

SECRETARY'S REPORT FOR 1987/88

The Society's 24th year had proved yet again one of excellence with 7 enjoyable field excursions and 7 indoor meetings, the latter extremely well supported by the membership.

The Annual General Meeting in March was held in the Geology Lecture Hall at the University of Nottingham and proceeded very smoothly without awkward questions for either the Treasurer or Secretary, the meeting lasting for approximately $\frac{1}{2}$ hr. Three fellow travellers from the Geological Study Tour of Western USA then presented the "Bob Gratton Collection" of slides, Edna Colthorpe, Alan Filmer and Maurice Handley each talking on different aspects of the tour. These slides had been assembled by Tony Waltham in memory of Bob and members generously donated £47 which was sent to the Nottingham Hospital Scanner Appeal.

To enable members having difficulty in attending lectures on the usual Saturday evenings a Friday night in April was arranged and proved to be very popular. On this occasion the hall was filled to hear Dr. R.J. King of the National Museum of Wales talk on "Non ferrous metal mining in North Leicestershire" which covered both the historical as well as the geological aspect of lead mining.

1987's first field excursion in May explored the Lower Carboniferous mud-mound complex at Dovedale. Dr Paul H. Bridges took the party to the summit of Thorpe Cloud and then followed the Dale to Shining Tor. We were joined on this occasion by members of the Staffordshire Group of the Geological Association. Dr Bridges, as we have come to expect, had prepared polished specimens and photographs of the rocks in thin section which were encountered during the excursion.

An evening archaeological/geological walk was held at Kings Mills, Castle Donnington in early June with Dr Chris Salisbury and Colin Bagshaw taking each subject in turn, finishing the evening in the Priest House Inn for refreshments.

The July excursion was spent in the Cotswolds, Joe Anseering and John Harpur leading the party to Cleeve Hill, Rolling Bent Quarry and Chedworth Railway Cutting. The day proved to be very hot—one of the only ones experienced during 1987.

The following Wednesday evening a geological/natural history walk was led by Norman Lewis to the West Leake Hills. Rock outcrops were non-existent but the till was evident at a certain point of the walk.

West Central Wales was the venue for the geology week at the beginning of August and had been organised by Dr. A.J. Reedman of the British Geological Survey at Aberystwyth. The party of 12 stayed in the Dolgellau area, the headquarters hotel being the Dolmelynlyn. On Sunday Martin Smith of BGS led the party for the tectonics and sedimentations in Central Snowdonia and on Monday Dr. Reedman escorted and explained the volcanism in Northern Snowdonia at Cwm Idwal. Tuesday was spent around Cader Idris with 3 Research Students from the University College Wales—Mary Shufflebottom, Melanie Leng and Warren Pratt—who were in the process of mapping the area. Jan Zalasiewicz of BGS led the party on Wednesday for the Silurian sediments in Central Wales and this was also the subject of his lecture the following April. Dr. Reedman had arranged a visit to the BGS at Aberystwyth for the Thursday morning when he and Dr. Bazely talked on the work and the mapping taking place in Wales. The last day was spent with Dennis Bates of UCW traversing from New Quay to Clarach across the Aberystwyth Grits. It was a splendid week's geology in a beautiful area of Britain.

A weekend visit to Cartmel was held in mid September. Dr Murray Mitchell led and arranged for the party of 12 to stay at the Castle Head Field Centre, Grange-over-Sands. Again the geology and accommodation was much appreciated by the participants.

The October excursion to Saltwells Nature Reserve and Wren's Nest was the last for 1987 and led by members of the Black Country Geological Society. They had generously provided comprehensive hand-outs for each location.

The first lecture of the winter session turned out to be one of those evenings. Professor Geof Brown of the Open University had accidentally double-booked leaving himself no time to return to Nottingham, and so frantically the previous evening arrangements were made for Dr. Hazel Rymer to travel to Nottingham to talk on the "Volcanoes of Costa Rica and Iceland". She arrived safely for dinner before the meeting, but on arrival at the University no carousels for the projectors were available for the slides she had brought. They were found eventually by 'burgling' one of the lecturer's rooms, but to finish the evening of misfortunes, no equipment for making tea was to be had. Nevertheless the lecture was well worth all the problems encountered and she had appreciated the meal beforehand.

The Industrial Archaeology of Old Metalliferous Mines was given by Trevor Bridges at the November meeting when he discussed the interesting history of ore extraction.

