

THE GEOLOGICAL SOCIETY OF GLASGOW

Registered Scottish Charity No. SC007013

President: Dr. Jim Morrison

www.geologyglasgow.org.uk

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© D Fabel

Ever wondered how all those isotopes are actually measured? We take it for granted that behind the scenes it all just happens! Come to the March lecture to find out more ...

In this newsletter:

- Lectures for March and April
NOTE - The March lecture is a change from the original programme; Lorna Dawson's talk on soil forensics will be in the next session.
- Residential and Day Field Excursions and Booking Forms
- 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 9th March 2017

Dr Derek Fabel, University of Glasgow

Extremely rare isotope metrology @ SUERC (Scottish Universities Environment Research Centre)

Precise and accurate measurement of isotopes in minerals and rocks is key to understanding the Earth. Radiometric dating is the principal source of information about the absolute age of rocks and other geological features, or the age of the Earth itself, and together with stratigraphic principles, has been fundamental in establishing the geological time scale. Stable isotope analysis supports research in applied minerals, geological hazards, environmental change, pollution, hydrology, human-landscape interactions, and biological evolution. The procedures used to isolate and analyse isotopes involves isotope ratio mass spectrometry in a variety of forms depending on the isotopic system being utilised. Radiocarbon and surface exposure dating rely on being able to measure the abundance of extremely rare radioisotopes in the sample material using a technique called accelerator mass spectrometry.



This presentation will take you behind the scene of extremely rare isotope metrology at SUERC to illustrate the complexity and effort involved in making these types of measurements.

Following his PhD at the University of Melbourne in 1996, Derek continued with post-doc study in Australia until 2005, when he moved to Scotland to study and teach at Glasgow University. In 2010 he was appointed Head of the Cosmogenic Isotope Analysis Facility at the Scottish Universities Environment Research Centre in East Kilbride.

Thursday 20th April 2017

Professor John Parnell, University of Aberdeen

An Alternative Fossil Record: Evidence for a Deep Biosphere in Scotland's Past

Scotland has numerous fossil deposits of international importance for their contribution to understanding the evolution of life. However, the story of life on Earth is largely subsurface: only since the evolution of land plants in the last 10% of Earth's history has the locus of biomass shifted to the planetary surface.

Over the last two decades, the life sciences community has recorded a huge body of evidence for a global subsurface biosphere extending today to several kilometres



depth. Scotland offers strong potential for the study of this deep biosphere in the geological record, using a range of evidence such as organic biomarker evidence for subsurface biodegradation; isotopic evidence for microbial colonization in the subsurface; metal concentrations in red beds attributed to bacteria; and preservation of microbial filaments in fracture-fill vein minerals. We will look at examples of this evidence from Scotland, and put them in a wider context of planetary habitat.

John is a Professor of Geology at the University of Aberdeen, with over 30 years of research experience on geological organic matter, covering topics from oil generation to the search for life on Mars.

Further reading: McMahon, S. & Parnell, J. 2014. Weighing the deep continental biosphere. *FEMS Microbiology Ecology*, **87**, 113-120.

Thursday, 12th May 2017

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 2017

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

Lochaber

Dates: April 21 - April 24 and May 5 - May 8 2017

Leader: Jim Blair, Lochaber Geoconservation

We will be based in the Ardgour area where we have access to Morvern and Ardgour. Highlights will be the Strontian granite, Moine rocks, the Ballachulish Slide, the Lochaline silica mine (wellington boots, hard hats, high vis jackets required), lavas from the Mull volcano in Morvern, Tennyson's waterfall (off the lavas), Jurassic fossil beds at Lochaline, a possible P/T Boundary, an unconformity between Moine/Devonian and another between Moine and Permo/Trias, as well as an old lead mine and other things! Travel will be by shared private cars and the logistics of this excursion require the number in the party to be limited to 20. As more than 20 people have expressed an interest in the excursion, it has been decided to run it on two separate weekends. The first weekend is fully booked, but places are still available on the second weekend, May 5th to 8th. If you are interested in joining this second excursion, please contact Maggie as soon as possible.

