From red to black lines and how it was achieved: a personal recollection of the finances and formats of the QJGS-JGS and QJEG, 1950–88 and the formation of the GSL Publishing House

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Winter & Bromhead (2016) summarized the history of the first 50 volumes of the *Quarterly Journal of Engineering Geology* (*QJEG*), later including Hydrogeology (*QJEGH*) 1967–2016 but welcomed additional historical facts. What was unmentioned were the persistent chronic financial deficits of the Geological Society of London (GSL) over 30 years from 1948 (Table 1). This was unsurprising as Winter and Bromhead's tenures as Chief Scientific Editors of *QJEGH* date only from 2007. The deficits underlay most of the Society's problems, especially its publications 1950–80 but which very few Fellows now appreciate. So this serious problem is outlined first, how it was corrected follows and then how the GSL Publishing House was set up. This supplements Herries Davies' (2007) bicentennial history of the GSL.

Table 1. GSL General Purposes Account; audited income & expenditure surpluses and deficits 1950–2000, excluding unrealized gains and losses on investments (£)

deficits 1950	J–2000, exclu	ding unrealize	ed gains and losses on i	investments (t)
Year	Losses	Gains	Year	Losses	Gains
1950	36		1976	27 001	
1951	199		1977	40 461	
1952	115		1978		44 741
1953	61		1979		166
1954	15		1980	16 734	
1955		41	1981		24 971
1956	1 270		1982		22 481
1957	3 352		1983		69 380
1958		709	1984		49 009
1959		841	1985		60 611
1960		761	1986		59 861
1961	90		1987		44 575
1962	1 147		1988	55 410	
1963	480		1989		104 845
1964		8	1990		125 027
1965	151		1991		213 350
1966	1 566		1992		185 873
1967	198		1993		52 837
1968	792		1994		14 696
1969	1 518		1995		146 401
1970	2 339		1996	106 427	
1971	5 890		1997	76 670	
1972	7 740		1998		229 330
1973	9 314		1999		116 700
1974	11 566		2000		76 830
1975	15 301				
·		·	·		

Because of inflation, these figures are hard to appreciate. If considered in terms of how many subscriptions they represented at that time and that figure is multiplied by the present subscription of £198, the seriousness of the situation can be better understood. Thus, between 1950 and 1957, the net loss was £5007 – an insignificant number today – but, when the Fellowship numbered only about 2000 (varying from 1603 in 1950 to 2307 in 1957) and the annual subscription was £3.15 (3 guineas), £5007 is equivalent to 1590¹ subscriptions. At the present ordinary rate of £198, this equals a notional deficit of £314 726. Taking the period 1950–59, with a net loss of £3457, and using the 1958 increased subscription of £5.25 (5 guineas) to adjust for inflation, the sum is equivalent to a notional £130 284 today. Using the official Retail Price Index (RPI) from 1960 to 2016, £3457 becomes £64 530 but the losses later became far more serious, reaching £40 461 in 1977 alone, equal to an RPI-adjusted £132 694 in 2016 values.

Between 1961 and 1980 (i.e. 20 years), there were only three years with surpluses: 1964 with £8, 1979 with £166 and, notably, 1978 with £44 741 (which is explained later). For these years, accumulated surpluses were £44 915 against accumulated losses of £142 288 – and this was after an anonymous donation in 1975 of £68 044 (1975 still recorded a deficit of £15 301). Without appreciating this financial background, it is impossible to understand many of the constraints and decisions made in those years. The main causes of the persistent deficits were losses due to underpricing of the *Quarterly Journal of the Geological Society (QJGS)–Journal of the Geological Society (JGS)* library subscription and of the Fellows' annual dues and their incomplete collection. Publications and dues are two of the three main sources of Society income, the third being other income such as room lettings, donations, bequests and sponsorship. The following account describes how the first two main sources were interconnected, particularly over the years 1970–81, after which surpluses became regular and the norm, but the correcting effects continue even today.

Monetary inflation was undoubtedly a major factor to which the GSL and, indeed, society in general, was slow to adjust. The official Consumer Price Index (CPI) shows an average yearly increase of 6.42% from 1940–49, the cumulative effect of which is more readily appreciated by considering a £10 cost in 1940 and working through the actual yearly inflation figures to find it would have risen to £18.48 at the end of 1949. Similarly, from 1950–59 the CPI rose with a yearly average of 4.30%, making £10 become £15.18. For 1960–69 the figures were 3.53% and £14.14; for 1970–79, a horrendous 12.63% and £32.50; and, for 1980–89, 7.19% and £19.87. The peak was reached in 1975 with a rise in CPI of 24.20%.

Nevertheless, it is not suggested that the Society ever faced bankruptcy; the investments, although often tied up in particular trust funds, were of course reduced very significantly in real terms as they had to be cashed to fund the chronic deficits. The 1950 balance sheet of £31 337 assets depreciated to a stated £73 890 in 1980 when, to match inflation, they would have been well over £200 000. In contrast, the 1990 stated balance sheet assets were £1 430 194.

This account first deals with publications up to 1988, then the dues and finally setting up the Publishing House. Publication Committee minutes are denoted as PCM; Council minutes as CM.

1. Publications, 1950–88

In what follows the focus is on the Society journals, first mainly QJGS, which became JGS in 1971 but with some reference to the early years of QJEG from its start in 1967; from 2000 it has been QJEGH. Apart from 'Special Publications', almost no reference is made to the 'Memoirs', 'Miscellaneous Papers', 'Special Reports' (on the stratigraphical systems, their definitions and subdivisions), 'Geological Society Handbooks', 'Lists of Periodicals held in the Library', 'Lists of Fellows', the Circular and Newsletter and little is mentioned of the Proceedings, 'Annual Reports' or 'Yearbooks', except as a source of information. The Publication Committee had to oversee and arrange within budget both the journals and all these non-journal publications which had to be financed within tight budget controls, edited and seen through to production, distribution and, for most, sales. The Newsletter was excluded from the Publication Committee's remit from the mid-1970s. All together a substantial burden, but crucial to the Society's purpose, existence and reputation.

For the record, the Abstracts of the Proceedings, which had been circulated to Fellows throughout the year for decades and then republished in the QJGS, became the Proceedings from 1952. They were still circulated throughout the year but not republished so that the last QJGS with Proceedings inside was Volume 108, Part 1, issued 29 December 1952 for the Session 1951-52. The 'new' Proceedings, No.1491 in the historical numbering, starting the 1952–53 session, were accompanied by a new publication, the Circular, No. 1 of which was issued on 15 September 1952. This continued until No. 169 of 1 January 1972, being replaced by the Newsletter, Volume 1, No. 1 being issued in March 1972 and continuing for nearly 20 years until Volume 20, No. 1 of January 1991. This was replaced by the Geoscientist, starting with Volume 1, No. 1 of February–March 1991. The *Proceedings* as a separate publication ended with No. 1664A of September 1971 when JGS, which started in January 1971, began publishing Proceedings. This continued until June 1990 when Proceedings ceased to be included in JGS. The writer then organized the publication of a single issue covering July 1990 to 1993, which was circulated to Fellows, after which there has been no systematic preserved record of GSL and Specialist Group meetings.

QJGS and JGS

Even in the 1950s, Arthur Greig, GSL Secretary, Editor and indexer of the *QJGS*, who had worked for the Society since the age of 15 in 1908, struggled with the workload of running the Society and editing the *QJGS*. The *QJGS* was persistently late in appearing during the 1950s (e.g. Part 2 of Volume 107, 1951 was issued 12 May 1952) so that to avoid confusion the telling words '(for 1951)' were included on the cover. It was not until 1960 that

'the late publication of parts of the QJ, caused originally by war-time difficulties was overcome by the issue during 1960 of Parts 3 & 4 of vol. 115 for 1959 and Parts 1–4 of volume 116 for 1960' (Council Report for 1960).

Greig had edited and indexed the QJGS since 1931 in Demy octavo (216×138 mm), which between 1950 and 1962 averaged per year 473 pages (range: 404 to 552) of typically 650 words on 54 lines per page with an average of only 19 papers (range: 17 to 23) per volume, so that the average paper was 25 pages long (Table 2). Greig's editing was slow but very thorough. For instance, he checked every reference in every paper in the GSL library because he found so many errors in those cited by authors – which is probably still true today, but they are not corrected!

Table 2. Number of papers and pages in each volume of the *OJGS* and *JGS* 1950–88

Table 2.	Number	or papers	and pag	cs in cac	ii voiuiii	e or the		u JUS 1	750-00	
Year	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
Vol.	106	107	108	109	110	111	112	113	114	115
Pages	470	457	454	488	443	404	507	523	552	426
Papers	18	23	17	17	17	19	22	20	19	18
Year	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
Vol.	116	117	118	119	120	121	122	123	124	125
Pages	442	506	481	525	559	541	468	393	460	603
Papers	17	19	18	15	20	17	19	14	19	19
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Year	1970	1971	1972	1973	1974	1975	1976	1977	1977	1978
Vol.	126	127	128	129	130	131	132	133	134	135
Pages	539	641	621	653	601	662	711	660	418	655
Papers	19	36	31	30	43	52	47	46	24	63
-										
Year	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Vol.	136	137	138	139	140	141	142	143	144	145
Pages	784	806	756	810	981	1087	1243	968	998	1040
Papers	72	79	67	62	70	91	87	97	89	90

For comparison, Volume 173, 2016 comprised 1024 pages with 79 papers.

The same printers, Richard Clay & Co. Ltd of Bungay, Suffolk, had been used from 1931 until November 1956 when Adlard & Son Ltd, Bartholomew Press, Dorking took over. The only other change was the replacement in 1951 by H.K. Lewis & Co. Ltd of Gower St., London of the publishers, Longman, Green & Co. Ltd, who had dealt with distribution for over 100 years and had been involved with the Society in launching the *QJGS* in 1845.

The price of the QJGS and other publications to subscribers was historically very low and making it realistic was one of the key planks in removing the Society's chronic deficit. The QJGS price was increased to £4 per volume *including* postage from 1 March 1955; from 1 January 1964 it became £8.30 *including* postage; from 1 January 1971 JGS Volume 127 for 1971 became £10 + post & packing £0.50; from 1975 £25; from 1977 £30 +£20 = £50 for two volumes; 1978 £70; 1979 and 1980 £80, 1981 £95 and, by 1987, was £163 and then £177.5 for 1988. The increases were the result of serious price inflation in paper, postage, printing etc.; increased word content (doubled over the years 1950–77) and, from 1976, a deliberate attempt to achieve a

surplus for the Society over the cost of supplying subscribers and members with the journal which, together with economies described later, turned publication losses into surpluses coming to the Society, as described later for both *JGS* and the *OJEG*.

Greig formally retired in April 1961 but continued to index the QJGS and JGS until he was 90 in 1983; an unprecedented 75 years of Society service. This was interrupted by being in the army in the First World War, in which he rose to be a captain, and in the Second World War in which he continued to edit a much reduced QJGS while in the army. Instead of appointing an Editor to deal with the QJGS plus the Society's Proceedings, the Circular, the newly (1958) introduced Memoirs and the Special Publications that were to be started in 1964, and a separate Executive Secretary to run the increasing duties being undertaken by the GSL, one post only was funded because of the financial situation. I believe that this was a catastrophic error which, in view of the number of years the QJGS had already been seriously late in appearance plus the recent extra introduction of the Memoirs, it ought to have been obvious at the time that it was not a sensible decision. The Editor and publications had the support of only a single Secretary-typist who took and typed the minutes, packed and unpacked, added, withdrew and arranged, the stocks of published books and journals in the cramped basement of Burlington House, answered correspondence, posted papers to reviewers, printers and later editors but did not undertake marking up for the printer. Space in the basement to store publications was so restricted that much unnecessary effort went into moving stock about and this later reached crisis point in the 1970s.

