



The
Geological
Society

Geology for the future

Annual Review 2018



The Society's aims

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

In 2017, Council adopted a 10-year strategy, the principal objectives of which are:

Our purpose

The Geological Society **supports** the work of geoscientists, **inspires** interest in the physical world, and **connects** science, profession and society.

Our values

All that we do is underpinned by scientific excellence, professional and ethical integrity, and quality of service. To that end:

- We strive to be impartial, authoritative, trustworthy and transparent.
- We promote diversity, equality, inclusion and respect for others across the geoscience community.
- We promote social and environmental sustainability, responsibility and stewardship.
- We seek opportunities to work collaboratively and aim to be recognised as a valued partner.

Themes

- **A home for geoscience:** We will promote and support the geosciences and act as the scientific and professional home for an engaged, diverse and inclusive geoscience community.
- **Serving and supporting geoscientists:** We will provide services and support for our Fellows and other geoscientists throughout their careers.
- **Maintaining standards:** We will assure high professional standards in geoscience, for the public benefit.

- **Trusted voice:** We will be the trusted voice of the geoscience community.
- **Education and outreach:** We will promote geoscience education and share our science widely, to inform public debate and to inspire future geoscientists to address the challenges facing humanity.
- **Strengthening our organisation:** We will ensure that the Geological Society remains a sustainable, resilient and thriving organisation over a generational timescale, in order to deliver our strategic aims and objectives.

From January 2018 the Society's Council had, as specific aims for the year, to:

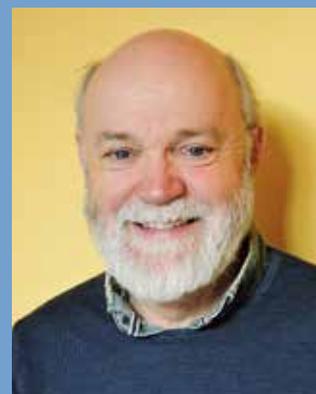
- Deliver the actions put forth in the Society's three-year rolling business plan.
- Organise science, education and outreach activities to mark our Year of Resources.
- Grow the chartership offering by improving the documentation and ease of CPD record keeping.
- Expand the reach of Earth Science Week in the UK and beyond.
- Develop and maintain careers resources.
- Increase the visibility of Library resources by developing and expanding online accessibility and engagement.
- Support primary and secondary teachers in delivering Earth science curriculum content.

Contents

From the President: Geology for the future	4
Council membership	4
From the Executive Secretary: A year of change	5
Resources for geoscientists	6
Policy and engagement across the UK and beyond	8
Looking to the future	10
Serving and supporting the profession	12
From the Treasurer: Strengthening the organisation	13
Society finances 2018	14
Corporate Affiliates – Acknowledgements	15

Geology for the future

From the President



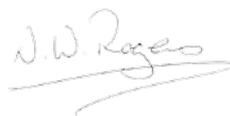
The theme of this year's Annual Review, 'Geology for the future', is emblematic of much of the Society's work in 2018, which marked the first full year in office of our now not so new Executive Secretary, Richard Hughes. Much of Richard's time has been spent in planning and preparing the Society for the many challenges that lie ahead.

2018 also marked the Society's Year of Resources, a topic which is increasingly high on the news agenda as humanity becomes ever more hungry for natural resources, and we face serious questions as to the capability of our planet to satisfy our ravenous appetite for energy and minerals. Geologists have of course been critical to the discovery and development of mineral and energy resources and will continue to be in the future. The themed year saw a busy programme of meetings, conferences, lectures and discussions on topics as diverse as the future of energy, lithium, ethically-sourced gem stones and many others. As always, the subjects varied from highly specialised to general interest, and from pure science to applied. This is one of the great pleasures of our science and of the Society, in that it provides a home for all those interested in the origin and use of 'the mineral structure of the Earth'. Indeed, I have been consciously trying to attend events that are outside my somewhat limited field of expertise and as a result have learned much about engineering geology and the role of the geologist in capacity building in the developing world, to cite just two examples.

Our successful exploitation of the Earth's mineral resources has however led to serious environmental consequences, the most significant being climate change, the amelioration of which will require considerable global effort. Our political classes have been far too sluggish in responding to a problem that is arguably the greatest challenge humanity has yet faced. Students and school children are aware of the issue, but they seem less aware that geology has a significant role to play in those solutions. Young people are our most significant resource for the future, yet numbers of students applying for university places to study geology are declining. The reasons for this are unclear but we do need to make a continued concerted effort to promote a positive image of our science amongst the younger generation in order to reverse that trend.

To that end the Society's education and outreach programme continued through 2018 with plenty of activities to engage younger people. This included our increasingly popular Schools Geology Challenge and Early Career Award, now held on separate days because of the increase in interest from Regional Groups. Our Plate Tectonic Stories competition featured categories for schools and young people, who rose to the challenge to tell a story about plate tectonics in a form of their choosing. The results ranged from posters and videos to models and dance! And of course, Earth Science Week gathers an increasing number of activities each year while our Geoscience Education Academy was oversubscribed.

