HOGG

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

Number 41
February 2011

Front cover

WILLIAM HENRY FITTON, the sesquicentenary of whose death occurs this year.

Born on 24th January 1780 in Dublin, Fitton was educated at the English Grammar School and Trinity College, Dublin. Already interested in mineralogy, his initial intention after graduating in 1799 was to enter the church but in 1808, he instead entered Edinburgh University to study medicine in which he graduated in 1810. Later that year, he moved to London and set about establishing himself in medical practice as well as attending his first meeting of the Geological Society.

In 1812, he moved his medical practice to Northampton where his interest in mineralogy was somewhat frustrated. In 1815, he was elected FRS and, in 1816, member of the Geological Society and FRCS. He investigated the geological work of William Smith and, in 1818, published a review demonstrating the true value and originality of Smith's contribution to English stratigraphy.

In 1820, he married Maria James whose wealth enabled him to retire from medicine and return to London to devote himself to geology. He was secretary of the Geological Society from 1822 to 1824 during which time he attempted (but failed) to get Smith elected an honorary fellow. From 1827 to 1829, he was the Society's president. He encouraged the full discussion of papers delivered at its meetings and started publication of the Society's *Proceedings.*

He investigated the stratigraphy of the rocks below the Chalk in the south of England which culminated in his memoir published in the Society's *Transactions* in 1836. He continued to review important English books on geology such as Buckland's *Reliquiae diluvianae* (1832), Lyell's *Elements of Geology* (1839) and Murchison's *Silurian System* (1841); these are some of the first properly historical assessments of the development of British geology.

In 1852, he was awarded the Geological Society's Wollaston Medal for services to geology. He died in London on 13th May 1861.

Abridged from Fitton, William Henry (1780-1861), physician and geologist *by H.S. Torrens and Janet Browne*; *Oxford Dictionary of National Biography 2004*.

Editorial subcommittee
Beris Cox (e mail: beris.cox@btinternet.com)
David Earle (e mail: daearle@btinternet.com)
Dick Moody (e mail: rtj.moody@virgin.net)

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

LETTER FROM THE CHAIR

Time seemingly passes more quickly the older we get! And the fact that I have been a member of the HOGG committee since 2005 is a sobering thought. When I first joined, discussions centred on the celebration of the Geological Society's Bicentenary in 2007. The Society's 'Founding Fathers' were members of a select dining club that met at the Freemasons' Tavern in Great Queen Street, London. The dining club still meets regularly and a celebration dinner marking the 2500th get together was held this year on 26th January at the Athenaeum.

My tasks for the Bicentennial celebrations were to help John Mather in the organisation of a 'historical' field trip to the Isle of Wight, and to finalize arrangements for a celebratory dinner to be held on 12th November 2007. The field trip to the Isle of Wight, led by Martin Rudwick and Hugh Torrens, was a masterpiece in terms of the teaching of historical geology. As for the celebratory dinner, "finalize" was the wrong directive as the person who had initiated contact with the Connaught Rooms in Great Queen Street (built on the site of the Freemasons' Tavern) was no longer employed by the Geological Society, the staff at the Connaught Rooms changed weekly, and nobody actually wrote anything down until July 2007, and then that person disappeared too and a new management appeared from nowhere! However, the dinner attracted 200 diners, over 60% of whom opted for costume dress (see Newsletters 32 and 33). On the day following this noisy and fun evening, the Society held a wondrous dinner in a starlit hall at the Natural History Museum where the talk was largely about the night before!

Since 2007, I have organized, or jointly organized, several meetings on behalf of HOGG with the Geological Society's *Special Publication* 343 (see Newsletter 40) being the culmination of a great, international meeting. This year, HOGG is again leading the way in terms of group meetings starting with *Geological Collectors and Collecting* on 4th-5th April at the Natural History Museum, London, and with *Geology and Medicine* at Burlington House, Piccadilly on 1st-2nd November. HOGG is also involved in the organisation of the meeting *Dinosaurs - their kith and kin: a historical perspective* to be held in Paris on 3rd-7th May. The meeting has attracted speakers from many parts of the globe and two one day trips to the chalk caves at Meudon and the famous Vaches Noires of Normandy herald a great stay in one of the most historic cities in Europe.

The success of these meetings will be uppermost in my mind over the coming months. HOGG is fortunate to attract hands on people who fulfil the demand for a greater knowledge of the history of geology and its links with other sciences. With this in mind, I would like to thank Alan Bowden, David Earle and Hugh Torrens for their dedication and commitment over the last six years or so, and welcome John Henry, Richard Howarth and Cherry Lewis, on to the new committee.

The years ahead contain some significant challenges for our group but I have no doubt that we will succeed.

Dick Moody
January 2011

HOGG COMMITTEE

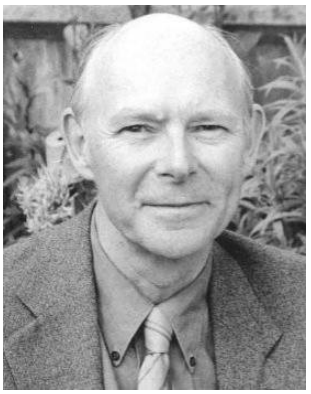
Chairman Dick Moody **Vice Chairman** Richard Howarth **Secretary** Leucha Veneer **Treasurer** Beris Cox **Ordinary members** Tony Brook, John Henry, Cherry Lewis, Martin Rudwick, Bob Symes.

***Introducing the new committee members*:**

John Henry

Originally from Ontario, Canada, John came to Europe to study at ITC (Institute of Aerial Survey and Earth Sciences), Netherlands in 1972. On graduating, he moved to Ove Arup and Partners, London, where he established the Air Photo Interpretation section which produced preliminary geological maps to guide ground investigations for civil engineering projects, principally to identify difficult ground conditions and potential geohazards. During his 30 years with Ove Arup, he travelled extensively, mainly in Africa and the Middle and Far East. In the UK, his work on ground conditions frequently involved historical research into mining, past industries and land reclamation, and strayed into archaeology. In retirement, John combines geological consultancy services and his online business (*Nineteenth Century Geological Maps*), dealing in early geological maps, sections, figures and books.

Richard Howarth



Richard is a geologist specializing in the statistical interpretation of geological and geochemical data and, more recently, the history of the use of quantitative methods in geology and early geophysics. He took his BSc and PhD at the University of Bristol and subsequently worked for Shell International, the Applied Geochemistry Research Group at Imperial College London, and British Petroleum. He is now Honorary Professor in Mathematical Geology at University College London. He has been awarded the Murchison Fund of the Geological Society, the Krumbein Medal of the International Association of Mathematical Geology and the Richardson Award of the Geologists' Association.

Cherry Lewis

Dr Cherry Lewis has an interest in the history of medicine and science, specifically the history of geology on which she has published several books. She has previously served on the HOGG committee and was its Chair from 2004-2007. She has recently retired from the University of Bristol where she worked as an editor and press officer.

HOGG AGM 2010

The reports of the Chair, Secretary and Treasurer which were presented at the AGM held on Wednesday 16th November 2010 at Burlington House during the Applied Geology meeting are reproduced here for the benefit of those members who did not attend.

Chair's Report 2010

The Committee, having remained unchanged since the last AGM, has continued to be busy throughout 2010 with the organisation of meetings on both a short and long time scale. We have also actively pursued the idea of producing popular level publications for the future and Nina Morgan has taken on the executive role of production editor for this proposed series. Our newsletter has continued to evolve and thanks must go to our Treasurer Beris Cox for ensuring that it is now produced on a regular schedule.

HOGG has had another good year, with several interesting and well-attended meetings. These have included the April *Geology in the History of Provincial Scientific Societies* meeting held in Manchester, convened by Beris Cox and Leucha Veneer. The meeting was moderately well attended but gave rise to some fascinating papers that explored the rich and varied history behind some of our local societies. Nina Morgan and Philip Powell of Oxford University Museum (OUM) arranged a *Geology on the Hoof* field excursion to examine the building stones and history behind some of Oxford's loveliest historic buildings. The trip resulted in five new members being welcomed into HOGG. This two day conference on the *History of Applied Geology* is also going well and my thanks go out to the conveners, Dick Moody, David Earle and Helen Reeves for all the hard work they have put in to it.

The committee continues to plan meetings for the future, including a two day meeting on the *Geological Collectors and Collecting* to be held at the Natural History Museum next April. This meeting is being convened by John Henry, Sarah Long and Nina Morgan. In November next year, there will be a two day meeting on the *History of Geology and Medicine* convened by Dick Moody, Chris Duffin and Christopher Gardner-Thorpe.

The Group's excellent publication record continues with the release of *Dinosaurs and Other Extinct Saurians: a historical perspective* (Geol. Soc. Spec. Publ. **343**). This is a volume that should be of great interest not only to HOGG members but also to a wider readership.

There are four changes to the committee for the coming year. Stepping down are Nina Morgan, David Earle and Hugh Torrens as their terms under the constitution have run their course. Finally, as your retiring Chair, I would very much like to take this opportunity to thank those leaving the committee for all of the hard work they have put into HOGG over the last three years. I have valued their support and enthusiasm and they have done much to contribute to the success of HOGG in all its endeavours. I also wish to thank all of the Committee members who are still serving their terms for their enthusiasm, advice, hard work and support. Next year there will be fresh elections to the Committee and now is the time to begin considering putting yourself forward for consideration if you wish to take a pro-active role in running the Group.

