The Geologists’ Association, founded in 1858, exists to foster the progress and diffusion of the science of Geology. It holds lecture meetings in London and, via Local Groups, throughout England and Wales. It conducts field meetings and publishes Proceedings, the GA Magazine, Field Guides and Circulars regularly. For further information apply to:

The Executive Secretary,
Geologists’ Association,
Burlington House,
Piccadilly,
London W1J 0DU
phone: 020 74349298
e-mail: geol.assoc@btinternet.com
www.geologistsassociation.org.uk

The Curry Fund of the Geologists’ Association provides support for geological publications and geological conservation projects, also contingency funding for other geologically based initiatives, either from groups or individuals.

Rockwatch is the national geology club for children and is the junior arm of the Geologists’ Association. It publishes a magazine three times a year, organizes field trips around the country and runs ‘hands-on’ family days in museums and universities. To find out more or to join Rockwatch: phone: 020 77345398, e-mail: rockwatchatga@btinternet.com, www.rockwatch.org.uk

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Bernard Elgey Leake was Professor of Geology (now Emeritus) in the University of Glasgow and Honorary Keeper of the Geological Collections in the Hunterian Museum (1974–97) and is now an Honorary Research Fellow in the School of Earth and Ocean Sciences in Cardiff University. He joined the GA in 1970, was Treasurer from 1997–2009 and is now an Honorary Life Member. He was the last sole editor of the Journal of the Geological Society (1972–4); Treasurer (1981–5; 1989–1996) and President (1986–8) of the Geological Society and President of the Mineralogical Society (1998–2000). He is a petrologist, geochemist, mineralogist, a life-long mapper of the geology of Connemara, Ireland and a Fellow of the Royal Society of Edinburgh. He has held research Fellowships in the Universities of Liverpool (1955–7), Western Australia (1985) and Canterbury, NZ (1999) and a lectureship and Readership at the University of Bristol (1957–74).

Following undergraduate and postgraduate studies at King’s College, London, Clive Bishop was appointed to HM Geological Survey in Edinburgh to which he returned after National Service in the RAF. In 1958 he took up a Lectureship at Queen Mary College, London and, eleven years later, moved to the Mineralogy Department at the British Museum (Natural History) in time becoming Keeper of Mineralogy and Deputy Director. Besides serving as President of the Mineralogical Society (1986–88) he was President of the Geologists’ Association (1978–80) and the Halstead Medallist in 1999.

Richard Howarth is a geologist, specialising in statistical interpretation of geological and geochemical data and, more recently, the history of the use of quantitative methods in geology and early geophysics. He took his B.Sc. and Ph.D. at the University of Bristol, UK, and subsequently worked for Shell International; the Applied Geochemistry Research Group, Imperial College, London; and British Petroleum. He is now Honorary Professor in Mathematical Geology at University College London. He has been awarded the Murchison Fund of the Geological Society, the Krumbein Medal of the International Association of Mathematical Geology and the Richardson Award of the Geologists’ Association.

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The Wyley History of the Geologists’ Association
in the 50 years 1958 to 2008

by

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Frontispiece: The GA Powerhouse: Mrs Sarah Stafford, Executive Secretary (centre), Mrs Geraldine Marshall, Administrative Assistant (on left), and volunteer Mrs Susan Brown, Rockwatch Chairman (1998–2000) and President, 2002--; Curry Fund Secretary (1995--) and GA President 2000–2 (on right).
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   Treasurers
   PGA Editors
   Guides Editors
   General Secretaries
   Secretaries for Field Meetings
   Meetings Secretaries
   Librarians
   Rockwatch Chairman or President
   Executive Secretaries
   Recipients of the Foulerton Award
   Recipients of the Henry Stopes Medal
   Recipients of the Halstead Medal
   Recipients of the Richardson Award
   Geologists’ Association Special Lectures
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1. General review of the 50 years

The history of the founding and of the first hundred years (1858 to 1958) of the Geologists’ Association (GA) was summarised by Sweeting (1958) while Freeman (1996) explored its origins further. The present account derives from a generous bequest by a former GA Member, who joined in 1953, John Fitzthomas Wyley (1920–1994). Council ruled on May 1st 2009 (Council Minutes; CM hereafter) that the Wyley Fund should meet the cost of publishing a continuance of the history of the GA covering the years 1958 to 2008.

The main features of the 50 years which follow the 1958 centenary include: the gradual replacement of the source of the Friday lectures from papers primarily intended for publication in the Proceedings of the Geologists’ Association (PGA) to invited lectures not necessarily intended for publication; the generous donation in 1959 by Dennis Curry (1912–2001) of Curry’s Ltd shares which eventually led to the institution of the Curry Fund, effectively in 1986, and the consequent major increase in geological public benefit that this enabled; the quite sudden deep involvement in geoconservation from 1972–3; the enlargement of the Circular from September 1978 with short contributions, comments and book reviews which later, from the end of 1980, under (John) Eric Robinson’s remarkable 22-year reign as editor (1980–2002) and chief contributor, eventually blossomed into The GA Magazine in March 2002; the establishment of the first permanent GA Office in Burlington House and the appointment of the first salaried employee in 1979, and change of the post in 1991 to that of Executive Secretary; the successful launching and continuance of Geology Today in 1984; the successful establishment in 1991 of RockWATCH (a geology club for young people, subsequently renamed Rockwatch) and its own magazine for junior geologists; the establishment of GA Enterprises in 1995; the gift of £50,000 secured by Susan Brown in 2002 from the winding up of the Joint Association for Petroleum Exploration Courses (JAPEC); the bequest of the Wyley Fund, the gradually widening range of the overseas field excursions, the maintenance of the publication of Excursion Guides and the PGA together with several sesquicentenary initiatives, although, less pleasing, was the fall in both the GA membership itself and in the institutional subscribers to the PGA, in the last decade or so.

Statistical summary

The crucial statistics summarising the effects of changes over the years 1958–2008 are shown in Table 1 in which, for each year for which data are obtainable, the total membership; number of new Members joining; annual subscription; value of the Curry Fund; surplus or deficit of income over expenditure; value of the General Fund; production costs of the PGA, and trade income; costs of producing the Circular and, more recently, The GA Magazine; and the income from the sale of Guides; staff costs are included where available in the annual accounts. The Appendices list those who from 1858 have been the Presidents, Treasurers,
1. General review of the 50 years

*PGA* Editors, General Secretaries, Secretaries for Field Meetings and the Lecture programmes, Librarians, *Guides* Editors, and Executive Secretaries; the recipients of the Foulerton Award (named after John Foulerton MD, General Secretary 1876–86), the Henry Stopes Medal (named after Henry Stopes (1852–1902)), the Halstead Medal (named after Lambert Beverley Halstead (1933–1991)), and the Richardson Award (named after geologist James Alfred Richardson (1914–2007), a life-long member of the GA since joining in 1934, his wife, Doris Maud Richardson (1914–2003) and their son, John Victor Richardson who died in infancy); together with the names of those who have delivered the GA Invitation Lectures, the Honorary Members elected and past Honorary Vice Presidents, GA Benefactors, sponsors and donors over the fifty years 1958–2008; and a list of *The Local Heroes* meetings in connection with the 2008 sesquicentennial celebrations.

Although the GA finances are dealt with later, it is appropriate here to emphasise that throughout the years reviewed, the outstanding financial feature was the inexorable presence of inflation and its insidious effects. This was in complete contrast to the first hundred years of the Association. Thus, whereas for nearly a hundred years (1858 to 1952), the subscription remained at ten shillings (50p), the increase in 1952 to £1 lasted only 8 years until 1960 when it doubled again to £2, only to double again in both 1972 and 1977, and eventually reach £40 by 2007 and 2008. Although the 100% subscription increase to £4 in 1972 was largely due to the increase in *PGA* production costs, which quadrupled from £5,380 in 1971 to £21,341 in 1976, other costs also more than doubled. Thus the combined yearly charge for the hire of the Geological Society’s Council Room, the lecture theatre and projectionist for GA meetings rose nearly fivefold from October 1st 1973, from £40 to £196 (CM, July 6th 1973). The 1972 subscription increase prompted a revolt among some Members who decided that they would rather continue to pay £2 without receiving the *PGA*, than pay £2 extra to receive it. However, in fact, as the cost of meetings noted above and as Table 1 shows, other costs, such as that of the Circular, which cost £427 in 1960 when the subscription was £2, had already risen fourfold to £1,603 in 1972 and would be £2,712 by 1974. Nevertheless, at a Special General Meeting (SGM) on April 4th 1975 it was agreed, for the first time, that Members could opt out of taking the *PGA* and pay a reduced subscription and by 1978 such Members totalled about 200. Inflation also destroyed compounding, whereby Members paid a lump sum for Life Membership giving the GA a useful capital sum, the interest on which usually funded most, or all, of the subscription. The last year of Admission Fees (£1) and of compounding was 1971, when the latter was ‘suspended’ although compounding was not formally abolished until 1980 following an SGM at the Reunion on November 3rd 1979, which also formally changed those who chose to forego receipt of the *PGA* from ‘List B Members’ to ‘Associate Members’. Initially, from 1980, Associate Members were ‘not entitled to vote on any question relating to the management or business of the Association, or to serve on Council, or to fill any office in the Association’, but these restrictions were later removed.
1. General review of the 50 years


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Notes: NM, new Members joining; M, total membership (the figures before 1978 include ~75 institutional members); CF, Curry Fund value as given in accounts (before 1988 this was variously named in the accounts, e.g. The Geologists’ Association Fund, or Special Fund – Curry Fund). £S or £D, the surplus or deficit recorded for each year (the new value of the General Fund is not necessarily obtained when this is added or subtracted from the General Fund of the previous year because unrealised capital gains and losses are not included in the earlier years and sometimes provision for unprinted publications is either included or excluded); £GF, value of General Fund; £Sub, price of the annual subscription for Full Members. £PGa, Costs of producing the GA excluding notional contributions to Office expenses; £PGai, Income from trade sales of GA; £Gi, income from sale of Guides, excluding notional contributions to Office expenses; £Cze, Costs of producing the Occasional and from 2002 the GA Magazine, excluding notional contributions to Office expenses; £Se, Staff costs. The Curry Shares were nominally valued in the accounts so they were given on the understanding that they would not be sold. ¹By 1976 their market value was ~£27,000; ²by 1977 this had increased to ~£54,000. ³by 1981, with a bonus issue of shares the holding had a market value of ~£100,000. ⁴The last year in which the income from the Curry shares was added to the General Fund income. ⁵The first year after which the name Curry fund was invariably used. ⁶Includes sales of Guides. N.B. The financial year was changed in 1977 to correspond with the calendar year, instead of ending on September 30th.
1. General review of the 50 years

By 1981 two further types of membership had been approved (at an SGM held on July 4th 1980): that of reduced subscriptions of £8 for Members under 22 years of age and of £18 for married couples when Ordinary Members paid £12. Thus inflation caused significant changes in membership categories. Another example of inflation was the agreed increase in the GA’s prime award, the Foulerton Award to £25 in 1961 after 40 years of being unchanged since 1920, when it was first awarded. By 2008, it had become £100 plus an inscribed plaque.

Inflation made the Treasurer’s job one in which, in addition to the ever present necessity for meticulous attention to detail, was now needed miraculous foresight and a charismatic ability to get Council to see that two years’ inflation had to be added to last year’s prices when budgeting for next year’s expenses. That at least 20 months of this inflation had yet to be revealed was why miraculous foresight was needed. Another subtle, but necessary, change, and one which it was also difficult to get Council to accept, was that small increases in the subscriptions were needed almost every year to keep up with inflation. Council tended to delay or even oppose increases until deficits made them unavoidable, by which time substantial percentage increases were needed. The first increase in the period reviewed of 1960 (passed at a SGM on June 5th 1959) was for a 100% increase but this seems to have been forced by the Royal Society refusing the GA a grant and recommending that Council raise the subscriptions. Thus increases of 100% took place in 1960, 1972, and 1977; 50% in 1980, 33% in 1990 and 31% in 1994. However, most Members preferred small annual increases and these became the norm as the organisation adapted to continued inflation. Finally, it is often not appreciated how much inflation increased the work of running the Association. This is discussed later.

The July 4th 1975 SGM was also notable for taking the first steps in abolishing pompous formal voting for any disputed election of Ordinary Members, which had long been the GA routine (based on copying a defunct former Geological Society practice). Until then, the certificates of intending Members were read out at one meeting and then the candidates’ names were read out again at the next meeting and declared elected unless a ballot was demanded. In that instance, voting boxes were circulated which contained white and black wooden balls for secret voting. So long as at least 12 Members voted, one black ball in every six would exclude any would-be Member. In the new procedure, the candidates’ names were published in one Circular and declared elected at the next Ordinary meeting unless an objection in writing was received within 21 days of the publication of the names, in which instance a vote would be taken at the next Ordinary meeting and any candidate who obtained a majority vote judged by a show of hands would be elected. The election procedure was accelerated by the SGM of November 3rd 1979. It was agreed that Members should be recommended for election by the Council and confirmed by a majority show of hands of the Members present at the next Ordinary Meeting, with the safeguard that such membership was probationary for one month after the publication of any name.
1. General review of the 50 years

If no objection was received in writing within 21 days of the publication of any name, the election was automatically confirmed. Lists of names in the Circular appeared as ‘New Members elected’. However, over time this procedure lapsed into the present one, with announcement of names without Members voting.

Two outstanding benefactors should be noted: the first was Dennis Curry (1912–2001) managing director and chairman of the electrical retailers Curry’s Ltd, who had a lifelong interest in geology, who, to mark the GA centenary in 1958, gave the GA 10,000 Ordinary shares in Curry’s Ltd to the value of £14,000 in 1959 on the understanding that they would not be sold, but the dividends would constitute an income that could be used in any way that the Council decided. By 1984, when Curry’s Ltd was taken over, the shares raised £350,000 and this was used to establish a grant-awarding fund. From 1986 to 2008 the Fund dispersed £500,000, partly to bodies and causes outside the GA, but also to the GA. A detailed account of the Curry Fund and Curry’s life is given later. The second benefactor was John Fitzthomas Wyley (1920–1994), a market gardener, who left £5,000 immediately in 1994 to the GA and a capital sum, the interest from which went to his wife until her death when a share of the capital came to the GA in 2007, this being valued then at £174,000. As with the Curry Fund, only the income, not the capital, could be spent by the GA, but in any way the Council decided.

Undoubtedly, the most successful Treasurer in the 50 years under review here, and in terms of the increase he achieved in the General Fund, was Peter Edwin Negus, (1920–2012) (Fig. 1) Treasurer for 10 years from 1979 to 1988, while his wife, Diana Vera Louise Negus, meticulously maintained the account books. During Negus’s time he never reported a loss and six of the surpluses ranged between £14,524 and £19,541, so that the General Fund, which stood at £25,208 when he took over, steadily increased nearly eight times to reach £198,338 in his last year. Admittedly, part of the surpluses derived from the dividends payable to the General Fund on the 1959-gifted Curry shares, i.e. the Curry Fund, but these sums were nowhere near as large as the increase he achieved. Thus in his first five years, Curry share income constituted only £15,655 of the £65,612 increase in the General Fund, meaning that £50,000 was derived from other sources. Negus managed this with only one increase (from £8 to £12) in subscriptions, in 1980 at the start of his period of Office. He was made an Honorary Life Fellow in 1993.

The development of electronic communication and the number of publications becoming electronic without printed versions, alarmed many of the older members who could foresee a time when, to save money, the GA might dispense with posted hard-copy journals and the GA Magazine. At the AGM in 2004, Mrs (Shirley) Louise Donovan (1935–2007) successfully moved a motion that all communications and journals would continue in hard copy and be posted to those Members who wished to receive them in that way but, due to an oversight, this was never recorded in the minutes of the AGM.
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Review of membership numbers and the reasons for decline

As Table 1 shows, the membership increased erratically during the 1960s to reach a peak of 2,672 in 1971 and 2,714 in 1976, after which it declined to 2,002 in 1994. At this point Bryan Cozens persuaded Council to initiate a major recruitment drive with advertising in 1994, 1995 and 1996, during which no less than £14,900 was expended to increase the membership to 2,398 in 1996. Considering that new Members averaged 190 per year in the five years before the campaign and were 191 in the year after (1997), it seems that a total of an extra 260 Members were recruited over 1995 and 1996, at a cost of £57 per extra Member gained. This would have been very good value if those recruited had remained Members, but from 1996 there was an alarming fall, as many of the new Members stayed for only a short time. Long-term decline continued, with the membership falling sharply in the late 90’s and in the first decade of the 21st Century. By 2008, the total was only 1,539, with yearly new-Member numbers falling below 100 (a figure not seen since 1960) in 2004. Since the GA was not alone in experiencing declining membership during the later part of the period under review, the reasons for it are of general interest.

Considering that the average annual hours worked per person employed in Britain fell from 2,624 just before 1914 to 1,489 immediately preceding the 2008–9 stock market crash, and bearing in mind the remarkable attendance of thousands at the annual meetings of the British Association for the Advancement of Science held in Victorian and Edwardian times, and in view of the increase in the number of educated people in the country, a fall in GA membership would hardly have been expected. However, this occurred despite the introduction, in 1975, of a cheaper rate of Membership than the Full Membership for those who did not wish to receive the PGA. Perhaps surprisingly, the number who took up this option was always small in relation to the Full Membership numbers, so that even in 2008, there were fewer than 400 Associate Members.

The reasons for the decline in membership from its maximum of 2,714 in 1976, involved many factors. Undoubtedly, the amalgamation or closure of the Geology Departments of Queen Mary College, Chelsea College, Bedford College, and King’s College, leaving Geology or Earth Science Departments in...
1. General review of the 50 years

central London only at Imperial (IC), University (UCL) and Birkbeck Colleges, removed many staff and students who had previously supplied a constant flow of life-long Members to the Association. Moreover, the emphasis at IC shifted away from the pure geology of the Herbert Read–Wallace Pitcher–John Sutton and Janet Watson era of 1938–1984 which had made such an important input to the GA meetings and the PGA. There was a distinct decline in the number of younger University staff in London who became Members and, in consequence, the previous encouragement to their students to join disappeared. This same trend of declining University staff involvement also afflicted the Geological Society, whose academic membership has declined to only about 20% of the Fellows, although its total membership over the same period has progressively increased through growth in the number of applied geologists, engineering geologists and Chartered non-academic Geologists.

Another, more subtle, factor was the general change in the University examination system away from degrees based on performance during the final year to one of degrees based on the summation of performance during each year, or even half-year or term, of study. In the late 1960s, London University moved from the traditional three-term year to a two-semester system with the curriculum divided into Course Units. It was among the first in Britain to adopt such a system. The constant pressure to succeed at each module examination, the syllabi of which were narrowly defined, militated against broad studies outside and across the syllabi, and it became harder to gain credit for a wide knowledge of geology. Although student numbers increased markedly, typical student interest in general geology and non-compulsory field excursions declined, although, of course, there still remained a small core of enthusiastic, self-generated devotees to a broad range of geology, oblivious to any application to passing examinations.

Another major factor was the increasing appearance of well-illustrated popular television programmes on the subject of the Natural World, including geology, presented at a level easily understood by most, and often incorporating quite recent discoveries and model-simulations that show what it is thought happened. Many of these programmes were skilfully presented by leading personalities and followed by, or accompanied by, lavishly illustrated, modestly priced (because of their high print-runs and sales) books. Another influence was the introduction of degree courses in Earth Sciences by the Open University which enabled enthusiastic amateurs to obtain a systematic understanding of geological matters that GA lectures and publications can only cover in part, although the extensive GA field excursion programme is still very attractive, with several hundred taking part each year, and a substitute for this ‘hands-on’ experience is not easily obtained. In recent years, the arrival of the Internet and the World-Wide Web has made it much easier to search for information. In the past, all such knowledge and contact with the leading personalities in geology was only readily available to amateurs through membership of bodies like the GA with their accompanying lectures, libraries and publications.
1. General review of the 50 years

Letters received from resigning Members show that the cost of the subscription was not among the more important deterrents to remaining a Member. In 2006 over 60% of the membership lived so far outside London that they virtually never attended lectures in central London, and therefore, for most, the subscription was essentially the cost of obtaining their own copy of the *PGA*. Since March 2002 this has been supplemented by the popular *GA Magazine* which (as distinct from *Geology Today*) is included in the subscription. Increasingly, University libraries and the Geological Society library give online access to their journal holdings so that, combined with the seemingly unlimited proliferation of earth science periodicals, fewer and fewer University staff and researchers purchase their own personal copies of journals and this reduces or removes the incentive to belong to the GA in order to get the *PGA*. This is reflected in the increased proportion of near-London based new Members, and a decline in the number of far-flung Members as older faithful adherents die and are not replaced.

Another very important factor is the growth of many local GA Groups and small local geological societies whose Members see no need to belong to the ‘national’ GA, as the local lectures satisfy their main wants. Most of these Groups, some of which have over 100 Members, did not exist even 60 years ago, but it is good to see that many, although unfortunately not all, are flourishing (such as the South Wales GA Group, founded in 1958 and with 179 Members in 2008, many of whom are also GA Members). However, a major factor encouraging Local Groups and Affiliated Societies to maintain their connection with the GA is the existence of an agreement whereby these bodies can insure their field excursions against accidents, at highly financially favourable rates, as ‘add-ons’ to the GA Field Excursion Insurance policy.

The 1976–77 Crisis

Undoubtedly the biggest changes in the GA over the 50 years reviewed in this account arose from the problems of 1976–77 and the developments which flowed from solving these problems. Dr (Arthur) Clive Bishop, President 1978–80, and a member of Council during the crucial years, has given the following account of this crisis.

“It is well known that the economic climate affects virtually all aspects of society. A Labour administration was elected in February 1974 without an overall majority and at a time of such uncertainty that it was described by a member of the Cabinet as an economic typhoon of unparalleled ferocity. Unemployment was rising and excessive wage demands were fuelling inflation. Hopes centred on a cross-party coalition were not realised. James Callaghan succeeded Harold Wilson as Prime Minister in March 1976. Wage demands, then reaching 26% were such that a £1 billion reduction in government expenditure had to be imposed. The value of the pound against the dollar was falling rapidly and, in order to secure a loan from the International Monetary Fund (IMF), a further reduction of £1 billion was needed.
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By the autumn of 1977, the worst of the crisis seemed to be over. The IMF loan was being repaid, the balance of payments was again in surplus and revenue from North Sea oil was coming on stream. But unemployment was still rising and the Trades Union movement, tired of wage restraint, voted in favour of unfettered collective bargaining. Attempts to restrict wage demands, first to 10% and then to 5%, were unsuccessful and the winter of 1978–9 —known as the winter of discontent— brought a wave of strikes which caused widespread disruption in the public sector, made worse by severe weather. The election in the spring of 1979 returned a Conservative government.

It was against this background that the Association was conducting its affairs in the way it had done for years. External events were moving rapidly but the organisation of the GA was such that it was able to respond only slowly. The cost of printing and distributing the PGA and the Circular accounted for the greater part of the GA’s annual expenditure. As long as this remained relatively steady, the financial state of the GA was stable. Early signs of the instability to come appeared in 1973, during the Presidency of Miss Muriel Agnes Arber (1913–2004), (Fig. 2) 1972–4, when Benham & Co. of Colchester, the company which had printed the PGA since 1919, was taken over by William Clowes Ltd and immediately announced a 7.5% rise in printing costs backdated to June 1st 1973. Worse was to come. Further increases of 12.5% and 14% followed within a year. Savings were made by changing the PGA to a larger format and by attempting to negotiate with the printer the deferment of yet another proposed increase. At the best, these were marginal savings. In October 1975 the Treasurer, Mr Michael Kenneth Durkin, reported to Council that the rises in printing costs would result in the accounts for 1975 being heavily in the red.

Matters were made worse by an earlier decision to publish an expanded Part 4 of Volume 86 of the PGA (for 1975) to commemorate the centenary of the publication of the famous Geological Survey memoir by William Topley FRS (1841–1894; GA President 1885–7), ‘The Geology of the Weald’ (Topley 1875). Authors had been commissioned to contribute, manuscripts had been received and editorial work was well advanced. It was deemed to be too late to call a halt. A larger Part meant a larger bill and at a time when it could least be afforded. Then came yet another printers’ increase of 12.5% from June 1976, making

Figure 2. Miss Muriel Agnes Arber (1913–2004), President 1972–4.
1. General review of the 50 years

increases of over 55% in three years. Enough was enough. Urgent moves were then made to obtain quotations from other printing firms but marginal savings were insufficient; more income was needed, and soon.

The Members’ annual subscription had been raised from £2 to £4 in January 1972. In the quinquennium 1972–6, the GA finances were in surplus only in 1972 and the deficit grew annually thereafter to reach an alarming level in 1976. The reason is clear. Businesses could quickly pass on increases in their costs whereas it took time to obtain approval for any increase in Members’ subscriptions at a Special General Meeting. There was little other choice but to double the subscription to £8 from January 1977.

By the autumn of 1976 it was clear that the Association was in severe financial difficulties. Outstanding bills for printing alone stood at £14,000 and there was only £3,000 as available cash. Bishop recalls having one of the frights of his life as a Council Member—the stark realisation that the GA might not survive. Investments however, stood at £36,000; the problem was liquidity and the cash flow needed to service escalating external costs. So, at the time when Denis Healey, the Chancellor of the Exchequer, was successfully negotiating a loan from the IMF to help secure the national finances, the Association was seeking overdraft facilities from the Royal Bank of Scotland, only to be told that this was not possible. Gilts to the value of £9,000 were therefore redeemed, with the stated (but unfulfilled) aim that they were to be restored within two years.

But then, matters were compounded by a most unfortunate and unseen factor. For some time, and unknown to Council, the Treasurer’s personal problems resulted in letters, some with monies payable to the Association, lying unopened at his home address, thereby further starving the GA of funds it so desperately needed. The Treasurer reported to a tense Council meeting on October 1st 1976 that the GA was in immediate and severe financial difficulty. He apologised for the situation and tendered his resignation which was accepted with immediate effect. Mr Edgar William (‘Eddie’) Avent nobly took on the onerous task of Acting Treasurer until Mr P. A. Nevill was elected Treasurer in April 1977. Avent was a businessman with considerable experience of financial matters. Calm and quietly spoken, he was the ideal man for this difficult time. A period of crisis management ensued.

Publication policy was reviewed as a matter of urgency by a small working party set up by Council in April 1977 and charged to report back to the June Council meeting. As result of their discussions and those with publishing firms, the Scottish Academic Press (SAP) was chosen to produce the PGA and the Circular. Mr Douglas Grant, the Managing Director of SAP, generously presented to the Association a way forward which, in no small way, contributed greatly to its survival. SAP offered to collect Members’ subscriptions and to maintain a list of Members, free of charge for two years. Further, they undertook to handle the printers and to produce the Proceedings and the Circular. For this their fee was 12.5% of the price realised from trade subscriptions and sales of PGA vol-
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Immediate funding was also provided for the publication of Parts 3 and 4 of Volume 88 of the *PGA*. SAP also took over the stock of *Guides* and agreed to finance new ones and sell to the trade. The financial year was changed to coincide with the calendar year to simplify accounting, a *Circular* editor was to be appointed and a new publication committee, in consultation with the finance committee, would prepare a publications budget. At the Annual General Meeting in April 1978 the General Secretary, Mrs Joanna Prendergast Edwards, stood down and was succeeded by Dr William John (‘Bill’) French. Dr Francis Harry Moore (1899–1990) (Fig. 4), who as President, had manfully borne the heat of the day, was succeeded by Bishop (Fig. 3).

Further new initiatives were proposed. Crucially, it was agreed that the total annual cost of the *Proceedings* was to be kept within the budgeted figure of £12,000 and that the Association should explore the possibility of obtaining office space in London and the help of a paid, part-time secretary. The dispersed administration of the Association, run from the homes and offices of its Officers, despite their giving unstintingly of their time, expertise and resources, was proving to be inefficient and slow. As an example, even the change of a Member’s address was taking up to three months (*Circulars* 787 to 802). As a first step, membership records were centralised through the General Secretary. The *Circulars* were remodelled, the first of the new style (No. 805) appearing in September 1978.

It also came to light that the Association had four separate and disparate lists of Members, some of whom had been lax in payment of their proper dues. These lists were kept on record cards and French collected them from various parts of the country. He and the President, with help from others, set to work to produce a definitive list and to identify those Members with discrepancies in their subscriptions. A significant number of Members, some of considerable standing, were continuing to pay £1 annually by standing order, despite the annual subscription now being £8 (the last year in which it was £1 being 1959), showing the long-standing nature of the problem which had become even worse after the March 1970 resignation of Mr Ronald Cheeseman, who for ten years had acted as Membership Treasurer, Assistant to the Treasurer and managed the addressograph. Eventually, because of the inadequacy of the records, an ‘amnesty’ had to be declared for some of the backlog of subscriptions. The need for a central office

![Figure 3](image) Dr Arthur Clive Bishop, President 1978–80. With acknowledgements to the Natural History Museum.
1. General review of the 50 years

was becoming only too apparent. In the summer of 1978, a Presidential letter was sent to every Member explaining the situation and the remedial steps being taken. Consultation with the Geological Society led to the identification of two rooms in the basement of the Geological Society’s part of Burlington House which would be suitable for an office and by the end of 1978 an agreement had been reached to lease these from March 1st 1979. The office was manned initially by the Officers until the appointment, in December 1979, of Miss June Philpot as Secretary. Further a major revision of the rules of the Association was agreed at a Special General Meeting in November 1979. By the beginning of 1980 most of the far-reaching changes agreed by Council were either in place or were imminent. The Circular was made more interesting by the inclusion of short articles and book reviews and less of a financial drain by containing advertising. In fact, the biggest changes of the 50 years reviewed stemmed from these years and the 1976–7 crisis.

The Annual Report for 1979 stated that the year had been one “…in which Council found new confidence and was able to bring about some much needed innovations”. The new format for the PGA, and the contract with SAP, were financially beneficial and profit was accruing by selling Guides to Members from the office. Moreover, there was a healthy surplus of £13,000. The corner had been turned but not without considerable strain. At the Annual General Meeting in 1979 Nevill, who as Treasurer had steered the ship through stormy waters for two years, handed the role over to Peter Negus, in whose capable hands the financial affairs of the Association were to remain for the next decade (Leake 2013). The regime of tight financial management within strict budgetary limits was to continue and important guidelines were identified to help ensure the future financial health of the Association. Crucial among these was that, in order to avoid financial crises, the income from the Members’ subscriptions needed to exceed 50% of the annual expenditure. To meet this, a further increase of the annual subscription to £12 was approved from January 1980. Sadly, this sound advice was not transmitted to future Councils and was not always followed. Twenty years later, in 1997, the Association had increasing deficits and once again urgent remedial action had to be taken, this time by Bernard Leake as incoming Treasurer.”

Staffing and Office accommodation

The 1976–7 crisis had brought the realisation that it was increasingly difficult to get Officers able to give the enormous personal commitment required to ensure the affairs of the GA were conducted satisfactorily and with continuity. In effect Moore (Fig. 4), who was General Secretary for no less than 21 years, had provided that continuity unpaid, but when he became President in 1976 matters began to unravel, as already described. To ensure that the 1976–7 crisis was not repeated, it was realised that there was a need for a permanent member of staff to attend to the increasing administration. Thus the membership categories increased from two (Honorary and Ordinary Members) to three (with Associate Members) and then
1. General review of the 50 years

later to five (with ‘Joint’ and ‘Student’ Members), all with different subscriptions and different lists receiving the PGA. Inflation meant that the many Members who paid by Annual Standing Bank orders had to change them frequently and many became behind in their subscriptions or paid twice through oversight and more reminders had to be posted; Direct Debiting was introduced by the banks to cope with the fluid situation but initially so many Members would not allow such an intrusion into their bank accounts that it was not introduced in the GA until 1999. When inflation was running at over 10% a year, many paid their subscriptions tardily and only at the last minute, requiring yet more reminders.

In addition, the Charities Commission began to require more detailed annual returns. It had first registered the GA as Charity Number 233,199 in 1964 (CM, Nov. 6th 1964) and this led to the abolition of the posts of the two Managing Trustees, Percy Evans (1892–1974) and William Archibald Macfadyen (1893–1985) (CM, May 7th 1965) whose duties of financial and other supervision were then superfluous. A place was needed to keep the records (Council minutes; legal agreements; correspondence), a complete bound set of the PGA, Circulars and excursion Guides, back issues of the PGA, copies for sale of excursion Guides, which had had to be dealt with outside the GA on a commission basis, etc. In short, after some 120 years of existence without paid staff or an Office, the need for such accommodation and an administrator had become only too apparent.

The Office was provided within the Geological Society from March 1st 1979 for a very modest annual rent of £40, which by 1983 had risen to £259 per year. For the first time Members could contact the Association and its Officers without having to write to the home address of the General Secretary. In 1998 the Geological Society was faced with accommodating a splendid donation by British Petroleum of geological maps from all over the world. Its map room was already stuffed full and overflowing and had been for some years, and the GA office in the basement was the most suitable for a heavy, tracked map storage system. At first it seemed that the GA would have to find an office outside Burlington House, indeed Richard Moody’s article ‘End of an Era’ (Circular 931, December 1998) stated ‘We

Figure 4. Dr Francis Harry Moore (1899–1990), General Secretary 1955–76, President 1976–8 (on right), with Dr Leslie Reginald Cox (1897–1965) FRS, President 1954–6 (on left), and (in centre) Prof Arthur Morley Davies (1869–1959), President 1928–30, Editor PGA 1893–6.
1. General review of the 50 years

have to quit our Office by May 2001’. This opinion was also stimulated by informal suggestions that the Geological Society might only find room for the GA in Burlington House if the GA became a Special Interest Group within the Society, a view running quite contrary to both the intentions of the GA and those in the Society who were intent on making its membership more professional with higher, not lower, entry standards. However, with some Executive ingenuity, and the support of the Geological Society Council, a somewhat smaller, but quite adequate, room was found for the GA in Burlington House in September 2000. The GA moved into accommodation previously occupied by the Housekeeping Couple (the Bartons), who retired and were not replaced.

The first salaried staff member was Miss June M. Philpot (from 1982, Mrs Pendrigh) who was appointed towards the end of 1979, the advertisement appearing in Circular 813 of October 1979. After five years, when she resigned, Nicola Fry temporarily replaced her for six months, resigning October 17th 1986. Mrs Sarah Elizabeth Stafford was appointed on October 9th 1986 (CM) and shortly afterwards the GA got its own telephone line.

Mrs Stafford (Fig. 5) was made Executive Secretary from January 1991 under Halstead’s Presidency and was then invited to Council meetings (CM, 113.13). She has now served the Association with dedication and continuity for over 25 years, in recognition of which she was honoured with the Foulerton Award in 2011.

In early 1996, Susan Wise helped out and then in September 1996, Mrs Geraldine Marshall was appointed part-time Assistant and has dealt with the sale of Guides, VAT reclams, the computerised accounts and Rockwatch business. The two staff were appointed under the same general terms as those which applied to Geological Society employees.

On the initiative of Richard Thomas Jones (‘Dick’) Moody (1939–), President 1998–2000, an External Affairs Officer, Jonathan Allinson, was appointed on December 1st 1999, on funds initially raised by Moody. The Royal Society for Nature Conservation (RSNC) agreed to contribute £11,000 towards the cost of a one year appointment only, on the condition that full and efficient liaison with the RSNC RockWATCH Officer and their Earth Sciences Manager was maintained, so as to facilitate events and other activ-

Figure 5. Mrs Sarah Elizabeth Stafford, Secretary 1986–91; Executive Secretary 1991–.
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ities which promoted RockWATCH to GA members and to local and affiliated groups. This was before RSNC suddenly withdrew from RockWATCH, effective from October 2001. The GA contribution to Allinson’s salary came from income from the ‘Earth Alert’ meeting held in May 2000 and then a loan from the Curry Fund, but without RSNC input, and despite the splendid work Allinson did, the GA’s finances were unable to continue the funding beyond 2001. This post also fostered closer links and joint activities between the central GA and GA Local Groups and other groups, especially outside London, including the organisation of the ‘Masterclasses’, described later. The lack of a GA employee dedicated to keeping close links with the Local Groups meant the work fell jointly on the Executive and General Secretaries, although Council Member Diana Margaret Smith acted as Local Group Co-ordinator in 2006, as had Austin Lockwood in the years 1996–9 before Allinson’s appointment.

The GA Office keeps a complete copy of the GA publications, but in setting it up, Alec James Smith (now Kenyon-Smith; Librarian 1958–70; President 1980–82) was appalled to find the unbound nature of the GA’s flagship journal, the PGA, and the absence of any bookcase in the Office to store the copies in. In 1981 he issued a President’s appeal to Honorary and Life Members to contribute to remedy the matter and, in Circular 830 of March 1982, he reported that the appeal had raised £1,650 and was closed. This was adequate to purchase book cases, bind one complete Office set of PGAs and leave funds for binding of future volumes. The residue of the fund (£240) lay unused for years until the end of 2008, when Leake and Sarah Stafford ensured that all PGAs to 2008 were bound. This not only exhausted the fund, as recorded in the 2009 accounts, but required some assistance from the General Fund.