Dr. Frank Foden gave the Society a 'first' at the December meeting, starting and finishing his talk with the music of the Auvergne which set the scene for a journey through the Central Massif in France. It now seems to be established that the December lecture is followed by a Social Evening and over a 100 people took advantage of the French Fare provided by the following members:— Jean Brayne, Florence Calladine, Liz Clough, Edna Colthorpe, Billah Fletcher, Margaret Green, Mrs. Jessop, Norah Latham and Nancy Mulholland. Special thanks to Inga Filmer and Judy Small who shopped and carried at very short notice as the Secretary had stupidly fractured her wrist. The Treasurer, Jack Fryer, had as usual supplied the drinks and Dawn Marriott's "Puy de Dome" centrepiece was a delight.

The January 1988 lecture was given by Dorrik Stow on the "Himalayan uplift observed on the Equator", the sedimentation of the delta fan in the Bay of Bengal originating from the Himalayas showed uplift to have occurred twice as long ago as was first thought.

Dr. Ian Sutton gave his last Address as President on "A Continental Hotspot" in early February discussing the eruption in the Yellowstone area of the USA, and so ensuring the year's programme went out with a bang.

We are most grateful to our speakers and leaders who have provided a wealth of information and interest during the year. Our thanks to the speakers:— Edna Colthorpe, Alan Filmer, Maurice Handley, Dr. R.J. King, Dr. Hazel Rymer, Trevor Bridges, Dr. Frank Foden, Dr. Dorrik Stow and the President, and the leaders:— Dr. Paul Bridges, Dr. Chris Salisbury, Colin Bagshaw, Dr. Joe Anseering, John Harpur, Norman Lewis, Dr. A.J. Reedman, Martin Smith, Mary Shufflebottom, Melanie Leng, Warren Pratt, Jan Zalasiewicz, Dennis Bates, Murray Mitchell and the members of the Black Country Geological Society.

Six Council Meetings were held to arrange and discuss Society affairs, this including the selection of a logo for the EMGS. Several members had taken the trouble to submit drawings and ideas—Dick Aldridge, Neil Cross, Inga Filmer, Maurice Handley, Andrew Plater, Judy Small, Philip Small and John Travis. Some had been extremely clever but the "hammering" image was now much less popular. The winner was to be announced at the AGM in March 1988.

Sadly 3 sudden deaths had to be reported during the year, Emily Ramsell and Gordon Robson, both long established members, having been on Council and willing helpers in all our activities. The third, a newer member, Mick Denman, who had handed over the audited accounts of the Society to the Treasurer only 2 weeks before his death. They were all valued members and will be sadly missed.

The Society Exhibit which publicised our publications and activities had been on display at the Adult Education Department, Shakespeare Street and had a busy period ahead in May both at the Keyworth BGS and Derbyshire Environmental Week.

There had been 10 circulars produced as when 2 meetings occur close together they were amalgamated thus making a small saving for those members who so kindly hand deliver and of course on postage too. Our grateful thanks to these members for this service for both the circulars and the Mercian Geologist.

The Journal now had a Distribution team co-ordinated by Judy Small and anyone able to spare a little time when the Journal is due out, their help would be much appreciated.

Membership remained around the 500 mark, new members were always being enrolled to replace those who had resigned or who lapsed. We now had:—

Honorary	Ordinary	Joint	Full-time Students	Institutional	
				UK	Foreign
2	252	130	11	79	28

a total of 502.

Books, guides, maps etc were obtained and had sold very well and it was hoped they would continue to do so.

Professor P.E. Baker and the University of Nottingham had continued their support of the Society's activities by allowing us the excellent facilities of the Department of Geology and its Lecture Hall which we much appreciate.

This is my last Secretary's Report—I have thoroughly enjoyed the 10 years spent in this post, but the Society now needs fresh ideas from the newer members. I wish them every success and I am sure they will receive as much help and support from you all as I had over the years.

W. Madge Wright

BOOK REVIEWS

BUTLER, B.C.M. and BELL, J.D., 1988. *Interpretation of Geological Maps*. Longman Scientific and Technical, Harlow, Essex. 236 pages, £12.95, paperback. ISBN 0 582 30169 6.

Long standing vacuums are typically filled in a rush. Map Interpretation has been in need of a modern text for some time and this book is the first off the rank. Richard Lisle's *Geological Structures and Maps* (Pergamon Press) has just been released and to declare a vested interest at an early stage my *Four-Dimensional Analysis of Geological Maps* will be published by John Wiley early in 1989. This is also the expected publication date of Alex Maltman's *Geological Maps—An Introduction* (Open University Press). Some books partially bridge the generation gap between the old guard and the new wave but the major work in this category (J.L. Roberts, 1982, *Introduction to Geological Maps and Structures*, Pergamon Press) was roundly criticized for having too few maps.

