

HOGG

**Newsletter of the History
of Geology Group of the
Geological Society
of London**



**Number 55
October 2015**

Front cover

Victor and Joan Eyles taking tea with Hugh Torrens c. 1973.

Victor and Joan Eyles amassed a remarkable collection of correspondence, papers, maps and volumes as a library on the history and practice of geology. Victor Ambrose Eyles (1895–1978) graduated as a Doctor of Science at the University of Bristol in 1955. After his death, his wife Joan (1907–1986) continued to work on the history of geology and developing the Eyles Library. On Joan's death, the Eyles Collection came as a bequest to the University of Bristol Library. She also left an endowment for the purchase of early geological materials to augment the collection.

The Eyles Collection will be the focus of the next HOGG meeting, to be held in Bristol on October 21st (see P. 10 of this newsletter for further information).

Sources: University of Bristol website. Image courtesy of Hugh Torrens.

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The HOGG newsletter will be issued in February (copy deadline 31st January), June (copy deadline 31st May) and October (copy deadline 30th September).

HOGG NEWSLETTER 55

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LETTER FROM THE CHAIR



You may feel a certain sense of William Smith overload in this the bicentenary year of his *Delineation of the Strata*; however, I would like to draw your attention to yet another Smith map first. This is the mosaic of his Geological Map of Yorkshire commissioned by the Yorkshire Philosophical Society, created by artist Janette Ireland and laid out in the Yorkshire Museum Gardens in York. The location is near where Smith's nephew, John Phillips, resided as museum keeper. This map is four metres square and composed of pebbles (set in concrete) of the appropriate Smithian colours for the lithology with actual fossils arranged in the map and as figures on the border. It is designed to be walked on, has clear slate labels, and indicates mines and quarries that Smith mapped. It is very attractive, very substantially constructed and it bears scrutiny well. Cartographic essentials—the scale and prime meridian—have not been forgotten. This very imaginative map will keep William Smith in the minds of Yorkshire young people as part of educational outreach. The YPS was instrumental in gaining recognition for William Smith during his lifetime and its members were referring to him as the 'Father of English geology' for two years before Sedgwick. In this bicentenary year, the YPS have again done something visionary. Let us hope that this mosaic map is another case where Yorkshire leads the way.

In my account of the HOGG field trip to the Brecon Beacons, on the trail of Roderick Impey Murchison tracking the Silurian (Newsletter 52, p.4), I carelessly referred to his cocaine dependency. I am pleased to refer you to a letter from his biographer, Arthur Murchison—no biological kin, in the current newsletter (P.16) which comprehensively refutes this allegation and offers his interpretation of the facts. Arthur Murchison's biography of the young R I Murchison as a soldier in the Peninsular War against Napoleon's forces, *War before science: Sir Roderick Impey Murchison's youth, army service and military associates during the Napoleonic Wars*, was reviewed in Newsletter 52 (p. 15). I am happy to withdraw my remark and to acknowledge R I Murchison's painful stomach condition.

This is my last letter to the Newsletter as chair of HOGG. I have found the experience very interesting and fulfilling. It has been interesting because of the many individuals who I have met and/or come to know better, and for the variety of conferences, visits and field trips that I have attended and taken part in during my four years in office. There is so much talent and experience in HOGG. And, it was fulfilling because it was very much an 'in at the deep end' experience for me and I didn't sink! I learned so much and I deeply appreciate the support of many committee and group members, and Geological Society staff. From the start, I had in mind this bicentenary year and I am grateful that the committee agreed to let me stay on for the additional year of the Smith Bicentenary in which events and opportunities expanded well beyond my initial HOGG-limited vision.

I am very pleased to inform you that several members volunteered to fill the vacancies left by this year's retiring committee members (Alan Bowden, Cherry Lewis, Dave Williams and myself). Thank you to HOGG's four new candidate committee members, who are introduced elsewhere in this issue, and who will be proposed for election at the AGM on October 21st in Bristol (see P. 10 of this newsletter); it is very reassuring to think that HOGG will continue with new ideas and energy. I wish all the committee members for 2016 success with their ventures.

John Henry (e mail john@geolmaps.com)
October 2015

HOGG COMMITTEE 2015

Chairman John Henry **Vice Chairman** Dick Moody **Secretary** Tom Hose
Treasurer David Earle **Membership Secretary** Cherry Lewis
Ordinary members Alan Bowden, Beris Cox (**newsletter**), Jill Darrell, Chris Duffin, Ted Rose,
Dave Williams.

NOMINATIONS FOR HOGG COMMITTEE 2016

The 2015 HOGG AGM will be held at Bristol University on 21st October 2015 during the Visit to the Eyles Collection meeting (see P. 10 of this newsletter). At this AGM, new committee members will be elected to fill the vacancies left by retiring members. Ordinary committee members normally serve for three years, starting on 1st January following the AGM. Following the call for nominations in the last newsletter, four were received. As there are four vacancies, a ballot will not be necessary, and the following HOGG members will be proposed for election at the AGM:

Stephen Cripp (Proposer Dick Moody)

Stephen has over 40 years of industrial geological experience from the UK and overseas. He graduated from Kingston, took a Masters in geochemistry at Oxford and a PhD from Bristol, looking at the geochemistry of rocks from Arctic Norway. Having worked in gold, coal (opencast and deep mine), industrial minerals (including aggregates, dimension stone and brick clay), water and contaminated land, the latter 25 years saw a broadening of expertise into the fields of environmental management and renewable energy.



For well over twenty years, he has provided geological and hydrogeological advice to malt whisky distilleries, particularly relating to the nature, continuity and integrity of their specific water sources. Following on from this, he has undertaken research into the very wide-ranging water chemistries of individual process waters and the effects that specific chemical ions have upon the brewing and distillation processes. He has been consulted as an expert witness on this subject. A further area of study, particularly highlighted in his many talks and demonstrations, is the vast difference in flavour-effects created during reduction prior to bottling and by the customer, prior to consumption.

He has long lived in the Inverness area, close to both Tarradale and Cromarty, and his historical interests are concentrated particularly in the Scottish travels of both Roderick Murchison and Hugh Miller. A specific study is how the details extracted from both journals and publications can be used to highlight the wider geographical and social conditions in Scotland during the middle part of 19th century.

Sabina Michnowicz (Proposer Dick Moody)



Sabina graduated with a BSc (Hons) in Physical Geography from Aberystwyth University. She developed her interest in environmental earth science during her MPhil which looked at the effects of the Laki fissure eruption (Iceland 1783) on climate, environment and health in Europe. Subsequently, she completed a PhD at Durham University researching the health effects of quarrying a range of volcanic deposits (in Montserrat, New Zealand and Greece). She has 15 years of media

experience and recently presented her Laki research in the Channel 4 documentary series *Britain's Weirdest Weather*. Sabina has also worked in science policy; completing projects on natural hazards in Britain's overseas territories for the Department for International Development and the Parliamentary Office of Science and Technology. Currently, she is based at UCL researching the effects of historical eruptions in combination with volcanic risk perception and communication, aiming to learn from past events to better prepare for future ones. She presented a review of the history of silicosis at HOGG's History of Geology and Medicine meeting in 2014 and is eager to be more involved in HOGG activities.



Tom Sharpe (Proposer Cherry Lewis)

Much of Tom's career was spent in the Geology Department of the National Museum of Wales where he was curator of palaeontology and archives until 2013. An interest in the discovery and first description of marine reptiles led him to the life and work of Henry De la Beche, first Director of the Geological Survey, publishing a catalogue of his papers in 1998. More recently, Tom contributed an essay to the publication of a transcript of a newly-discovered De la Beche journal, and he continues to work on a biography of the man.

The maps of William Smith and George Bellas Greenough are another interest and Tom has been involved with the 2015 Smith Bicentenary Conference at the Geological Society and with HOGG's recent limited edition reprint of Smith's *Memoir*, as well as continuing to lecture on the maps to various groups around the country and abroad.

Tom organised exhibitions and events to mark the 2010–13 centenary of Scott's last Antarctic expedition, and once Smith-mania dies down, will be examining the geological and other scientific work of the Heroic Age Antarctic Expeditions. He has served on the committees of various organisations such as the Geological Curators' Group, often in officer posts, and has previously been a member of the HOGG Committee, organising a meeting and field-trip in Cardiff in 2013. If he is returned to the committee, he will be working for a 2017 meeting in Dorset, and hopefully setting things in train for a 2019–20 Greenough bicentenary.



Geoffrey Walton (Proposer John Henry)

Geoffrey Walton is a chartered engineer and the MD of DustScan Ltd a dust consultancy. He read geology and physics at Bristol University and has a PhD in mining engineering from Nottingham University. Initially, he worked for the Opencast Executive of the National Coal Board, was seconded to work with the Rock Mechanics Research Group in Imperial College, and then became the Headquarters Geotechnical Engineer. Since 1973, he has been in private practice essentially running niche businesses. The first of these was a mine and quarry design consultancy now known as GWP Consultants. In 2004, he established DustScan Ltd to continue with his interest in dust impacts, initially from mines and quarries but now from across industry. Appointed visiting professor of mining at Leeds University in 1995, he continues his academic contacts with SEES at Portsmouth University. From 1992 to 2002, he was a non-executive member of the Board of the British Geological Survey.