The Causeway Coast and Glens

September 8 - September 11 2017

Leader: Dr Fiona Meade

Beginning around lunchtime on Friday, we plan to explore over 600 million years of geological history exposed on the northeast Irish coast of County Antrim, from Portrush to the Giant's Causeway and Ballintoy Bay. The rocks are superb, with ages ranging through the Precambrian (basement), Dalradian Supergroup, Devonian (puddingstone conglomerate), Carboniferous, Triassic, Jurassic (ammonites, belemnites and bivalves), Cretaceous (chalk and metamorphosed chalk), and Tertiary (spectacular lavas, sills and volcanic plugs). We should finish around lunchtime on Monday.

Exposures are easily accessible using beaches and coastal paths, with some longer, flat, walks. Access to the visitor centre at the Giant's Causeway is free to National Trust and NTS members. (Bring your card if you are a member.) Accommodation will be in B & B and travel in shared cars.

A more detailed itinerary for the excursion is on the Society's [website](#). A booking form is included in this newsletter, which you can complete and return to Maggie Donnelly. Alternatively contact her directly and she will send you a form for you to return.

Raasay

April 27 – April 30 2018

Leader: Dr Brian Bell

The island of Raasay comprises a wide range of well-exposed rocks within the Hebridean Terrane, ranging from Archaean gneisses of the Lewisian Complex and the unconformably overlying Proterozoic clastic sedimentary rocks of the so-called Torridonian Supergroup, through to glacial deposits of the Pleistocene Epoch. Mesozoic strata include various continental clastic sedimentary rocks, overlain by marine and estuarine deposits of the Lower and Middle Jurassic Period, including the Raasay Ironstone Formation. Palaeogene igneous activity resulted in both intrusive and extrusive units – lavas and granite. Pleistocene glacial activity produced diamictites and erratics, and striae on the harder rocks, while active landslips occur in the south-east of the island. This excursion aims to examine the entire range of rocks, and the industrial archaeology of the Raasay ironstone mine will also be addressed. More details of the excursion can be found on the society's [website](#).

N.B. Accommodation in Raasay is very scarce. Apart from a couple of B&Bs, there is only Raasay House which can accommodate a group of 20 of us in twin rooms, dinner, B&B, at a rate which is a bit more expensive than average. There are no other eating places on the island. Raasay House gets fully booked very rapidly, even a year in advance, and for this reason our provisional booking needs to be confirmed in the very near future. Therefore, if you are at all interested in this special trip, please let the Residential Excursion Secretary, Maggie Donnelly (restrips@gsocg.org) know as soon as possible, and preferably by 28 February 2017, to let us establish whether the trip is indeed viable. Of course, no deposit is required at this stage. Also, please note that the 2017 prices are being held for us.

Day excursions 2017

We have a varied set of excursions for this summer. Hopefully you will find something that interests you. As ever, the number of places available are limited by the size of the bus, so please get your booking form (near the end of this newsletter) completed and sent to Roy Bryce (contact details on the form) as soon as possible to avoid disappointment.

Saturday 3rd June. Kilewnan Burn and Dunmore from Fintry Village

Joint Excursion with the Edinburgh Geological Society followed by high tea at Fintry Sports and Recreation Club. Walk on footpaths, 4km total; hill ascent to 250m; walk along stream section; visit to old quarry. Walk to and along Kilewnan Burn. Walk up hill to top of Dunmore, then downhill and across hillside slope towards Fintry quarry.

The Fintry Hills are part of the Clyde Plateau Volcanic Formation to the south-west of Stirling, and show good examples of varied basaltic igneous rocks that formed close to eruptive centres, in a landscape of craters and cinder cones. As well as the igneous rocks, we shall also be looking at Carboniferous sedimentary rocks of the Clyde Sandstone Formation and the Ballagan beds (cement stones). Toilets available in Fintry at start and finish. See Excursion 10 in the Stirling & Perth Guide (Browne & Gillen, 2015, EGS)

Leader: Dr Con Gillen

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

Saturday 10th June. Tyndrum / Glen Orchy

We will visit the former lead mine some 1 km west of and 150mts above Tyndrum Lower station and examine the mineralisation and the country rocks into which it was emplaced. The mineralisation consists of mainly vein quartz with sphalerite and galena. Other minerals which may be found are: chalcopryrite, pyrite, barite, and calcite. In the afternoon we shall make four stops along a generally level path in Glen Orchy where we shall see the Meall Garbh Psammite of the (lower) Grampian Group and the overlying Beinn Udlaidh Quartzite and Coire Daimh Pelite of the Appin Group.