Alan Bowden
16th November 2010

Treasurer's Report 2010

Summary statement of accounts for period 06/11/09 – 11/11/10 (prepared for AGM on 16/11/10)

Opening Balance 06/11/09	£5260.30		
Income		Expenditure	
Subscriptions[1]	2144.00	Newsletters[4]	229.90
Provincial Soc. Meeting (Apr.10)	115.00	Committee expenses[5]	1120.15
Military Hydro. Meeting (Nov.09)[2]	376.00	Mil. Hydro.Meeting (Nov.09)	922.00
Applied Geol. Meeting (Nov.10)[3]	1640.50	Provincial Soc.Meeting (Apr.10)	5.00
Co-operative a/c interest	0.23	Promotional flyer	53.80
		Publishing House [6]	600.00
	£4275.73	PayPal costs	9.93
		Payment to an ebay a/c[7]	71.19
			£3011.97
		Closing balance 11/11/10	£6524.06
Total	£9536.03	**Total**	£9536.03

[1] includes some 2008 and 2009 late payments
[2] additional registration fees for meeting on 18/11/09
[3] advance registration fees and sponsorship for meeting on 16-17/11/10
[4] printing and postage for newsletters 38, 39 and 40
[5] travel to HOGG committee meetings (4), representative to Science Committee meetings (2), C Lewis to Network Committee meeting
[6] Geol.Soc.Special Publ. 343 (HOGG Dinosaur meeting): contribution to cost of colour plates
[7] reimbursement from Alliance & Leicester awaited

The HOGG finances are managed through three bank accounts – Alliance & Leicester Commercial Bank current account (mainly for subscriptions), Co-operative Bank Community Directplus account (mainly for meeting revenues) and PayPal Business account (mainly for overseas payments).

During the year, some progress has been made in chasing up members who pay their subscriptions by standing order but who had not yet upgraded them from £10 to £15; however, there are still some members who need to do so. Annual subscriptions have been £15 since January 2008. It would also assist the Treasurer and help keep HOGG's finances in good order if members who pay by cheque would do so promptly in January each year (due 1st January) or, even better, arrange to pay by standing order; forms are available from the Treasurer. Members are also asked to advise either the Treasurer or the Secretary of changes in their contact details, particularly e mail addresses.

Whilst subscription income continues to cover everyday running costs, HOGG finances are considered to be satisfactory.

Beris M Cox
11th November 2010

Secretary's Report 2010

HOGG has had another good year, with several interesting and well-attended meetings. These have included the Provincial Societies, held in Manchester in April, which saw an interesting range of papers on various specialist scientific societies and their contributions to geology from the nineteenth century to the present day. The conference on *Military Hydrogeology*, including the last AGM, went well, and this [*Applied Geology*] conference looks to be doing well too.

The committee continues to plan meetings for the future, including a meeting on geological collectors and collecting, with talks, exhibitions and workshops, to be held at the Natural History Museum next April, and a conference on Geology and Medicine next November.

The Group's excellent publication record continues. The *Dinosaurs and other extinct saurians* conference has produced a volume of great interest not only to HOGG members but also to a wider readership. It is also hoped that a volume will come out of this conference on applied geology. The committee is also considering a more popular series of publications, and some progress has been made on this.

I would like to thank our current committee for contributing so much to HOGG over the past year, and especially those who are standing down: Alan Bowden (Chair), Nina Morgan, who will remain involved in the popular publications efforts, Hugh Torrens and David Earle. The elections to the Committee this year are for Dick Moody as the new Chair, Richard Howarth as Vice-Chair, and John Henry and Cherry Lewis as ordinary members.

Leucha Veneer
November 2010

HOGG SUBS FOR 2011 NOW OVERDUE

IF YOU HAVE NOT ALREADY PAID BY STANDING ORDER OR CHEQUE, PLEASE DO SO NOW.

SEND A CHEQUE FOR £15 (*payable to HOGG*) to the HOGG Treasurer
Dr B M Cox, 151 Browns Lane, Stanton-on-the-Wolds, Keyworth, Nottingham NG12 5BN

ALTERNATIVELY IF YOU USE E MAIL AND WISH TO PAY BY CREDIT/DEBIT CARD THROUGH HOGG'S PAYPAL ACCOUNT, contact the Treasurer at beris.cox@btinternet.com
(5% surcharge applies but you do not need to have a personal PayPal account)

OVERSEAS MEMBERS WILL BE SENT A PAYPAL INVOICE

HISTORY OF APPLIED GEOLOGY

David Earle reports on HOGG's autumn meeting of 2010

The HOGG autumn meeting for 2010 was a two day conference (November 16th-17th) at Burlington House on the history of applied geology convened jointly with the Engineering Group of the Geological Society by Dick Moody, David Earle and Helen Reeves. The thought behind the meeting was that whilst mining is relatively well represented as a popular sector of historical applied geology, there are a number of other applied disciplines, such as engineering geology, geophysics and hydrogeology, which receive less attention. The meeting attracted eighty delegates and twenty-two presentations covering a wide spectrum of subjects, periods and personalities.

On the afternoon prior to the meeting, fourteen of the delegates met in Rotherhithe for lunch at the Mayflower which has associations with the vessel of that name (the captain is buried at the church opposite) and with the Brunels and their Thames Tunnel. The nearby Brunel Museum was visited and the museum director, Robert Hulse, guided a tour of the Thames Tunnel shaft. Lastly, the staff of the adjacent Sands Film Studio and Archive Museum provided tea and a tour.

The Mayflower pub (photo: David Earle)


Shaft to the Brunels' Thames Tunnel (photo: David Earle)

The meeting was launched on the first day with three presentations dealing with eighteenth and nineteenth century practitioners in applied geology. Hugh Torrens spoke about William Smith (1769-1839) and James Ryan (c. 1770-1847) and the development of scientific mineral prospecting. Dave Greenwood discussed Thomas Sopwith (1803-1879) "Mining and Civil Engineer, Surveyor and Geologist". The third paper, given by Martin Culshaw, described the research by himself and Alan Forster into the life and work of W. Henry Penning who published his volume *Engineering Geology* in 1880.

Presentations by Dick Selley and Richard Howarth considered the contribution of two important institutions to the development of applied geology: the Royal School of Mines and Imperial College, with Richard describing the life and work of the pioneering applied geochemist John Stuart Webb (1920-2007).

Following the HOGG AGM, the afternoon session began with an overview by John Mather of the development of hydrogeology in Britain over the past 400 years. A group of papers then shared their authors' enthusiasms for the work and lives of three important and interesting practitioners in applied geology. Steven Wainwright discussed the US geoscientist Luna Leopold (1915-2006),

Paul Kabrna talked about John Milne (1850-1913) “the father of modern seismology” and Michael Welland dealt with the extraordinary and varied life of Ralph Bagnold; both the latter speakers drew on their published texts about their subjects.

Alan Bowden summarized the research by himself and Wendy Simkiss into the story of an important agate collection and its use in the manufacture of the Merlin engines used in Spitfire and Hurricane aircraft. Lastly, Clive Edmonds discussed the extent of historical chalk mining in south-east England and the ground instability legacy which this currently presents for residents and developers.

The first day was completed with a wine reception and the conference dinner in St James which was attended by about 30 of the delegates.

The second day of the meeting again ran to eleven presentations; the first two concerned micropalaeontology with Haydon Bailey describing European schools of applied micropalaeontology and Dick Moody dealing with the history of the description and classification of nummulites, beginning in the 5th century BC, and the use of geopolymers in the building of the Great Pyramids.

Six papers then dealt with varied aspects of the extractive industries beginning with Ken Chew and Anthony Spencer on the history of petroleum exploration. Geoffrey Walton covered geological employment in the extractive industries and Ian Sims described the development of the discipline of geomaterials. The other papers in this group concerned the history of UK mining with Tim Colman describing the last half-century of mineral exploration; Richard Shaw, the history of Peak District mining; and Anthony Brook, the social and political background to the Haswell Colliery disaster of 1844.

The closing session of the meeting was concerned with more recent applications of geological understanding in ground investigation. Eddie Bromhead described how the understanding of the mechanisms of landslips had developed, and Max Barton considered site investigation in the UK of half a century ago. The final presentation was by Paul Nathanail who considered the history and management of contaminated land.

The meeting thus ranged from the beginnings of applied geology up to current issues and problems. Papers dealt with both disciplines and individual practitioners, and themes evolved about the status of applied geology, the training of its operators, and the importance of an understanding of the legacy of the past in coping with current issues. Feedback seemed to show that delegates enjoyed the meeting and thought it worthwhile. There is an intention to publish the results, possibly with some additional contributions.

Sponsorship and assistance in developing the meeting was forthcoming from a range of organisations and individuals including: Arup, RSK, The Geologists’Association, Geoffrey Walton, BGS, the Engineering Group of the Geological Society, and John Henry. The convenors are grateful to them all and to all the speakers for their interest and contributions.

FUTURE HOGG EVENTS

*** GEOLOGICAL COLLECTORS AND COLLECTING**
4th – 5th April 2011
Natural History Museum, South Kensington, London
This two-day event will include talks, exhibitions, workshops and behind the scenes tours on topics of interest to collectors of geological material of all kinds, including books, maps, minerals and fossils. Full programme, summary timetable, list of posters and exhibits, and registration form are on pages 9 – 12 and 31 of this newsletter.

*** DINOSAURS – THEIR KITH AND KIN: A HISTORICAL PERSPECTIVE**
2nd – 7th May 2011
Société géologique de France, Paris
More information on pages 13-19 and 32-33 of this newsletter

*** GEOLOGY AND MEDICINE**
1st – 2nd November 2011
Burlington House, Piccadilly, London
(including HOGG AGM)
More information on page 20 of this newsletter

*** OPEN MEETING**
April 2012
Burlington House, Piccadilly, London
More information on page 21 of this newsletter

*** METALLIFEROUS MINING IN THE SOUTH-WEST AND ITS LEGACY**
November 2013

HOGG CONFERENCE ON GEOLOGICAL COLLECTORS AND COLLECTING

4th - 5th April 2011, Flett Theatre, Natural History Museum, London

PROGRAMME

MONDAY 4th APRIL 2011

10:00 – 10:45 **Registration**, coffee and a chance to view exhibits and poster presentations.

Talks

Why collect?