He maintains his interest in the minerals sector being a director of the Extractive Industry Geology Conferences Ltd, a not-for-profit professional interest group for those in the applied geosciences. He is the author of more than 40 papers, articles and books on subjects related to the minerals industry, environmental impacts and the history of science. He has collected books, maps and documents for many years, including some by William Smith, and is researching the layout of drainage, irrigation and other engineering activities by Smith and his contemporaries.

HOGG NEW MEMBERS

HOGG welcomes the following new members

Martin Evans, Cambridge
Elizabeth McIntyre, Bristol
Ron Williams, Coulsdon, Surrey

HOGG WEBSITE

Since October 2012, HOGG has had its own website at <http://historyofgeologygroup.co.uk/>. This is our main website although we continue to have a presence at www.geolsoc.org.uk/. The HOGG site provides easy access to all aspects of HOGG including details about HOGG meetings and the facility for online registration and payment. It also includes links and latest news from elsewhere.

If you have any queries about the site or material to add to it, please contact our new web editor Marc Srouer at marcsrouer@gmail.com.

REPORT ON HOGG OPEN MEETING

18th June 2015

Bill George¹ reports on the HOGG Open Meeting at Burlington House organised by Tony Brook.



Tony kicked off an impressive array of 12 speakers promptly at 09.40hrs by reminding us that this was the 4th Open Meeting he had organised for HOGG. It was a non-themed meeting, with talks of a more general nature on a variety of topics. We had earlier been handed, on arrival at Burlington House, a splendid set of abstracts which also included the front covers of relevant books published during the last few years and mention of some future HOGG meetings.

The day was divided into four sessions covering building stones; the opening decades of the 19th century; our geological heritage, and concluding with two miscellaneous talks. The talks held together exceedingly well and several speakers were able to complement, expand and draw out themes or ideas which had been discussed earlier.

Session 1 Building Stones

Kate Andrew, who has a museum background, briefly outlined the *One Thousand Years of Building with Stone Project in two Welsh Border Counties*. Kate clearly explained that the Herefordshire and Worcestershire Earth Heritage Trust are running this major project on building stone, linking stone buildings to stone-quarrying in 19 areas, using a combination of archives, social history, field work and some scientific analysis. This challenging project, in an area with fantastic geology, has a budget of nearly £400,000, two full time staff, a highly impressive 150 volunteers, and has already engaged 15,000 members of the public in 68 outreach events. Although the project is only halfway through, an

online database lists a staggering 2,948 buildings and some 520 quarries. This project is greatly raising awareness and appreciation of building stone and is a model of what can be achieved.

The second talk *Maps, Measures and Models of Building Stone Use in Sussex* was delivered by **Roger Cordiner** and **Anthony Brook**. Roger emphasised the need to move building stone study forward from being just descriptive to creating comparative, analytical and eventually predictive models. A search of geological maps and literature provided lots of strata and varieties of stone, and a large database of 322 parish churches and other surviving stone buildings in Sussex has been created. Roger emphasised that an accurate geological map could be constructed by plotting building stone usage and illustrated this with several examples of Sussex building stone. Distance from outcrop and quantity of stone used in a structure is paramount. Tony then demonstrated on screen, using a transparent box, a theoretical model of building stone using parameters such as finance and purpose; economics including quantity and quality; and supply, especially availability and accessibility. Roger had copies of his excellent book *Building Stones of West Sussex* (2014), which he co-authored with Roger Birch, available for purchase.

Session 2 Opening Decades of the 19th century

Following a refreshment and comfort break, we were treated to Professor **Bill McGuire**'s stimulating keynote talk *Tambora: supervolcano eruptions and their impacts on society and history*. This enthralling talk explained that the April 1815 blast was the biggest-known volcanic eruption of modern times and led to widespread crop failures and famine with 1816 being called the 'Year without a Summer'. One authority believes it resulted in 'the last great subsistence crisis in the western world'. Bill outlined the impressive statistics; a death toll of 71,000 including 59,000 from starvation and disease. Global temperatures dropped by 3°C and the following three summers were cold and wet, leading to food riots. The common myth that Turner's colourful skies resulted from Tambora was debunked, but Baron Karl Drais's 'Dandy Horse', patented in January 1818, may have been developed to mitigate the large number of horses lost due to the dramatic weather changes. Bill concluded that although many lessons may be learned from Tambora, politicians sadly tend to respond to events rather than being prepared for them.



Geoffrey Mead, a geographer, then gave a lively and amusing talk on the *Brighton and Hove Basement: Geological Foundation of a Cornurbation*. Using a most impressive array of images; prints, maps, archives, artwork, photographs and place names, the speaker was able to reconstruct graphically a now built-over urban geological landscape. This detective work was used to explain Brighton's growth and development, social areas and today's house prices.

The final talk before lunch was a very stimulating and thought provoking talk by **Adelene Buckland** (no relation to the Oxford professor and cleric) on *Geology and Fiction 1815: Charles Lyell & Humphrey Davy, Dreaming in Stones*. The speaker, who is a lecturer on 19th century literature and science, emphasised that both Lyell and Davey thought that imagination was fundamental to understanding geological change. Lyell was really a lifelong failed poet who 'engaged with Romantic ideas about the power of the imagination to see the world anew'. Davey's *Consolation in Travel* was criticised by Lyell for its visionary style and progressionist narrative of Life on Earth. Using examples of Lyell and Davey's writings, the speaker considered their place in Romantic literature; their visions of geological ruin and the inadequacy of human sight for scientific work; and their contribution to the role and power of the imagination in the progress of science and philosophy.

Session 3 Our Geological Heritage



After a short lunch break, **Rob Butler** delivered his wow-factor keynote talk on *Geoheritage and the UK's most significant Geological Sites*. Rob, who is based at the School of Geosciences, University of Aberdeen, stressed the great variety and heritage of British geology. His talk naturally had a Scottish focus and touched on the Geological Society's 100 Great Geosites Project. Geological outcrops are invaluable classrooms and shop windows for students and the public. British cliffs and quarries can dramatically show structures, forms and complexities which can be applied worldwide. Threats, including indiscriminate rock coring, hammering, chalk marking and afforestation were demonstrated. An interesting discussion followed on working with the quarrying sector to create and protect sites.

Sam Scriven, Jurassic Coast Team Earth Science Adviser delivered the second talk of the afternoon. This lively and animated presentation was entitled *Interpreting Geological Heritage: challenges and themes—Case study of the Jurassic Coast World Heritage Site*. 'Rocks matter' is the key message, in addition to the 185 million year Triassic, Jurassic and Cretaceous 'Walk Through Time', in developing the new Interpretation Action Plan for the Dorset and East Devon World Heritage Site. Deep time and fossils do enthral the public but some explanation is needed to astonish, resonate, motivate, demonstrate and reconnect visitors to geological sites. Sam explained the 'string of pearls' concept comparing each centre as a pearl and the added value created when all parts are joined. He also emphasised that the new interpretation action plan will crucially include a strategy for delivery.

The next talk took us eastwards along the south coast when local government museum service worker **John Cooper** gave us a fascinating historical perspective and an overview of current practice as well as suggested future developments, in his presentation entitled *The Importance of being RIGS: Case study of the Sussex Geodiversity Sites*. Using mainly Sussex examples, John's presentation took us on a journey from early paper-based geological site recording, NCC's 'second tier sites', the advent of computers to English Nature's 1990 strategy, leading to RIGS and national bodies looking after earth science site conservation. Sussex's successes were largely due to having the input of a museum curator at the Booth Museum headquarters, a good volunteer base, funding to develop a knowledge base, strong connections with the Sussex Wildlife Trust and local groups, including representation from Sussex University and the local community. Future developments will be led by website improvements and new frameworks, such as Sussex Geodiversity Partnership, working as part of a holistic approach to nature conservation.



The final talk, before most welcome afternoon tea and biscuits, was delivered by **Melanie Border**, the co-ordinator of the English Riviera Geopark and Chair of the UK Geoparks Forum, who spoke on *The Importance of Global Geoparks: Case study of the English Riviera Geopark*. The English Riviera Geopark has one of the highest concentrations of protected geological sites in the UK. Melanie explained that the English Riviera Geopark situated in South Devon joined the UNESCO-endorsed Global Geopark Network in 2007. Currently, there are 111 Global Geoparks across 32 countries. is a driver for education, community benefits, tourism and regeneration. The

Paignton Geoplay Park and Geo-Collective community projects have been very successful and positive. One very tangible measure of success is that the equipment in the Paignton Geoplay Park, which gives subliminal education, has worn out through use and had to be renewed. Torbay will also host 600 international delegates at the 7th UNESCO International Conference on Global Geoparks in September 2016.