Bruce Wilcox was appointed in 1961 to replace Greig. He had to resign his Fellowship to be an employee. Wilcox, who had an aesthetic appreciation of books and journals, changed the format of the QJGS in 1963 (Volume 119) to the larger size of Crown quarto (248 × 178mm). This was better for maps but because he chose larger type and wider margins, the number of words per page actually fell to about 540 on 45 lines, which was unfortunate as the need was to economically increase the number of published words as the volume of submitted scientific papers increased. Librarians dislike changes of journal page size as it reduces efficient use of stacking space. Under Wilcox the QJGS came out promptly and within the intended year of the volume, with the final fourth part appearing each year in November. The new format was to continue until 1970 and, during the period 1963-70, the average number of pages per volume was 511 (range 393 to 603), containing an average of only 18 papers (range 14 to 20). This therefore averaged 28 pages per article, effectively the same as in the period 1950–62 in the previous format – a few long papers making each volume (Table 2). However, Wilcox stayed only five years, resigning to go to Oxford University Press (OUP) on 31 May 1966 and Gilbert Elliott Satterthwaite was appointed to replace him.

Almost immediately the *QJGS* began to be late in appearance. Part 2 of Volume 122 for 1966 had appeared in good time in May 1966, edited by Wilcox. Part 3, edited by Satterthwaite, was published in November 1966 but Part 4 did not appear until June 1967. The publication dates of the last eight volumes of the *QJGS* are given in Table 3, with parts becoming up to a year late in appearance as some editorial duties on the *QJEG* from 1967 were added to those noted above. In addition, the proliferation of Specialist groups and other non-publishing Society activities and problems increased, such as for one example, the 1964 removal of Burlington House from exemption from rates which, after a prolonged battle involving Satterthwaite was changed to an 80%

exemption as a charity with the Royal Society agreeing to some transitional funding coming to the GSL. Even the *Proceedings*, being a record of all the Society meetings and accounts, became much more difficult to compile because before the 1963 Glasgow meeting there were effectively no meetings outside Burlington House, whereas after this even some Ordinary meetings were held outside London. In addition, from 1964 Society Specialist Group meetings regularly took place in various places outside Burlington House, all making the compilation of the meeting record much more difficult for the Burlington House-based Editor of the *Proceedings*, which in themselves had expanded from about 150 pages per year in 1950–54 to 250–350 pages per year in the late 1960s.

Table 3. Dates of publication of the four parts of the last QJGS volumes 119 (1963) to 126 (1970) and the six parts of the first six JGS volumes 127 (1971) to 132 (1976)

Volume	Year	Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
119	1963	5/4/63	28/663	27/963	17/1163		
120	1964	18/264	21/464	14/864	25/1164		
121	1965	17/565	20/7/65	7/965	23/1165		
122	1966	18/266	20/566	30/1166	30/6/67		
123	1967	15/9/67	24/11/67	29/12/67	29/3/68		
124	1968	31/10/68	25/3/69	25/11/69	30/12/69		
125	1969	30/12/69	20/2/70	20/4/70	31/7/70		
126	1970	30/12/70	30/12/70	15/3/71	28/5/71		
127	1971	8/1/71	3/71	5/71	7/71	9/71	11/71
128	1972	1/72	3/72	5/72	7/72	9/72	11/72
129	1973	15/1/73	14/2/73	13/4/73	14/6/73	20/8/73	11/10/73
130	1974	14/12/73	14/2/74	3/5/74	28/6/74	27/8/74	9/10/74
131	1975	13/12/74	17/3/75	10/5/75	30/6/75	8/9/75	6/11/75
132	1976	9/12/75	6/3/76	15/5/76	14/6/76	2/10/76	8/11/76

Except for Part 1, January 1971, there are no precise days available for volumes 127 and 128. JGS parts are intended to appear in January, March, May, July, September and November which months appear on the cover.

Discontent among Fellows at the late appearance of the *QJGS* began to be evident which, considering that the majority of Fellows resided well outside the London region and rarely attended meetings, was understandable as the *QJGS* was the main tangible return for their annual dues. Also, as geologists became increasingly more specialized into the spreading branches of geological research, and specialist commercially-produced journals, such as OUP's *Journal of Petrology* (launched 1960), catered for these interests, the *QJGS* needed to enlarge the fields it covered so that ideally each volume would contain something of interest to as many Fellows as possible. This was impossible with the small number of papers (*c*. 18) published each year. The dissatisfaction over the late appearance of the *QJGS* was the focus of particular complaint at the AGMs and the Council was therefore wary of increasing the dues adequately to both match inflation, which unfortunately successively increased every year from 1967 at 2.50% (CPI) to 1975 at 24.2%, and to provide extra for the needed increased funding to expand the *QJGS*, the needed additional senior staff in the Society and to convert the chronic annual deficits into surpluses.

Fellows were submitting their papers elsewhere because of the long delays in publication and questioning why they should belong to the Society and the number of new Fellows was not rising as quickly as recruits to the profession. For instance, the writer submitted his Cashel work (Leake 1969) on 4 January 1967. The revised typescript, following the referees' requirements, was returned on 16 June 1967 but the paper did not appear until nearly three years later on 20 February 1970, being in the second of four parts for 1969. In addition, Satterthwaite, had by mistake sent the unrevised original to the press so what was published was the original unamended submission; symptomatic of the prevailing disorganization. By late 1969 the chronic delays in the appearance of the OJGS (and the OJEG – in this case mainly because of a lack of papers) caused some recognition of Satterthwaite's overload. This prompted the appointments in late 1969 of W. W. Bishop to work in conjunction with Satterthwaite and relieve his QJGS overload, and W. R. Dearman to work with the Engineering Group editors and G. Lees on the QJEG. Bishop became the first Scientific Editor of JGS in 1970 as distinct from the technical editor (Satterthwaite; although this term was never used) and Dearman took over from Lees in the same position in 1972. Bishop also became Chairman of the Publication Committee.

Satterthwaite, however, had begun to crack under the strain and blame the printers for the delays, which was exposed when fortuitously in 1970 Bishop opened a drawer to find a pile of unedited papers which had allegedly been sent to the printers months before without the expected proofs being returned. Satterthwaite resigned and departed on 31 March 1971, being relieved of all editorial duties from the 1 January 1971. He was replaced by David G. Clayton who was employed from March 1971 with no editorial duties; an excellent appointment but the Officers were strongly influenced by the fact that Clayton had two pensions from previous employments and could therefore be taken on at a low emolument.

The main cost saving that was introduced during Satterthwaite's time, but not on his initiative, was a move from printing with Adlard's of Dorking, who had printed the QJGS since November 1956, to the Universities Press at Belfast. The savings were so great that the move was made in the middle of Volume 124 for 1968 with Part 1 of 31 October 1968 being printed by Adlard's and Part 2 of 25 March 1969 being printed in Belfast. The Universities Press was, and continued to be for many years, at least 10% cheaper than English printers, estimated in 1973 to be a 10–15% saving (PCM). JGS was printed in Belfast until Volume 154 in 1997 when printing was moved to Henry Ling Ltd of Dorchester, in part because of the cheaper cost of transporting publications to the GSL Publishing House warehouse in Bath. The QJEG moved from J. W. Arrowsmith of Bristol to the Universities Press, Belfast after Volume 7, Part 2, 1974 and adopted side-stabbed binding until 1979. The most important change in Satterthwaite's time that was to improve JGS was the decision of the Council on 10 May 1967 to open the QJGS to papers from non-Fellows and to remove the requirement for papers to be read at a meeting of the Society. This was the most important factor in attracting papers from authors outside the UK, but obviously took some years to be as effective as today.

In 1970 W. S. Pitcher, knowing the writer had become an Assistant Editor of *Mineralogical Magazine* under the Editor, Max Hey (and would be for 13 years), asked me to join the *QJGS* Subcommittee of the Publication Committee to assist. It was through P. McL. Donald Duff of Edinburgh and with the support of the President,

T. N. George of Glasgow, who chaired the Publication Committee, that Douglas Grant, highly respected and extremely experienced Edinburgh publisher, was brought in and successfully bid in 1970 against four other publishing houses to take over publishing the new JGS, Volume 127 in the QJGS sequence, from January 1971 and also the QJEG and any other Society publications. Grant had successfully launched the Scottish Journal of Geology in 1965 from the amalgamation of the two Glasgow and Edinburgh Geological Society Transactions and implemented a number of innovations. His terms were extraordinarily generous; he charged nothing for his time and skill, such as marking up manuscripts, buying paper, negotiating with and paying printers, except a 10% commission on all library subscriptions which his firm, the Scottish Academic Press (SAP), billed and collected; there were no additions or commissions on the buying of paper, printing and postage which the Society met at the end of the year for subscribers' and members', mostly Fellows', copies. Although the completion of the last volumes of the QJGS (volumes 124, 125 & 126 for 1968, 1969 & 1970) was not part of the SAP contract, Grant undertook to see these published with no charge by SAP. The distribution contract with H. K. Lewis was terminated at the end of 1970. Like all journal publishers, the real attraction was the advance payment by libraries, usually between September and December for the following year, the expenditure of which only dribbles out from March to December in the year of publication, leaving the use of substantial capital for much of the year to invest in book production or even just bank, during a time when the bank rate was 7.5% in 1970, increasing erratically to 13.0% in 1973 and even to 14.25% in 1976.

The new JGS appeared at the same size $(175 \times 250 \text{ mm})$ as the last volumes of the QJGS but with different coloured covers for each volume, which made it easier to identify different volumes on bookshelves, whereas the QJGS (and most academic journals) had hardly changed cover colour for over decades. This innovation had been introduced by Grant for the Scottish Journal of Geology, together with a different geological photograph on the front of each volume. (A different photograph on each JGS volume was not introduced until January 2003 and then was mostly obscured.) With slightly smaller margins, 47 lines and 580 words per page were obtained, little different from the 45 lines with 540 words of the previous QJGS. The intention was for shorter papers, maximum 24 pages, but this took some time to achieve as the initial revised papers awaiting publication had not been given this restriction. Nevertheless, whereas the last QJGS (Vol. 126) had 19 papers (Table 2), with 15 averaging 33 pages in length, including one with 61 pages, and there were in addition only four papers less than 20 pages, Volume 127 had 24 papers less than 20 pages and the longest paper had 49 pages, with almost double the number of papers printed, 36 (+Proceedings) compared with 19. In general, as Table 2 shows, the number of articles published per year erratically increased to 70 for 1977 (two volumes) and 82 in 1979. Most importantly, JGS came out promptly, as the figures shown in Table 3 demonstrate.

When Bishop, who edited the 1971 and 1972 volumes, asked the writer to take over as Scientific Editor from the 1973 volume, there were some misgivings in the Council at the editing going outside London for the first time in 129 years – to remote Bristol! There were 19, mostly long, papers awaiting editing and the post-midnight oil was burnt for weeks to work through these. All the papers for the January, March, May and July issues of 1973 were then with the printer in September–October 1972 and the 1973 September issue copy by the end of November 1972 (PCM). The 1973 volume

consisted of two papers received in revised form in April and October 1971, two revisions received in January 1973 and the remainder were received in revised form in 1972 which cleared all the accepted papers originally submitted in 1971 and the last accepted one originally submitted in 1972 appeared in March 1974. Publication was then offered within a year if the author revised promptly or within 6 months for short papers. Most importantly, the writer made the printing and dispatch dates earlier as the Belfast bindery had labour problems and could take up to three weeks after printing to finish the binding. This had resulted in the January 1973 part being issued on 15 January 1973 and not before 1 January as intended. The aim was to have JGS on UK Fellows' desks on or before the first day of the nominal month of issue and for overseas Fellows during the month of issue, or at least the following month. To achieve this, the writer arranged with the printer to print seven weeks before the beginning of the nominal month of issue and promised him to always have the final revises there at least a week before this, which was kept to. As Table 3 shows, except for the above-noted initial January 1973 issue, for two years for Volumes 129 and 130 only the May 1974 number, issued on 3 May 1974, just missed the target due to a postal strike that went on for several weeks. The built-in extra time was justified by this and by a three-week strike at the printers in January 1974 which did not delay the March 1974 part. Effectively there had then been four years (1971–74 inclusive) of prompt publication with two years of 'overkill' which completely dispelled the ignominious reputation which the four years (1967–70) of delayed QJGS publication had generated. This was necessary to firmly establish that on-time publication was reliably restored. The evidence that it had worked was the marked increase in the number of papers being submitted, the financial implications of which are dealt with later.

