GEOLOGISTS' ASSOCIATION, SOUTH WALES GROUP

A GEOLOGICAL PERSPECTIVE

1960-1992

Compiled by
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Geologists' Association, South Wales Group
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Alun J. Thomas

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THE SOUTH WALES GROUP 1960-1992: A GEOLOGICAL PERSPECTIVE

A. Retiring Chairman's Address given on Wednesday 18 March 1992 at 19.00 in the Department of Geography (formerly Geology), University College of Swansea.

Introduction – Long Term Members

By the 23rd of January 1960 the Group was in place – and 1 member of that original committee – Roland Parsons (Group Treasurer) – is here tonight. Others who joined then (or soon after) were, among many – the late David Morgan (2nd Chairman), a retired Shell Oil geologist who for long was the South Wales Corresponding Secretary of the British Association for the Advancement of Science; David Thomas (3rd Chairman) a Cardiff schoolmaster; Alan G. Thomas (13th Chairman) – twice a committee member – and Alan Stevens (15th Chairman) are both here tonight. Alan S. joined at the 1st AGM along with Melvyn Davies (a later committee member) who is also here tonight; Howard Bartlett joined as a schoolboy from Tonyrefail and as a technician in the Department of Geology at University College Cardiff was not for 25 years to miss as projector operator a single Group meeting in Cardiff (the Group showed its appreciation of his commitment in March 1987). And there were to be husband and wife couples faithful to the Group too – Jo and Joseph Gross, Peggy and Clem Hulme, Iris and Cliff Taylor (both were committee members in turn, Iris being possessed of the fossil collector's version of a gardener's "green thumb"): still with us are the Chetcutis (and their daughters), the Claybrookes, the Copes and the Sheldons (now coming all the way from Pershore). With more than 400 names on the all-time register the naming of names must be partial.

A Year of Firsts

1960 had to be a Year of Firsts. After the INAUGURAL MEETING 23.01.1960) there was to follow –

the First Meeting in University College of Swansea on 13 February addressed by Professor J.G.C. Anderson (Cardiff),

the First Lecture by Professor F.H.T. Rhodes (Swansea) on 3 March in Cardiff,

and on 5 April (Tuesday 7pm) in University College of Swansea, the First Annual General Meeting to end the First Session (1959-1960).

It may be appropriate to reflect, at this point, that of the 33 AGMs 14 have been held in Cardiff while this one, the 33rd, is Swansea's 19th. And this one is only the 2nd not to be held on a Saturday morning.

The First Field Excursion was held on Saturday 9 April when about 80 members were led along the Ogmore -Southerndown Coast – rounding Trwyn y Witch precisely at a spring low tide – by the Group's First Field Excursions Secretary the late Trevor M. THOMAS.

Trevor, geologist at the Ministry of Housing and Local Government, later the Welsh Office, was in 1970 to become the Group's 6th Chairman. His book *The mineral wealth of Wales and its exploitation* (1961) and his 'Report of a Field Excursion of the South Wales Group to the South Pembrokeshire coast 1970' (the first account of the Group's Field Meetings to appear in *Proc. Geol. Ass.*) reflected only a narrow band of his wide-ranging publications – the Chinook Wind of Alberta, the Geomorphology of Brecknock, Frontal Weather Systems and a series of influential papers on the karst topography of South Wales; with his brother Godfrey he had presented in *Q. Jl Geol. Soc. Lond.* (1966) a joint paper on the Fishguard Volcanics.

Two weeks later the first Field Excursion to the Upper Vale of Neath was led by, of course, the late T. Richard "Dick" Owen (4th Chairman). Although F.J. North's excellent little book *The river scenery at the head of the Vale of Neath* had for many years guided explorers in this "waterfall country", it was the 1954 paper "The structure of the Neath Disturbance" and his field excursion accounts of 1958 and 1971 that were to link indissolubly the name of T.R. OWEN with the Vale of Neath. And a splendid trip it was. Others have written of T.R. Owen the geologist of international repute and have affectionately retailed 'Dick' Owen the man. I will simply record that he and Trevor Thomas – unrivalled leaders of 10 field excursions apiece for the Group - helped greatly to demonstrate with memorable clarity for scores of members the geology of much of South Wales.

There were in that first session 2 further 'field trips' - fittingly led by Professors Anderson and Rhodes each in his own style (and with his own accent).

But now I want to go back to that 1st A.G.M. for it was delivered by our First Chairman Dr Douglas A. BASSETT the first of his 2 Chairman's Addresses namely "The history of Lower Palaeozoic research in Wales with particular reference to the Cambrian rocks of Merioneth" and it revealed - as always with wit and with telling anecdotes - the growing case of Wales having been a pioneer area in geological studies. An expanded version was later to appear (in 1969) as a chapter in one of the decade's most authoritative publications, the volume in honour of Professor O.T. Jones and Sir William J. Pugh *The Precambrian and Lower Palaeozoic rocks of Wales*

(edited by Professor Alan Wood). As befitted one of the very few geologists fluent in Welsh, Wales its geology and its geologists was the main thrust of his researches (so it was to come as no surprise when his Second Chairman's Address (1962) was entitled 'The Welsh Geosyncline' and his 1965 lecture, a tour-de-force repeating his Liverpool Geological Society's Silver Medal-winning address, was entitled 'Geology and Geologists in Wales and the Welsh Borders'.

Between the 1st and 2nd Sessions Cardiff accommodated - for the 1st time since 1920 - the annual conference of the British Association for the Advancement of Science (B.A.A.S.) from 31 August to 7 September 1960. D. Emlyn Evans (National Museum of Wales) was the Local Secretary. The Group made no direct contributions to the programme of Section C (which had encouraged then welcomed the formation of a South Wales group of the Geologists' Association) but many members actively participated in both lecture meetings and field excursions (each excursion had attached to it an enthusiastic local geology teacher to finalise local details - the idea of the Local Secretary who of course was well known to them all). Vic Walmsley's 12-vehicle motorcade in the depths of the Usk Inlier (whose lanes precluded the use of a coach) was an early victim both of traffic lights (a couple of cars it is believed were never seen again after the 1st lights) and of motor vehicle crime (a parked Rolls was broken into while we looked for fossils - and a local farmer looked askance at us), a woman member stung by a bee had to be taken to hospital.

The Section C dinner was a splendid affair held in the banqueting hall of Cardiff Castle (this was long before "medieval banquets"). I recall the sight and sound of Sir Edward B. Bailey a formidable figure in knee breeches and heavy walking brogues clanking his way across the marble floor.

Immediately the main conference ended there was a Long Excursion to both sides of the Irish Sea basin to look at Pleistocene deposits - only quite recently recognised as being a key to the history of the Ice Ages. It was led by the Section C President Dubliner Professor G. Frank Mitchell.

The next meeting in 1960 was to mark the opening of the Second Session (1960-1961) and coming from Aberystwyth Professor Alan Wood talked on 'Sedimentation in Geosynclinal Troughs'. He and Alec Smith (ex-Aberdare G.S., ex-U.C.W. Aberystwyth when he visited the Group from University College London in 1975) had the previous year presented the paper 'The sedimentary history of the Aberystwyth Grits'. Professor Wood, who held the Chair at Aberystwyth between 1947 and 1977 and who was a moving force in the important decision in 1867 to sink the Mochras Borehole, died in January this year - 1992.

That was followed by a meeting in the form of a SYMPOSIUM, theme 'Arctic and Antarctic Geology', with 3 speakers. The idea of a meeting with a common theme linking 2 or more speakers was to become a prominent feature of the Group's programmes; 1961 - Soils, 1962 - South Wales Carboniferous, 1967 - Economic geology, 1968 - Wrens Nest Dudley, 1968 - Palaeontology, 1969 - the Irish Sea, 1973 - Bristol Channel, 1976 - Educational use of sites of geological interest, 1978 - Welsh palaeontology. If the last symposium (Palaeontology of Welsh fossils, 10 March 1989) has its proceedings published it will have followed the pattern set by a series of 4 that took place between 1982 and 1986, each lasting a day and involving between 6 and 16 speakers. The first 3 – December 1982 'The geological evolution of Wales', December 1983 'Lower Palaeozoic Wales', January 1984 'Upper Palaeozoic Wales' – were combined under the editorship of Dr Michael G. Bassett (Editor 1972-) and published by the Geologists' Association as 'FOCUS ON WALES' in *Proc. Geol. Ass.*, **95**, for 1984, comprising the entire Part 4 of that volume. This was followed in December 1987 by the publication in *Proc. Geol. Ass.*, **98** – again in Part 4 in its entirety – of the proceedings of the symposium held in February 1986 'Geology and sediments of Offshore Wales and adjacent areas'. These have been major episodes in the publishing history of the Group and significant contributions towards the study and contemporary understanding of Welsh geology.

'Junior' Talks, A.T.G.

The very 1st lecture for junior members was given in December 1960 by our Founder Chairman entitled "Geological holidays in Scotland".

Remember that throughout the Sixties and Seventies geology as a subject in the school curriculum was being taught in the 5th and 6th forms of many schools and many teachers were member of the Group. T.R. Owen was keen on Members Meetings at which members could talk briefly and display their current projects. D.E. Evans was concerned that the future lay with the very young – and no-one who attended his demonstrations on Experiments with Minerals could have failed to be impressed by the clarity of the exposition and the quality of the science.

A series of very good Earth Science films was to be shown in the Seventies. "When Polar Bears Swam in the Thames", "San Francisco the City that Waits to Die" were BBC Horizon programmes of excellence; horses for courses from the Open University stable included fine teaching films – "Case Studies" of the Gower coast and of Nant Ffrancon and films on Plate Tectonics – and these were able repeatedly to command large audiences in the days before cheap videofilms.

Individual lectures would be tailored to this younger audience – John Phillips gave in 1974 "A Volcano in action" and Peter Whybrow took a young audience "Hunting for dinosaurs in Basutoland".

Altogether there have been 17 such meetings for the young – and attended too by the not so young. The recently established Student Lecture series – Alan Charig gave the 4th in November 1991 – draws mainly students of college age.

In 1966 a joint British Association - Geological Society Committee was to resolve that there should be formed an Association of Teachers of Geology (ATG) and in the initial campaign as Corresponding Secretary was D.E. Evans of the National Museum of Wales whose department of geology was to make heavy commitments in support of the ATG – Douglas Bassett was to be its 3rd President and Alun Thomas its 3rd Secretary. During the Seventies it grew into a 1200-strong national voice of geology teaching at all levels and its Presidents included not only D.A. Bassett but T.N. George, T.R. Owen, W.J. Phillips, G. Kelling and 2 of its annual conferences were to be held in South Wales in Swansea and in Lampeter.

Emlyn Evans was convinced – as were many others – that children of primary school age could benefit from exposure to those scientific principles most aptly – and in some cases uniquely – demonstrated by our subject and this has been confirmed more recently by the content of the National Science Curriculum for schools.

If the Group is to renew itself successfully, then earlier recruitment and certainly earlier encouragement ought to be thought about.

The pattern had been set in that 1st session that the Group with few modifications was to follow for the next 30 or so years – a pattern that was to include continuing support of unstinting generosity from the 3 Departments of Geology and their staff: U.C. Cardiff, U.C. Swansea and the National Museum of Wales. The extent of that support may be gauged from the fact that to date almost 200 out of the 400 lectures and field excursions have been contributed by 65 members of staff.

1960 - Other Events

What of geological happenings elsewhere?

John Challinor's *Dictionary of Geology* and Eric Brown's *Relief and Drainage of Wales* were published;

Six Bells colliery explosion killed 28 men;

The Agadir and SE Iran earthquakes each killed over 1000 people.

Non geological events included –

For the 1st time the world population reached 3 billion;

John F. Kennedy was – just – elected US President;

And in the 'Lady Chatterley's Lover' case Justice Mervyn Jones asked the jury "Is it a book you would wish your wife or your servant to read?"

You have now calculated that the remaining 30 years will at this rate be covered perhaps by suppertime.

Like the names I will not name, there must be events left unrecorded.

Weekend Field Excursions

In 1961 Dick Owen led 2 other field excursions, 1 to the Cotswolds and 1 to the St Davids District, each being a visit lasting a weekend.

These longer excursions to more distant areas were to become an occasional feature of the Group's programme. Though often memorable and greatly enjoyed they were prone to last-minute cancellation when numbers fell below an economic level. Weekend excursions in the Sixties took Group members to Barmouth, to Bala, to South Shropshire, the Mendip Hills and the Malvern Hills, and the Cardigan area. But when a return visit to the Cotswolds arranged for September 1968 suffered a late cancellation it was like the kiss of death for weekend excursions. Not a single one was arranged throughout the Seventies.

Then in complete contrast between 1983 and 1986 4 weekend excursions were organised – to Dorset (Weymouth), North Pembrokeshire (Broadhaven), South Shropshire (Affcot) and Anglesey (Red Wharf B) – each of which was spectacularly successful (splendid geology, informed leadership, convivial company). Dr Wes Gibbons led his party in the 1st weekend of May 1986 to the vicinity of the Wylfa Head nuclear power station outfall and about midday took shelter from a particularly heavy downpour that was depositing on North Wales some of the radioactive fallout from the Chernobyl No.4 nuclear reactor that had exploded in the week before on April 26. I believe all the participants on that trip remain in good health! Since then, long excursions have met with indifferent success, the score being: Malverns - 1 visit, 1 cancellation; West Dorset - 1 visit; Isle of Wight - 2 cancellations.

1961 - BGS Contributions

In 1961 there was a 1st contribution (a field excursion to the Penarth coast), led by ex-Penarth GS pupil Hugh Ivimey Cook, from the Geological Survey.

Later, first as the Institute of Geological Sciences and then as the British Geological Survey contributions were to come with surprising frequency – 24 lectures and excursions involving 21 staff, past and present including past and current Directors of the Survey – Sir William J. Pugh, Dr Austin Woodland, Dr Malcolm Brown. The Survey's maps and memoirs are one of <u>the</u> primary sources of geological information. South Wales by virtue of the economic importance of its coalfield was early assured of virtually complete coverage by the Survey's mapping.

But the rest of Wales fared less well. After a programme begun in 1968 of mapping Snowdonia sheets began to appear in the Eighties, the 1st being Harlech (1982), and its Memoir followed soon after. The Pontypridd

(sheet 248) Memoir – of whose authors Dr A.W. Woodland was after retirement to join the Group – was to break new ground when published in 1963 by adopting the new and long overdue classification of the Coal Measures.

IGS became BGS in the same year – 1984 – as its budget was slashed by 70% to £6m (the Federal German Geological Survey budget was in the same year £40m). In 1985 when the Survey would celebrate 150 years the occasion was marked by an address to the Group from Dr R.A.B Bazley the 1st Director of the Wales Geology Unit that had been set up in 1981.

The printed word saw in 1961 the 3rd edition of North Wales by T.N. George in the Regional Geology Handbook series and the 1st of 3 Bibliographies of Earth Sciences in Wales, covering the period 1897-1958, compiled by Dr D.A. Bassett. It was to be followed in 1963 by a 2nd volume covering the period 1536-1896 and in 1967 a 3rd volume listing sources of maps during 1800-1966, altogether a valuable reference source.

1961 - Distant Voices

Although I have mentioned that the great proportion of contributors to the Group's programme has come from the 3 main institutions I will now look at some of the visitors from a distance.

Already in the 1st session the parent body had provided its CENTENARY PRESIDENT Professor David Williams as our 1st speaker. He came from Imperial College and later in 1961 coming from University College Dr Eric Brown (lately returned thence from Aberystwyth) gave a memorable lecture on "The denudation chronology of southern Britain". For his magnum opus *The relief and drainage of Wales* he had carried out much of the fieldwork to the remoter heights on the saddle of a motorbike. Within the year he returned to lead a field excursion from Cardiff via each of his erosion surfaces to end rather breathlessly on the summit of the Beacons at the Penyfan monadnock.

Of course any visit from Professor T. Neville George F.R.S. would be an occasion. There was alas to be only 1 – in 1965 – memorable in the treasurer's mental balance sheet for the Glasgow to Cardiff air fare as well as in the memories of his audience. He did not return to lead the Group on a field excursion to the region he described in his talk – Western USA – but we would have followed had he beckoned.

Dr J.R.L. Allen's Old Red Sandstone story began with a field excursion (to the Forest of Dean) and was followed up by a later lecture. When he was to return to us in 1989 for another linked lecture-field trip couple not only had his interests advanced from the Devonian to the Quaternary but he personally had also advanced in to select group of geological Fellows of The Royal Society. Two other geological F.R.S.s whose presence gilded the Group's affairs were a remarkable, perhaps unique, husband-wife team. In 1973 Professor John Sutton came to us from Imperial College (as had before him David Williams in 1960, Graham Evans in 1961, Gwyn Thomas in 1969 and as were later to follow him, Peigi Wallace in 1977, John Knill in 1983 and Jake Hancock in 1990; the University of London was in fact to provide 24 contributions) and talked without a note, as I recall, on "The Early History of the Earth". His wife Professor Janet Watson came to us on a Friday evening in early 1983, also from Imperial College, also as President of the Geological Society of London, also as F.R.S. and to an 80-strong enthralled audience delivered a memorable lecture on "Turning points in the Evolution of Continents". She had been preceded in the same session by another F.R.S. Professor Michael O'Hara from the Aberystwyth department who took us on one of the longest geological journeys to "The Volcanoes of the Solar System". Much later (in 1991), another volcanologist Professor Stephen Sparkes F.R.S. was to show us "The Volcanoes of the Andes".

Awards to Officers

In a sense the list of contributors from London University's Imperial College should include our own Professor Derek Ager who in 1969 arrived to be head of the department here at University College of Swansea (just as Alan Wood had moved from Imperial to Aberystwyth in 1947). Derek was to be our 10th Chairman in 1978-80. Characteristically his Chairman's Address was to have in addition to an apparently straightforward-sounding title "The Mesozoic opening of the Atlantic" a teasing subtitle "Or What the Brachiopod saw", just as his 1st lecture to us in 1969 had read "Kashmir and Bohemia" subtitled "Or How I did <u>not</u> represent the GA at 2 International Conferences" – when politico-military alarums (the India-Pakistan war and the ending of the "Prague Spring") had stifled the voices of international geology.

Professor Ager had been President of the Geologists' Association and its long-time supporter. He and I shared – in different years – the G.A.'s Foulerton Award, his an early rung on the career ladder that was to gain him the chair at Swansea and among many awards the Lyell Medal for 1979 of the Geological Society of London and an Honorary Sc.D. of the Sorbonne. Committee meetings of the Group held in his room were always civilized by a round of sherry. He has not – and probably never will be – fully retired.

Others amongst our Officers who have achieved major awards – the definition is mine and the list is not meant to be exhaustive – include:

the Geological Society's Wollaston Fund for 1974 to D.A. Bassett;

its Lyell Fund for 1971 to T.R. Owen;

and for 1981 to M.G. Bassett;

its E.J. Garwood Fund for 1967 to J.C.W. Cope.

He and Michael Bassett have each been awarded the degree of D.Sc. of their respective alma maters (as too was Dr Dianne Edwards, a recent committee member).

John Cope, our Chairman (the 12th) for the 25th Anniversary Year (1983-84) and a major contributor to the Group's programme (6 lectures and 6 field trips - to date) is now our 4th Field Excursions Secretary; Michael, who will be our 17th Chairman, and a major contributor (6 lectures and 6 field trips - to date) was our 2nd Field Excursions Secretary (from 1968 to 1974) and of course has been our 2nd Editor since 1972. [See '**Awards and Commemorations**']

Revolution in Earth Sciences

In particular the 1962-63 session saw a significant change. Dr Don Bidgood (U.C. Cardiff) gave a lecture entitled "Wandering Continents" – which introduced to many members the concept of an Earth mobile enough for entire continents to move. [Arthur Holmes, whose seminal *Principles of Physical Geology* was in all its 3 editions from 1945 biblical in its influence upon geological ideas, had long advocated such mobility.] and 1962 was the year when H.H. Hess proposed a common origin for the ocean basins and introduced the concept of mantle convection currents as a likely mechanism. Nevertheless it was a remarkably prescient choice by Dr Bidgood (he was to become Vice Chairman 1964 but then left to cross an Atlantic Ocean whose floor had just been recognised as spreading either side of the Mid-Atlantic Ridge) and was the first of more than 30 lectures dealing with crustal mobility in all its aspects.

It was, though, to be another 6 years before the 2nd lecture – Professor D.H. Griffiths describing "The Structure of the Sea Floor" (1968). Thereafter they came thick and fast – 17 in the Seventies. During that 6-year period the revolution in the Earth Sciences – a revolution as fundamental as Darwinian evolution had been 100 years earlier – had well and truly got under way, 'springboarded' by Hess and Tuzo Wilson (already in 1963 Wilson was referring to a revolution in the 'Earth Sciences', not merely geology).

In 1963 there appeared in *Nature* the Vine-Matthews paper, linking 'sea-floor spreading' and magnetic anomalies in the now familiar pattern of symmetrical stripes, that was to be a key turning point in the reception by the scientific community of this revolution. There was to be no turning back as a whole suite of eye-widening concepts swept into all the leading journals – Sea-Floor Spreading, Plate Tectonics, Mid-Ocean Ridges, Transform Faults, Subduction, Magnetic Reversals, Spreading Rates, Mantle Plumes, Hot Spots, Radiometric Time Scale. The ship's logs of the 'Eltanin' and the 'Glomar Challenger' – vessels brimming with devices developed by the oil and space industries – provided keys to the unlocking of the global jigsaw puzzle.

Unlike the space race all this filtered out only very slowly through the walls of academe. Until, that is, another revolution took place – with the inception in 1968 by Jennie Lee of the Open University. Committed to higher education for all at a distance and at a price, its communications had to be available to a range of pockets, transforming the presentation and publication of scientific knowledge. The best accounts and illustrations of Plate Tectonics, in my opinion, appeared in *Understanding the Earth*, 1971 – and in 1972 in *The story of the Earth* a booklet to illustrate the first of the Geological Museum's mega-exhibitions. The demand for understanding of these new ideas made any lecture immediately popular.

So it was no surprise that for T.R. Owen's October 1972 lecture on "Plate Tectonics" there would be an audience of record size – rather more than 170 crammed into the joint Lecture Theatre in the Natural Sciences Block at Swansea that Saturday morning.

And it would come as no surprise that Continental Drift had already accumulated a quota of student 'howlers' – such as the one submitted by Dr Mike Brooks to the 1980 collection published by the Geological Society of Glasgow – "we have come along way since Wagner proposed a flight from the Poles" (the 50th anniversary of the publication in English in 1924 of the 3rd edition of the German meteorologist Alfred Wegener's *The origin of the continents and oceans* was to be celebrated in 1974).

The same collection also had in it a contribution submitted by Dr Douglas Bassett of a definition that I cannot fault – "igneous rocks are to be found in the places allotted to them".

Other memorable howling definitions might be, I quote:

Septarian – a 70-year old nodule;
Pitchblende – (to sing) in harmony;
Diapir – juvenile water;
Rudaceous – abrupt or impolite.

Events in the Sixties

What else was 'swinging' in the Sixties of geological and wider interest?

1962 saw the publication of Rachel Carson's *Silent Spring* and Thomas Kuhn's *Structure of scientific revolutions*.

1963 saw the emergence out of the Mid-Atlantic Ridge of Iceland's Surtsey. There was also the Profumo Affair and the assassination of President John F. Kennedy.

In 1964 Project Mohole was initiated, the International Year of the Quiet Sun began on 1 January - and the Vietnam War on 29 June.

1965 saw the deaths of Arthur Holmes and Winston Churchill.