10.45 – 11.15 RICHARD FORTEY (Natural History Museum, London). *Natural History Museum collectors and collecting.*

11:15 – 11:45 JULIAN WILSON (Christies, London). *Rare geological books and maps: an auctioneer's perspective.*

11:45 – 12:15 JONATHAN LARWOOD (Natural England, Peterborough). *Field collecting: the development of policy and guidance.*

12:15 – 2:15 **LUNCH BREAK** and a chance to view exhibits and posters

Map and Book Collecting

2:15 – 2:45 TOM SHARPE (National Museum of Wales, Cardiff). *North on the map: the geological map collections of the National Museum of Wales.*

2:45 – 3:15 STUART BALDWIN (Baldwin's Scientific Books, Witham, Essex). *Book collecting in the history of the natural sciences, especially geology, palaeontology & natural history.*

3:15 – 3:45 CHRISTOPHER TOLAND (Consultant Geologist, Oolithica Geoscience, Cheltenham, Gloucestershire). *The eye of a collector: how map collecting illuminates history.*

3:45 – 5:00 **TEA** and a chance to view exhibitions and posters

Hands-on workshops

11:30 – 12:30 *BOOK CONSERVATION* (staff from Camberwell College of Art, London)

2:15 – 3:15 *CONSERVATION OF OBJECTS* (Chris Collins and colleagues from the Natural History Museum, London)

Behind the scenes tours

11:30 - 12:30 Exhibition of geological special collections in the Library

2:15 – 3:15 Visit to the Palaeontology Department

4:30 – 5.00 Visit to the Earth Sciences Library to view the very large and colourful William Smith Geological Map

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Evening event

6:00 pm **Gallery Talk and Preview of Travel, Science and Natural History auction lots** at Christies South Kensington Saleroom, 85 Old Brompton Road, London SW7 3LD (a short walk from the Natural History Museum)

TUESDAY 5th APRIL 2011
10:00 – 10:45 Coffee and a chance to view exhibitions and posters.

Talks

Fossil Collecting

10:45 – 11:15 KAROLYN SHINDLER (Historian, London). *"I have found wonders" - the life, letters and passion for collecting of the 19th century fossilist, Barbara Yelverton, Marchioness of Hastings.*

11:15 – 11:45 JONATHAN RADLEY (Warwickshire Museum, Warwick). *Collecting the Jurassic: local museums and a window on the past.*

11:45 – 12:15 RICHARD EDMONDS (Earth Sciences Manager, Dorset County Council, Dorchester). *The furtherance of science: the role of Dorset collectors.*

12: 15 – 2:15 **LUNCH BREAK** and more time to view exhibitions and posters.

Rock and Mineral Collecting

2:15 – 2:45 MONICA PRICE (Oxford University Museum of Natural History). *The Corsi Collection of decorative stones: how Faustino Corsi brought geology to the arts.*

2:45 – 3:15 JOHN FAITHFULL (Hunterian Museum, Glasgow). *Spending a fortune in the 18th century: William Hunter's mineral collection, and how it was used.*

3:15 – 3:45 CHRIS COLLINS (Natural History Museum, London). *Preserving collections through the ages – the history of specimen conservation at the Natural History Museum.*

3:45 – 5:00 **TEA** and a final chance to view exhibitions and posters.

Hands-on workshops

10:45 –11.45 *PAPER CONSERVATION.* (Richard Weedon, Camberwell College of Art, London.)

2:15 – 3.15 *DIGITAL PHOTOGRAPHY FOR COLLECTIONS - managing digitisation projects of all sizes and budgets.* (Simon Harris, Freelance Collections Manager and Photographer, Birmingham.)

Behind the scenes visits

11:45 – 12:45 Minerals Department (Minerals)

3:15 – 4:15 Minerals Department (Rocks)

4:30 – 5.00 A second chance to visit the Earth Sciences Library to view a very large and exceptionally colourful *William Smith Geological Map.*

SUMMARY TIMETABLE
4th APRIL 2011

TALKS

10:45 - 11:15	11:15 - 11:45	11:45 - 12:15	2:15 - 2:45	2:45 - 3:15	3:15 – 3:45
Richard Fortey Natural History Museum collectors and collecting	**Julian Wilson** Rare geological books and maps: an auctioneer's perspective	**Jonathan Larwood** Field collecting: the development of policy and guidance	**Tom Sharpe** North on the map: the geological map collections of the National Museum of Wales	**Stuart Baldwin** Book collecting in the history of the natural sciences, especially geology, palaeontology & natural history	**Christopher Toland** The eye of a collector: how map collecting illuminates history

HANDS-ON WORKSHOPS	**11:30 – 12:30** **Book Conservation**	**2:15 – 3:15** **Conservation of Objects**	

BEHIND THE SCENES TOURS	**11:30 – 12:30** **Special Collections in the Library**	**2:15 – 3:15** **Palaeontology Department**	

Late afternoon activities
4:30 – 5.00 View the William Smith Map in the Earth Sciences Library
6:00 pm Gallery Talk and Preview of Travel, Science and Natural History auction lots at Christies South Kensington Saleroom, 85 Old Brompton Road, London SW7 3LD (a short walk from the Natural History Museum)

5th APRIL 2011

TALKS

10:45-11:15	11:15-11:45	11:45-12:15	2:15-2:45	2:45-3:15	3:15 – 3:45
Karolyn Shindler "I have found wonders" - the life, letters and passion for collecting of the 19th century fossilist, Barbara Yelverton, Marchioness of Hastings	**Jonathan Radley** Collecting the Jurassic: local museums and a window on the past	**Richard Edmonds** The furtherance of science: the role of Dorset collectors	**Monica Price** The Corsi Collection of decorative stones: how Faustino Corsi brought geology to the arts	**John Faithfull** Spending a fortune in the 18th century: William Hunter's mineral collection, and how it was used	**Chris Collins** Preserving collections through the ages – the history of specimen conservation at the Natural History Museum

HANDS-ON WORKSHOPS

10:45 – 11:45 **Paper conservation**		**2:15 – 3:15** **Digital photography**	

BEHIND THE SCENES TOURS	**11:45 - 12:45** **Minerals Dept (minerals)**		**3:15-4:15** **Minerals Dept (rocks)**

Late afternoon activities
4:30 – 5.00 View the William Smith Map in the Earth Sciences Library

HOGG CONFERENCE ON GEOLOGICAL COLLECTORS AND COLLECTING

POSTERS AND EXHIBITS (TO DATE)

BERT SLIGGERS (Curator palaeontology/mineralogy, The Teyler Museum, Haarlem, The Netherlands)
18th-century labels: A reconstruction of contacts between dealers and collectors

JONATHAN LARWOOD (Geologists' Association, London)
The Geologists' Association Carreck Archive: conserving the photographic record of the GA

COLIN MACFADYEN (Geologist, Scottish Natural Heritage)
The Scottish Fossil Code

SUSAN TURNER (Geoscience Consultant, Brisbane, Australia)
Beautiful One day — Perfect the Next! 19th–early 20th century geological collectors and collecting in the Great State of Queensland.

SVETLANA NIKOLAEVA (Palaeontological Institute Russian Academy of Sciences and International Commission on Zoological Nomenclature, Natural History Museum, London)
Amateur collectors: what the surgeon, the smith, the engineer and the pharmacist had in common

PHIL STONE (British Geological Survey, Edinburgh) and Adrian Rushton (Natural History Museum, London)
The pedigree of early fossil collections from the Falkland Islands, South Atlantic

JANE INSLEY (Senior curator, Engineering Technologies, Science Museum, London)
"Rescuing a dull – or even repellent – subject". Dioramas at the Geological Museum

ROY STARKEY (Honorary President, The Russell Society)
Matthew Boulton, his mineral collection and the Lunar Men

JILL DARRELL AND BRIAN ROSEN (Natural History Museum, London)
Colour coded labels: Darwin's collections at the Natural History Museum

BOB MCINTOSH (Image Base Manager, BGS Edinburgh) and colleagues
Images from the archives: Edmund Teale, photographic and geological pioneer in East Africa

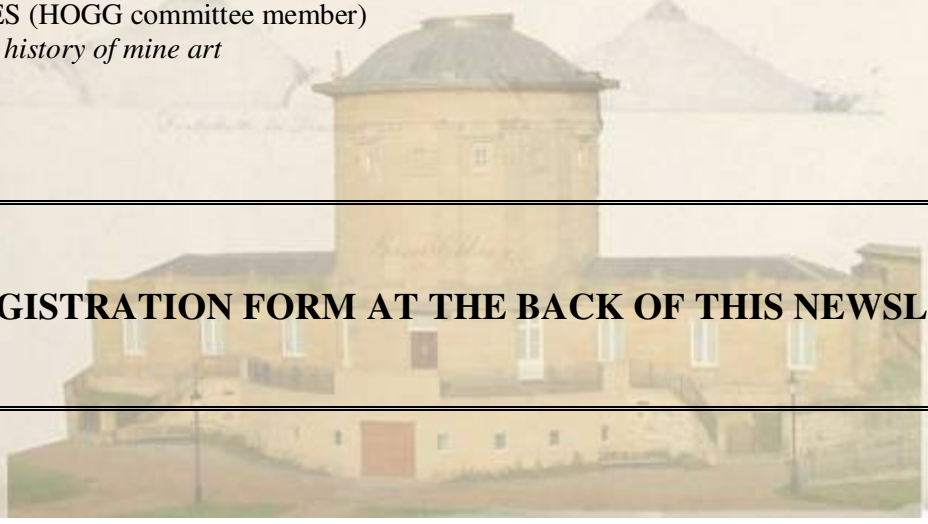
BOB MCINTOSH (Image Base Manager, BGS Edinburgh) and colleagues
Geoscenic: Instant access and download of over 50,000 images via BGS OpenGeoscience portal

JERRY HODGSON (Manager CartoGIS, BGS Edinburgh and Keyworth)
From watercolour to web: the evolution of BGS mapping

MONICA PRICE (Oxford University Museum of Natural History)
Polished windows on an ancient world: decorative stone collections in the Oxford University Museum of Natural History

KAROLYN SCHINDLER (Historian, London)
"*The cleverest woman I've ever known": the letters and fossils of Barbara Hastings*

BOB SYMES (HOGG committee member)
The history of mine art



REGISTRATION FORM AT THE BACK OF THIS NEWSLETTER

Dinosaurs, their kith and kin:

a historical perspective

Paris, Société géologique de France, 3-7 May 2011

Organisers: Eric Buffetaut (Paris), Nathalie Bardet (Paris), Jean Le Loeuff (Espéraza) & Richard Moody (HOGG & Kingston)

http://sgfr.free.fr/seance/Dinosaurs2011/index.php

SECOND CIRCULAR

The International Meeting "Dinosaurs, their kith and kin: a historical perspective" will be held in Paris (France) from 3th to 7th May, 2011. The event will be hosted by the *Société Géologique de France* (SGF) and supported by the History of Geology Group (affiliated to the Geological Society London) and the Muséum National d'Histoire Naturelle (Paris).