The *Proceedings* gave the most trouble to a single editor. These were summaries in chronological order of the dates, locations, subjects discussed and papers given at the Ordinary, Special and Annual General Meetings plus the meetings of eight Specialist Groups, the Secretaries of which were supposed to send in summaries of meetings held. The *Proceedings* relentlessly moved forward in date so that an event omitted was not subsequently recorded. Typically, about 50 meetings a year were involved. Many of the Groups did not supply information without being chased by the editor – ignoring pleas from the Assistant Publications Secretary. Ironically, the worst was the Geological Information Group which almost never supplied an account of their meetings and the one to two line record that is published had to be taken by the Editor from the published titles of the intended meetings, whether actually held or not. This was time-consuming and obtaining information at the last minute made it difficult to just fill the last signature² without going into a fresh one; one of the economical jiggles that also influenced which combination of papers went into any particular issue. Until the contents were fixed the cover listing of the contents by the editor could not be sent for setting, and one of the advantages of having a stack of revised proofs to draw on was that it gave flexibility depending on the size of the Proceedings. Another was that as inflation, measured by the CPI, increased from 7.1% in 1972 to 9.2% in 1973 to 16.0% in 1974 and reached 24.2% in 1975, any typesetting done earlier cost significantly less than that done even a few months later. Grant began to buy larger quantities of paper in advance as these had discounts and delivery charges per bale were less for larger orders.

At the Publication Committee of 31 October 1973 the writer gave notice that after the two years 1973 and 1974 he would resign the Scientific Editorship because of the pressure of work which was mounting as more and more papers poured in. The Scientific Editorship passed to W. D. I. Rolfe of the Hunterian Museum, University of Glasgow, who sensibly organised a team of editors to take over and share the work, including one who solely dealt with the *Proceedings* – R. R. Skelhorn, who did the job superbly from 1974–81. The editorial team was an innovation which the writer supported but could not find the time to organize while coping with all the other tasks in addition to his teaching and research. Rolfe served for 1975 and 1976, being succeeded by A. L. Harris for 1977 and G. Thomas for 1978–83, all as Head of a team of editors. So the writer was the last single editor in a line going back to 1845.

By 1974 the Society's position was much improved; the new meeting room had been finished, albeit by wisely spending ahead of receipt of all of the covenanted contributions by means of an expensive bank loan (the bank rate was 12.75-11.50% in 1974); papers were flooding in for *JGS*, the subscriber numbers had increased from less than 700 in 1969 to well over 900 in 1974 (with 1000 as the target, which was not to be achieved, if it was, until 1978); OJEG parts were still late in appearance because of copy flow, but not seriously late and the *QJEG* subscribers had reached 480 (PCM), corrected later to 512; the GSL Fellowship numbers were increasing rapidly from 3194 in 1969 to 4008 in 1974, thus exceeding 4000 for the first time and the highest ever number of new Fellows (394) was elected in 1974. Nevertheless, despite this now favourable climate among Fellows and the frightening continued increase in inflation in 1974 to 16.0% (CPI) or 19.1% (RPI) and to 24.2% (CPI) or 24.9% (RPI) in 1975, Council did not increase the Fellows' dues at all in 1974 or 1976 and only by £3.50 in 1975 and £4 in 1977. This meant that despite the extremely generous anonymous donation of £68 044 in 1975, which enabled the burden of the building fund bank loan to be repaid and £10 000 to be transferred into the overdrawn Accumulated Fund, there was still an overall 1975 deficit of £15 301 or nearly £4 per Fellow. The availability of a modern lecture room meant the loss of letting income during its construction was reversed by increased income from a much improved facility.

In late 1975 the writer was asked to become Publications Secretary to replace Duff from summer 1976 and stand for election to Council but he declined as he had, in 1974, taken over as Professor and Head of the Glasgow Geology Department, which had a new building in progress, and had also become Keeper of the Geological Collections in the Hunterian Museum in Glasgow University and so could not spare the time to sit on Council. But he agreed to be a non-Council Chairman of the Publication Committee from the AGM in summer 1976 for the usual three years; a most unusual appointment.

His 1972–74 time as Scientific Editor of *JGS* had alerted the writer to the number of good papers and even Memoirs (e.g. Tom Clifford's on African granites, whose rejection purely on financial grounds was reported to the Publications Committee (PC) on 15 November 1972) that the GSL was being offered but which had to be turned away or rejected simply because the Society could not afford to publish them without significantly increasing the deficit, the Fellows' annual dues and, or, the library subscription prices. Yet these offerings would often end up being published by a commercial journal publisher at a much increased price to libraries compared to

what the Society was charging. The need to reduce the size and cost of publishing papers was also paramount, a conclusion emphasized by the resounding immediate success of the Geological Society of America's *Geology*, launched in September 1973, a monthly issue consisting entirely of papers no longer than four pages each, and which, by 2016 contained 278 articles per year. The annual dues already did not

Table 4. *QJGS*, *JGS* and *QJEG* income, expenditure, surpluses or deficits (£), 1950–88 according to the audited accounts which ceased to include figures after 1988

Year	Q	JGS or JGS			QJEG		QJGS & JGS + QJEG
	Income	Expense	Deficit surplus	Income	Expense	Deficit surplus	Deficit or surplus summations
1950	825	2 256	1 431				1 431
1951	1 093	2 282	1 189				1 189
1952	1 090	2 359	1 269				1 269
1953	1 309	2 558	1 249				1 249
1954	1 829	2 648	819				819
1955	1 913	2 381	468				468
1956	2 197	3 628	1 431				1 431
1957	1 789	3 889	2 100				2 100
1958	2 222	4 716	2 494				2 494
1959	3 171	3 672	501				501
1960	4 462	5 495	1 033				1 033
1961	4 140	6 214	2 126				2 126
1962	3 384	6 249	2 865				2 865
1963	3 446	8 022	4 576				4 576
1964	5 660	8 572	2 912				2 912
1965	5 153	8 917	3 764				3 764
1966	5 001	7 366	2 365				2 365
1967	5 235	6 860	1 625	87	2 944	2 857	4 482
1968	5 205	8 696	3 491	582	3 101	2 519	6 010
1969	1 437	9 473	8 036	835	2 728	2 893	10 929
1970	6 684	9 479	2 795	2 167	4 600	2 433	5 228
1971	9 394	17 307	7 912	1 720	5 031	3 311	11 223
1972	8 311	17 696	9 385	1 227	1 106	†+121	9 264
1973	14 758	16 408	1 650	7 800	12 253	4 453	6 103
1974	16 858	18 074	1 216	9 359	11 209	1 850	3 066
1975	25 367	29 271	3 904	12 510	13 291	781	4 685
1976	27 544	37 452	9 908	13 672	11 660	+2 012	7 896
1977	44 094	59 372	15 278	16 697	21 440	4 743	20 021
1978	*91 837	48 664	+43 173	23 616	19 551	+4 065	+47 238
1979	76 752	69 779	+ 6 973	28 727	22 408	+6 319	+13 292
1980	85 114	73 963	+11 151	31 178	23 473	+7 705	+18 856
1981	96 710	77 096	+19 614	37 530	26 661	+10 869	+30 483
1982	104 695	86 126	+18 569	41 290	28 497	+12 793	+31 362
1983	117 004	99 633	+17 371	45 230	30 639	+14 591	+31 962
1984	130 257	99 528	+30 729	47 378	32 220	+15 158	+45 887
1985	148 993	134 775	$+14\ 218$	54 602	38 959	+15 643	+29 861
1986	153 064	122 912	+30 152	53 778	38 832	+14 946	+45 098
1987	168 679	124 509	+44 170	56 159	36 845	+19 314	+63 484
1988	173 633	136 919	+36 714	57 298	35 669	+21 629	+58 343

⁺ is a surplus, otherwise a deficit. Costs include library exchanges but with no credit assigned.

^{*}Includes late payment for 2nd 1977 volume.

[†]No bill from printer so deficit met in 1973.

even meet the full cost of running Burlington House, and what with the galloping inflation in the 1970s, it was unrealistic to think that the dues could be still further increased to allow for a significant increase in the size of *JGS* and also achieve a financial surplus. The only solution the writer could see was to increase the number of library subscribers and the prices they paid to meet the full cost of publishing and supplying *JGS* and the *QJEG* to all the subscribers and to GSL members as their first journal. By this means the journals could be expanded to meet demand so long as the quality of the papers was maintained by rigorous refereeing so that subscriber income was sustained. Otherwise any increase in the size of *JGS* or *QJEG* would necessitate an increase in the dues above that of inflation and would not easily be agreed.

It was a policy that some Publication Committee members (e.g. W. S. Pitcher) initially thought was morally wrong if none of the annual dues went towards paying for the members' copies of *JGS* or *QJEG*, a feeling the writer not only understood but partly agreed with, but reluctantly could see no alternative. The published facts in Tables 4 and 5 show that for decades a major cause of the Society's perennial deficit was loss on publications including the two journals. The tables also show the financial turn round from the late 1970s.

Table 5. All publication income, expenditure, surpluses or deficits (£), 1950–89 according to the audited accounts

Year	Income	Expense	Deficit	Year	Income	Expense	Deficit
1950	854	2 588	1 734	1970	12 485	21 653	9 168
1951	1 093	3 048	1 955	1971	14 363	25 245	10 882
1952	1 081	3 018	1 937	1972	14 148	21 015	6 867
1953	1 309	3 214	1 905	1973	27 083	38 372	11 289
1954	1 829	3 234	1 405	1974	42 197	54 563	12 366
1955	1 913	3 183	1 270	1975	47 922	52 818	4 996
1956	2 197	4 706	2 509	1976	47 545	61 740	14 195
1957	1 789	5 233	3 444	1977	68 069	10 6771	38 702
1958	2 222	5 583	3 361	1978	149 978	110 168	+39 810
1959	3 171	4 721	1 550	1979	117 570	112 664	+5 106
1960	4 462	6 871	2 409	1980	124 525	112 396	+12 129
1961	4 140	7 500	3 360	1981	141 596	116 628	+24 968
1962	3 384	8 128	4 744	1982	167 780	160 758	+7 022
1963	3 446	10 377	6 931	1983	185 282	160 094	+25 188
1964	6 811	14 203	7 392	1984	199 800	177 879	+21 921
1965	8 785	13 946	5 161	1985	228 435	206 572	+21 863
1966	5 696	12 176	6 480	1986	238 273	204 608	+33 665
1967	7 017	18 614	11 597	1987	240 403	199 154	+41 249
1968	8 984	18 909	9 925	1988	204 338	222 825	45 230
1969	3 834	22 828	18 994	1989	501 960	453 342	+48 618

⁺ is a surplus, otherwise a deficit.

This includes all Society publications including journals, Memoirs, Special Publications, Special Reports, Miscellaneous Papers etc. and items not usually sold (such as the *Newsletter*, *Circulars*, *Proceedings*, Lists of Fellows, Lists of Serial Periodicals held in the Library) which were the main cause of the non-journal deficit.