In 1966 Shell found oil off Great Yarmouth and Phillips, BP and Amoco all struck gas while on 21 October at about 9 o'clock on a foggy Friday morning the Aberfan Disaster struck South Wales.

In 1967 there appeared the first warnings of the

possible 'greenhouse effect' of a man-generated increase of carbon dioxide in the atmosphere, the 'Torrey Canyon' went on the Cornish rocks and the Mochras Borehole (which was to reveal unpredicted aspects of Welsh geology) was initiated.

In 1968 the Gower's Red Lady of Paviland (the skeleton of a young male) was dated at 18,000 yrs B.P. (recalibration of the radiocarbon dating technique was to give in 1989 a date of 26,000 yrs B.P.) while in Swansea Professor Frank Rhodes departed for the fresh pastures of Michigan (he was later to become President of Cornell University).

On 21 July 1969 Neil Armstrong stepped off the Moon leaving the Lunar Excursion Module (L.E.M.) Eagle and returned to Earth in the Apollo 11 Command Module Columbia with 6 kg of Moon Rock (a few tens of grams of which later during one weekend to attract several tens of thousands of visitors to peer at them through a magnifying glass set up in the main hall of the National Museum of Wales); later astronauts became efficient "rockhounds" – Apollo 12 brought back 22 kg of 'lunar samples'.

H.H. Hess died and the Group celebrated its 10th Anniversary.

Gilbert Kelling (who was to "go North" – to Keele in 1976), John Cope who in 1961 had "come South" – from Keele in a manner of speaking), David Bowen – all 3 to be major contributors to the Group's activities (including its publications) – each gave his first lecture to the Group during this decade.

The decade had been ushered in by Dr Douglas Bassett when membership subscription of the Group was 5/- (25p); our 5th Chairman Dr John C.W. Baker saw it out and welcomed in the Seventies with a membership subscription of 10/- (50p).

B.A.A.S. and Group Publications

The Seventies opened with European Conservation Year (E.C.Y.); B.P. made its first North Sea oil strike. University College of Swansea celebrated 50 years and the Department of Geology hosted the symposium "The Teaching of Geology in the Universities".

In 1971 the British Advancement for the Advancement of Science came to Swansea for its annual conference. To coincide with this large conference the Group under the editorship of Dr Douglas A. Bassett and Dr Michael G. Bassett published what was to be the 1st of an occasional series of excursion guides to parts of Wales *Geological excursions in South Wales and the Forest of Dean*. With up-to-date descriptions in its 21 itineraries, its readable style and its distinctive black-and-white cover it was to be a "best seller" and sold out before the decade's end. The timing of the publication was doubly appropriate falling as it did during the 2-year chairmanship of Trevor Thomas – for long the Group's first Field Excursions Secretary and a leader of field excursion for the Group on no less than 10 occasion and 1 of the 'Guide's' 20 contributors.

In 1982 *Geological excursions in Dyfed, south-west Wales* was published; 24 contributions were edited by Dr Michael Bassett. These 2 volumes were a radical departure from the Group's earlier publication policy which was an in-house periodical, cyclostyled and published 4 times a year, *The Welsh Geological Quarterly*, (edited by Dr Douglas Bassett) in 5 volumes between 1965 and 1970. The Group was unable to sustain support for this and despite the Editor's efforts ceased publication in 1970 with volume 5 part 1.

The publication since 1982 of the proceedings of several symposia has already been mentioned.

A forthcoming volume in the Occasional Series, to be edited by Dr M.G. Bassett and Dr N.H. Woodcock (University of Cambridge), will be *Geological excursions in Powys, central Wales*.

During these early years of the decade the realities of the outside world impinged directly on the Group's activities. Dr Michael Brooks (7th Chairman) and Dr David Bowen (U.C.W. Aberystwyth) each had a lecture postponed, the one through industrial action (a strike), the other through a power cut.

In the next decade, the Eighties, 3 further postponements were to happen (ironically), for this was to be the decade of the century's warmest summers, through falling snow on the same January weekend of 1982, 1985 and 1987. Equally ironically, the 2 coldest winters (of 1962-63 and 1978-79) caused no delays.

Rules and Subscriptions

Outside pressures were also to increase the membership subscription twice – from the 50p of the 13th Session (1972, decimalisation year) to £1 (16th Session, 1975) And to £1.50 (19th Session, 1978). It was during the chairmanship of D. Emlyn Evans (8th Chairman, 1974-76) that the Rules of the Group were formulated (15 years after the Group's beginning) and in the following year our 9th Chairman Dr Rodney A. Gayer (U.C. Cardiff) presented to the Group for approval the Rules we have since abided by. It was Gayer and Harland who coined the name Iapetus (Ancient Greek – the universal sea whose son Prometheus fashioned humans from clay) for the pre-Atlantic basin (despite already being the same for Saturn's 8th moon) and it was the history of this Caledonian ocean that was to be the theme of his Chairman's Address (the idea of an ocean basin such as the Atlantic basin that had opened more than once was by then quite acceptable – thanks to Plate Tectonics).

The decade ended with the 21st Session (1979-80) seeing yet another annual subscription rise (to £2) and a programme consisting of lectures by former Chairmen: T.R. Owen (1966-68) "The geological evolution of Wales

– 25 years after O.T." (O.T. Jones having in 1954 given to the Geological Society of London its William Smith Lecture entitled "The geological evolution of Wales" which was to be a benchmark for later ideas); R.A. Gayer (1976-78) on "Problems of the Caledonides"; M. Brooks (1972-74) "Recent geological investigations in the Aegean Sea" (at the cutting edge of the testing of the hypotheses of plate tectonics, research in which Professor Brooks continues to be involved; Dr A. Clive Bishop (British Museum (Natural History), current President of the Geologists' Association) "Mineralogy in the modern World"; Dr Douglas A. Bassett (National Museum of Wales, Group Founder Chairman, 1960-62) "Standing on Carboniferous Shoulders"; the programme of lectures ended with the Retiring Chairman's Address "The Mesozoic opening of the Atlantic or What the brachiopod saw" given by the Group's 10th Chairman Professor Derek V. Ager (University College of Swansea) at the 21st annual general meeting.

The Seventies, 21 Years and Other Events

Elsewhere the Seventies saw –

In 1973 the emergence off Iceland of Heimaey;

In 1975 the largest lava flow of the 20th Century (quietly in Kamchatka);

In 1979 an image from the 'Voyager' space probe of the 150 km plume from a volcano on Io, Jupiter's 1st moon.

These together with the decade's many other eruptions and all its earthquake shocks were to be assigned their places on the jigsaw of moving plates that the too too solid earth of the earth of the Earth's surface was now seen to be (and soon seen to be so by the several million viewers who were to be enthralled in 1979 by David Attenborough's epic 13-episode TV saga – his 1st of several – of *Life on Earth*).

In December 1972 the return aboard the Apollo 17 Command Module *America* of Harrison Schmitt, the last man on the Moon (and the first geologist) carrying a 120 kg payload of lunar samples marked the end of the 1st phase of the exploration of outer space.

There appeared in 1974 the 1st warning of the possible effects of 'C.F.C.'s on the atmosphere's ozone layer.

In 1975 the estimate of world population reached 4 billion (15 years after reaching 3 billion).

1976 was the year of the longest summer – and it was the year of the winning by Wales of the 1st of a back-to-back clutch of 4 Triple Crowns! (in rugby of course).

1974-75 saw BP strike oil in the North Sea in January, Burmah Oil found the Ninian Field in April and in 1975 the first oil came ashore in June and the first pipeline (from the Forties Field) was pumping in November.

The pricing of oil by Friends of the Earth would include the cost of the first of the major oilrig blowouts (Ekobravo April 1977) and another vast oil spill from the tanker 'Amoco Cadiz' wrecked on the Brittany coast (March 1978).

Events closer to home – in 1973 the first Triassic dinosaur footprints (*in situ*) in Wales were found near Barry;

the first degree awards of the Open University were made;

the first ever meeting outside London of the Geological Society – one of the world's leading geological societies – was to take place on Wednesday 14 March at the National Museum of Wales.

(GA members were to attend and in the afternoon sixth form pupils would hear Professor Alwyn D. Williams – ex Aberdare G.S., ex U.C.W. Aberystwyth, recently elected F.R.S. – read his paper on the Ordovician);

the first ever (and so far the only) award of a Nobel Prize to a Welshman was made to 33 year-old Brian Josephson of Cardiff ("Cardiff, England" was the official location!) – former child prodigy, Oxford entrance scholarship at 13 – for his work in Physics (the Josephson Effect for "microelectronic superconductors in high-speed switching of logic circuits");

one of the first stretches of Heritage Coast in Wales appeared when the Glamorgan Heritage Coast (from Aberddawan to Aberogwr) was declared;

the first deep bore for oil beneath the South Wales Coalfield was sunk in September north of Caerphilly by the Cambrian Exploration Company (to a depth of over 10,000 feet: the hole was dry);

a G.A. Long Excursion took place in central Wales based at Llandrindod Wells (leaders were Dr John Baker, U.C. Cardiff and Dr C.P. Hughes, University of Cambridge).

In 1974 on 1st April west, south and mid Glamorgans came into existence;

In January in far-away East Africa a 3,000,000 years-old skeleton of *Australopithecus afarensis* became known as "Lucy", while in November Miss World was Helen Morgan of Barry – for 3 weeks till she was found to be Mrs.

In 1975 the Ogof Ffynnon Ddu cave system became the first cave National Nature Reserve (it had been visited by the Group 10 years earlier when Alan Stevens (our 15th Chairman) led a party there); a Lyell Symposium celebrated the centenary of the death of Charles Lyell (Dr D.A. Bassett participated).

In 1976 John Cope and his adult education students found the Precambrian fossil jellyfish *Ediacara* in a most unlikely place (south of Carmarthen) – unlikely because the type locality was South Australia.

1977 saw the departure from the Swansea department to the chair in the Cardiff department of Michael Brooks (our 7th Chairman) – who had been uncovering the deep structure of South Wales and who was to go on to the Aegean;

the Third Meeting of Geological Societies of the British Isles was held in Swansea (with a Group contribution);

the Institution of Geologists was founded [it was to award in 1985 its premier award the Aberconway Medal to Dr D.A. Bassett].

The Geologists' Association Long Excursion (May 1977) was to South Pembrokeshire, led by Professor J.R.L. Allen F.R.S. (University of Reading) and Dr Brian Williams (University of Bristol); both were major contributors to the Group's meetings and publications.

In 1978 the Group was one of many bodies that objected (successfully) to the planning application by Ogwr Borough Council to institute coastal protection works at Seamouth (part of the Southerndown Coast S.S.S.I.) with a concrete sea wall and cliff-face stabilisation procedures including reduction of steepness by blasting and covering the cliff face with plastic netting.

Publications, Palaeobotany

Printed words which caught the eye during the decade included:-

The Upper Palaeozoic and post-Palaeozoic rocks of Wales (the Sir Arthur E. Trueman Memorial Volume, 1974) edited by T.R. Owen (together with the O.T. Jones and W.J. Pugh Memorial Volume (1969) they gave a comprehensive view of the geology of Wales);

The *Code of Conduct for Geological Fieldwork* (1978), promoted by the Geologists' Association and others including B.P.;

A series of publications by John W. Perkins (soon to be 11th Chairman), the first *Geology of the Glamorgan Heritage Coast*, 1975 by J.W. Perkins, R.A. Gayer, J.C.W. Baker (all 3 Group chairmen) – with a 2nd revised edition 1979, second a Guide Series commencing in 1979 with *Volcanoes* (to be followed in 1981-85 by Guides to areas mainly in western U.S.A. that were to be visited by the geological excursions of the U.C. Cardiff Department of Extramural Studies), third a 3 volume series (1979-1986) of which J.W.P. was to be a joint editor, published by the Merthyr Tydfil and District Naturalists Society on *The historic Taf valleys*.

There was too a series published by the National Museum of Wales (originally as articles in its in-house magazine *Amgueddfa* and some subsequently in a Geological Series) of mini-monographs intended for popular consumption such as –

Formed Stones: *Folklore and Fossils*, 1971 and 1982 (rev.) – Dr Michael Bassett;

In Search of Welsh Trilobites 1971 (later 1984 as *Trilobites in Wales* – Dr Robert M. Owens (Group 3rd Field Excursions Secretary 1974-1989);

Fossil Tracks and Trails – M.G. Bassett, R.M. Owens 1974;

Fossil Plants from Wales 1973 and 1982 (rev.) – M.G. Bassett, Dr Dianne Edwards.

It was not to be until 1981 well over 20 years after the formation of the Group that more than the slightest of passing references would be given to fossil plants, this in a South Wales the very origins of whose society rested upon the ample presence of a fossil fuel composed largely of compressed plant remains. Even now (1992) after 3 palaeobotanic lectures from Dr Dianne Edwards (1981, 1987, 1989) – who has been publishing palaeobotanic research papers since 1968 – the Carboniferous floras are yet to be a topic.

Finally a whole succession of papers on the Quaternary of Britain – and especially of Wales – came throughout the late Sixties and the Seventies from the active pen of Dr David Q. Bowen (U.C.W. Aberystwyth) including – 1967 On the supposed ice-dammed lakes of South Wales:

1973 The Pleistocene history of Wales and the Borderland:

1973 The Pleistocene succession of the Irish Sea:

1974 The Quaternary of Wales [David Bowen was a contributor to the Group's 1971 Guide – and to the 1982 Dyfed Guide – and has been a stimulating speaker – 6 lectures – and field excursion leader – 3 trips – to the Group extending greatly members' understanding of the Pleistocene in South Wales; he was also to write *The Llanelli Landscape* as volume 2 of a series on Llanelli published by Llanelli Public Libraries].

Another Llanelli man (besides D.A.B. and D.Q.B.) active in the Seventies and Eighties for the Group was Dr A.T.S. 'Tony' Ramsay (Group 14th Chairman) who to date has contributed 4 lectures and 4 excursions and whose work on the Carboniferous Limestone is well known to us.

25 Years, the Eighties

Much of the 3rd decade I have already touched upon. The highlight surely was the celebration in 1984 of 25 Years marking the occasion at the Twenty Fifth Annual General Meeting on 10 March by instituting the category of Honorary Member and installing as its first Honorary Member Professor Thomas Richard 'Dick' Owen, the Presentation being made by Dr Douglas Bassett (Founder Chairman) who 2 years later in 1986 at the 27th A.G.M. on 8 March was similarly to accept the second Honorary Membership presented to him by Alan G. Thomas (13th Chairman).

And of course another highlight was the publication by the Geologists' Association in *Proc. Geol. Ass.* of the proceedings of the Group's symposia (as 'Focus on Wales' and 'Offshore Wales').

Some of the many publications of local Welsh interest included –

South Wales Coalfield Landslips Survey, 1980 (I.G.S.):

Geologists' Association Excursion Guides 39 (*Lleyn Peninsula*, P.J. Cattermole, M. Romano) and 40 (*Anglesey*, D.E.B. Bates, J.R. Davies) both in 1981 [earlier numbers in this useful Guide Series were 16 (*The Cardiff District*, J.G.C. Anderson, 1971 2nd ed. rev.), 17 (*Swansea*, T.R. Owen, F.H.T. Rhodes, 1969 2nd ed. rev.), 27 (*South Shropshire*, W.T. Dean, 1968), 28 (*Snowdonia*, D. Williams, J.G. Ramsay, 1968)].

Onshore events and personalities included –

In 1980 the finding in North Wales in 200,000 years old Middle Pleistocene cave deposits the First Welshman – Pontnewydd Man – he had it seems only 1 tooth (at first, but later finds were to make Pontnewydd Cave the 1st Welsh Neanderthal family home);

1984 was to give rather wider media coverage to the more perfectly preserved (?5th Century) Lindow Man found complete in a Cheshire peat bog and given the imperishable nickname of "Pete Marsh".

The rumpuses of the Eighties included –

In 1980 the Luis and Walter Alvarez hypothesis linking the high *Iridium* content of a persistent clay band at the K-T (Cretaceous-Tertiary) boundary with a presumed catastrophic event of extraterrestrial origin (the Chicxulub Crater 180 km wide and 100 km deep found beneath Yucatan 1990 the likely impact crater of a 10 km-wide bolide or asteroid dated at 65 MY) leading to mass faunal extinctions (especially of your favourite – and mine – the dinosaurs):

The Affaire Archaeopteryx – 3 rounds of Hoyle and Wickramasingh (of Cardiff) versus Alan Charig (of the British Museum (Natural History) ending in 1985 with a technical k.o. by the B.M.(N.H.):

President Reagan's 1983 support for the teaching of "creation science" does deserve mention – but barely.

The big local bang of the Eighties was on 15 April 1984 when there occurred the 5.3 R.M. Kerry earthquake to be followed by the strongest U.K. shock of the century a 5.5 R.M. seism at 07.56 on Thursday 19 July 1984 with a Ll□n epicentre (strong aftershocks on 14 and 19 November may have damaged the Trawsfynydd nuclear power station); intensive monitoring and instrumentation pointed to the Mochras Fault as the source of motion and yielded unexpectedly a capacity for brittle fracture as deep as 20 km.

Bigger bangs – but further away – were –

18 May 1980 eruption of Mount St Helens in Washington State, U.S.A.:

March 1982 the eruption of the El Chichon volcano (S. Mexico) which blasted a 26 km vertical ash plume into the upper atmosphere to encircle the Earth at that latitude for more than a year (atmospheric dust over Wales in 1983 probably came from this source):

1986 shocks were the Challenger shuttle and Chernobyl nuclear power station explosions:

1987 the October hurricane across southern England:

1988 Hurricane 'Gilbert' across the Caribbean and in 1989 ending the decade on the highest note, Hurricane 'Hugo' devastated much of the eastern coast of the U.S.A. with the most powerful wind velocities ever recorded in the Western Hemisphere.

The centenary of the death of Charles Darwin was commemorated in 1982, the National Museum of Wales was 75 in 1982 and University College Cardiff 100 in 1983 (and membership subscriptions rose from £2 to £3):

the Group was 25 in 1984 (when also occurred the death of Professor David Williams, the Group's Inaugural Meeting speaker):

1985-86 was the year of Halley's Comet:

1987 was the European Year of the Environment (and when world population reached 5 billion – 12 years after reaching 4 billion):

Cardiff was the host city on 2-5 January 1987 to the 4,000 delegates of the Association for Science Education (A.S.E.) when 4 of the Group's chairmen were amongst contributors to the very small geology section (M. Brooks, R.A. Gayer, T.R. Owen, A.J. Thomas):

1987-88 was the year of 'Dinosaurs from China', an exhibition at the National Museum of Wales seen by over 300,000 visitors:

1989 was the sesquicentennial of the publication of *The Silurian System* (1839, Sir Roderick I. Murchison) and a symposium celebrated it (in Keele).

The decade ended on a falling note, alas, with the closure of the Department of Earth Sciences at University College of Swansea in 1989 and the transfer of function, effects and most of the staff to the department at Cardiff, already enlarged by the amalgamation of the Department of Mineral Exploitation in the newly re-named University of Wales College Cardiff.

In 1990 we lost T.R. Owen on 30 April. Also died in 1990 was Austin W. Woodland; we also noted, with regret the death in 1991 – also on 30 April – of L. Beverly Halstead (current Geologists' Association President – and a lecturer to the Group in 1988).

B.A.A.S., 'The old order changeth'

If we venture into the Nineties it is to find that the Group (with its annual subscription level now at £5) will continue to meet in both Swansea (Department of Geography) and Cardiff (Department of Earth Sciences). In fact in August 1990 Swansea was – for the 2nd time in less than 20 years the venue for the 6-day annual conference of the British Association for the Advancement of Science; the Section C (Geology) programme included a one-day Mason Conference organised by the Group (its programme arranged by Dr Michael Bassett and chaired by me) on the theme of 'Nice Weather for Fossils?'. Eminent authorities (including Professor Ken Hsu of Zurich) presented evidence for past climatic fluctuations from the Precambrian to the Quaternary; local field excursions were led by Group members.

The Section President, Professor Gilbert Kelling (of Keele formerly of Swansea and a former Group member) led us into the splendid Margam Orangery for the dinner – to the accompaniment of pleasant music played on early musical instruments (this too organised by the Meeting Local Secretary – and ours – Dr H. Geraint Owen).

Thanks

As a Group we have enjoyed the support and encouragement not only of our parent body the Geologists' Association but also that of the 3 major academic institutions, an advantage given to few amateur geological societies. To the staff of those institutions who through my oversight may have remained so far unmentioned I now offer on behalf of the Group a warm "Thank You" for all the services rendered, technical and academic, and appreciation of the willing spirit in which they were given.

Long may we continue to enjoy their company.

You have seen the list of Committee members. You may have been surprised at the number (I believe it to be about 75) but not I venture as surprised as some of them have been when the committee meeting announcement has been made. I refer not to the agenda but to the venues they have been called upon to find. With the aid of map references and street plans you too could find your way to – Porthcawl Outdoor Pursuits Centre (courtesy of Wilkie Burdon, Warden), the Castle Hotel Bridgend, the Windsor Pontyclun (courtesy the landlords, we didn't drink much but we paid the rent). They may even have been easier to find than some of the venues in the rabbit warrens of the colleges and museum.

I believe myself to have been indeed fortunate to have known so many friends, most of whom must now remain unnamed. Particularly supportive have been my committee members of the past 2 years – perhaps it's easier to appreciate their worth when you are Chairman than as fussy Secretary. But now I say to them all, present and absent, on behalf of the Officers, a most sincere thankyou for your support of them and of the Group during your 2 years of committee service.

I have known all the Officers. It has been for me a great privilege to have worked closely with so many friendly and scholarly men for these 30 years, an experience whose pleasure I can always treasure. I will single out 2 people from the roster of colleagues. All 3 of us are college contemporaries (part perhaps of the Aberystwyth "Taffia"). To Roland Parson I have already paid public tribute upon the Group's recognition of his 25 years of service [to be 31 years when he retired] as the Hon Treasurer – we have enjoyed working together for the Group – and he tells me I don't owe him any money.

Of Douglas Bassett I will say that I owe him an unpayable debt not only for the inexhaustible fund of his knowledge he has so readily allowed me to dip into for my address this evening but for his help and advice over 30 years. We once descended together Fox's Path on Cader Idris. Being students the speed of our descent of this 30 degree scree was immoderate. He with a higher centre of gravity fell – I with a much lower one stopped and helped him to his feet. He has been helping me ever since.

To the Group I say you have shown great generosity of spirit in granting me Honorary Membership for the service I may have given. My best response I believe is to offer my congratulations to your new Officers and to recommend them to you wholeheartedly.

Tom Sharpe you already know as a canny Welsh Treasurer with a Glaswegian accent – except when he speaks Welsh!

John Cope had already served over 10 years as an ordinary member of Committee, as Vice Chairman and as our 12th Chairman before taking on 2 years ago the Field Excursions secretaryship – he needs no introduction to you.

Geraint Owen has been your Secretary for 2 years, 2 very busy years involving a great deal of extracurricular activity – BA annual conference, GA council meetings in London, Welsh Geology Week – but no worries for me, I now enjoy reading his chatty Group Circulars and Newsletters.

I support Peter Hodges as your incoming Vice Chairman, he having served on committee on 2 separate occasions over 15 years.

Michael Bassett has served the GA for 24 years already – as Field Excursions Secretary and as our Editor (which he will continue to be). I believe I share with him the special relationship that exists between tutor and taught – he was one of my best VI form students for 2 years, 30 years ago and I have been his student ever since.

I commend to you as my successor as Chairman "young Dr Bassett"

And my very best wishes for the future of the Geologists' Association South Wales Group.

