



THE GEOLOGICAL SOCIETY OF GLASGOW

Registered Scottish Charity No. SC007013

President: Dr. Neil Clark

www.geologyglasgow.org.uk

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Neil Clark has written an interesting article on Henry Darwin Rogers who was Keeper of the Hunterian in the mid-19th century. (*image courtesy Popular Science Monthly*)

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Covid-19

It will come as no surprise that Covid-19 is having a big effect on the activities of the Society. Current position below: check the [website](#) for updates

Lecture Meetings

Postponement of Lecture Meetings

The lecture planned for April 9th and Members' Night have been postponed. We hope to reschedule them in the autumn.

The venue for the Thursday night lectures planned for October onwards will be in the Boyd Orr building. The University are offering us free use of this facility as it is open for other events etc whereas the fees they charge for the exclusive use of the Gregory building are becoming unsustainable. More details in the next newsletter.

For more information contact the Meetings Secretary, David Webster: meetings@gsocg.org

Residential Field Excursions 2020

Postponement of Residential Excursions

The trips planned to Islay in April and Ardnamurchan in May have been postponed. We hope to run them next year.

Further information from the Residential Excursion Secretary, Maggie Donnelly email restrips@gsocg.org

Day Excursions 2020

At the time of going to press we are hoping to run some of the summer day excursions. For more information please contact Roy Bryce, email daytrips@gsocg.org Mobile 07932 768367

Special General Meeting

We had planned on holding a brief Special General Meeting of the Society on April 9th immediately prior to the lecture. However, this is also postponed until the autumn. Date to be announced in due course.

The only agenda item is a proposal from the Council to reduce the quorum required for Council meetings from 10 to 7.

Port Askaig Conference

This conference, due to be held on 12/13 May in St. Andrews has been postponed for a year.

Strathclyde Geoconservation Group

Scottish Local Authority Work

Reports on Calder Valley sites forwarded to South Lanarkshire Council for their Geodiversity Audit Report, and a meeting planned. Falkirk Council work continues. Working with Renfrewshire Council on Local Development Plan. Information on sites and photos of Trearne Quarry from Gary Hoare provided to North Ayrshire Council for their Local Biodiversity Action Plan.

The Lodge at Aberfoyle.

A selection of rocks and information was delivered to the Lodge at Aberfoyle in January. Apart from a short description of the rocks, there were also A4 information sheets on the HBF and the slate quarries. The samples are going to be displayed in a glass cabinet; Sally Nicholson of RSPB, based at the Lodge, has already used the information for visitors interested in walking up to Lime Craigs. An A4 sheet outlining what can be easily seen at the quarry is being produced, which the staff at the Lodge can use to inform visitors. Discussions are ongoing on supplying information on the waterfall of the Little Fawn and on the Quaternary aspects of the area. It is hoped all these bits of information will be brought together in a new leaflet or booklet.

Leaflets

A new version is being prepared of the self guided walk, 'Building Stones of Glasgow University' booklet. Originally planned for OUGS AGM.

The booklet on the Necropolis has been well received by Glasgow Cathedral staff.

Scottish Geology Festival (September 2020)

Liaison continues with LL&TNP on providing guided walks and talks at Balmaha on 19th September, and have displays, fossil rubbing, dinosaur identity game etc for both children and adults.

'Doors Open Day'

SGG intends to offer a guided walk based on the 'Building Stones of Glasgow'.

Links between SGG and the Society

A meeting has been held to discuss better communication and links between the Geological Society and SGG. A representative from SGG should attend the Council meetings and become a formal Council member. SGG will send copies of their agendas and minutes to Council and vice versa.

Please email Margaret Greene for more information about SGG activities: margaretgreene@btinternet.com

Glasgow Necropolis A Geological Trail



by
Margaret Greene and David Webster

Strathclyde
Geoconservation Group

Henry Darwin Rogers

Keeper of the Hunterian Museum (1857-1866)

by
Neil Clark



Henry Darwin Rogers (source: Popular Science Monthly. 50, 1897, p145 facing)

Henry Darwin Rogers (1808-1866) became the first Keeper of the Hunterian Museum, a post he held jointly as Professor of Natural History from 1857 until his death aged 57. He was given the middle name 'Darwin' because his father was an admirer of Erasmus Darwin who was a natural philosopher, physiologist, slave-trade abolitionist, inventor and poet and grandfather of Charles Darwin. He started his career as professor of chemistry and natural philosophy at Dickinson College, Carlisle, Pennsylvania at the age of 21 and in 1835 became both a professor of geology and mineralogy at the University of Pennsylvania and head of the Pennsylvania Geological Survey.

