



THE GEOLOGICAL SOCIETY OF GLASGOW

Registered Scottish Charity No. SC007013

President: Dr. Neil Clark

www.geologyglasgow.org.uk

February 2019

161/3



Anticline in the Penton Limestone exposed at Penton Linns in the Scottish Borders. In southern central England the folded Carboniferous is buried beneath a Mesozoic cover. Dr. Bernard Besly will tell us more about these hidden rocks and the Variscan Orogeny in the March lecture (photo courtesy BGS).

In this newsletter:

- Lectures for March and April
- Residential and Day Field Excursions and Booking Form
- Gordon Todd Obituary
- AGM Report

Lecture Meetings

All lectures are held in the *Gregory Building, University of Glasgow, Lilybank Gardens, Glasgow G12 8QQ* (unless otherwise noted). Meetings commence at 7.30 pm. For more information please contact the Meetings Secretary: meetings@gsocg.org

Thursday 14th March 2019

Dr Bernard Besly, University of Keele.

Reconstructing the Variscan foreland basin in Southern England

A full reconstruction of the Variscan orogeny in southern Britain has yet to be achieved. This mountain building episode remains enigmatic, partly because much of the evidence is covered by younger sedimentary successions, and partly because much evidence was removed by very extensive uplift and denudation in the \pm 40-million-year time gap between the latest preserved Carboniferous sediments and the resumption of deposition in the late Permian.

One of the unsolved elements of the puzzle concerns the extent and nature of subsidence related to foreland loading in southern England. In this talk the nature and extent of late Carboniferous foreland subsidence is evaluated with reference to coal and oil exploration results from successions concealed beneath the Mesozoic in Oxfordshire and Berkshire, which allow demonstration of the timing and extent of foreland basin development in the penultimate stages of Variscan deformation.



Bernard is an independent petroleum geologist and Honorary Research Fellow at the University of Keele. His career has embraced periods as a lecturer at Keele and exploration geologist at Shell. Since 2001, working as a freelance, he has undertaken many sedimentological and stratigraphic projects in clastic successions from all depositional environments, ranging in age from Proterozoic to Pliocene and having a particular focus on continental deposits in humid tropical settings. From his PhD project onwards his research has been concerned with basin evolution in the British Carboniferous, with emphasis on the late Westphalian and Stephanian molasse basins associated with the Variscan orogeny.

Background reading:

Besly, B.M. & Kelling, G. (eds) (1988) *Sedimentation in a synorogenic basin complex: the Upper Carboniferous of northwest Europe*. Blackie, Glasgow.

Corfield, S. M., Gawthorpe, R. L., Gage, M., Fraser A. J. & Besly, B. M. (1996) Inversion tectonics of the Variscan foreland of the British Isles. *Journal of the Geological Society*, **153**, 17-32.

Peace, G.R. & Besly, B.M. (1997) End-Carboniferous fold-thrust structures, Oxfordshire, UK: implications for the structural evolution of the late Variscan foreland of south-central England. *Journal of the Geological Society*, **154**, 225-237.

Thursday 11th April 2019

Dr. Ian Allison, University of Glasgow

The Geology around Disko Bay, West Greenland

Iain has been leading excursions to the NW Highlands for the Open University Geological Society for almost 20 years and on recent excursions he has considered other areas to visit where similar rocks could be seen. The Lewisian Gneisses of NW Scotland are part of the Laurentian shield of Archaean and Proterozoic basement gneisses which extend westwards across Greenland into Canada.

In Greenland there is a large area dominated by Archaean rocks akin to our Scourian gneisses which are cut by wide doleritic dykes equivalent to the Scourie Dykes. To the north of this Archaean block lies the Nagsugtoqidian belt of reworked gneisses of lower Proterozoic age which are akin to the Laxfordian gneisses. In addition, on Disko Island there occur thick sequences of basaltic lava and related rocks of Palaeogene age just like our Palaeogene volcanics along the western seaboard in Skye, Mull, Ardnamurchan etc. Thus, Disko Bay shows familiar rocks in a very unfamiliar setting. A group of 12 spent two weeks in the summer of 2018 in west Greenland, starting in the capital Nuuk, before heading north on the coastal ferry to a base in Disko Bay, Ilulissat. From there the group spent time in two communities, Qeqertarsuaq on Disko Island and Gasigiannuit in the south-east corner of Disko Bay.