Section 4 Miscellaneous

Following on from a short tea and biscuit break, which allowed much informal networking and discussion, **Paul Sowan** treated us to a very practical talk *Geology, Groundwater and Tunnelling Problems at Merstham, East Surrey* which emphasised the dynamic connection between geology and engineering. In addition to the printed talk abstract, Paul very kindly circulated an eight-page handout on the *Geology, hydrogeology and the London & Brighton Railway Company's Mertsam tunnel made 1838–1841*. Paul has been exploring and surveying underground workings in this area since the 1960s. His great expertise and knowledge of the underground medieval quarrying for building-stone and the early Victorian railway tunnelling has been utilised by the railway company. The serious flooding problems encountered towards the end of the tunnel's construction were not due to the presence of the lower abandoned medieval workings. The problem lay in high winter rainfall. Construction of the rail tunnel had commenced following a period of low rainfall and therefore lower water table. This situation was reversed towards the completion of the project and even today, groundwater is drained from both ends of the tunnel in wet winters when the water table is high, for example that of 2014.



The final talk of the day was given by **Phil Stone** of the British Geological Survey, Edinburgh who spoke on *Mineral Prospecting Expeditions to the South Atlantic Islands made by the Scottish geologist, David Ferguson, 1912–1914*. The speaker's interest in this topic was aroused in 2003 when the Bank of Scotland uncovered some of David Ferguson's notebooks. Ferguson was commissioned by the Christian Salvesen whaling company to undertake mineral prospecting in South Georgia, the Falklands and South Shetlands from 1912–1914. Earlier work by others in this area was very limited and Ferguson tried to understand the regional geology in addition to his unsuccessful prospecting work. Ferguson worked with Professor J.W. Gregory to understand the geology of the area, but Ferguson's interpretation was rather cursory and Gregory's ideas were not robust. However, Ferguson's meticulous well-documented field work, rock specimens and notebooks allowed others, including the petrographer G.W. Tyrell of Glasgow University to produce their own more modern interpretation without the necessity of visiting the sites. The field notebooks and specimens are now reunited in Glasgow University.



Following this last talk, hearty thanks were given to Tony Brook for successfully masterminding and executing the excellent programme of presentations. In turn, Tony thanked the speakers for their talks and John Henry for managing to get the abstracts reproduced in time for the meeting.

¹ e mail william-george@lineone.net

FUTURE HOGG EVENTS

2015

***VISIT TO THE EYLES COLLECTION AT THE UNIVERSITY OF BRISTOL
AND LECTURE BY PROF. JOHN GROTZINGER**

Wednesday 21st October 2015

University of Bristol

Details on page 10 of this newsletter. Registration form on page 31 of this newsletter.

NB This meeting will include the HOGG 2015 AGM.

2016

***EUROPEAN OIL & GAS INDUSTRY HISTORY CONFERENCE**

Thursday 3rd–Friday 4th March 2016

A joint conference with the Petroleum Group of the GSL and the Petroleum History Institute marking a number of important anniversaries including 150 years of oil exploration in Poland & Romania, the centenary of the drilling of the first oil well in the UK and 50 years of oil production onshore Spain.

Further details on page 12 of this newsletter.

***MILITARY ASPECTS OF ENGINEERING GEOLOGY, PAST AND PRESENT**

Wednesday 16th November 2016

Burlington House, Piccadilly, London

A joint meeting with the GSL's Engineering Group, convened by Ted Rose and Dr Judy Ehlen, to mark the centenary of the year in which (Sir) Edgeworth David was deployed on the Western Front, the first "engineering geologist" to serve as such with the British Army in combat.

SECOND CALL FOR PAPERS on page 13 of this newsletter.

**VISIT TO THE EYLES COLLECTION AT THE UNIVERSITY OF
BRISTOL
AND LECTURE BY JOHN GROTZINGER**



DATE: Wednesday 21st October 2015
TIME: Registration will open at 10.30
LOCATION: The Avon Room, Arts and Social Sciences Library,
University of Bristol, Tyndall Avenue, Bristol BS8 1TJ
CONVENOR: Dr Cherry Lewis (cherry.lewis@bristol.ac.uk).
COST: HOGG and GA members £10 Non-members £12

The meeting will include the 2015 HOGG AGM.

EVENING LECTURE by John Grotzinger: 19.00–20.00

Space is limited so we need to know numbers in advance. Registration will therefore close on 14th October and will not be available on the door.

About the meeting:

As part of the ongoing William Smith bicentenary celebrations, HOGG will visit the Eyles Collection in the Arts & Social Sciences Library, University of Bristol which houses one of the best collections of early geological material in the country—including many Smith maps and other related items.

- **Hugh Torrens** will talk about Victor and Joan Eyles and their collection of historic geological material.
- **Tom Sharpe** will discuss and demonstrate Bristol's collection of William Smith material.
- **Cherry Lewis** and **Michael Richardson**, the Eyles Collection custodian, will demonstrate and discuss a wide selection of items from the collection which participants will also be able to examine themselves.

About the Eyles Collection:

The papers, maps and volumes were collected as a library on the history and practice of geology. Thanks to a legacy left by Joan Eyles, the collection is regularly added to.

- **Books:** The extensive collection of almost 1000 rare books dating back to the early 1600s includes works by William Buckland, Thomas Burnet, Georges Cuvier, Jean Baptiste Lamarck, John Playfair, James Parkinson, Joseph Townsend, William Whiston and many, many others.
- **Maps:** A large collection of European maps of historic interest, with detailed maps of the British Isles 1804–1937, includes a number of maps by William Smith.
- **Papers:** Correspondence relating to the study of geology in the early nineteenth century, includes letters to and from the Sowerby family, 1679–1892; the wills of Rev. John Buckland; and papers and correspondence relating to John Farey, 1806–1822, amongst a large number of other items.

A selection of material will be available for viewing but should participants wish to see anything in particular, please notify cherry.lewis@bristol.ac.uk. A list of publications can be found by going online to <http://www.bristol.ac.uk/library/> and typing Joan Eyles into the library search box.

TIMETABLE

10.30 Arrival and registration

11.00 Talk by Hugh Torrens on Joan and Victor Eyles, and the Eyles Collection (in the Avon Room, Arts and Social Sciences Library)

12.00 HOGG AGM

12.30 Lunch

14.00 Depending on numbers, we will split into two groups. One group will view material laid out in the archives. Tom Sharpe will take the second group down to the Earth Sciences Department to view the newly restored Smith map and other Smith-related items, and also to the Bristol Museum next door to look at their Smith map and other items of interest. Halfway through the afternoon, the two groups will swap over.

19.00 Evening Lecture: After the meeting, participants are invited (free of charge) to attend a lecture in the University's Great Hall given by Professor John Grotzinger from the California Institute of Technology (Caltech), the Chief Scientific Officer on the Mars Curiosity Project. Before the lecture, entitled *The Geological Mapping of Mars with Orbiters and the Curiosity Rover*, there will be an opportunity to talk to Professor Grotzinger over wine and nibbles.



REGISTER ONLINE AT

<http://historyofgeologygroup.co.uk/product/visit-to-the-eyles-collection-tickets/>

OR COMPLETE THE REGISTRATION FORM AT THE BACK OF THIS NEWSLETTER

REMEMBER: REGISTRATION CLOSES ON 14th OCTOBER



European Oil & Gas Industry History conference 3rd–4th March 2016 Burlington House, Piccadilly, London

The focus of the conference will be to examine the history and heritage of the oil industry from the earliest onshore drilling (and digging) to its development into the industry that we know today, and also to examine the transition from conventional to unconventional resource plays in the onshore arena.

Keynote speakers from across the UK, Europe and the USA will share the historical framework of exploration and development activities. Invited Keynote Speakers include:

JONATHAN CRAIG: *Hardstoft Britain's first Oil Field*

FRANCO CAZZINI: *The Early History of the Oil & Gas Industry in Italy*

E. ARCHER: *Baku—Ten Centuries of Oil*

JORGE NAVARRO: *Ayoluengo—50th anniversary of Spain's only onshore oil field*

JULIE BARLOW: *East Midlands Fields, Past, Present & Future*



A field trip will be arranged over the weekend following the conference to examine the history, industrial archaeology and geology of the UK's earliest oil and gas fields in the East Midlands and the Peak District. During the trip, a memorial plaque and information board will be unveiled at the Hardstoft-1 well site in Derbyshire, marking the 100th anniversary of the drilling of the well under the Defence of the Realm Act to reduce Britain's dependence on oil imports.

A Geological Society *Special Publication* is planned in association with the conference.

A poster session will be held during the conference.

- For further information, please contact: Laura Griffiths, The Geological Society, Burlington House, Piccadilly, London W1J 0BG T: 020 7432 0980 or e mail: laura.griffiths@geolsoc.org.uk
- HOGG contact is Prof. Dick Moody (e mail rtj.moody@virgin.net)



MILITARY ASPECTS OF ENGINEERING GEOLOGY: PAST AND PRESENT

Burlington House, Piccadilly, London
Wednesday 16th November 2016

SECOND CALL FOR PAPERS



A one-day meeting at the Geological Society, Burlington House, Piccadilly, London is being convened for next year under the auspices of HOGG and the GSL's Engineering Group, and promoted also by the Institution of Royal Engineers. It will follow the precedent of a meeting in November 2009 on *Military Aspects of Hydrogeology*, with 12 oral presentations. Like that meeting, it is hoped that it will generate about 20 manuscripts to be worthy of peer-reviewed publication as one of the GSL's books.

