THE GEOLOGICAL SOCIETY OF GLASGOW

Newsletter - December 2026

Lecture Programme 2026-2027

Venue: Kelvin Hall lecture theatre. Talks start at 7pm and will be recorded but not live streamed. The recordings do not include the Q&A so if you want to meet the speaker or are likely to have questions then we encourage you to attend in person. You can meet the speaker afterwards and have tea/coffee/biscuits with fellow members in the Activity Room (Geonatter Room).

Thursday 10th December 2026: *Three short talks from student grant awardees*

"Magnetic Fabric of the Isle of Rum Eastern Layered Intrusion"

Rebecca Richardson, University of St. Andrews



The Isle of Rum Eastern Layered Intrusion hosts Cr-spinel seams and associated PGE deposits analogous to larger-scale economic deposits, yet the processes through which the layers and Cr spinel seams formed remain inconclusive in the literature. Anisotropy of magnetic susceptibility (AMS) is a technique that uses the magnetic properties of minerals to provide a proxy for petrofabrics, widely used to understand emplacement processes of igneous bodies. This study combines field observations, microstructural analysis and AMS fabrics to interrogate existing layer emplacement models of the Rum Eastern Layered Intrusion and the implications of this on Cr-spinel seam formation. Findings suggest that the Eastern Layered Intrusion formed from repeat magma replenishment events into a horizontally convecting magma chamber, supporting the hypothesis of in-situ Cr-spinel seam formation through assimilation of the crystal pile at the base of the magma chamber.



Rebecca graduated in July 2026 with an Integrated Masters in Geology from the University of St Andrews, where she undertook her dissertation on the Isle of Rum Eastern Layered Intrusion. During her studies, she undertook a year of study abroad involving a semester at the University of Melbourne and a semester at the University of Auckland where she explored her interests in mineral exploration and engineering geology respectively. In the summers of 2025 and 2026, she field-assisted two mapping-based PhD projects in northwestern Namibia, further enhancing her geological mapping skills she developed throughout her studies. Rebecca has recently begun her role as a Junior Engineering Geologist at AtkinsRéalis in Glasgow, using her geological understanding to contribute to large scale infrastructure projects and originate geotechnical assessment reports.

"Magnetic fabric and microstructural evidence for gravitational subsidence in the Bjerkreim–Sokndal layered intrusion, SW Norway"

Olivia Grime, University of St. Andrews

Layered intrusions are large bodies of magma that cooled slowly and built up stacks of mineral layers, a little like sedimentary strata. They host some of the world's most important deposits of iron, titanium and vanadium. The usual view is that the layering forms first and controls where the ore ends up. But what happens to a crystal-rich magma body as it continues to move after the layers are laid down?

The 230 km² Bjerkreim–Sokndal intrusion (BKSK) in the Rogaland Igneous Complex of southwest Norway is folded into a large basin-shaped structure. This is thought to have formed as the dense intrusion sank into its surroundings while it was still partly molten. In this talk I present results from fieldwork near Teksevatnet, funded by the Society, through Megacyclic Unit IV, one of the BKSK's ore-bearing units. I combine field measurements, anisotropy of magnetic susceptibility (AMS) and thin-section microstructures to trace how the intrusion deformed as it cooled.

The mineral fabric cuts across the original layering, and the angle between them grows steadily up through the unit. Microstructures record a progression from deformation in the presence of melt to high-temperature deformation of solid rock. Together these point to continuous deformation during subsidence rather than a single later event. They also raise the question of whether ore distribution in layered intrusions owes as much to deformation as to how the layers first formed.



Olivia graduated from the University of St Andrews with a BSc (Hons) in Geology. Her dissertation used magnetic fabrics and rock microstructures to investigate how the Bjerkreim-Sokndal layered intrusion in southwest Norway deformed as it cooled. Fieldwork for the project was carried out in the summer of 2025 with generous support of the Geological Society of Glasgow. The intrusion hosts significant iron-titanium-vanadium deposits, and the project sparked an interest in how geological processes control the distribution of critical raw materials. Olivia is now studying for an MSc in Applied Environmental Sciences at St Andrews, with a view to pursue a career driving the energy transition.