In all the discussions of finance above and below, one most important factor is not costed and is often overlooked and will not be mentioned again. All the editors,

referees and Publication Committee members worked on an honorary basis, a situation that persists to the present day. As a result, any financial target would never actually 'meet the full costs of publishing' but so long as the Society publication accounts made a surplus which could go towards the cost of running other Society activities, such as meetings and the library, rather than being a drain on resources, the result would be satisfactory and would enable the journals to expand as good papers came in.

At the 14 April 1976 meeting of the Publication Committee, the last chaired by Duff who had done a superb job, the writer therefore proposed, and explained why, the subscriber price of JGS for 1977 should be raised to £35 from the 1976 price of £25, but this was rejected in favour of £30 (PCM), understandably as this was itself a 25% increase in one year compared with the seemingly outrageous proposal for a 40% increase. It took time for the concept that the subscribers should meet the full costs of JGS to be accepted. The fact that other successful societies had been making such surpluses on their publications for years was also persuasive. However, the meeting also received a letter from the Treasurer, A. J. Smith, who was not present, urging that cheaper methods of publication should be investigated. Such action was urgently needed as an essential complement to increasing prices and a 'Working Party on Economical Publication', consisting of Harris, Dearman, M. Brooks and crucially Grant, chaired by Leake, was set up; one of the reasons behind appointing him as Publication Committee Chairman.

The next meeting of the Publication Committee on 23 June 1976, chaired by Leake, agreed that the 1977 *QJEG* subscriber price for 1977 should be £22, raised from £18 in 1976, a 22% increase. Also, at last, after prolonged investigations, negotiations and even unsuccessful offers of free copies to UNESCO for transmission to Third World country libraries, all stocks of past *QJGSs*, except for the most recent four years, were removed from the desperately overcrowded basement of Burlington House to Kraus Thompson, who specialized in selling back runs of journals to libraries and hopefully would provide an improved income from back issues of the *QJGS*. More importantly, the meeting agreed in principle that 'The Society's aim is to work towards covering the cost of producing the Journal with outside subscriptions' (PCM). This was confirmed by the Council in the Annual Report 1976, p. 20.

The next meeting of 21 October 1976, chaired by Leake, was crucial in having to decide how to implement this decision. First the Working Party on Economical Publication suggested 12 possible ways of reducing costs in addition to those already implemented by Grant, such as buying paper in bulk, and wanted reaction from the committee before it proceeded to a formal report with detailed costings and recommendations. The first seven points discussed were: letterpress versus film settings and offset litho printing of both journals; the replacement of envelopes with plastic mailbags; typewriter production of the *Proceedings* and then treating the copy in the same way as figures to avoid typesetting costs and time; double columns (already used for *Proceedings*) and reduced type sizes; binding – side stabbing (already used in the *QJEG*) versus stitching; distribution costs such as postage weight ranges and costs; \$US conversion rates, and discount arrangements with agencies and booksellers supplying overseas. The various opinions were noted to guide the Working Party which would report on the detailed costings before the next meeting of the Publication Committee; there were already so many papers set for 1977 in the

existing style that 1978 was the earliest that major economical implementations could take place. The decisions were therefore actually made at the next meeting on 7 March 1977, which had given time for consideration and discussion and yet still left plenty of time before the January 1978 issue.

Much more pressing, indeed urgent, was to decide how to respond to the enormous increase in the number of papers in the pipeline for 1977, largely as a consequence of the thematic meetings already held in 1976 so that 950 JGS pages would be needed in 1977 if there were not to be complete rejection of all papers for several months or a delay in publication of well over a year. The latter would not solve the problem as the thematic meetings planned for 1976-77 would generate more papers which would then be further delayed. It was pointed out that due to inflation, the cost of producing JGS had risen in 1975 by 42% for only a 10% increase in size, was rising by a further 23% in 1976 for only a 7% increase in size and would rise by at least 15% in 1977. Moreover, since the funding of Special Publications 6 and 7 together with a much enlarged Geological Background to Fossil Man was expected in 1977, extra Society funding for JGS would not be forthcoming. Drastic action was unavoidable as the Chairman had expected and proposed, and the committee agreed, that two volumes of JGS would be published in 1977 as an emergency measure. These would be Volume 133 with 600-640 pages at £30 to subscribers and Volume 134 with 320-360 pages at £20. This was the first time that two volumes had been published in a single year since the first volume in 1845. It was too late to increase the price of Volume 133 to £50 as the 1977 price had been circulated and some payments already received. The Chairman had prepared a list of the prices of commercially produced earth and ocean sciences journals, a selection of which follows in Table 6, whose price per 1000 pages greatly exceeded the proposed 1977 960 pages at £50, which equated to £52.10 per 1000 pages so variations in the number of words per page does not change the general picture. (Excluding conference reports and Proceedings, the 1977 volumes actually totalled 984 pages with 70 articles, as shown in Table 2, giving £50.80 per 1000 pages of articles.) He also proposed the 1978 volume should be 960 pages at £60 (later on 25 May 1977 amended to £70) in order to be prepared for the increasing number of papers being submitted, and to make clear that a single volume would be returned to; there was no intention to start publishing multiple volumes each year. This was a oneoff emergency action.

Table 6. Prices of some commercially produced earth and ocean sciences journals in 1976/1977

Journal	Year	No. of vols	Total no.	Price (£)	Price per 1000 pages (£)
Marine Geology	1976	3	1080	87	80.5
Marine Geophysical Researches	1976	1	c. 400		110
Tectonophysics	1977	7	c. 1750	220	125.7
Sedimentary Geology	1976	2	600	58	96.6
Chemical Geology	1976	1	400	58	145
Contributions to Mineralogy & Petrology	1976	4	1200	182+pp	152+

Considering the magnificent work done by Harris and his team in getting the nine parts out within the year, since the aim was to remove the deficit between JGS income and expenditure, the published financial results for JGS for 1977 were seemingly not merely disappointing but disastrous, with an apparent increase in the deficit from £9908 in 1976 to £15 278 in 1977. Fortunately, this was misleading: (1) Many libraries did not pay for the unexpected second 1977 volume until 1978 and £9471 of such income came in (see audited 1978 accounts), which is credited as 1978 income and is part of the reason for the substantial (£43 173; Table 4) 1978 surplus, while the 1977 deficit is more correctly £15 278–£9471 = £5807. (2) SAP had wisely bought paper ahead of a paper price increase and some of this would be used in 1978 but the full cost fell into 1977 as this is when the bill was paid. Accordingly, there was in reality a sharp fall in the deficit in 1977, even if it did not completely disappear.

The crucial meeting of the Working Party (or Sub-Committee as it had become) was held in Glasgow in the writer's office on 31 January 1977 attended by Leake (convenor), Harris (*JGS* Editor), Dearman (*QJEG* Editor), Grant and Miss B. Wilcox (SAP) and Grossett (Universities Press, Belfast). Grant's unmatched knowledge of publishing³ provided most of the suggestions, cost figures and specimen pages, and he should be given the credit for what follows, with Grossett confirming prices and procedures at the Universities Press, Belfast. There were a number of recommendations.

- 1. Move both journals to film setting and litho printing instead of Letterpress, saving 12% on composition costs. Grant had already arranged for the Devonian Special Report (No. 8) to be experimentally so produced.
- 2. Retain the same page size with 9/10 pt double column text, as already used in the *Bulletin of the Geological Society of America*, *Geology* and in the *Proceedings* in *JGS*. This would nearly halve paper costs by printing more words per page and so reduce binding by 20% and postage costs by over £2000 per year for *JGS* alone based on 1976 prices for postage, which would be more for 1978.
- 3. For *JGS* alone, plastic wrappers at £461 per year for 6 dispatches of 5000 each were half of the £984 for envelopes per year and were 10 g in weight compared with 50 g for envelopes and, as postage prices were in 50 g steps, generally there would be a further saving on postage.
- 4. Side-stabbing would continue for the *QJEG* but it was doubtful if the much thicker *QJGS* with the proposed narrow margins could be side-stabbed so no change was recommended in the previous *JGS* binding arrangements.
- 5. Reliable bulk mailings to universities etc. was too difficult to implement for the savings involved especially with so many Fellows changing their addresses each year.
- 6. Excessive authors' corrections above the normal 10–12% of composition costs would be charged for, but *JGS* had to get its alarmingly high figures down: 1972 19%; 1973 17%; 1974 13%; 1975 24%; 1976 29%. The advantage of one able editor being in sole charge was evident from the comparable figures for *OJEG* namely: 1972 13%; 1973 13%; 1974 14%; 1975 14%; 1976 7%.
- 7. Offprints: 25 free with each paper whatever the number of authors but charges for more than 25 would be increased.
- 8. The number of pages needed to keep below the 250 g steep postage step increase in price was calculated for editors' information. No discussion of the

question of reducing the weight of the paper used is in the report, probably because this had already been acted on for *JGS* by Grant, but later in 1979 that used for the *OJEG* was reduced, making a saving in paper cost and postage.

In all *at least* 20% of the cost of each of the two journals would be saved, exceeding £10 000 for *JGS* and £2400 for *QJEG*, making a minimum saving of about £12 400 *at 1976 prices*. So far as is known, this was the first expert study by the GSL of how to achieve substantial economies right through the whole journal publication process. Grant and Grossett, who were very well informed about new methods, **made no charge** for their advice.

At the next meeting of the Publication Committee on 7 March 1977 the information was given (which had taken some time to obtain) as to how many copies of *JGS* and *QJEG* were used in exchange for other journals received by the library and were included in both journals' audited costs but not acknowledged in the audited incomes because they did not generate cash income. The number was 263 and 25, respectively, which potentially might have cost £13 150 and £550 (total £13 700) at 1977 subscriber prices but actually only cost run-on prices plus distribution costs, and was a hidden subsidy which helped the library greatly.

The main business, however, was considering the formal report of the Sub-Committee on Economical Publication and deciding which economies to implement of those proposed. All were accepted. The time given for discussion had been worthwhile. The new format had 58 lines \times 2 per page, giving at least 900 words per page (990 was claimed in the formal report) compared with the 580 words on 47 lines previously – a 55% word increase per page, partly because of the narrower margins, making more use of the page.

Later at the Publication Committee meeting of 14 February 1978, when the new format had appeared in the January 1978 JGS to general approval, the committee asked Grant for the exact further savings that side-stabbing JGS would produce. The writer had investigated this in 1973 in an earlier search for economies (Leake 1973) but had not been able to accept it for the reasons repeated below. At the 8 June 1978 meeting the figures were given. The costs of binding Volume 135 (1978) Part 1, which was sewn, was £2100 and would have been £850 by side-stabbing; a substantial saving, whereas the smaller Part 2 had cost £760 by sewing and would have been £530 by side-stabbing; still a significant saving. Side-stabbing was much quicker and the Belfast bindery was the main source of delay, sometimes taking up to three weeks after printing, which itself was comparatively quick. The problem with side-stabbing was that the pages cannot be fully opened and lie flat on a desk which is annoying and makes photocopying difficult, while binding six parts into one volume is more troublesome. In addition, wide landscape figures, which admittedly are very rare, cannot be run across two facing pages which avoids a tip-in which in itself was more expensive than the side-stabbing saved, as tip-ins were individually inserted. The committee, feeling under pressure to make savings, reluctantly approved sidestabbing from Volume 136 for 1979 but this was fortunately never implemented and there appears no record of Grant's view but it is doubtful that he would have recommended side-stabbing for JGS, especially with the narrow margins of the new format.

It was at this June 1978 meeting of the Publication Committee that it was formally revealed to the committee that the policy of the subscribers meeting the full costs had been accepted by Council. Secretary M. Audley-Charles stated

'that over the past few years the auditors had drawn the attention of the Treasurer and the Council to the increasingly serious deficit of the Journal. The Council hoped to arrive at the position where the Journal costs could be paid for from the outside subscribers, and had approached various Publishing Companies for their recommendations' (PCM).