For the Society to continue to play a part in the future of geology we need to ensure that we have a secure home. The Fellowship is aware that the society occupies Burlington House under a lease arrangement from the landlord, HM Government. Discussions at ministerial level began in late 2018 with a view to reaching an agreement that would guarantee the Society's long-term future at Burlington House. At the time of writing those discussions are still in progress but are looking positive and we hope that later in 2019 we will be able to let the Fellowship know of the results.



Nick Rogers

Council Membership

President: Prof Nicholas Rogers

Vice Presidents: Mr John Booth, Mr Nicholas Reynolds; Mr Keith Seymour; Mr John Talbot

Secretaries: Dr Colin North; Prof Katherine Royle; Dr Alexander Whittaker

Secretary, Foreign & External Affairs: Dr Sarah Gordon

Treasurer: Mr Graham Goffey

*Mr Thomas Backhouse⁴; *Mr Andrew Bloodworth⁶; Mr John Booth⁶; ~Mr Rick Brassington⁴; ~Mr Malcolm Brown¹; Dr Jason Canning⁴; ~Miss Liv Carroll⁴; Ms Lesley Dunlop²; ~Dr Marie Edmonds^{1,2,6}; Mr Graham Goffey^{1,3}; Dr Sarah Gordon^{1,2,3}; *Prof James Griffiths⁴; ~Mrs Tricia Henton⁴; Ms Naomi Jordan²; *Prof Chris King²; ~Dr Jennifer McKinley⁶; Dr Robert Larter²; Dr Colin North^{1,3,5}; *Prof Bryne Ngwenya⁶; Dr Sheila Peacock^{5,6}; ~Prof Christine Peirce^{1,6}; Mr Nicholas Reynolds⁴; Prof Nicholas Rogers¹; Prof Katherine Royle^{1,3,4}; Mr Keith Seymour^{1,4}; Miss Jessica Smith⁴; *Dr Helen Smyth²; *Prof Robin Strachan⁵; Mr John Talbot^{1,4}; Dr Alexander Whittaker^{1,2,6}

* New Council members elected at the AGM on 6 June 2018

~ Council members who retired at the AGM on 6 June 2018

Membership of the Standing Committees

¹ Elections; ² External Relations; ³ Finance & Planning;

⁴ Professional; ⁵ Publications & Information; ⁶ Science.

Method of Election of Trustees

Trustees are elected by the Fellowship at the 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 Committee

The Audit Committee reports directly to Council. Members of the Audit Committee are: Mr Chris Bulley, Mr Roger Dunshea (Chair), Mr Nick Hardy, Mrs Beverley Parrish and Dr Nigel Platt.

A year of change

From the Executive Secretary



Geology is sometimes called a science of slow, incremental change – thanks in part to the work of our illustrious former Fellow, Charles Lyell. 2018 was, in contrast, a year of relatively rapid change for the Society, with a number of long-standing staff members moving on to new challenges. We wish them all the best, and thank them for their hard work and commitment to the Society. In particular, we said goodbye to Commissioning Editor Angharad Hills after 32 years, as well as Director of Policy and Communications Nic Bilham and Geoscientist Editor Ted Nield, both of whom were with the Society for more than 20 years.

Change is an opportunity as well as a challenge, and we were pleased to welcome several new staff members to the Society last year, including two new Directors, Alicia Newton and Alex McPherson. We've also recruited our first Head of Development, Jenny Boland – a welcome addition to the team as we look towards ways to diversify our income streams.

Our science theme for 2018 was 'Resources', and we spent the year exploring the many ways in which geology contributes to our lives, both in the search for critical minerals and materials, and in growing our understanding of the Earth around us by promoting geology as a career opportunity. Our meetings programme marking the Year of Resources began early with the second Bryan Lovell meeting in late 2017, exploring 'Mining for the future'. It was followed up in 2018 by a flagship meeting, 'Lithium: from exploration to end user' in April, and the William Smith meeting, 'Mineral resources at the frontier' in July. We also explored the theme of resources with an expanded range of education resources, including a free poster for schools outlining the many minerals within smartphones, and October's Earth Science Week, focusing on 'Earth science in our lives.'

Alongside staff, the Society's greatest resource, of course, is our Fellowship, many of whom contribute significant amounts of time to voluntary activities within the Society – whether as members of committees, attendees at our outreach events or in providing their expertise to working groups, policy responses, statements and press releases. Without these contributions, much of our work simply wouldn't happen – our thanks, as ever, to all of you.

Our thanks as well to everyone who contributed to our Fellowship survey last year – we were pleased to receive nearly three thousand responses in total. This has provided us with hugely valuable information with which to go about improving member services and benefits

in the future. Of course, we're always happy to hear Fellows' views on what aspects of membership they find most valuable, so if you weren't able to complete the survey, you're always welcome to contact us.