The first computer was installed in the office in late 1986 or early 1987, as described in Circular 864 of November 1987.

The 1991 loss of Beverly Halstead

A second major event, after the difficult years of 1976–77, which also resulted in major changes in the GA during the years reviewed, was the election of Lambert Beverly (‘Bev’) Halstead (1933–1991) as President (Fig. 6) in 1990. Halstead had exceptional energy and inspiration and, during his short time in office, he instigated the formation of RockWATCH; the founding of a new GA Medal; brought the GA into closer involvement with the annual British Association Meeting; and gave much support to several local museums threatened with closure. Unfortunately, only two days before the 1991 AGM and the intended delivery of his first Presidential Address, on Bimolecular Palaeontology, he was killed in a car crash on April 30th 1991. Robinson stood in as Acting President and Mrs Sheilah Margaret Dellow became Acting Senior Vice President. The new medal, designed by Eva Wilson, but not yet awarded, which had been named ‘The GA Medal’, was renamed the ‘Halstead Medal’ by Council. It was first awarded in April 1992 to Ronald Frederick Pickford (1920–2010), whom Halstead had intended should
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receive the first GA Medal. Pickford had long laboured in the Geology Museum in the Bath Royal Literary and Scientific Institution, Queen Square, Bath before the Museum was closed and Pickford dismissed, despite a campaign which the GA strongly supported but to no effect. As an unusually active President, Halstead was responsible for starting a number of projects and initiating several campaigns, as well as visiting every one of the 21 Local Groups within seven months of election (CM, Nov. 2nd 1990). Partly as result of his outreach, by the end of 1991 the 24th Affiliated Society (The Yorkshire Geological Society) of the Association had been achieved (CM, Dec. 5th 1991). His sudden death left the GA temporarily rudderless.

Robinson wrote “My years in office were much influenced by what had gone before under the Halstead drive. Bev, who I had known when he was a research student in the Zoology Department of UCL, had always been a rebel who was prepared to take unexpected initiatives. In his research years he ran out of Supervisors in what was a very broad minded and strongly socialist department. In 1990, as was custom, he was nominated by John Evans, the preceding President, probably upon his background in vertebrate studies, something of a novelty for the Association. Looking back on that single year, he gave a quite dramatic shift to the role of the Association, and the meetings of Council. Bev was linked with many causes, many of which the GA could adopt as they were focussed upon the environment and involved fieldwork which followed on naturally from the traditions of the Wealden Research Committee and the Temporary Sections Working Groups which functioned nationwide. He was also a firm believer in the importance of the annual meetings of the British Association and its adjunct, the meetings for young scientists. He envied the thousands of young members belonging to the RSNC, and with the help of Mike Harley and Diana Hawkes [née Smith], persuaded the RSNC to add RockWATCH to their thriving WATCH Wildlife Club. Rockwatch today has to be a fitting monument to a Halstead dream. Many other changes came along, all with the aim to involve the Association with kindred bodies—involvement which always required participation.” (Pers. comm. 2010).

Halstead also pushed ahead with affiliating as many local geological societies as possible, so that any campaign would have maximum impact. A fee of £10 per year per society or 10p per society member per year, whichever was least,
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was introduced in 1991 (CM, 113.2). By December 1991 there were 24 Affiliated Societies. In July 1992 the Affiliated Societies were invited to send a representative to the November Council meeting with the Local Groups (CM, 125.5).

Lecture Programme

During the 20 years from 1958, as had been the norm for a century, many of the Friday lectures were papers that had been submitted for publication in the *PGA* and ‘*Papers to be taken as read*’ were listed in most of the *Circulars* before they were published in the *PGA*. Selected papers that had been submitted for publication traditionally had been the main source of the Friday lectures. This gradually changed to the Friday lectures being invited, or offered and accepted, because they would be of interest as lectures in themselves, whether or not publication was intended, and the formal reading of papers intended for the *PGA* ceased in 1978, but the last time ‘*Papers to be taken as read*’ were listed in the *Circular* was in 806 of October 1978 for the meeting of November 4th 1978.

The arranging of the lecture programme fell to the General Secretary until 1987, when Michael (‘Mike’) Bamlett (1935–2003) took over as the first Meetings Secretary. He continued until 1992, when Dr Michael John Oates succeeded him and continued with a remarkably long spell of service which extended beyond 2008.

The lectures were normally held in the Geological Society’s lecture room except when this was unavailable as a result of redecoration or renovation (as from November 1972 to July 1973, when the then British Academy rooms in Burlington House were used, during 2001–2002 when the Scientific Societies’ lecture theatre in Savile Row was used and in 2006 when the lecture theatres of the Astronomical Society and the Society of Antiquaries in Burlington House, and the English Heritage lecture theatre in Savile Row, were used). Towards the end of 1998, attendances at the lectures swelled nearly to the capacity of the Geological Society’s lecture room and then on February 5th 1999, a lecture by Dr Roger Mason on ‘The Geology of Tibet’ proved to be so popular that the 180 seat capacity of the lecture room was exceeded. The fire regulations prohibited overflow into adjoining rooms and some Members had to be refused admission, although a dozen or so people were allowed to sit in the double doorways at the back of the lecture theatre. After this, tickets were issued for events expected to be very popular, the first of which was on December 5th 2003 when Prof. Michael James Benton (GA President 2006–8) lectured on the end-Permian extinction ‘When Life nearly died’, but attendances declined in the following years and tickets became unnecessary.

As late as 1965 the *Circular* still announced if ‘the lecture will be illustrated by lantern slides’, but from then on the announcement was either ‘the lecture will be illustrated by Kodachrome slides’ or simply ‘colour transparencies’. By the late 1960’s even this ceased as lectures were invariably accompanied by illustrations which, up to the late 1990s, were 35 mm transparencies. Increasingly,
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greatly superior Powerpoint presentations with beautifully labelled digital images, became the norm (especially after the Geological Society removed the 35 mm projection facility). Because Powerpoint projection enabled the easy addition of wording, the themes of lectures became summarised in headings accompanying illustrations, a new development. These served to remind the lecturer of the main themes of the lecture, and were useful to any in the audience who had difficulty in hearing any speaker, but could be a trap leading the lecturer to repeat much of what was already visible on the screen.

We have not been able to identify the date when the annual ‘Green card’, listing the lectures and Officers for the session, was instituted, but it predates 1976 (and probably goes back to before 1958) and did then also include the proposed field meetings for the session.

The Annual Reunion

The GA year traditionally began with the Reunion in November with typically about 300 attendees in the 50s and 60s (exceptionally 350 in 1966), and about 40 exhibitors and these numbers did not change much in the following years. Thus Circular 626 of October 1960 lists no fewer than 38 intended exhibits, including those shown by GA benefactor John Wyley. During the Presidency of Alec Smith in 1981, an exceptional October lecture given by Prof Douglas James Shearman (1918–2003) on ‘Saline Giants’ started the new session and with the 1977 change of the accounting year to the calendar year, the sessions, which began in October, no longer corresponded to the accounting year. The full programme of intended exhibits at the Reunion used to be printed in the Circular beforehand, in order to encourage attendance. By 1981 this had ceased and, for a time, a brief account of what had been exhibited appeared in the Circular (e.g. 830 of March 1982) before even this was discontinued, after which there was no formal record of what exactly had been exhibited and by whom, and this unfortunate situation continued beyond 2008. Thus there has been no record of the Reunion proceedings in the last ~25 years except for a few photographs of attendees in the GA Magazine.

The Reunion had traditionally been held at Chelsea College but, exceptionally, in 1958, the GA Centenary year, it was held at the apartments of the Royal Society (at that time in Burlington House) and those of the Geological Society. It reverted to Chelsea College in 1959 and continued to be held there until 1979 when UCL became, and remains, the venue. In 2000, it was held at Brighton as part of the ‘Earth Alert’ event although there was also an ‘Open Day’ at UCL in November. In 2001, Liverpool hosted the Reunion in collaboration with the Liverpool Geological Society; in 2004 in Cardiff at the National Museum of Wales; and in Liverpool again in 2007 (GA Magazine, 6, No. 3, September 2007) at the World Museum, following an attempt to move periodically out of London so that GA Members outside the metropolis could be more easily involved. Although the Brighton, Liverpool and Cardiff Reunions were very successful, with field excursions and a range of activities, many of the London-based Members felt a
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loss of their traditional annual gathering and so it has been held in London at UCL in 2005, 2006 and 2008, being initially enlarged in title to include a ‘Festival of Geology’ and then this later became its new title. This was in order to attract maximum attendance and not to put off those who might think it was intended solely as a meeting of those who had previously attended. The extension of the event in 2006 to extend over two days was particularly successful and the numbers attending increased markedly to about 1,500 (Kirk 2011), making it the largest annual GA event and by 2008, one firmly established in the GA calendar. Summaries of the events are given in the GA Magazine (e.g. Kirk 2011) but lists of exhibits or exhibitors are not now recorded and the drive to hold Reunions outside London has diminished.

In addition to sponsorships connected with the Earth Alert meeting in 2000, Amerada Hess generously sponsored the 1996, 1997, and 1998 Reunions.

Special Events

On February 3rd 1961, Prof. John Sutton (1919–1992) (Fig. 7) proposed that the GA hold an annual lecture ‘to provide accounts of Geology in which notable advances have been made and the lecture to be printed in the Proceedings’ (CM). This was subsequently approved (SGM, Dec. 1st 1961) but the first chosen lecturer, Sir Edward Battersby Bailey (1881–1965), a former Director of the British Geological Survey (1937–1945), declined on ill-health grounds, and the second, Dr Stevenson Buchan (1907–1996) agreed only to give the second lecture (CM). In June 1962 the Council announced in Circular 644 that an annual lecture, to be known as the GA Special Lecture, which was to be published in the PGA, would first be given on October 12th 1962 by Dr Richard Gilbert West (1926–) entitled ‘Problems of the British Quaternary’. Later (April 1975) the lecture was re-named ‘The GA Special Invitation Lecture’ and publication in the PGA became optional. The full list of lectures from 1962 to 2005 is given in Appendix II. Although Council has not abolished the scheme, the Special Lectures have lapsed since 2005.

Among the various special lectures held from time to time was the Topley Centenary Celebrations of May 3rd 1975, during the 1974–76 Presidency of Prof. Derek Victor Ager (1923–1993).
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(Fig. 8). The centenary of the publication of Topley’s memoir on the geology of the Weald was commemorated with a special meeting culminating in a Topley issue of the *PGA* (86, Part 4). On February 22nd 1978, the J. H. Taylor Memorial Symposium was held in King’s College, London in memory of Prof. James Haward Taylor FRS (1909–1968), a GA member since 1932, who was drowned in the Indian Ocean while carrying out survey work.

In the 1970s joint meetings of most of the British Geological Societies together at one venue were instituted, starting with a five-day gathering in Edinburgh from September 7th to the 11th 1971 in which the GA did not participate. Thereafter, the GA did join in (but not in the meeting of European Geological Societies in Reading in September 1975) and at the second such meeting, held at the University of Manchester on September 20th to the 23rd 1973, at which ‘The Pleistocene history of the Irish Sea’ and ‘Access to Geological Sites and their Preservation’ were the subjects of the GA sessions (*Circular* 754). At the third such meeting from September 23rd to 26th 1977 at Swansea, evening receptions included one hosted jointly by the University of Wales and University College of Swansea, another by the City of Swansea in the Guildhall, and the third involved the Pontardulais Male Voice Choir and a social evening. The GA session dealt with ‘The early history of Geology in Wales and the Welsh Borderland’ and included a field meeting from September 27th to October 5th 1977 on ‘The Variscides in South Wales and South-West England’ (*Circular* 794). At the fourth meeting on September 19th to 23rd 1979 in Sheffield, the programme for the GA day (September 20th) was based on the theme of ‘Surface Processes’ with an introductory keynote speaker, geographer Prof. Eric H. Brown (1922–) of UCL, who spoke on ‘The Evolution and Physique of Britain’ (*Circular* 811). Subsequent meetings are not detailed here but the GA participation continued at least until the eighth meeting in Cardiff in September 1992.

Although the GA has participated (usually with Section C) in the itinerant annual meetings of the British Association for the Advancement of Science (BA), usually held in August or September, since much before 1958, and erratically continues to do so, its degree of involvement has fluctuated markedly, depending upon the enthusiasm of the Officers and the local geologists in the area of each annual meeting, and on volunteers coming forward to arrange GA sessions.
and speak at such meetings. The long list of joint or zero involvement with the BA, is not recorded here, but an instance was that on August 23rd 1973 at the BA meeting in Canterbury (Circular 753). Joint field meetings with the BA took place from time to time such as from September 7th to the 12th 1960, studying the ‘Southern shores of the Irish Sea’ based on Cork, Waterford and Aberystwyth (Circulars 620–623).

The first GA Photographic Competition was launched by Lynn Olive Allen, Field Meetings Secretary 1995–2000, in 1996 (Circular 917) with 93 photographs being submitted by 33 people. These were displayed at the 1996 November Reunion and prizes were given for the entries judged the best (Circular 920). Since then the annual competition has continued.

Most notable were the two ‘Earth Alert’ meetings instigated by the enthusiasm and drive of Moody’s Presidency (1998–2000), aimed at bringing the subject of geology to the ordinary members of the public and also, hopefully, bringing in some new Members. The first, held at Brighton over four days (26–30th) of the May Bank holiday of 2000, under the title ‘Festival of Geology’ which included the holding of the 2000 Reunion, was an outstanding success with over 4,000 attendees and the official involvement of the Mayor of Brighton and Hove. The scientific content of the meeting is admirably summarised in Moody et al. (2000). With great energy, Moody raised substantial company financial sponsorship, partly by means of an ‘Earth Alert Fundraising Evening’, held in the House of Commons. In all, over £110,000 was spent on the event and its success encouraged the second, ‘Earth Alert 2’, to be held at Scarborough in August 2002 under the theme ‘The Building of the British Isles’. Unfortunately, while being hugely successful as a meeting, attended by over 7,000 people, it did not fully cover the expenses and the last part of its deficit of £7,949 was eventually met by the Curry Fund in March 2005 (£5,900 grant) and June 2005 (£2,049). French nobly acted as Treasurer of both the ‘Earth Alert’ meetings. A fuller account of the meetings is given later in ‘More detailed accounts’.

Another activity that Moody instigated and organised were Masterclasses. These were aimed at attracting new Members and targeted local groups, sixth formers in schools, those in Colleges and anyone with an interest in geology. The first Masterclass and Research Review took place on October 6th 1999, in Burlington House, on the topic of ‘Volcanoes and hazards’. It was given by Dr Mark A. Davies of the Open University, and was attended by over 80 students, including boys from Aylesbury Grammar School. The second, organised by Alinson in collaboration with Moody, was held at the Department of Geological Sciences in Durham University on November 18th 2000, chaired by Moody, with Brian Young from the British Geological Survey (BGS) and George Anthony Lobjoit (‘Tony’) Johnson (1925–2009) from the University talking on ‘Geology in the Real World’. Students from the University and sixth form colleges and local GA members attended, and students from each of three sixth form colleges gave presentations (Circulars 936, 942 and GA Magazine 4, 1). The third Master-
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class was held on April 16th 2005, using the JAPEC funding obtained by Susan Brown. This third meeting was held at Keele at the University under the title ‘Planet Earth in the 21st Century’.

Another activity initiated by Moody was an Earth Science Book Fair in UCL on Saturday May 5th 2001, following the AGM the day before. A Swap-Shop enabled Members to swap unwanted books for ones they did want and publishers had stalls of their Earth Science books and journals, while Robert Frederick (‘Bob’) Symes (1937–; President 1996–8), acted as auctioneer of books being sold.

Under the drive of the sesqui-centenary President (2006–8), Prof. Michael James Benton FRSE (Fig. 9), an outstanding series of ‘GA150’ special activities and events celebrated the 150 years of GA existence, some of which were combined with the Geological Society’s bicentenary celebrations in 2008. The following summary is based on accounts given in the GA Magazine 6, No. 3 of September 2007 and in almost every issue thereafter up to 7, No. 4 of December 2008.

First, aided by a generous grant of £25,000 from Shell and support from the Educational Committee of the GSL, a major educational ongoing outreach programme was instituted to encourage more children to study science at school and think of applying to read geology and related subjects at University. Sets of posters were dispatched to secondary schools, outreach talks organised (with a supplied Powerpoint talk), and a new website set up, aimed at school children, with careers advice and information on topics such as dinosaurs, plate tectonics, volcanoes, climate change, finding oil and diamonds etc. This major initiative, which continues on a GSL-GA website http://www.earth4567.com/ aimed at school children with key earth science topics, career advice and accounts of successful early careers in earth science, owes its success to the particular interest and enthusiasm of Benton, who used his experience and knowledge of the highly successful Bristol Dinosaur Project (Benton et al. 2012). Secondly, a series of special lectures was arranged as Regional meetings with Local Groups and Affiliated societies, as with the Local Groups of South Wales (in Cardiff with a Geofest) and North Staffordshire (in Keele), the Manchester Geological Association in Manchester, the Bath Geological Society in Bath, the Devon Association Geological Section in Exeter, and the Leicester Literary and Philosophical Society in Leices-
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Thirdly, several special ‘GA150’ field excursions were held. Fourthly, a series of articles on the GA Photographic archive appeared in the *GA Magazine* and plans were made to make the archive more widely available online. Fifthly, the GA website itself was improved, as noted already, but in addition, purchases and subscriptions could be paid for online. Sixthly, funded by the Curry Fund, the GA established three prizes of £1,000 for the best MSc theses on geological topics produced each year by students in Universities in the UK. Seventhly, Rockwatch ran many special events, including a major public field-based activity. Eighthly, the GA co-sponsored, with the Quaternary Research Association, a major international meeting in London in January 2008 on ‘*The Quaternary of the British Isles and adjoining seas*’. Ninthly, the Annual Reunion at UCL on November 1–2nd 2008 was extended into an exceptional ‘Festival of Geology’ with exhibits, four lectures, four field trips, a Discovery Room, Schools Poster and Amateur Photographic Competitions among other events. Tenthly, a splendid sesquicentennial black-tie dinner at the Café Royal was held on the evening of Friday October 31st 2008, which was the weekend of the Reunion Festival of Geology, with geologist and broadcaster Prof. Iain Simpson Stewart (1964–) as the distinguished speaker, stressing the importance of improving the public understanding of geology.

Finally, perhaps the most widespread series of meetings ever held in the British Isles over the 50 years reviewed that the GA partly organised, was ‘*The Local Heroes*’ programme, held in conjunction with the Geological Society, and spread over the two years 2007–8. This was an initiative of Prof. Johnson Robin (‘Joe’) Cann FRS (1937–) who supplied for this account an incomplete but very valuable list, to which Leake added further events which had taken place. As there is apparently no complete record of the events, and the website which claimed to list the meetings is incomplete, a list of the activities thought to have taken place, and the local organisations involved, is given in Appendix I at the end of this account. The meetings involved Members of the GSL and GA but, particularly, other local Societies and their members who lived outside the London area, so that all the celebrations were not solely based on the metropolis. Appendix I shows the very wide range and number of local societies involved.

In this programme, a series of country-wide meetings picked out past geologists of note whose work or origin was near to the various centres, such as: in Glasgow where the works of George Walter Tyrrell (1883–1961), and Profs John Young MD (1835–1902), John Walter Gregory FRS (1864–1932), Sir Edward Battersby Bailey FRS (1881–1965), and Thomas Neville George FRS (1904–1980), and also those of John Young (1823–1900), Ethel Dobbie Currie (1899–1963) and Archibald Lamont FRSE (1907–1985) were described; in Worthing where Frederick Dixon’s (1799–1849) pioneering was celebrated; in Manchester where local Carboniferous workers were remembered; in Edinburgh where the work of James Hutton FRSE (1726–1797) and Arthur Holmes FRS (1890–1965) were recalled; in Leeds where William Hubert Craven Ramsbottom (1926–2004) and his work on past sea levels were reviewed; in Sheffield where Henry Clift-
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on Sorby FRS (1826–1908)’s wide-ranging studies were summarised; in Hanley, Apedale and Keele, Staffs, where John Cadman, 1st Baron Cadman, FRS (1877–1941), pioneer oil geologist was celebrated; in Hull where the work of Percy Fry Kendall FRS (1856–1936), William Sawney Bisat FRS (1886–1973), Arthur Raistrick (1896–1991) and other local heroes were recalled; in Keyworth, Nottingham, where the engineering geologists, William Smith (1769–1839), Rudolph Silas Glossop (1902–1993), Frederick William Shotton FRS (1906–1990), William Robert (‘Bill’) Dearman (1921–2009) and Peter George Fookes FREng (1933–) formed the subjects of a meeting; in Ludlow and the Welsh Marches where the field studies and The Silurian System of Sir Roderick Impey Murchison FRS (1792–1871) were involved; in Leicester where the 50th anniversary of the discovery of Charnia in Charnwood Forest was celebrated; in Kew Gardens, London, the work of Sir James Dalton Hooker FRS (1817–1911) the botanist was described by Sir Peter Crane FRS, outgoing Director of the Royal Botanic Garden; in Llandidloes, Powys, the Welsh Basin and the work of Owen Thomas Jones FRS (1878–1967) and Sir William John Pugh FRS (1892–1974) were concentrated on; in Rochdale, the work of the early seismologist John Milne FRS (1850–1913); in Liverpool, the granite studies of Wallace Spencer Pitcher (1919–2004) and Herbert Harold Read FRS FRSE (1889–1970); in Bristol, the advances made by George Patrick Leonard Walker FRS (1926–2005) in vulcanology; in Birmingham, the man whose work ranged from Palaeozoic graptolites to identifying the Moine Thrust to setting up the Ordovician System, Charles Lapworth (1842–1920); in Durham, the leadership in geology of Sir Kingsley Charles Dunham (1910–2001) and his mapping and ore studies were remembered; in Exeter, the Jurassic studies of William Joscelyn Arkell FRS (1904–1958), Michael Robert House (1930–2002) and Peter Colley Sylvester Bradley (1914–1978); in St Albans, George William Lamplugh FRS (1859–1926) and others; across southern England a five-day field excursion in Quaternary geology took place to recall the impact of the periglacial studies of Martin Te Punga (1921–1989); in Sandhurst where the work of Ralph Alger Bagnold FRS (1896–1990) on the physics of blown sand and desert dunes was reviewed; at the Lyme Regis ‘Rising Seas-Fossil Festival’, where the work of Mary Anning (1799–1841), the famous fossil collector was described; in Dublin, where the museum work of Sir Robert John Kane (1909–1990), palaeobotanical studies of Robert Kidston FRS (1852–1924), geological contributions of Hugh Miller (1802–1856), the connections Charles Robert Darwin FRS (1809–1882) had with the Geological Survey, palaeontological and zoological studies of Charles William Peach (1800–1886), Arctic explorations by Sir Francis Leopold McClintock (1819–1907), geological mapping of Ireland by Sir Richard John Griffith FRS (1784–1878) and Patrick Ganly (1809–1899), palaeontological discoveries of William Hellier Baily (1819–1888), contributions to the advancement of geochronology and radioactivity knowledge by John Joly FRS (1857–1933) and palaeobotanical work by Marie Stopes (1880–1958) were all examined; at UCL where the brothers George Stewardson Brady MRCS
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FRS (1832–1921), the ostracod worker, and Henry Bowman Brady (1835–1891) who studied foraminifera, the discoverer of conodonts, Christian Heinrich von Pander (1794–1865), the palynologist Arthur Raistrick (q. v.) with his valuable correlation of Carboniferous coal seams and, finally, the bizarre history of the discovery of coccolithophores, the one-celled algal-based calcareous nannofossils of which chalk is formed, first noted in 1836 and finally explained as having an organic origin by Sorby (q.v.) in 1861. Connected to the lecture programme was an exhibition at the Potters Bar Museum of the work of Prof. John Francis Kirkaldy (1908–1990), GA President 1962–4 (Fig. 10). Two of his former students at Queen Mary College, David Greenwood and Michael Howgate, spoke at the opening ceremony, as did Bishop, a former member of staff.

Altogether The Local Heroes programme, in which the prime mover was the GSL, was remarkable and fit for both the GSL’s 200th and GA’s 150th anniversaries which fell in 2007 and 2008 respectively; over 50 people are noted in the incomplete list above.

Excursions

A major feature of the GA’s activities has always been a full programme of field excursions, both day trips and longer residential excursions. The first GA excursion was to Folkestone under the guidance of the then President, the Rev. Thomas Wiltshire (1826–1902) and Prof. James Tennant (1808–1881), travelling by the South-Eastern Railway Company. The Chalk, the Upper and Lower Greensand and the Gault were examined and a considerable number of characteristic fossils obtained (The Athenaeum, No. 1694, April 14th 1860). A day excursion took place during early April 1960, to celebrate the centenary of this first GA excursion.

During the past 50 years as air travel has become progressively easier, excursions have ventured further and further across the globe. In addition, visits to research laboratories, field stations, Universities, the Geological and Soil Surveys, and even special laboratory classes, have all been undertaken. Thus in 1961, Saturday demonstrations took place at the Imperial Marble Works on January 7th, at Bedford College on igneous and metamorphic rocks on Saturday February 4th and on ore minerals at the Royal School of Mines on February 25th. While the ~1,000 venues visited over the 50 years reviewed are not listed, it must be emphasised that excursions are a major GA activity and 94% of the respondents to a 1994 membership survey stated they had bought and used at

Figure 10. Prof. John Francis Kirkaldy (1908–1990), President 1962–4.
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least one GA Excursion Guide. Thus, even in 1978 (a difficult year as explained above), 22 field meetings took place and this was a typical annual number.

In 1964, Members were offered long excursions to the Paris Basin in March, West Somerset and NE Devonshire in May, South Wales in July and Donegal in September, with shorter excursions to Upnor and Herne Bay in Kent, the Weald of East Sussex, Thanet and Pegwell Bay Kent, the Cretaceous and Jurassic of Norfolk, the Bristol District, Pebble Gravels near Hatfield and Bishop’s Stortford, Shoreham, Well Hill and Lullingstone, Blue Bell Hill and Aylesford, Walton-on-the-Naze, Essex, Lloyd Park, Addington Hills and Croham Hurst.

By 1994–5, Members were offered ‘overseas’ excursions to Etruria, Italy; Cyprus; Las Palma, Canary Islands; Northern France and the Paris Basin; Arizona; Western USA; Languedoc, France; Auvergne; Outer Hebrides (sic.); Indonesia; Iceland; Northern Spain; Southern Alaska; Messel, Solnhofen, Holzmaden, Ries Crater, Germany; Malta; Central Aegean; Sicily and the Liparis; Caen, Normandy; New Zealand and Hawaii; Oman and finally, Australia. A comparable number of day, weekend or longer excursions within the UK, especially in southern England to see geology in the field, were normal. In addition, other ‘excursions’ included churchyards, church building stones (e.g. Potter 2007) and city walks to see building stones, Nature Reserves, museums, weekend courses (such as on ‘Elementary Sedimentology’ at the King’s College Field Centre at Rogate, Sussex in 1975 and an ‘Introduction to Oceanography’ at Swansea University College in 1974), visits to the Kent Coalfield; the Building Research Station, Garston, near Watford; Hunting Surveys Ltd, Borehamwood; marbles in Westminster Abbey; Shell Research Laboratories, Thornton; Water Research Centre, Marlow; the Industrial Petrology Research Unit, Queen Mary College, London; the London Brick Co., Stewartby; and Practical Demonstrations, such as on Saturdays at the Imperial Marble Works, then on igneous and metamorphic rocks at Bedford College, and then ore minerals at the Royal School of Mines, London, all in early 1961, while in 1982 geophysical techniques were demonstrated, to cite only a few activities.

Some excursions were frequently repeated as the demand for them was maintained, especially to places in southern Britain, but also to some overseas venues such as North Africa, to which area Moody has, over 35 years, repeatedly led extremely popular excursions. His record of leading GA excursions at home (e.g. Isle of Sheppey, October 29th 1967; Circular 696) and abroad is unsurpassed, starting with Morocco in 1976, then NE Spain in 1979, Tunisia in 1980, 1998 and 2002, Massif Central in France in 1981, Kenya in 1983, a Trans-Saharan trip from Niamey, Niger through Algeria to Tunis in 1987, the United States of America, including Texas, Oklahoma and New Mexico in 1999, New Zealand in 2001, Nafusa and Cyrenaica, Libya in 2008 and thereafter. He was also Field Meeting Secretary 1982–5, but the longest-serving Field Meeting Secretary in the years considered (Appendix II) was (James) Basil George Ainsley (1906–1986), 1961–72.
1. General review of the 50 years

The PGA, the Circular and the GA Magazine contain numerous accounts of excursions, and they should be consulted for more details of earlier field meetings. Green (1989) has reviewed past reports in the PGA of Field Meetings and Robinson (1989) has reproduced selected details of certain Field Meetings back to 1877. Special GA Field Geology excursions for Science teachers to venues they could later take their pupils to, as part of the National Science Curriculum, were run in 1990 (Circular 878).

The Library
Throughout the 50 years reviewed the GA Library was housed in the D. M. S. Watson Science Library at UCL. Its holdings comprise numerous journal runs, books and an extensive set of geological maps, including many collections of maps from foreign countries, especially those often visited by GA Members. Of particular value are the hundreds of mounted and folded geological maps which are suitable for use in the field. According to notes supplied by Robinson, the geological maps in most demand were those of the UK, followed successively by those of France, Spain, Italy, Greece, Germany, Morocco, Australia, New Zealand and road-logs and guide books of the USA and Canada.

In an agreement dating back to 1907, the GA donated its library of over 3,000 books ‘comprising many series of great value and rarity’ to UCL (where it then held its meetings) and subsequently maintained a journal exchange programme based on the PGA. In return, UCL houses the GA books, journals and map collection, and allows GA Members access and borrowing rights to the entire science library on the same terms as members of UCL enjoy. This is a most valuable privilege and one that early GA Members appreciated more than today, when easier access to information is open to most. Use of the facility has also become less user-friendly in the last two decades of this review period. Most of the journals older than a decade or so are now kept in a remote store and require notice to be given for their extraction; periodicals can only be consulted within the library, and books are loaned for only quite a short period, and even the GA’s own older books are located in one of several remote stores. Consequently, it has become more difficult for GA Members to make use of the library and, by 2008, fewer than 100 GA Members made use of the facility. Nevertheless, it has to be appreciated that UCL library holdings are colossal and finding space for the constant flood of accessions is a continual problem, but GA Members have access to all of these enormous holdings at no annual charge.

In 1958, Reginald (‘Reg’) Bradshaw was Librarian. When he went to Bristol University in the autumn of 1958, Alec Smith took over and remained in post until 1970. Then Robinson became the Librarian for the exceptionally long period of 32 years, until 2002, after which (Patricia) Elaine Bimpson has served. So there have been only three Librarians in 50 years.

In recent years, administering loans which have to be posted has become much more difficult as postal charges have soared and become more complex.
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(with different prices for size, weight and speed of delivery), and such loans have consequently declined.

The Website

The GA Website (www.geologistsassociation.org.uk) was started in September 1997, hosted initially by the Natural History Museum until April 2001 when it was revamped and hosted commercially by Demon, with Mike Barwise as Webmaster. Jack Stafford (1958–2004) made improvements in 2001 and then Anatole Beams took over for some time on a voluntary basis. For the sesquicentenary he entirely revamped it with a Curry Fund grant, so that the purchase of Guides and renewal of subscriptions could be carried out, in addition to its offering more support to schools and teachers. Links to the GSL-GA educational website (http://www.earth4567.com/) were instituted for the 150th celebrations. There is not a complete record for historians of the various editions of the Website, nor is there certainty that any part or link will exist in years to come.

During the late ‘90s, the completion of a Jurassic website was envisaged but never completed, as described below under the CD-ROM project.

Rockwatch

The implementation of a club to encourage young people’s interest in geology was one of the spin-offs of Beverly Halstead’s short-lived Presidency and now stands as a memorial to him. The age range of members is up to 16 years. It was initiated by an agreement between the GA, signed on November 2nd 1990 by the President, Halstead, and Wilf Dawson of the WATCH Trust for Environmental Education of the Royal Society for Nature Conservation (RSNC) and its associated Wildlife Trusts Partnership (the RSNC became the Royal Society of Wildlife Trusts in 2004).

RockWATCH, later renamed Rockwatch (RW), was launched on October 30th 1991 by Sir David Attenborough (1926–) FRS FZS, President of the RSNC – Wildlife Trusts Partnership, and Robinson, President of the GA, at a special press conference in the Linnean Society. It began operating as a joint venture from March 1992, with a subscription of £5 a year or £3 for those already members of the WATCH Wildlife Club. The foundation sponsor was British Gas (later BG plc) who continued until June 2000. Diana Hawkes (Chairman 1992–4) and Susanna van Rose were initially heavily involved. From 1993, van Rose, with Peter Doyle, became science editors of the Rockwatch magazine, roles they have continued beyond the end of this history.

In the summer of 2001, during David Horsley’s 2000–2 Chairmanship, the RSNC suddenly withdrew from the collaboration and from thereafter it was left to the GA alone to continue the highly successful club. Although others, such as Catherine Petts, Cally Hall and Horsley, were involved from the beginning, the success of the enterprise has been mainly due to a long-term massive input by Susan Brown (Chairman 1998–2000; 2002–) from 2001 who, with the administrative help of Geraldine Marshall in the GA Office, not only ran the club and its
1. General review of the 50 years

associated activities, but also raised substantial financial support from geologically-related industries and the Geological Society. A full account, by Brown, of the club’s formation and those involved, plus its activities, including its field excursions and aims, is given later, as is an account of Rockwatch magazine. More details are given throughout the GA Magazine. According to Brown (Pers. comm. Feb. 2012) there were about 1,000 members by 2000 and this has continued beyond 2008.¹ RW is therefore a major GA success of the 50 years reviewed.

Geoconservation

The history of GA involvement with geoconservation, an area in which there was a very marked change of attitude in the period reviewed, has recently been reviewed by Green (2008) and so only a summary is needed here. What follows is almost all taken from that source, mainly to ensure this now important concern of the GA is not absent from the present account.

Although this topic is not even mentioned in the centenary history (Sweeting 1958), some GA interest in the subject certainly dates from the late 1920s with the subsequent formation of a ‘Preservation of Sections Committee’ by Council in 1930 (Minute 7.3.30), although little seems actually to have been achieved. Perhaps Council’s action was prodded by Prof. John Walter Gregory FRS (1864–1932; a GA Life Member)’s establishment, as President of the Geological Society, of a Geological Society committee ‘to draw up a list of areas, outcrops and isolated exposures that are so important that they should be preserved’ (Proceedings of the Geological Society of London December 18th 1929). However, it was not until 1971 that GA Guides started to include the admonition that ‘Users of the Guide, in particular those in charge of parties, are…earnestly requested to avoid over-hammering of exposures’. Nevertheless, movement was then rapid with Dr Moore writing on March 28th 1972 (Circular 741) on ‘Protection for geological sections’; Alan E. Stubbs of the Nature Conservancy Council lecturing the Association in July 1972 on ‘The role of Conservation in Geology and Physiography’; his election to the Council in March 1973, and his immediate appointment to convene a committee to redraft the embryo code of conduct for geological fieldwork, which had been presented to Council in early 1973. Also during 1973, Council for the first time gave financial support (£50) to a conservation project, the purchase of the Wilderness Cement Works Quarry by the Gloucestershire Wildlife Trust. The first geoconservation paper to appear in the PGA (Duff 1980) was by Dr Keith Leslie Duff (1949--) of the Nature Conservancy Council.

In early 1975, the GA published 100,000 copies of the Fieldwork Code at a cost of £1,317, of these some 40,000 went to supporting societies and 60,000 to the GA at UCL, courtesy of Robinson, who enthusiastically undertook their distribution from there. By January 1976, 45,000 copies of the Code had been dis-

¹ The figure of 3,000 given in the 2000 Annual Report is misleading as it includes pupils in schools which have Institutional membership.
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tributed, including 10,000 to regional museums, 5,500 to National Parks, 3,000 to Field Study Centres and many to schools, Education Authorities and other bodies. Within three years, a second edition (1978) was required and this incorporated information on safety in the field, as approved by the Health & Safety Executive and the quarrying industry. In 1989, the GA published a separate Code ‘Take Care when you Core’ to reduce indiscriminate rock coring which disfigured many rock exposures, and this message was included in the 1996 third edition of the Code for Geological Fieldwork, which, like the second edition, was generously funded by BP. Robinson (2008) published a fuller history of the GA fieldwork codes.