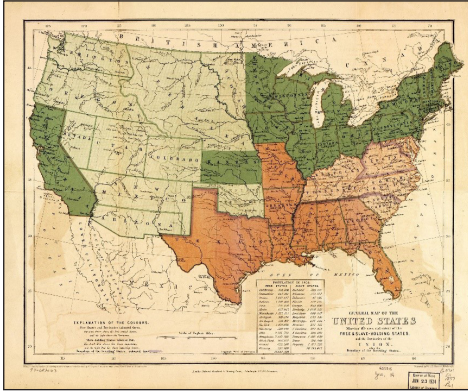
He produced the first geological map of Pennsylvania and produced a report on the coalfields of Pennsylvania and Great Britain. With his brother William Barton Rogers, he published *On the Physical Structure of the Appalachian Chain* (1842) before coming to Scotland as an independent geologist in 1855 before joining the University of Glasgow in 1857. He contributed much to the theory of mountain building through his studies of the geology of Pennsylvania.

After he became Professor of Natural History, he moved into no. 1 Professors' Court next to his friend William Thomson (Lord Kelvin) (1824-1907) who lived at number 2. Henry was only required to teach for six months of the year and spent much of his spare time in Edinburgh which he came to call home as the climate was more conducive to his good health. Henry hired the geologist John Young (1823-1900) as Assistant Keeper at



Professors' Court in the Old College of the University of Glasgow before the University moved to Gilmorehill (source: University of Glasgow Archives & Special Collections, PHU38/70)

the Hunterian Museum from 1859. They both undertook fieldwork together on the Isle of Arran in 1863 where Henry became interested in the structure of the granite and associated folding.



Map for the Congress of the United States in 1857 produced by Henry D. Rogers showing the area and extent of the free & slave-holding states, and the territories of the Union (source: Library of Congress, Geography and Map Division)

Henry's brother William (1805-1882) was the State Geologist for Virginia and became the founder of the Massachusetts Institute of Technology (MIT) which he built on the inclusive principle that it was "to afford instruction to all who are prepared to benefit from its teachings ...". Both William and Henry were brought up as sons of an Irish dissident who had escaped persecution in Ireland due to his vocal opposition to British rule. Their father was taught medicine by the abolitionist Benjamin Rush at the University of Pennsylvania. Henry, like his father, followed the teachings of the Scottish abolitionist Mrs Frances Wright who had visited the United States on several occasions. Frances advocated for universal education, the emancipation of slaves, birth control, equal rights, sexual

freedom, legal rights for married women, and liberal divorce laws and became an American citizen in 1825.

Henry received regular letters from his brother, some of which expressed his views in support of slavery, although not of a national protection for slavery. Before arriving in Boston to set up MIT, William and his wife Emma had six slaves (1850), but his opinions shifted and he became a supporter of Lincoln who advocated the emancipation of slaves and that slavery should not have national protection. Henry eventually convinced William that although slavery was allowable under the constitution, it was not consistent with the American form of democracy. The emancipation of slaves was proclaimed in 1863 and the civil war ended in 1865, a year before Henry died.

After a couple of failed attempts to start schools in Maryland and Baltimore with his brother William in the 1820s, Henry met with the British social reformer Robert Owen and followed him to England in 1832. He continued his studies of chemistry, learning from Edward Turner (1798-1837) who was also the Secretary of the Geological Society of London. This connection opened the doors to the society where Henry met many renowned and influential geologists including Henry De la Beche (1st Director of the British Geological Survey in 1835), Charles Lyell (author of the Principles of Geology), Roderick Murchison (Director of the British Geological Survey from 1855), John Phillips (produced the first global geological timescale) and Adam Sedgwick (proposed the Cambrian and Silurian Systems of the geological timescale).