The reassurance of policy led the committee to agree to 1979 subscription prices of £35 for the OJEG with 350 pages and £80 for JGS with the pages to be calculated to cover 'the total costs of publication and circulation to Fellows and subscribers' (PCM), but the revelation that the Council was dissatisfied with SAP and had approached other publishers without consulting the Publication Committee was disturbing and was the Chairman's fault for not being on Council! Basically, Council felt that a larger, more international publisher would sell the Society's publications better abroad than SAP. The audited 1977 figures may have been the last straw. The timing was very unfortunate as by summer 1978 it was clear to SAP that they had 'turned the corner' and for the first time both journals were in surplus to the extent of £47 238 minus £9471 of late 1977 income to give £37 767. All publications, including the journals, were also in surplus for the first year, with £39 810, generating a substantial surplus for the Society, indeed one that could (and would) go on every year with the joint benefits of the economies of production and shrewd pricing (Tables 4 and 5). The new format was so successful that it was subsequently adopted and retained for Special Publications.

A special meeting of the Publication Committee with the new Treasurer (since 1977), G. D. Hobson, and Secretary Audley-Charles present was held on 18 July 1978 to assess the competing offers from Pergamon, Academic Press, Macmillans (all of which were rejected), Blackwells Scientific Publications (BSP), Wileys and the Scottish Academic Press. The last offer was made available only at the meeting and the complexity of the differing financial offers and lack of standardization made the decision difficult but, under pressure from the Chair (Leake), the voting was for BSP 8; for SAP 2 (Leake & Harris) and for Wileys 1. It was agreed that negotiations with BSP would take place and only BSP and SAP would be considered. The figures for SAP's estimated surplus for JGS in 1978 'in excess of £22 000' would be scrutinized by the Treasurer, Hobson (PCM). (They were eventually £43 173 minus £9471 = £33 702.)

The minutes of the two meetings of 27 September 1978 and 14 March 1979 are not in the archives but BSP was awarded the contract from 1979 after considerable negotiations. BSP commission at 20% was double that of SAPs and, in addition, there were charges of 12% for 'overheads' for some (all?) publications which included marking up, but the estimated profits for each journal for the current year would be paid to the Society in July rather than later, as previously, in December. With the high interest rates caused by a bank rate of between 12.5% in late 1978 to 12.5–17% in 1979 and 17–14% in 1980, this was a valuable concession, especially as Society cash was always at a low in the autumn of each year. Most importantly, BSP agreed to provide the capital for all books, such as Special Publications, and the accounts of

expenditure and income would not be settled for each publication until two years after publication, by which time generally there would be a surplus to pay the Society. This was a major concession which gained BSP the contract as it removed the main limitation to Society book publishing; namely finding the capital. The number of Special Publications produced under BSP accelerated, reaching, for example, seven in 1986 and eleven in 1987. BSP continued with the same printers and the economical publication style adopted in 1978 for *JGS* but did not implement the proposed 1979 side-stabbing and discontinued this for *QJEG*. SAP, which were undercapitalized and could not match the book offer, were given short notice which provoked strong feelings among some Fellows in view of what Grant had achieved for the Society and may have influenced how this account has been written!

Leake completed his three years as Chairman of the Publication Committee at the AGM on 30 May 1979, being replaced by Harris as Publication Secretary. Both Harris and Leake were elected to the Council in 1979. In scrutinizing the competing publishers' bids in 1978, Leake delved into the Society's accounting and found to his amazement that the Society's archaic methods did not credit or debit much of the Burlington House income and expenses connected with the journals or with publication in general. For instance, the income the Society obtained from Fellows who purchased a second journal was not credited to either journal account; in effect it went into running the Society at the expense of the journals' audited income. However, this was more than offset by the fact that the employed Assistant Secretary's salary in Burlington House, who serviced Publications, including the journals, had never been considered a charge on any publication but part of the running of Burlington House; the editors' expenses, the travel costs to the Publication Committee, and the production costs of labels for Fellows' journals were also absorbed in Burlington House running costs so that the audited publication accounts were more or less those supplied by SAP as the expenses they had paid for and the income they had received. There is no suggestion that the final annual balance sheet deficit or surplus was incorrect or that any funds were not accounted for, but simply that the internal allocations did not accurately reflect costs and incomes in the correct areas. So Tables 4 and 5 are not as accurate as is desirable, hence the header reminder that the figures are those from the audited accounts. In brief, whether and when both journals costs were fully met by the subscribers is uncertain but the accounts were by 1978 apparently sufficiently in credit that the aim of the exercise had been met and with the cuts to University Library funding increasing, the Society need was simply to retain the modest surplus as costs increased. It was in examining these accounts and grudging the 20% commission paid to BSP that the writer first realised that the Society would be better being its own publisher but, as there was no capital to undertake it, it was 'a pipe dream'.

The problem of allocating income and expenses became stark and acute when, in 1979, Council decided to buy the first computer to manage the accounts; part of the reason for its late installation in 1981 instead of 1980 was that unravelling the accounts was far more complicated than had been expected and further discrepancies in the publication accounts were uncovered, albeit that some were trivial, such as the income from journal and book copyright payments going into general administration.

BSP were generally very professional and reliable in their production of figures, advice and publications, although ironically, in view of the increased international

sales that had been expected, every year they lost JGS subscribers and, after 1980, QJEG subscribers also, both compared with SAP's almost invariable increase. According to the 1979 Annual Report, the 1978 JGS subscriber numbers were 966,⁴ although Leake distinctly remembers being shown the figure of 1005 in late 1978 as 1000 had been the target for several years and there was some jubilation at its achievement. The 1979 figures were given as 965 in the 1979 Annual Report, but were changed to 925 in the 1980 Report, together with a 1980 figure of 910, to be followed by 890 in 1981, 879 in 1982, 874 in 1983, and 869 in 1984, the last year in which such figures were given in the Annual Reports, but the slide continued to 820 in 1985 (CM) and, in later years, as was apparent when the Society began its own Publishing House and first produced JGS in 1989. It is actually quite difficult to produce reliable figures because it depends on which day the count is made and whether any of the unrenewed subscriptions are counted or not as some will be late and some very late payers so the figure increases slightly after the yearly account; why it should decrease is quite unclear. BSP's financial year ran from September to August, unlike the Society's accounting year of January to December, so their accounts and subscriber numbers were those at the end of August, which was as good a time as any for counting the current year, but as with SAP, adjustments were sometimes needed for items mis-estimated or unavailable when the accounts were completed.

BSP regarded the 1978 JGS format as cramped and inelegant which was partly true and, with Volume 143 of 1986, the journal page was enlarged to demy quarto $210 \times 275 \, \mathrm{mm}$, still retaining double column text and increasing the lines from 58 to 64 per page and the words to 1200 per page (according to the cover) from 900, a 33% increase. The larger size enabled maps and diagrams to be larger and there were wider margins and increased postage. The format was retained until Volume 172, 2015, when an even larger size of $210 \times 297 \, \mathrm{mm}$ was introduced, with 66 lines per page. However, it was stated on the cover to only have about 1000 words per page, a significant reduction if both claimed numbers were true.

In 1982 when Leake was Treasurer, under the threat of leaving BSP, their commission was reduced to 17.5% and the expected surplus for the year was half paid in January of the forthcoming year and half in July and these arrangements held until 1988, the last year of BSP acting for the Society. In order to avoid repetition, fuller details of the BSP contract and performance are given only in the account of the setting up of the Society's Publishing House.

QJEG

The initiation in 1967 and subsequent progress of the *QJEG* has been described by Winter & Bromhead (2016) and the following, without repeating the general picture outlined above, slightly supplements their account. Credit must be given for the acumen shown in agreeing to fund a new journal at a time when the Society was struggling with persistent deficits, but the Engineering Group was already one of the strengths of the Society and one with great potential. For exactly the same reasons as detailed above, the subscriber income needed to cover the costs of supplying subscribers and members of the GSL who took it as their first journal. The progress of the journal is summarized in Table 7, despite significant data gaps.

Table 7. Number of pages, papers and other items in each volume of the QIEG 1967-88 plus UK subscriber prices, subscriber numbers and receiving GSL member

Year	1967– 69	1969– 70	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
	-	2	3	4	5		7	 	6	10	11	12	13	14	15	16	17	18	19	20	21
	322	316	260	387	382		384	322	342	447	336	336	316	372	328	367	400	485	442	318	378
	22	18	19	41	25		31	21	24	28	37	39	31	32	30	43	53	48	42	42	25
	17	16	11	17	10		23	15	19	21	26	24	22	59	19	28	35	36	23	21	21
	5	2	5	9	9		6	15	18	22	28	35	40	45	49.5	55	59	70	74	78.5	85.5
price (£)																					
Sub.				250	309		512	543	553	588	615	644	652	635	624	629	009	570	699		
nos.																					
GSL					829	870	983					1600?			1612	1690	1700	1837	1688		
nos.																					

Papers are research articles; pages have an increased number of words from 1978 onwards. Items are all other contributions including Proceedings of the Engineering Group, technical notes, discussions, commentaries, letters to the Editor, book reviews, photographic features, summaries of papers read at Engineering Group meetings, etc. Prices are UK only; overseas rates were higher; Subscriber (Sub.) and member numbers taking *QJEG* are approximate. Blank spaces denote no data (which would be welcomed from those with information).

Table 4 shows that the first nine years of QJEG showed a deficit between the audited QJEG income and expenditure; in reality it was effectively the first 11 years before a reliable surplus was achieved as the 1976 surplus was partly the result of buying paper in advance of use in 1975, while both the 1976 and particularly the 1975 volumes were small with fewer pages than any since 1970. Volume 10 for 1977 was exceptionally large, the largest of the first ten volumes, which was a welcome confirmation of progress but it was only with the economies of production introduced in 1978 plus an increase in price of 27% between 1977 and 1978 that the finances passed into reliable surpluses.

The biggest initial problem was the slow and erratic receipt of papers plus the time some authors took to make required revisions; understandable as some were working under pressure fulfilling engineering contracts. This meant that parts often could not be issued on time because there was insufficient copy available, and parts were sometimes thinner than planned or else still further delays would have resulted, which because of the delayed publication of QJGS, was a particularly sensitive point with Council. Thus the four parts of Volume 1 were issued in September 1967, July 1968, December 1968 and June 1969 and had to be treated as being for the two years 1967 and 1968. Volume 2 for 1969 appeared in October 1969, December 1969, February 1970 and May 1970, while all the parts for Volume 3 for 1970 were published in December 1970 so that it was not until Volume 4 for 1971, the last one edited by G. Lees, which appeared with the first part out in January 1971 and the last in October 1971, that the journal 'caught up'. However, the lack of timely submissions continued for some time (e.g. Volume 8, 1975) and, as Table 7 shows, the first five volumes averaged only 14 papers spread over the four parts per year or less than four papers per part. Moreover, the printers, Arrowsmiths, were often slow and, after Volume 7, Part 2, printing was transferred to the Universities Press, Belfast for Part 3. However, in my view the value of the OJEG did not lay entirely in 'research'-type papers but also in the technical notes, descriptions of past difficulties and dangers overcome, new methods, commentaries and discussions with which the editors helped to fill the journal. One single solution to an engineering geology problem obtained after reading 10 volumes could potentially save far more than even a 100 times the 10-year subscription, so the price of the journal was not critical, especially as many companies effectively paid for it or a Fellow's subscription. Nevertheless, until the journal was established with regular publication and a steady flow of copy, there was an understandable reluctance to increase the subscriber price markedly.

