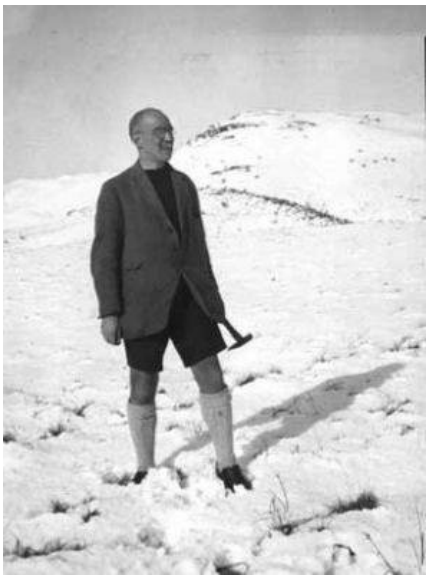
HOGG

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



Number 51
June 2014

Front cover

SIR EDWARD BATTERSBY BAILEY (1881-1965), veteran of the First World War

After education at Kendal grammar school and Clare College, Cambridge, Edward Battersby Bailey joined the geological survey in 1902. He established himself as a competent field geologist working on the igneous rocks of the Scottish lowlands, Glencoe and the Grampians. His geological work was interrupted by the First World War in which he served from 1915–1919 with the Royal Garrison Artillery. He was wounded twice, losing his left eye and much use of his left arm. He was awarded the Military Cross and the French Croix de Guerre with palms, as well as being made a chevalier of the Légion d'honneur; he left the army with the rank of lieutenant.

Amazingly, his brain was unaffected by his war wounds and, in 1919, he was given charge of the Survey's fieldwork in the west Highlands of Scotland, notably the complex geological mapping of Mull. In 1930, he left the Survey to take up a professorship in geology at Glasgow University only to return seven years later as the Survey's Director, a post which he held until his retirement in 1945 when he was knighted. The Second World War occupied six of his eight years as Director. From 1940–1942, he was a lieutenant commanding both the Geological Survey and the London region section of the Home Guard. Described as one of the best-known and most colourful geologists of his time, he received honorary doctorates from Belfast, Birmingham, Cambridge, Edinburgh, Glasgow and Harvard universities. He was elected Fellow of the Royal Society in 1930 and was awarded a royal medal (1943), as well as other prestigious medals including the GSL's Wollaston Medal (1948).

Apart from his Scottish geological fieldwork and research, Sir Edward Bailey is also known to historians as the author of *Geological Survey of Great Britain* (1952), which traces the activities of the UK's Geological Survey from its beginnings in 1835 to the end of the Second World War, and biographies of Charles Lyell (1962) and James Hutton (1967).

Sources: Stubblefield, C J 'Bailey, Sir Edward Battersby (1881-1965)' rev.*Oxford Dictionary of National Biography*, Oxford University Press, 2004.
Wilson, H. E. 1985 *Down to Earth. One hundred and fifty years of the British Geological Survey*

Editorial subcommittee
Beris Cox (e mail: beris.cox@btinternet.com)
David Earle (e mail: daearle@btinternet.com)

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 51

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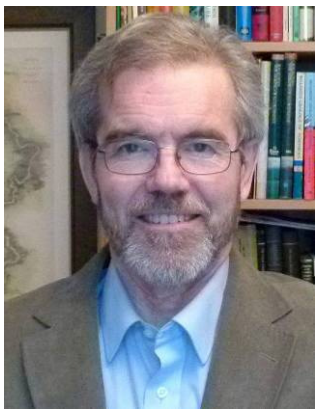
IN MEMORIAM

We are sad to report the death last November of long-standing HOGG member **Alan Lane**. With his wife Janet, he attended many HOGG meetings and together they have given HOGG loyal support for many years. Our condolences to Janet who we look forward to seeing at future meetings.

LETTER FROM THE CHAIR



A few weeks ago, HOGG hosted a visit from the *Societé Palaeontologique de Ville-sur-Mer* of Normandy. This was not an exchange in connection with our recent trip to Burgundy (reported later in this newsletter); the timing was a coincidence, although HOGG Vice-Chairman Dick Moody was the common denominator and organiser. Cross-channel travel is relatively easy and, with the *autoroutes* or Eurostar, we can travel pretty far in a day, alone or in groups. Though near, 'the other side' is still significantly and interestingly different and worth exploring. The delight and interest of our French visitors mirrored our own in Burgundy.

Ville-sur-Mer has a population of 3000 and its palaeo society has a hundred members of whom more than 20 came on the visit. They have a friendly rivalry with the geological society in nearby Le Havre. Our visitors knew of Mary Anning through the translation of a recent imaginative account of her life by Tracy Chevalier. They knew of William Smith's map as a 'first', although not his story. They were not aware of Henry Darcy, 'father of hydrogeology', one of the 'stars' we learned of on the Burgundy trip—evidently not a national hero. They knew their own local hero Arcisse de Caumont who, in 1825, produced the earliest of the *departemental* geological maps, that of Calvados (Normandy); Caumont corresponded with Buckland, De la Beche and Sowerby. They certainly knew of George Cuvier, 'a god of French science' said one visitor, but they were not aware of the remarkable 'geognostic' map of the Paris Basin that he produced with Brongniart in 1810 (in my opinion the first modern geological map). What does this very limited sample tell us?

- Popular accounts spread the word, more so if translated, and the absence of such accounts restricts the spread of historical awareness and knowledge;
- Regionalism and localism are perhaps stronger in France than in England;
- Popular history of science publishing is not the phenomenon that it is in the English-speaking world;
- Travel increases our experience and knowledge and can alter our perspectives.

I would like to see more travel across the channel—in both directions. Many thanks to Dick Moody who organised the itinerary and guidebook for our visitors, to Fabienne Michaud (head of the library) for acting as guide and hostess at Burlington House, and Paul Johnston (map librarian) for his help with the maps.

HOGG's Oral History Project is being revived thanks to the initiative of Caroline Lam, GSL archivist, and Fabienne Michaud. Originally, it was a GSL bicentenary project led by Nic Bilham, former HOGG committee member. The idea behind the project was to capture the memories of older GSL fellows from all fields and not only those at the 'commanding heights' of the Society. The intention was to produce more of a social history of geology and, in particular, to record what geology was like before the advent of plate tectonics. Fifteen interviews of 1 to 1.5 hours were recorded. Of a further 16 geologists remaining on the original target list, six have since died. More information will appear in the next newsletter; however, if you wish to register your interest in assisting, please advise Alan Bowden at alan.bowden5@gmail.com.

Changes in the relationship between the GSL and its specialist groups, of which HOGG is one, are afoot through a restructuring of the GSL Science Committee. The Science Committee controls the programme of conferences that are 'badged' by the Geological Society—the Wm Smith Conference, the Fermor Meeting, the Lyell Meeting and the Arthur Holmes Meeting—and others where the GSL conference office handles the administration. Specialist groups such as HOGG may organise their own

conferences without 'badging' but this means taking on the financial risk and considerable work. Until now all Specialist Group chairs or their representatives have attended the quarterly Science Committee meetings, although only a minority did. These meetings are now regarded by the Executive of the Science Committee as unwieldy and, perceiving that it has in the past been reactive, it has moved into proactive mode with a view to establishing more focus on Science and selecting an annual theme that it is hoped the badged conferences will address. It has slimmed down the Science Committee by excluding specialist committee chairs and aims to establish 'families', each of four or five specialist groups, which will be represented by one person on the Science Committee. It has not determined whether the specialist committees agree to the 'families'—many don't—and whether the representative will be appointed by it or elected from below. HOGG has been assigned to the 'Custodians' family which also includes the Geological Curators Group, the Geoscience Information Group and the Higher Education Network. I am currently exploring with the chairs of these groups how we feel about being in the same family and finding an individual who can represent us all. Our concern is that we are being marginalised as a 'non-science' group.

The Science Committee's theme for 2015 is "MUD"; I will keep you posted as events develop. Our programme is already in place for 2015 with Wm Smith's Map Bicentenary in April, the triennial Open Meeting in June and HOGG's coming of age (21st) birthday in November. However, perhaps we could slip in a fourth meeting; ideas for '*Mud: a history*' are welcome.

All the best,
John Henry

June 2014

HOGG COMMITTEE 2014

Chairman John Henry **Vice Chairman** Dick Moody **Secretary** Leucha Veneer
Treasurer David Earle **Membership Secretary** Cherry Lewis
Ordinary members Alan Bowden, Chris Duffin, Tom Hose, Tom Sharpe, Dave Williams
Co-opted member (newsletter) Beris Cox

NOMINATIONS FOR HOGG COMMITTEE 2015

The 2014 HOGG AGM will be held at Burlington House on 3rd or 4th November 2014 during the Geology and Medicine meeting (exact date and time will be announced in the next 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. Committee meetings, which committee members are expected to attend (travel expenses paid), are held at Burlington House four times each year (usually in January, April, June and September).

