

HOGG

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



**Number 36
June 2009**

Front cover

A contemporary sketch portrait of the late Professor Janet Watson by the artist Alice Hesketh. The lecture theatre at Burlington House was dedicated to Janet Watson in May 2009 (see pages 7 - 8 of this newsletter).

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

It is that time again when your Chair has to put pen to paper, in this case fingers to keyboard, and put down a few thoughts and notices that may be of interest.

Firstly, I am going to ask a favour from you all. We are trying to think of ways of increasing our membership base as the membership is the 'lifeblood' of the group. We are dependent upon our subscription income to help finance the activities of HOGG so it is in our interests to make the group as vibrant and attractive as possible in order to encourage new members. Any suggestions which may help in advertising HOGG and its activities are welcomed by the Committee so please pass them on.

One of the problems we have is trying to attract younger members into the group and I feel that perhaps it is time to begin to look further ahead in terms of the History of Geology to encompass more of the developments occurring during the twentieth century from the Second World War onwards. A trend towards this was apparent in the Spring Open Meeting organised by Tony Brook. Our thanks must go to Tony for all the work he put into organising a successful and well attended meeting which covered a wide range of subjects. The meeting is reviewed by Dr Geoff Tresise in this issue of the newsletter.

The Group's excellent publication record continues. The book from the bicentenary meeting, *The Origins of the Geological Society*, ought to be released as this letter goes to print, and the *History of Saurian Research* book is now in the hands of the Geological Society Publishing House and should be published next year. This will be a volume of great interest not only to HOGG members but also to a much wider public. A new volume has been commissioned by the Publishing House on the *History of Foraminiferal Micropalaeontology* edited by myself, John Gregory and Andy Henderson of the Micropalaeontological Society. This volume should appear in 2012 and continues our run of eclectic publications.

Our collaboration with other groups continues to grow and, in this respect, I attended the first workshop of the Uplands Cave Network - an AHRC (Arts and Humanities Research Council) funded initiative. This is a loose confederation of interest groups concerned with trying to preserve our fragile upland cave systems in terms of their land management, ecology, archaeology, geology, leisure interests and historical records. One of the points of concern is the archiving of excavation and exploration records and letters relating to these fragile habitats, as well as the whereabouts of all relevant museum collections. There is a wealth of historical information scattered in various sources, much of it potentially at risk unless it can be archived in a suitable depository.

Behind the scenes, your Committee has been engaged in a number of activities which have come to fruition recently. In May, the Geological Society hosted the 2009 Lyell Meeting in conjunction with the Palaeontological Association. This was concerned with an examination of the effects of changing climates in late Palaeozoic habitats. Of interest to HOGG members was the realisation that the traditional view of the late Carboniferous coal forests may require revision. Recent taphonomic work suggests that the Carboniferous landscape may be rather different from those depicted in numerous museum reconstructions, paintings and engravings of the past. Dr Ed Jarzembowski showed an illustration of Brongniart's specimen of *Meganeura*, the famed Carboniferous dragonfly whose reconstruction was based upon the modern hawk dragonflies. This is apparently incorrect and it appears that *Meganeura* was more of a lumbering flying 'lobster' than an agile aerial 'hotrod'.

The Janet Watson Meeting took place at Burlington House in May during which the lecture theatre was dedicated to her. HOGG prepared a small display showcasing some of her achievements together with an album of ephemera which is now kept in the Geological Society Library (see pages 7 - 8 of this newsletter).

The President's Day held at Burlington House in June is the day on which the various Geological Society medal nominees are awarded their medals. We are delighted that our nominee Prof. Philippe Taquet was awarded the Sue Tyler Friedman Medal by Prof. Lynne Frostick, the Geological Society President. Philippe Taquet is well known as one of the World's leading vertebrate palaeontologists specialising in dinosaur systematics. He is a past director of the Muséum national d'Histoire naturelle in Paris and was elected to the French Academy of Sciences in November 2004. Philippe Taquet is an authority on the work of Georges Cuvier and it is in this context that he has been awarded the medal. Hugh Torrens and I attended the presentation which features on page 7 of this newsletter.

A fascinating forthcoming meeting on 18th November will be the History of Military Hydrogeology meeting to be held at the Geological Society, Burlington House. You will find details of the meeting and a registration form in this newsletter; our AGM will be held during the lunch interval.

Finally, I would remind readers about the meeting on Geology in the History of Provincial Societies planned for next Spring in Manchester. We have already received expressions of interest and offers of papers on a variety of subjects, and it looks as though this is shaping up to be a useful and informative meeting (see page 11 of this newsletter).

Alan Bowden
June 2009

HOGG COMMITTEE

Chairman Alan Bowden **Vice Chairman** Dick Moody **Secretary** Leucha Veneer
Treasurer Beris Cox **Ordinary members** Tony Brook, David Earle, Nina Morgan, Martin Rudwick, Bob Symes, Hugh Torrens.

Absent from the last newsletter, we can now introduce new committee member Bob Symes.

Dr R F (Bob) Symes OBE

Bob is a former Keeper and Head of the Department of Mineralogy at the Natural History Museum London. Though retired, he is still delivering many lectures on various aspects of the geological sciences. He has a long research interest in the minerals and mineral deposits of Great Britain and Europe. Particular interests centre on the secondary alteration of metalliferous deposits and the alteration of igneous rocks. He is author of numerous scientific/technical papers and reports. Popular publications include Dorling Kindersley EyeWitness Guides for Rock and Mineral, and Crystal and Gem, as well as books on the Minerals of Cornwall and Devon, and the Minerals of Northern England. He is past president of the Geologists' Association and the Russell Society. The current focus of his interest is the mineralization and mining history of SW England and the history of collections.

HOGG SUBSCRIPTIONS 2009

HOGG members who have not paid their subscriptions for 2009, which were due at the beginning of January, will have recently received a personal reminder. Late payment will be honoured up until the end of July but thereafter memberships will lapse.

Please send cheques (£15 payable to HOGG) to

Dr B M Cox (HOGG Treasurer)
151 Browns Lane, Stanton-on-the-Wolds, Keyworth, Nottingham, NG12 5BN

There are also members who pay by standing order but who have yet to upgrade them from £10 to £15. Please check with your bank.

Overseas members have been invited to pay by PayPal; those who have not responded to the e-mailed PayPal invoice, please do so now. (NB You do not need to be a PayPal account holder to pay by this means).

REPORT ON HOGG OPEN MEETING, BURLINGTON HOUSE, LONDON APRIL 8TH 2009

Geoff Tresise

Not all the delegates who had booked for this meeting showed up on the day. This was a pity since they missed two excellent sessions with entertaining papers on a range of topics. The two keynote papers, in mid-morning and mid-afternoon, could hardly have been more different – one dealing with geology in its very early days and the other with the cutting edge of modern science.

David Norman was invited to commemorate the Darwin bicentenary by considering his work as a geologist. His opening point was that, even if Darwin had never written *On the Origin of Species*, he would still be remembered today as one of the most influential of nineteenth century geologists. This, like his *Beagle* voyage, resulted from a series of lucky chances – what would today be called serendipity. It was the requirement that students witness surgical operations in the days before anaesthetics which led Darwin to abandon his medical studies in Edinburgh. Life as a country clergyman, with the opportunities for hunting and shooting that this provided, seemed more congenial and he transferred to Cambridge with this career in mind. He obtained his B.A. in January 1831 but university regulations required him to remain in residence until June. In the interim, he was befriended by John Henslow, a charismatic young professor. He persuaded Darwin to read books by Herschel and Humboldt and invited him to the soirees he held for colleagues with scientific interests. Darwin was sufficiently enthused to plan his own scientific expedition to the Canary Islands, despite a complete lack of field experience. Henslow therefore suggested that he first join Adam Sedgwick who was to carry out a summer's fieldwork in Wales. Sedgwick encouraged Darwin to make his own independent observations, stressing the vital importance of keeping clear field records. It was while the two were in Wales that Henslow was invited to sail round the world on the *Beagle*. The 26 year old Captain Robert Fitzroy wanted a congenial dining companion who could also carry out scientific studies. Henslow was sorely tempted but reluctantly decided that he could not leave his wife and young family for so long a period as the two years

planned for the voyage. His brother-in-law, Leonard Jenyns, turned it down for similar reasons. Darwin, with no family responsibilities, was the third choice, Henslow believing that he had the potential to make up for his lack of experience.