Leader: Dr Iain Allison

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

Saturday 24th June. Glasgow Museums Resource Centre

This morning excursion is a guided tour of the Glasgow Museums Resource Centre at 200 Woodhead Road, South Nitshill Industrial Estate, Glasgow G53 7NN. You will need to arrange your own transport. The centre is about 5 minutes walk from Nitshill railway station. Museum staff will be showing us some of the many items in the geology collection which are not on public display. Because of restricted space within the building, numbers will be limited to 15 but, in the event of higher demand, a further trip will be offered on another occasion. There will be no charge for this excursion.

Leader: Ann Ainsworth

Own transport. Meet outside the GMRC at 10:15 Tour starts 10:30

Saturday 22nd July. Comrie including Highland Boundary Fault and Earthquake House

Comrie lies on the Highland Boundary Fault and has been called the “Shakin’ Town” because of the frequent seismic activity there, especially during the 19th century. Our visit will focus mainly on the geology in the Grampian block immediately to the north of the fault where we will explore beautifully exposed examples of contact metamorphic changes to the Dalradian Aberfoyle slate adjacent to a late Caledonian diorite intrusion, the Comrie Pluton at Craig More. We will visit the famous “Earthquake House” by The Ross, just west of the town and see an early example of a seismometer. In the afternoon we will take a walk from Comrie along Glen Lednock to see the De’il’s Cauldron waterfall where the River Lednock has incised a rock-cut gorge, and finally return to the Comrie pluton to examine the igneous rocks themselves and their contact relations with the country-rocks. Comrie has some excellent opportunities for cake, and if we are not too long delayed on the rocks we may wish to explore these too! The trip will involve a few km of variably rough and boggy walking, sometimes quite steep for short intervals.

Leader: Dr Simon Cuthbert

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

Saturday 29th July. Little Glen Shee, Dunkeld

The excursion is an opportunity to examine Dalradian rocks (slates and grits of the Southern Highland Group), and structures related to the Tay Nappe, a structure that has produced folds at various scales. The area is close to the Highland Boundary Fault and the Highland Border steep belt (or ‘downbend’), followed to the north by the flat belt of the structure. Toilets available in Dunkeld at start and finish. See Excursion 18 in the Stirling & Perth Guide (Browne & Gillen, 2015, EGS).

Leader: Dr Con Gillen

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

Saturday 19th August. Solway Coast - Southernness to Powillimount

The coastal section from Southernness to Powillimount within the Kirkbean Outlier forms part of the northern margin of the Solway-Northumbrian Basin which lies between the Southern Uplands to the north and the Lake District to the south. The northern margin of the basin is locally formed by the North Solway Fault, the basin itself being an extensional basin active during the Early Carboniferous (Dinantian). Synsedimentary faulting, downthrowing to the south, combined with cyclical sea-level changes to produce a wide range of sediments from open, shallow marine limestones and mudrocks to floodplain sandstones, silts and coals as the basin-fill developed. Faunas and floras responded to these changing conditions, and the excursion will track these responses and their resulting ecologies, as well as the various sedimentary structures to be seen, and also the tectonic structures imposed on the basin during the Late Carboniferous. Circa 2 km of easy coastal walking

Leader: Dr Chris Burton

Leaving Gregory Building at 8:00, return at 19:00, travelling by coach

News and Topical Articles

Fossil Grove

A meeting of the Trustees was held on the 6th February. The Parks Dept have agreed to get all the drains and downpipes working properly following the extensive repairs to the main drain and clean the gutters once more this winter. Three cleans are planned for next autumn/winter. The gully on the south side is to be cleared of soil and leaf debris yet again and more bituminous paint applied.

All the work done so far seems to have reduced the water ingress. Some pilot environmental monitoring has been carried out and a report on its recordings is awaited, hopefully leading to a permanent installation. Discussions are on-going about installing a suitable dehumidifier unit with the aim to maintain a 50 percent humidity and 15 degree temperature. The broken wall lights and spot light bulbs are to be replaced. Historic Environment Scotland (HES) have completed a laser scan of the site and are to do some chemical analyses leading to more detailed mineralogical studies. All the old displays and cabinets will be removed. The display panels will be recreated in a simple way and walls around the east balcony are to be repainted.