B. Appendices

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Origins, Inaugural Meeting 23 January 1960

Two preliminary meetings of persons interested in the formation in South Wales of a geological group took place in late 1959.

These were–

at Cardiff for eastern South Wales convened and chaired by professor JGC Anderson (University College Cardiff) and

at Swansea for western South Wales convened and chaired by Mr Brian Simpson (University College Swansea), each meeting held in the respective department of geology.

A Preliminary Committee was consequently set up to seek the approval (which was given) of the parent body of the Geologists' Association to form a South Wales Group (there already existed a North Staffs Group and a Midlands Group) and to take the 1st steps in its formation.

At its – only – meeting on Friday 4 December 1959 in the Department of Geology of University College Cardiff (then in premises on Newport Road) the Preliminary Committee was chaired by Professor JGC Anderson, and its membership consisted of –

Mr George Askey (National Museum of Wales),

Dr Douglas A. Bassett (National Museum of Wales),

Dr Robert C.K. Blundell (University College Cardiff),

Miss Kathleen A. Goskar (Neath Girls Grammar School),

Mr D. Bernard Norris (Swansea Technical College),

Mr T. Richard Owen (University College Swansea),

Mr Roland Parsons (Caerphilly Boys Grammar-Technical School),

Mr Brian Simpson (University College Swansea),

Mr David J.W. Thomas (Cardiff Canton Boys High School).

The Preliminary Committee prepared a series of recommendations (subsequently to be accepted virtually in their entirety) that outlined the structure and functions of the new Group and made arrangements for the holding of the 1st Ordinary Meeting.

The Inaugural Meeting of the South Wales Group of the Geologists' Association took place in the Newport Road premises of the Department of Geology of University College Cardiff on Saturday 23 January 1960 at 10.30.

In welcoming the audience of over 100 people Professor Anderson referred to the long-felt need for a geological organisation in South Wales and drew attention to the telegram of congratulations received from the Midland Group (then celebrating its 21st Anniversary).

Professor Anderson put to the meeting the series of recommendations of the Preliminary committee, the 1st of which was the election of a Chairman.

It was proposed by Mr Walter D. Jones (Penarth Grammar School), seconded by Mr Alun J. Thomas (Barry Boys Grammar-Technical School) and unanimously approved that the Founder Chairman of the Group be Dr Douglas A. Bassett, Keeper of Geology at the National Museum of Wales, Cardiff.

Dr Bassett then guided the meeting through the election of Officers and a Committee, that would act until April, comprising –

Chairman: Dr Douglas A. Bassett

Vice-Chairman: Professor Frank H.T. Rhodes (University College Swansea)

Secretary: Mr George Askey

Treasurer: Mr Roland Parsons

Field Excursions Secretary: Mr Trevor M. Thomas (Ministry of Housing and Local Government, Cardiff)

Ordinary members of Committee: Professor J.G.C. Anderson (University College Cardiff), Dr Robert C.K. Blundell (University College Cardiff), Miss Kathleen A. Goskar (Neath Girls Grammar School), Mr Basil Isaac (Treforest School of Mines), Miss Gwyneth Meara (Newport Bassaleg Grammar School) and Mr T Richard Owen (University College Swansea).

Acceptance was proposed by Mr D. Protheroe Davies (Port Talbot), seconded by Mr William J. Griffiths (Pengam) and there was unanimous election of the Committee.

The Chairman indicated that it was intended to hold meetings monthly and alternately at Cardiff and Swansea with other centres in South Wales as possible venues.

He then introduced Professor David Williams of Imperial College London as a most appropriate person to deliver the Group's Inaugural Lecture since he was both President of the Geologists' Association (celebrating its Centenary 1858-1958 during his term of office 1958-1960 – a nice coincidence and one which, perforce, would be repeated 25 years later) and a Welshman.

In his capacity as President Professor Williams brought the good wishes of the parent body. He then delivered his address on "Prospecting for Minerals".

The Vote of Thanks to the speaker was given on behalf of the Group by Mr T.R. Owen who in his remarks incorporated his expression of pleasure at the successful formation, through cooperation and hard work by many people, of the South Wales Group.

Dr Bassett then closed the Inaugural Meeting at 12.45.

Original and early Membership

Persons recorded as having joined the Group during the first few years (and who were to remain members for a long time) included:-

Derek AGER*
Peter BAILES
Howard BARTLETT
Douglas BASSETT (C)
Michael BASSETT (C)
Nigel BATEMAN
G.V. BIRCH
Michael BRENNAN
Michael BROOKS (C)
Beryl and Frank CLAY-BROOKE
Glan COOKE
Joy COPPIN*
Ada COX
Glyn DAVIES
Ivor DAVIES*
John DAVIES
Melvyn DAVIES
Pat ELSON
Emlyn EVANS
Kathleen GOSKAR*
Joseph and Jo GROSS
Olive HARDING
Alan HAYWARD
Michael HOURAHANE
Clem and Peggy HULME
Mr and Mrs A.D. JONES
Brian LEWIS
Mr* and Mrs J.W. LEWIS
David MORGAN (C)*
W.S. "Bill" MORGAN
T.R. "Dick" OWEN (C)*
Roland PARSONS (T)
Haydn PENHALLURICK
Joe PIFFARETTI
Percy PLAYFORD
Brian PRICE
Iola ROBERTS*
Janice ROBERTS
Elsa SEARLE
Ron SHEPSTONE
Alan STEVENS (C)
Ken SULLIVAN
Alan THOMAS (C)
Alun THOMAS (C)
David THOMAS (C)
Trevor THOMAS (C)
John WATKINS

*deceased
(C) Past Chairman
(T) Past Treasurer

The Group attracted many to long-term loyalty.

The Group's social side

Apart from the actual meeting – lecture or field visit – there was for many years no social activity involving the membership. Attempts to provide such a 'social side' were not successful. However, it soon became the custom for the speaker (though not the leader who was nearly always 'local'), whether 'local' or 'visiting', to be 'looked after' to the extent of offering private accommodation (usually by the Chairman) and lunch or dinner with committee members at a restaurant in Cardiff or Swansea. 'Coffee and biscuits' before the meeting (mainly on Saturday mornings and provided by the host department at both colleges) came 'on the scene' as facilities became available; and this soon became much appreciated.

Anniversary Celebrations

The Group was subsequently to record its *Anniversaries*;

in 1968-1969 (the 10th session, recorded as "The 1st 10 Years, 1959-1969" in *the Welsh Geological Quarterly*, vol.**4**, pt 2-3 (Winter 1968), pp.63-70);

in 1979-1980 (the 21st session) recorded by an unpublished List and by a special series, through the session, of addresses by 4 of the Past Chairmen: D.A. Bassett (the Founder Chairman 1960-1962), T.R. Owen (1966-1968), M. Brooks (1972-1974), R.A. Gayer (1976-1978) – in addition to that of Dr A. Clive Bishop, Keeper of Mineralogy at the British Museum (Natural History), and the current President of the Geologists' Association – and the Retiring Chairman's Address of Professor Derek V. Ager 1978-1980);

in 1983-1984 (the 25th session) recorded by the giving of the Geologists' Association 125th Anniversary Lecture [1858-1983] to the Group by Professor John L. Knill of Imperial College London and current President of the Geologists' Association [as had been Professor D. Williams in 1960], by the publication in *Proc. Geol. Ass.*, vol.**95** pt.4, pp.289-395 (for 1984) of 'Focus in Wales' being the proceedings, edited by Dr Michael G. Bassett, of 2 Symposium Meetings 'Lower Palaeozoic Wales' on 3 December 1983 and 'Upper Palaeozoic Wales' on 14 January 1984;

and the celebration of the Twenty Fifth Annual General Meeting on Saturday 10 March 1984 at University College Cardiff with the establishing of Honorary Membership.

[See **Awards and Commemorations** for details]

Rules and Meetings

The Rules of the Group were first formulated when in the 2 year tenure of D. Emlyn Evans (1974-1976) he initiated (Feb. 1976) a Rules sub-committee to prepare for consideration a set (using the Rules of the parent body as a guide).

The succeeding Chairman Dr Rodney A. Gayer (1976-1978) received the Recommendations which were presented to the Group at the 18th AGM on Saturday 19 March 1977 and approved by the Special General Meeting called for that purpose, on Saturday 15 October 1977.

A copy of the Rules is issued to each Ordinary Member upon joining. Further copies are available from the Secretary.

The same period – and the same Committee – saw the preparation of a set of Standing Orders by which the committee agrees to be governed. The set of 10 are listed in the List of Committee Members issued annually to each member of committee.

There was established from the outset a set of regulations governing elections and offices. Elections would be

held annually at an Annual General Meeting held as the last indoor meeting of a session. The Group delegated executive authority for most matters to a Committee comprising Officers and Ordinary Members. The Group elected for 2 years a Chairman to chair all meetings of the Group and of the Committee.

The Officers always included –

a Vice-Chairman (initially at least 2, later reduced to 1) who in most cases was the Chairman-Elect for 2 years;

a Treasurer, a Secretary each to be elected, in alternate years, for 2 years (and be eligible for re-election);

a Field Excursions Secretary

and (from 1965) an Editor each also to be elected similarly.

There had in addition been –

an assistant Secretary (1960-1971, Mr W.S. Morgan)

and an Assistant Editor (1965-1966, Mr J.N.M. Firth).

Ordinary Members of Committee were always –

A group of 3 elected in 1 year and a group of 2 elected in the year following, all elected for a 2 year period (initially eligible for re-election, later not so, latterly immediately eligible).

In each year 1 representative from each of the 2 student geological societies (UC Cardiff and UC Swansea) was invited (from 1973-4) to serve on the Committee and usually did so.

After serving his 2 year term each Chairman became for 5 years an ex-officio Vice Chairman.

[see **List of Officers and Committee Members 1959-1992**]

At each Annual General Meeting (the 1st was on Tuesday 5 April 1960) the annual reports of the Treasurer, Secretary, Field Excursion Secretary and Editor were presented.

In each Session the Secretary would by circular inform all Ordinary Members of the forthcoming meetings and the Treasurer upon receiving a subscription would give the paid-up member the Membership Card for the current session containing details of the programme and of the current Officers.

Both Officers were to keep an up-to-date List of Members.

The Secretary would keep Minutes of all Meetings and issue at appropriate times copies of Minutes of Committee Meetings and of Annual (and Special) General Meetings.

Ordinary Meetings would be held monthly usually on a Saturday morning (but they have been held on other days in the evening, especially a Friday), usually to take place in Cardiff and Swansea alternately (there have been exceptions determined often by speaker availability), usually in premises of UC Cardiff (now UWC Cardiff) and of UC Swansea.

[See also **Programme of Meetings 1960-1992**]

Meetings have occasionally encountered difficulties, usually winter weather. These have been –

In the 13th Session on Saturday 19 February 1972 at UC Swansea "The Bristol Channel" Symposium postponed through "industrial action" (it took place on 17 March 1973 at UC Swansea);

In the 15th Session on Saturday 22 December 1973 at UC Swansea "Problems of the Welsh Quaternary" – Dr D.Q. Bowen, postponed by a power cut (it took place on Saturday 16 February 1974 at UC Swansea);

In the 23rd Session on Saturday 16 January 1982 at UC Cardiff "The sea floor spreading history of the Red Sea and Gulf of Aden" – Dr P. Styles, postponed through snow (it took place on Saturday 12 February 1983 at UC Cardiff);

In the 26th Session on Friday 18 January 1985 at UC Swansea "Geophysical prediction: civil engineering site investigations" – Dr D. Taylor Smith, postponed through snow (it was not to be given, though Dr Taylor Smith came in 1986 as a speaker in the symposium "Geology and sediments of offshore Wales and adjacent areas");

In the 28th Session on Friday 16 January 1987 at UC Cardiff "A new look at the geology of central SW England" – Dr E.B. Selwood, postponed through snow (it took place in Friday 16 October 1987 at UC Swansea entitled "Recent developments in the understanding of the Variscan geology of SW England");

It was ironic that the 2 coldest winters of 1962-63 and 1978-79 had no such effects upon the Group programme whereas the 3 meetings postponed through heavy snowfall (each on the same January weekend) happened during the Eighties, the decade enjoying the century's warmest (average) climate.

Note: The parent body's sole requirement for the formation of a Group was that there (should) be not less than 10 members of the main Association who were members of the Group and this was adhered to through not insisted upon); and subsequently, that the Group present to the main body an Annual Report and this has also been carried out since 1968.

The G.A.'s annual 'Reunion' held usually in University College London (a warren!) usually on a November Saturday has – usually – a Group representation (and at the Committee meeting held on the previous day's afternoon when the Group's Annual Report – to appear in the GA 'Circular'– is presented).

Subscriptions and Membership

The annual subscriptions payable by members is the sole source of regular income to the Group. Amendments to the subscription either to the Category or the Rate are made only at a S*pecial General Meeting* called for the specific purpose usually immediately prior to an Annual General Meeting (the Rules allow for such a meeting to be called at other times).

The initial membership was of 3 categories: Ordinary, Parent body and Junior (later Student), and the initial (1960) rates were 5 shillings (Imperial) and 2 shillings (later 10p decimal) the latter rate applying also to members of the parent body.

Subscriptions were due on 1 September annually.

Changes have been approved as follows –

In the 9th Session: on 14 October 1967 Categories made were: Ordinary; Family; and Corporate; the Rates for which – at £1; £1 and 10/- for each subsequent member of the same family; £1 – were all to include a proportion (10/-) to cover the receipt of *The Welsh Geological Quarterly* issued for that year; and for Junior 2/- only.

In the 13th Session: on 16 October 1971 Categories made were Ordinary and Junior, the Rates made were £0.50 and £0.10, the changes made being largely due to the cessation of *the Welsh Geological Quarterly*.

In the 16th Session: on 15 March 1975 Rates made were £1.00 and (unchanged) 10p.

In the 19th session: on 15 October 1977 the Category of Honorary Members was established.

In the 19th Session: on 18 March 1978 rates made were £1.50 and 20p.

In the 21st Session: on 15 March 1980 the Categories made were Ordinary and Student, the Rates made were £2.00 and (unchanged) 20p.

In the 24th Session: on 12 March 1983 the Rates made were £3.00 and 50p.

In the 25th Session: Minute 154 of Committee Meeting of 15 October 1983 nominated the 1st Honorary Member (Professor T.R. Owen, UC Swansea)

In the 26th Session: Committee Meeting of 17 January 1986, Minute 169, Pensioner members (women over 60, men over 65) be offered an optional lower subscription rate (£1).

In the 31st Session: on 10 March 1990 the Rates made were £5.00 and £1.

Roland Parsons was the Hon. Treasurer of the Group from 23 January 1960 until his retirement after 31 sessions on 10 March 1990. During the 25th Anniversary year the Group acknowledged with grateful thanks his continuous service and at the 25th Annual General Meeting on 10 March 1984 he was presented with a Commemorative Scroll bearing the words "To Roland Parsons the grateful thanks of the Group for 25 years unbroken and loyal service as honorary Treasurer", the Presentation being made by the Hon. Secretary Alun J. Thomas.

His successor as Treasurer in March 1990 was Mr Tom Sharpe (National Museum of Wales).

Publications of the Group 1960-1992

The Welsh Geological Quarterly Editor: Dr Douglas A. Bassett

Format: Duplicated on 21 x 26.5 cm paper stapled between soft covers (vol.1 cream, vol.2 red, vol.3 grey, vol.4 green, vol.5 orange).

Vol. No.	DATE OF PARTS	DATE OF ISSUE	PAGINATION
1 1965-1966	no.1 Autumn 1965 no.2 Winter 1965 no.3 Spring 1966 no.4 Summer 1966	1965 October 1966 January 1966 April 1966 September	1-33 1-42 1-50 1-28; 1-28 181
2 1966-1967	no.1 Autumn 1966 no.2 Winter 1966 no.3 Spring 1967 no.4 Summer 1967	1966 December 1967 March 1967 August 1967 December	1-38 1-42 1-48 1-19; 1-38 185
3 1967-1968	no.1 Autumn 1967 no.2 Winter 1967 nos. 3, 4 Spring 1968, Summer 1968	1968 February 1968 October 1969 March	1-32 1-34 1-91 157
4 1968-1969	no.1 Autumn 1968 nos. 2, 3 Winter 1968, Spring 1969 no.4 Summer 1969	1969 June 1969 October 1970 February	1-42 1-70 1-44 156
5	no.1 Autumn 1969 nos. 2, 3, 4	1970 May not issued	1-60 - - - 60

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Editorial
The National Association of Geology Teachers
In search of trilobite appendages
Welsh geological theses (*in prep.*) - List
Geology in the C.S.E examination (G. Askey)
C.S.E. draft syllabus in geology
C.S.E. specimen paper in geology
General geology of Llanharry Mine (E.L.J. Smail)
Definitions of geology (1)
News and Notes
Books: notices and reviews
Group – officers and members
Group – annual report
Advertisement

Contents of Volume 1, pt.2, Winter 1965

Editorial
The geological contents of general scientific journals: 1965
Search for oil and gas in the Irish Sea
Definition of geology (2)
Northeast Montgomeryshire - corner of geologists
Books: notices and reviews
News and notes
Ogof Ffynnnon Ddu (R.A. Stevens)
In search of a cave
Advertisement
W.G.Q: contents of pt.1

Contents of Volume 1, pt.3, Spring 1966

Editorial
Employment of geologists 1961-63
Definitions of geology (3)
Current research in geology and allied sciences in Welsh colleges, laboratories etc.
News and Notes
A geological time-scale
The Earth Science Curriculum Project (ESCP)
Books: notices and reviews
Advertisement
W.G.Q.: contents of pts 1 and 2

Contents of Volume 1, pt.4, Summer 1966

Editorial
Distribution of student field instruction in geology in Britain (G.P. Black)
Naming fossil specimens (J. Challinor)
Definitions of geology (4)
Current research in geology and allied sciences in Welsh colleges, laboratories: Supplement and Errata
News and Notes
Geological specimen exchange scheme (R.H. Roberts)
Books: notices and reviews
Contributions to *W.G.Q.* vol.1 – List
Advertisements
Welsh Geological Abstracts: 1965 (separate pagination)

Contents of Volume 2, pt.1, Autumn 1966

The Anthracite Problem: with particular reference to South Wales (T.R. Owen)
The geological map (1)
Contents of some geological journals: 1966
Preparedness for Disaster: The geologist's role
James Frederick Jackson 1896-1966 (F.J. North)
Damage to property
The geology of Parys Mountain (D.E.B. Bates)
News and Notes
Group – officers and members
Group – annual report
Advertisements

Contents of Volume 2, pt.2, Winter 1966

Editorial
The movement and consolidation of magmas illustrated with reference to the succession of Ordovician strata and igneous rocks in the Arthog-Dolgellau District (W.J. Phillips)
International cooperation in the study of the Cambrian System
Contents of some geological journals: 1966
The geological map (2)
Welsh geological theses *in prep*. – List
New Year conferences 1967
International conferences
Marine geology at the National Institute of Oceanography
Minerals and fossils on Swiss stamps (J.E. Robinson)
Advertisement
News and Notes
Geological contents of general scientific journals: 1966

Contents of Volume 2, pt.3, Spring 1967

Editorial
Directory of British Geology
I. A provisional annotated bibliography and index of geological excursion guides and reports for areas in Britain. A. Scotland
News and notes

Contents of Volume 2, pt.4, Summer 1967

Editorial
A brief review of discoveries in British palaeontology (based on a memorandum commissioned for the 'dome of Discovery' at the 1951 Exhibition) (J. Challinor)
News and Notes
Contributors to *W.G.Q.* vol. 2 – List
Conference of geology teachers at Keele University, September 22-24, 1967
The imprint of structural lineations on the physical landscape of Wales (T.M. Thomas)
Death of an Investigation (R.E. Samples)
Welsh Geological Abstracts 1966
Welsh Geological Abstracts 1965: Supplement (separate pagination)

Contents of Volume 3, pt.1, Autumn 1967

Editorial
Directory of British Geology
I. A provisional annotated bibliography and index of geological excursion guides and reports for areas in Britain. B. Wales and the Welsh Borders
Welsh coast boring may be vital clue in gas quest
News and Notes (A. Wood)
Group – annual report

Contents of Volume 3, pt.2, Winter 1967

The geomorphology of northern Pembrokeshire: with a suggested itinerary based on St. Davids (C. Embleton)
A geology of Cader Idris Area (Merionethshire): field itinerary with theoretical explanations (R.G. Davies)
News and Notes
Nature – Times News Service

Contents of Volume 3, pt.3-4, Spring-Summer 1968

Editorial
Directory of British Geology
I. A provisional annotated bibliography and index of geological excursion guides and reports for areas in Britain. C. England

Contents of Volume 4, pt.1, Autumn 1968

Nature – Times News Service, January-march 1968
Nature – Times News Service, April-May 1968
Nature – Times News Service, June-September 1968
Techniques for extraction of microfossils (A.C. Higgins and E.G. Spinner)
Letters to the Editor
News and Notes
Group – officers and members
Group – annual report

Contents of Volume 4, pt.2-3, Winter 1968 - Spring 1969

Editorial
Review of geological research in Cardiganshire 1842-1967 (J. Challinor)
O.T. Jones and Cardiganshire geology
Nature – Times News Service October-December 1968
Nature – Times News Service January-March 1969
News and Notes
Group – The 1st 10 years, 1960-1969

Contents of Volume 4, pt.4, Summer 1969

Editorial
The Discoverers: William Smith (J.M. Eyles)
Nature – Times News Service April-June 1969
News and Notes
Georges Cuvier (1769-1832): the founder of Vertebrate Palaeontology
The drainage of central Monmouthshire (E.J. Searle)
Moon Rock

Contents of Volume 5, pt.1, Autumn 1969

Nature – Times News Service July-September 1969
A field guide to the Mynydd Bodafon-Lligwy Bay area (Anglesey) (D.E.B. Bates)
News and Notes
Preliminary examination of lunar samples from Apollo 11
Field notes on the coastal section from Ogmore by Sea to Dunraven (Glamorgan) (T.M. Thomas)

Geological excursions in South Wales and the Forest of Dean edited by D.A. Bassett and M.G. Bassett, 266 pp., published September 1971.

The Publications Subcommittee set up after the cessation of *The Welsh Geological Quarterly* presented a short list of 'Recommendations' to the Committee meeting of 1 October 1970 and there was set in train action to produce a geological excursion guide involving – invitations for written contributions and invitations for sources of funding the cost of printing 2500 copies (about £1000) to be published in September 1971 to coincide with the *BAAS Swansea Conference*.

20 contributors were soon assembled, their accounts edited into a continuous format and readable style.

Messrs H.J. Lear provided a considerable proportion of the funding, and publication was made on schedule.

It proved, with its attractive cover and convenient size, its 21 up-to-date itineraries of South Wales geology and readable style, to be a publication that met a considerable demand. By June 1973 H.J. Lear (Cardiff's principal bookstore) had sold most of its stock (of 1000 copies) and was seeking to buy in bulk first from Swansea's Singleton Bookshop (where sales of their 1000 had been much slower) and later from the Group's own stock of 500. The book went out of print in 1978 still at its publication price of £1.75 (£1.50).

Minute 91 of the Committee meeting of Monday 19 October 1977 (held at South Glamorgan Outdoor Centre Porthcawl) recorded the Editor's recommendation (and the Committee's support) that a geological excursion guide to Dyfed be prepared. Earlier committee considerations had included a series of geological booklet guides and a volume devoted to the geological evolution of Wales (but these had come to nothing).

Geological excursions in Dyfed, southwest Wales edited by Dr M.G. Bassett, 325 pp., published May 1982 in a format and size similar to its predecessor with 19 itineraries written by 24 contributors.