In the notes Darwin made during the *Beagle* voyage, the number of pages devoted to biology is only a quarter of those relating to geology. From this multitude of geological observations, two stand out. He studied the coral reefs surrounding volcanic islands and realised that atolls must mark the sites of former volcanoes, which had subsequently been destroyed by marine erosion. In Chile, he experienced a violent earthquake and realised that it was a series of such quakes which had forced up the mountain chains of the Cordillera. He was convinced that the driving force for such monumental changes must lie under the ocean off the Chilean coast. In the 20th century, plate tectonics and the subduction of the Nazca plate would provide the mechanism that Darwin had predicted more than a hundred years before.

The second keynote address was that of **Laurance Donnelly**, chairman of the Geological Society's Forensic Science Group, who spoke on 'Sherlock Holmes, rocks, soils and murder'. Holmes had only to note the splashes of mud on shoes or trousers to deduce from which part of the country a client had come or where in London Dr Watson had spent the morning. Fact has now overtaken fiction, although the forensic scientists of today would use a microscope to emulate Holmes's feat. Dr Donnelly stressed that geologists were only one of a range of scientists to help the police in locating not only human remains but also buried objects such as firearms, explosives and drugs. He showed an aerial photograph of a disused industrial site where the police suspected that a body had been buried; he had been able to pinpoint five possible locations, at one of which the body was found. We were warned in advance that the lecture was not for the squeamish and some of the illustrations of decomposing human remains were undeniably distressing. There is now a 'body farm' in South Carolina where the processes of decay can be studied and recorded. Subtle changes in the overlying soil can indicate where a body is buried. Not all investigations were successful. It was the geological features in photographs taken by the Moors murderers which enabled two graves to be located but Dr Donnelly had himself searched unavailingly for the still undiscovered grave of their fifth victim. "Adam", the adolescent boy whose torso was found in the Thames, was proved to have grown up in East Africa but his birth place and identity have yet to be traced. Nevertheless forensic scientists can be rightly proud of their work. They had not been fooled even by the ingenious criminals who planted a few grains of sand in their victim's clothing to suggest that he had been killed on a beach far distant from the true murder site.

Tom Hose gave a whistle-stop Power Point presentation on 'Sea-Air, Geology and Tourism'. Trips to the seaside, once the most popular form of tourism, were a nineteenth century phenomenon. Prior to this, a few practitioners had recommended sea bathing and (well-clad) sun-bathing for purely medical reasons, but it was the spread of the railways which brought day trippers to the sea. Once there, as *Punch* caustically recorded, collecting shells and fossils became favourite activities. Conversely, it took the romantic poets and landscape artists to tempt the public to holiday in the Lake District and other scenic areas. In the twentieth century, cheap air travel opened up long-distance tourism to the populace at large and, by the end of the century, geo-tourism was recognised as a discrete entity. This was a fascinating subject which would have benefited from a longer time-slot.

Alison Ksiakiewicz spoke on a treatise by Sir H. C. Englefield on 'The Beauties, Antiquities and Geological Phenomena of the Isle of Wight'. This had been drafted as early as 1802, although it was not published until 1816 after the original manuscript had been revised and amended by Thomas Webster. It provides valuable insight into how geological features were interpreted at the time and, in particular, on how this study was influenced by the contemporary interest in the antiquities of ancient Egypt.

Anthony Brook spoke on ‘Agnes Crane: the Brighton Brachiopod Lady’. Agnes Crane was born near Peterborough in 1852 but lived in Brighton from the age of 15 until her death. She was one of the unsung group of nineteenth century ladies who carried out valuable research work despite having no formal academic training. It was under the tuition of Dr Thomas Davidson, a family friend, that she took up the study of brachiopods. In 1893, at a conference in Chicago, she presented an authoritative paper on brachiopod evolution which strongly supported Darwin’s views – views which her mentor equally firmly rejected. This paper, which appeared in *The Geological Magazine* in 1893, was to prove to be her last publication. She died at the age of 80 in 1932, bequeathing her fossil collection (mainly, but not exclusively of brachiopods) to Brighton Museum.

Anthony Brook’s second paper (occasioned by the late-stage withdrawal of the scheduled speaker) was ‘The sad case of Joshua Mantell’. Joshua was the brother of Gideon Mantell and five years his junior. As a young man, Joshua had a keen interest in chemistry, particularly the then new field of blow-pipe analysis and wrote letters to scientific periodicals challenging or confirming the accepted views. After a brief (and presumably unsuccessful) period running a bookshop, he embarked on a medical career, working as Gideon’s assistant until he himself qualified as a doctor. He collected a number of geological specimens which were passed on to Gideon but his scientific interests were now mainly botanical and he published one useful reference work on plants. It was in the late 1830s that Gideon’s journal begins to refer to “my poor brother”. Gideon himself would be subsequently crippled in a carriage accident and it may have been a similar accident which ended Joshua’s career by causing severe brain damage. His books and scientific equipment were sold and, after some years of seclusion in the family home, he spent the rest of his life in Newington House, a mental institution. Initially the fees were paid by Gideon, but Joshua would outlive his brother by three years, to die, still in Newington House, in 1865.

Chris Duffin followed on ‘Herbert Toms and Geological Folklore’. Toms, born in 1874, spent most of his working life at Brighton Museum, latterly as curator. His great interest was local folklore, particularly that related to ‘lucky stones’ and he built up an extensive card index recording his interviews with local villagers. The most common were ‘witchstones’ – flints with holes through them – hung in stables to prevent witches entering at night and riding the horses to exhaustion. They were also believed to bring good luck to the household although Toms found that individual villages had very different views as to how and where they must be placed. Spitting either on the flint or through the hole and then throwing it over the left shoulder was also believed to bring good luck. Fossil echinoids from the Chalk were known as ‘Shepherd’s Crowns’ (and elsewhere as ‘Fairy Loaves’). Placed on the windowsill, they were believed to ensure that the house would never run short of bread. The Chalk sponge *Porosphaera*, strung as beads on necklaces, was thought to ward off backache, and the holed flints might be used as amulets serving the same purpose.

The afternoon ended with three papers on aspects of World War II. **Ted Rose** set the scene with ‘Credit due to the Few’. He began with some startling statistics – at the outbreak of World War I, Germany had 400 military geologists, Britain had three; at the outbreak of World War II, the comparable figures were 300 and three. Even more surprisingly, one of this small British team was common to both wars: Major Bill King who was sent to France in September 1939, had also served there in the First World War. He would later provide geological background on the proposed landing sites in Normandy. Fred Shotton served in Egypt and then in Europe following the 1944 invasion, while ‘Steve’ Stephens accompanied the Allied forces who invaded Sicily and later Italy in 1943. After the war, the total number of ‘field force’ geologists rose to seven, but this was progressively reduced and since 2005 has been back to three. (If this implies that World War III is imminent, at least past experience suggests that the Brits will be on the winning side!)

Alan Bowden's topic was 'The 15th Earl of Derby, Bryce Wright and Britain's 'Darkest Hour''. In the early days of World War II, before America entered the war and the U-boat blockade began in earnest, U-boat attacks had concentrated on merchant ships carrying cargoes of strategic importance to the Allies. In the summer of 1940, convoy HX 72 was attacked and 11 ships were sunk – one is believed to have been carrying a consignment of South American agate. Agate was essential for the manufacture of high-precision bearings for the Merlin aero-engines which powered Spitfires and Hurricanes. The loss of this cargo thus had serious strategic implications and the War Office was desperate to find an alternative source. Charles Mathews & Son – a London firm of lapidarists – had been requisitioned to carry out specialised technical work. In September 1940, they wrote to the Director of Liverpool Museum to ask if he could supply specimens of unbanded agate for "important war work".

In the late nineteenth century, the 15th Earl of Derby had built up a fine collection of agates and other polished stones which had been bequeathed to Liverpool Museum following his death in 1893. Seventeen agates, including 10 from the Derby collection, were now dispatched to London. In the following spring, the Museum was burnt out during the Liverpool blitz of May 1941 and the bulk of the collections, including most of Lord Derby's material, was destroyed. However, the correspondence relating to the agate donation survived and in 2004 was rediscovered by Wendy Simkiss, assistant curator of Earth Science. An investigation was launched and it was learned that Charles Mathews had died only a year earlier. His firm had, however, maintained comprehensive records and his former assistant volunteered to check these. He found that 25 waste fragments of the Derby agates had been kept and in 2005, these were returned to the World Museum Liverpool. They provide evidence of a fascinating episode in the not-too-distant past. The Museum itself had been destroyed by the German Luftwaffe but part of its collection may well have powered the fighter aircraft that fought against them in the Battle of Britain.