As Green (2008) put it: ‘from the early seventies onward, the GA has been vigorously proactive in its approach to geoconservation’. It is represented on the Geological Society’s Geoconservation Commission, has supported the protection of limestone pavements and peatland preservation, Site Documentation, has made numerous representations on national and local conservation issues (some are listed in the Press Officer section), and gave ~37% of the disbursed income of the Curry Fund in ~150 awards to geoconservation over the period since 1986 (Green 2007). So the major part of the GA’s conservation work was, and is, funded through the Curry Fund. Outstanding were the efforts of Robinson, and the support on Council and Committees of professional conservation officers, particularly by Duff and Dr Jonathan Gilbert Larwood of Natural England. Overall, the range of work undertaken over the years considered is quite remarkable.

Other items that can be mentioned include the 1990 part funding with the Gas Council of an Itinerant Curator (Dr Simon Andrew Timberlake (1955–), now with the Cambridge Archaeological Unit) working with the Area Museums Service in the South-east of England, training curators in the conservation of geological materials; much support for Regionally Important Geological and Geomorphological Sites (RIGS) (e.g. 1993–4), and for the Living Churchyard scheme of the Diocesan Council and English Nature, whereby assistance was given in identifying the nature and source of gravestones in churchyards and cemeteries, church building stones etc from 1991. The last linked to the many excursions to examine the building stones of churches led by Prof. John Francois Potter (1932–) (e.g. Potter 2007). Contacts were also made with European societies concerned with geological conservation in Holland, France and Denmark. Of the many geological sites for which preservation and instructive labelling, or the supply of explanatory leaflets, were supported, mention is made, as a single example, of the Curry Fund support for the Interpretive Classroom at the former quarry in Silurian limestone at Wren’s Nest National Nature Reserve, Dudley, West Midlands, opened in October 1996.

The Press Officer

In October 1989, Council decided to appoint a Press Officer and the post was assumed by Robinson, in addition to his GA duties as Librarian, Council member, Editor of the Circular and Secretary of the Geoconservation Commission
of the Geological Society. This initiative was part of the groundwork Halstead was preparing for making the GA a campaigning body during his forthcoming Presidency. Immediately, there were statements to be issued on Government proposals to decentralise the Nature Conservancy Council with a separate Scottish organisation, and the dispatch in November 1989 of the 20,000 printed copies of the ‘Take Care when you Core’ leaflet. This went out to the Natural Environment Research Council (NERC), the Council of Europe, Geotimes, The British Geologist and the Secretaries of the sixty regional geological societies who regularly file their programmes in the Circular. Most of the Press Officer’s activity was writing letters in support of, or opposition to, various proposals. For instance, the Annual Report for 1993 details ~80 such letters or submissions, of which those sent to the following in October 1993 are typical: Cathedrals’ Fabric Commission – Ely Cathedral; Department of Environment re Garron Point, Antrim (loss of Site of Special Scientific Interest (SSSI)); Ulster Museum and the BGS on Garron Point; Director, Royal Horticultural Society on Limestone Pavements; British Rail InterCity on Euston Benches (and article on the matter); Stone Industries on Euston Benches; New Scientist on Geology in the Science Curriculum; Humber-side Environment Council on a local plan; and the Youth Hostels Association’s Magazine, Triangle, on geology in hostels. Details of some of the other campaigns mounted by the Press Officer on behalf of the Council and GA are dealt with later under the Circular.

The post of Press Officer seems to have lapsed when President Moody reported to the Council Meeting of July 3rd 1998 that he and Robinson had agreed that ‘Press and Media’ matters should in future be handled by the Office, but Robinson’s influence in this field only finally disappeared when he ceased to edit the Circular and it was replaced by the GA Magazine in 2002. Long before that, the campaigning zeal in the GA Circular, engendered by Halstead, had died down. The time economies made in the Office in the early 2000s made it impracticable for the Office staff to carry out the functions previously performed by the Press Officer, and the role has effectively remained unfulfilled since 1998.

The GA Photographic Archive
Owing to the devotion of Marjorie Winifred Carreck (GA Photographic Archivist 1955–2008) and her late husband, John Norman Carreck FZS (1928–1990), (Fig. 11) and the thoughtfulness of a number of photographers, there is preserved a photographic record of many of the GA Presidents, other Officers and of many excursions, and those who attended them, between ~1890 and ~1937 with a less complete record thereafter, although the 1950s and 1960s are not badly represented. Summaries were given in the GA Magazine, 3, No. 1, p.21 and 6, No. 1, p.11–12. Recognising the Carreck’s contribution, the Archive has been renamed the ‘GA Carreck Archive’.

From 2008 Larwood has taken on the role of GA Archivist. Under his guidance the Archive has been conserved and re-housed (this work being under-
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taken by the paper conservator and photographer Richard Weedon and supported by a GA Curry Fund grant) and is now held on behalf of the GA at the British Geological Survey (BGS). The Archive is currently being digitised by the BGS and, in 2013, will become available for viewing through both the BGS and GA websites. It is hoped that the Archive will once more start to receive donations and provide an accessible historical record of the activities of the GA.

It is appropriate to mark the sterling work of the Carrecks with a photograph of them (Fig. 11), taken during the 1959 Whitsun Field meeting. It is recorded as showing some of benefactor-to-be, John Wyley, then Treasurer (1959–68) and future (1968–70) President, Horace Moutrie Montford (1900–1980), and the then current General Secretary (1955–76) and future (1976–8) President, and, from 1982, Life Vice President, Francis Moore.

Figure 11. Participants in the Whitsun Field meeting to Weymouth, Abbotsbury and Dorchester, Dorset, May 15–19th 1959 on the Fleet shore near Langton Herring, including: John Norman Carreck (second from left), Marjorie Winifred Carreck (fifth from left), John Fitzthomas Wyley (recorded as being on extreme left), Horace Moutrie Montford (seventh from left), and Francis Harry Moore, (sixth from left). From the GA Carreck archive, courtesy, J. Larwood.
2. General review of the publications over the 50 years

Proceedings of the Geologists’ Association

A detailed account of the PGA over the 50 years considered is included later, but a few general comments are given here. The annual costs of publishing the PGA and the annual income received from library subscriptions and the sale of back numbers for the years 1958 to 2008 are tabulated in Table 1. It is notable that over this period the cost of producing the PGA increased by 43.4 times, which is close to the 40 times increase in the Members’ subscription over the same period. Savings made by supplying digital text, and thus dispensing with typesetting, were offset by exorbitant increases in the cost of postage.

As outlined earlier, a major crisis over the publication of the PGA (and the Circular) in the 50 years considered occurred in October 1976 when the Scottish Academic Press, under Douglas Grant, saved the PGA by providing the finance to clear the backlog of papers and took over producing it, together with the Circulars and the Guides. The Scottish Academic Press continued to produce the PGA until the Press itself collapsed in 1991 (due to its offering too generous terms to its customers) and another major crisis ensued, especially as, without the adept action of Grant and his Personal Assistant, Bridget Wilcox, all the PGA stock in Edinburgh and much of the stock of the London Illustrated Geological Walks books (Robinson 1984, 1985), would have been seized by the Official Receiver (the insolvency practice Cork Gully, at that time a part of Coopers & Lybrand), which, as a representative of the Insolvency Service of the United Kingdom, had a statutory duty to investigate the conduct and affairs of the bankrupt and to protect the bankrupt’s estate. The PGA was then published by the Geological Society’s Publishing House from late 1991 to 2008, after which Elsevier has become the publisher.

However, it would be erroneous to suppose there were not other times of considerable difficulty in maintaining output of the PGA. For instance, on November 1st 1963, Council, who in those days passed papers for publication, agreed to the printing of four papers and noted that another four were ‘in the pipeline’, making 45 papers in hand, which at ~17 published papers a year, represented a delay of three years for all to be published (CM). This prompted an SGM on January 31st 1964 to discuss publication policy, but it was concluded that decisions could not be made until it was better known what the membership wanted to see published. A questionnaire for random circulation to 20% of the membership was agreed, but the results are neither recorded in the minutes nor any discussion of them identified.

An unusual feature of the PGA was that a few selected papers considered by Council to be of particular continuing interest to the Members, and especially to new Members of the GA, and also of use in teaching geology or in field excursions, were offprinted at the time of publication and were still available for purchase individually years after their publication in the PGA. This was a
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practice continued from long before 1958. So, for instance, in 1979, 16 such reprints were advertised at 50p or 75p (with one at £1.00), going back to 1948 and including several reports of Long Excursions to, for instance, Switzerland in the 1948 PGA and the Spanish Pyrenees in 1961, that would be useful to those visiting these venues. Those available in 1979 included ‘The Plain Man’s Guide to Plate Tectonics’ by Prof. (Ernest) Ronald Oxburgh FRS (Lord Oxburgh of Liverpool) (1974), which had been the subject of the Eleventh GA Special Lecture in 1973 and was very popular for many years. Others available in 1979 included ‘The Geological Evolution of Europe’ by Prof. Derek Victor Ager (1975), ‘The geological significance of Early Precambrian Rocks’ by Prof. Stephen Moorbath FRS (1975), ‘The habitat of North Sea Oil’ by Prof. Richard Curtis Selley (1976), ‘Crustal pattern and mineralisation in the Mediterranean Frameland’ by Prof. Ivan Nikolov Kostov (1978) and ‘An illustrated key to the commoner British Upper Carboniferous Plant compression fossils’ by Prof. William Gilbert Chaloner and Prof. Margaret E. Collinson (1975). ‘The Geology of the Eastern Alps’ also by Oxburgh (1968) was a PGA reprint but is described under ‘Excursion Guides’. The wide scope of the PGA is amply demonstrated in even the few titles cited above.

From time to time special PGA parts were issued, such as for the 80th birthday of Past Presidents Herbert Leader Hawkins, (1938–40) (Fig. 12), with PGA, 78, 1–240, issued July 1967, and Read (1942–44) (Fig. 13) with PGA, 81, 403–612, although the latter became a Memorial volume, as Read died before it was issued in October 1970. A detailed listing of all the Special parts is given later by Howarth.

A spin-off from the publication of the PGA was its use as an exchange journal which meant that the GA Library in UCL received many journals from all over the world that the GA would not have been able to afford to buy. After the Second World War, the PGA went to many European societies disrupted by the War, later to East European societies on hard times in policies continued under Librarians Bradshaw, Alec Smith and Robinson and with the involvement of Ager, with special favours long continuing to Poland, Bulgaria and Jamaica (perhaps our oldest Local Group?). Exchanges grew from 56 in 1907, to 100 in 1951, to 131 in 1958 and to 141 in the early 70s.

Figure 12. Prof. Herbert Leader Hawkins FRS (1887–1968). From PGA 78, frontispiece to page 1, 1967.
2. General review of the publications over the 50 years

Figure 13. Prof. Herbert Harold Read FRS FRSE (1889–1970). From *PGA* 81, page 403, frontispiece, 1970.

The main reason for the decline was probably the increasing attention paid by Universities to journal Impact Factors (Garfield 1955, 1973), which measure the number of citations made to papers in a journal within two years of publication, adjusted to make allowance for the number of papers published by the periodical over the two years concerned. The *PGA* Impact Factors were very low, e.g. ranging between 0.74 and 0.35 in the five years of 2000 to 2004, because few of the *PGA* papers were such as to be immediately cited. Nevertheless, given one or two decades, the total citations were probably respectable, as the contents tended to be factual descriptions of areas that were of long-term interest, rather than important discoveries of immediately topical matter. However, with the Impact Factors of the publications produced by a British University department having become one of the key factors in the government assessment of its supposed research strength and therefore affecting its research funding, Heads of Department discouraged, or even banned, their researchers from submitting papers to the *PGA*, which exacerbated the problem of low copy submission. While it would be unfair to blame any Editor, as an Editor can only publish what is submitted and approved by the referees, nevertheless the marked positive influence of a dedicated, experienced, pro-active Editor was to be demonstrated after 2008.

By the early 2000s the annual library subscribers had fallen to just below 150, while the Full Members taking the *PGA*, as distinct from the Associate Members, were about 1,600, so the Members were by far the larger readership before being pruned to about 90 around 2000 (Pers. comm. E. Robinson, 2000).

In the 1980s and 90s the *PGA* slowly lost library subscriptions and there was a decline in the number of papers submitted. This was due partly to the expansion of specialist geological subject journals, because libraries could no longer afford to buy as many of the expanded number of journals their readers wished to consult as the cost of journal subscriptions rose much faster than library budgets, and perhaps partly because the title of the *PGA* did not convey to libraries abroad the nature of the contents. Additionally, the need to publish papers of some interest to GA Members tended to discourage highly specialised accounts, although many top-rate palaeontological papers and ones concerned with the geology of SE England continued to appear in the *PGA*.
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and it was thus essential to retain and gain as many Full Members as possible. Although the charge to Institutional Members for the PGA had inevitably risen due to inflation from £2 in 1960, to £4 in 1964, to £20 in 1977, to £70 in 1992 and to £206 (or US$420) in 2008, the last cost was still very modest for 2008, both as a total and as a charge per page, compared with most commercially published journals, so price was not the critical factor in the fall of such subscribers. In 2002, Prof. Richard John Howarth (1941–) took over as Editor and made great efforts to secure more papers, with Special parts devoted to particular subjects such as a tribute to Prof. John Michael (‘Jake’) Hancock (1928–2004; PGA 117, Part 2, 101–247) (Fig. 14) in 2006, guest edited by Prof. John Christopher Wolverson Cope, and to introduce extended obituary notices of notable GA Members, which have continued, such as in 2007 for Dr David Henry Keen (1947–2006; PGA 118, 213–16) Editor of the PGA 1991–2002, both of which proved attractive to the membership and also helped to improve the Impact Factor.

In 2006, Peter Riches took over as Editor and faced the same problem of low paper submission, alleviated by Special issues such as a Festschrift of metamorphic and igneous petrological papers to mark nearly 60 years of GA membership by Prof. Donald Ralph Bowes which appeared in PGA 118, Part 1, 1–127 (2007), guest edited by Leake.

In 2005 Prof. James (‘Jim’) Rose was elected to Council, and he was appalled that the GA not only did not receive royalties from the Geological Society Publishing House (GSPH), the publishers of the PGA, but was paying about £25,000 a year to the GSPH to meet the difference between the costs (~£50k a year) of supplying the libraries and Members with the PGA and the income from the libraries of ~£25,000. He stoutly pushed for a more favourable financial arrangement, particularly at a meeting of the PGA Editorial Board of July 1st 2004 and thereafter, with more use of colour and early online preprint availability of papers. His quest was eventually successful due to the wise support of the sesquicentennial President, Michael Benton, with the PGA being published by Elsevier from 2009, and transformed under Rose’s editorship (2009-).

The Circular and the GA Magazine

The A5-sized Circular (originally a handbill) was the main means of communication with Members and had been since the formation of the GA, becoming monthly in 1871–2 but not being numbered until 1899 (Robinson 1990). The costs of publication and distribution

Figure 14. Prof. John Michael (‘Jake’) Hancock, (1928–2004), President 1986–88.
of the *Circular* 1958–2002 and of the *GA Magazine* plus *Circular*, 2003–2008, are summarised in Table 1.

Attempts to make the *Circular* into more of a newsletter had been made from time to time (e.g. by Dr George Walker on April 26th 1963 (CM)), but foundered on ‘who would do it?’ In the first two decades of this review, the *Circular* included notices of forthcoming field and lecture meetings of the GA (with an abstract of the next lecture to be given), its Local Groups and also of local Geological Societies, lists of new Members and those proposed for election, lists of exhibits at the Annual Reunion, the titles and abstracts of papers to be taken as read at the next meeting, announcements, lists of publications for sale such as *Excursion Guides* and *PGA* offprints, Reports of Field Meetings, the Annual Reports and audited accounts, the titles and reference source of the many offprints and maps donated to the GA Library as gifts from authors and other matters, such as the proposed and actual Council membership. The lists of donations to, and purchases for, the Library were loyally assembled in clear hand-writing by William John Baker. The printers, Benhams & Co. were still willing in those days to take hand-written copy for typesetting. Thus, *Circular* 755 of September 1973 has four pages listing 96 offprints and one book; but such donations declined in later years and ceased to be listed.

The financial position of the GA and the increasing cost of postage, which by 1978 constituted half the cost, necessitated a reduction in the number of *Circulars* from 10 to 8, as announced in September 1978 in *Circular* 805. The same announcement invited for the first time, short contributions and also advertisements to help meet the costs of the *Circular*. Although not announced, book and map reviews came to be included and notices of forthcoming meetings continued. The first contributions, obviously solicited, came in *Circular* 805 itself from (John) Trevor Greensmith on ‘*Hutton’s Unconformity in Arran—a reinterpretation*’, and Keith Leslie Duff on ‘*Geological Collecting—the need for restraint*’. A coloured paper cover appeared for the first time and this became the usual format, with a different coloured cover for each issue; *Circular* 805 was also the first dispatched in an envelope as distinct from being a folded A4 sheet addressed and franked on the outside. By the next *Circular* (806), of October 1978, a further innovation, the full year’s programme of lectures for 1979, appeared but it also contained the last of the lists of *PGA* papers to be ‘taken as read’.

However, it was not until Alec Smith’s Presidency (1980–2), when the *Circular* became the responsibility of the President, General Secretary and Librarian, and in particular Robinson (whose name as *Circular* Editor first appeared on *Circular* 823 of January 1981), that the *Circular* really took off. The assistance of French and Greensmith’s liaison with the printers, Benham’s was also initially crucial and the continuing support of the next President, Prof. John Lawrence Knill (1934–2002) (Fig. 15).

Robinson continued as Editor for 21 years until the *GA Magazine* subsumed most of the *Circular* in 2002. He published a general review of the *Circular*
in Robinson (1990) under the title ‘Clarion o’er the dreaming earth; a personal review of the GA Circular since 1858’. He built the Circular up into an entertaining and useful mixture of short articles, comments, book reviews, reviews of books presented to the library (including Geological Survey Memoirs), geological philately, remarks on new Home and Overseas geological maps, Field Meetings, Churchyard and City Walks, support for Rock and Mineral Roadshows, together with short obituaries replete with reminiscences, and serious campaigns, thereby transforming the Circular into a most readable publication, containing every geological topic and opinion imaginable, and widely appreciated by most Members. Six issues a year became the norm, appearing in February or March, May (from 1988 changed to April to enable the audited accounts to appear in good time), June, August, October and December. Behind the scenes from the late 1980s were the devoted efforts of the Circular manager and Assistant Editor, Sheilah Dellow (Fig. 16), were crucial. Without her sterling efforts practically none of the Circulars would have appeared, let alone on time, for Robinson’s contributions were frequently written at the very last minute! From Circulars 929 of August 1998 to 940 of June 2000, Dr Martin Andrew Whyte joined Robinson as Editor, and Dellow became formal Circular Production Manager and continued until the GA Magazine took over.

The first illustrations or photographs on the front cover were in black and white and began in Circular 883 (partly shown in Fig. 31). The first colour photographs on the front cover appeared in Circular 927 of April 1998 being instigated by Moody during his Presidency and initially paid for either by him, or from sponsorship he obtained. Perhaps fortunately, short contributions, especially of a purely scientific vein, never became common, so the roles of the Circular and the PGA did not overlap.

The campaigns in the Circular included the early nineties long-running saga of the proposed charging of £4 per head per week by the landowner of geological field parties or individuals on the Isle of Arran, which was opposed by the hotels and Guest Houses on the island. The Council Minutes of March 2nd 1990 record the dispatch of letters from the GA to various Arran bodies, such as the Tourist Office, explaining that several University Geology Departments would in future avoid Arran field excursions as result of the charges to be introduced

Figure 15. Prof. John Lawrence Knill (1934–2002), President 1982–4. With acknowledgements to the Imperial College Archives.
2. General review of the publications over the 50 years

by the Arran Estates. The opposition was not just in writing. Robinson made two visits to Arran to meet those involved, the second visit with Dr (William) Stuart McKerrow. In mid-June 1990, unexpectedly and abruptly, Mr Charles Fforde, the Agent for the Arran and Sannox Estates, called off his attempts to collect access fees from geological parties for the rest of 1990 and for the Easter season of 1991, and the charging proposal lost impetus, although it was several years before it completely fizzled out. It seems likely that the GA letters prompted serious pressure to be brought on Mr Fforde by the hotels and tourist organisations.

Clive Bishop has detailed another campaign resulting from changes to the Geological Museum (GM) and its staff, following its transfer in 1985 to the British Museum (Natural History) (BM(NH)), now The Natural History Museum (NHM), following the decision by NERC to relocate the Headquarters of the BGS from London to Keyworth in Nottinghamshire. All went well for some three years because, realising the sensitivities of amalgamating the GM and the BM(NH), NERC and the Trustees of the BM(NH) set up an advisory panel to oversee the practical issues of the merger. This panel included the Director of BGS ((George) Innes Lumsden (1926–2012), followed by (Ferdinand) Geoffrey Larminie (1929–2008)), the Deputy Director of the BM(NH) (Clive Bishop), the Curator of the GM (Frederick Weir Dunning), a Trustee of the BM(NH) (the aeronautical engineer, Sir James Arnot Hamilton (1923–2012)) and geologists from both the academic world and industry (Prof Charles Hepworth Holland, among others). A programme was produced for development of exhibitions in the GM which involved retention of the acclaimed ‘Story of the Earth’ exhibits and the outstanding display of gemstones, and proposed extensive redevelopment of displays on the upper two floors of the GM.

In 1988, the incoming Director of the BM(NH), Dr (later Sir) Neil Chalmers, appointed a small review group to examine the existing and future role of the GM and to report to the Trustees. This report overruled that of the advisory panel, recommending its disbandment, the abolition of the post of Curator of the GM, and that a fresh view be taken of its exhibition policy. Within a year, both Dunning and Bishop had left, followed by other geological staff. Such a radical redevelopment, which reduced the geological input, provoked highly critical
2. General review of the publications over the 50 years

Comment by Robinson in the *Circular* commencing in December 1988. Articles and letters on this topic were to appear in virtually every *Circular* for 18 months. They mainly voiced trenchant criticism of the proposals for changes in the GM, but also included a robust letter in their defence by the Director. The proposed changes were duly implemented; the GM was internally remodelled and its exhibitions extensively changed.

On wider issues, the lamentable closure of local museums, or dismissal of dedicated Geology curators, under the impact of government cuts and local authority indifference, the introduction of entrance fees to the National Museums, the proposed restructuring of the Nature Conservancy Council into three separate bodies to service England, Scotland and Wales (which seemed likely to be inadequately staffed), all provoked blunt words. Robinson wrote incisively on behalf of most of the GA Members in opposing such moves, and in so doing made the *Circular* more important, and popular, than ever before. Thus, to take one year only, in 1992 (*Circulars* 890 to 895), the future of The Hancock Museum in Newcastle was raised, support for the Annual Meeting of the British Association was given, the problem of access to The Wrekin, Shropshire, highlighted, and the Barton Cliff enquiry discussed. The last concerned erosion of the cliffs at Barton on Sea, Hampshire, which contain the stratotype of the Eocene Bartonian.

These campaigns were not personal idiosyncrasies of the Editor but were supported or instigated by the Officers, and especially pressed by Halstead when President (1990–1). It was Halstead’s idea that national projects, taken to Council, might allow the GA to speak out when others stood back, reluctant to take the initiative. Campaigns after Halstead’s death included support for bodies seeking to save the peatlands of Britain and Ireland and limestone pavements; to improve access to the countryside through the ‘Right to Roam’ legislation; and planning matters that impinged upon sites of geological importance. Some of these campaigns were successful, as with the retention of the post of Keeper of the Sunderland Museum, raised in *Circular* 891 (CM, 123.3), but, in general, this aspect petered out after the Halstead and Robinson Presidencies.

Moody sought to modernise the format of the *Circular* dramatically, and in 2000 tabled a full colour, double sided, folded A3 sized proof of a new magazine which was approved. Most of the contents of the *Circular* became

![Figure 17. Dr William John French, President 2002–4, General Secretary 1978–82.](image)
2. General review of the publications over the 50 years

subsumed into the new A4 sized *GA Magazine* with almost an intermediate stage in the A4 ‘Earth Alert’ ‘Impact’ issue of March 2002, with articles, Council news, reports of GA meetings (past and forthcoming) and excursions, an Essay review, and even reviews of recent papers. This was stated to be going to appear four times a year, but was really an uncoloured, but more elaborate (in content), foretaste of what was to follow.

By 2002, desk-top publishing had reached the point at which non-specialists could produce respectable-looking publications, and it was decided to produce the *Magazine* in full colour. French (Fig. 17) took over the role of producing the *Magazine* in A4 format on glossy paper. In order to do this, he had to become expert in both desk-top publishing and at encouraging Members to write copy for the magazine. A difficult problem! He did all this voluntarily, saving the Association a considerable sum. The new *GA Magazine* was printed in full colour, on glossy paper, by the Grayam Press, of Billericay, from March 2002; initially with French as Acting Editor and a number of Assistant Editors. This bigger size meant that larger, more detailed photographs could be inserted in the *Magazine* and these became the dominant feature, in contrast to the mainly written text of the *Circular*. Also included were notices of forthcoming meetings, a Presidential letter, reports of previous Council and Curry Fund meetings, plus illustrated accounts of field meetings, and many of the topics previously included in the *Circular*. The new format emphasised colour photographs and contained a wider range of topics than the *Circular* except that the campaigning edge is yet to be restored. Phoenix-like, the *Circular* re-appeared as a survivor, still in A5 size but on green non-glossy paper, as an insert in the *Magazine*. Thus, Number 955 of June 2003 lists forthcoming meetings, a Special General Meeting, the November Reunion, the Council Membership, new Members, forthcoming field meetings and meetings of GA Local Groups and Affiliated Societies—all the essential information required to be given to Members that was the original purpose of the *Circular*.

However, the burden on French became more than he could continue with indefinitely and, under the guidance of the 2004–6 President, Prof. Leonard Robert Morrison Cocks (Fig. 18), the load on French was reduced and John Crocker (Fig. 19), who has supplied much of the information in this paragraph, took over editing and producing the *Magazine* in 2006 with Paula

Figure 18. Prof. Leonard Robert Morrison Cocks, President 2004–6.
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Carey, John Cosgrove, Vanessa Harley and Bill French in a Production team. Unfortunately, initially the Magazine and the green Circular were printed by different companies. The Magazine, after printing, was taken to the Circular printer who then posted both to members. It became obvious that producing a separate Magazine and Circular was becoming too expensive, especially with the changes in postal charges and the attempt to make the cost of the new Magazine no more than that of the previous Circular it replaced. In order to overcome this problem, the Circular was included as a centre-fold (not a separate insert) inside the Magazine, and the Grayam Press printed it all and dispatched the copy to Members. The new-style Magazine (from Vol. 7 No. 3, 2008) was still A4 in size but the quality of the paper, the number of pages and the type of wrapper were carefully adjusted so that the total package came within the minimum postage limit. This resulted in a 24 page A4 full-colour edition dispatched in a plastic wrapper (a paper envelope was too heavy!). The last Circular to fall within the time of the present account, was Circular 977 printed in volume 7 of December 2008.

Financially, the cost of producing and posting the Circular and the Magazine was substantially increased by circulating two free copies of each issue to Local Groups and Affiliated Societies, and to certain Universities. Although the last two were later discontinued, about 90 copies of the Magazine still went outside the membership and libraries in 2008. Thus in 2000, when the membership was 2,103 (Table 1), 2,600 copies were generally needed (and even 3,000 for a special ‘Earth Alert’ issue), and the yearly postage bill alone approached £3,000. Remarkably, partly due to the diligence of French and Crocker, the Magazine was produced at essentially the same cost as the Circular, as is shown in Table 1. Thus the 1999 and 2001 Circulars cost ~£16,000 each year, (but not those of 2000 because of ‘Earth Alert’) while the 2002 Magazine cost the same and the average annual cost of the Magazine over the seven years from 2002–8 was held at ~£16,000, partly due to the fall in membership numbers of over 700 in the same period, despite increases in postage and printing costs.

Geology Today

Geology Today, which first appeared in 1985, was mainly the brainchild of Prof Alec Smith (Fig. 20) and of his dedication and persistence in the face of indifferent-
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ence, apathy and discouragement from both the GA and the Geological Society, although fortunately there were a few supporters in both bodies. From a draft supplied by him, Leake has made the following summary and added further material.

In the 1970s there was no widely circulated general magazine reporting new geological discoveries and events in easy-to-understand, not highly technical language, that was aimed at informing both the ‘educated public’ and amateur and professional geologists outside their own specialisms, about general geological matters, including government policies, conferences, interesting new discoveries and events and comment on them. Perhaps the nearest was a newsletter produced by Dr Peter J. Smith of the Open University, who approached Alec Smith about publishing his 1978 inaugural lecture on taking the Chair of Geology at Bedford College, London. Despite the fact that Peter Smith’s newsletter was losing money, Alec Smith (who had been Treasurer of the Geological Society from 1971 to 1977), was convinced that, if the Geological Society would support it, with Peter Smith as editor, a publication of such wide appeal would be successful. However, the Society would neither undertake it nor support it financially, not even if its own Proceedings and Circular Series were incorporated in it. Undeterred, Alec Smith wrote a much more detailed specification for a magazine aimed at being sufficiently popular to gain a place on the news-stands of retailers such as W. H. Smith, among others. He re-submitted his proposal to the Geological Society, who again demurred but suggested that he found a publisher who would fund it, and then come back.

Through a junior editor at Blackwells, whom Alec knew, he learnt that if he came back to Blackwells with the names of an editor or editors, a proposed layout and a full listing of the scope, and, if possible, some launch capital, they would consider the proposition. Peter Smith agreed to be Editor, John Harry McDonald Whittaker (1921–) of Leicester agreed to be Assistant Editor, both with editorial fees, and Prof. Hakuyu Okada, of Kagoshima, Shizuoka and Kyushu Universities, Japan, an old friend of Alec Smith, agreed to be the first of eight unpaid regular overseas correspondents and he was still serving in 2008. By the launch in January 1985, the Management Committee had appointed Whittaker as Editor in Chief and Peter Smith as Scientific Editor. The magazine was to be called Geology today with a lower case t. With this Alec Smith returned to the Geological Society and went to the GA for finance, only to be yet again rebuffed,
2. General review of the publications over the 50 years

but still not beaten. Both bodies did offer to associate with the enterprise and allow the use of their logos, providing certain standards were met, and the publisher provided all the finance. On this basis, Blackwells Science Ltd agreed to finance the bimonthly venture entirely and make some payment for the use of the GA and Geological Society logos plus their support in marketing the magazine to their members. Alec Smith chaired the Management Board until 1992, followed by David B. Thompson of the University of Keele up to 2003, when the committee structure was changed. In 1990, the Editor in Chief post disappeared. Whittaker stood down but continued to assist, as Robinson joined as Assistant Editor and continued beyond 2008. Sue Bowler of the University of Leeds was another Assistant Editor (1999 until 2001), while Peter Smith continued as Editor until Volume 19, Number 2, nominally of March-April 2003, after which Peter Doyle heroically took over, restored the issues to their scheduled publication dates, and has continued beyond 2008. The crisis of 2003 involved lack of copy and delay in editing what had been received, and was so severe that consideration was given to omitting a whole volume, but Peter Doyle’s labours averted this.

Volume 1, 1985, was launched at a price of £36 per year to UK libraries, £12 to individuals, £9 for GSL Fellows and GA Members, although for the first year only, Members paid £7.50. By 2008 these prices were respectively £467, £49, £37, and students paid £29. It took several years for Geology Today to realise a profit and, under revised agreements made in 1986 and 2003, to make significant profit payment to the two sponsoring bodies. Since 1989, and particularly since 2004, it has been an overall financial success. Thus in 2008 it contributed £11,694 to the GA General Fund based on the 2007 sales, with a 96% Member renewal rate. This indicates general satisfaction among the GA Members taking the journal, although it has not achieved the station bookstall level of circulation that was generally hoped for. A major assistance was the generous sponsorship of ~500 copies per issue by BP, BG and Shell which went to schools. Under the 2003 agreement, 80% of the net subscription income from new GA and Affiliated Society Members came to the GA as well as 12.5% of the overall profits.

As Leake was partly responsible (as Geological Society Treasurer, 1981–5), for rejecting any initial funding from the Geological Society (mea culpa!), it is historically interesting to understand why. In the 19 years from 1962 to 1980, the Geological Society was chronically in deficit with only three years of surpluses (two of which were only £8 and £166) despite an anonymous donation of £68,000 in 1977 which reduced that year’s loss to £15,000. The deficits piled up horrendously, especially in the earlier years as result of publication losses, and so venturing publication capital that clearly would not be returned for some years was a lower priority than immediately (from 1981) restoring continuing surpluses, which was achieved. These were urgently needed to offset the accumulated deficit which, although it could be thought of as seed corn, had seriously depleted most of the Society’s reserves. The GA was presumably unwilling to venture where the Geological Society feared to tread, and was pulling itself out of its
2. General review of the publications over the 50 years

1976–7 financial crisis, although under the brilliant Treasurership of Negus, who engineered unprecedented surpluses in ten successive years, 1979–1988, amounting to no less than £140,587 (Table 1), the GA was in good financial state, no doubt as result of not venturing into uncertain waters!

In the end, both societies gained financially without risking capital, but the credit for the success of Geology Today must be given mainly to Alec Smith, Blackwells and the devoted efforts of the editors, especially Peter Smith, Doyle and Robinson. The GA was initially represented on the Blackwells Geology Today Management Committee by the President, Secretary and Mr John Michael Evans (President 1988–9). In 1989 Evans was replaced by the Senior Vice President. From 1992 to 2000, Mr Ronald Percy Stanford was usually an additional member. In 2000 and 2001, the President, Senior Vice President and the General Secretary acted but, since then, only two representatives have managed, Susan Brown and the President except for 2007 when French acted for the President.

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<tr>
<td>£</td>
<td>4,243</td>
<td>3,369</td>
<td>2,183</td>
<td>1,574</td>
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<td>n/a</td>
<td>4,078</td>
<td>3,215</td>
<td>3,888</td>
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<tr>
<td>£</td>
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<td>10,196</td>
<td>7,451</td>
<td>9,994</td>
<td>10,541</td>
<td>11,694</td>
<td></td>
</tr>
</tbody>
</table>

The financial return Geology Today yielded to the GA from its start in 1985 is listed in Table 2, derived from the published accounts. There is nothing in the accounts about Geology Today until 1989, when presumably the first payments were made to the GA, and there is no mention of any income in 1995–98. It seems there may have been a loss in 1995 and 1996 (or an accumulated loss for Blackwells) and in 1997 both the GA and the Geological Society agreed to allow their shares of the surplus to be reinvested in the magazine. This enabled a return of profit to both bodies, especially from 2004 when a new contract with Blackwells was implemented.

From 1989 to 2008, a total of at least £90,000 came from Geology Today to the GA without any financial outlay by the GA, and the publication has, and continues to, successfully promote geology, the GA and the Geological Society.

Excursion Guides

The concept of publishing a series of excursion Guides to mark the centenary of the GA in 1958, under the initial editorship of Dr Alfred Kingsley Wells (1890–1980) took several years to accomplish (editors are listed in Appendix II). Many were not completed until long after 1958, by which time some of the earlier ones
2. General review of the publications over the 50 years

had been reprinted in a revised form. Thus, according to Circular 615 of August 1959, there were then available numbers 1, 3, 14, 15, 22, 25, 26, 27, 29, and 30 only (districts given below). By September 1971 (Circular 735) and December 1972 (PGA 83, 485–6) there were over 30 Guides available. The list which follows shows the progress over the first 21 years from 1958 with the Guide numbers and dates of appearance, reprinting and revision, if before 1980.

Birmingham (Guide Number 1; 1958, 1960, revised in 1971); The Lake District (2; 1970); Oxford (3; 1958, 1960, 1973); The Malvern Hills (4; 1971); Silurian Inliers (5; 1967), Liverpool (6; 1965); Manchester (7; 1959, revised 1970); Stoke-on-Trent (8; 1958, 1960, 1976); Sheffield (9; 1960); North Coast of Cornwall, Bude to Tintagel (10; 1970); Hull (11; 1962); Suffolk and Essex (12; 1973); Tertiary Igneous Geology of Skye (13; 1969); Southampton District (14; 1958); Durham (15; 1958, 1973); Cardiff (16; 1960, revised 1971); Swansea (17; 1960, 1969); The Belfast Area (18; 1960); West Cornwall (19; 1974); Tertiary Igneous Geology of Mull (20; 1969); The Lewisian and Torridonian Rocks of North-West Scotland (21; 1978); Dorset Coast (22; 1958, 1969); Devon-Dorset Coast (23; 1965, 1973); Central Weald: Hastings Beds (24; 1960); Isle of Wight (25; 1958, 1966, 1972); The Peak District (26; 1958, 1965, 1972); South Shropshire (27; 1958, 1968); Snowdonia (28; 1959, 1964, 1968); The Weald (29; 1958, 1967, 1976); London north of the Thames (30A; 1958, 1967); London south of the Thames (30B; 1958, 1967); North-East Scotland: The Dalradian (31; 1960); Arran (32; 1961, 1969); NW margin of Dartmoor (33; 1962); The Yorkshire Coast (34; 1968); Mallaig (35; 1964); The Cotswold Hills (36; 1964, 1973); The Cheviot Hills (37; 1965); and Plymouth (38; 1978). The best sellers tended to be the reprinted ones, with some of the earlier Guides still available in limited numbers after 1979, but sales had so declined that they were no longer advertised. In December 1972 there was stated to be a second edition of six of the above Guides to be published shortly (PGA 83, 486).

