



The  
Geological  
Society

*Geological Society of London*

# Annual Review 2008

*Serving science & profession*



# Report of the Trustees of The Geological Society

<i>President:</i>	Prof Lynne Frostick
<i>Vice Presidents:</i>	Dr Iain Bartholomew Prof Martin Culshaw
<i>Secretaries:</i>	Dr Nick Rogers Prof David Manning Prof Tony Watts
<i>Secretary, Foreign &amp; External Affairs:</i>	Prof Edward Derbyshire
<i>Treasurer:</i>	Prof Andrew Fleet

The Council submits its annual report and financial statements for the year ended 31 December 2008. The report of the Council incorporates the legal and administrative details on this and the following pages and the reports of the President, the Executive Secretary and the Treasurer.

## Financial Review

The Financial Statements and Report of the Council have been prepared in accordance with the Bye-Laws of the Society, the Statement of Recommended Practice, Accounting and Reporting by Charities and complies with applicable law. A review of the financial highlights of the year is set out in the report of the Treasurer.

## Investment Policy and Performance

In accordance with the Bye-Laws of the Society, the Treasurer ensures the proper management of the Society's real estate, investments and funds on deposit. This is achieved through the actions of an Investment Panel, in conjunction with the Society's Investment Managers. The policies of the Investment Panel are to ensure the delivery of a budgeted level of income in each year and to continue the prudent investment policies of the Society. Further details of performance are contained within the Treasurer's Report.

## Reserves Policy

To undertake the continued development and reinvestment in the Society's publishing, educational and other activities, and to hold a contingency sum in respect of the significant redecoration costs that the Society is obliged to meet, in the light of the lease with our landlord, the Department of Communities and Local Government (DCLG) at Burlington House. The Society considers its free reserve sufficiency to be in the order of £1,000,000, which would be required to meet its short term operational requirements as well as to provide some contingency in any temporary shortfalls of income. Free reserves, as defined by the Charity Commission, at 31 December 2008 stood at £1,155,064 (2007: £1,385,569).

## Risk Management

The Trustees actively review the major risks which the charity faces on a regular basis and believe that maintaining free reserves at the levels stated above, combined with annual review of the controls over key financial systems provide sufficient resources in the event of adverse conditions. The Trustees have also examined other operational and business risks faced and confirm that they have identified actions and established systems to mitigate the significant risks.

## Charitable Objectives

The Object of the Society as set out in its Charter is "to investigate the mineral structure of the Earth" which is interpreted to mean

- improving knowledge and understanding of the history, structure, constitution and dynamics of the Earth and its process;
- promoting all forms of education, awareness and understanding of the Earth and their practical applications for the benefit of the public globally; and
- promoting professional excellence and ethical standards in the Earth sciences for the public good.

In meeting this Object the Society provides public benefit by advancing Earth sciences education at all levels, and by promoting knowledge of the Earth and professional standards so as to advance environmental protection and improvement and human health, and to guard against natural hazards.

Specifically the Society provides:

### Induction into the profession through Candidate Fellowship

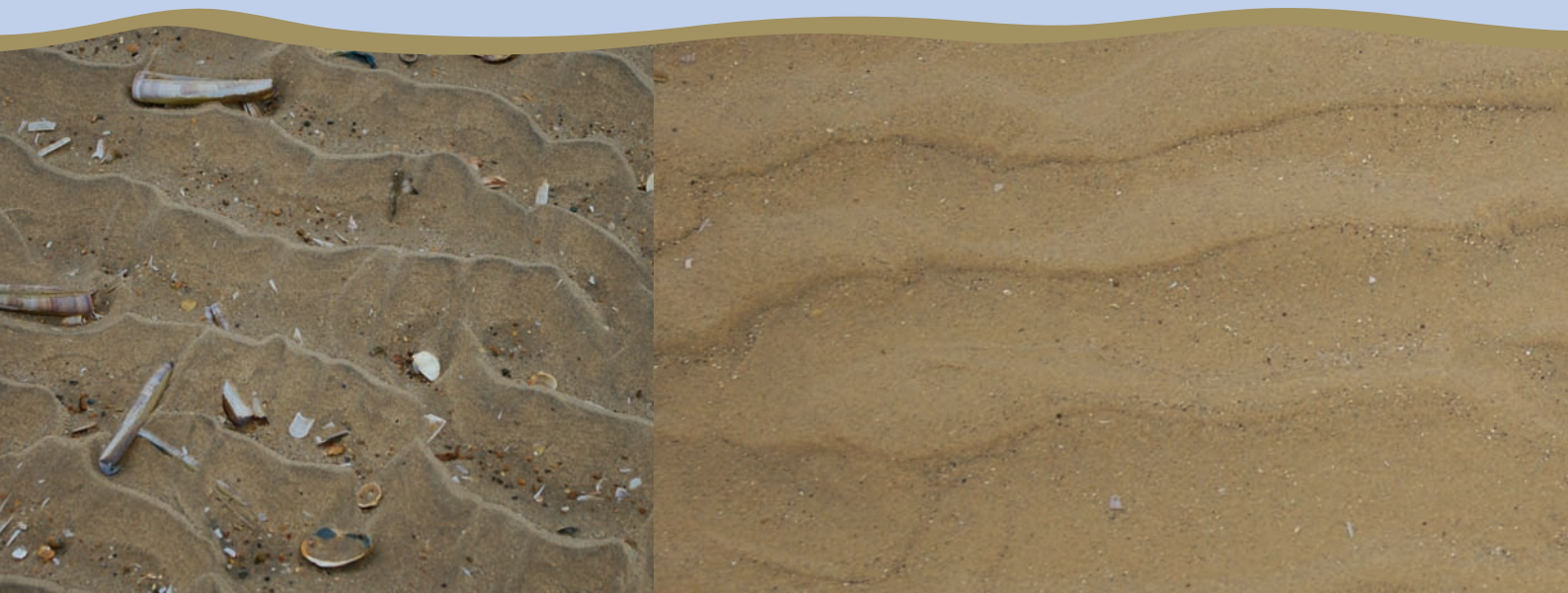
During 2008, by supporting 390 undergraduates to become professional geologists at low subsidised cost.

### Chartered status (CGeol, CSci, Eur Geol)

During 2008, 31 Fellows were awarded CGeol status bringing the total to 2,147. By encouraging continuing professional development, controlling entry standards and monitoring chartered status, the Society assures the quality of professional work in the geosciences for the public good.

### Representing the science

By acting as the UK voice in representing the geosciences and their application.



# of London

## Media contacts

By linking to the media and providing authoritative information and contacts.

## External relations

By responding actively to requests for information or comment from government, opinion formers and the public as exemplified by the submission to CORWM (Committee on Radio Active Waste Management).

## Education

By working with others to set standards to improve the quality of education in the geosciences at all levels, and by developing teaching resources. During the year the Society made progress in developing an online primer at KS 3 level to be launched in May 2008; and accredited 30 undergraduate programmes bringing the number to 132, and introduced a scheme for the accreditation of taught MSc courses. The Society also funded some £15k in research grants and provided financial support for fieldwork.

## Library

By maintaining a nationally important collection of geological maps, books and journals which is open to the public at a subsidised rate; and by launching in May 2007 a complete online catalogue with a GIS interface to index level data for its map holdings

## Website

By hosting a diverse range of electronic geological content with links to other significant websites, which is free to use. A new website was launched in 2007 built to meet international standards for disability access.

## Journals and books

By publishing four of its own journals and four journals on behalf of other learned societies as well as 27 books, which are an important resource of information for geoscientists the world over, and are widely available in libraries. The recent creation of *GeoScienceWorld* (an electronic aggregate of many learned societies' journals) has allowed direct access to journals through the Web. The *Lyell Collection* provides an online portal to most of the books and journals ever published by the Society.

## Scientific meetings

The Society held a number of Flagship meetings during the year:

Lyell meeting 2008 – *Marine climate and change: past and future* (all day event with a number of speakers)

William Smith meeting 2008 – *Studying past and present sea-level changes to make more confident future predictions of future changes* (Jerry Mitrovica, University of Toronto)

The De Beers Group sponsored a one day event –

*Carbon: the deep geological cycle and its effect on the air we breathe* followed by a lecture *Ghosts of continents past, diamond mines of the future* (Hielke Jelsma, De Beers)

The Society hosted two Burlington House Lectures –

*Archbishop Ussher and the Age of the Earth* (Prof Graham Parry, University of York and Dr Patrick Wyse-Jackson (Trinity College Dublin)

*Under the volcano – Sir William Hamilton and Mt Vesuvius* (Dr Chris Kilburn, University College London and Dr Jill Cook, British Museum)

Shell continued to sponsor the Shell London lectures a programme of 10 free lectures for the general public which were held in the lecture theatre in Burlington House.

## The Shell Lecture Series 2008

The Society wishes to thank Shell for their continued sponsorship of the public lectures at Burlington House, and the speakers who generously gave of their time and expertise to bring Earth science to a wider public. The lectures included: Thursday 10 January – Richard Fortey, (NHM) *History of Life*; Thursday 14 February – Mike Searle, (Oxford) *Making mountains*; Tuesday 25 March – Jane Francis, (Leeds) *When Antarctica was green: fossil plants reveal Antarctica's climate history*; Thursday 3 April – John Barry, (Shell) *Oil sands*; Wednesday 28 May – Andrew Curtis, (Edinburgh) *Exploring the Subsurface using the Earth's Hum*; Thursday 19 June – Sara Russell, (NHM) *How the solar system was born*; Thursday 4 September – Laurence Robb (The Mineral Corporation, South Africa, and Department of Earth Sciences, University of Oxford, UK) *Base metals: where do they come from and how did they get there?*; Thursday 2 October – John Underhill, (Edinburgh) *The search for Ithaca*; Tuesday 4 November – Bill Spence (Shell), *Climate change and Shell's response*; Thursday 4 December – Danielle Schreve (Royal Holloway, University of London), *At the edge of the world: Ice Age mammals and the ancient human occupation of Britain*.



The *Mapping Mountains* exhibition was held at the Society from 6 – 29 February with three lectures given on the first day: – *Secret of the Highlands – 19th Century scientific discovery and why it is still important today* (Bob Butler, University of Aberdeen); *Lines of Enquiry – The art of geology and science communication* (Kate Foster, Artist in Residence, University of Glasgow); *Geological mapping and its 21st Century importance* (Alan Gibbs, Midland Valley Exploration)

In addition the Society organizes about one hundred scientific meetings annually, of which about 80% are held outside London. These meetings are open to all. The Society assists in meeting the costs of student attendees at some scientific meetings and field excursions.

### Council

The members of the Council – trustees of the charity – during the year were:

\*Prof P A Allen<sup>7</sup>; Dr I D Bartholomew<sup>1,2,4</sup>; Mr A M Carbray<sup>3,5</sup>; ~Mr G T Cayley<sup>7</sup>; Prof M G Culshaw<sup>1,4,5</sup>; \*Dr M Daly<sup>2</sup>; Prof E Derbyshire<sup>1,2,4</sup>; Prof A J Fleet<sup>1,3,4,6</sup>; ~Dr R A Fortey<sup>1,4</sup>; Prof C M R Fowler<sup>2</sup>; Prof L E Frostick<sup>1,4</sup>; ~Prof P Henderson<sup>1,4</sup>; \*Dr R Herrington<sup>7</sup>; Prof R E Holdsworth<sup>6</sup>; \*Dr A Law<sup>4,5</sup>; \*Prof A Lord<sup>2,7</sup>; \*Prof J Ludden<sup>2</sup>; \*Prof D A C Manning<sup>1,4,5</sup>; Prof J D Marshall<sup>6</sup>; Dr M O Rivett<sup>5,6</sup>; Dr N W Rogers<sup>1,3,4,6</sup>; ~Mr D T Shilston<sup>1,4,5</sup>; Mr G Tuckwell<sup>1,3,5</sup>; \*Dr J P Turner<sup>6</sup>; ~Mrs J H E Turner<sup>5</sup>; ~Prof J A Underhill<sup>2</sup>; ~Dr E Valsami-Jones<sup>7</sup>; Prof A B Watts<sup>1,4,7</sup>; Prof R S White<sup>1,2</sup>; Dr R A W Wood<sup>7</sup>

- \* New members elected at the AGM on 4 June 2008
- ~ Council members who retired at the AGM 4 June 2008

### Membership of the Standing Committees

1 Elections; 2 External Relations; 3 Information Management; 4 Management and Finance; 5 Professional; 6 Publications; 7 Science.

### Method of Election of Trustees

Trustees are elected by the Fellowship in Annual General Meeting by ballot of Fellows present on a list of candidates. New trustees are annually invited to an *induction day* in order to obtain an understanding of the Society's affairs and what tasks they will undertake as a member of Council. They also receive written guidance on their responsibilities as trustees.

### Audit Panel

The Audit Panel reports directly to Council. Members of the Audit Panel are: Prof J C W Cope, Mr D Fenwick, Prof A J Fleet, Prof J D Mather, Prof D G Murchison, Mr M H Pattison, Dr R Stabbins (*Chair*).

## Legal and Administrative Information

### Object of the Society

The Geological Society of London was instituted in 1807 for the purpose of investigating the mineral structure of the Earth.

### Governing Instrument

The Society was incorporated by Royal Charter in 1825, amended by a Supplemental Charter in 2005.

On 3 May 2000, the Fellows of the Society in General Meeting approved and adopted revised Bye-Laws to govern the future activities of the Society.

### Bankers

Coutts & Co, 440 Strand, London, WC2R 0QS

### Solicitors

Bristows, 3 Lincoln's Inn Fields, London WC2A 3AA

### Auditors

BDO Stoy Hayward LLP, Emerald House, East Street, Epsom, Surrey, KT17 1HS

### Investment Advisers

UBS Wealth Management, 1 Curzon Street, London W1J 5UB

### Head Office

Burlington House, Piccadilly, London W1J 0BG

### Registered Charity Number

210161

### Office Hours

09.30 – 17.30 Monday to Friday

**Editing:** Ted Nield

**Design:** Witherbys

**Photography:** Edmund Nickless, Ted Nield



## Corporate Affiliates of the Geological Society of London

*The Society extends its sincere thanks to all its Corporate Affiliates.*

Afren plc; Anadarko Petroleum Corporation (UK); Anglo American Plc; ATP Oil & Gas (UK) Ltd; BG Group Plc; Bow Valley Petroleum (UK) Ltd; BP Exploration Operating Company Ltd; BP Exploration Operating Company Ltd; C & C Reservoirs Ltd; Centrica plc; CGG Veritas; Chevron North Sea Limited; CNR International (UK) Ltd; ConocoPhillips (UK) Ltd; Desire Petroleum Plc; Dong E&P (UK) Ltd; ENI UK Ltd ; EOG Resources United Kingdom Ltd; E.ON Ruhrgas UK ; Equipose Solutions Ltd; ExxonMobil International Ltd; Fairfield Energy Ltd; Furgro Robertson Ltd; Fugro NPA; Gaffney Cline & Associates Ltd; GWP Consultants; GETECH; Hannon Westwood Associates; Hardy Oil & Gas Plc; Helix EGS; Hess Ltd; HSBC Insurance Brokers Ltd; Ikon Science Ltd; Jefferies Randall & Dewey Ltd; Lafarge Aggregates Ltd; Landmark Eame Ltd; Lynx Information Systems Ltd; Maersk Oil North Sea Ltd; Marathon Oil UK Ltd; Marubeni Oil & Gas UK Ltd; MND Exploration & Production Ltd; Nautical Petroleum Plc; Neftex Petroleum Consultants; Nexen Petroleum U.K. Limited ; Noble Energy (Europe) Limited ; NDA; OMV (UK) Ltd; Ophir Energy Company Limited; Paras Consulting; Petro-Canada UK Ltd; Petrofac Energy Developments Ltd; PGS Exploration Ltd; Premier Oil Plc; Ramboll Whitbybird ; Rio Tinto Mining & Exploration Ltd; Rock Deformation Research Ltd; RWE Dea UK Ltd; Samson North Sea Ltd; Schlumberger Evaluation & Production Services Ltd; Senergy Ltd; Shell UK Exploration & Production Ltd; Statoil (UK) Ltd; Sterling Energy UK Ltd; Talisman Energy (UK) Ltd; Total E&P UK Ltd; Tullow Oil Plc; "Valiant Petroleum ; Ltd"; Venture Production plc.

## Acknowledgement

*In addition to the companies listed here, the Society wishes to record its sincere thanks to all the companies, universities and other organisations that allowed their staff the time and resources to participate in voluntary Society activities.*

# Contents

<b>Going public – Report of the President</b>	6
<b>Doing more, reaching further – Report of the Executive Secretary</b>	6
<b>Making friends, building influence – Report of the Secretary, Foreign &amp; External Affairs</b>	9
<b>Education – securing the future</b>	12
<b>Mine of information – Information resources and Library</b>	14
<b>Down your way – Regional Groups</b>	16
<b>Science and society – Report of the Science Secretary</b>	16
<b>Developing chartership – Report of the Professional Secretary</b>	17
<b>Into the e-age – Report of the Publications Secretary</b>	17
<b>Accounts, Treasurer's and Auditors' Reports</b>	18
<b>Hail and farewell</b>	
<i>Fellows elected in 2008</i>	24
<i>Obituary policy</i>	26
<i>Roll of honour</i>	26
<i>Obituaries</i>	26





## Going public

*From Prof. Lynne Frostick,  
President*

One of the things that our science teaches us is that, in a counterintuitive way, the only remotely reliable way to understand what the future might bring is to study the past. So, since those who do not know their history are doomed to repeat it, I was interested to read about what

happened after the Society's Centenary celebrations were over. We always concentrate on what happened in 1907. But what of 1908?

Our history, described so colourfully in the book by Gordon Herries Davies, reveals a rather worrying precedent – worrying, at least, for me as your Bicentenary President's successor. It seems that such was the effort required in 1907, and so delighted was everyone with the result, that the Society seemed to collapse like a swimmer on a river bank only barely gained, and there rested, beached, for more than a decade.

I was determined that this should not happen again, and I am pleased to say that thanks to the way in which we used the Bicentenary as a springboard for change, we have put in place the right mechanism to ensure that the successes of that important year are the foundation for sustained improvements over the coming decade. Part of our mission was to leave legacies of that great birthday, and I think that one of the most significant will be one that only dedicated society historians will ever know about – namely, the Council's 10-Year Strategy.

It is my job as President to see that this strategy, which I had a hand in shaping, is implemented; and the Annual Report, which I commend to you, shows the many ways in which real progress is now being made.

I call this introduction *Going Public* because, if any phrase could be said to sum up what the Strategy means, that is it. Going public in Parliament, to government, in the media, and directly before the general public itself; bearing at the forefront of our minds at all times the fact that we, as a registered charity, exist to serve the public good. This means turning our attentions outward, and restructuring ourselves and all that we do to ensure that public benefit is served, and amply demonstrated.

This report shows you how we are doing this. We are issuing more media releases and responding to more consultations; we have written briefings and organised meetings to raise geoscience's profile among policy makers. We have, with the help of our generous sponsor Shell, brought more Earth science issues to the public through our London lectures, and via the Web, to the whole world. We have taken these talks to the regions, and are raising our profile in universities and in the corridors of power through such bodies as the Parliamentary and Scientific Committee. We are also making our rich written heritage available to the world through the Web via the very successful Lyell collection, and we are spreading and strengthening our accreditation processes, both for University degree courses at home and abroad, and for our Chartered Fellowship.

When you read this report, which is shorter than in previous years to make it more digestible (though full information remains available in the online version) I think you will agree that as a Society we are not lying stranded and breathless on our Bicentenary laurels. Richard Fortey said in his final Annual Report (2007): "it is time for our next 200 years to begin".

We have begun them with vigour, dedication and imagination.

## Doing more, reaching further

*From Edmund Nickless,  
Executive Secretary*

Attentive readers of this annual report will notice that we have returned to the single volume format this year. However, lest this suggest that we have been less busy or tried less hard than in previous years, I should disabuse you straight away. Rather, mindful of the need for economy, we have found a way to benefit from the synergies of simultaneous print and online publication, and present here a condensed version of our full (online) report, in the form of a Review. Those wishing to read more about our groups and commissions, as well as inspect the full Annual Accounts, may do so by going to [www.geolsoc.org.uk/annualreports](http://www.geolsoc.org.uk/annualreports).



Last year, the Society set about bringing to reality the greatest ambition of its Bicentenary Year – namely that the Big Birthday should not have just been an enjoyable – but ultimately ephemeral – event. Rather, it should also give rise to a living legacy, for generations to come. We wanted our Bicentenary to be a springboard for change – change we knew to be necessary; change that in 1908 perhaps failed to happen, leading then to decades of stagnation in the face of a rapidly changing world. So, after the celebrations, more work! In this Review you will find things that may lack the glamour of a Bicentenary Dinner or the excitement of a balloon launch; but reports of progress that will, I hope, do as much to excite admiration.

Our 10-year Strategy demands above all that the Society become a more outward facing, active body, engaging various publics in pursuit of its central mission and its duty as a Registered Charity to work for the public good. We have therefore taken steps to increase our involvement with government and Parliament through stepping up our responses to their consultations, coordinated by the External Relations Committee and its staff (pp. 9). We have invested in greater promotion to the media of our many cutting-edge publications and conferences (p. 16). We have sought to take an active part in international activities through our overseas contacts and to conduct all those relationships on a more organised basis (p. 10). We have, through the Education Committee, brought about major changes to the way we interact with and influence education at all levels (pp. 12).

Through the Science Committee we have begun to advance our science not only by conversing with one another, but also with the public and policy makers (p. 12). We are engaging directly through the Shell London Lectures and the University Lecture Series, as well as with our Courtyard neighbours in the Burlington House Lectures. These discipline-crossing events have treated subjects like Sir William Hamilton, the first scientific observer of volcanoes in the modern age, but also a key player in the archaeology of Pompeii and Herculaneum.