Finally, **David Greenwood** spoke on 'The Wartime Work of Professor Kirkaldy'. Kirkaldy ("Kirk" to generations of students at Queen Mary College) began and ended the war as a weather forecaster for the Meteorological Office. However, in 1944 he was transferred to the Air Ministry to carry out research for the Committee on Mud-Crossing Performance of Tracked Armoured Fighting Vehicles – a body referred to even in official reports as the "Mud Committee". Its main remit was to devise routes for tanks to advance without risk of getting bogged down and so becoming sitting targets for enemy planes and artillery. A signed map that Kirkaldy produced with this in mind was on display in the Geological Society library. With the invasion successfully launched, Kirkaldy (now with the rank of Squadron Leader) joined the Forces in the Field in Germany where he served under Professor (then Major) Shotton. After V.E. Day in May 1945, he returned briefly to Met. Office duties prior to his demobilisation in August. However, thanks to his wartime experience, he was recruited in 1946 to join a high-powered British Intelligence Objectives sub-committee to advise the Allied powers occupying Germany on a range of geological matters.

The meeting ended with Alan Bowden moving a vote of thanks to Tony Brook for his organisation of an excellent meeting.

* ABSTRACTS: If any HOGG member requires a copy of the Abstracts volume for this Open Meeting, then Tony Brook will provide a photocopy, postage paid, for £2.50. Contact Tony by e mail (anthony.brook27@btinternet.com).

PRESENTATION OF SUE TYLER FRIEDMAN MEDAL TO PHILIPPE TAQUET

Hugh Torrens

On 5th June 2009, the HOGG nominee, Philippe Taquet, accepted the Sue Tyler Friedman medal at the Geological Society's President's Day at Burlington House in London. In a typically gracious speech, he expressed his gratitude and tacitly accepted, later in conversation, that the award had also been made to help encourage the appearance of Volume 2 of his much appreciated biography of Georges Cuvier. Volume 1 of this appeared in 2006 and, as he explained, was written and produced with detailed footnotes following 'the English style'. He also noted that the only previous French recipient of this medal had been the French geologist and historian François Ellenberger (1915-2000) who had taught him as a Parisian student. It was nice to learn that such influences had clearly been at work.



Photo courtesy of Ted Nield.

PROF. JANET WATSON (1923-1985) COMMEMORATED

The Geological Society held a two-day meeting at the end of May 2009 to commemorate the geological work of the late Professor Janet Watson. During the meeting, the lecture theatre at Burlington House was dedicated to her, including the hanging of a specially commissioned portrait by artist Alice Hesketh (see also the cover of this Newsletter).



(Photos: Dick Moody)

HOGG prepared a display cabinet and album highlighting her life and work; the latter will reside permanently in the Society's archives.

(Photo: Ted Nield)

In the following article, **Dick Selley*** remembers her.

PROFESSOR JANET WATSON FRS (1923-1985)

Janet Watson was arguably one of the most high profile geoscientists of the 20th century after Dr Marie Stopes. She graduated in Geology from Reading University in 1943 and then went to Imperial College re-graduating in 1947. In all, Janet spent 42 years of her life at Imperial College until her premature death in 1985 aged only 61. After graduation, she worked for a PhD on the Lewisian of NW Scotland and married fellow Lewisian researcher, John Sutton



Together with John Sutton (FRS, and sometime Head of the IC Department of Geology), Janet's research demonstrated how conventional field techniques could be applied to the unfossiliferous metamorphic rocks of the Pre-Cambrian. It is often argued that she served as Sutton's external hard drive. For many years, Janet was employed as a lowly Research Assistant, before meteoric promotion to Senior Lecturer in 1973 and Professor in 1974. She was elected FRS in 1979 and garnered a fistful of medals. Janet was the first lady President of the Geological Society (1982-84). She is widely regarded as a role model for women in science in general and geology in particular. She mentored many including Professor Lynne Frostick, the current President of the Geological Society of London, and IC's own Professor Jane Plant. When Janet was appointed to the staff at IC as a Research Assistant in 1952, she was the only grown up lady in the department apart from secretaries and cleaners. After promotion to professor, she was often mistaken for the professor's secretary when answering her phone.

In May, the Geological Society of London celebrated her life and work with a field trip to the NW Highlands of Scotland, Janet's old research area, followed by a two day symposium on Pre-Cambrian geology. These events were attended by many of Janet's former colleagues and research students from IC. The celebration concluded with the naming of the Geological Society lecture theatre as the Janet Watson Theatre, and the unveiling of her portrait hung prominently within it (see above).

After her death, the Janet Watson Memorial Rock Garden was established on the balcony of the Royal School of Mines. This has since been swept away along with most mementos of previous RSM 'greats'. It is ironic that her achievements are memorialised by the Geological Society of London, but no longer by the University to whom she gave so much.

*whose first paper was co-authored by Janet Watson, John Sutton and Doug Shearman, as formidable a trio of geo-god parents as any young geologist could wish for!

(This note is primarily designed to describe the Janet Watson celebrations organised by the Geological Society of London, but with sufficient background information to explain her claim to such honour for those unfamiliar with her achievements. Full obituaries were published by 'The Times', the Royal Society, the Geological Society of London and the Geologists' Association.)

FUTURE HOGG EVENTS

- * **MILITARY USES OF HYDROGEOLOGY: PAST AND PRESENT**
(Joint meeting with the Geological Society's Hydrogeological Group and the Institution of Royal Engineers)
WEDNESDAY 18th NOVEMBER 2009
Burlington House, Piccadilly, London
(including HOGG AGM)
Programme and registration form in this newsletter.

- * **GEOLOGY AND THE HISTORY OF PROVINCIAL SCIENTIFIC SOCIETIES**
SPRING 2010
Manchester
At the moment, we are unable to give the precise dates and venue for this meeting but these will be appear in the October newsletter. In the meantime, there is a Call for Papers on page 11.

- * **HISTORY OF APPLIED GEOLOGY**
NOVEMBER 2010

- * **LITERATURE AND GEOLOGY**
2011

- * **GEOLOGY AND MEDICINE**
2011

- * **METALLIFEROUS MINING IN THE SOUTH-WEST AND ITS LEGACY**
2012

**GEOLOGICAL SOCIETY HISTORY OF GEOLOGY AND HYDROGEOLOGICAL
GROUPS, AND INSTITUTION OF ROYAL ENGINEERS
WEDNESDAY 18th NOVEMBER
BURLINGTON HOUSE, PICCADILLY, LONDON**

Programme

- | | |
|--------------------|--|
| 09.05-09.25 | REGISTRATION |
| 09.25-09.30 | John Mather
<i>Introduction</i> |
| 09.30-10.00 | Ted Rose (Honorary Research fellow in Geology, Royal Holloway, University of London)
<i>Groundwater as a military resource: hydrogeology and the British army in World Wars I and II</i> |
| 10.00-10.30 | Peter Doyle (Visiting Professor in Earth Sciences, University College London, UK)
<i>Groundwater as a military engineering obstacle: British army mines and dugouts on the Western Front in World War I</i> |

- 10.30-11.00** COFFEE
- 11.00-11.30** Dierk Willig (Bundeswehr Geoinformation Office, Euskirchen, Germany)
The importance of hydrogeology to the German army in World Wars I and II
- 11.30-12.00** John Mather (Emeritus Professor of Geology, Royal Holloway, University of London)
The Geological Survey of Great Britain at war: hydrogeological work 1939-1945
- 12.00-12.30** David Greenwood (The Kirkaldy Society, c/o Queen Mary, University of London, UK)
Soil and water: research by the British army's 'Mud Committee' (the Committee on Mud-Crossing Performance of Tracked Armoured Fighting Vehicles) on 'going' in World War II
- 12.30-13.30** LUNCH BREAK [including **HOGG AGM 12.30-12.45**]
- 13.30-14.00** Chris Gellasch (US Army Center for Health Promotion and Preventive Medicine-West, USA)
Hydrogeology and US military operations during the last 100 years
- 14.00-14.30** Robbie Dow & Bernard Wishaw (170 (Inf Sp) Engr Group, Royal Engineers, UK)
British hydrogeological support for recent military operations: water development in Afghanistan
- 14.30-15.00** Dierk Willig (Bundeswehr Geoinformation Office, Euskirchen, Germany)
Hydrogeology and the Bundeswehr: German army support to UN and NATO groundwater operations, from Somalia to Afghanistan
- 15.00-15.30** John Peters (for Russ Harmon & Bill Martin) (US Army ER&DC, USA)
US Army research in hydrogeology and hydrology: recent investment and future directions
- 15.30-16.00** TEA
- 16.00-16.30** Stacy Howington (US Army Engineer Research and Development Center, USA)
Influence of very-near-surface hydrogeology on thermal infra-red signatures for detecting landmines and other targets
- 16.30-17.00** Lewis McCaffrey ((Brey Services Limited, UK)
Hydrogeology of Ministry of Defence sites in the UK: Project Aquatrine
- 17.00-17.30** Nick Robins (British Geological Survey, Wallingford, UK)
Tension over water: towards the equitable allocation of groundwater resources in the Western Aquifer Basin of Israel and Palestine
- 17.30-18.00** WINE AND NIBBLES