The meeting is scheduled for 2016 to mark the centenary of first deployment of an engineering geologist by the British Army to support combat operations—Major (later Sir) Edgeworth David on the Western Front in 1916—with book publication in 2018 to help mark the centenary of the end of the First World War.

Papers on any aspect of military engineering geology, both historical and topical, will be considered for presentation and/or publication. Suitable subjects include fortification, tunnelling, quarrying, military construction projects (e.g. ports, airfields) and terrain assessment. Papers describing work in the two World Wars will be particularly welcome; also those describing later conflicts, and recent work related to redundant or ageing military facilities.

Further details will be announced later via the HOGG and Engineering Group newsletters as plans progress, and on the HOGG and GSL websites, but those interested in contributing a talk or poster, and/or an article for publication, are asked to make contact as soon as possible with one of the convenors, Edward P.F. Rose (e-mail ted.rose@earth.oxon.org; home telephone: +44 (0)1425 279124) or Judy Ehlen (e-mail judyehlen@hotmail.com).

2015 SUE TYLER FRIEDMAN MEDAL WINNER

As announced in previous HOGG newsletters (nos 53 and 54), this year's GSL Sue Tyler Friedman Medal for distinguished contributions to the recording of the history of geology has been awarded to Dr David Branagan (University of Sydney, Australia). He was presented with the award at the GSL President's Day on June 3rd. The full citation and the winner's response, which were not available in time for the previous newsletter, are given below.



Citation for David Branagan (Sue Tyler Friedman Medal):

“The Sue Tyler Friedman Medal, awarded for excellence in research into the history of geology, goes this year to Dr David Branagan of the University of Sydney.

David approaches the history of geology and mining from the point of view of one who graduated in geology from the University of Sydney in 1950. He then joined the Geological Survey of New South Wales and mapped Permian Coal Measures, as well as Lower Palaeozoic and Precambrian sequences.

During this stage of his career, he also became involved in engineering geology and while subsequently working as a Research Fellow at Sydney, specialising in coal and its utilisation, David was awarded his PhD in 1963 and went on to teach mining engineering geology, photogeology and field mapping for about 30 years, retiring in 1989 as Associate Professor of Geology. He thereafter continued his association with the University, becoming an Honorary Research Associate of Geology, History, and History & Philosophy of Science. He was foundation editor of *The Australian Geologist* (1974–1984), President of INHIGEO (1992–1996), and was awarded an Honorary DSc by the University in 2007.

Of his 20 or so books and 230-odd papers and articles, about 130 have been dedicated to the history of geology and related sciences. This work includes numerous papers and books on famous Australian geologists and explorers—J W Gregory, S Stutchbury, and many others. His book on T W Edgeworth David, published in 2005, recounting the life and career of this legendary Welsh-Australian geologist, Antarctic explorer, co-founder of the Australian Army Tunnelling Corps in World War One and inveterate campaigner for science on a global scale, has enjoyed a thoroughly deserved success, worldwide.

David Branagan, please accept with our deep respect and gratitude, the Sue Tyler Friedman Medal of The Geological Society of London.”



David Branagan’s response:

“I am honoured to be the 2015 recipient of the Sue Tyler Friedman Award.

Today, I am joining the ranks of numerous more distinguished historians of geology than myself, and to whom I owe much for their advice and friendship. I am the fourth Australian to have received this award, preceded by Tom Vallance, David Oldroyd and Homer le Grand, so the former colony has yielded perhaps unexpected value(s)!

It was my good fortune to have known Sue Tyler Friedman through her husband Gerald Friedman, to note their dedication to the history of geology, and to have enjoyed their company at history conferences and excursions. This award is a tribute to their joint memory. Gerald will be remembered for his fine texts on sedimentary geology, and by the founding and, I suspect, their joint funding of the journal *Earth Sciences History* of which he was the original editor; a journal which has built up an international reputation for its quality, through the continuing enthusiasm of its editors.

I have been lucky to have worked largely on Australian material, starting my interests when there were few researchers in the field, finding much basic information in Europe and the Americas. Through Tom Vallance, I met the pioneer couple Joan and Victor Eyles, and became a contributor to the Australian Dictionary of Biography. It was Tom whose criticism ensured that the scientists who contributed considerably to Australia's development received due recognition in its pages.

There is still much history to be researched and sadly, for many, it can only be a part-time effort. In recent years, numerous superb publications tell us about the latest geology and geophysics. But the general reader might almost assume that the knowledge of the Earth came out of thin air. While some pioneers are relatively familiar names, other important, but less-remembered, persons deserve to be honoured. Again, Mr President, I thank you and those who nominated me for this considerable honour.”

OBITUARY: ROBIN NICHOLSON 1932–2015

Robin Nicholson was an early member of HOGG. This obituary notice, by H & J A Nicholson, R. Rutland and S & J Treagus, is taken from the GSL website.

Robin Nicholson was the complete field geologist. In his field-based research, he combined deep knowledge and scientific rigour with energy, physical endurance and persistence. He will be remembered particularly for his major and lasting contributions to our understanding of the geology of the Scandinavian Caledonides. He also carried out significant research elsewhere in Europe and in East Africa.



Robin was brought up in Berwick upon Tweed. In 1950, he gained a place at Hull University to read geography, which he did not enjoy, and so left to do his National Service. In the RAF, he revelled in the challenges of flying, training with the RCAF in Gimli, Manitoba.

On his return to civilian life, he applied to read geology at University College London, in the small department led by Professor S E Hollingworth. He graduated in 1956, winning the Sir Henry Mier's Prize. He and Brian Walton then joined Prof. Hollingworth's research group in Nordland, Norway, extending the work of Royce Rutland and Keith Ackerman to the critical Glomfjord area (immediately NE of the Svartisen permanent ice cap). His PhD was a landmark study of an area which at that time was accessible only on foot. Fieldwork was demanding in difficult mountainous terrain with variable weather, deepening his respect for the pioneers of Nordland geology.

In 1957, Robin was appointed assistant lecturer at Bedford College where he completed his PhD. Here he met Judy whom he married in 1961. In 1960, Robin moved to Professor Deer's department at Manchester University. He and his own PhD students maintained the connection with the UCL group, and he effectively became the leader of the expanding UK effort in Nordland from the mid 1960s. Robin helped to found the Tectonic Studies Group of the GSL in 1970, and was an early member of HOGG. He was also an active participant in the Geologists' Association.

In the 1970s, Robin's research extended eastwards into Sweden, in order to tackle the wider problems of nappe relationships. Links with Sweden were strengthened through Mike Wilson, his graduate student, sadly killed in Nicaragua. Robin's research not only applied the developing techniques of structural geology in the field but also modern geochemical and geochronological techniques to the elucidation of tectonic relationships. These resulted in important reviews of Caledonian geology in 1974 and 1979.

In spite of accelerating health problems and decreasing mobility, which brought his Norwegian research to an untimely end, Robin persisted with less demanding fieldwork, focussing on the mechanics of small-scale structures. The formation and propagation of veins and dykes remained a passionate interest until the end of his life.

Robin officially retired in 1994 and in 1999, he and Judy moved to Berwick upon Tweed where he greatly enjoyed visits from his three granddaughters and many former colleagues and friends. He died of pneumonia on 30th March 2015 and is survived by Judy, his wife of 54 years, son Hugh and daughter Sally.

LETTER TO THE EDITOR

From: *Arthur Murchison PhD, 8181 Folsom Blvd, Spc. 217, Sacramento, CA95826, USA*
e mail arthurmurchison1210@comcast.net

Date: *1st August 2015*

I noticed that John Henry's 'Report on HOGG's Summer Field Weekend', published in *HOGG Newsletter* No. 52, October 2014, contained the statement that "RIM's [Roderick Impey Murchison's] driven nature" was the result of "cocaine dependency".

I am aware that Lyell wrote that Murchison "depended on drugs for his existence to a frightful extent" and that he was sometimes distraught if he could not find a druggist during his travels; however, it seems necessary to respectfully point out that Lyell related RIM's frequently searched-for drug to his diet, not his energy, writing that "The mischief is, that he has naturally a weak though sound stomach and if he possessed a more than ordinary share of self-denial, and was very prudent, and after much exercise did not eat a good dinner when set before him—if, in short, he would take the advice which many find it easy to give him, he would be well"¹. I have found no mention of cocaine or even the word 'stimulant' or 'stimulating drug' related to RIM's high energy and vigour in the field by Lyell or any of his contemporaries.

A physician, Dr Baillie of London, cautioned RIM: "You must not try to do like other folks. If you dine with the Duke of Montrose you must not eat patties because your neighbour does, so recollect that you never can have a strong stomach though you must keep it sound." He then gave RIM "dinner pills to help you"².

Lyell's mystery drug is identified in another of RIM's journals³: After a dinner with his fox-hunting friends, Murchison sold some of his horses before embarking on his science career. One of the fellows who brought one of Murchison's horses renamed the animal Potash "as a quiz on me for taking so much of that alkali after our potatoes". This reveals that the 'drug' for which he frequently searched, was likely potash, an alkaline substance, which in turn reveals that RIM likely had chronic problems with an acid stomach or what is now called gastroesophageal reflux disease (GERD), sometimes called acid reflux or heartburn. Anyone who has suffered this can understand RIM's strong desire to find the relief offered by potash pills. There was no Omaprazole magnesium or Zanex pill in his time.