MEETING PROGRAMME

(detailed schedule and maps will be provided in the final circular)

Tuesday 3rd May	- Morning: arrival, registration at Société géologique de France. - Afternoon: 14:30, visit to the Palaeontology Gallery of the Muséum National d'Histoire Naturelle, with a display of historically important fossils, followed by reception at the Museum.
Wednesday 4th May	- 09.30: Registration at Société géologique de France + Welcome and official opening of the meeting - 10.30: Starting scientific sessions (all scientific sessions at SGF) - Lunch - Afternoon: scientific sessions, followed by reception at SGF..
Thursday 5th May	- Morning (beginning 10.00): scientific sessions. - Lunch - Afternoon: scientific sessions. - Evening: conference dinner.
Friday 6th May	- Morning (beginning 10.00): scientific sessions. - Lunch - Afternoon: field trip to the Chalk underground quarries at Meudon (return to Paris at about 18:00). Cost about 5 €.
Saturday 7th May	Field trip to the Vaches Noires cliffs in Normandy (if there is enough interest). Cost about 50 €.

TECHNICAL INFORMATION

ORAL PRESENTATIONS. A PowerPoint presentation is recommended. A computer will be available. You may bring your own computer but if you are using Apple Macintosh and if you come from abroad, please bring your own adapters. **Every speaker is required to save her/his presentation in both Power Point and PDF formats.** If further technical support is required for your presentation, please indicate it on the Registration Form. The duration of each presentation will be scheduled for about 20 minutes (depending on the number of presentations – to be defined in the final circular). English will be the main language of the symposium, but presentations in French will also be accepted (preferably with an English version on the Power Point presentation).

POSTERS. Presenters are invited to display their posters throughout the meeting, and to man them during coffee break and lunch times.

ABSTRACTS. An abstract volume will be distributed to all participants during the meeting. Authors are requested to follow carefully the instructions below before preparing and submitting their abstract. **Abstracts that do not follow the instructions will be returned to the authors**. All abstracts for oral and/or poster presentations are to be submitted by e-mail as ***.doc. or *.rtf.** Abstracts can be submitted in French or English. Only standard abbreviations may be used. Each abstract should be one A4 page long. **The deadline for abstract submission is March 15th, 2011**. Please send abstracts by Email to **eric.buffetaut@sfr.fr**

ABSTRACT INSTRUCTIONS

The following instructions must be followed carefully. The abstract should not be longer than one page, references included and prepared with 2 cm left and right margins. No figures should be included.

ABSTRACTS SHOULD BE SENT NO LATER THAN 15th MARCH 2011 TO:

eric.buffetaut@sfr.fr

TITLE: TIMES NEW ROMAN 12, CAPITALS, BOLD, CENTRE, ONE LINE SPACE

AUTHORS (idem, separated one line from title): NAME S.[1], NAME S.[2], etc. & NAME S.[n]

Addresses (Times New Roman 10, min., bold, justified left, separated one line from names): [1] Complete address, E-Mail; [2] Complete address, E-Mail; [n] Complete address, E-Mail.

Main text of the summary in Times New Roman 12, normal, justified left, separated by 2 line spaces from the address list.

References

All references in Times New Roman 10 normal, justified left, flush left on second line:

NAME S., NAME S., etc. & NAME S. (year). Title
……. Journal. number: pages.

NAME S., NAME S., etc. & NAME S. (year). Title
……. Journal. number: pages.

CONFERENCE PROCEEDINGS. The proceedings of the meeting will be published in book form by Editions du Sauropode (Sauropod Press), a newly established publishing house. Details about manuscript presentation will be provided in the third circular. In order to have the volume published in 2011, the **deadline for manuscript submission will be September 15th 2011.**

FIELD TRIPS. A **pre-meeting field** trip to the underground Late Cretaceous Chalk quarries at Meudon, in the suburbs of Paris, will be organised on the afternoon of Tuesday 3rd May. These quarries have yielded several notable mosasaur specimens and also expose the Early Eocene Meudon conglomerate, which has yielded the giant bird *Gastornis*. Meudon will be reached by suburban train. Cost about 5 €.

A **post-meeting** day-long field trip to the Vaches Noires cliffs on the Normandy coast will be organised on Saturday 7th May **if a sufficient number of participants are interested**. The cliffs have yielded remains of various Jurassic fossil reptiles, including dinosaurs, which were studied as early as the 1800s by Cuvier. This will be an opportunity to see the newly opened palaeontology Museum in Villers-sur-Mer. We plan to be back in Paris by late afternoon. **As planning for this coach trip must be made well in advance, and the number of participants will be limited, it is important that participants should indicate whether they plan to join the field trip when they return the second circular. The total cost of the trip (by coach) will be about 50 €. Payment for field trips will be at registration.**

CONFERENCE DINNER: It will be held on Thursday 5th May. Details will be provided in the third circular. Payment for dinner will be at registration.

ACCESS TO COLLECTIONS. Participants who are interested in seeing specific specimens at the Muséum National d'Histoire Naturelle during the meeting are requested to contact Hervé Lelièvre (lelievre@mnhn.fr) and Ronan Allain (rallain@mnhn.fr), respectively Curator in chief of the Palaeontology collections and Curator of fossil reptiles, who can provide information about how to access the collections (applications must be made online and well in advance).

TRAVEL DIRECTIONS

The *Société géologique de France* (77 rue Claude Bernard, 75005 Paris) is located in the centre of Paris and easily accessible by public transport. **No car parking will be available at the venue**, therefore you are strongly advised to use public transport.
The closest Metro or RER (suburban train transport) stations to the Société géologique de France are: "Censier-Daubenton" (Metro line 7), "Place Monge" (Metro line 7) and "Luxembourg" (RER Line B). All these stations are a few minutes walk from the Société géologique de France. A map of that part of Paris showing Metro stops will be provided in the final circular.

Paris has two international airports:

- Paris Orly, South of Paris (Orlyval or RER C line)
- Paris Charles de Gaulle, North of Paris (RER B line)

To reach Paris centre and the Museum from both airports, the quickest and cheapest ways are to take RER B or RER C (about 45 min duration each).
→ **From Charles de Gaulle Airport**: take RER B direction "Paris" - stop at "Luxembourg"
→ **From Orly Airport**: take bus "navette" to RER C station "Pont de Rungis" – take RER C direction "Paris" – stop at "Saint-Michel" station, then take RER B to "Luxembourg"..
You can also use buses or taxi.

ACCOMMODATION

Paris is a tourist destination all year long so that hotel reservations have to be made as early as possible. Here are some suggestions for accommodation near the Société géologique de France:

Jack's Hotel 19 rue Stephen Pichon 75013 Paris +33 (0)1 45 85 17 34 Fax : +33 (0)1 45 84 43 06 http://www.jacks-hotel.com Metro: Place d'Italie Room: 89 € (single), 99 € (double) Breakfast: 9 €	**Hôtel Rubens** 35 rue du Banquier 75013 PARIS + 33 (0)1 43 31 73 30 Fax :+33 (0)1 47 07 31 79 http://fr.federal-hotel.com/hotel_hotel-rubens-paris_2174.htm Metro: Gobelins Room: 45 to 63 € (single), 45 to 80 € (double) Breakfast: 7 €
Hotel Cujas Panthéon 18 rue Cujas 75005 PARIS +33 (0)1 43 54 58 10 Fax : +33 (0)1 43 25 88 02 www.hotelcujaspantheon.com Metro : Saint Michel RER : Saint Michel Room : 63 € (single), 80 € (double) Breakfast : 7 €	**Hotel Magendie - VVF** 6 rue Corvisart 75013 Paris 33 (0)1 43 36 13 61 Fax : 33 (0)1 43 36 47 48 Metro : Saint Marcel RER : Austerlitz Room : 66 € (single), 78 € (double) Breakfast : 7 €
Hotel du Collège de France 7 rue Thénard 75005 Paris 33 (0)1 43 26 78 36 Fax : 33 (0)1 46 34 58 29 www.hotel-collegedefrance.com Metro : Maubert-Mutualité RER : Saint Michel Room : 87 € (single), 97 € (double) Breakfast : 8 €	**Hotel du Brésil** 10 rue Le Goff 75005 Paris 33 (0)1 43 54 76 11 Fax : 33 (0)1 46 33 45 78 www.hoteldubresil.fr Metro : Cluny la Sorbonne RER : Luxembourg Room : 79 € (single), 89 € (double) Breakfast : 6 €
Hotel des Arènes 51 rue Monge 75005 Paris 33 (0)1 43 25 09 26 Fax : 33 (0)1 43 25 79 56 www.france-hotel-guide.com/h75005arenes2.htm Metro : Jussieu RER : Saint Michel Room : 70 € (single), 85 € (double) Breakfast : 10 €	**Hotel Vendome Saint Germain** 8 rue d'Arras 75005 Paris 33 (0)1 43 26 60 37 or 80 98 Fax : 33 (0)1 43 26 71 04 www.hotelvendomesaintgermain.com Metro : Cardinal Lemoine ou Jussieu RER : Luxembourg Room : 102 € (single), 103 € (double) Breakfast : 9 €

Booking for student accommodation can be made on the following websites (**http://www.cisp.fr**) and (**http://www.fiap.asso.fr**).