*** REGISTRATION FORM AT THE BACK OF THIS NEWSLETTER ***

GEOLOGY IN THE HISTORY OF PROVINCIAL SCIENTIFIC SOCIETIES MANCHESTER, SPRING 2010

CALL FOR PAPERS

Next Spring, HOGG is hosting a one or two-day meeting in Manchester on the theme of Geology in the History of Provincial Scientific Societies. We have already had expressions of interest from speakers on the Chester Natural Science Society, the Leicester Lit. & Phil., the Yorkshire Geological Society, the Swansea Geological Society, the various Liverpool societies, as well as the Ussher Society and Devonshire Association. Further details will appear in the next newsletter but, in the meantime, if you are interested in contributing a talk or poster, please contact one of the following:

Beris Cox

e mail

beris.cox@btinternet.com

Leucha Veneer

e mail

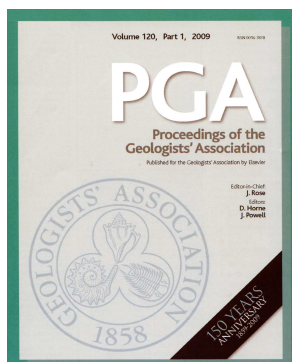
hogg@geolsoc.org.uk

Alan Bowden

e mail

alan.bowden@liverpoolmuseums.org.uk

PGA HAS A NEW LOOK



HOGG members might like to know that the *Proceedings of the Geologists' Association* (PGA) welcomes publications on the history of geology, and can now offer a certain amount of free colour. Articles can be submitted electronically and the editing turn-around time is really fast. They can be accessed and viewed as pdf files on the Web prior to publication in the journal in hardcopy form.

Also, the whole of the last 150 years' issues of the PGA have now been scanned, and pdfs of the contents are available electronically (*free* to members of the Geologists' Association: see www.geologists.org.uk for joining information). Users might like to note that, at present, the 1910 Jubilee volume "Geology in the Field", which did not have an actual volume number, is present as subfiles with Volume 1. The back issues of the journal (searchable by keywords) provide invaluable articles on all sorts of topics and also an invaluable source of information on field sites many of which have long disappeared. Information about the editorial policy, the editorial team, and publishing in the PGA may be found from its home page at http://www.elsevier.com/wps/find/journaldescription.cws_home/716553/description#description.

We look forward to submissions from HOGG members!

Prof. Richard J. Howarth

Chairman

Geologists' Association Publications Committee

Prof. Jim Rose

Editor-in-Chief

Proceedings of the Geologists' Association

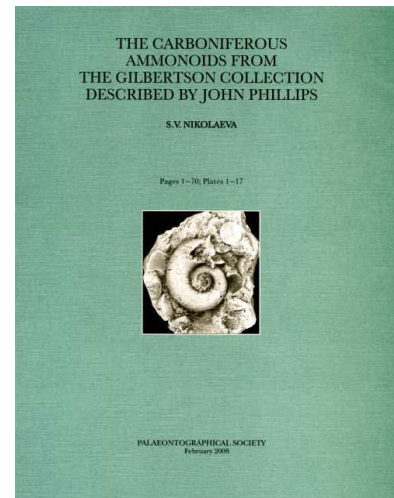
AMATEURS AND EXPERTISE

Nina Morgan

New research into the role of 19th century amateur collectors in sorting out Carboniferous stratigraphy is beginning at the Natural History Museum.

The collection of British Carboniferous ammonoids in the Natural History Museum (NHM) includes many specimens collected by prominent historical figures and natural scientists including John Phillips, William Bisat, Samuel Gibson and Wheelton Hind – all familiar names to many palaeontologists and natural historians. Although none of these, apart from Phillips, were professional palaeontologists, they all made very important contributions to the field of stratigraphic palaeontology.

Dr Svetlana Nikolaeva, Scientific Editor of the Bulletin of Zoological Nomenclature, and an employee of the Paleontological Institute of the Russian Academy of Sciences, is beginning a new examination of several historical collections in the Palaeontology Department at the NHM. Dr Nikolaeva is uniquely qualified to carry out this type of research. In a talk given at the William Smith/John Phillips Conference held in Scarborough in October 2008, she outlined how – with the support of a grant from the NHM – she successfully located and reunited material collected by Phillips and William Gilbertson. A detailed account of this work was published in 2007 as a monograph of the Palaeontographical Society London (Volume 626). Even at this early stage, her new project shows every sign of revealing fascinating information, as well as important new insights about the role of amateurs in palaeontology.



William Bisat, for example, was a civil engineer who became an internationally recognized expert on goniatites and Carboniferous stratigraphy. At the beginning of the 20th century, he established a goniatite framework for Carboniferous stratigraphy that has since been in use in the UK, throughout Europe and in the USA. The collections in the Palaeontology Department at the NHM include many species named by or contributed by him. Samuel Gibson was a whitesmith (the equivalent of a blacksmith, but working with non-ferrous metals such as tin) from Hebden Bridge who, by self-education, became a recognized expert in many fields of natural science in the 19th century. Wheelton Hind qualified in forensic and obstetric medicine and surgery, and rose to Lieutenant Colonel in the Territorial Army in Stoke-on-Trent. During WWI, he served with a battery of the Royal Garrison Artillery and later joined the Royal Army Medical Corps. Bisat, Gibson and Hind pursued their professional careers but also wrote papers and monographs on Carboniferous fossils and rocks. Their collections are incorporated in the general mollusc collection at the NHM's Palaeontology Department.

To find out more about the study, contact Dr Nikolaeva at s.nikolaeva@nhm.ac.uk

JOHN RANDALL OF MADELEY, STAFFORDSHIRE

In September 2010, Madeley Parish Council is holding a day school in Madeley to mark the bicentenary of the birth of John Randall who was a Fellow of the Geological Society. The organisers are hoping to have speakers covering the various aspects of Randall's career (historian, china decorator, local councillor, postmaster, printer, geologist....).

Do HOGG members know of anyone who has made a special study of 'Randall the Geologist'? If so, please contact

Shelagh Lewis
Madeley Living History Project Manager
Madeley Parish Council
Jubilee House
74 High Street
Madeley, Telford, TF7 5AH
Tel. 01952 567288 Fax 01952 567282

www.madeleyparishcouncil.gov.uk



HUGH MILLER'S COTTAGE UNDER THREAT OF CLOSURE

In his recent editorial in May's Geoscientist, Ted Nield drew attention to the possible closure of Hugh Miller's cottage in Cromarty on the Black Isle, Scotland. His article is included here with the author's permission.

On the evening of 23 December 1856, after helping his daughter Harriet with her homework, Hugh Miller (pictured) took a bath and retired to bed. During the night, suffering from what modern medical science knows as an attack of the screaming abdabs, he woke up, reached for his gun, put it to his chest and pulled the trigger. He was 54.



So died the first and greatest geologist-journalist - in a tragic final act that stands as a monument to the need for gun control; a doughty campaigner for freedom of thought, of the Presbyterian Church in Scotland, and of the individual.

When I was a student, I remember, one hot afternoon in the library, putting aside the arid and incomprehensible pages of *Tectonophysics* and taking down a scuffed buckram-covered copy of *The Old Red Sandstone* (of which I now own a much more handsome and much treasured example). From that moment, Miller has been an inspiration to me – first, because his work held out the hope that it might be possible for an innumerate natural historian, masquerading as a scientist, to find room for himself in the world as a geo-journalist. Second, because his outdoor independence of spirit appealed to my youthful Thoreauesque aspirations. Third, and most of all, because he *wrote* so luminously, and moreover did so despite the trammels of editing a bi-weekly newspaper – *The Witness*.

It came as something of a shock therefore to hear that the National Trust for Scotland is considering closing its museum to Miller, in the great man's home on the Black Isle. NTS has announced plans to alter the way it manages 11 of its properties, including Miller's cottage, with a view to cost savings. I found out when the BBC rang me up about it – and was pleased to give what I hope was a suitably trenchant quote. Alan Owen, for the Glasgow Geological Society, did likewise, as did Nigel Trewin of the University of Aberdeen.

Now - Cromarty folk, if I am any judge of them, are not likely to take this lying down. But local support is one thing. What we as geologists can do is show that Miller is much more than a local hero. Miller is a national figure, even an international one, whose memorials deserve continued support from NTS. The north-eastern coast of Scotland – St Andrews, Aberdeen, Dundee - together comprise a rich tradition of Earth sciences of which Miller was not just “a” but in that context most definitely “the” progenitor. The public must continue to have access to his greatest memorial, in the heart of the community he served, amid the landscape whose rocks he hewed for a living as a stonemason, and for all the “footprints of the Creator” that will be forever associated with him.