In our 212th year, that survey revealed Society membership is not just growing in the UK, but further afield, with 21% stating they reside outside the UK. Around 37% were under the age of 45, suggesting the Society continues to cater to the needs of early career members. There is still work to be done in terms of the diversity of our membership, and indeed the science – our work with Diversity in Geoscience UK, Athena SWAN and the Science Council/Royal Academy of Engineering's Diversity and Inclusion Progression Framework continues to address this.

Among the most gratifying findings from the 2018 survey is that nearly three quarters of respondents view Geological Society Fellowship as beneficial to their career, and wish to be a Fellow in two years' time – an indication that, in times of change, membership of the Geological Society remains as relevant as ever to geoscientists at every stage of their career.

A handwritten signature in dark ink, appearing to read 'Richard Hughes', written in a cursive style.

Richard Hughes

Resources for geoscientists

Our conference programme, publications and Library are at the heart of the Society's work – stimulating, supporting and communicating geoscience research and its application.

'Gold Rush!' – a Library outreach event held as part of the Burlington House Courtyard Lates evening.



The Society designated 2018 the Year of Resources. This theme guided the Society's activities across our conferences, education and outreach teams. The designation also inspired us to assess and grow the resources we offer to researchers, Fellows, educators and the general public.

Burlington House played host to a number of conferences and meetings under the banner of Year of Resources. These meetings brought together scientists from across the Earth sciences with economists and other social scientists to address the challenges facing current and future generations. The Year of Resources kicked off early – in November

2017 with the Bryan Lovell Meeting on Mining for the Future. This meeting explored what mineral resources will be required for energy transitions, how these minerals can be sourced sustainably, and how different sectors of the industry will be required to work together to meet these needs.

Subsequent meetings looked at mineral resources in extreme environments, hydrocarbon reserves in unusual settings, and groundwater availability and contamination. Other highlights of the conference calendar included the Lyell Meeting on Mass Extinctions, which explored the causes and consequences of the most deadly events in Earth's history, and the Petroleum Group's conference on Communicating Geoscience; in addition to hosting numerous attendees in Burlington House, the conference also offered the option to view talks online and participate through an app.

The Society's Publishing House was pleased to expand the range of services extended to our authors, readers and peer reviewers. From January 2018, colour figures were offered free of charge in all books and journals. Authors and readers will see papers online sooner, with manuscripts posted quickly after acceptance for all journals and Special Publications. In addition, all Online First articles are now available with full text XML for an improved reading experience.

Peer reviewers are now able to receive recognition for their efforts in ensuring the quality of published papers through a new partnership with Publons. Anyone who has reviewed a paper for the Society can easily add that review to their Publons record.

30%
increase in
submissions to GSL
journals

19
books published

58,195
picture library visits

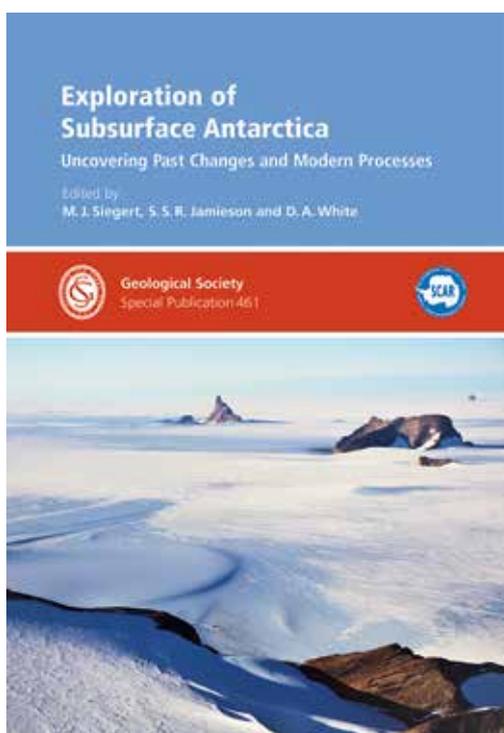
2018 saw the publication of 'Petroleum Geology of NW Europe: 50 Years of Learning – Proceedings of the 8th Petroleum Geology Conference' as well as other Special Publications spanning topics as diverse as the palaeobiology of pterosaurs, tsunami risks and hazards, the history of the European oil and gas industry, and the geomorphology of alluvial and fluvial fans. One volume, entitled *Exploration of Subsurface Antarctica*, reported the discovery of 91 previously unknown volcanoes located beneath the West Antarctic ice sheet, bringing the current total to 138. This article proved popular with the press and social media, earning an altmetric score of 434.

Across all the titles, full text downloads increased by 24% relative to 2017. A paper in the Proceedings of the Yorkshire Geological Society describing the remains of ichthyosaur embryos from North Yorkshire grabbed the attention of the press and researchers, who downloaded the article more than 2,300 times in the month following its publication.