If you are willing to assist in the general running of HOGG, have an idea for a future meeting, or would be interested in convening a meeting, please contact John Henry at geol.maps@virgin.net Names of those prepared to stand for election must be received at least 14 days before the AGM.

HOGG SUBS

Subscriptions are due at the beginning of January each year. If you do not already do so, please consider paying in future years by standing order.

Just complete the standing order mandate at the back of this newsletter and send it to the HOGG Treasurer, David Earle, 61 Straight Road, Old Windsor, Berkshire SL4 2RT.

For all other membership queries or enquiries, please refer to the Membership Secretary, Cherry Lewis at cherry.lewis@bristol.ac.uk Please check that she has your correct e-mail address and advise her of any future changes, otherwise HOGG news and alerts will not reach you.

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 Cherry Lewis at cherry.lewis@bristol.ac.uk in the first instance.

THE GEOLOGY, HYDROGEOLOGY AND OENOLOGY OF BURGUNDY

APRIL 14th–APRIL 20th 2014

Leaders: Dick Moody and John Mather

John Henry[1] reports on HOGG's Spring field trip to France.

The HOGG trip to Burgundy was a fascinating mix of history of geology and appreciation of the oenological concept of terroir strongly linked to local geology. We benefited hugely from the local contacts and knowledge of John Mather in Dijon and Dick Moody's more than 40 years of experience of detailed geological mapping with graduate students in the region.

We set off from Guildford in a minibus and a car to catch the Eurostar at Folkestone and, thanks to the Channel Tunnel, were in France in no time at all. After Calais, the autoroute N17 was at times nearly empty, the sun shone–it did for five of our six days–and it was a pleasure to drive. The scenery before Burgundy was in many ways familiar in terms of land use, field size and topography, but felt more spacious and open with its absence of hedges, fences or walls. We arrived at our hotel in Dijon in daylight--the car with its satnav beating the minibus with its map reader.

On Day 2, John Mather introduced us to the geology of Dijon from the viewpoint of water supply and led us in the footsteps of Henry Darcy (1803–1858), 'father of hydrogeology'. Darcy formulated what

has become known as Darcy's Law which describes the flow of water through soil and rock; it has become widely used, particularly in the petroleum industry where the unit "darcy" measures the rate of flow of oil through reservoir rock. For the people of Dijon, Darcy's major contribution was the capture of spring water at various points in the Val de Suzon and its delivery 15 km by aqueduct to the Port Guilliaume at the north edge of the city (as it was in 1840). At this time, Dijon's water supply was second only to Rome's in the quality and reliability and a quarter of a century ahead of the development of a clean water supply for Paris. Today the city's public garden, Square Darcy, lies over the large storage reservoir he designed. Darcy's system supplied 100 street level water points where householders could collect drinking water. Today, this reservoir does not provide sufficient head to supply water to buildings that tower above it, nor the quantity required by today's population; however, it continues to supply the strip of greenery and gardens associated with the extensive modern tram system of Dijon.

Before meeting French colleagues, John took us just over the Seine-Saone drainage divide to the source of the River Seine of the Paris Basin.

First bridge over the Seine.

Rosoir Spring in the Suzon valley. The structure on the left is one of a pair of access points to reservoirs which capture the spring water.

In the afternoon, we met M. Masseboeuf, the area water engineer of Lyonnaise des Eaux and M. Romain Chartier, hydrogeologist for the City of Dijon, at the Rosoir Spring. Here, we were taken in pairs into the covered reservoirs, which were less than half full, to inspect Darcy's structure. The water from the springs also feeds an adjacent fish farm and its restaurant. The visit by "*les Anglais*" provided an opportunity for administrative staff in Dijon to visit, many for the first time, Darcy's works, and there was a real sense of *entente cordiale* with several of us exercising our fairly basic French or English.

Amitie Franco-Anglais sur un pont de Suzon.

The Fontaine-lès-Dijon reservoir.

We finished the day by descending the reservoir of the Fontaines-lès-Dijon, a large five vault chamber designed by Henry Darcy, which was drained for maintenance enabling our visit

On Day 3, we departed Dijon and began our exploration of the Côtes de Beaune to the south. The regional structure is broadly a series of sub-parallel north-south fault escarpments in a Middle Jurassic, predominantly limestone/ mudstone, sequence uplifted by a granitic intrusion on the east rim of the Paris Basin. To the east is the shallow graben named the Fosse de la Saone. The River Saone meanders to the east of Beaune within the broad valley floor of the graben. Its alluvial terraces mask the lower faulted blocks of the scarp.

The several steep-sided valleys incised into the Côtes de Beaune scarp create a complex association of lithologies and slope angles and aspects. The details of the terrain strongly affect the choice of grape, the method of viticulture and the quality of the resulting wines in this region of Burgundy. The concept of terroir – the way in which slope aspect and soil influence the product – is well understood here. It is taken very seriously and hugely influences the value of small plots of land according to the hours of sunshine, the drainage and the combination of nutrients from the underlying rock. Generally, irrigation is not practised and the vines develop deep root systems (exceeding 20 m) which tap into the varied lithologies.

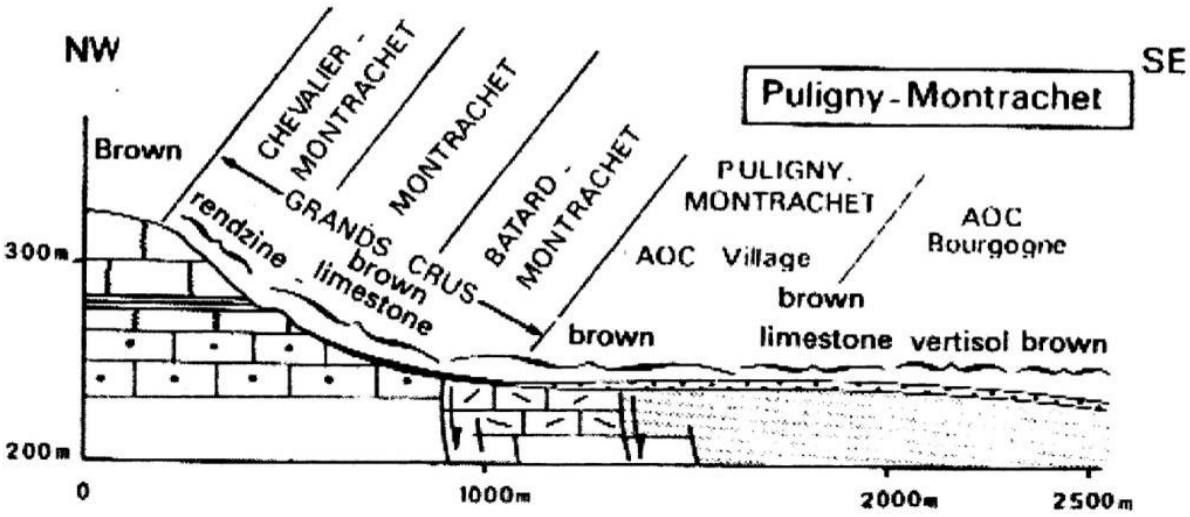
After wine production and associated tourism, quarrying is the second mainstay of the regional economy. The main outputs are dimension stone and, from the *Calcaire de Comblanchien* Formation, marble. Many smaller quarries on the escarpment face have become disused and are being back-filled with soil to create new vineyards. Many of the quarry exposures that Dick Moody knew well from past field work have been lost in this way.

Valerôts quarry now inactive. The smooth sawn vertical faces are in the marble-producing *Calcaire de Comblanchien* Formation of the Middle Jurassic.

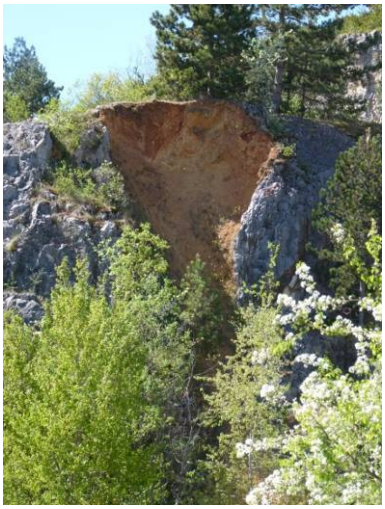
Remnant of Vougeot quarry. Most of the original working face and adit into the *Calcaire de Comblanchien* is covered with clay and limestone rubble, mixed to replicate the best soil, on a new terrace for vines. The quarry has the optimal aspect for quality grapes for wine production.