Apparently RIM's "keep-moving, go-it-if-it-kills-you" persistent energetic vigour in the field mentioned by Lyell has led to some modern speculations regarding his frequent pill-taking. The life Murchison presents in his journals reveals that he was naturally very energetic and proud of it; he boasted about his walking strength while at Durham Grammar School, mentioning a walk of 20 miles each way, just for the fun of it at age 13. He gave numerous examples of his perseverance in dangerous stunts while at that school. As an adult, he was proud of his dancing and fencing skills. He was athletic; he enjoyed boxing lessons given by a London champion. At ages 13–15, he was also a Gentleman-Cadet of the Royal Military College in Marlow, England where he and his fellow cadets spent many hours each day in miles of walking during mandatory drill exercises. As an army Ensign, age 16, he marched many miles through Portugal and Spain. He then survived one of history's most horrible military retreats, walking barefooted through snow past hundreds of weaker dying men; that required extraordinary strength and perseverance and it is doubtful that he found and used cocaine to do it. Physically, Murchison was a big robust fellow; his captaincy in the grenadier company of the 2nd Battalion of the 36th Regiment reveals that he had reached six feet or more in height by age 20.

Is it possible that Lyell, who had no military experience, had never worked in the field with a strong energetic field-tested soldier before was thus surprised to see the "keep moving, go-it-if-it-kills system", a system which saved Lt Murchison's life during the retreat to Corruna?

Geikie wrote that "even under the weight of three score years and ten, Murchison could walk a dozen of miles and keep a keen eye on all the topographical and geological features of the Influences surrounding hills". Is it possible that a 67 year old man who had a lifetime cocaine addiction could continue with such energy and strength without showing the track marks or bleeding noses with holes in the septum and other physical ravages of long time use of such stimulating drugs? Many would have noticed and commented on such symptoms.

It seems that knowing that RIM had a drug that he needed frequently and that he had notable robust energy and perseverance, has led to modern speculations that he used stimulants such as cocaine. However, I hope that 1) Dr Baillie's delicate-stomach diagnosis and pills, 2) the identification of the pills as potash by Murchison's fox hunting friend, 3) Lyell's relating the medicine to diet, 4) RIM's life of demonstrated vigorous perseverance, and 5) the strong urges to relieve painful burning esophageal pains brought on by 'heart-burn', all serve to support my identification of the content of RIM's favourite pills as potash. I hope this is considered a deduction or hypothesis rather than speculation.

References

¹Lyell, Charles (1881) [1828] *Life, Letters and Journals of Sir Charles Lyell*, John Murray, London, p. 189.

²RIM's journal titled 'Vol: Family History, held by the Division of Special Collections, Edinburgh University Library, GB 0237, shelf mark 'Gen. 2173'.

³RIM's journal titled 'Chapter 13' held by the Geological Society of London Archives LDGSL 841/16

NB. Arthur Murchison is author of *War before science: Sir Roderick Impey Murchison's youth, army service and military associates during the Napoleonic Wars*. 2014. Academica Press. Reviewed by Ted Rose in *HOGG Newsletter* No. 52, October 2014, p. 15.

MATTHEW FORSTER HEDDLE AND THE DISPUTE OVER THE NORTH-WEST SUCCESSION

*Hamish Johnston*¹

Matthew Forster Heddle (1828–1897), author of The Mineralogy of Scotland (1901), is a name familiar to mineralogists. Here, his great-great-grandson tells of Heddle's role in the controversy that raged in the 19th century over the interpretation of the geology of the North-West Highlands of Scotland. His biography of Heddle was published in May (see Book and Map Notes in this issue).

Orthodox opinion on the interpretation of the geology of the North-West Highlands had been determined by Roderick Murchison (1792–1871) who worked with James Nicol (1810–1879) until they fell out after Nicol later discovered features incompatible with Murchison's view (that the observed geology of the



North-West Highlands could be explained in terms of a stratigraphic sequence). A series of papers and scientific meetings culminated in victory for Murchison in 1860–1, after which Nicol withdrew from the debate. When Murchison died his protégé, Archibald Geikie (1835–1924), continued to support the orthodox view but the debate re-opened from the late 1870s when several geologists, doubting Murchison's interpretation, began to publish their findings. Nicol died in 1879, never to know that, when in 1884 the matter was finally resolved, he was shown to have been largely correct.

How does Heddle fit in? Sutherland was Heddle's favourite county and, in 1881, the *Mineralogical Magazine* published the first of his six Sutherland papers. Appearing over a period of three years, they total 321 pages. In

1882, Heddle published his geological map of Sutherland with commentary. All Heddle's Sutherland papers were prepared while the renewed controversy was active, but before the solution was discovered. Despite his efforts, Heddle never managed to square the circle of the conflicting evidence. Heddle knew and worked with all the main participants, sometimes finding he had awkward conflicting loyalties.

It appears that Heddle did not work with Murchison, but Archibald Geikie was one of his oldest friends, the two having met in the classroom of Alexander Rose in Edinburgh around 1850. Geikie was to be Heddle's correspondent and personal confidant, as well as a colleague in science with whom he undertook several expeditions. Geikie faithfully supported Heddle, including his case for recognition by the Royal Society of Edinburgh, achieved in 1879. Nicol was also a close friend and colleague, he and Heddle exploring many mineral sites together in the 1870s. Heddle was the author of Nicol's obituary.

Murchison's principal critics included Henry Hicks (1837–1899), Charles Callaway (1838–1915) and Charles Lapworth (1842–1920), all known to Heddle. "You'll have to call for me to separate you..." wrote Heddle to Geikie about his disagreement with Hicks. In 1882, Callaway was working in Sutherland and was in touch with Heddle, sending him orthoclase specimens from Loch Assynt. Lapworth was working at Durness and Loch Eriboll and Heddle provided him with thin-sections of Sutherland rocks.

In 1883, after Callaway and Lapworth had reported separately on their findings, Geikie (who in 1882 became Director of the Geological Survey) sent Benjamin Peach (1842–1926) and John Horne (1848–1928), his best geologists, to look again. They convinced Geikie that Murchison's views were untenable and Geikie published their findings in *Nature* in November 1884. Heddle had worked with both Peach and Horne before either became involved in the North-West succession issue. Heddle was in Caithness with Peach in 1874 looking for signs of old volcanic activity, and first met Horne in 1878. "I met your Horne up in the North he is a fine fellow—a thorough gentleman and a kindly dispositioned man—I've taken a great liking to him..." Heddle told Geikie. In 1879, Heddle and Horne cemented their friendship exploring volcanic intrusions in Caithness near John o'Groats.

Heddle's Sutherland work and his associations with these geologists show he was much more than a mineralogist. Of geology Heddle said "...in this special literature elements stand for the letters, minerals for the words and rocks for the sentences."

¹ e mail hamishhj@hotmail.com

RESURRECTING METHODS FROM THE PAST

HOGG member Nina Morgan¹ gives some historical background to her new book on Oxford gravestones (see Book and Map Notes in this issue).

Understanding the effects of weathering in stone is a serious issue for architects, engineers and conservators of stone buildings. There are a number of studies taking place (for example see <http://www.scottishgraveyards.org.uk/resources9.shtml>), many of which take their inspiration from a methodology first proposed by the geologist and author Archibald Geikie (1835–1924). Geikie, who served as Director General of the Geological Survey of Great Britain from 1882–1901, was recognised in geological circles for his studies of the Carboniferous and Permian volcanic rocks of Scotland. But in conservation circles, he may be better remembered for coming up with the idea of using gravestones as a means of studying weathering in stone.

Gravestones have a number of characteristics that make them ideal for this type of study. For a start, they are made of a number of different rock types, many of which are also used for building stones, and because gravestones are generally erected within a few months of the death of the individuals they commemorate, they are, in effect, well documented and precisely dated samples. Combine that with the

fact that graveyards are situated in a variety of environments where they are subject to different types and levels of pollution, and it's easy to see why gravestones are proving to be such useful monitors of weathering in a wide range of stones under a variety of environmental conditions.

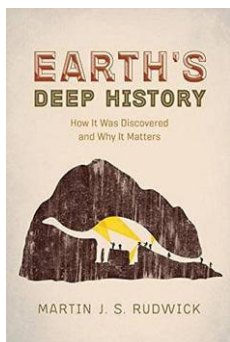
Many years later, the geologist Eric Robinson who taught in the Earth Science Department at University College London from 1953 to 2000, came up with another use for gravestones. Passionate about the promotion of the public understanding of science and a champion of urban geology, Eric was fond of using both building stones and gravestones as a means of introducing geology to the public at large. His *modus operandi* was simple, but effective. Whenever he was attending a meeting in a new town, he would spend a bit of time in a local cemetery, note down gravestones made of interesting rocks, and then offer to lead a free gravestone walk for anyone who was willing to attend. I well remember a walk he gave in St Sepulchre's cemetery in Oxford when the British Association held its annual meeting in Oxford during the late 1980s. His enthusiasm was contagious, and he certainly knew how to capture the attention of a crowd!