All these lectures have proved immensely popular, proving that there truly is an unmet need out there for the real experience of receiving quality information, presented live in the gloriously restored surroundings of Burlington House. Even more encouragingly, our surveys reveal that the audience for these events is indeed a diverse one, reflecting the diversity of subjects on offer (p. 3). Those attending our public events are by no means “the usual suspects”, and the demand for tickets twice exceeds the capacity of the lecture theatre.

For those unable to attend in person our lectures are being made available as webcasts (p. 14). In the same way, we are also publicising our engagement with policymakers, by posting

presentations from our meetings with them online, as soon as we can – for example, the open meeting on October 24 to discuss the management of radioactive waste, which grew out of discussions with CORWM and the NDA. And as we have done for the past 10 years, our consultations received (p. 12) continue to be advertised in *Geoscientist* and, when permission is given, posted on the website for all to examine – and comment on.

Raised profile brings pay-offs in all kinds of areas, not least I suspect in the retention and recruitment of our Fellows. The year 2008 saw an unprecedented rise in Fellow numbers (p. 8) and, with the help of a growing and vibrant constituency, I trust that we will go on to provide an even better-targeted service, during good times – and the not so good. In fact, as we enter a period of economic retrenchment, the continuity and networking that we as a Society offer to our Fellows will be ever more important and, I hope, appreciated by those who benefit from it.

Foremost among our services to working geologists are those provided through the Professional Committee (p. 17), and I am particularly pleased by the vigour and tenacity with which these activities are now being taken forward, strengthened, and made ever more transparent and user-friendly. The development and integration of our aspirational grade of Fellowship, Chartered Geologist, with those of other bodies like the Science Council (CSci) and the EFG (EurGeol), are a sure way of helping to enable Fellows to demonstrate their excellence – to public and employers alike. In this way I believe that they will find themselves better able to weather whatever economic storms and political difficulties they may face during their careers. Only by asking Fellows what they want and by responding in a timely and appropriate way will the Society continue to thrive, and the Professional activities of the society stand as a model in this regard.

I therefore join with the President in commending the Annual Review 2008 to you, as well as in thanking our sponsors and Corporate Affiliates, our volunteers across the country and overseas, and of course (and not least) our faithful staff.

#### Staff changes

*Resigned:* Gordon Alchin (Library Assistant); Roger Austin (Warehouseman); Jackie Maggs (Administrative Secretary); Daniel Milner (Website Administrator). *New Appointments:* Sara Anders (Website Administrator); Tamzin Anderson (Publishing Assistant); Stephanie Culver (PA to Executive Secretary); Sarah Day (Earth Science Communicator); Jonathan Harrop (Warehouseman); Darren Prewer (Data Clerk); Mark Wootten (Warehouseman). Jo Mears is providing maternity cover for Judi Lakin, Education & Training Officer.



## Mid-year Fellowship figures, 2002-2008

Rate	2002	2003	2004	2005	2006	2007	2008
Candidate Fellows	486	434	450	–	–	–	–
21 and under				233	175	187	285
22-27	1054	1066	1056	1072	1016	987	1071
28-33	1154	1140	1174	1187	1220	1194	1263
34-59	4055	4018	3980	3976	4069	4055	4042
34-59 (Overseas)	851	855	861	878	855	833	829
60-69	–	–	–	–	852	910	1003
70 or over	–	–	–	–	321	354	379
60 or over	997	1043	1090	1148	–	–	–
Honorary Fellows	72	69	67	59	59	57	57
Life Fellows	30	28	25	22	21	20	17
Senior Fellows	204	220	230	248	257	267	280
Free CF rate for full course				159	153	165	119
Concessions	53	107	123	159	49	55	58
Joint Fellows (non-payers)	95	94	97	107	108	109	111
Postgraduate	–	–	–	–	147	161	150
Unemployed/Free	30	31	31	14	10	11	12
<b>Total</b>	<b>9081</b>	<b>9105</b>	<b>9184</b>	<b>9262</b>	<b>9312</b>	<b>9365</b>	<b>9676</b>
Elected	768	617	650	615	581	618	843
Resigned/removed/deceased	611	593	571	537	531	565	532
<b>Net increase</b>	<b>157</b>	<b>24</b>	<b>79</b>	<b>78</b>	<b>50</b>	<b>53</b>	<b>311</b>
<b>% increase</b>	<b>–</b>	<b>0.3%</b>	<b>0.9%</b>	<b>0.8%</b>	<b>0.5%</b>	<b>0.6%</b>	<b>3.3%</b>
<b>Chartered Geologists</b>	<b>2040</b>	<b>2083</b>	<b>2134</b>	<b>2176</b>	<b>2175</b>	<b>2165</b>	<b>2147</b>
Elected	–	77	81	69	53	61	31
Resigned/removed/deceased	–	34	30	27	54	81	49
<b>Net increase</b>	<b>–</b>	<b>43</b>	<b>51</b>	<b>42</b>	<b>-1</b>	<b>-20</b>	<b>-18</b>
<b>% increase</b>	<b>–</b>	<b>2.1%</b>	<b>2.4%</b>	<b>2.0%</b>	<b>0.0%</b>	<b>-0.9%</b>	<b>-0.8%</b>

**Notes:** All Fellowship figures are measured mid-year, once those who have not paid have been removed from Fellowship, i.e. at the low point for the year. This enables meaningful comparison between years. The number of Fellows and Candidate Fellows elected excludes upgrades from Candidate Fellowship to Fellowship; i.e. it represents the total number of people joining the Society.

## Growth spurt

*Nic Bilham, Data Manager, analyses some heartening figures*

Each summer, the Society's staff carries out one of its less edifying duties – removing from Fellowship those who have failed to pay their dues. Happily, this number has declined and is now one of the lowest among Earth science and other learned societies. Even including those who die or resign, the annual attrition rate is only about 5%.

We always compile our annual Fellowship statistics immediately after the 'striking off' of those who have not paid up, so that we can record the annual low-point in Fellowship numbers. Having completed this exercise for 2008, we were delighted to see a net increase of 3.3% since August 2007 – the greatest by far in recent years. Over 800 new members joined, and despite the 'credit crunch', the number failing to renew subscriptions has fallen again.





## Remembering the IG

*President's Day 2008 saw the unveiling of a plaque commemorating a revolutionary period in the development of the modern Geological Society.*

President's Day 2008, which commemorated the Society's Bicentenary Year 2007, was a fitting moment to unveil a plaque in the Lecture Theatre dedicated to a piece of history that was, many feared, in danger of being overlooked amid the celebrations. Richard Fortey, in one of his last acts as President, said:

"Now that professionalism constitutes so much a part of the Society's day-to-day activity, with the postnominal CGeol firmly established as a benchmark of excellence in the practice of our science and the aspirational grade for all our Fellows, it is hard indeed to comprehend quite what a revolution all this seemed back in the 1970s and 80s."

Rick Brassington, whose article in *Geoscientist* foreshadowed the unveiling, thanked the Society for responding so enthusiastically to his suggestion with a "very fitting commemoration of both the Institution and its predecessor APIPG".

## Annual subscriptions

Council Agreed to the following subscription rates, which were agreed at the AGM.

### Candidate Fellow

Annual fee	£31.00
One-off fee for duration of full-time undergraduate course	£67.00

### Fellow

Aged 21 and under	£31.00
Aged 22 – 27	£62.50
Aged 28 – 33	£114.00
Aged 34 – 59	£173.00
Aged 34-59, outside Europe	£133.00
Aged 60 – 69	£87.00
Aged 70 or over	£61.00
Full-time postgraduate students	£49.00
Chartered Geologist supplement	+ £26.00
Chartered Scientist supplement	+ £20.00
European Geologist supplement	+ £17.50
Joint Fellow supplement	+ £50.00

## Rock awards



The winners of the Society's Awards for 2008 were: Wollaston Medal – Professor Norman Sleep; Lyell Medal – Professor Alan Smith; Murchison Medal – Professor Michael Searle; William Smith Medal – Professor Martin Sinha; Coke Medal – Professor Jim Rose; Coke Medal – Dr Nigel Woodcock; Aberconway – Dr Richard Davies; Bigsby Medal – Professor Chris Ballentine; R H Worth Prize – Dr Ian West; William Smith Fund – Professor Tim Lenton; Murchison Fund – Dr Arwen Deuss; Lyell Fund – Professor Kathy Willis; Wollaston Fund – Dr Sanjeev Gupta; Distinguished Service Award – Mr Neil Ellis; Distinguished Service Award – Mr Peter Wigley; President's Award – Dr Luke Skinner; President's Award – Mr Steven Smith; President's Award – Dr Madeleine Humphreys.

## Making friends, building influence

*from Edward Derbyshire,  
Secretary, Foreign & External  
Affairs*

The Council Strategy, which brings a long overdue coherence to the Society's activities, places many demands upon those of us whose principal interest has always been the external view, and the Society's influence on the wider world – from education, all the way through media relations, to Parliament.

Members of the External Relations Committee (ERC) were pleased and surprised in equal measure by the Strategy, since we realised that it offered the prospect of being joined in our efforts by colleagues in other Council subcommittees, for whom the same strategic aims hold sway. Many hands, as is well known, make light work, and those people I know who understand public relations tell me that it works best when the whole organisation thinks PR, not just the PR department!

For this reason, much that is externally directed in this Annual Review is now being reported in places other than this section



alone. Externality, transparency and relevance are to be found throughout. As we enter the "post Bicentenary, post strategy world", it is fitting to reflect for a moment on what ERC has achieved so far, for there can be no doubt that ERC's many past achievements, in education, the media and in Parliament, have helped to inspire this momentous change.

From 1997 until recently we were just one committee with (for most of that time) one member of staff to help us address the manifold communication failings of the Society. When we began to address this in earnest, we were failing even to communicate internally; we had no media relations at all; we were nowhere to be seen in the corridors of power, and despite some education-related activity, this was at best sporadic and characterised more by introspection than action.

Since those dark days we have proved that we *can* bind the Fellows together and give them a sense of belonging with an attractive, topical and often exciting Fellowship magazine. We *can* punch well above our weight in all media, and we *can* influence the way in which Government and their advisers think (p 12); in addition, we *can* have an education committee that is active and supported by a staff member with drive and commitment. The problem, as ever, is how to afford to do such things all at the same time, and not consecutively!

The Strategy is the key to all this, for putting real political will behind our aims will help us to keep up the effort on all fronts. It enabled us in 2008 to bring in Sarah Day, Science Communicator, to assist with and eventually take over media and government relations, freeing Ted Nield to devote all his energy to *Geoscientist*. Also, with an Education Committee ably served by Judi Lakin (and latterly Jo Mears as maternity leave replacement) I, as Secretary, am able to concentrate my efforts on the field I know best, international relations.

Despite the UN *International Year of Planet Earth*, which has engaged me (as Chair of Science until 2008) and Ted Nield (as Chair of Outreach until 2009) since its inception, the Society's international relations have been, I fear, something of a Cinderella among the many topics that fall within the (perhaps) over-broad remit of ERC. For this reason, I have taken every opportunity to spell out that, in future, our relations with our global neighbours must be placed on a proper footing and accorded appropriate status and resources. This includes reviewing all our contacts and involvements, and even such institutions as Honorary Fellowship, which now has a coherent policy behind it and which we can now take forward with confidence as part of our strategic plan.

I should like, therefore, to record my thanks to Edmund Nickless, Nic Bilham and others who had a hand in devising the strategy and shepherding it carefully through Council. It seems to me that, for perhaps the first time in our Society's history, all our component parts are pulling in the same direction – and that direction is outwards, as it has always been for the ERC. This cannot but mean that our burdens will appear lighter and our progress towards our collective goals swifter and surer than ever before.

## The International Geoscience Programme (IGCP)

The United Kingdom National Committee for the IGCP is the External Relations Committee (ERC) of the Geological Society of London. The UK National Committee also has a seat on the UK National Commission for UNESCO by way of that Commission's Natural Sciences Committee and its Working Group of the Chairs of UNESCO's four Intergovernmental Science Programmes (ISPs).

The IGCP benefits from the consistent support of the UK National Commission's chairman in sustaining a firm place for Earth science in UNESCO's Science Sector.

The Society took over responsibility for the IGCP in the UK in 2004, though project leadership and membership continues to come from the UK Earth science profession as a whole, and is not limited to the Society's Fellows. The Society's 10-year strategy document (2007), states clearly that the Society will continue to maintain relations with international bodies, including IUGS, UNESCO, UK-UNESCO, IGCP, IYPE and other relevant bodies.

This is fitting since, as a founder member of IGCP, the UK has a long and distinguished record of involvement and leadership within it. Historically, UK Earth scientists have made up an average of about 33% of the leadership/co-leadership of IGCP projects – a situation that continued in 2008.

The year 2008 saw the appointment to the IGCP Scientific Board of Professor Iain Stewart as leader of its Geohazards section. Dr Stewart is Professor of Geoscience Communication at Plymouth University, and an accomplished TV documentary maker and presenter. Also during the year, the ERC re-established the practice of requiring an annual report from UK Leaders/Co-Leaders (in the form of a questionnaire and short report) as means of obtaining annual data on the key characteristics of UK involvement and general activity.

The year witnessed a good level of activity on the part of UK leaders and participants in a wide range of IGCP projects. Twelve active projects involved UK leaders or co-leaders. Within these projects, over 100 UK scientists were involved in 37 international meetings, 36 of which took place outside of the UK, with about 40 percent of these being organised in less developed countries. Training workshops numbered 16, all overseas and about half of them in less developed countries. Project-based publications involving UK authors numbered 46.

## Anti-creationist statement

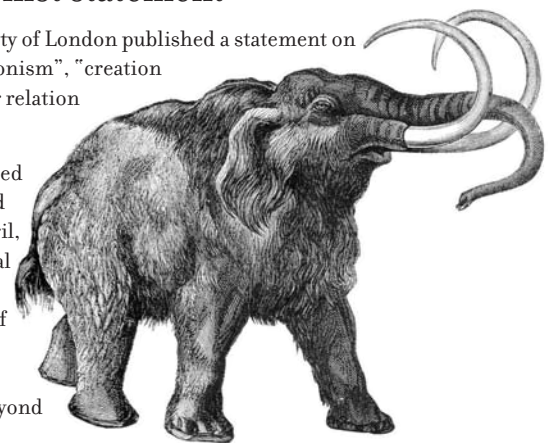
The Geological Society of London published a statement on "young-Earth creationism", "creation science" and its near relation "intelligent design".

The statement, devised by ERC and approved by Council on 10 April, set forth the principal scientific facts concerning the age of the Earth and the evolution of life as "long established beyond doubt".

Prof. Edward Derbyshire said: "ERC felt that a statement from the Society's position as the world's senior national Earth science society was needful and timely – even overdue."

Dr Ted Nield, Secretary to ERC, said: "The issue is what constitutes legitimate science and what doesn't; and it is our job to put that very clearly indeed, for the benefit of those who may find themselves in doubt as a result of young-Earth creationists' bogus claims to scientific legitimacy".

The statement, in the "Our views" section of the website, may be read at [www.geolsoc.org.uk/page3635\\_en.html](http://www.geolsoc.org.uk/page3635_en.html).



## IYPE Global launch

*In reading his last written work, Sir Arthur C Clarke closed the Global Launch Event of the International year of Planet Earth with an audio message on 13 February at the Paris headquarters of UNESCO.*



The Global launch event of the UN International Year of Planet Earth, was held in Paris on 12–13 February. With contributions from all 65 IYPE national committees, it communicated to decision-makers and the public at

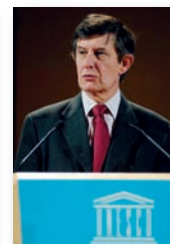
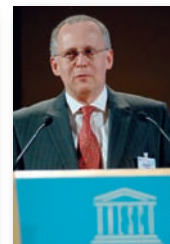
large that we should all be making better use of Earth science in planning decisions.

Following a welcome and introduction from Master of Ceremonies Ted Nield (Chair, Outreach Programme), Koïchiro Matsuura, Director-General of UNESCO addressed the audience of almost 1000 participants. Mr Matsuura spoke of the fundamental role of the Earth sciences and the importance of informed planning for sustainable development in the face of challenges like climate change.

Jean-Pierre Jouyet, Minister of State in the French Ministry of Foreign and European Affairs, said that a changing climate and a burgeoning world population must form the priority for the French Presidency of the EU in the second half of 2008. He noted the significant contribution already made to the IYPE by French geoscientists and wished the venture, which also marked the opening of the IYPE in France, every success.

The afternoon session began with the performance of a 'geosong' called *Mother Earth*. This specially-composed item was sung with instrumental accompaniment by some 150 students who hailed from all continents of the world and were present as guests of the IYPE; they were selected from among the many hundreds of students who participated in a world-wide contest. Three themes of the Year – *Population growth and climate change challenges for planet Earth: Earth resources – threat or treat?*, and *Geohazards: minimizing risk, maximizing awareness*, were aired during interactive sessions chaired over the remainder of Day 1 and Day 2 by Aubrey Manning and French radio journalist Melina Mielczarek.

Knowledge of the Earth system as humankind's insurance policy for the future was the theme that ran through a recorded audio message of Sir Arthur C Clarke – his very last written work – which concluded the event.



## Silent witnesses

*At last year's British Association Festival in Liverpool, the Society co-organised with the BA Geology Section a half-day session on the uses of isotopes in geoscience, reports Sarah Day.*

'Isotopes – Silent Witnesses to Earth History' featured six talks by scientists whose work, despite being in very different fields, all involves the use of isotopes. The papers were arranged chronologically, by the time period in which each researcher's techniques applied. The broad purpose was to show how amazingly useful things isotopes can be, in widely separated areas of Earth science – and to dispel what Ted Nield (Editor, *Geoscientist*) described, in opening the session, as the "unaccountable fear of isotopes" that afflicts so many.

Professor Chris Ballentine (Manchester University) began the session explaining his use of isotopes to investigate the origins of volatile elements within the planet, followed by a paper delivered by Dr Nathalie Grassineau (Royal Holloway), whose work with isotopes explores the origins of oxygen in the air. Dr Steve Noble (NERC Isotope Geosciences



Lab) continued the story by explaining his use of isotopic chronology to investigate the first appearance of complex life on Earth.

After a break, things were brought further up to date with a talk by Dr Paul Wignall (Leeds University) on the use of isotopes to study the causes of mass extinctions, followed by Professor Chris Turney (Exeter University) with a paper on how isotopes can help us to understand climate change. The session concluded with a hugely popular talk from Dr Jane Evans (BGS), who explained how isotopes recorded in cattle teeth can provide evidence for movement and migration, particularly in relation to her work on Stonehenge. This paper, along with those of Professors Ballentine and Turney, was accorded a press conference at the Festival Media Centre, and achieved nationwide publicity. The session was well attended with over 70 people in the audience.



## Society responds

### Renewable energy, radioactive waste and putting research at the heart of Government policy

*Following her appointment late in 2008, Sarah Day organised the submission of three responses to Government consultations before the end of 2008.*



The renewable energy consultation called for views on how to drive up the use of renewable energy in the UK as part of an overall strategy to combat climate change and meet the EU target to acquire 20% of energy from renewable sources by 2020.

The Society noted that exploration for geothermal resources is taking place at Eastgate in County Durham, with additional exploration expected to follow, particularly in urban Tyneside. The Society responded to

the question of how to best ensure a sustainable use of biomass by pointing out how vital it is that the soil's stock of nutrients and organic matter is not depleted. It also advocated a strategy for reducing CO<sub>2</sub> emissions while ensuring biomass sustainability.

Responses to the Renewable Energy Consultation will be used to help shape the UK Renewable Energy Strategy, to be published in Spring 2009. The Society's response (No. 189) was prepared by Professor David Manning.

In November 2008 the Society also responded to the Nuclear Decommissioning Authority (NDA)'s proposed research and development strategy (Response 192). The fact that the NDA had identified the need to develop strategic alliances with a wide range of other key players was welcome, the Society said, particularly in light of the suspicion with which it has historically been regarded by parts of the geoscientific community.

The Society advocated the development of a broad national research programme for geoscience relevant to radioactive waste management. This would necessarily include, but also extend beyond, research undertaken or contracted by the NDA. The response also noted: "A key dependency for successful implementation of the MRWS programme is to develop and nurture a skilled workforce of suitably qualified and experienced geoscientists. At present, there is a high degree of dependence on a small existing 'old guard' of those who were involved in radioactive waste management until the late 1990s."

In its response to the Department of Innovation Universities and Skills (DIUS) consultation *Putting Science and Engineering at the Heart of Government Policy* (Response 193), the Society said it believed that the conception of science as a particular form of organised knowledge about the natural world was a peculiarly Anglophone interpretation. In all other European countries, "science" meant organised knowledge about anything. This showed how important it is to understand how questions on this issue are influenced by culture.

Boundaries between classic disciplines like chemistry, physics, biology, geology were breaking down. Many of the problems we face required moving between disciplines, or outside of what we traditionally regard as 'science'. The formulation of science and engineering policy needed to reflect this.

Full responses can be read in the "Our Views" section of the website.

## Education – securing the future

### Degree course accreditation

*The Society now accredits 149 courses in 26 departments in the UK and abroad, say Bill Gaskarth and Colin Scrutton\**

This has been another busy year for the Accreditation Panel. The Panel has met on two occasions, 11 March and 1 July, 2008, its 18th and 19th meetings respectively. Submissions for accreditation and reaccreditation from seven departments were considered and 29 programmes approved as a result. Those accredited and reaccredited over this period were as follows:

In all, 149 first-degree programmes, from 26 departments, are currently accredited. Of these, two are overseas departments. In addition, two taught Masters programmes from two departments are currently accredited.