Staff at the Library worked to expand the reach and discoverability of the Society's collections by joining the SUNCAT union catalogue. This catalogue includes journal collections from over 100 UK libraries. Four items from the archives also ventured out of Burlington House to the Charles Dickens Museum, where they were displayed for nine months. The items, Roderick Murchison's geological hammer, Henry De La Beche's drawings 'Duria Antiquior' and 'Awful Changes' and William Buckland's *Bridgewater Treatise*, formed part of the exhibit 'Charles Dickens: Man of Science', which explored the celebrated author's contributions to science communication.

In Burlington House, materials from the Library and Society archives were showcased in four exhibitions: 'A Stone Most Fit and Proper: Geology of the Houses of Parliament' (January-March), 'The Life of Charles Moore: geologist and fossil collector (1815-1881)' (April-July), 'Brixham Cave and the Antiquity of Man' (August-October), and 'Mapping Africa – The Mid-20th Century Rush for Knowledge' (October-December).

We offered an evening adventure in the form of 'Gold Rush! A geological time-travelling treasure hunt' as part of the Courtyard Lates event on 27 July. The Library also took part in the re-staging of a famous Himalayan climb using a pair of vintage Action Men as part of the 'Scaling the Heights' initiative, which was supported by Arts Council England. This joint effort across multiple libraries aimed to bring mountaineering literature to life. The resulting concertina book of library climbs formed the basis of an exhibition at the Durham University



SP461: Exploration of Subsurface Antarctica

Oriental Museum, alongside material from the Mountain Heritage Trust collection.

The Society ended the year with extensive plans for the Year of Carbon in 2019 in place, and by announcing the Year of Life for 2020.



'Scaling the Heights' – an initiative supported by Arts Council England.

Policy and engagement across the UK and beyond

Our aim is to raise awareness of geoscience considerations in UK policymaking for the benefit of science, profession and society and to seek out and maintain relationships with organisations both in the UK and around the world.

2018 saw a range of activities focusing on the role and value of geoscience to society – both in the context of our Year of Resources, and policy aims such as the UN Sustainable Development Goals and the safe disposal of radioactive waste.

The number of activities and initiatives relating to our themed years programme increases every year, both at the Society and beyond. 2018's topic of 'Resources' lent itself well to discussing geology in the context of both current and future societal needs, and this was reflected in our activities.

In April, we held a conference on 'Lithium: from exploration to end user'. As a key component of battery technology used in electric vehicles and in consumer electronics,

demand for lithium is likely to increase rapidly in the coming decade. The meeting brought together expert speakers from each part of the lithium supply chain to discuss deposit types, methods of processing, requirements of end users and meeting future demands for lithium in a sustainable way.

Maintaining secure access to sustainable sources of metals and minerals is a major societal challenge for the future and this was a theme that was addressed broadly at the 2018 Resources for Future Generations conference held in Vancouver in June. Topics ranged from physical resources provided by the environment such as minerals and water, to the education, outreach and learning resources needed to ensure a secure pipeline of skilled geologists to meet future societal demands. The Society held a stand at the

Andy Parkes from Radioactive Waste Management speaking at the 'Geology and the safe disposal of radioactive waste' meeting in October 2018.



conference and both Nic Bilham and Flo Bullough in the External Relations team delivered talks on responsible sourcing of minerals and the 100 Great Geosites initiative as an education and outreach resource.

Continuing the focus on resources, in early May the first of two workshops on the ethical sourcing of minerals was held at Society in London. The workshop brought together representatives from a number of organisations in geoscience, finance, research and international bodies looking at mineral sourcing across the supply chain. Attendees discussed the responsible sourcing of minerals along the chain from mine to end-point consumer and how potential labelling initiatives might work. A second, follow-up workshop was also held alongside the Resources for Future Generations conference in Vancouver where similar themes were discussed among representatives from international or North American based organisations.

The Society's policy team continue to respond to government and parliamentary inquiries as and where there is overlap with geoscience. In 2018, we responded to a range of inquiries in science areas as diverse as carbon capture, usage and storage, the use of geospatial data and 'the changing Arctic' to technologies for meeting clean growth emissions and the many ways in which raw materials and geoscience expertise will be critical to delivering clean growth. We also collaborated with colleagues at University Geoscience UK on a number of higher education related policy responses around the Research Excellence Framework 2021 and the rollout of the Teaching Excellence Framework.

Towards the end of 2018, the Government published its policy paper on 'Implementing geological disposal – working with communities' and in advance of the launch, the Society hosted a technical meeting in collaboration with Radioactive Waste Management on 'Geology and the safe disposal of radioactive waste'. The meeting showcased some of the materials developed to explain the science behind the National Geological Screening exercise which examined how geology can safely contribute to the safe disposal of radioactive waste. You can find videos of the talks from the meeting on the Society website.

We continue to engage with and hold events in the devolved regions and Ireland. As in previous years, we attended science policy events held at each of the devolved parliaments and we also hosted the 2018 Geoconservation Annual Gathering at Collins Barracks in Dublin. There is now also



Geological Society representation on the cross-party groups on science in each of the devolved parliaments.