With a strong geological education now under his belt, Henry Rogers returned to the United States in 1833 becoming the director of the Geological Survey of New Jersey from 1835-1839 and the first State Geologist for Pennsylvania in 1836. Henry was a difficult and disorganised leader having little regard for his assistants. A bitter feud developed in the 1850s between Henry and one of his assistants, J. Peter Lesley (1819-1903) culminating in accusations of piracy against Lesley and plagiarism against Henry. The charges against Henry were unfounded, but they marred his career.



Part of the geological map of Pennsylvania produced by Henry D. Rogers (source: Library of Congress, Geography and Map Division)

In 1855, Henry began to look for a Scottish publisher for his survey of the geology of Pennsylvania as he had been let down by publishers in the United States. The report was finally printed in 1858 by W and A.K. Johnston along with William Blackwood and Sons, both of Edinburgh. In his preface to the report, he acknowledged the help of his assistants “with one or two exceptions” (perhaps alluding to Lesley).

On the death of the Keeper of the Hunterian Museum, George Couper, in 1857, the position in Glasgow became vacant. Henry’s friendship with the Duke of Argyll, a patron of the University of Glasgow, was instrumental, along with his friends at the Geological Society of London, in him being considered for the position. At an annual salary of £300, Henry took the position of Professor of Natural History in 1857. He knew both Charles Darwin and Thomas Huxley who, along with the leading lights of British geology, greatly admired and respected Henry. Despite this, Henry did not undertake any significant work on local geology around Glasgow and did not become a member of the Geological Society of Glasgow.

Henry had a lot of difficulty living in Glasgow where the ruling and mercantile classes tended to lend more support to the southern states than the abolitionist north. For this reason, Henry distanced himself from the early Geological Society of Glasgow whose membership included many from these social groups, some of whom had direct links to Virginia. His mental and physical health had suffered before he arrived in Glasgow and he spent lengthy periods of recuperation in southern England and the French Riviera. The death of his daughter at the age of seven in 1862 dealt him another heavy blow and by April 1866, when he returned from a trip to visit his brother William in Boston, he had only one month to live.

It is said that his death was a result of a combination of overwork, a weak constitution and the effect of the Glasgow climate. He died at his Glasgow home at 5 Elgin Villas in Shawlands but was buried close to his home in Edinburgh amongst the rich and famous in the south-east section of Dean Cemetery.

Another John Young ('the bad') (1835-1924) took over as Keeper of Natural History and the Hunterian Museum in 1866 after Henry died and worked with John Young ('the good'), the Assistant Keeper of the museum, until the early 1900s.

The two John Youngs are often confused as they were both employed by the Hunterian Museum at the same time; one as Assistant Keeper and the other as Keeper (it is not known how they got the nicknames of 'the good' and 'the bad' although the assistant keeper was better liked than the keeper). Professor John Young, the Keeper, also became a president of the Geological Society of Glasgow from 1867-1872).

Gravestone of plot 75812 Dean Cemetery, Edinburgh: In memory of Henry Darwin Rogers L.L.D., Regius Professor of Natural History in the University of Glasgow, Director of the Geological Surveys of Pennsylvania and New Jersey. Born in Philadelphia Aug. 1 1808, died in Glasgow May 28, 1866. (source: By Stephencdickson - Own work, CC BY-SA 4.0, <https://commons.wikimedia.org/w/index.php?curid=35216450>)



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University of Glasgow Story.

<https://www.universitystory.gla.ac.uk/biography/?id=WH2600&type=P>

Introducing the Scottish Geology Trust

In November 2019 the Office of the Scottish Charity Register authorized the “Scottish Geology Trust” (SC049775). In outline (more later) the purpose of this charity lies with recognition of the value of geology to society as a whole and education in the earth sciences. The Scottish Geology Trust will be the only group acting for geosciences across all of Scotland and across industry, education and conservation. It will fill a crucial gap between local groups (e.g. regional geological societies, geoparks, geoconservation groups) and UK or wider organisations (e.g. Geol Soc London, AAPG, PESGB, GA, BGS etc.)

Why on Earth do we need a geology charity?

Scotland’s past, present and future are intimately linked to geology. The beauty of the country stems from its long geological history with continental collisions raising mountains chains of Himalayan proportions, meteor impacts, rifting, volcanism and glaciation. It is truly a land of fire and ice. Scotland’s past and present prosperity is largely derived from its geology, for instance today, most industry relies on an understanding of the physical processes of our planet. This understanding is very important for the renewables industry, agriculture, life sciences, oil and gas, mining, forestry, tourism and even whisky.