Centre d'hébergement Kellermann 17 boulevard Kellermann 75013 Paris 33 (0)1 43 58 96 00	**Centre d'hébergement Maurice Ravel** 6 avenue Maurice Ravel 75012 Paris 33 (0)1 43 58 96 00

Fax : 33 (0)1 43 58 95 14 www.cisp.fr Metro : Porte d'Italie Room : 40 € (single), 30 € (twin-bed) Breakfast : included	Fax : 33 (0)1 43 58 95 14 www.cisp.fr Metro : Bel-Air, Porte de Vincennes ou Porte Dorée Room : 40 € (single), 30 € (twin-bed) Breakfast : included
FIAP Jean Monet 30 rue Cabanis 75014 Paris 33 (0)1 43 13 17 17 Fax : 33 (0)1 45 81 63 91 http://www.fiap.asso.fr Metro : Glacière, St Jacques Room : 57 € Breakfast : included	**BVJ Quartier Latin** 44 rue des Bernadins 75005 Paris 33 (0)1 43 29 34 80 Fax : 33 (0)1 53 00 90 91 www.bvjhotel.com Metro : Maubert-Mutualité or Jussieu Room : 57 € Breakfast : included

CONFERENCE FEES AND PAYMENT

REGISTRATION FEE 50 € (**40 €** for SGF members)
The registration fee includes Symposium programme and Abstract volume, an icebreaker party, and coffee breaks. No special arrangements have been made for lunch. Many inexpensive restaurants and cafés are available close to the Société géologique de France.
Methods of payment (see Payment Form for details)

1. **Preferred method:** Bank transfer, Personal Cheque **drawn on a French bank**, Postal Money Order and Credit Card (due to the need for the organisers to make **advance payments**). **Deadline: 1st MARCH 2011.**
2. **Cash payment during registration** (only in case bank transfer is complicated and/or associated with high fees).

KEY DATES AND DEADLINES

Final Registration + Fee Payment	**1st March 2011**
Abstract submission	**31st March 2011**
Final Circular	**April 2011**
Manuscript submission	**15th September 2011**

CONTACT
(preferably by e-mail)

Eric BUFFETAUT
CNRS (UMR 8538), Laboratoire de Géologie de l'Ecole Normale Supérieure
24 rue Lhomond, 75231 Paris Cedex 05

eric.buffetaut@sfr.fr

Enquiries concerning payment of registration fees should be sent to :
accueil@sgfr.org

PROVISIONAL LIST OF PRESENTATIONS TO DATE

Angst, Delphine (Paris) & Buffetaut, Eric (Paris):
Paul Carié, Mauritian naturalist and forgotten dodo researcher. (oral presentation)

Bardet, Nathalie (Paris) and Galoyer, Alain (Meudon):
Historical aspects of the Meudon Chalk mosasaurid remains discoveries (oral presentation)

Buffetaut, Eric (Paris) & Brinkman, Daniel (New Haven):
The American friend: O.C. Marsh, A. Bigot and the first sauropods from Normandy. (oral presentation)

Buffetaut, Eric (Paris) & Le Loeuff, Jean (Espéraza):
"Les premiers déprédateurs": dinosaurs and propaganda in World War I (poster ?)

Dworsky, Alexis (Freising):
Lepusaurus rex: the cultural evolution of the dinosaur (oral presentation)

Cavin, Lionel (Genève) & Le Loeuff, Jean (Espéraza):
De Beaumont, Demathieu and sauropod locomotion (provisional title, oral presentation)

Cohen, Claudine (Paris):
Something on Edward Hitchcock and fossil footprints (oral presentation)

Dyke, Gareth (Dublin) & Buffetaut, Eric (Paris):
Cyril Walker and the discovery of enantiornithines (oral presentation)

Godefroit, Pascal (Brussels):
Bone War in Belgium: who discovered the Bernissart Iguanodons?

Grigorescu, Dan (Bucharest):
Title not yet announced

Galoyer, Alain (Meudon):
Gaston Planté and the discovery of the giant fossil bird *Gastornis* (oral presentation).

Hoch, Ella (Gram):
Auks (Aves: Alcidae), an evolutionary crescendo - their imprints on Nordic science and art since the 16th century (oral presentation).

Howgate, Michael (London):
'The Man who was Dinosaurs (part 2)' - W. E. Swinton - the post war years (oral presentation)

Kosemen, C.M. & Conway, J.A. (London):
Mystery claws from across time (oral presentation + poster).

Le Loeuff, Jean (Espéraza):
Dinosaur novels of the 19th and early 20th century (oral presentation)

Lepage, Yves (Le Havre) & Buffetaut, Eric (Paris):
Emile Savalle and the first photograph of a dinosaur excavation in Europe (poster).

Manias, Chris (Bristol):
Selling the Mongolian Eggs: Publicity and Palaeontology in the Interwar Period (oral presentation).

Martill, David (Portsmouth):
Richard Owen's pterosaurs (oral presentation)

Mildenberger, Florian (Berlin):
Dinosaurs and Theosophy - the paleontological theories of Edgar Dacqué (1878-1945) (oral presentation)

Moody, Richard (Kingston) and Torrens, Hugh (Keele):
The Missing Mrs Smith – Found! (oral presentation)

Nieuwland, Ilja (Den Haag):
Six Diplodocuses for Germany. Andrew Carnegie, Dinosaurs and German Rivalry (oral presentation)

Pereda-Suberbiola, Xabier (Bilbao):

A.F. de Lapparent and Spanish dinosaurs (poster ?)

Perez-Garcia, Adan (Madrid):

8 posters:

- Identification of one of the few vertebrate fossils that were part of the collection of the "Real Gabinete de Historia Natural" (Madrid) in the eighteenth century
- History of the ichthyosaur skeletons acquired by Juan Vilanova y Piera in the 1850s
- Spanish Mesozoic reptiles found in the nineteenth century by Juan Vilanova y Piera
- Studies of José Royo y Gómez on Spanish Mesozoic crocodiles in the first third of the twentieth century
- Comparative analysis of knowledge about the diversity of Mesozoic reptiles from Morella (Castellón, Spain) in the first third of the twentieth century and today
- William J. Holland and the Spanish skeleton of *Diplodocus*
- José Royo y Gómez, Eduardo Hernández Pacheco and giant tortoises of the Castilian Meseta
- Jurassic turtles with history

Talairach-Vielmas, Laurence (Toulouse):

'Are we not brothers, we and the dinosaurus?' - The Cultural Impact of the Crystal Palace Park (oral presentation)

Tortosa, Thierry (Aix-en-Provence) :

Matheron's first dinosaur discoveries in Provence (oral presentation)

Turner, Susan (Brisbane):

About the von Huenes and the place of women in dino research..and/or the history of dinosaur footprint research in Australia (oral presentations ?)

Vives, Luc & Colin, Cécile (Paris):

Dippy the Diplodocus. The Carnegie's eleven diplodocus and the arrival of one of them within the Gallery of palaeontology.(oral presentation)

Wills, Simon (London):

The Hulke collection at the Natural History Museum, London, UK. (oral presentation)

REGISTRATION and PAYMENT FORMS AT THE BACK OF THIS NEWSLETTER

HISTORY
OF
GEOLOGY
GROUP

THE HISTORY OF GEOLOGY AND MEDICINE

International Conference
1st-2nd November 2011

Conference Venue: Geological Society, Burlington House, Piccadilly London, WIJ OBG

Nearest underground stations are Piccadilly Circus (Bakerloo and Piccadilly lines) and Green Park (Jubilee, Piccadilly and Victoria Lines). Burlington House is also home to the Royal Academy.

Medicine was essentially the birthplace for both natural science and geology, and the first descriptions of rocks, minerals and fossils are often attributed to early physicians. One of the first pharmacies opened on the Arcadian Way in Ephesus around 400BC whereas the Egyptians prescribed mineral salts ground by mortar and pestle. Nicholas Steno (1638-1686) was an early example of a physician cum palaeontologist, and James Parkinson (1755-1824) was a founding father of the Geological Society of London. This conference is dedicated to the memory of such personalities.

CONFERENCE ORGANISERS

Richard T. J. Moody Chris Duffin Christopher Gardner-Thorpe

CALL FOR PAPERS

Title, abstract (up to 500 words) and an associated image to be submitted by 30th March 2011

Conference Topics:

The Contributions of Physicians to the Development of Geology
Lithotherapy-Lithopharmacy: The Pharmaceutical use of Geological Materials
Medical Geology and Forensics
Physicians, Mineral and Thermal Waters
Miscellanea

Please forward abstracts to Richard Moody: rtj.moody@virgin.net

For further information contact: Chris Duffin e mail: c.duffin@blueyonder.co.uk
Christopher Gardner-Thorpe e mail: cgardnerthorpe@doctors.org.uk

To all potential speakers, authors and those who intend to present posters. The convenors are delighted with the fantastic response to our call for papers for this meeting. Please note that the closing date for abstracts is 30th March 2011 but the submission of manuscripts for the Special Publication associated with the meeting is now set for 31st March 2012.

HOGG OPEN MEETING

APRIL 2012

HOGG's next Open Meeting will take place at Burlington House in April 2012 with the usual format. The search for speakers begins here and now, any topic, any period – great opportunity for you to outline your current research work.

E mail the convenor Anthony Brook at anthony.brook27@btinternet.com

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MARK GROSSMAN: AN INTRODUCTION

A new HOGG member introduces himself

My main interest is in the history of meteoritics and I have published two papers on the subject in *Notes & Records of the Royal Society* both of which are available as free downloads.