On Day 4, we visited the estate of Olivier Leflaive at Puligny-Montrachet, where the *sommelier* (wine waiter) led us through vineyards that produced wines which we sampled later at lunch. Before hosting lunch, Olivier (the 18th generation of Leflaive owner/vintners) showed us through his modern plant, explaining the processes of making, storing and sampling the wine through many stages of its maturation. By this tour and lunch, we learnt to appreciate the complexities of the geology by swirling the product under our tongues for maximum sensitivity to its diverse outcomes.

Vineyards of Olivier Leflaive of Puligny-Montrachet.



Example of terroir. The profile shows the slope in the photograph above and the relation of particular wines to particular slope positions and lithologies. Grand Cru, AOC Village and AOC Bourgogne are quality designations.



A B C

Karst features have developed in the massive limestones, in places forming the top of the escarpment: A) Soil-filled solution pipe at Valerôts Quarry; B) base of dry waterfall, Cascade la Causanne, at Vauchignon near Nolay; C) niche near base of dry waterfall.

HOGG visitors view Côtes de Beaune from massive Middle Jurassic limestones near Orches.

Near Nolay, we visited an exposure of the granitic dome in an overgrown quarry near a viaduct on an abandoned railway, now part of a regional cycle path.

On Day 5, we departed Beaune, a gem of a town to which yours truly resolved to return, and headed to Epernay, the regional capital of the Champagne region. At Damery, north of Epernay, we visited a small champagne establishment owned by a retired geologist, Thibault LeGrand. Climbing the stair from his small courtyard, we entered the *cave* from the waiting room of his house. He has greatly

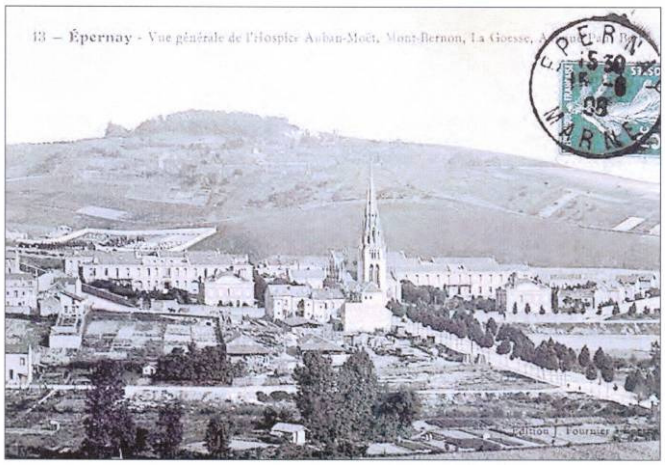
expanded the *cave*, ostensibly for wine storage, but actually a fantastic mine in the Tuffeaux de Damery Formation, a calcareous sand of the Lutétien/ Middle Eocene (see http://www.lacaveauxcoquillages.fr/la-cave-aux-coquillages/accueil.html) in which the fossil gastropod *Campanile giganteum* is abundant, together with many other well preserved smaller fossils.

Campanile giganteum is typically 400–600mm long (high).

After the tour of the fossil cave, we emerged into Thibault's fossil preparation lab. where he also gives tuition, and then his *salle de dégustation,* where this ultimate multi-tasker and his wife served their own excellent champagne. Subsequent sales were brisk.

The next morning, in Epernay, we visited Mount Bernon, and learned of Joseph Prestwich's frequent visits to Epernay in connection with his family's wine business. He extended and correlated his research on the Tertiaries of the London Basin. His papers on the geology of Epernay and Rilly, in the heart of the Champagne region, underline the connection between these two parts of his life. Prestwich became a member of the Société Géologique de France in 1838 and retained close links with French geologists until his death. More about Joseph Prestwich may be found in HOGG newsletter no. 44, February 2012.

Vines on the southern slopes of Mount Bernon, Epernay in the Champagne region.



View of Mount Bernon to the south-east of Epernay on postcard sent in 1908. Recent suburbs of Epernay now reach almost to the woods crowning Mount Brenon, confusing access for visiting geologists.

We visited the grand quarters of Möet and Chandon on the Avenue de Champagne to visit their *caves* and sample their product. Whilst grand and impressive (28 km of *cave*!), after the *Cave des Coquillages* and its excellent champagne, M&C seemed all front and very luxury-brand conscious.

From Epernay, it was a relatively short hop to the channel, traffic was very light and we caught an earlier train. Some of us were dropped at Ashford to catch the Eurostar to London and the rest returned to Guildford.

This was a very successful trip, full of learning, new experiences and camaraderie. Already it is stimulating thoughts of other history-of-geology possibilities just across the Channel. Many thanks to Dick Moody and John Mather for their knowledge and experience so freely shared on this trip and to Dick, in particular, for the demanding task of organising the logistics of transport, sustenance and accommodation before and during the trip.

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[1] e mail geol.maps@virgin.net Images: John Henry

FUTURE HOGG EVENTS

***MURCHISON AND THE DISCOVERY OF THE SILURIAN**
18th–20th July 2014
A weekend field trip based in Brecon, Powys, Mid Wales and led by Duncan Hawley.
Details on pages 11–12 and Registration Form on page 32 of this newsletter.

***GEOLOGY AND MEDICINE: EXPLORING THE HISTORICAL LINKS AND THE DEVELOPMENT OF PUBLIC HEALTH AND FORENSIC MEDICINE**
3rd–4th November 2014 (including 2014 HOGG AGM)
Burlington House, Piccadilly, London
Details on page 13 and Registration Form on page 34 of this newsletter.
As well as the two-day meeting at Burlington House, associated visits in London to the Wellcome Institute, the Natural History Museum, the Royal Pharmaceutical Society Collections and the Society of Apothecaries are being planned, as well as history of geology and medicine walks relating to Gideon Mantell in Brighton and Lewes, James Parkinson in the east end of London, and John Snow in Soho.

***GSL WILLIAM SMITH MEETING 2015**
200 YEARS OF SMITH'S MAP
23rd–24th April 2015
Burlington House, Piccadilly, London
This two-day HOGG conference will cover the production of Smith's map, his methods and contemporaries, and its legacy for geology. A celebratory dinner is also proposed. On 25th April, after the two-day meeting at Burlington House, there will be a field trip to Oxford and Churchill (Smith's birthplace). More details and Call for Papers on page 14 of this newsletter.

***OPEN MEETING**
18th June 2015
Burlington House, Piccadilly, London
Further details in later newsletters.

***THE PAST IS THE KEY TO THE FUTURE: HOGG COMES OF AGE**
November 2015
Burlington House, Piccadilly, London
A one- or two-day celebratory meeting. Further details in later newsletters.

HOGG FIELD TRIP: MURCHISON AND THE DISCOVERY OF THE SILURIAN

JULY 18th–20th 2014—Brecon, Powys, Wales

Leader: Duncan Hawley

Sir Roderick Impey Murchison (1792–1871) was one of the most important figures in 19th century geology and exploration. He was Director-General of the Geological Survey, at times President of the Geological Society of London and the Royal Geographical Society, and publicly known as the 'King of Siluria'. In July 1831, on his first field season as a solo geologist and long before knighthood, Murchison explored the Upper Wye Valley. Retrospectively, over his diary entry for one of the locations we shall visit, he wrote "This was the first true Silurian".

Murchison at age 44

Our leader Duncan Hawley, who lives near Brecon, has led numerous geological and history of geology field trips in the area and knows the region very well. This field trip will be centred in the town of Brecon, where Murchison and his wife stayed in the Brecon Castle Hotel, during field work seasons; Lady Murchison illustrated Murchison's *Silurian System* and *Siluria*. Duncan has retraced Murchison's trail from diary entries, historic maps and his knowledge of original Welsh place names. His field notes are well documented and well illustrated. This will be a stimulating field trip through beautiful country.