This talk will cover aspects of the Archaean and lower Proterozoic gneisses and, on Disko Island, their cover of Palaeogene volcanics but also the impressive glacial scenery and culture in west Greenland. A Society field trip is being planned to Disko Bay in 2020.



Following a post-doc at the University of Western Ontario, Iain came to Glasgow 40 years ago to join the Department of Applied Geology of the University of Strathclyde. In 1989 the department closed and staff and students joined the department in the University of Glasgow to form the new Department of Geology and Applied Geology. Most of his research focussed on the NW Highlands in the Moine Thrust Zone and the unconformity of the Cambrian rocks on the Lewisian gneisses although there was brief research project based on the southern coastal area of Yemen. When the department was reorganised into Earth Sciences, he joined the Science Faculty Office and became the Principal Adviser of Studies for the final years of employment and has now been happily, and busily, retired for 7 years.

Background reading:

Campbell, Nancy. (2015): *Disko Bay*, Enitharmon Press

Glassley, William. (2018) *A Wilder Time*, Bellevue Literary Press

Henrikson, Niels: *Geological History of Greenland*, GEUS 2005

Thursday, 9th May 2019

Members' Night

Short presentations by members of the Society. Members' Night is an opportunity for Society members to give short presentations or displays about their own interests and adventures in geology. If you are interested in presenting then please contact the Hon Secretary, Walter Semple, either by email at sec@gsocg.org or by using the form at the end of this newsletter.

Residential Field Excursions 2019

For further information contact Maggie Donnelly by email at restrips@gsocg.org

Islay

April 26th – April 29th 2019

Leader: David Webster

Please note that this excursion is fully booked. Please contact Maggie Donnelly to go on the waiting list.

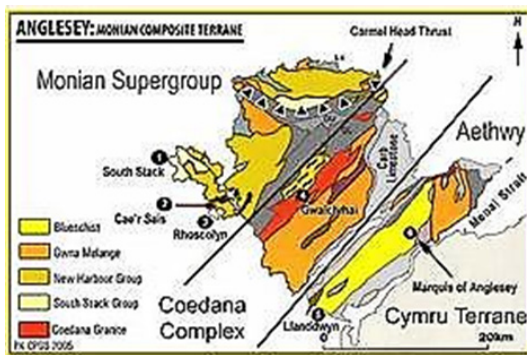
The Geology of Anglesey

September 22nd - September 27th 2019

Leader: Dr Chris Arkwright

This is a 5-night trip with 4 days in the field.

Anglesey is regarded as a 'classic' area of British geology – while its oldest rocks appear to be unrelated to those of the rest of the British Isles, the remainder provide a detailed record of events which led to the formation of southern Britain. Formed 300 – 650 Ma, they include high grade gneisses, a granite pluton, metasediments, sandstones, mudstones and the famous Anglesey Blueschists. There



are also Paleogene dykes and abundant glacial features. A number of NE – SW faults slice the island into blocks; these are thought by some geologists to mark the location of an ancient subduction zone. The original map was published in 1920 and BGS is currently undertaking a project of new research into the island's geology.

see: www.bgs.ac.uk/research/ukgeology/wales/angleseyNorthWales.html.

Accommodation will be in B&B and means of travel has yet to be decided

The trip is now almost full so if you wish more details please email Maggie Donnelly.

Day Excursions 2019

We have a varied set of excursions for this summer and hope that you will find something that interests you. A booking form is included in this newsletter. If you would like an electronic form then please email the day excursion secretary. As usual, the number of places available on the excursions is limited by the size of the bus, so please return your booking form as soon as possible to avoid disappointment. You may also note that the deposit is higher than previous years. This is due to workplace pensions and National Living wage pushing up the bus company costs. If numbers permit, hopefully some refunds to you may be possible.

Please complete the attached form, including details of who you would like us to contact in the event of an emergency.

Applications will be acknowledged to the email address you supply.