The geography and culture of Scotland is also shaped by geology. Much of the distinct history and culture of the Highlands comes from the nature of the landscape. The central belt of Scotland, lying within the Midland Valley, developed on rich coal measures that drove the industrial revolution and helped make Glasgow the second city of empire. Carboniferous volcanism created such iconic landmarks as Arthur’s Seat in Edinburgh. To the south the Borders lie between the Southern Uplands fault in the north and Iapetus suture in the south, again a region where the nature of the landscape has profound influence on the way that people have lived in the past and present. The rugged terrain of the Southern Uplands drove human migration into Scotland along the coastlines. In more recent times, north-east Scotland has benefited from the discovery of oil and gas in the UK sectors of the North Sea. Coming right up to date, the renewables industry is driving a green energy revolution that depends critically on rare earth elements, for instance in permanent magnets of wind turbines. Although not mined in Scotland, they are nevertheless, a geological resource.

Against this background it is surprising that so little is generally known about the importance of Scotland’s geology. Few of the many visitors to the Highlands who marvel at the landscape know much of the reasons why it exists or how it came about. Within the pre-university education system, mention of geology is disappearing, and the future impacts of this on our workforce are concerning.

Rather than being celebrated for its value to landscape, industry and culture, geology has become tainted in many people’s minds by its connection to extractive industries while overlooking the importance to resources needed for renewables such as geothermal power or the need for lithium and other rare metals. Crucially, knowledge

of the physical processes that make our planet work are fundamental to understanding issues such as climate change.

Geology is very much a forgotten science in Scotland below degree level, this despite the major role Scotland played in the emergence of geology as a science e.g. James Hutton,

Lyell, Murchison, Holmes, etc. Key conservation sites are poorly looked after and not utilised to their full potential. For example, Fossil Grove in Glasgow is an outstanding geological site of national and international importance that has been seriously neglected. Siccar Point is often described as one of the most important geological site in the world but is little-known outside the geological community. Glen Roy with its superb parallel roads, although designated as a National Nature Reserve, languishes with little development. Unfortunately, the Glen Roy visitor centre was forced to close for lack of funding.

Scottish Geoparks do not receive any government funding and are expected to be “self sufficient”. With over 50,000 visitors to their visitor centres per year and at least 400,000 visits to their landscapes, they are very much where geology meets the general public. Despite this, funding for geoparks remains precarious and some such as Lochaber are surviving on a day to day basis. There have been many good education initiatives that have stalled due to lack of funding. GeoBus, led by the School of Earth and Environmental Sciences at the University of St Andrews, provides free educational visits and fieldwork to supporting Earth science learning in schools. It has recently secured new funding for the next 5 years, but the demand is high and much more could be achieved with sustainable funding.

Despite industry being short of young geologists and engineers, financial support from industry in the form of grants and donations which once could have been relied is now much harder to find.

This sorry state demands action, given the proud role Scottish geologists have played in the development of the science, and given that with some justification one can claim Scotland is its geology. In the absence of any central initiatives or interest, a group of concerned individuals supported by the Scottish Geological Societies and others such as the PESGB have begun work to create a new national charity, the “Scottish Geology Trust”. This exciting development followed three workshops where it became clear that there was a strong ground swell of opinion that the charity was needed.

The Board and their motivation?

The charity was born out of a series of meetings held in Edinburgh and Stirling last year, initially organised on the back of an Edinburgh Geological Society meeting. Around 50 people were involved in these meetings although not all at one time. One critical question that was asked of the participants was “why were they there”? Amongst the participants of the workshop there were common themes around:

- Inspiring, empowering and connecting people to understand the planet
- Making connections between the everyday and planetary level processes

- Enabling critical thought, self-guided discovery and a natural curiosity for the world.

It was the absence of these elements in Scotland that drove the formation of the Scottish Geology Trust.

The current board will be in place until the first Annual General Meeting, it represents a wide cross-section of experience that will drive the formation of the charity.



Chairman:
Melvyn Giles
Ex. Shell Earth Sci. R&D
Leader, and Expl. & Prod.