The Panel and the Accreditation Officer would like to record their appreciation to those preparing submissions for accreditation on behalf of schools and departments. We are also encouraged by the willingness of applicants to undertake modifications to their geoscience programmes to meet the requirements of accreditation.

Those programmes accredited or reaccredited this year will be the last under the old system of preparing applications. From now on, all applications will need to follow the new procedures outlined in last year's Annual Report. Several departments are currently preparing applications using the new procedures and in response to a few minor queries we have been able to refine the documentation circulated to departments. The latest version is available on the Society's website or from the Accreditation Officer ([colin.scrutton@dunelm.org.uk](mailto:colin.scrutton@dunelm.org.uk)). In addition, the Panel has revised the Accreditation Leaflet this year to reflect the new procedures and to make minor changes. The leaflet is now in its 4th edition and copies are available from [alison.douglas@geolsoc.org.uk](mailto:alison.douglas@geolsoc.org.uk).

For the future, we intend to invite more applications for the accreditation of UK taught Masters degrees ahead of the next NERC funding round, and also to explore ways of encouraging further overseas applications for accreditation. In addition, we will consider the possibility of developing a linkage with the Higher Education Academy (via GEES) to track developing trends in the geosciences which might inform future requirements for accreditation. The essential skills and minimum requirements for applications for accreditation will be kept under continuous review. Finally, the Panel will continue to hold a watching brief on the status of

Institution	Accredited/Reaccredited		Programmes
	from	until	
University of Edinburgh, School of GeoSciences	June 2008	June 2014	BSc (Hons ) Geology MEarthSci (Hons ) Geology BSc (Hons ) Geology & Physical Geography MEarthSci (Hons ) Geology & Physical Geography
University of Exeter, Camborne School of Mines	April 2008	April 2014	BSc Applied Geology BSc Engineering Geology & Geotechnics
University of Liverpool, Department of Earth & Ocean Sciences	July 2008	July 2014	M E Sci Geology & Physical Geography
University College London, Department of Earth Sciences	September 2008	September 2014	BSc Geology MSci Geology MSci International (Geology) BSc Environmental Geoscience MSci Environmental Geoscience MSci International (Environmental Geoscience) BSc Geophysics MSci Geophysics MSci International (Geophysics)
University of Portsmouth, School of Earth, Environmental and Physical Sciences	March 2008	March 2014	BSc (Hons ) Palaeobiology & Evolution BEng (Hons ) Engineering Geology & Geotechnics BSc (Hons ) Geology
	April 2008	April 2014	BSc (Hons ) Geological Hazards
	September 2009	September 2015	BEng (Hons ) Engineering Geology & Geotechnics (sandwich)

**Overseas:**

King Abdulaziz University, Faculty of Earth Sciences, Jeddah, Kingdom of Saudi Arabia	May 2008	May 2014	BSc Engineering Geology BSc Environmental Geology BSc Geophysics BSc Hydrogeology BSc Mineral Resources & Rocks BSc Petroleum Geology & Sedimentology BSc Structural Geology & Remote Sensing
---	----------	----------	---

**MSc programme:**

Newcastle University, School of Civil Engineering & Geosciences	October 2008	October 2013	MSc Petroleum Geochemistry (full time/part time)
---	--------------	--------------	--

integrated Masters degrees (MSci and MGeol) in the light of progress with the Bologna initiative.

\* *Chairman, Accreditation Officer resp.*

## The panel pool

Annette Cutler retired from the Panel pool at the end of 2008, although she remains available for assessing some MSc applications. Annette was not only the first Chair of the Panel but also played a major role, as Chair of the Professional Committee, in setting up the accreditation scheme.

The members of the Panel Pool for 2008 included: Ruth Allington (industry); Jim Andrews (academic); Colin Brown (industry); \*\* Annette Cutler (industry); Chris Elders (academic); Bill Gaskarth (academic, Chair); Malcolm Hart (academic); Kip Jeffrey (academic); Gilbert Kelling (academic); Dave Manning (academic, ex-officio); Andrew Parker (academic); Denis Peach (BGS); John Powell (BGS); Andy Rankin (academic); Nigel Robinson (industry); Hazel Rymer (academic); Helen Scholes (industry); \* Mike Simmons (industry); Graham Stuart (academic); Peter Styles (academic); Gordon Walkden (academic); Nigel Woodcock (academic); Bruce Yardley (academic).

\* *new* \*\* *retiring*



## Careers Day 2008

*Georgina Worrall reports on the 2008 Careers Day – which continues to go from*

*strength to strength – and to a new venue.*

The Society's highly successful Annual Careers Day moved in 2008 to the East Midlands Conference Centre, Nottingham. The event was held on 17 November and was attended by over 400 students from a variety of UK universities. The exhibition was again sold out and boasted representatives from both universities and industry. The bigger venue meant that four extra exhibitor spaces were available, and these too were quickly snapped well before the event. The main programme was as popular as ever, with students reporting that they enjoyed the variety of industry-focused and more academic talks, and were encouraged by the number of young speakers.

The Society would like to thank the conference sponsors for their support for this important event; Atkins Limited, BG Group, BP, ExxonMobil, Hess, Nexen Petroleum UK Limited, Shell and Venture Production plc.

**Exhibitors:** Anglo American plc, Arcadis Geraghty & Miller International, ARKeK Limited, Atkins Limited, Bangor University, BG Group, BP, University of Brighton, British Geological Survey, University of Cambridge, Cardiff University, University of Derby, Durham University, University of Edinburgh, ExxonMobil, Gaffney, Cline & Associates, Gardline marine Sciences Limited, Halcrow Group Limited, Halliburton, Hess, Imperial College London, University of Leeds, University of Leicester, University of Liverpool, University of Manchester, MJCA, Neflex Petroleum Consultants Limited, Newcastle University, Nexen Petroleum U.K. Limited, Open University, Petroleum Geo-Services, University of Plymouth, University of Portsmouth, Rio Tinto, Royal Holloway, University of Sheffield, Shell, Soil Mechanics, University of Southampton, StatoilHydro, Talisman Energy, University College London, URS Corporation Limited, Venture Production plc.

**Speakers:** Chris Carlon, Anglo American; Sarah Davies, University of Leicester; Ian Fairchild, University of Birmingham; Richard Herrington, Natural History Museum; Chris King, Keele University; David Manning, Geological Society/Newcastle University; Fiona McEvoy, British Geological Survey; Zoë Miller, Ramboll WhitbyBird; Bryan Ritchie, BP; Nicky Robinson, Atkins Limited; George Tuckwell, STATS Limited; Emily Vallance, GWP Consultants; Gary Walker, Scott Wilson.

## Outstanding pupils and teachers

The Society's annual book prize, awarded to the highest scoring candidate in each exam board offering geology A level/Scottish Higher, was awarded to Ryan MacFarlane and Daniel Collins, who were the top scorers under the Scottish Qualifications Authority (SQA), and the Welsh Joint Education Committee (WJEC) respectively. Winners received either *The Geology of England and Wales* or *The Geology of Scotland*. The volumes, inscribed by the President, were also awarded to Arbroath High School and King Edward VI College. The winning pupils' teachers (Mr Paul Ewing and Ms Sharon Phillips) were awarded a year's free Fellowship of the Society.

The Society wishes all winners its heartiest congratulations.

**Note:** The launch of the Key Stage 3 module *The Rock Cycle*, a major education initiative of 2008 coordinated by Education Officer Judi Lakin, is described in the report of the Information Management Committee

## Mine of information Society information at a key stage

*From George Tuckwell, \*Chair, IMC*



After a bicentennial year packed with new initiatives, the pace of change has slowed somewhat in 2008.

Nevertheless, during 2008 many new features have been added to our website, including an improved jobs listing service and a facility for Fellows and Candidate Fellows to include CVs alongside their Fellowship Directory data, and for employers and those looking for contractors to search them.

These services have been very well received so far, and we hope that this area will thrive and grow in 2009.

Development of our online publishing and library activity has focused this year on the Lyell Collection, as described elsewhere in this report. But the scheme to allow Fellows remote electronic access to journals to which the Society subscribes, trailed in last year's Annual Report, is now underway, and during 2008 the selection of titles available under this scheme, and the number of Fellows using it, have grown. We have also started to develop the range of external online information resources listed on our website, and we are starting to develop plans to deliver new information services in collaboration with others.

Perhaps the most exciting new development on the Society's website this year has been the launch *The Rock Cycle* module, an educational module aimed primarily at Key Stage 3 students (aged 11-14), and generously sponsored by StatoilHydro. This has been extremely well received by students and teachers alike (and not just by those at KS3!). The Society worked closely with the Earth Science Teachers' Association and others in developing the content, and in reaching out to a new audience we were keen to ensure that this part of the website conveyed quite a different impression to the traditional image of the Geological Society.

The Society now routinely puts online film footage of presentations at flagship events, alongside presentation slides. You can view the archive of Shell London Lectures and University Lectures on the Society's website, as well as material from other events such as the open meeting on radioactive waste management held in October.

Towards the end of the year, the Information Management Committee started to explore new opportunities for communication, such as professional and social networking sites, blogs and *YouTube*, looking at what our members are already doing in these areas, and considering ways in which the Society might provide support or deliver its own material.

## The library

*From Sheila Meredith, Chief Librarian*

After the completion of the Library's Bicentenary projects and the refurbishment of some areas of the Library staff began the work of consolidating and building on the efforts of the previous two years. We experienced a substantial increase in the number of enquiries received from both Fellows and non-members. Despite the

Internet, the specialist knowledge of the library staff is frequently required to locate other data.

There was a noticeable increase in the number of items borrowed by staff of Corporate Affiliates during the year. Statistics for the photocopying service also held up well and we received over 550 requests from companies, the highest figure since 2001. Library staff supplied almost 20,000 pages of photocopies (mainly to Corporate Affiliates).



### Archives & rare books

The year 2008 was again a busy one for archive enquiries and in the absence of a dedicated Archivist, the Assistant Librarian responded to 201 enquiries from both academic researchers and family historians. In addition, the Society's Bicentenary continued to generate enquiries as authors prepared their manuscripts for publication in the History of Geology Group's book based on the Bicentennial symposium.



The Society was delighted to receive a number of donations during the year. Records indicate that for many years a copy of De la Beche's Table of strata (i.e. his *A tabular and proportional view of the superior, supermedial and medial rocks*, 1828) hung in the Society's apartments. However, it no longer exists in the Society's

collection, so it was with considerable gratitude that the Society accepted an anonymous donation of a copy of this chart which is to be mounted and framed, so it can once again be displayed in Burlington House.

Other donations included a copy of the Geological Survey's Dining Club book from the 19th Century from Dr. Raymond Casey and Sir Lewis Leigh Fermor's badge of office as Director of the Geological Survey of India, which had been given by Lady Fermor as a personal gift to former Executive Secretary Richard Bateman, who wished to add it to the Fermor archive. In October Norman Falcon's son Michael visited the Society to present a framed cartoon by JAK that had been commissioned by BP on the occasion of his father's retirement from the Company.

Sir Roderick Murchison's field notebooks have been scanned and digital images will now be available for consultation by researchers, to avoid further excessive handling of the originals. A significant proportion of the Society's Murchison Collection is now available in electronic format.

### Sponsor-a-book project

Fellows and Corporate Affiliates were invited to help to preserve the Library's collection of rare and valuable books by making donations towards their conservation and repair. When the scheme was launched it attracted an excellent response from the Fellowship, enabling two volumes to be sent away for



conservation. It is planned that the restored books will be exhibited in the Lyell Room.

### Maps

More than 630 enquiries were received and over 300 items added to the collection. Africa remains the location most in demand, with increasing numbers of enquiries for every country on the continent. Indonesia and Saudi Arabia were also popular, along with the home nations.



We received a number of generous offers in response to our appeal for Kazakhstan maps and were also able to conclude the hunt for maps from the United Arab Emirates. Along with these purchases, we have continued to receive maps through our exchange agreements, with several sheets coming from Italy and Switzerland during the year. We have also received donations from Fellows, including Dr G J H (Joe) McCall, Dr J R (John) Parker and Ian Hutchinson, along with anonymous donations.

### Acquisitions

A total of 907 records was added to the library's online database of books, maps and serials, bringing the total number of records of all types in the online catalogue to almost 40,000.

The total number of new books acquired by the Library (by purchase, gift and exchange) was 296. The Library continued to benefit from the Fermor Fund, and a sum of £7356 was used to purchase material in the subject areas of Precambrian geology and ore deposits.

Two notable gifts were received by the Library. David J Grainger donated his book *The geologic evolution of Saudi Arabia: a voyage through space and time* (Saudi Geological Survey), while *Palaeontological atlas of Phanerozoic faunas and floras of Uzbekistan* was presented by Prof John Cope on behalf of Firuza Salimova. The Library Committee approved a subscription to a new journal title, *Bulletin of the Tethys Geological Society*.

The Library successfully negotiated access to an additional four electronic journals, bringing the total number of remotely accessible titles to 40. In addition, a three month trial to 18 of Springer's Earth science journals was arranged. Feedback indicates that this has been a valuable addition to services, particularly for those based outside the UK who previously had limited or no access to them.

By the end of the year, 390 Fellows had registered for "Athens" passwords to enable them to access e-journals from their own PCs and the number of full text articles downloaded reached 14,500, confirming how successful this service has been. Full text access to over 350 titles (including open-access journals) was made available via the "Virtual Library" on the Society's website.

The Library has benefited from many donations and thanks are due to everyone who donated material to the Library during the year. (*overleaf*).



## Down your way

from Prof. Martin Culshaw, Vice-President for Regional Groups

The Society has 14 Regional Groups, 13 in the UK and one in Hong Kong. Of these, the Home Counties North Regional Group

is not currently functioning, though it is hoped to revive it if a group of enthusiasts can be found to take on the task. Next year the number of Groups will increase to 15 with the formation of the Solent Regional Group, being budded off by the Thames Valley Regional Group, which previously covered an unviably large geographical area.

The Regional Groups Coordinating Committee, which reports to the Professional Standing Committee, met in July. High-spots of the year have been the return to health of the Western Regional Group, and the slow recovery of the South East Regional Group. Both have struggled to find active volunteers to run them, but both now boast interesting activities.

A wide range of lecture meetings was held during the year, more than 80% of them on applied topics. Particularly noteworthy events included the South West Regional Group's annual conference, *ProGeo 2008*. The theme for the meeting was *Waste Management in the Extractive Industries*. The meeting focused on the regulatory environment, technological solutions and economic opportunities for valorising waste from the extraction of minerals. It was well attended, attracting 79 delegates from 25 different companies and organisations.

Another keynote event was the Thames Valley Regional Group's one day meeting on the London Clay, attended by over 100 delegates at Royal Holloway, University of London. There were many social occasions, ranging from the North West Regional Group's descent of Gaping Ghyll (with the Bradford Potholing Club), to the more sedate wine and geology evening held by the Central Scotland Regional Group.

A major advance in the day-to-day functioning of Regional Groups has been the fact that they have been granted, at last, access to the email address list of Geological Society members living in their areas. This means that the Groups can now contact most of their members directly and easily on a regular basis (subject to a set of Society guidelines).

During the year, the Geological Society Council set up a review group to look at governance of the Regional Groups. The first draft of this report has been completed.

### Young Geoscientists Group

2008 saw a significant advance in the service that the Society provides to its members with the formation of an entirely new type of Group. The Young Geoscientists Group (YGG) was started in early 2008 by an inaugural committee of three early career geoscientists who met in Nottingham in March. The YGG has been set up to facilitate discussion, networking and support for, and between, early career geoscientists, up to and just beyond Chartership. Contacts have been made with the Regional Groups and similar interest groups in their areas.

The YGG has also successfully linked with other organisations aimed at early career geoscientists. In addition, a YGG committee representative sits on the International Committee for the Worldwide Young Earth Scientists Network. Through this network, the YGG is contributing to the organisation of next year's Young Geoscientists' Congress in Beijing, China.

At least three Regional Groups hope to set up a similar YGG model in their areas in 2009.

Reports from individual Regional Groups can be read in the Online version of the Annual Report, [www.geolsoc.org.uk/annualreports](http://www.geolsoc.org.uk/annualreports)

## Serving the science

### Science and society

From Prof. Tony Watts, Science Secretary



In the 21st Century we live in challenging times, when the geological sciences have never been more relevant. Firstly, they provide information about the resources (e.g. oil, gas, coal, water) upon which the modern world depends. Secondly, they are central to our understanding of natural hazards such as earthquakes, tsunamis, volcanic eruptions and landslides. Finally, the geological record is the "tape-

recorder" of past climate, environmental and sea-level change and, hence, the natural background against which we can evaluate the influence that society's activities are having on Earth.

The Science Committee brings together representatives of the Society's specialist and regional groups, and is the principal means by which it promotes the geological sciences to the Fellowship, and lately, to the wider community too. We achieve this mainly by steering and overseeing proposals for scientific workshops, conferences, and lectures. Some of the ideas for these meetings originate at committee level; the majority, however, come from the Fellowship.

In each case, we try to ensure that the meeting addresses topical scientific questions. For example, recent meetings have considered such topics as sea-level change on millennial to decadal time-scales, Palaeozoic biodiversity, and the evolution of the continental crust. Where possible we try to link the science to societal issues. The 2008 William Smith sea-level change meeting, for instance, included a session on predictions for the UK region and their impact on flood-risk management.

Probably the most successful "outreach"-related activity in which we have been involved has been the Shell Lecture Series. These groundbreaking, ticket-only events have often filled the lecture theatre at Burlington House to capacity. Another series of talks is also being organised at regional university level, both initiatives growing out of the Bicentenary programme. The London Lectures have been recorded and can usually be viewed on the Society's website within a few days.

It is clear from our surveys that these lectures are attracting an audience from a wide range of age groups, and clearly satisfy a widely felt thirst for geological knowledge. We will do what we can to maintain the current level of activity. The past year has been one of our most successful yet, with some six major scientific meetings, many of which will end up as *Special Publications*.

Critical to this success have been the Conference Office staff, who have worked tirelessly with conveners to stage a crowded programme of events and to ensure the success of the public and university lecture series. We hope that next year will be just as successful!

Reports from individual Specialist Groups and Commissions of the Society (*Geoconservation, Stratigraphy*) can be found in the Online version of the Annual Report, [www.geolsoc.org.uk/annualreports](http://www.geolsoc.org.uk/annualreports).



# Serving the Profession

## Developing chartership

from Prof. David Manning, Secretary,  
*Professional Matters*



Just over 20% of the Geological Society's Fellowship holds Chartered Geologist status, and a much smaller but growing number holds the newly introduced Chartered Scientist (CSci) status. The vast majority of Chartered Geologists work in what might broadly be described as sustaining the urban infrastructure upon which we all depend.

Human society today requires the satisfactory provision of water and services that remove and safely treat used water, and wastes of all sorts. It depends on a built environment that uses geological resources to enable us to enjoy acceptable housing and transport networks. To sustain our standard of living within that infrastructure, we also take for granted a supply of energy for heating, cooling and transport. All but a tiny fraction of these needs must be satisfied by the work of Earth scientists. These demands bring with them the twin obligations of competence and transparency on the part of those who satisfy them.

No matter what their chosen area of expertise, geologists have a vital role to play in sustaining society, and it is increasingly essential that there is an independent, peer-review based assessment of the ability of an individual to deliver what is expected. Geologists naturally work closely with those in other professions, or from different jurisdictions internationally, for whom professional recognition is essential.

The Geological Society is the sole authority that is able to designate Chartered Geologist status, and it confers European Geologist status within the UK on behalf of the European Federation of Geologists. There is a long history behind the development of the "Chartered Geologist" designation to its present state, dating back over 30 years to formation of the Association for the Promotion of an Institution of Professional Geologist (see p. 9). The process by which Chartered Geologist and Chartered Scientist status is conferred has evolved, and 2008 saw the implementation of changes that represent a quantum leap in what the Society does.

We have replaced a system that was informal in the logistics of execution (though always rigorous in its process) with one that has a clear structure. Most importantly, all involved in the process now work to a timetable that enables candidates and their employers to know when Chartership will be awarded, providing the application succeeds. To make sure that applications are made at an appropriate stage in a given career and are well prepared, the Society has appointed a Chartership Officer to liaise with candidates and scrutineers.

Chartership is valuable as a designation of competence, and in some ways is equivalent to the academic award of a PhD. A candidate submits documentation to support the claim of competence in his or her chosen field, and this is then scrutinised and defended in an interview that all candidates attend. Chartership brings with it a responsibility to maintain and develop the recognised level of competence. Professional Committee also manages the Society's CPD system, which enables all Fellows to review and plan their professional development on an annual basis, and to maintain a

record that can be used as evidence of that essential process, should the need arise.

Although the Society employs a small number of staff to manage the process, it depends on the voluntary help of a large cohort of scrutineers to assess applications and interview candidates. This is also only possible with the support of employers, who permit (or encourage!) their staff to act in this voluntary capacity. As Professional Secretary I recognise this, and take this opportunity to thank those involved in all aspects of the chartership process.

## Corporate Affiliates Committee

From Dr Iain Bartholomew, Chair



At the end of 2008 the Society had 75 Corporate Affiliates (see p. 5), an increase of five over 2007 and of over 25% since the re-launch of the Corporate Affiliate scheme three years ago. Corporate Affiliates are critical to the Society's strategic aim to be the respected public voice of geosciences

in the UK. The very fact that so many companies are now Affiliates demonstrates their support for that aim.

Efforts continue to attract a broader range of companies into Affiliateship. The bulk remain companies whose primary business lies within the oil and gas sector. Special attention has therefore been paid to attracting financial institutions, legal and insurance firms, environmental and engineering companies. As a result, 16% of Affiliate companies are now non-oil and gas related – a significant increase on the previous year. We hope we can further increase this percentage during 2009.