The first article (2007) is about the meteoritic activities of the British chemist Smithson Tennant and is available at
http://rsnr.royalsocietypublishing.org/content/61/3/265.full.pdf+html?sid=0d9aa9e3-284d-4565-bcf6-b3ff3e0f7e17

The second article (2010) is about the chemist William Higgins, and how a sample of the Mooresfort meteorite led to his battle with John Dalton over priority for the development of the atomic theory. It is available at
http://rsnr.royalsocietypublishing.org/content/64/4/417.full.pdf+html

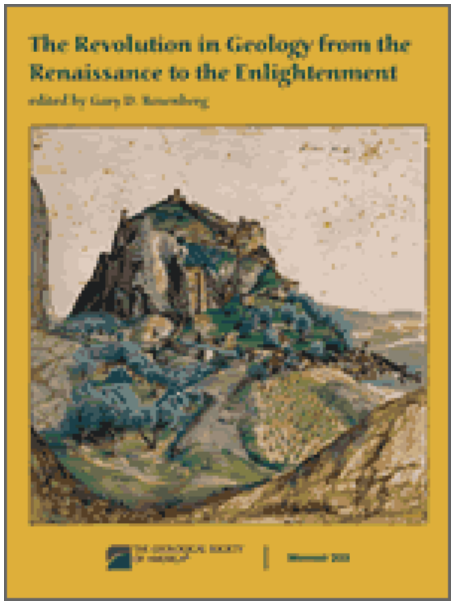
I also write a blog on the history of meteorites and the history of science. The latest posting involved a review of the new book by Cathryn Prince entitled *A Professor, a President, and a Meteor*, and it addresses the activities of the chemist Benjamin Silliman in relation to the Weston meteorite and how it affected American science. There are also a few postings dealing with a letter that was recently located at the Royal Society Archives involving the fall of the Tabor meteorite in 1753. The blog postings are at http://meteoritemanuscripts.blogspot.com
Twitter: http://twitter.com/MetManuscripts
Facebook: http://www.facebook.com/#!/pages/Meteorite-Manuscripts/152949358073543?v=wall

I look forward to discussions on the HOGG JISCMAIL list.

Mark I. Grossman
28 Cypress Lane, Briarcliff Manor, NY 10510, USA
e mail markig@westnet.com

BOOK REVIEWS

The Revolution in Geology from the Renaissance to the Enlightenment
Edited by Gary D Rosenberg 2009. The Geological Society of America Memoir 203, vii + 283pp. ISBN 9780813722031 (hardback) Available from the Geol. Soc. Bookshop, list price £57.50, fellows' price £40.00.



Review by Jay Bosanquet[1]

This book is the outcome of a conference on Nicolaus Steno (1638-1686) held in Philadelphia in October 2006 as part of the national convention of the Geological Society of America, enhanced by extra contributions solicited by the editor, Gary D. Rosenberg. While Steno is the central figure, with ten of the 20 papers focussing on him, other papers focus on such scientists as Aldrovandi, Newton, Franklin, and another rather surprising figure to whom I will refer later. The Steno section occupies chapters 5-14, thus placing him both physically and conceptually at the book's centre. The period covered is slightly more than 250 years, from 1543 (the year of Copernicus' and Vesalius' works which are regarded as marking the start of the scientific revolution) to the early 1800s, which in the West saw the transition from the medieval scholastic view of the Earth and the universe to a recognizably modern one.

Nicolaus Steno, or in Danish Niels Stensen, was the son of a goldsmith in Copenhagen. He grew up as a Lutheran, studied medicine, and was an accomplished anatomist, discovering the excretory duct of the parotid salivary gland which is named after him. The first indications of his interest in geology are found in the *Chaos* manuscript of 1659, which was transcribed and translated by August Ziggelaar in 1997. It consists of student notes and extracts from many books, some of which give an early indication of his later interests, for example in stone formation. In 1667, Steno went to Florence to serve the Medici Grand Duke Ferdinando II. There he turned his attention to geology, a move which was due largely to one unusual event. In autumn 1666, a great white shark was caught by the fishermen of Leghorn. When the news reached the Grand Duke, he commanded that the shark's head should be cut off and given to Steno for dissection. Steno noticed that its teeth were very like the *glossopetrae* or tonguestones which are found around the Mediterranean, especially in Malta, and inferred that the latter were in fact fossilized shark teeth. According to Elsebeth Thomsen and August Ziggelaar, Steno had seen them in the Royal Danish Kunstkammer (cabinet of curiosities) in Copenhagen, and Gian Battista Vai states that he also knew about them from the Danish scholar Ole Worm. The large drawing of the gaping head of the shark is reproduced several times in the book, including on the back cover; it makes a graphic emblem.

In 1667, Steno converted to Catholicism while he was serving the Grand Duke but several of the papers argue that this did not affect his approach to science. He ended his life as a bishop in Germany, was eventually interred in the Church of San Lorenzo in Florence, and was beatified by Pope John Paul II in 1988. Though one step short of full canonisation, it must be an unusual distinction for a scientist.

Many of the papers on Steno discuss his primary geological text, the short book *De Solido* (1669).[1] This is a foundational work in the history of geology because, in the words of contributing author Alan H. Cutler (who also wrote the popular 2003 book about Steno *The Seashell on the Mountaintop*), in this book Steno sets out the fundamental principles for 'reconstructing past events from present-day geological evidence'. For instance, Steno discusses the principle of superposition, i.e. that lower strata are older than the upper, which we take for granted now but which was by no means obvious then. Seashells and other marine fossils found on mountaintops had been originally deposited in marine strata which had later been moved somehow to their present elevated positions, rather than having grown in situ 'plastically', as the German Jesuit polymath Athanasius Kircher (1602-1680) maintained. The famous diagram illustrating the geology of Tuscany in six stages of deposition, hollowing-out, collapse, inundation, further hollowing-out, and further collapse, is reproduced several times in different contributions. As Cutler explains, Steno thought that the inundation was the Noachian Flood, and did not believe that geological time extended back far before the Genesis narrative. The realisation that it did, and that the Flood was not a universal catastrophe, came later when succeeding generations of geologists had worked out the full implications of Steno's principles.

I mentioned above a surprising figure to appear in the context of geology; he is Thomas Jefferson (1743-1826), third president of the United States. Stephen M Rowland's paper is on Jefferson's opposition to the idea of extinction, as expressed by Buffon, and his adherence to what Rowland terms a 'completeness-of-nature' worldview. In *Notes on the State of Virginia* (1783) and later in his memoir on the fossilized bones of what he named *Megalonyx* (the Great-claw) (1799), Jefferson argued that the American megafauna was not inferior in size to that of the Old World. Rowland gives a graphic account of how Jefferson was all set to deliver his paper to the American Philosophical Society on what he thought was this large carnivorous lion, when he saw something in a Philadelphia bookstore: it was an engraving of the Madrid skeleton of *Megatherium*, which clearly showed the similarity of its limb bones and claws to *Megalonyx* but also had an obviously non-carnivorous skull. It was in fact a giant sloth. Jefferson hastily changed the description of *Megalonyx* in his memoir to 'a very large animal of the clawed-kind'; the manuscript is reproduced. This is the kind of paper that makes history of geology come alive.

Noah Heringman's paper "*Very vain is Science' proudest boast": the resistance to geological theory in early nineteenth-century England* focusses on the poem *Beachy Head* (1807) by Charlotte Smith (1749-1806) and writings by Thomas Webster (1773-1844) on the chalk formation of southern England. It is a fine example of using literary scholarship to illuminate history of science, and will interest HOGG members who, with the author and the reviewer, were on the field trip on the Isle of Wight in November 2007, led by Martin Rudwick and Hugh Torrens, to mark the bicentenary of the Geological Society of London.

There is much more of interest, notably the influence of Cartesianism on Steno (Sebastian Olden-Jørgensen), and Steno's relations with Hooke and Boyle, mediated by his mentor Ole Borch (Toshihiro Yamada). The book is sumptuously illustrated in both black and white, and colour, and is in large, two-column format. Many of the illustrations are of Renaissance paintings which demonstrate the points made in the text (notably in Gian Battista Vai's paper). It must be one of the most beautiful books in the history of science of recent years.

In conclusion, I would recommend this book to everyone who has an interest in the history and philosophy of geology. It is published at a very reasonable price. There is no index, but perhaps this was considered to be impractical given the multi-author nature of the book. One minor quibble is that both 'diluvialism' and 'diluvianism' are used, sometimes in the same paper, and both 'geologic'

[1] The full title is *De solido intra solidum naturaliter contento dissertationis prodromus (Introduction to a dissertation on solids naturally contained within solids)* .

and ‘geological’. But away with such trivia: it is an invaluable addition to the historian of geology’s library.

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[1]Jay Bosanquet, Lady Well House, Rock, Alnwick, Northumberland NE66 3SB
e mail c.j.bosanquet@btinternet.com

Protogaea

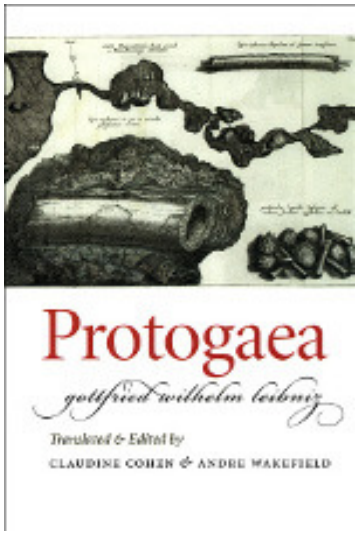
Gottfried Wilhelm Leibniz, translated and edited by Claudine Cohen and Andre Wakefield. 2008. University of Chicago Press. 204pp.
ISBN 978- 0226112961 Cloth $55, Paper $35, E- book from $7 to $35.

Review by Kelly Richards[1]

(*This review first appeared in Newsletter 75 of the Palaeontological Association and is reproduced here with the permission of the author and the Pal. Ass.)*

Protogaea opens with ‘*Even a slight notion of great things is of value*’, a humble beginning that belies the tremendous significance of Leibniz’s contribution to scientific thought in the 18th Century.

Although most famous for his works on mathematics, philosophy and metaphysics, Leibniz was also deeply interested in more tangible matters. His polymathic abilities are evident from the variety of spheres that he influenced and, apart from the themes already mentioned, Leibniz was employed variously as an alchemist, diplomat, historian, librarian and mining engineer. It is this last employment that may interest the reader most, providing inspiration for his posthumously published *Protogaea*.