Jez Gittings
Chairman, Central
Scotland Geological
Society



Secretary:
Angus Miller
Geology tour leader, Teaching
Fellow at Edinburgh University
and founding Chair of the
Scottish Geodiversity Forum.



Laura Hamlet
Geopark coordinator
at North West
Highlands UNESCO
Global Geopark



Treasurer:
Walter Semple,
Former John Muir Trustee and
Treasurer. Retired solicitor
with experience of business and trust
and charity law and planning and
environmental cases.



Don Stewart
President Aberdeen
Geol.Soc. And
Director of Blakes Eye.



Bob Gatliff,
President of
Edinburgh Geol. Soc.
Ex BGS, Head Energy
& Marine Geoscience



Dr Eileen Tisdall
Lecturer in Biological
and Environmental
Science, University of
Stirling.

The SGT will

Inspire people to discover the significance of geology,
to empower better choices for a sustainable future.

We will aim to tackle 5 main areas:

People:

- Encourage and help communities to recognise the role of geology in creating landscape and sense of place and its impact on culture and history.
- Aid them in maximising the value of geology and preserving their assets.
- Empower them to make better choices both at policy level and the everyday.

Education

- Support geology teaching in schools
- Inspire adult learning

Supporting Scotland's Geoparks and Geosites

- With practical help, advice and core funding

Providing opportunities to experience and learn from Scotland's geology

- Encouraging better access to and promotion of key sites
- Supporting publications and information provision

Campaigning

- Promote the value of geology to society, policy makers and government.
- Support Scotland's Geodiversity Charter.
- Encourage research and new research scientists
- To support preservation of sites of national and international importance

The next steps

The charity will officially launch in October 2020 as part of Earth Science Week. To get to that stage we need to create web and social media sites, raise funding and recruit volunteers to help build the organisation. During September and October we will organise the Scottish Geology Festival with lectures, walks and field trips across the country.

Key activities in this start-up phase include:

1. Launch of a membership scheme
2. A kick-starter campaign to fund the charity
3. Organisation of the Scottish Geology Festival
4. General fundraising
5. Planning and organisation of the charity launch
6. Promotion, web and social media site creation, newsletters etc.

Making this happen will not be possible without help. Although we plan to raise money through a membership scheme which will be launched shortly, and we have been helped by a grant from the Edinburgh Geological Society, it is unlikely to be sufficient to carry the organisation across the start line. We need to hire a project officer to help with the Geology Festival, build websites, hire fundraisers, prepare promotional material to grow the membership and organise a formal launch aimed to raise money that we can use to support our work in 2021. All this is likely to cost around 21,000 pounds. Plans are in place to raise money once the charity is up and running, but we first have to find the money to start up.

If you would like to help us, then please contact : chair@scottishgeologytrust.org

Find out more joining:

Our LinkedIn Group: <https://www.linkedin.com/groups/13798816/>

Mailing list: <http://www.scottishgeologytrust.org/>

Melvyn Giles

Chairman Scottish Geology Trust

Subscriptions & Direct Debits

It's a demanding administrative task each year matching standing orders, cheques and cash with member's details. The Society is therefore proposing to introduce Direct Debit as the preferred method for paying subscriptions in future and it would be appreciated if existing members would adopt this method.

Direct Debit will also make it easier to take on new members via the website and will cut down on paperwork and postage costs. More details in the next newsletter

Email Addresses

In these fast changing times it would be a great help with communications, for all concerned, if all members who have email addresses but have not advised the Society could do so.

If you think you may not have advised us, all it takes is an email to memsec@gsocg.org
No message is required, but please include your full name.

Down-to-Earth Magazine

The Society has a subscription to Down to Earth; a quarterly magazine from Geosupplies Ltd aimed at a wide geological audience. It is read by students, teachers, amateurs and professionals and carries geological news, articles and comments from around the world.

Copies are usually available after our lectures and we hope to continue this in the future in our new venue.

Geosupplies run a large number of field trips, which members might be interested in post the pandemic.

For more information and/or to individually subscribe go to <https://www.geosupplies.co.uk/acatalog/Down-to-Earth.html>

Down to Earth extra is a free monthly update sent electronically to anyone who wants to receive it. Go to <https://www.geosupplies.co.uk/geology-mailing-list.php> to be added to, or removed from the mailing list.



The Geological Society of Glasgow

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