The flow of newly-published Guides declined in the 1970s until the early 80s when, under George Thomas Raine (1913–1990), who had already been a Guides editor (1965–9), a new cluster of Guides appeared. Then, from 1990, under Greensmith (Fig. 21) as editor, a renewed burst of new Guides appeared, so that by the end of 2003, 38 Guides (plus a few unadvertised copies of older Guides) were available in print, all but a few being printed in 1990 or

Figure 21. Dr John Trevor Greensmith, PGA Editor, 1980–6, Guides Editor, 1990–2007.
2. General review of the publications over the 50 years


Pressure to produce short field *Guides* of the sort suitable for a weekend or a couple of days resulted in a *Guide* by Dr John George Charles Martin Fuller (1926–2012) on ‘The Origins of Stratigraphy’ (2004) which dealt with the Bath district and the work of William Smith (1769–1839) in the area. This proved popular and was followed by the *Geology of Watchet and its Neighbourhood, Somerset* (2004). The output of *Guides* reflected the offers made by would-be authors and since they received neither remuneration nor royalties, and the GA could hardly afford to pay a sum likely to attract such knowledgeable writers, the role of the Editor in encouraging submissions was critical to success. Greensmith gave a short history of the *Guides* in the *GA Magazine*, 7, 6–9, June 2008.

Table 3 gives a snapshot of the position at the end of 2000, showing the widespread subject coverage and the generally slow, but steady, sale of *Guides*, particularly of more popular areas like *Arran*, *The Lake District*, *The Isle of Wight*, and *The Yorkshire Coast*, where reprints, or new editions, of older *Guides* were available. The major impact that Greensmith made in extending the series and seeing through to publication about 20 new *Guides* in 11 years is apparent.

The General Fund met the cost of publication of most of the *Guides* until 1998 when, because of the perennial deficits in the General Fund, the Curry Fund took over and usually met the full costs but all the income came to the General Fund. This was a significant burden, e.g. from 1998 until 2002 the Curry Fund spent £42,729 on *Guide* production (Curry Fund records). The income the GA received from the sale of *Guides* that can be gleaned from the published accounts is given in Table 1. The outlay in the early years is complicated by the funding being drawn as working capital from the Bequest Fund and intended to be repaid. Thus, to cite 1973 only, the ‘printing of one new and four revised editions’ cost £1,920 but sales yielded only £1,197, the balance of £723 being drawn as ‘advance of working capital from Bequest Fund’ which had, by December 1973 (i.e. 15 years after starting the Centenary *Guides*), invested £2,055 in the Centenary *Guides* Fund (1973 Accounts) with no return of working capital. Clearly apparent is the recurrent problem of inflation increasing reprinting costs to a figure greater than the total sales income from an earlier edition. Either subsidy, or setting a high initial price and increasing it regularly with inflation, are the only ways to continue the publication of *Guides*. The Petroleum Exploration Society of Great Britain (PESGB) also gave some financial assistance to certain *Guides*.

Although not formal *Excursion Guides*, many accounts of field meetings appear in the *PGA* and some of these, going back to 1948, used to be available as
2. General review of the publications over the 50 years

Table 3. List of Guides: position at the end of 2000.

<table>
<thead>
<tr>
<th>Guide no.</th>
<th>Subject and Date of printing</th>
<th>Number printed</th>
<th>Total sales</th>
<th>Sales per month</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>The Lake District (1997)</td>
<td>1000</td>
<td>401</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Silurian inliers of SE Welsh Borderland (1982)</td>
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<tr>
<td>6</td>
<td>Geology of the country around Liverpool (1982)</td>
<td></td>
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<tr>
<td>7</td>
<td>Geology of the Manchester Area (1991)</td>
<td>1000</td>
<td>641</td>
<td>6</td>
</tr>
<tr>
<td>10</td>
<td>Geology of North Cornwall (Bude to Tintagel) (1970)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>19</td>
<td>Geology of West Cornwall (1994)</td>
<td>1000</td>
<td>861</td>
<td>11</td>
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<tr>
<td>22</td>
<td>Geology of the Dorset Coast (1993)</td>
<td>1000</td>
<td>518</td>
<td>6</td>
</tr>
<tr>
<td>26</td>
<td>Geology of the Peak District (1999)</td>
<td>1500</td>
<td>527</td>
<td>29</td>
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<tr>
<td>32</td>
<td>Isle of Arran: A field guide for students of geology (2000)</td>
<td>1500</td>
<td>178</td>
<td>30</td>
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<td>34</td>
<td>The Yorkshire Coast (2000)</td>
<td>1500</td>
<td>525</td>
<td>88</td>
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<td>38</td>
<td>Geology of the Plymouth Area (1978)</td>
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<td>Geology of the Lleyn Peninsula (1981)</td>
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<td>Geology of Anglesey (1981)</td>
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<td>Geology of Jersey (1981)</td>
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<tr>
<td>42</td>
<td>A field excursion guide to the Island of Mallorca (1990)</td>
<td>1500</td>
<td>1064</td>
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<tr>
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<td>A geological field guide to the Costa Blanca, Spain (1990)</td>
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<td>662</td>
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<td>Late Precambrian geology of the Scottish Highlands (1991)</td>
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<td>Onny Valley, Shropshire: Geology teaching trail (1992)</td>
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<td>Geology of the Isle of Man (1993)</td>
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<td>The Coastal Landforms of West Dorset (1992)</td>
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<td>Eccle Quarries: Wrekin Area, Shropshire (1994)</td>
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<td>Geology of Tenerife, Canary Islands (1994)</td>
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<td>Geology of the Aberystwyth District (1995)</td>
<td>1000</td>
<td>475</td>
<td>7</td>
</tr>
<tr>
<td>55</td>
<td>Early Cretaceous Environments of the Weald (1996)</td>
<td>1000</td>
<td>461</td>
<td>9</td>
</tr>
<tr>
<td>56</td>
<td>Geology of the Castleton Area, Derbyshire (2000)</td>
<td>1500</td>
<td>166</td>
<td>24</td>
</tr>
<tr>
<td>57</td>
<td>The Chalk of Sussex and Kent (1997)</td>
<td>1000</td>
<td>902</td>
<td>20</td>
</tr>
<tr>
<td>58</td>
<td>Salthill Quarry; Geology trail (1997)</td>
<td>(2000; 250 for GA)</td>
<td>233</td>
<td>6</td>
</tr>
<tr>
<td>59</td>
<td>Geology of Hadrian's Wall (1997)</td>
<td>1000</td>
<td>697</td>
<td>19</td>
</tr>
<tr>
<td>60</td>
<td>Geology of the Isle of Wight (1998)</td>
<td>1500</td>
<td>1371</td>
<td>42</td>
</tr>
<tr>
<td>61</td>
<td>Geology of the Western Front (1914-1918) (1999)</td>
<td>1000</td>
<td>436</td>
<td>19</td>
</tr>
<tr>
<td>62</td>
<td>Geology of Lanzarote, Canary Islands (2000)</td>
<td>1500</td>
<td>34</td>
<td>17</td>
</tr>
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</table>

reprints for purchase until the 1970s. Accounts also appeared in the Circular and now in the GA Magazine.

Although not solely an Excursion Guide, one of the few books published by the GA was the 127-page ‘The Geology of the Eastern Alps’ by Oxburgh (1968), which included a 76-page Excursion Guide to the Eastern Alps and arose from its author leading a GA excursion to the area in 1966 and presenting an account of the geology to the GA at its July 1st 1966 meeting. The hard-bound account lavishly includes cross sections, geological maps and stratigraphical tables and was the first summary for many years in English of the geology, especially
2. General review of the publications over the 50 years

the stratigraphy and tectonics. It was a reprint of *PGA 79*, 1–127, Part 1, which itself had been issued early (before Part 4 of volume 78), so that copies were available for the ill-fated Prague International Geological Congress of August 1968.

Until March 1971, *Guide* sales were handled by the publishers, Benham & Co. Ltd of Colchester, after which *Guides* were distributed from ‘The Scientific Anglian’, Norfolk, (Annual Report 1971) as the *PGA* still lacked a central office. In 1977, the Scottish Academic Press and then from 1991 the Geological Society’s Publishing House, sold *Guides* on a commission basis but alongside direct sales from the GA office, as this avoided commission payments and was convenient for Members.

Recently, there has been an increasing need for shorter *Guides*, almost of a leaflet type, not to replace the more comprehensive accounts, but for those who want a cheap, easy geological guide for a single day’s walk, or two or three days at the most. Generally finding authors for such short *Guides* has, at least for the GA, been difficult.

Perhaps the most ambitious of the new coloured *Guides*, that to the Dorset Jurassic Heritage Coast by John Cope (under the editorship of Prof. Susan Marriott), was approved at the March 2008 meeting of the GA Council (CM) but did not appear until 2012.

In summary, during the 50 years to 2008 covered by this account, the GA, as a Charity, has, through its subsidised publication and reprinting of nearly 70 Excursion *Guides*, and arranging hundreds of field excursions, made a major contribution to facilitating the inspection of geology in the field, both by professional geologists and amateurs, and over a wide expanse of the British Isles and, increasingly, to venues abroad which are commonly visited from Britain.

**Rockwatch Magazine**

Susan Brown, President of Rockwatch, has supplied the following information:

This brightly coloured A4-sized magazine named *Rockwatch* is for Rockwatch members (‘*The magazine for young geologists*’). It covers all aspects of geology from fossil, mineral and rock collecting to geological and planetary processes and field excursions, is lavishly illustrated, and is written at a level that is appreciated by the members of Rockwatch, who are encouraged to contribute material for publication. The wide scope of the material published is best illustrated by citing the titles and title explanations of the 18 articles in issue Number 50. 1 Marie Stopes: A fossil plant pioneer; 2 How old is the Earth? Early ideas about the age of our planet; 3 How old is the Earth Really? Calculating the Earth’s age; 4 Mary had a little ichthyosaur… The fantastic finds of Mary Anning; 5 The Great Exhibition and the first dinosaur models; 6 Fossils in the Precambrian: What they tell us about Earth’s past; 7 Coal Mine Mysteries: Strange tales and bedtime stories; 8 Digging into Metal Mining: Before coal mining, Britons
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mined metals; 9 Diamond Adventurer: Making a fortune in far-off South Africa; 10 Global Warming: What can the past tell us about the future?; 11 Climate change by numbers: What Milankovitch cycles mean; 12 The Land of the Gonds: The break-up of a continent; 13 A disappearing ocean: What happened to the Iapetus Ocean?; 14 Exploring the North Sea: A wild expedition to the oil and gas fields; 15 How hydrogeology was born: Studying how water moves underground; 16 Charles Darwin was a Geologist! Beagle voyage was rich in geology; 17 Man on the Moon! And the new study of planetary geology; 18 Predicting the Future: Using computers to work out when a volcano will blow.

Rockwatch started in Spring 1992, with an enabling loan from the Curry Fund, with a black and white issue (Number 1), and is published three times a year, in Spring, Summer and Winter. Numbers 2 to 19 have a cover in full colour, but the inside pages were generally in black and white, until Number 20 and thereafter, when all pages were in colour. In 1995, the magazine showed glimpses of colour and benefitted from a more professional design and lay-out, though it remained at 11 pages. It was not until the following year in issue 13, Spring 1996, that the magazine sported 12 pages and colour began to appear on most of them. Additionally, at members’ requests, more of their contributions such as jokes, puzzles and letters were included, and the magazine became a much more lively and colourful publication. All issues then had 12 pages until Number 24 of Spring 2000, after which there were 16 pages, except for Number 29 of Spring 2002 with 12 pages. As result of errors, there were two issues numbered 23, one for Summer 1999 and one for Winter 1999 (so the Spring 2000 issue was Number 24) and Numbers 29 and 30 were both labelled Spring 2002. The last issue of 2008 was Number 50, badged as an ‘Earth Rocks – Special issue’ of 36 pages to celebrate the 150 years of the GA and also, although a year late, the 200 years of the Geological Society. The masthead change made for Number 50 continued thereafter. Since Number 39 of Spring 2005, the date of issue has been omitted, as readers may have erroneously thought the contents were out of date.

Until Number 28 of Summer 2001, the magazine was published jointly with the RSNC. When the RSNC abruptly withdrew from RockWATCH, there was no Winter 2001 issue. From Number 1 to Number 23 the editor was Debra Bright, of the RSNC and the publisher, Seabury Salmon & Associates, managed the editing process from Number 30 onwards. A very wide variety of contributors keep it fed, including current and former Rockwatch members, research scientists and students. But the success has been dependent on the exceptional dedication and hard work of van Rose and Doyle acting as Science Editors; van Rose from the first issue and Doyle since Number 2.

The Directory and Rules and Lists of Members

The Directory was an A5 list of useful information about the GA and where and how to follow up an interest in Geology. There were sections listing the Geological Societies in the UK, Museums, Libraries, education and careers in Geolo-
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...gy, field work and collecting, conservation and Site documentation, equipment needed for fieldwork, equipment suppliers, specimen dealers and ‘A Beginner’s Geological Library’ of suggested publications, all intended to help those attracted to knowing more about Geology both in the field and indoors, as an amateur, or if thinking of a career in Geology, and in effect showing what the GA had to offer. The first edition of the Directory with 2,500 copies (CM) was published in 1985 and distributed free. The second edition, with a larger print run, rapidly followed in 1987 with 20 pages, both with Christopher Paul Green (Fig. 27) as Editor.

Rules and Lists of Members and their addresses were published in 1960, 1966, 1970, 1973, 1987, 1993, 1997, 2003 (without the Rules) and 2006, all in A5 sized format, and were issued free to all Members. These gave the current rules governing the GA and also listed past Officers etc. (the latter as given in Appendix II up to ~2008). The gap of 14 years between 1973 and 1987 was caused by the financial crisis of the late 70s, and the considerable time it took to update the Membership records and to revise the rules to implement the changes made in the 70s and 80s.
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The Council

Council meetings were, and still are, held on the first Friday of certain months, on the same day as the lectures. In the first part of the period reviewed, they settled into the following pattern. Meetings were held in early November (in conjunction with the Reunion), December, January, February, March, April, May, June, July and October. From 1977, when the GA year was changed to coincide with the calendar year instead of ending in September, the first meeting of the year was in February, when the awards were generally agreed; the next in March, when the accounts for the previous year were approved; then in May in conjunction with the AGM, the Presidential Address and notification of any change of Office bearers and Council members, when the budget and subscriptions for the following year were approved; in June and July, the latter being in conjunction with any Special General Meeting to vary the subscriptions for the following year; and in October and December. From November 1978, instead of the usual November Council meeting, a meeting was held with representatives of the Local Groups and, from 1992, with both Local Group and Affiliated Society representatives. The Reunion meeting of Members, which had traditionally started the GA year, continued to be held in early November, although it increasingly became known as ‘A Festival of Geology’ in the 21st Century.

It was often difficult to get new Council members or to fill certain Office bearers’ positions, so elections became uncommon and many of the same Council members remained on the Council for some time. A significant factor here was the increasing pressure on University and Museum staff to devote less time to the business of Learned societies and more to publishing and writing research proposals as block grants to Universities and Museums for research diminished.

The Council is normally chaired by the President. The GA rules put the onus of nominating the next President on the existing President ‘in consultation with the other Officers and Council’. As summarised to Council on June 4th 1971 by Francis Moore, (page 119 of the Centenary history; Sweeting 1958) “since 1900 the custom, never a rule, of electing Presidents alternately from among professional and amateur members has been maintained with one exception, that of Watts in 1930”.... “Since 1958 the ‘alternating procedure’ has been continued. To my knowledge since 1955 no nominations for the Office of President have ever been received from members not on Council”. Within 10 years of Moore’s summary, the ‘alternating procedure’ began to break down and by the 1990s had almost completely vanished, despite the pressures on professional geologists noted above. Often the need to give two Presidential addresses was a difficulty for amateur Members, but their involvement in the Presidency needs to be revived and Council seems to have forgotten its custom in this matter.

Generally, over the initial years reviewed, the only record of exactly how Council operated is through the Council minutes, although it is clear from the An-
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Annual Reports that a Finance committee existed and a group concerned with publication. The main work fell on the Editor of the PGA, the President, the Treasurer and the three Secretaries (the General Secretary, the Publications Secretary and the Field Meetings Secretary), with a lesser load on the Librarian and the Guides Editor.

It is remarkable that the practice, dating back to the early years of the GA, of all cheques being approved by the Council before being dispatched, continued until the financial crisis of 1978, despite the inevitable delays, especially in the summer, it caused to payments. From 1979, when professional auditing was first introduced (see below), the procedure was changed to circulating a list of cheques already paid and this continued until 1990, erratically until 1992, after which it was generally discontinued. As regards the receipt of cheques, the procedure before the existence of an office in 1979, again remained as it had for over 100 years: the cheques went to the Treasurer’s home address and he entered the sums in his records and banked the cheques. From 1979, the cheques went to the office, were recorded and then posted to the Treasurer for entry in the books and banking, i.e. much the same procedure as before. At the end of 1992, a batch of cheques totalling £4,000 was lost in the post (some compensation was later obtained) and thereafter the Executive Secretary was instructed to take the cheques to a branch of the Royal Bank of Scotland near Burlington House (CM, February 5th 1993).

From 1978, Council formally worked through a series of stated committees, the details and membership of which were listed in the Annual Reports in the Circulars or from 1992 in a separate A5-sized Annual Report. In summary, from 1978 when committees of Finance and Investment, Publications, Editorial, General Purposes, Field Meetings and, temporally Rules Revision, were established (Circular 809), the same general pattern was maintained for 18 years. In 1981 a Guides Working Group was added (and removed in 1989) and investment removed from the title of the Finance committee, if not the activity. Usually all committees were chaired by the President, as was Council. The Curry Fund committee was added in 1986, (initially as the GA Fund committee), an Investment Panel or Committee, erratically from 1984, and a Rockwatch Management Committee from 1992. In 1996, under President Robert Symes and General Secretary Robert Stoneley (1929–2008; Fig. 22), all except the Curry Fund and RW committees were formally abolished; duties re-assigned, and a Medals and Awards committee started, although the Investment Panel still continued. Most decisions were made by ‘The Executive’ consisting of the President, the General Secretary, the Treasurer, the Chairman of the Publications Committee and one or two other Officers. By 2000, the Publications committee re-appeared and from then up to and beyond 2008, the Council committees were those of the Curry Fund, Publications, Medals and Awards, and RW Management together with an Investment Panel. From 2002–9, Anthony John Iles (1936–2010) served as Minutes Secretary.
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Underlying all these changes from 1979 onwards was the increasing benefit of having an employed Secretary as a primary point of personal contact for Members, someone who supplied continuity, experience, knowledge of deadlines, decisions and location of files, contact with printers, publishers and all manner of business contacts, such as with those who hire furniture for the Annual Reunion and the paying-in of income into the bank. In addition, as email began to be commonly used in the 21st century, savings were made by emailing Council minutes and agendas, instead of posting them in hard copy.

Generally, there was little competition for places on Council and often Members had to be persuaded to stand or to remain on Council. The way in which Council operated, and its chief concerns, depended much upon the Officers. At the Council meeting of March 2nd 1990, during the Presidency of John Michael Evans (Fig. 23), the Council revised the circular GA logo as used on the front cover of the PGA by replacing the Sans-Serif text around the perimeter in which the words ‘GEOLOGISTS’ ASSOCIATION LONDON’ were written, by, in the same position, “GEOLOGISTS’ ASSOCIATION 1858” in a Lectura Bold typeface. The only other change was to remove the three small pairs of crossed hammers, so that the general appearance was much the same, and few Members noticed any change. As detailed by Green (1990), the first PGA with the new...
badge, which was the sixth version since the original of 1887, was Volume 101, Part 2 of 1990 and the first *Circular* 879 of April 1990, and this version continues in use. The badge changed in 1990 (Fig. 24) had only been in use since 1975, when it replaced the 1953 version which still had the traditional heavy Lombardic script of the 1887 version.

![Figure 24. The old (1975–90) and new (1990–) logos of the Geologists’ Association.](image)

In the final year of this account, the new President, Dr Danielle Schreve (Fig. 25) proposed a major revision of the way in which the GA disbursed external support for various purposes, which together with the new Tupper Fund would be implemented after 2008.

This history has shown up the really serious point that the GA Council has no means of ensuring that Council or AGM decisions made are transmitted to future Councils, other than by means of the minutes, which of course new Council members do not usually peruse further back than when they joined Council. Thus previous errors and decisions made fade from Council’s knowledge when the last of those who were on Council during the relevant time retire from Council and errors are repeated. A trivial example is the forgotten and ignored (for 20 years until 2013) Council’s decision (CM, 133.8 of 1993), made after complaints by Members, that Council Members should wear name badges at tea after Council meetings and before the lecture. This was so that Members who wish to raise a matter with a Council Member can easily identify them. A more serious instance was the Council’s ignoring in the 90’s of the lessons of the
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1976–77 financial crisis. There needs to be a list of non-ephemeral decisions by Council, or by the Membership at AGMs or SGMs, which is updated each year and supplied to the Council each year. Of course past decisions can be reversed, but they should only be so cancelled or ignored in the knowledge of why they were previously considered necessary, not in ignorance of the existence of a previous decision or policy on the matter, and the reasons for it. This is similar to the need the international financial crisis of 2008 revealed when restrictions on banks, prompted by the 1929–31 financial debacle, were ignorantly removed by politicians responding to pressure by financial institutions, unaware of the reasons the restrictions had been originally imposed. Even Executive Secretaries are not immortal, always present for all of Council meetings, or remember everything.

Similarly, there needs to be a more efficient means of ensuring that motions passed at AGMs are recorded. At present, up to the time of writing, the minutes, which are never circulated to Members, are invariably ‘taken as read’ so that errors and omissions can occur. An instance is the lack of a record of the motion proposed by Mrs (Shirley) Louise Donovan in the 2004 AGM and passed almost unanimously, that all communications with Members should be by hard copy and post for those not wanting to receive information electronically. Improvements to the AGM procedures are being implemented.

Researching information for this account has revealed the often quite inadequate recording of important facts. Two examples, chosen from many, are that the Association’s premier award, the Foulerton Award, has sometimes been given with almost no published statement of what the recipient has done other than to repeat part of the rules ‘for work of merit connected with the Association’ (e.g. Circular 790; February 1977); secondly, despite general accounts of the ‘Reunion’, or ‘Festival of Geology’, there has been no precise account of the exhibits since ~1980, especially of new fossil, mineral, rock or map displays. Both these instances not only leave the majority of Members who do not attend either the AGM or the Festivals of Geology uninformed, but deprive future historians of important records and diminish the standing of awards, the prestige of which relies upon the standing and record of previous awardees. Finally, as the GA website and electronic communications replace printed and posted hard copy, it is essential that each and every website version and a copy of all electronic communications to Members, be permanently preserved before any amendments or changes. All these points have been brought to the attention of the President.

Contributions by former Presidents

Clive Bishop, President 1978–80 (Fig. 3), contributed the following:

Having decided to seek a career in geology and having secured a place at King’s College, London, I was encouraged by John Myers, my schoolteacher and, later, a recipient of our Foulerton Award, to widen my horizons beyond the textbooks by taking advantage of opportunities offered by the Geologists’ Association. It
was sound advice. I was a student in London when I joined and it was the norm shortly after the Second World War for many undergraduates.

Since its inauguration in 1858 the Association has been an egalitarian body with Membership open to all with an interest in geology. This egalitarianism has been our strength and, 150 years later, it continues undiminished. But times change and the rate of change seems now to be particularly rapid. A challenge, therefore, in the years ahead will be to maintain this ethos in an economically uncertain world.

Adaptation to environment is one of the keys to evolutionary survival and, over the years, the Association has weathered several storms. The events of the past 50 years which are reviewed here are no exception and lessons, sometimes painful lessons, have been learned. These, in part at least, should be signposts to guide the future but they can do so only if they are visible. The fruit of hard experience is of little value if it remains hidden in the Association’s formal records. It needs to be accessible to Officers and to Council Members, perhaps as Standing Orders or a Code of Practice. Memory and word of mouth can be notoriously unreliable as a secure means of communicating important information.

The past half-century has been a time of unprecedented and accelerating change, both in the world and in the geological sciences. The concepts of sea-floor spreading and continental drift, for example, awaited formulation in 1958. A revolution in the Earth Sciences came about partially as a result of the development and application to geological problems of a range of instrumental methods of data capture. Increasingly, the data could be readily obtained and the parallel development of the computer enabled them to be processed with astonishing speed. Space exploration and lunar landings added a new dimension and made available information hitherto beyond reach.

This avalanche of data led inevitably to an increase in specialisation, and the meetings of Learned Societies and their publications have reflected this. The Association, however, has been conscious of the need to appeal to a Membership of which a significant proportion are not professional geologists but yet have a deep interest in the subject. During the 1970s the long-established practice of reading, at the monthly Friday evening meetings, papers selected from those accepted for publication in the Proceedings, was changed in favour of inviting speakers to present topics likely to be of general interest, and this proved to be most successful. In times of rapid change it is especially valuable to present and review the results of modern research in a manner likely to have broad appeal, not just to the amateur, but also to the professional whose particular expertise may lie in other areas of geology. Now, the problems and pitfalls inherent in any attempt to popularise science are evident but, over the years, the Association has been particularly successful in presenting topics which have attracted large and, sometimes, overlarge audiences.

Rapid advances in geology have been accompanied, especially in recent years, by more sophisticated methods of presentation and illustration. In addi-
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tion, there are now spectacular high-definition television programmes which can, as it were, transport the viewer virtually anywhere on earth. Such programmes, besides being dramatic and informative, may well provoke some to take a further interest in the subject. Nevertheless, there remains, I believe, much to be gained from the interaction between a skilled lecturer and a live audience, especially when, as at GA meetings, there is opportunity to meet socially afterwards.

This mutual interaction is perhaps at its best in the demonstration and explanation of geological phenomena in the field. From its inception, field excursions have featured prominently in GA activities and remain one of its strengths. As the ease and distance of travel have developed, so a significant proportion of excursions have extended to reach parts of the world that were formerly inaccessible. I hope that, in the future as in the past, the Association will continue to play to this particular strength.

All this progress has been accompanied by an increase in the pace and pressures of life. For those living in and around London, sparing a few hours on Friday evening to travel to attend a lecture can be far from easy and it is noticeable how few younger people are able to be present. These trends need to be monitored so that, as in the past, the Association can be quick to discern the needs of Members and to respond with imagination.

Few would be bold enough to predict what will be the status of geology fifty years from now, but of this we may be certain; there will be changes and developments. As in the past, it is the responsibility of the Trustees who guide and direct the Association on behalf of its Members, to look ahead a few years into the immediate future and to take such steps as may be necessary to maintain its health and vitality. Change is endemic and needs to be accepted responsibly and with flexibility. The challenge is to maintain the enthusiasm, goodwill and sound governance that have brought the Association to its present position and to move ahead with confidence. A source unknown to me puts it thus; ‘You may be on the right lines but, if you stand still, you will be run over.’

Eric Robinson, President 1991–4 (Fig. 26), wrote on both his own time and that of his now deceased predecessor, Beverly Halstead:

‘My years in office were much influenced by what had gone before under the Halstead drive, as described above. Following Bev Halstead wasn’t a difficult line to follow, requiring me to look to my other affiliations and seek to introduce whatever Geology might be relevant, Architecture and Archaeology were there to be canvassed. For buildings, it became the opening for street walks and urban geology, an excursion which had been pioneered by Richard Butler of Mole Valley from time to time. In London, Open House weekends allowed me to access a non-geologist audience and an opportunity to tailor my science for just such new recruits. Street walks have become a GA extrovert exercise, now widely copied by others.'
Contacts with the Youth Hostel Association and the Ramblers’ Association took us to the heart of the ‘Right to Roam’ and ‘Access to the Countryside’ movements, and in particular, the Long Distance Paths registration. Here, we used our Curry Fund to provide the interpretative boards for the South Downs Way as a start, and continue to support organisations such as Sustrans as they open up old railway tracks in geologically interesting regions to walkers and cyclists.

Archaeology has been another fruitful field both for me as an individual and for the Association by transfer when the need arose. Without being unduly rude, archaeologists are pretty poor in their identification of materials’ sources, whether they be ballast or building stone. They need to be coached on the reading of the landscape, that assessment which is natural to field mapping geologists from early days of our practice. My current life as an Honorary Vice President of the Royal Archaeological Institute is one which any average geologist could undertake. I just happen to have followed the Halstead nerve and pushed in, always backed with the knowledge that if I don’t know, there will be Local Groups or Affiliate Societies who will be able to help. The Presidency got me into Westminster Abbey, the British Library, the Drystone Walling Association of Great Britain, the Living Churchyard Scheme (gravestone conservation) in all dioceses, and finally, the Welsh Stone Forum.

There is no future in being introspective in our science. There are considerable returns when we look outwards to other disciplines, and in particular, work which involves young people.’ (Pers. comm. 2010).

Michael Benton, President 2006–8 (Fig.9), wrote the following:

‘The GA faced two key issues during my Presidency; the joy of celebrating its 150th anniversary, and the slightly fraught issue of balancing the books.

(i) GA150. We had many discussions of how best to mark the 150th anniversary of the GA, an organisation that had evolved enormously since it was first established. After compiling a shopping list of dozens of ideas, we rolled out a series of actions, some of which were joint with the celebrations by the Geological Society of its 200th anniversary in 2007, the year before GA’s 150th. First, we co-sponsored the ‘Local Heroes’ initiative with the Geological Society which ran through 2007 and 2008. The inspiration of the event was to select geologists from
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across the UK and Ireland who had made a name and who could be linked to a particular institution or locality. Examples of events included a day of lectures in Leicester to celebrate the discovery of *Charnia* and other Precambrian fossils; a field trip in Yorkshire to look at Quaternary geology; a one-day symposium called ‘Time Lords’ in Edinburgh to celebrate the work of James Hutton (1726–1797) and Arthur Holmes (1890–1965), and a session in Bristol on ‘How volcanoes work’, connected with George P. L. Walker, then an Emeritus Professor in Bristol. [A full list of these events is in Appendix 1.] Second, we revamped the GA website. The current version was launched a few years before, and it was revised and given a fresh, modern appearance so we could offer more services. It has since been further improved as: http://www.geologistsassociation.org.uk/. Third, we rolled out a major educational initiative called ‘Your Planet Earth’. This provides talks and practical activities to be taken into schools by students or any geologist, to interest them in current earth science topics (e.g. climate change, dinosaurs, volcanoes, energy reserves). I raised £25,000 from Shell which covered the costs of a series of students and others to produce talks aimed at two age groups, 7–9- and 14–16-year olds. We now have 17 talks and associated materials, all freely available at: http://www.earth4567.com/. They have been used widely by teachers and students in the UK, USA, Canada, and Australia - a kind of lasting legacy. The fourth initiative was to find ways to make the GA’s archive of photographs more available. This remarkable collection of photographs, dating back to the 1850s and 1860s, shows geologists and field parties over the years. Archival advice was sought, and the photographs have been scanned and copies made available. The original photographs have also been cleaned and catalogued in order to make sure they survive and are used and enjoyed to the maximum extent.

(ii) *Balancing the books.* The constant worry throughout all my time on GA Council was how to balance the books. Certain costs were rising inevitably, including the cost of running an effective office, running a strong talks programme, and publishing a journal. Other costs were minimised by the use of voluntary enthusiasts, who lead field trips, look after the library collections, and provide advice. In the end, the long-term trend of slowly declining membership meant we had passed the critical level of some 2000 fully paid-up members required to keep us afloat. We reluctantly decided to hawk around our best asset, the *Proceedings*, and had strong indications of interest from several publishers. We had two objectives, (1) to stabilise the financial position of the Association, and (2) to make the back-run of the journal, all 119 volumes, available online and in perpetuity. We could only see the demand for a paper journal continuing to decline, and pushing up the subscription level so a declining number of people supported it was not an option. Further, it was proving hard to attract suitable contributions from working geologists. In the end, Elsevier made the most attractive offer. They scanned the entire back-run of the journal and made it available online, they offered to manage a slick and effective online editorial process, they offered to allow the journal to grow in size without penalty and at a fixed sub-
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Subscription cost to the Members, they offered to pay the GA an annual fee for the privilege of being our publisher. The annual fee more or less offset the cost of producing paper copies of the journal for the membership and so removed the pressing financial problem. Further, Members now receive twice or three times the number of pages, many in colour, and the editor, Prof. Jim Rose, is receiving ten times as many submitted manuscripts as before."

The Curry Fund

As has been mentioned above, Dennis Curry generously marked the GA centenary in 1958, by giving (in 1959) 10,000 Ordinary shares (nominal value 5 shillings (£0.25); market value 14 shillings (£0.70)) in Currys Ltd to the value of ~£14,000 in 1959 on the understanding that they would not be sold but the dividends would constitute an income that could be used in any way that Council decided. The shares and dividends were referred to in the Annual Accounts as the ‘The Curry Fund’. The income was used in various ways to help the GA. With a bonus issue of shares in June 1981, the holding was then worth ~£100,000. In 1984, a successful takeover bid was made for Currys by Dixons (now Dixons Retail), but the GA did not sell its shares until after the bid was successful, and Curry himself recommended selling. The sum raised was ~£350,000 and was used to establish an investment portfolio to support a grant-awarding fund. Council originally planned to call this grant-giving fund ‘The Curry Fund’, but Curry, always a very modest man, was reluctant and the name ‘The Geologists’ Association Fund’ was initially chosen. In 1988, Council, with Curry’s blessing, formally renamed the fund ‘The Curry Fund’. Curry himself resolutely refused to express an opinion as to what the Fund should support, insisting that it be left to the Council to decide. Council specified several objectives for the use of the income, all related to geology and conservation, while the capital was intended to be maintained as much as inflation would allow. The purposes decided by Council in 1985 were:

(a) To provide support for Geological Publications (including film, video and television productions). Such support shall be available both for publications of the Association (other than the normal costs of the Proceedings and Circular) and for publications of other organisations.

(b) To provide support for Geological Conservation. Such support shall be available to organisations (other than the Association) undertaking purchase of geological sites for purposes of conservation, to organisations undertaking the clearance, maintenance and recording of sites and to museums responsible for the curation of geological material.

(c) To provide contingency funding, either to supplement support provided in accordance with (a) and (b) above or, to support such other initiatives and developments as Council may think fit, including awards to individuals.

It must be recorded that the dedication of many members of the Curry Fund Committee has been quite remarkable. Up to 2008, Robinson and Green (Fig. 27) had both been involved for 23 years, the latter mostly as Treasurer;
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there have been only two Secretaries, Michael Bamlett (1986–1994) and Susan Brown (1995–); one Minutes Secretary, Sheilah Dellow who served for 22 years (1986–2008), while Fuller with 18 years, Greensmith with 15 years, and Larwood with 13 years, all exceeded 10 years’ service.

The most contentious issue from 1984 onwards was whether some of the income should come to the GA itself. Green (CM; Paper of January 22nd 2000) estimated that in the period 1982–4 immediately prior to the Dixon bid, Curry dividends constituted 15% of the total GA income. However, in drawing up the 1985 rules Council excluded direct subsidy of the General Fund. Subsequently, as the General Fund ran into perennial deficits in the 90s, the cost of Guide production from 1998 (allowed under (a) above) and other GA activities (allowed under (c) above) were met by the Curry Fund. Green estimated that in the three year period 1998 to 2000 alone, a total of no less than £60,000 had been drawn from the Curry Fund to support GA initiatives, including Earth Alert, the External Affairs Officer and the publication of Guides. Clearly revised rules were needed to both restrain GA demands and yet to ensure significant support for the General Fund. So in December 2000 (CM), it was agreed by Council that up to 25% of the Curry Fund income should be allocated to the General Fund. Guide production was usually given first priority. In February 2004, Council agreed that expenditure of the 25% should only be for specific purposes as approved and minuted by Council, that unspent monies from one year could not be carried forward into another, and that the 25% was to be based on the audited accounts of investment income of the Curry Fund for the previous year, so would not be available to allocate until after the AGM in May, at which the accounts are approved.

From 1986–2008 the Fund dispersed ~£500,000 in grants and loans, many, but not all, to bodies and causes outside the GA, but also to the GA. Green (2007) gave an expanded account of the above together with more details. In this he showed that in the 21 years 1986–2007, the 145 awards for Geological Conservation were 37.0% of the sum dispersed, 151 awards for Geological Publication were 34.2% of the sum dispersed and the balance (28.8%) went on Discretionary awards.