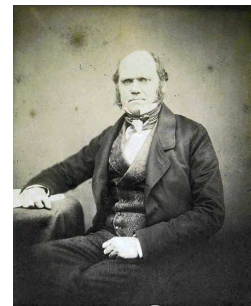
- If you want to support Miller's Cottage, you can do so by signing an online petition, set up by local SNP councillor Craig Fraser at <http://www.highland SNP.org/CraigFraserSNPBlackIsle.html>. Please note that the donation (to online polling) that you may be asked to make is entirely optional and does not affect your signature of the petition.

FUTURE MEETINGS OF OTHER BODIES

SATURDAY 11TH – SUNDAY 12TH JULY 2009
SEDGWICK MUSEUM, CAMBRIDGE

DARWIN IN THE FIELD: COLLECTING, OBSERVATION AND EXPERIMENT

Convenor: Dr Lyall Anderson



This conference will allow participants to explore different aspects of Darwin as a collector and an observer of the natural world. The programme of 12 speakers (see below) will illuminate the ways in which Charles Darwin used the various collections he made and the notebooks he kept to try to understand the World around him. As well as appealing to historians of science and geologists, this will be of general interest to those who wish to deepen their knowledge of Charles Darwin's contribution to science beyond his famous work *On the Origin of Species by means of Natural Selection*.....

As part of Cambridge University's 800th anniversary celebrations, the Sedgwick Museum has specially commissioned a performance by the Manchester-based street artist group Pif-Paf for during the day on Saturday 11th July. This will provide a novel means of exploring one of the important shaping characters in Charles Darwin's education, the Rev. Prof. Adam Sedgwick.

Please note that there is no centrally organized accommodation in place for this conference. Delegates should make their own arrangements if an overnight stay is required. The official

tourism website for Cambridge, Visit Cambridge, may provide useful information for visitors. Individual colleges may also be a source of overnight accommodation.

Conference cost: £60 per person. Booking: Please send your details together with a cheque for £60 payable to 'The University of Cambridge' to Dr Lyall Anderson, Department of Earth Sciences, University of Cambridge, Downing Street, Cambridge CB2 3EQ (e mail: lia23@cam.ac.uk).

Programme

Saturday 11th July

09.30 Registration & Coffee

10.35 Welcome to the Sedgwick Museum

Dr David Norman, Director of the Sedgwick Museum

10.45 In Darwin's pocket

Dr John van Wyke & Dr Gordon Chancellor, University of Cambridge & University of Essex

11.20 Darwin's Welsh Connections: the making of the naturalist and geologist

Rev. Michael Roberts, Chirk, North Wales

11.55 Darwin and the Geological Survey – an unlikely collaboration?

Dr Michael Howe, British Geological Survey, Keyworth

12.30 Live performance by 'Pif-Paf' of "Under the Floorboards: a time travelling adventure with the Rev. Adam Sedgwick...."

13.15 Buffet Lunch

14.00 Darwin's Igneous Geology

Prof. Paul Pearson, University of Cardiff

14.35 Darwin in Glen Roy: the how and why of a "Gigantic Blunder"

Prof. Martin Rudwick, University of Cambridge

15.10 Classifying in the field: Darwin, Hooker and the permanence of species

Dr Jim Endersby, University of Sussex

15.45 From one finding of a few (*Mastodon?*) bones to a general theory of species extinctions: Darwin at Port St Julian in February 1835

Prof. John Hodge, University of Leeds

16.30 Tea/Coffee

17.30-19.00 Viewing of the new permanent exhibition 'Darwin the Geologist' in the Sedgwick Museum of Earth Sciences

Sunday 12th July

09.30 An appreciation of Charles Darwin's fossil collection from the Falkland Islands

Dr Phil Stone, British Geological Survey, Edinburgh

10.05 Darwin's coral reef collection at the Natural History Museum London: his lost exhibit, Cocos-Keeling atoll transect and subsidence theory of reef development

Prof. Brian Rosen & Jill Darrell, Natural History Museum, London

10.40 Like a *Megatherium* smoking a cigar: Darwin's *Beagle* fossils in the 19th century

Dr Gowan Dawson, University of Leicester

11.15 Coffee

11.45 "I have hardly the means": Charles Darwin, Transoceanic Dispersal, and the Geography of Science

Michael D. Barton, Montana State University, USA

12.20 Was Darwin's theory of coral reef formation the product of a particular place?

Dr Alistair Sponsel, Smithsonian Institution, USA

12.55 Plenary and questions

13.15 Close

THURSDAY 23RD JULY 2009 6.00 – 7.00pm
BOLTON MUSEUM, AQUARIUM AND ARCHIVE
Le Mans Crescent, Bolton, Lancashire, BL1 1SE Tel 01204 332211
Lecture: *The Life and Times of Charles Darwin*
Speaker: Rev. Michael Roberts

No booking required.

MONDAY 28TH - TUESDAY 29TH SEPTEMBER 2009
GIOVANNI CAPELLINI MUSEUM OF GEOLOGY AND PALAEOLOGY,
BOLOGNA, ITALY

The Giovanni Capellina Museum in Bologna is holding an International Conference on Vertebrate Palaeobiogeography to celebrate the centenary of the first display of its complete skeleton of *Diplodocus carnegiei*, gift of the American industrial magnate Andrew Carnegie. The magnificent plaster cast arrived in Italy in 1909 shortly after other copies had enriched the collections of London (1905), Berlin and Paris (1908); it is still a symbol of the international prestige of Bologna and the Giovanni Capellini Museum. The presence of the largest collections in Europe, a scientific, academic and cultural leadership position (sealed by the 2nd session of the International Geological Congress in 1881), and the vigorous work of Giovanni Capellini enabled Bologna to compete, and often outpace, institutions in more affluent cities. The palaeobiogeographical theme (*Vertebrate Palaeobiogeography across Tethys, Mesogea and the Mediterranean Sea*) has been chosen because it involves a wide spectrum of research fields that during the last decades have contributed greatly to our knowledge on the evolution of peri-Mediterranean and peri-Tethyan systems.

For additional information and registration details, visit www.museocapellini.org or contact Dr Federico Fanti, Department of Earth and Geoenvironmental Sciences, University of Bologna – Alma Mater Studiorum, Via Zamboni 67, I-40127 Bologna, Italy.
e mail: federico.fanti@unibo.it

THURSDAY 12TH NOVEMBER 2009
GEOLOGICAL SOCIETY OF LONDON
FOUNDER'S DAY LECTURE AND DINNER
BURLINGTON HOUSE and LE MERIDIEN, PICCADILLY, LONDON

Lecture: *Celebrating Charles Darwin and the World of Geology*
Speaker: Professor Jim Secord (Director of the Darwin Correspondence Project, Cambridge)

Dress: Black tie Tickets are limited.

As well as the 150th anniversary of the publication of *On the Origin of Species* and the 200th birthday of its author, 2009 is also the 250th anniversary of Charles Darwin's Wollaston Medal – the highest honour conferred by the Geological Society, and the first awarded to William Smith in 1831. Darwin won the medal for pioneering work on the structural uplift of the Andes and his theory of the origin of coral reefs. In his most celebrated work, Darwin used a geological approach to solve the 'mystery of mysteries', the origin of new species.

This pre-dinner talk will explore a too-often overlooked aspect of Charles Darwin's science.

Dinner: After the lecture, the party will move along to Le Meridien Hotel for the reception and dinner.

The ticket price is £65 and is fully inclusive, covering the lecture at the Geological Society, and the reception and dinner at Le Meridien, with half a bottle of wine per person with the meal.

The current expected times are

17.30 Guests arrive at the Geological Society, Burlington House where tea and coffee will be served.

18.00 Lecture begins

19.00 Reception drinks served at Le Meridien

20.00 Call to dinner

Contact details:

Alys Hilbourne, Events Manager, The Geological Society, Burlington House, Piccadilly, London W1J 0BG Tel. 020 7432 0981 E mail alys.hilbourne@geolsoc.org.uk

Web: <http://www.geolsoc.org.uk/gsl/events/listings/page5725.html>

LOST BOOKS

Our regular feature highlighting books or papers known to have been printed but of which no copy apparently remains. Please provide feedback or items for inclusion to Hugh Torrens (e mail: gga10@keele.ac.uk).