A large proportion of the printing costs (£8,000 for 3000 copies) was borne by Messrs H.J. Lear and by the National Museum of Wales, joint publishers with the Group (whose Publications Account had been emptied of its £1265). This Guide too has proved popular, selling at £6.50 (£5.00 to members) and the Group's stock had fallen to 100 copies (March 1992).

In the interim the Publications Account in the Treasurer's balance sheet had again grown (£2433) before – again – being the Group's portion of the printing costs of yet a third excursion guide *Geological excursions in Powys* edited jointly by Dr M.G. Bassett and Dr N.H. Woodcock (University of Cambridge) with a keenly anticipated publication date of mid 1993 (by University of Wales Press).

The 3 guides will have covered the southern half of Wales (as far north as the Berwyn Hills) in the 21 years of their publication.

The parent body's series of guides, begun in 1958 (Centenary Year), to districts of Britain, included no. 17 T*he Swansea district* last revised in 1968 (by T.R. Owen and F.H.T. Rhodes). This will be replaced by a substantially new guide in the same format as the earlier editions. The Group's editor has coordinated its compilation.

(Publication may also be in 1993). [postponed].

Apart from the Group's Annual Report submitted to the parent body and published in its Annual Report, the only Group contribution before 1984 to the *Proceedings of the Geologists' Association* had been the field excursion account by the late Trevor M. Thomas "Field Meeting of the South Wales Group on the Stack Rocks to Bullslaughter Bay section of the South Pembrokeshire Coast" in *Proc. Geol. Ass.*, vol.**81**, (1970), pp. 241-248.

A major episode in the publishing history of the Group (and a significant and important contribution to contemporary Welsh geology) was the decision to publish the proceedings of a series of symposium meetings held in 1982-1986.

The first three – 11 December 1982 "The geological evolution of Wales" (6 speakers), 3 December 1983 "Lower Palaeozoic Wales" (6 speakers) and 14 January 1984 "Upper Palaeozoic Wales" (7 speakers) – were combined under the editorship of Dr M.G. Bassett and published as "Focus on Wales" in *Proc. Geol. Ass.*, vol.**95**, (1984), pp. 289-398 comprising the entire Part 4 of that volume. This was the first example of an entire Part of the *Proceedings* being given over to the contribution of a Group of the Geologists' Association.

The 4th Symposium of 15 February 1986 (with 13 papers) provided the material, again edited by Dr M.G. Bassett, for Part 4 of *Proc. Geol. Ass.*, vol.**98**, pp.273-414 published in December 1987 entitled "Geology and sediments of offshore Wales and adjacent areas".

[see **Programme of Meetings 1960-1992** for details of each Symposium]

Ephemera

Group Notices were typewritten (earlier duplicated, later – from about 1979 – photocopied and often reduced) on – eventually – A4 sheets usually folded, and consisted of:–

Notices of Meetings, *Programmes of Meetings of the Session*, *Agenda* and *Minutes of Annual and Special General Meetings*, *Reports of Officers*, *Field Excursion booking forms*, *Rules of the Group* and *Membership Subscription Form* (incorporating Subscription Rates, Origins of the Group, Publications) –
for distribution to all Members;

Notices of Committee Meetings, Agenda and Minutes of Committee Meetings, Committee Lists and *Standing Orders* –
for distribution to members of Committee.

Broadsheets summarising contents of publications, specifically –
Contents of *The Welsh Geological Quarterly* 1965-1970, vols.1-5,
Geological excursions in Dyfed 1982
Focus on Wales 1984 –
for general distribution.

A *poster*, 50 x 75 cm, with stylised geological column in red on white overprinted in black with "Geologists' Association South Wales Group" (designed by Dr Robert M. Owens), 500 screen-printed by D.K. Conroy was produced at cost for the Group in 1974 –
for display in schools, colleges (free).

A *Membership Card*, (usually) 15 x 11.5 cm and folded, coloured ticket card, printed annually (Ellis of Caerphilly from 1960 to 1980, Brook and Williams of Barry to 1990) with Programme for the Session, Subscriptions and List of Officers, and bearing the badge or logo of the parent body (earlier 'Geologists' Association London', later – from 1990 – 'Geologists' Association 1858') –
for issue to paid-up or eligible Members.

The *Membership Subscription Form* was issued in completely revised format in October 1991, bearing a *new Group logo* (designed by Mrs D. Gaye Evans) consisting of a perspective outline (as if viewed from the south) of Wales overprinted with the (revised) parent body badge and the words 'South Wales'.

GROUP CHAIRMEN 1959-1992

Douglas A Bassett
1959-60, 1960-1962

David E. Morgan
1962-1964

David J.W. Thomas
1964-1966

T. Richard Owen
1966-1968

John C. W. Baker
1968-1970

Trevor M. Thomas
1970-1972

Michael Brooks
1972-1974

D. Emlyn Evans
1974-1976

Rodney A. Gayer
1976-1978

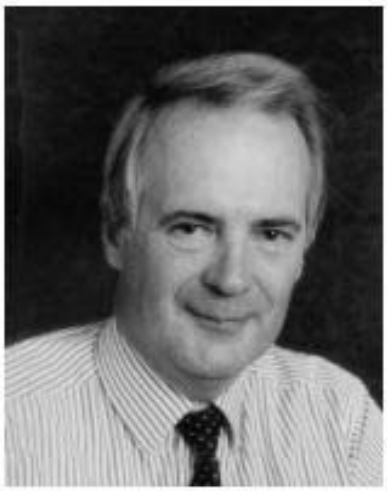
GROUP CHAIRMEN 1959-1992

Derek V. Ager
1978-1980

John W. Perkins
1980-1982

John C.W. Cope
1982-1984

Alan G. Thomas
1984-1986



Anthony T.S. Ramsay
1986-1988

R. Alan Stephens
1988-1990

Ahn J. Thomas
1990-1992

Michael G. Bassett
1992-

Chairmen, Retiring Chairmen's Addresses

1960-1962 1st (Founder) Chairman;
DOUGLAS ANTHONY BASSETT, Ph.D., F.G.S.;
Keeper of Geology, National Museum of Wales, Cardiff;
05.04.1960 – 1st A.G.M., "The history of Lower Palaeozoic research in Wales with particular reference to the Cambrian rocks of Merioneth";
17.03.1962 – 3rd A.G.M. (2nd Chairman's Address), "The Welsh geosyncline";
1965-1974 Group Editor (*The Welsh Geological Quarterly*, 5 vols, 1965-1970; (joint ed.) Geological excursions in *South Wales and the Forest of Dean* 1971);
4 lectures; 08.12.1960, 09.10.1965; 16.02.1980, 16.11.1991
2 field excursions; 14-15.04.1962, 12-13.09.1964;
1986 *2nd Honorary Member* of the Group.

1962-1964 2nd Chairman;
DAVID EVAN MORGAN, B.Sc.;
Oil geologist, retired (Shell), Cowbridge;
07.03.1964 – 5th A.G.M., "The impact of the geologist on the discovery of oil".

1964-1966 3rd Chairman;
DAVID JOHN WILLIAMS THOMAS, B.Sc.;
Head of Geography and Geology, Cardiff Canton Boys High School;
12.03.1966 – 7th A.G.M., "The personality of geology".

1966-1968 4th Chairman;
*THOMAS RICHARD OWEN, M.Sc., F.G.S.;
Senior lecturer in Geology, University College of Swansea;
06.04.1968 – 9th A.G.M., "Problems associated with the evolution of surface drainage in South Wales";
6 lectures; 17.11.1962, 18.11.1972, 17.03.1973, 21.02.1976, 20.10.1979, 14.01.1984;
10 field excursions; 23.04.1960, 13-14.05.1961, 23-24.09.1961, 12.05.1962, 04.05.1963, 26-27.09.1964, 22.05.1965, 23.04.1966, 14.04.1973, 05.07.1980;
1984 *1st Honorary Member* of the Group;
(1991 1st T.R. OWEN MEMORIAL LECTURE given by Professor F.H.T. Rhodes; 1992 2nd T.R. OWEN MEMORIAL LECTURE given by Professor G. Kelling).

1968-1970 5th Chairman;
JOHN CHRISTIAN WELLSTOOD BAKER Ph.D., F.G.S.;
Senior lecturer in Geology, University College, Cardiff;
14.03.1970 – 11th A.G.M., "In Wales before the Cambrian";
1 lecture; 13.02.1965;
5 field excursions; 25.05.1963, 16.05.1964, 02.05.1970, 22.04.1978, 01.05.1982.

1970-1972 6th Chairman;
*TREVOR MORGAN THOMAS, M.Sc., F.G.S.;
Geologist, Ministry of Housing and Local Government, Cardiff;
18.03.1972 – 13th A.G.M., "Western USA – a geological and geomorphological showhouse, an arena of physical fantasy";
1960-1968 Group Field Excursion Secretary;
5 lectures; 23.11.1961, 14.12.1963, 05.02. 1966, 16.12.1967, 19.01.1974;
10 field excursions; 09.4.1960 (Group's 1st), 15.04.1961, 31.03.1962, 06.04.1963, 09.05.1964, 03.04.1965, 10.09.1967, 30.03.1968, 29.03.1969, 03.04.1971;
(12.02.1977 T.M. THOMAS MEMORIAL LECTURE given by Dr T.D. Ford, University of Leicester).

1972-1974 7th Chairman;
MICHAEL BROOKS, Ph.D., F.G.S.;
Senior lecturer in Geology, University College of Swansea;
17.03.1973 14th A.G.M. "The geology and sedimentology of the Bristol Channel" (Symposium)
3 lectures; 17.01.1976; 08.12.1979, 15.02.1986;
2 field excursions; 11-12.05.1968, 22.04.1978.

1974-1976 8th Chairman;
DAVID EMLYN EVANS B.A.;
Assistant Keeper of Geology, National Museum of Wales, Cardiff;
28.02.1976 "Experiments with minerals" (Lectures for children);
1 lecture; 06.12.1975;
4 field excursions; 08.04.1967, 11.04.1970, 12.05.1973, 09.05.1976.

1976-1978 9th Chairman;
RODNEY ANTHONY GAYER, Ph.D., F.G.S.;
Senior lecturer in Geology, University College Cardiff;
18.03.1978 – 19th A.G.M., "Iapetus, the Caledonian ocean";
4 lectures; 16.11.1968, 21.10.1972, 21.02.1976, 17.11.1979;
1 field excursion; 02.05.1970.

1978-1980 10th Chairman;
DEREK VICTOR AGER Ph.D., Sc.D., F.G.S.;
Professor and Head of Geology, University College of Swansea;
16.03.1980 – 21st A.G.M., "The Mesozoic opening of the Atlantic or What the Brachiopod saw";
2 lectures; 18.10.1969, 21.02.1976;
1 field excursion; 28.10.1978.

1980-1982 11th Chairman;
JOHN WILLIAM PERKINS, B.Sc., F.G.S.;
Tutor in Geology, Department of Extramural Studies, University College, Cardiff;
13.03.1982 – 23rd A.G.M., "City centre geology (a means of conservation)";
2 lectures; 21.02.1976, 17.02.1979;
1 field excursion; 27.04.1980.

1982-1984 12th Chairman;
JOHN CHRISTOPHER WOLVERSON COPE, Ph.D., D.Sc., F.G.S.,
Reader in Geology, University College of Swansea;
10.03.1984 – 25th A.G.M.; "The Llangynog Inlier: new discoveries in the Carmarthen area";
1990- Group Field Excursions Secretary;
5 lectures; 16.03.1968, 18.02.1978, 11.12.1982, 15.02.1986, 10.03.1989;
6 field excursions; 12.11.1977, 13-15.05.1983, 23.02.1991, 26-28.04.1991, 02.02.1992, 07.03.1992.

1984-1986 13th Chairman;
ALAN GWYN THOMAS;
Research Officer (ret'd), National Coal Board Ystradmynach;
08.03.1986 – 27th A.G.M., "Reflections in coal: 35 years in the South Wales coal industry".

1986-1988 14th Chairman;
ANTHONY TREVOR SPENCER RAMSAY, Ph.D., F.G.S.;
Senior lecturer in Geology, University College of Swansea;
05.03.1988 – 29th A.G.M., "The Carboniferous Limestone of the North and South Crops: problems and discoveries";
3 lectures; 17.11.1973, 13.02.1982, 08.12.1984;
4 field excursions; 05.07.1975, 06.11.1982, 25.11.1989, 09.06.1990.

1988-1990 15th Chairman;
ROBERT ALAN STEVENS, M.Sc.;
Lecturer in civil engineering (ret'd), U.W.I.S.T. Cardiff;
10.03.1990 – 31st A.G.M., "An engineer's view of geology";
1 field excursion; 22.05.1965.

1990-1992 16th Chairman;
ALUN JAMES THOMAS, B.Sc.,
Schools Officer for Geology (ret'd), National Museum of Wales, Cardiff;
18.03.1992 – 33rd A.G.M., "The South Wales Group 1960-1992: a geological perspective";
1966-1989 Group Secretary;
2 lectures; 10.12.1966, 21.02.1976;
8 field excursions; 03.04.1976, 18.06.1977, 08.07.1978, 02.06.1979, 19.04.1980, 26.09.1981, 03.11.1990, 06.07.1991;
1990 *3rd Honorary Member* of the Group.

1992- 17th Chairman;
MICHAEL GWYN BASSETT, Ph.D., D.Sc., F.G.S.;
Keeper of Geology, National Museum of Wales, Cardiff;
1968-1974 Group Field Excursions Secretary;
1974- Group Editor;
6 lectures; 19.03.1977, 12.12.1981, 03.12.1983, 15.02.1986, 07.01.1987, 10.03.1989;
6 field excursions; 17.05.1969, 23.05.1970, 18.05.1974, 26.02.1983, 10-12.05.1985, 20-22.05.1988.

Awards and Commemorations

It was not until the 1983-1984 session that a decision was taken, appropriately in the 25th Anniversary Session, to nominate a candidate for *Honorary Membership* of the Group. The 1st Honorary Member was *Professor T. Richard ('Dick') Owen to whom a Presentation (a commemorative scroll and address) was made by the Founder Chairman Dr D.A. Bassett on Saturday 10 March 1984 at the 25th Annual General Meeting held in U.C. Cardiff (the proceedings described in the Minutes of that Meeting).

[*Professor T.R. Owen died 30 April 1990]

Appropriately the 2nd Honorary Membership was to the same Dr Douglas A. Bassett, whose guidance and industry had supported greatly the Group's early years, and the Presentation (a commemorative scroll and address) was made on Saturday 8 March 1986, at the 27th Annual General Meeting held in U.C. Cardiff, by the Retiring Chairman Mr Alan G. Thomas (the proceedings described in the Minutes of that meeting).

On Saturday 10 March 1990 at the 31st Annual General Meeting, held in U.C. Swansea, Mr Alun J. Thomas the Group's Secretary for 22 years (1966-1989) was elected the Third Honorary Member, the presentation (an Estwing geological hammer and Address) being made by the Retiring Chairman, Mr R. Alan Stevens (the proceedings described in the Minutes of that meeting).

The Committee minutes
– of 15 October 1983, Minute 154:
Proposed Dr M.G. Bassett, seconded A.J. Thomas and approved that Professor T.R. Owen become and Honorary Member (the 1st) of the Group;
– of 17 January 1986, Minute 168:
Unanimously agreed to offer Honorary Membership (2nd) to Dr D.A. Bassett to be presented at 27th A.G.M. on 8 March 1986;
– of 20 January 1990, Minute 201:
Committee to nominate as (3rd) Honorary Member, Alun J. Thomas in recognition of his services to the Group as Secretary for 22 years and for his contribution to geology in particular in education in Wales
recorded the nominations for Honorary Membership.

The qualifications required for nomination as Honorary Member have nowhere been listed, allowing maximum flexibility to the considerations of a Committee.

It was Dr D.A. Bassett in his Presentation Address on the occasion of the Presentation of Honorary Membership to Professor Dick Owen (on 10 March 1984) who pointed out that this was the first award made to one of its members by any South Wales-based geological group (other members had received awards either from a geological body outside Wales or from a non-geological group in the

Principality).

A T.M. Thomas *MEMORIAL LECTURE* (in recognition of the Group's 6th Chairman 1970-1972 and its former Field Excursions Secretary 1960-1968) "Limestone caves and mineralisation" was delivered by Dr Trevor D. Ford (University of Leicester) on 12 February 1977.

An annual T.R. Owen *MEMORIAL LECTURE* (the series to be jointly organised by the Group, the Department of Adult Education University College of Swansea and the Department of Geology University of Wales College Cardiff) began with the delivery of the 1st by Professor Frank H.T. Rhodes, President of Cornell University, U.S.A. (formerly Professor of Geology at University College of Swansea 1956-1968) on the evening of Thursday 4 July 1991 to a large audience gathered in the Reardon Smith Lecture Theatre of the National Museum of Wales Cardiff. It was entitled 'Charles Darwin, Geologist' and was prefaced by a tribute to the late Professor Thomas Richard Owen (1918-1990), the text of which is given below. "Dick" Owen had been the Group's 4th Chairman 1966-1968 and its 1st Honorary Member 1984.
(see Obituary in *Proceedings of the Geologists' Association*, **102**, pt.4 (1991), p.321 [D.V. Ager]).

Text of the tribute to the late Professor Thomas Richard Owen given by Professor Frank H.T. Rhodes, President of Cornell University, U.S.A. and formerly Professor of Geology at University College of Swansea as part of the 1st T.R. Owen *MEMORIAL LECTURE* on 4 July 1991 at the National Museum of Wales, Cardiff.

"Dick Owen was born on the 28th of July, 1918. He was educated at Merthyr Tydfil Grammar School and graduated with 1st class honours from the Geology Department of University College of Swansea in 1939. He stayed on another 2 years as a postgraduate student and undertook research on the structure of the Vale of Neath for which he was awarded the degree of M.Sc. in 1941. He was then called up and from 1941 to 1946 he served as a meteorological officer in the R.A.F., rising to the rank of flight lieutenant. He was proud of those years and he talked with enthusiasm of his posting to the Azores for part of the period. Dick returned to Swansea in 1946 to enrol in a Diploma in Education course. Then in 1947 he was appointed a temporary demonstrator in the Department of Geology. For the next 35 years Dick Owen in one capacity or another was associated with the Swansea Geology Department. He provided dedicated teaching, devoted service and thoughtful leadership in every aspect of the life of the Department.

There are 2 Dick Owens that we celebrate tonight. The 1st is Dick Owen the geologist – a remarkable man. In an era if you had said to Dick "What is your own particular speciality?" I think he would have found it difficult to respond. I believe his real speciality was Wales in all its breadth and in all its complexities. He loved the whole Principality but he loved the Vale of Neath most of all and, after that in close order, the Gower Peninsula and the Pembrokeshire coast. But the whole of Welsh geology was his. Some of us can still see him, in our mind's eye, toiling up Carreg Cennen, standing beside a cascading waterfall in the Vale of Neath, looking out over Rhossili Down or demonstrating structure under the cliffs at Lavernock. Dick had a genius for bringing the past to life, whether it was a Liassic shoreline, an Avonian lagoon, a Westphalian coal swamp or Armorican earth movements. There was a magic about Dick Owen's presentation of geology. It wasn't simply a public performance. It was almost a personal encounter. Dick had time for everyone, for the visiting dignitary, for the international scholar, for the intermediate student, for the shopkeeper enrolled in a WEA course or for the members of a chapel at which he might be giving a popular lecture in geology. And there are people here tonight from the schools, from groups and societies, from the Swansea department, from several universities – all of whom were touched by the richness that was Dick Owen.

Of course his scholarly work stands in its own right. His work on the Vale of Neath was published by the Geological Society in 1954 and rapidly established itself as a classic. That was followed by a series of papers, growing in breadth as time went on, to take in the whole British Isles in his 3 books. His breadth was remarkable: regional stratigraphy, tectonics, sedimentation, geomorphology, marine geology. He was master of all these and more. He was a master expositor of them all.

But behind Dick Owen, master geologist, there was Dick Owen the extraordinary person, and we also celebrate tonight Dick Owen as a friend. I first met Dick almost exactly 35 years ago in September of 1956. When I joined him in the Swansea Geology Department there were 3 members of staff – Dick Owen, Vic Walmsley and Brian Simpson, 1 senior technician Trevor Marchant – who had been there with A.E. Trueman – and 1 postgraduate student Ken Jones. That was the foundation on which together we rebuilt the Department – and Dick played a major role in this. For the next 12 years I was in almost daily contact with him. It was a rare privilege as together we sought to develop a new curriculum, to build up a comprehensive department, to plan a new building. We worked together at a very exciting time. We were next-door neighbours in the Department. Our offices were adjacent to one another. For a time we were neighbours in Killay where Dick lived a happy and contented domestic life for many years at 14 Wimmerfield Crescent. How do you explain to someone who didn't know him first-hand, Dick Owen the person? Gracious, enthusiastic, honest in a way that few other people could exemplify, modest almost to a fault; I never knew a more principled or a more modest man – with a wonderful gentle sense of humour; courageous, never more so than after that terrible car accident in which he was involved; proud, proud of Swansea, immensely proud of Wales, proud of his students, proud of his family; a devoted husband to Mary for so many years and to Phyllis who brought such companionship to the last part of his life and a proud father of Llynwyn and a proud grandfather.

I had hoped to have a slide of Dick that I could project tonight, but all my slides were field slides which didn't really show him to scale. But I do have 3 photographs that Phyllis, his widow, sent me just yesterday and 1 of those in particular captures Dick Owen in a way that so many of us will remember him in the field: dark raincoat, cap pulled down, tie and flannels, looking pensively into the distance. The last time I saw Dick was almost exactly 2 years ago. It was a sad occasion because in a quite literal sense it was a requiem; it was a wake for the Swansea Geology Department. A decision had been made that that great Department should be closed down. And yet as Dick gave the talk that reviewed the history of the Department his presentation was remarkably upbeat. He talked enthusiastically about the past, about A.E. Trueman, about Franklin Sibley, about Neville George, about Duncan Leitch, about Brian Simpson. He talked with great enthusiasm about the present, about Derek Ager, whom I am delighted to see here

tonight and his other colleagues. He talked with excitement about a future that was then very obscure. And there was in all that no recrimination but rather a sense of celebration, a sense of satisfaction, a sense of thankfulness, a sense of expectation.

And it is in that sense that I believe we should honour Dick Owen tonight, recognising an outstanding geologist, celebrating a great life, cherishing a dear friend, remembering with a sense of gratitude somebody who touched us and enriched us all. Dylan Thomas was right:

Though lovers be lost, love shall not;
And death shall have no dominion.

And over a life of that nobility, death shall have no dominion."

The Geologists' Association (the parent body) makes a number of awards annually. The Foulerton Award for 1980 was for the 1st time (see Min. 119 of 26.01.1980 Committee) given to a member outside the main (London) body, namely to Alun J. Thomas (Hon Secretary of the South Wales Group) "For services to Geology in Wales", the Presentation on Friday 2 May 1980 in Burlington House being made by Dr A. Clive Bishop, President of the G.A. (Professor D.V. Ager, the Groups's 10th Chairman, had also received the same Foulerton Award, made prior to his coming to South Wales).