With the global economic downturn it will be a significant challenge for the Society to keep increasing (or even to maintain) the current level of support. But public awareness of the importance of the geological sciences in understanding the past and forecasting the future of our planet is growing. The relationship between the Society and its Corporate Affiliates cannot but have a critical role to play in this. On behalf of the Society I would therefore like to extend my thanks to all those companies who support us as Corporate Affiliates.

## Into the e-age

from Prof. Nick Rogers, Publications Secretary

If anyone thought that life at the Publishing House would return to normal after the Bicentenary, then the events and business of 2008 rapidly corrected that view. Having created the Lyell Collection in 2007, last year saw continued growth in the quantity and breadth of content available within it. The launch, on the website, of the historically valuable *Transactions of the Geological Society of London* and of our youngest journal *Geochemistry: Exploration, Environment, Analysis* was accompanied by the launch of *Petroleum Geoscience on GeoScienceWorld*.



Negotiations were concluded for the inclusion of the *Proceedings of the Yorkshire Geological Society* and the *Scottish Journal of Geology* in the Lyell Collection late in 2009, and preparations for their digitisation commenced. Further negotiations for additional

content for the 2011 subscription are also underway. In addition, the regular work of the Publishing House resulted in the prompt publication of eight journals and 25 new books, including the two-volume *Geology of Central Europe* and a DVD of the *Proceedings of the 5th PGC*, commissioned by PESGB. No mean achievement for a so-called small publishing house!

The decision by the Society to engage with electronic publishing both as a founding member of *GeoScienceWorld* (GSW) in 2002 and with the launch of the Lyell Collection in 2007, has been a resounding success. At the time of writing the number of GSW subscriptions stands at 302 – a growth of 20% in one year – while the number of subscriptions to the Lyell Collection is 49 and growing, well ahead of target for its first year. It was always recognised that this change in operation was not without risk, with unpredictable impacts on journal and book sales, and we are now beginning to see a change in customer behaviour.

It may come as a surprise therefore to announce that the overall number of journal subscriptions has *increased*, most particularly as a result of inclusion in the aggregated offerings of *Lyell* and *GSW*, alongside the stand-alone subscriptions for individual journal titles. By contrast, and less surprisingly, sales of our books have decreased slightly; although this may have been caused as much by the world-wide recession as the wider accessibility of our book series via the Lyell Collection. Despite all these changes, the overall result has been another financially successful year, with a publishing surplus of £231,000, £45,000 ahead of budget.

The Lyell Collection has become the focus of much of our publishing activity. It is not a static product but one that grows each year with the addition of more than 10,000 pages of journal and book content. The current practice of producing printed versions of books and journals simultaneously with the electronic version, coupled with the continuing development of the Lyell Collection, is placing considerable strain on publishing house resources. The challenge of the moment is to manage the wide range of development work while maintaining the throughput of world-renowned high quality publications. Currently that challenge is being met by the dedication and hard work of Neal Marriott and his team; but the Society, and Council in particular, must remain conscious of the demands placed on them in maintaining this dual publishing role.

To conclude my final report to Council on a personal note, it has been a privilege and a pleasure to serve for the past four years. My role has been made that much more enjoyable knowing that the Society's publications are in the sure and professional hands of Neal and his staff. In particular, I would like to mention Angharad Hills for her sterling work on the *Journal of the Geological Society* and her continued championing of the Society's various book series; also Sarah Gibbs who, among many other duties, oversees the process of digitisation of existing content for inclusion in the Lyell Collection. To them, and the all the other staff in the Publishing House, many thanks.

The future as ever remains uncertain; but this year there is the added uncertainty of global recession that will no doubt have a detrimental effect on sales. As I hand over to my successor Jonathan Turner, I have no doubt that the Society has the resourcefulness to maintain and develop its reputation as a scientific publisher, and is well positioned to weather whatever storms lie ahead.

## Accounts, Treasurer's and Auditors' Reports



### Planning for uncertainty

*From the Treasurer, Prof. Andy Fleet*

Narrowly the year 2008 was another financial success for the Society, with a small surplus of about £35,000, an outturn of approximately £259,000 better than the planned budget. However that result is only a minor, though pleasing and hard-worked for, feature of the financial landscape seen from the Society.

Inevitably, as the year went by, attention focused on the rapidly changing global financial climate and the impact this would have on the Society. The initial budget for 2009, drafted in June, had to undergo a series of changes in response to the ever changing financial outlook in order to come up with a realistic and affordable budget for Council's consideration in November. This involved an immense amount of extra work for the staff of the Society for which I would like to record my thanks.

The resulting budget still makes provision to draw on reserves to implement actions in the business plan resulting from the Society's strategy; but planned further refurbishment of Burlington House has had to be postponed.

Uncertainties about the financial future obviously neither went away nor became any better defined during the second half of 2008. As a result the staff, committees and Council began to monitor the Society's income streams and committed expenditure more frequently in the latter part of 2008.

The Society's investments suffered in line with the market, with unrealised losses of £842,000. With the advice of the Society's investment managers, the investment portfolio had been restructured and diversified over the previous two years with the intention of safeguarding as far as possible against market fluctuations. Unsurprisingly this has not been sufficient to mitigate the extraordinary drop in the market; but it is hoped it will pay dividends in the longer term. In the short term, annual investment income is expected to be no more than 60% of that generated in recent years.

How income streams other than that from investments may vary in the future is not predictable with any certainty. Precautionary small reductions have been made in the budget against each income stream. Over the coming year we will need to monitor trends in both income and expenditure and be prepared to take corrective action as necessary.

One discernible change in 2008 was a reduction in income from book sales. There were indications that more of the Society's books are being accessed on-line and subscriptions for the Lyell Collection were ahead of budget. Changes in the way people access our publications were expected when the Lyell Collection was first developed; but the rate and form of the change was seen as unpredictable. In addition, how the community publishes in books and uses them was seen as being in a state of flux. These two types of change, together with the effects of the shifting financial climate on library and personal book-buying habits, will probably continue to provide uncertainty in publication income over the next few years.

Despite this, in 2008, the Publishing achieved a surplus of £348,000, another good performance for which I thank all the staff in Bath. I would end by also thanking all the staff in Burlington House and Fellows who similarly contributed to the welcome, overall surplus.

We hope that we can continue, with caution and careful ongoing review, to operate as usual in 2009; investing in actions to carry the Society's business plan forward. However, ultimately overshadowing the 2008 accounts and the 2009 finances must be the global financial turmoil and all the uncertainties that flow from it.

## Trustees' responsibilities

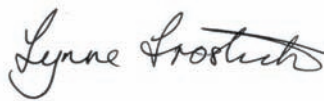
Charity law requires Council, who are the Trustees, to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the charity and of the income and expenditure of the charity for that period. In preparing those financial statements, the Trustees are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- state whether the financial statements have been prepared in accordance with applicable accounting standards, subject to any material departures disclosed and explained in the financial statements; and
- prepare financial statements on the going concern basis unless it is inappropriate to presume that the charity will continue in operation.

The Trustees are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the charity and to enable them to ensure that the financial statements comply with law applicable to charities. They are also responsible for safeguarding the assets of the charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

### Auditors

BDO Stoy Hayward LLP have expressed their willingness to continue in office and a resolution to re-appoint them will be proposed at the Annual General Meeting.



Professor Lynne Frostick  
President



Professor Andrew Fleet  
Treasurer

22 April 2009

## Independent Auditors' statement to the Trustees of the Geological Society of London

We have examined the summarised financial statements of the Geological Society of London.

### Respective responsibilities of trustees and auditors

The trustees are responsible for preparing the annual review in accordance with applicable law.

Our responsibility is to report to you our opinion on the consistency of the summarised financial statements within the annual review with the full financial statements and Trustees' Report. We also read the other information contained in the annual review and consider the implications for our report if we become aware of any apparent misstatements or material inconsistencies with the summarised financial statements.

Our report has been prepared pursuant to the requirements of the Charities Act 1993 and for no other purpose. No person is entitled to rely on this report unless such a person is a person entitled to rely upon this report by virtue of and for the purpose of the Charities Act 1993 or has been expressly authorised to do so by our prior written consent. Save as above, we do not accept responsibility for this report to any other person or for any other purpose and we hereby expressly disclaim any and all such liability.

### Basis of opinion

We conducted our work in accordance with Bulletin 1999/6 'The auditors' statement on the summary financial statement' issued by the Auditing Practices Board for use in the United Kingdom.

### Opinion

In our opinion the summarised financial statements are consistent with the full financial statements and trustees' report of the Geological Society of London for the year ended 31 December 2008.

BDO STOY HAYWARD LLP  
Chartered Accountants and Registered Auditors  
Epsom, Surrey, England

22 April 2009

## Consolidated Statement of Financial Activities for the year ended 31 December 2008

	Unrestricted Income Funds	Restricted Income Funds	Endowment Funds	Total 2008	Total 2007
Income and expenditure	£	£	£	£	£
<b>Incoming resources from generated funds</b>					
<i>Voluntary income</i>					
Donations, legacies, gifts and similar incoming resources	12,597	10,389	-	<b>22,986</b>	293,524
<i>Activities for generating funds</i>					
Hire of rooms	100,682	-	-	<b>100,682</b>	94,857
Catering support services	144,243	-	-	<b>144,243</b>	143,008
<i>Investment income</i>	134,782	98,313	-	<b>233,095</b>	274,670
<b>Incoming resources from charitable activities</b>					
Publishing income	1,682,219	-	-	<b>1,682,219</b>	1,669,655
Conferences and events	749,425	-	-	<b>749,425</b>	463,871
Fellowship income	1,237,369	-	-	<b>1,237,369</b>	1,113,479
Bicentenary activities	6,138	-	-	<b>6,138</b>	1,682,357
<b>Total incoming resources</b>	<b>4,067,455</b>	<b>108,702</b>	<b>-</b>	<b>4,176,157</b>	<b>5,735,421</b>
<b>Outgoing resources</b>					
<i>Costs of generating funds</i>					
Investment management costs	4,376	17,266	-	<b>21,642</b>	39,541
Catering support services	139,450	-	-	<b>139,450</b>	122,491
<i>Charitable activities</i>					
Publishing activities	1,475,146	-	-	<b>1,475,146</b>	1,254,548
Conferences and events	939,726	-	-	<b>939,726</b>	668,388
Fellowship services	1,485,180	22,260	-	<b>1,507,440</b>	1,290,752
Bicentenary initiatives	-	20,375	-	<b>20,375</b>	1,186,627
<i>Governance costs</i>	37,310	-	-	<b>37,310</b>	25,546
<b>Total charitable expenditure</b>	<b>3,937,362</b>	<b>42,635</b>	<b>-</b>	<b>3,979,997</b>	<b>4,425,861</b>
<b>Total resources expended</b>	<b>4,081,188</b>	<b>59,901</b>	<b>-</b>	<b>4,141,089</b>	<b>4,587,893</b>

Full accounts are available to view and download at [www.geolsoc.org.uk/annualreports](http://www.geolsoc.org.uk/annualreports).

	<b>Unrestricted Income Funds £</b>	<b>Restricted Income Funds £</b>	<b>Endowment Funds £</b>	<b>Total 2008 £</b>	<b>Total 2007 £</b>
Net (outgoing)/incoming resources before transfers	(13,733)	48,801	-	<b>35,068</b>	1,147,528
Transfer between funds	-	-	-	-	-
	(13,733)	48,801	-	<b>35,068</b>	1,147,528
<b>Other recognised gains and losses</b>					
(Loss)/gains on investment assets	(170,189)	(709,564)	37,978	<b>(841,775)</b>	(39,101)
<b>Net movements in funds</b>	(183,922)	(660,763)	37,978	<b>(806,707)</b>	1,108,427
Fund balances brought forward At 1 January 2008	16,700,088	2,632,865	1,026,443	<b>20,359,396</b>	19,250,969
<b>Fund balances carried forward at 31 December 2008</b>	<b>16,516,166</b>	<b>1,972,102</b>	<b>1,064,421</b>	<b>19,552,689</b>	<b>20,359,396</b>

All amounts relate to continuing activities. All gains and losses recognised in the year are included above.

## Balance sheet at 31 December 2008 – Group

	2008 £	2007 £
<b>Fixed assets</b>		
Tangible assets	15,401,873	15,356,516
Investments: Listed and unlisted	3,265,092	3,990,202
Portfolio cash	917,588	220,394
	<hr/>	<hr/>
	<b>19,584,553</b>	19,567,112
<b>Current assets</b>		
Stocks: Finished goods	232,820	205,172
Debtors	618,009	639,689
Cash at bank and in hand	958,653	1,456,239
Held by specialist and regional groups	134,580	112,870
	<hr/>	<hr/>
	<b>1,944,062</b>	2,413,970
<b>Creditors: amounts falling due within one year</b>	<b>510,536</b>	463,265
<b>Deferred income</b>	<b>1,465,390</b>	1,158,421
	<hr/>	<hr/>
	<b>1,975,926</b>	1,621,686
	<hr/>	<hr/>
<b>Net current (liabilities)/assets</b>	<b>(31,864)</b>	792,284
	<hr/>	<hr/>
<b>Net assets</b>	<b>19,552,689</b>	20,359,396
	<hr/>	<hr/>
<b>Unrestricted funds:</b>		
General purposes	1,746,649	1,697,364
<i>Designated</i>		
Specialist and regional groups	194,642	201,500
Revaluation reserve	13,208,312	13,208,312
Burlington House Redecoration Fund	335,573	418,548
Bicentenary Project Fund	468,907	559,364
Lyell Centre Fund	187,846	250,000
Educational Outreach Fund	175,000	175,000
Alan and Charlotte Welch Fund	199,237	190,000
<b>Restricted income funds</b>	<b>1,972,102</b>	2,632,865
<b>Endowment funds</b>	<b>1,064,421</b>	1,026,443
	<hr/>	<hr/>
	<b>19,552,689</b>	20,359,396
	<hr/>	<hr/>

The financial statements were approved by the Council on 22 April 2009

Professor Lynne Frostick (**President**)

Professor Andrew Fleet (**Treasurer**)

Full accounts are available to view and download at [www.geolsoc.org.uk/annualreports](http://www.geolsoc.org.uk/annualreports).

## Consolidated Cash flow statement for the year ended 31 December 2008

	2008 £	2008 £	2007 £	2007 £
<b>Net cash inflow from operating activities</b>		<b>434,629</b>		274,126
<b>Returns on investments</b>				
Bank interest received	109,868		116,684	
Investment income received	123,227		157,986	
	-----	<b>233,095</b>	-----	274,670
<b>Capital expenditure and financial investment</b>				
Payments to acquire tangible fixed assets	(329,741)		(706,145)	
Disposal of fixed asset investments	-		-	
Transfer to investment portfolio	(851,837)		(359,617)	
	-----	<b>(1,181,578)</b>	-----	(1,065,762)
<b>Net cash outflow before management of liquid resources</b>		<b>(513,854)</b>		(516,966)
<b>Management of liquid resources</b>				
Money held on short-term deposits	(325,333)		251,525	
	-----	<b>(325,333)</b>	-----	251,525
<b>Net cashflow before financing</b>		<b>(839,187)</b>		(265,441)
<b>Financing</b>				
Net movement in cashflows attributable to endowment fund investments	37,978		41,921	
	-----	<b>37,978</b>	-----	41,921
<b>Decrease in cash in the year</b>		<b>(801,209)</b>		(223,520)
<b>Net cash resources at 1 January 2008</b>		<b>1,024,634</b>		1,248,154
<b>Net cash resources at 31 December 2008</b>		<b>223,425</b>		1,024,634
		-----		-----

Full accounts are available to view and download at [www.geolsoc.org.uk/annualreports](http://www.geolsoc.org.uk/annualreports).

## Hail and farewell

In this section we welcome new members who joined in 2008 and say adieu to the fallen.

### Fellows

ABEYAWICKRAMA Neomie Aruni; ADAMSON Gregory David; ADENMOSUN Ebenezer; ADEYO Oluyomi George; AEBRAHIM Majid; AGYENA Samuel; AHMAD Faiyaz; AHMAD Nadeem; AINSWORTH Robert Edward; AINSWORTH Philip Douglas Bruce; ALEXANDER Sally Anne; ALOGBA Abolanle Tajudeen; AMY John Philip; ANDERSON Robert; ANSELL Lucy; ARTHUR Nicola Catherine; AU Tsz Man Sam; BAGGOTT George Edward; BAILEY Christopher Luke; BALLENTINE Christopher John; BANDA Wonder Maxwell; BARBOUR BOURNE Helen; BARGETON Felicity; BARON John; BARRATT David Anthony; BEAR Sarah Frances; BEAUMONT Heather; BEESTON Amy Louise; BELCHER Richard William; BELL Allan David; BELL Matthew Douglas; BELLA Zsuzsa; BELLINGHAM Paul; BELLINI Roberta Elena; BENISTON David Anthony; BENNETT Carys Elizabeth; BENT Geoffrey Charles; BEVAN Benjamin John Stafford; BIRCH Joanna Louise; BIRT Emily; BISHOP Lucy; BLACK Kevin Steven; BLOORE Charles John; BOND David Peter Geoffrey; BOND Maura Veronica; BOTHA Stephanie; BOTTRELL Simon Hedley; BOWERS Francis Uny Raphael; BOWLER Andrew Timothy; BOYER Matthew Vincent; BOYLE James Lawrence; BRADSHAW Oliver James; BRAIN Matthew James; BRANDSMA Richard Theodoros; BRETTELE Matthew John; BRICKER Stephanie; BROADHURST Leigh; BROOKS Lisa Michelle; BROWN Andrew John; BROWN Daniel James; BROWN Nikki Emma; BRYANT Beverley Catherine; BURDELL Gareth Leonard; BURKLEY Dale; BURNS Claire Elizabeth Graham; BURROWS Christopher Justin; BUTCHER Alan Raymond; CAMPBELL Mairi Anne; CAMPBELL Stewart Ross; CARR Lauren Ann; CARR Robert Stuart; CARRUTHER Alison Lynne; CHAMBERLAIN Paul; CHAMBERS Alexander David; CHARLES Ricki; CHARMAN Victoria Louise; CHEESEMAN Matthew; CHENG Michael Xiangxue; CHIK Shun Wah; CHIPPINGTON Lee Jeremy; CHIVAS Allan Ross; CHOUDRY Akhlaaq; CHRISTEY John; CHU Wai Yan Cherry; CHURCH Lucy; CLARK Stewart John Peter; CLEARE Ruth; CLINTON-BAKER Amy; COFFIN Millard Filmore; COLEMAN Jacqueline Lily; COLES Daniel Matthew; CONOLLY Lisa; COOK Graham Peter; COOK Alison Janet; CORBYN Russell; COSSETT Dyfed; COURT Rachel; COUSINS Michael David; COUTINHO Ivan; COX David Patrick; COX Jennifer; CRAIG Adam Neil; CRAVINO Daniele; CRESSWELL Derren James Franklyn; CRYAN Gemma; CULVER Richard James; CURRY Alison Louise; DALGARNO George; DALTON David George; DAVIES (Nee WAKEFIELD) Heather Clare; DAVIES Peter Gilmore; DAVIS Mark David; DAVY Christopher Stephen; DAYKIN Sean Gareth; DENDLE James Edward; DENTON Joanna Sarah; DINGLE Adam John; DOUGILL Andrew Paul; DOWDEN Adam; DOWSETT Joanna Elizabeth; DREW Robert; DUBBER Niki Christien Benjamin; DUNLOP Lesley; DZIADOSZ Henryk Slawomir; EAST Darren Colin; EDGE Philip James; EDGERTON Danielle Barbara; EDMONDS Victoria; EDWARDS Elizabeth Anne; EDWARDS Thomas Mathew; ELLIS Neil Vivian; ELSWORTH Alan; EMERSON Graham; ENTWISTLE Lewis James; EVANS Christopher Simon; FERREIRA Luke Eldon; FIELD Matthew; FLETCHER Andrew Jonathan; FLITTON Joel; FOLEY Dana Todd; FORD Hugh Jonathan; FORDER Daniel James; FORSTER Deryk Jay; FOSTER Will; FOSTER Catherine Anne; FOX Christine; FRANCE Marcus James; FRAPPORTI Giuseppe; FRENCH Abby Rebecca; GARCIA-MARTIN Noelia; GARNER Matthew James; GERMAINE Gavin Thomas; GILLETT Clare; GOL Michael; GRAF Thomas; GRANT Catriona Allan; GRANT Eleanor Ann Margaret; GREENHALGH Richard; GREGORY Alan James Cousin; GRGICH-WARKE Paula Ann; GRIFFIN Martin Stephen; GUO Jiulin; GUPTA Jiulin; GWILYM Owain; HADWIN Hannah Louise; HALL Jaymie Anne; HALL Michael; HAMILL Jonathan Ross; HAMSJI JR Gilvan Pio; HARDWICK Christine Clare; HARDY Neala Jade Abigail; HARLOW Simon William; HARRIS Christopher Charles Railton; HART Gavin Ross; HARVEY Vivian Richard Wyndham; HAYES Christopher George; HEADON James William Thomas; HEANEY Paul Clive; HEANEY Philippa; HEDLEY Benjamin James; HEELEY Timothy Mark; HENDERSON Malcolm Ian; HENDERSON Sarah Anne; HENDRY Alison Elizabeth; HEYBURN Ross Geoffrey; HIGHTON Philip; HILL Benjamin William; HILL Luke Christopher; HINTON Michael Trevor; HIRST Catherine Mary; HIRST-WATSON Sara Kate; HOBBS IV Gustavus Warfield; HOBSON Emily Louise; HOLLANDS Dominic James; HOLLIS Catherine Elizabeth; HOOPER Richard; HORSEMAN Catherine Louise; HOWARD Simon; HUMPHREYS Madeline Clare Sperry; HUNT Alice Margaret Wydro;