No.1 continued

Hugh Torrens writes: The appearance of the note in the last newsletter seeking the long-lost book *Thoughts on the Formation of the Earth* of 1802 inspired Wendy Cawthorne, the ever helpful Librarian at the Geological Society, to try another Web search after mine had all failed. This revealed that the University of Berkeley, California had recently put online the extensive *Catalogue of the Crawford Library of the Royal Observatory, Edinburgh* which had been published by HM Government in 1890. On page 183, this listed a copy of the lost book as then held there. A note to today's kind librarian, Karen Moran, soon produced a photocopy of the item. It was "printed for the Author by P[hilip] Sandford, bookseller, Shrewsbury" and comprises title page, preface (pp. i-ii) and text (pp. 1-28), with a folding map. It is hoped to include a summary of this long-lost item in a future HOGG newsletter.

No.2

Printed *Prospectus* to William Smith's 1807 book *Description of Norfolk, its Soil and Substrata*.

Smith's 1807 book, produced in Norwich, was long thought to be lost but a unique copy was identified in 2006 following its earlier serendipitous rescue by the wife of an antique dealer in Great Yarmouth. This clearly unique item is now safely preserved in the William Smith archive at Oxford University's Museum of Natural History. Its discovery was recounted by Hugh Torrens in an article in *Geoscientist*, Vol. 16, No. 3 (March 2006) where he also drew attention to the book's lost *Prospectus*.

Only one original of this *Prospectus* had seemed to survive. In December 1806, this was apparently sent by Smith with a letter to his friend William Cunnington of Wiltshire. However, by 1926, the

original had somehow been acquired by Dr Julius Schuster (1886-1949), a German professor who was a devoted collector and editor of such items. He, in turn, gave his unique Smith item to the Preussische Staats-Bibliothek in Berlin when he was its director. This institute was world famous for its collection of important music manuscripts which were finally tracked down to the Jagiellonian Library of Krakow University in 1977 where they had long been hidden. Unique zoological manuscripts, originally held in Berlin, had also survived in Krakow as well as documents in the field of history of science. Smith's unique *Prospectus* may also still survive but where?

BOOK REVIEWS

The Emerald Planet

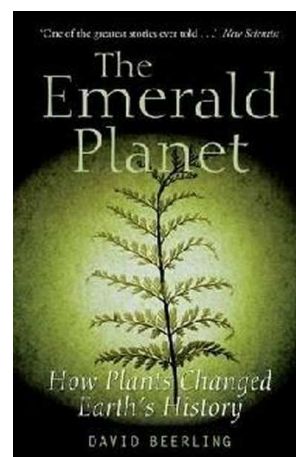
David Beerling. 2007. Oxford University Press, 304pp.

ISBN 978-0-19-280602-4 (hardback) £19.99; ISBN 978-0-19-954814-9 (paperback 2008) £8.99

Review by Mary Simkiss (with additional italicized comments by Alan Bowden)

To a 71-year old lifelong plant-life enthusiast, this book came as a great Mother's Day present from an indulgent daughter – added to which, it wasn't fattening, unlike chocolates!

Palaeoclimatology, Professor Beerling's field of study at Sheffield University, is a bit of a mouthful, but it encompasses and tackles head-on the problems presented by climate change. *This book is written in an engaging style and successfully integrates data to produce an Earth System Science text whilst also showing how earlier generations of investigators solved the clues that have led to today's modern scientific synthetic approach to palaeoclimatology, as well as the important role played by the flora over the last 400 million years of Earth's history. Plants have shaped our atmosphere and thus the climate of the Earth to an amazing extent.*



By studying the evidence in fossilized plant-life through geological time, the author demonstrates how a series of major evolutionary events in the plant kingdom have influenced global environmental conditions over eons. He describes the 40 million year delayed introduction of leaves on vascular plants as a response to environmental conditions which held back leaf development as a result of too much carbon dioxide. It was only when CO₂ levels fell by about 90% between 450 – 350 million years ago that the greening of the planet took place and leaves appeared. Beerling's description of the Carboniferous, 350-290 million years ago, as a "lost world of giants" may perhaps be overstated as recent work on oxygen levels shows that the gigantism described falls outside of peak levels measured in revised data sets (Lyell meeting on Late Palaeozoic Terrestrial Habitats and Biotas: the effects of changing climates 2009).

Of most interest to HOGG members is the role of scientists, explorers and other workers in the pursuit of answers to the 'big questions'. Here Beerling pays tribute to the scientists who, in spite of their human foibles, faults and failings have, over the centuries pointed out the clues to the pathways current scientists are now following. He is an engaging writer, who can illuminate entertainingly, any topic he covers.

All science is of course, a work in progress but we, whatever our level of understanding, will have to support the projects which in the light of our present knowledge, will avert the looming disasters

which threaten life on Earth. *The Emerald Planet*, in spite of its easy readability, will undoubtedly inform the attitudes of very many people. It demonstrates how much we need writer-scientists like David Beerling to enlighten us and widen our understanding.

Putting Geology on the Map

The Life of Robert Logan Jack, Geologist & Explorer

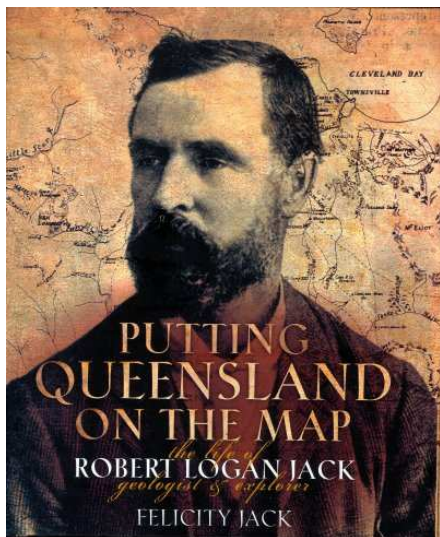
Felicity Jack. 2008. University of New South Wales Press, 275pp.

University of New South Wales, Sydney, NSW 2052; <http://www.unswpress.com.au>

Aus\$59.95

Review by David Branagan, School of Geosciences, The University of Sydney, Australia.

This handsome hardback book of 275 pages does credit to the memory of an important pioneer of Queensland, and indeed, Australian geology.



After working at the Geological Survey in Scotland, under Archibald Geikie, Scottish-born Robert Logan Jack (1845 – 1921) arrived in Queensland in 1877, and took up the task of mapping a largely unknown territory and encouraging the development of mining, in a constantly changing political and bureaucratic environment.

Jack resigned in 1899, relatively unappreciated by his colonial administration, to act as a consultant in Korea and China, where he had several exciting years, and learnt that the commercial world was not, in many ways, run by any more honest people than those in government. He and his party also endured problems during the Boxer Rebellion, resulting in an arduous escape route through the ‘back-blocks’ of China to Burma, a story he told in a well-received book.

He returned to Australia, becoming a well-respected consultant to government and mining. His final work, *Northmost Australia*, published posthumously in 1922, recorded the fascinating history of exploration of the Cape York region, in which he himself played a prominent part, including putting the names of his former Scottish geologist associates on the map of Queensland.

Written by Jack’s great-granddaughter, the book is an affectionate telling of Jack and his family’s life, with many previously unpublished, fine illustrations. Not being a geologist, Felicity has, perhaps, not gone as far as she might have into the technicalities of his profession, but the main points of his work on many ‘mineral/geology trails’ are dealt with. The book is accompanied by a CD-Rom containing information on *Jack in Korea*, his *Geological Notebooks*, *Maps* (one coloured geological, others useful locality maps), *Images* (including China), *An outback Journey* in Jack’s inimitable flowing style, and *Family letters (1876 – 1915)*; all told – more than 600 pages! An excellent ‘supplement’ to this book is the volume of geological maps of Queensland, published in full colour by Ross Thomas – *The Classic Robert Logan Jack Map Collection (1999)* available from Ross (Thomas@bigpond.com).

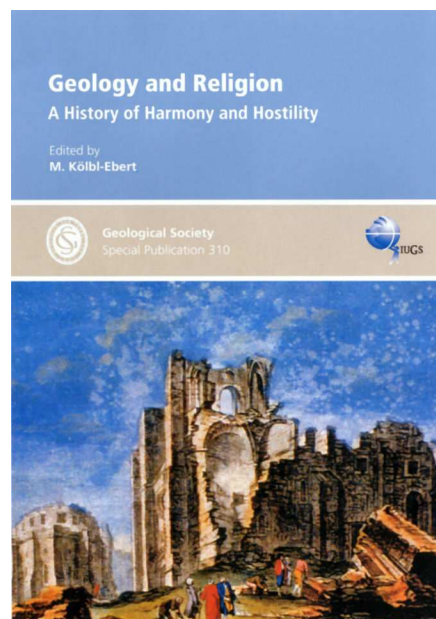
HAVE YOU SEEN?