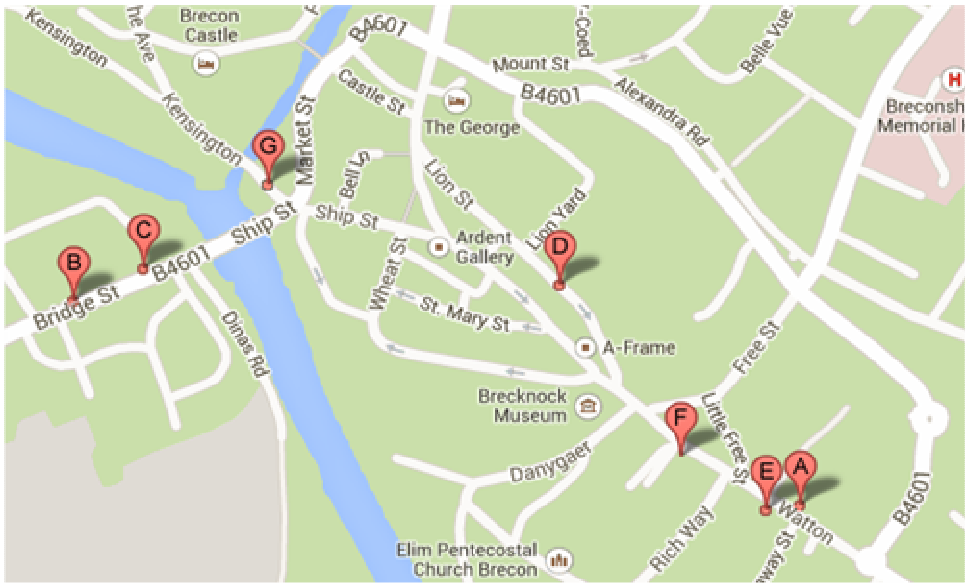
HOGG has reserved the Usk Suite of the Brecon Castle Hotel for dinner on both nights. The hotel is labelled in the NW corner of the map below. Transport in the field will be by car; we will arrange sharing to reduce the number of cars in the field. The price is £55 for HOGG and affiliated group members. The price will cover the two dinners, full field notes and organising expenses.

Book on-line at www.historyofgeologygroup.co.uk or by post using the form at the back of this newsletter (page 32).

Accommodation

There are several hotels and B&Bs in Brecon itself for field trippers to book independently. These are flagged as A–G below. (The Brecon Castle itself is fully booked on the Saturday night).

Map showing locations of Hotels and B&Bs



Hotels

Brecon Castle Hotel,
Castle Square, Brecon, LD3 9DB
01874 624611 www.breconcastle.co.uk/

The George Hotel,
George Street, Brecon , LD3 7LD
01874 623421 www.george-hotel.com

Bed and Breakfasts

A. Grange Guest House
22 Watton, Brecon LD3 7ED
01874 624038
www.thegrange-brecon.co.uk

B. The Beacons Guest House
16 Bridge Street,
Llanfaes, Brecon, LD3 8AH
01874 623339
www.thebreconbeacons.co.uk

C. Bridge Cafe
7 Bridge St, Brecon, LD3 8AH
01874 622024
www. bridgecafe.co.uk

D. Cantre Selyf
5 Lion St, Brecon LD3 7AU
01874 622904 www.cantreselyf.co.uk

E. Borderers
47 Watton Street, Brecon, LD3 7
01874 623559 www.borderers.com

F. The Lansdowne Hotel & Restaurant
39 Watton, Brecon, LD3 7EG
01874 623321
www.lansdownehotel.co.uk

G. Watergate Mill
Watergate, Brecon, LD3 9AN
01874 623074 (no email)

Not indicated on map

The Clarence Inn
25 Watton, Brecon LD3 7ED
01874 622810 clarenceinn.co.uk

Canal Bridge Holiday Accommodation
Self-catering
1 Gas Lane, Brecon LD3 7HA
+44(0)7964 410584
info@canalbridgeholidays.co.uk

There are more B&Bs outside of Brecon, but one of historical significance to this field trip is Trericket Mill where Murchison stayed. Trericket Mill lies 21 km NE of Brecon and half way to Builth.

Trericket Mill, Erwood,
Builth Wells, LD2 3TQ
01982 560312
www.trericket.co.uk

If a longer visit appeals while you are in Brecon, major attractions in the vicinity include the Fforest Fawr Geopark Visitor Centre at Pontneddfechan to the south-south-west and Hay on Wye 'book-town' to the east.

GEOLOGY AND MEDICINE: EXPLORING THE HISTORICAL LINKS AND THE DEVELOPMENT OF PUBLIC HEALTH AND FORENSIC MEDICINE
(Celebrating the Tercentenary of Sir John Hill)

3rd–4th November 2014 — Burlington House

Organisers: Dick Moody, Chris Duffin and Christopher Gardner Thorpe

Building on the success of the *History of Geology and Medicine* conference held in 2011 and the subsequent Geological Society publication SP375 of the same name, HOGG is organising a follow-up meeting covering the following topics:

Founding Fathers of Geomedicine, recording the historical links established by individual scientists such as Darwin, Astley Cooper, Charles Daubeny, Gideon Mantell.

Geological Therapies, dealing with the evolution of treatments from primitive lithotherapies to the therapeutic use of geological materials in medicines and the advent of hydrotherapy.

The Origins of Public Health including soil chemistry, water quality, health and safety and the provision of the necessary infrastructure during the Victorian Era.

The Evolution of Forensic Medicine

There will be oral, written and poster contributions from historians, medical professionals and geoscientists, including geochemists and civil engineers, whose work crosses subject boundaries.

Those wishing to contribute should contact Professor R. T. J. Moody rtj.moody@virgin.net. Extended abstracts of 500 words and a maximum of three figures should be submitted by 31st AUGUST 2014.

Contributors of both oral presentations and posters will be registered at a reduced rate. No financial assistance can be given to speakers (including those from overseas) but HOGG will provide a letter of invitation on request. It is hoped that the conference proceedings will be published as a book. The full programme will be issued in the autumn and will feature

BEVERLY BERGMAN ***Lead, isotopes and ice.***
ERIC BUFFETAUT ***From giant birds to X-rays: Victor Lemoine (1837–1897), physician and palaeontologist.***
TIM CARTER ***Duncan and Son—two generations of scientific polymaths.***
RENZO CONSOLE ***Minerals, plants and animals in 17th Century iatrochemistry treatises.***
JANE P. DAVIDSON ***Joseph Leidy (1823–1891): pioneer in medicine, forensics and palaeontology.***
CHRIS DERRETT & CHRISTOPHER GARDNER-THORPE ***Parkinson and the Hoxton area, with reference to Hoxton Academies and the quarries which may have interested Parkinson and his father-in-law Dale.***
GEORGE ROUSSEAU & CHRISTOPHER DUFFIN ***The tercentenary of Sir John Hill.***
PROF. ZOHAR AMAR & PROF. EFRAIM LEV ***'Arabian' gem stones; the distribution, trade, utilization and medicinal uses of Medieval Eastern precious stones.***

REGISTRATION FORM ON PAGE 34 OF THIS NEWSLETTER.

William Smith Meeting 2015

200 Years of Smith's Map

Conference: 23-24 April 2015
Geological Society, Burlington House, London
Field excursion: 25 April 2015

HOGG is organising the Geological Society's flagship William Smith Meeting 2015 to celebrate publication of the first geological map of a nation 200 years ago.

William Smith (1769–1839) was an English geologist who created the first nationwide geological map. In 1794, working as a surveyor on the construction for the Somerset Coal Canal, Smith recognised that each stratigraphic horizon contained a unique assemblage of fossils. This enabled him to work out the order of strata from the fossils they contained. From 1799 he mapped local strata, eventually creating the first geological map of England and Wales, published in 1815. In the interim, his ideas were widely disseminated throughout the geological community. Like many new theories they took time to become accepted. In 1831 the Geological Society of London awarded Smith the first Wollaston Medal and the President, Adam Sedgwick, referred to him as 'the Father of English Geology'.

This bicentenary meeting aims to address:

- Smith's achievements and his impact on the state of geology in his time, his fossil collection, his contemporaries, his relationship with the Geological Society of London, and his various careers including canal builder, land drainer, mineral surveyor and lecturer.
- Smith's map, '*Delineating the Strata of England and Wales with Part of Scotland*', contemporary concepts of geological survey and map design, and past and present research into surviving Smith maps, sections and documents.

CALL FOR PAPERS: We are pleased to invite all interested participants to submit abstracts for oral presentations on topics of relevance. Presentations should last 25 minutes. International contributions are most welcome, although no financial assistance can be given. HOGG will provide a letter of invitation on request. 500-word abstracts should be submitted by **31 August 2014** to John Henry: wmsmith2015@gmail.com

Confirmed keynote speakers: Professor Simon Knell, Professor Hugh Torrens, Dr Tom Sharpe

POSTERS: Given the fundamentally graphic contribution of William Smith to geology, posters are also invited and it is intended that short presentations of selected posters will be addressed to the conference audience prior to the poster sessions. 250-word abstracts should be submitted by **24 August 2014** to John Henry: wmsmith2015@gmail.com

Publication: It is intended that the conference proceedings will be published as a Geological Society Special Publication. Speakers will be strongly encouraged to contribute to this. Please indicate your willingness to contribute a paper when submitting your abstract. Suggestions for written contributions to supplement the proceedings from the conference are also invited.