The country's leading geological body, the Geological Society of London, makes a number of awards annually and the following is a short list, far from exhaustive, of such awards made to Chairmen of the Group:-

E.J. GARWOOD FUND 1967 to Dr J.C.W. Cope
MURCHISON FUND 1969 to Professor D.V. Ager
LYELL FUND 1971 to T.R. Owen
WOLLASTON FUND 1974 to Dr D.A. Bassett
R.H. WORTH PRIZE 1978 to D.E. Evans
LYELL MEDAL 1979 TO Professor D.V. Ager
LYELL FUND 1981 to Dr M.G. Bassett

Geological Society awards made to other members of the Group in other years have included:-

WOLLASTON FUND 1947 to Dr A.W. Woodland
WOLLASTON FUND 1948 to Dr J.G.C. Anderson
LYELL FUND 1957 to Professor F.H.T. Rhodes
LYELL FUND 1961 to Dr W.T. Dean
BIGSBY MEDAL 1967 to Professor F.H.T Rhodes

The Liverpool Geological Society made the following award:-

SILVER MEDAL 1965 to Dr D.A. Bassett

The Institution of Geologists made the following award:-

ABERCONWAY MEDAL 1985 to Dr D.A. Bassett

Higher Degrees of Universities have been gained by or awarded to:-

Professor D.V. Ager 1981 Hon. Sc.D. (University of Sorbonne, Paris)
Dr M.G. Bassett 1984 D.Sc. (University of Wales)
Dr J.C.W. Cope 1989 D.Sc. (University of Bristol)
Dr D. Edwards 1989 Sc.D. (University of Cambridge)

PROGRAMME OF MEETINGS 1960-1992

1st Session 1960 (Acting) Chairman Dr Douglas A. Bassett (National Museum of Wales).

1960

23 January, Saturday, Cardiff
Inaugural Meeting "Prospecting for Minerals", Professor David Williams (Imperial College, University of London and President, Geologists' Association).

13 February, Saturday, Swansea
"The geology of south-east Wales with special reference to the Cardiff District" Professor J.G.C. Anderson (University College Cardiff).

3 March, Thursday, Cardiff
"The Rocky Mountains", Professor F.H.T Rhodes (University College of Swansea).

5 April, Tuesday, Swansea
First Annual General Meeting (including election of First Chairman) followed by the Chairman's Address "The History of Lower Palaeozoic research in Wales with particular reference to the Cambrian rocks of Merioneth", Dr Douglas A. Bassett (National Museum of Wales).

9 April , Field Meeting, Saturday
"The Vale of Glamorgan", Trevor M. Thomas (Ministry of Housing and Local Government Cardiff).

23 April, Field Meeting, Saturday
"The head of the Vale of Neath", T.R. Owen (University College of Swansea).

7 May, Field Meeting, Saturday
"The Chepstow Area", Professor J.G.C. Anderson (University College Cardiff).

21 May, Field Meeting, Saturday
"The Llandeilo-Llandovery Area", Professor F.H.T Rhodes (University College of Swansea).

2nd Session 1960-61 First Chairman Dr Douglas A. Bassett (National Museum of Wales).

1960

8 October, Saturday, Swansea
"Sedimentation in geosynclinal troughs", Professor Alan Wood (University College of Wales Aberystwyth).

5 November, Saturday, Cardiff
Symposium 'The geology of the Arctic and Antarctic Regions',
"Aspects of the geology of the Arctic", Dr J.W. Cowie (University of Bristol);
"An introduction to the geology of Antarctica", Dr D.H. Maling (University College of Swansea);
"The geology of Grahamland and the Scotia Arc", Dr P.R. Hooper (University College of Swansea).

10 December, Saturday, Swansea
"The geological approach to historic buildings", Dr F.J. North (Late of National Museum of Wales).

1961

21 January, Saturday, Cardiff
"Sedimentary features of ancient Deltas", Professor J.H. Taylor, F.R.S., (King's College University of London).

18 February, Saturday, Swansea
"Some aspects of caves in South Wales", Dr A. Williams (University College Cardiff).

11 March, Saturday, Cardiff
Second Annual General Meeting followed by "Recent sedimentation on the Lincolnshire coast, Dr G. Evans (Imperial College University of London).

15 April, Field Meeting, Saturday
"The geomorphology of Southwest Breconshire", Trevor M. Thomas (Ministry of Housing and Local Government Cardiff).

29 April, Field Meeting, Saturday
"The Northeast Crop of the South Wales Coalfield", Dr C.R.K. Blundell (University College Cardiff).

13-14 May, Field Meeting, Saturday-Sunday
Weekend Meeting "Excursion to Gloucestershire, Oxfordshire and Wiltshire", T.R. Owen (University College of Swansea), and D.B. Norris (Dynevor Grammar School, Swansea).

27 May, Field Meeting, Saturday
"The Southeast Glamorgan Coast", Dr H. Ivimey-Cook (H.M. Geological Survey, London).

3 June, Field Meeting, Saturday
"The stones of Llandaff Cathedral", Dr F.J. North (late of National Museum of Wales).

3rd Session 1961-62 Chairman Dr Douglas A. Bassett (National Museum of Wales).

1961

23-24 September, Field Meeting, Saturday-Sunday
Weekend Meeting "The St Davids District", T.R. Owen (University College of Swansea), and D.B. Norris (Dynevor Grammar School, Swansea).

20 October, Friday, Cardiff
"The denudation Chronology of Southern Britain", Dr Eric Brown (King's College, University of London).

17 November, Friday, Swansea
Members Night at University College of Swansea;
"The Evolution of the Drainage of the Afan and Lower Nedd valleys", W.S. Morgan (Neath Boys Grammar-Technical School);
"The Evolution of the Drainage in the Eastern portion of the South Wales Coalfield", D.B. Norris (Dynevor Grammar School, Swansea);
"Some Karstic Features of the North Crop of the South Wales Coalfield", T.M. Thomas (Ministry of Housing and Local Government, Cardiff).

23 November, Thursday, Cardiff
Members Night at University College Cardiff;
"The Evolution of the Drainage of the Afan and Lower Nedd valleys", W.S. Morgan (Neath Boys Grammar-Technical School);
"The Evolution of the Drainage in the Eastern portion of the South Wales Coalfield", D.B. Norris (Dynevor Grammar School, Swansea);
"Some Karstic Features of the North Crop of the South Wales Coalfield", T.M. Thomas (Ministry of Housing and Local Government, Cardiff).

9 December, Saturday, Cardiff
Symposium 'Soils';
"Soils and geology of South Wales with particular reference to the Coalfield", Dr C.B. Crampton (Soil Survey of England and Wales, Cardiff);
"Soils and geology of North Wales with particular reference to Denbighshire", D.F. Ball (Nature Conservancy Bangor).

1962

27 January, Saturday, Swansea
"Ancient Shorelines in Great Britain", Sir William J. Pugh (late Director H.M. Geological Survey, London).

17 February, Saturday, Cardiff
"On 2 new volcanoes: Barcena, Mexico and Capelhinos, Azores", Dr A.F. Richards (Commonwealth Liaison Office, London).

17 March, Saturday, Swansea
Third Annual General Meeting followed by the Retiring Chairman's Address "The Welsh Geosyncline", given by Dr Douglas A. Bassett (National Museum of Wales).

31 March, Field Meeting, Saturday
"Karstic features and Glacial landforms in the Millstone Grit and Carboniferous Limestone country West of the Upper Tawe valley", T.M. Thomas (Ministry of Housing and Local Government, Cardiff).

14-15 April, Field Meeting, Saturday-Sunday
Weekend Meeting "The Cambrian geology of the Barmouth Area and Lower Ordovician geology of the Arthog Area", Dr D.A. Bassett (National Museum of Wales).

28 April, Field Meeting, Saturday
"Drainage Evolution and Pennant Stratigraphy in Central North Glamorgan", W.S. Morgan (Neath Boys Grammar-Technical School), and D.B. Norris (Dynevor Grammar School Swansea).

12 May, Field Meeting, Saturday
"The South Gower Coast", T.R. Owen (University College of Swansea).

26 May, Field Meeting, Saturday
"A Geomorphological traverse of East South Wales from Cardiff to Penyfan", Dr Eric Brown (University College, University of London).

4th Session 1962-63 Second Chairman David E. Morgan (late Shell Oil Co.).

1962

13 October, Saturday, Swansea
"Wandering Continents", Dr D.E.T. Bidgood (University College Cardiff).

17 November, Saturday, Cardiff
"The Lower Carboniferous of South Wales", T.R. Owen (University College of Swansea);
"The Upper Carboniferous of South Wales", Professor Leslie R. Moore (University of Sheffield).

15 December, Saturday, Swansea
"The Volcanoes of Teneriffe", Dr F.J. North (late National Museum of Wales).

1963

19 January, Saturday, Cardiff
"Some features of the De-glaciation of Northwest Wales", Dr C. Embleton (King's College University of London).

16 February, Saturday, Swansea
"The Pleistocene and Post-Pleistocene geology of South Wales", Professor J.G.C. Anderson, and Dr D.E.T. Bidgood (both University College Cardiff).

16 March, Saturday, Cardiff
Fourth Annual General Meeting followed by "The Evolution of the Geological Map", Dr V.A. Eyles (late H.M. Geological Survey, London).

6 April, Field Meeting, Saturday
"Structure and Scenery of the Ystradfellte-Penderyn Area", T.M. Thomas (Ministry of Housing and Local Government Cardiff).

4 May, Field Meeting, Saturday
"A Geological traverse of West Glamorgan and East Carmarthenshire", Professor F.H.T Rhodes, and T.R. Owen (both University College of Swansea).

25 May, Field Meeting, Saturday
"A Geological traverse of Southeast Monmouthshire and West Gloucestershire", Dr J.C.W. Baker (University College Cardiff).

5th Session1963-64 Chairman David E. Morgan (late Shell Oil Co.).

1963

19 October, Saturday, Cardiff
"Patterns of sedimentation in British Geosynclines with particular reference to Wales", Dr Gilbert Kelling (University College of Swansea).

16 November, Saturday, Swansea
"Carboniferous Vulcanicity in the South Wales Area", Dr C.R.K. Blundell (University College Cardiff).

14 December, Saturday, Cardiff
"Structure and Scenery of the American 'Wild West'", T.M. Thomas (Ministry of Housing and Local Government, Cardiff).

1964

25 January, Saturday, Swansea
"Some problems of Saharan Geomorphology", Professor R.F. Peel (University of Bristol).

15 February, Saturday, Cardiff
"The Glaciology of East Africa", Dr J.B. Whittow (University of Reading).

7 March, Saturday, Swansea
Fifth Annual General Meeting
Retiring Chairman's Address "The Impact of the Geologist on the discovery of Oil", D.E. Morgan (late Shell Oil Co.).

9 May, Field Meeting, Saturday
"Underground visit to Nantgarw Colliery", T.M. Thomas (Ministry of Housing and Local Government, Cardiff)

16 May, Field Meeting, Saturday
"Igneous rocks of the Builth Wells Area", Dr J.C.W. Baker (University College Cardiff).

6th Session 1964-65 Third Chairman David J.W. Thomas (Canton Boys High School Cardiff).

1964

12-13 September, Field Meeting, Saturday-Sunday
Weekend Meeting "The Stratigraphy, Structure and Scenery of the Bala Area", Dr D.A. Bassett (National Museum of Wales).

26-27 September, Field Meeting, Saturday-Sunday
"Armorican structures and the stratigraphical succession between Amroth and Freshwater East", T.R. Owen (University College of Swansea).

17 October, Saturday, Swansea
"Find fossil mammals", Dr R.J.G. Savage (University of Bristol).

14 November, Saturday, Cardiff
"Australia, an isolated continent", Professor F.H.T. Rhodes (University College of Swansea).

12 December, Saturday, Swansea
"The Silurian of South Wales", Dr V.G. Walmsley (University College of Swansea).

1965

16 January, Saturday, Cardiff
"Gemstones", Brian Simpson (University College of Swansea).

13 February, Saturday, Swansea
"The Old Red Sandstone of South Wales and the Welsh Borderland", Dr J.C.W. Baker (University College, Cardiff).

13 March, Saturday, Cardiff
Sixth Annual General Meeting followed by "Geology in industry – a neglected tool?" Dr R.H. Cummings (Robertson Research Co. Llanddulas)

3 April, Field Meeting, Saturday
"The Coastal Sections of the Ogmore-by-Sea and Southerndown area", T.M. Thomas (Ministry of Housing and Local Government Cardiff).

1 May, Field Meeting, Saturday
"The Geomorphology of the Country between Swansea and Carmarthen", Dr David Q. Bowen (University College of Wales Aberystwyth).

22 May, Field Meeting, Saturday
"The Hydrology and Morphology of the Ogof Ffynnon Ddu Cave System, Upper Tawe Valley", R. Alan Stevens (College of Advanced Technology Cardiff).
"Structure and scenery of the Cribarth Ridge and the Upper Tawe valley", T.R. Owen (University College of Swansea).

7th Session 1965-66 Chairman David J.W. Thomas (Canton Boys High School Cardiff).

1965

2-3 October, Field Meeting, Saturday-Sunday
"North Pembrokeshire and South Cardiganshire", Drs Gilbert Kelling and Wallace Bloxam (University College of Swansea).

9 October, Saturday, Cardiff
"Geology and Geologists in Wales and the Welsh Borders", Dr D.A. Bassett (National Museum of Wales).

6 November, Saturday, Swansea
"The Lower Swansea Valley Project", W.B. Walker (University College of Swansea).
11 December, Saturday, Cardiff
"Aspects of the Geomorphology of parts of Western U.S.A.", Professor T. Neville George, F.R.S. (University of Glasgow).

1966
15 January, Saturday, Swansea
Members Meeting -
"Staining Carbonate Minerals", J.A. Dixon (University College Cardiff); "Minerals of Glamorgan", J.N.M. Firth (Midland Silicones Co. Barry);
"Minerals and X-rays", Dr J.I. Langford (University College Cardiff).
5 February, Saturday, Cardiff
"Landforms in Western Canada", T.M. Thomas (Ministry of Housing and Local Government, Cardiff).
12 March, Saturday, Swansea
Seventh Annual General Meeting followed by Retiring Chairman's Address "The Personality of Geology", David J.W. Thomas (Canton Boys High School Cardiff).
2 April, Field Meeting, Saturday
"Periglacial Landforms of the Brecon Beacons", Colin Lewis (University College of Wales Aberystwyth).
23 April, Field Meeting, Saturday
"The Succession of the Basal Coal Measures between Abercrave and Aberdare", T.R. Owen (University College of Swansea).
7 May, Field Meeting, Saturday
"Geology of the Chepstow, Beachley, Severn Bridge and Monmouth Areas", Professor J. Graham Anderson (University College Cardiff).

8th Session 1966-67 Fourth Chairman T. Richard 'Dick' Owen (University College of Swansea).
1966
24 September, Saturday, Cardiff
"Aspects of Ordovician Vulcanicity", Dr W. John Phillips (University College of Wales Aberystwyth).
8-9 October, Field Meeting, Saturday-Sunday
Weekend Meeting "The Ludlow-Wenlock Edge District", Dr Victor G. Walmsley (University College of Swansea).
29 October, Saturday, Swansea
"An Expedition to Spitsbergen", Dr Huw Squirrel (H.M. Geological Survey London).
19 November, Saturday, Cardiff
"The Geology of the Moon", Dr C. Robert Blundell (University College Cardiff).
10 December, Saturday, Swansea
Members Meeting -
"Sedimentological Studies and their application to the Pembrokeshire Coalfield", P.F. Williams (University College of Swansea);
"Specimen Collecting and the Conservation of Sites of Geological Interest", Alun J. Thomas (National Museum of Wales);
"Digging for a cave", J.C. Jones (Midland Silicones Co. Barry) and D. Kemp (Kodak Co. London);
Exhibition of colour slides.

1967
21 January, Saturday, Cardiff
"The Genesis of Coal Seams", Dr F.M. Trotter (late H.M. Geological Survey London).
18 February, Saturday, Swansea
Symposium 'Economic Geology'
"The Geology of Hydro-electric and Water-storage Schemes", Professor J. Graham Anderson (University College Cardiff);
"The Geology of Oil and Natural Gas deposits with particular reference to the North Sea Area", R. Lakeman (B.P. Co. London);
"Economic Geology", Dr R.H. Cummings (Robertson Research Co. Llanddulas).
11 March, Saturday, Cardiff
Eighth Annual General Meeting followed by "Geological Aspects of Water Supply in Wales", Dr J. Ineson (Water Resources Board Reading).
8 April, Field Meeting, Saturday
"Millstone Grit of the Rhymney Bridge Area", D. Emlyn Evans (National Museum of Wales).
22 April, Field Meeting, Saturday
"Upper Bala and Llandovery rocks of the Rhayader, Elan Valley and Claerwen Areas", Dr Gilbert Kelling (University College of Swansea).
27 May, Field Meeting, Saturday
"The Old Red Sandstone of the Area lying North and Northwest of the Forest of Dean Coalfield" Dr J.R.L. Allen (University of Reading).

9th Session 1967-68 Chairman T. Richard 'Dick' Owen (University College of Swansea).
1967
10 September, Field Meeting, Saturday
Joint Excursion with Bristol Naturalists' Society - "Geology of the central section of the Vale of Glamorgan", T. M. Thomas (Ministry of Housing and Local Government Cardiff).
16-17 September, Field Meeting, Saturday-Sunday
Weekend Meeting "Geology of the Mendip Hills", D.C. Ford (University of Bristol).
14 October, Saturday, Swansea
Special General Meeting (Membership Subscription from 5/- to £1) followed by Members' Meeting -
"Expedition to Balinka Pit Yugoslavia", J. Hartwell (Midland Silicones Co. Barry);
"Aspects of the Transportation of Coastal Sediments along part of the Glamorgan Coast", Dr Derek Keatch (City College of Education Cardiff).
18 November, Saturday, Cardiff
"The Geochemistry of Sediments", Dr T. Wallace Bloxam (University College of Swansea).
16 December, Saturday, Swansea
"Landforms and Geology of Canyonlands, Southeast Utah – America's new National Park", T.M. Thomas (Ministry of Housing and Local Government Cardiff).

1968
27 January, Saturday, Cardiff
"The Structure of the Sea-Floor", Professor D.H. Griffiths (University of Birmingham).

17 February, Saturday, Swansea
"The Pleistocene Development of the Bristol Channel Coastline with special reference to the Somerset Coast", Professor C. Kidson (University College of Wales Aberystwyth).
16 March, Saturday, Cardiff
Symposium 'Palaeontology';
"Recent Researches on Ammonites", Dr John C.W. Cope (University College of Swansea);
"Graptolites", Dr Isles Strachan (University of Birmingham);
"The Natural History of Trilobites", Professor Harry B. Whittington (University of Cambridge);
Exhibition of Specimens and Books.
30 March, Field Meeting, Saturday
"The Geology of the Fishguard and Strumble Head Area with particular reference to the Fishguard Volcanic Series", T.M. Thomas (Ministry of Housing and Local Government Cardiff).
6 April, Saturday, Swansea
Ninth Annual General Meeting followed by Retiring Chairman's Address "Problems associated with the Evolution of Surface and Drainage in South Wales", T.R. "Dick" Owen (University College of Swansea).
4 May, Field Meeting, Saturday
"The Coastal Pleistocene deposits and landforms of Gower", Dr David Q. Bowen (University College of Wales Aberystwyth).
11-12 May, Field Meeting, Saturday-Sunday
Weekend Meeting "The Geology of the Malvern Hills", Dr Michael Brooks (University College of Swansea).

10th Session 1968-69 Fifth Chairman Dr John C.W. Baker (University College Cardiff).

1968

19 October, Saturday, Cardiff
"Oceanography", Dr Fred T. Banner (University College of Swansea)
16 November, Saturday, Swansea
Members Meeting -
"Structure and Sedimentation in a Submarine Canyon", Dr Gilbert Kelling (University College of Swansea),
"Organic Geochemistry of Sediments", Dr T. Wallace Bloxam (University College of Swansea),
"The Llanharry Iron-ore Body", Dr Rodney A. Gayer (University College Cardiff);
"Geological Fieldwork in Arctic Norway", students from the University Colleges of Swansea and Cardiff;
Exhibition of specimens, models, books.
7 December, Saturday, Cardiff
Symposium 'Wren's Nest Dudley' (Members of the Wren's Nest Study Group);
"The Nature Conservancy and Wren's Nest", Alan E. Stubbs (Nature Conservancy Reading);
"General Stratigraphy of Wren's Nest and 'Bryozoa'", H.D. Brook (University of Birmingham);
"Stratigraphy of Wren's Nest and 'Tabulate Corals'", Dr John I. Langford (University of Birmingham);
"Problematica", Dr Isles Strachan (University of Birmingham).

1969

18 January, Saturday, Swansea
"The Pleistocene History of South Wales and the Bristol Channel", Dr David Q. Bowen (University College of Wales Aberystwyth).
15 February, Saturday, Cardiff
"The Lost Continent of the Devonian", Professor David L. Dineley (University of Birmingham).
15 March, Saturday, Swansea
Tenth Annual General Meeting followed by -
Symposium 'The Irish Sea';
"Geophysical Investigations in the Irish Sea Area", Dr D.J. Blundell (University of Birmingham);
"The Deep Bore at Mochras, Merioneth", Dr Max R. Dobson (University College of Wales Aberystwyth);
"Geology of the Irish Sea Area between the Isle of Man and North Wales", R. McQuillan and J.E. Wright (both Institute of Geological Sciences Leeds).
29 March, Field Meeting, Saturday
"The South Pembroke Coast (Bullslaughter Bay area)", T.M. Thomas (Ministry of Housing and Local Government Cardiff).
3 May, Field Meeting, Saturday
"The East Glamorgan Coast (Penarth to Sully)", Basil Isaac (College of Technology Treforest).
17 May, Field Meeting, Saturday
"The Silurian rocks of the Builth Wells-Llangammarch Wells Area", Dr Michael G. Bassett (National Museum of Wales).

11th Session 1969-70 Chairman Dr John C.W. Baker (University College Cardiff).

1969

18 October, Saturday, Cardiff
"Kashmir and Bohemia, or How I did not represent the GA at 2 International Congresses", Professor Derek V. Ager (University College of Swansea).
15 November, Saturday, Swansea
Ancient Quicksands", Dr Gwyn Thomas (Imperial College, University of London)
13 December, Saturday, Cardiff
"William Smith and his work", Mrs J.M. Eyles

1970

17 January, Saturday, Swansea
"The Formation of Caves with special reference to South Wales", Dr Gordon T. Warwick (University of Birmingham).
21 February, Saturday, Cardiff
Visit to Department of Mineral Exploitation at U.C. Cardiff, Professors John Platt and Anthony P. Millman (both University College Cardiff).
14 March, Saturday, Swansea
Eleventh Annual General Meeting followed by Retiring Chairman's Address "In Wales Before the Cambrian", Dr John Baker (University College Cardiff).
11April, Field Meeting, Saturday
"Geomorphology and Geology of the Upper Afon Lwyd Valley and the Western Valleys of Monmouthshire", D. Emlyn Evans (National Museum of Wales).
2 May, Field Meeting, Saturday
"Stratigraphy, Structure, Sedimentology and Mineralisation

of the Forest of Dean Area", Drs John Baker, Rodney Gayer (both University College Cardiff), and John Stead (University College of Swansea)

23 May, Field Meeting, Saturday
"The Silurian rocks of Wooltack Park and Marloes Bay, Pembrokeshire", Dr Michael G. Bassett (National Museum of Wales).

12th Session 1970-71 Sixth Chairman Trevor T.M. Thomas (Welsh Office Cardiff).

1970

17 October, Saturday, Cardiff
"Life in Precambrian and Early Cambrian times", Dr J.W. Cowie (University of Bristol).

21 November, Saturday, Swansea
"The Severn, and Estuary in question", J. Naylor Firth (University of Bristol).

19 December, Saturday, Cardiff
"New Eyes in the Ice Age", Dr G.R. Coope (University of Birmingham).

1971

16 January, Saturday, Swansea
"Hydrogeological Aspects of the Bunter Sandstone in the East Midlands", Dr Brian P.J. Williams (University of Bristol).