The form should be returned to: Roy Bryce,

email: daytrips@gsocg.org

Saturday 1st June: Oil Shale & Mining Museums Visit

Leader: Dr Iain Allison

Purposely designed to be less physically demanding than our usual excursions, we will visit the Scottish Shale Oil Museum at Almond Valley, followed by a look at the local mining bings, then on to the Scottish National Mining Museum at Newton Grange Colliery. Multiple opportunities for coffee and cake if required!

Leaving Gregory Building at 9:00, returning at 16:00, travelling by coach

Saturday 22nd June: Blairskaitth Quarry

Leader: Dr Neil Clark

Joint Excursion with the Edinburgh Geological Society.

Blairskaitth Quarry is set into the southfacing slopes of Blairskaitth Muir between Torrance and Milngavie. A brick-clay pit abandoned since the late 1970s, it is significant for both its abundant extinct fossils and habitats supporting a variety of plant and animal life, with large shallow pools of water that last throughout the year and some well-drained lime-rich soils. The quarry is a Local Nature Conservation Site. Following our time at the quarry we will head to the Torrance Inn for an evening meal.

Leaving Gregory Building at 9:00, returning at 19:00, travelling by coach

Saturday 6th July: St Abbs Head

Leader Dr Con Gillen

St Abb's Head is a rocky promontory by the village of St Abb's in Berwickshire, and a national nature reserve administered by the National Trust of Scotland. The layered sedimentary rocks of greywacke and siltstone which lie to the north and south of the Head were laid down at the bottom of the sea between 460 and 410 million years ago.

The Head itself is made from hard volcanic rock which formed as lava flowed from volcanoes around 400 million years ago. The different type of rocks accounts for the contrast in colour between the rocks of the Head and those of mainland cliffs. The softer sedimentary rocks have eroded over time, leaving behind the high headland made from the harder rock.

Leaving Gregory Building at 9:00, returning at 19:00, travelling by coach

Saturday 27th July: Ballantrae

Leader: Dr Con Gillen.

The Ballantrae region is of international importance because of the presence there of the Ballantrae Complex, an association of serpentinite, chert and pillow lavas that represents an ophiolite. There are many interesting geological localities in this area. Con is currently assessing which sites to visit on our excursion bearing in mind accessibility to a coach party and time limitations.

Leaving Gregory Building at 9:00, returning at 18:00, travelling by coach

Saturday 17th August: The Northern Lake District

Leader: Dr Simon Cuthbert

As an experiment, we are trying a slightly longer trip this year in the hope that fewer of our members have already seen the geology. We are assuming around 3 hours on the bus each way. The trip is a walk of about 2.5km up the Glenderaterra valley from the car park at the Blencathra Field Centre with 4-6 stops along the path (minimum of four), returning the same way, so a total of 5km of easy going. The main theme is contact metamorphism and mineralisation in the Skiddaw slate around the Skiddaw granite. There are pubs in Threlkeld and the intention is to head there for an evening meal around 5pm before heading back up the road.

Leaving Gregory Building at 9:00, returning at 21:00, travelling by coach

Saturday 7th September: Dalry & Saltcoats

Leader: Dr Colin MacFadyen.

We surveyed some members asking if they had any requests for places to visit this summer. Several members stated that back in 2002 they had thoroughly enjoyed an excursion to Dalry and Saltcoats – could we go there again. We are therefore recreating this visit with the same leader and hopefully the same glorious weather that accompanied the original trip. Trilobite-bearing limestone, exotic sills, dykes and fossilised trees are all on the menu.

Leaving Gregory Building at 9:00, returning at 18:00, travelling by coach

News and Topical Articles

Obituary: James Gordon Todd (1951-2018)

Gordon was born in 1951, in Pune, India, where his parents worked as Church of Scotland missionaries. His father Bill ran the mission hospital, while his mother was a schoolteacher. The family returned to Scotland in 1957, and Gordon's interest in geology and natural history was nurtured on family holidays on the Ayrshire coast, Arran and around Montrose, where collecting became a favourite activity. Most of Gordon's senior school education was at Greenock Academy, although he spent 1966 in Chingola, Zambia, where his father worked as a medical officer with the Anglo-American Mining Corporation. This provided him with fantastic opportunities for collecting minerals and insects. Even



after returning to school in Greenock, Gordon revisited Africa during summer holidays to collect minerals, shells and insects. Following in his father's footsteps, he studied medicine at the University of Glasgow, graduating in 1975. Apart from a short period in New Zealand, his working life was spent in Scotland, where in the 1980s he became a consultant anaesthetist in Glasgow, working in surgery across several hospitals, and teaching students.