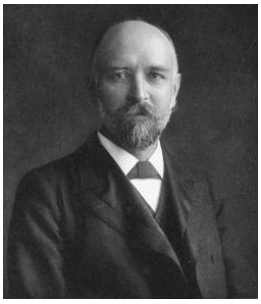
Field and other visits: During the conference, we aim to visit Smith's fossil and rock collections at the Natural History Museum, and to unveil a plaque on Smith's London house. An evening celebratory dinner is also planned. On Saturday 25 April, we will visit the Smith Archive at the Oxford University Museum of Natural History, and Smith's birthplace and the Smith Heritage Centre in Churchill village.

Event organisers: David Williams, Cherry Lewis, John Henry

For further information, please e-mail: wmsmith2015@gmail.com

THE ARTHUR SMITH WOODWARD 150th ANNIVERSARY SYMPOSIUM

Anthony Brook[1] reports on the recent one-day meeting at the Natural History Museum in London. HOGG was one of the meeting's sponsors.



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The 'Woodward 150 Symposium' took place at the Natural History Museum, London (NHM) on Wednesday 21st May 2014 to celebrate the life, influences and legacy of Sir Arthur Smith Woodward (ASW). Born in Macclesfield, Cheshire in 1864, ASW was Keeper of Geology at the NHM from 1901 until retirement in 1924. He was, without doubt, the greatest palaeo-ichthyologist of his generation; indeed, his four-volume *Catalogue of Fossil Fishes* (1889–1901) is still the standard work of reference. In due course, it was followed by the seven-part *Fossil Fishes of the Chalk* (1902–1912) and the three-part *Fossil Fishes of the English Wealden and Purbeck Formations* (1916–1919).

Over 150 people registered to attend the symposium, a mark of respect for a formidable scientist. Noteworthy amongst these were a contingent of 27 from the NHM, 25 from Casper College, Wyoming, USA and ten members of the Woodward family. During the day, there were nine speakers but only three of the presentations were of direct relevance to HOGG members; the other six covered more technical aspects of the intricate, convoluted and disputed taxonomy of fossil fishes, in the light of the before (previous phylogeny by Louis Agassiz) and after (modern technological methods, such as CT scanning).

Karolyn Shindler recalled ASW's happy childhood in Macclesfield, a time when he was already collecting and lecturing about fossils. He excelled at school and in 1882, aged only 18, he came top of the Civil Service exams for a lowly position at the British Museum (Natural History). But now, for the first time in his life, he was confronted with adversity. The Keeper of Geology, Dr Henry Woodward, disliked him, for various reasons, and made it abundantly clear that his appointment was only provisional. His first year at the Museum was isolating and miserable, although he steadily gained the patronage of William Davies, the eldest/most senior of the five-man Geology Dept. ASW attended evening classes at London University, joined learned societies, and built up an extensive social network. His subsequent research work/publications were of outstanding quality, so much so that he succeeded his namesake as Keeper of Geology in 1901, aged only 37. His reputation was established worldwide, his encyclopaedic knowledge of fossil fishes unrivalled, and his exceptional abilities acclaimed by all. Nevertheless, he was passed over for Director of the NHM in 1919, encouraging him to retire at the earliest opportunity, at age 60, in 1924; he never set foot in the Museum again! His scientific acumen deserted him completely with the Piltdown forgery, which has badly besmirched the career endeavours of a remarkable geoscientist.

Mike Smith detailed ASW's role in the development and use of the priceless resource that is the NHM's Fossil Fish Collection. It all began with the opening of the magnificent new building in South Kensington at Easter 1881, and the arrival of previous collections from Bloomsbury. ASW joined the Geology Dept in August 1882, just when the Museum acquired the exquisite and elaborate Egerton and Enniskillen fossil fish collections. This was the culmination of a rich period of acquisitions to enhance the Museum's collections; from 1836–1884, 38 major collections containing fossil fish were acquired. Quickly realising what a treasure trove the Museum now had, ASW decided to make fossil fishes his specialist field of research, and published his first paper on the subject in the *Geological Magazine* in 1886. That was just the start of a prolific publishing output— over 250 papers, plus catalogues and monographs. Altogether, he was responsible for naming nearly 300 new species of fossil fish. He always continued the acquisition policy of the Museum, to improve the collections and provide new research material. During his tenure as Keeper of Geology, over 4000 specimens were added to the fossil fish collection. It is mainly due to ASW's research, reputation and acquisitions that the NHM is now the world centre for fossil fish research.

In the only talk about ASW and Piltdown, **Chris Dean** spoke about ASW's unfortunate involvement with the controversial issue of human evolution. By 1912, ASW had known Charles Dawson as a reputable fossil collector for the Museum for many years, so was not surprised when Dawson wrote that he had found bits of skull bone in a ferruginous Pleistocene gravel terrace of the Sussex Ouse. Further discoveries in June, witnessed by ASW, encouraged a cranial reconstruction in time for the public announcement of a new species of hominid at the Geological Society in December 1912. Controversy immediately erupted between experts in different aspects of anatomy, although it was very soon suspected by some that it might be a deliberate hoax because the skull and the mandible seemed so anomalous. Mounting criticism from abroad was qwelled in February 1917, six months after Dawson's death, when ASW announced further fragmentary finds from another site. ASW continued to lecture and write about Early Man/Human Evolution during the interwar years, an area far removed from his field of expertise. Indeed, in 1938, he unveiled a monument at Barkham Manor to Charles Dawson and the discovery of Piltdown Man. He spent his retirement years digging the gravel beds to no avail, and, in his last years, dictated a book on the whole Piltdown affair. He believed in the veracity of Piltdown Man to his dying day.

Image: Tom Hose

During the day, 12 posters were on display in the anteroom of the Flett Lecture Theatre, five of which were of particular interest to historians of geology. **Anthony Brook** put ASW's 20 years of hectic retirement (1924–1944) at his Sussex home in Haywards Heath into perspective, discovered that he was, in fact, quietly cremated a few days before his Memorial Service (see HOGG newsletter 50), and enquired about a memorial to this world-renowned palaeontologist. **Sandra Chapman** recalled the visit, in the summer of 1906, of ASW and his wife to the parents of Franz Baron Nopcsa at their castle in Hungary. Every day the Woodwards, accompanied by Baron Nopcsa, went out to the dinosaur sites on the estate and collected bones which were later presented to the NHM. The Maastrichtian continental vertebrates of the Hateg Basin, previously discovered by Nopcsa, were a diverse reptilian fauna; the dinosaurs showed peculiarities, such as dwarfism and endemicity. **Angela Milner** confirmed that the Smith-Woodwards were well known for their generous hospitality, in both London and Sussex. As hostess, Maud Woodward asked her guests to sign a linen tablecloth; she then embroidered the signatures in fine strands of coloured silk. Corners of the tablecloth were allocated for different scientific arenas; it contains c. 350 signatures covering the period from the mid-1890s to 1944, and forms a valuable record of many of the great figures of late 19th/early 20th century science. A selection of signatures was displayed in detail, with short biographical notes. The Woodward Tablecloth now hangs permanently in the Palaeontology Building at the NHM.

HOGG member **Mike Smith**, Symposium Organiser, had two displays. The first showed the eight awards and 18 medals that ASW received during his long lifetime, with background information, and the second concerned ASW's fossil fish type specimens, so important in taxonomy. Making the fossil fish collection more accessible is one of the NHM's primary roles, an awkward problem until the recent advent of high-quality digital imaging. One of the current NHM projects is to digitise all the fossil fish specimens described by ASW—well over 200 type specimens, with over 350 images so far, some of which were colourfully illustrated.

TED ROSE AWARDED SUE TYLER FRIEDMAN MEDAL

Image: www.seh.ox.ac.uk

As announced in the last newsletter, this year the Geological Society of London (GSL) has awarded its Sue Tyler Friedman Medal to HOGG member Dr Edward (Ted) Rose, Honorary Research Fellow in the Department of Earth Sciences at Royal Holloway, University of London. The award was presented at the GSL's President's Day on June 4th.

The citation given by the GSL President:
"The Sue Tyler Friedman Medal, awarded for excellence in research into the history of geology, goes this year to Dr Ted Rose.

Ted began his academic geological career working on fossil echinoids from Libya for his DPhil at Oxford, and researched through the 1970s and 80s primarily on other post-Palaeozoic carbonate successions of the Mediterranean region—participating in two IGCP projects, and publishing papers on fossil and living echinoids. He developed projects on Malta and especially Gibraltar, co-authoring the first large-scale published geological map of the famous Rock.