Written between 1691 and 1693, *Protogaea* is the product of Leibniz’s engagement by Duke Ernst August of the House of Brunswick to provide silver mines in the Hartz region of Northern Germany with the water essential for mechanisation. However, the use of novel windmill technology ultimately proved unsuccessful due to a lack of wind, exacerbated by a local resistance to outside technological ideas; the project failed and Leibniz was forced to abandon his efforts in 1686. Although attracted, in all likelihood, by the glamour of the Hartz mines and the wealth of silver produced there, Leibniz was gripped by an interest in the wider questions posed by his experiences in the mines, such as the formation of minerals, the origin of the stratigraphy that the miners described, and the mechanisms and processes of hydrogeology. On the desertion of the mine engineering project, Duke Ernst August commissioned Leibniz to write a history of the Guelf family, including the House of Brunswick to which the Duke belonged, stipulating that it was to begin with the ‘earliest times’. Perhaps using this as an opportunity to articulate the discoveries and theories of his last six years in the Hartz mines, Leibniz took this literally, and began his history with *Protogaea*. Eventually running to 11 volumes, the history of the Guelf family exceeded the expectations of the commission, possibly explaining why *Protogaea*, the most peripheral of these volumes, was not published until after Leibniz’s death in 1716.

Protogaea deals with a range of natural phenomena and ideas familiar to 17th Century natural scientists, including geological processes, hydrogeology, tectonic forces, natural and laboratory chemistry, fossils, landforms and stratigraphy, although these do not, and were never meant to, provide a strictly comprehensive narrative of earth history.

The import of *Protogaea* becomes apparent as Leibniz approaches each idea with a progressive and open mind. He is obviously influenced by his predecessors and contemporaries such as Agricola, Bernier, Descartes and particularly Steno, who he calls '*a learned man*' or '*that eminent man*' in his arguments in order to avoid naming him repeatedly. However, Leibniz is not afraid to disagree with these academic heavyweights or with current thinking, and his statements are based largely on first-hand observations of events or objects, describing his field observations thoroughly. The 'grass roots' science results in verifying statements such as the slightly prosaic chapter entitled '*The forms of fish imprinted on slate come from real fish, and are not games of nature*'. The manner in which subjects are essayed varies as Leibniz makes a unique and scientifically invaluable move; using his own observations together with the miners' descriptions of the geology of the Hartz region, he infers details of the earth's history in that region and then, significantly, attempts to infer broader earth history. He leads up from the more trivial statements and questions to veritable enigmas of the time, encountered in chapters entitled '*The first formation of the earth through fire*' and '*The origin of mountains and hills explained through waters, winds, and earthquakes*'. The influence of his brief stint as an alchemist is clear in his preponderance towards fire as a major natural agent of, amongst other things, fossilisation; in his trust of chemical analyses, such as those performed on amber, and in his reliance on comparisons between natural forms and products of human artifice. Leibniz clearly trusts and wishes for the advancement of technology, expressing resentment at the slow spread of the newly manufactured microscope; he is equally sensitive to the idea of ideological advancement and often, after taking the conclusion as far as possible, will admit ignorance and outline the work that must be undertaken by the next generation of scientists to develop the theory.

Originally published in Latin, the translation of Claudine Cohen and Andre Wakefield is sensitive and maintains eloquence throughout the text, making *Protogaea* an easy and pleasurable read. The split text provided in this edition allows the reader to revert to Leibniz's original words. The historical setting and implications of *Protogaea* are discussed in a comprehensive introduction which, far from boring the reader with unnecessary background minutiae, enables a full appreciation of the courage of Leibniz in his postulations, writing at a time when explanations of natural phenomena had to address the tenets of religion, Aristotelism, and pure superstition. Leibniz does not make a clean break from the doctrines of religion, but instead takes the next step, applying mechanisms to ideas put forth by Descartes in the early 17th Century. This is not science as we know it today, isolated almost completely from religion, but rather one vital step in the extrication of observable mechanisms and processes from the miasma of theological and folkloric explanations of the natural world.

The illustrations included by Cohen and Wakefield provide a valuable point of interest and reference for the reader, whilst also allowing a glimpse of Leibniz's original accompanying sketches. We can see that in describing the form of mineral veins in mines, Leibniz uses a 3D cone that is instantly, and delightfully, recognisable to any student of geology as a stereonet. In fact, the germ of modern earth sciences can be detected in the majority of Leibniz's discussions, from his use of stratigraphic descriptions of well cores and mines to infer palaeoenvironment to his attempts to recreate theoretical petrogenic conditions in the laboratory. *Protogaea*, in essence, documents the uneasy birth of modern scientific practices and thought during the turn of the 18th Century, a gradual and mosaic epiphany which has culminated in the strict directive of modern earth science.

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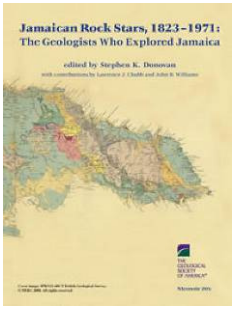
[1] Kelly Richards, University of Cambridge.

CORRECTION



In Tom Sharpe's review of Stephen.Donovan's ***Jamaican Rock Stars……*** in Newsletter 40 (pp. 12-15), the name C. T. Trenchmann is given several times. This is incorrect; the name should have been quoted as C. T. Trechmann.
(*Thanks to Ian Higginbottom for pointing out this error.*)

The unpublished Journal of Gideon Mantell 1819-1852

John Cooper (Royal Pavilion & Museums, Brighton) alerts us to a new resource.

One of the most famous figures in Sussex history is the doctor and geologist Gideon Algernon Mantell (1790-1852). For an authoritative account of Mantell's life, see Dean (1999). In 1818, Mantell began to keep a Journal – "a sketch of passing events". The original copies of the Journal together with all the remaining archives of Mantell are kept in the Alexander Turnbull Library in Wellington, New Zealand to where one of his sons had emigrated.

In 1940, E. Cecil Curwen published about half of this extensive record of Mantell's often turbulent life and times. The unpublished parts, which have remained somewhat elusive, contain many hundreds of references to important people and significant events, and are a reservoir of information for historians. Now, for the first time, all those parts of Mantell's Journal which could not easily be consulted are available in .pdf format by following the links on the Brighton Royal Pavilion, Museums & Libraries website:

Royal Pavilion, Museums & Libraries

http://www.brighton-hove-rpml.org.uk/HistoryAndCollections/aboutcollections/naturalsciences/

REFERENCE
Dean, Dennis R. 1999. *Gideon Mantell and the discovery of dinosaurs*. Cambridge University Press, Cambridge. ISBN 0-521-42048-2.

Also of interest

Horsham's Dinosaur Hunter: George Bax Holmes (1803-1887)
John A. Cooper 2008 Friends of Horsham Museum, Horsham 90pp.
ISBN 978-190248440-2 £4.50
Available from Horsham Museum, Causeway House, 9 Causeway, Horsham, West Sussex RH12 1HE e mail museum@horsham.gov.uk

This spirex-bound, A5 format book celebrates the life and work of one of the most remarkable Horsham residents of the nineteenth century, now largely forgotten but once feted by the most respected scientists of the age.

From his Quaker origins, he became an important early dinosaur hunter and fossil collector who travelled the local area collecting specimens including a number at Cuckfield and Rusper where Gideon Mantell had collected fossils. His most notable discovery was 'The Great Horsham Iguanodon', later used by the sculptor Hawkins as the basis for the model Iguanodon for the Crystal Palace exhibition of 1851. Upon his death in 1887, his collection of 767 fossils was sold to Brighton Corporation for £55 by Holmes' daughter. It is now held at the Booth Museum of Natural History, Brighton but some is on loan for display at Horsham Museum.

SIR JOHN ST AUBYN: THE SECRET LIFE OF A COLLECTOR

The Plymouth City Museum and Art Gallery's Touring Exhibition '*Sir John St Aubyn. The Secret Life of a Collector'* is on display at the Geological Society, Burlington House from 15th January until 27th March 2011. The exhibition looks at an early surviving mineral and herbarium collection. The two collections were amassed by Sir John St Aubyn, the 5th Baronet (1758-1839) who bought and collected thousands of specimens. In 1834, he employed Isaiah Deck (1792-1853), a pharmaceutical chemist and mineral dealer, to arrange and auction his mineral collection; a small part of the collection was donated to the Civil and Military Library in Devonport and later transferred to the Plymouth City Museum and Art Gallery.

For more information about Sir John St Aubyn and his mineral collection, see Jessica Shepherd's article "The Collector" in December 2009's *Geoscientist* (Vol.19/12, pp. 6-9).

HUGH MILLER'S COTTAGE SAVED

The Hugh Miller Museum and Birthplace Cottage in Cromarty which was under threat of closure (see *HOGG Newsletter* 36, June 2009) has been reprieved. Last autumn, the National Trust for Scotland announced that an anonymous £600000 donation had been made in memory of Miller's three recently deceased great great granddaughters (Marian McKenzie Johnston, Bright Gordon and Lydia Clarke). The sisters were born Middleton, granddaughters of Sir Thomas Middleton whose wife Lydia was Hugh Miller's granddaughter. The Middletons have been farmers in the Black Isle for over 200 years. The National Trust for Scotland has confirmed that the anonymous donation is ring-fenced for expenditure solely on the Miller properties (Miller House, a handsome Georgian-period villa and the adjacent 17th century

(National Trust for Scotland)

thatched Birthplace Cottage) and their operational costs, and has secured their future for years to come.

A full-time post of Curator/Manager will be in place by 1st March 2011, and the 2011 season will provide opening (1pm – 5pm) seven days a week from 1st April to 30th September, and three days a week in October.

All the latest news with pictures of the newly thatched roof of the Cottage as well as the Lydia Garden can be seen in the Winter 2010 Issue (No. 9) of the *Newsletter of the Friends of Hugh Miller* (*http://www.hemy.me.uk/HM/NewsletterWinter10.pdf*). See also the National Trust for Scotland website *http://www.nts.org.uk/Property/34/* and *http://www.hughmiller.org/*.