Gordon loved the outdoors, and was a passionate hill-walker, rock-climber, potholer and kayaker, and he deployed all these techniques in his mineral and fossil collecting. He collaborated widely on fieldwork and collecting with many other collectors (notably Kemp Meikle, David Anderson, Michael McMullen, Simon Ingram and David Green) and museum geologists from the Hunterian and National Museums Scotland. In 1994, he opened his museum of Scottish mineralogy in a secure and beautifully fitted-out building in his garden in Kilbarchan. Gordon loved sharing stories, science and specimens and the museum became something of a shrine for Scottish and visiting mineral collectors, as well as jealous museum curators. He lectured widely on minerals and collecting to a wide range of audiences, his sense of humour and enthusiasm giving his talks a unique and compelling flavour. As well as collecting specimens, Gordon purchased Scottish minerals and fossils, acquiring some wonderful old-time specimens from classic localities such as the Leadhills-Wanlockhead mining district, as well as newly collected material from collectors such as Stan Wood and Mike Wood. In 2010, he opened an indoor extension to his mineral museum to cover broader natural history themes and display shells, fossils and insect collections, as well as even more minerals. Gordon was a member of the Geological Society of Glasgow from 1984 until his death. He served on the society's council and gave many presentations and talks on members' nights, covering his mineralogical and palaeontological collecting and research (see below). He was a co-author, with Dr Chris Burton, of the chapter on Trearne Quarry in the society's excursion guide to the Glasgow and Girvan area, published in 1992. He was also active

in the Russell Society and the Paisley Natural History Society, among others. In addition to medical research papers, he published a wide range of papers on Scottish mineralogy based on his collecting work, mostly in the UK Journal of Mines and Minerals. He was also very happy to lend and share specimens with museums, and his specimens were included in exhibitions at Girvan, Paisley Museum, Pollock House, National Museums Scotland, and the Hunterian, among others. In 2003, the Hunterian put on a major exhibit of his material—"The Cabinets of Dr Todd", occupying several cases in the Ewing Room of the museum. Gordon was one of a small number of contemporary collectors featured in the NMS book "Minerals of Scotland: Past and Present", written by Alec Livingstone and published in 2002. In 2012, a book "The Cabinets of Dr Todd", celebrating his life and collections, was published by his family, but by this time he had begun to suffer from an aggressive form of dementia, which cruelly curtailed his active and sociable life. His wife Pamela, and "Team Todd" helpers, including his children, Chris and Claire, cared for him at home, until his eventual death in December 2018. The quality, extent, scope and documentation of his collection, and the beautiful displays in his museum spaces mark out Gordon's collection as one of the most remarkable ever assembled in Scotland. He discovered new localities, rediscovered old ones, and loved working to enthuse others, and to preserve, document, and share Scotland's mineralogical heritage on a scale that few other individuals have matched.

John Faithfull, The Hunterian, University of Glasgow

Geological bibliography

Todd, J.G. 1989. Minerals of Trearne Quarry, Beith Ayrshire, Scotland. *UK Journal of Mines and Minerals*, **6**, pp. 18-20.

Todd, J.G. & Lawrence, D.W.A. 1989. Muirshielmine, Central Scotland. *UK Journal of Mines and Minerals*, **7**, pp. 40-43.

McMullen, M.J. & Todd, J.G. 1990. Mineralization of the Kinharvie Burn, South West Scotland. **8**, pp.43-45.

Todd, J.G. & McMullen, M.J. 1991. Vein minerals of Mannocho Hill, Scotland. *UK Journal of Mines and Minerals*, **9**, pp.35-38.