However another strand to his life, the Territorial Army (from which he retired in 1990, with the rank of Colonel), led him towards Military Geology. He became one of its most active proponents. From 1978, his interest broadened into the history of the subject, from Napoleonic origins and 19th Century role in officer training to its influence on the British Geological Survey's foundation, thematic cartography, exploitation of groundwater resources, military tunnelling, and much more. A close association with Austrian and German military geologists has given him unique insight into the experiences of both sides during our two major 20th Century conflicts.

Ted has co-edited two books published by the Society, *Geology and Warfare* and *Military Aspects of Hydrogeology*, and was senior co-author of a Geologists' Association *Guide to the Geology of the D Day Landings in Normandy, 1944*. he has been an indefatigable promoter and supporter of the *International Conference on Military Geosciences* series. Since retiring from lecturing at Royal Holloway in 2003, his research output has increased—firmly establishing him throughout Europe and North America as doyen of military geology historians.

Ted Rose, please accept with our deep respect and gratitude, the Sue Tyler Friedman Medal of The Geological Society of London."

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The response given by Ted Rose:
"Mr President, I thank you for your kind words, and the Council and its Awards Committee as well as those who so kindly nominated me for this much appreciated honour.

There are many others who deserve my thanks. As a schoolboy, my geological interests were encouraged and guided by palaeontologists at London's Natural History Museum. At Oxford, my 'soft rock' enthusiasm was nurtured as an undergraduate in the then Department of Geology and Mineralogy (especially by Ron Oxburgh, Stuart McKerrow and Harold Reading), and as a research student in the Department of Zoology (by David Nichols). Thereafter in the University of London, teaching geology to students at Bedford College and subsequently Royal Holloway proved to be a stimulating as well as very enjoyable career.

Moreover, thanks to the forbearance of my university colleagues, and more especially the support of my family, I was able to develop a simultaneous part-time career in the Territorial Army. Thus I was able to apply principles of geology during brief assignments to British troops in many countries of the world—a period in which I came to respect greatly those members of the armed forces amongst whom I had the privilege to serve. University and military experience have therefore together provided the background for the scholarship for which you have generously rewarded me today—pleasingly in the year that marks the 100th anniversary of the start of the Great War, and the 70th of the Normandy D-Day, events that catalyzed British military applications of geology.

My research, however, would have been impossible without the stimulation provided by many co-authors, and the facilities afforded by easy access to major libraries and archives, coupled with the help of highly competent and considerate librarians—amongst whom those of this Society rank very highly in my esteem."

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GSL LIBRARY RESTAGES 1919 LECTURE

On Thursday 10th July, **Ted Rose** will deliver the restaged lecture *Geology on the Western Front* which was first given by Lt Col. Tannatt William Edgeworth David on 26th February 1919. The title of the lecture appears in the GSL *Proceedings* of the time but until recently, when the handwritten notes to the lecture were discovered in a box in the GSL Library, the contents of the lecture remained unknown.

Edgeworth David (1858–1934) had convinced the Australian government to establish a corps of geologists and miners for military use in the First World War; in October 1915, at the age of 57, he enlisted as a commissioned major. In February 1916, he travelled to France and the Western Front where he provided invaluable advice to troops on groundwater, and the positioning and design of trenches and tunnels.

Tickets cost £5 and numbers are limited to 40. Contact library@geolsoc.org.uk
If you don't manage to get a ticket, you can read about what you missed in the next (October) newsletter.

GSL NEW PICTURE LIBRARY

The GSL Library has launched its own Picture Library in order to showcase its rich collection of drawings, prints, maps and book illustrations. The collection covers all aspects of the Earth sciences. Categories include Portraits and People, Dynamic Earth, Extinct Animals, Fossils & Minerals, Geological Formations, Early Man, Maps & Sections, Industrial & Engineering, Ethnography & Travel, and Natural Curiosities.
Visit www.geolsoc.org.uk/PictureLibrary

From the ONE PER CENT column of *New Scientist*, 14th June 2014:

"……Turns out Carl Linnaeus, the inventor of the scientific naming scheme for plants and animals, is the most influential person in history. Young-Ho Eom of the University of Toulouse, France, used the GooglePageRank algorithm, which scores websites according to their influence, to create a list of the most important people based on links within Wikipedia articles across 24 languages. An alternative algorithm named Adolf Hitler, Michael Jackson and Madonna as the top three."

GSL ONLINE EXHIBITIONS

The GSL Library has announced two new online exhibitions.

Elementary geology in the 1830s

This online exhibition looks in detail at three illustrated plates entitled *Geologische Elementarkarte* (1838) which were part of G. B. Greenough's bequest to the GSL in 1856. These lithographs of fossils, views and other images were designed to encompass all that was known of science at the time of publication – essentially a lesson in elementary geology. The exhibition explains the stories behind the historical images. High quality prints of each of the sheets are also available for purchase. View the exhibition at www.geolsoc.org.uk/Library-and-Information-Services/Exhibitions/Elementary-Geology-in-the-1830s

Sir Lewis Leigh Fermor's Diary: Life in Colonial India

After applying for a job with the Geological Survey of India, Lewis Leigh Fermor (1880–1954) departed for Calcutta in 1902. His key report on his discovery of six manganese minerals was published in 1909. During World War I, he assisted the Railway Board and the India Munitions Board for which he received an OBE in 1919. Although he officially became director of the Survey in 1932, he acted as such for several years in the 1920s and from 1930 inwards. He retired in 1935 but continued living in India as a consulting geologist until 1939 when he returned to Britain.

The GSL Archives hold a small number of Fermor's notebooks and diaries together with personal papers. They give an intriguing insight into the life of both an early 20th Century geologist and an English civil servant in British India. The exhibition looks at one diary covering Fermor's first two fieldwork seasons in India (November 1902–April 1903 and October 1903–May 1904). View the exhibition at www.geolsoc.org.uk/Library-and-Information-Services/Exhibitions/Sir-Lewis-Leigh-Fermors-Diary-Life-in-Colonial-India

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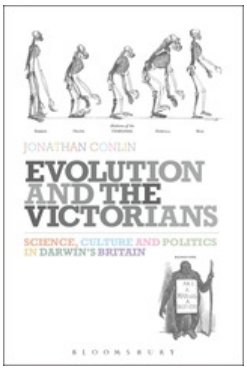
GSL BLOG

On February 21st 2014, the GSL Blog featured a guest post from Dr Ken McNamara, Director of the Sedgwick Museum, Cambridge, concerning Dr John Woodward (1665(or 8)–1728). Described by some of his contemporaries as a "conceited, vain, arrogant popinjay", Woodward (Professor of Physick at Gresham College and Fellow of the Royal Society) was to play a crucial role in initiating the science of geology. Amongst the bequests which he left was one of £100 per year to endow a position of 'lecturer' in the University of Cambridge; this led to the establishment of the most continuous and oldest professorships in geology in the world (the Woodwardian professors of which there have been 17 to date). A second bequest was his collection of fossils, rocks and minerals which he also left to the University of Cambridge and which led to the establishment of, possibly, the oldest geological museum in the world (now known as the Sedgwick Museum). Read *Dr Woodward's fossils* on the Blog pages at www.geolsoc.org.uk

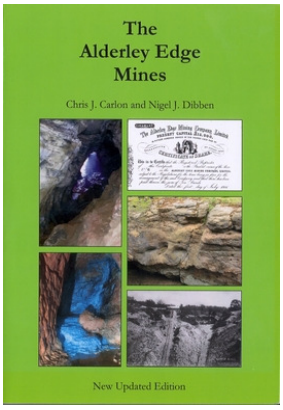
BOOK AND MAP NOTES



Evolution and the Victorians—Science, Culture and Politics in Darwin's Britain
Jonathan Conlin (senior lecturer in Modern History at Southampton University)
Bloomsbury Academic. 2014. 224pp.
ISBN 9781441130907 (paperback) £19.99
ISBN 9781441136091 (hardback) £65.00

"Charles Darwin's discovery of evolution by natural selection was the greatest scientific discovery of all time. The publication of his 1859 book, *On the Origin of Species*, is normally taken as the point at which evolution erupted as an idea, radically altering how the Victorians saw themselves and others. This book tells a very different story. Darwin's discovery was part of a long process of negotiation between imagination, faith and knowledge which began long before 1859 and which continues to this day.