Since the receipt of the capital sum of ~£350,000 in 1984, management of the Curry Fund was initially by J. David Rolls (for the GA) and James Capel,
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stockbrokers, with virtually all the capital invested in a spread of equities, instead of one equity (which the Curry shares had been). In October 1991, Rolls suggested that James Capel be given discretionary powers to buy and sell, monitored by a small group of three, Rolls, the Treasurer (Green), and one other. In fact, it fell to a reluctant Clive Bishop to join in monitoring James Capel. James Capel charged high commissions and achieved poor return and when Dr Rhys Glyn Davies (1923–2010), who had professional investment experience, became Treasurer, Capel was dismissed in 1995. Davies and the auditor, endorsed by Council, chose Schroders, who charged the least commission for charity investment listed in the Financial Times and, in addition, allowed switching between their Equity Charity and Fixed Interest Charity Funds with no commission at all. A small investment committee, chaired by the Treasurer, resisted some persistent pressure by certain Members to invest the Curry capital entirely in equities, opting for three quarters (£300,000) invested in the Schroder Charity Equity Fund (EQ) for growth and some income, and one quarter (£100,000) in the Schroder Charity Fixed Interest Fund (FI) for income, and these two Funds provided most of the income. Extra income came from donations, bequests, and interest on the unspent income (Personal comm., R. Davies, Dec. 3rd 2009; Annual accounts).

In 2000, near the top of the Market boom, both funds were fortunately equalised under Leake, which guaranteed a relatively high and stable income for the following decade, despite the dismal performance of the stock market. A summary of the yearly values of the two Funds and the expenditure and total income received, i.e. total interest received from all sources each year, plus donations and bequests, follows (Table 4). It can be seen that the principal income came mainly from the FI Fund which also held its value to 2008 better than the equity Fund.

In 1971 the members of a GA excursion to Bulgaria subscribed to establish a fund to provide small grants to geologists who had assisted the GA in some

Table 4. Returns to the Curry Fund from Schroder Charity Investments

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<tr>
<td>EQ £k</td>
<td>306</td>
<td>346</td>
<td>402</td>
<td>512</td>
<td>412</td>
<td>303</td>
<td>262</td>
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<tr>
<td>FI £k</td>
<td>103</td>
<td>101</td>
<td>105</td>
<td>104</td>
<td>115</td>
<td>304</td>
<td>297</td>
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<tr>
<td>Income £k</td>
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<td>31</td>
<td>43</td>
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<td>40</td>
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<th>Year</th>
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<tr>
<td>EQ £k</td>
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<td>226</td>
<td>242</td>
<td>284</td>
<td>314</td>
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<td>232</td>
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<td>FI £k</td>
<td>305</td>
<td>295</td>
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<td>Income £k</td>
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<td>Expenditure £k</td>
<td>25</td>
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EQ, Schroder Charity Equity Fund; FI, Schroder Charity Fixed Interest Fund.*These years had exceptionally high donations plus bequests, amounting to £12k each year. Unspent income was kept on deposit, earning interest and helping to maintain the real value of the Curry Fund. The yearly total value of the Curry Fund is in Table 1.
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way, and were visiting the UK from countries abroad from which it was difficult to bring funds into the UK. This fund, named *The Visitors Fund*, was accepted by Council in June 1972 but transferred to the Curry Fund from January 1st 2006 when it then amounted to £1541. This was because the grant-awarding Curry Fund committee was better able to assess any applications than Council.

**Finances**

Mr Leslie John Pitt, the Treasurer (1953–9) who supervised the finances of the centenary celebrations in 1958, resigned in 1959 and was succeeded by Montford (Fig. 11), who took early retirement from the Board of Trade in order to have more time for his new duties (FHM 1981). Montford served as Treasurer in a masterly fashion for nine years until he was elected President in 1968. As Treasurer he simplified the form of the Annual Accounts; he arranged for the voluntary registration of the GA in November 1964 under the Charities Act 1960, leading to the widening of the permissible range of investments, the abolition of the offices of the two Managing Trustees, as already detailed, and he had the knack of attracting money to the Association.

Before the GA had an office in Burlington House, it made use of the Geological Society’s lecture theatre, Council Room and Lower Library for part of a day at a nominal charge, e.g. in 1963 it was £35 for the year although exceptionally in 1963 the GA also responded with a one-off donation of £200 towards renewing the heating system in the Geological Society (CM, April 26th 1963).

The serious financial problems of the 70s and some of the aftermath under Negus, Treasurer 1979–88, have been dealt with already but, in addition, during the Presidency (1984–6) of Anthony John Paynter King (Fig. 28), an attempt was made to reduce the number of Members who persistently paid months late.

On October 12th 1984 at a SGM, action was taken to try to recover some of the office and postage costs of chasing such Members. A £5 ‘restoration fee’ was introduced for those who had not paid by April 1st and came into effect in 1985.

Green, who followed Negus as Treasurer for five years (1989–94), laboured under horrific rates of inflation and the removal of both the income and the equity capital growth which had accrued to the General Fund before the separation of the Curry Fund. In *Circular* 881 of August 1990, he summarised the dilemma of the GA income being essentially 30% from subscriptions, 38% from investment income and 30%
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from publication sales, with the high investment income only being possible at the expense of capital growth, as the figures in Table 1 show for the General Fund 1989–94; a problem outlined further below.

Dr Rhys Davies (Fig. 29) became Treasurer in 1994 (Leake 2011). His term was marked by four major achievements for which he must be given great credit. First, drawing on his investment training (he had taken a course in the subject) and experience, he improved the GA investment strategy, as for instance (noted above), regarding the Curry Fund. Secondly, in 1995, he negotiated a Public Indemnity insurance package with Zurich Municipal to cover not only the liabilities of GA field excursions but also those of affiliated Regional Societies and GA Local Groups, who paid less than a quarter the premium that they would have paid insuring themselves individually because of the smaller numbers involved.

This made affiliation, at a fee at the time of £20, very attractive, saving Groups ~£100 each per year. Thirdly, he arranged in 1997 for the GA to be registered for VAT, which enabled a repayment of £18,858 to be claimed (and obtained!) over the preceding 19 years, just before such reclaims became limited to no more than three years. Finally, he also negotiated with the Charity Commission to get approval in 1997 for the Trustees (the Council Members) to be covered by Trustee Indemnity Insurance, a sorry sign of the times that after ~140 years without cover or problems, certain Council Members felt they should be insured against being sued for any Council decision (CM).

However, Rhys Davies became Treasurer at a difficult time. First, a small group of Members harried both him and his predecessor, Green, to invest more heavily in equities to achieve capital appreciation and offset roaring inflation. Both Treasurers, however, appreciated not only that the prime need of the GA was for income, but that the risks attached to equities were greater, as the post-Dotcom boom, the 2008 meltdown and indeed most of the post-2000 years, were to demonstrate. Nevertheless, those favouring equity investment, such as Hancock, whose investment expertise benefited the Association, were correct up to 2000, if maximum assured income was not essential and selling and buying could be achieved quickly, which was however, difficult for the GA. Second, inflation provoked a period of GA deficits. Right from his first Council meeting as Treasurer on May 6th 1994, when he reminded Council that there had been a
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deficit of £4,700 in 1993, Davies was blocked from increasing the subscription, which was required, presumably partly because a large (31%) increase from £16 to £21 had been agreed in 1993 for implementation in 1994, before he became Treasurer. Two months later, on July 1st 1994, with a deficit budget laid before Council he stated, ‘Ways must be investigated urgently to improve the Association’s income’. By November 4th 1994, he repeated his warning given at the previous Council meeting (October 9th) that the Association was into ‘crisis time’, but the Council did not act on his pleas and the deficits increased (CM). By 1996, he estimated (Pers. comm.) the subscription for Full Members needed to be at least £27 to balance expenditure, when it was actually £21.

Eventually in 1997 with Council still not agreeing to increase the subscriptions, Davies resigned as Treasurer. Leake (Fig. 30) was asked by Stoneley to become Treasurer, perhaps because in his 11 years’ previous experience as Treasurer of the Geological Society he had never reported a deficit, a record he was not able to repeat in his 11 years as Treasurer of the GA. He became Treasurer in May 1997 but, from January 1999 to October 1999, although still Treasurer and in close email contact, he was lecturing in Canterbury University, Christchurch, New Zealand and then was in Western Australia, commitments entered into before agreeing to be Treasurer. Bill French, who had been Treasurer of the Geological Society from 1985–89, served as Acting Treasurer in his absence.

Council reluctantly approved the new Treasurer’s unequivocal proposal to increase the subscriptions from £21 to £24 in 1998, an increase needed because the preceding five years (1992–7) all returned deficits, ranging up to £20,000 in 1995. Even with the exceptional one-off windfall of £18,858 of previously unclaimed VAT, 1997 saw a loss of £4,681, showing the underlying deficit was by 1997 exceeding £20,000 a year, or £10 per Member per year. Although some of the 1997 loss was due to exceptional items (maternity leave cover; two decennial indexes to the PGA), others such as the costs of producing the Circular and Guides, were potentially recurrent. The Guide costs alone exceeded £20,000, being £8,000 over budget. The underlying seriousness of the deficit was confirmed when, despite the £3 subscription increase, the 1998 surplus of £11,201 was only achieved by a generous bequest of £15,000 from James Francis Berry (1922–1998), without

![Figure 30. Prof. Bernard Elgey Leake, Treasurer 1997–2009.](image)
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which there would have been another deficit. Despite a rigorous reduction in expenditure (as outlined below), further subscription increases to £26 in 1999, to £28 in 2000, and then to £34 in 2003, were unavoidable. The finances then passed into surplus and some of the accumulated losses began to be repaid. Nevertheless, as Leake’s report (CM) to the May 2003 Council stressed, with wage inflation at 3.5%, the General Fund of ~£212,000 needed to increase by ~£7,400 a year even to maintain its real value. Despite the resumed fall in the number of Members after the last year of the recruitment programme (1996) the Council continued to accept the Treasurer’s advice on subscriptions and they gradually increased to £40 in 2007. They were then maintained at that level for several years, partly by subsidising the General Fund by drawing on the new bequest of the Wyley Fund. It is notable that the 90% subscription increase from 1995 to 2007 was matched almost exactly by a 90% increase in salary costs over the same period, plus a marked decline in Guide sales.

Although £40 in 2008, the sesquicentennial year, seems an enormous increase from the £1 of 1958, it is in fact close to, or even below, wage inflation over those 50 years and far below house-price inflation. Thus, in 1957, a PhD with two years’ postdoctoral research experience, would be appointed an Assistant Lecturer on an annual salary of £650, which multiplied by 40 equals £26,000. Most such appointments in 2008 would have been close to or above £30,000. In London, wage, travel, and house price inflation has substantially exceeded the national average inflation figures for many years. The Council and the 60+% of GA Members living outside the metropolis, often failed to recognise this. Similarly for years, postal and publication costs nationally exceeded national average inflation and all these figures adversely affected the GA with its heavy reliance on publication, postage and London staff costs. Although the subscription remained at 10 shillings or 50p from 1858 to 1952, it has to be remembered that the GA had neither paid staff, nor a permanent office, and was often charged little for lecture room use and many lecturers made small or no expenses claims, so the main outgoing was the cost of publishing the PGA at a time when postage and printing charges were very low. Furthermore, many of the PGA copies were exchanged for other journals which saved library expenditure. The pricing and accounting of everything connected with Higher Education is a relatively recent phenomenon. In short, the financial problems basically stemmed from inexorable inflation, keeping abreast of which was especially difficult in London.

The loss of ~15% of the General Fund income that had, prior to 1985, come from the Curry Fund, was a perennial sore, only corrected fully in 2000. Moreover, after 1998, the progressive loss of corporation tax recovery on equity dividends for charities markedly reduced the income from investments to a near 40-year low, making it imperative to maximise tax reclaim through the Covenanting or Gift Aid schemes.

Although the Covenanting scheme, whereby Charities could reclaim the income tax paid by those covenancing to pay either their subscriptions or dona-
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tions or both for some years, had been in existence for many years and had been used by the GA, it was not until 1991 that a call was made for a Covenant Secretary and a concerted push made to get more Members to join the scheme. However, it was not until Prof. Eric Harold Timothy (‘Tim’) Whitten (1927–) took over the running of the scheme as Covenant Secretary in 1995–6 that the income reclaimed by the GA became significant. Whitten did a superb job, resigning after dealing with the year 1998, to be succeeded by Crocker, who has since carried on most successfully. The scheme later mutated into the Gift Aid programme and the sums reclaimed increased to a maximum of £11,465 in 2004, after which they declined somewhat as the membership fell, but were still substantial.

Leake’s early attempts to bring the finances into the black (Circular 929; August 1998) included introducing, in 1999, the use of Direct Debits to replace Bank Standing Orders, which became, with near-annual subscription increases, more trouble than writing cheques, whereas when increases were infrequent, Standing Orders then saved time and effort. Moreover, a number of Members forgot they had partly paid by Standing Order and paid the correct amount by cheque, thus requiring laborious refunds! Even in 1990 fewer than half the Members paying by Standing Order paid the correct amount (CM, March 2nd 1990). Prices of all Guides were raised, as some were even being sold below cost price; the 1999 trade price of the PGA was raised 9% from £101 to £110, which was still cheap compared to all commercially published scientific journals and annual increases in price followed to offset inflation. The print-run of PGA was reduced so that late payers (after June) were no longer guaranteed a PGA copy, (although in practice no one was so denied), thus saving paper and printing costs. Another innovation, approved at a SGM following the May 2001 AGM and implemented in November 2001 for the 2002 subscription, was to change the date at which the subscriptions became due from January 1st of the year concerned to the preceding November 1st. The reasons given in Circular 945 for this were: (1) 1st January is a most inconvenient date for the office because it is closed over the Christmas to New Year period and when it re-opens a great pile of mail causes delays in processing; (2) because of this, chasing those who have not paid promptly is delayed; (3) the GA bank account is at its lowest just as end-of-the-year bills become payable, causing a drawdown on the Deposit account and a significant loss of interest over the Christmas to New Year period; (4) many Members do not find sending their subscription convenient at this time with all the bustle and expense of Christmas; (5) the turbulence of the Christmas mail is not conducive to trusting cheques in the post; and (6) with an earlier payment date, the office would be able to complete the bulk of the paying-in before Christmas. In addition, the interest obtained from the two months of extra time for the subscriptions to be on deposit minimised the increases required in the subscription rates.

By the early 2000s, it was clear to the Treasurer that the finances could not be brought into even modest surplus without further cost reductions and income increases, quite apart from subscription increases. A major programme of econo-
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Susan Brown, Bernard Leake and, later, Dr Graham Mervyn Williams, sought to maximise the income from the GA’s investments, including all the Funds. Another way of increasing income was to reduce the sum held in the GA’s Deposit account with the Royal Bank of Scotland (RBS) and to put the funds released to where they yielded more than the 1% below the Base Rate given by RBS. The arrangement whereby RBS automatically transferred any sum in excess of £1,000 in the RBS GA Current Account into the Deposit account was unchanged, but shrewd budgeting, after some years of experience with the cash flow throughout the year, enabled a better return to be obtained on the released funds while still investing ‘safely’, such as in the non-equity funds of the Charities Official Investment Fund. The move to subscriptions being payable on November 1st from 2001 increased the sums released for investment.

Later economies included: charging £1 per person for tea or coffee before the Friday lectures to help defray the £2, (but £3 by 2009) per person charge made to the GA; charging non-members for attendance at the Friday lectures in order to encourage them to join as Members; and dispatching Council minutes, papers and agendas entirely by email as postage charges continued to rise steeply. The high charge to the GA for biscuits, tea, or coffee before meetings was an indirect result of the decision by the Geological Society to dispense with resident Housekeepers in order to use the released space as offices. As a result, the Geological Society had to engage outside caterers under a contract that guaranteed them all the catering. Since about 90 GA Members commonly take such refreshment, the annual bill exceeded £2,000, or well over £1 per GA Member, but it seemed unfair that those who lived too far away to attend the lectures, should fully contribute to these costs as part of their subscriptions. A summary of 18 economies, or increases of income, made was given by Leake to Council in April 2006 (CM).

By 2003, the combined effects of economies and increasing the income had brought the finances into comfortable surplus and some repair of the inflation-ravaged awards was set in train. In May 2004, Council agreed to transfer £2,000 of the £19,748 surplus into the capital of the Foulerton Fund, which had become so inadequate that it required perennial support from the General Fund even to provide a £100 cheque to the awardee! Similarly, inflation had eroded most of the other Funds and, when a bequest of £5,000 was received from former President, Muriel Arber in 2004, Council agreed to it being added to the Baker Fund, which was renamed the Baker-Arber Fund. A summary of the General Fund is given in Table 1.

Underpinning all the finances are the Auditors, to whom most Members give little thought or attention. Until the crisis of 1976–8, the GA’s accounts were scrutinised by two Members who had some financial expertise. The 1976–8 crisis brought home the necessity of a more professional audit and, according to Circular 818 (p. 24) Norton Keen of London dealt with the 1979 accounts, and then Fraser Keen of London (who were then the Geological Society auditors), acted as auditors from 1980 until 1987. From the 1987 accounts to those of 2008,
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there was one man whose courteous, efficient and economically priced service as GA auditor was of great value, but whose contribution could easily be overlooked: Maurice Whiteley (1950–), Chartered Accountant, originally working from Taunton, but later from Watchet in Somerset. He was auditor continuously from 1987 to 2004, when new onerous regulations made it uneconomical for very small firms to continue to provide this service. The GA then went to Simpkins Edwards of Exeter for the 2005 audit, on the continuing basis that auditors outside London charge less than those in London. Nevertheless, the auditing costs nearly doubled in three years from £1,500 in 2004 to nearly £3,000 in 2006, despite most of the ‘donkey-work’ still being done by Whiteley, acting for Simpkins Edwards. So, Whiteley has been involved with the GA’s finances for over 20 years and the conclusion of his sole responsibility to 2004 was marked with a small ceremony including the presentation of a plaque followed by lunch, as noted in the 2006 GA Magazine 5, (2), p. 5.

RockWATCH, later Rockwatch

Susan Brown, Rockwatch President (2002–), has written a full account for the record of the beginnings and first years of RockWATCH:

The Formation of RockWATCH. RockWATCH, the junior club of the Geologists’ Association (GA), was the brainchild of the then President of the GA, Beverly Halstead. It was during early 1990, that ‘Bev’ first mooted his idea for setting up a junior group of the GA. His enthusiasm and energy ensured that the club was established before his untimely death on April 30th 1991. Halstead convened a working party during 1990 to look at ways of setting up and running such a club to encourage, support and promote interest in geology amongst young people.

The initial GA working party included Beverly Halstead (Convenor), Mike Harley (English Nature representative on GA Council), David Horsley, ‘Dick’ Moody, Diana Smith (soon to become Hawkes), Susanna van Rose and Ed Jarzembowski. The group met several times during the early part of 1990 to discuss strategy for developing the junior section and, having agreed that a junior section was wanted, then presented their proposals to the GA Council at its meeting on June 1st 1990 for approval. Council agreed to the proposals and agreed to the formation of a Steering Committee with Hawkes as Chairman.

The Steering Committee then set to work in earnest. Harley initiated contact with WATCH, the junior section of the Royal Society for Nature Conservation (RSNC) and its associated County Wildlife Trusts. Wayne Talbot from WATCH was co-opted onto the GA Steering Committee and a joint meeting at WATCH headquarters in Lincoln soon followed. This fortuitous liaison between the GA and the RSNC came about because the RSNC was keen to add the Earth Sciences to its stable of WATCH activities, particularly since the subject area had recently been included in the national curriculum, and the GA was keen to encourage and foster young people’s interest in geology: a perfect match. At
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the Lincoln meeting on September 5th 1990, it was agreed that the GA Steering Committee would become a joint GA-WATCH Committee and by this time, Mary Cornwell from WATCH had joined the group and Mrs Jenny [Anne] Halstead, from the GA, had also been co-opted. A draft Agreement was thrashed out and much work was done on developing GA activities to join those already in place from WATCH.

The formal agreement between the GA and WATCH was signed on November 2nd 1990 by GA President Dr Beverly Halstead and Mr Wilf Dawson, Chairman of the WATCH Trust. RockWATCH was born! But of course, there was much to be done before the club could be launched. This signing was depicted in the first photograph on the front of a Circular (Fig. 31).

At the GA Council Meeting of November 2nd 1990, the President circulated copies of the Agreement between the GA and WATCH and thanked the working party for their efforts which had culminated in the formation of RockWATCH, a junior club of the Geologists’ Association. The advantage of the joint arrangement meant that the administration would be managed by WATCH and no financial input was required from the GA.

The new Committee continued to meet to plan the launch of RockWATCH and to develop activities, the magazine, various projects and a starter pack. WATCH agreed to look for sponsorship and thought some £80,000 would be needed to set up the club. Annual subscription was set at £5.00 to cover an initial entry pack including three magazines per annum. Discussions on the cost of extra subscription required by RockWATCH members to become members of the Wildlife Trusts and, or, GA and for WATCH members to have dual WATCH-RockWATCH membership were on-going. Robinson joined the group for occasional meetings during this period and came up with ideas for a range of items to be included in the War Memorial Survey, which was to be a launch feature of the club.

By early April 1991, the Steering Committee realised that sponsorship, preferably from one organisation rather than several, would need to be increased to £100,000 to ensure the success of the venture. After Beverly Halstead’s death, the Committee vowed to maintain the impetus that he’d generated by the formation of a junior geology club and this sentiment was echoed by the GA Council.
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There was some discussion at the May 1991 Council meeting, that should sponsorship not be forthcoming, the GA might proceed with the venture under more modest terms than those already proposed.

By the July 1991 Council, the Steering Committee Chairman, Hawkes, announced that Sir David Attenborough had confirmed his support for the new club and would do the launch. There was still some concern that sponsorship had not been secured, although a request had been made by WATCH to an aggregate company whose response was guardedly favourable. Hawkes wrote a RockWATCH report, dated October 11th 1991, which was tabled at the November Council. In this she mentioned the arrangements for the press launch, scheduled for October 30th 1991, and reminded Council that in the original Agreement, WATCH had undertaken to deal with the administration of the club, to supply promotional and recruiting material and to produce the magazine. The GA agreed to supply geological information and support. At the time that the October 11th document was written, it was known that the aggregates company had turned down the opportunity to sponsor RockWATCH, to everyone’s great disappointment. Hawkes made it clear that the venture would still go ahead, but that the scale and level of activity would have to be reduced to match available support. From the initial optimism at the start of the venture, much had changed, including the national recession and the death of ‘Bev’ [Halstead], the prime mover and enthusiast for setting up a junior club. In fact, the GA came to the rescue for publication of the first issue of the magazine, thanks to an interest-free loan of £2,000 from the Curry Fund. WATCH, too, gave enormous support, covering the cost of survey forms, staff travel time and expenses, design and production of display panels, the logo and the launch. Hawkes was convinced that RockWATCH would succeed as evidence mounted that there was enormous support for such a club.

A recruiting exercise in the form of 30,000 survey forms was sent out to all the then current WATCH members asking where they could see rocks and to send in their findings. The survey form included a tear-off membership application form for RockWATCH and the mailing included an interview with Sir David on RockWATCH. Hawkes also reported that the first new member packs, including a membership card, badge and magazine, were due to be despatched in March 1992. The November 1991 Council minutes recorded that Hawkes had expressed the hope that Local Groups would act as contact points for RockWATCH.

At the time of the Hawkes October report, the Steering Group consisted of: Hawkes (Chairman), Robinson (GA President), van Rose, Horsley, Mike Harley, Jarzembowski, Moody, Cornwell and Talbot. An Editorial sub-group had also been elected, consisting of van Rose, Moody and Talbot, but a note was made that this might change post-launch. A full account of the Rockwatch magazine has already been given above.

Sir David Attenborough launches RockWATCH. RockWATCH was launched by Sir David Attenborough, then President of the RSNC and Robinson, President
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of the GA, on October 30th 1991 at the Linnean Society, Burlington House, London. Sir David also agreed to conduct a field trip for the new group which he did. The press responses to the launch were very positive and the hope was that this would greatly encourage new members. It did!

**Early sponsorship and development.** The outcome of the approach to British Gas (as it was then known), for sponsorship, was still awaited. The contact for this was Dr Michael Oates. It was at this time that the formal RockWATCH Management Committee (RMC) was set up, comprising, Hawkes (Chairman), Senior GA Council Representatives: Green and Harley; WATCH Representatives: Cornwell, Talbot and Deborah Bright; Minutes Secretary: Horsley; Editorial Sub-Committee: van Rose, Doyle and Moody (by correspondence). Council approved the proposed structure.

At the Council meeting of March 1992, Oates announced that British Gas had just agreed to sponsor RockWATCH to the sum of £30,000 per annum for three years. He would represent British Gas on the RMC. Other RockWATCH news included activities, publicity and comments on the draft copy of the first issue of the magazine circulated for comments, which were favourable. Doyle noted that the first three draft issues of the magazine had been approved by the Editorial sub-group for scientific accuracy and presentation and the first issue was published in the spring of 1992. 260 youngsters had joined the club prior to its launch and Hawkes reported to the May Council that 500 members had received a copy of the first issue of the magazine. The GA President, Robinson, noted the need for continuing support for RockWATCH and proposed to make an appeal for membership through an article in the GA *Circular*. Hawkes, on behalf of the President, made a presentation to Oates in appreciation of his work in securing the sponsorship from British Gas.

In the meantime, the RMC continued to meet and in the light of the significant sponsorship from British Gas, had begun to plan a new development strategy for the club. At the December 1992 Council, Oates expressed the concern of the RMC that the club membership was still at 500, and the need for the parent WATCH organisation to promote RockWATCH was highlighted. Harley tendered his resignation from the RMC and Hawkes agreed to take his place as the GA representative on the WATCH board. It was announced at the February 1993 Council that Dr Roger Mason would be joining the RMC. Oates was delighted to announce at the May 1993 Council, that Sir David Attenborough would lead a RockWATCH field meeting later that year, on August 11th, to an old disused quarry with cephalopod beds. It was hoped that the event would boost RockWATCH membership with good press and media coverage. Mason also reported to the Council that the RMC had achieved considerable progress in its efficiency and outcomes. It was actively looking at ways to attract more sponsorship when that from British Gas would cease in mid-1995. The new GA President, Green, had agreed to attend a meeting of the RMC. By the November 1994 Council,
Green, noted that RockWATCH membership had increased to *circa* 900. He also informed Council that sponsorship was urgently needed to support the club once the British Gas support ceased, a matter of a few months away, and that the GA was not in a position to offer financial assistance.

As evidenced by the GA Annual reports, it was during 1994 that RockWATCH really got into its stride. The Rockhound of the Year award was started, making an award for the best description of a collection of rocks, fossils and minerals by members. John [Ericson] Aram, a Lincolnshire geologist and WATCH volunteer, was responsible for organising many of the field trips, including one to Writhlington National Nature Reserve and one to Charnwood Forest to look at Precambrian rocks. It was here in 1957 that a 16-year-old Roger Mason was one of the first to spot fossils on some of these ancient rocks; one of which has since been named after him – *Charnia masoni*. RockWATCH featured in a number of national events including the “Passport to the Planet”, Open Days at Jodrell Bank and at the British Association for the Advancement of Science meeting at Loughborough. At BBC TV’s “Big Bash” party, RockWATCH displayed models of erupting volcanoes on the Blue Peter stand televised from the NEC in Birmingham. The RMC welcomed Mrs Catherine Petts, a British Gas representative, as Chairman during the year. Preparations were well advanced for a new starter pack for members, whose number had increased steadily to the 1,000 mark, no doubt helped by press, radio and TV coverage of some of the RockWATCH events over the year.

In the GA Annual Report of 1995, Mason noted that British Gas renewed its support for RockWATCH during the year which allowed the club to expand its activities. Petts of British Gas continued as chair of the RMC and Oates continued to organise many of the club’s activities. By August 1996, the *Rox File* starter pack was ready to be launched for new members. This A5 loose-leafed file contained a set of basic geology fact cards, a geological map of the UK in colour, a magnifier, a grain size card, membership card and RockWATCH badge. From this point, each issue of the magazine contained two new fact cards so that members could build up their own geology “note book”. Also in August, during a visit to the UK, [Dr John R.] (‘Jack’) Horner (1946–), the American dinosaur expert who inspired the story of Jurassic Park, agreed to host a day of “Dinosaur Delight” at the Oxford University Museum which was a great success. The club, five years old by 1997, was seeing an increase in members aged 15 and above so, with this in mind, a leaflet was launched offering advice on how to continue geology as an adult, either as a career or a leisure activity. Funding from British Gas continued through its Foundation which enabled government landfill tax to be released to increase the sponsorship. The annual Rockhound Challenge competition continued to attract many entries, with a wider range of categories than in previous years. During 2000, the Millennium year, events included a Dorset Discovery Weekend which was featured on BBC TV’s “Tomorrow’s World Plus” programme, Dino Days in Scarborough and Whitby, a presence at the GA’s Earth
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Alert Festival in Brighton, and another dinosaur event in Oxfordshire which caught the BBC Breakfast News. The magazine expanded to 16 pages and won a prize in the BBC Wildlife Magazine environmental awards, under the continuing Science Editorship of van Rose and Doyle.

All Change! It was during a routine RMC meeting in July of 2001 that the RSNC representatives dropped the devastating news that it was pulling out of the partnership arrangements with the GA for joint management of RockWATCH. This was in spite of the fact that both parties had recently agreed and signed a joint document stating that a period of 12 months’ notice would be given by either party should they wish to opt out of the agreement. The RSNC reneged on that agreement and unilaterally opted out of the arrangement in October 2001. Since the RSNC’s main role was the club’s administration and event planning, there was huge concern within the GA Council that this might herald the end of RockWATCH, especially as its major reason for opting out was financial. The most recent appointments to RockWATCH made by RSNC had been for senior, and thus expensive, staff members, and income appears to have been unable to keep pace with expenditure.

Susan Brown (Fig. 32) was President of the GA at the time this happened and agreed to take on the challenge of keeping RockWATCH, now Rockwatch (RW) running, though she was not at all sure how it could be managed. The GA Council was in favour of keeping RW under the GA umbrella but made it quite clear that there would be no financial support from the parent organisation: RW had to be responsible for raising its own financial support. Thanks initially to the sterling help of Oates, immediate short-term sponsorship was secured which gave us time to keep the club going and begin to plan a future for RW, to be badged as the junior club of the GA. An excellent working party to deal with the immediate issues was formed, comprising Dr Paul Davis, French, Crocker, Horsley (Secretary), Green (Treasurer), Larwood, Oates, Roger [Grahame] Le Voir and our magazine’s science editors, van Rose and Doyle. Geraldine Marshall, who had been appointed as the part-time administrative assistant for RW, agreed to take the minutes on a temporary basis until we were able to constitute a proper management committee at a later date. Susan Brown agreed to act as Chair of the Working Party.

Figure 32. Mrs Susan Brown, Rockwatch Chairman (1998–2000) and President, 2002–; Curry Fund Secretary (1995–) and GA President 2000–2.
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Because of the Data Protection Act, access to the membership database held by RSNC was not allowed and one had to be started from scratch. The winter 2001 issue of the magazine was not published at all, the annual Events Booklet was published late, the annual competition (the Rockhound Challenge) prize-giving ceremony was delayed, but with the help of the management team and Marshall, whose office backup work was essential, RW continued to function. Insurance cover had to be obtained before field trips could be run. These were flagship outdoor activities, and obtaining insurance cover was not without difficulties as the programmes were for children. Initially, it was agreed not to appoint any staff other than the part-time administrative assistant (subsequently renamed as co-ordinator), who was already in post. The subscription rate was unchanged and the renewal procedure reorganised to a single renewal date each April, making it more efficient and simpler to manage with limited office resources.

By the time of the Working Party meeting of December 12th 2001, sponsorship had been secured from Anadarko, JAPEC, PESGB and Shell and this enabled continued planning. In addition, firm promises from Shell, Amerada Hess, Anglo American and Enterprise Oil were secured for sponsorship for 2002. There was much to do in those early days. What field trips to run, whether to change the competition, how to revamp the web site to take account of the changed management structure of RW and how to manage the physical resources, which had been shipped in bulk from RSNC during the autumn. They almost engulfed the store in Essex which, thanks to Mrs Sheilah Dellow we were able to use free of charge. It took many months to sort through the resources and decide what needed to be kept and what could be dispensed with and Dellow’s help was invaluable in this lengthy task. And it is thanks to her generosity that RW are still able to store our resources free of charge in Essex.

Early issues for the Rockwatch Management Committee. During early 2002, the Working Party Group morphed into a new RW Management Committee, (RMC) keeping the same personnel in the same roles, who had been so effective in managing those early days after the RSNC walked out. Horsley agreed to continue as Minutes Secretary and Marshall was in attendance at all RMC meetings. A new website was established (see below). The magazine got back on track but, sadly, Horsley resigned as Minutes Secretary in 2005, after holding that role since the club’s inception and the RMC presented him with a very fine fossil in appreciation of his support for so many years. Marshall then took on that role and continues today.

Rockwatch Activities. Over the years 2002 to 2008, the programme of events and activities continued to increase in number and scope. Public Family Days were run in museums all over the country, for example, at the Sedgwick in Cambridge, in Canterbury and Hertford, the Manchester University Museum, the National Museum & Galleries of Wales in Cardiff, Bristol, Peterborough, Chester
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and many other museums. RW is also an active partner in Science Fairs and Festivals of Geology in such places as Gosport, Derby, Buxton, Lyme Regis, Southampton University Oceanographic Centre and, of course, at the GA’s Annual Festival of Geology in London.

In the summer of 2002, RW was a major attraction at the GA’s Earth Alert Festival of Geology in Scarborough. This 3-day extravaganza was a highlight of RW activities that year and drew hundreds of visitors to the event. Thanks to a marvellous team of helpers including a number of RW members, visitors had the time of their lives making Jurassic dioramas and fossil replicas, racing trilobites, identifying rocks and fossils and much more. That summer the first members-only weekend field trip was held to the Dorset & East Devon Jurassic World Heritage Coast. This was so successful that it was extended to a full week the following year and would continue as an annual residential course for many years into the future, such was its popularity.

Since 2003 RW has been a regular annual partner with the British Geological Survey (BGS) in Keyworth for its Science Week activities for local schools and in Edinburgh for its Open Day for Families and the general public. In 2005 a “first” was initiated with the BGS to hold a public Family Fun Day at the end of the Schools’ Science Week activities in Keyworth. This has now become a firm fixture in both bodies’ calendars. The day sees many visitors returning year after year, including RW members and their families, some of whom act as helpers and club ambassadors at the event. Another “first” achieved in 2005 were the successful public events run in all corners of the UK in England, Scotland, Northern Ireland and Wales.

Our members-only field trips began to expand during 2003 and we explored many quarries and coastal sites covering a range of periods of Earth history. Especially exciting for the youngsters (and their parents!) were the trips around Scarborough, Oxfordshire and Dorset seeking dinosaur evidence – which to their great delight was found. We also made our first field trip westwards to Wales.

By 2004 RW was really getting into its stride and had attracted some wonderful volunteer geologists to support our increasing number of field trips. The annual week-long residential course in Dorset became a firm favourite with returners and new faces vying for the available places every year. As well as many outdoor activities there were several indoor “firsts” for members including a one day palaeontology course at Bristol University and a Microfossil Workshop in London, both fully booked and with waiting lists. In the early years after RW became the junior club of the GA, there were many “firsts” because the events programme started from scratch in 2001, so it was a steep learning curve as it was unknown what would be popular, would work and be successful, and what might not. The field trip programme has increased beyond all expectation over the past decade and exposures of every geological period from the Ordovician to the last Ice Age have been visited, with the possible exception of the Miocene.
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RW has been extremely fortunate to find so many generous geologists willing share their expertise and enthusiasm with young members and their parents. The field trips are immensely popular and, in spite of health and safety legislation, managers of all the quarries RW wished to visit have granted us permission. Of course, trips are not restricted to quarries. In Dorset most of the work is along coastal exposures, on beaches and up on cliff tops. In Wales upland landscape, deep river valleys, coal mines, open-cast coal pits, quarries, and coastal exposures have been explored. The tiniest of tunnels in a Cheshire copper mine have been crawled through, the Dinosaur Jurassic Coast of Yorkshire examined, geology from boats with underground geology on a Dudley Canal boat, and geology from trains, from London northwards to Warwickshire and westwards through Somerset from Bishops Lydeard to Watchet.

On the last evening of the 2005 Dorset residential course an uproarious time was had with Robert Mash, a (relatively) local author of the extraordinary book How to Keep Dinosaurs [Penguin Books, Harmondsworth, 1983]. Robert joined after supper to talk about his book and sign copies. By 2005, RW members were asked to write articles for the magazine or to help on our field trips. During the following years, significant contributions of this sort came from former members, some of whom were annual competition winners during their Rockwatch membership. Many former members have continued their geological interests, reading the subject at university and becoming professional geologists, or academics or teachers at all educational levels or environmental scientists, for example. Some have been keen to act as mentors for current members and continued their involvement with RW.