At the 9 May 1974 Publication Committee it emerged that the predicted total of 800 non-Fellow *QJEG* subscribers by 1974 made by the Engineering Group in 1972 (when an earlier review was made) had fallen well below that figure, with only 400 plus a small addition if some of the 40 unrenewed subscribers renewed late. (Subsequent later payers increased the total to 512.) This prompted a move to cease publication but it was pointed out that 658 members took the *QJEG* in preference to *JGS* and an additional 325 took both journals and that made, with subscribers, at least 1383 copies. (PMC corrected figures in minutes but not the final correction.) With Dearman and other Engineering Geologists making a good case, publication was fortunately agreed to continue but with increased prices, which was Leake's solution, and with inflation raging at 19.1% in 1974 and 24.9% in 1975 it was not difficult to implement and justify a substantial price increase. In fact, by 4 March 1975 (PMC)

with many late payers, the subscribers to the 1974 Volume 7 had reached 512 from the 337 of Volume 6 of 1973. In the later 1970s inflow of hydrogeology papers boosted the journal, as described in Winter & Bromhead (2016).

Dearman, the second Chief Scientific Editor who dealt with the six volumes (5–10 inclusive), worked particularly hard to prevent serious delays, even carrying out some revisions for authors of inadequate typescripts to get copy to the press. He did a magnificent job and the Publication Committee minutes often contain the delaying problems he faced. By the time he resigned the journal was completely established and the surplus of Volume 11 of 1978 was partly due to his involvement in improving decisions.

Other publications

Although a detailed account of publications other than the journals is not given here, a few words of explanation are required to explain why, even when the income of the journals passed into surplus in 1978 and onwards, Table 5 shows that without exception from 1978–88, the overall surplus on all publications was lower than the summation of the two journal surpluses; i.e. other publications were perennially in deficit. This was not because Memoirs, Special Reports (SRs) and Special Publications (SPs) were making a loss, it was because the cost of supplying members with the Newsletter and other membership publications (Table 5 explanation) was greater than the surpluses achieved on SPs, SRs and Memoirs. Although this is clear from the accounts in the 1960s, the precise return on SP1, 2 and 3 is not available because the 1971 accounts aggregate all three incomes, but up to 1970, SP1 had made a 33% surplus and SP2 a 21% surplus on the capital expended. It was only from when SAP took over in 1971 that the return obtained from SPs, SRs and Memoirs was individually specified consistently. Thus, a report to Council of 25 May 1977 by the writer detailed the total income (excluding SAP's 10% commission) and expenditure on these publications in the five years 1972–76, showing there was a 62% profit on the capital expended, but because there were few such publications, this was only £16 039. Thus, in the 15 years between 1964 and 1979 only 8 SPs appeared. The delivery every year of six issues of the Newsletter, which typically, as in 1977, amounted to 162 pages to a 1977 membership of 4976 but with only a few copies sold, was a membership cost which increased as the number of Specialist Groups expanded. Only a marked increase in the publications sold could overtake such membership costs.

2. Fellows' dues or subscriptions

Ignoring the various different membership categories, UK Fellowship dues were £3.15 per year from 1920 to 1957 and then £5.25 from 1958 to 1966 when they were raised to £7.50 for 1967, just before the *QJGS* became late in appearance, after which Council was reluctant to raise the dues while the *QJGS* was so late in publication (Table 8). The next rise to £10.50 was after six years, in 1973. Unfortunately, although intended to make Council review the dues more regularly than in the past, the motion that they should be reviewed biennially was agreed in 1972 when they needed to be reviewed annually and this led to several (1974; 1976; 1980) expensive year's delays with inflation, which according to the RPI rose from 7.7% in 1972 to

24.9% in 1975 and remained above 10% per year, except for 1978, until 1982. For the Special General Meeting (SGM) of 9 June 1976 the Treasurer, A. J. Smith, wrote: 'Since the last SGM in 1974 to discuss [1975] dues, the nation has experienced a 43% rise in prices and a 49% increase in incomes'. The dues were increased by £5 from £14 to £19; a 36% increase. [The Geologists' Association (GA), with no employees or office, kept the 1858 subscription of £1 until 1960 when it doubled, and subsequently doubled again to £4 in 1972–76, shortly before the GA nearly financially collapsed in 1976-77, as detailed in Leake et al. (2013).] GSL dues were not increased in 1979 and 1980 because of the 1978 and 1979 surpluses. Considering that increases in dues are approved in the summer based on the last definite information, the previous year's audited figures, and have to cover expenditure which only starts in 6 months' time and finishes 18 months after the agreed change in the dues, it requires a gifted prophet of a Treasurer to even get one year's prediction of inflation correct, hence Council belatedly agreed to review the dues annually in 1980, giving an increase in 1981. A perennial problem is that price inflation in London always exceeds that in the rest of the country, especially in staff costs, staff turnover etc., which provincial Fellows often fail to appreciate.

Table 8. UK Fellows' dues (subscriptions) 1950–89

Year	1920– 57	1958– 66	1967– 72	1973– 74	1975– 76	1977– 80	1981	1982	1983– 84	1985– 86		1989
Cost (£)	3.15	5.25	7.50	10.50	14.00	19.00	35.00	40.00	45.00	49.00	52.00	58.00

Direct debits were unknown in the earlier years of the 1950s and 1960s and, when direct debits were introduced by the Society from 1 January 1972, only fixed direct debits were agreed to by the Council, which meant that any change in the amount debited had to be authorized in writing to the bank by the Fellow, so it was equivalent to a standing order. Most Fellows paid their dues by cheque, covenanted gifts on which the Society could reclaim the income tax that had been paid, or standing orders which paid the same fixed amount specified for the first year at the same time each following year. This meant that many Fellows, who did not update their standing orders or, later on, direct debits, were underpaying when the dues were raised, sometimes for several years because they could hardly be evicted when they had paid nearly all their dues. By 1968-70 underpayments exceeded £3000 each year, which if paid – would have alone given an overall surplus instead of the deficits listed in Table 1. If the dues were raised frequently, standing orders and fixed direct debits gave more trouble than they saved as a new one had to be filled in each time the dues were increased. Undoubtedly the dues were generally inadequate and needed to be raised more promptly and by larger amounts as it was a frequent comment that the dues met only half the expenditure (e.g. *Proceedings*, No. 1605, p. 37) or that they did not even meet the cost of running Burlington House and the Newsletter (e.g. Annual Report 1976, p. 20), necessitating drawing on investment income and accumulating deficits.

Leake was appointed Treasurer in May 1981 and at once began implementing changes which his previous experience – including being on the Finance Committee and as Vice-President – had convinced him were long overdue. The acquisition of a Society computer in late 1979 offered the prospect of much more efficient dues collection,

e.g. detection of late payers, but actually only came into use in the autumn of 1981. In 1981 no less than 40% of the Fellows failed to pay their dues by April when they should have been paid by 1 January. Moreover, because Fellows who had not paid their dues were not removed until November of the following year, a significant part of the Society's annual deficit was due to unpaid dues (in 1980 this amounted to 70% of the 1980 deficit), apart from adding additional uncertainty to estimating the number of Fellows in the Society in each year. Accordingly, from July 1981, Fellows unpaid by 1 November of the current year had their membership cancelled. This reduced the unpaid dues markedly. In addition, the date for payment of the dues was moved from 1 January to 1 November of the *preceding* year. Collection on the 1 January is about the worst time in the year to have to conduct the operation. The office has been closed for the Christmas-New Year break and opens to a pile of mail which takes time to process so that late payers cannot be promptly reminded and temporary staff sometimes have to be employed; Christmas post leads to lost mail; Fellows are preoccupied with Christmas and often short of cash and a November collection means the Society can remind late payers in early January and gain more interest on the dues (bank rate was c. 14% in 1981 and 1982) and therefore keep the dues lower than they would otherwise have been. The other important, indeed major, improvement in the collection of the dues instigated by the new Treasurer was the introduction of variable direct debits in 1982, softened by also allowing the dues, if paid by variable direct debit, to be paid in two instalments, one on 1 November and the other on the following 1 February, the latter being in the year being paid for. Variable direct debits brought dues payments to over 90% by the summer of each year. Finally, the 1981 dues of £35 were increased by 14% to £40 for 1982 despite a surplus for 1981 because: (1) the RPI for 1981 had increased by 12% and further increases would occur in 1982 and it was prudent to anticipate these rather than always being a year behind, making only an adjustment for past inflation and thereby persistently underfunding the next year; (2) the 1981 surplus of £24 971 (Table 1) was effectively funded entirely by the 1981 publication surplus of £24 968 (Table 5) with the dues breaking even, so that unless the 1982 dues income had been increased there would have been a loss in the second leg of the Society's three-legged income flow in 1982, which potentially could have resulted in an overall deficit.

Taken all together the two main income streams of publication and dues were then set to jointly continue to repair the devastating losses of the preceding decades providing prudent management continued, as it did. The Accumulated Fund stood at £109 598 at the end of 1984; its first time of exceeding £100 000.

In 1984 the third income leg received two massive boosts. First, the Coke bequest, described in the 1982 Annual Report, was finally received and amounted to £270 000, with only the requirements to fund two medals to remember two brothers killed in the war in 1944 and not to spend any of the bequest on buildings, so the bequest cannot be spent on Burlington House or any other building or the rent or lease of a building. Second, the block of 25 000 Ordinary shares in Currys, given to the Society by Dennis Curry in July 1969 on the understanding that they would not be sold, appreciated markedly as Currys became subject to a take-over bid by Dixons Ltd in November 1984. Dennis Curry phoned the writer who assured him the Society would not sell, only to receive a late night telephone call about two weeks later from Dennis to say he understood a large block of shares would be sold in the morning, making the bid successful, and advising the Society to sell immediately, which we did by 9.30a.m.

the following day, yielding £393 000 in early December 1984. There was no restriction as to the use of this generous gift, but dribbling away income in meeting deficits in the Society's general funds would be neither good management nor maximizing the most effective use of these funds. By 1984, overshadowing all the finances was the Thatcher Government's privatization programme and the expressed intention of selling off Burlington House in which at that time the Society had free occupancy. This seemed likely to strain all the conceivable Society resources to even obtain a mortgage on the Piccadilly property.

3. The setting up of the GSL Publishing House in 1989

The writer resigned as Treasurer from June 1985 after four years in the post to take a sabbatical in the University of Western Australia to catch up with writing research results seriously delayed by a frantic two years as Chairman of a 1982-84 NERC inspection of the British Geological Survey, and also to carry out research in Western Australia. Completely unexpectedly this was cut short by being asked in early 1986 to be the next GSL President (for 1986–88), requiring an early return to the UK in June 1986. This seemed to offer a two-year window in which to complete the unfinished improvement of the Society's publishing arrangements, as the capital to set up a Publishing House was now in the Society, which had over £1 million in available funds. It also might fulfil the need to reliably produce larger surpluses to meet the slow, but apparently looming, crisis of how to stay in Burlington House while also being able to sell books to Fellows at a substantial discount. The main competing priority, which cannot be entered into here but took much time, was the pressing need to achieve the 're-union' with the Institution of Geologists which was actually far advanced by June 1988 and completed by the following President. Most of what follows is in Council minutes so specific reference to them (CM) is not made throughout.

The first step was to obtain the reaction of the Officers and Executive Secretary to the publication proposal at two Officers meetings and it was immediately obvious that there was enthusiastic support, crucially especially from the Treasurer, W. J. French, who had experience of running his own company, and the Publications Secretary, L. R. M. Cocks, who had wide experience of publishing, without whose joint support the matter could not even have come to Council for discussion. With the writer they constituted a triad that powered the project to a successful implementation. But from the initial soundings, R. M. Bateman, the Council Vice-Presidents, J. Brooks and R. T. Haworth (*JGS* Advisory Editor), and M. J. Le Bas (*JGS* Chief Editor) were also in favour, in addition to the Foreign Secretary, J. B. Dawson. Right from the start it was agreed that the Publishing House could not be in Burlington House; there was no space available. It also needed to be outside the London area because of the higher property prices, staff costs, frequent turnover of staff, the costs of advertising for, training and retention of staff in the London area, but the publications staff needed to be within two hours' public transport travel to Burlington House.