HURST Gary Travis; HUTCHISON Jenny Kirsten; ICURUBE Efe Lucky; ILETT Steven Arthur; INGRAM Katharine Louisa Brook; IRVING Rebecca; ISON Nick; ITOTOH Cornelius Omuemhen; IZON Gareth James; JACKSON James Philip; JAMES Nyree-Claire; JAMES Jaqueline Anne; JARDINE Phillip Edward; JAROCINSKA Anna Elzbieta; JEFFCOATE Alistair Bryan; JEFFREY Christopher Andrew; JENIEC Nina Marie; JENKINSON Penelope Jane; JERMY Thomas David; JOHN Dylan; JOHNSON Kathryn Emma; JOHNSON Rachel Mary; JONES Cassandra Emma; JONES George; JONES Marie; JONES Robert Stuart; JONES Adrian Palmer; JONES Iain Richard; JONES Robert Wynn; JUERGES Alanna Kirsten; JUPE Matthew Kristian James Tremain; KADAKI Mohamed; KAMPER Maarten; KARELSE Nicolas; KEATING Rebecca; KELEGHER Laura Elizabeth; KELLEHER Andrew Michael; KELLEY Lynda Jane; KELLY Michael David John; KELLY Clare; KENT Shaun Robert; KETTLE Simon Paul; KHALIL Gul Hameed; KHAMPILANG Namphon; KIDDLER James Andrew; KING Oliver Matthew; KING Alice; KNIBBS Jamie; KOBAK Danielle; KOCHER Thomas Oliver; KOLLI Sambasiva Reddy; KRAJEWSKA Aleksandra Irena; KWOK Wai-Hau; LAIRD Louise; LAM Ka Man; LANE Kathryn Jane; LANGE Simon; LANGLEY James Alexander; LANGMAN Robert; LANGRIDGE Toni Victoria; LARSEN Michael; LAWRENCE Gordon William Mackenzie; LAWSON Michael; LAWTHER Susan Evelyn Maureen; LE GRESLEY Philippa; LEE Richard Alexander; LENNARD Matthew John; LETT Hayley Frances; LEWIS Grant Mark; LIM Adrian; LION Michael John; LITTLEWOOD Paul Michael; LLOYD Adam James; LOCK Hayley Victoria; LONG Jonathan; LOVE Gary James; LOWNES James; LUDDEN John; LUXTON Rachel Emma; LYNCH Thomas Oakley; MACINNES Helen Jane; MACMILLAN Alasdair; MADDEN Orlagh Bridgit; MAJOR Levi; MALTERRE Emmanuel; MARKS Josephine Imogen Eugenie; MARKY-AMEY Joanna Elizabeth; MARRIOTT Anthony S; MARSHALL Philip Charles; MARTIN Marina; MARTIN Joseph; MASON Peter Ian; MASTERS Toby Alexander; MATHESON Helen Elizabeth; MATTHEWS Naomi Elizabeth; MATTHEWS Simon Robert; MATTHEWS Wendy Joan; MAYNE Christopher Adam; MCALLISTER Rachel Elizabeth; MCALPINE Ross; MCCANN David John; MCCURDY Simon John; MCGARRITY Gerard Joseph; MCGARRY Frances; MCGOWAN Alistair John; MCKEEN Richard; MCKINLEY Jennifer Mary; MCKINNON Mark David; MCNAMARA Kellie Elizabeth; MCNEILL Jamie Stephen Nicholas; MCPHERSON Andrew; MCSWIGGAN Kieran; MD YUSOFF Zainuddin; MEISTER Rakia; MILLER Claire; MILLIER Helen Katherine Genevieve Ruth; MILLS John Robert; MILNE Daniel James; MOLINARO Matteo; MOORE John Paul; MOORHEAD Lee David; MORAES Roberto; MORE Colin; MORGAN Philip; MORLAND Joshua Carlos Plantagenet; MORRIS Adam Andrew; MORRIS Thomas Henry; MORTENSEN Marit; MOULD Andrew Stuart; MUIR Gail Louise; MURDOCH Callum; NEALE Simon; NEIL Iain; NEWNHAM Danielle Victoria; NEWTON Christopher John; NG Kit Ying; NGAI Ka Leung Tim; NICHOLSON Isobel Louise; NIU Yaoling; NORRIS Joanne Emma; NUBERT Stefan; NWANEDO Vivian; O'BRIEN Daniel Sean; O'DONOVAN Anthony Gareth; O'NEILL Mark; O'ROURKE Simon David; O'TOOLE Orna Mary; ODDY Gareth Thomas; OFFERDINGER Ulrich Stefan; OLANIYI Bamidele Joseph; OLEKSIWICZ Michal Jakub; ONANUGA Olukayode David Ayodele; ORCHIN Edward Stephen James; OSSAI Uchenna Adaora; PACKER Megan Louise; PAGE Simon Leonard; PALMER Claire Jenna Louise; PAN Han; PAPADOPOULOU Maria; PARKER Christopher David; PARKINSON John Robert; PASSMORE Emma; PAUSE Paul; PELLICHERO Emanuele; PENNELS Caroline Jane; PENNY Martin William; PENTLAND Timothy Simon; PERRETT Geoffrey; PERSSON Christian Jarl Olof; PHILLIPS Adrian; POHL John; POLLAK Seth; POORE Heather Rachel; POWELL Christopher Laurence; PRESTON Helena Beatrice; PRESTON Louisa Jane; PRING Laura Emily; PUTTOCK Greg Lanyon; QUARMYNE Albert Casu; QUINLAN Paul Joseph; RAINFORD Richard John William; RAMOS Nunon Figueiredo; RAYNER James Malcolm; RESTON Marcus Scott; RICHARDS Glyndwr Joseph; RICHARDSON Annika Louise; RIDING Nicholas Luke; RIPPINGTON Stephen James; RITCHIE Leo Matthew Leppanen; ROBBINS Jenny Margaret Antonia; ROBERTSON Frazer; ROBSON David; ROCK Gregory John; RODGERS Thomas James; ROGERS Louise Pauline; ROGERSON Michael; ROSSITER Ewan; ROSTRON Brian John; ROTHWELL Mark; ROY David Robert Neil; RUSH Christopher; RUSHWORTH Elizabeth Diane; RYAN David John; RYAN Harold John; RYAN Conor Joseph; RYAN Francesca Antonia Gabrielle; RYMAN Paul; SAICH Anna; SALES Emma Marie; SANTONI Stefano; SAVCHENKO Gennady Arkadyevich; SCORER Mark Richard; SEARLE Michael Paul\*; SEDDON Neil; SHARP Helen Elizabeth; SHARPE Samantha Julia; SHEARS Christina Louise; SHERWOOD Richard Paul; SHUTTLEWORTH Jeffrey Peter; SIMMONDS Elizabeth Jane; SINHA Martin Clarebrough; SKINNER Luke



Cameron\*; SKIPWORTH Richard John; SLEEP Norman H; SLEGG Jonathan; SMALLWOOD Stuart David; SMITH Laura Kate; SMITH Catherine Patricia; SMITH Thomas William; SMITH Timothy Philip Leo; SOMMERWILL Giles Spencer John; SOULSBY Michael John; SOYE Andrew William; SPEAR Perran Christopher; SPRAGGS Rachael Elizabeth; ST JOHN Stuart David; ST QUINTIN Philip Jeffrey; STANDEN Kathleen Elizabeth; STEELE Richard Patrick; STEPHEN Theodore Richard Angus; STEPHENSON Phillip Charles; STEVENSON Carl; STEWART Robert; STOCKMAN Thomas William; STRATTON Frances Mary; STRIPP Richard Stanley; STUART Alistair Gordon James; STURDIVANT Michael Robert; SUMMERS Michael John; SWAINS Guy Peter; SWAINSBURY Ian Christopher; SZULC Joanne; TAIT Helen Sarah; TAYLOR Ian John; TAYLOR Catherine Elizabeth; TAYLOR Emily Elizabeth; TAYLOR Patrick William; TAYLOR William; TELFORD Stephen David; TEMPLEMAN Jennifer Louise; THOMAS David; THOMAS Graham James; THOMAS Guy James Howard; THOMAS Sion Daron; THOMSON Joanna; THORNBURN Timothy Paul; THORNE Robert; THORNTON Karen Marie; THORNTON Steven; TIDMARSH Richard; TILEY Richard; TITJEN Jeremy Quentin; TOMKINS Matthew James; TOMLINSON David Ian; TOWERS Katherine Sheila; TROLL Valentin Rudolf; TURCO Eugenio; TURNER Steven; TURNER Stuart Colin; TURNER Ashley James; TWEEDIE Ewan David; VAN BRUMMEN Christopher John; VAN DYKE Gene; VERDON Craig Lee; VIGAR Robert Guy; VLASERVICH Leslie; VYSE Rebecca; WADDELL Simon David Philip; WAKE Charles Alexander; WALDING Daniel Lawrence; WALKER Christian David; WALKER Christopher; WALKER Nicholas James Timothy; WALLEY Christopher David; WALSH Joan Anne; WALSTRA Jan; WALTERS Kate Louise; WALTON Claire; WARD Robert Stephen; WASHBOURNE Carla Leanne; WATSON John Graham Tremayne; WATSON Nicola Jane; WATTS William Barnanby; WEBB Philip James; WEBBER Philip James; WEBSTER Robert Paul; WELCH Daniel John; WESTGATE Benjamin Mark; WHEELER Mark Stephen; WHITE Gillian Nicola; WHITE Clare; WHITE Stephen Phillip; WHITWORTH Kate; WIDD Jeffrey David; WIGNALL Paul Barry; WIGNALL Andrew; WILKINSON Lindsey; WILLIAMS David Owen; WILLIAMS Francis Thornton; WILLIAMS Michael David; WILLIAMS Christopher Michael James; WILLIS Katherine Jane; WILLS Tom; WILLS William Curtis; WILSON Kelly Elizabeth Steele; WILTON Vaughan; WONG Hei-yin Aries; WOOD Bill Laurie; WOODGET Amy Sara; WRIGHT Jonathan Charles; WRIGHT Joshua Paul; WRIGHTON Chloe Evelyn; WU Jonathan En Lin; YETGINER Ayse Gulin; YOUNG Kate; YOUNG-SEONG Kim; YUANGDETKLA Kwanjai; ZACHEIS Melanie Ann; ZAMLER Arie; ZARATE-GUALDRON Oscar Leonard; ZULBATI-PETRILLO Fabio.

### Chartered Geologists

ADDY David Charles; ALLEN Micky; ANDERSON Darren; ARDEN Hakan; ARTHUR Nicola; BARRETT Christopher Mark; BARTLEY John Richard Charles; BAYLISS Andrew Ian; BEST Nicola Jane; BINTLIFF Alison; BLUNDEN Catherine; BONEHAM Marcus John; BOYER Matthew; BROWN Steven Richard; BURKE Helen Frances; CAREY Jonathan Martin; CASSIDY Guy Anderson; CHAPMAN Eric Neil; CHAPPLE Martin; CHEN Mengfang; COATES Stephen Julian; COOK Gregory Kenneth; COOKE Jonathan Peter; COVERDALE Andrew; CRANE Michael; CRISP Glen Patrick; DEAKIN Richard Brian; DOUGLAS James; DRAKE Antony Robert; FAIR Nicola Esther May; FORSTER Derek Jay; FOWLER Michael; FROST Nicholas; FURGUSSON Wendy Anne; GEBBETT Simon James; GILBERTSON James; GRANT Adrian Michael; GREEN Julian David; HALL Iain; HALL Peter; HARDING Michael;

HEYWOOD Daniel John; HILL Emma Louise; HON Emmy Lo; JEFFREY Christopher Andrew; JOLLEY Theresa Caroline; KNOWLES John Stuart; LATIMER Michelle Claire; LEUNG Wai; LUDDEN John Nicholas; MARTIN Guy Raymond; MAYO Karen Elaine; MCDERMOTT Ross; MCNEILL Jamie Stephen Nicholas; MELLOR Anthony Brian; MORRIS Neil; NUNN Colleen; O'CONNOR Craig Timothy; Ó'DOCHARTAIGH Brigid Éilis; O'NEILL-GWILLIAMS Scott; OSIJO Aderonke; PARRY Matthew; PEARSON Anna Lucy; PETERSEN Jon; PHILIP Lucinda Katerina; PLIMMER Bridget; PRYCE Simon; REYNOLDS Rebecca; RICE-BIRCHALL Brandon; ROSS Christopher Roberts; SALUSSOLIA Benjamin; SAVCHENKO Gennady; SENIOR Richard; SERRIDGE Colin Joseph; SEWARD John Charles George; SEYMOUR Owen; SHAW Joanna Alexandre; SMEDLEY Richard; SOYE Andrew; TAYLOR Erika Louise; THOMPSON Benjamin Charles; WALKER Jayne; WILLIAMS Angela Mary; WONG Aries Hei-yin; WRIGHT David Ralph.

### Candidate Fellows

ADAM Marcus Andrew; ALLOTT Joseph Arthur Stewart; ASHCROFT John Francis Robert; ATKINS Suzanne Elizabeth; BAILEY Rhiannon; BARRETT Daniel Paul; BATEMAN Keith; BECKWITH Stephen; BHANOT Krishan Kumar; BONNER Graham Paul; BROMLEY Jennifer Esther; BROUGHTON Christopher Philip; BURNS Michael; CATTO Gary Ian Thomas; CHADENGA Nicola; CHARIDEMOU Miros Stavros James; CHRISTIE Karen; CLARKE Kathryn May; CLEMERTON Cedric Steven Henry; COLEY Elaine Margaret; COLLIS Karen; COMLAY Mark Stephen; COOK Robert Alexander; COOPER David; COWBURN Joanne Elizabeth; COWLEY Lawrence Alexander; CRAIG Robert Findlay; CRUICKSHANKS Moira; DASHFIELD Hannah; DEACON James; DODD Thomas; DOUE Malcolm; DRABBLE David James; DUNCAN Colin; ELLIS Jack Alexander; FARNHAM Nicholas Vaughan; FIELD Yvonne; FISHER Charles Alexander; FROUD Stefan; GAMBOA Davide Alexandre; GARVEY Philip Michael; GAY-KNOTT Susan Helen Nicole; GIBBS Lewis James; GREGG Sarah Louise; HAIDON Cheryl; HALL George Christopher; HARVEY Valerie Ann; HENDRIKS Caroline Maria; HERRON Christopher Stephen; HILLMAN Jess Irene Tsahai; HINDER Alec; HODGES Susan; HORSBURGH Nicola Jane; HOWELL Claire Pearl; HUGHES Arthur Frederick; HUNT Emma Joanne; KALISPERI Despina; KNELLER Brian David; KNIGHT George Frederick; LADY MADDOX Brenda; LAMBETH-SMITH James Simon; LEA Benjamin David; LEITH Fraser Iain; LIMA Catarina Sofia; LINEHAN Amy Elizabeth; MANGEON-FAIRWEATHER Andrew James; MARSHALL Carly Louise; MARTIN Dayl Joseph Paul; MASON Amber Rose; MCCARTAN Patrick Joseph; MCKENNA Stacey; MCLEOD Peter William; METCALFE Brett; MOLONEY Nichola Claire; MORTENSEN Benjamin Claes; MOTTRAM Catherine Mary; MULLINS Guy; OJELABI Temidola Adedayo M; PARKER Aidan Jennifer; PARKS Robert Michael; PARSONS Ian Alan; PAUL Jonathan David; PENNINGTON Richard Andrew; PIERIDES Constantina; PORTER Angela Jane; PREEN Suzanne Emma; RAWLINGS Jennifer Jane; ROBERTS Alison Debra; ROWELL Cathrene Jane; RUSH Julian; SALAMA Nour el-Din Mohammed; SAVAGE Richard John; SIMMONS Hannah Louise; SINCLAIR SMITH Fergus Robert; SINN Charles; SLATTER Sarah Frances; SLOPACH Amanda Jan; SMITH Gemma; STEAGGLES Hannah; STUBBINGS Alexander John Patrick; SULAIMAN Abdulmalik; SULTAN Adam Juhani; TAYLOR Katharine Sarah; THIAKALINGAM Surenthar; THOMPSON Amy Maja; TOWFICH Sasha; TOWNLEY Andrew; TRUBY Jennifer Mary; TURNER Richard James; VERRELL Jonathan Christopher; VIVEROS-LOPEZ Angela; WATTERS Neil; WATTS Adam James Harry; WILKINSON Luke Philip; WILLIAMS Daniel Blair; WILLIAMS James Rhys; WOJCIK Peter; WOOD Eleanor; YIU Eric Ka Lok;



# In memoriam

## Obituary policy

All members of the Society are entitled to receive an obituary in the Annual Report covering the year of their decease. The names of all recently deceased members are listed each month in *Geoscientist*. Those for whom no obituarist has been identified are indicated. Readers interested in contributing an obituary, or in suggesting someone else, should contact Dr Ted Nield. Those members for whom no obituarist comes forward are recorded in a roll of honour. All obituaries are published on [www.geolsoc.org.uk/obituaries](http://www.geolsoc.org.uk/obituaries).

## Roll of honour

The Society records with sadness the passing of the members listed below for whom no obituary was forthcoming. Some may receive obituaries in the next Annual Report.

**Abbott**, Brian M; **Barklem**, Thomas; **Blakelock**, Mark; **Clayton**, David; **Colley**, Gerald; **Coussell**, Derrick Ernest; **Dales**, Barry Hugh Serre; **Doran**, Isaac; **Flores**, Giovanni; **Foster-Smith**, James; **Fothergill**, Colin Arnold; **Gibson-Smith**, John; **Grover**, John; **Hamilton**, Eric I; **Hughes-Clark**, Michael William; **LaMoreaux**, Philip E; **Littley**, Frederick Bryan; **Miyashiro**, Akiho; **Murphy**, Gerald Joseph; **Nowak**, Wladyslaw; **Robert**, Peter James; **Spiesberger**, Guy; **Sergiades**, Frank; **Tate**, Robert; **Williams**, Cyril.

## Obituaries



**Percival Allen**  
1917–2008  
Perce Allen was without doubt one of the

leading international figures in the development of sedimentology. He had a long and distinguished career (still contributing to research at the age of 91) and in 1959 he published a prophetic paper emphasising that the best bet for the oil industry would be in the North Sea, and advocated a programme of exploration there.

Allen took his BSc at Reading in 1939, and went on to a PhD (1943) on the Cretaceous sediments of the Weald District in his beloved Sussex. His PhD was Reading's first to be awarded in geology, and was written largely on the train between his RAF station (where he worked during the war in the Photographic Interpretation Unit) and the Weald. In 1946 he went to a lectureship at Cambridge, and in 1952 was appointed as Professor and Head of Department at Reading. He was to spend the rest of his academic career at Reading, and became an Emeritus Professor on his retirement in 1982. He was awarded an honorary DSc in 1992.

Wealden rock formations of south-east England remained a passion for Allen, not least the

sandstone beds at Philpots Quarry, West Hoathly, West Sussex, which would keep him occupied in the field and laboratory for many years. Arguably, his most influential paper was published in 1975, overturning his earlier interpretation of the ancient Weald with a revised model that stands as a benchmark today after three decades of further investigation.

Perhaps Allen's most important geological achievement at Reading was probably the foundation of the Sedimentology Research Laboratory (SRL) in 1962. He worked tirelessly to raise funds for this groundbreaking institution, largely from the oil industry. In 1982 another new geology building at Reading was named the Allen Laboratory.

He founded the British Sedimentological Research Group, which, and proposed the formation of the International Association of Sedimentologists at the International Geological Congress (IGC) in 1948. He was also a member of the Natural Environment Research Council and founded the Association of European Geological Societies (AEGS). The 7th International Sedimentological Congress was held in Reading and Edinburgh in 1967 under Allen's leadership and was a huge success.

Allen would go to endless trouble to help students and colleagues with either professional or personal problems; one always left his

office feeling better than when one went in. He also demonstrated his allegiances and sense of priorities when in 1959 he collaborated with the student rag in announcing that diamonds had been found in the gravels of the Thames Valley. For this he achieved considerable notoriety and attracted the wrath of certain members of the academic establishment as well as *The Times* newspaper.