Three years ago, seemingly out of the blue, I received a bulging envelope from Eric that really brought back memories. The envelope was stuffed with handwritten notes, sketch maps and lots of snapshots all relating to cemeteries in Oxford—along with the exhortation to “Do Something With It”. The temptation to revisit the past walk with Eric was irresistible. And to cut a long story short, I recruited Phil Powell, a fellow geologist and building stone enthusiast now retired from the Oxford University of Natural History to accompany me, and we've just published a book, *The Geology of Oxford Gravestones* (see www.gravestonegeology.uk).

Following in Eric's footsteps we, too, have taken up the idea of leading gravestone walks, and like Eric, are pleased to discover what an effective communication tool these walks can be. Proof, I suppose, that sometimes the old ways are the best ways!

¹ e mail ninamorgan@lineone.net

BOOK AND MAP NOTES



AWARD FOR MARTIN RUDWICK

Martin Rudwick has been awarded the British Society for the History of Science's Dingle Prize for his book *Earth's Deep History—how it was discovered and why it matters* (see HOGG Newsletter 52 October 2014). This biennial award is given for the best new popular book, published in English, on the history of science. Chosen from a field of over 50 titles, this is the first book on the history of Earth sciences to win the award.

Matthew Forster Heddle: Mineralogist and Mountaineer

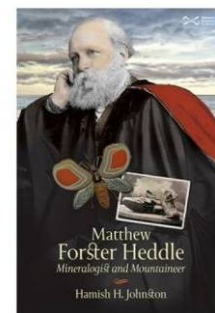
Hamish Johnston

National Museums Scotland Enterprises Ltd—Publishing. 2015. 270pp.

ISBN 978 1 905267 989 paperback £14.99

48 colour/b&w illustrations in two 8-page art sections, with b&w illustrations in the text.

This biography chronicles the life of one of Scotland's most famous mineralogists, Orkney-born Matthew Forster Heddle (1828–1897). His legacy



includes *The Mineralogy of Scotland* (1901), still the classic work on the subject, and more than 5700 specimens now in the National Museums Scotland collection. Written by Heddle's great-great-grandson, the book offers a far richer portrait of this larger-than-life character than anything that has appeared before. (Publisher's information)

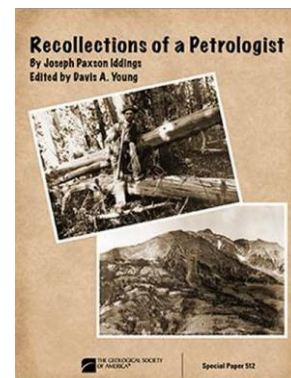
Recollections of a petrologist: Joseph Paxson Iddings

Geological Society of America Special Paper 512

Davis A. Young (editor)

Geological Society of America, Boulder, Colorado. 2015. 208pp.

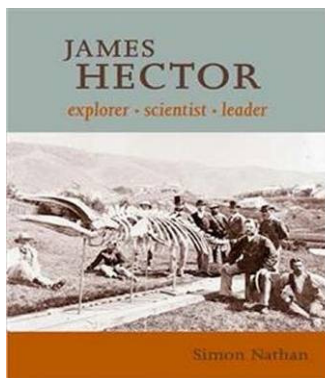
ISBN 978-0-8137-2512-3 \$80



“This new Special Paper reproduces the “scientific autobiography” of Joseph Paxson Iddings (1857–1920). Iddings was considered the leading American igneous petrologist of his era, deciphering the igneous geology of Yellowstone National Park, spearheading the CIPW quantitative igneous rock classification project, and writing several magisterial petrology texts. Volume editor Davis A. Young supports Iddings’ lively text with a substantive introduction and hundreds of biographical notes.

Young writes that in these recollections, Iddings sheds light on the central petrologic issues of his time “in a lucid narrative interspersed with assessments of the personalities and achievements of geological contemporaries, literary allusions, poems, humorous stories, and a wealth of vivid descriptions and impressions of the cultures of Far Eastern countries”. As he recounts his illustrious career with the US Geological Survey and the University of Chicago, Iddings discusses his part in the transition from hand-specimen petrography to theoretical igneous petrology based on microscopical petrography, and physical chemistry.

No petrologist, mineralogist, or historian of geology should miss the pleasurable reading offered by [this book].” (Publisher’s website)



James Hector: explorer, scientist, leader

Simon Nathan

Geoscience Society of New Zealand Miscellaneous Publication 140

Geoscience Society of New Zealand, Lower Hutt. 2015. 264pp.

ISBN 9781877480461 paperback NZ\$45

“The story of James Hector (1834–1907), explorer and scientist, who dominated late 19th century science in New Zealand. Among his many achievements, Hector was the first to recognise and describe Hector’s dolphin, to standardise New Zealand time, and to set up the Colonial Museum (now Te Papa).”(Publisher’s website)

He also founded the New Zealand Geological Survey. Copies can be ordered online from the distributor at <http://www.pottonandburton.co.nz/store/james-hector>

NB. To mark this year’s 150th anniversary of the New Zealand Geological Survey, the Geoscience Society of New Zealand has also released three collections of documents and correspondence relating to Hector which are freely available online as PDF files at <http://tinyurl.com/q9ellmo>



Slovene Karst and Caves in the Past

Trevor Shaw & Alenka Čuk

Karst Research Institute. ZRC Publishing House. 2015. 464pp.

(extensively illustrated)

ISBN 978-961-254-740-0 hardback €49.00

“The caves and dramatic limestone scenery of the Slovene karst have attracted visitors for centuries. The great stalagmites and roaring underground rivers were seen by relatively few people at that time but many of them did record their experiences in diaries as well as in print. These are used in the book, which is a result of a long-time collaboration between an English historian of speleology and a Slovene historian, to describe what they saw and what they thought about it, with contemporary illustrations by contemporary artists and photographers. Modern tourism derives from the tours led by Thomas Cook who first came to Postojnska jama in 1868. Music in that cave has a very long history for dancing or concerts. This is only one example of the relation between caves and people as a constant theme in this book. Altogether the 39 chapters describe, for example, the problems facing all travellers in pre-railway days and point out one of the very first women to explore in Slovene cave animals and a lot more.” (Publisher’s website).

Geological Society of America (GSA)

Memorials



SCIENCE • STEWARDSHIP • SERVICE

The GSA (established 1888) has recently finished scanning all of its old *Memorials* volumes. These are now available for free at

<http://www.geosociety.org/pubs/memorials/index.asp> .

The *Memorials* are tributes written by associates, friends, or relatives, to deceased members of GSA. Prior to the start of this series, memorials were published in the GSA *Bulletin* and in GSA *Proceedings* volumes. These earlier memorials will be scanned and added in due course.

La Société géologique du Nord et l'histoire des sciences de la Terre dans le nord de la France [*The Société géologique du Nord and the history of Earth Sciences in northern France*]

Société Géologique du Nord

Mémoires Vol. 17. 2014.

ISSN 0767-7375 40€

This volume comprises a Preface by **Jean Gaudant** and the following 15 papers, in French apart from captions to illustrations:

Alain Blicek et al. La Société géologique du Nord et les sciences de la Terre dans le nord de la France: science, industrie et société.

Francis Meilliez & Alain Blicek. Les dix premières années de la SGN et sa place dans la société en cours d’industrialisation du XIX siècle.

Antoine Matrion Les financements de la Faculté des sciences de Lille par les compagnies minières: un simple échange de bons procédés?

Marie Hennion & Jessie Cuvelier Le rôle des ingénieurs des mines dans la vie industrielle, scientifique et sociale: l’exemple de Félix Broussier (1874–1938).

Jessie Cuvelier & Claude Monnet Plus d’un siècle de femmes à la Société géologique du Nord: reflet de leur place dans l’enseignement supérieur et la recherche française.

Jean Ricour Le laboratoire de Géologie, la Société géologique du Nord et le Musée d'histoire naturelle de Lille—Souvenirs d'un étudiant de géologie lillois pendant l'Occupation (mai 1940–juin 1944).

Francis Robaszynski René Marlière (1905–1993), président de la Société géologique du Nord en 1955 et professeur de géologie à Faculté polytechnique de Mons (Belgique), 1928–1970.

Francis Amedro La Société géologique du Nord et le Tunnel sous la Manche: une petite histoire commune.

Jean Ricour La Société géologique en 1960—une evolution personnelle.

Jacques Charvet La période dinaro-hellénique de la Société géologique du Nord.

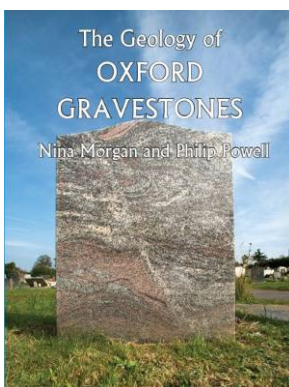
Denise Brice D'une présidence à l'autre (1971–1996-7): l'un des objectifs de la Société géologique du Nord évolue vers la sauvegarde du patrimoine.

Patrick Auguste, Jean Somme & Luc Vallin Le rôle de la Société géologique du Nord et de ses publications dans l'évolution des connaissances sur le Quaternaire.