The Society continues to grow its activities in the area of geoscience and sustainable development with our partners at Geology for Global Development (GfGD). GfGD held their 6th Annual Conference at the Geological Society in November on 'Water and Sustainable Development' which was opened by Lord Duncan of Springbank FGS, Parliamentary Undersecretary of State for Scotland and Northern Ireland. A few weeks later in December, the Society jointly published with GfGD and the British Geological Survey a briefing note on Geology and the UN Sustainable Development Goals (SDGs). The note details the many ways in which geological science and geoscientists can significantly contribute to achieving the SDGs by 2030.

The Society has had a busy year of international engagement activities. Representatives attended the European Geosciences Union (EGU) General Assembly in 2018 where we participated in a number of cross-organisation meetings including a roundtable discussion with representatives from other European organisations. Our former Director of Policy and Communications Nic Bilham chaired a session on geoethics which covered themes on cultures and social justice as well as geoethical thinking in marine and mining sessions and delivered a talk on ethical drivers and the implications for mining.

Later in the year, Richard Hughes attended the joint EGU-European Federation of Geologists dinner debate held in Brussels marking the launch of the 'Horizon Geoscience: overcoming societal challenges, creating change' report assessing EU-funded geoscience research.

2018 was the Society's Year of Resources.



Geology and the UN Sustainable Development Goals, published jointly with Geology for Global Development and the British Geological Survey.

12
inquiry and
consultation
responses

6
Annual GfGD
conferences

17
UN Sustainable
Development Goals

Looking to the future

Securing the future of our science means engaging with new audiences and working to improve the diversity of the geoscience community.

'Minerals in a Smartphone' – distributed to 150 schools.

MINERALS IN A SMARTPHONE

1 BORAX, BORON
Used in glass, ceramics and as a catalyst in the chemical industry. Boron is also used in the production of boron nitride, a high-strength ceramic material used in aerospace and defense applications.

2 PALLADIUM (native)
Used in catalytic converters, jewelry and as a hard metal in dentistry. It is also used in the production of palladium chloride, a catalyst in the chemical industry.

3 WOLFRAMITE, TUNGSTEN
Used in high-speed steel, tungsten carbide and tungsten electrodes. It is also used in the production of tungsten bronze, a material used in electronics.

4 GRAPHITE, CARBON
Used in pencils, lubricants and as a conductor in batteries. It is also used in the production of graphite fibers, a material used in aerospace and defense applications.

5 QUARTZ, SILICON
Used in glass, ceramics and as a semiconductor in electronics. It is also used in the production of silicon dioxide, a material used in optics and fiber optics.

6 MONAZITE, RARE EARTH ELEMENTS
Used in magnets, lasers and as a catalyst in the chemical industry. It is also used in the production of monazite phosphate, a material used in fertilizers.

7 CASSITERITE, TIN
Used in solder, bronze and as a catalyst in the chemical industry. It is also used in the production of tin oxide, a material used in electronics.

8 GOLD (native)
Used in jewelry, electronics and as a catalyst in the chemical industry. It is also used in the production of gold chloride, a material used in photography.

9 BAUXITE, ALUMINIUM
Used in aluminum, alloys and as a catalyst in the chemical industry. It is also used in the production of aluminum oxide, a material used in ceramics and refractories.

10 SPODUMENE, LITHIUM
Used in batteries, glass and as a catalyst in the chemical industry. It is also used in the production of lithium carbonate, a material used in pharmaceuticals and as a catalyst in the chemical industry.

11 TANTALITE, TANTALUM
Used in capacitors, electronics and as a catalyst in the chemical industry. It is also used in the production of tantalum pentoxide, a material used in electronics.

12 CHALCOPYRITE, COPPER
Used in copper, alloys and as a catalyst in the chemical industry. It is also used in the production of copper sulfate, a material used in agriculture and as a catalyst in the chemical industry.

13 SPHALERITE, ZINC
Used in zinc, alloys and as a catalyst in the chemical industry. It is also used in the production of zinc oxide, a material used in electronics and as a catalyst in the chemical industry.

14 BERYL, BERYLLIUM
Used in jewelry, electronics and as a catalyst in the chemical industry. It is also used in the production of beryllium oxide, a material used in electronics and as a catalyst in the chemical industry.

15 SODIUM, POTASSIUM
Used in glass, ceramics and as a catalyst in the chemical industry. It is also used in the production of sodium chloride, a material used in food and as a catalyst in the chemical industry.

1,812
visitors for Open House London

150
Earth Science Week school resource packs

13
public lectures across the UK

Education and outreach work in 2018 has reflected the Society's wider commitment to broadening our audience; from the school students, adults and families who've participated in events around the country to the expansion of our public lecture programme beyond Burlington House.

The Society's hugely successful public lecture programme went on the road in 2018, with talks taking place in Belfast, Aberdeen and Newcastle as well as ten at Burlington House. Throughout the year, our outreach and education work has focused on widening our audience, including attending New Scientist

Live at the Excel Centre for the second time in September; an event which saw around 40,000 attendees over four days.