Geology and Religion: a history of harmony and hostility

Edited by M. Kölbl-Ebert. 2009. Geological Society Special Publication 310

Geological Society Publishing House, 368pp.

ISBN 978-1-86239-269-4 (hardback) £95.00 (GSL fellows £47.50; other qualifying societies £57.00)



Contents

- M. Kölbl-Ebert - Geology and religion: a historical perspective on current problems.
- D. R. Oldroyd - Jean-Andre de Luc (1727-1817): an atheist's comparative view of the historiography.
- L. F. M. Mazadiego, O. R. Puche & A. M. Hervas – Water and Inca cosmogony: myths, geology and engineering in the Peruvian Andes.
- P. Barbaro - Explanations of the Earth's features and origin in pre-Meiji Japan.
- J. A. Norris – The providence of mineral generation in sermons of Johann Mathesius.
- A. Udias – Earthquakes as God's punishment in seventeenth- and eighteenth-century Spain.
- K. V. Magruder – The idiom of a six day creation and global depictions in Theories of the Earth.
- G. Godard – The fossil proboscideans of Utica (Tunisia), a key to the 'giant' controversy, from Saint Augustine (424) to Peiresc (1632).
- F. Luzzini – Flood conceptions in Vallisneri's thought.
- M. S. Pinto & F. Amador – Discussing the age of the Earth in 1779 in Portugal.
- A. Candela – On the Earth's revolutions: floods and extinct volcanoes in northern Italy at the end of the eighteenth century.
- C. Schweizer – Scheuchzer, von Haller and de Luc: geological world-views and religious backgrounds in opposition or collaboration.
- M. J. S. Rudwick – Biblical flood and geological deluge: the amicable dissociation of geology and Genesis.
- C. L. E. Lewis – 'Our favourite science': Lord Bute and James Parkinson searching for a Theory of the Earth.
- P. Taquet – Cuvier's attitude toward creation and the biblical Flood.
- A. Udias – Jesuits' studies of earthquakes and seismological stations.
- J. Zhang & D. R. Oldroyd – Red and expert: Chinese glaciology during the Mao Tse-Tung period (1958-1976).
- M. B. Roberts – Adam Sedgwick (1785-1873): geologist and evangelical.
- D. Branagan – Some nineteenth- and twentieth century Australian geological clerics.
- W. Mayer – Geological observations by the Rev. Charles P. N. Wilton (1795-1859) in New South Wales and his views on the relationship between religion and science.
- G. K. Viohl – Franz X. Mayr, the spiritual father of the Jura-Museum.
- E. Siebold & I. Siebold – Religious convictions as support in dangerous expeditions: Hermann Abich (1806-1886) and Heinrich Barth (1821-1865).
- S. Turner – Reverent and exemplary: 'dinosaur man' Friedrich von Huene (1875-1969).
- H. S. Torrens – James Buckman (1814-1884): the scientific career of an English Darwinian thwarted by religious prejudice.
- M. Klemun – Franz Unger and Sebastian Brunner on evolution and the visualization of Earth history; a debate in post-1848 Vienna between liberal and conservative Catholics.
- E. Vaccari – Geology and Genesis in nineteenth- and twentieth century Italy: a preliminary assessment.
- K. B. Bork – Natural theology in the eighteenth century, as exemplified in the writings of Elie Bertrand (1713-1797), a Swiss naturalist and Protestant pastor.
- D. A. Young – The reception of geology in the Dutch Reformed tradition: the case of Herman Bavinck (1854-1921).
- S. O. Moshier, D. E. Maas & J. K. Greenberg – From the beginning: faith and geology at evangelical Wheaton College.
- R. A. Peters – Theodic creationism: its membership and motivations.
- M. Ostermann – The history of the doctrine of creation: a Catholic perspective.
- M. B. Roberts – An Anglican priest's perspective on the doctrine of creation in the church today.

WALLACE IN NEATH

Introduction (by Richard Moody)

Recently, I had cause to make several visits to my birth town Neath, in South Wales. I was born there in 1939 and left in 1954 to live in Roehampton, south-west London. The fifteen years I had spent growing up in Neath was in the district of Llantwit, famed for its picturesque church and two huge cemeteries where giant yew trees supplied the branches for bows and arrows. Huge wild rhubarb plants grew by the side of the disused canal, where the bow of a sunken barge poked upwards from murky waters. You could see Drumau mountain on the opposite side of the Neath Valley but the area east of the churchyard and some old cottages, were given over to private houses and a moderately sized estate of pleasant, semi-detached council houses with large gardens (my home).

I was schooled at Gnoll Infant and Junior schools and entered Neath Grammar School in 1951. My favourite subjects were history, woodwork and, temporarily, physics. It was only at Wandsworth School, in London, that I decided to become a geologist. Little did I know that the huge yew trees, Llantwit, Drumau and the Gnoll Estate had also figured in the young life of Alfred Russel Wallace.

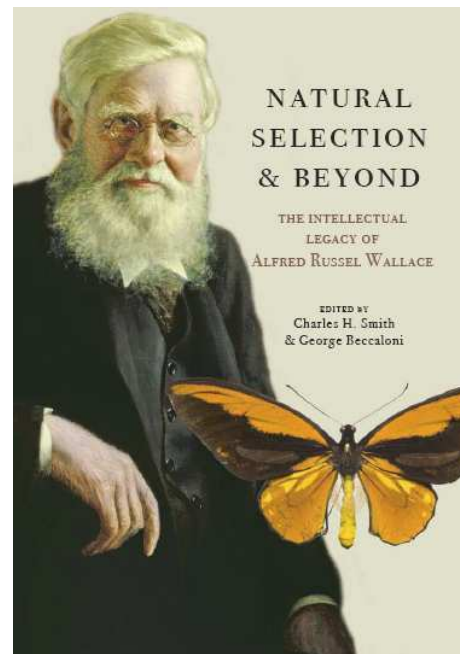
Wallace is honoured by a plaque erected outside the imposing Mechanic's Institute in Church Place, in the centre of town, and the article below by George Beccaloni reveals that Wallace lived in Neath on two occasions. When I was at school in Neath, I had to walk home from the Grammar School, west of the river, to Llantwit via the town centre. At that time, my mind was on homework, a short lived struggle trying to play the oboe and rugby, which became one of the loves of my life. The fact that the 'ghost' of Wallace may have been at large in Church Place never dawned on me. Not, that is, until recently when I had to visit a solicitor near the Mechanic's Institute.

In these times of 'Darwinmania', I was delighted to see a tribute to Wallace marking his huge contributions to an emerging science. It inspired me to find more information. It led me to the website managed by George Beccaloni and resulted in a meeting with a great character who is obviously devoted to a cause. I was so impressed that I bought a copy of his latest book which will be reviewed in a later HOGG Newsletter. I had intended to write an article on Wallace and Neath but George has done it all before and he has brought it all together in the article printed below.

Wallace in Neath (by George Beccaloni)

What follows is a modified excerpt from the recently published book Smith, C. H. & Beccaloni, G. [eds] 2008. *Natural Selection and Beyond: The Intellectual Legacy of Alfred Russel Wallace*. Oxford, U.K.: Oxford University Press. 482pp.

Wallace first went to live in the Neath area in late autumn 1841, aged 18, when he and his brother William moved to a farmhouse called Bryn-coch about two miles north of the town of Neath (West Glamorgan, Wales). They lodged with a farmer, David Rees, and his family for over a year and it was here that Wallace's interest in botany developed. Desiring to identify the plants he found in the surrounding countryside he bought two books, a "shilling paper-covered book published by the Society for the Diffusion of Useful Knowledge" and then a costly copy of "Lindley's 'Elements of Botany'" (Wallace, 1905). However, these did not prove satisfactory so he asked a



local bookseller, Mr. Hayward:

“...if he knew of any book that would help me. To my great delight he said he had Loudon’s “Encyclopaedia of Plants,” which contained all the British plants, and he would lend it to me, and I could copy the characters of the British species. I therefore took it home to Bryn-coch, and for some weeks spent all my leisure time in first examining it carefully, finding that I could make out both the genus and the species of many plants by the very condensed but clear descriptions, and I therefore copied out the characters of every British species there given... But I soon found that by merely identifying the plants I found in my walks I lost much time in gathering the same species several times, and even then not being always quite sure that I had found the same plant before. I therefore began to form a herbarium, collecting good specimens and drying them carefully between drying papers and a couple of boards weighted with books or stones... Now, I have some reason to believe that this was the turning point of my life, the tide that carried me on, not to fortune, but to whatever reputation I have acquired, and which has certainly been to me a never-failing source of much health of body and supreme mental enjoyment” (Wallace, 1905).