Francis Meilliez, Francis Amedro & Thierry Oudoire Les peintures murales de l'Institut des sciences naturelles à Lille: un patrimoine géologique à préserver.

Elisabeth Locatelli La bibliothèque recherché des sciences de la Terre de l'Université de Lille au fils du temps: historique du patrimoine, un fonds au service de la communauté scientifique.

Thierry Oudoire, Jessie Cuvelier, José d'Andrea, Clémentine Koch & André Dhainaut Le département de géologie du Musée d'histoire naturelle de Lille, des collections à l'image de l'histoire géologique régionale.



The Geology of Oxford Gravestones

Nina Morgan & Philip Powell

Geologica Press. 2015. 140pp. including glossary and index, 389 colour photographs.

ISBN 978-1-91058-53-1 paperback £14.99 (+ postage & packing)

For details of how to purchase, visit www.gravestonegeology.uk

See article by Nina Morgan on P.18 of this Newsletter.

Buildings Stones & Stone Buildings of Staffordshire

P A Floyd

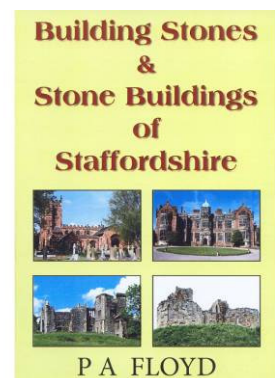
Arthur H. Stockwell Ltd. 2015. 348pp. 231 figures and photographs, mainly in colour.

ISBN 978-0-7223-4543-6 paperback £14.95

Publication date 16th October 2015. Available to pre-order.

Contents include

- historical and geological background to the wealth of stone utilized throughout the centuries.
- issues of conservation and restoration, and the problems of sourcing suitable replacement material.
- the major features of Staffordshire's building limestone and sandstones, and their physical and chemical properties.
- illustrated guide to the stone heritage of selected Staffordshire buildings, integrating historical, architectural and geological aspects, covering castles, country houses and ecclesiastical buildings, as well as villages, civic buildings and monuments.



THE J. B. HARLEY RESEARCH FELLOWSHIPS IN THE HISTORY OF CARTOGRAPHY

The Harley Fellowships—the only one of their kind in Europe—provide support of up to four weeks (normally at GBP400 per week) for those, from any discipline, doing the equivalent of post-graduate level work in the historical map collections of the United Kingdom. Website:

<http://www.maphistory.info/harley.html>

For the period 2013–2016, in addition to the normal J. B. Harley Fellowship awards open to anyone pursuing advanced research in the history of cartography, there are also Harley-Delmas Fellowships for research in the history of cartography during the European Renaissance to the Enlightenment c. 1400–c.1800, kindly funded by the Gladys Kriebel Delmas Foundation. All applicants should apply for a J. B. Harley Fellowship; eligibility for a Harley-Delmas award will be decided by the Selection Committee for the Trustees.

The closing date for applications is 1st NOVEMBER 2015. The Fellowship website has an Application page that should provide all the necessary information as well as answering many frequently asked questions: <http://www.maphistory.info/application.html>

E mail applications to: rose.mitchell@nationalarchives.gov.gsi.uk

SMITH vs GREENOUGH—A NEW EXHIBIT AT THE GSL LIBRARY



Much has been written about the competing ideas and maps of the Geological Society's first President, George Bellas Greenough, and William Smith, whose geological map of England and Wales is 200 years old this year.

Did Greenough plagiarise Smith's map? Was Smith a stubborn loner? Was there a whiff of elitism in Smith's absence from the Geological Society's gentlemanly membership rolls? Or were Smith and Greenough just two different types of scientist?

Find out by visiting a new exhibit in the Lower Library at Burlington House. The exhibit explores the contrasting approaches of the two men to geological mapping, with maps and other items from the Society's collection. The small display can be viewed at the Geological Society, Burlington House, Piccadilly, London W1J 0BG until 30th October. (adapted from the GSL Library Newsletter Issue 11)

READING THE ROCKS: THE REMARKABLE MAPS OF WILLIAM SMITH— A NEW EXHIBIT AT THE NATIONAL MUSEUM OF WALES, CATHAYS PARK, CARDIFF

A new exhibition to commemorate the bicentenary of William Smith's 1815 map, *A Delineation of the Strata of England and Wales, with part of Scotland*, has opened at the National Museum of Wales in Cardiff. Curated by Tom Sharpe (Lyme Regis Museum, and formerly Curator of Palaeontology and Archives at the NMW), the exhibition features five copies of Smith's 1815 map from the museum's collections. Three copies are displayed as the whole map, one is displayed with an original subscriber's travelling case, and the fifth is in atlas form. For comparison, a copy of Greenough's 1820 map is

shown along side those of Smith, as well as a spectacularly pristine copy of Macculloch's map of Scotland of 1840.

The 1815 maps displayed include No. 100 and No. b72, as well as No. 17 (in atlas form), one of the first batch of maps to be returned unsigned by Smith because of his disapproval of the quality of the colouring which Cary had had "done at a cheap rate by new hands", apparent in an examination of the sheet displayed.



The exhibition has been enhanced by generous loans of material from Oxford University Museum of Natural History and the Natural History Museum. These include, from Oxford, a Bath map of 1799 and an 1801 map of England and Wales, as well as Smith's 1815 diary and his draft, unpublished, county map of Monmouthshire. The Natural History Museum has kindly lent a selection of Smith's specimens, including some of those figured in the Upper Greensand plate of his *Strata Identified*.

A late unnumbered and unsigned map (Map Y) is also displayed which, with its 1834 paper countermark, may represent a second edition. This is complemented by the loan, from Oxford University Museum of Natural History, of a copy of the 1815 *Memoir*, annotated by Smith in 1834 for a revised edition.

The large maps are displayed in spectacular, purpose-built cases designed by Simon Tozzo of the museum's exhibition department, with the map held in place by numerous small magnets, a system devised by Emily O'Reilly, the museum's paper conservator.

The exhibition has taken fourteen years to come to fruition since it was first proposed; rather appropriately, it took Smith the same length of time to see his map in final production.

HUNGARIAN MAPS AND A MINERAL HALL

Duncan Hawley¹ reports on some aspects of the history of geology that he encountered on a recent trip to Budapest.

I was aware that Hungary had a long history of geology from the tale of one of their nation's scientific heroes, Robert Townson (1762–1827), an English polymath who produced the earliest attempt to map the petrography of Hungary based on a 'tour' in 1793 and published in 1797 (see Torrens 1999). So when I was due to visit Budapest for a conference in August (2015), I contacted the Hungarian Geological Institute (HGI) to enquire about the possibility of viewing old geological maps of Hungary, and not least the copy of Townson's map in their holdings. My request was met with enthusiasm and I duly found myself strolling down a leafy avenue on the edge of Budapest city centre and arriving at the magnificent building of the HGI (*see right*). The building is worth a visit in its own right as an architectural gem of the late 19th century. Built in 1896, the interior is as impressive as the exterior and contains a geological museum open to the public by appointment.



I was hosted by Dr Csilla Galambos and Professor Gábor Timár who had carefully laid out a number of early and later maps to highlight the progress of geology and geological maps in Hungary—not only the geological perspective but Professor Timár (an expert in geodesy) also explained how the cartographic accuracy influenced the development of geological mapping. As our discussion on mapping and map production ensued, the HGI Librarian, Klara Palatos, retrieved the relevant contemporary reports from the library shelves to add to the detail.

In addition to the Townson map which charts the geology only along his tour route, I was shown a copy of the first geological map that covers the whole territory of Hungary, surveyed and compiled by a Frenchman, Sulpice Beudant, published in 1818. It is a remarkably complete map using Beudant's own scheme of colours with number codes to indicate the different formations. I learned how the progress in mapping was bound up with the imperial and post-WWI history of Hungary. In the 1920s and 1930s, only parts of Hungary were mapped but in 1944, the first map to detail the sediments of the vast Great Hungarian Plain was published by József Sümeghy. I was particularly fascinated to see the geological maps produced in the Cold War period that were printed without any form of coordinate reference system in order to make them of limited use to western geologists (*see right*). Finally, I spent some time with Professor Timár viewing how old geological maps can be fitted and geo-referenced with modern geodatabases to assess their accuracy.



Yet more history of geology delights were in store at the conference held in the Geography and Earth Sciences Department of Eötvös Loránd University—an impressive building on the right bank of the

Danube built in 2002. However, the mineral and rock collection is exhibited in delightful cabinets built in 1885 and housed in a galleried Mineral Hall which, having survived the chaotic decades of the 20th century, was carefully moved to the new building and faithfully re-constituted.



On display are the mineral collections and records of early Hungarian mineralogists, including that of Austrian Archduchess Maria Anna (acquired in 1781), carefully catalogued by the great Hungarian polymath and mineralogist Ignaz von Born (after whom the mineral Bornite is named and on whom Mozart modelled the alchemist character Sarastro in his opera *The Magic Flute*). Here also is the collection of Grand Duchess Alexandra Pavlovna (1809) together with its original handwritten Russian catalogue (she was the daughter of the Russian Czar Paul I), plus the acquisitions of numerous collectors and professors in the late 19th century. My tour guide to the historical

cabinets was Dr Weiszburg Tamás—a mineralogist and historian of science in the Department of Mineralogy (who also generously presented me with publications on Townson and Von Born). Examining the specimens in the glass cabinets of this Mineral and Rock Hall is a great reminder of how collections used to be laid out for systematic teaching and study in a way that is now almost all gone. However, this collection is still used for undergraduate teaching and has a regular stream of school parties too.