Todd, J.G. 1992. A late-Devensian fauna from "The Clyde Beds", Linwood and Johnstone, Renfrewshire. *The Glasgow Naturalist*, **122**, No 2, pp.115-124.

Burton, C.J. & Todd, J.G. 1992. Trearne Quarry. Excursion 20 in Lawson, J.D. and Weedon, D.S. *Geological Excursions around Glasgow and Girvan*. Geological Society of Glasgow. pp. 246-264.

Ingram, S.M., Todd, J.G. & Anderson, D. 1992. Pyrite from Goat Quarry, *UK Journal of Mines and Minerals*, **11**, pp. 8-10.

Ingram, S.M., Anderson, D.G. & Todd, J.G. 1993. Molybdenite from Coire Buidhe, Glen Creran, Argyll. *UK Journal of Mines and Minerals*, **12**, pp. 4-8.

Meikle, T.K. & Todd, J.G. 1995. Silica-rich edingtonite and associated minerals from Loanhead Quarry, Beith, Strathclyde—a new Scottish locality. *Journal of the Russell Society*, **6**, pp. 27-30.

Ingram, S., Anderson, D. & Todd, J.G. 1996. Powellite and scheelite from Coire Buidhe, Argyll. *UK Journal of Mines and Minerals*, **16**, p. 14.

Green D.I. & Todd, J.G. 1996. Zeolites & related minerals from Moonen Bay, Isle of Skye, Scotland. *UK Journal of Mines and Minerals*, **16**, pp. 21–27.

Green, D.I. & Todd, J.G. 2000. Twenty Years in Minerals: Scotland. *UK Journal of Mines and Minerals*, **21**, pp. 9-27.

Geological Society of Glasgow Presentations

1989 Feb. 23 The Cinderellas of Trearne (talk, and a display of minerals)

1990 Feb. 8 Muirshiel -Moors and Mines and Minerals (talk and a display of minerals)

1992 Feb. 14 Excellent Scottish Minerals collected in 1991 (display)

1994 April 28 Minerals with Fossils (display)

1996 April 25 New Facets of Scottish Gemstones (talk and display of gemstones)

2003 May 5 Tertiary Flora of the Isle of Skye (talk)

2004 May 13 The Mystery of Quartz Fingers (talk and display)

2005 May 12 Rock Art: A Thing of the Past

North Lanarkshire geodiversity audit

North Lanarkshire contains strata from the entire 60 million-year history of the Carboniferous Period.

This period saw massive volcanic eruptions, tropical forests and warm tropical seas. In the more recent Ice Ages we were buried beneath a one km thick ice sheet.

This eventful geology produced a variety of rocks and scenery that have been the building blocks of North Lanarkshire's communities and industry.

This assessment report is based on 6 years of inspecting more than 80 sites by volunteers. It describes North Lanarkshire's geoheritage and what the volunteers did and what they found, including the top twelve areas to visit and the best twenty sites for conservation. It then describes how geology built North Lanarkshire and where to go to enjoy the area's geoheritage. It concludes with what to do next to fulfil North Lanarkshire Council's Geodiversity Action Plan.

The report can be accessed at https://geologyglasgow.org.uk/docs/017_070_nlcgeodiversityauditpcversion91mikebrowne_1544697985.pdf



Help Wanted!!



Ben Browne has recently intimated that he would like to stand down from his duties as 'tea-boy'. For many years Ben has organised the refreshments after the lectures and he would be grateful if someone new take over these not too onerous duties!

Report on Annual General Meeting

The AGM was held on Thursday 13th Dec 2018. Thanks were expressed to all Council Officers for their work during the recent session, and particularly to those who had come to the end of their term of office. The customary officers' reports were presented. Following the election / re-election of Council Officers, Council now comprises the following:

President	Neil Clark
Hon. Secretary	Walter Semple
Vice President	Brian Bell
Vice President	Ben Browne
Vice President	Jim Morrison
Treasurer	Ian Veitch
Meetings Secretary	David Webster
Membership Secretary	Campbell Forrest
Excursions Secretary (day)	Roy Bryce
Excursions Secretary (residential)	Maggie Donnelly
Librarian	Bob Diamond
Asst Librarian and Hon. Archivist	Margaret Anderson
Proceedings Editor	Mina Cummings
Publications Officer	Bob Diamond
Webmaster	Bill Gray
Web Consultant	Neil Clark
Newsletter Coordinator	David Webster
Junior Representative	Matthew Staitis
Editor of SJG	Brian Bell
Editor of SJG	Colin Braithwaite
Ordinary Member	Ann Ainsworth
Ordinary Member	Simon Cuthbert
Ordinary Member	Ian Millar

Ian Anderson was re-appointed as Independent Examiner. The AGM was followed by a lecture from Dr. Roddy Muir and the evening ended with the customary festive social.