The proposal first came to the Council on 10 December 1986 purely for information and discussion, with any decision to be made at the following meeting on 21 January 1987. The President (CM) summarized the history of the Society's publishing from 1960 and the reasons in favour of setting up the Society's own Publishing House.

Whereas SAP had charged only 10% commission on book sales, with the capital being provided by the Society, BSP met the capital costs for two years but charged 20% commission on the sales price, 25% commission on advertisements, 12.5% on the printing costs (giving little incentive to reduce the latter) and UK booksellers received the usual 30% commission. [However – not in the minutes – in the USA, a large market for the Society's books, the commission was 50%, and the selling price was not necessarily the same as in the UK, so that 50% retail selling price +20% of the BSP selling price commissions left the Society receiving much less than half the income to meet 100% +12.5% of the printing costs. In addition the value of the early payment of the journal subscriber income was not considered.] With regard to JGS and QJEG, BSP had claimed that the extra 10% commission over that charged by SAP, later reduced to only an extra 7.5%, would be more than covered by the increased journal sales, whereas in fact, both journal sales to subscribers had fallen and book sales per book had increased only slightly since BSP took over. There were continual complaints from Fellows at the high price of books, even after the generous discount to Fellows, compared with those produced by the American Association of Petroleum Geologists (AAPG) and Geological Society of America (GSA). In physics, chemistry, biochemistry and mineralogy the respective societies and institutions successfully undertook their own publications. The ensuing discussion elicited virtually unanimous support, with L. E. Frostick, D. P. McKenzie, W. S. McKerrow, D. A. V. Stow, Cocks and French plus I. E. Higginbottom all recorded as approving and no one dissenting. The proposals next went to the Publication and Finance committees whose opinions were needed before Council made the decision. While Publications committee on 20 January approved, it was not unanimous; BSP did a good job with production and their staff were helpful, which the editors appreciated and did not want to lose. K. Coe, in particular, did not and A. H. F. Robertson emphasized the need to reduce book costs and there was concern that the editors should not have more work to do. The proposal then came again to Council on the 21 January 1987, which was attended by 19 members. With approval from the Finance Committee having been given, it was unanimously agreed subject to an assurance that adequate staffing would be employed, direct selling and reciprocal selling arrangements with the AAPG and GSA would be negotiated, formal notice would not be given to BSP yet (but they were informed by Cocks who went to Oxford solely to inform them; an act they appreciated and helped to keep good relationships with them), nor property purchased nor the number of staff required finalized, without further reference to Council.

The next steps followed an initiative by Cocks whereby the Officers considered if an independent publishing consultant should be asked to investigate the financial implications and produce a report. R. W. Cross was suggested by Cocks as he had wide experience in publishing, having worked for Macmillans, then held a senior position in Nelsons, and had been in charge of publishing at the BM (NH) where he had notably increased turnover. He also owned a small publishing business and Cocks knew he could be trusted.

At the same time French, who had for some time being trying to sort out the Society's complex VAT position which has not been gone into at all in this account but went back to the mid-1970s, achieved considerable success at a meeting on 28 January 1987 and the Society re-registered for VAT from January 1986 and seemed likely to be in a repayment position from the HM Customs & Excise Commissioners. The

Society's position had needed to be clarified for years but certainly before starting any commercial venture. Because paper publications are zero rated for VAT, not exempt, the Society was able to reclaim VAT paid on other purchases to the extent of the cost of the journal (as measured by the price Fellows were charged for taking a second journal) received as part of the membership dues – a not inconsiderable sum.

The writer engaged in prolonged discussions with D. N. Holt, who was not on Council but, like the writer, remembered the abysmal performance of the Society as its own publisher before 1971. Holt was initially strongly opposed to leaving a commercial publisher and putting the publication finances largely into the hands of academics. This ought to be recorded because the discussions prompted the proposal that the governing board of any new Publishing House should contain a member who was a commercial publisher, paid to sit on the board and ensure that the largely academic membership would have a realistic commercial anchor. This plan met with Holt's approval, reversed his opposition and that of some others and was implemented when the Publishing House became a reality.

Cross's report was circulated to the Council on 15 April 1987 but Cross himself was not able to be there so the detailed discussion of his report had to be postponed to the 17 June 1987 meeting when the response paper from BSP would also be considered. The Treasurer was concerned with Cross's proposal to settle all the finances with BSP on one date as this would potentially mean paying up to £250 000 in one lump sum and he wished to put an alternative to Cross. Nevertheless the meeting clarified that renting a warehouse would not be cost effective compared with buying a property and also confirmed the location of the Publishing House should be outside of the London region but accessible by no more than two hours' travel on public transport. At the 10 June 1987 AGM the Fellows gave their general support to the principle of 'in-house publishing' and, by then, both the Royal Society of Chemistry and SAP had confirmed that the proposed staffing requirements were 'about right'.

Although there were still mixed feelings at the Publication Committee of 16 June 1987, it was confirmed that in-house publishing was intended to start in 1989 and it was noted that an advertisement had already appeared in the Bookseller for a Publication Manager which Council had yet to authorize. At the Council meeting of 17 June Cross was enthusiastic in his support and pointed out that virtually all of the increased book sales made by BSP resulted from the increased number of books published rather than increased sales of each book compared with what SAP had achieved or what he estimated the Society could achieve, while journal subscribers had consistently fallen. He had met French and agreed to an alternative, more phased final settlement proposal, to put to BSP which BSP were quite likely to agree to as it enabled them to sell all books produced by them for two years, thus gaining more commission than settling before the two-year period. Non-Council Vice President A. J. Smith, previous Society Treasurer, had been invited to the meeting and expressed the sole misgivings to the venture compared with the absence of risk with the BSP contract. Strengthened by the AGM approval, Council then, on 17 June, approved the appointment of a Publications Manager and the members of Publication Board to run the venture, these being Leake, Cocks, French, Bateman, Le Bas and a retired senior executive of a publishing firm to act as an independent advisor and all were to serve for at least three years to ensure continuity. The project was launched.

By the 14 October 1987 Council meeting, Council were informed that R. Cooper, who had a degree in Geology, would on the 19 October be Publication Manager, joining the Staff Editor Ms Angharad Hills who had been in post since December 1985, both being in Burlington House. Cooper was charged initially with finalizing the details of the change-over from BSP, especially that of the long-delayed Atlas of Palaeogeography. At the 2 December 1987 Council meeting the President reported that an amicable agreement with BSP had been reached the preceding day, with subscriber lists for the journals being given to the Society by the end of May 1988, standing orders for books by 1 July 1990, the back stock of all journals transferred free of charge by the middle of December 1988, and of books on 1 September 1990, staged payments for books but with BSP commission increasing to 25% from 1 January 1989 to 31 August 1990, books would be accepted by BSP and financed up to the end of July 1988 but the Society would pay up to £2000 per annum for the calendar years 1989 and 1990 towards the production costs and meet any outstanding deficits after the presentation of the August 1989 BSP accounts. It was intended then that BSP would continue to handle the Atlas of Palaeogeography even if it came after July 1988. The Bristol area had been chosen as property prices were the cheapest of all the centres considered, there was a wide range of commercial and residential properties and the speed of travel by train from London was significantly less than two hours. The Publications Board were planning to view properties thought to be suitable by the Agents acting for the Society. Council approved these steps and the appointment to the Board of D. Kingdom, who had wide commercial publishing experience. An upper limit of £170 000 was stipulated for the purchase of the property. It was confirmed that all journal and Publication committee meetings would continue to be held in Burlington House and these committees would continue exactly as before as regards the scientific vetting and acceptance of books and papers.

The Board did go to Bristol to inspect a property but, by the time they got there, all of the units had been sold, as such properties were being quickly snapped up and prices were rising rapidly. When in early 1988 the Agent found one in Bath, the response was rapid, with the Officers and the Board visiting it within days and agreeing to purchase Unit 7 of the Brassmill Enterprise Centre, Bath for £175 000 on a 999-year lease. This was a 4600 square feet warehouse plus 1000 square feet of office space, with the Treasurer authorising the extra £5000. Bath is less than 1.5 hours' train journey from Paddington and a much sought-after location. The purchase was approved at a Special General Meeting of the Fellows on 8 March 1988.

Recorded in the CM for the meeting of 13 April 1988 and in the accounts was that the venture eventually was underwritten by a three-year 1988–91 loan from the Curry Fund of £300 000, which was repaid to the Curry Fund on 31 December 1991 with interest of £68 640 (=7.63% per year) except for £178 000, the book value of the Publishing House premises, which was continued as a long-term loan but regarded by the auditors as a Curry Fund investment.

The appointment at Bath of three additional staff, a secretary, a copyeditor and a computer operator, to deal with all the orders was approved by Council on 9 March 1988 and, after some fitting out and equipment purchase, the Publishing House staff moved in April 1988, with relocation expenses for the two staff already in London; the third, a part-timer working on the *QJEG* resigned rather than move. Quite quickly with J. Brooks' particular help and strong encouragement from M. Badley, a mutual

book-selling arrangement was concluded with the AAPG in 1988, with the European AAPG stocks being held in Bath. The Society journals were produced on time from January 1989 and the Publishing House was formally opened on 7 March 1989 by Professor Sir Hermann Bondi, FRS, one-time Chairman and Chief Executive of NERC 1980–84. Of course, the need to pay staff in 1988 in advance of the 1989 journal subscription income meant that 1988 recorded a publication loss of £45 230, but this was reversed as soon as 1989 in the first year of the Publishing House operation, with a surplus of £48 618 in the 1989 accounts, revised to £93 848 in the 1990 accounts when all the delayed gains were included (Table 9). This was the first of a nearly unbroken series of erratically increasing surpluses to the present, with sales first exceeding £1 million in 1996. These sums far exceed those achieved with SAP or BSP and currently typically add a surplus of around £400 000 to £500 000 a year to GSL while still maintaining 50% discounts on books to Fellows, so the venture has been successful and has created a leading international publisher of geology.

Table 9. Publication House surpluses and deficits (£) 1989–96

1989	1990	1991	1992	1993	1994	1995	1996
93 848	170 844	106 292	149 547	30 663	(4455)	149 515	177 000

The writer stood down as President in June 1988 but continued for eight years as Chairman of the Publication Board until 1996, taking over the post of Treasurer of the Society from 1989 to 1996, making an unbroken series of Society surpluses, 1981–85 and 1989–95. It was crucial that in the early years of the Publishing House, a GSL Treasurer supportive of the venture was Chairman of the Board to ensure the development was not throttled by cash flow considerations. For instance, these had led the Mineralogical Society to reject publishing the second editions of the multivolume Deer, Howie & Zussman Rock-forming Minerals itself, which the Publishing House undertook so profitably but at a price to Fellows and libraries far below (less than one third) that proposed by Longmans, the publisher of the first editions. By 2016, when JGS and QJEGH were counted as one journal as regards Fellows receiving them from the Publishing House in exchange for paying their annual dues, 9082 Fellows took JGS online and 941 with a printed copy also and 9030 took QJEGH online and 948 also with a printed copy, showing the trend of future publishing.

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Notes

¹As Life & Senior Fellows etc. did not pay an annual subscription, the actual Fellowship numbers were higher

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An addendum on the man who did most to turn the 1970s GSL publication costs round.