The first Rockwatch Field Guide was launched in 2005 on the Fossils of the London Clay on the Isle of Sheppey. It was written by Dr Adrian [Jonathan] Rundle in memory of Austin [George] Lockwood (1929–2004), who had organised many RW events for youngsters in the Ravensbourne area in the early days of RW. The launch coincided with a joint field trip with the Ravensbourne Geological Society to Sheppey to commemorate Austin. Such was the success of this black and white guide, that in November 2006, a “glossy” reprint of it was published for the GA Festival of Geology in London.

By 2005 RW was being invited into primary schools around the country to talk to children about rocks, fossils and minerals and expand their horizons on the natural world and the importance of geology to their everyday lives. The children have been, almost without exception, amazed to be allowed to handle “real” fossils. Susan Brown has found it a joy to share her enthusiasm with these youngsters, most of whom have never before had the thrill of handling fossils and their questions have kept her on her toes.

Then, in 2006, on behalf of RW, Brown signed a Memorandum of Understanding with Dr David Falvey, prior to his retirement as Director of the British Geological Survey [in October 2006]. This highlighted mutually supportive activities, especially in the sphere of Earth Science education and the public under-
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standing of science and is a reminder of how important and helpful partnership working is, especially in the relatively small geological world.

Another highly successful “first” was in 2008 with the first RW Schools’ Conference: “Planet Earth in the 21st Century” for Year 8 and Year 9 pupils. Invited pupils from schools in North and East London heard talks from experts on Energy Supplies, Climate Change and Sustainable Development, topics highly relevant to their futures. The Geological Society hosted the day and provided joint administrative support and the GA’s Curry Fund awarded a grant towards the costs.

This gives a flavour of some the RW activities over the past decade or more. All of our activities are important for RW. Members’ events expose the youngsters to geology in an accessible way, meeting experts in their fields in the field (!), allowing them to experience at first-hand how some of our great museums operate “behind the scenes”, exposing them to research in universities and helping them to share their interests with like-minded people. Our events for the general public expose participants to the idea that geology can be great fun and that learning whilst doing is highly instructive. They also show in many varied ways, just how essential geology (and by inference, geologists) is to the well-being of their everyday lives, for geology, in one way or another, underpins all aspects of the nation’s economic health and welfare.

The annual competition was rebadged as the Rockstar Annual competition in 2002 and sponsored by Anglo American who continue to sponsor it. Initially the prize-giving ceremony was held in a different venue each year, largely to coincide with a convenient location to the Rockstar’s home. Since 2004, it has been held in Anglo American’s rather splendid London offices. One of the company’s geologists gives a talk on his/her work as a geologist, the children are then presented with their prizes and certificates and then there is a delicious lunch for the winners and their families; altogether a marvellous day for everyone.

The website, www.rockwatch.org.uk, another of our “public faces”, was completely revamped by Jack Stafford in 2002 and was managed by him until his death in 2004. Thereafter we continued updating it with some ad hoc help until 2006–7 when our current web manager, Helen Connolly, took over.

Sponsors and Supporters. Since 2001 when the RSNC relinquished its partnership role with RW, the RMC has been responsible for obtaining sponsorship and support to enable the club to continue. In this RW has been successful, but it is difficult to plan ahead for development whilst relying on sponsorship year on year. RW sponsors and supporters have been extremely helpful and have been mainly, although not exclusively, from the oil industry, including Anadarko, Enterprise Oil, Amerada Hess, Shell and Exxon Mobil. The Geological Society, the Petroleum Group of the Geological Society, the minerals exploration company Anglo American and Statoil have all been long term sponsors and supporters. Support has also been given by the Curry Fund of the Geologists’ Association, English
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Nature, the British Geological Survey, some small private companies associated with the geological world and private individuals. RW is really indebted to everyone who has given support because RW simply could not continue without that input. The names of some of the companies and organisations above have changed over time and may not currently be extant, but those were their names at the time they gave their support to RW. In addition there are many people who have given so much time and expertise to help RW at public events, on field trips, with the magazine and in many other ways, or simply given encouragement and every supporter and sponsor is owed a great debt of gratitude.

Finally, RW has come a long way since its launch. There are many former members who are now professional geologists, some of whom return to help on field trips, write articles for the magazine or contribute in many other ways. The club is now well respected in the geological world and it is a great privilege to be associated with it, but above all, it is fun, and amazingly rewarding to see keen young children, with a penchant for fossil collecting, become mature young people, following through their childish enthusiasms to become highly trained professionals launched into the world of work. And for RW, it is wonderful that many former members return and share their expertise and enthusiasm for geology with our current members, following that “true spirit of geology!”

GA Enterprises Ltd

This was a small company energetically championed mainly by Reginald Burman to raise funds solely for the GA by selling small items such as fossils, hammers, hand lenses and geological books, before and after GA lectures, and at Reunions and other GA meetings. It was incorporated on April 25th 1995 and commenced trading on the same day. A small band of volunteers, especially Ms Barbara [Joan] Butler, Dr Lynn Allen, Ms Toyin Solanke and, earlier, Burman and Ms Mary Elizabeth Helena Pugh, ran the company and manned a stall at GA meetings and sometimes elsewhere and served Members with a supply of needed items, but it took 11 years before the GA General Fund received any income from the company, as the meagre profits were used to expand the stock. In 2006 the only dividend to be paid over the years 1995 to 2008 was £500, and on December 31st 2008 the net asset value of the company was £6,898 (all in stock), but it has to be appreciated that the GA had not put any capital into the company; this had been done by the GA Members, especially Burman, who set it up and then gave it to the GA. The specially commissioned GA sweatshirts, T-shirts and GA ties, pin badges etc. not only raised funds, but gave publicity to the GA.

CD-ROM project

While most of this account details progress in various ways, not even the GA could avoid the occasional setback or disappointment. Christopher Green has supplied much of the following record:
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At the GA Council of May 3rd 1996 David Curry (then Keeper of Natural Sciences, Museum of St Albans), first raised the possibility to the GA Council of the GA ‘putting some of its publications, e.g. a guide, onto CD-ROM. It was agreed that this be explored…’. Curry then focussed on putting a field Guide onto a CD-ROM until, on July 16th 1996, he spoke with John Cooper (then Keeper of Geology, Booth Museum, Brighton), who pointed out that field Guides would have a limited appeal ‘and that we should go for putting a regional (Natural Area?) guide on a CD-ROM—it would have a greater multi-media potential and a wider market’. In this enthusiastic letter of July 17th 1996, to Robert Symes the new GA President, David Curry asked for a small GA group to explore the matter and report to the Council, although he also reported even at this early stage, that it would cost tens of thousands of pounds to produce. The intention was for the GA to use CD-ROM technology to reach a wider audience for its geological activities. A committee of Symes, Prof. Alan Richard Lord (1942–), Curry, Cooper and Ms Jennifer Ann (‘Jenny’) Bennett presented a written report to the GA Council in December 1996, proposing a CD-ROM on the geology of the Dorset coast—the Jurassic Coast. This would not replace the GA Guide on the area but complement it, using text, graphics, still images, motion video, animation and sound, and, hopefully, world appeal to many who would not be interested in a conventional field Guide, or even perhaps visiting the area. A demonstration by a company that Curry had contacted took place in Burlington House in early 1997 at a cost, met by the Curry Fund, of £2,938, despite the likely cost of the project being ~£20,000. A subsequent report of a Project Definition Workshop held on May 30th 1997 was written by Curry, the main driver of the project, in June 1997 and presented to Council; with a short update (November 14th 1997), also written by Curry, presented to the December 1997 Council. However, the project eventually fizzled out, defeated by the cost and to a lesser extent, the logistics.

The ‘Way Forward’ Proposals

Both Symes (President 1996–8), and Moody (Senior Vice President 1998) were very concerned that the GA should move forward with more purpose, instigating definite procedures rather than simply reacting to events. Under the direction of Symes (Fig. 33) and then Moody, Council initiated the ‘Way Forward’ project: a root and branch review of all aspects of the GA. The final report was submit-

Figure 33. Dr Robert Frederick (‘Bob’) Symes, President 1996–8. With acknowledgements to the Natural History Museum.
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ted to Council in July 2000, based on reports and recommendations submitted by eight working groups which considered all aspects of the Association. The papers submitted by these groups are preserved in the Association’s office and a summary of the recommendations was published in *Circular* 942 of October 2000, in which Symes wrote:

**THE WAY FORWARD**

In our challenging world today, it is imperative that all organisations such as the Geologists’ Association, spend some of their time and energy in reviewing their activities and methods of working so that the services they offer to the membership are relevant, based on traditional strengths but forward looking and enjoyable. It was with this in mind that in 1998 I asked the GA Council to initiate the ‘The Way Forward’ project. My intention when asking Council to provide ideas was to focus our thoughts on the future success of the Geologists’ Association into the 21st century. At the July 2000 Council meeting the final paper was presented and discussed and Council considers the project to be now completed. All the papers presented and the contained recommendations have been filed in the office for reference by all of the membership.

From the start it was fully agreed by Council that the Geologists’ Association wished to remain an independent organisation and that the present aims and mission statement were still apt and correct for the Association. In its final format papers were received from eight working groups. These were:

1. Membership Review Group
2. External Affairs/Relations Group
3. GA Enterprises
4. Association Publications
5. Library
6. Local and Affiliated Groups
7. Curry Fund Review Group
8. Functions and Services Group

Each of the groups was asked to present papers within an agreed time scale, to present discussion and to make recommendations for the future. Where necessary groups involved a selection of the general membership. This was especially true for the Questionnaire prepared by John Cooper for Local and Affiliated Groups. The major recommendations were:

**Membership Review**
- Clarify all benefits of GA membership. Review of communication lines and media development including the available information package.
- Increase marketing of the GA product especially to students.
- Establishment of Research Seminars/Masterclasses in order to encourage student and wider membership interest.
- This has already been successfully implemented.

**External Affairs**
- Recognised immediate need for an External Affairs Officer—funding to be sought. Jonathan Allison was appointed to the post with effect from 1st
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December 1999 on a one-year contract. Detailed terms of appointment and financing were agreed between the GA and RSNC.

- Need for regional meetings with Local/Affiliated groups to promote GA’s role, (especially as a national organisation). Several national meetings have already taken place.
- Establishment of Reunion and/or meetings in other national centres.

**GA Enterprises**

- GA Enterprises to become primary selling agency for GA products.
- Need to consider funding position and ways to increase organisation and turnover.
- Review of Sales opportunities.

**Publications**

- Association needs to form a Publications Committee with clearly defined management.
- Publications Committee to further develop the *Circular* and *Proceedings* and their marketing whilst exploring new types of publication (electronic etc.).
- A Publications Committee has been established
- Maintain international publication (*Proceedings*).

**Library**

- All agreements with UCL should be kept but reviewed regularly.
- Journals — International exchanges to be maintained.
- Annual budget to be prepared and sent to Council.

**Local Groups and Affiliated Societies**

- Clarity of purpose, role of GA needs to be fully understood and appreciated.
- Overall communication to be improved.
- External Affairs Officer (part of job description will be to liaise with groups).

**Curry Fund**

- To further review rules and mission and the spirit behind the Curry Fund.
- Feedback from successful applicants needs to be organised.
- Clear statement of Curry Fund management and composition. Suggested 3-year term of membership (maximum of 2 terms).
- Promotion of Curry Fund, publication of Annual grant list and further additional sponsorship to be sought.

**Function and Services Group**

- Help booklet to be prepared for use in organising of Reunion or like function. This is now in preparation.
- Produce a written Field meeting Health and Safety Policy.
- Produce a set of advisory notes to assist leaders and organisers of field trips. Now in preparation.
- Council Members and general membership to be further encouraged to pass on ideas for lectures and field meetings.
- It was generally agreed that our lecture and Field Meeting activities provided a well-established, balanced programme of events, appreciated by the bulk of the membership.
I hope that the Way Forward papers will be of considerable use for the future to incoming Presidents and Council as a stimulus for future discussion and action. Those recommendations already adopted have been of considerable benefit to the Association. Council welcomes any points of view on these matters from the general membership. Finally I would like to thank all those who took part in this exercise. I personally consider that the GA is the stronger for it.

Bob Symes August 2000

A considerable effort was expended in following up the various points made above and a clearer idea of where the GA was going was established. Although GA finances eventually forced termination of the post of External Affairs Officer, many of the items noted above, such as the establishment of a Publications Committee, had been implemented or continued to be investigated and discussed by the next President, Moody. For example, he and Susan Brown (Senior Vice-President) toured the country in 1999 talking to Local and Affiliated Groups, as part of the External Relations Review (as reported in Circular 935 of August 1999). Their first meeting was with the north-west region on May 12th 1999 at Liverpool University and included the Lancashire Local Group and several affiliated societies: Westmorland Geological Society, NEWRIGS, Oldham Geological Society, Cumberland Geological Society and Liverpool Geological Society. The second meeting on 10th June 1999 at Keele University, was with the North Staffordshire and the Midlands Local Groups and the Earth Science Teachers’ Association, East Midlands Geological Society and Shropshire Geological Society Affiliated Societies.

The aim was to find out what the Groups wanted from their relationship with the national GA and what it, in its turn, could give to the Groups. A feeling of “remoteness” from the GA based in London was felt by all the Groups and they welcomed closer contact. Moving the Annual Reunion from London in, perhaps, alternate or every second or third year, was discussed and the north-west groups agreed to host the Reunion in November 2001 in Liverpool. Other matters were discussed, including the ‘Earth Alert’ meeting and how to involve as many Groups and people as possible. Much later, the 2007–8 Local Heroes programme was another initiative aimed at involving Members, and others, outside London.

After some internal debate, in 2003, Larwood presented a modified and less controversial strategy to Council. This was duly accepted as the definitive plan.

The ‘Earth Alert’ Meetings
When Moody (Fig. 34) became President in 1998, besides continuing the ‘Way Forward’, he had a major interest in promoting geology in general and the Association in particular. His idea was to have a grand Millennium meeting called ‘Earth Alert’ which would involve the GA and the general public. To this end he organised a large meeting in 2000 in Brighton. This involved Local Groups, dis-
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plays by companies involved with geology (such as the oil companies), and a three-day conference. As this meeting had the largest attendance and was perhaps the most outstanding of the special meetings organised by the GA in the period considered, with the most distinguished array of speakers, the programme is detailed below for posterity. It also gives a snapshot of the concerns of the Earth Science community in 2000.

In a preamble to the programme of the ‘Earth Alert’ meeting he wrote:

A ‘welcome’ from Professor Richard Moody

The idea for ‘Earth Alert’ struck me on the way to a Council Meeting of the Association back in 1998. Millennium celebrations were becoming all the rage and although the main reason for celebrating was a religious one, it seemed that the time element clearly illustrated the differences we attach to historical as against geological time. Humankind is either on the threshold of ‘immortality’ or extinction! Your personal view will be biased depending on your view of the significant advances taking place in medical science or concern for the way we abuse our planet and its resources.

Programmes on pollution, super volcanoes and asteroids regularly appear in the media. Public awareness and concern grows daily especially with global warming becoming more evident by the day. The idea of a conference on the past, present and future of our planet was soon in place with plans for a Festival Exhibition featuring displays from industry, agencies and universities and a Reunion of Local and Affiliate groups quickly following. ‘Earth Alert’ now encompasses a Rock, Mineral and Fossil Fair and a Discovery Room organized by Rockwatch, The Dinosaur Society, The Natural History Museum and the Open University Geological Society. The Festival will provide you with 4 days of “fun and facts” beside the seaside. Brighton and the Brighton Centre are ideal for our purposes, the welcome has been fantastic. I sincerely hope that we will succeed in spreading the word of geology – remember that “geology is all around us”.

Important Dates & Contacts

The Russell Society AGM & Dinner: 28th May, Rainbow Room and Brighton Centre Restaurant; Geologists’ Association Dinner – Dance: 29th May Ship Hotel; Competitions Award Ceremony: 30th May Hewison Hall.

And in Circular 938 of February 2000 Moody wrote:

At the present time we are riding on a wave of enthusiasm buoyed up by new sponsors, and an influx of registration forms from local groups and dealers.
This surge in interest is a result of two events, the ‘Earth Alert’ Summer Evening held on September the 29th at Burlington House and The Reunion. The Burlington House reception was a great success; bringing together speakers, sponsors, organisers and representatives of local groups. The aim was to generate a ‘team approach’ with all the participants developing a common approach to the events at Brighton. It is essential that you, the delegates, and members of the public at large are welcomed by an organisational team that is dedicated to our aim of broadcasting geology and geoconservation nationwide; providing a professionally organized but enjoyable experience for all concerned. At the Reunion, Officers of the Association and members of Council worked hard at encouraging Local and Affiliate Groups to join us at Brighton and get them to apply for small grants to offset costs. They also recruited more delegates. The number of delegates for the conference has increased to 223, at the time of writing, so we have passed the target set of 200 by the end of December. This is a wonderful effort for a meeting planned for May 2000 and many organizations would be more than happy with such a good response. Remember however, that the Hewison Hall holds 600 delegates and a full house would be a true reflection of membership interest in geology and The Association. Look on Brighton as a time to party with old friends. Bring the family, combine the fun of the fair with a geological walk, lectures, exhibitions and a shopping spree in The Lanes. The Reunion at ‘Earth Alert’ is developing well and at the present time we have 27 Local and Affiliated Groups signed up. Again the response has been very good and my only regret is that the message is not yet reaching our more distant groups. Normally we have around 16/17 groups at the Annual Reunion so the ‘Earth Alert’ Affect is working. The numbers quoted do not include either Rockwatch or the Dinosaur Society, our junior club and a major Affiliated Group. Their efforts will be devoted to manning an adjacent room and catering hopefully for a host of youngsters wanting to know more about the earth sciences. Applications to the Curry Fund for small grants by Local and Affiliate Groups reveal that they are planning a number of new exhibits for Brighton and some are aiming to bring coach loads to the South Coast at the end of May. Individuals have also been encouraged to play an important role within the Festival and I am pleased to report that Dr Adrian Rundle will organize and man a Fossil Road Show. Diana Clements and Simon Carpenter will also be bringing their well-crafted exhibits on Beneath our feet: the geology of Islington and The RIGSCAPE Project. Look out for the Dorset Museum Mary Anning Exhibition, it is well worth the visit. The news is also good on sponsorship. Financial support has risen dramatically over the summer months. Allan Rogers MP has been the major driving force in a revived appeal and new sponsors include Blue Circle Industries, Foster–Yeoman, Hanson Aggregates and I Energy. Coupled with support from Blackwell Science, JAPEC, PDP, PESGB, Southern Water, Shanks Waste Solutions and The Institute of Petroleum we are on target to meet our major objectives. Special thanks are also given to The Brighton and Hove GS, Farnham GS, FLAGS, Harrow and Hillingdon GS, The Open University Geological Society, The Sussex Mineral and Lapidary Society, The British Micromount Association and The Gemmological Association all of whom have given funds to support Festival events or publications. All that remains now is for the recognized to fulfil their own ambitions and put on a wonderful show.

Thankfully help is at hand to help us achieve our goals. One of the findings of the Way Forward Review was the need for an External Affairs Officer to communicate with Local and Affiliate Groups and help [Dr] Duncan [Friend]
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and Vicky [Mason] with Rockwatch and RIGS. Interviews for the post were held on the 29th November with a short list of 5 drawn from over 80 applicants. The successful candidate is Jonathan Allinson. Jonathan has written his own introduction in this edition of the *Circular* and I am sure his knowledge of geology and geoconservation will be of great help to the Association. Initially he will have a detailed brief concerning ‘Earth Alert’. Jonathan will co-ordinate activities in Brighton and establish a region by region database, helping and encouraging Local and Affiliate Groups to prepare for Brighton and flood the town with geologists in May 2000.

Richard Moody

CONFERENCE PROGRAMME

Sunday 28th of May 2000

9.15am Opening Address: Baroness Barbara Young of Old Scone

**Morning Session: Chairman: Dr Robert Symes OBE**

10.00 – 10.35: Geology in the 20th Century

10.35 – 11.10: The Early Earth

11.10 – 11.30: Coffee

11.30 – 12.05: Fluids and the evolution of the Earth

12.05 – 12.40: Minerals & the Natural Environment: The Foundation of Wealth

12.40 – 1.00: Morning Forum

**Afternoon Session: Chairman: Prof Richard Moody**

2.30 – 3.05: Preludes to the Phanerozoic

3.05 – 3.40: Trilobites: the world through crystal eyes

3.40 – 4.00: Tea

4.00 – 4.35: The Green Revolution

4.35 – 5.10: Great Extinctions

5.10 – 5.30: Afternoon Forum

Monday 29th of May 2000

**Morning Session: Chairman: Prof Jake Hancock**

10.00 – 10.35: Winners and Losers –What can we learn of the future of Geology from its Past?

10.35– 11.10: The Ocean Planet–Excitement and Challenge of a New Frontier

11.10– 11.30: Coffee

11.30–12.05: Living on Borrowed Time – Catastrophes to Come

12.05 –12.40: Living with volcanic risk

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Afternoon Session: Chairman: Sir John Knill FREng
2.30 – 3.05: Groundwater Resources – Continuing Pressure on a Major Natural Resource Prof John Mather
3.05 – 3.20: Can the Earth safely contain our dangerous wastes? Sir John Knill FREng
3.40 – 4.00: Tea
4.00 – 4.35: Geology and Waste – Fluids in the Environment Prof Jeremy Joseph
4.35 – 5.10: Air Pollution – The ever-changing threat Prof Nigel Bell
5.10 – 5.30: Afternoon Forum

Tuesday 30th of May 2000

Morning Session: Chairman: Prof Robert Stoneley
9.30 – 10.05: The Construction Industry – Building on the Past Prof Peter Fookes FREng
10.05 – 10.40: The Oil Industry and the Whipping Boy for a World out of Control Mr Richard Hardman CBE
10.40 – 11.00: Coffee
11.00 – 11.35: Evolution of the Oil Industry – Its Importance to the role of the Petroleum Geologist Mr Malcolm Brown
11.35 – 12.10: Coal Mine Methane – A Fuel for the Future Dr Cameron Davies
12.10 – 12.30: Morning Forum

Afternoon Session: Chairman: Mrs Susan Brown
2.00 – 2.35: Needed – New Earth Resource: Technologies and New Geo-ethics for the 21st Century Prof William Fyfe FRS
2.35 – 3.10: Conserving the Past to change the Future Dr Jonathan Larwood & Dr Colin Prosser
3.10 – 3.30: Tea
3.30 – 4.30: Forum on: The Future of Planet Earth

PUBLIC LECTURES: Saturday 27th May 2000

11.30am – Dinosaur Research 160 Years of progress? Dr David Norman
3.00pm – The Mineral World Dr Bob Symes OBE
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Benefactors

Dennis Curry (1912–2001) (Fig. 35), whose generous gift of 1959 has been described above, joined the GA in 1934 and remained a member for life. He graduated from Cambridge with a First Class degree in 1933, and stayed on researching on nummulites of the Eocene Barton Beds which was the subject of his first published paper, which was in the PGA (Curry 1937). This was followed by 134 more papers, the last being published in 1999 (Whittaker 2002); a remarkable achievement for a man who, apart from war service, was a fulltime successful businessman, running what was, at first, his father’s firm of Curry’s Ltd. Most of his papers were based on studies of foraminifera, cephalopods and pteropods in Palaeogene or Cretaceous rocks of Southern England, the English Channel or northern France, but, from the mid ‘50s and into the ‘60s, he worked with others on pioneering sampling and studying the geology of the floor of the English Channel. His work on the Chalk foraminifera led to extremely important discoveries of extensive Chalk loss by solution and unexpected transport of flints of distances up to 100 km or more. He was presented with the 1963 Prestwich Medal and the 1989 R. H. Worth Prize of the Geological Society, and the GA Foulerton Award in 1962. He was GA President 1964–6, and was made an Honorary Member in 1971 and appointed a Visiting Professor of Marine Geology at University College London 1971–84, where he part-time taught micropalaeontology. He spoke French, was a keen yachtsman and supported the Maritime Trust and also St Richard’s Hospital in Chichester. His similar gift of Curry shares to the Geological Society enabled the establishment of the Geological Society’s Publishing House by providing the funds to purchase the premises in Bath in 1987 that house the Publishing House. This venture has brought international esteem to the Society and British geology.

Curry’s Ltd expanded enormously during his time there and was eventually taken over by Dixon’s in 1984. He was generous with his own wealth, making substantial gifts such as to St Richard’s Hospital in Chichester, the Geological Society and the GA and unobtrusive gifts such as his support for the Topley part of the PGA, the problems with which have been outlined above. Always modest, he achieved much for science, business and the GA and is commemorated, and his work more fully described, in Whittaker and Hart (2010). (Based on Hancock (2001); Robinson (2002); Whittaker and Hart (2010).)
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The Joint Association for Petroleum Exploration Courses (JAPEC) was formed in 1980 to give commercial training courses for the UK Petroleum industry, and over the 20 years 1981–2001 180 courses were presented to over 7,300 participants, including subsidising the attendance of academics who could subsequently pass on course content to University students. In 2002 when JAPEC decided to wind up its activities, some of the accumulated surpluses it had made were generously given to the GA, largely due to the initiative of Susan Brown but no doubt also with Stoneley’s support as he had played a major part in the scheme including giving many of the courses. With a gift of £50,000, intended to promote the study of geology among young people with, for instance, ‘Masterclasses’, intended originally to be held regularly, and among the Local Groups and Affiliates of the GA. The income from the donation made possible several activities such as promoting joint meetings of the GA and its Local Groups, intended to attract new members. The first of these ‘Regional GA Lectures’ was held at Keele in conjunction with the North Staffordshire GA Group on 16th April 2005.

John Fitzthomas Wyley (1920–1994) (Fig. 36) joined the GA in 1953 and became a Life Member. According to information kindly given by a distant cousin, William Wyley of Leatherhead, John F. Wyley was the only child of Major Donald Henry Fitzthomas Wyley OBE MC (1888–1930), a career soldier, and his wife, Barbara Catherine St Barbe. There are no living male or female descendants of Major Wyley’s father, John’s grandfather, James Henry Wyley (1856–1930). John inherited independent means so his market garden was not his main means of support. John and Anes Mary Wyley (née Aitken, born November 13th 1921 in Troon, Scotland), married after the Second World War and lived in Richmond, Surrey. They had no children and no close relatives. John served in the Berkshire Regiment in the Second World War, including the Burma campaign, and was promoted to the rank of Temporary Major in 1946. His war experiences had a profound effect on a man who was of a mild, kind and intensely private disposition. John was keenly interested in geology and fossils and joined the GA in 1953. He acted as an Auditor of the GA accounts in 1962 and 1963 and, according to Circulars 626, 646, 666 and 676, exhibited specimens at the 1960, 1962, 1964, 1965 and 1967 Reunions, and donated £100 to the GA in 1976.

John Wyley donated to the Association during his life, and generously left a sum of £5,000 immediately to the GA following his death in May 1994. Most of the capital he left was held in Trust so that his widow Anes, a Lady Almoner, received the income until her death on October 31st 2006. After this in 2007, the capital was divided between Westminster Hospital, Queen Mary’s Hospital (Roehamptom), the GA and various people. About £174,000 came to the GA to use the income as the Council decided, but not to spend the capital. The GA decided to receive the capital as a share portfolio, as this was of excellent quality and dealing costs were minimised. The funding was immediately used from 2008 to subsidise the annual subscriptions of the Members to defer increases above
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Miss Mary Elizabeth Pugh was a member of the Department of Geology, Imperial College, for 33 years, joined the GA in 1963 and served in many roles, including Field Meetings Secretary 1972–1978, Vice-President 1980–1984, General Secretary 1991–1993 and Director of GA Enterprises 1995–2002. Uniquely, she received the Foulerton Award in both 1979 and 2006 and was made an Honorary Life Member in 1997. She gifted £50,000 in 2009 (later significantly increased by Gift Aid refund) in memory of (George) Ivor F. Tupper CEng, FIEE, (1927–2008) formerly Head of Transmitter Technical Services, BBC (Fig. 37). ‘He spent the whole of his working life with the BBC, [and] was an engineer of outstanding ability. Joining the BBC as a youth in training, he spent the early years of his career at the Droitwich and Daventry Transmitting Stations before moving to Transmission Head Office, where he quickly established a reputation for solving unusual technical problems. His work spanned the full range of Transmission Group’s activities and he was at the forefront of all major developments from the automation of medium frequency radio transmitting stations, in the late 1940s and early 50s, through to the ground-breaking improvements in klystron efficiency that was achieved in the latter part of his career.’

The income from the gift was £40. The present history was ruled by Council in May 2009 to be paid for by the Wyley Fund.

Figure 36. J. F. Wyley (behind the letter H) with, on his left, Mrs A.M. Wyley and on his right Mrs Pitt, next to Mr L. J. Pitt (at the head of the Table), Treasurer 1953–9, President 1960–2, and Mrs and Mr Pickard (nearest to camera). 1958 Centenary dinner. From the GA Carreck archive, courtesy, J. Larwood.

\(^1\) BBC career information from Bert Gallon at www.BBCeng.info/Deaths (July 2010).
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to be spent on giving financial assistance to one or more second-, third- or fourth-year University undergraduates studying Geology or Earth Science who have demonstrated a real interest in the subject.

The Geological Society has made its Lecture Room, Council Room and Lower Library available to the GA at very modest rates for the whole period reviewed except when the rooms were closed for refurbishment as detailed already under the ‘Lecture Programme’.

In making office space available at a modest rent in the Geological Society’s part of Burlington House during Clive Bishop’s Presidency of the GA and thereafter, the Society continued its long tradition of supporting the GA. It not only made available office facilities to the GA in a prime site in Piccadilly, central London, but from 2000 it charged a lower rate for the hire of other rooms, such as the Lecture Theatre, than the normal Earth Science reduced rate, partly to match the Linnean Society’s lower charges. It also allowed GA staff to join with the Geological Society staff for morning and afternoon refreshments free of charge. In addition, the GA Office rent was agreed to be increased annually by the Retail Prices Index so that, for instance, in 1998 the annual payment was only £3,185 and this covered the cost of heating, lighting and weekly office cleaning, business rates and VAT, leaving the GA to keep the Office in good decorative order.

However the rental the GA paid inevitably increased, when, for the first time, the Geological Society and the other Burlington House Courtyard Societies, were forced to pay rent to the Government, when the Government eventually, after many years of threats, proposed in 2000 to discontinue giving free accommodation in Burlington House to the Learned Societies who were there. This was contested by the Societies in the Chancery Division of the High Court and mediation took place in March 2004. The Office of the Deputy Prime Minister eventually agreed a series of 10-year leases, up to the maximum of 80 years (the maximum period of time allowed by law). The lease required the Courtyard Societies to pay a rental, share the costs of upkeep of the courtyard and insurance, maintain the exterior of the building (once the ODPM had repaired and maintained the exterior), and, as before, maintain the interior of the Apartments, but now to a standard in keeping with the period of the building. All this put substantial extra

Figure 37. Mr G. Ivor F. Tupper (1927–2008) demonstrating some of the items sold by GA Enterprises.
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costs on the Courtyard Societies but was reluctantly finally accepted in 2005. The lease prohibited the renting societies from sub-letting, with the sole exception of the GA renting from the Geological Society. The GA owes this exception partly to the closely allied aims of the GA and the Society, but no less to the support of the Geological Society Council and in particular, Edmund Francis Paul Nickless, Executive Secretary of the Geological Society, who chaired the committee which negotiated with the Government. However, it is important to record that the GA did not gain any rights of occupancy under the lease, nor was the Geological Society able to allow long-term use of its Apartments by any other organisation, so it would be unwise to ever consider changing the name of the GA. These much more onerous conditions unavoidably necessitated an adverse revision of the terms under which the GA rented space from the Geological Society. However, the new contract was still generous to the GA. A further adverse revision was agreed in 2008, effective from 2009, following the removal of the publishing of the PGA from the Society to Elsevier in 2009, as part of the GA payments for the PGA had previously subsidised the Office rent charged to the GA.

The Geological Society has also been outstanding in its support of Rockwatch, especially after the precipitate withdrawal of the RSNC, mainly because both the Geological Society and the GA have a common interest in promoting the study and interest of young people in geology.

Other benefactors. In addition to the major benefactors noted above, over the 50 years reviewed, the GA has been most fortunate to receive an erratic stream of legacies and gifts which are recorded in detail in Appendix III. The following are mentioned here as typical: The Gilbertson-Smith legacy of 1963–4 amounted to ~£8,400 and was, Council ruled, to be used to pay for coloured maps and plates in the PGA and to support geological conservation (CM, January 3rd 1963; April 3rd 1964); The Lindsall Richardson legacy, amounting to £5,488, was received in 1967 (CM, May 5th and June 2nd 1967); Enterprise Oil gave five donations of £1,000 each over the years 1995 to 1999; William Edward Smith of Slough, a long-time Member, who died on August 15th 1988, left a quarter of his capital to the GA, which amounted to £10,193 in 2000 when it was received, for the Council to spend on ‘the encouragement of fieldwork in Cretaceous rocks’; Rockwatch has been especially well supported by the oil and gas companies with substantial sums being given, largely due to the efforts of Susan Brown. The founding sponsor 1991-2000 was British Gas; The Earth Alert meetings, especially the 2000 one, was generously supported by many firms, organisations and individuals as noted in the account of the meetings.

A short history of the Proceedings

By the end of 2008, the contents of the volumes of The Proceedings of the Geologists’ Association (PGA), first published in 1859, exceeded 50,000 pages, and

\[ \text{This is an extended version of Howarth (2008).} \]
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contained 3,928 technical articles, plus editorials, reports of field meetings (now a valuable source of information on past exposures which are no longer accessible), obituaries and, since 1990, book reviews.

The first account of the journal’s contents appeared in Sweeting (1958), in which he outlined its early development (G.S.S. 1958a) and described papers which had appeared in it in the field of ‘stratigraphical geology’ (G.S.S. 1958b). In the same volume, James Kirkaldy (J.F.K. 1958) reviewed past papers on physical geology and geomorphology; James Stubblefield (C.J.S. 1958), covered palaeontology; Herbert Read (H.H.R. 1958), ‘petrological geology’; and Gilbert Wilson (G.W. 1958), structural geology. Thirty-one years later, in the 100th volume of the PGA, Robinson (1989) discussed the journal’s formation and early years; Green (1989a) described the evolution of the technology involved in the reproduction of its illustrations and reviewed (1989) its many reports of field meetings in the UK and overseas; and Middlemiss (1989) discussed the contents of some 360 selected papers throughout the journal’s existence, broadly divided into: geomorphology, engineering and economic geology, the Weald, stratigraphical geology, petrology, palaeontology, and structural geology. For anyone interested in the journal’s evolution, these contributions are essential reading.

Initially, the number of parts of the journal published per year varied from three to as many as eleven. Those comprising vol. 1 appeared irregularly between 1859 and 1865. Unfortunately, as a result of an ultimately unsatisfactory publishing policy which saw five articles appear in the Geological Magazine and ten in the Geological and Natural History Reperatory, edited by Samuel Mackie, one of the founders of the Association (see Freeman 1996), regular publication of the PGA did not resume until April 1871, with publication of the first part of vol. 2, although a number of papers which had been printed as separates by the Association in the intervening years were also gathered together to form a Supplement (for 1859–70) to vol. 1. Succeeding volumes were issued at intervals of two years until 1910, then annually from 1911 (vol. 22) to date, each volume corresponding to a calendar year (with the exception of vols 65–70, which were designated: 1954–5, 1955–6, 1959–60). Until 1918 the number of parts per volume could vary from three to eleven, but from 1919 (vol. 30) onwards, each volume was published as four quarterly parts.

Although production of the journal began under the imprimatur of University College, London (which provided the meeting-place of the Association from 1867 until the outbreak of WW II in 1939) using a succession of printers in Lewes, Sussex, in 1892 it switched to London where it was printed by Hayman, Christy & Lilly Ltd. In 1902, the name of the London map-seller and publisher, Edward Stanford Ltd first appeared on the front cover, below that of University College, and this continued until 1908, when Stanford (presumably by then acting as “publisher” for the Association), became the sole name present, other than that of the printer. In 1918, Benham and Co of Colchester, was appointed printer of the journal and, in 1946 (just prior to the sale by an ailing Edward Stanford
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to their long-time rivals George Philip and Son, in 1947), Benham took over as publisher for the Association, as well as printer of the journal. This status was maintained until 1969, when Benham’s designation on the journal cover again reverted simply to that of printer. The journal’s successive Editors are listed in Appendix II.

