

# FARNHAM GEOLOGICAL SOCIETY NEWSLETTER - MARCH 1988

FOREWORD BY THE CHAIRMAN *Vol 3 - No 2*

The committee felt that the cost of producing a journal in its earlier form was beyond the means of a society our size. Therefore we have endeavoured to provide a newsletter which will include items of geological interest, such as accounts of Society field trips, items by individual members and articles on geological topics.

It is anticipated that there will be two or three newsletters per year. The actual number will depend upon input from members.

I should like to thank David Caddy for taking on the task of Editor, and hope that you will give him your support.

Wally Stedman

## INTRODUCTION BY THE EDITOR

The Farnham Geological Society has been in existence for some 18 years. Few of the original members are still active in the Society. Because people who have recently joined might like to know how the Society came into being, I have prepared the following account of the origin and early history of the Farnham Geological Society (FGS).

"The Society shall be called the Farnham Geological Society and shall be established with effect from the first day of January 1971." So begins what may be called the Authorised Version of the Constitution of the Society for reasons which will be made clear later. However the FGS had been in existence for about a year previously and it is with these early months that this account attempts to deal.

For a number of years the Council for Extra-Mural Studies at the University of London had been running courses on geology in Farnham. These were administered by the Workers Educational Association (W.E.A.). Ron Roberts, the Education Officer at the Geological Museum, started the courses. He was succeeded by Dr. John Hawkins, one of the few men who have set foot on the island of Rockall. Finally, the courses were taken over by Ted Finch.

The W.E.A. ran a well attended geology class with excellent lecturers. Consequently, there was a stable group of students who attended year after year. Besides lectures, there were field trips during the 'terms'. A popular venue for an outing was the Coxbridge sandpit at Wrecklesham, owned by Ebenzer Mears, exposing the Folkestone Beds/Gault Clay junction. It was on such a visit in 1969 that Ted Finch, Audrey Hewins and Jack Shepherd were working. It was a lovely sunny day and the suggestion was made that a Farnham Geological Society might be formed so that field work could be done in the summer months, independent of W.E.A. lectures. Thus from such a small beginning, the FGS arose. About this time Audrey Hewins found a silver pot which was sold to Guildford Museum; the proceeds were used to fund the Society.

"In those early days there was a strong geology class run by the W.E.A. and attended by a majority of the then membership; in fact it was often difficult to decide whether we were just an extension of the W.E.A. class or had a personality of our own. With the benefit of hindsight, I think we can say that we did emerge with our own recognisable identity after the run-down of the W.E.A. class." (from a letter by Julian Bentick, 27 March 1977)

The Founder Members of the FGS included Julian Bentick, Gordon Dearing, Ted Finch, Audrey Hewins, Maurice Hewins and Richard Pinker (the order is strictly alphabetical). They used to meet at each others homes.

The first public meeting, the Inaugural Meeting of the FGS was held on Monday 6th April 1970 in the Council Hut, South Street, Farnham at 7.30 pm. The Agenda for this meeting is the first typed document of the Society. The Field Secretary was Ted Finch, Secretary Audrey Hewins, Chairman and Treasurer to be elected. The meeting was duly notified beforehand in the Farnham Herald. There is no record of how many people attended that meeting or joined the Society.

Once formed, there was plenty of work to be done to establish the Society. Firstly, there was a Constitution to be drafted. This would be undertaken by Audrey Hewins and Stanly Smith, the Secretary and Chairman of the Society respectively. It was soon found that liability of the Society for injury to its members on field trips and indemnity to quarry owners for claims against them were difficult problems; insurance cover had to be considered. A draft Constitution of 21 clauses was dated June 1970 and initialled SS/AEH. Because of these difficulties, legal advice was sought from both Hollest Cotterill & Co Solicitors, of 93 West Street Farnham, and from Vizards, of 51 Lincoln's Inn Fields, London. As a result of the advice received, an amended Constitution, the 'Authorised Version', was drawn up. Although undated, it was probably typed and circulated around 25th October, 1971.