NW Scotland Geopark - Geotours 2019

Expert tuition by Geopark staff will help you to interpret the geology of this wild and remote highland landscape

Dates: 18-24th may and 5th -11th June

£250 per person including transport, early bird discount of 10% for bookings made by March 31st. £50 Deposit required. Fee includes tuition, insurance, transportation and materials. Accommodation is not included, however contact us should you like advice.

For more information contact Pete Harrison pete@nwhgeopark.com

New Society Promotional Leaflet



Membership of the society is open to all who are interested in geology and it provides:

- An annual programme of illustrated lectures
- Specialised field excursions to localities of geological significance
- Newsletters, society proceedings and the Scottish Journal of Geology
- Discount on books and guides of geological interest

The Fossil Grove: a unique geotelling site in Glasgow's Victoria Park. 330 million-year-old slumps of extinct trees have been fossilised where they grew.

The Society and the Strathclyde Geoconservation Group are working to conserve, interpret and promote geological sites.

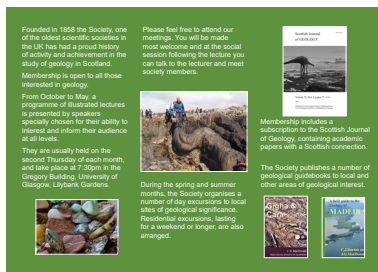
JOIN THE SOCIETY!

The rocks and scenery around Glasgow make it one of the best regions in Britain from which to gain an understanding of geology – the science of the Earth.

To find out more visit our website: www.geologicalsocietyglasgow.org

Access to our own library and the University of Glasgow library.

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Founded in 1858 the Society, one of the oldest scientific societies in the UK, has had a proud history of activity and achievement in the study of geology in Scotland. Membership is open to all those interested in geology.

Please feel free to attend our meetings. You will be made most welcome and at the social session following the lecture you can talk to the lecturer and meet society members.

From October to May a programme of illustrated lectures is presented by speakers specially chosen for their ability to interest and inform their audience at all levels.

They are usually held on the second Thursday of each month, and take place at 7.30pm in the Gregory Building, University of Glasgow, Lifebank Gardens.

During the spring and summer months, the Society organises a number of day excursions to local sites of geological significance. Residential excursions, lasting for a weekend or longer, are also arranged.

Membership includes a subscription to the Scottish Journal of Geology, containing academic papers with a Scottish connection.

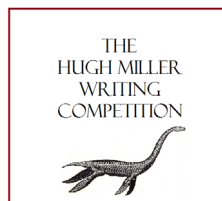
The Society publishes a number of geological guidebooks to local and other areas of geological interest.

The Council have produced a new folded leaflet advertising the Society and encouraging people to join. Please pick up some copies at lecture nights and distribute them to friends, put in suitable places etc.

Dippy Events at Kelvingrove Museum

The Hugh Miller Writing Competition – Reading Event: Sat 2nd March, 3-4.30pm

The Hugh Miller writing competition aims to honour the legacy of one of Scotland's most endearing geologists by inspiring new, original prose and poetry on the inspirational theme of Scotland's rich fossil heritage. The Scottish Geodiversity Forum will host a reading event showcasing the winner's work at Kelvingrove Museum.



Groundwater and aquifers in Scotland: Talk by Brighid Ó Dochartaigh (BGS) Friday 15 March, 2pm

Find out about groundwater in different aquifers across Scotland, and what it does for people and the environment – like mineral water, supporting farming, providing river flow, and alleviating flooding.