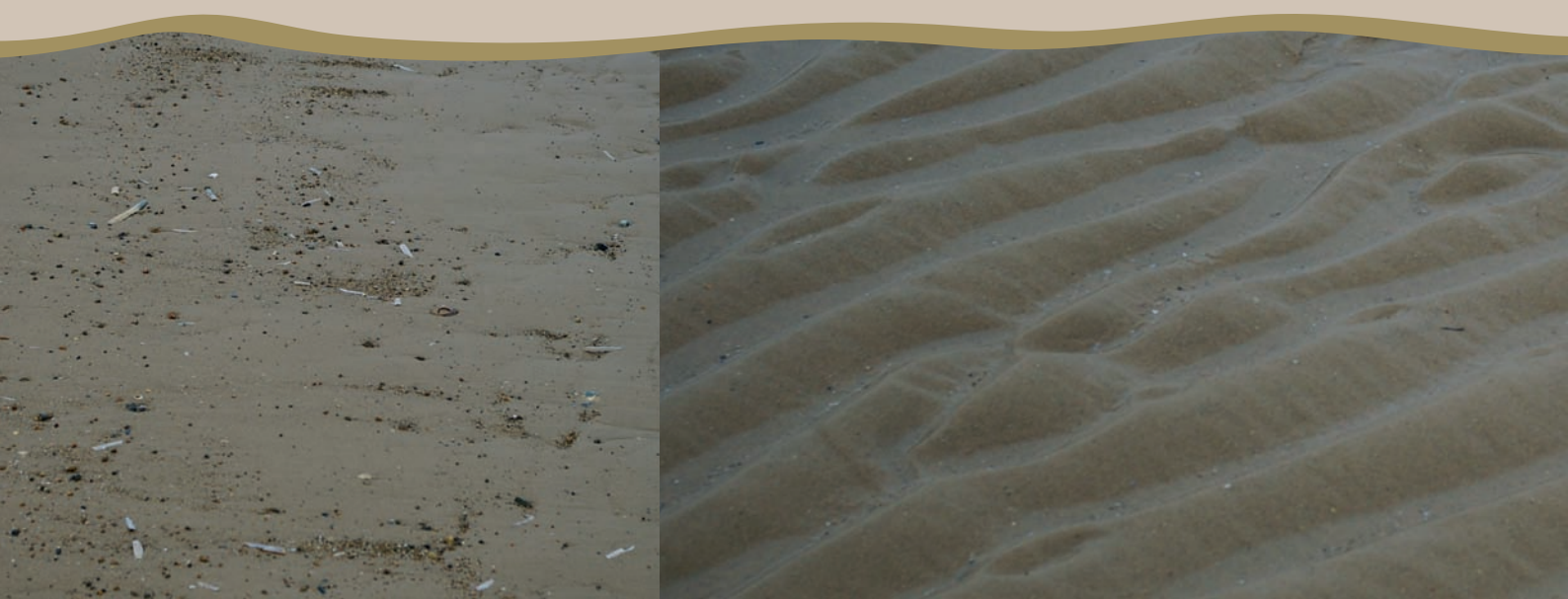
Allen served as President of the Geological Society from 1978 to 1980 (and received the Lyell Medal in 1971), and was elected to Fellowship of the Royal Society in 1973, and was a Vice-President from 1977–79. He held honorary membership of the Society of Economic Palaeontologists and Mineralogists, the International Association of Sedimentologists, and the Geologists' Association. Most recently, the Association of European Geological Societies instituted the Percival Allen Medal for promoting international relations between geoscientists, which was awarded for the first time in 2007.

*Andrew Parker*



**Dennis Alexander Arduis**  
1937–2008  
A native Geordie, Dennis obtained

a BSc in Geology from Durham University in 1959 before



joining the British Antarctic Survey (BAS) and gaining an MSc from Birmingham University in 1964. His BAS experience included over-wintering in 1959–61 at Halley Bay Base and an exploratory sledging traverse in 1961 of some seven hundred miles to Tottanfjella with just one companion. He was subsequently awarded the Royal Geographical Society Ness Award in 1964 and the Polar Medal in 1968.

After his period with BAS he joined the Anglo-American Corporation of South Africa in their Marine Diamond Corporation subsidiary in South West Africa (now Namibia). Dennis was responsible for establishing a marine geophysics programme and control of off-shore mining operations much of the work being in the difficult surf zone where diamonds are found in crevasses in the bedrock.

In the late 1960s a skeleton organisation of three fledgling marine geology and geophysics units was set up in the Institute of Geological Sciences (now the British Geological Survey) and Dennis was the first experienced marine geologist to be recruited to the one based in Edinburgh. On account of his work in South West Africa he was immediately able to take the function of Deputy to the Unit Head before being promoted to lead the group from 1975 until his retirement in 1997.

In the 27 years Dennis spent with this unit, which had several changes of name and detailed functions over the period, he marked it indelibly with his personality. He built it into an elite group with an international reputation for innovation and quiet efficiency. Initially his particular strength was in organising marine surveys and in developing seabed instrumentation including a rock drill and an electro vibrocorer. Under his leadership BGS produced, in a remarkably short time during the 1980s, a complete set of geological maps for the UK continental shelf.

The completion of this Herculean task was celebrated by an exhibition in the Geological Museum in London in the early nineties and Dennis received the Society for Underwater Technology MoD Award for Oceanography in 1991. As funding patterns changed following the completion of the mapping programme, Dennis set up a number of joint industry programmes that enabled the group to thrive and extend its surveys into deep water and overseas work.

Dennis was much involved with the London-based Society for Underwater Technology, acting as Vice-President and Chairman of the Council & Executive Committee from 1984–87. He was also Chair of several other Committees, organised a number of technical

conferences and had 32 publications to his credit.

He was very much a leader who led from the front and did so with quiet good humour and a twinkle in his eye. He had, however, a steely determination about him which quickly earned the respect of his colleagues. His activities in his retirement years were much restricted by ill health which he bore stoically and with great dignity, never losing his interest in events, or his dry sense of humour.

Dennis Arduus was born on 16 March 1937 and died on 1 February 2008. He leaves his second wife Jane, and a combined family of four children (Fiona, Graeme, Zoë and Sarah, all now adults) together with four grandchildren.

*Robert A Eden (for whose own obituary see below – Ed.)*



**Russel Black**  
1930–2009  
Russel Black was born in 1930 in La Rochelle,

France, to Scottish parents. He moved to the UK in 1940 and was educated in Scotland, gaining a First Class Honours degree in Geology in 1950. It was probably no coincidence that the granite buildings of Aberdeen guided Russel towards an eminent career studying the granites of northern Africa. He undertook three months'

fieldwork on alkaline ring complexes in Jos, Nigeria as an undergraduate, and from there on his life-long love of African geology was born. Russel completed a PhD at Aberdeen and focused on the Rop ring complex, which led to him co-authoring a Memoir of the Geological Society on Nigerian Younger Granites.

He moved to the Service de Géologie et de Prospection Minière in Dahomey, where he was in charge of mapping alkaline ring complexes in Southern Niger; and finally, with the BRGM in France in 1964, he published a massive compilation map at 1/500,000 scale of the Niger ring complexes, which had 3–4000 sampled control points. This is a very remote desert region which Russel loved. He was never happier than when sitting around a campfire in a starlit desert listening to the BBC World Service in the company of Tuareg nomads.

Russel took up a professorship at the University of Leeds in 1970–1974 with a secondment to Adis Ababa. He was the lead author of a very prescient paper on the normal faulting in Afar in 1975, which outlined the complex nature of faulting in highly-stretched crust. This publication did not get the credit it deserved at the time, coming well before the renaissance in extensional tectonics and the discovery elsewhere of low-angle detachment surfaces.



I first met Russel in 1976 at the Centre de Géologie et Géophysique in Montpellier, where he directed a very active group of geologists who were embarking on a huge study of a Pan-African mobile belt. I was struck by his generosity in allowing a young PhD student to lodge for several weeks with him in the beautifully furnished apartment that he shared with his wife José. They were convivial hosts whose stories of life in Africa and collection of African art were fascinating. Russel took me on my first expedition, driving across the Sahara desert from Algiers to Mali, which took well over a week as we stopped off in various oasis towns en route. Everywhere we went people stopped to greet the big man Russel, with his equally impressive Pyrénéen mountain dog, Joyce.

Russel and his co-authors published a superb paper in *Nature* in 1979 documenting one of the oldest suture zones in the geological record – the Adrar des Iforas and Gourma belt in Mali. This confirmed that plate tectonics, as we know them, took place in the late Precambrian (700–800Ma) when the lithosphere had cooled enough to generate obducted eclogites and blueschist rocks. Russel continued to lead the dynamic Montpellier group until 1991. At the natural end of the Iforas project he moved to the CNRS in Paris and continued to develop his ideas on African granites and the Pan-African orogeny.

Russel died peacefully in Paris several months after a stroke. He loved geology, Africa and life, which can be summed up in his own words: "La géologie est un art, pas un technique, encore moins un travail".

Ian Davison



**Stanley Hay Umphray Bowie**  
1917–2008  
Stanley Bowie, (Stan) was

among the first of a new generation of young geologists who worked on the indigenous mineral resources of the UK during WW2. In Stanley's case this involved evaluation of both coal and iron deposits in the UK. This was followed by his subsequent enlistment in the Meteorological Branch of the RAF where he undertook active military service as a Flying Officer, providing weather reconnaissance for both Bomber Command and Coastal Command. He subsequently made further contributions to both the economic and military defence aspects of national security for the UK, resulting from his choice of career.

In June 1946 he joined the Geological Survey of Great Britain as a Geologist in the Special Investigations Unit (SIU) which was responsible for advising the British Government on the availability of uranium supplies. The SIU had been established during the war in order to help with the location of sources of uranium in the British Empire and elsewhere that could contribute to the inventory required for the Manhattan Project. The SIU was subsequently renamed the Atomic Energy Division in 1951. He was promoted to Senior Geologist in 1947 with responsibility for all laboratory investigations where he prepared An Index of Radioactive Minerals, which was declassified as late as 1976 and was based in part on a classical collection of uranium-bearing ore minerals.

In 1949 he was responsible for the development of Geiger-Muller (G-M) counters in cooperation with the Atomic Energy Research Establishment (AERE) Harwell. Work commenced on the development of auto-radiographic techniques for thin and polished sections, which were subsequently applied to studies of uranium and thorium.

Over the next 20 years he continued collaboration with AERE on the development of portable GM counters for use in

geological research and uranium reconnaissance. He made numerous overseas visits to uranium mines, geological surveys and geological conferences to foster international collaboration on state-of-the-art research on uranium geology and exploration.

In 1955 he was promoted to Chief Geologist, Atomic Energy Division (AED) and appointed member of the Raw Material Research and Development Committee of the UK Atomic Energy Authority (UKAEA). He attended the Peaceful Uses of Atomic Energy Conference, Geneva, where he presented the research work undertaken by the AED.

At this point important research was initiated on the ore microscopy of opaque minerals in polished section using diamond indentation micro-hardness, combined with quantitative reflectance measurements. These provided essential tools to aid ore mineral identification, especially where mineral grains were too small to extract for x-ray determination. These techniques made a unique contribution to the systematic study of ores and opaque minerals until electron probe microanalysis became more generally available for routine examination of minerals and ores in polished thin section. This research was undertaken in collaboration with Dr Norman Henry, Department of Mineralogy and Petrology, University of Cambridge, in a popular series of international workshops sponsored by the International Mineralogical Association Commission on Ore Microscopy.

In 1968 he was appointed Assistant Director, Chief Geochemist within the reconstituted Institute of Geological Sciences (IGS), and was responsible for the organisation of a uranium reconnaissance programme covering Great Britain on behalf of UKAEA. In 1969 he was one of only four UK scientists appointed as Principal

Investigator by NASA to undertake research on the ore mineralogy and uranium content of lunar samples from the Apollo 11 and 12 missions. Several combined laboratory techniques were employed, including quantitative optical microscopy in reflected light, quantitative electron probe microanalysis, and fission track analysis for the identification of uranium. This demonstrated the high Ti content located in abundant ilmenite from the Sea of Tranquility, (Apollo 11) and uranium concentrated in Fe-Ti accessory minerals (Apollo 12) probably originating from the lunar highlands.

In 1970 he directed the start of a multi-element geochemical survey programme based on stream-sediment sampling to cover Great Britain, which continues to this day. In 1984 he was appointed Chairman of the Department of the Environment Research Advisory Group set up to advise on the research necessary to ensure the safe disposal of all forms of radioactive waste and in 1985 submitted the Group's report and gave written evidence to the House of Commons Environment Committee on Radioactive Waste. He continued to recommend that nuclear power has a major role to play in the UK as a supplier of environmentally secure 24/7 baseload electricity to the National Grid. Indeed, just before he died he told his son Antony to cancel the ambulance that had been called to take him to hospital as "he still had too much work to do".

Stanley was internationally respected and renowned and valued for his unique combination of practical, innovative geoscientific, economic, personal and social knowledge, skills and sense of humour, which greatly contributed to his success as an economic geologist. He received the Silver Medal, Royal Society of Arts 1959 and was Vice President of the Geological Society 1972–5. He was a Team Member, Queen's Award for

Technological Achievement, 1990, for development of the inductively coupled plasma mass spectrometer. A new rhodium iridium sulphide was named Bowieite by Dr George Desborough of the US Geological Survey in recognition of his research in the field of opaque mineral identification.

He is survived by his two sons, Roderick and Antony from his lifelong marriage to Helen (daughter of Dr Roy Pocock FGS) who predeceased him by four weeks.

Peter Simpson



**William Robert Dearman**  
1921–2009  
Bill Dearman was an applied practical

geologist, with early experience of quarrying and railway engineering geotechnics. This formed the basis of a long career teaching geologists, mining and civil engineering students, at Newcastle University.

His introduction to geology began at school in Westminster in London at the start of WW2, under the guidance of L J Parsons FGS. In 1940, a group of students continued their studies at Imperial College. Under HH Read as Head of Department, he gained a First Class degree in Geology in 1943. After IC, he was appointed to the Engineering Department, Southern Railway Company (SRC) and as Geologist, Chief Engineers Department, based at Meldon Quarry, Devon.

The appointment was arranged by Walter Dinwoodie, consultant to SRC, for a likely geologist to sort out the geology of Meldon Quarry. Bill Dearman had the demanding job of helping to keep the railways on the south coast of England running during a critical time of the last years of the war. His responsibility was to provide hardrock ballast and aggregate for SRC and later British Rail, Southern Region.

Aggregates, landslides (including Folkestone Warren failures), embankments, cutting slips, investigation and design for tunnels, bridge foundations etc. were all also part of his responsibility. He became involved in soil mechanics, rock and aggregate testing – all areas which became incorporated into his teaching and the Engineering Geology courses at Newcastle University.

Work for Southern Railways/British Railways continued after the war up to 1956. Bill was appointed as Lecturer, University of Durham, Kings College, which later became the University of Newcastle. He had gained his PhD from IC in 1951, on *Small Scale Tectonic Structures in the SW of England*, and in 1967 attended parts of the course run by John Knill at Imperial College.

At Newcastle, he was strongly supported by Stanley Westoll, as Head of Department, also teaching geology to civil and mining engineers. This eventually led to setting up the first undergraduate degree course in Engineering Geology and the MSc, which ran from 1972 to 2004.

Bill gained an early association with the Engineering Group of the Geological Society. Bill attended the First International Congress of the International Association of Engineering Geology in Paris in September 1970, representing UK interests at the Commission on Engineering Geological Mapping. The Commission was very active, producing by 1976, the UNESCO *Guide to the Preparation of Engineering Geological Maps*.

A report of the Geological Society Engineering Group Working Party on *The preparation of maps and plans in terms of engineering geology* was published in 1975. This was the first publication in the UK that encompassed the description of soils and rocks “in engineering terms”, and led to BS5930 *Code of Practice for Site Investigation*.

At Newcastle he was appointed Reader in 1968 and Professor of Engineering Geology in 1972. Also that year Bill Dearman was appointed Chair of the Editorial Board, and then the Editor, *Quarterly Journal of Engineering Geology* and continued in this role until 1977 (Volume 7). He then continued to serve on the QJEG Board, reviewed papers and helped with the publication into the late 1980s.

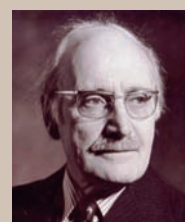
His work for the IAEG, was recognised in 1990 by the award of the Hans Cloos Medal. In 1991 he was also honoured by the award of the William Smith Medal for involvement in both national and international engineering geology. His seminal book on *Engineering Geology Mapping*, was published in 1991.

Bill Dearman loved to teach – and during his early years of retirement found time to give courses not only in his adopted hometown of Plymouth but in centres as wide as Sao Paulo, Paris, Australia, Brazil and Hong Kong. As member of the Editorial Board, *Bulletin of the IAEG*, since its inception in 1970, he helped it grow over the years into a major, world-class publication. He was for part of that time, a member of the Editorial Advisory Board for *Geotechnique*.

Bill retired first to Plymouth, where he kept an active involvement with Plymouth University and the Ussher Society. This was near to his early career base and the roots of his wife’s family. They then moved more recently to Guisborough, North Yorkshire where he lived with his daughter, until last August when she tragically died, aged 59.

Bill Dearman died on 6 January 2009 after a short illness, suffering from pneumonia and the effects of a tumour. He was predeceased by his wife, Gertrude (d. 2006) and his daughter Susan Reavill (d. 2008).

George Reeves



**William Alexander Deer**  
1910–2009  
Alex Deer was an essential partner in

two classic petrological collaborations of the 20th Century – with Wager on the Skaergaard intrusion and with Howie & Zussman on *Rock Forming Minerals*.

Born and brought up in Rusholme, a suburb of Manchester, Alex in his mid-teens came across Darwin’s *Origin of Species*. Reading this through seems to have crystallised an ambition to become a natural scientist and perhaps helped fuel the drive through the school system to Manchester University, and a research studentship at St John’s College, Cambridge. One of the first students in C E Tilley’s newly formed Department of Mineralogy and Petrology, he came to the notice of Laurence Wager, veteran of Everest and seasoned arctic explorer.

Wager was planning an expedition to study the remarkable igneous intrusion he had discovered in East Greenland. So Alex went as second geologist with the 1935–36 party, which spent a year on the Skaergaard, including a long arctic winter with Inuit hunters in that beautiful but unforgiving environment. Not only was the superbly exposed Skaergaard Intrusion itself mapped and studied in detail, but also some 35,000 square km of difficult and dangerous country mapped in reconnaissance – an extraordinary feat carried out by two two-man sledging teams. It is a tribute to his character that he returned from the Arctic a firm friend with his famously perfectionist and exacting leader.

Wager and Deer’s 1939 memoir, arguably one of the more important petrological publications of the 20th Century, was the first quantitative study of the

successive layers of crystal accumulation in a large magma chamber and gave strong support to N L Bowen's general emphasis on crystallisation and differentiation in igneous petrogenesis. However the main Skaergaard trend was towards iron rather than the silica enrichment required by the Bowen model (of granite genesis by evolution from basalt). Wager and Deer argued instead that crustal fusion and/or contamination must be the main mechanisms of granite formation – a concept largely ignored, until 40 years later when it became the ruling paradigm.

The outbreak of war months later stifled the impact of the Skaergaard memoir and put the careers of both authors on hold. Alex joined up, trained as a gas officer in the Royal Engineers, and served on the General Staff in Iraq and Iran. Posted to organise a new Indian Corps, he was thrown into the desperate battle of Kohima, which finally denied the Japanese access to India.

Alex left the army with the rank of Lieutenant Colonel and could have remained as a "War Office wallah", but preferred to resume his Cambridge lectureship. By now he had a family to support, so moonlighted at St Johns as Junior Bursar and Tutor. In 1950 he was called back as Professor to Manchester. Over his 10 years there he expanded a tiny department into a top-rate School of Geology, boasting the first hydrothermal high-pressure experimental laboratory in Britain.

In 1961, Alex succeeded Tilley as Professor of Mineralogy and Petrology in Cambridge. Alex's unaffected friendliness and easy accessibility stood in marked contrast to the prevailing professorial style of the day, and his talents did not long escape the notice of the wider University, which appointed him to its General Board. He is remembered for the "Deer Report", which in 1965 argued the case for expansion onto the cornfields of West Cambridge.

As Master of Trinity Hall from 1966 he presided over an extensive building programme, and in 1971 took over as Vice-Chancellor for four years.

Outside Cambridge he served as President of the Mineralogical Society, Trustee of the British Museum (Natural History) and member of NERC. As President of the Geological Society (1970–72) he replaced the traditional Anniversary Presidential Address with the President's Evening, which evolved into our current President's Day. He won the Murchison Fund in 1946 and Murchison Medal in 1974; other distinctions include Fellowship of the Royal Society (1962) and Honorary DSc (University of Aberdeen, 1984).

Alex was able to return to the Skaergaard on two further expeditions – that of Oxford and Manchester universities (Wager, 1953) and of Oxford/Cambridge (1966), the year after Wager's death, which planned drilled into the hidden zone of the intrusion. Some 380 metres of core were recovered, which continue to provide otherwise unobtainable data on the evolution of the magma chamber. Alex also conducted summer expeditions to Baffin Land (1948) and the Shiant Isles (1962–64, with Harald Drever).

Alex's name is now inseparably associated with the monumental work *Rock-forming Minerals* by Deer, Howie and Zussman ("DHZ"). The first edition of five volumes (1962) was replaced from 1978 by a greatly expanded second edition. And is now an encyclopaedia of 11 volumes. Until well into his 91st year, Alex was still tirelessly revising his share of the opus.

Alex married Margaret Kidd (1938) and had three children – David (1940) Diana (1946) and Stephen (1952). After Margaret's death (1971), he married Rita Tagg in 1973. At a ripe age, he became a competent bassoon player. Confined in his last years by physical infirmity, he took pleasure in the talented paintings of his daughter and wife, which covered the walls of

his flat, and remained a cheerful and convivial companion with formidable recall and acuity to the last. William Alexander (Alex) Deer born 26 October 1910, died 8 February 2009.

Graham Chinner



**Robert Arthur Eden**  
1920–2009  
Robert had remarkable career spanning

six decades. An early interest in the natural sciences led to a first class degree in geology in 1941. Scientists were needed in the war effort and Robert was trained in army radar. He saw four years' service in the UK, East Africa and Madagascar, where he met Lucette, who in 1946 became his wife. As Robert had been posted to Ethiopia at the end of the war they were married by proxy and he had the unusual experience "not knowing ... I was married until a month after the event".

In 1946 he started a 34-year career in the Geological Survey and was elected a Fellow of the Geological Society. Initially he worked in the East Midlands Coalfield. He produced the Sheffield Memoir and cooperated with the National Coal Board at a time when coal was the primary UK fuel. Following a move to Edinburgh as District Geologist of the South Lowland Unit in 1960, Robert was scientific editor of the *Scottish Journal of Geology* from 1963 to 1968 and was elected a Fellow of the Royal Society of Edinburgh in 1965. It was symptomatic of his quiet determination that, encountering a mapping problem on the Berwickshire coast, he used his diving skills to find the solution offshore.