20 February, Saturday, Cardiff
"Early Development of the Mineral Industry", Dr John W. Barnes (University College of Swansea).

20 March, Saturday, Swansea
Twelfth Annual General Meeting followed by - "Geology in the Service of the Iron and Steel Industry", Dr William Davies (University College of Wales Aberystwyth).

3 April, Field Meeting, Saturday
"The Geology and Geomorphology of the Penwyllt and Upper Nedd Fechan Areas with particular reference to Karstic Landforms", Trevor M. Thomas (Welsh Office Cardiff).

24 April, Field Meeting, Saturday
"Mapping Techniques in Geology illustrated in the Carboniferous of the Penderyn Area", Ken Taylor (Institute of Geological Sciences London).

1-8 September Annual Conference of the British Association for the Advancement of Science (B.A.A.S.) held at Swansea.
Publication of Bassett, D.A. and Bassett, M.G. (eds). 1971. *Geological Excursions in South Wales and the Forest of Dean*. (20 contributors, 21 excursions), 267pp., published by the Geologists' Association South Wales Group.

13th Session 1971-72 Chairman Trevor T.M. Thomas

1971

16 October, Saturday, Swansea
Special General Meeting (Annual subscription to 50p decimal currency) followed by -
"The Formation of Post-Orogenic Mineral Veins", Dr W. John Phillips (University College of Wales Aberystwyth).

20 November, Saturday, Cardiff
"Geology and Government", Dr Austin W. Woodland (Institute of Geological Sciences London).

18 December, Saturday, Swansea
"The Variscan Fold-belt", Dr S.C. Matthews (University of Bristol).

1972

22 January, Saturday, Cardiff
"Source-rocks and Depositional Environments of the Old Red Sandstone, Anglo-Welsh Basin", Dr J.R.L. Allen (University of Reading).

19 February, Saturday, Swansea
Symposium 'The Bristol Channel' (Members of University College of Swansea) [postponed to 17.03.1973].

18 March, Saturday, Cardiff
Thirteenth Annual General Meeting followed by Retiring Chairman's Address "Western U.S.A. - a Geological and Geomorphological Showhouse, an Arena of Physical Fantasy", Trevor M. Thomas (Welsh Office Cardiff).

29 April, Field Meeting, Saturday
"Carboniferous Stratigraphy, Structure and Sedimentation of the Coast between Amroth and Tenby, Pembrokeshire", Dr Gilbert Kelling (University College of Swansea).

20 May, Field Meeting, Saturday
"Stratigraphy and Palaeontology of the Inferior Oolite (Jurassic) of the South Cotswolds", Dr J. Murray (University of Bristol).

14th Session 1972-73 Seventh Chairman Dr Michael Brooks (University College of Swansea).

1972

21 October, Saturday, Cardiff
"The Arctic Caledonides and their bearing on a Caledonian Ocean", Dr Rodney A. Gayer (University College Cardiff).

18 November, Saturday, Swansea
"Plate Tectonics and the Pre-Mesozoic history of Britain", T. Richard Owen (University College of Swansea).

16 December, Saturday, Cardiff
Joint Meeting with National Museum of Wales Museum Schools Service - "Films on Earth Sciences 1" (5 short films).

1973

20 January, Saturday, Swansea
"Periglacial Deposits and Landforms in Mid Wales", Dr Edward Watson (University College of Wales Aberystwyth).

17 February, Saturday, Cardiff
"The Variscides in the British Isles", Professor Scott Simpson (University of Exeter).

17 March, Saturday, Swansea
Fourteenth Annual General Meeting followed by - Symposium 'The Geology and Sedimentology of the Bristol Channel' R. Britton, Dr Michael Brooks, T. Richard Owen, M.S. Thompson (all University College of Swansea).

14 April, Field Meeting, Saturday
"The Geology of the Gower Peninsula", T.R. Owen

(University College of Swansea).

12 May, Field Meeting, Saturday
"The Black Mountains of Breconshire and Monmouthshire", D. Emlyn Evans (National Museum of Wales).

26 May, Field Meeting, Saturday
"Minchin Hole Cave Gower", David Q. Bowen (University College of Wales Aberystwyth) and Dr A.J. Sutcliffe (British Museum (Natural History), London).

15th Session 1973-74 Chairman Dr Michael Brooks (University College of Swansea).

1973

13 October, Saturday
Orielton Field Studies Council Centre
a.m. "The Geology of South Pembrokeshire", followed by
p.m. Field Meeting "Some techniques in the field of analyzing a sedimentary rock sequence with special reference to the Old Red Sandstone rocks of South Pembrokeshire", Dr Brian P.J. Williams (University of Bristol).

20 October, Saturday, Swansea
"The early history of the Earth", Professor John Sutton F.R.S. (Imperial College University of London).

17 November, Saturday, Cardiff
"Climatic Belts and Sedimentation in Phanerozoic times", Dr Anthony T.S. Ramsay (University College of Swansea).

22 December, Saturday, Swansea
"Problems of the Welsh Quaternary", [postponed to 16.02.1974] Dr David Q. Bowen (University College of Wales Aberystwyth).

1974

19 January, Saturday, Cardiff (Department of Mineral Exploration)
Symposium 'Mineral Resources and the "Energy Gap" with particular reference to the U.K.';
"Review of the Energy Situation of the U.K.", Professor John Platt (University College Cardiff);
"The Search for Hydrocarbons in the Shelf Seas of Northwest Europe: Progress and Prospects", Trevor M. Thomas (Welsh Office Cardiff).

16 February, Saturday, Swansea
a.m. "Problems of the Welsh Quaternary", Dr David Q. Bowen (University College of Wales Aberystwyth);
p.m. Joint Meeting with National Museum of Wales Schools Services - "Films on Earth Sciences, 3" (3 shorter, 1 longer films).

16 March, Saturday, Cardiff
Fifteenth Annual General Meeting followed by - "The r∗le of Experimental Studies in understanding the Dynamics of Reef Development and Preservation", Dr Julia A.E. Hubbard (King's College University of London).

27 April, Field Meeting, Saturday
"Triassic Sedimentology in the Sully-Swanbridge Area", Dr Maurice Tucker (University College Cardiff).

18 May, Field Meeting, Saturday
"The Llandeilo-Llangadog Area of Carmarthenshire", Drs Michael G. Bassett and Robert M. Owens (both National Museum of Wales).

16th Session 1974-75 Eighth Chairman D. Emlyn Evans (National Museum of Wales Cardiff).

1974

12 October, Saturday, Cardiff
Joint Meeting with National Museum of Wales Schools Service - "Films on Earth Sciences, 4" (5 films).

18-20 October, Field Meeting (at St. David's), Friday-Saturday
Weekend Meeting "Structural and Sedimentological Techniques in Field Geology, Pembrokeshire", Drs Paul L. Hancock and Brian P.J. Williams (both University of Bristol).

16 November, Saturday, Cardiff
"Variscan Structures in Pembrokeshire", Dr Paul L. Hancock (University of Bristol).

14 December, Saturday, Swansea
"The Volcanic Geology and Petrology of the Lesser Antilles", Dr W. John Rea (University College of Wales Aberystwyth); and
Meeting for Junior Members "A Volcano in Action", Dr W. John Phillips (University College of Wales Aberystwyth).

1975

18 January, Saturday, Bristol
a.m. Visit to the Department of Geology, University of Bristol, Professor David L. Dineley and staff;
p.m. Field Meeting "The Aust District", Dr Douglas Hamilton (University of Bristol).

15 February, Saturday, Swansea
"The Geology of the Alps", Professor John G. Ramsay, F.R.S. (University of Leeds).

15 March, Saturday, Cardiff
Special General Meeting (Membership Subscription to £1) and Sixteenth Annual General Meeting followed by - "The Geology of the English Channel and its Western Approaches", Dr Alec J. Smith (University College University of London).

22 March, Saturday, Cardiff
Joint Meeting with National Museum of Wales Schools Service - Meeting for Junior Members "Hunting for Dinosaurs in Basutoland", Peter J. Whybrow (British Museum (Natural History), London).

8 June, Field Meeting, Sunday
"The Structure and Sedimentology of the Upper Palaeozoic rocks of Portishead", Drs Paul L. Hancock and Brian P.J. Williams (both University of Bristol).

21 June, Field Meeting, Saturday
"The Lower Carboniferous rocks of the Forest of Dean", Trevor Burchette (University College Cardiff).

5 July, Field Meeting, Saturday
"An approach to the upper Carboniferous Limestone of Pwlldu, Gower", Dr Anthony T.S. Ramsay and Alan Thorne (both University College of Swansea).

17th Session 1975-76 Chairman D. Emlyn Evans (National Museum of Wales).

1975

18 October, Saturday, Cardiff
"Leonardo da Vinci and Geology", Dr Reg. Bradshaw (University of Bristol).

15 November, Saturday, Swansea
"On aspects of the Geology of Central Wales", Dr Mike Anketell (University of Manchester).

6 December, Saturday, Cardiff
Meeting for Junior Members "Experiments with Minerals", D. Emlyn Evans (National Museum of Wales).

13 December, Saturday, Cardiff
a.m. "Early Ordovician Faunas and Environments of the Carmarthen Area", Dr Robert M. Owens (National Museum of Wales);
p.m. Joint Meeting with National Museum of Wales Schools Service - "Films on Earth Sciences, 5".

1976

17 January, Saturday, Swansea
"Deep Structure of South Wales and the Bristol Channel based on recent Explosion and Quarry-blast Studies", Dr Michael Brooks (University College of Swansea).

21 February, Saturday, Swansea
Symposium 'Educational Usage of Sites of Geological Interest' -
"Practical Palaeoecology (of a Bedding Plane at Ogmore by Sea)", Professor Derek V. Ager University College of Swansea);
"A National Survey of Educational Usage of Sites", Dr Genge P. Black (Nature Conservancy Council London);
"Stability of a road-section in the Taff Gorge", Dr Rodney A. Gayer (University College Cardiff);
"Interpreting Palaeoenvironments", Dr Gilbert Kelling (University College of Swansea);
"The new road-section at Glynneath Bank", T. Richard Owen University College of Swansea);
"Use and Abuse of Fossils", Dr Robert M. Owens (National Museum of Wales Cardiff);
"The South Glamorgan Heritage Coast", John W. Perkins (University College Cardiff);
"A Geological exercise at Barry for children of 8-13 years", Alun J. Thomas (National Museum of Wales Cardiff).

28 February, Saturday, Cardiff
Junior Meeting "Experiments with Minerals", D. Emlyn Evans (National Museum of Wales Cardiff).

13 March, Saturday, Cardiff
Seventeenth Annual General Meeting followed by Conversazione –
"Usk Trilobites", Paul Barty (Cardiff);
"The Lower Westphalian D and Westphalian-Stephanian Boundaries in South Wales", Christopher Cleal (Cardiff);
"Cartographic Work 1975-76", D. Gaye Evans (Cardiff);
"Junior School Geology", R. Meurig Evans (Cardiff);
"Collection of Fossils", Joseph Gross (Merthyr Tydfil);
"The Cardiff Arctic Norway Expedition 1975", Rodney Gayer (Cardiff);
"Stromatoporoides from Gotland", Steve Kershaw (Cardiff);
"The Ballantrae Ophiolite", Colin Jones (Cardiff);
"Arenig Fossils from the Carmarthen District" and "Upper Carboniferous Trilobites from South Wales", Robert M. Owens (Cardiff);
"The Glamorgan Heritage Coast", John Perkins (Cardiff);
"Danyrogof Caves", Ashford Price (Danyrogof);
"Museum Schools Service Exhibits", Alun J. Thomas (Cardiff);
"Specimens from Tongwynlais", Richard Thomas (Whitchurch);
"Geological Specimens", Colin Titcombe (Caldicot);
"Fossils from Rhymney Bridge, Llanwern and Usk" and "Pleistocene Cave remains", David Tucker (Caerwent);
"Tidal-flat Sediments from the Viséan of Miskin", Paul Wright (Tonyrefail);
"Information leaflets", City Museum Bristol;
Collections of Geological specimens by various young people.
This meeting was held in the Department of Geology, National Museum of Wales Cardiff.

28 March, Field Meeting, Sunday
"Some Sedimentary and Structural aspects of the Pennant Measures in the Rhondda Region", Dr Gilbert Kelling (University College of Swansea).

3 April, Field Meeting, Saturday
"Junior Excursion to the Pontneddfechan District", Alun J. Thomas (National Museum of Wales Cardiff).

9 May, Field Meeting, Sunday
"Namurian exposures from Dowlais Top to Llangynidr Mountain, Brynmawr", D. Emlyn Evans (National Museum of Wales Cardiff).

18th Session 1976-77 Ninth Chairman Dr Rodney A. Gayer (University College Cardiff).

1976

16 October, Saturday, Cardiff
"Mid Plates", Dr E. Ron Oxburgh (University of Oxford).

20 November, Saturday, Swansea
"Sedimentary Basins associated with Strike-slip Faulting", Dr Harold G. Reading (University of Oxford).

11 December, Saturday, Cardiff
Joint Meeting with National Museum of Wales Schools Service - "Films on Earth Sciences, 6" (5 films).

1977

15 January, Saturday, Swansea
"Did the Chalk Sea cover Wales?", Dr Jake M. Hancock (King's College University of London).

12 February, Saturday, Cardiff
Trevor M. Thomas Memorial Lecture – "Limestone Caves and Mineralisation", Dr Trevor D. Ford (University of Leicester).

19 March, Saturday, Swansea
Special General Meeting (presentation of proposed Rules and Regulations) and Eighteenth Annual General Meeting followed by -

"Silurian studies in Britain and Scandinavia", Dr Michael G. Bassett (National Museum of Wales Cardiff).

23 April, Field Meeting, Saturday
"M4 sections in the Pyle-Stormy Down District", Anthony Stradling (Brynteg Comprehensive School Bridgend) and Steve England (University College Cardiff).

18 June, Field Meeting, Saturday
"Junior Excursion to the Barry District", Alun J. Thomas (National Museum of Wales Cardiff).

19th Session 1977-78 Chairman Dr Rodney A. Gayer (University College Cardiff).

1977

15 October, Field Meeting, Saturday
"The Carboniferous Limestone of the Abergavenny District", William J. Barclay and Dennis I. Jackson (both Institute of Geological Sciences London).

22 October, Saturday, Swansea
Special General Meeting (Acceptance of Rules and Regulations) followed by – "Plate Tectonics and the Early History of the Earth", Dr Brian F. Windley (University of Leicester).

12 November, Field Meeting, Saturday
"The Geology of the Llangynog District", Dr John C.W. Cope (University College of Swansea).

19 November, Saturday, Cardiff
"Early Ordovician Volcanism in North Pembrokeshire", Dr Robert Roach (University of Keele).

26 November, Saturday, Cardiff
Joint Meeting with National Museum of Wales Schools Service – "Films on Earth Sciences, 7" (6 films including 'San Francisco, the City that waits to die').

17 December, Saturday, Swansea
"The Geology of Wine", Dr Peigi Wallace (Imperial College University of London).

1978

21 January, Saturday, Cardiff
"Recent advances in Sedimentology illustrated in the Geology of South Wales", Dr Trevor Elliott (University College of Swansea).

18 February, Saturday, Cardiff
Symposium 'Aspects of Welsh Palaeontology' –
"An Ediacara-type Fauna in South Wales", Dr John Cope (University College of Swansea);
"Trilobite Trace-fossils", Dr T.P. Crimes (University of Liverpool);
"Welsh Graptolites", Dr R. Barrie Rickards (University of Cambridge).

18 March, Saturday, Cardiff
Special General Meeting (Membership Subscription from £1 to £1.50) and Nineteenth Annual General Meeting followed by –
Retiring Chairman's Address "Iapetus the Caledonian Ocean", Dr Rodney A. Gayer (University College Cardiff).

22 April, Field Meeting, Saturday
"The Malvern Hills", Professor Michael Brooks and Dr John Baker (both University College Cardiff).

8 July, Field Meeting, Saturday
"Junior Excursion to the Ogmore-Southerndown Coastal section", Alun J. Thomas (National Museum of Wales Cardiff).

20th Session 1978-79 Tenth Chairman Professor Derek V. Ager (University College of Swansea).

1978

21 October, Saturday, Swansea
"Deformation and Metamorphism in Overthrust Belts", Dr Graham Williams (University College Cardiff).

28 October, Field Meeting, Saturday
"Aspects of the Palaeoecology of the Carboniferous and Jurassic Strata in the Ogmore-Southerndown District", Professor Derek V. Ager (University College of Swansea).

18 November, Saturday, Cardiff
"Pleistocene Geology in South Wales", Dr Charles Harris (University College Cardiff).

25 November, Saturday, Cardiff
Joint Meeting with National Museum of Wales Schools Service – "Films on Earth Sciences, 8" (5 films).

16 December, Saturday, Swansea
"New thoughts on the Old Red (Sandstone)", Dr Brian Williams (University of Bristol).

1979

20 January, Saturday, Cardiff
"Some Ophiolites and their Tectonic Setting", Dr Alan G. Smith (University of Cambridge).

17 February, Saturday, Cardiff
"Geology of the Costa Blanca (Alicante)", John W. Perkins (University College Cardiff).

10 March, Saturday, Swansea
Twentieth Annual General Meeting followed by - "Organic Reefs, Ancient and Modern", Dr Robert H. Riding (University College Cardiff).

2 June, Field Meeting, Saturday
"Junior Excursion to Black Rocks, Barry", Alun J. Thomas (National Museum of Wales Cardiff).

21st Session 1979-80 Chairman Professor Derek V. Ager (University College of Swansea).

1979

20 October, Saturday, Swansea
"The Geological Evolution of Wales – 25 years after 'O.T.', Professor T. Richard Owen (fourth Chairman 1966-68).

17 November, Saturday, Cardiff
"Problems of the Caledonides", Dr Rodney A. Gayer (Ninth Chairman 1976-78).

8 December, Saturday, Cardiff
"Recent Geological Investigations in the North Aegean Sea", Professor Michael Brooks (Seventh Chairman 1972-74).

1980

26 January, Saturday, Cardiff
"Mineralogy in the Modern World", Dr Clive Bishop (President Geologists' Association London).

16 February, Saturday, Swansea
"Standing on Carboniferous Shoulders", Dr Douglas Bassett (First Chairman 1959-62).
16 March, Saturday, Swansea
Special General Meeting (Membership Subscription from £1.50 to £2) and Twenty First Annual General Meeting followed by -
Retiring Chairman's Address "The Mesozoic Opening of the Atlantic or What the Brachiopod saw", Professor Derek V. Ager (University College of Swansea).
19 April, Field Meeting, Saturday
"Junior Excursion to the Penarth-Lavernock Coast", Alun J. Thomas (National Museum of Wales Cardiff).
27 April, Field Meeting, Sunday
"Great Oolite of the Bath and West Wiltshire Area and Visit to the Corsham Stone Mine", John Perkins (University College Cardiff).
5 July, Field Meeting, Saturday
"Geology of the Swansea and Neath valleys", Professor T. Richard Owen (University College of Swansea).

22nd Session 1980-81 Eleventh Chairman John W. Perkins (University College Cardiff).
1980
18 October, Saturday, Cardiff
"Problems of the British Pleistocene", Dr David Q. Bowen (University College of Wales Aberystwyth).
15 November, Saturday, Cardiff
"Palaeomagnetism", Dr John Shaw (University College Cardiff).
22 November, Field Meeting, Saturday
"The Clydach Gorge Area", V. Paul Wright (Polytechnic of Wales Treforest).
13 December, Saturday, Swansea
"Anglesey – Old rocks and New ideas", Dr Denis E.B. Bates (University College of Wales Aberystwyth).

1981
17 January, Saturday, Cardiff
"A geological visit to China", Dr Austin W. Woodland C.B.E. (late Director, Institute of Geological Sciences, London).
21 February, Saturday, Swansea
"Ordovician Volcanism in North Wales", Dr Malcolm F. Howells (Institute of Geological Sciences Leeds).
14 March, Saturday, Swansea
Twenth Second Annual General Meeting followed by "Deepsea Trenches, Ancient and Modern", Professor Gilbert Kelling (University of Keele).

23rd Session 1981-82 Chairman John W. Perkins (University College Cardiff).
1981
26 September, Field Meeting, Saturday
"The Southerndown Coast S.S.S.I.", Alun J. Thomas (National Museum of Wales Cardiff).
17 October, Saturday, Swansea
"The green invasion of the land", Dr Dianne Edwards (University College Cardiff).
21 November, Saturday, Cardiff
"Recent Geological research in Peary Land, North Greenland", Dr Richard E. Bevins (National Museum of Wales Cardiff).
12 December, Saturday, Swansea
"An Ordovician Chronicle: the Development of the Ordovician System in Great Britain", Dr Michael G. Bassett (National Museum of Wales Cardiff).

1982
16 January, Saturday, Cardiff
"Seafloor-spreading History of the Red Sea and the Gulf of Aden", Dr Peter Styles (University College of Swansea) [Postponed].
13 February, Saturday, Swansea
"Aspects of Sedimentation in a Kenyan Coral-Reef Lagoon", Dr Anthony T.S. Ramsay (University College of Swansea).
13 March, Saturday, Cardiff
Twenty Third Annual General Meeting followed by Retiring Chairman's Address "City Centre Geology (A Means of Conservation)", John W. Perkins (University College Cardiff).
1 May, Field Meeting, Saturday
"Ordovician rocks in the Builth-Llandrindod Area", Dr John Baker and Peter Sheldon (both University College Cardiff).
May
Publication of Bassett, M.G. (ed.), 1982, *Geological Excursions in Dyfed, South-West Wales*, 325pp.
19 June, Field Meeting, Saturday
"Dinantian rocks of the Eastern Vale of Glamorgan", Dr Richard A. Waters (Institute of Geological Sciences Aberystwyth).

24th Session 1982-83 Twelfth Chairman Dr John C.W. Cope (University College of Swansea).
1982
15 October, Friday, Cardiff
"The Work of the Institute of Geological Sciences", Dr G. Malcolm Brown (Director, Institute of Geological Sciences London), followed by formal opening of the Exhibition'Geological Surveying in Wales' in the National Museum of Wales.
6 November, Field Meeting, Saturday
"Carboniferous Sediments and Palaeoecology in the Gower Peninsula", Dr Anthony T.S. Ramsay (University College of Swansea).
13 November, Saturday, Swansea
"Volcanoes of the Solar System", Professor Michael J. Ohara F.R.S. (University College of Wales Aberystwyth).
11 December, Saturday, Cardiff (National Museum of Wales)
Symposium 'The Geological Evolution of Wales', Chairman Professor Michael Brooks (University College Cardiff);
Speakers:
1. "The Early History of Wales", Dr Anthony J. Barber (Chelsea College University of London);
2. "Regional relationships of Welsh Cambrian and Ordovician Faunas", Professor William T. Dean (University College Cardiff);
3. "Variscan Movements in Wales", Dr Paul L. Hancock (University of Bristol);
4. "The Mesozoic Era in Wales", Dr John C.W. Cope

(University College of Swansea);
5. "Tertiary Landforms and Deposits", Professor Eric H. Brown (University College University of London);
6. "Problems of the Welsh Quaternary", Dr David Q. Bowen (University College of Wales Aberystwyth).

1983

14 January, Friday, Swansea
"Turning Points in the Evolution of Continents", Professor Janet V. Watson F.R.S. (Imperial College University of London and President Geological Society of London).

12 February, Saturday, Cardiff
"The Seafloor-spreading History of the Red Sea and Gulf of Aden", Dr Peter Styles (University College of Swansea).