Scotland Rocks! Talk by Margaret Stewart from the BGS. Monday 1st April, 2pm

Did you know that Scotland used to be a desert? That dinosaurs swam on Skye? Come and hear about Scotland's geological history from fire to volcanos to swamp to ice! Suitable for families and children.

Geoconservation Family Activity Day Sat 6th April 11am-4pm

Join us for an exciting day of family events and activities to get young ones involved in science in a fun and creative way. Craft activities relating to local geology will be available throughout the day aimed at children of all ages. Hosted by Strathclyde Geoconservation. Suitable for families and children

Subscriptions

Thank you to all those members who have renewed their subscriptions for the current Session 161. There are still a few members who have so far overlooked paying a subscription or who have paid a subscription that was not updated to the increased rates which applied from the start of Session 157. A separate note is included with this newsletter as a reminder to those members whose subscriptions are overdue or subject to an underpayment. Those who receive their newsletter by e-mail should already have received a reminder.

The membership fees for the Society are as follows:

- Ordinary Membership (including Scottish Journal of Geology): £25
- Associate Membership (available to those over 60, or spouses of Ordinary Members, or members of the Edinburgh Geological Society): £12.50
- Junior Membership (available to those under 25, or full time undergraduates, or recent (4years) graduates: £6.25. (Junior members who pay a £ 6.25 supplement will also receive the Scottish Journal of Geology.)

Any queries regarding the above can be addressed to: The Membership Secretary: Campbell Forrest, Strathview, Fintry Road, Kippen, Stirlingshire, FK8 3HL
email: memsec@gsocg.org

New Members: None

Courses at the Glasgow University Centre for Open Studies

Geology in the Field

Field studies and examining rocks in the field are the basis of all geology. We will examine the geology and geomorphology of a series of areas within easy reach of Glasgow. There will be five full-day excursions by private car. Walking will generally be easy and no prior knowledge of geology needed.

Dates: Apr 17 - May 15, 2019

Tutor: Michael Keen

Mountains under the microscope: A practical guide to geological microscopy

One of the most useful tools of the geologist is the petrological microscope. This course provides practical experience in its operation for examining thin sections of rocks. The images are both beautiful and informative, opening up a fascinating new world of interest. More sophisticated techniques such as electron microscopy will be introduced. Applications in archaeology, conservation and forensic science will also be touched upon. A basic knowledge of common rock types is recommended.

Date: Sat Mar 23 2019

Tutor: Simon Cuthbert

For more information and to book: www.gla.ac.uk/study/short/book/category/167.

Events from other geological societies

Edinburgh Geological Society www.edinburghgeolsoc.org

6th March - Prof. Frank Rennie. A Lewisian Perspective: The basement of the Earth

20th March - Brighid O'Dochartaigh. Scotland's aquifers: an introduction to aquifer properties, baseline chemistry, groundwater use & management in Scotland

Aberdeen Geological Society www.aberdeengeolsoc.org.uk

7th March - Amanda Owen. Fluvial response to the Palaeocene-Eocene thermal maximum

28th March - Simon Drake. Discovery of a meteorite ejecta layer, Skye

11th April- Andrew MacMillan - Building Stones of the Highlands and Islands

Highland Geological Society www.spanglefish.com/highlandgeologicalsociety

27th March - Dr Angus Miller. An Introduction to the Geology of Eigg,

Westmorland Geological Society www.westmorlandgeolsoc.co.uk

20 March Kent Brooks, University of Copenhagen Gold Mine in the Clouds: the Ertsberg-Grasberg mine in West Papua.

Hon. Secretary: Walter Semple email: sec@gsocg.org
Newsletter Coordinator: David Webster email: meetings@gsocg.org

Members' Night: Request to contribute

Thursday 9th May 2019:

Please use this form or email the following information to the Hon. Secretary

Title of contribution:.....

.....

.....

Name

Address

.....

.....

Telephone/Fax/email

.....