Evolution and the Victorians provides historians with a survey of the thinkers and debates implicated in this process, from the late 18th century to the First World War. It sets the history of science in its social and cultural context. Incorporating text-boxes, illustrations and a glossary of specialist terms, it provides students with the background narrative and core concepts necessary to engage with specialist historians such as Adrian Desmond, Bernard Lightman and James Secord. Conlin skilfully synthesises material from a range of sources to show the ways in which the discovery of evolution was a collaborative enterprise pursued in all areas of Victorian society, including many that do not at first appear "scientific"." (from publisher's website)



The Alderley Edge Mines
Chris Carlon and Nigel Dibben
2013. 184pp. A5 stitched.
ISBN 978-1-78280-015-6 £12.00

This is a revised edition by Nigel Dibben of Chris Carlon's original book published in 1979, ten years after the Derbyshire Caving Club regained and formalised access to the mines and four years after West Mine had been reopened. In the three decades that have since elapsed, many changes have occurred. This revised and enlarged edition has many colour pictures. It concentrates on the mining and the mines with chapters on each major location containing history, descriptions and plans. The history has changed with the finding of new documents about the mines, and research into the main characters involved in the 19th century.

It is available from Nigel Dibben, 2 Kiln Cottage, Audlem Road, Hatherton, Cheshire CW5 7QT (e mail nigel@dibben.org.uk) or online at www.dibben.org.uk/shop (£2.50 postage) OR from Geosupplies Ltd, 49 Station Road, Chapeltown, Sheffield S35 2XE or via their online shop at www.geosupplies.co.uk (free UK postage)

Wendy Cawthorne (GSL Library) has notified us of two books (both in German) about the Swiss palaeobotanist Oswald Heer (1809–1883):

Oswald Heer (1809–1883): Paläobotaniker, Entomologe, Gründerpersönlichkeit
Conradin A. Burga (ed.)
Verlag Neue Zürcher Zeitung. 2013. 512pp
ISBN 978-3-03823-747-1.
Obtainable via www.nzz-libro.ch; 50 euros

Review in International Organisation of Palaeobotany (IOP) Newsletter 102, pp. 10-13 (available as download at www.palaeobotany.org/newsletter/).

Der Pälaobotaniker Oswald Heer im Briefwechsel mit Charles Darwin und Charles Lyell [*The palaeobotanist Oswald Heer in correspondence with Charles Darwin and Charles Lyell*]
Urs B. Leu
Neujahrsblatt herausgegeben von der Naturforschenden Gesellschaft in Zürich auf das Jahr 2014. **216** Naturforschenden Gesellschaft in Zürich. 2013. 14pp.
Available online at www.ngzh.ch/media/njb/Neujahrsblatt_NGZH_2014.pdf

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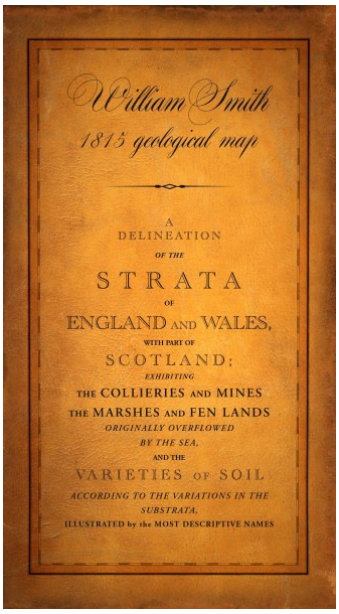
FOLDED COPIES OF WILLIAM SMITH 1815 MAP NOW AVAILABLE



William Smith's map of 1815 was originally published in 15 sections, each folded into six 'panels'. The British Geological Survey (BGS) has scanned the original 'panels' held in their library and digitally removed the joins. The BGS reproduction is published at approximately half scale: ten miles to the inch, and is colour-matched to the original. The BGS's original maps are fragile and valuable, and can only be viewed by appointment.

BGS product code WS1815. William Smith 1815 geological map of England and Wales with part of Scotland (reproduction). Folded version. 2014.
ISBN 9780751837889
£12.95 (no VAT)

Obtainable from the BGS shop at www.bgs.ac.uk or from the GSL bookshop at Burlington House.

GREGORY, BOTLEY & LLOYD AUCTION

Following the retirement of Brian and Mary Lloyd, the company of Gregory, Botley & Lloyd, geological suppliers (founded 1858) has been disbanded. On 12th June 2014, its stock of fossil and mineral specimens, together with the original Victorian cabinets, display cases, books, maps and prints, was auctioned at the Canterbury Auction Galleries. Founded in London by James Reynolds Gregory, who established a business selling polished stones, minerals and fossils, the company remained London-

Images: Canterbury Auction Galleries

based until 2008 when it transferred to Walmer in Kent. On the death of James Gregory in 1899, the business was taken over by his son Albert. In 1932, Albert Gregory sold J. R. Gregory and Co. to Percy Bottley, a dealer in geological supplies in Derby. The company (then known as Gregory, Bottley & Co.) remained in his ownership for 50 years before being taken over, in 1982, by Brian Lloyd, himself a dealer in minerals and fossils who had previously set up the natural history sales at Sothebys.
View the catalogue with guide and selling prices at www.thecanterburyauctiongalleries.com/catalogue/67 For further information, see the article by Brian Lloyd in *Down to Earth*, Issue 87, May 2014.

A MOVING MEMORIAL TO MANTELL

Anthony Brook[1]

I have long known that every bus in the large fleet operating in Brighton and Hove has the name of a Brighton celebrity, of one sort or another, emblazoned across its front. I was also aware that one of these many buses bore the name of Gideon Mantell, the great Sussex pioneer geologist; indeed, I had seen it on a few occasions in the past but had never been able to record the moment for posterity. However, on Sunday 13th April, when Roger Cordiner and I were changing buses in Churchill Square, Brighton, we found the said Mantell bus bearing down on us! Roger had his digital camera to hand and chased the bus to its nearby bus stop. The bus driver wondered why on Earth someone wanted to photograph the front of his bus, but was suitably appeased when we explained who Gideon Mantell was. This bus, currently on service 22 from Churchill Square to the outlying suburb of Woodingdean, provides a permanent memorial to Mantell, although I suspect that, like the bus driver, most of the citizens of the City of Brighton and Hove have never heard of him. On the other hand, how many geologists, of any era, have a double-decker bus, or any other form of public transport, named in their honour? Surely, a unique tribute—a really moving memorial.

Image: Roger Cordiner

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[1] e mail anthony.brook27@btinternet.com

AN UNKNOWN GEOLOGIST AND THE 'GREAT GAME'

David Earle [2]

In *Spying for the Raj*[1], author Jules Stewart describes many of the personalities involved in the 'Great Game' of Central Asian exploration—mapping and espionage undertaken by the East India Company and the Raj to counter the perceived threat of Russian expansion.

One of the early 19th century operators in the field was William Moorcroft (1767–1825). Stewart describes the five year trans-Himalayan journey undertaken by Moorcroft starting from northern India in October 1819. Moorcroft was both veterinarian and explorer, and was the first Englishman to enter Bokhara (now Bukhara) in Uzbekistan. He was the superintendent of the East India Company Bengal stud and was commissioned to acquire horses to improve the quality of the British cavalry's stock.

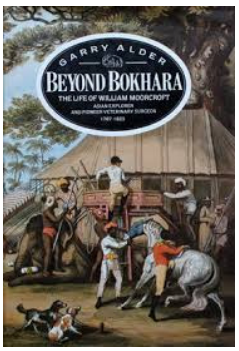
Historic centre of Bukhara (a UNESCO world heritage site)

Image: wikipedia.org

The expeditionary party consisted of Moorcroft and four others, George Trebeck (surveyor), Mr Guthrie (EIC medical service), Ghulam Hyder Khan and Mir Izzat Ullah. Stewart states that "There was to have been a fifth member of the party, an unnamed English geologist and mineralogist who had joined them at the outset but was soon sent back by Moorcroft whose past travels had endowed him with a finely tuned awareness of potential troublemakers."; in Moorcroft's words, "His conduct towards the natives was so exceptionable, that I was obliged at a very early period, to decline his assistance.".

Bokhara was reached on 25th February 1825 and the party was allowed to leave safely. Two subsequent English visitors, Colonel Charles Stoddart and Captain Arthur Conolly fared much worse, being incarcerated in a verminous pit (which is still shown proudly to tourists in Bukhara) before being beheaded in the central square as British spies.

To return to the unknown objectionable geologist, can anyone identify him? Was he a very early Fellow of the Geological Society? Was he, perhaps, involved in the early mapping of the Himalaya? What was his subsequent history?



More information about William Moorcroft can be found in *Beyond Bokhara: The Life of William Moorcroft, Asian Explorer and Pioneer Veterinary Surgeon* by Garry Alder, Century Publishing, London 1985.