26 February, Field Meeting, Saturday
"The Silurian of the Usk District", Drs Michael G. Bassett and Robert M. Owens (both National Museum of Wales).

12 March, Saturday, Swansea
Special General Meeting (Membership Subscription from £2 to £3) and Twenty Fourth Annual General Meeting followed by "Burgess Shale Animals", Dr Derek E.G. Briggs (Goldsmiths College University of London).

13-15 May, Field Meeting, Friday-Sunday
Weekend Meeting "The Mesozoic Rocks of the Dorset Coast" (Weymouth), Dr John C.W. Cope (University College of Swansea).

25th Session 1983-84 Chairman Dr John C.W. Cope (University College of Swansea).

1983

15 October, Saturday, Cardiff
The Geologists' Association 125th Anniversary Lecture – "The Rôle of the Geologist in the Construction Industry", Professor John L. Knill (Imperial College University of London and President The Geologists' Association).

22 October, Field Meeting, Saturday
"Ogofau Gold Mines, Dolaucothi", Dr Alwyn E. Annels (University College Cardiff).

19 November, Saturday, Swansea
"Metal Mining in Wales", Dr Alwyn E. Annels (University College Cardiff).

3 December, Saturday, Cardiff (National Museum of Wales)
Symposium 'Lower Palaeozoic Wales', Chairman Dr John Cope (University College of Swansea);

Keynote Speakers:
1. "Lower Palaeozoic Wales – the past 25 years", Dr Michael G. Bassett (National Museum of Wales);
2. "Lower Palaeozoic Sedimentation and Tectonics in Wales", Dr Nigel H. Woodcock (University of Cambridge);
3. "Lower Palaeozoic Volcanicity in Wales", Dr Richard E. Bevins (National Museum of Wales);

Shorter Papers:
4. "The Precambrian Setting for Lower Palaeozoic Wales", Dr Wes Gibbons (University College Cardiff);
5. "Recent Studies in the Lower Ordovician of South Wales", Dr Robert M. Owens (National Museum of Wales) and Dr Richard A. Fortey (British Museum (Natural History), London);
6. "Recent I.G.S. work in North Wales Lower Palaeozoic", S. Dermot Campbell (Insitute of Geological Sciences Aberystwyth).

1984

14 January, Saturday, Swansea
Symposium 'Upper Palaeozoic Wales', Chairman Dr John Cope (University College of Swansea);

Keynote Speakers:
1. "Upper Palaeozoic Wales – the past 25 years", Professor T.R. 'Dick' Owen (University College of Swansea);
2. "Faunal Developments in Upper Palaeozoic Wales", Dr William H.C. Ramsbottom (Institute of Geological Sciences Leeds);
3. "Late Palaeozoic Sedimentation in Wales", Dr Brian P.J. Williams (University of Bristol);

Shorter Papers:
4. "Carboniferous Sedimentary Environments in Wales", Dr V. Paul Wright (Open University Milton Keynes);
5. "Recent I.G.S. work in the Carboniferous of South Wales", Dr Richard Waters (Institute of Geological Sciences Aberystwyth).
6. "Recent I.G.S. work in the Carboniferous of North Wales", Dr John R. Davies (Institute of Geological Sciences, Aberystwyth).
7. "New Faunal discoveries form Visèan Limestones in North Wales", Dr Ian D. Somerville and A.E. Strank (both University College Dublin).

10 February, Friday, Swansea
"Dinosaurs – Some Myths and Misconceptions", Dr Alan E. Charig (British Museum (Natural History), London).

10 March, Saturday, Cardiff
Twenty Fifth Annual General Meeting
First Honorary Membership to Professor T.R. ('Dick') Owen *for His Services to the Group*,
Presentation by Dr Douglas A. Bassett (Founder Chairman);
For 25 years continuous service Roland Parsons (Honorary Treasurer),
Presentation by Alun J. Thomas (Honorary Secretary);
Retiring Chairman's Address "The Llangynog Inlier: New discoveries in the Carmarthen Area", Dr John C.W. Cope (University College of Swansea);
afterwards Lunch (at the National Museum of Wales) for all Past Chairmen and Committee Memebrs;
Toast 'The Group' given by Dr Douglas A. Bassett (Founder Chairman);
Response by Alan G. Thomas (Incoming Chairman for 1984-86).

31 March, Field Meeting, Saturday
"Big Pit Mining Museum, Blaenavon", Mining Museum Staff.

18-20 May, Field Meeting, Friday-Sunday

Weekend Meeting "Recent work on the Lower Palaeozoic of North Pembrokeshire" based at Broadhaven (with visit to Ramsey Island). Drs Richard E. Bevins and Robert M. Owens (both National Museum of Wales).

26th Session 1984-85 Thirteenth Chairman Alan G. Thomas (National Coal Board Nelson).

1984

12 October, Friday, Cardiff
"Mount St. Helens Revisited", Dr Peter W. Francis (Open University Milton Keynes).

17 November, Saturday, Cardiff
"Coal Prospecting in Britain 1650-1900", Dr Hugh S. Torrens (University of Keele).

November
Publication to celebrate 25 Years of the Group
Bassett, M.G. (ed.)., 1984, 'Focus on Wales', *Proceedings of the Geologists' Association*, Vol. **95**, pt.4, pp.289-398. [Based on papers read at 3 symposia 11.12.1982, 03.12.1983, 14.01.1984].

8 December, Saturday, Cardiff
"Depositional Environments of the Carboniferous Limestone of the Gower", Dr Anthony T.S. Ramsay (University College of Swansea).

1985

18 January, Friday, Swansea
"Geophysical Predictions: Civil Engineering Site Investigations", Professor Denzil Taylor Smith (University College of North Wales Bangor) [Cancelled - Snow]

16 February, Saturday, Swansea
"The early years of the Geological Survey', John Thackray (British Geological Survey London).

9 March, Saturday, Swansea
Twenth Sixth Annual General Meeting followed by - "The Cambrian-Ordovician Boundary", Professor William T. Dean (University College Cardiff).

10-12 May, Field Meeting, Friday-Sunday
Weekend Meeting "South Shropshire" (Affcot), Dr Michael G. Bassett (National Museum of Wales) and Professor William T. Dean (University College Cardiff).

27th Session 1985-86 Chairman Alan G. Thomas (National Coal Board Nelson).

1985

11 October, Friday, Cardiff
"Diagenesis and Low-temperature Metamorphism: its Uses and Importance in Geological Studies", Dr Doug Robinson (University of Bristol).

27 October, Field Meeting, Sunday
Joint Meeting with West of England Group, Geologists' Association "Upper Palaeozoic and Mesozoic Structure and Sedimentology of the Clevedon and Portishead Coast", Drs Brian Williams and Paul Hancock (both University of Bristol);
Afterwards, in the Department of Geology, University of Bristol (Wills Memorial Building - new premises), Professor David L. Dineley and departmental staff.

16 November, Saturday, Swansea
"Geological Survey in Wales 1980-1990: a Review of Achievements and a Look at the Future" (1985 is 150th anniversary of Geological Survey/Institute of Geological Sciences/British Geological Survey), Dr R. A. (Tony) B. Bazley (British Geological Survey, Aberystwyth).

7 December, Saturday, Swansea
"Graptolites through the Looking-glass or An Electron Microscope Investigation of some Retiolitid Graptolites", Dr Denis E.B. Bates (University College of Wales Aberystwyth).

1986

17 January, Friday, Swansea
"Anglesey Geology: a review of recent research work", Dr Wes Gibbons (University College Cardiff).

15 February, Saturday, Cardiff (National Museum of Wales)
Symposium 'The Offshore Geology of Wales and adjacent areas', Chairmen Professor Michael Brooks (University College Cardiff), and Dr Austin W. Woodland (British Geological Survey, London);
Speakers:

1. "Sabrinia: the Palaeozoic History of a Bristol Channel Landmass", Dr Michael G. Bassett (National Museum of Wales) and Dr John Cope (University College of Swansea);
2. "Geophysical Logs in Welsh Stratigraphy: Onshore and Offshore", Dr Ian Penn (British Geological Survey, Keyworth);
3. "Geology and Evolution of Cardigan Bay", Drs Max Dobson and R.J. Whittington (both University College of Wales Aberystwyth);
4. "Geological Structure of the Bristol Channel Area", Professor Michael Brooks (University College Cardiff);
5. "Geology of the Lundy Tertiary Basin", Dr Christopher M. Davies (University of Wales Institute of Science and Technology);
6. "Sediment Transport in the Bristol Channel and adjacent regions", Dr Michael B. Collins (University College of Swansea);
7. "Offshore Sediment movement identified through Remote Sensing", J. Rimmer (University College of Swansea);
8. "Aspects of the Quaternary Sediments of the Anglesey and Cardigan Bay map sheets", Drs M.A. Hession and R.J. Whittington (both University College of Wales Aberystwyth);
9. "Seafloor Sediments of the Anglesey and Cardigan Bay map sheets", Dr R.T.R. Wingfield and C. James (both University College of Wales Aberystwyth);
10. "Processes of Estuarine Sedimentation in North Wales", Dr J. Lowe (University College of North Wales Bangor);
11. "Geotechnical Studies in Tremadog Bay", Professor Denzil Taylor Smith (University College of North Wales Bangor);
12. "Some Geotechnical Properties of Offshore Sediments", Dr S.E. Shackley (University College of Swansea).

13."Geophysical Assessment of some Welsh Coastal Sediment Properties", Dr S.E. Jones (University College of North Wales Bangor).

8 March, Saturday, Cardiff

Twenty Seventh Annual General Meeting;

Second Honorary Membership to Dr Douglas A. Bassett *for His Services to the Group* (Founder Chairman 1959-62, Editor 1964-74).

Presentation by Alan G. Thomas (current Chairman);

Retiring Chairman's Address "Reflections in Coal: 35 Years in the South Wales Coal Industry", Alan G. Thomas (National Coal Board, Nelson);

Afterwards Lunch (at the National Museum of Wales).

2-5 May, Field Meeting, Friday-Monday

Weekend Meeting "Field Excursion to Anglesey" (based at Red Wharf Bay), Dr Wes Gibbons (University College Cardiff) and Jana Horák (National Museum of Wales).

28th Session 1986-87 Fourteenth Chairman Dr Anthony T.S. Ramsay (University College of Swansea).

1986

17 October, Friday, Swansea

"Biogeographic Evolution of South American Mammal Faunas", Professor R.J.G. Savage (University of Bristol).

15 November, Saturday, Cardiff

"Soft-sediment Deformation Structures: Products of Ancient Earthquakes?", Dr H. Geraint Owen (University College of Swansea).

6 December, Saturday, Swansea

"Quaternary Sediments at sites of Opencast Coal Mining in South Wales", R. Donnelly (University College Cardiff).

1987

7 January, Wednesday, Cardiff (National Museum of Wales)

Joint Meeting with Cardiff Scientific Society "The Exhibition at the National Museum of Wales of 'Dinosaurs from China'", Dr Michael G. Bassett (National Museum of Wales).

16 January, Friday, Cardiff

"A New Look at the Geology of Southwest England", Dr E.B. Selwood (University of Exeter) [Postponed - snow]

14 February, Saturday, Cardiff

"Gemstones", Basil Isaac (Polytechnic of Wales Treforest).

7 March, Saturday, Swansea

Twenty Eighth Annual General Meeting followed by "In Search of Fossil Plants", Dr Dianne Edwards (University College Cardiff).

26 April, Field Meeting, Sunday

Joint Meeting with West of England Group, Geologists' Association "Field Excursion to the Llandovery District", Dr Brian P.J. Williams (University of Bristol).

29th Session 1987-88 Chairman Dr Anthony T.S. Ramsay (University College of Swansea).

1987

16 October, Friday, Swansea

"Recent Developments in the understanding of the Variscan Geology of Southwest England", Dr E.B. Selwood (University of Exeter).

14 November, Saturday, Swansea

"Radio-active Waste Disposal beneath the Sea-bed?", Professor Robert B. Kidd (University College of Swansea).

5 December, Saturday, Cardiff

"The Changing Shoreline of the Severn Estuary", Professor John R.L. Allen , F.R.S. (University of Reading).

1988

15 January, Friday, Swansea

"Microseismic Research in the South Wales Coalfield", Dr Peter Styles (University College of Swansea).

13 February, Saturday, Cardiff (National Museum of Wales)

"The Life and Times of Dinosaurs", Dr L. Beverly Halstead (University of Reading).

5 March, Saturday, Cardiff

Twenty Ninth Annual General Meeting followed by Retiring Chairman's Address "The Carboniferous Limestone of the North and South Crops: Problems and Discoveries", Dr Anthony T.S. Ramsay (University College of Swansea).

April

Publication Bassett, M.G. (ed.). 1987. 'Geology and Sediments of Offshore Wales and Adjacent Areas', *Proceedings of the Geologists' Association*, vol. **98**, pt.4, pp.273-414. [Based on the proceedings of the Symposium 15.02.1986].

23 April, Field Meeting, Saturday

"Sedimentary Sequences in the upper Palaeozoic at Llansteffan and Amroth", Dr H. Geraint Owen (University College of Swansea).

20-22 May, Field Meeting, Friday-Sunday

Weekend Meeting "Field Excursion to the Malvern Hills" (Great Malvern), Dr Michael G. Bassett (National Museum of Wales).

30th Session 1988-89 Fifteenth Chairman R. Alan Stevens (University of Wales Institute of Science and Technology, Cardiff).

1988

14 October, Friday, Cardiff

First Student Lecture: "Time and Space in the Quaternary Ice Ages", Professor David Q. Bowen (University College of Wales, Aberystwyth).

19 November, Saturday, Swansea

"Sedimentation and Tectonics in the Pindus Foreland Basin of Greece", Dr Jan Alexander (University of Wales College Cardiff).

10 December, Saturday, Cardiff

"Mountain Building", Dr Derek Powell (Royal Holloway and Bedford New College, University of London).

1989

20 January, Friday, Cardiff
"Practical Geological Conservation", Dr William A. Wimbledon (Nature Conservancy Council, Peterborough).

18 February, Saturday, Swansea
"British Geological Survey in Wales – Research and Application", Drs R.A.B. Bazley and A.J. Reedman (both British Geological Survey, Aberystwyth).

11 March, Saturday, Swansea
Thirteenth Annual General Meeting followed by Symposium 'Palaeontology with particular reference to Welsh Fossils';
Speakers:
1. "Animal-Sediment Relationships in the Ordovician of the Welsh Basin", Dr Patrick J. Brenchley (University of Liverpool);
2. "Evolution and Palaeobiology of Ordovician Trilobites: Recent Discoveries from Central Wales", Dr Peter Sheldon (University of Wales College Cardiff);
3. "Gradualism and Punctuation in Gryphaea", Dr A.L.A. Johnson (Goldsmiths College, University of London);
4. "Plant-spore Relationships in the Silurian and Devonian of Wales and the Welsh Borderland", Dr Dianne Edwards (University of Wales College Cardiff);
5. "Early Evolution of Calcichordates", Dr R.P.S. Jefferies (British Museum (Natural History), London);
6. "Dinosaurs in Wales: Environments and Ecology", Dr Michael G. Basett (National Museum of Wales);
7. "Arenig Bivalves from Wales", Dr John C.W. Cope (University College of Swansea).

31st Session 1989-90 Chairman R. Alan Stevens (University of Wales Institute of Science and Technology, Cardiff).

1989

14 October, Field Meeting, Saturday
"Post-Glacial Geology of the Severn Estuary" (Goldcliff), Professor John R.L. Allen (University of Reading).

21 October, Saturday, Cardiff
"Fossil Fire", Professor W.A. Chaloner (Royal Holloway and Bedford New College University of London).

15 November, Wednesday, Swansea
Second Student Lecture: "Planetary Geology", Dr Robert M. Owens (National Museum of Wales).

18 November, Saturday, Swansea
"Explosive Volcanism in Santorini", Dr Timothy Druitt (University of Wales College Cardiff).

25 November, Field Meeting, Saturday
"Upper Palaeozoic Sedimentation on the North Crop of the South Wales Coalfield" (Penwyllt), Dr Anthony T.S. Ramsay (University of Wales College Cardiff) and Dr H. Geraint Owen (University College of Swansea).

9 December, Saturday, Cardiff
"Sedimentation and Tectonics in Early Palaeozoic Wales", Dr Nigel H. Woodcock (University of Cambridge).

1990

20 January, Saturday, Swansea
"Rhynchosaurs and the Origin of Dinosaurs", Dr Michael Benton (University of Bristol).

3 February, Saturday, Cardiff
"Conodont Colour and the Thermal History of Wales", Dr R.J. Aldridge (University of Leicester).

10 March, Saturday, Swansea
Special General Meeting (Membership Subscription £3 to £5) and Thirty First Annual General Meeting
Third Honorary Membership to Alun J. Thomas *for His Services to the Group* (Honorary Secretary 1966-89).
Presentation by R. Alan Stevens (current Chairman);
Retiring Chairman's Address "An Engineer's View of Geology", R. Alan Stevens (University of Wales Institute of Science and Technology).

17 March, Field Meeting, Saturday
"Fossils of the Builth Inlier, Central Wales", Dr Peter Sheldon (University of Wales College Cardiff).

[30 April, Death of Professor Thomas Richard Owen]

9 June, Field Meeting, Saturday
"Upper Palaeozoic Sedimentation of the North Crop of the South Wales Coalfield, 2", (Craigyddinas), Dr Anthony T.S. Ramsay (University of Wales College Cardiff).

20 August, Field Meeting, Monday
"Palaeozoic Geology of the Black Mountains and Carboniferous Sedimentation in the Swansea and Neath Valleys", Drs Lesley Cherns and H. Geraint Owen (both University College of Swansea).

22 August, Wednesday, Swansea
Mason Conference - Symposium 'Nice Weather for Fossils?', Chairmen Dr Michael G. Bassett (National Museum of Wales) and Alun J. Thomas (late of National Museum of Wales);
Speakers:
1. "Is Gaia Endothermic?", Dr Ken Hsu (University of Zürich),
2. "Isotopes, Climatic Change and the Rock Record", Dr J. Marshall (University of Liverpool);
3. "Global and Ocean Atmosphere Change and Biosphere Revolution across the Precambrian-Cambrian Transition", Dr M. Brasier (University of Oxford);
4. "Ordovician Mass Extinction: was Climatic Change lethal?", Dr Patrick J. Brenchley (University of Liverpool);
5. "Torrential Rain and Biotic Change in the Late Triassic", Dr M. Simms (University College Dublin);
6. "Cretaceous Climates", Dr R. Corfield (University of Oxford);
7. "Planktonic Foraminifera and Cenozoic Palaeoceanography", Dr D. Graham Jenkins (Open University, Milton Keynes);
8. "Ice-houses and Green-houses", Professor David Q. Bowen (University College of Wales Aberystwyth).

[The meetings of 20 and 22 August formed part of the

programme of Section C (Geology) of the Annual Conference of the British Assoication for the Advancement of Science (B.A.A.S.) held in 1990 at Swansea - Science 90 - both meeting organised by the Group]

32nd Session 1990-91 Sixteenth Chairman Alun J. Thomas (late National Museum of Wales Schools Service).

1990

20 October, Saturday, Swansea
"Hard Bottoms", Dr Timothy J. Palmer (University College of Wales Aberystwyth).

3 November, Field Meeting, Saturday
"Geology of Barry and Barry Island" and "Visit to R.R.S. 'Charles Darwin' in Barry Dock", Alun J. Thomas (late National Museum of Wales Schools Service).

7 November, Wednesday, Cardiff
Third Student Lecture: "Earthquakes: Agents of Devastation or of Discovery?", Dr Peter Styles (University of Liverpool).

17 November, Saturday, Cardiff
"Stratigraphical Evolution and Petroleum Geology of Southern England", Dr Bruce Sellwood (University of Reading).

8 December, Saturday, Swansea
"Geological Controls on the Production of Wine", Professor J.M. Hancock (Imperial College, University of London).

1991

19 January, Saturday, Cardiff
"Iapetus in its Plate-Tectonic context – Early Palaeozoic History of the Circum-Atlantic Region", Dr K.T. Pickering (University of Leicester).

16 February, Saturday, Swansea
"Magnetic Polarity Reversals and Seafloor Spreading", Dr E. Hailwood (University of Southampton).

23 February, Field Meeting, Saturday,
"Precambrian of the Llangynog Inlier", Dr Richard E. Bevins (National Museum of Wales) and Dr John C.W. Cope (University of Wales College Cardiff).

9 March, Saturday, Cardiff
Thirty Second Annual General Meeting followed by - "Volcanoes of the Andes", Professor R.S.J. Sparkes , F.R.S. (University of Bristol).

14 April, Field Meeting, Sunday
Joint Meeting with Open University Geological Society; "Upper Carboniferous Geology of Carmarthen Bay", Dr H. Geraint Owen (University College of Swansea).

26-28 April, Field Meeting, Friday-Sunday
Weekend Meeting "Mesozoic Geology of West Dorset and Southeast Devon" (Bridport), Dr John C.W. Cope (University of Wales College Cardiff).

[30 April Death of Dr L. Beverly Halstead, President Geologists' Association]

1 June, Saturday, Cardiff
"The Stones of Cardiff", Dr J. Eric Robinson (University College University of London).

1 June, Field Meeting, Saturday
"Visit to Cathays Cemetery Cardiff", Dr Eric Robinson (University College, University of London).

4 July, Thursday, Cardiff (National Museum of Wales)
First T.R. Owen Memorial Lecture (Joint Meeting with University College of Swansea Dept. of Adult Education) –
"Charles Darwin, Geologist", Professor Frank H.T. Rhodes (President, Cornell University, New York).

6 July, Field Meeting, Saturday
"Geology along the Barry Coast", Alun J. Thomas (late National Museum of Wales).

9 July, Field Meeting, Tuesday
"Geology and Waterfalls in the Upper Neath Valley", Dr H. Geraint Owen (University College of Swansea).

[The meetings of 4, 6 and 9 July formed part of the programme of the First Welsh Geology Week 4-14 July 1991]

33rd Session 1991 Chairman Alun J. Thomas (late National Museum of Wales Schools Service)

1991

19 October, Saturday, Cardiff
"The Glaciation of Wales: a return to the Flood?", Dr D. McCarroll (University College of Swansea).

6 November, Wednesday, Cardiff
Fourth Student Lecture; "Dinosaur Extinctions", Dr Alan E. Charig (British Museum (Natural History), London).

16 November, Saturday, Swansea
"Wales and Geology", Dr Douglas A. Bassett (late National Museum of Wales).

30 November, Field Meeting, Saturday
"Old Red Sandstone of the Talgarth Area", Duncan Hawley (Brecon Naturalists' Trust).

7 December, Saturday, Cardiff
"Geology and Mineralogy of the Caldbeck Fells", Dr Robert J. King (John Moore Museum, Tewkesbury).

1992

18 January, Saturday, Swansea
"Exploring the Subsurface: the practical applications of Geophysics to Engineering and Environmental Studies", Dr P. Brabham (University of Wales College Cardiff).

2 February, Field Meeting, Sunday
"Exposures in new cuttings of the M4 at Earlswood", Dr John C.W. Cope (University of Wales College Cardiff).

15 February, Field Meeting, Saturday
"Cwm Graig Ddu – Silurian Fossils and Slumps", Dr Robert M. Owens (National Museum of Wales).

21 February, Friday, Cardiff (National Museum of Wales)
Joint Meeting with Cardiff Naturalists' Society;
"The Natural History of the Mammoth", Dr Adrian Lister (University of Cambridge); and
Visit to the Exhibition (at National Museum of Wales) 'Mammoths and the Ice Age'.