Please complete the details below:

I wish to make a presentation as follows (please tick box as appropriate):

- ☐ Oral presentation with Powerpoint slideshow or overhead projector
- ☐ Bench-top display
- ☐ Wall-mounted poster
- ☐ Lap-top computer "kiosk"-style slideshow (member's own laptop)

Please Note: Oral presentation speakers are requested to keep their talks to a **maximum** of 15 minutes *including* question time. In the event that more than four requests are received for oral presentations GSG Council will select those to be included in the programme; successful requests will be informed by e-mail or post by 1st May.

Please return this form to:

Walter Semple, Honorary Secretary,
The Geological Society of Glasgow,
c/o School of Geographical & Earth Sciences, Gregory Building, University of Glasgow,
Lilybank Gardens, Glasgow, G12 8QQ,

or email: sec@gsocg.org

Booking Form for Day Excursions 2019

A non-returnable deposit is requested for each chargeable booking - even for those taking their own cars. **No bookings will be accepted without the deposit.**

A financial adjustment may be collected/refunded on the bus on the day.

All cheques should be made payable to: **The Geological Society of Glasgow.**

Please return your form with payment to: **Roy Bryce, email daytrips@gsocg.org Mobile 07932 768367**

Date	Excursion	Leader	Tick to apply	Deposit amount	Deposit enclosed
Saturday 1 st June	Museums visit	Iain Allison		£40	
Saturday 22 nd June	Blairkaith Quarry	Neil Clark		£30	
Saturday 6 th July	St Abbs Head	Con Gillen		£40	
Saturday 27 th July	Ballantrae	Con Gillen		£30	
Saturday 17 th August	Lake District	Simon Cuthbert		£40	
Saturday 7 th September	Dalry & Saltcoats	Colin MacFadyen		£30	
Total number of trips				Total	

Your Name (please print).....

Email

Address

Phone number

Emergency Contacts

In case of an emergency we may need to contact someone on your behalf, while you are on the excursion. Please provide details below.

Name of contact

Relationship

Phone numbers

.....

Please complete this declaration:

I confirm that I have read and will comply with the Society's recommendations on field safety (overleaf).

Signed

Dated

Safety in the Field

Although geological fieldwork is a pleasurable activity, by its nature it may involve some risks. These can be minimized by observing sensible precautions. It is important that everyone undertaking fieldwork is alert to both the general and specific risks and can take responsibility for their own safety and for the impact this may have on the safety of others.

A general *Code for Geological Fieldwork* is published by the Geologists' Association.

Field Excursions organized by the Society are conducted on the understanding that members and guests are aware of their general responsibilities. For its part, the Society, through excursion leaders, will issue specific warnings where conditions differ from those likely to be encountered by an active person of normal health during a weekend ramble in the hills. Participants are specifically asked to:

- (a) Inform the party leader in advance of the field excursion, in confidence, of any medical condition which may have a bearing on their own safety or on that of other party members.
- (b) Observe all safety instructions given by the party leader. Inform the leader if they wish to leave the party and inform him/her immediately of any illness or injury.
- (c) Provide themselves with warm and waterproof clothing (brightly coloured if possible), strong waterproof boots that provide some grip, and carry a small personal first-aid kit.
- (d) Carry a survival bag, whistle, spare clothing, and survival rations when working in remote or mountainous regions.
- (e) Wear a hard hat whenever there is a risk from falling objects. This is obligatory when visiting quarries, mines, building sites or road sections under construction and, in the interests of safety, members may wish to obtain their own.
- (f) Always wear impact resistant safety goggles or spectacles when hammering tough or splintery rocks, or using chisels. Never use a second hammer as a chisel. Beware of standing too close to others using either.
- (g) Take special care on steep slopes (e.g. scree slopes, cliffs and quarries); on muddy slopes and slippery shore-sections, and when working on roadside cuttings or exposures, particularly when construction is in progress. Be alert when crossing roads and railways, it is easy to get distracted. Check the times of tides, remembering that high winds may make them higher than you expect, and ensure that you are familiar with the exit points from coastal sections.
- (g) Obtain the permission of landowners or factors before entering property. Permission to collect samples may be required and special permits are necessary on Sites of Special Scientific Interest (SSSI's).
- (h) Avoid overhanging or unstable rock faces, especially during thaw conditions after a cold spell or after heavy rain. This is particularly important in quarries but also on some coastal cliffs where large sections may fall without warning.