As described above, publication on behalf of the Association passed to the Scottish Academic Press, Edinburgh, in 1977; and to the Geological Society Publishing House, Bath, in 1992. However, given the difficulties of sustaining any journal with only a limited society membership base, in view of the rapidly changing environment of journal publishing (as a result of innovations such as electronic article submission and manuscript monitoring, and electronic distribution), in the autumn of 2007, it was decided that the Association must ensure the long-term viability of the PGA by further building its academic respectability and extending its reach. Accordingly, proposals were invited from six publishers, each to include: plans for the development of the journal, a statement on electronic submission and electronic access, and financial and marketing plans to extend its reach. Detailed submissions were received from four publishers, and presentations were given by the three strongest of these. Following discussions by the evaluation committee and their subsequent presentation to Council, the committee’s recommendation to award the new contract to Elsevier, B.V., Amsterdam (whose UK office is at Oxford) with effect from 2009, was agreed to. The entire contents of the PGA, including the so-called ‘Jubilee’ volume, Geology in the Field (Monckton & Herries 1910), has now been scanned and is available in the form of Portable Document Format (pdf) files on Elsevier’s website: http://www.sciencedirect.com/science/journal/00167878.

As this publication is intended as a post-1958 update of Sweeting’s History, in order to avoid undue repetition of material in the works cited above, discussion here is largely restricted to a quantitative summary of how aspects of the contents of the PGA have varied with time. It rests upon the dedicated work of the compilers of the journal’s successive cumulative indices. The first of these, published in 1910, was provided by George William Young (1862–1929) and William Wright (?1876–?1936) for the years 1859 to 1908. Similar indices were subsequently issued for each decade, compiled by: George Sweeting for 1909–19, 1920–29, and 1930–39; Albert Reeley and Cyril Philip Castell, 1940–49; Margaret Ainsley, 1950–59, 1960–69; Sheilah Dellow, 1970–79; and Margaret Dobson, 1980–89, 1990–99. The meticulous, time-consuming, and undoubtedly tedious, work involved in these compilations, and the eventual difficulty in finding willing authors, is attested to by the fact that while Young, Wright, and Sweeting managed to complete theirs within three years, several of the ones for later decades were only compiled and published many years after the period to which they applied. Users of the PGA owe a considerable debt to this dedicated band of people.

Between c. 1919 and 1949, the index cards on which the hundreds of name and topic references were painstakingly written were provided by the Pro-
professors of Geology in the Department of Geology at the Imperial College of Science and Technology, London: William Watts (1906–30), Percy Boswell (1930–38) and Herbert Read (1938–49), all of whom were keen supporters of the Association. The completed cards were subsequently housed in the then Departmental library, until disposed of in later years.

Fig. 38 (base) shows, by means of a boxplot\(^4\), the variation in the number of text pages and plates per volume, by decade. Following the introduction of offset lithography, which enabled photographs to be incorporated within the text (Green 1989a), publication of unpaginated plates and throw-outs ceased in 1975. That same year, the original crown octavo pagesize of the journal \((c. 20 \times 14 \text{ cm})\) was changed to royal octavo \((c. 24 \times 18 \text{ cm})\), resulting in a 54% increase in page area. As the size of the font used for the text remained essentially the same, the actual page counts per volume prior to 1975 have all been proportionally reduced in the figure to take this into account. Post-1959 issues of the journal devoted to particular sets of papers are listed in Table 5. The two major outliers correspond to vol. 86, which included the collection of papers on the ‘Geology of the Weald’ (1975); and the ‘Centenary’ volume (1989). As can be seen, the quantity of material published steadily increased following the Second World War but, for financial reasons, since 1980 the number of pages

\(^4\) A graphical display (Tukey 1977) which is extremely useful for the simultaneous comparison of a number of frequency distributions. For each set of data, the top and bottom of the central ‘box’ are given by the first and third quartiles \((Q_1, Q_3)\), so the rectangle formed by the box (which is conventionally drawn parallel to the vertical axis, corresponding to increasing magnitude of the variate studied) encloses the central 50 percent of the frequency distribution. The position of the second quartile (the median) is shown by a horizontal line dividing the box. ‘Whiskers’ are drawn outwards from the top and bottom of the box to the smallest data value lying between \(Q_1\) and \(Q_1-1.5R\), where \(R = Q_3-Q_1\); or to the largest data value lying between \(Q_3\) and \(Q_3+1.5R\). Any ‘further out’ data values are deemed to be outliers and are plotted individually (as a star-shaped symbol). In some cases, the median line cannot be seen as it is coincident with the base or top of the box (usually the former).
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Table 5. Special issues of the *PGA* 1959–2008.

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<td>1970</td>
<td>Tribute to Professor Herbert Harold Read [1889-1970], on his 80th birthday</td>
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<td>119/1</td>
<td>2008</td>
<td>The Jurassic [Guest eds., B.M. Cox &amp; M.G. Sumbler]</td>
</tr>
</tbody>
</table>
per volume was maintained at about 380 (but following publication by Elsevier and an increase in manuscript submissions since 2010, it is now over 800).

The number of pages of colour illustrations in each volume, per decade, is shown in Fig. 38 (top). Although the appearance of coloured maps in early volumes was irregular, increasing costs made colour-printing a rarity after 1949, until, in the last decade, computer-based printing technology has enabled routine incorporation of colour photographs, maps and diagrams. As a result, the number of colour-pages in articles has recently begun to increase. The two outliers in the figure correspond to vol. 100 (1989); and to vol. 116 (2006), which includes a commemorative issue in honour of Prof. Douglas Shearman. With our change of publisher in 2009, the use of colour illustration continues to increase, both in the printed journal and in the pdfs of articles on the ScienceDirect website.

Fig. 39 shows the numbers of geological articles per volume, per decade. Apart from the pre-1909 volumes, a relatively large number of papers was published in volumes 21 (1909) and 100 (1989). As might be expected, geographical coverage (Fig. 40) has been dominated by Great Britain (of which papers on Scotland formed 6%). Articles on aspects of Irish and continental European geology, although irregular, have continued throughout and, since the 1960s, there has been a gradual rise in contributions concerning other parts of the world. So far as the geological time-scale is concerned, the articles cover all Eras (Fig. 41): Mesozoic (in 38.2% of papers), with an increased interest in the Quaternary since 1979; Cenozoic (37.9%), with an increased interest in the Jurassic and Rhaetic since 1969, and the Cretaceous since 1989; Palaeozoic (21.1%), with an increased interest in the Carboniferous between 1959 and 1999; and Precambrian and Archaean (2.8%).
3. More detailed accounts

Turning to the actual subject-matter of the technical articles, although just prior to the Association’s formation and in the early years of its existence, much emphasis was placed by educators and others on applied geology: e.g. mineralogy, economic geology (mining, engineering and building stones) and agricultural geology (Ramsay 1852); economic geology (building stones, coal and metallic and other minerals) and military geology (building materials, topography, water supply) (Jones 1880); mining, structural geology, water supply, railways, building materials, agriculture, and landscape painting (Cadell 1887); these issues never figured greatly in the articles in the early PGA. From its beginning, perhaps as a result of the great interest of many Members of the Association in ‘geology in the field’, emphasis was placed largely on: the geology of regional areas and/or their stratigraphy, palaeontology, landform studies (geomorphology, rivers and lakes, coastal features) and glacial features. What later became known as sedimentology (including sedimentary petrology) became particularly prominent, with studies of heavy mineral abundance (1913–1957); the size distribution analysis of clastic sediments and their contained pebbles (1929–67); and the origin of flint and chert (1859–1978); see Middlemiss (1989) for further details. For the purpose of comparison of article content here, subject-matter counts are mainly based on article titles, apart from those for geological time, which fol-
3. More detailed accounts

Figure 42. Principal geological topics per PGA volume. ‘Hard rock’= igneous, plutonic, metamorphic and structural studies.

ollowed the individual index entries for each Period. The subject-matter of a single article can, of course, give rise to an occurrence in more than one category.

Although it is true that the content of the PGA broadly reflects ‘soft rock’ topics, the setting and petrology of igneous, plutonic and metamorphic bodies, including the occasional volcano, have maintained a minor, but constant, presence (Fig. 42). For example, the journal hosted Harold Read’s classic Meditations on Granite (Read 1943–44), a topic recently revisited by John Clemens (2005), with discussion by Malcolm Brown, Wallace Pitcher and Ron Vernon. Metamorphic rocks have been extensively dealt with in the recent Festschrift in honour of Donald Bowes (PGA, 118, 1–127). Since 1959, there has been an increase in papers concerned with palaeontology, stratigraphy, glacial geology and sedimentology. Purely palaeontological contributions have generally been dominated by invertebrate palaeontology but, since 1959, contributions on vertebrate palaeontology, palaeobotany and ichnofossils have increased (Fig. 43). Other topics in which there has been an increasing interest since 1959 include: history of geology, palaeoenvironment, geophysics, geochemistry, urban geology and geoconservation (Fig. 44).

Although dominated overall by technical papers, reports of museum visits and field meetings were plentiful between 1900 and 1959, and obituaries became a significant feature after 1928; although the numbers of such contributions have diminished in recent years. Book reviews (introduced in 1990) and editorials are the largest contributors to miscellaneous content.

Many of the issues concerned with the subject-matter of the PGA, such as the balance between research papers, review articles, field meeting re-
3. More detailed accounts

ports, etc., and adaptation of style to render their contents as accessible as possible to non-professional readers of the journal, remain as pertinent today as when they were discussed at length by Horace Montford in his 1969 Presidential address. His statement that the editors ‘do our best to get the articles into a form which will interest as wide a spectrum of Members as possible’ (Montford 1969, 139–140) remains as true now as it did then, although we are now aiming at a broader readership, beyond GA Members themselves.

Since 1960 the Institute for Scientific Information (ISI, now part of Thompson Reuters) has been collecting data to estimate the relative importance of a wide range of science and social science journals using criteria devised by the American information scientist Eugene Garfield (1955, 1973). These comprise: (1) the impact factor for year $x$: the ratio of the number of times papers published in the journal during years ($x-1$) and ($x-2$) which were cited by a range of index journals during year $x$ to the total number of ‘citable articles’ (i.e. articles, reviews, proceedings and notes, but not editorials

![Figure 43. Palaeontology topics per PGA volume.](image1)

![Figure 44. Other geological topics per PGA volume.](image2)
or ‘letters to the editor’) published during years (x-1) and (x-2); and (2) the immediacy index for year x: the ratio of the number of times articles published in year x were cited in journals during the same year to the number of citable articles published in year x. A five-year impact factor was also introduced in 2007. Figures available for 1997 to 2008 from the ISI database show (Fig. 45) that, based on these criteria, the importance of the PGA is gradually increasing. However, what these figures do not reflect is the fact that, in common with most geological journals, the ‘half-life’ of continued citations to articles in the PGA is well over 10 years.

From 2009, the PGA has been published under a new, larger, editorial team, led by Prof. Jim Rose (Royal Holloway, University of London) as Editor-in-Chief, with immediate electronic submission and manuscript tracking, and entry (via Elsevier’s ScienceDirect) into several thousand library electronic bundles. In addition, as mentioned earlier, the entire legacy of the journal is now available electronically and the number of annual downloads continues to increase.

The PGA is also carrying on with its tradition of publishing special issues on topics of scientific importance (e.g. combined issues 1 and 2 of volume 124 (January 2013) are devoted to The Dalradian Rocks of Scotland). The GA looks forward to continuing success under its new publisher and editorial team.

Figure 45. Institute for Scientific Information measures of journal importance for the PGA (1997-2008).
4. Acknowledgements

The bulk of this account was written by Bernard Leake with contributions, as acknowledged in the text, by principally Clive Bishop, Richard Howarth, (who both also significantly revised and edited the text), Susan Brown and Richard Moody, with lesser input from John Crocker, and Christopher Green. Substantial assistance was given by Sarah Stafford, Wendy Cawthorne (GSL Library), Alun Rogers (of Cardiff University for digital imaging), Mary Pugh, Anne Barrett (IC Archives), Jonathan Larwood (GA Archives), John Leake and, especially, Susan Marriott who acted as final editor. Christopher Green is also thanked for his very helpful comments on a previous version of Howarth’s review of the PGA contents.
5. References

5. References


Ramsay, A. C. 1852. On the science of geology and its applications (being the introductory lecture to the course of Geology, Session 1851-1852). Government School of Mines and of Science applied to the Arts. Eyre and Spottiswoode for Her Majesty’s Stationery Office, London.


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5. References


6. Appendices

Appendix I. Local Heroes
The following is a list of 20 ‘Local Heroes’ proposals made to obtain some financial support from the 2007–8 Joint GSL-GA ‘Local Heroes’ programme. All these were approved (information as supplied by Prof. J. Cann), and are assumed to have taken place, if not exactly as described (dates are not confirmed and the future tense is retained to emphasise that this is not a confirmed record). Meetings which are known to have taken place, but are additional to these 20 proposals, are also listed. There may have been additional un-noted ones, especially field meetings. All celebrated the 200 years of the GSL and the 150 years of the GA plus many also marked local anniversaries. The following is thus as complete a list as it has been possible to compile. Life ranges have been added by Leake.

1. “Wrangles and controversies in the Marches”: A group of events celebrating the role of the Welsh Marches in the evolution of geological thought and especially the work of Roderick Murchison (1792–1871), since 2007 happens also to be the 175th anniversary of Murchison’s epic visit to the area that led to publication of The Silurian System.

There will be a one-day symposium (in Ludlow on Thursday 13 September 2007) with associated field trips, exhibitions and workshops running for a month or so on either side of the symposium, aimed at a range of people including local children and adults, amateur geologists in Herefordshire, Shropshire and surrounding counties, and geologists with research interests in the Marches.

Organised by the Shropshire Geological Society, the Woolhope Naturalists’ Field Club Geology Section, the Ludlow Museum Resource Centre (part of the Shropshire County Museums Service), the Herefordshire Heritage Service (the County Museum Service), the Hereford and Worcester Earth Heritage Trust, the Ludlow Research Group and the West Midlands Regional Group of the Geological Society.

2. A group of events celebrating John Cadman (1877–1941; Lord Cadman of Silverdale) – “Our Jack” in Staffordshire, mine geologist, Professor of mining at Birmingham, pioneer of oil exploration and chairman of the Anglo-Persian Oil Company, now BP.

On October 20th, 2007 a children’s event will be held at the Potteries Museum & Art Gallery, Hanley with the theme of “Our local geological heritage” run by the North Staffordshire Group of the Geologists’ Association (NSGGA), based on the Cadman themes of coal and oil. The following day the NSGGA will host a “field trip” to the Apedale Heritage and Mining Museum, with underground tours and exhibitions of the region’s geological heritage. Apedale, where Cadman searched for oil, also hosts a geological and geomorphological trail around the grounds of the country park. The celebration will culminate with a lecture on the life and works of John Cadman, to be given by Professor Hugh Torrens at Keele University on November 22nd, 2007.

Organised by the NSGGA, in conjunction with the University of Keele, the Potteries Museum & Art Gallery in Hanley, the Apedale Mining Museum and the West Midlands Regional Group of the Geological Society.
3. A group of events celebrating the 50th anniversary of the discovery in Charnwood Forest of the Precambrian fossil Charnia. The Precambrian fossil biota preserved in Charnwood Forest is rightly known to be of major international significance. Charnia and Charniodiscus were the first fossils to be recognised as the macroscopic remains of Precambrian life, even before the significance of the famous Australian Ediacaran biota was recognised, yet most people in Leicester and the surrounding area are unaware of the global importance of the Ediacaran biota sitting on their doorstep.

The programme will include a day of public talks (on March 10th, 2007), a specially designed exhibition at Leicester New Walk Museum of the fossils from Charnwood and other Ediacaran localities (and an associated web-based exhibition), and the co-ordinated launch of the new BGS map of Charnwood. These events will introduce a range of people – including local children and adults, amateur geologists and natural historians in the East Midlands, and geologists with Precambrian interests – to the nature of the Charnwood biota and its local and global geological and evolutionary context. The latest hi-tech methods are providing exciting new insights into their evolutionary significance which will also be presented at the meeting. Organised by committee of representatives from the Leicester Literary and Philosophical Society (Geology Section), University of Leicester Department of Geology, and Leicester New Walk Museum. The BGS is also participating, and various Midlands geological and natural history societies will promote the event.

4. A lecture celebrating the life of J.D. Hooker (1817–1911) to be given by the outgoing Director of the Royal Botanic Gardens, Sir Peter Crane FRS and coupled with a visit to the gardens at Kew. J.D. Hooker is well known for his wide-ranging and extensive botanical output, but he was also an explorer of some renown with broad interests, for example in biogeography. In addition to his key role in facilitating the publication and promulgation of Darwin’s work, Hooker also worked for the British Geological Survey for a short period and published several important papers on fossil plants of different ages. This lecture will draw together and synthesise J.D. Hooker’s contributions to plant palaeontology, and to geology more broadly, in the context of the late 19th Century and earliest 20th Century scientific milieu in which he worked and our current understanding of the evolution of plants.

Organised by the Palaeontological Association and the Royal Botanic Gardens, Kew. In the event of this bid being accepted, the organisers will submit a detailed budget. It is expected that additional sponsorship will be provided through the Palaeontological Association and Kew. The lecture could be given either in central London or at Kew.

5. A five-day field excursion across the south of England to celebrate Martin Te Punga, a New Zealander who, in the course of a sabbatical year spent in King’s College London during 1954–5, changed our understanding of the periglacial geology of southern England. His visionary landmark paper describing his work unfortunately encountered resistance from the establishment of the day but was finally published in The Netherlands in 1957; 2007 will be 50 years after that date. The field excursion is designed to visit a number of the key sites studied by Martin and in addition to examine a number of localities which have subsequently been identified. A wide range of relict periglacial features will be included in the course of a traverse of southern England from Kent to Devon. The objective will be to raise the profile of periglacial geology and familiarise the participants with the
6. Appendices

range of field evidence used to reconstruct the periglacial climates of the recent past. The participants on the field excursion would be geologists.

Organised by Peter Worsley. Sponsorship from groups and societies is expected. There is no reference to public participation – which might take the form of a public lecture or field trip at one of the sites along the way.


This meeting will focus on the study of sea-level change in geological history and will show how pioneering work in the succession of northern England has led to universally applied techniques for studying such changes throughout the world. For example the identification of small-scale sediment cycles (cyclotherms) in “Yoredale” – now Swaledale – was among the first times that such styles of sediment deposition had been recognized. Specifically, Ramsbottom’s work from the 1960s to 1980s on the Carboniferous of the Pennines and the UK in general, pre-empted the sequence stratigraphic revolution of the late 1980s through to present day.

Three speakers are currently lined up to contribute:– Bil Haq of the NSF, one of the co-founders of sequence stratigraphy (together with Peter Vail) and author of the ubiquitous “Haq sea-level curve”; Tony Hallam, the principal UK researcher on sea-level changes and author of the Jurassic sea-level curve utilised in hundreds of studies; Mike Simmons, co-founder of Neftex, a large oil consultancy company that provides sea-level studies for the hydrocarbon industry and thus one of the leading proponents of the importance of sea-level studies. There will be a linked field trip later in the year to examine critical localities identified by Ramsbottom. The talks will take place on 20 January 2007 in Leeds.

Organised by the Yorkshire Geological Society, the Leeds Geological Association and the University of Leeds.

7. “Sorby and the development of scientific methods” will be an afternoon of lectures to celebrate the work of Henry Clifton Sorby (1826–1908) in the wide range of scientific disciplines in which he was a pioneer: sedimentology, structural geology, inclusion studies and micropalaeontology, perhaps with reference to his equally significant work in metallography, meteorites and biology. This meeting, on 17 February 2007, in Sheffield will be supplemented by visits to sites associated with his work, and an exhibition of posters, his original research material, and perhaps of the equipment that he used.

Organised by the Yorkshire Geological Society, the University of Sheffield and the Sorby Natural History Society.


Organised by the Yorkshire Geological Society.
10. A group of events celebrating the Welsh Basin and the geologists who worked on it, especially O. T. Jones (1878–1967) and W. J. Pugh (1892–1974). The Welsh Basin has been the subject of geological studies since the earliest days of geology. This proposal is for an exhibition in Llanidloes at the Minerva Arts Centre, for the week of 1–6 October 2007, for a reduced version of this exhibition to travel around other centres in the region, and perhaps for a number of talks on different aspects of the basin, including its subsidence and sedimentary filling, its uplift, its mineralisation, and the glacial history of the area. The reduced exhibition will be taken to schools and local museums.

Organised by the Mid Wales Geology Club, with support from the Welsh Mines Society and the Welsh Mines Preservation Trust, the Central Wales RIGS Group and the Severnside branch of OUGS. Other individuals and organisations have offered support.

11. A lecture about John Milne (1850–1913), inventor of the seismograph, who was born in Liverpool, but grew up in Rochdale. As a Professor of Mining Engineering in Japan from 1875 to 1895 he was at the very centre of the development of the first truly effective seismograph and the formation of the Seismological Society of Japan in 1880. On his return to England he set up the first worldwide network of seismograph stations which reported directly to him on the Isle of Wight. Few geologists are aware of Milne’s many other contributions to geology which include scientific papers on Newfoundland and Egypt, the Kurile Islands and of course Japan where he also worked on a number of well-known volcanoes (Oshima, Asamayama and Fuji). He was elected to the Royal Society in 1887 and received from the Emperor of Japan one of their highest honours – The Order of Rising Sun.

The lecture will take place in Rochdale, organised by the Craven and Pendle Geological Society.

12. “Timelords”. A one-day symposium and associated field trips, exhibitions and workshops in Edinburgh celebrating James Hutton (1726–1797) and Arthur Holmes (1890–1965). In many respects Edinburgh is the home of Geology as we know it, being the resting place of the great James Hutton, whose famous book Theory of the Earth and central conclusion that “we find no vestige of a beginning, no prospect of an end” initiated and stimulated the scientific investigation of the Earth and its antiquity. Hutton provided the stimulus to scientists, from Charles R Darwin (1809–1882) and Lord Kelvin (1824–1907) to Arthur Holmes, to determine the age of the Earth. Some one hundred and fifty years after Hutton’s key insights, Arthur Holmes was able to produce the first indications of this age, based on the decay of radioactive isotopes of Uranium in minerals, and go on to produce his remarkable calibrations of the Phanerozoic time scale. In his superb book Principles of Physical Geology – arguably the most influential single book in Geology – Holmes contemplated the timescales and character of processes acting in and on Earth, providing a framework for much research over the past fifty years.

Organised by the University of Edinburgh School of GeoSciences, the British Geological Survey (Murchison House), the Edinburgh Geological Society, Scottish Natural Heritage, the Royal College of Physicians, the Regional Geology Group, the Scottish Museum of Natural History, Dynamic Earth, the Royal Society of Edinburgh, and a number of interested individuals.
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13. “Granites: the shaping of the Earth and the way we live” will be a celebration in Liverpool of granites and the work of Herbert H. Read (1889–1970) and Wallace S. Pitcher (1919–2004) in the form of a workshop on granite for schools in early spring 2007, and an associated afternoon of public lectures on granites and the great granite controversy. Read and Pitcher were both closely associated with Liverpool, and held diametrically opposed views on the origin of granite. Eventually, Read’s transformationist views were displaced by Pitcher’s volcano–magmatic views as a result of detailed fieldwork in Donegal and associated laboratory work in Liverpool. The one-day workshop would be aimed at Years 10 and 11 (GCSE and AS years) in schools in the North–west region, and would accommodate up to 140 visitors circulating around ten stations, each demonstrating one aspect of granites.

Organised by the Department of Earth and Ocean Sciences at the University of Liverpool with collaboration of the Herdman Society, the Liverpool Geological Society, the NW Regional Group and other local societies.

14. “Understanding how volcanoes work, a celebration in Bristol of the life and work of George Walker”. Professor George Walker (1926–2005) was one of the outstanding geologists produced by the United Kingdom and pioneered modern understanding of volcanoes and how they work. He worked at Imperial College, London, the University of Auckland and the University of Hawaii. He retired to Gloucester in 1996 and was an Emeritus Professor at Bristol in the Department of Earth Sciences. There will be a weekend event on volcanoes, starting with a day of talks on various aspects of volcanism, including one specifically on George Walker, and others on: how volcanoes work, the Montserrat eruption, supervolcanoes, monitoring, volcanic diamonds, volcanic hazards and environmental effects of volcanism. Coupled with the talks will be demonstrations and activities for the public. This will be followed by a field trip to see the Sand Point Carboniferous volcano at Weston-super-Mare for up to 45 people. In conjunction with this will be a public exhibition about George Walker’s life including some materials from George’s scientific life, such as maps, field note-books, minerals and rocks. The exhibition, either in the Bristol Museum or in the University, will be on display for 6 months from May 2007.

Organised by the Department of Earth Sciences in the University of Bristol.

15. A celebration in Birmingham of the life and work of Charles Lapworth (1842–1920). Lapworth began as a geologist while a school teacher in St Andrews, and ended as Professor of Geology in Birmingham. His contributions to geology ranged over an astonishingly broad area. He showed how graptolites could be used in Palaeozoic stratigraphy, used them in his great work of mapping the Southern Uplands, and also in his resolution of the Cambrian/Silurian controversy by the creation of the Ordovician. By careful mapping he resolved the controversy over the structure of the Northwest Highlands, demonstrating the presence of large-scale thrusting there. He also achieved success in many other areas of geology. The celebration will take the form of a public lecture and an associated field trip to localities in the Welsh Borders associated with Lapworth.

Organised by the School of Geography, Earth and Environmental Sciences at the University of Birmingham.

The event will be closely linked with the 2007 Northern Rocks festival, running for two weeks between 19 May and 3 June. The primary element in the event will be an exhibition celebrating the life and work of Kingsley Dunham in the Weardale village of St John’s Chapel. Dunham’s work on the North Pennine Orefield has been immensely influential, with his demonstration of a pattern of zonation of the ores indicating an underlying granite; geophysical exploration by Martin Bott showed the existence of the granite, and finally, the drilling of the Rookhope borehole that showed the granite to be Caledonian in age and unconformably overlain by the Carboniferous limestones that host the orefield. Other elements will be talks in Durham on Arthur Holmes (1890–1965) and Malcolm Brown (1925–1997) and a talk by Roger Searle on geophysics and landscape in the North Pennines. Trevor Morse will lead a field trip to the Whin Sill in the valley of the Tees. In addition to these Local Heroes celebrations, a mobile display will be constructed, highlighting the Geological Society Bicentennial, and the profound effect that the local geology has had on the social and cultural history of the North East of England. The mobile display will be exhibited at a variety of local public events, such as agricultural and county shows, that attract audiences that would not normally attend our other planned events.

Organised by the Department of Earth Sciences in the University of Durham, the North Pennines AONB, the Northern Regional Group of the GSL and the Friends of Killhope Mining Museum.

17. “Local Heroes of Hertfordshire Geology” will be an afternoon series of talks followed by a field meeting. The programme of talks will take place in the Verulamium Museum, St Albans on Saturday 22 September 2007, and the talks will include Professor Peter Worsley on William Whitaker (1836–1925), Dr Peter Banham on William Smith (1769–1839) and his links with Thomas Telford (1757–1834), and Jack Doyle on George W. Lamplugh (1859–1926). The Sunday field meeting will be to examine building stones and architectural features of St Albans.

The event will be jointly sponsored by the Hertfordshire Geological Society and the St Albans and Hertfordshire Archaeological and Architectural Society.

18. A celebration of Dr William Joscelyn Arkell FRS, (1904–1958), Prof Michael Robert House, (1930–2002) and Prof Peter Colley Sylvester-Bradley, (1914–1978). Arkell was a world leader in Jurassic biostratigraphy, famous especially for his ‘Jurassic Geology of the World’, 1956. House is primarily known for his work on the Devonian, particularly the ammonoids, and also published many papers on Dorset and his book ‘The Geology of the Dorset Coast’ is well known. Sylvester-Bradley started research into the stratigraphy of the Purbeck Beds in Dorset after graduating but was diverted into the study of ostracods which continued through his life together with research on Jurassic oysters. House was encouraged at the age of 16 to read Arkell’s ‘Geology of the coast around Weymouth, Swanage, Corfe and Lulworth’ (1947), and this stimulated his interest in local and then global geology. The two met and frequently went out on field trips in Dorset. Both men communicated with amateur geologists as well as professionals and their contribution to their fields is immense. Sylvester-Bradley was an early enthusiast for the developing theories of sea floor spreading and plate tectonics.

The events will be aimed at the general public, the amateur and hopefully, the professional geologist. Those attending will be able to see the location of the water source, see and touch some Dorset fossils and minerals and find out more about the Heritage Coast and its famous geologists. The events will take place...
during the weekend of July 28th & 29th 2007 at Sutton Poyntz Water Pumping Station, at Sutton Poyntz about 3 miles NE of Weymouth in south Dorset. This station is there because of the geology; it collects the spring water from the stream and supplies it to the Weymouth area. Both Arkell and House wrote papers on the Sutton Poynz anticline and the structure of the area.

The events will consist of an exhibition, talks, and field trips repeated on both days. The exhibition will consist of pictures of the Heroes, copies and facsimiles of their works, fossils representative of their work and of the local area and pictures of the area. Talks on these aspects will be given periodically during the morning. A PowerPoint presentation of Michael’s photos of Dorset and thin sections of the rocks will be run during the day. Photos of the present World Heritage Site taken over the last 100 years will be on display in postcards, engravings, magic lantern slides and Dorset GA members photographs. In the afternoon there will be two field trips available based on the itinerary produced by Michael House for the Dorset Geologists’ Association Group (DGAG) publication ‘Coast and Country’, 2003. The general public will be encouraged to join the trips. On the Saturday evening there will be lectures pertinent to the Heroes given by well known speakers including Tony Hallam, Michael Le Bas and Norman Butcher. The lectures will also be open to the public. Felicity House, Michael’s widow, and her daughter, will be attending the lectures as will members of the family of William Arkell and Sylvester–Bradley. They will be guests of honour at a dinner to be held in the Springhead Arms after the lecture. Wessex Water is kindly allowing us to use the Museum and lecture room facilities. Mr John Willows, curator of the Museum, will also give a talk describing the operation of the Station and a tour of the facilities for the public attending on both days.

Organised by the DGAG.


This offers an eclectic mix of arts and science based activities for people of all ages and backgrounds. The Lyme Regis Fossil Festival marks the life of the remarkable fossil hunter and expert Mary Anning (1799–1842) and the town’s unparalleled role in the birth of the earth sciences, as part of the Geological Society’s Local Heroes as part of their Bicentennial Celebrations. The festival offers the chance to meet Mary Anning (Mary Anning appears care of Spectrum Drama, resident company at the Natural History Museum) and visit the places where she lived and the coast where she found the ichthyosaurs, plesiosaurs and Pterodactylus macronyx, a fossil flying reptile. Discover your own fossil on the beach and talk to leading experts about your specimen and how similar finds have changed the way we think about the history of the earth. Rising Seas also tells the story of past environments that have existed along the Jurassic Coast. (www.jurassiccoast.com); Climate change in the here and now and how it is different from the past and the Lyme Regis coastal protection scheme, an engineering solution to safeguard a seaside town (www.lymeregiswebcam.com).

Come to the Festival and step on board the Callista research vessel – the National Oceanography Centre’s boat will be moored at the Cobb, Lyme Regis for the festival; take part in the interactive shows with the Time Travellers ‘Science on Trial’; get creative with arts activities, create dinosaurs from junk and be inspired by the exhibits and fossils; meet the experts from the Natural History Museum, the Jurassic Coast team and local fossil collectors and visit Charmouth Heritage Centre and Lyme Regis Museum; find out more about climate change from the Environment Agency and the leading regional universities; plus talks, seminars
including talks from climate change advisor Sir Crispin Tickell, the acclaimed science author Professor Richard Fortey and leading palaeoanthropologist Professor Chris Stringer plus guided walks and much, much more.


21. Frederick Dixon (1799–1849) was remembered by the West Sussex Geological Society in Worthing on 4–5th April 2008. Details are given in the GA Magazine 6, No. 4, December 2007, p.10.

22. A meeting on June 17th 2007 at Sandhurst, organised by the GSL Thames Valley Regional Group and the Royal Military Academy of Sandhurst, to review the work on the physics of blown sand and desert dunes by Brigadier Ralph A. Baghnold FRS (1896–1990).


24. AGM of The Micropalaeontological Society held in UCL on November 7th 2007 focussed on ‘Micropalaeontological Heroes’: the ostracod work of George Stewardson Brady (1832–1921), and the foraminiferal work of his brother, Henry Bowman Brady (1835–1891), the discovery of conodonts and the work of Christian Heinrich Pander, (1794–1865), the palynologist Arthur Raistrick (1896–1991) and his correlation of Carboniferous coal seams, and finally the bizarre history of the discovery of coccolithophores and those involved.

