelly Upper Lincolnshire Limestone, near Sproxton. Here an extra exposure of nude bathers on a glorious sunny afternoon was surprised by 40 members, as well as the Grantham Formation and Lincolnshire Limestone. The return journey was made via Waltham and Bingham for a general view of the scarps.

The week's field excursion was spent in Northumberland from 24th-31st July, the headquarters being the Sunningdale Hotel at Bamburgh, 22 staying in the hotel, and joined by 6 others staying locally. Led by Mr A.K. James, who had hoped to work up the succession of rocks, had the tide levels not dictated otherwise.

On Sunday the party travelled to the northernmost location of the week. After parking the cars at St Abbs, we walked to St Abbs Head examining the lavas, Lower Old Red Sandstone conglomerate, Silurian greywackes and shales on the shore below. Passing Mire Loch, which is on the St Abbs Head fault line, seeing several faults cutting the cliffs and stacks, dip slopes in the tops of the lava flows, and at Pettico Wick, rocks of Silurian Llandovery age containing some graptolites. Returning to the cars for lunch above the harbour, with coastguards, police cars and an ambulance, and hearing messages about helicopters going out to rescue a diver. After lunch, a short walk across fields to Siccar Point for the well displayed unconformity, with its vertical shales and greywackes covered by gently dipping dull red breccia and sandstone of the Lower Carboniferous. Then to Pease Bay and Cove, the path to the shore line passes through a tunnel cut in Cove Harbour Sandstone. The generally NE dip of the rocks enables over a 1,000 ft of sediment to be followed. At the Granthouse quarry, grooves, flats and ripple markings were found in the greywackes and shales.

North Northumberland was the target on Monday with the coast section between Scremeston and Spittal, where some good examples of Lithostrotian were found. Then to Berwick on Tweed with a cliff top walk from which the Middle Limestone Group structures could be clearly seen, and retracing our steps along the beach to examine them more closely. Finally the day finished with a visit to Holy Island, the dyke providing the foundation for Lindisfarne Castle and a protective wall for the Priory and village. Everyone managed to leave the island before being cut off by the tide.

Tuesday was spent in the Tyne and Wear area, firstly in Downhill Quarry in unconsolidated Yellow Sands. Fulwell provided the party with some good examples of Canonball Limestone, which were then seen on the promenade and shore at Roker. The erosional features and stacks were observed from above at Marsden Bay and Tynemouth was viewed from the shore for the Permian succession, finishing at Seaton Sluice, a sequence in the Middle Coal Measures.

On Wednesday, a visit to the Farne Islands in the morning, sailing from Seahouses, outwards in drizzle, but bright sunshine on landing. The birds definitely let everyone know whose territory it was! The classic site of Howick with the Whin Sill, folds, faults and intrusions in sediments of the Middle and Upper Limestone Groups, was visited after lunch. Craster and Dunstanburgh were the final locations of the day, again the Whin Sill predominating the scene.

A day was spent inland on Thursday at Roddam Dene to see the basal conglomerate of the Carboniferous Cementstone Group including a steep descent to the river section with the extra hazards of adders and nettles. At Fawden Dene and Shawdon Dene, near Ingram, glacial overflow channels and then Harden Redstone Quarry, Biddlestone, in a minor intrusion of Felsite associated with the emplacement of the Cheviot granite were seen. Huge mounds of various sized chippings are stockpiled, some travelling as far South as Torquay. The Coquet Gorge was OUT - the MOD were firing! The alternative was a shore section in the Middle Limestone Group at Beadnell.

Friday, another day spent inland, first at Doddington Quarry in the Fell Sandstone Group which is used as a building stone, for example in Chester Cathedral and then Pin Well, which was approached through a deep

channel eroded by meltwater, leading to the disused quarry in andesitic lavas. After lunch, the long narrow road in Harthope Burn was visited, the party following the Hawsen Burn upstream to find the baked margin in the gorge walls. The disused airfield at Milfield, now worked for sand and gravel, was visited and then Mindrumill Crag andesitic lavas which form an upstanding crag and tail feature. Returning to Bamburgh, the party drove by Flodden Field, Ford Castle and made a short stop to view the Cup and Ring markings at Roughtinglinn.

A pleasant evening was spent with the whole party at the hotel before leaving for home the next day. A warm and sunny week with excellent geology and splendid scenery.

The field trip on 12th September was a Fossil Hunt in North Buckinghamshire and Oxfordshire led by Mr A. Horton of NERC. The rendezvous was the London Brick Company's Calvert Brick Works, where 30 members met the leader and Mr J. Horrell, the LBC Geologist, who kindly allowed us access. Some splendid specimens of ammonites were found in the quarry debris. At Ardley in the Middle Jurassic the quarry floor is riddled with worm burrows and bores. Duns Tew Sandpit was visited and finally the quarry behind the Cross Hands Inn near Chipping Norton provided some good specimens of echinoids.

On 10th October a small party visited West Mine, Alderley Edge, owned by Mr P.V.R. Sorenson, who with Dr Ford, escorted the group down the mine. Dating from 1857, it closed again in 1874, but was reopened during the 1914-18 War. All were equipped with lamps and batteries and descended 2 ladders to the galleries and caverns below. Malachite and azurite were found occurring together, and in one cavern, an unusual purple fungus, which tests have shown has no sustenance and yet thrives in complete darkness. Emerging eventually, and after a hurried lunch, Dr Ford led the party along Alderley Edge itself.