From these early days, the FGS has been active with field trips, lectures and social events. The first field meeting was held on Sunday 12th July 1970 when 12 members met at Burrington Coombe in the Mendips under the leadership of Ted Finch. Eleven localities were visited, ranging from Silurian, through Carboniferous, to Jurassic - quite a strenuous day's outing! Other visits were made to Coxbridge sandpit, Seale chalk quarry, Lyme Regis, Isle of Wight, Ringstead Bay, Portland Island, Church Stretton, to name but a few. Lectures have been on such varied subjects as continental drift, gemstones, the expanding Earth and Icelandic geology. There was a visit to Haslemere Educational Museum, hosted by the curator Mr. Jewell, which was much appreciated. Other activities included wine, cheese & rock, wine & fossil, and slide parties as well as social gatherings around Christmas time.

On 13th March 1972 Pamela Crosby, the then Secretary, wrote to Paul Sowan of Croydon Natural History Society introducing the FGS and requesting details of his and other kindred societies and possible speakers to give talks. Paul Sowan replied that the Croydon Natural History and Scientific Society, to give it its full title, was now in its 102nd year and that their Proceedings had been published without a break since 1871.

At the end of the first official year the membership of the Farnham Geological Society was 27. A year later, at 31st December 1972, it had risen to 50. By March 1986 the membership stood at 66. A membership larger than this would be difficult to manage because of room size constraints at the Farnham A.E. Centre, where meetings are now held. A small room at the Centre houses the Society's expanding collection of geological specimens.

I would like to thank the following who kindly and patiently answered my enquiries: Julia Bentick, Pamela Crosby, Gordon Dearing, Ted Finch, Catherine Francis, Audrey Hewins and Maurice Hewins. My thanks are also due to Colin Brash for the loan of the Society's documents.

David Caddy

A very successful field trip was held during the last week of May, 1987, under the leadership of Dave Taylor. We were centred at Losehill Hall in Castleton, Derbyshire for the first part of the trip, moving on to Whitby for second part. We are indebted to Tony Brown for the following account of the field trip.

#### A FIELD EXCURSION TO THE PEAK DISTRICT AND NORTH YORKSHIRE

Bright and early (for me) I arrived at 8.20 am for an 8.30 start, to find that the geologists of Farnham were showing their customary enthusiasm and that all but two were present and rearing to go! At 8.29 and 30 seconds the party was complete and at 8.30 precisely the coach moved off in pouring rain. A few seconds later, a head count revealed that we were one short, but it was soon recalled that one member was joining us in the Peak District.

Our driver was steady, though somewhat slow. Our progress was not helped by a multiple pile-up on the M1 which delayed us for 45 minutes, so that we arrived late at 'The Hanging Gate', near Derby, for lunch. Here the group underwent its usual split into the 'self-caterers' and the 'pub-lunchers'; the 'lunchers' faring very well on this occasion.

When we pulled out at least half of the party were ready for a postprandial nap, but this was not to be. Superb handouts dealing with our first exposures, the quarries at Wirksworth, were passed around and work had to start at once as they were nearby. Those of us who had followed the recent Adult Education course on sedimentology were smugly content as the excellent series of exposures in the quarries illustrated vividly much that we had been told about the facies across an advancing reef; we had the advantage of being familiar with (even if not fully understanding) the technical terms of this branch of geology. One of the problems facing a leader was illustrated at the first site when the rear-guard, having failed to observe that the main body of the party had taken a sharp left along an overgrown track, went tramping on towards the open moors. Luckily their absence was noted in time and all was well.

The four quarries at Wirksworth expose a complete section through a Lower Carboniferous reef complex, from back-reef lagoonal limestones rich in brachiopods, through the reef crest with its diverse fauna, to the fore-reef crinoidal limestones. Many excellent fossils were found and it was with great regret that we had to leave to complete our journey to Losehill Hall before 6.00 pm, the time for dinner. After the meal our leader demonstrated his universal ability by leading again, this time to the best hostelry in the nearby village of Castleton.

In the morning, breakfast was slickly handled; service started at 8.30 am and the dining room was empty by 9.00am. The day began with a short drive in sunshine to the Odin Mine; an impressive exposure which is a tribute to the miner's persistence in following the mineral veins. Some attractive surface deposits of galena and fluorite were visible, but not collectable.