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[1]Jules Stewart. 2006. *Spying for the Raj, The Pundits and the Mapping of the Himalaya.* Sutton Publishing.

[2] e mail daearle@btinternet.com

AN EARLY CANARIAN GEOSCIENTIST

Anthony Brook[1]

In recent years, I have been fortunate in being able to spend a winter month on the island of Tenerife, largest of the Canary Islands, apartment-sitting for a friend. Whilst I was there this year, I read the issue of the fortnightly English-language newspaper *Tenerife News* for 28th March–10th April, and came across an article on *Jose de Viera y Clavijo; a man with a quest for life*. The introductory paragraph set the scene: "Throughout last year (2013), various events were held to mark the bicentenary of the death of one of the most important figures in the history of the Canary Islands, Jose Viera y Clavijo"; he was born in 1731 at Los Realejos, in Tenerife, and died at Las Palmas, in Gran Canaria, in 1813.

Viera's greatest contribution to science was his monumental work *Dictionary of Natural History of the Canary Islands*, in which he presented meticulous descriptions of diverse floral species. His fame, as the first Canarian naturalist, led to the naming of the genus *Vieraea*, a flowering plant in the daisy family. The only species, *V. laevigata*, is a native of rock crevices in the lower succulent zone of Tenerife. His legacy is the internationally renowned Botanical Gardens opened in 1959 at Tajira Alta, in the north-east of Gran Canaria. Viera also had great importance in other fields, such as agriculture, astronomy, chemistry and hydrology—a typical scientific polymath of his time.

Towards the end of the newspaper article, the journalist wrote that "Viera also moved in the field of geology with the likes of Comte de Buffon, in whose work *Theory of the Earth* (1779) the age of the Earth was calculated to be 79,000 years old. It was a time when geology was being introduced to the world, and accepted. It was also the era of James Hooten [Hutton] and his theory of 'deep time', in which he advocated that the Earth was much older. Viera's own geological theories appear in *Noticias General de Las Islas Canarias* as well as in his *Diccionario de Historia Natural*. He maintained that the Canary Islands would become part of the rest of the Atlantic and were not simply about volcanic eruptions. He advocated that volcanoes were destructive elements of the land, although, today, we are mindful that, although they can destroy, they are builders too." The journalist concluded that "Viera gives a shining example of what someone with great knowledge can do, covering many disciplines, and becoming one of the axis [sic] of Canarian culture".

blog.laislalibros.com

As I cannot recall coming across Viera y Clavijo in any volume or reference work covering the history of geology in his adult lifetime (1760–1810), the era of Buffon, Werner, Hutton and other proto-geologists, I am rather hoping HOGG members might be able to provide some enlightenment about this significant Canarian scientist and his geological ideas; were they retrograde or prognostic?

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[1] e mail anthony.brook27@btinternet.com

FUTURE MEETINGS OF OTHER BODIES

39TH INHIGEO SYMPOSIUM
ASILOMAR CONFERENCE GROUNDS
PACIFIC GROVE
CALIFORNIA, USA

SUNDAY 6th JULY – THURSDAY 10th JULY 2014

Membership of INHIGEO is not a prerequisite for participation in this meeting. The organizers strongly encourage attendance and participation by everyone with an interest, and are hoping for active involvement by many who are not INHIGEO members.

The conference themes are

- Doing the History of the Earth Sciences: What, Why, and How?
  What is properly encompassed within historical studies of the earth sciences? How is the domain of investigation defined? Where do its boundaries lie?
  Why should the history of the earth sciences be investigated and analyzed? What purposes are served by such historical examination? Who should care?
  How should research on history of the geosciences be conducted? How should the results be formulated? How can constructive dialogue between scientists and historians be promoted? How can our research be better shared with colleagues and with the public at large?

- California in the History of the Earth Sciences

See www.inhigeo.org/coming-symposia for more details.

GEOLOGISTS' ASSOCIATION
LECTURE MEETING

FRIDAY 3rd OCTOBER 2014
Lecture Theatre of the Geological Society, Burlington House
Tea at 5.30 pm with lecture starting at 6 pm

PROF. HUGH TORRENS
The Incredible Story of the Stone Pipe Company 1805–1815, London, Manchester and Dublin.

GEOLOGISTS' ASSOCIATION SOUTH-EAST REGIONAL CONFERENCE
hosted by the West Sussex Geological Society (Local Group of the GA) and supported by the Brighton and Hove Geological Society and HOGG)

SATURDAY 29th NOVEMBER 2014
Exhibition Hall, Worthing College
(at the new college campus on the northern outskirts of the town)

Geology and History in Southeast England

PROGRAMME

9.00–9.40	REGISTRATION
9.40–10.20	Matt Pope *Prehistoric Peoples and Wealden Landscapes*
10.20–11.00	Rory Mortimore *The Geological Mysteries of Flint, the Implement of the Neolithic Age*
11.00–11.30	COFFEE/BISCUITS
11.30–12.10	David Bridgland *Gravel in the Southeast: Superficial deposits and under-rated resource*
12.10–12.50	Roger Cordiner *Building in Stone in Medieval Sussex*
12.50–2.00	BUFFET LUNCH
2.00–2.40	Matthew Pitts *The Making of the High Weald*
2.40–3.20	David Brown *Mineral Extraction from Ancient Woodlands of the Weald*
3.20–4.00	John Lonergan *Transport Innovations and Wealden Geology: Canals and Railways*
4.00-4.25	TEA/BISCUITS
4.25–5.05	David Martill *Sir Arthur Conan Doyle, Pterosaurs and Piltdown*
5.05–5.45	Geoffrey Mead *Brighton and Hove Basement: Geological Foundation of a Conurbation*

REGISTRATION FORM

Name: ____

Address: ____

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Tel:______________________________ **Mobile:** _______________________

Email:____

Conference fee is £25 for the day (Full-time students only £20) including coffee/tea, buffet lunch and Conference publication.

***Please make your cheque payable to* West Sussex Geological Society *and forward, with this completed Registration Form (photocopied) to* Anthony Brook, 15, Cambourne Court, Shelley Road, Worthing, BN11 4BQ**

Anthony Brook (e mail anthony.brook27@btinternet.com)

Registration Form for Brecon Field Trip
July 18th–20th 2014

Book on-line at www.historyofgeology.co.uk or complete the form below.

Name(s)_____

E-mail_____ telephone_____ mobile_____

HOGG member_____ GSL fellow_____ GA member_____ Other_____

I / we will be attending the field trip in Brecon
from Friday 18th to Sunday 20th July @ £55.00 each x _____ = £ _____

If other than HOGG, GSL or GA member@ £ 65.00 each x _____ = £ _____

TOTAL £_____

Please make cheques payable to *HOGG* and send with the completed form to:

HOGG Treasurer,
61 Straight Road
Old Windsor,
Berkshire
SL4 2RT

Will you need transport in the field? Yes____ No_____

Can you provide transport in the field? If yes, how many places?_____

HOGG STANDING ORDER MANDATE

Name of bank or building society……

Branch address…….

…….

……..

Sort code…….Account number……..

Account name……

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

HISTORY OF GEOLOGY GROUP

Geology and Medicine: Exploring the Historical Links and the Development of Public Health and Forensic Medicine

Convenors: Dick Moody, Chris Duffin and Christopher Gardner Thorpe

November 3-4 2014 - Burlington House, Piccadilly, London

REGISTRATION FORM

PERSONAL DETAILS

First Name:…….Surname:……

Organisation:……..……

Address:…….

……

Postcode:……..…Telephone number:……..

Email:……Membership No (If appropriate):……

REGISTRATION FEES (*including All Conference Materials, Refreshments and Reception*)

HOGG/GA members/GSL fellows	Both days (3–4/11/14)	£45.00	☐
	Day 1 (3/11/2014) only	£25.00	☐
	Day 2 (4/11/2014) only	£25.00	☐
Non Members	Both days (3–4/11/14)	£55.00	☐
	Day 1 (3/11/2014) only	£27.50	☐
	Day 2 (4/11/2014) only	£27.50	☐
Conference Dinner (optional; numbers limited)		£45.00	☐

TOTAL _____

London Walks and Visits Programme to be announced.

PAYMENT
I enclose a cheque for…….*made payable to HOGG*
Please send completed form and cheque to
David Earle, HOGG Treasurer, 61 Straight Road, Old Windsor, Berkshire SL4 2RT

Full prepayment must accompany your registration form to guarantee a place. An email confirmation will be sent on receipt of your completed registration form. Notification of cancellation must be given at least 10 working days prior to the event for a refund to be given.

Alternatively, please register online at www.historyofgeologygroup.co.uk and pay by credit/debit card.