The proposal by British Rail to replace the bridge spanning Duckmanton Railway Cutting Reserve (Wilcockson Reserve) by an embankment, had been defeated. This would have covered the Clay Cross Marine Band, one of the most important marker horizons in the Coal Measures. Terry Judge, the Warden, had been contacted, and on a Saturday afternoon 23th October led members through the cutting explaining the work which he, and groups of volunteers had already achieved. The Society has donated £50 shortly before and he showed that the money had enabled steps to be constructed making an easier descent into the Reserve. Mr Judge's enthusiasm and anecdotes were much appreciated.

The winter indoor session began on 6th November when Professor Oxburgh of Cambridge lectured on "Geothermal Energy - Fact or Fantasy?" Talking of the energy emitted naturally from the earth, he had become interested in ways to assess this energy available far below. In certain parts of France, water for domestic heating is pumped down through boreholes, and the warmed water extracted. Possible areas in Britain with higher temperatures are Hampshire, Lincolnshire and Nottinghamshire. He suggested power stations would benefit from this heating boost.

On 11th December a social occasion as well as a lecture was held. Dr I.D. Sutton of Nottingham Adult Education Department, talked on "The Arid Lands of Western USA". Interspersing his lecture with geological diagrams and slides of spectacular scenery, he explained the reasons why the area had become so arid.

Afterwards, the 75 people adjourned to the Swinnerton Laboratory for an American style evening - cheesecake, pumpkin pie, various cheeses and Californian wine. Raffle prizes were awarded to 3 lucky winners.

Following the visit to the Duckmanton Reserve, a small area to the east of the new bridge needed researching before it was covered to find the Second Ell coal seam, which Mr Judge did not believe existed just there. Armed with spades and retaining ropes, the small party dug trenches in the steep sides of the cutting to prove that, in fact, no such seam occurs at that point. This was undertaken on 15th January 1983.

Nine years ago Dr Aldridge had lectured on the subject of Conodonts, and on 22nd January he brought members up-to-date with the "Conodont Animal - a tale of the unexpected?" Firstly reading some of the details of his previous talk, he then went on to describe the worm-like creature found in a sample from the banks of the Firth of Forth, which, on close examination, seemed to have conodonts in pairs in the mouth region, and also in the right positions. Further samples would have to be examined for confirmation, but hopefully, the Conodont Animal may have been traced at last. Dr Aldridge kindly fetched his precious sample for members to look at.

Dr Ford gave his Presidential Address on 5th February, the subject being "Precambrian Fossils of Charnwood Forest". He and Mrs Ford were entertained by Council Members to dinner before the meeting. He recalled the occasion in 1958 when a young boy had approached him saying he had noticed an impression of a frond-like fossil in a quarry at Charnwood. Searching further, others were found, and various lighting angles had revealed different aspects of these and other fossils. The problem, as always, is preservation from those irresponsible enough to want to extract them. As usual the President liberally illustrated his Address with slides.

The Presidential Address ended a very successful year of excursions and meetings. Our appreciation to Dr Ford and all the speakers, Mr S. Penn, Dr P.R. Ineson, Professor E.R. Oxburgh, Dr I.D. Sutton, Dr R.J. Aldridge, and leaders, Dr Aldridge, Mr W.S. Moffatt, Sir Peter Kent, Mr A.K. James, Mr A. Horton, Mr P.V.R. Sorensen, the President, and Mr T. Judge. The Society is indebted to each one for their willingness to be involved in the year's programme.

Eleven circulars had been produced during 1982 and had kept members informed of news, events and publications. The list of members who so kindly hand delivered does change as their circumstances alter, but there is usually someone willing to take over when this happens and we are very grateful for this service which they render.

Six Council Meetings had been held at the Secretary's home, where Society affairs were discussed and the programme for the coming seasons planned. Items for the agenda may be sent to the Secretary, and should be received no later than 2 weeks before the next meeting, the date being published in the circular.

Society Membership was as follows:

Honorary	Ordinary	Joint	Junior	Institutional
2	251	118	4	115

A total of 490.

The Mercian Geologist had been published twice, but because of problems at the University with new machinery, typists and also with the printers and plates, Vol. 9 No. 1 had only just scraped into the current year. The Editor acknowledges the effort that collators and the distribution team make in the production of the Journal.

The Society Exhibit had been taken out of circulation as it was in need of up-dating and renovation, the work being undertaken by its original designer, Mr M.F. Stanley at Matlock.

The Society project at Headstone Cutting, Monsal Head, had been completed by Mr M.G. Lodge and helpers, the samples having been delivered to the University of Nottingham for examination.

It was with sincere thanks that we acknowledged the debt both to the University of Nottingham and Professor Baker for the use of the Department of Geology for meetings and activities. The Society is fortunate indeed in having such understanding bodies to gratify our needs.

Finally, in my report for 1982, my thanks for the continued support of every member, especially those on Council, also all speakers and leaders, which made it another successful year for the Society.

W. Madge Wright.