25. The Manchester Geological Association organised a meeting on April 12–13th 2008 ‘In celebration of the Carboniferous—the Manchester Connection’ in which the contributions of local geologists formed part of the programme.
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Appendix II. List of past GA officers, awardees and Special Lectures to 2008

Presidents
SMITH, Joshua Toulmin 1858–59
WILTSHIRE, The Revd. Thomas DSc FLS FGS 1859–62
TENNANT, Prof James FGS FRGS 1862–64
CRESY, Edward (jr.) 1864–66
RICHARDSON, Christopher Thomas MD 1866–68
MORRIS, Prof John MA FGS 1868–71
WILTSHIRE, The Revd. Thomas DSc FLS FGS 1871–73
WOODWARD, Henry LLD FRS FGS FZS 1873–75
CARRUTHERS, William FRS FLS FGS 1875–77
MORRIS, Prof John MA FGS 1877–79
JONES, Prof Thomas Rupert FRS FGS 1879–81
HULDESTON, Wilfred Hudleston MA FRS FGS FCS 1881–83
HICKS, Henry MD FRS FGS 1883–85
TOPLEY, William FRS FGS AssocInstCE 1885–87
RUDLER, Frederick William ISO FGS 1887–89
HOLMES, Thomas Vincent FGS 1889–91
BLAKE, The Revd. Prof John Frederick MA FGS 1891–93
WOODWARD, Horace Bolingbroke FRS FGS 1893–94
McMAHON, Lt.-General Charles Alexander FRS FGS 1894–96
NEWTON, Edwin Tulley FRS FGS 1896–98
TEALL, Sir Jethro Justinian Harris MA FRS FGS 1898–1900
WHITAKER, William BA FRS FGS 1900–02
MONCKTON, Horace Woollaston FLS FGS 1902–04
SMITH WOODWARD, Sir Arthur LLD FRS FLS FGS 1904–06
HERRIES, Robert Stansfield MA FGS 1906–08
WATTS, Prof William Whitehead LLD DSc MSc FRS FGS 1908–10
HILL, William FGS 1910–12
EVANS, John William CBE LLB DSc FRS FGS 1912–14
YOUNG, George William FGS FZS 1914–16
BARROW, George FGS 1916–18
GREEN, John Frederick Norman BA FGS 1918–20
WHITAKER, William BA FRS FGS 1920–22
HAZZLEDINE WARREN, Samuel FGS 1922–24
DEWEY, Henry FGS 1924–26
BULL, Alfred Joseph MSc FGS 1926–28
MORLEY DAVIES, Arthur DSc ARCS FGS 1928–30
WATTS, Prof William Whitehead LLD DSc MSc FRS FGS 1930–32
LEACH, Arthur Leonard FGS 1932–34
KITSON, Sir Albert Ernest CMG CBE FGS 1934–36
McINTYRE, Peter FGS 1936–38
6. Appendices

HAWKINS, Prof Herbert Leader DSc FRS FGS 1938–40
STEBBING, William Pinchard Delane FSA FGS LRIBA 1940–42
READ, Prof Herbert Harold DSc ARCS FRS FGS 1942–44
KENNARD, Alfred Santer ALS FGS 1944–46
BROMEHEAD, Cyril Edward Nowill BA FGS 1946–48
BROWN, Edmund Ernest Stockwell MBE FGS 1948–50
EASTWOOD, Tom ARCS MIMM FGS 1950–52
HIMUS, Godfrey Wilfred PhD FGS 1952–54
COX, Leslie Reginald OBE MA ScD FRS FGS 1954–56
WRIGHT, Claud William MA FilDr CB FGS 1956–58
WILLIAMS, Prof David DSc PhD MIMM FGS 1958–60
PITT, Leslie John FGS 1960–62
KIRKALDY, Prof John Francis DSc FGS 1962–64
CURRY, Dennis MA FGS 1964–66
SUTTON, Prof John DSc FRS FGS 1966–68
MONTFORD, Horace Moutrie OBE BSc FGS 1968–70
HOLMES, Stanley Charles Arthur MA FGS 1970–72
ARBER, Muriel Agnes MA FGS FRGS 1972–74
AGER, Prof Derek Victor DSc PhD DIC FGS 1974–76
MOORE, Francis Harry BSc PhD FGS 1976–78
BISHOP, Arthur Clive BSc PhD FGS 1978–80
SMITH [now Kenyon-Smith], Alec James BSc PhD FGS 1980–82
KNILL, Prof John Lawrence DSc FICE FIGeol FGS 1982–84
KING, Anthony John Paynter FCII FGS 1984–86
HANCOCK, Prof John Michael MA PhD FGS 1986–88
EVANS, John Michael BA 1988–90
HALSTEAD [formerly Tarlo, Halstead-Tarlo], Lambert Beverly PhD DSc FGS 1990–91
ROBINSON, John Eric BSc PhD 1991–94
GREEN, Christopher Paul BA DPhil FGS 1994–96
SYMES, Robert Frederick OBE BSc PhD FGS 1996–98
MOODY, Prof Richard Thomas Jones PhD FGS 1998–2000
BROWN, Susan BSc MSc DIC FGS MinstEnvSc 2000–02
FRENCH, William John BSc PhD FGS 2002–04
COCKS, Prof Leonard Robert Morison OBE TD MA MPhil DSc CGeol FGS 2004–06
BENTON, Prof Michael James BSc PhD. FGS 2006–08
SCHREVE, Prof Danielle MSc BSc PhD 2008–10

Treasurers

HISLOP, William (jr.) FRMS FRAS 1858–73
PATTISON, Samuel Roles FGS 1874
HILTON PRICE, Frederick George FGS FRGS 1875–80
6. Appendices

LOBLEY, James Logan  FGS  FRGS  1881–84
HOPKINSON, John  FLS  FGS  1885–90
GIBBS, William Bolger  FRAS  1891–92
HERRIES, Robert Stansfield  MA  FGS  1893–1900
HOLLAND, Robert Henry  CBE  FGS  1901–07
ELSDEV, James Vincent  DSc  FGS  1908–13
HAZZLEDINE WARREN, Samuel  FGS  1914–21
GREENE, Alfred Ernest  MA  BSc  1921–31
FLEET, William Frederick  PhD  MSc  ARIC  ACP  FGS  1931–35
MARTIN, Edgar Charles  OBE  BSc  ARIC  FGS  1935–48
DACK, Walter  ISO  FGS  1948–50
POCOCK, Roy Woodhouse  DSc  FGS  1950–52
WRIGLEY, Arthur George  1952–53
BRACEWELL, Smith  BSc  DIC  ARIC  FGS  1953
PITT, Leslie John  FGS  1953–59
MONTFORD, Horace Moutrie  OBE  BSc  FGS  1959–68
CARMICHAEL, John  BSc  1968
Baldwin, Stuart Arnold  MPS  FGS  FRAI  1968–69
DURKIN, Michael Kenneth  FRAI  FGS  1969–76
AVENT, Edgar William  FGS  1976–77
NEVILL, P. A.  1977–79
NEGUS, Peter Edwin  1979–89
GREEN, Christopher Paul  BA  DPhil  FGS  1989–94
DAVIES, Rhys Glyn  MSc  PhD  FGS  1994–97
LEAKE, Prof Bernard Elgely  PhD  DSc  DSc  FRSE  FGS  1997–2009

PGA Editors

LOGAN LOBLEY, James  FGS  FRGS  1870–80
BLAKE, The Revd. John Frederick  MA  FGS  1881–82
BOULGER, Prof George Simmonds  FLS  FGS  1883–91
BATHER, Francis Arthur  MA  DSc  FRS  FGS  1892
MORLEY DAVIES, Arthur  DSc  ARCS  FGS  1893–96
ALLEN, Henry Atwool  FGS  1897–1900
CULLIS, Prof Charles Gilbert  DSc  FGS  1901–02
ALLEN HOWE, John  BSc  FGS  1903–04
SALTER, Alfred Edward  DSc  FGS  1905–06
MONCKTON, Horace Woollaston  FLS  FGS  FRNS  1907–17
HOLMES, Arthur  DSc  DIC  FGS  FRGS  1917–21
MacDONALD DAVIES, George  MSc  FGS  1921–24
WELLS, Alfred Kingsley  DSc  FGS  1924–32
SWEETING, George Scotland  DIC  FGS  1932–46
WOOD, Prof Alan  BSc  PhD  FGS  1946–48
SANDFORD, Keith Sandford  MA  DSc  DPhil  FGS  1948–51
OVEY, Cameron Darrell  BSc  FGS  1951–54
DOLLAR, Archibald Thomas John  PhD  AKC  FRSE  1954–57
RAINE, George Thomas  BSc  AMInstPet  FGS  1957–68
SANDFORD, Kenneth Stuart  TD  MA  DSc  DPhil  FGS  1968–71
BARBER, Anthony John  BSc  PhD  DIC  FGS  1971–78
SELLWOOD, Bruce William  BSc  DPhil  FGS  1978–80
GREENSMITH, John Trevor  BSc  PhD  FGS  1980–86
GRAY, John Murray  BSc  PhD  FGS  1986–91
KEEN, David Henry  BSc  PhD  1991–2002
HOWARTH, Prof Richard John  BSc, PhD  FGS  2002–06
RICHES, Peter  BSc  CGeol  2006–08
ROSE, Prof James  BA  DSc  CGeol  CGeogr  FGS  FRGS  2009–

Guides Editors
WELLS, Alfred Kingsley  DSc  FGS  1958–60
RAINE, George Thomas  BSc  FGS  1965–69
CAPEWELL, Joseph Gerald  BSc  PhD  FGS  1969–80
RAINE, George Thomas  BSc  FGS  1980–85
LISTER, Carol Janet  BSc  PhD  FGS  1985–90
GREENSMITH, John Trevor  BSc  PhD  FGS  1990–2008
MARRIOTT, Prof Susan B.  BA  BSc  PhD  CGeol  FGS  2008–

General Secretaries
WAKEFIELD, John Ebenezer  1858–59
LAWSON, William Norton  MA  1860–62
CUMMING, John  FGS  1863–70
LOGAN LOBLEY, James  FGS  FRGS  1871–73
HUDLESON, Wilfred Hudleston  MA  FGS  FCS  FRS  1874–76
FOULERTON, John  MD  FGS  1877–86
WOODWARD, Bernard Barham  FLS  FGS  FRMS  1886–89
SHERBORN, Charles Davies  DSc  ALS  HonFZS  1890–97
EMARY, Percy  FGS  1898–1906
YOUNG, George William  FGS  1907–12
LEACH, Arthur Leonard  FGS  1913–18
WRIGHT, William  FGS  1918–24
BROWN, Edmund Ernest S.  FGS  1925–37
BELL, Alfred Graham  ISO  BSc  FGS  1937–45
REELEY, Reginald  FGS  1945–55
MOORE, Francis Harry  BSc  PhD  FGS  1955–76
EDWARDS, Joanna Prendergast  FGS  1976–78
FRENCH, William John  BSc  PhD  FGS  1978–82
GREEN, Christopher Paul  BA  DPhil  FGS  1982–85
STOKES, Robert Brendan  BSc  PhD  FGS  1985–88
6. Appendices

DELOW, Sheilah Margaret  BA MSc DIC FGS  1988–91
PUGH, Mary Elizabeth  BSc MSc DIC  1991–93
STONELEY, Prof Robert  MA PhD FGS HonPESGB  1993–98
GREEN, Christopher Paul  BA DPhil FGS  1998–2000
CROCKER, A. John  BSc PhD FinstP Cphys  2000–11

Secretaries for Field Meetings

FOULERTON, John  MD FGS  1886–89
LEIGHTON, Thomas  FGS  1890–95
MONCKTON, Horace Woollaston  FLS FGS FRNS  1896–98
MEESON, F.  1899
McNEILL, Bedford  ARSM FGS  1900
FOLEY, Miss M. C.  BSc  1901–03
SKEATS, Ernest Willington  DSc ARCS FGS  1904
YOUNG, A. C.  FCS  1905–12
YOUNG, George William  FGS FZS  1913
LEIGHTON, D.  FGS  1914–17
YOUNG, A. C.  FCS  1918–21
BULL, Alfred Joseph  MSc FGS  1921–26
HALL, S.  BSc FGS  1926–33
DIX, Miss Emily  DSc FGS  1933–37
WHITE, Miss E.  BSc FGS FRGS  1937–43
HIMUS, George Wilfred  PhD MIChemE  1943–48
KIRKALDY, John Francis  DSc FGS  1948–50
HAYWARD, Harry Arthur  OBE FGS  1950
BARNARD, Tom  PhD DIC FGS  1950–52
HESTER, Sidney William  MBE FGS  1952–57
HANCOCK, John Michael  MA PhD FGS  1957–61
AINSLEY, James Basil George  FGS  1961–72
PUGH, Miss Mary Elizabeth  BSc MSc DIC  1972–78
DUFF, Keith Leslie  BSc PhD FGS  1978–82
MOODY, Richard Thomas Jones  BSc PhD FGS  1982–85
FINCH, Edward Maurice  BSc ARPS FGS  1985–88
HARLEY, Michael John  BSc  1988–90
JARZEMBOWSKI, Edmund A.  PhD  1990–92
BRYANT, Frederick Walter James  1993–95
ALLEN, Lynn Olive  BSc PhD FGS  1995–2000
BONE, David Alan  Mphil  2000–04
SWANN, Geoffrey Drummond  BSc FGS  2004–
DIXON, Roger G.  BSc PhD  2001–06
RIDD, Michael Frederick  BSc PhD FGS  (Overseas Field Meetings)  2006–
Meetings Secretaries
BAMLETT, Michael BSc MPhil FGS 1987–92
OATES, Michael John BSc, PhD FGS 1992–

Librarians
CUMMING, John FGS 1862
BOTT, Arthur FGS 1863–73
COOMBS, John A. CEng FGS 1874–75
HOPKINSON, John FLS FGS 1876–77
WOODWARD, Bernard Barham FLS FGS FRMS 1878–81
LITCHFIELD, E. 1882–83
BRADFORD, John FGS 1884–93
ATKINSON, W. J. FGS 1894–1900
FLECK, Henry FGS 1901–03
GARWOOD, Prof Edmund Johnston DSc MD FRS FGS 1904–15
WRIGHT, William FGS 1916–19
CROSFIELD, Miss Margaret Charley FGS 1919–24
YEATES, Miss Rosalie Nellie 1924–32
JOHNSTON, Miss Mary Sophia FGS FRGS FZS 1932–38
LEACH, Arthur Leonard FGS 1938–40
COX, Leslie Reginald MA ScD FRS FGS 1940–53
BRADSHAW, Reginald MSc FGS 1953–58
SMITH, Alec James BSc PhD FGS 1958–70
ROBINSON, John Eric BSc PhD 1970–2002
BIMPSON, Patricia Elaine BA 2002–

Rockwatch Chairman or President
HAWKES, Diana BA 1992–94
PETTS, Catherine 1994–96
BROWN, Susan BSc MSc DIC FGS MinstEnvS 1996–97
HALL, Cally 1997–98
BROWN, Susan BSc MSc DIC FGS MinstEnvS 1998–2000
HORSLEY, David MA 2000–02
BROWN, Susan BSc MSc DIC FGS MinstEnvS 2002–

Executive Secretaries
STAFFORD, Sarah Elizabeth 1986–

Recipients of the Foulerton Award
1920 READER, Thomas William FGS
1921 TREACHER, Llewellyn FGS
1922 HERBORN, Charles Davies DSc ALS HonFZA
1922 HINTON, Martin A. C. FRS FLS FGS FZS
6. Appendices

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<td>1932</td>
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<td>WOOFF, Elizabeth J.</td>
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<td>BROWN, Edmund Ernest Stockwell</td>
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<td>VENABLES, Edmond Martin</td>
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<td>SLATER, George</td>
<td>DSc DIC ARCS</td>
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<td>MARTIN, Eagar C.</td>
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<td>CASEY, Raymond</td>
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<td>TAYLOR, Herbert E.</td>
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<td>BADEN-POWELL, Donald Ferlys Wilson</td>
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<td>1957</td>
<td>SPENCER, Harold Evelyn Peere</td>
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</table>
6. Appendices

1958    REELEY, Reginald
1959    CARRECK, John Norman   FGS FZS
1960    MYERS, John   BSc FRGS FGS
1962    CURRY, Dennis MA FGS
1963    ELLIOTT, Graham Francis FGS
1964    PEAKE, Norman Berry   FGS
1965    HANCOCK, John Michael MA PhD FGS
1966    CARRECK, Marjorie Winifred
1967    PITT, Leslie John   FGS
1968    STINTON, Frederick Charles   FIMLT
1969    AGER, Derek Victor   DSc PhD DIC FGS
1970    CAMBRIDGE, Philip George
1971    COLLINS, Joseph Stephen Henry   AIAT FGS
1972    MIDDLEMISS, Frank Alexander   BSc PhD FGS
1973    WATSON, Janet   BSc PhD ARCS FGS
1973    AINSLEY, James Basil George   FGS
1974    SMITH, William Edward   MSc PhD FGS
1975    PURCELL, Thomas Samuel   BSc FGS
1976    MONTFORD, Horace Mowrie   OBE BSc FGS
1977    NEGUS, Peter Edwin
1978    RAINED, George Thomas   BSc AMInstPet FGS
1979    PUGH, Mary Elizabeth   BSc Msc
1980    THOMAS, Alun James   BSc
1981    WALLACE, Peigi Gwendoline Margaret BSc PhD FGS
1982    WRIGHT, Herbert Newton
1983    ARBER, Muriel Agnes   MA FGS FRGS
1984    AVENT, Edgar William   FGS
1985    LEAROYD, Derek Hudson   BSc FGS
1986    FRENCH, William John   BSc PhD FGS
1987    DUFF, Keith Leslie   BSc PhD FGS
1988    DANGEROUSWATER, John   BSc
1989    AUSTEN, Peter Allen   BSc PhD
1990    SYMES, Robert Frederick   BSc PhD
1991    TIMBERLAKE, Simon   BSc
1992    SMITH, Ronald Benjamin Jack
1993    ROBERTS, Ronald Hugh   BA FGS
1993    TIMMS, Alan Ernest   BSc MSc PhD
1994    DAWN, Alan
1995    DELLOVY, Sheilah Margaret MA MSc DIC
1996    DOBSON, Margaret Elsie Boskelyn BSc FGS
1997    WHITTEN, Eric Harold Timothy   BSc PhD CGeol
1998    REYNOLDS, John Richard
1999    HOTCHKISS, William
6. Appendices

<table>
<thead>
<tr>
<th>Year</th>
<th>Name</th>
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<tr>
<td>2000</td>
<td>THOMAS, Josephine Ann</td>
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<td>VAN ROSE, Susanna BSc</td>
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<td>BONE, David MPhil</td>
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<td>2008</td>
<td>GREENSMITH, John Trevor BSc PhD FGS</td>
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**Recipients of the Henry Stopes Medal**

<table>
<thead>
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<td>WARREN, Samuel Hazzledine FGS</td>
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<td>OAKLEY, Kenneth Page DSc PhD FGS FBS FSA</td>
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<td>LEAKEY, Louis Seymour Bazett MA PhD DSc FBA</td>
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<td>DEWEY, Henry FGSA</td>
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<td>TOMLINSON, Mabel Elizabeth BA DSc PhD FG</td>
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<td>MITCHELL, George Francis MA MSc MRIA FGS</td>
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<td>SHOTTON, Frederick William MBE ScD FGS</td>
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<td>CORNWALL, Ian Wolfran BA PhD</td>
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<td>WYMER, John James MA FSA AMA</td>
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<td>WAECHTER, John PhD FSA FGS</td>
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<td>LEAKEY, Mary DSc DSSc DLitt FSA</td>
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<td>BUTZER, Karl Willhelm BSc MSc DrRerNat</td>
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<td>SUTCLIFFE, Anthony John BSc PhD FGS</td>
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<td>MOLLESON, Theya Ivitsky BSc</td>
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<td>ROBERTS, Mark BSc PhD</td>
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<td>LISTER, Adrian BSc PhD</td>
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<td>STRINGER, Christopher BSc DSc FRS</td>
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<td>BRIDGLAND, David BSc PhD</td>
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<td>ROBERTS, Mark BSc PhD</td>
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**Recipients of the Halstead Medal**

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<thead>
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<th>Year</th>
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<tr>
<td>1991</td>
<td>PICKFORD, Ronald Frederick.</td>
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<td>BROOKS, Kenneth James</td>
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<td>HARDY, Peter Graham</td>
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<td>MACADAM, John</td>
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<td>CRAIG, James Kincaid</td>
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<td>1999</td>
<td>BISHOP, Arthur Clive BSc PhD FKC FGS</td>
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2000  COPE, Frederick Wolverson BSc PhD FGS
2001  KENNETT, Peter BSc
2002  STONELEY, Robert PhD FGS
2003  DOYLE, Peter BSc PhD CGeol FGS
2004  RUNDLE, Adrian Jonathan BSc PhD
2005  ETCHES, Stephen Morris
2006  HORSLEY, David BA
2007  SMITH, Doreen BSc
2008  BUTLER, Barbara Joan

Recipients of the Richardson Award
1997  OWEN, Hugh Gwyn PhD
1998  BRISTOW, Clement Roger PhD, MORTIMORE, Rory Niall
       Peter PhD and WOOD, Christopher John
1999  NUNN, John Frederick PhD
2000  HOWARTH, Richard John BSc PhD FGS
2004  EDWARDS, Murray, VARAH, Mark and BENTLEY, Alan
2005  ALDISS, Donald Tristam and WOOD, Mark
2006  EVANS, Graham BSc PhD DIC
2007  WRAY, David Stanley BSc PhD FGS and GALE, Andrew BSc
       PhD FGS

Geologists’ Association Special Lectures
1962–63  R. G. WEST MA PhD FGS “Problems of the British Quaternary”
1963–64  S. BUCHAN BSc PhD FGS “Hydrogeological Research”
1964–65  Prof F. H. T. RHODES DSc PhD FGS “The Course of Evolution”
       the Interpretation of Ancient Volcanoes”
1968–69  R. CASEY DSc PhD FGS “Four Dimensions of the Cretaceous”
1969–70  Prof P. C. SYLVESTER-BRADLEY FGS “Environmental Parameters for the Origin of Life”
1970–71  Prof D. L. DINELEY PhD FGS “Arches and Basins of the Southern Arctic Islands of Canada”
1971–72  A. J. CHARIG PhD MIBiol FGS “Recent Advances in Dinosaur Research”
1972–73  E. R. OXBURGH MA PhD FGS “Plate Tectonics and Continental Collision”
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1974  R. J. ADIE BSc PhD FGS “The Geology of Antarctica”
1975  J. E. GUEST MSc PhD FGS “The Geology of Mars and Mercury”
1976  Prof M. H. P. BOTT, PhD FGS “The Mechanism of Formation of Sedimentary Basins with Reference to Origin of Carboniferous and Later Basins of the British Region”
1977  Prof D. J. BLUNDELL BSc PhD DIC FGS “Predicting Earthquakes”
1978  Prof W. G. CHALONER BSc PhD FRS FGS “Origin and Early Evolution of Plant Life on Land–The Silent Invasion”
1979  Prof H. B. WHITTINGTON DSc PhD AM FRS FGS “Significance of the Soft Bodied Fossils from the Burgess Shale, Middle Cambrian, British Colombia”
1980  D. R. STODDART “Coral Reefs”
1981  H. G. READING MA PhD FGS “Tectonics and Sedimentation”
1982  R. V. MELVILLE MSc “The International Commission on Zoological Nomenclature”
1983  Prof W. S. PITCHER PhD DSc DIC MIMM FGS “Granites and yet more Granites—Forty Years on”
1986  Prof J. R. CANN MA PhD FGS “Black Smokers and the Origins of Cyprus Copper Ores”
1987  Prof J. C. BRIDEN MA PhD FGS “Palaeomagnetism”
1988  Prof A. GOUDIE “The Power of Wind in the Arid Landscape”
1990  Prof M. R. HOUSE MA PhD DSc FGS “New Time Scales for Geology Using Orbitally-Controlled Cyclicity”
1991  Prof W. J. MCGUIRE BSc PhD “Monitoring Active Volcanoes”
1992  Prof J. F. DEWEY DSc FRS FGS “Displacement, Strain and Rotation in Plate Boundary Zones”
1993  Heather COUPER, PhD “Geology of the Planets”
1994  Sue RIGBY, MA PhD “Bringing Graptolites to Life”
1995  R.A. FORTEY MA PhD DSc FRS FGS “Fossils in the Hidden Landscape”
1996  Prof W. E. GALLOWAY “Sediment Supply to the North Sea Basin and Development of Tertiary Sequences”
1997  Prof R. COOPE BSc PhD FGS “Taking the Temperature of the Ice Age: A Beetle’s Eye View”
1998  Prof C. HAWKSWORTH BSc PhD FGS “Rates of Geological Processes”
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1999  Prof J. JACKSON MA PhD FGS “How Earthquakes Make Mountains”
2000  Prof S. JONES BSc PhD “Genetics and Geology: Are they related?”
2001  Prof Dianne EDWARDS CBE MA PhD FRS FGS “Plant/Animal Interactions in Ancient Ecosystems”
2002  Prof D. DREWRY MA PhD FGS “Response of Polar Regions to Global Climate Change”
2003  Prof J. CLEMENS BSc PhD “Granites and Granitic Magmas: Strange Phenomena and some recent perspectives on old problems”
2004  Prof D. NORMAN MA PhD FGS “Charles Darwin, the Geologist!”
2005  Prof H. TORRENS MA PhD FGS “English Invention of the Dinosaurs”

Honorary Members (Limited to 25 or fewer at any one time)
1870  CARRUTHERS, William, FRS FLS FGS
1875  WHITAKER, William, BA FRS FGS Assoc.Inst.CE
1876– PRESIDENT of the GEOLOGICAL SOCIETY OF LONDON
1870  JONES, Thomas Rupert, FRS FGS
1886  DUPONT, Edouard
1886  GEIKIE, Sir Archibald, KCB DSc DCL LLD FRS FGS
1886  HUGHES, Thomas McKenny, MA FRS FSA FGS
1888– DIRECTOR of the UNITED STATES GEOLOGICAL SURVEY
1884  LAPWORTH, Charles, LLD FRS FGS
1897  BONNEY Rev Thomas George, ScD LLD MA FRSA FGS FRS FGS
1900  BARROIS, Charles, D.es-Sc Dsc
1900  DAVIES, William Morris, Meng
1908  POTTER, George, FRMS
1909– DIRECTOR of the BRITISH GEOLOGICAL SURVEY
1909  DOLLFUS, Gustave F.
1909  MARR, John Edwards, MA ScD FRS FGS
1910  MIERS, Sir Henry Alexander, MA FRS FCS FGS
1912  HERRIES, Robert Stansfield, MA FGS
1914  HOLMES, Thomas Vincent, FGS FR Antr.Inst
1917  MONCKTON, Horace W., FLS FGS FRNS
1920  NEWTON, Edwin Tulley, FRS FGS FZS
1923  YOUNG, Alfred Collett C., FCS
1925  WOODWARD, Sir Arthur Smith, FRS, FLS FGS
1925  WATTS, William Whitehead, ScD MSc FRS FGS
1925  YOUNG, George William, FGS FZS
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1926  SOLLAS, William Johnson, MA LLLS ScD
1931  PRINGLE, John, DSc FGS
1931  SHERLOCK, Robert L., DSc FGS
1932  DIBLEY, George Edward, FGS
1933  DAVIES, George MacDonald, MSc FGS
1933  WARREN, Samuel Hazzledine, FGS
1934  BULL, Alfred Joseph, MSc FGS
1937  BAUER, Miss Grace M.
1937  COX, Arthur Hubert, DSc PhD FGS
1937  FLETT, Sir John Smith, KBE MA LLD DSc FRS
1938  COLLET, Prof, Leon DSc
1939  JOHNSTON, Miss M. P.
1940  GREEN, J.F., BA FGS
1942  BOSWELL, Percy George Hamnall, FRS FGS
1943  HORLEY, Charles W., CMG AMInstCE FGS
1944  RICHARDSON, Lindsall, FRSE FGS
1944  SHERLOCK, Robert L., DSc FGS
1946  BROWN, E. Earnest S., MBE FGS
1946  BULL, Alfred Joseph, MSc, PhD FGS
1946  SWEETING, George S. DIC FGS
1946  STOPES Marie, C., DSc, PhD, FGS FLS
1949  HAWKINS, Herbert Leader, DSc FRSE FGS
1950  HOLTEDAHL, Olaf
1951  CADISCH, Joos
1953  FLEET, W. F., PhD MSc
1956  HEANLEY, Charles Montague, MB BS FGS
1956  STEBBING, William Pinckard Delane, JP FSA FGS LRIBA
1958  DELEPINE, Prof Georges
1958  HIMUS, Godfrey Wilfred, PhD FGS
1958  RANSON, John, AMIMinE FGS
1958  READ, Prof Herbert Harold, DSc, FRSE FRSE FGS
1958  RUTTNER, Anton, PhD
1958  WELLS, Alfred Kingsley, DSc FGS
1960  CHATWIN, Charles P, MSc, FGS
1960  COX, Leslie Reginald, OBE, MA ScD FRS FGS
1962  EASTWOOD, Tom, ARCS, MIMM, FGS
1962  LANG, William D., MA ScD FRS FGS FZS
1962  THOMAS,
1964  CHUBB, Lawrence, DSc, PhD FGS
1964  DAVIES, George MacDonald, MSc FGS
1965  BROWN, Mrs E. E. S.
1966  WILLIAMS, Prof David, DSc PhD BEng DIC MIMM FGS
1966  WRIGHT, Claud William, CB MA FilDr FGS

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1967  HARRISON, John Vernon, MA DSc FGS
1967  HARRISON, Mrs Janet, MA, BSc,
1967  HESTER, Sydney William, MBE FGS
1968  EVANS, Percy, MA MIPET FGS
1968  MACFADYEN, William Archibald, MC, MA, ScD PhD FGS
1969  CASTELL, Cyril Philip, BSc, FGS
1970  LAURENTIAUX, Prof Daniel DSc
1971  CURRY, Dennis, MA FGS
1971  KIRKALDY, Prof John Francis, DSc FGS.
1972  PITT, Leslie
1973  CHEESEMAN, Ronald, MSc
1973  NICHOLAS, Tressilian Charles, OBE MC MA FGS
1973  PERCIVAL, Frederick George, OBE BSc PhD MIMM FGS
1973  PITCHER, Prof Wallace Spencer, PhD DSc ScD FIMM FGS
1973  STUBBLEFIELD, Sir James DSc FRS ARCS FGS
1974  SMITH, Prof Alec James, BSc PhD FGS
1975  SUTTON, Prof John, ARCS PhD DSc FRS FGS
1975  WILSON, Gilbert, DIC PhD DSc FGS
1976  HANNAH, L. A.
1976  SMITH, William Edward, BSc PhD FGS
1978  KOSTOV, Prof Ivan Nikolov, DIC ARSM FGS
1978  ALLEN, Prof Percival, MA BSc PhD FRS FGS
1978  OXBURGH, Prof Sir Ernest Ronald, KBE MA PhD FGS
1989  KNILL, Prof John Lawrence, DSc DIC FICE FGS
1990  ARBER, Muriel Agnes, MA FRGS FGS
1990  ATTENBOROUGH, Sir David, OM CH CVO CBE Hon DSc
1990  AVENT, Edgar William, FGS
1990  WELLIS, Maurice Kingsley, DSc FIMM Ceng FGS
1993  NEGUSS, Peter Edwin
1994  DELLOW, Sheilah Margaret, MA MSc DIC
1994  MIDDLEMISS, Frank Alexander, BSc PhD FGS
1994  COPE, Prof Wolverson Frederick, DSc Ceng FIMinE FGS
1994  OWEN, Ellis Frederick, BSc PhD
1995  GREEN, Christopher Paul, BA DPhil FGS
1996  DUFF, Keith Leslie, BSc PhD FGS
2006  CARRECK, Majorie
2006  PUGH, Mary Elizabeth, BSc MSc DIC
2007  GREENSMITH, John Trevor, BSc PhD FGS

Honorary Vice Presidents
1999–2006  Baroness Young of Old Scone
1999–2006  Rogers, Prof Alan, FGS
6. Appendices

Appendix III. List of recorded Donations, legacies and sponsorship

The following list, in addition to those items described in the text, has been compiled by Leake and Bishop from the Council minutes for 1959 to 1995 and from the Annual Report from 1996 onwards. All sums are rounded to the nearest £1. Unmentioned years have no donations recorded. In addition there were many donations of books. Where applicable: GA, Geologists’ Association; RW, Rockwatch; EA, ‘Earth Alert’ meeting; JAPEC, the Joint Association for Petroleum Exploration Courses; PESGB, the Petroleum Exploration Society of Great Britain.

1959  Mrs M. A. S. Treacher bequeathed £299 for Pleistocene research.
1960  After 5 years of negotiations the Busbridge will was settled and the GA would receive £1,600 forthwith and a balancing payment later [which was £211 minus a solicitor’s fee].
1961  William Leslie Turner £100; W. P. D. Stebbing £100.
1962  Gilbertson-Smith legacy £8,182.
1963  Miss Grace Bauer £150.
1964  Gilbertson-Smith legacy: final sum of £206 received making £8,388 in all; Doris H. Bell and her mother £5 and Miss H. M. Box £1, all in memory of Mr H. G. Bell.
1967  Miss A. M. Ferrar £10; Lindsall Richardson legacy £5,488.
1968  Dr A. F. Hallimond legacy £100.
1969  Anonymous £40.
1970  International Association of Volcanology and Chemistry of the Earth’s Interior £180 towards the cost of the Mull and Skye Guides; Clare College, Cambridge, £50 towards the cost of a paper by R. G. West; Jesus College, Cambridge, £50 towards the cost of a paper by B. W. Sparks £50; various books from various donors.
1974  Miss Emily Eastwood bequest, £1,874.
1976  A further £1,000 from the Eastwood bequest; Mr C. L. Bellamy £25; Mr J. F. Wyley £100.
1977  Anonymous £150; £75, £5,000; Eric Robinson £20, Dr P. Wallace £158.
1979  Miss Muriel Arber £50.
1980  Prof Janet Watson, £50; Mr R. H. Blunden £12; Mr H. M. Mountford bequest £1,000; Mr H. I. Porter bequest £500.
1981  Miss M. A. Arber £50; Dr M. K. Wells £5; Mr R. G. Atkinson £20 to initiate a fund for binding the Association’s copies of the PGA; President’s Appeal for this binding, £1,400 by the end of 1981.
1982  President’s ‘binding’ appeal closes at £1,642; Miss Muriel Arber £15; D. Wilson, £5; A. Stuart £25; Royal Society towards the cost of PGA 93(1), Holocene sea levels, £950.
6. Appendices

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<td>1983</td>
<td>Mr R. J. Welch bequest £1,000; Southern Lapidaries £30; Miss Muriel Arber £15; Dr M. K. Wells £6 and to be made annually; anonymous £6, £6.</td>
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<tr>
<td>1984</td>
<td>Southern Lapidaries £75; Miss Muriel Arber £15; Mrs I. Purcell £5; Mr E. Venables £12; Miss E. M. Purcell £5; Richard Taylor £10; Miss Muriel Arber £25.</td>
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<td>1986</td>
<td>Dr N. F. Hughes, £100; B. G. S. £50; Jean Linfoot bequest £100.</td>
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<td>1987</td>
<td>Mrs J. M. Eyles bequest £500; Dr Gilbert Wilson, bequest £1,500; Anonymous for Visitors’ Fund £12; Dr M.K. Wells increased his annual donation to £12; various anonymous donations towards the Reunion.</td>
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<td>1988</td>
<td>Christopher Thomas, 1/20 of estate: £18,000 [Council decided to use the fund towards the cost of the centenary volume of <em>PGA</em>].</td>
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<td>1989</td>
<td>Mr R. Smith £8,000; Mr W. J. Baker bequest to support fieldwork £2,000; Mr James Robertson £50.</td>
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<td>1990</td>
<td>Stallholders at Reunion £250.</td>
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<td>1992</td>
<td>Mrs M. R. Pitt bequest £1,000. £150 for the Halstead Fund in memory of Gordon Osborn.</td>
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<td>1993</td>
<td>Colin Forbes £1,000; Shanks &amp; McEwen (<em>via</em> Dr Keith Duff) £2,000 for Curry Fund; Mr John Wyley bequest £5,000.</td>
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<tr>
<td>1995</td>
<td>Unnamed donor bequest £5,000; donations received to date (£2,000) to increase the number of pages in the <em>PGA</em>.</td>
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<td>1996</td>
<td>GA James Alfred Richardson, Mrs Doris Maud Richardson and John Victor Richardson, £5,000; Enterprise Oil £1,000; Antonia M. Ferrar £526; Avent Will £5,000; Frank Middlemiss Fund £2,058; PESGB £1,000 (for Dorset Guide); Amerada Hess £700.</td>
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<td>1997</td>
<td>GA Enterprise Oil £1,000; Amerada Hess £700; John McCheyne £100</td>
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<td>1998</td>
<td>GA Enterprise Oil £1,000; PESGB £1,000 (for Yorkshire Coast <em>Guide</em>); David Morris £2,000; James F. Berry bequest £15,000; Shanks &amp; McEwen £2,350; Amerada Hess £700; English Nature £750</td>
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<td>1999</td>
<td>GA John Farnaby legacy £1,000; Enterprise Oil £500; English Nature £750</td>
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<td>EA JAPEC £5,000; Amerada Hess £1,600; Blackwell Science £3,000; Isle of Wight County Council £4,000.</td>
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<td>EA Harrow &amp; Hillingdon Geol. Soc. £100; Gemmological Association £100; Brighton &amp; Hove Geol. Soc. £100; Southern Water £2,350; FLAGS £100; British Micro-mount £250; Open University Geol. Soc. £100; Farnham Geol. Soc. £200; Sussex Mineral &amp; Lapidary Soc. £200; Dorset GA £100; Hanson Quarry Products £5,000</td>
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2000  GA  William Smith legacy £10,193; William F. Nenninger legacy £500; Ranger Oil £250
       RW  Blue Circle £350
       EA  PESGB £1,000; NIREX £1,000; Old Wandsworthians £1,000; BG International £2,000; Nimir Oil £500; Schlumberger £2,500; Rio Tinto £2,500; American Express £600; Virtual Logistics £5,000; Curry Trust £5,000; Coal Authority £500; Russell Society £250; Enterprise Oil £1,000; I. H. S. Energy £3,000; Burhouse Ltd £500; The Curry Fund £5,500; Chevron Oil, £2,937; Institute of Petroleum £1,000; Tarmac £2,938

2001  GA  Enterprise Oil £1,000; Thomas A. Moore legacy £10,000; Christine M. Woodward £200; Ranger Oil £600; Amerada Hess £500; BHP Billiton £500
       RW  PESGB £3,500; Anadarko Petroleum £3,500; Anglo American £10,000; Shell Expo £1,000; JAPEC £3,500
       EA  Pan Canadian £500; JAPEC £8,000; Coal Authority £500; Ian Sims £75; PESGB £1,000; Institution of Petroleum £500; Southern Testing £250; Tarmac £3,000; GA Enterprises £24; R. F. Symes £23

2002  GA  JAPEC £50,000; English Nature £500; Enterprise Oil £1,000
       RW  Amerada Hess £15,000; Anadarko Petroleum £10,000; Anglo American £10,000; Enterprise Oil £10,000; Shell Petroleum £10,000
       EA  Amerada Hess £500; Blackwells £500; BG £10,000; Chevron Oil £2,000; Curry Trust £2,000; Foster Yeoman £3,000; Hanson £1,500; I. H. S. Energy £4,000; Nimir Oil £4,000; Rio Tinto £3,000

2003  GA  Dorothy Sara Peake legacy £5,000; Individual donations, £765
       RW  Anglo American £10,000; Rothschild £500; ExxonMobil £1,000; Anadarko Petroleum £10,000; Statoil £5,000

2004  GA  Muriel Arber Legacy £5,000; Christine M. Woodward, £100; John McCheyne £100
       RW  Paladin Resources £875; Anglo American £10,000; ExxonMobil £1,000

2005  GA  Elsevier £100; Christine M. Woodward £100; Harry B. Whittington £100; William J. French £240 who also gave annually additional sums.
       RW  Statoil £20,000; Geological Society £5,000; ExxonMobil £1,000

2006  GA  Natural England £500; GA Enterprises £500; C. William Golding £100; Harry B. Whittington £100; Hugh Owen £50
       RW  Statoil £20,000; Anglo American £10,000; Geological Society £5,000; Natural England, £250
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2007  GA  Wyley Bequest £174,000; ENI £250; C. William Golding £100; Harry B. Whittington £100.

RW  Geological Society £5,000; StatoilHydro £20,000; Anglo American £15,000; Geological Society Petroleum Group £4,275; David Horsley £15

2008  GA  C. William Golding £100; Statoil £5,000; Harry B. Whittington £100; Christine M. Woodward £300; ENI sponsorship of wine reception.

RW  Anglo American, £15,000; GA Curry Fund £568; Natural England £500; Geological Society Petroleum Group £2,390; Price Brothers £250; StatoilHydro £20,000; Ware Museum £40
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The Wyley History
of the Geologists’ Association
in the 50 years 1958–2008

by

Bernard Elgy Leake, Arthur Clive Bishop
and Richard John Howarth