The whole of this area of the peak District is dominated by the landslip associated with Mam Tor. The party traversed the slopes of the landslip and many illustrations of sedimentary structures were observed in the Namurian turbidite sandstones. There was some discussion about the origin of groove marks, flute casts and load-casts; most were satisfied with at least some of the examples pointed out. The traverse took us on to Windy Knoll Quarry, the reason for the name becoming very clear as we approached. The palaeontologists were happier here. In addition to many fossils in Carboniferous Limestone, samples of elaterite, a degraded natural oil residue, were found. Re-boarding the bus, we moved off towards Chapel-en-le-Frith, stopping at a roadside quarry to look at the Shale Grit Formation which here shows thickly bedded coarse grained sandstones and intra-formational conglomerates with thin shales interbeds.

Lunch at Chapel was slow and the sandwich brigade profited from the warm sun, when sheltered from the wind! The first stop after lunch was Ramshaw Rocks, much appreciated by the photographers in the party for the striking formations outlined against the sky and magnificent panoramic views, and by the geologists as a Late Namurian (Roches Grit) formation with interesting cross-bedding which informed the initiated that the sediments represented the north-westward building-out of a delta into the area.

There followed a short coach trip to the head of a beautiful valley winding down to Goytsclough Quarry. The long walk down the valley was punctuated by questions about interesting exposures. It was not until we reached the quarry at the bottom that it was confirmed that these were indeed interesting exposures, which had been deliberately ignored on the way down in order to sustain our interest during the long walk back up to the coach. Moving from the quarry to the moors we inspected the Rough Rock Sandstone (the uppermost formation in the Namurian), the Woodhill Head Rock (the basal formation of the Westphalian) and the Yard Coal Bed (the first coal of the Coal Measures). The large spherical ferruginous concretions in the Rough Rock Sandstone eluded us for some time as they were so much larger than expected. After taking samples of the increasingly rare fuel called 'coal', many partook of ice cream before a dash back to Losehill Hall for dinner.

The third day of the trip was spent in travelling to Whitby, with a midday break for sightseeing in the city of York. Here there was no prearranged programme but most of us walked some part of the walls, visited the Cathedral, took in the market and even managed to visit a museum. Many strolled along the river banks on a delightful sunny spring afternoon, a far cry from the dull, wet weather of the south at the time of our departure.

The Carlill Hotel, in Whitby, situated on the cliffs overlooking the sea, was comfortable and the food was excellent. The evening meal was served by the proprietor and his aide; he was a large, bearded man with a 'uniform' of shirt sleeves and braces, whilst his aide was young and learning the business in the traditional black and white costume of a waitress from yesteryear. The Whitby Amateur Dramatic Society were performing at the theatre and 'mine host' arranged for tickets for about half of the group, who felt in need of cultural refreshment. The remainder toured a deserted Whitby on foot, admiring the magnificent Victorian swing bridge and the jet jewellery on display in the shops.

The following day dawned grey and misty. The mist persisted for the first two localities of the day, on the coast at Ravenscar. We followed the Ravenscar Geological Trail, which provides access to a unique succession of Lower and Middle Jurassic rocks. The Peak Alum Quarry yielded a large number of *Equisetum* plant fossils. We followed the line of the Peak Fault part of the way down to the beach to a promontory which gave an excellent view into Robin Hoods Bay, from which the nature of the Cleveland Dome could be clearly seen. After lunch at the Jolly Sailor, three further sites were visited. The coastal cliffs at Cloughton Wyke showed a complete section through the Cloughton Formation, in which many sedimentary structures and cycles typical of deltaic sedimentation can be seen. The last stop, to look at the Coralline Oolite Formation in Forge Valley, was particularly memorable because of the profusion of wild garlic in flower. An evening talk was well attended and a substantial body then adjourned to the bar in the theatre, the only quiet spot for drinking we found in Whitby.

Wednesday remained cold and misty but we set off at 9.15 am for Staithes to look at some Pleinsbachian-Toarcian sediments. Staithes harbour was extremely slippery; a number of us managed to sit in pools and were uncomfortable until the lunch stop at The Bryerstones, near Burniston, by which time we had dried out. The coastal section from Staithes Harbour to Brackenberry Wyke is the type section for the Staithes Sandstone and Cleveland Ironstone Formations, both of which yielded numerous fossils to the collectors, including bivalves, gastropods and ammonites. Following lunch we moved to Burniston cliff top, from which the traces of an exhumed Middle Jurassic meander belt could be observed. The large scale curved patterns visible on the foreshore are the preserved scroll bars on the point bar surfaces produced during the slow lateral migration of the meandering river channels. Continuing the move to more recent times, the Callovian and Lower Oxfordian formations were examined in a cliff section beneath Scarborough Castle; the oolitic limestones of the Gervillia Beds remaining in my memory.