If you ever find yourself in Budapest then I can recommend a visit to both the Hungarian Geological Institute (which houses a public museum) and the Mineral and Rock Hall at the university—not least to remind yourself that some significant early geological activity and developments took place on the continent as well as in Britain.

Sources of further reading for those interested in discovering more about early Hungarian geological maps and geologists/mineralogists:

- Torrens, H. 1999. Robert Townson (1762-1827): Thoughts on a polymathic natural historian and traveler extraordinary. In Rozsa, P. (ed.), *Robert Townson's Travels in Hungary Proceedings of the "Townson Symposium" held in Debrecen, 26th September 1997*, Kossuth Egyetemi Kiadó: Debrecen. Available to download from http://www.shropshiregeology.org.uk/sgspublications/Proceedings/2011%20No_16%20013-024%20Torrens%20Townson.pdf
- Galambos C. 2014. Topographic basis and projection of early geological maps about Hungary. In Livieratos, E. & Wasteful, M. (eds.) *9th International Workshop on Digital Approaches to Cartographic Heritage, Budapest, 2014. International Cartographic Association*, pp. 84–88 Available to download from https://www.researchgate.net/publication/265335928_Topographic_basis_and_projection_of_the_early_geological_maps_of_Hungary?channel=doi&linkId=5408ca2e0cf2187a6a6dd575&showFulltext=true
- Galambos, C. 2010. History of the Hungarian Geological Maps: An Overview from the 18th Century to Nowadays. In Gartner, G. & Ortog, F. (eds.) *Cartography in Central and Eastern Europe: Cartography and Geoinformation Lecture Notes*, Vienna 2009 International Cartographic Association. Berlin; Heidelberg: Springer-Verlag. pp.497–508.(ISBN 978-3-642-03293-6)
- Mineral and Rock Collection, Eötvös Loránd University, Budapest https://www.elte.hu/en/mineral_and_rock_collection
<https://youtu.be/ucu5bGQes7c>
<http://museum.elte.hu>

- Schue, C. (no date) Born, Ignaz Edler, von (1742–1791). Curtis Schuh’s bibliography of mineralogy. The Library. The Mineralogical Record. <http://www.minrec.org/libdetail.asp?id=175>
- Geological and Geophysical Institute of Hungary (website) <http://www.mafi.hu/en>

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SIDNEY SPOKES’ BIOGRAPHY OF GIDEON MANTELL—A POSTSCRIPT

Anthony Brook¹ writes a postscript to his article in Newsletter 46 (October 2012).

In HOGG Newsletter No. 46 (October 2012), I wrote about the review of Sidney Spokes’ biography of Gideon Mantell that formed such a prominent feature on the front page of the *Worthing Herald Magazine* dated 14th January 1928. At the end of the introductory paragraph, I wrote that “this seems to be the only review of this book. It does not seem to have been noticed or commented upon in any other geological or Sussex media of the time”. That comment was just asking to be contradicted by someone or other, and that someone turns out to be none other than myself! Quite fortuitously, I recently came upon another short review of this pioneering biography of Mantell. As is so often the case, I was searching for another reference when I found something even more significant.



Gideon Alcock Mantell
1816-1883

From 1927 until 1971, the Sussex Archaeological Society published a quarterly journal called *Sussex Notes and Queries*, to complement their annual and learned *Sussex Archaeological Collections*. Amongst its varied short articles and items on Society business and meetings, were short reviews of new publications which, in Volume 2 May 1928, pp. 66–67, featured a review of Spokes’ biography by “W.H.G.”. These are the initials of Walter H. Godfrey, CBE, FSA, FRIBA (1881–1961) who was a prolific contributor to Sussex Archaeological Society publications for over 35 years. An architect by profession, his main concern was the preservation and conservation of the ancient buildings of Sussex, particularly those in High Street, Lewes, where he lived, and where Mantell had lived at Castle Place from 1816 until 1833. Indeed, Walter Godfrey was known nationally for championing the idea of our Built Heritage, and was the first Director of the National Buildings Record (1941–60).

His review is brief and concise. In only two paragraphs, he outlines Mantell’s life and legacy, and the quality and importance of the volume. A couple of his comments are particularly perceptive: “he [Spokes] has now produced a more enduring memorial than stone, of a man whose life had its full share of tragedy that is so often attendant upon greatness” and “Mantell deserved the tribute of our grateful memory in so many ways, that we are glad that the debt is at last recognised and partly discharged by Mr Spokes’ appreciative volume”. This is only a very minor addition to the documentary record of Gideon Mantell whose “reputation as a geologist is world-wide”; as Walter Godfrey proclaimed in May 1928: evaluations of prominent people in the past are always illuminating.

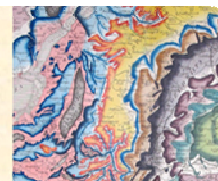
¹ anthony.brook27@btinternet.com

OTHER FUTURE MEETINGS AND EVENTS

WILLIAM SMITH MAP BICENTENARY EVENTS

A master list of William Smith bicentenary events is available on the GSL website at <http://www.geolsoc.org.uk/Events/William-Smith-Bicentenary?>

The William Smith Map
Bicentenary (1815-2015)



UNIVERSITY OF WALES
CENTRE FOR ADVANCED WELSH AND
CELTIC STUDIES

NATIONAL MUSEUM OF WALES—AMGUEDDFA CYMRU, CATHAYS PARK, CARDIFF
27TH NOVEMBER 2015

LAYERED LANDSCAPES: GEOLOGY AND TRAVEL IN ROMANTIC-ERA BRITAIN

A day of talks, readings and discussions exploring how new concepts in geological thinking changed perceptions of landscape in travel-writing of the Romantic period, particularly in Wales and Scotland. How did the writers and artists, mineral and fossil-hunters who travelled to and through these places respond to and interpret the unfolding dramas of the deep past?

CONFIRMED SPEAKERS: Martin Rudwick, Richard Bevins, Tom Furniss, Tom Sharpe, Shelley Trower, Tom Cotterell, Mary-Ann Constantine, Paul Evans, Elizabeth Edwards, Phillip Gross.

Planned to coincide with an exhibition celebrating the bicentenary of William Smith's *Geological Map of Britain* (1815) (see Page 23 of this newsletter), this is the second in a series of collaborations between National Museum of Wales and the AHRC-funded project *Curious Travellers: Thomas Pennant and the Welsh and Scottish Tour 1760–1820*.

Cost £40 (£5 concessions) with tea & coffee. For a full programme and to register contact: a.elias@cymru.ac.uk (Tel. 01970 636543)

www.wales.ac.uk/en/CentreforAdvancedWelshCelticStudies/NewsEvents/Events.aspx

AAPG/SEG INTERNATIONAL CONFERENCE &
EXHIBITION
BARCELONA, SPAIN
3RD–6TH APRIL 2016



A session entitled *History of Petroleum Geosciences* will be organized during the American Association of Petroleum Geologists (AAPG) and Society of Petroleum Geophysicists (SEG) International Conference & Exhibition to be held in Barcelona in April 2016 (<http://barcelona2016.ice.event.org/>). The focus will be on Europe and North Africa although presentations on other parts of the world are also being considered. The session will be chaired by HOGG member Prof. Piotr Krzywiec (e mail piotr.krzywiec@twarda.pan.pl) to whom enquiries should be addressed.



**41ST INHIGEO SYMPOSIUM
CAPE TOWN, SOUTH AFRICA
27TH AUGUST–4TH SEPTEMBER 2016**

The 41st INHIGEO Symposium will be part of the 35th International Geological Congress (www.35igc.org) to be held in Cape Town, South Africa in August–September 2016.

A “History of Geoscience” theme is listed under a Core Topic of “Geoscience and Society” and the INHIGEO Secretary General (Associate Professor Barry J. Cooper barry.cooper@unisa.edu.au) is the designated co-ordinator.

The historical symposia suggestions under the “History of Geoscience” theme are listed as

- 1. General contributions on the history of geology.
- 2. Historical studies of Gondwana.
- 3. Local (indigenous) understanding of geology.
- 4. History of fossil man investigations.
- 5. History of geology over the past 50 years.

The second and third circulars are already available. Abstract submission has opened and will close on 31st January 2016.

www.inhigeo.org

HOGG STANDING ORDER MANDATE

Name of bank or building society.....

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Please pay the amount of £15 (fifteen pounds) to the History of Geology Group of the Geological Society (Santander Business Account, Sort code ___-___-___ Account number _____) on 1st January (or closest date thereto) following the date of this instruction and annually thereafter until terminated by me in writing. **[NB Account details will be inserted by the HOGG Treasurer.]**

Signed..... Date.....

PLEASE SEND THE COMPLETED MANDATE TO

**David Earle (HOGG Treasurer)
61 Straight Road, Old Windsor, Berkshire SL4 2RT**

