

The Society's journey towards Open Access publishing

Publishing is a vital contribution to the Geological Society's mission to advance and share knowledge of planet Earth and beyond, for the benefit of humanity

THE SOCIETY HAS been involved in scientific publishing since 1811 when the *Transactions of the Geological Society of London* was first produced. The Society now publishes research from a global authorship across eight journals and several well-known book series that are mainly hosted, alongside our historical content, on the Society's online hosting platform, the Lyell Collection.

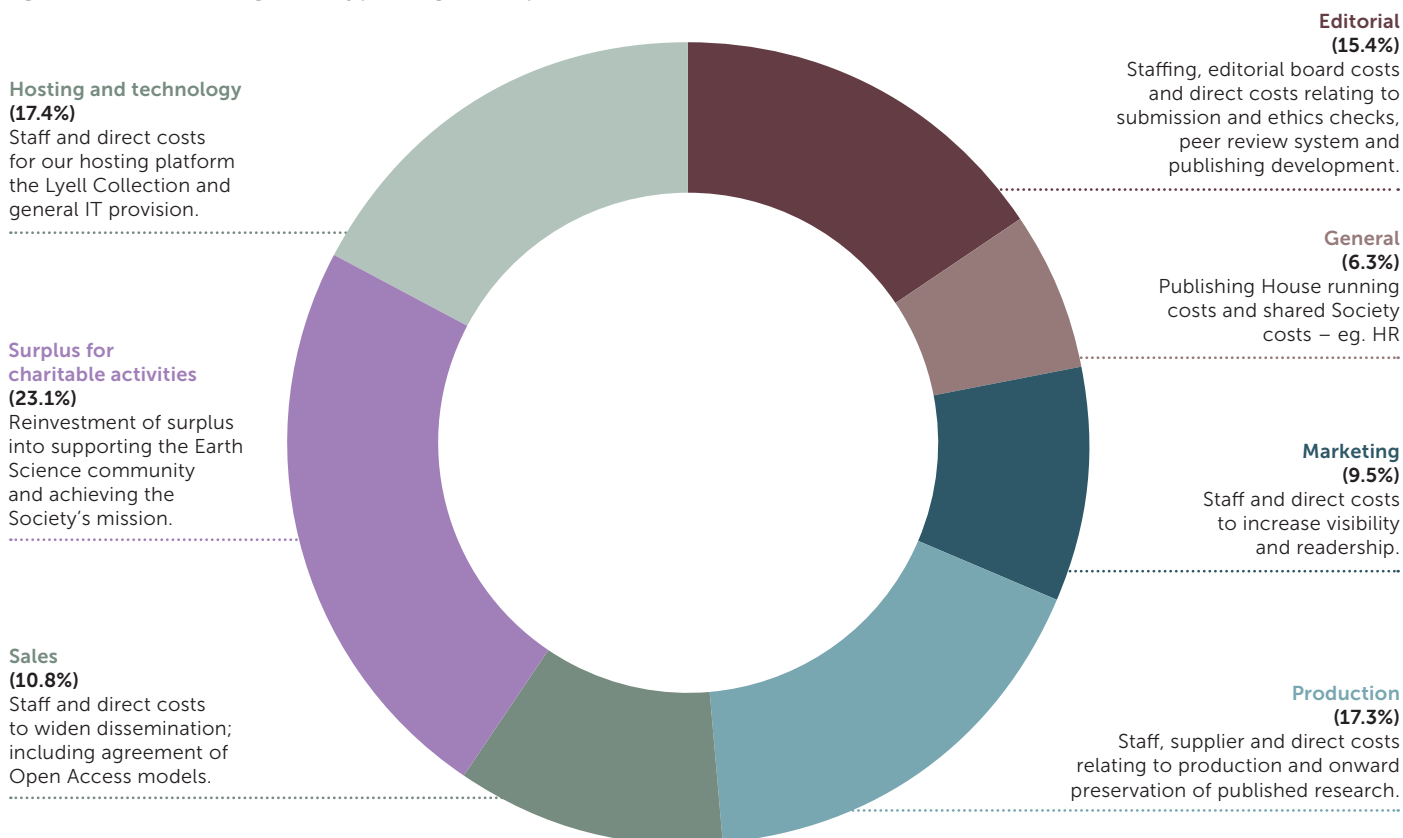
As a major international Earth science publication platform, the Lyell Collection is available to subscribing academic institutions, government bodies, museums and corporations around the world. Organisations pay an annual subscription for access to our content. The revenue generated from these subscriptions is a significant source of funding – over 50% of the Society's total annual income – for the Society's charitable activities: including our education, outreach and policy work.