My first disagreement with Butler and Bell is about the nature of the gap in the market. Their book teaches map interpretation solely using geological survey maps claiming that, for those preferring synthetic exercise maps with idealised geometry, there are 'good simple textbooks available'. My impression is that though the latter contain some good exercises, the basics are often poorly covered, outmoded, and are far from error free. I wholeheartedly agree about the need to use real maps and would claim that my incorporation of remote sensing takes learners further down the path towards reality especially using those systems that create 3-D images. The much decried synthetic maps are very good at isolating one topic at a time. By totally excluding synthetic maps the baby has been thrown out with the bath water; a more flexible approach introduces most topics via synthetic maps and then looks at their expression on geological survey maps preferably with an early introduction of remote sensing.

This book could have represented a watershed in the literature on teaching map interpretation *IF* the authors had got the basics right. With only three traditional titles remaining (faults, folds, and unconformities), chapter headings demonstrate the degree of rethinking that has gone into this text. There is a brave attempt to make maps come alive, emphasised in the opening chapter on 'Actualistic interpretation of geological maps'. In the final chapter students are exhorted to determine for each phase in the evolution of a mapped region the palaeogeography using analogies with present day environments. The text is interspersed with much discussion of rates of geological processes such as sedimentation, erosion, uplift, subsidence, deformation, volcanism, etc. Whilst this is important information, the emphasis placed on these calculations from map data is, in my opinion, out of all proportion to their value; many events are so poorly bracketed on most maps that the derived minimum rates are so far from the actual numbers as to be meaningless. It is puzzling, considering the central role of rate calculations, that there is no discussion of imprecision in chronometric calibration of the geological time scale. Precision doesn't figure in any of the calculations and won't please those teaching scientific method. A very considerable amount of diverse data has been usefully tabulated on rates of processes, lithologies and facies in many environments, igneous rocks related to tectonic environment, mineral deposits, present-day landscapes, and characteristics of plate tectonic settings. All good data but the applicability of much of this to the average 1:50000 geological map interpretation has to be questioned. There is a wide range of generally well chosen extracts from geological survey maps all very well presented skilfully using a second colour and the full colour copies of published maps are very good. The book is very graphic when it comes to maps but tends to the other end of the spectrum when illustrating basic principles and elements.

A sizeable problem with the book is that it commonly doesn't take a topic from scratch. You get the feeling that students would have had to have gone through a book of synthetic exercises to understand this one. This is not a self-contained stand-alone text and students couldn't work from first principles using what they gathered here. The book is very prescriptive in large parts (often to good effect) yet it leaves many major points poorly

handled (see discussions of dip, apparent dip, vertical exaggeration, fold geometry, faulting, facies, rule of Vs, structure contours, diachronous units, etc.). Students would be ill prepared to branch out from this unstable base.

Perhaps the worst aspect of the book is the perpetuation of the misinformation typical of the older map interpretation texts; a failing which demanded their replacement. Structural geologists (and others) in second year tertiary level courses would have to waste a lot of time correcting ideas picked up in this text. (See the preface in Lisle's book to appreciate the anguish this causes). Faulting was a particular disaster though folds fared little better. Slip and separation are confused and it is advocated that separation be used to estimate relative displacement across a fault—structural geologists would probably like to see the book banned for this statement alone! It's hard enough teaching one of the typical student's nightmares without these sorts of complications. Attempts at simplification have frequently led to errors because the comments cannot be generally applied but the limitations are not given. What happens when the student comes unstuck? Who do they blame? Do they get turned off? Outmoded definitions (e.g. thrusts) show the book is also out of touch with many modern developments. Another major disappointment is the haphazard treatment of stratigraphy, a topic at the heart of geological maps. The basics of lithostratigraphy are obliquely referred to but not highlighted. This subject also reveals the peculiar style of organisation to be found in parts of the book. For example, the chronometric time scale is discussed in the ore deposits section and chronostratigraphic subdivision is in the Chapter on 'Units with less regular shapes', a geometrical section.

I also believe the book is not in tune with the nature of first-year tertiary level courses, the typical setting for such a work. Commonly the threads are pulled together very late in the year e.g. metamorphism may be studied after the map interpretation course has finished. This book has details of hot spot igneous petrology in Chapter 3 and the majority of this section needs much sophisticated knowledge for its appreciation. This problem recurs throughout the text. Likewise plate tectonic interpretation from standard geological survey maps is grossly overplayed perhaps in an attempt to be fashionable. To see the problems with this approach, look at the analysis of the centre piece, Stirling/Alloa sheets, in the light of suspect terranes.

In summary the book is a beautiful product, resulting from much hard work from an enlightened view point, but it is too flawed to be recommended as an undergraduate text book.

Clive Anthony Boulter