2018 also saw our attendance for the first time at the Big Bang Fair in London, bringing together over 2,000 school students, as well as a visit to the Lyme Regis Fossil Festival, which sees local and international visitors flock to the popular seaside town to learn more about fossils and its geological heritage. We also attended the Geologists' Association Festival of Geology at UCL, and reprised our popular Geoscience Education Academy, bringing together geography and geology teachers to develop their tools for teaching

geoscience. Meanwhile, the National Schools Geology Challenge and Early Careers Awards, for which heats are held by our Regional Groups around the country, have so grown in popularity that for the first time 2018 saw the finals of each take place as individual events.

Reaching out more widely across the UK and Ireland requires the support of many partner organisations and individuals, who are collectively responsible for the growing success of Earth Science Week, our annual celebration of the geology around us. 2018's week took place on 13-21 October, and saw more than 60 events take place, from craft workshops and geowalks to family days and evening talks. Highlights included an Earth Science Day for primary schools at the Dinosaur Isle Museum on the Isle of Wight, an event for sixth formers at Burlington House, and guided walks held across the UK from London to the North West Highlands. Tools for those keen to explore their local geology have also been enhanced by the inclusion of our 100 Great Geosites – a list sourced from public nominations in 2014 – in the Ordnance Survey's online mapping and route planning tool.

As part of Earth Science Week, 150 schools received Earth Science Week resource packs, including fact sheets, stickers and our 'Minerals in a Smartphone' poster – also on display for much of the year in the Lower Library at Burlington House. The Lower Library also hosted an exhibition of mineral hand specimen drawings by geologist Hazel Gibson, designed to highlight the minerals crucial to our everyday lives as part of our 2018 Year of Resources, and also made available with accompanying scientific information in an online gallery on our website.

Another popular exhibition resulted from our fourth annual Earth Science Week photography competition, which goes from strength to strength. 2018's winners, who all submitted photographs of geology in the UK and Ireland under the theme of 'Earth Science in our Lives', featured on The Guardian's website as well as in our 2019 calendar. To mark the theme, photographers told us what the photographed site meant to them, with responses ranging from fieldwork memories and PhD research to favourite holidays and memorable life events.

Our publications enjoyed significant press coverage during 2018 – including the Scottish Journal of Geology's 'A sauropod-dominated tracksite from Rubha nam Brathairean (Brothers' Point), Isle of Skye, Scotland', featured among others on the BBC website, The Guardian and The Independent, and Proceedings of the Yorkshire Geological Society's 'The youngest occurrence of ichthyosaur embryos in the UK: A new specimen from the Early Jurassic (Toarcian)



Students at the Big Bang Fair in July.

of Yorkshire', featured on the BBC website, The Times and The Daily Mail.

2018 also saw the results of our Plate Tectonic Stories competition, which challenged entrants of all ages to tell a plate tectonic story through a medium of their choice – the results ranging from videos, posters and models to dance, lace and felting. Meanwhile, the ever popular Great Geobakeoff had another strong year of inventive and eclectic entries, with bakers tackling challenges ranging from Geoscientist Magazine (in honour of its Editor Ted Nield's retirement) to the Navajo sandstone and the Bolivian salt flats.

We welcomed a record 1,812 visitors to the building as part of Open House London in September, including a significant rise in visits from young people – perhaps as a result of our 'Monster Hunt' challenge, featuring a range of fossil specimens hidden around the building. Our participation in Open House is part of our wider efforts to collaborate with our fellow Courtyard Societies in Burlington House – as part of which, we also took part in the Courtyard Lates event in July (see page 7).

Much of this year's outreach and education work has focused on our 2018 Year of Resources. Our themed years, which began with 2015's 'Year of Mud', have proved so successful that 2018 also saw confirmation that the series will continue beyond an initially planned five year period – a good sign for the future of both our science and outreach programmes.



Part of the 'Monster Hunt' for Open House London.

Serving and supporting the profession

The Geological Society provides support to its Fellows and the wider geoscience community, and promotes high standards for geoscience education and professional practice.

Becoming a Chartered Geologist or Chartered Scientist allows geoscience professionals to demonstrate their skills and expertise to clients, regulators, and the general public. In 2018 the Society strengthened the weight of this designation by requiring the reporting of continuing professional development and revising the categories of activities that count towards this requirement.

Access Anglesey Geological Fieldtrip (Image: DiG-UK/Clare Gordon)



2,726
Chartered Geologists
as of mid-2018

12,382
Fellows in mid-2018

205
accredited university
courses

The number of Chartered Geologists continued to grow in 2018. New and existing CGeols will now be required to accrue about ninety hours of continuing professional development per year. These hours can be spread across multiple activities such as formal course work, on the job learning and volunteer work. The Society also continued to accredit new university courses, and reaccredit existing courses, to ensure that geology graduates obtain skills that will allow them to transition to the geoscience workforce.