FUTURE MEETINGS OF OTHER BODIES

RESEARCH FRAMEWORK FOR THE ARCHAEOLOGY OF THE EXTRACTIVE INDUSTRIES WORKSHOPS

SATURDAY 19th FEBRUARY 2011 10.30 for 11.00 am start
ARCHAEOLOGY OF COAL, IRON/IRONSTONE AND COAL MEASURE CLAYS
National Coal Mining Museum for England, Caphouse Colliery, near Wakefield, Yorkshire
The workshop is free and lunch will be provided but it will be very much a working meeting seeking contributions on the current state/knowledge of archaeological investigation.

FRIDAY 25th FEBRUARY 2011
TIN AND COPPER IN THE SOUTH-WEST OF ENGLAND
Truro, Cornwall

SUNDAY 10th APRIL 2011
LEAD AND GANGUE MINERALS
Peak District Mining Museum, Matlock Bath, Derbyshire

If you are interested in attending any of the above workshops or for further details, please contact Dr Peter Claughton, Blaenpant Morfil, near Rosebush, Clynderwen, Pembrokeshire SA66 7RE
Tel. (0)1437 532578 e mail P.F.Claughton@exeter.ac.uk

PALAEONTOGRAPHICAL SOCIETY
5th ANNUAL ADDRESS
TUESDAY 12th APRIL 2011 4.15 pm
Flett Lecture Theatre, Natural History Museum, South Kensington, London
Non-members of the Pal. Soc. are welcome to attend the lecture.
Tea and coffee will be served beforehand in the foyer of the Flett Lecture Theatre from 3.30pm.

SPEAKER**: PROFESSOR JIM KENNEDY (Dept of Earth Sciences, University of Oxford)**
TITLE: ***William Buckland: Caves, Coprolites, Dinosaurs, a Red Lady, and the dawn of Palaeoecology***

Abstract: William Buckland (1784-1856) is mainly remembered today for his larger than life personality, his pet bear and hyaena, his humour, dining habits (including, it is said, eating the heart of one of the Kings of France) and his ultimate madness. He was the original 'Oxford Don'. Charles Darwin described him as a buffoon but Prime Minister Robert Peel regarded his elevation of Buckland to Dean of Westminster in 1845 as 'the best appointment I ever made.' He was the first President of the Geological Society, and the first geologist (the term palaeontology and thence palaeontologist dates only from1838) to receive the Copley Medal, the highest award of the Royal Society (1821) To his contemporaries, he was the English Cuvier.

Buckland was a man of his time, a priest and devout evangelical Christian as well as a remarkable and charismatic teacher His contribution to our subject begins with a European tour in 1816, as the continent opened up following the defeat of Napoleon at Waterloo. A visit to the bone caves at Gailenruth in Germany led to a series of observations on British caves. The contents of Kirkdale Cave in Yorkshire, which he visited in 1821, was revealed not as the detritus of the Universal Deluge, but as an ancient hyaena den, and Buckland's observations and experiments mark the beginnings of cave science and palaeoecology. Paviland Cave in Pembrokeshire, visited in 1823, yielded a human skeleton, the so-called 'Red Lady'. The bones are actually those of a young man, a mammoth hunter perhaps, who we now know to be the earliest anatomically modern human from Britain.

Experimental palaeontology extended into deep time. Triassic footprints were interpreted through experiments with the family tortoise and rolled out pastry. The beozar stones found by Mary Anning and others on the coast at Lyme Regis were demonstrated to be fossil faeces, confirmed by experiments with cement and skate guts. A table, the top made up of polished coprolites can be viewed in the Philpot Museum in Lyme Regis. Buckland's interest in fossilised faeces was celebrated in cartoons and in verse. As his Oxford contemporary Philip Duncan wrote:

Approach, approach, ingenuous youth
And learn the fundamental truth
The noble science of Geology
Is firmly bottomed in Coprology…….

(Buckland once remarked that more poems had been dedicated to him than any young woman of his acquaintance…….. .)

Megatherium, which baffled Cuvier, was successfully interpreted, and recommended to Isambard Kingdom Brunel as the ideal excavator, although 'Old Scratch' as Buckland termed the Giant Sloth, was sadly unavailable at the time. In 1824, having pondered over the bones for more than a decade, Buckland described the 'Great Lizard of Stonesfield', providing the first scientific account of what Richard Owen was to call dinosaurs. He made logical interpretations of the function of the chambered shell of ammonites, and through his work came the early attempts to reconstruct ancient communities, illustrated by his friend Henry De la Beche in *Duria antiquior* [Ancient Dorsetshire](1830).

Buckland's collections (gnawed bones, fish guts and all), his correspondence, teaching diagrams and notes all survive, and provide all of the images needed to bring alive this remarkable man, and his contributions to our then fledgling science.

Further information about the Palaeontographical Society (founded 1847) can be obtained from its Secretary Dr P. Barrett (p.barrett@nhm.ac.uk) or from the Society website (http://www.palaeosoc.org/site/).

NATIONAL ASSOCIATION OF MINING HISTORY ORGANISATIONS – BRITAIN AND IRELAND (NAMHO) CONFERENCE
FRIDAY 29th JULY – MONDAY 1st AUGUST 2011
PRESTON MONTFORD FIELD CENTRE,
MONTFORD BRIDGE, SHREWSBURY

National Association of Mining History Organisations
NAMHO

The theme of the conference is '*50 Years of Mine Exploration'*. Fifty years ago, there was little interest in industrial archaeology and many important mine sites were lost to neglect or the bulldozer. Many more would have been permanently lost but for the efforts of mine explorers.

Following the welcome evening on Friday, a full programme of lectures is planned on Saturday and Sunday with parallel threads in separate rooms. Particular emphasis will be given to practical mine exploration over the years and subjects range from local to international. There will be facilities for posters, club stands and trade stands.

There will be an extensive programme of complementary surface and underground trips to lesser known parts of Shropshire's mining history as well as some longer trips further afield. Underground trips will include a winch trip at Snailbeach, and range from simple walk-in mines to some serious through or round trips with Single Rope Technique.

Full information and booking details are available at http://www.namhoconference.org.uk
or from
Dr Peter Claughton, Blaenpant Morfil, near Rosebush, Clynderwen, Pembrokeshire SA66 7RE
Tel. (0)1437 532578 e mail P.F.Claughton@exeter.ac.uk

GEOLOGICAL COLLECTORS AND COLLECTING
April 4th - 5th 2011
Flett Theatre, Natural History Museum, London

HISTORY OF GEOLOGY GROUP

REGISTRATION FORM

NAME: ……..

ADDRESS: ……..

……..

Postcode: ……**Telephone:** ……**E mail:**…… .....

The registration fee is £25 for HOGG members and £30 for non-members (inclusive of all teas/coffees). Join HOGG at registration (annual subscription £15) and benefit from the reduced fee; £40 will secure registration and HOGG membership for 2011.

Indicate your amount here: £25 ☐ £30 ☐ £40 ☐

The workshops and behind-the-scenes tours (each lasting approx. 1 hour) must be pre-booked as numbers for each session are limited to 10. Please tick the relevant boxes to register for these (at no additional cost). NB: *Bear in mind that in most cases, the workshops and behind-the-scenes tours run in parallel with the talks programme.*

DAY 1 (APRIL 4th)

- **11.30 – 12.30** ***WORKSHOP:*** BOOK CONSERVATION ☐
- **11.30 – 12.30** ***BEHIND-THE-SCENES:*** GEOLOGICAL SPECIAL COLLECTIONS IN LIBRARY ☐
- **2.15 – 3.15** ***WORKSHOP:*** CONSERVATION OF OBJECTS ☐
- **2.15 – 3.15** ***BEHIND-THE-SCENES:*** PALAEONTOLOGY DEPT ☐
- **4.30 – 5.00** ***VISIT TO EARTH SCIENCES LIBRARY*** TO SEE WILLIAM SMITH MAP ☐
- **6.00** ***GALLERY TALK AND SALE PREVIEW*** AT CHRISTIES SALEROOM ☐

DAY 2 (APRIL 5th)

- **10.45 – 11.45** ***WORKSHOP:*** PAPER CONSERVATION ☐
- **11.45 – 12.45** ***BEHIND-THE-SCENES:*** MINERALS DEPT (MINERALS) ☐
- **2.15 – 3.15** ***WORKSHOP:*** DIGITAL PHOTOGRAPHY FOR COLLECTIONS ☐
- **3.15 – 4.15** ***BEHIND-THE-SCENES:*** MINERALS DEPT (ROCKS) ☐
- **4.30 – 5 .00** ***VISIT TO EARTH SCIENCES LIBRARY*** TO SEE WILLIAM SMITH MAP ☐

Complete this form and either
post it with a cheque (*payable to HOGG*) to the HOGG Treasurer (Dr B M Cox)
151 Browns Lane, Stanton-on-the-Wolds, Keyworth, Nottingham NG12 5BN, UK
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e mail it to beris.cox@btinternet.com and you will be e mailed a separate PayPal invoice for payment by credit/debit card; this will incur a 5% surcharge.

DINOSAURS, THEIR KITH AND KIN : A HISTORICAL PERSPECTIVE

Société géologique de France, Paris, 3-7 May 2011

REGISTRATION

1) Name & complete address

……

……

2) Do you want to provide a presentation? **Y/N**

Oral presentation, Title:

……

Poster, Title:

……

Additional requirements for presentation:

……

3) Do you intend to take part in the Meudon field trip on Tuesday 3rd May? **Y/N**

4) Do you plan to attend the Dinner on Thursday 5th May? **Y/N**

5) Do you plan to attend the Normandy field trip on Saturday 7th May? **Y/N**

6) Do you plan to provide a paper for the proceedings of the meeting? **Y/N**

7) Do you have special food requirements **Y/N**
If yes, please provide details:

……

DINOSAURS, THEIR KITH AND KIN: A HISTORICAL PERSPECTIVE
Société géologique de France, Paris, 3-7 May 2011

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Address:

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Fees

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- Registration (SGF members): **40 €**

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Only cheques in euros drawn on a French bank will be accepted (because of prohibitive bank charges on foreign cheques). Please make cheques to the order of: SGF- DINOSAURS

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