By the late 1960s, activities on the UK continental shelf had increased and, when the Geological Survey initiated offshore mapping, Robert was selected to lead the Scottish unit. Based in Edinburgh, he organised the geological

mapping in Scottish waters, whilst mentoring and encouraging his young staff. This laid the foundations of an organisation which still operates today, undertaking for the government sea bed geological mapping and the evaluation and curation of commercial data from the North Sea. Not all his time was spent in the office. Robert was active in survey vessels, as a scuba diver and in research submersibles: "One of my peak life experiences was approaching the cobalt blue of the sea surface as we rose from the depths in the Rockall area".

In 1973 Robert was elected an Honorary Fellow of the Grant Institute of Geology, University of Edinburgh and in 1975 became Assistant Director of the Geological Survey in Scotland. By his retirement in 1980, he had completed the commissioning of Murchison House, the new headquarters of the Survey in Edinburgh. In 1981 Robert was awarded the CBE and in 1982 he took a two-year commission with the Commonwealth Fund for Technical Cooperation, working for the Fiji Government Mineral Resources Department. There his expertise led him to offshore and coastal geological and geophysical surveys and to collaboration with oil companies and scientists from the Committee for Coordination of Offshore Prospecting, South Pacific and the Fiji Mineral Resources Department. Robert spearheaded the first publication on the petroleum potential of Fiji.

After Fiji, Robert applied his enormous energy to many activities. He became a consultant in landfill site and contaminated land investigation, he continued studying, became an accomplished sailor and still found time for the publication of short stories and poetry. To the end of his life he maintained the pragmatism and quiet sense of humour, which had earned him affection and respect throughout his life.

Robert Eden CBE was born 14 August 1920 and died 15 January 2009. He leaves behind Lucette, his wife of 62 years and his four children, Arthur, Robert David, Christopher and Nicole and 12 grandchildren.

*Paul Binns, Richard Holmes*

**Franklin Hancock 1949–2007**  
Franklin RP Hancock died in London on 18 September 2007 after a long illness. He was born in Kumasi, Ghana in 1949 where his father was a District Commissioner in the pre-Independence British Colonial Service. Following Ghana's independence in 1957, Franklin's family moved back to the UK. In 1961 the Hancock family spent the next four years in Lagos before moving back to Ghana and then the UK, in 1968. Franklin was educated at Ellesmere College in Shropshire and graduated from Imperial College, London with a BSc (Chelsea, 1976) and MSc in Geology.

He started his career with Exlog, which included wellsite work in Sudan, and in 1979 joined Chevron where he worked on Ninian Field, North Sea, from both London and Aberdeen. Jim Stockley, a friend and former colleague from this period, wrote: "Franklin brought a witty and novel outlook to whatever he did and was a pleasure to work with, whether in remote locations in the Sudan or in a pressurised office environment in central London... The sight of him stepping over a Black Mamba at a well site in the Sudan, while offering a humorous aside, made an indelible impression. Franklin never failed to see the funny side and had a zest for life."

After leaving Chevron, Franklin was employed by Carless Exploration as their production geologist for Humbly Grove Field, near Basingstoke in the UK, where he supervised their development drilling operations. Franklin returned to Lagos with Mobil and worked on their offshore assets in the SE Niger Delta area. He joined Landmark in 1988 and, using his

technical and communication skills, provided client support for workstation users in the UK. Franklin then returned to Lagos, with Landmark, to lead their team that established the National Data Repository for the Nigerian Department of Petroleum Resources.

Franklin left Landmark at the end of 2003 for a position in the Middle East but, in early 2004, Addax tempted him back for a fourth stint in Lagos. Between March 2004 and May 2006, Franklin developed new and original geological models for Izombe and Ossu Fields in OML-124. The recent success of the OML-124 drilling campaign, which has more than doubled the oil production of these 30 year-old fields to more than 9000 bopd, is a tribute to his work. Franklin's talents were equally effective in mentoring local staff who will remember him as a fine gentleman of the old school, always ready to share his knowledge and experience.

Throughout his long association with the region, Franklin developed a strong attachment to West Africa and enjoyed living in Lagos. He was an enthusiastic member of the Lagos Yacht Club where he raced his own Tarpon class sailing boat and often greeted people at the bar by generously offering them a glass of champagne.

He was also a long standing member of the Petroleum Society of Great Britain and had been a Fellow of the Geological Society since 1976. He is survived by his wife Elizabeth and their son Edward.

*John G K Glass. A longer version of this obituary was first published in the PESGB Newsletter.*



**Ferdinand Geoffrey Larminie 1929–2008**  
Geoff Larminie died 16 October

2008, eight months short of his 80th birthday. He had enjoyed a long and varied career, working

in industry, academia and public service and also found time to contribute to a remarkable number of institutions. He never lost touch with his geological roots, but early in his career developed a keen interest in environmental matters and this concern for the natural environment was to become a hallmark of his endeavours later in life.

Geoff was born in Dublin in June 1929 and educated at St Andrew's College and Trinity College Dublin, where he obtained a double first in Geology and Zoology. He then lectured for six years in Glasgow and Sydney before joining BP in 1960. This was at a time when BP was actively engaged in the search for new sources of oil and during the next seven years Geoff worked as an exploration geologist in the UK, Greece, Alaska and Kuwait before moving to Libya in 1966 as senior geologist. His love of fieldwork was put to good use in Greece and Alaska, as was his immaculate calligraphy, making his notebooks and maps a pleasure to peruse.

In 1967 Geoff was posted to Alaska. This was a momentous episode in BP's history with the discovery of the Prudhoe Bay field in 1968. In 1964 Geoff had led the key field expedition to the Sadlerochit Mountains of north eastern Alaska where the Triassic reservoirs were exposed, making this a most satisfying outcome to his earlier work. As Area Manager in Alaska, Geoff's role played to his political strengths and it is a testament to his contribution to the high regard in which BP was held by the various government authorities and agencies, that in 1971 he was awarded the OBE for his services.

Geoff left Alaska in 1971 and, following three years as Head of BP's exploration activities in Thailand, was transferred to BP Group Head Office in London. Following two years as General Manager Public Affairs and Information Department he was appointed General Manager of the Environmental Control

Centre with responsibility for the environmental impacts of the BP Group's operations worldwide, a role that allowed Geoff to combine his twin passions for geology and care of the natural environment.

Following his retirement from BP in 1987 Geoff served for three years as Director of the British Geological Survey. This appointment came at a key juncture in the evolution of this venerable institution. Geoff's relaxed inclusive management style and his experience in dealing with Government, was instrumental in enabling BGS to pass successfully through the recommendations of the Butler Review without becoming fragmented.

During the 1980s Geoff held an amazingly broad portfolio of appointments to a wide range of public and private sector institutions. A number of these focused on work in the Arctic and Antarctic, while others reflected his broad concern for environmental protection. Of particular note was his chairmanship of the International Petroleum Industry's Environmental Conservation Association (IPIECA) from 1981 to 1983, membership of the National Environmental Research Council from 1983 to 1987, membership of the Polar Research Board of the US National Research Council from 1984 to 1987 and from 1979 to 1984 membership of the Royal Commission on Environmental Pollution.

In addition to his OBE and his joint receipt of the MacRobert Award for participating in the work that led to the discovery of Prudhoe Bay, Geoff's various honours and awards included Honorary Fellowship of Trinity College (1989), Life Trusteeship of the Bermuda Biological Station in 1991 and Honorary Fellowship of the Society for Underwater Technology in 1992.

Geoff is survived by his loving wife Helen, to whom he was married for 52 years; a daughter Susan, son Christopher and

three grandsons. He lived a rich and fulfilling life. To those who knew him the lasting memory will be of a gregarious larger-than-life red-headed Irishman, with his pipe always on the go and a cheerful greeting for all. He will be sorely missed.

David Jenkins



**Philip Edward Richter Lovelock**  
1941–2008  
Philip Lovelock died of

cancer on 26 July 2008 at the Countess Mountbatten Hospice in Southampton, aged 66. He was born on 10 September 1941. He read Geology at Birmingham University, graduating with First Class Honours in 1963. On graduating, he joined Hydrogeology Unit of the Institute of Geological Sciences (now the BGS), then located in South Kensington. During this time he studied for and was awarded a PhD from London University.

In 1973 he left the IGS to join Shell, which at that stage was starting to evaluate the potential for oil in the onshore areas of the UK and for which he provided much of the local geological expertise. After some years in London, during which time a number of geologically very interesting (but commercially unsuccessful) wells, such as Cooles Farm-1 (Minety borehole) were drilled, he was transferred to Shell's international exploration staff and spent the next years in the Middle East – with postings in Oman and Egypt – and with the start up of a venture in Syria, where he was involved in the first oil discovery in the Euphrates graben at Thayyem.

A publication from this time was a review of the tectonics of the Northern Middle East, which appeared in the *Geological Magazine* in 1984. Such was his expertise on Syria that in retirement he was invited to contribute to a prestigious book on the geology of Syria, *Treasures*

*of the Earth* (2005), produced jointly by Shell, Petro-Canada and the Syrian Petroleum Company. Another publication from this time was a paper on the Ordovician of the Oman Mountains, based on field work carried out with colleagues as a "weekend" activity outside their normal oil company duties.

Following the break-up of the Soviet Union in the early 1990s, there was the possibility for western oil companies to start exploring in a vast new area – about which very little was known, in a modern geological sense. Shell initiated a major evaluation exercise and he travelled extensively in the former Soviet Union, making contact with the old state controlled oil companies, research institutes and universities, the results of which were documented in an impressive series of compilation reports which, for obvious commercial reasons, never saw the light of day outside Shell.

He retired in 1998, though he did remain active with Shell as a consultant. This was a time of great personal tragedy for him with the death of his daughter Larissa from cancer. He lived first in Fordwich, said to be the smallest town in England and one of the "limbs" of the Cinque Port of Sandwich, and of which he served as Mayor Deputy (who, as a token allegiance, pays "Ship Money" to the Mayor of Sandwich). In 2002 he moved to Winchester with his wife Carole. He is survived by her, his two sons, Joseph and Dominic, and two grandchildren, Floyd and Rudie.

Philip was an outstanding geologist, with an exceptional ability to combine an eye for detail with the broader picture. He will be much missed by his Shell colleagues and by his university friends, with whom he kept in contact throughout his life.

John Parker



**Alan Eben Mackenzie Nairn**  
1927–2007  
Alan Nairn's memorial is his

geological contributions as an author of many papers in the literature that range from Paleomagnetism to regional stratigraphy. His recent research focused on the stratigraphy of the Middle East with a plethora of papers. His most important work, written with Abdulrahman Alsharhan, is *Sedimentary Basins and Petroleum Geology of the Middle East*, published by Elsevier in 1997. He also helped found the journal *Palaeogeography, Palaeoclimatology and Palaeoecology* and from 1973 to 1997 was an editor of the eight volumes on *The Ocean Basins and Margins* published by Plenum that described the world's major oceans including: southern and northern Atlantic; Gulf of Mexico; Mediterranean; Arctic; Indian, Pacific and Tethys oceans. He also was an editor of volume one of the *Phanerozoic Geology of the World* and other texts tied to stratigraphy.

Alan Nairn's professional career and world view derived from a mixture of "Highland Scot" frugality and hard work (through his mother), and wanderlust (from his seafaring father, who was frequently away from home). Primary responsibility for Alan's intellectual stimulation therefore fell to his mother. He entered Durham University for his BSc in 1951.

Alan devoted most of his professional life to the advancement of the science and profession of geology. He was a teacher, researcher author, lecturer, disseminator of geological concepts and ideas and proponent of both palaeomagnetism and the geology of ocean basins. Later, as a lead scientist in the newly established Earth Sciences and Resources Institute at the University of South Carolina, Alan assumed responsibility for the quality of the prodigious

number of publications, theses and dissertations which the research at ESRI-SC produced. It was a position that he filled with great skill and dignity, and he was respected and greatly admired by everyone who came in contact with the "Gentle Geordie Giant."

It was quite common to see his desk covered with at least a dozen manuscripts in various stages of completion. He never missed a deadline, and every student and Research Faculty member he worked with had the full benefit of his towering intellect and his gentle persona. Working full time in the university's Geology Department, he began studying part time for a PhD in English Literature and completed all of the requirements except the dissertation, a measure of his wide ranging interests.

Two years of National Service in the RAF preceded his stay at Durham where he was supported by a Shell Scholarship in Geology. He earned his PhD in 1954 from the University of Glasgow supported by a Shell postgraduate studentship. The years 1954 through 1966 saw Alan at several universities: as Research Assistant in Paleomagnetism, Department of Geodesy and Geophysics, Cambridge; Senior Research Assistant and Turner Newall Fellow in the Department of Physics, King's College, University of Newcastle; Lecturer in both Geology and Physics at Newcastle; Visiting Professor at Bonn, Germany, and British Council visiting scientist in Krakow, Poland, and Bordeaux, France.

Alan was visiting professor at Western Reserve University in Cleveland, Ohio in 1963 where he returned in 1966 as Associate Professor, and later Full Professor. The move to Cleveland made it possible for him to take a professorship at the University of South Carolina in 1973, which opened a new chapter in his professional life. As a guest lecturer at West Virginia University, Alan came into contact with the man who



later recruited him for the University of South Carolina. In 1976, the Earth Sciences and Resources Institute at the University received its charter and Alan was provided with new opportunities in his professional life.

Alan is survived by his widow Camille and six children: Dermaid, Alexander, Dana, Alena, Scott and Dave Sharp. Born 9 September 1927 (Newcastle upon Tyne); died 14 January 2007 (Allendale, South Carolina).

*Christopher G. StC Kendall and William R Stanley*

*Eric Robinson adds:*

Alan was a product of Gateshead Grammar School, close to his home in Low Fell. The school had one of the few recognised teachers of geology – a Mr Lamb. Alan returned from the services in 1954 to King's College, as a member of the research school of the late Keith Runcorn, a physicist from Cambridge, who launched into the growing field (no pun intended) of palaeomagnetism. His colleagues there were Creer and Opdyke, who did so much to reinvigorate continental drift through recording palaeolatitudes and set the scene for plate tectonics.

Alan organised a NATO Conference in Newcastle in 1955 on *Continental Drift and Palaeoclimate*. From this springboard, he transferred to the United States. He was also a mean rugby player!



**Colin Oakman**  
1955–2008

It is with extreme sadness that I write this short

piece to let the Geological Society know about the untimely death of Colin Oakman on 25 May 2008. Luckily for me Colin was a well-known figure in North Sea geology and had an enormous circle of friends and colleagues who have been keen to help me write these words.

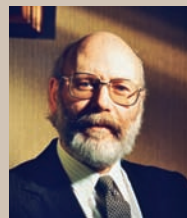
Colin's geological education comprised a BSc from Sheffield, an MSc from Leicester and a PhD from Aberdeen. These are the bare facts of the man but tell you little about who he was. There were two important sides to Colin, the man and the geologist; difficult to separate, but it makes my writing a little easier to do so. As to the man, I take the following words from Barry Hepworth, who expresses his admiration for Colin in a way that does not need my translation: "generous, warm-hearted, fun to be around, infectious laugh, larger-than-life character, passionate, enthusiastic". That is the character of Colin in a nutshell and I can only too easily think of the many generous acts that he extended to me and to my family. It is also worth fondly remembering some of his more interesting traits, such as his fear of flying (only partially remedied by G&T), and his ability to carbonise enthusiastically almost anything on a barbeque.

As for Colin the geologist, where to begin? Colin was never a man to do things by halves and if he were going to do something he would do it properly. His career really began with his PhD at Aberdeen University where he investigated the Dinantian carbonates of Derbyshire. This led to a job with Robertson Research where he became an invaluable member of their carbonate reservoir group. Moving to Britoil in 1985 he gained invaluable experience with a major operator. Paradoxically it was the oil price crash in 1986 and associated lay-offs that were the making of Colin the geologist. With Duncan MacIntyre he set up the company Reservoir Research, which produced the highly successful *Brae Trend* report, followed by a whole series of studies which tried to analyse petrophysically, and put into stratigraphic context, every single Jurassic penetration in the North Sea. As I said, Colin did things properly.

The more recent part of Colin's career carried on this theme of in-depth study, but this time dedicated to the North Sea Cretaceous. In association with Mark Partington, he wrote the Cretaceous chapter in Ken Glennie's *Petroleum Geology of the North Sea*. He also put together an important Cretaceous seminar and presented it to many companies and individuals. His most recent work was with PGS where Colin worked over large areas of the North Sea to reconcile the Lower Cretaceous well penetrations with a regional 3D seismic dataset.

Finally there was Colin the family man; his love for his wife Beverley and delight in his son Jonathan for whom his loss will leave an immense void. Colin will also be sorely missed by his friends and colleagues in the industry. For a generation of North Sea explorationists, he was a major mover and shaker in the elusive Lower Cretaceous "play" and his seminar volumes will remain valuable reference sources for years to come.

*Bob Downie, with thanks to Barry Hepworth and John Martin*



**Colin Barry Phipps**  
1934–2009  
Dr Colin Phipps will be remembered for

many things, but one of his major achievements was as a pioneer of the British independent oil sector.

It is hard to know where to begin to describe a life that was so varied, rich and full. Fundamentally Colin was a geologist, graduating with a first class honours degree from University College London in 1955. He was awarded a Shell scholarship and completed within just two years a PhD on the Silurian of the Malvern Hills.

In 1957 he joined Shell as a geologist where he spent seven years working in the Netherlands, Venezuela and the

USA. In 1964 he left Shell and set himself up as a consultant in the UK becoming involved in numerous activities in the early days of North Sea exploration. As if this was not enough to keep him occupied, he became the Member of Parliament for Dudley West in 1974.

In 1979 Colin became Chief Executive of Clyde Petroleum, a company he helped found in 1973. Colin's interest in politics continued and he became a founder member of the Social Democratic Party in the early 1980s. In 1983 Colin became Chairman of Clyde and was also elected Chairman of Brindex, the association of British independent exploration companies. He retired from Clyde, aged 60, in 1994 but of course Colin had no intention of retiring and he turned his attention to an area which had long fascinated him, the Falkland Islands.

He had visited the Islands on numerous occasions since his first visit in the mid-1970s as a member of a Parliamentary delegation and his oil instincts told him of the hydrocarbon potential offshore. As a result when a Licensing Round was announced Colin, with his customary persuasive flair set up Desire Petroleum which was awarded a number of licences in 1997. Drilling followed in 1998 with encouraging signs of oil and gas but not in commercial quantities. With the international oil industry in the doldrums from 1998 to 2004 most of the exploration companies left the Falklands.

Colin, however, continued to believe passionately in the potential of the area and his determination kept Desire afloat. Unfortunately he did not live to see the fulfillment of his dream of finding commercial hydrocarbons in the Falklands. He will always be regarded as the icon for exploration in the Falklands, inspiring not only Desire, but also other companies to look for oil in the area.

Colin had great influence on many lives, through his

professional and personal activities over many years. Many tributes have already been paid to him, from around the world reflecting the great respect in which he was held. Some of the qualities remarked upon and often repeated include: enthusiasm, inspiration, visionary, loyalty.

Colin leaves his family, to whom he was devoted, his wife Ninky who was by his side for over 50 years, his four children and his fourteen grandchildren of whom he was so proud.

Ian Duncan



**Nigel Rendell**  
1942-2007  
Nigel developed his passion for geology at Royal

Liberty School, Romford, under the tutelage of John Reekie, who inspired so many of his pupils in the subject. He graduated from Durham University in 1964.

After a brief spell teaching, he joined the NCB in 1965 and so began a lifetime's involvement with the coal industry. He cut his teeth with the Opencast Executive in Northumberland and Durham then moved underground (Yorkshire, 1969) where he was employed on exploration for the new drifts at Royston and Prince of Wales. In 1971 he returned to Durham – initially as geologist with special responsibility for North Durham, eventually becoming Senior Geologist, Northeast Area.

The early years were exciting, with close involvement in offshore drilling and development of new reserves, including a period with the National Exploration Unit drilling in South Warwickshire and North Oxfordshire. He was seconded to Amax in 1974 as lead geologist to an expedition to Spitsbergen, which started his interest in glaciated terrains. Eventually, though, the task of the geologist reversed so that instead of seeking new reserves,

he was increasingly called upon to find geological reasons to support write-off of reserves, and subsequent pit closure. This, and the 1983 miners' strike, was so disillusioning that Nigel resigned in 1984.

He took up a smallholding near Durham where he began a woodworking business, keeping bees and rare sheep and goat breeds, while occasionally undertaking consultancy work. He joined FWS Consultants in 1987 and was re-immersed in coal exploration for licensed opencast and drift-mines, and for CBM/CMM. Overseas assignments in Venezuela and Poland provided sunshine and vodka. Once more, the declining prospects of the industry eventually led him to widen his expertise into geoenvironmental studies, to which he readily adapted.

His skills as a field geologist were superb and his commonsense approach was much appreciated and admired by all who worked with him. His tenacity was displayed to me once when tramping outbye together along a partly flooded drift, each shouldering hard-won channel samples. Nigel disappeared down a flooded sump-hole (the cover planks having floated away). He reappeared, soaked in oily, coaly water – but still clutching the sack!

Despite "going to the dogs" (a retirement bash so titled was held at Sunderland Greyhound Track in 2006) Nigel never really retired, but managed to intersperse professional geology more and more with developing interests in astronomy, genealogy, fishing, boats, travel – especially to Ireland and the Western Isles, gardening, and his beloved grandchildren.

He died of prostate cancer on 26 November 2007 just a few months after diagnosis, with so much still to do and enjoy in life. Nigel was a universal geologist, the best of the old school. He could, and did, turn his hand to everything. He was enthusiastic in every aspect of geology – and was fascinated by science and

engineering as a whole. We all learned from him, and his ready smile and infectious laugh are sorely missed. He leaves Anne, his wife of 43 years, three children, six grandchildren, and a host of good friends.