The testing time came at a road cutting on the Pickering road near Snainton, where we were asked to look at the section and deduce the geological story. Such is the difficulty of leading a group that our leader found that one of the diagnostic sections had, since his reconnaissance trip two weeks earlier, been bulldozed and covered with tarmac. Individually no-one, as far as I know,

derived the 'correct' explanation though many had parts of the picture. A good cooperative effort should have allowed us to interpret the complete picture of a faulted contact between the steeply dipping Kimmeridge Clay Formation of the Vale of Pickering and the almost horizontal Coralline Oolite Formation limestones of the Tabular Hills.

Our final day at Whitby was one of romantic rendezvous. We assembled at 10am at The Dolphin and walked across the bay under Whitby East Cliff. The formations here are of Toarcian-Aalenian age. The East Cliff exposes lenticular low-sinuosity fluvial channels, infilled with tabular and trough cross-bedded sandstones, associated with levée and crevasse splay sandstones, within a thick sequence of lagoonal/marsh shales with rootlet beds and palaeosols typical of delta plain sedimentation. Walking along the coast to Saltwick Bay was hazardous because of the slippery conditions underfoot and frequent sudden stops to look at the ammonites which flaunted themselves. Around the headland of Saltwick Nab we explored as far as possible to seaward, looking, largely in vain, for Whitby Jet. The Jet Rock beds are only exposed at low spring tides, so they remained tantalizingly out of reach. Rumour has it that one member did find a large piece in a pool but 'lost it', though I cannot confirm this.

The return to the town at lunch time again saw the party split into the self-caterers and those who, in this case, were seduced by the lure of local fish & chips. Sandwiches were consumed on the beach under a grey sky threatening rain; it held off long enough for most of the return journey along the cliff top path to be made in the dry. Many of us visited the church, but most felt that the walk to the Abbey was a little too far.

Our rendezvous in the afternoon was at the Khyber Pass where three delta plain distributary channels can be examined. The plan had been to look at the West Cliff section, but alas the only excitement was provided by the beach donkeys and their owner - the latter being very worried at our walking along the beach with a rapidly rising tide. The section exposes a classic section through delta plain channels, crevasse splays and overbank lagoonal claystones and coals. We were unable to take a detailed look at the section before being forced to retreat by the tide.

The 29th dawned clear and fine and we were all a little sad to leave for the journey home. The journey was uneventful, but the idea of breaking it with a visit to Cresswell Crags was truly inspired. Moving from geology to archaeology, we were given a most interesting guided tour around the caves and I was struck anew by the fact that both archaeology and geology are most fascinating sciences; not only because of their intrinsic interest, but also because there have been so many recent advances in technique, leading to changes in established ideas and the existence of a lively, changing scientific scene of great interest. We arrived back at Farnham at the predicted time.

I cannot close my account without a few words to express the thanks of all who participated to Dave Taylor, who led the trip in a way that sustained interest throughout. His patience in explaining what must be, to him, the obvious is unlimited and his hand-outs, if bound, would surely make a first-class guide to the area. Our thanks also to Wally Stedman and Cath Clemesha for all the hard, and often not fully appreciated, work in setting up the logistical side of this trip. They should all have the satisfaction of a job well done and knowing that they have brought a great deal of pleasure to a lot of people.

## JOHN WAREING-WHITTAKER AWARD

It was with great sadness that we received the news of the passing of John Wareing-Whittaker on 19th March 1987. He had been a member of the Farnham Geological Society since 1978. His cheerful presence and robust and forthright views will be sadly missed. We wish to express our deepest sympathy to Rose.

The Committee decided that, to perpetuate the memory of John, an annual award should be instituted, to be called the John Wareing-Whittaker Award, to be awarded annually to the Society member considered to have made the greatest contribution to the Society during the past year. The award, which Rose has provided, consists of a small slab of Skye Marble on which are mounted a cut agate and quartz geode, together with numerous small slabbed pieces of rock that John had been preparing as thin sections.

It is with great pleasure that the Committee can report that the first recipient of the award is Marjorie Outlaw, in recognition of her long service to our Society, our Committee, and geology in general. As this was the first time the award has been presented, the qualifying period was longer than a year.

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