Opening times will be similar to last year, i.e. 12-4, Sat & Sun, 1 April to 22 October.

Discussions are still progressing re the future of the site - more on this in the next issue. Contact the Hon. Secretary, Walter Semple, sec@gsocg.org for more information.

An Introduction and an invitation to all Earth Scientists from the staff at Lochranza Centre, Isle of Arran.

In 2015 the Lochranza Centre was threatened with closure. Following a consultation with the community and thanks to the help of an ethical bank, crowd funding, the local Council, business Gateway and some small investors, in October 2015, a new Community Interest Company was born safeguarding this facility and 14 jobs, 5 of whom are geology graduates from all over the UK.



It has now been in existence for just over a year and has already played host to university parties, School, College and interest groups. The aim is to get Geopark status for the Island working together with the Arran Heritage Museum and National Trust of Scotland.

If you have not ventured to Arran before please come. If you have been, come back, visit the centre where a warm welcome, accommodation, refreshment and tuition all awaits you and your party if needed.

See www.lochranzacentre.co.uk for more information.

Report on Annual General Meeting

The AGM was held on Thursday 8th Dec 2016. 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:

President	Jim Morrison
Hon. Secretary	Walter Semple
Vice President	Brian Bell
Vice President	Ben Browne
Treasurer	Ben Browne
Meetings Secretary	David Webster
Membership Secretary	Robin Painter
Excursions Secretary (day)	Roy Bryce
Excursions Secretary (residential)	Maggie Donnelly
Librarian	Chris Burton
Asst Librarian and Hon. Archivist	Margaret Anderson
Minutes Secretary	Margaret Greene
Proceedings Editor	Mina Cummings
Publications Secretary	Mina Cummings
Publications (bookshop)	Bob Diamond
Webmaster	Bill Gray
Website Coordinator	Emma Fairley
Editor of SJG	Brian Bell
Editor of SJG	Colin Braithwaite
Ordinary Member	David Brown
Ordinary Member	Campbell Forest
Ordinary Member	Simon Cuthbert
Ordinary Member	Neil Clark
Ordinary Member	Helen Kennedy
Newsletter Coordinator	David Webster
Junior Representative	Matthew Staitis
Independent Examiner	Ian Anderson
Strathclyde Geonservation Subgroup Chair	Margaret Greene
Argyll & the Islands Geonservation Subgroup Chair	Alistair Fleming

The AGM was followed by a lecture from Dr Tony Fallick and the evening ended with the customary festive social.

Notices

Subscriptions

Thank you to all those members who have renewed their subscriptions for the current Session 159. There are still 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: Dr. R A Painter, e-mail: gsgmemsec@ntlworld.com

New Members

We extend a warm welcome to the following new members:-

Mrs K C Boyd	Glasgow
Mrs I Arrol	Blanefield
Mr S C Arrol	Blanefield
Miss R Oighrig	Conway
Mr I Millar	Glasgow
Miss G Worrel	Glasgow
Mr G Lang	Carnwath
Mrs N A Tahseen	Glasgow

Courses at the Glasgow University Centre for Open Studies

Geology in the Field:

Dates: Wed Apr 26, 2017 - Wed May 31, 2017, 10:00 AM - 12:00 PM

Tutor: Michael Keen

Reference: Geology in the Field 5847

Events from other geological societies

Edinburgh Geological Society www.edinburghgeolsoc.org

8th March Martin Gillespie, (BGS Scotland). A new Building Stone Database for Scotland.

22nd March Clough Medal Lecture: Dr Phil Stone, (formerly BGS Scotland). Scottish perspectives (old and new) on greywacke, graptolites and Gondwana.

Aberdeen Geological Society www.aberdeengeolsoc.org.uk

23rd February Dr Adrian Hall (Universities of Edinburgh & Stockholm) From the Cairngorm Tops to the Buchan Coast; Ancient NE landscapes.

9th March Prof Paul Bishop (University of Glasgow) Lime in Scotland.

23rd March Dr Stephen Brusatte (University of Edinburgh). Skye: Scotlands Jurassic Park.

27th April Dr Neil Clark (University of Glasgow). The History of Scottish Gold.