Publishing with the Society

The publishing processes and services provided by the Society are well-established and trustworthy. While the Society has largely moved to electronic-only publication, publishing is so much more than putting a file on a website, and the Society's Publishing House staff maintain a professional service across all aspects of the publishing process. Figure 1 shows a breakdown of how our publishing revenue is spent.

We invest in the provision of specialist systems and processes that ensure rigorous peer review and support for our expert editors and reviewers. The Publishing House provides a dedicated and consistent staff member from submission to publication so that authors, reviewers and editors receive excellent customer service and papers are processed professionally. This includes alignment with ethical policies, checking for plagiarism and ensuring

Figure 1: Breakdown of Geological Society publishing revenue spend



correct statements about data availability and the roles of contributors. This removes administrative hurdles for those providing volunteer services so they are able to focus on the science. Publishing House staff support the editorial boards with the commissioning of papers and journal development to provide content of high topical relevance for the publications' communities.

At acceptance, articles are assigned a Digital Object Identifier (DOI) and are made available almost immediately on our online hosting platform, the Lyell Collection. Meanwhile, articles undergo high-quality copy editing by our in-house staff or a pool of native-English-speaking, trusted freelancers. Typesetting and machine-readable XML creation is undertaken by our long-standing supplier and checked by our staff. This is necessary for inclusion in discovery services and scholarly indexes that ensure more readers can find your research. We maintain the final version of record in perpetuity and facilitate retractions and corrections to maintain the scientific record.

We invest heavily in the Lyell Collection – our hosting platform – to improve user experience, recognising the practicality for researchers of having a dedicated, integrated and accessible Earth science resource. The Lyell Collection also provides tools that allow authors to quantify the reach and impact of their research at an article level. Our sales and marketing teams develop new models to advance Open Access (OA) and promote the Lyell Collection and individual articles to raise visibility, increase dissemination globally and maximise readership.

“The Publishing House provides a dedicated and consistent staff member from submission to publication so that authors, reviewers and editors receive excellent customer service”

COMPLIANT PUBLISHING ROUTES FOR THOSE FUNDED BY UKRI OR cOAlition S FUNDERS

Earth Science, Systems and Society (ES³). A fully Open Access journal with a broad scope that has a special focus on cross-disciplinary research. ES³ has a generous waiver policy for article processing charges (APCs) to ensure it is an accessible venue for all authors.

Transformative Read-and-Publish Agreements. Over 50 institutions internationally are signed up to transformative read-and-publish agreements for the Lyell Collection. Eligible corresponding authors can publish unlimited Open Access articles of all types across seven hybrid journals and three book series and have the APC waived. You only need to submit using your institutional email address.

Transformative Journals. The Geological Society's journals have Transformative Journal status from cOAlition S and UKRI. You are allowed to use your funding to pay for APCs in these journals to make your article Open Access.

Contact the publishing team. If you are not sure about the routes listed above, publishing staff are on hand to help you. Visit www.geolsoc.org.uk/faq for more information.

Figure 2: Compliant publishing routes for those funded by UKRI or cOAlition S funders

As well as covering the running costs for the Publishing House, publishing revenue makes a significant contribution to the Society's operational expenses, such as its IT infrastructure. After costs, the surplus is reinvested directly into delivering other activities that are part of the Society's mission and into the Earth science community as a whole. These include our work to encourage school students to study Earth science through the Schools Geology Challenge, investment in our science programme and research grants, and support for the profession through policy work and our Chartership scheme.

Open Access

Since 2012, the Society has followed a 'hybrid' publication model and published some research OA in books and journals that are otherwise covered by subscriptions. These OA articles and book chapters are free for anyone to access and use regardless of whether they have a subscription. OA has been largely funded by Article Processing Charges (APCs) paid by the authors of the research, normally from their funding. Reflecting the differences of authorship and funding across the

geosciences, the proportion of OA articles published by the Society has been traditionally fairly low at around 12%, but this figure is rising.