Douglas Grant

6 January 1918–25 July 2014

Douglas Grant was born in Edinburgh on 6 January 1918, the second (and longest survivor) of three children of Robert Grant (1878–1959) FRSE and Jane Ierne Grant (née Robertson; 1884–1963), a family of educational publishers and booksellers. He was educated at George Watson's College (1923–35) and then became a budding actuary employed by the Scottish Widows Fund and Life Assurance Society (1936–39). He also volunteered for the Territorial Army and in 1938 became a Second Lieutenant, in the 4th Heavy Regiment Royal Artillery. From 1939–46 he was in the Royal Artillery, initially in the UK (Coast Artillery: Inchgarvie) and then 1942–44 in West Africa, becoming Lieutenant-Colonel in 1943 and Regimental and Garrison Commander of the Takoradi base, SW Gold Coast (Ghana), an important staging post in the war for RAF planes flying to Egypt and Atlantic anti-submarine patrols. In

²The blocks of pages, usually of 16, 8 or 4 pages which are paid for whether fully or partly filled with print.

³Grant's obituary is appended. This details his publishing experience and the enormous demand for his expertise.

⁴But the same 1979 Report recorded that 72 subscribers had not renewed in 1979, suggesting the given 1978 figures might not be correct.

1945–46 he was on the staff of the Eastern Command and posted as a staff officer to Wales. He earned the Territorial Decoration and bars. During the war he was elected to the British Ornithologists' Union.

On demobilization, Douglas eschewed actuarial science and, following his family background, devoted his life to the production and publication of books and journals, mainly of academic interest. In 1946–47 he studied typography in College in London and worked for Blackwells in London and Oxford, making such an impression in Oxford that he was, in a short time, by invitation, made an Honorary Life Member of the Oxford Union Society.

In 1947 he became Managing Director of Oliver & Boyd Ltd, Edinburgh, publishers, printers and bookbinders, which was jointly owned by the families of Robert Grant and James Thin and were then publishers to the Royal Society of Edinburgh. Thus began an astonishingly full life of book and journal production over more than 50 years in, mostly, the academic field, in all disciplines but especially in geology and theology, and always based in Edinburgh, although he travelled widely in Europe, North and South America, Australia, New Zealand, China and Japan, becoming an internationally known publishing consultant. To this was added much public and charitable service, including exceptional service to the Church of Scotland in many roles. Major influences in much that Douglas did were the support of his wife, Enid Whitsey Grant (née Williams 1920–2010), whom he married in 1948 in Bromyard, Herefordshire, and his Christian faith and worship in St Cuthbert's Parish Church, Edinburgh, where he was an Elder from 1953.

Douglas soon revitalized the company, modernized the machinery and industrial relations, encouraged technical innovation and printer training in technical colleges and developed a reputation as a man who knew everything worth knowing about publishing, was entirely honest and reliable, was a superb chairman who spoke tersely but with knowledge and authority, and whose opinion was highly valued. By 1948, he was involved in forming and being a Director of the Scottish Journal of Theology Ltd and for 35 years from 1956–91 he was its Chairman; he joined the Edinburgh Master Printers' Association, rapidly became Treasurer (1949–59), was Vice-President 1959–61, and President 1961–63; and he joined the Edinburgh Booksellers Society, being Preses (President) 1977–80. In 1949 he was elected FRSE.

Thus began an incredible calendar of public, charitable and business service that went on for decades and which, to fully appreciate its extent, requires listing. The record of his time as Managing Director of Oliver & Boyd Ltd shows that from

- •1949–85 he was a Trustee of The Lodge Trust, (Natural History);
- •1950 a committee member of the Scottish Council of Law Reporting and supervised over many years publication of *Session Cases*;
- •1952–76 a Director of Robert Cunningham & Sons Ltd, printers, Alva (Chairman 1970–76);
- •1952–56 a Director of the Edinburgh Chamber of Commerce,
- •1955–78 a Trustee of the Darling (Ogilby) Investment Trust;
- •1956 a committee member of the Police Dependents' Trust-Lothian & Borders Police:

- •1958–76 and from 1980 a member of the Church of Scotland Publications Committee (Vice-Convenor, 1971, Convenor, 1972–76);
- •1964— a Trustee of the Kilwarlin Trust, where unclosed dates indicate continuance beyond 1993.

He was also a Director of:

- •New Education Ltd, 1962–66;
- •Bracken House Publications Ltd, London 1963–67;
- •R & R Clark Ltd, printers, Edinburgh 1963–80 (Chairman 1975–80);
- •Sprint Productions Ltd, printers, Aylesbury 1963–80;
- •Hunter & Foulis Ltd, bookbinders, Edinburgh 1963–75 (Chairman 1970–75);
- •E & S Livingston Ltd, medical publishers, Edinburgh 1963–67;
- •Darien Press Ltd, printers, Edinburgh 1963–68;
- •Port Seton Off-Set Printers, Port Seton 1965–75 (Chairman 1968–75);
- •T & A Constable Ltd, printers, Edinburgh 1965–75; and
- •Multi Media (A. V.) Services Ltd, Port Seton 1967–75 (Chairman 1968–75)

All these many Directorships showed just how much his expertise was valued in the technical, aesthetic, financial and marketing sides of publishing while giving freely of his time and advice to numerous charitable bodies.

Amidst all this activity Grant built up Oliver & Boyd across many disciplines, including the mathematical, physical, biological and geological sciences, for instance in geology, with books such as The British Caledonides (1963) and Controls of Metamorphism (1965) and launching the Scottish Journal of Geology (SJG) in 1965 which subsumed the Transactions of both the Edinburgh and Glasgow Geological Societies. The SJG was innovative in being perhaps the first Earth Science journal to issue filing cabinet cards with the abstracts of the papers on them and in having a different geological cover photograph and a different colour of cover printing for each volume. The first was unsuccessful and discarded after a few volumes, but the second took off and has been widely copied both in the UK and abroad. Literary criticism, theological and biblical studies, books on Scottish wildlife, history, topography, agriculture and forestry, and a splendid list of beautifully produced bird books, such as Birds of the British Isles and the internationally famous series Birds of Tropical West Africa, Birds of Borneo, etc. were all embellished with superbly printed illustrations. Academic journals concerned with pathology, medicine, political economy, geology, mathematics, educational psychology, animal production, crop research, the use of English and Forum for Modern Languages added to the lustre and reputation for quality of the firm. He obtained a reputation for helping new authors by editing and even partially re-writing texts to make them publishable. Not only was he farsighted in selecting titles but he was in constant demand by printers and bookbinders for advice on the technical and administrative side and was noted for his kindness, expertise and willingness to give time to help despite being already heavily committed, as the above list of duties undertaken demonstrates. In 1967 Oliver & Boyd was sold to the Financial Times, but Douglas stayed as Managing Director with the new company until 1968, and initiated new developments with children's books and a renowned series of paperbacks on the natural and social sciences.

From 1968-73 he represented the Scottish printing and publishing industry in the National Economic Development Office in London. With the backing of certain Scottish Universities, in 1969 he founded, and became Managing Director of, the Scottish Academic Press Ltd (SAP), Edinburgh, with J. S. Watson (1916-86) FRSE, Principal of St Andrews University, as Chairman, and all eight Scottish Universities represented from 1982. This eventually built up a list of 16 academic journals and achieved a publishing coup in obtaining from the Beijing authorities the right to publish the massive 20-volume English Language version of the Stratigraphy of China. Equally prestigious was the successful launch for the Geological Society of London, the world's oldest geological society, in January 1971, of *The Journal of the* Geological Society to replace The Quarterly Journal of the Geological Society (1845– 1971) which, due to mismanagement, was chronically 12 months behind in publication. SAP, introduced through Dr P. McL. D. Duff FRSE, undertook the management of the whole operation for only 10% of the institutional income, increased the subscriber numbers each year, and saw such a flood of papers pour in as authors realized publication was prompt that a committee of editors was needed to replace the writer, who was the last sole editor in a chain going back to 1845. The economical type layout eventually devised by Douglas is still used 40 years later in the Society's 'Special Publication' series, which he also revitalized. This success and Douglas' offer of help (under extremely generous terms) to the seriously beleaguered Geologists' Association in 1977 resulted in SAP taking over production of their *Proceedings* in the middle of a volume. When the Kirk's (Church of Scotland) monthly magazine Life & Work was hit by a similar crisis in the early 1970s he saved it and turned it round in five years.

Douglas, whose contributions to Scottish publishing are unequalled, continued serving in a wide range of posts, some noted above, while building up SAP. From 1970–75 he was also a Director in Scottish International Review Ltd, Edinburgh (Chairman 1973–75); from 1970–91 he was both Director and Secretary of the British Journal of Educational Psychology Ltd; from 1971 for over 30 years his public service increased with him becoming a member of the Finance committee of New College, where the renowned Divinity and Religious Studies of Edinburgh University are based, and then from 1974–84 a member of the University Court, from 1975 a Governor of the Esdaile Trust (Ministers' Daughters' College) and from 1975–79, a member of the Scottish Arts Council Grants to Publishers Committee, while still adding from 1975–91 the Chairmanship of the Handsel Press Ltd which excels in theological output. In 1976, the success of SAP in building up its journal portfolio caused him to found and become Managing Director of the Scottish Academic Press (Journals) Ltd while still running SAP. From 1978–89 he added a Directorship of Clark Constable Printers Ltd.

In early days Douglas had refereed rugby in the Scottish Borders and in the north of England, walked the slopes of the Badenoch Hills and the Cairngorms and even did a little fishing, remaining a member of the Edinburgh Amateur Angling Club from 1957, (President 1978–80) and later took up golf, being a member of the venerable Honourable Company of Edinburgh Golfers. He was also a member of Scotland's oldest club, founded in 1787, The New Club, with its magnificent centrally situated premises and in 1975 became a member of the RSE Dining Club. Another source of relaxation, but with the family, was his country house, St Giles, in Kingussie. To the Rev. C. Robertson 'he was a good man ... with great personal charm, a warm and

gracious manner, a winsome, lovable nature ... with an outstanding ability to work with others'.

In 1980 he presented a far-seeing, what was called at the time 'a prophetic', lecture to the Royal Society of Edinburgh on 'Publishing for the Scholar' which examined the changes taking place due to the development of new technology and in 1981 the American Association of University Presses asked him to lecture on the same topic. In 1986 the University of St Andrews recognized that he 'has done more than any other person to encourage, keep alive, and foster the publication of learned works and journals in Scotland', being particularly remembered for his special interests in geology and theology, and for his literary 'Writers and Critics' series and for his 'Contemporary Science Paperbacks', awarding him the Degree of Doctor of Letters, honoris causa.

After 1986, although Douglas undertook a few additions to his already overloaded timetable by becoming a Director of Pindar (Scot) Ltd 1986-89, and Macdonald Lindsay (Printers) Ltd 1988–89, and a Trustee of The Society for the benefit of sons and daughters of the Clergy of the Church of Scotland College 1990-, his main energies were trying to save the undercapitalized SAP and SAP (Journals) from financial collapse, due to over extension, which occurred in 1991. This left several ambitious but important projects, on which considerable sums had been invested but were incomplete, in limbo. For instance, these included *The Geology of Scotland* and The Geology of England and Wales. The Geological Society, which had established its own Publishing House in 1987, purchased these two at a generous price and saw them through to publication, and also took over production of the Scottish Journal of Geology, but this was a time of great stress for Douglas (who was then 73 years old) and his faithful assistant Bridget Wilcox and he gradually ran down his commitments. In this difficult time he appreciated being made, in 1992, an Honorary Fellow of the Edinburgh Geological Society in recognition of his contributions to geological publishing.

However, by October 2000, when he was 82, he established with the Rev. W. Forker and Mr N. Steven, the Dunedin Academic Press and was a shareholder, but never a Director or official. This Press continues prestigious academic publishing with about 20 titles a year, including outstanding geology titles such as *The Geology of Ireland* (2001 1st edition; 2009 2nd edition).

Douglas and Enid had three sons, William Neil (1953–), Richard Martin (1955–) and Peter Michael (1958–) and 62 years of marriage. The family survivors are the three sons, Neil married to Virginia and with children, Hannah Georgia and Douglas Euan; Martin married to Jane; and Michael married to Susan with Alexandra Grace.

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