"Early Continental Rifting; North Qooroq, South Greenland"

Dan Turkington, University of St. Andrews

Dan is representing a group of four geology undergraduates studying at the University of St Andrews. They undertook an expedition in August 2026 to create a detailed geological map of the North Qooroq region in Southern Greenland. This area holds unique evidence preserved in the rock record that may answer how rifting begins in continents and holds potential ore bodies enriched in rare earth elements (REE) and high field strength elements (HFSE).

Upcoming Lectures

14 Jan (AGM) Susannah Maidment (By Zoom) Natural History Museum, London. New research on Stegosaurs

11 Feb David Webster: Geology of South Shropshire (provisional)

11 Mar Hannah Mathers. Deglaciation of Scotland

8 April Victor Hunderboll. Geochronology and geochemistry in the Kintyre peninsula.

Previous Lectures

Recordings of previous talks can be found on the Society website at https://geologyglasgow.org.uk/past-lecture-recordings/ and on the YouTube channel at https://www.youtube.com/channel/UCfNSIvgEbUfLWMsCeNiRm1w

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Annual General Meeting

The Society's AGM will be held on Thursday 14th January at 7pm. It will be online by Zoom and will be followed by the January lecture.

A zoom invitation will be included in the January newsletter

The Agenda, Previous Minutes, the Proceedings (containing officers reports and the annual accounts), proposals for constitutional changes, election of Council officers and other business will be emailed early in January.

The Constitutional changes being proposed by Council are minor and are in effect tidying up of some clauses but nevertheless we require Member appoval for these.

Down to Earth

December episode of Extra here

Residential excursions 2027



South Shropshire

Leader: David Webster

Dates:12-16 April

Base: Church Stretton

Travel: By train to Church Stretton or by private car. We are hoping that there will be enough seats in shared private cars to visit the localities on the field days. The option to use a local minibus with a driver is being pursued. Accommodation: Self book.

The aim of the trip is to visit key localities in the Precambrian, Cambrian, Ordovician and Silurian on the Gondwanan margin of the Iapetus Ocean (the Avalonia microcontinent), get a feel for the geological evolution and compare it with similar-aged successions on the more familiar Laurentian margin exposed in Scotland. We will spend some time fossil hunting and also visit some excellent museums Great scenery, easy walking and lots of geological history.

Contact Lindsay at excursions@gsocg.org for more details and to register interest.

Arran & Mull

We are looking at running residential trips to Arran in September 2027 and Mull in spring 2028. Watch this space for more details!

Geosites Project

The Scottish Geology Trust's Geosites project, which was launched in June 2023, aims to put all of Scotland's best geology sites on an interactive, online map, making it easy for anyone to find sites, learn about them, and report any damage or deteriorating conditions.

The Society has set up a new Glasgow Geosites Group to succeed the Strathclyde Geoconservation Group. All society members are invited to participate. The Group will organise a number of field days to visit and examine selected geosites in the Greater Glasgow area and add site information and photographs to the Geosites system.

Further information, links to the Geosites system and a list of sites in the 'Greater Glasgow' area can be found on the Society website at https://geologyglasgow.org.uk/geosites-project/, or email geosites@gsocg.org

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New members

The Society welcomes our new members:

Michael Wedderburn
James Adey
Alexander MacSporran

Geonatter

Dates for remainder of 2026

16th December

1:30 to 3:30 Kelvin Hall Activity Room. Free

2027 Dates:

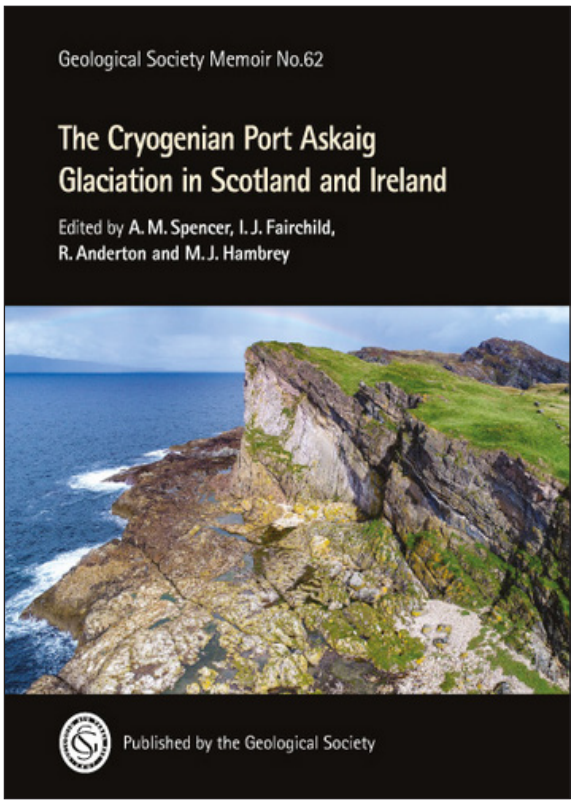
Third Wednesdays of the month. 20 Jan, 17 Feb etc.

Geological Hydrogen Generation Network

The annual meeting of the GeHyGeNet is at the Edinburgh Climate Change Institute (ECCI) on 3-4 December. It is an event around natural hydrogen, a low-carbon fuel with a fair bit of commercial interest: There is a great programme this year, with around 40 speakers and many international guests. If you are interested in geological/ natural hydrogen and related subsurface energy topics, please have a look at the agenda and register by Wednesday 25th November. Conference website, programme and registration: https://gehygenet.org/

GeHyGeNet

Recent Papers on Scottish Geology



Spencer, A. M., Fairchild, I. J., Anderton R. and Hambrey, M.J. (eds). 2027. The Cryogenian Port Askaig Glaciation in Scotland and Ireland. *Geological Society of London, Memoirs,* **62**, https://doi.org/10.1144/M62-000

The first 7 chapters (of 16) have now been published.

They can be accessed (Open Access) at:

https://www.lyellcollection.org/toc/mem/62/1

Chapter 1: The Port Askaig Formation – a celebrated 'tillite': its place in Neoproterozoic science and the history of its study

Chapter 2: Geology of the Garvellachs region and a 'standard' stratigraphic column for the Port Askaig Formation

Chapter 3: Sediment geochemistry and clast stratigraphy of the Port Askaig Formation

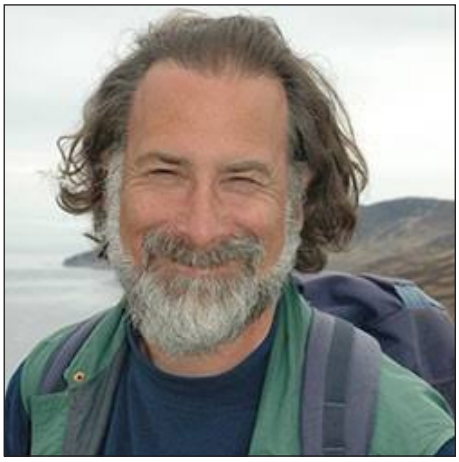
Chapter 4: Glaciogenic sediments and structures in the Port Askaig Formation on the Garvellachs and Islay

Chapter 5: Evidence for Periglacial Processes and Environments in the Port Askaig Formation

Chapter 6: Sedimentary mineralization: dolomite & iron oxides in the Port Askaig Formation and bounding formations

Chapter 7: The pre-glacial strata beneath the Port Askaig Formation and their sedimentary environments

Nance, R.D., Murphy, J.B. and Johnson, S.T. 2027. Tectonic processes in the circum-Atlantic orogens: A celebration of the career of Rob Strachan. *Geological Society, London, Special Publications*, **563**(1), gslspecpub2026-77, https://doi.org/10.1144/gslspecpub2026-77



This tribute to the career of Rob Strachan features articles that centre on Rob's field-based research interests in orogenic belts and orogenic processes in the circum-Atlantic region. The contributions are grouped according to the age of the orogenic belt: (i) Cadomian, (ii) Caledonian, (iii) Appalachian-Variscan, and (iv) orogenic models, and include topics ranging from field-based and analytical studies to conceptual tectonic analyses. Aimed at clarifying orogenic history through the study of the structural, metamorphic, magmatic, and geochronological record, the collection of papers provides a fitting complement to Rob's immense contribution to our understanding of orogenic belts.