7 March, Field Meeting, Saturday
"Jurassic of the Western Vale of Glamorgan" (Ogmore by Sea), Dr John C.W. Cope (University of Wales College Cardiff).

18 March, Wednesday, Swansea
Thirty Third Annual General Meeting followed by –

Retiring Chairman's Address "The South Wales Group 1959-1992: a Geological Perspective", Alun J. Thomas (late National Museum of Wales Schools Service).

21 June, Field Meeting, Sunday
"Linney Head", Sid Howells (Nature Conservancy, Haverfordwest).

16 July, Thursday, Swansea
Second T.R. Owen Memorial Lecture; "60 Years of Welsh Lower Palaeozoic Geology", Professor Gilbert Kelling (University of Keele).

GEOLOGISTS' ASSOCIATION, SOUTH WALES GROUP

Officers and Committee Members
1959-1992

CHAIRMEN

Douglas A. Bassett (1959-62
*David E. Morgan (1962-64)
D.J.W. Thomas (1964-66)
*T. Richard Owen (1966-68)
J.C.W. Baker (1968-70)
*Trevor M. Thomas (1970-72)
Michael Brooks (1972-74)
D. Emlyn Evans (1974-76)
Rodney A. Gayer (1976-78)
*Derek V. Ager (1978-80)
John W. Perkins (1980-82)
J.C.W. Cope (1982-84)
Alan G. Thomas (1984-86)
A.T.S. Ramsay (1986-88)
R. Alan Stevens (1988-90)
Alun J. Thomas (1990-92)
Michael G. Bassett (1992-)

VICE-CHAIRMEN

J.G.C. Anderson (1960-62)
F.H.T. Rhodes (1960-62)
Bernard Norris (1960-62
D.J.W. Thomas (1962-64)
D.E.T. Bidgood (1964-66)
*T. Richard Owen (1964-66)
George Askey (1966-67)
J.C.W. Baker (1967-68)
*Trevor M. Thomas (1968-70)
Michael Brooks (1970-72)
D. Emlyn Evans (1972-74)
Rodney A. Gayer (1974-76)
*Derek V. Ager (1976-78)
John W. Perkins (1978-80)
J.C.W. Cope (1980-82)
William T. Dean (1982-84)
A.T.S. Ramsay (1984-86)
R. Alan Stevens (1986-88)
Alun J. Thomas (1988-90)
Michael G. Bassett (1990-92)
Peter Hodges (1992-)

SECRETARIES

George Askey (1959-66)
Alun J. Thomas (1966-89)
D. Nigel Roberts (1989)
H. Geraint Owen (1990-)

ASSISTANT SECRETARY

William S. Morgan (1960-71)

TREASURERS

Roland Parsons (1959-90)
Tom Sharpe (1990-)

EXCURSION SECRETARIES

*Trevor M. Thomas (1959-68)
Michael G. Bassett (1968-74)
Robert M. Owens (1974-89)
H. Geraint Owen (1989-90)
J.C.W. Cope (1990-)

EDITORS

Douglas A. Bassett (1965-74)
Michael G. Bassett (1974-)

*Deceased

COMMITTEE MEMBERS

Bartlett, H. (1978-80)
Bevins, R.E. (1982-84)
Bidgood, D.E.T. (1960-64)
Blundell* R.C.K. (1960-62)
Bowden, E.V. (1971-73)
Brennan, M.E. (1983-85
Bruck, B. (1991-)
Chetcuti, J. (1990-)
Claybrooke, F. (1976-78)
Coles, B.P. (1982-84)
Conroy, J. (1974-76)
Cope, J.C.W. (1978-80)
Coppin, E.J. (1970-72)
Davies, G. (1975-77)
Davies, M. (1986-88)
Davies, V.J. (1966-68)
Davies, W.G. (1984-86)
Dean, W.T. (1980-82)
Dix, P.J.S. (1979-81)
Edwards, D. (1987-89)
Evans, F.L. (1973-75)
Firth, J.N.M. (1965-68)
Garfield, L. (1988-)
Gethin, R.T. (1964-66)
Gibbons, W. (1985-87)
Goskar, K.A.* (1960-64, 66-68)
Groom, G.* (1960-61)
Gross, J. (1971-73)
Harding, O. (1968-70)
Hayward, R.A. (1971-74)
Herbert, W.M. (1975-77)
Hewlett, J.A. (1983-85)
Hodges, P. (1977-79, 90-92)
Hourahane, F.M. (1967-69)
Howe, S.R. (1989-91)
Howells, M. (1991-)
Hulme, C. (1970-72)
Isaac, B. (1960-62)
Jones, E. K. (1980-82)
Jones, T.R.E. (1972-74)
Lee, C.W. (1986-88
Lees, M.W. (1990-)
Lewis, B.J. (1988-90)
Lewis, D. (1974-76, 84-86)
Lewis, J.B. (1969-71)
Lewis, J.W. (1974-76)
Meara, G. (1960-62)
Mills, G.J. (1981-83)
Owen, H.G. (1988-90)
Owen*, T.R. (1960-64)
Piffaretti, J.A. (1985-87)
Richardson, D.H. (1965-67)
Roberts, C.E. (1976-78)
Roberts, D.N. (1987-89)
Roberts, J.M. (1969-71)
Roberts*, M.I. (1960-62, 66-68)
Saxty, J.W. (1979-81)
Searle, E.J. (1961-69)
Sheldon, K. (1982-84)
Simpson*, B. (1960)
Stevens, R.A. (1962-67)
Stradling, A. (1977-79)
Sullivan, K.J. (1972-74)
Taylor, C.T. (1986-88)
Taylor, I. (1978-80)
Thomas, A.G. (1968-70, 76-78)
Thomas, A.J. (1964-66)
Thomas, D.J.W. (1960-62)
Watkins, M.G. (1980-82)
Watkins, W.J. (1963-67)
White, B. (1964-66)
Williams, E.M. (1970-72)
Wright, M.D. (1981-83)

(names in Roman type = male members; names in Italic type = female members)

HONORARY MEMBERS

T. Richard Owen* (1984)
Douglas A. Bassett (1986)
Alun J. Thomas (1990)

*Deceased

GEOLOGISTS' ASSOCIATION SOUTH WALES GROUP
SPEAKERS and LEADERS 1960-1992

NAME	LECTURE	FIELD MEETING
University College Cardiff (later University of Wales College Cardiff)		
Alexander, J.	1988	
Anderson, J.G.C.	1960, 1963, 1967	1960, 1966
Annels, A.E.	1983	1983
Baker, J.C.W.	1965, 1970(C)	1963, 1964, 1970, 1978, 1982
Bidgood, D.E.T.	1962, 1963	
Blundell, C.R.K.	1963, 1966	1961
Brabham, P.	1992	
Brooks, M.	1979, 1986	1978
Burchette, T.		1975
Cope, J.C.W.		1991(2), 1992(2)
Dean, W.T.	1982, 1985	1985
Dixon, J.A.	1966	
Donnelly, R.	1986	
Druitt, T.	1989	
Edwards, D.	1981, 1987, 1989	
England, S.		1977
Gayer, R.A.	1968, 1972, 1976, 1978(C), 1979	1970
Gibbons, W.	1983, 1986	1986
Harris, C.	1978	
Jones, C.	1976	
Kershaw, S.	1976	
Langford, J.I.	1966	
Millman, A.P.	1970	
Perkins, J.W.	1976, 1979, 1982(C)	1980
Platt, J.	1970, 1974	
Ramsay, A.T.S.		1990
Riding, R.H.	1979	
Shaw, J.	1980	
Sheldon, P.	1989	1982, 1990
Tucker, M.E.		1974
Williams, A.	1961	
Williams, G.D.	1978	
University of Wales Institute of Science and Technology, Cardiff		
Davies, C.M.	1986	
Stevens, R.A.	1990(C)	1965
Polytechnic of Wales, Treforest		
Isaac, B.	1987	1969
Wright, V.P.		1980

NAME	LECTURE	FIELD MEETING
City College of Education, Cardiff		
Keatch, D.	1967	
Ministry of Housing and Local Government (later Welsh Office, Cardiff)		
Thomas, T.M.	1961, 1963, 1966, 1967, 1972(C), 1974	1960, 1961, 1962, 1963, 1964, 1965, 1967, 1968, 1969, 1971
National Museum of Wales, Cardiff		
Bassett, D.A.	1960(C), 1962(C), 1965, 1980	1962, 1964
Bassett, M.G.	1977, 1981, 1983(2), 1986, 1987, 1989	1969, 1970, 1974, 1983, 1985, 1988
Bevins, R.E.	1981, 1983	1984, 1991
Evans, D.E.	1975, 1976	1967, 1970, 1973, 1976
Horák, J.		1986
Owens, R.M.	1975, 1976, 1983, 1989	1973, 1983, 1984
Thomas, A.J.	1966, 1976	1976, 1977, 1978, 1979, 1980, 1981
University College of Swansea		
Ager, D.V.	1969, 1976, 1980(C)	1978
Banner, F.T.	1968	
Barnes, J.W.	1971	
Bloxam, T.W.	1967, 1968	1965
Britton, R.	1973	
Brooks, M.	1974(C), 1976	1968
Cherns, L.		1990
Collins, M.B.	1986	
Cope, J.C.W.	1968, 1978, 1982, 1984(C), 1986	1977, 1983
Elliott, T.	1978	
Hooper, P.R.	1960	
Kelling, G.	1963, 1968, 1976	1965, 1967, 1972, 1976
Kidd, R.B.	1987	
McCarroll, D.	1991	
Maling, D.H.	1960	
Owen, H.G.	1986	1988, 1989, 1990(2), 1991(2)

NAME	LECTURE	FIELD MEETING
University College of Swansea (cont'd)		
Owen, T.R.	1962, 1968(C), 1972, 1973, 1976, 1979, 1984	1960, 1961(2), 1962, 1963, 1964, 1965, 1966, 1973, 1980
Ramsay, A.T.S	1973, 1982, 1984, 1988(C)	1975, 1982, 1989
Rhodes, F.H.T.	1960, 1964	1960, 1963
Rimmer, J.C.	1986	
Shackley, S.E.	1986	
Simpson, B.	1965	
Stead, J.		1970
Styles, P.	1983, 1988	
Thompson, M.S.	1973	
Thorne, A.		1975
Walker, W.B.	1965	
Walmsley, V.G.	1964	1966
Williams, P.F.	1966	
Soil Survey Wales		
Crampton, C.B.	1961	
Nature Conservancy Wales		
Ball, D.F.	1961	
Brynteg School, Bridgend		
Stradling, A.		1977
Cantonian School, Cardiff		
Thomas D.J.W.	1966(C)	
Grammar (B) School, Neath		
Morgan, W.S.	1961	1962
Dynevor School Swansea		
Norris, D.B.	1961	1961(2), 1962
University College of Wales, Aberystwyth		
Bates, D.E.B.	1980, 1985	
Bowen, D.Q.	1969, 1974, 1980, 1982, 1988, 1990	1965, 1968, 1973
Davies, W.	1971	
Dobson, M.R.	1969, 1986	
Hession, M.A.	1986	
James, C.	1986	
Kidson, C.	1968	
Lewis, C.A.		1966
O'Hara, M.J.	1982	
Palmer, T.J.	1990	
Phillips, W.J.	1966, 1971, 1974	
Rea, W.J.	1974	
Watson, E.	1973	
Whittington, R.J.	1986	
Wingfield, R.T.R.	1986	
Wood, A.	1960	

NAME	LECTURE	FIELD MEETING
National Coal Board, Nelson		
Thomas, A.G.	1986(C)	
University College of North Wales, Bangor		
Jones, S.E.	1986	
Lowe, J.	1986	
Smith, D.T.	1986	
Robertson Research, Llanddulas		
Cummings, R.H.	1965, 1967	
Midland Silicones, Barry		
Firth, J.N.M.	1966	
Hartwell, J.	1967	
Jones, J.C.	1966	
Institute of Geological Sciences (later British Geological Survey, Aberystwyth		
Bazley, R.A.B.	1985, 1989	
Campbell, S.D.	1983	
Davies, J.H.	1984	
Reedman, A.J.	1989	
Waters, R.A.	1984	1982
Brecon Naturalists' Trust		
Hawley, D.		1991
Eyles, J.M.	1969	
Institute of Geological Sciences, Leeds		
Howells, M.F.	1981	
McQuillin, R.	1969	
Ramsbottom, W.H.C.	1984	
Wright, J.E.	1969	
H.M. Geological Survey, London (later Institute of Geological Sciences, London) (later British Geological Survey, London)		
Barclay, W.		1977
Brown, G.M.	1982	
Ivimey-Cook, H.		1961
Jackson, D.I.		1977
Squirrel, H.C.	1966	
Taylor, K.		1971
Thackray, J.	1985	
Woodland, A.W.	1971	
British Geological Survey, Keyworth		
Penn, I.E.	1986	
ex G.S. / I.G.S. / B.G.S		
Eyles, V.A.	1963	
Pugh, W.J.	1962	
Trotter, F.M.	1967	
Woodland, A.W.	1981	

NAME	LECTURE	FIELD MEETING
Nature Conservancy Council, London		
Black, G.P.	1976	
Nature Conservancy Council, Peterborough		
Wimbledon, W.A.	1989	
Nature Conservancy Council, Reading		
Stubbs, A.E.	1968	
Commonwealth Liaison Office, London		
Richards, A.F.	1962	
Water Resources Board, Reading		
Ineson, J.	1967	
British Museum (Natural History), London		
Bishop, A.C.	1980	
Charig, A.E.	1984, 1991	
Jefferies, R.P.S.	1989	

NAME	LECTURE	FIELD MEETING
British Museum (Natural History), London		
Sutcliffe, A.J.		1973
Whybrow, P.J.	1975	
John Moore Museum, Tewkesbury		
King, R.J.	1991	
ex National Museum of Wales, Cardiff		
Bassett, D.A.	1991	
North, F.J.	1960	1961
Thomas, A.J.	1992(C)	1990, 1991
ex Shell Oil Co., London		
Morgan, D.E.	1964(C)	
British Petroleum Co., London		
Lakeman, R.	1967	

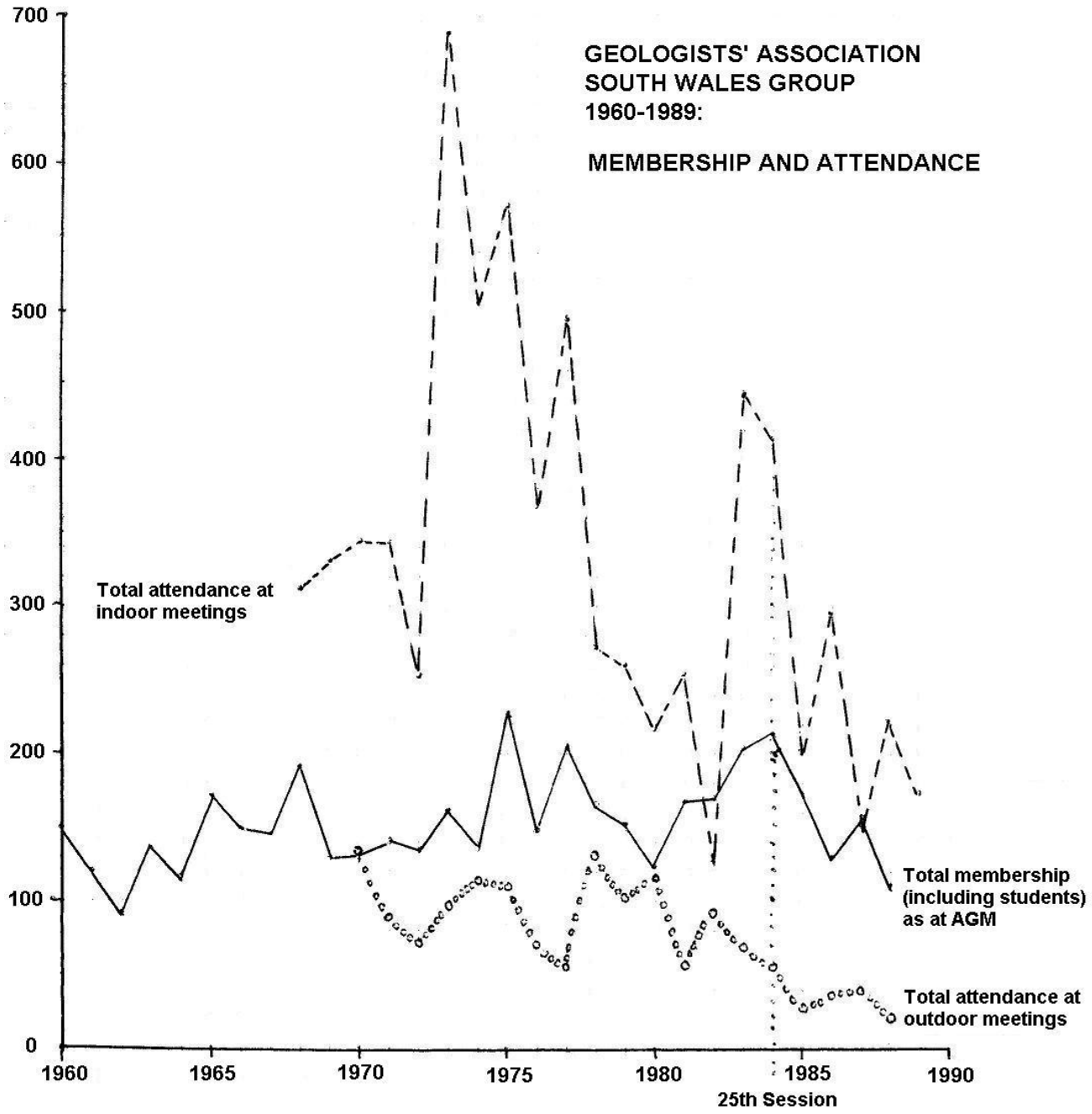
GEOLOGISTS' ASSOCIATION SOUTH WALES GROUP
SPEAKERS and LEADERS 1960-1992
UNIVERSITIES EX WALES

NAME	LECTURE	FIELD MEETING
E N G L A N D		
Birmingham		
Blundell, D.J.	1969	
Brook, H.D.	1968	
Coope, G.R.	1970	
Griffiths, D.H.	1968	
Langford, J.I.	1968	
Strachan, I.	1968(2)	
Warwick, G.T.	1970	
Bristol		
Benton, M.	1990	
Bradshaw, R.	1975	
Cowie, J.W.	1960, 1970	
Dineley, D.L.	1969	
Firth, J.N.M.	1970	
Ford, D.C.		1967
Hamilton, D.		1975
Hancock, P.L.	1974, 1982	1974, 1975, 1985
Matthews, S.C.	1971	
Murray, J.		1972
Peel, R.F.	1964	
Robinson, D.	1985	
Savage, R.J.G.	1964	1986
Sparkes, R.J.J.	1991	
Williams, B.P.J.	1971, 1978, 1984	1973, 1974, 1975, 1985, 1987

NAME	LECTURE	FIELD MEETING
Cambridge		
Lister, A.	1992	
Rickards, R.B.	1978	
Smith, A.G.	1979	
Whittington, H.B.	1968	
Woodcock, N.H.	1983, 1989	
Exeter		
Selwood, E.B.	1989	
Simpson, S.	1973	
Keele		
Kelling, G.	1981, 1992	
Roach, R.A.	1977	
Torrens, H.S.	1984	
Leeds		
Ramsay, J.G.	1975	
Leicester		
Aldridge, R.J.	1990	
Ford, T.D.	1977	
Pickering, K.T.	1991	
Windley, B.F.	1977	
Liverpool		
Brenchley, P.J.	1989, 1990	
Crimes, T.P.	1978	
Marshall, J.	1990	
Styles, P.	1990	
London - Chelsea College		
Barber, A.J.	1982	

NAME	LECTURE	FIELD MEETING
London - Goldsmith's College		
Briggs, D.E.G.	1983	
Johnson, A.L.A.	1989	
London - Imperial College		
Evans, G.	1961	
Hancock, J.M.	1990	
Knill, J.L.	1983	
Sutton, J.	1973	
Thomas, G.	1969	
Wallace, P.	1977	
Watson, J.	1983	
Williams, D.	1960	
London - King's College		
Brown, E.H.	1961, 1982	1962
Embleton, C.	1963	
Hancock, J.M.	1977, 1990	
Hubbard, J.A.E.	1974	
Taylor, J.H.	1961	
London - Royal Holloway and Bedford New College		
Chaloner, W.A.	1989	
Powell, D.	1988	
London - University College		
Robinson, J.E.	1991	1991
Smith, A.	1975	
Manchester		
Anketell, M.	1975	
Open University		
Francis, P.W.	1984	
Jenkins, D.G.	1990	
Wright, V.P.	1984	

NAME	LECTURE	FIELD MEETING
Oxford		
Brasier, M.	1990	
Corfield, R.	1990	
Oxburgh, E.R.	1976	
Reading, H.G.	1976	
Reading		
Allen, J.R.L.	1972, 1987	1967, 1989
Halstead, L.B.	1988	
Sellwood, B.W.	1990	
Whittow, J.B.	1964	
Sheffield		
Moore, L.R.	1962	
Southampton		
Hailwood, E.	1991	
S C O T L A N D		
Glasgow		
George, T.N.	1965	
E I R E		
University College Dublin		
Simms, M.	1990	
Somerville, I.D.	1984	
Strank, A.E.	1984	
S W I T Z E R L A N D		
Zürich		
Hsu, K.	1990	
U. S. A.		
New York - Cornell University		
Rhodes, F.H.T.	1991	


GEOLOGISTS' ASSOCIATION
SOUTH WALES GROUP
1960-1989:
MEMBERSHIP AND ATTENDANCE
700
600
500
400
300
200
100
0
1960
1965
1970
1975
1980
1985
1990
25th Session
Total attendance at indoor meetings
Total membership (including students) as at AGM
Total attendance at outdoor meetings

SWGA 1960-1992 FREQUENCY OF CHIEF CONTRIBUTORS (Min 5)

	Lecture	Excursion	Total			Lecture	Excursion	Total
Baker, J.C.W.	2	5	7		Owen, T.R.	7	10	17
Bassett, D.A.	6	2	8		Owens, R.M.	4	3	7
Bassett, M.G.	7	6	13		Ramsay, A.T.S.	4	3	7
Bowen D.Q.	6	3	9		Thomas, A.J.	4	8	12
Cope, J.C.W.	5	6	11		Thomas, T.M.	7	10	17
Evans, D.E.	2	4	6		Williams, B.P.J.	3	5	8
Gayer, R.A.	5	1	6		UC Cardiff	-	-	68
Hancock, P.L.	2	3	5		UC Swansea	-	-	81
Kelling, G.	5	4	9		NMW Cardiff	-	-	45

References

1969 Bassett, D.A. (ed.). The First Ten Years, 1960-1969. *The Welsh Geological Quarterly*, **4**(2/3), (Winter 1968/Spring 1969), pp.63-70.

1980 Thomas, A.J. *Meetings of the Group 1960-1980* [Incorporating *The First Ten Years*]. pp.1-14. Unpublished duplicated typescript.

1984 Thomas, A.J. *Twenty Five Years: a brief history*. pp.1-4. Unpublished leaflet.

1984 Bassett, M.G., Cope, J.C.W. and Thomas, A.J. Twenty-five Years, 1959-1984 [*In* Introduction]. *In* Bassett, M.G. (ed.) Focus on Wales. *Proceedings of the Geologists' Association*, **95**(4), pp.289-290.

1984 Bassett, M.G., Cope, J.C.W. and Thomas, A.J. The South Wales Group of the Geologists' Association, 1959-1984. *In* Bassett, D.A. (ed.) *Nature in Wales*, **3**(1/2), pp.69-71.