To help support that transition, we hosted two career day events in November, one in Edinburgh and the second in Nottingham. The events allowed students from nearby universities to meet representatives from

various industries and postgraduate programmes. Speakers working in various aspects of geosciences told students not just about their profession, but also their own journeys through study and work. These stories highlighted the many career pathways a geoscience degree opens, as well as the skills that practitioners will be able to develop and transfer as they develop their own unique path.

A commitment to diversity, equality and inclusion is now captured in the Society's strategy and rolling business plan. We are also signatories to the Diversity and Inclusion Progression Framework run by the Science Council and Royal Academy of Engineering. Under this framework we completed our third benchmarking exercise. In November, Council approved the Society's Code of Conduct for meetings and events. This code will apply to anyone attending a GSL event whether in Burlington House or offsite.

We were also pleased to host the launch event for Diversity in Geoscience (DiG) UK, the British chapter of the International Association for Geoscience Diversity. The event featured speakers looking at ways to make fieldwork more accessible in terms of both physical and mental health, practices that were put into place during a week-long field course in Anglesey in September 2018. We are looking forward to working with these organisations to continue to develop our policies and practices to best support an active, diverse, and professional workforce.

Strengthening the organisation

From the Treasurer



Following several strong financial years, the Society's full year 2018 outturn records a significant loss (-£649k), which may slightly surprise Fellows. The devil is in the detail here and I will discuss the underlying financial performance of the Society including several exceptional items.

Income in 2018 was comparable with 2017 at £5.8M, bucking a historic rising income trend. Expenditure of £6.2M (2017 £5.5M) exceeded budget, reflecting certain unforeseen costs, an absence of forecast income growth in several areas and certain exceptional charges discussed below. From an expenditure perspective, since rent demands had not been received since 2014, all of the Courtyard Societies have provided for rent on an uncertain, estimated basis. In parallel with lease discussions with the landlord, outstanding rent has now been invoiced, exceeding estimates by c. £200k. This will be met through the Society's building fund, but is a significant contribution to the 2018 outturn, in addition to costs incurred in several other areas, particularly in finalising the customer relationship module (CRM). I hope to be able to update on the lease status at the 2019 AGM.

The 2018 outturn of -£649k also reflects several unrealised and exceptional items. Due to financial market volatility, the value of the Society's investment portfolio fell by £427k, despite the early adoption of a more defensive investment position. As of March 2019 the portfolio value has substantially recovered in line with global markets. Council approved a comprehensive investment policy in 2018, and work continues to assess the scope to develop the ethical aspects of this policy. A thorough balance sheet review by newly recruited Director of Finance and Operations, Alex McPherson, has necessitated charges in connection with the accumulated cost of Publishing House sales (-£156k) and with the write-off of certain historic debtor balances (-£63k). This process is part of a wider review of financial and procurement processes, which is expected to generate future benefits including long term cost savings.

On the positive side, the Society deliberately liquidated a significant part of its US dollar currency holdings, contributing towards realised and unrealised foreign exchange gains of £129k.

From an operational perspective, the upgraded CRM and financial management software finally went live in 2018. This has been a difficult process exacerbated by factors including the complex and bespoke historic processes utilised in several areas of the Society's activities, and work continues to improve system stability and the user experience. An overhaul of the Society's staff remuneration structures was conducted in 2018, leading to a revised salary and benefits structure, aligned to the Society's annual 'business plan' goals. The forbearance of staff during this lengthy process is appreciated.

The delayed CRM and departure of several long term staff members in 2018 set back an overdue improvement of systems and processes. However new staff in the Publishing House and in Burlington House have brought an enthusiasm and refreshing willingness to consider how the Society can better function. This organisational strengthening and a process of culture change within the organisation can be expected to gain momentum in 2019 as new and old staff collaborate to develop the Society. It is hoped that the settling in of new staff will alleviate a general concern regarding the high level of demand being placed on staff in several parts of the organisation. By addressing our systems, processes and resourcing, 2019 will continue an overall organisational strengthening process, to allow the Society to better undertake its core purposes, serving science, society and Fellowship.