Waldron, J., Barr, S., McCausland, P., Schofield, D., Wang, C., Schwangler, M., van Rooyen, D., White, C. and White, S. 2026. Deconstructing the Iapetus Suture: Terrane assemblage map of the northern Appalachians and western Caledonides. Geological Society, London, Special Publications, 563, https://doi.org/10.1144/gslspecpub2026-15

Dinosurs on the Web

T. rex was as warm-blooded as humans, new study finds. The dinosaurs were once considered reptilian, but the new results suggest we may need to rethink their evolution.
https://www.scientificamerican.com/article/t-rex-was-as-warm-blooded-as-humans-new-study-finds/



Birds: The dinosaurs that forgot to die Steve Brusatte. Royal Institution Lecture
https://www.youtube.com/watch?v=YzSAzPO-rv8

Geology Bites

Latest episodes:

Water in the Mantle with Rita Parai

Ed Brook on Antarctica's Oldest Ice

Videos:

Oliver has just released illustrated video editions of three Geology Bites episodes on YouTube: Esther Sumner on turbidity currents, Ed Brook on the oldest Antarctic ice, and Tony Watts on the mechanics of tectonic plates. As you listen, the photographs, diagrams and animations appear on screen as the guests describe them.

Esther Sumner on Turbidity Currents: https://youtu.be/dvgrUv7314E

Ed Brook on the Oldest Antarctic Ice: https://youtu.be/QOBScZ084-Y

Tony Watts on the Mechanics of Tectonic Plates: https://youtu.be/8ZghOV7zpHA

Also just released is an illustrated video edition of the Geology Bites episode with David Rothery on volcanism in the Solar System, as the space probe BepiColombo has just gone into orbit around Mercury. David is UK Lead Co-Investigator on MIXS, the spacecraft's X-ray spectrometer. From 17:40 he explains that Bepi will look for the explosive vents and the mysterious hollows that suggest Mercury kept far more volatiles than anyone expected.

BepiColombo's science phase begins in April 2027, and David has agreed to come back on the podcast once there are results to discuss. Watch it here: https://youtu.be/n-uiQ1seTv0?si=-CbjQgiXZLII3nz9

The audio-only version is at https://www.geologybites.com/david-rothery

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In Our Time

Some recent geo-themed episodes:

Megalosaurus

Misha Glenny and guests discuss how fossilised bones from a quarry in Oxford led to the first scientifically named dinosaur - before we even had the word 'dinosaur'.https://www.bbc.co.uk/programmes/m0032fqb

Seashells

Misha Glenny and guests discuss how the hard exoskeletons of marine life have fascinated humans throughout history and provide an insight into the ecology of the oceans. https://www.bbc.co.uk/programmes/m002ybkj

The Evolution of Trees

Misha Glenny and guests discuss the earliest trees and how, as species disappear over time, new trees can evolve even from species better known as house plants or vegetables. Listen out for mention of the Fossil Grove in the 'extra' piece at the end! https://www.bbc.co.uk/programmes/m002x5jl

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Do local communities or large museums better serve Scotland's fossil heritage? The case of dinosaurs on the Isle of Skye

Neil Clark has co-authored a article highlighting the importance of local museums, using the Staffin Dinosaur Museum as a case study. A worthwhile read in raising an awareness of local heritage and culture, the retention of specimens by locals for study or appreciation, and the repatriation of artefacts to communities.

More at https://onlinelibrary.wiley.com/doi/10.1111/gto.70039

The Geological Society of Glasgow

https://geologyglasgow.org.uk/

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