Funders recognise the benefits of OA publishing and are increasingly putting in place mandates that require grant recipients to publish in fully OA journals or those that are committed to transitioning to OA. Geoscience and geoscientists have a crucial role to play in addressing global challenges such as climate change, the energy transition and natural hazards, so the publication of research OA is hugely advantageous. It widens dissemination and allows researchers and practitioners worldwide to utilise findings. Ensuring that a transition to OA is sustainable for the Geological Society and globally equitable is the challenge.

Open Access at the Society

We believe that all authors should have the opportunity to publish with the Society regardless of their funding status. We offer a variety of routes for those who need to comply with OA policies from funders such as UK Research and Innovation (UKRI; www.ukri.org) and Plan S (an initiative for OA publishing supported by →

the international consortium of research funders, cOAlition S; www.coalition-s.org), as outlined in figure 2. These include publication in our fully OA journal *Earth Science, Systems and Society* (ES³; www.escubed.org), or using funding to pay for an APC in our hybrid journals that have achieved ‘Transformative Journal’ status – given by cOAlition S and UKRI to journals who agree to steadily increase OA content year on year.

The Society has also developed transformative read-and-publish agreements, which are a sustainable mechanism to increase the volume of OA content within a hybrid publication. These seek to transition an institution’s subscription (or ‘read’) spend over time to fully OA publishing in the Society’s journals and books. The Society has around 50 transformative read-and-publish agreements globally, including 27 in the UK, which allow corresponding authors in eligible institutions to publish on an OA basis and have their APC waived. Eligibility is identified by our staff at article submission, and this is one of the simplest routes to complying with an OA mandate.

The Society’s transformative routes are having a quick and positive impact, leading to the volume of published OA content increasing from 10% in 2021 to 19% in 2022.

OA is not synonymous with lower quality and all articles submitted to the Society receive the same service and un-biased review. For those who do not wish, or are unable, to publish OA in our hybrid journals (shown in figure 3) or books, publication will continue to be at no cost to the author. We also offer a generous range of discretionary APC waivers for OA publication in ES³.

Fairness and transparency

We are a long-time supporter of the San Francisco Declaration on Research Assessment (DORA; www.sfdora.org) and have for many years presented journal metrics transparently on our website and in context. We allow pre-printing and also have an openly available transparent pricing mechanism ensuring that subscription income is not gained

Hybrid Publications (authors choose to publish behind a paywall or Open Access)	
Journal of the Geological Society	Geological Society Special Publications
Quarterly Journal of Engineering Geology and Hydrogeology	Engineering Geology Special Publications
Petroleum Geoscience	Geological Society Memoirs
Geoenergy (new for 2023)	Geochemistry: Exploration, Environment, Analysis
Scottish Journal of Geology	Proceedings of the Yorkshire Geological Society
Fully Open Access Publications (require payment of an APC or a waiver)	
Earth Science, Systems and Society (ES ³)	

Figure 3: List of Geological Society publications

“The Society seeks to keep our article processing charges as low as possible while also ensuring that costs are covered now and in the future. Our transformative agreements are fairly costed, administratively simple for authors and librarians and, most importantly, are unlimited, which means they do not run out midway through the year”

for articles for which we have received an APC, otherwise known as ‘double dipping’. The Society seeks to keep our APCs as low as possible while also ensuring that costs are covered now and in the future. Our transformative agreements are fairly costed, administratively simple for authors and librarians and, most importantly, are unlimited, which means they do not run out midway through the year.

The Geological Society operates at a scale, and with a philosophy very different to that of the large commercial publishers, though we are often lumped together as a homogenous industry. As a self-publishing Society, we have the flexibility to determine our own path to OA that is most appropriate for us. We have a

responsibility to ensure that the Society is financially stable, that we are inclusive and that the quality of service and content that we are known for is maintained. We do not have all the answers, but we have made clear forward progress and will continue to have our membership, the geoscience community and society as a whole at the forefront of our decision-making. ©

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