Rick Smith



**Bryan Paul Ruxton**  
1929-2008  
Bryan Ruxton was born in Birmingham into a

devout Methodist family of modest means. He was evacuated due to wartime bombing and liked to reminisce that his love of geology started as he collected rocks and fossils in the English countryside. His school's honours list for 1947 shows that he matriculated with distinction and won a scholarship to Clare College, Cambridge. He had to defer this because of National Service in the Army; but over the subsequent three years at Cambridge he excelled, winning a prestigious prize in geology.

In 1950 he married Catherine (Kay) Hainworth – a brave step for a penniless undergraduate as she had three young daughters. The birth of a son soon followed and the need to provide for this new family made the decision between remaining in academia or going into the field an easy one. He left England in 1952 and for the next nine years the family, either in part or whole, accompanied him on postings in Sudan (twice), Hong Kong and Ghana.

After his first posting to Sudan, Bryan left for Hong Kong to serve as a lecturer in the Department of Geography and Geology, the University of Hong Kong from October 1954 to August 1956. The time spent in Hong Kong was a very rewarding time in Bryan's career. According to the bibliography of the Civil Engineering and Development Department of the Hong Kong SAR Government, he published numerous papers – including seven with Leonard

Berry. One outcome was his classic paper on granite weathering, a world-leading paper for the time and one that is still widely quoted. In 2007 the journal *Progress in Physical Geography* carried an article devoted to this paper in its regular feature *Classic Papers Revisited*.

For his contribution towards the understanding of the geology of Hong Kong, in 1982 Bryan was awarded honorary membership by the Geological Society of Hong Kong. He was also a consultant to Binnie and Partners and the Geotechnical Control Office.

In September 1956 Bryan returned to Sudan to serve as Government Geologist for two years. He produced valuable papers on various aspects of landscape evolution. He was clearly laying a foundation for the work that would interest him for the rest of his life. An amusing tale, told against himself, concerned his safaris in the Sudan. The carriers would set his tent up first, and then make the main camp 150m away. At first he thought this was in deference to his position as leader, but later found out he was the leopard bait.

After a term as an academic at the University of Ghana, Bryan settled down with his family in Australia in the early 1960s. He joined the Bureau of Mineral Resources and became Party Leader of the Darwin Group. His early work was on uranium deposits in the Northern Territory. He later joined the Division of Land Resources, CSIRO, in the golden days of that organisation. He worked on projects in Papua New Guinea during pioneering days when lots of country was unexplored. Bryan was ideally suited for the tough physical life involved and was a fine leader. His work on lavas and tephros of different ages around Mount Lamington is another classic. So is his paper on erosion under tropical rainforest, which was counter-intuitive. Later he moved to

Canberra and among other things produced, with Ernst Loffler, a *Landform Map of Australia*.

At his peak Bryan was probably the best leader the Division of Land Resources ever had. He retired from CSIRO for health reasons, but recovered in a while and for the next 20 years taught geology as an Honorary Fellow of the University of Canberra. The students voted him best lecturer on at least one occasion. During his retirement Bryan went to as many conferences as he could and always presented a paper, mostly full of novel ideas – one of his hallmark traits. He was a true lateral thinker.

Bryan continued his quest for knowledge until he died, peacefully in his sleep, on the last day of a geological conference where he had presented a well received talk and was happy to be among friends and colleagues. Bryan Ruxton will be missed by all who knew him or his work; we have indeed lost a geological pioneer and thinker.

Wyss Yim



**Denys Barker Smith**  
1929–2007  
Denys Smith was born 9 April

1929 in Wybunbury, Cheshire, and died 11 July 2007 in Knaresborough, Yorkshire. A graduate of Birmingham University, he joined the Geological Survey in 1953, based in the Newcastle office and working primarily on the Permian 'Magnesian Limestone' on the Sunderland and Durham geological map sheets. In 1958 he published *Some Observations on the Magnesian Limestone reefs of north-eastern Durham* in the *Bulletin of the Geological Survey of Great Britain*, the first of over 70 papers that established him as a leading authority on the Permian System.

During his early career, Denys gained much experience of elucidating the problems presented by the Quaternary, Permo-Triassic and Carboniferous rocks of NE England, assisted by the exploration for offshore coal reserves from the 1950s onwards and by the discovery of well-defined evaporite cycles in the North Sea basin. His work also brought him into contact with industry and regional and local authorities, particularly in association with planning and engineering projects, and included the preparation of geotechnical reports on the sites of Washington New Town and the Hartlepool Nuclear Power Station.

Denys's expertise on the Permian strata of NE England led, in 1970, to a secondment to the New Mexico Bureau of Mines and Mineral Resources, to study the Permian carbonates of the Guadeloupe Mountains in New Mexico and West Texas. In 1974 he was awarded a DSc from the University of Birmingham in recognition of his international reputation on the Permian System, and in 1975 he was appointed District Geologist for South Wales and the West Midlands. Much of his published work during this period was concerned with the stratigraphy, correlation, nomenclature and palaeogeography of the Permian rocks in the UK and Europe, and with the Permian Capitan Escarpment in New Mexico and Texas.

In 1981, Denys moved back to a newly re-established Newcastle office as Head of Station. He remained there until his retirement in early 1984, after which he established his own consultancy, GeoPerm, and also became Honorary Senior Research Fellow at the University of Durham. Although acknowledged nationally and internationally for his work and publications on the Permian of northern England, Denys' interests extended to other areas, including geo-conservation. His passion for

conserving the UK's geological heritage led him to become a key contributor to the UK's first regional geological conservation strategy, published by Durham County Council in 1993.

Denys was an active member of numerous societies and organisations. For the Geological Society of London, he served as Chair of the Permian Working Group (1965–1974), as a member of the Upper Palaeozoic Subcommittee (1966–1974), as Chair of the NE England Subcommittee of the Quaternary Working Group (1967–1973), and as a member of the Stratigraphy Committee (1975–1980). His contribution to British geology was recognised by awards of the Murchison Fund of the Geological Society of London, the Clough Memorial Medal (Edinburgh Geological Society), and the John Phillips and Sorby medals of the Yorkshire Geological Society – making him the only person to be awarded both.

Steve McLean & Stewart Molyneux



**Robert Stoneley**  
1929–2008  
Bob Stoneley was born in 1929 – son of Dr

Robert Stoneley, the discoverer of the eponymous waves. Bob graduated in Geology from Cambridge in 1951 and spent the next 18 months with the Falkland Islands Dependencies Survey, carrying out geological expeditions from Hope Bay in Antarctica.

As described by Sir Vivian Fuchs in his book *Of Ice and Men*, Bob's experiences were truly epic. The arrival of his party caused an international incident. The Argentine military were already in residence and fired machine guns over his party's heads as they carried stores ashore, before marching them back to the John Biscoe at gunpoint. The Royal Navy had to send a gunboat to resolve the misunderstanding.

His Antarctic adventures continued. On one occasion Bob and his dog team fell down a crevasse. Bob got out alone. In another incident he used his body as ballast to prevent the sledge being blown away in a blizzard. On his return he was awarded the Polar Silver Medal, for "extreme human endeavour against appalling weather and conditions that exist in the Arctic and Antarctic". He was also awarded a PhD and married palaeobotanist Hilda Cox.

Bob spent the next 26 years with BP, exploring for petroleum in Tanganyika, Angola, New Zealand, Canada, Alaska, Ecuador and Iran. His adventures included paddling down the Amazon in a dugout canoe and dodging angry African rhinos and Alaskan grizzlies. During these years Bob published a series of papers on the origins of the mountain chains he had visited. In Alaska, Bob led the team responsible for the discovery, early appraisal drilling and evaluation of Prudhoe Bay field. His last assignment for BP was as Chief Geologist of the Oil Services Company of Iran, with responsibility for a drilling programme of 25 rigs.

In 1979 Bob left BP to take up the Chair of Petroleum Geology at Imperial College. This was a challenging post. Acting on the recommendation of government advisers, the Oil Technology Group of the Geology Department had been bisected. Petroleum engineering had been moved into the Department of Mining and received abundant funding. Petroleum geology received nothing. Though there was no shortage of students, there were few staff and their stay was brief, as North Sea salaries beckoned.

Nonetheless, Bob quickly turned the group around, securing additional funding for posts and revitalising the MSc Petroleum Geology Course. Bob played a key role in the establishment of the Joint Association for Petroleum Exploration Courses (JAPEC) of which he was Chairman for nine years. This

combined the forces of IC, the PESGB and the Geological Society and brought valuable funds into the IC department.

Bob was very much the old style university professor. His door was always open for any student to enter for pastoral or geological succour. Generations of IC petroleum geology students will have fond memories of the traditional Dorset field trip and will recall Professor Stoneley standing on a rocky promontory overlooking the sea, leaning into horizontal rain while expounding Dorset's geological wonders into the wind like some Old Testament prophet. Meanwhile the Children of Israel would lean into the gale, scribbling his words into their sodden notebooks.

The second recollection will be of the evenings, with the party back at the hotel, warm, dry, fed and watered. After dinner students gathered for the traditional "prayer meeting", now with dry notebooks, while Bob, behind a map-strewn table with a pint of beer and a small cigar, continued to profess his subject in a more congenial setting. During these years Bob published seminal contributions to the understanding of the complex generation and migration of petroleum in the Wessex basin using little more than a hammer, pencil, paper and the little grey cells. Overall, however, his published output was modest. He retained the old academic view that it was rather vulgar to publish too much too often.

Bob was offered the Headship of the Department of Geology on Sir John Knill's translation to NERC, and also the Deanship of the Royal School of Mines. He declined both. Bob served on the Council of the Geological Society and helped to found the Petroleum Group. He received the Society's Coke Medal and the Petroleum Group Silver Medal. Bob was a life-long member of the American Association of Petroleum Geologists.

On his retirement in 1994 Bob retained his flat in South

Kensington and continued his diverse geological activities, including regular attendance at PESGB meetings (as an Honorary Member), where he delighted in meeting former students and took great pride in their progression to senior appointments in the industry. Between 1993-98 he was General Secretary of the Geologists' Association. In 2002 he was awarded the GA's Halstead Medal. He was awarded the MacKay Hammer of the Geological Society of New Zealand.

Bob's name lives on in Antarctica; Stoneley Point sits at the entrance to Whisky Bay on north James Ross Island. In addition, the Stoneley Medal is awarded to participants in the American Association of Petroleum Geologists' annual student competition based on Imperial College's Barrel Award.

Bob was one of the last old-style heroic field geologists, the sort of men capable of killing hedgehogs with their bare bottoms. He was modest, courteous, convivial and kind. His humour was gentle and he spoke ill of no-one. Bob was a true English gentleman.

*Dick Selley*



**Rudolf Trümpy**  
1921-2009  
The passing of Rudolf (Rüdy)

Trümpy on 31 January 2009 has left a deep void in Alpine geology and in the lives of his wide international circle of friends, colleagues, and students. He was a sophisticated internationalist, geologist, and linguist of great knowledge, humour, wit, kindness, and humanity.

Rüdy, whose father and three uncles were geologists, was born in Glarus on 16 August 1921. A confident and intellectual boy, he discovered, in his grandmother's library, Jakob Oberholzer's *Geologie der Glarneralpen* and Alfred

Wegener's *Entstehung der Kontinente und Ozeane*. The latter made him a lifelong continental drifter. The former galvanised him to investigate the geology of his native mountains and to do some mapping as a schoolboy.

Against his father's advice but with the encouragement of his uncle, Jean Tercier (Professor of Geology in Fribourg) he entered the Natural Science Section of the Swiss Federal Institute of Technology (ETH) in Zürich in 1940, where he was a contemporary of Alberto Bally and Frances Delany. At ETH, he was taught by Rudolf Staub (badly prepared, but inspiring), Alphonse Jeannet (determinedly spoke only French), and Wolfgang Leupold (lovable but anarchic). Rüdy regarded Paul Niggli, Paul Scherrer (physics), and Hans Pallman (pedology) as his best lecturers. For his Diploma Thesis, he mapped the remote Ladril Valley in Graubünden, when he introduced the concept of the Sub-Helvetic nappes. Rüdy was ineligible for military service because of short-sight but became the youngest member of the Geological Army Service and learned how to interface with civil engineers.

On graduating in 1945, he worked, during the summer, for Maurice Lugeon and Elie Gagnebin at the then very small Institute of Geology in Lausanne where he developed a keen interest in the Helvetic Lower Jurassic. Returning to ETH, he did his PhD on these strata and was the first to recognise early Jurassic normal faulting in the Alpine realm, an observation that was to become of critical importance in plate tectonic Alpine reconstructions. He then returned to Lausanne as "*Chef de Travaux*" where, upon Gagnebin's death in 1950, he found himself in charge with the assistance of Jean-Francois Agassiz. He stayed on in Lausanne for six years under Heli Badoux (an excellent field geologist and likeable man), did a huge amount of teaching, and mapping in the Chablais Prealps of the Valais and Haute Savoie,

married Marianne Landry, and had his two children. While in Lausanne, he mapped Pierre Avoi in the lower Valais, where he established a stratigraphy, dated the Barremian to Aptian conglomerates, and also studied the pebbles in the Oligocene conglomerates north of Lake Lemán, which demonstrated the huge former extent of the Simme Nappe and Austro-alpine nappes.

Following the claustrophobic war period, the 1948 International Geological Congress in London afforded Rüdy the opportunity to travel to take field trips, especially the Northwest Highlands of Scotland, where he met Sir Edward Bailey, Carlo Migliorini, and John Tuzo Wilson (whom he attempted, unsuccessfully, to convert to continental drift). In 1953, Rüdy was appointed as "Extraordinary Professor" at ETH and the University of Zürich, where he was to spend the next 33 years until his retirement in 1986. During this time, he established himself as the master of Alpine geology by meticulous, field-based, studies of the Alps, especially the origin of the Pre-alpine nappes by detachment along Carnian evaporates from the distal Saint Bernard Nappe, and the derivation of the Helvetic nappes from a zone of subducted basement between the Aar and Gotthard Massifs.

The central theme of his work, throughout his life, was the relationship between Alpine paleogeography and tectonics. He recognised that the relationship between facies belts and nappes is very complicated and that most Jurassic marine breccias were developed along extensional fault scarps. He also showed that the Glarus nappes are part of a single sheet with the same provenance. He was the first to call attention to the probability of large sinistral Cretaceous displacement in the Alpine realm. In 1958, he spent a field summer in East Greenland, where he demonstrated that Permo-Triassic marine sediments were

deposited in rift basins open to the north. Rüdy was a wonderful host to foreign visitors and groups to the Alps, both at ETH and in leading spectacular, superbly-organised field trips, after one of which Preston Cloud persuaded him to write his famous *Paleotectonic evolution of the Central and Western Alps*, which established his international reputation.

Rüdi was a very good, well-prepared, lecturer and teacher. He lectured and gave speeches fluently and, seemingly, effortlessly. I was mildly surprised when, chatting to me, he took a small shot of brandy before leaving to give a lecture. "Oils the works!" he said, with a wink and grin. He became Dean of Science at ETH, and Treasurer then President of the IUGS and was in constant demand for lectures and speeches. I remember, particularly, his masterful speech at his friend Bert Bally's retirement symposium and party in Houston in 2001. During his last years at ETH, he devoted most of his time to undergraduate teaching, which was reflected in the vast audience that attended his farewell address.

In "retirement", Rüdy concentrated mainly on the history of geology and corresponding with his friends around the world. He received many honorary degrees, medals, and memberships of academies, including the Wollaston Medal. He was the consummate intellectual Swiss gentleman. His life's work is testimony to meticulous field work in geology combined with vision and the ability to analyse and synthesise large amounts of data. He was also great fun and a good friend.

John Dewey



**Peter Rolfe Vaughan**  
1935–2008  
Professor Peter Vaughan died of

a heart attack in his home in Suffolk on 16 May 2008. Peter

was born in Luton on 10 March 1935 and graduated from Imperial College London in 1956 with a first class honours degree in Civil Engineering. He joined Sandeman Kennard and Partners where his interest in the behaviour of embankment dams was first aroused. His enquiring mind and his desire to understand more about dams took him back to Imperial College on two occasions: in 1958 for a DIC and between 1960 and 1964 for his field-based research. In 1964 he went to Nigeria to work for Balfour Beatty on the construction of Kainji Dam and in 1965 he took six months' unpaid leave to write his PhD thesis. Peter returned to Sandeman Kennard and Partners in 1967, as project engineer on Cow Green and Balderhead dams.

In 1969 he returned to Imperial College as a lecturer and joined the Geological Society of London. He became a Reader in 1976, and he was appointed Professor of Ground Engineering in 1987. He formally retired from Imperial College in 1996 and became an Emeritus Professor. Since then, apart from his consulting work, he continued his long association with Imperial College, participating in both research and teaching.

In his later years, he was a member of several international advisory panels that overlooked the design and construction of many embankment dams. He was involved with the construction of Empingham and Roadford Dams in the UK, a safety review of Mica Dam in Canada and the rehabilitation of three dams of the Cascade of Daugava in Latvia, to name but a few. There are many more examples of schemes where Peter made an invaluable contribution. He was instrumental in establishing the cause of the failure of the original Carsington Dam and in designing its replacement. Much of his consulting work involved the Geotechnical Consulting Group, a consulting firm of which Peter was instrumental

in founding. He continued his association with this firm until his death.

Peter's early years in practice and his continued association with industry had an important influence on his research and teaching. It provided the base on which his eminence in dam engineering developed. Apart from his work in this field he had a wide range of interests, making seminal contributions in the fields of slope stability and progressive failure, embankments, field instrumentation, grouting and the engineering behaviour of soils and weak rocks. His recent work on the effects of vegetation on the stability and deformation of old railway embankments is particularly noteworthy.

Throughout his career Peter received many accolades and awards. The most notable of these was the Institution of Civil Engineer's premium award for technical papers, the Telford Medal, which he received on three occasions. He also delivered many special lectures, the most prestigious being the British Geotechnical Association's 34th Rankine Lecture. In recognition of his contributions to both research and engineering practice he was elected a Fellow of the Royal Academy of Engineering in 1991, having been made a Fellow of the Institution of Civil Engineers in 1978.

To his colleagues and research students Peter will always be remembered as academically gifted, a lateral thinker and somebody who could clearly communicate his ideas. He will also be remembered as a kind and generous person, with a wonderful sense of humour, who was an absolute joy to work with. Many have benefited from his original and imaginative thinking and his wisdom. His lecture notes are routinely referred to by his students long after they have left Imperial College. Peter was an observer, a deep thinker and an analyst. He always combined his field and laboratory observations with

appropriate analyses. Peter's views or advice were rarely based on observations and empiricism alone: as a lateral thinker *par excellence* he usually contrived a way of applying engineering mechanics to any problem.

While Peter always viewed soil mechanics as both his work and his hobby, he also had a passion for fly fishing. During holidays and even work trips abroad, he would take every opportunity to practise the art. His passion ran so deep that it was almost impossible for close colleagues, research students or even their offspring not to be persuaded to give fly fishing a try. As with academic work, Peter would be generous with his time and, with considerable patience, he would explain the finer details of casting a fly. Many of us have good reason to view this unique experience with great fondness.

We have lost a fine academic, a true individual, an excellent practising engineer and, to many, a great friend. Peter will be sorely missed.

David Potts



**Alexander James Wright BSc**  
1980–2008  
On 26 September over 300 family and

friends of Alexander James Wright met at St Mary's Church, Charlton Kings to celebrate the life of Alex Wright and say their farewells. Alex was born on 4 October 1980 in Charlton Kings near Cheltenham and tragically passed away on 5 September, aged only 27. In this time, however, Alex achieved a tremendous amount in his family, personal and professional circles.

Growing up in North Gloucestershire surrounded by the Cotswolds Alex was always keen to take part in outdoor activities such as cycling or canoeing. These idyllic surroundings brought out Alex's thirst for knowledge about the world at an early age, and so it

seemed almost inevitable that he should decide to become a geologist.

Alex was educated locally before gaining his BSc in Geology at Imperial College, London (2002). While at university Alex particularly enjoyed and excelled at fieldwork exercises. The foot and mouth outbreak in 2001 meant that field mapping projects had to be carried out overseas and he spent an enjoyable six weeks on the Greek island of Samos. Always passionate about his subject it came as a surprise to no-one that he

decided to embark on a career in geotechnical engineering.

His first venture in the geotechnical industry was with Norwest Holst in the North London area. Here he learnt the harsh realities of working as a geologist – with drill crews to manage, and inquisitive local residents to placate. After a short period of time working outside of the industry in Cornwall Alex went back to his family home in Charlton Kings and was offered a position with a small but well-established geotechnical firm just outside

Cheltenham. Working with a smaller, but very busy firm allowed him to gain a lot of experience quickly – particularly in soil engineering and land contamination.

Alex's personal life was dominated by a love of literature, music and sport. His generous nature and a willingness to help anybody with anything led to his role as an assistant Scout Leader. Giving large amounts of time each week to the local Scouting organisation, he was a popular instructor and this was

poignantly marked by a guard of honour from outside the church at his funeral. In addition, a fund to help support under-privileged Scouts take part in field trips and excursions has been set up in his memory called the "Alex Wright Scouting Development Fund".

Alex's loss is mourned by his close family, many friends and in particular his partner Marleen, his soulmate, with whom he was intending to spend the rest of his life.

*Peter Williamson*



**The Geological Society**, Burlington House, Piccadilly, LONDON W1J 0BG  
T: +44 (0)20 7434 9944 (Office) F: +44 (0)20 7439 8975 E: [enquiries@geolsoc.org.uk](mailto:enquiries@geolsoc.org.uk)  
T: +44 (0)20 7434 5673 (Library) F: +44 (0)20 7439 3470 E: [library@geolsoc.org.uk](mailto:library@geolsoc.org.uk)  
W: [www.geolsoc.org.uk](http://www.geolsoc.org.uk)