Highland Geological Society www.spanglefish.com/highlandgeologicalsociety

22 February Dr Alison Wright, HGS. 'Looking for life on Mars?'

22 March David Jarman, HGS. The Shaping of the Highlands: Deep-time origins and evolution of an orogenic landscape.

12 April Public lecture – details to be confirmed.

Westmorland Geological Society www.westmorlandgeolsoc.co.uk

15 March Dr Tim Tranter, C&C Reservoirs, Rocks to Reserves: Principles of petroleum geology.

Open University Geological Society www.ougs.org

11 July - Rosneath and Loch Long. Iain Allison will be leading this trip to Argyll which deals with the upper Dalradian rocks immediately north of the Highland Boundary Fault where the grade of metamorphism is low and remnants of the rocks' sedimentary origins can be discerned.

Articles for the Newsletter:

We would like to include short topical article(s) in each Newsletter. If you have news of a recent event or discovery, opinions on geological matters, or wish to let people know about aspects of geology in the Glasgow area or the wider world, then please send your article to the Newsletter Coordinator.

David Webster

The Geological Society of Glasgow

e-mail: meetings@gsocg.org

Booking Form for Day Excursions 2017

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.**

Excursions leave from Lilybank Gardens at the times noted below - except Excursion 3.

Please email daytrips@gsocg.org for details of the address to which the completed form and cheque should be sent.

Date	Excursion	Leader	Tick to apply	Deposit amount	Deposit enclosed
Saturday 3 rd June 09:00	Fintry	Con Gillen		£30 (includes high tea)	
Saturday 10 th June 09:00	Tyndrum/Glen Orchy	Iain Allison		£20	
Saturday 24 th June 10:00	Glasgow Museums Resource Centre	Ann Ainsworth		None	
Saturday 22 nd July 09:00	Comrie	Simon Cuthbert		£20	
Saturday 29 th July 09:00	Little Glen Shee	Con Gillen		£20	
Saturday 19 th August 08:00	Solway Coast	Chris Burton		£20	
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.

Booking Form for Residential Field Excursion to Causeway Coast and Glens of Antrim 8-11th Sept 2017

Name(s):	
Address:	
Landline Tel. No.	
Mobile No.	
Email:	

Accommodation: Please tick one box	<input type="checkbox"/>	Shared double room with spouse/partner B&B	
	<input type="checkbox"/>	Shared twin room B&B	To share with (if known):
	<input type="checkbox"/>	Single room B&B	
	<input type="checkbox"/>	I will make my own arrangements for accommodation.	

Travel: Please tick one box	<input type="checkbox"/>	I would be happy to take my car to Ireland and give a lift to passengers to/from Ireland. State No. Passengers:
	<input type="checkbox"/>	I would be happy to take my car to Ireland and give a lift to passengers on the field days. State No. Passengers:
	<input type="checkbox"/>	I would prefer not to take my car, but will do so if required. Ideally I would prefer to take a lift from someone else.
	<input type="checkbox"/>	I would like a lift in someone else's car.
	<input type="checkbox"/>	I will make other travel arrangements. (Please specify)

Do you have any special dietary requirements for breakfast? Please specify.

Emergency Contact Details:

If an emergency arises whilst I am on the excursion the Society may contact the following person(s):

Name:Telephone:.....

Name:.....Telephone:



Membership Please tick	<input type="checkbox"/>	I/we am/are a member/s of the Geological Society of Glasgow
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Declaration:
I/we confirm that I/we have read and will comply with the Society's guide to Safety in the Field (Page 12 of this newsletter)

I enclose a cheque (payable to Geological Society of Glasgow) for the deposit of **£30.00 per person**. Please tick box

or

Please email me GSG bank details as I want to make a bank transfer. Please tick box and email the organiser ASAP.

SignedPrint name

Date.....

Please note that the later you cancel the less likely it is that you will get all or part of your deposit back. Once the society has passed on your deposit to the hotel it is very unlikely that it will be refundable. If two people are sharing a room and one person cancels, it may in fact be necessary for that person to pay the full balance. You are strongly advised to buy travel insurance to cover you for any such losses.

Please email the residential excursion secretary at restrips@gsocg.org for details of the address to which the completed form and cheque should be sent.

Members' Night: Request to contribute

Thursday 11th May 2017:

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

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