Bryn-coch farmhouse still survives, although it has been much modified (Steve Griffiths, pers. com. 2007). The farm which it was originally part of is now a separate property (called Bryncoch), which has recently been the focus of a campaign to protect it from a proposed housing development ¹.

Probably in late 1842, Wallace and his brother moved into an old, roomy cottage nearer the town of Neath, where they boarded with a colliery surveyor, Samuel Osgood, and his wife. During the year that they lived here, they had (in addition to their usual land surveying jobs) “a little architectural and engineering work, in designing and superintending the erection of warehouses with powerful cranes.” Paid work was, however, scarce and in December 1843, William, who had been employing his brother, told him he should leave and find a job elsewhere. Wallace therefore left Wales in mid-December, returning to spend Christmas in Hoddesdon (Hertfordshire) with his sister Frances (Fanny) and his mother, before getting a job in the New Year as a teacher at the Collegiate School in Leicester.

In March 1845², William died suddenly and at Easter, Wallace left Leicester and moved to Neath with his brother John in order to wind up William’s affairs. Wallace initially boarded with Mr. Thomas Sims (who married his sister Fanny in 1849) on “the main street,” of Neath and it was whilst living here in 1845 that Wallace first read Robert Chambers’s controversial book *Vestiges of the Natural History of Creation*, which had been published anonymously the year before. This book convinced Wallace of the reality of evolution (then known as transmutation) (Slotten, 2004) and in a letter to his friend Henry Walter Bates dated 28 December 1845, he remarked:

“I have rather a more favourable opinion of the “Vestiges” than you appear to have. I do not consider it as a hasty generalisation, but rather as an ingenious hypothesis strongly supported by some striking facts and analogies but which remains to be proved by more facts & the additional light which future researches may throw upon the subject – it at all events furnishes a subject for every observer of nature to turn his attention to; every fact he observes must make either for or against it, and it thus furnishes both an incitement to the collection of facts & an object to which to apply them when collected.” (Original in the Natural History Museum (NHM), London, catalogue number WP1/3/17).

In the autumn of 1846, Wallace, his mother, and his brother John moved into “a small cottage close to Llantwit Church, and less than a mile from the middle of the town [of Neath]. It had a nice little garden and yard, with fowl-house, shed, etc., going down to the Neath Canal, immediately beyond which was the river Neath, with a pretty view across the valley to Cadoxton and the fine Drumau Mountain” (Wallace, 1905). His brother Herbert also moved in (Raby, 2001), as did later his sister

Fanny, who returned to England from Georgia, USA in September 1847. This was to be the last time that the whole of his remaining family was to live together (Wallace's father had died in April 1843: Raby (2001) reports May). Wallace lived in Llantwit Cottage until early 1848, when he and his friend Bates departed on their collecting trip to the Amazon.

Llantwit Cottage (which now has a built-up road in front of it) was badly damaged in a fire in the late twentieth century, but as of 1996 it was being restored (Wilson, 2000).

Whilst living in Neath, Wallace recalls how he and his brother John "had a little building and architectural work. A lady wanted us to design a cottage for her, with six or seven rooms, I think, for £200. Building with the native stone was cheap in the country, but still, what she wanted was impossible, and at last she agreed to go £250, and with some difficulty we managed to get one built for her for this amount" (Wallace, 1905). Unfortunately, Wallace does not say where this cottage was built, and it is not known whether it still survives.

Wallace and his brother also designed the Mechanics' Institute in the town of Neath. It was built by J. Townsend of Swansea and the Wallace brothers supervised the construction work. The building was completed in 1847 and it was officially opened in 1848 (Raby, 2001). In his autobiography Wallace says that:

"...a building was required at Neath for a Mechanics' Institute, for which £600 was available. It was to be in a narrow side street, and to consist of two rooms only, a reading room and library below, and a room above for classes and lectures. We were asked to draw the plans and supervise the execution, which we did, and I think the total cost did not exceed the sum named by more than £50. It was, of course, very plain, but the whole was of local stone, with door and window-quoins, cornice, etc., hammer-dressed; and the pediments over the door and windows, arched doorway, and base of squared blocks gave the whole a decidedly architectural appearance. It is now used as a free library..."



Despite experiencing a severe fire in 1903, the building still survives: situated in Church Place, it overlooks the graveyard. The Neath Museum used to be housed in it and currently it provides office space for museum staff. A plaque on it reads "Neath Borough Council; Alfred Russell [sic] Wallace; 1823-1913; Designed this building. He lived in Neath from 1841 to 1848 during which period he worked as a surveyor and studied natural history. In his lifetime he collaborated [sic!] with Charles Darwin in the study of the laws of natural selection. And with him presented the first paper on the subject in 1858."

Whilst living in Neath, Wallace was inspired by a recently published book by William Henry Edwards entitled *A Voyage Up the River Amazon*, and in late 1847/early 1848 (Wallace, 1905), he suggested to Bates that they travel to Brazil to collect specimens of insects, birds and other animals, both for their private collections and to sell to collectors and museums in Europe. The primary aim of the expedition, as far as Wallace was concerned, was to seek evidence

for evolution and attempt to discover its mechanism (Slotten 2004). Bates liked the idea and the two

young men (at the time Wallace was 25 and Bates 23) set off by ship from Liverpool to Pará (Belém) on 26 April 1848....

To find out more, read my book or one of the others listed below!

References

- Raby, P. 2001. *Alfred Russel Wallace, A Life*. Princeton NJ: Princeton University Press; London: Chatto & Windus. 340 pp.
- Slotten, R. A. 2004. *The Heretic in Darwin's Court: The Life of Alfred Russel Wallace*. New York: Columbia University Press. 602 pp.
- Wallace, A. R. 1905. *My Life; A Record of Events and Opinions*. 2 volumes. Chapman & Hall, Ltd., London.
- Wilson, J. G. 2000. *The Forgotten Naturalist: In Search of Alfred Russel Wallace*. Melbourne: Australia Scholarly Publishing. 263 pp.

Footnotes

¹ See <http://www.brynochfarm.org.uk/index.html>

² In *My Life*, Wallace says that William died in February 1846, but his Death Certificate indicates that he died in March 1845.

HERBERT EDWARD WROOT AND HIS MICROSCOPE

Through the pages of the Yorkshire Geological Society's *Circular* (553), Canadian geologist Jancis Ford has been seeking information about Herbert Edward Wroot (1868-1939) who was sub-editor of the Yorkshire Post and keen amateur archaeologist and geologist. He is probably best known for his 1924 book *Geology of Yorkshire* written with Percy Fay Kendall. Jack Morrell who is researching Wroot's geological contribution to the partnership with Kendall has provided her with valuable information including a photograph of Wroot and the obituary notice from Volume 24 of the YGS *Proceedings*.

Jancis Ford is particularly interested in a folding microscope in a stout leather case (pictured) that has been handed down through her family and which she believes may have belonged to Wroot. The leather case is so worn that she believes it may have accompanied Wroot (?and Kendall) in the field. Noel Worley has researched the provenance of the microscope but do HOGG members know of any photographs of Wroot using such an instrument?

Please send any information to Paul Hildreth (e mail panda_hildreth@hotmail.com) who is thanked for permission to use material from his original piece in the YGS *Circular* and for other information.



REGISTRATION FORM

MILITARY USES OF HYDROGEOLOGY: PAST AND PRESENT Wednesday 18 November 2009 Geological Society, Burlington House, Piccadilly, London W1

History of Geology Group (HOGG), jointly with the Hydrogeological Group of the Geological Society and the Institution of Royal Engineers

Convenors: Ted Rose (ted.rose@virgin.net)
John Mather (mather@jjgeology.eclipse.co.uk)

For programme, see pages 9-10 of this newsletter or visit
http://www.geolsoc.org.uk/gsl/groups/specialist/hogg/military_hydrogeology

Please complete this form, and mail it as soon as possible (and before 30 October at the latest), together with a cheque payable to HOGG (drawn on a UK bank) for the appropriate registration fee (which includes cost of morning/afternoon refreshments but not lunch).

Overseas registrants may pay by credit/debit card using PayPal (NB You do not need to have a PayPal account yourself). Complete and return the form below, and a separate PayPal invoice will then be e mailed to you.

To: Dr Edward P. F. Rose, 3 Stubbs Wood, Chesham Bois, Amersham, Bucks HP6 6EY, UK

I/we wish to register for the "Military Uses" meeting on 18 November 2009

Name(s).....

Address.....

.....

.....

.....

Postcode/Zip code/Country

E-mail

Telephone

Registration fee (by cheque payable to HOGG, herewith)

Members of HOGG, Hydro Group or Institution of Royal Engineers..... £20
Others, not full-time students..... £30
Students in full-time education..... £5