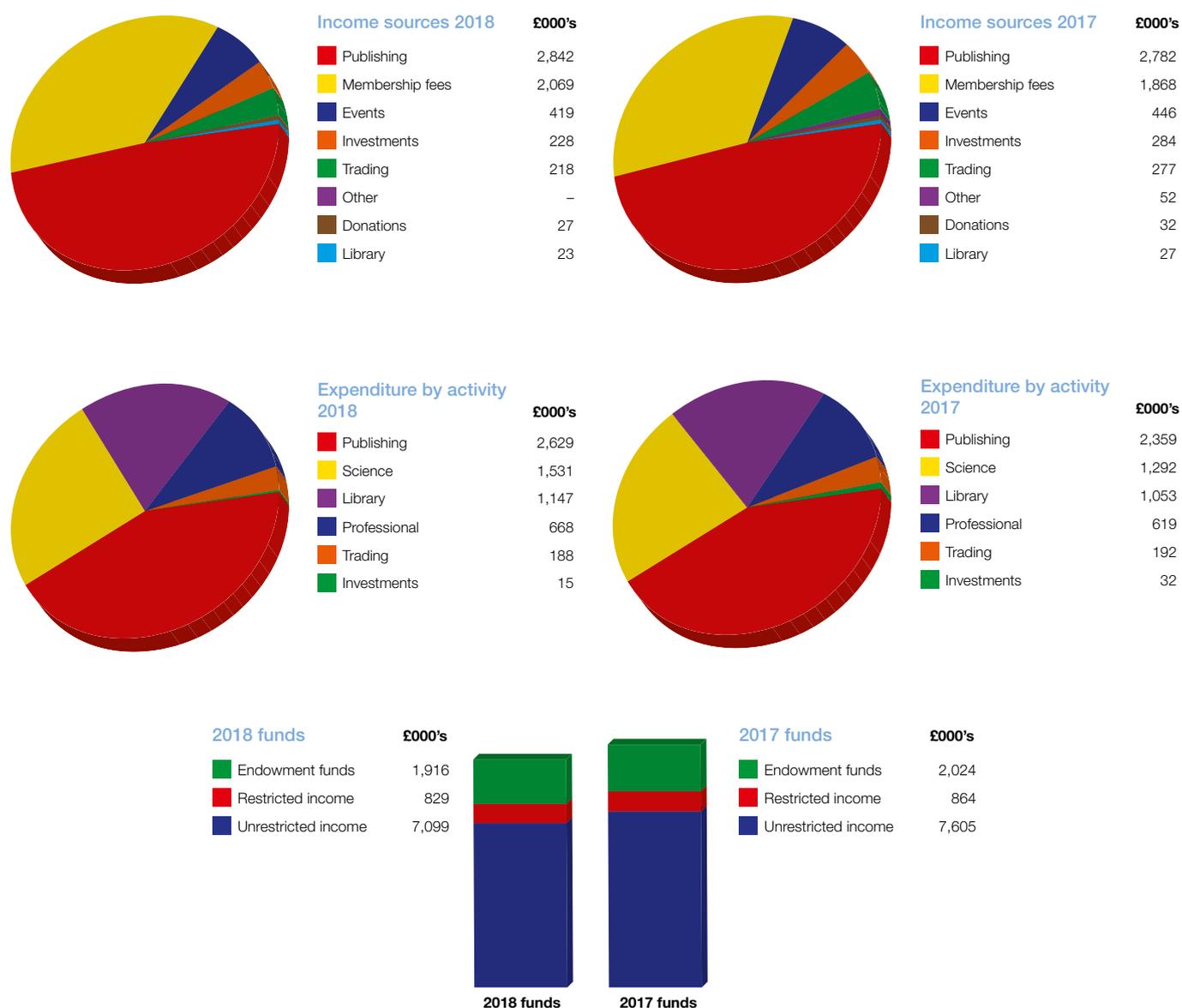
A handwritten signature in black ink, appearing to read 'Graham Goffey'.

Graham Goffey

All figures in this report are subject to final audit confirmation.

Society finances 2018

The full financial report and accounts, and a PDF of this Review, may be downloaded at www.geolsoc.org.uk/annualreview2018



It is important to note these figures are unaudited and subject to amendment.

Corporate Affiliates

The Society extends its sincere thanks to all its Corporate Affiliates

Platinum



Gold



Silver



Bronze

Anadarko Petroleum Corporation (UK); Anglo American; Blue Water Energy; C&C Reservoirs Ltd; Cardinal Resources; CGG; Condor Gold; Cornish Lithium; ENI UK Ltd; ERC Equipoise Ltd; Getech; Heritage Oil (UK) Ltd; Ikon Science Ltd; INEOS Upstream Ltd; John Wiley & Sons Ltd; CNOOC Petroleum Europe Ltd; Norton Rose Fulbright; NPA CGG Services (UK) Ltd; Ophir Energy; Petrofac; PGS Exploration Ltd; Premier Oil; Ramboll UK Ltd; Reabold Resources; RPS Energy; Sasol; Siccar Point Energy; Tarmac; Terrafirma Search; Tullow; Wood Mackenzie.

If your organisation would like to find out more about the benefits of becoming an Affiliate, please contact jenny.boland@geolsoc.org.uk

In addition to the companies listed above, 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.



The Geological Society

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

T: +44 (0)20 7432 0999 (Library)
F: +44 (0)20 7439 3470
E: library@geolsoc.org.uk
W: www.geolsoc.org.uk

© The Geological Society of London May 2019

Registered Charity No. 210161

Cover: 'Stepping Stones' c. Nigel Bell. (The Giant's Causeway, County Antrim.) Second prize in our 2018 Earth Science Week photography competition.

Text: Alicia Newton, Florence Bullough, Sarah Day
Editor: Sarah Day
Designed and printed by Witherbys